

# End Effector Systems

04/11/2022



**Motion & Flow Control Products**

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04/11/2022

This catalog is a custom document and the products included is based on your unique selection from portions of complete catalogs that already exist. Please refer to our full catalogs for more information on products not included in this customized document.

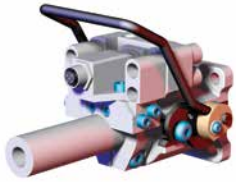
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# MANUAL TOOL CHANGERS

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# RDN/RDC SERIES

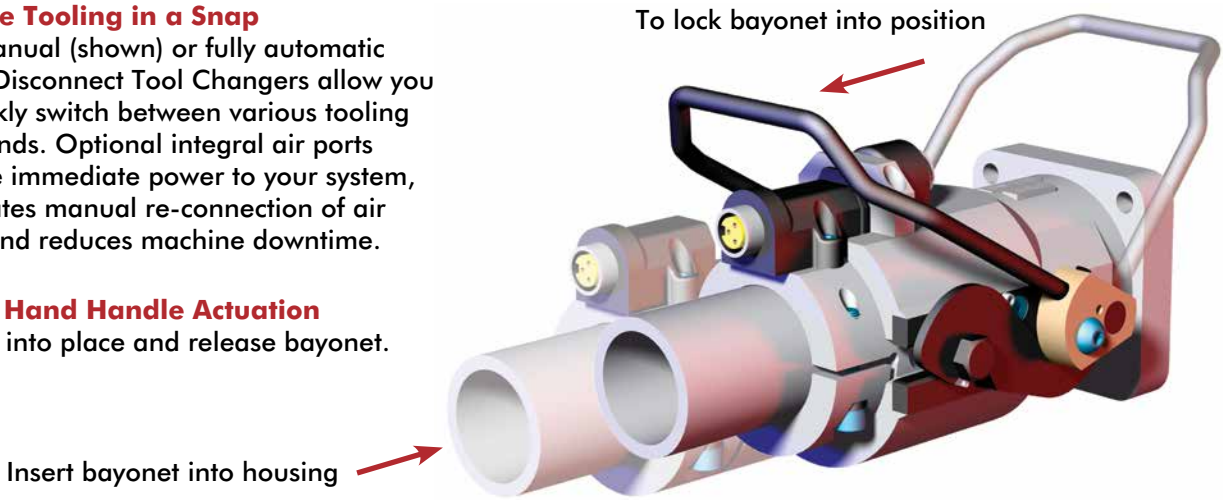
## Table of Contents

### Change Tooling in a Snap

Our manual (shown) or fully automatic Quick Disconnect Tool Changers allow you to quickly switch between various tooling in seconds. Optional integral air ports provide immediate power to your system, eliminates manual re-connection of air lines, and reduces machine downtime.

### Single Hand Handle Actuation

To lock into place and release bayonet.



### RDN/RDC Features

(Handle in release position)



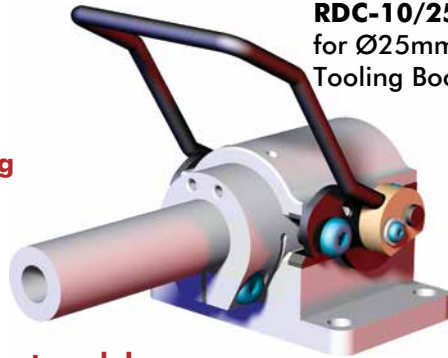
**RDN-40 Housing**  
**RDC-40/15 Bayonet**  
for Ø40mm/1.50"(in)  
Tooling Boom/Tubes

**Internal urethane bumpers**  
ensures a tight interface between  
the robot and tool sides

**Air & electrical connections**  
stay properly sequenced when tool is removed.

**Additional electrical connectors available**  
RDN-40 and RDH electrical connectors must be  
ordered separately from Housing/Bayonet.

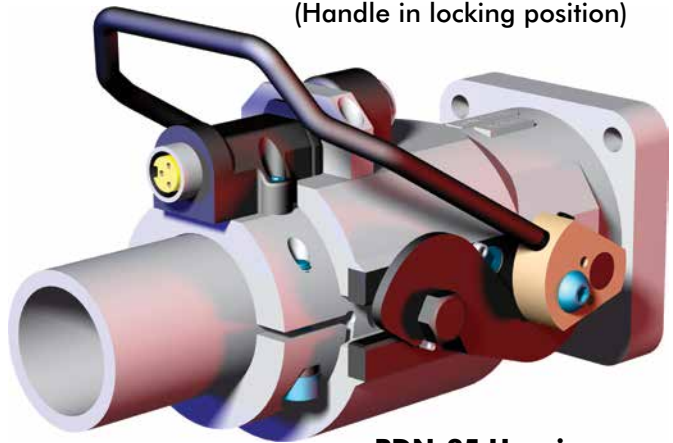
(Handle in locking position)



**RDN-10 Housing**  
**RDC-10/25M Bayonet**  
for Ø25mm/1.00"(in)  
Tooling Boom/Tubes

**Optional air port modules**  
auto disconnect when handle is released

(Handle in locking position)



**RDN-25 Housing**  
**RDC-60/25 Bayonet**  
for Ø60mm/2.50"(in)  
Tooling Boom/Tubes

# BAYONETS FOR MANUAL TOOL CHANGERS

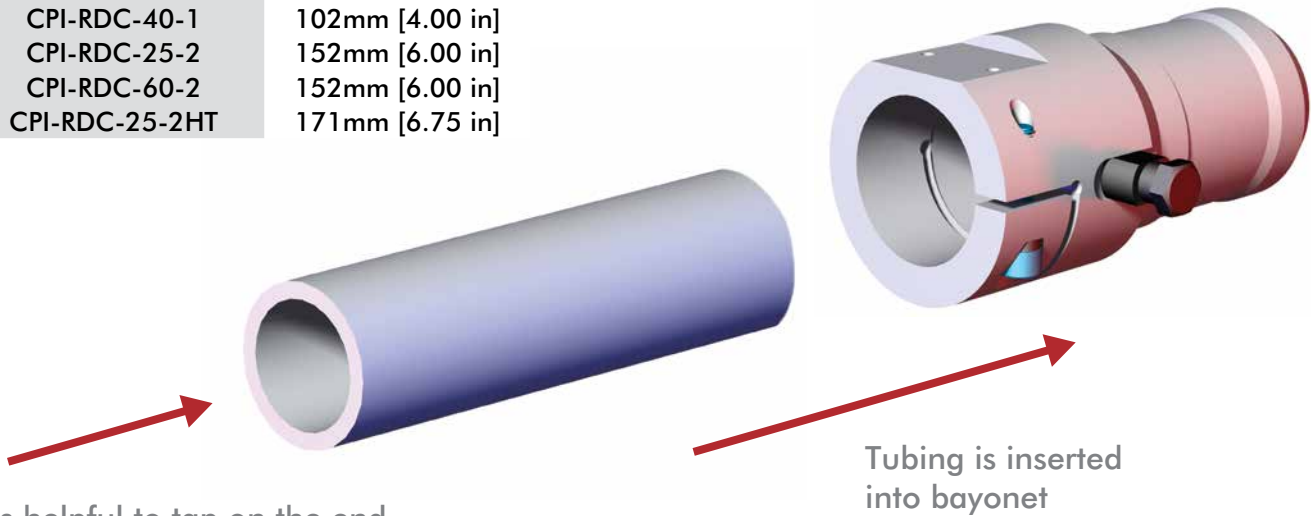
Manual Tool Changers | Bayonet & Boom Assembly Procedure | Product Overview

## Overview:

The internal surface of the bayonet is tapered to lock the tubing in the position during hi-torque operations. Tubing must be inserted the proper distance to completely engage the taper.

## Procedure:

Part Number	Depth
CPI-RDC-10-1	70mm [2.75 in]
CPI-RDC-25M-1	70mm [2.75 in]
CPI-RDC-15-1	102mm [4.00 in]
CPI-RDC-40-1	102mm [4.00 in]
CPI-RDC-25-2	152mm [6.00 in]
CPI-RDC-60-2	152mm [6.00 in]
CPI-RDC-25-2HT	171mm [6.75 in]



It is helpful to tap on the end of the tubing with a mallet until the tubing is seated firmly against the taper

# RDN-10 DISCONNECT HOUSINGS

## Manual Tool Changers | Flange Style Housing for RDC-10 Series Bayonets | Product Overview

### Features:

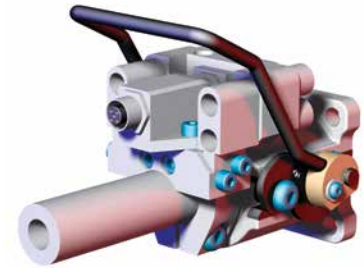
- 50.8mm [2.00 in.] Sq. Flange Mntg.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors
- Internal urethane rings eliminate vibration and seat the bayonet securely

### Specifications:

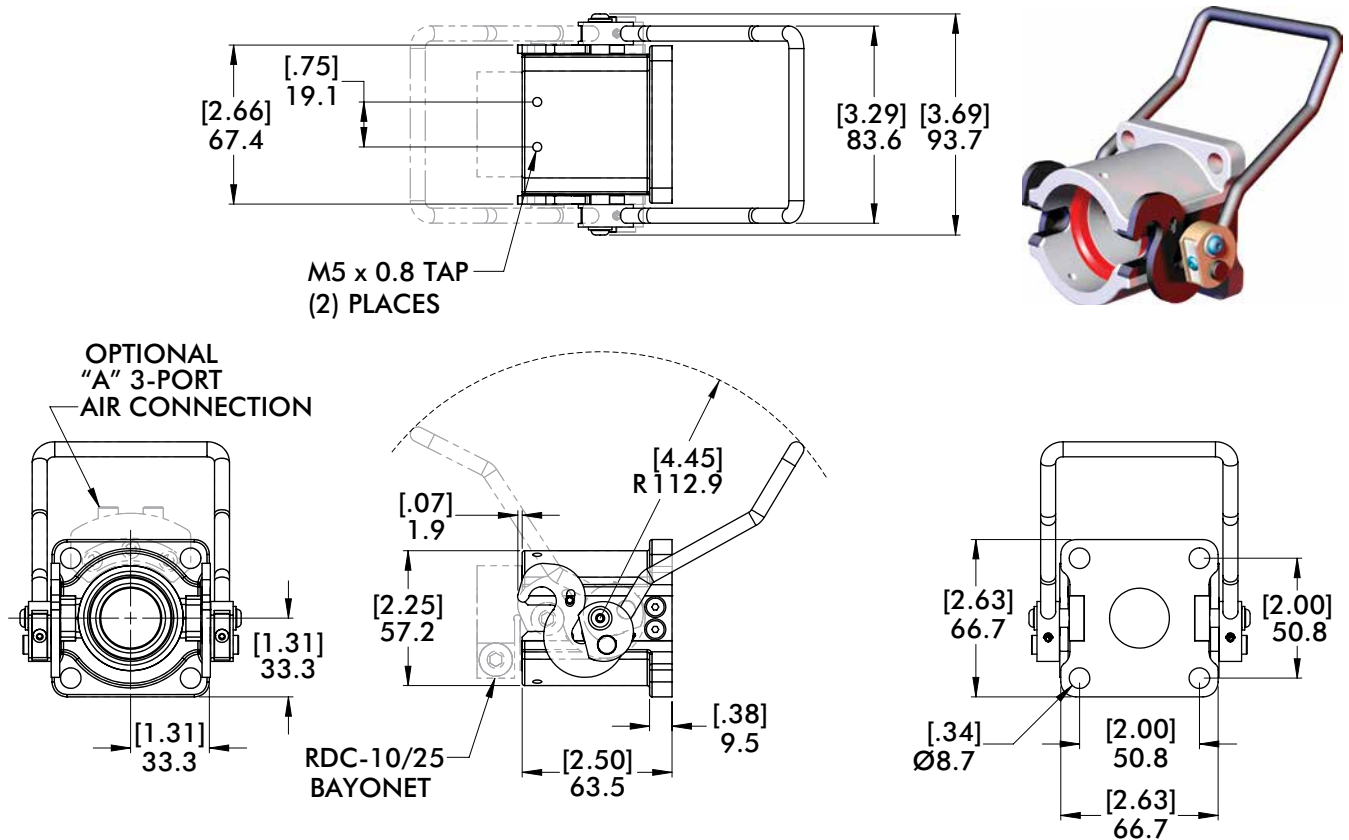
**Max. Static Product Load:**  
47 N\*m [35 ft-lb]

**Material:**  
Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:**  
0.63 kg [1.4 lb]



### Dimensions

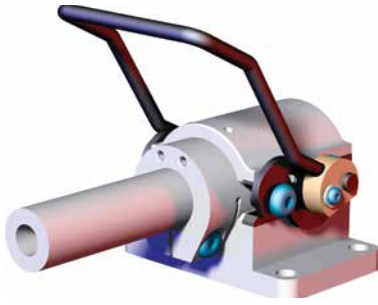


### How To Order

	Model	Mounting	Air Port Connection	Electrical Connection
<b>CPI</b>	<b>RDN-10</b>	<b>1F</b>	<b>4AS</b>	<b>5E</b>
	"RDN-10" Ø25mm/1.00" Quick Disconnect Housing	"1F" Flange Type Mounting	"A" (3-Port Connector) "5A" (5-Port Connector) "4AS" (4-Port Connector) (Leave blank for <b>No Options</b> )	"5E" (5-Pin Connector) (Only available for "4AS" Option)

# RDN-10 HOUSINGS

Manual Tool Changers | Base Mount Style for RDC-10 Series Bayonets | Product Overview



## Specifications:

**Max. Static Product Load:** 47 N\*m [35 ft-lb]

## Material:

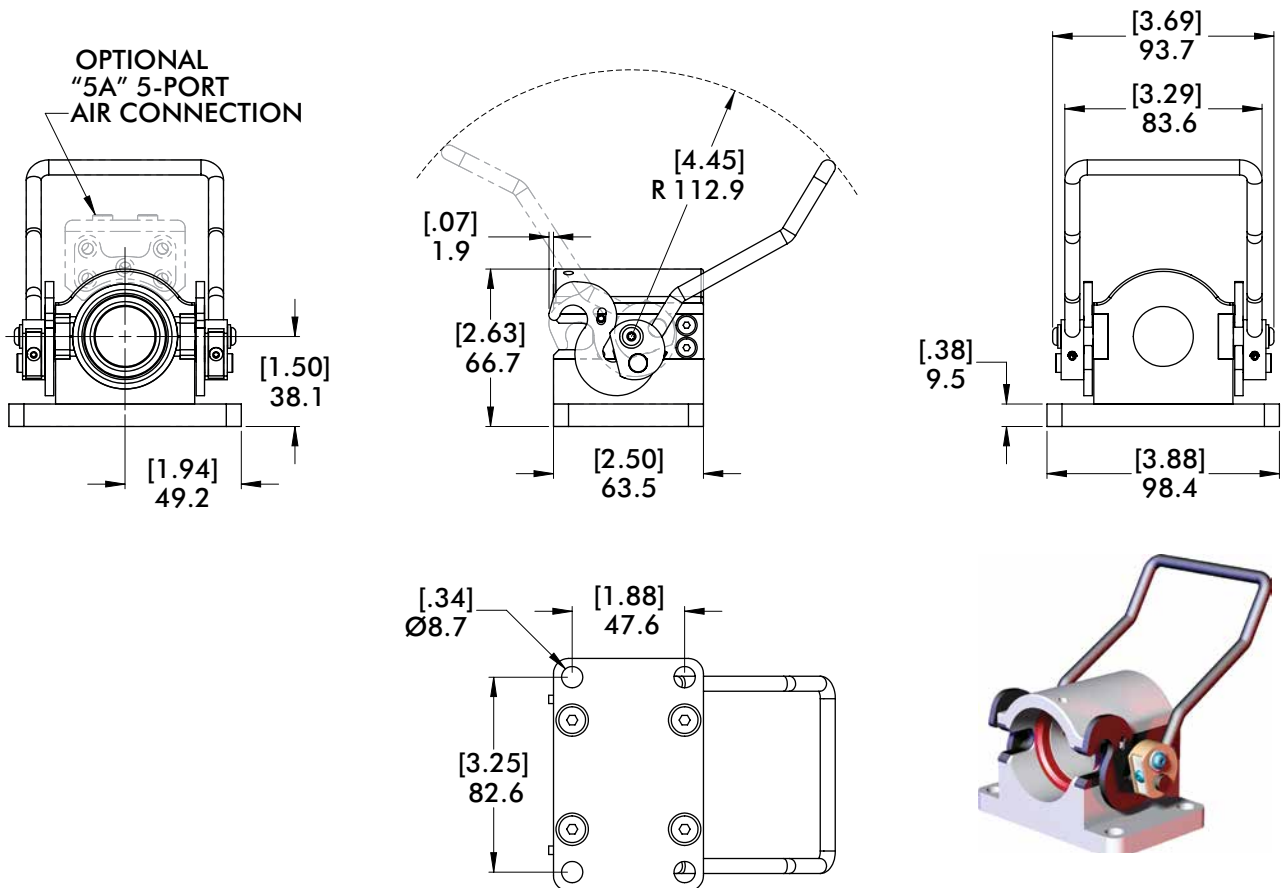
Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:** 0.82 kg [1.8 lb]

## Features:

- 47.6mm x 82.6mm [1.88 in. x 3.25 in.] Base Mounting.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors
- Internal urethane rings eliminate vibration and seat the bayonet securely

## Dimensions



## How To Order

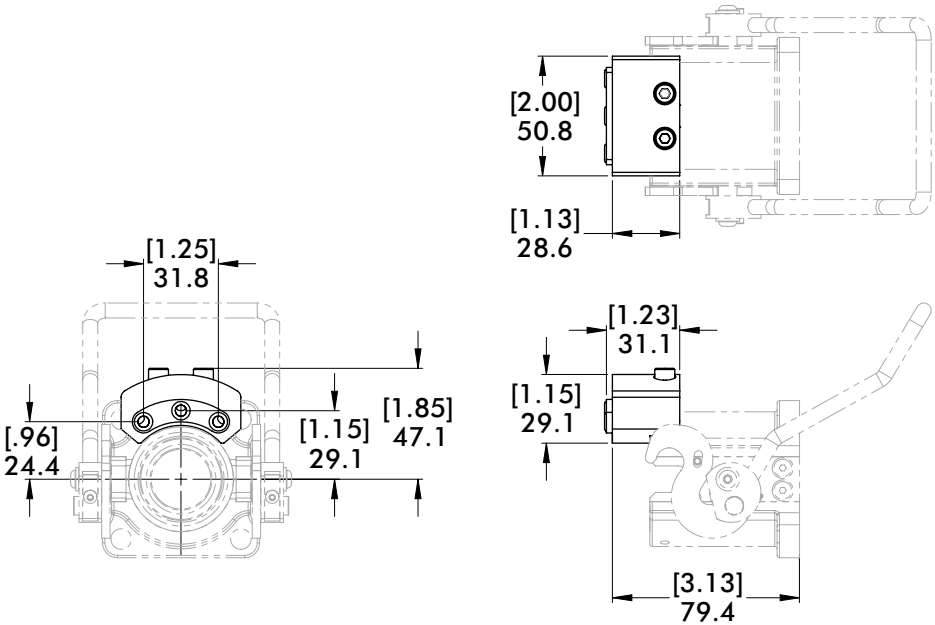
	Model	Mounting	Air Port Connection	Electrical Connection
CPI	<b>RDN-10</b>	<b>1B</b>	<b>4AS</b>	<b>5E</b>
	"RDN-10" Ø25mm/1.00" Quick Disconnect Housing	"1B" Base Type Mounting	"A" (3-Port Connector) "5A" (5-Port Connector) "4AS" (4-Port Connector) (Leave blank for <b>No Options</b> )	"5E" (5-Pin Connector) (Only available for "4AS" Option)



# AIR MANIFOLDS

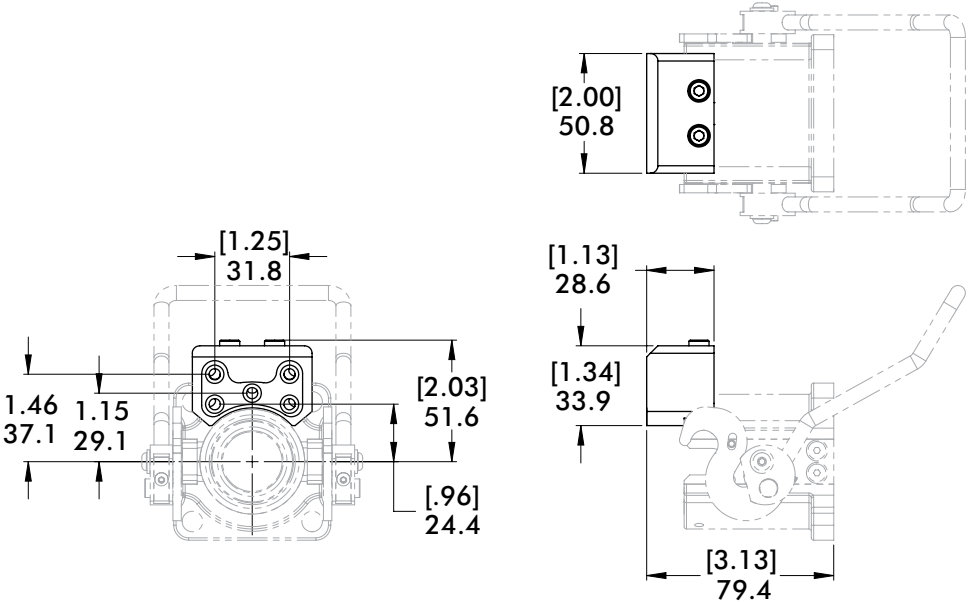
Manual Tool Changers | RDN-10 Disconnect Series | Dimensions

## 1A 3-Port Air Connection



**REPLACEMENT PART**  
**RDN-10-8**

## 5A 5-Port Air Connection

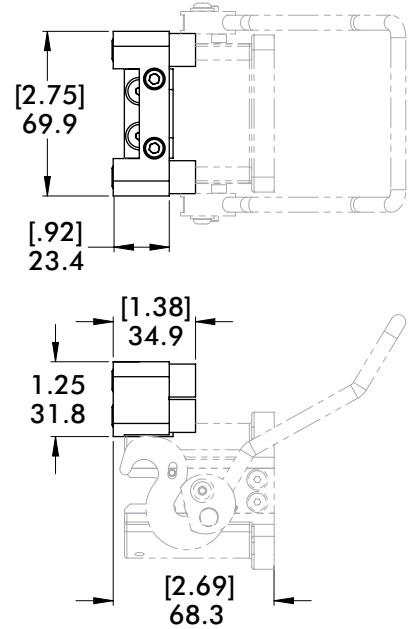
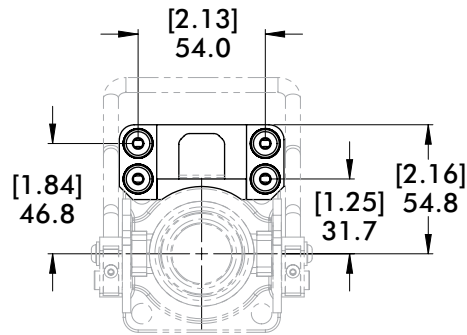


**REPLACEMENT PART**  
**RDN-10-9**

# AIR MANIFOLDS WITH OR WITHOUT ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-10 Disconnect Series | Dimensions

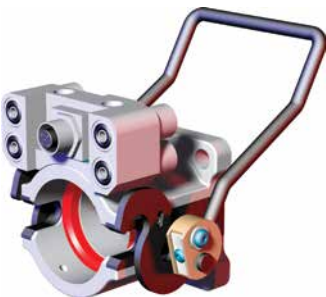
## 4AS 4-Port Air Connection with Shutoff



**REPLACEMENT PART**  
**CPI-RDN-10-4AS**

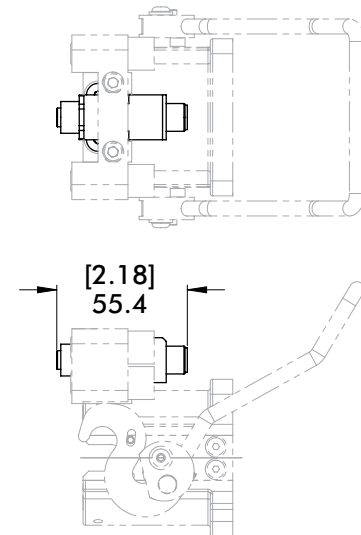
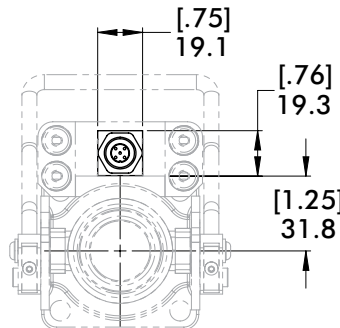
**Air fittings**  
(4) Needed  
**RDN-AS-U18**

## 5E 5-Pin Micro Electric Connection



See Page 17 for  
Pin Configuration

**REPLACEMENT PART**  
**CPI-RDH-F5S-5MCM**



# RDC-10/25 SERIES BAYONETS

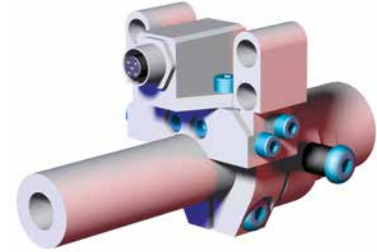
Manual Tool Changers | 25mm or 1.0" Booms | Product Overview

## Features:

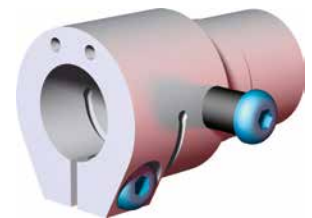
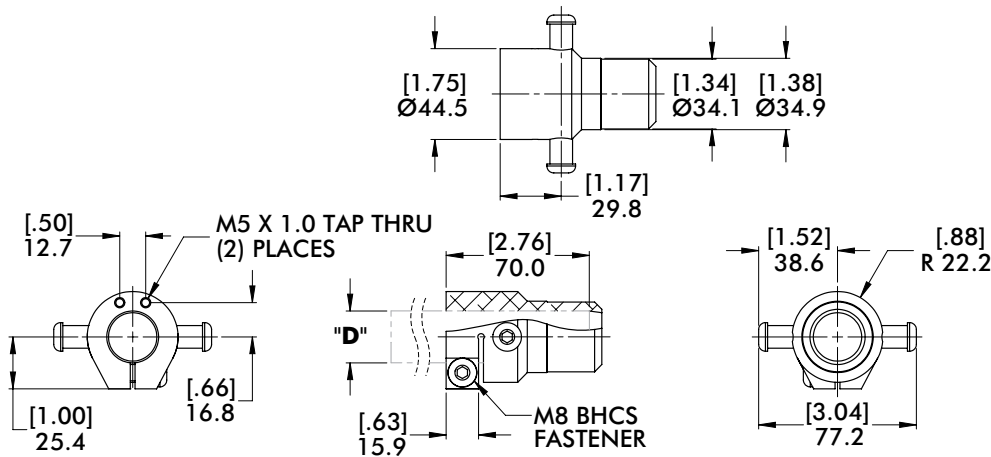
- Used in conjunction with the Quick Disconnect Housing to provide efficient mode of changing tools manually.
- (2) Hardened alignment pins allows quick and accurate installation into the bayonet.

## Specifications:

**Max. Static Product Load:**  
47 N\*m [35 ft-lb]  
**Material:**  
Body: Aluminum  
Pins: Steel  
**Weight:**  
0.23 kg [0.5 lb]



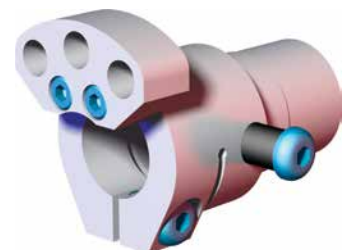
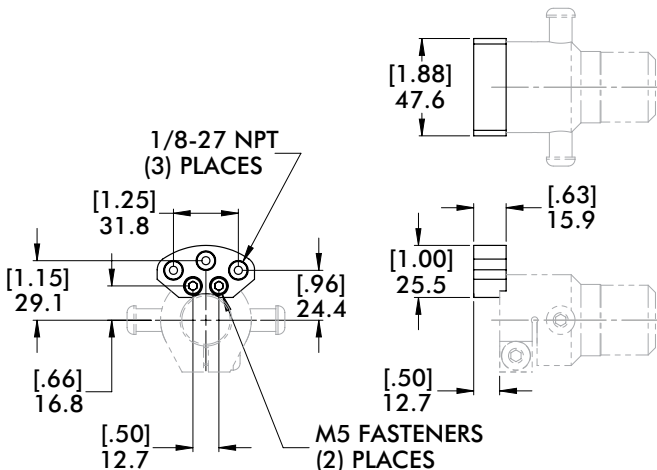
## Dimensions



## How To Order

CPI	Model	Boom/Tube (Ø) "D"	Air Port Connection	Electrical Connection
	<b>RDC</b>	<b>10</b>	<b>4AS</b>	<b>5E</b>
	"RDC" Quick Disconnect Bayonet	"10" 1.00"(in) "25M" 25mm	"1" No Options "1A" (3-Port Connector) "5A" (5-Port Connector) "4AS" (4-Port Connector-Imperial Only) "1-4AS" (4-Port Connector-Metric Only)	"5E" (5-Pin Connector) (Only available for "4AS or 1-4AS" Options)

## 1A 3-Port Air Connection



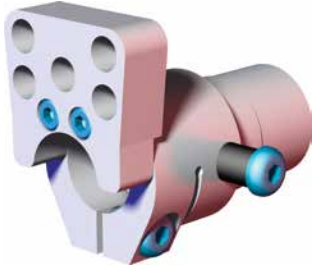
**REPLACEMENT PART**

**RDC-10-3**

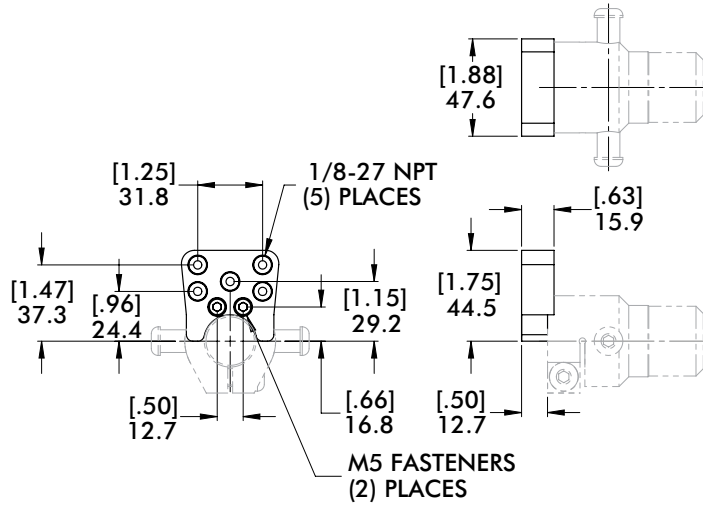
# AIR MANIFOLDS WITH OR WITHOUT ELECTRICAL CONNECTIONS

Manual Tool Changers | RDC-10/25 Series Bayonets | Dimensions

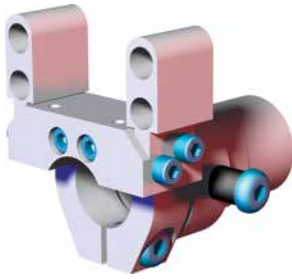
## 5A 5-Port Air Connection



**REPLACEMENT PART**  
**RDC-10-5**

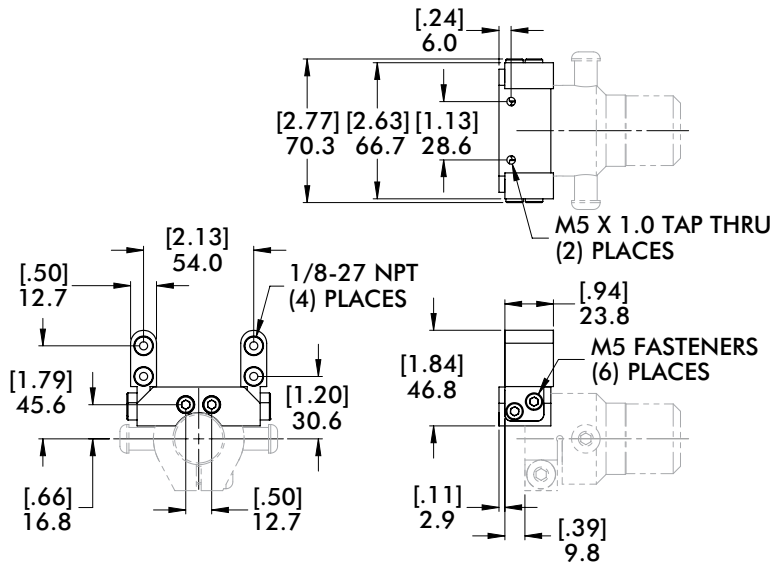


## 4AS 4-Port Air Connection with Shutoff

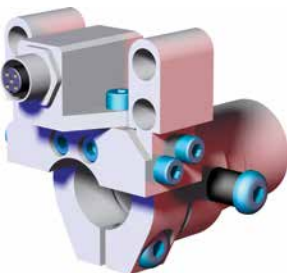


(2) Required

**REPLACEMENT PART**  
**RDC-10-4**

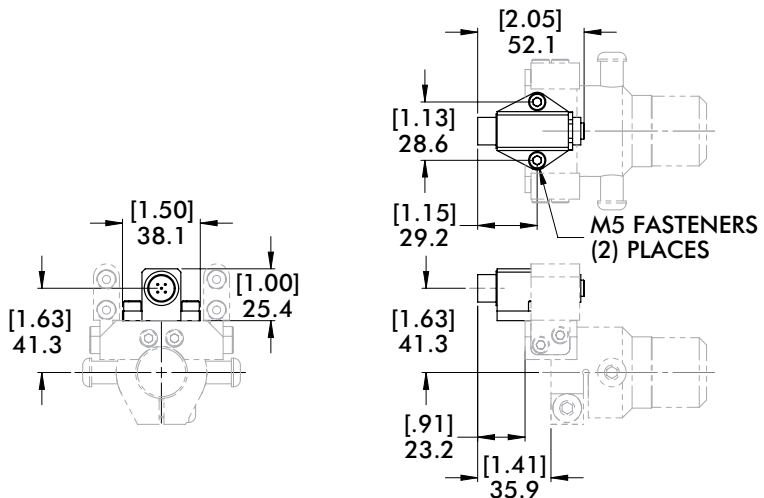


## 5E 5-Pin Micro Electric Connection



See Page 23 for  
Pin Configuration

**REPLACEMENT PART**  
**CPI-RDB-M5P-5MCF**



# RDN-40 DISCONNECT HOUSINGS

Manual Tool Changers | Flange Style Housing for RDC-40/150 Series Bayonets | Product Overview

## Features:

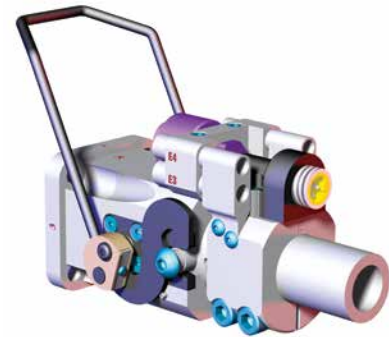
- 60.3mm [2.38 in.] Sq. Flange Mntg.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

## Specifications:

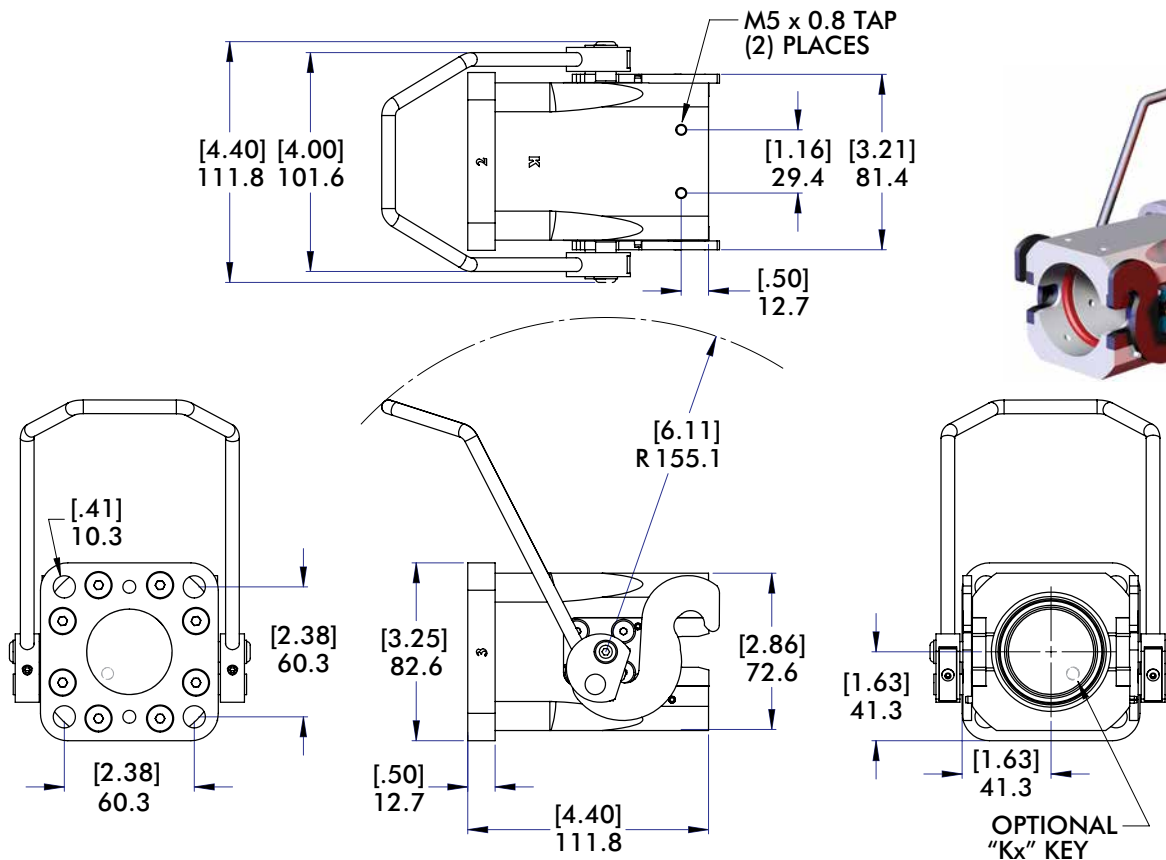
**Max. Static Product Load:**  
305 N\*m [225 ft-lb]

**Material:**  
Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:**  
1.5 kg [3.3 lb]



## Dimensions



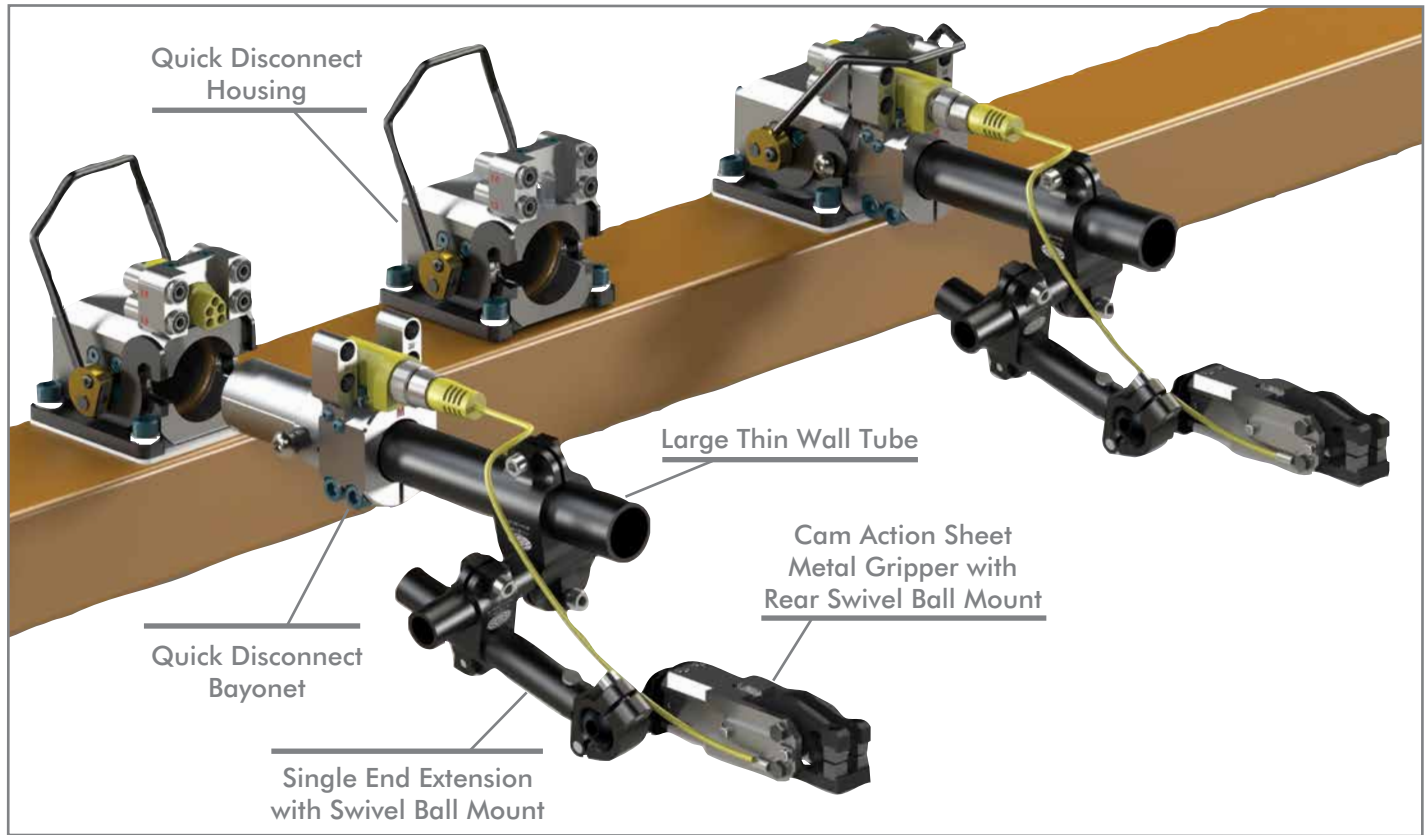
## How To Order

Add for  
"E4" or "E6"  
Air Port  
Connection  
Only

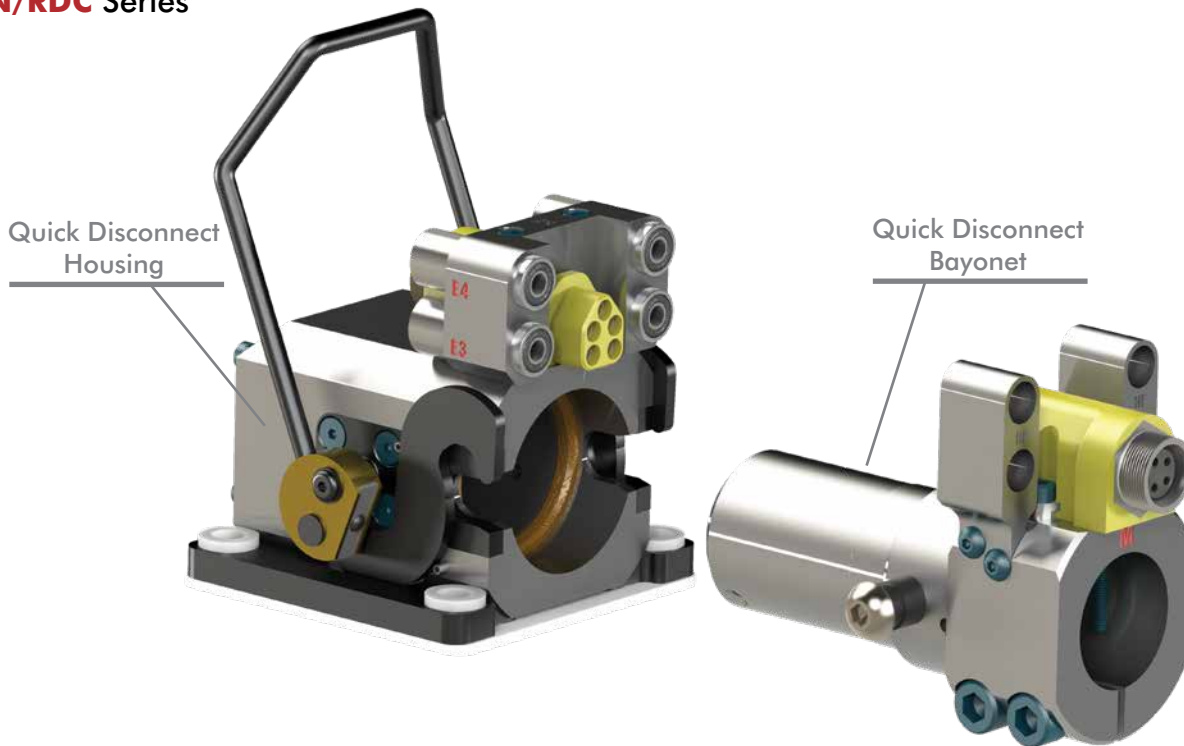
Model	Mounting	Air Port Connection	Key Position	Electrical Connection	Key Position
CPI — <b>RDN-40</b>	— <b>1F</b>	— <b>S4</b>	— <b>K2</b>	— <b>MC</b>	— <b>HF</b>
"RDN-40" Ø40mm/1.50" Quick Disconnect Housing	"1F" Flange Type Mounting	"S4" (4-Port Internal) "E4" (4-Port External) "E6" (6-Port External) "SE4" (4-Port Int & Ext) (Leave blank for <b>No Options</b> )	"K1 (1-4)" "VWK (1-16)" (Leave blank for <b>No Options</b> )	"MC" (Micro 5-Pin) "MN" (Mini 3-Pin) (Leave blank for <b>No Options</b> )	

# RDN-40 BASE MOUNT DISCONNECT HOUSINGS

Manual Tool Changers | Tri-Axis Rail Tooling Example



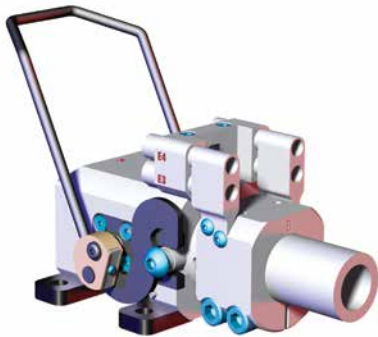
## RDN/RDC Series



Model Number	Description
CPI-RDN-40-JB-E4-5MNM-HF-INS	Quick Disconnect Housing with 4-Port High Flow Air, 5-Pin Electric, Insulation
CPI-RDC-15-E4-5MNF-HF	Quick Disconnect Bayonet with 4-Port High Flow Air, 5-Pin Electric

# RDN-40 DISCONNECT HOUSINGS

Manual Tool Changers | Base Mount Housing for RDC-40/150 Series Bayonets | Product Overview



### Specifications:

**Max. Static Product Load:**  
305 N\*m [225 ft-lb]

### Material:

Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

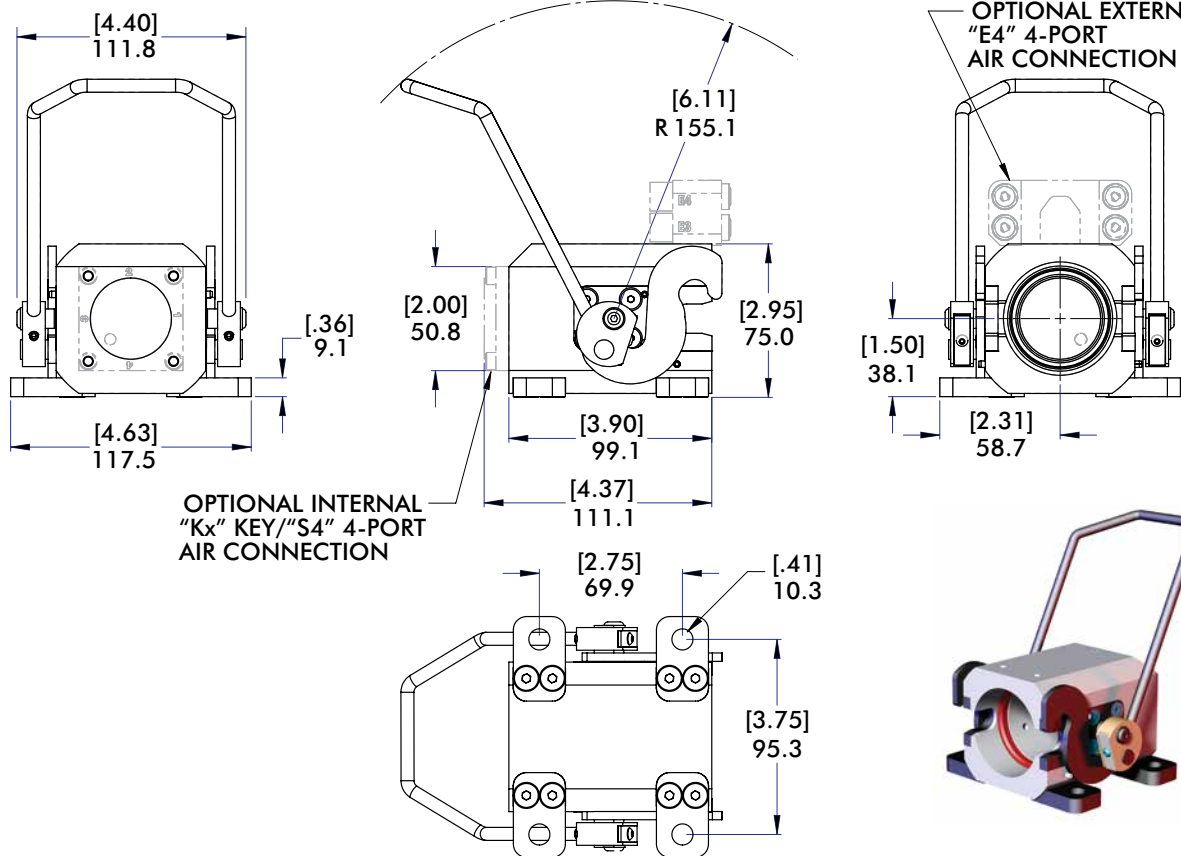
### Weight:

1.4 kg [3.1 lb]

### Features:

- 70mm x 95.3mm [2.75 in. x 3.75 in.] Base Mounting.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

## Dimensions, How To Order



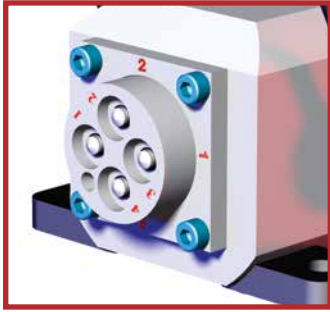
## How To Order

Model	Mounting	Air Port Connection	Key Position	Electrical Connection	
<b>CPI</b> — <b>RDN-40</b>	— <b>1B</b>	— <b>S4</b>	— <b>K2</b>	— <b>MC</b>	— <b>HF</b>
<b>"RDN-40"</b> Ø40mm/1.50" Quick Disconnect Housing	<b>"1B"</b> Base Type Mounting	<b>"S4"</b> <b>"E4"</b> <b>"E6"</b> <b>"SE4"</b> (Leave blank for <b>No Options</b> )	<b>"K (1-4)"</b> <b>"VWK (1-16)"</b> (Leave blank for <b>No Options</b> )	<b>"MC"</b> (Micro 5-Pin) <b>"MN"</b> (Mini 3-Pin) (Leave blank for <b>No Options</b> )	Add for <b>"E4"</b> or <b>"E6"</b> Air Port Connection <b>Only</b>

# TOOLING ERROR PROOF KEY AND AIR PORTS

Manual Tool Changers | RDN-40 Flange Mount Disconnect Housings | Dimensions

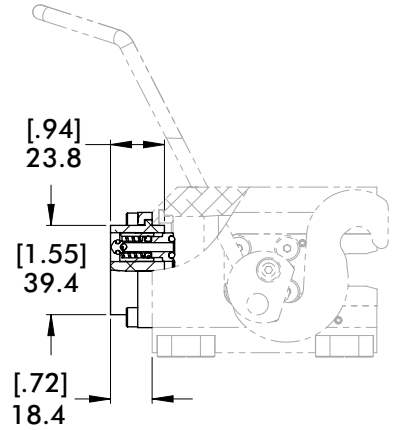
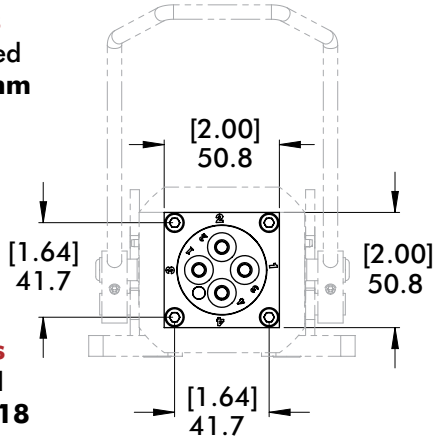
## S4 4-Port Internal Air Connection for Base Style Mounting



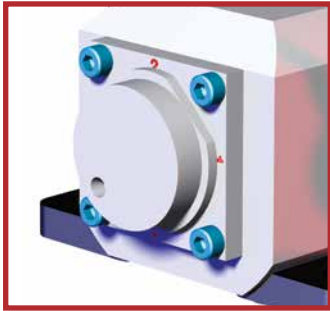
**REPLACEMENT PART**  
RDN-40-10-IAB

**Dowels**  
(1) Needed  
M6 x 25mm

**Air fittings**  
(4) Needed  
RDN-SAS-U18

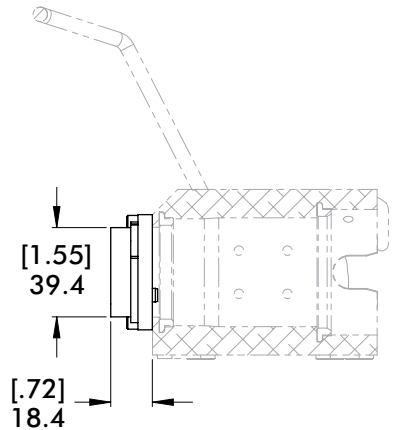
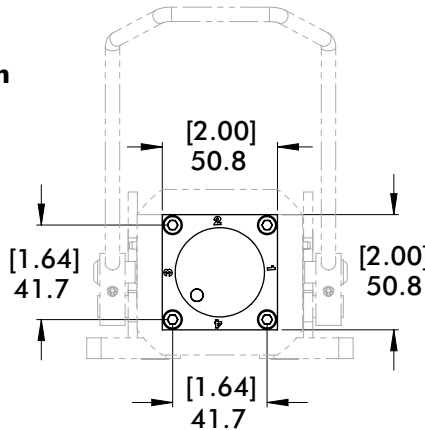


## Kx Locating Key for Base Style Mounting

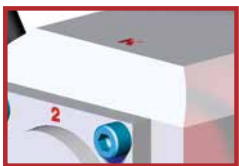


**REPLACEMENT PART**  
RDN-40-10-IKB

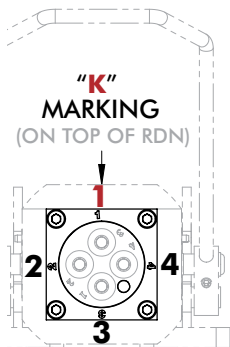
**Dowels**  
(1) Needed  
M6 x 25mm



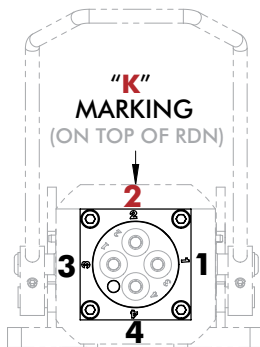
## S4 and Kx Internal Key Position for Base Style Mounting



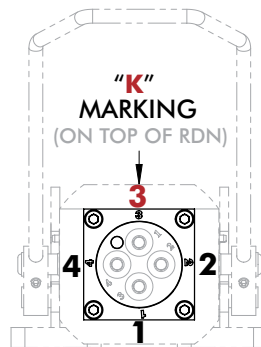
**BASE MOUNT RING**  
(1) Needed  
RDN-40-3-MR



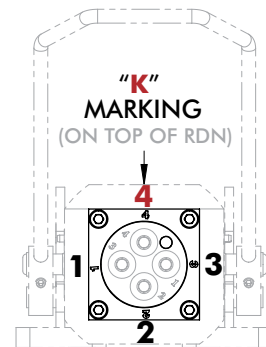
"K1" POSITION



"K2" POSITION



"K3" POSITION



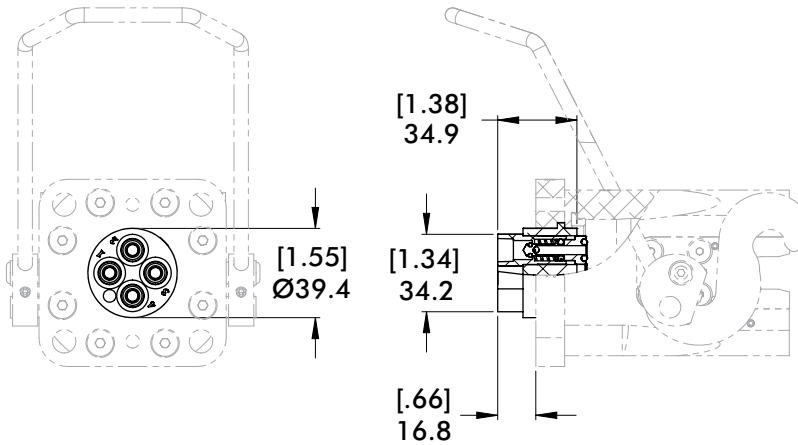
"K4" POSITION



# TOOLING ERROR PROOF KEY AND AIR PORTS

Manual Tool Changers | RDN-40 Flange Mount Disconnect Housings | Mounting

## S4 4-Port Internal Air Connection for Flange Style Mounting



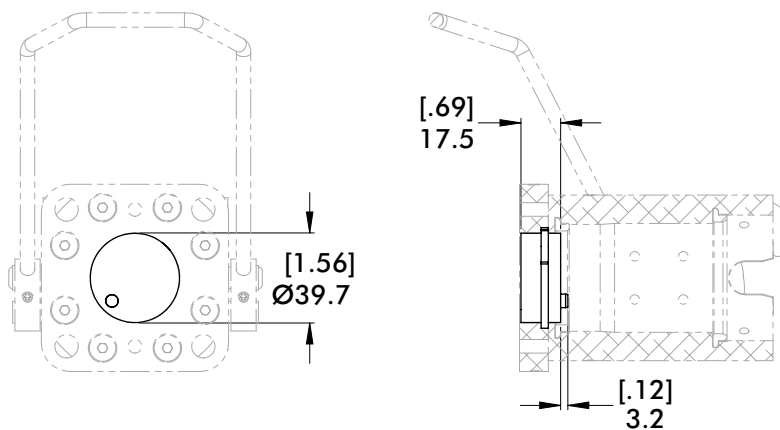
**Dowels**  
(1) Needed  
M6 x 25mm

**Air fittings**  
(4) Needed  
RDN-AS-U18



**REPLACEMENT PART**  
RDN-40-10-IAB

## Kx Locating Key for Flange Style Mounting

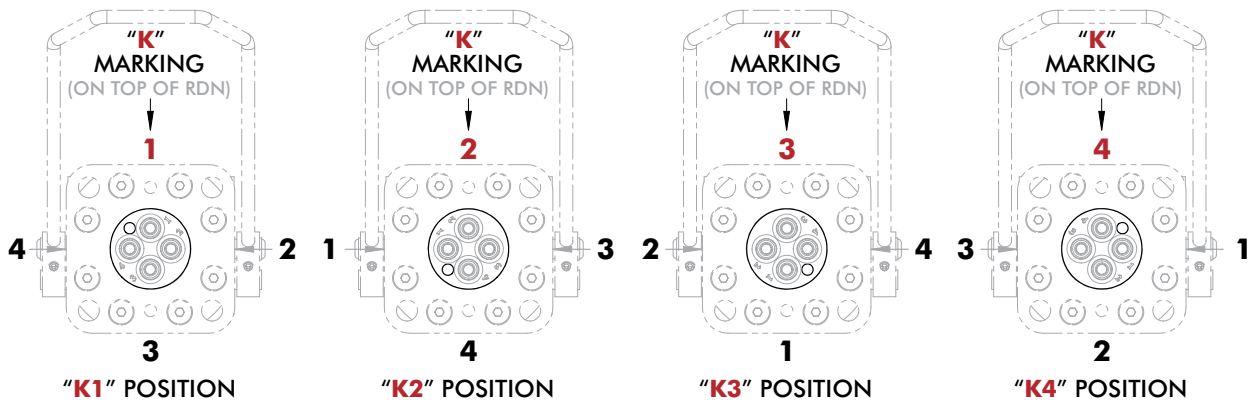
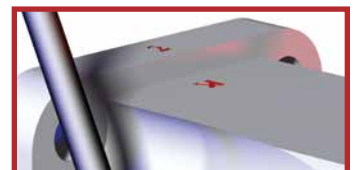


**Dowels**  
(1) Needed  
M6 x 25mm



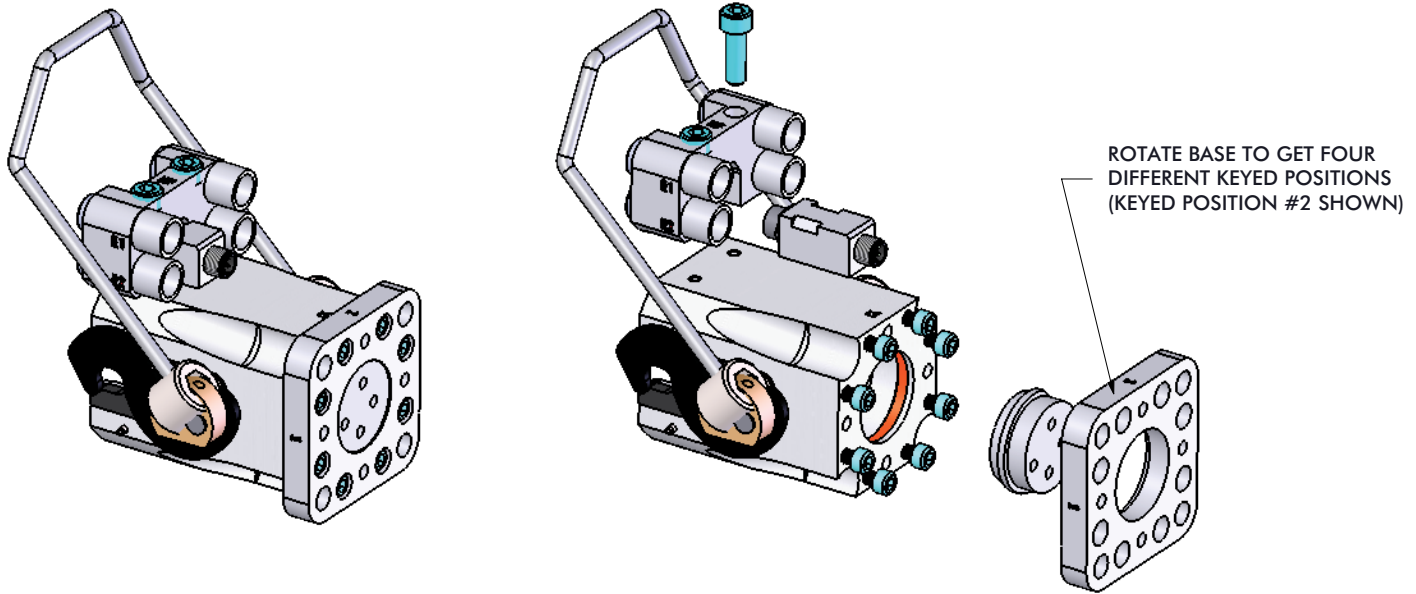
**REPLACEMENT PART**  
RDN-40-10-IKB

## S4 and Kx Internal Key Position for Flange Style Mounting

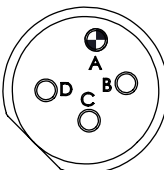
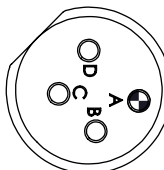
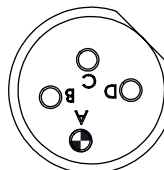
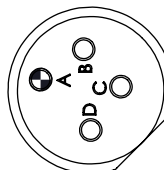
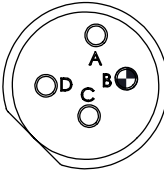
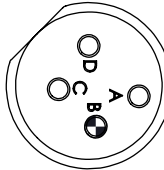
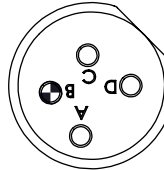
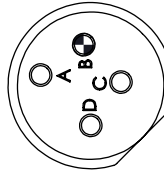
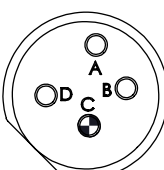
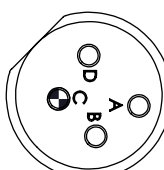
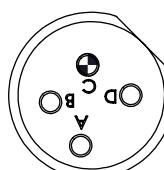
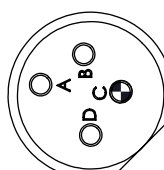
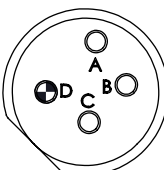
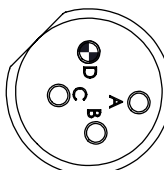
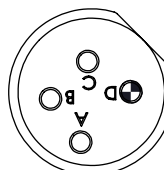
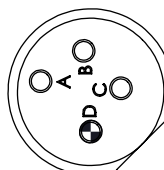


# TOOLING ERROR PROOF KEY POSITIONS

## Manual Tool Changers | Key Position Callout Chart



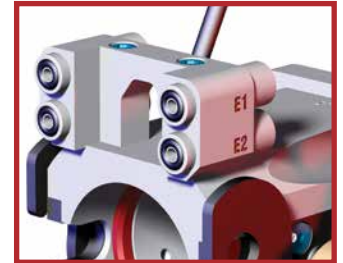
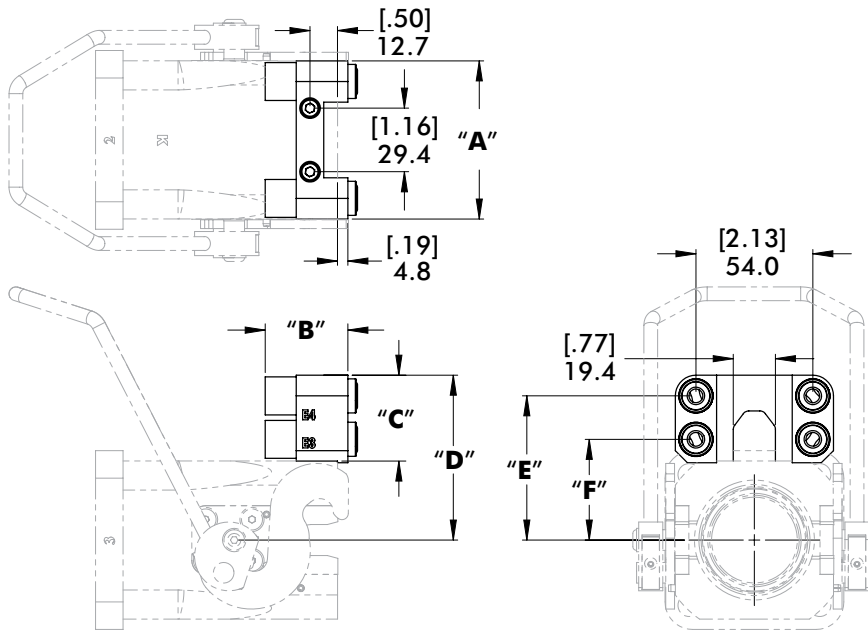
VIEWED FROM FRONT OF HOUSING

	POSITION #1	POSITION #2	POSITION #3	POSITION #4
DOWEL IN HOLE A				
	VWK1	VWK5	VWK9	VWK13
DOWEL IN HOLE B				
	VWK2	VWK6	VWK10	VWK14
DOWEL IN HOLE C				
	VWK3	VWK7	VWK11	VWK15
DOWEL IN HOLE D				
	VWK4	VWK8	VWK12	VWK16

# AIR PORTS

## Manual Tool Changers | RDN-40 Series Disconnect Housing | Dimensions

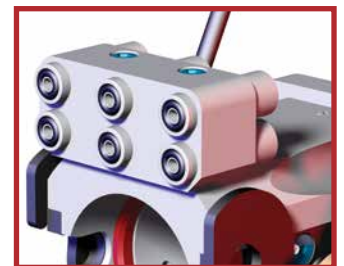
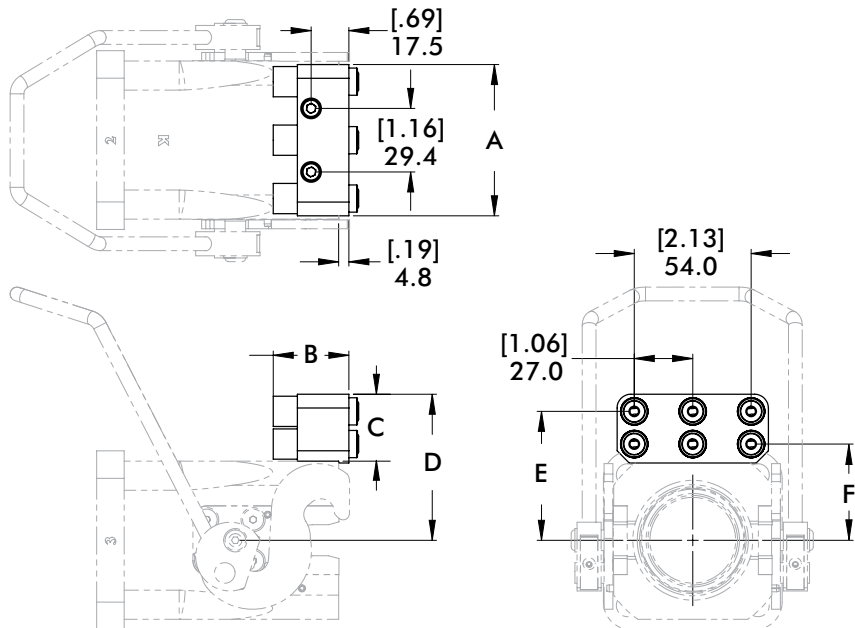
### E4 4-Port External Air Connection



**Air fittings**  
(4) Included  
**RDN-AS-U18-Standard**  
**RDN-AS-U14-High Flow**

ORDER OPTION	REPLACEMENT PART	"A"	"B"	"C"	"D"	"E"	"F"	WEIGHT
<b>"E4"</b> (Standard High Flow) (Replacement for "E4" Legacy Applications only)	<b>CPI-RDN-40-4AS-HF</b>	[2.88] 73.0	[1.50] 38.1	[1.56] 39.6	[3.00] 76.1	[2.62] 66.6	[1.83] 46.5	[0.38 lb] 0.23 kg
	<b>CPI-RDN-40-4AS</b>	[2.75] 69.9	[1.38] 34.9	[1.22] 31.0	[2.66] 67.5	[2.34] 59.5	[1.75] 44.4	[0.23 lb] 0.10 kg

### E6 6-Port External Air Connection



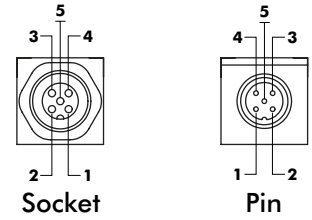
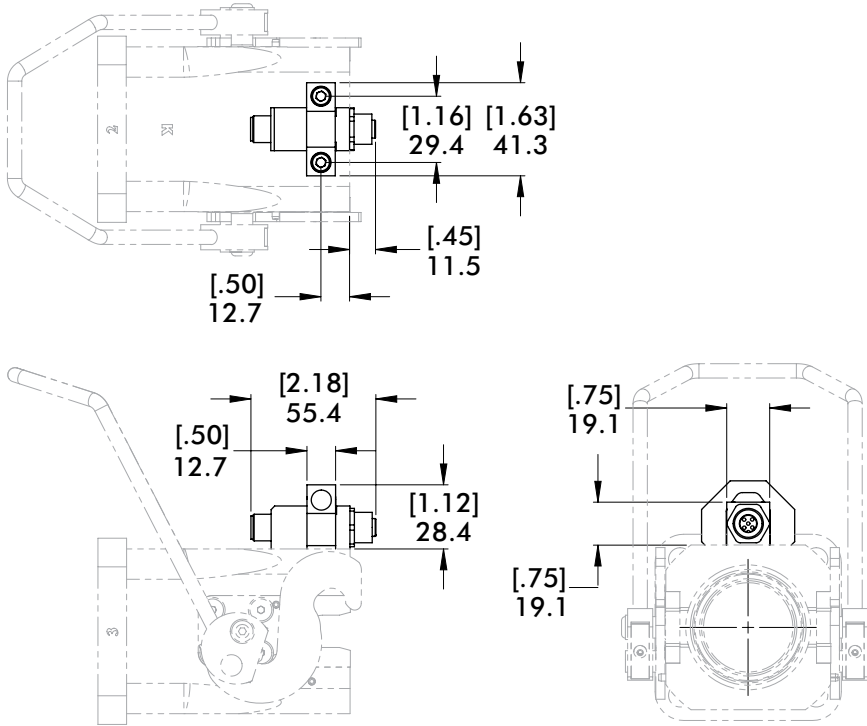
**Air fittings**  
(6) Included  
**RDN-AS-U18-Standard**  
**RDN-AS-U14-High Flow**

ORDER OPTION	REPLACEMENT PART	"A"	"B"	"C"	"D"	"E"	"F"	WEIGHT
<b>"E6"</b> (Standard High Flow) (Replacement for "E6" Legacy Applications only)	<b>CPI-RDN-40-10-6P-HF</b>	[3.00] 76.2	[1.5] 38.1	[1.59] 40.5	[3.03] 76.9	[2.69] 68.3	[1.87] 47.5	[0.54 lb] 0.25 kg
	<b>RDN-40-10-6AS</b>	[2.75] 69.9	[1.38] 34.9	[1.22] 31	[2.66] 67.5	[2.43] 59.5	[1.75] 44.4	[0.37 lb] 0.17 kg

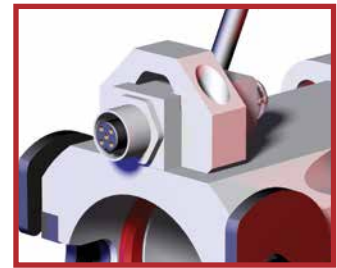
# ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-40 Series Disconnect Housings | Dimensions

## MC 5-Pin Micro Electric Connection



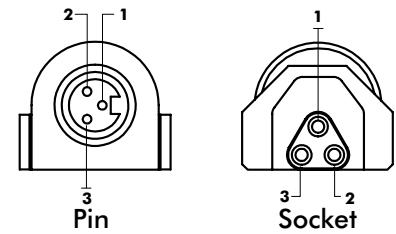
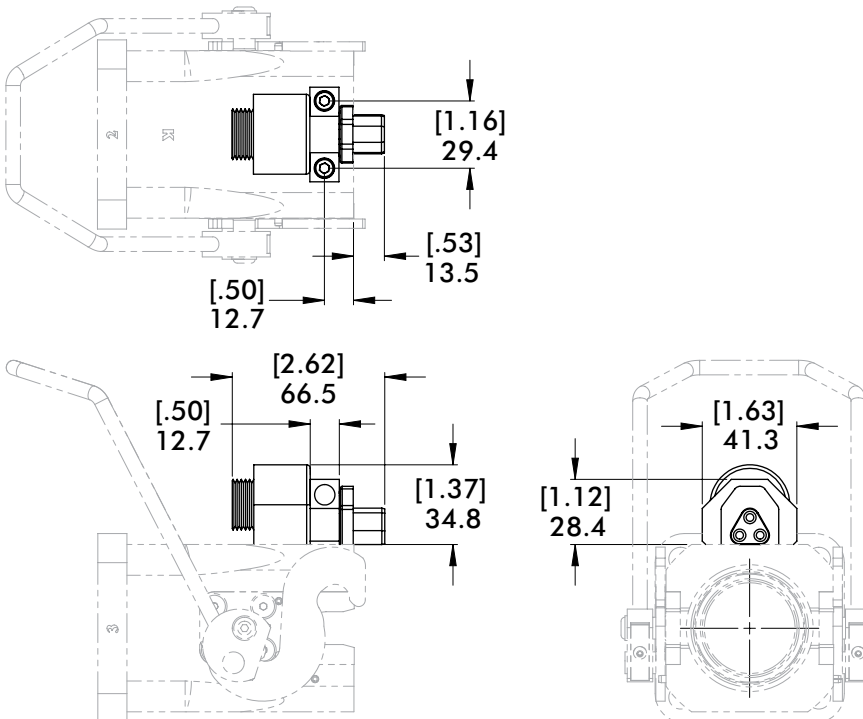
SOCKET #1	PIN #1
SOCKET #2	PIN #2
SOCKET #3	PIN #3
SOCKET #4	PIN #4
SOCKET #5	PIN #5



### Part Number

Plug & Strap	CPI-RDH-F5S-5MCM
Plug	RDH-F5S-5MCM
Strap	540-22005

## MN 3-Pin Mini Electric Connection



SOCKET #1	PIN #1
SOCKET #2	PIN #2
SOCKET #3	PIN #3



### REPLACEMENT PART

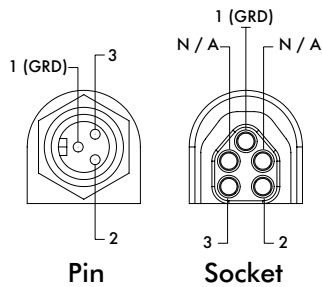
**CPI-TTH-F3S-3B3**

# ELECTRICAL CONNECTIONS

## Manual Tool Changers | RDN-40 Series Disconnect Housings | Dimensions

### 5-Pin Mini Electric Connection

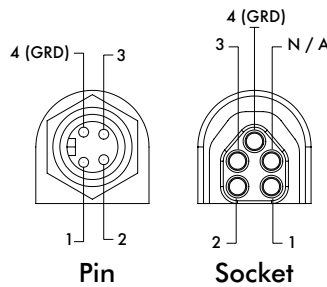
CPI-RDN-40-F5S-3MNM



SOCKET #1	GREEN	PIN #1
SOCKET #2	BLACK	PIN #2
SOCKET #3	WHITE	PIN #3
N / A		PIN #3
N / A		

PLUG COLOR: BLACK

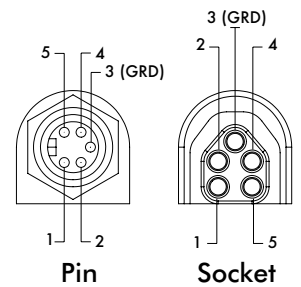
CPI-RDN-40-F5S-4MNM



SOCKET #1	BLACK	PIN #1
SOCKET #2	WHITE	PIN #2
SOCKET #3	RED	PIN #2
SOCKET #4	GREEN	PIN #3
N / A		PIN #4

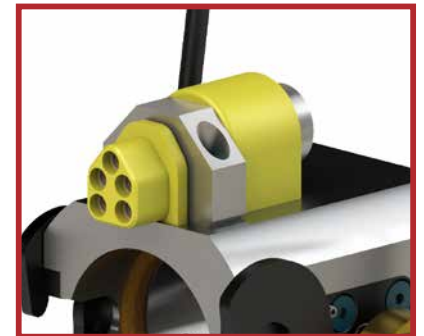
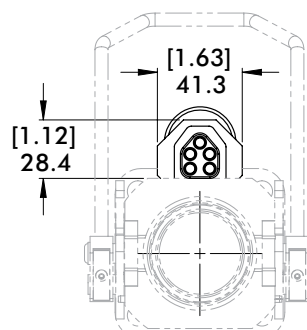
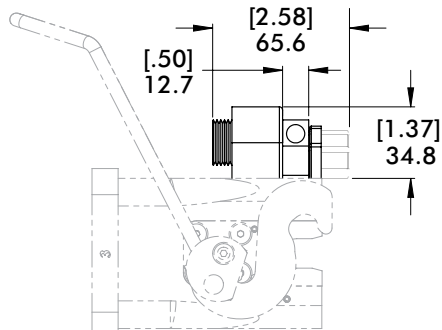
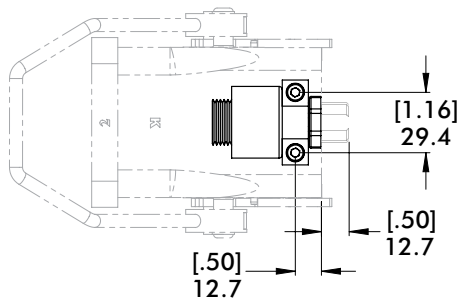
PLUG COLOR: GREEN

CPI-RDN-40-F5S-5MNM

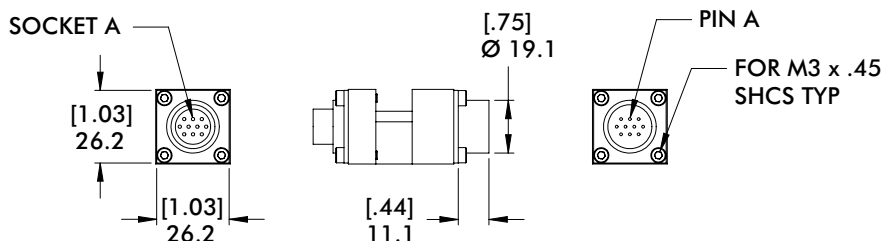
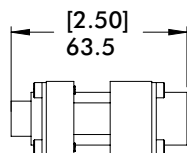


SOCKET #1	WHITE	PIN #1
SOCKET #2	RED	PIN #2
SOCKET #3	GREEN	PIN #3
SOCKET #4	ORANGE	PIN #4
SOCKET #5	BLACK	PIN #5

PLUG COLOR: YELLOW



Strap not included



### 10-Pin Amphenol

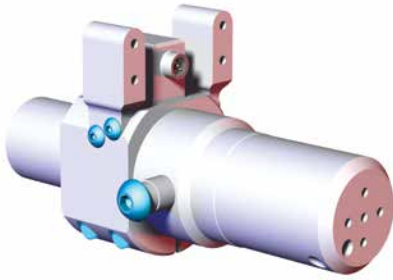


**REPLACEMENT PART**

**CPI-RDN-40-5-10**

# RDC SERIES BAYONET

Manual Tool Changers | 40mm / 1.50" Diameter Booms | Product Overview



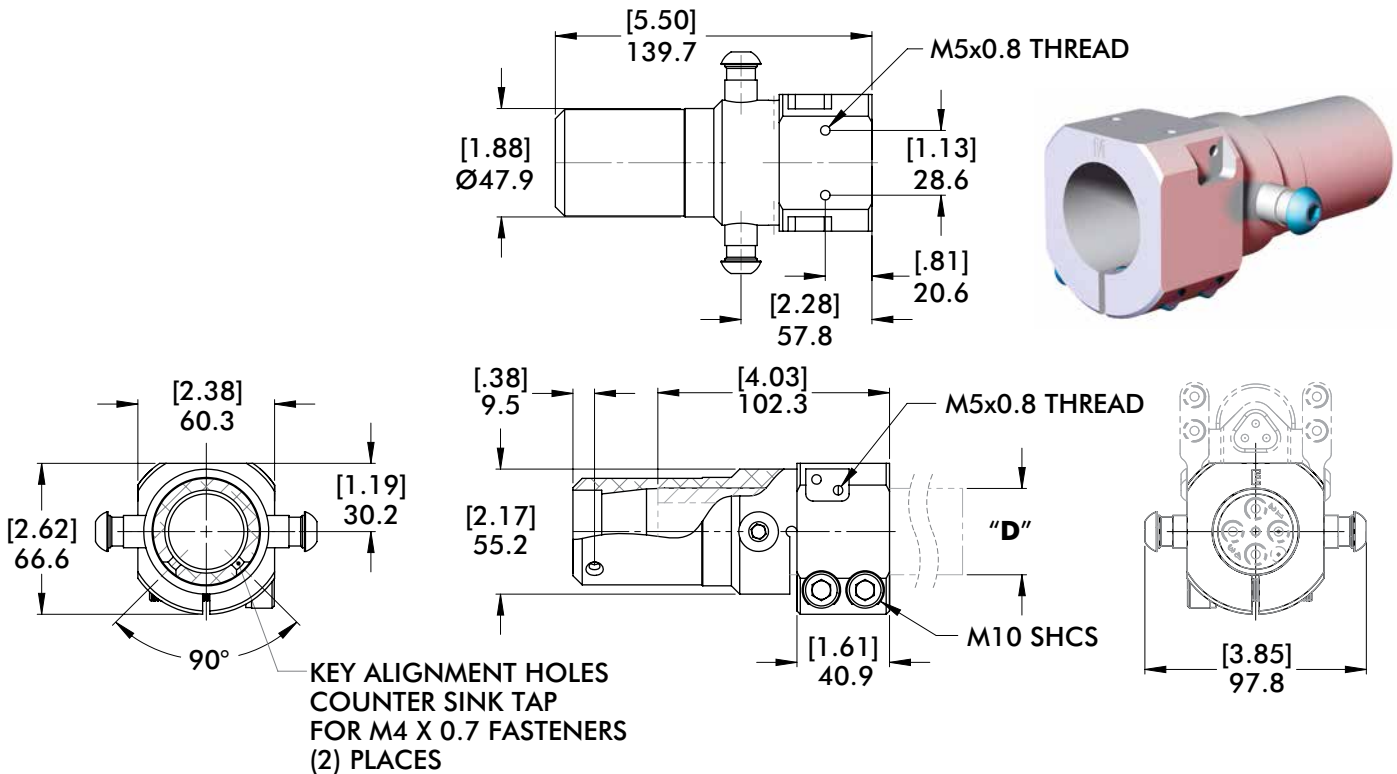
## Features:

- Used in conjunction with the Quick Disconnect Housing to provide efficient mode of changing tools manually.
- (2) Hardened alignment pins allows quick and accurate installation into the housing.
- Optional internal key positioning prevents bayonet from being inserted in the wrong orientation.

## Specifications:

**Max. Static Product Load:**  
305 N\*m [225 ft-lb]  
**Material:**  
Body: Aluminum  
Pins: Steel  
**Weight:**  
0.69 kg [3.5 lb]

## Dimensions



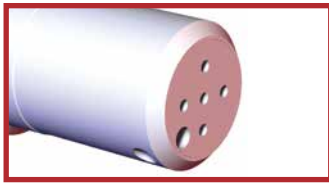
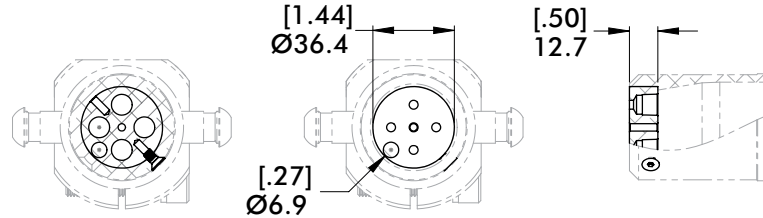
## How To Order

Model	Boom/Tube (Ø) "D"	Air Port Connection	Key Position	Electrical Connection	Add for "E4" or "E6" Air Port Connection Only
CPI - <b>RDC</b>	<b>40</b>	<b>S4</b>	<b>K1</b>	<b>MC</b>	<b>HF</b>
"RDC" Quick Disconnect Bayonet	"1510" 1.00" (in) "15" 1.50" (in) "40" 40mm Add "-1" after Boom/Tube (Ø) for No Options	"S4" (4-Port Internal) "E4" (4-Port External) "E6" (6-Port External) "SE4" (4-Port Int & Ext) (Leave blank for No Options)	"K (1-4)" "VWK (1-16)" (Leave blank for No Options)	"MC" (Micro 5-Pin) "MN" (Mini 3-Pin) (Leave blank for No Options)	

# TOOLING ERROR PROOF KEYS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

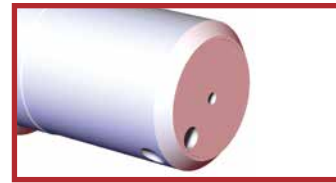
## S4 4-Port Internal Air Connection and Kx Locating Key



**"S4"** 4-Port Internal Air Connection

**REPLACEMENT PART**

**RDC-40-4-IAB**

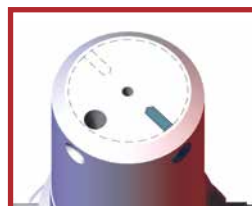
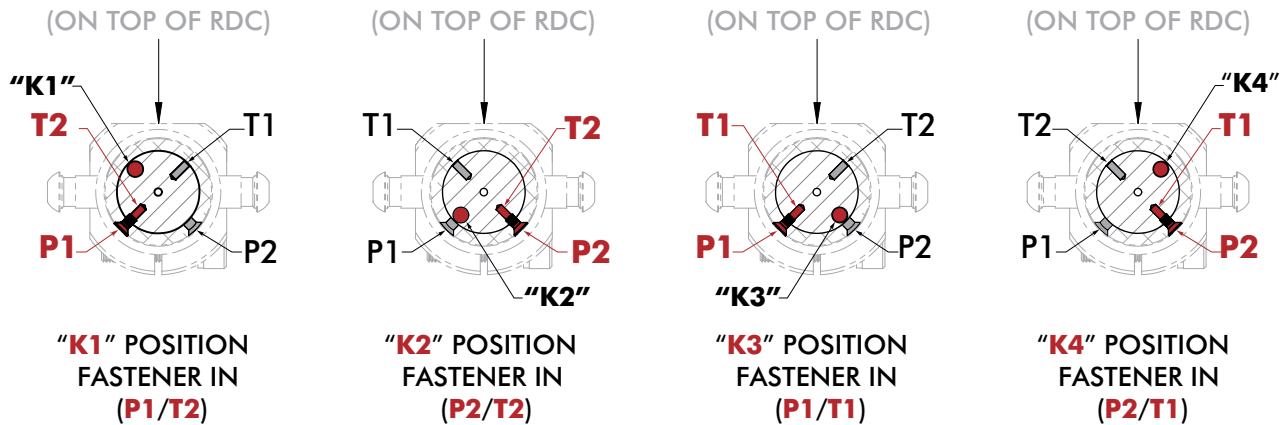


**"Kx"** Locating Key  
(x) Refers to Position

**REPLACEMENT PART**

**RDC-40-4-IKB**

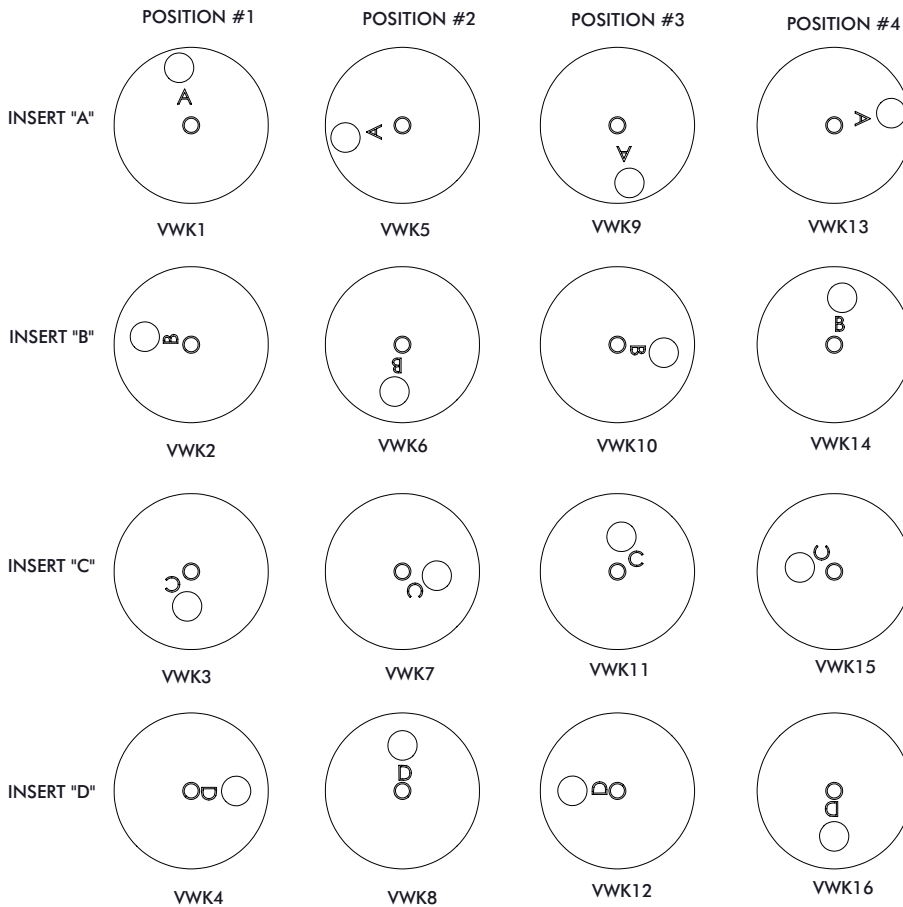
## S4 and Kx Internal Key Position



# TOOLING ERROR PROOF KEY POSITIONS

Manual Tool Changers | RDC-40/150 Series Bayonets

ASSEMBLY #	KEY POSITION #	KEY BLOCK #	INSERT	POSITION
CPI-RDC-40-E4-VWK1-MC-HF	VWK1	RDC-40-4-IKB-16-KA1-4	A	1
CPI-RDC-40-E4-VWK2-MC-HF	VWK2	RDC-40-4-IKB-16-KB1-4	B	1
CPI-RDC-40-E4-VWK3-MC-HF	VWK3	RDC-40-4-IKB-16-KC1-4	C	1
CPI-RDC-40-E4-VWK4-MC-HF	VWK4	RDC-40-4-IKB-16-KD1-4	D	1
CPI-RDC-40-E4-VWK5-MC-HF	VWK5	RDC-40-4-IKB-16-KA1-4	A	2
CPI-RDC-40-E4-VWK6-MC-HF	VWK6	RDC-40-4-IKB-16-KB1-4	B	2
CPI-RDC-40-E4-VWK7-MC-HF	VWK7	RDC-40-4-IKB-16-KC1-4	C	2
CPI-RDC-40-E4-VWK8-MC-HF	VWK8	RDC-40-4-IKB-16-KD1-4	D	2
CPI-RDC-40-E4-VWK9-MC-HF	VWK9	RDC-40-4-IKB-16-KA1-4	A	3
CPI-RDC-40-E4-VWK10-MC-HF	VWK10	RDC-40-4-IKB-16-KB1-4	B	3
CPI-RDC-40-E4-VWK11-MC-HF	VWK11	RDC-40-4-IKB-16-KC1-4	C	3
CPI-RDC-40-E4-VWK12-MC-HF	VWK12	RDC-40-4-IKB-16-KD1-4	D	3
CPI-RDC-40-E4-VWK13-MC-HF	VWK13	RDC-40-4-IKB-16-KA1-4	A	4
CPI-RDC-40-E4-VWK14-MC-HF	VWK14	RDC-40-4-IKB-16-KB1-4	B	4
CPI-RDC-40-E4-VWK15-MC-HF	VWK15	RDC-40-4-IKB-16-KC1-4	C	4
CPI-RDC-40-E4-VWK16-MC-HF	VWK16	RDC-40-4-IKB-16-KD1-4	D	4

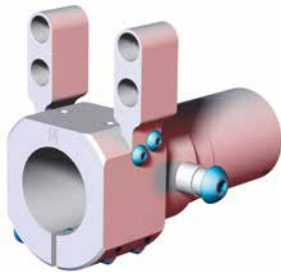




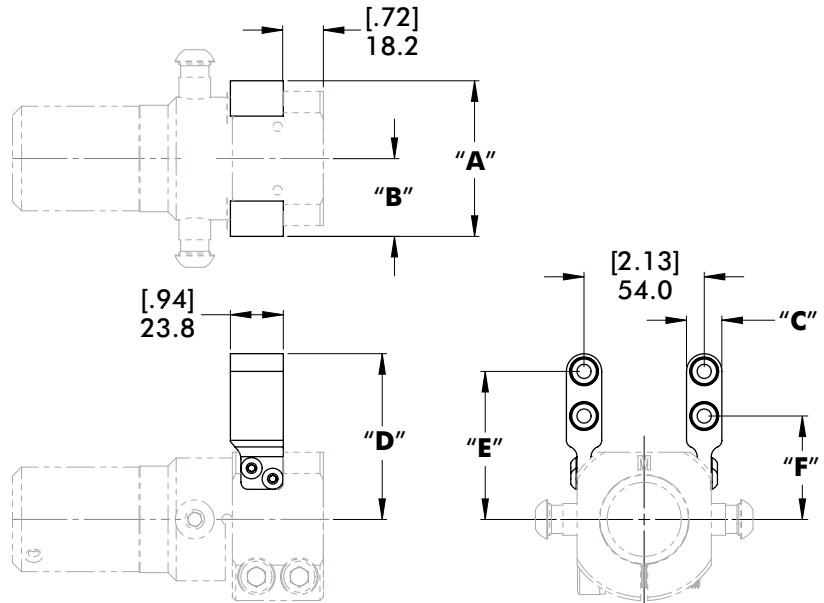
# EXTERNAL AIR MANIFOLDS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

## 4-Port External Air Connection

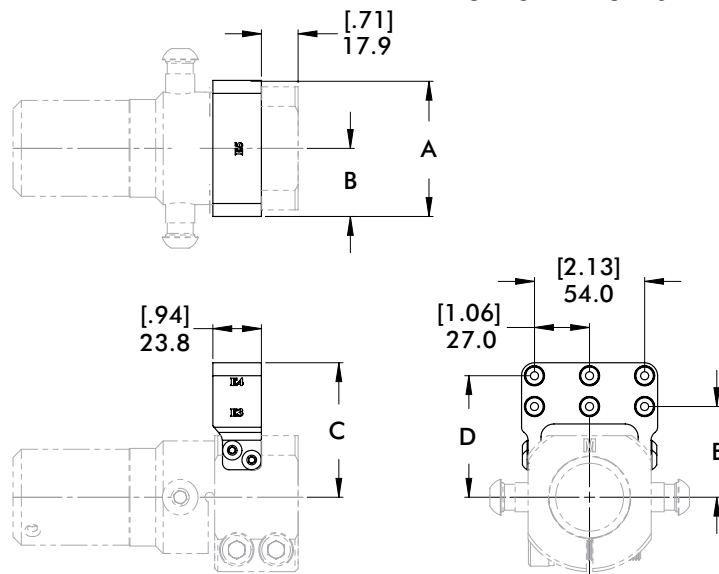
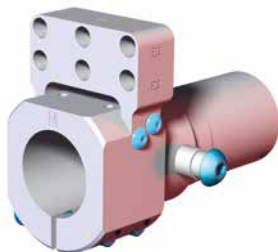


(2) Required



ORDER OPTION	REPLACEMENT PART	"A"	"B"	"C"	"D"	"E"	"F"	WEIGHT
"E4" (Standard High Flow)	CPI-RDC-40-4-HF	[2.75] 69.9	[1.38] 34.9	[1.56] 39.6	[3.00] 76.1	[2.62] 66.6	[1.83] 46.5	[2.90 lb] 1.32 kg
(Replacement for "E4" Legacy Applications only)	CPI-RDC-40-4	[2.63] 66.7	[1.30] 32.9	[1.22] 31.0	[2.66] 67.5	[2.34] 59.5	[1.75] 44.4	[2.89 lb] 1.31 kg

## 6-Port External Air Connection

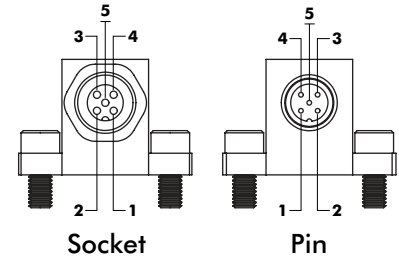
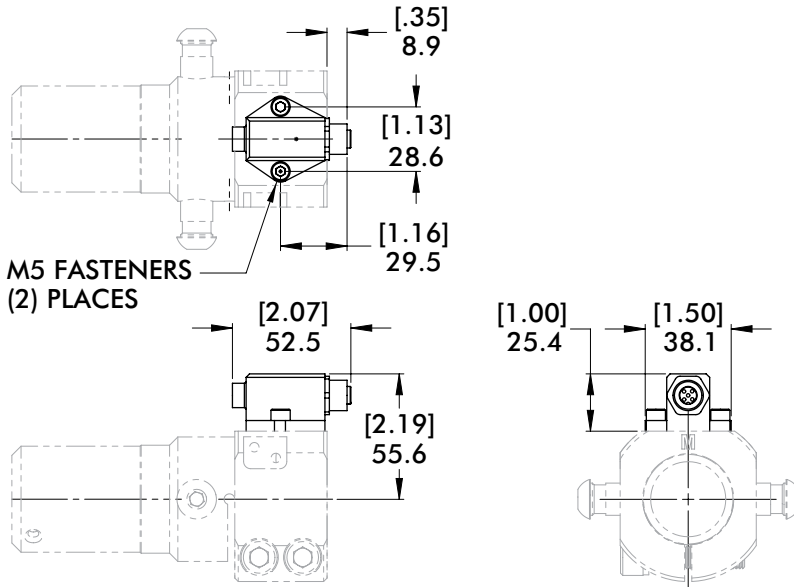


ORDER OPTION	REPLACEMENT PART	"A"	"B"	"C"	"D"	"E"
(Replacement for "E6" Legacy Applications only)	RDC-40-4-6PA	[2.61] 66.3	[1.31] 33.4	[2.59] 65.9	[2.34] 59.6	[1.75] 44.5
"E6" (Standard High Flow)	RDC-40-E6-HF	[2.75] 69.9	[1.38] 34.9	[3.12] 79.2	[2.62] 66.5	[1.83] 46.5

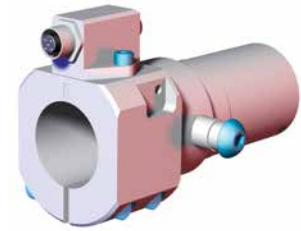
# ELECTRICAL CONNECTORS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

## MC 5-Pin Micro Electric Connection



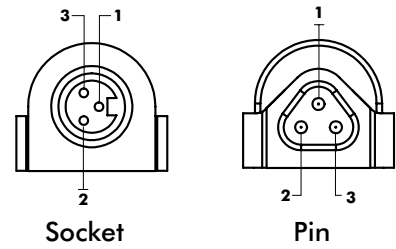
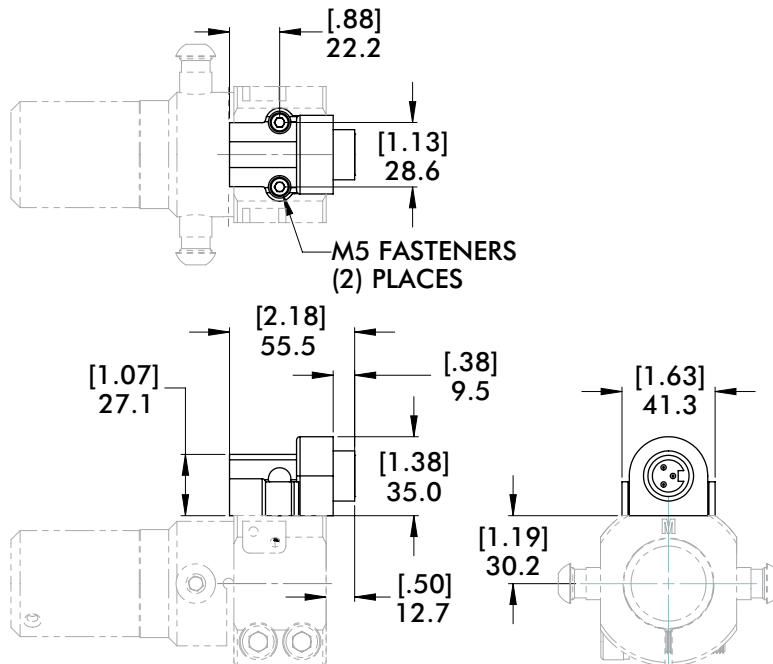
SOCKET #1	PIN #1
SOCKET #2	PIN #2
SOCKET #3	PIN #3
SOCKET #4	PIN #4
SOCKET #5	PIN #5



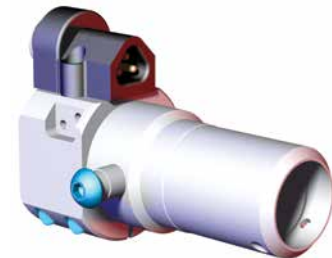
**REPLACEMENT PART**

**CPI-RDB-M5P-5MCF**

## MN 3-Pin Mini Electric Connection



SOCKET #1	PIN #1
SOCKET #2	PIN #2
SOCKET #3	PIN #3



**REPLACEMENT PART**

**CPI-TTB-M3P-3B3**

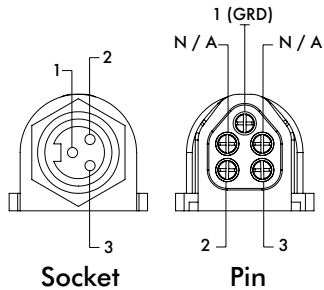
# ELECTRICAL CONNECTORS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

## MNF 5-Pin Mini Electric Connection



CPI-RDC-40-M5P-3MNF

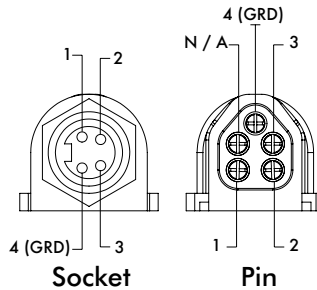


SOCKET #1	GREEN	PIN #1
SOCKET #2	BLACK	PIN #2
SOCKET #3	WHITE	PIN #3
		N / A
		N / A

PLUG COLOR: BLACK

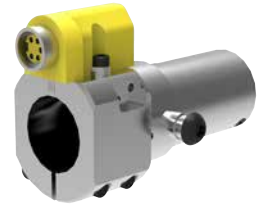


CPI-RDC-40-M5P-4MNF

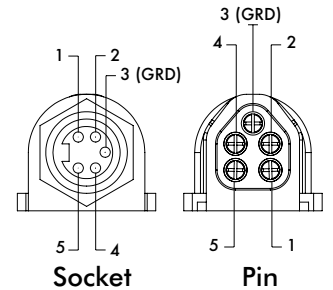


SOCKET #1	BLACK	PIN #1
SOCKET #2	WHITE	PIN #2
SOCKET #3	RED	PIN #3
SOCKET #4	GREEN	PIN #4
		N / A

PLUG COLOR: GREEN

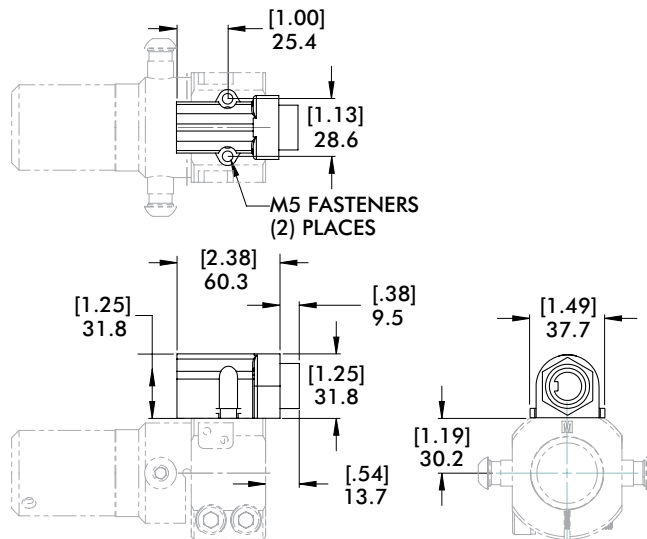


CPI-RDC-40-M5P-5MNF

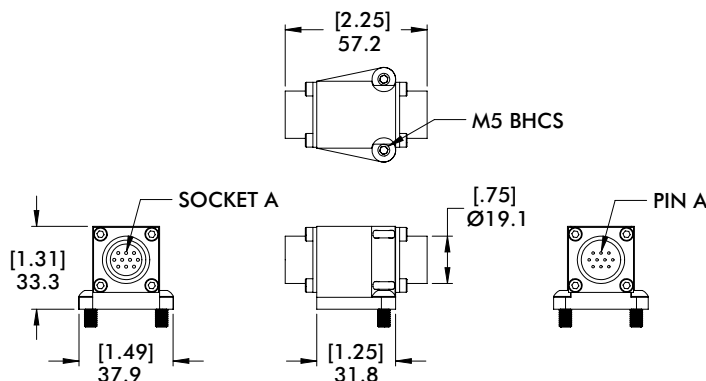


SOCKET #1	WHITE	PIN #1
SOCKET #2	RED	PIN #2
SOCKET #3	GREEN	PIN #3
SOCKET #4	ORANGE	PIN #4
SOCKET #5	BLACK	PIN #5

PLUG COLOR: YELLOW



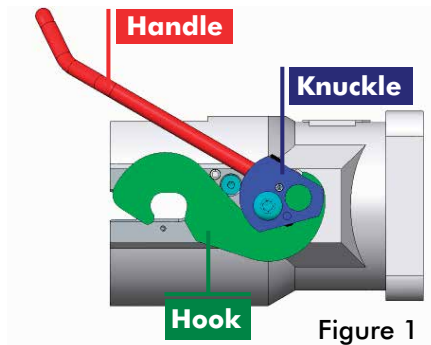
## 10-Pin Electric Connection



**REPLACEMENT PART**  
CPI-RDC-40-5-10

# RDN-25 SERIES DISCONNECT HOUSING

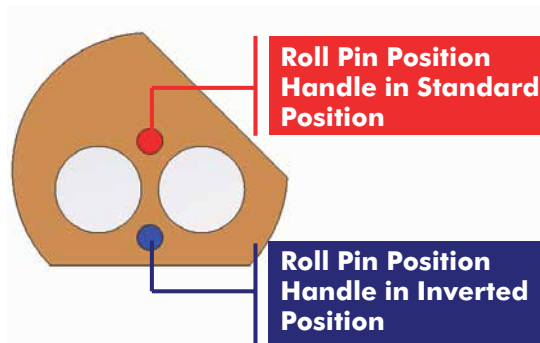
Manual Tool Changers | Instructions for Inverting the Disconnect Locking Handle



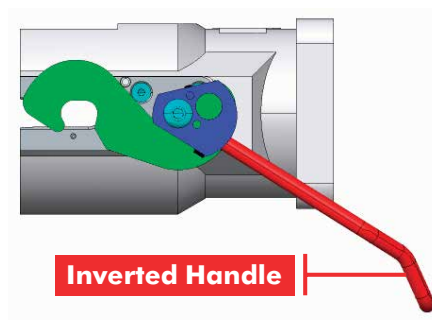
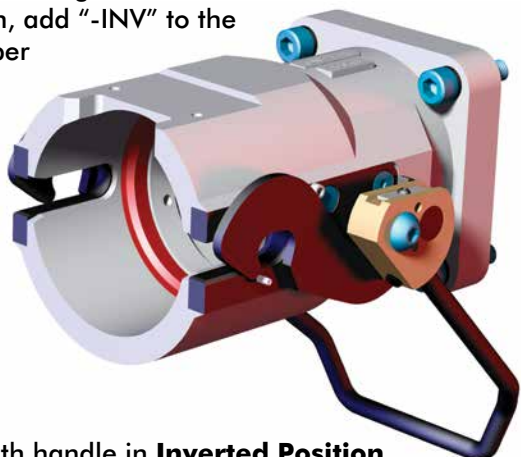
If the handle of the Quick Disconnect Housing interferes with other equipment, it can be inverted and accessed from below the housing. In the inverted position, the hooks and housing remain in the upright position.

1. Loosen the set screw at the base of the handle in each knuckle.
2. Unscrew the button head screw from each knuckle, then remove the handle. (See Figure 1)
3. Slide knuckles and hooks off the main body of the housing. (See Figure 1)
4. Slide hook off each knuckle.
5. Remove the roll pin in each knuckle and insert a 3/16 x 5/16 pin into the hole for the inverted handle position, as shown. (See Figure 2)
6. Rotate each knuckle 180° from previous position and reinstall the hooks. Return the knuckle/hook sub-assembly to the housing.
7. Reinstall handle in the inverted position and tighten set screws. (See Figure 3)

Figure 2 - Housing Knuckle



To order RDN-25 housing with handle in Inverted Position, add "-INV" to the end of order number



# RDN-25 DISCONNECT HOUSING

Manual Tool Changers | RDC-25/60 Series Bayonets | Product Overview

## Features:

- 89mm [3.50 in.] Sq. Flange Mtng.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

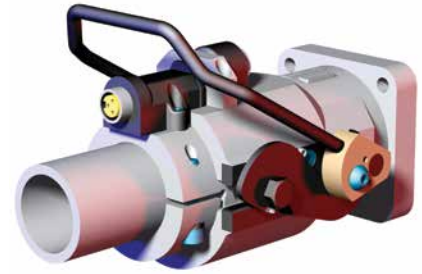
## Specifications:

**Max. Static Product Load:**  
949 N\*m [700 ft-lb]

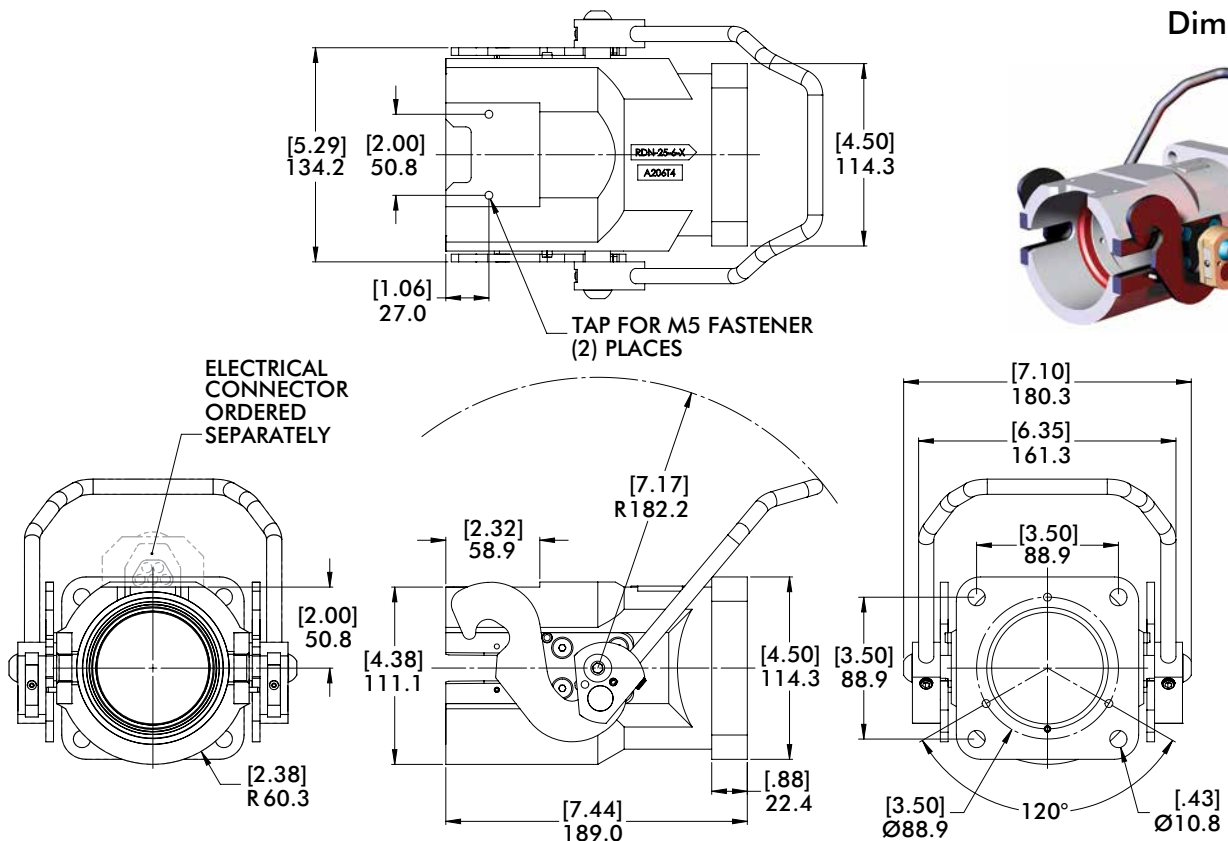
### Material:

Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:**  
4.00 kg [8.90 lb]



## Dimensions



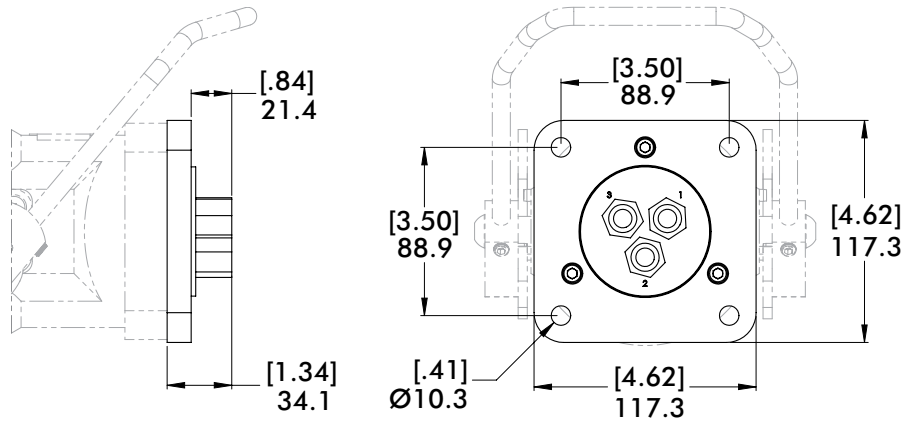
## How To Order

Model	Air Port Connection A3 (3 Port) or A6 (6-Port) "O(x)" = (Qty) of Open Ports / "S(x)" = (Qty) of Shutoff Ports	Electrical Mounting
<b>CPI</b> — <b>RDN-25-6</b>	<b>A3-O1-S2</b>	<b>EL10</b>
<b>"RDN-25-6"</b> Ø60mm/2.50" Quick Disconnect Housing	<b>"A3-O0-S3"</b> (0)Open-(3)Shutoff <b>"A3-O1-S2"</b> (1)Open-(2)Shutoff <b>"A3-O2-S1"</b> (2)Open-(1)Shutoff <b>"A3-O3-S0"</b> (3)Open-(0)Shutoff	<b>"A6-O0-S6"</b> (0)Open-(6)Shutoff <b>"A6-O1-S5"</b> (1)Open-(5)Shutoff <b>"A6-O2-S4"</b> (2)Open-(4)Shutoff <b>"A6-O3-S3"</b> (3)Open-(3)Shutoff <b>"A6-O4-S2"</b> (4)Open-(2)Shutoff <b>"A6-O5-S1"</b> (5)Open-(1)Shutoff <b>"A6-O6-S0"</b> (6)Open-(0)Shutoff
		<b>Mounting for Large Connectors</b> (Leave blank for Standard Mounting)

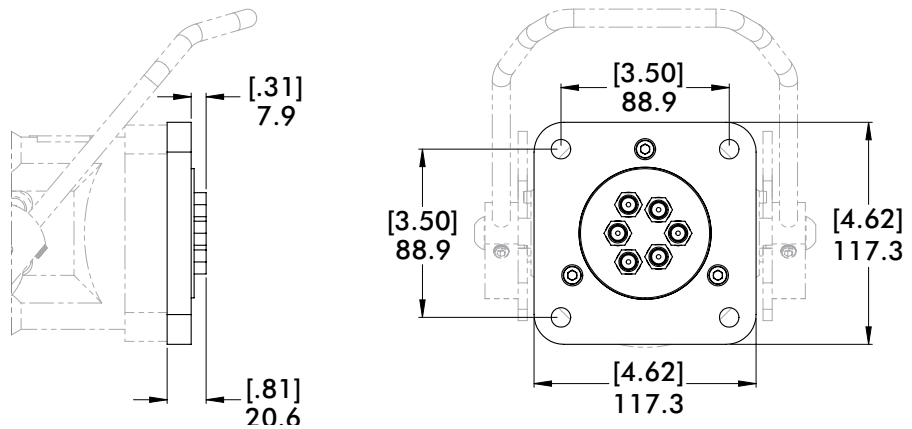
# AIR PORTS AND ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-25 Flange Mount Disconnect Housings | Dimensions

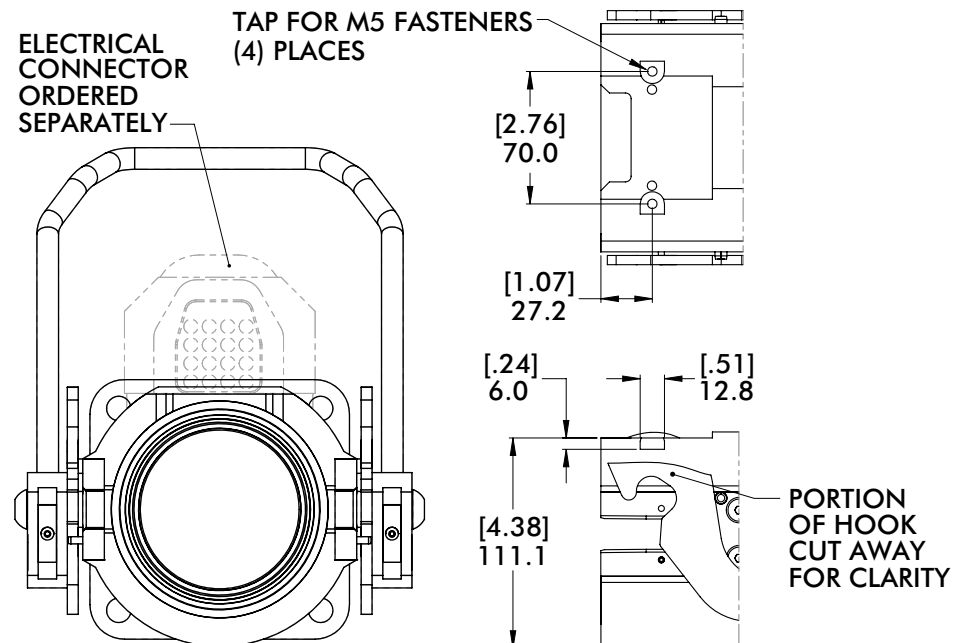
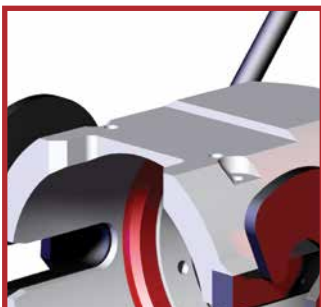
## A3 3-Port Internal Air Connection with Shutoff Option



## A6 6-Port Internal Air Connection with Shutoff Option

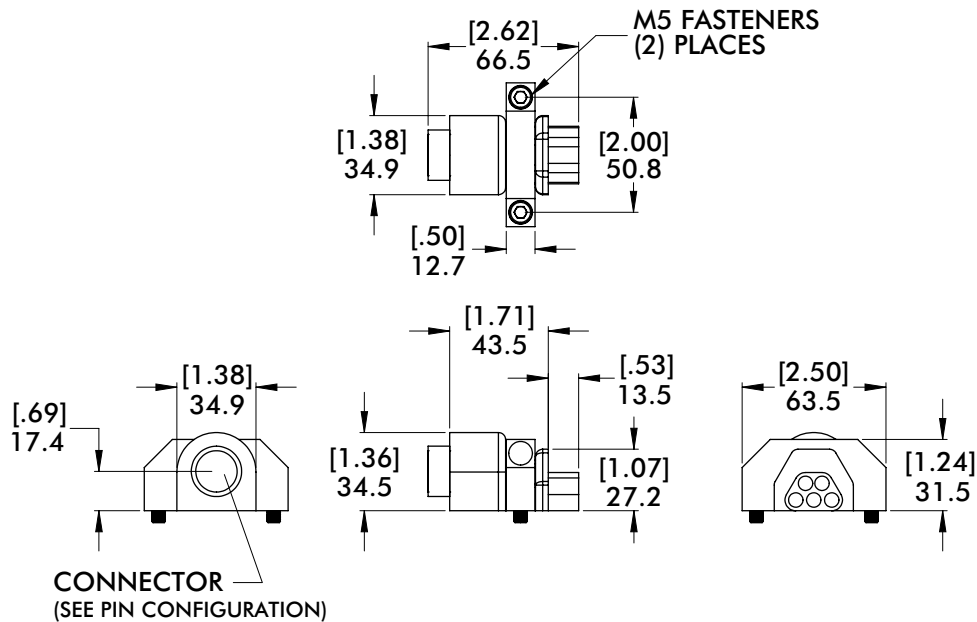


## EL10 Mounting for Large Electric Connection

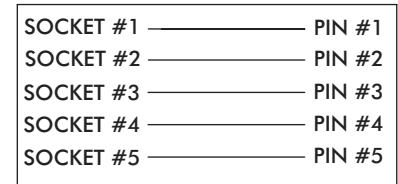
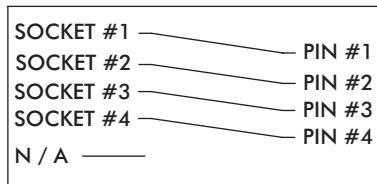
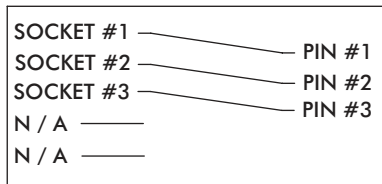
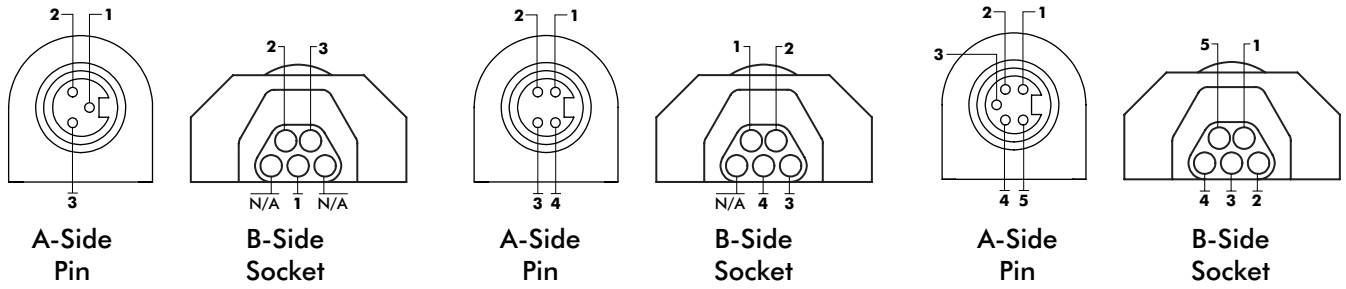


# ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-25 Series Disconnect Housings | Dimensions



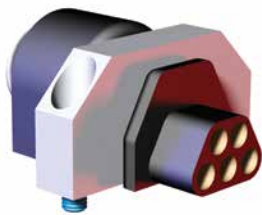
## 5 Pin Connectors for Housing - Standard Pin Configurations



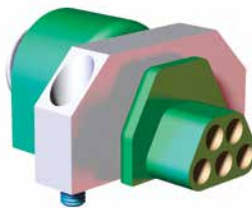
3-Pin to 5-Pin Connector	
A-Side	3-Pin, Single Key
B-Side	5-Pin, Male Plug, Female Socket

4-Pin to 5-Pin Connector	
A-Side	4-Pin, Single Key
B-Side	5-Pin, Male Plug, Female Socket

5-Pin to 5-Pin Connector	
A-Side	5-Pin, Single Key
B-Side	5-Pin, Male Plug, Female Socket



**MODEL NUMBER**  
**CPI-RDH-F5S-3B3**



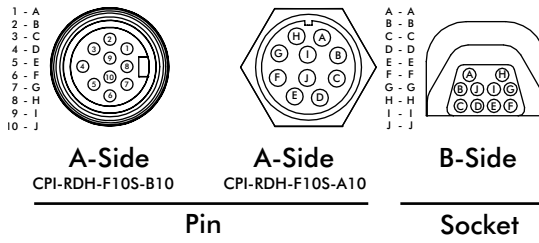
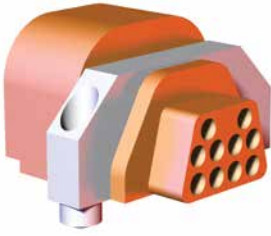
**MODEL NUMBER**  
**CPI-RDH-F5S-4B4**



**MODEL NUMBER**  
**CPI-RDH-F5S-5B5**

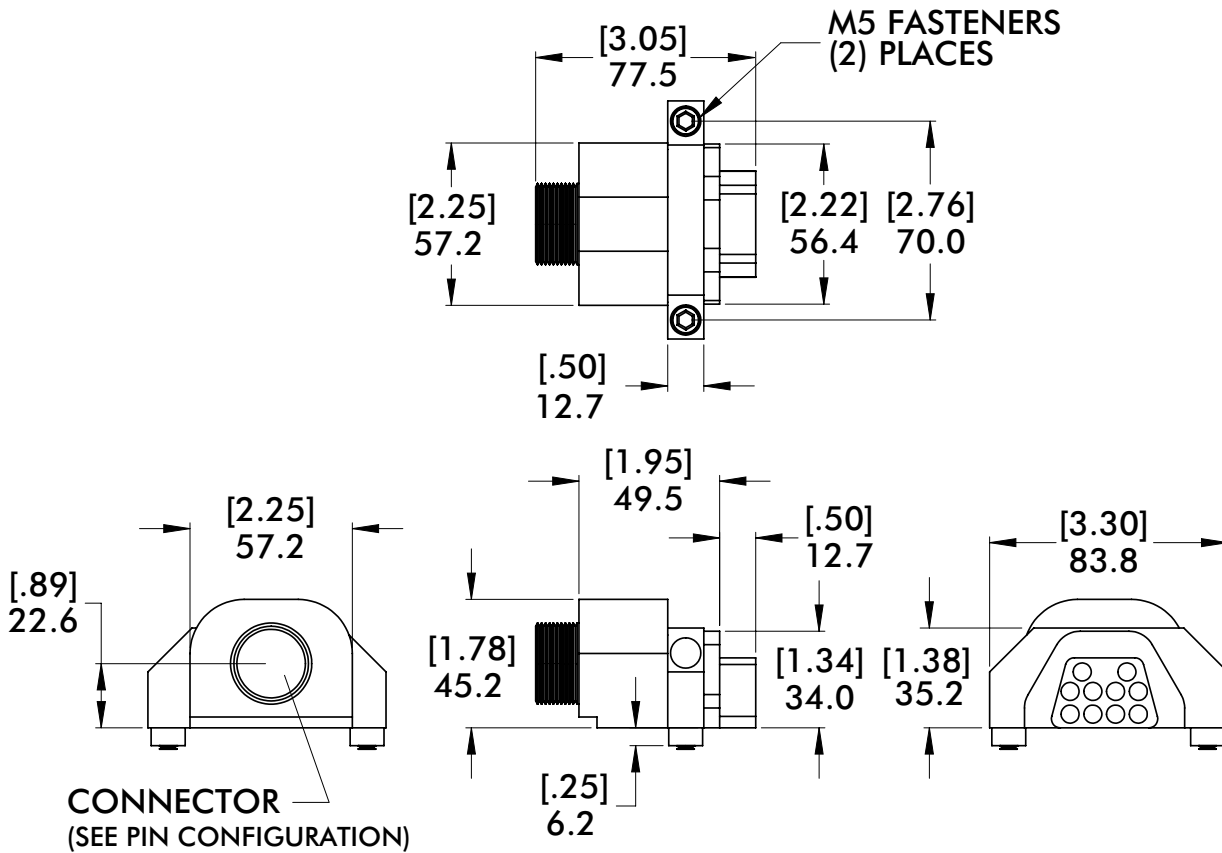
# ELECTRICAL CONNECTIONS

## Manual Tool Changers | RDN-25 Series Disconnect Housings | Dimensions



### 10 Pin Configuration

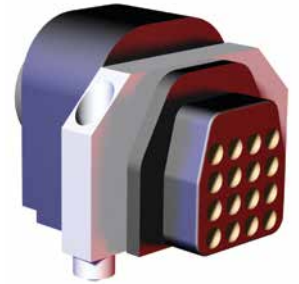
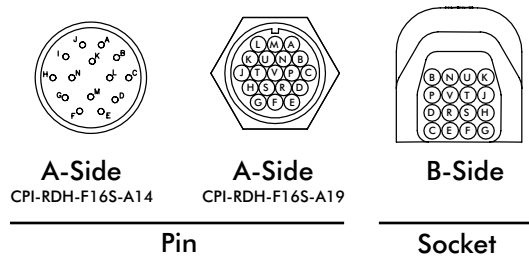
Model Number	A-Side	B-Side
<b>CPI-RDH-F10S-A10</b>	10-Pin	10-Pin, Male Plug, Female Socket
<b>CPI-RDH-F10S-B10</b>	10-Pin	





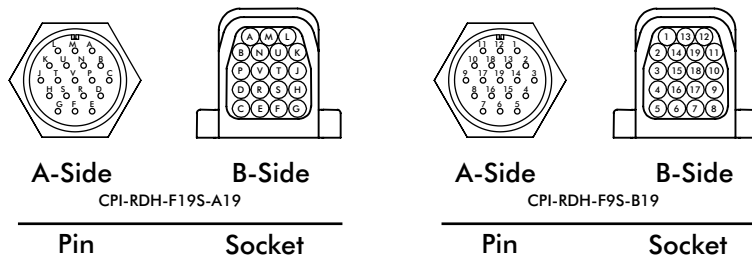
# ELECTRICAL CONNECTIONS

## Manual Tool Changers | RDN-25 Series Disconnect Housings | Dimensions



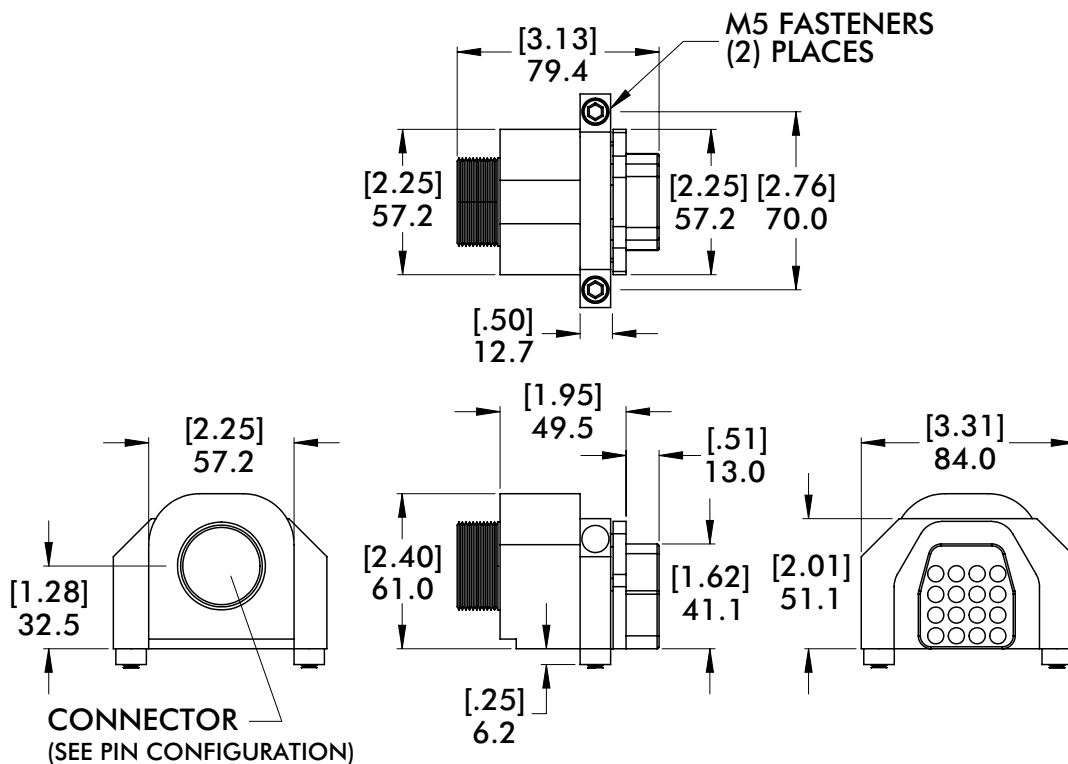
### 16 Pin Configuration

Model Number	A-Side	B-Side
<b>CPI-RDH-F16S-A19</b>	19-Pin	16-Pin, Male Plug, Female Socket
<b>CPI-RDH-F16S-A14</b>	14-Pin	



### 19 Pin Configuration

Model Number	A-Side	B-Side
<b>CPI-RDH-F19S-A19</b>	19-Pin	19-Pin, Male Plug, Female Socket
<b>CPI-RDH-F19S-B19</b>	19-Pin	



# RDC SERIES BAYONETS

Manual Tool Changers | 2.5"/60mm Diameter Booms | Product Overview

## Features:

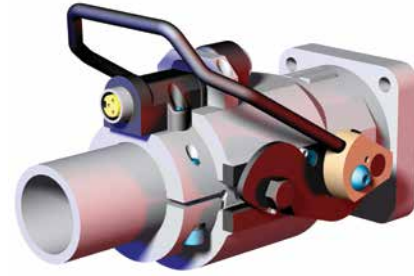
- Used in conjunction with the Quick Disconnect Housing to provide an efficient mode of changing tools manually.
- (2) Hardened alignment pins allows quick and accurate installation into the housing.
- Optional "EL10" machined surface for large electrical connectors.

## Specifications:

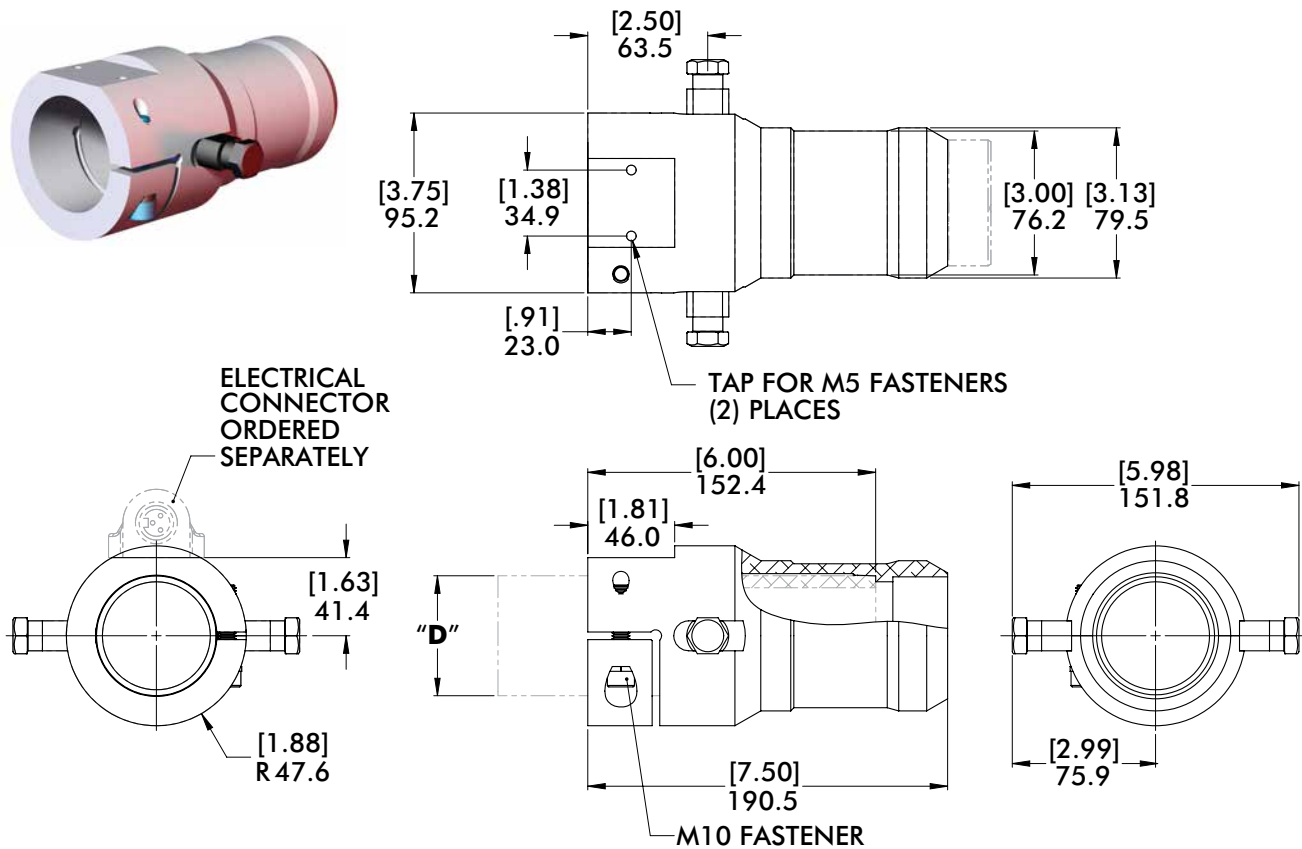
**Max. Static Product Load:**  
678 N\*m [500 ft-lb]

**Material:**  
Body: Aluminum  
Pins: Steel

**Weight:**  
1.6 kg [3.5 lb]



## Dimensions



## How To Order

Model	Boom/Tube (Ø) "D"	Version	Air Port Connection	Electrical Mounting
<b>CPI</b> — <b>RDC</b>	— <b>25</b>	— <b>2</b>	— <b>A3</b>	— <b>EL10</b>
 "RDC" Quick Disconnect Bayonet	 "25" 2.50" (in) "60" 60mm	 "2" Version 2	 "A3" 3-Port "A6" 6-Port	 <b>Mounting for Large Connectors</b> (Leave blank for Standard Mounting)

# RDC SERIES BAYONETS

Manual Tool Changers | 2.50"/60mm Diameter High Torque Booms | Product Overview

## Features:

- Extended clamp area increases the holding surface and torque capacity for high speed applications.
- (2) Hardened alignment pins allows quick and accurate installation into the bayonet.
- Optional "EL10" machined surface for large electrical connectors.

## Specifications:

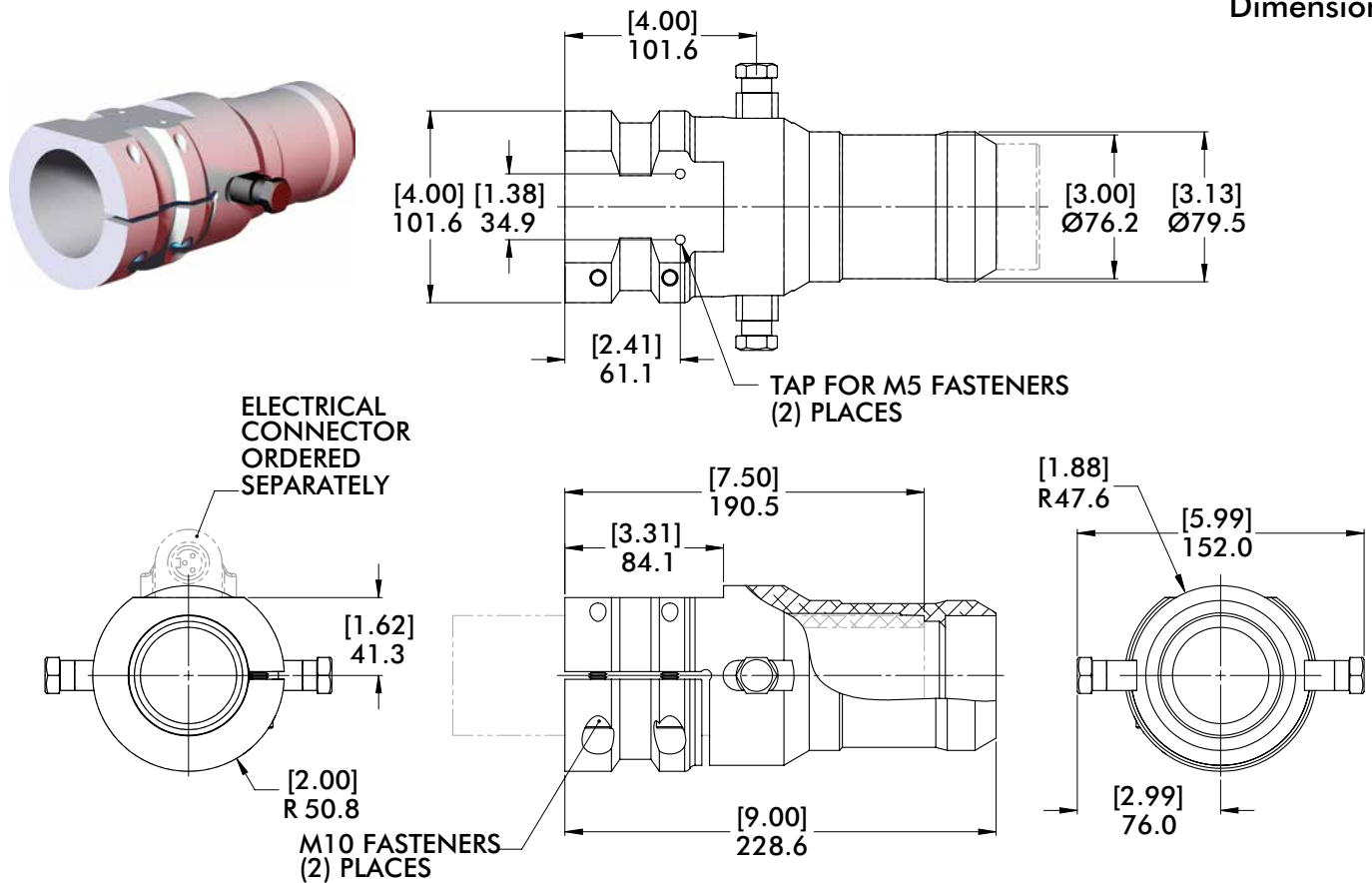
**Max. Static Product Load:**  
949 N\*m [700 ft-lb]

**Material:**  
Body: Aluminum  
Pins: Steel

**Weight:**  
2.1 kg [4.7 lb]



## Dimensions



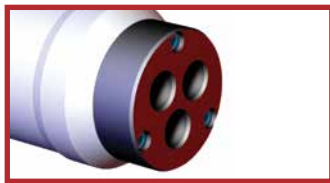
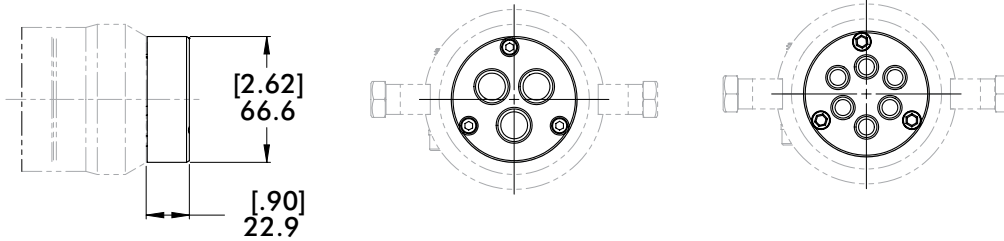
## How To Order

CPI	Model	Boom/Tube (Ø) "D"	Version	Air Port Connection	Electrical Mounting
—	<b>RDC</b>	<b>25</b>	<b>2HT</b>	<b>A3</b>	<b>EL10</b>
	"RDC"	"25" 2.50"(in)	"2HT"	"A3" 3-Port	Mounting
	Quick	"60" 60mm	Version 2	"A6" 6-Port	for Large
	Disconnect		Hi-Torque		Connectors
	Bayonet				(Leave blank
					for Standard
					Mounting)

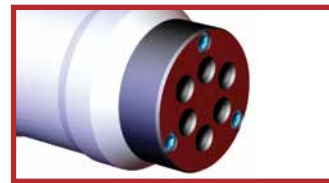
# AIR PORTS AND ELECTRICAL CONNECTIONS

Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions

## A3 3-Port/A6 6-Port Internal Air Connection



"A3" 3-Port Internal Air Connection



"A6" 6-Port Internal Air Connection

### REPLACEMENT PART

**CPI-BC-250-3-U38** (3/8 NPT ports)

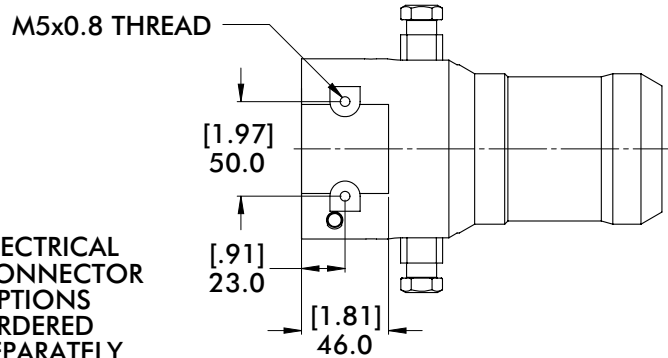
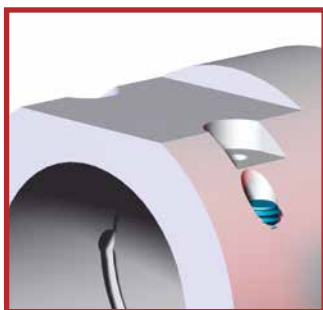
**CPI-BC-60-3-G38** (G3/8 ports)

### REPLACEMENT PART

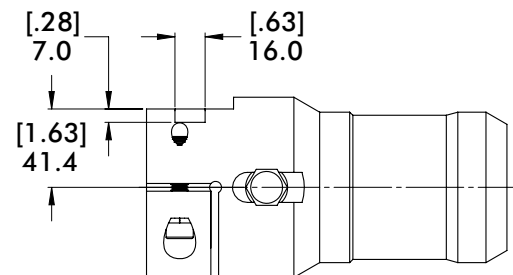
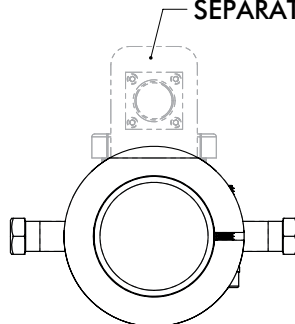
**CPI-BC-250-6-U18** (1/8 NPT ports)

**CPI-BC-60-6-G18** (G1/8 ports)

## EL10 Mounting for Large Electric Connection

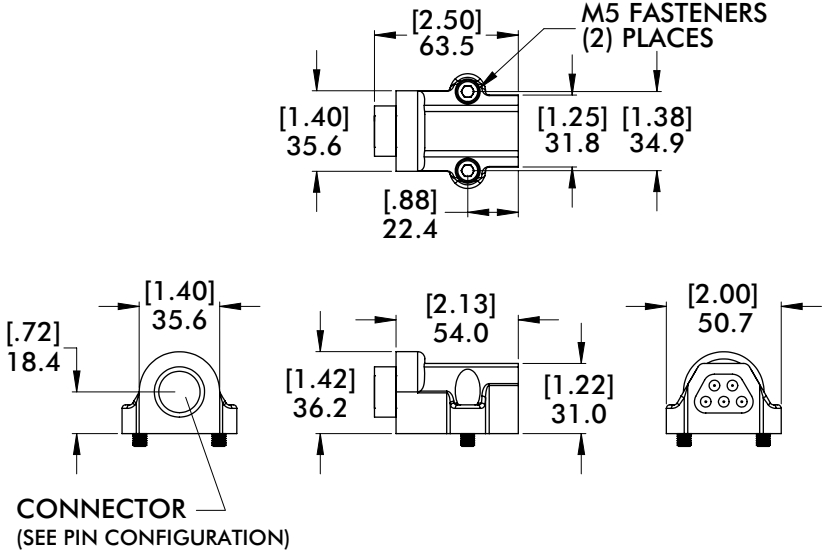


ELECTRICAL CONNECTOR OPTIONS ORDERED SEPARATELY

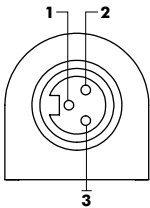


# ELECTRICAL CONNECTIONS

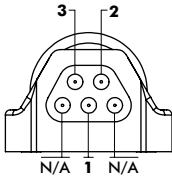
Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions



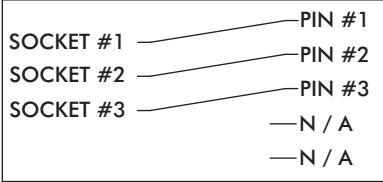
## 5 Pin Connectors for Bayonet (Tool Side)- Standard Pin Configurations



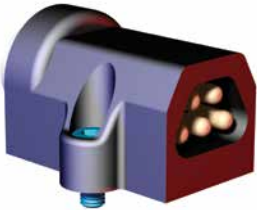
A-Side Socket



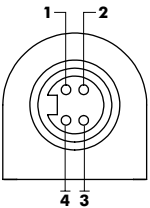
B-Side Pin



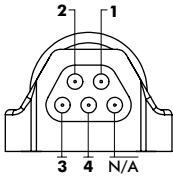
3-Pin to 5-Pin Connector	
A-Side	3-Pin, Single Key
B-Side	5-Pin, Male Pin, Female Plug



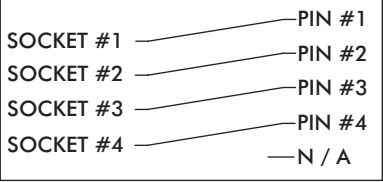
**MODEL NUMBER**  
**CPI-RDB-M5P-3B3**



A-Side Socket



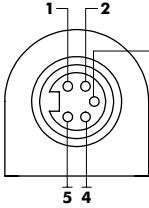
B-Side Pin



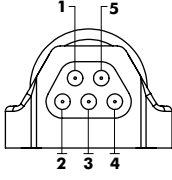
4-Pin to 5-Pin Connector	
A-Side	4-Pin, Single Key
B-Side	5-Pin, Male Pin, Female Plug



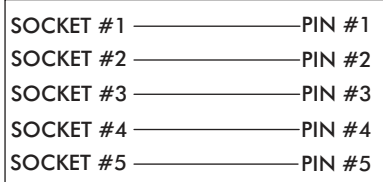
**MODEL NUMBER**  
**CPI-RDB-M5P-4B4**



A-Side Socket



B-Side Pin



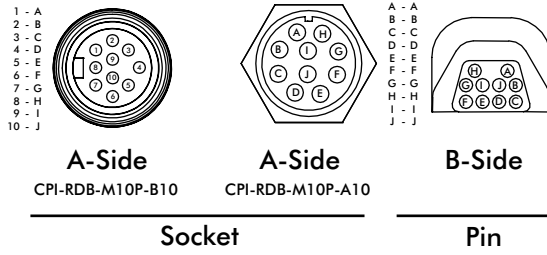
5-Pin to 5-Pin Connector	
A-Side	5-Pin, Single Key
B-Side	5-Pin, Male Pin, Female Plug



**MODEL NUMBER**  
**CPI-RDB-M5P-5B5**

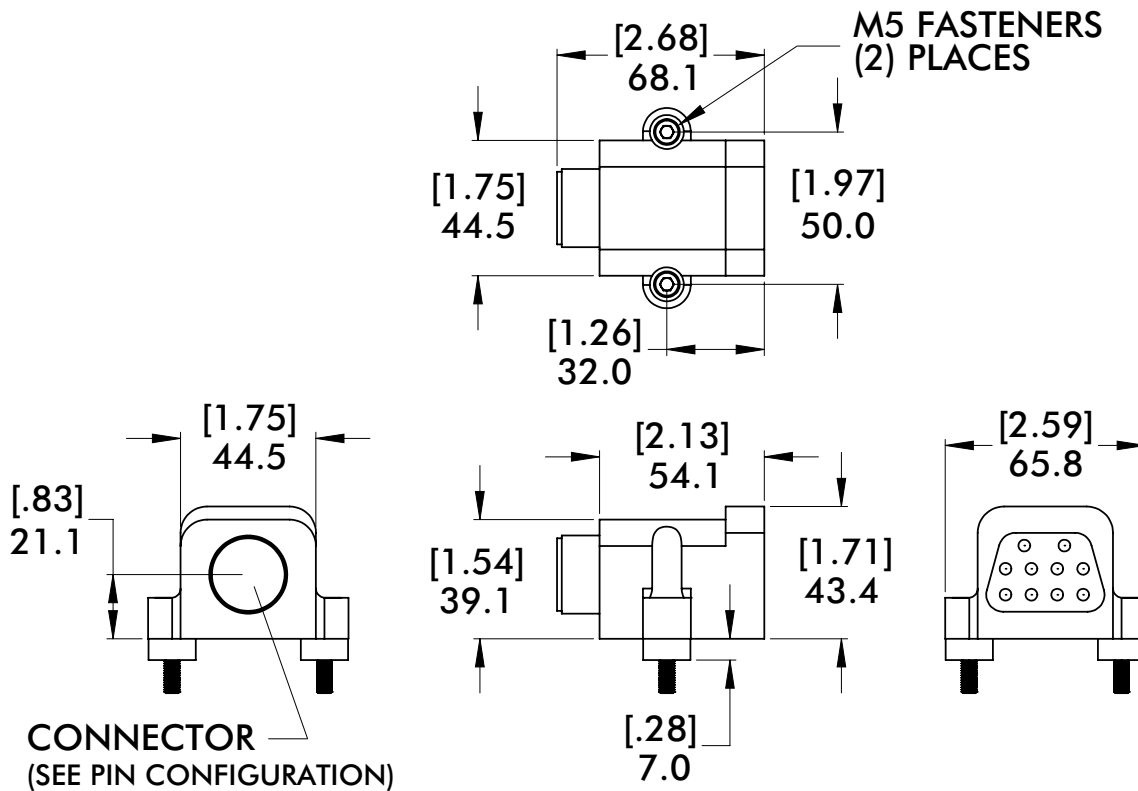
# ELECTRICAL CONNECTIONS

Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions



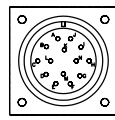
## 10 Pin Configuration

Model Number	A-Side	B-Side
<b>CPI-RDB-M10P-A10</b>	10-Pin	10-Pin, Male Pin,
<b>CPI-RDB-M10P-B10</b>	10-Pin	Female Plug



# ELECTRICAL CONNECTIONS

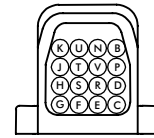
## Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions



A-Side  
CPI-RDB-M16P-A14



A-Side  
CPI-RDB-M16P-A19



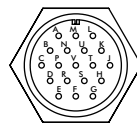
B-Side

Socket

Pin

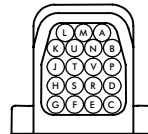
### 16 Pin Configuration

Model Number	A-Side	B-Side
<b>CPI-RDB-M16P-A19</b>	19-Pin	16-Pin, Male Pin, Female Plug
<b>CPI-RDB-M16P-A14</b>	14-Pin	



A-Side

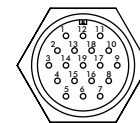
CPI-RDB-M19P-A19



B-Side

Socket

Pin



A-Side

CPI-RDB-M19P-B19

Socket

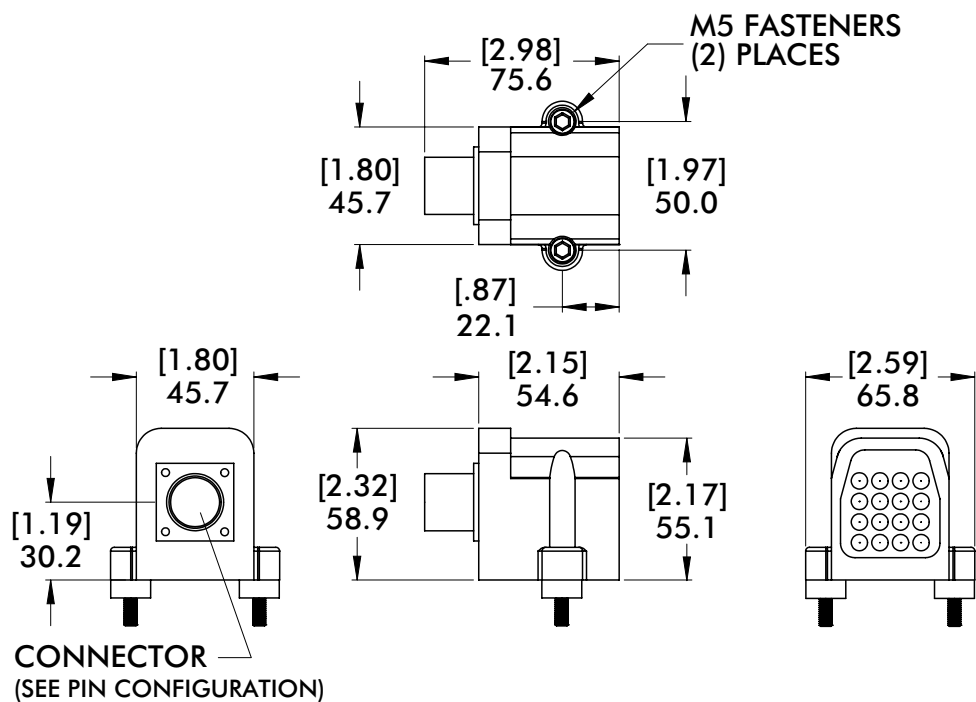


B-Side

Pin

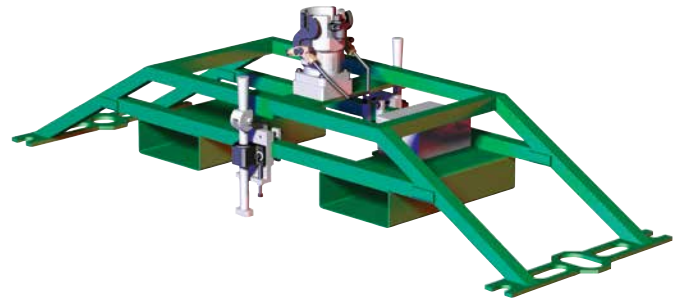
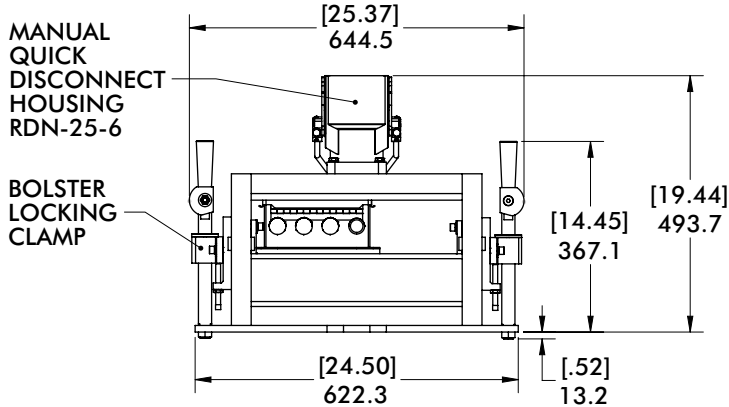
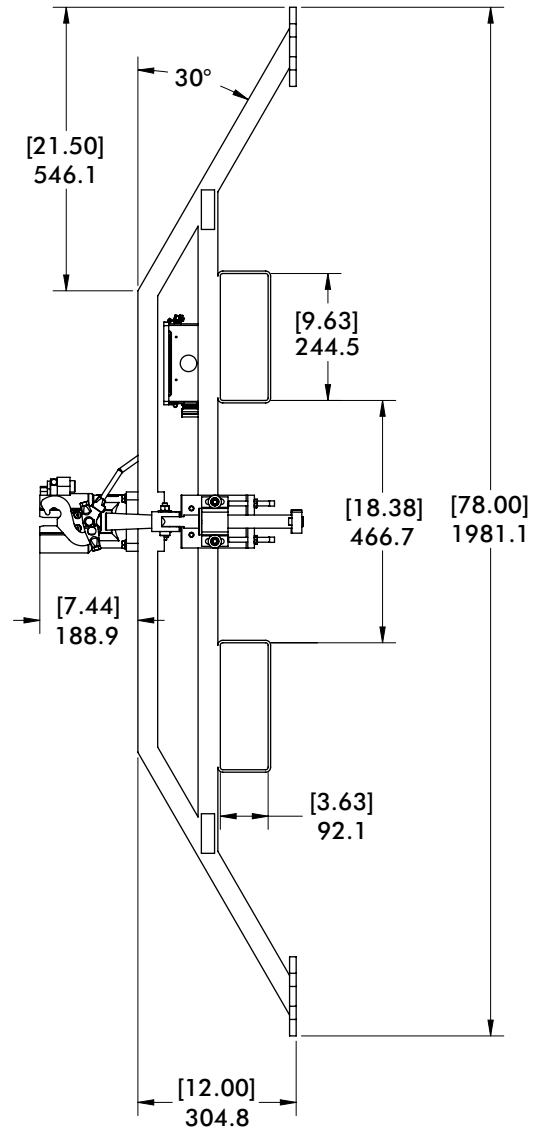
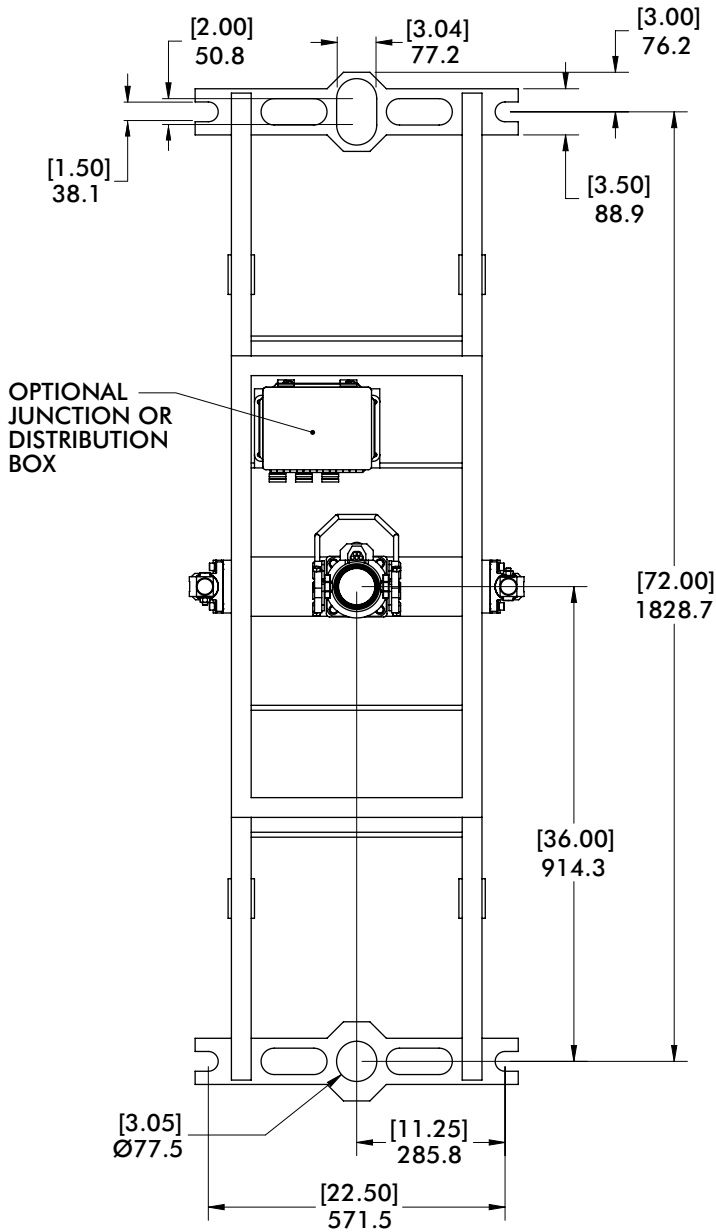
### 19 Pin Configuration

Model Number	A-Side	B-Side
<b>CPI-RDB-M19P-A19</b>	19-Pin	19-Pin, Male Pin, Female Plug
<b>CPI-RDB-M19P-B19</b>	19-Pin	



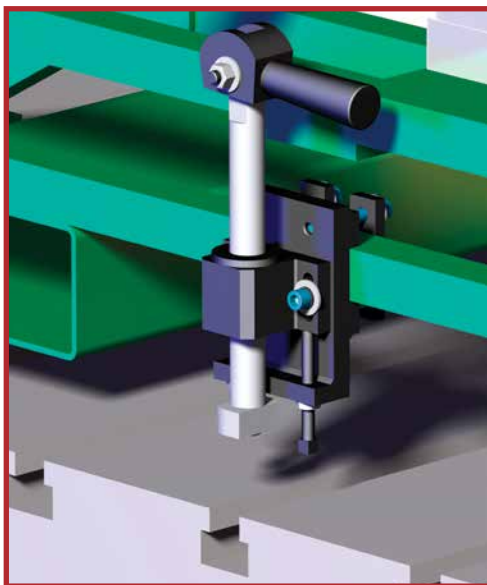
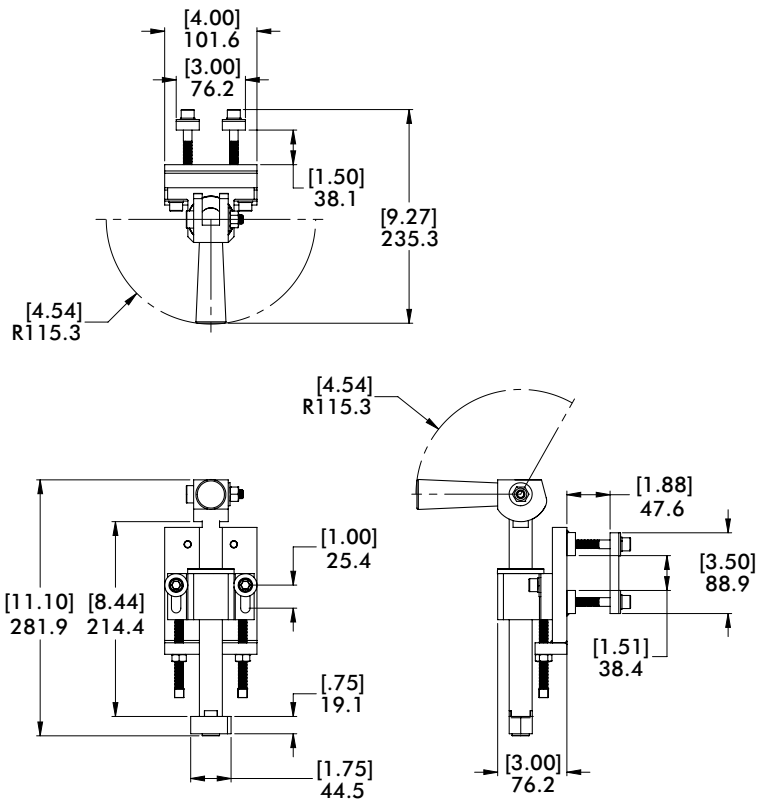
# IDLE STATION

Automation Adaptors | (1) RDN-25-6 Disconnect Housings with Ability to be Fixed to Bolster | Dimensions

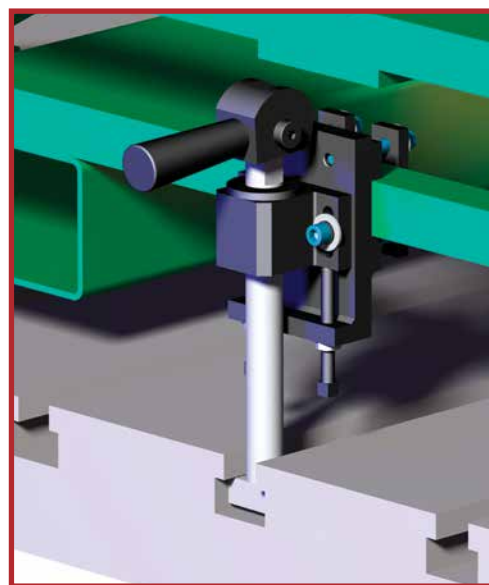


MODEL NUMBER	WEIGHT
CPI-PNS-ASSY	85.41 kg [188.30 lb]





Stored Position



In Use, Locked into Bolster

**MODEL NUMBER**

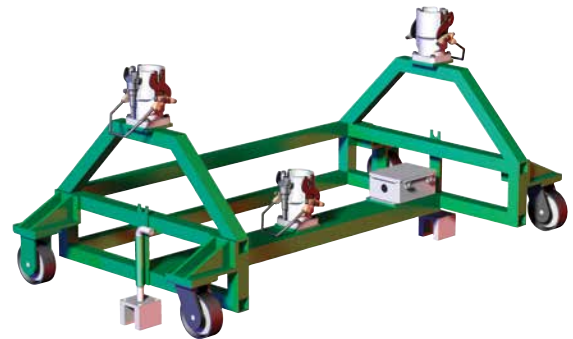
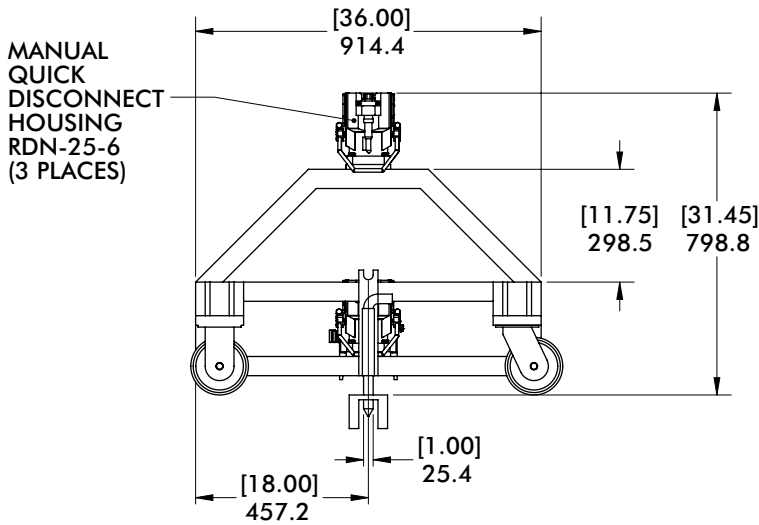
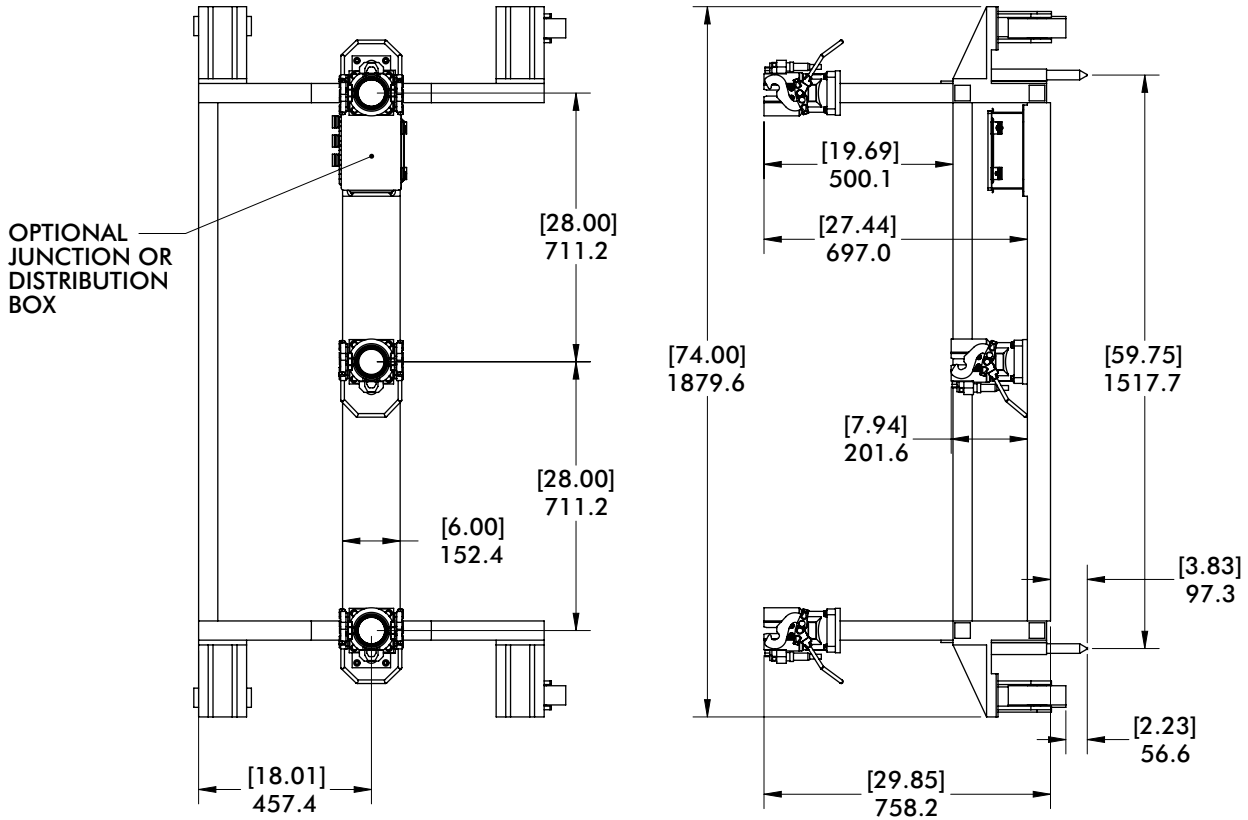
**WEIGHT**

**CPI-BLC-100-15-6**

5.50 kg [12.12 lb]

# IDLE STATION

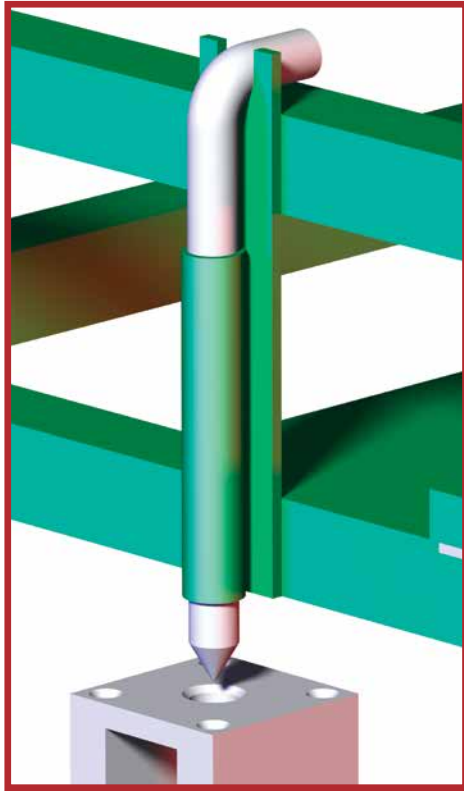
Automation Adaptors | (3) RDN-25-6 Disconnect Housings and Mobile Flexibility | Dimensions



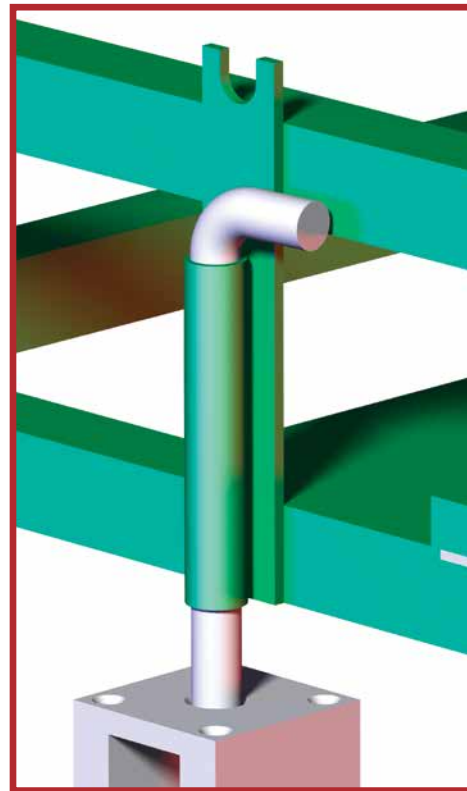
MODEL NUMBER	WEIGHT
CPI-INS-ASSY	182.67 kg [402.73 lb]

# LOCKING PINS IDLE STATIONS

Automation Adaptors | Locking Pin | Operating Procedure



Stored Position



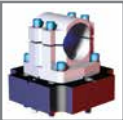
Engaged Position

# ROBOT ADAPTER MOUNTS

## Table of Contents



Adaptor Mount Assemblies and Components ..... 3-28



Mid-Mount Flanges ..... 29

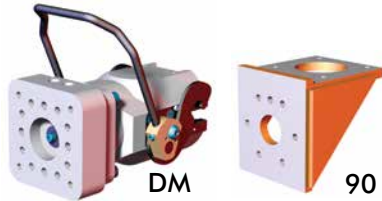


Tooling Mounting Blocks ..... 38

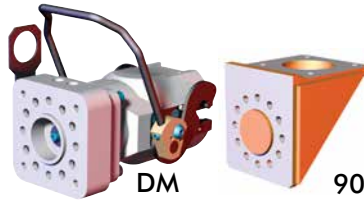
# ROBOT ADAPTER MOUNTS

Robot Automation Adaptors | Selection Guide - Manual Tool Changers RDN-25 Series

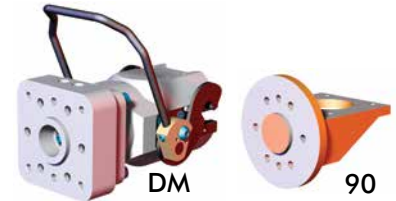
**STYLE 1 (ACMX58)**



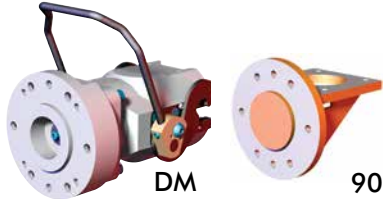
**STYLE 2 (FA500)**



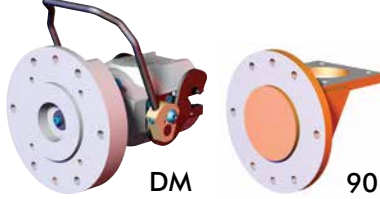
**STYLE 3 (KW150)**



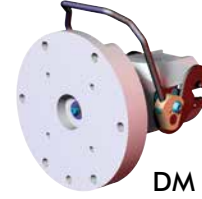
**STYLE 4 (FA900)**



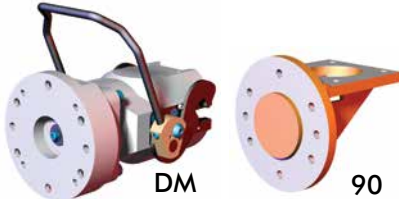
**STYLE 5 (KA760)**



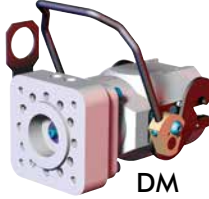
**STYLE 6 (MMNY300)**



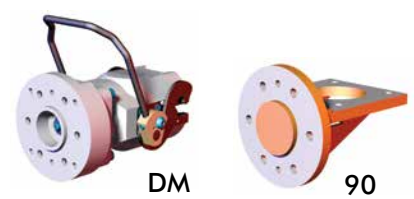
**STYLE 7 (FA430I)**



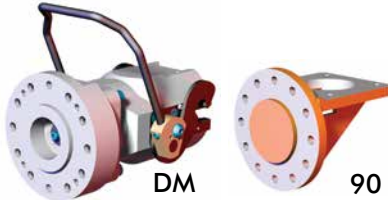
**STYLE 8 (FA420)**



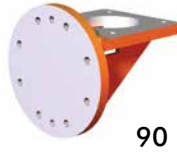
**STYLE 9 (ABB44)**



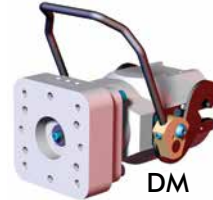
**STYLE 10 (KWZ165)**



**STYLE 11 (KWUT120)**



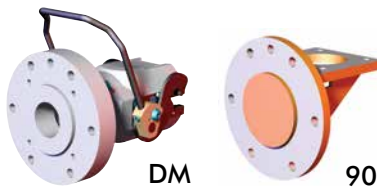
**STYLE 12 (FA710)**



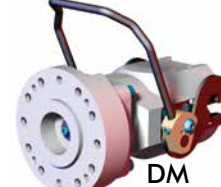
**STYLE 14 (MMK100)**



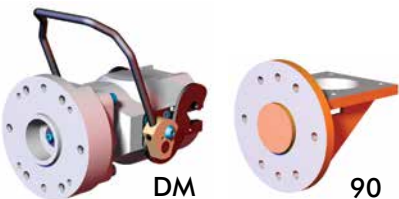
**STYLE 15 (KA660)**



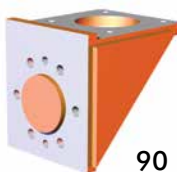
**STYLE 16 (FA2000)**



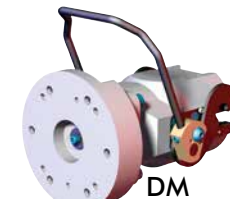
**STYLE 18 (MMHP165-125)**



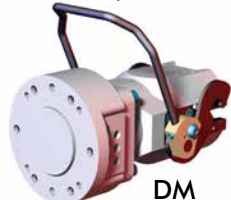
**STYLE 19 (MMHP165-92)**



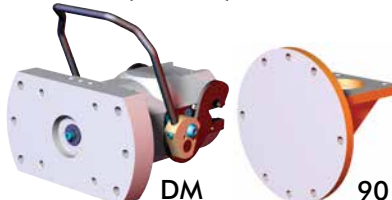
**STYLE 21 (EOAMC30)**



**STYLE 22 (FA900-SSM)**



**STYLE 23 (MD350)**



**STYLE 24 (SA000)**



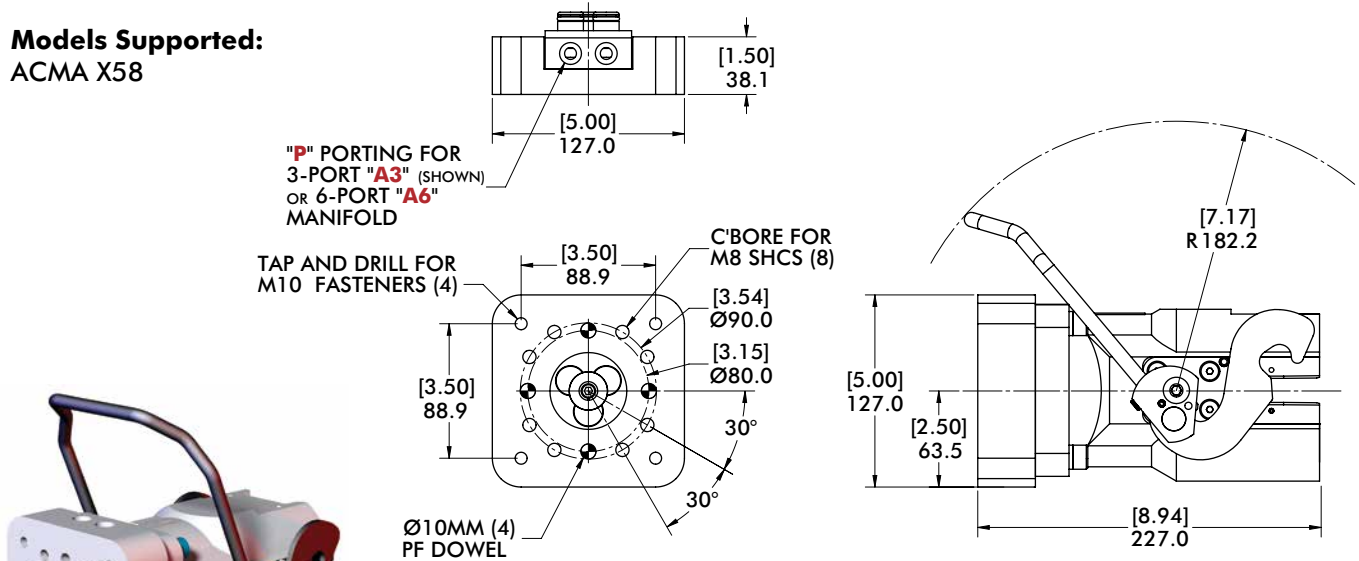
# ROBOT ADAPTER MOUNTS

Robot Automation Adaptors | Selection Guide - Manual Tool Changers RDN-25 Series

250 SERIES ROBOT ADAPTOR SELECTION GUIDE										
ADAPTOR MOUNTS		MOUNTING PATTERN			DOWELS			PILOT		DWG PAGE
STYLE (MODEL)	TYPE AVAIL.	BOLT CIRCLE	BOLT SIZE	BOLTS QTY	BOLT CIRCLE	DWL SIZE	DWL QTY	DIAMETER (Ø)	DEPTH	
STYLE 1 (ACMX58)	DM/90	Ø90mm [Ø3.54"]	M8	8	Ø80mm [Ø3.15"]	10mm	4	N/A	N/A	4
STYLE 2 (FA500)	DM/90	Ø90mm [Ø3.54"]	M10	8	Ø90mm [Ø3.54"]	10mm	4	Ø59.5mm [Ø2.34"]	4.8 [.19]	5
STYLE 3 (KW150)	DM/90	Ø92mm [Ø3.62"]	M10	6	Ø92mm [Ø3.62"]	9mm	2	Ø54mm [Ø2.13"]	6.4 [.25]	6
STYLE 4 (FA900)	DM/90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [.25]	7
STYLE 5 (KA760)	DM/90	Ø160mm [Ø6.30"]	M10	6	Ø160mm [Ø6.30"]	10mm	2	Ø99.9mm [Ø3.94"]	6.4 [.25]	8
STYLE 6 (MMNY300)	DM	Ø200mm [Ø7.87"]	M12	6	Ø200mm [Ø7.87"]	12mm	1	N/A	N/A	9
STYLE 7 (FA430I)	DM/90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [.25]	10
STYLE 8 (FA420)	DM	Ø92mm [Ø3.62"]	M10	8	Ø92mm [Ø3.62"]	10mm	4	Ø79.5mm [Ø3.13"]	4.8 [.19]	11
STYLE 9 (ABB44)	DM/90	Ø100mm [Ø3.94"]	M10	6	Ø100mm [Ø3.94"]	8mm	2	Ø61.9mm [Ø2.44"]	6.4 [.25]	12
STYLE 10 (KWZ165)	DM/90	Ø125mm [Ø4.92"]	M10	10	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [.25]	13
STYLE 11 (KWUT120)	90	Ø120mm [Ø4.72"]	M8	8	Ø120mm [Ø4.92"]	8mm	2	N/A	N/A	14
STYLE 12 (FA710)	DM	Ø100mm [Ø3.94"]	M8	6	Ø100mm [Ø3.94"]	8mm	2	N/A	N/A	15
STYLE 14 (MMK100)	90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø61mm [Ø2.40"]	6.4 [.25]	16
STYLE 15 (KA660)	DM/90	Ø160mm [Ø6.30"]	M12	6	Ø160mm [Ø6.30"]	12mm	1	Ø99mm [Ø3.90"]	6.4 [.25]	17
STYLE 16 (FA2000)	DM	Ø125mm [Ø4.92"]	M10	10	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [.25]	18
STYLE 18 (MMHP165)	DM/90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø62.5mm [Ø2.46"]	6.4 [.25]	19
STYLE 19 (MMHP165)	90	Ø92mm [Ø3.62"]	M10	6	Ø125mm [Ø4.92"]	9mm	2	Ø62.5mm [Ø2.46"]	6.4 [.25]	20
STYLE 21 (EOAMC30)	DM	Ø127mm [Ø5.00"]	3/8-16	6	Ø108mm [Ø4.25"]	.25"(in)	2	N/A	N/A	21
STYLE 22 (FA900-SSM)	DM	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	4.8 [.19]	21
STYLE 23 (MD350)	DM/90	Ø187.3mm [Ø7.38"]	3/8-16	4	Ø187.3mm [Ø7.38"]	3/8	2	N/A	N/A	22
STYLE 24 (SA000)	DM	Ø69.5mm [Ø2.74"]	M10	4	N/A	N/A	N/A	N/A	N/A	23

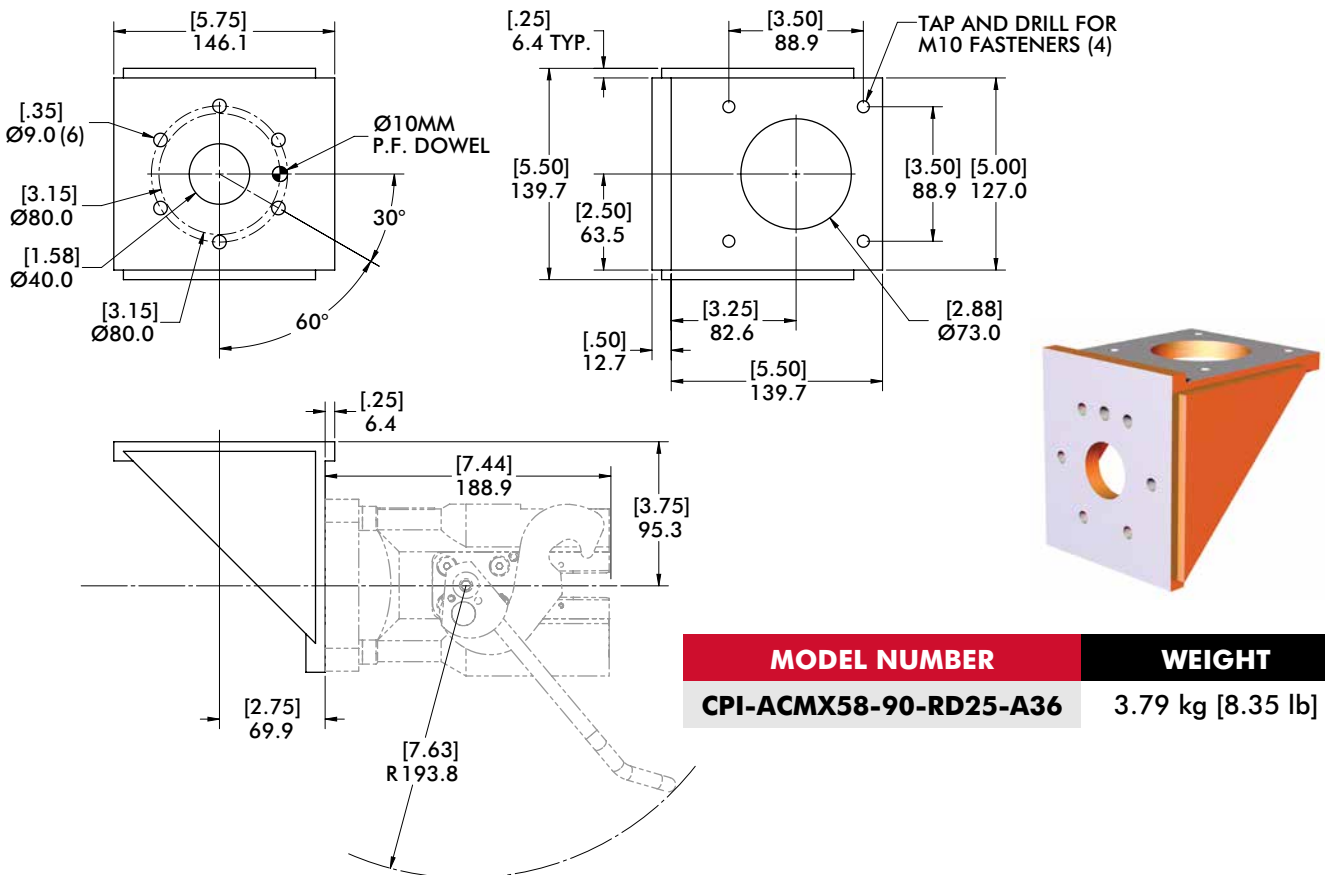
### Style 01 - **ACMX58** 90° Robot Adaptor (Ø90mm Bolt Circle/Ø80mm Dowel Circle)

**Models Supported:**  
ACMA X58



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
<b>CPI-ACMX58-DM-RD25-A3</b>	3/8 NPT	3 (2/1)	.75 kg [1.66 lb]
<b>CPI-ACMX58-DM-RD25-A6</b>	1/8 NPT	6 (3/3)	.79 kg [1.74 lb]

### Style 01 - **ACMX58** 90° Robot Adaptor (Ø90mm Bolt Circle/Ø80mm Dowel Circle)



MODEL NUMBER	WEIGHT
<b>CPI-ACMX58-90-RD25-A36</b>	3.79 kg [8.35 lb]

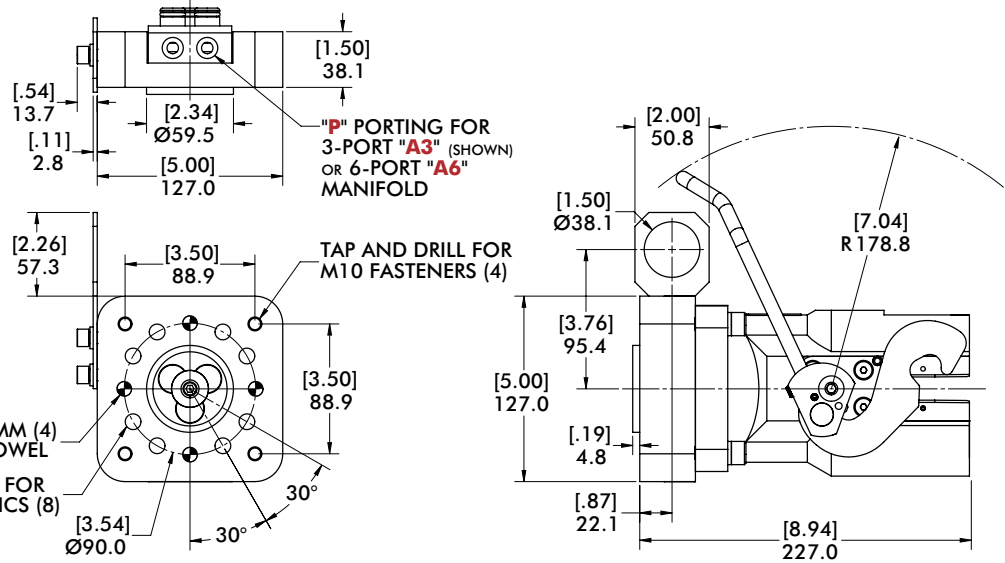
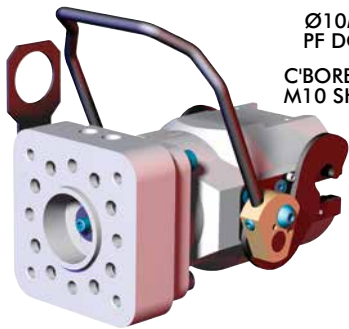
# FA500

## Robot Automation Adaptors | Dimensions

### Style 02 - FA500 Direct Mount Adaptor (Ø90mm Bolt Circle)

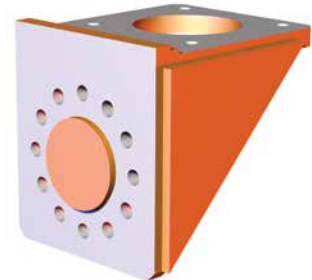
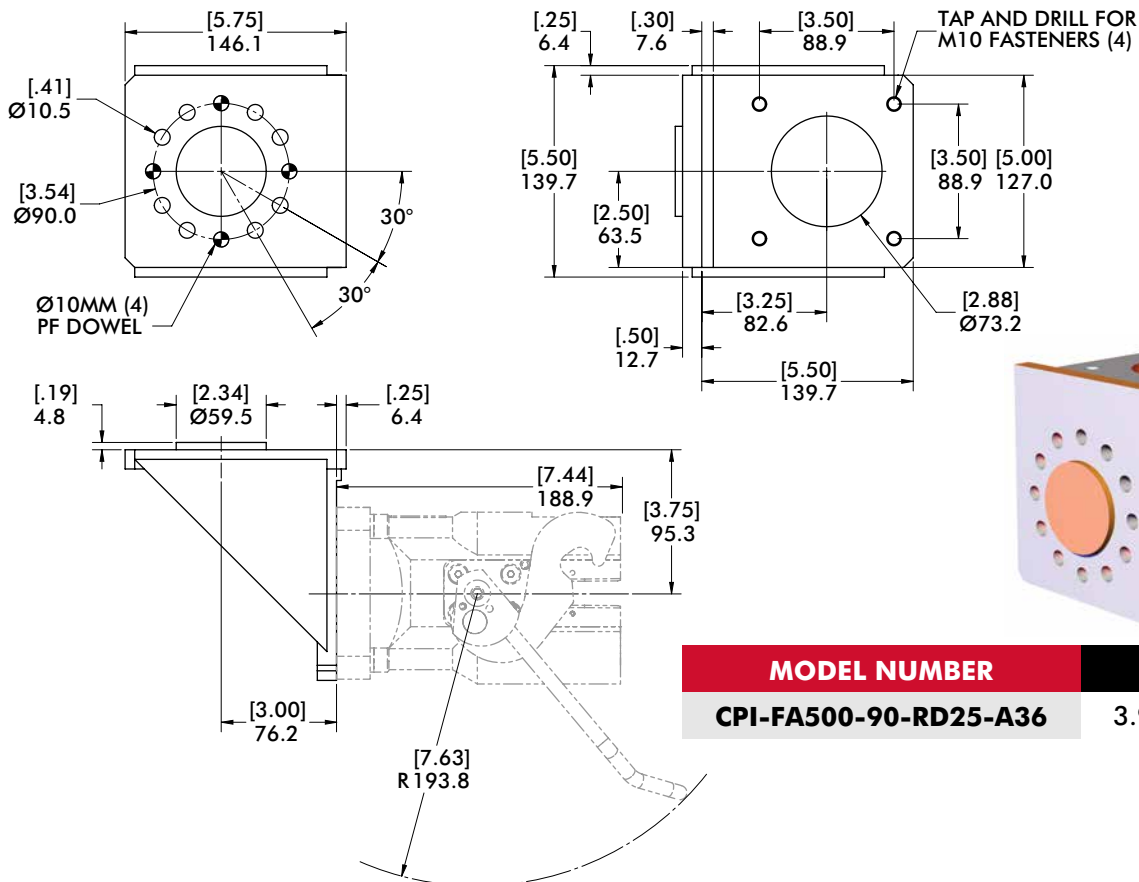
#### Models Supported:

- FANUC M-400
- FANUC M-500
- FANUC S-420 (WITH FANUC FLANGE)



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-FA500-DM-RD25-A3	3/8 NPT	3 (2/1)	1.46 kg [3.21 lb]
CPI-FA500-DM-RD25-A6	1/8 NPT	6 (3/3)	1.50 kg [3.30 lb]

### Style 02 - FA500 90° Robot Adaptor (Ø90mm Bolt Circle)



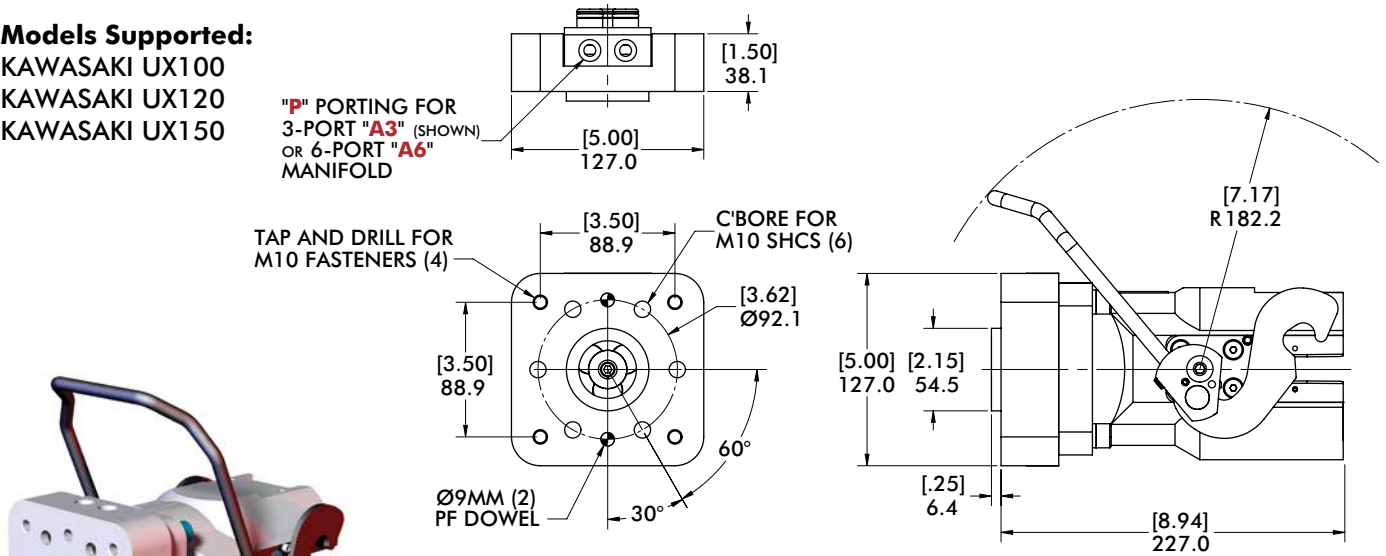
MODEL NUMBER	WEIGHT
CPI-FA500-90-RD25-A36	3.98 kg [8.77 lb]



### Style 03 - KW150 90° Robot Adaptor (Ø92mm Bolt Circle)

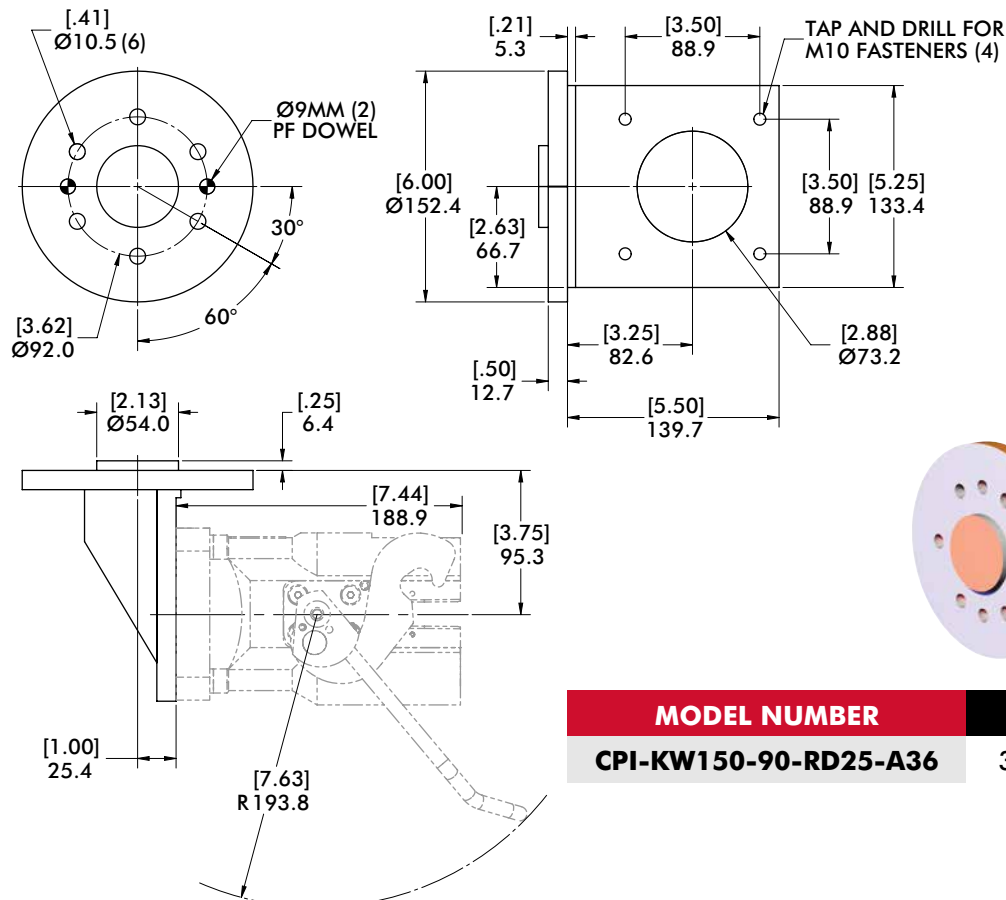
#### Models Supported:

KAWASAKI UX100  
KAWASAKI UX120  
KAWASAKI UX150



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-KW150-DM-RD25-A3	3/8 NPT	3 (2/1)	1.45 kg [3.19 lb]
CPI-KW150-DM-RD25-A6	1/8 NPT	6 (3/3)	1.49 kg [3.28 lb]

### Style 03 - KW150 90° Robot Adaptor (Ø92mm Bolt Circle)



MODEL NUMBER	WEIGHT
CPI-KW150-90-RD25-A36	3.63 kg [8.01 lb]

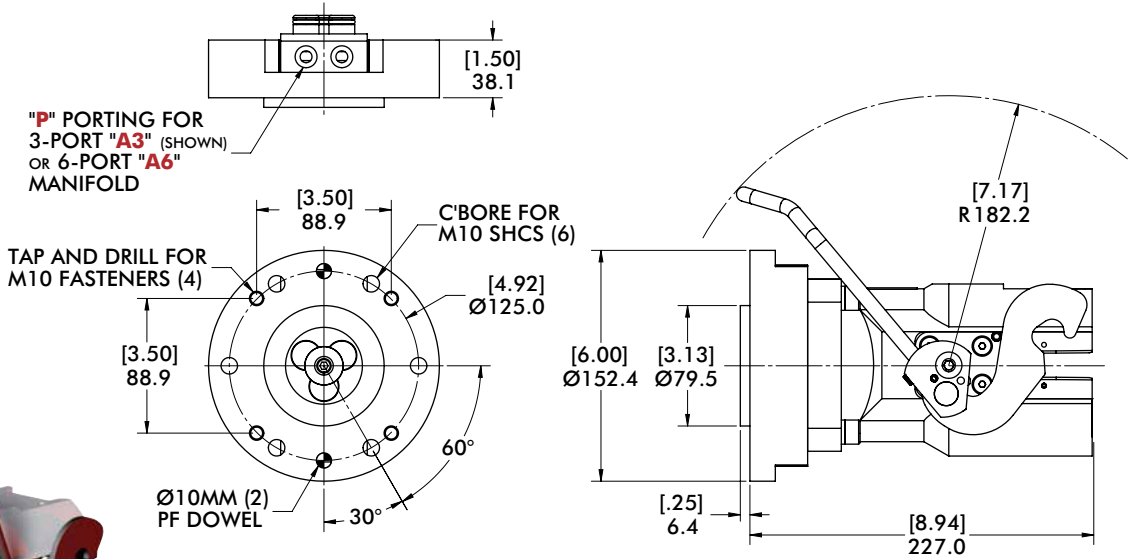
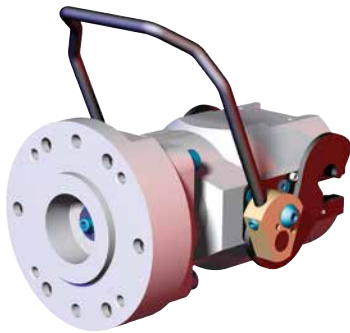
# FA900

## Robot Automation Adaptors | Dimensions

### Style 04 - FA900 Direct Mount Adaptor (Ø125mm Bolt Circle)

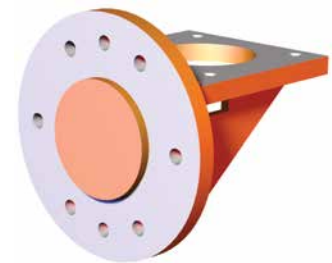
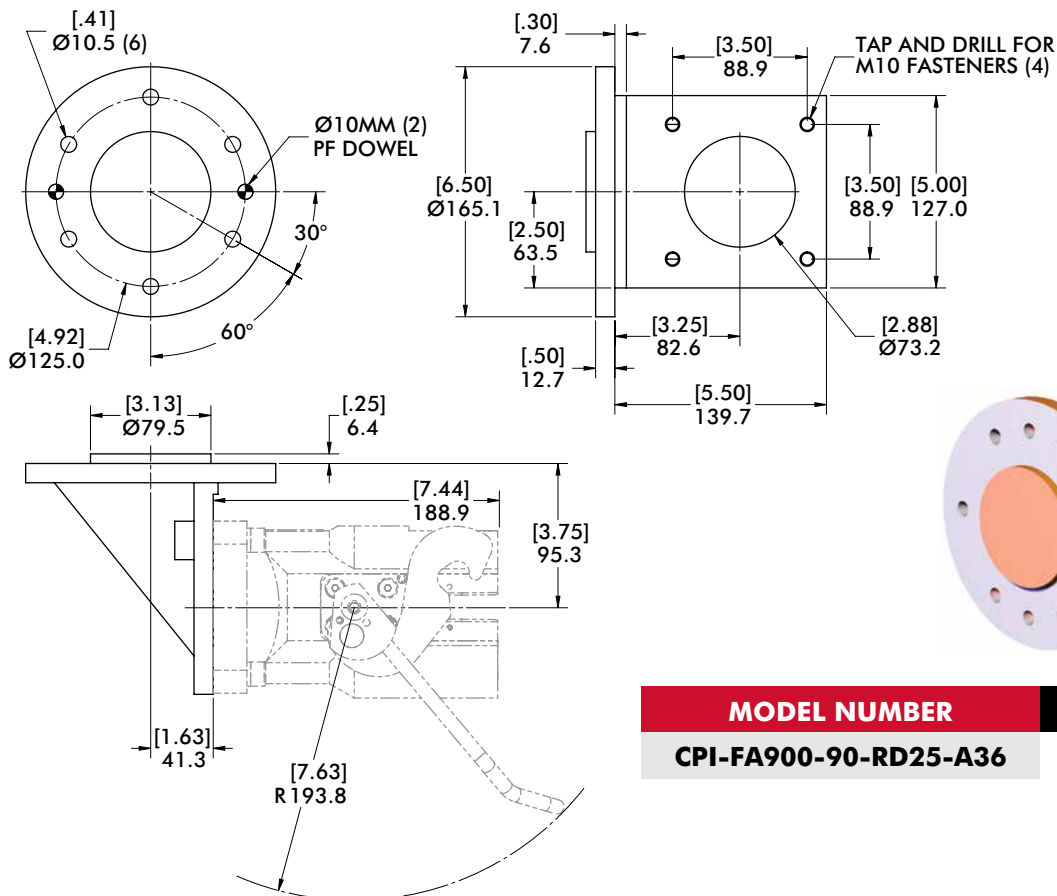
#### Models Supported:

ABB IRB 60(00)  
 ABB IRB 64(00)  
 FANUC R-2000I(6-BOLT)  
 FANUC M-410  
 FANUC S-900  
 MOTOMAN SP100X



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-FA900-DM-RD25-A3	3/8 NPT	3 (2/1)	1.58 kg [3.48 lb]
CPI-FA900-DM-RD25-A6	1/8 NPT	6 (3/3)	1.62 kg [3.57 lb]

### Style 04 - FA900 90° Robot Adaptor (Ø125mm Bolt Circle)

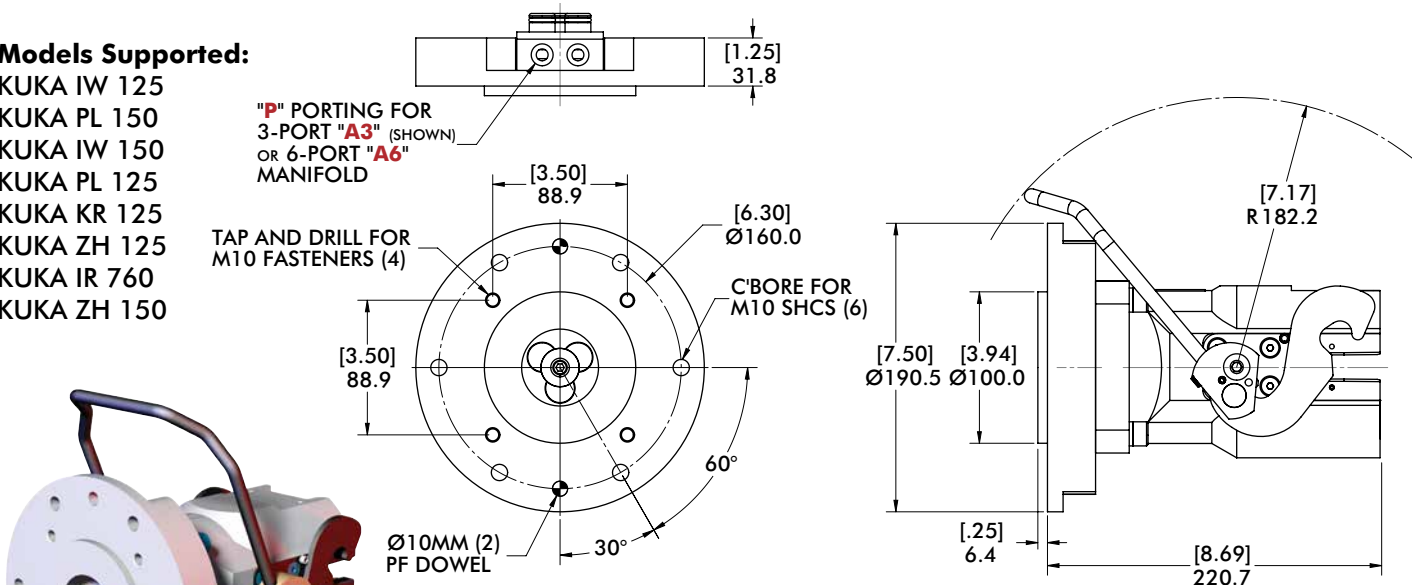


MODEL NUMBER	WEIGHT
CPI-FA900-90-RD25-A36	4.13 kg [9.12 lb]

### Style 05 - **KA760** Direct Mount Adaptor (Ø160mm Bolt Circle)

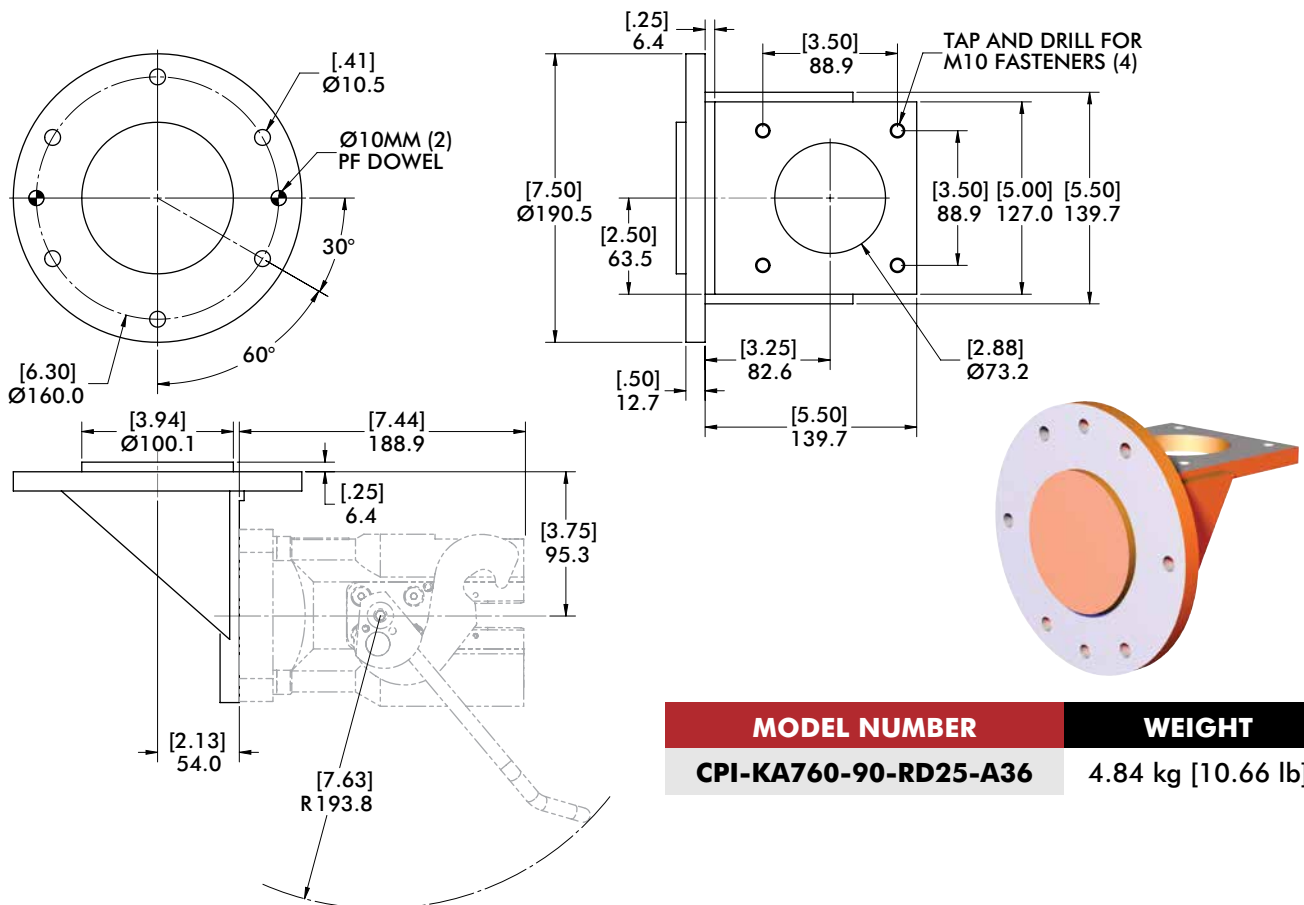
#### Models Supported:

KUKA IW 125  
 KUKA PL 150  
 KUKA IW 150  
 KUKA PL 125  
 KUKA KR 125  
 KUKA ZH 125  
 KUKA IR 760  
 KUKA ZH 150



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
<b>CPI-KA760-DM-RD25-A3</b>	3/8 NPT	3 (2/1)	2.12 kg [4.66 lb]
<b>CPI-KA760-DM-RD25-A6</b>	1/8 NPT	6 (3/3)	2.15 kg [4.75 lb]

### Style 05 - **KA760** 90° Robot Adaptor (Ø160mm Bolt Circle)



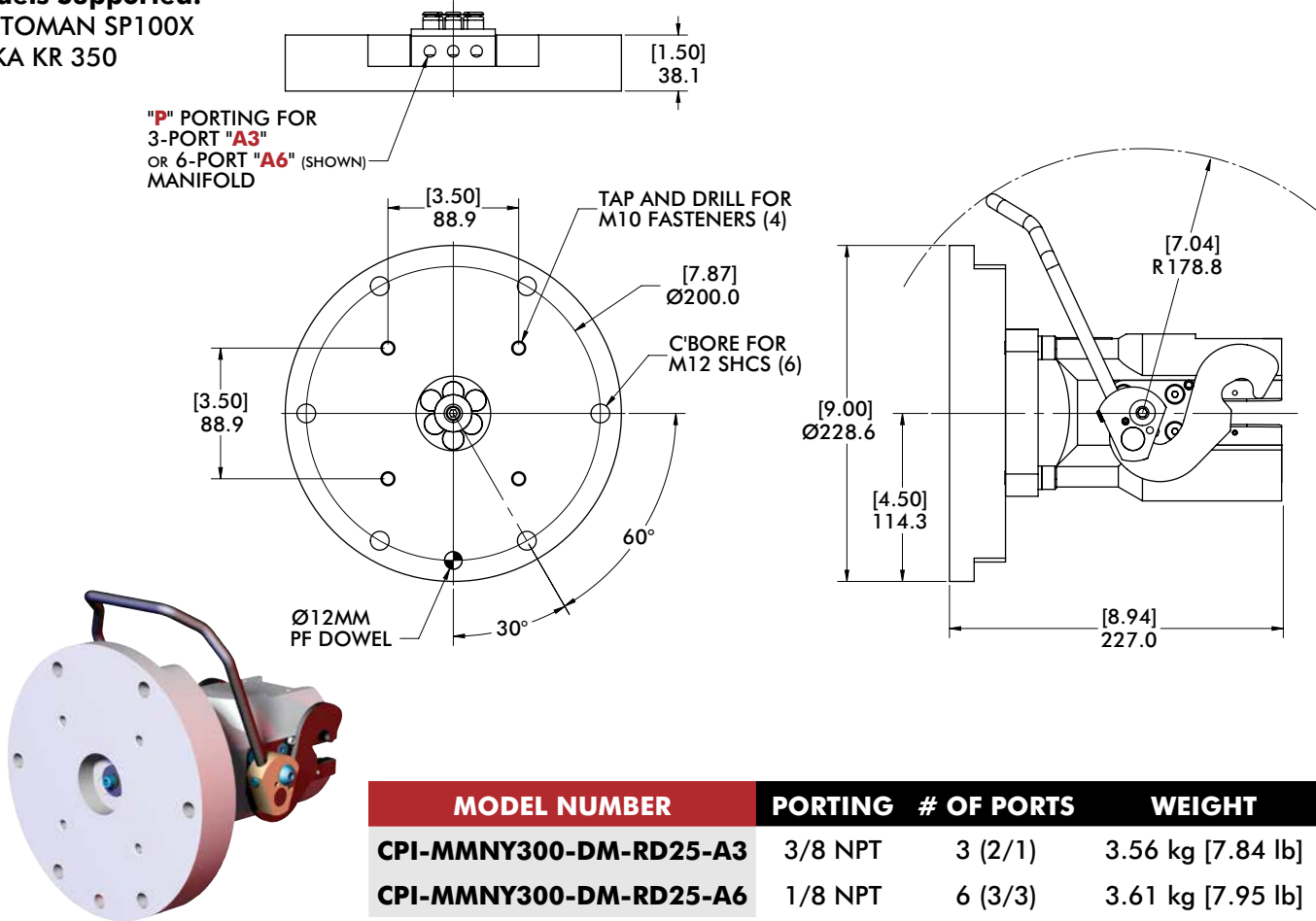
MODEL NUMBER	WEIGHT
<b>CPI-KA760-90-RD25-A36</b>	4.84 kg [10.66 lb]

# MMNY300

## Robot Automation Adaptors | Dimensions

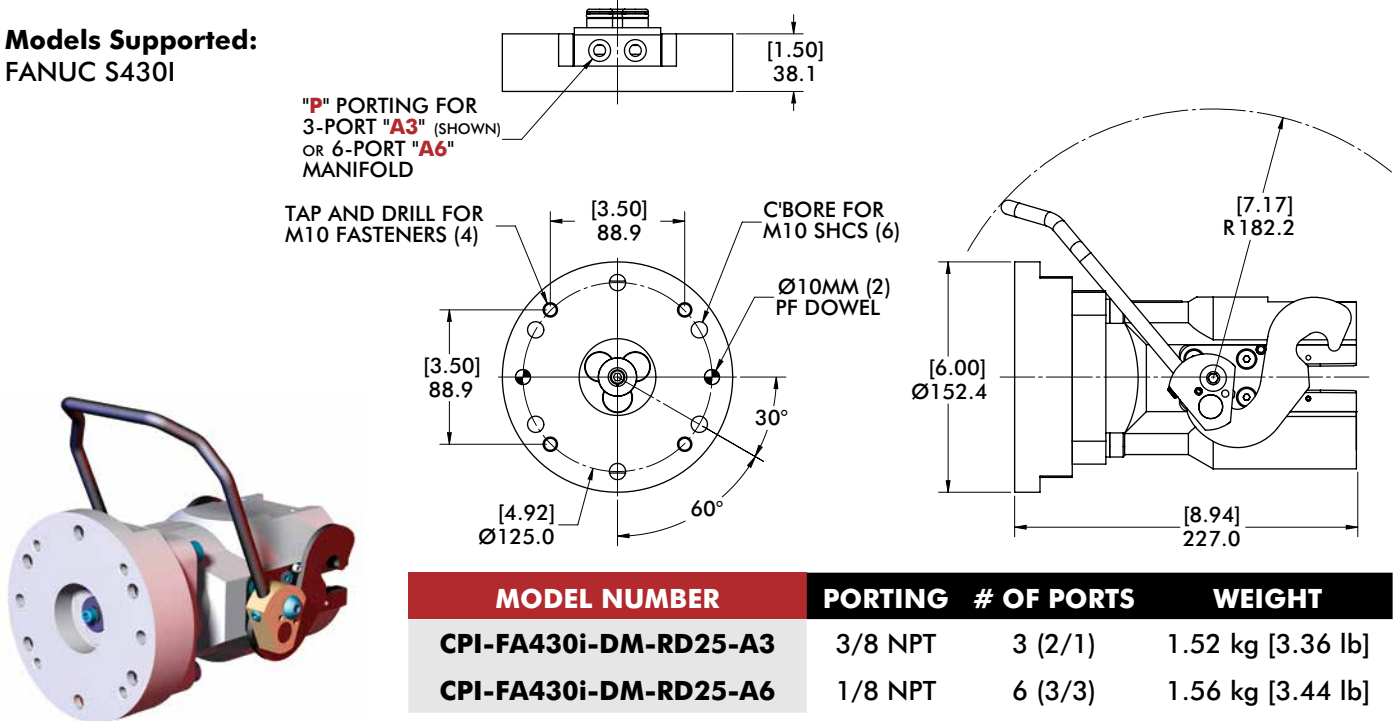
### Style 06 - **MMNY300** Direct Mount Adaptor (Ø200mm Bolt Circle)

**Models Supported:**  
MOTOMAN SP100X  
KUKA KR 350

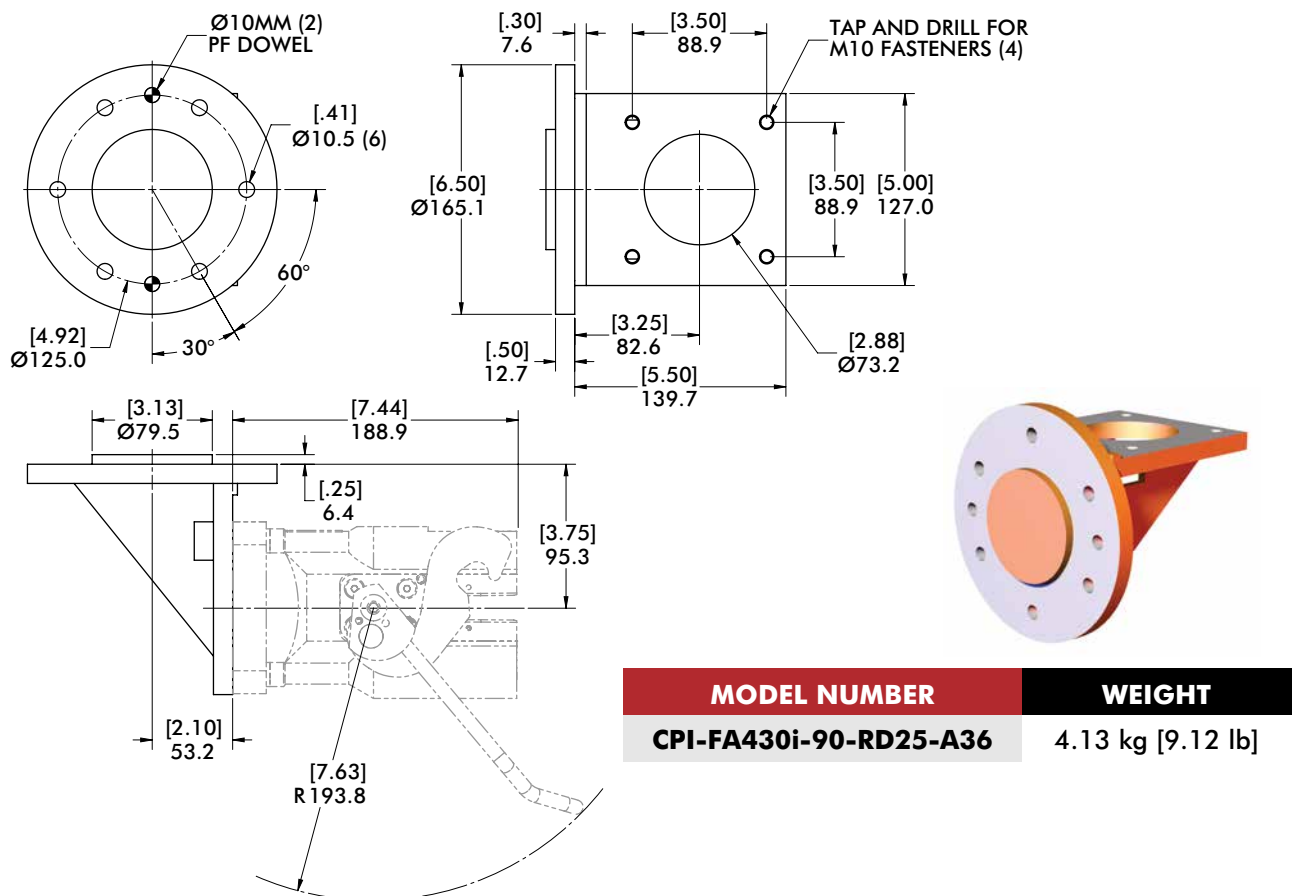


### Style 07 - FA430i Direct Mount Adaptor (Ø125mm Bolt Circle)

**Models Supported:**  
FANUC S430i



### Style 07 - FA430i 90° Robot Adaptor (Ø125mm Bolt Circle)



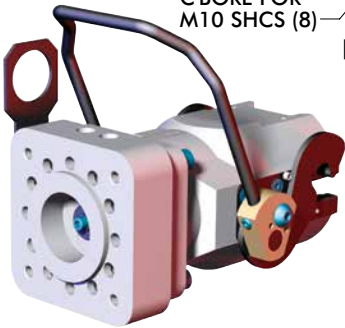
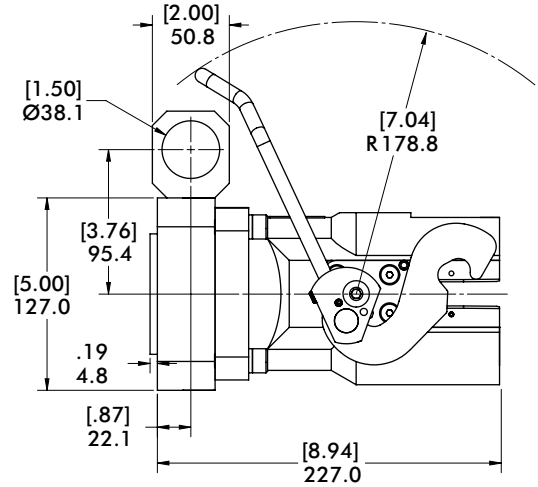
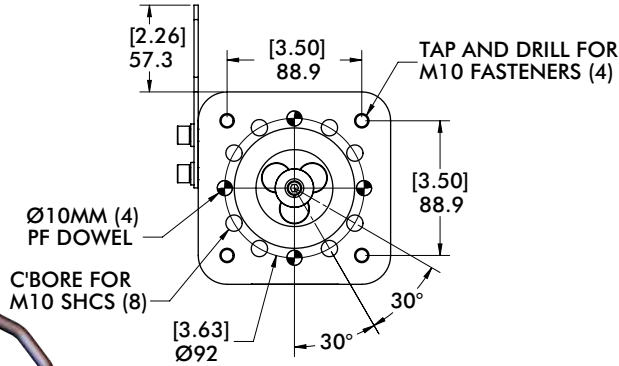
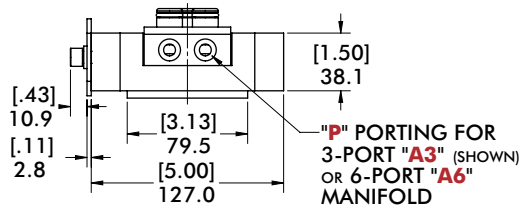
# FA420

## Robot Automation Adaptors | Dimensions

### Style 08 - FA420 Direct Mount Adaptor (Ø92mm Bolt Circle)

#### Models Supported:

FANUC S420 (WITH SPECIAL FLANGE)

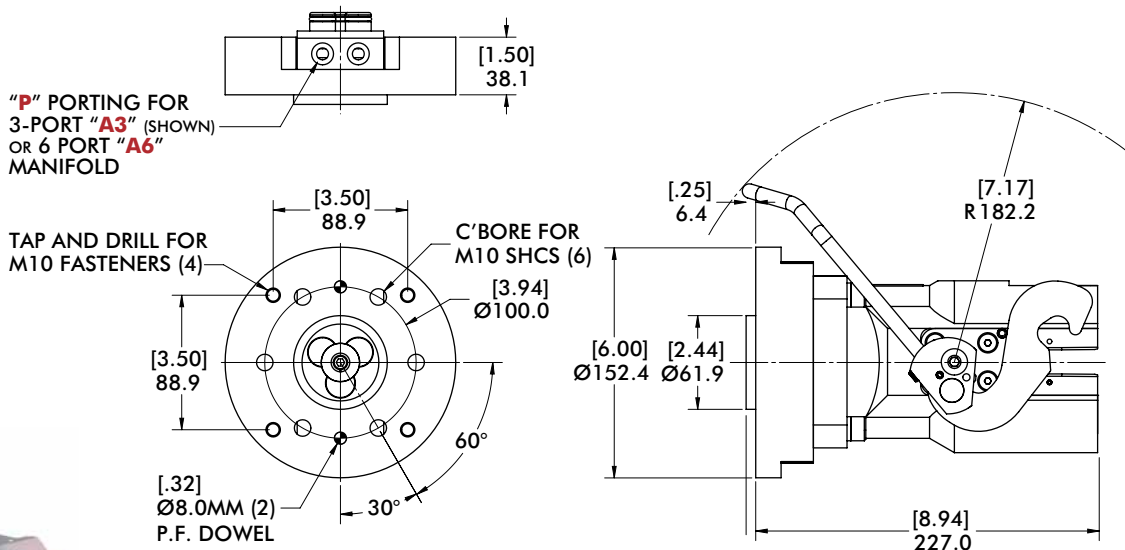
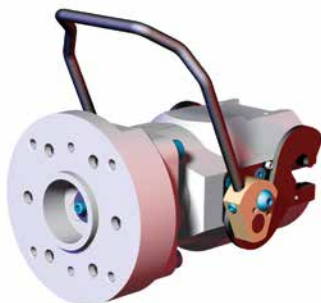


MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-FA420-DM-RD25-A3-SPC	3/8 NPT	3 (2/1)	1.48 kg [3.27 lb]
CPI-FA420-DM-RD25-A6-SPC	1/8 NPT	6 (3/3)	1.52 kg [3.35 lb]

### Style 09 - ABB44 Direct Mount Adaptor (Ø100mm Bolt Circle)

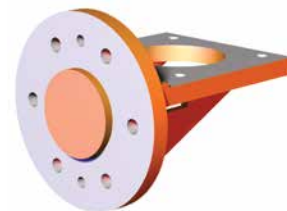
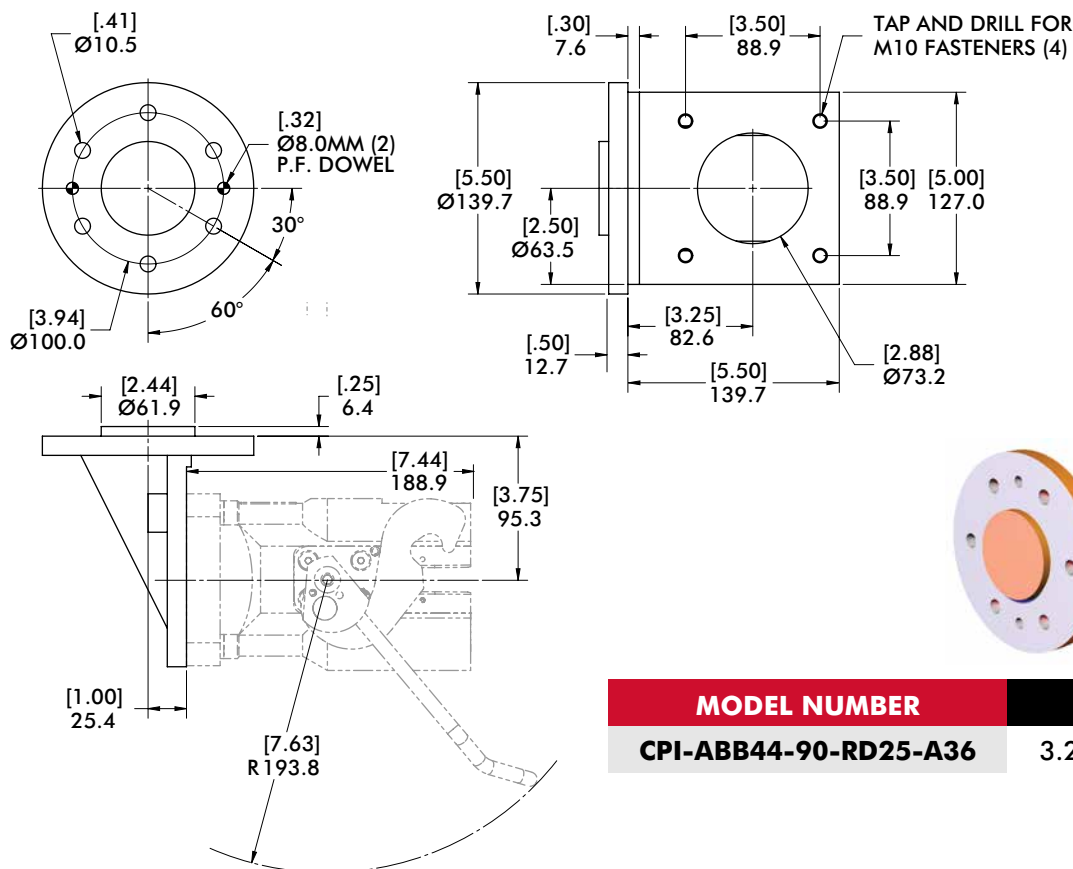
#### Models Supported:

ABB IRB 4400/S  
 ABB IRB 4400/60  
 ABB IRB 4400/45  
 ABB IRB 4400/L30



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-ABB44-DM-RD25-A3	3/8 NPT	3 (2/1)	1.57 kg [3.47 lb]
CPI-ABB44-DM-RD25-A6	1/8 NPT	6 (3/3)	1.61 kg [3.55 lb]

### Style 09 - ABB44 90° Robot Adaptor (Ø100mm Bolt Circle)



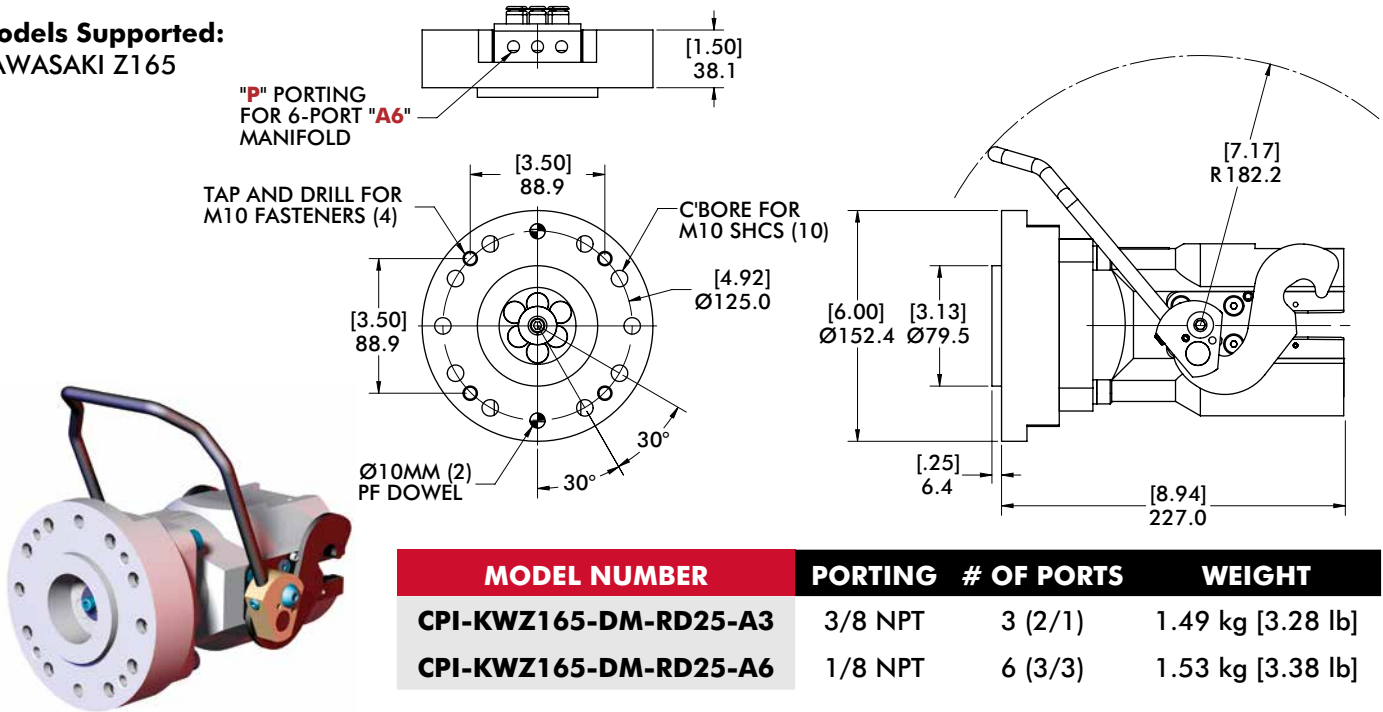
MODEL NUMBER	WEIGHT
CPI-ABB44-90-RD25-A36	3.24 kg [7.15 lb]

# KWZ165

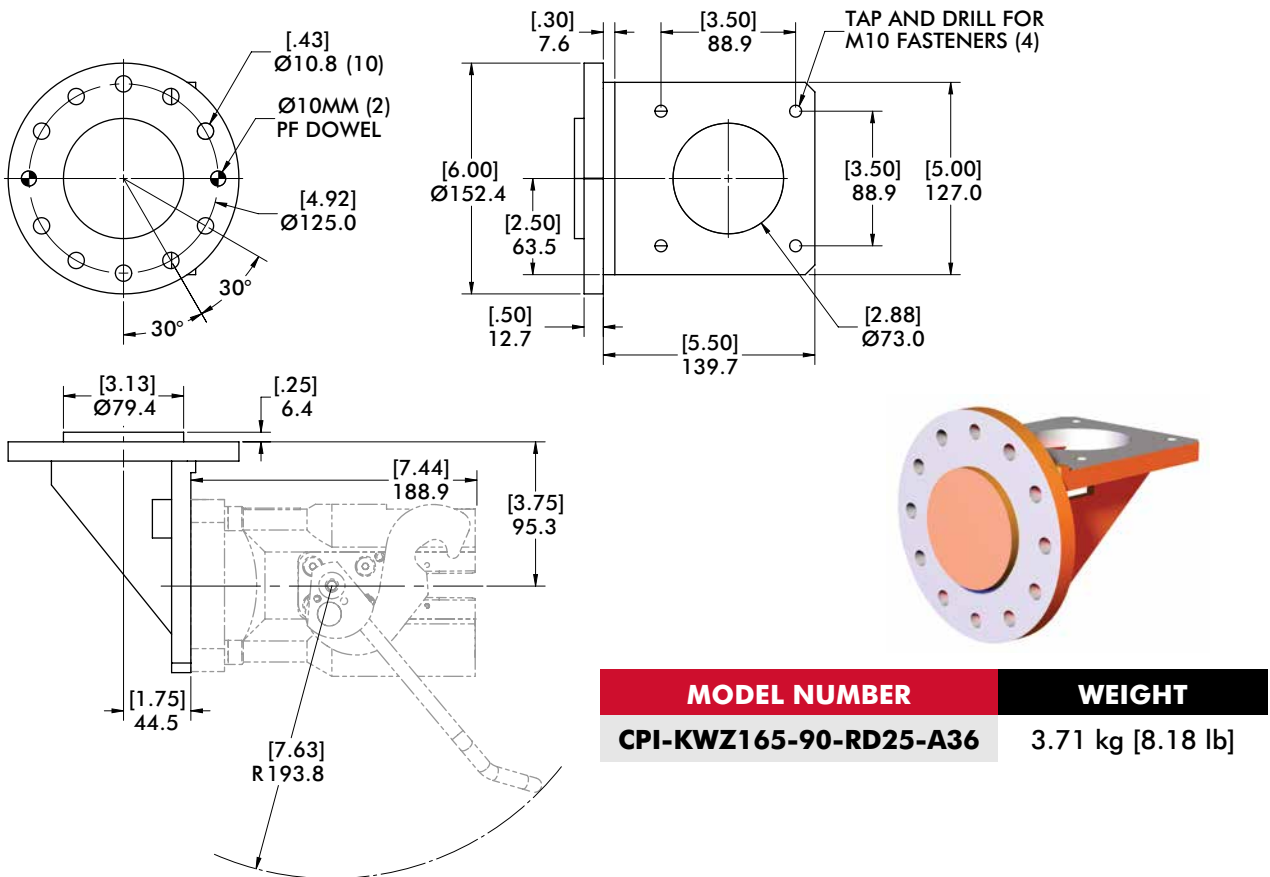
## Robot Automation Adaptors | Dimensions

### Style 10 - KWZ165 Direct Mount Adaptor (Ø125mm Bolt Circle)

**Models Supported:**  
KAWASAKI Z165

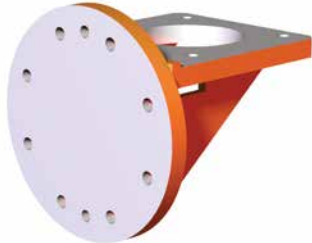
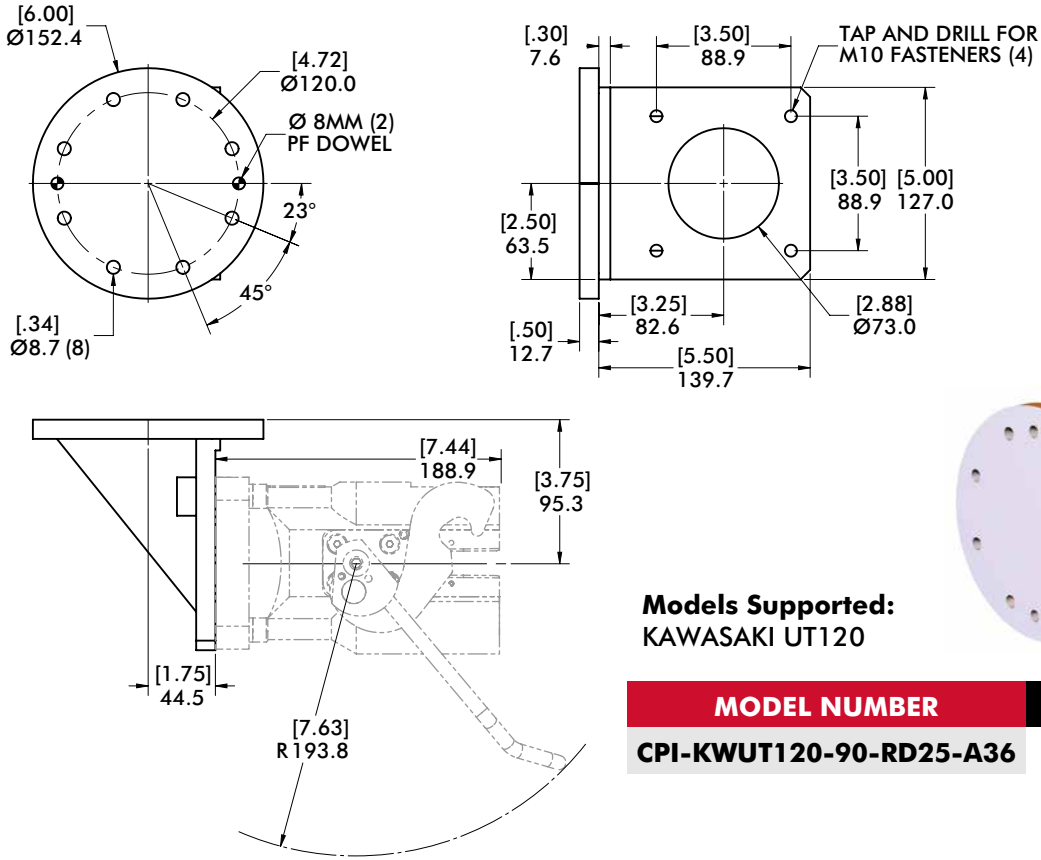


### Style 10 - KWZ165 90° Robot Adaptor (Ø125mm Bolt Circle)





Style 11 - **KWUT120** 90° Adaptor (Ø120mm Bolt Circle)



**Models Supported:**  
KAWASAKI UT120

MODEL NUMBER	WEIGHT
<b>CPI-KWUT120-90-RD25-A36</b>	3.58 kg [7.90 lb]

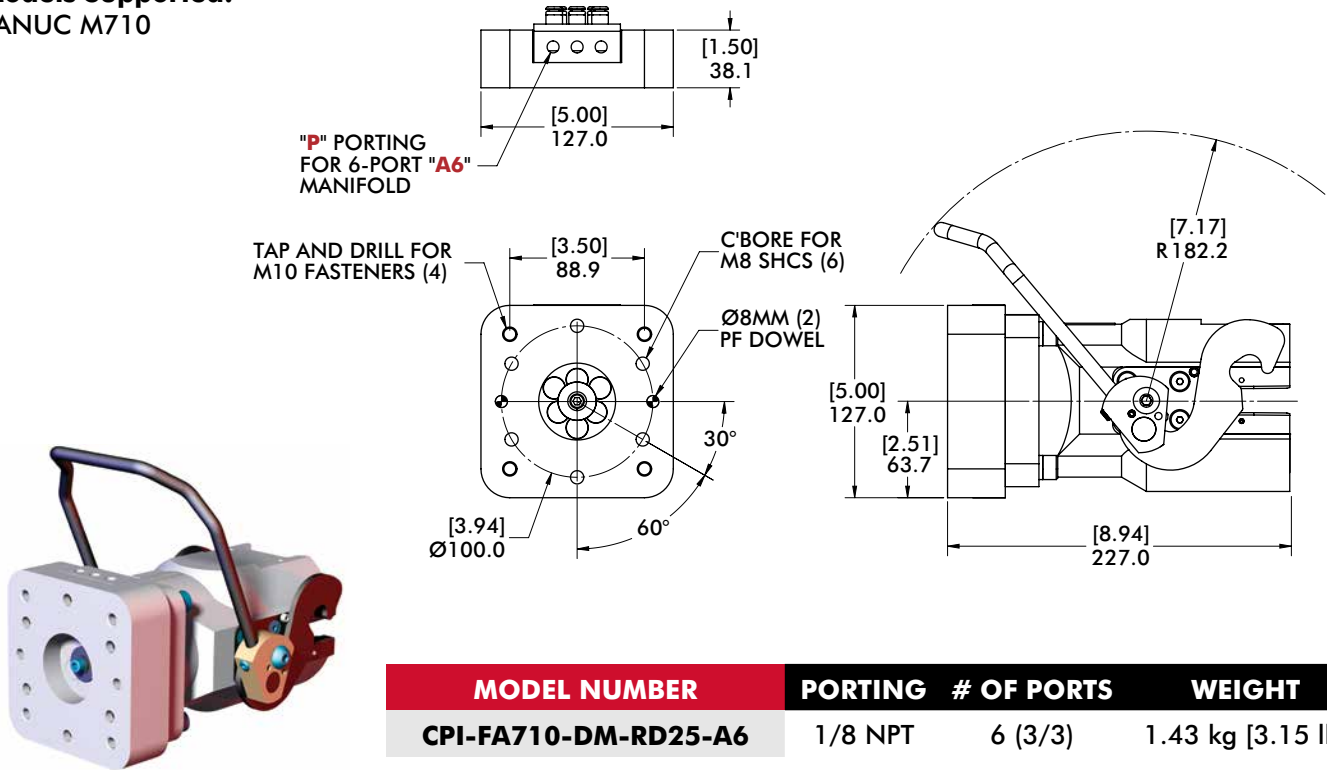
# FA710

## Robot Automation Adaptors | Dimensions

### Style 12 - FA710 Direct Mount Adaptor (Ø100mm Bolt Circle)

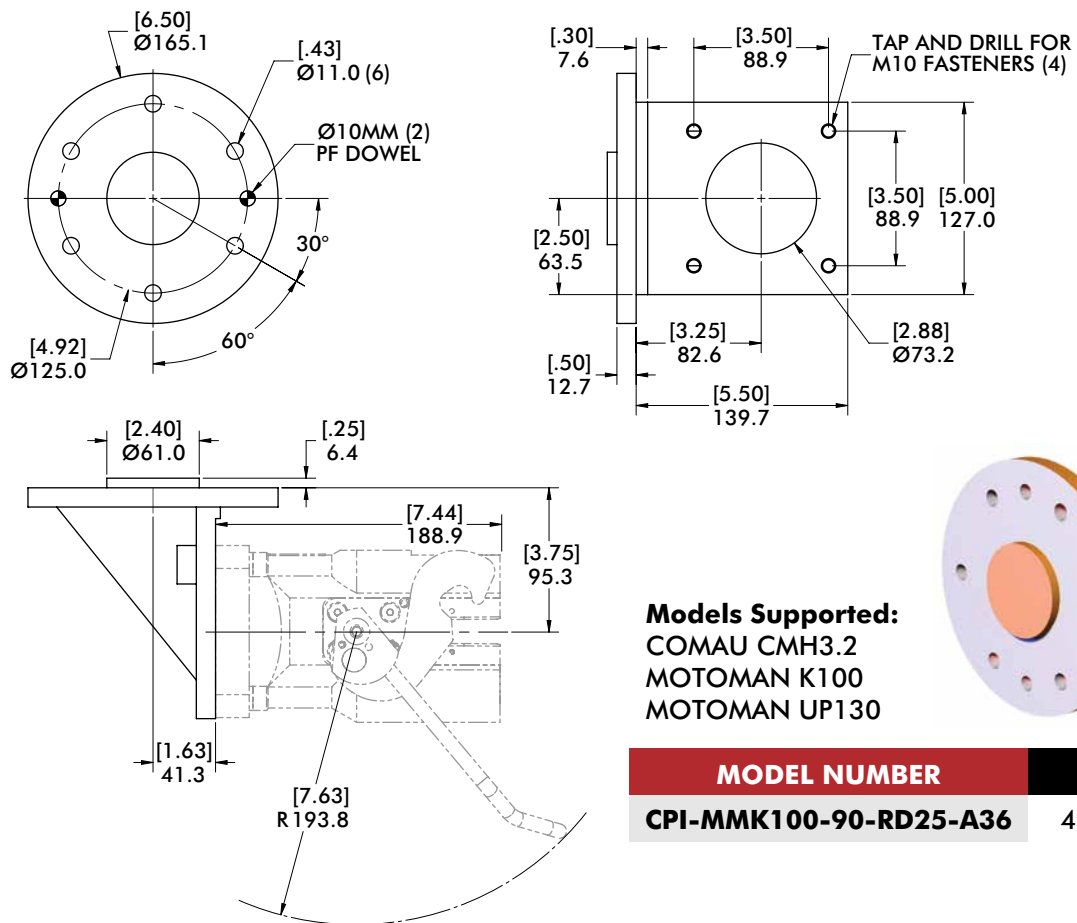
#### Models Supported:

FANUC M710

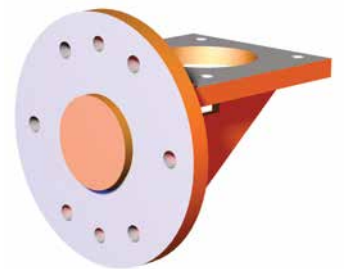


MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-FA710-DM-RD25-A6	1/8 NPT	6 (3/3)	1.43 kg [3.15 lb]

### Style 14 - **MMK100** 90° Adaptor (Ø125mm Bolt Circle)



**Models Supported:**  
 COMAU CMH3.2  
 MOTOMAN K100  
 MOTOMAN UP130



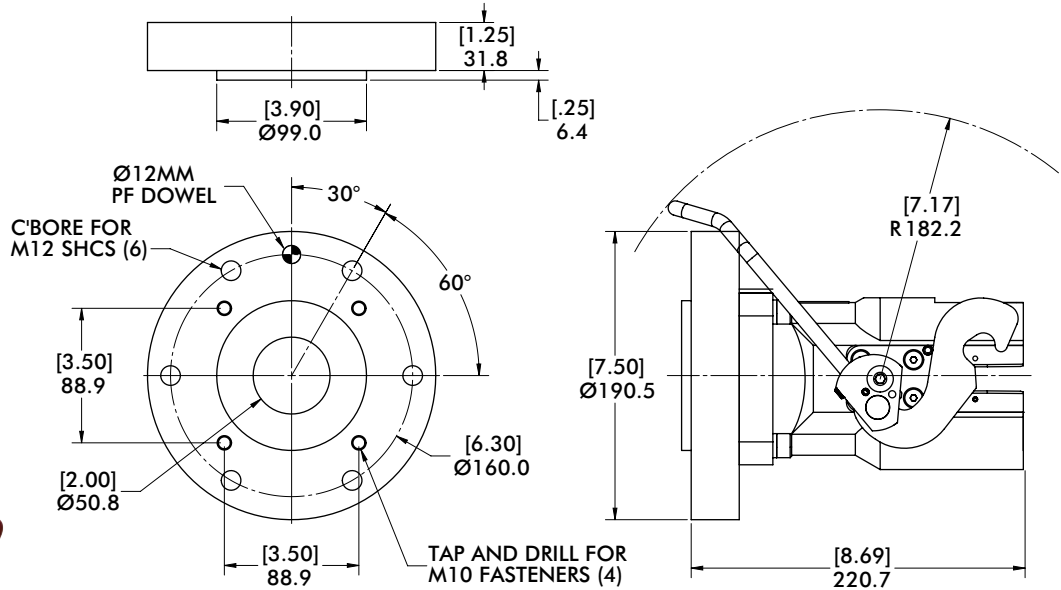
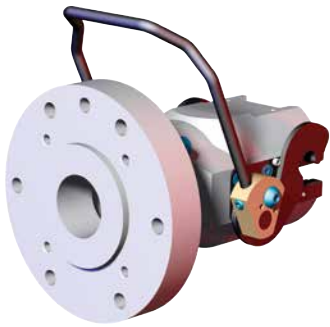
MODEL NUMBER	WEIGHT
CPI-MMK100-90-RD25-A36	4.03 kg [8.88 lb]

# KA660

## Robot Automation Adaptors | Dimensions

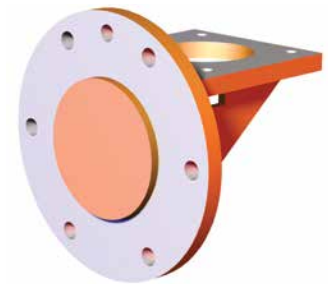
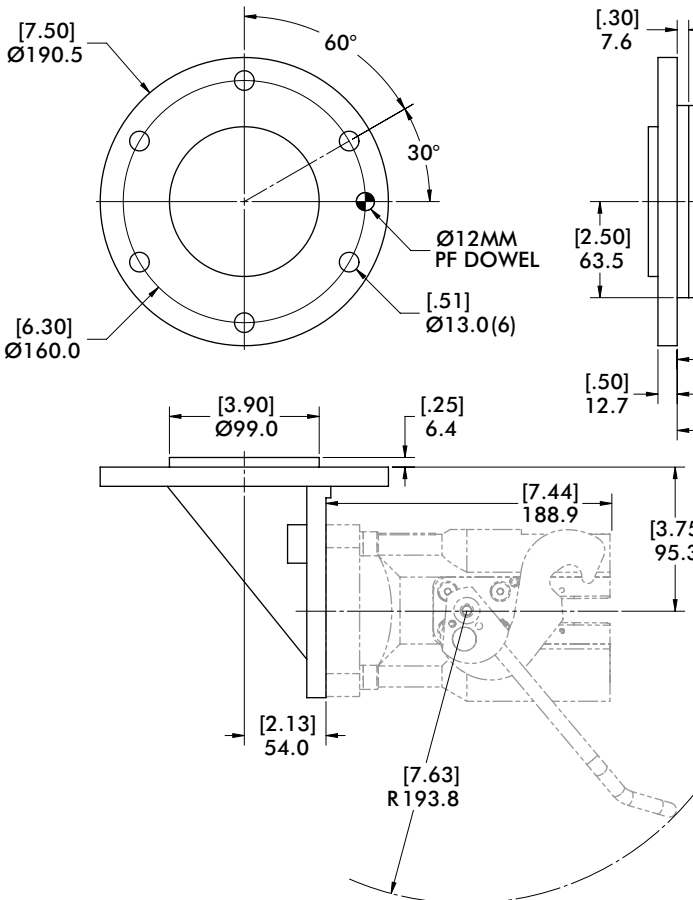
### Style 15 - KA660 Direct Mount Adaptor (Ø160mm Bolt Circle)

**Models Supported:**  
KUKA 660



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-KA660-DM-RD25-00	N/A	N/A	2.23 kg [4.92 lb]

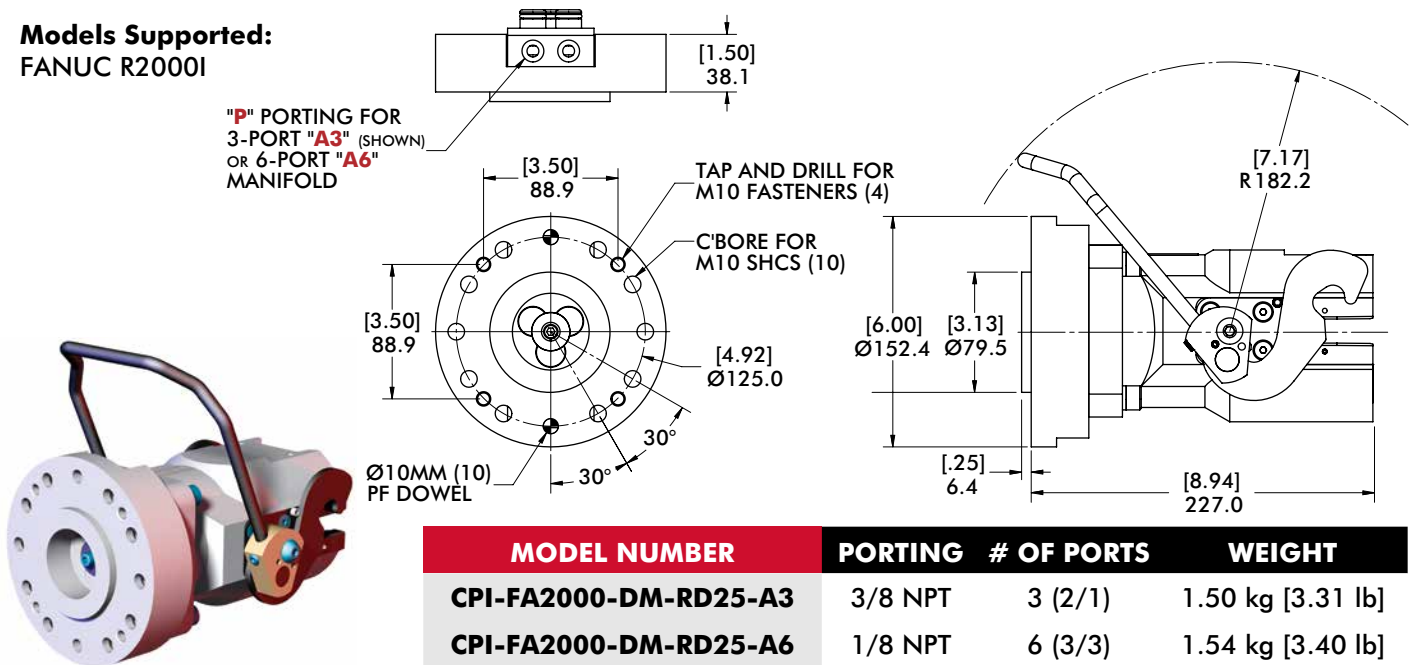
### Style 15 - KA660 90° Robot Adaptor (Ø160mm Bolt Circle)



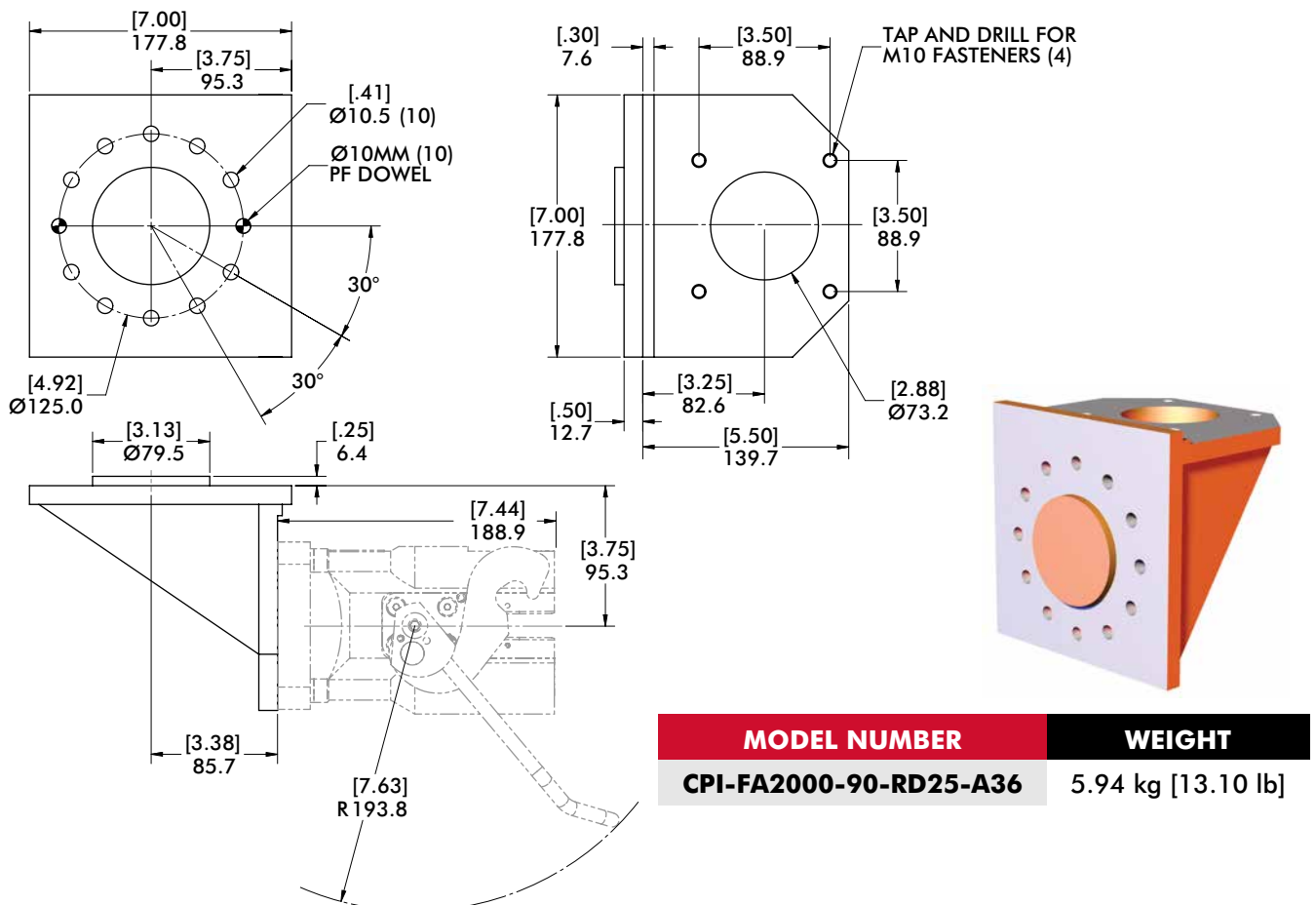
MODEL NUMBER	WEIGHT
CPI-KA660-90-RD25-A36	4.95 kg [10.91 lb]

### Style 16 - FA2000 Direct Mount Adaptor (Ø125mm Bolt Circle)

**Models Supported:**  
FANUC R2000I



### Style 16 - FA2000 90° Robot Adaptor (Ø125mm Bolt Circle)

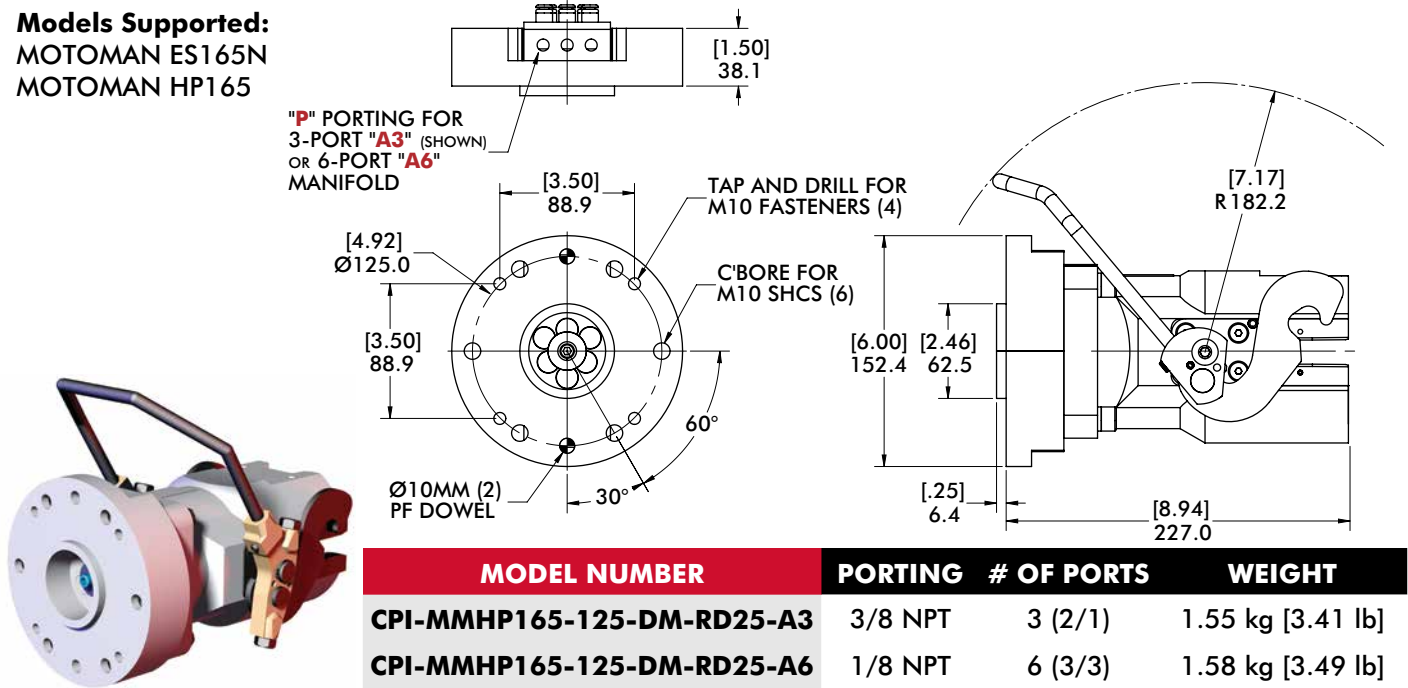


# MMHP165

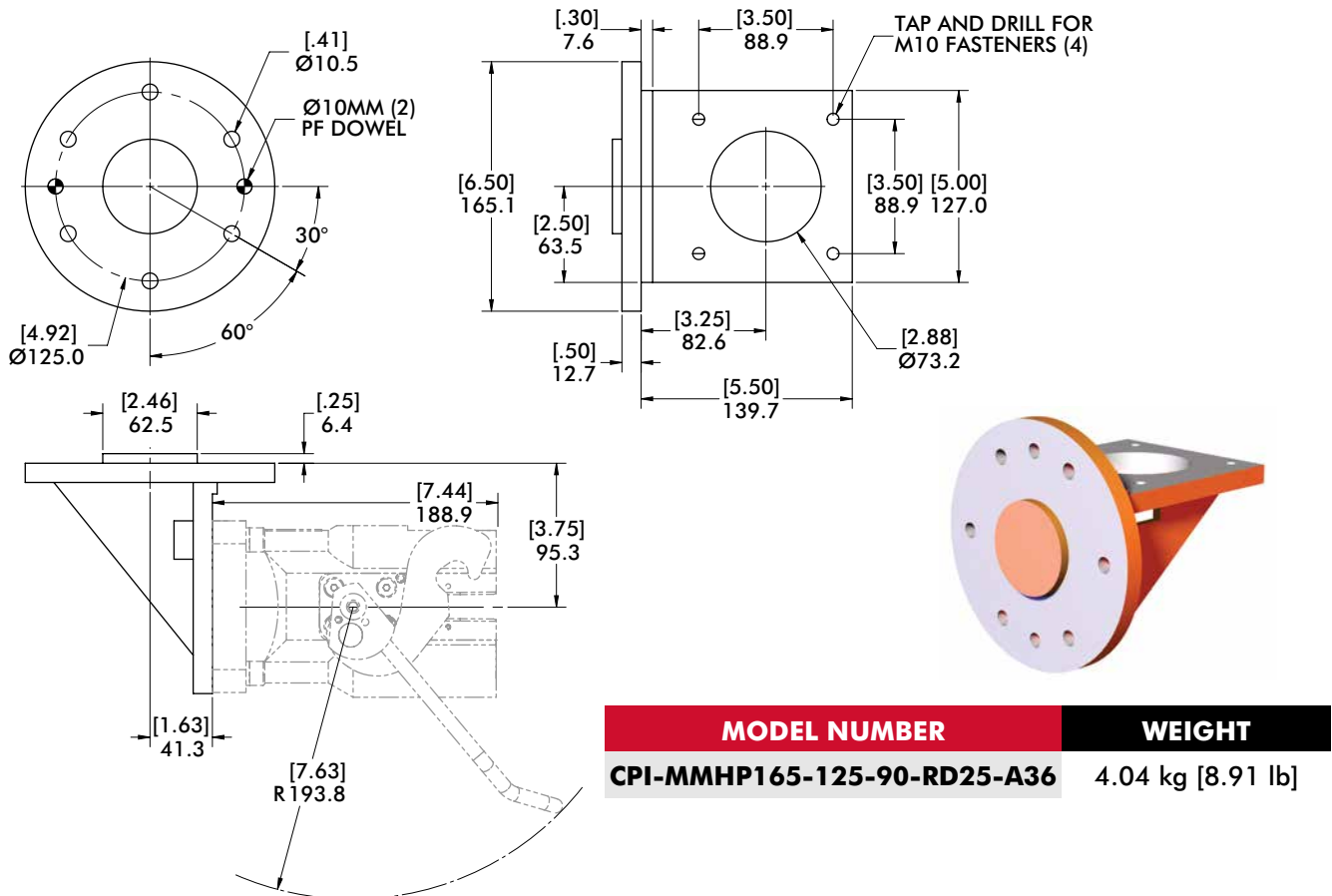
## Robot Automation Adaptors | Dimensions

### Style 15 - **KA660** Direct Mount Adaptor (Ø160mm Bolt Circle)

**Models Supported:**  
MOTOMAN ES165N  
MOTOMAN HP165



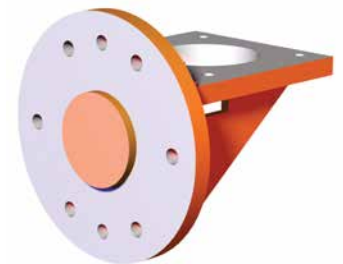
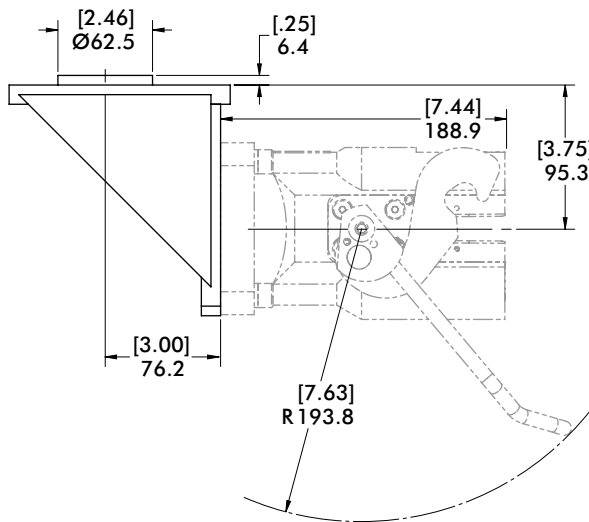
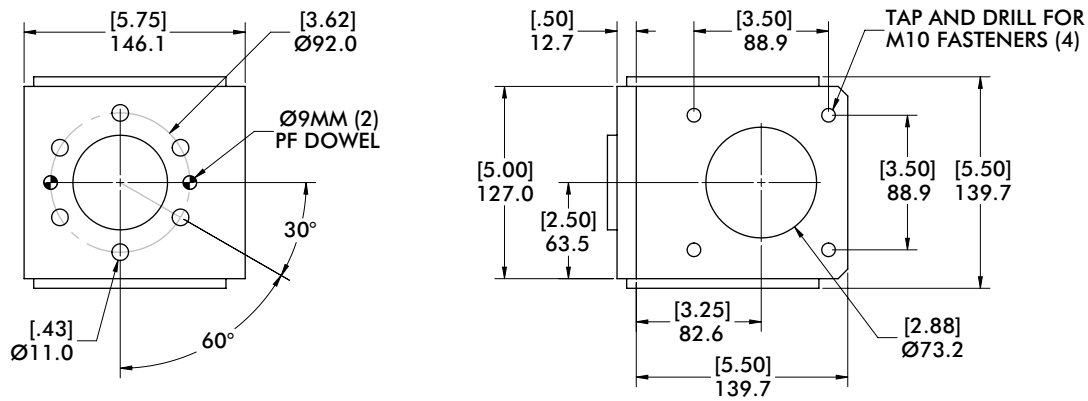
### Style 15 - **KA660** 90° Robot Adaptor (Ø125mm Bolt Circle)



# MMHP165

## Robot Automation Adaptors | Dimensions

### Style 19 - **MMHP165** 90° Adaptor (Ø92mm Bolt Circle)



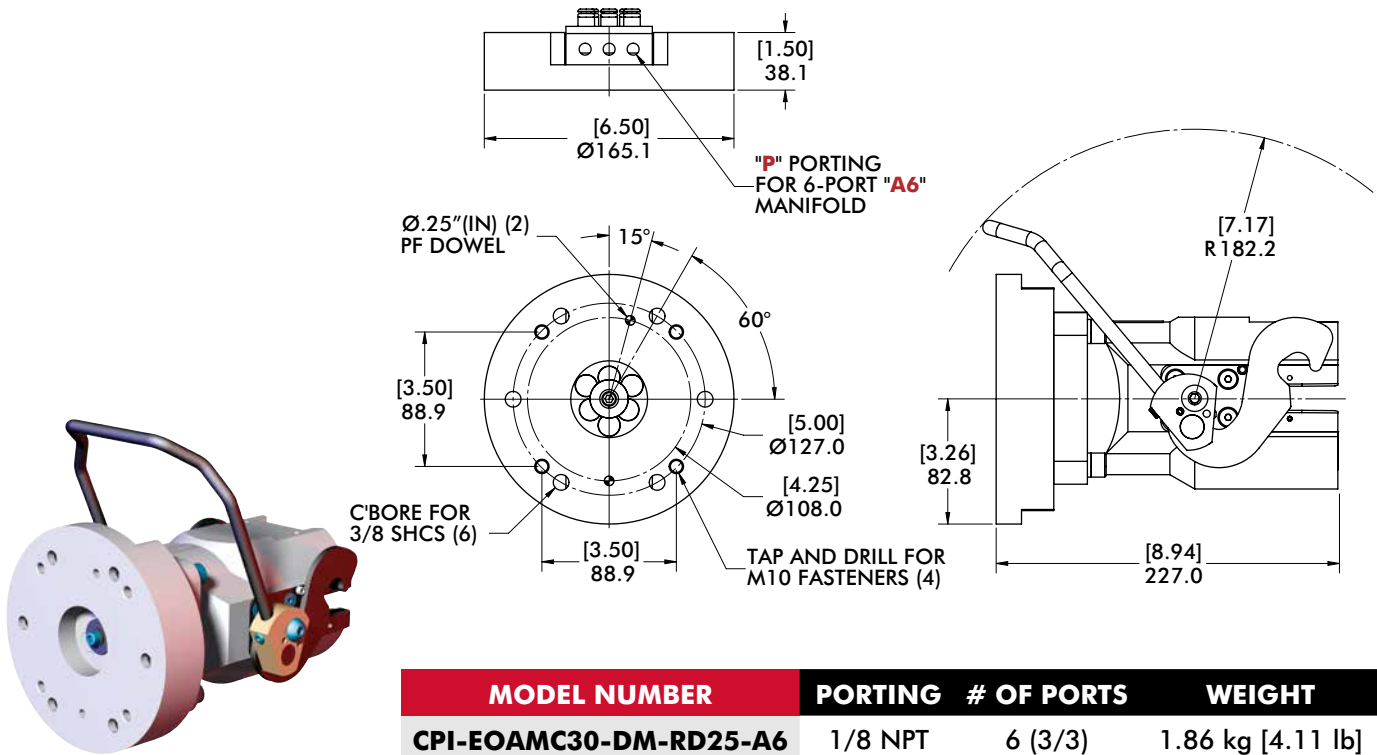
**Models Supported:**  
 HP165  
 ES165N

MODEL NUMBER	WEIGHT
CPI-MMHP165-92-90-RD25-A36	4.03 kg [8.89 lb]

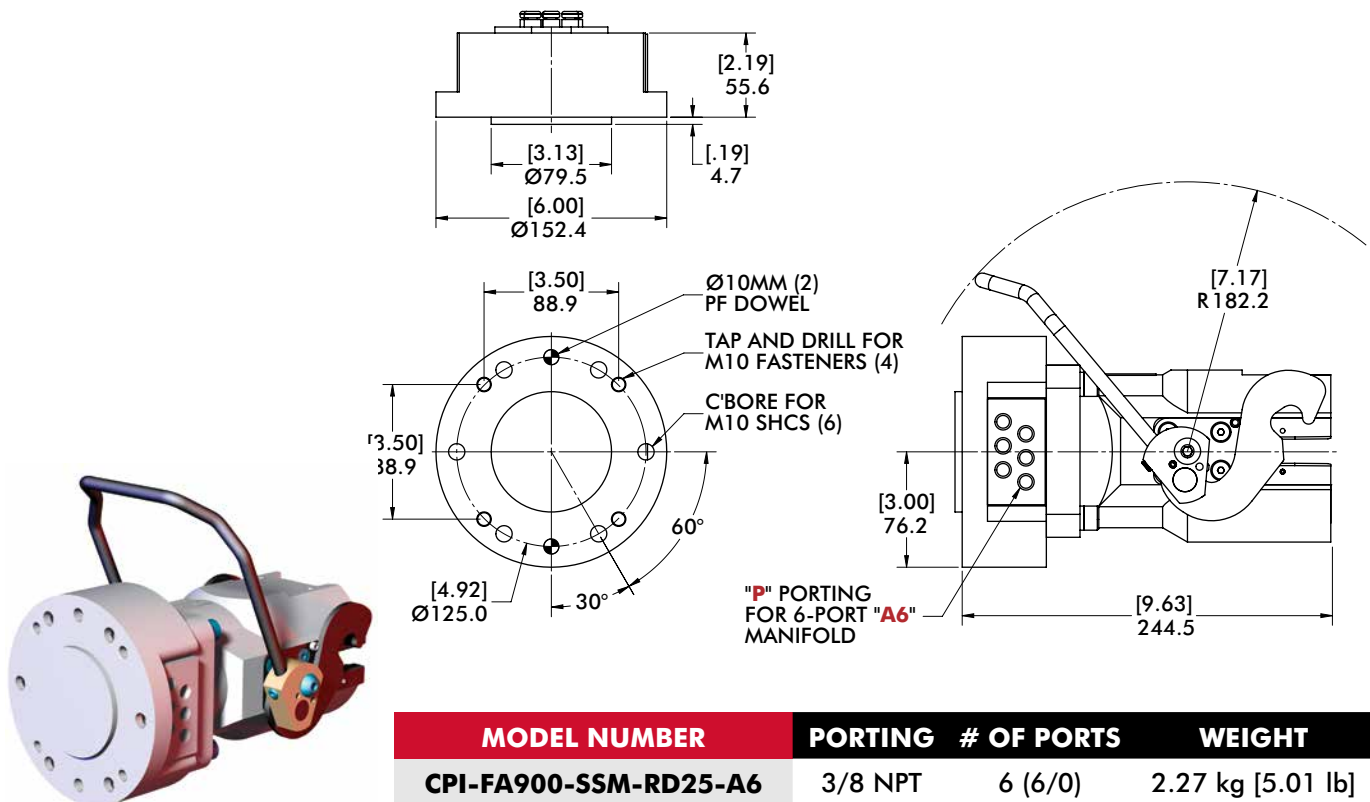
# EOAMC30, FA900-SSM

## Robot Automation Adaptors | Dimensions

### Style 21 - EOAMC30 Direct Mount Adaptor (Ø127mm Bolt Circle/Ø108mm Dowel Circle)

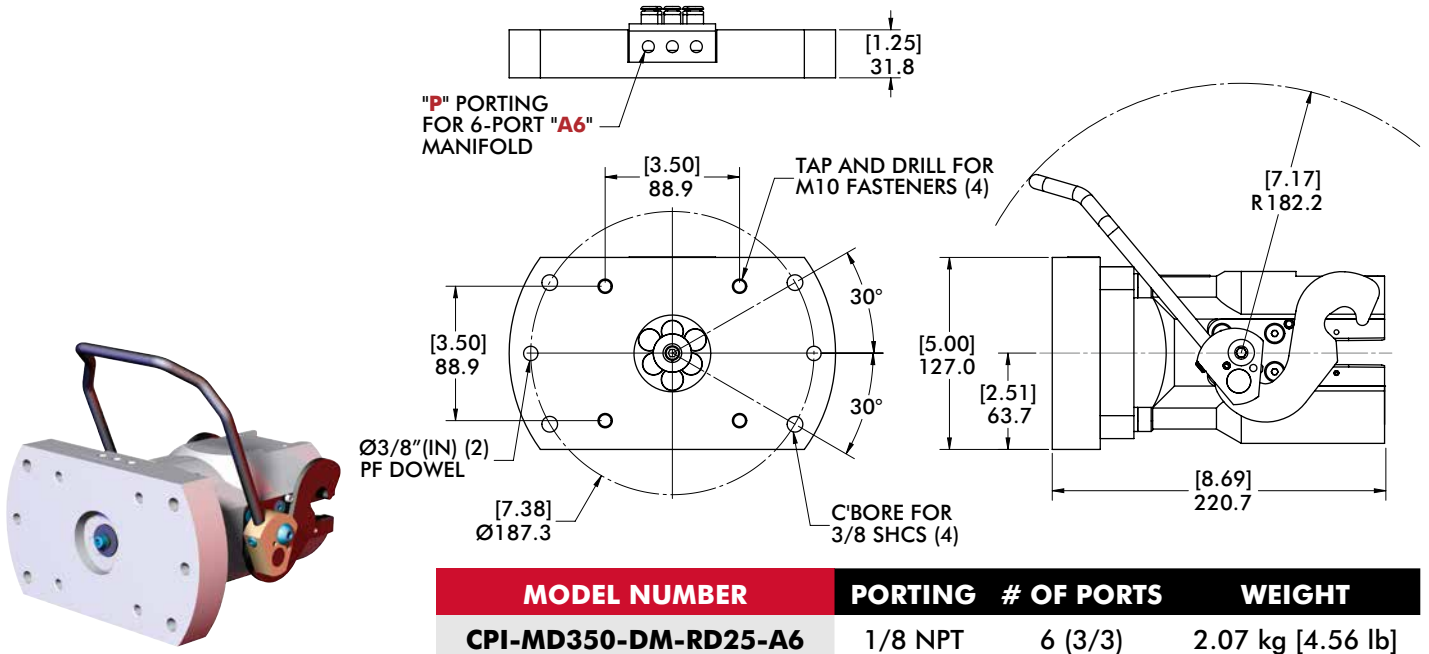


### Style 22 - FA900-SSM Direct Mount Adaptor (Ø125mm Bolt Circle)

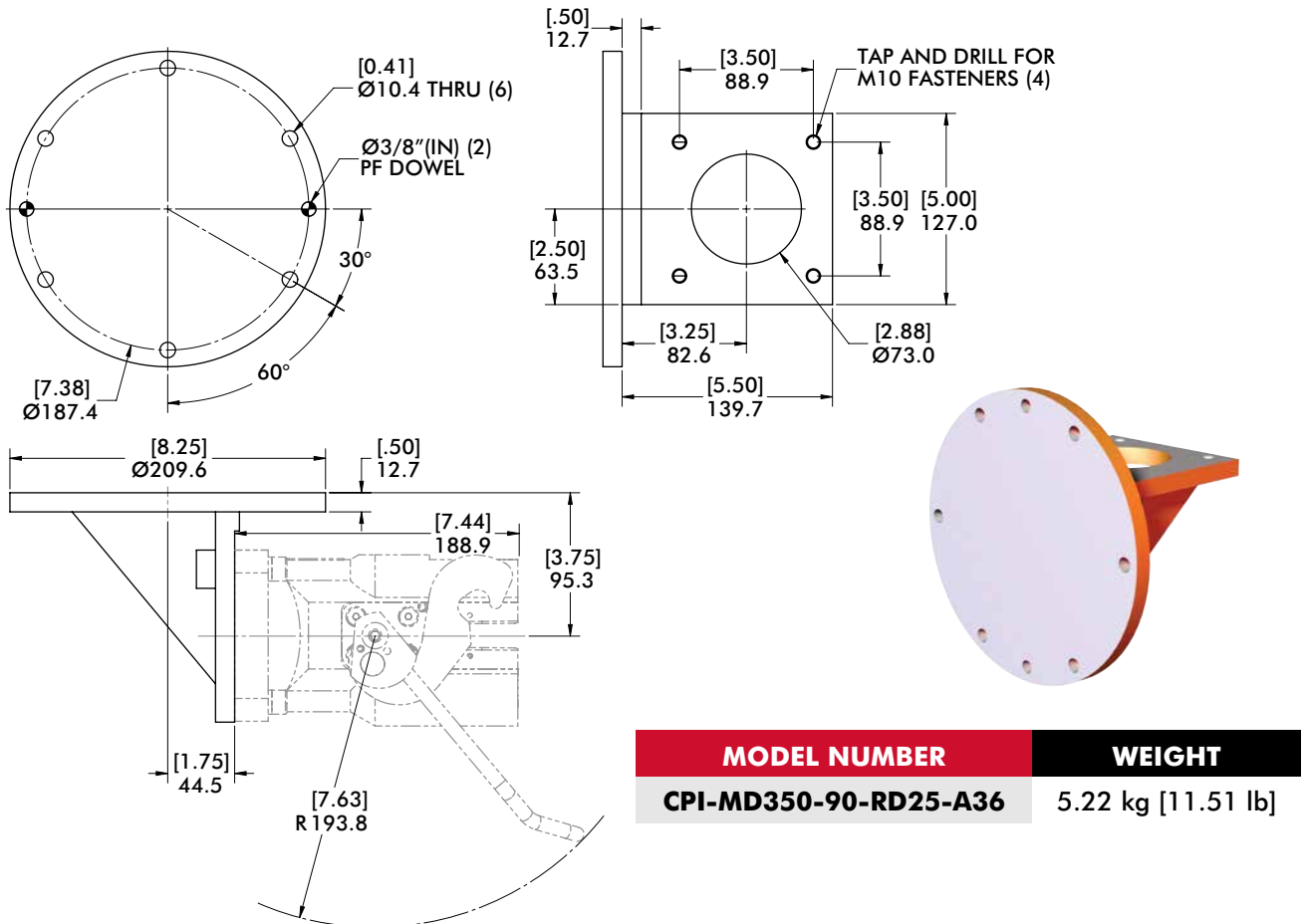




### Style 23 - MD350 Direct Mount Adaptor - Ø187.3mm Bolt Circle



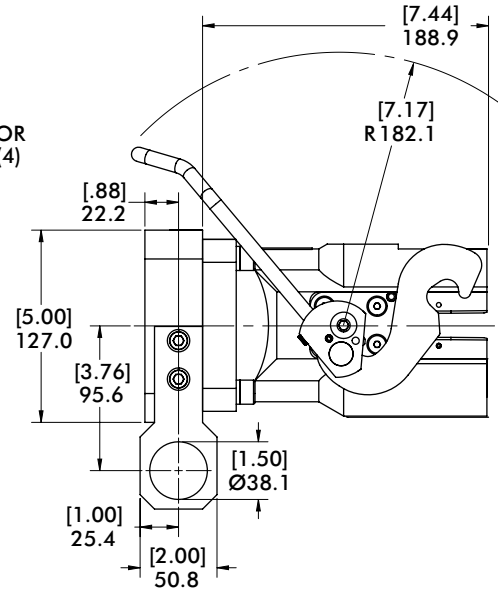
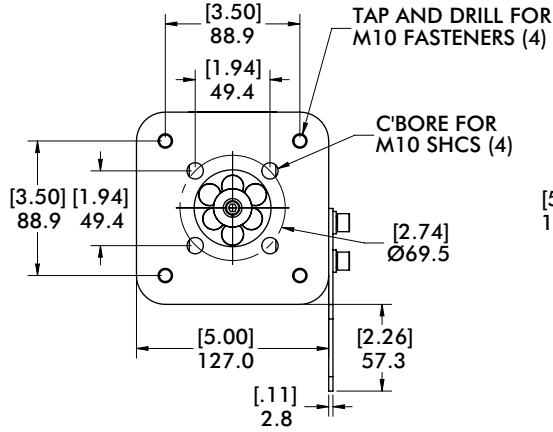
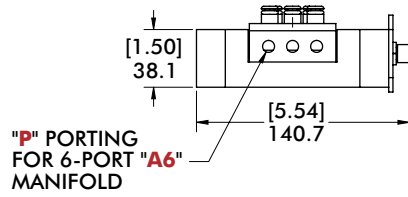
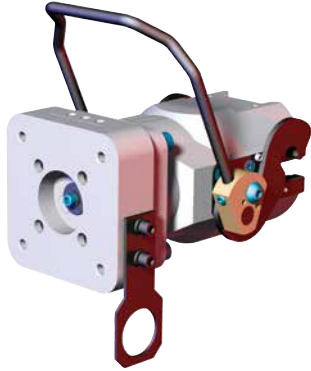
### Style 23 - MD350 90° Robot Adaptor



# SA000

## Robot Automation Adaptors | Dimensions

### Style 24 - SA000 Direct Mount Adaptor - Ø69.5mm Bolt Circle

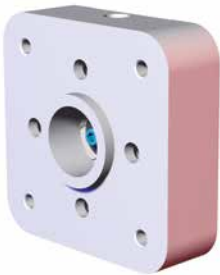
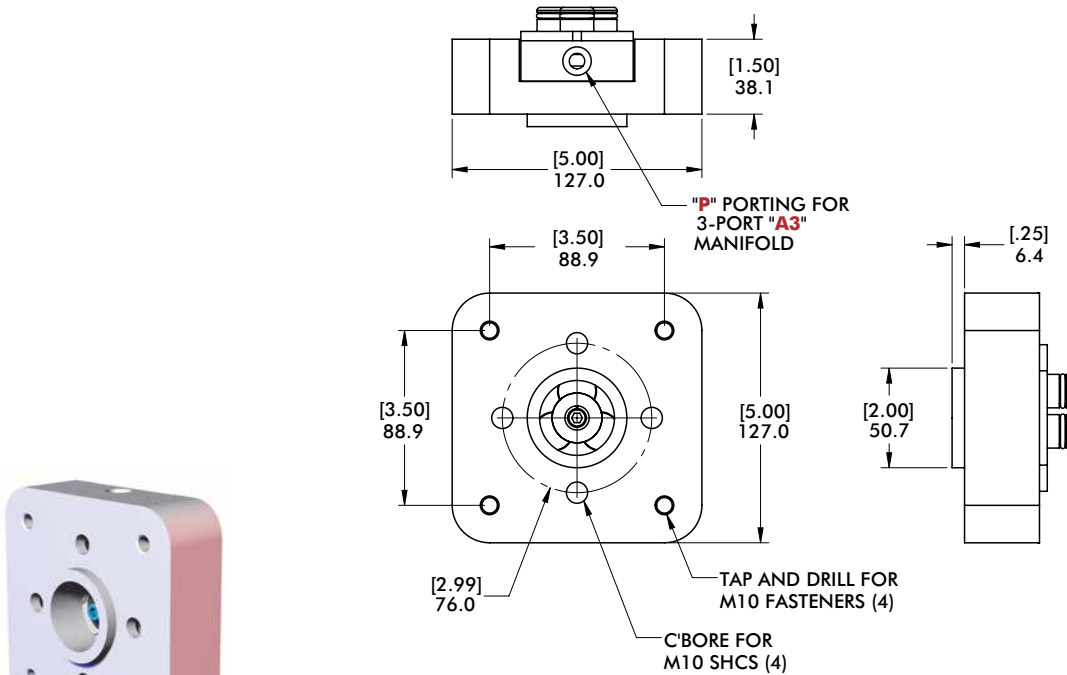


MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-SA000-DM-RD25-A6	1/8 NPT	6 (3/3)	1.57 kg [3.47 lb]

# CM975XL, CHM32

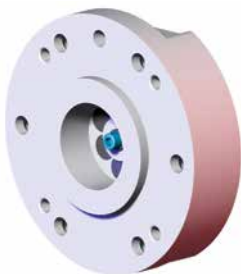
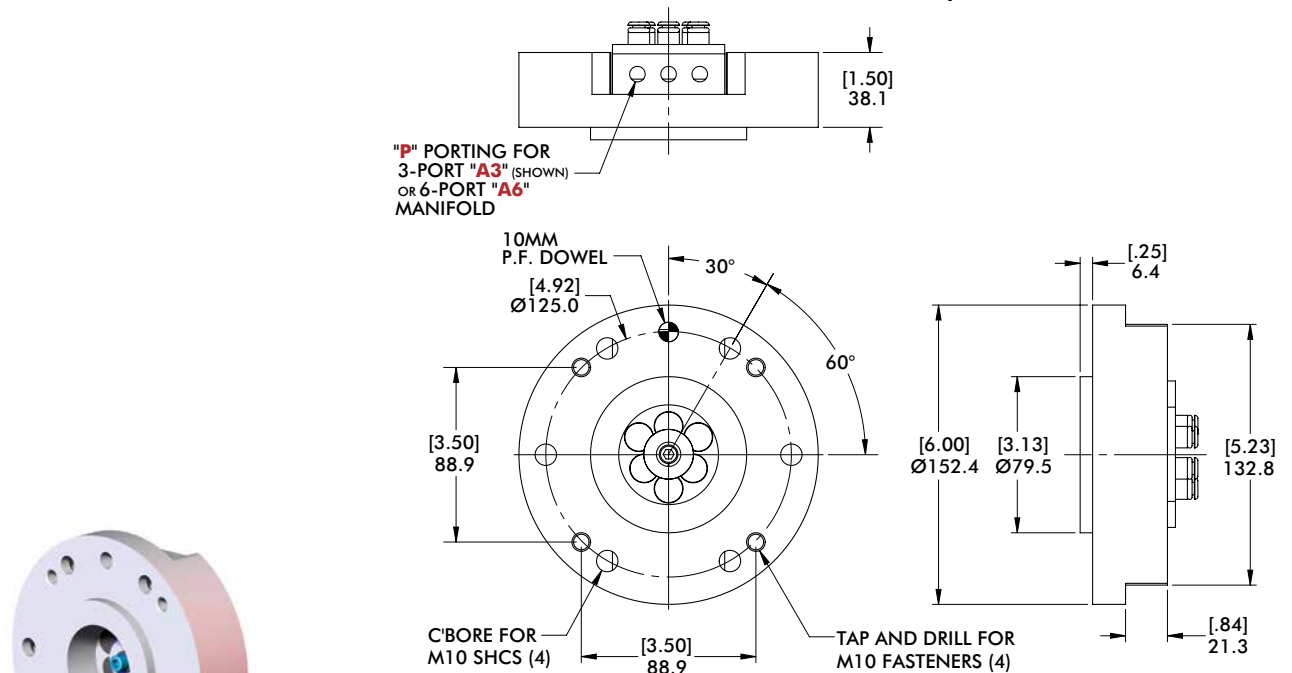
Robot Automation Adaptors | Dimensions

## CM975XL Direct Mount Adaptor - Ø76mm Bolt Circle



MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-CM675XL-DM-RD25-A3	3/8 NPT	3 (2/1)	1.47 kg [3.24 lb]

## CHM32 Direct Mount Adaptor - Ø125mm Bolt Circle

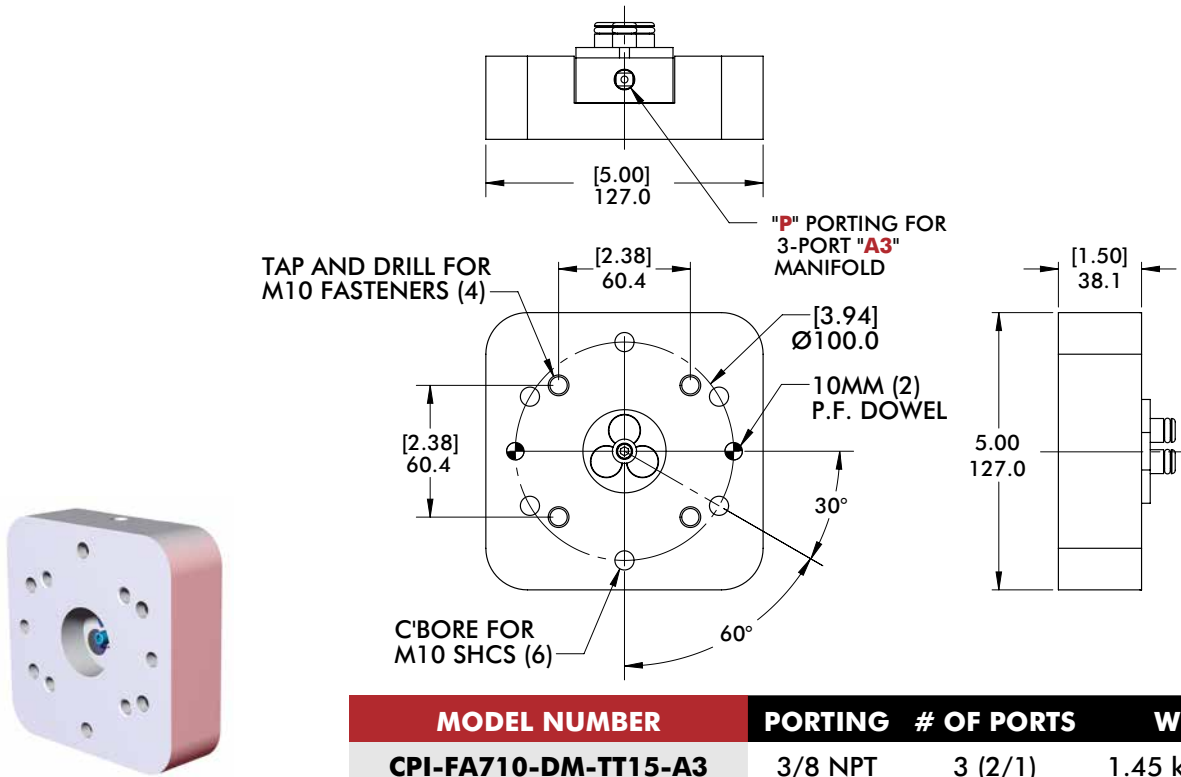


MODEL NUMBER	PORTING	# OF PORTS	WEIGHT
CPI-CHM32-DM-RD25-A3	3/8 NPT	3 (2/1)	2.38 kg [5.25 lb]
CPI-CHM32-DM-RD25-A6	1/8 NPT	6 (3/3)	2.42 kg [5.34 lb]

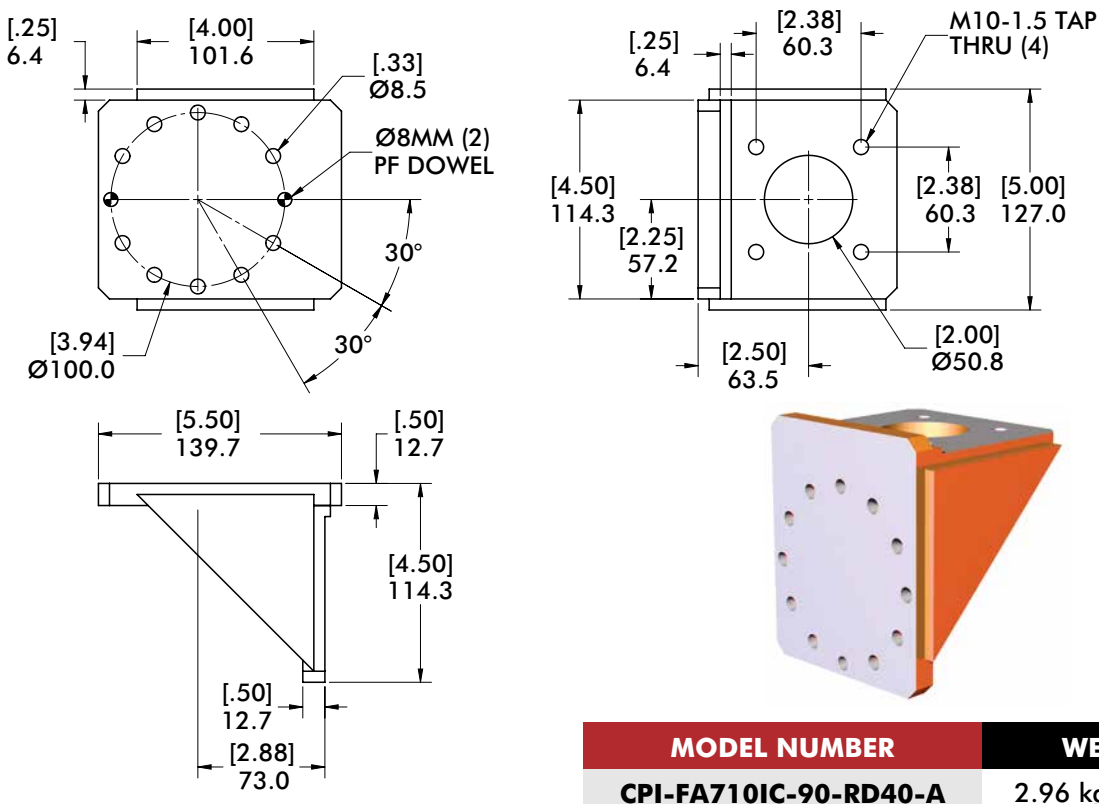
# FA710, FA710IC

## Robot Automation Adaptors | Dimensions

### FA710IC 90° Robot Adaptor - Ø100mm Bolt Circle



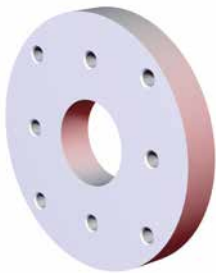
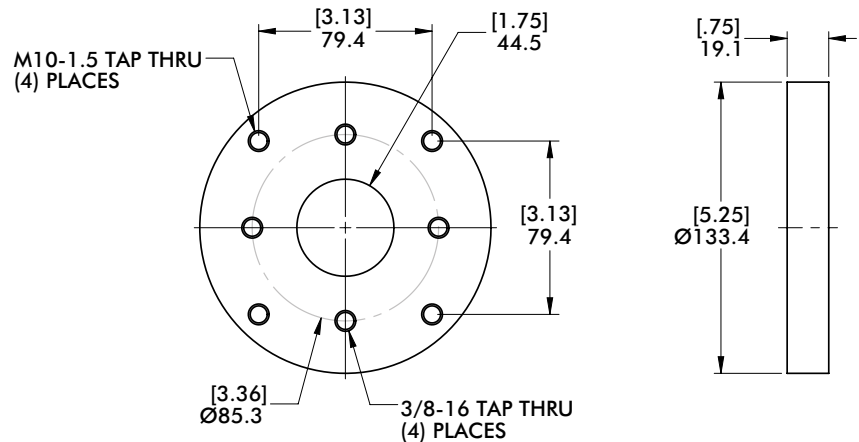
### FA710IC 90° Robot Adaptor - Ø100mm Bolt Circle



# TDA-150F, TDA-250F

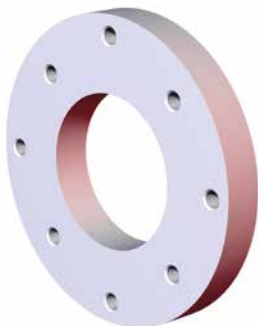
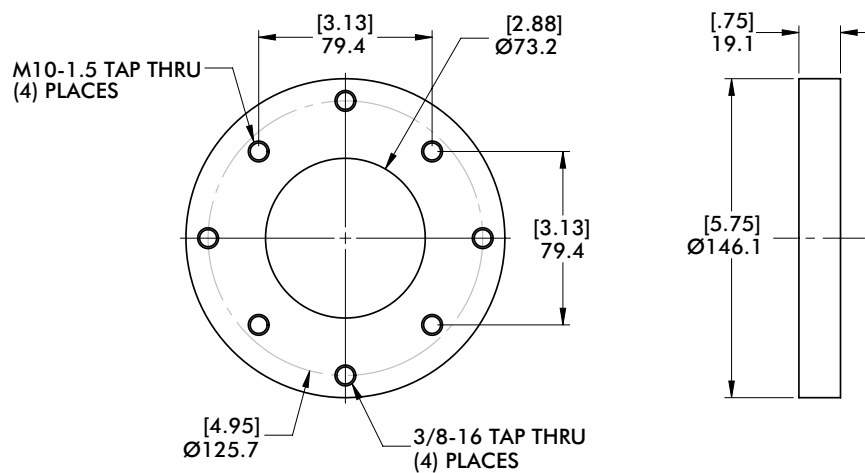
Robot Automation Adaptors | Dimensions

## TDA-150F Direct Mount Adaptor Plate - Ø85mm Bolt Circle



MODEL NUMBER	WEIGHT
CPI-TDA-150F-312F	.62 kg [1.36 lb]

## TDA-250F Direct Mount Adaptor Plate - Ø125mm Bolt Circle

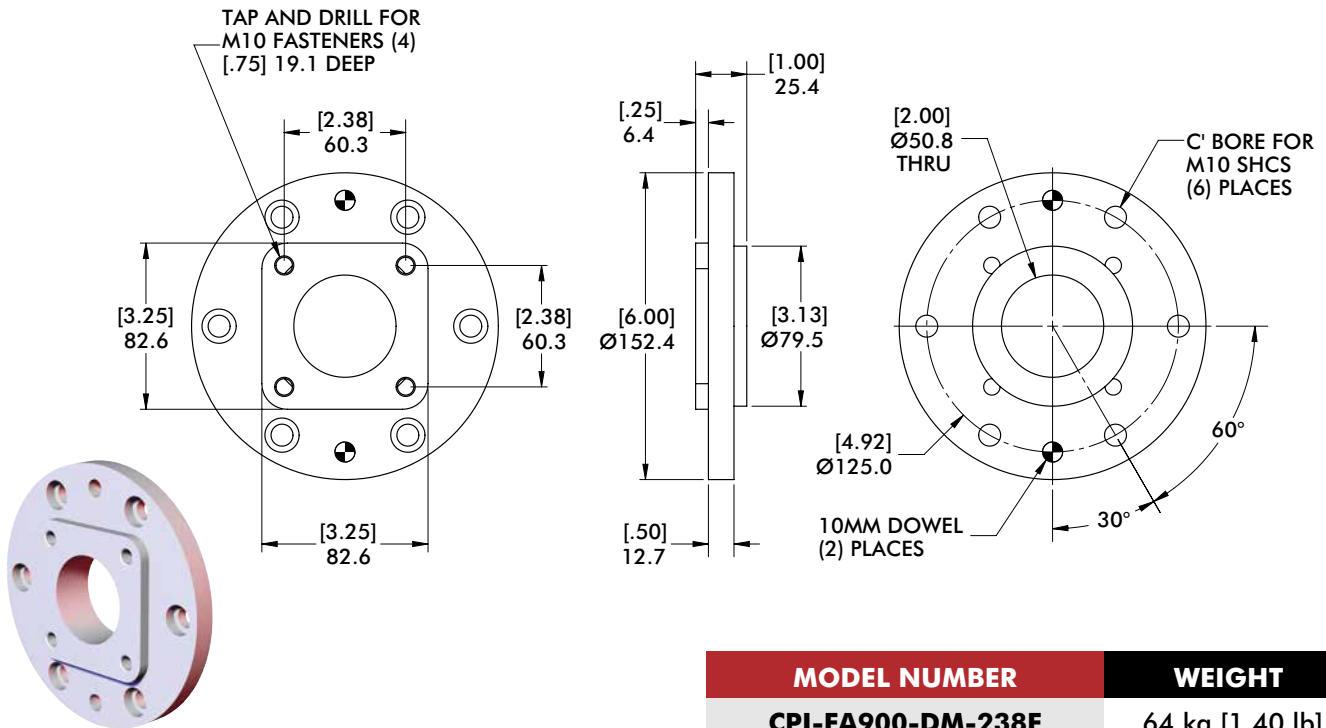


MODEL NUMBER	WEIGHT
CPI-TDA-250F-312F	.63 kg [1.38 lb]

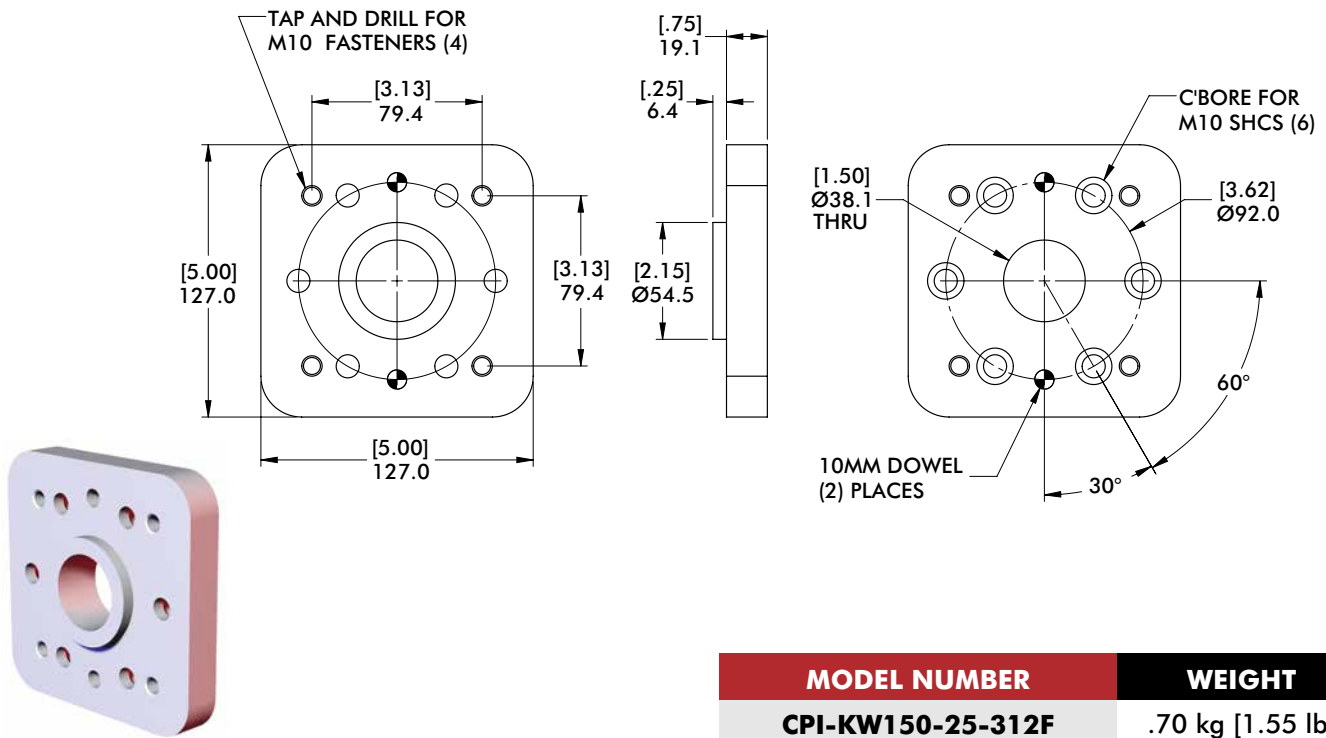
# FA900, KW150

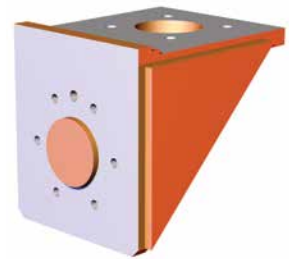
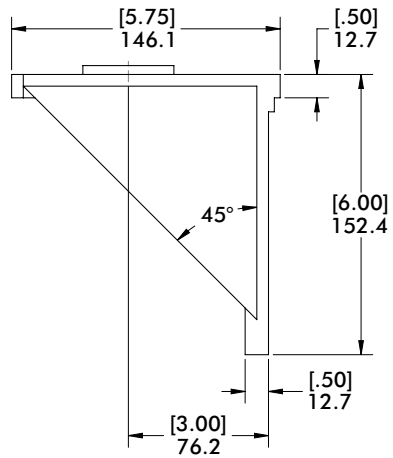
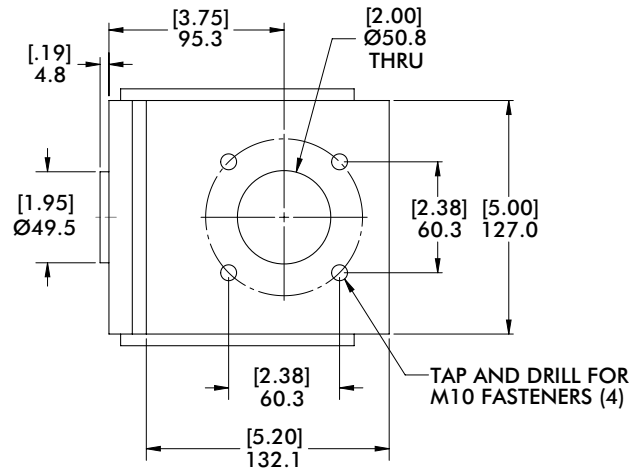
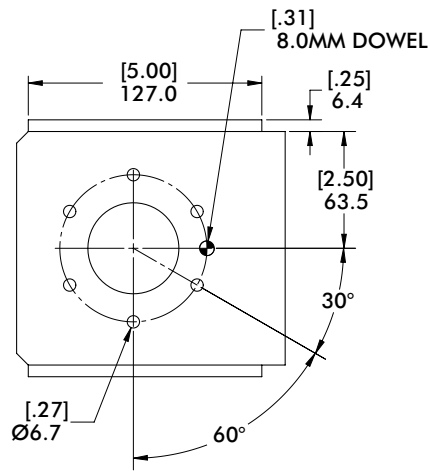
## Robot Automation Adaptors | Dimensions

### FA900 Direct Mount Adaptor Plate - Ø125mm Bolt Circle



### KW150 Direct Mount Adaptor Plate - Ø92mm Bolt Circle



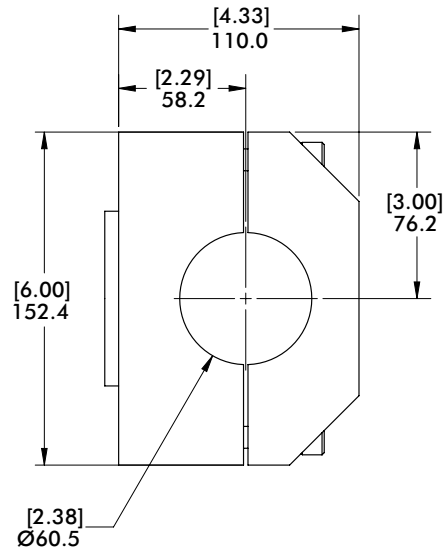
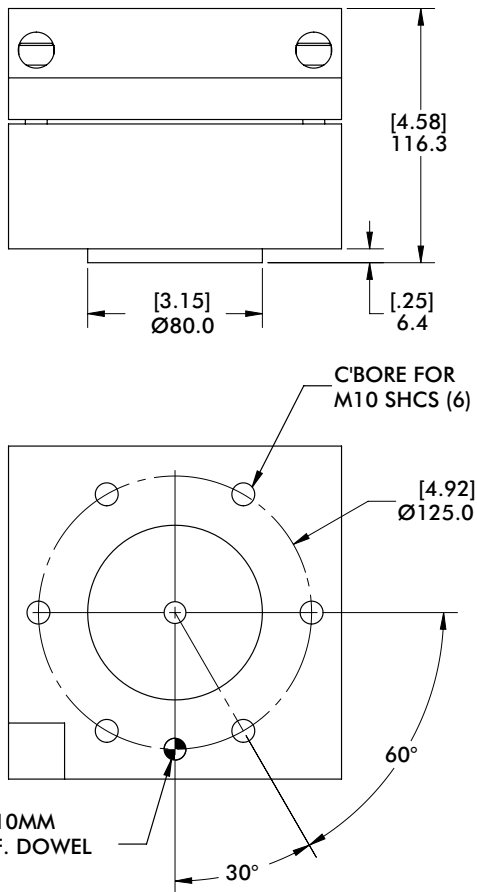
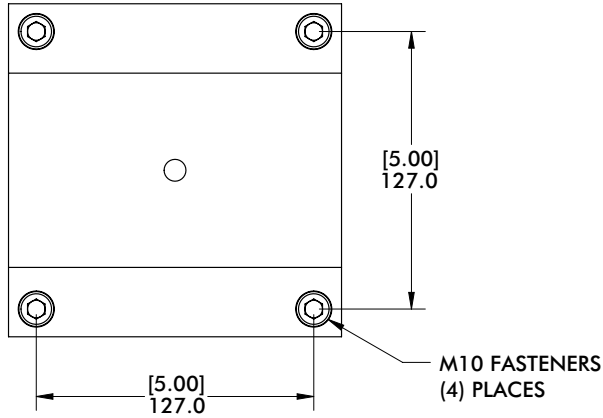


MODEL NUMBER	WEIGHT
CPI-KWFS45N-90-TTN40-A3	4.24 kg [9.34 lb]

# CL-LAN

## Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



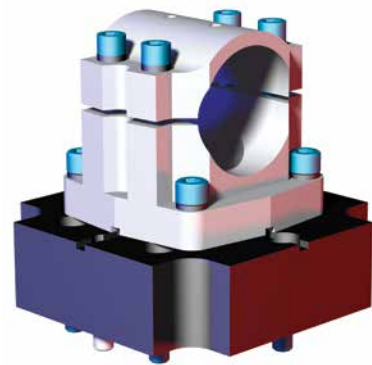
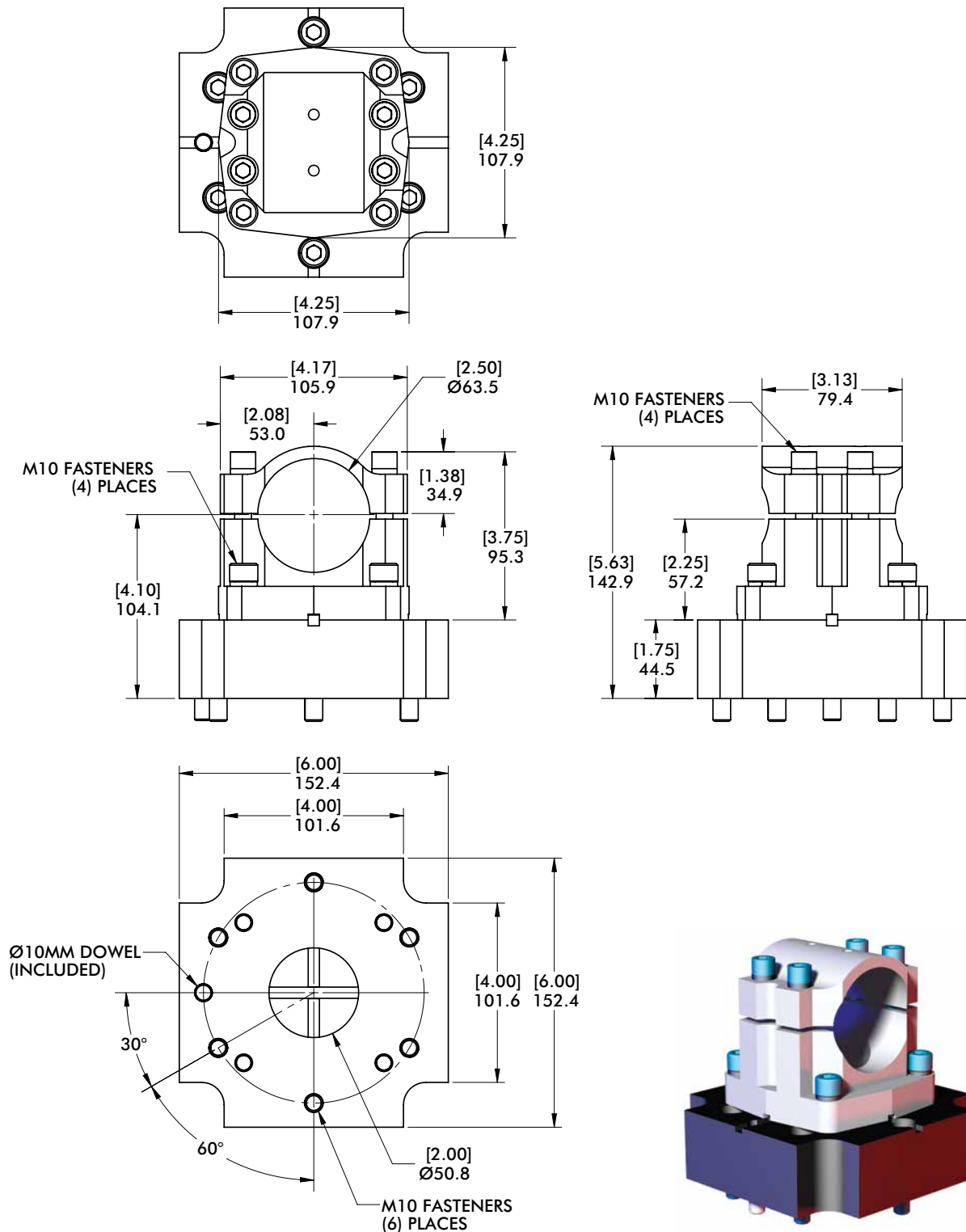
MODEL NUMBER

WEIGHT

CPI-CL-LAN-EOL

5.25 kg [11.58 lb]



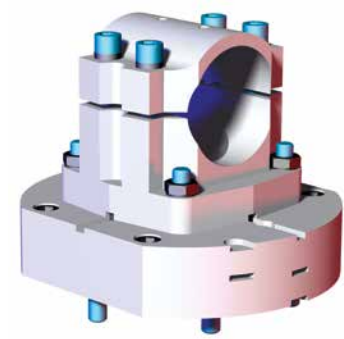
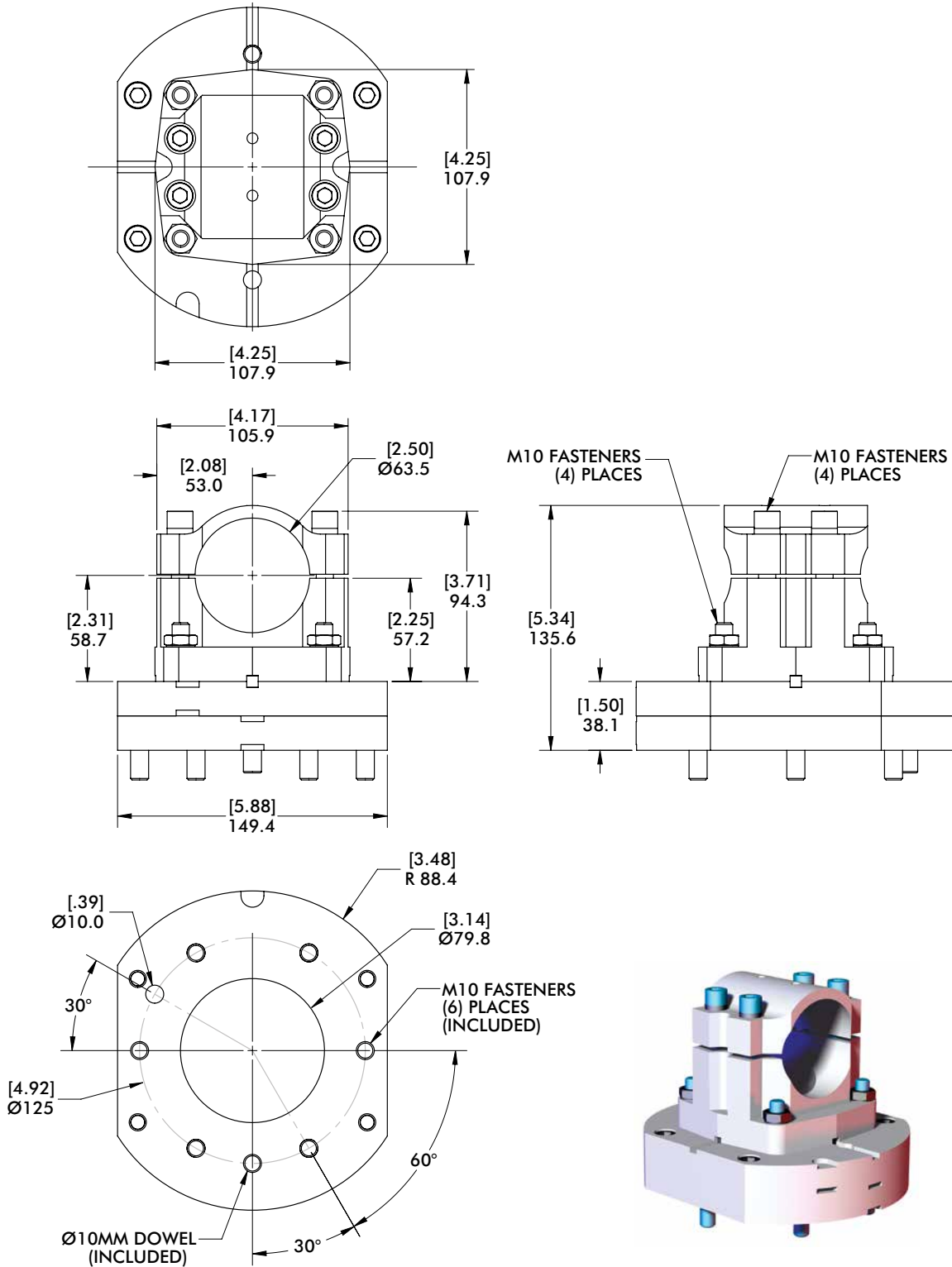


MODEL NUMBER	WEIGHT
CPI-ATI-151-90-WT	3.64 kg [8.03 lb]

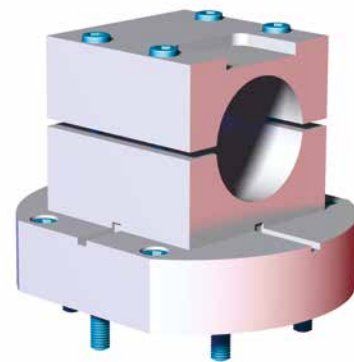
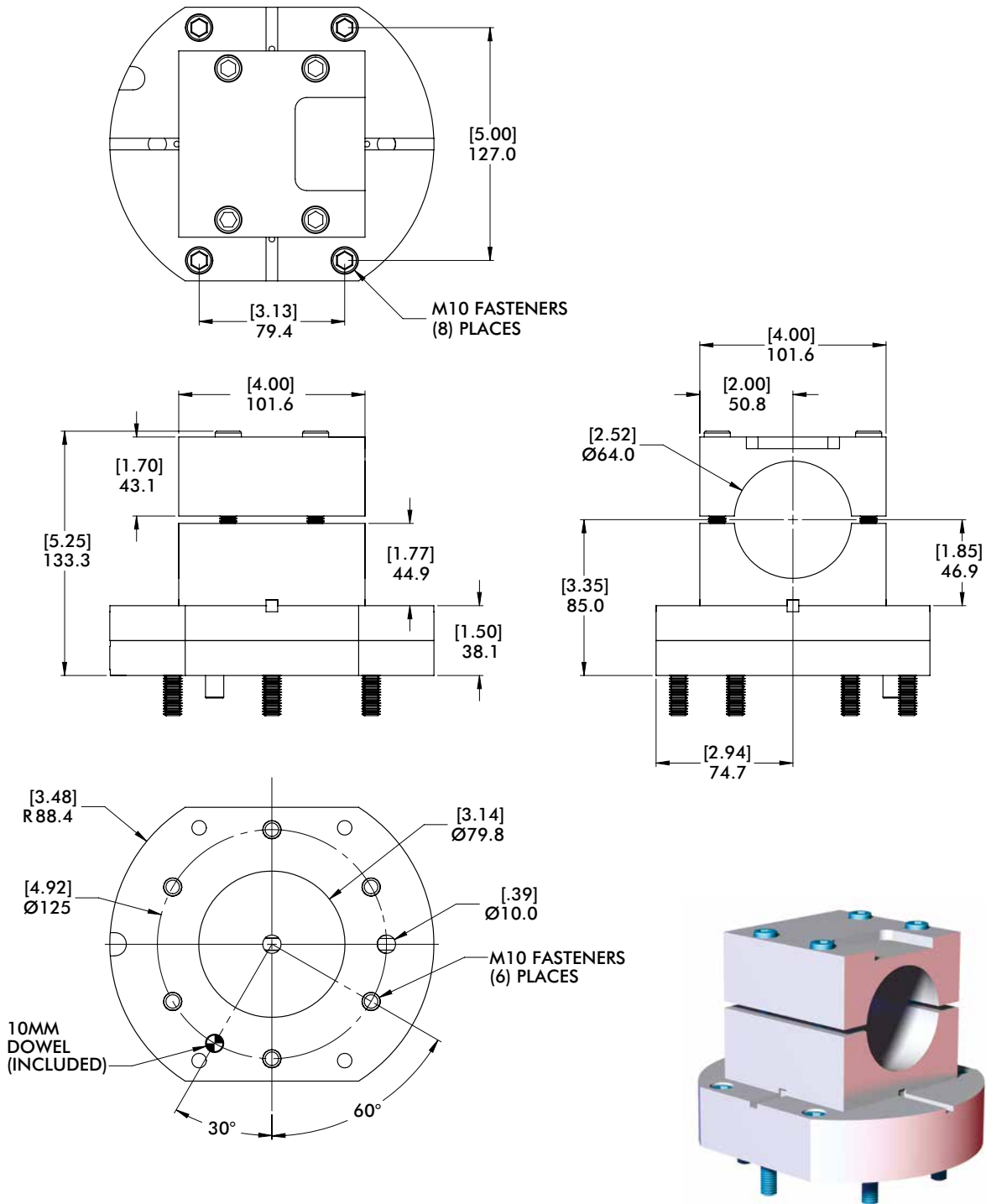
# ATI-90

## Robot Automation Adaptors | Dimensions

### Light Duty - Ø125mm Bolt Circle



MODEL NUMBER	WEIGHT
CPI-ATI-90	3.55 kg [7.82 lb]

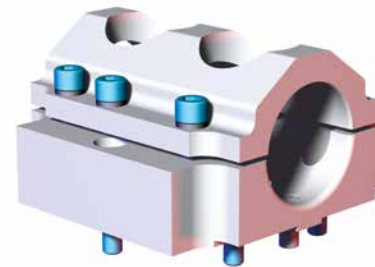
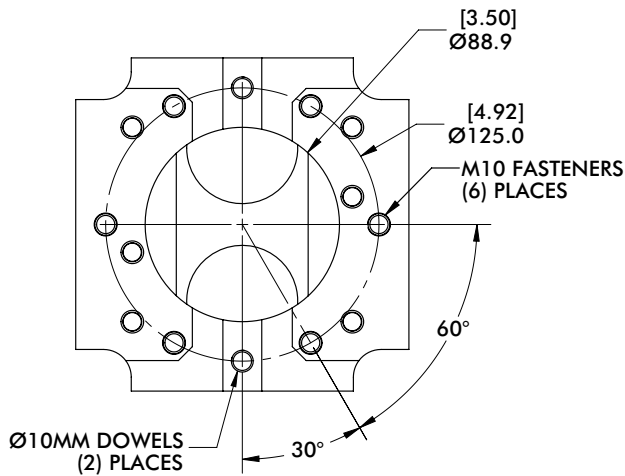
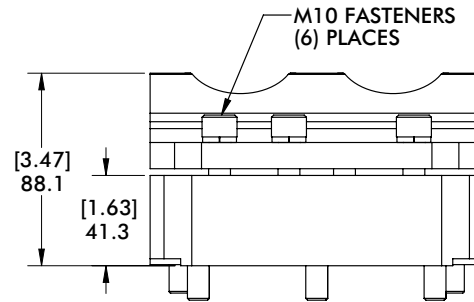
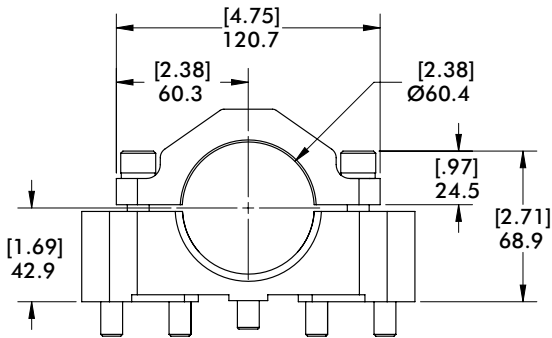
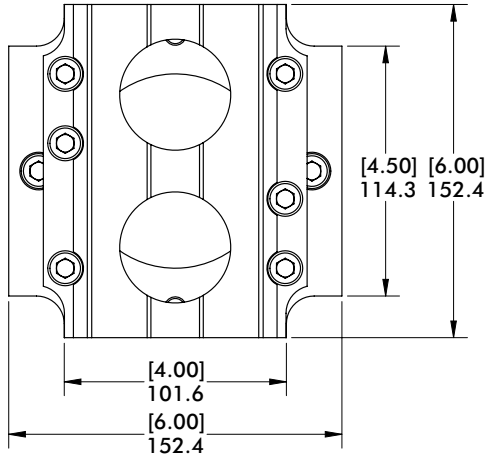


MODEL NUMBER	WEIGHT
CPI-ATI-90-SP	3.64 kg [8.03 lb]

# ATI-201-60

## Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



**MODEL NUMBER**

**WEIGHT**

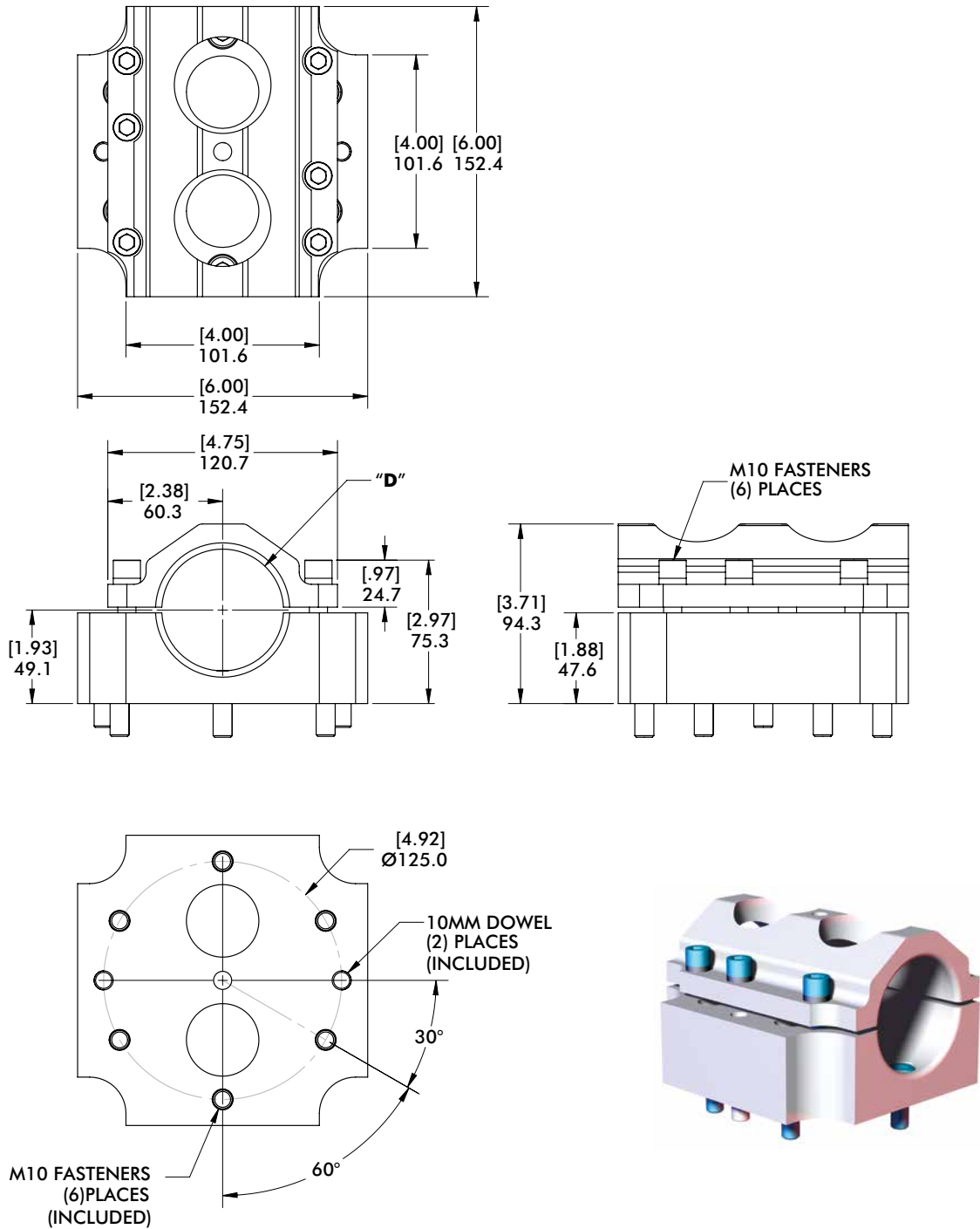
**CPI-ATI-201-60**

**2.29 kg [5.06 lb]**

# ATI-201-XXX-90

Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle Dowels

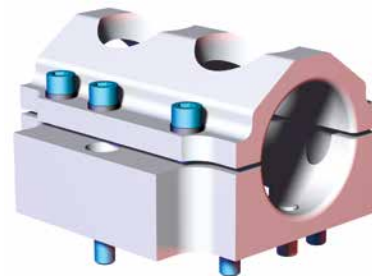
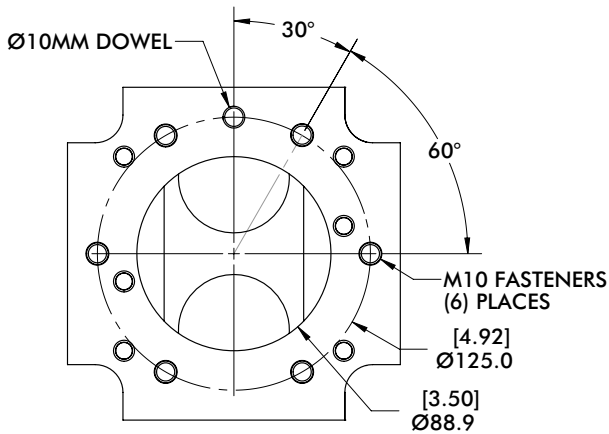
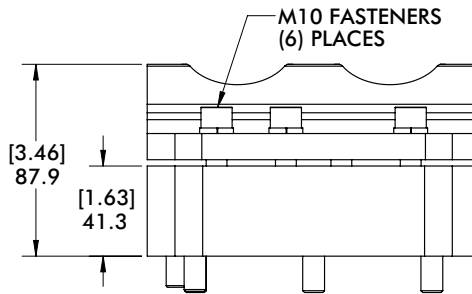
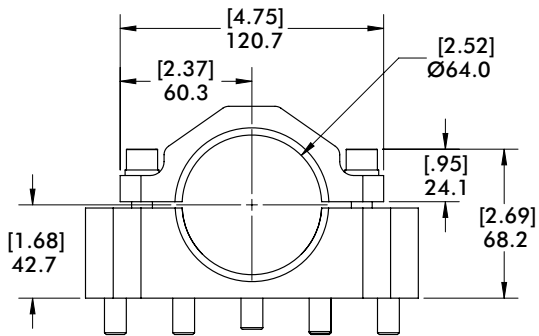
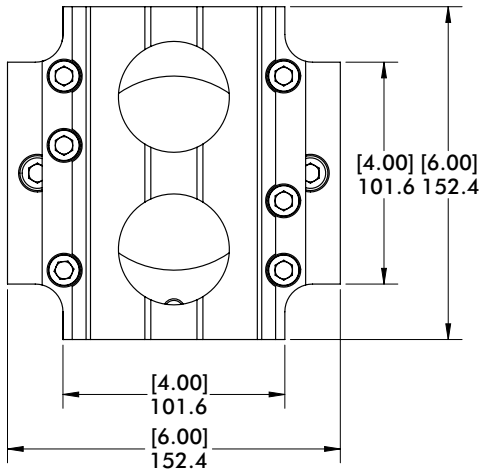


MODEL NUMBER	(Ø) "D"	(Ø) ACTUAL	WEIGHT
CPI-ATI-201-60-90	60mm	60.45±.08 [2.380±.003]	1.27 kg [2.80 lb]
CPI-ATI-201-250-90	2.50"(in)	63.96±.08 [2.518±.003]	1.27 kg [2.80 lb]

# ATI-201-90-HD

## Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



**MODEL NUMBER**

**WEIGHT**

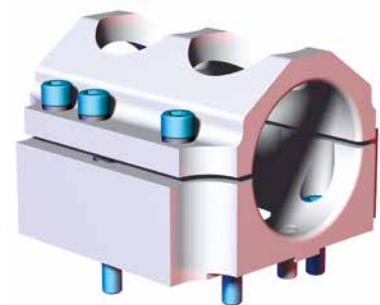
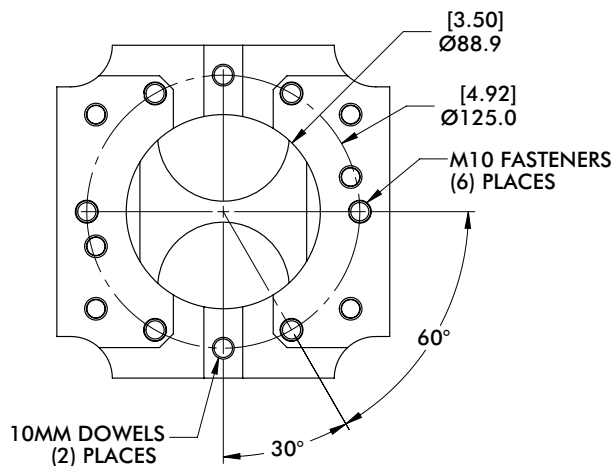
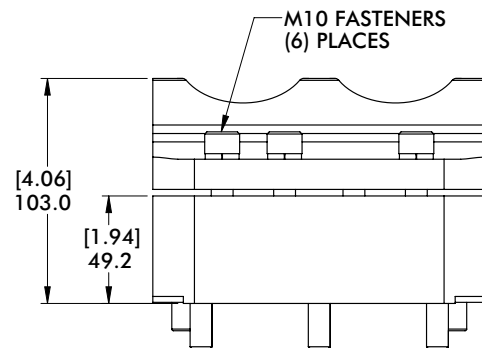
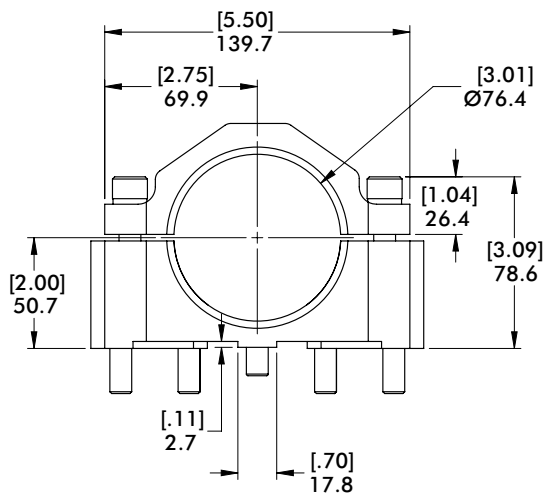
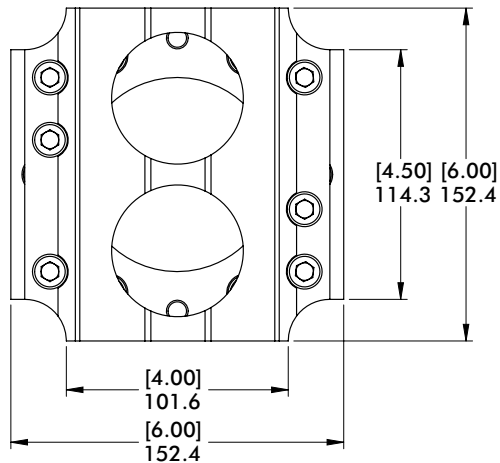
**CPI-ATI-201-90-HD**

2.17 kg [4.77 lb]

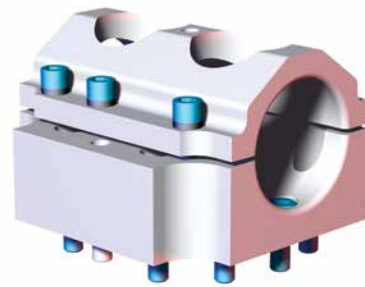
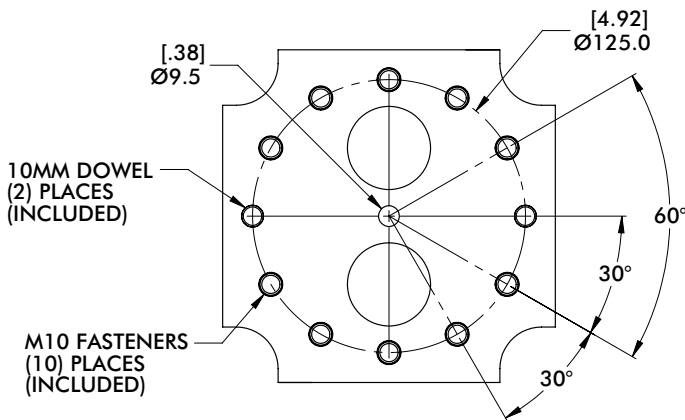
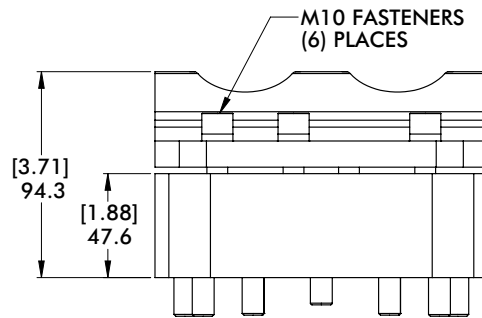
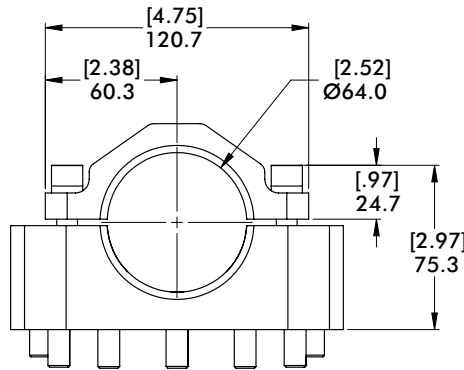
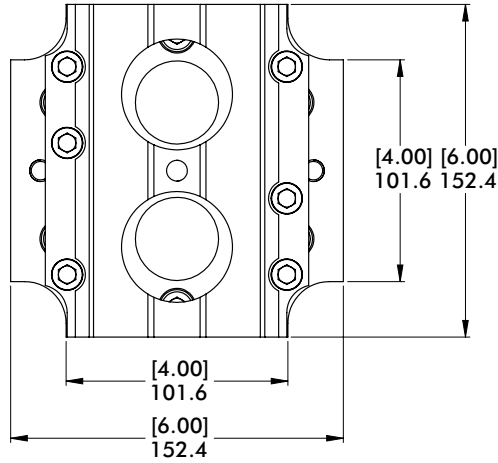
# ATI-150-90-3HD

Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



MODEL NUMBER	WEIGHT
CPI-ATI-201-90-3HD	2.50 kg [5.52 lb]



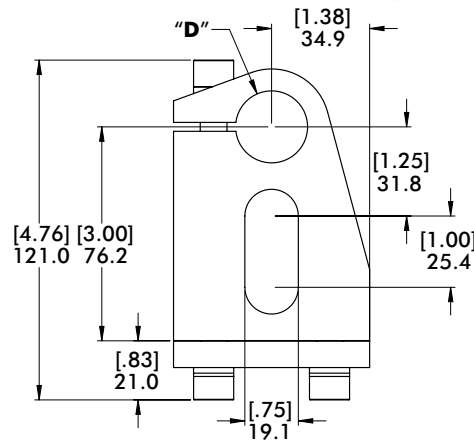
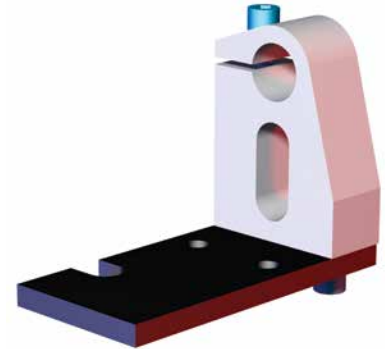
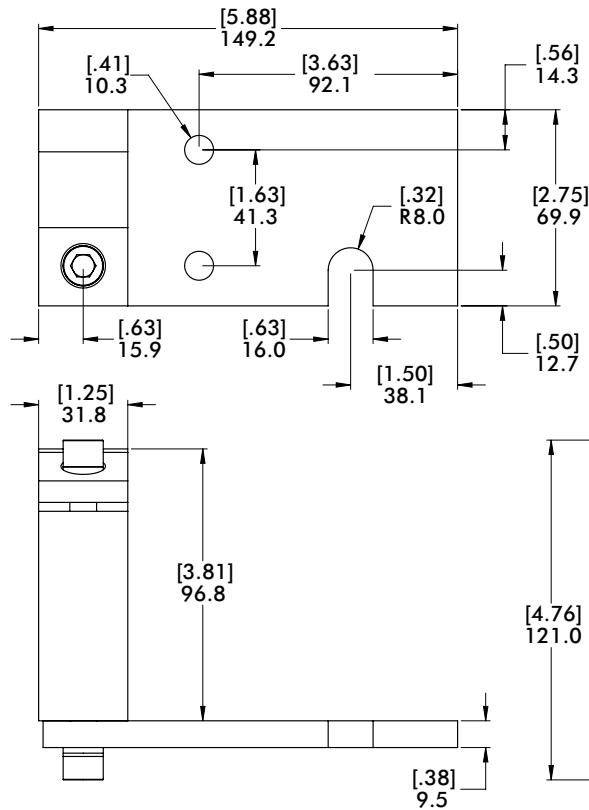
**MODEL NUMBER**

**WEIGHT**

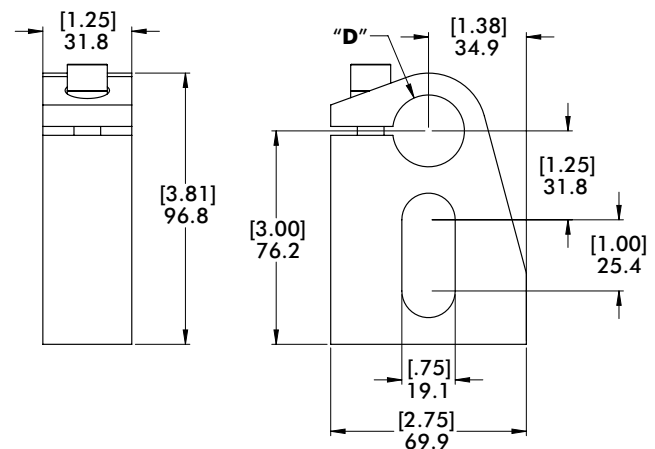
**CPI-ATI-201-250-90-10S**

**2.17 kg [4.77 lb]**





MODEL NUMBER	(Ø) "D"	(Ø) ACTUAL	WEIGHT
CPI-NAV-25-CM	25mm	25.25 <sup>±.08</sup> [0.994 <sup>±.003</sup> ]	[2.60 lb]
CPI-NAV-100-CM	1.00"(in)	25.65 <sup>±.08</sup> [1.010 <sup>±.003</sup> ]	1.18 kg















DRILL AND TAP FOR  
M10-1.50 .75 DEEP (2)

MODEL NUMBER	(Ø) "D"	(Ø) ACTUAL	WEIGHT
CPI-NAV-25-BL	25mm	25.25 <sup>±.08</sup> [0.994 <sup>±.003</sup> ]	[.89 lb]
CPI-NAV-100-BL	1.00"(in)	25.65 <sup>±.08</sup> [1.010 <sup>±.003</sup> ]	.40 kg





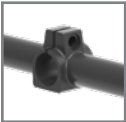






# ACCELERATE<sup>®</sup> TOOLING COLLECTION

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# ACCELERATE<sup>®</sup> TOOLING COLLECTION

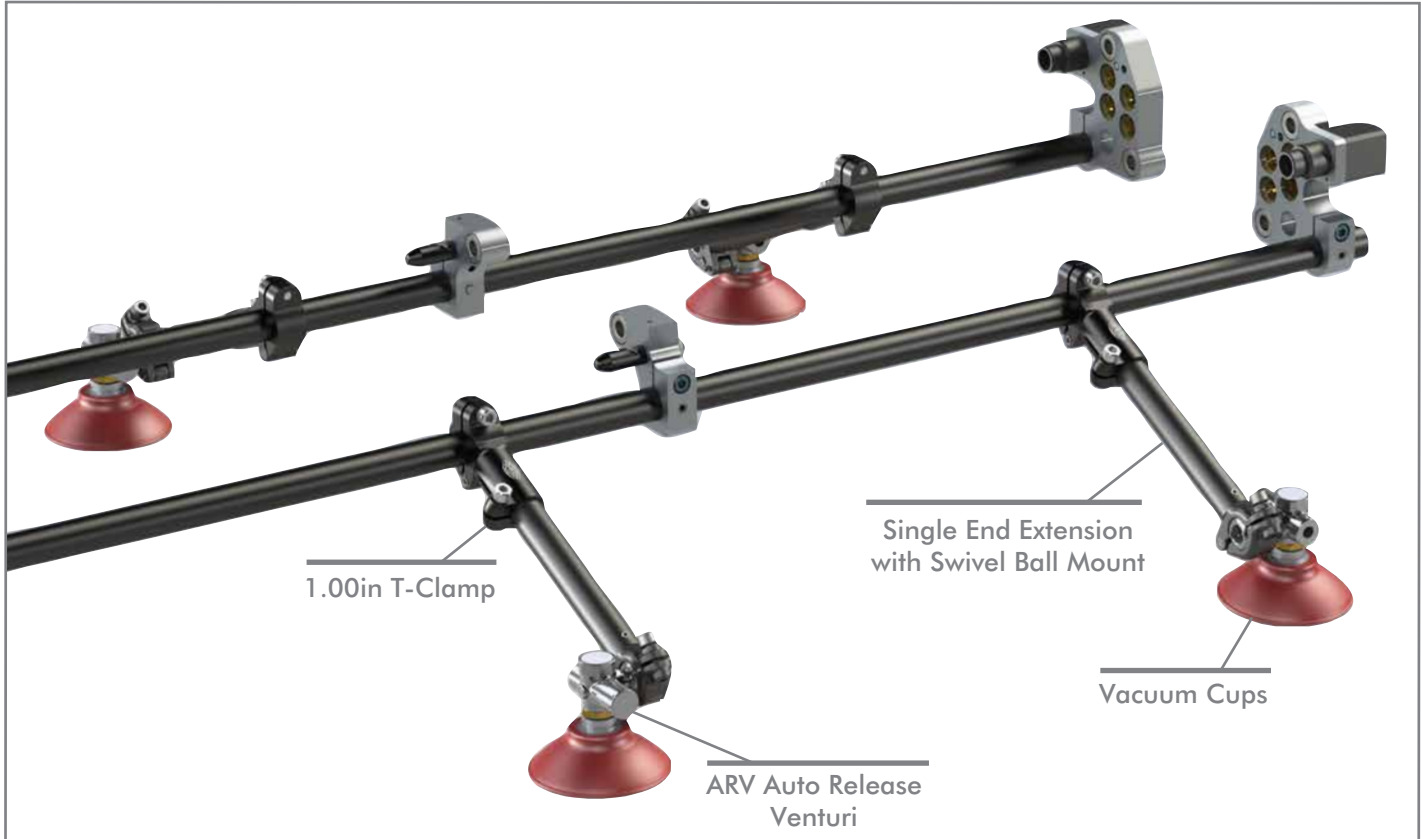
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# CROSS BAR TOOLING - SGM SERIES

Accelerate® Tooling Collection | Configuration Types

**SGM** - Split Saddle Tooling 25mm/1 inch Crossbar Tooling

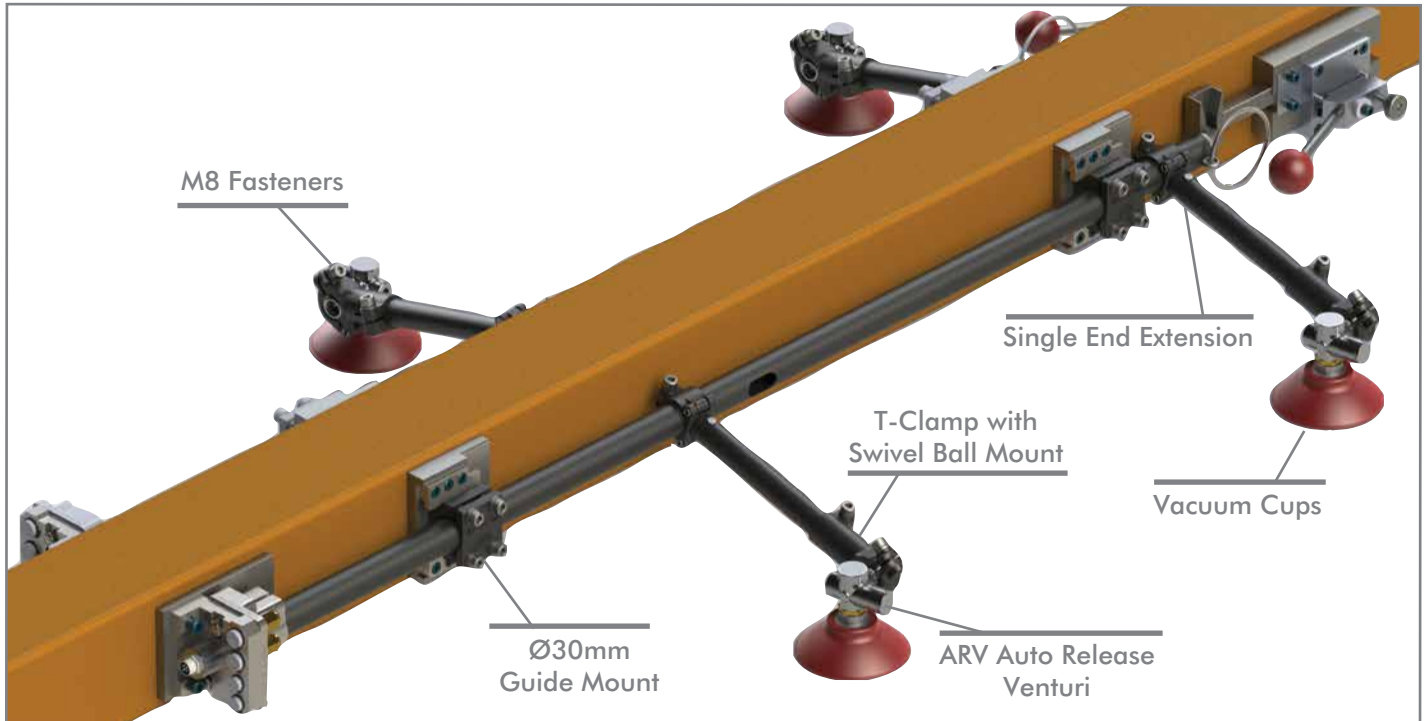


Model Number	Description	Tube Diameter	Tube Length
CPI-SGM-10-1260M-L	Left Assembly No Key	1.00 in	1260mm
CPI-SGM-10-1260M-LF	Left Front Assembly with Key		
CPI-SGM-10-1260M-LR	Left Rear Assembly with Key		
CPI-SGM-10-1260M-R	Right Assembly No Key		
CPI-SGM-10-1260M-RF	Right Front Assembly with Key	25mm	1450mm
CPI-SGM-10-1260M-RR	Right Rear Assembly with Key		
CPI-SGM-25M-1450M-L	Left Assembly No Key		
CPI-SGM-25M-1450M-LF	Left Front Assembly with Key		
CPI-SGM-25M-1450M-LR	Left Rear Assembly with Key	25mm	1800mm
CPI-SGM-25M-1450M-R	Right Assembly No Key		
CPI-SGM-25M-1450M-RF	Right Front Assembly with Key		
CPI-SGM-25M-1450M-RR	Right Rear Assembly with Key		
CPI-SGM-25M-1800M-L	Left Assembly No Key	25mm	1800mm
CPI-SGM-25M-1800M-LF	Left Front Assembly with Key		
CPI-SGM-25M-1800M-LR	Left Rear Assembly with Key		
CPI-SGM-25M-1800M-R	Right Assembly No Key		
CPI-SGM-25M-1800M-RF	Right Front Assembly with Key	25mm	1800mm
CPI-SGM-25M-1800M-RR	Right Rear Assembly with Key		

# CROSS BAR TOOLING - SGM SERIES

Accelerate® Tooling Collection | Configuration Types

## SGM - Split Saddle Tooling 30mm Interpress Crossbar Tooling



Model Number	Description
CPI-SGM-ASSY-FLC	Interpress Tool, Front Left Side, No Electric
CPI-SGM-ASSY-FRC	Interpress Tool, Front Right Side, No Electric
CPI-SGM-ASSY-RLC	Interpress Tool, Rear Left Side, No Electric
CPI-SGM-ASSY-RRC	Interpress Tool, Rear Right Side, No Electric
CPI-SGM-ASSY-FLC-EL	Interpress Tool, Front Left Side, w/Electric Connector Installed
CPI-SGM-ASSY-FRC-EL	Interpress Tool, Front Right Side, w/Electric Connector Installed
CPI-SGM-ASSY-RLC-EL	Interpress Tool, Rear Left Side, w/Electric Connector Installed
CPI-SGM-ASSY-RRC-EL	Interpress Tool, Rear Right Side, w/Electric Connector Installed



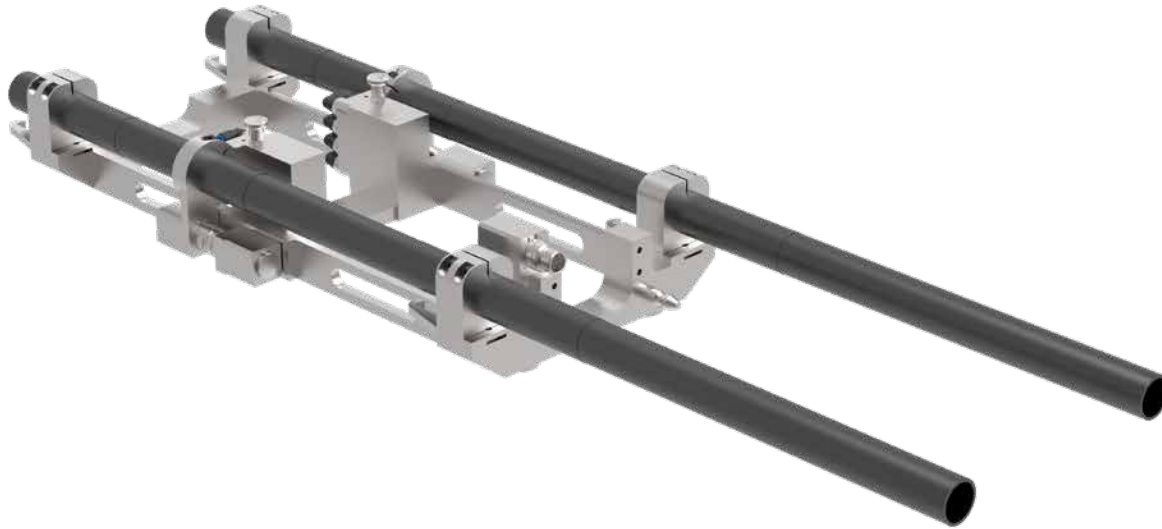
## SGM Blankload Crossbar Tooling

Model Number	Description
CPI-SGM-ASSY-BT-FL	Blankload Tool, Front Left Side, No Electric
CPI-SGM-ASSY-BT-FR	Blankload Tool, Front Right Side, No Electric
CPI-SGM-ASSY-BT-RL	Blankload Tool, Rear Left Side, No Electric
CPI-SGM-ASSY-BT-RR	Blankload Tool, Rear Right Side, No Electric
CPI-SGM-ASSY-BT-FL-EL	Blankload Tool, Front Left Side, w/Electric Connector Installed
CPI-SGM-ASSY-BT-FR-EL	Blankload Tool, Front Right Side, w/Electric Connector Installed
CPI-SGM-ASSY-BT-RL-EL	Blankload Tool, Rear Left Side, w/Electric Connector Installed
CPI-SGM-ASSY-BT-RR-EL	Blankload Tool, Rear Right Side, w/Electric Connector Installed

# CROSS BAR SADDLE TOOLING

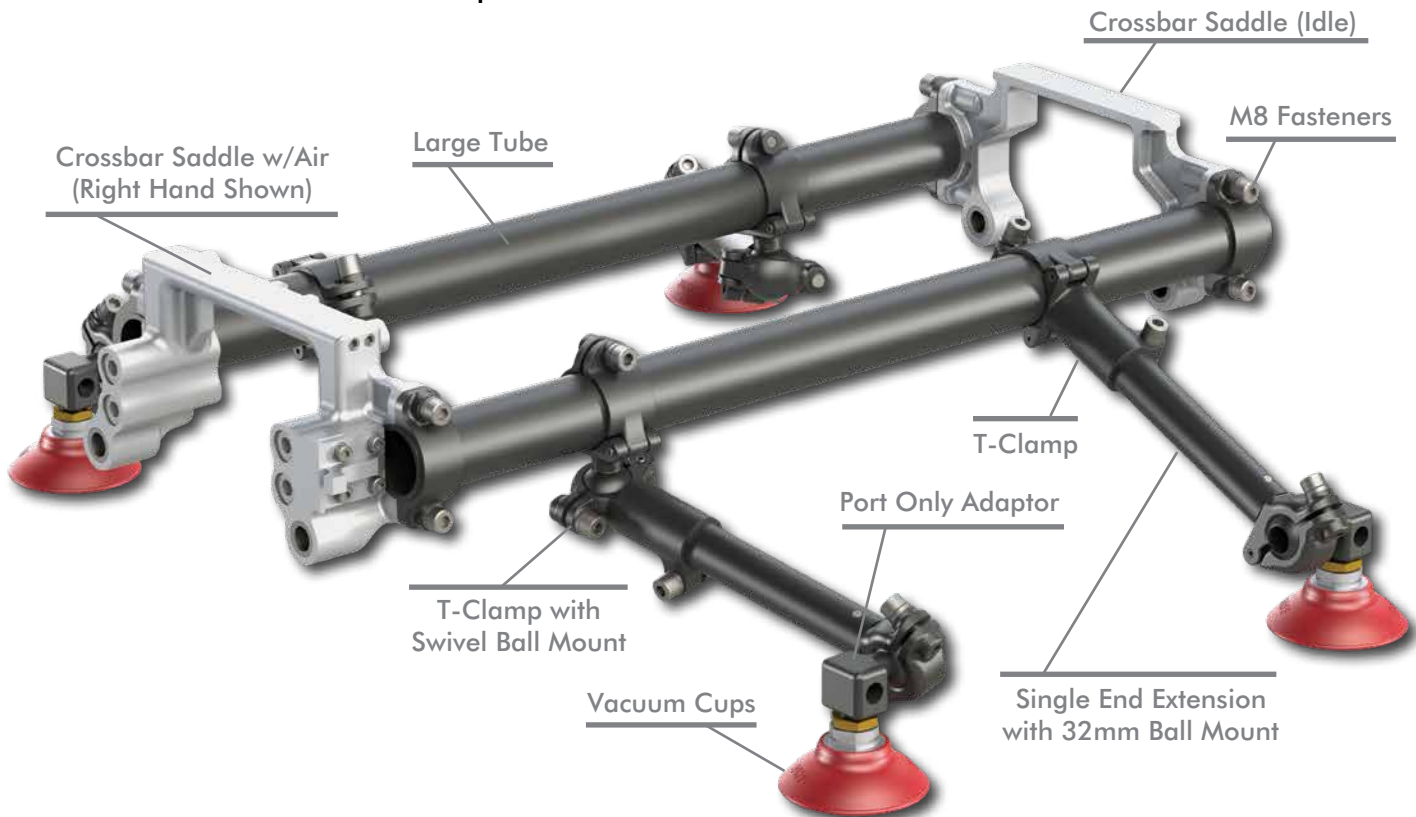
Accelerate® Tooling Collection | Configuration Types

**SGM** Cross Bar Saddle Tooling 40mm (PXL/PL and PGB/PGA Press Tooling)



Model Number	Description
CPI-SGM-40-1200-RF-EL	Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Right Front, with Electric
CPI-SGM-40-1200-RR-EL	Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Right Rear, with Electric
CPI-SGM-40-1200-LF-EL	Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Left Front, with Electric
CPI-SGM-40-1200-LR-EL	Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Left Rear, with Electric

## LWT Saddle Crossbar Tool Example



# LIGHTWEIGHT TUBING

Accelerate® Tooling Collection | Boom/Tubing Sizes

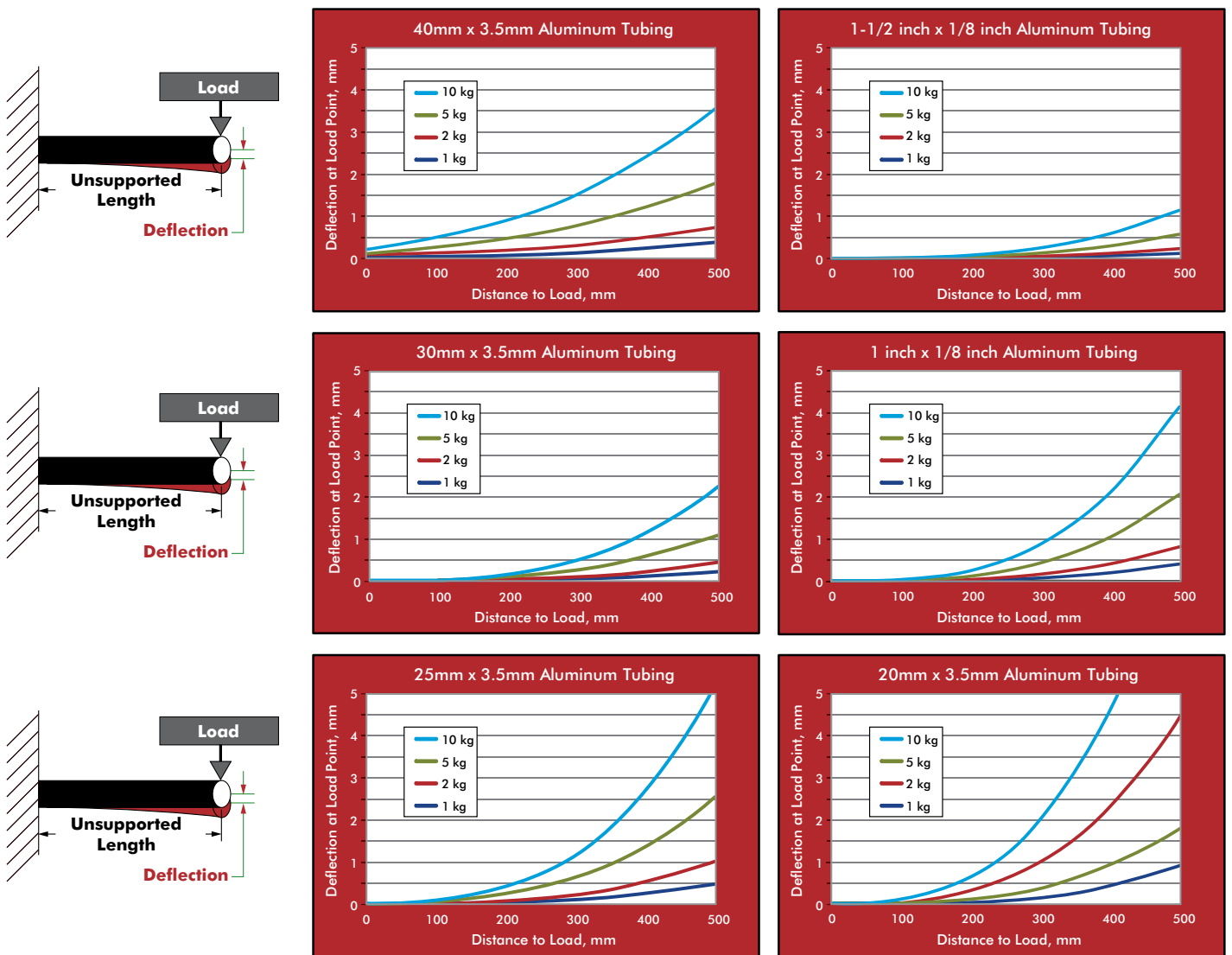
Model Number	(Ø)	Tolerance (mm)	Weight
LWT-40-1000	40mm	±0.14	1080g/m [0.73 lb/ft]
LWT-15E-1000	1.50 in	±0.14	920g/m [0.61 lb/ft]
LWT-30-1000	30mm	+0.08/-0.14	790g/m [0.53 lb/ft]
LWT-10E-1000	1.00 in	+0.05/-0.10	601g/m [0.41 lb/ft]
LWT-25-1000	25mm	+0.08/-0.14	640g/m [0.43 lb/ft]
LWT-20-1000	20mm	±0.08	490g/m [0.33 lb/ft]

**LWT** Lightweight Boom/Tube  
(3.5 mm or 0.125 in. Wall)



Material: High Strength Aluminum

## LWT Lightweight Boom Deflection Charts

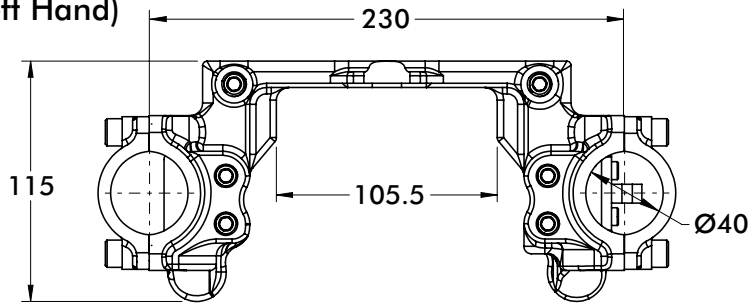
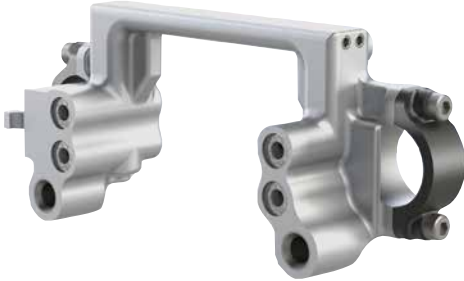


**Note:** Performance may vary if used with non-DESTACO components

# ACCELERATE® TOOLING COLLECTION

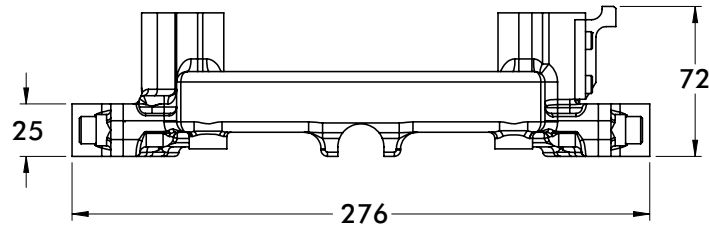
Accelerate® Tooling Collection | Dimensions

## GRS-SD-40 Crossbar Saddle w/Air (Left Hand)

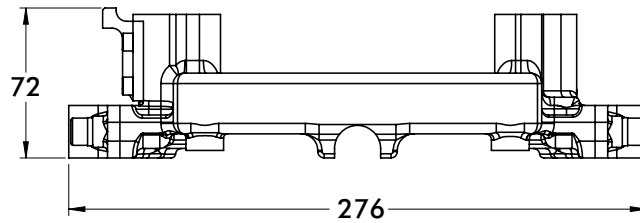
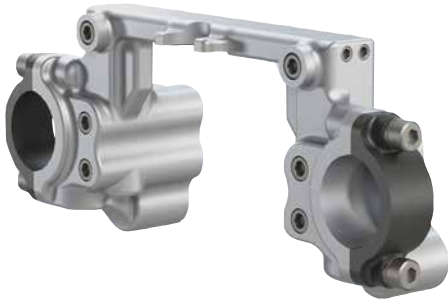


Material: High Strength Aluminum

Model Number	Weight
GRS-SD-40-LHS-A	938g [2.06 lb]



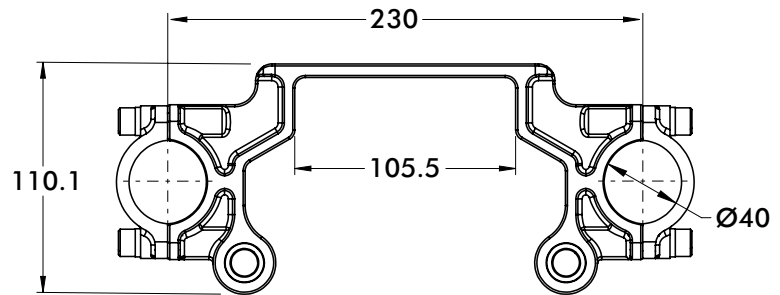
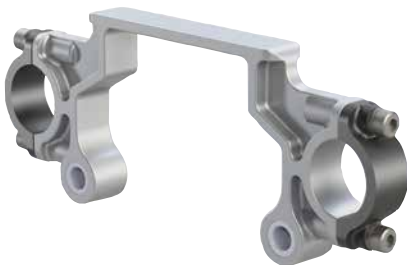
## GRS-SD-40 Crossbar Saddle w/Air (Right Hand)



Material: High Strength Aluminum

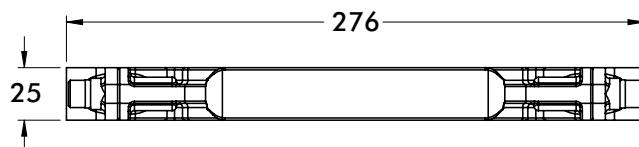
Model Number	Weight
GRS-SD-40-RHS-A	938g [2.06 lb]

## GRS-SD-40 Crossbar Saddle (Idle)



Material: High Strength Aluminum

Model Number	Weight
GRS-SD-40-NA-A	535g [1.18 lb]

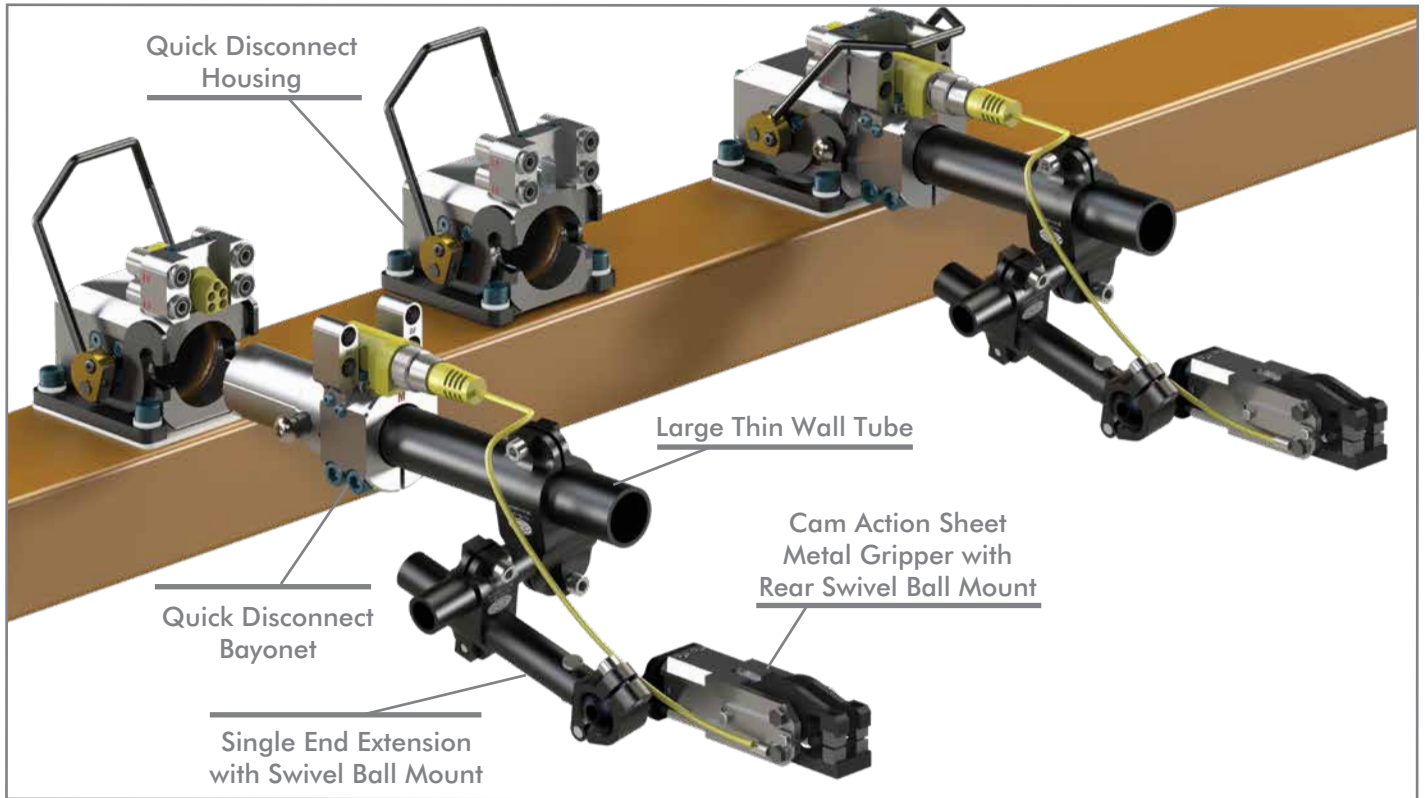




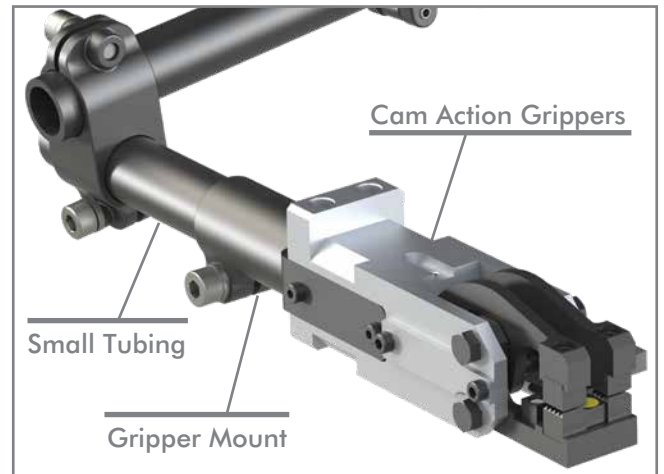
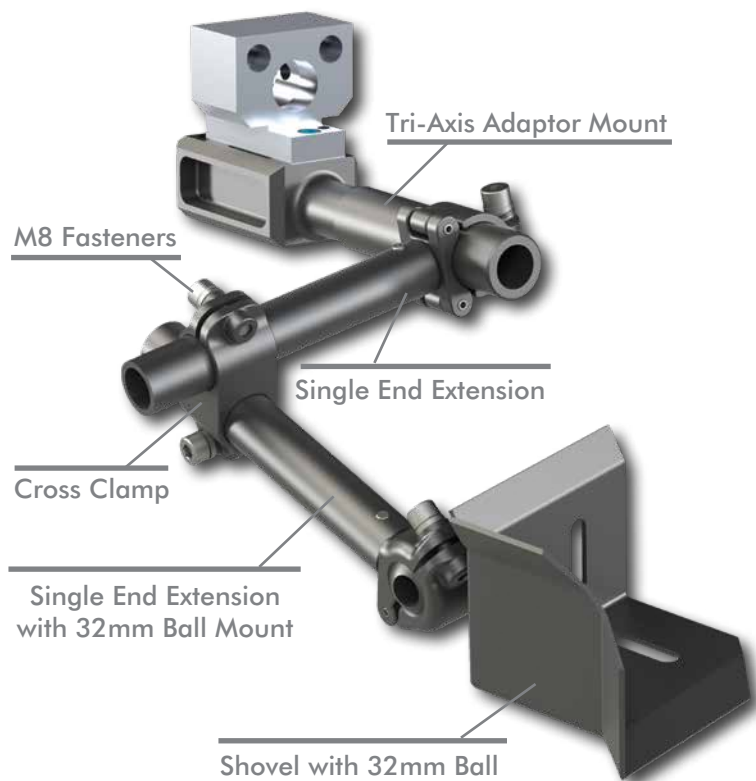
# ACCELERATE® TOOLING COLLECTION

Accelerate® Tooling Collection | Tooling Examples

Tri-Axis Rail Tooling Example with Accelerate® Tooling



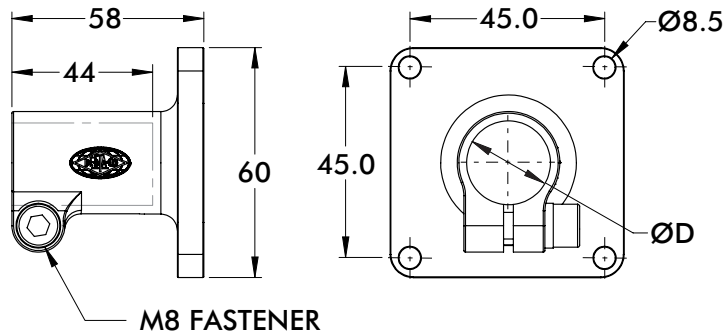
## LWT Tri-Axis Tooling Example



# TCF, TCA SERIES

Accelerate® Tooling Collection | Dimensions

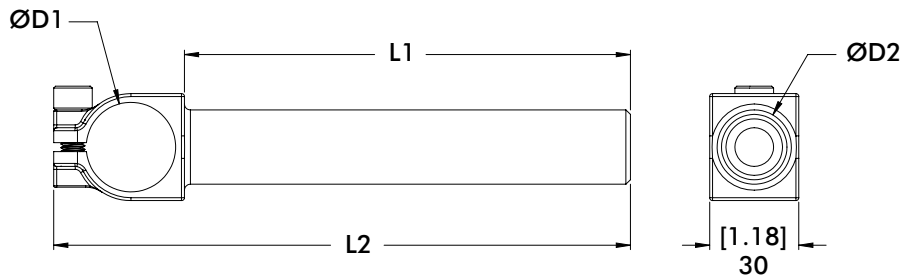
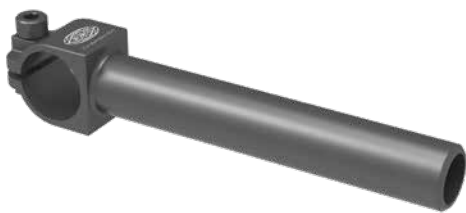
## TCF Flange Mount Ø20 & Ø25mm



Material: High Strength Aluminum

Model Number	ØD	Weight
TCF-20M-A	20mm	121g [0.27 lb]
TCF-25M-A	25mm	98g [0.22 lb]

## TCA T-Clamp Transition Brackets

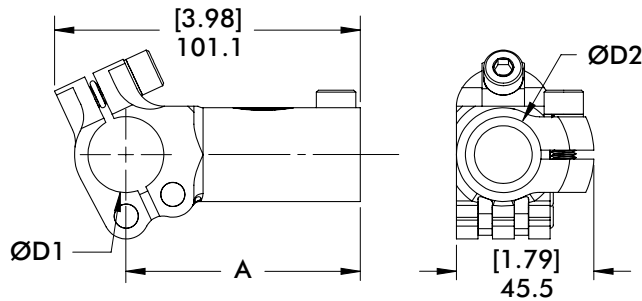


Model Number	ØD1	ØD2	L1	L2	Material	Weight
TCA-25M-25M-150-A	.98 [25]	.98 [25]	150 [5.91]	194 [7.64]	Aluminum	160g [0.35 lb]
TCA-30M-25M-150-A	1.19 [30]	.98 [25]	150 [5.91]	194 [7.64]	Aluminum	162g [0.36 lb]
TCA-20M-20M-400-A	.79 [20]	.79 [20]	400 [15.74]	438 [17.24]	Aluminum	239g [0.53 lb]
TCA-30M-30M-400-A	1.18 [30]	1.18 [30]	400 [15.74]	447 [17.60]	Aluminum	394g [0.87 lb]
TCA-20M-20M-400-S	.79 [20]	.79 [20]	400 [15.74]	438 [17.24]	Steel	384g [0.85 lb]
TCA-30M-30M-400-S	1.18 [30]	1.18 [30]	400 [15.74]	447 [17.60]	Steel	622g [1.37 lb]

# TCLD SERIES

Accelerate® Tooling Collection | Dimensions

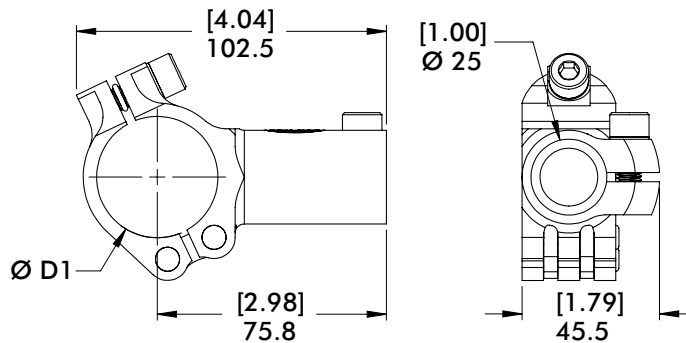
## TCLD T-Clamp



Material: High Strength Aluminum

Model Number	ØD1	ØD2	A	B	Weight
TCLD-10E-10E-A	Ø1.00 in	Ø1.00 in	77.5 [3.05]	101.1 [3.98]	194g [0.43 lb]
TCLD-10E-25M-A	Ø1.00 in	Ø25mm	77.5 [3.05]	101.1 [3.98]	194g [0.43 lb]
TCLD-25M-25M-A	Ø25mm	Ø25mm	77.5 [3.05]	101.1 [3.98]	194g [0.43 lb]
TCLD-12E-10E-A	Ø1.25 in	Ø1.00 in	74.5 [2.93]	99.1 [3.90]	186g [0.41 lb]
TCLD-30M-25M-A	Ø30mm	Ø25mm	74.5 [2.93]	99.1 [3.90]	192g [0.42 lb]

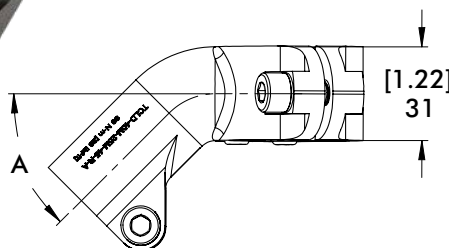
## TCLD T-Clamp



Material: High Strength Aluminum

Model Number	ØD1	ØD2	Weight
TCLD-15E-10E-A	Ø1.50 in	Ø1.00 in	193g [0.43 lb]
TCLD-40M-25M-A	Ø40mm	Ø25mm	191g [0.42 lb]

## TCLD Angled T- Clamps



Material: High Strength Aluminum

Model Number	A	Weight
TCLD-40M-20M-30-L-A	30°	225g [0.50 lb]
TCLD-40M-20M-30-R-A	30°	225g [0.50 lb]
TCLD-40M-20M-45-L-A	45°	230g [0.51 lb]
TCLD-40M-20M-45-R-A	45°	230g [0.51 lb]
TCLD-40M-25M-30-L-A	30°	201g [0.44 lb]
TCLD-40M-25M-30-R-A	30°	201g [0.44 lb]
TCLD-40M-25M-45-L-A	45°	206g [0.45 lb]
TCLD-40M-25M-45-R-A	45°	206g [0.45 lb]

# TCL SERIES

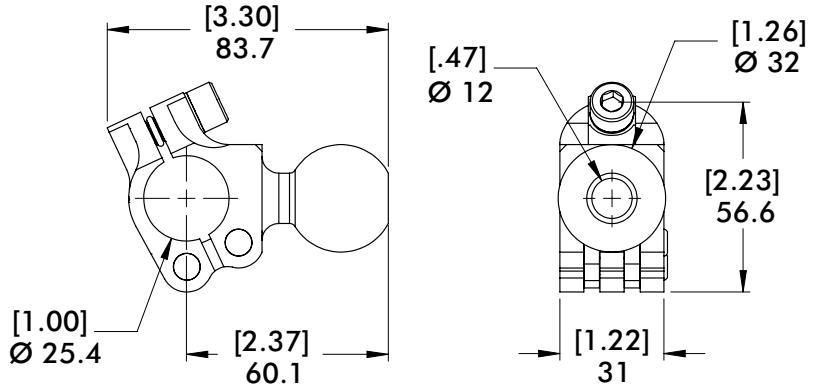
Accelerate® Tooling Collection | Dimensions

## TCL Ball Clamps Ø32

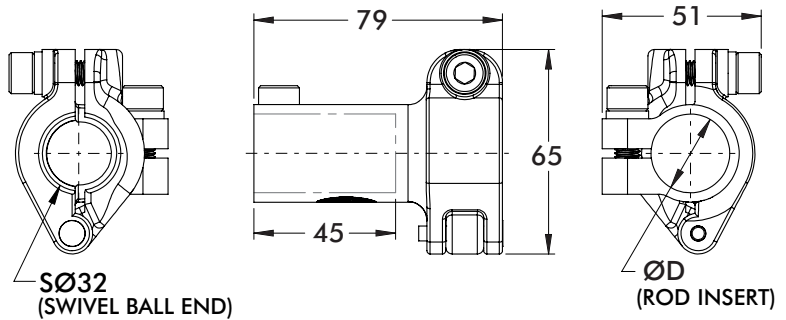


Material: High Strength Aluminum

Model Number	Weight
TCLD-10E-32B-A	166g [0.37 lb]



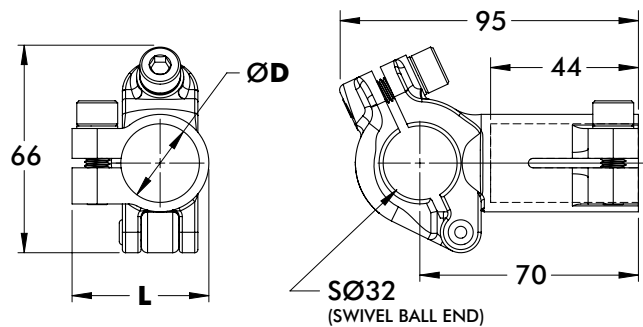
## TCL Ø32 Ball to Ø25



Material: High Strength Aluminum

Model Number	ØD	Weight
TCL-32B-25M-90-A	Ø25	145g [0.32 lb]
TCL-32B-20M-90-A	Ø20	157g [0.35 lb]
TCL-32B-10E-90-A	1 in	157g [0.35 lb]

## TCL Ø25mm/1 in to Ø32



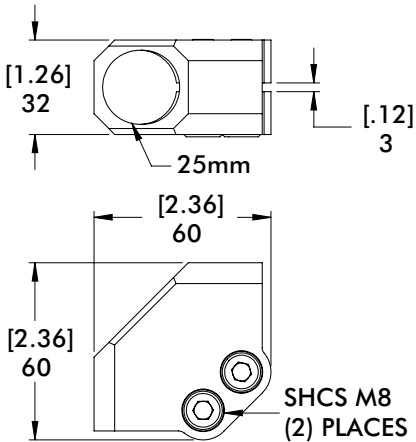
Material: High Strength Aluminum

Model Number	ØD	Weight
TCL-25M-32B-A	Ø25	147g [0.32 lb]
TCL-20M-32B-A	Ø20	128g [0.28 lb]
TCL-10E-32B-A	1 in	141g [0.31 lb]

# SEC SERIES

Accelerate® Tooling Collection | Dimensions

## SEC Wrist Clamp



Material: Aluminum

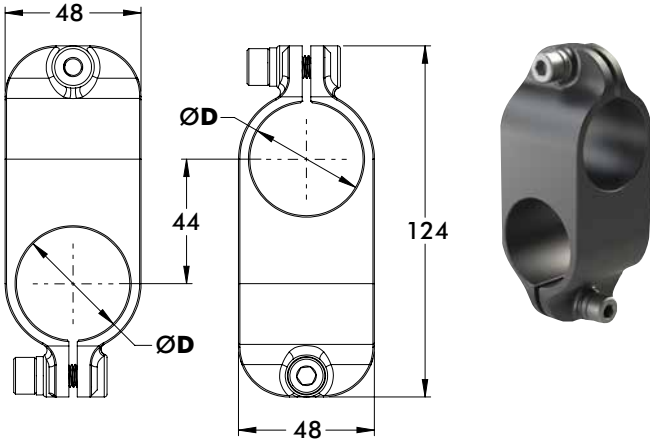
Model Number	Weight
SEC-25M-25M-A	[0.10 lb] 47g

# CL SERIES

Accelerate® Tooling Collection | Dimensions

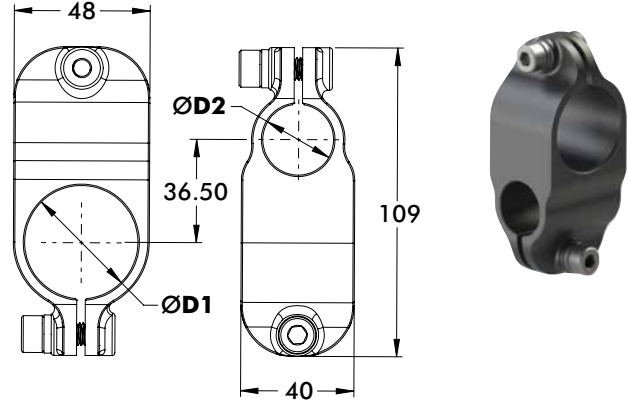
## CL Cross Clamps

Material: High Strength Aluminum



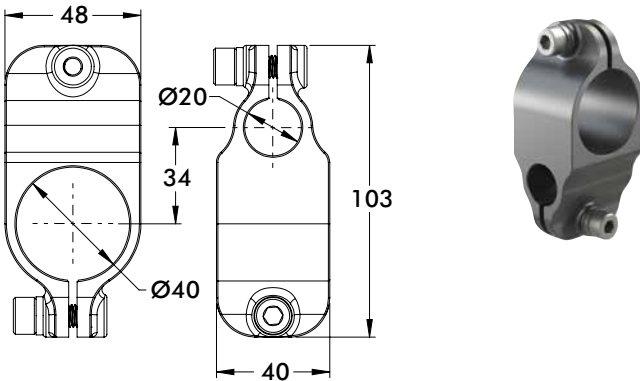
Ø40mm/1.50 in to Ø40mm/1.50 in Cross Clamp

Model Number	ØD	Weight
CL-40M-40M-A	40mm	233g [0.51 lb]
CL-15E-15E-A	1.50 in	283g [0.62 lb]



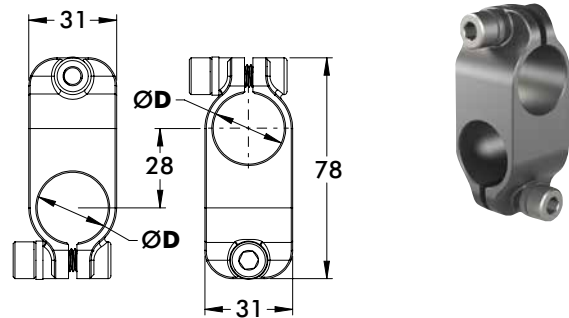
Ø40mm/1.50 in to Ø25mm/1.00 in Cross Clamp

Model Number	ØD1	ØD2	Weight
CL-40M-25M-A	40mm	25mm	214g [0.47 lb]
CL-15E-10E-A	1.50 in	1.00 in	223g [0.50 lb]



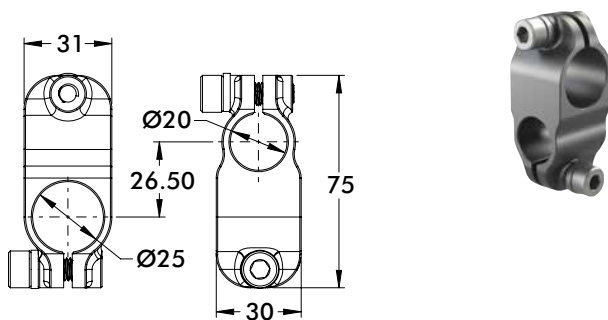
Ø40mm to Ø20mm Cross Clamp

Model Number	Weight
CL-40M-20M-A	202g [0.45 lb]



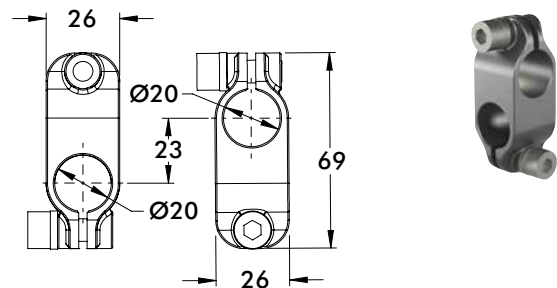
Ø25mm/1.00 in to Ø25mm/1.00 in Cross Clamp

Model Number	ØD	Weight
CL-25M-25M-A	25mm	102g [0.22 lb]
CL-10E-10E-A	1.00 in	105g [0.23 lb]



Ø25mm to Ø20mm Cross Clamp

Model Number	Weight
CL-25M-20M-A	98g [0.22 lb]



Ø20mm to Ø20mm Cross Clamp

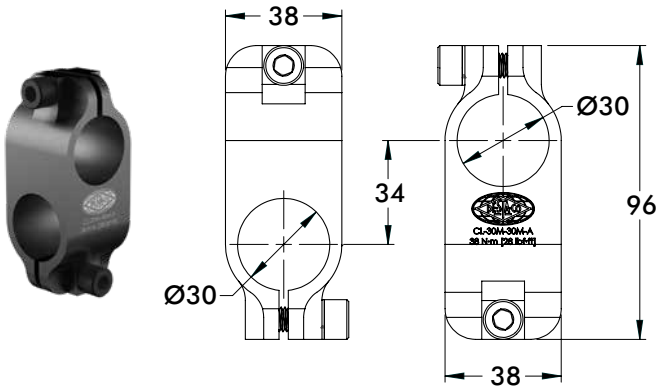
Model Number	Material	Weight
CL-20M-20M-A	Aluminum	52g [0.11 lb]
CL-20M-20M-S	Steel	178g [0.39 lb]

# CL SERIES

Accelerate® Tooling Collection | Dimensions

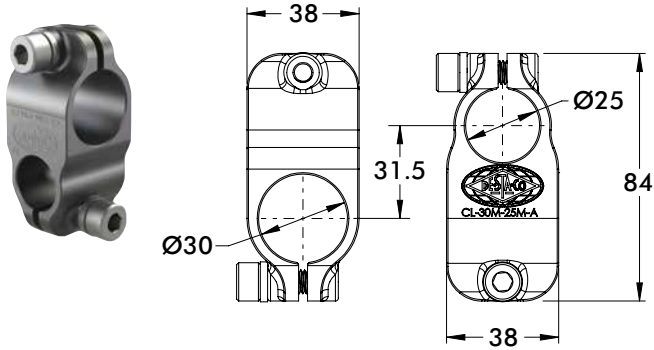
## CL Cross Clamps

Material: High Strength Aluminum



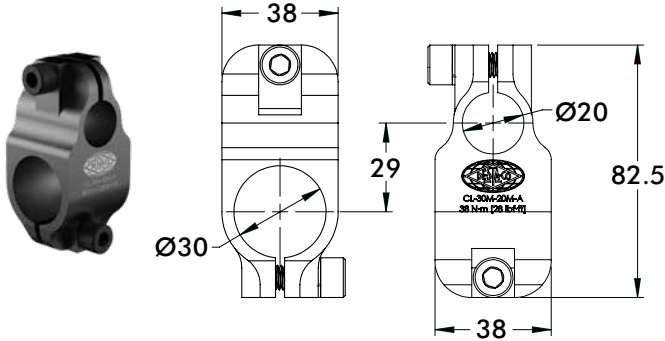
Ø30mm to Ø30mm Cross Clamp

Model Number	Material	Weight
CL-30M-30M-A	Aluminum	200g [0.44 lb]
CL-30M-30M-S	Steel	415g [0.91 lb]



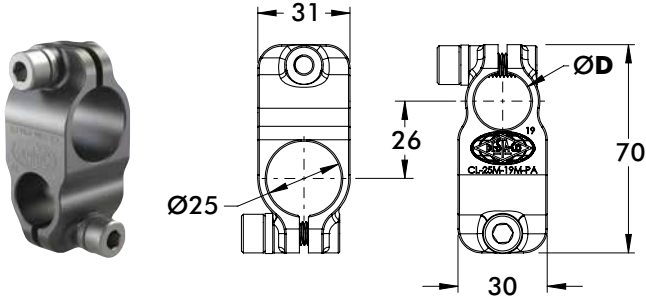
Ø30mm to Ø25mm Cross Clamp

Model Number	Weight
CL-30M-25M-A	148g [0.33 lb]



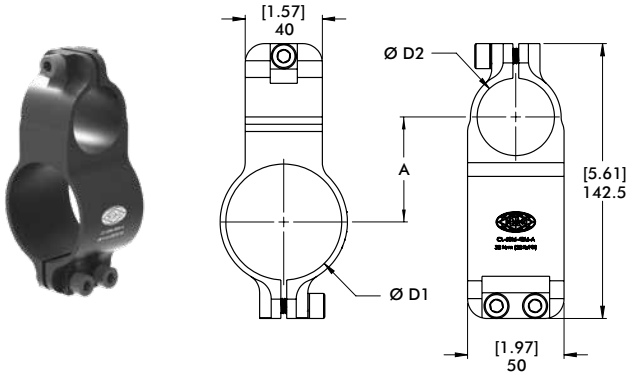
Ø30mm to Ø20mm Cross Clamp

Model Number	Weight
CL-30M-20M-A	125g [0.28 lb]



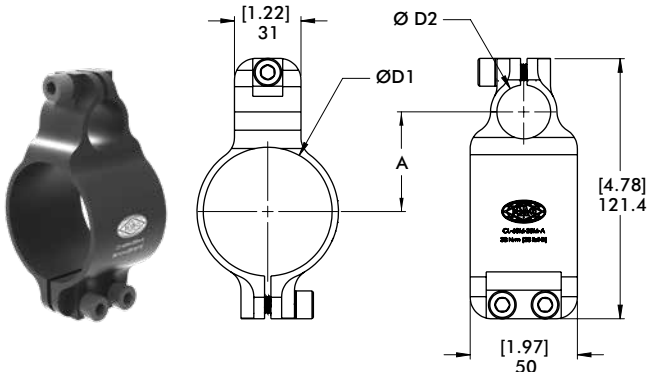
Ø25mm to Apple Core Cross Clamp

Model Number	ØD	Weight
CL-25M-19M-PA-A	19	95g [0.21 lb]
CL-25M-20M-PA-A	20	94g [0.21 lb]



Ø60mm/2.50 in to Ø40mm/1.50 in Cross Clamp

Model Number	ØD1	ØD2	A	Weight
	mm [in]	mm [in]	mm [in]	g [lb]
CL-60M-40M-A	60	40	54,5	276 [0.61]
CL-25E-15E-A	[2.50]	[1.50]	[2.13]	271 [0.60]



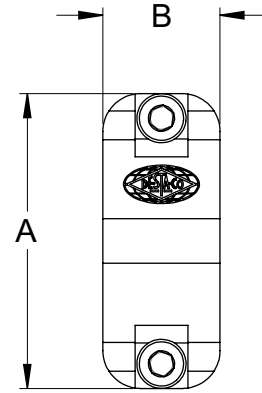
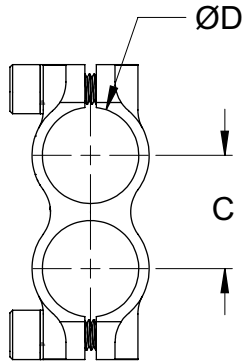
Ø60mm/2.50 in to Ø25mm/1.00 in Cross Clamp

Model Number	ØD1	ØD2	A	Weight
	mm [in]	mm [in]	mm [in]	g [lb]
CL-60M-25M-A	60	25	46,5	220 [0.49]
CL-25E-10E-A	[2.50]	[1.00]	[1.91]	228 [0.50]

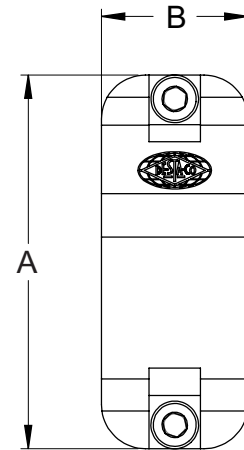
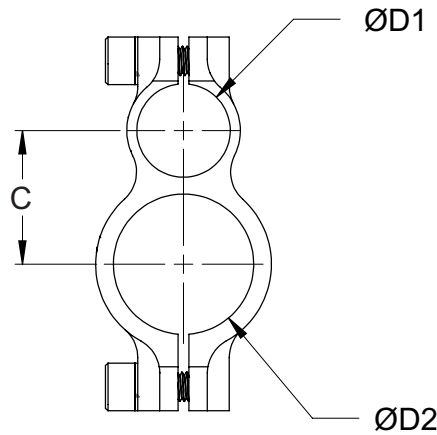
# PC SERIES

## Accelerate® Tooling Collection | Dimensions

### PC Parallel Clamps



Model Number	A	B	C	ØD	Material	Weight
PC-10E-10E-A	[3.07] 78	[1.22] 31	[1.18] 30	[1.00] 25.4	Aluminum	[0.21 lb] 95g
PC-20M-20M-A	[2.72] 69	[1.02] 26	[0.91] 23	[0.79] 20	Aluminum	[0.18 lb] 83g
PC-20M-20M-S	[2.72] 69	[1.02] 26	[0.91] 23	[0.79] 20	Steel	[0.39 lb] 177g
PC-25M-25M-A	[3.07] 78	[1.22] 31	[1.18] 30	[1.00] 25.4	Aluminum	[0.21 lb] 93g
PC-30M-30M-A	[3.86] 98	[1.50] 38	[1.34] 34	[1.18] 30	Aluminum	[0.34 lb] 155g
PC-30M-30M-S	[3.86] 98	[1.50] 38	[1.34] 34	[1.18] 30	Steel	[0.83 lb] 378g



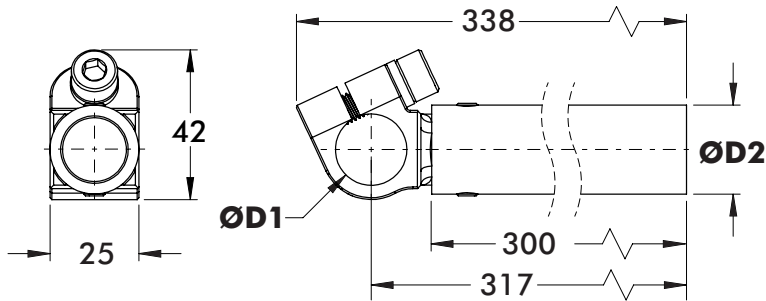
Model Number	A	B	C	ØD1	ØD2	Weight
PC-15E-10E-A	[4.02] 102	[1.57] 40	[1.44] 36.5	[1.00] 25.4	[1.50] 38.1	169g [0.37 lb]
PC-30M-20M-A	[3.29] 83.5	[1.5] 38	[1.12] 28.5	[0.79] 20	[1.18] 30	129g [0.28 lb]
PC-30M-25M-A	[3.52] 89.5	[1.5] 38	[1.24] 31.5	[0.98] 25	[1.18] 30	136g [0.30 lb]
PC-40M-25M-A	[4.02] 102	[1.57] 40	[1.44] 36.5	[0.98] 25	[1.57] 40	158g [0.35 lb]



# ES SERIES

Accelerate® Tooling Collection | Dimensions

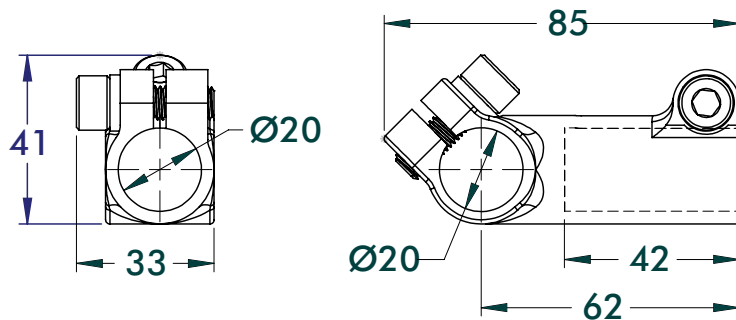
## ES Single End Extensions



Material: High Strength Aluminum

Model Number	ØD1	ØD2	Weight
ES-20M-25M-300-A	20mm	25mm	250g [0.55 lb]
ES-19M-25M-300-A	19mm	25mm	250g [0.55 lb]
ES-19M-10E-300-A	19mm	1.00 in	269g [0.59 lb]

## ES Ø20 to Ø20

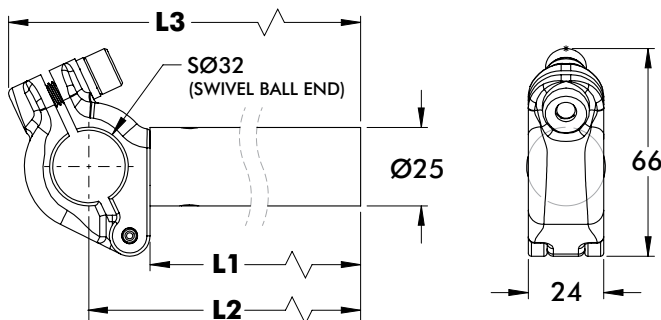


Material: High Strength Aluminum

Model Number	Weight
ES-20M-20M-A	100g [0.22 lb]

## Ball Extensions

### ES 32mm



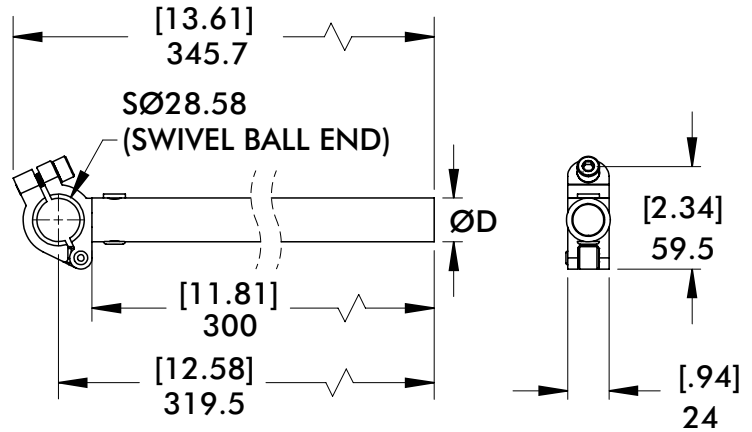
Material: High Strength Aluminum

Model Number	L1	L2	L3	Weight
ES-32B-10E-300-A	300	320	345	277g [0.61 lb]
ES-32B-20M-300-A	300	320	345	225g [0.50 lb]
ES-32B-25M-300-A	300	320	345	262g [0.56 lb]
ES-32B-25M-600-A	600	620	645	437g [0.96 lb]

# ES, ESS SERIES

Accelerate® Tooling Collection | Dimensions

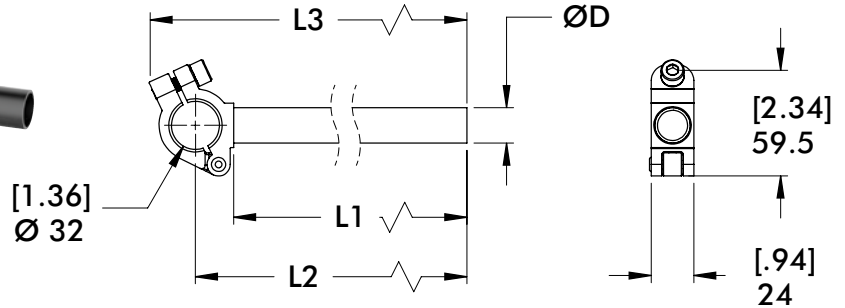
## ES Ball Extension 28.58mm



Material: High Strength Aluminum

Model Number	ØD	Weight
ES-B112-25M-300-A	[.98] 25	[0.67 lb] 302g
ES-B112-10E-300-A	[1.00] 25.4	[0.67 lb] 302g

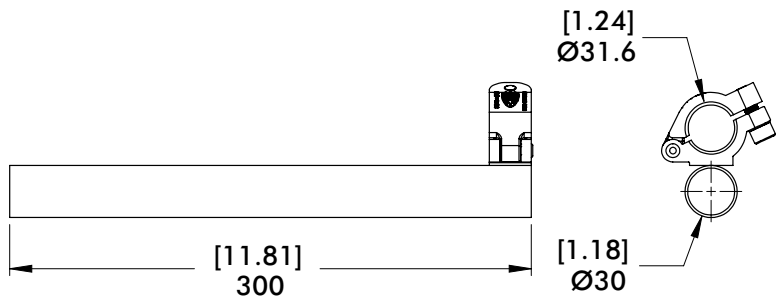
## ESS Ball Extension 32mm



Material: Steel

Model Number	ØD	L1	L2	L3	Weight
ESS-32B-20M-300-S	20 [.79]	298 [11.73]	319.5 [12.58]	345 [13.58]	410g [0.90 lb]
ESS-32B-20M-600-S	20 [.79]	598 [23.54]	598 [23.54]	645 [25.39]	674g [1.48 lb]
ESS-32B-30M-300-S	30 [1.18]	298 [11.73]	319.5 [12.58]	345 [13.58]	516g [1.14 lb]
ESS-32B-30M-600-S	30 [1.18]	598 [23.54]	598 [23.54]	645 [25.39]	830g [1.83 lb]

## ESS-90 Ball Extension 32mm

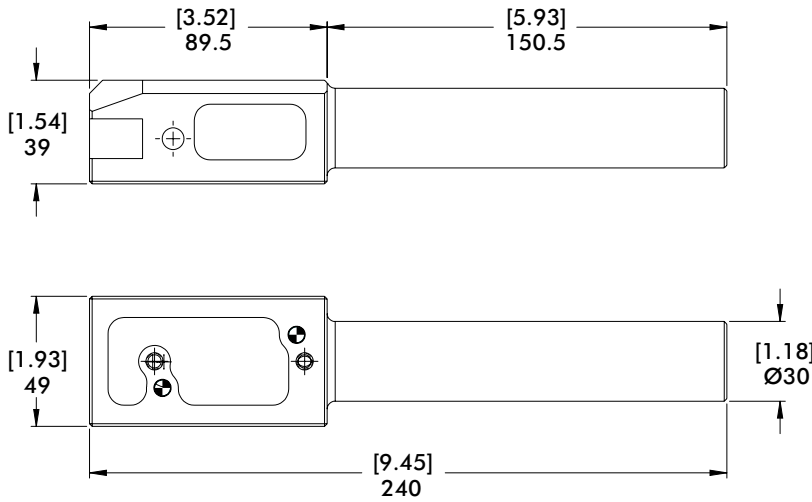


Model Number	ØD	Weight
ESS-32B-30M-90-300-S	30 [1.18]	518.4g [1.14 lb]

# GTA, LPT SERIES

Accelerate® Tooling Collection | Dimensions

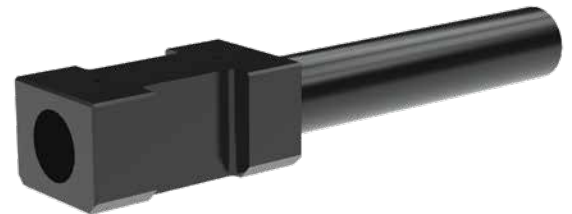
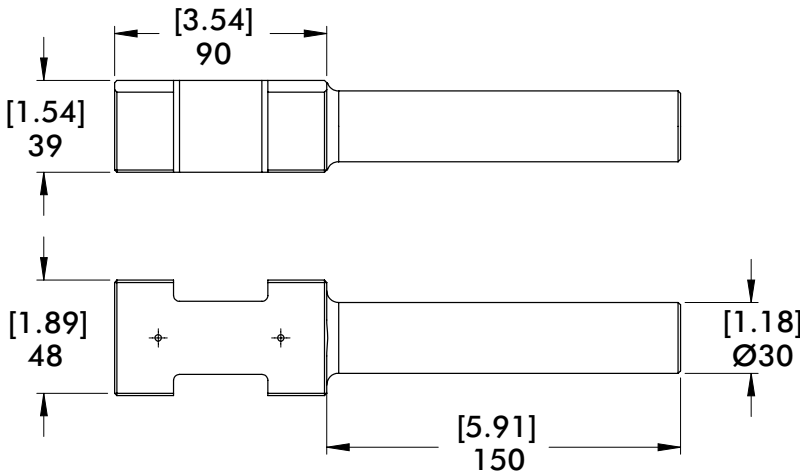
## GTA - Tri Axis Adaptor Mounts



Material: High Strength Aluminum

Model Number	Weight
GTA-30-150	412g [0.91 lb]

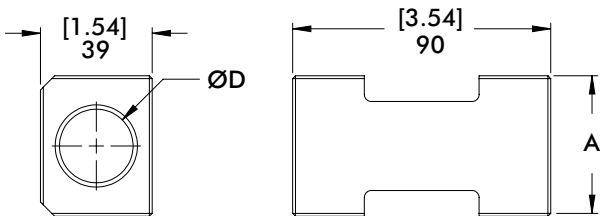
## GTA



Material: High Strength Aluminum

Model Number	Weight
GTA-30-LTP	499g [1.10 lb]

## LTP



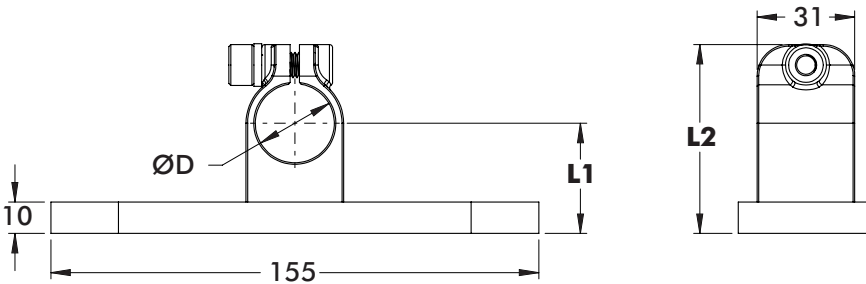
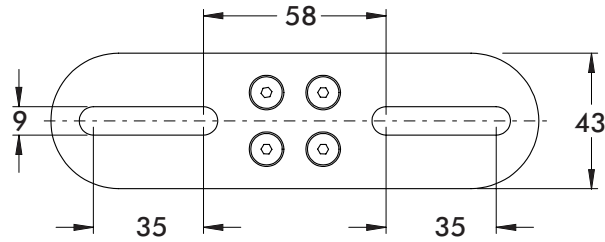
Material: Steel

Model Number	A	ØD	Weight
CPI-LTP-B-10	48 [1.89]	25.4 [1.00]	771g [1.70 lb]
CPI-LTP-B-11	49 [1.93]	27.3 [1.07]	726g [1.60 lb]

# TPA SERIES

Accelerate® Tooling Collection | Dimensions

## TPA Single Flange Mount

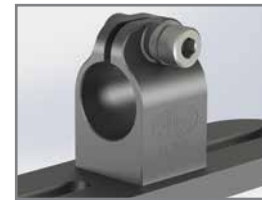


TPA-25-35

TPA-30-35



TPA-25-65  
TPA-30-65

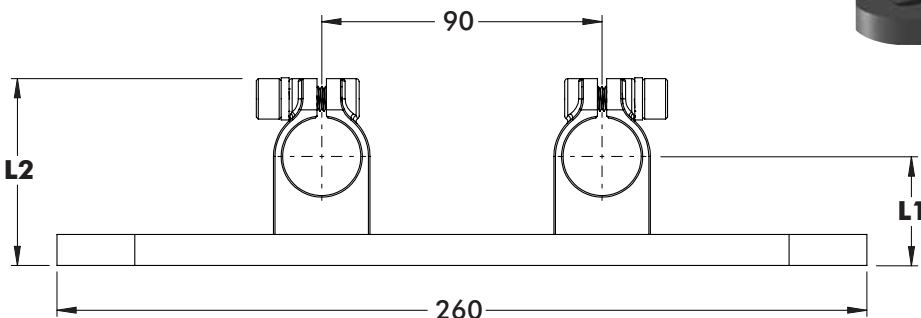
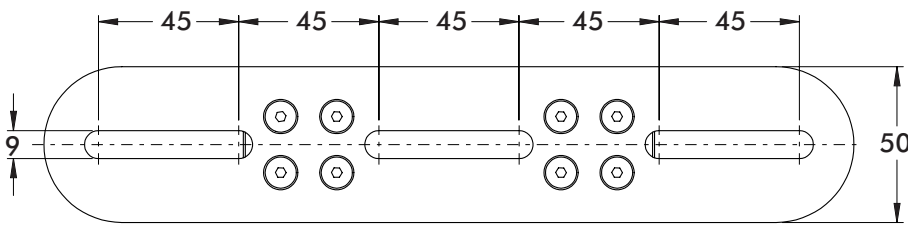


Configured 90°

Material: High Strength Aluminum

Model Number	L1	L2	ØD	Weight
TPA-20-35-LWT-A	35	60	20	234g [0.52 lb]
TPA-25-35-LWT-A	35	60	25	246g [0.54 lb]
TPA-25-65-LWT-A	63	88	25	322g [0.71 lb]
TPA-30-35-LWT-A	35	67	30	265g [0.58 lb]
TPA-30-65-LWT-A	63	95	30	361g [0.80 lb]

## TPA Double Flange Mount



Material: High Strength Aluminum

Model Number	L1	L2	Weight
TPA-25-25-65-LWT-A	65	88	644g [1.42 lb]

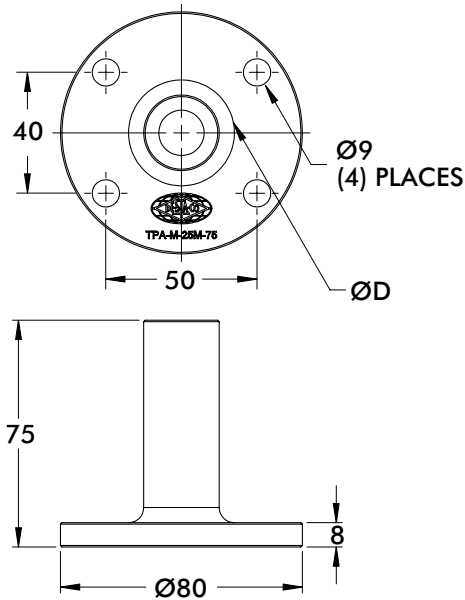


Configured 90°

# TPA SERIES

Accelerate® Tooling Collection | Dimensions

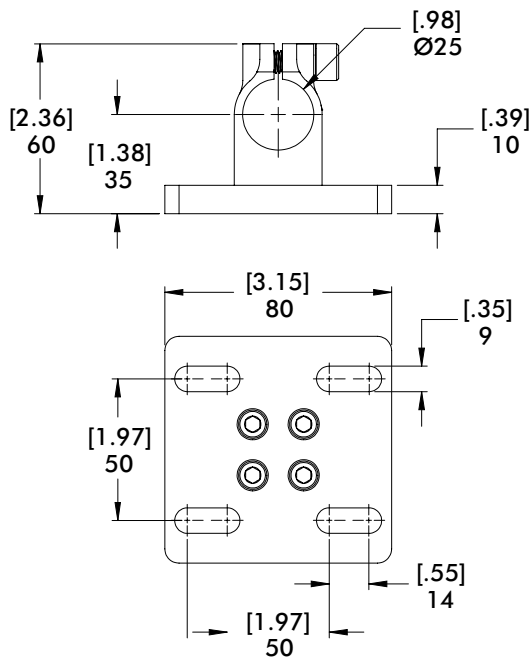
## TPA Base Mount



Material: High Strength Aluminum

Model Number	$\varnothing D$	Weight
TPA-M-20M-75	20mm	151g [0.33 lb]
TPA-M-25M-75	25mm	164g [0.36 lb]

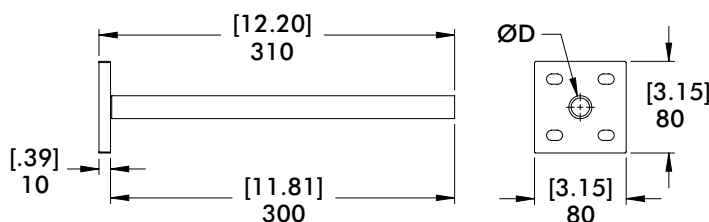
## TPA 90° Base Clamp



Material: High Strength Aluminum

Model Number	Weight
TPA-G-25-35-A	258g [0.57 lb]

## TPA Flange Extension



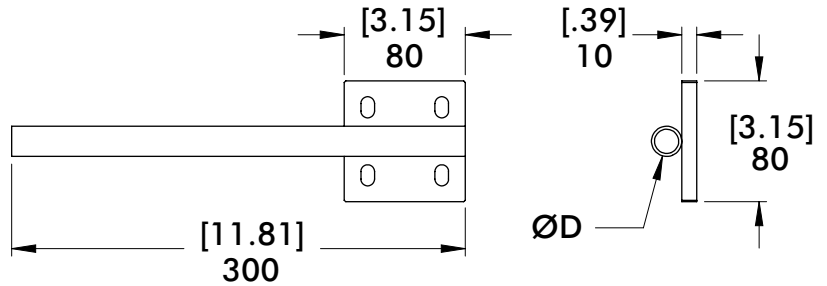
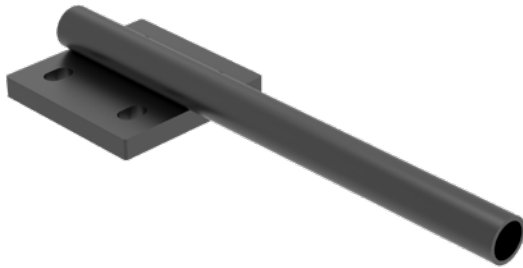
Material: Steel

Model Number	$\varnothing D$	Weight
TPA-00-20-300-GD	20mm	736g [1.62 lb]
TPA-00-25-300-GD	25mm	810g [1.79 lb]
TPA-00-30-300-GD	30mm	884g [1.95 lb]

# TPA, TBS SERIES

Accelerate® Tooling Collection | Dimensions

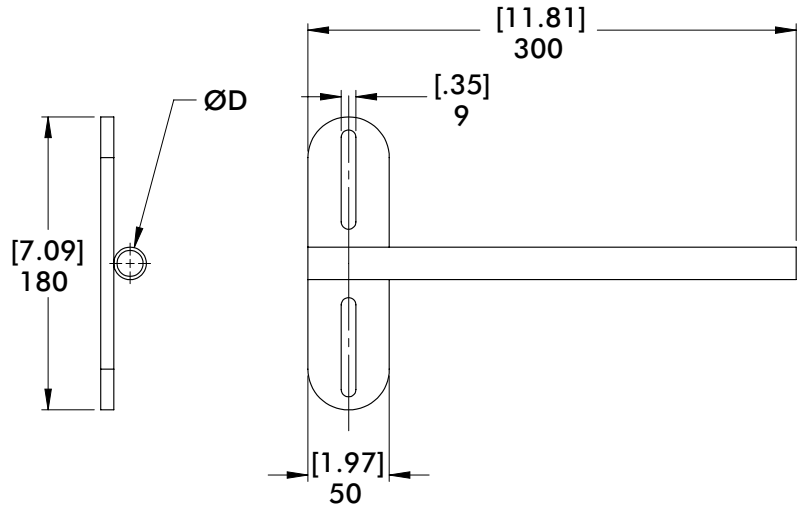
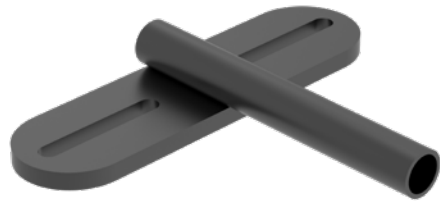
## TPA 90° Slotted Flange Extension



Material: Steel

Model Number	ØD	Weight
TPA-90-20-300-GD	20mm	736g [1.62 lb]
TPA-90-25-300-GD	25mm	810g [1.79 lb]
TPA-90-30-300-GD	30mm	884g [1.95 lb]

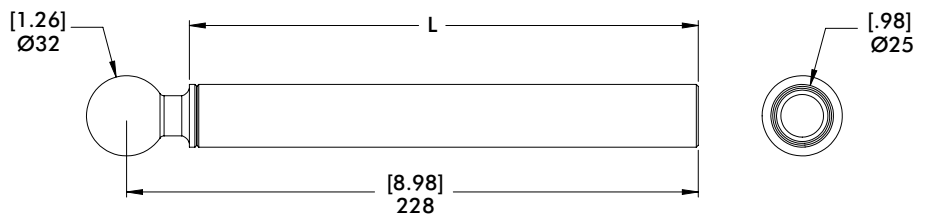
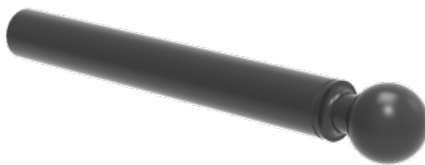
## TPA 90° Slotted Flange Extension



Material: Steel

Model Number	ØD	Weight
TPA-90-20-300	20mm	733g [1.62 lb]
TPA-90-25-300	25mm	807g [1.78 lb]
TPA-90-30-300	30mm	881g [1.94 lb]

## TBS Ball Extension



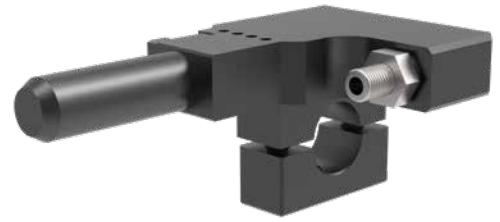
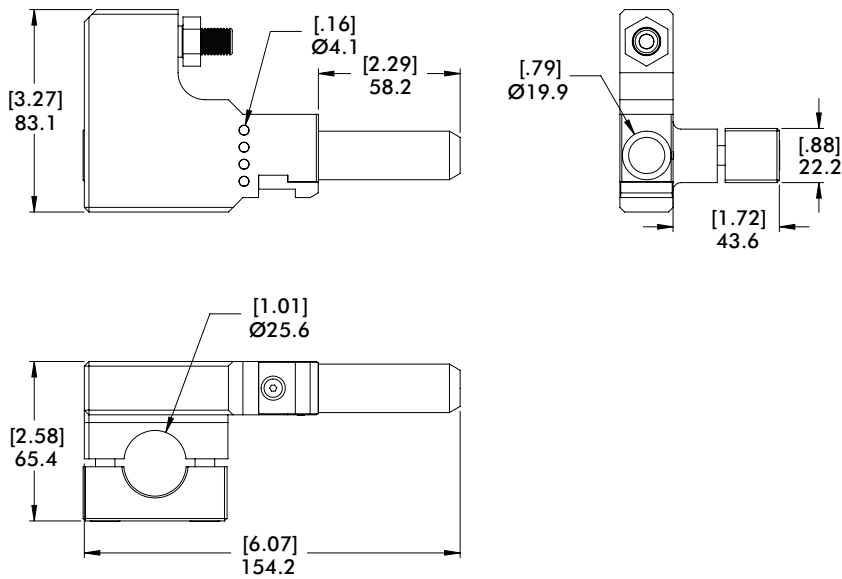
Material: Steel

Model Number	L	Weight
TBS-32B-25M-200-A	[7.87] 200	[0.75 lb] 339g
TBS-32B-25M-300-A	[11.81] 300	[1.43 lb] 648g

# TPB, 1T SERIES

Accelerate® Tooling Collection | Dimensions

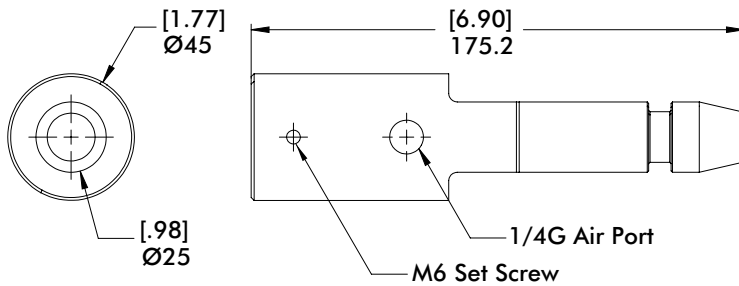
## TPB - Transfer Press Bayonet



Material: Steel

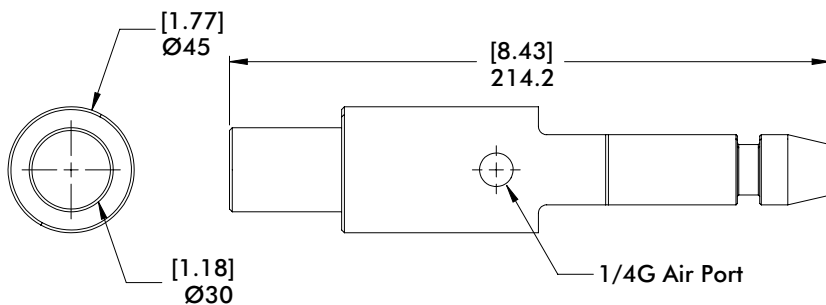
Model Number	Weight
CPI-TPB-HYU-10-1A-ST	734g [1.62 lb]

## 1T - One Touch Finger Tool 25mm



Model Number	Material	Weight
CPI-1T-25F	Steel	1.05kg [2.31 lb]
CPI-1T-25F-A	Aluminum	0.36kg [0.79 lb]

## 1T - One Touch Finger Tool 40mm

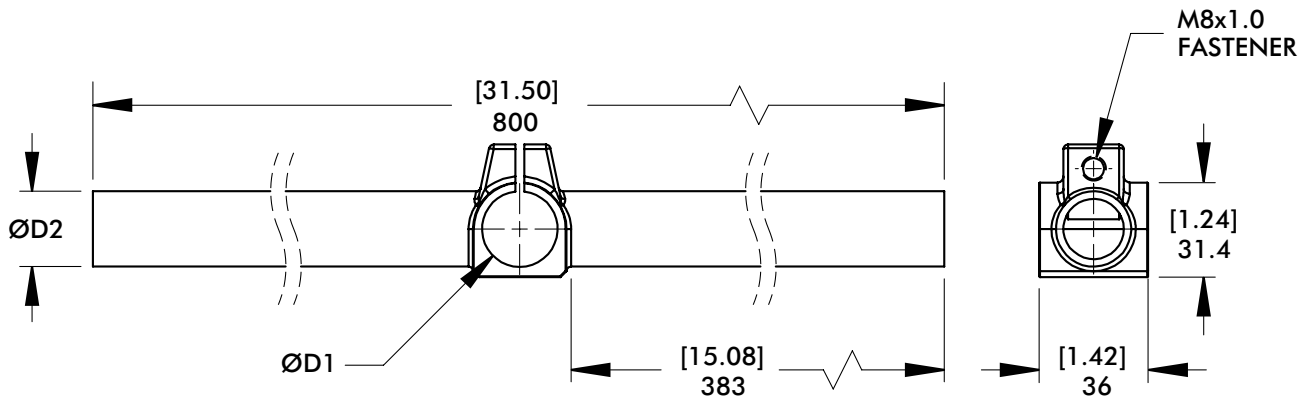


Model Number	Material	Weight
CPI-1T-33M	Steel	1.42kg [3.13 lb]
CPI-1T-33M-A	Aluminum	0.49kg [1.08 lb]

# LPT SERIES

Accelerate® Tooling Collection | Dimensions

## LTP Double T-Clamp



Material: Steel

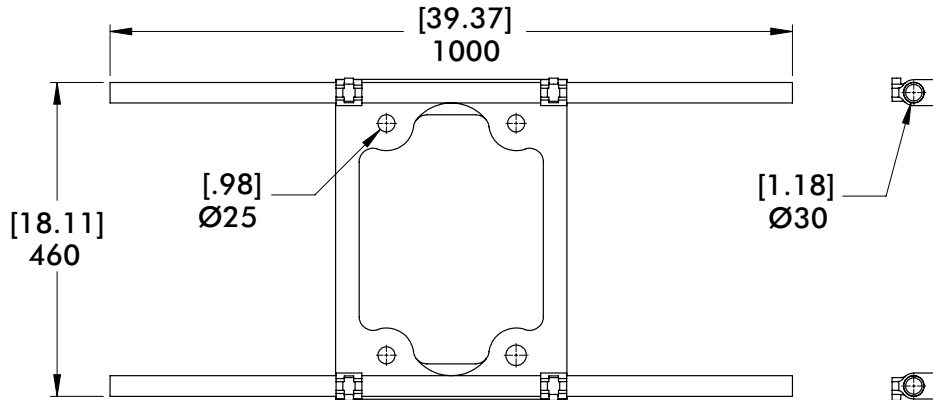
Model Number	ØD1	ØD2	Weight
TCA-20M-20MD-400-A	20mm	20mm	974.7g [2.15 lb]
TCA-25M-20MD-400-A	25mm	20mm	1001.8g [2.21 lb]
TCA-25M-25MD-400-A	25mm	25mm	1245.3g [2.75 lb]
TCA-30M-30MD-400-A	30mm	30mm	1546.6g [3.41 lb]



# LTP SERIES

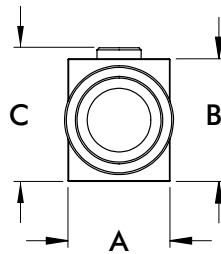
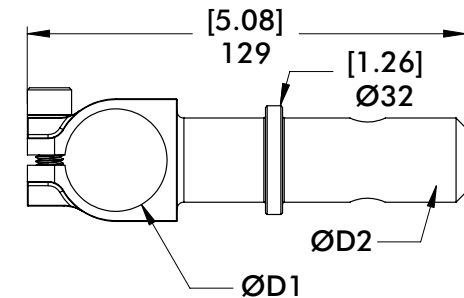
Accelerate® Tooling Collection | Dimensions

## LTP Frame

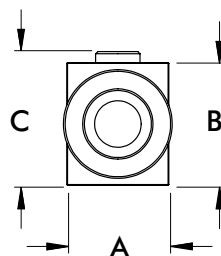
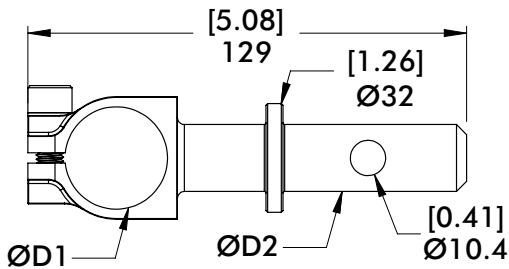


Model Number	Weight
LTP-30M-25-30-1000-A	3939g [8.68 lb]

## LTP Pin



LTP-90-25-20-S  
LTP-90-25-25-S  
LTP-90-30-20-A  
LTP-90-30-25-A



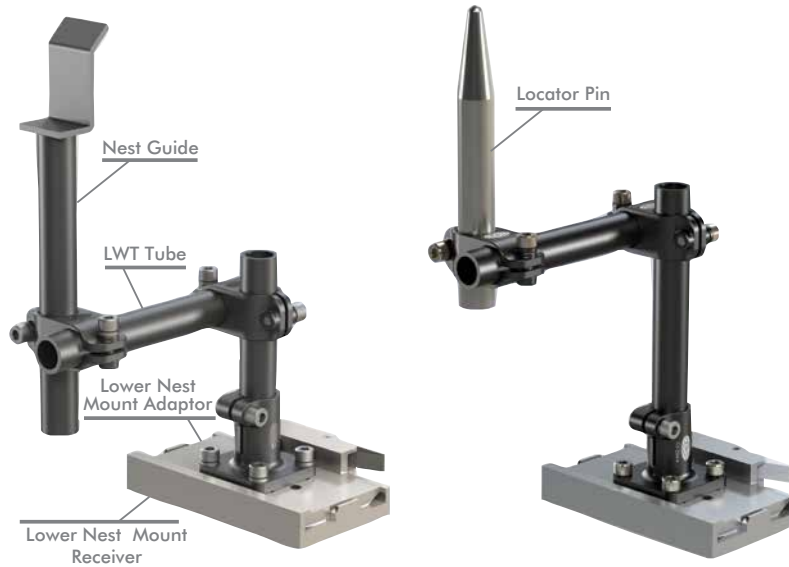
LTP-00-30-20-A  
LTP-00-30-25-A

Material: Steel

Model Number	ØD1	ØD2	A	B	C	Weight
LTP-90-25-20-S	25mm	20mm	31 [1.22]	31 [1.22]	37.2 [1.46]	370g [0.82 lb]
LTP-90-25-25-S		25mm				470g [1.04 lb]
LTP-90-30-20-S		20mm				350g [0.77 lb]
LTP-90-30-25-S		25mm				460g [1.01 lb]
LTP-00-30-20-S	30mm	20mm	30 [1.18]	36 [1.42]	39.65 [1.56]	350g [0.77 lb]
LTP-00-30-25-S		25mm				460g [1.01 lb]

# CP, SGM SERIES

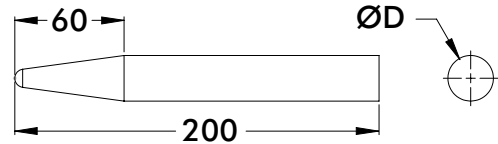
Accelerate® Tooling Collection | Lower Nest Tooling Example



## CP Center Pin

Ø20/Ø25, 200mm Length

Model Number	ØD	Weight
CP-20-200	20	427g [0.94 lb]
CP-25-200	25	640g [1.41 lb]

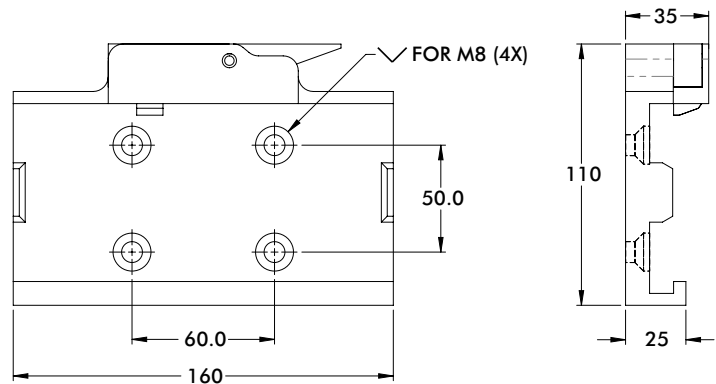


Material: Steel

## SGM Mount Receiver



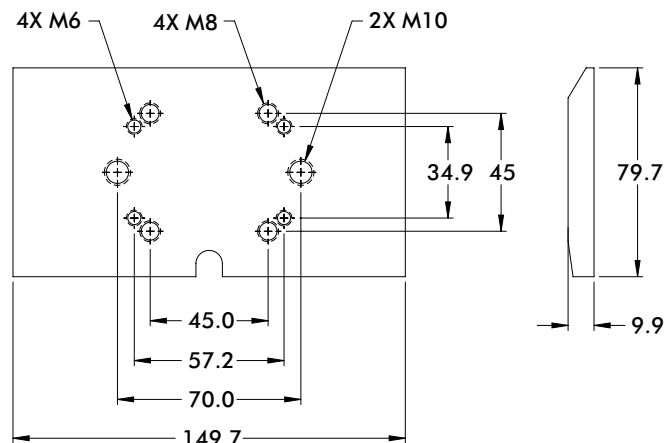
Model Number	Material	Weight
CPI-SGM-TH-USR-AL	Aluminum	670g [1.48 lb]
CPI-SGM-TH-USR	Steel	1730g [3.81 lb]



## SGM Mount Adaptor



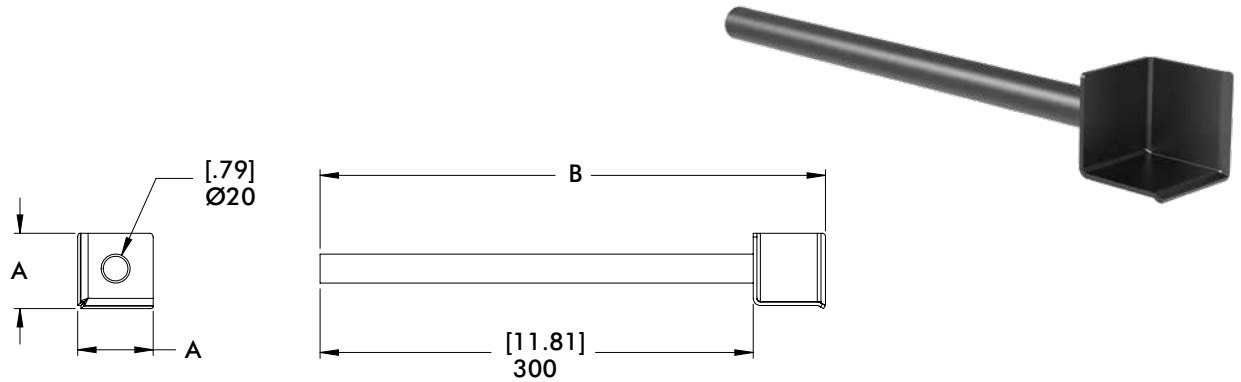
Model Number	Material	Weight
CPI-SGM-TH-USA-AL	Aluminum	287g [0.63 lb]
CPI-SGM-TH-USA	Steel	839g [1.85 lb]



# GTS, NPG SERIES

Accelerate® Tooling Collection | Dimensions

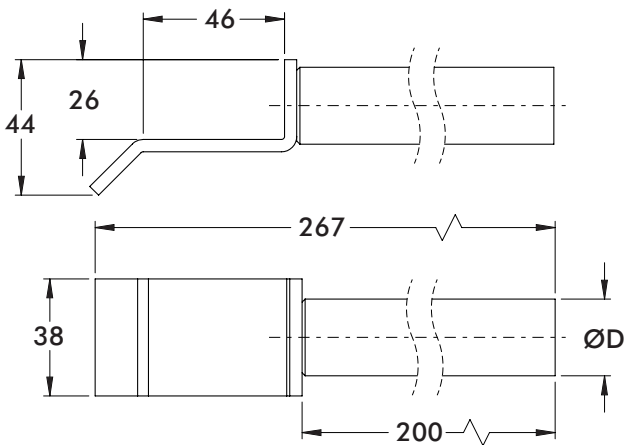
## GTS Shovel with Welded Post



Material: Steel

Model Number	A	B	ØD	Weight
GTS-40-40-40-20M-A	42.2 [1.66]	340 [13.39]	Ø20 [0.79]	290g [0.64 lb]
GTS-40-40-40-30M-A	42.2 [1.66]	340 [13.39]	Ø30 [1.18]	400g [0.88 lb]
GTS-50-50-50-20M-A	52.2 [2.05]	350 [13.78]	Ø20 [0.79]	341g [0.75 lb]
GTS-50-50-50-30M-A	52.2 [2.05]	350 [13.78]	Ø30 [1.18]	451g [0.99 lb]

## NPG Nest Guide



Material: Steel

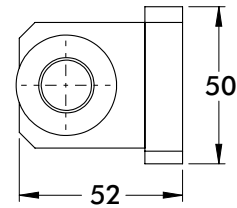
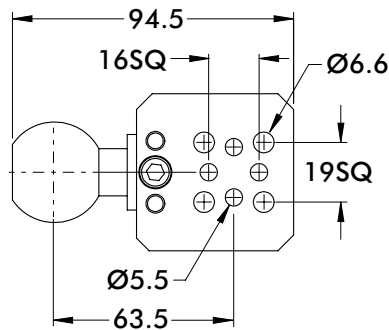
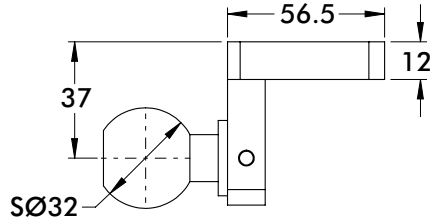
Ø20/Ø25, 200mm Length

Model Number	ØD	Weight
NPG-25-200	25	432g [0.95 lb]
NPG-20-200	20	365g [0.80 lb]

# GT SERIES

Accelerate® Tooling Collection | Dimensions

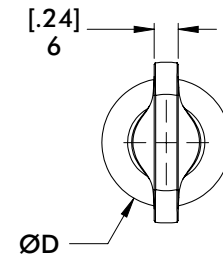
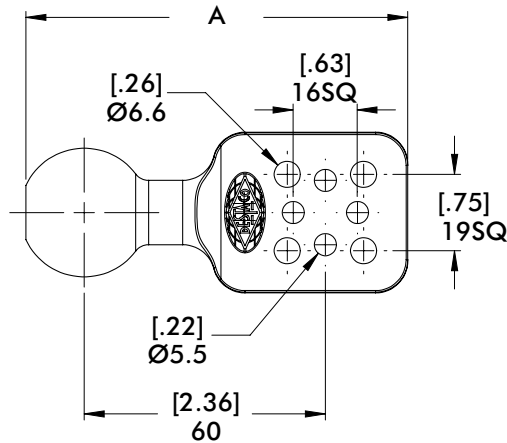
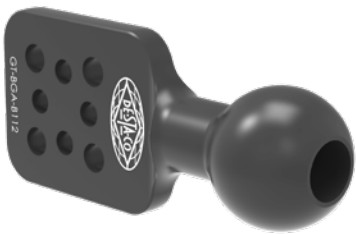
## GT-BGA 32mm Ball Gripper Mount



Material: High Strength Aluminum

Model Number	Weight
GT-BGA-A	174g [0.38 lb]

## GT-BGA Paddle Gripper Mount



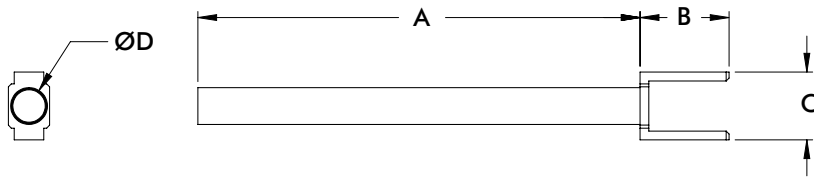
Material: High Strength Aluminum

Model Number	ØD	A	Weight
GT-BGA-B112	28.6 [1.12]	93 [3.66]	66g [0.15 lb]
GT-BGA-32B	32 [1.26]	95 [3.74]	79g [0.17 lb]

# GT SERIES

Accelerate® Tooling Collection | Dimensions

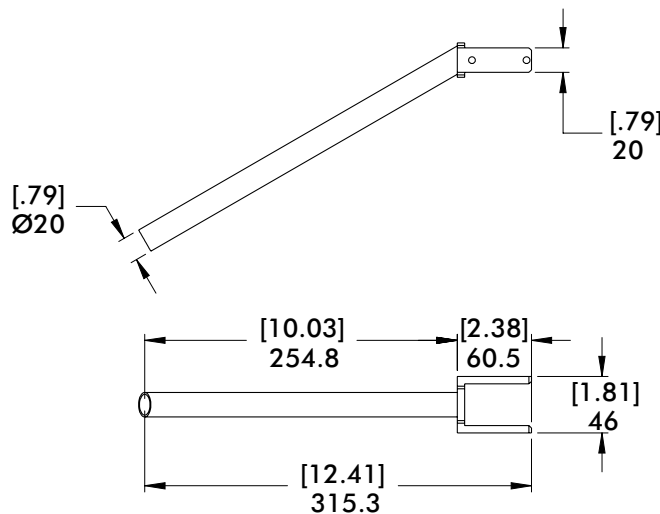
## GT-UGA Side Mount Extension



Material: Steel

Model Number	A	B	C	ØD	Weight
GT-UGA-84A2-20M-400-A	400 [15.74]	60.5 [2.38]	46 [1.81]	20 [0.79]	425g [0.94 lb]
GT-UGA-84A2-25M-300-A	300 [11.81]	60.5 [2.38]	46 [1.81]	25 [0.98]	412g [0.91 lb]
GT-UGA-84A2-30M-400-A	400 [15.74]	60.5 [2.38]	46 [1.81]	30 [1.18]	582g [1.28 lb]
GT-UGA-84A3-20M-400-A	400 [15.74]	51 [2.01]	58 [2.28]	20 [0.79]	475g [1.05 lb]
GT-UGA-84A3-25M-300-A	300 [11.81]	51 [2.01]	58 [2.28]	25 [0.98]	462g [1.02 lb]
GT-UGA-84A3-30M-400-A	400 [15.74]	51 [2.01]	58 [2.28]	30 [1.18]	631g [1.39 lb]

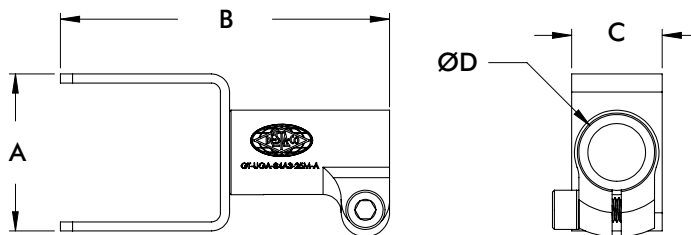
## GT-UGA Angled Side Mount Extension



Material: Steel

Model Number	Weight
GT-UGA-84A2-20M-300-30-A	353g [0.78 lb]

## GT-UGA Side Mount Clamp



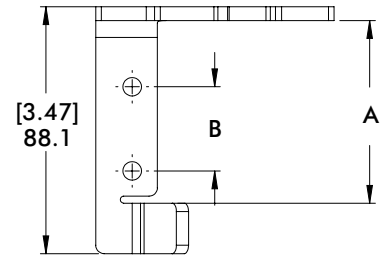
Material: Steel

Model Number	A	B	C	D	Weight
GT-UGA-84A2-20M-A	40 [1.57]	116 [4.57]	20 [0.79]	20 [0.79]	165g [0.36 lb]
GT-UGA-84A2-25M-A	40 [1.57]	116 [4.57]	20 [0.79]	25 [0.98]	184g [0.41 lb]
GT-UGA-84A2-30M-A	40 [1.57]	116 [4.57]	20 [0.79]	30 [1.18]	200g [0.44 lb]
GT-UGA-84A3-20M-A	52 [2.05]	109 [4.29]	30 [1.18]	20 [0.79]	194g [0.43 lb]
GT-UGA-84A3-25M-A	52 [2.05]	109 [4.29]	30 [1.18]	25 [0.98]	213g [0.47 lb]
GT-UGA-84A3-30M-A	52 [2.05]	109 [4.29]	30 [1.18]	30 [1.18]	228g [0.50 lb]

# GT-OPS, SAP SERIES

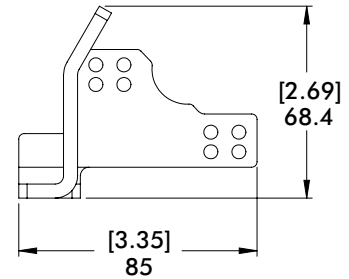
Accelerate® Tooling Collection | Dimensions

## GT-OPS Jaw Sensor Mount

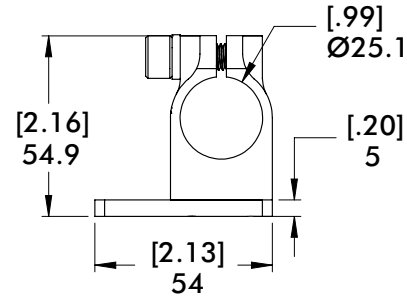


Material: Steel

Model Number	A	B	Weight
GT-OPS-84A2-LH-A	63.5 [2.50]	17.5 [0.69]	171g [0.38 lb]
GT-OPS-84A2-RH-A	63.5 [2.50]	17.5 [0.69]	171g [0.38 lb]
GT-OPS-84A3-LH-A	65.1 [2.56]	30 [1.18]	192g [0.42 lb]
GT-OPS-84A3-RH-A	65.1 [2.56]	30 [1.18]	192g [0.42 lb]

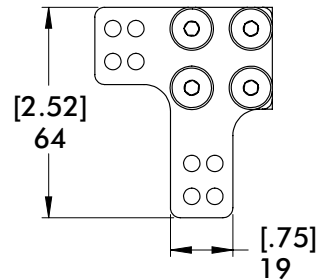


## SAP Sensor Clamp Mount

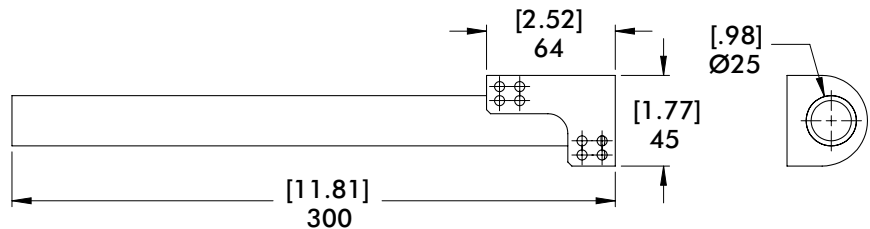


Material: High Strength Aluminum

Model Number	Weight
SAP-OPS-25M-A	120g [0.26 lb]



## SAP Sensor Extension Mount



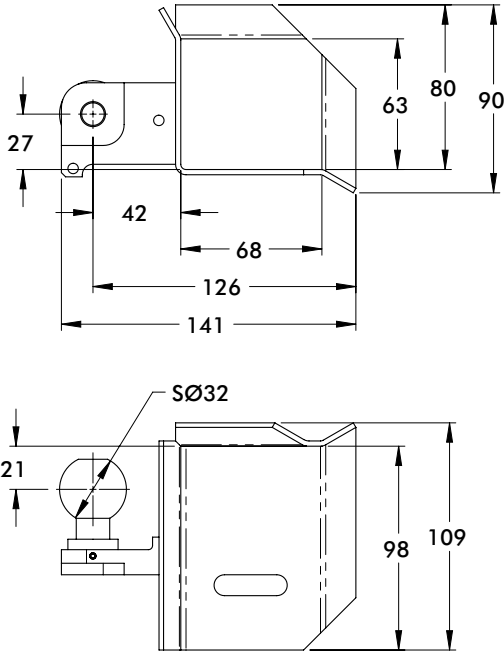
Material: Steel

Model Number	Weight
SAP-OPS-25M-300-LH-A	515g [1.14 lb]
SAP-OPS-25M-300-RH-A	515g [1.14 lb]

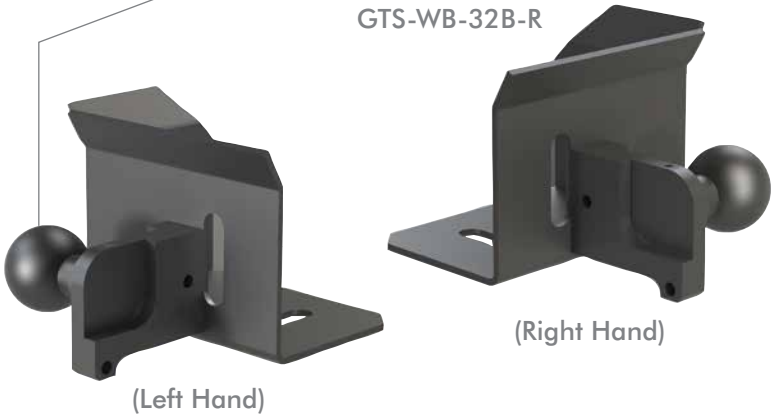
# GTS SERIES

Accelerate® Tooling Collection | Dimensions

## GTS-100 32mm Ball 80mm Shovel



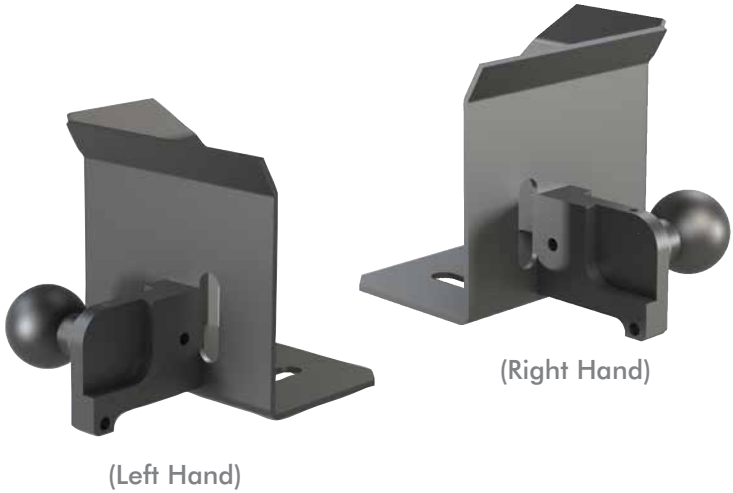
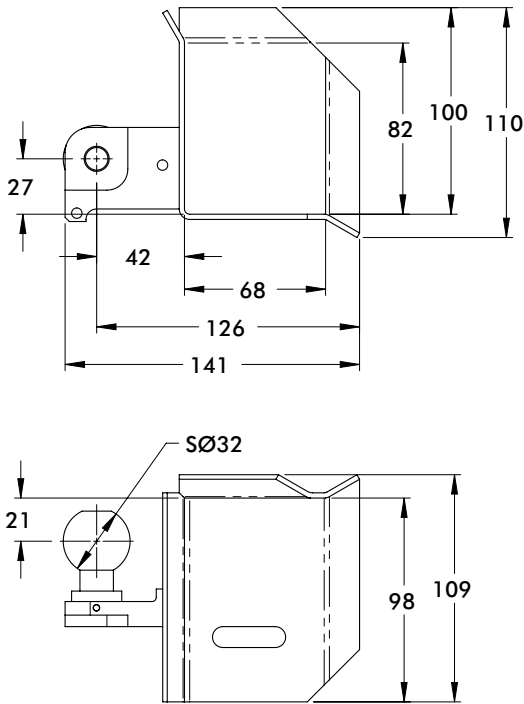
**Optional spare parts**  
 28.58mm Ball  
 GTS-WB-B112-L  
 GTS-WB-B112-R  
 32mm Ball  
 GTS-WB-32B-L  
 GTS-WB-32B-R



Material: Steel

Model Number	Weight
GTS-100-85-80LH-A	656g [1.45 lb]
GTS-100-85-80RH-A	

## GTS-100 32mm Ball 100mm Shovel



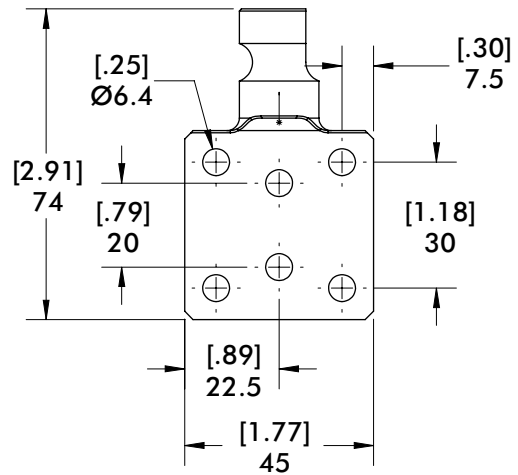
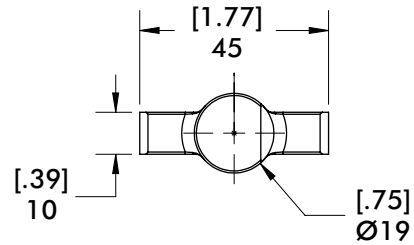
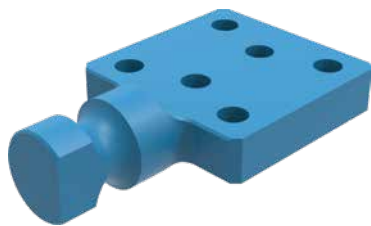
Material: Steel

Model Number	Weight
GTS-100-85-100LH-A	730g [1.61 lb]
GTS-100-85-100RH-A	

# AB, SAP SERIES

Accelerate® Tooling Collection | Technical Specifications | Dimensions

## AB Block Style Proximity Switch Mounts

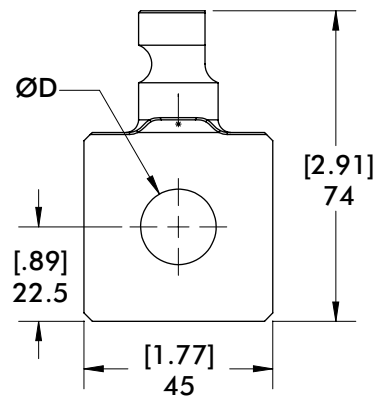
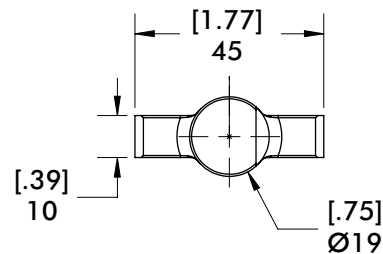
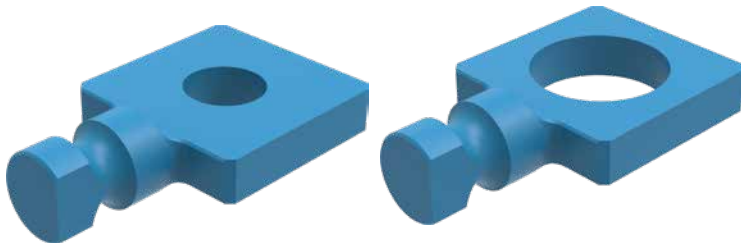
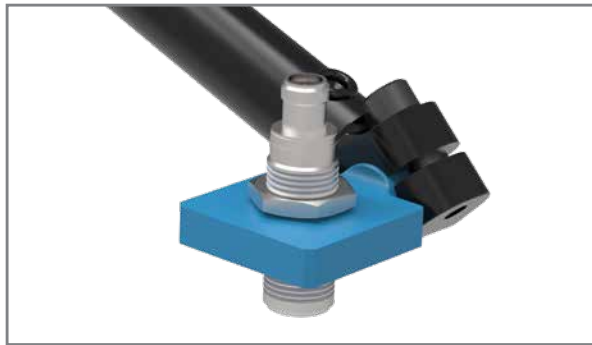


Material: Nylon

Model Number	Weight
CPI-AB-750-EF-BP	31.2g [1.1oz]

(2) screws & (2) locking flange nuts included

## SAP Barrel Style Proximity Switch Mounts



Material: Nylon

Model Number	(Ø) "D"	Weight
CPI-SAP-18-BP	[0.71] 18	28.3g [1.0oz]
CPI-SAP-30-BP	[1.18] 30	22.7g [0.8oz]





# ROUND TOOLING SYSTEMS

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	Cross Transition Brackets and Blocks.....	22
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# ROUND TOOLING SYSTEMS

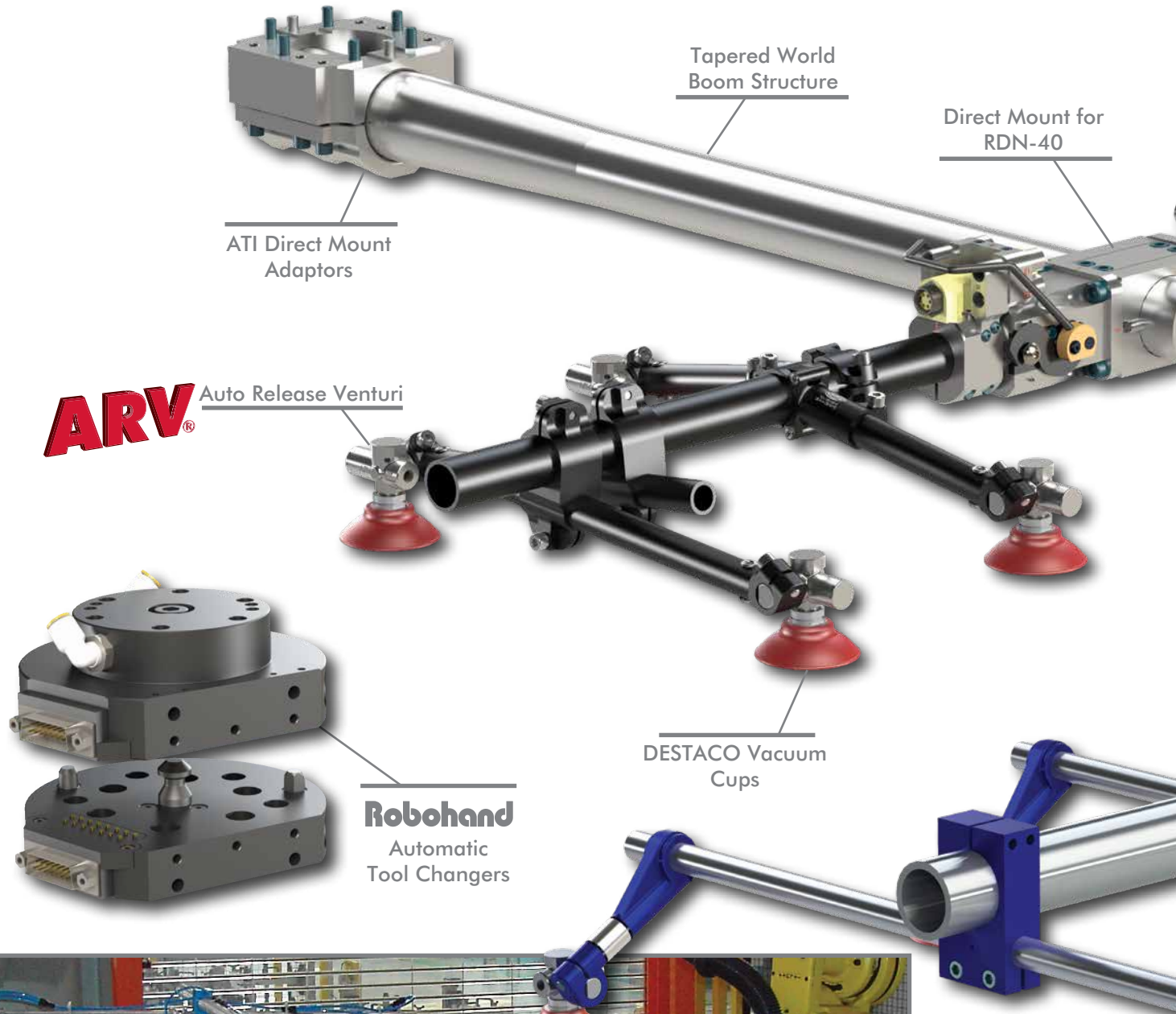
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# ROUND TOOLING SYSTEMS

World Tool System Example with Accelerate® Lightweight Tooling Components

DESTACO's world tool components are configured to handle parts of any size and shape, and can be re-used for future applications.



# ROUND TOOLING SYSTEMS

## Traditional Round Tooling System Example

Round tooling components are used in combination with the Accelerate® Collection for lightweight tooling solutions



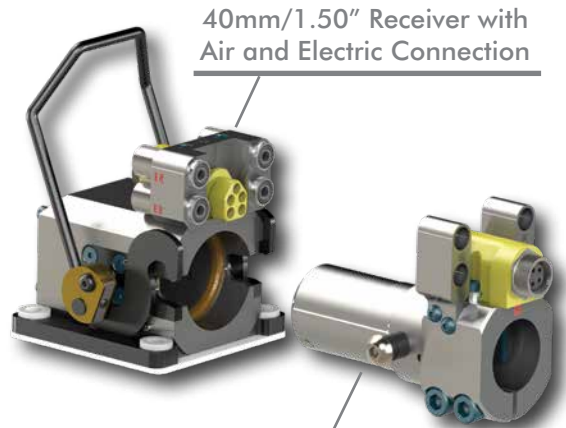
### Most commonly used in:

Applications	Markets
Load/Unload	Automotive
Pick and Place	Industrial
Material Handling	Appliance
Hot Forming	Plastics



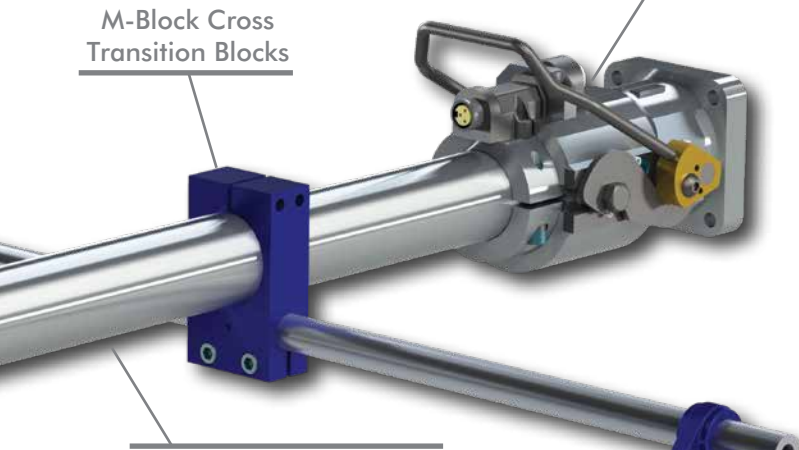
40mm/1.50" Quick Disconnect

60mm/2.50" Quick Disconnect with Electric Connection



40mm/1.50" Receiver with Air and Electric Connection

40mm/1.50" Receiver with Air and Electric Connection



M-Block Cross Transition Blocks

Aluminum Round Tubing (also available slotted)



Aluminum Round Tubing

Standard Swivel Arms

### Hot Forming Solutions



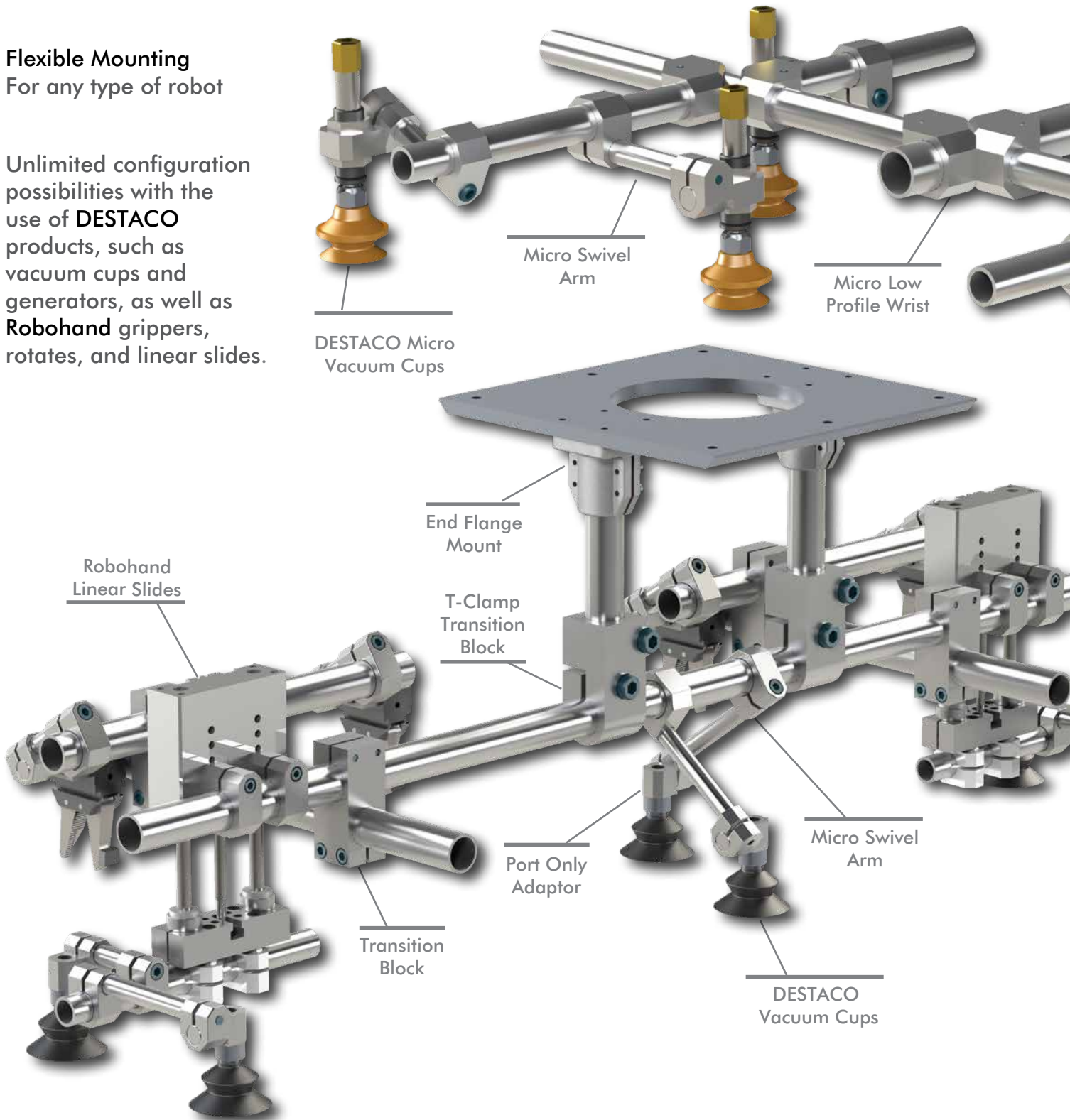
# ROUND TOOLING SYSTEMS

## Micro Round Tooling System Example

A family within the traditional round tooling system, **micro tooling components** are made from lightweight aluminum with thin wall tubing. This system is designed to handle small, lightweight parts, plastic injection mold unloading, and unusual shaped objects.

**Flexible Mounting**  
For any type of robot

Unlimited configuration possibilities with the use of DESTACO products, such as vacuum cups and generators, as well as Robohand grippers, rotates, and linear slides.



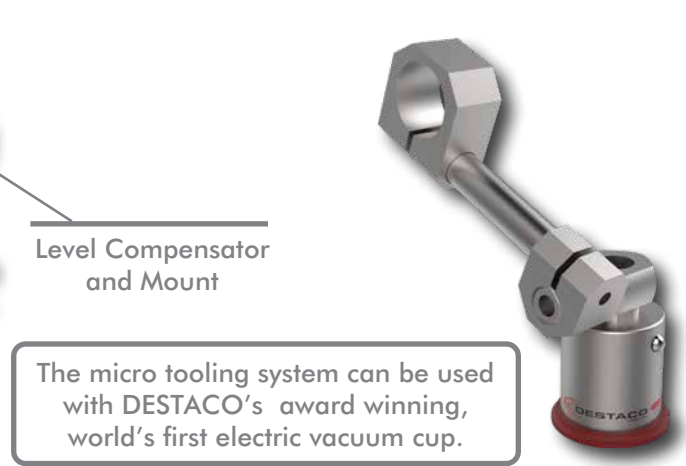
# ROUND TOOLING SYSTEMS

## Micro Round Tooling System Example

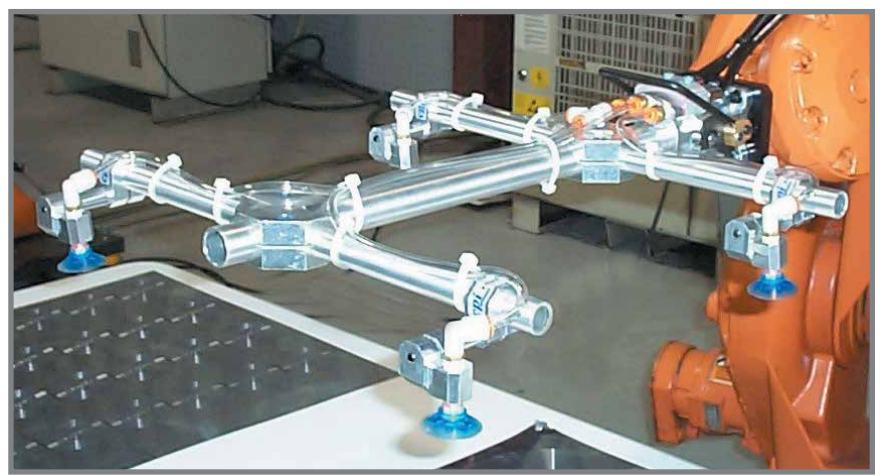
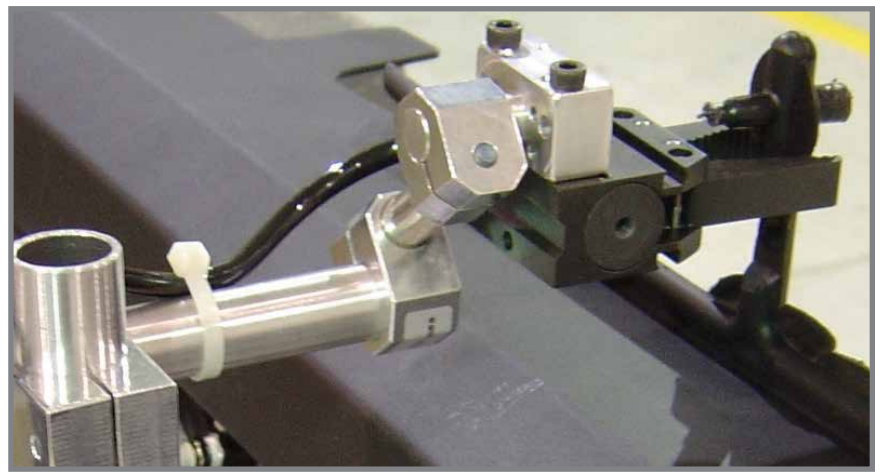


### Most commonly used in:

Applications	Markets
Pick and Place	Medical
Material Handling	Industrial
Plastic Injection	Consumer
Vision/Testing	Food and Packaging



The micro tooling system can be used with DESTACO's award winning, world's first electric vacuum cup.

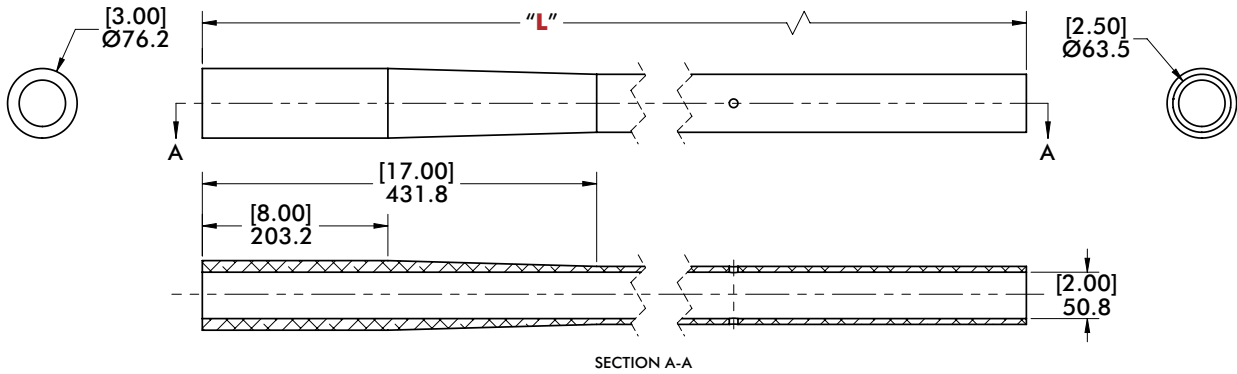
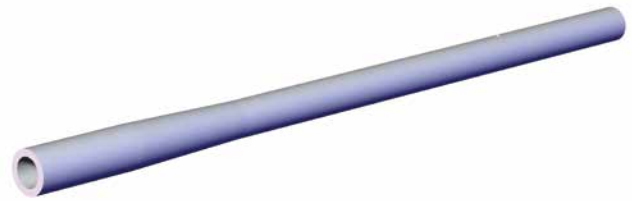


Micro round tooling systems can be permanently mounted to the robot with a direct mount or with manual or automatic tool changers. Optional quick disconnect air ports provides a simple connection point for air supply when changing between different tooling configurations.

# WORLD TOOL BOOMS

Round Tooling | Dimensions | Technical Specifications

## PAT Ø3.00" Tapered Aluminum Main Booms



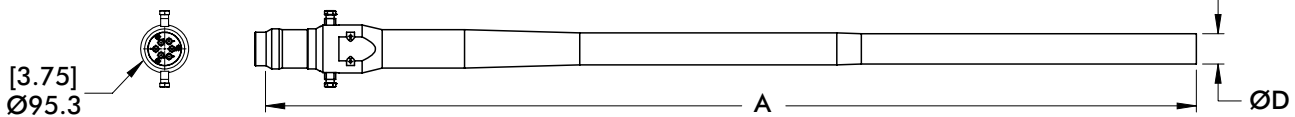
Model	"L"	Weight
CPI-PAT-30TP-0M-1600	[62.99] 1600.0	[13.43 lb] 6.09 kg
CPI-PAT-30TP-0M-30	[30.00] 762.0	[7.91 lb] 3.59 kg
CPI-PAT-30TP-0M-34	[34.00] 863.6	[8.58 lb] 3.89 kg
CPI-PAT-30TP-0M-36	[36.00] 914.4	[8.91 lb] 4.04 kg
CPI-PAT-30TP-0M-60	[60.00] 1524.0	[12.95 lb] 5.87 kg

Model	"L"	Weight
CPI-PAT-30TP-1M-55	[55.00] 1397.0	[12.08 lb] 5.48 kg
CPI-PAT-30TP-1M-60	[60.00] 1524.0	[12.95 lb] 5.87 kg
CPI-PAT-30TP-1M-64	[64.00] 1625.6	[13.60 lb] 6.17 kg
CPI-PAT-30TP-2M-55	[55.00] 1397.0	[12.08 lb] 5.48 kg

## WTTB World Tool Bayonet Boom

Material: Aluminum

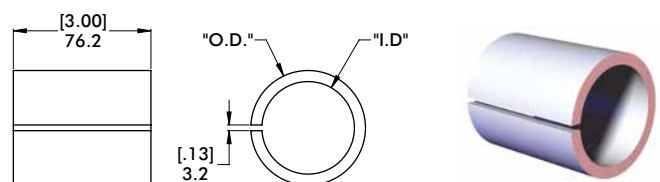
Part Number	ØD	A	Weight
CPI-WTTB-RDC-A6-EL10-60-2000	60mm	2000mm	9.3kg [20.50 lb]
CPI-WTTB-RDC-A6-EL10-25-64	2.5 in	64 in	8.0kg [17.60 lb]



## CB Aluminum Bushing

For use in cooperation with Clamp Blocks.

Model	(Ø)"O.D."	(Ø)"I.D."	Weight
CPI-CB-15-10	1.50"(in)	1.00"(in)	[.76 lb] .34 kg
CPI-CB-20-15	2.00"(in)	1.50"(in)	[.81 lb] .37 kg
CPI-CB-25-20	2.50"(in)	2.00"(in)	[.81 lb] .37 kg

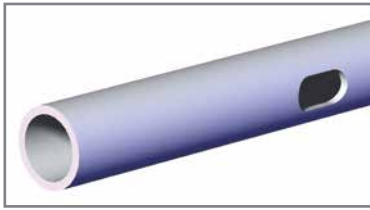




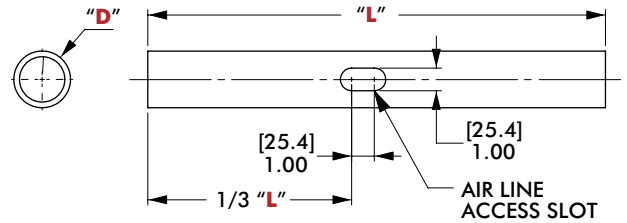
# TUBES AND RODS

Round Tooling | Dimensions | Technical Specifications

## BT1 Slotted Aluminum Boom/Tubing

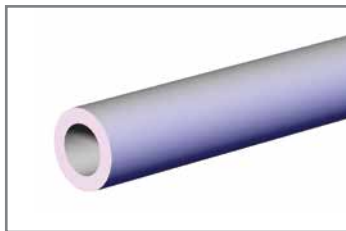


**"L"** = Specify Length  
in 6.00" or 150mm Increments  
*English Example:*  
CPI-BT1-150-7S-06 (6.00")  
*Metric Example:*  
CPI-BT1-150-7S-150 (150mm)

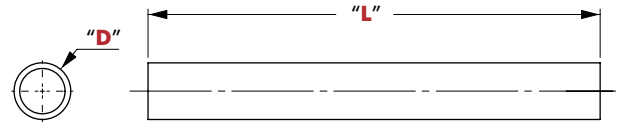


Model	(Ø) "D"	Wall Thickness	Weight	Linear Deflection	Torsional Twist
CPI-BT1-150-7S-"L"	1.50"(in)	[0.25"] 6.35mm	[1.2 lb/ft] 1.8 kg/m	5.6mm [0.22"] @ 100lb/24.00"	.3.1° @ 300ft-lbs
CPI-BT1-250-9S-"L"	2.50"(in)	[0.25"] 6.35mm	[2.1 lb/ft] 3.1 kg/m	12.7mm [0.50"] @ 150lb/48.00"	2.3° @ 600ft-lbs
CPI-BT1-2538-9S-"L"	2.50"(in)	[0.375"] 9.53mm	[2.9 lb/ft] 4.3 kg/m	10.2mm [0.40"] @ 150lb/48.00"	1.8° @ 600ft-lbs
CPI-BT1-60-9S-"L" (Metric)	60mm	[0.20"] 5mm	[1.6 lb/ft] 2.4 kg/m	17.8mm [0.70"] @ 150lb/48.00"	3.3° @ 600ft-lbs

## PAT Aluminum Tubing



**"L"** = Specify Length  
in 6.00" or 150mm Increments  
*English Example:*  
CPI-PAT-15-06 (6.00")  
*Metric Example:*  
CPI-PAT-40-150 (150mm)

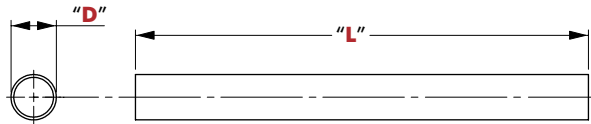


Model	(Ø) "D"	Wall Thickness	Weight	Linear Deflection	Torsional Twist
CPI-PAT-12-"L"	1.25"(in)	[0.25"] 6.35mm	[0.9 lb/ft] 1.37kg/m	3.3mm [0.13"] @ 75lb/18.00"	1.6° @ 100ft-lbs
CPI-PAT-15-"L"	1.50"(in)	[0.25"] 6.35mm	[1.2 lb/ft] 1.8 kg/m	5.6mm [0.22"] @ 100lb/24.00"	.3.1° @ 300ft-lbs
CPI-PAT-40-"L" (Metric)	40mm	[0.20"] 5mm	[1.2 lb/ft] 1.8 kg/m	5.6mm [0.22"] @ 100lb/24.00"	3.2° @ 300ft-lbs
CPI-PAT-25-"L"	2.50"(in)	[0.25"] 6.35mm	[2.1 lb/ft] 3.1 kg/m	12.7mm [0.50"] @ 150lb/48.00"	2.3° @ 600ft-lbs
CPI-PAT-60-"L" (Metric)	60mm	[0.20"] 5mm	[1.6 lb/ft] 2.4 kg/m	17.8mm [0.70"] @ 150lb/48.00"	3.3° @ 600ft-lbs
CPI-PAT-2538-"L"	2.50"(in)	[0.375"] 9.53mm	[2.9 lb/ft] 4.3 kg/m	10.2mm [0.40"] @ 150lb/48.00"	1.8° @ 600ft-lbs

# TUBING, RODS AND BUSHINGS

Round Tooling | Dimensions | Technical Specifications

## PAT Thin Wall Aluminum Tubing



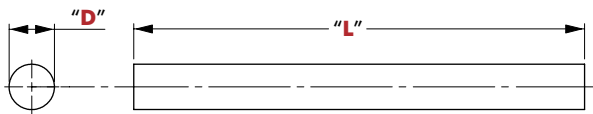
Model	(Ø) "O.D."	Wall Thickness	Weight
CPI-PAT-50T-"L"	0.50"(in)	[0.085"] 2.16mm	[0.13 lb/ft] 193.0 g/m
CPI-PAT-75T-"L"	0.75"(in)	[0.085"] 2.16mm	[0.20 lb/ft] 309.3 g/m
CPI-PAT-10T-"L"	1.00"(in)	[0.085"] 2.16mm	[0.28 lb/ft] 425.6 g/m

"L" = Specify Length

Standard Lengths

- 04 (4.00")
- 06 (6.00")
- 08 (8.00")
- 10 (10.00")
- 12 (12.00")
- 24 (24.00")
- 36 (36.00")

## PAB Aluminum Rods



"L" = Specify Length

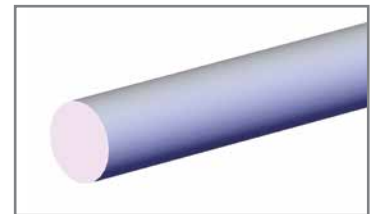
in 6.00" or 150mm Increments

English Example:

CPI-PAB-10-06 (6.00")

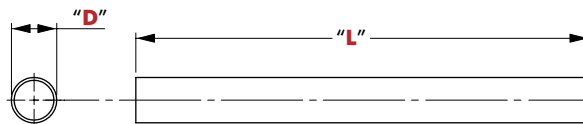
Metric Example:

CPI-PAB-25-150 (150mm)



Model	(Ø) "D"	Wall Thickness	Weight	Linear Deflection	Torsional Twist
CPI-PAB-10-"L"	1.00"(in)	SOLID BAR	[0.9 lb/ft] 1.4 kg/m	1.52mm [0.06"] @ 50lb/12.00"	.002° @ 100ft-lb
CPI-PAB-25-"L" (Metric)	25.0mm	SOLID BAR	[0.9 lb/ft] 1.4 kg/m	1.52mm [0.06"] @ 50lb/12.00"	.002° @ 100ft-lb

## PST Steel Tubing



(L) = Specify Length

PST-10: 150, 200, 225, 250, 275, 300 [mm] (CPI-PST-10-150)

PST-1212: 6, 8, 10, 12, 14, 16, 18 [in] (CPI-PST-1212-6)

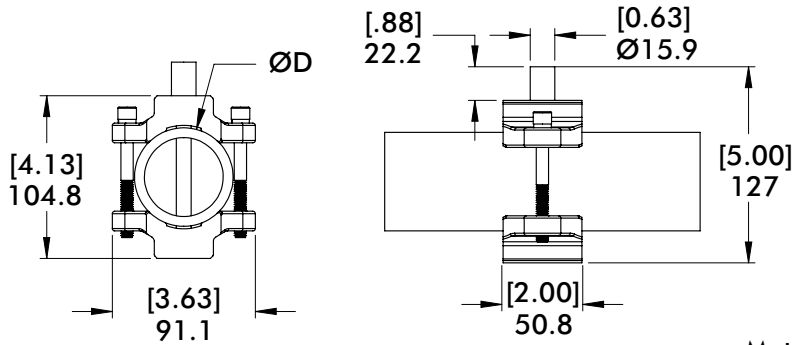
M1512: 125, 160, 300, 350, 350, 600, 900 [mm] (M1512-150)

Model	(Ø) "D"	Wall Thickness	Weight	Linear Deflection	Torsional Twist
CPI-PST-10-"L"	1.00"(in)	3.18mm [0.125"]	1.8 kg/m [1.2 lb/ft]	0.9mm [0.003"] @ 50lb/12.00"	.001° @ 100ft-lb
CPI-PST-1212-"L"	1.25"(in)	3.18mm [0.125"]	2.2 kg/m [1.5 lb/ft]	0.3mm [0.001"] @ 50lb/12.00"	.001° @ 100ft-lb

Model	(Ø) "O.D."	Wall Thickness	Weight
M1512-"L"	1.00"(in)	3.0mm [0.12"]	1.5 kg/m [1.03 lb/ft]

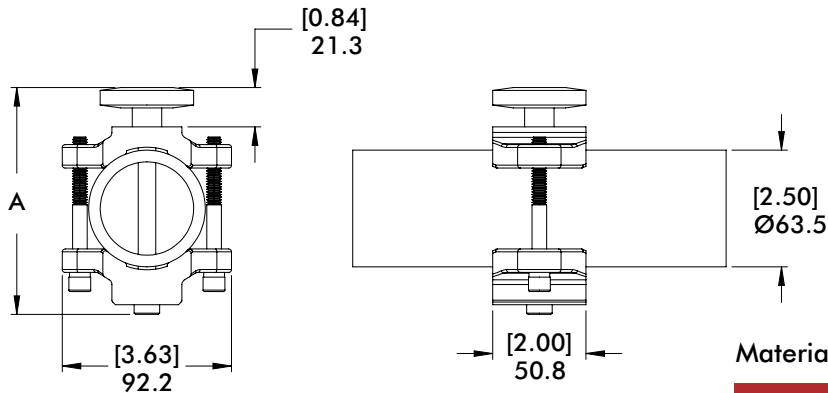
# SINGLE MUSHROOM TOOL HOLDER

Round Tooling | Dimensions



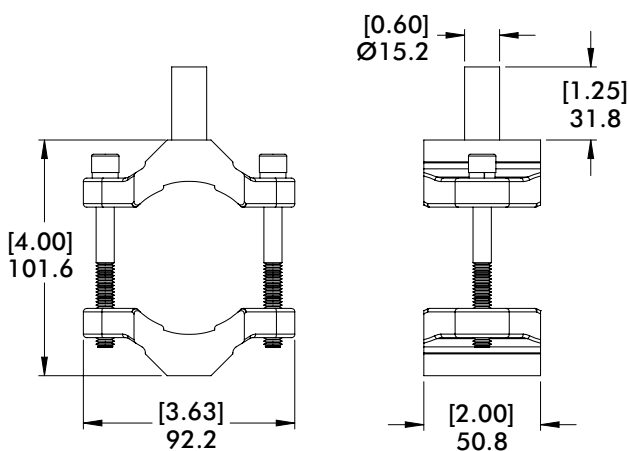
Material: Aluminum

Model Number	ØD	Weight
<b>CPI-THM-250-POST</b>	2.5 in	499g [1.10 lb]
<b>CPI-THM-60-POST</b>	60mm	499g [1.10 lb]



Material: Aluminum

Model Number	A	Weight
<b>CPI-THM-250</b>	122.7 [4.83]	635g [1.40 lb]
<b>CPI-THM-250-WTTB</b>	127 [5.00]	590g [1.30 lb]

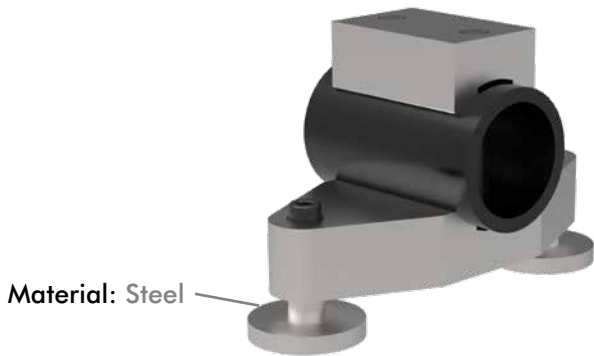


Material: Aluminum

Model Number	Weight
<b>CPI-THM-250-SVP</b>	408g [0.90 lb]

# DOUBLE MUSHROOM TOOL HOLDER

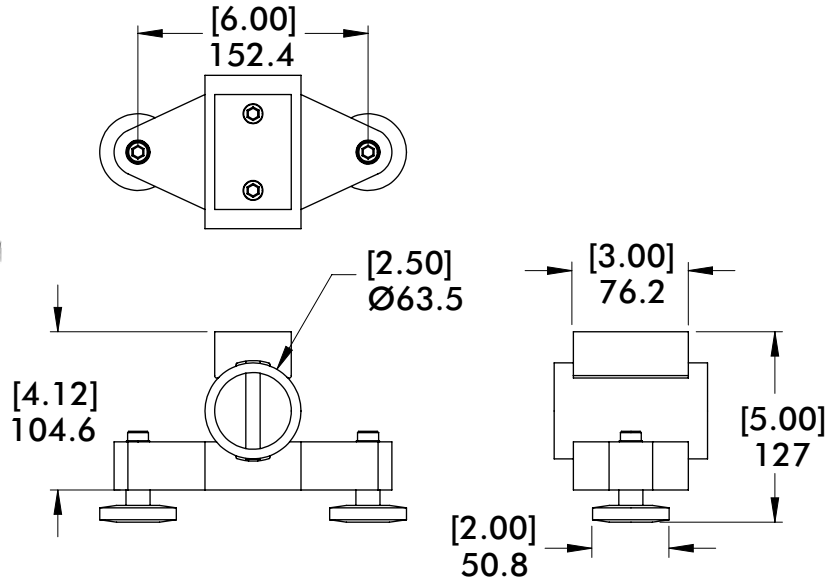
Round Tooling | Dimensions



Material: Steel

Material: Aluminum

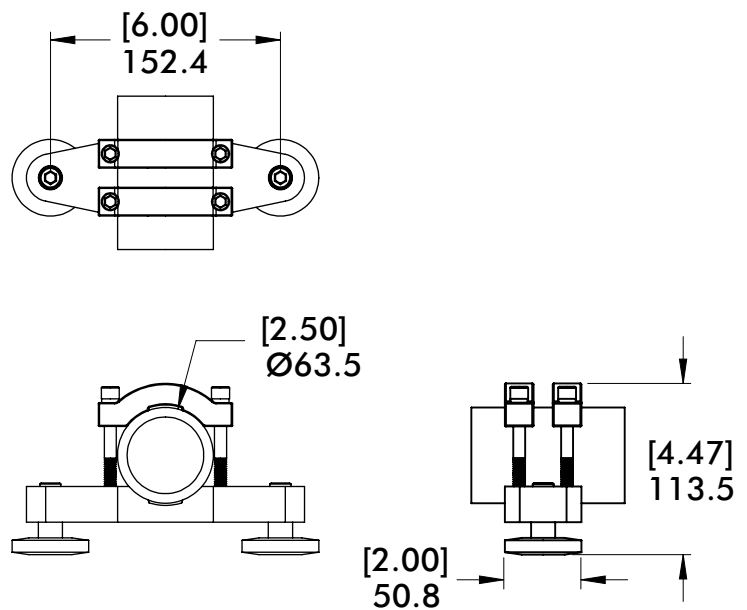
Model Number	Weight
<b>CPI-THM-250-DBL</b>	1.54g [3.40 lb]



Material: Steel

Material: Aluminum

Model Number	Weight
<b>CPI-THM-250-DBL-WTTB</b>	1.09g [2.40 lb]

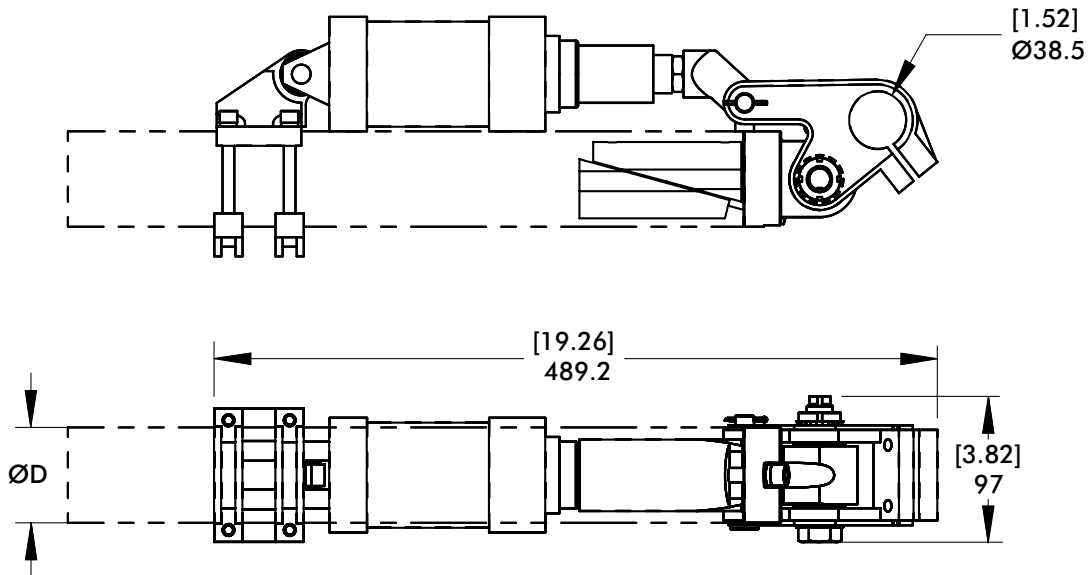
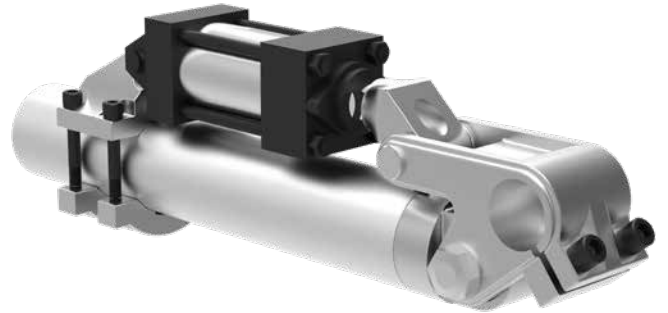


# WRIST ROTATE ASSEMBLY

Round Tooling | Dimensions | Technical Specifications

## Features:

- These self-contained tip units are designed for use with dual-axis loaders and unloaders.
- The amount of rotation can be adjusted with the use of a cylinder stop tube.
- The unique wedge-lock uses frictional force to secure the unit within the tubing.  
(U.S. Patent No. 5,411,232)  
\* Rotation is controlled by adjusting the length of a stop tube and limiting the stroke of the cylinder
- A rod extension is used to move the cylinder away from the rotate point. To order the rod extension separately, the part number is CPI-CRE-10-[Length]



Model Number	ØD	Weight
<b>CPI-WRWM-45</b>	60mm	[8.5 lb] 3.9 kg
<b>CPI-WRWM-90</b>	60mm	[10.5 lb] 4.8 kg



**Base Model WRWM**  
Wrist Rotate Assembly  
(Metric Version)

### Rotation

- 45** 0° - 45°
- 90** 0° - 90°

### Cylinder Bore

- 00** No Cylinder Provided
- 50** 50 mm
- 60** 60 mm

Model Number	ØD	Weight
<b>CPI-WRW-45</b>	2.50 in	[8.5 lb] 3.9 kg
<b>CPI-WRW-90</b>	2.50 in	[10.5 lb] 4.8 kg



**Base Model WRW**  
Wrist Rotate Assembly

### Rotation

- 45** 0° - 45°
- 90** 0° - 90°

### Cylinder Bore

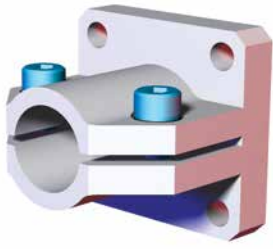
- 00** No Cylinder Provided
- 20** 2.00"
- 25** 2.50"

# FLANGE END MOUNT BRACKET AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

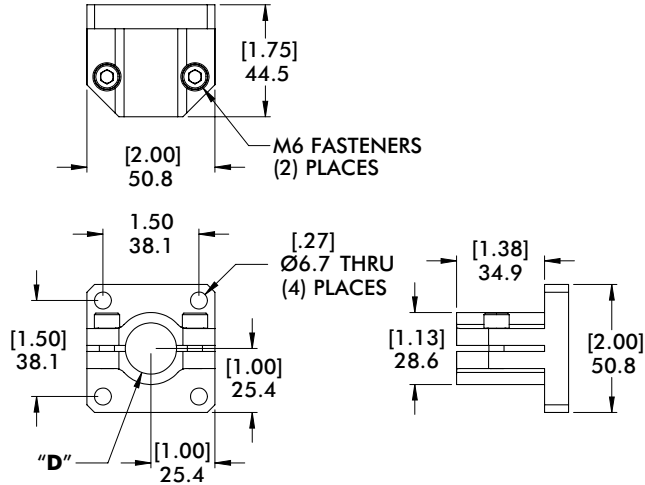
Nominal ( $\emptyset$ ) given  
See chart on Page 72  
for actual ( $\emptyset$ ) size

## CLM-xxx-15F End Flange Mount for $\emptyset$ 20mm/0.75" Tube (Micro)



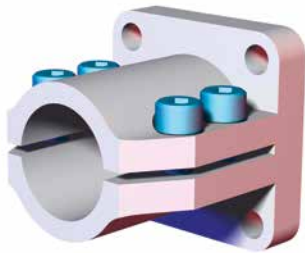
### Specifications:

Max. Static Clamp Load:  
20.3 N\*m [15 ft-lb]  
Material: Aluminum



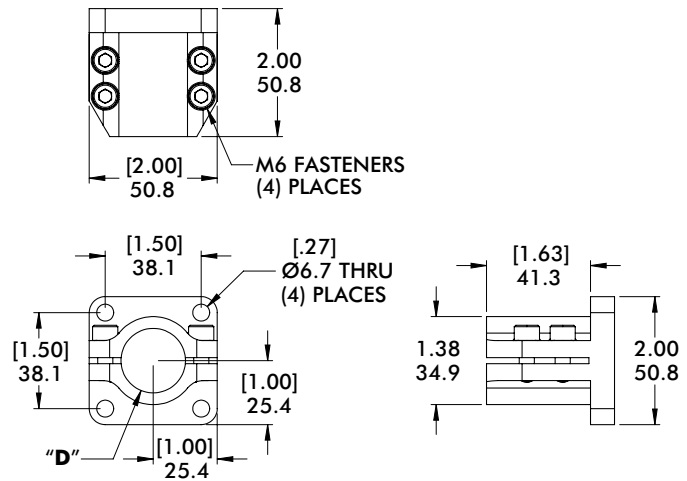
Model Number	( $\emptyset$ ) "D"	Weight
CPI-CLM-20M-15F	20mm	[.26 lb] .12 kg
CPI-CLM-75-15F-ATI	.75"(in)	[.32 lb] .14 kg

## CLM-xxx-15F End Flange Mount for $\emptyset$ 25mm/1.00" Tube (Micro)



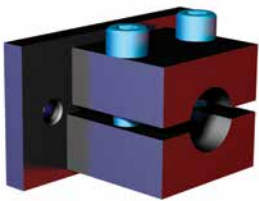
### Specifications:

Max. Static Clamp Load:  
40.7 N\*m [30 ft-lb]  
Material: Aluminum



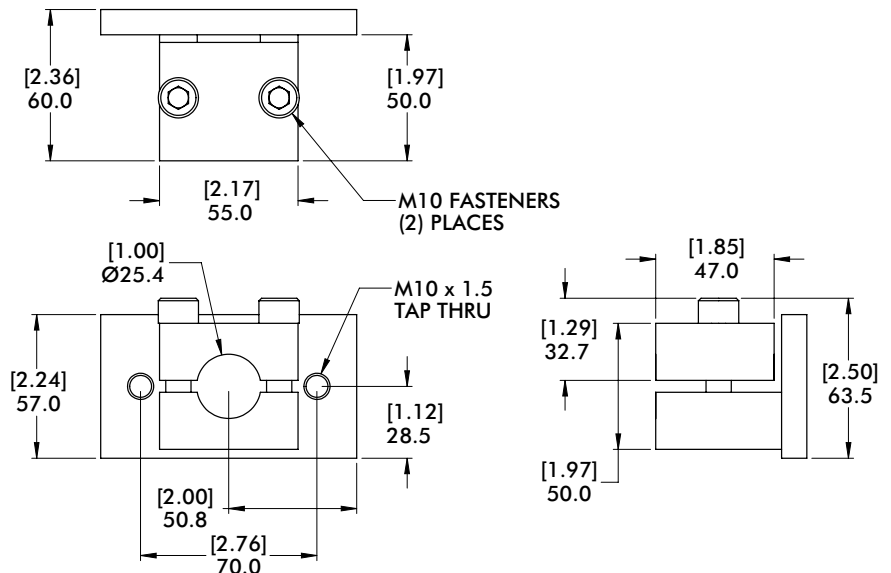
Model Number	( $\emptyset$ ) "D"	Weight
CPI-CLM-25M-15F	25mm	[.32 lb] .14 kg
CPI-CLM-10-15F	1.00"(in)	

## M1511 End Flange Mount for $\emptyset$ 1.00" Tube



### Specifications:

Max. Static Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum



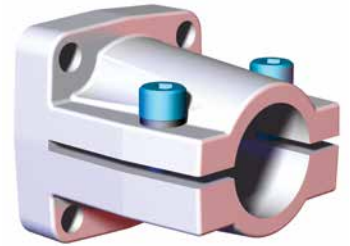
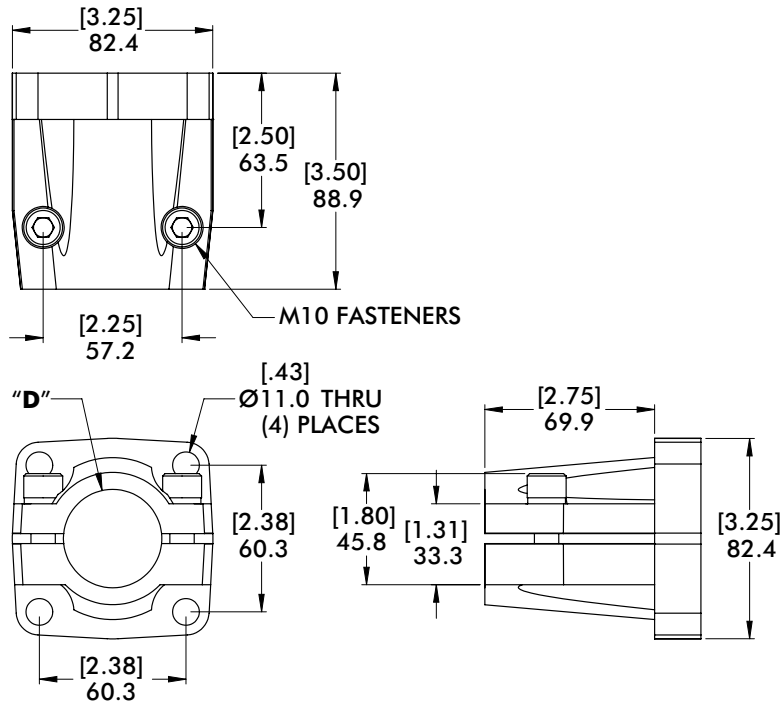
Model Number	Weight
M1511	[1.08 lb] .49 kg

# FLANGE END MOUNT BRACKET AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

## KL/CL End Flange Mount for Ø40mm/1.50" Tube

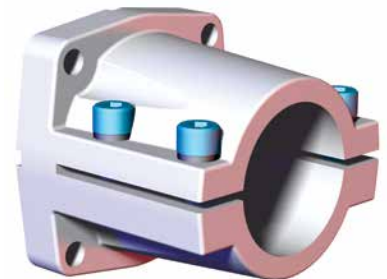
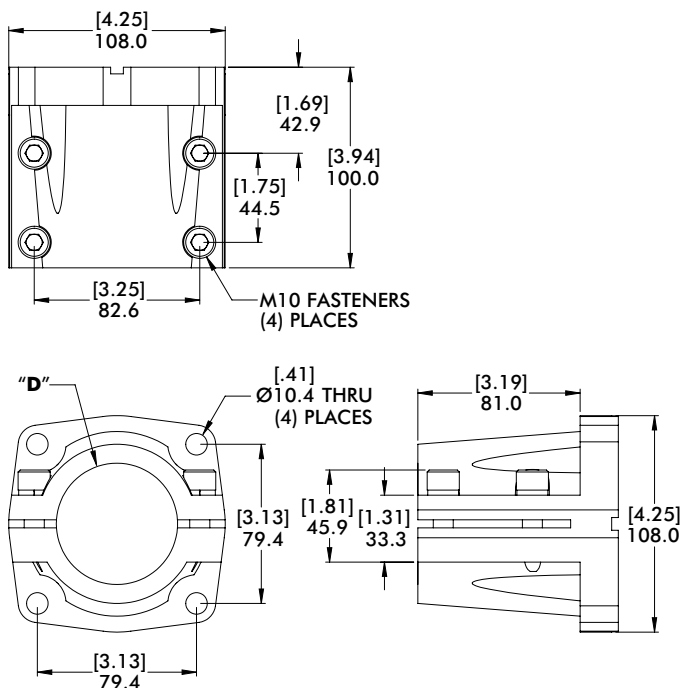


### Specifications:

Max. Static Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D"	Weight
CPI-KL-40-60F	40mm	[1.55 lb] .70 kg
CPI-CL-15-238F	1.50"(in)	[1.61 lb] .73 kg

## KL/CL End Flange Mount for Ø60mm/2.50" Tube



### Specifications:

Max. Static Clamp Load:  
675 N\*m [500 ft-lb]  
Material: Aluminum

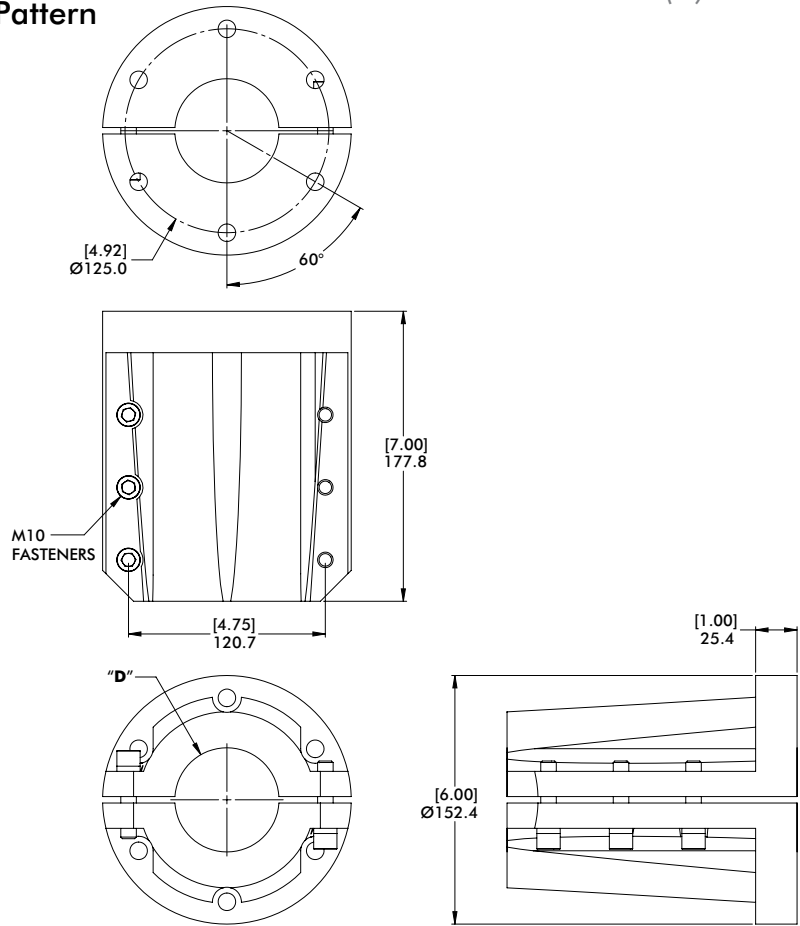
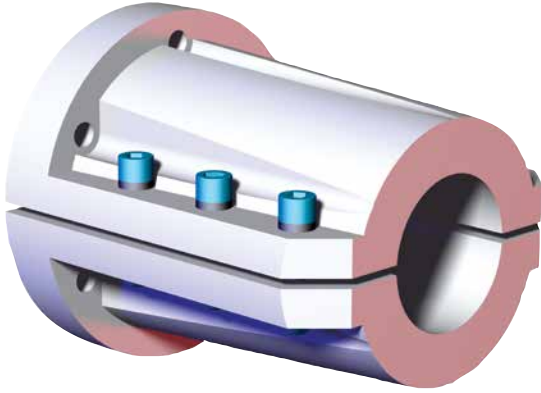
Model Number	(Ø)"D"	Weight
CPI-KL-60-78F	60mm	[2.73 lb] 1.24 kg
CPI-CL-25-312F	2.50"(in)	[2.52 lb] 1.14 kg

# FLANGE END MOUNT BRACKET AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

## CL End Flange Mount with Ø125mm Bolt Pattern



### Specifications:

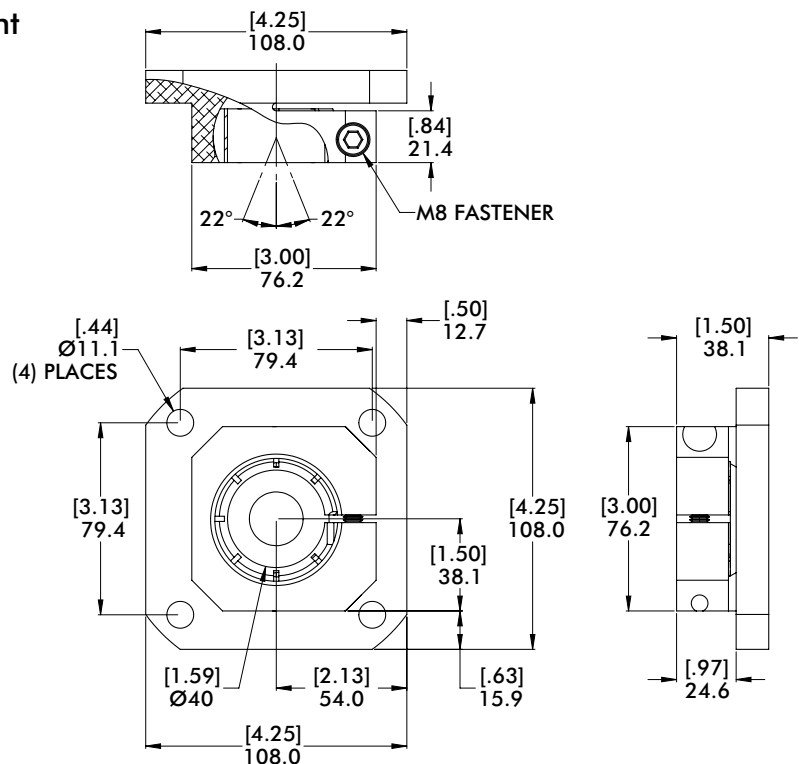
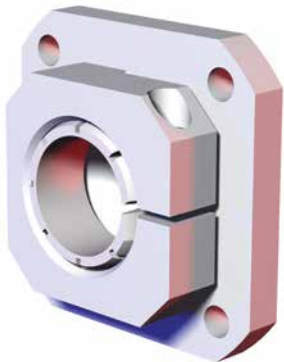
Max. Static Clamp Load:

746 N\*m [550 ft-lb]

Material: Aluminum

Model Number	(Ø) "D"	Weight
CPI-CL-60-125F	60mm	[9.86 lb] 4.47 kg
CPI-CL-250-125F	2.50"(in)	[10.20 lb] 4.63 kg
CPI-CL-300-125F	3.00"(in)	[8.70 lb] 3.95 kg

## RJM Ø40mm Spherical Flange End Mount



### Specifications:

Max. Static Clamp Load:

203 N\*m [150 ft-lb]

Material: Aluminum

Model Number	Weight
CPI-RJM-78F-40S	[1.54 lb] .70 kg

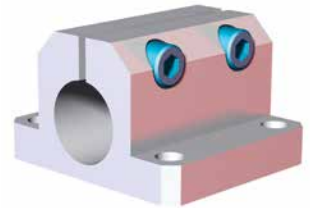
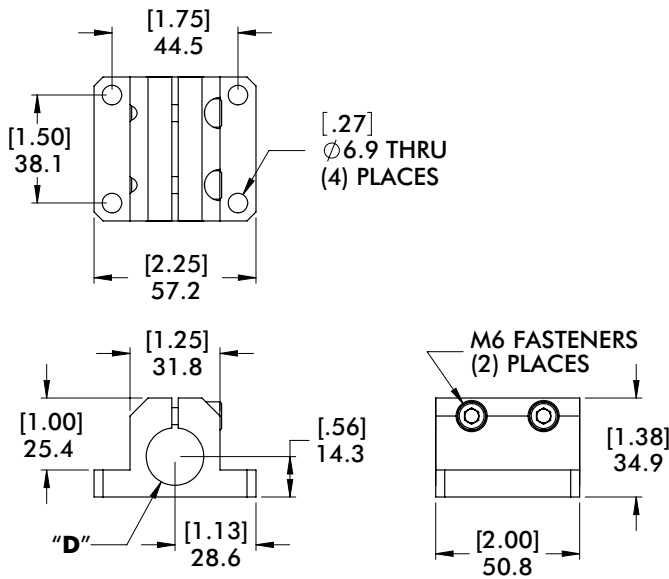


# FLANGE MID MOUNT BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

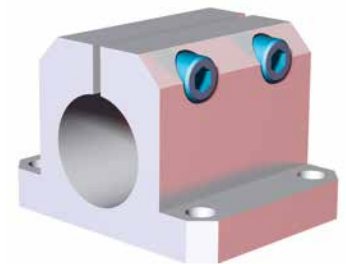
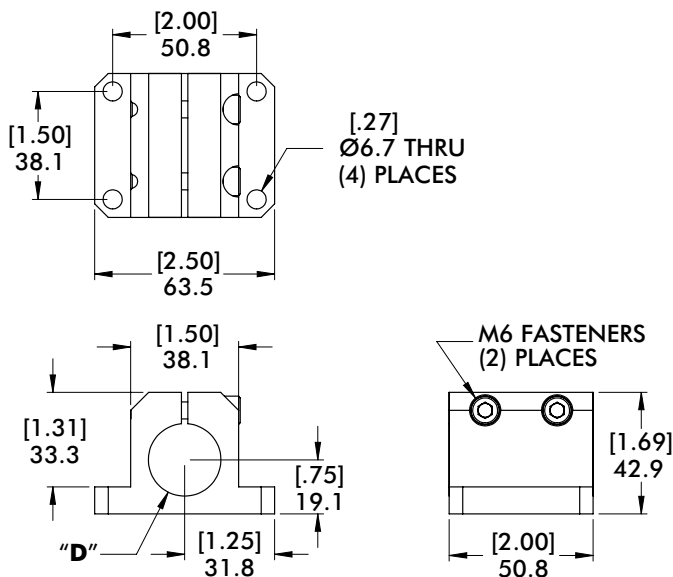
## CLM-xxx-1517F-90 Mid Flange Mount for Ø20mm/0.75" Tube (Micro)



**Specifications:**  
Max. Static Clamp Load:  
47.5 N\*m [35 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D"	Weight
CPI-CLM-20M-1517F-90	20mm	[.33 lb] .14 kg
CPI-CLM-75-1517F-90	.75"(in)	[.35 lb] .16 kg

## CLM-xxx-152F-90 Mid Flange Mount for Ø25mm/1.00" Tube (Micro)



**Specifications:**  
Max. Static Clamp Load:  
81.4 N\*m [60 ft-lb]  
Material: Aluminum

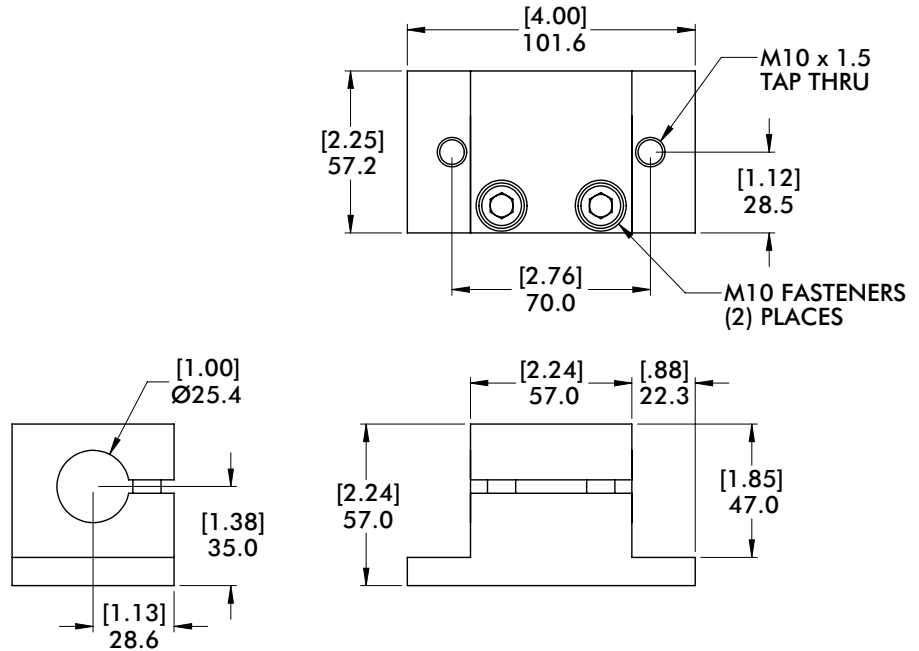
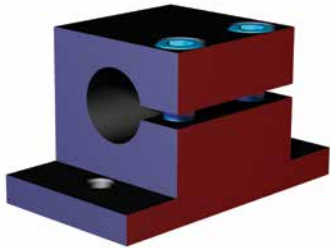
Model Number	(Ø)"D"	Weight
CPI-CLM-25M-152F-90	25mm	[.41 lb] .19 kg
CPI-CLM-10-152F-90	1.00"(in)	

# FLANGE MID MOUNT BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal ( $\emptyset$ ) given  
See chart on Page 72  
for actual ( $\emptyset$ ) size

## M-1509 Inline End Flange Mount for $\emptyset 1.00''$ Tube

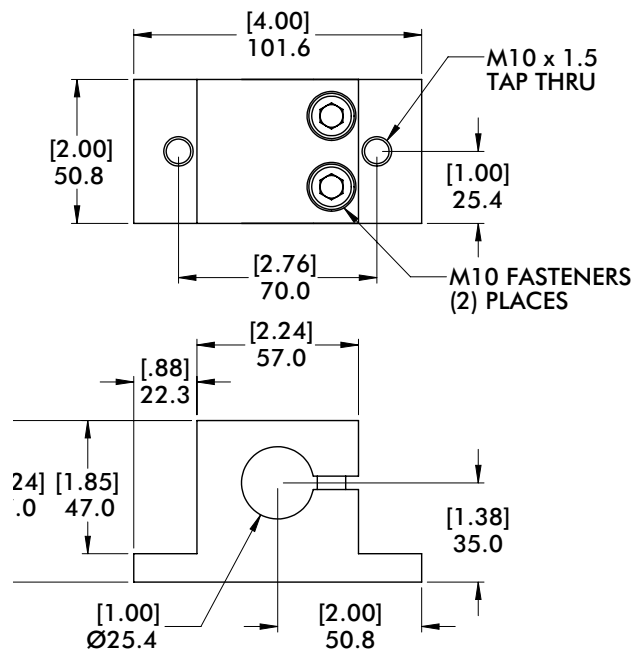
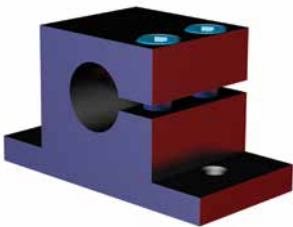


### Specifications:

Max. Static Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum

Model Number	Weight
<b>M1509</b>	[.99 lb] .45 kg

## M-1510 End Flange Mount for $\emptyset 1.00''$ Tube



### Specifications:

Max. Static Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum

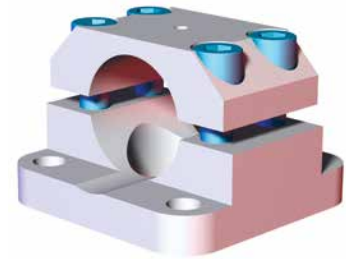
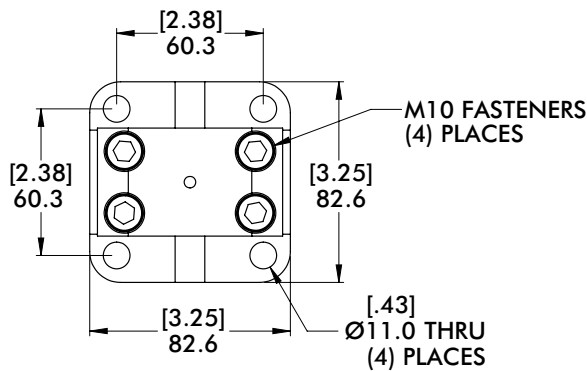
Model Number	Weight
<b>M1510</b>	[.87 lb] .39 kg

# FLANGE MID MOUNT BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

## CL-xx-xxxF-90 Mid Flange Mount for Ø40mm/1.50" Tube

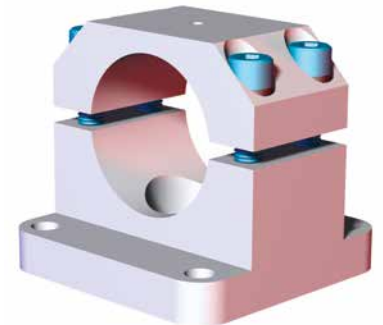
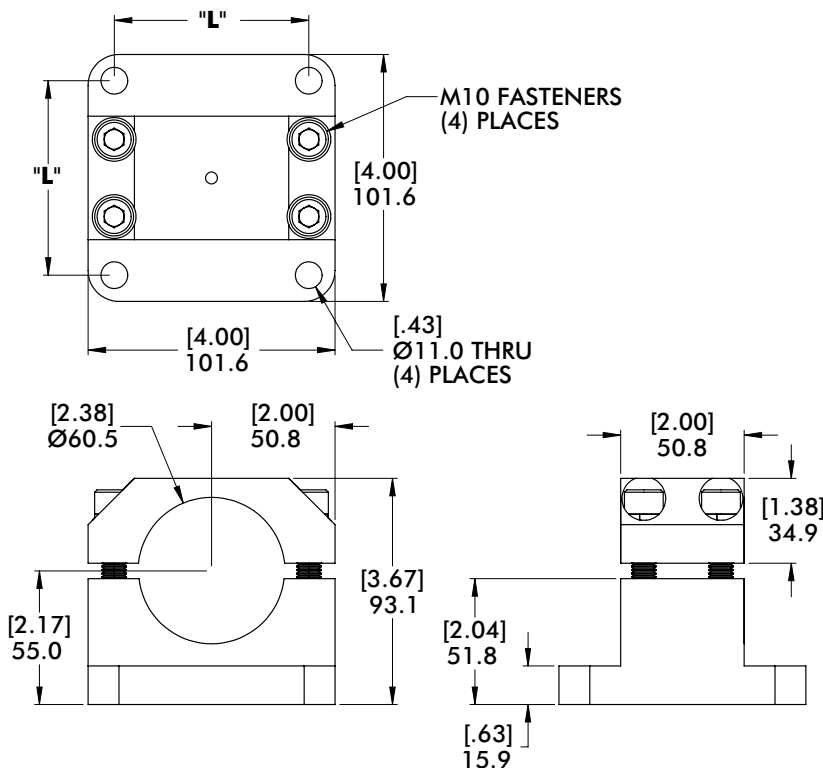


### Specifications:

Max. Static Clamp Load:  
475 N\*m [350 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D"	Weight
CPI-KL-40-60F-90	40mm	[1.09 lb] .49 kg
CPI-CL-15-238F-90	1.50"(in)	[1.11 lb] .50 kg

## KL-60-xxxF-90 Mid Flange Mount for Ø60mm Tube



### Specifications:

Max. Static Clamp Load:  
675 N\*m [500 ft-lb]  
Material: Aluminum

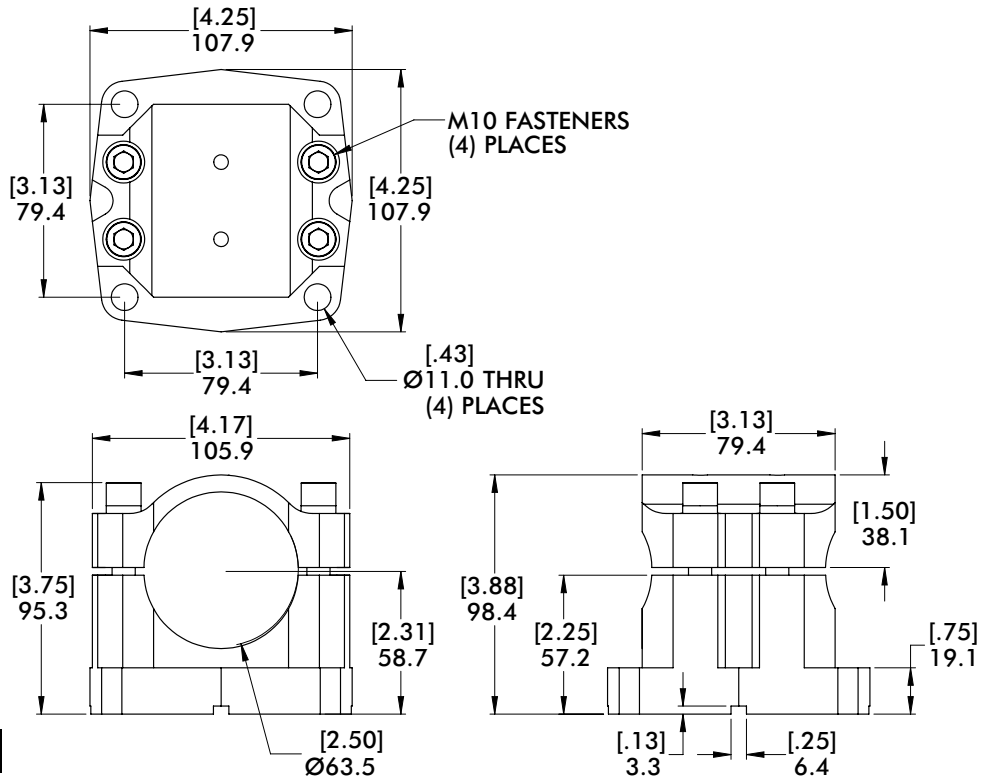
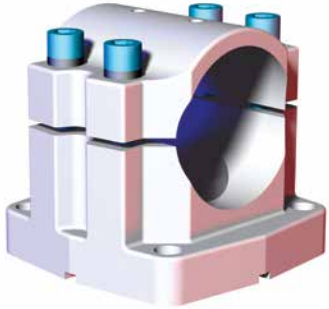
Model Number	"L"	Weight
CPI-KL-60-78F-90	[3.07] 78	[2.24 lb]
CPI-KL-60-80F-90	[3.15] 80	1.02 kg]

# FLANGE MID MOUNT BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

## CL-25-312F-90 Mid Flange Mount for Ø2.50" Tube



### Specifications:

Max. Static Clamp Load:

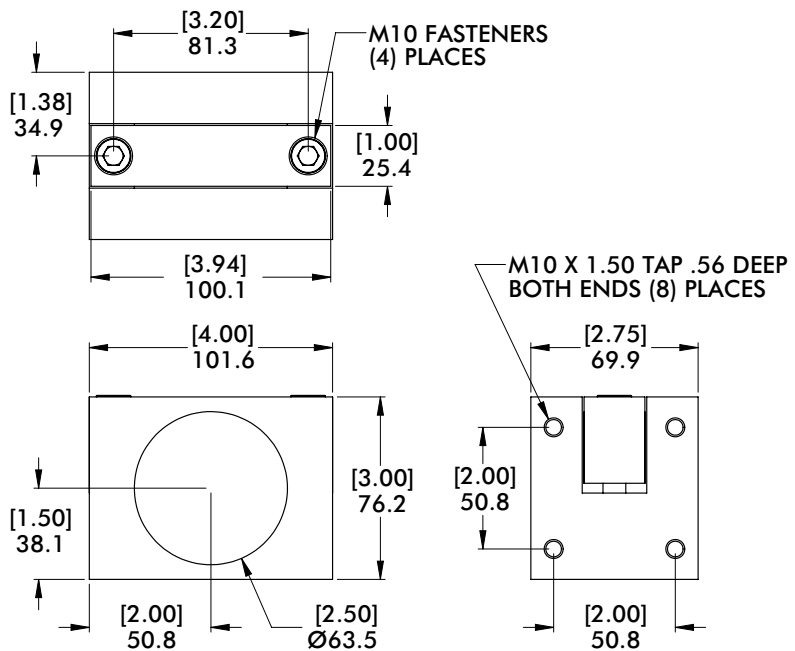
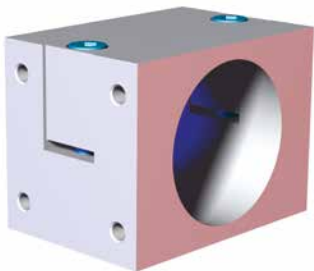
675 N\*m [500 ft-lb]

Material: Aluminum

Model Number	Weight
CPI-CL-25-312F-90	[2.51 lb] 1.14 kg

## World Tool Direct Mounts

### CL-xx-DM-10F Direct Mount Bracket for 2.50" Tube



Material: Aluminum

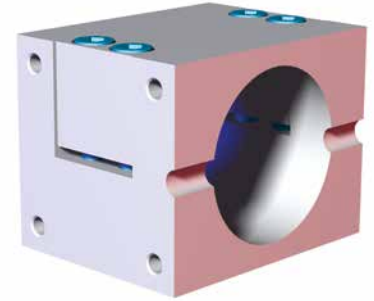
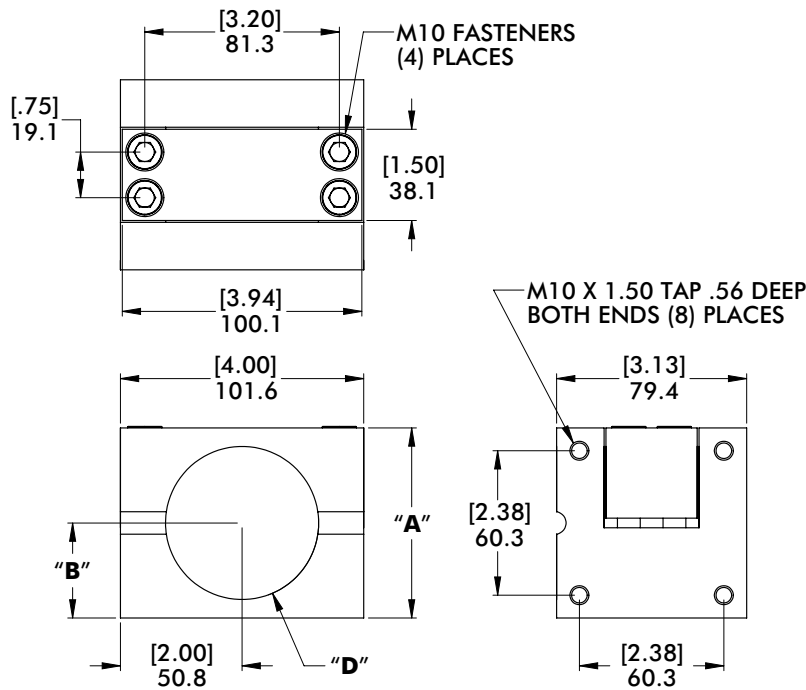
Model Number	Weight
CPI-CL-25-DM-10F	[1.89 lb] .86 kg

# WORLD TOOL DIRECT MOUNTS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

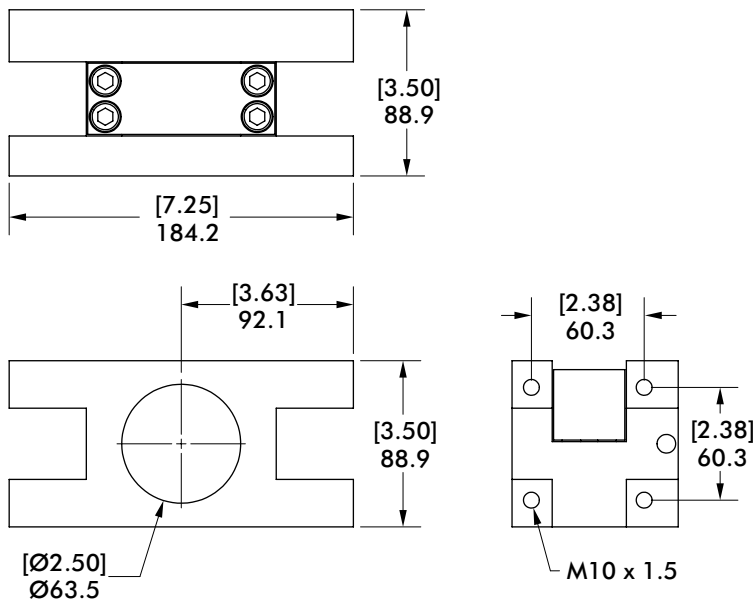
## CL-xx-DM-xxF Direct Mount Bracket for Ø60mm/2.50" Tube



Material: Aluminum

Model Number	(Ø) "D"	A	B	Weight
CPI-CL-60-DM-40F	60mm	[3.25] 82.6	[1.63] 41.3	[2.49 lb] 1.13 kg
CPI-CL-25-DM-15F	2.50" (in)	[3.13] 79.4	[1.58] 39.7	[2.36 lb] 1.07 kg

## CL-25-DM-15F-EXT Direct Mount Bracket for Ø2.50" Tube



Material: Aluminum

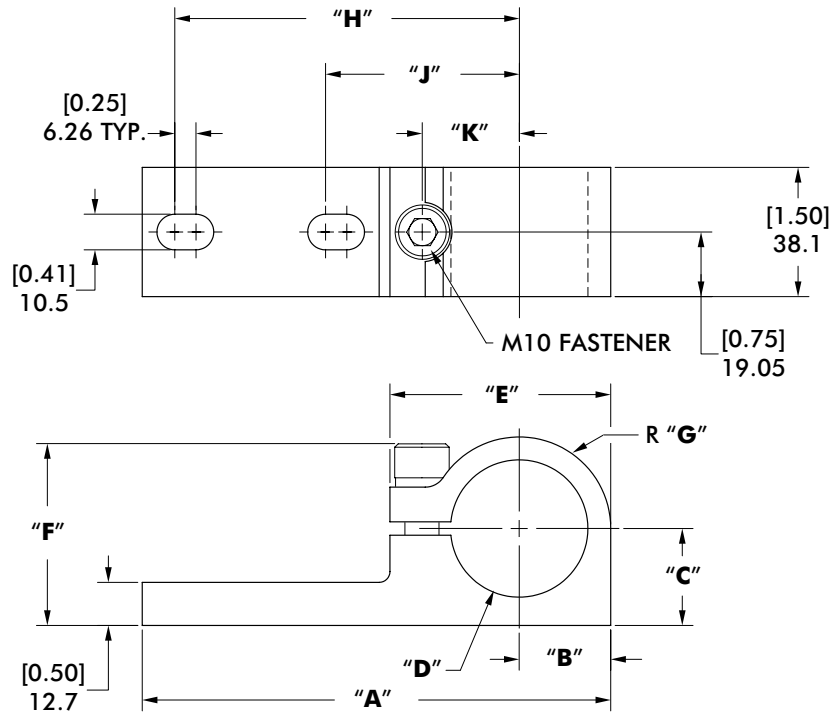
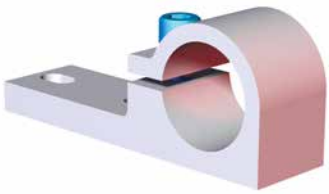
Model Number	Weight
CPI-CL-25-DM-15F-EXT	[4.23 lb] 1.92 kg

# BASE MOUNT BLOCK

Round Tooling | Dimensions | Technical Specifications

Nominal ( $\varnothing$ ) given  
See chart on Page 72  
for actual ( $\varnothing$ ) size

**BC-00-xxx**  $\varnothing$ 25mm/1.00" Tube/ $\varnothing$ 40mm/1.50" Tube



## Specifications:

Max. Static Clamp Load:

13.6 N\*m [10 ft-lb]

Material: Aluminum

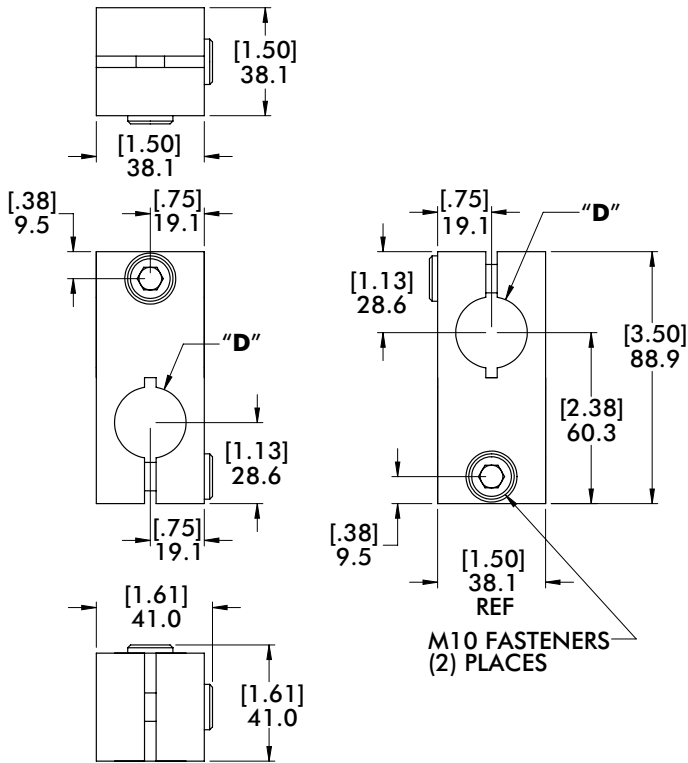
Model Number	( $\varnothing$ ) "D"	"A"	"B"	"C"	"E"	"F"	"G"	"H"	"J"	"K"	Weight
CPI-BC-00-25	25mm	[4.88] 123.8	[0.75] 19.0	[0.88] 22.2	[2.05] 52.1	[1.87] 47.4	[0.75] 19.0	[3.75] 95.3	[2.00] 50.8	[0.88] 22.3	[0.55 lb] 0.25 kg
CPI-BC-00-100	1.00"(in)	[5.44] 138.1	[1.06] 26.9	[1.13] 28.6	[2.56] 65.1	[2.18] 55.4	[1.06] 26.9	[4.00] 101.6	[2.25] 57.2	[1.13] 28.6	[0.68 lb] 0.31 kg
CPI-BC-00-40	40mm										
CPI-BC-00-150	1.50"(in)										

# CROSS TRANSITION BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

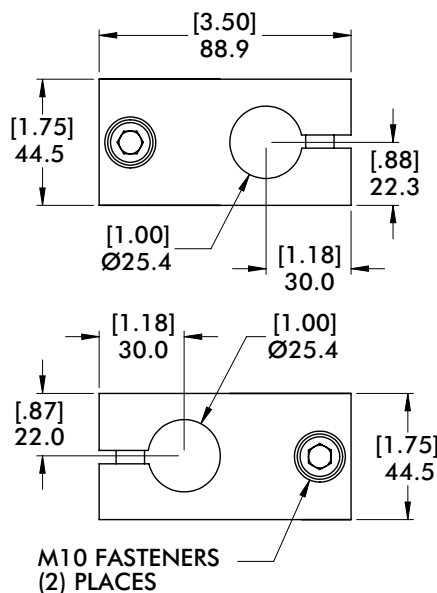
**SC-xx-xx** Ø25mm/1.00" to Ø25mm/1.00" (Single Bolt)



**Specifications:**  
Max. Static Clamp Load:  
162 N\*m [120 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D"	Weight	Finish
CPI-SC-25-25	25mm		SILVER
CPI-SC-25-25-BL	25mm	[.60 lb] .27 kg	BLUE
CPI-SC-1010	1.00"(in)		SILVER

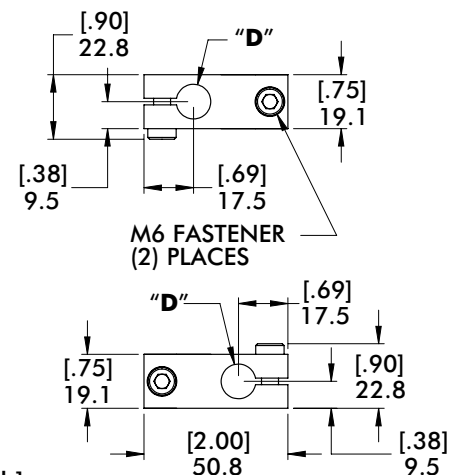
**M1513** Ø1.00" to Ø1.00"



**Specifications:**  
Max. Static  
Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum

Model Number	Weight
<b>M1513</b>	[.82 lb] .37 kg

**CLM** Ø12mm/.50" to Ø12mm/.50"



**Specifications:**  
Max. Static  
Clamp Load:  
13.6 N\*m [10 ft-lb]  
Material: Aluminum

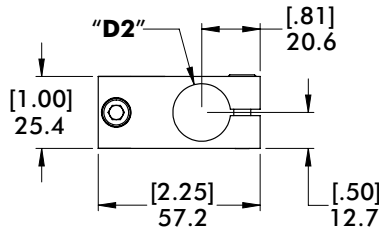
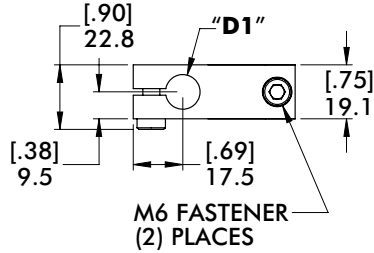
Model Number	(Ø)"D"	Weight
CPI-CLM-12M-12M	12mm	[.10 lb] .05 kg
CPI-CLM-50-50	.50"(in)	

# CROSS TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

## CLM Ø20mm/.75" to Ø12mm/.50"

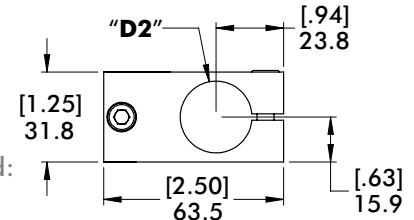
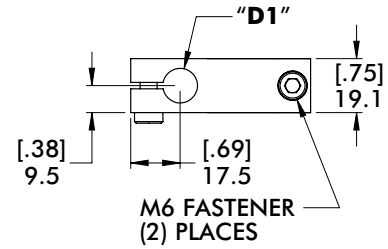


### Specifications:

Max. Static  
Clamp Load:  
Ø20mm/.75":  
20.3 N\*m [15 ft-lb]  
Ø12mm/.50":  
13.6 N\*m [10 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight
CPI-CLM-20M-12M	12mm	20mm	[13 lb] .06 kg
CPI-CLM-75-50	.50"(in)	.75 in	

## CLM Ø25mm/1.00" to Ø12mm/.50"

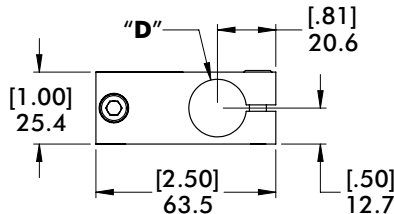
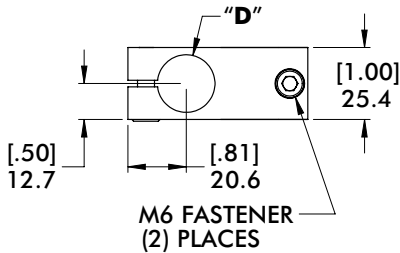
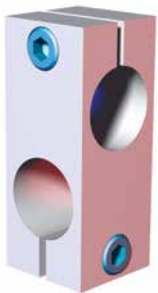


### Specifications:

Max. Static Clamp Load:  
Ø25mm/1.00":  
67.8 N\*m [50 ft-lb]  
Ø12mm/.50":  
13.6 N\*m [10 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight
CPI-CLM-25M-12M	12mm	25mm	[.08 lb] .17 kg
CPI-CLM-10-50	.50"(in)	1.00"(in)	

## CLM Ø20mm/.75" to Ø20mm/.75"

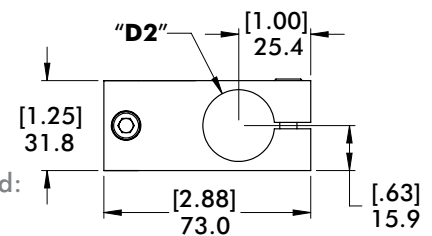
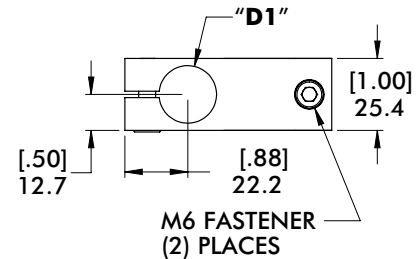


### Specifications:

Max. Static  
Clamp Load:  
20.3 N\*m  
[15 ft-lb]

Model Number	(Ø)"D"	Weight
CPI-CLM-20M-20M	20mm	[.16 lb] .07 kg
CPI-CLM-20M-20M-ST	20mm	[.40 lb] .18 kg
CPI-CLM-75-75	.75"(in)	[.17 lb] .08 kg

## CLM Ø25mm/1.00" to Ø20mm/.75"



### Specifications:

Max. Static Clamp Load:  
Ø25mm/1.00":  
67.8 N\*m [50 ft-lb]  
Ø20mm/.75":  
20.3 N\*m [15 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight
CPI-CLM-25M-20M	20mm	25mm	[.23 lb] .11 kg
CPI-CLM-10-75	.75"(in)	1.00"(in)	

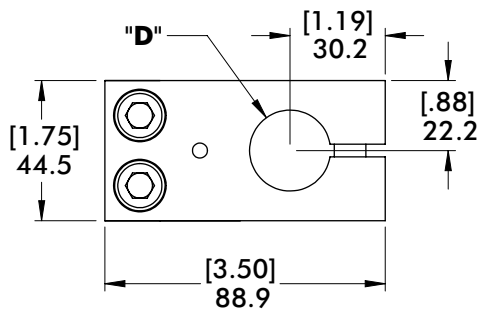
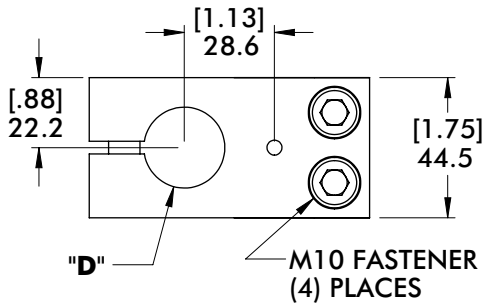


# CROSS TRANSITION BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

**M-xxx-xxx-M** Ø25mm/1.00" to Ø25mm/1.00" (Double Bolt)

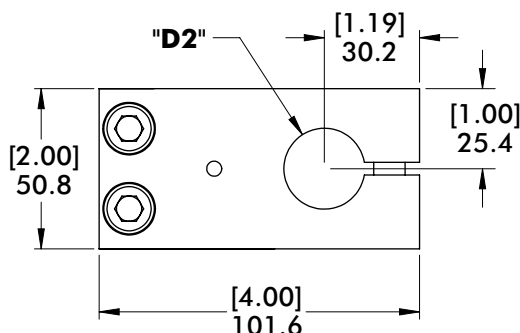
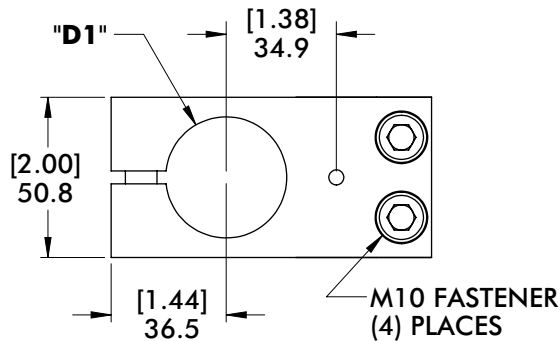


### Specifications:

Max. Static Clamp Load:  
Ø25mm/1.00":  
434 N\*m [320 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D"	Weight	Finish
M-25M-25M-M	25mm	[.93 lb] .42 kg	BLUE
M-10E-10E-M	1.00"(in)		BLACK

**M-xxx-xxx-M** Ø40mm/1.25"/1.50" to Ø25mm/1.00" (Double Bolt)



### Specifications:

Max. Static Clamp Load:  
Ø25mm/1.00":  
434 N\*m [320 ft-lb]  
Ø40mm/1.50":  
624 N\*m [460 ft-lb]  
Material: Aluminum

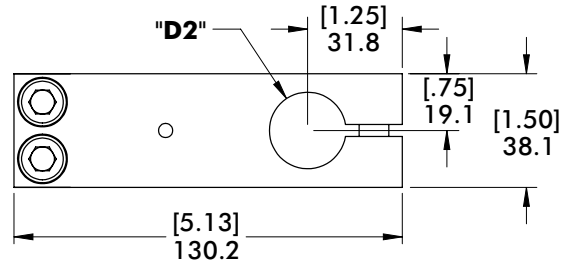
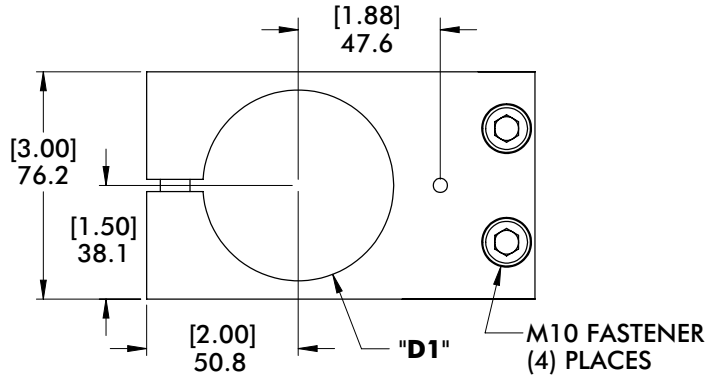
Model Number	(Ø)"D1"	(Ø)"D2"	Weight	Finish
M-10E-12E-M	1.25"(in)	1.00"(in)	[1.29 lb] .58 kg	BLACK
M-10E-15E-M	1.50"(in)	1.00"(in)	[1.18 lb] .54 kg	BLACK
M-25M-40M-M	40mm	25mm		BLUE

# CROSS TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

**M-xxx-xxx-M** Ø60mm/2.50" to Ø25mm/1.00" (Double Bolt)



**Specifications:**

Max. Static Clamp Load:

Ø25mm/1.00":

434 N\*m [320 ft-lb]

Ø60mm/2.50":

813 N\*m [600 ft-lb]

Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight	Finish
M-25M-60M-M	60mm	25mm	[1.52 lb] .69 kg	BLUE
M-10E-25E-M	2.50"(in)	1.00"(in)	[1.44 lb] .65 kg	BLACK

**M-xxx-xxx-M** Ø40mm/1.25"/1.50" to Ø40mm/1.25"/1.50" (Double Bolt)



**Specifications:**

Max. Static Clamp Load:

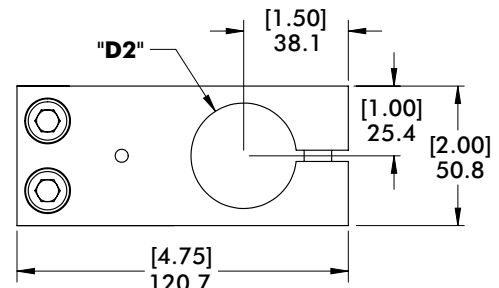
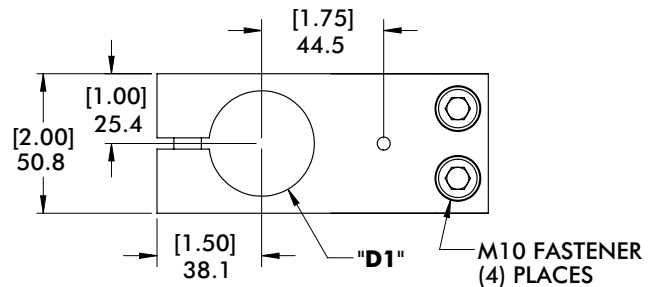
Ø1.25":

515 N\*m [380 ft-lb]

Ø40mm/1.50":

624 N\*m [460 ft-lb]

Material: Aluminum



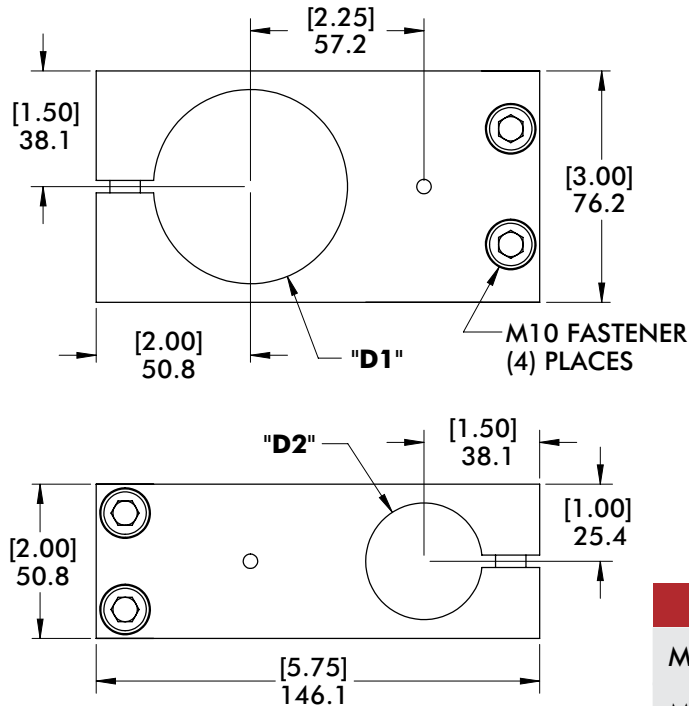
Model Number	(Ø)"D1"	(Ø)"D2"	Weight	Finish
M-12E-12E-M	1.25"(in)	1.25"(in)	[1.51 lb] .69 kg	BLACK
M-12E-15E-M	1.25"(in)	1.50"(in)	[1.41 lb] .64 kg	BLACK
M-15E-15E-M	1.50"(in)	1.50"(in)	[1.31 lb] .59 kg	BLACK
M-40M-40M-M	40mm	40mm	[1.23 lb] .56 kg	BLUE

# CROSS TRANSITION BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

**M-xxx-xxx-M** Ø60mm/2.50 to Ø40mm/1.50" (Double Bolt)

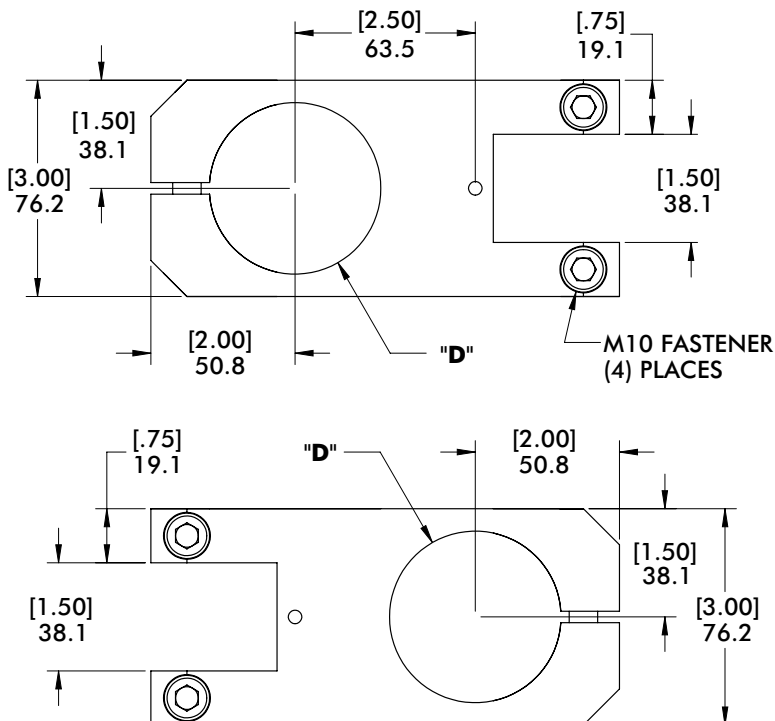


**Specifications:**

Max. Static Clamp Load:  
Ø40mm/1.50":  
624 N\*m [460 ft-lb]  
Ø60mm/2.50":  
813 N\*m [600 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight	Finish
M-40M-60M-M	60mm	40mm	[2.08 lb] .95 kg	BLUE
M-15E-25E-M	2.50"(in)	1.50"(in)		BLACK

**M-xxx-xxx-M** Ø60mm/2.50" to Ø60mm/2.50" (Double Bolt)



**Specifications:**

Max. Static Clamp Load:  
813 N\*m [600 ft-lb]  
Material: Aluminum

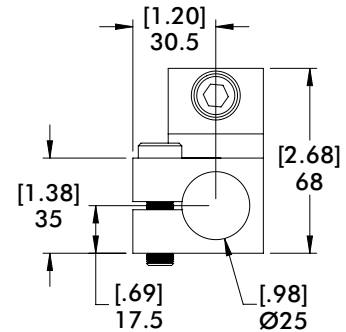
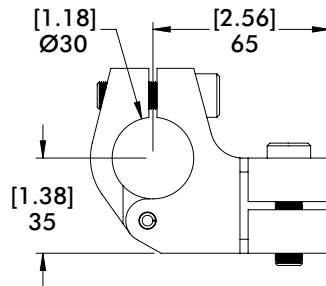
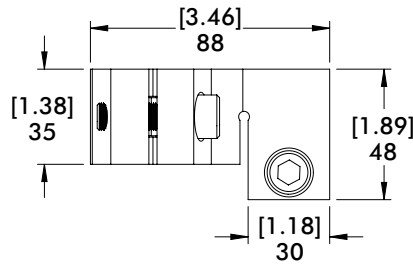
Model Number	(Ø)"D"	Weight	FINISH
M-60M-60M-M	60mm	[2.07 lb] .94 kg	BLUE
M-25E-25E-M	2.50"(in)	[2.03 lb] .92 kg	BLACK

# T-CLAMP TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

## TCAH Ø30mm to Ø25mm



### Specifications:

Max. Static Clamp Load:

Ø30mm:

237 N\*m [175 ft-lb]

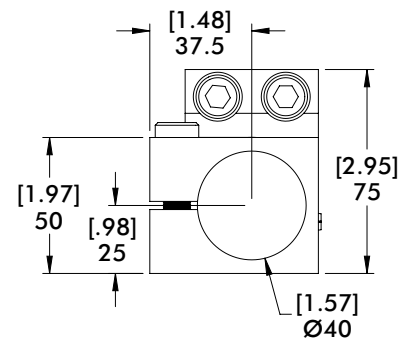
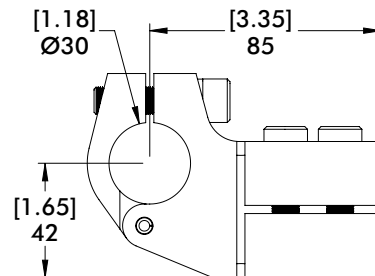
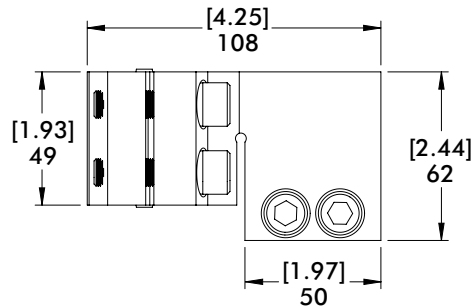
Ø25mm/1.00":

200 N\*m [150 ft-lb]

Material: Aluminum

Model Number	Weight
CPI-TCAH30M-25M	[0.72 lb] 325g

## TCAH Ø30mm to Ø40mm



### Specifications:

Max. Static Clamp Load:

Ø30mm:

237 N\*m [175 ft-lb]

Ø40mm:

271 N\*m [200 ft-lb]

Material: Aluminum

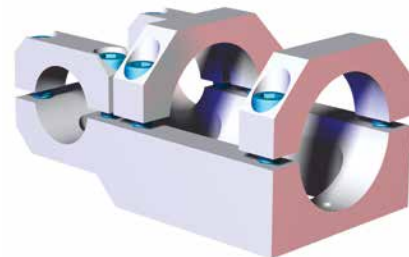
Model Number	Weight
CPI-TCAH30M-40M	[1.40 lb] 634g

# T-CLAMP TRANSITION BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

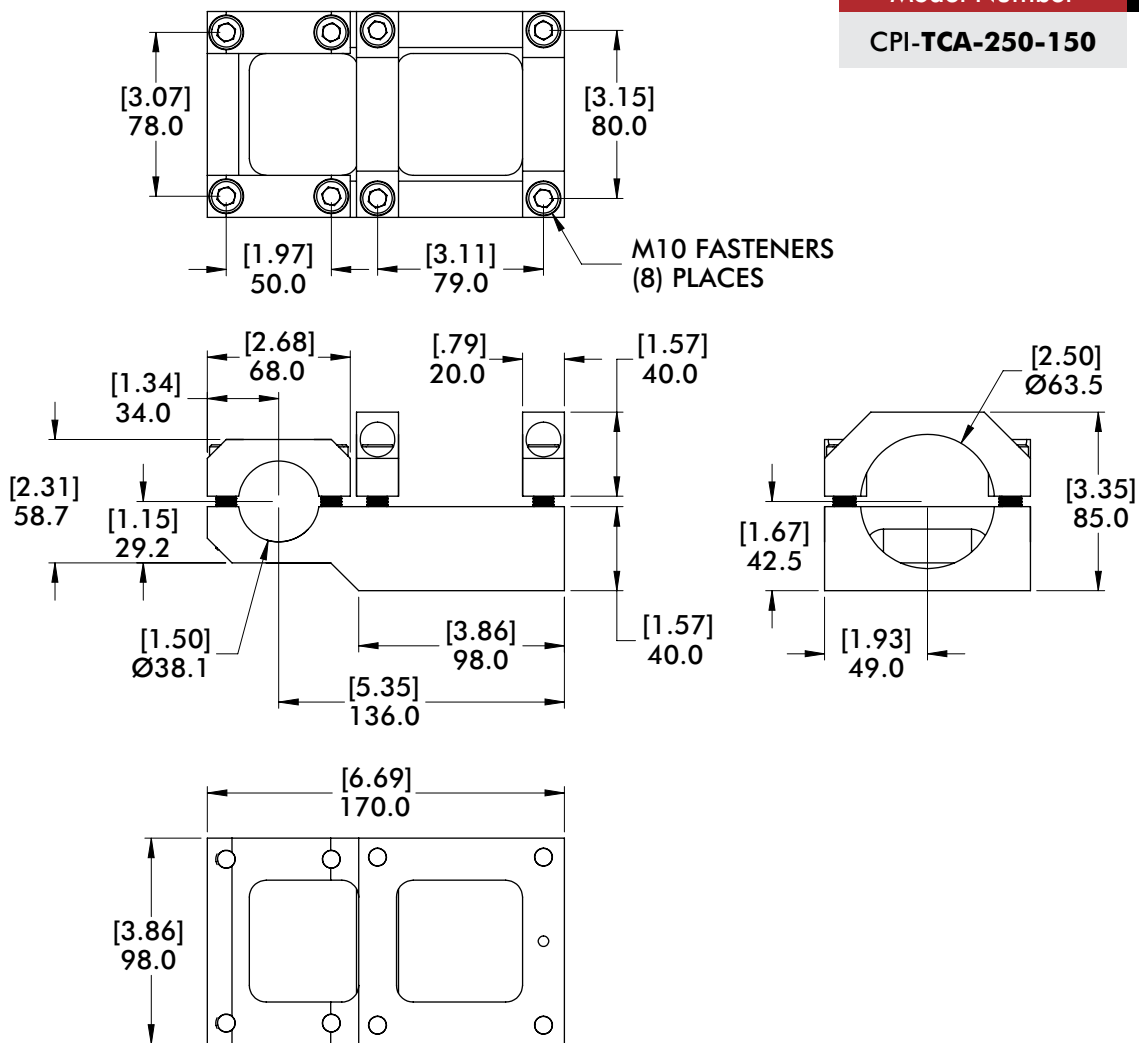
Round Tooling | Dimensions | Technical Specifications

**TCA** Ø2.50" to Ø1.50" T-Clamp Bracket Assembly



**Specifications:**  
Max. Static Clamp Load:  
Ø1.50":  
271 N\*m [200 ft-lb]  
Ø2.50":  
677 N\*m [500 ft-lb]  
Material: Aluminum

Model Number	Weight
CPI-TCA-250-150	[2.76 lb] 1.25 kg

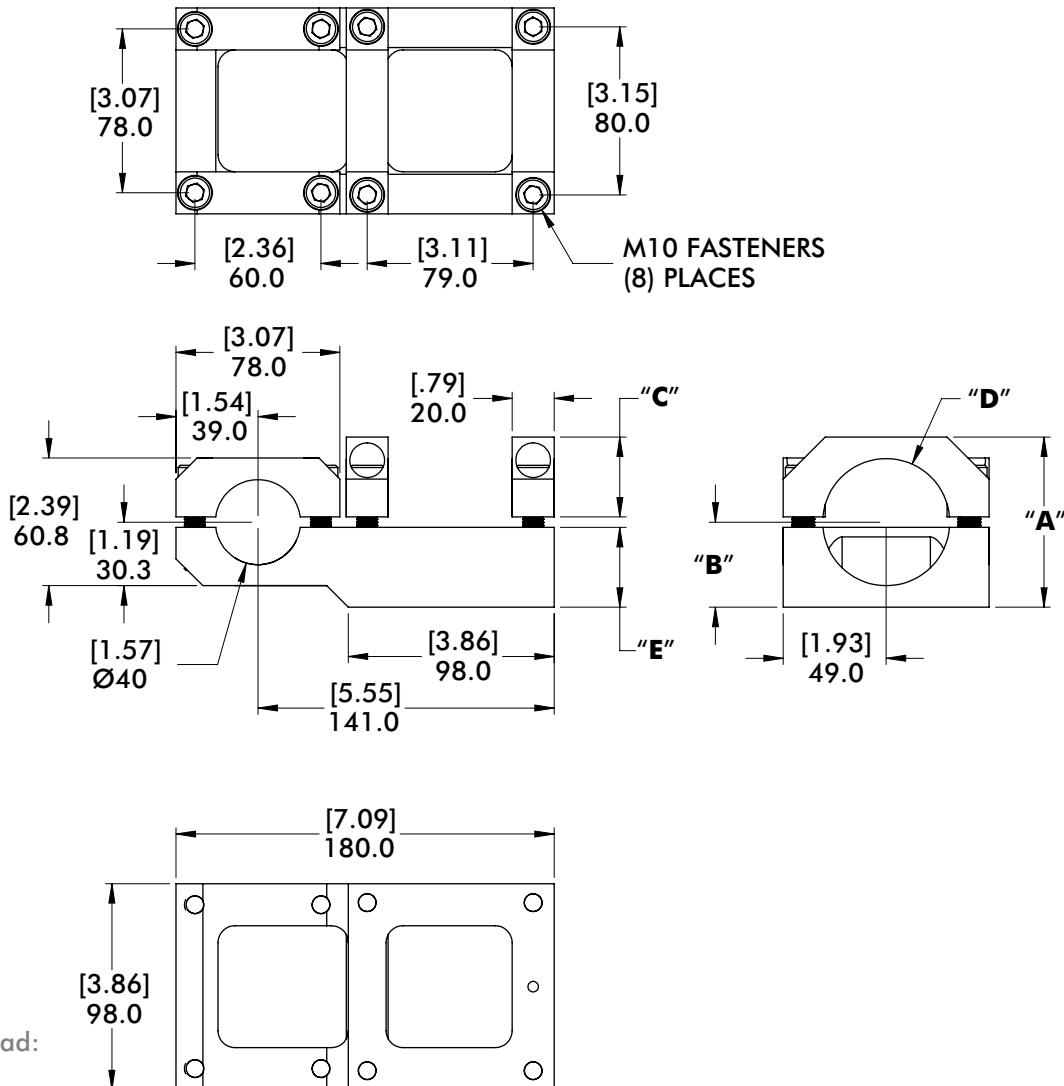
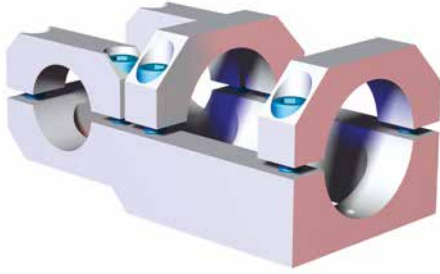


# T-CLAMP TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

**TCA** Ø60mm/2.50" to Ø40mm T-Clamp Bracket Assembly



Specifications:  
Max. Static Clamp Load:  
Ø40mm:  
271 N\*m [200 ft-lb]  
Ø60mm/2.50":  
677 N\*m [500 ft-lb]  
Material: Aluminum

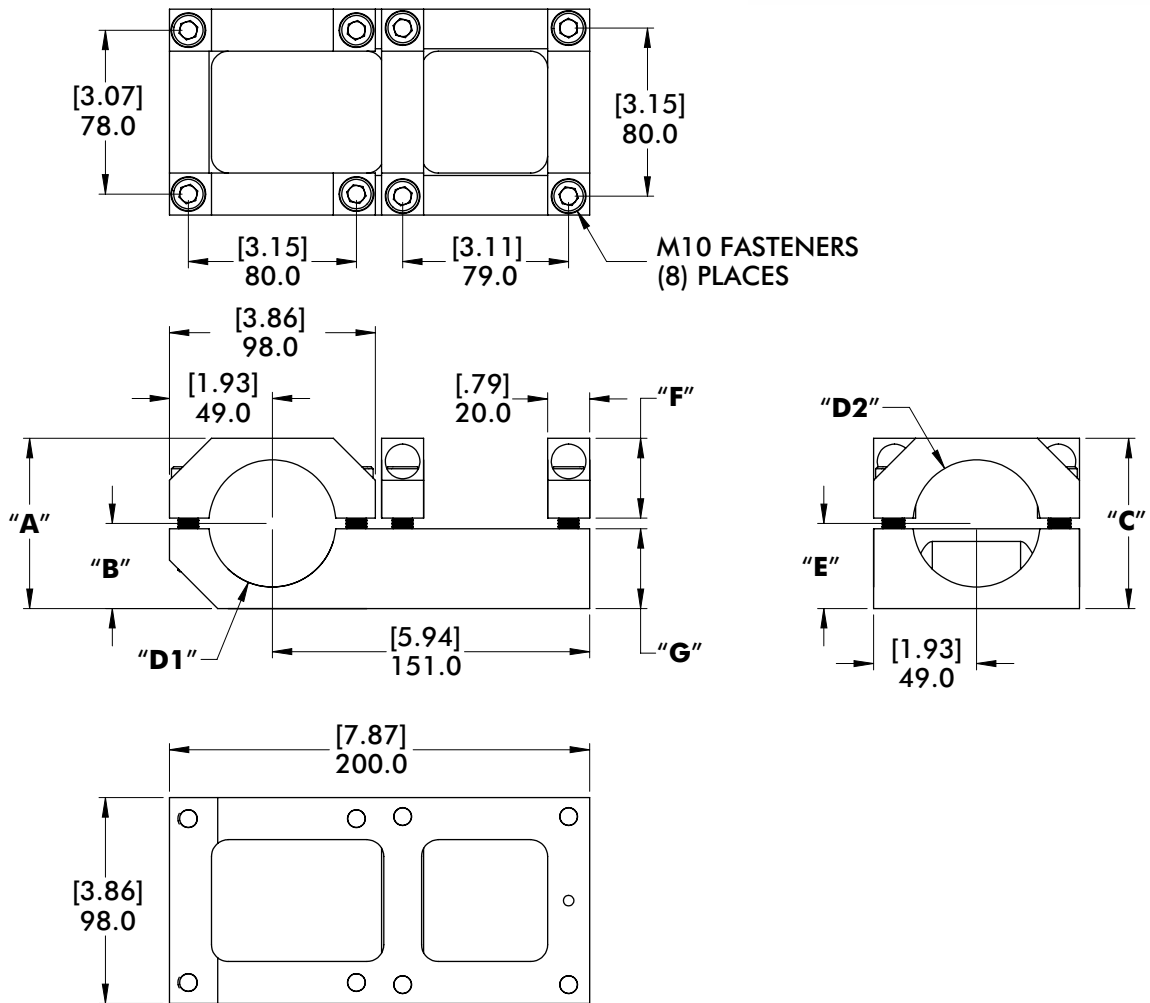
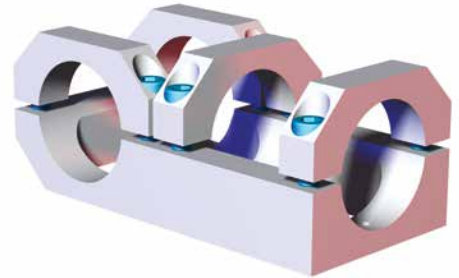
Model Number	(Ø)"D"	"A"	"B"	"C"	"E"	Weight
CPI-TCA-60M-40M	60mm	[3.19] 81.0	[1.59] 40.5	[1.50] 38.0	[1.50] 38.0	[2.89 lb] 1.31 kg

# T-CLAMP TRANSITION BRACKETS AND BLOCKS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

**TCA** Ø60mm/2.50" to Ø60mm/2.50" T-Clamp Bracket Assembly



Specifications:  
Max. Static Clamp Load:  
813 N\*m [600 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	"A"	"B"	"C"	"E"	"F"	"G"	Weight
CPI-TCA-60M-60M	60mm	60mm	[3.19] 81.0	[1.59] 40.5	[3.19] 81.0	[1.59] 40.5	[1.50] 38.0	[1.50] 38.0	[3.15 lb] 1.43 kg
CPI-TCA-250-250	2.50"(in)	2.50"(in)	[3.35] 85.0	[1.67] 42.5	[3.35] 85.0	[4.67] 42.5	[1.57] 40.0	[1.57] 40.0	

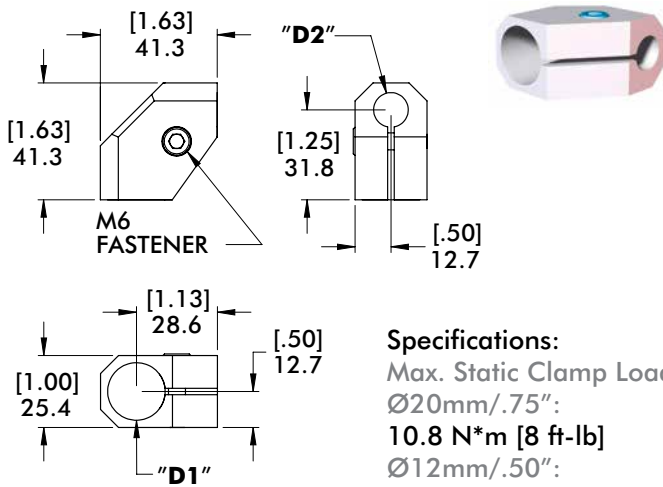
# WRIST CLAMPS

Round Tooling | Dimensions | Technical Specifications

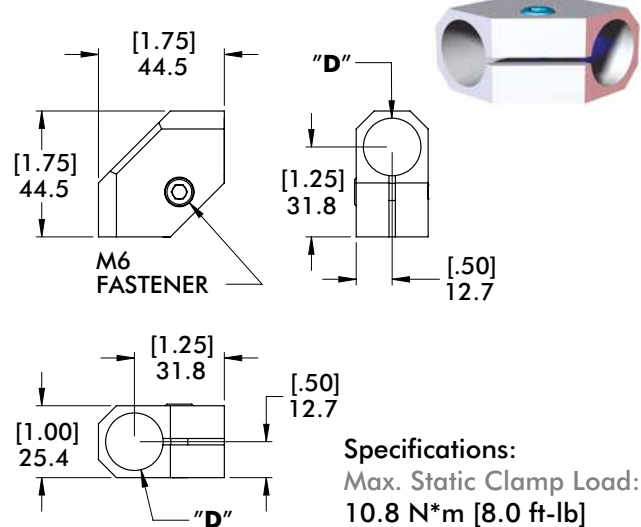
Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

## SECM Ø20mm/.75" to Ø12mm/.50"

## SECM Ø20mm/.75" to Ø20mm/.75"



Specifications:  
Max. Static Clamp Load:  
Ø20mm/.75":  
10.8 N\*m [8 ft-lb]  
Ø12mm/.50":  
10.8 N\*m [8 ft-lb]  
Material: Aluminum



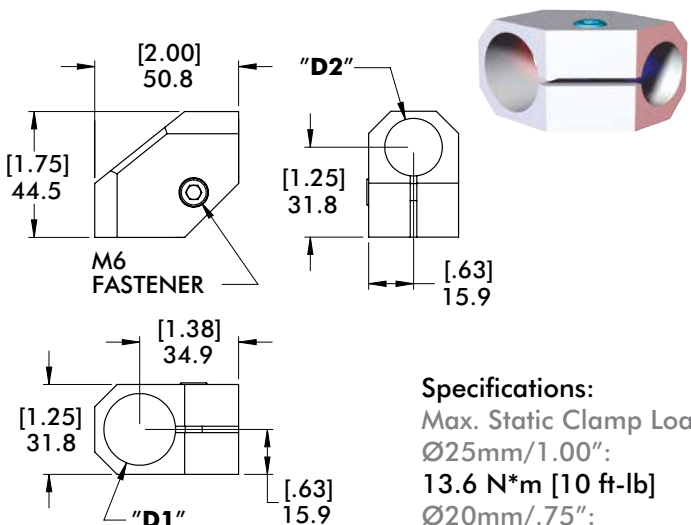
Specifications:  
Max. Static Clamp Load:  
10.8 N\*m [8.0 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight
CPI-SECM-2012M	12mm	20mm	[.12 lb] .05 kg
CPI-SECM-7550	.50"(in)	.75"(in)	

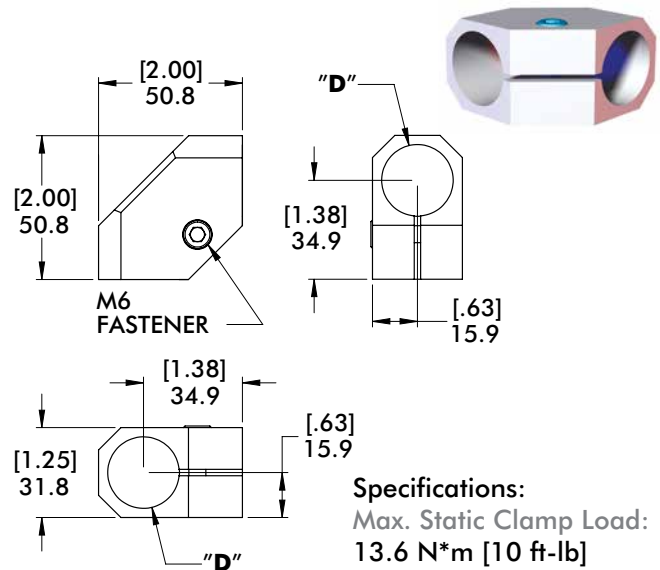
Model Number	(Ø)"D"	Weight
CPI-SECM-2020M	20mm	[.12 lb] .06 kg
CPI-SECM-7575	.75"(in)	

## SECM Ø25mm/1.00" to Ø20mm/.75"

## SECM Ø25mm/1.00" to Ø25mm/1.00"



Specifications:  
Max. Static Clamp Load:  
Ø25mm/1.00":  
13.6 N\*m [10 ft-lb]  
Ø20mm/.75":  
10.8 N\*m [8.0 ft-lb]  
Material: Aluminum



Specifications:  
Max. Static Clamp Load:  
13.6 N\*m [10 ft-lb]  
Material: Aluminum

Model Number	(Ø)"D1"	(Ø)"D2"	Weight
CPI-SECM-2520M	25mm	20mm	[.17 lb] .08 kg
CPI-SECM-1075	1.00"(in)	.75"(in)	

Model Number	(Ø)"D"	Weight
CPI-SECM-2525M	25mm	[.17 lb] .08 kg
CPI-SECM-1010	1.00"(in)	

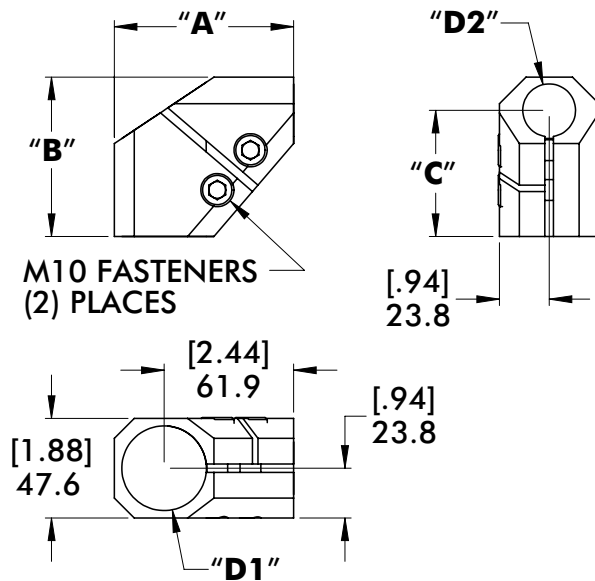


# WRIST CLAMPS

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

Round Tooling | Dimensions | Technical Specifications

**SEC/SLK** Ø40mm/1.50" to Ø25mm/1.00"



Specifications:  
 Max. Static Clamp Load:  
 Ø40mm/1.50":  
 271 N\*m [200 ft-lb]  
 Ø25mm/1.00":  
 203 N\*m [150 ft-lb]  
 Material: Aluminum

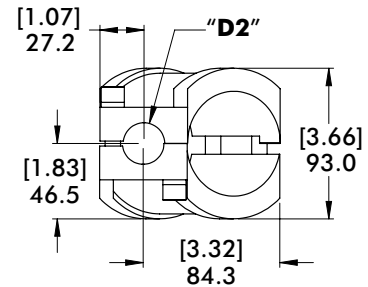
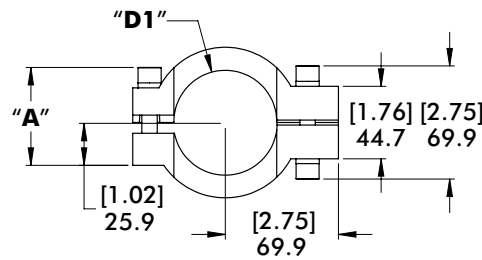
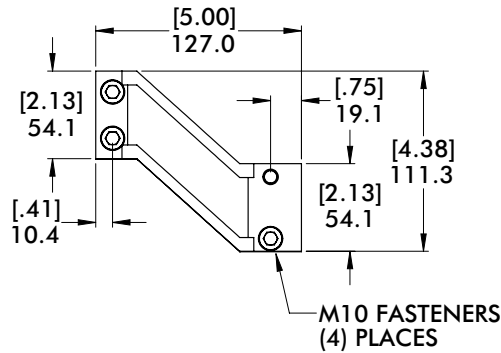
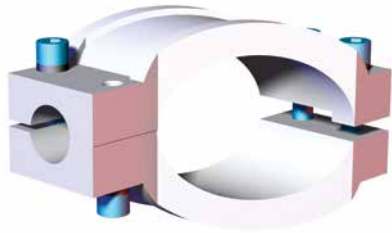
Model Number	(Ø)"D1"	(Ø)"D2"	"A"	"B"	"C"	"E"	Weight
CPI-SEC-1510	1.50"(in)	1.00"(in)	[3.25] 82.6	[2.38] 60.3	[1.75] 44.5	[.88] 22.2	[.67 lb] .31 kg
CPI-SLK-4025	40mm	25mm	[3.38] 85.7	[2.44] 61.9	[1.88] 47.6	[.94] 23.8	[.77 lb] .35 kg

# OFFSET WRIST BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specifications

Nominal ( $\emptyset$ ) given  
See chart on Page 72  
for actual ( $\emptyset$ ) size

## SEC/SLK $\emptyset 60\text{mm}/2.50''$ to $\emptyset 25\text{mm}/1.00''$ Wrist Bracket



### Specifications:

Max. Static Clamp Load:

$\emptyset 25\text{mm}/1.00''$ :

149 N\*m [110 ft-lb]

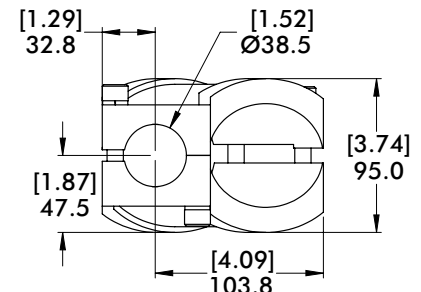
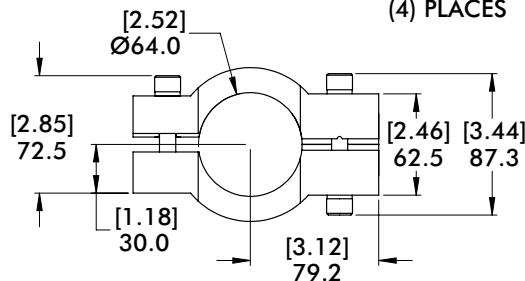
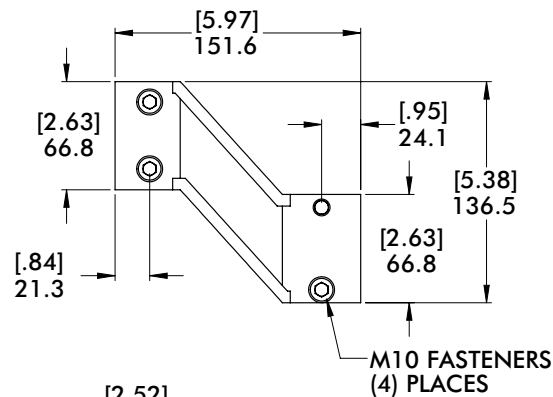
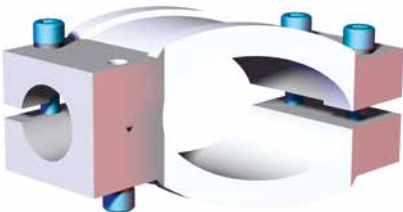
$\emptyset 60\text{mm}/2.50''$ :

677 N\*m [500 ft-lb]

Material: Aluminum

Model Number	( $\emptyset$ ) "D1"	( $\emptyset$ ) "D2"	"A"	Weight
CPI-SLK-6025	60mm	25mm	[2.25] 57.1	[1.72 lb] .78 kg
CPI-SEC-2510	2.50"(in)	1.00"(in)	[2.38] 60.5	[1.61 lb] .73 kg

## SEC $\emptyset 2.50''$ to $\emptyset 1.50''$ Wrist Bracket



### Specifications:

Max. Static Clamp Load:

$\emptyset 40\text{mm}/1.50''$ :

271 N\*m [200 ft-lb]

$\emptyset 60\text{mm}/2.50''$ :

677 N\*m [500 ft-lb]

Material: Aluminum

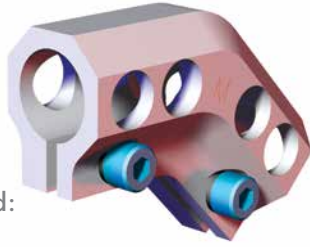
Model Number	Weight
CPI-SEC-2515	[2.72 lb] 1.23 kg

# ELBOW AND STRAIGHT BRACKETS

Round Tooling | Dimensions | Technical Specifications

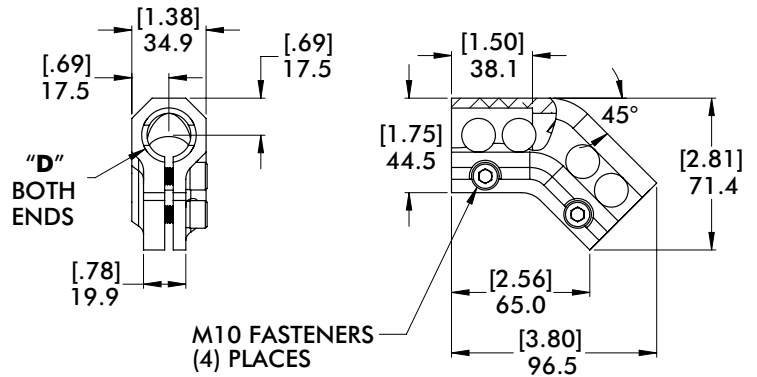
Nominal ( $\emptyset$ ) given  
See chart on Page 72  
for actual ( $\emptyset$ ) size

## DC $\emptyset$ 25mm/1.00" to $\emptyset$ 25mm/1.00" 45° Elbow

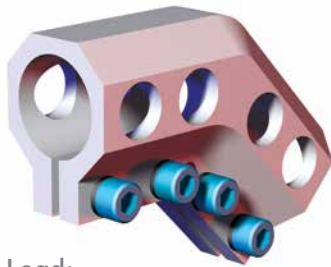


Specifications:  
Max. Static Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum

Model Number	( $\emptyset$ ) "D"	Weight
CPI-DC-2525M-45	25mm	[.35 lb] .16 kg
CPI-DC-1010-45	1.00"(in)	

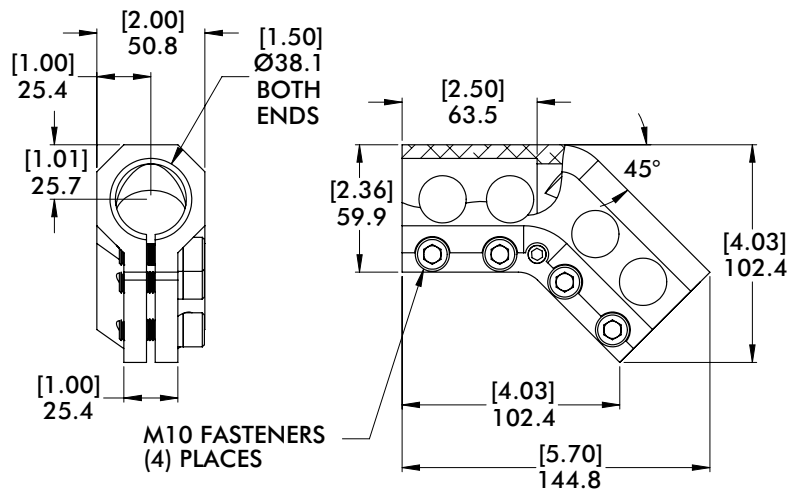


## DC $\emptyset$ 1.50" to $\emptyset$ 1.50" 45° Elbow

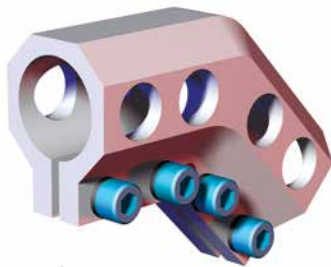


Specifications:  
Max. Static Clamp Load:  
271 N\*m [200 ft-lb]  
Material: Aluminum

Model Number	Weight
CPI-DC-1515-45	[1.41 lb] .64 kg

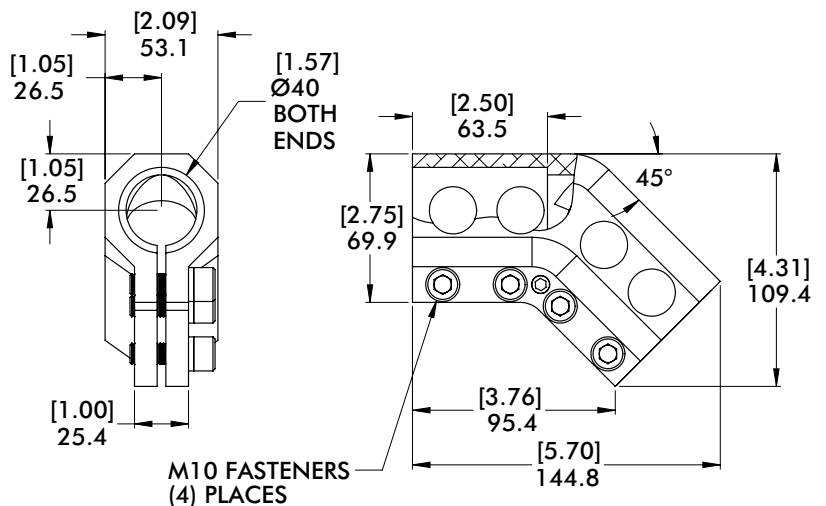


## DC $\emptyset$ 40mm to $\emptyset$ 40mm 45° Elbow



Specifications:  
Max. Static Clamp Load:  
271 N\*m [200 ft-lb]  
Material: Aluminum

Model Number	Weight
CPI-DC-40-40-45	[1.41 lb] .64 kg

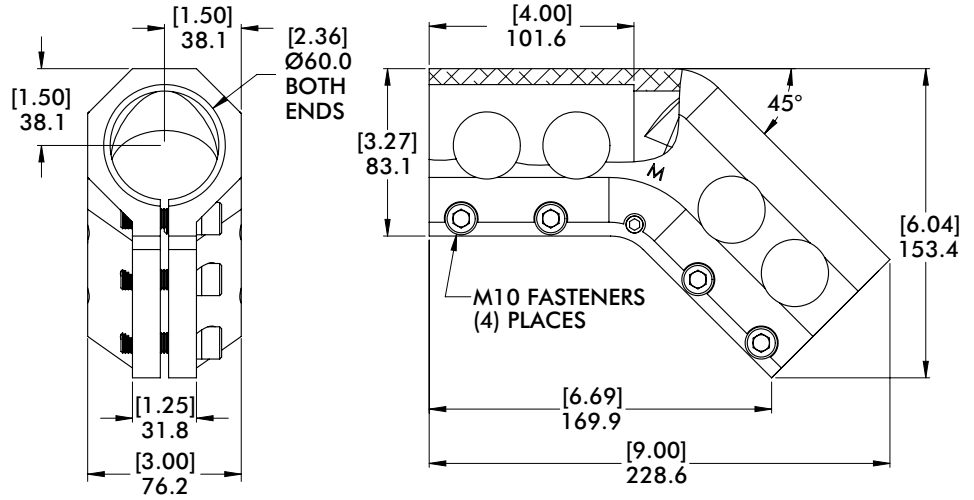
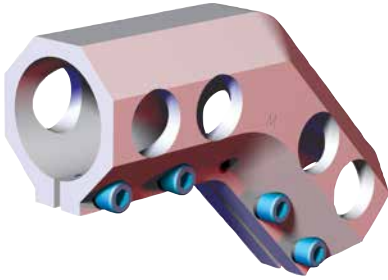


# ELBOW AND STRAIGHT BRACKETS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

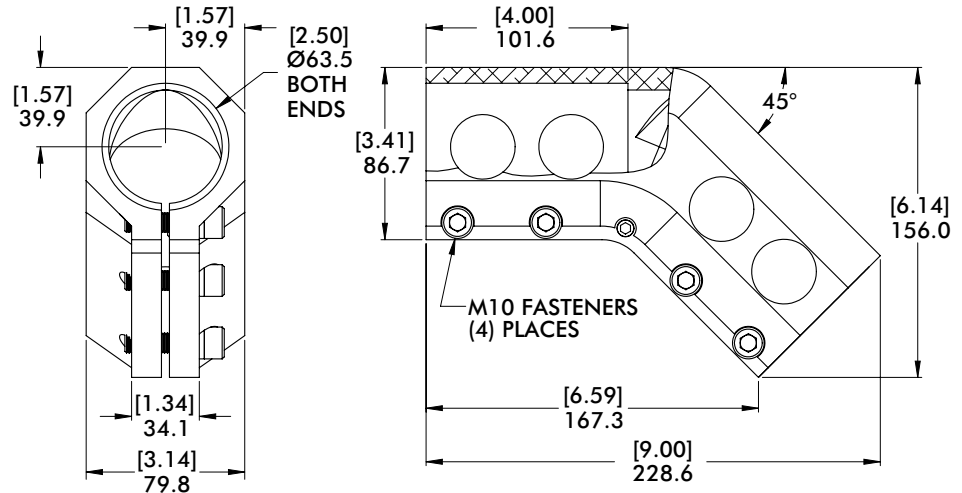
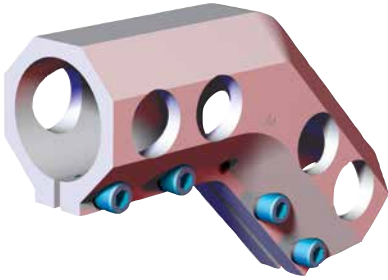
## DC Ø60mm to Ø60mm 45° Elbow



Specifications:  
Max. Static Clamp Load:  
677N\*m [500 ft-lb]  
Material: Aluminum

Model Number	Weight
CPI-DC-6060M-45	[2.94 lb] 1.33 kg

## DC Ø2.50" to Ø2.50" 45° Elbow



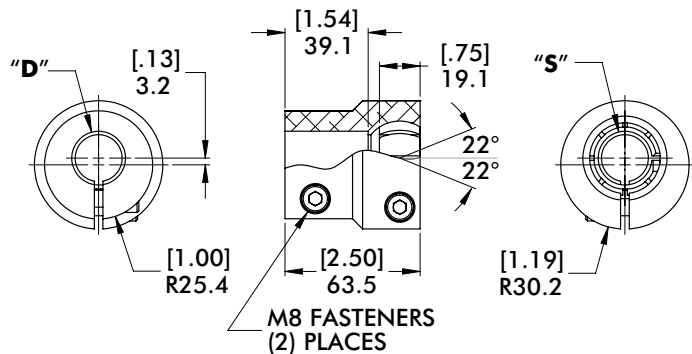
Specifications:  
Max. Static Clamp Load:  
677 N\*m [500 ft-lb]  
Material: Aluminum

Model Number	Weight
CPI-DC-2525-45	[3.19 lb] 1.46 kg

## DC Ø25mm/1.00" to Ø25mm/1.00" Straight with Swivel



Specifications:  
Max. Static Clamp Load:  
203 N\*m [150 ft-lb]  
Material: Aluminum



Model Number	(Ø)"D"	(Ø)"S"	Weight
CPI-DC-2525S-8	25mm	25mm	[.80 lb] .36 kg
CPI-DC-1010S-8	1.00"(in)	1.00"(in)	

# SWIVEL ARMS

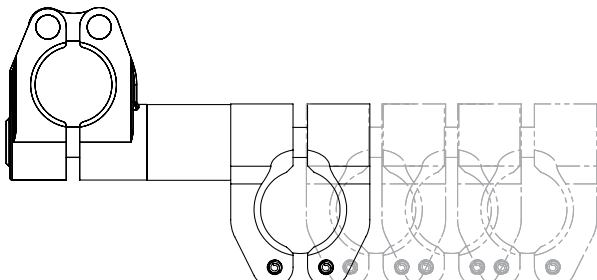
Round Tooling | Features and Benefits

## AC-SA Series Accessory Mount Swivel Arms



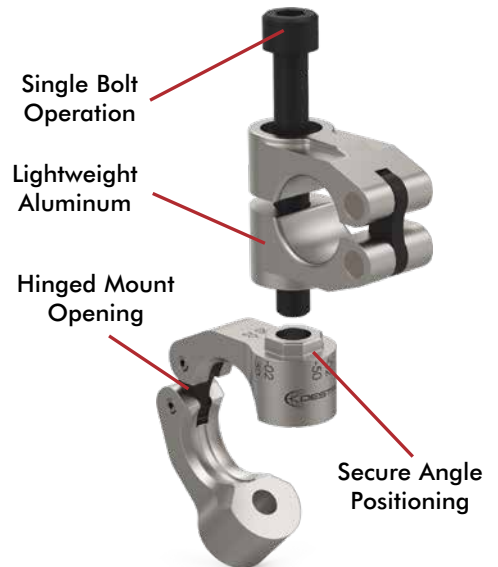
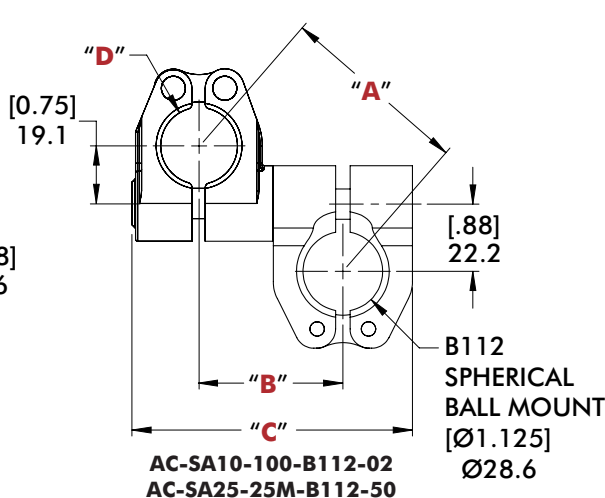
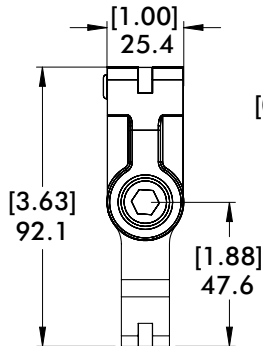
### Features:

- Fixed adjustment every 90 degrees
- Mounts to a 1 inch or 25mm tube
- Clamps to a  $\varnothing 28.6\text{mm}$  [1.125"] (B112) Spherical Ball



AC-SA10-100-B112-03  
AC-SA25-25M-B112-75  
AC-SA10-100-B112-04  
AC-SA25-25M-B112-100

AC-SA10-100-B112-06  
AC-SA25-25M-B112-150  
AC-SA10-100-B112-05  
AC-SA25-25M-B112-125



AC-SA10-100-B112-02  
AC-SA25-25M-B112-50



0 degree



90 degree



180 degree



270 degree

### Specifications:

Maximum Clamp Load:  
111 ft-lb [150 Nm]

Material:  
Aluminum

Model Number	"A"	"B"	"C"	(Ø)"D"	Weight
AC-SA10-100-B112-02	[2.48]	[1.87]	[3.65]	1.00"(in)	[0.53 lb]
AC-SA25-25M-B112-50	63	47.5	92.8	25mm	0.24kg
AC-SA10-100-B112-03	[3.37]	[2.95]	[4.74]	1.00"(in)	[0.64 lb]
AC-SA25-25M-B112-75	85.6	75.0	120.3	25mm	0.29kg
AC-SA10-100-B112-04	[4.26]	[3.94]	[5.72]	1.00"(in)	[0.73 lb]
AC-SA25-25M-B112-100	108.2	100.0	145.3	25mm	0.33kg
AC-SA10-100-B112-05	[5.18]	[4.92]	[6.70]	1.00"(in)	[0.82 lb]
AC-SA25-25M-B112-125	131.6	125.0	170.3	25mm	0.37 kg
AC-SA10-100-B112-06	[6.12]	[5.90]	[7.69]	1.00"(in)	[0.93 lb]
AC-SA25-25M-B112-150	155.4	150.0	195.5	25mm	0.42kg

# EXTEND-ARM SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications



## Features:

- Mounts apple core accessories to Ø25mm/1.00" round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

## Specifications:

Maximum Clamp Load:  
140 ft-lb [190 Nm]

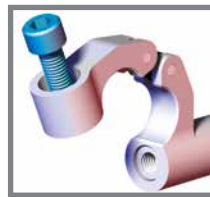
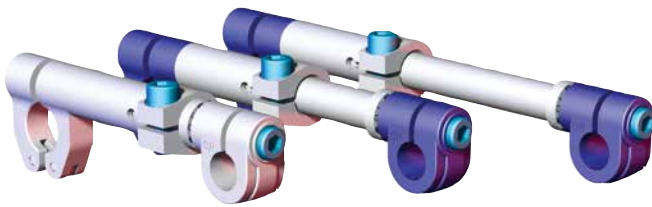
## Material:

Body and Insert:  
Machined Aluminum

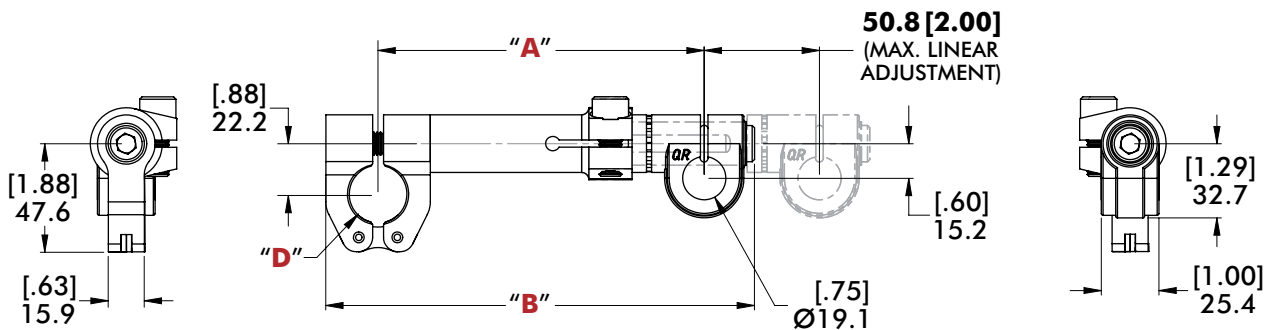
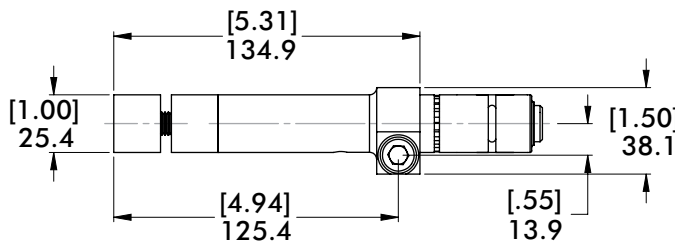
## End:

Cast Aluminum

## TSA Ø25mm/1.00" for Ø19mm [.75"] Apple Core



Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.



Model Number	(Ø)"D"	"A"	"B"	Weight	FINISH
CPI-55-1-TSA	1.00"(in)	[5.66]	[7.44]	[0.83 lb]	SILVER
CPI-140-25-TSA	25mm	143.7	188.9	0.38 kg	BLUE
CPI-75-1-TSA	1.00"(in)	[7.66]	[9.44]	[0.90 lb]	SILVER
CPI-190-25-TSA	25mm	194.5	239.7	0.41 kg	BLUE
CPI-95-1-TSA	1.00"(in)	[9.66]	[11.44]	[0.98 lb]	SILVER
CPI-240-25-TSA	25mm	245.3	290.5	0.44 kg	BLUE

# EXTEND-ARM SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

## Features:

- Mounts apple core accessories to Ø40mm/1.50" round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

## Specifications:

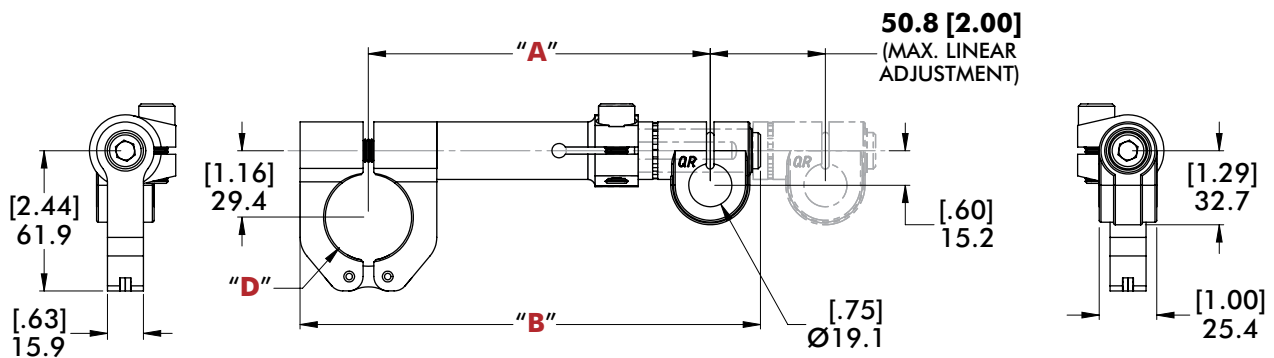
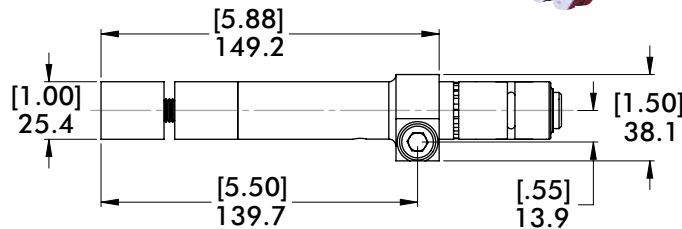
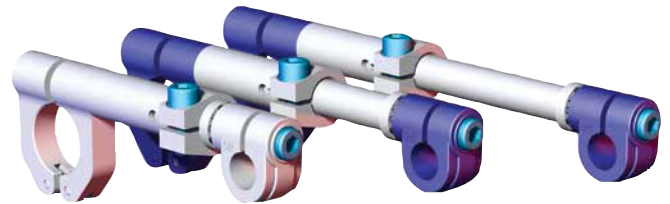
Maximum Clamp Load:  
140 ft-lb [190 Nm]  
Material:  
Body and Insert:  
Machined Aluminum  
End:  
Cast Aluminum



**TSA** Ø40mm/1.50" for Ø19mm [.75"] Apple Core



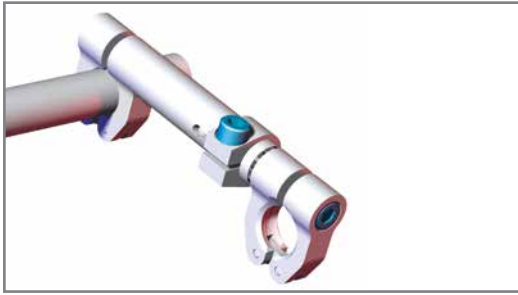
Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.



Model Number	(Ø)"D"	"A"	"B"	Weight	FINISH
CPI-55-150-TSA	1.50"(in)	[5.94]	[8.00]	[0.99 lb]	SILVER
CPI-140-40-TSA	40mm	150.9	203.2	0.45 kg	BLUE
CPI-75-150-TSA	1.50"(in)	[7.94]	[10.00]	[1.06 lb]	SILVER
CPI-190-40-TSA	40mm	201.7	254.0	0.48 kg	BLUE
CPI-95-150-TSA	1.50"(in)	[9.94]	[12.00]	[1.13 lb]	SILVER
CPI-240-40-TSA	40mm	252.5	304.8	0.51 kg	BLUE

# EXTEND-ARM SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications



## Features:

- Mounts swivel ball accessories to Ø25mm/1.00" round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

## Specifications:

Maximum Clamp Load:  
140 ft-lb [190 Nm]

Material:

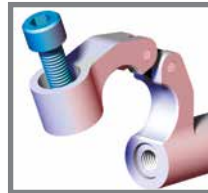
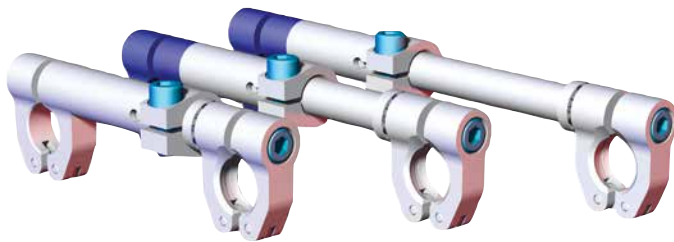
Body and Insert:

**Machined Aluminum**

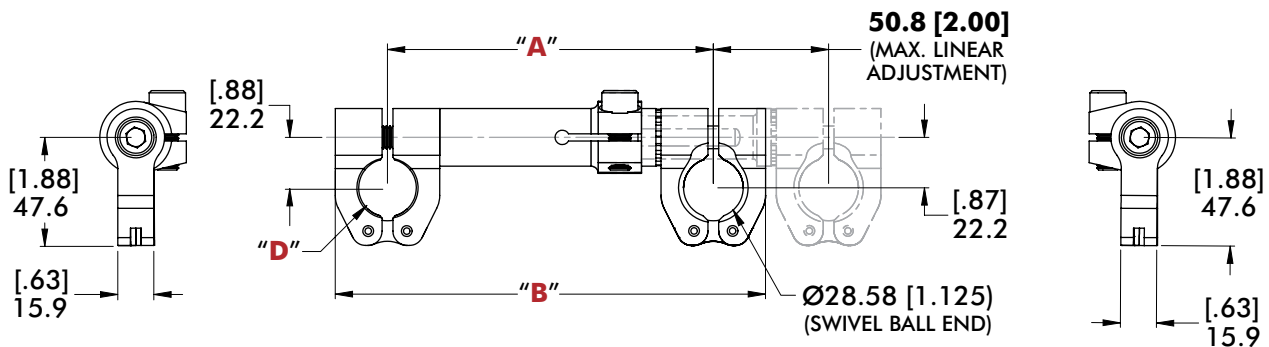
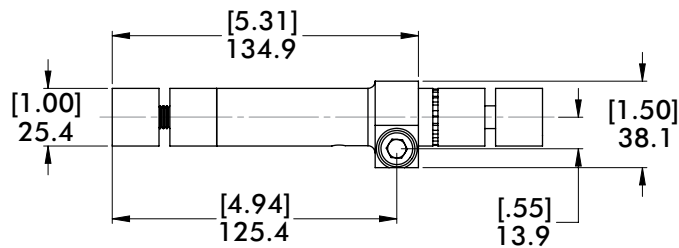
End:

**Cast Aluminum**

## TSA-B112 Ø25mm/1.00" for Ø28.6mm [1.125"] Spherical Swivel Ball



Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.



Model Number	(Ø) "D"	"A"	"B"	Weight	FINISH
CPI-55-1-TSA-B112	1.00"(in)	[5.65]	[7.47]	[0.93 lb]	SILVER
CPI-140-25-TSA-B112	25mm	143.6	189.6	0.42 kg	BLUE
CPI-75-1-TSA-B112	1.00"(in)	[7.65]	[9.47]	[1.00 lb]	SILVER
CPI-190-25-TSA-B112	25mm	194.4	240.4	0.45 kg	BLUE
CPI-95-1-TSA-B112	1.00"(in)	[9.65]	[11.47]	[1.07 lb]	SILVER
CPI-240-25-TSA-B112	25mm	245.2	291.2	0.49 kg	BLUE



# EXTEND-ARM SWIVEL ARMS

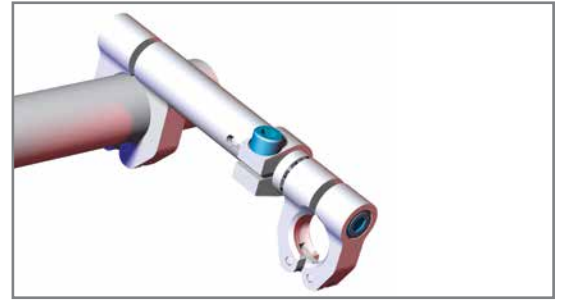
Round Tooling | Dimensions | Technical Specifications

## Features:

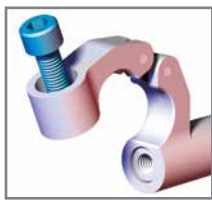
- Mounts swivel ball accessories to Ø40mm/1.50" round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

## Specifications:

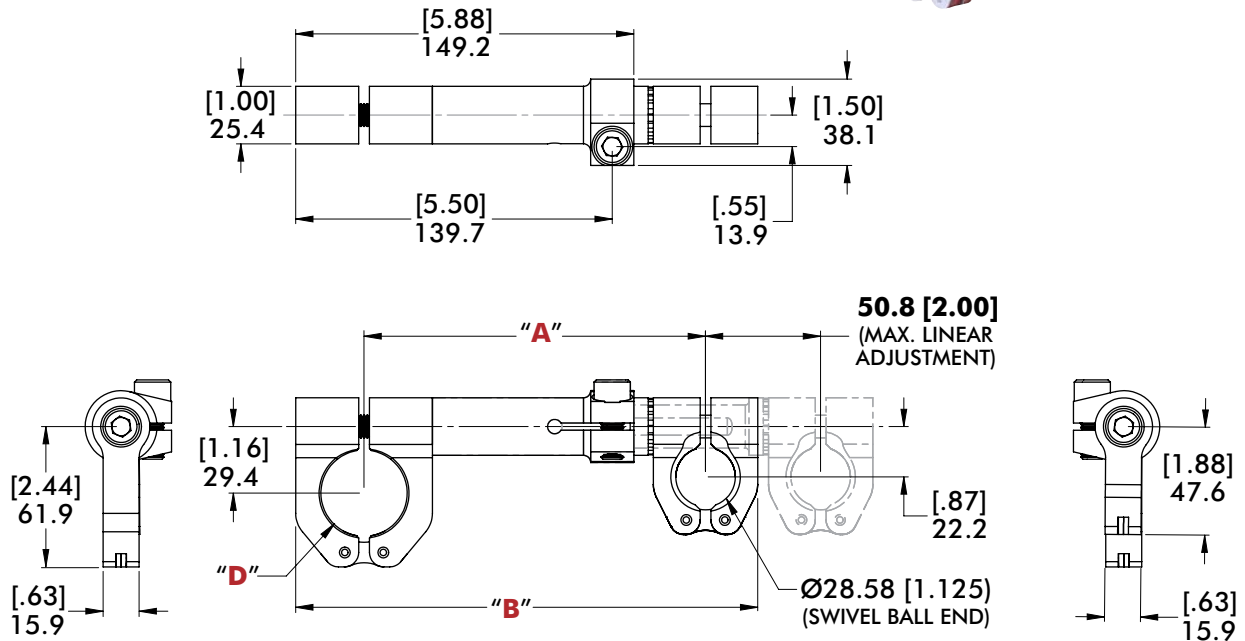
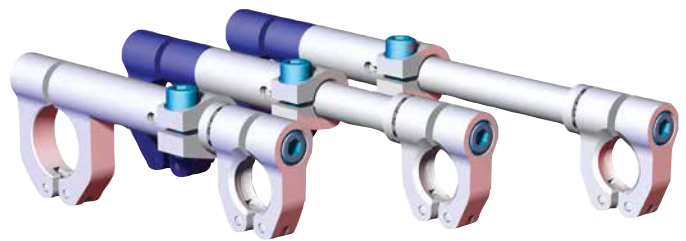
Maximum Clamp Load:  
140 ft-lb [190 Nm]  
Material:  
Body and Insert:  
Machined Aluminum  
End:  
Cast Aluminum



**TSA-B112** Ø40mm/1.50" for Ø28.6mm [1.125"] Spherical Swivel Ball



Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.



Model Number	(Ø)"D"	"A"	"B"	Weight	FINISH
CPI-55-150-TSA-B112	1.50"(in)	[5.93]	[8.03]	[1.03 lb]	SILVER
CPI-140-40-TSA-B112	40mm	150.7	203.9	0.47 kg	BLUE
CPI-75-150-TSA-B112	1.50"(in)	[7.93]	[10.03]	[1.10 lb]	SILVER
CPI-190-40-TSA-B112	40mm	201.5	254.7	0.50 kg	BLUE
CPI-95-150-TSA-B112	1.50"(in)	[9.93]	[12.03]	[1.17 lb]	SILVER
CPI-240-40-TSA-B112	40mm	252.3	305.5	0.53 kg	BLUE

# MICRO TOOLING SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

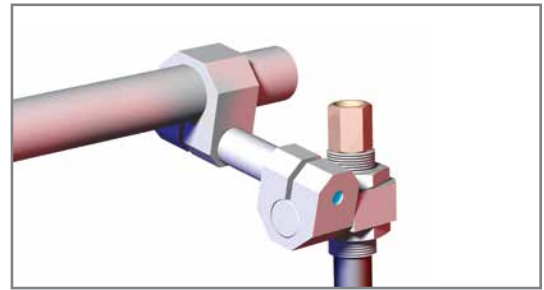
Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size

**Features:**

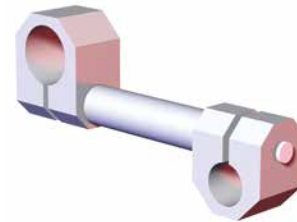
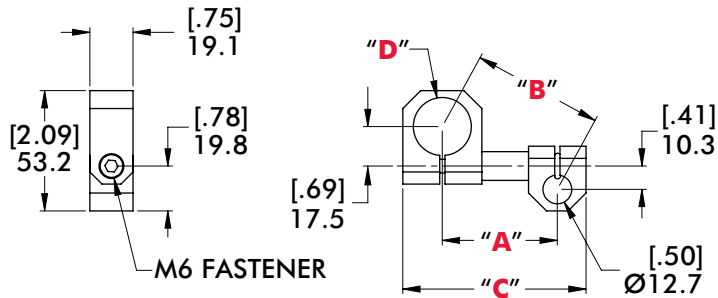
- Mounts micro apple core accessories to Ø20mm/.75" Round tube.
- Provides 360° of rotational adjustments along (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

**Specifications:**

Maximum Clamp Load:  
120 ft-lb [163 Nm]  
Material:  
Body and Spacer:  
Machined Aluminum



**MSA** Ø20mm/.75" for Ø12.7mm [.50"] Apple Core (Micro)

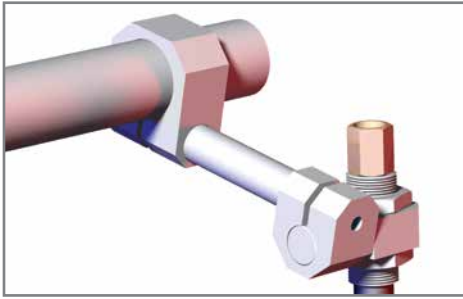


Model Number	(Ø) "D"	"A"	"B"	"C"	Weight
CPI-200-7550-MSA	.75"(in)	[2.00]	[2.28]	[3.19]	[0.16 lb]
CPI-200-20M50-MSA	20mm	50.8	57.9	81.0	0.07kg
CPI-300-7550-MSA	.75"(in)	[3.00]	[3.19]	[4.19]	[0.19 lb]
CPI-300-20M50-MSA	20mm	76.2	81.1	106.4	0.08kg
CPI-400-7550-MSA	.75"(in)	[4.00]	[4.15]	[5.19]	[0.21 lb]
CPI-400-20M50-MSA	20mm	101.7	105.4	131.9	0.09kg
CPI-500-7550-MSA	.75"(in)	[5.00]	[5.12]	[6.19]	[0.23 lb]
CPI-500-20M50-MSA	20mm	127.1	130.1	157.3	0.11kg
CPI-600-7550-MSA	.75"(in)	[6.00]	[6.10]	[7.19]	[0.26 lb]
CPI-600-20M50-MSA	20mm	152.5	155.0	182.7	0.12kg

# MICRO TOOLING SWIVEL ARMS

## Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size



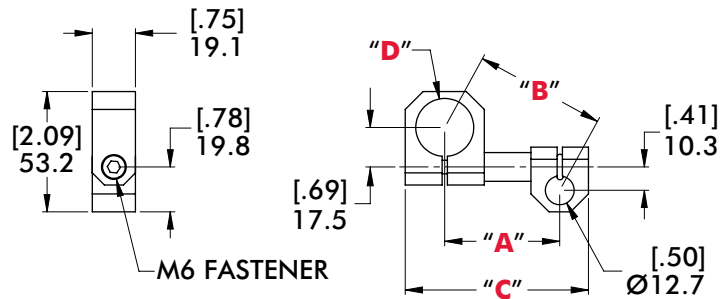
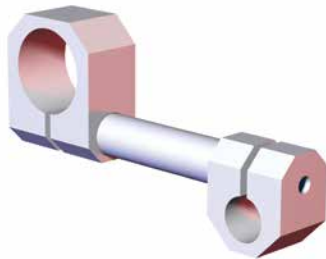
### Features:

- Mounts micro apple core accessories to Ø25mm/1.00" Round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

### Specifications:

Maximum Clamp Load:  
120 ft-lb [163 Nm]  
Material:  
Body and Spacer:  
Machined Aluminum

### MSA Ø25mm/1.00" for Ø12.7mm [.50"] Apple Core (Micro)



Model Number	(Ø)"D"	"A"	"B"	"C"	Weight
CPI-200-1050-MSA	1.00"(in)				
	25mm	[2.00] 50.7	[2.23] 56.6	[3.06] 77.7	[0.18 lb] 0.08kg
CPI-200-25M50-MSA					
CPI-300-1050-MSA	1.00"(in)				
	25mm	[3.00] 76.1	[3.16] 80.2	[4.11] 104.4	[0.21 lb] 0.09kg
CPI-300-30B50-MSA					
CPI-300-30B50-MSA	30mm				
CPI-400-1050-MSA	1.00"(in)				
	25mm	[4.00] 101.6	[4.12] 104.7	[5.08] 129.0	[0.23 lb] 0.10kg
CPI-400-25M50-MSA					
CPI-400-30B50-MSA	30mm				
CPI-500-1050-MSA	1.00"(in)				
	25mm	[5.00] 127.0	[5.10] 129.5	[6.14] 156.0	[0.25 lb] 0.11kg
CPI-500-25M50-MSA					
CPI-500-30B50-MSA	30mm				
CPI-600-1050-MSA	1.00"(in)				
	25mm	[6.00] 152.4	[6.08] 154.4	[7.09] 180.0	[0.27 lb] 0.13kg
CPI-600-25M50-MSA					
CPI-600-30B50-MSA	30mm				

# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications



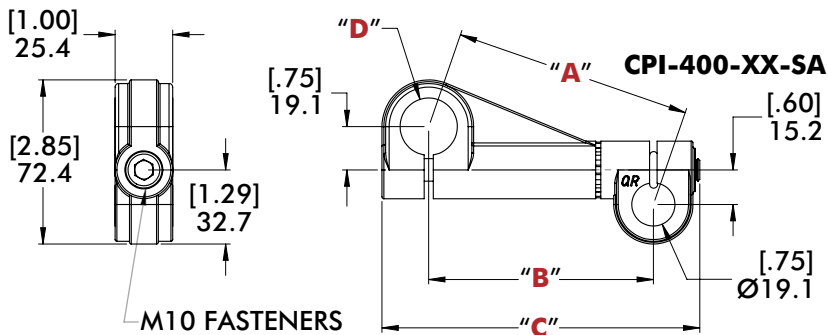
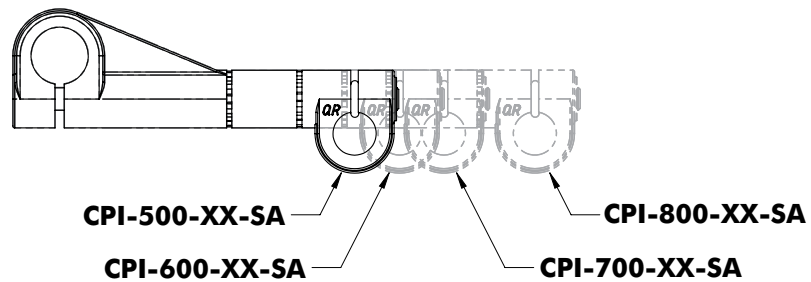
### Features:

- Mounts apple core accessories to Ø25mm/1.00" round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

### Specifications:

Maximum Clamp Load:  
200 ft-lb [271 Nm]  
Material:  
Body:  
Cast Aluminum  
Spacer:  
Machined Aluminum

**SA** Ø25mm/1.00" for Ø19.1mm [.75"] Apple Core

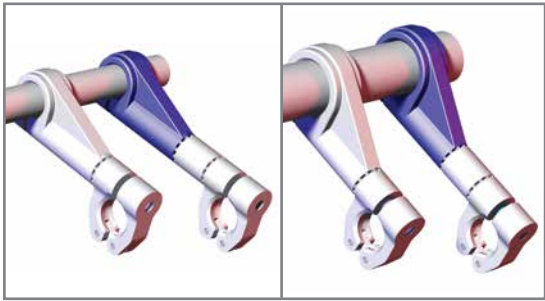


Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-400-1-SA	1.00"(in)	[4.13]	[3.90]	[5.52]	[0.70 lb]	SILVER
CPI-100-25-SA	25mm	104.9	99.1	140.2	0.31 kg	BLUE
CPI-500-1-SA	1.00"(in)	[5.30]	[5.12]	[6.70]	[0.82 lb]	SILVER
CPI-140-25-SA	25mm	134.5	130.1	170.2	0.37 kg	BLUE
CPI-600-1-SA	1.00"(in)	[6.05]	[5.90]	[7.49]	[0.90 lb]	SILVER
CPI-160-25-SA	25mm	153.8	149.9	190.2	0.41 kg	BLUE
CPI-700-1-SA	1.00"(in)	[6.81]	[6.67]	[8.27]	[0.97 lb]	SILVER
CPI-180-25-SA	25mm	172.9	169.4	210.2	0.44 kg	BLUE
CPI-800-1-SA	1.00"(in)	[8.36]	[8.25]	[9.85]	[1.13 lb]	SILVER
CPI-200-25-SA	25mm	212.4	209.6	250.2	0.51 kg	BLUE



# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications



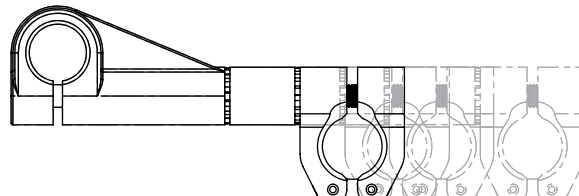
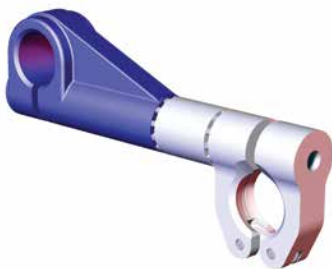
## Features:

- Mounts swivel ball accessories to round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

## Specifications:

Maximum Clamp Load:  
200 ft-lb [271 Nm]  
Material:  
Body:  
Cast Aluminum  
Spacer:  
Machined Aluminum

## SA-B112 Ø25mm/1.00" for Ø28.6mm [1.125"] Spherical Swivel Ball



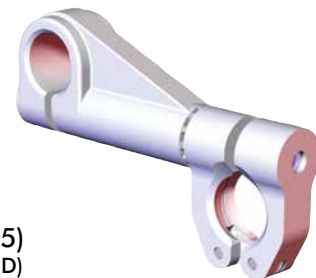
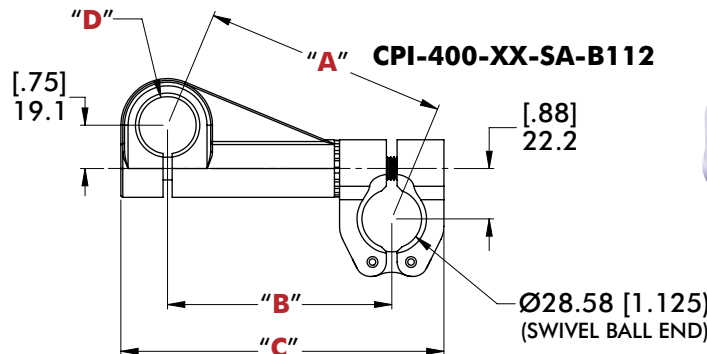
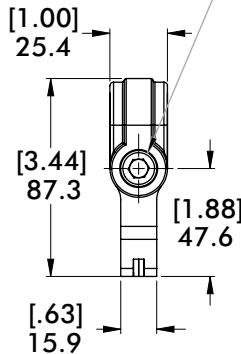
CPI-500-XX-SA-B112

CPI-800-XX-SA-B112

CPI-600-XX-SA-B112

CPI-700-XX-SA-B112

M10 FASTENER

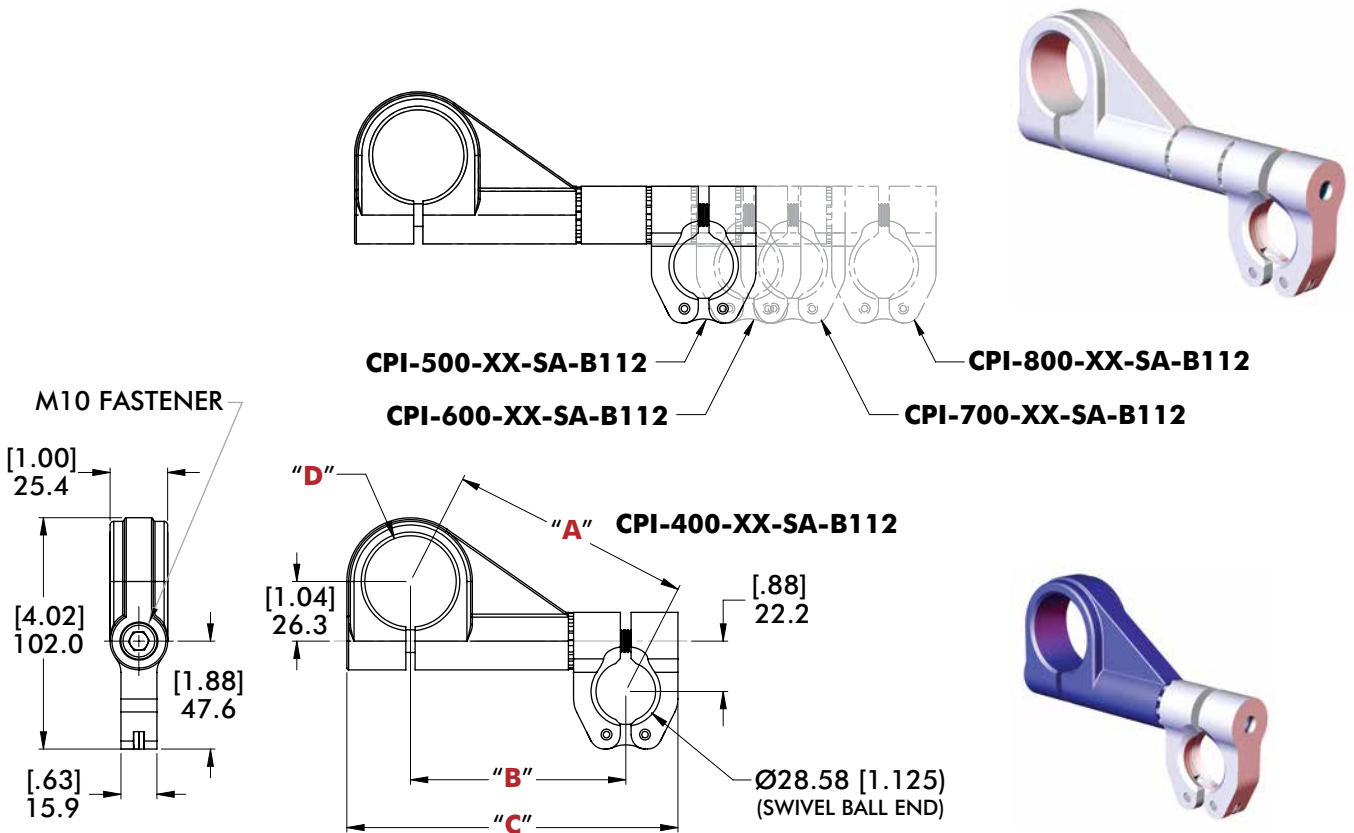


Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-400-1-SA-B112	1.00"(in)	[4.22]	[3.90]	[5.61]	[0.74 lb]	SILVER
CPI-100-25-SA-B112	25mm	107.2	98.9	142.6	0.34 kg	BLUE
CPI-500-1-SA-B112	1.00"(in)	[5.37]	[5.12]	[6.83]	[0.86 lb]	SILVER
CPI-140-25-SA-B112	25mm	136.3	129.9	173.5	0.39 kg	BLUE
CPI-600-1-SA-B112	1.00"(in)	[6.12]	[5.90]	[7.61]	[0.94 lb]	SILVER
CPI-160-25-SA-B112	25mm	155.3	149.7	193.4	0.43 kg	BLUE
CPI-700-1-SA-B112	1.00"(in)	[6.86]	[6.67]	[8.38]	[1.02 lb]	SILVER
CPI-180-25-SA-B112	25mm	174.3	169.3	212.9	0.46 kg	BLUE
CPI-800-1-SA-B112	1.00"(in)	[8.40]	[8.25]	[9.96]	[1.17 lb]	SILVER
CPI-200-25-SA-B112	25mm	213.5	209.4	253.0	0.53 kg	BLUE

# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**SA-B112** Ø40mm/1.50" for Ø28.6mm [1.125"] Spherical Swivel Ball



Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-400-15-SA-B112	1.50"(in)	[4.20]	[3.74]	[5.75]	[0.82 lb]	SILVER
CPI-100-40-SA-B112	40mm	106.7	95.0	146.1	0.37 kg	BLUE
CPI-500-15-SA-B112	1.50"(in)	[5.32]	[4.96]	[6.97]	[0.94 lb]	SILVER
CPI-140-40-SA-B112	40mm	135.0	126.0	177.1	0.42 kg	BLUE
CPI-600-15-SA-B112	1.50"(in)	[6.05]	[5.74]	[7.75]	[1.02 lb]	SILVER
CPI-160-40-SA-B112	40mm	153.7	145.8	196.9	0.46 kg	BLUE
CPI-700-15-SA-B112	1.50"(in)	[6.78]	[6.51]	[8.52]	[1.09 lb]	SILVER
CPI-180-40-SA-B112	40mm	172.3	165.4	216.5	0.50 kg	BLUE
CPI-800-15-SA-B112	1.50"(in)	[8.31]	[8.09]	[10.10]	[1.25 lb]	SILVER
CPI-200-40-SA-B112	40mm	211.1	205.5	256.6	0.56 kg	BLUE

# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications



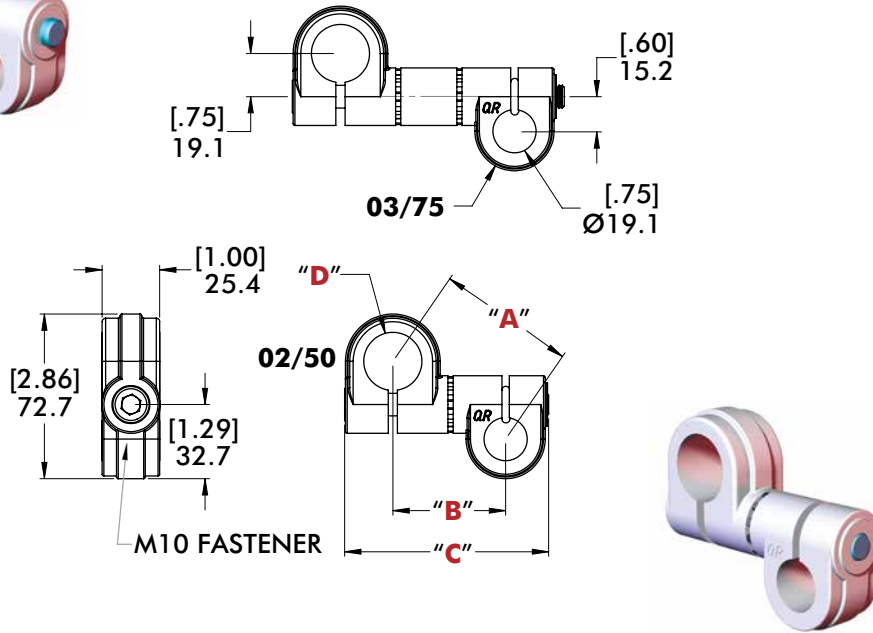
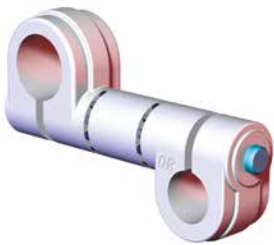
**Features:**

- Mounts apple core accessories to Ø25mm/1.00" round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

**Specifications:**

Maximum Clamp Load:  
200 ft-lb [271 Nm]  
Material:  
Body:  
Cast Aluminum  
Spacer:  
Machined Aluminum

**S**Axx Single-Bolt Ø25mm/1.00" for Ø19.1mm [.75"] Apple Core



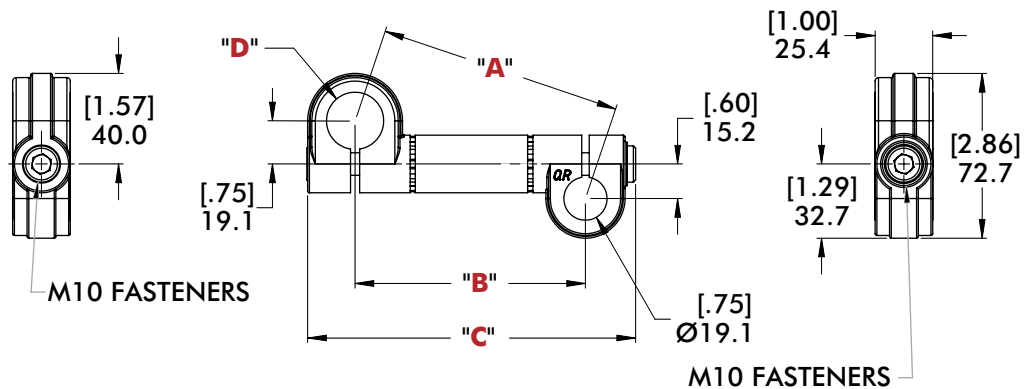
Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-SA10-100-075-02	1.00"(in)	[2.38]	[1.96]	[3.54]	[0.46 lb]	SILVER
CPI-SA25-25-19-50	25mm	60.4	49.8	90.0	0.21 kg	BLUE
CPI-SA10-100-075-03	1.00"(in)	[3.31]	[3.02]	[4.72]	[0.57 lb]	SILVER
CPI-SA25-25-19-75	25mm	84.1	76.8	120.0	0.26 kg	BLUE



# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**EDxx** Double-Bolt Ø25mm/1.00" for Ø19.1mm [.75"] Apple Core



Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-ED10-100-075-04	1.00"(in)	[4.27] 108.4	[4.05] 102.9	[5.74] 145.9	[0.65 lb] 0.29 kg	SILVER
CPI-ED25-25-19-100	25mm	[4.22] 107.2	[4.00] 101.6	[5.69] 144.6		BLUE
CPI-ED10-100-075-05	1.00"(in)	[5.23] 132.8	[5.05] 128.3	[6.74] 171.3	[0.71 lb] 0.32 kg	SILVER
CPI-ED10-100-075-06	1.00"(in)	[6.20] 157.4	[6.05] 153.7	[7.74] 196.7	[0.78 lb] 0.36 kg	SILVER
CPI-ED25-25-19-150	25mm	[6.13] 155.7	[5.98] 151.9	[7.67] 194.2		BLUE
CPI-ED10-100-075-07	1.00"(in)	[7.18] 182.3	[7.05] 179.1	[8.74] 222.1	[0.85 lb] 0.39 kg	SILVER
CPI-ED10-100-075-08	1.00"(in)	[8.16] 207.3	[8.05] 204.5	[9.74] 247.5	[0.92 lb] 0.42 kg	SILVER
CPI-ED25-25-19-200	25mm	[8.06] 204.8	[7.95] 201.9	[9.64] 244.9		BLUE
CPI-ED10-100-075-09	1.00"(in)	[9.15] 232.4	[9.05] 229.9	[10.74] 272.9	[0.99 lb] 0.45 kg	SILVER
CPI-ED10-100-075-10	1.00"(in)	[10.14] 257.6	[10.05] 255.3	[11.74] 298.3	[1.06 lb] 0.48 kg	SILVER
CPI-ED25-25-19-250	25mm	[10.01] 254.3	[9.92] 252.0	[11.61] 295.0		BLUE
CPI-ED10-100-075-11	1.00"(in)	[11.13] 282.7	[11.05] 280.7	[12.74] 323.7	[1.13 lb] 0.51 kg	SILVER
CPI-ED10-100-075-12	1.00"(in)	[12.13] 308.0	[12.05] 306.1	[13.74] 349.0	[1.20 lb] 0.54 kg	SILVER
CPI-ED25-25-19-300	25mm	[11.97] 303.9	[11.89] 302.0	[13.58] 345.0		BLUE
CPI-ED10-100-075-13	1.00"(in)	[13.12] 338.2	[13.05] 331.5	[14.74] 374.5	[1.27 lb] 0.58 kg	SILVER
CPI-ED10-100-075-14	1.00"(in)	[14.11] 358.5	[14.05] 356.9	[15.74] 399.9	[1.34 lb] 0.61 kg	SILVER
CPI-ED25-25-19-350	25mm	[13.92] 353.4	[13.85] 351.8	[15.54] 394.8		BLUE
CPI-ED10-100-075-15	1.00"(in)	[15.11] 383.8	[15.05] 382.3	[16.74] 425.3	[1.41 lb] 0.64 kg	SILVER
CPI-ED10-100-075-16	1.00"(in)	[16.11] 409.1	[16.05] 407.7	[17.74] 450.7	[1.48 lb] 0.67 kg	SILVER
CPI-ED25-25-19-400	25mm	[15.88] 403.3	[15.82] 401.8	[17.51] 444.9		BLUE

# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications



## Features:

- Mounts apple core accessories to Ø40mm/1.50" round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

## Specifications:

Maximum Clamp Load:  
200 ft-lb [271 Nm]

Material:

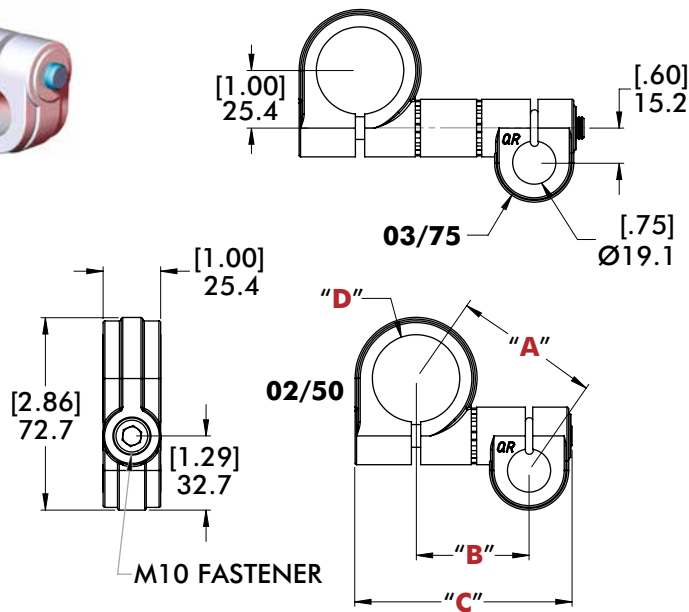
Body:

Cast Aluminum

Spacer:

Machined Aluminum

**S**Axx Single-Bolt Ø40mm/1.50" for Ø19.1mm [.75"] Apple Core

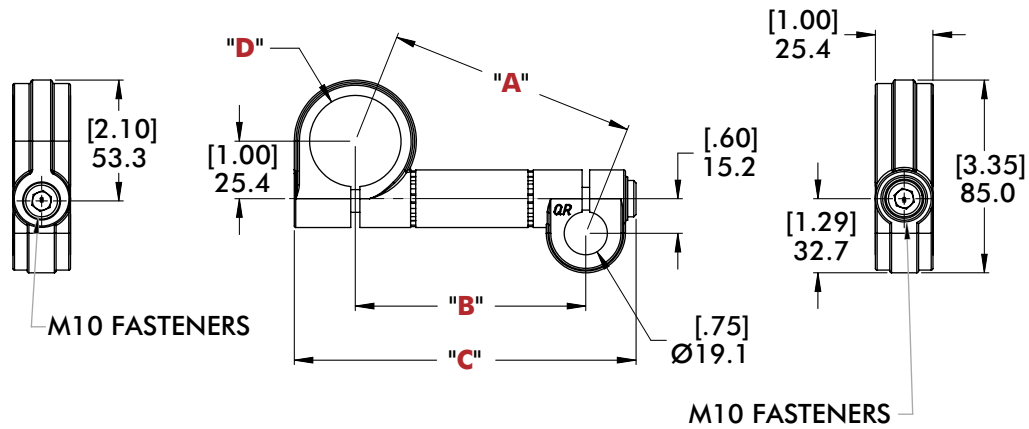


Model Number	(Ø) "D"	"A"	"B"	"C"	Weight	FINISH
CPI-SA10-150-075-02	1.50"(in)	[2.53]	[1.96]	[3.77]	[0.50 lb]	SILVER
CPI-SA25-40-19-50	40mm	64.3	49.8	95.9	0.23 kg	BLUE
CPI-SA10-150-075-03	1.50"(in)	[3.42]	[3.03]	[4.95]	[0.62 lb]	SILVER
CPI-SA25-40-19-75	40mm	87.0	76.9	125.9	0.28 kg	BLUE

# STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**EDxx** Double-Bolt Ø40mm/1.50" for Ø19.1mm [.75"] Apple Core

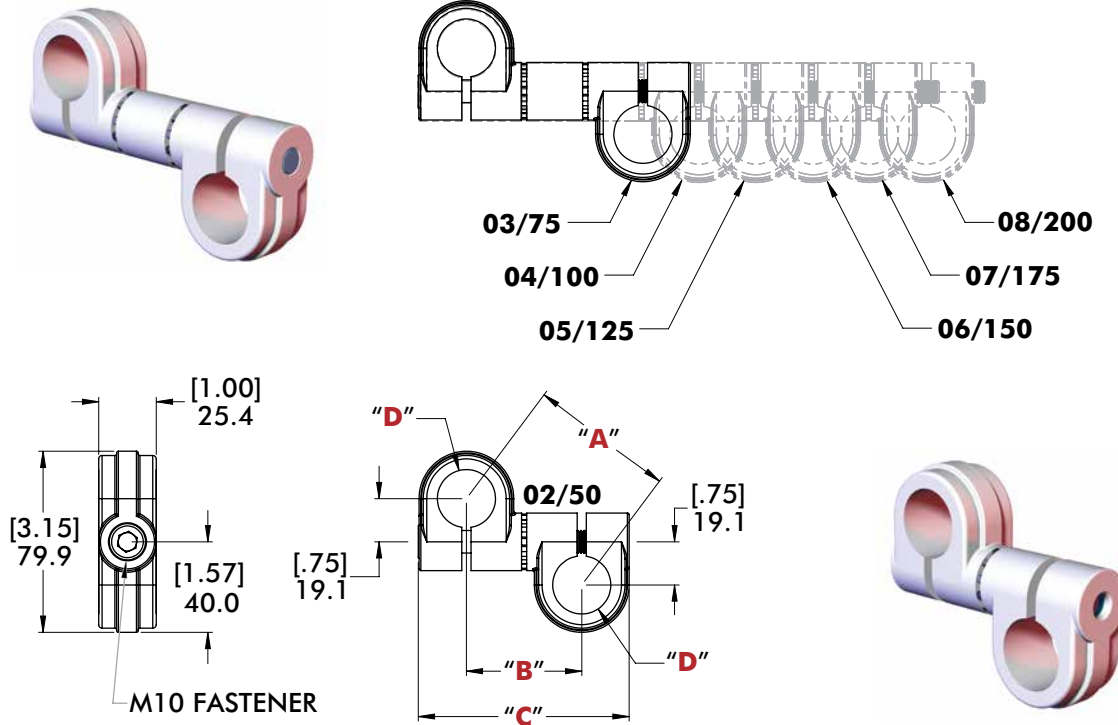


Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-ED10-150-075-04	1.50"(in)	[4.36] 110.7	[4.05] 102.9	[5.98] 152.0	[0.69 lb] 0.31 kg	SILVER
CPI-ED25-40-19-100	40mm	[4.31] 109.5	[4.00] 101.7	[5.93] 150.7		BLUE
CPI-ED10-150-075-05	1.50"(in)	[5.30] 134.6	[5.05] 128.3	[6.98] 177.4	[0.76 lb] 0.34 kg	SILVER
CPI-ED10-150-075-06	1.50"(in)	[6.26] 159.0	[6.05] 153.7	[7.98] 202.8	[0.83 lb] 0.38 kg	SILVER
CPI-ED25-40-19-150	40mm	[6.19] 157.3	[5.98] 152.0	[7.91] 201.0		BLUE
CPI-ED10-150-075-07	1.50"(in)	[7.23] 183.7	[7.05] 179.1	[8.98] 228.2	[0.90 lb] 0.41 kg	SILVER
CPI-ED10-150-075-08	1.50"(in)	[8.21] 208.5	[8.05] 204.5	[9.98] 253.6	[0.97 lb] 0.44 kg	SILVER
CPI-ED25-40-19-200	40mm	[8.11] 206.0	[7.95] 202.0	[9.88] 251.0		BLUE
CPI-ED10-150-075-09	1.50"(in)	[9.19] 233.5	[9.05] 229.9	[10.98] 279.0	[1.03 lb] 0.47 kg	SILVER
CPI-ED10-150-075-10	1.50"(in)	[10.18] 258.5	[10.05] 255.3	[11.98] 304.4	[1.10 lb] 0.50 kg	SILVER
CPI-ED25-40-19-250	40mm	[10.05] 255.3	[9.92] 252.0	[11.85] 308.1		BLUE
CPI-ED10-150-075-11	1.50"(in)	[11.17] 283.7	[11.05] 280.7	[12.98] 329.8	[1.17 lb] 0.53 kg	SILVER
CPI-ED10-150-075-12	1.50"(in)	[12.16] 308.8	[12.05] 306.1	[13.98] 355.2	[1.24 lb] 0.56 kg	SILVER
CPI-ED25-40-19-300	40mm	[12.00] 304.8	[11.89] 302.1	[13.82] 351.1		BLUE
CPI-ED10-150-075-13	1.50"(in)	[13.15] 334.0	[13.05] 331.5	[14.98] 380.6	[1.31 lb] 0.59 kg	SILVER
CPI-ED10-150-075-14	1.50"(in)	[14.14] 359.2	[14.05] 356.9	[15.98] 406.0	[1.38 lb] 0.63 kg	SILVER
CPI-ED25-40-19-350	40mm	[13.94] 354.2	[13.85] 351.9	[15.78] 400.9		BLUE
CPI-ED10-150-075-15	1.50"(in)	[15.14] 384.5	[15.05] 382.3	[16.98] 431.4	[1.45 lb] 0.66 kg	SILVER
CPI-ED10-150-075-16	1.50"(in)	[16.13] 409.8	[16.05] 407.7	[17.98] 456.8	[1.52 lb] 0.69 kg	SILVER
CPI-ED25-40-19-400	40mm	[15.90] 403.9	[15.82] 401.9	[18.00] 450.9		BLUE

# TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**SAxx** Single-Bolt Ø25mm/1.00" to 25mm/Ø1.00"

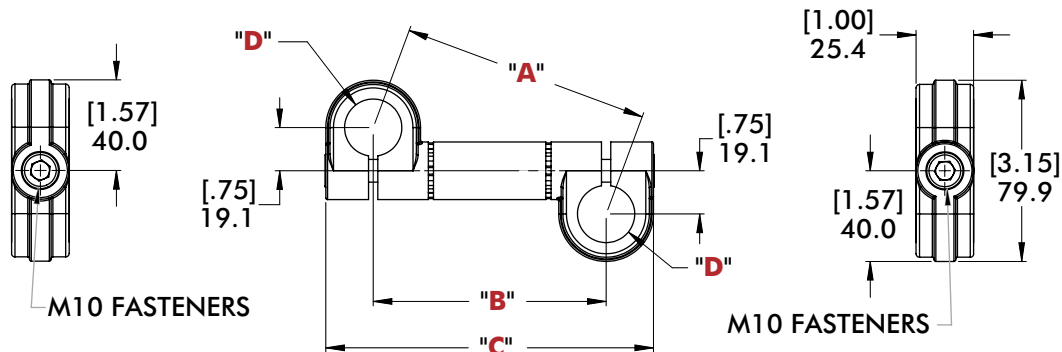


Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-SA10-100-100-02	1.00"(in)	[2.50]	[2.00]	[3.66]	[0.49 lb]	SILVER
CPI-SA25-25-25-50	25mm	63.6	50.9	93.1	0.22 kg	BLUE
CPI-SA10-100-100-03	1.00"(in)	[3.42]	[3.07]	[4.73]	[0.60 lb]	SILVER
CPI-SA25-25-25-75	25mm	86.7	77.9	120.1	0.27 kg	BLUE
CPI-SA10-100-100-04	1.00"(in)	[4.31]	[4.04]	[5.70]	[0.69 lb]	SILVER
CPI-SA25-25-25-100	25mm	109.6	102.7	144.9	0.31 kg	BLUE
CPI-SA10-100-100-05	1.00"(in)	[5.25]	[5.03]	[6.69]	[0.79 lb]	SILVER
CPI-SA25-25-25-125	25mm	133.4	127.9	170.0	0.36 kg	BLUE
CPI-SA10-100-100-06	1.00"(in)	[6.21]	[6.02]	[7.68]	[0.88 lb]	SILVER
CPI-SA25-25-25-150	25mm	157.7	153.0	195.2	0.40 kg	BLUE
CPI-SA10-100-100-07	1.00"(in)	[7.16]	[7.00]	[9.06]	[1.00 lb]	SILVER
CPI-SA25-25-25-175	25mm	181.9	177.9	230.0	0.45 kg	BLUE
CPI-SA10-100-100-08	1.00"(in)	[8.13]	[7.99]	[9.84]	[1.09 lb]	SILVER
CPI-SA25-25-25-200	25mm	206.6	203.0	250.0	0.50 kg	BLUE

# TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**EDxx** Double-Bolt Ø25mm/1.00" to Ø25mm/1.00"

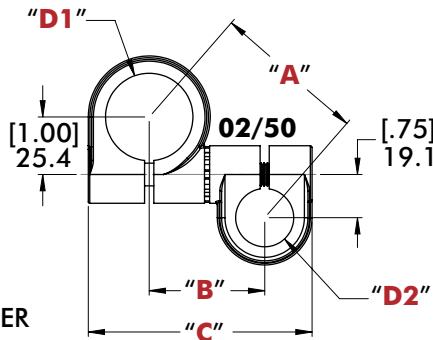
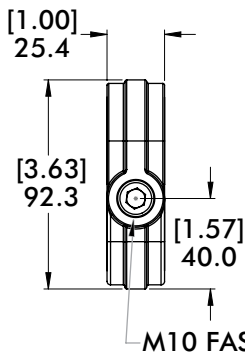
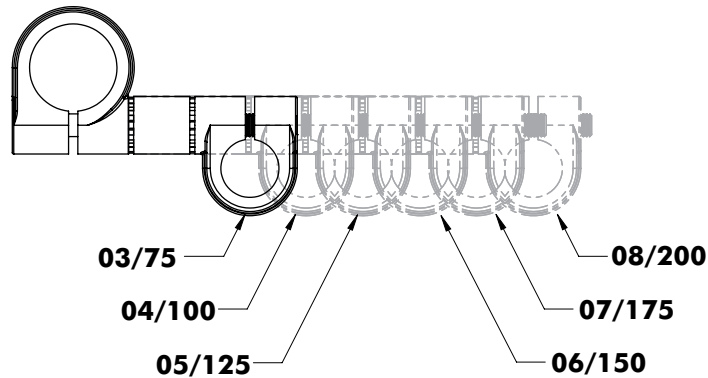
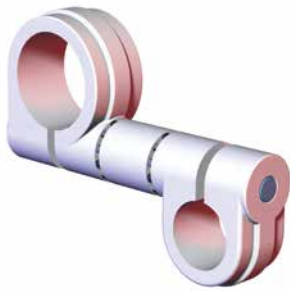


Model Number	(Ø) "D"	"A"	"B"	"C"	Weight	FINISH
CPI-ED10-100-100-04	1.00"(in)	[4.36] 110.7	[4.09] 104.0	[5.74] 145.8	[0.67 lb] 0.30 kg	SILVER
CPI-ED25-25-25-100	25mm	[4.31] 109.6	[4.04] 102.7	[5.69] 144.5		BLUE
CPI-ED10-100-100-05	1.00"(in)	[5.31] 134.9	[5.09] 129.4	[6.74] 171.2	[0.74 lb] 0.34 kg	SILVER
CPI-ED10-100-100-06	1.00"(in)	[6.28] 159.4	[6.09] 154.8	[7.74] 196.6	[0.81 lb]	SILVER
CPI-ED25-25-25-150	25mm	[6.21] 157.7	[6.02] 153.0	[7.67] 194.8	0.37 kg	BLUE
CPI-ED10-100-100-07	1.00"(in)	[7.25] 184.2	[7.09] 180.2	[8.74] 222.0	[0.88 lb] 0.40 kg	SILVER
CPI-ED10-100-100-08	1.00"(in)	[8.23] 209.1	[8.09] 205.6	[9.74] 247.4	[0.95 lb]	SILVER
CPI-ED25-25-25-200	25mm	[8.13] 206.6	[7.99] 203.0	[9.64] 244.9	0.43 kg	BLUE
CPI-ED10-100-100-09	1.00"(in)	[9.22] 234.1	[9.09] 231.0	[10.74] 272.8	[1.02 lb] 0.46 kg	SILVER
CPI-ED10-100-100-10	1.00"(in)	[10.20] 259.2	[10.09] 256.4	[11.74] 298.2	[1.09 lb]	SILVER
CPI-ED25-25-25-250	25mm	[10.08] 255.9	[9.96] 253.1	[11.61] 294.9	0.49 kg	BLUE
CPI-ED10-100-100-11	1.00"(in)	[11.19] 284.4	[11.09] 281.8	[12.74] 323.6	[1.15 lb] 0.52 kg	SILVER
CPI-ED10-100-100-12	1.00"(in)	[12.19] 309.5	[12.09] 307.2	[13.74] 349.0	[1.22 lb]	SILVER
CPI-ED25-25-25-300	25mm	[12.03] 305.5	[11.93] 303.1	[13.58] 344.9	0.56 kg	BLUE
CPI-ED10-100-100-13	1.00"(in)	[13.18] 334.8	[13.09] 332.6	[14.74] 374.4	[1.29 lb] 0.59 kg	SILVER
CPI-ED10-100-100-14	1.00"(in)	[14.17] 360.0	[14.09] 358.0	[15.74] 399.8	[1.36 lb]	SILVER
CPI-ED25-25-25-350	25mm	[13.97] 355.0	[13.89] 352.9	[15.54] 394.7	0.62 kg	BLUE
CPI-ED10-100-100-15	1.00"(in)	[15.17] 385.3	[15.09] 383.4	[16.74] 425.2	[1.43 lb] 0.65 kg	SILVER
CPI-ED10-100-100-16	1.00"(in)	[16.16] 410.6	[16.09] 408.8	[17.74] 450.6	[1.50 lb]	SILVER
CPI-ED25-25-25-400	25mm	[15.93] 404.7	[15.86] 402.9	[17.51] 444.8	0.68 kg	BLUE

# TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**SAxx** Single-Bolt Ø40mm/1.50" to Ø25mm/1.00"

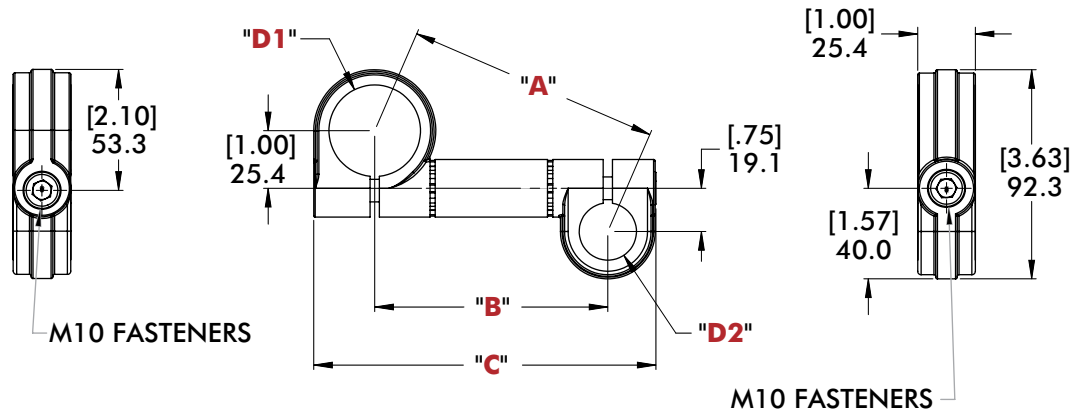


Model Number	(Ø)"D1"	(Ø)"D2"	"A"	"B"	"C"	Weight	FINISH
CPI-SA10-150-100-02	1.50"(in)	1.00"(in)	[2.66]	[2.01]	[3.89]	[0.53 lb]	SILVER
CPI-SA25-40-25-50	40mm	25mm	67.6	51.0	98.8	0.24 kg	BLUE
CPI-SA10-150-100-03	1.50"(in)	1.00"(in)	[3.53]	[3.07]	[4.95]	[0.64 lb]	SILVER
CPI-SA25-40-25-75	40mm	25mm	89.8	78.0	125.7	0.29 kg	BLUE
CPI-SA10-150-100-04	1.50"(in)	1.00"(in)	[4.41]	[4.05]	[5.93]	[0.73 lb]	SILVER
CPI-SA25-40-25-100	40mm	25mm	112.0	102.8	150.6	0.33 kg	BLUE
CPI-SA10-150-100-05	1.50"(in)	1.00"(in)	[5.33]	[5.04]	[6.92]	[0.83 lb]	SILVER
CPI-SA25-40-25-125	40mm	25mm	135.4	127.9	175.8	0.38 kg	BLUE
CPI-SA10-150-100-06	1.50"(in)	1.00"(in)	[6.28]	[6.03]	[7.91]	[0.93 lb]	SILVER
CPI-SA25-40-25-150	40mm	25mm	159.4	153.1	200.9	0.42 kg	BLUE
CPI-SA10-150-100-07	1.50"(in)	1.00"(in)	[7.22]	[7.01]	[8.89]	[1.04 lb]	SILVER
CPI-SA25-40-25-175	40mm	25mm	183.4	178.0	225.8	0.47 kg	BLUE
CPI-SA10-150-100-08	1.50"(in)	1.00"(in)	[8.19]	[8.00]	[9.88]	[1.13 lb]	SILVER
CPI-SA25-40-25-200	40mm	25mm	207.9	203.1	251.0	0.51 kg	BLUE

# TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**EDxx** Double-Bolt Ø40mm/1.50" to Ø25mm/1.00"

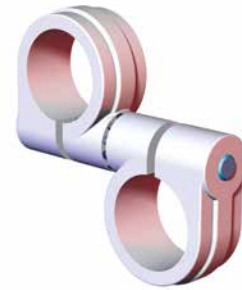
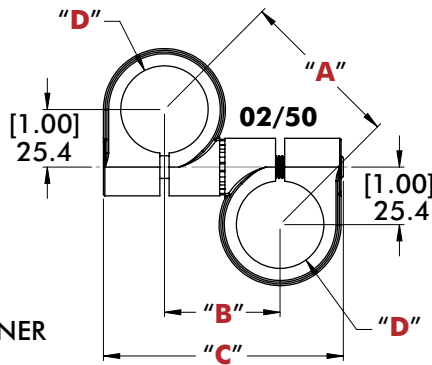
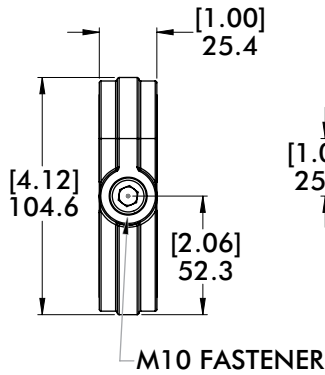
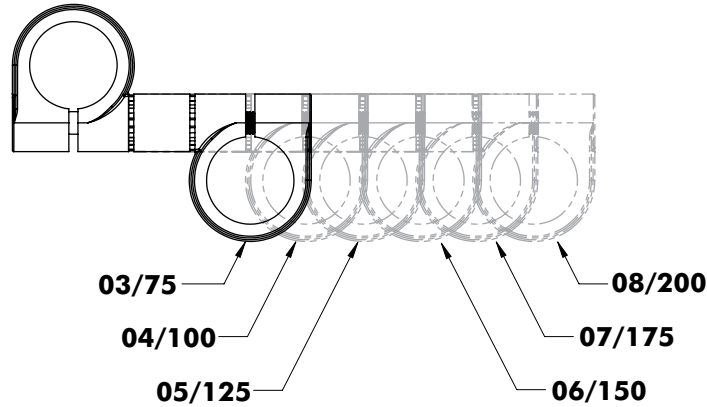
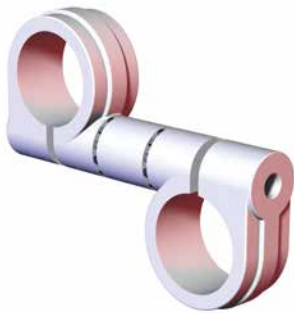


Model Number	(Ø)"D1"	(Ø)"D2"	"A"	"B"	"C"	Weight	FINISH
CPI-ED10-150-100-04	1.50"(in)	1.00"(in)	[4.46] 113.2	[4.10] 104.1	[5.98] 151.9	[0.71 lb] 0.32 kg	SILVER
CPI-ED25-40-25-100	40mm	25mm	[4.41] 112.8	[4.05] 102.8	[5.93] 150.6		BLUE
CPI-ED10-150-100-05	1.50"(in)	1.00"(in)	[5.39] 136.9	[5.10] 129.5	[6.98] 177.3	[0.78 lb] 0.36 kg	SILVER
CPI-ED10-150-100-06	1.50"(in)	1.00"(in)	[6.34] 161.1	[6.10] 154.9	[7.98] 202.7	[0.85 lb]	SILVER
CPI-ED25-40-25-150	40mm	25mm	[6.28] 159.4	[6.03] 153.1	[7.91] 200.9	0.39 kg	BLUE
CPI-ED10-150-100-07	1.50"(in)	1.00"(in)	[7.31] 185.7	[7.10] 180.3	[8.98] 228.1	[0.92 lb] 0.42 kg	SILVER
CPI-ED10-150-100-08	1.50"(in)	1.00"(in)	[8.28] 210.4	[8.10] 205.7	[9.98] 253.5	[0.99 lb]	SILVER
CPI-ED25-40-25-200	40mm	25mm	[8.19] 207.9	[8.00] 203.1	[9.88] 251.0	0.45 kg	BLUE
CPI-ED10-150-100-09	1.50"(in)	1.00"(in)	[9.26] 235.3	[9.10] 231.1	[10.98] 278.9	[1.06 lb] 0.48 kg	SILVER
CPI-ED10-150-100-10	1.50"(in)	1.00"(in)	[10.25] 260.3	[10.10] 256.5	[11.98] 304.3	[1.13 lb]	SILVER
CPI-ED25-40-25-250	40mm	25mm	[10.12] 257.03	[9.97] 253.2	[11.85] 301.0	0.51 kg	BLUE
CPI-ED10-150-100-11	1.50"(in)	1.00"(in)	[11.23] 285.3	[11.10] 281.9	[12.98] 329.7	[1.20 lb] 0.54 kg	SILVER
CPI-ED10-150-100-12	1.50"(in)	1.00"(in)	[12.22] 310.5	[12.10] 307.3	[13.98] 355.1	[1.27 lb]	SILVER
CPI-ED25-40-25-300	40mm	25mm	[12.06] 306.4	[11.94] 303.2	[13.82] 351.03	0.57 kg	BLUE
CPI-ED10-150-100-13	1.50"(in)	1.00"(in)	[13.21] 335.6	[13.10] 332.7	[14.98] 380.5	[1.34 lb] 0.61 kg	SILVER
CPI-ED10-150-100-14	1.50"(in)	1.00"(in)	[14.21] 360.8	[14.10] 358.1	[15.98] 405.9	[1.41 lb]	SILVER
CPI-ED25-40-25-350	40mm	25mm	[14.00] 355.8	[13.90] 353.0	[15.78] 400.8	0.64 kg	BLUE
CPI-ED10-150-100-15	1.50"(in)	1.00"(in)	[15.20] 386.0	[15.10] 383.5	[16.98] 431.3	[1.47 lb] 0.67 kg	SILVER
CPI-ED10-150-100-16	1.50"(in)	1.00"(in)	[16.19] 411.3	[16.10] 408.9	[17.98] 456.7	[1.54 lb]	SILVER
CPI-ED25-40-25-400	40mm	25mm	[15.96] 405.5	[15.87] 403.0	[17.75] 450.9	0.70 kg	BLUE

# TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**SAxx** Single-Bolt Ø40mm/1.50" to Ø40mm/1.50"



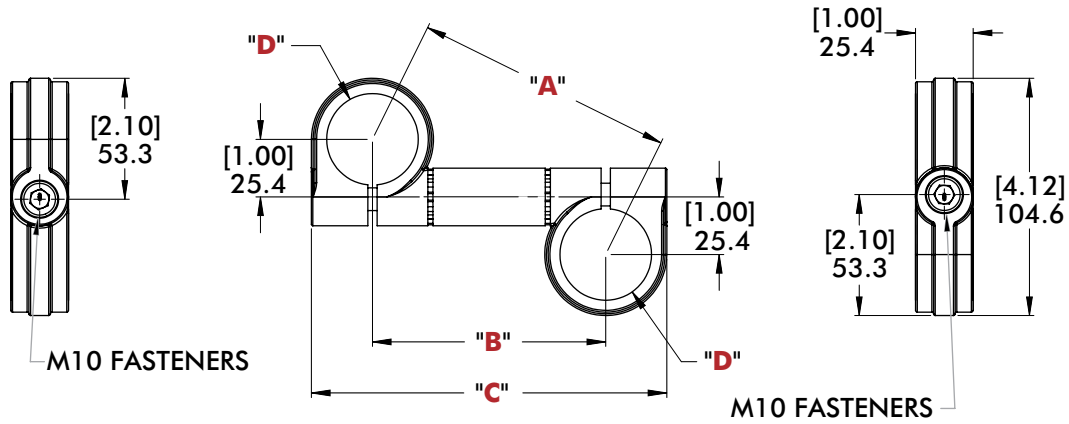
Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-SA10-150-150-02	1.50"(in)	[2.84]	[2.01]	[4.17]	[0.59 lb]	SILVER
CPI-SA25-40-40-50	40mm	72.0	51.1	105.9	0.27 kg	BLUE
CPI-SA10-150-150-03	1.50"(in)	[3.67]	[3.07]	[5.19]	[0.69 lb]	SILVER
CPI-SA25-40-40-75	40mm	93.2	78.1	131.9	0.31 kg	BLUE
CPI-SA10-150-150-04	1.50"(in)	[4.52]	[4.05]	[6.17]	[0.79 lb]	SILVER
CPI-SA25-40-40-100	40mm	114.7	102.9	156.7	0.36 kg	BLUE
CPI-SA10-150-150-05	1.50"(in)	[5.42]	[5.04]	[7.16]	[0.88 lb]	SILVER
CPI-SA25-40-40-125	40mm	137.7	128.0	181.9	0.40 kg	BLUE
CPI-SA10-150-150-06	1.50"(in)	[6.35]	[6.03]	[8.15]	[0.97 lb]	SILVER
CPI-SA25-40-40-150	40mm	161.4	153.2	207.0	0.44 kg	BLUE
CPI-SA10-150-150-07	1.50"(in)	[7.29]	[7.01]	[9.13]	[1.09 lb]	SILVER
CPI-SA25-40-40-175	40mm	185.2	178.1	231.9	0.49 kg	BLUE
CPI-SA10-150-150-08	1.50"(in)	[8.25]	[8.00]	[10.12]	[0.54 lb]	SILVER
CPI-SA25-40-40-200	40mm	209.5	203.2	257.0	1.18 kg	BLUE



# TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specifications

**EDxx** Double-Bolt Ø40mm/1.50" to Ø40mm/1.50"

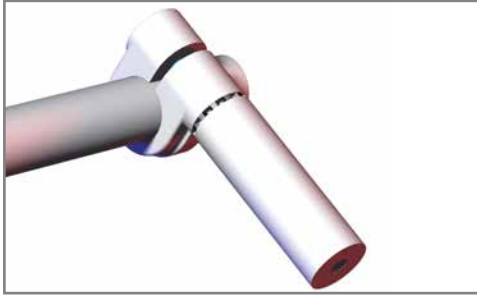


Model Number	(Ø)"D"	"A"	"B"	"C"	Weight	FINISH
CPI-ED10-150-150-04	1.50"(in)	[4.56] 115.9	[4.10] 104.1	[6.22] 158.0	[0.76 lb]	SILVER
CPI-ED25-40-40-100	40mm	[4.52] 114.7	[4.05] 102.9	[6.17] 156.7	0.34 kg	BLUE
CPI-ED10-150-150-06	1.50"(in)	[6.42] 163.1	[6.10] 154.9	[8.22] 208.8	[0.90 lb]	SILVER
CPI-ED25-40-40-150	40mm	[6.35] 161.4	[6.03] 153.2	[8.15] 207.0	0.41 kg	BLUE
CPI-ED10-150-150-08	1.50"(in)	[8.34] 211.9	[8.10] 205.7	[10.22] 259.6	[1.03 lb]	SILVER
CPI-ED25-40-40-200	40mm	[8.25] 209.5	[8.00] 203.2	[10.12] 257.0	0.47 kg	BLUE
CPI-ED10-150-150-10	1.50"(in)	[10.30] 261.5	[10.10] 256.4	[12.22] 310.4	[1.17 lb]	SILVER
CPI-ED25-40-40-250	40mm	[10.17] 258.3	[9.97] 253.2	[12.09] 307.1	0.53 kg	BLUE
CPI-ED10-150-150-12	1.50"(in)	[12.27] 311.5	[12.10] 307.3	[14.22] 361.2	[1.31 lb]	SILVER
CPI-ED25-40-40-300	40mm	[12.11] 307.5	[11.94] 303.3	[14.06] 357.1	0.59 kg	BLUE
CPI-ED10-150-150-14	1.50"(in)	[14.24] 361.7	[14.10] 358.1	[16.22] 411.98	[1.45 lb]	SILVER
CPI-ED25-40-40-350	40mm	[14.03] 356.7	[13.90] 353.1	[16.02] 406.9	0.66 kg	BLUE
CPI-ED10-150-150-16	1.50"(in)	[16.22] 412.1	[16.10] 408.9	[18.22] 462.7	[1.59 lb]	SILVER
CPI-ED25-40-40-400	40mm	[16.00] 406.3	[15.87] 403.1	[18.00] 457.0	0.72 kg	BLUE

# SINGLE END EXTENSIONS

Round Tooling | Dimensions | Technical Specifications

## ES Rod End and Mounting Extensions



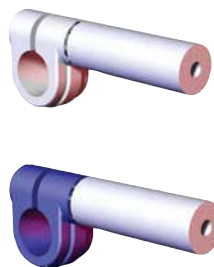
### Features:

- Mounts to round tube for extended mounting options
- Provides 360° of rotational adjustments along a single axis

### Specifications:

Maximum Clamp Load:  
200 ft-lb [271 Nm]  
Material:  
Body:  
Cast Aluminum  
Extension:  
Machined Aluminum

## ES Ø25mm/1.00" Rod End Extensions



"L" = Specify Length from Below

### English Lengths:

From **03**(3.00") to **28**(28.00")  
in 1.00" Increments

### Order Example

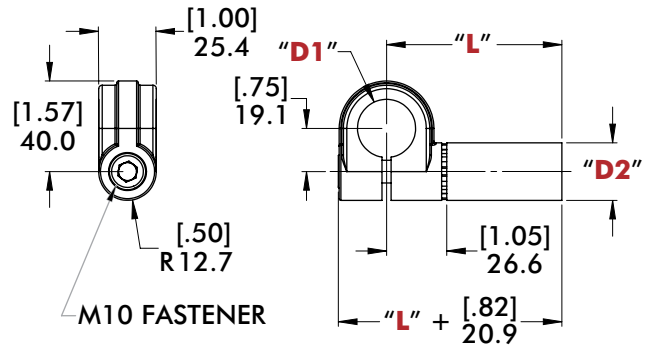
CPI-ES10-100-06 (6.00" Length)

### Metric Lengths:

From **50**(50mm) to **400**(400mm)  
in 50mm Increments

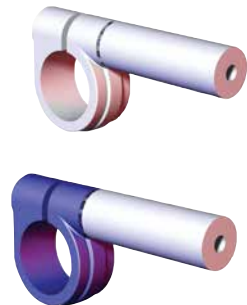
### Order Example

CPI-ES25-25-250 (250mm Length)



Model Number	(Ø)"D1"	(Ø)"D2"	Weight (Base + Additional Increments)	FINISH
CPI-ES10-100-"L"	1.00"(in)	1.00"(in)	Base Length "L" 03 = 0.19 kg [0.42 lb] Add .031 kg [.068 lb] per additional increment	SILVER
CPI-ES25-25-"L"	25mm	25mm	Base Length "L" 100 = 0.22 kg [0.49 lb] Add .061 kg [.134 lb] per additional increment	BLUE

## ES Ø40mm/1.50" Rod End Extensions



"L" = Specify Length from Below

### English Lengths:

From **03**(3.00") to **28**(28.00")  
in 1.00" Increments

### Order Example

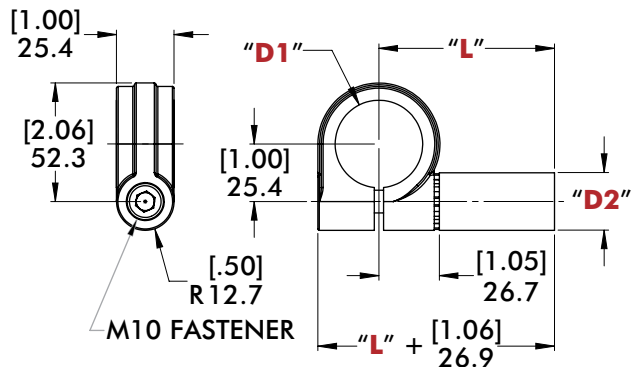
CPI-ES10-150-06 (6.00" Length)

### Metric Lengths:

From **50**(50mm) to **400**(400mm)  
in 50mm Increments

### Order Example

CPI-ES25-40-250 (250mm Length)



Model Number	(Ø)"D1"	(Ø)"D2"	Weight (Base + Additional Increments)	FINISH
CPI-ES10-150-"L"	1.50"(in)	1.00"(in)	Base Length "L" 03 = 0.21 kg [0.46 lb] Add .031 kg [.068 lb] per additional increment	SILVER
CPI-ES25-40-"L"	40mm	25mm	Base Length "L" 100 = 0.23 kg [0.51 lb] Add .061 kg [.134 lb] per additional increment	BLUE

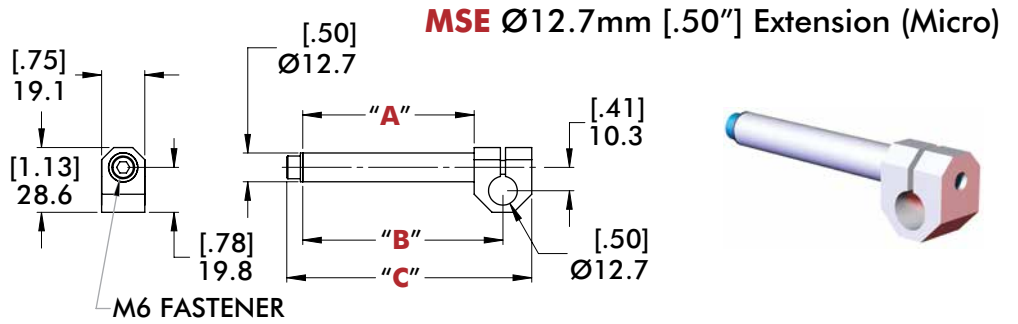
# SINGLE END EXTENSIONS

Round Tooling | Dimensions | Technical Specifications

Nominal (Ø) given  
See chart on Page 72  
for actual (Ø) size



Mounting End  
Extensions  
CPI-ES10-075-06  
(Shown Above)



Model Number	"A"	"B"	"C"	Weight
CPI-MSE-50-50-03	[2.98] 75.6	[3.48] 88.3	[4.25] 108.1	[0.14 lb] 0.06 kg
CPI-MSE-50-50-06	[5.73] 145.5	[6.23] 158.2	[7.00] 177.9	[0.20 lb] 0.09 kg

## ES Ø25mm/1.00" Extension for Ø19.1mm [0.75"] Apple Core

"L" = Specify Length from Below

English Lengths:

From **03**(3.00") to **28**(28.00")  
in 1.00" Increments

Order Example

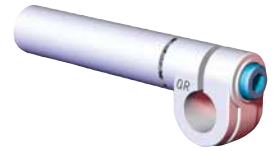
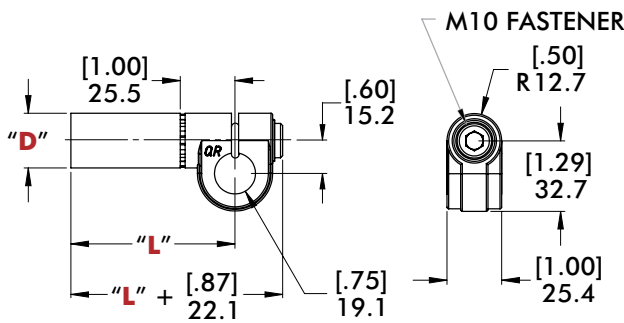
CPI-ES10-075-06 (6.00" Length)

Metric Lengths:

From **50**(50mm) to **400**(400mm)  
in 50mm Increments

Order Example

CPI-ES25-19-250 (250mm Length)



Model Number	(Ø)"D"	Weight (Base + Additional Increments)	FINISH
CPI-ES10-075-"L"	1.00"(in)	Base Length "L" 03 = 0.17 kg [0.38 lb] Add .031 kg [0.068 lb] per additional increment	SILVER
CPI-ES25-19-"L"	25mm	Base Length "L" 100 = 0.22 kg [0.49 lb] Add .031 kg [0.068 lb] per additional increment	BLUE

## ESxx Ø25mm/1.00" Extension for Ø28.6mm [1.125"] Spherical Swivel Ball

"L" = Specify Length from Below

English Lengths:

From **03**(3.00") to **18**(18.00")  
in 1.00" Increments

Order Example

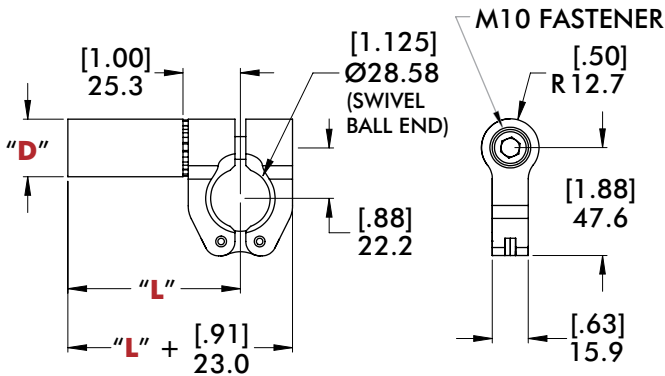
CPI-ES10-B112-06 (6.00" Length)

Metric Lengths

From **50**(50mm) to **400**(400mm)  
in 25mm Increments

Order Example

CPI-ES25-B112-75 (75mm Length)

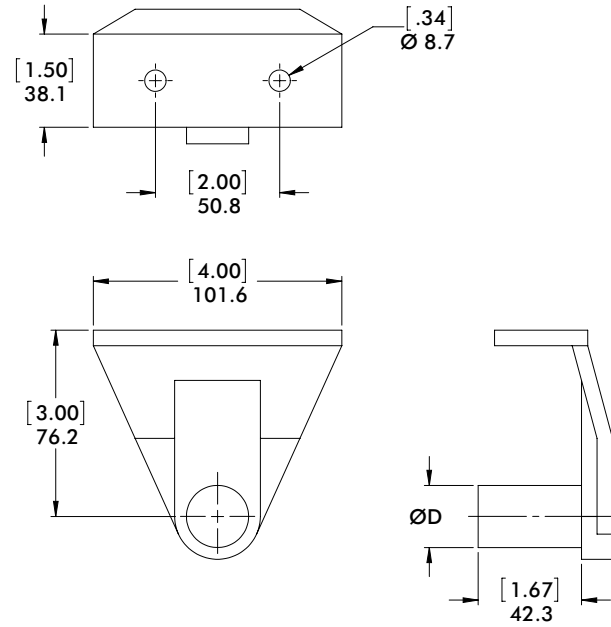
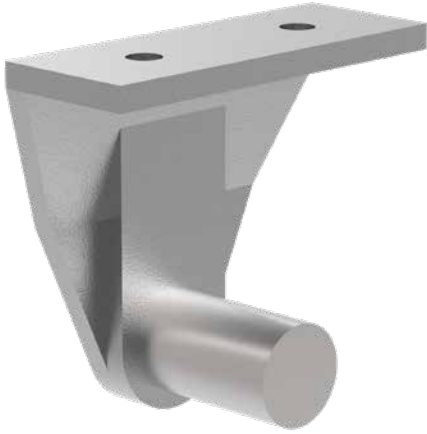


Model Number	(Ø)"D"	Weight (Base + Additional Increments)	FINISH
CPI-ES10-B112-"L"	1.00"(in)	Base Length "L" 03 = 0.23 kg [0.51 lb] Add .031 kg [0.068 lb] per additional increment	SILVER
CPI-ES25-B112-"L"	25mm	Base Length "L" 100 = 0.23 kg [0.51 lb] Add .029 kg [0.064 lb] per additional increment	BLUE

# NEST PAD BRACKETS

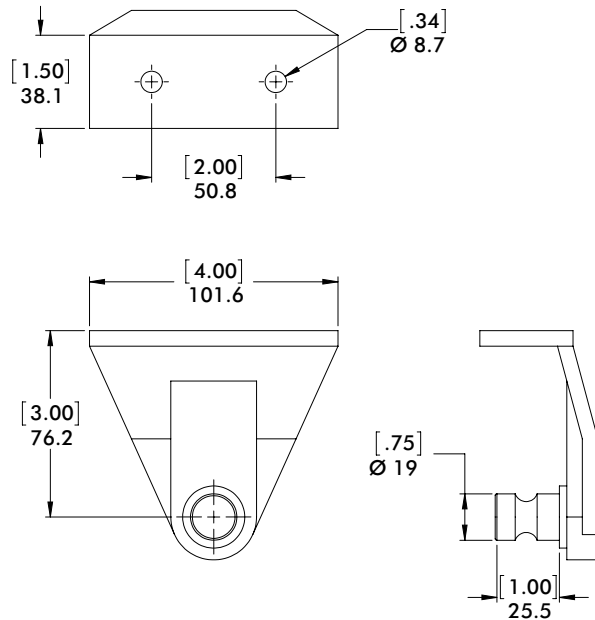
Round Tooling | Dimensions | Technical Specifications

## EST



Model Number	ØD	Weight
<b>CPI-EST-00-1E-24</b>	1 in	142 g [5 oz.]
<b>CPI-EST-00-25-410</b>	25mm	142 g [5 oz.]

## EST Apple Core Version

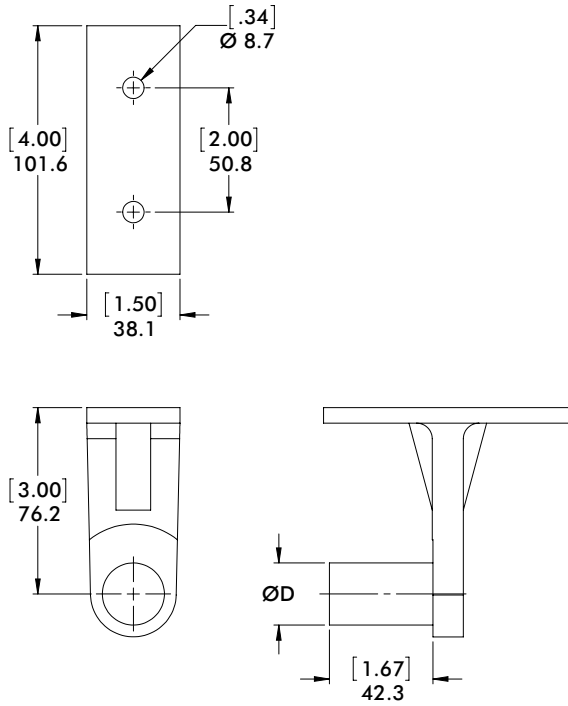


Model Number	Weight
<b>CPI-EST-00-075-24</b>	142 g [5 oz.]
<b>CPI-EST-00-19-410</b>	142 g [5 oz.]

# NEST PAD BRACKETS

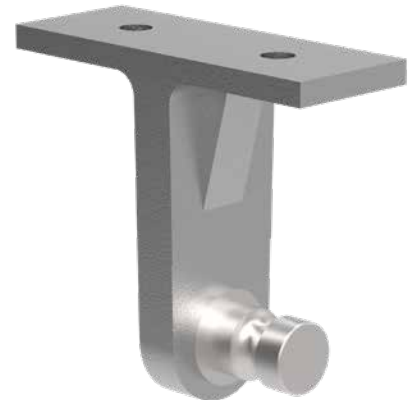
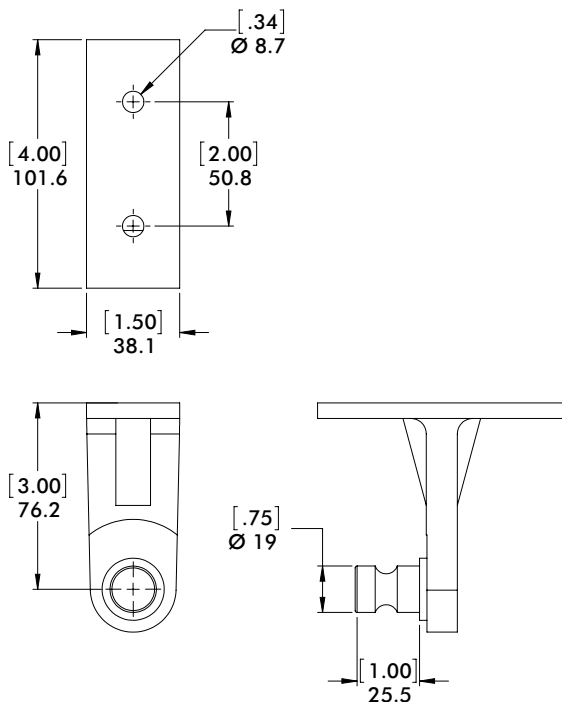
Round Tooling | Dimensions | Technical Specifications

**EST** 90° Version



Model Number	ØD	Weight
<b>CPI-EST-90-1E-24</b>	1 in	142 g [5 oz.]
<b>CPI-EST-90-25E-410</b>	25mm	142 g [5 oz.]

**EST** Apple Core 90° Version

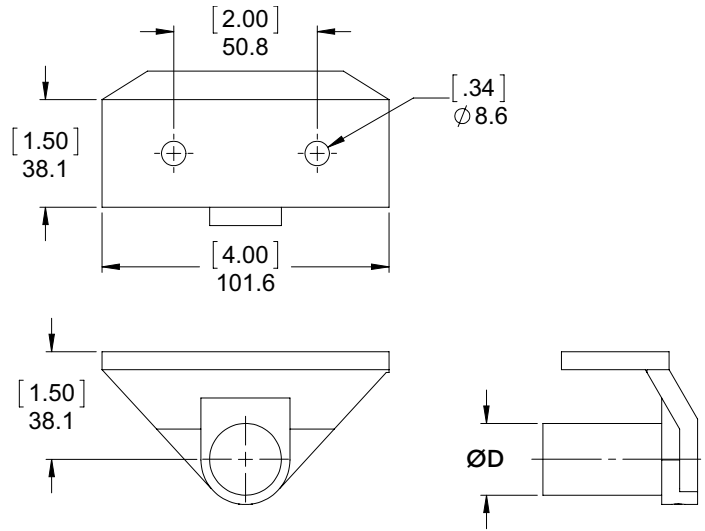
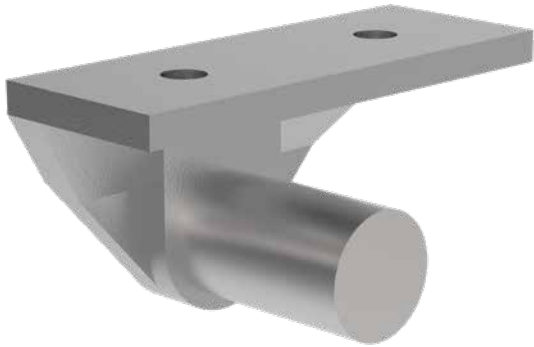


Model Number	Weight
<b>CPI-EST-90-075-24</b>	142 g [5 oz.]
<b>CPI-EST-90-19-410</b>	142 g [5 oz.]

# NEST PAD BRACKETS

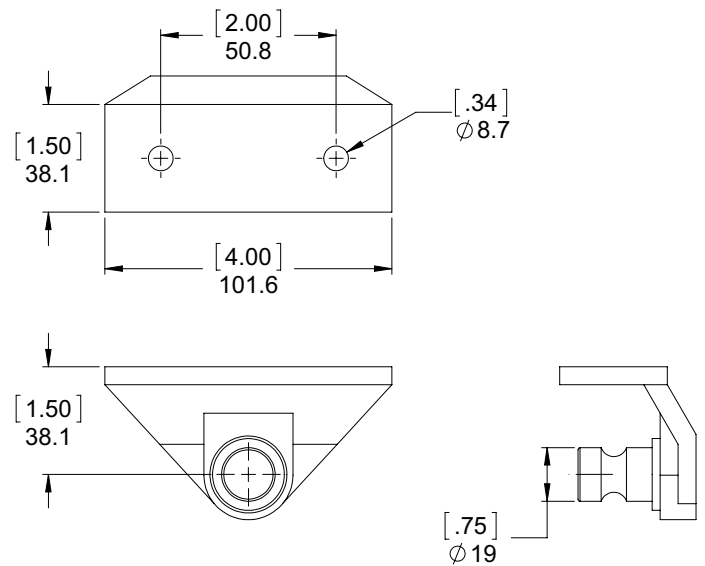
Round Tooling | Dimensions | Technical Specifications

## AB Version



Model Number	ØD	Weight
<b>CPI-AB-00-1E-24</b>	1 in	142 g [5 oz.]
<b>CPI-AB-25-410</b>	25mm	142 g [5 oz.]

## AB Apple Core Version

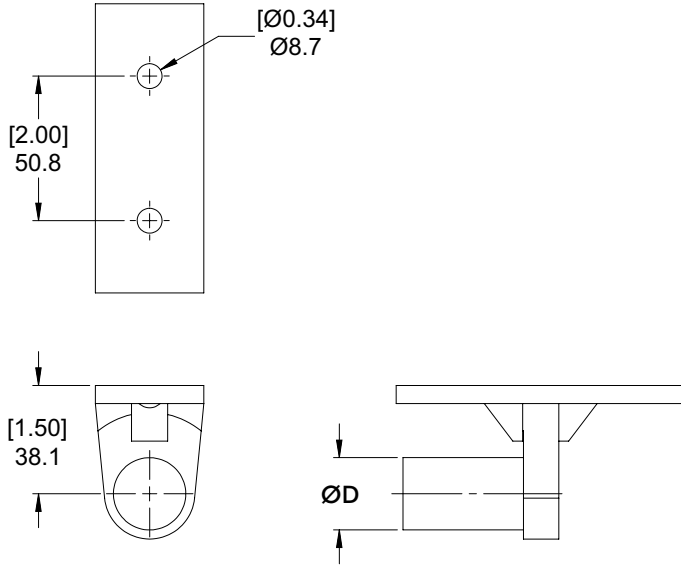


Model Number	Weight
<b>CPI-AB-750-24</b>	142 g [5 oz.]
<b>CPI-AB-19-410</b>	142 g [5 oz.]

# NEST PAD BRACKETS

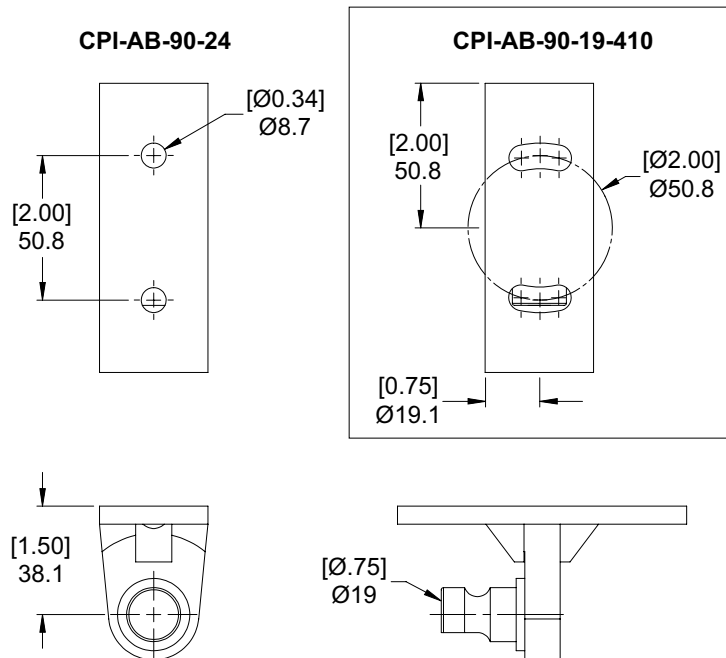
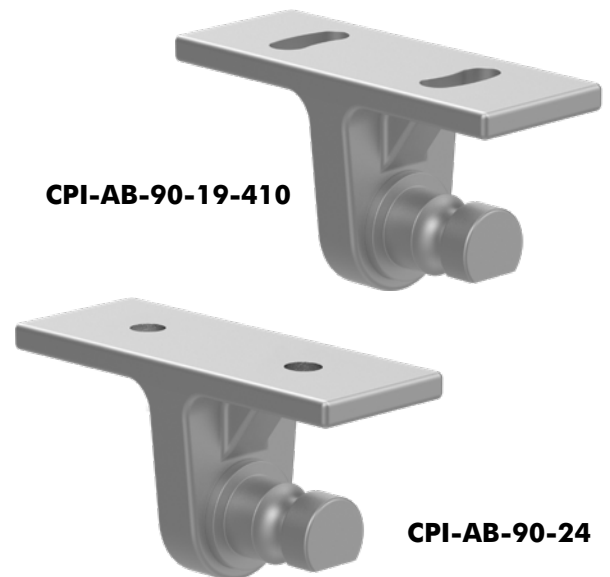
Round Tooling | Dimensions | Technical Specifications

**AB** 90° Version



Model Number	ØD	Weight
<b>CPI-AB-90-1E-24</b>	1 in	142 g [5 oz.]
<b>CPI-AB-90-25-410</b>	25mm	142 g [5 oz.]

**AB** Apple Core 90° Version

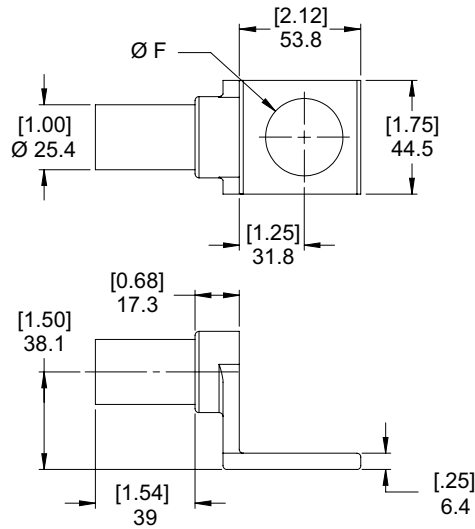
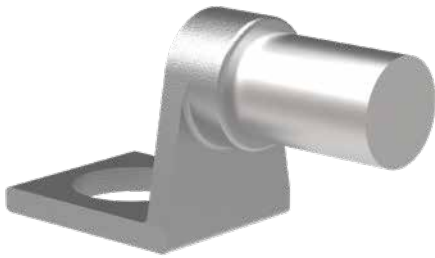


Model Number	Weight
<b>CPI-AB-90-24</b>	142 g [5 oz.]
<b>CPI-AB-90-19-410</b>	142 g [5 oz.]

# PROXIMITY SWITCH MOUNT

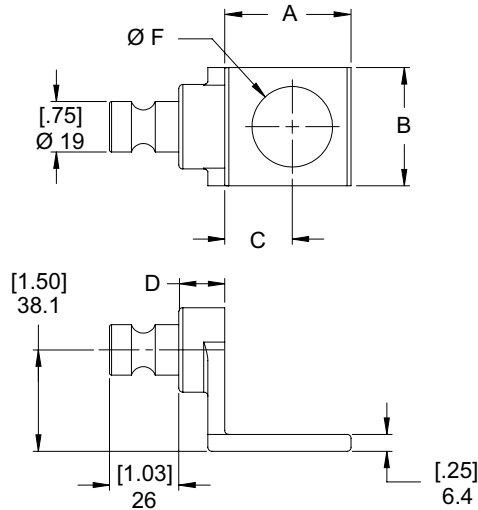
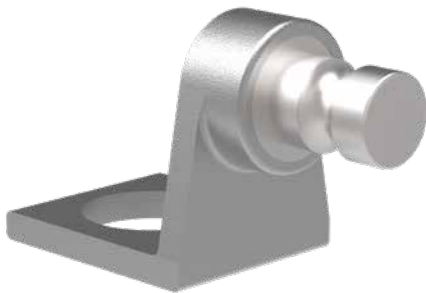
Round Tooling | Dimensions | Technical Specifications

## SAP Series with 1" Extension



Model Number	(Ø)"F"	Weight
CPI-SAP-18-1E	[0.71] 18	[0.2 lb] 91 g
CPI-SAP-30-1E	[1.18] 30	[0.2 lb] 91 g

## SAP Series with Apple Core

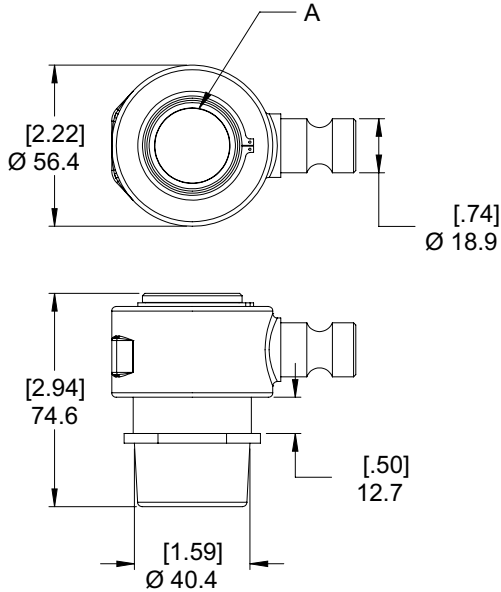


Model Number	A	B	C	D	(Ø)"F"	Weight
CPI-SAP-00					NA	[0.3 lb] 136 g
CPI-SAP-10	[1.88] 47.5	[1.75] 44.5	[1.00] 25.4		[0.39] 10	[0.2 lb] 91 g
CPI-SAP-18				[0.68] 17.3	[0.71] 18	[0.2 lb] 91 g
CPI-SAP-30					[1.18] 30	[0.2 lb] 91 g
CPI-SAP-36	[2.74] 69.6	[2.38] 60.4	[1.55] 39.4		[1.42] 36	[0.2 lb] 91 g
CPI-SAP-42					[1.65] 42	[0.3 lb] 136 g
CPI-SAP-47	[2.90] 73.7	[2.68] 68.1	[1.56] 39.62	[0.50] 12.7	[1.85] 47	[0.3 lb] 136 g
CPI-SAP-54					[2.13] 54	[0.3 lb] 136 g



# PROXIMITY SWITCH BUMPER

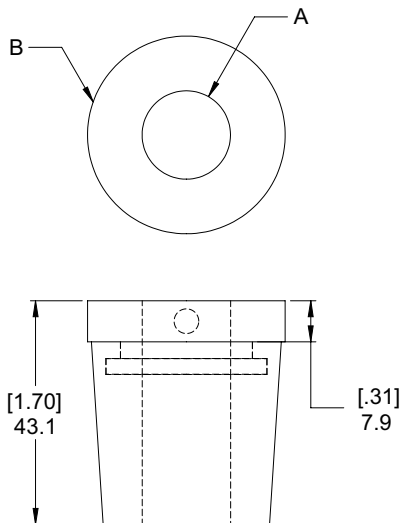
Round Tooling | Dimensions | Technical Specifications



## PSM Spring Loaded Bumper



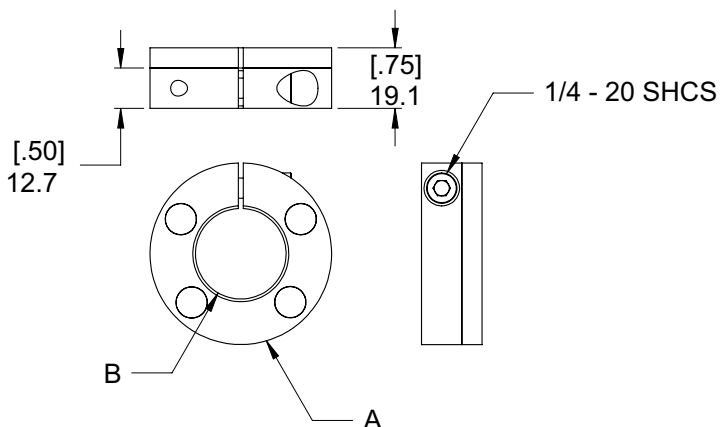
Model Number	(Ø)"A"	Weight
CPI-PSM-18-75	[18] 0.71"	[7 oz.] 198 g
CPI-PSM-30-75	[30] 1.18"	[7 oz.] 198 g



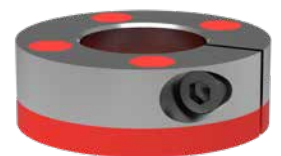
## PB Friction Style Bumper



Model Number	(Ø)"A"	(Ø)"B"	Weight
CPI-PB-18-I	[18] 0.71	[38.1] 1.50	[2 oz.] 57 g
CPI-PB-30-I	[30] 1.18	[50.8] 2.00	[3 oz.] 85 g



## PB Locking Collar Style Bumper

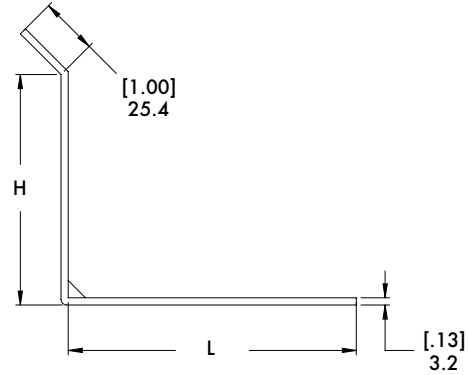
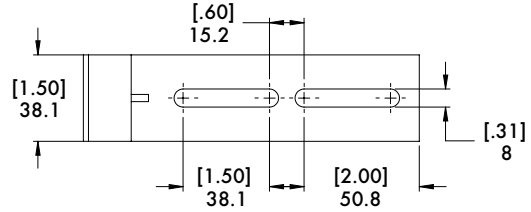


Model Number	(Ø)"A"	(Ø)"B"	Weight
CPI-PB-30M	[57.2] 2.25	[30] 1.18	[3 oz.] 85 g
CPI-PB-36M	[63.5] 2.50	[36] 1.42	[3 oz.] 85 g
CPI-PB-42M	[69.9] 2.75	[42] 1.65	[4 oz.] 113 g
CPI-PB-47M	[76.2] 3.00	[47] 1.85	[5 oz.] 141 g
CPI-PB-54M	[85.9] 3.38	[54] 2.13	[5 oz.] 141 g

# NEST PAD GUIDES

Round Tooling | Dimensions | How To Order

## Single

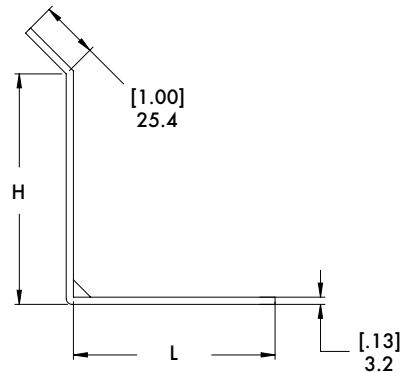
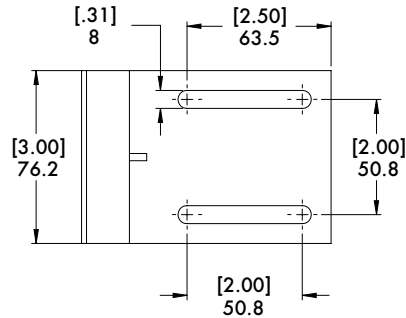


**CPI** - **NPG** - **24E** -  - 

**Base Model**  
**NPG**  
Steel Nest  
Pad Guides  
Single

Length		Height	
<b>05</b>	5.00"	<b>04</b>	4.00"
<b>06</b>	6.00"	<b>06</b>	6.00"
<b>07</b>	7.00"	<b>08</b>	8.00"
<b>08</b>	8.00"		

## Wide



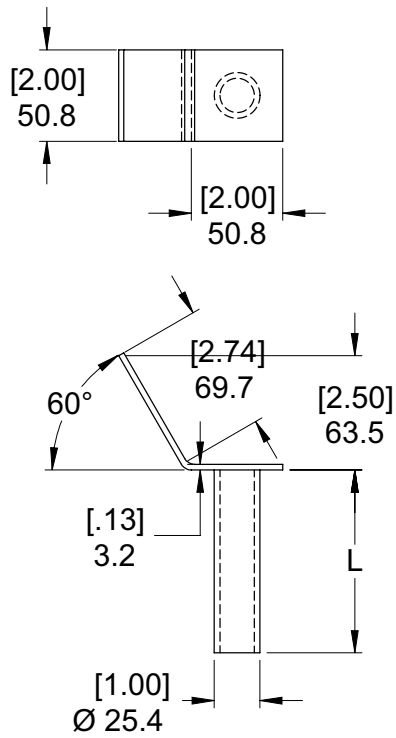
**CPI** - **NPG** - **24S** -  - 

**Base Model**  
**NPG**  
Steel Nest  
Pad Guides  
Wide

Length		Height	
<b>3.5</b>	3.50"	<b>04</b>	4.00"
<b>4.5</b>	4.50"	<b>06</b>	6.00"
<b>5.5</b>	5.50"	<b>08</b>	8.00"
<b>6.5</b>	6.50"		

# NEST PAD GUIDES

Round Tooling | Dimensions | How To Order



**CPI** - **NPG** - **10** - 

**Base Model**  
**NPG**  
Steel Nest  
Pad Guides

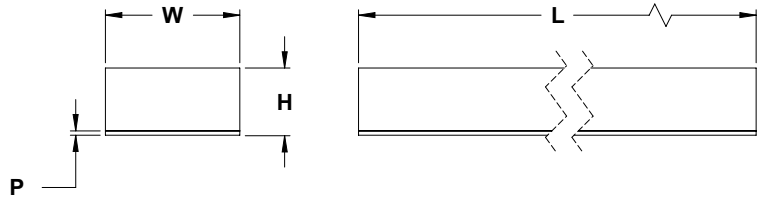
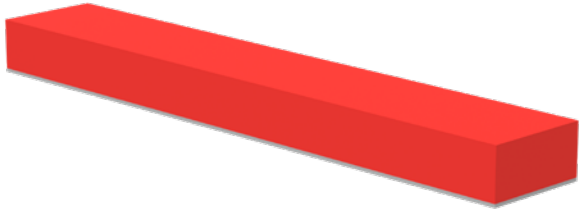
**Length**

<b>04</b>	4.00"
<b>06</b>	6.00"
<b>08</b>	8.00"
<b>10</b>	10.00"
<b>12</b>	12.00"
<b>14</b>	14.00"

# NEST PAD BLOCKS

Round Tooling | Dimensions | Technical Specifications

## Bar Stock Urethane

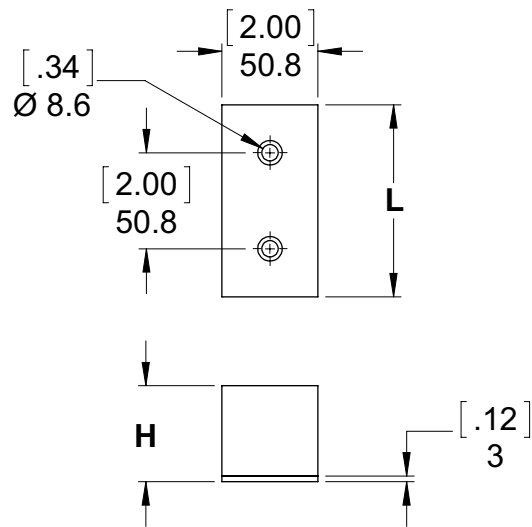
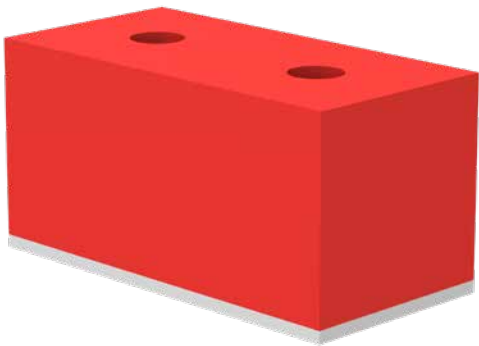


**CPI** - **BS** - [ ] - [ ] - [ ] - **24** • Length L 24 24.00" 609.6 mm

Base Model BS	Overall Height H	Backing Plate Height P	Width W
Bar Stock	1 1.00" 25.4 mm	1/8 0.13" 3.2 mm	1 1.00" 25.4 mm
85 Durometer	2 2.00" 50.8 mm	1/4 0.25" 6.4 mm	2 2.00" 50.8 mm
(Shore A) Urethane	3 3.00" 76.2 mm	3/8 0.38" 9.6 mm	3 3.00" 76.2 mm
	4 4.00" 101.6 mm	1/2 0.50" 12.7 mm	4 4.00" 101.6 mm
	5 5.00" 127 mm	1* 1.00" 25.4 mm	
	6 6.00" 152.4 mm		

\*Not available for 1" Overall Height.

## Urethane Pads



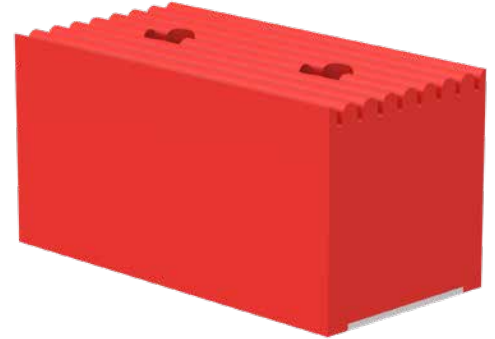
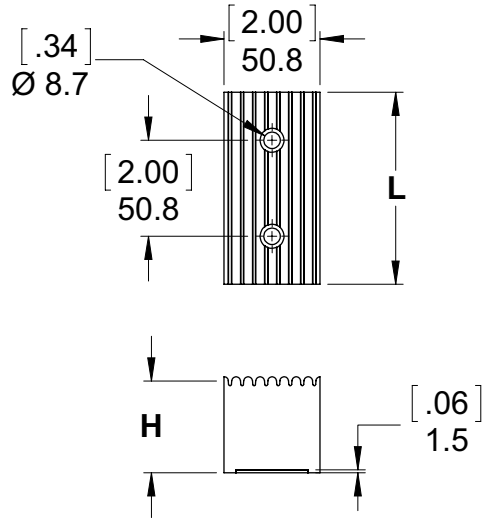
85 Durometer (Shore A) Urethane

Model	"H"	"L"	Weight
CPI-UT-1-4-85	1.00"(in)	4.00"(in)	9oz. [255g]
CPI-UT-2-4-85	2.00"(in)	4.00"(in)	14oz. [397g]
CPI-UT-2-6-85	2.00"(in)	6.00"(in)	19oz. [539g]

# NEST PAD BLOCKS

Round Tooling | Dimensions | Technical Specifications

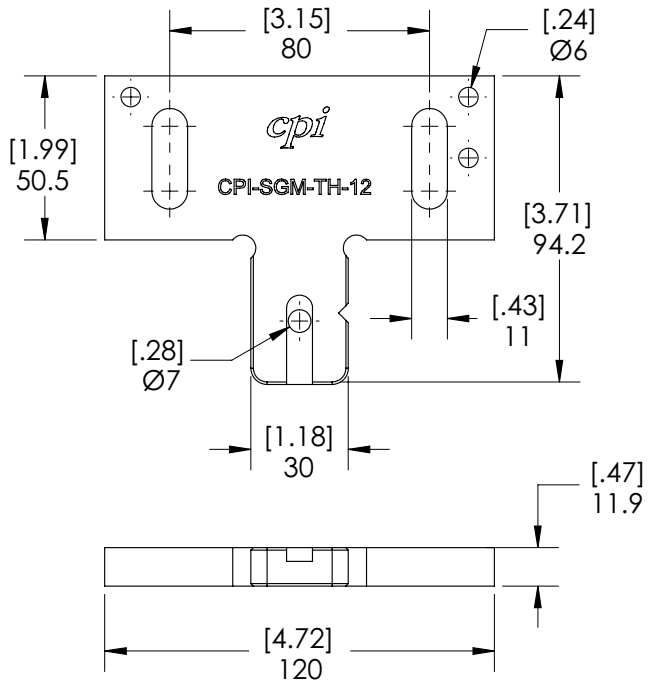
Ribbed Pads Neoprene



Base Model RT	Overall Height H		Length L			Durometer (Shore A)	
Ribbed Pads Neoprene	<b>1/2</b>	0.50" 12.7 mm	<b>4</b>	4.00" 101.6 mm	<b>15</b>	Tan	
	<b>1</b>	1.00" 25.4 mm	<b>6</b>	6.00" 152.4 mm	<b>30</b>	Teal	
	<b>2</b>	2.00" 50.8 mm	<b>8</b>	8.00" 203.2 mm	<b>45</b>	Red	
	<b>3</b>	3.00" 76.2 mm	<b>12</b>	12.00" 304.8 mm	<b>60</b>	Black	
	<b>4</b>	4.00" 101.6 mm					

# PLASTICS - BLUE SLICE

Round Tooling | Dimensions | Technical Specifications



Model Number	Material	Weight
CPI-SGM-TH-12	Steel	604g [1.33 lb]

**Name:** Blue Slice Nest Tooling

**Material:** Blue Nylon, 1" (25.4mm) thickness

**Benefits:** Lightweight, durable, machinable material

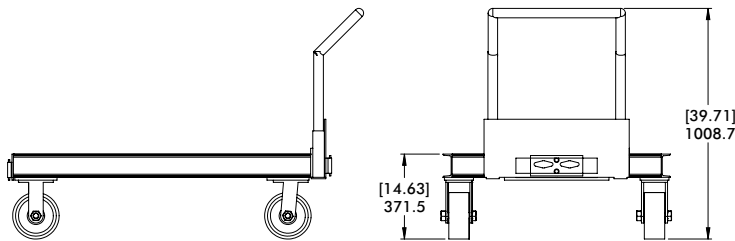
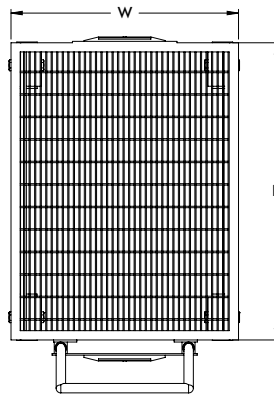
**Process:** Machined from 3D CAD



# TOOL STORAGE

Round Tooling | Dimensions | How To Order

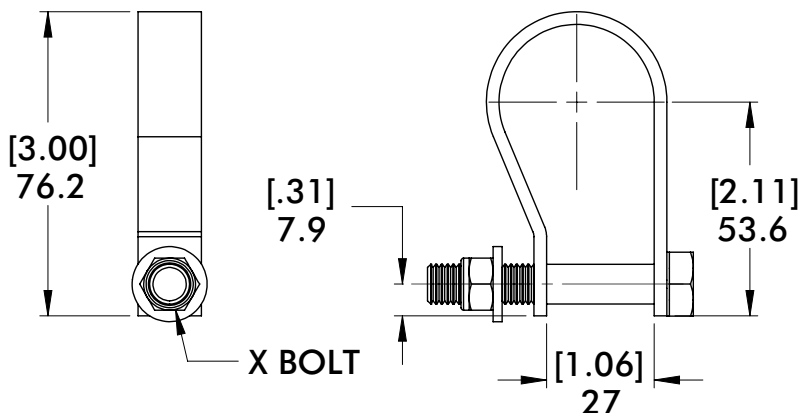
## Tool Storage Cart



**CPI** - **TC** - - - **DP** - **FP**

Base Model	Width			Length		
<b>TC</b>	<b>36</b>	36.00"	0.9 m	<b>48</b>	48.00"	1.2 m
Tool Storage Carts	<b>48</b>	48.00"	1.2 m	<b>60</b>	60.00"	1.5 m
				<b>72</b>	72.00"	1.8 m
				<b>84</b>	84.00"	2.1 m
				<b>96</b>	96.00"	2.4 m

## Tool Hanger



Material: Steel

Model Number	Weight
CPI-THR-516	91g [0.20 lb]

# TOOL STORAGE

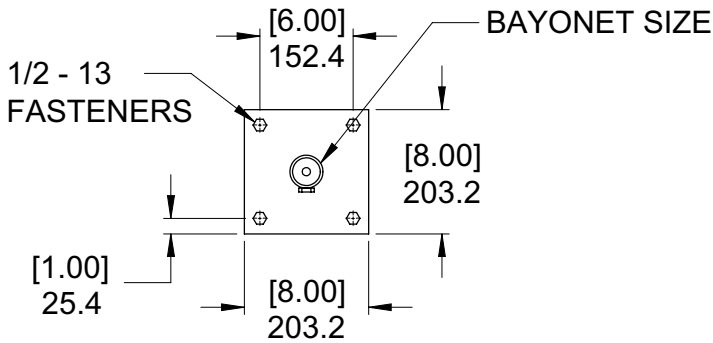
Round Tooling | Dimensions | How To Order

## Tool Holder Strap



Model Number	Weight
CPI-SGM-TH-CABLE-08	68g [0.15 lb]

## Tool Storage Can



Material: Steel










Base Model	Bayonet Size	Height
<b>TH</b>	<b>150</b> 1.5" 40 mm	<b>6.5</b> 6.5" 165 mm
Tool Holder	<b>250</b> 2.5" 60 mm	<b>12.5</b> 12.5" 318 mm
		<b>18.5</b> 18.5" 470 mm





# VACUUM SOLUTIONS

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	EcoCup .....	29
	Vacuum Generation .....	31
	Spring Cup Mounts .....	37
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	Manifolds.....	53

# VACUUM PRODUCTS

DESTACO vacuum cups can be ordered in different types, sizes, materials and durometers to be used in a broad array of applications, ranging from sheet metal handling to plastics to glass.



*DESTACO also provides vacuum cups for extreme temperatures and hot-forming applications*

**EcoCup™** is the world's first electric vacuum cup, creating vacuum without air. The EcoCup™ is ideal for pick-and-place applications of flat, rigid, non-porous parts, including plastic, glass, and other consumer goods with smooth, flat surfaces.



**ARV®** The original, patented Auto-Release Venturi offers users the fastest vacuum and blow-off in the industry with single line operation, integrated blow-off and standard silencer.

**Destacker Double Blank Detectors (DBD)** allows compliance to blanks within  $\pm 15^\circ$  without needing to adjust the robot, automation or tooling.



# NITRILE VACUUM CUPS

Vacuum Products | Families and Features

## Round Destacker Vacuum Cup

- Designed specifically for pogo-style destacking applications.
- High compressive-strength and shock-resistance extends cup life.
- High vertical lifting capacity prior to part release.
- Provides low-impact part release during pull-off by utilizing the patented stress relief port.



## Round Traction Vacuum Cups

- For applications with slick/oily surfaces or for destackers.
- Internal cleats holds part more securely in high speed applications.
- Bellows add flexibility for minor misalignments.

## Round Flatfoot Vacuum Cups

- For applications with flat to medium curvature and dry to medium slick/oily surfaces.
- Cleats provide full support to prevent damage to thin outer panels.
- Maximizes lifting capacity and minimizes slip.

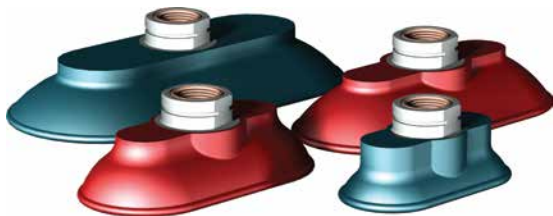


## Round Belcup Vacuum Cups

- For applications with flat to mild contoured surfaces.
- Bellows add flexibility for minor misalignments.
- Ideal for general purpose.

## Round Deepdish Vacuum Cups

- For applications with contoured surfaces.
- Thin lip wraps and seals curved surfaces tightly.
- Bell structure and internal design works best on materials with convex surfaces.



## Oval Flatfoot Vacuum Cups

- For applications with medium slick/oily to dry surfaces.
- Oval shape maximizes contact on narrow panels and maximizes vertical lifting capacity.
- Cleats provide full support to prevent damage to thin outer panels.

## Oval Deepdish Vacuum Cups

- For applications with contoured surfaces as well as wet or oily surfaces.
- Oval shape maximizes contact on narrow panels and bell structure works well on materials with convex surfaces.

# POLYURETHANE VACUUM CUPS

Vacuum Products | Families and Features



## Round Bellows Vacuum Cups

- For applications with slick/oily surfaces or for destackers
- Bellows add flexibility for minor misalignments
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)
- Optional TCT (Triple durometer) style cup offers extra soft internal cleat to eliminate possible dimples on thin sheet metal



## Round Flat Foot Vacuum Cups

- Works well on flat to slightly contoured parts
- Maximizes lifting capacity and minimizes slip
- Excellent for transverse loads with high acceleration and deceleration applications
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)



## Round Deepdish Vacuum Cups

- Interchangeable with existing/competitor vacuum cups
- New bell shape design is excellent for highly contoured surfaces
- Optional lightweight plastic mount available
- Designed to handle higher acceleration/deceleration speeds
- Shape and design offers better transverse loading



## Oval Bellows Vacuum Cups

- Works well on flat and contoured parts
- Maximum lifting capacity where limited space is available
- Bellows add flexibility for minor misalignments
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)












## Oval Flat Foot Vacuum Cups

- Works well on flat to slightly contoured parts.
- Long oval shape maximizes contact on narrow surfaces
- Cleats provide full support to prevent damage to thin outer panel
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)

# CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

Vacuum Products | Application, Characteristics and Usage Chart for Vacuum Cups






	DESTACKER APPLICATION	FLAT CONTOURS	MILD CONTOURS	HIGH CONTOURS	SLICK/OILY SURFACES	DRY SURFACES	HOT FORMING	Application Direction
<b>Nitrile Vacuum Cups</b> US Patents #7,309,089 7,712,807  Destacker Vacuum Cups	5	5	N/A	N/A	3	5	N/A	VERTICAL
 Round Traction Vacuum Cups	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HORIZONTAL
 Round Flatfoot Vacuum Cups	4	5	4	2	5	5	N/A	VERTICAL
 Round Belcup Vacuum Cups	N/A	5	3	1	5	5	N/A	HORIZONTAL
 Round Deepdish Vacuum Cups	4	4	5	3	4	4	N/A	VERTICAL
 Oval Deepdish Vacuum Cups	N/A	4	5	3	4	4	N/A	HORIZONTAL
 Oval Flatfoot Vacuum Cups	4	5	4	2	3	4	N/A	VERTICAL
 Hot Forming Vacuum Cups	N/A	3	3	1	2	4	N/A	HORIZONTAL
 Hot Forming Vacuum Cups	N/A	3	2	1	2	3	5	HORIZONTAL

Worst Cup for the Job **1** **2** **3** **4** **5** Best Cup for the Job **N/A** Not Advised for the application

This chart is a guide to aid in selecting the right family of cup for general surfaces, contours, and applications.

# CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

Vacuum Products | Application, Characteristics and Usage Chart for Vacuum Cups

Polyurethane Vacuum Cups		DESTACKER APPLICATION	FLAT CONTOURS	MILD CONTOURS	HIGH CONTOURS	SLICK/OILY SURFACES	DRY SURFACES	HOT FORMING	Application Direction
	Round Bellows Vacuum Cups	4	5	4	2	5	5	N/A	VERTICAL
		N/A	5	3	1	5	5	N/A	HORIZONTAL
	Round Flat Foot Vacuum Cups	4	4	5	2	4	5	N/A	VERTICAL
		N/A	4	5	2	4	5	N/A	HORIZONTAL
	Round Deepdish Vacuum Cups	3	4	5	5	4	5	N/A	VERTICAL
		3	4	5	5	4	5	N/A	HORIZONTAL
	Oval Bellows Vacuum Cups	3	4	4	2	4	5	N/A	VERTICAL
		N/A	4	3	2	3	5	N/A	HORIZONTAL
	Oval Flat Foot Vacuum Cups	3	4	3	2	3	5	N/A	VERTICAL
		N/A	3	3	2	2	5	N/A	HORIZONTAL

Worst Cup for the Job **1** **2** **3** **4** **5** Best Cup for the Job
N/A **Not Advised for the application**

This chart is a guide to aid in selecting the right family of cup for general surfaces, contours, and applications.

# CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

Vacuum Products | ACU Index, How Vacuum Cups Work, Cup Usage, and Safety Factor

## Application, Characteristics, and Usage (ACU) Index

Determining the type and durometer of vacuum cup appropriate for a particular application is typically based on three criteria.

- How oily or slick the part surface is.
- How much contour or curvature the part has.
- How long you can expect the cup to last (Longevity)?

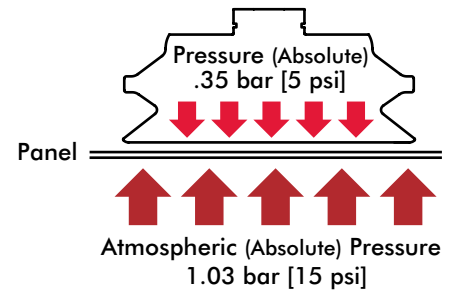


A set of vacuum cups of the same size and type, each having different durometers may handle oily/slick or contoured parts differently. However, cup longevity of each may be affected as a result of durometer, application and usage. The ACU Index is a reference shown with each type of vacuum cup and is used to illustrate the differences between vacuum cup types and durometers, when considering the above criteria.

## How Vacuum Cups work

A panel adheres to a vacuum cup because the surrounding pressure (atmospheric pressure) is greater than the pressure inside the vacuum cup. The greater pressure pushes the panel onto the cup.

To create the low pressure in the vacuum cup, it is connected to a vacuum generator. The lower the pressure (higher vacuum) inside the cup; the greater the lifting force of the suction cup.



## Vacuum Cup Usage

It is important to use the proper size and quantity of vacuum cups needed for your application. There are five steps which will help you make sure your application has the appropriate vacuum cup usage.

- Step 1:** Determine application and find appropriate cup family type.
- Step 2:** Determine panel weight.
- Step 3:** Find maximum cup size based on panel contour and shape.
- Step 4:** Find the appropriate cup size lifting capacity in the chart, found on the catalog page featuring the cup family type chosen.
- Step 5:** Determine safety factor determined on application (See Below).

Use the formula on the right to determine the proper amount of cups needed to move your panel.

### Formula

$$n = \frac{w \times s}{f}$$

- w = Weight of Panel
- f = Lifting force of cup
- s = Safety factor
- n = Number of cups

Weight and lifting force must be in the same units, either English or Metric.

## Safety Factor

Ideal plant conditions\*: (2)

- Fast moving robot: (+1)
- Slick or Oily Panel: (+1)
- Flexing Panel: (+2)
- Small cups: (+1)
- High Horizontal Loads: (+1)

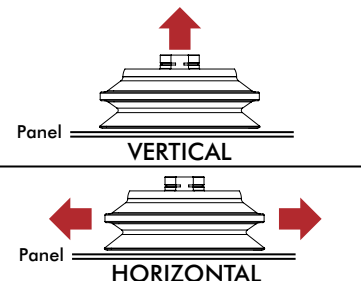
Starting with Ideal conditions (2), add each additional conditions to determine total safety factor.

For example:

Ideal conditions:	2
Fast moving robots:	+1
Flexing Panel:	+2
<b>Total Safety Factor</b>	<b>5</b>

(\*Ideal conditions are defined as having no surface, operational, or environmental conditions which could adversely effect the performance to the vacuum cup.

## Relative Cup Motion





# VACUUM CUP OPTIONS

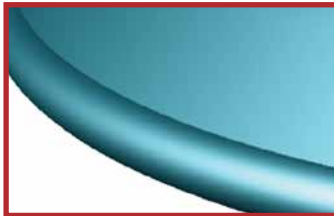
Vacuum Products | Durometer and Mounting Options

DESTACO Vacuum Cups are offered in different families, and may be offered in different durometers. Vacuum cups are also offered in Imperial and Metric mounting options which may vary according to the size and type of the vacuum cup.

Vacuum cups can be ordered as follows:  
**CPI-"MODEL"-"Mounting"-"DuRometer"**



## Vacuum Cup Durometers ("**DR**") (Color equals Durometer (Shore A Scale))



**30**

This soft durometer is useful for dryer, contoured panels. However, this durometer has less life.



**45**

This medium hard durometer will seal and adapt to contours well and is good for all around usage. This durometer has a longer life than the 30 durometer.



**60**

This hard durometer is helpful for extremely oily panels and flat surfaces such as a destacker operation. This durometer has a longer life than the 45 durometer.



**PU55/PU60**

This durable long-lasting polyurethane material is resistant to oils, UV light and oxygen. No dry rotting or cracking with better elastic memory.

= Durometer not available in cup style.

## Imperial Vacuum Cup Mounting Options ("**M**")



1/4" NPT



3/8" NPT



1.25" SQUARE



1/2" NPT



1/8" NPT MALE



QUICK DISCONNECT

## Metric Vacuum Cup Mounting Options ("**M**")



1/4" G



3/8" G



1.25" SQUARE



M10 MALE



M8 FEMALE



SMOOTH BORE

= Mount only available in this cup size.

= Mount not available in this cup size.

## Specialty Vacuum Cup Mounting Options ("**M**")



3/8 NPT



Nylon G3/8



G3/8



1.25 in. Square

## Micro Industrial Mounting Options ("**M**")



10-32 MALE



1/8" G FEMALE



1/8" G MALE

# ACCELERATE® COLLECTION VACUUM CUPS

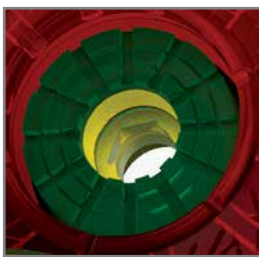
Vacuum Products | Dimensions | Ordering Information

## TC Polyurethane Round Bellows

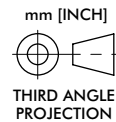
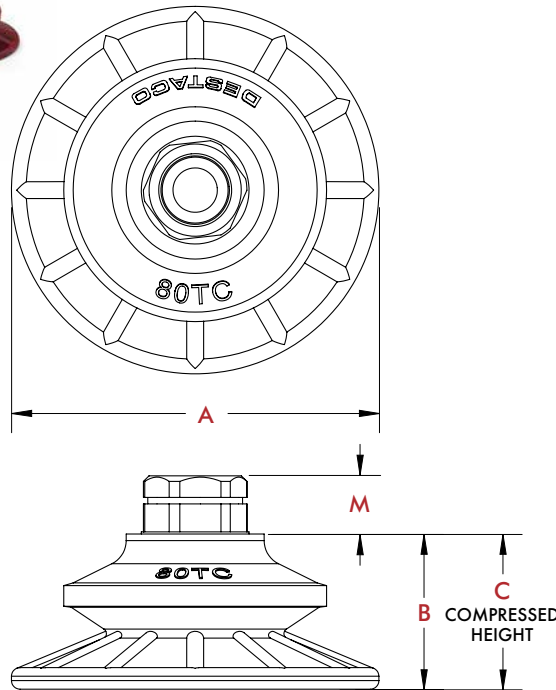
### Specifications:

**Temperature:**  
10°-49° C [50°-120° F]

**Materials:** Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).



TCT (triple durometer) style cup offers extra soft, 30 durometer, internal cushion (yellow) to eliminate possible dimples on thin sheet metal.



Mount	M
<b>U38/G38</b>	[0.57]
	14.5
<b>P38</b>	[0.85]
	21.5
<b>C</b>	[0.73]
	18.5

Dimensions shown "[inch] mm"

### TC Dimensions

Model	A	B	C	Weight
<b>30TC</b>	[1.18]	[0.57]	[0.37]	[1.00 oz]
	30	14.5	9.5	28 g
<b>40TC</b>	[1.77]	[0.69]	[0.41]	[1.20 oz]
	45	17.5	10.5	34 g
<b>60TC</b>	[2.40]	[0.85]	[0.45]	[2.15 oz]
	61	21.5	11.5	61 g
<b>80TC/ 80TCT</b>	[3.35]	[1.40]	[0.85]	[4.97 oz]
	85	35.5	21.5	141 g
<b>110TC/ 110TCT</b>	[4.53]	[2.03]	[1.20]	[9.70 oz]
	115	51.5	30.5	275 g

Dimensions shown "[inch] mm"

### TC Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
<b>30TC</b>	[6]	[3]	[1.75]
	2.72	1.36	0.79
<b>40TC</b>	[18]	[13]	[10]
	8.16	5.90	4.54
<b>60TC</b>	[25]	[27]	[20]
	11.34	12.25	9.07
<b>80TC/ 80TCT</b>	[53]	[54]	[36]
	24.04	24.49	16.33
<b>110TC/ 110TCT</b>	[85]	[78]	[57]
	38.56	35.38	25.86

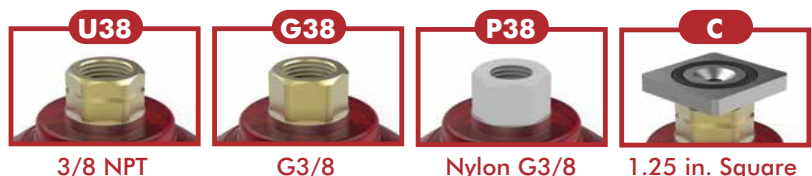
Holding capacities shown "[lbs] kg"

## TC Round Bellows Ordering Information

Metric

Ø30mm	VC-30TC-(M)-PU55
Ø45mm	VC-40TC-(M)-PU55
Ø61mm	VC-60TC-(M)-PU55
Ø85mm	VC-80TC-(M)-PU55
Ø85mm	VC-80TCT-(M)-PU55
Ø115mm	VC-110TC-(M)-PU55
Ø115mm	VC-110TCT-(M)-PU55

### Mounting Options ("M")



# ACCELERATE® COLLECTION VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## Specifications:

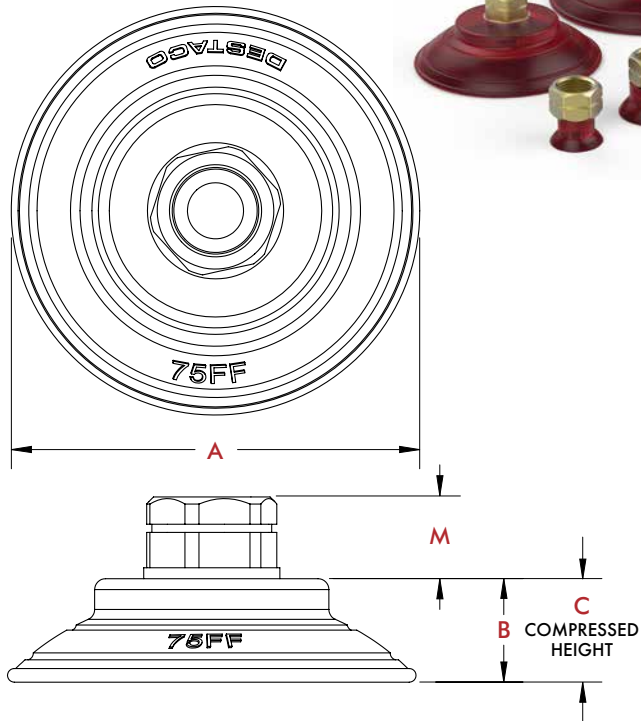
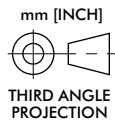
Temperature:

10°-49° C [50°-120° F]

Materials: Dual Durometer

Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

## FF Polyurethane Round Flat



Mount	M
U38/G38	[0.57]
	14.5
P38	[0.85]
	21.5
C	[0.73]
	18.5

Dimensions shown "[inch] mm"

## FF Dimensions

Model	A	B	C	Weight
25FF	[0.98]	[0.57]	[0.49]	[0.36 oz]
	25	14.5	12.5	10 g
35FF	[1.38]	[0.61]	[0.51]	[1.48 oz]
	35	15.5	13	42 g
50FF	[1.97]	[0.26]	[0.51]	[2.36 oz]
	50	6.5	13	67 g
75FF	[2.95]	[0.77]	[0.59]	[3.21 oz]
	75	19.5	15	91 g
100FF	[3.94]	[0.96]	[0.73]	[6.06 oz]
	100	24.5	18.5	172 g
125FF	[4.92]	[1.20]	[0.89]	[9.88 oz]
	125	30.5	22.5	280 g

Dimensions shown "[inch] mm"

## FF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
25FF	[6]	[2]	[1.5]
	2.72	0.91	0.68
35FF	[13]	[9]	[7]
	5.90	4.08	3.18
50FF	[24]	[23]	[16]
	10.89	10.43	7.26
75FF	[53]	[47]	[31]
	24.04	21.32	14.06
100FF	[110]	[109]	[46]
	49.90	49.44	20.87
125FF	[146]	[135]	[53]
	66.23	61.24	24.04

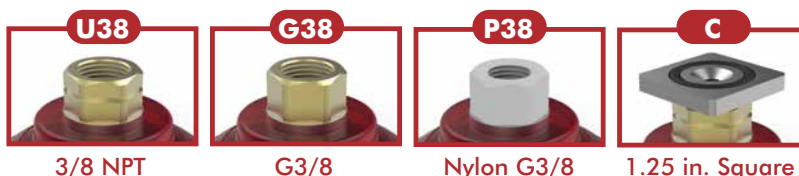
Holding capacities shown "[lbs] kg"

## FF Round Flat Ordering Information

Metric

Ø25mm	VC-25FF-(M)-PU55
Ø35mm	VC-35FF-(M)-PU55
Ø50mm	VC-50FF-(M)-PU55
Ø75mm	VC-75FF-(M)-PU55
Ø100mm	VC-100FF-(M)-PU55
Ø125mm	VC-125FF-(M)-PU55

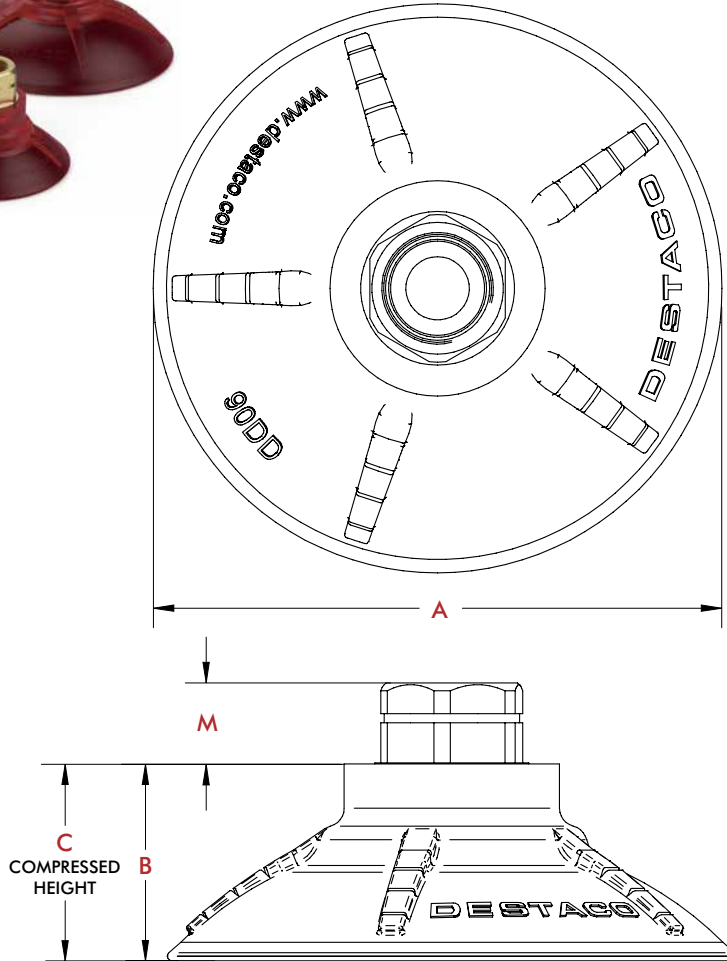
## Mounting Options ("M")



# ACCELERATE® COLLECTION VACUUM CUPS

Vacuum Products | Dimensions | Technical Specifications

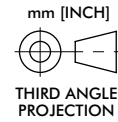
## DD Polyurethane Round Deepdish



### Specifications:

Temperature:  
10°-49° C [50°-120° F]

Materials:  
60 durometer (red)



Mount	M
<b>U38</b>	[0.51] 13
<b>G38</b>	[0.77] 19.5
<b>P38</b>	[0.68] 17.3
<b>C</b>	[0.37] 9.5

Dimensions shown "[inch] mm"

### DD Dimensions

Model	A	B	C	Weight with U38/G38/C	Weight with P38
<b>65DD</b>	[2.66]	[1.11]	[0.67]	[2.08 oz]	[0.9 oz]
	67.5	28.2	17.0	59 g	25 g
<b>90DD</b>	[3.64]	[1.27]	[0.75]	[2.72 oz]	[1.5 oz]
	92.5	32.2	19.0	77 g	43 g
<b>110DD</b>	[4.43]	[1.60]	[0.83]	[3.60 oz]	[2.4 oz]
	112.5	40.6	21.0	102 g	68 g

Dimensions shown "[inch] mm"

### DD Holding Capacity

@ -0.9 bar [25.6 inhg] vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
<b>65DD</b>	[42.8]	[44.1]	[30.2]
	19.4	20.0	13.7
<b>90DD</b>	[69.7]	[80.5]	[55.8]
	31.6	36.5	25.3
<b>110DD</b>	[97.4]	[129.0]	[80.5]
	44.2	58.5	36.5

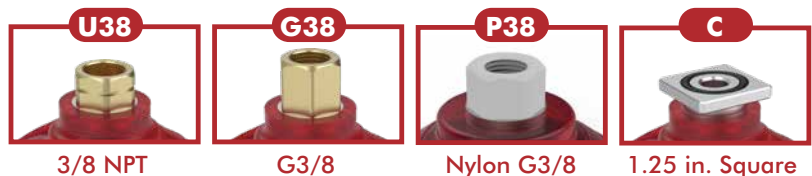
Holding capacities shown "[lbs] kg"

### DD Round Deepdish Ordering Information

Metric

Ø67.5mm ..... VC-65DD-(M)-PU60  
 Ø92.5mm ..... VC-90DD-(M)-PU60  
 Ø112.5mm ..... VC-110DD-(M)-PU60

### Mounting Options ("M")



# ACCELERATE® COLLECTION VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

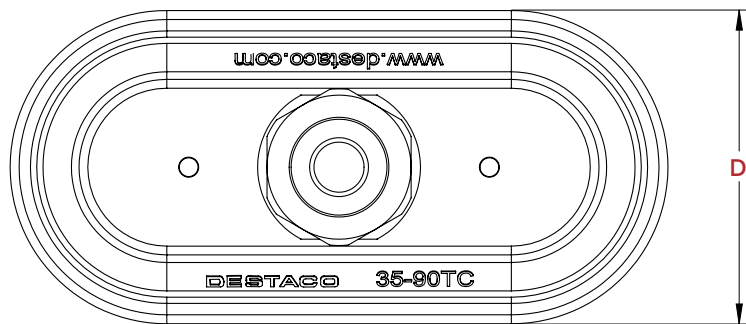
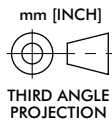


Positioning Kit (for G38 and P38 thread mounts only). Sold separately. Order No. **CPI-LNB-VSA-19** Includes (1) O-ring and (1) locknut.

### Specifications:

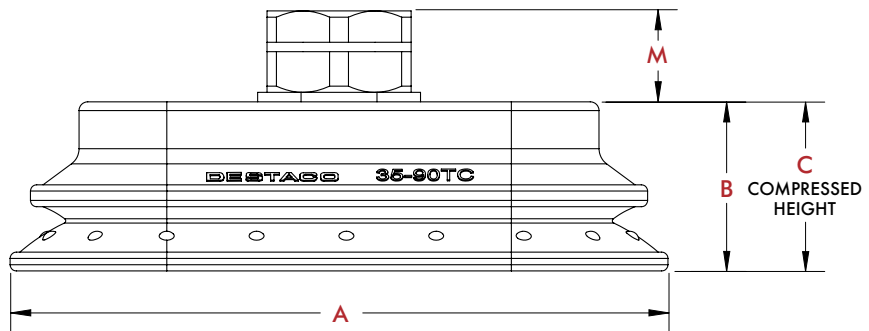
**Temperature:** 10°-49° C [50°-120° F]  
**Materials:** Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

### TC Polyurethane Oval Bellows



Mount	M
U38/G38	[0.57] 14.5
P38	[0.85] 21.5
C	[0.73] 18.5

Dimensions shown "[inch] mm"



### TC Dimensions

Model	A	B	C	D	Weight
35-90TC	[4.13] 105	[1.08] 27.5	[0.65] 16.5	[1.97] 50	[3.42 oz] 97 g
	[6.18] 157	[1.40] 35.5	[0.85] 21.5	[2.64] 67	[6.70 oz] 190 g
65-170TC	[7.36] 187	[1.63] 41.5	[1.04] 26.5	[3.23] 82	[10.93 oz] 310 g

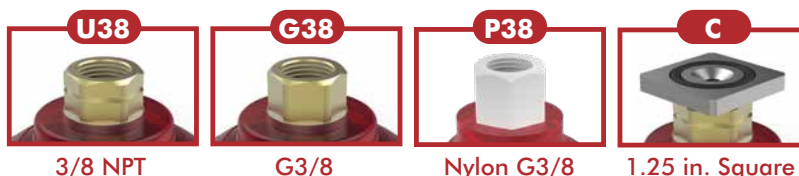
Dimensions shown "[inch] mm"

### TC Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
35-90TC	[45] 20.41	[40] 18.14	[34] 15.42
	[99] 44.91	[93] 42.18	[78] 35.38
65-170TC	[128] 58.06	[139] 63.05	[149] 67.59

Holding capacities shown "[lbs] kg"

### Mounting Options ("M")



### TC Oval Bellows Ordering Information

Metric

Ø50x105mm ..... VC-35-90TC-(M)-PU55  
 Ø67x157mm ..... VC-50-140TC-(M)-PU55  
 Ø82x187mm ..... VC-65-170TC-(M)-PU55

# ACCELERATE® COLLECTION VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

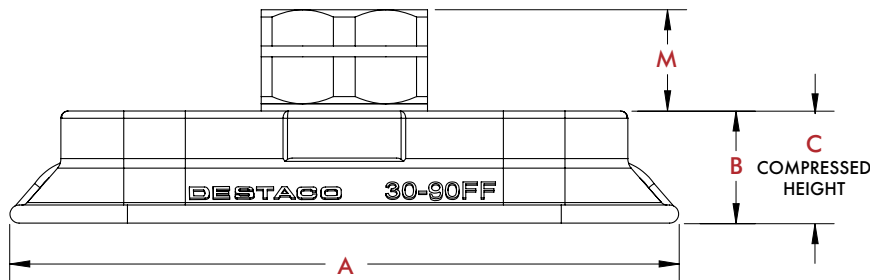
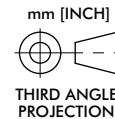
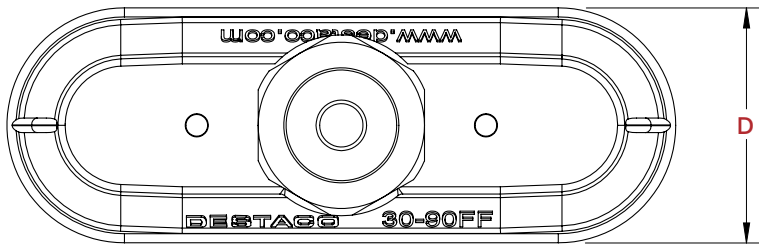
## FF Polyurethane Oval Flat



### Specifications:

**Temperature:**  
10°-49° C [50°-120° F]  
**Materials:** Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

Positioning Kit (for G38 and P38 thread mounts only).  
Sold separately.  
Order No. **CPI-LNB-VSA-19**  
Includes (1) O-ring and (1) locknut.



Mount	M
<b>U38/G38</b>	[0.57] 14.5
	[0.85] 21.5
<b>P38</b>	[0.73] 18.5

Dimensions shown "[inch] mm"

### FF Dimensions

Model	A	B	C	D	Weight
<b>20-80FF</b>	[3.31] 84	[0.61] 15.5	[0.49] 12.5	[0.94] 24	[0.85 oz] 24 g
	[3.66] 93	[0.61] 15.5	[0.45] 11.5	[1.30] 33	[1.05 oz] 30 g
<b>40-110FF</b>	[4.45] 113	[0.85] 21.5	[0.65] 16.5	[1.69] 43	[1.94 oz] 55 g

Dimensions shown "[inch] mm"

### FF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
<b>20-80FF</b>	[25] 11.34	[25] 11.34	[11] 4.99
	[35] 15.88	[36] 16.33	[17] 7.71
<b>40-110FF</b>	[55] 24.95	[52] 23.59	[18] 8.16

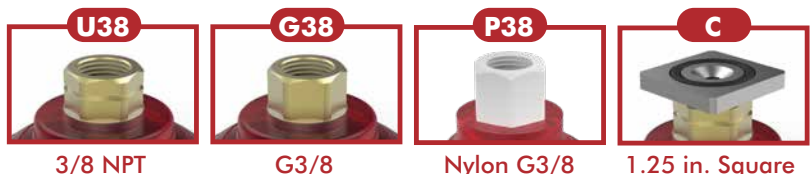
Holding capacities shown "[lbs] kg"

### FF Oval Flat Ordering Information

Metric

**Ø24x84mm** ..... VC-**20-80FF-(M)**-PU55  
**Ø33x93mm** ..... VC-**30-90FF-(M)**-PU55  
**Ø43x113mm** ..... VC-**40-110FF-(M)**-PU55

### Mounting Options ("M")



# VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## Specifications:

### Temperature:

15-59 Sec: -20° to 250° F [-29° to 121° C]

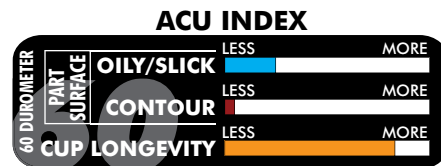
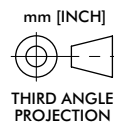
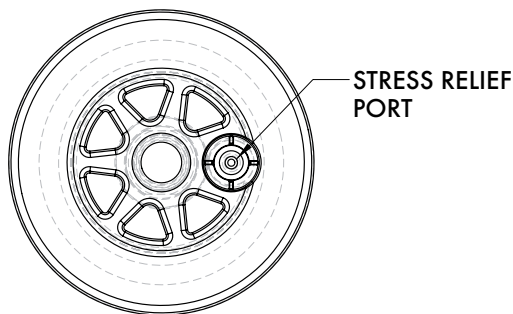
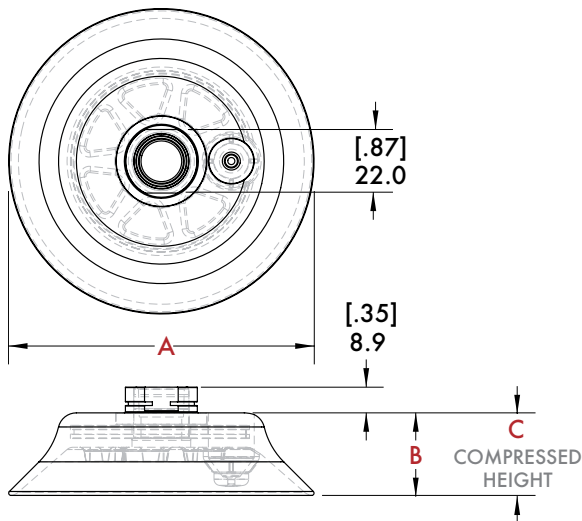
1-5 min: 15° to 180° F [-9° to 82° C]

### Material: Nitrile

### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol

## DC Destacker Stress Relieving



US Patents #7,309,089  
7,712,807

### DC Dimensions

Model	A	B	C	Weight
75DC	84.8	25.4	16.7	84 g
[30DC]	[3.34]	[1.00]	[.68]	[3.0 oz]
100DC	105.9	28.6	16.7	120 g
[40DC]	[4.16]	[1.11]	[.68]	[4.2 oz]

Dimensions shown "mm [inch]"

### DC Capacity

Appl.	Ver. Lift
75DC	15.9 kg
[30DC]	[35 lb]
100DC	63.1 kg
[40DC]	[139 lb]

Holding capacities shown "N [lbf]"

## DC Destacker Stress Relieving Ordering Information

### Imperial

Ø3.00" ..... CPI-30DC-(M)-60

Ø4.00" ..... CPI-40DC-(M)-60

### Metric

Ø75 mm ..... CPI-75DC-(M)-60

Ø100 mm ..... CPI-100DC-(M)-60

(DR) = Durometer



(M) = Mounts Available



(DR) = Durometer



(M) = Mounts Available



# VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## TC/HT Round Traction



### Specifications:

Temperature:

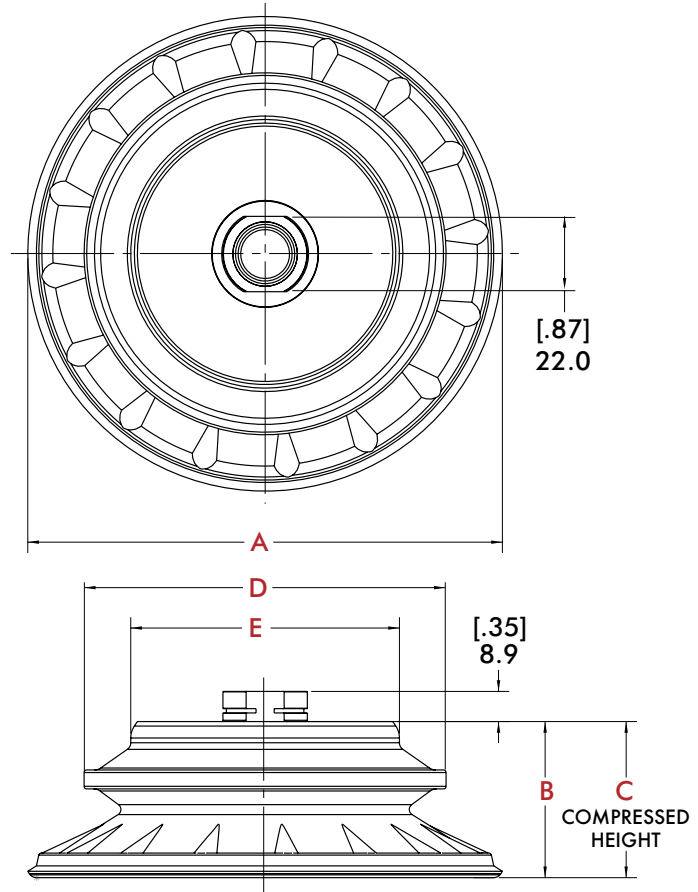
15-59 Sec: -29° to 121° C [-20° to 250° F]

1-5 min: -9° to 82° C [15° to 180° F]

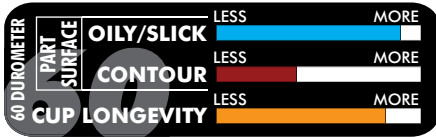
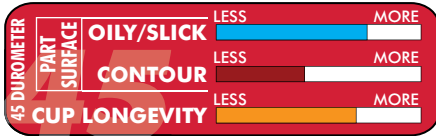
Material: Nitrile

Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



### ACU INDEX



### TC/HT Dimensions

Model	A	B	C	D	E	Weight
[20TC]	[2.06]	[1.02]	[.68]	[1.64]	[1.25]	[1.3 oz]
50HT	52.3	25.7	17.3	41.7	31.8	37 g
[35TC]	[3.50]	[1.71]	[.82]	[2.50]	[1.65]	[2.6 oz]
90HT	88.9	43.44	20.8	63.5	41.9	73 g
[45TC]	[4.50]	[1.81]	[.87]	[3.25]	[2.25]	[4.4 oz]
115HT	114.3	46.1	22.1	82.4	57.2	125 g
[55TC]	[5.50]	[1.81]	[.87]	[4.00]	[3.04]	[7.2 oz]
140HT	139.7	46.1	22.1	101.4	77.1	204 g

Dimensions shown "mm [inch]"

### TC/HT Holding Capacity

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
[20TC]	[8.5 lb]	[7 lb]	[22.7 lb]
50HT	3.9 kg	3.2 kg	10.3 kg
[35TC]	[30 lb]	[20 lb]	[66 lb]
90HT	13.6 kg	9.1 kg	29.9 kg
[45TC]	[45 lb]	[30 lb]	[103 lb]
115HT	20.4 kg	13.6 kg	46.7 kg
[55TC]	[100 lb]	[45 lb]	[164 lb]
140HT	45.5 kg	20.4 kg	74.4 kg

Holding capacities shown "N [lbf]"

## TC/HT Round Traction Ordering Information

Imperial

- Ø2.00" ..... CPI-20TC-(M)-(DR)
- Ø3.50" ..... CPI-35TC-(M)-(DR)
- Ø4.50" ..... CPI-45TC-(M)-(DR)
- Ø5.50" ..... CPI-55TC-(M)-(DR)

..(M) = Mounts Available..

**K B C D** ~~20TC~~ ~~E1~~ ~~20TC~~

..(DR) = Durometer..

~~45~~ **60**

Metric

- Ø50mm ..... CPI-50HT-(M)-(DR)
- Ø90mm ..... CPI-90HT-(M)-(DR)
- Ø115mm ..... CPI-115HT-(M)-(DR)
- Ø140mm ..... CPI-140HT-(M)-(DR)

..(M) = Mounts Available..

**A B C**

..(DR) = Durometer..

~~45~~ **60**



# VACUUM CUPS

Vacuum Products | Dimensions | Technical Specifications

## Specifications:

### Temperature:

15-59 Sec: -20° to 250° F [-29° to 121° C]

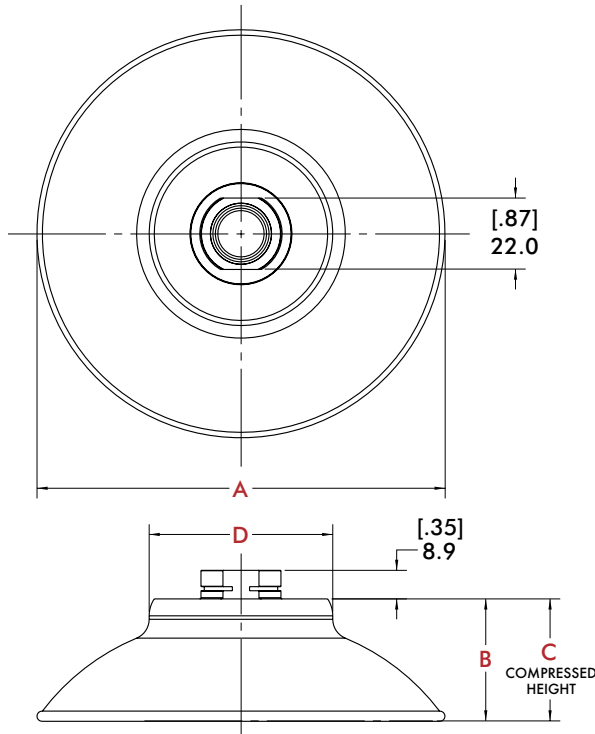
1-5 min: 15° to 180° F [-9° to 82° C]

### Material: Nitrile

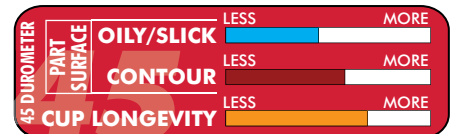
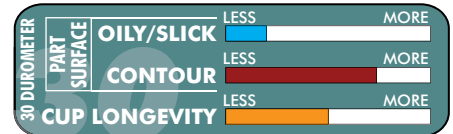
### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol

## FF/PF Round Flatfoot



## ACU INDEX



## FF/PF Round Flatfoot

Model	A	B	C	D	Weight
50PF	50.8	22.5	13.0	19.1	40 g
[20FF]	[2.00]	[.89]	[.51]	[.75]	[1.4 oz]
75PF	76.2	25.4	18.2	39.6	57 g
[30FF]	[3.00]	[1.00]	[.72]	[1.56]	[2.0 oz]
100PF	101.6	33.3	22.2	39.6	96 g
[40FF]	[4.00]	[1.31]	[.88]	[1.56]	[3.4 oz]
125PF	127.0	38.2	25.4	57.2	159 g
[50FF]	[5.00]	[1.50]	[1.00]	[2.25]	[5.6 oz]

Dimensions shown "mm [inch]"

## FF/PF Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
50PF	6.4 kg	2.7 kg	9.1 kg
[20FF]	[14 lb]	[6 lb]	[20 lb]
75PF	13.6 kg	5.9 kg	27.2 kg
[30FF]	[30 lb]	[13 lb]	[60 lb]
100PF	15.9 kg	9.1 kg	46.3 kg
[40FF]	[35 lb]	[20 lb]	[102 lb]
125PF	31.8 kg	25.8 kg	74.8 kg
[50FF]	[70 lb]	[55 lb]	[165 lb]

Holding capacities shown "N [lbf]"

## FF/PF Round Flatfoot Vacuum Cups Ordering Information

### Imperial

- Ø2.00" ..... CPI-20FF-(M)-(DR)
- Ø3.00" ..... CPI-30FF-(M)-(DR)
- Ø4.00" ..... CPI-40FF-(M)-(DR)
- Ø5.00" ..... CPI-50FF-(M)-(DR)

(DR) = Durometer

30 45 60

(M) = Mounts Available

K B C D 40FF 50FF E1

### Metric

- Ø50mm ..... CPI-50PF-(M)-(DR)
- Ø75mm ..... CPI-75PF-(M)-(DR)
- Ø100mm ..... CPI-100PF-(M)-(DR)
- Ø125mm ..... CPI-125PF-(M)-(DR)

(DR) = Durometer

30 45 60

(M) = Mounts Available

A B C

# VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## AC/BT Round Belcup



### Specifications:

#### Temperature:

15-59 Sec: -20° to 250° F [-29° to 121° C]

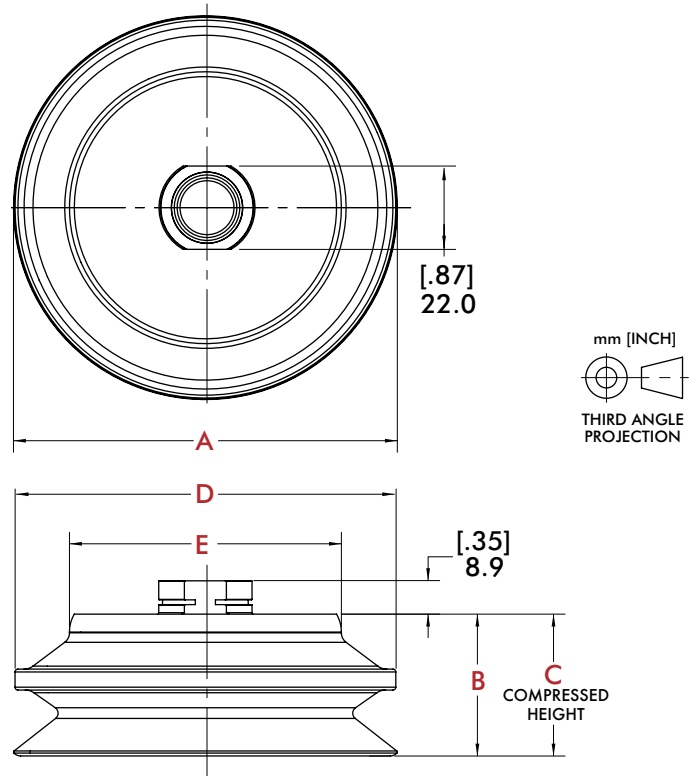
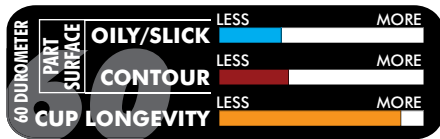
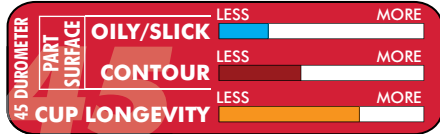
1-5 min: 15° to 180° F [-9° to 82° C]

Material: Nitrile

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol

### ACU INDEX



### AC/BT Round Belcup

Model	A	B	C	D	E	Weight
40BT	41.1	25.9	11.9	41.1	31.8	35 g
[15AC]	[1.62]	[1.02]	[.47]	[1.63]	[1.25]	[1.2 oz]
50BT	57.4	37.4	18.3	57.9	38.1	57 g
[20AC]	[2.26]	[1.47]	[.72]	[2.28]	[1.50]	[2.0 oz]
75BT	78.9	38.8	19.8	80.0	56.6	91 g
[30AC]	[3.11]	[1.53]	[.78]	[3.15]	[2.23]	[3.2 oz]
100BT	102.4	37.8	18.6	101.6	72.6	159 g
[40AC]	[4.03]	[1.49]	[.73]	[4.00]	[2.85]	[5.6 oz]
125BT	127.0	38.1	19.0	127.0	97.8	232 g
[50AC]	[5.00]	[1.50]	[.75]	[5.00]	[3.85]	[8.2 oz]

Dimensions shown "mm [inch]"

### AC/BT Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
40BT	2.7 kg	1.4 kg	3.6 kg
[15AC]	[6 lb]	[3 lb]	[8 lb]
50BT	3.9 kg	2.0 kg	11.8 kg
[20AC]	[8.5 lb]	[4.5 lb]	[26 lb]
75BT	5.4 kg	2.7 kg	25.4 kg
[30AC]	[12 lb]	[6 lb]	[56 lb]
100BT	15.0 kg	3.6 kg	40.4 kg
[40AC]	[33 lb]	[8 lb]	[89 lb]
125BT	24.0 kg	6.8 kg	62.6 kg
[50AC]	[53 lb]	[15 lb]	[138 lb]

Holding capacities shown "N [lbf]"

## AC/BT Round Belcup Vacuum Cups Ordering Information

### Imperial

- Ø1.50" ..... CPI-15AC-(M)-(DR)
- Ø2.00" ..... CPI-20AC-(M)-(DR)
- Ø3.00" ..... CPI-30AC-(M)-(DR)
- Ø4.00" ..... CPI-40AC-(M)-(DR)
- Ø5.00" ..... CPI-50AC-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available



### Metric

- Ø40mm ..... CPI-40BT-(M)-(DR)
- Ø50mm ..... CPI-50BT-(M)-(DR)
- Ø75mm ..... CPI-75BT-(M)-(DR)
- Ø100mm ..... CPI-100BT-(M)-(DR)
- Ø125mm ..... CPI-125BT-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available



# VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## DD/DM Round Deepdish

### Specifications:

#### Temperature:

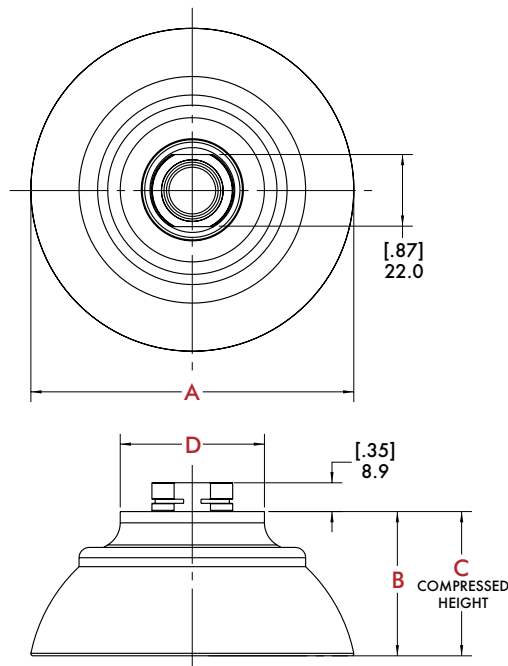
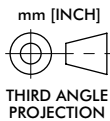
15-59 Sec: -20° to 250° F [-29° to 121° C]

1-5 min: 15° to 180° F [-9° to 82° C]

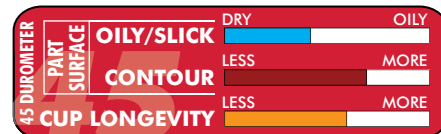
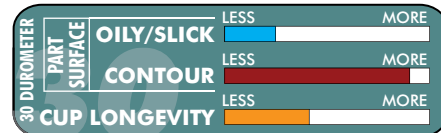
#### Material: Nitrile

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



### ACU INDEX



### DD/DM Round Deepdish

Model	A	B	C	D	Weight
50DM	50.8	29.1	18.3	38.1	40 g
[20DD]	[2.00]	[1.14]	[.72]	[1.50]	[1.4 oz]
75DM	76.2	40.4	24.3	44.0	57 g
[30DD]	[3.00]	[1.59]	[.96]	[1.73]	[2.0 oz]
100DM	101.6	44.5	20.8	44.5	96 g
[40DD]	[4.00]	[1.75]	[.82]	[1.75]	[3.4 oz]

Dimensions shown "mm [inch]"

### DD/DM Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
50DM	4.1 kg	3.2 kg	5.4 kg
[20DD]	[9 lb]	[7 lb]	[12 lb]
75DM	6.4 kg	2.7 kg	9.1 kg
[30DD]	[14 lb]	[6 lb]	[20 lb]
100DM	11.3 kg	3.2 kg	15.8 kg
[40DD]	[25 lb]	[7lb]	[35 lb]

Holding capacities shown "N [lbf]"

### DD/DM Round Deepdish Vacuum Cups Ordering Information

#### Imperial

Ø2.00" ..... CPI-20DD-(M)-(DR)

Ø3.00" ..... CPI-30DD-(M)-(DR)

Ø4.00" ..... CPI-40DD-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available



#### Metric

Ø50mm ..... CPI-50DM-(M)-(DR)

Ø75mm ..... CPI-75DM-(M)-(DR)

Ø100mm ..... CPI-100DM-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available



# VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## FF/PF Oval FlatFoot



### Specifications:

#### Temperature:

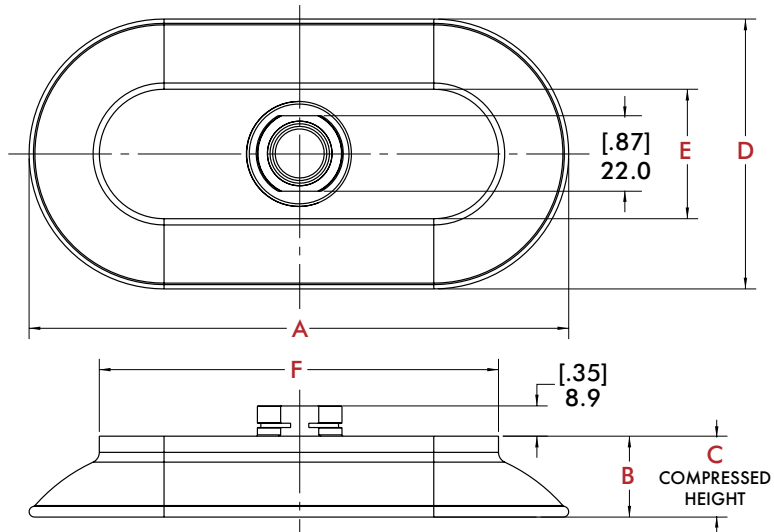
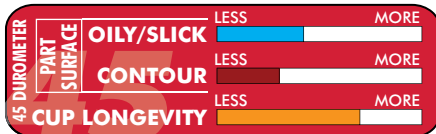
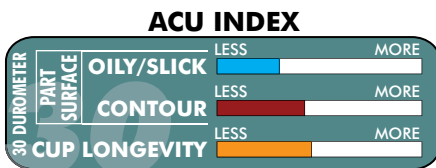
15-59 Sec: -20° to 250° F [-29° to 121° C]

1-5 min: 15° to 180° F [-9° to 82° C]

#### Material: Nitrile

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



## FF/PF Oval Flatfoot

Model	A	B	C	D	E	F	Weight
40-75PF [153FF]	76.2 [3.00]	22.3 [.88]	16.2 [.64]	38.1 [1.50]	22.2 [.88]	60.3 [2.37]	35 g [1.2 oz]
50-100PF [24FF]	101.6 [4.00]	23.8 [.94]	16.2 [.64]	50.8 [2.00]	22.2 [.88]	73.0 [2.88]	119 g [4.2 oz]
60-125PF [255FF]	127.0 [5.00]	22.3 [.88]	16.2 [.64]	63.5 [2.50]	22.2 [.88]	85.7 [3.38]	147 g [5.2 oz]
75-150PF [36FF]	152.9 [6.00]	25.4 [1.00]	18.3 [.72]	76.2 [3.00]	38.1 [1.50]	114.3 [4.50]	201 g [7.1 oz]

Dimensions shown "mm [inch]"

## FF/PF Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
40-75PF [153FF]	6.8 kg [15 lb]	2.3 kg [5 lb]	8.2 kg [18 lb]
50-100PF [24FF]	8.2 kg [18 lb]	2.7 kg [6 lb]	19.1 kg [42 lb]
60-125PF [255FF]	20.4 [45 lb]	3.2 kg [7 lb]	25 kg [55 lb]
75-150PF [36FF]	24.9 [55 lb]	4.1 kg [9 lb]	32.7 kg [72 lb]

Holding capacities shown "N [lbf]"

## FF/PF Oval FlatFoot Vacuum Cups Ordering Information

### Imperial

- 1.50" x 3.00" ..... CPI-153FF-(M)-(DR)
- 2.00" x 4.00" ..... CPI-24FF-(M)-(DR)
- 2.50" x 5.00" ..... CPI-255FF-(M)-(DR)
- 3.00" x 6.00" ..... CPI-36FF-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available



### Metric

- 40 x 75mm ..... CPI-40-75PF-(M)-(DR)
- 50 x 100mm ..... CPI-50-100PF-(M)-(DR)
- 60 x 125mm ..... CPI-60-125PF-(M)-(DR)
- 75 x 150mm ..... CPI-75-150PF-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available



# VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## DD/DM Oval Deepdish

### Specifications:

#### Temperature:

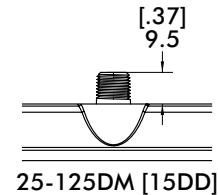
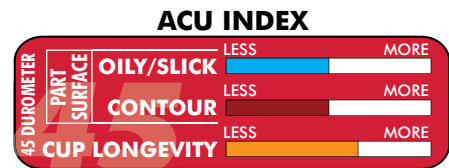
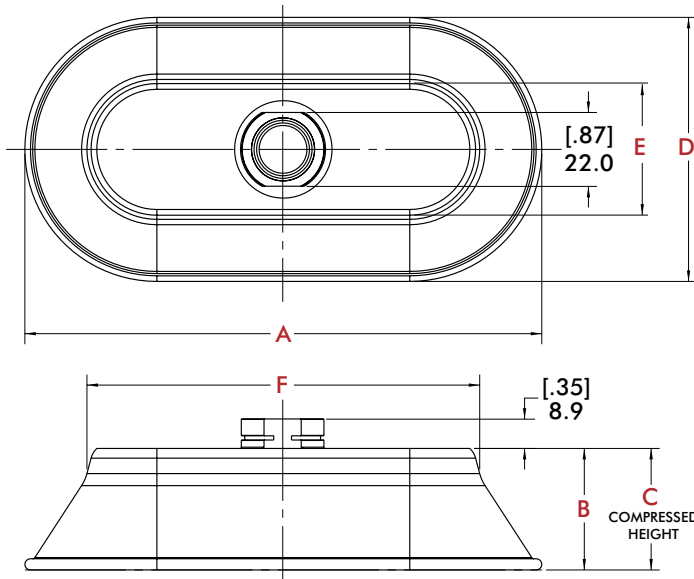
15-59 Sec: -20° to 250° F [-29° to 121° C]

1-5 min: 15° to 180° F [-9° to 82° C]

#### Material: Nitrile

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



### DD/DM Oval Deepdish

Model	A	B	C	D	E	F	Weight
25-125DM [15DD]	128.7 [5.06]	17.1 [.67]	8.7 [.34]	27.0 [1.06]	12.9 [.51]	114.5 [4.51]	35 g [1.2 oz]
75-150DM [36DD]	155.8 [6.13]	36.7 [1.44]	16.51 [.65]	79.6 [3.13]	39.7 [1.56]	118.4 [4.65]	201 g [7.1 oz]

Dimensions shown "mm [inch]"

### DD/DM Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
25-125DM [15DD]	10.0 kg [22 lb]	3.2 kg [7 lb]	15.9 kg [35 lb]
75-150DM [36DD]	24.9 kg [55 lb]	10.4 kg [23 lb]	63.1 kg [139 lb]

Holding capacities shown "N [lbf]"

### DD/DM Oval Deepdish Vacuum Cups Ordering Information

#### Imperial

1.00" x 5.00" ..... CPI-15DD-(M)-(45)

3.00" x 6.00" ..... CPI-36DD-(M)-(45)

#### Metric

25 x 125mm ..... CPI-25-125DM-(M)-(45)

75 x 150mm ..... CPI-75-150DM-(M)-(45)

(DR) = Durometer



(M) = Mounts Available



(DR) = Durometer



(M) = Mounts Available



# HOT FORMING VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## MFF Round Flat



### Specifications:

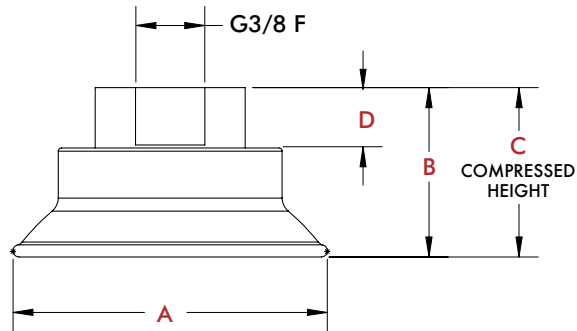
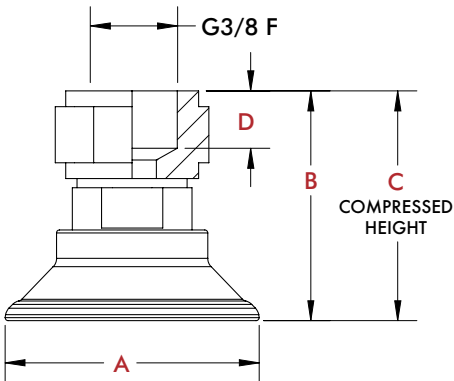
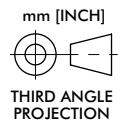
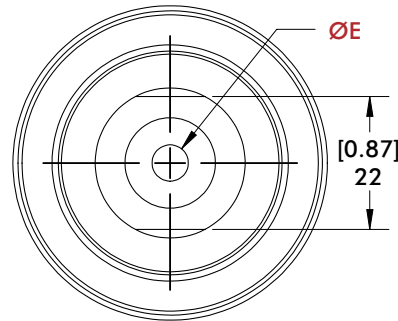
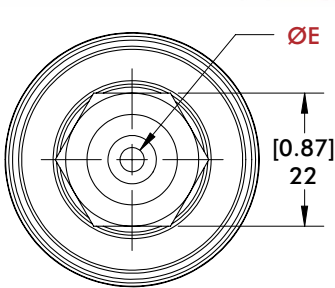
#### Temperature:

Resistant up to 250° C [482° F]  
(sheet metal temperature)

**Material:** Silicone free HT2

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



### MFF Dimensions

Model	A	B	C	D	E	Weight
30MFF	[1.34]	[1.42]	[1.30]	[0.35]	[0.16]	[1.64 oz]
	34	36	33	9	4	46.5 g
40MFF	[1.81]	[1.50]	[1.34]	[0.35]	[0.16]	[1.77 oz]
	46	38	34	9	4	50.1 g
50MFF	[2.20]	[1.10]	[0.91]	[0.59]	[0.24]	[1.35 oz]
	56	28	23	15	6	38.2 g
60MFF	[2.64]	[1.22]	[0.98]	[0.59]	[0.24]	[0.95 oz]
	67	31	25	15	6	27 g

Dimensions shown "mm [inch]"

### MFF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
30MFF	[8.5]	[6.7]	[6.3]
	38	30	28
40MFF	[15.5]	[11.7]	[11.2]
	69	52	50
50MFF	[22.5]	[18.0]	[17.1]
	100	80	76
60MFF	[33.7]	[23.6]	[19.1]
	150	105	85

Holding capacities shown "N [lbf]"

### MFF Round Flat Ordering Information

#### Metric

Ø30mm	CPI-30MFF-B-HT
Ø40mm	CPI-40MFF-B-HT
Ø50mm	CPI-50MFF-B-HT
Ø60mm	CPI-60MFF-B-HT

# HOT FORMING VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## Specifications:

### Temperature:

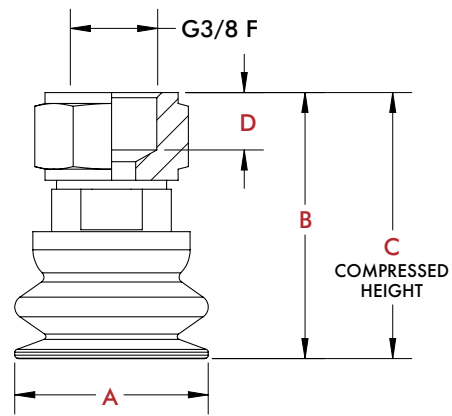
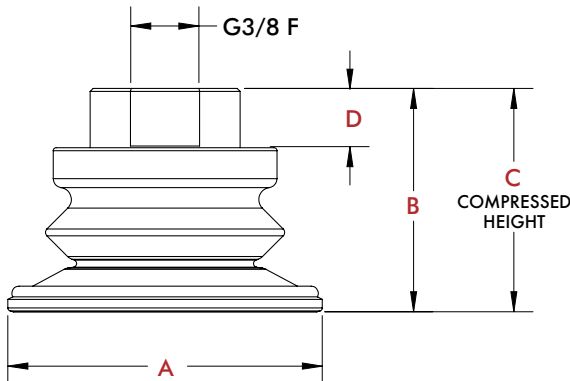
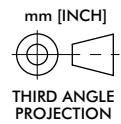
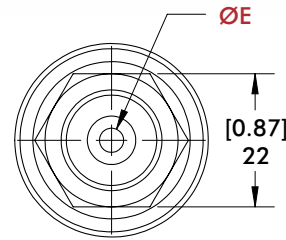
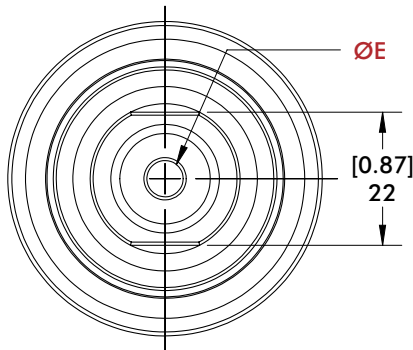
Resistant up to 250° C [482° F]  
(sheet metal temperature)

Material: Silicone free HT2

### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol

## MTC Round Bellows



### MTC Dimensions

Model	A	B	C	D	E	Weight
22MTC	[0.87] 22	[1.61] 41	[1.39] 35.2	[0.35] 9.5	[0.14] 3.5	[1.54 oz] 43.6 g
30MTC	[1.34] 34	[1.73] 44	[1.38] 35	[0.35] 9	[0.16] 4	[1.74 oz] 49.3 g
40MTC	[1.77] 45	[1.73] 44	[1.34] 34	[0.35] 9	[0.16] 4	[1.79 oz] 50.8 g
50MTC	[2.20] 56	[1.46] 37	[1.00] 25.5	[0.59] 15	[0.24] 6	[1.40 oz] 39.6 g
60MTC	[2.64] 67	[1.63] 41.5	[1.06] 27	[0.59] 15	[0.24] 6	[1.83 oz] 51.8 g

Dimensions shown "mm [inch]"

### MTC Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
22MTC	[3.6] 16	[4.0] 18	[1.3] 6
30MTC	[4.9] 22	[6.7] 30	[2.9] 13
40MTC	[8.5] 38	[8.1] 36	[7.4] 33
50MTC	[11.9] 53	[12.4] 55	[11.7] 52
60MTC	[18.4] 82	[18.4] 82	[17.3] 77

Holding capacities shown "N [lbf]"

## MTC Round Bellows Ordering Information

### Metric

Ø22mm .....	CPI-22MTC-B-HT
Ø30mm .....	CPI-30MTC-B-HT
Ø40mm .....	CPI-40MTC-B-HT
Ø50mm .....	CPI-50MTC-B-HT
Ø60mm .....	CPI-60MTC-B-HT

# HOT FORMING VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## MFF Oval Flat



### Specifications:

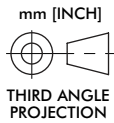
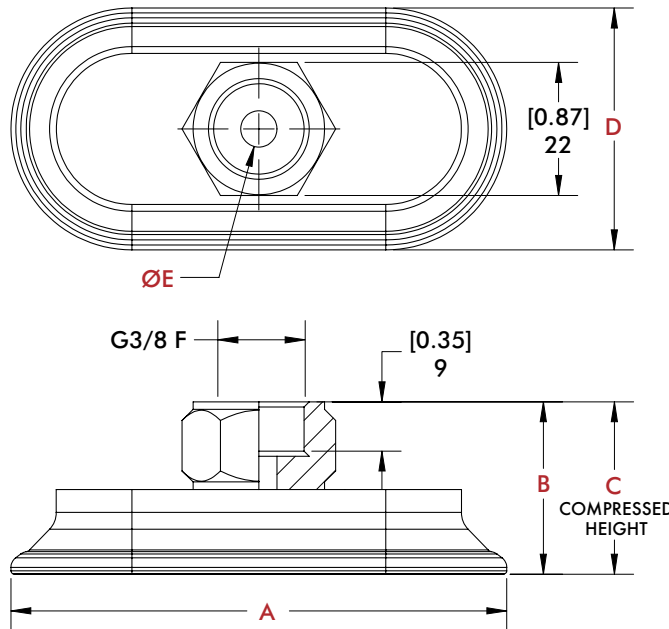
#### Temperature:

Resistant up to 250° C [482° F]  
(sheet metal temperature)

**Material:** Silicone free HT2

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



### MFF Dimensions

Model	A	B	C	D	E	Weight
<b>6023MFF</b>	[2.52] 64	[1.02] 26	[0.91] 23	[0.98] 25	[0.24] 6	[1.57 oz] 44.6 g
<b>9030MFF</b>	[3.70] 94	[1.06] 27	[0.94] 24	[1.34] 34	[0.24] 6	[2.42 oz] 68.5 g
<b>8040MFF</b>	[3.35] 85	[1.10] 28	[0.94] 24	[1.69] 43	[0.24] 6	[2.30 oz] 65.1 g
<b>10050MFF</b>	[4.17] 106	[1.22] 31	[1.02] 26	[2.13] 54	[0.31] 8	[3.68 oz] 104.2 g

Dimensions shown "mm [inch]"

### MFF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
<b>6023MFF</b>	[12.8] 57	[8.3] 37	[7.4] 33
<b>9030MFF</b>	[27.4] 122	[21.6] 96	[14.4] 64
<b>8040MFF</b>	[31.5] 140	[24.7] 110	[22.5] 100
<b>10050MFF</b>	[48.8] 217	[40.7] 181	[27.2] 121

Holding capacities shown "N [lbf]"

### MFF Oval Flat Ordering Information

#### Metric

- Ø60x23mm ..... CPI-6023MFF-B-HT
- Ø90x30mm ..... CPI-9030MFF-B-HT
- Ø80x40mm ..... CPI-8040MFF-B-HT
- Ø100x50mm ..... CPI-10050MFF-B-HT



# HOT FORMING VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## MAC Oval Bellows

### Specifications:

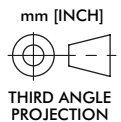
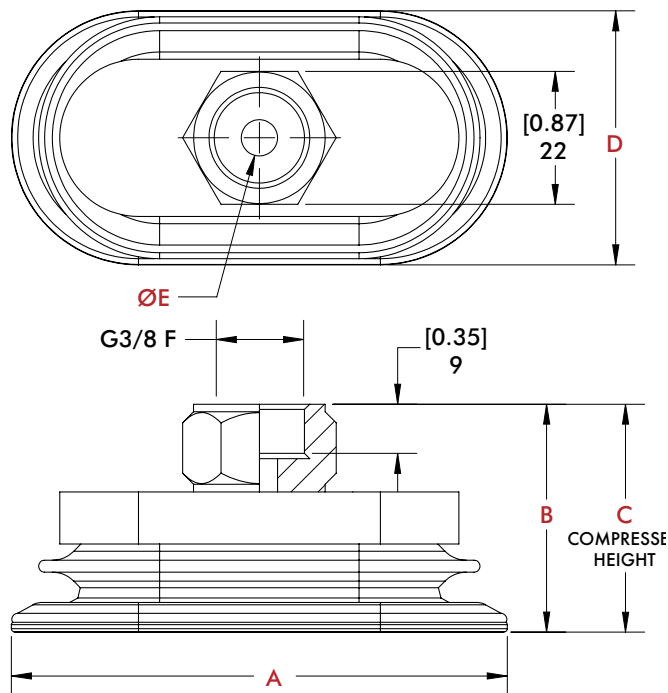
#### Temperature:

Resistant up to 250° C [482° F]  
(sheet metal temperature)

**Material:** Silicone free HT2

#### Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



### MAC Dimensions

Model	A	B	C	D	E	Weight
6030MAC	[2.48]	[1.38]	[1.10]	[1.30]	[0.24]	[2.32 oz]
	63	35	28	33	6	65.9 g
8040MAC	[3.27]	[1.48]	[1.13]	[1.69]	[0.24]	[2.78 oz]
	83	37.7	28.7	43	6	78.7 g

Dimensions shown "mm [inch]"

### MAC Holding Capacity @ -0.6 bar vacuum

Model	Vert. Lift	Horz. Dry	Horz. Wet
6030MAC	[8.5]	[12.8]	[11.7]
	38	57	52
8040MAC	[14.6]	[22.5]	[21.3]
	65	100	95

Holding capacities shown "N [lbf]"

## MAC Oval Bellows Ordering Information

### Metric

Ø60x30mm ..... CPI-6030MAC-B-HT

Ø80x40mm ..... CPI-8040MAC-B-HT

# MICRO SERIES VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## VC-F Round Flat



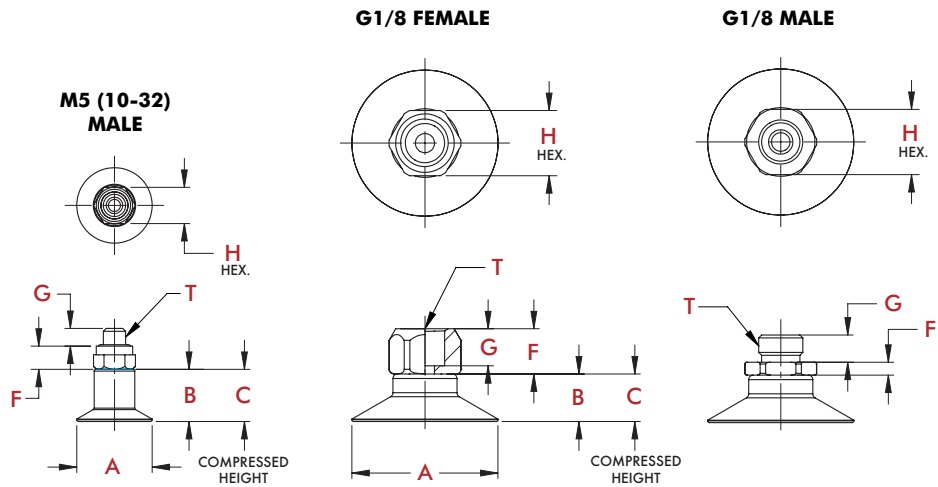
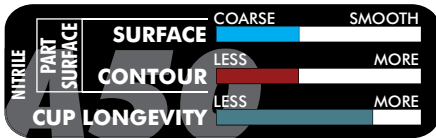
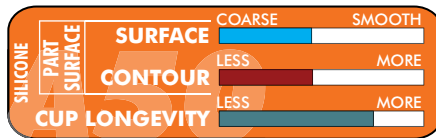
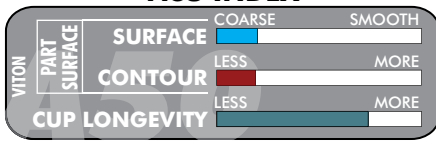
### Applications:

- Relatively flat surfaces.
- Dry to moderate oily/slippery surfaces.
- Low Compression distances.
- Higher precision applications.

### Specifications:

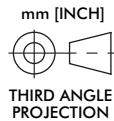
**Material Operating Temperature:**  
**Viton:** -40° to 450° F  
 [-40° to 232° C]  
**Silicone:** -100° to 400° F  
 [-73° to 204.4° C]  
**Nitrile:** -40° to 275° F  
 [-40° to 135° C]  
**Durometer:** A50

### ACU INDEX



(DR) = Durometer/Material

- V** Viton Hi-Temp Applications where silicon is not allowed
- S** Silicone Extremely hot or cold environments
- N** Nitrile General Purpose



### VC-F Micro Fitting Threads

Thread (T)	(F)	(G)	(H)
10M (M5) (10-32 MALE)	5.1 [.20]	4.1 [.16]	7.9 [.31]
18M (G1/8) (MALE)	2.8 [.11]	5.8 [.23]	14.2 [.56]
18F (G1/8) (FEMALE)	9.9 [.39]	6.4 [.25]	14.2 [.56]

### VC-F Dimensions

Model	A	B	C	CUP WT	LOAD
VC-F15	16.5 [.65]	11.4 [.45]	10.4 [.41]	3.4 g [.11 oz]	.85 kg [1.88 lb]
VC-F20	22.1 [.87]	8.6 [.34]	7.1 [.28]	7.8 g [.25 oz]	1.47 kg [3.25 lb]
VC-F30	32.0 [1.26]	10.4 [.41]	8.1 [.32]	6.2 g [.20 oz]	2.55 kg [5.63 lb]
VC-F40	42.2 [1.66]	14.0 [.55]	11.4 [.45]	11.8 g [.38 oz]	4.08 kg [9.00 lb]
VC-F50	53.1 [2.08]	17.5 [.69]	14.5 [.57]	19.6 g [.63 oz]	7.54 kg [16.6 lb]

### VC-F Round Flag Ordering Information

- Ø15mm..... VC-F15(DR)-(M)
- Ø20mm..... VC-F20(DR)-(M)
- Ø30mm..... VC-F30(DR)-(M)
- Ø40mm..... VC-F40(DR)-(M)
- Ø50mm..... VC-F50(DR)-(M)

(DR) = Durometer/Material

(M) = Mounts Available

- V** **S** **N**

- 10M** **18M** **18F**

Not Available in Ø15 and Ø20mm

Only Available in Ø15 and Ø20mm

# MICRO SERIES VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## VC-B Micro Series Round Bellows

### Applications:

- Moderately flat surfaces.
- Best performance on dry surfaces.
- Moderate compression distance.
- Bellows allows for minor misalignments.

### Specifications:

Material Operating Temperature:

Viton: -40° to 450° F

[-40° to 232° C]

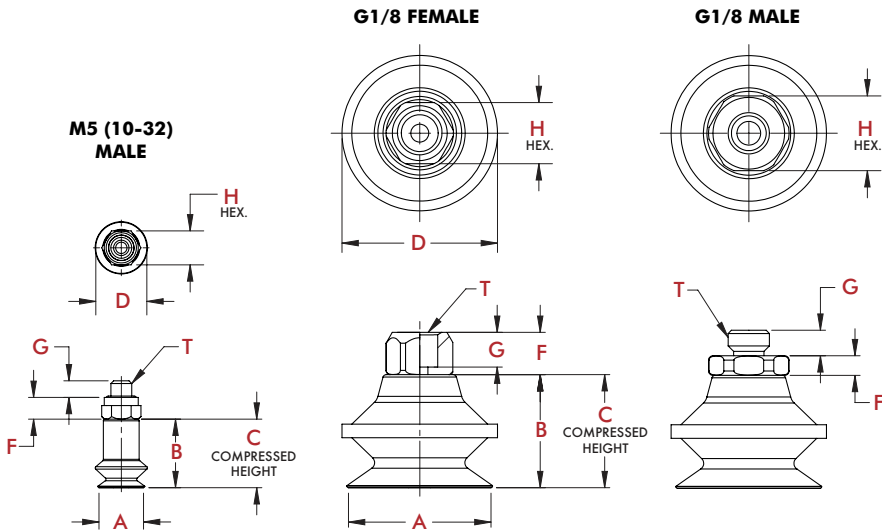
Silicone: -100° to 400° F

[-73° to 204.4° C]

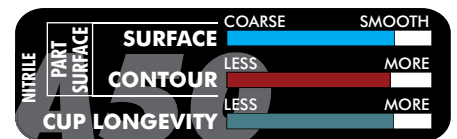
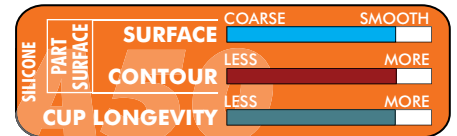
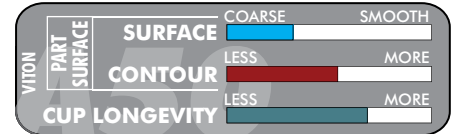
Nitrile: -40° to 275° F

[-40° to 135° C]

Durometer: A50



### ACU INDEX



### VC-B Micro Fitting Threads

Thread (T)	(F)	(G)	(H)
10M (M5) (10-32 MALE)	5.1 [.20]	4.1 [.16]	7.9 [.31]
18M (G1/8) (MALE)	2.8 [.11]	5.8 [.23]	14.2 [.56]
18F (G1/8) (FEMALE)	9.9 [.39]	6.4 [.25]	14.2 [.56]

(DR) = Durometer/Material

**V** Viton Hi-Temp Applications where silicon is not allowed

**S** Silicon Extremely hot or cold environments

**N** Nitrile General Purpose

### VC-B Dimensions

Model	A	B	C	D	Cup Wt	Load
VC-B05	5.6 [.22]	9.1 [.36]	7.6 [.30]	6.1 [.24]	5.8 g [.09 oz]	.04 kg [.10 lb]
VC-B10	10.9 [.43]	16.0 [.63]	11.4 [.45]	12.2 [.48]	3.4 g [.11 oz]	.39 kg [.87 lb]
VC-B15	16.0 [.63]	19.8 [.78]	13.2 [.52]	17.5 [.69]	3.7 g [.12 oz]	.57 kg [1.25 lb]
VC-B20	22.4 [.88]	17.5 [.69]	7.6 [.30]	23.9 [.94]	6.2 g [.20 oz]	1.02 kg [2.25 lb]
VC-B30	34.0 [1.34]	26.4 [1.04]	11.4 [.45]	36.3 [1.43]	11.5 g [.37 oz]	2.21 kg [4.88 lb]
VC-B40	42.9 [1.69]	27.4 [1.08]	12.4 [.49]	46.2 [1.82]	18.7 g [.60 oz]	3.97 kg [8.75 lb]
VC-B50	52.8 [2.08]	34.5 [1.36]	14.5 [.57]	59.4 [2.34]	30.5 g [.98 oz]	6.63 kg [14.6 lb]

### VC-B Micro Series Round Multi-Bellows Ordering Information

- Ø05mm..... VC-B05(DR)-(M)
- Ø10mm..... VC-B10(DR)-(M)
- Ø15mm..... VC-B15(DR)-(M)
- Ø20mm..... VC-B20(DR)-(M)
- Ø30mm..... VC-B30(DR)-(M)
- Ø40mm..... VC-B40(DR)-(M)
- Ø50mm..... VC-B50(DR)-(M)

(DR) = Durometer/Material

(M) = Mounts Available

**V** **S** **N**

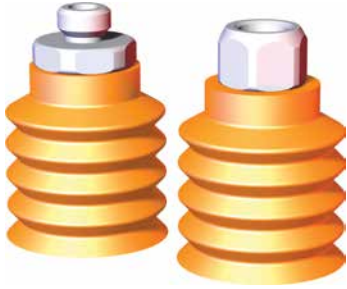
**10M** **18M** **18F**

Only Available in Ø5, Ø10, Ø15, Ø20mm

# MICRO SERIES VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

## VC-BM Micro Series Round Multi-Bellows



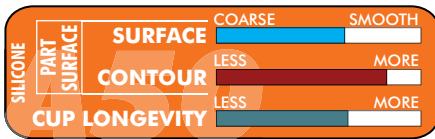
### Applications:

- Angled/curved/bumpy surfaces.
- Best performance on dry surfaces.
- Higher compression distance. (Reach in Box)
- Bellows allow for minor
- Provides Partial extraction.

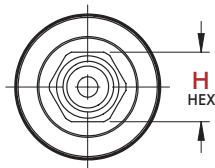
### Specifications:

**Material Operating Temperature:**  
**Viton:** -40° to 450° F  
 [-40° to 232° C]  
**Silicone:** -100° to 400° F  
 [-73° to 204.4° C]  
**Nitrile:** -40° to 275° F  
 [-40° to 135° C]  
**Durometer:** A50

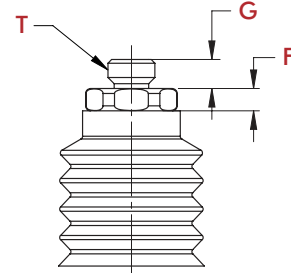
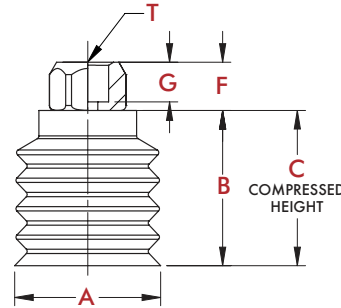
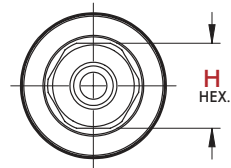
### ACU INDEX



G1/8 FEMALE



G1/8 MALE



(DR) = Durometer/Material

**S** **Silicon** Extremely hot or cold environments

**N** **Nitrile** General Purpose

## VC-BM Micro Fitting Threads

Thread (T)	(F)	(G)	(H)
10M (M5) (10-32 MALE)	5.1 [.20]	4.1 [.16]	7.9 [.31]
18M (G1/8) (MALE)	2.8 [.11]	5.8 [.23]	14.2 [.56]
18F (G1/8) (FEMALE)	9.9 [.39]	6.4 [.25]	14.2 [.56]

## VC-BM Dimensions

Model	A	B	C	Cup Wt	Load
VC-BM20	20.1 [.79]	21.9 [.86]	8.9 [.35]	5.3 g [17 oz]	.68 kg [1.50 lb]
VC-BM30	30.0 [1.18]	30.7 [1.21]	10.7 [.42]	10.3 g [.33 oz]	1.64 kg [3.63 lb]
VC-BM40	39.8 [1.57]	40.9 [1.61]	12.9 [.51]	19.6 g [.63 oz]	2.21 kg [4.88 lb]
VC-BM50	50.0 [1.97]	51.1 [2.01]	23.1 [.91]	32.7 g [1.05 oz]	4.37 kg [9.63 lb]

## VC-BM Micro Series Round Multi-Bellows Ordering Information

- Ø20mm..... VC-BM20(DR)-(M)
- Ø30mm..... VC-BM30(DR)-(M)
- Ø40mm..... VC-BM40(DR)-(M)
- Ø50mm..... VC-BM50(DR)-(M)

(DR) = Durometer/Material

(M) = Mounts Available



Only Available in Ø20mm

### TPLP Mag-Lift Part Lifting Magnets

#### Features:

- Provides instantaneous pick up and release without electricity.
- Maintains positive hold, even if air pressure is lost.
- Supplied with urethane pad which softens the impact of the magnet and avoids marring or damage to delicate surfaces.

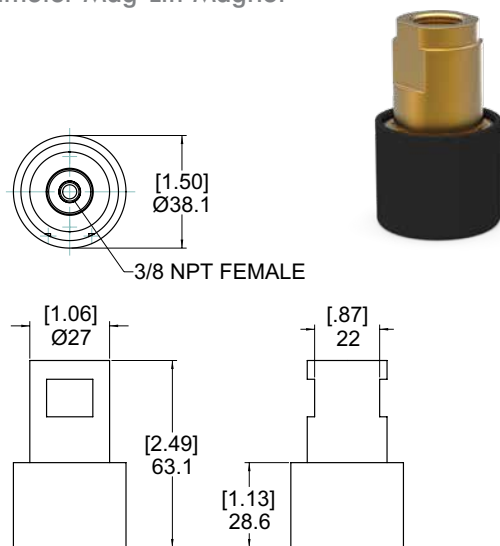
#### Benefits:

- NPT mount allows retrofit to existing assemblies.

#### Specifications:

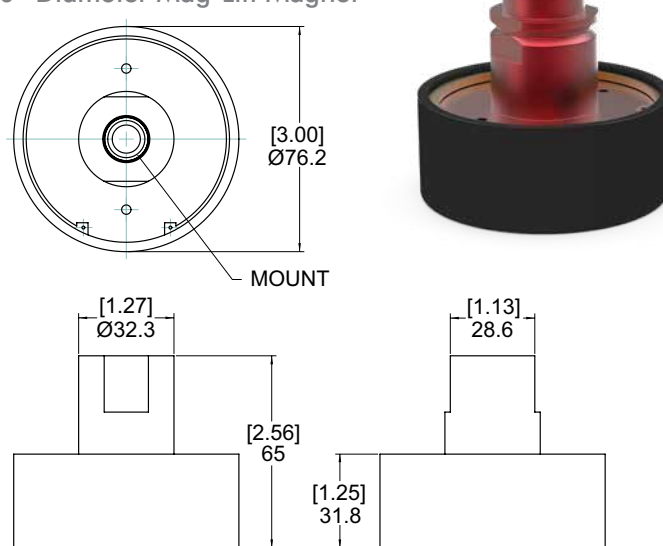
**Recommended Operating Pressure:**  
2.4 bar [35 psi]  
**Port:** 3/8" NPT Compressed Air Port  
**Material:** Machined, Anodized Aluminum, Urethane Pad (50 durometer - low skid)

#### 1.50" Diameter Mag-Lift Magnet



Model	Pad Only
CPI-TPLP15RB	RB15-CPI

#### 3.00" Diameter Mag-Lift Magnet



Mount	Model	Pad Only
3/8 NPT G3/8	CPI-TPLP50373 CPI-TPLP30BS	RB30-CPI

**Note:** The minimum air pressure required for the Mag-Lift to release parts is 25 psi. The suggested air pressure for normal operation is 35 psi. If part do not release immediately, increase the air pressure in 5 psi increments until the part releases. Do not exceed 60 psi. Air pressure should be measured at the inlet of the Mag-Lift to ensure effective operation.

#### TPLP 1.50" Diameter Mag-Lift Magnet - CPI-TPLP15RB - Capacities

Gage Of Steel (Ferrous Only)	26 GA (0.018")	22 GA (0.030")	16 GA (0.050")	12 GA (0.100")	3/16" (0.187")	Weight
With Pad	3.18 kg [7.0 lb]	4.08 kg [9.0 lb]	4.54 kg [10.0 lb]	4.54 kg [10.0 lb]	4.54 kg [10.0 lb]	136g [5 oz]
Without Pad	4.54 kg [10.0 lb]	6.35 kg [14.0 lb]	7.26 kg [16.0 lb]	[7.71 kg] 17.0 lb	7.71 kg [17.0 lb]	136g [5 oz]

#### TPLP 3.00" Diameter Mag-Lift Magnet - CPI-TPLP50373 - Capacities

Gage Of Steel (Ferrous Only)	26 GA (0.018")	22 GA (0.030")	16 GA (0.050")	12 GA (0.100")	3/16" (0.187")	Weight
With Pad	8.62 kg [19.0 lb]	13.61 kg [30.0 lb]	19.96 kg [44.0 lb]	19.96 kg [44.0 lb]	20.87 kg [46.0 lb]	363g [13 oz]
Without Pad	9.53 kg [21.0 lb]	14.97 kg [33.0 lb]	26.76 kg [59.0 lb]	27.22 kg [60.0 lb]	29.03 kg [64.0 lb]	363g [13 oz]

**Note:** Capacity values are stated at approximately 30% of the maximum holding value. Use this value for determining the quantity of Mag-Lift magnets required for an application.

# ECOcup SERIES

Vacuum Products | Product Overview | Technical Specifications | Dimensions

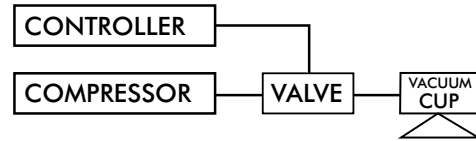
## EcoCup™ creates vacuum without AIR!

Great for pick-and-place applications of flat, rigid, non-porous parts including: plastic, glass, solar panels, and electronics, as well as other consumer goods with smooth, flat surfaces.

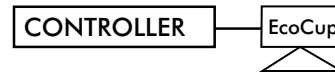
The EcoCup™ features:

- Light-switch operation
- Ultra-fast actuation
- Noise-free operation
- Easy installation and setup
- Reduced maintenance costs
- Easy optional mounting to Scara robots
- Eliminated risk of air-borne contaminants

The **OLD** way  
with a Typical Pneumatic Setup



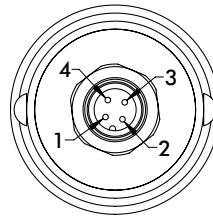
The **NEW** way  
Using the new EcoCup™  
**No fittings, no valves, no hoses, no compressor, and absolutely no AIR!**



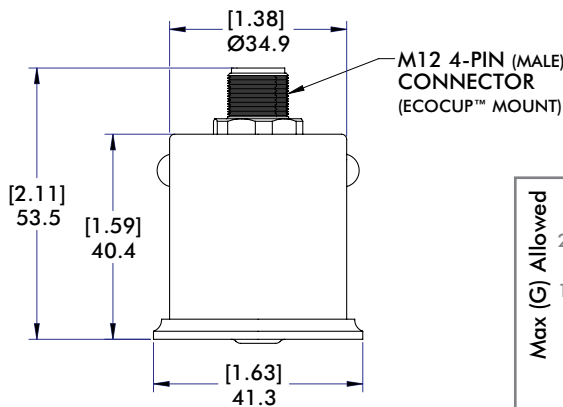
### EcoCup™ EC40 Electric Vacuum Cup Assembly



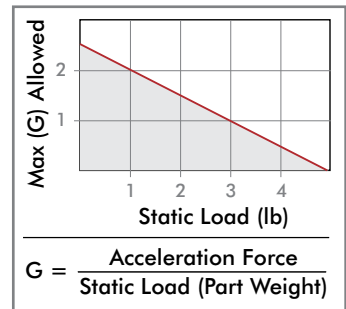
US Patent #9108319



M12 4-PIN (MALE)  
CONNECTOR FACE VIEW  
1: NOT USED  
2: NOT USED  
3: -0 VDC  
4: +24 VDC



Specifications	VC-EC40-45N
Actuation Time	25 ms
Temperature Range	5° ~ 60°C [41° ~ 140°F]
Duty Cycle	50% (½ On, ½ Off)
Voltage	24 VDC
Current	0.5 Amp
Weight	0.12 kg [0.25 lb]
Cup Material	45 Durometer Nitrile



### EcoCup™ EC40 Electric Vacuum Cup - Operation

Holding Capacity	VC-EC40-45N
Recommended Load	<0.45kg [1.0 lb]

Loads from 0.45kg [1.0 lb] up to 1.81kg [4.0 lb] max. may be used with longer movement times. (See chart in drawing area for greater detail).

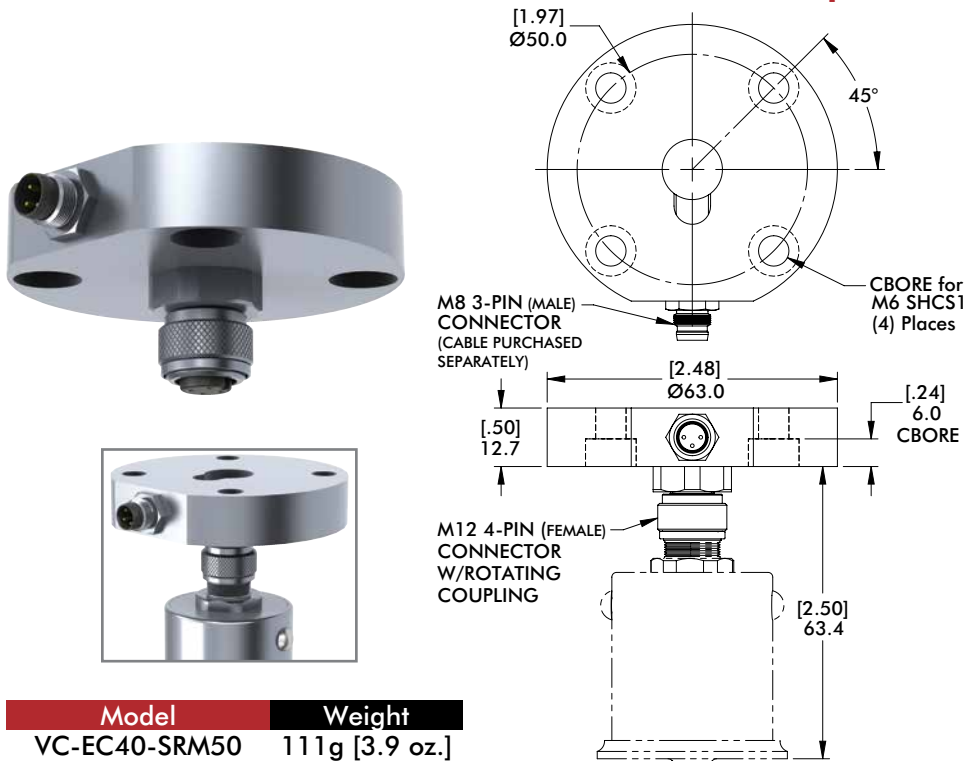
#### Operating Instructions:

1. Set cup on smooth, flat surface of part.
2. Apply 24VDC to Pins 3 and 4 on M12 connector. (Center of cup lifts, creating vacuum)
3. Release voltage and part is released.

# ECOcup SERIES

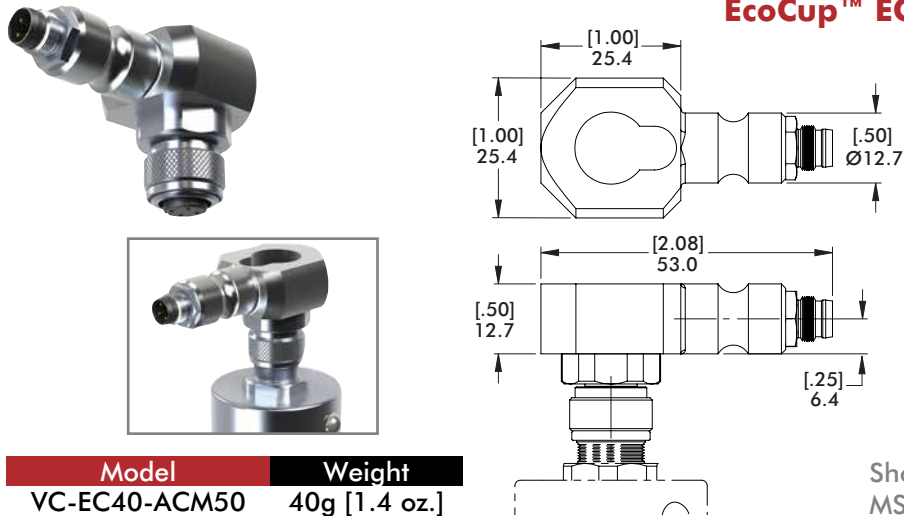
Vacuum Products | Dimensions | Technical Specifications

## EcoCup™ EC40 Electric Vacuum Cup Assembly



Model	Weight
VC-EC40-SRM50	111g [3.9 oz.]

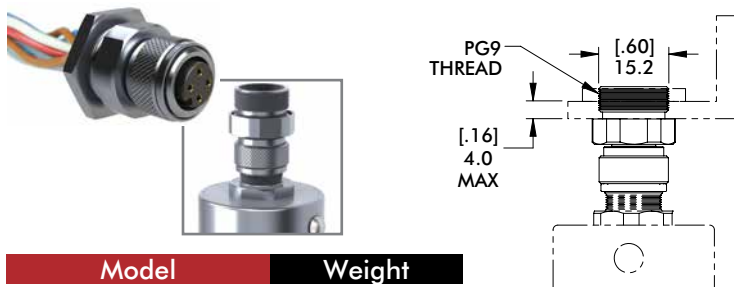
## EcoCup™ EC40 Optional Apple Core Mounting



Model	Weight
VC-EC40-ACM50	40g [1.4 oz.]

Shown with DESTACO MSA Series Swivel Arm

## EcoCup™ EC40 M12 4-Pin Connector with Rotating Coupling (Contact DESTACO for Custom Solutions)



Model	Weight
Turck #FKM 4.4-0.5	14g [0.5 oz.]

Shown with custom plate for array mounting



# ARV AND VSA SERIES VENTURIES

## Vacuum Products | Features and Specifications

### ARV® Series Auto-Release Venturi Cup Mount

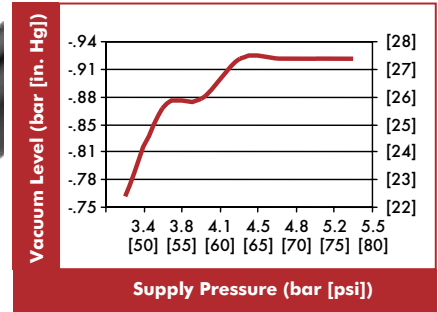
#### Requiring (1) air line, (1) valve:

Offers integrated automatic quick panel release and exhaust silencer in one part. Mounting options include right or left hand apple core mounting or no apple core mount for use with DESTACO's spring cup mounts.

The ARV® Series is also available in a block style for remote mounting and each mount can be ordered with Imperial or Metric ports.



#### ARV® Performance:



#### Specifications @ 4 bar [60psi]:

Speed to Vacuum: 0.2-0.3 seconds

Speed to Release: 0.02 seconds

Air Consumption:

Vacuum: 40 l/m [1.4 scfm]

Blow-off: 0

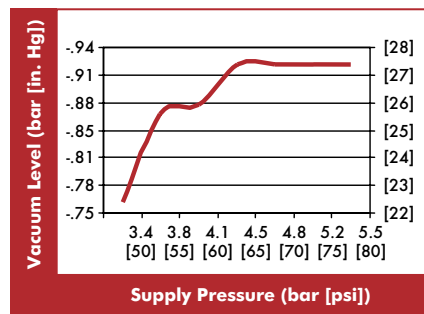
Noise Level (at one meter): 68dBA

Material: Aluminum

### VSA Series Venturi Cup Mount



#### VSA Performance:



#### Specifications @ 4 bar [60psi]:

Speed to Vacuum: .36 seconds

Speed to Release: 0.08 seconds

Air Consumption:

Vacuum: 40 l/m [1.4 scfm]

Blow-off: 2.6 liters [0.09 ft<sup>3</sup>]

(156 l/m [5.5scfm] @ 1 sec. duration)

Noise Level (At one meter):

Inline to exhaust: 76dBA

Inline to exhaust with Silencer: 68dBA

Material: Aluminum

Blow-off typically requires two air lines and multiple valves. The VSA series offers a low-profile version as shown. Additional options include silencer and sensor port options. Mounting threads can also be ordered in Imperial or Metric ports.

We also offers PA Series cup mounts.



# ARV SERIES VENTURIES

Vacuum Products | Dimensions | Ordering Information



Left Hand Apple Core  
CPI-VSA-ARVL-750-(X)  
114g [0.25lb]



Right Hand Apple Core  
CPI-VSA-ARVR-750-(X)  
114g [0.25lb]



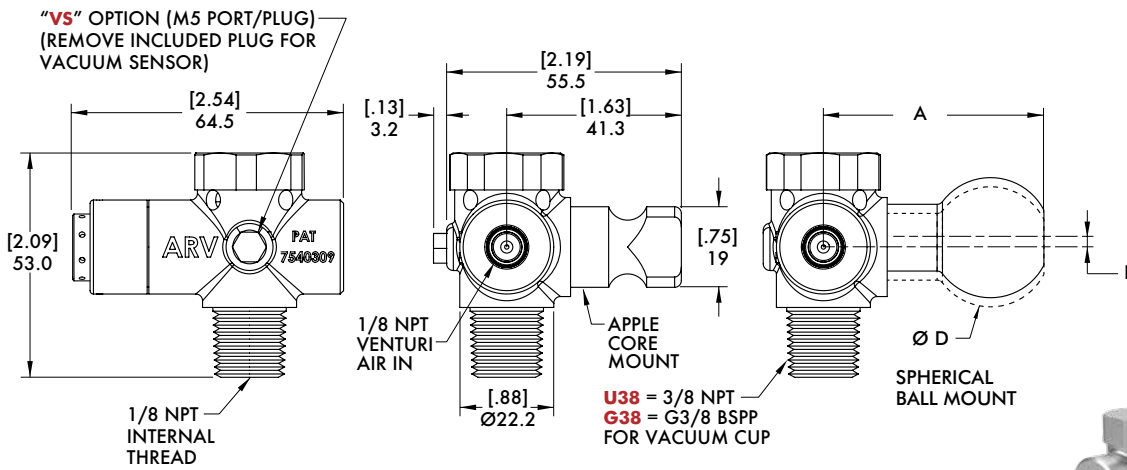
Without Apple Core  
CPI-VSA-ARV-000-(X)  
86g [0.19lb]



RH/LH Spherical Ball  
CPI-VSA-ARV(R/L)-B112-(X)  
CPI-VSA-ARV(R/L)-B32-(X)



(X)  
Mounting  
Thread  
U38 = 3/8"  
NPT Male  
G38 = 3/8"  
G Male



Vacuum Sensor  
Option  
Add "-VS" to  
end of "ARV"  
order code

US Patents #7,540,309 - 7,681,603 - 7,950,422

Model Number	A	B	ØD	Weight
CPI-VSA-ARV(R/L)-B112-(X)	[1.85] 47.1	0	[1.13] 28.5	[0.28 lb] 126g
CPI-VSA-ARV(R/L)-B32-(X)	[1.93] 49	[0.12] 3.2	[1.26] 32	[0.30 lb] 134g



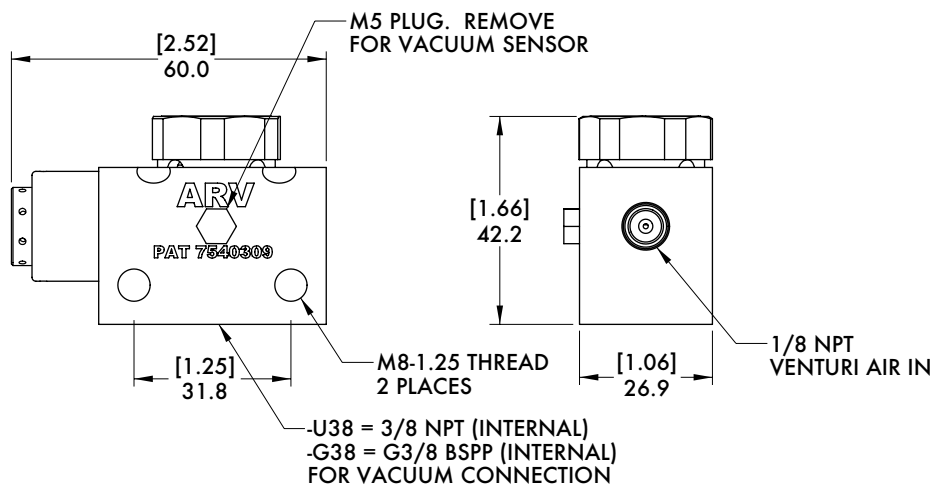
**B112-01**  
28.58mm ball only  
**B112-32-01**  
32mm ball only

## Venturi Style Vacuum Generator Cup Mounts ARV® Block Style Dimensions and Ordering Information



Block Style  
CPI-VSA-ARVR-312-(X)  
(X) = Vacuum Port Thread  
U38 = 3/8" NPT Female  
G38 = 3/8" G Female

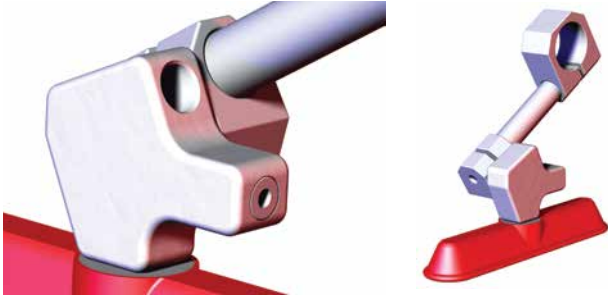
**Weight**  
104g [0.23lb]



# MICRO TOOLING VENTURI

Vacuum Products | Dimensions | Technical Specifications

## VSA 500 Series MicroTool Apple Core

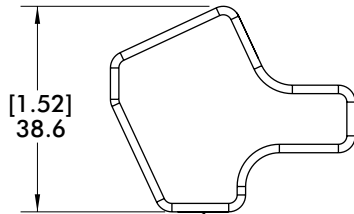
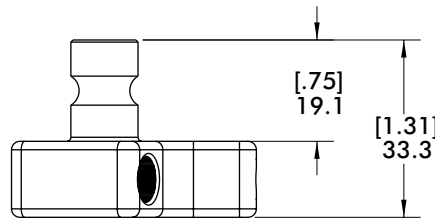


### Features:

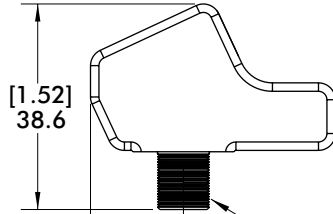
- MicroTool sized venturi.
- 1/8 NPT, 1/8 G Ports.

### Benefits:

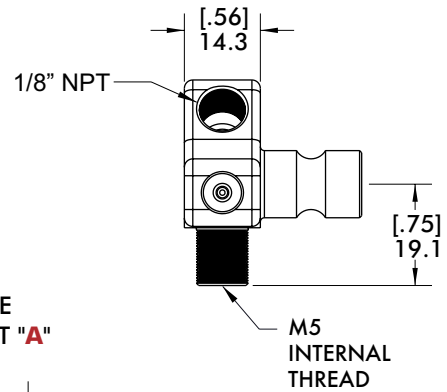
- Small and lightweight.
- Convenient mounts for most small vacuum cups.



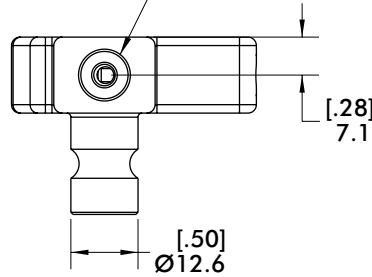
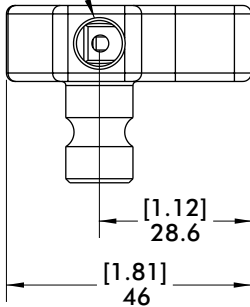
FEMALE  
PORT "A"



MALE  
PORT "A"





M5  
INTERNAL  
THREAD



Weight  
57g [2 oz.]

### 500 Series Venturi MicroTool - CPI-VSA-500-"A"

Description	Port A
 Female 1/8" NPT to Female 1/8" NPT	<b>F18</b>
 Female 1/8" NPT to Male 1/8" NPT	<b>M18</b>

US Patents # 7,540,309 - 7,681,603 - 7,950,422

# VSA SERIES VENTURIES

Vacuum Products | Dimensions | Technical Specifications

## VSA Low-Profile 750/19 Series Apple-Core with Blow-Off

### Features:

- Low profile construction.
- Integrated blow-off.
- Optional vacuum sensing port.
- Optional exhaust silencer.
- Imperial or Metric ports.

### Benefits:

- Lower tool profile to fit in smaller spaces.
- Quick release of panels.
- Vacuum level or part present sensing.
- Quiet operation.



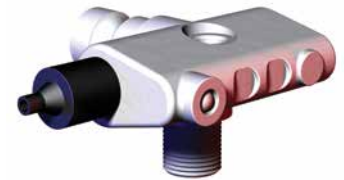
Low-Profile 750/19 w/  
Blow Off No Options  
CPI-VSA-(X)-BO-LP



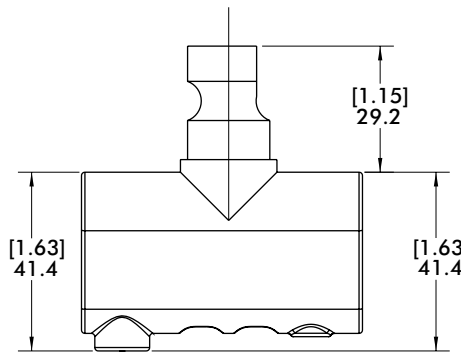
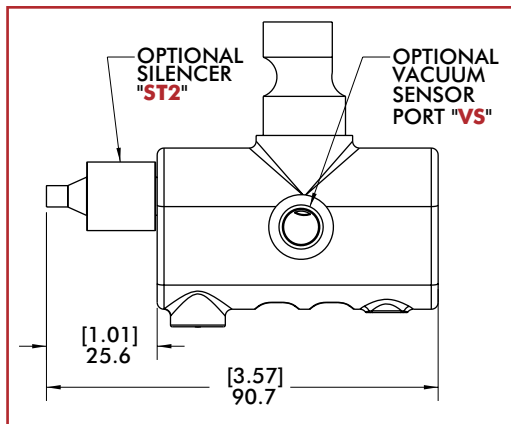
Low-Profile 750/19 with  
Blow Off with Detector Option  
CPI-VSA-(X)-BO-LP-DET



Low-Profile 750/19 with  
Blow Off with "VS" Option  
CPI-VSA-(X)-BO-LP-VS



For Silencer Option;  
add "ST2" to the end  
of order code (as shown).  
CPI-VSA-(X)-BO-LP-VS-ST2

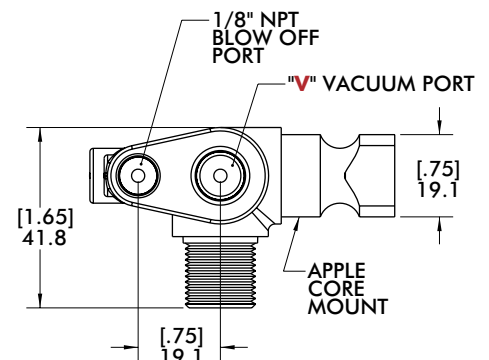
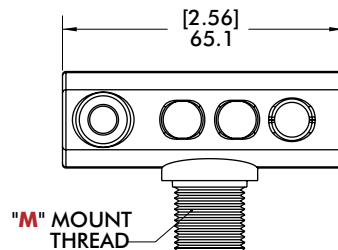
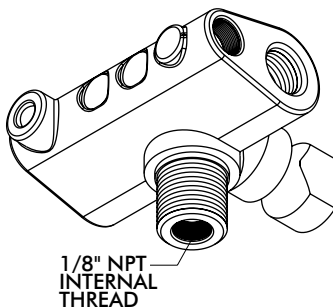


VS/DET Thread

DET = M5  
VS = 1/8 NPT

Weight

170g [6 oz.]



### Low Profile 750/19 Series w/blow-off - CPI-VSA-(X)-BO-LP

Version	Mount Thread "M"	Vacuum Port "V"	(X)
Metric	3/8" G Male	1/4" G	19
Imperial	3/8" NPT Male	1/4" NPT	750

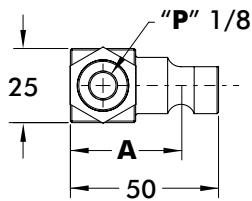
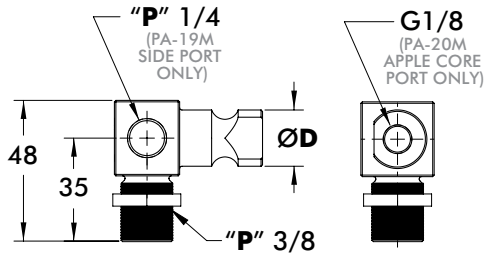
# ACCELERATE® PORT ONLY ADAPTORS

Vacuum Products | Dimensions | Technical Specifications



## PA Series

### Apple Core Mount



PA-19M



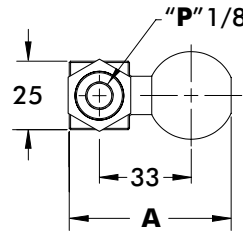
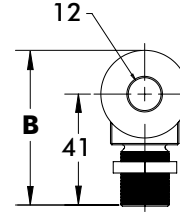
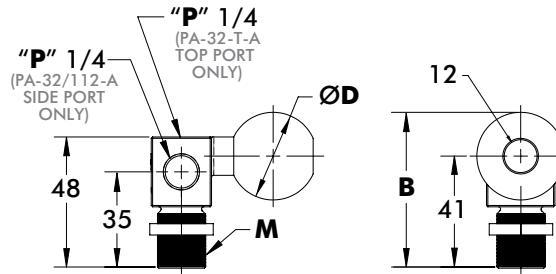
PA-20M

Material: Aluminum  
Load: 150Nm

Weight includes locking nut\*  
and plug (not shown)  
\*Except U38 models

Model Number	A	ØD	P	Weight
PA-19M-G38-A	[1.46] 37	[0.75] 19	G	[0.17 lb] 77g
PA-19M-U38-A			NPT	[0.15 lb] 68g
PA-20M-G38-AC-A	[1.34] 34	[0.79] 20	G	[0.16 lb] 71g

### Ball Mount



PA-B32/B112

PA-B32-G38-T-A

Material: Aluminum  
Load: 150Nm

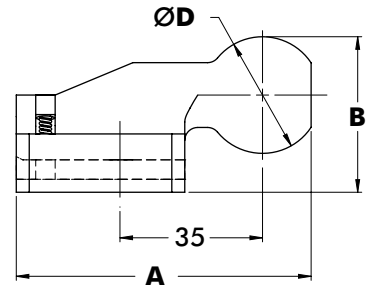
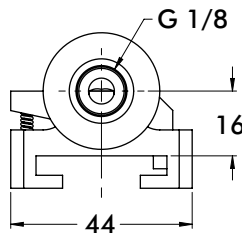
Weight includes locking nut\* and plug  
(not shown) \*Except U38 models

Model Number	A	B	ØD	M	P	Weight
PA-B32-G38-A					G	[0.23 lb] 103g
PA-B32-G38-T-A	[2.32] 59	[2.24] 57	[1.26] 32	G3/8	G	[0.21 lb] 96g
PA-B32-U38-A				3/8 NPT	NPT	[0.21 lb] 94g
PA-B32-G14-A				G1/4	G	[0.21 lb] 95g
PA-B112-G38-A	[2.24] 57	[2.17] 55	[1.12] 28	G3/8	G	[0.20 lb] 89g
PA-B112-U38-A				3/8 NPT	NPT	[0.18 lb] 80g

## PA 28mm - 32mm Ball for C-Mount



Material: Aluminum  
Load: 150Nm

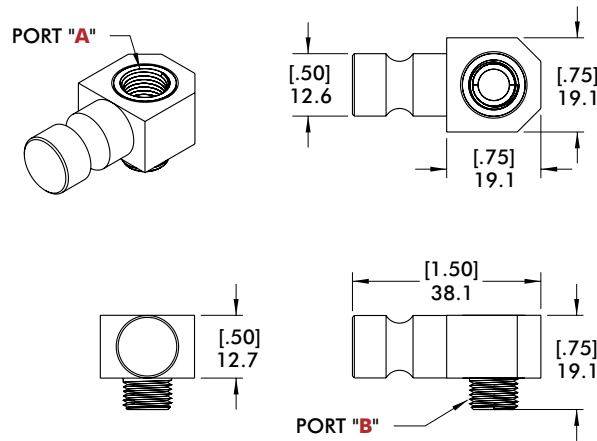


Model Number	A	B	ØD	Weight
CPI-PA-B112-CM	[2.84] 72.1	[1.50] 38.1	[1.13] 28.5	[0.23 lb] 106g
CPI-PA-B32-CM	[2.98] 75.7	[1.69] 42.9	[1.26] 32	[0.27 lb] 122g

# MICRO TOOLING PORT ONLY ADAPTER

Vacuum Products | Dimensions | Technical Specifications

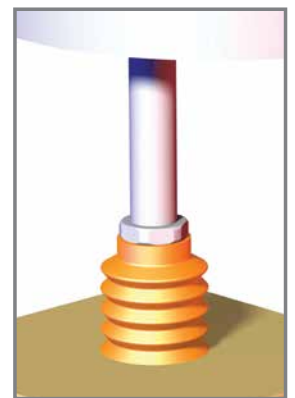
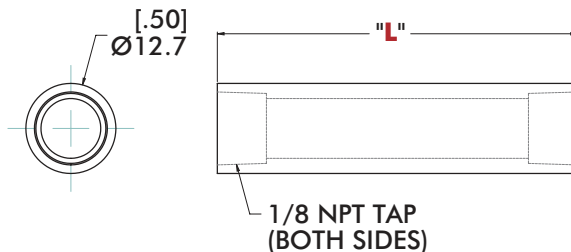
**PA 500 Series**



## CPI-PA-500-"A"- "B" Ordering Information

	Description	A	B	Weight
	Female 1/8" NPT/Female 1/8" NPT	<b>F18</b>	<b>F18</b>	23g [0.8 oz.]
	Female 1/8" G/Female 1/8" G	<b>FG18</b>	<b>FG18</b>	
	Female M5/Female M5	<b>FM5</b>	<b>FM5</b>	
	Female 1/8" NPT/Male 1/8" NPT	<b>F18</b>	<b>M18</b>	
	Female 1/8" G/Male 1/8" G	<b>FG18</b>	<b>MG18</b>	
	Female M5/Male M5	<b>FM5</b>	<b>MM5</b>	

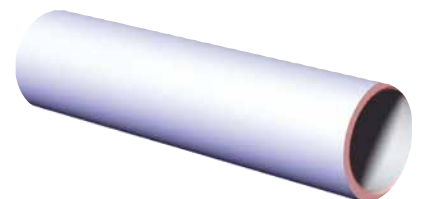
## PAT 1/8 NPT Vacuum Extension



### "L"

Standard Lengths

- 02** = 2.00"
- 03** = 3.00"
- 04** = 4.00"
- 05** = 5.00"
- 06** = 6.00"

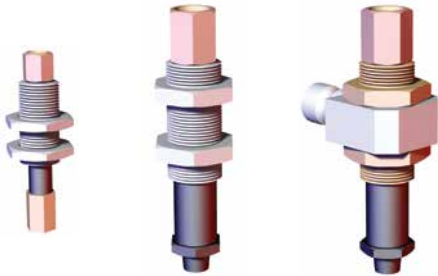


Model Number	Weight
CPI-PAT-50T-"L"-U18	[0.13 lb/ft] 193.0 g/m

# SPRING-LOADED CUP MOUNTS

Vacuum Products | Dimensions | Technical Specifications

## LC Bulk Head Style Micro Series Level Compensators



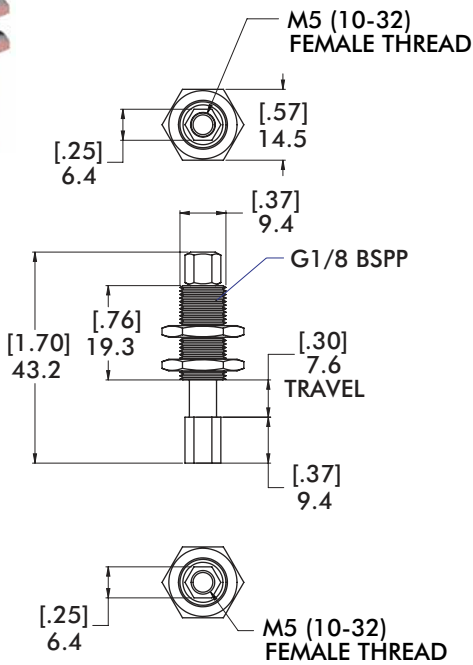
**Specifications:**  
Material: Aluminum

**Features:**

- M5 or G mounting threads and vacuum ports.



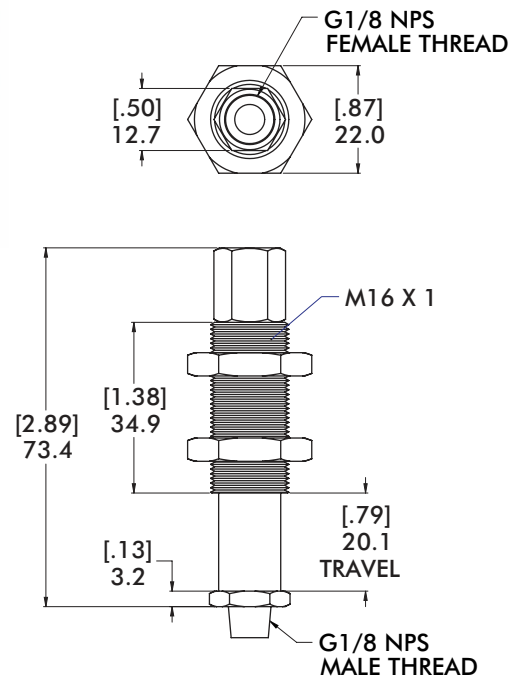
0.30" TRAVEL  
ORDERING INFORMATION  
**CPI-LC10**



**Weight**  
5.7 g [0.2 oz.]



0.75" TRAVEL  
ORDERING INFORMATION  
**CPI-LC18**



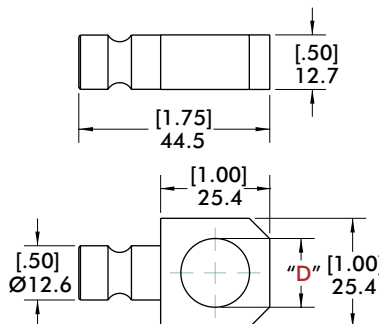
**Weight**  
28.3 g [1.0 oz.]

## LCM Series Mount



**CPI-LCM-10-"D"**

**Weight**  
23 g [0.8 oz.]



**"D" = (Ø) Diameter**  
16 = Ø16mm [.63"]  
10 = Ø10mm [.39"]

# SPRING-LOADED CUP MOUNTS

Vacuum Products | Dimensions | Technical Specifications

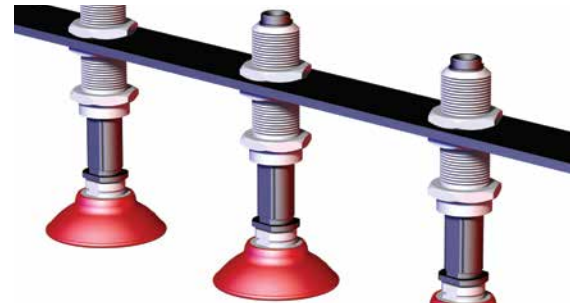
## Features:

- Available in three different travel lengths.
- NPT or G mounting threads and vacuum ports.

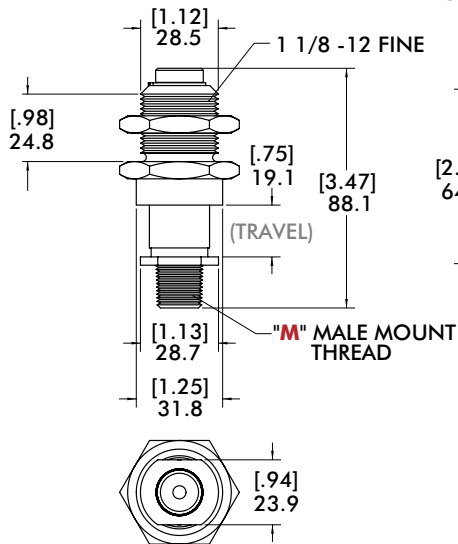
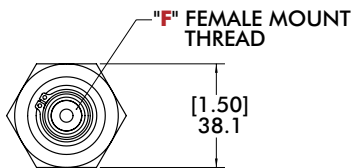
## Specifications:

Material: Aluminum

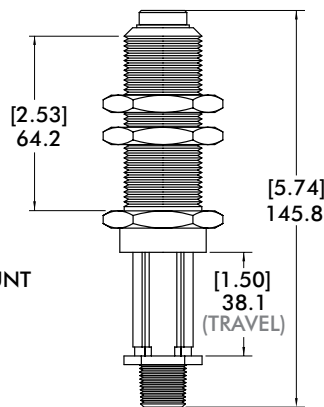
## RCM Bulkhead Style Standard Travel



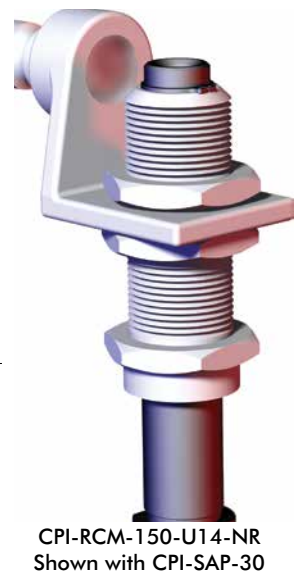
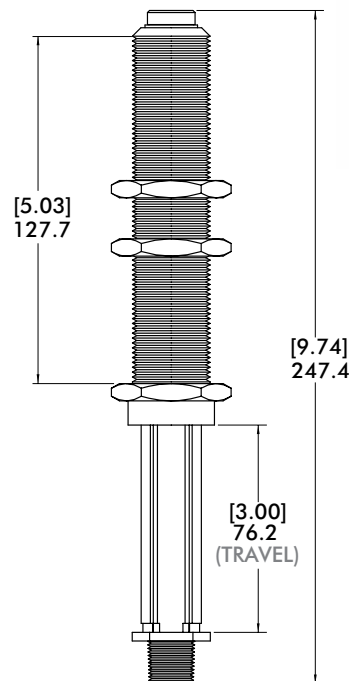
### 0.75" TRAVEL ORDERING INFORMATION CPI-RCM-30



### 1.50" TRAVEL ORDERING INFORMATION CPI-RCM-150-U14-NR



### 3.00" TRAVEL ORDERING INFORMATION CPI-RCM-300-U14-NR



## Bulkhead Mount - CPI-RCM-XXX

Version	Mount Thread M	Vacuum Port F
Imperial	3/8" NPT Male	1/4" NPT

Weight
.75" Travel = 142g [5 oz]
1.50" Travel = 227g [8 oz]
3.00" Travel = 340g [12 oz]

# SPRING-LOADED CUP MOUNTS

Vacuum Products | Dimensions | Technical Specifications | Ordering Information

## SCM Apple-Core Style

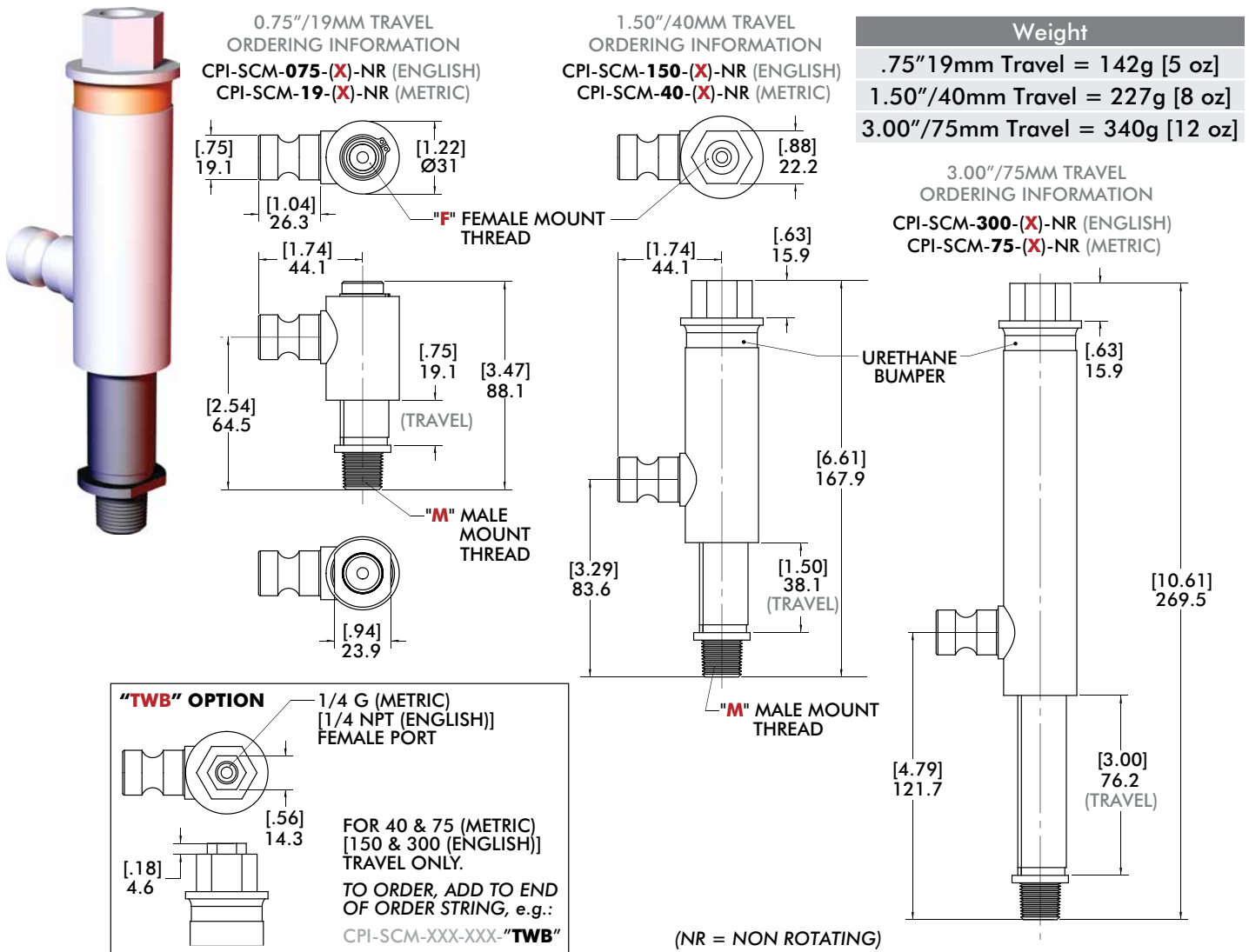


### Specifications:

**Material:** Aluminum used on 1.50"/40mm and 3.00"/75mm travel.

### Features:

- Available in three different travel lengths.
- Apple core .75" [19mm] mounting for adjustment along on axis.
- NPT or G mounting threads and vacuum ports.



### CPI-SCM-(19/075)-(X)-NR Ports

Version	M	F	(X)
Metric	3/8" G	1/4" G	G14
Imperial	3/8" NPT	1/4" NPT	U14

### CPI-SCM-(40/150 & 75/300)-(X)-NR Ports

Version	M	F	(X)
Metric	3/8" G	3/8" G	G14
Imperial	3/8" NPT	3/8" NPT	U14



# SPRING-LOADED CUP MOUNTS

Vacuum Products | Features and Options

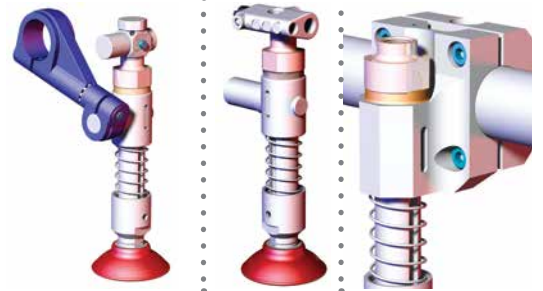
**Features:**

- Four mounting options.
- Three travel lengths.
- NPT or G mounting threads and vacuum ports.
- Urethane shock absorber.
- Teflon coated shaft.
- Fully modular construction.

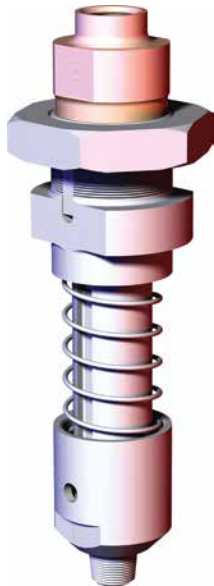
**Benefits:**

- Urethane shock absorber reduces "pick-up" shock.
- Extensive use of polymers reduce weight and cost.
- Extended travel cup mounts can be reconfigured or rebuilt.
- Smooth operation, reduced wear.

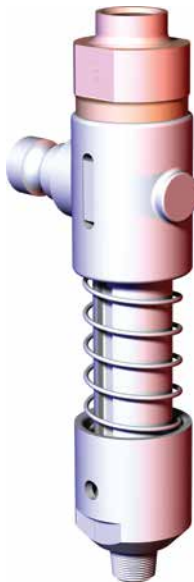
**TCL T-Clamp Ø1.00" (in)**



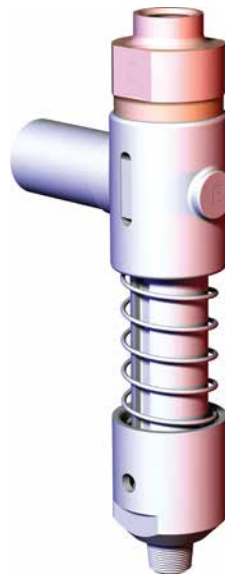
Ø1.25" Bulkhead Style  
CPI-SCM(B)-"T"



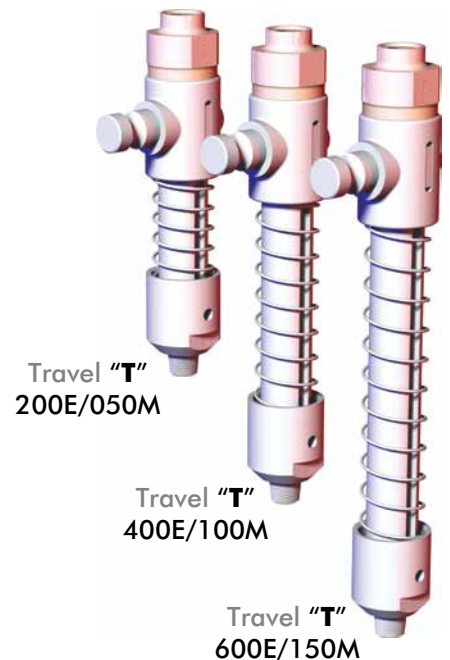
Ø0.75" Apple Core Style  
CPI-SCM(A)-"T"



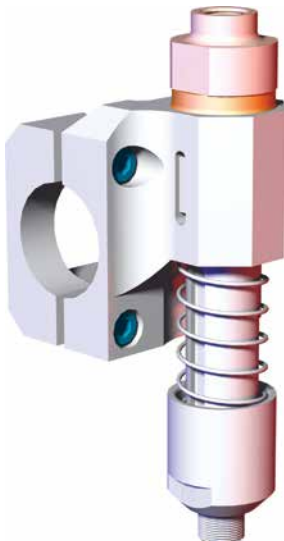
Ø1.00"/25MM  
Extension Style  
CPI-SCM(10/25)-"T"



Travel Length CPI-SCM(X)-"T"



Ø1.50"/40MM  
Tube Mount  
CPI-SCM(C)-"D"- "T"- "O"



Ø1.50"/40MM  
Single Strap Tube Mount  
CPI-SCM(S)-"D"- "T"- "O"



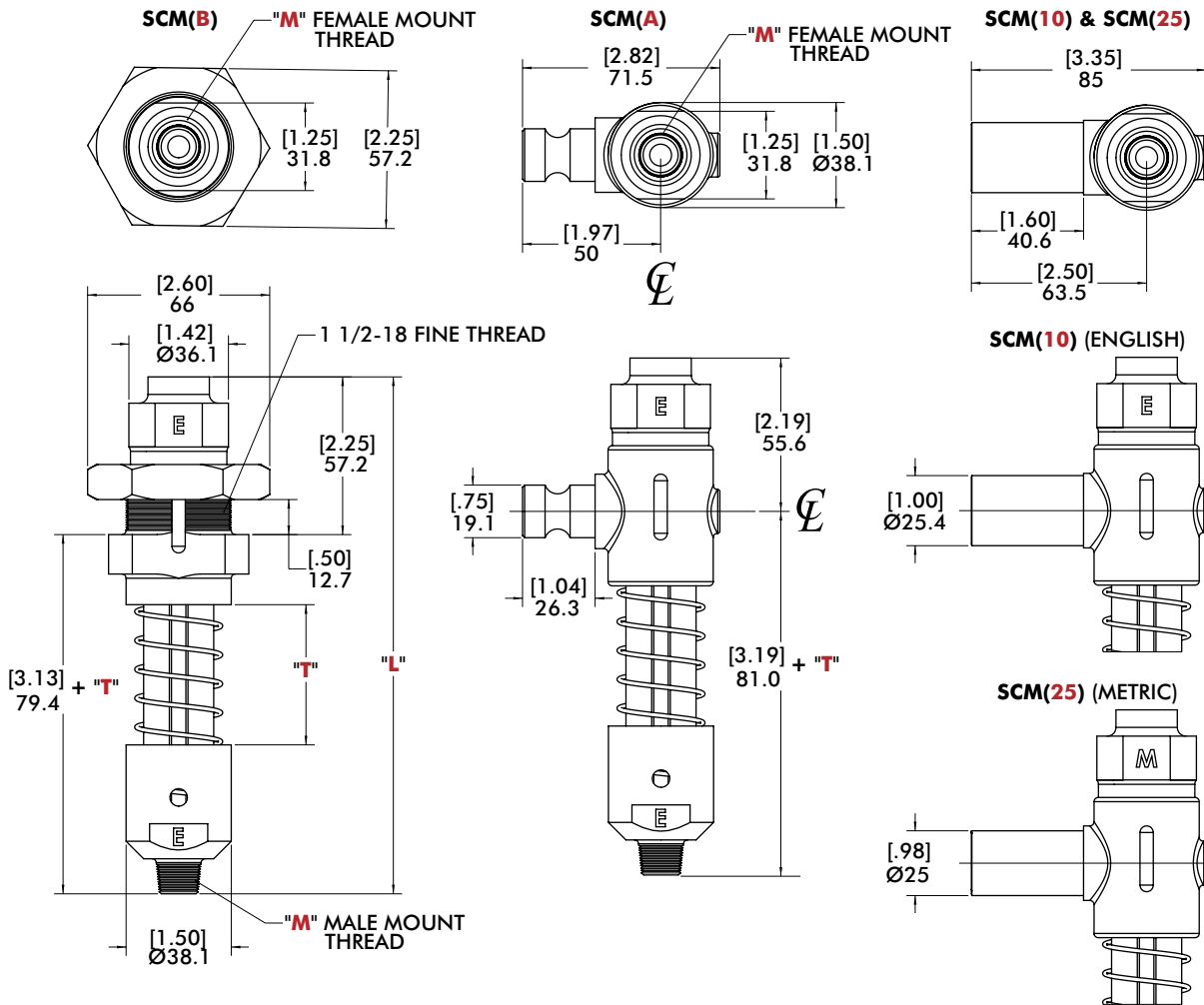
Ø1.50"/45MM  
Single Strap Tube Mount  
CPI-SCMS-45B-"T"





# SPRING LOADED VACUUM CUP MOUNTS

Vacuum Products | Extended Travel Dimensions

**SCM** Bulkhead/Apple Core/Extension Style



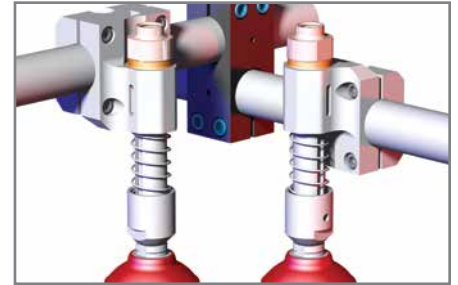
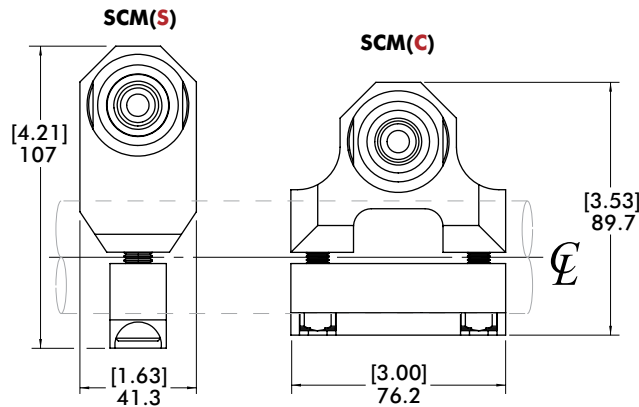
## SCM Travel and Length - CPI-SCM(X)-"T"

Version	Travel "T"	L	M	Weight
 Imperial	<b>200E</b> (2.00" Vertical Travel)	187.3 [7.38]	3/8" NPT	.48kg [1.06 lb]
	<b>400E</b> (4.00" Vertical Travel)	238.2 [9.38]	3/8" NPT	.53kg [1.16 lb]
	<b>600E</b> (6.00" Vertical Travel)	288.9 [11.38]	3/8" NPT	.58kg [1.27 lb]
 Metric	<b>050M</b> (50mm Vertical Travel)	187.3 [7.38]	3/8" G	.48kg [1.06 lb]
	<b>100M</b> (100mm Vertical Travel)	238.2 [9.38]	3/8" G	.53kg [1.16 lb]
	<b>150M</b> (150mm Vertical Travel)	288.9 [11.38]	3/8" G	.58kg [1.27 lb]

# SPRING-LOADED CUP MOUNTS

Vacuum Products | Extended Travel Dimensions

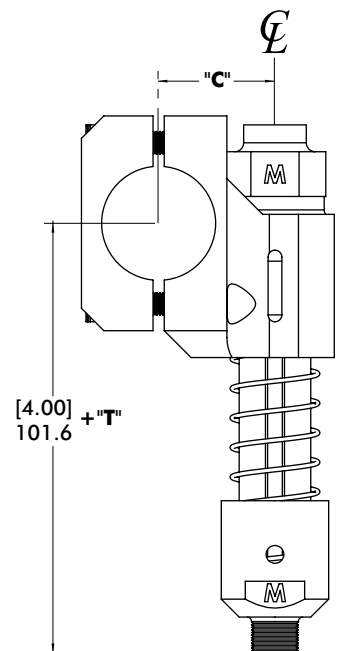
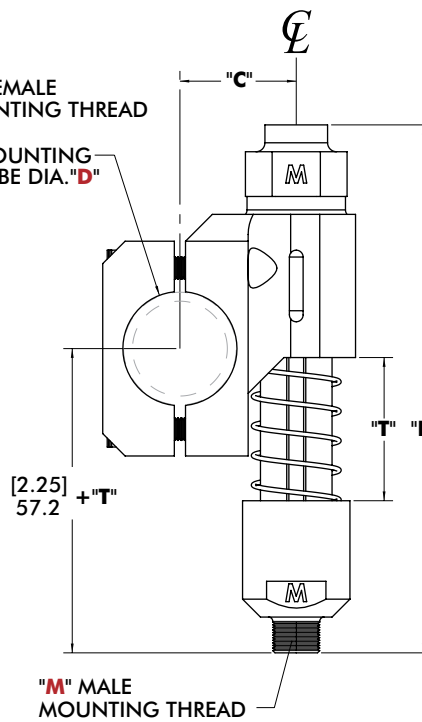
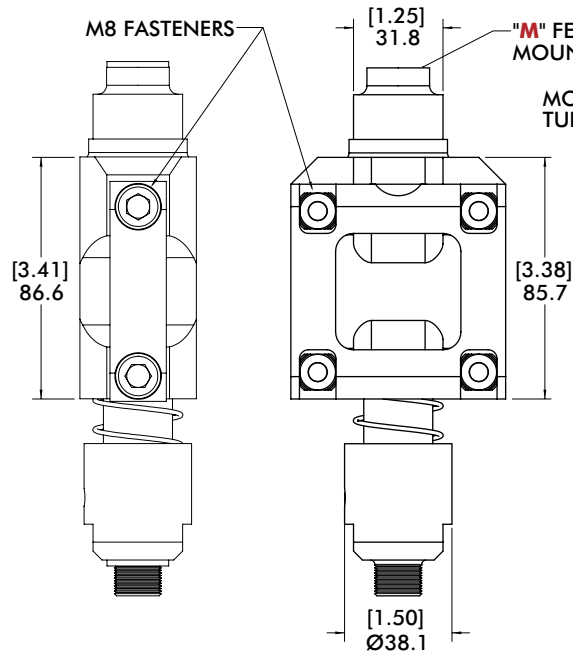
## SCM Tube Mounted



Patent Pending

SCM(S/C) MOUNTING ORIENTATION (SHOWN)  
"O" = A (RAISED POSITION)

SCM(S/C) MOUNTING ORIENTATION (SHOWN)  
"O" = B (LOWERED POSITION)



Model	C
CPI-SCMC	41.3 [1.63]
CPI-SCMS	54.1 [2.13]

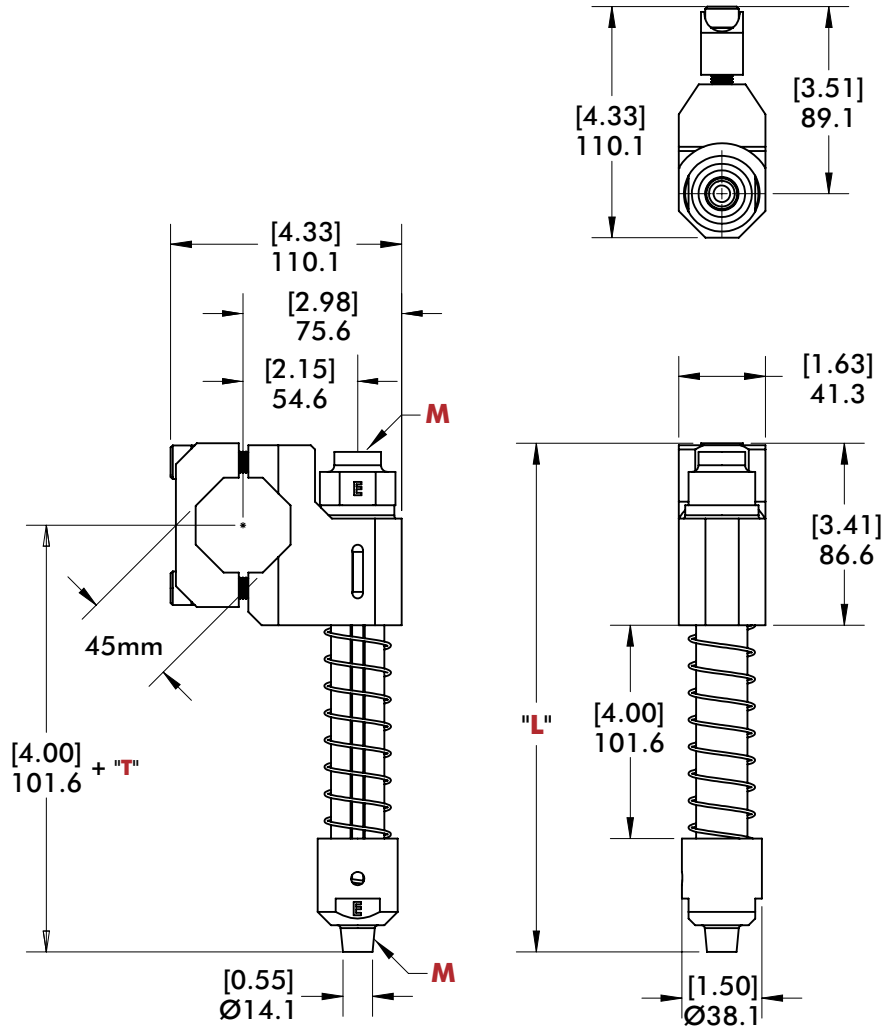
## SCM Travel and Length - CPI-SCM(X)-"D"- "T"- "O"

Version	Travel "T"	L	M	D	Weight
Imperial	200E (2.00" Vertical Travel)	187.3 [7.38]	3/8" NPT	150 (Ø1.50")	.85kg [1.87 lb]
	400E (4.00" Vertical Travel)	238.2 [9.38]	3/8" NPT	150 (Ø1.50")	.90kg [1.97 lb]
	600E (6.00" Vertical Travel)	288.9 [11.38]	3/8" NPT	150 (Ø1.50")	.94kg [2.08 lb]
Metric	050M (50mm Vertical Travel)	187.3 [7.38]	3/8" G	40M (Ø40mm)	.85kg [1.87 lb]
	100M (100mm Vertical Travel)	238.2 [9.38]	3/8" G	40M (Ø40mm)	.90kg [1.97 lb]
	150M (150mm Vertical Travel)	288.9 [11.38]	3/8" G	40M (Ø40mm)	.94kg [2.08 lb]

# BODY BUILDER SPRING LOADED VACUUM CUP MOUNTS

Vacuum Products | Extended Travel Dimensions

**SCM** BodyBuilder Mounted



## SCM Travel and Length - CPI-SCMS-45B-"T"

Version	Travel "T"	L	M	Weight
Imperial	200E (2.00" Vertical Travel)	191.5 [7.54]	3/8" NPT	.77kg [1.7 lb]
	400E (4.00" Vertical Travel)	242.2 [9.54]	3/8" NPT	.82kg [1.8 lb]
	600E (6.00" Vertical Travel)	293.1 [11.54]	3/8" NPT	.87kg [1.9 lb]
Metric	050M (50mm Vertical Travel)	191.5 [7.54]	3/8" G	.77kg [1.7 lb]
	100M (100mm Vertical Travel)	242.2 [9.54]	3/8" G	.82kg [1.8 lb]
	150M (150mm Vertical Travel)	293.1 [11.54]	3/8" G	.87kg [1.9 lb]

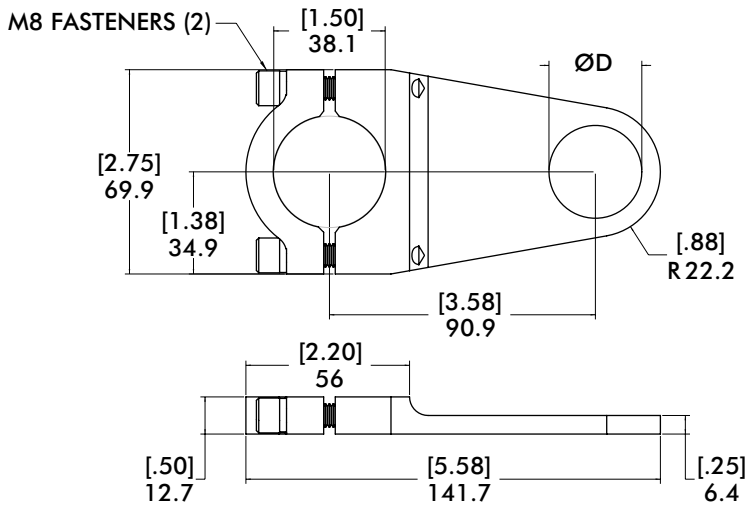
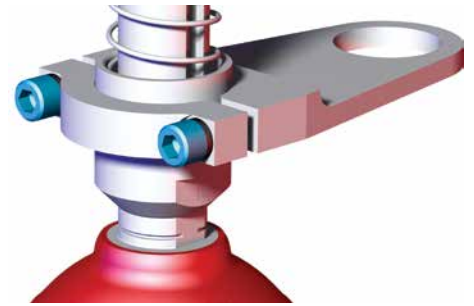
# SPRING LOADED VACUUM CUP MOUNT ACCESSORIES

Vacuum Products | Dimensions | Technical Specifications

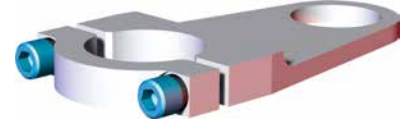
## SAP Extended Travel Proximity Switch Mounts

**Specifications:**  
Material: Aluminum

- Features:**
- Mounts 30mm barrel style and square style proximity switches to the extended travel spring-loaded cup mounts.

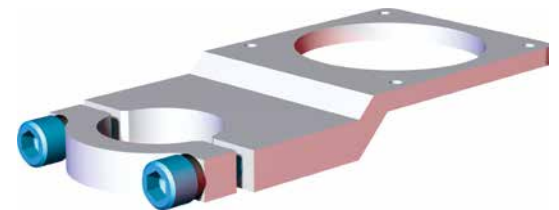
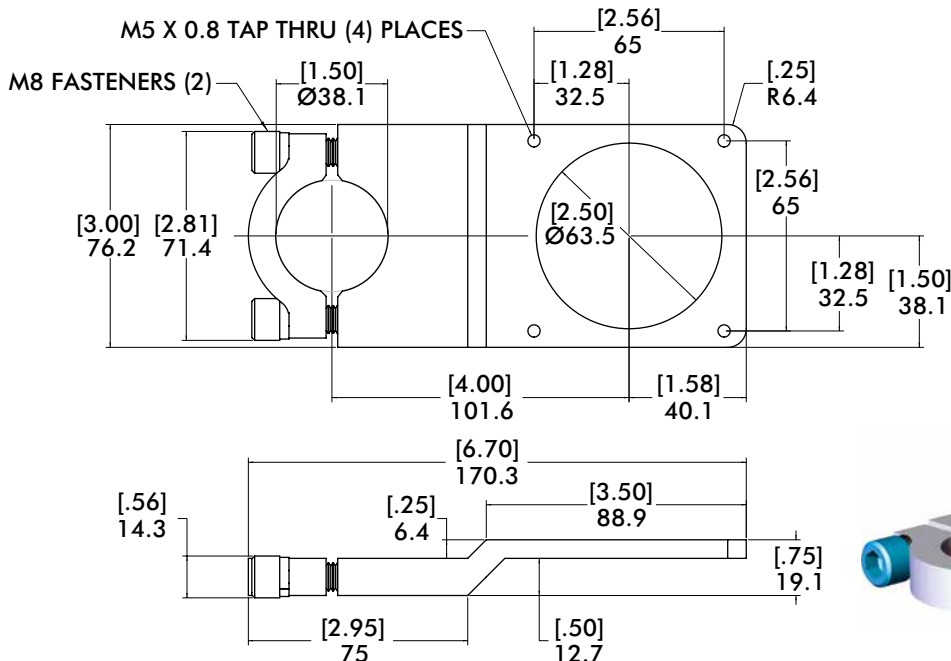


**SAP 30mm Barrel Style**



Model	ØD	Weight
CPI-SAP-30-PM-150	[1.25] 31.8	.13 kg [.29 lb]
CPI-SAP-18-PM-150	[.75] 19	.17 kg [.38 lb]

**SAP 50mm Square Style**

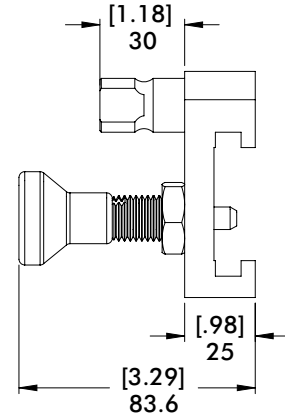
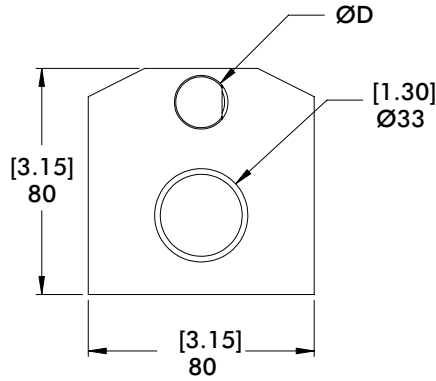
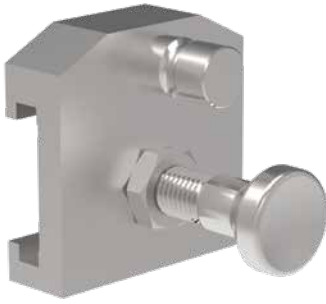


Model	Weight
CPI-SAP-NI50-PM-150	.23 kg [.56 lb]

# DOUBLE BLANK DETECTOR QUICK-CHANGE MOUNT

Vacuum Products | Dimensions | Technical Specifications

## DBD Quick-Change Mount



Model	ØD	Weight
DBD-19-QC-A	19mm	522g [1.15 lb]
DBD-20-QC-A	20mm	527g [1.16 lb]

# DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Features and Options | Ordering Information

## DBD Series

### Features:

- Orbital design allows compliance to blanks within +/- 15° without having to make any automation, tooling or robot adjustments. [US Patent #4,662,668]
- Elimination of compression springs results in long-lasting, reliable performance
- **HD** Version provides added stability for heavy-duty applications

### Specifications:

Operating Pressure: 4 bar [60psi]  
Electric: Sensor supplied by customer

### CPI-DBD-(X)-SCMB-(T)

Ø1.25" Thru Hole  
Bulkhead Mount



### CPI-DBD-(X)-SCM10/25-(T)

Ø1.00"/25mm  
Extension Mount



### CPI-DBD-(X)-SCMB-(T)-HD

Ø1.00"/25mm Tube Mount  
Heavy-duty (Double Pogo)



#### Base Model

**DBD**  
Double Blank  
Detector

#### Sensor Size

**42** Ø42mm  
**54** Ø54mm

(Sensors not  
Included)

#### Mounting Style

**SCM10** Ø1.00" Extension Mount  
**SCM25** Ø25mm Extension Mount  
**SCMB** Bulkhead Mount

#### Vertical Travel (T) (See pages 46-47)

**200E** 2.00 in. with NPT Vacuum Port (Except -HD)  
**400E** 4.00 in. with NPT Vacuum Port  
**600E** 6.00 in. with NPT Vacuum Port  
**800E** 8.00 in. with NPT Vacuum Port (-HD only)  
**050M** 50mm with G Vacuum Port (Except -HD)  
**100M** 100mm with G Vacuum Port  
**150M** 150mm with G Vacuum Port  
**200M** 200mm with G Vacuum Port (-HD only)

US/INTL Patents: 6,988,696 / 7,281,739 / 1,921,031

### CPI-DBD-(X)-(T)-SCMC-(D)

Ø1.25"/40mm  
Tube Mount



#### X=Sensor Size

**42** Ø42mm  
**54** Ø54mm

(Sensors not Included)

#### T=Vertical Travel

**200E** 2.00 in. with NPT Vacuum Port  
**400E** 4.00 in. with NPT Vacuum Port  
**600E** 6.00 in. with NPT Vacuum Port  
**050M** 50mm with G Vacuum Port  
**100M** 100mm with G Vacuum Port  
**150M** 150mm with G Vacuum Port

#### D=Tube Mount

**40** 40mm Tube Mount (Metric Only)  
**150** 1.50" Tube Mount (Imperial Only)

(See page 50)

### CPI-DBD-42-200E-SCMS

Ø45mm  
BodyBuilder Mount

(See page 51)



# DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specifications

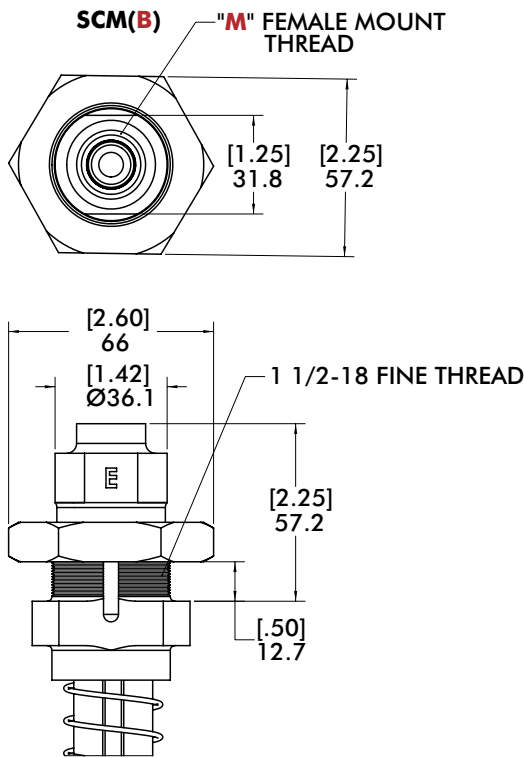
## DBD Bulkhead/Extension Style Dimensions



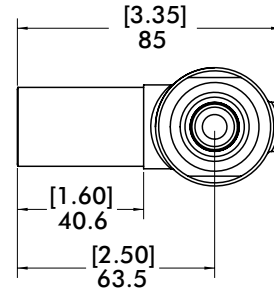
**SCMB**  
Ø1.25" Thru Hole  
Bulkhead Mount



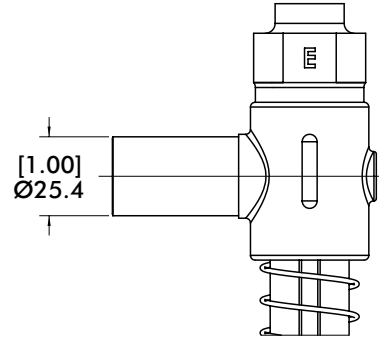
**SCM10/25**  
Ø1.00"/25mm  
Extension Mount



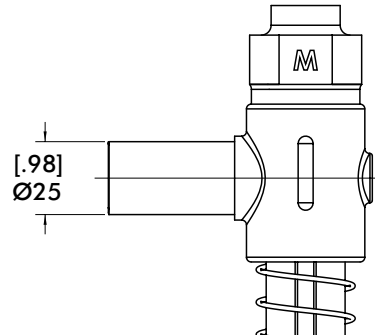
### SCM(10) & SCM(25)



### SCM(10) (ENGLISH)



### SCM(25) (METRIC)



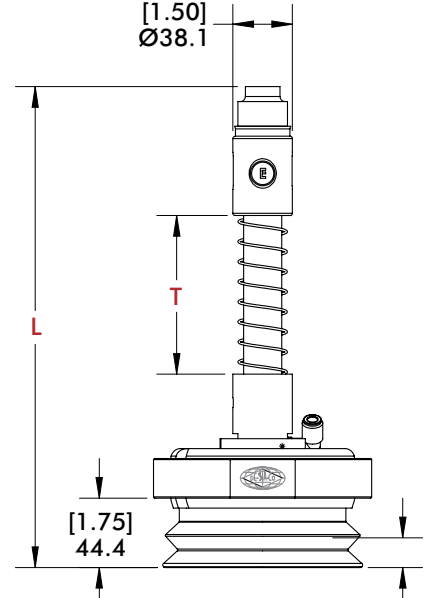
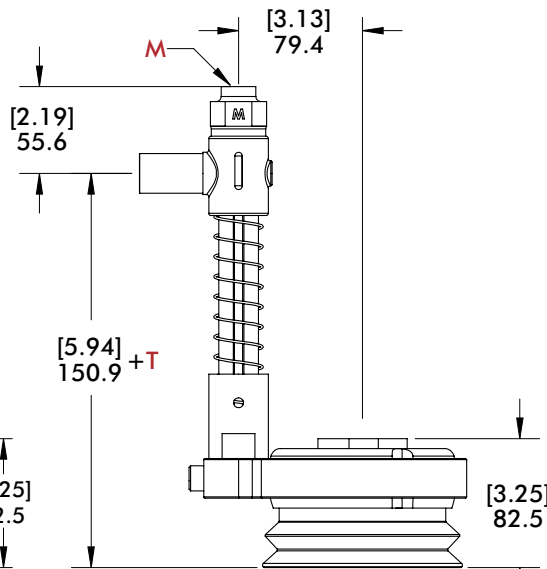
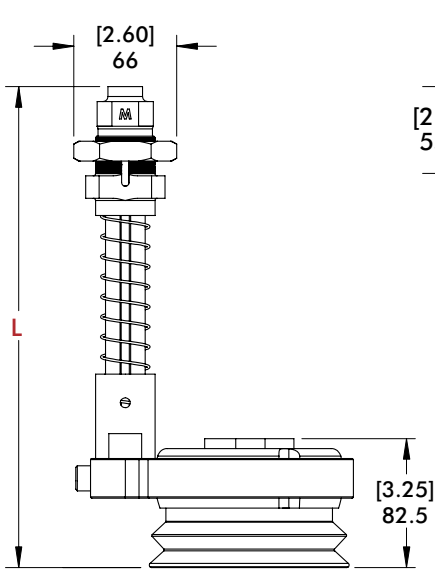
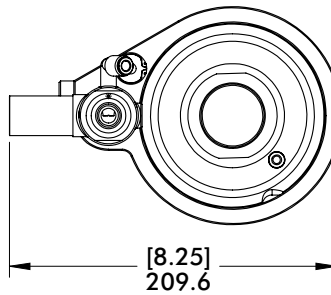
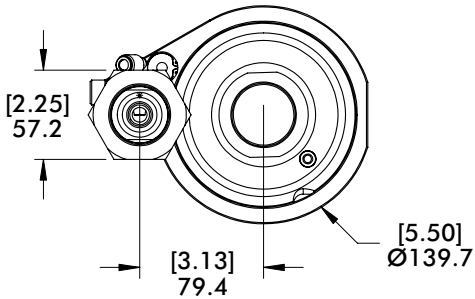
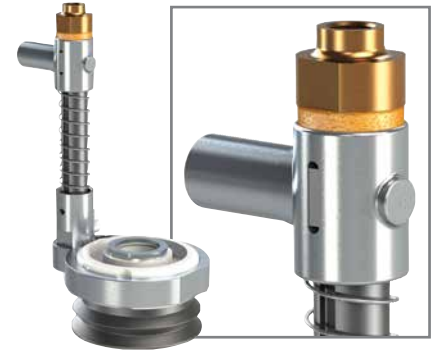
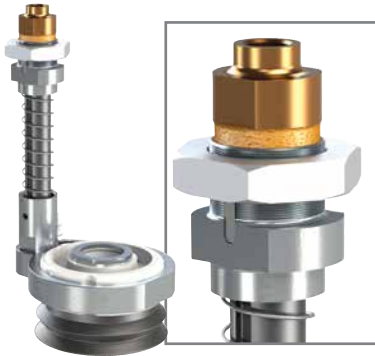
Version	(M)
Imperial	3/8" NPT
Metric	3/8" G



# DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specifications

## DBD Bulkhead/Extension Style



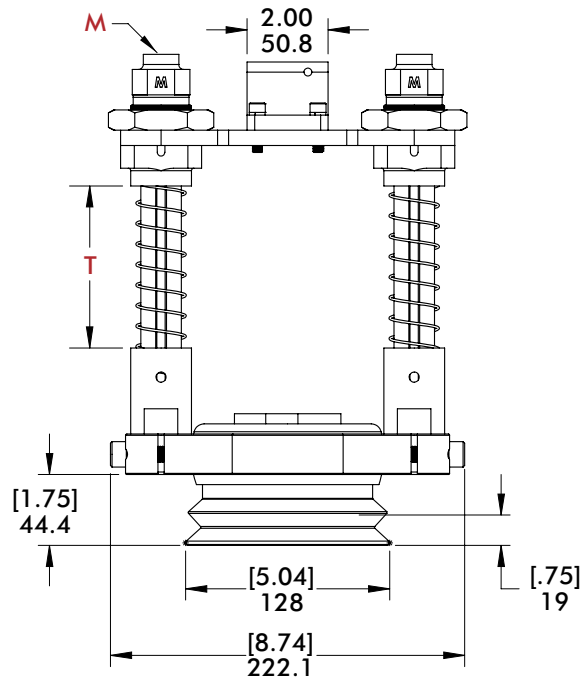
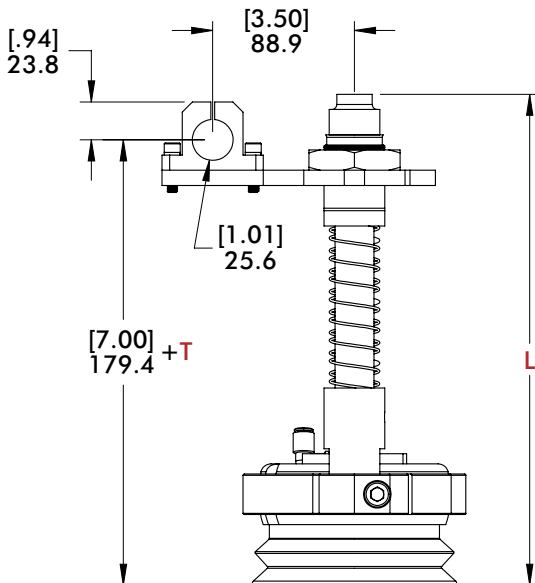
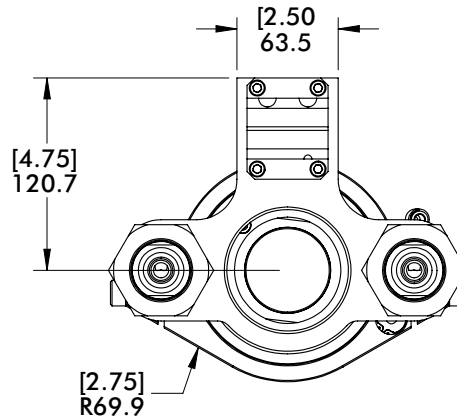
### DBD Travel and Length - CPI-DBD-(X)-SCM(X)-(T)

Version	Vertical Travel (T)	(L)	(M)	Weight
Imperial	200E (2.00")	257.1 [10.12]	3/8" NPT	.85kg [1.87 lb]
	400E (4.00")	307.9 [12.12]		.90kg [1.97 lb]
	600E (6.00")	358.7 [14.12]		.94kg [2.08 lb]
Metric	050M (50mm)	257.1 [10.12]	3/8" G	.85kg [1.87 lb]
	100M (100mm)	307.9 [12.12]		.90kg [1.97 lb]
	150M (150mm)	358.7 [14.12]		.94kg [2.08 lb]



# DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specifications

## DBD Heavy Duty (Double Pogo)



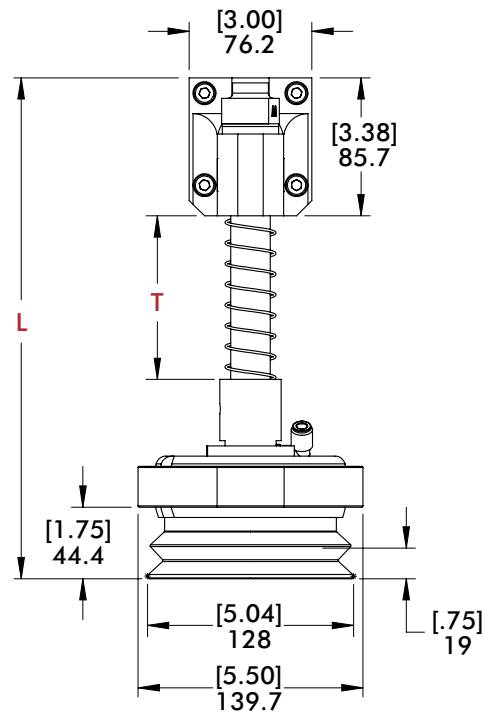
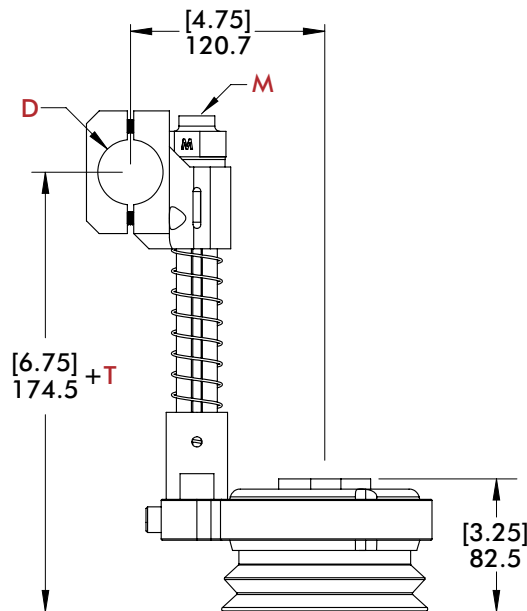
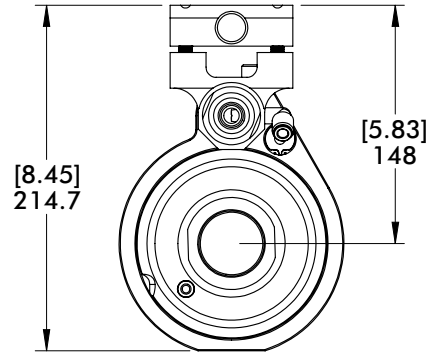
### DBD Travel and Length - CPI-DBD-(X)-SCMB-(T)-HD

Version	Vertical Travel (T)	(L)	(M)	Weight
 Imperial	400E (4.00")	307.9 [12.12]	3/8" NPT	3.06kg [6.75 lb]
	600E (6.00")	357.9 [14.09]		3.16kg [6.97 lb]
	800E (8.00")	405.9 [15.98]		3.23kg [7.12 lb]
 Metric	100M (100mm)	307.9 [12.12]	3/8" G	3.06kg [6.75 lb]
	150M (150mm)	357.9 [14.09]		3.16kg [6.97 lb]
	200M (200mm)	405.9 [15.98]		3.23kg [7.12 lb]

# BODYBUILDER™ DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specifications

**DBD** Ø1.25"/40mm Tube Mount





**X**=Sensor Size

**42** Ø42mm

**54** Ø54mm

(Sensors not Included)

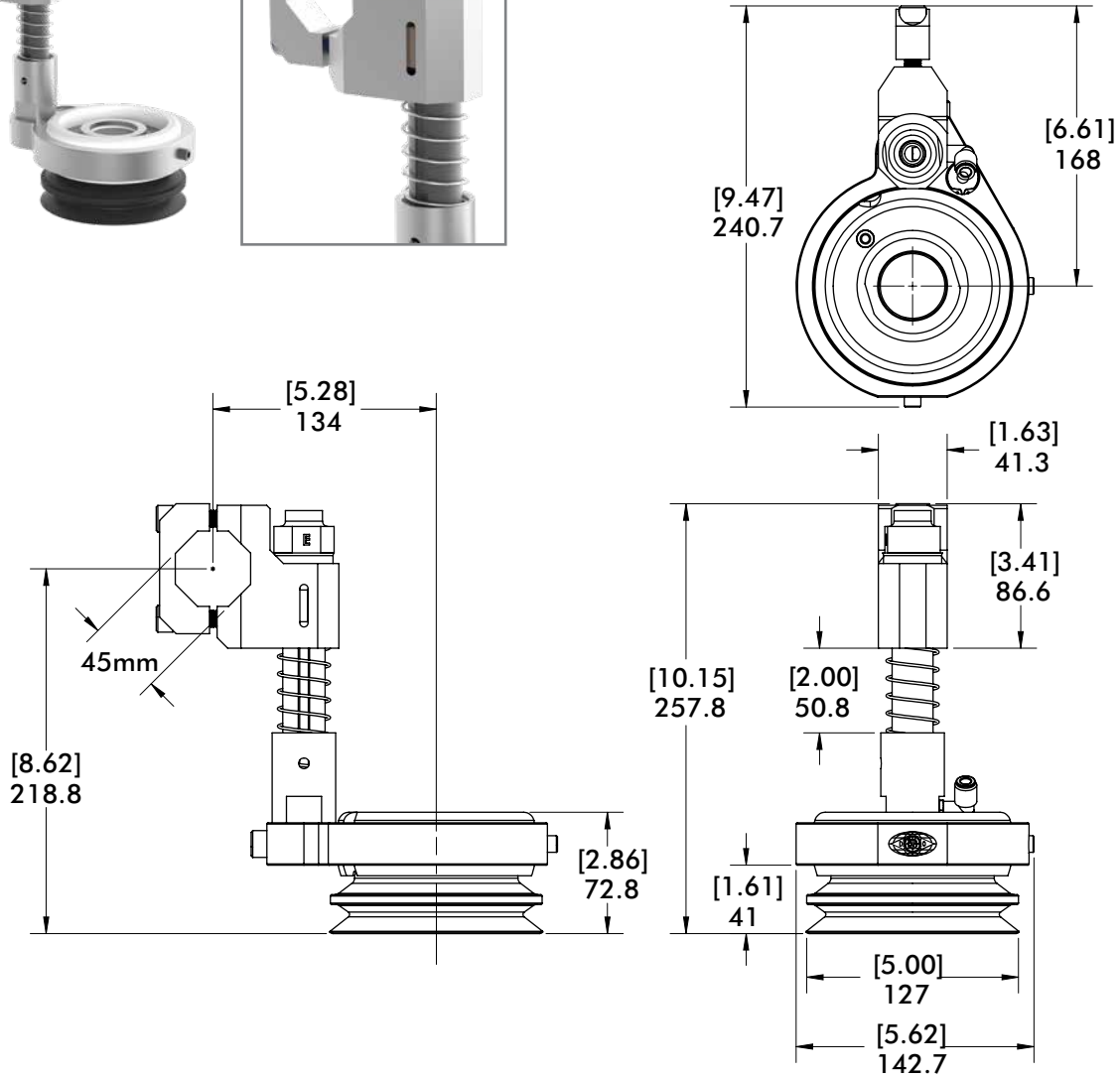
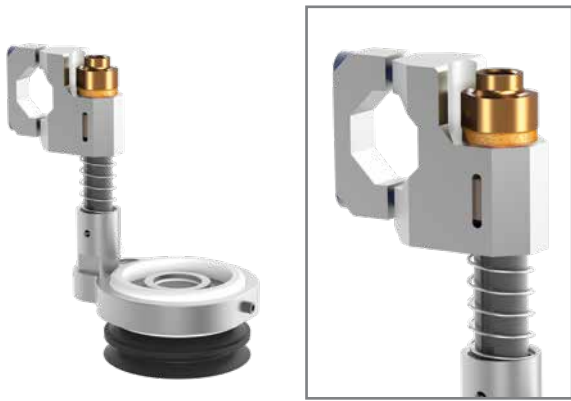
## DBD Travel and Length - CPI-DBD-(X)-(T)-SCMC-(D)

Version	Vertical Travel (T)	(L)	(M)	(D)	Weight
 Imperial	200E (2.00")	261.1 [10.28]	3/8" NPT	150 (Ø1.50")	.85kg [1.87 lb]
	400E (4.00")	311.1 [12.25]			.90kg [1.97 lb]
	600E (6.00")	369.9 [14.21]			.94kg [2.08 lb]
 Metric	050M (50mm)	261.1 [10.28]	3/8" G	40M (Ø40mm)	.85kg [1.87 lb]
	100M (100mm)	311.1 [12.25]			.90kg [1.97 lb]
	150M (150mm)	369.9 [14.21]			.94kg [2.08 lb]

# DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specifications

**DBD** Ø45mm BodyBuilder Mount



## CPI-DBD-42-200E-SCMS-45B

Version	Thread	Weight
Imperial	3/8" NPT	1.8kg [3.9 lb]

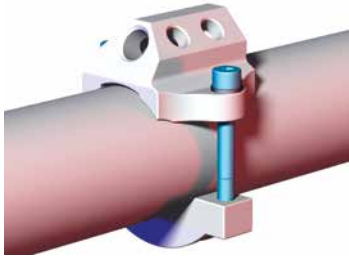




# MANIFOLDS

Vacuum Products | Dimensions | Technical Specifications

## MBC/MLK Boom Mounted Single 4-Port - 30° Angled Input Port

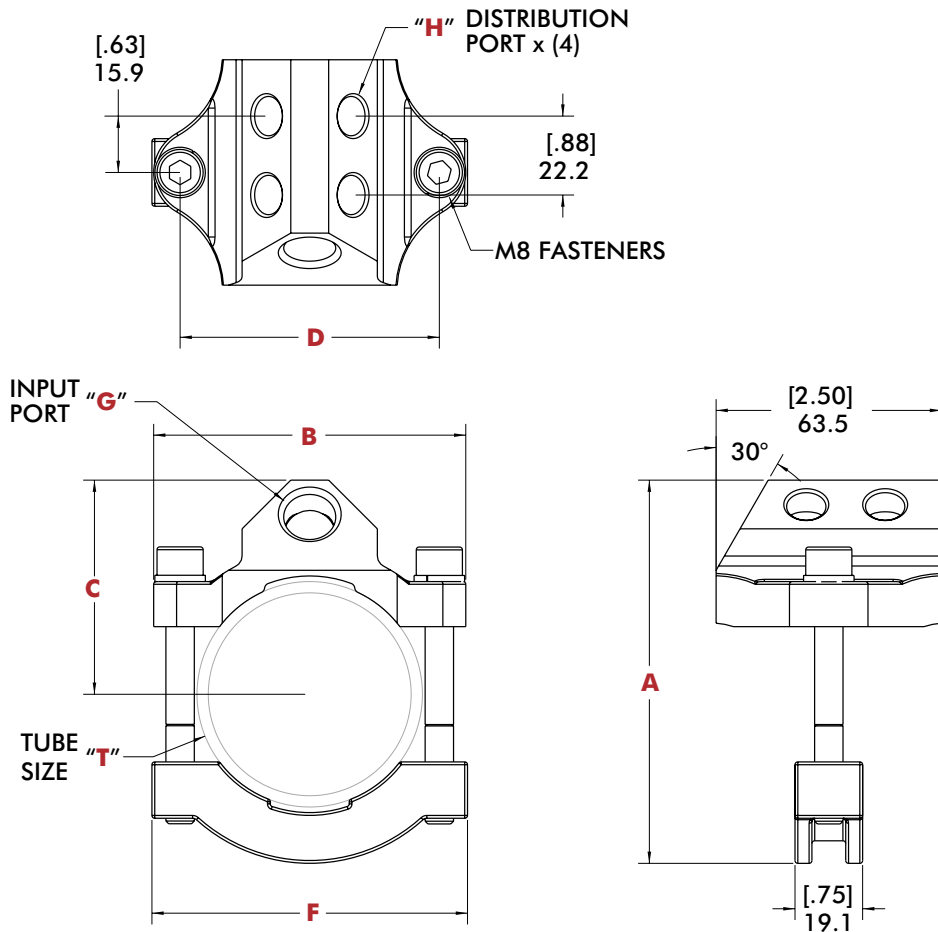


### Features:

- 30° Angled input port.
- Provides a 4-port air distribution system mount on the boom.

### Specifications:

Material: Aluminum



### MBC/MLK Dimensions

Model	A	B	C	D	F	G	H	T	Weight
CPI-MLK-60-G44-30	108.0	87.9	60.3	73	88.9	3/8 G	1/4 G	Ø60MM	340g
[CPI-MBC-250-4-4-30]	[4.25]	[3.46]	[2.38]	[2.88]	[3.50]	[3/8 NPT]	[1/4 NPT]	[Ø2.50"]	[12 oz]

# MANIFOLDS

Vacuum Products | Dimensions | Technical Specifications

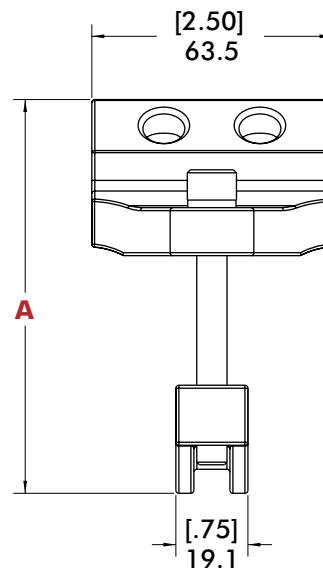
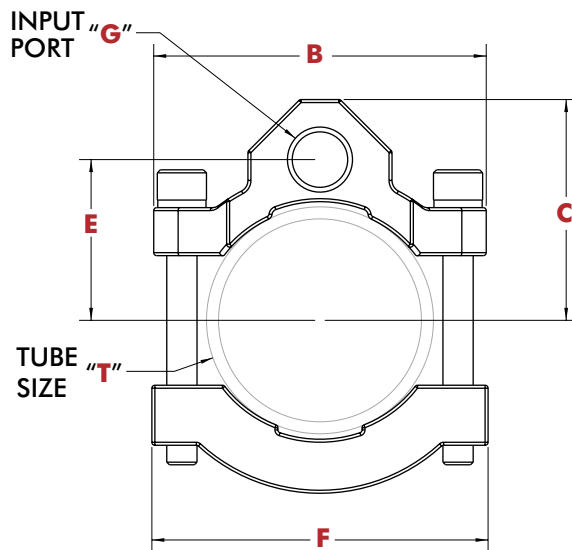
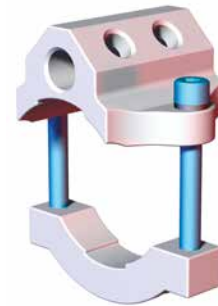
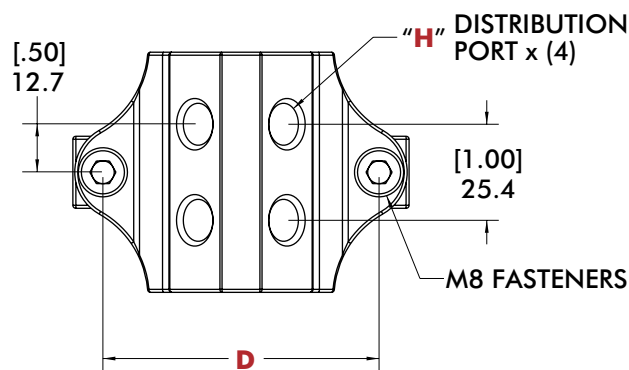
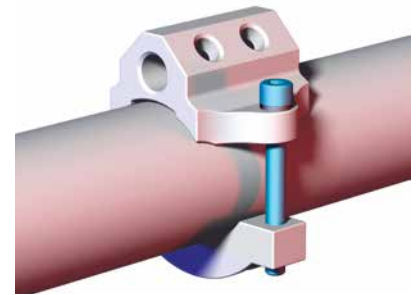
## MBC/MLK Boom Mounted Single 4-Port

### Specifications:

Material: Aluminum

### Features:

- Provides a 4-port air distribution system mount on the boom.
- Available in two sizes to allow clamping to Ø40mm [Ø1.50"] and Ø60mm [Ø2.50"] materials.



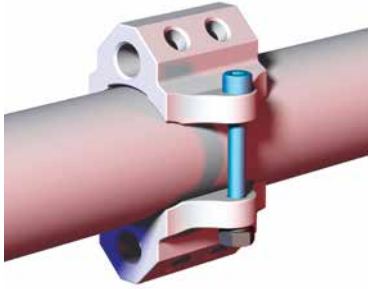
### MBC/MLK Dimensions

Model	A	B	C	D	E	F	G	H	T	Weight
CPI-MLK-40-G44	88.9	64.3	52.5	48.5	36.7	64.3	12.9	114.5	Ø40MM	283g
[CPI-MBC-150-4-4]	[3.50]	[2.53]	[2.07]	[1.91]	[1.44]	[2.53]	[.51]	[4.51]	[Ø1.50"]	[10 oz]
CPI-MLK-60-G44	104.1	87.9	58.4	73	42.5	88.9	39.7	118.4	Ø60MM	340g
[CPI-MBC-250-4-4]	[4.10]	[3.46]	[2.30]	[2.88]	[1.67]	[3.50]	[1.56]	[4.65]	[Ø2.50"]	[12 oz]

# MANIFOLDS

Vacuum Products | Dimensions | Technical Specifications

## MBC/MLK Boom Mounted Double 8-Port

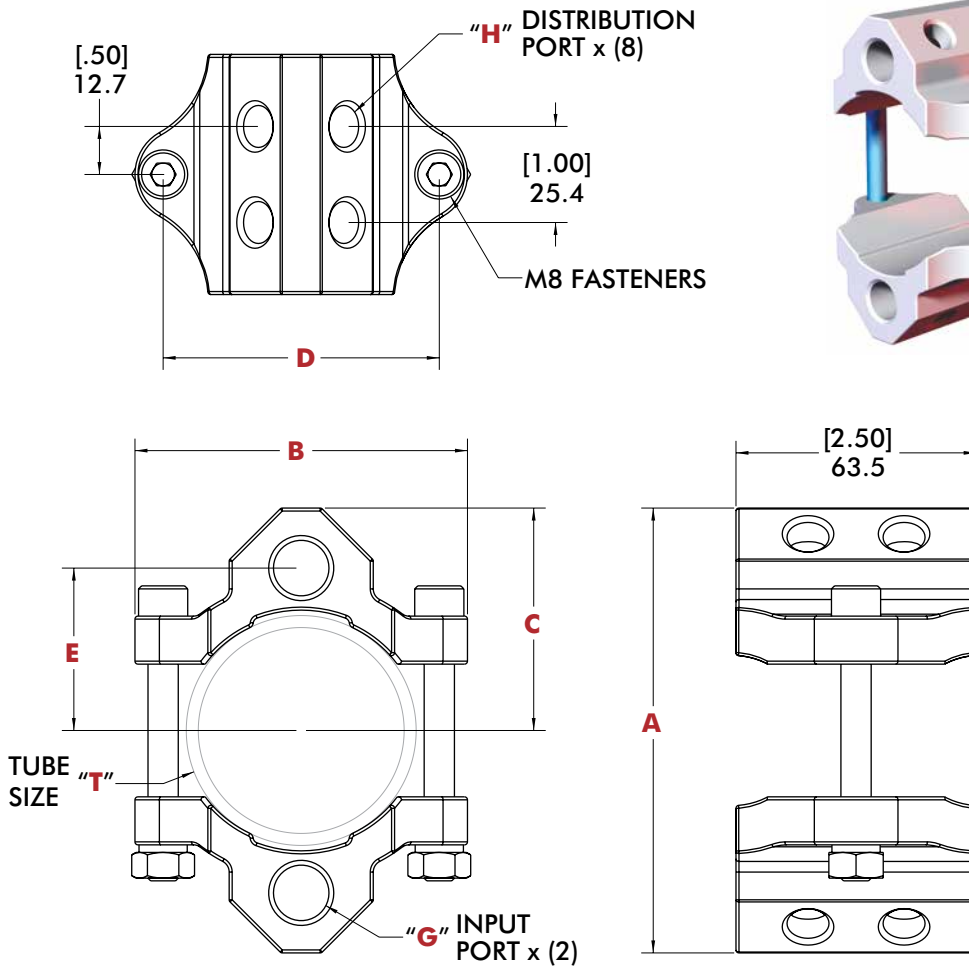


### Features:

- Provides an 8-port (4 ports on top and bottom) air distribution system mount on the boom.
- Available in two sizes to allow clamping to Ø40mm [Ø1.50"] and Ø60mm [Ø2.50"] materials.

### Specifications:

Material: Aluminum



### MBC/MLK Dimensions

Model	A	B	C	D	E	G	H	T	Weight
CPI-MLK-40-G88 [CPI-MBC-150-8-8]	105.1 [4.14]	64.3 [2.53]	52.5 [2.07]	48.5 [1.91]	36.8 [1.45]	3/8 G [3/8 NPT]	1/4 G [1/4 NPT]	Ø40MM [Ø1.50"]	425g [16 oz]
CPI-MLK-60-G88 [CPI-MBC-250-8-8]	117.6 [4.63]	87.9 [3.46]	58.8 [2.32]	73.0 [2.88]	42.9 [1.69]	3/8 G [3/8 NPT]	1/4 G [1/4 NPT]	Ø60MM [Ø2.50"]	510g [18 oz]



# MANIFOLDS

Vacuum Products | Dimensions | Technical Specifications

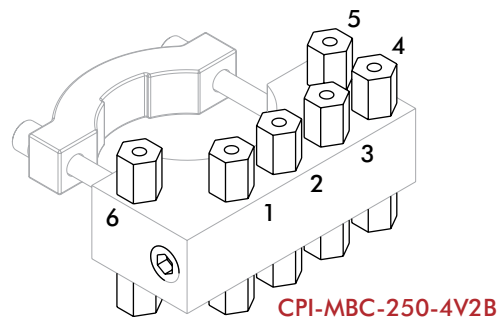
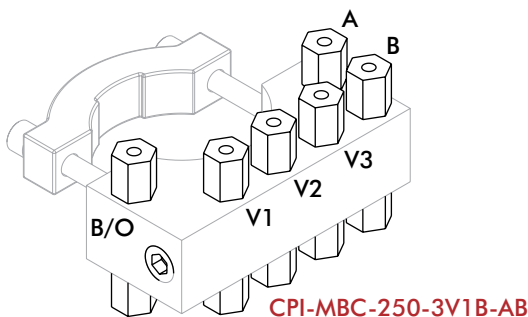
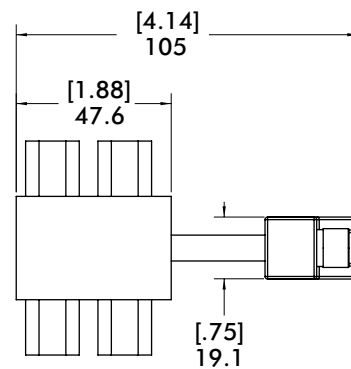
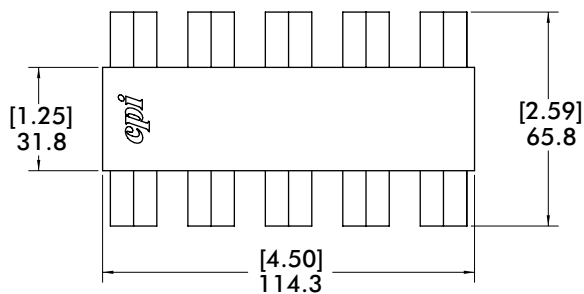
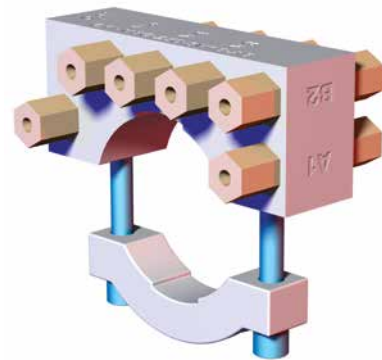
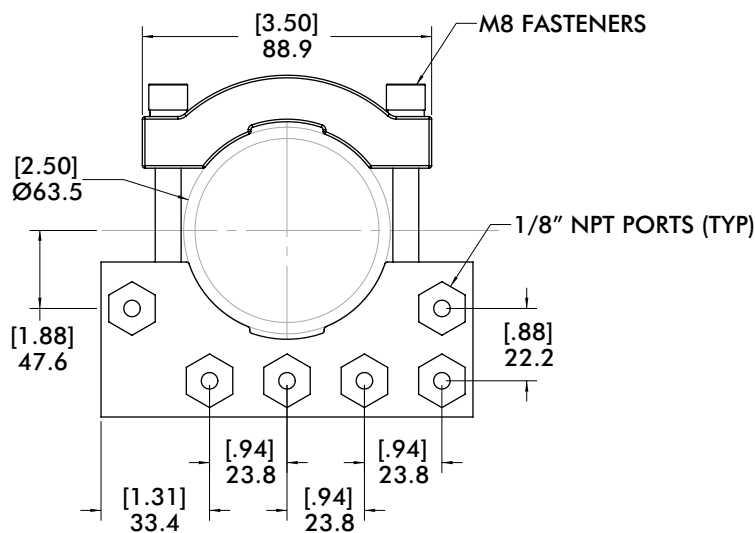
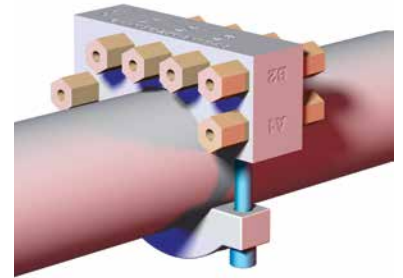
## MBC Boom Mounted Single 6-Port

**Specifications:**

**Material:** Aluminum

**Features:**

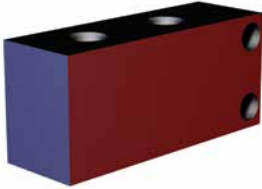
- Provides a 6-port air distribution system mounted on the boom.
- Easy access.



# MANIFOLDS

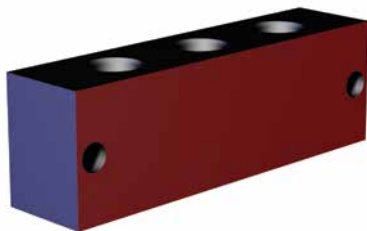
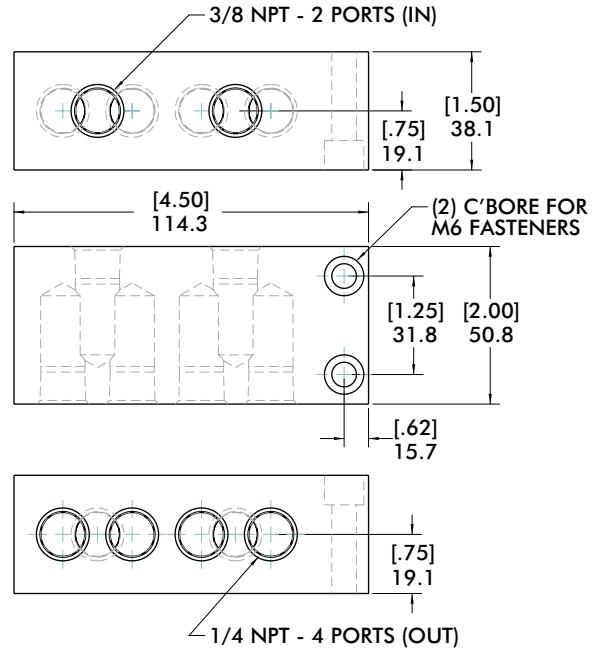
Vacuum Products | Dimensions | Technical Specifications

## GDA/MBB Block Style for Remote Mounting



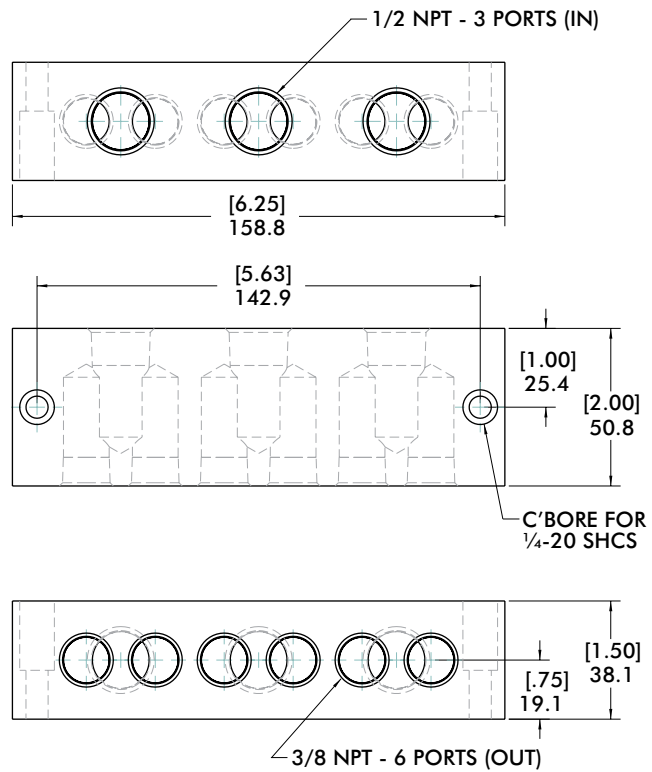
Material: Aluminum

Model	Weight
CPI-GDA-M24-37327	.23 kg [.56 lb]



Material: Aluminum

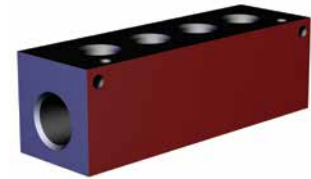
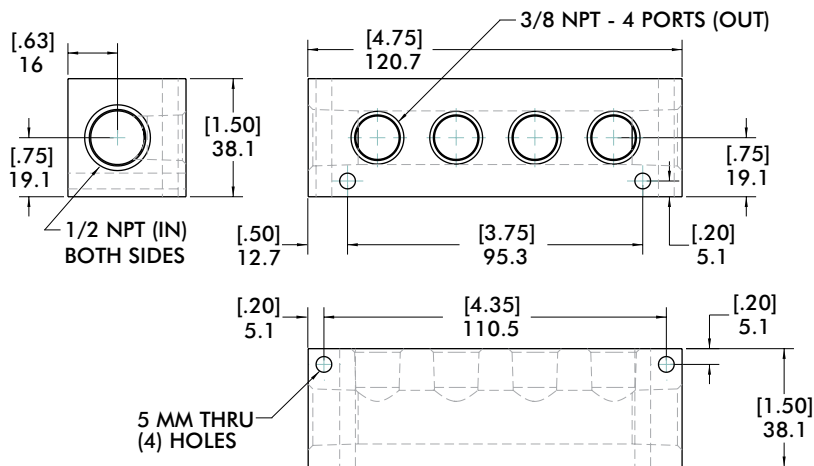
Model	Weight
CPI-MMB-4V2B-LG	.23 kg [.56 lb]



# MANIFOLDS

Vacuum Products | Dimensions | Technical Specifications

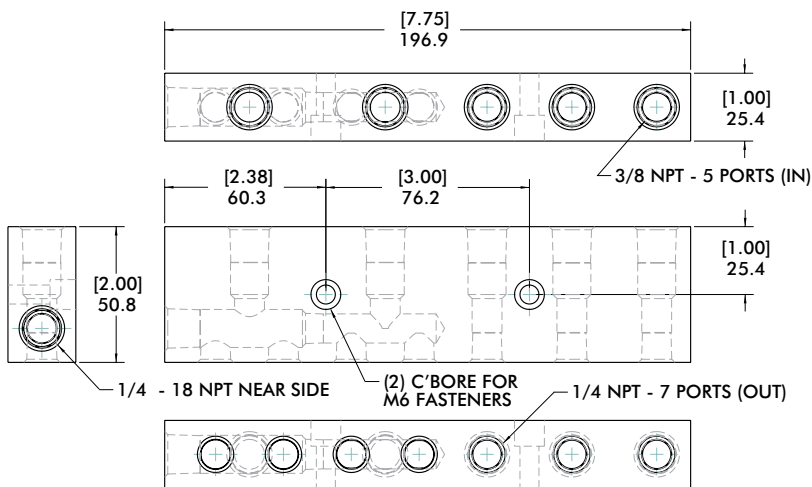
## MMB Block Style or Remote Mounting



Material: Aluminum

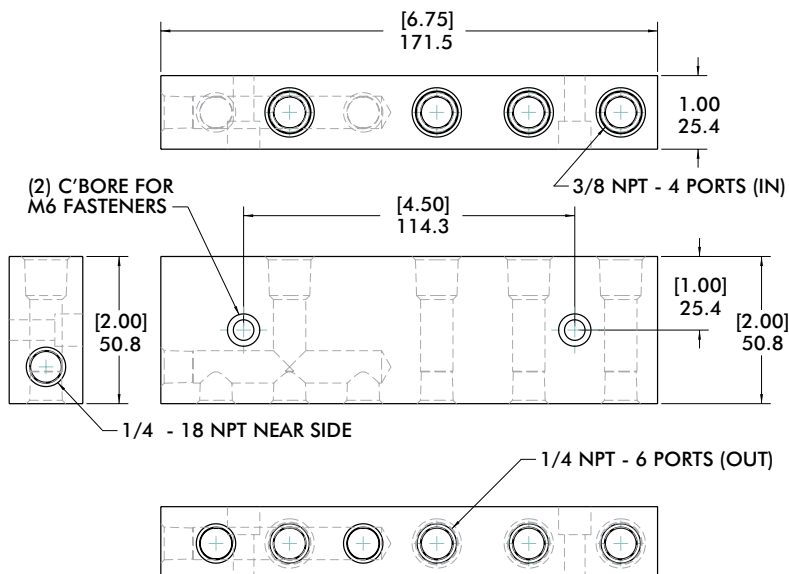
Model	Weight
CPI-MMB-4P	.23 kg [.56 lb]

## MMB Block Style or Remote Mounting



Material: Aluminum

Model	Weight
CPI-MMB-4VSP-AB	.23 kg [.56 lb]



Material: Aluminum

Model	Weight
CPI-MMB-3V1B-AB	.23 kg [.56 lb]

# BODYBUILDER™ TOOLING EXAMPLES



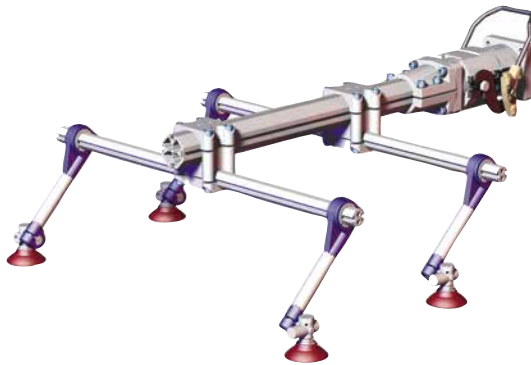
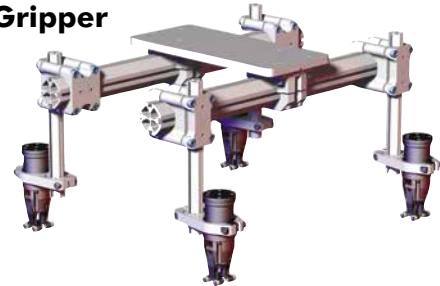
## Table of Contents

	BodyBuilder™ Extruded Aluminum Octagonal Booms .....	5
	BodyBuilder™ Structure Mid Mount Assemblies .....	11
	BodyBuilder™ Structure End Mount Assemblies.....	28
	BodyBuilder™ Transition Brackets and Blocks.....	32
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	BodyBuilder™ Accessory Brackets and Mounts .....	66
	BodyBuilder™ Gripper Mounts .....	70
	BodyBuilder™ Swivel Arm Mounts .....	73
	BodyBuilder™ Swivel Arm Accessories .....	77



**Mid Mount with GR84 Series Mini-Clamps**

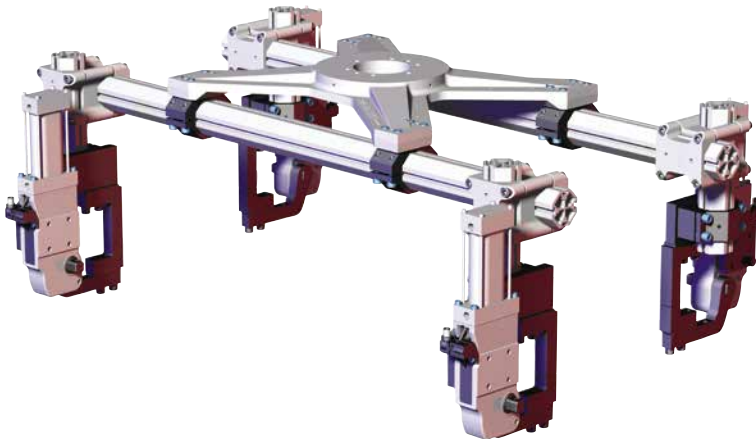
**Mid Mount with GR1 Series Gripper**



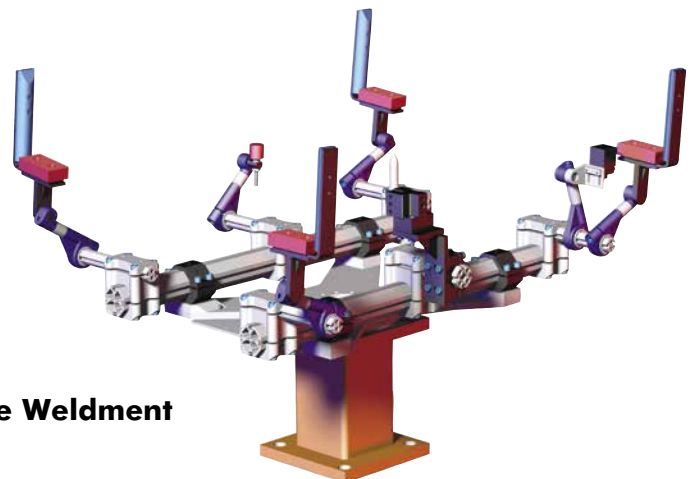
**End Mount with Venturi Cup Mounts and Vacuum Cups**



**End Mount with GR84 Series Mini Clamp**



**Mid Mount with 82M50 Enclosed Power Clamps**



**Mid Mounted Part Nest with CPI-HTW Hold Table Weldment and Nest Pad guides**

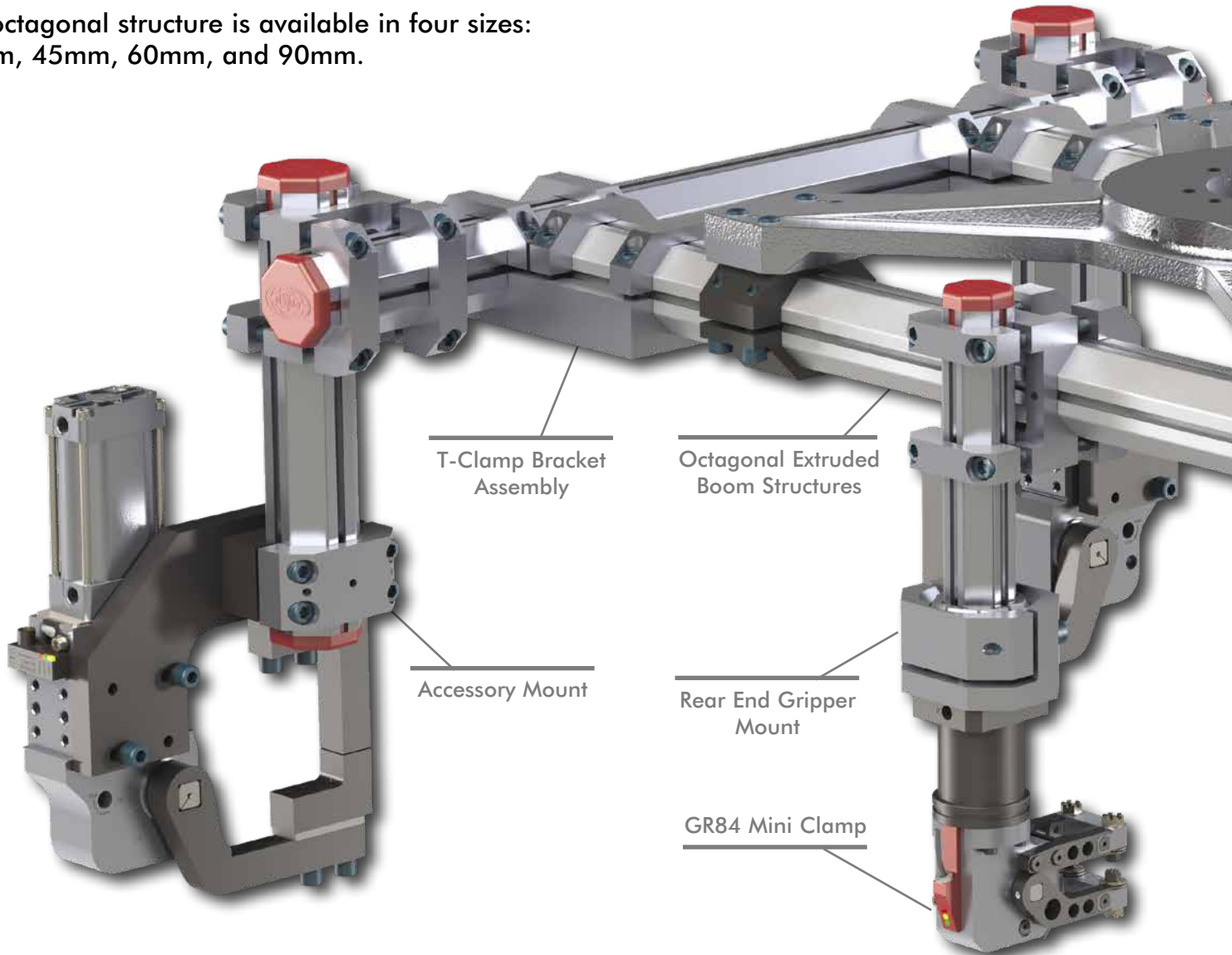
# BODYBUILDER™ END EFFECTOR SYSTEM



## Product Overview

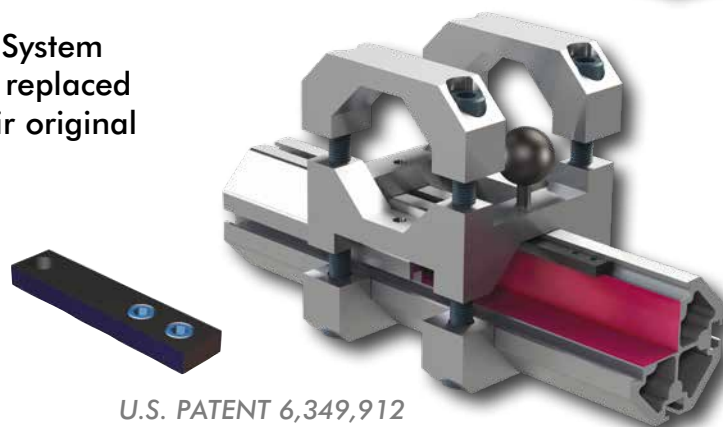
BodyBuilder™ is designed to maximize productivity, both before and after installation. The flexibility of the system allows modifications to the end effector in minutes, greatly reducing start up time to launch.

The octagonal structure is available in four sizes: 30mm, 45mm, 60mm, and 90mm.



The patented BodyBuilder™ Alignment System allows the modular components to be replaced individually and easily returned to their original positions.

Alignment nut(s) are included with every Bodybuilder™ modular component, utilizing the patented alignment system.



**Most commonly used in:**

Applications	Markets
Robot Welding	Industrial
Pick and Place	Automotive
Material Handling	Transportation
Lower Nest	Appliance

Heavy Duty  
Mid Mount Assembly

M-Series Cross  
Bracket Assembly

Ready-to-assemble  
mounts and accessories  
eliminate drilling and  
welding at assembly.

82M Series Power  
Clamp



# BODYBUILDER™ BOOM STRUCTURE

BodyBuilder™ Octagonal Tooling | Dimensions

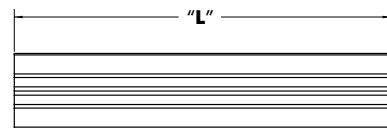
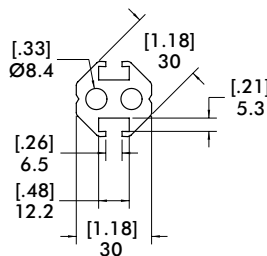
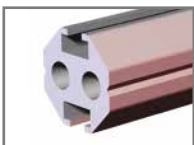


## 30, 45, 60, and 90mm Boom Lengths and Ordering Numbers

BODYBUILDER™ OCTAGONAL ALUMINUM BOOM LENGTHS & ORDER NUMBERS				
(L) Length	B - 30 - (L) - 0	B - 45 - (L) - 0	B - 60 - (L) - 0	B - 90 - (L) - 0
150 mm	B - 30 - 150 - 0	B - 45 - 150 - 0	B - 60 - 150 - 0	N/A
200 mm	B - 30 - 200 - 0	B - 45 - 200 - 0	B - 60 - 200 - 0	N/A
250 mm	B - 30 - 250 - 0	B - 45 - 250 - 0	B - 60 - 250 - 0	N/A
300 mm	B - 30 - 300 - 0	B - 45 - 300 - 0	B - 60 - 300 - 0	B - 90 - 300 - 0
400 mm	B - 30 - 400 - 0	B - 45 - 400 - 0	B - 60 - 400 - 0	B - 90 - 400 - 0
500 mm	B - 30 - 500 - 0	B - 45 - 500 - 0	B - 60 - 500 - 0	B - 90 - 500 - 0
600 mm	B - 30 - 600 - 0	B - 45 - 600 - 0	B - 60 - 600 - 0	B - 90 - 600 - 0
700 mm	B - 30 - 700 - 0	B - 45 - 700 - 0	B - 60 - 700 - 0	B - 90 - 700 - 0
750 mm	B - 30 - 750 - 0	B - 45 - 750 - 0	B - 60 - 750 - 0	B - 90 - 750 - 0
800 mm	B - 30 - 800 - 0	B - 45 - 800 - 0	B - 60 - 800 - 0	B - 90 - 800 - 0
900 mm	B - 30 - 900 - 0	B - 45 - 900 - 0	B - 60 - 900 - 0	B - 90 - 900 - 0
1200 mm	B - 30 - 1200 - 0	B - 45 - 1200 - 0	B - 60 - 1200 - 0	B - 90 - 1200 - 0
1500 mm	B - 30 - 1500 - 0	B - 45 - 1500 - 0	B - 60 - 1500 - 0	B - 90 - 1500 - 0
1800 mm	B - 30 - 1800 - 0	B - 45 - 1800 - 0	B - 60 - 1800 - 0	B - 90 - 1800 - 0
2100 mm	B - 30 - 2100 - 0	B - 45 - 2100 - 0	B - 60 - 2100 - 0	B - 90 - 2100 - 0
2400 mm	B - 30 - 2400 - 0	B - 45 - 2400 - 0	B - 60 - 2400 - 0	B - 90 - 2400 - 0
2700 mm	B - 30 - 2700 - 0	B - 45 - 2700 - 0	B - 60 - 2700 - 0	B - 90 - 2700 - 0
3000 mm	B - 30 - 3000 - 0	B - 45 - 3000 - 0	B - 60 - 3000 - 0	B - 90 - 3000 - 0

## 30mm Boom Profile Dimensions and Specifications

### BodyBuilder™ 30mm Boom

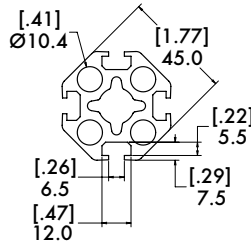
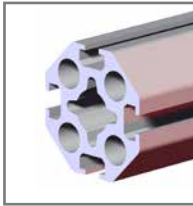


Model Number	Weight
B - 30 - (L) - 0	1.4 kg/m [0.9 lb/ft]



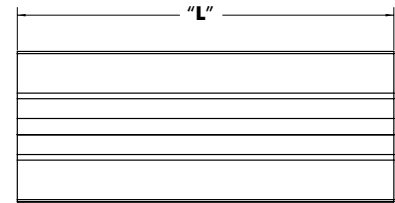
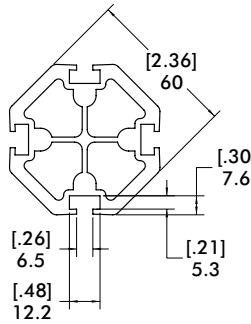
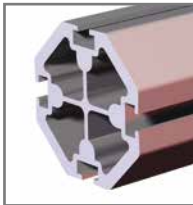
## 45, 60, and 90mm Boom Profile Dimensions and Specifications

### BodyBuilder™ 45mm Boom



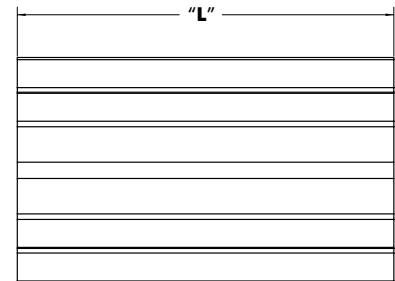
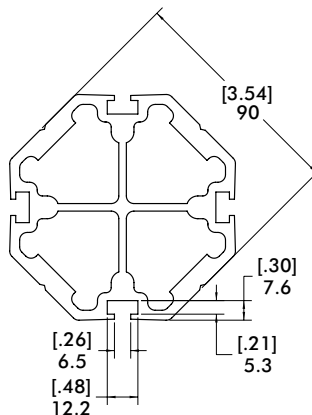
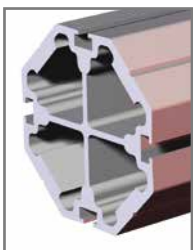
Model Number	Weight
<b>B - 45 - (L) - 0</b>	2.0 kg/m [1.4 lb/ft]

### BodyBuilder™ 60mm Boom



Model Number	Weight
<b>B - 60 - (L) - 0</b>	3.3 kg/m [2.2 lb/ft]

### BodyBuilder™ 90mm Boom



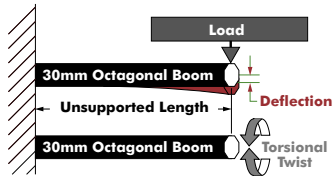
Model Number	Weight
<b>B - 90 - (L) - 0</b>	6.5 kg/m [4.4 lb/ft]

# BODYBUILDER™ BOOM STRUCTURE

BodyBuilder™ Octagonal Tooling | Technical Specifications

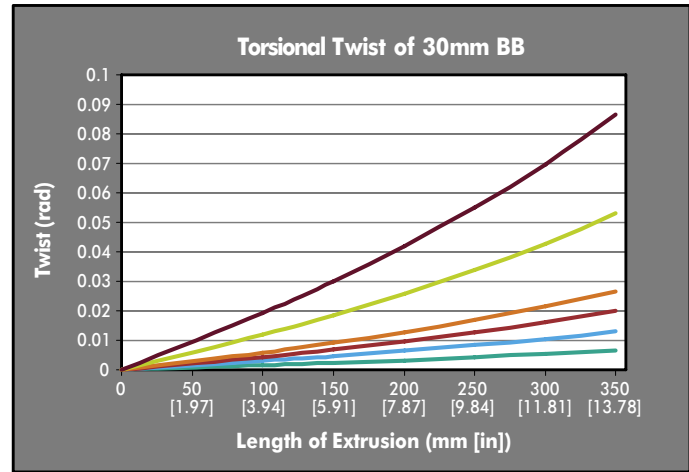
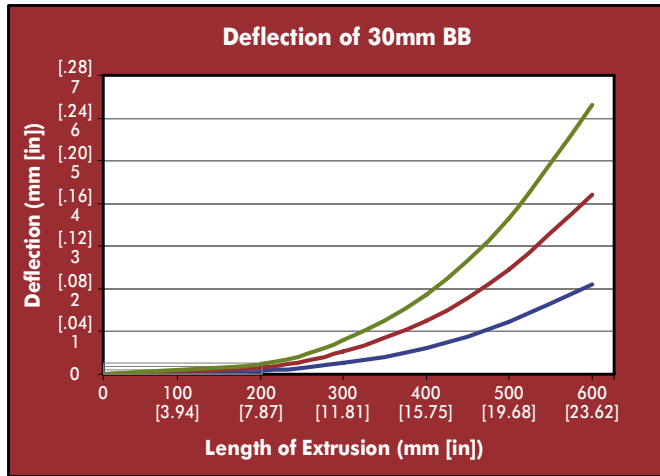
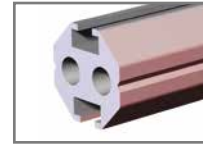


## 30mm Boom Deflection and Torsion Charts

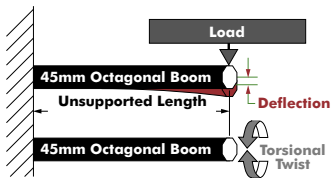


5 Kgf	11.0 lbf
10 Kgf	22.0 lbf
15 Kgf	33.0 lbf

100 Kgf-cm	86.8 lbf-in
200 Kgf-cm	173.6 lbf-in
300 Kgf-cm	260.4 lbf-in
400 Kgf-cm	347.2 lbf-in
800 Kgf-cm	694.4 lbf-in
1300 Kgf-cm	1128.4 lbf-in

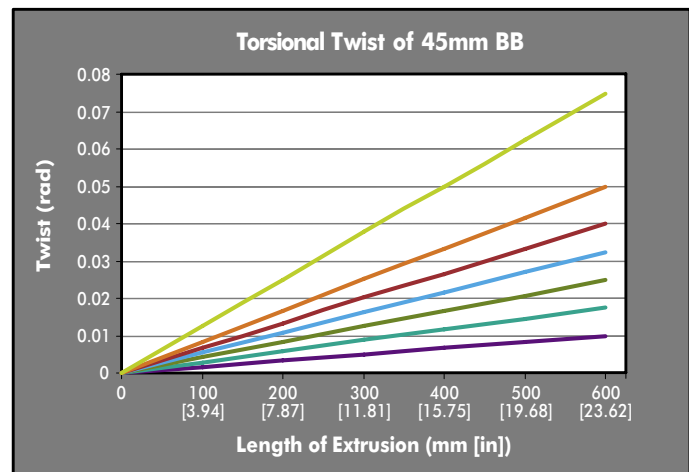
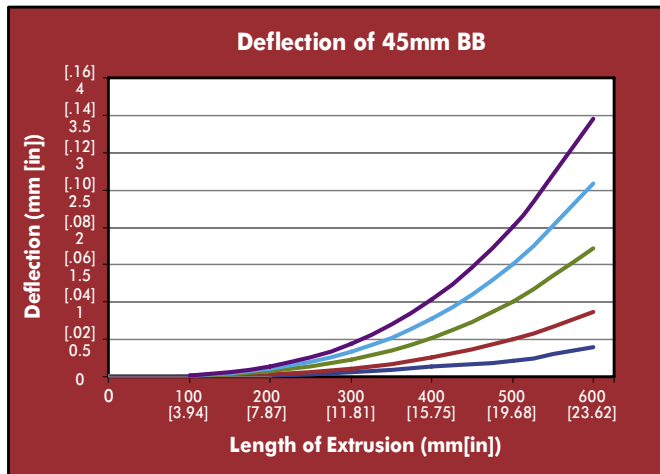
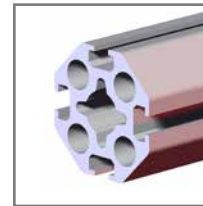


## 45mm Boom Deflection and Torsion Charts



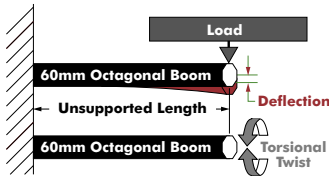
5 Kgf	11.0 lbf
10 Kgf	22.0 lbf
20 Kgf	44.1 lbf
30 Kgf	66.1 lbf
40 Kgf	88.2 lbf

400 Kgf-cm	347.2 lbf-in
700 Kgf-cm	607.6 lbf-in
1000 Kgf-cm	867.0 lbf-in
1300 Kgf-cm	1128.4 lbf-in
1600 Kgf-cm	1388.7 lbf-in
2000 Kgf-cm	1735.9 lbf-in
3000 Kgf-cm	2603.9 lbf-in



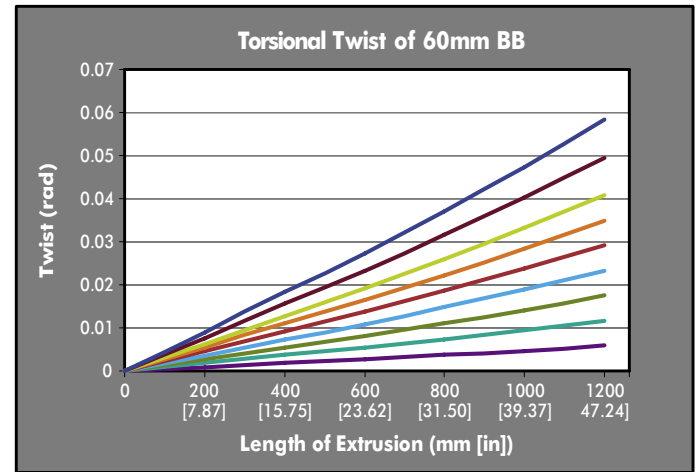
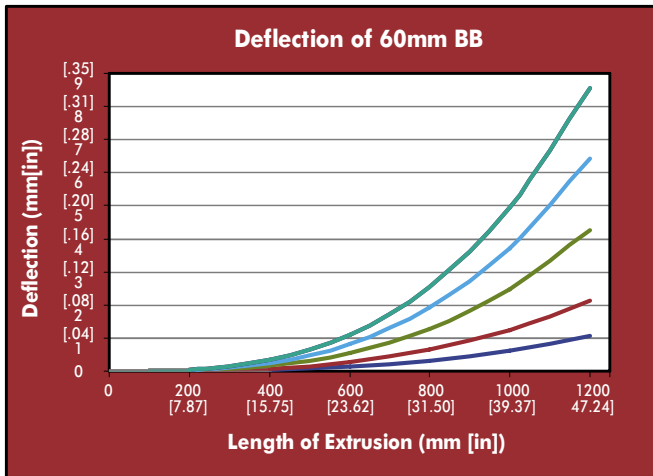
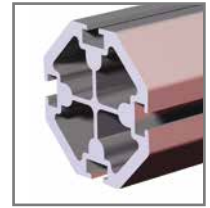
Note: Performance may vary if used with non-DESTACO components

### 60mm Boom Deflection and Torsion Charts

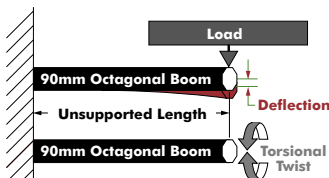


5 Kgf	11.0 lbf
10 Kgf	22.0 lbf
20 Kgf	44.1 lbf
30 Kgf	66.1 lbf
40 Kgf	88.2 lbf
50 Kgf	110.2 lbf

400 Kgf-cm	347.2 lbf-in
800 Kgf-cm	694.4 lbf-in
1200 Kgf-cm	1041.6 lbf-in
1600 Kgf-cm	1388.7 lbf-in
2000 Kgf-cm	1735.9 lbf-in
2400 Kgf-cm	2083.1 lbf-in
2800 Kgf-cm	2430.3 lbf-in
3400 Kgf-cm	2951.1 lbf-in
4000 Kgf-cm	3471.8 lbf-in

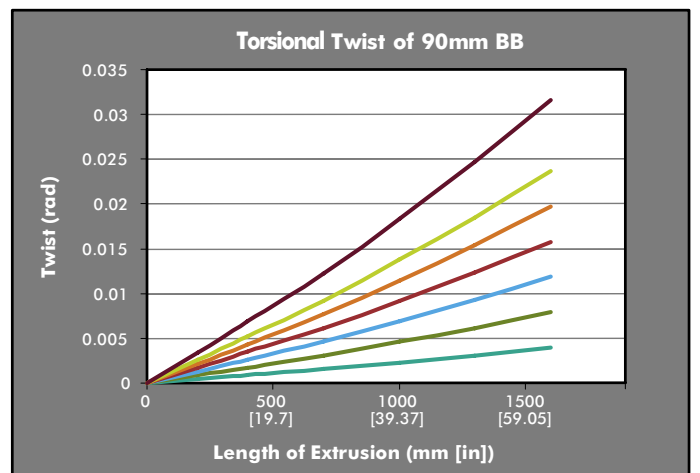
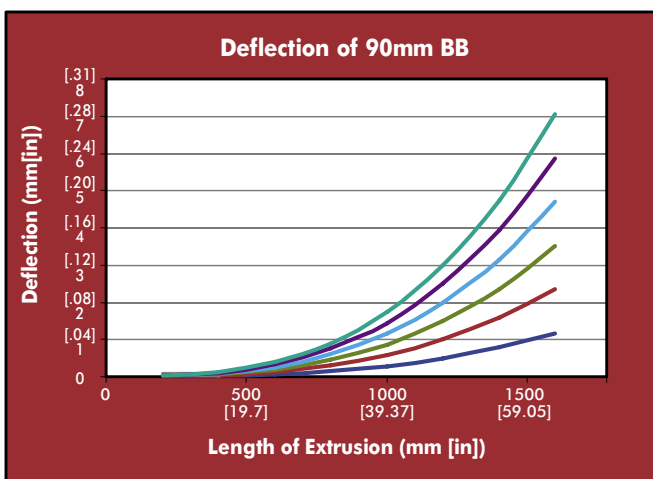
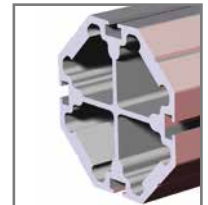


### 90mm Boom Deflection and Torsion Charts



10 Kgf	22.0 lbf
20 Kgf	44.1 lbf
30 Kgf	66.1 lbf
40 Kgf	88.2 lbf
50 Kgf	110.2 lbf
60 Kgf	132.3 lbf

1000 Kgf-cm	867.0 lbf-in
2000 Kgf-cm	1735.9 lbf-in
3000 Kgf-cm	2603.9 lbf-in
4000 Kgf-cm	3471.8 lbf-in
5000 Kgf-cm	4339.8 lbf-in
6000 Kgf-cm	5207.8 lbf-in
8000 Kgf-cm	6943.7 lbf-in



**Note:** Performance may vary if used with non-DESTACO components

# BODYBUILDER™ BOOM STRUCTURE ACCESSORIES

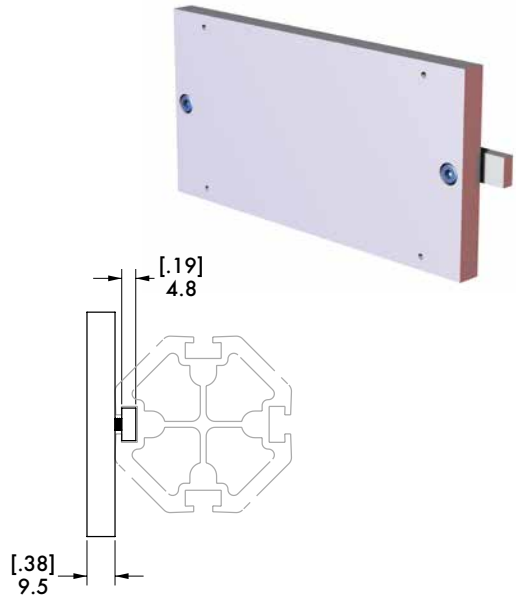
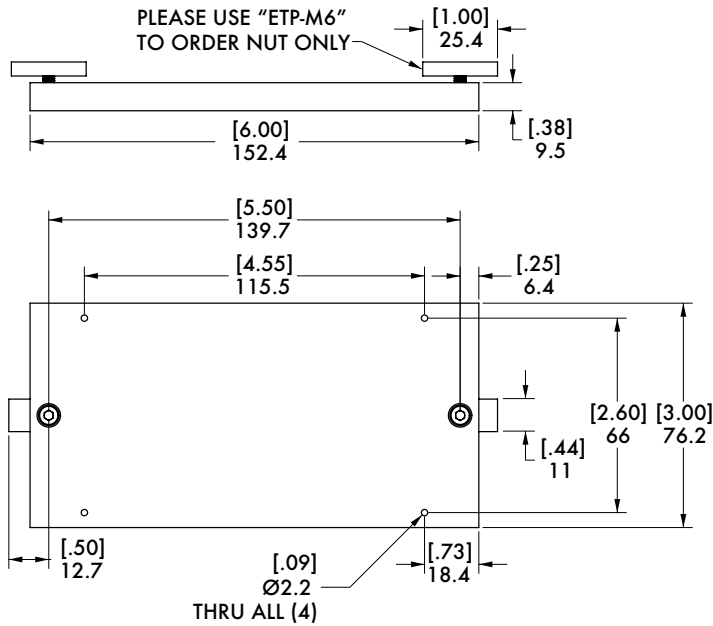
BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## ETP-35 Extrusion Accessory Mount

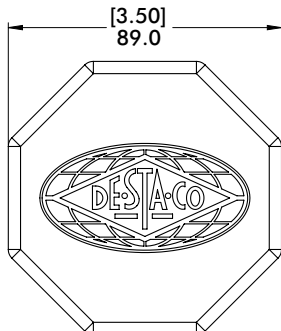


**Specifications:**  
**Material:** Aluminum

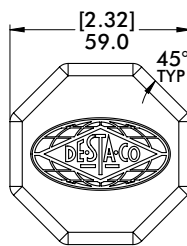


Model Number	Weight
CPI-ETP-35	.31 kg [.68 lb]

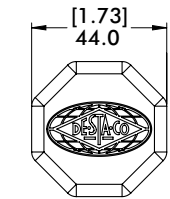
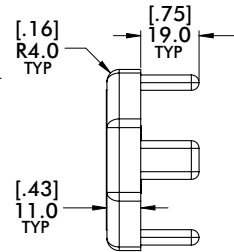
## EC-60 60mm Bodybuilder Octagonal Boom End Cap



End Cap



60mm End Cap



45mm End Cap



Model Number	Weight
CPI-EC-45B	.02 kg [.05 lb]
CPI-EC-60B	.04 kg [.09 lb]
CPI-EC-90B	.09 kg [.20 lb]



# BODYBUILDER™ MID-MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**RMM-30B-40BC-08-90** Single Extrusion 30mm Mid Mount with 40mm Bolt Circle

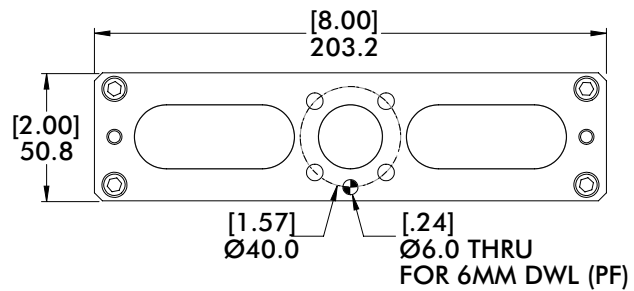
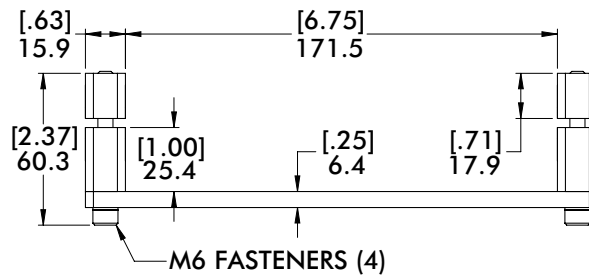
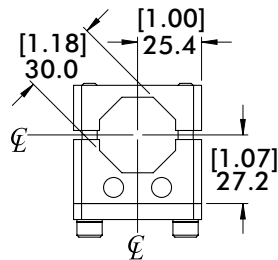
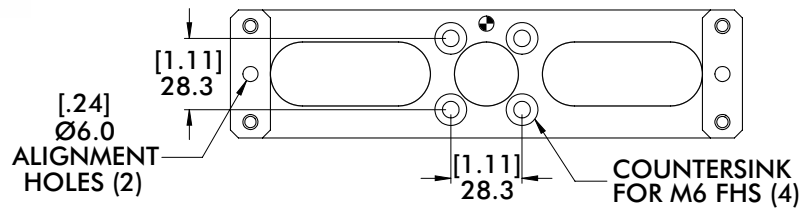
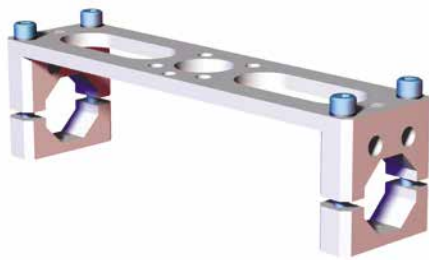


**Specifications:**

Max. Static Product Load:

102 Nm [75 ft-lb]

Material: Aluminum



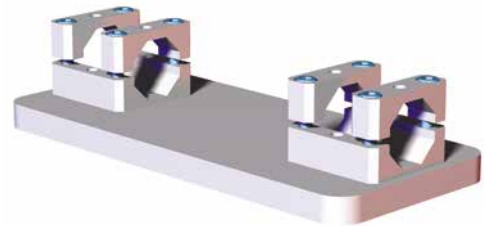
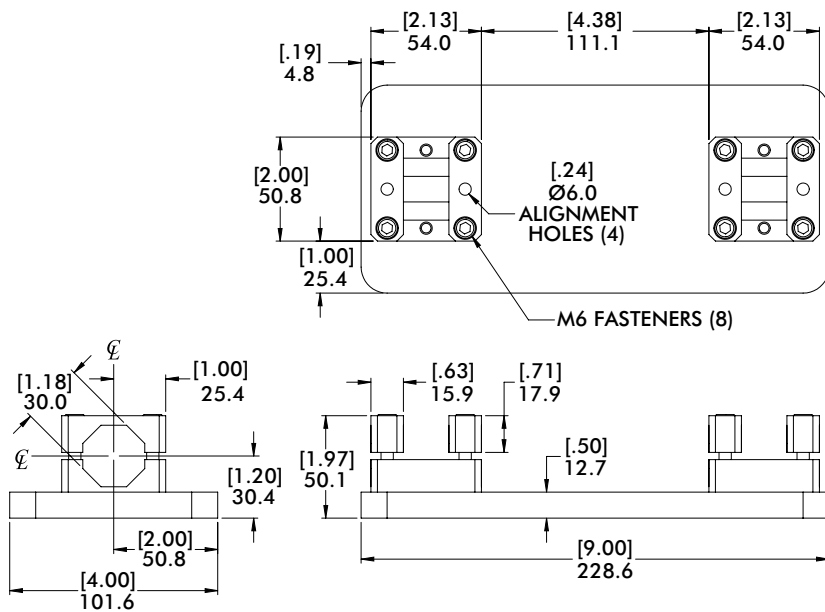
Model Number	Weight
CPI-RMM-30B-40BC-08-90	.28 kg [.62 lb]

# BODYBUILDER™ MID-MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



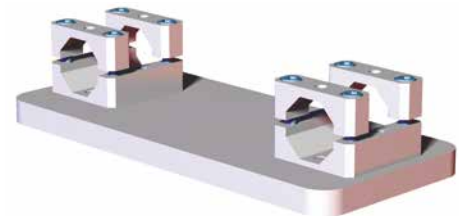
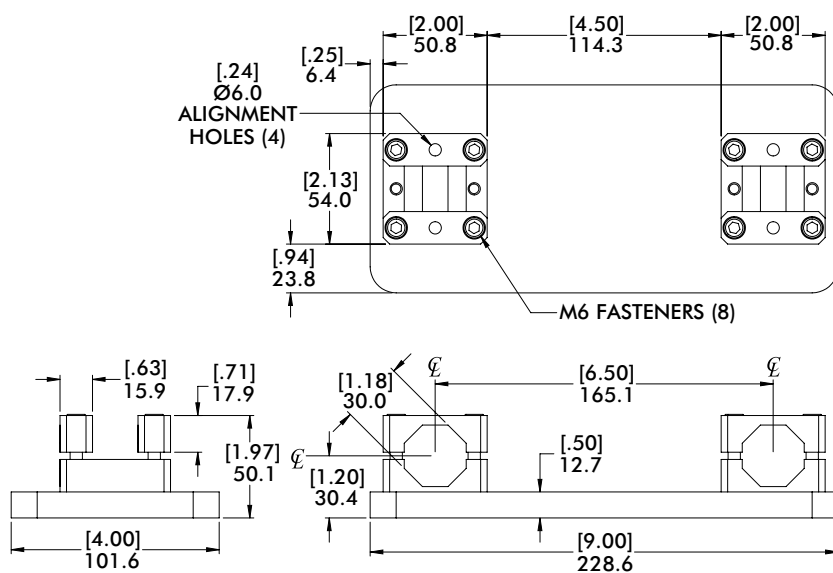
## RMM-30B-SE Single Extrusion 60mm Robot Adaptor Mid Mount



**Specifications:**  
 Max. Static Product Load:  
 102 Nm [75 ft-lb] **Material:**  
 Aluminum

Model Number	Weight
<b>CPI-RMM-30B-SE</b>	1.05 kg [2.31 lb]

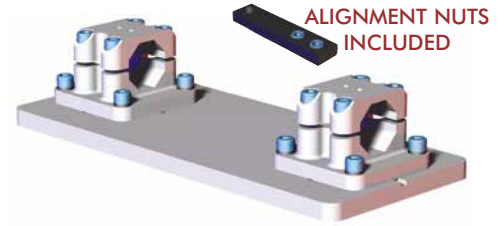
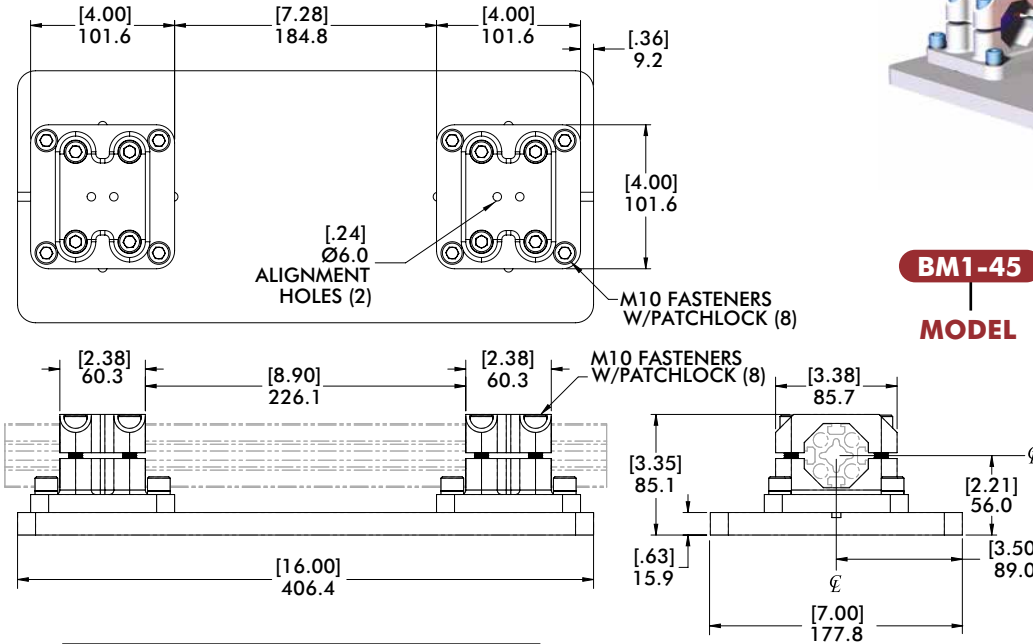
## RMM-30B-DE Double Extrusion 30mm Robot Adaptor Mid Mount



**Specifications:**  
 Max. Static Product Load:  
 102 Nm [75 ft-lb] **Material:**  
 Aluminum

Model Number	Weight
<b>CPI-RMM-30B-DE</b>	1.05 kg [2.31 lb]

## BM1-45-SE Single Extrusion 45mm Mid Mount



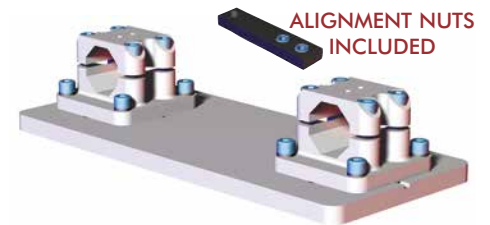
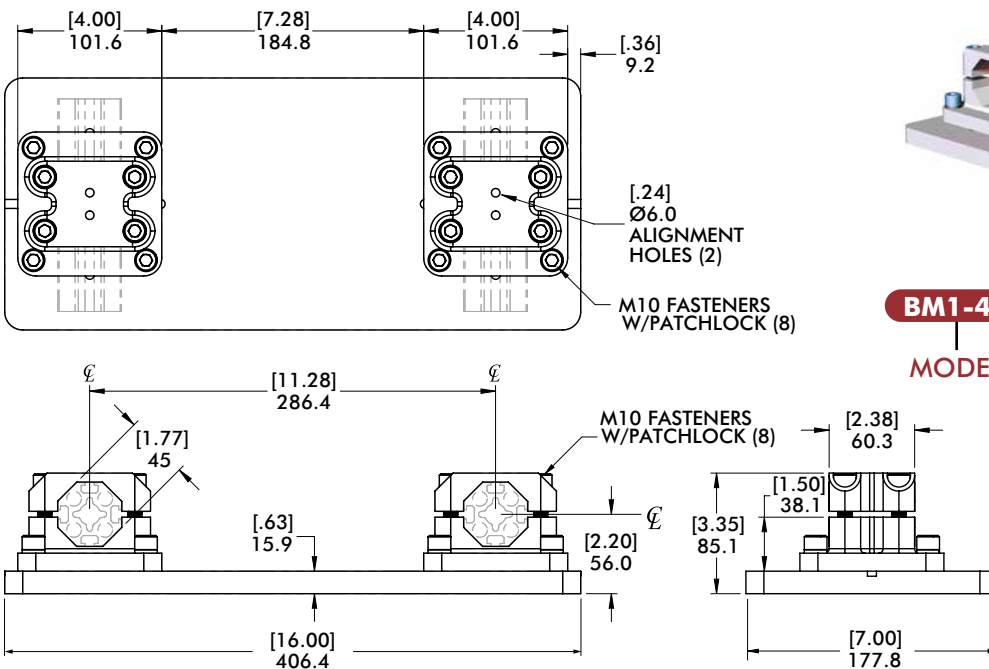
**BM1-45** — **SE** — **RXX**  
**MODEL** — **BOOM SETUP (SINGLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 350 Nm [258 ft-lb]  
 Material: Aluminum

**Weight**  
 5.05 kg [11.1 lb]

Can be supplied with robot interface hole patterns. (See pages 19-21).

## BM1-45-DE Double Extrusion 45mm Mid Mount



**BM1-45** — **DE** — **RXX**  
**MODEL** — **BOOM SETUP (DOUBLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 350 Nm [258 ft-lb]  
 Material: Aluminum

**Weight**  
 5.05 kg [11.1 lb]

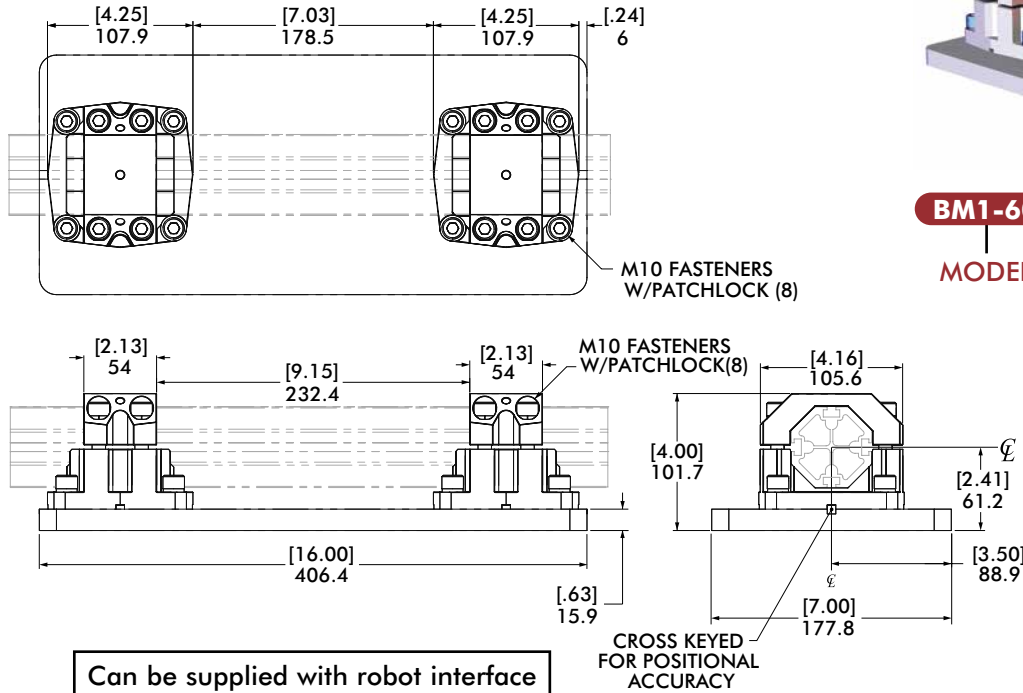
Can be supplied with robot interface hole patterns. (See pages 19-21).

# BODYBUILDER™ MID MOUNT ASSEMBLIES

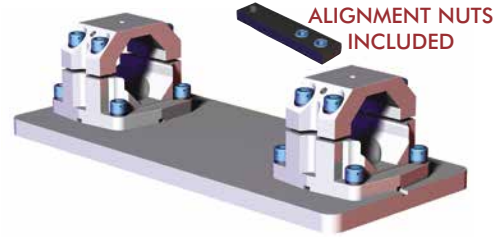
BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## BM1-60-SE 60mm Single Extrusion Mid Mount Assembly



Can be supplied with robot interface hole patterns. (See pages 19-21).



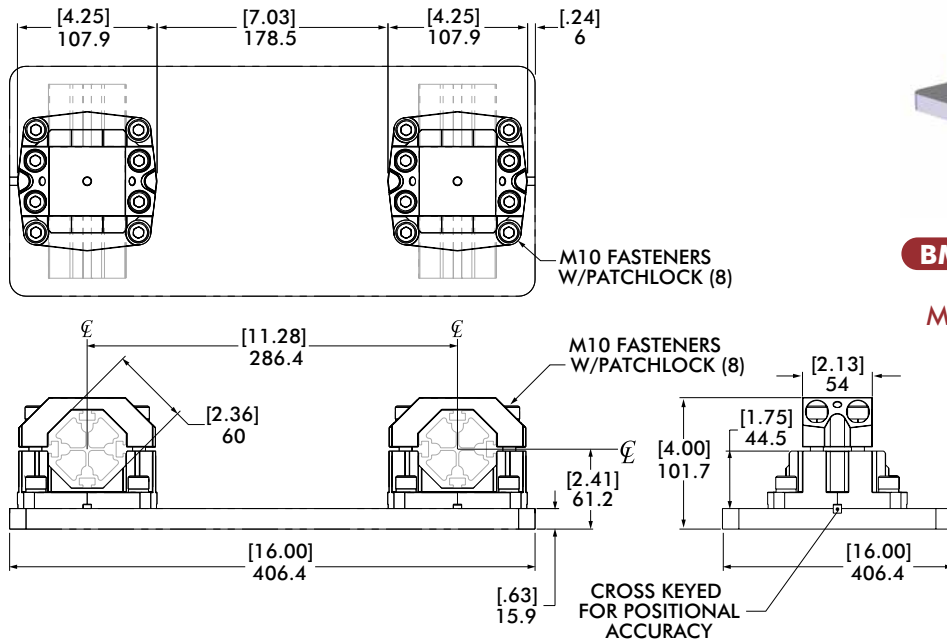
ALIGNMENT NUTS INCLUDED

**BM1-60** — **SE** — **RXX**  
**MODEL** — **BOOM SETUP (SINGLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

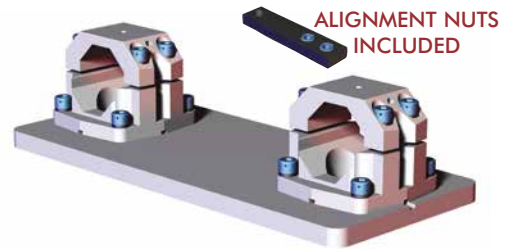
**Specifications:**  
 Max. Static Product Load:  
 675 Nm [500 ft-lb]  
 Material: Aluminum

**Weight**  
 5.2 kg [11.5 lb]

## BM1-60-DE 60mm Double Extrusion Mid Mount Assembly



Can be supplied with robot interface hole patterns. (See pages 19-21).



ALIGNMENT NUTS INCLUDED

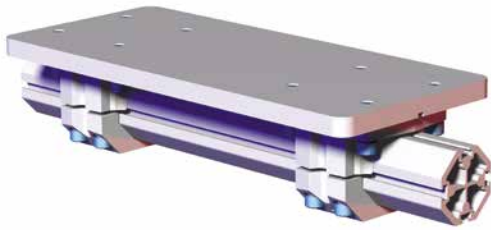
**BM1-60** — **DE** — **RXX**  
**MODEL** — **BOOM SETUP (DOUBLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 675 Nm [500 ft-lb]  
 Material: Aluminum

**Weight**  
 5.2 kg [11.5 lb]



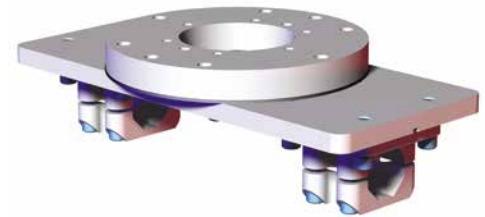
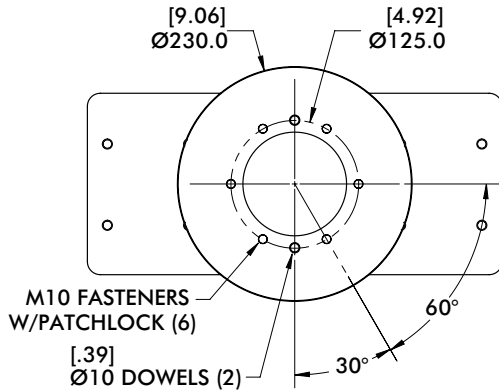
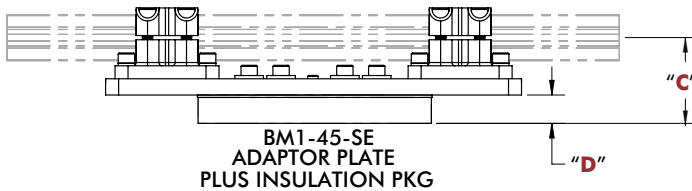
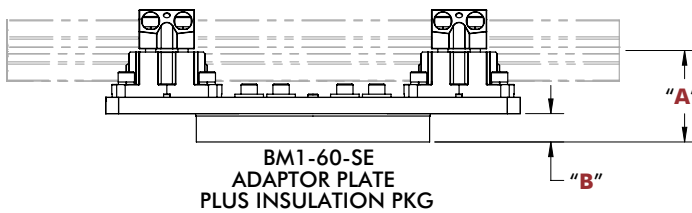
## BM1-45/BM1-60 Mid Mount Assembly - Mount Plate



**Specifications:**  
Material: Aluminum

- Features:**
- Can be machined or left blank.
  - Can be supplied with robot interface hole patterns. (See pages 19-21).

## BM1-45/BM1-60 Mid Mount Assembly - Adapter Plate



All mounting patterns on pages 19-21 can be used for **BM1-60** and **BM1-45** Mid Mount Assemblies. All Ø200mm mounting patterns, when used on the **BM1-45** and **BM1-60**, includes an Adapter Plate as shown.

### MID MOUNT ASSEMBLY ADAPTER PLATE

PATTERN	"A"	"B"	"C"	"D"
<b>R01, R10, R11, R16</b>	89.6 [3.53]	27.8 [1.09]	83.8 [3.30]	27.8 [1.09]
<b>R07, R09</b>	96.0 [3.78]	34.1 [1.34]	99.6 [3.92]	34.1 [1.34]

# BODYBUILDER™ MID MOUNT ASSEMBLIES



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## RM4-45 45mm, RM4-60 60mm Heavy Duty Mid Mount Assembly - Dimensions

### Features:

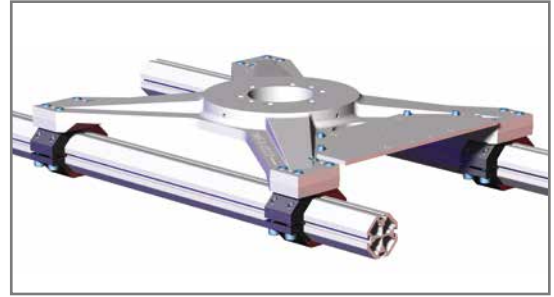
- Can be used as a direct robot interface.
- Provide robust clamping of each extrusion for maximum stability.
- Standard robot interface patterns provided. Plate can also be left blank.

### Specifications:

**Max. Static Product Load:**  
453.6 kg [1000 lb]

### Material:

Mid Mount:  
Cast Aluminum  
Clamps: Steel

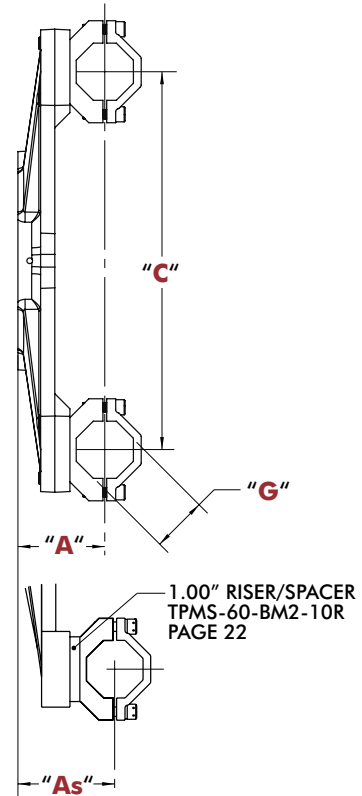
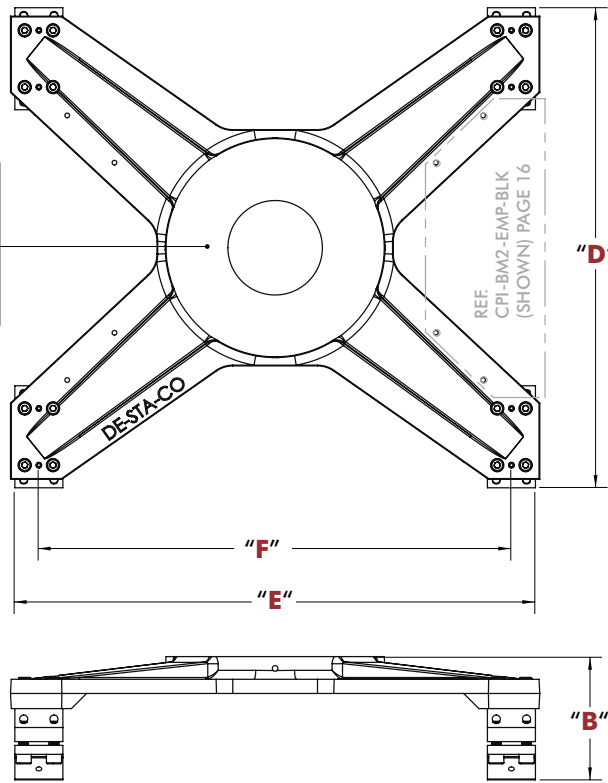


**ROBOT INTERFACE PLATE SHOWN BLANK.**  
PLEASE REFER TO PAGES 20-22 FOR STANDARD ROBOT INTERFACE BOLT PATTERNS & DIMENSIONS

**NOTE:**  
SCREWS AND FASTENERS FOR MOUNTING ARE NOT INCLUDED

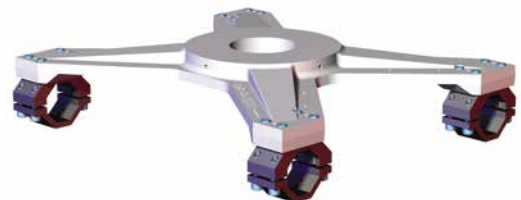
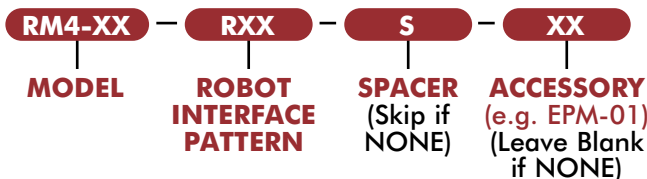
ADD 1.5MM TO "A"/"AS" DIM FOR INSULATION PACKAGE IF REQUIRED.

INSULATION PACKAGE INCLUDES:  
(1) INSULATION PLATE, BUSHINGS AND WASHERS

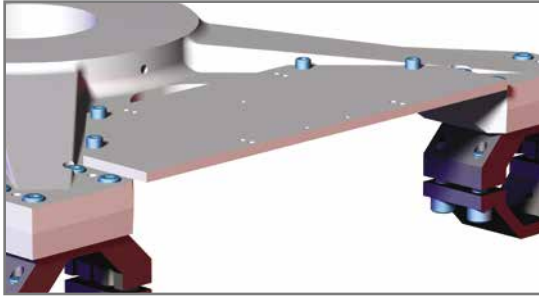


### HEAVY-DUTY MID MOUNT ASSEMBLY DIMENSIONS

Model	"A"	"As"	"B"	"C"	"D"	"E"	"F"	"G"	Weight
<b>RM4-45 (45mm)</b>	85.6 [3.37]	111 [4.37]	117.6 [4.63]	400 [15.75]	490 [19.29]	560 [22.05]	500.0 [19.69]	45	13.6 kg [30.0 lb]
<b>RM4-60 (60mm)</b>	91.9 [3.62]	117.3 [4.62]	131.7 [5.185]	400.0 [15.75]	508 [20.00]	560.8 [22.85]	500.0 [19.69]	60	15.5 kg [34.2 lb]



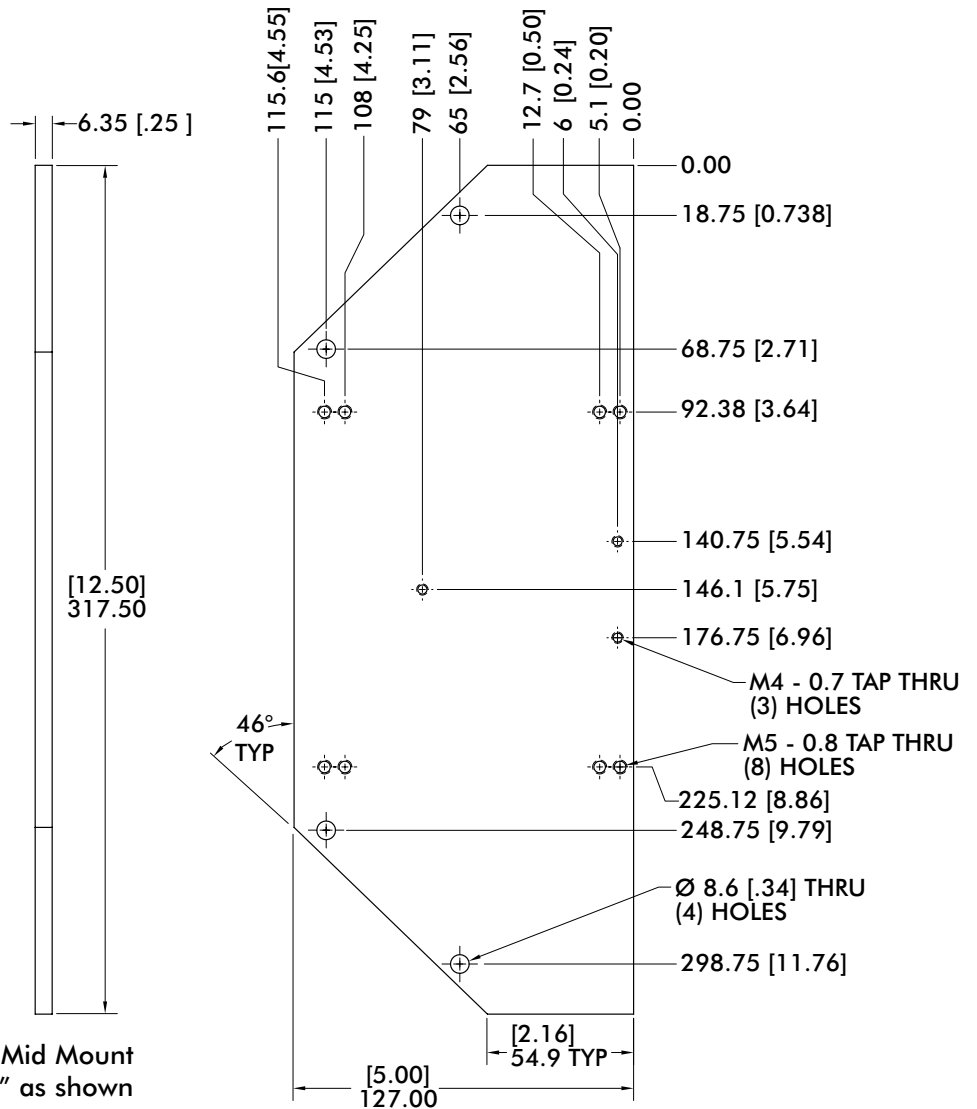
## BM2-EPM Accessory Mount Plate



**Specifications:**  
Material: Aluminum

**Features:**

- Mount directly to the RM4-45 or RM4-60 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.



When ordering with Heavy Duty Mid Mount Please add designation "EPM-01" as shown RM4-XX-RXX-EPM-01 or add designation "EPM-BLK" to order blank RM4-XX-RXX-EPM-BLK

To order separately use Model Number

(A)	Pattern	Model RM4-45/60	Weight
EPM-01	Standard	CPI-BM2-EPM-01	.63 kg [1.39 lb]
EPM-BLK	Blank	CPI-BM2-EPM-BLK	

# BODYBUILDER™ STRUCTURE MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## BM3-90 90mm Heavy Duty Mid Mount Assembly - Dimensions

### Features:

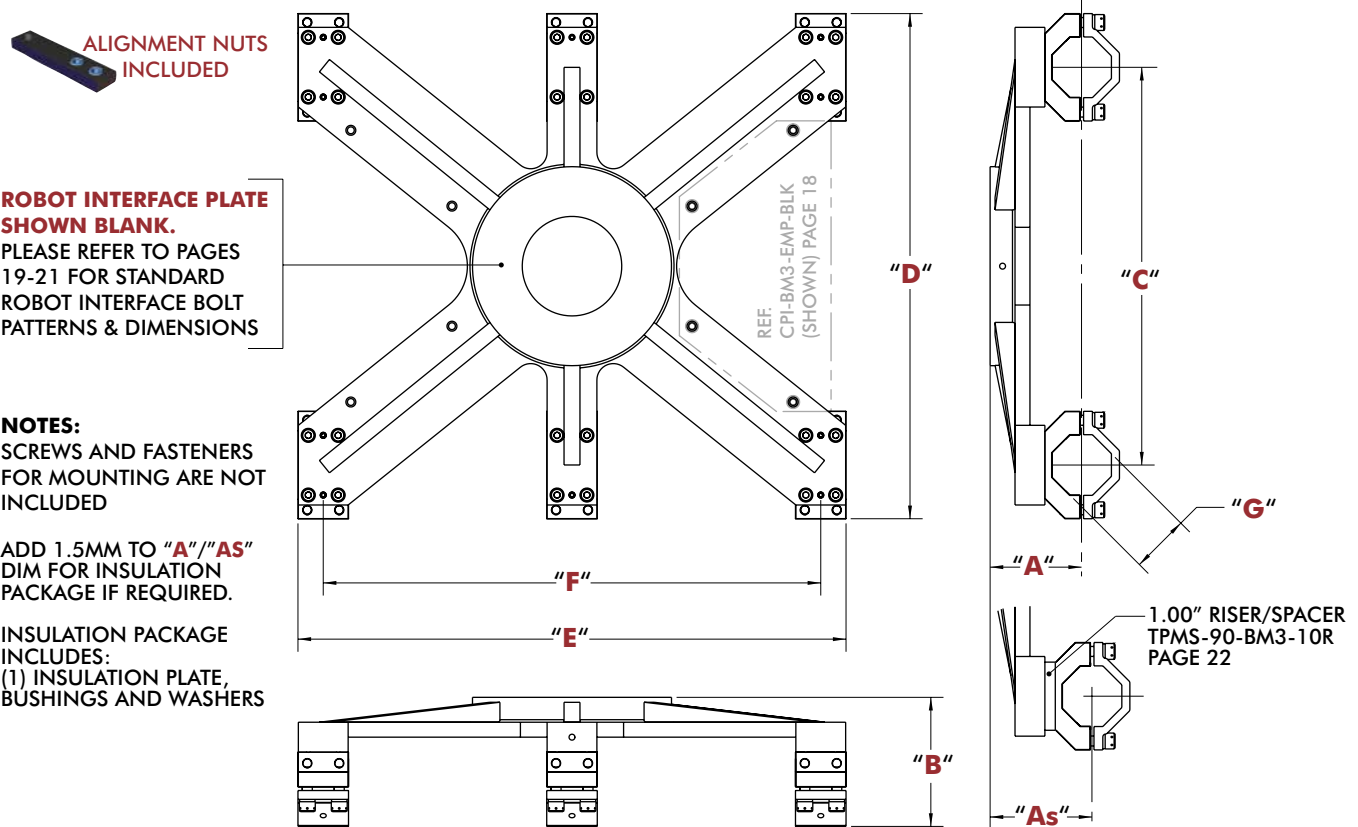
- Can be used as a direct robot interface.
- Provide robust clamping of each extrusion for maximum stability.
- Standard robot interface patterns provided. Plate can also be left blank.

### Specifications:

**Max. Static Product Load:**  
589.7 kg [1300 lb]

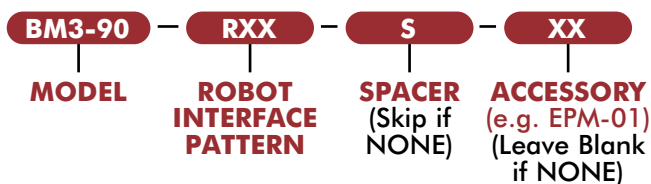
### Material:

Mid Mount:  
Cast Aluminum  
Clamps: Steel



### HEAVY-DUTY MID MOUNT ASSEMBLY DIMENSIONS

Model	"A"	"As"	"B"	"C"	"D"	"E"	"F"	"G"	Weight
BM3-90	107.8 [4.24]	133.2 [5.24]	165.3 [6.51]	600.0 [23.62]	738.0 [29.06]	750.0 [29.53]	700.0 [29.53]	90	24.1 kg [53.1 lb]

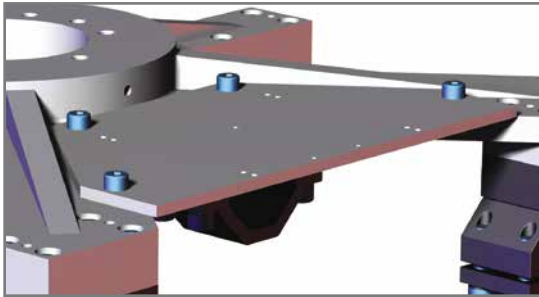




# BODYBUILDER™ MID MOUNT ACCESSORY PLATE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

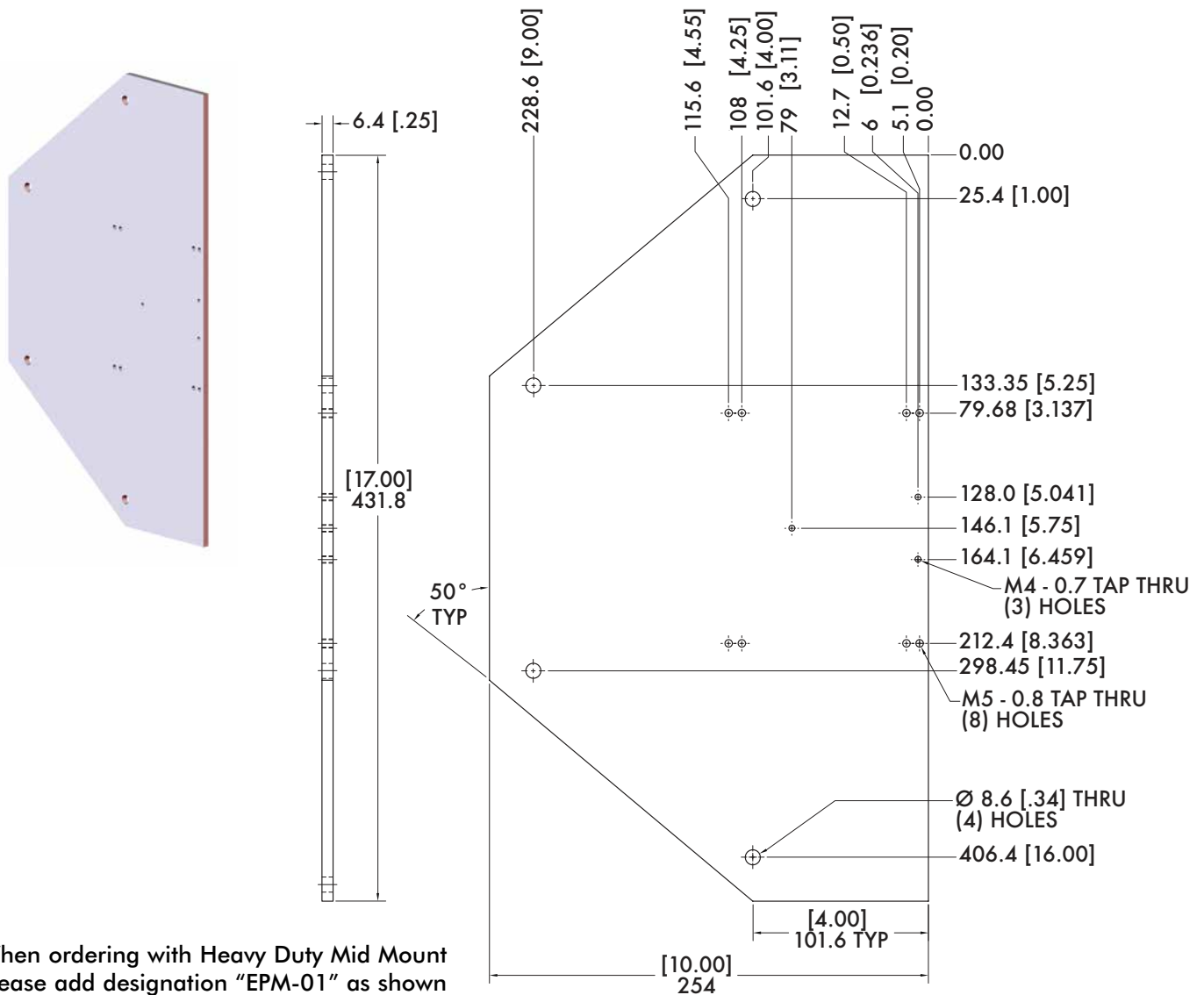
## BM3-EPM Accessory Mount Plate



**Specifications:**  
Material: Aluminum

**Features:**

- Mount directly to the BM3-90 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.



When ordering with Heavy Duty Mid Mount Please add designation "EPM-01" as shown  
 BM3-90-RXX-EPM-01 or  
 add designation "EPM-BLK" to order blank  
 BM3-90-RXX-EPM-BLK  
 To order separately use Model Number

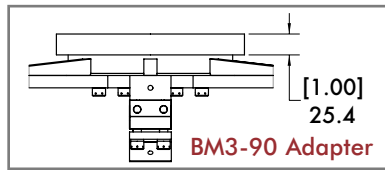
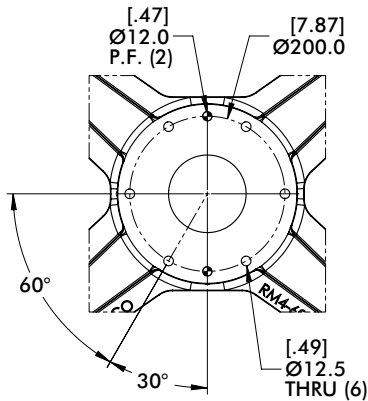
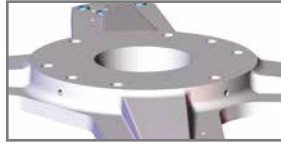
Model Number	Weight
CPI-BM3-EPM-xx	1.54 kg [3.39 lb]

# BODYBUILDER™ MID MOUNT BOLT PATTERNS

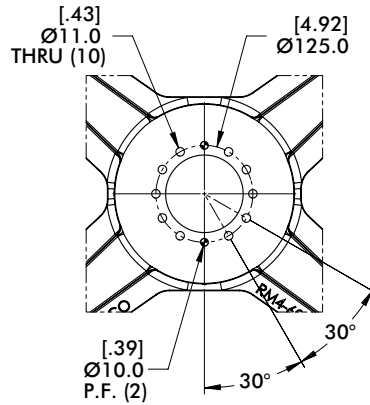
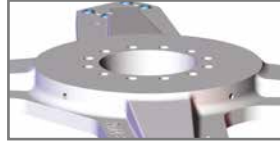
BodyBuilder™ Octagonal Tooling | Robot Interface Bolt Patterns



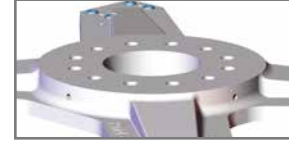
**R01 (Ø200mm Bolt Circle)**



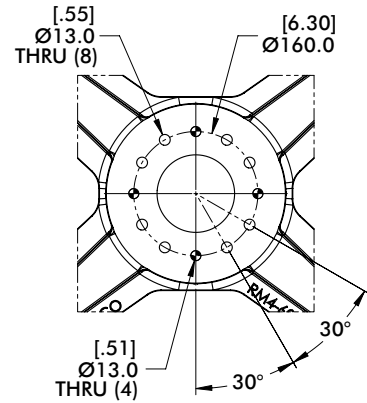
**R02 (Ø125mm Bolt Circle)**



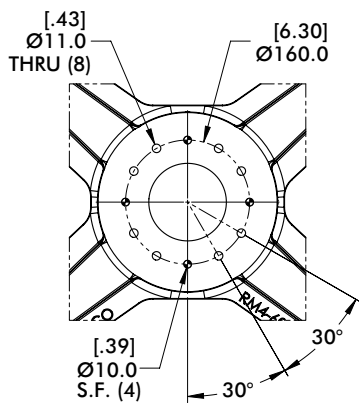
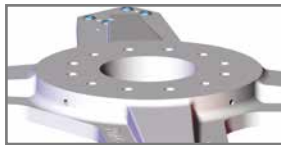
**R03 (Ø160mm Bolt Circle)**



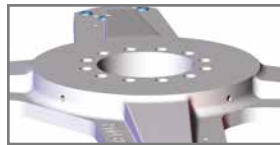
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



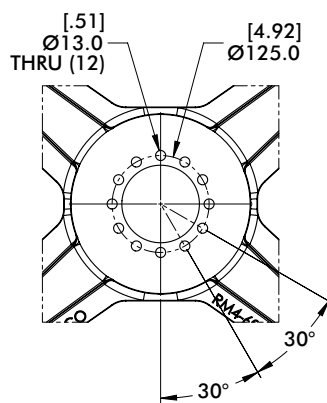
**R04 (Ø160mm Bolt Circle)**



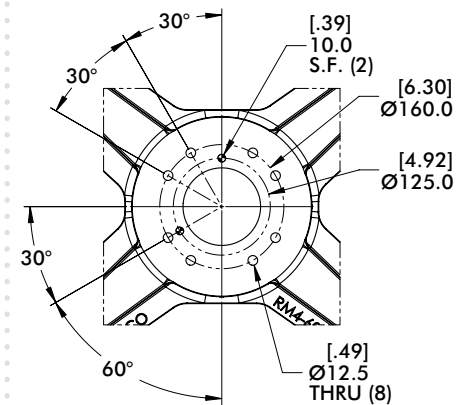
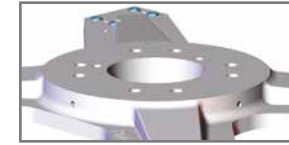
**R05 (Ø125mm Bolt Circle)**



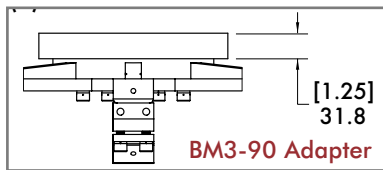
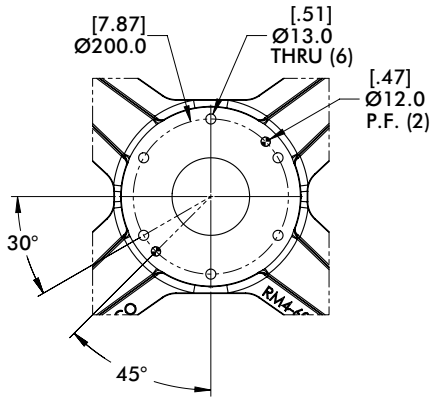
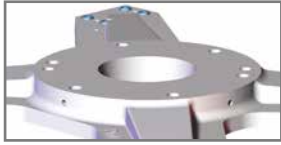
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



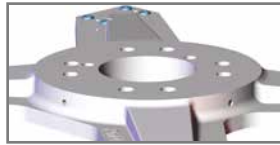
**R06 (Ø125/160mm Bolt Circle)**



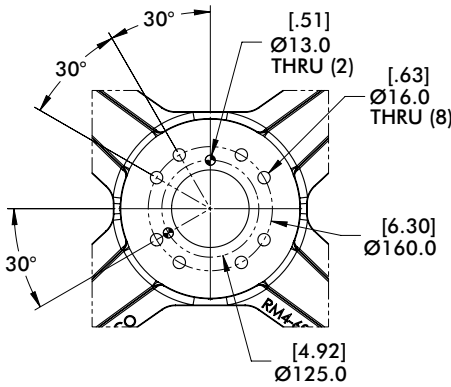
**R07 (Ø200mm Bolt Circle)**



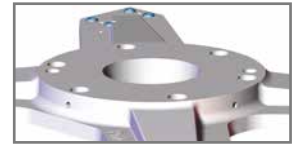
**R08 (Ø125/160mm Bolt Circle)**



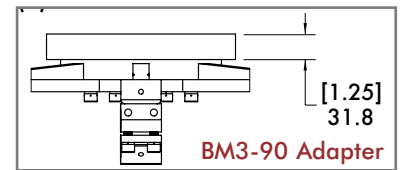
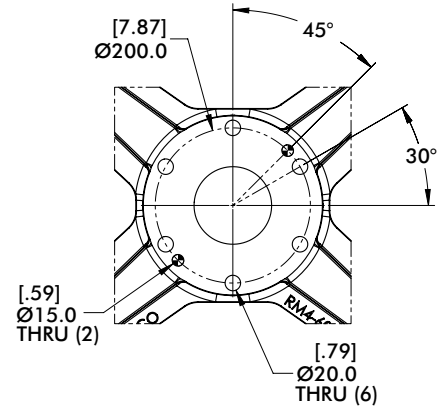
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



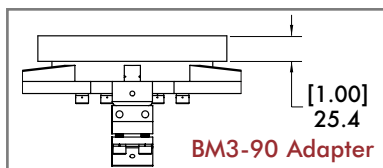
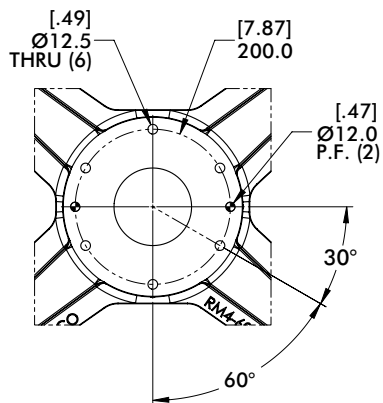
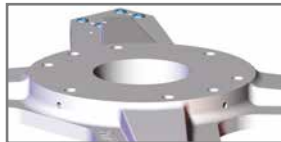
**R09 (Ø200mm Bolt Circle)**



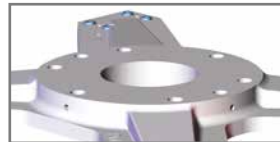
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



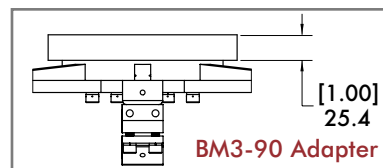
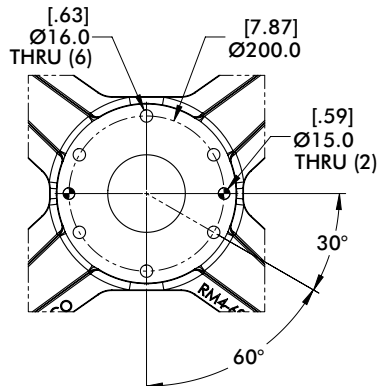
**R10 (Ø200mm Bolt Circle)**



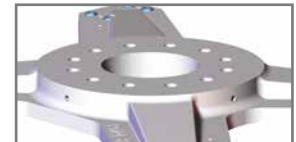
**R11 (Ø200mm Bolt Circle)**



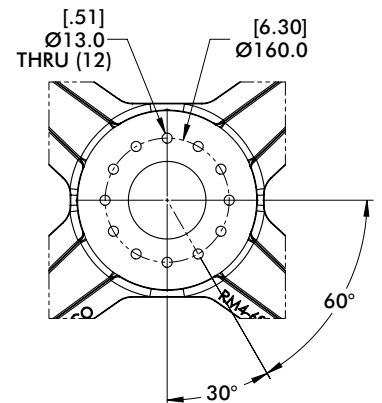
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



**R12 (Ø160mm Bolt Circle)**



**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"

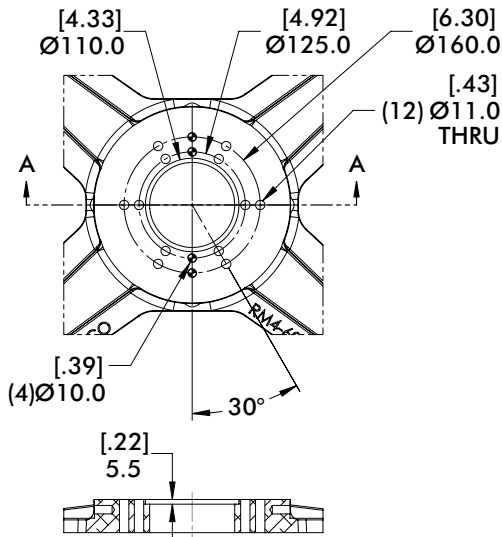
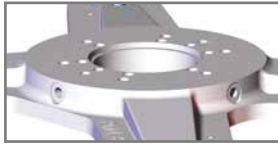


# BODYBUILDER™ MID MOUNT BOLT PATTERNS

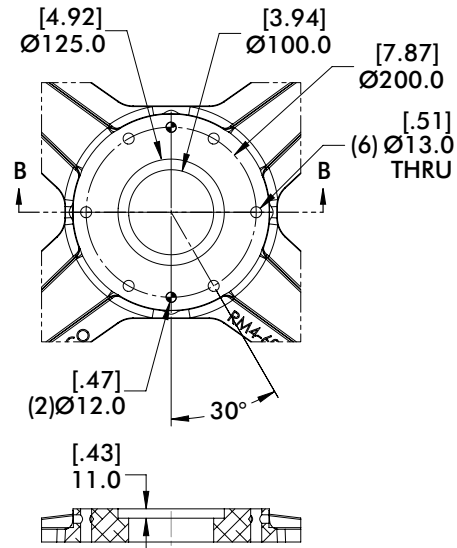
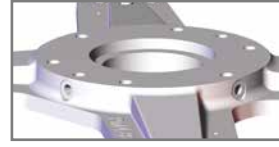


BodyBuilder™ Octagonal Tooling | Robot Interface Bolt Patterns

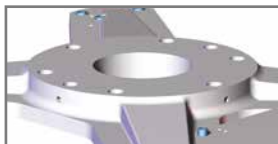
**R13 (Ø125/160mm Bolt Circle)  
(Ø110mm Pilot, 5.5mm Deep)**



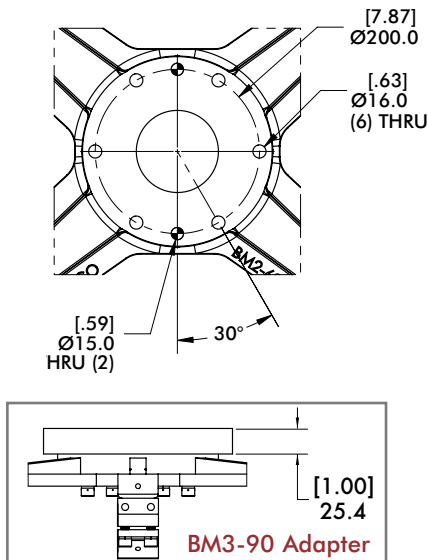
**R14 (Ø200mm Bolt Circle)  
(Ø125mm Pilot, 11mm Deep)**



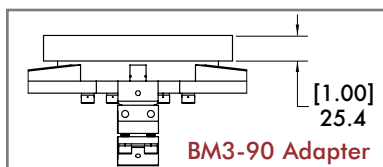
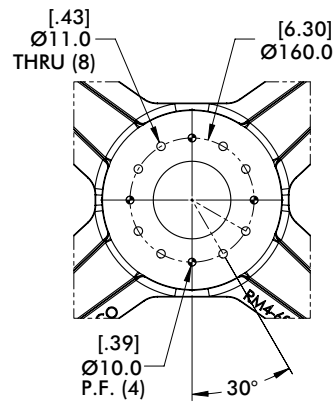
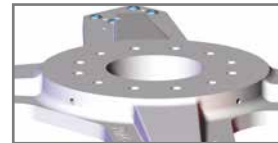
**R16 (Ø200mm Bolt Circle)**



**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"

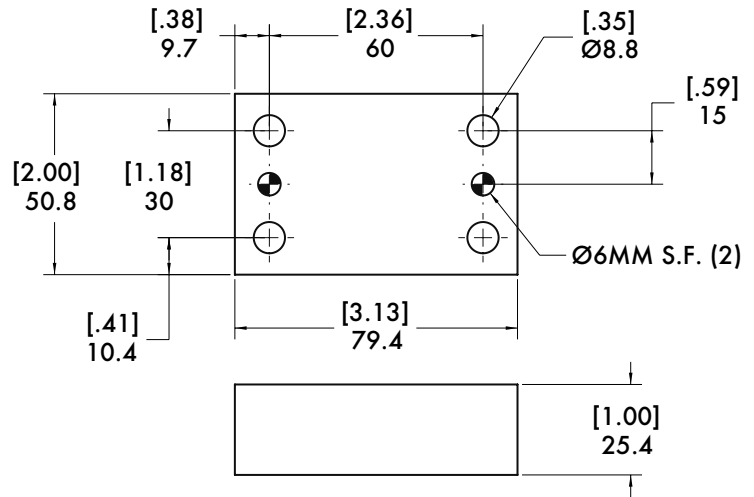
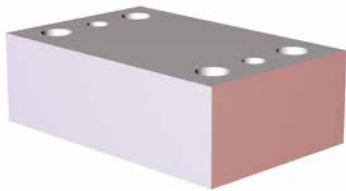
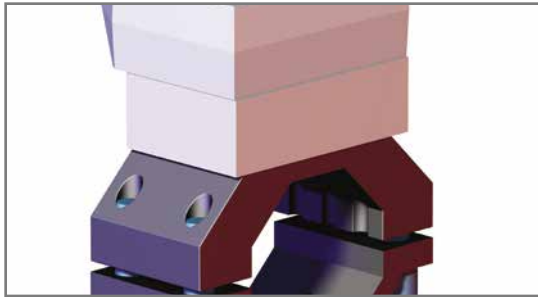


**R17 (Ø160mm Bolt Circle)**





## RM4-60 Heavy Duty Mid Mount Assembly - 1.00" Riser/Spacer



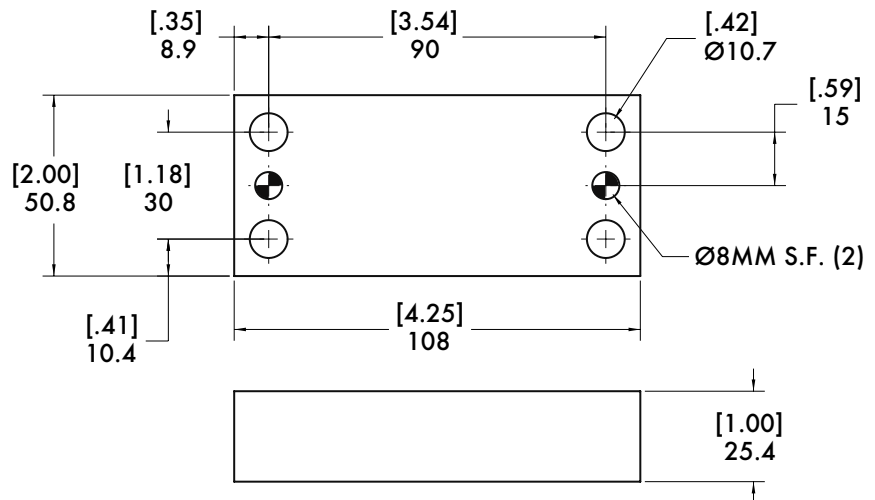
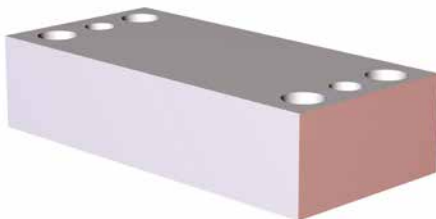
When ordering with Heavy Duty Mid Mount add designation (S) as shown:

RM4-60-RXX-S

To order Riser separately use Model Number.

Riser for	Model	Weight	Specifications:
RM4-45/60	TPMS-60-BM2-10R	.26 kg [.56 lb]	Material: Aluminum

## BM3-90 Heavy Duty Mid Mount Assembly - 1.00" Riser/Spacer



When ordering with Heavy Duty Mid Mount add designation (S) as shown:

BM3-90-RXX-S

To order Riser separately use Model Number.

Model Number	Weight	Specifications:
TPMS-90-BM3-10R	.34 kg [.76 lb]	Material: Aluminum

# BODYBUILDER™ HOLD TABLE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



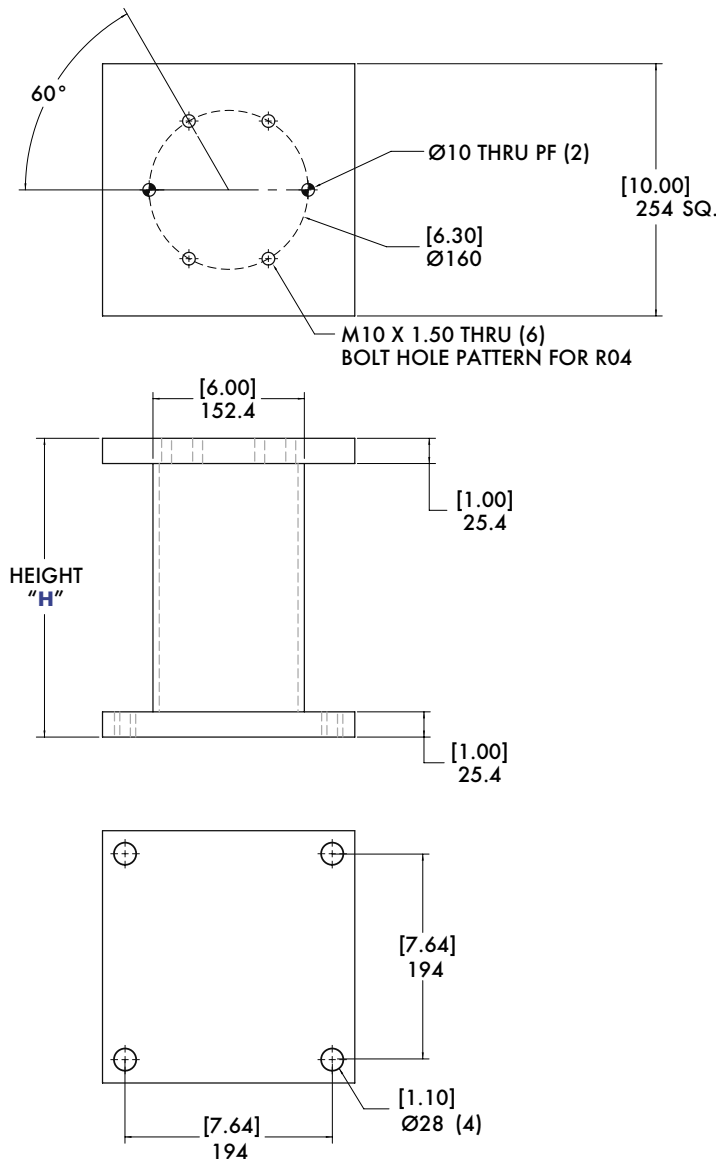
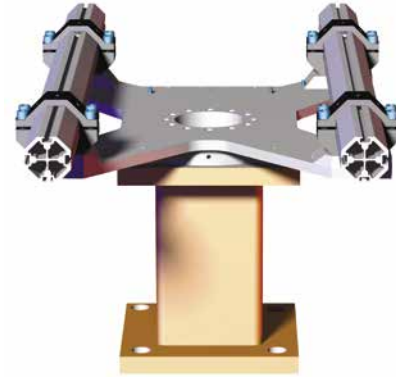
## HTW 6" SQ. Pedestal Hold Table Weldment

### Features:

- Pedestal Hold Table Weldment when used in conjunction with Mid Mount assemblies serves as a pedestal base for a robust parts nest.

### Specifications:

Material: Steel



### CPI-HTW-"H" HOLD TABLE WELDMENT

"H"	Model Number	Weight
250	<b>CPI-HTW-250</b>	32.43 kg [71.30lb]
300	<b>CPI-HTW-300</b>	33.75 kg [74.40lb]
350	<b>CPI-HTW-350</b>	35.16 kg [77.50lb]
400	<b>CPI-HTW-400</b>	36.56 kg [80.60lb]
450	<b>CPI-HTW-450</b>	37.97 kg [83.70lb]
500	<b>CPI-HTW-500</b>	39.37 kg [86.81lb]
550	<b>CPI-HTW-550</b>	40.78 kg [89.91lb]
600	<b>CPI-HTW-600</b>	42.19 kg [93.01lb]
650	<b>CPI-HTW-650</b>	43.59 kg [96.11lb]
700	<b>CPI-HTW-700</b>	45.00 kg [99.21lb]
750	<b>CPI-HTW-750</b>	46.41 kg [102.31lb]
800	<b>CPI-HTW-800</b>	47.81 kg [105.41lb]
850	<b>CPI-HTW-850</b>	49.22 kg [108.51lb]
900	<b>CPI-HTW-900</b>	50.62 kg [111.61lb]

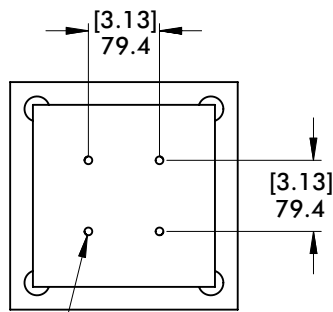


## HTW-4 4" SQ. Pedestal Hold Table Weldment

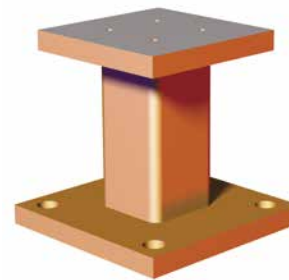
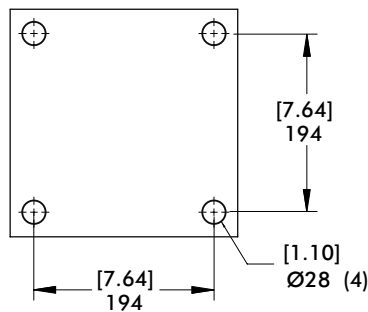
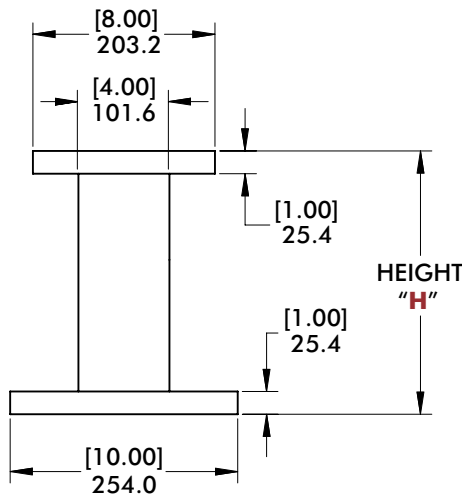
**Specifications:**  
Material: Steel

**Features:**

- Pedestal Hold Table Weldment when used in conjunction with 45mm or 60mm flange and end mount assemblies serves as a pedestal base for a robust parts nest.



M10 X 1.50 THRU (6)  
HOLE PATTERN FOR  
TBC-60-00 AND  
TBC-45-00



### CPI-HTW-“H”-4 HOLD TABLE WELDMENT

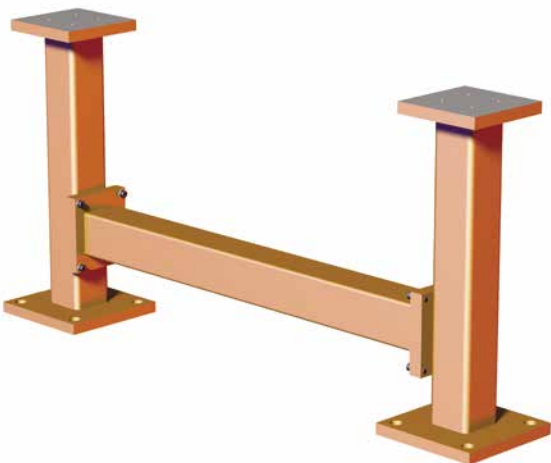
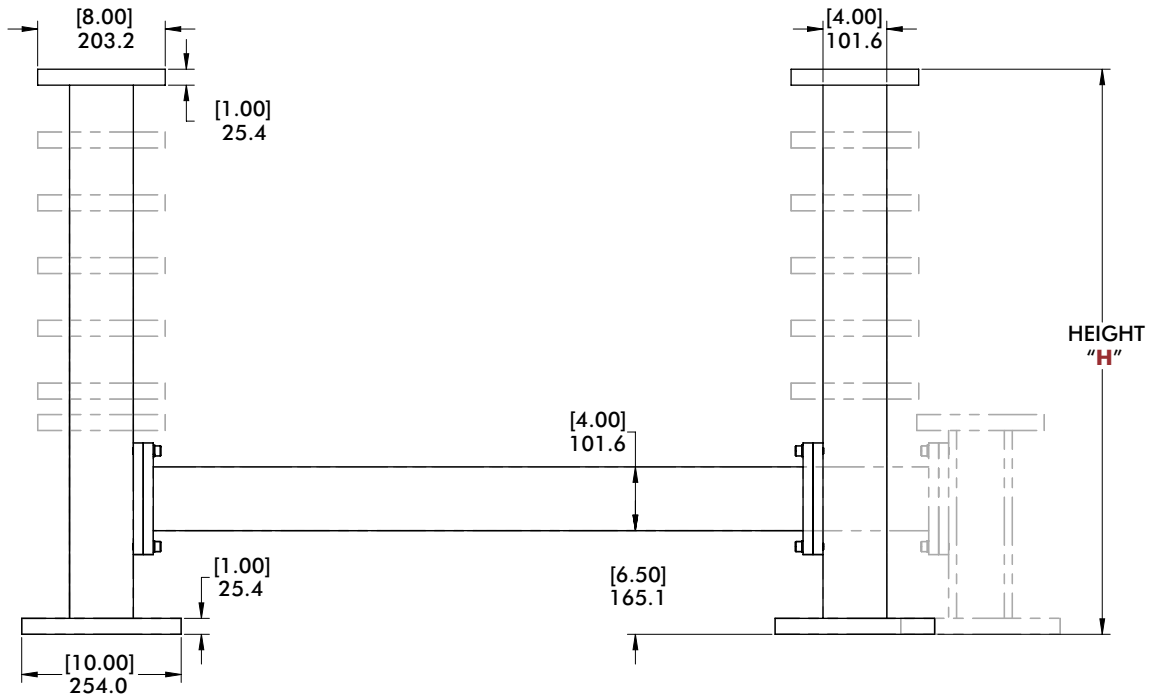
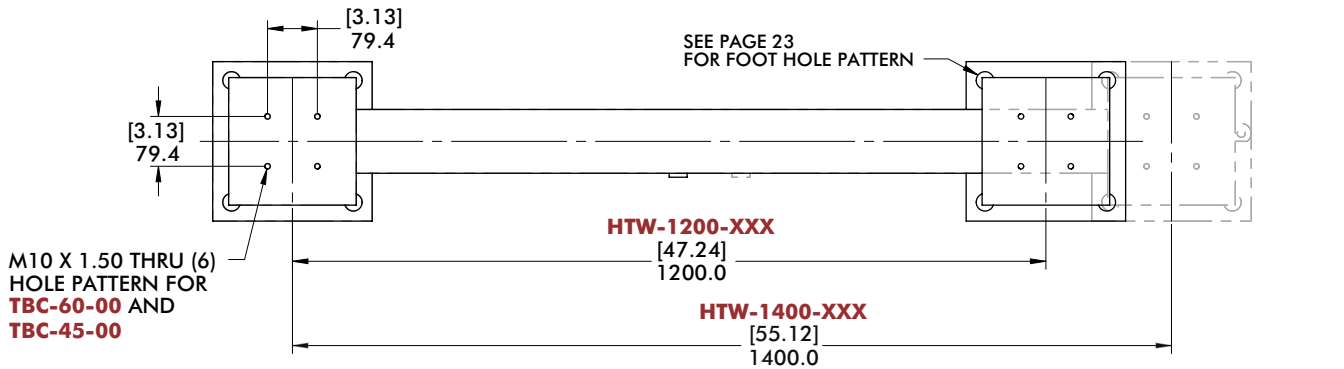
“H”	Model Number	Weight
250	CPI-HTW-250-4	24.02 kg [52.97lb]
300	CPI-HTW-300-4	24.93 kg [54.96lb]
350	CPI-HTW-350-4	25.83 kg [56.95lb]
400	CPI-HTW-400-4	26.73 kg [58.94lb]
450	CPI-HTW-450-4	27.63 kg [60.93lb]
500	CPI-HTW-500-4	28.54 kg [62.92lb]
550	CPI-HTW-550-4	29.44 kg [63.82lb]
600	CPI-HTW-600-4	30.35 kg [66.90lb]
650	CPI-HTW-650-4	31.25 kg [68.89lb]
700	CPI-HTW-700-4	32.15 kg [70.88lb]
750	CPI-HTW-750-4	33.05 kg [72.87lb]
800	CPI-HTW-800-4	33.96 kg [74.87lb]
850	CPI-HTW-850-4	34.86 kg [76.86lb]
900	CPI-HTW-900-4	35.76 kg [78.85lb]

# BODYBUILDER™ HOLD TABLE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## HTW-1200/1400 Pass-Thru Hold Table Weldment



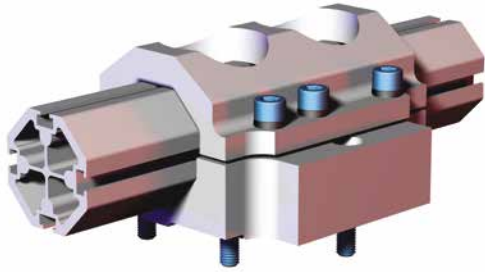
CPI-"MODEL"- "H" PASS THROUGH TABLE WELDMENT				
" H "	"Model"	Weight	"Model"	Weight
350	<b>HTW-1200</b>	84.62 kg [186.55lb]	<b>HTW-1400</b>	88.39 kg [194.87lb]
400	<b>HTW-1200</b>	86.42 kg [190.53lb]	<b>HTW-1400</b>	90.02 kg [198.85lb]
500	<b>HTW-1200</b>	90.04 kg [198.50lb]	<b>HTW-1400</b>	93.81 kg [206.82lb]
600	<b>HTW-1200</b>	93.65 kg [206.46lb]	<b>HTW-1400</b>	97.42 kg [214.78lb]
700	<b>HTW-1200</b>	97.26 kg [214.42lb]	<b>HTW-1400</b>	101.04 kg [222.74lb]
800	<b>HTW-1200</b>	100.87 kg [222.39lb]	<b>HTW-1400</b>	104.65 kg [230.71lb]
900	<b>HTW-1200</b>	104.49 kg [230.35lb]	<b>HTW-1400</b>	108.26 kg [238.67lb]



# BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## ATI-151-90HD-60BB 60mm Mid Mount



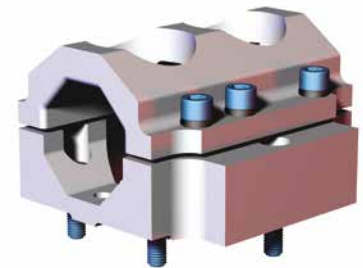
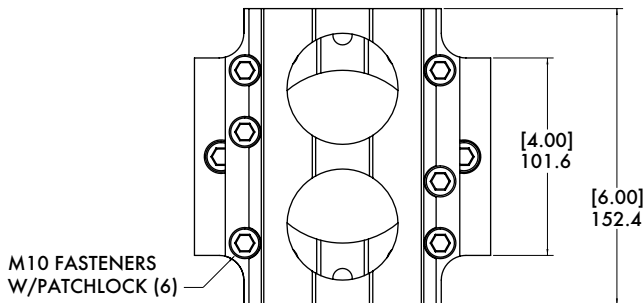
### Specifications:

Max. Static Product Load:  
746 Nm [550 ft-lb ]

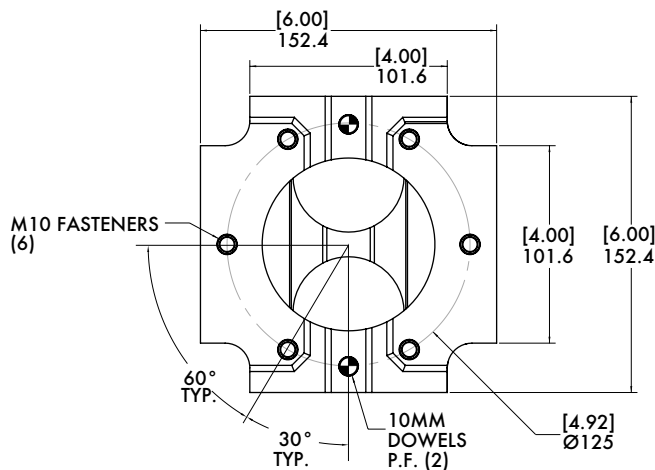
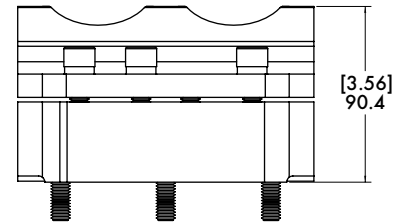
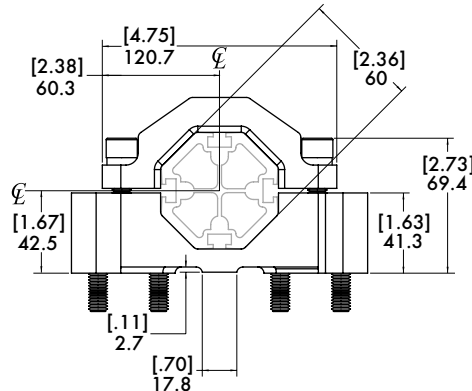
Material: Aluminum

### Features:

- Can be used as direct robot interface.



Fasteners included, Dowels not included



Model Number	Weight
CPI-ATI-151-90HD-60BB	3.22 kg [7.10 lb]

# BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



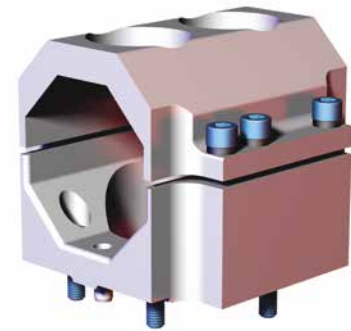
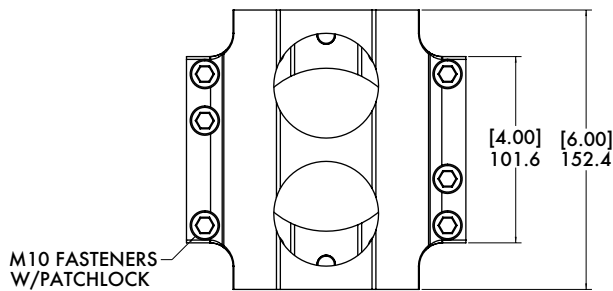
## ATI-151-90HD-90BB 90mm Mid Mount

### Features:

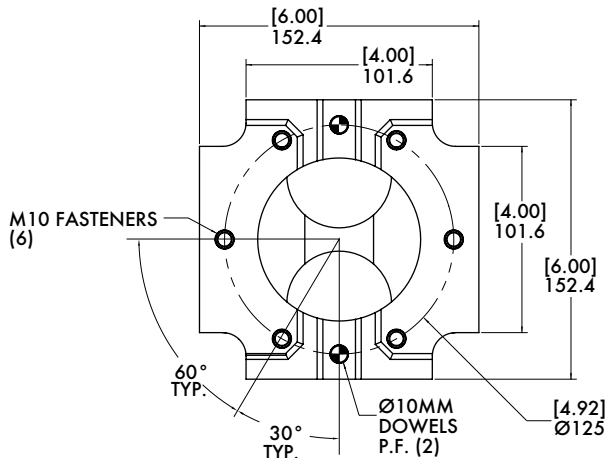
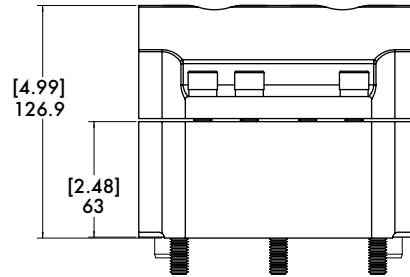
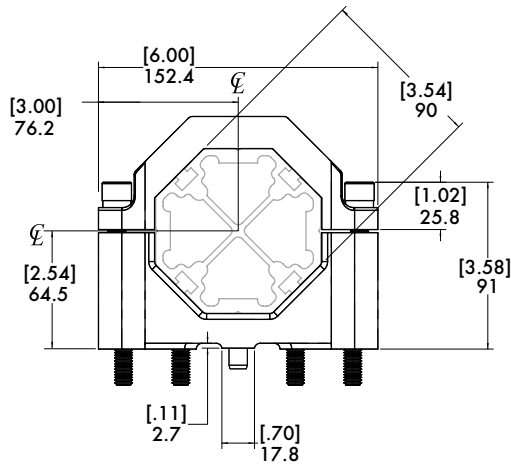
- Can be used as direct robot interface.

### Specifications:

Max. Static Product Load:  
1355 Nm [1000 ft-lb]  
Material: Aluminum



Fasteners and Dowels Included



Model Number	Weight
CPI-ATI-151-90HD-90BB	2.89 kg [6.38 lb]



# BODYBUILDER™ END MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## CL-90B-160F 90mm End Mount



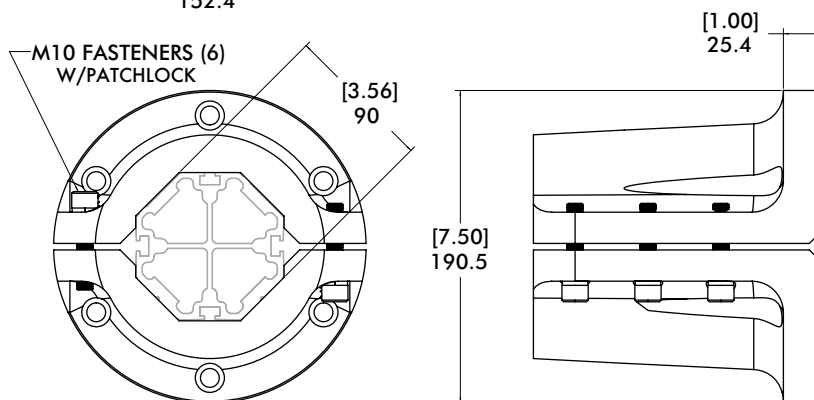
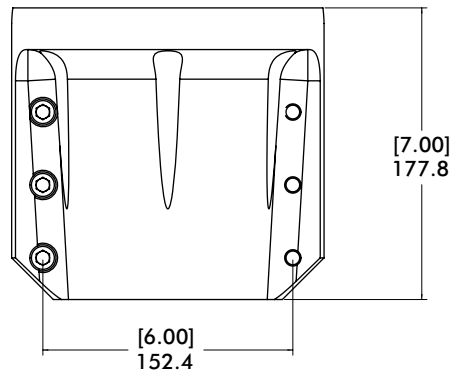
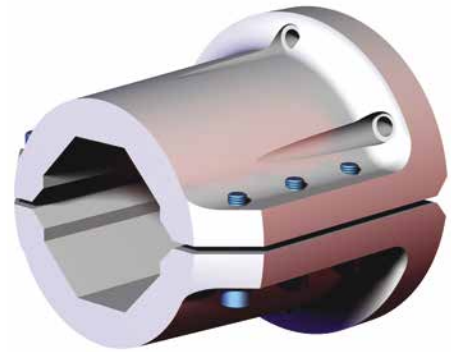
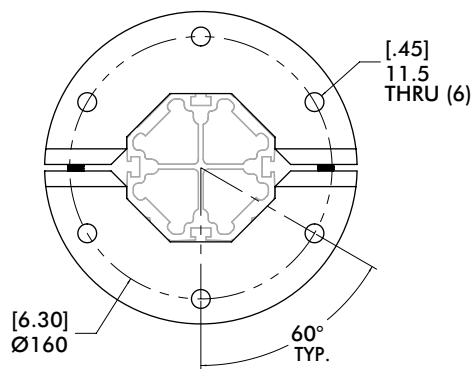
### Specifications:

Max. Static Clamp Load:  
746 Nm [550 ft-lb]

Material: Aluminum

### Features:

- Can be used as direct robot interface.



Model Number	Weight
CPI-CL-90B-160F	5.91 kg [13.04 lb]

# BODYBUILDER™ BAYONETS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RDCF-60B 60mm BodyBuilder™ Bayonet

### Features:

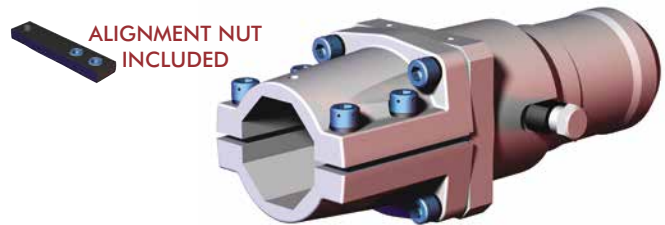
- Used in conjunction with Quick Disconnect Housing to provide an efficient method for changing tools manually.
- Two, hardened alignment pins allow quick and accurate installation into the housing.
- Optional 4-port air and electric available.

### Specifications:

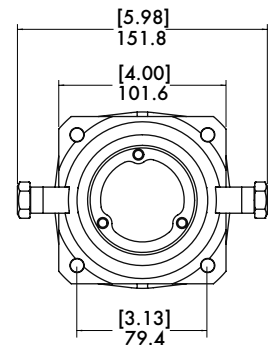
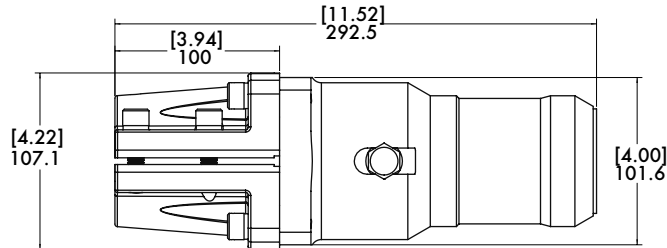
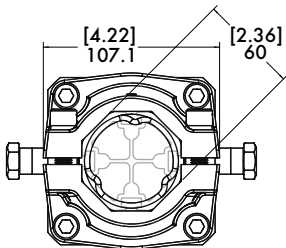
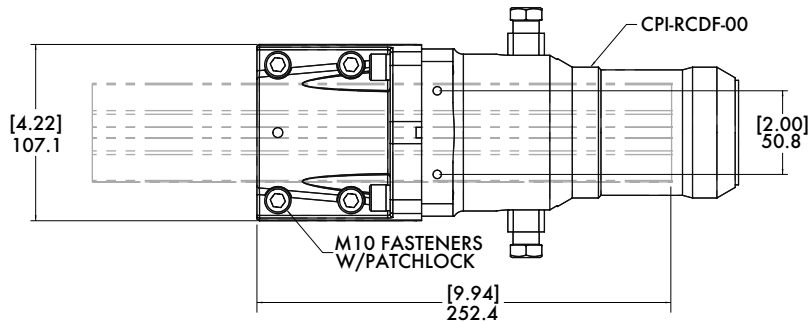
**Max. Static Product Load:**  
746 Nm [550 ft-lb]  
**Material:**  
Body: Aluminum  
Pins: Steel



Used in conjunction with Quick Disconnect Housing to provide an efficient method for changing tools manually.



Optional 4-port air and electric connections available.



Model Number	Weight
CPI-RDCF-60B-00-00-X	3.16 kg [6.96 lb]



# BODYBUILDER™ STRUCTURE END MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RDN-25-6 Manual Quick Disconnect Housing



### Specifications:

**Max. Static Product Load:**  
746 Nm [550 ft-lb]

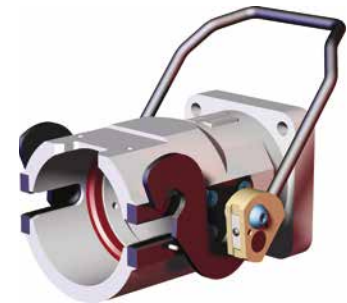
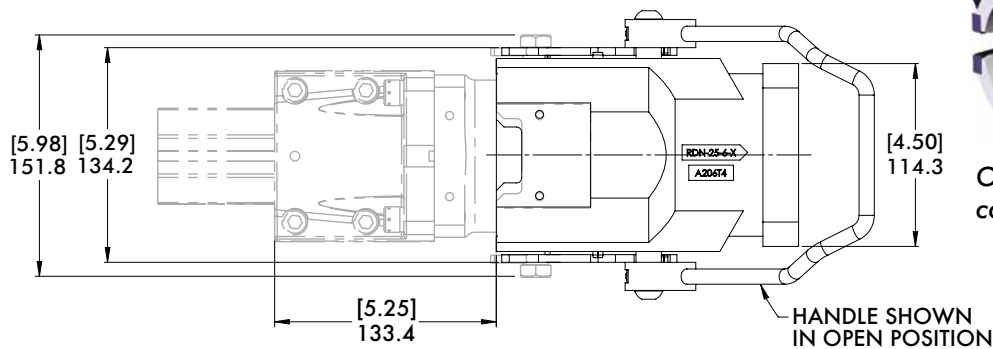
### Material:

Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

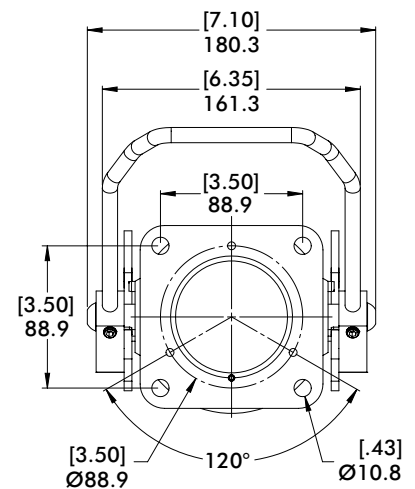
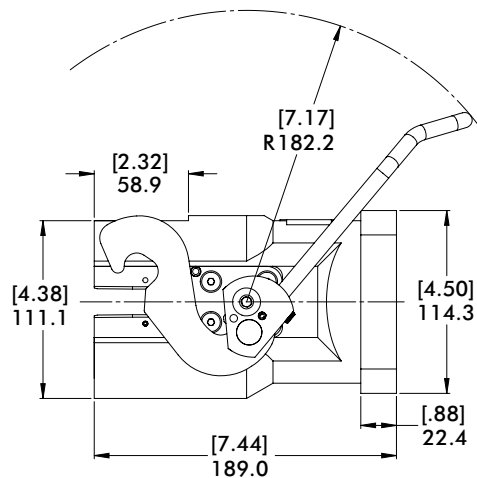
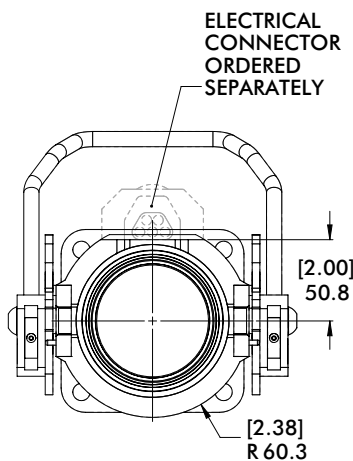
### Features:

- Actuation of handle allows quick and accurate installation by pulling the bayonet into a fixed position within the housing.
- The internal rings eliminate vibration and seat the bayonet into a clamped position.
- Hardened steel retainer slots reduce wear and extend product life.

Used in conjunction with 60 mm BodyBuilder™ Bayonet to provide an efficient method for changing tools manually.



Optional 4-port air and electric connections available.



**Model Number**  
**CPI-RDN-25-6**

**Weight**  
4.00 kg [8.90 lb]

# BODYBUILDER™ ALIGNMENT SYSTEM



BodyBuilder™ Octagonal Tooling | Explaining the Patented Alignment System

BodyBuilder™ Robotic Tooling System offers a patented alignment system, ensuring that all BodyBuilder™ components can be adjusted to the original set-up position.

Once the BodyBuilder™ structure bracket mount is secured into place during set-up, insert the alignment nut into the octagonal boom channel groove.

Be sure the alignment nut is inserted so that when it is slid under the bracket mount, the set screws can still be accessed outside the bracket mount as shown.

Slide the alignment nut along the boom groove and underneath the bracket mount until the hole in the block and the appropriate calibration hole in the bracket mount is aligned visual.

Insert the alignment pin into the alignment hole of the bracket mount, through the alignment nut until it stops in the groove of the boom channel.

With the alignment pin in place, the alignment nut should not move. Secure bracket mount in the channel groove by tightening the two set screws. Remove alignment pin as it is used as a probe for alignment purposes only.

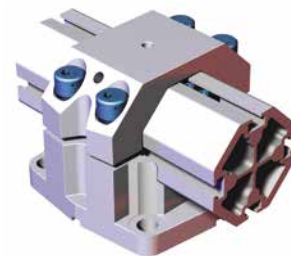
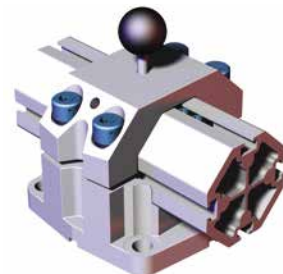
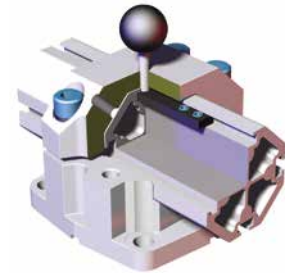
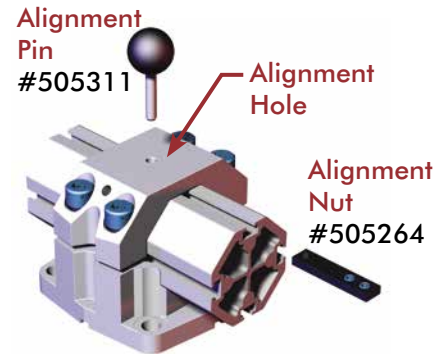
The alignment nut remains in place even when the bracket mount is removed.

To order replacement alignment pin or nut, please use the following order numbers:

Alignment Pin #505311, Alignment Nut #505264

To Replace the Bracket mount, place the assembled bracket mount on the Bodybuilder™ boom until the alignment holes are visually aligned. Insert the alignment pin to secure bracket mount in place, and tighten the fasteners.

Remove the alignment pin and continue tightening the fasteners to specified torque values.



U.S. PATENT 6,349,912



# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 30B-30B 30mm to 30mm Transition Bracket Assembly

### Features:

- Connects (2) 30mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

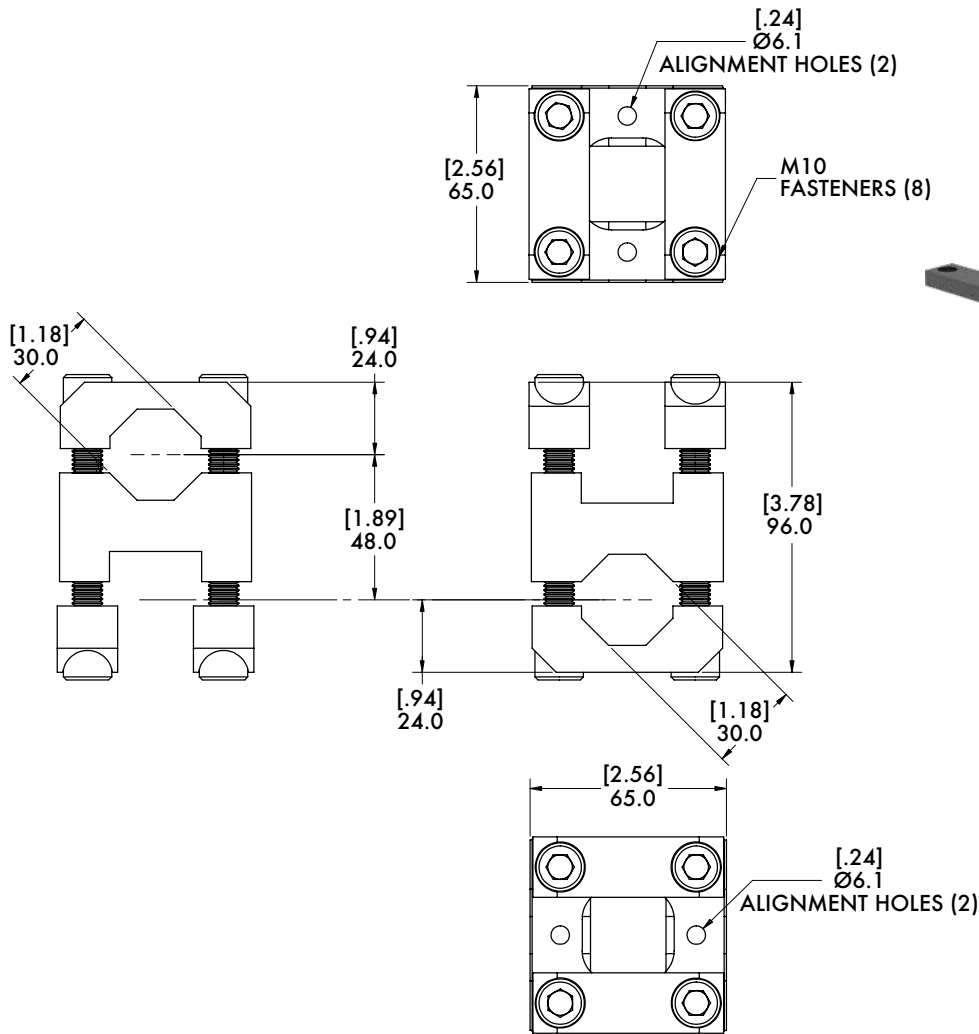
### Specifications:

**Max.Static Clamp Load:**  
30mm: 271 Nm [200 ft-lb]

**Material:** Aluminum



ALIGNMENT NUTS INCLUDED



Model Number	Weight
M-30B-30B-M	.82 kg [1.80 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 30B-45B 30mm to 45mm Transition Bracket Assembly

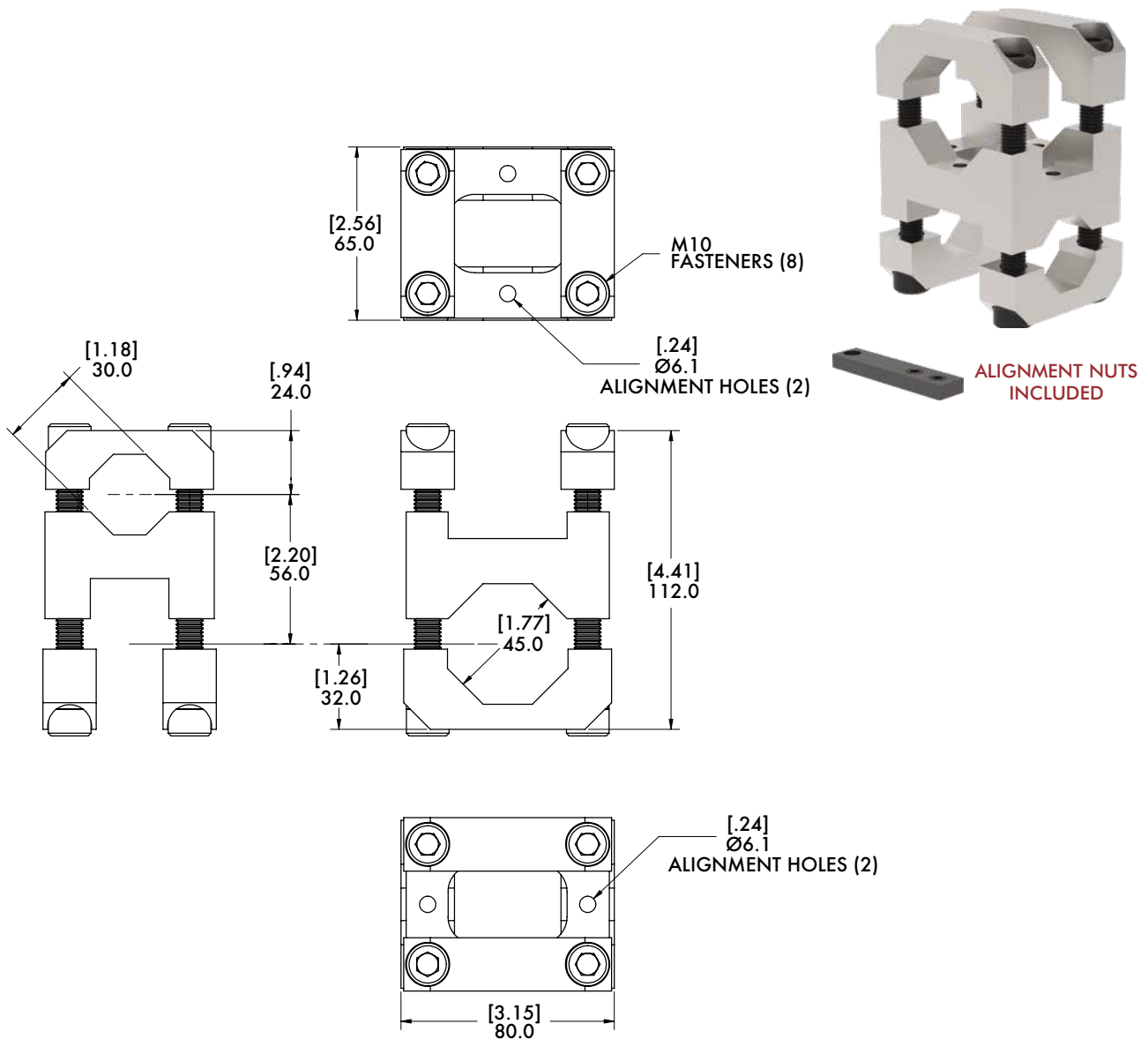


### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 30mm and 45mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number	Weight
M-30B-45B-M	1.00 kg [2.20 lb]

## 45B-45B 45mm to 45mm Transition Bracket Assembly

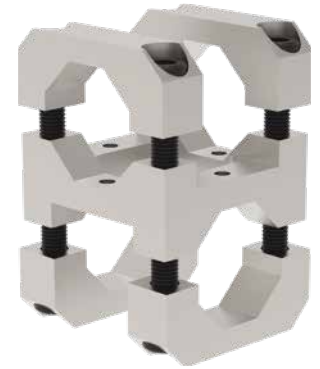
### Features:

- Connects (2) 45mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design

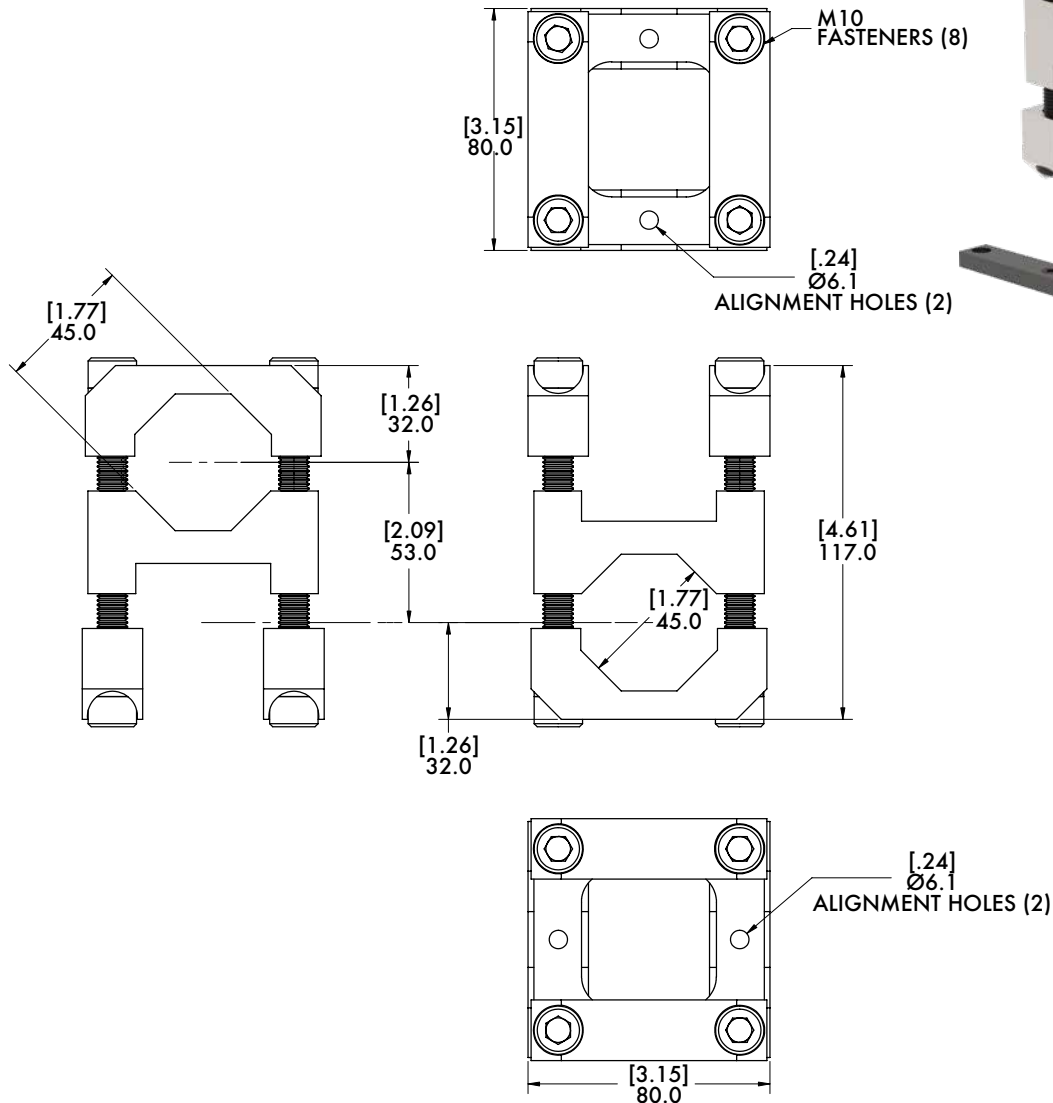
### Specifications:

**Max. Static Clamp Load:**  
45mm: 475 Nm [350 ft-lb]

**Material:** Aluminum



ALIGNMENT NUTS INCLUDED



Model Number	Weight
M-45B-45B-M	1.05 kg [2.31 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 30B-60B 30mm to 60mm Transition Bracket Assembly

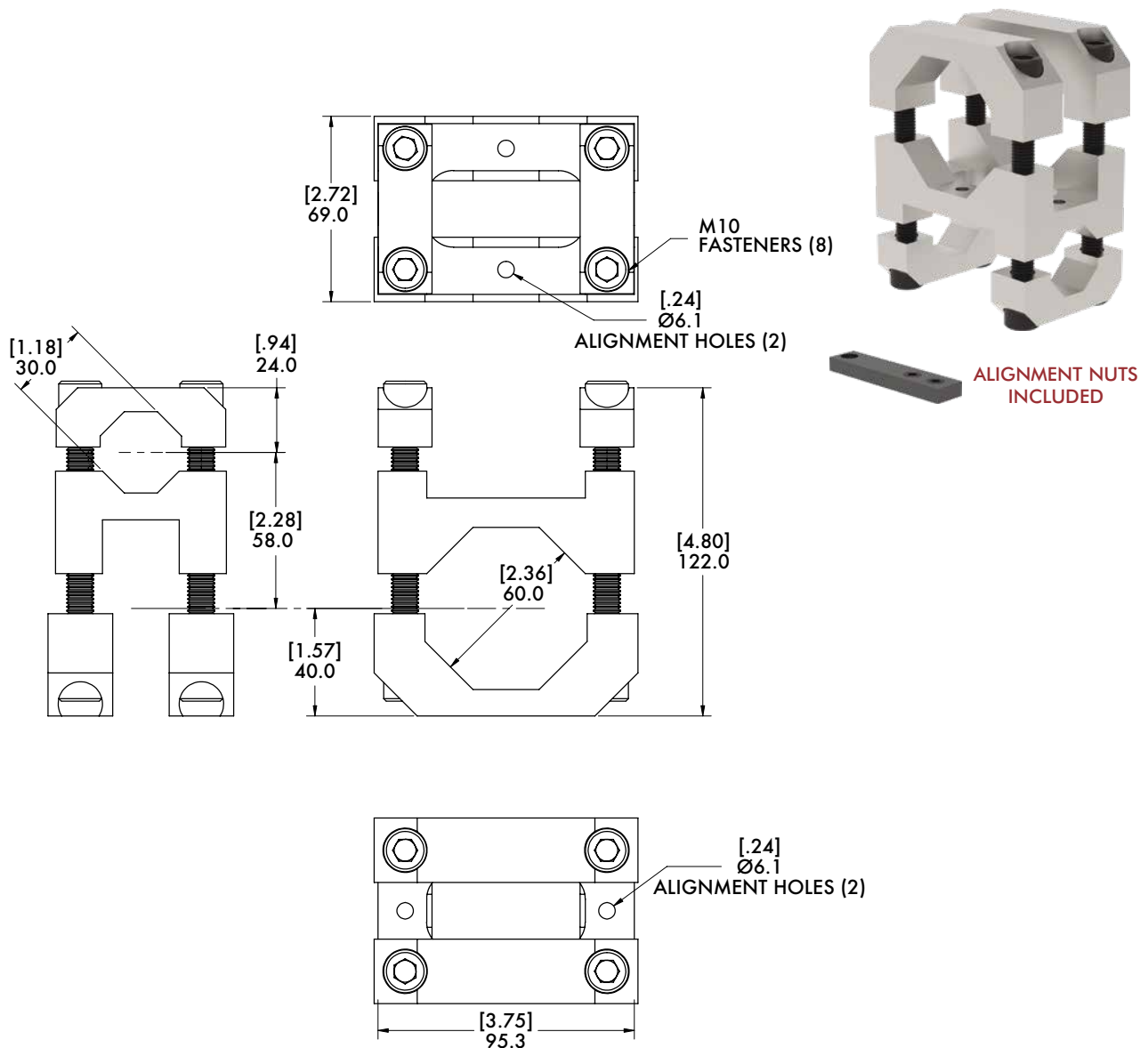


### Specifications:

**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 30mm and 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number	Weight
M-30B-60B-M	1.13 kg [2.50 lb]

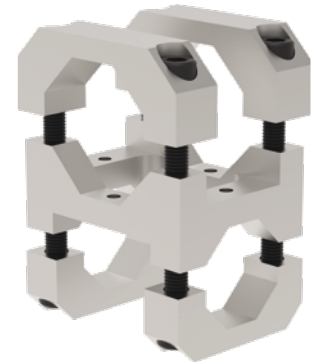
## 45B-60B 45mm to 60mm Transition Bracket Assembly

**Features:**

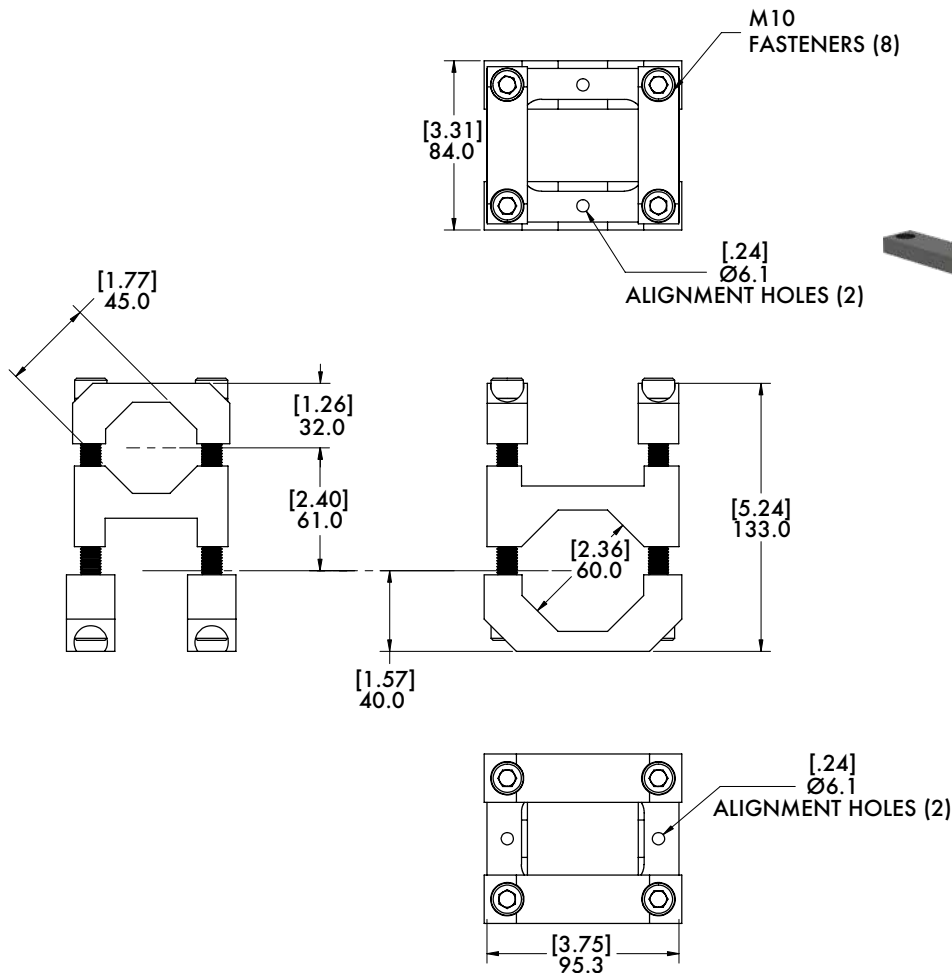
- Connects 45mm and 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Specifications:**

**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 45mm: 475 Nm [350 ft-lb]  
**Material:** Aluminum



**ALIGNMENT NUTS INCLUDED**



Model Number	Weight
<b>M-45B-60B-M</b>	1.23 kg [2.70 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 60B-60B 60mm to 60mm Transition Bracket Assembly



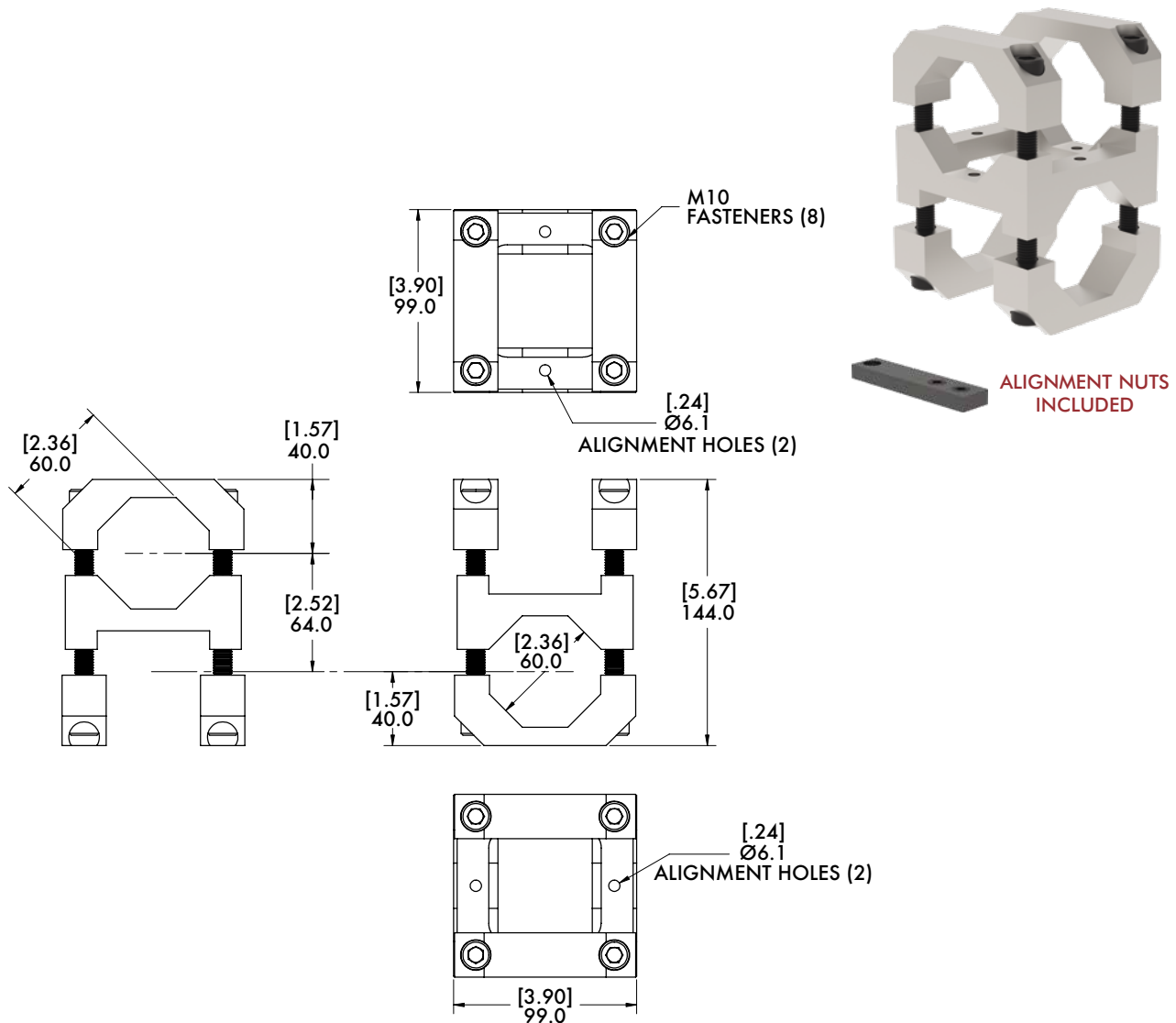
### Specifications:

**Max. Static Clamp Load:**  
60mm: 746 Nm [550 ft-lb]

**Material:** Aluminum

### Features:

- Connects (2) 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design



Model Number	Weight
M-60B-60B-M	1.36 kg [3.00 lb]





# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

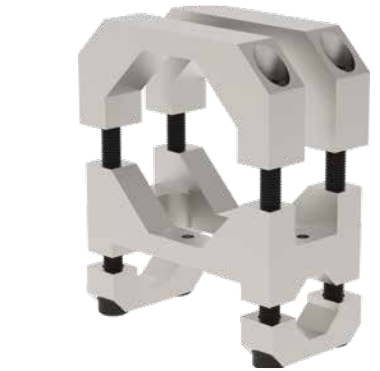
## 30B-90B 30mm to 90mm Transition Bracket Assembly

### Features:

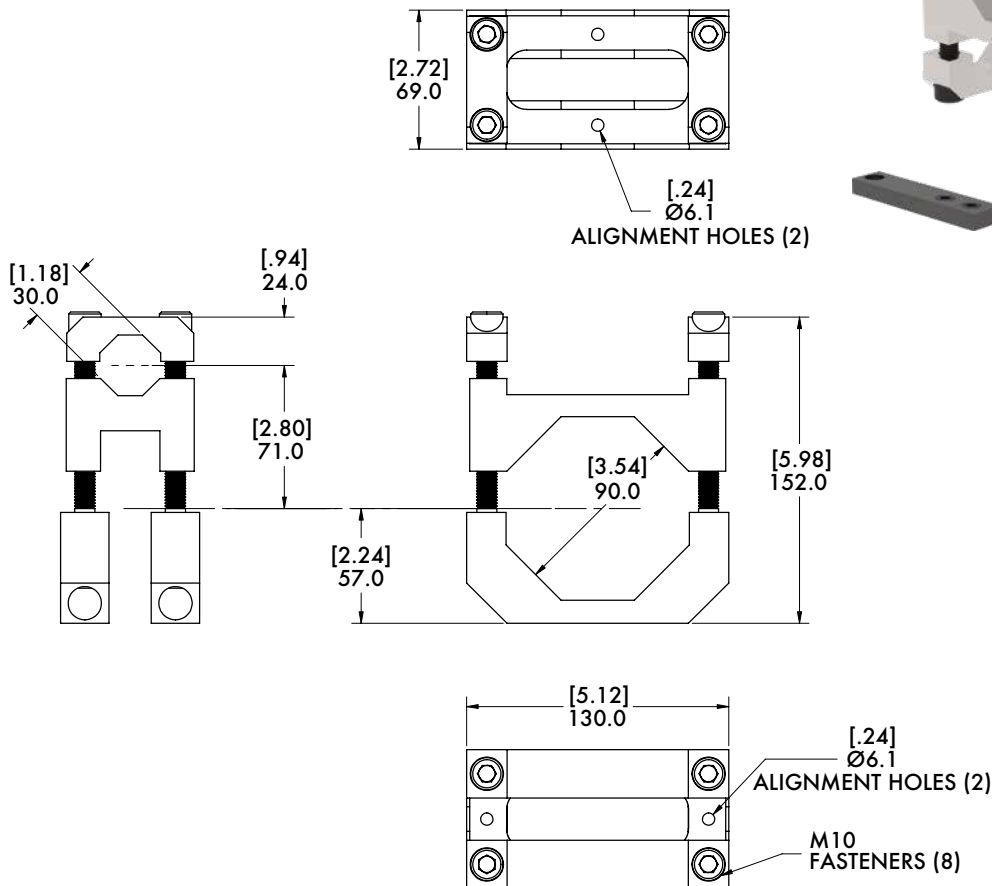
- Connects 30 and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

**Max. Static Clamp Load:**  
 30mm: 271 Nm [200 ft-lb]  
 90mm: 746 Nm [550 ft-lb]  
**Material:** Aluminum



ALIGNMENT NUTS INCLUDED



Model Number	Weight
M-30B-90B-M	1.78 kg [3.93 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 45B-90B 45mm to 90mm Transition Bracket Assembly

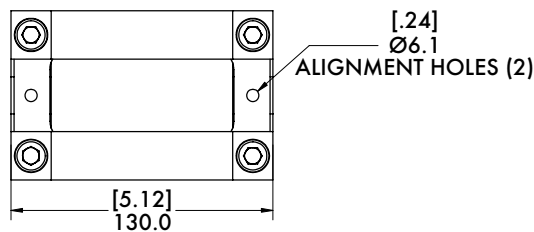
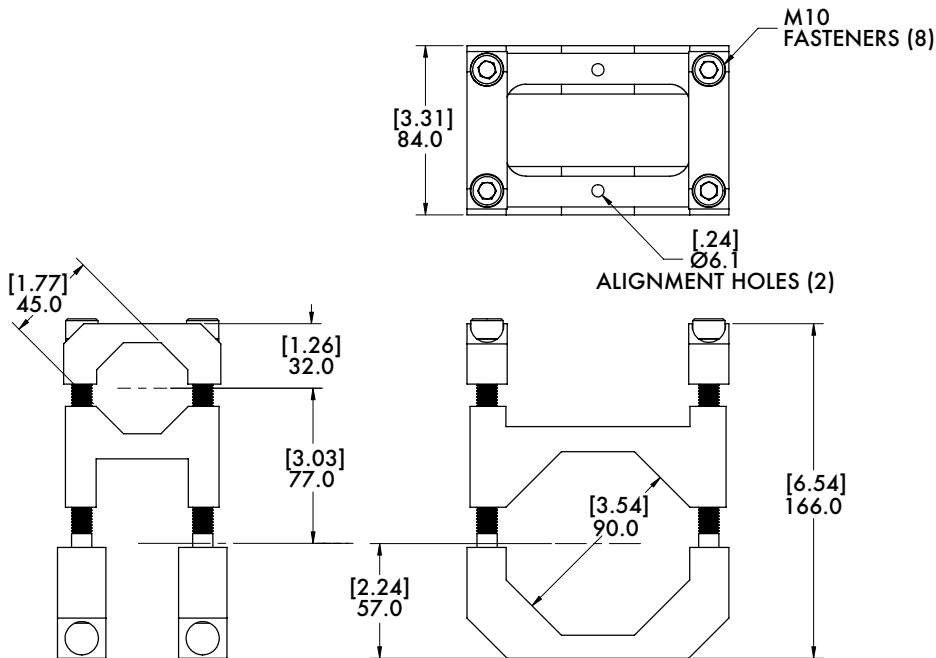


### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 90mm: 746 Nm [550 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 45 and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number	Weight
M-45B-90B-M	1.91 kg [4.21 lb]



# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 60B-90B 60mm to 90mm Transition Bracket Assembly

### Features:

- Connects 60mm and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

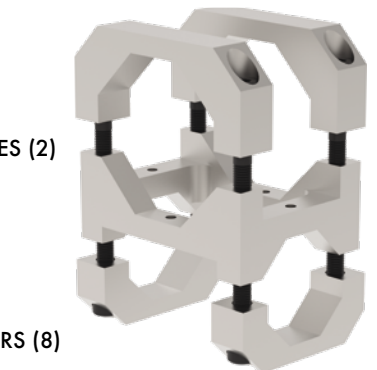
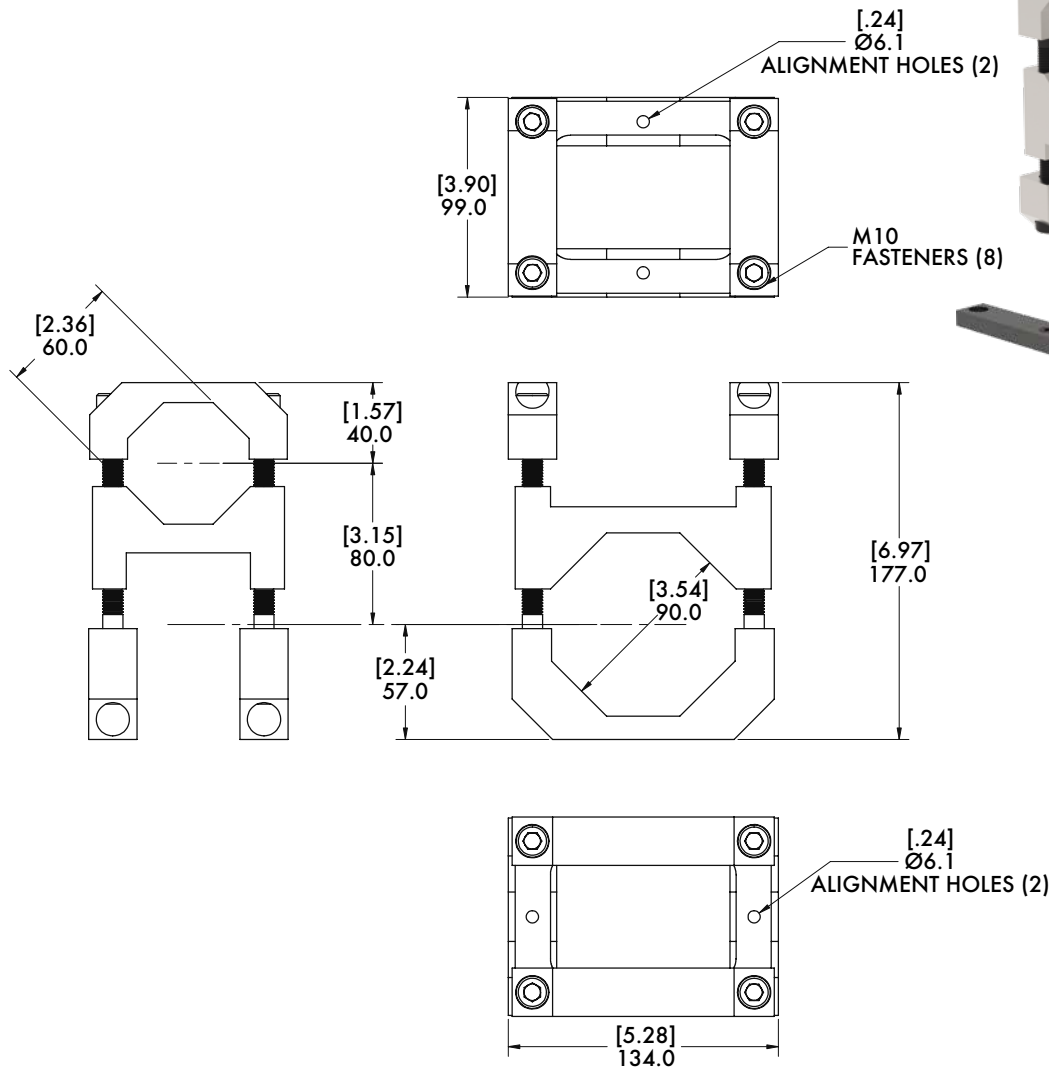
### Specifications:

**Maximum Clamp Load:**

60mm and 90mm:

746 Nm [550 ft-lb]

**Material:** Aluminum



ALIGNMENT NUTS INCLUDED

Model Number	Weight
M-60B-90B-M	2.25 kg [4.97 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 90B-90B 90mm to 90mm Transition Bracket Assembly



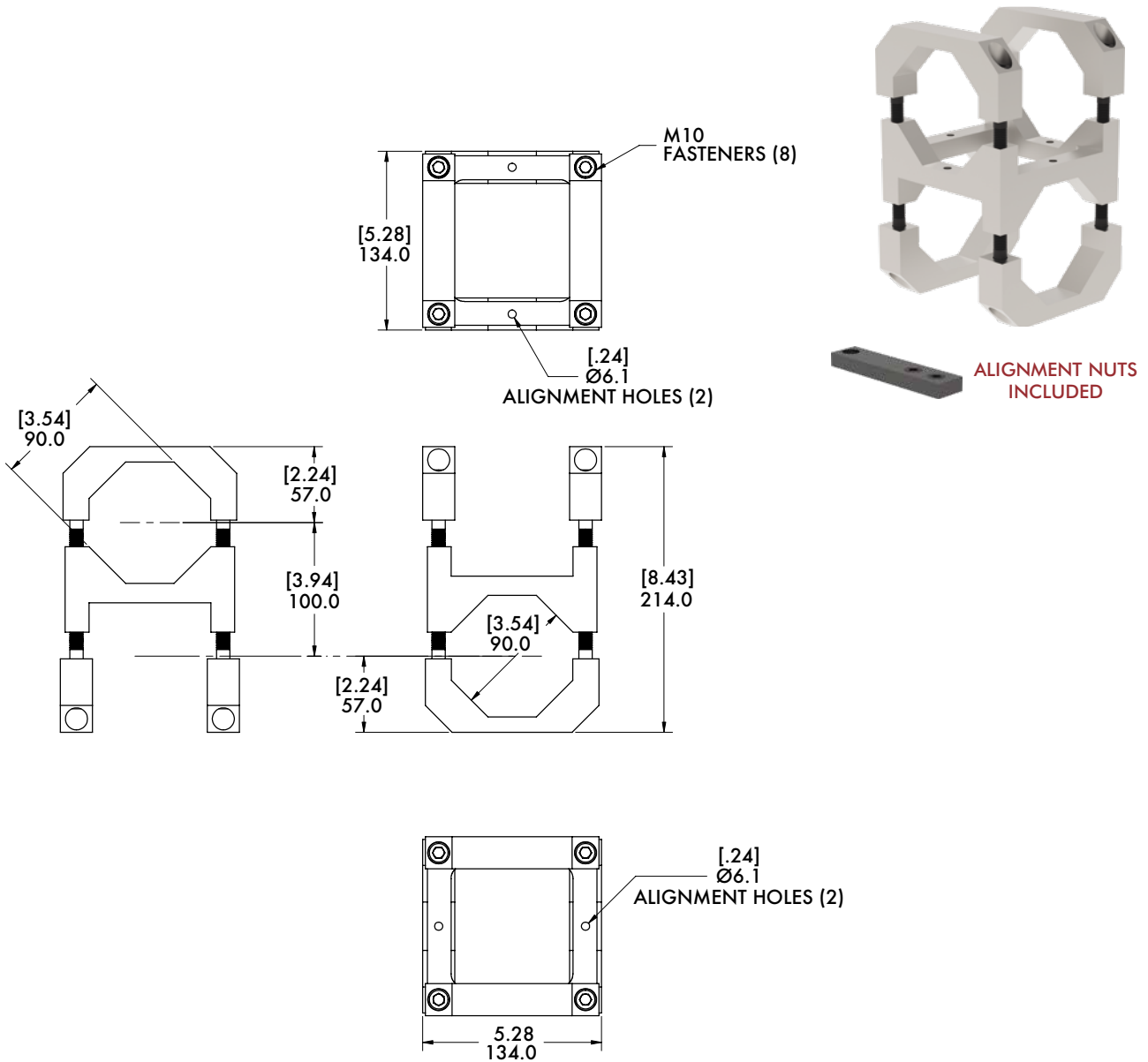
### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]

**Material:** Aluminum

### Features:

- Connects (2) 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number	Weight
<b>M-90B-90B-M</b>	3.33 kg [7.34 lb]

# BODYBUILDER™ SQUARE CLAMPS

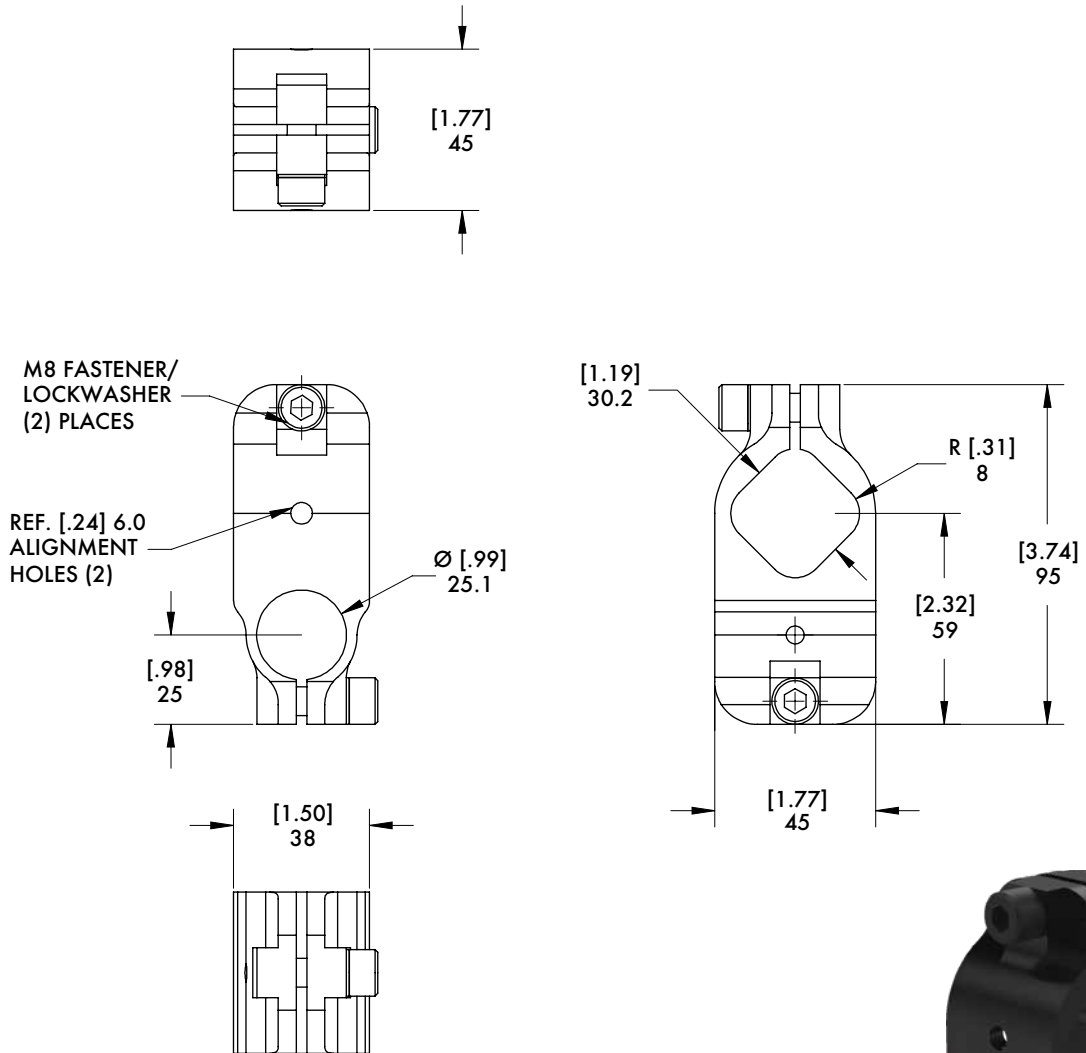
**30B-25M** 30mm Octagon to 25mm Round

**Specifications:**

Max. Static Clamp Load:

407 Nm [300 ft-lb]

Material: High Strength Aluminum



Model Number	Weight
M-30B-25M-M	203g [0.45lbs]

# BODYBUILDER™ SQUARE CLAMPS

BodyBuilder™ Octagonal Tooling | Octagon to Round Transition Block Assembly



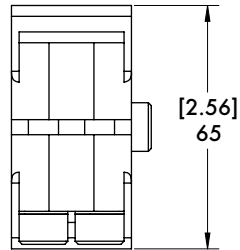
**45B-25M (-10E)** 45mm Octagon to 25mm or 1 in. Round

**Specifications:**

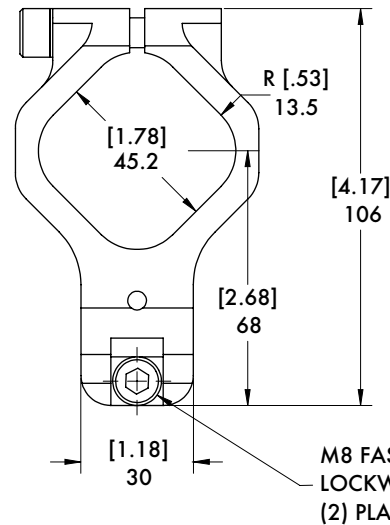
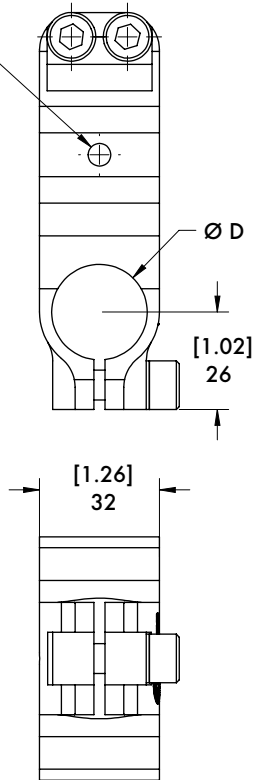
Max. Static Clamp Load:

407 Nm [300 ft-lb]

Material: High Strength Aluminum



REF. [.24] 6.0  
ALIGNMENT  
HOLES (2)

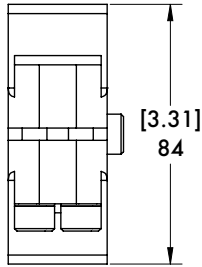


M8 FASTENERS/  
LOCKWASHERS  
(2) PLACES



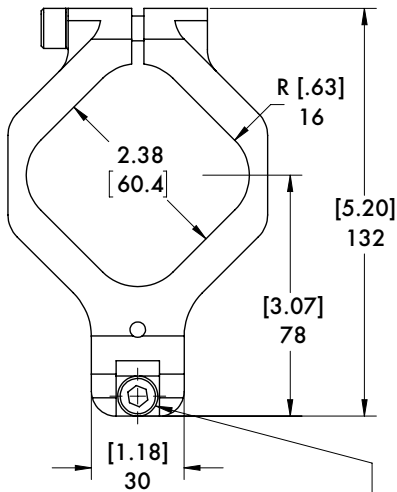
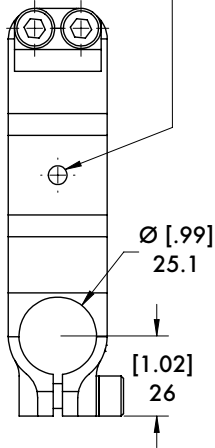
Model Number	Weight	ØD
M-45B-25M-M	239g [0.53lbs]	25mm
M-45B-10E-M	237g [0.52lbs]	1 in.

## 60B-25M 60mm Octagon to 25mm Round



**Specifications:**  
 Max. Static Clamp Load:  
 407 Nm [300 ft-lb]  
 Material: High Strength Aluminum

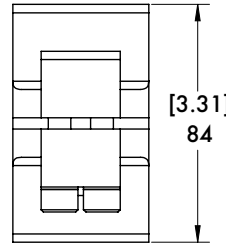
REF. [.24] 6.0  
 ALIGNMENT  
 HOLES (2)



M8 FASTENERS/  
 LOCKWASHERS  
 (2) PLACES

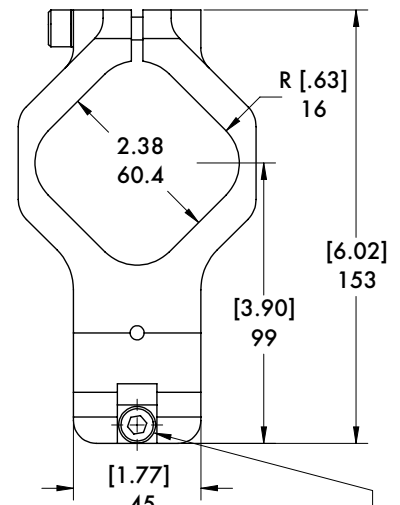
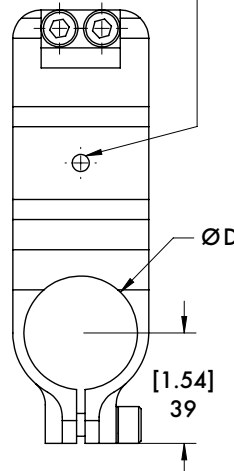


## 60B-40M (-15E) 60mm Octagon to 40mm or 1.5 in. Round

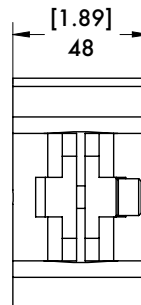


**Specifications:**  
 Max. Static Clamp Load:  
 813 Nm [600 ft-lb]  
 Material: High Strength Aluminum

REF. [.24] 6.0  
 ALIGNMENT  
 HOLES (2)



M8 FASTENERS/  
 LOCKWASHERS  
 (2) PLACES



Model Number	Weight
M-60B-25M-M	356g [0.78lbs]

Model Number	Weight	ØD
M-60B-40M-M	520g [1.15lbs]	40mm
M-60B-15E-M	535g [1.18lbs]	1.5 in.

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

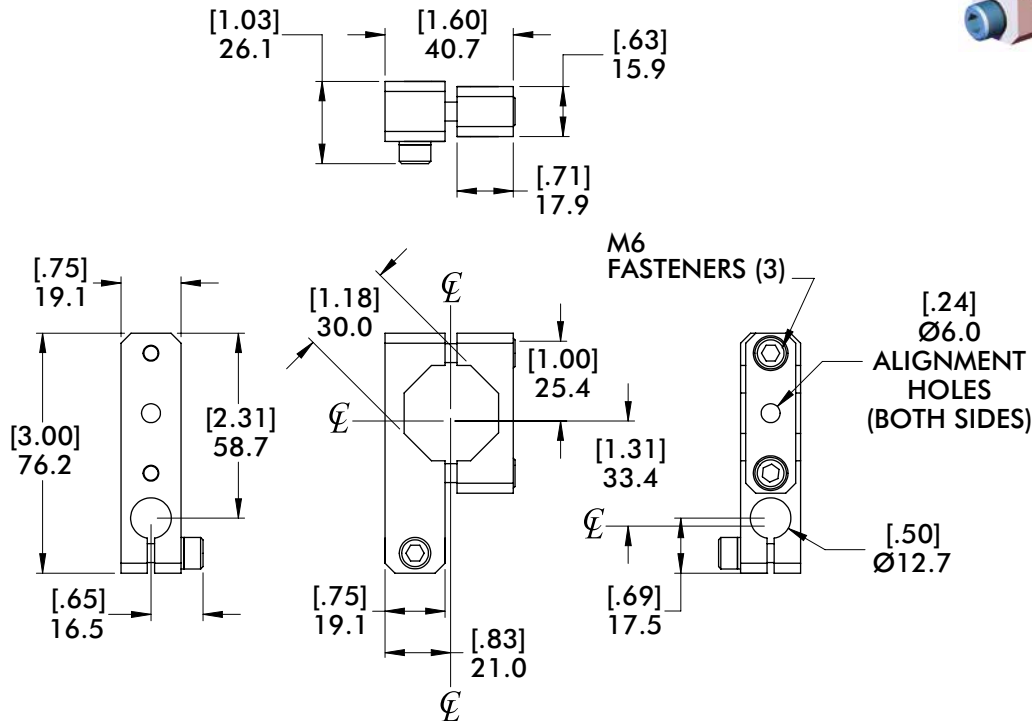
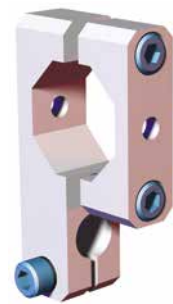
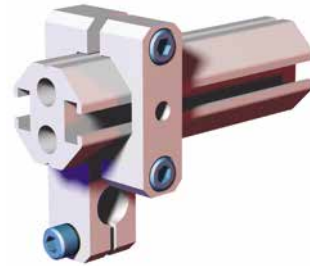
## CLM-30B-50 30mm Octagon to Ø50"(in) Round Transition Bracket Assembly

### Features:

- Connects BodyBuilder™ extrusion and round tubing perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

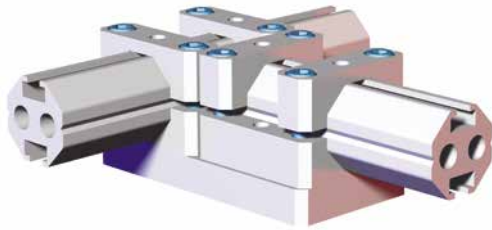
**Max. Static Clamp Load:**  
102 Nm [75 ft-lb]  
**Material:** Aluminum



Model Number	Weight
CPI-CLM-30B-50-TR	.092 kg [.20 lb]



## TCAM-30B-30B 30mm to 30mm Octagon (Micro) T-Clamp Bracket Assembly

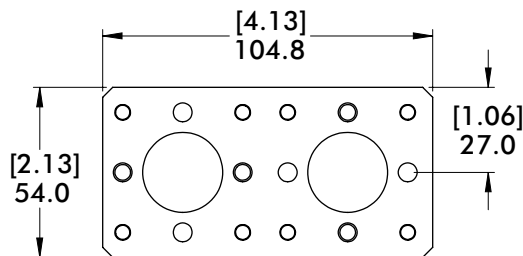
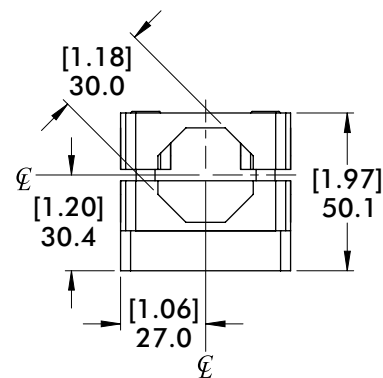
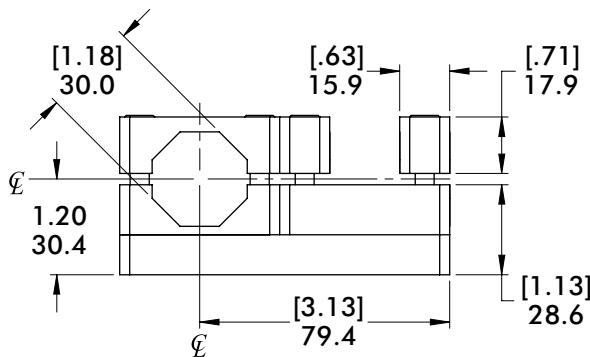
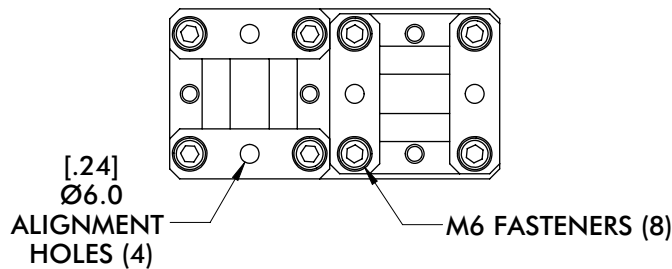
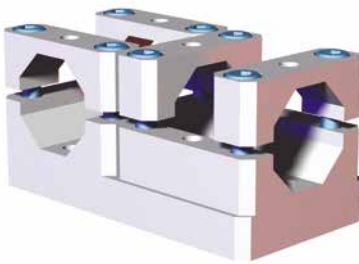


**Specifications:**

Max. Static Clamp Load:  
102 Nm [75 ft-lb]  
Material: Aluminum

**Features:**

- Connects (2) 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Model Number	Weight
CPI-TCAM-30B-30B-M	.45 kg [.99 lb]

# BODYBUILDER™ T-CLAMPS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

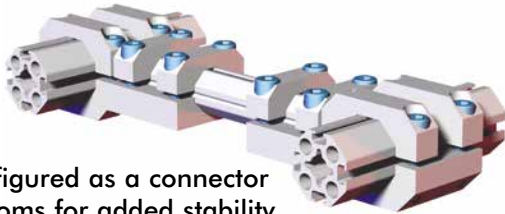
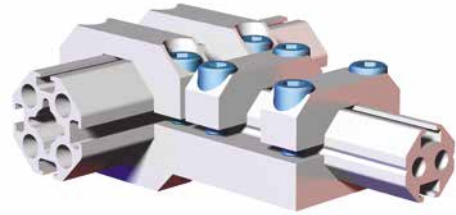
## TCA-30B-45B 30mm to 45mm Octagon T-Clamp Bracket Assembly

### Features:

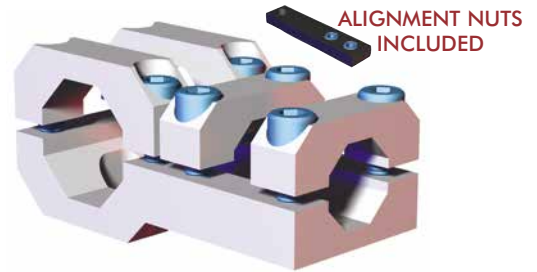
- Connects 30mm and 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:

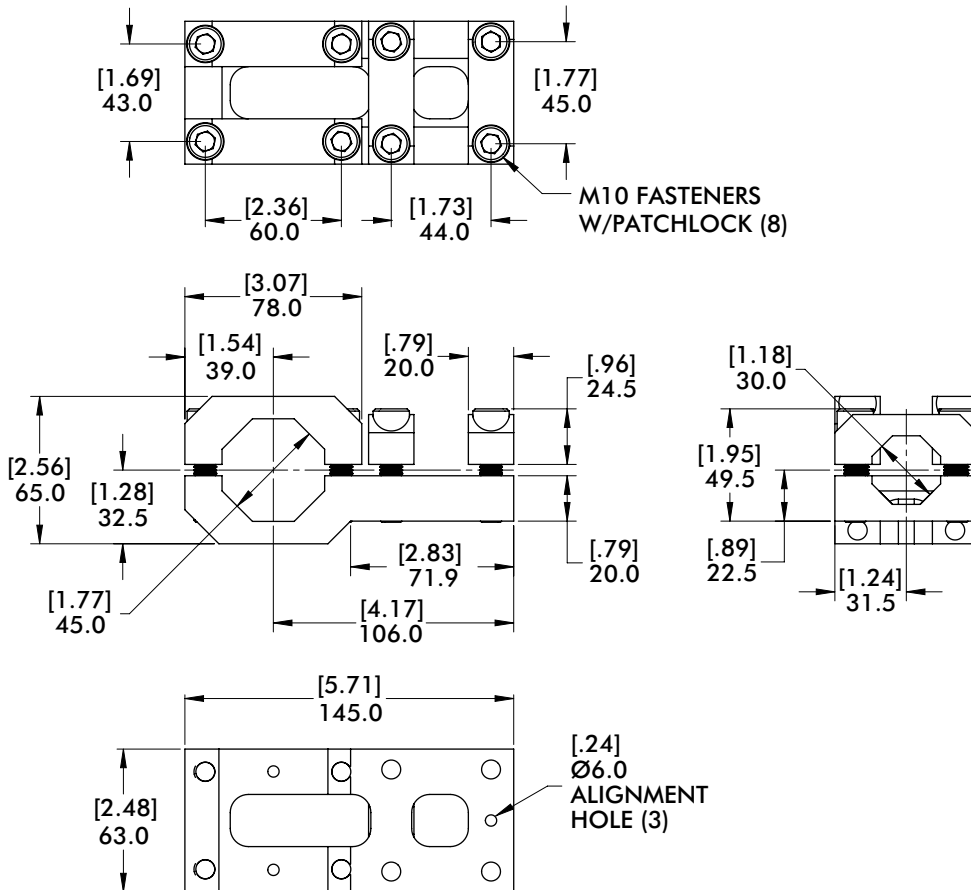
**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum



Can be configured as a connector between booms for added stability

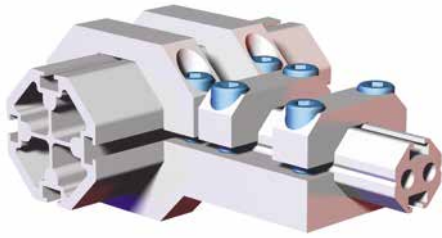


ALIGNMENT NUTS INCLUDED



Model Number	Weight
CPI-TCA-30B-45B	.80 kg [1.76 lb]

## TCA-30B-60B 30mm to 60mm Octagon T-Clamp Bracket Assembly

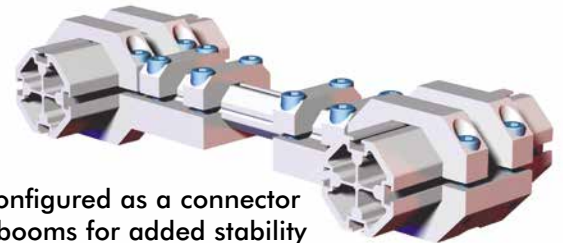
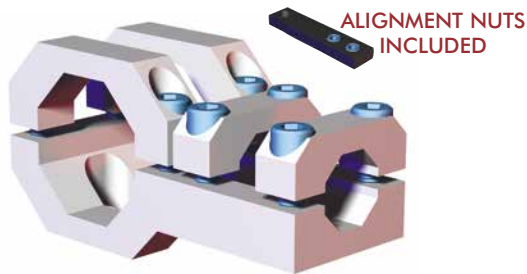


### Specifications:

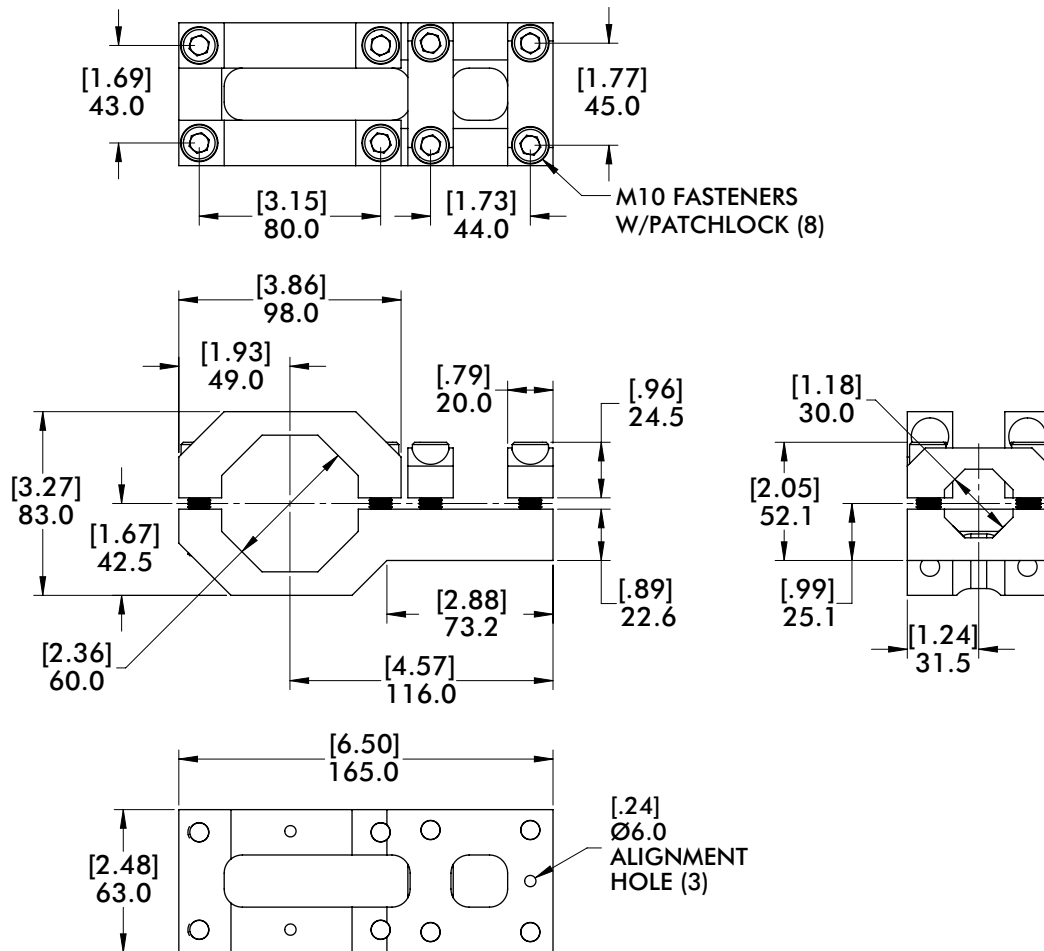
**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 30mm and 60mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Can be configured as a connector between booms for added stability



Model Number	Weight
CPI-TCA-30B-60B	1.23 kg [2.71 lb]

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



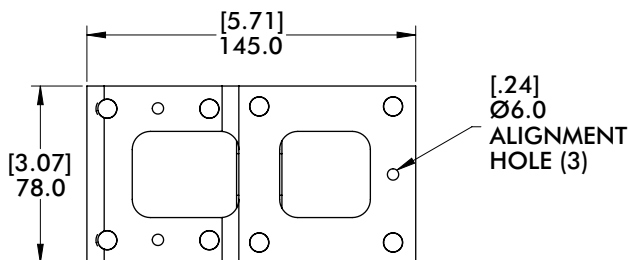
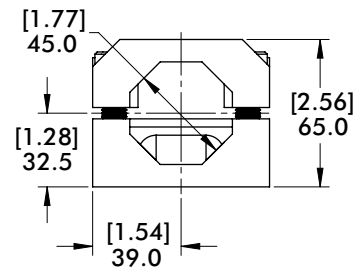
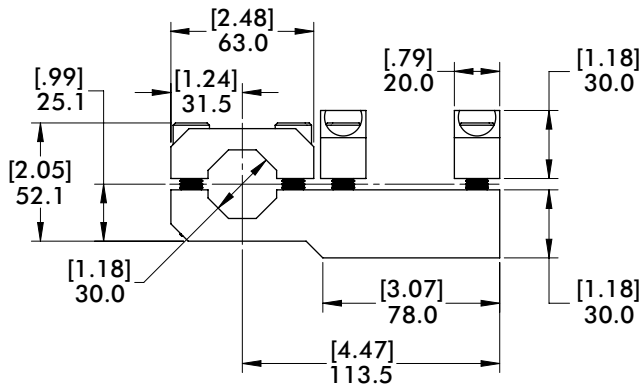
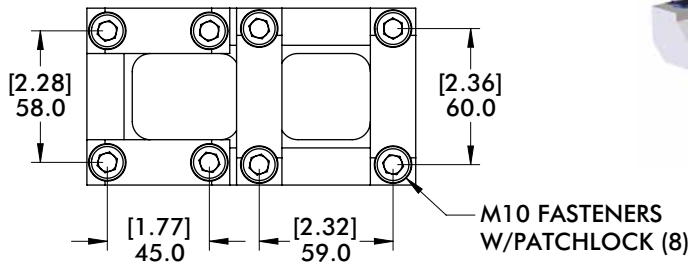
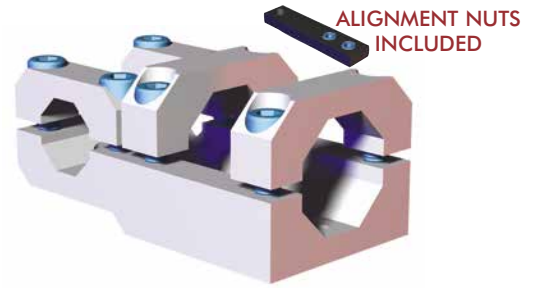
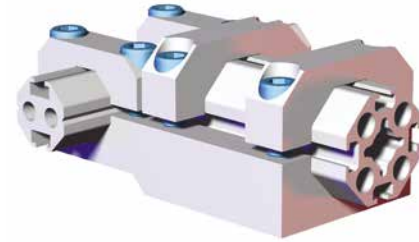
## TCA-45B-30B 45mm to 30mm Octagon T-Clamp Bracket Assembly

### Features:

- Connects 45mm and 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

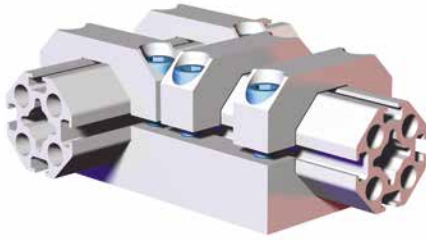
### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum



Model Number	Weight
CPI-TCA-45B-30B	.91 kg [2.02 lb]

## TCA-45B-45B 45mm to 45mm Octagon T-Clamp Bracket Assembly



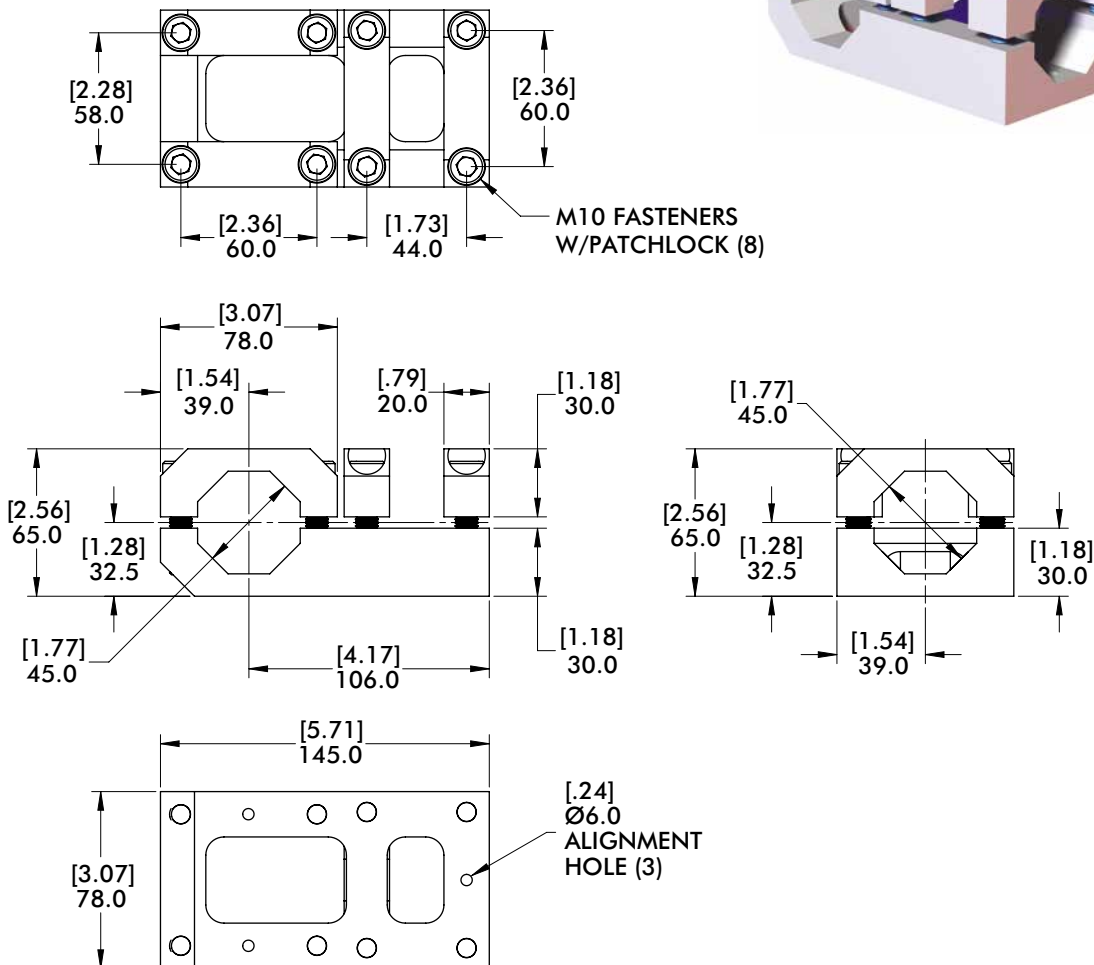
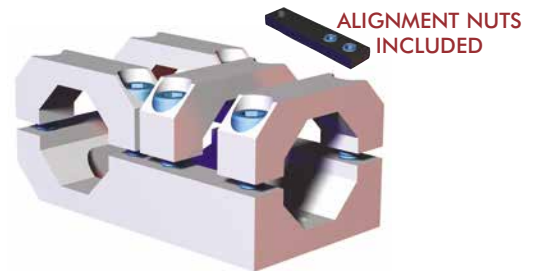
### Specifications:

**Max. Static Clamp Load:**  
45mm: 475 Nm [350 ft-lb]

**Material:** Aluminum

### Features:

- Connects (2) 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Model Number	Weight
CPI-TCA-45B-45B	.95 kg [2.09 lb]

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



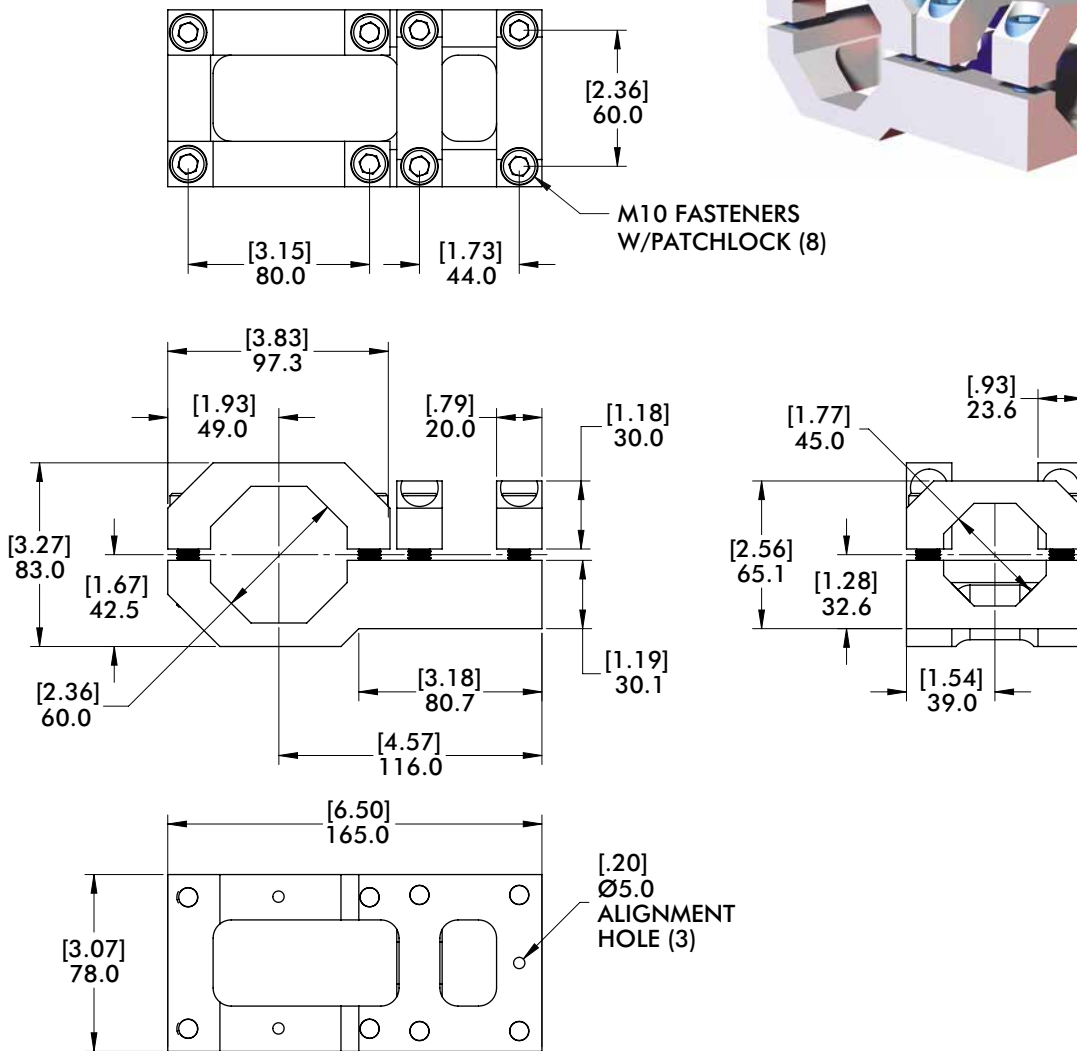
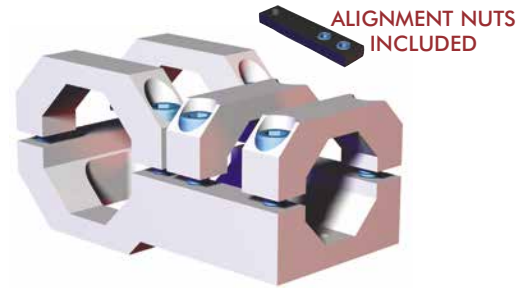
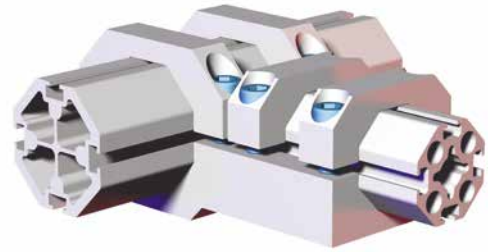
## TCA-45B-60B 45mm to 60mm Octagon T-Clamp Bracket Assembly

### Features:

- Connects 45mm and 60mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

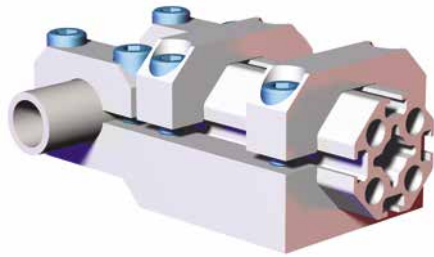
### Specifications:

**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 45mm: 475 Nm [350 ft-lb]  
**Material:** Aluminum



Model Number	Weight
CPI-TCA-45B-60B	1.21 kg [2.67lb]

## TCA-45B-25M 45mm Octagon to 25mm Round T-Clamp Bracket Assembly

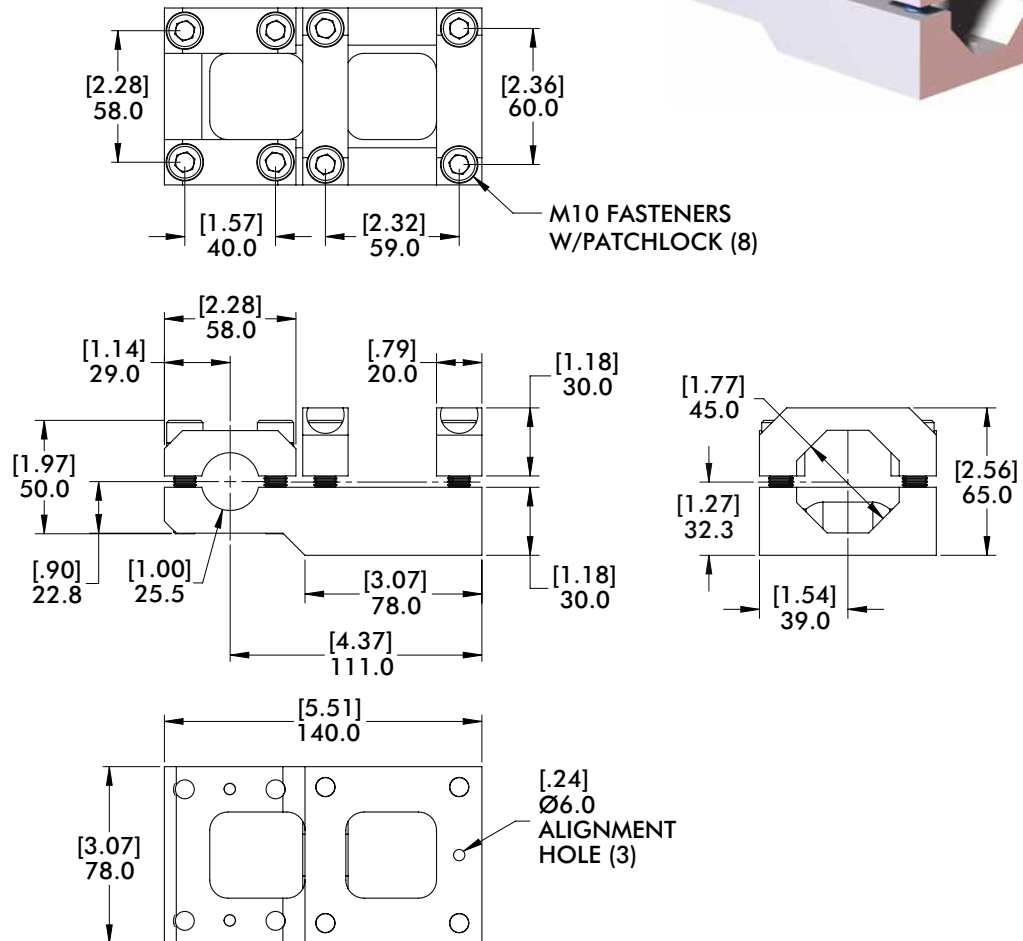
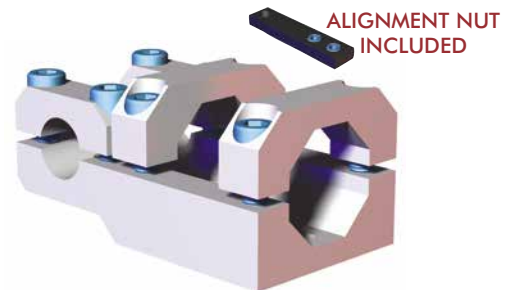


### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 25mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 45mm octagon and 25mm round perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

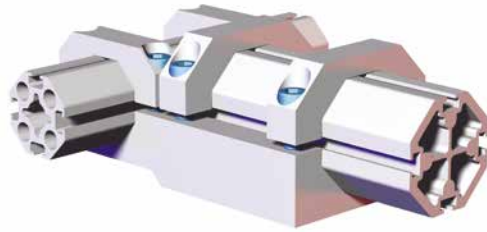


Model Number	Weight
CPI-TCA-45B-25M	.89 kg [1.97lb]





## TCA-60B-45B 60mm to 45mm octagon T-Clamp Bracket Assembly



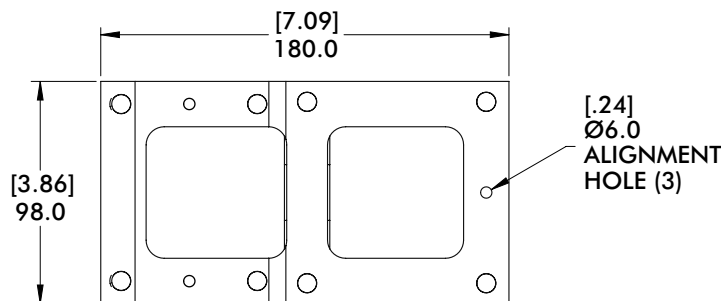
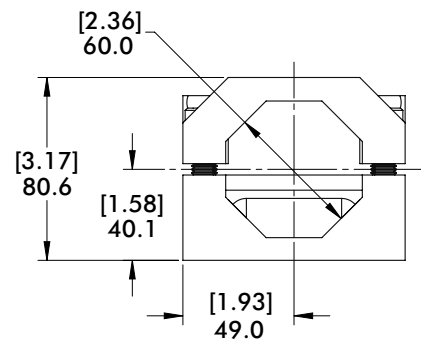
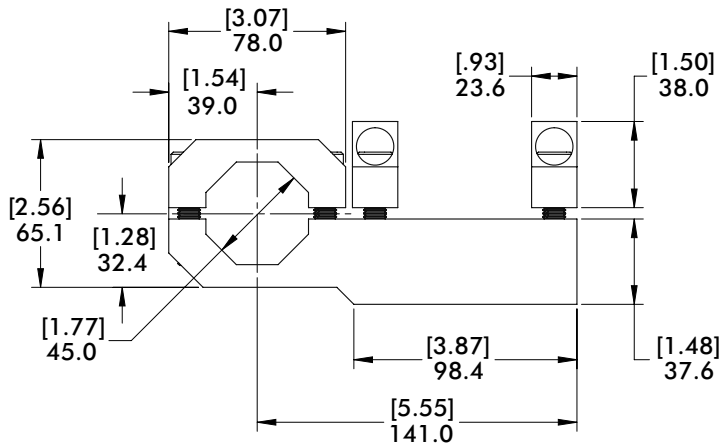
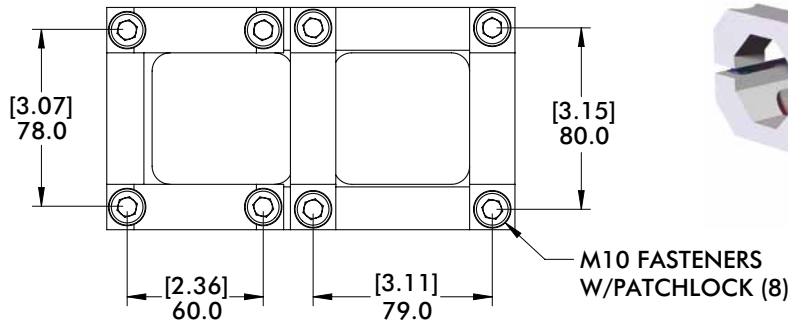
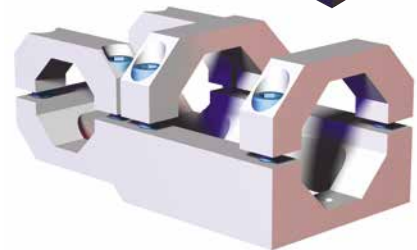
### Specifications:

**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 45mm: 475 Nm [350 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 60mm and 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

ALIGNMENT NUTS INCLUDED



Model Number	Weight
CPI-TCA-60B-45B	1.45 kg [3.20 lb]

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## TCA-60B-60B 60mm to 60mm octagon T-Clamp Bracket Assembly

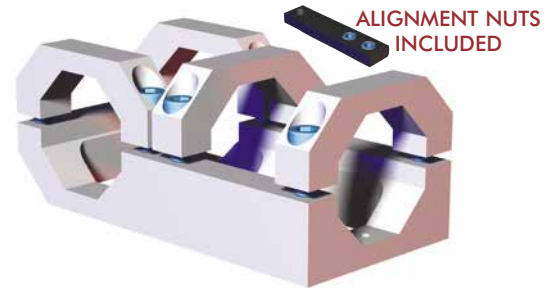
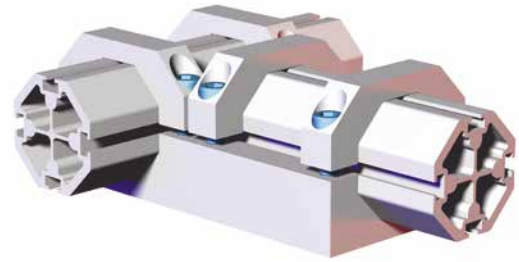
### Features:

- Connects (2) 60mm octagon extrusions perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

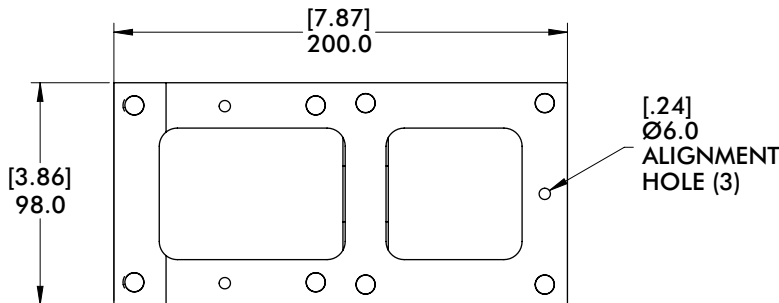
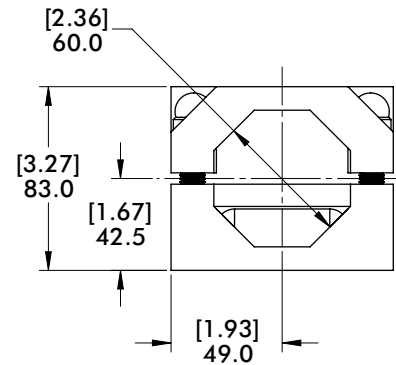
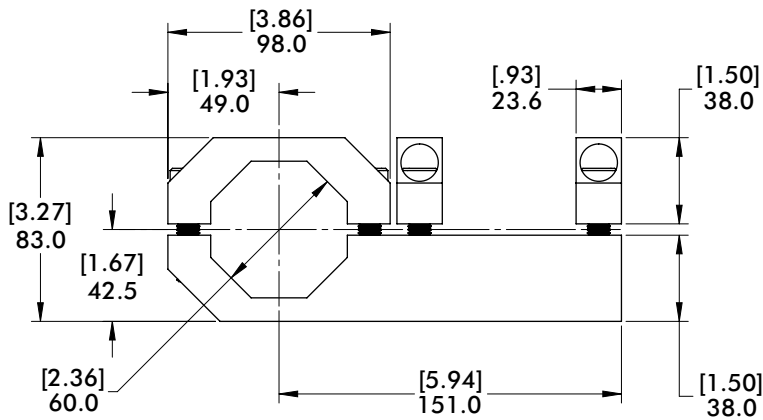
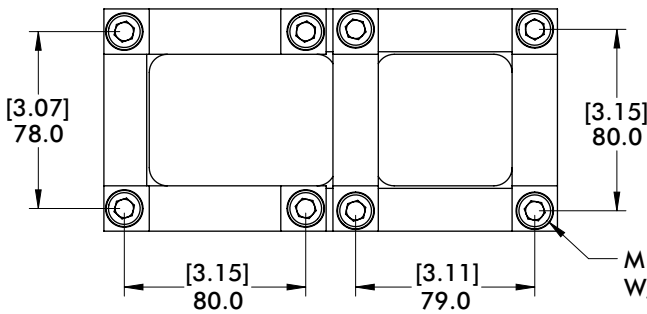
### Specifications:

**Max. Static Clamp Load:**  
60mm: 746 Nm [550 ft-lb]

**Material:** Aluminum

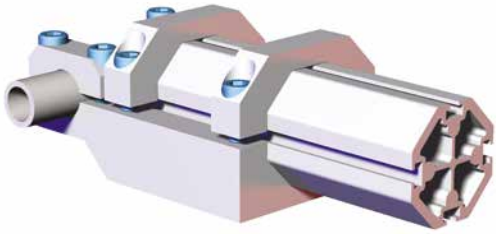


ALIGNMENT NUTS INCLUDED



Model Number	Weight
CPI-TCA-60B-60B	1.77 kg [3.90 lb]

## TCA-60B-25M 60mm Octagon to 25mm Round T-Clamp Bracket Assembly

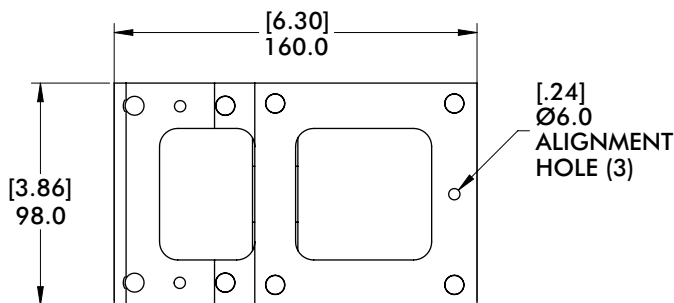
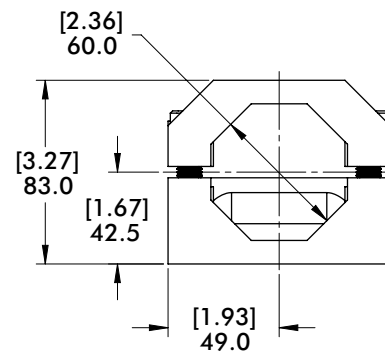
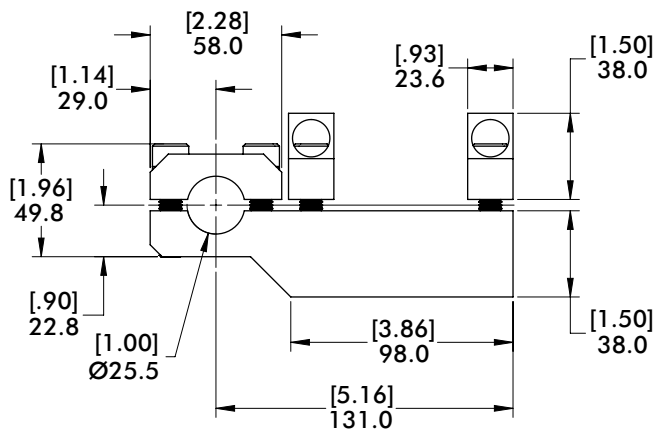
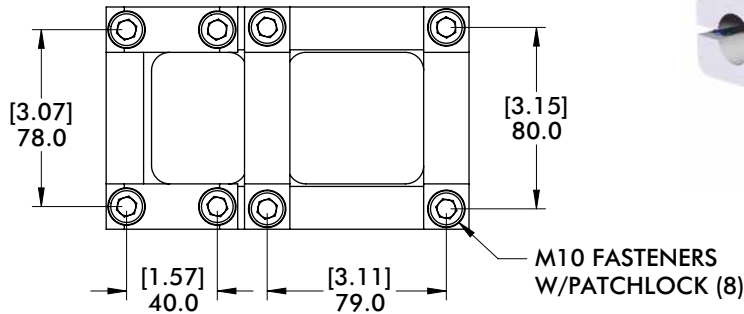
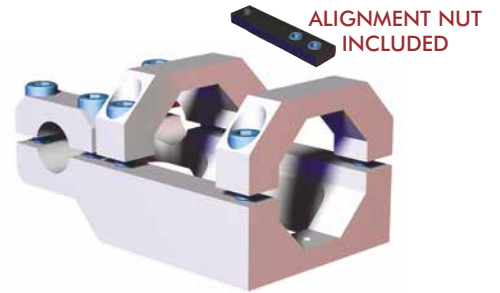


### Specifications:

**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 60mm octagon and 25mm round perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Model Number	Weight
CPI-TCA-60B-25M	1.25 kg [2.76 lb]

# BODYBUILDER™ T-CLAMPS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

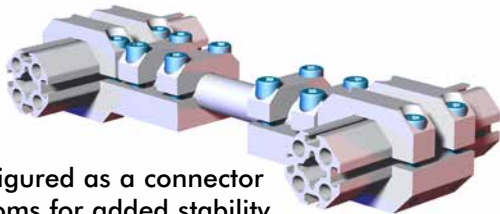
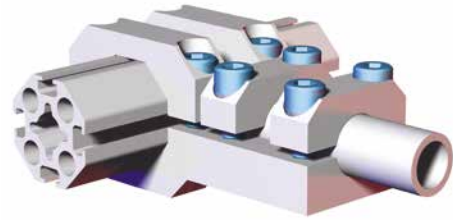
## TCA-25M-45B 25mm Round to 45mm Octagon T-Clamp Brackets Assembly

### Features:

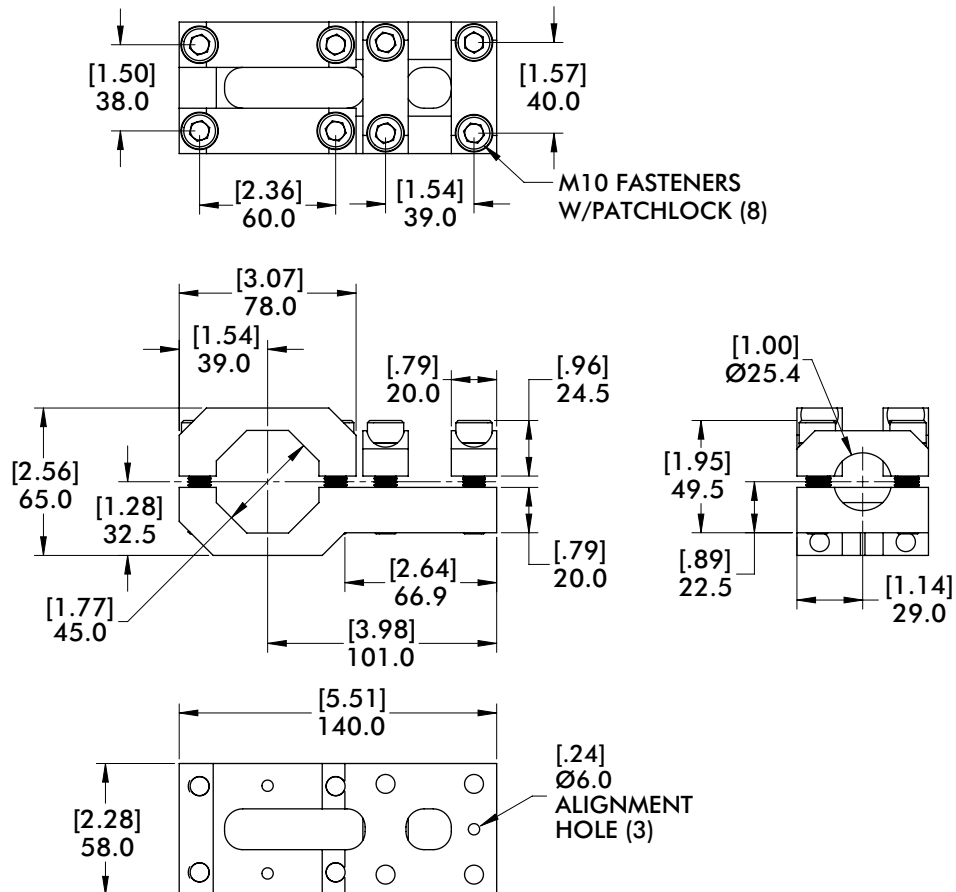
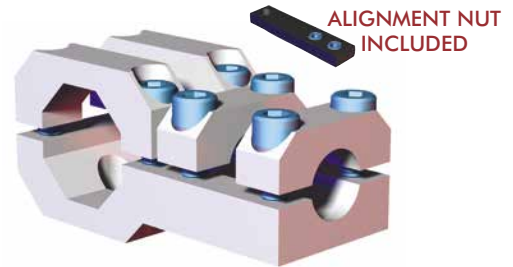
- Connects 25mm round and 45mm octagon perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 25mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

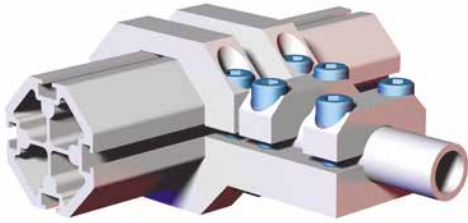


Can be configured as a connector between booms for added stability



Model Number	Weight
CPI-TCA-25M-45B	.57 kg [1.26 lb]

## TCA-25M-60B 25mm Round to 60mm Octagon T-Clamp Bracket Assembly

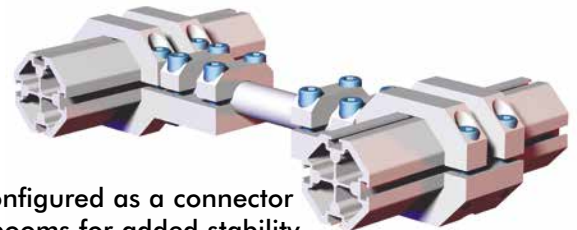
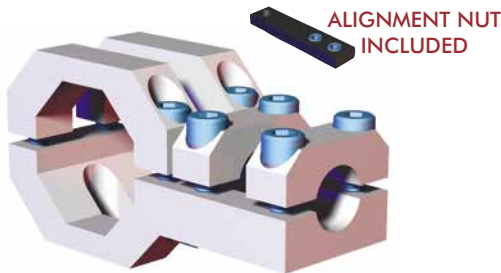


### Specifications:

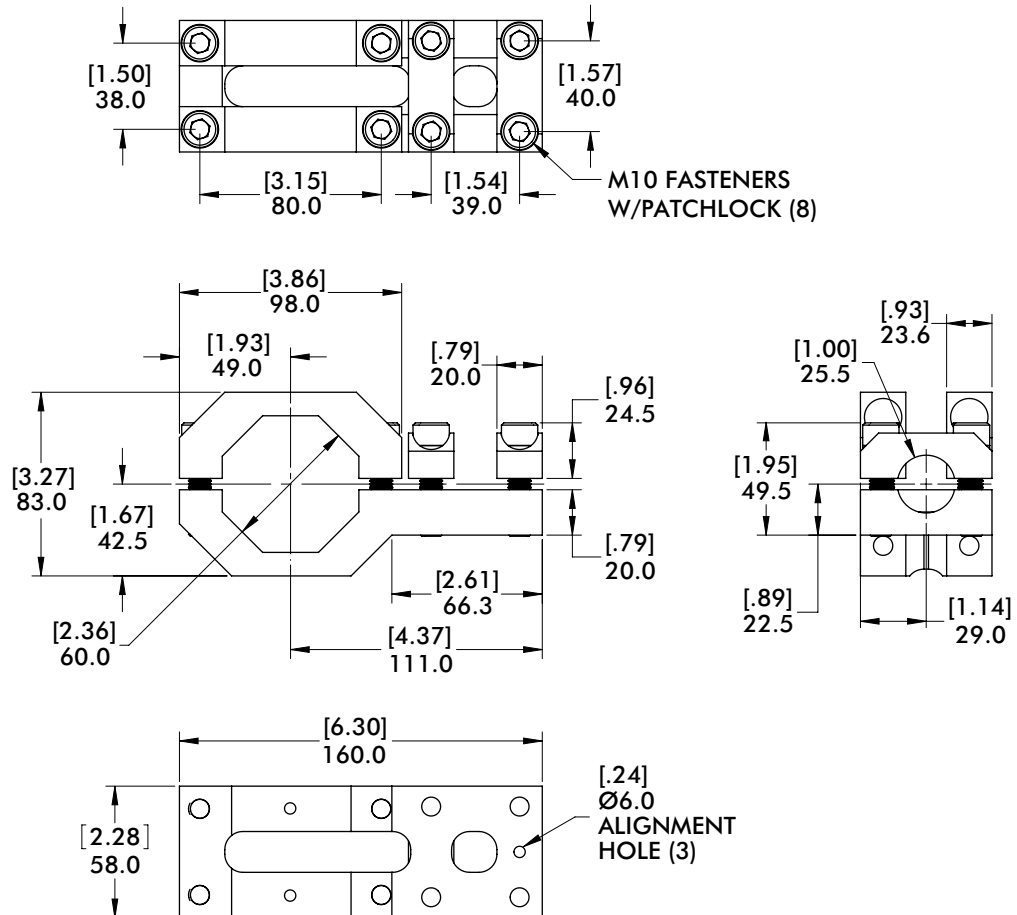
**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 25mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 25mm round and 60mm octagon perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Can be configured as a connector between booms for added stability



Model Number	Weight
CPI-TCA-25M-60B	.85 kg [1.87 lb]

# BODYBUILDER™ ELBOWS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## 45° Angular Boom Clamp Brackets

### Features:

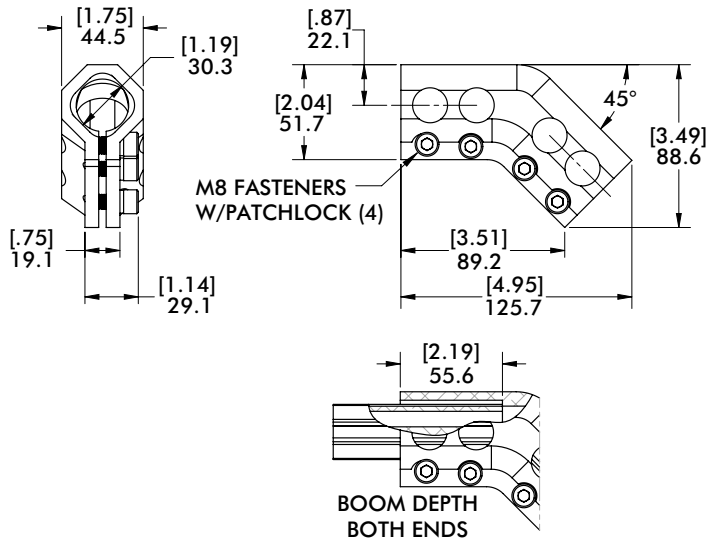
- Mounts (2) Bodybuilder extrusion booms inline at a 45° angle.

### Specifications:

Material: Aluminum

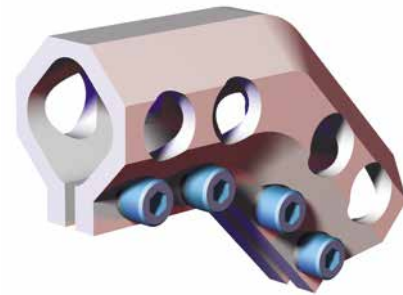


### DC-3030B-45 30mm to 30mm 45° External Boom Clamp Brackets



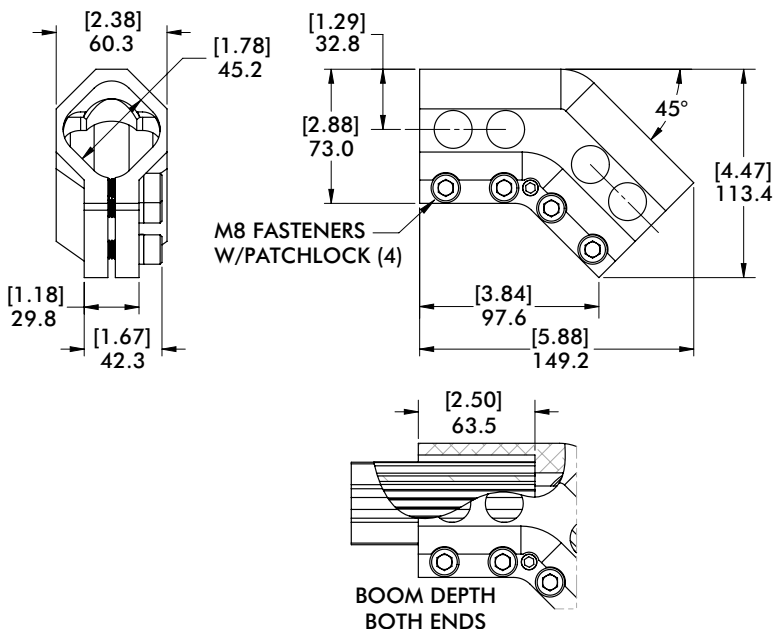
### Specifications:

Max. Static Clamp Load:  
271Nm [200 ft-lb]



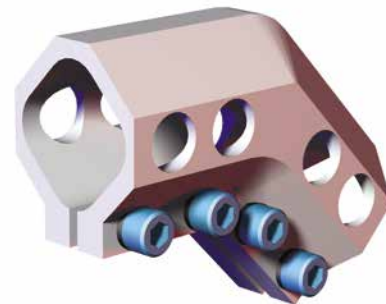
Model Number	Weight
CPI-DC-3030B-45	.30 kg [.66 lb]

### DC-4545B-45 45mm to 45mm 45° Angular Boom Clamp Brackets



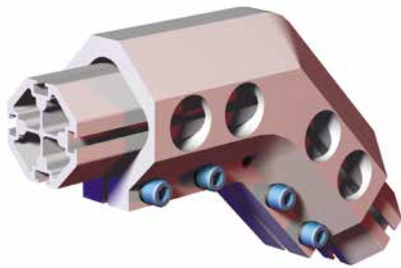
### Specifications:

Max. Static Clamp Load:  
475 Nm [350 ft-lb]



Model Number	Weight
CPI-DC-4545B-45	.64 kg [1.4 lb]

## DC-6060B-45 60mm to 60mm 45° Angular Boom Clamp Brackets



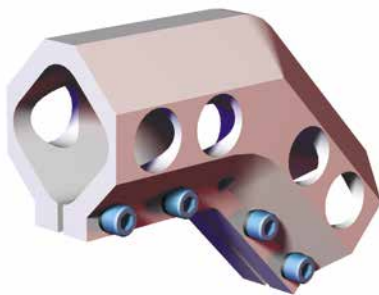
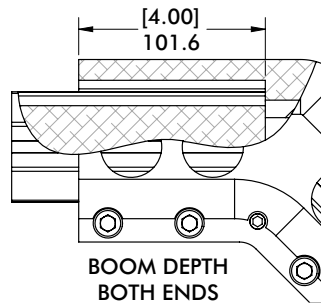
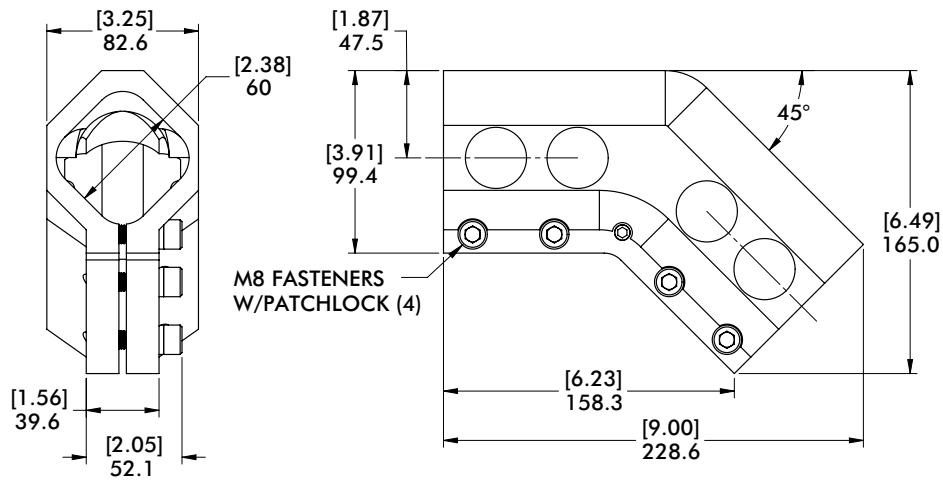
**Specifications:**

Max. Static Clamp Load:  
746 Nm [550 ft-lb]

Material: Aluminum

**Features:**

- Mounts (2) Bodybuilder extrusion booms inline at a 45° angle.



Model Number	Weight
CPI-DC-6060B-45	1.74 kg [3.8 lb]

# BODYBUILDER™ MID FLANGE CLAMPS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

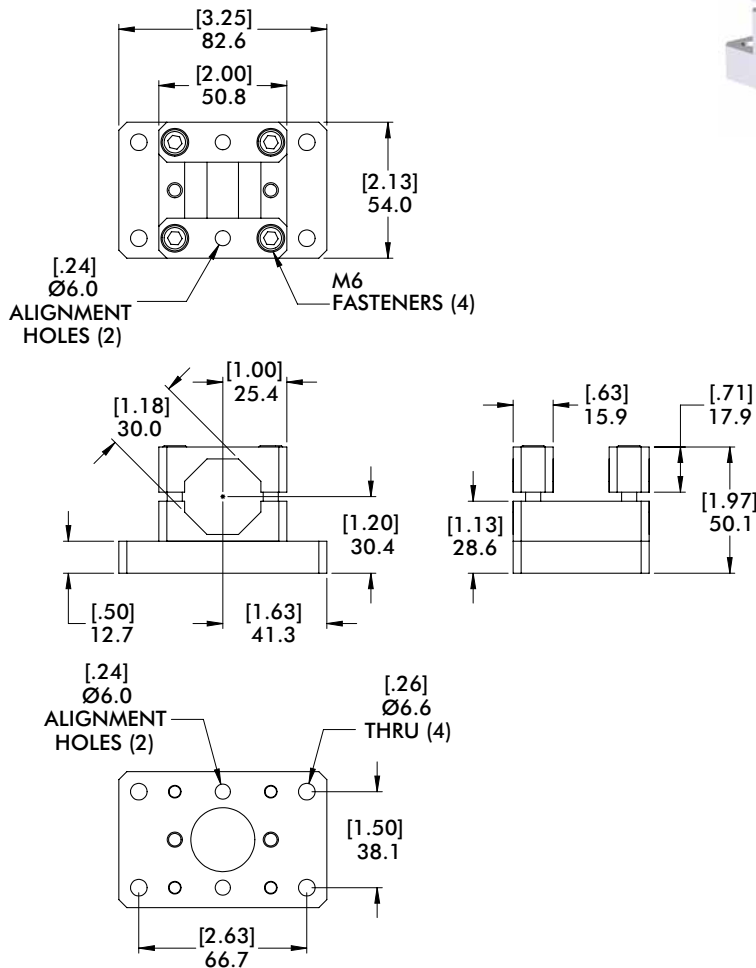
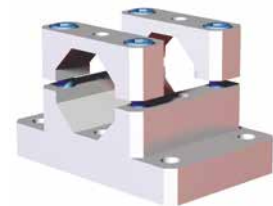
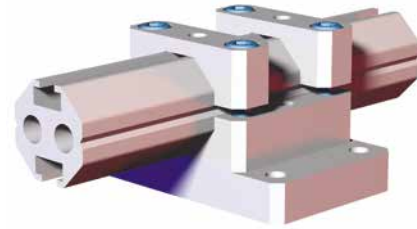
## CLM-30B-152F-90 30mm Mid Flange Clamp Mount

### Features:

- Mounts 30mm extrusion parallel to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.

### Specifications:

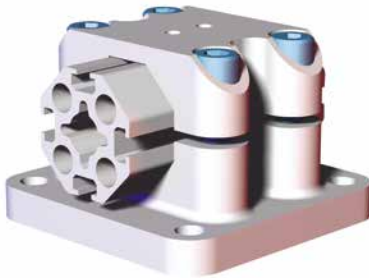
**Max. Static Clamp Load:**  
102 Nm [75 ft-lb]  
**Material:** Cast Aluminum



Model Number	Weight
CPI-CLM-30B-152F-90	0.28 kg [.61 lb]



## TBC-45 45mm Mid Flange Clamp Mount



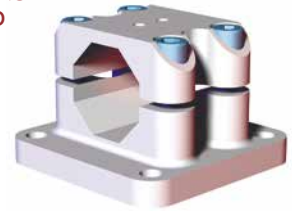
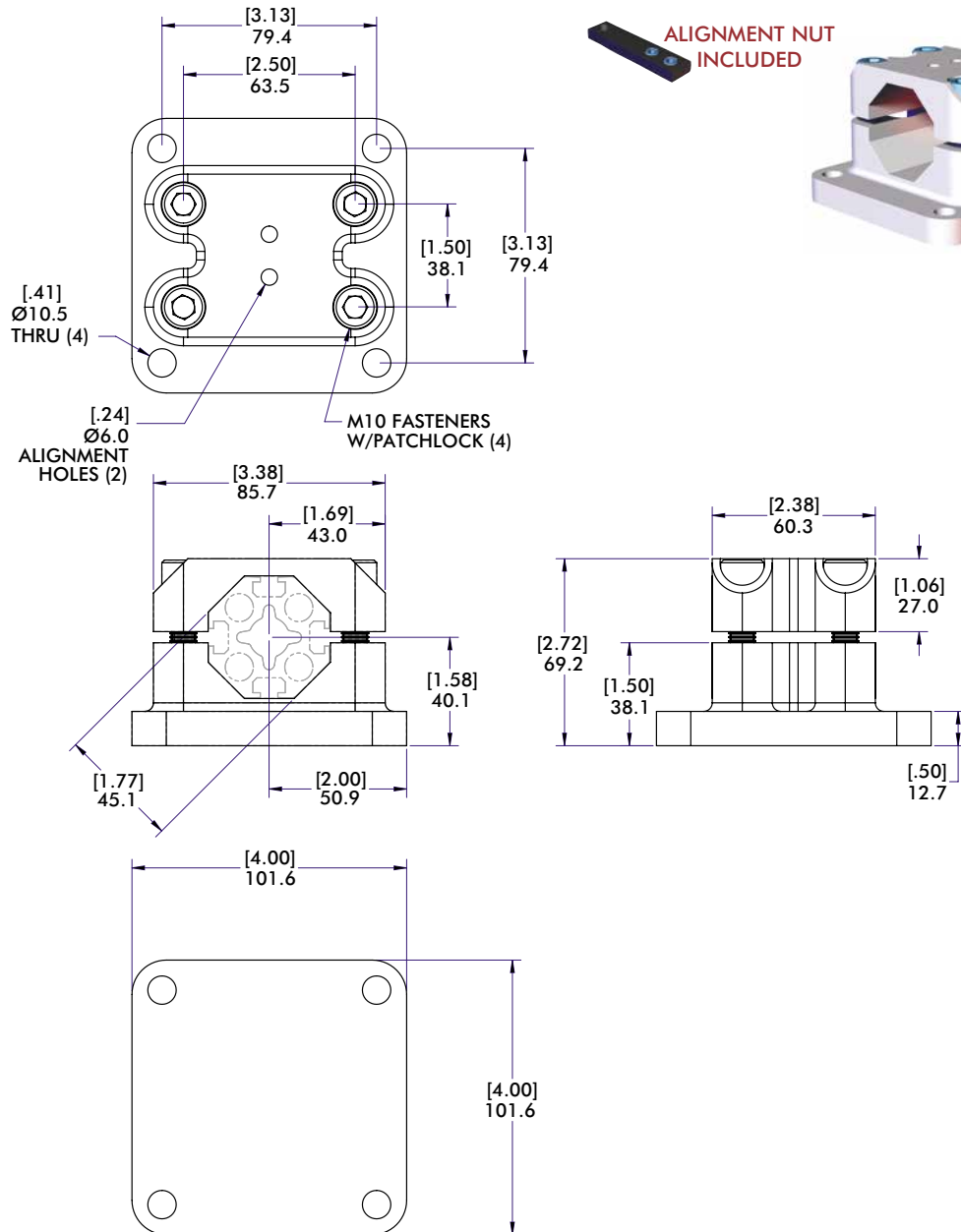
### Specifications:

**Max. Static Clamp Load:**  
475 Nm [350 ft-lb]

**Material:** Aluminum

### Features:

- Mounts 45mm extrusion parallel to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.



Model Number
TBC-45-00

Weight
0.79 kg [1.74 lb]

# BODYBUILDER™ MID FLANGE CLAMPS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## TBC-60 60mm Mid Flange Clamp Mount

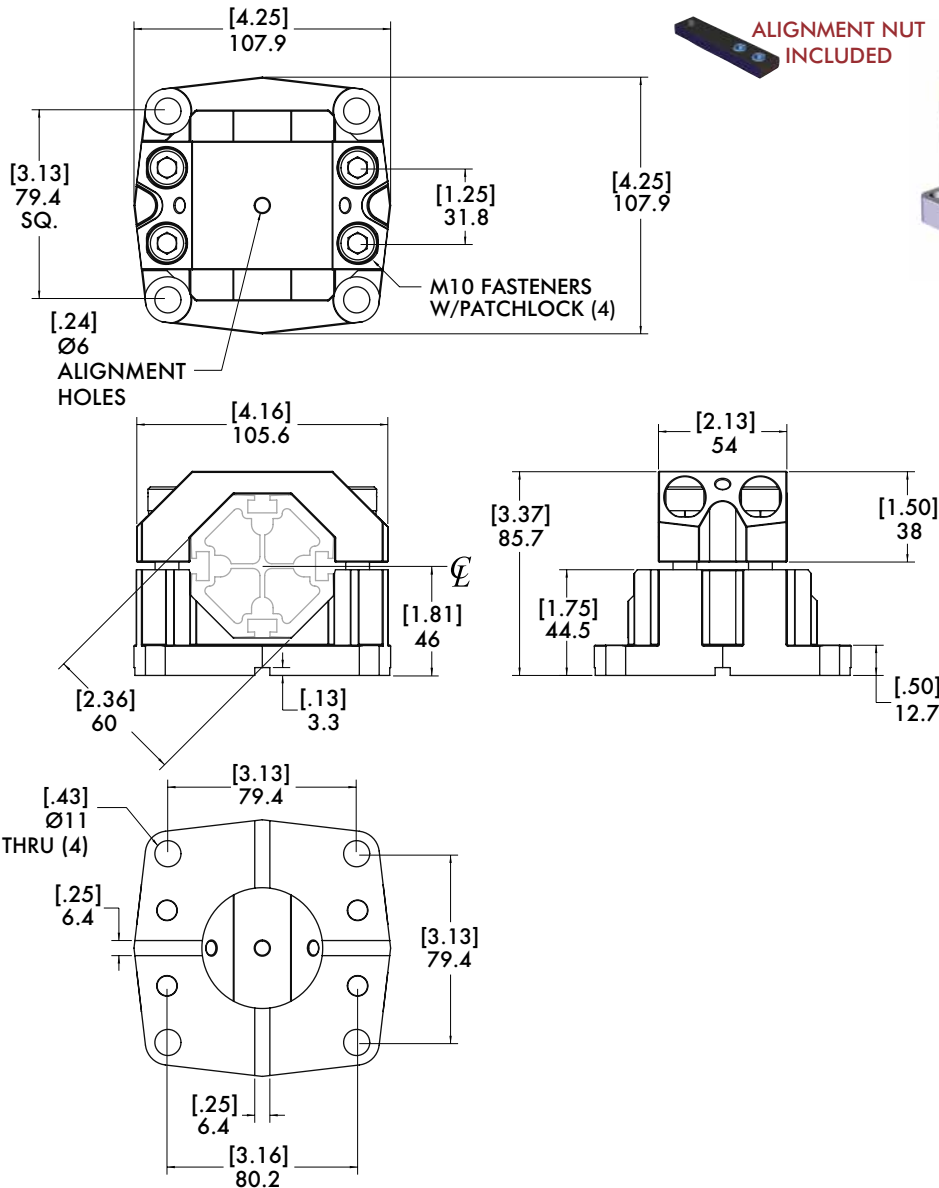
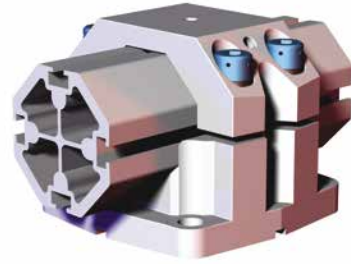
### Features:

- Mounts 60mm extrusion parallel to the mounting surface.
- Can be used to mount to robot with an interface plate.
- Cross-key design provides added strength for high-torque applications when used in conjunction with a slot and key mechanism.

### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]

**Material:** Cast Aluminum



Cross Key sold separately: (2) x 540-25388

Model Number	Weight
TBC-60-00	0.92 kg [2.02 lb]

## CLM-30B-20F 30mm End Flange Clamp Mount

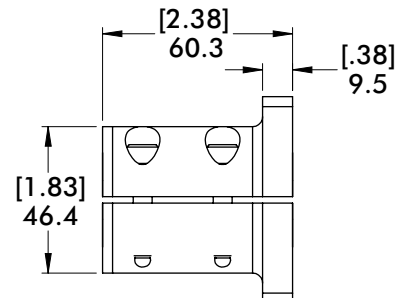
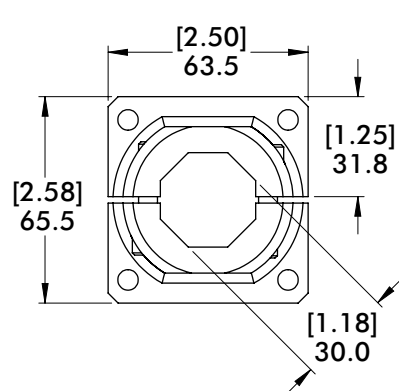
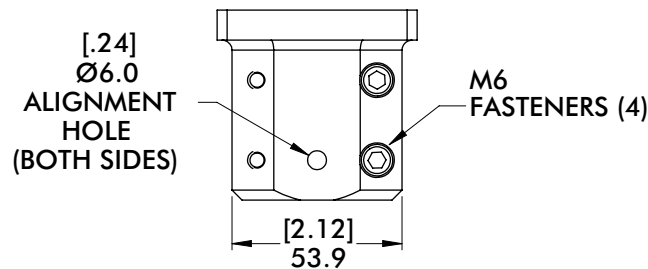
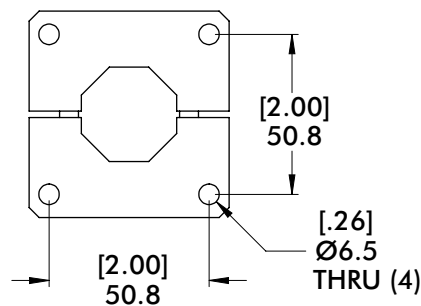
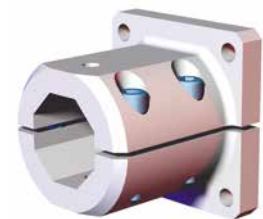


### Specifications:

**Max. Static Clamp Load:**  
102 Nm [75 ft-lb]  
**Material:** Aluminum

### Features:

- Mounts 30mm extrusion 90° to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.



Model Number	Weight
CPI-CLM-30B-20F	.29 kg [.64 lb]

# BODYBUILDER™ END FLANGE CLAMPS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

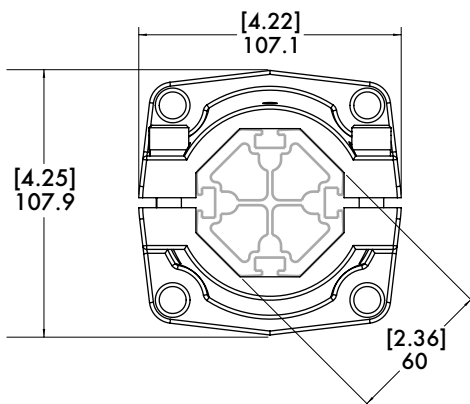
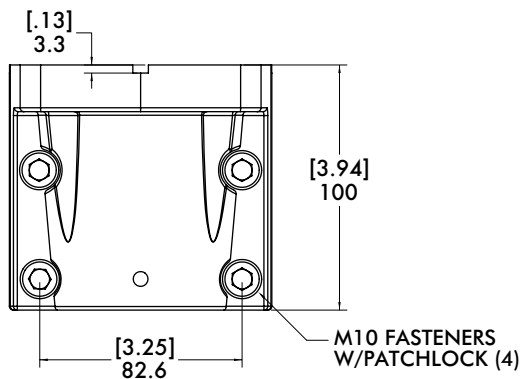
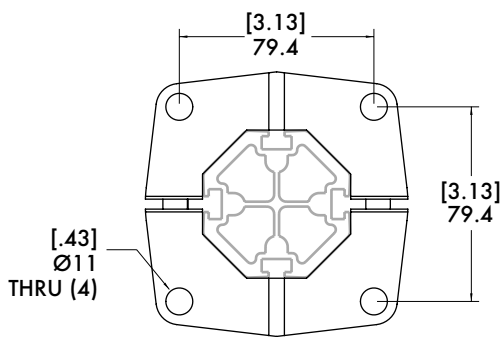
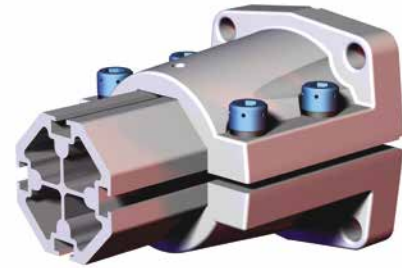
## BECC-60 60mm End Flange Clamp Mount

### Features:

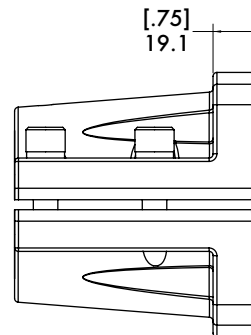
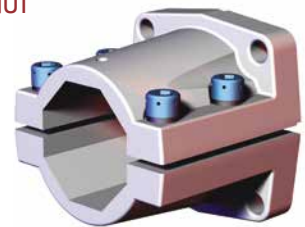
- Mounts 60mm extrusion 90° to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.
- Cross-key design provides added strength for high-torque applications when used in conjunction with a slot and key mechanism.

### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]  
**Material:** Cast Aluminum



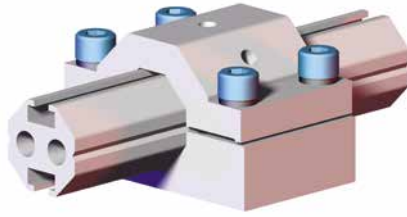
ALIGNMENT NUT  
INCLUDED



Cross Key sold separately: (2) x 540-25388

Model Number	Weight
BECC-60-00	1.21 kg [2.67 lb]

## TPM-30 30mm Accessory Mounting Bracket



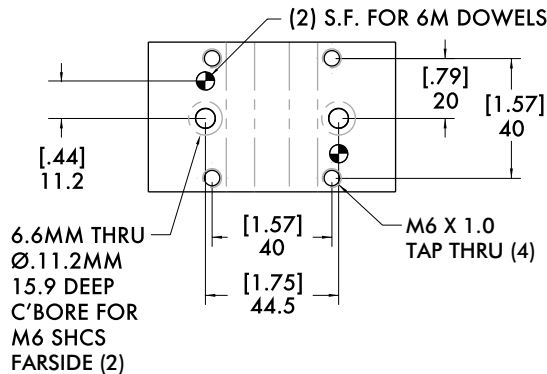
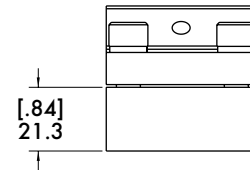
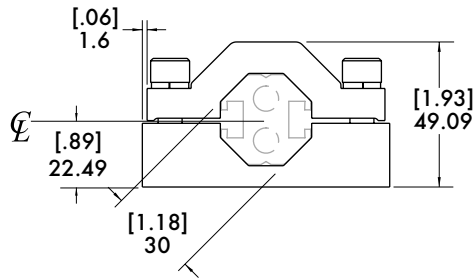
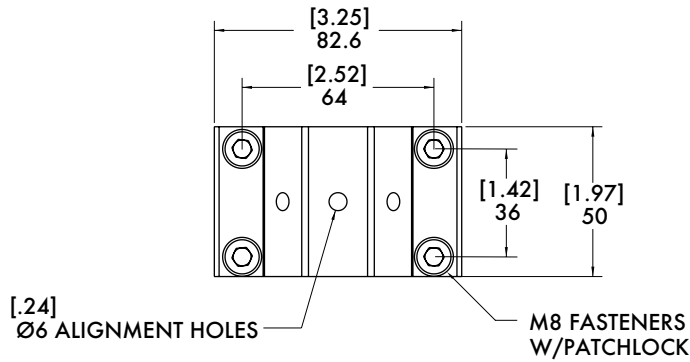
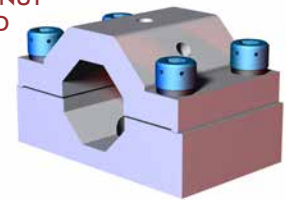
### Specifications:

**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Provides a secure attachment point for clamps and pin locators.

ALIGNMENT NUT INCLUDED



Model Number

**TPM-30**

Weight

.36 kg [.80 lb]

# BODYBUILDER™ ACCESSORY MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## TPM(S)-45 45mm Accessory Mounting Bracket

### Features:

- Provides a secure attachment point for clamps and pin locators.
- Standard NAAMS mounting patterns.

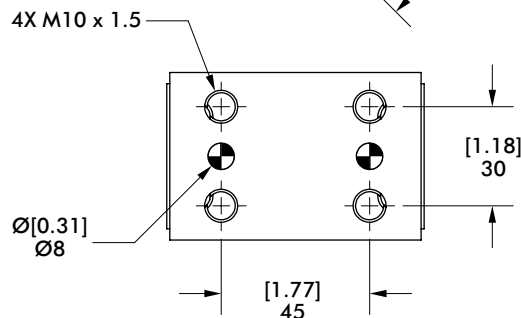
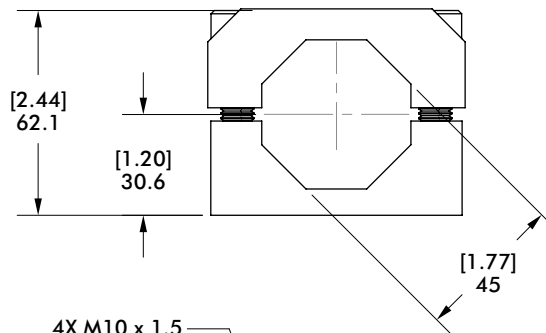
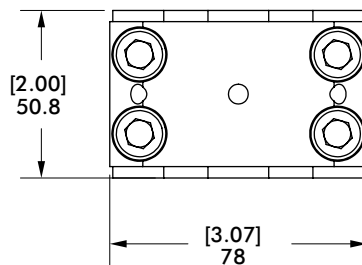
### Specifications:

**Max. Static Clamp Load:**  
475 Nm [350 ft-lb]

**Material:**  
TPMS-45: Steel  
TPM-45: Aluminum



ALIGNMENT NUT  
INCLUDED



Model Number	Weight
<b>TPM-45 (Aluminum)</b>	.48 kg [1.28 lb]
<b>TPMS-45 (Steel)</b>	1.10 kg [2.90 lb]

## TPMS-60 60mm Accessory Mounting Bracket.



### Specifications:

**Max. Static Clamp Load:**

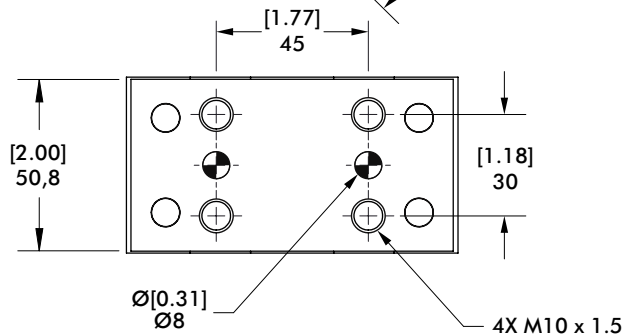
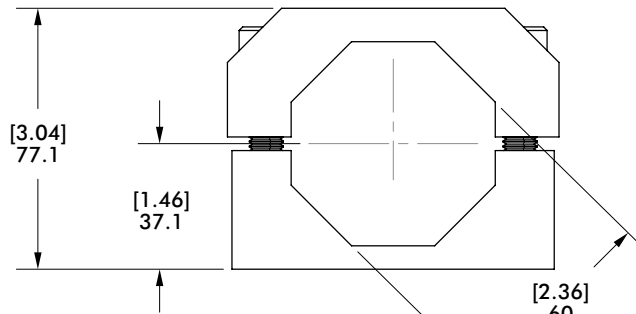
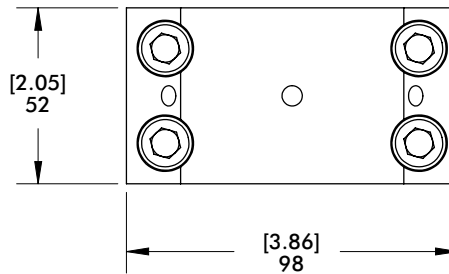
746 Nm [550 ft-lb]

**Material:** Steel

### Features:

- Provides a secure attachment point for clamps and pin locators.
- Standard NAAMS mounting patterns.

ALIGNMENT NUT INCLUDED



Model Number	Weight
TPMS-60	1.3 kg [2.90 lb]

# BODYBUILDER™ ACCESSORY MOUNTS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## TPMS-90 90mm Accessory Mounting Bracket

### Features:

- Provides a secure attachment point for clamps and pin locators.

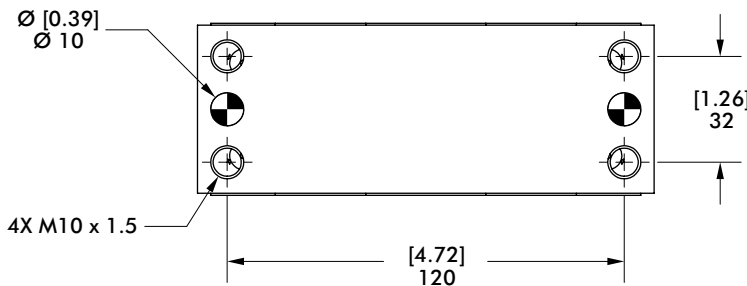
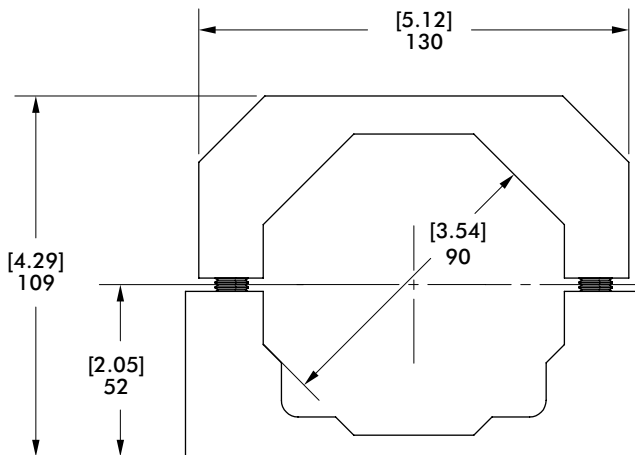
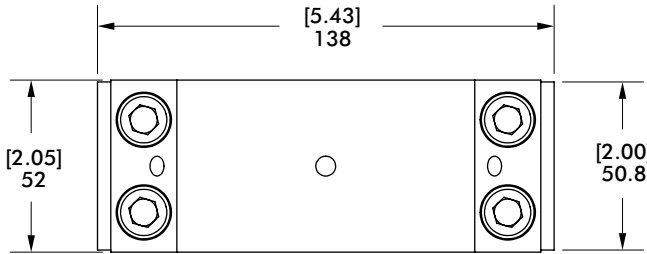
### Specifications:

Max. Static Clamp Load:  
746 Nm [550 ft-lb]

Material: Steel



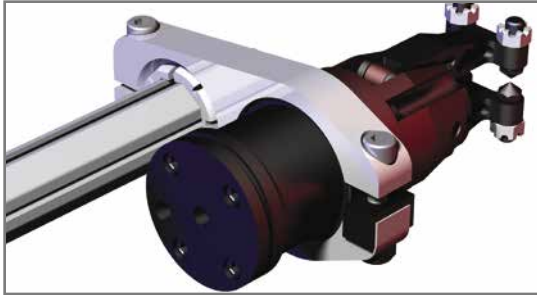
ALIGNMENT NUT  
INCLUDED



Model Number	Weight
TPMS-90	1.93kg [4.25lb]



## GPC-150-30BBS 30mm Swivel 150 Series Parallel Gripper Mount



**Specifications:**

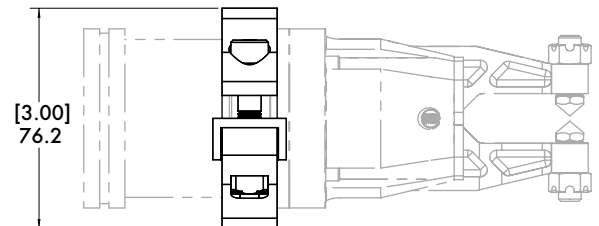
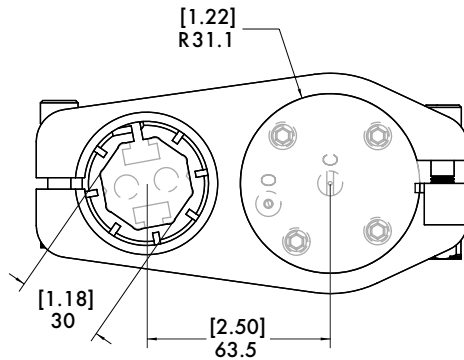
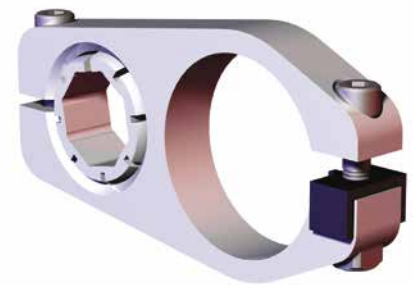
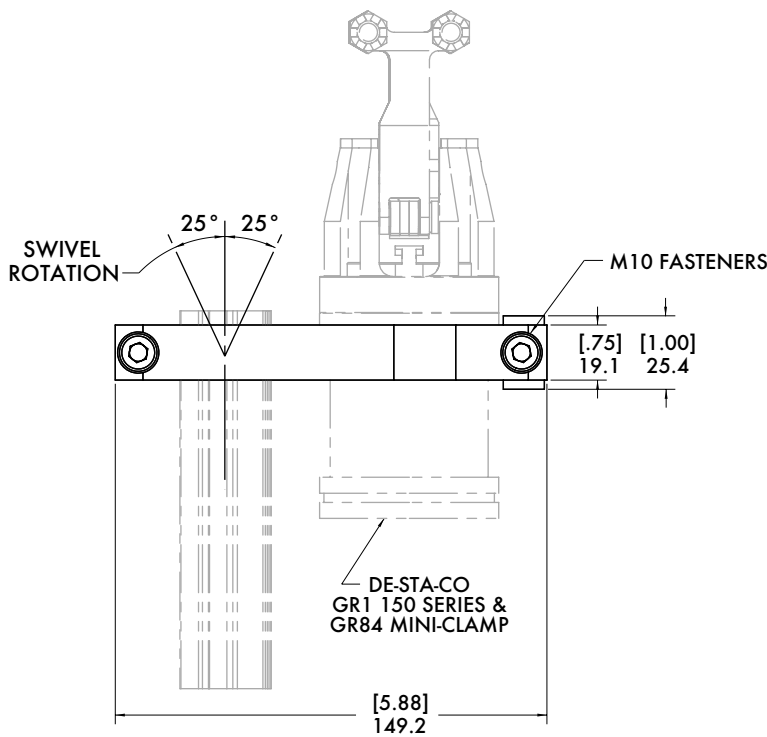
**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

**Material:**

Body: Aluminum  
Swivel Ball: Steel

**Features:**

- Removable grip mount lock allows gripper to be adjusted while continuing to holding it in place.
- Swivel ball allows for  $\pm 25^\circ$  adjustment of swivel rotation.



Model Number	Weight
CPI-GPC-150-30BBS-DC	.33 kg [.73 lb]

# BODYBUILDER™ GRIPPER MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RJM-150-30BBS 30mm End Gripper Mount for 150 Series Gripper

### Features:

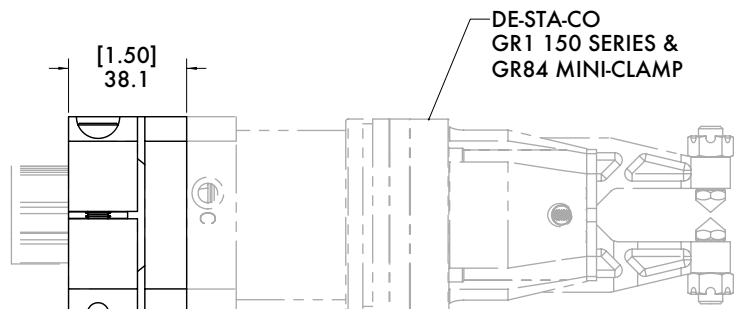
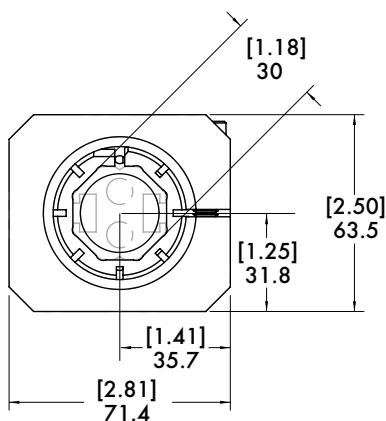
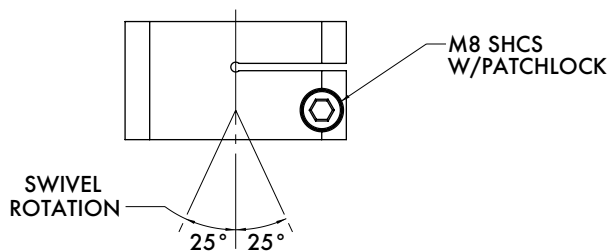
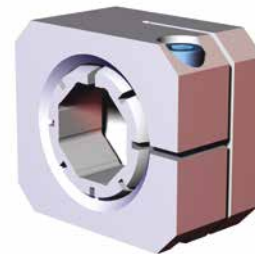
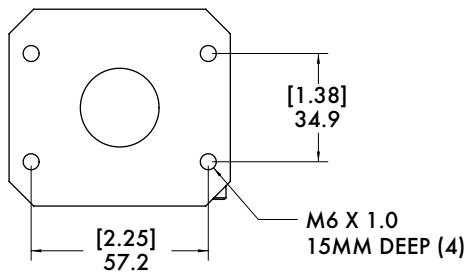
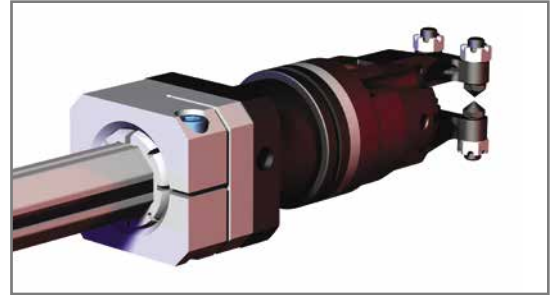
- Swivel ball allows for  $\pm 25^\circ$  adjustment of swivel rotation.

### Specifications:

**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

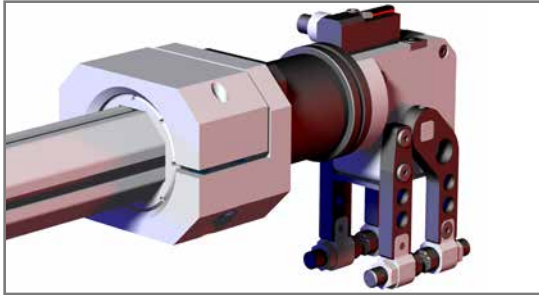
### Material:

Housing:  
Machined Aluminum  
Swivel: Steel



Model Number	Weight
CPI-RJM-150-30BBS	.33 kg [.74 lb]

## RJM-150-45BBS 45mm End Gripper Mount for 150 Series Gripper



### Specifications:

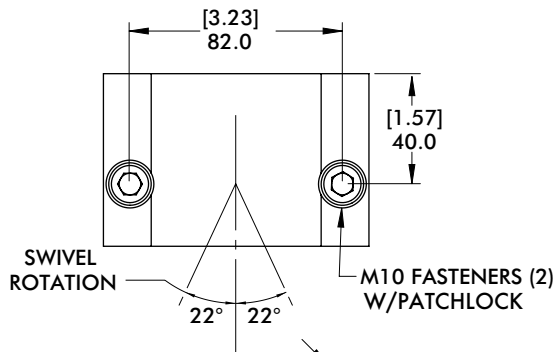
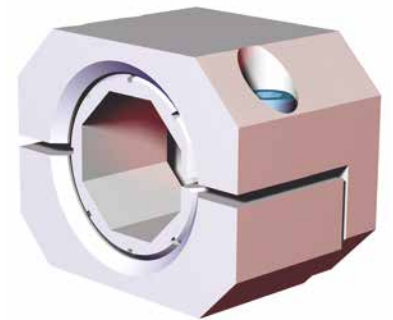
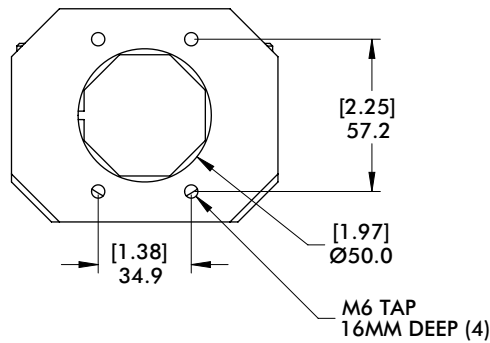
**Max. Static Clamp Load:**  
475 Nm [350 ft-lb]

### Material:

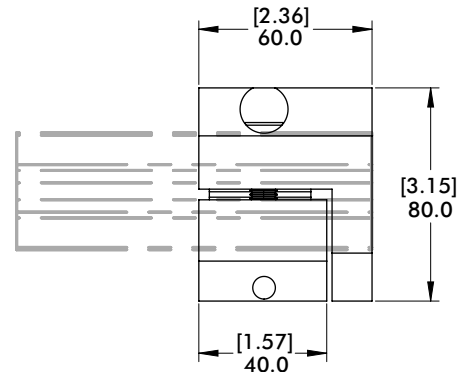
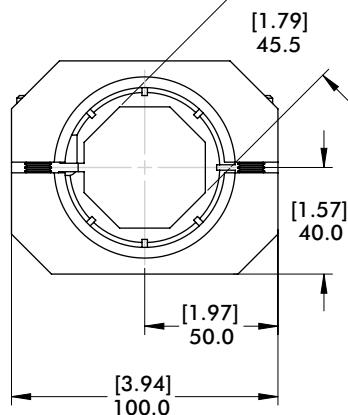
**Housing:**  
Machined Aluminum  
**Swivel:** Steel

### Features:

- Swivel ball allows for  $\pm 22^\circ$  adjustment of swivel rotation.



TO USE AS A FIXED MOUNT  
INSERT BOOM COMPLETELY  
UNTIL IT COMES INTO  
CONTACT WITH GRIPPER  
FOR SWIVEL OPTION INSERT  
BOOM 40 MM [1.57 IN] OR  
UNTIL BOOM IS INSERTED  
ENOUGH TO ALLOW  
ROTATION WITHOUT  
OBSTRUCTION



Model Number	Weight
CPI-RJM-150-45BBS	1.23 kg [2.71 lb]

# BODYBUILDER™ SWIVEL ARMS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## 30B50-MSA 30mm Swivel Arms for .50"(in) Apple Core Accessories

### Features:

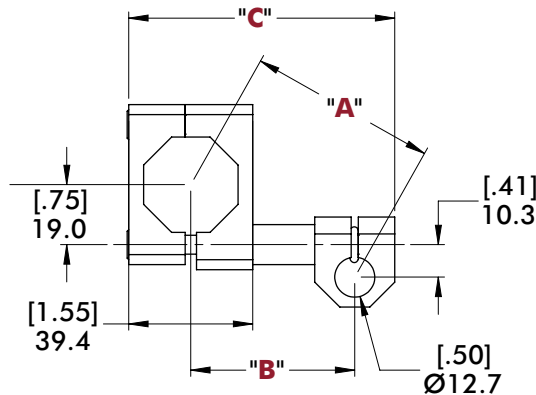
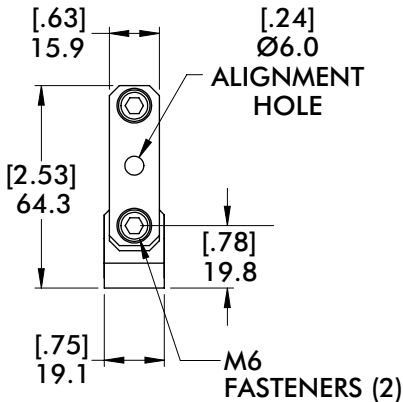
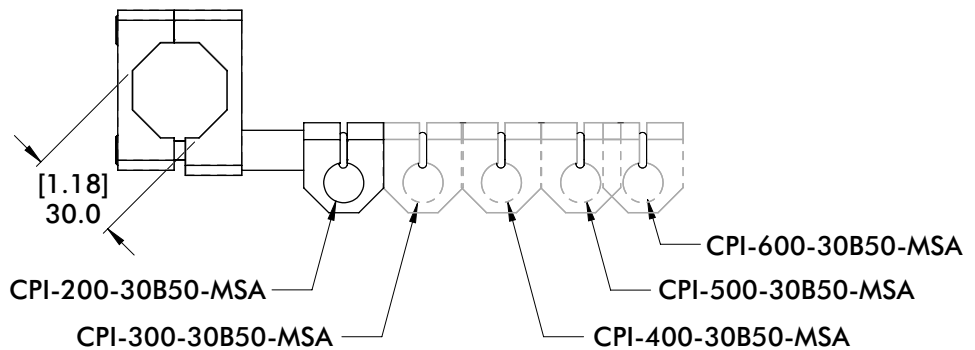
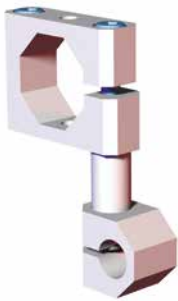
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

### Specifications:

**Max. Static Clamp Load:**  
102 Nm [75 ft-lb]

### Material:

**Body:**  
Cast Aluminum  
**Insert:**  
Machined Aluminum



CPI- <u>L</u> -30B50-MSA SWIVEL ARM				
"L"	"A"	"B"	"C"	Weight
<b>200</b>	59.8 [2.35]	52.1 [2.05]	84.5 [3.33]	.10 kg [.22 lb]
<b>300</b>	82.6 [3.25]	77.2 [3.04]	109.6 [4.32]	.11 kg [.24 lb]
<b>400</b>	106.2 [4.18]	102.1 [4.02]	134.5 [5.30]	.12 kg [.26 lb]
<b>500</b>	130.6 [5.14]	127.3 [5.01]	159.7 [6.29]	.13 kg [.29 lb]
<b>600</b>	150.0 [5.90]	147.1 [5.79]	179.5 [7.07]	.14 kg [.31 lb]

## 45B-CSA 45mm Swivel Arms for Ø19mm [.75 in] Apple Core Accessories



### Specifications:

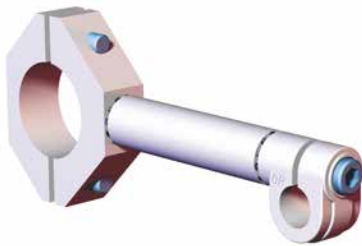
**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

### Material:

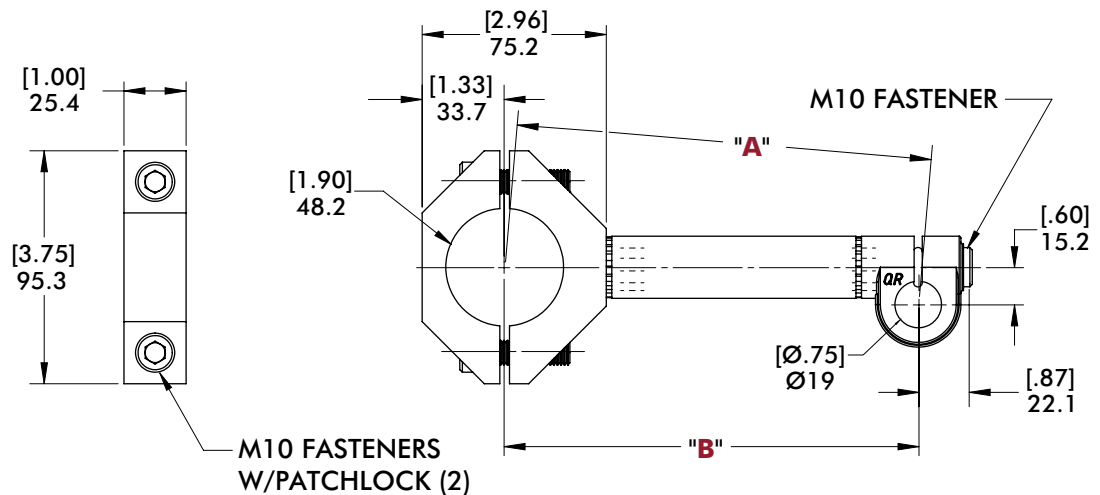
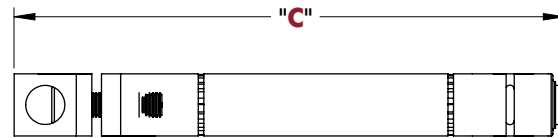
**Body:**  
Cast Aluminum  
**Insert:**  
Machined Aluminum

### Features:

- Mounts to BodyBuilder™ 45mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.



CPI-180-45B-CSA SHOWN



CPI-" L "-45B-CSA SWIVEL ARM				
" L "	"A"	"B"	"C"	Weight
130	119.8 [4.72]	118.8 [4.68]	140.9 [5.56]	.48 kg [1.06 lb]
180	169.8 [6.68]	169.1 [66.6]	224.9 [8.89]	.54 kg [1.20 lb]
230	219.7 [8.65]	219.1 [8.63]	275.0 [10.83]	.61 kg [1.34 lb]
280	269.6 [10.61]	269.2 [10.60]	325.0 [12.80]	.67 kg [1.47 lb]

# BODYBUILDER™ SWIVEL ARMS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## SA-30 30mm Swivel Arms for Ø19mm [.75 in] Apple Core Accessories

### Features:

- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

### Specifications:

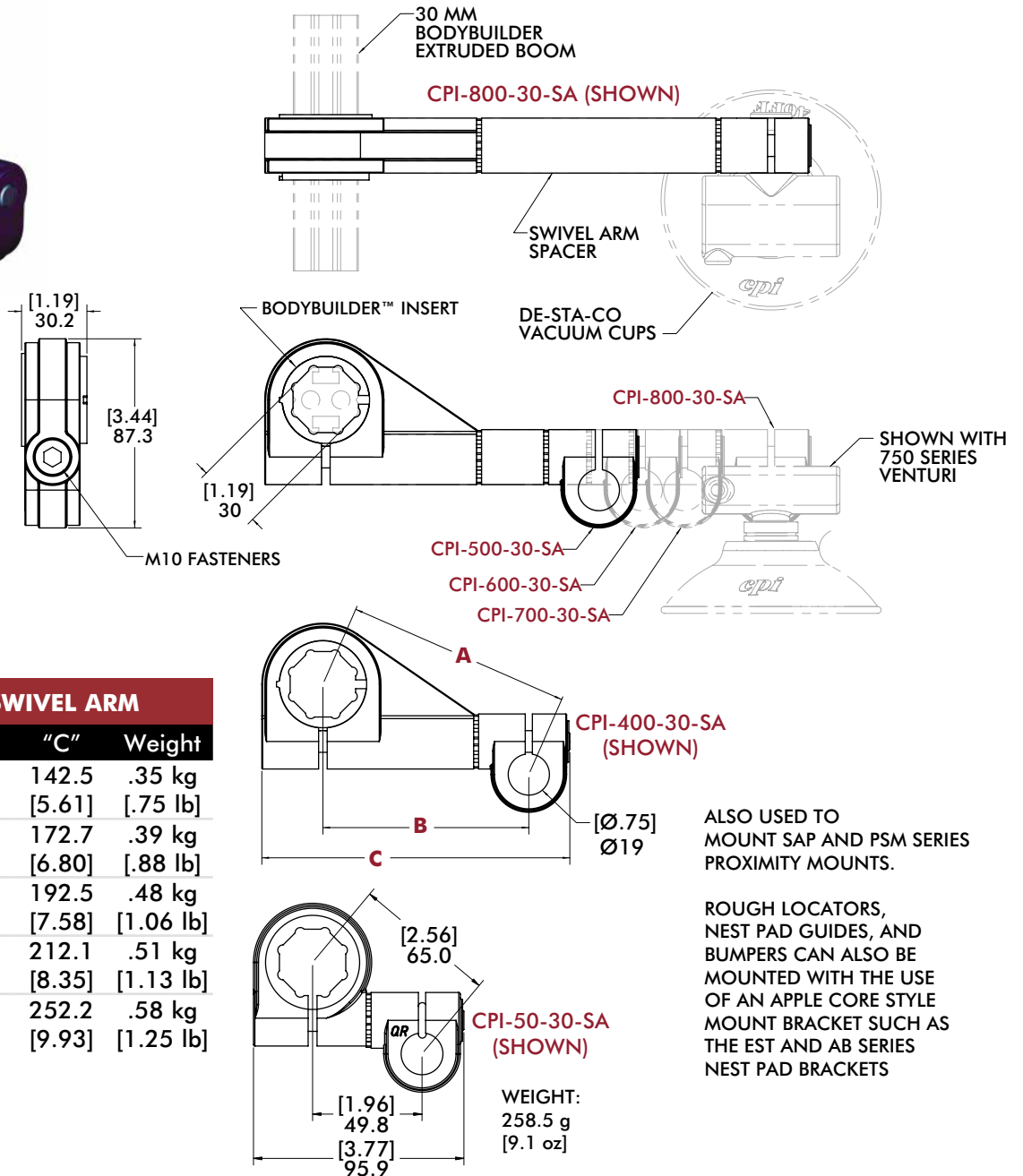
**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

### Material:

**Body:**  
Cast Aluminum  
**Insert:**  
Machined Aluminum



CPI-400-30-SA SHOWN



CPI- " L "-30-SA SWIVEL ARM				
" L "	" A "	" B "	" C "	Weight
<b>400</b>	103.8 [4.09]	95.1 [3.74]	142.5 [5.61]	.35 kg [.75 lb]
<b>500</b>	132.8 [5.26]	126.0 [4.96]	172.7 [6.80]	.39 kg [.88 lb]
<b>600</b>	151.7 [5.97]	146.0 [5.75]	192.5 [7.58]	.48 kg [1.06 lb]
<b>700</b>	170.6 [6.72]	165.4 [6.51]	212.1 [8.35]	.51 kg [1.13 lb]
<b>800</b>	209.7 [8.26]	205.5 [8.09]	252.2 [9.93]	.58 kg [1.25 lb]

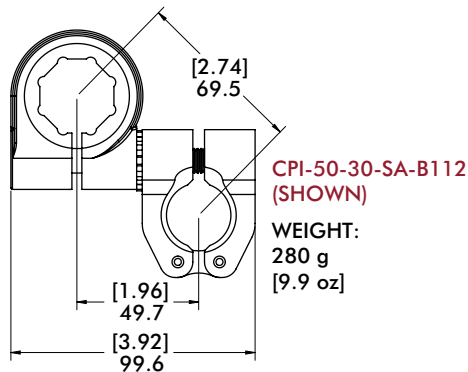
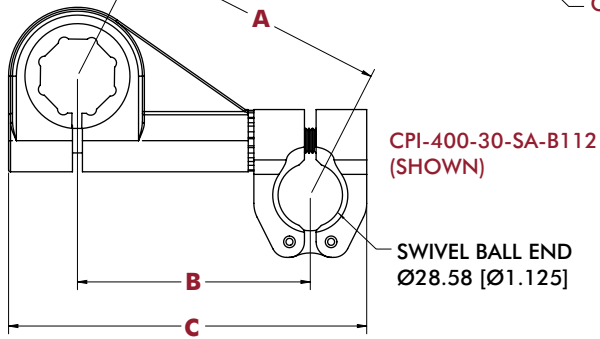
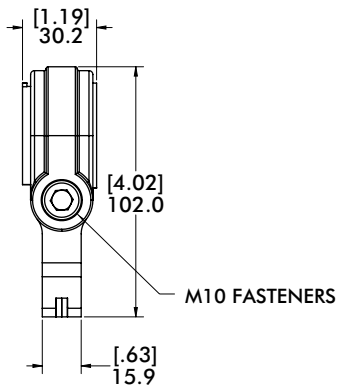
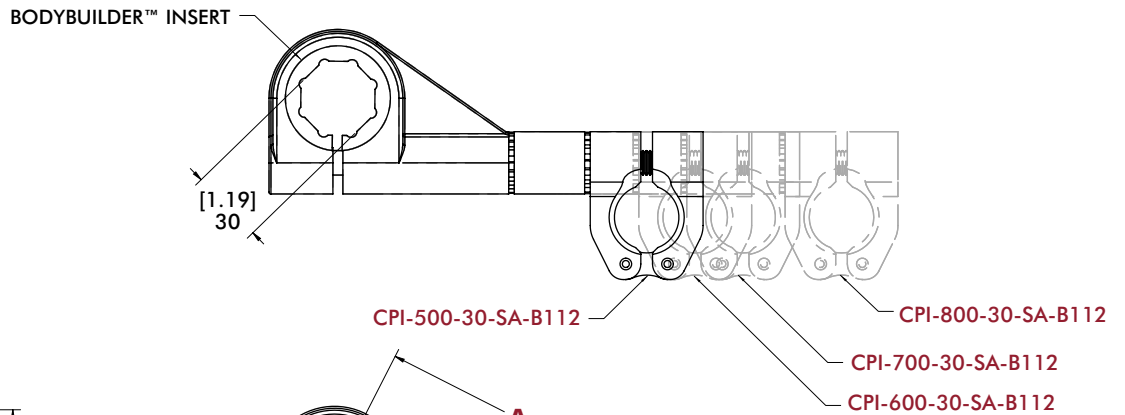
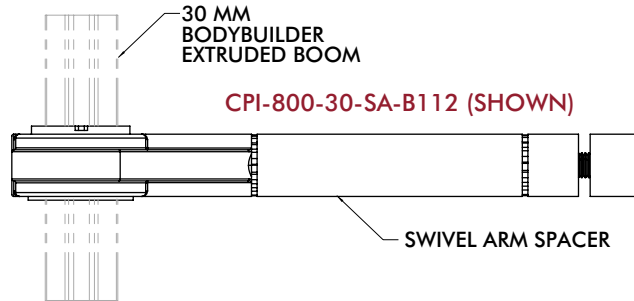
ALSO USED TO MOUNT SAP AND PSM SERIES PROXIMITY MOUNTS.

ROUGH LOCATORS, NEST PAD GUIDES, AND BUMPERS CAN ALSO BE MOUNTED WITH THE USE OF AN APPLE CORE STYLE MOUNT BRACKET SUCH AS THE EST AND AB SERIES NEST PAD BRACKETS

## 30-SA-B112 30mm Swivel Arms for Swivel Ball Mount Accessories



CPI-500-30-SA-B112 (SHOWN)



CPI- " L " -30-SA-B112 SWIVEL ARM				
" L "	" A "	" B "	" C "	Weight
400	106.7 [4.20]	95.0 [3.74]	146.1 [5.75]	.40 kg [.88 lb]
500	135.0 [5.32]	126.0 [4.96]	177.1 [6.97]	.46 kg [1.00 lb]
600	153.7 [6.05]	145.8 [5.74]	196.9 [7.75]	.49 kg [1.06 lb]
700	172.3 [6.78]	165.4 [6.51]	216.5 [8.52]	.53 kg [1.19 lb]
800	211.1 [8.31]	205.5 [8.09]	256.6 [10.10]	.60 kg [1.31 lb]

# BODYBUILDER™ SWIVEL ARM ACCESSORIES



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

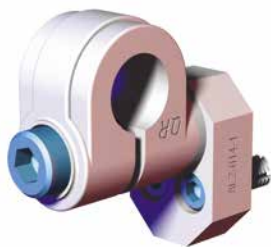
## BC19 30mm Bodybuilder to Ø19mm [.75 in] Apple Core Swivel End Mount

### Features:

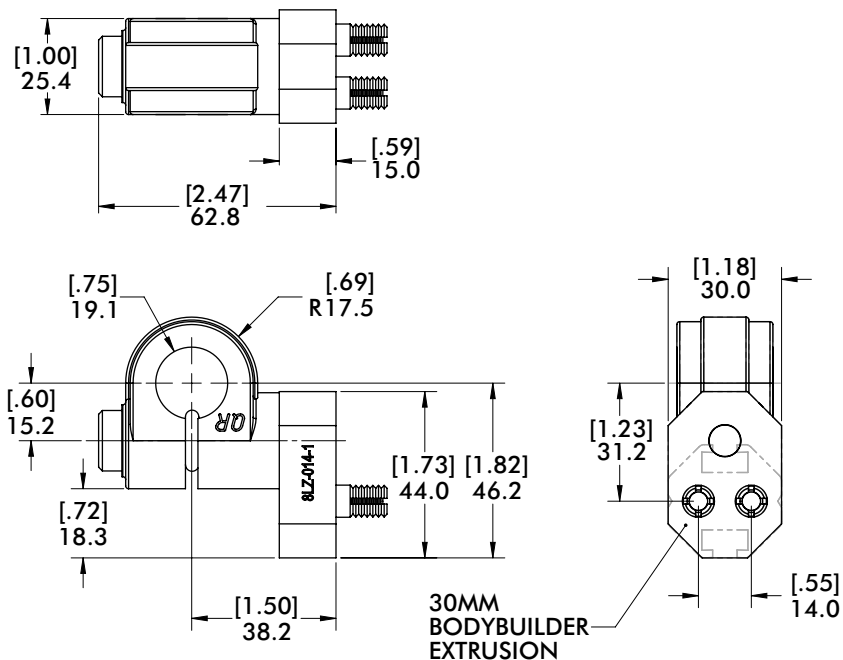
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustment along (2) axis.

### Specifications:

**Material:**  
Aluminum



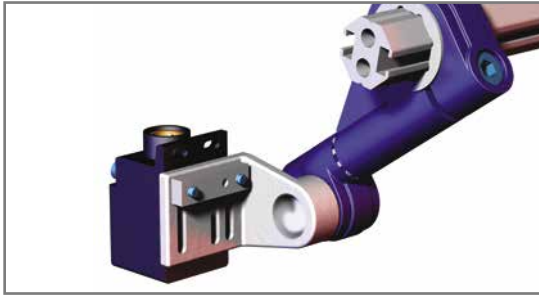
INCLUDES (2) INSERTS TO BE PRESS-FITTED INTO THE END OF 30MM BODYBUILDER™ OCTAGONAL BOOM



Model Number	Weight
CPI-BC-19	.13 kg [.28 lb]



## AB-750-SL Part Present Proximity Switch Mount



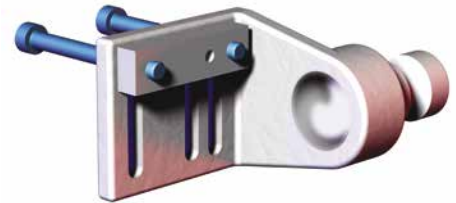
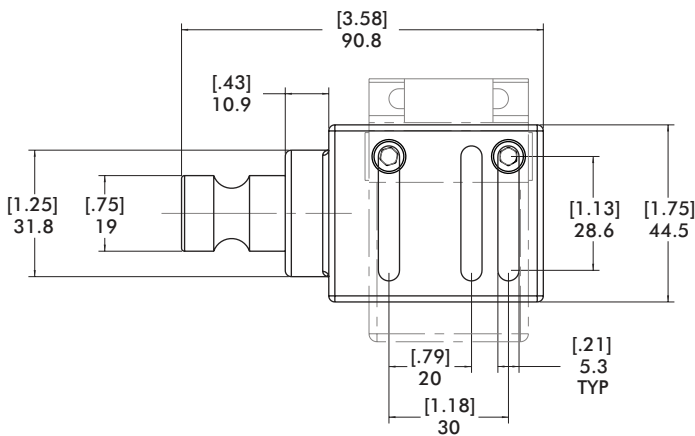
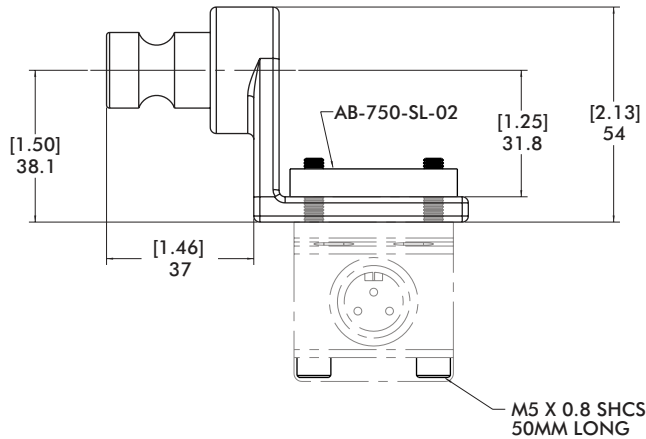
### Specifications:

**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

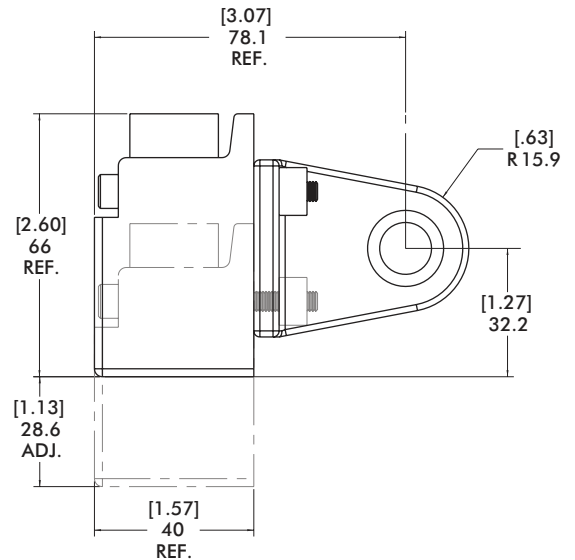
**Material:**  
Aluminum

### Features:

- Mounts a 40mm square proximity sensor to the BodyBuilder™ 30mm Swivel Arm (CPI-"L"-30-SA).
- Mount allows for 360 degrees of radial adjustment along one axis.
- Slots allows 28.6mm [1.13 in] of linear adjustment for fine tuning during final setup.



**FASTENERS AND NUT INCLUDED**



Model Number	Weight
CPI-AB-750-SL	.10 KG [.22 lb]

# BODYBUILDER™ SWIVEL ARM ACCESSORIES



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## NPG-15RL-400 Rough Locator

### Features:

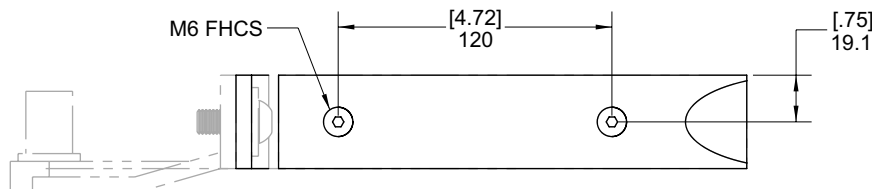
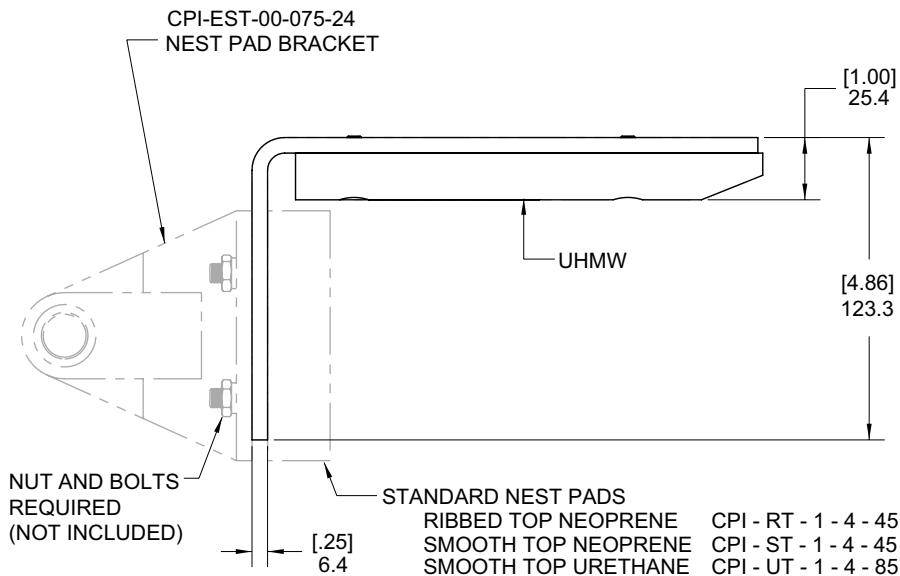
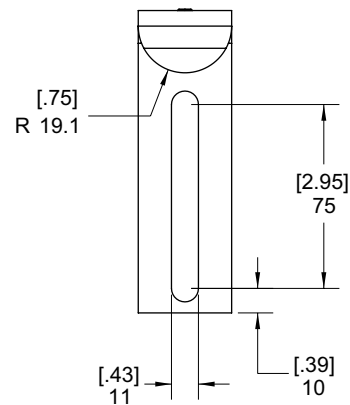
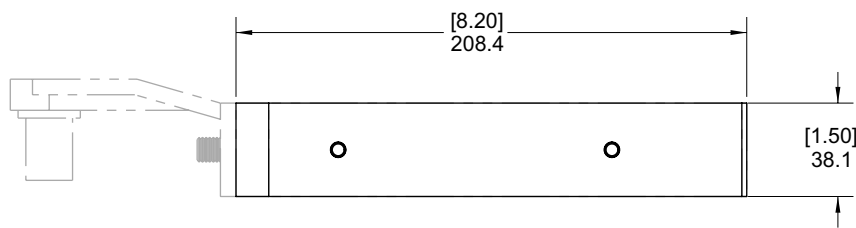
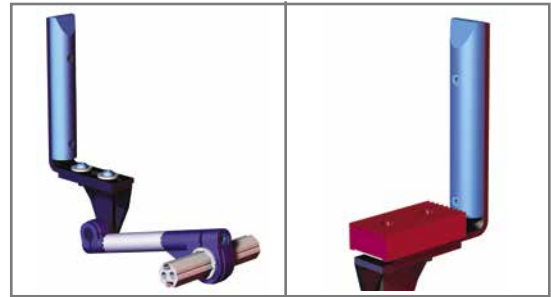
- Mounts to Nest Pad Brackets and indirectly to BodyBuilder™ 30mm Swivel Arm Mount.

### Specifications:

**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

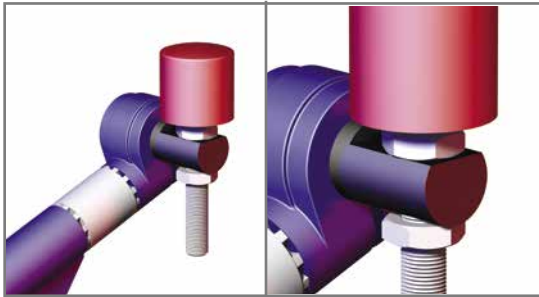
### Material:

**Bracket: Steel**  
**Wear Surface: UHMW**

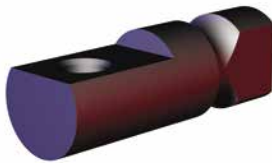


Model Number	Weight
CPI-NPG-15RL-400	0.86 kg [1.90 lb]

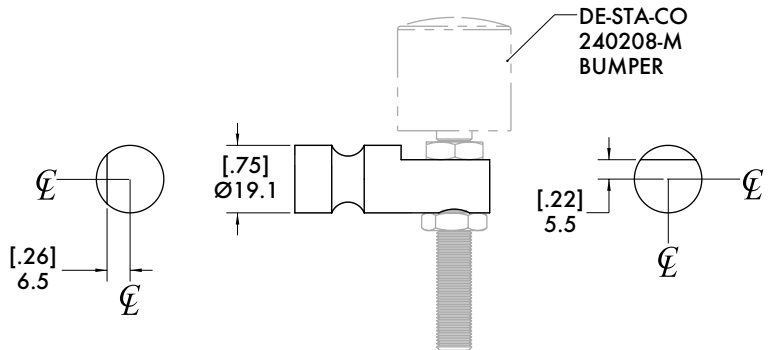
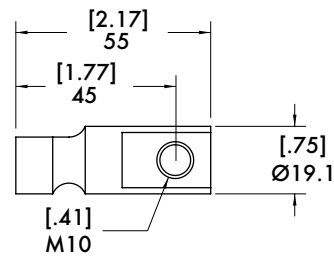
## SAP-BM10 Ø19mm [.75 in] Apple Core Nest Bumper Mount



**Specifications:**  
 Max. Static Clamp Load:  
 271 Nm [200 ft-lb]  
 Material:  
 Steel



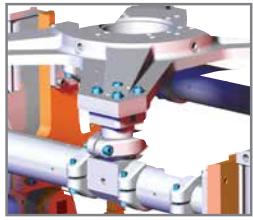
Model Number	Weight
<b>CPI-SAP-BM10</b>	.10 kg [.21 lb]



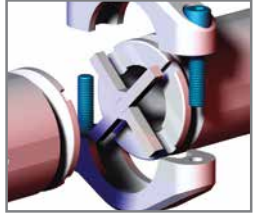
# SPIDERGRIP END EFFECTOR TOOLING SYSTEMS



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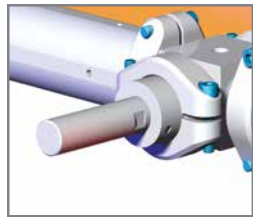
SpiderGrip Anchors and Collar Assemblies ..... 10



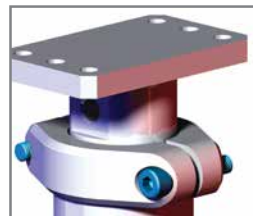
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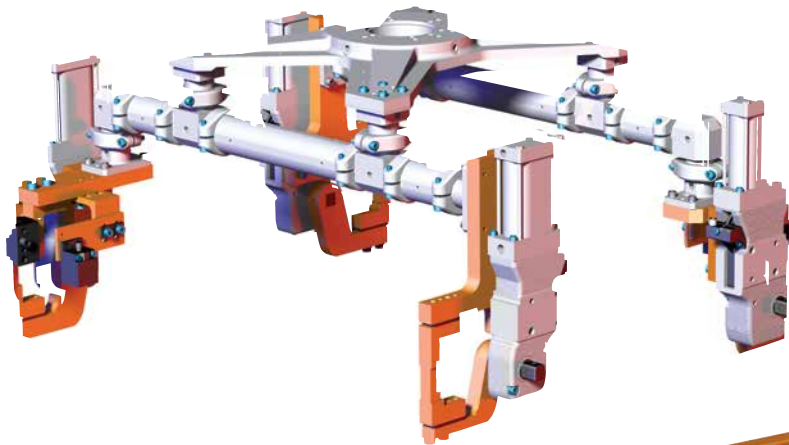


SpiderGrip Edge Mounting Components .....27



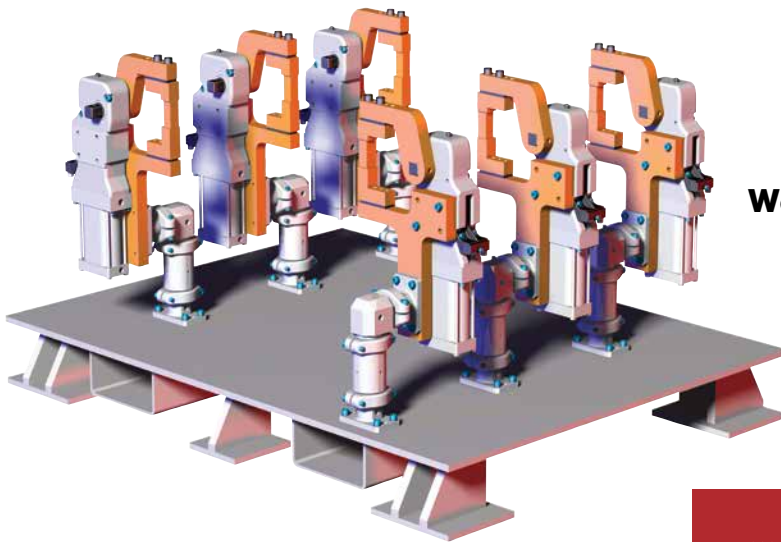
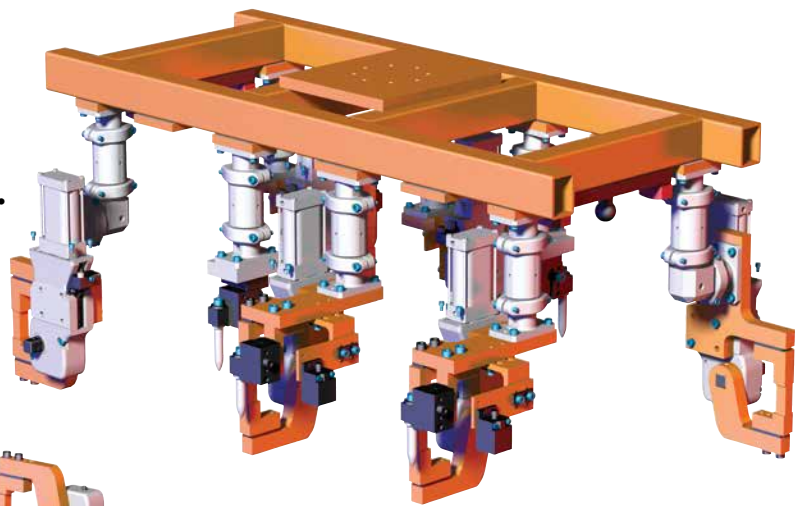
# SPIDERGRIP GEOMETRIC END EFFECTOR SYSTEM

Spidergrip Tooling Components | Typical Application Build Examples

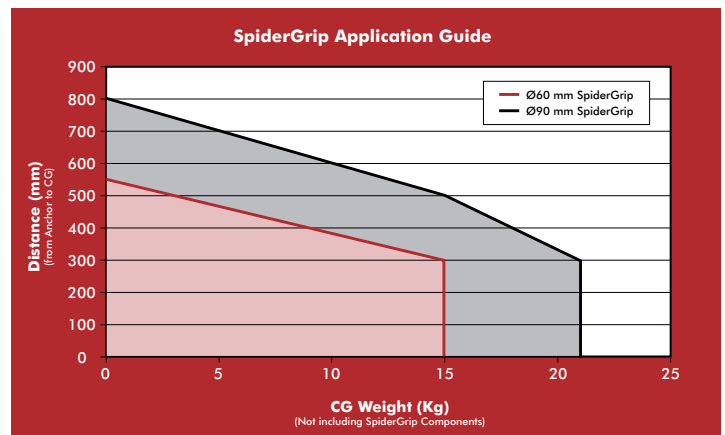


**Materials Handling End Effector Tooling System with RM4 Heavy Duty Mid-Mount Assembly (RM4-STS).**

**Geometric End Effector Tooling System with Steel Frame Backbone.**



**Weld Fixture Tooling System**



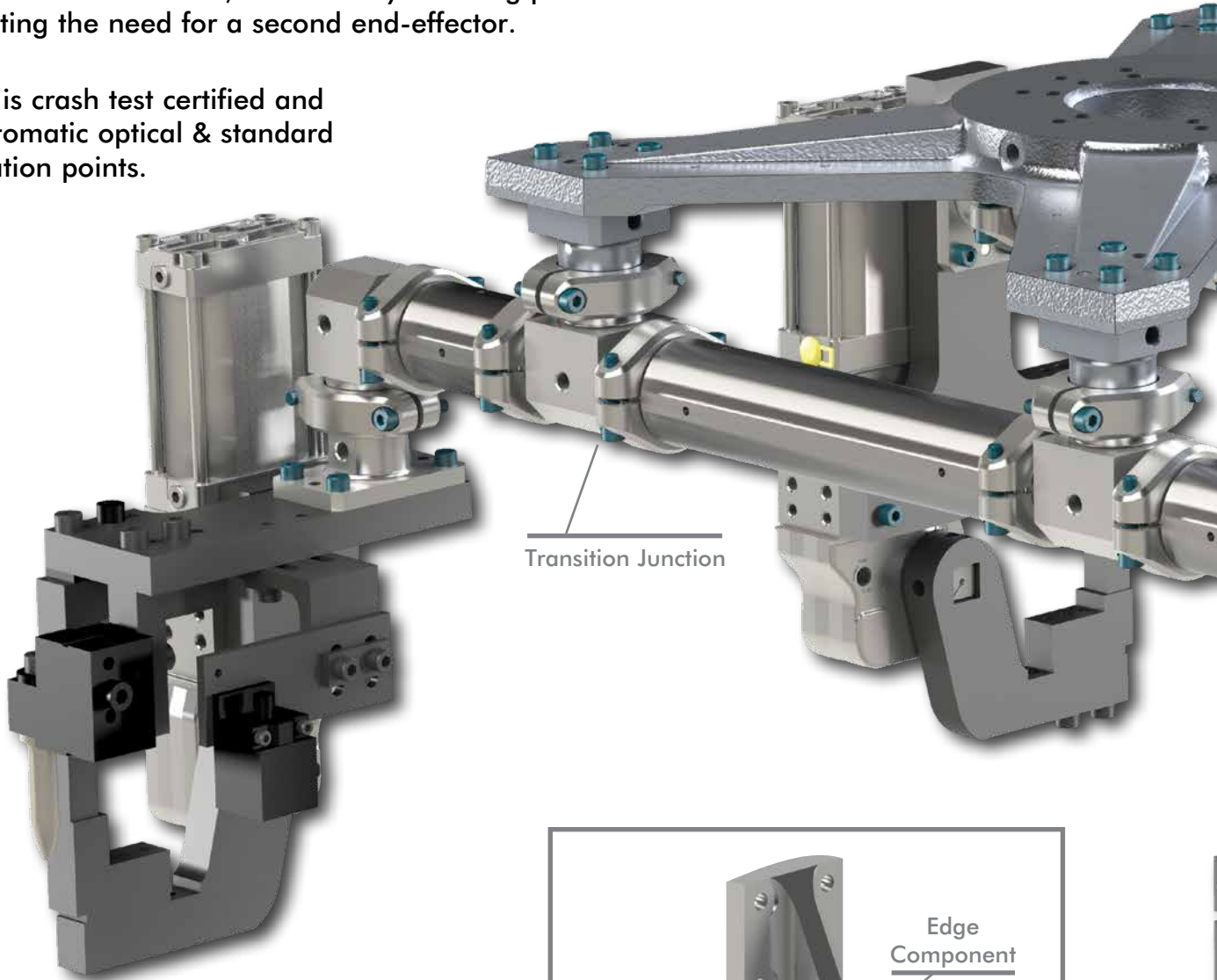
# SPIDERGRIP GEOMETRIC END EFFECTOR SYSTEM

## Product Overview



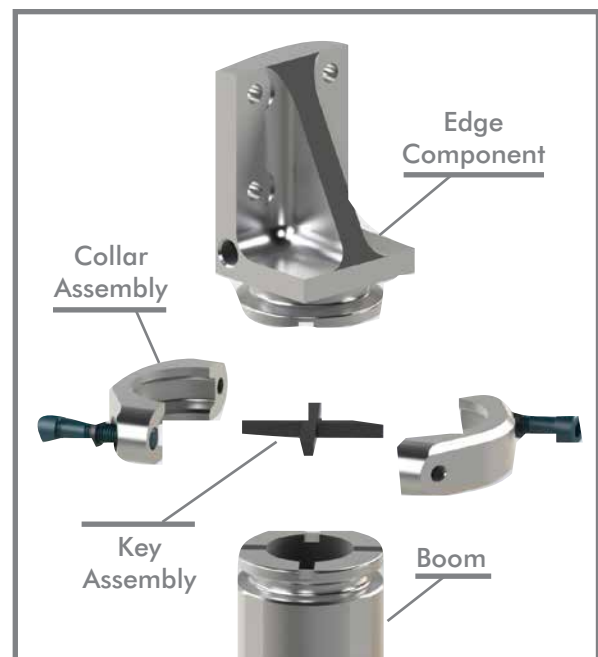
SpiderGrip Geometric End Effector Tooling System offers a standard cost effective solution by making it easy for each component to be replaced individually in the robotic cell, dramatically reducing production downtime and eliminating the need for a second end-effector.

This system is crash test certified and features automatic optical & standard CMM validation points.



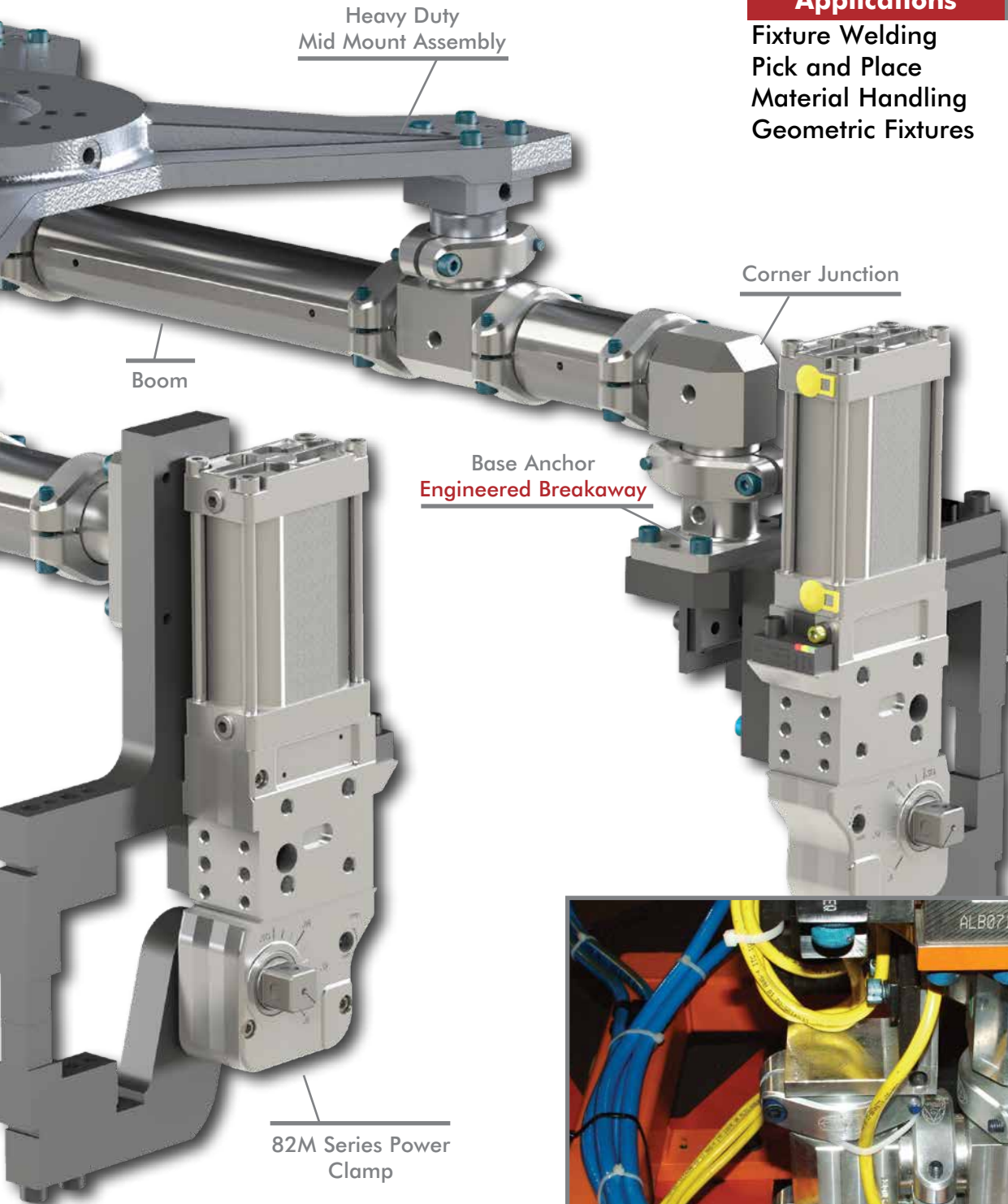
Transition Junction

Spidergrip modular components are easily configurable and offer high strength to weight ratios while maintaining dimensional accuracy after continuous minor collisions. The patented collar/key design and engineered breakaway base anchor provides quick crash recovery.



# SPIDERGRIP GEOMETRIC END EFFECTOR SYSTEM

Product Overview



## Most commonly used in:

Applications	Markets
Fixture Welding	Industrial
Pick and Place	Automotive
Material Handling	Aerospace
Geometric Fixtures	Appliance

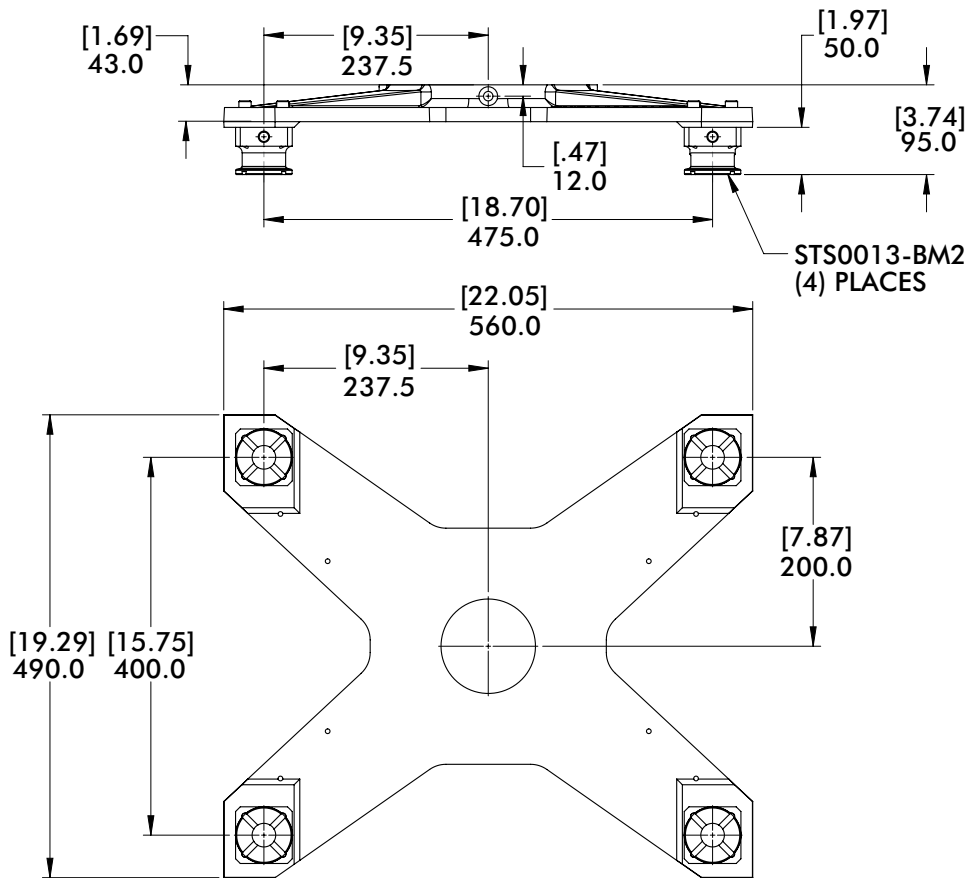
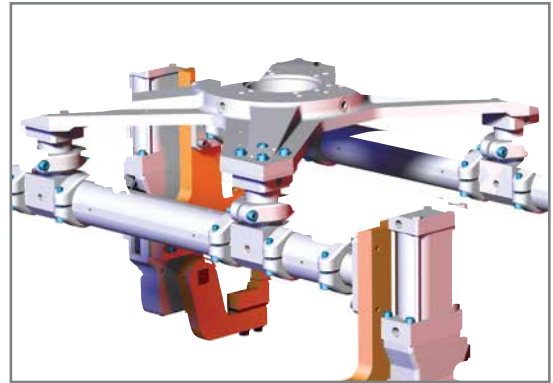


# SPIDERGRIP MID MOUNT ASSEMBLY



Spidergrip Tooling Components | Dimensions | How To Order

Heavy-Duty Mid Mount Assembly



**RM4-STS** — **RXX** — **XX**

**Model**      **Robot Interface Pattern**      **Accessory**  
 (e.g. EPM-01)  
 (Leave blank if NONE)

**Weight**  
 10.4 kg [22.89 lb]

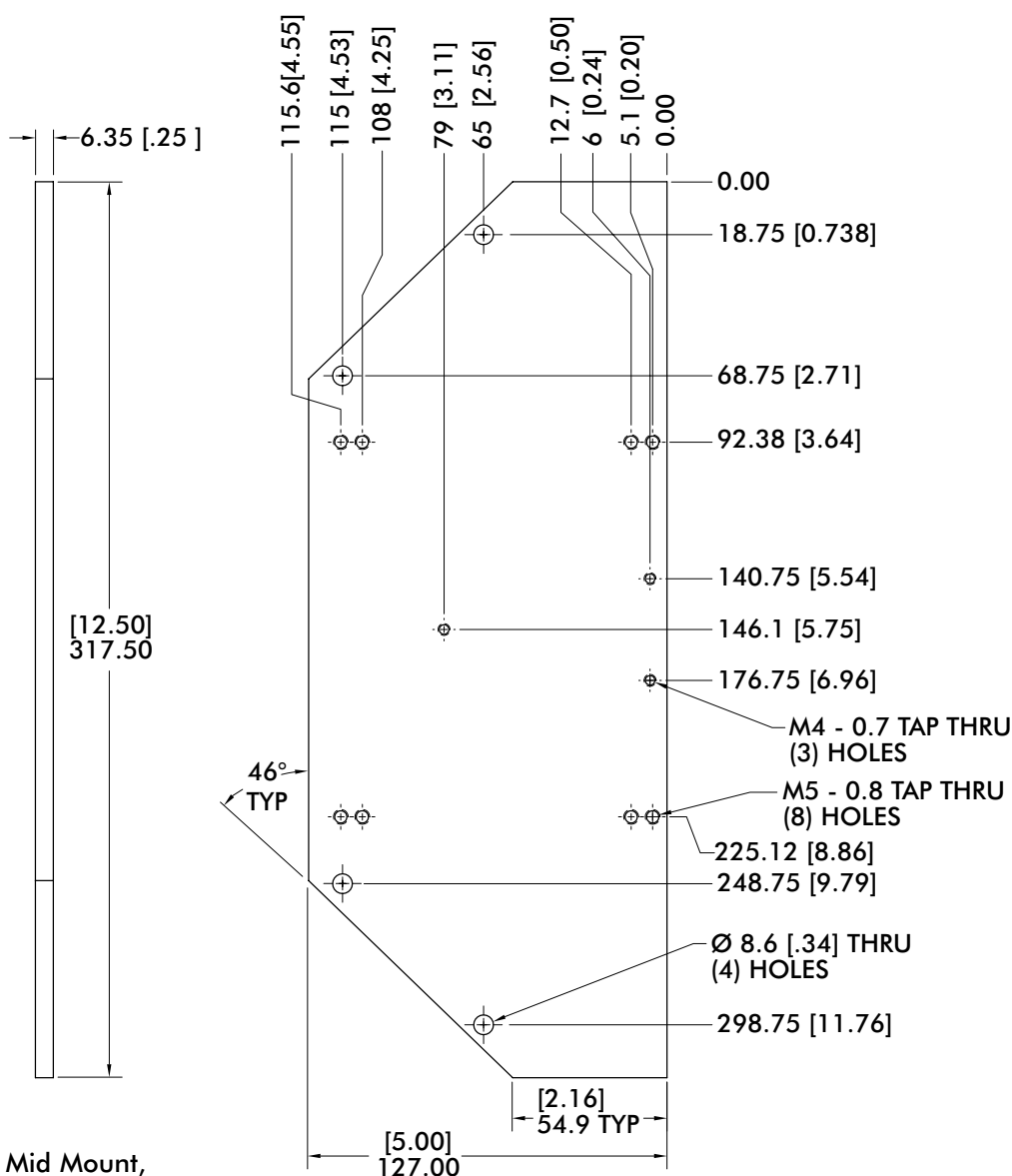
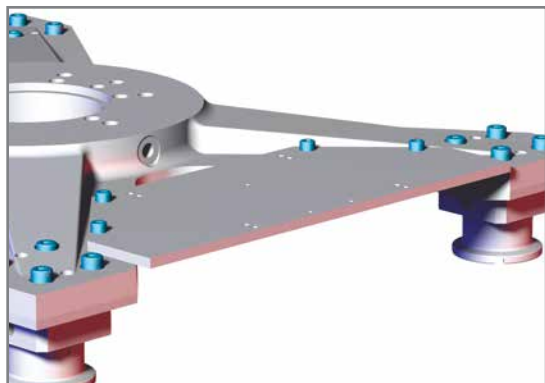




# SPIDERGRIP MID MOUNT ACCESSORY PLATE

Spidergrip Tooling Components | Dimensions | How To Order

Accessory Mount Plate

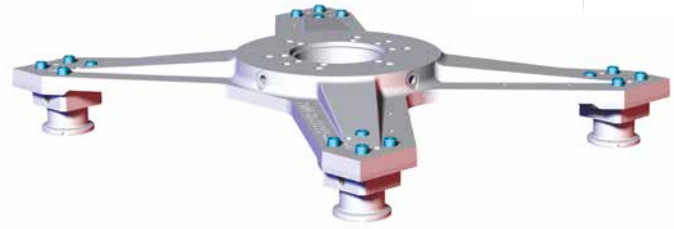


When ordering with Heavy Duty Mid Mount, please add designation "EPM-01" as shown RM4-STS-RXX-EPM-01 or add designation "EPM-BLK" to order blank RM4-STS-RXX-EPM-BLK To order separately use Model Number

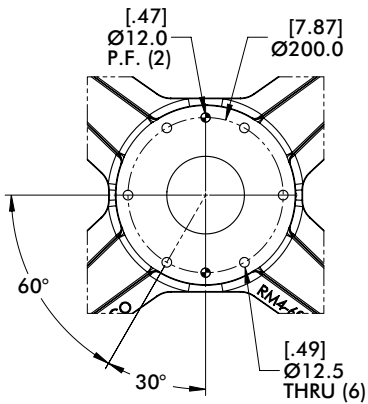
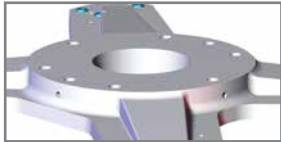
Model Number	Weight
CPI-BM2-EPM-xx	.63 kg [1.39 lb]

# MID MOUNT BOLT PATTERN

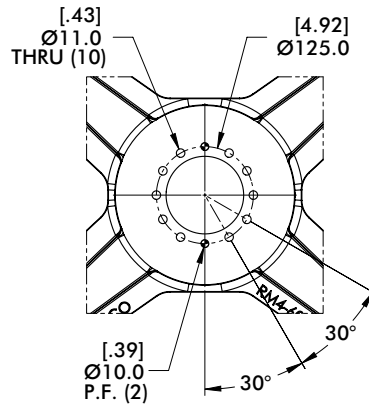
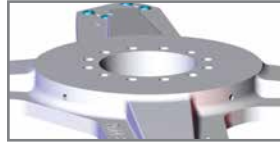
Robot Interface Bolt Patterns



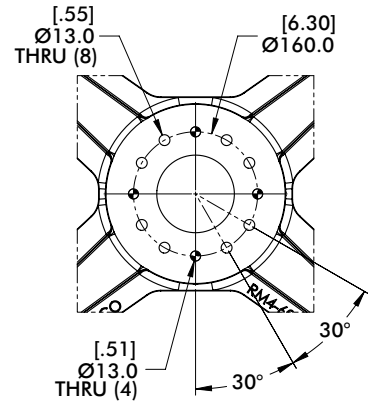
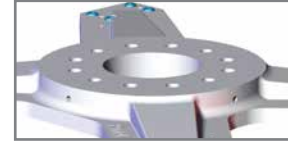
**R01 (Ø200mm Bolt Circle)**



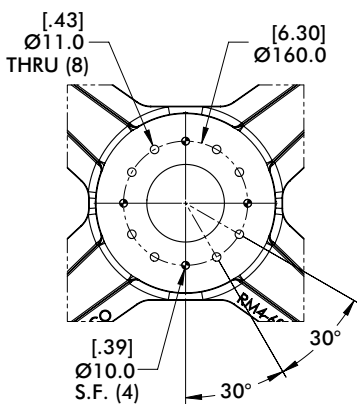
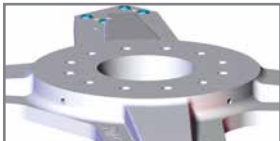
**R02 (Ø125mm Bolt Circle)**



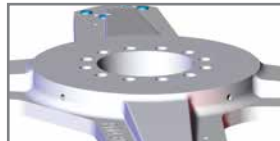
**R03 (Ø160mm Bolt Circle)**



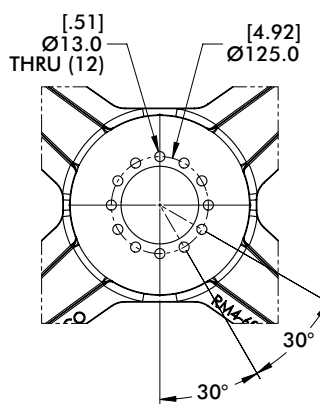
**R04 (Ø160mm Bolt Circle)**



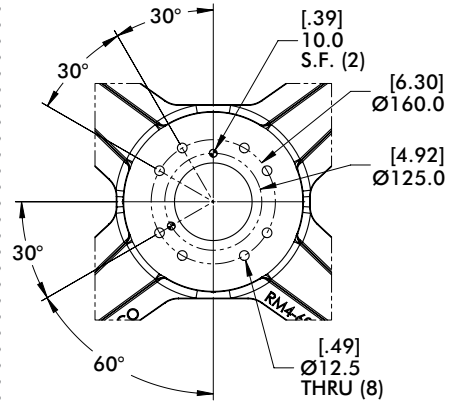
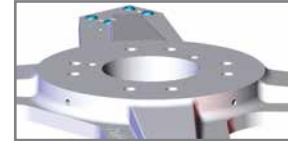
**R05 (Ø125mm Bolt Circle)**



**Includes Insulation**  
Add 1.5mm to Height (95.0 [3.74])



**R06 (Ø125/160mm Bolt Circle)**



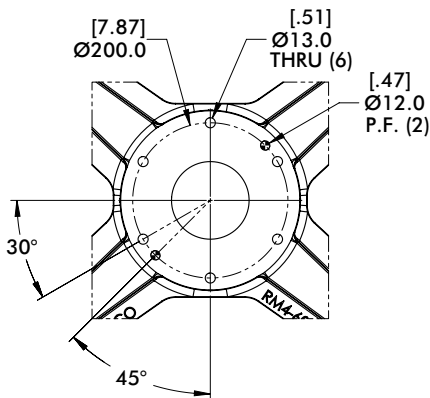
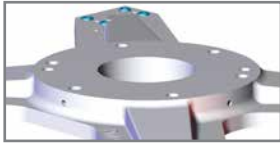


# MID MOUNT BOLT PATTERN

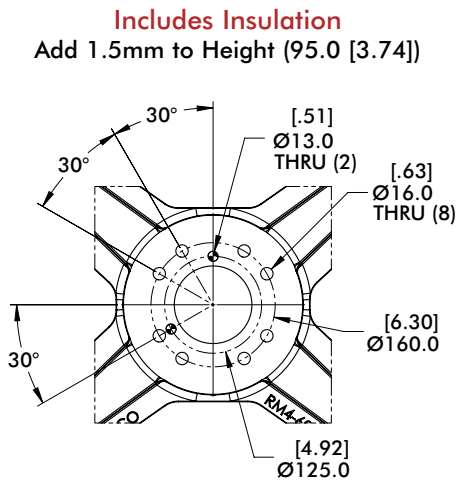
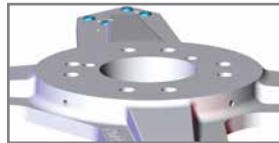
Robot Interface Bolt Patterns



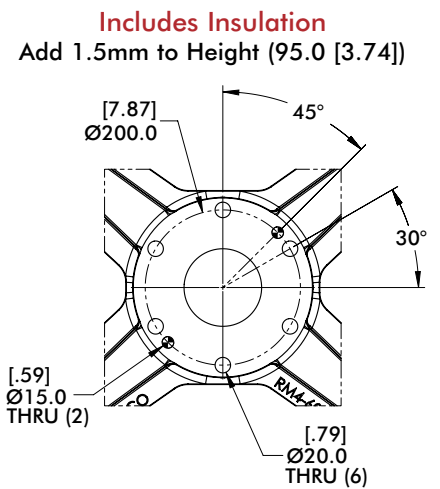
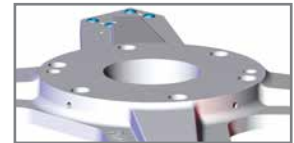
**R07 (Ø200mm Bolt Circle)**



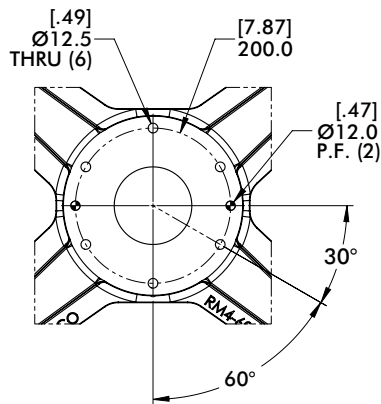
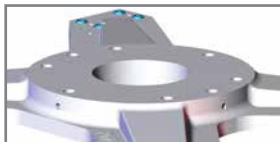
**R08 (Ø125/160mm Bolt Circle)**



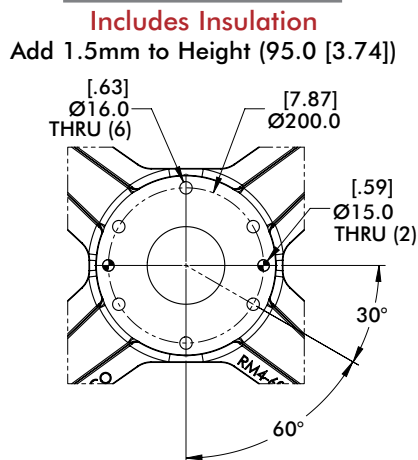
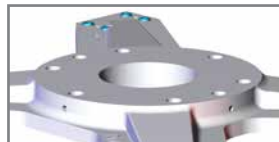
**R09 (Ø200mm Bolt Circle)**



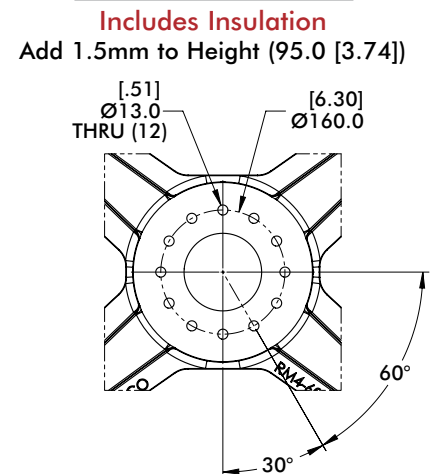
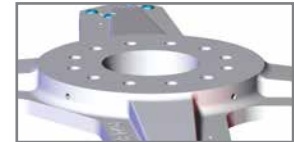
**R10 (Ø200mm Bolt Circle)**



**R11 (Ø200mm Bolt Circle)**



**R12 (Ø160mm Bolt Circle)**

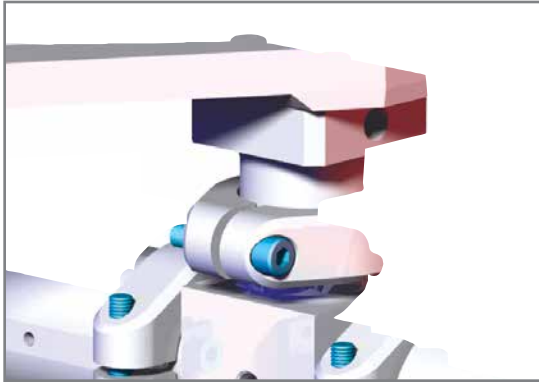




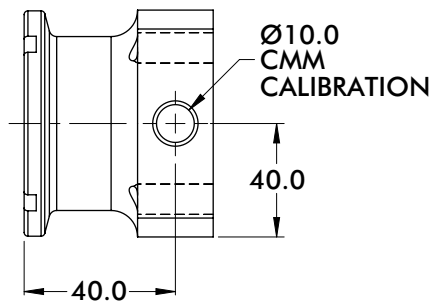
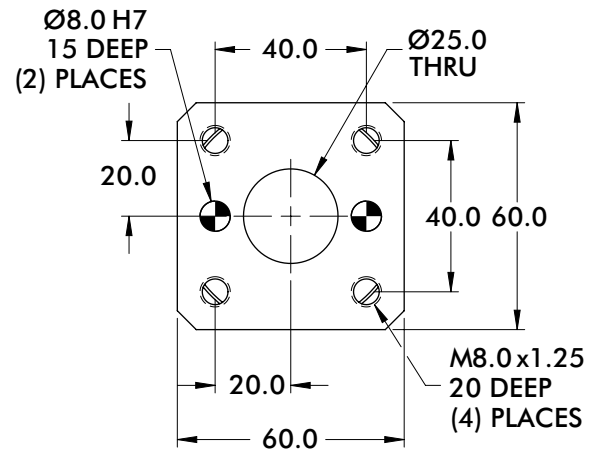
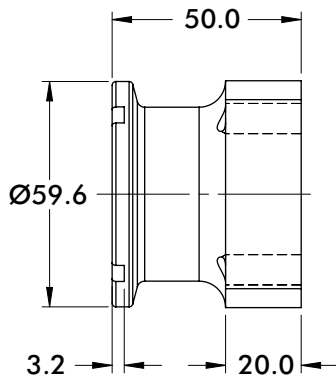
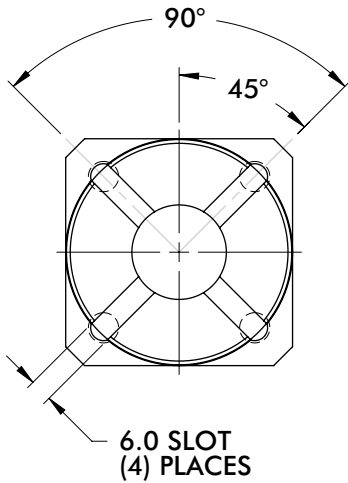
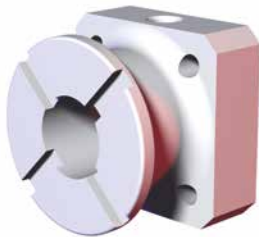


# SPIDERGRIP MID MOUNT ANCHOR

Spidergrip Tooling Components | Dimensions | Technical Specifications



Ø60mm Mid Mount Anchor  
40mm x 40mm Mounting Pattern - 50mm Face Offset



**Model Number**

**Weight**

STS0013-BM2

.25 kg [1.50 lb]

# SPIDERGRIP MID MOUNT ANCHOR



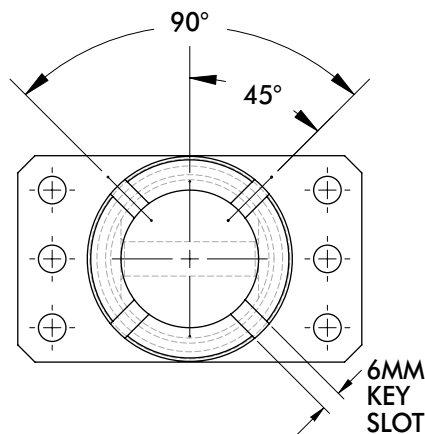
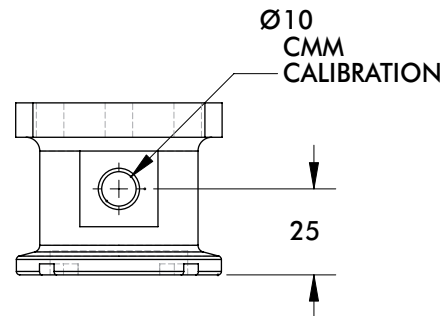
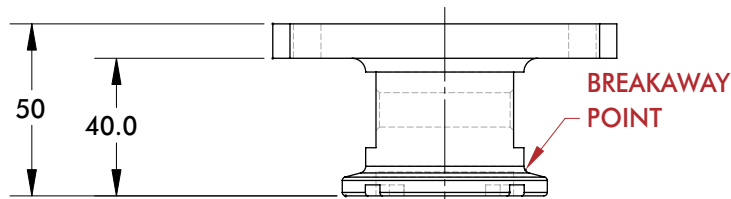
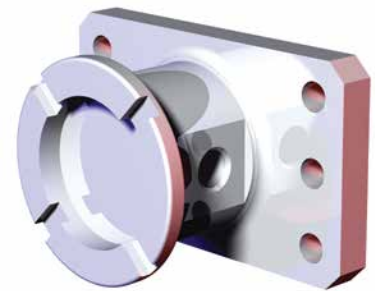
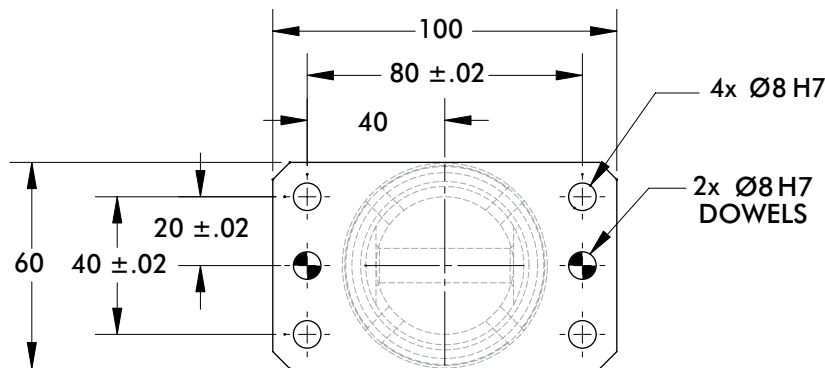
Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm Base Anchor with 50mm Face Offset  
80mm x 40mm Mounting Pattern



US PATENT# 7,331,104  
ALL OTHER PATENTS PENDING

## Engineered Breakaway Part



This Product is designed to breakaway at 1627 N\*m [1200 ft-lb]

Model Number	Weight
STS0016-NA-2P	.31 kg [.68 lb]

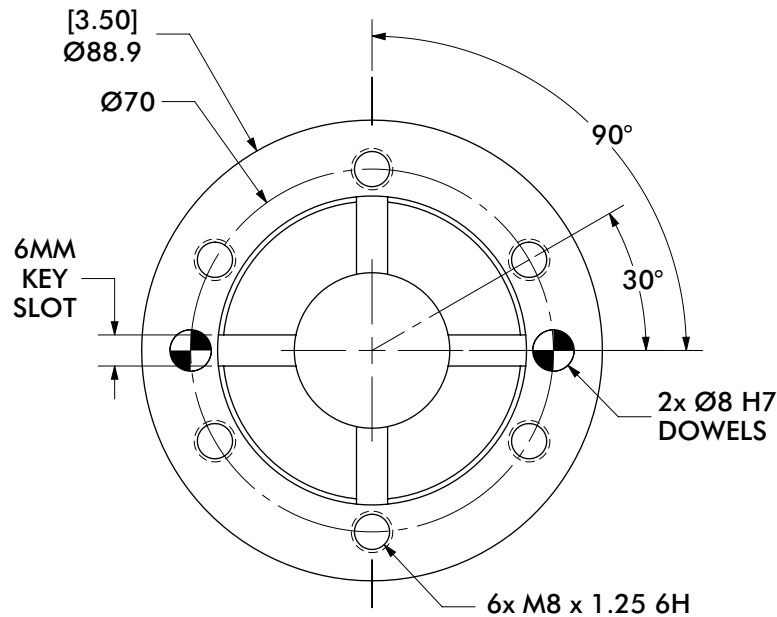
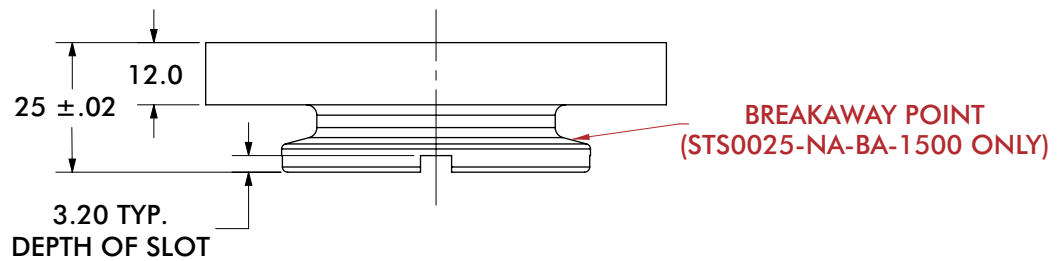


# SPIDERGRIP MID MOUNT ANCHOR

Spidergrip Tooling Components | Dimensions | Technical Specifications



Ø60mm Base Anchor with 25mm Face Offset  
(6) Hole Ø70mm Mount Pattern



Model Number	Weight
STS0025-NA	252g [0.6 lb]
STS0025-NA-BA-1500*	242g [0.5 lb]

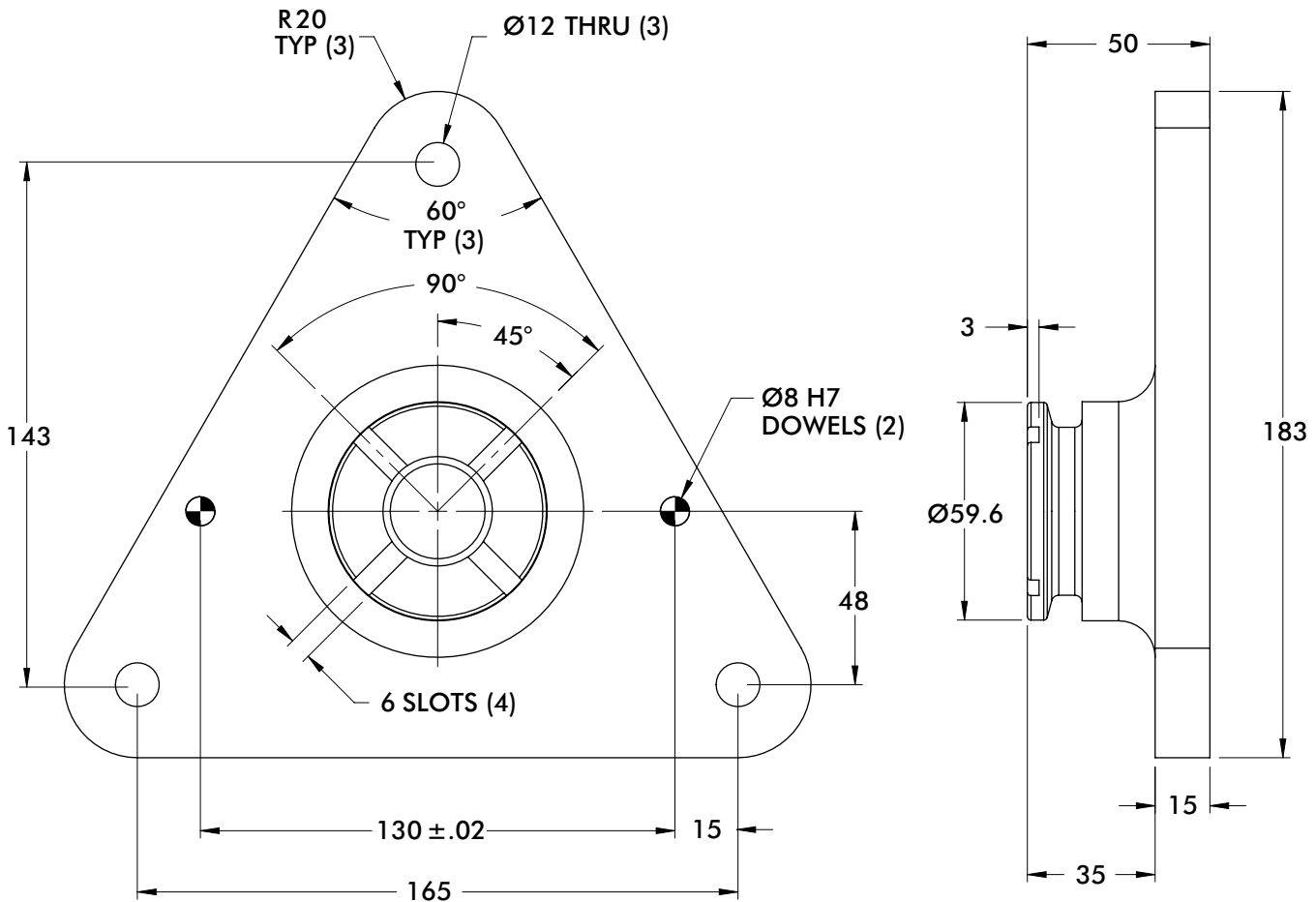
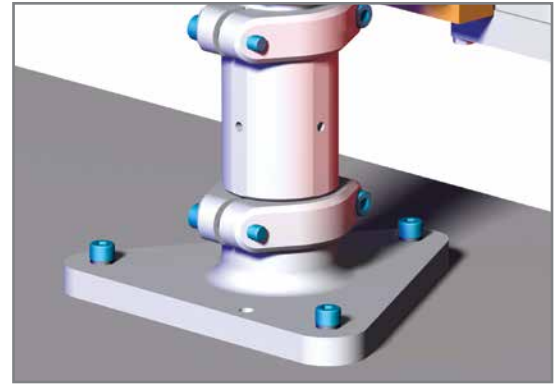
\*This Product is designed to breakaway at 1500 N\*m [1106 ft-lb]

# SPIDERGRIP MID MOUNT ANCHOR



Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm HD Anchor Mount  
(3) Hole Ø190mm Mount Pattern



Model Number	Weight
STP0001-NA	1.09 kg [2.40 lb]





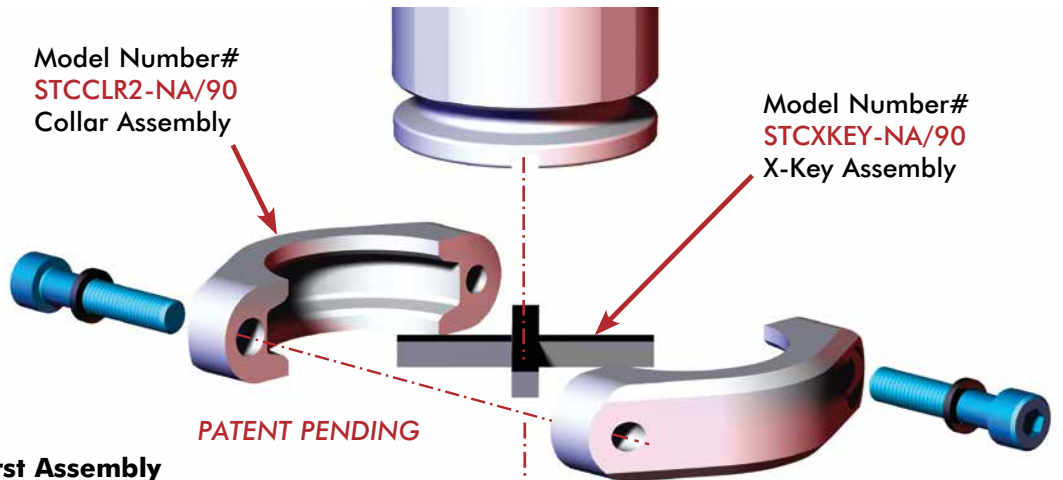
# SPIDERGRIP END EFFECTOR TOOLING SYSTEMS

Spidergrip Tooling Components | Assembly Instructions

M8-1.25 x 40mm  
Torque to  
25 N\*m [220 in-lb]  
(for Ø60mm) or  
30 N\*m [265 in-lb]  
(for Ø90mm)

Model Number#  
**STCCLR2-NA/90**  
Collar Assembly

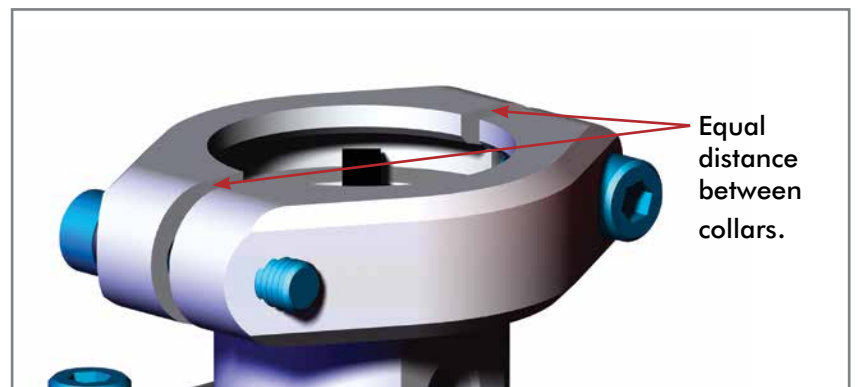
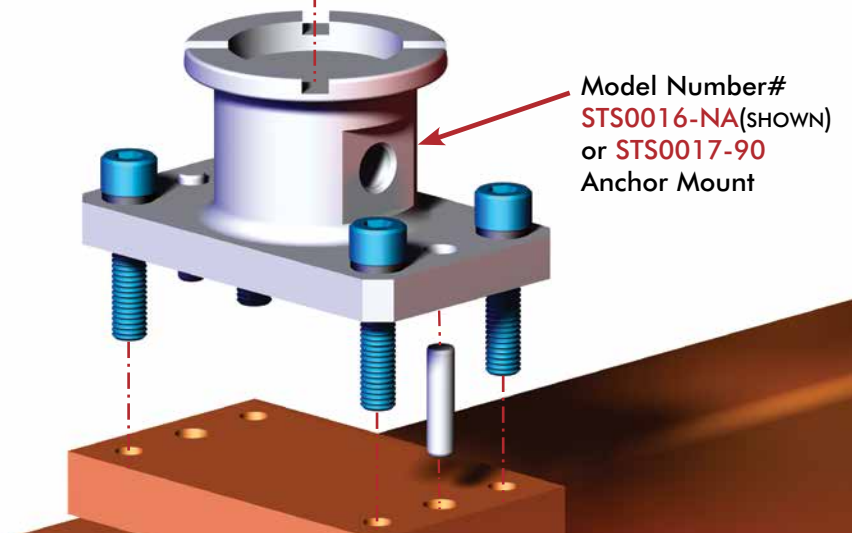
Model Number#  
**STCXKEY-NA/90**  
X-Key Assembly



## Assembly Instructions – First Assembly

In many cases, it may be advantageous to assemble the appendage remotely and then once complete, mount the entire appendage assembly onto the mounting structure.

1. Clean/Wipe and inspect ALL mating faces of all components for burrs before assembly; if a part is damaged it will not correctly couple to mating piece.
2. Assemble *Breakaway Anchor*, *X-Key Assembly*, New *Collar Assembly* and remaining appendage (from step #3).
3. Gradually tighten bolts on *Collar Assembly*, while maintaining an equal gap on each side of the assembly. Torque collar bolts to 25 N\*m [220 in-lb] for 60mm, or 30 N\*m 265 [in-lb] for 90mm. Do not re-torque once desired torque is reached.
4. Mount appendage as assembled to steel backbone and insert new 8mm dowels into the dowel holes on the *Breakaway Anchor*.
5. Insert new M8-1.25 patchlock bolts into *Breakaway Anchor*, torque in a cross pattern following NAAMS recommended torque.
6. Attach steel tether (*STS-TETHER-08* or *STS-TETHER-16*) to appendage via one of the bolts located on the base of the *Breakaway Anchor*. The other loop will be attached to the first threaded M6 hole (located on the boom) or the M8 hole located on the edge part. The tether may also be wrapped around the appendage to reduce cable slack.



**Note:** Performance may vary if used with non-DESTACO components

# SPIDERGRIP ANCHORS AND COLLAR ASSEMBLIES



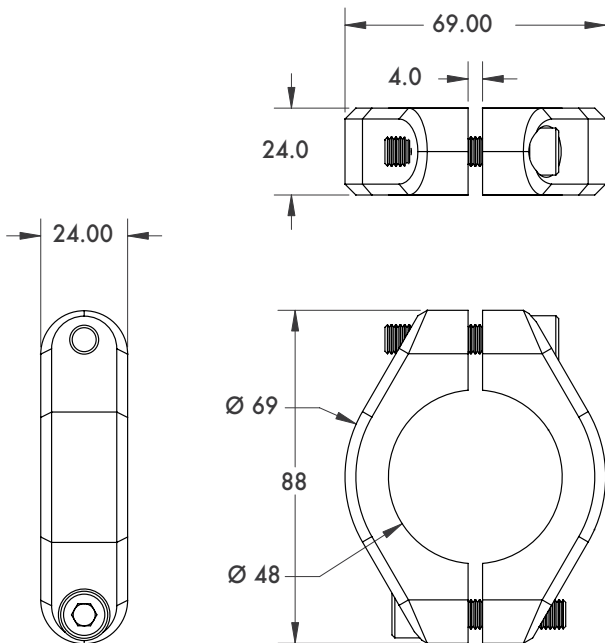
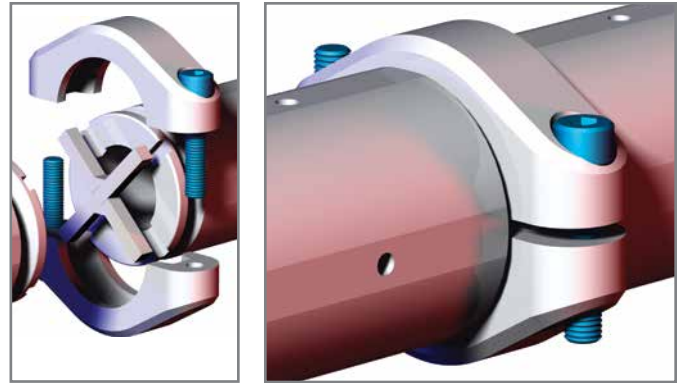
Spidergrip Tooling Components | Dimensions | Technical Specifications

## Ø60mm Collar Components and Assembly

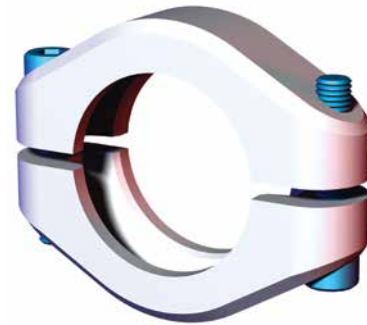
Assembly Number	Weight
STCCLR2-NA	.19 kg [.42 lb]

Includes (1) Collar Assembly (STCCLR2-NA) and (1) X-Key Assembly (STCXKEY-NA). Patch-lock fasteners included.

Max bolt torque when clamping to: 25 N\*m [220 in-lbs]

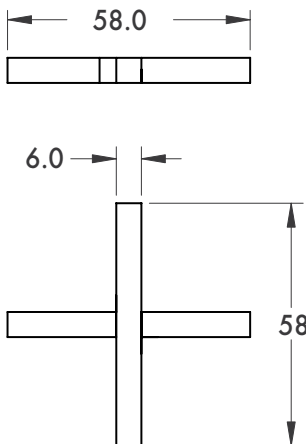


US PATENT# 7,331,104  
ALL OTHER PATENTS PENDING



Patch-lock fasteners included.

Model Number	Weight
STCCLR2-NA	.16 kg [.35 lb]



Material: Steel

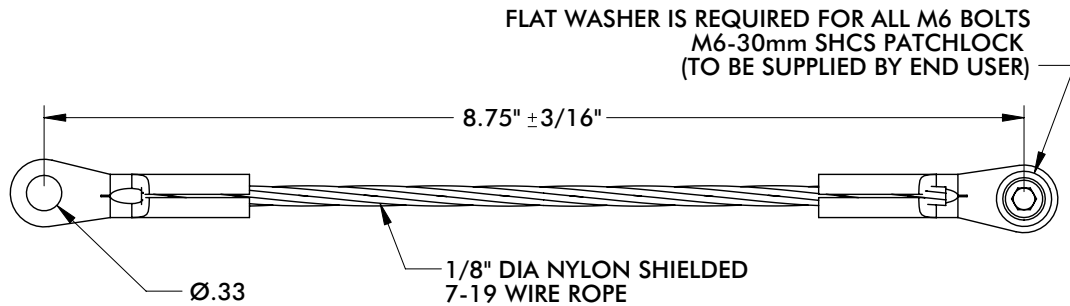
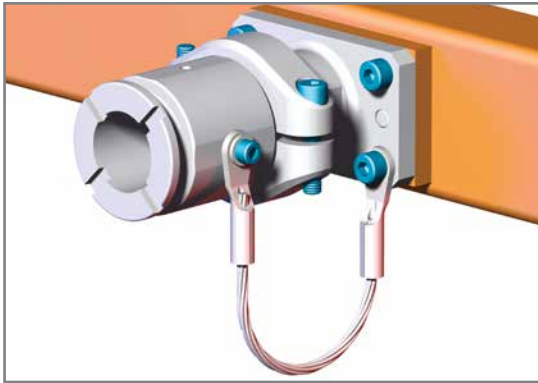
Model Number	Weight
STCXKEY-NA	.03 kg [.07 lb]



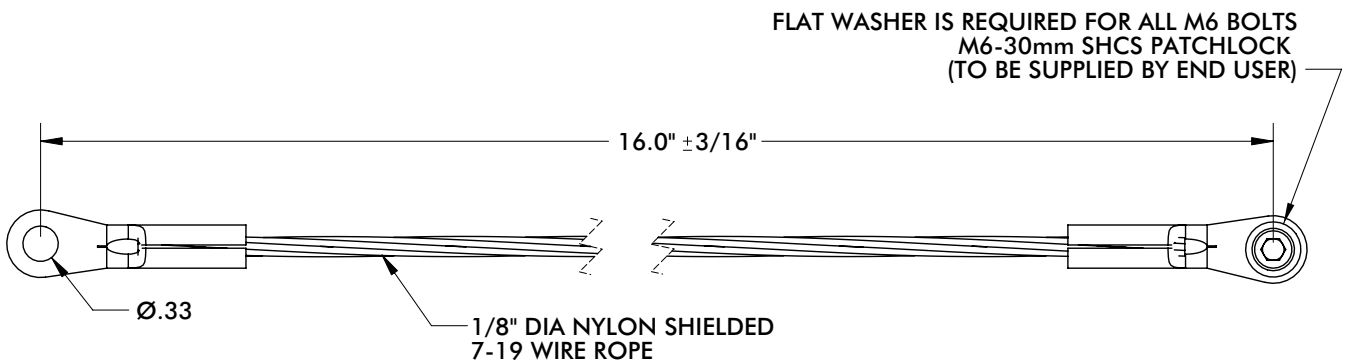
# SPIDERGRIP TETHERS

Spidergrip Tooling Components | Dimensions | Technical Specifications

9 inch and 16 inch Tether Assemblies



Model Number	Weight
STS-TETHER-09	.07 kg [.15 lb]



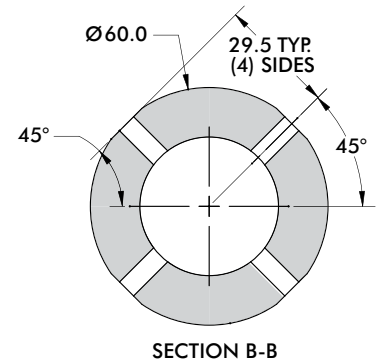
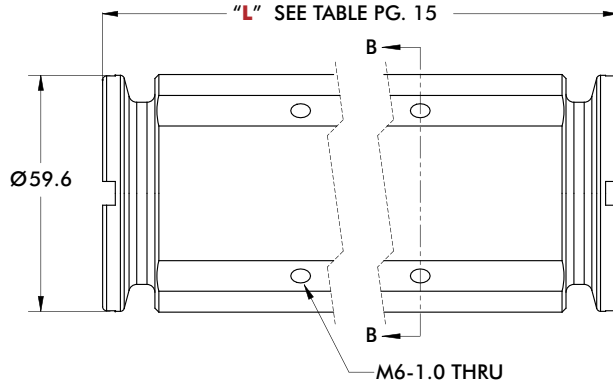
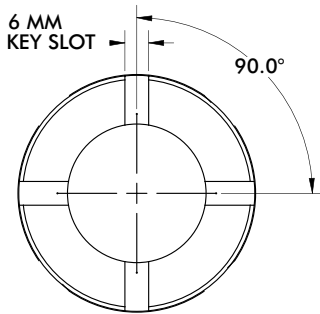
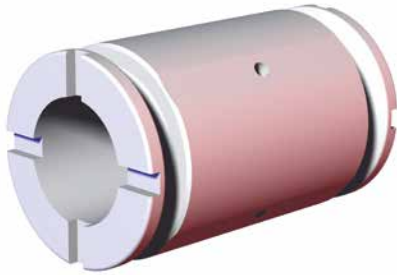
Model Number	Weight
STS-TETHER-16	.09 kg [.19 lb]

# SPIDERGRIP BOOMS, ADAPTORS AND SPACERS



Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm Boom



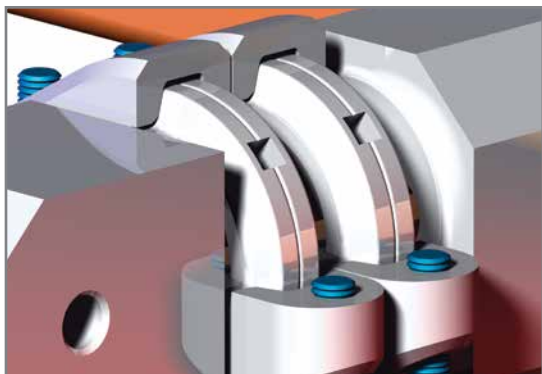
M6 tap holes along the boom are used to mount accessories

M6 Hole Spacing	Model Number	Length "L"	Weight
	<b>STB0050-NA</b>	50mm ±0.02	.20 kg [.43 lb]
	<b>STB0075-NA</b>	75mm ±0.02	.32 kg [.71 lb]
	<b>STB0100-NA</b>	100mm ±0.02	.45 kg [.99 lb]
	<b>STB0150-NA</b>	150mm ±0.02	.70 kg [1.54 lb]
	<b>STB0200-NA</b>	200mm ±0.02	.95 kg [2.09 lb]
	<b>STB0250-NA</b>	250mm ±0.02	1.20 kg [2.64 lb]
	<b>STB0300-NA</b>	300mm ±0.02	1.44 kg [3.18 lb]
	<b>STB0350-NA</b>	350mm ±0.02	1.74 kg [3.84 lb]

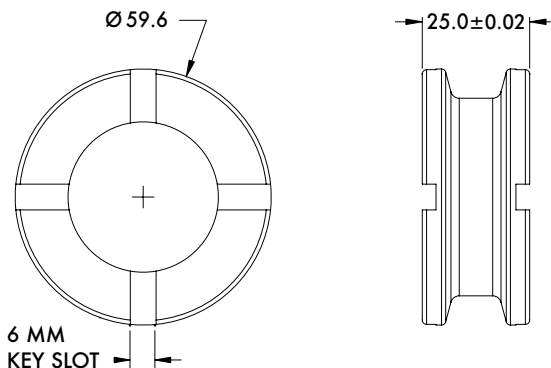
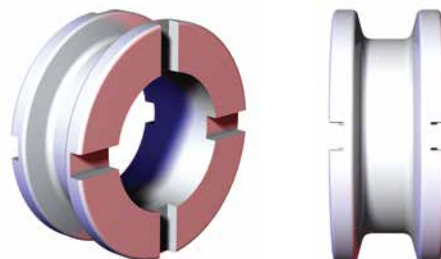


# SPIDERGRIP BOOMS, ADAPTORS AND SPACERS

Spidergrip Tooling Components | Dimensions | Technical Specifications

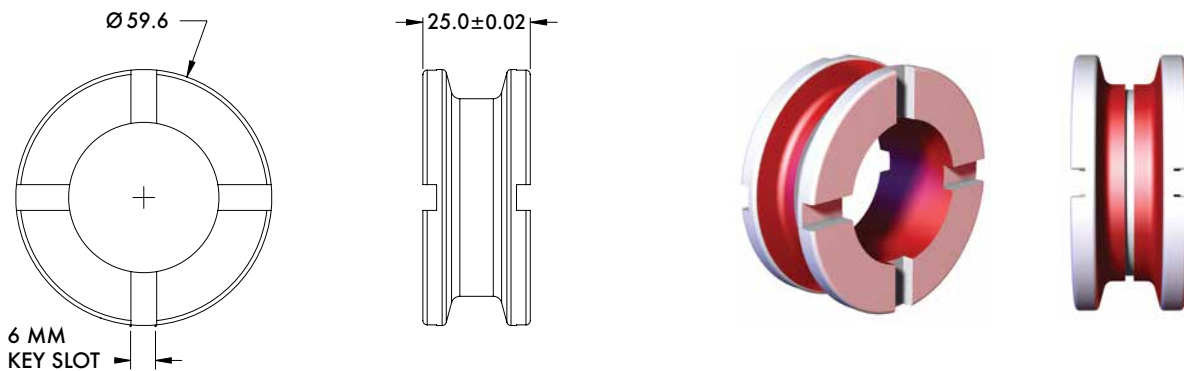


Ø60mm Breakaway and Non-Breakaway Boom Spacers



Model Number	Weight
STB0025-NA	.08 kg [.18 lb]

Ø60mm 25mm Engineered Breakaway Boom Spacers



Model Number	Weight
STB0025-BA-800	.08 kg [.18 lb]

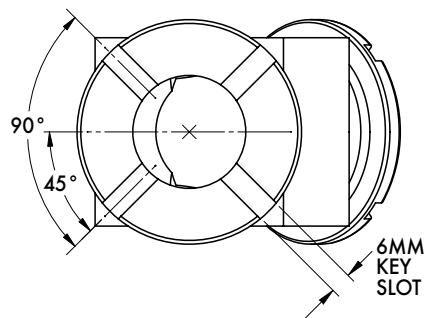
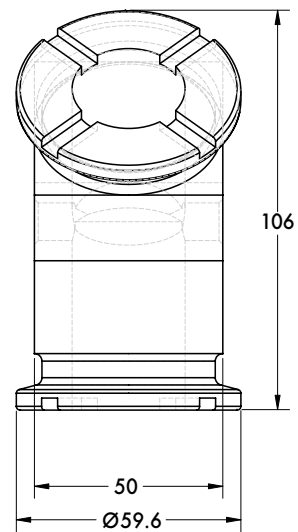
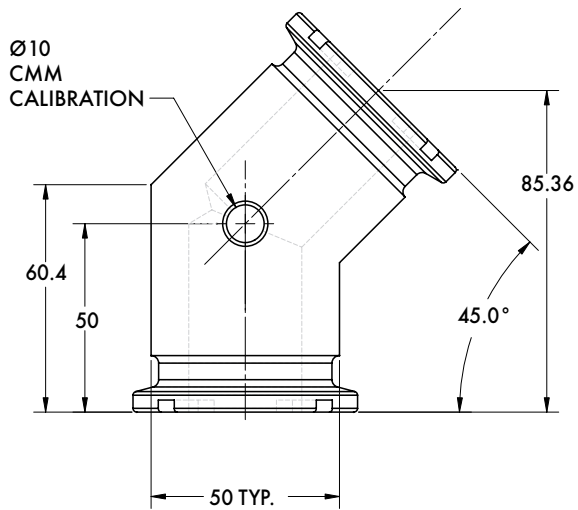
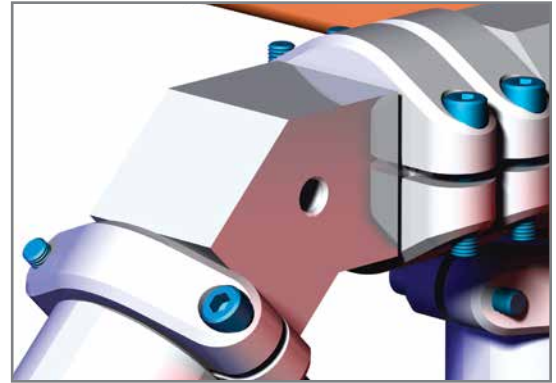
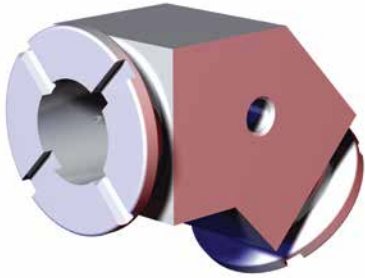
This Product is designed to breakaway at 800 N\*m [590 ft-lb]

# SPIDERGRIP BOOMS

Spidergrip Tooling Components | Dimensions | Technical Specifications



Ø60mm 2-Face 45° Junction



Model Number

Weight

STN0C45-NA

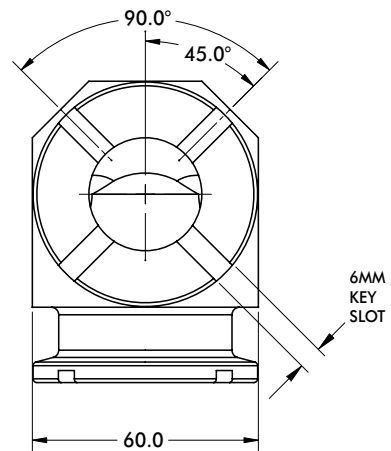
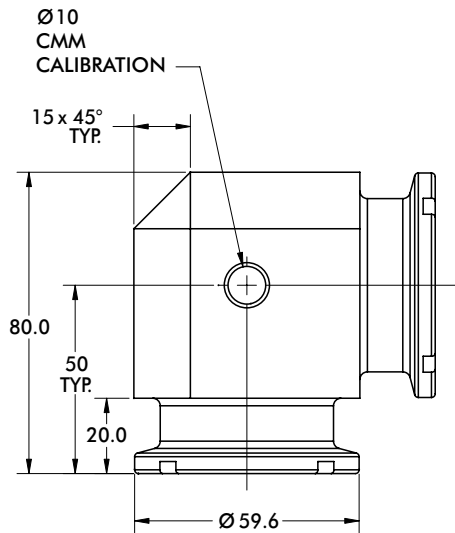
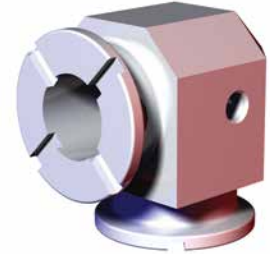
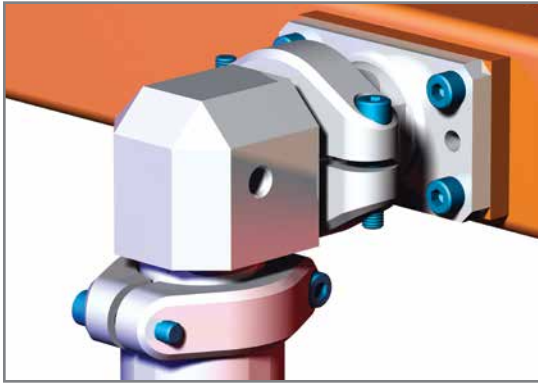
.42 kg [.93 lb]



# SPIDERGRIP SPACERS

Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm 2-face 90° Junction



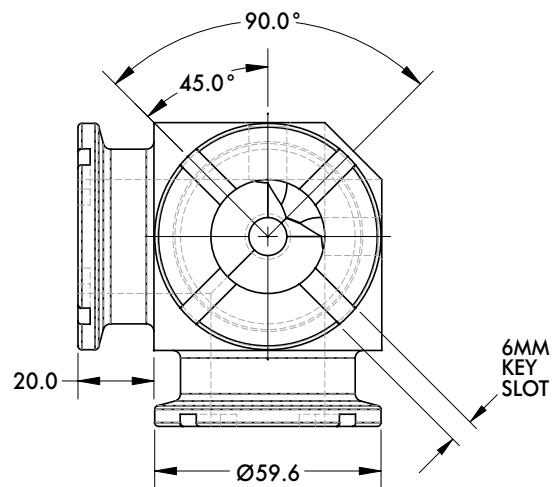
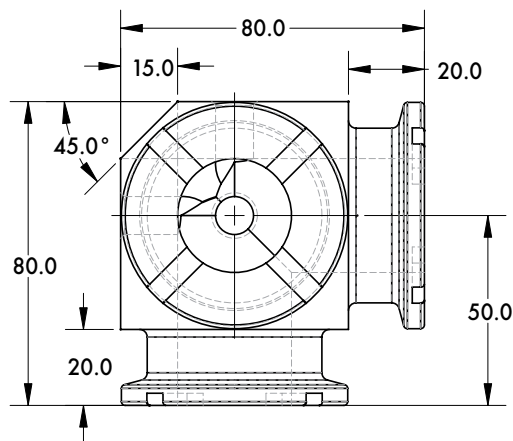
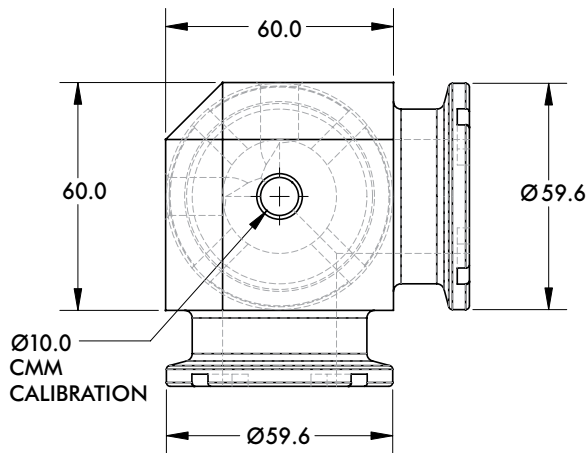
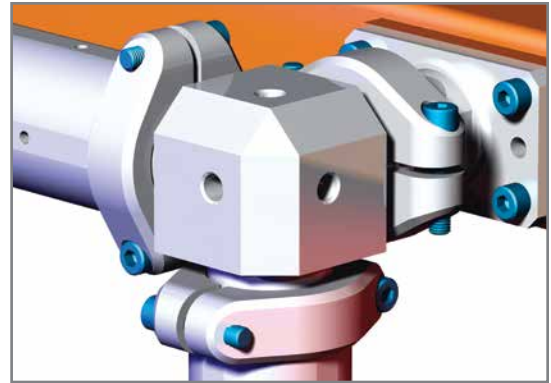
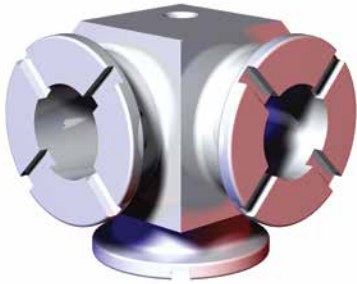
Model Number	Weight
STN0C90-NA	.53 kg [1.16 lb]

# SPIDERGRIP JUNCTION COMPONENTS



Spidergrip Tooling Components | Dimensions | Technical Specifications

## Ø60mm 3-Face Junction



**Model Number**

**Weight**

STN0C3F-NA

.58 kg [1.29 lb]

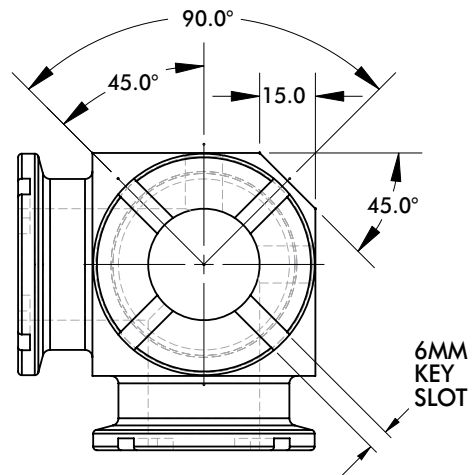
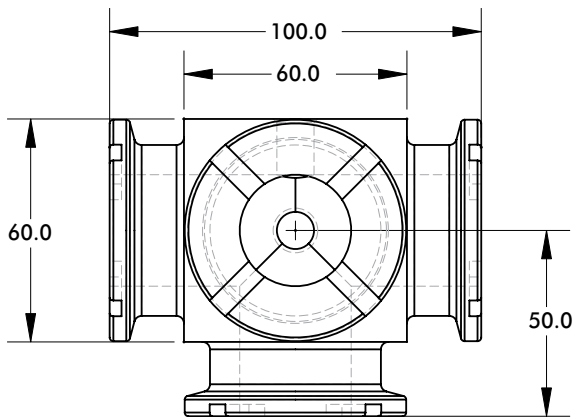
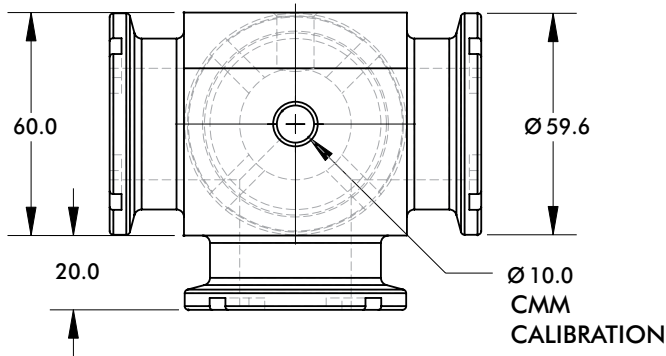
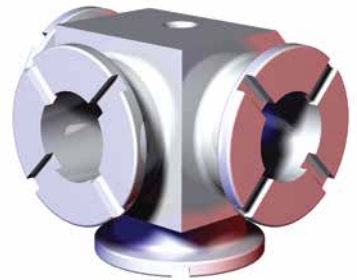
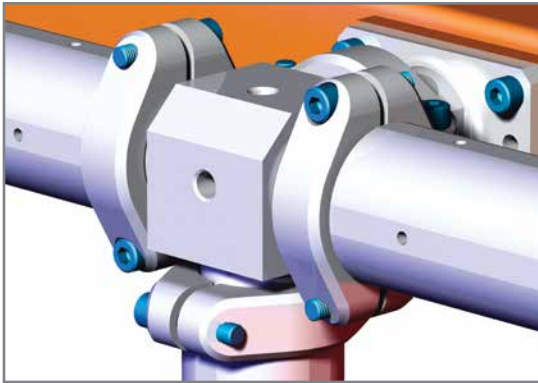




# SPIDERGRIP JUNCTION COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm 4-Face Junction



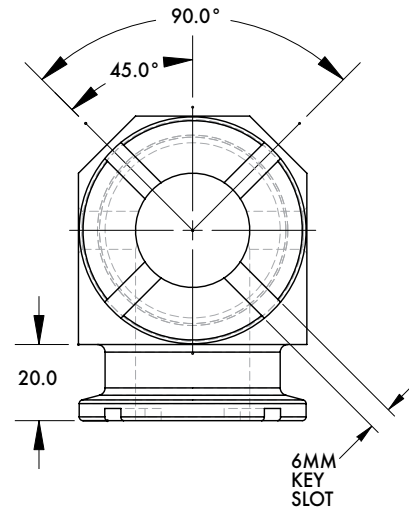
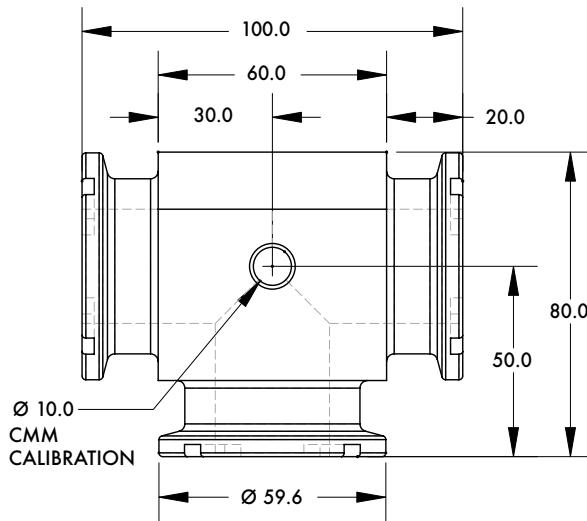
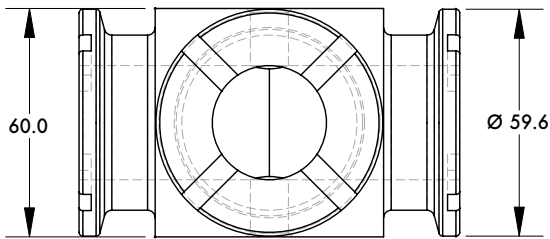
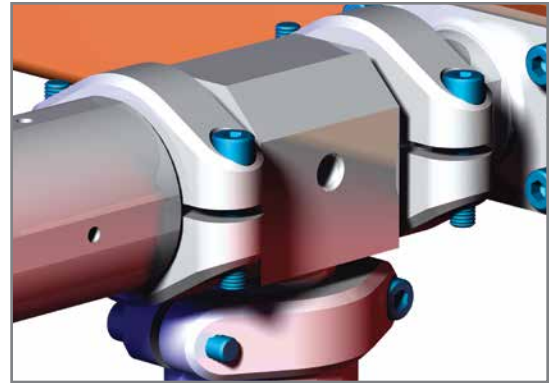
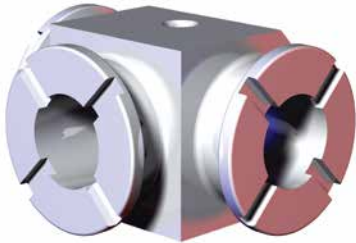
Model Number	Weight
STN0C4F-NA	.65 kg [1.43 lb]

# SPIDERGRIP JUNCTION COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specifications



## Ø60mm 3-Face Junction



Model Number

Weight

STN0T3F-NA

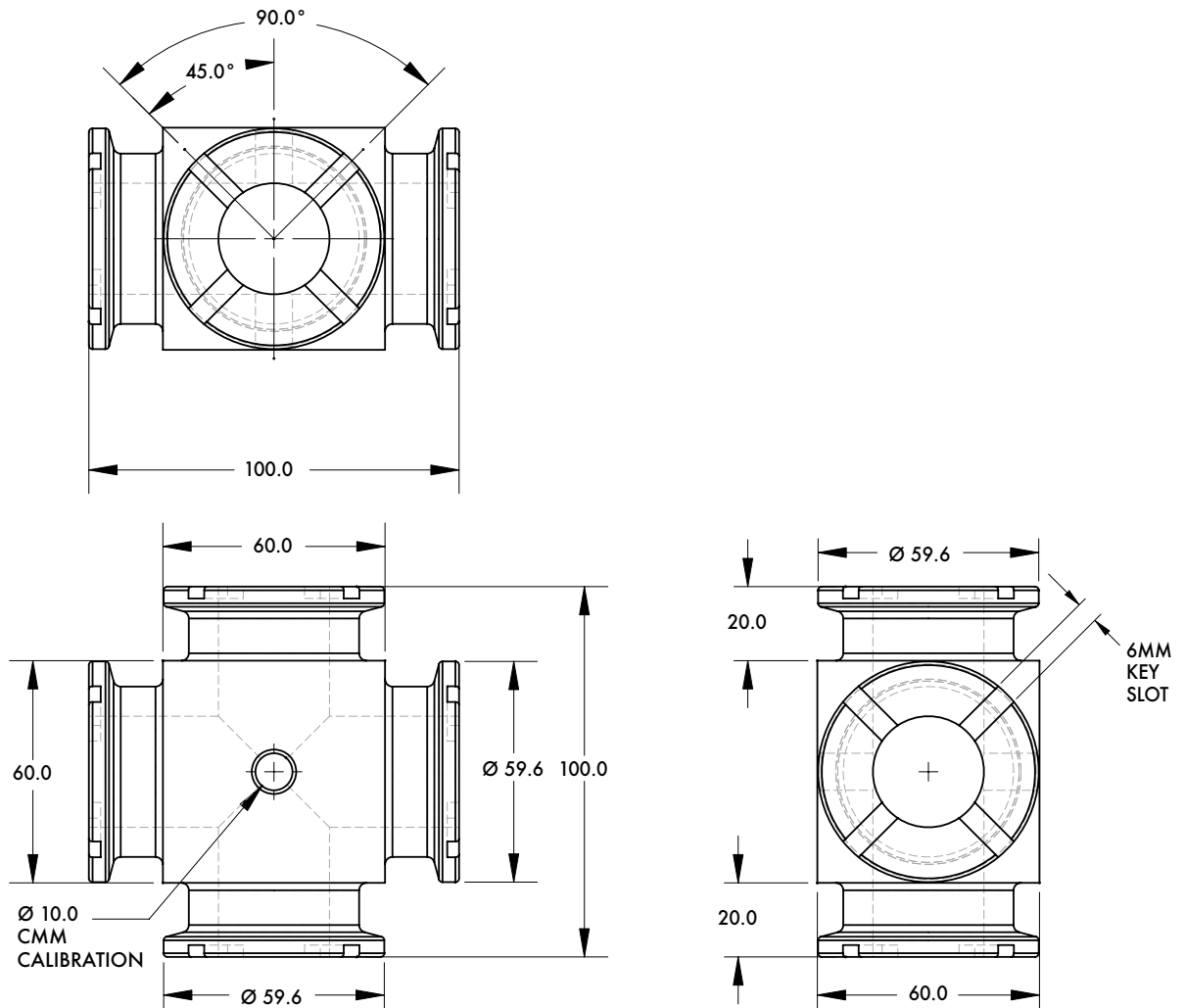
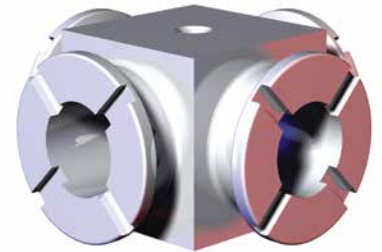
.60 kg [1.31 lb]



# SPIDERGRIP JUNCTION COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm 4-Face Junction



Model Number	Weight
STN0T4F-NA	.67 kg [1.47 lb]

Dimensions and technical information are subject to change without notice

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EE-SGP | 24

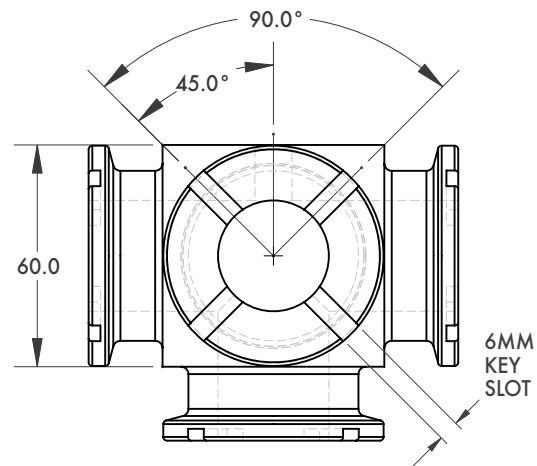
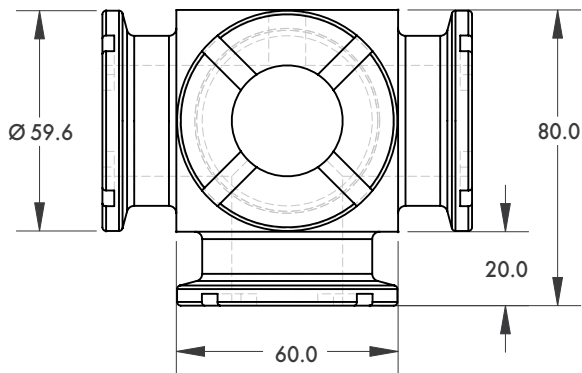
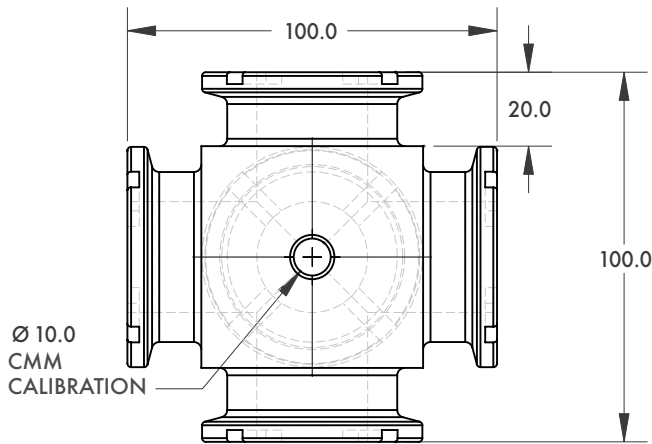
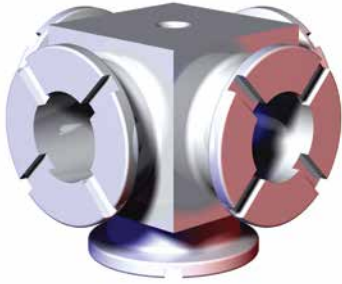


# SPIDERGRIP JUNCTION COMPONENTS



Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm 5-Face Junction



Model Number

Weight

STN0T5F-NA

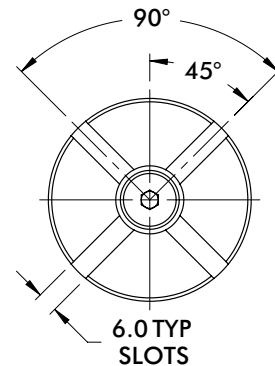
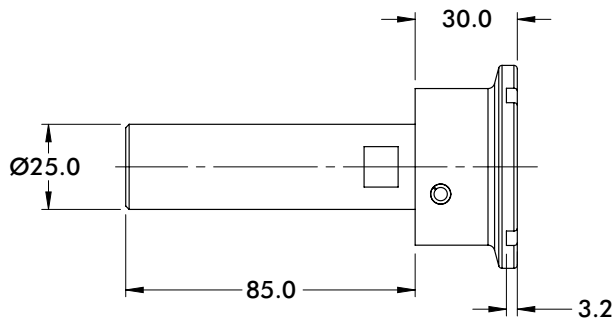
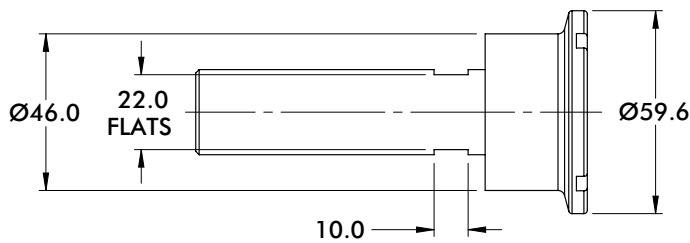
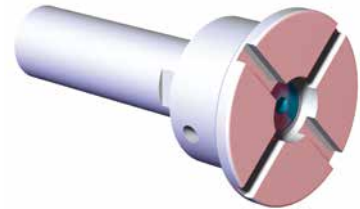
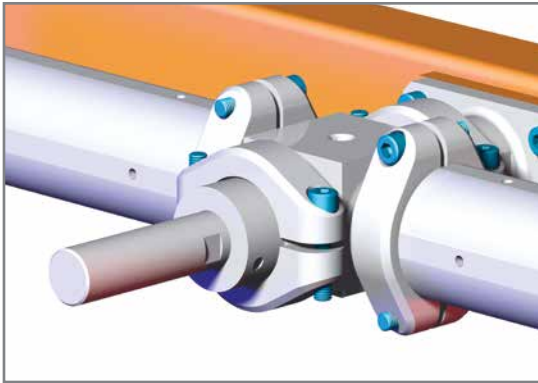
.71 kg [1.56 lb]



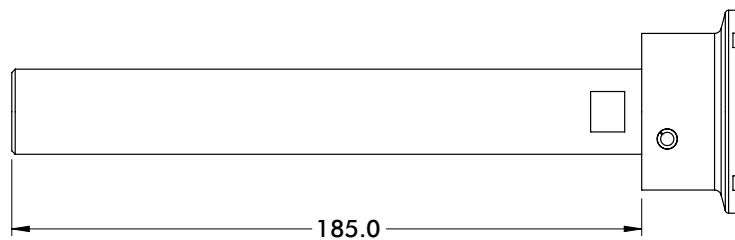
# SPIDERGRIP SINGLE END EXTENSIONS

Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm to Ø25mm Single End Extension



Model Number	Weight
STV0100-NA	.26 kg [.58 lb]



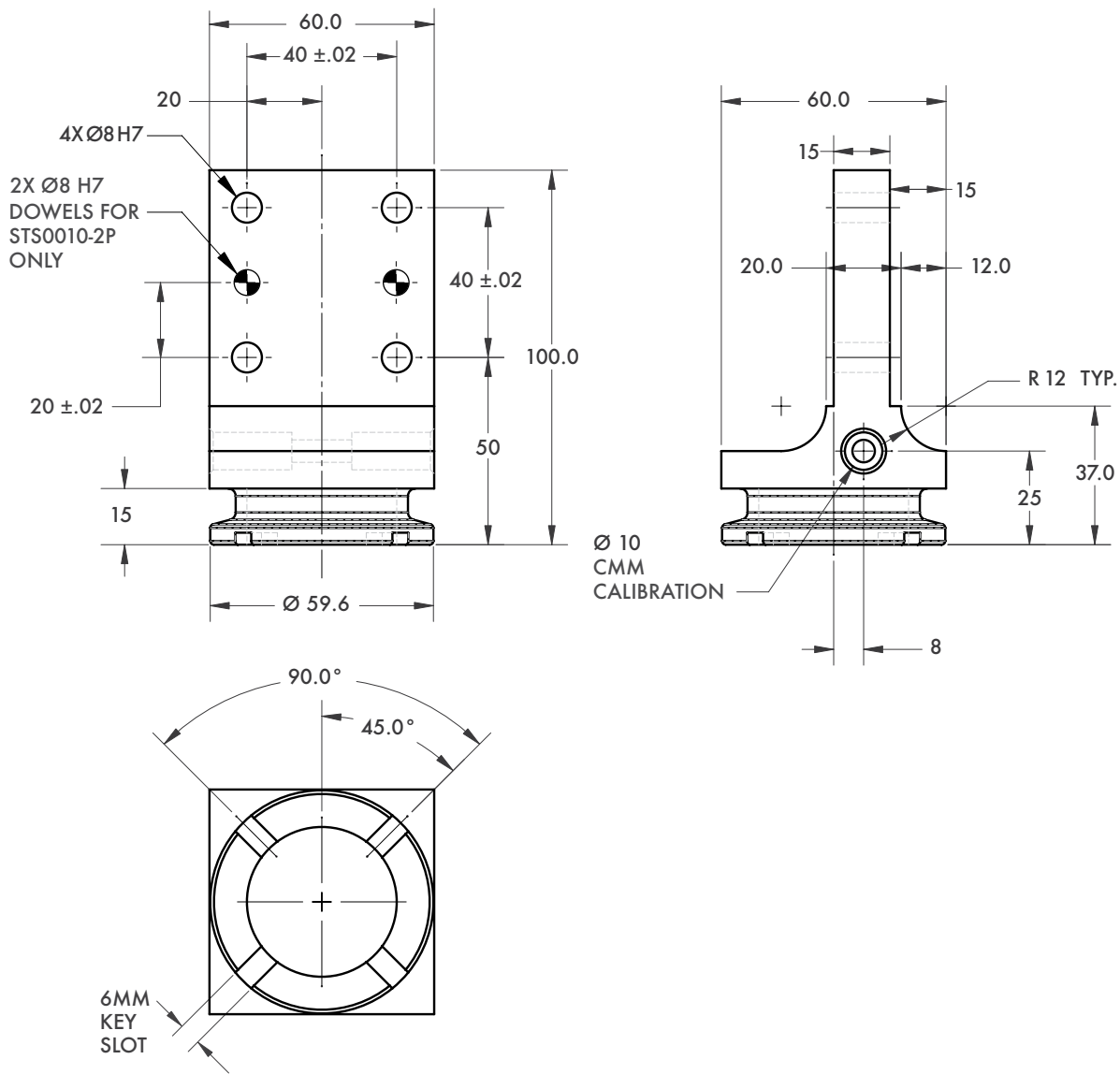
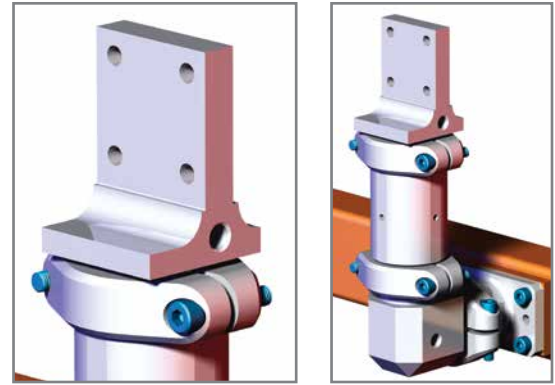
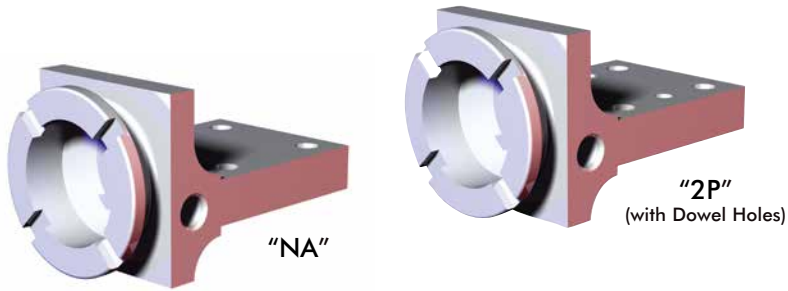
Model Number	Weight
STV0200-NA	.40 kg [.87 lb]

# SPIDERGRIP EDGE MOUNTING COMPONENTS



Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm 90° Edge Part with 15mm Center to Face Offset  
40mm x 40mm Mounting Pattern

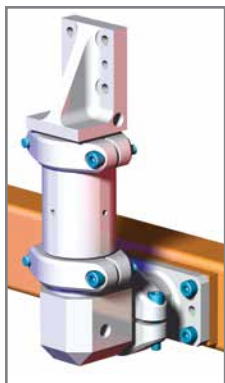


Model Number	Weight
STS0010-NA	.31 kg [.69 lb]
STS0010-NA-2P	

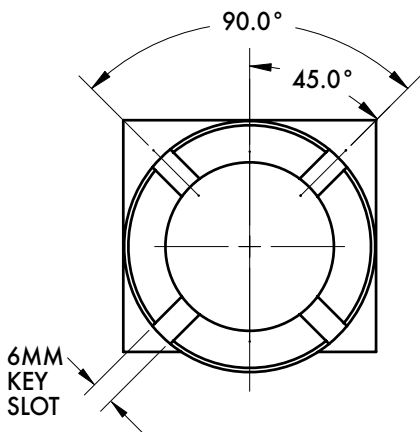
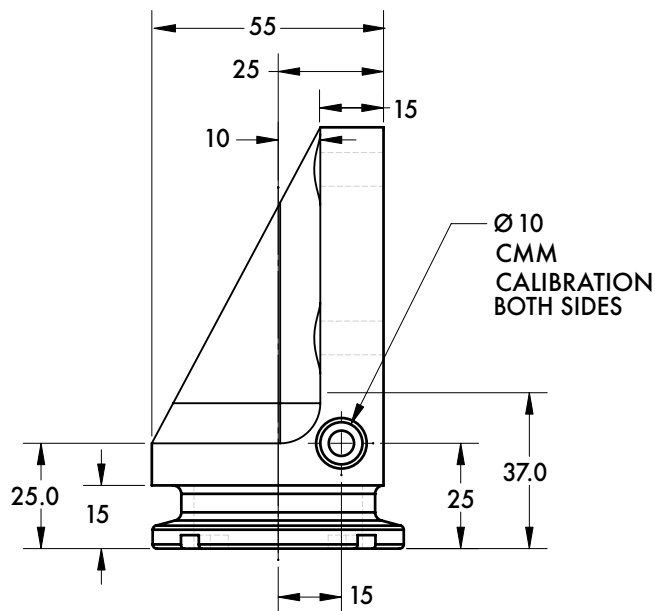
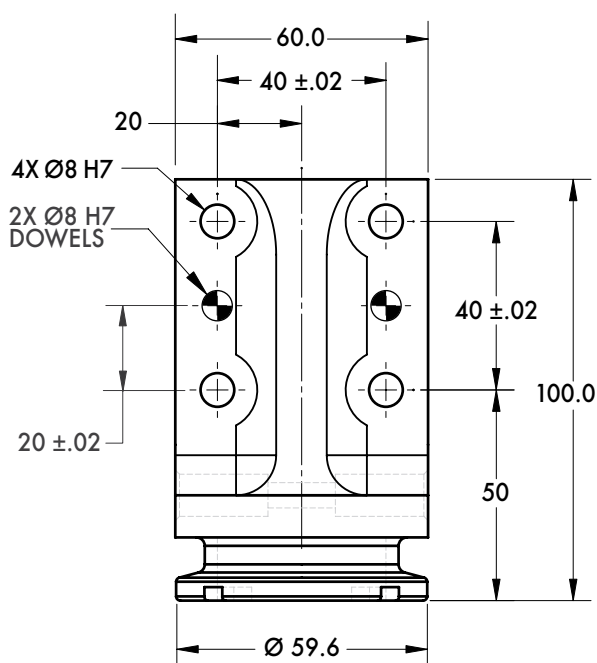
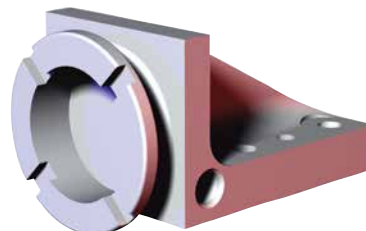


# SPIDERGRIP EDGE MOUNTING COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specifications



Ø60mm 90° Edge Part with 25mm Center to Face Offset  
40mm x 40mm Mounting Pattern



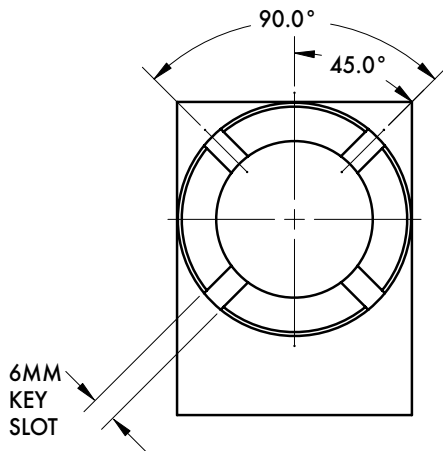
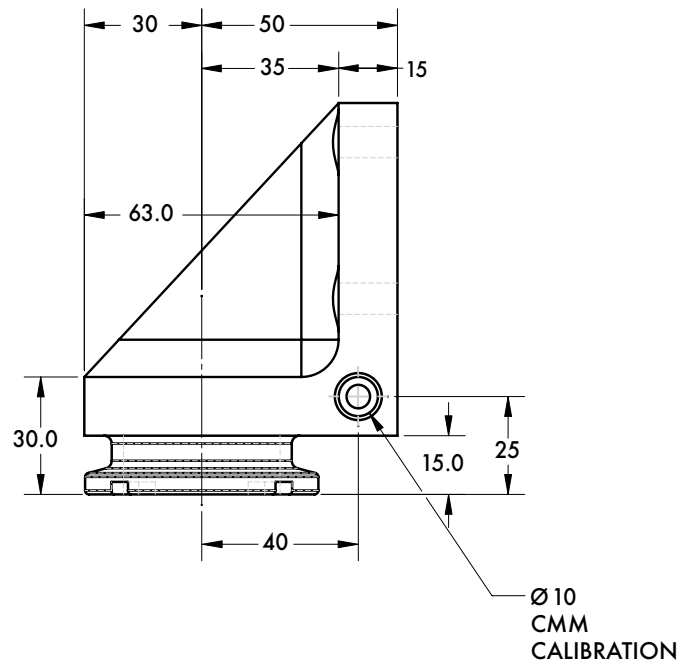
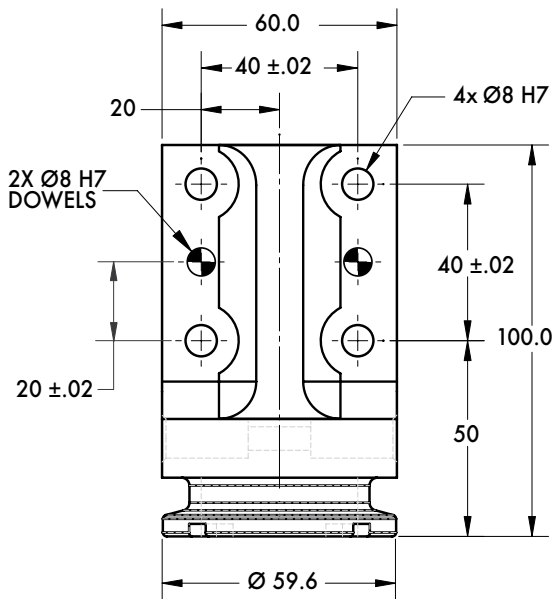
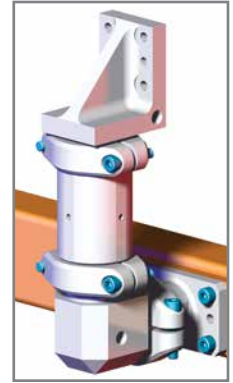
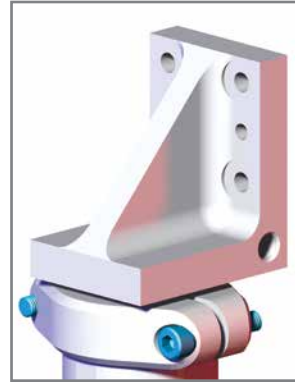
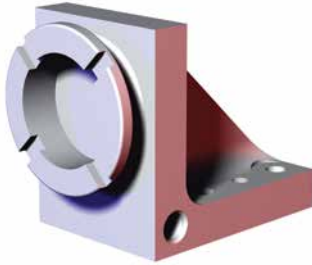
Model Number	Weight
STS0011-NA-2P	.35 kg [.77 lb]

# SPIDERGRIP EDGE MOUNTING COMPONENTS



Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm 90° Edge Part with 50mm Center to Face Offset  
40mm x 40mm Mounting Pattern



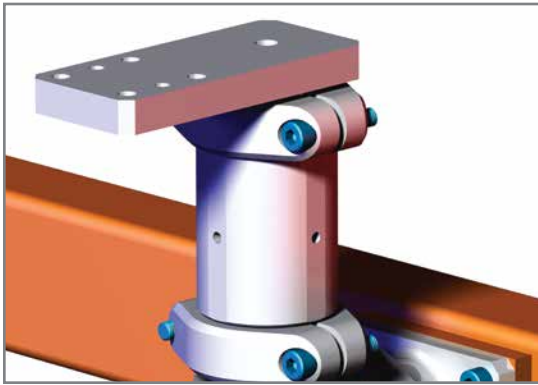
Model Number	Weight
STS0012-NA-2P	.47 kg [1.04 lb]



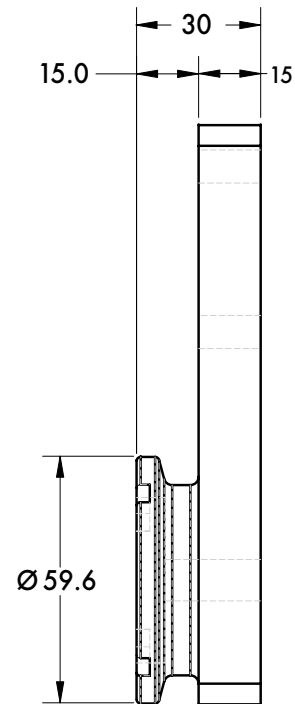
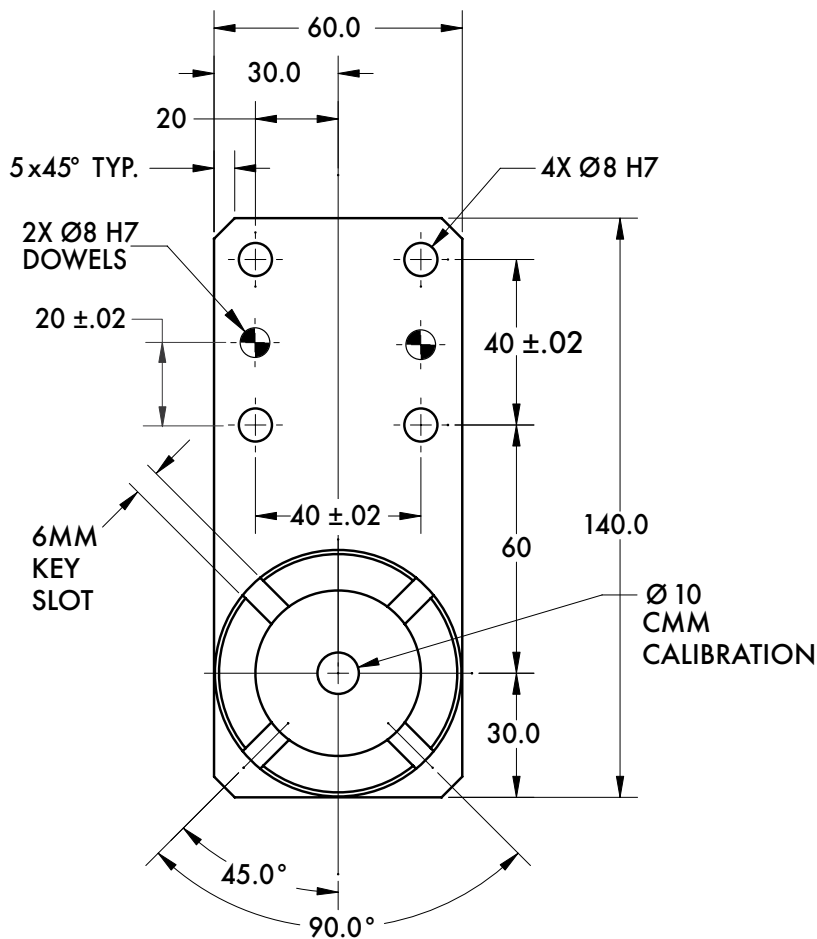


# SPIDERGRIP EDGE MOUNTING COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specifications



Ø60mm Offset Edge Part with 25mm Face Offset  
40mm x 40mm Mounting Pattern



Model Number	Weight
STS0014-NA-2P	.39 kg [.85 lb]

Dimensions and technical information are subject to change without notice

[www.mfcp.com](http://www.mfcp.com)

EE-SGP | 30

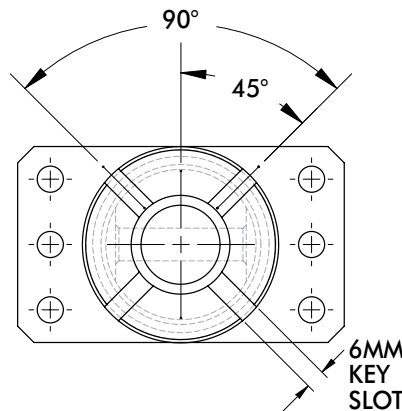
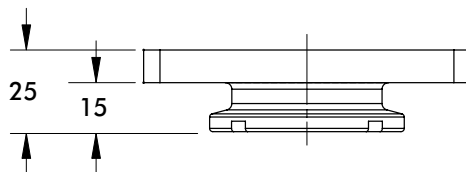
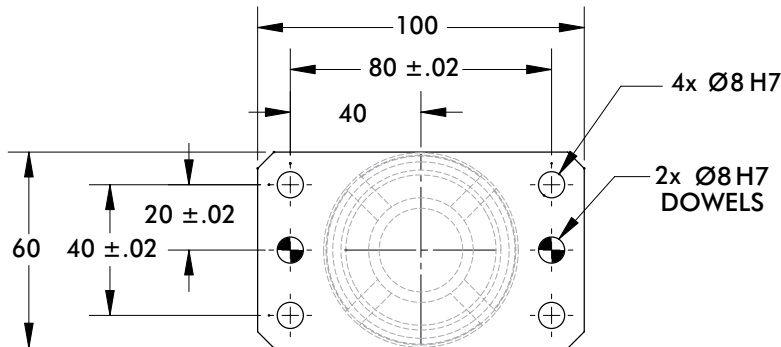
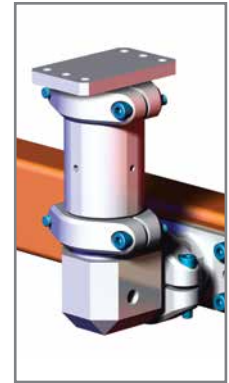
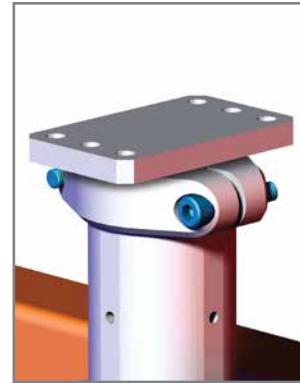
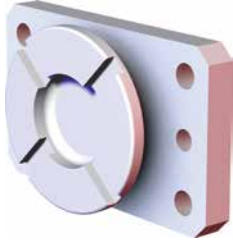


# SPIDERGRIP EDGE MOUNTING COMPONENTS



Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm In-line Edge Part with 25mm Face Offset  
80mm x 40mm Mounting Pattern



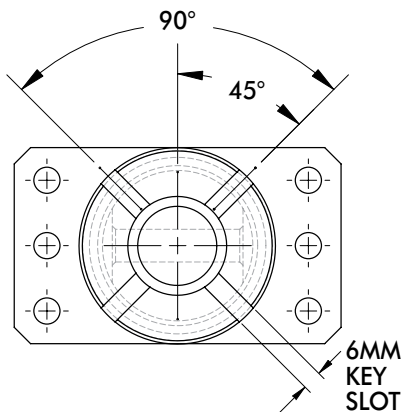
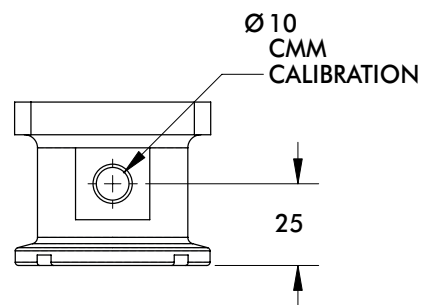
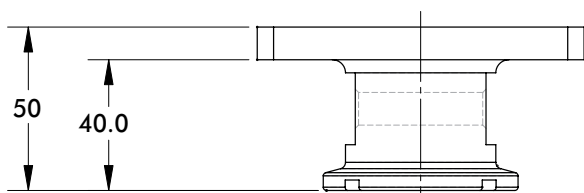
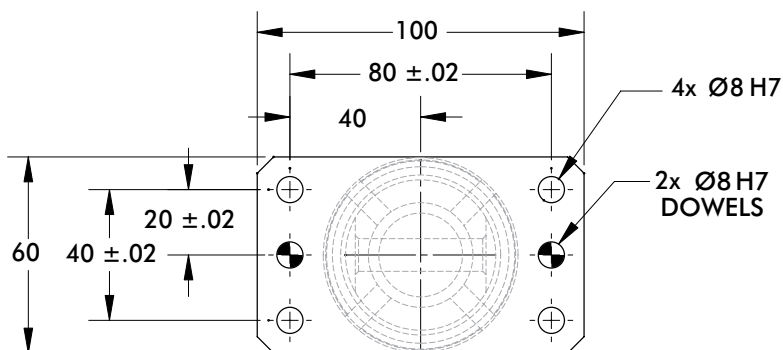
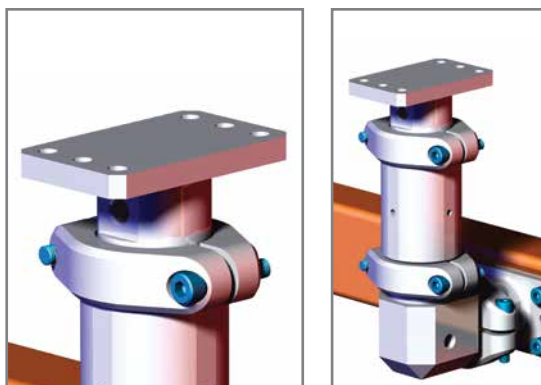
Model Number	Weight
STS0015-NA-2P	.21 kg [.46 lb]



# SPIDERGRIP EDGE MOUNTING COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specifications

Ø60mm In-line Edge Part with 50mm Face Offset  
80mm x 40mm Mounting Pattern



Model Number	Weight
STS0019-NA-2P	.32 kg [.71 lb]

# BAG GRIPPING AND PALLETIZING SOLUTIONS

## DBG Series

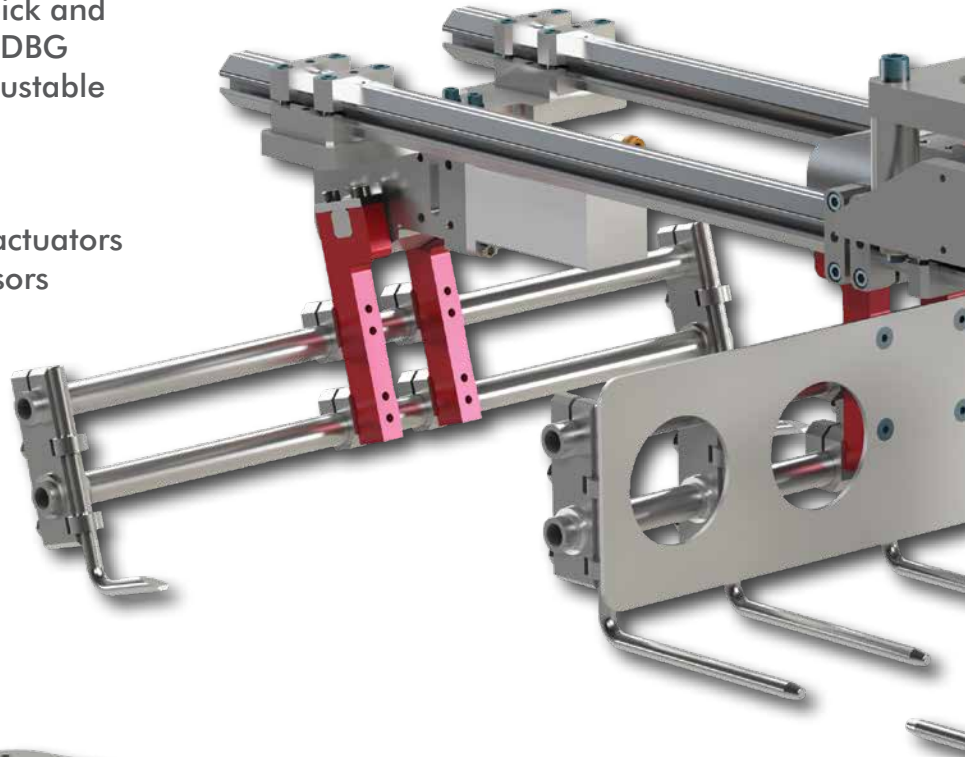
DESTACO DBG Series bag gripping end effector solutions offers end of line pick and place and palletizing solutions. The DBG has a simplified design with field adjustable finger position and opening angle.

### Features also include:

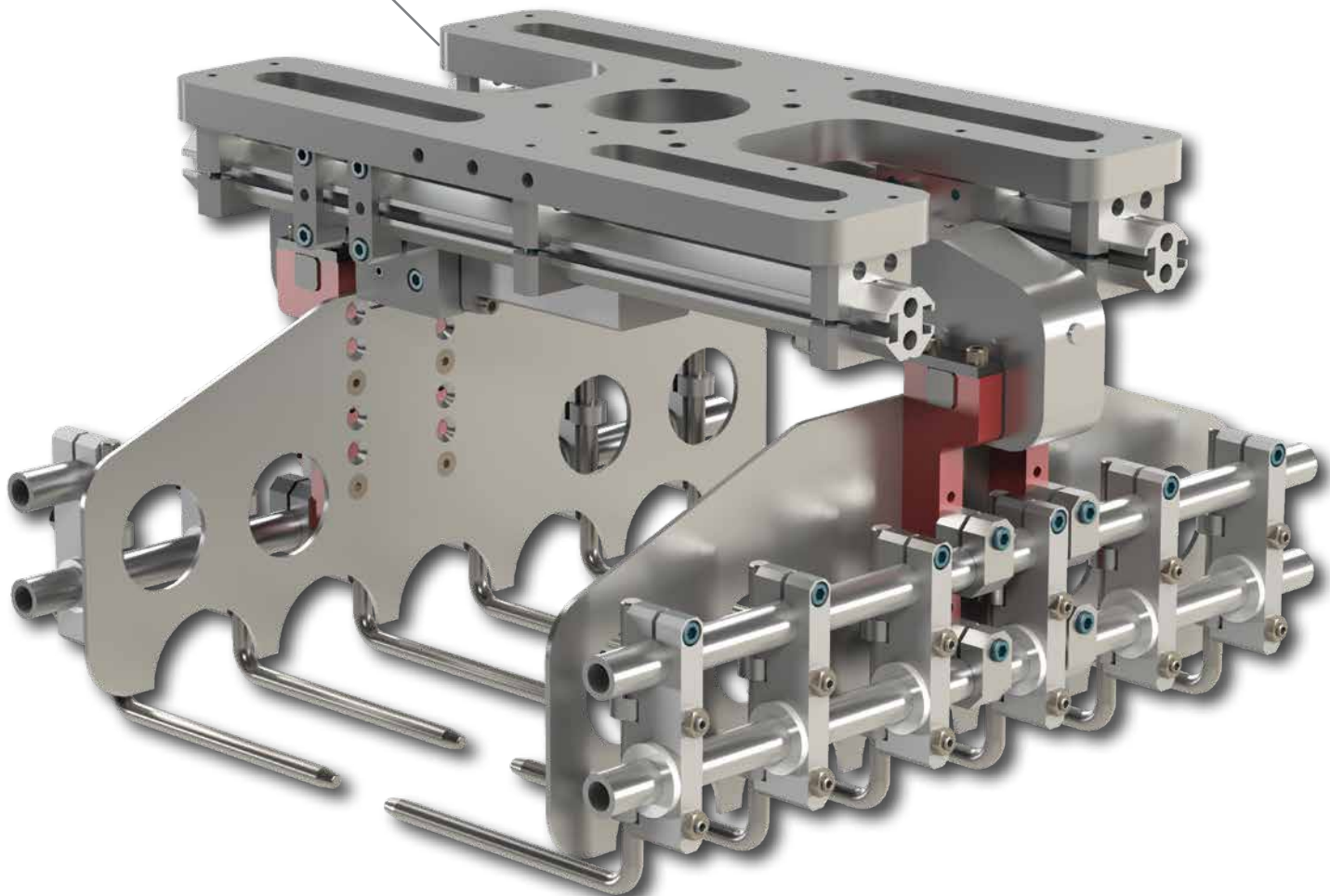
- Pneumatic or electric fully enclosed actuators
- Integrated open/closed position sensors
- Standard off-the-shelf components

### Two sizes available:

- DBG50** (50lb Max Load)
- DBG100** (100lb Max Load)

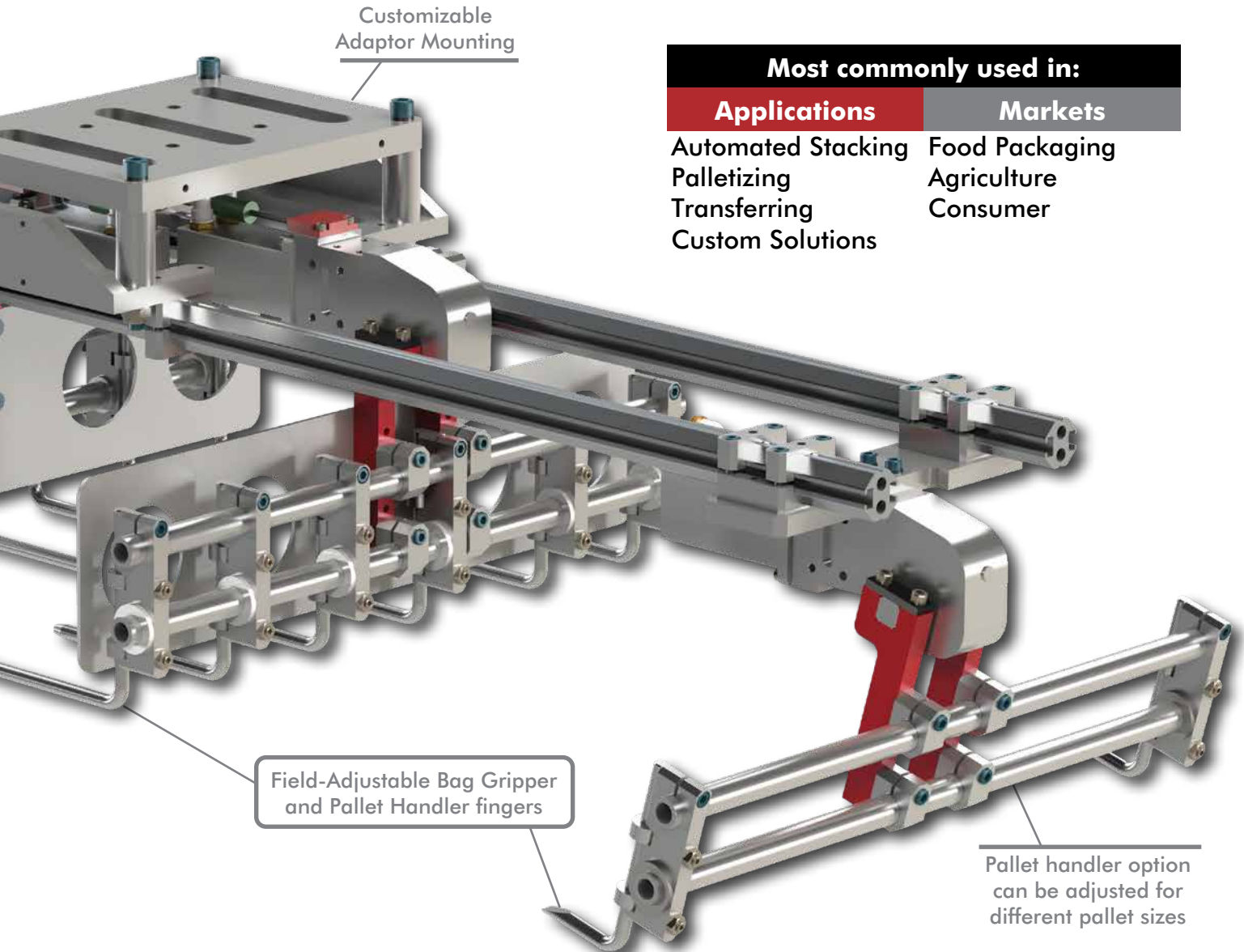


Customer Specified  
Robot Mounting Pattern



# BAG GRIPPING AND PALLETIZING SOLUTIONS

**DBG** Series



## Most commonly used in:

### Applications

Automated Stacking  
Palletizing  
Transferring  
Custom Solutions

### Markets

Food Packaging  
Agriculture  
Consumer

DESTACO DBG Series bag gripper also features optional integrated slip sheet and pallet handling. Products are held secure even if air pressure is lost.

With rapid actuation, the DBG can palletize up to 30 bags per minute when working in concert with robotic automation.

DESTACO also provides custom design and build solutions for handling any packaging transfer and palletizing needs.



# DBG SERIES BAG GRIPPER

## Product Overview

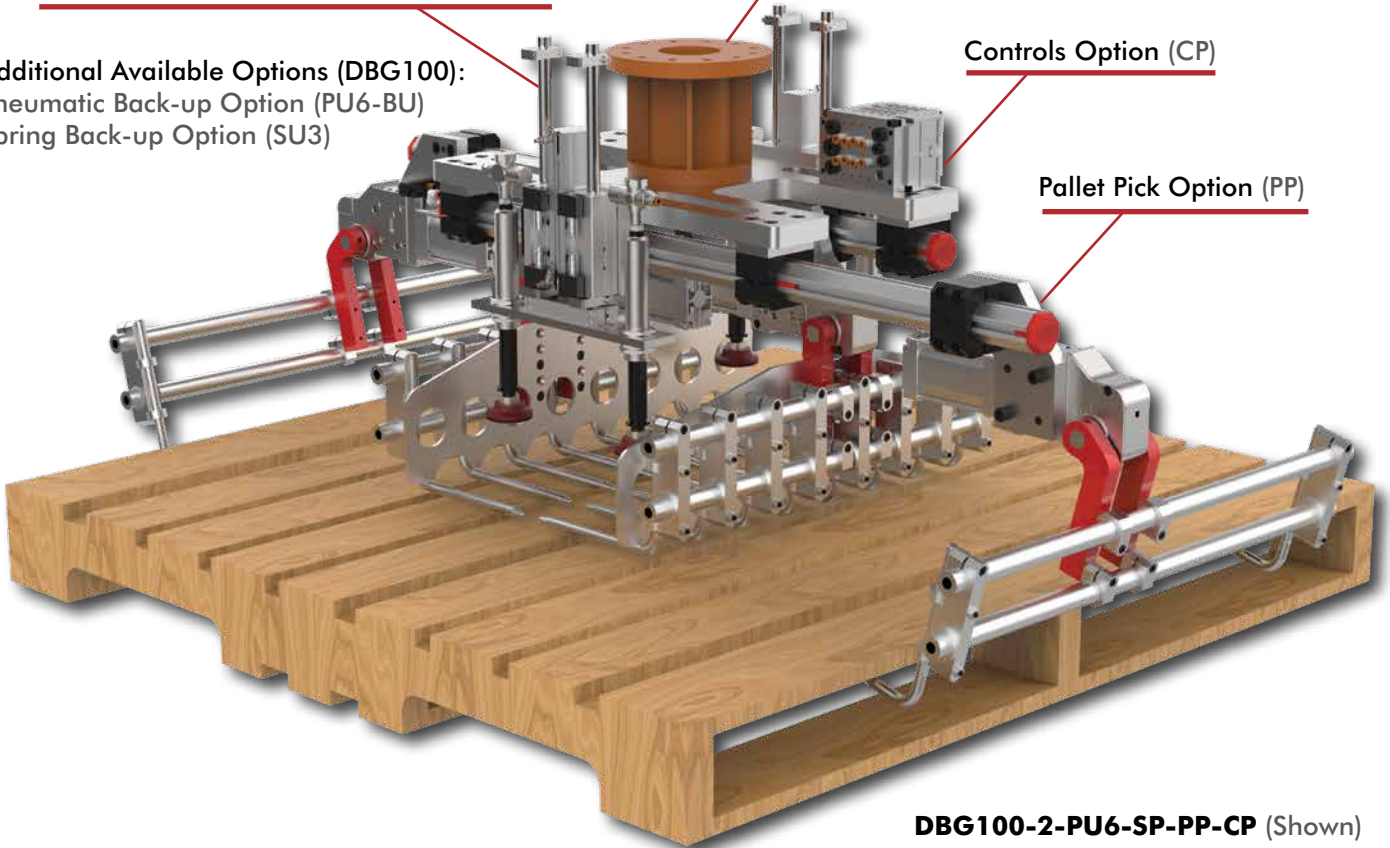
Robot Mount Stand-Off  
(Sold Separately)

Pneumatic Slip Sheet Pick Option (PU6-SP)

Additional Available Options (DBG100):  
Pneumatic Back-up Option (PU6-BU)  
Spring Back-up Option (SU3)

Controls Option (CP)

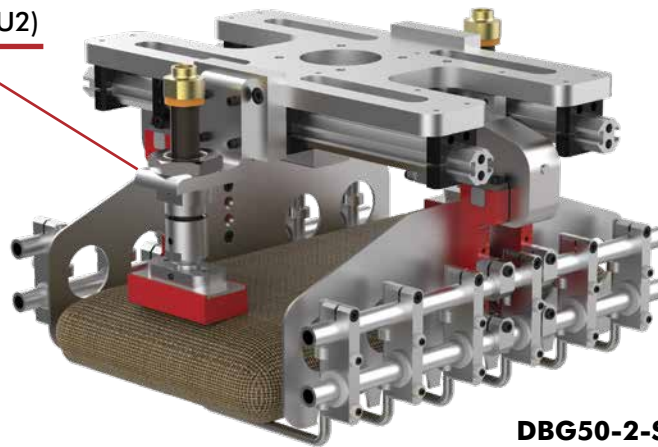
Pallet Pick Option (PP)



**DBG100-2-PU6-SP-PP-CP** (Shown)

Spring Back-up Option (SU2)

Additional Available Options (DBG50):  
Pneumatic Back-up Option (PU4-BU)  
Pneumatic Slip Sheet Pick Option (PU4-SP)  
Controls Option (CP)  
Pallet Pick Option (PP)



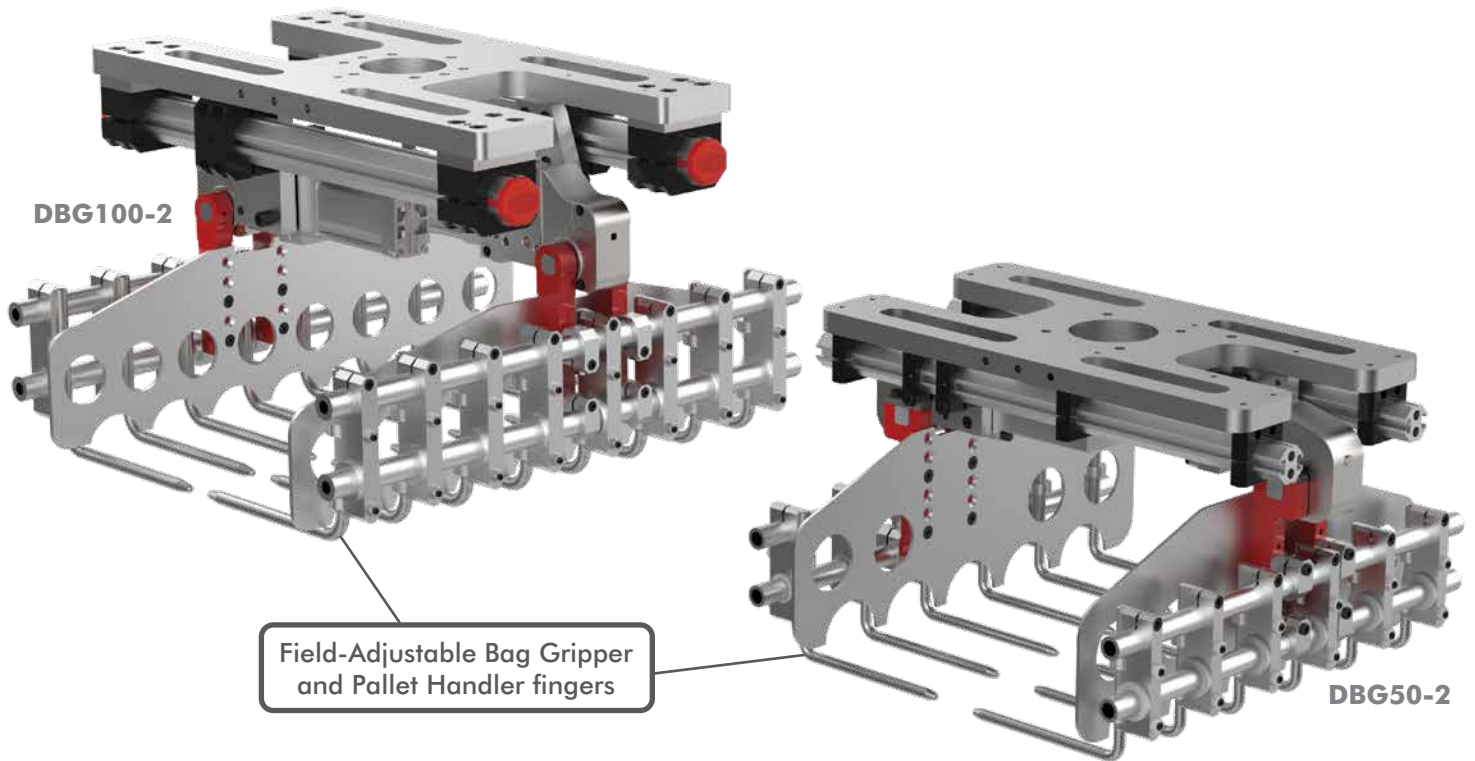
**DBG50-2-SU2** (Shown)



Scan the QR Codes to see the bag gripper application videos.

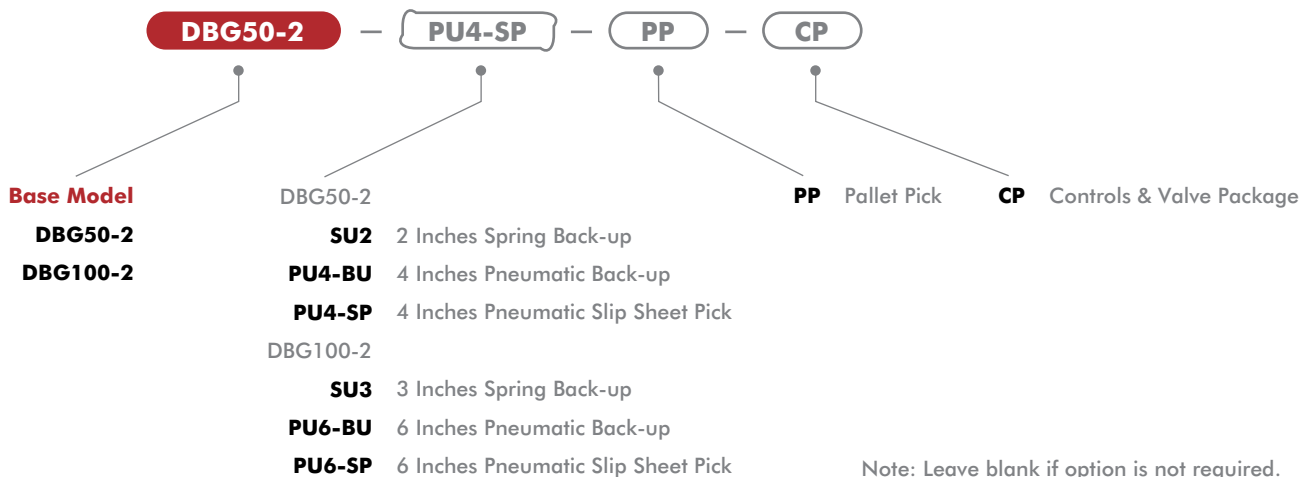
# DBG SERIES BAG GRIPPER

Base Models



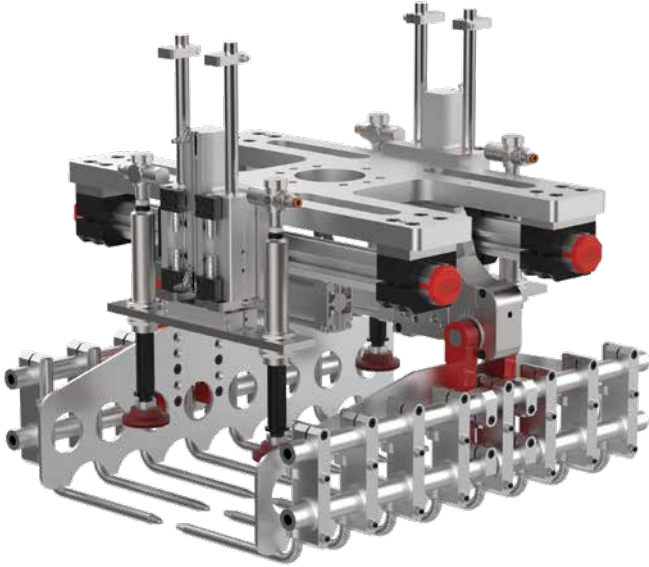
DBG Series Bag Grippers		
Specifications	DBG50-2	DBG100-2
Unit Weight:	17kg [38 lbs]	43kg [95 lbs]
Maximum Payload:	23Kg [50 lbs]	45Kg [100 lbs]
Maximum Bag Size:	432 x 711 x 122mm [17 x 28 x 5 in]	610 x 1016 x 170mm [24 x 40 x 6.7 in]

## DBG Bag Gripper Order Information



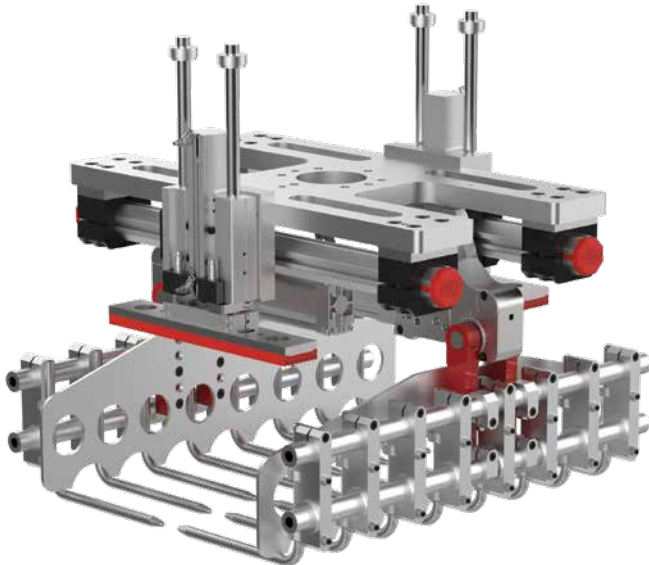
# DBG SERIES BAG GRIPPER

## Options



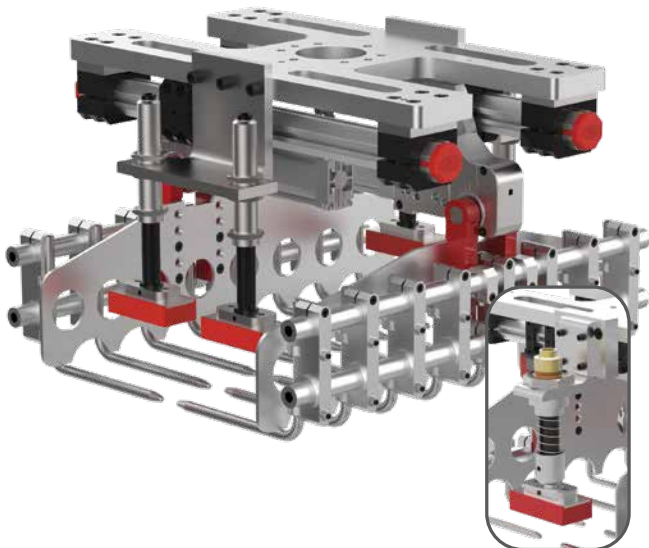
### PU(x)-SP Pneumatic Slip Sheet Pick Option

- In addition to the spring compensator option, a vacuum system can be added to the package which will handle the slip sheet.
- Eliminate the need for a second end effector or secondary operation.
- 4" Stroke for DBG50-2 (PU4-SP)  
(Add option weight of 5kg [11 lbs] to base model)
- 6" Stroke for DBG100-2 (PU6-SP)  
(Add option weight of 10kg [23 lbs] to base model)



### PU(x)-BU Pneumatic Back-Up Option

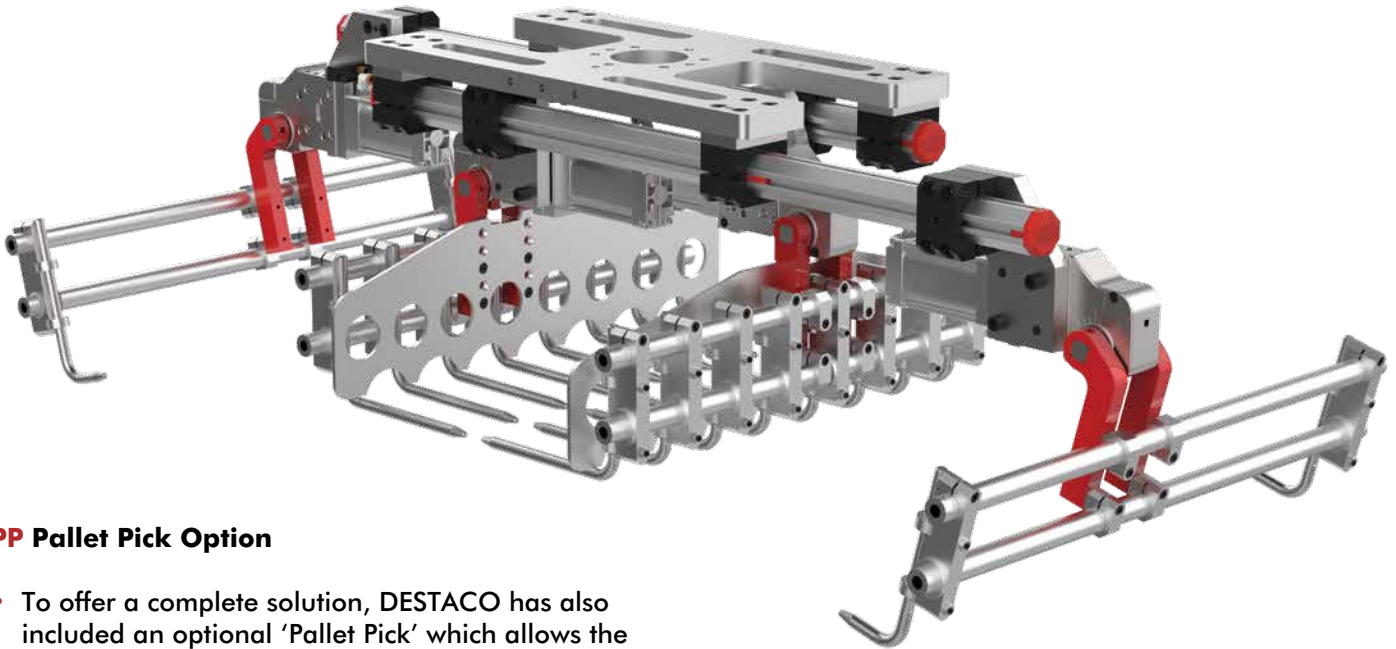
- The pneumatic compensator is extended to contact the product for additional stability and control while in motion.
- 4" Stroke for DBG50-2 (PU4-BU)  
(Add option weight of 3.6kg [8 lbs] to base model)
- 6" Stroke for DBG100-2 (PU6-BU)  
(Add option weight of 9kg [20 lbs] to base model)



### SU(x) Spring Back-Up Option

- Simple, cost-effective solution.
- Compression springs keep a constant pressure on the product.
- Low cost solution maintains control of the product while in transport.
- Spring Back-Up Option for DBG50-2 (SU2)  
(Add option weight of 2.9kg (6.4 lbs) to base model)
- Spring Back-Up Option for DBG100-2 (SU3)  
(Add option weight of 5.6kg (12.4 lbs) to base model)





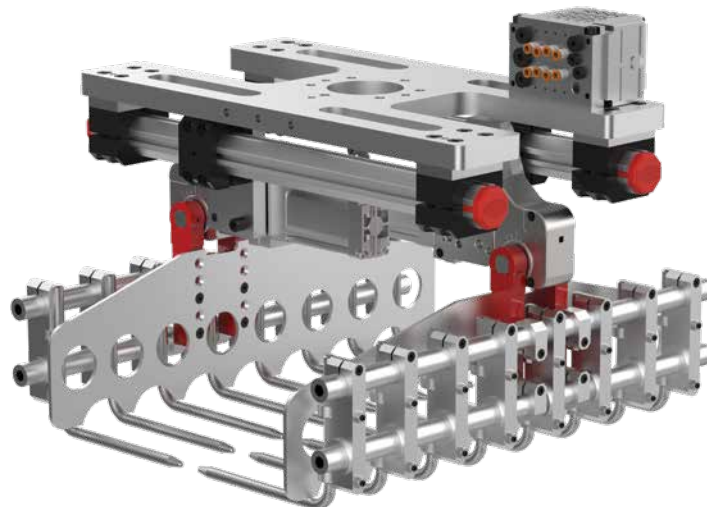
### PP Pallet Pick Option

- To offer a complete solution, DESTACO has also included an optional 'Pallet Pick' which allows the customer to pick-up and move the empty pallet.
- Pallet Pick Option for DBG50-2  
(Add option weight of 13kg [29 lbs] to base model)
- Pallet Pick Option for DBG100-2  
(Add option weight of 22kg [48 lbs] to base model)

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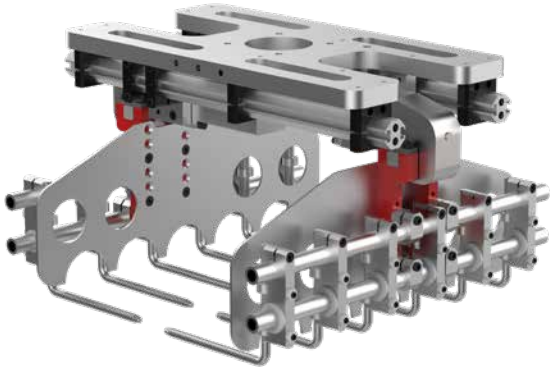
### CP Controls Option

- Controls Options are configured based on the different bag gripper options ordered.  
(Add option weight of 2.3kg [5 lbs] to base model)

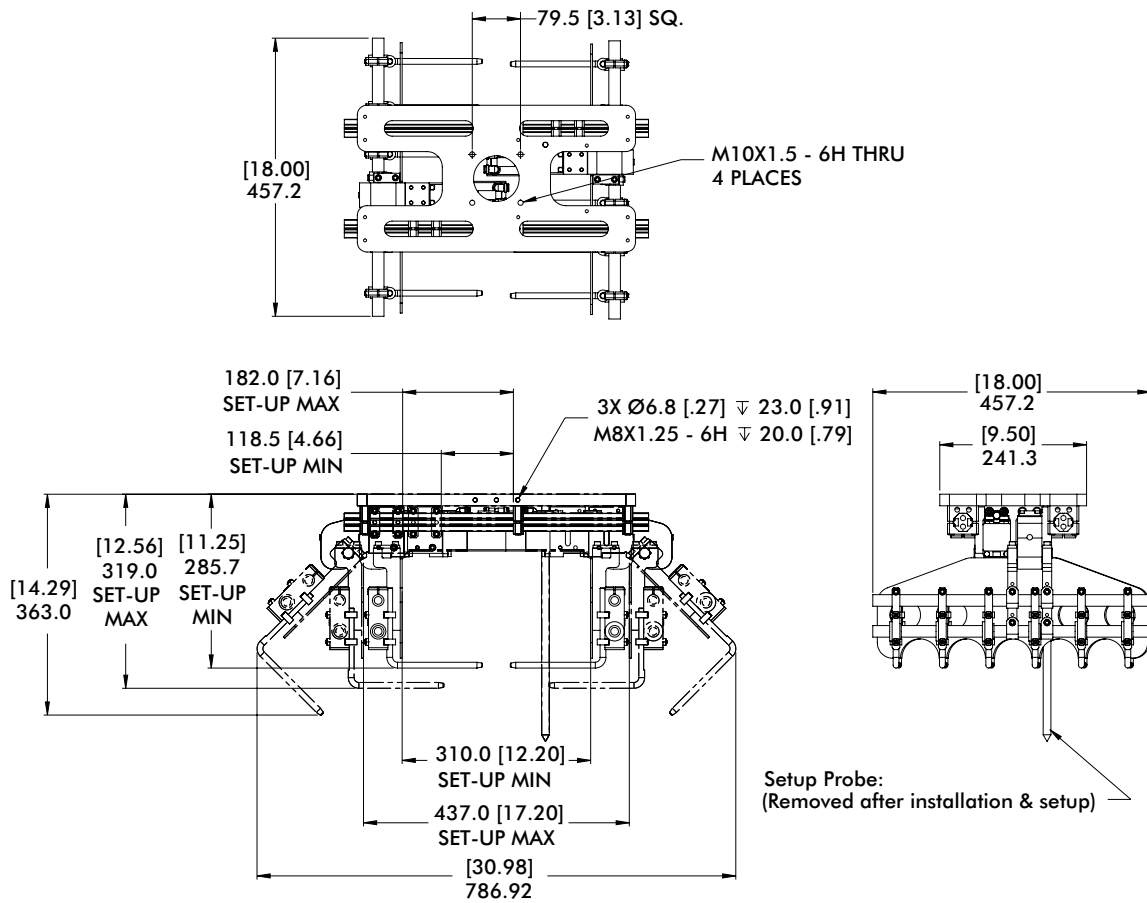


# DBG50 SERIES

## Bag Gripping and Palletizing Solutions | Dimensions



Model Number	Weight
<b>DBG50-2</b>	[38 lb] 17 kg

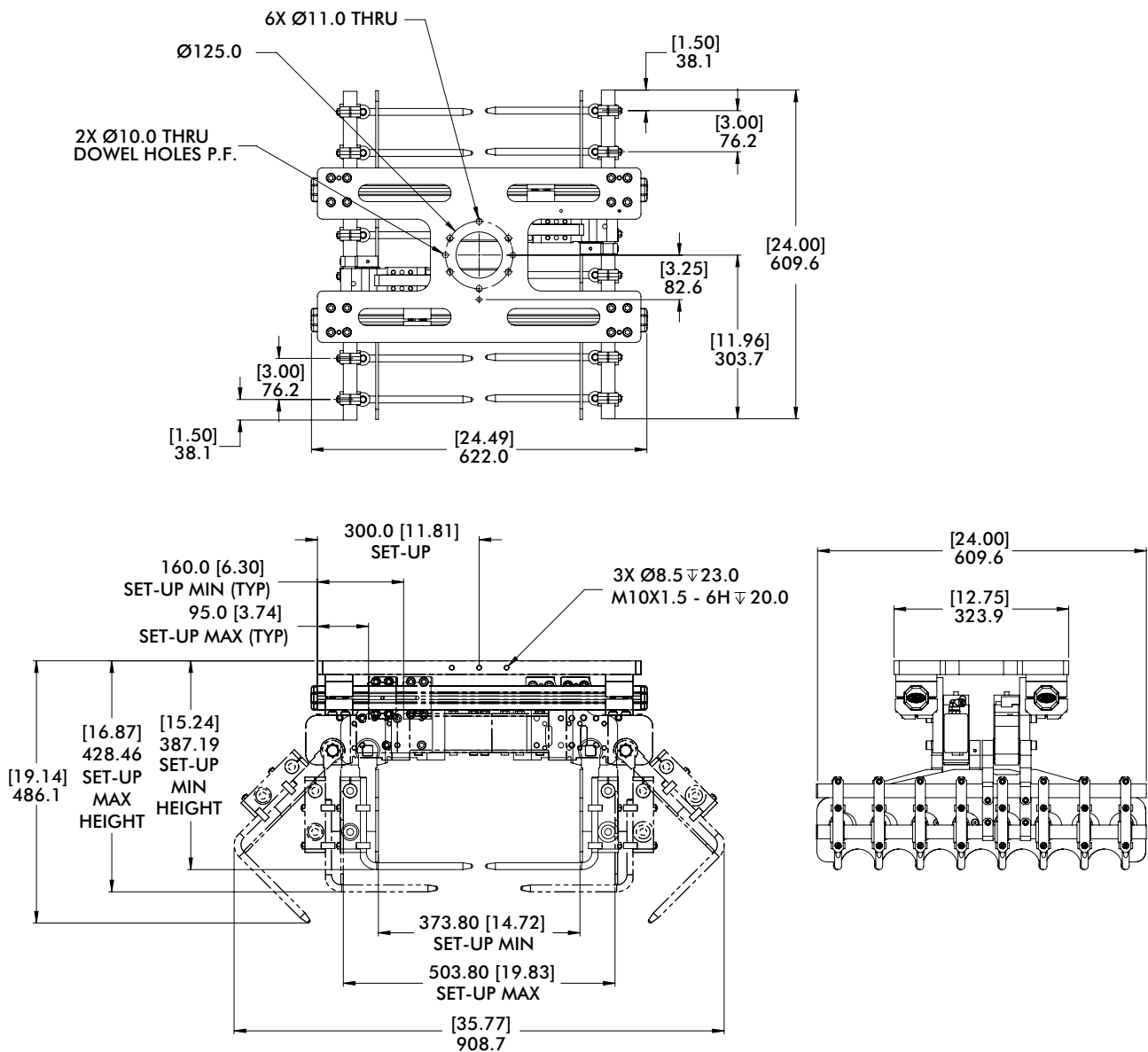
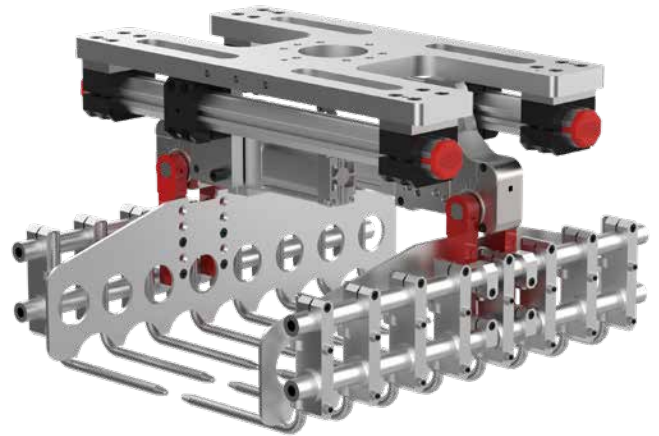


Note: mm/[Inches]

# DBG100 SERIES

Bag Gripping and Palletizing Solutions | Dimensions

Model Number	Weight
<b>DBG100-2</b>	[95 lb] 43 kg

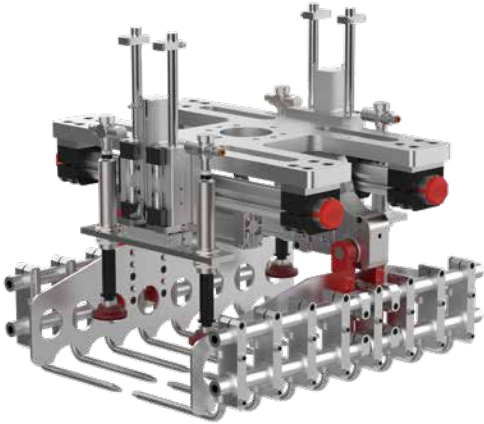


Note: mm/[Inches]

# SLIP SHEET PICK AND PLACE OPTION

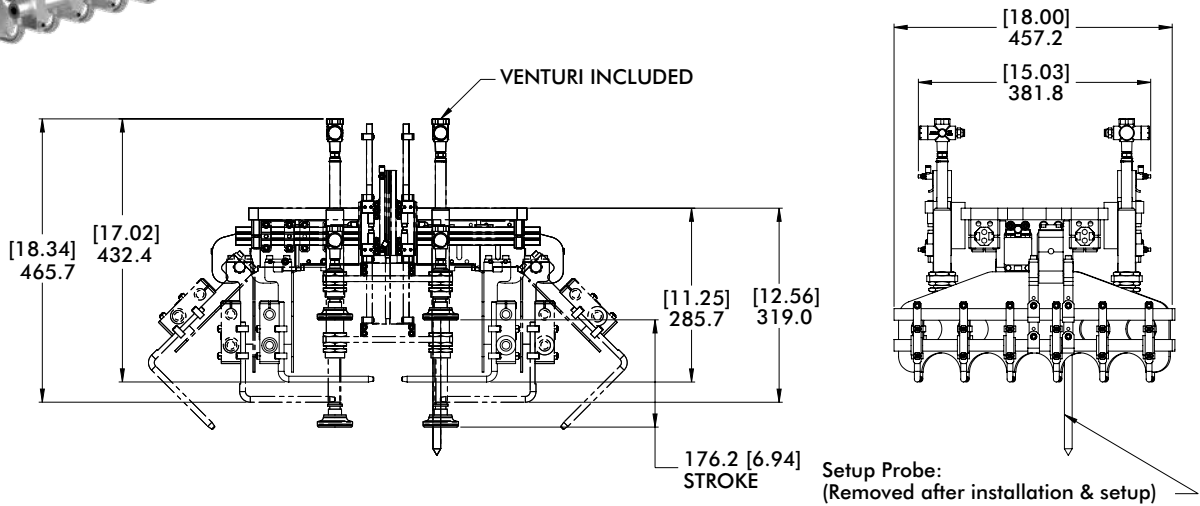
Bag Gripping and Palletizing Solutions | Dimensions

4.00" [101.6mm]



Model Number	Weight
<b>DBG50-2-PU4-SP</b>	[11 lb] 5 kg

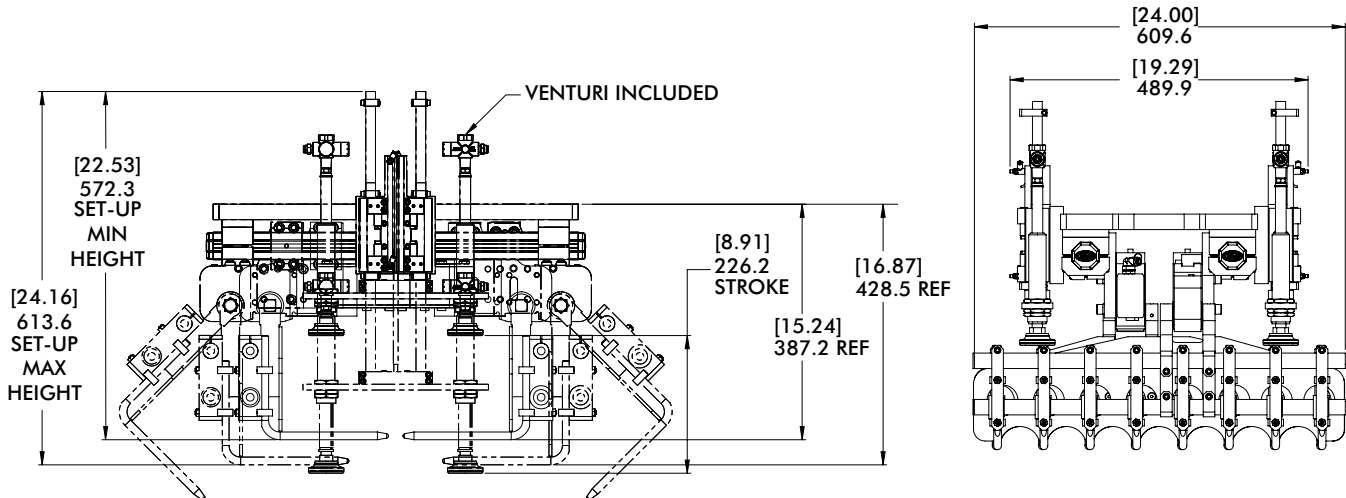
Add to base model weight



6.00" [152.4mm]

Model Number	Weight
<b>DBG100-2-PU6-SP</b>	[23 lb] 10 kg

Add to base model weight



Note: mm/[Inches]

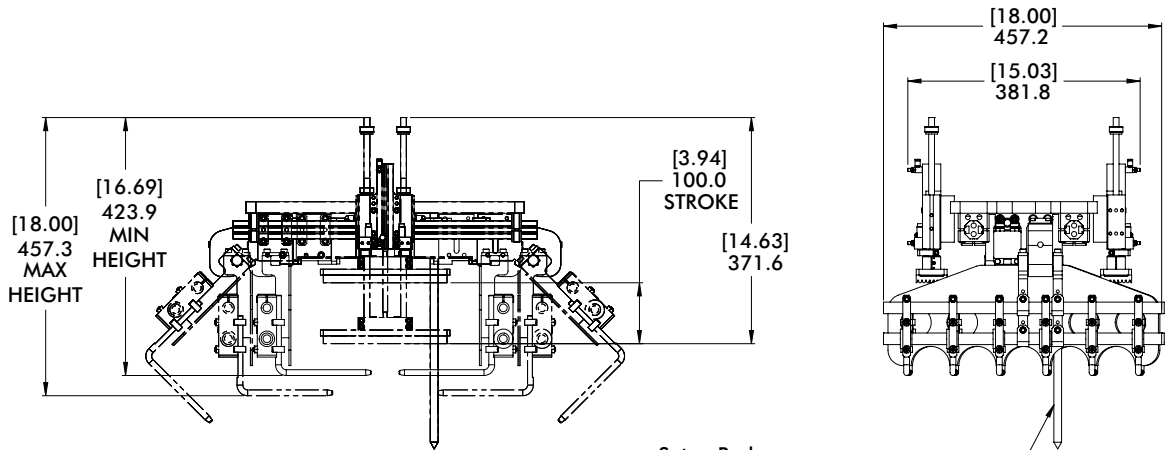
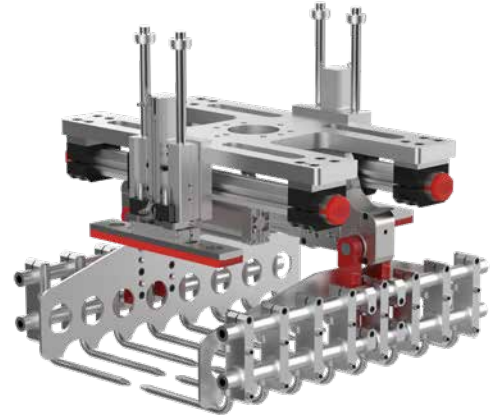
# PNEUMATIC BACK-UP OPTION

Bag Gripping and Palletizing Solutions | Dimensions

4.00" [101.6mm]

Model Number	Weight
<b>DBG50-2-PU4-BU</b>	[8 lb] 3.6 kg

Add to base model weight

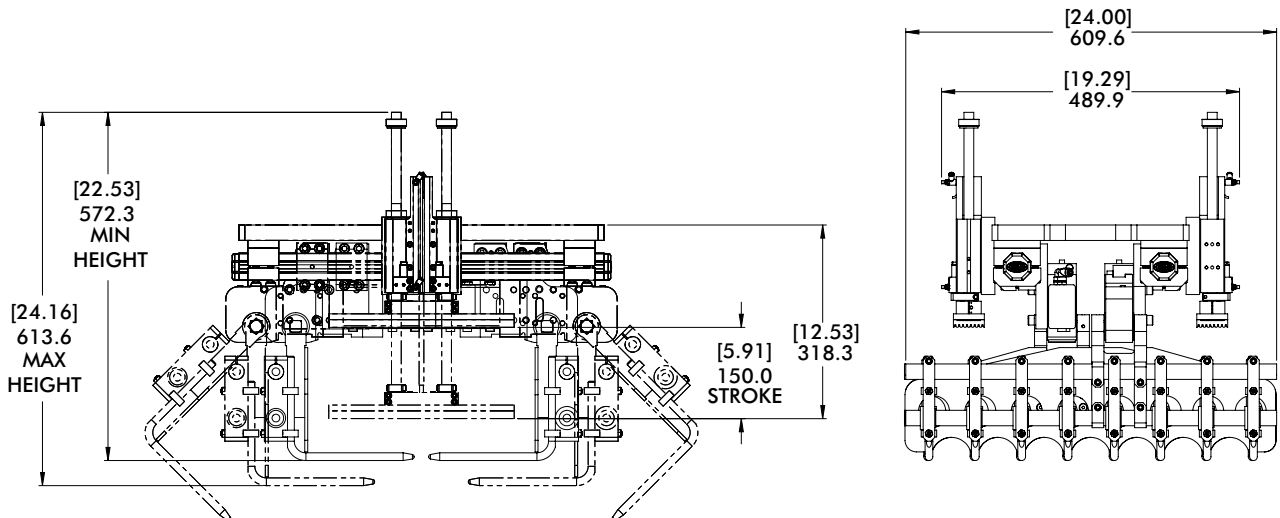


Setup Probe:  
(Removed after installation & setup)

6.00" [152.4mm]

Model Number	Weight
<b>DBG100-2-PU6-BU</b>	[20 lb] 9 kg

Add to base model weight

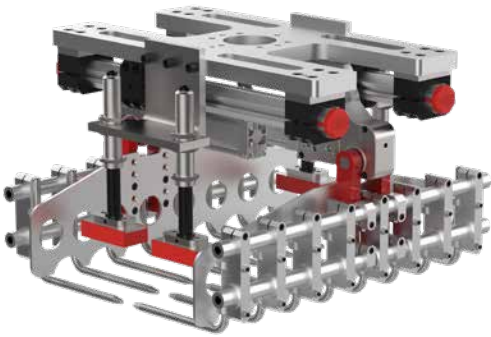


Note: mm/[Inches]

# TRAVEL SPRING BACK-UP OPTION

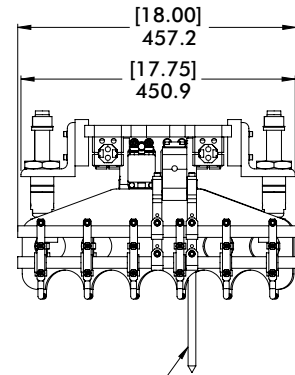
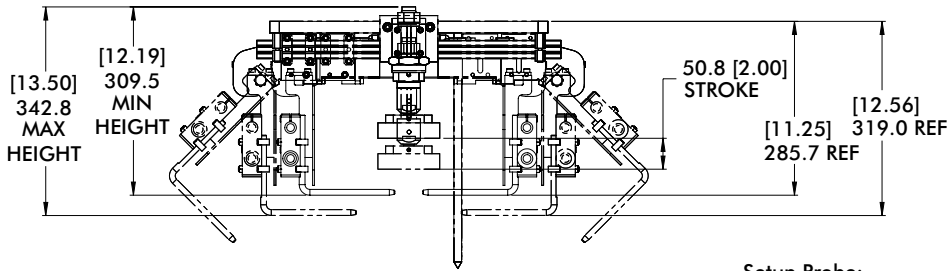
Bag Gripping and Palletizing Solutions | Dimensions

2.00" [50.8mm]



Model Number	Weight
<b>DBG50-2-SU2</b>	[6.4 lb] 2.9 kg

Add to base model weight

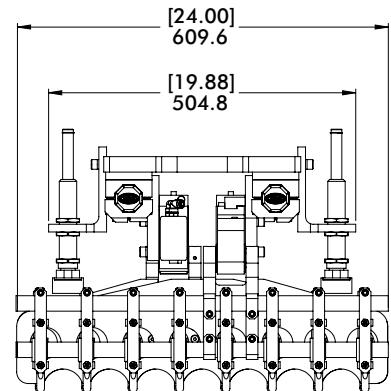
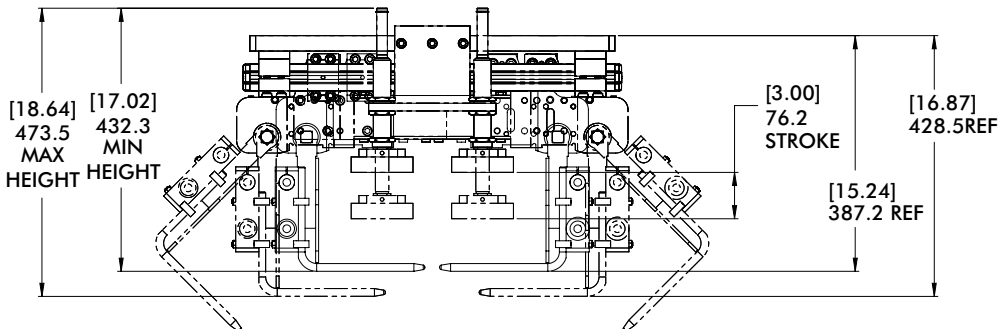


Setup Probe:  
(Removed after installation & setup)

3.00" [76.2mm]

Model Number	Weight
<b>DBG100-2-SU3</b>	[12.4 lb] 5.6 kg

Add to base model weight



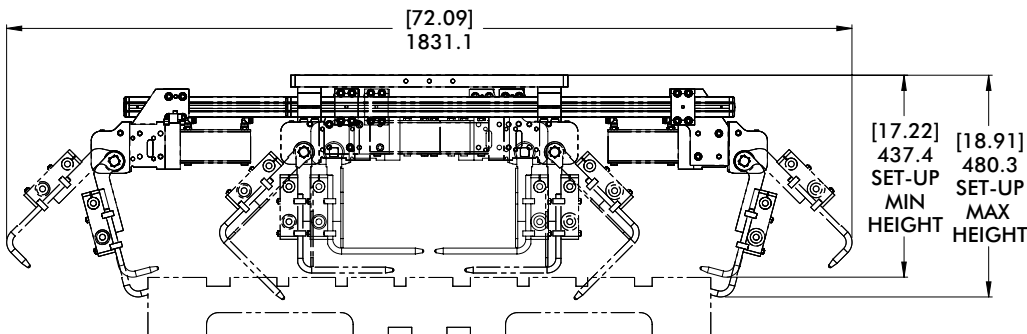
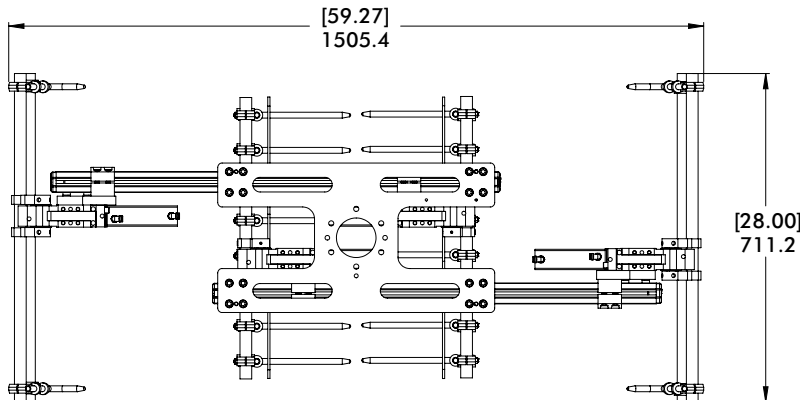
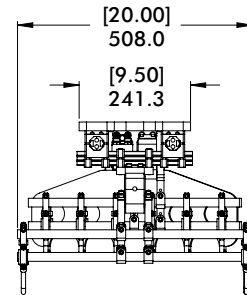
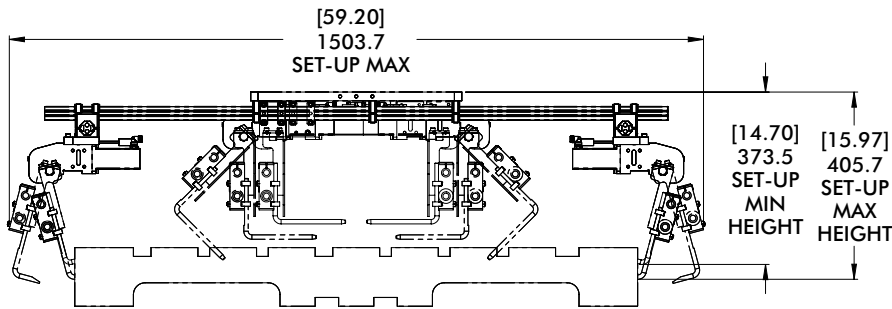
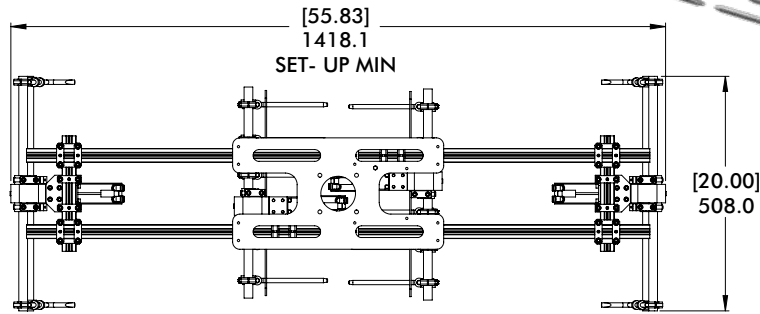
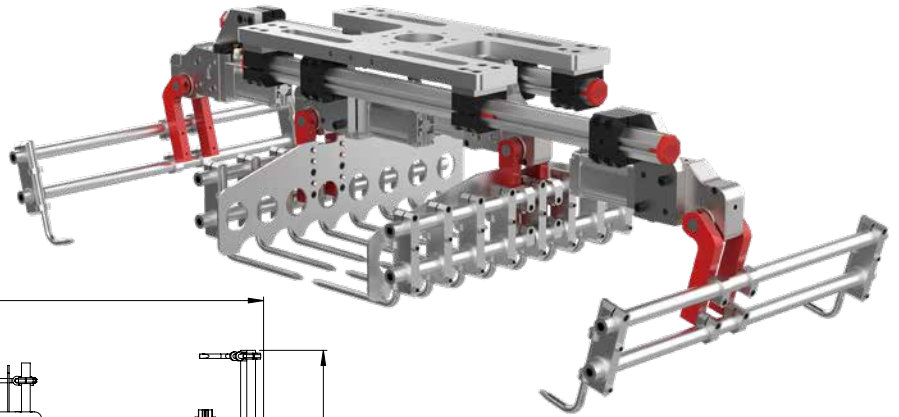
Note: mm/[Inches]

# PALLET PICK AND PLACE OPTION

Bag Gripping and Palletizing Solutions | Dimensions

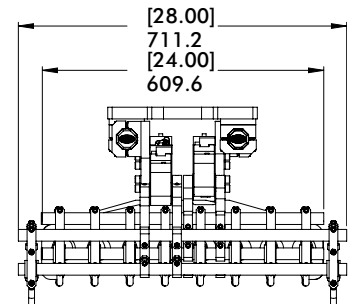
Model Number	Weight
<b>DBG50-2-PP</b>	[29 lb] 13 kg

Add to base model weight



Model Number	Weight
<b>DBG100-2-PP</b>	[48 lb] 22 kg

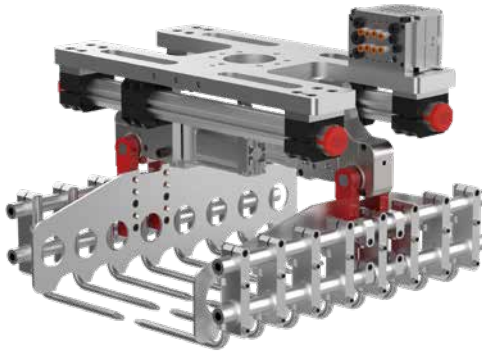
Add to base model weight



Note: mm/[Inches]

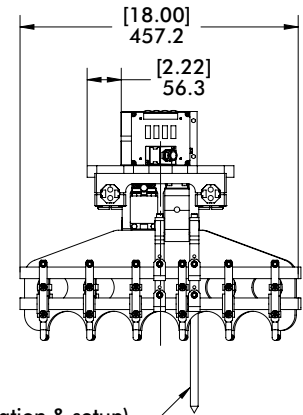
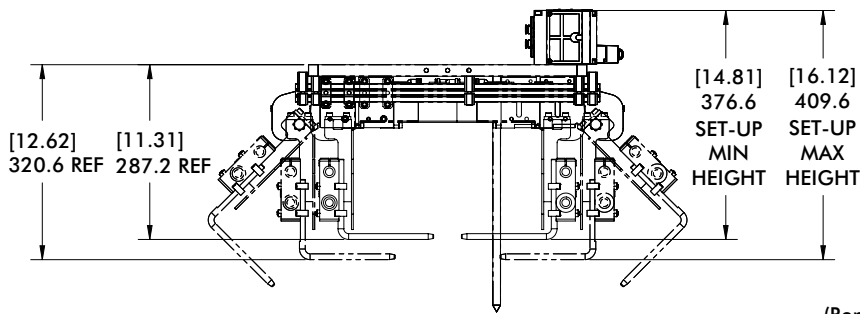
# CONTROLS AND VALVE PACKAGE OPTION

Bag Gripping and Palletizing Solutions | Dimensions



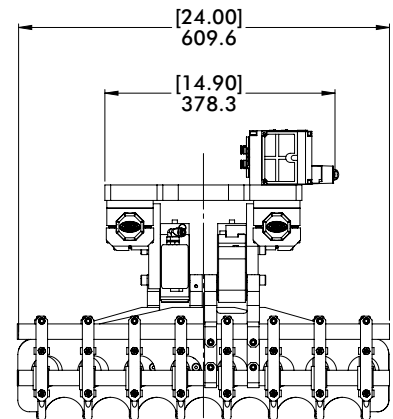
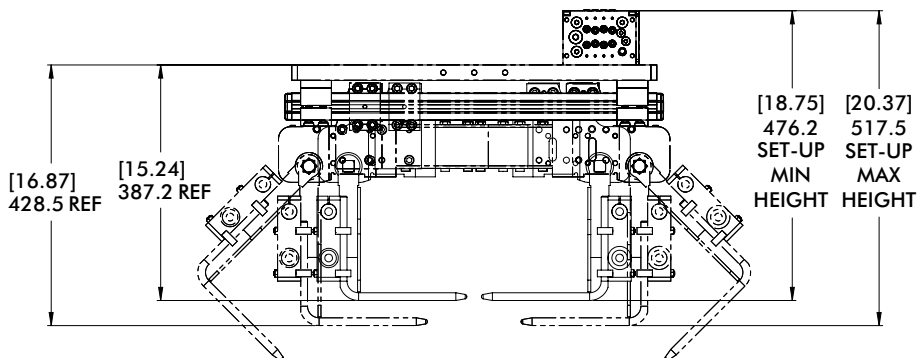
Model Number	Weight
<b>DBG50-2-CP</b>	[5 lb] 2.3 kg

Add to base model weight



Model Number	Weight
<b>DBG100-2-CP</b>	[5 lb] 2.3 kg

Add to base model weight



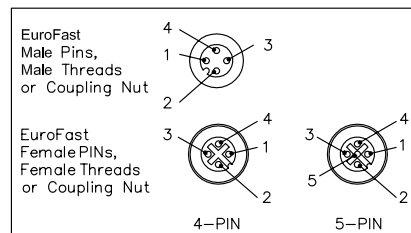
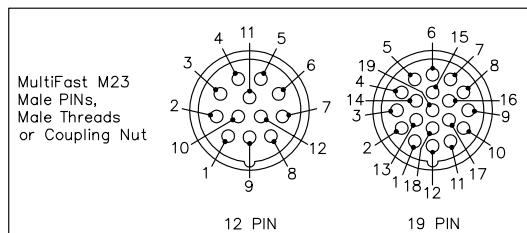
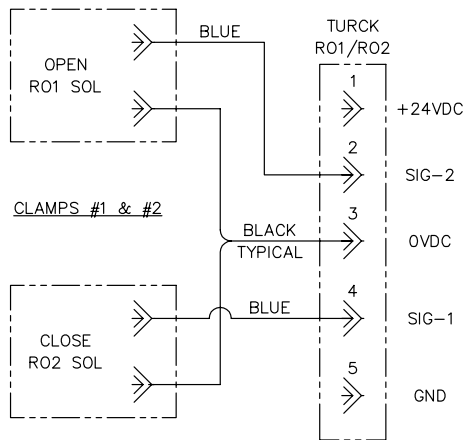
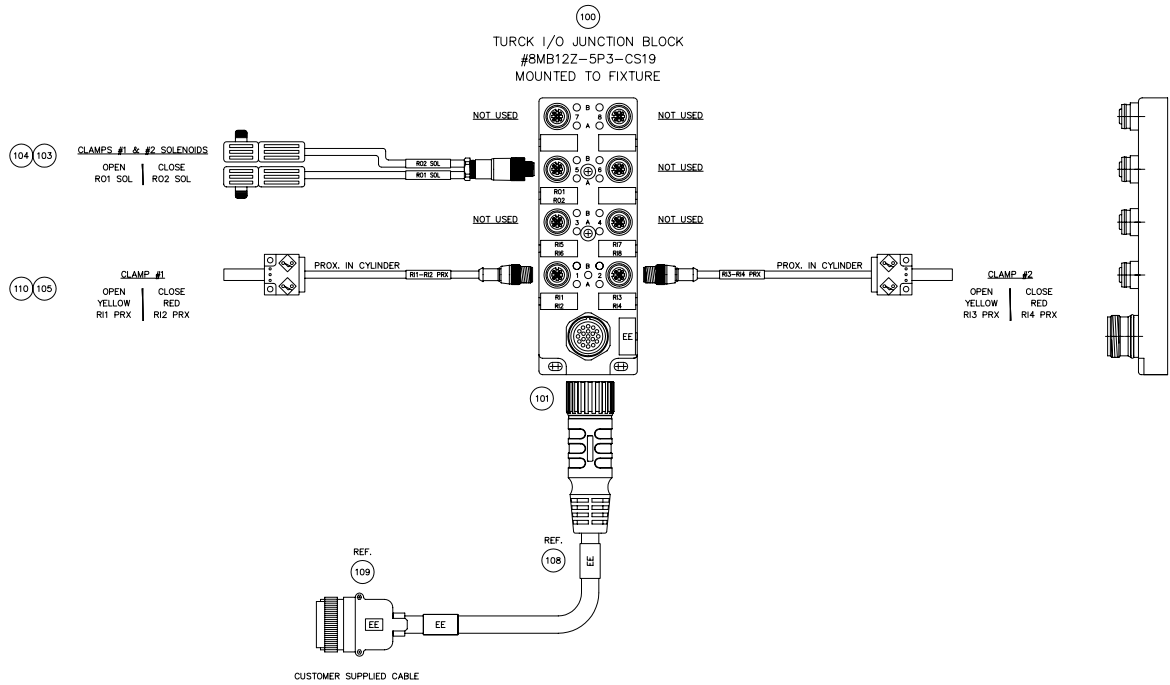
Note: mm/[Inches]



# DBG-2-CP-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications

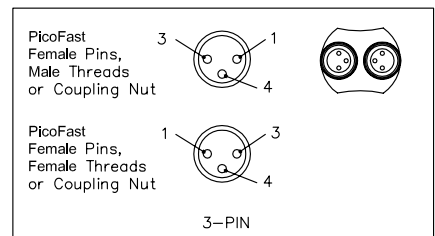
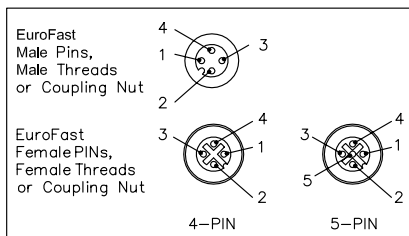
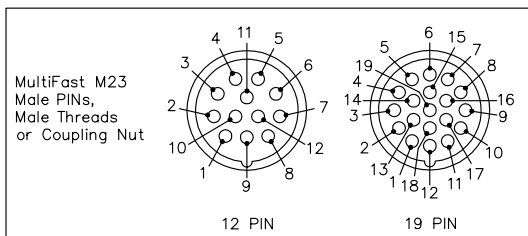
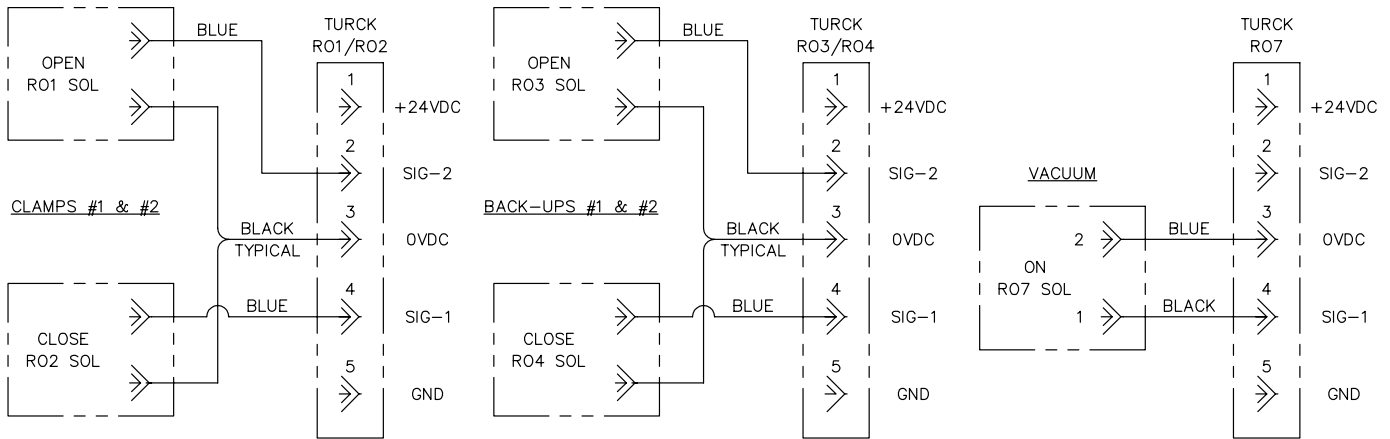
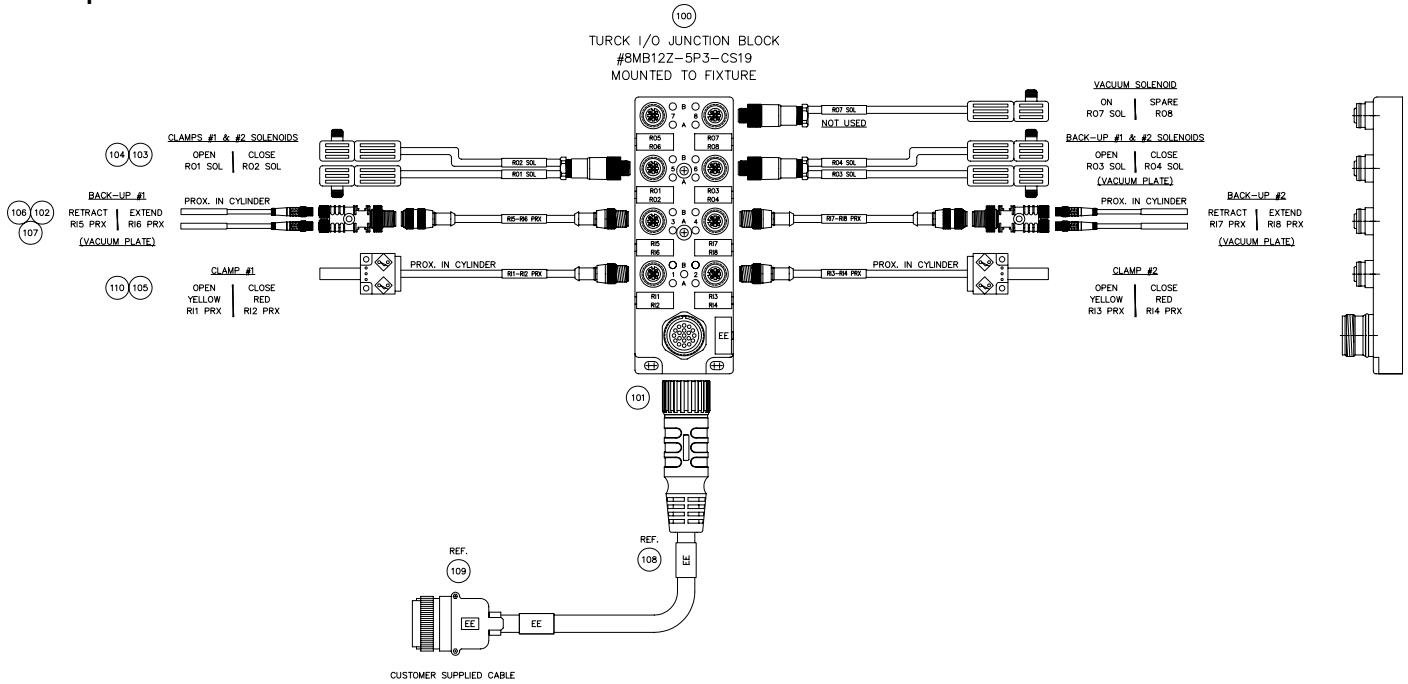
For Base Model



# DBG-2-CP-PU-SP-KIT CONTROL PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications

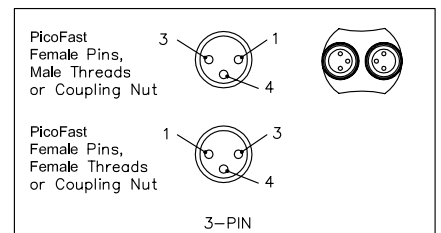
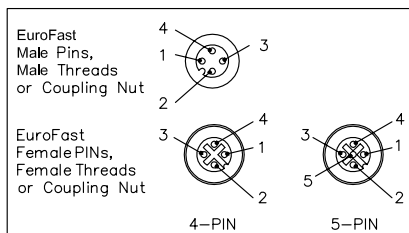
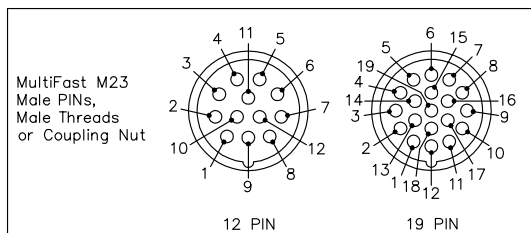
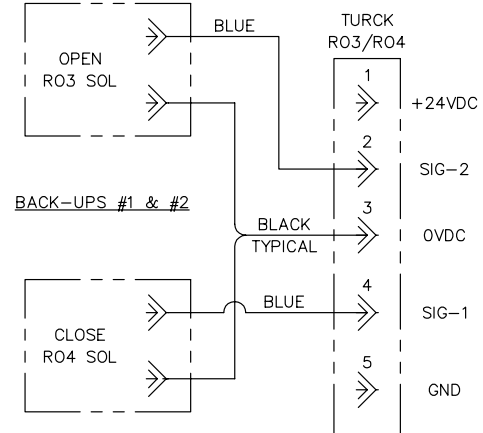
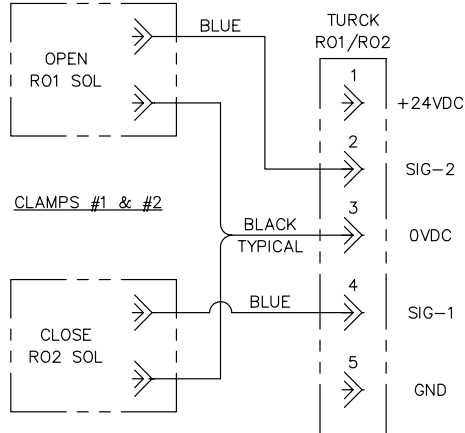
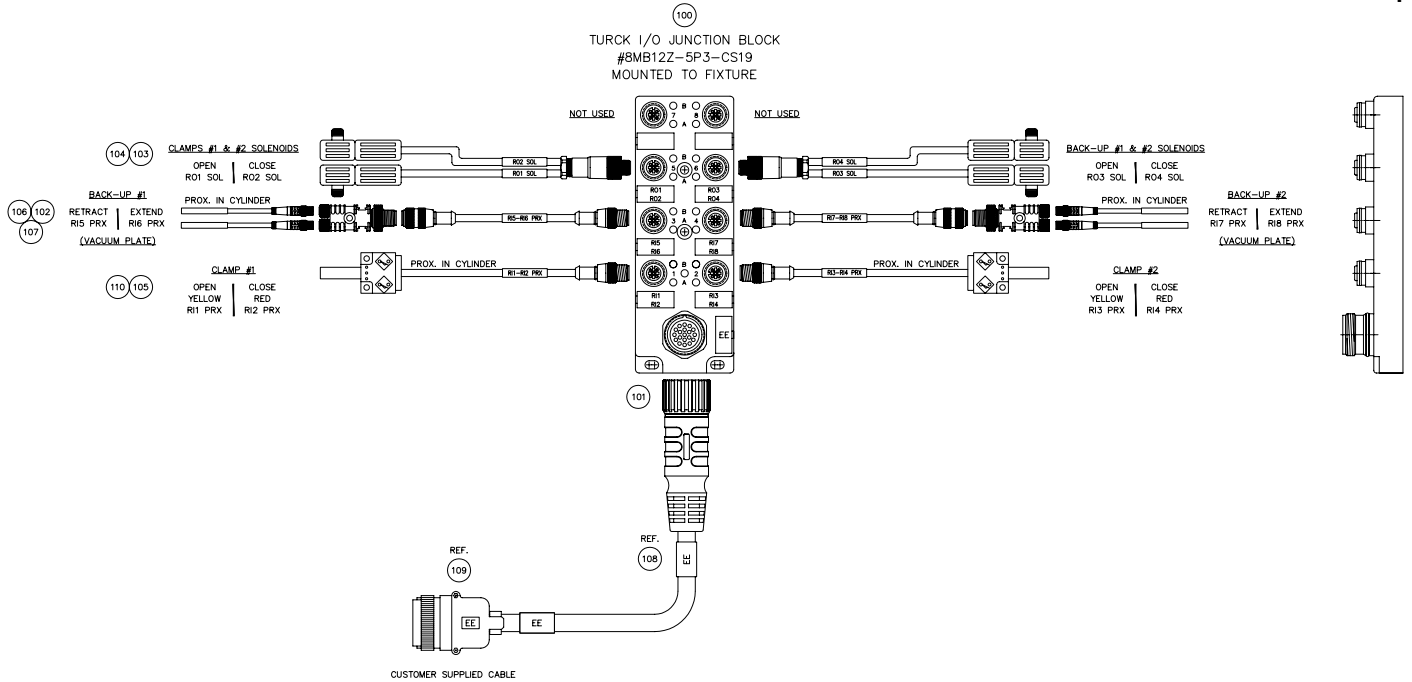
For Slip Sheet Pick and Place



# DBG-2-CP-PU-BU-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications

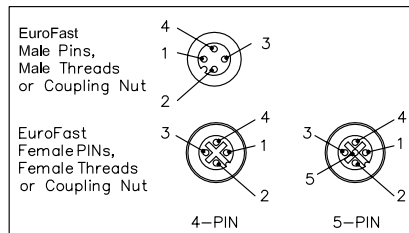
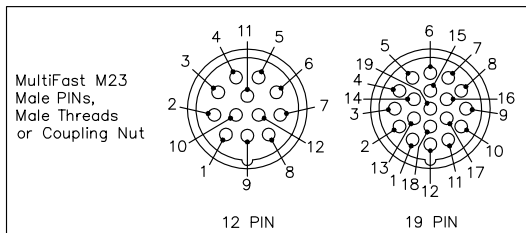
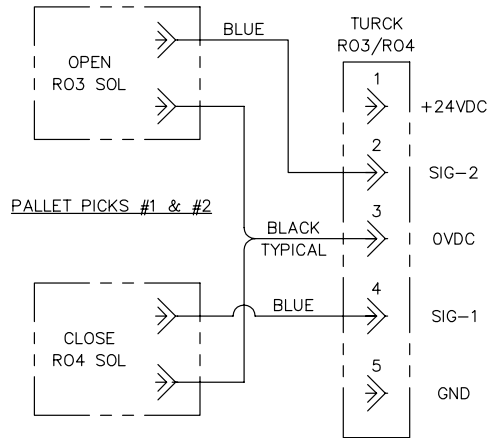
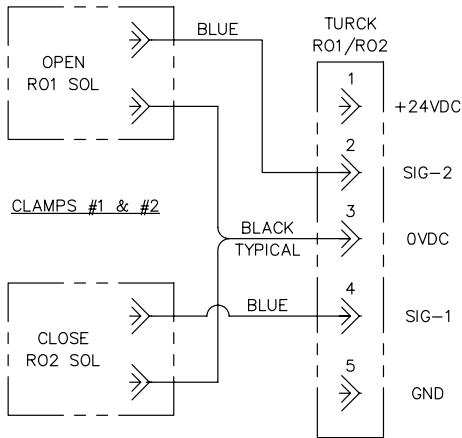
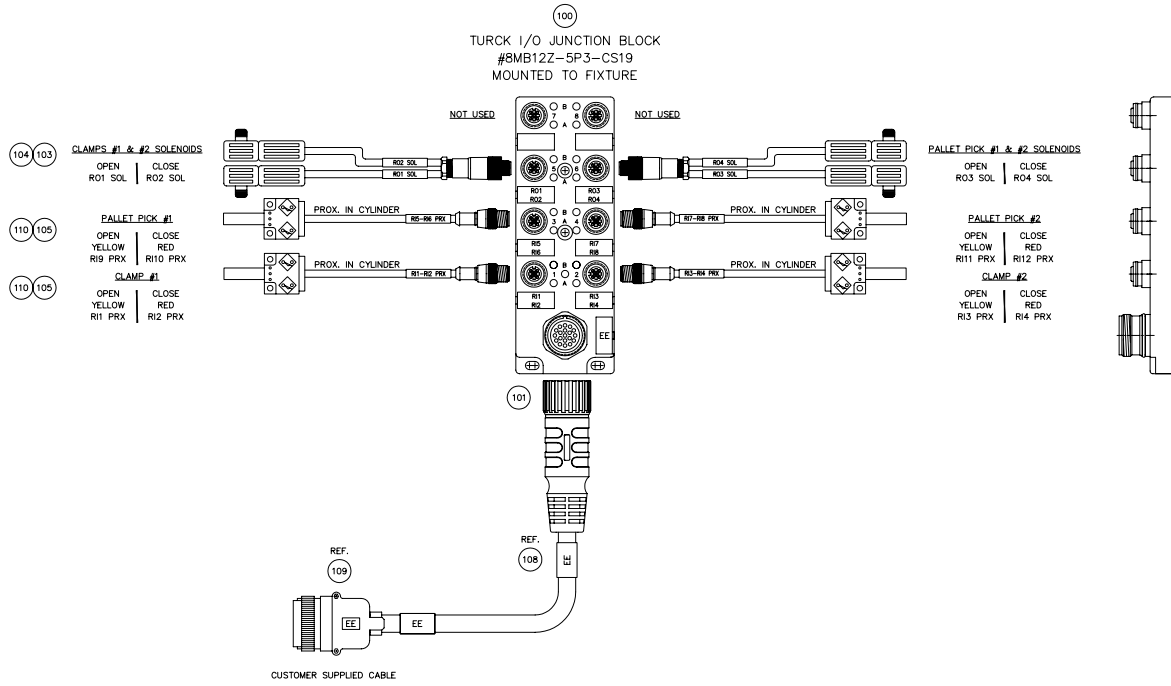
For Pneumatic Back-up



# DBG-2-CP-PP-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications

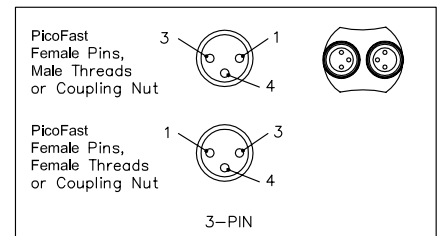
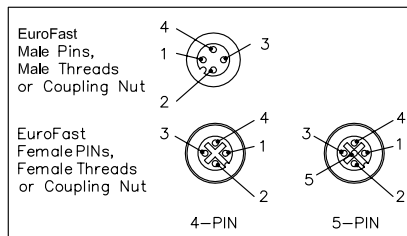
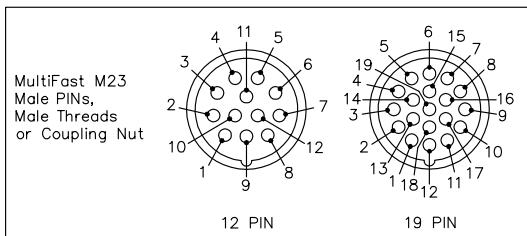
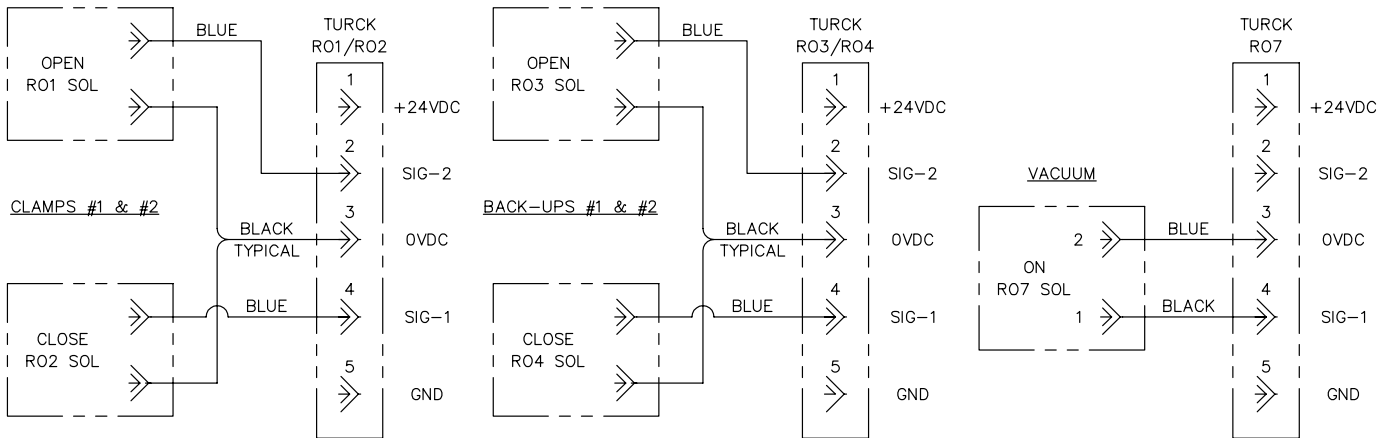
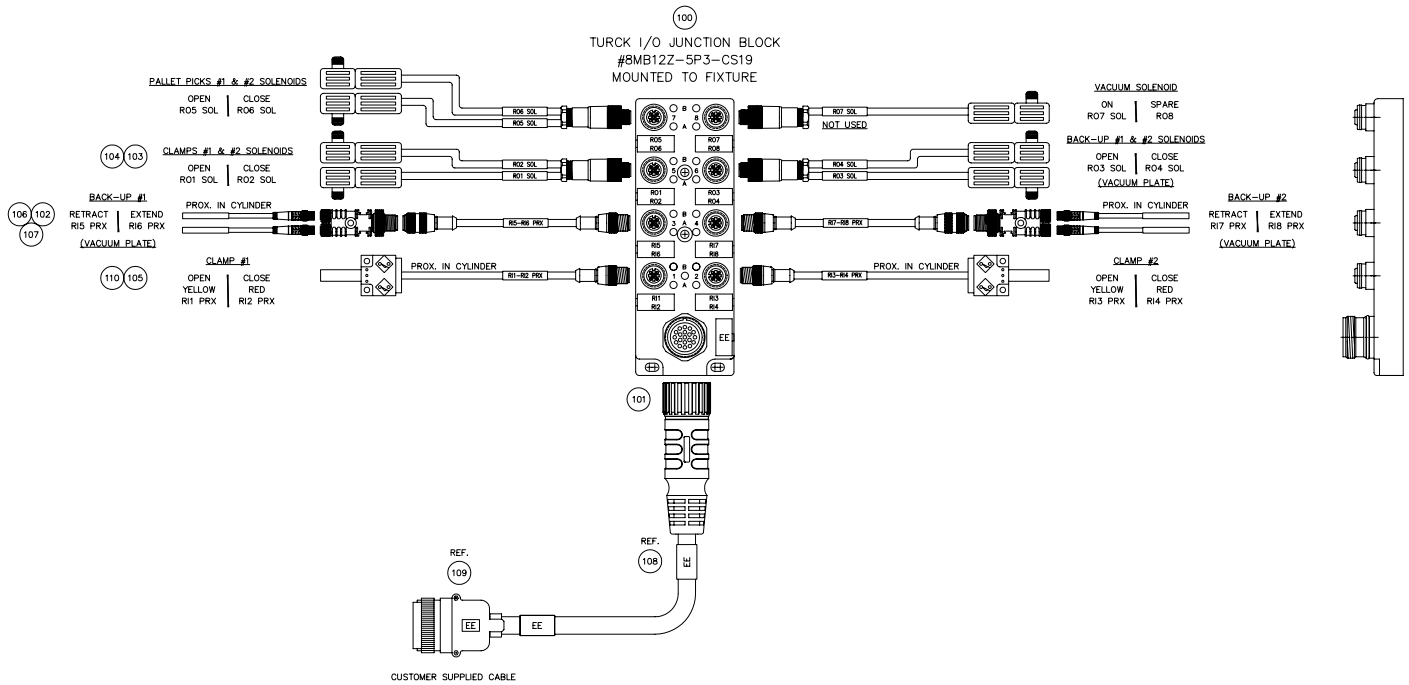
For Pallet Pick and Place



# DBG-CP-PU-SP-PP-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications

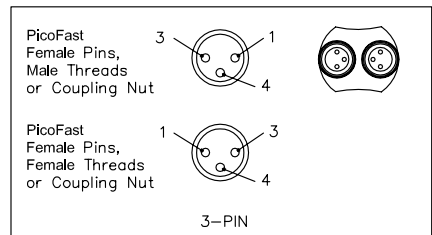
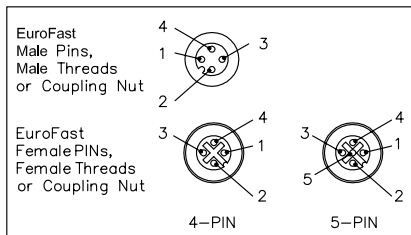
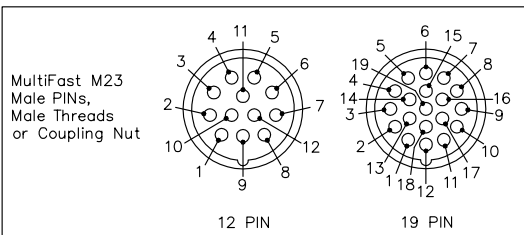
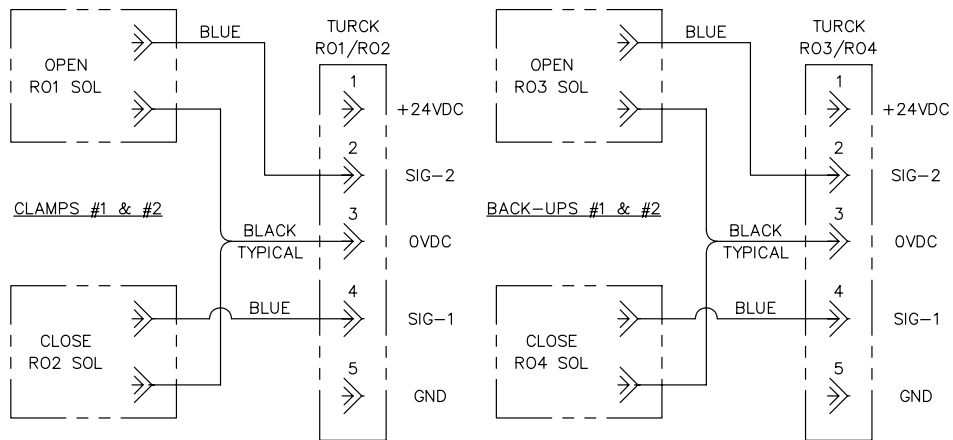
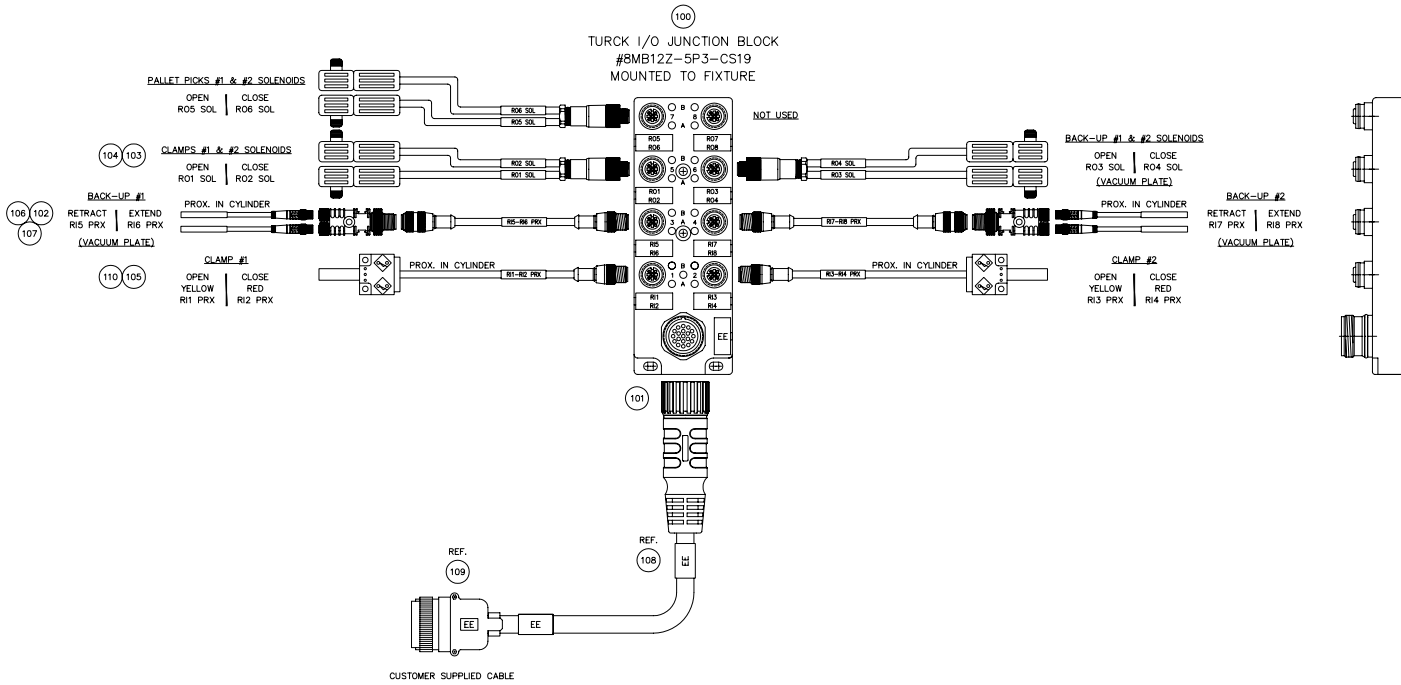
For Pallet Pick and Place/Slip Sheet Pick and Place



# DBG-CP-PU-BU-PP-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications

For Pallet Pick and Place/Pneumatic Back-up



# ROBOT STAND-OFF ADAPTOR

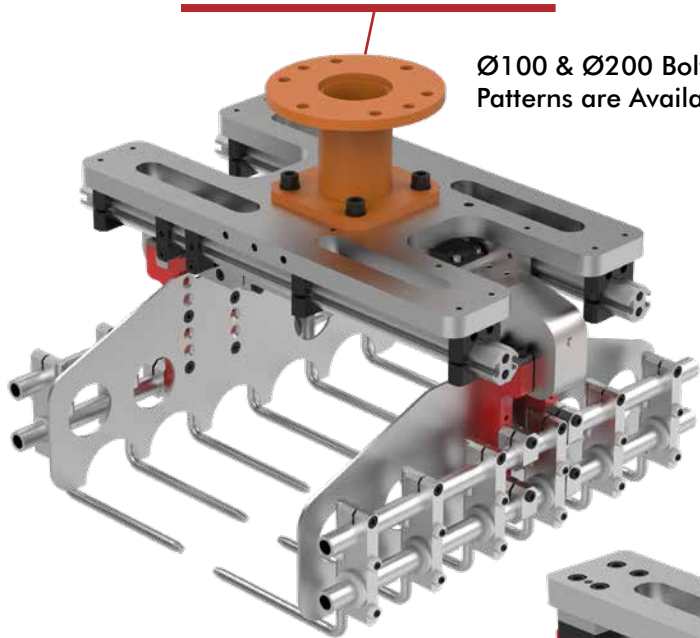
Bag Gripping and Palletizing Solutions | Product Overview

(Sold Separately)

- Aluminum welded construction
- Painted safety orange
- Available in 100, 125, 160 & 200mm bolt circles  
(Custom stand-offs available upon request)
- Bolts for mounting to bag gripper are included

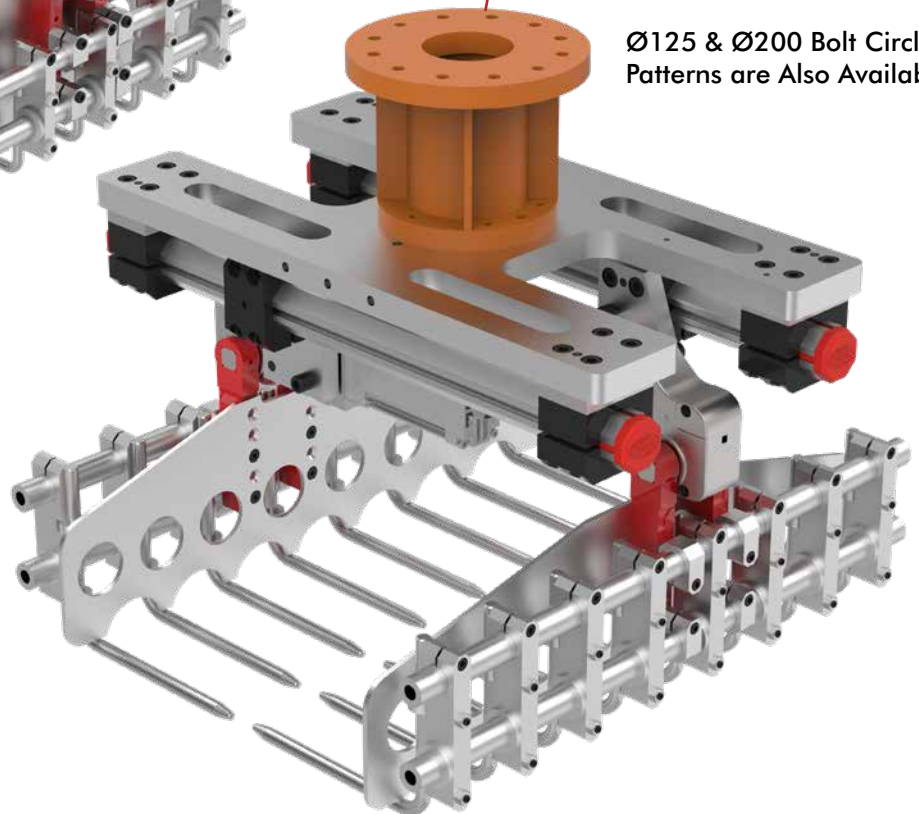
Robot Mount Stand-Off  
with  $\text{\O}125$  Bolt Circle Pattern  
DBG50-2-S04-125BC-KIT

$\text{\O}100$  &  $\text{\O}200$  Bolt Circle  
Patterns are Available



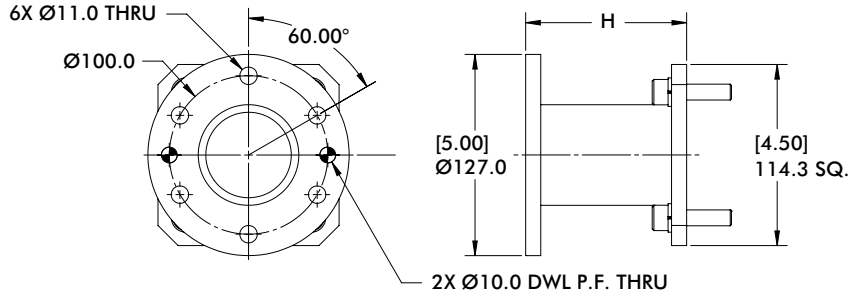
Robot Mount Stand-Off  
with  $\text{\O}160$  Bolt Circle Pattern  
DBG100-2-S04-160BC-KIT

$\text{\O}125$  &  $\text{\O}200$  Bolt Circle  
Patterns are Also Available



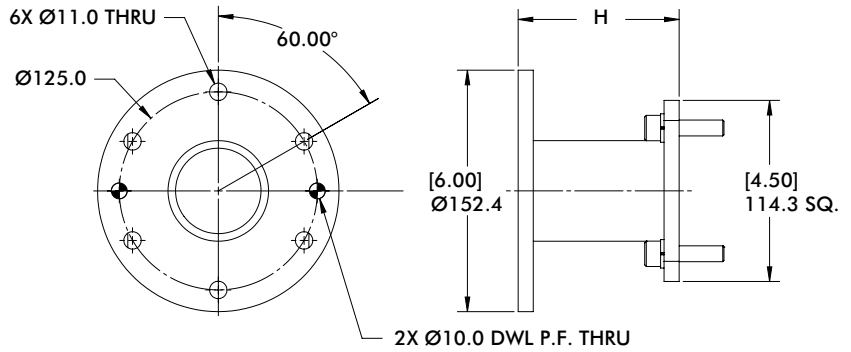
# ROBOT STAND-OFF ADAPTOR

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications



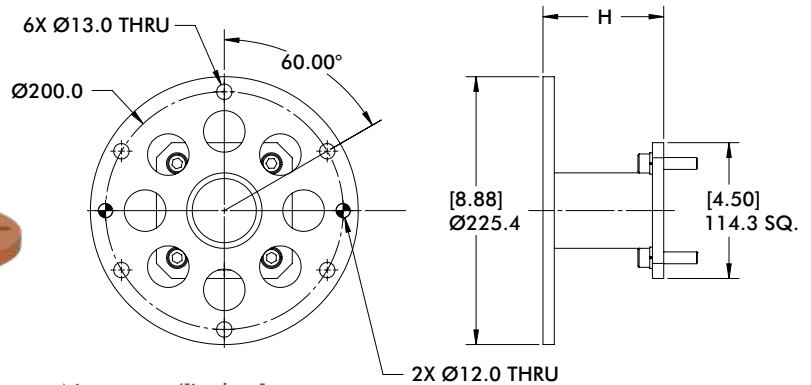
Material: Aluminum painted safety orange  
(4) M10 SHCS & Lock washers included

Model Number	H [inch]/mm	Weight
<b>DBG50-2-S04-100BC-KIT</b>	[4.00] 101.6	[4.8 lb] 2.2 kg
<b>DBG50-2-S06-100BC-KIT</b>	[6.00] 152.4	[5.5 lb] 2.5 kg



Material: Aluminum painted safety orange  
(4) M10 SHCS & Lock washers included

Model Number	H [inch]/mm	Weight
<b>DBG50-2-S04-125BC-KIT</b>	[4.00] 101.6	[5.7 lb] 2.6 kg
<b>DBG50-2-S06-125BC-KIT</b>	[6.00] 152.4	[6.5 lb] 2.9 kg



Note: mm/[Inches]

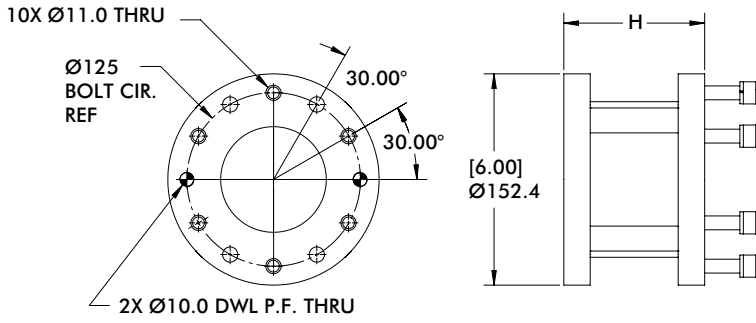
Material: Aluminum painted safety orange  
(4) M10 SHCS & Lock washers included

Model Number	H [inch]/mm	Weight
<b>DBG50-2-S04-200BC-KIT</b>	[4.00] 101.6	[7.9 lb] 3.6 kg
<b>DBG50-2-S06-200BC-KIT</b>	[6.00] 152.4	[8.7 lb] 3.9 kg



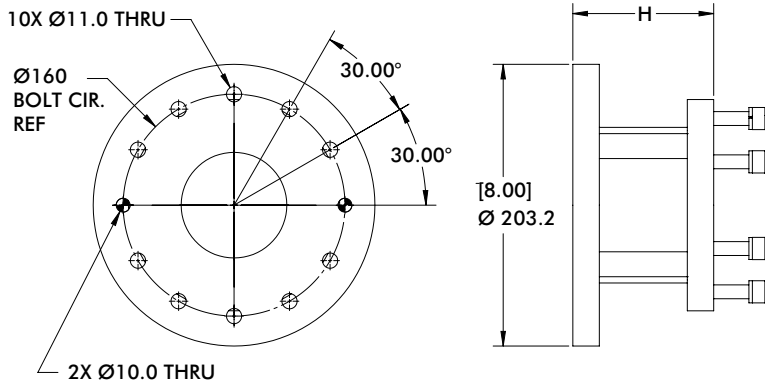
# ROBOT STAND-OFF ADAPTOR

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specifications



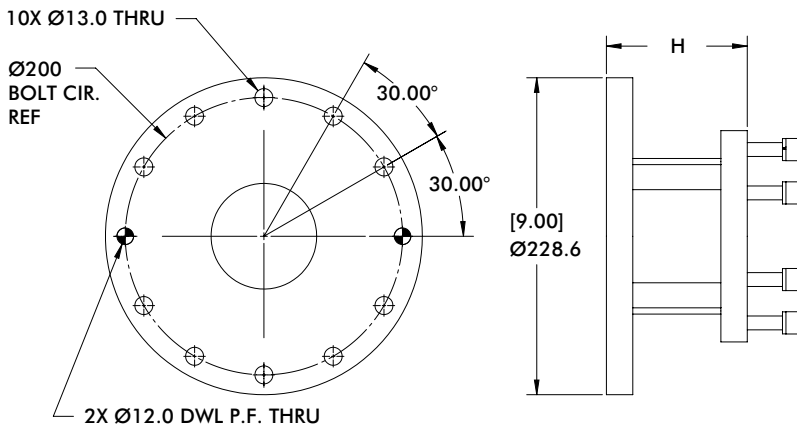
Model Number	H [inch]/mm	Weight
<b>DBG100-2-S04-125BC-KIT</b>	[4.00] 101.6	[4.4 lb] 2.0 kg
<b>DBG100-2-S06-125BC-KIT</b>	[6.00] 152.4	[5.2 lb] 2.4 kg

Material: Aluminum painted safety orange  
(6) M10 SHCS & Lock washers included



Model Number	H [inch]/mm	Weight
<b>DBG100-2-S04-160BC-KIT</b>	[4.00] 101.6	[6.0 lb] 2.7 kg
<b>DBG100-2-S06-160BC-KIT</b>	[6.00] 152.4	[6.8 lb] 3.1 kg

Material: Aluminum painted safety orange  
(6) M10 SHCS & Lock washers included



Note: mm/[Inches]

Model Number	H [inch]/mm	Weight
<b>DBG100-2-S04-200BC-KIT</b>	[4.00] 101.6	[6.9 lb] 3.1 kg
<b>DBG100-2-S06-200BC-KIT</b>	[6.00] 152.4	[7.7 lb] 3.5 kg

Material: Aluminum painted safety orange  
(6) M10 SHCS & Lock washers included

# DIE STORAGE BLOCKS, BASES AND ROLLERS

Die Components | Product Overview

DESTACO has developed special urethane compounds that have been incorporated into die storage blocks that were previously made using all steel construction. The use of DESTACO Urethane Die Storage Blocks greatly reduces scratching and damage to parts and die surfaces. Our Storage Blocks can mount directly to the die or, as an option, use our steel, double-hinge, swing-away bases.



## Ball Bearing Cushion Rollers

DESTACO Rollers are designed to meet the high performance needs of the industrial market. Available in cushion design where maximum protection from shock loads is required and noise, scratch and dent free service is a necessity. Rollers are made of oil and cut resistant neoprene and nitrile material, molded in four color coded durometers and are offered with or without stud mounting. DESTACO rollers protect your products!



Standard  
Roller



Roller  
with Bolt

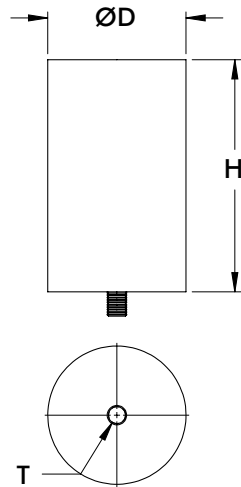
# DIE STORAGE BLOCKS AND BASES

Die Components | Dimensions | Technical Specifications

## Die Storage Blocks

### Features:

- Made of long-lasting 80 durometer red urethane
- Can remain in place when die is used
- Imperial and metric threads available

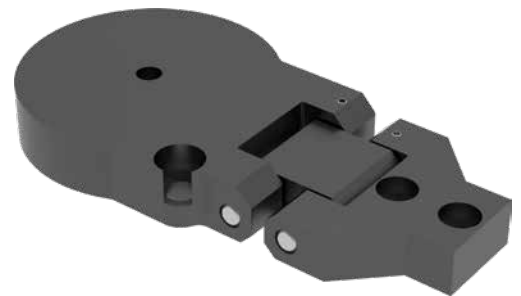
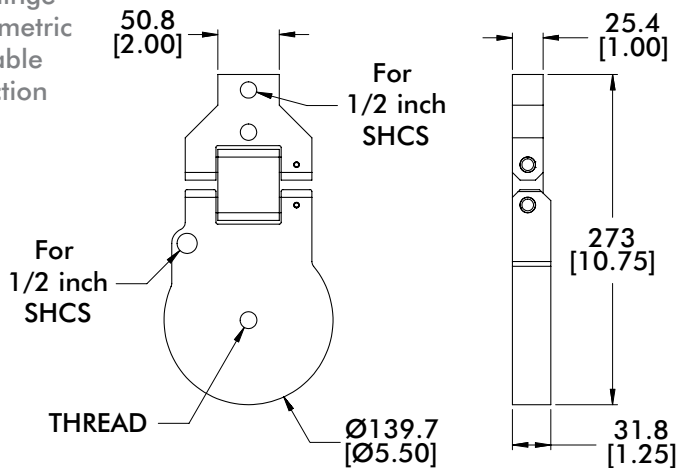


Model Number	D mm [in]	H mm [in]	T	Compressed Diameter mm [in]	Compressed Height mm [in]	Load Measured † [T]
<b>CPI-50-400-20M</b>	101.6 [4.00]	127.0 [5.00]	M20-2.5	120.7 [4.75]	79.5 [3.13]	4.5 [5.0]
<b>CPI-55-450-A</b>	114.3 [4.50]	139.7 [5.50]	5/8-11	130.2 [5.13]	101.6 [4.00]	6.8 [7.5]
<b>CPI-65-350-20M</b>	88.9 [3.50]	165.1 [6.50]	M20-2.5	114.3 [4.50]	127.0 [5.00]	4.5 [5.0]
<b>CPI-65-450-20M</b>	114.3 [4.50]			130.3 [5.13]	101.6 [4.00]	6.8 [7.5]
<b>CPI-65-450-A</b>			5/8-11			
<b>CPI-M-1443</b>	88.9 [3.50]	203.2 [8.00]	M16-2	Data Not Available	Data Not Available	Data Not Available
<b>CPI-M-1444</b>	114.3 [4.50]					

## Die Storage Base

### Features:

- Swing-out capability with double-hinge
- Imperial and metric threads available
- Steel construction



Model Number	Description	Thread
<b>CPI-65-450-BASE-DH</b>	Swing Away Base Double Hinged Only	5/8-11
<b>CPI-65-450-BASE-DH-20M</b>	Swing Away Base Double Hinged 20mm	M20-2.5

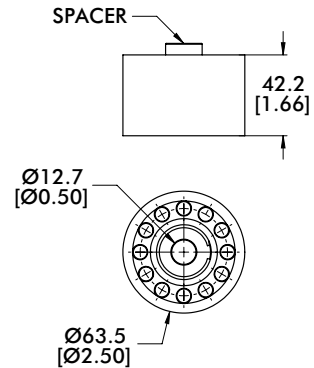
# BALL BEARING CUSHION ROLLERS

Die Components | Dimensions | Technical Specifications

## Ball Bearing Cushion Roller

### Features:

- DESTACO Cushion Rollers are assembled with free rolling ball bearings so they can be mounted per customer application.
- The cushion design dissipates shock to avoid damaging fragile parts.
- One size with four color coded durometers are available for your applications.

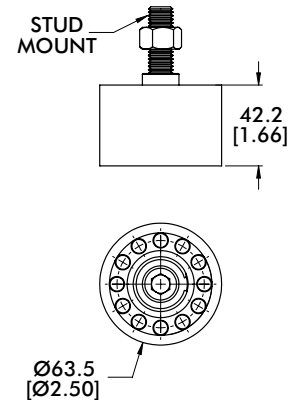


Model Number	Durometer	Color	Material Hardness	Normal Kg [lb]	Maximum Kg [lb]	Material	Weight g [lb]
CA-250-15	15	Tan	Soft	2.3 [5]	4.5 [10]	Neoprene	136 [0.3]
CA-250-30	30	Green	↕	4.5 [10]	9.1 [20]	Nitrile	
CA-250-45	45	Red		6.8 [15]	13.6 [30]		
CA-250-60	60	Black	Hard	9.1 [20]	18.1 [40]		

## Ball Bearing Cushion Roller with Stud Mount

### Features:

- DESTACO Stud Mounted Cushion Rollers are assembled with a bolt, nut and spacer for mounting to accessory brackets.



Model Number	Durometer	Color	Material Hardness	Recommended Load		Material	Weight g [lb]
				Normal Kg [lb]	Maximum Kg [lb]		
CPI-CA-250-15	15	Tan	↕	2.3 [5]	4.5 [10]	Neoprene	316 [0.7]
CPI-CA-250-15-ME	15						159 [0.35]
CPI-CA-250-15-NB	15	Green	↕	4.5 [10]	9.1 [20]	Nitrile	316 [0.7]
CPI-CA-250-30	30						
CPI-CA-250-45	45						
CPI-CA-250-60	60	Black	Hard	9.1 [20]	18.1 [40]		

Model Number	Spacer	Bolt	Nut
CPI-CA-250-15	3/4 in. OD x 1/2 in. ID x 3/4 Length	SHCS 1/2-13 x 2 3/4	1/2-13 Locknut
CPI-CA-250-15-ME		SHCS M12-1.75 x 90mm	M12 Hex Nylock
CPI-CA-250-15-NB		No Bolt	No Nut
CPI-CA-250-30			
CPI-CA-250-45		SHCS 1/2-13 x 2 3/4	1/2-13 Locknut
CPI-CA-250-60			





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