

Sheet Metal Gripper Products

04/11/2022

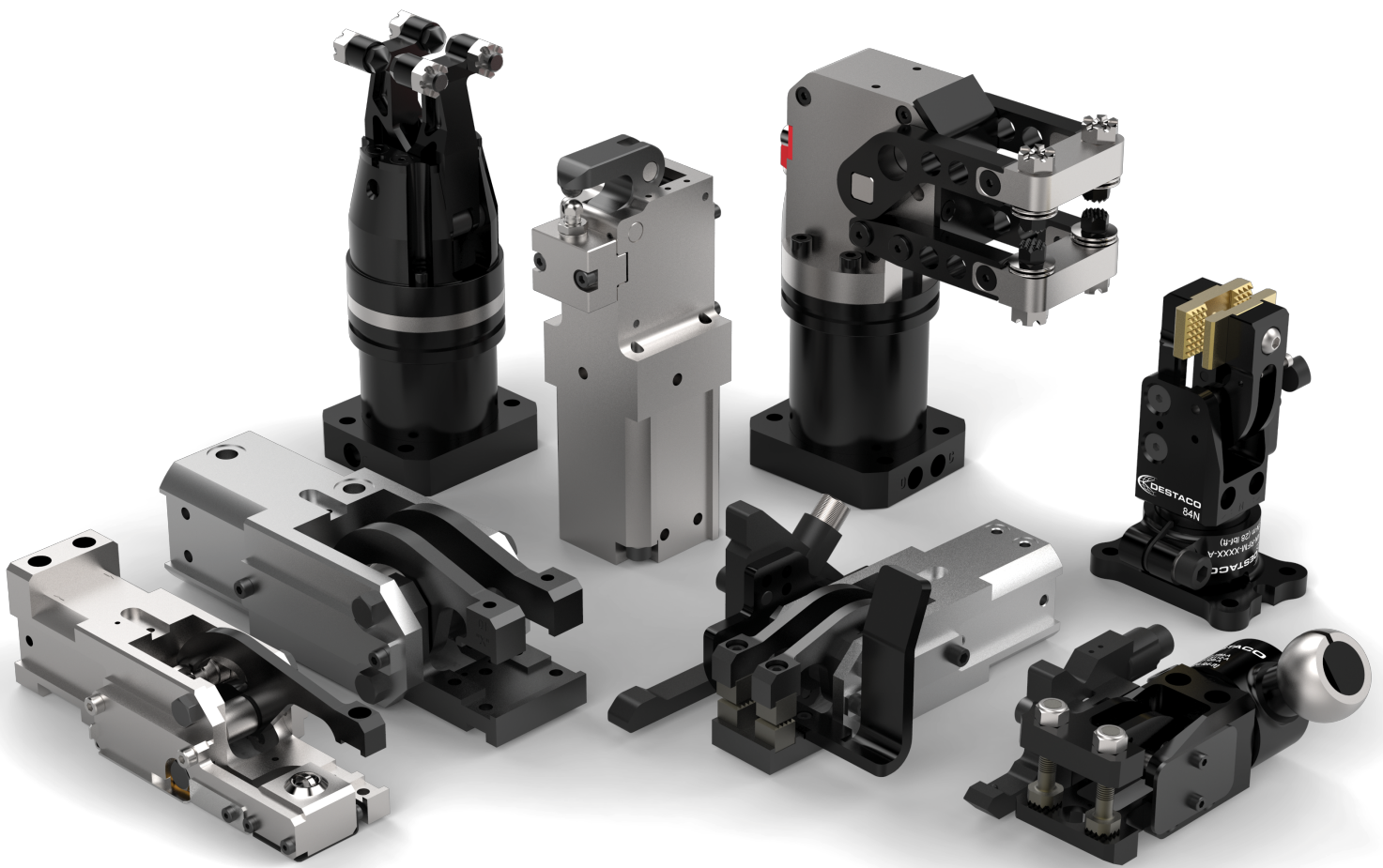


Motion & Flow Control Products

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Sheet Metal Gripper Products

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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Sheet Metal Gripper Products

04/11/2022

Table of Contents (continued)

SHEET METAL GRIPPERS

Product Features and Benefits



84N Accelerate® Press Shop Grippers

- 3 compact, lightweight styles
- Fixed tip and adjustable tip models
- Straight, chisel and 90° jaw options
- 30°, 45°, 60° and 75° jaw openings (84N1/N2)
- 15° to 75° field adjustable jaw openings (84N5)
- Flexible mounting options
- Zero protrusion fixed lower jaw



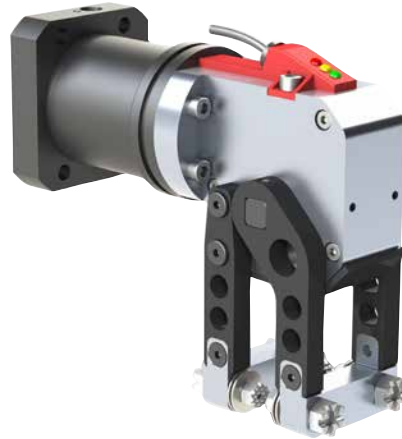
84A and 84L Cam-Actuated Grippers

- 5 styles with multiple jaw opening, points, and mounting options
- High speed material movement in restricted spaces
- Fixed and moveable lower jaw styles available
- Roller and cam principal, self-locking at end stop position



GR84 Enclosed Modular Mini-Clamp Toggle-Lock Gripper

- Offered with several different jaw and tip options
- Can be flange or cylinder mounted
- Easy field-adjustable jaw opening
- Toggle locking mechanism holds the part if air pressure is lost
- Enclosed design protects from contaminants



GR1 Modular Toggle-Lock Grippers

- 2 cylinder sizes, 15 and 20 Series
- Can be flange or cylinder mounted
- Offered with several different jaw opening and point options
- Toggle locking mechanism holds the part if air pressure is lost



SHEET METAL GRIPPERS

Sizing and Application Chart

Series	Page SG-XXX-#	Clamping Force @ 5bar [72psi] N [lbf]		Opening Angles													Lower																		
		Less than 100 [22]	100 to 250 [22.5 to 56]	250 to 500 [56 to 112]	500 to 750 [112 to 169]	750 to 1000 [169 to 225]	1000 to 1600 [225 to 360]	1600 to 2000 [360 to 360]	30°	45°	60°	62°	68°	72°	75°	76°	80°	90°	180°	15°-75° (User Adjustable)	15° (Limited Jaw Movement)	Cam-Actuated Mechanism	Toggle-Locking Mechanism	Fixed Lower Jaw	Moveable Lower Jaw	Symmetrical Jaw Movement	Chisel Jaw	90°/Right Angle Jaw	Double Tips Jaw Option	Single Tips Jaw Option	Right or Left Jaw Available	Adjustable Tips	High Temperature		
84N1	PRG-1	●	●					●	●	●					●						✓	✓			✓	✓	✓	✓	✓	✓	✓				
84N2	PRG-9	●	●					●	●	●					●						✓	✓			✓	✓	✓								
84N5	PRG-17														●				●		✓	✓	✓	✓	✓	✓	✓								
84A2*	CTG-1		●	●				●	●					●						●	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
84A3-3	CTG-25			●	●			●	●	●										●	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
84A5-1	CTG-45					●	●	●	●												●	✓	✓	✓	✓		✓					✓			
84L2-1	CTG-51	●									●										✓	✓					✓	✓	✓						
84L3-2	CTG-57	●									●										✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	
GR84-15	TGL-1		●	●				●		●												✓	✓				✓	✓					✓		
GR1-15	TGL-17		●	●					●													✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GR1-20	TGL-39		●																			✓	✓	✓	✓		✓						✓		

*Clamping Force @ 6 bar [87 psi]

84N1 SERIES

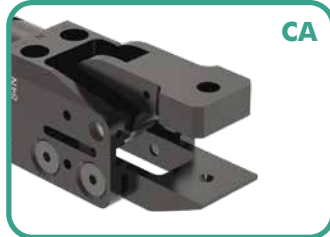
Accelerate® Press Shop Sheet Metal Grippers | Ordering Information



Ports	Description
N	1/8 NPT
G	1/8 BSPP

Opening Angle	Description
030	30° Opening Angle
045	45° Opening Angle
060	60° Opening Angle
075	75° Opening Angle

Jaw Style/ Tip Mount	Description
FA	Fixed Lower 0° Jaw, Single Tip Mount
FC	Fixed Lower 0° Jaw, Double Tip Mount
CA	Fixed Lower Chisel Jaw, Single Tip Mount
CC	Fixed Lower Chisel Jaw, Double Tip Mount
CS	Fixed Lower Chisel Jaw, Double Tip w/Sensor Mount
PC	Fixed Lower 90° Jaw, Double Tip Mount



Specifications:

See page SG-PRG-8 for technical specifications.

Mounting options are ordered separately:

Please refer to mounting options on pages SG-PRG-5 to 6 for mounting style and part number.

84N1 SERIES

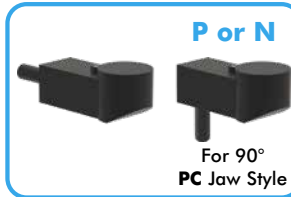
Accelerate® Press Shop Sheet Metal Grippers | Ordering Information

Part Presence Detection

0
P
N

Description

None
PNP
NPN



4mm Sensing Range

Sheet Stops

0
1

Description

None
Included



Left Sensor Side Mount

0
1
2
3

Description

None
Dual Magnetoresistive PNP Sensors Left Side
Dual Magnetoresistive NPN Sensors Left Side
Infrared PNP Sensing (not available for PC jaw style)

Right Sensor Side Mount

0
1
2
3

Description

None
Dual Magnetoresistive PNP Sensors Right Side
Dual Magnetoresistive NPN Sensors Right Side
Infrared PNP Sensing (not available for PC jaw style)

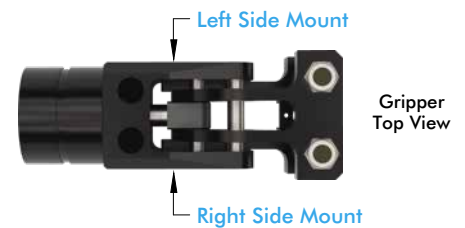


0.4 mm Double blank minimum per sheet thickness

Tips

Description

- 00 None
- 01 Serrated Tip (for all Jaw Styles except FA)
- 02 Serrated Tip (for FA Jaw Style only)
- 03 Point Tip
- 04 Peen Tip
- 05 Polyurethane Tip (Durometer 70A)



Description	Part Number	Single Tip Jaw	Double Tip Jaw
Polyurethane Tip	8JD-1005-1	Yes	Yes
Point Tip	8JD-1001-1	Yes*	Yes
Serrated Tip	8JD-1002-1	Yes*	Yes
Peen Tip	8JD-1003-1	Yes*	Yes
Serrated Notched Top (for Jaw Style FA only)	8JD-1004-1	Yes	No

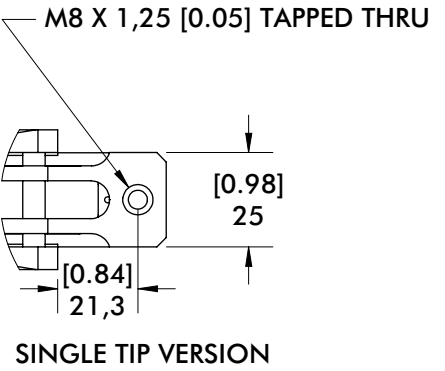
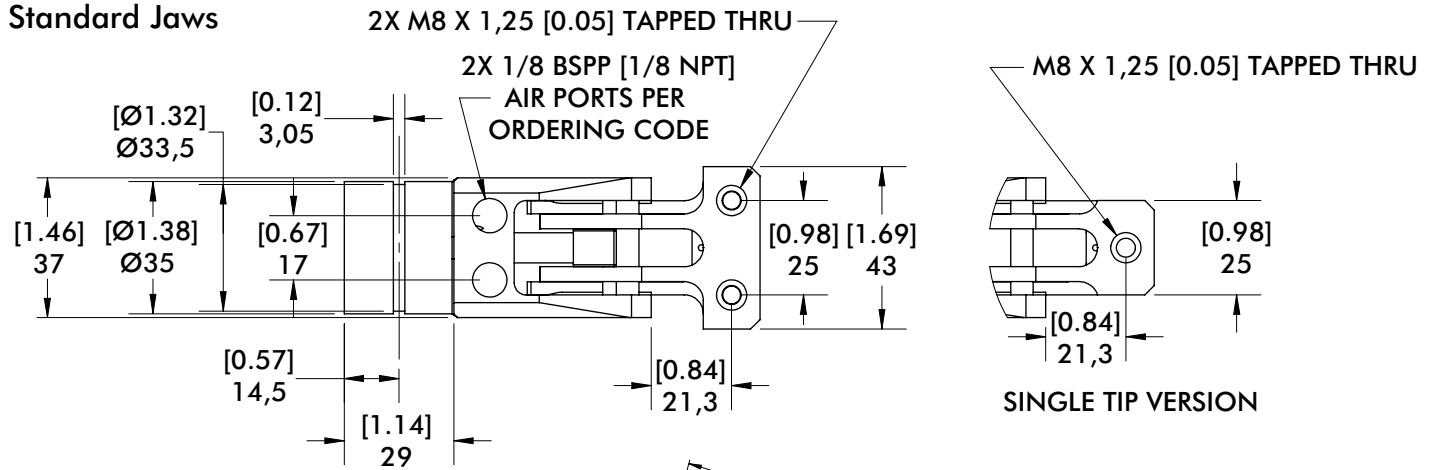
*These options will work on single tip jaws but WILL activate the part present sensor which will result in a false positive if that option is used.

Customer is responsible for final adjustments and tightening of all accessory mounting screws.

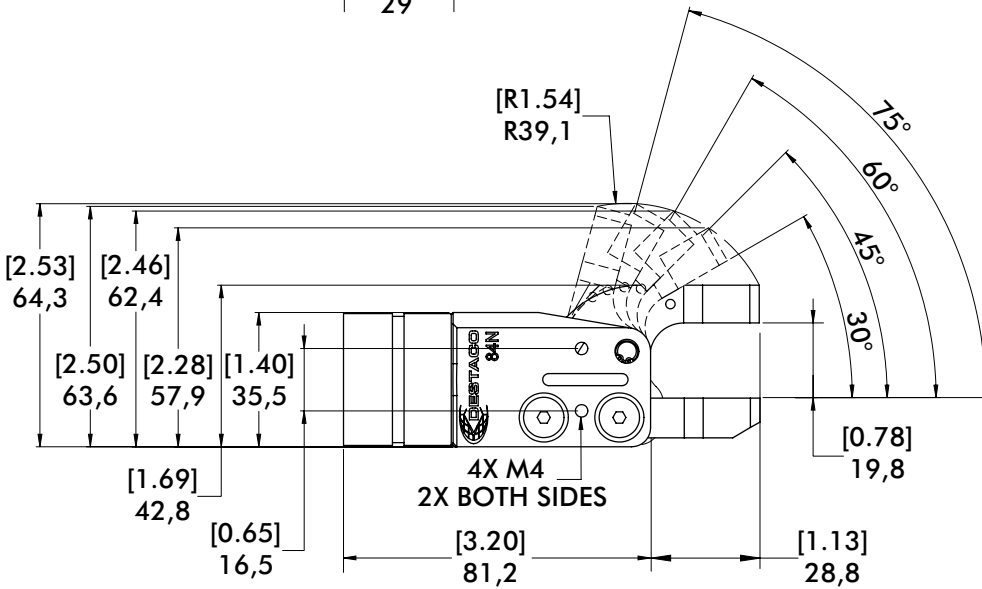
84N1 SERIES

Accelerate® Press Shop Sheet Metal Grippers | Dimensions

Standard Jaws



SINGLE TIP VERSION

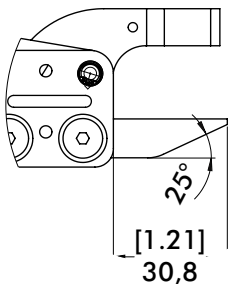


Single Tip

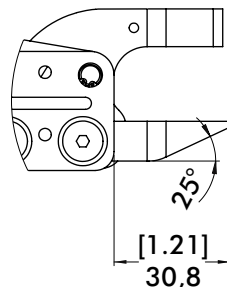


Double Tip

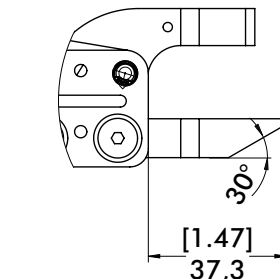
Chisel Jaws



SINGLE TIP VERSION



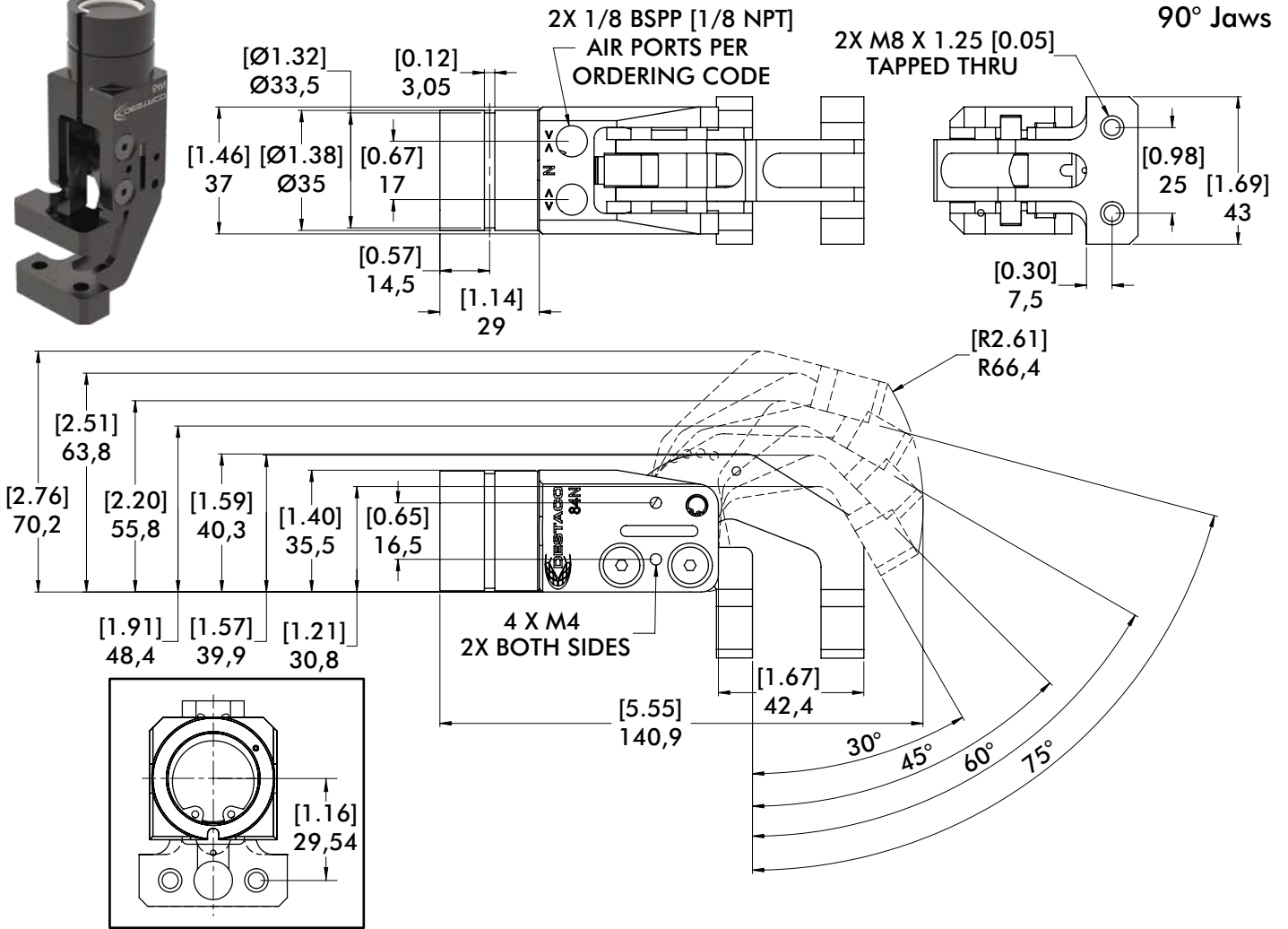
DOUBLE TIP VERSION



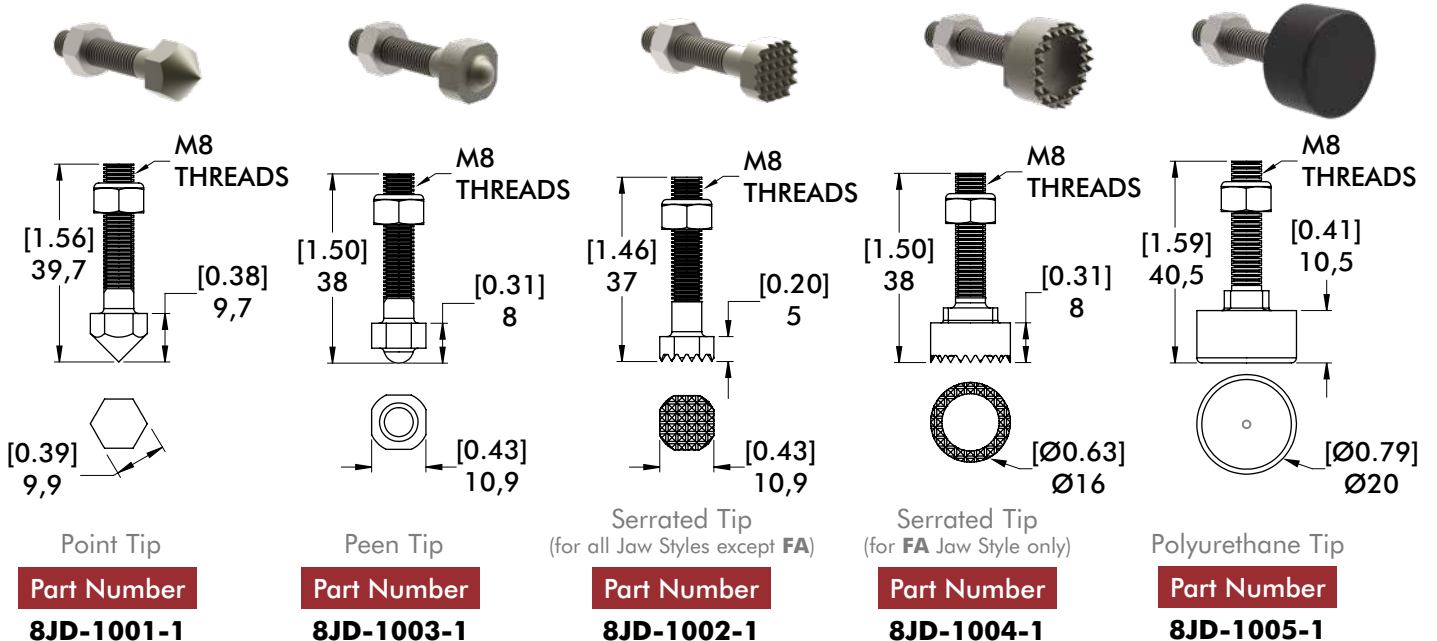
DOUBLE TIP VERSION
PART PRESENCE SENSOR READY

84N1 SERIES

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information



Jaw Tip Options



84N1 MOUNTS

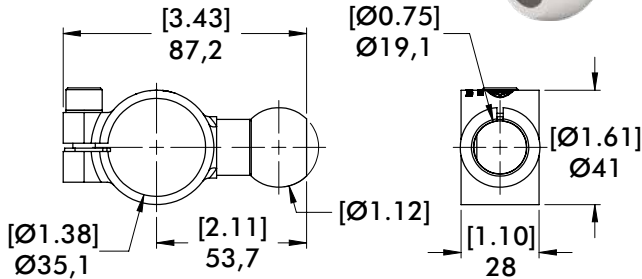
Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

Side Ball and Apple Core Gripper Mounts

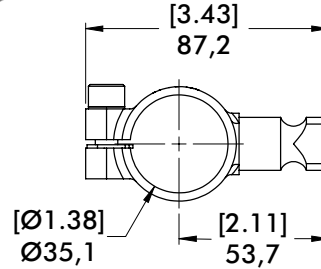
Side Ball



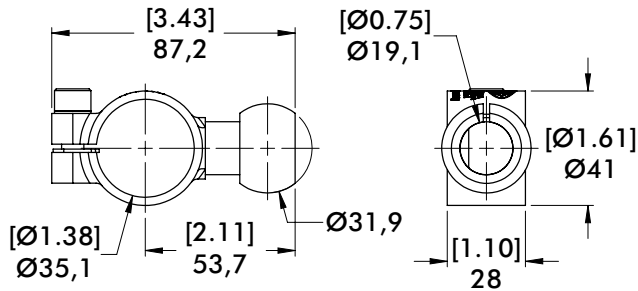
Apple Core



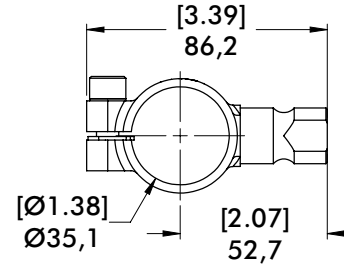
GT-84N1-B112-A



GT-84N1-19M-A

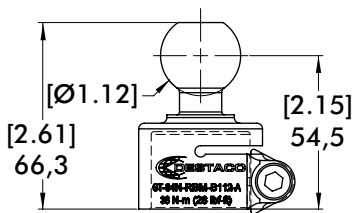


GT-84N1-32B-A

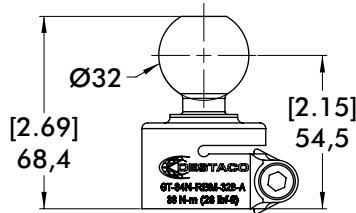


GT-84N1-20M-A

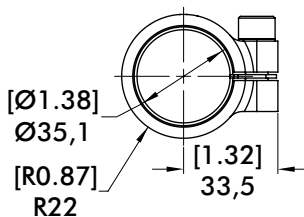
Rear Ball and Flange Gripper Mounts



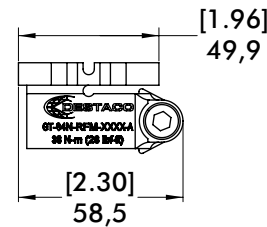
GT-84N-RBM-B112-A



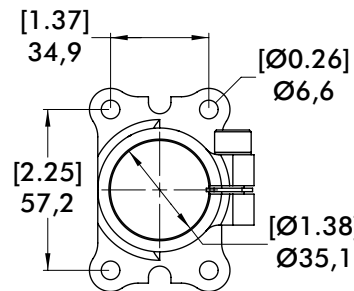
GT-84N-RBM-32B-A



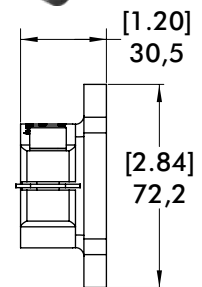
Rear Ball



Rear Flange



GT-84N-RFM-2213-A



Side Ball and Apple Core

- 1.125 in. (28.5mm) Side Ball
- 32mm Side Ball
- 19mm Applecore
- 20mm Applecore

Part Number

- GT-84N1-B112-A**
- GT-84N1-32B-A**
- GT-84N1-19M-A**
- GT-84N1-20M-A**

Rear Ball and Flange

- 1.125 in. (28.5mm) Rear Ball
- 32mm Rear Ball
- Rear Flange

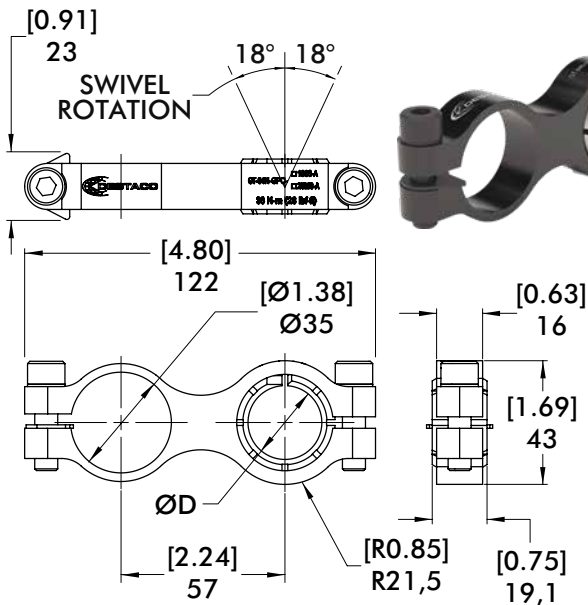
Part Number

- GT-84N-RBM-B112-A**
- GT-84N-RBM-32B-A**
- GT-84N-RFM-2213-A**

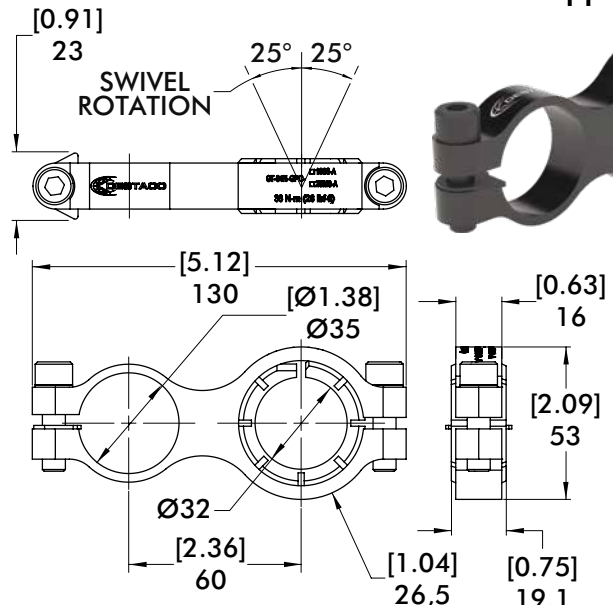
84N1 MOUNTS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

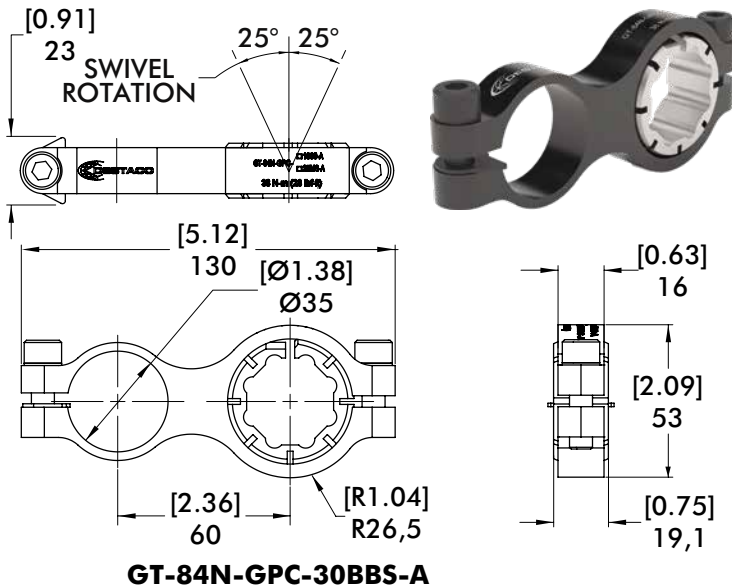
Parallel Swivel Gripper Mount



ØD=1.00 in. **GT-84N-GPC-100S-A**
 ØD=25mm **GT-84N-GPC-25MS-A**



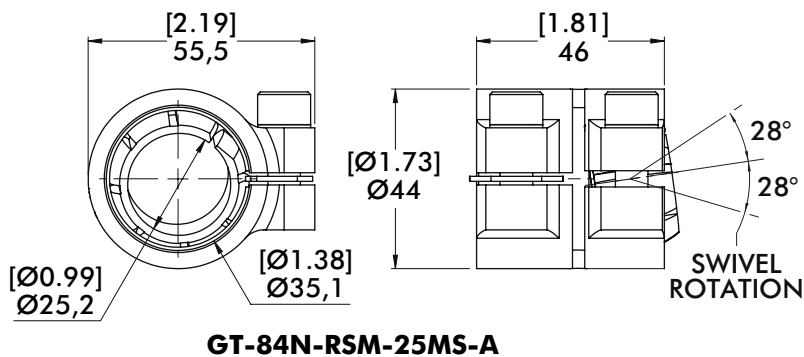
GT-84N-GPC-125S-A



GT-84N-GPC-30BBS-A

Parallel Swivel Mount	Part Number
1" Swivel Mount	GT-84N-GPC-100S-A
1-1/4" Swivel Mount	GT-84N-GPC-125S-A
25mm Swivel Mount	GT-84N-GPC-25MS-A
30mm Body Builder Swivel Mount	GT-84N-GPC-30BBS-A

Rear Clamp Swivel Mount



GT-84N-RSM-25MS-A

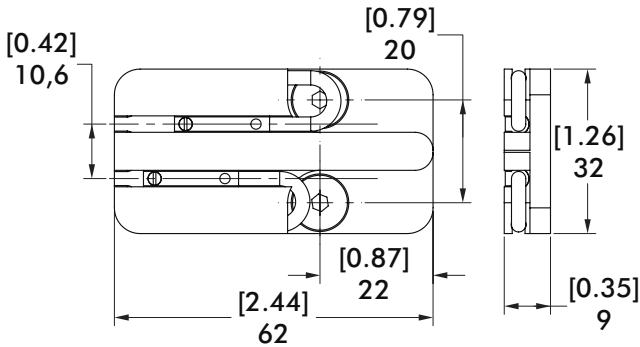


Rear Swivel Mount	Part Number
25mm Swivel Mount	GT-84N-RSM-25MS-A

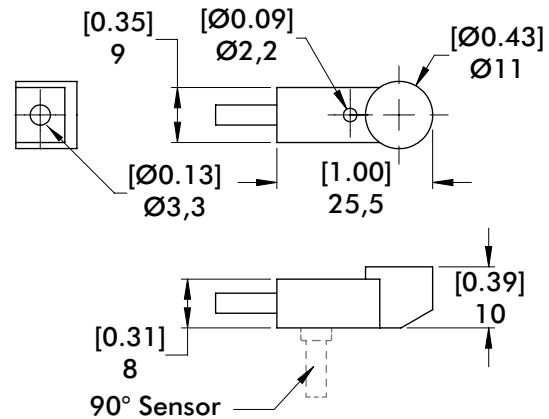
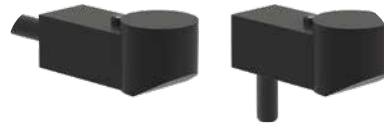
84N1 SENSING OPTIONS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

Side Mount Magneto-resistive Sensor



Jaw Part Present Sensor

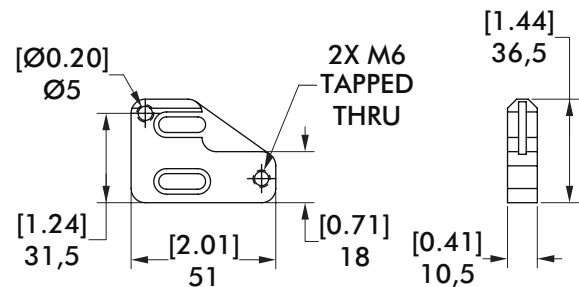
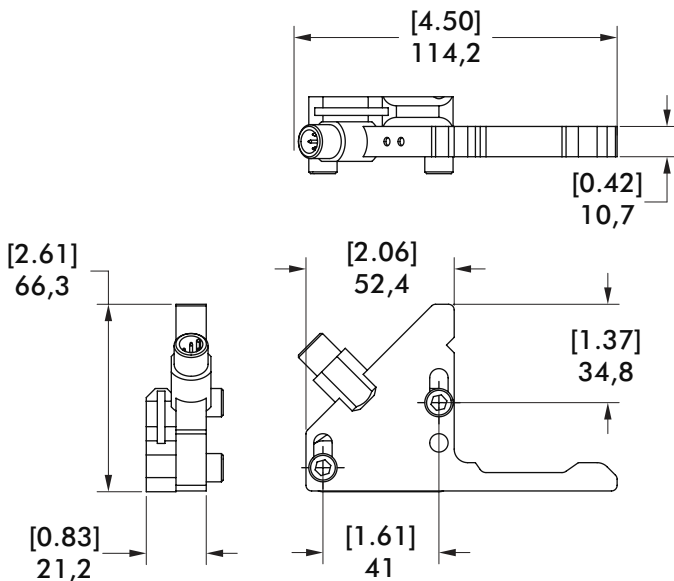


Description	Part Number
PNP Magneto-resistive Sensor Kit	8EA-1035-1
NPN Magneto-resistive Sensor Kit	8EA-1036-1
4mm PNP Magneto-resistive Sensor	OISP-017
4mm NPN Magneto-resistive Sensor	OISN-017

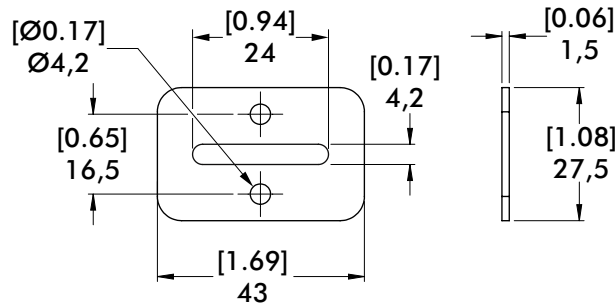
Description	Part Number
PNP Inductive Part Present Sensor	8EA-1024-1
NPN Inductive Part Present Sensor	8EA-1025-1
90° PNP Inductive Part Present Sensor*	8EA-1027-1
90° NPN Inductive Part Present Sensor*	8EA-1028-1

*for 84N1 PC Jaw Style only.

Infrared Part Present Sensor and Mounting Adapter



Description	Part Number
Infrared Part Present Sensor Kit	8EA-1023-1



Description

Sheet Stop Kit

Part Number

8MH-1003-1

Includes socket head cap mounting screws

Specifications

Specification	Unit	84N1
Grip Force at 5 bar	N [lbs]	Up to 1000 [225]
Weight (FA Option, No Tips)	Kg [lb]	0.27 [0.6]
Size L x W x H (open)	mm [in]	110 x 43 x 64 [4.33] x [1.69] x [2.52]
Actuation Time	ms	33
Minimum Operating Pressure	bar [psi]	3 [44]
Opening Angles		30°, 45°, 60°, 75°
Piston Ø	mm [in]	25 [0.98]
Air Consumption/Cycle	L [in ³]	0,015 [0.92]
Temperature Range	C° [F°]	-35° to 80° [-31° to 176]

84N2 SERIES

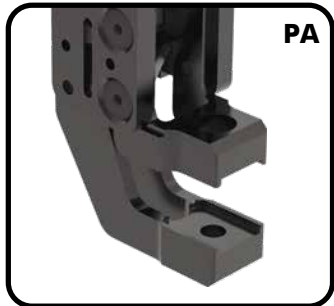
Accelerate® Press Shop Sheet Metal Grippers | Ordering Information



Ports	Description
N	1/8 NPT
G	1/8 BSPP

Opening Angle	Description
030	30° Opening Angle
045	45° Opening Angle
060	60° Opening Angle
075	75° Opening Angle

Jaw Type and Style	Description
FA	Straight Fixed Lower Jaw
PA	90° Jaw Configuration



Specifications:

See page SG-PRG-16 for technical specifications.

Mounting options are ordered separately:

Please refer to mounting options on pages SG-PRG-13 to 14 for mounting style and part number.



In-Jaw Blank Sensing*

- | | |
|----------|------|
| 0 | None |
| P | PNP |
| N | NPN |

*In-jaw blank sensing not available with Single Cone Style Tip.



Sheet Stop

- | | |
|----------|------------|
| 0 | None |
| 1 | Sheet Stop |



Jaw Tip Insert Options

0000 None

- or -

Step 1 - Tip Type Choose One

- 2 C S 3**
- | | |
|----------|------------|
| 1 | Single Tip |
| 2 | Double Tip |



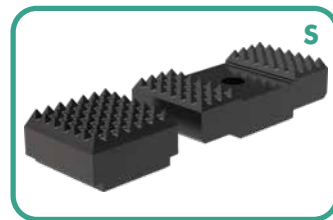
Step 2 - Upper Jaw Tip Insert Choose One (see images below)

- 2 C S 3**

- | | |
|----------|-------------------------------------------------------------|
| C | Cone Style (not compatible with In-Jaw Part Sensing option) |
| S | Serrated Style |



Single or Double Cone Tip
(not available for lower jaw)



Single or Double Serrated Tip

Step 3 - Lower Jaw Tip Insert Serrated Only

- 2 C S 3**

- | | |
|----------|---------------------------------------------------------|
| S | Serrated Style Only (Cone-to-Cone option not available) |
|----------|---------------------------------------------------------|

Customer is responsible for final adjustments and tightening of all accessory mounting screws.

Left Sensor Side Mount*

- | | |
|----------|-------------------------------------------------------|
| 0 | None |
| 1 | Dual Magneto-resistive PNP Sensors Left Side |
| 2 | Dual Magneto-resistive NPN Sensors Left Side |
| 3 | Infrared PNP Sensing (not available for PA jaw style) |

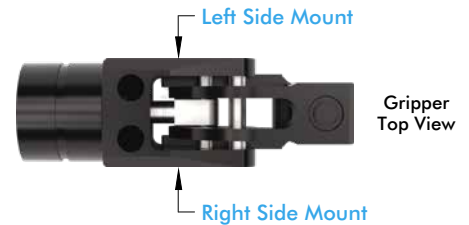
Right Sensor Side Mount*

- | | |
|----------|-------------------------------------------------------|
| 0 | None |
| 1 | Dual Magneto-resistive PNP Sensors Right Side |
| 2 | Dual Magneto-resistive NPN Sensors Right Side |
| 3 | Infrared PNP Sensing (not available for PA jaw style) |

*Use of a Sheet Stop is highly recommended when using 2-Point Sensing.



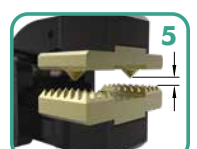
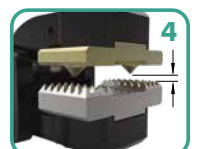
Side mount sensing detects gripper jaw position and can be adjusted at any point along the jaw travel. The sensors can be adjusted to sense blank, double, full open, and full closed based on jaw position. Use the in-jaw option to verify material between the jaws.



Step 4 - Part Thickness Range Choose One

- 2 C S 3**

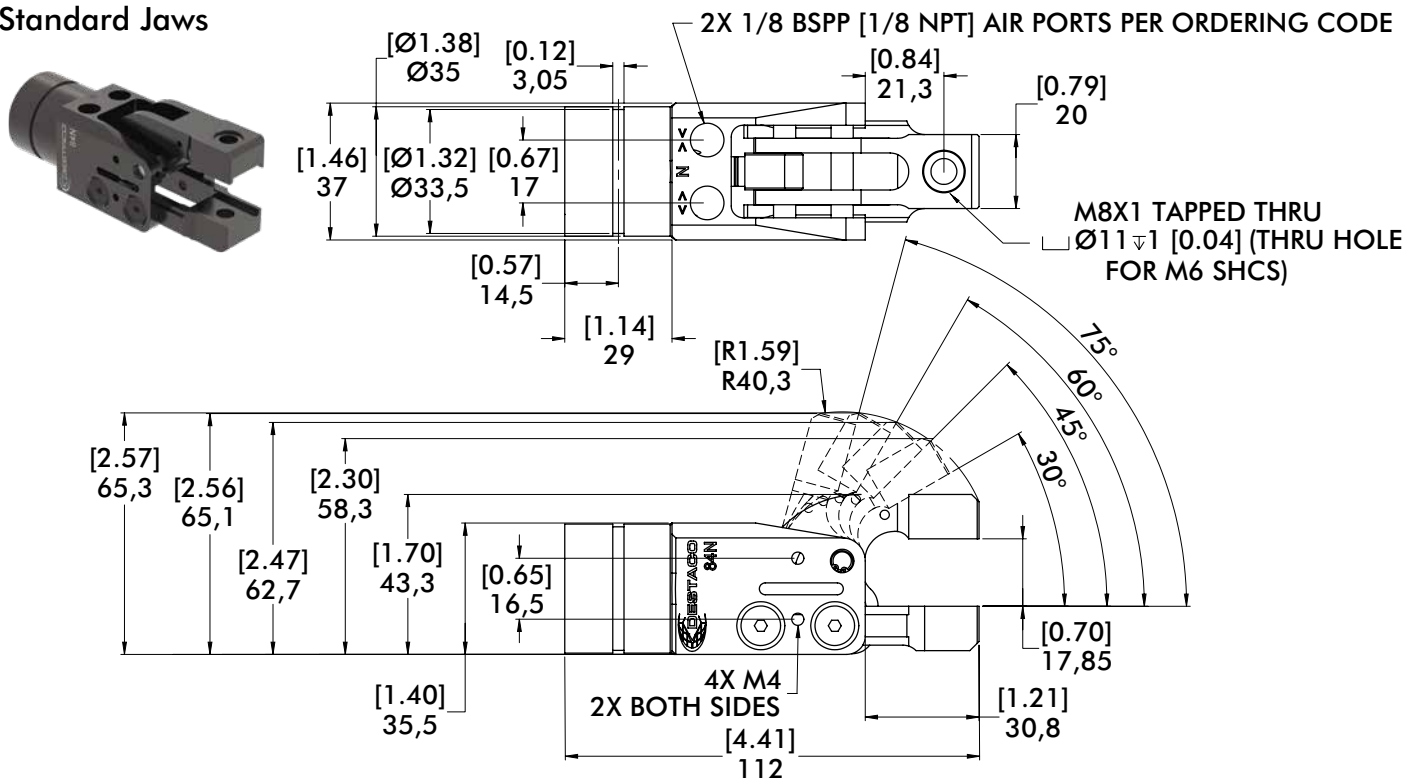
- | | | |
|----------|---------------|---------------|
| 1 | 0.4 to 1.0 mm | Black-Black |
| 2 | 1.0 to 1.6 mm | Silver-Black |
| 3 | 1.6 to 2.2 mm | Silver-Silver |
| 4 | 2.2 to 2.8 mm | Gold-Silver |
| 5 | 2.8 to 3.4 mm | Gold-Gold |



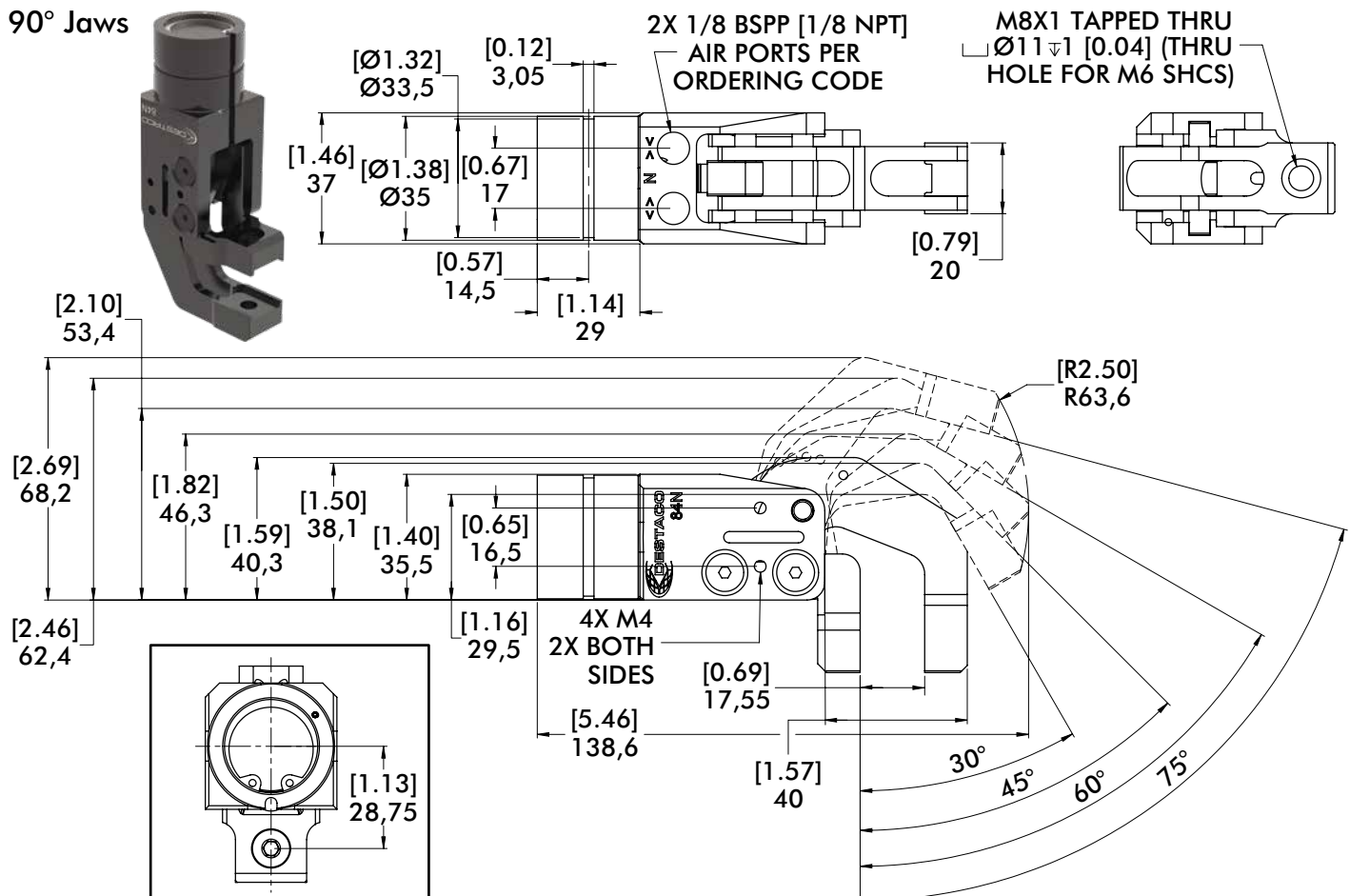
84N2 SERIES

Accelerate® Press Shop Sheet Metal Grippers | Dimensions

Standard Jaws



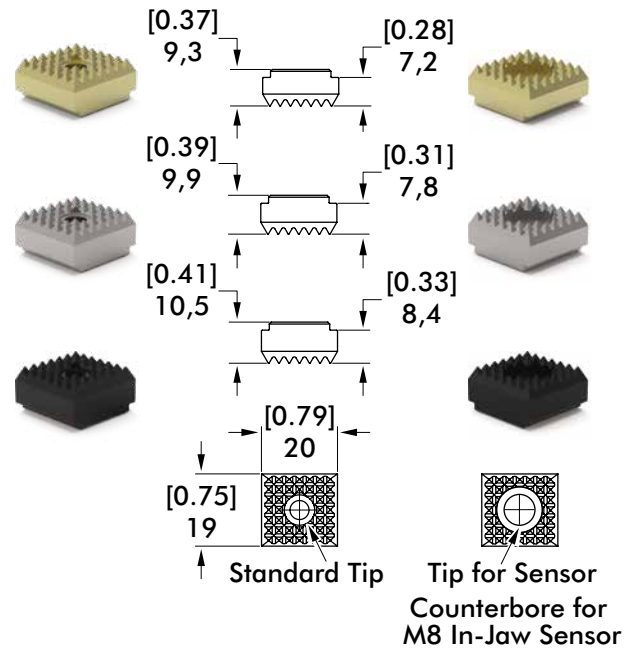
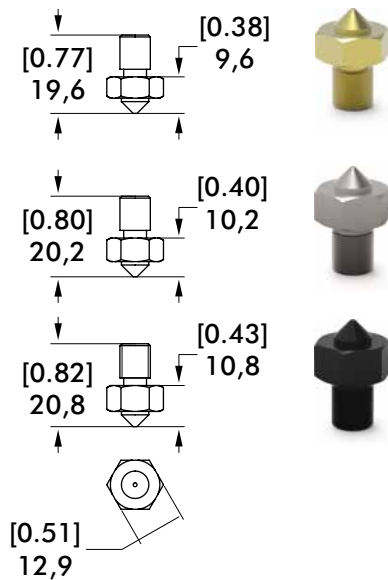
90° Jaws



84N2 TIPS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

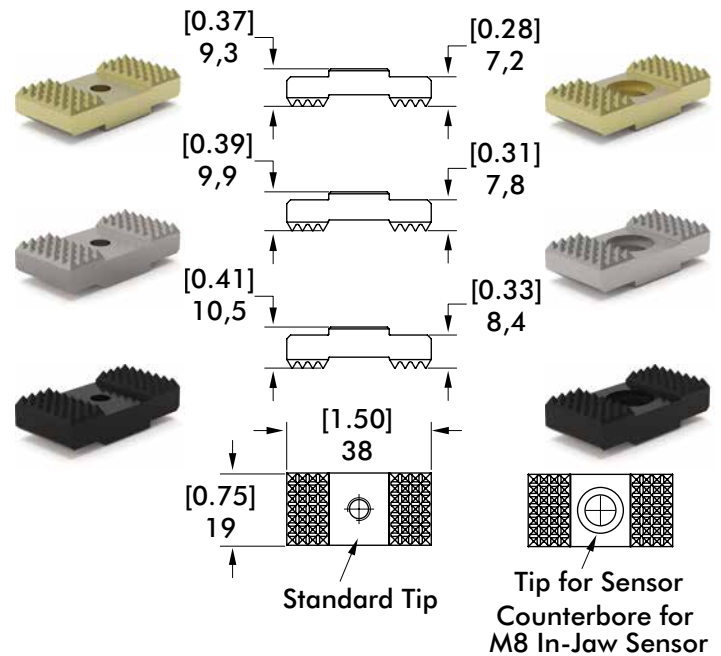
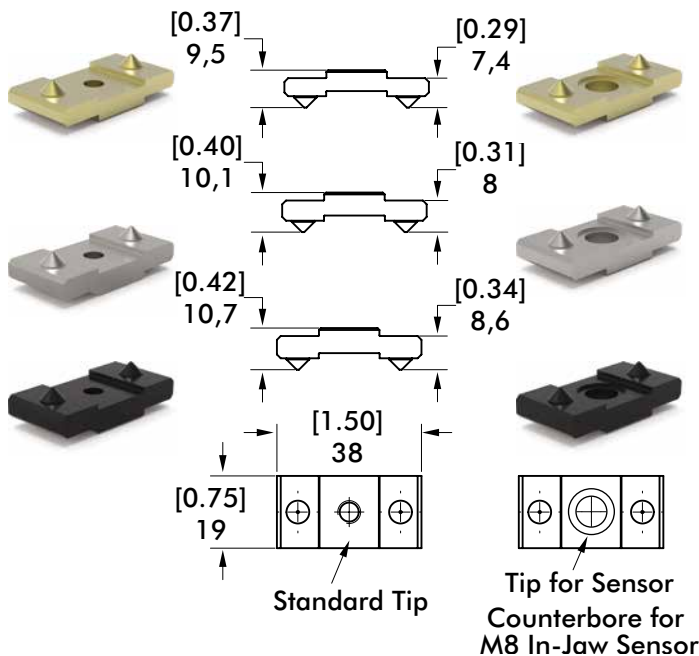
Single Tips



Single Cone	Part #
Gold	8JD-1013-1
Silver	8JD-1012-1
Black	8JD-1011-1

Single Serrated	Standard	for Sensor
Gold	8JD-1019-1	8JD-1028-1
Silver	8JD-1018-1	8JD-1027-1
Black	8JD-1017-1	8JD-1026-1

Double Tips



Double Cone	Standard	for Sensor
Gold	8JD-1016-1	8JD-1025-1
Silver	8JD-1015-1	8JD-1024-1
Black	8JD-1014-1	8JD-1023-1

Double Serrated	Standard	for Sensor
Gold	8JD-1022-1	8JD-1036-1
Silver	8JD-1021-1	8JD-1035-1
Black	8JD-1020-1	8JD-1034-1

84N2 MOUNTS

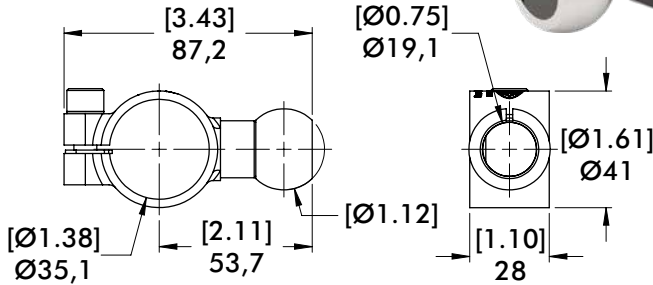
Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

Side Ball and Apple Core Gripper Mounts

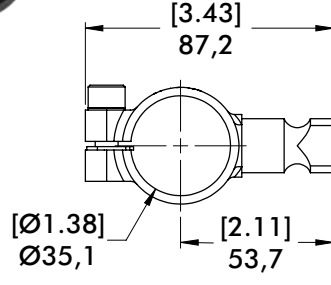
Side Ball



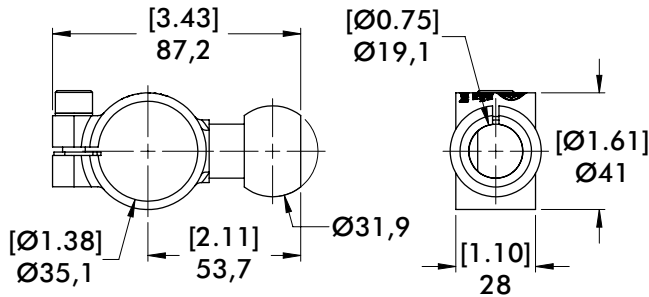
Apple Core



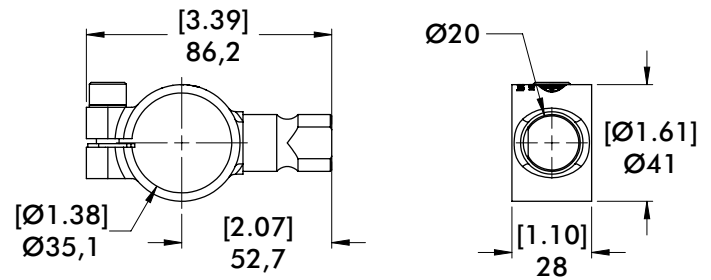
GT-84N1-B112-A



GT-84N1-19M-A

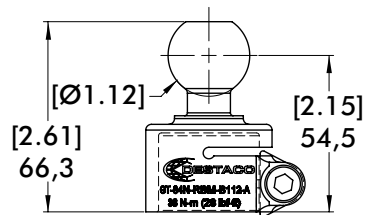


GT-84N1-32B-A

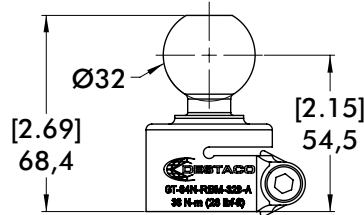


GT-84N1-20M-A

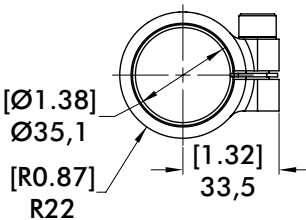
Rear Ball and Flange Gripper Mounts



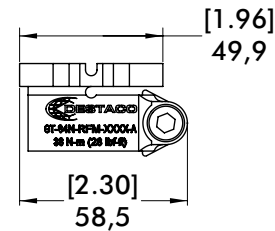
GT-84N-RBM-B112-A



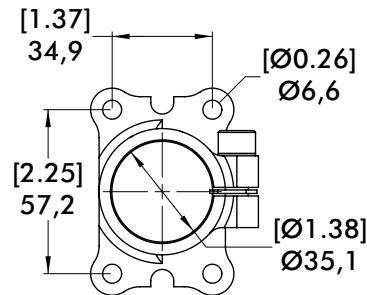
GT-84N-RBM-32B-A



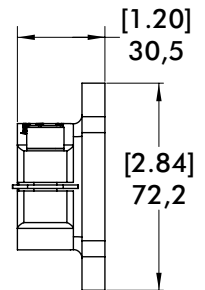
Rear Ball



Rear Flange



GT-84N-RFM-2213-A



Side Ball and Apple Core

- 1.125 in. (28.5mm) Side Ball
- 32mm Side Ball
- 19mm Applecore
- 20mm Applecore

Part Number

- GT-84N1-B112-A**
- GT-84N1-32B-A**
- GT-84N1-19M-A**
- GT-84N1-20M-A**

Rear Ball and Flange

- 1.125 in. (28.5mm) Rear Ball
- 32mm Rear Ball
- Rear Flange

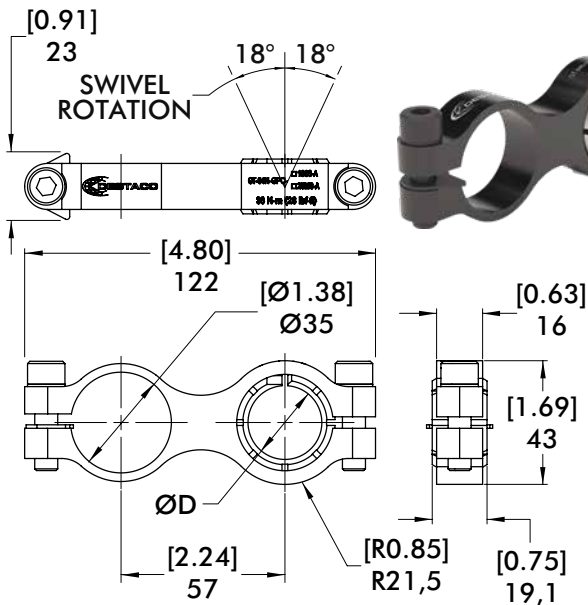
Part Number

- GT-84N-RBM-B112-A**
- GT-84N-RBM-32B-A**
- GT-84N-RFM-2213-A**

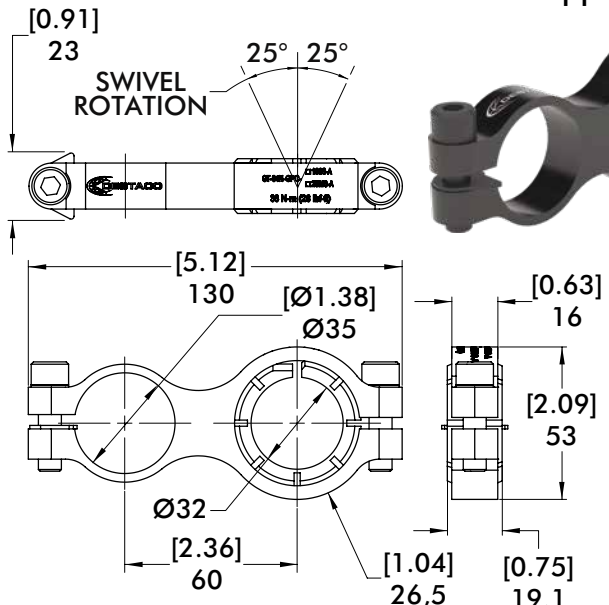
84N2 MOUNTS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

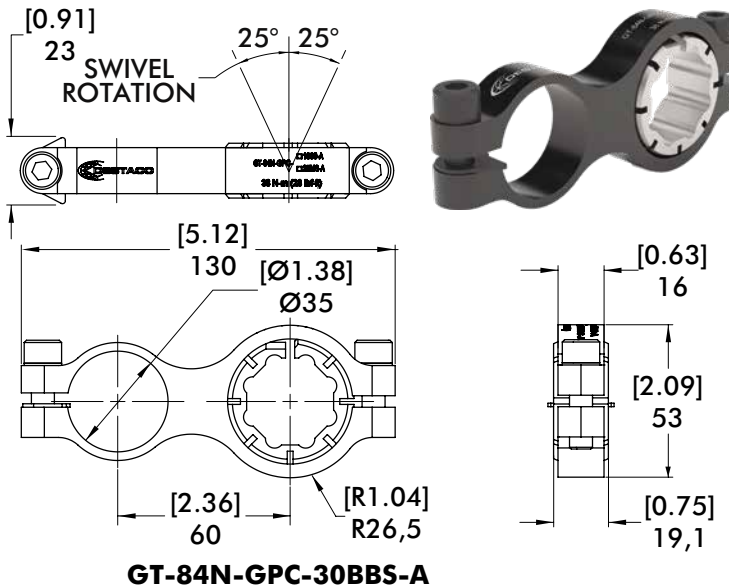
Parallel Swivel Gripper Mount



ØD=1.00 in. **GT-84N-GPC-100S-A**
 ØD=25mm **GT-84N-GPC-25MS-A**



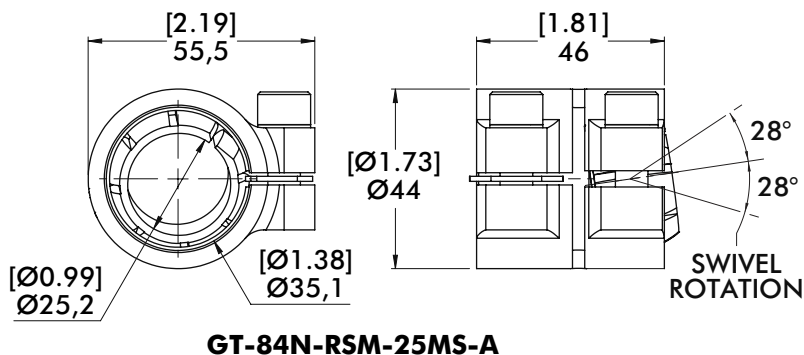
GT-84N-GPC-125S-A



GT-84N-GPC-30BBS-A

Parallel Swivel Mount	Part Number
1" Swivel Mount	GT-84N-GPC-100S-A
1-1/4" Swivel Mount	GT-84N-GPC-125S-A
25mm Swivel Mount	GT-84N-GPC-25MS-A
30mm Body Builder Swivel Mount	GT-84N-GPC-30BBS-A

Rear Clamp Swivel Mount



GT-84N-RSM-25MS-A

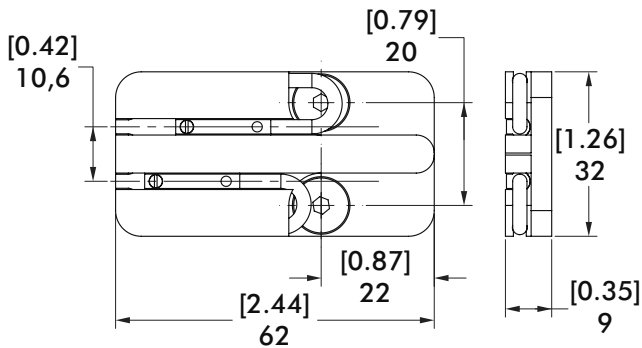


Rear Swivel Mount	Part Number
25mm Swivel Mount	GT-84N-RSM-25MS-A

84N2 SENSING OPTIONS

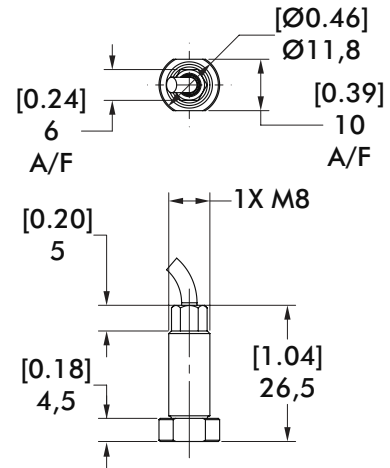
Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

Side Mount Magneto-resistive Sensor



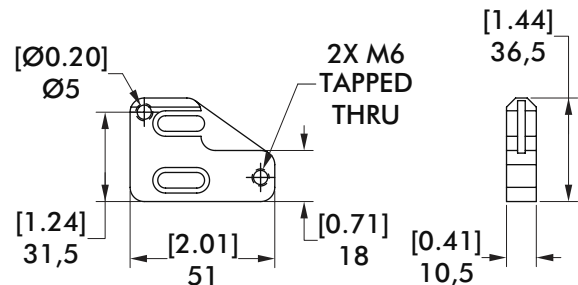
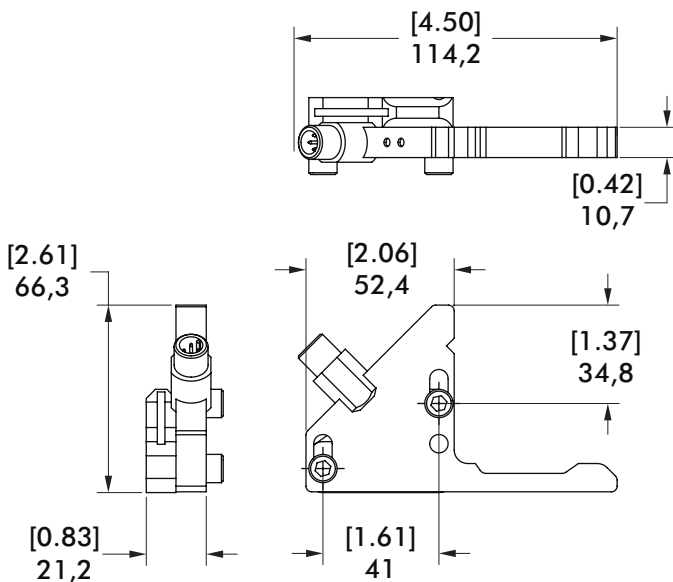
Description	Part Number
PNP Magneto-resistive Sensor Kit	8EA-1035-1
NPN Magneto-resistive Sensor Kit	8EA-1036-1
4mm PNP Magneto-resistive Sensor	OISP-032
4mm NPN Magneto-resistive Sensor	OISN-032

In-Jaw Part Sensor



Description	Part Number
PNP Inductive Sensor	8EA-1033-1
NPN Inductive Sensor	8EA-1034-1

Infrared Part Present Sensor and Mounting Adapter

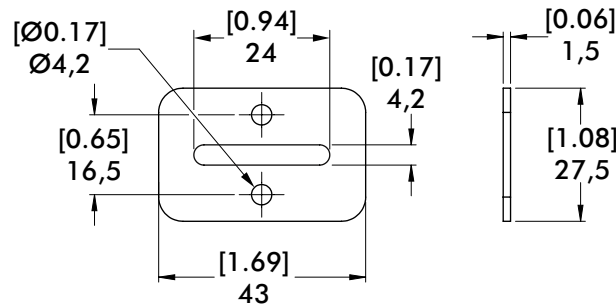


Description	Part Number
Infrared Part Present Sensor Kit	8EA-1023-1

84N2 ACCESSORIES

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

Sheet Stop Option



Description

Sheet Stop Kit

Includes socket head cap mounting screws

Part Number

8MH-1003-1

Specifications

Specification	Unit	84N2
Grip Force at 5 bar	N [lbs]	Up to 1000 [225]
Weight (FA Option, No Tips)	Kg [lb]	0.27 [0.6]
Size L x W x H (open)	mm [in]	110 x 43 x 64 [4.33] x [1.69] x [2.52]
Actuation Time	ms	33
Minimum Operating Pressure	bar [psi]	3 [44]
Opening Angles		30°, 45°, 60°, 75°
Piston Ø	mm [in]	25 [0.98]
Air Consumption/Cycle	L [in ³]	0,015 [0.92]
Temperature Range	C° [F°]	-35° to 80° [-31° to 176]

84N5 SERIES

Accelerate® Press Shop Sheet Metal Grippers | Ordering Information

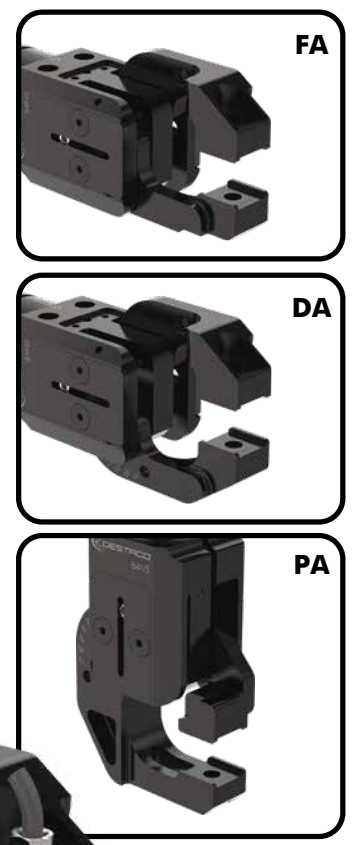


Ports	Description
N	1/8 NPT
G	1/8 BSPP

Opening Angle	Description
075	75° Opening Angle
ADJ	15° to 75° Adjustable Opening Angle



Jaw Type and Style	Description
FA	Straight Fixed Lower Jaw
DA	Straight Double Open Jaws
PA	90° Jaw Configuration



Specifications:

See page 20 for technical specifications.

Mounting options are ordered separately:

Please refer to mounting options on page SG-PRG-22 to 23 for mounting style and part numbers.



US Patent # 10549431

In-Jaw Blank Sensing*

Description
0 None
P PNP
N NPN

*In-jaw blank sensing not available with Single Cone Style Tip.



Left Side 2-Point Sensing

Description
0 None
1 Dual Magneto-Resistive PNP Sensors Left Side
2 Dual Magneto-Resistive NPN Sensors Left Side

Right Side 2-Point Sensing

Description
0 None
1 Dual Magneto-Resistive PNP Sensors Right Side
2 Dual Magneto-Resistive NPN Sensors Right Side



Side mount sensing detects gripper jaw position and can be adjusted at any point along the jaw travel. The sensors can be adjusted to sense blank, double, full open, and full closed. Use the in-jaw option to verify material between the jaws.

Sheet Stop Description

0 No Sheet Stop (PA option only)
1 Sheet Stop required (FA, DA options)



Jaw Tip Insert Options

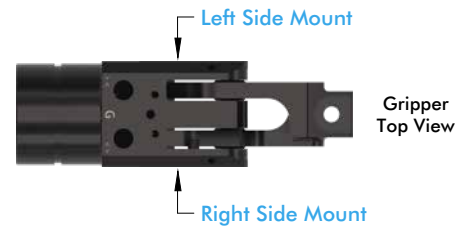
0000 None

- or -

Step 1 - Tip Type Choose One

2 C S 3

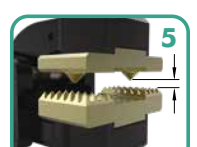
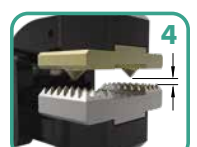
- 1 Single Tip
- 2 Double Tip



Step 4 - Part Thickness Range Choose One

2 C S 4

1 0.4 to 1.0 mm	Black-Black
2 1.0 to 1.6 mm	Silver-Black
3 1.6 to 2.2 mm	Silver-Silver
4 2.2 to 2.8 mm	Gold-Silver
5 2.8 to 3.4 mm	Gold-Gold



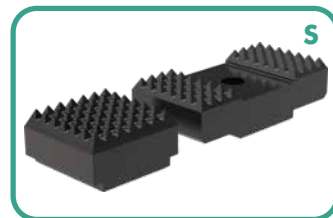
Step 2 - Upper Jaw Tip Insert Choose One (see images below)

2 C S 3

- C Cone Style (Single Cone [1Cxx] not compatible with In-Jaw Sensor)
- S Serrated Style



Single or Double Cone Tip (not available for lower jaw)



Single or Double Serrated Tip

Step 3 - Lower Jaw Tip Insert Serrated Only

2 C S 3

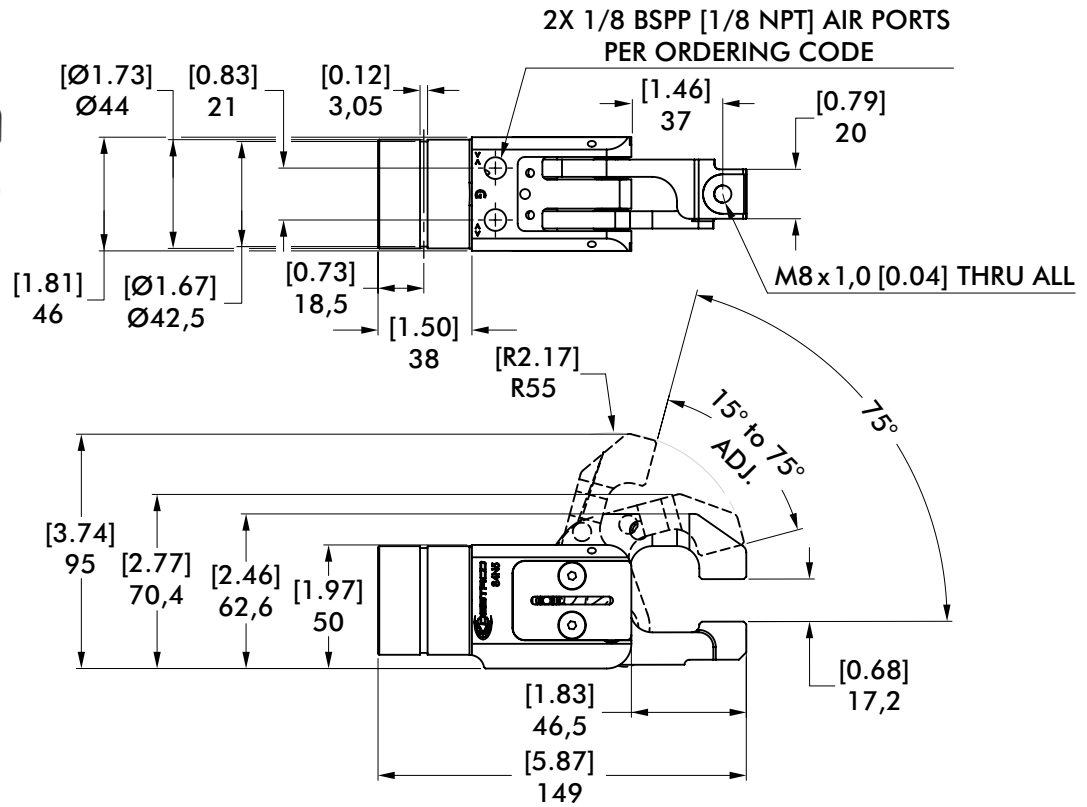
- S Serrated Style Only (Cone-to-Cone option not available)

Customer is responsible for final adjustments and tightening of all accessory mounting screws.

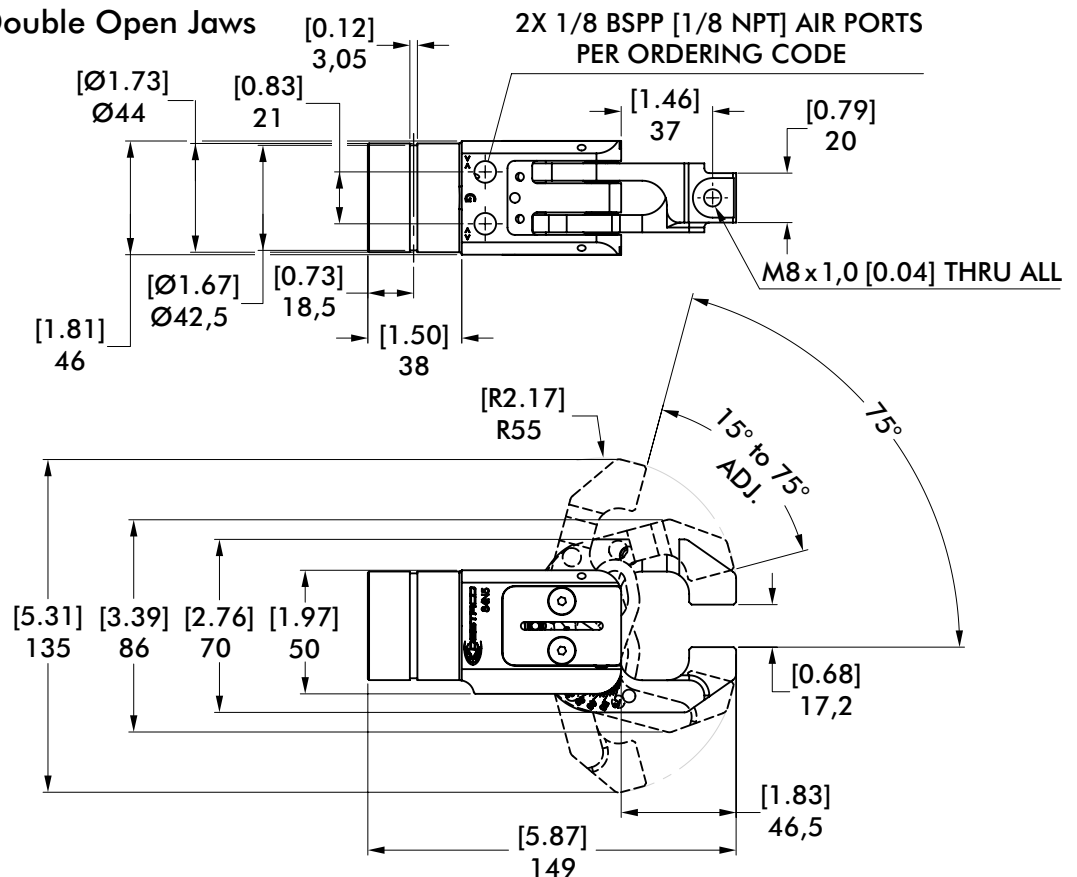
84N5 SERIES

Accelerate® Press Shop Sheet Metal Grippers | Dimensions

FA Option: Straight Fixed Lower Jaw



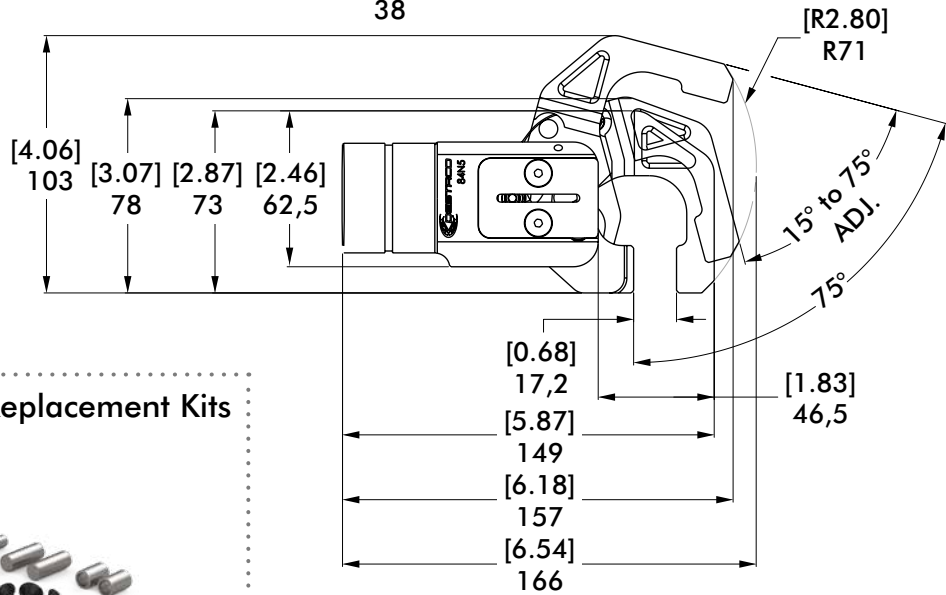
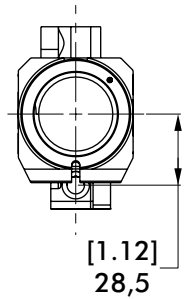
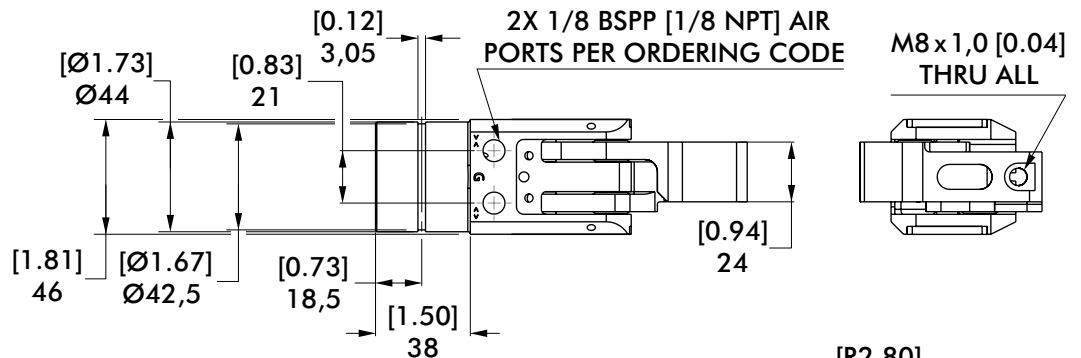
DA Option: Straight Double Open Jaws



84N5 SERIES

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Specifications

PA Option: 90° Straight Fixed Lower Jaw



Jaw Replacement Kits



Jaw Type	Part Number
Straight Fixed Lower Jaw	84N5-FA-KIT



Jaw Type	Part Number
Straight Double Open Jaws	84N5-DA-KIT



Jaw Type	Part Number
90° Straight Fixed Lower Jaw	84N5-PA-KIT

All kits include 2 jaws, 2 pivot pins, 2 cam follower bushings, 1 cam follower and 4 flat head cap screws.

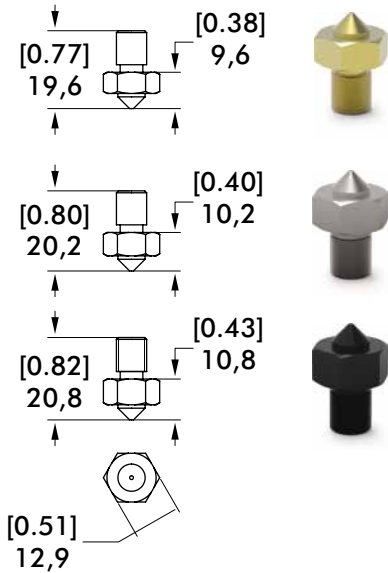
Specifications

Specification	Unit	84N5
Grip Force at 5 bar	N [lbs]	up to 1200 [270]
Weight (FA Option, No Tips)	Kg [lb]	0,68 [1.50]
Size L x W x H (open)	mm [in]	149 x 46 x 95 [5.87] x [1.81] x [3.74]
Actuation Time	ms	70
Min. Operating Pressure	bar [psi]	4 [58]
Opening Angles		75°, ADJ (15°-75°)
Piston Ø	mm [in]	32 [1.26]
Air Consumption/Cycle	L [in³]	0,036 [2.20]
Temperature Range	C° [F°]	-35° to 80° [-31° to 176]

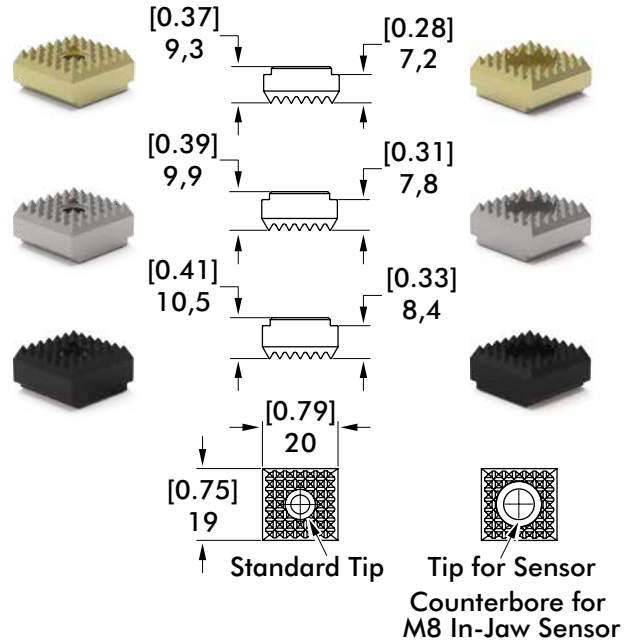
84N5 TIPS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

Single Tips

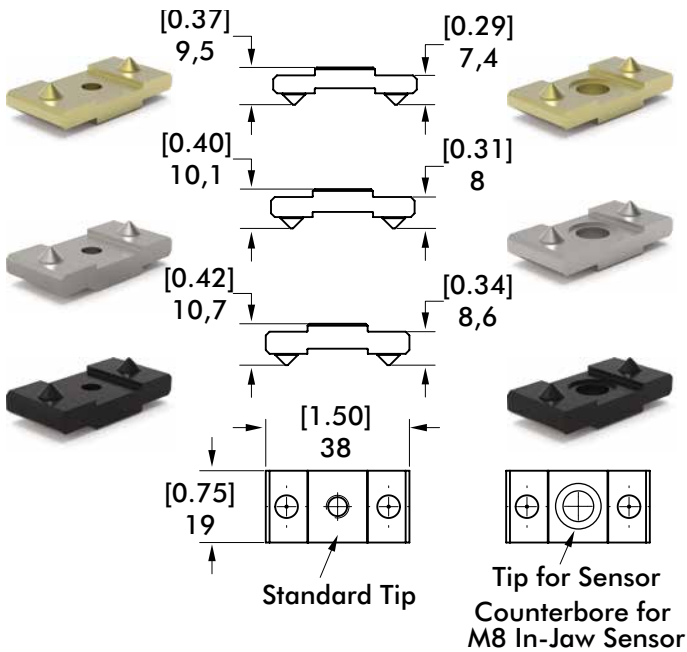


Single Cone	Part #
Gold	8JD-1013-1
Silver	8JD-1012-1
Black	8JD-1011-1

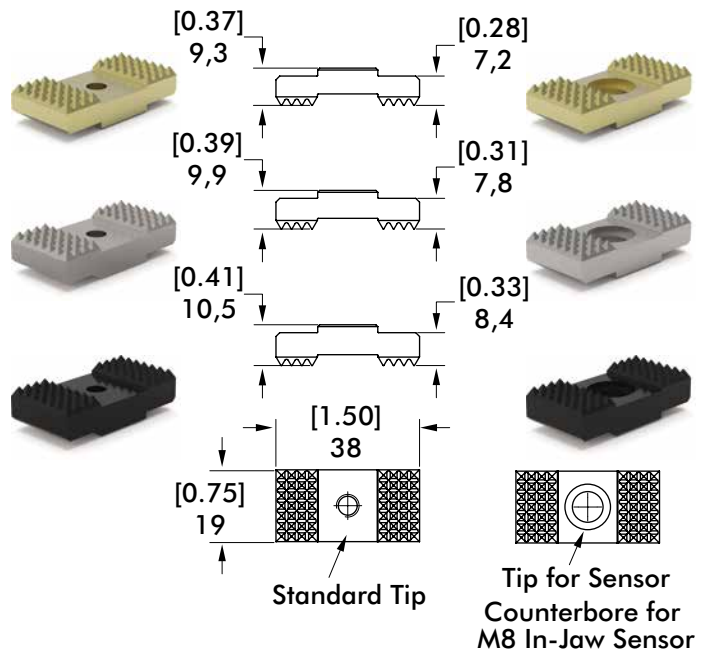


Single Serrated	Standard Tip	Tip for Sensor
Gold	8JD-1019-1	8JD-1028-1
Silver	8JD-1018-1	8JD-1027-1
Black	8JD-1017-1	8JD-1026-1

Double Tips



Double Cone	Standard Tip	Tip for Sensor
Gold	8JD-1016-1	8JD-1025-1
Silver	8JD-1015-1	8JD-1024-1
Black	8JD-1014-1	8JD-1023-1



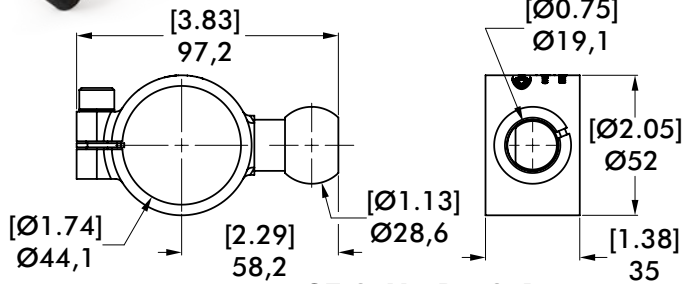
Double Serrated	Standard Tip	Tip for Sensor
Gold	8JD-1022-1	8JD-1036-1
Silver	8JD-1021-1	8JD-1035-1
Black	8JD-1020-1	8JD-1034-1

84N5 MOUNTS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information



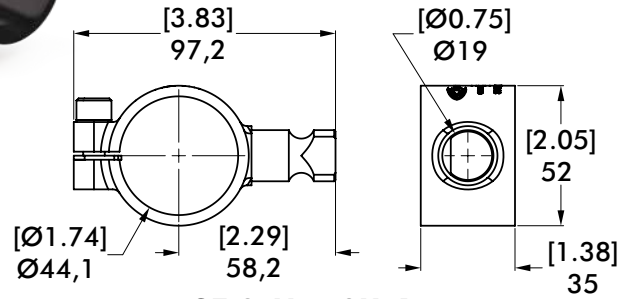
Side Ball



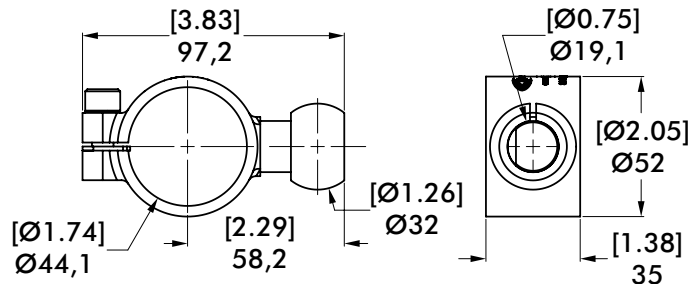
GT-84N5-B112-A



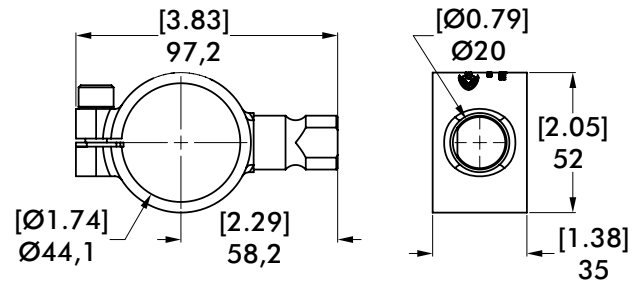
Apple Core



GT-84N5-19M-A

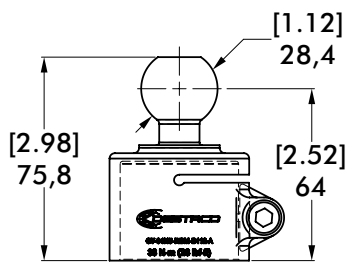


GT-84N5-32B-A

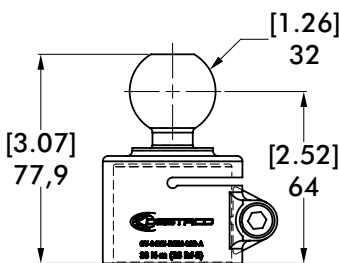


GT-84N5-20M-A

Rear Ball and Flange Gripper Mounts

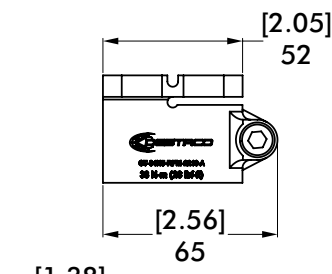


GT-84N5-RBM-B112-A

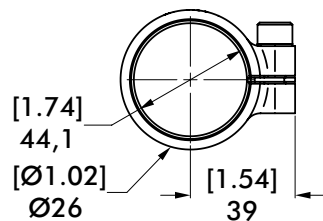


GT-84N5-RBM-32B-A

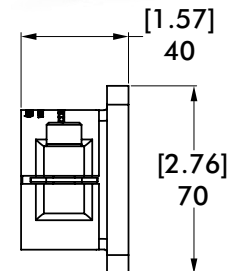
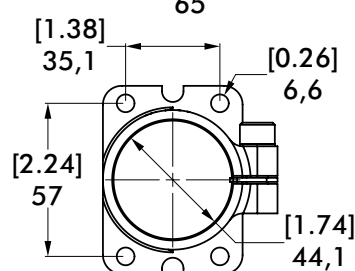
Rear Flange



GT-84N5-RFM-2213-A



Rear Ball



Side Ball and Apple Core

- 1.125 in. (28.5mm) Side Ball
- 32mm Side Ball
- 19mm Applecore
- 20mm Applecore

Part Number

- GT-84N5-B112-A**
- GT-84N5-32B-A**
- GT-84N5-19M-A**
- GT-84N5-20M-A**

Rear Ball and Flange

- 1.125 in. (28.5mm) Rear Ball
- 32mm Rear Ball
- Rear Flange

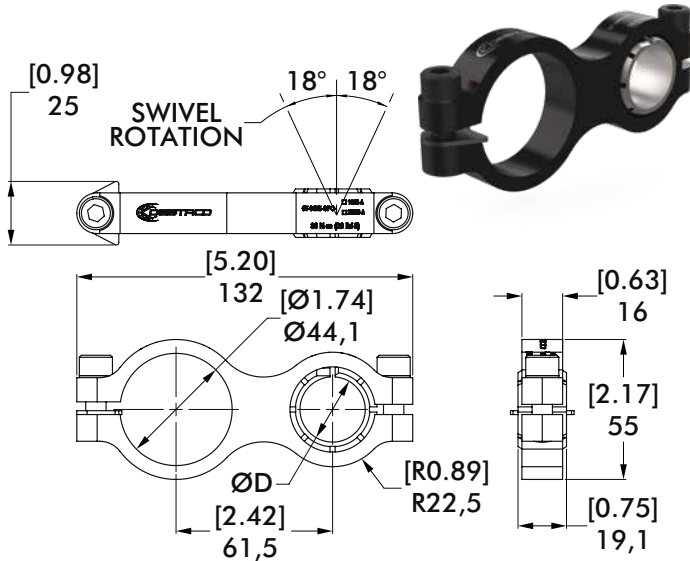
Part Number

- GT-84N5-RBM-B112-A**
- GT-84N5-RBM-32B-A**
- GT-84N5-RFM-2213-A**

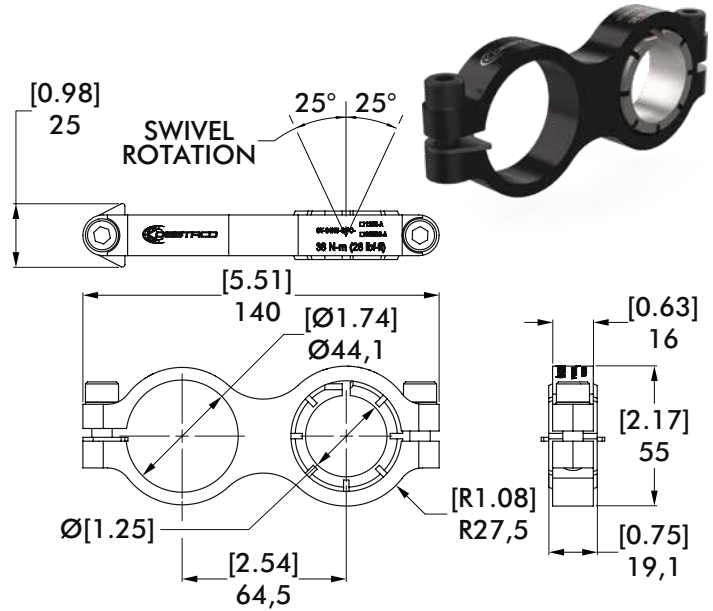
84N5 MOUNTS

Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

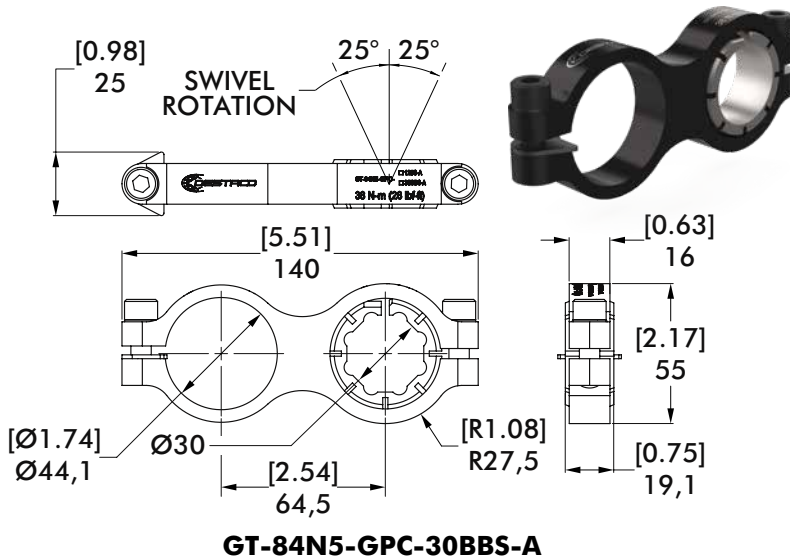
Parallel Swivel Gripper Mount



ØD= 1.00 in. **GT-84N5-GPC-100S-A**
 ØD= 25mm. **GT-84N5-GPC-25MS-A**



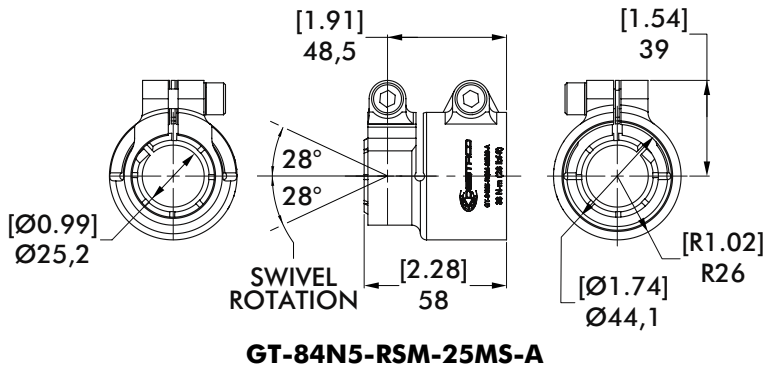
GT-84N5-GPC-125S-A



GT-84N5-GPC-30BBS-A

Parallel Swivel Mounts	Part Number
1" Swivel Mount	GT-84N5-GPC-100S-A
1-1/4" Swivel Mount	GT-84N5-GPC-125S-A
25mm Swivel Mount	GT-84N5-GPC-25MS-A
30mm Body Builder Swivel Mount	GT-84N5-GPC-30BBS-A

Rear Clamp Swivel Mount



GT-84N5-RSM-25MS-A

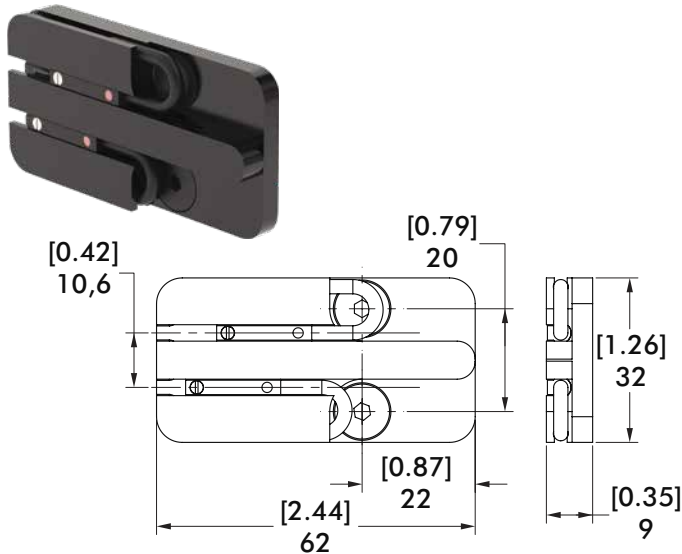


Rear Swivel Mount	Part Number
25mm Swivel Mount	GT-84N5-RSM-25MS-A

84N5 MOUNTS

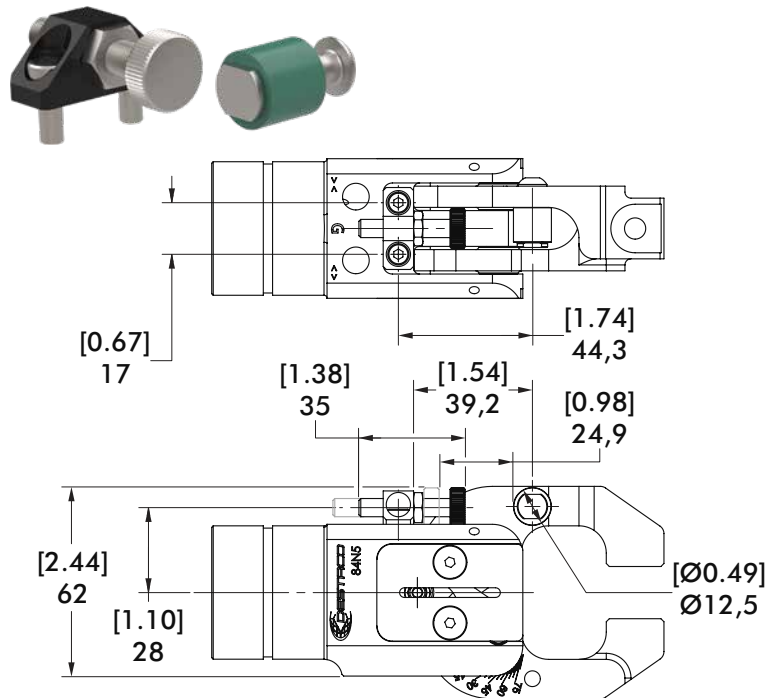
Accelerate® Press Shop Sheet Metal Grippers | Dimensions and Ordering Information

2-Point Side Mount Sensing



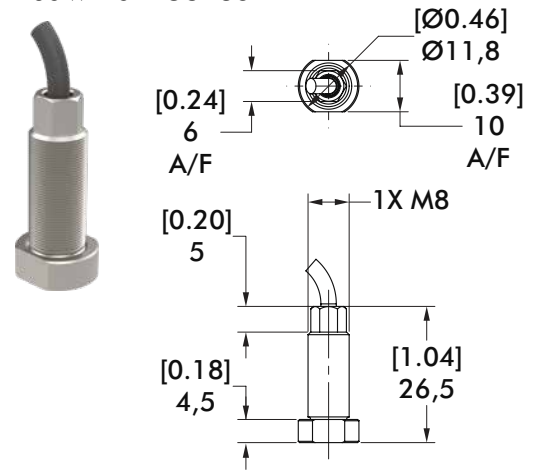
Description	Part Number
PNP Magneto-Resistive Sensor Kit (Incl. 2 Sensors)	8EA-1052-1
NPN Magneto-Resistive Sensor Kit (Incl. 2 Sensors)	8EA-1053-1
4mm PNP Magneto-Resistive Sensor only (Qty. 1)	OHSP-017
4mm NPN Magneto-Resistive Sensor only (Qty. 1)	OHSN-017

Opening Angle Adjustment Kit



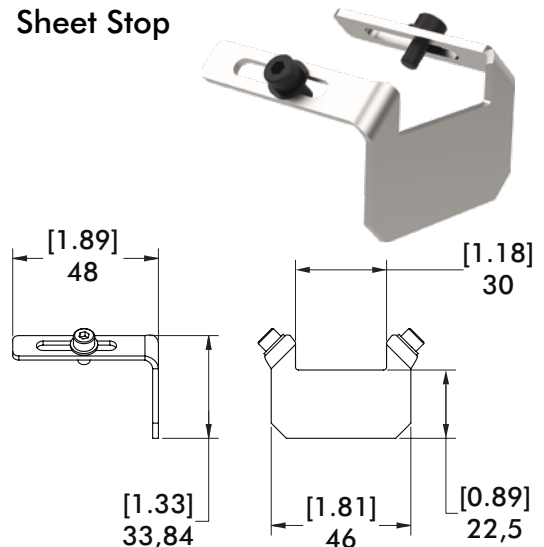
Description	Part Number
84N5 Opening Angle Adjustment Kit	8MH-1052-1
Includes mounting screws. Can be easily added in the field to any 84N5 gripper.	

In-Jaw Part Sensor



Description	Part Number
PNP Inductive In-Jaw Sensor	8EA-1033-1
NPN Inductive In-Jaw Sensor	8EA-1034-1

Sheet Stop



Description	Part Number
84N5 Sheet Stop Kit	8MH-1053-1
Includes sheet stop and socket head cap mounting screws.	

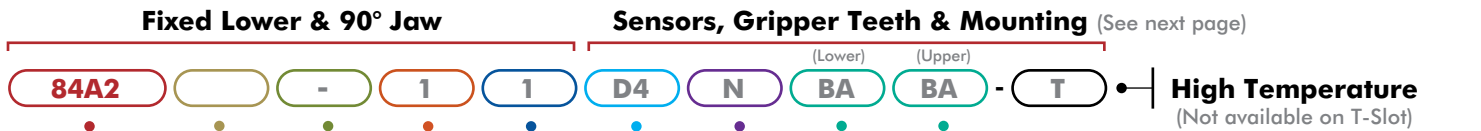
Seal Kit



Description	Part Number
84N5 Seal Kit	SLKT-479
Includes shock pad, rod u-cup seal, o-ring cap, piston seal and retainer ring.	

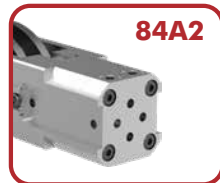
84A2 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Ordering Information



Body Style Options

- Description**
84A2 Standard
84AT2 Sensor T-Slot



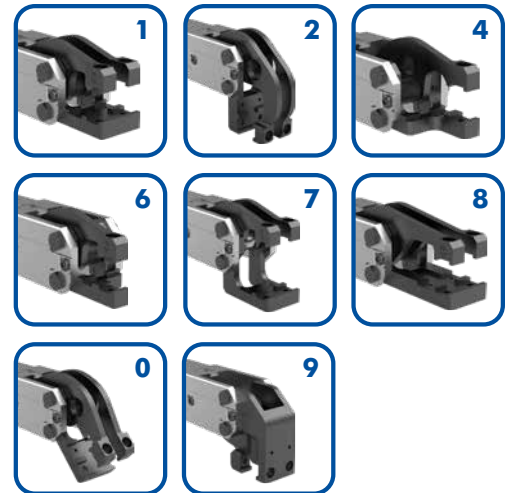
Porting Options

- Description**
1 (2) M5
V (2) G1/8



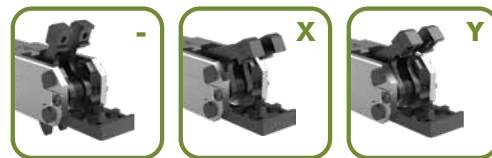
Jaw Arrangement Options

- Description**
- Double Upper, Straight Design
 - Double Upper, 90° Design
 - Single Upper, Left, Straight Design
 - Single Upper, Right, Straight Design
 - Single Upper, Right, Straight Design
 - Double Upper, Straight Design, Drop Jaw
 - Double/Single Upper Extended Jaw
 - Double Upper, 45° Offset Design
 - Fixed Upper, Double Lower Jaws, 90° Design:
 [84A2/84AT2 (-)1/V 9] 45° Jaw Opening Angle Std.
 [84A2/84AT2 (X)1/V 9] 30° Jaw Opening Angle Std.



Jaw Opening Options

- Description**
- 72° Jaw Opening (Std.)
X 30° Jaw Opening
Y 45° Jaw Opening



Jaw Orientation Options (Option 8 Only)

- Description**
"Blank" Double Jaw
L Single Left Jaw
R Single Right Jaw



Specifications	Unit	
Piston	mm	25
Actuation Time (open/close)	sec	<0,1
Air Consumption per Double Stroke at 6 bar	L	0,32

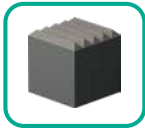
84A2 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Ordering Information

Gripper Teeth, Points and Crown Options (Upper and Lower)

Steel Teeth

- 00** None
- BA** Hardened - 8JZ-027-1
- BD** Hardened (Upper) - 8JZ-049-1



- BB** Soft Steel - 8JZ-028-1



High Temperature (84A2 Only)

- FF** Soft Steel - 8JZ-085-1



- EE** Soft Steel - 8JZ-092-1



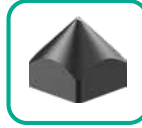
Plastic Teeth*

- 00** None
- KF** 90 Shore - 8JZ-045-2
- *Not suitable for High Temperature applications



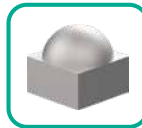
Steel Points

- 00** None
- PH** Hardened - 8JZ-029-1

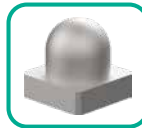


High Temperature (84A2 Only)

- PI** Soft Steel - 8JZ-074-1



- RR** Soft Steel - 8JZ-088-1



Crown Teeth

- 00** None
- SK** Hardened (Lower) - 8JZ-036-2
- SQ** Hardened (Lower) - 8JZ-051-1
- SL** Hardened (Upper) - 8JZ-037-1
- SM** Hardened (Upper) - 8JZ-038-1
- SN** Hardened (Upper) - 8JZ-039-1
- SP** Hardened (Upper) - 8JZ-040-1

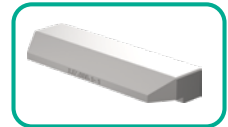


High Temperature (84A2 Only)

- DD** Soft Steel - 8JZ-087-1 (Lower)



- LL** Soft Steel - 8JZ-086-1 (Lower)



Shims for gripper teeth available
Order Separately **8SB-039-1**
Dimensions: 10 x 10 x 1 mm

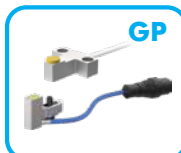
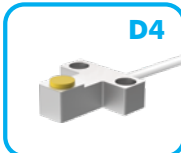


Sensor Options (not suitable for High Temperature applications)

Description

- 00** None
- D4*** Part Present Sensor 3mm Sensing Distance, 2m Cable - 8EA-164-1
- D5** Double Sheet Control Sensor, M12x1 Plug - 8EA-087-1
- D7*** Part Present Sensor, 3mm Sensing Distance, M12x1 Plug - 8EA-165-1
- D8** 2X Position Sensor - 8EA-109-1 (84AT2 Models Only)
- GP*** 1X D4 + 1X D5
- GQ*** 1X D5 + 1X D7
- GK** 2X D5 (not for 84AT2 Models)

*For Jaw Arrangements Options 1, 2, 7, 8, 9 only.



Cable support for **D4** Sensor. Order Separately **8MA-149-1**
Mounted on lower side of gripper (for 84A2-11, 84A2-V1,
84A2-18, 84A2-V8 only) (not for 84AT2 Models)

Cover for Sensing Systems **D5, GP, GQ, GK**
Order Separately **82ZB-185-1**

Mounting Options

Description

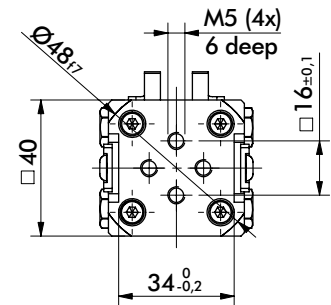
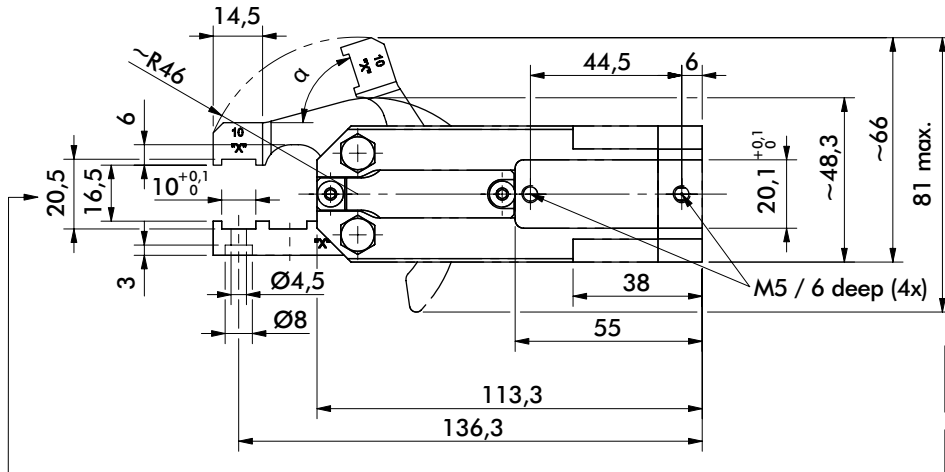
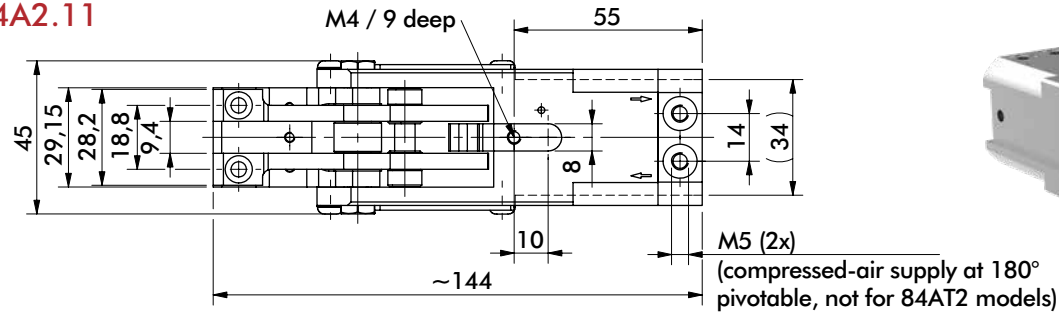
- 0** None
- I** Ø20mm Rear Rod
8MA-165-1
- J** Ø25mm Rear Rod
8MA-166-1
- Z** Ø1.00" Rear Rod
8MA-168-1
- L** Ø20mm Apple Core
GT-20M-84A2-L-R
- M** Ø32mm Rear Ball
GT-32B-84A2-L-R
- N** Ø32mm Flanged Ball
GT-32B-84A2-B
- Q** Guards 8MH-054-1
(For Jaw Arrangements
Options 1, 4, 6 only)
- V** Rear Flange
8MA-147-1
- W** On-Body Swivel Ball
82ZB-025-2



84A2..1 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2.11

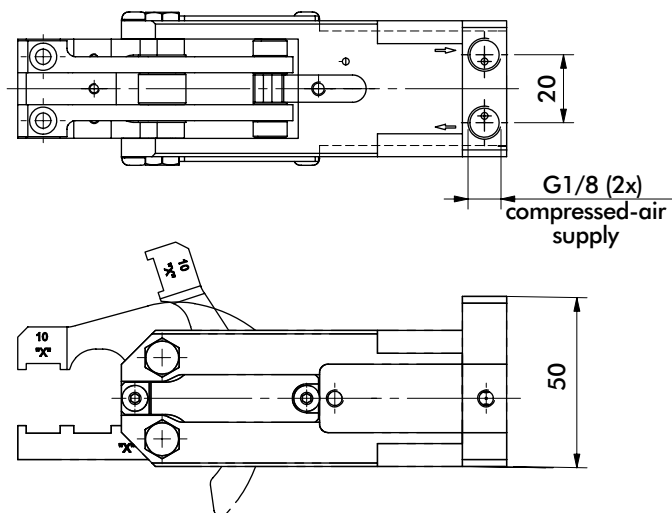


Medium air, min. 3 bar, max. 6 bar.
Operation with oil-free air is permissible.

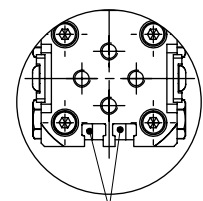
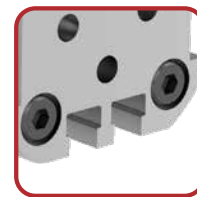
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

84A2.V1



84AT2..1



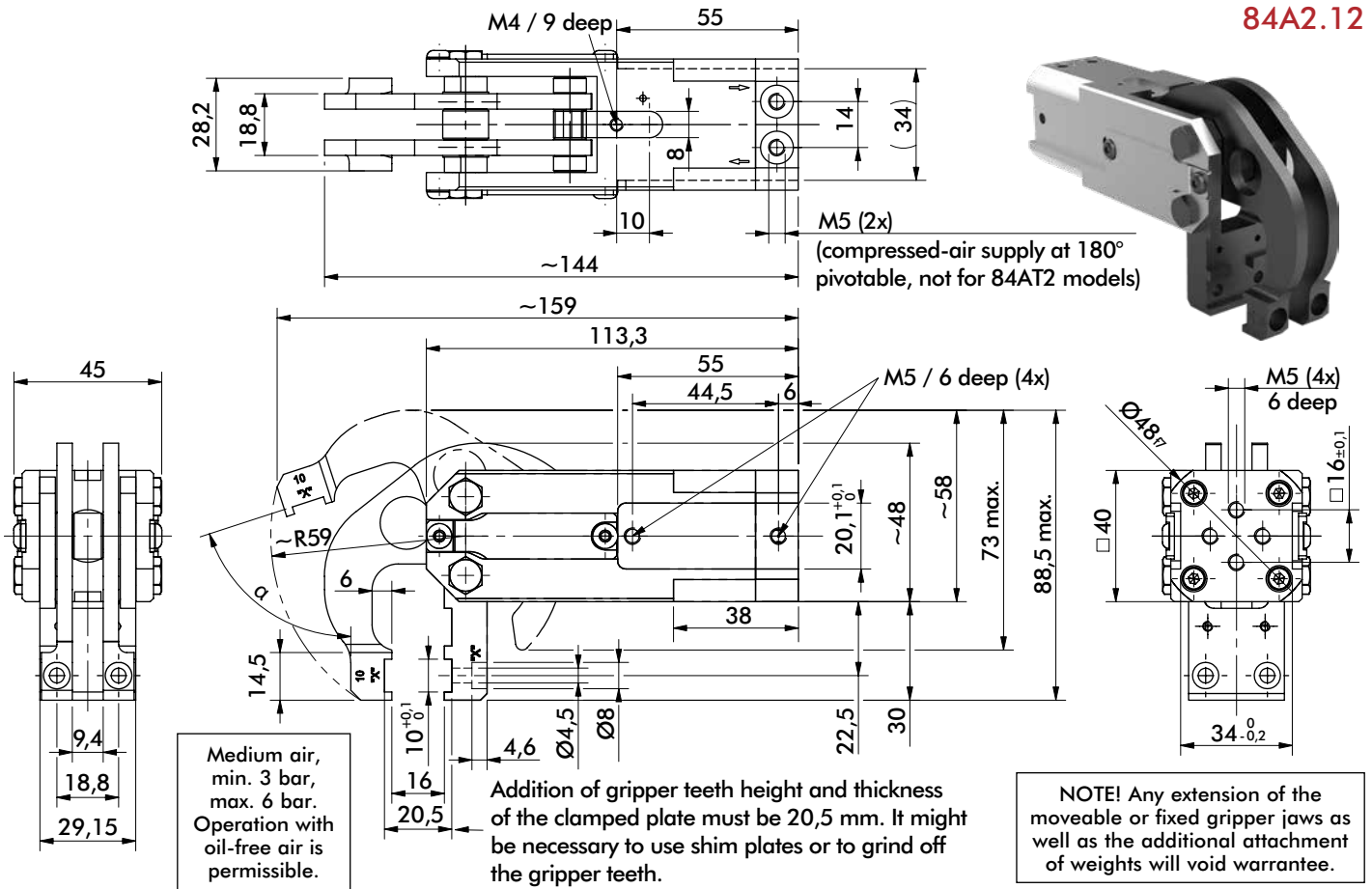
T-groove for sensor

Model	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
84A2..1/84AT2..1			
-	72°		
X	30°	920 [207]	0,6 [1.32]
Y	45°		

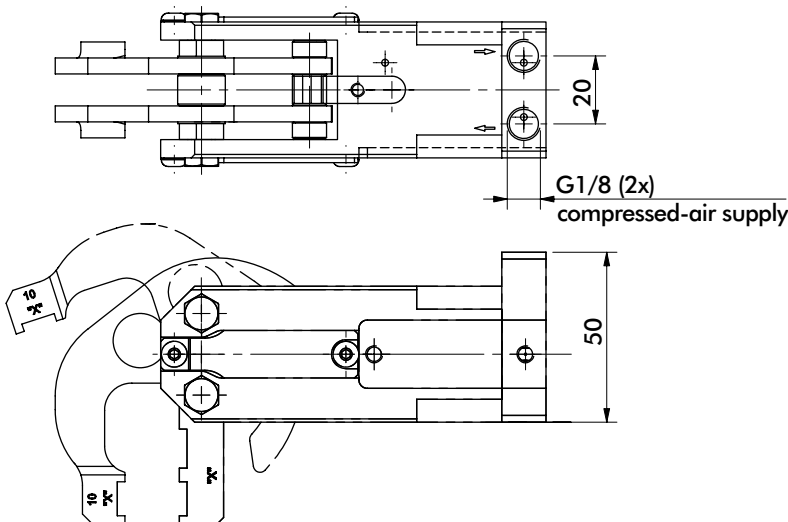
84A2..2 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

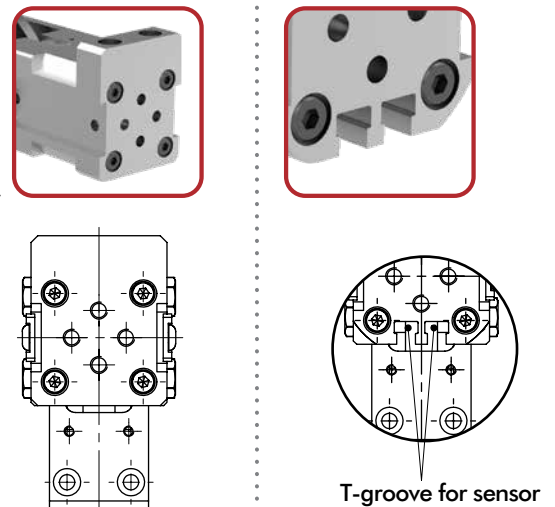
84A2.12



84A2.V2



84AT2..2

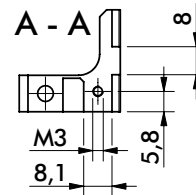
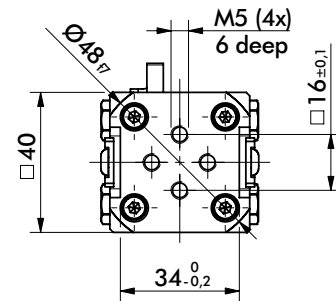
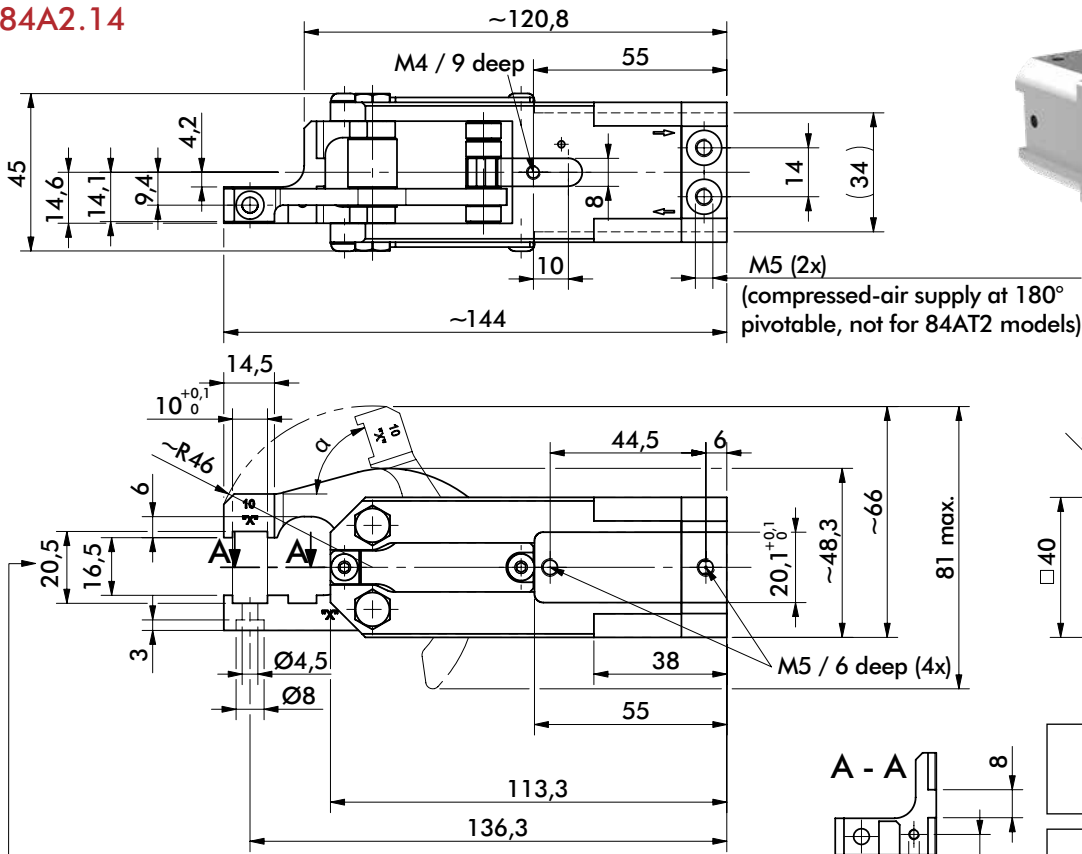


Model 84A2..2/84AT2..2	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
-	72°		
X	30°	575 [129]	0,65 [1.43]
Y	45°		

84A2..4 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2.14

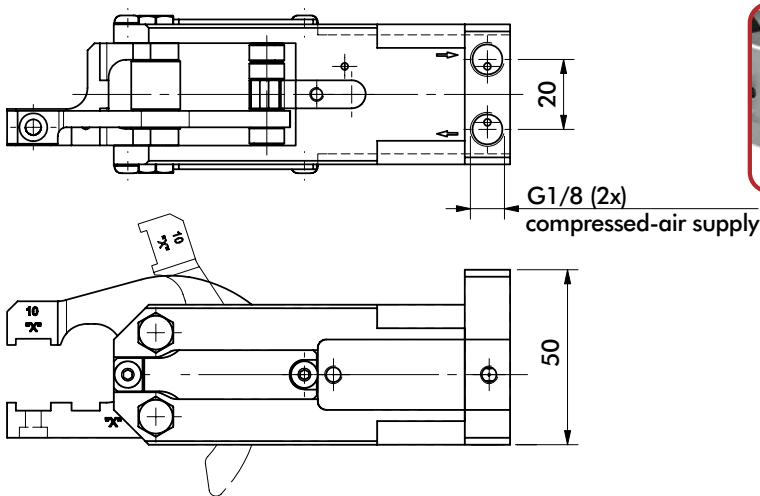


Medium air, min. 3 bar, max. 6 bar. Operation with oil-free air is permissible.

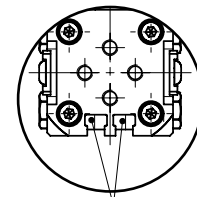
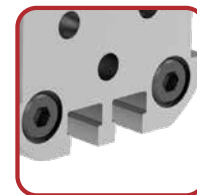
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

84A2.V4



84AT2..4



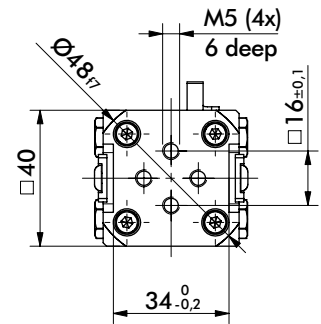
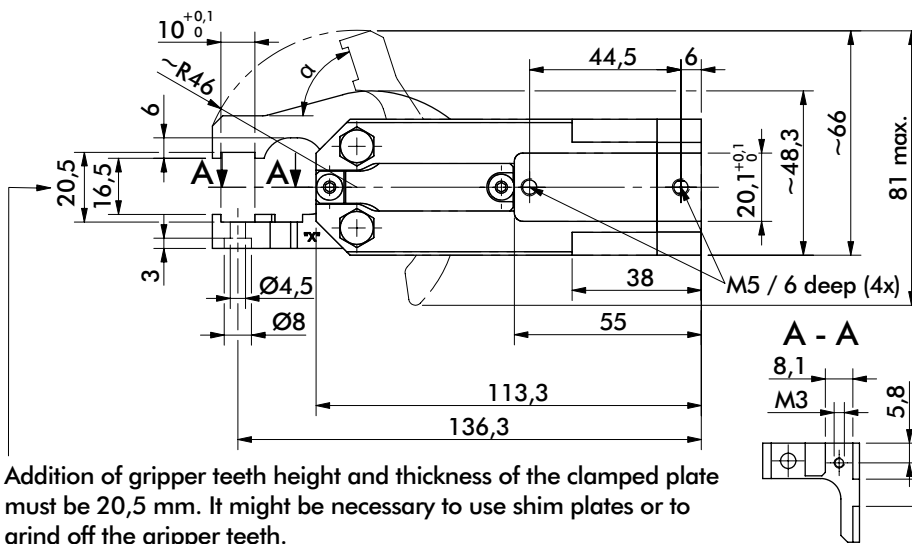
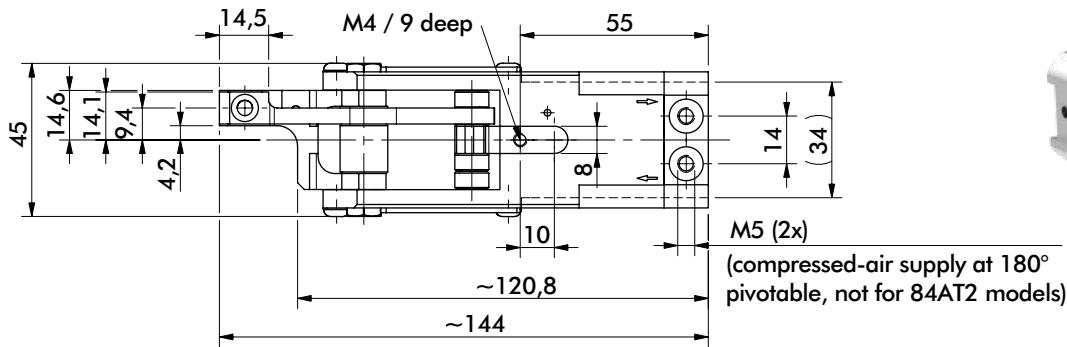
T-groove for sensor

Model	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
84A2..4/84AT2..4			
-	72°		
X	30°	920 [207]	0,5 [1.1]
Y	45°		

84A2..6 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2.16

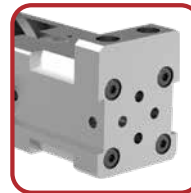
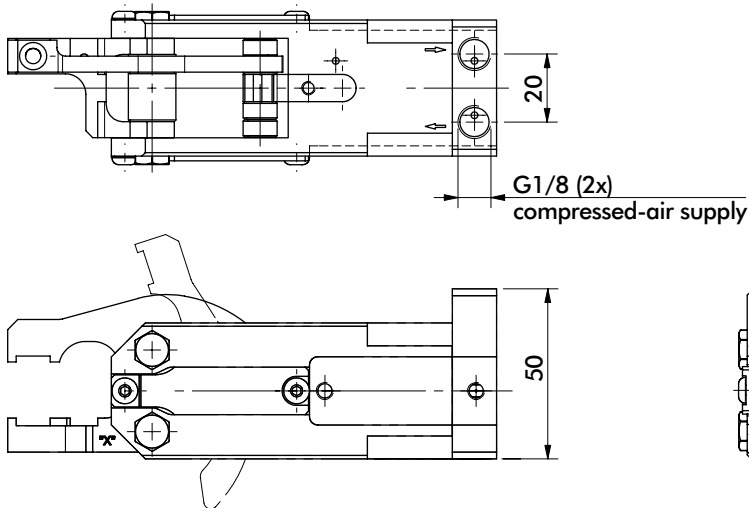


Medium air, min. 3 bar, max. 6 bar. Operation with oil-free air is permissible.

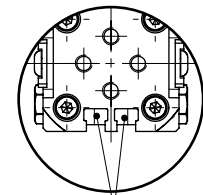
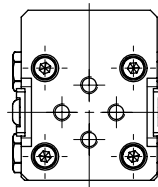
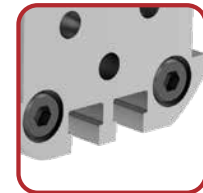
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

84A2.V6



84AT2..6



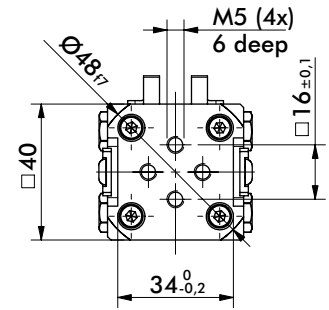
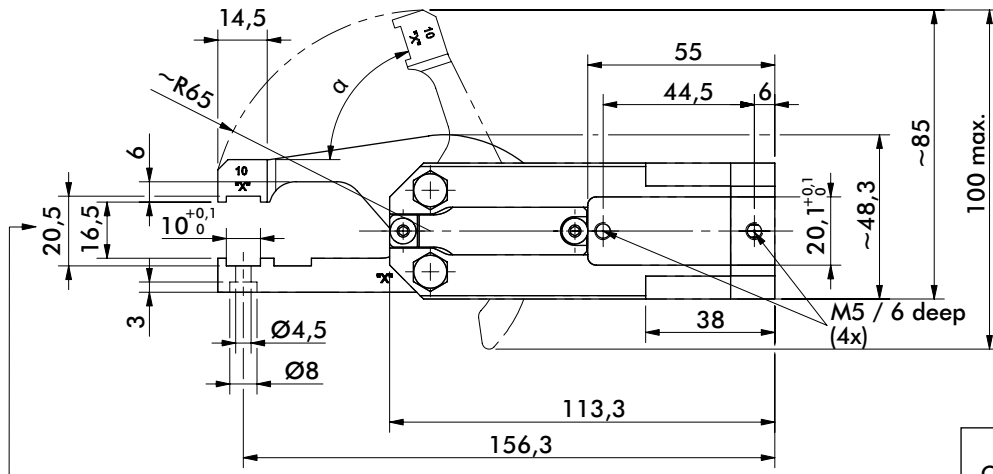
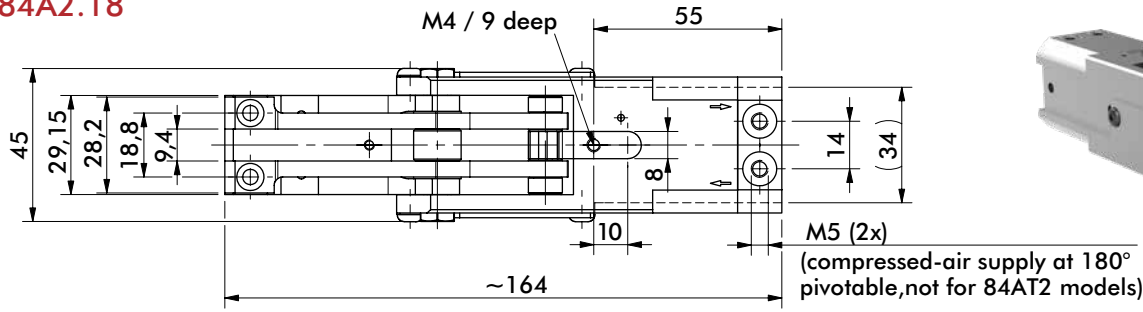
T-groove for sensor

Model 84A2..6/84AT2..6	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
-	72°	920 [207]	0,5 [1.1]
X	30°		
Y	45°		

84A2..8 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2.18

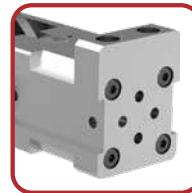
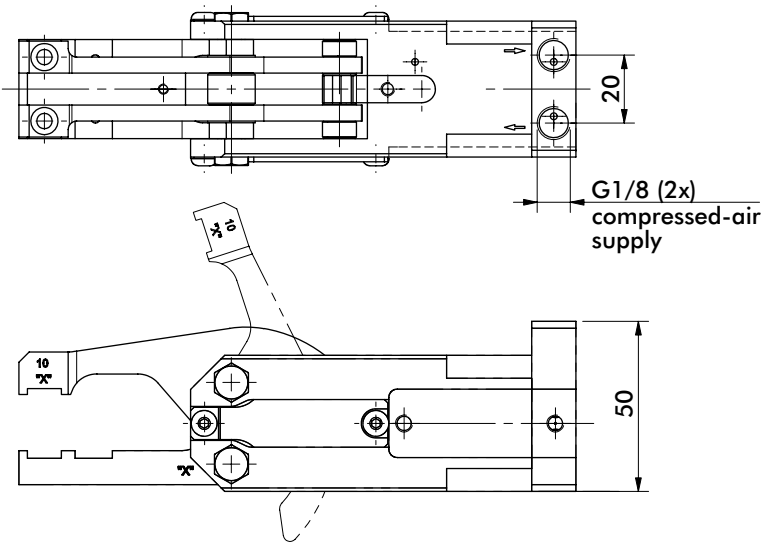


Medium air, min. 3 bar, max. 6 bar.
Operation with oil-free air is permissible.

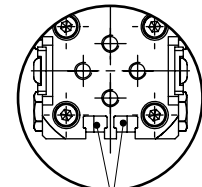
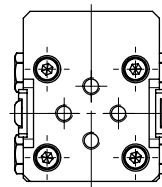
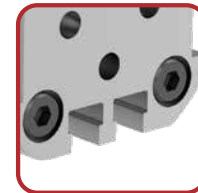
Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

84A2.V8



84AT2..8



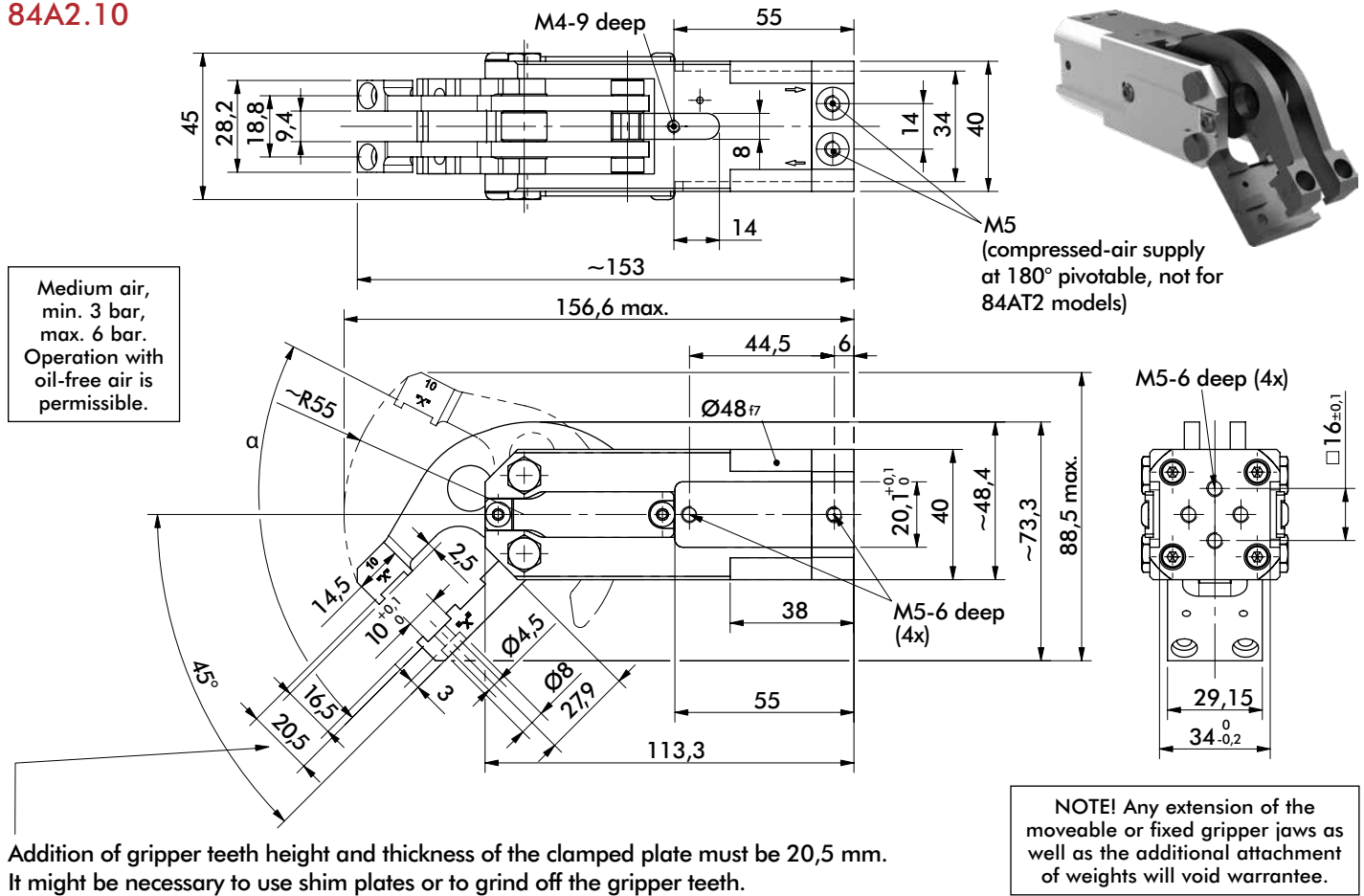
T-groove for sensor

Model 84A2..8/84AT2..8	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
-	72°		
X	30°	560 [126]	0,65 [1.43]
Y	45°		

84A2..0 SERIES (FIXED LOWER JAW)

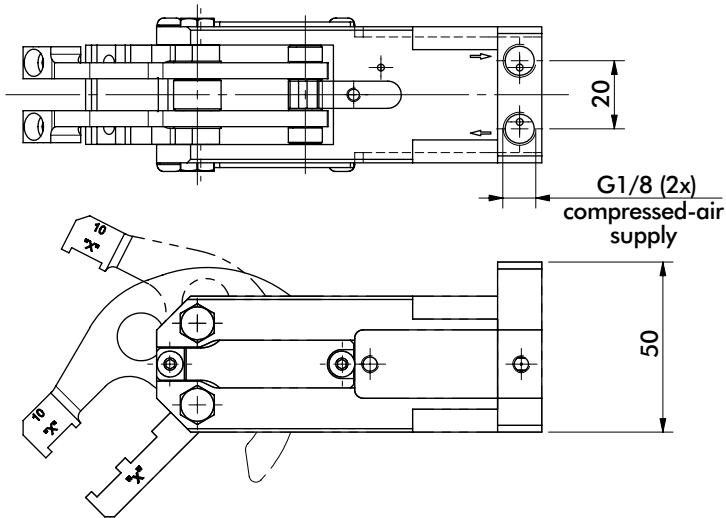
Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2.10

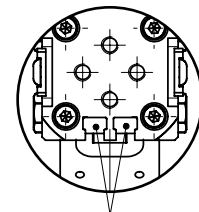
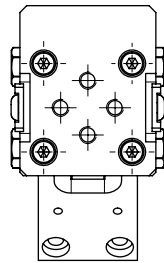
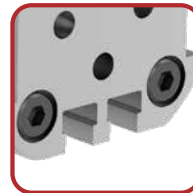


Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

84A2.V0



84AT2..0



T-groove for sensor

Model 84A2..0/84AT2..0	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
-	72°		
X	30°	600 [135]	0,65 [1.43]
Y	45°		

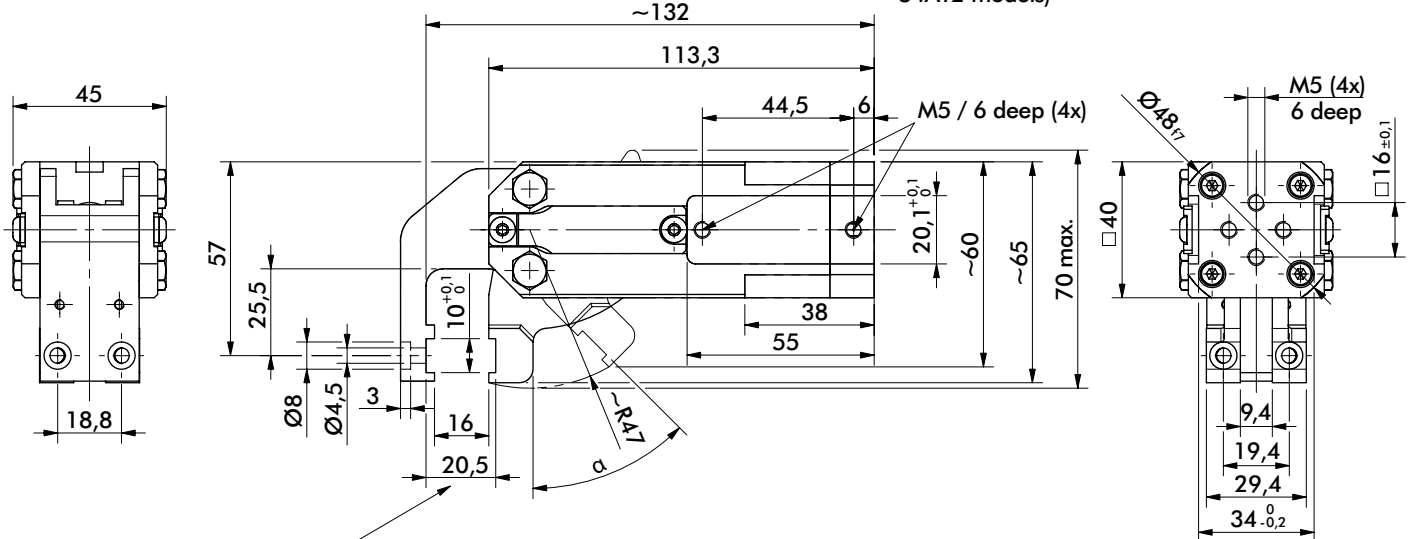
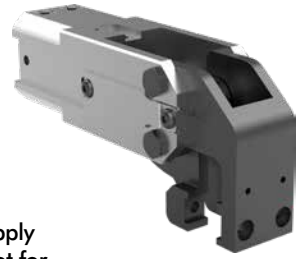
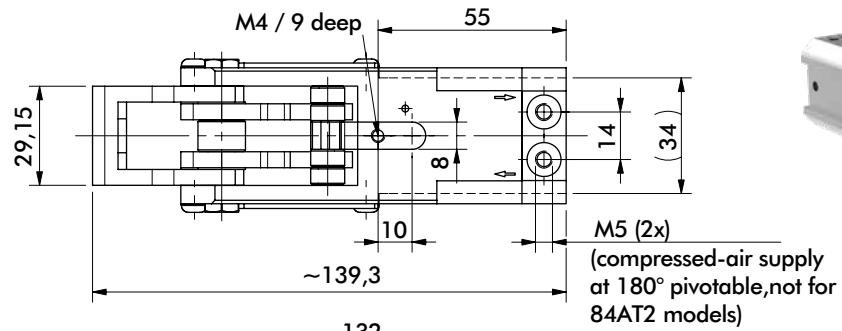
84A2..9 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2.19

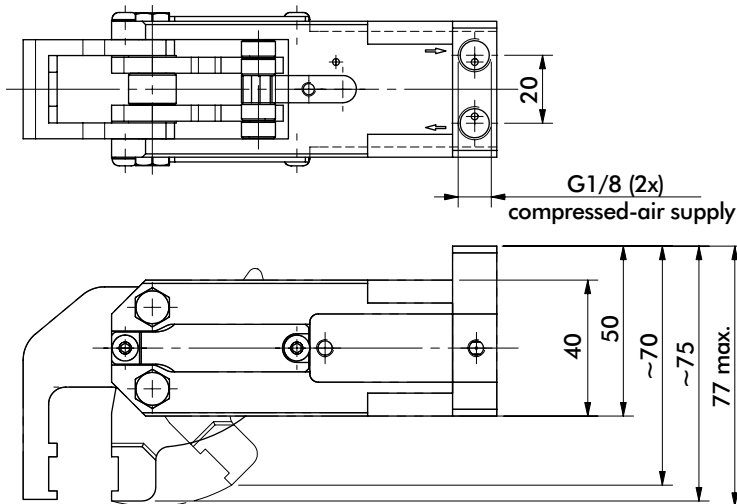
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warranty.

Medium air, min. 3 bar, max. 6 bar. Operation with oil-free air is permissible.

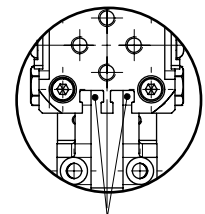
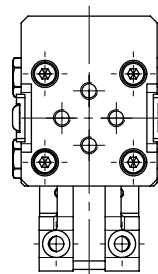
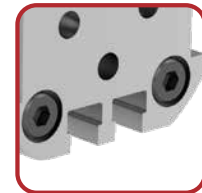


Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

84A2.V9



84AT2..9

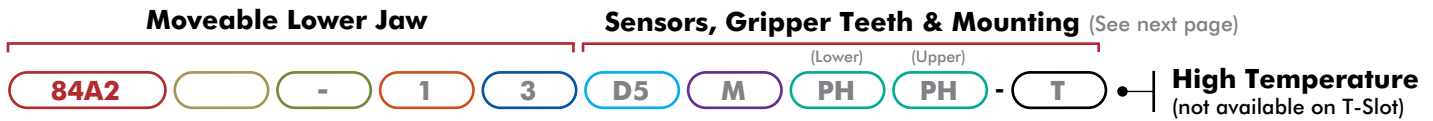


T-groove for sensor

Model	Opening Angle α	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
84A2..9/84AT2..9	45°	860 [193]	0,6 [1.32]
-	30°		
X			

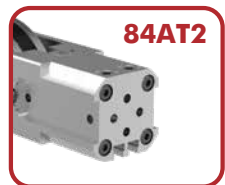
84A2 SERIES (MOVEABLE LOWER JAWS)

Cam Type Sheet Metal Grippers | Ordering Information



Body Style Options

- Description**
84A2 Standard
84AT2 Sensor T-Slot



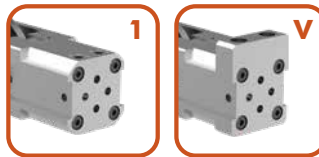
Jaw Orientation Options

- Description**
"Blank" Double (Jaw Arrangement Options 3 only)
L Single Left (Jaw Arrangement Options 5 only)
R Single Right (Jaw Arrangement Options 5 only)



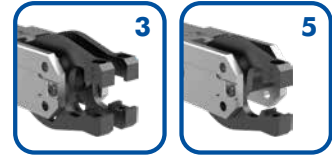
Porting Options

- Description**
1 (2) M5
V (2) G1/8



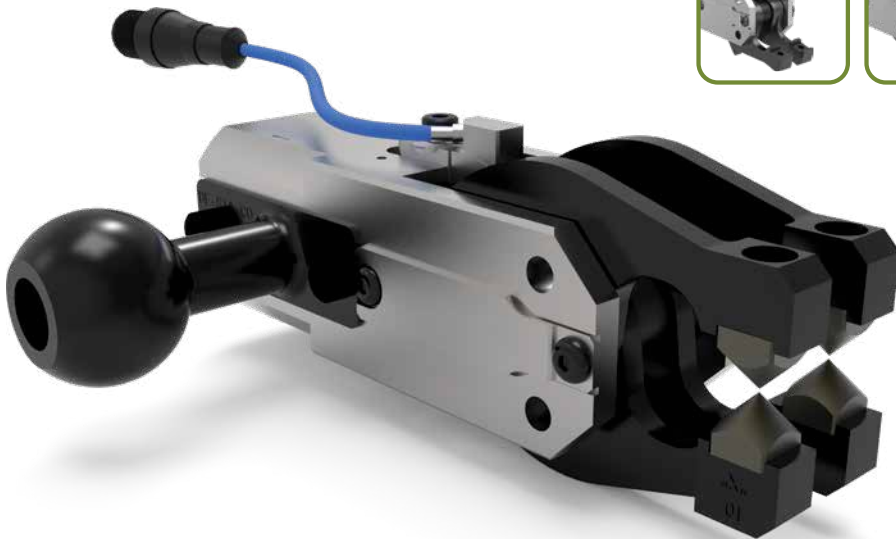
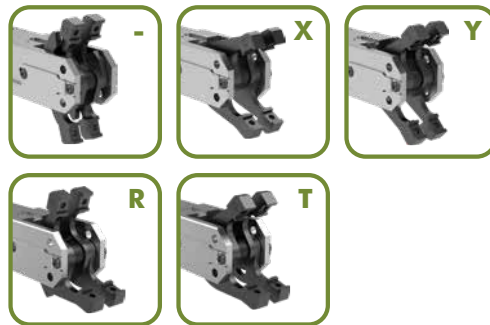
Jaw Arrangement Options

- Description**
3 Double Symmetrical, Straight Design
5 Single Symmetrical, Straight Design



Jaw Opening Options

- Description**
- 72° Jaw Opening (Symmetrical)
X 30° Jaw Opening (Symmetrical)
Y 45° Jaw Opening (Symmetrical)
R 72° Upper/15° Lower Jaw
T 45° Upper/15° Lower Jaw



Specifications	Unit	
Piston	mm	25
Actuation Time (open/close)	sec	<0,1
Air Consumption per Double Stroke at 6 bar	L	0,32

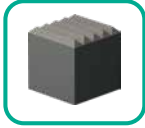
84A2 SERIES (MOVEABLE LOWER JAWS)

Cam Type Sheet Metal Grippers | Ordering Information

Gripper Teeth, Points and Crown Options (Upper and Lower)

Steel Teeth

- 00** None
- BA** Hardened - 8JZ-027-1
- BD** Hardened (Upper) - 8JZ-049-1



- BB** Soft Steel - 8JZ-028-1



High Temperature (84A2 Only)

- FF** Soft Steel - 8JZ-085-1



- EE** Soft Steel - 8JZ-092-1



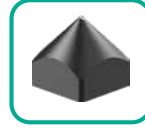
Plastic Teeth*

- 00** None
 - KF** 90 Shore - 8JZ-045-2
- *Not suitable for High Temperature applications



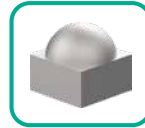
Steel Points

- 00** None
- PH** Hardened - 8JZ-029-1

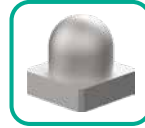


High Temperature (84A2 Only)

- PI** Soft Steel - 8JZ-074-1



- RR** Soft Steel - 8JZ-088-1



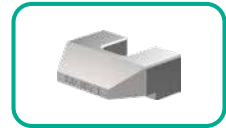
Crown Teeth

- 00** None
- SK** Hardened (Lower) - 8JZ-036-2
- SQ** Hardened (Lower) - 8JZ-051-1
- SL** Hardened (Upper) - 8JZ-037-1
- SM** Hardened (Upper) - 8JZ-038-1
- SN** Hardened (Upper) - 8JZ-039-1
- SP** Hardened (Upper) - 8JZ-040-1

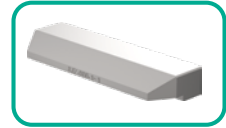


High Temperature (84A2 Only)

- DD** Soft Steel - 8JZ-087-1 (Lower)



- LL** Soft Steel - 8JZ-086-1 (Lower)



Shims for gripper teeth available
Order Separately - **85B-039-1**
Dimensions: 10 x 10 x 1 mm



Mounting Options

Description

- | | |
|----------------------------------------------|-----------------------------------------------|
| 0 None | M Ø32mm Rear Ball
GT-32B-84A2- L-R |
| I Ø20mm Rear Rod
8MA-165-1 | N Ø32mm Flanged Ball
GT-32B-84A2- B |
| J Ø25mm Rear Rod
8MA-166-1 | V Rear Flange
8MA-147-1 |
| Z Ø1.00" Rear Rod
8MA-168-1 | W On-Body Swivel Ball
82ZB-025-2 |
| L Ø20mm Apple Core
GT-20M-84A2-L-R | |



Ø25mm
Ø30mm
Both Included

Sensor Options (not suitable for High Temperature applications)

Description

- 00** None
- D5** Double Sheet Control Sensor, M12x1 Plug - 8EA-087-1
- D8** 2X Position Sensor - 8EA-109-1 (84AT2 Models Only)
- GK** 2X **D5** (not for 84AT2 Models)

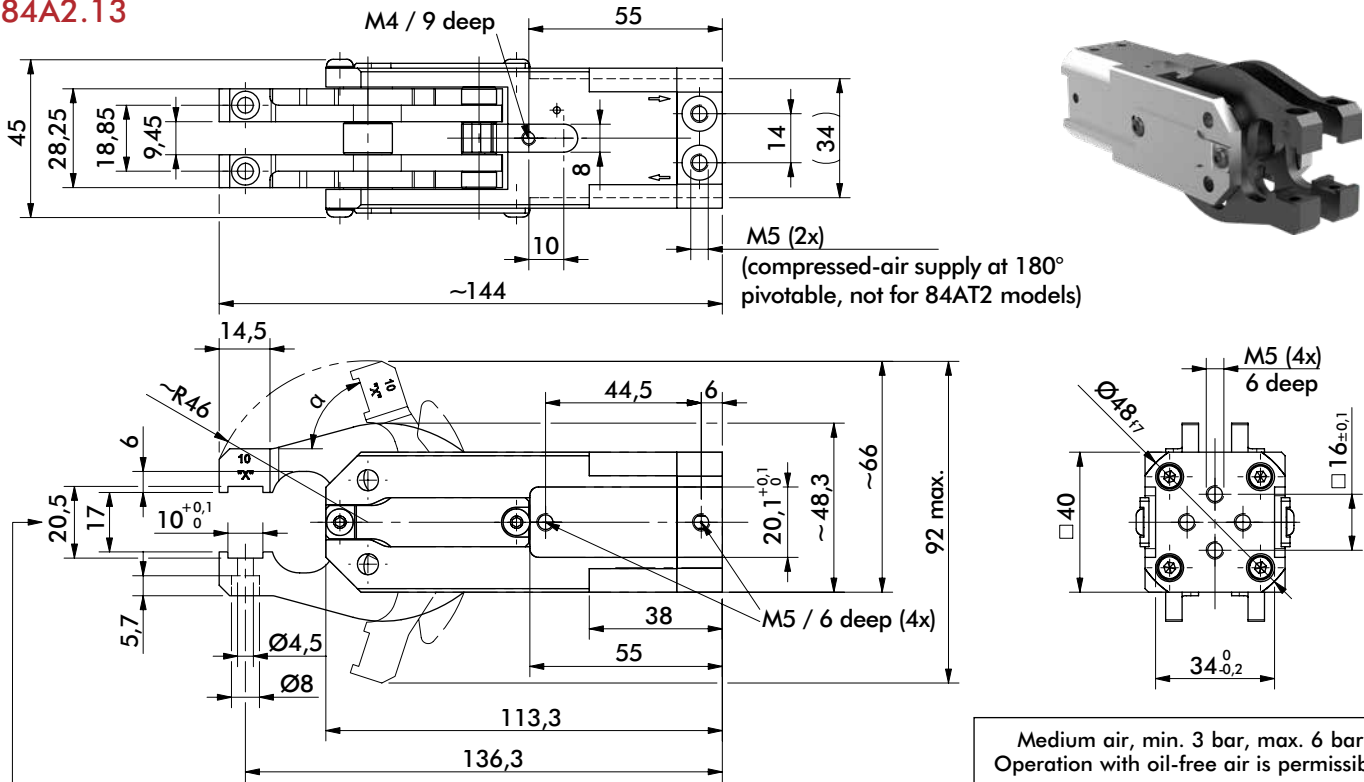


Cover for Sensing Systems **D5, GK**
Order Separately **82ZB-185-1**

84A2..3 SERIES (DOUBLE SYMMETRICAL MOVEABLE JAWS)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

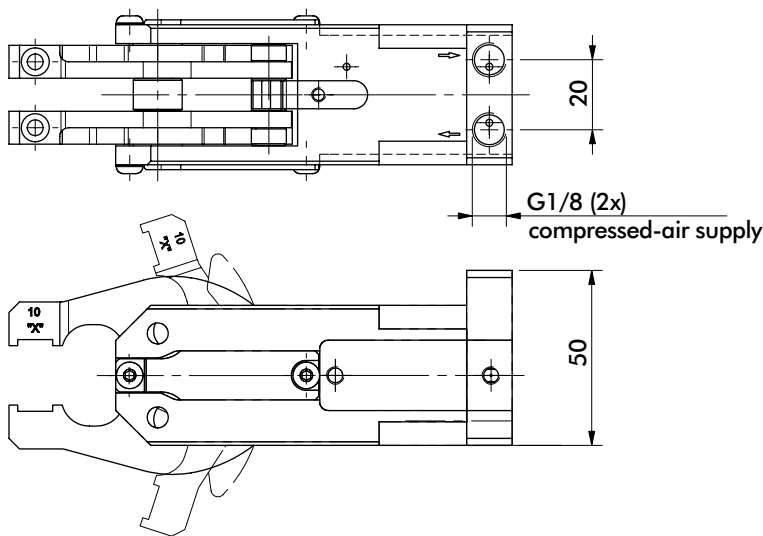
84A2.13



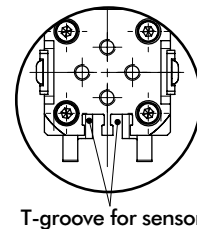
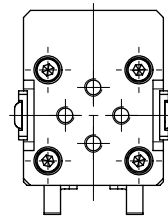
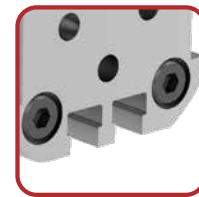
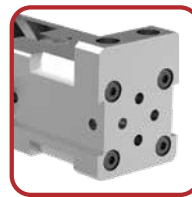
Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

84A2.V3



84AT2..3

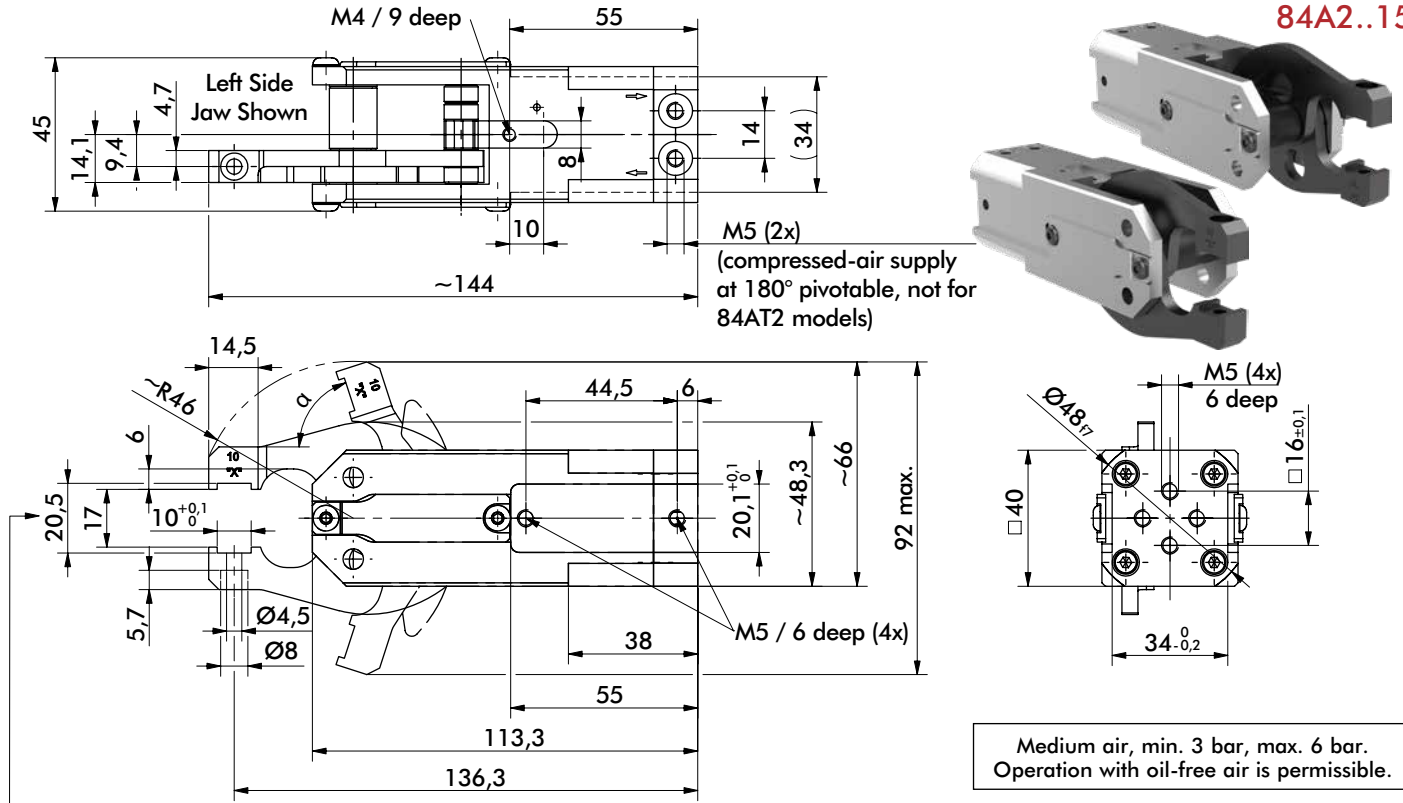


Model	Opening Angle α	Clamping force at 6 bar	Weight
84A2..3/84AT2..3	Symmetrical	~N [lbs]	Kg [lbs]
-	72°		
X	30°	475 [107]	0,6 [1.32]
Y	45°		

84A2...5 SERIES (SINGLE SYMMETRICAL MOVEABLE JAWS)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2..15

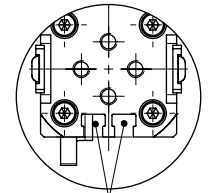
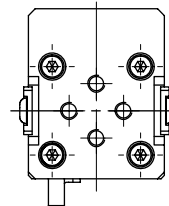
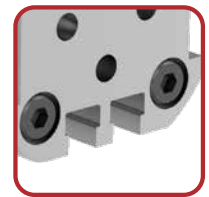
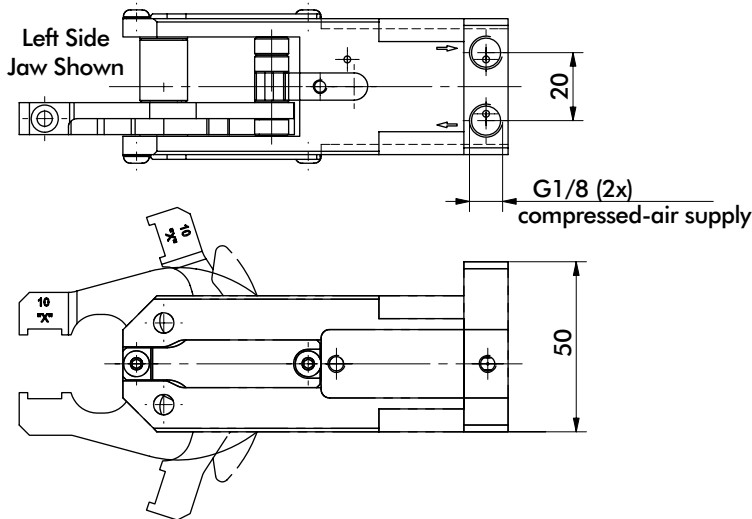


Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

84A2..V5

84AT2...5



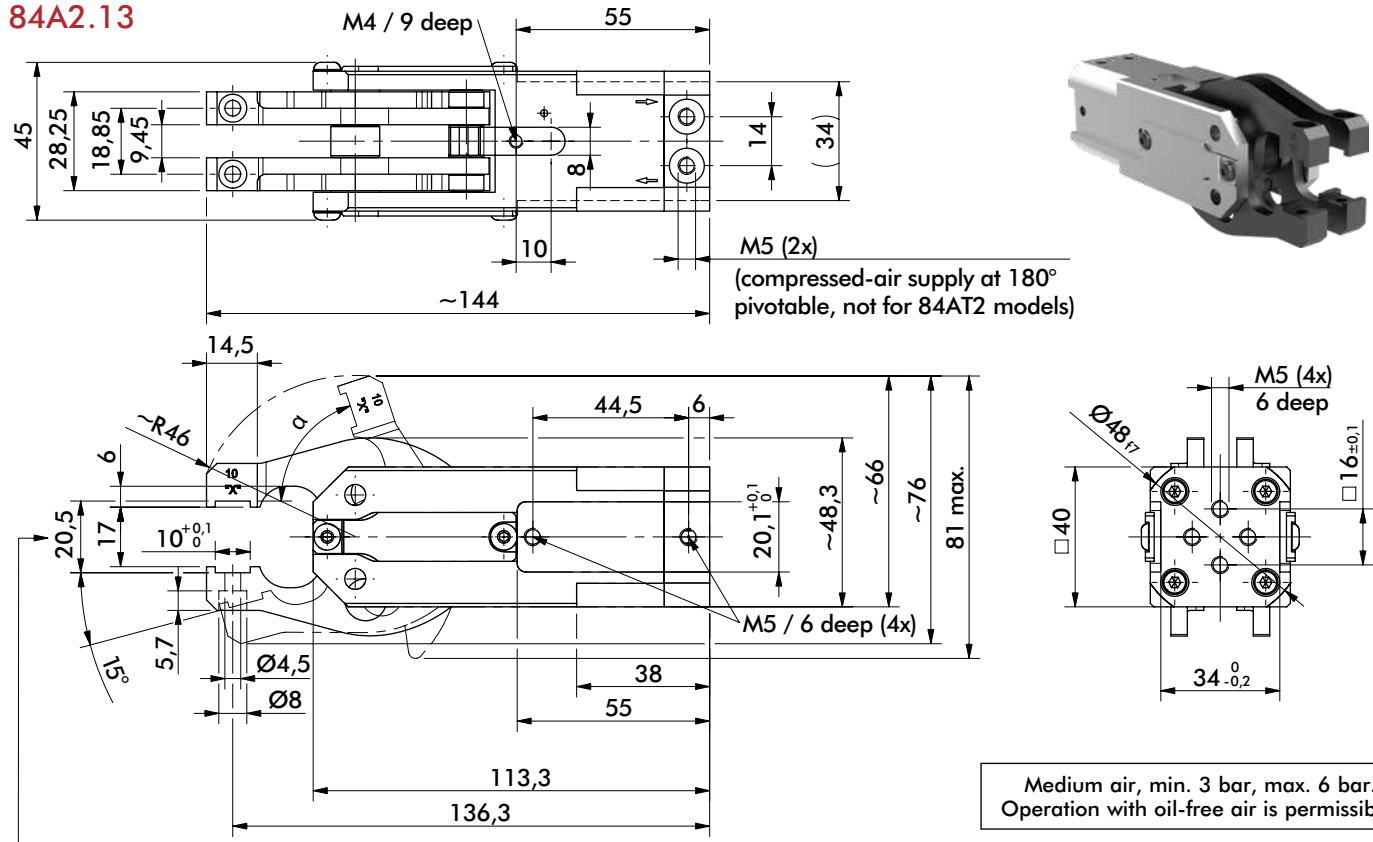
T-groove for sensor

Model 84A2...5/84AT2...5	Opening Angle α Symmetrical	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
-	72°	475 [107]	0,47 [1.04]
X	30°		
Y	45°		

84A2..3 SERIES (DOUBLE 15° MOVEABLE LOWER JAWS)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

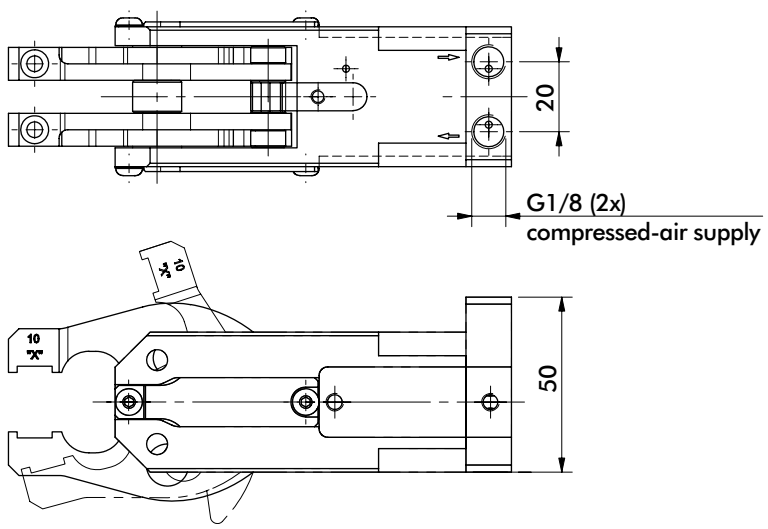
84A2.13



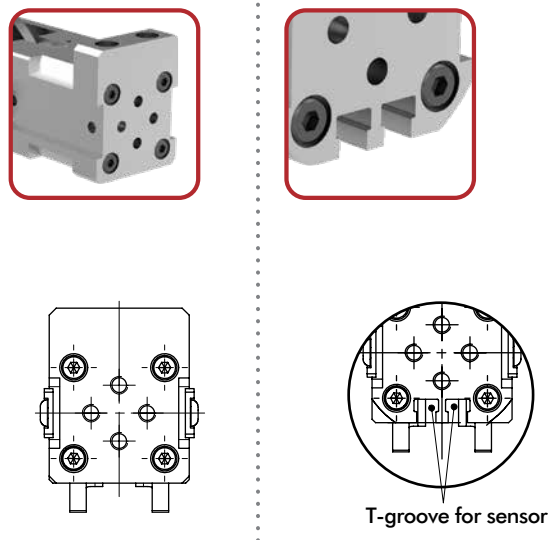
Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

84A2.V3



84AT2..3

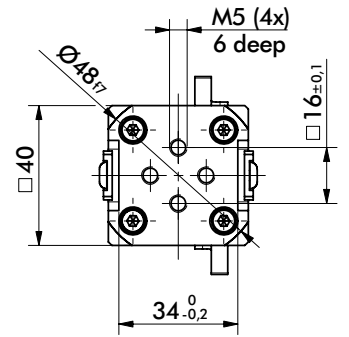
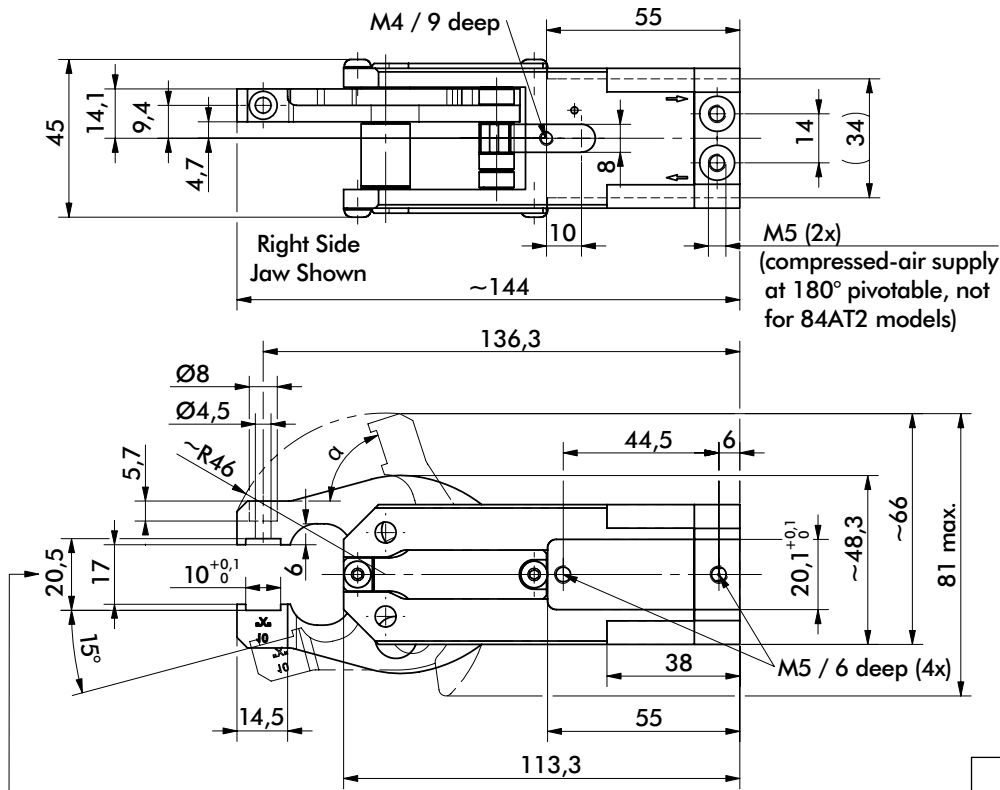


Model	Opening Angle α Upper/Lower	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
84A2..3/84AT2..3			
R	72°/15°	475 [107]	0,6 [1.32]
T	45°/15		

84A2...5 SERIES (SINGLE 15° MOVEABLE LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

84A2..15

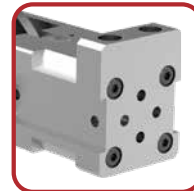
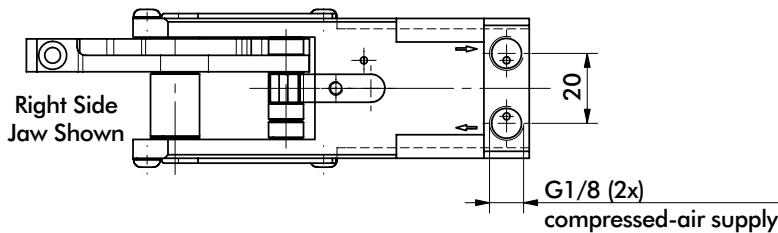


Medium air, min. 3 bar, max. 6 bar.
Operation with oil-free air is permissible.

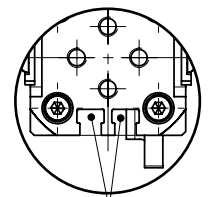
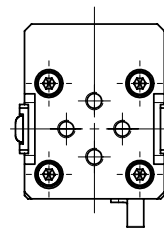
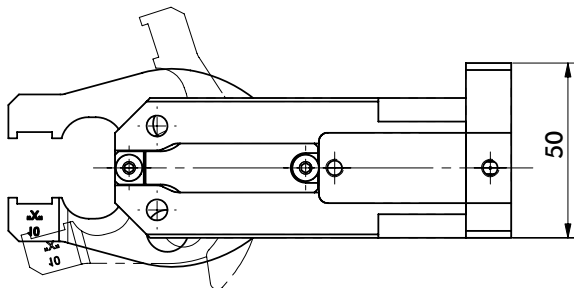
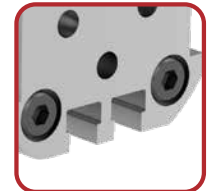
Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

84A2..V5



84AT2...5



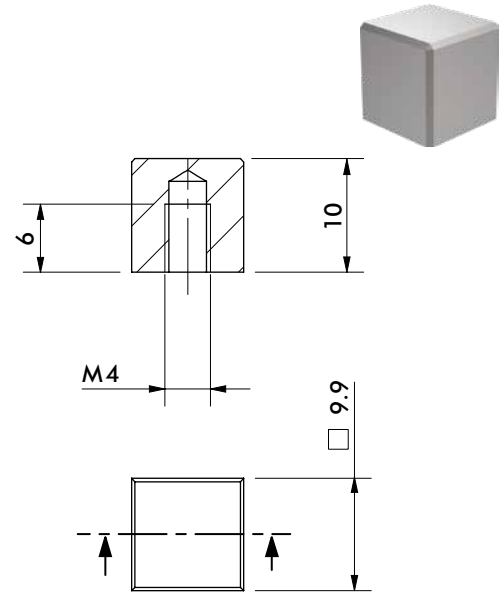
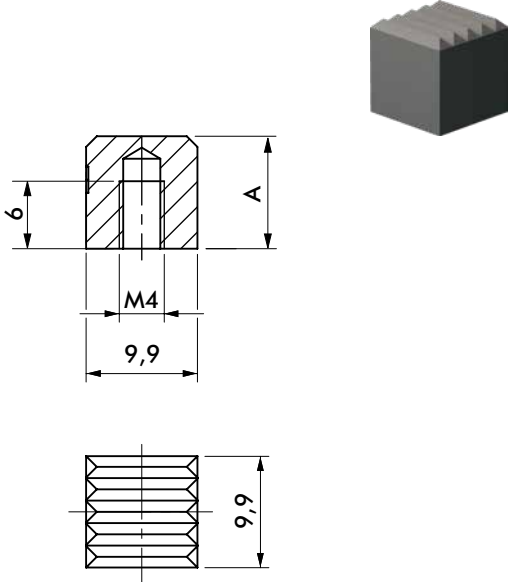
T-groove for sensor

Model	Opening Angle α Upper/Lower	Clamping force at 6 bar ~N [lbs]	Weight Kg [lbs]
84A2...5/84AT2...5			
R	72°/15°	475 [107]	0,47 [1.04]
T	45°/15		

84A2 SERIES ACCESSORIES

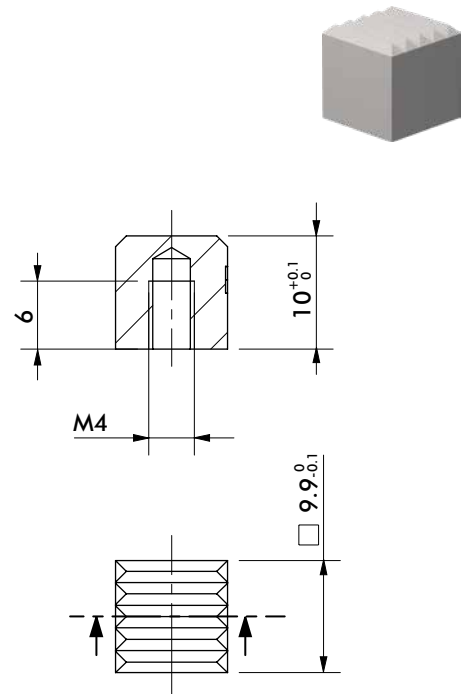
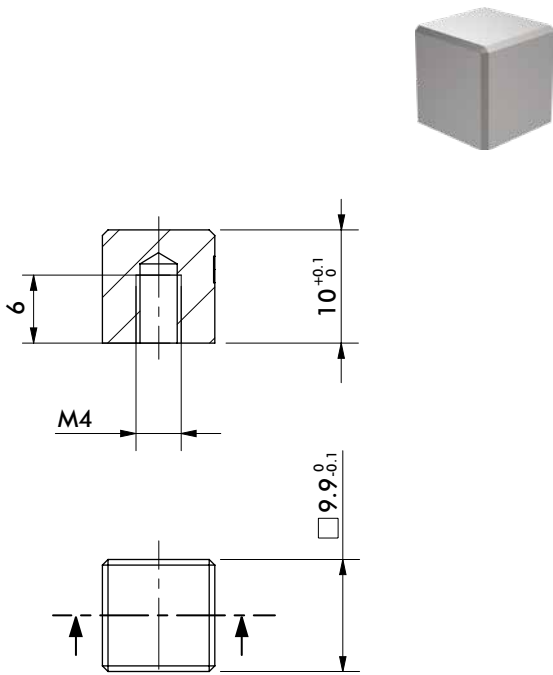
Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Steel Teeth



Hardened Steel Teeth	Part Number	A
Serrated	8JZ-049-1	9
Serrated	8JZ-027-1	10

Soft Steel Teeth	Part Number
Non-Serrated	8JZ-028-1



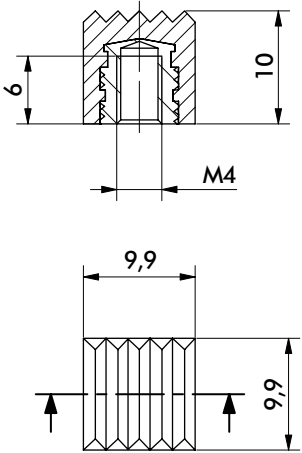
Hi-Temp Soft Steel Teeth	Part Number
Non-Serrated	8JZ-085-1

Hi-Temp Soft Steel Teeth	Part Number
Serrated	8JZ-092-1

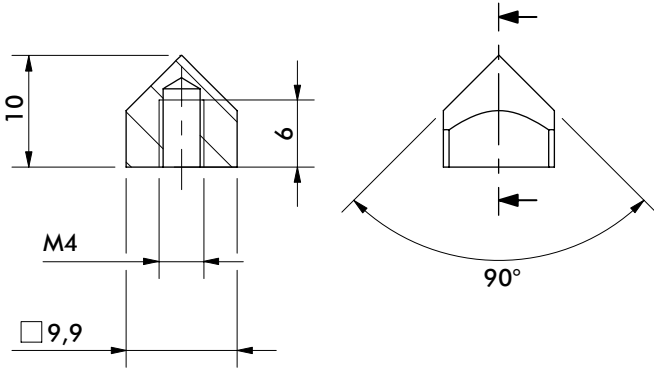
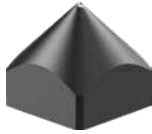
84A2 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Plastic Teeth



Steel Points



Plastic Teeth

90 Shore, Serrated

Part Number

8JZ-045-2

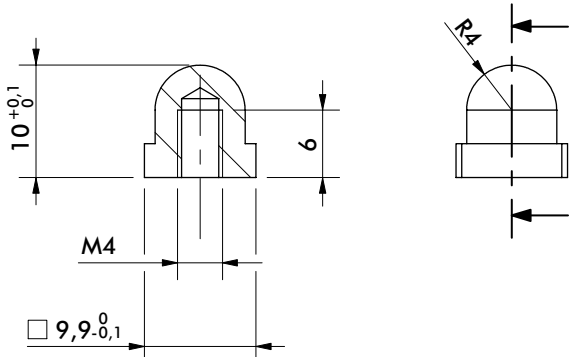
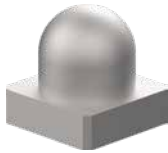
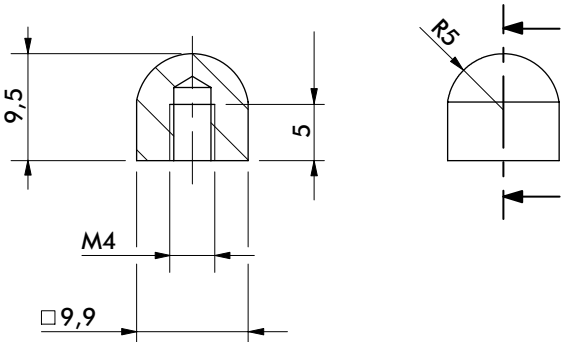
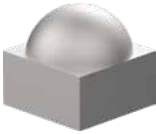
Hardened Steel Point

Pointed

Part Number

8JZ-029-1

Steel Points



Hi-Temp Soft Steel Point

Rounded

Part Number

8JZ-074-1

Hi-Temp Soft Steel Point

Rounded

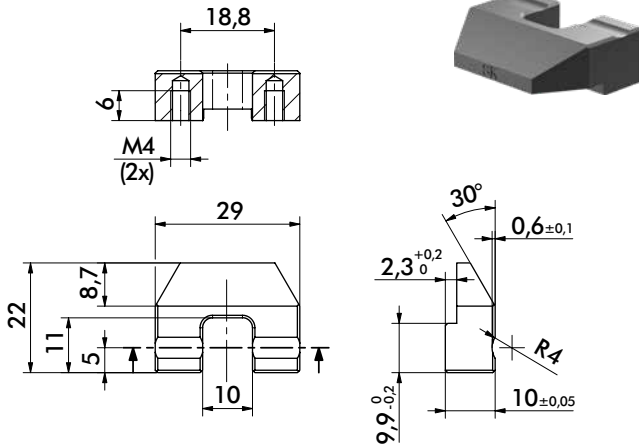
Part Number

8JZ-088-1

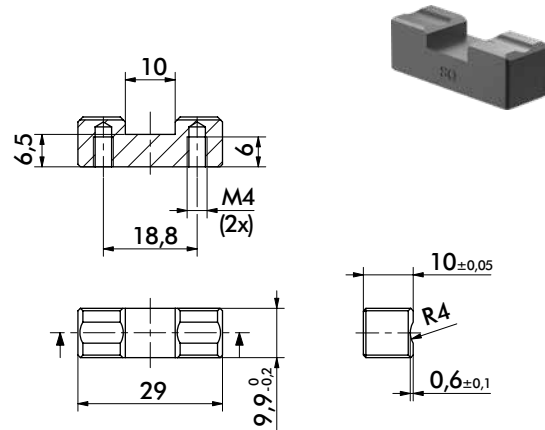
84A2 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

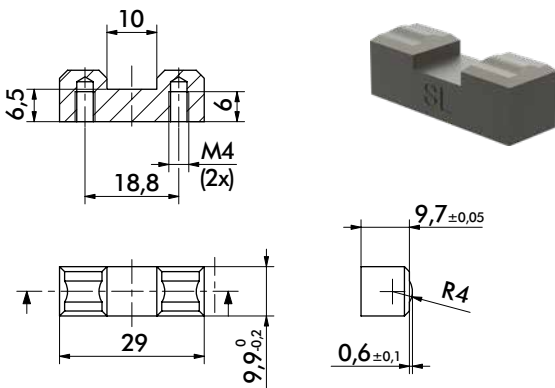
Crown Teeth



Hardened Steel Teeth Part Number **8JZ-036-2**
Crown Lower

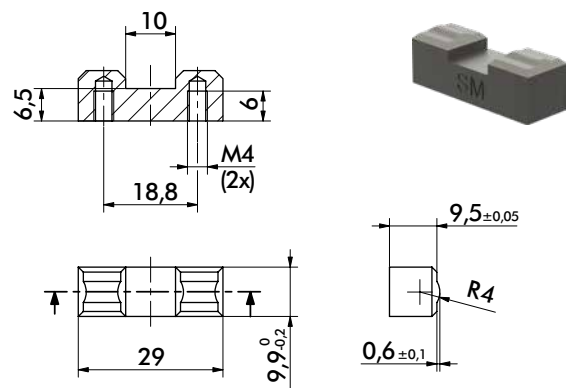


Hardened Steel Teeth Part Number **8JZ-051-1**
Crown Lower



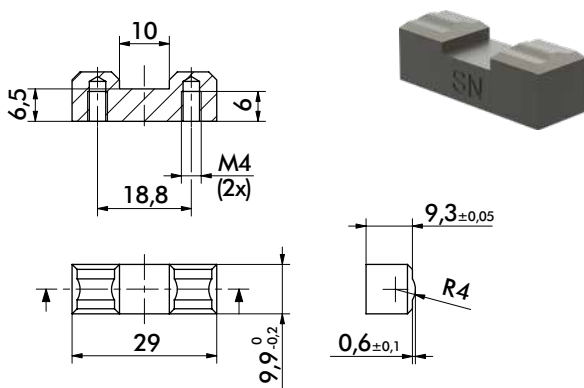
For material thickness 0,5 - 0,8 mm

Hardened Steel Teeth Part Number **8JZ-037-1**
Crown Upper



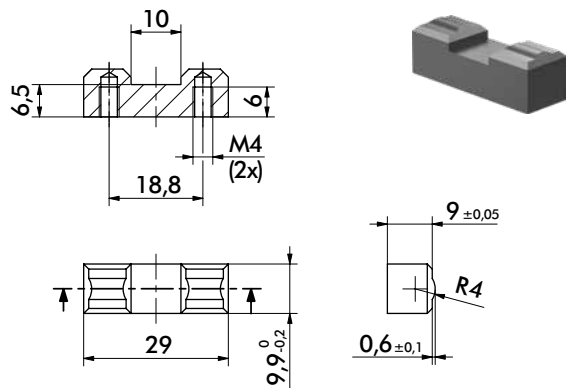
For material thickness 0,9 - 1,2 mm

Hardened Steel Teeth Part Number **8JZ-038-1**
Crown Upper



For material thickness 1,3 - 1,6 mm

Hardened Steel Teeth Part Number **8JZ-039-1**
Crown Upper



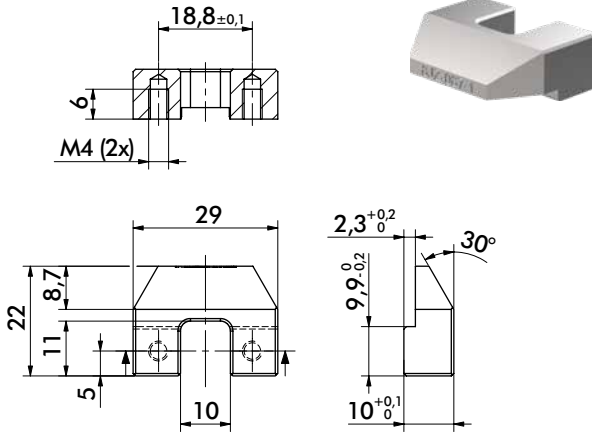
For material thickness 1,7 - 2,1 mm

Hardened Steel Teeth Part Number **8JZ-040-1**
Crown Upper

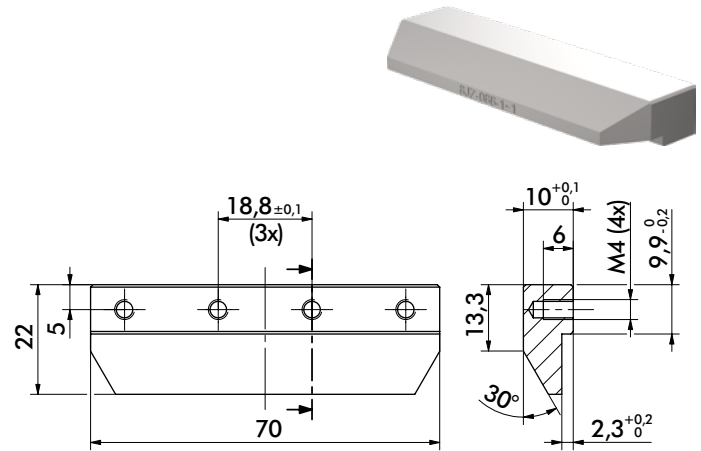
84A2 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Crown Teeth

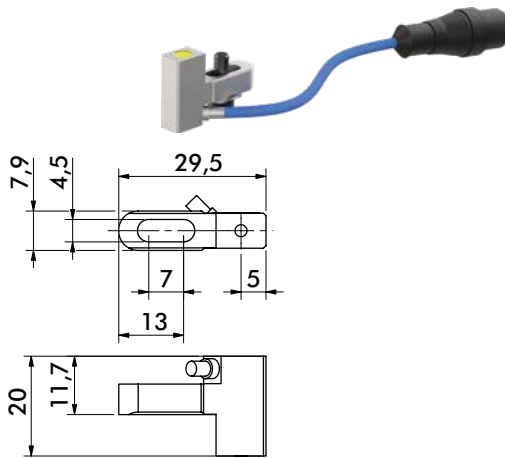


Hi-Temp Soft Steel Teeth Part Number **8JZ-087-1**
Crown Lower

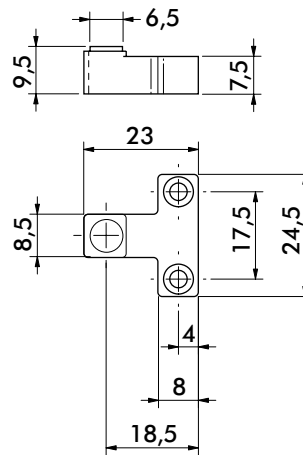


Hi-Temp Soft Steel Teeth Part Number **8JZ-086-1**
Crown Lower

Sensors

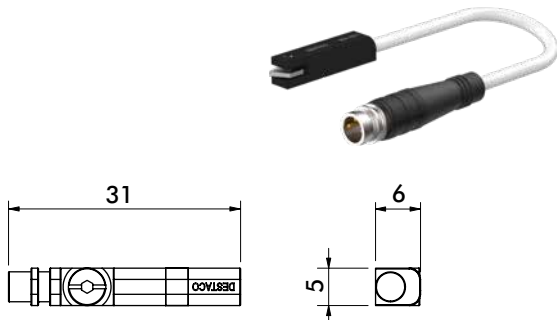


Part Present Sensor Part Number **8EA-087-1**
1.5mm Sensing Distance



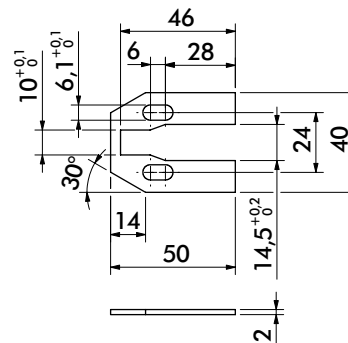
Part Present Sensor Part Number **8EA-164-1**
3mm Sensing Distance, 2m Cable
8EA-165-1
3mm Sensing Distance, M12X1

Sensors



Proximity Switch Part Number **8EA-109-1**
T-Slot, M8x1 Plug

Mount

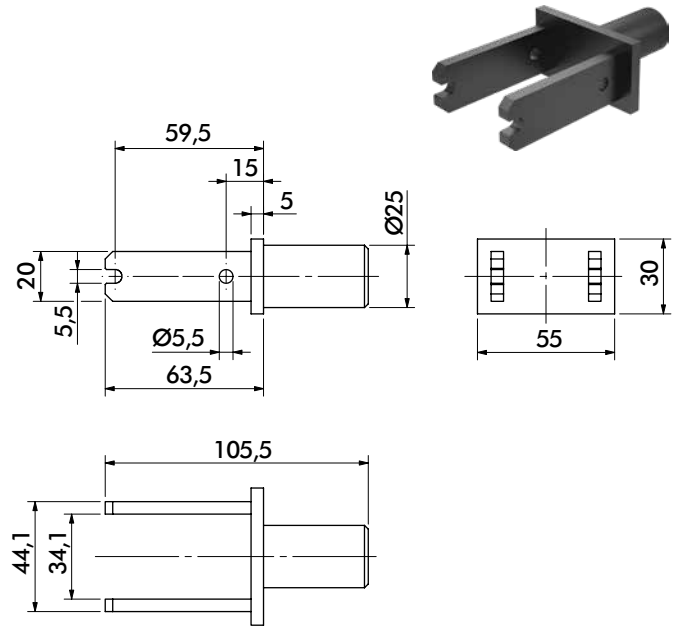
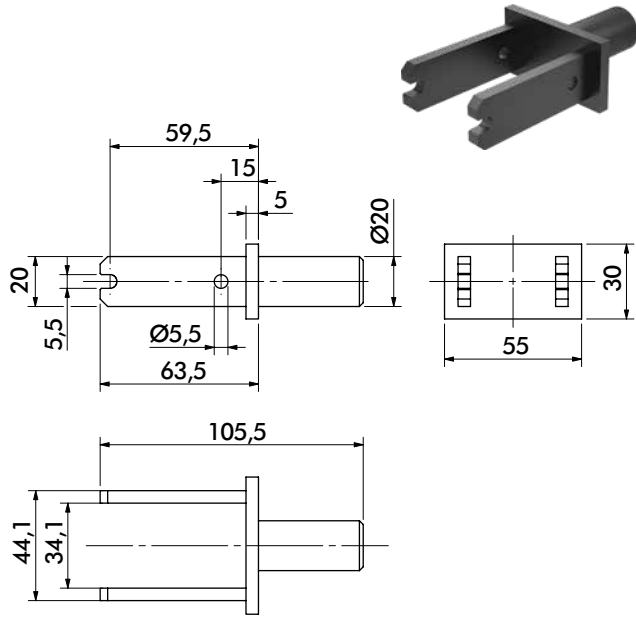


Mount Part Number **8MH-054-1**
Guards

84A2 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Mounts



Mount

Ø20mm Rear Rod

Part Number

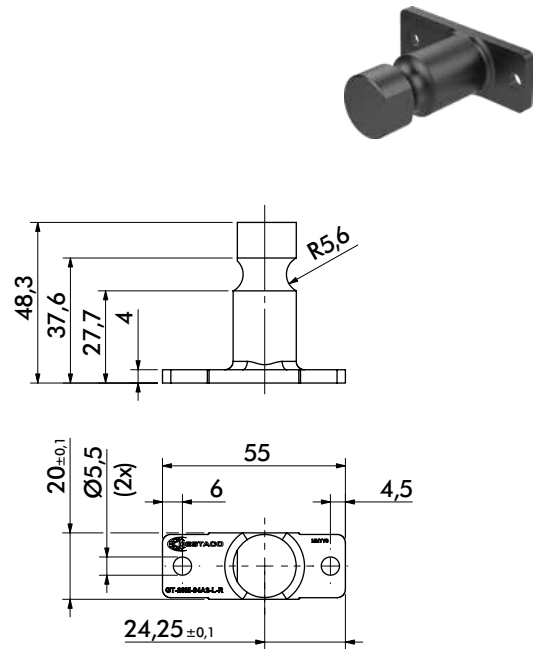
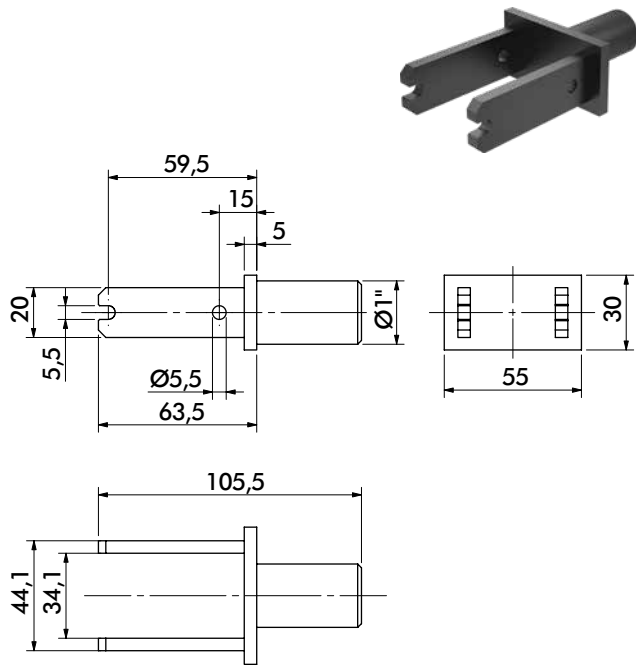
8MA-165-1

Mount

Ø25mm Rear Rod

Part Number

8MA-166-1



Mount

Ø1.00" Rear Rod

Part Number

8MA-168-1

Mount

Ø20mm Apple Core

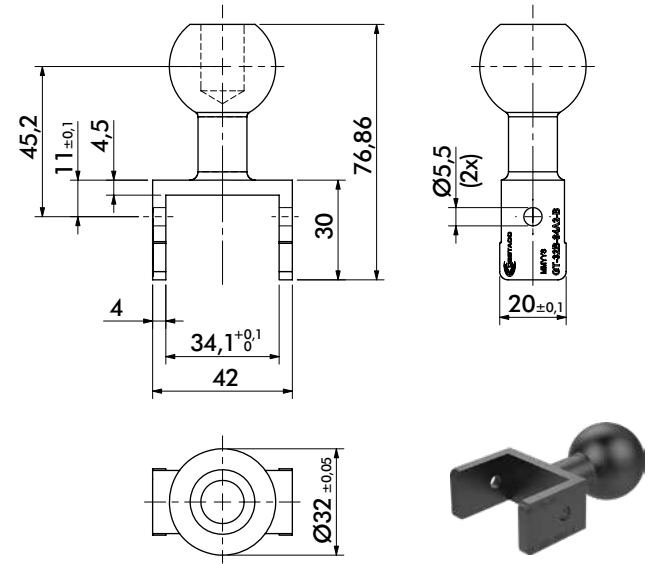
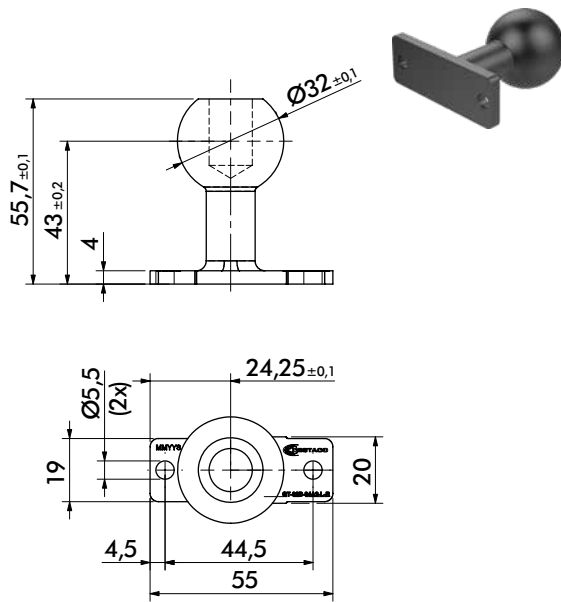
Part Number

GT-20M-84A2-L-R

84A2 SERIES ACCESSORIES

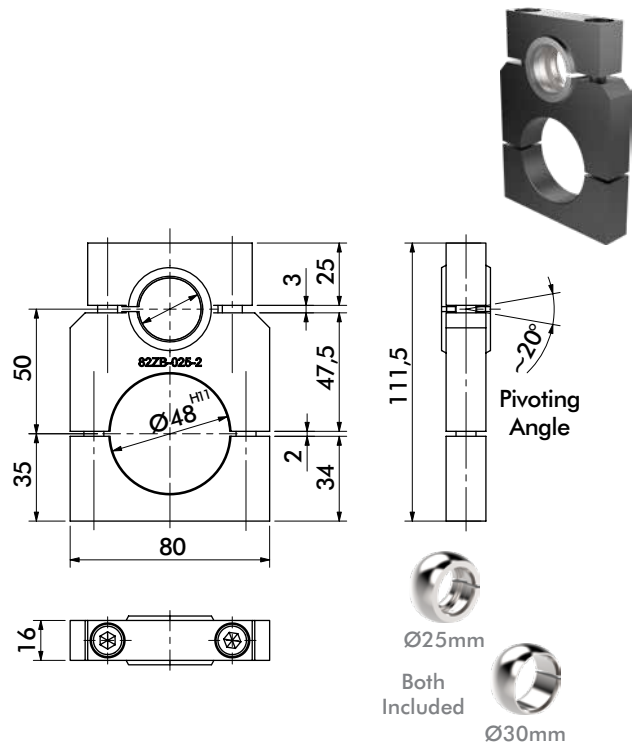
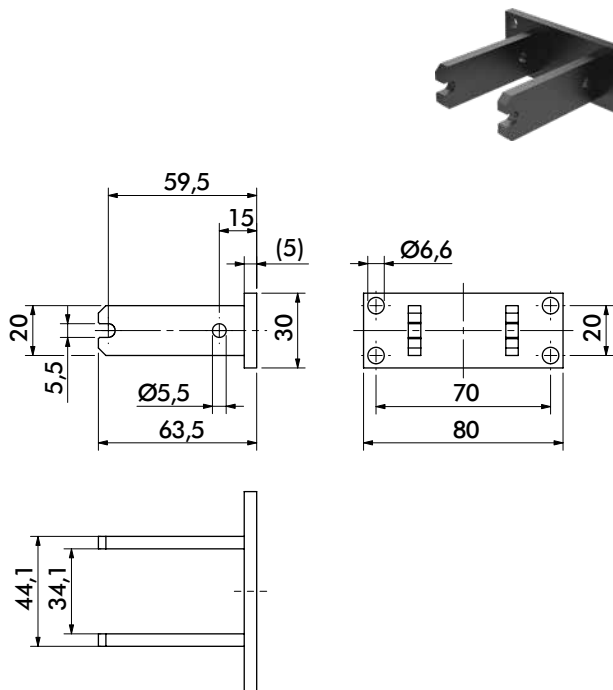
Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Mounts



Mount Part Number
 Ø32mm Rear Ball **GT-32B-84A2-L-R**

Mount Part Number
 Ø32mm Flanged Ball **GT-32B-84A2-B**



Mount Part Number
 Rear Flange **8MA-147-1**

Mount Part Number
 On-Body Swivel Ball **82ZB-025-2**

84A3-3 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Ordering Information

Fixed Lower & 90° Jaw

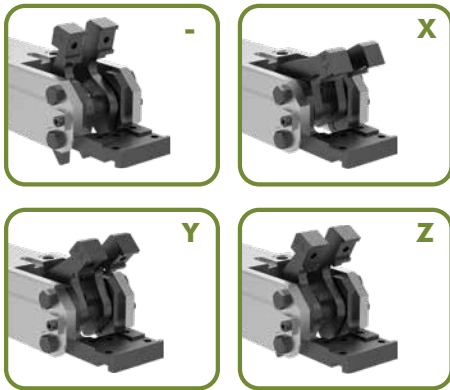
Sensors, Gripper Teeth & Mounting (See next page)

84A3 - **31** **D5** **S** **SF** **SB** - **T** • **High Temperature**

Jaw Opening Options

Description

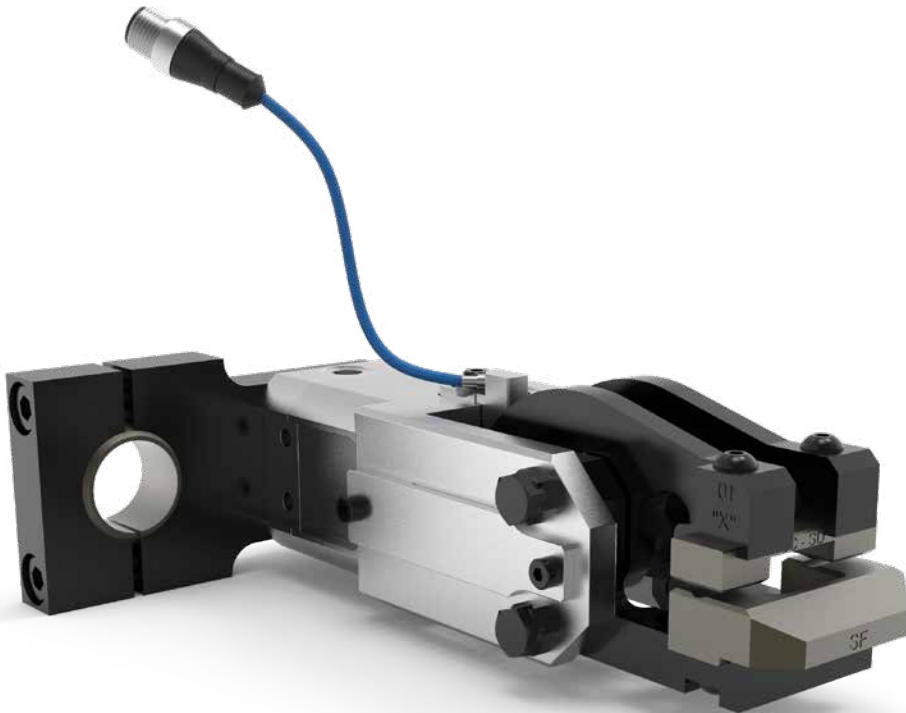
- 76° Jaw Opening (Standard)
- X 30° Jaw Opening
- Y 45° Jaw Opening
- Z 60° Jaw Opening



Jaw Arrangement Options

Description

- 30 Double Upper, Straight Design, Drop Jaw
- 31 Double Upper, Straight Design
- 32 Double Upper, 90° Design
- 34 Single Upper, Right, Straight Design
- 35 Double Upper, Narrow Jaw, Straight Design
- 36 Double Upper, Extended Jaw
- 37 Double Upper, 90° Design
- 38 Double Upper, Narrow Jaw, 90° Design
- 39 Single Upper, Left, Straight Design



Specifications	Unit	
Piston	mm	32
Actuation Time (open/close)	sec	0,2
Air Consumption per Double Stroke at 5 bar	L	0,4

84A3-3 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Ordering Information

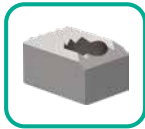
Gripper Teeth, Points and Crown Options (Upper and Lower)

Steel Teeth

- 00** None
- AA** 14,9x21x12mm - 8JZ-014-3
- AH** 14,9x14x14mm - 8JZ-001-1
- AL** 14,9x14,9x9,8mm - 8JZ-003-1
- AC** 14,9x14x12mm - 8JZ-043-1
- AG** 14,9x14x12mm - 8JZ-050-1
- BK** 14,9x21x11mm - 8JZ-066-1

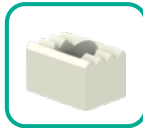


High Temperature
AS 8JZ-094-1



Plastic Teeth*

- 00** None
 - KA** 8JZ-021-1
 - KC** 8JZ-023-1 (Upper)
- *Not suitable for High Temperature applications



Shims for gripper teeth available
Order Separately **8SB-003-1**
Dimensions: 14,8 x 13 x 0,15 mm

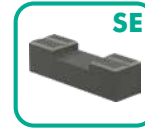
Steel Points (Upper only)

- 00** None
- PA** 8MJ-1001-1
- PB** 8MJ-1002-1
- PC** 8MJ-1003-1



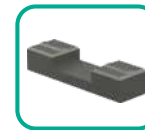
Crown Teeth - Concave (Lower Only)

- 00** None
- SE** 8JZ-019-1
(Not for use with A8 and GN Sensor)
- SF** 8JZ-020-3
- SH** 8JZ-048-1



Crown Teeth - Convex (Upper Only)

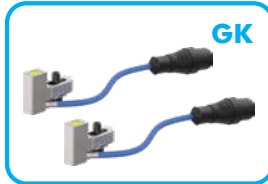
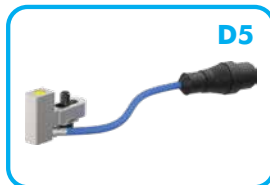
- SB** Mat. = 0,5-1mm - 8JZ-016-2
- SD** Mat. = 1-1,5mm - 8JZ-018-2



Sensor Options (not suitable for High Temperature applications)

Description

- 00** None
- KL** Position Control Set, Left for 76° Opening Angle - 8EA-022-4
- KR** Position Control Set, Right for 76° Opening Angle - 8EA-022-4
- A8** Workpiece Control, Switching Distance 7mm
8EA-092-1 (for 84A3-30/31/32/36)
- D5** Double Sheet Control, M12x1 Plug - 8EA-087-1
- GK** 2X D5
- GN** 1X A8 + 1X D5 (for 84A3-30/31/32/36 only)



Shims for Sensor A8 available
Order Separately **8MB-003-1**



Cable support for Sensing Systems **A8**
Order Separately **8MA-175-1**
Mounted on lower side of gripper (for 84A3-31/36 only)

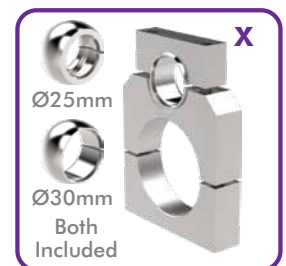
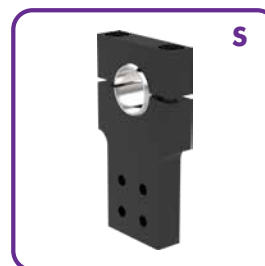


Cover for Sensing Systems **D5, GK, GN**
Order Separately **82ZB-185-1**

Mounting Options

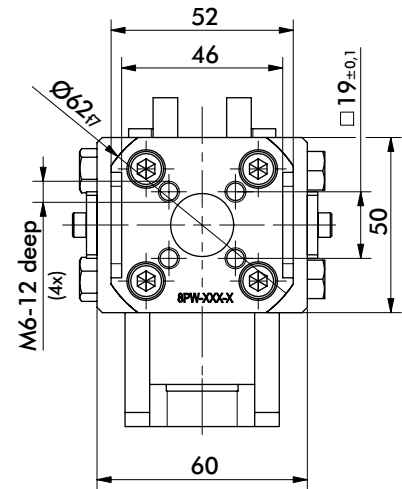
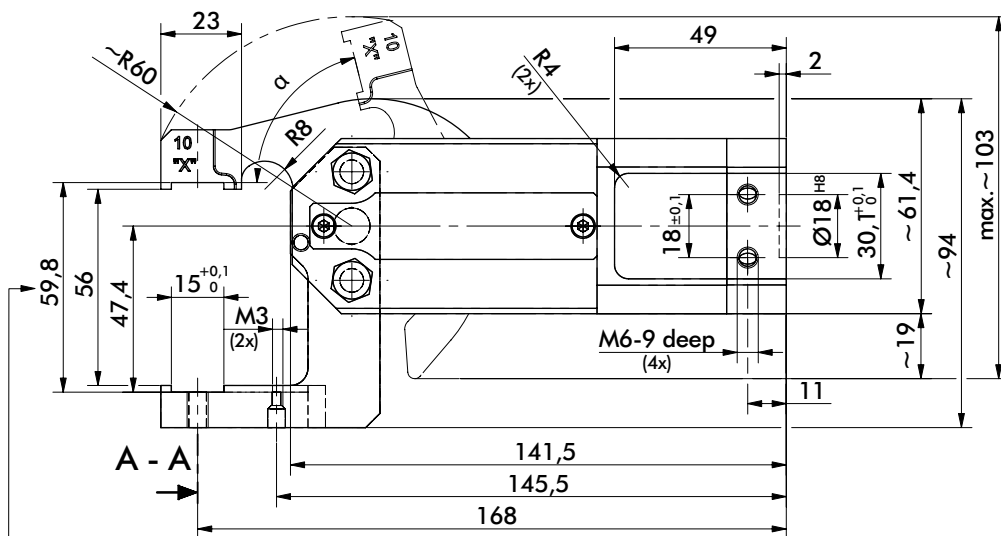
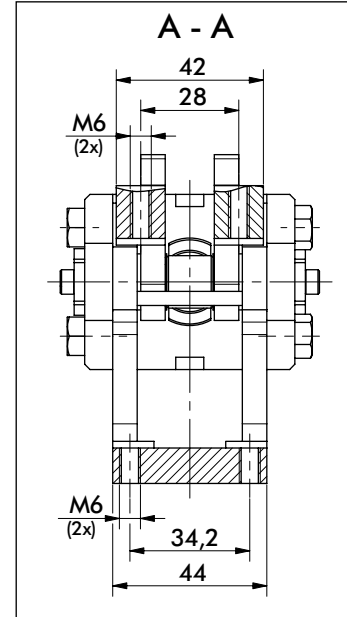
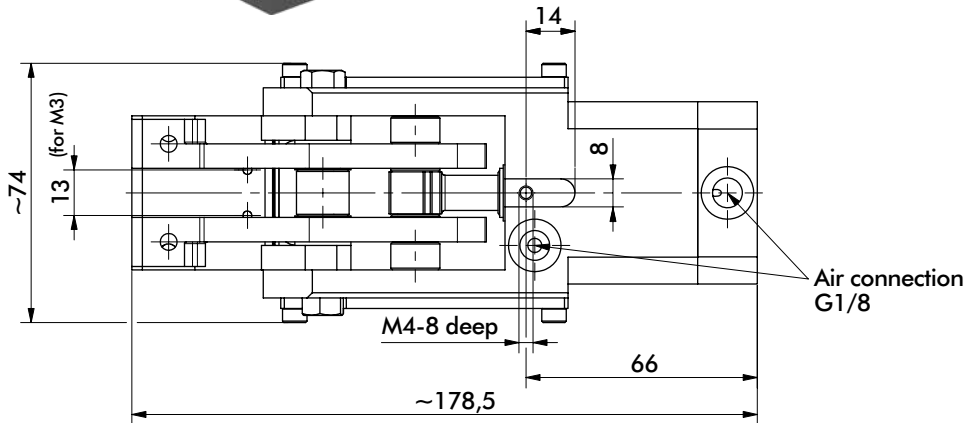
Description

- 0** None
- A** Rear Flange - 8MA-006-1
- 3** Rear Flange - 8MA-273-1
- R** Guards - 8MH-046-1
(for 84A3-31/34/35/39 only)
- S** Rear Swivel Ball - 82ZB-007-1
- X** On-Body Swivel Ball
82ZB-033-2



84A3.30 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 59,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

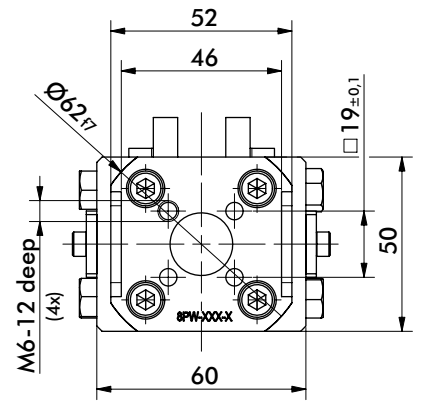
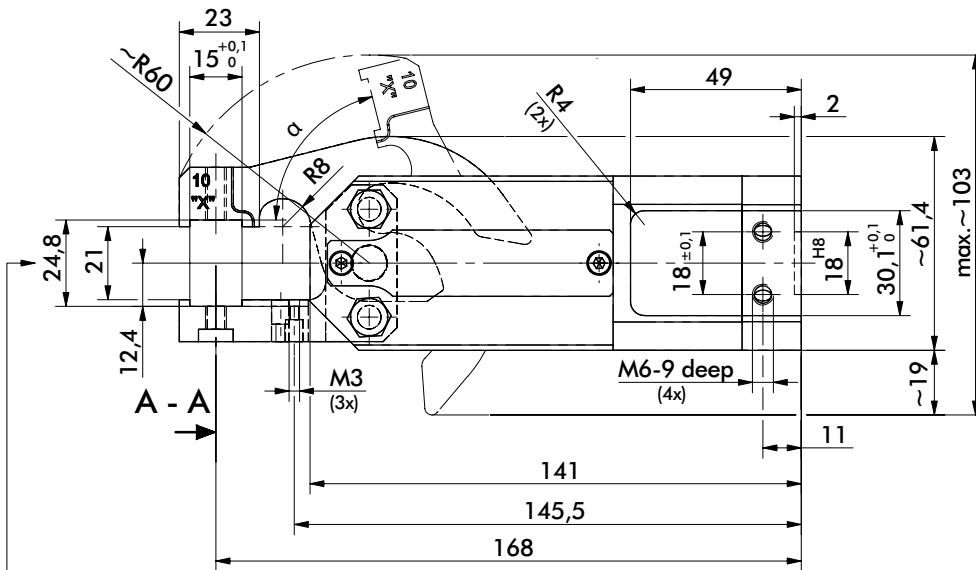
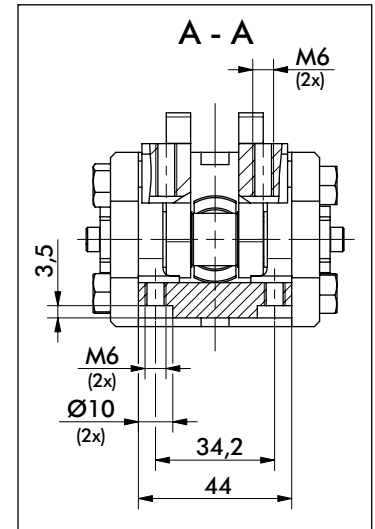
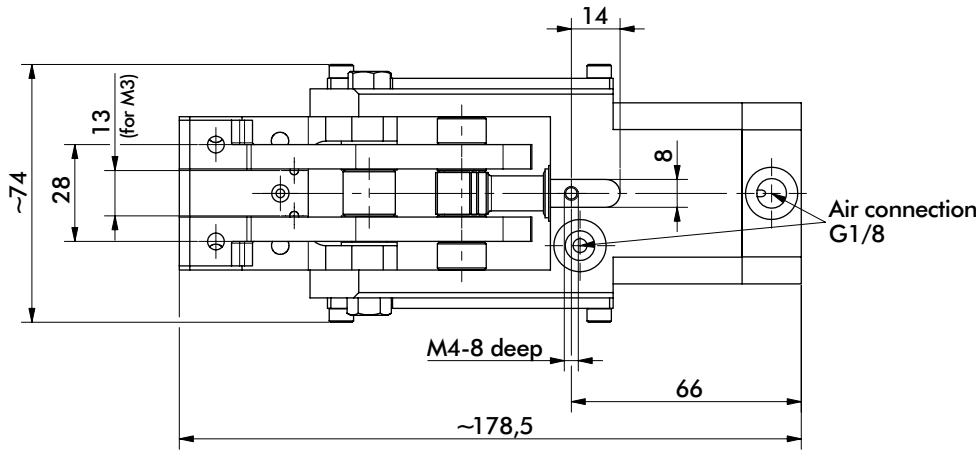
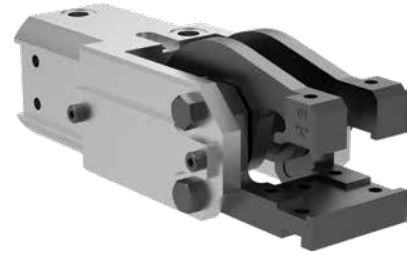
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.30	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1500 [337]	1,4 [3.09]
X	30°		
Y	45°		
Z	60°		

84A3.31 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Medium air, max. 6 bar. Operation with oil-free air is permissible.

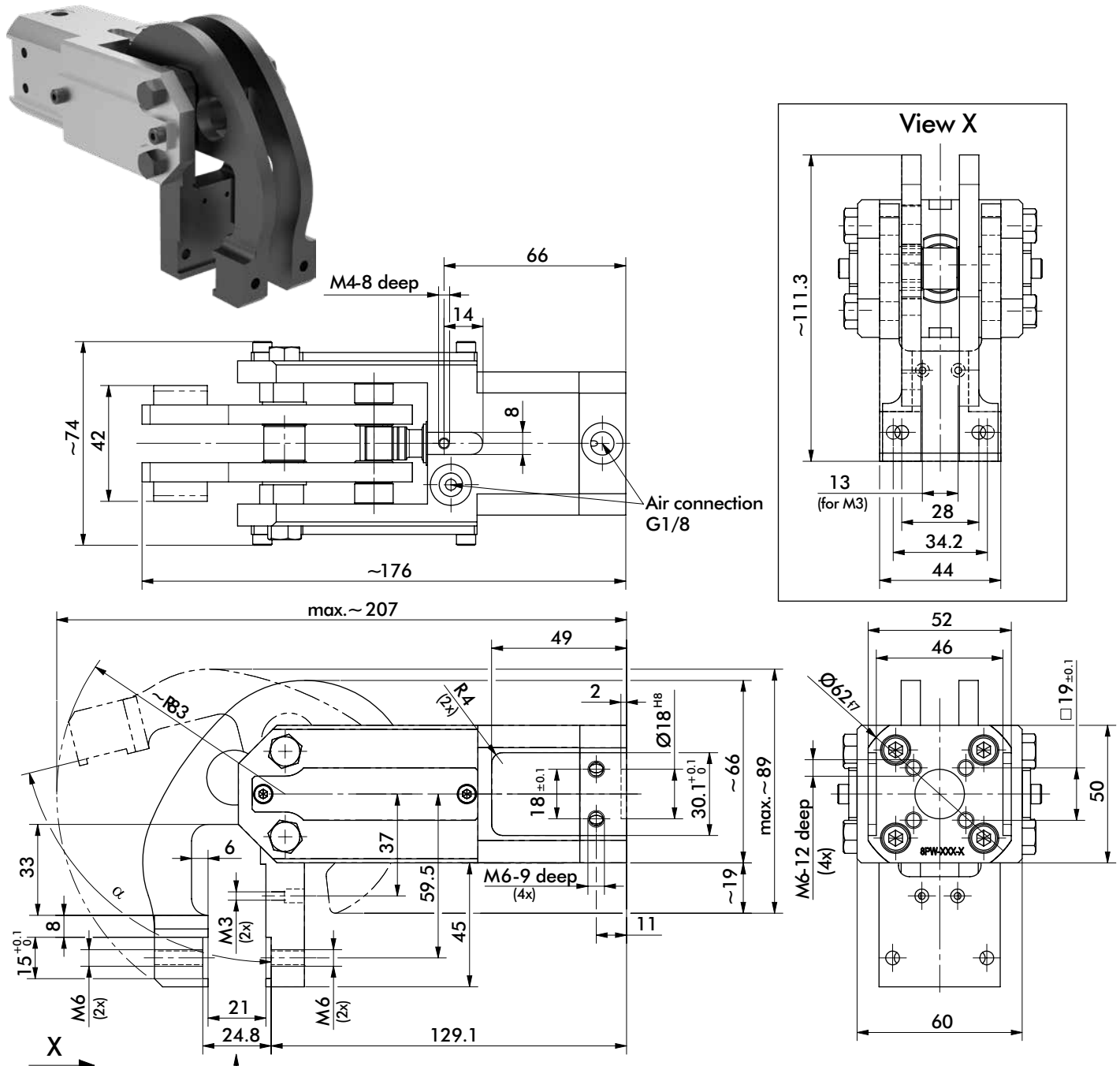
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

Model 84A3.31	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1500 [337]	1,3 [2.87]
X	30°		
Y	45°		
Z	60°		

84A3.32 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

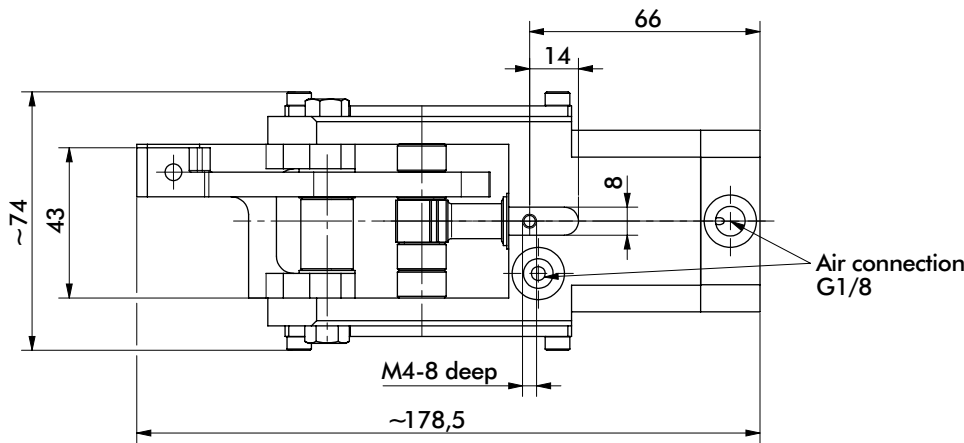
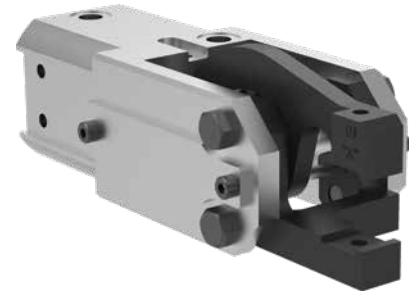
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

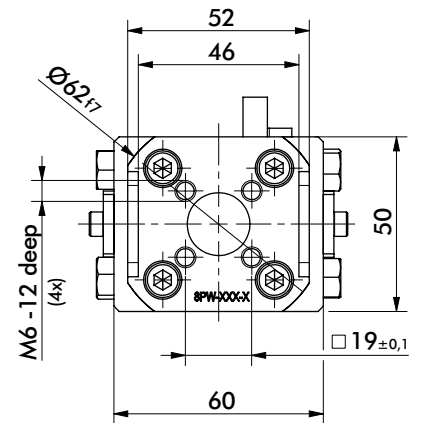
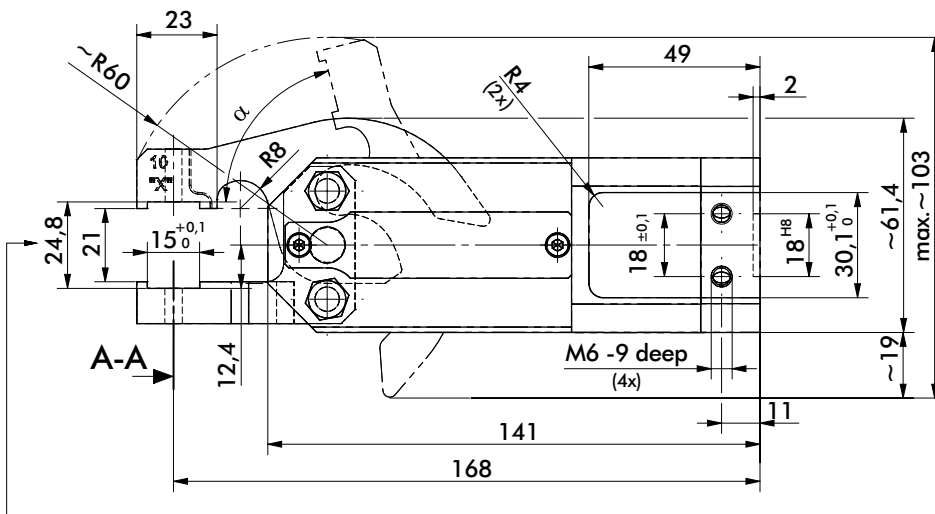
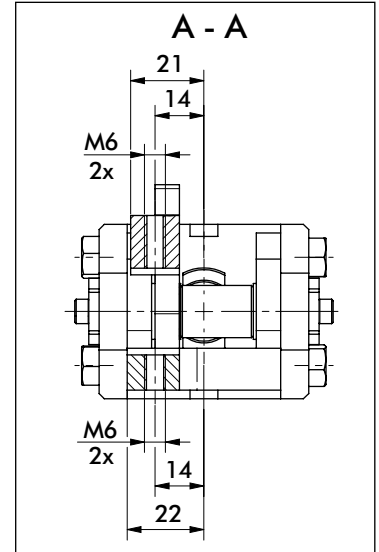
Model 84A3.32	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	950 [214]	1,6 [3.53]
X	30°		
Y	45°		
Z	60°		

84A3.34 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Air connection
G1/8



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

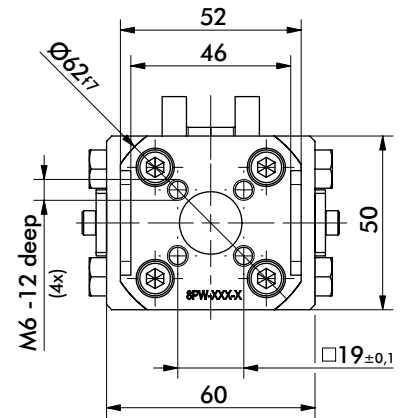
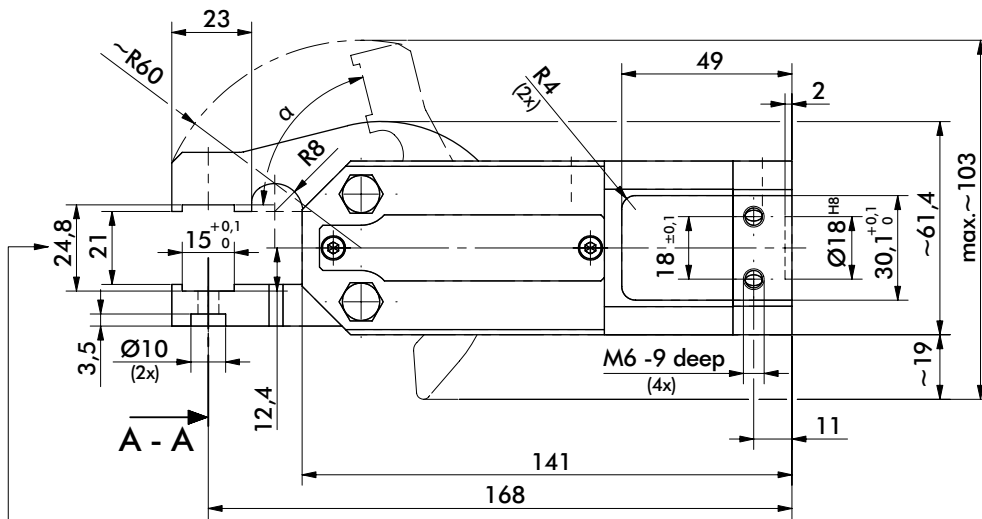
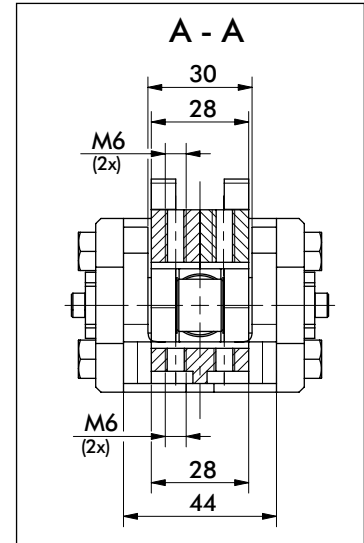
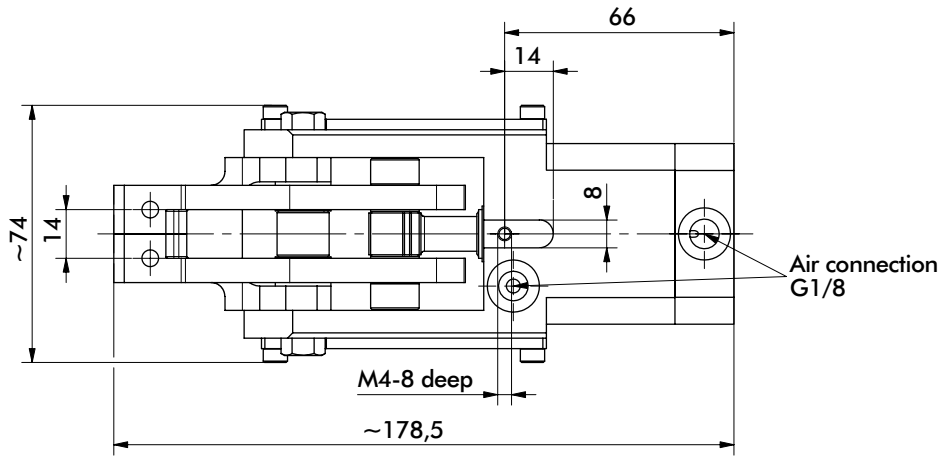
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.34	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1500 [337]	1,3 [2.87]
X	30°		
Y	45°		
Z	60°		

84A3.35 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

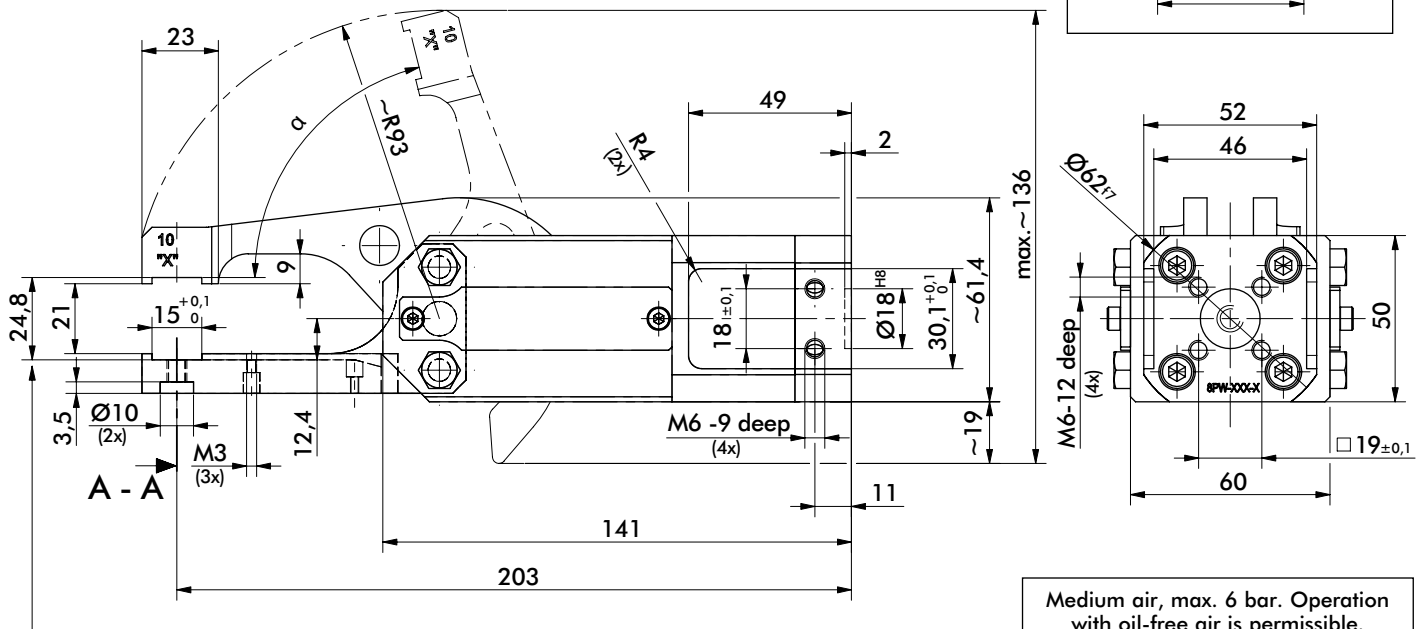
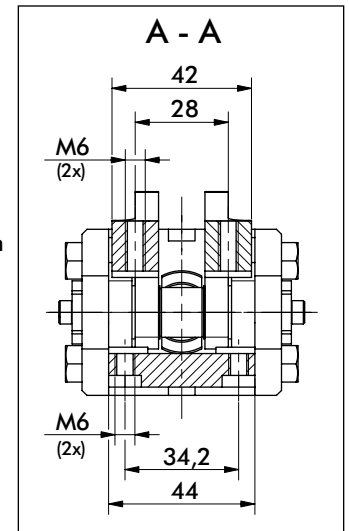
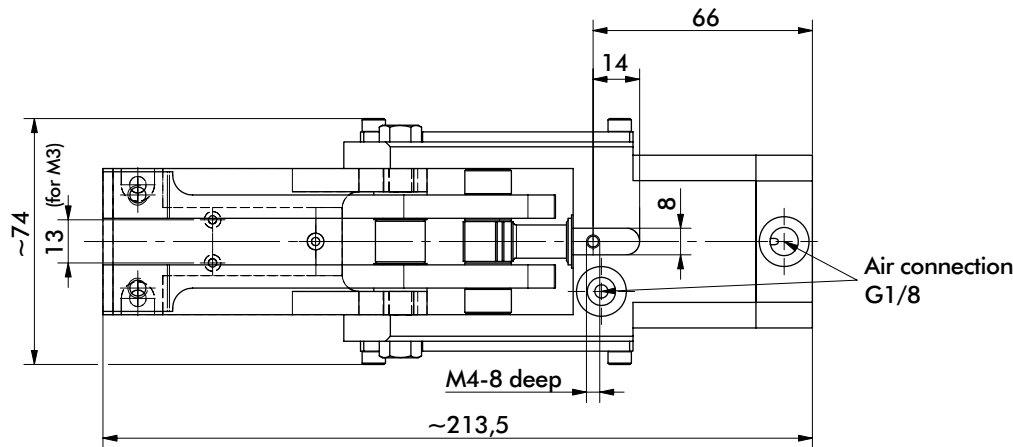
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.35	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1500 [337]	1,3 [2.87]
X	30°		
Y	45°		
Z	60°		

84A3.36 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Medium air, max. 6 bar. Operation with oil-free air is permissible.

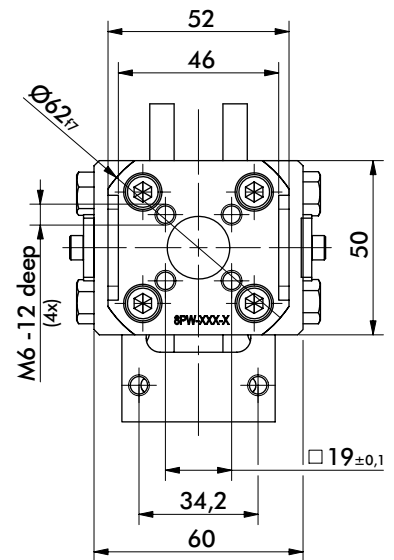
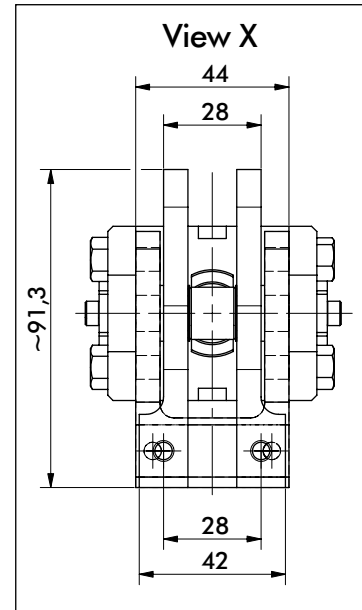
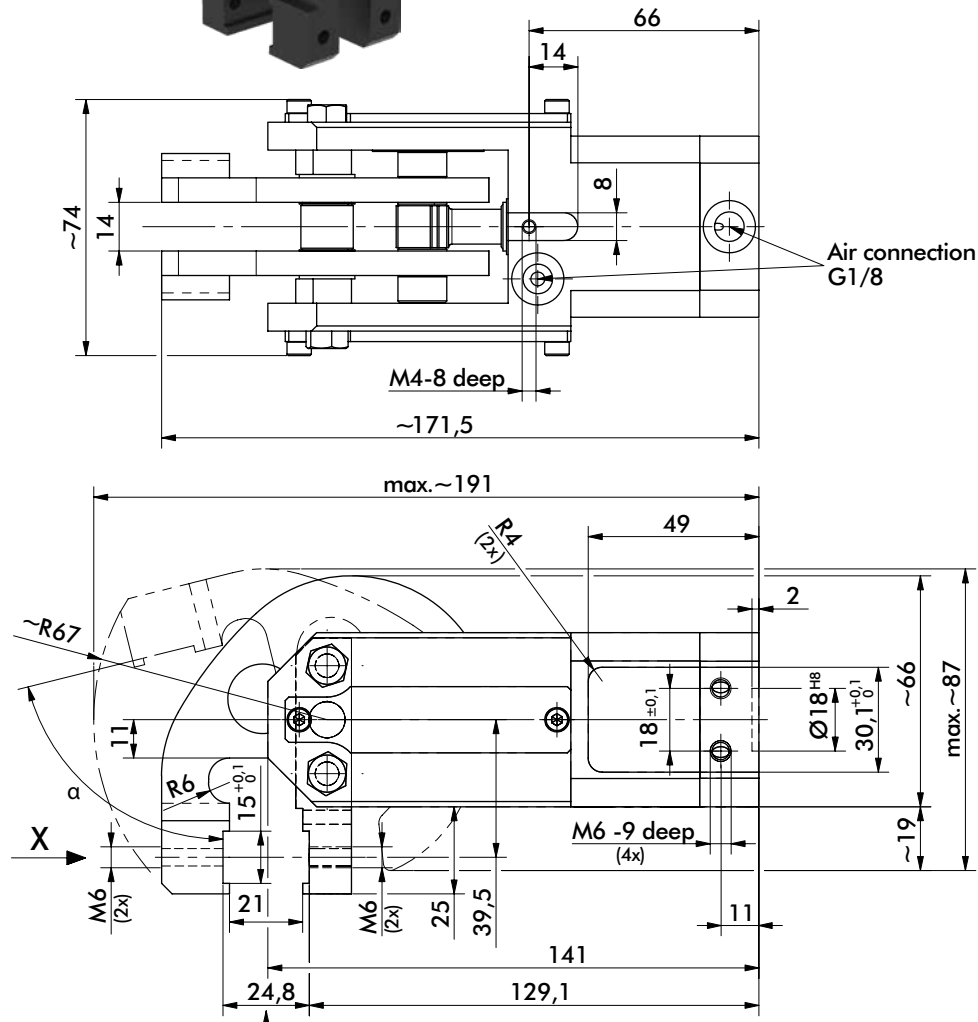
Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.36	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	570 [128]	1,55 [3.42]
X	30°		
Y	45°		
Z	60°		

84A3.37 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

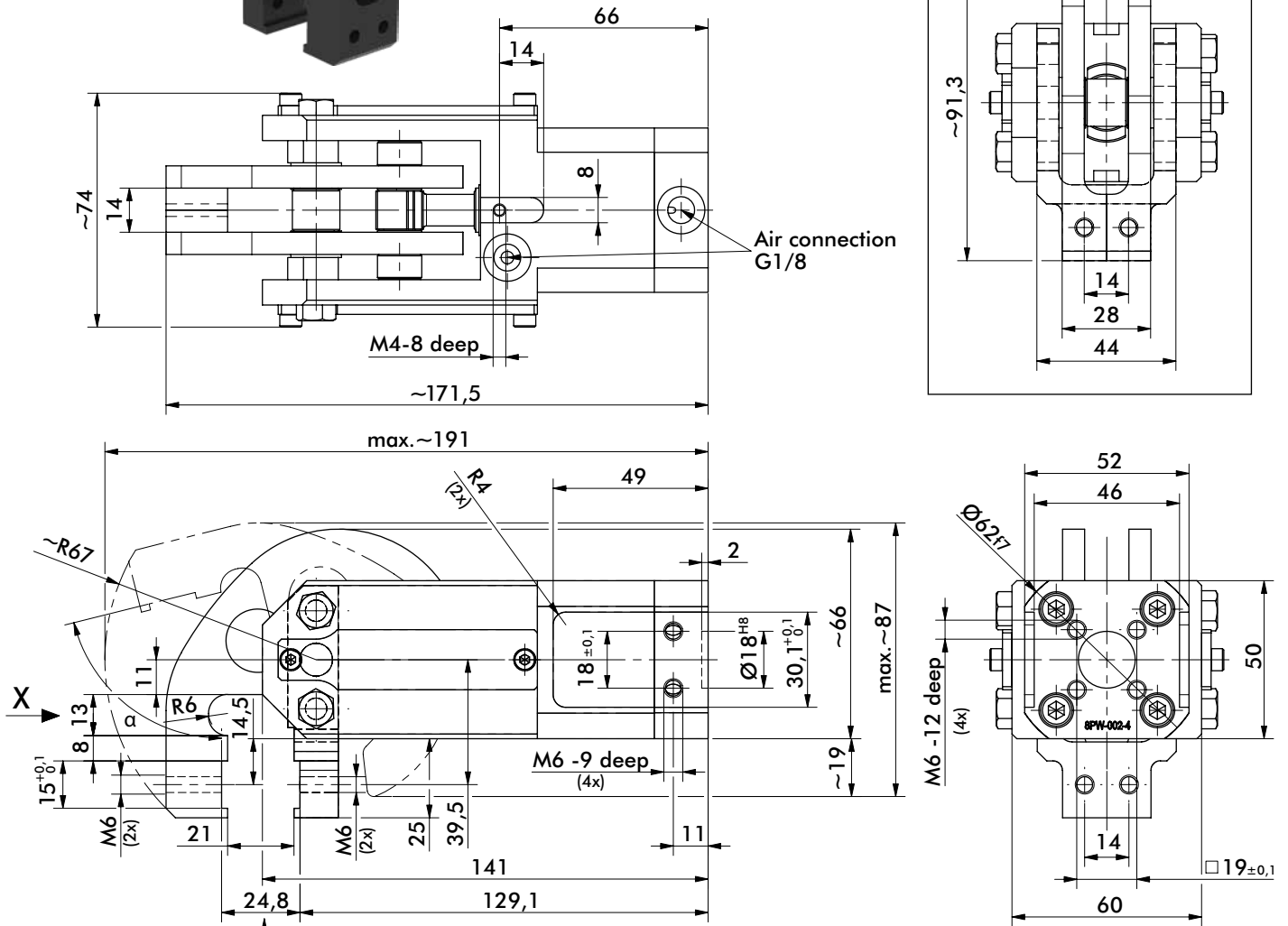
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.37	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1600 [360]	1,45 [3.20]
X	30°		
Y	45°		
Z	60°		

84A3.38 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

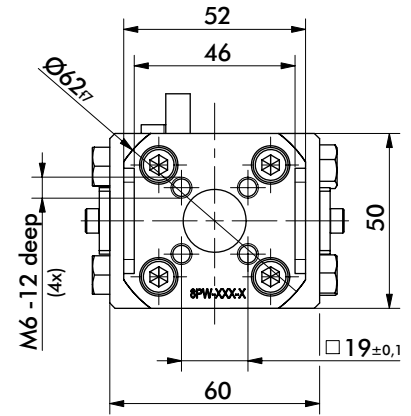
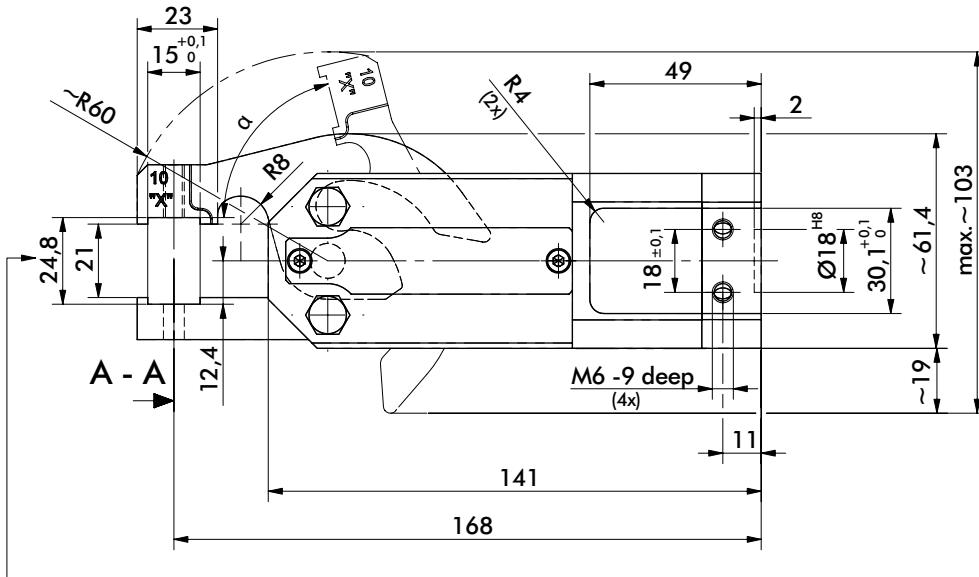
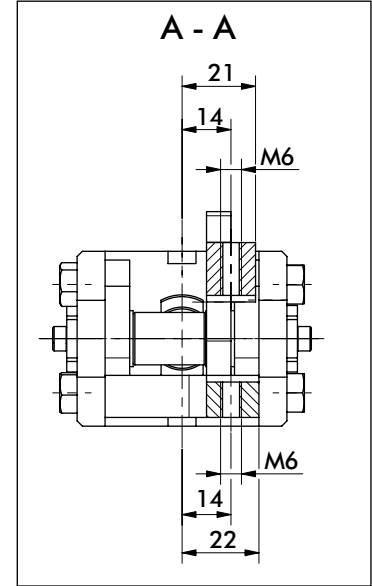
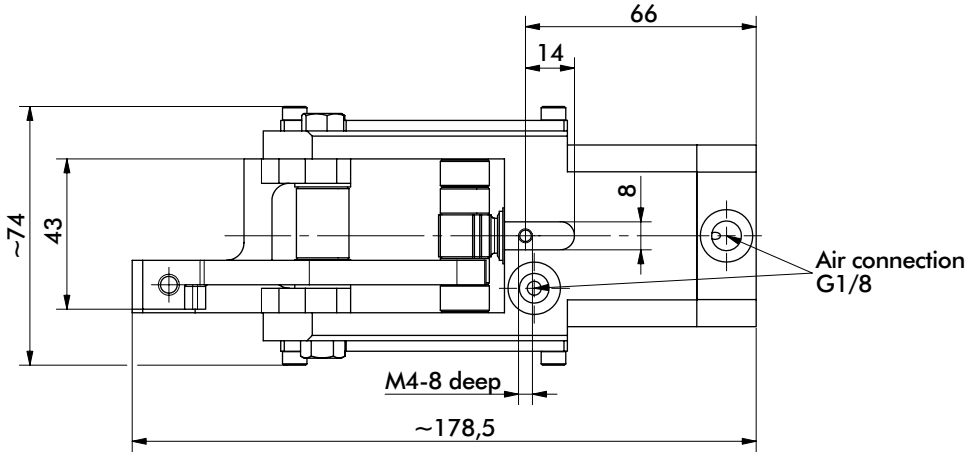
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.38	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1600 [360]	1,4 [3.09]
X	30°		
Y	45°		
Z	60°		

84A3.39 SERIES (FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

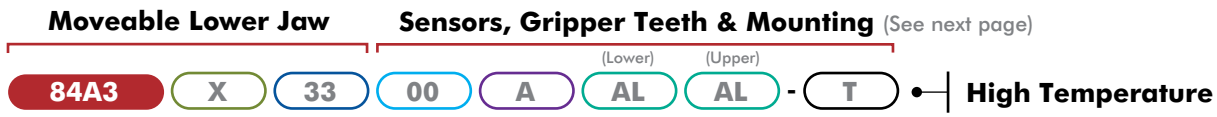
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.39	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1500 [337]	1,3 [2.87]
X	30°		
Y	45°		
Z	60°		

84A3-3 SERIES (MOVEABLE LOWER JAWS)

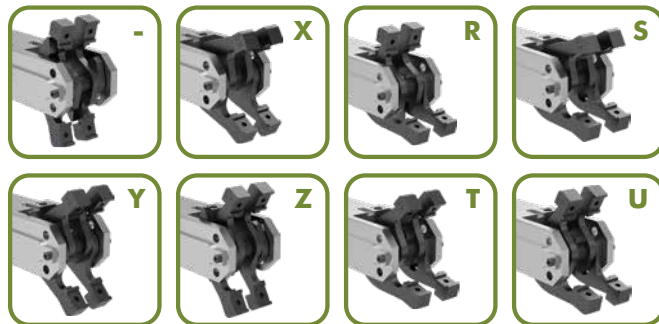
Cam Type Sheet Metal Grippers | Ordering Information



Jaw Opening Options

Description

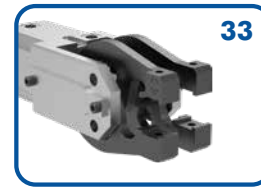
- 76° Jaw Opening (Symmetrical) **R** 76° Upper/15° Lower Jaw
- X** 30° Jaw Opening (Symmetrical) **S** 30° Upper/15° Lower Jaw
- Y** 45° Jaw Opening (Symmetrical) **T** 45° Upper/15° Lower Jaw
- Z** 60° Jaw Opening (Symmetrical) **U** 60° Upper/15° Lower Jaw



Jaw Arrangement Options

Description

- 33** Double Symmetrical, Straight Design -or- 15° Lower, Double Upper, Straight Design



Specifications	Unit	
Piston	mm	32
Actuation Time (open/close)	sec	0.2
Air Consumption per Double Stroke at 5 bar	L	0.4

84A3-3 SERIES (MOVEABLE LOWER JAWS)

Cam Type Sheet Metal Grippers | Ordering Information

Gripper Teeth, Points and Crown Options (Upper and Lower)

Steel Teeth

- 00** None
- AA** 14,9x21x12mm - 8JZ-014-3
- AH** 14,9x14x14mm - 8JZ-001-1
- AL** 14,9x14,9x9,8mm - 8JZ-003-1
- AC** 14,9x14x12mm - 8JZ-043-1
- AG** 14,9x14x12mm - 8JZ-050-1
- BK** 14,9x21x11mm - 8JZ-066-1



High Temperature
AS 8JZ-094-1



Plastic Teeth*

- 00** None
 - KA** 8JZ-021-1
 - KC** 8JZ-023-1 (Upper)
- *Not suitable for High Temperature applications



Shims for gripper teeth available
Order Separately **8SB-003-1**
Dimensions: 14,8 x 13 x 0,15 mm

Steel Points (Upper only)

- 00** None
- PA** 8MJ-1001-1
- PB** 8MJ-1002-1
- PC** 8MJ-1003-1



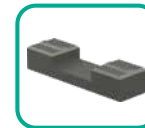
Crown Teeth - Concave (Lower Only)

- 00** None
- SE** 8JZ-019-1
- SF** 8JZ-020-3
- SH** 8JZ-048-1



Crown Teeth - Convex (Upper Only)

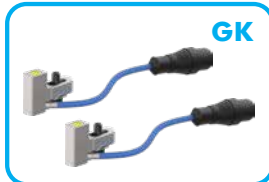
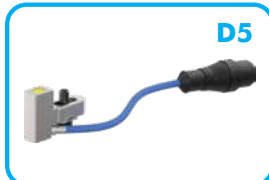
- SB** Mat. = 0,5-1mm - 8JZ-016-2
- SD** Mat. = 1-1,5mm - 8JZ-018-2



Sensor Options (not suitable for High Temperature applications)

Description

- 00** None
- KL** Position Control Set, Left for 76° Opening Angle - 8EA-022-4
- KR** Position Control Set, Right for 76° Opening Angle - 8EA-022-4
- D5** Double Sheet Control, M12x1 Plug - 8EA-087-1
- GK** 2X D5

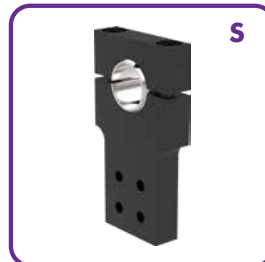


Cover for Sensing Systems **D5, GK**
Order Separately **82ZB-185-1**

Mounting Options

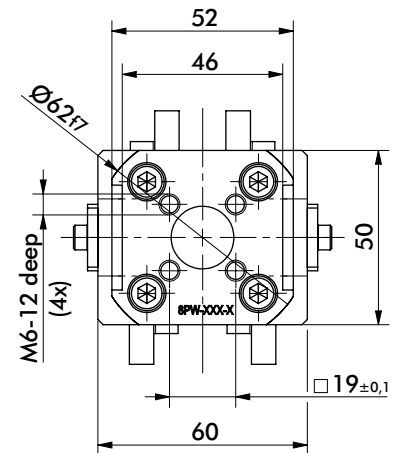
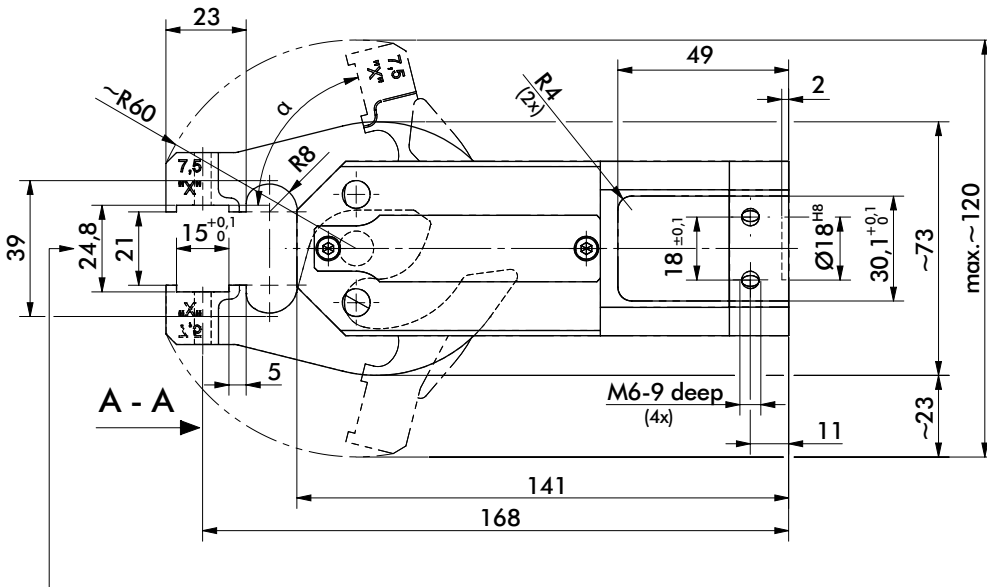
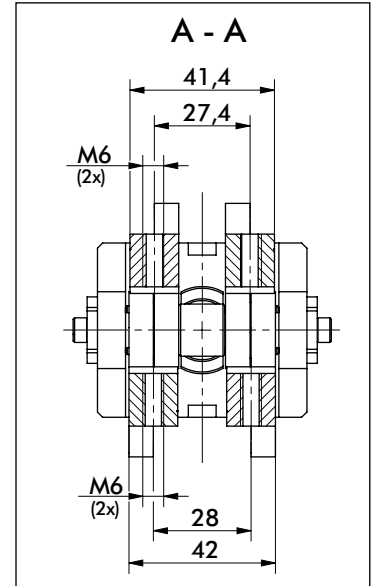
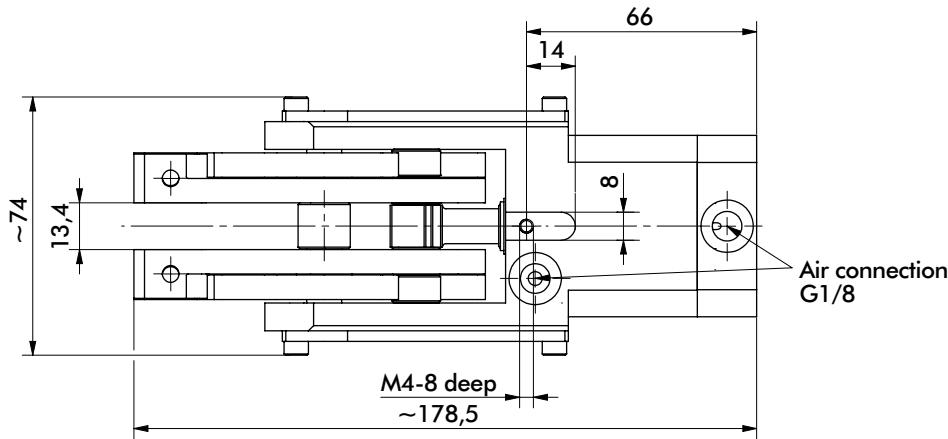
Description

- 0** None
- A** Rear Flange - 8MA-006-1
- 3** Rear Flange - 8MA-273-1
- S** Rear Swivel Ball - 82ZB-007-1
- X** On-Body Swivel Ball - 82ZB-033-2



84A3.33 SERIES (DOUBLE SYMMETRICAL JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

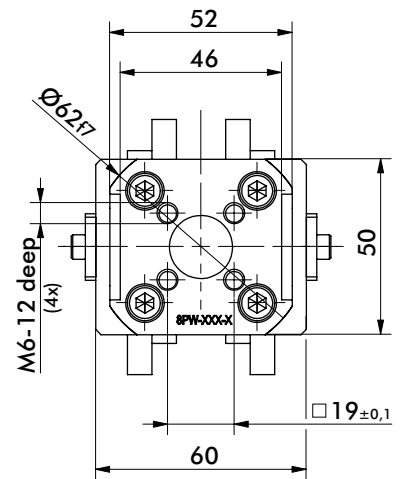
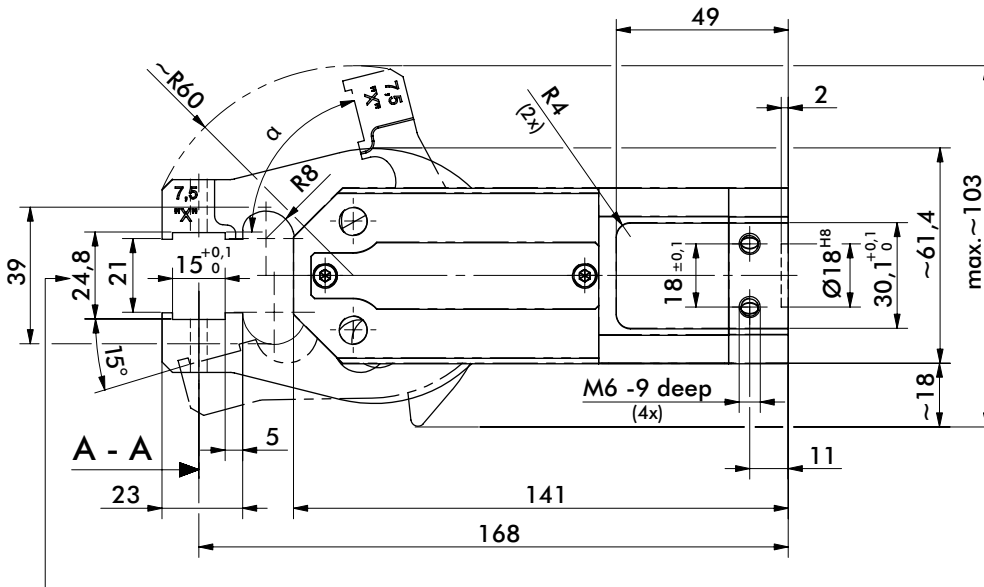
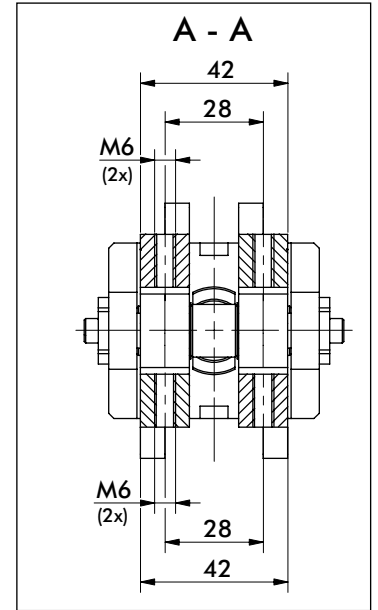
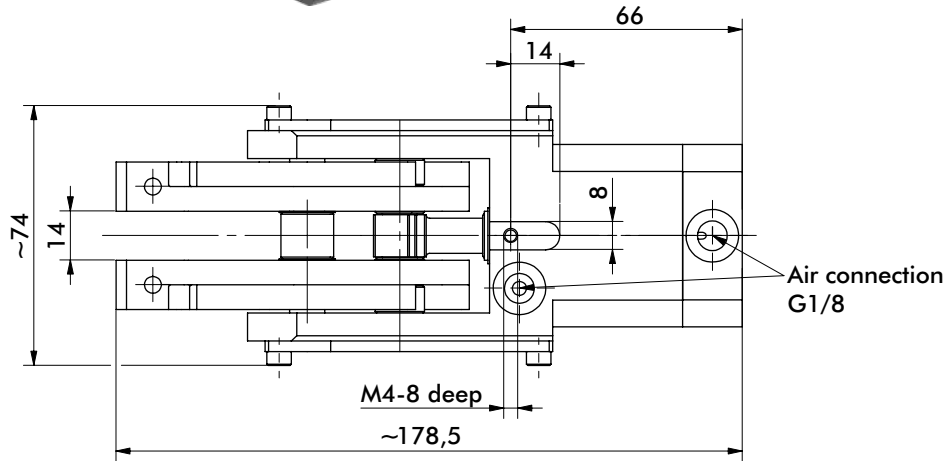
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.33	Opening Angle α Symmetrical	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	750 [169]	1,48 [3.26]
X	30°		
Y	45°		
Z	60°		

84A3.33 SERIES (DOUBLE 15° LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

Medium air, max. 6 bar. Operation with oil-free air is permissible.

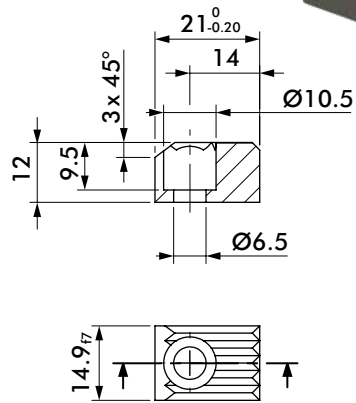
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A3.33	Opening Angle α Upper/Lower	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
R	76°/15°	750 [169]	1,35 [2.98]
S	30°/15°		
T	45°/15°		
U	60°/15°		

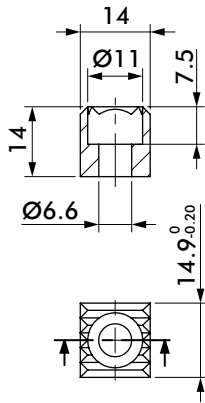
84A3 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

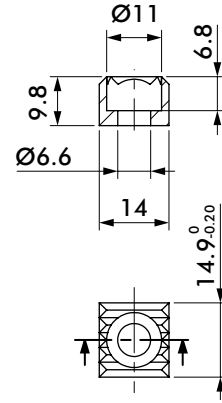
Steel Teeth



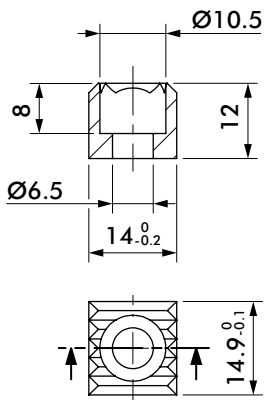
Steel Teeth Part Number
Serrated **8JZ-014-3**



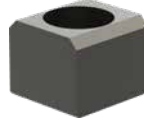
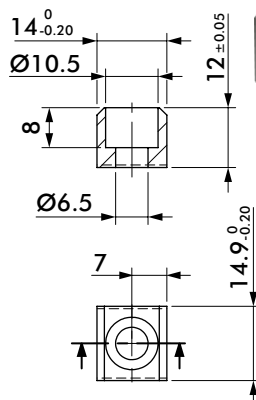
Steel Teeth Part Number
Serrated **8JZ-001-1**



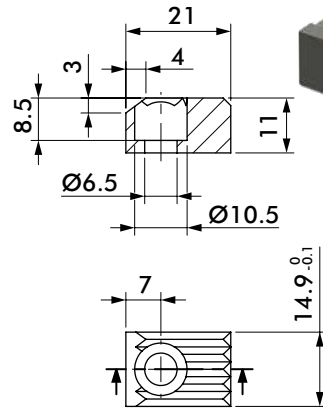
Steel Teeth Part Number
Serrated **8JZ-003-1**



Steel Teeth Part Number
Serrated **8JZ-043-1**

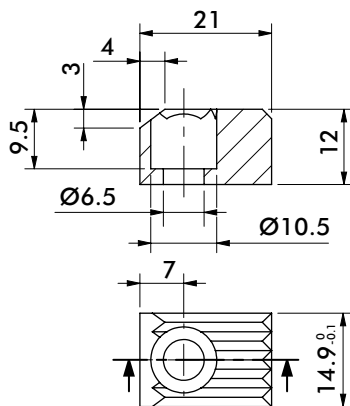


Steel Teeth Part Number
Flat **8JZ-050-1**



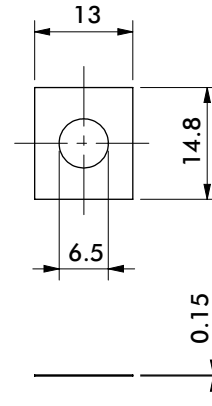
Steel Teeth Part Number
Serrated **8JZ-066-1**

High Temperature Steel Teeth



Steel Teeth Part Number
High Temperature, Serrated **8JZ-094-1**

Shims

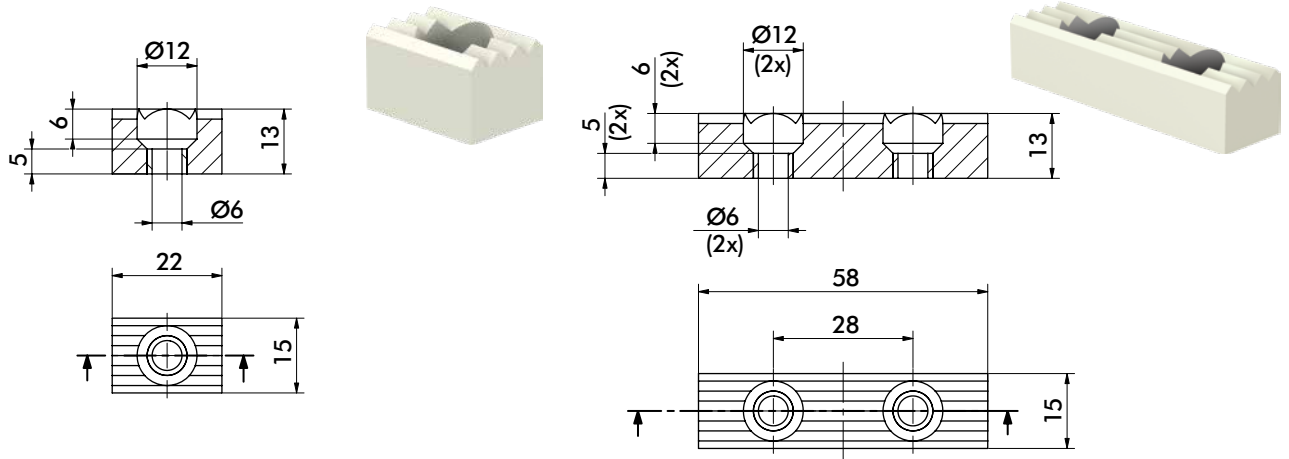


Shims Part Number
Shims for Gripper Teeth **8SB-003-1**

84A3 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

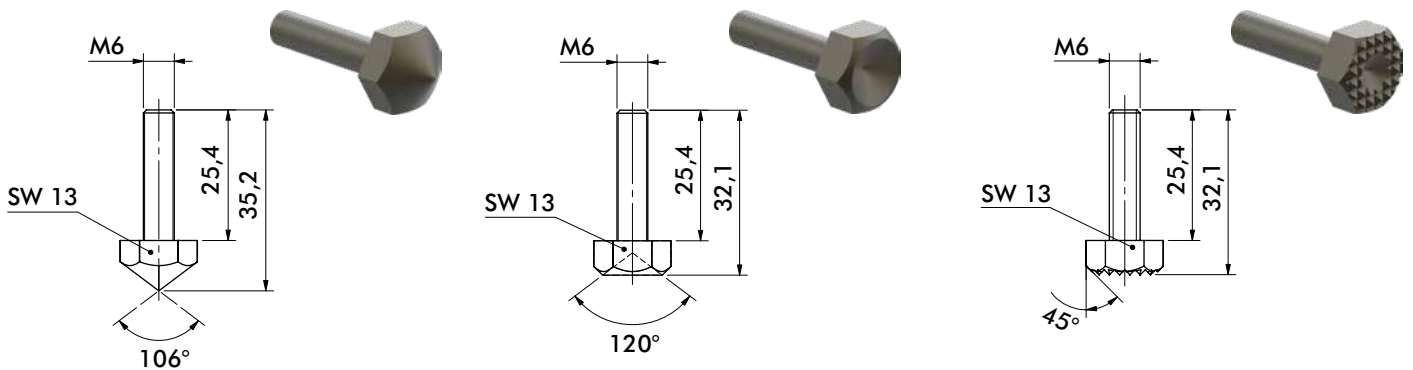
Plastic Teeth



Plastic Teeth Part Number
90 Shore, Serrated **8JZ-021-1**

Plastic Teeth Part Number
90 Shore, Serrated (Upper) **8JZ-023-1**

Steel Points

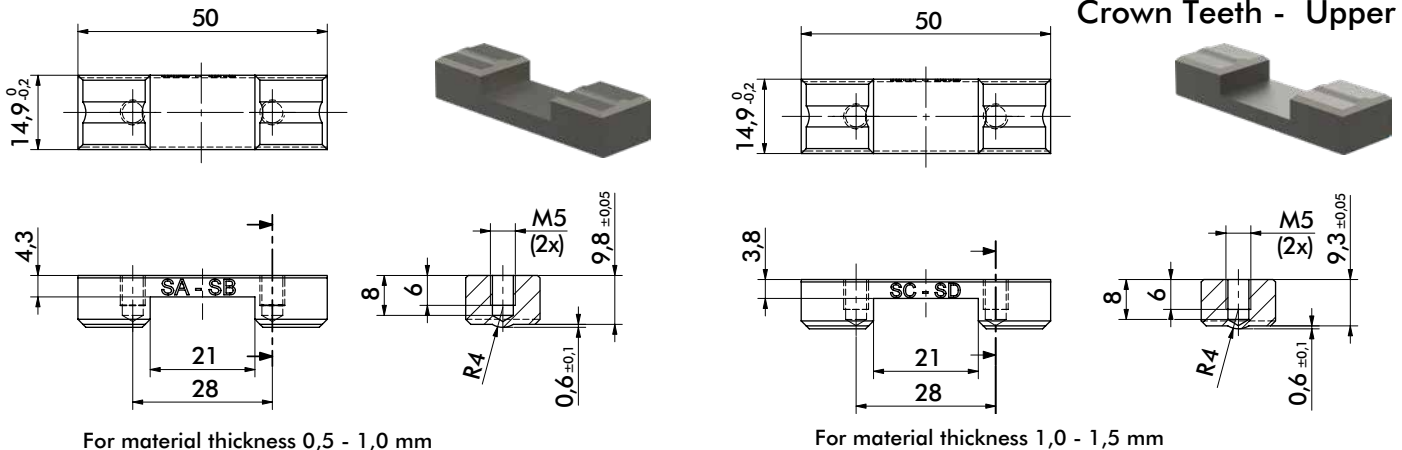


Steel Point Part Number
Pointed **8MJ-1001-1**

Steel Point Part Number
Flat **8MJ-1002-1**

Steel Point Part Number
Serrated **8MJ-1003-1**

Crown Teeth - Upper



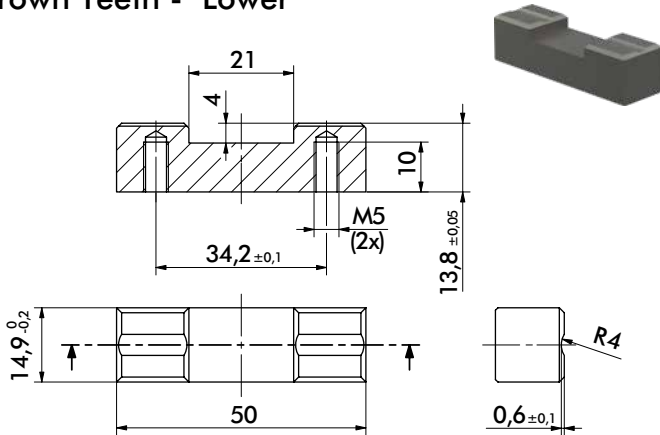
Crown Teeth Part Number
Convex **8JZ-016-2**

Crown Teeth Part Number
Convex **8JZ-018-2**

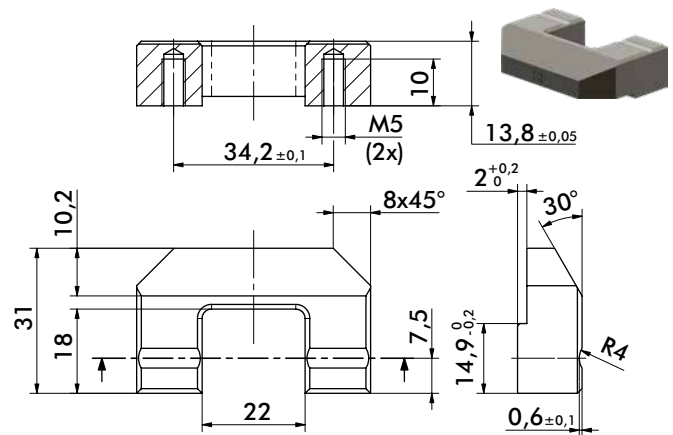
84A3 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Crown Teeth - Lower

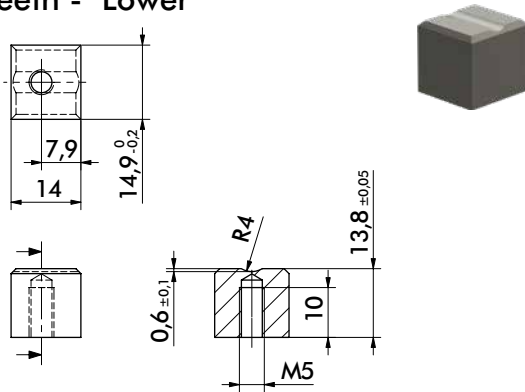


Crown Teeth Part Number **8JZ-019-1**
Concave



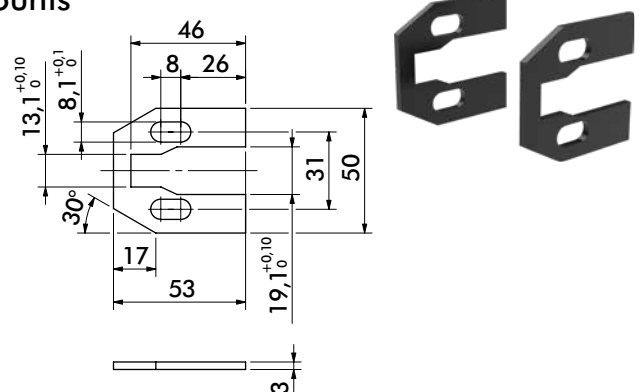
Crown Teeth Part Number **8JZ-020-3**
Concave

Crown Teeth - Lower



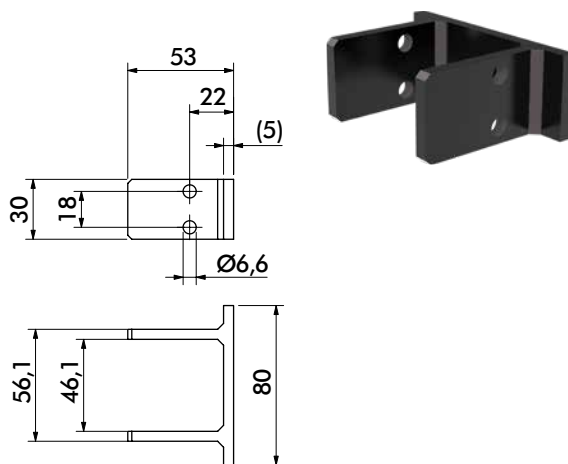
Crown Teeth Part Number **8JZ-048-1**
Concave

Mounts

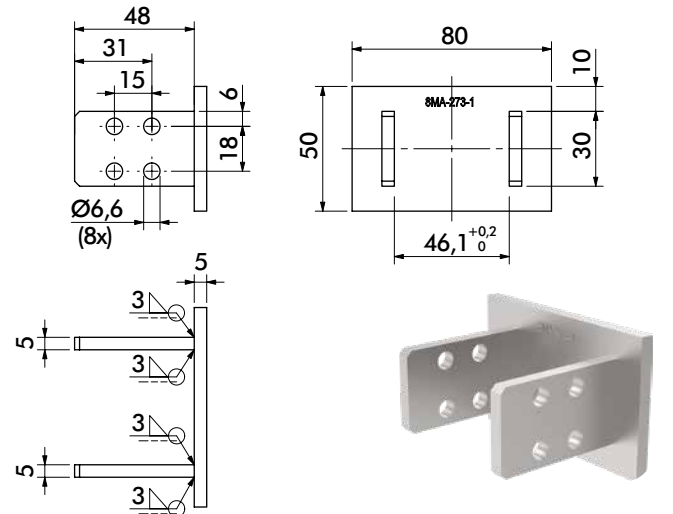


Mount Part Number **8MH-046-1**
Guards

Mounts



Mount Part Number **8MA-006-1**
Rear Flange

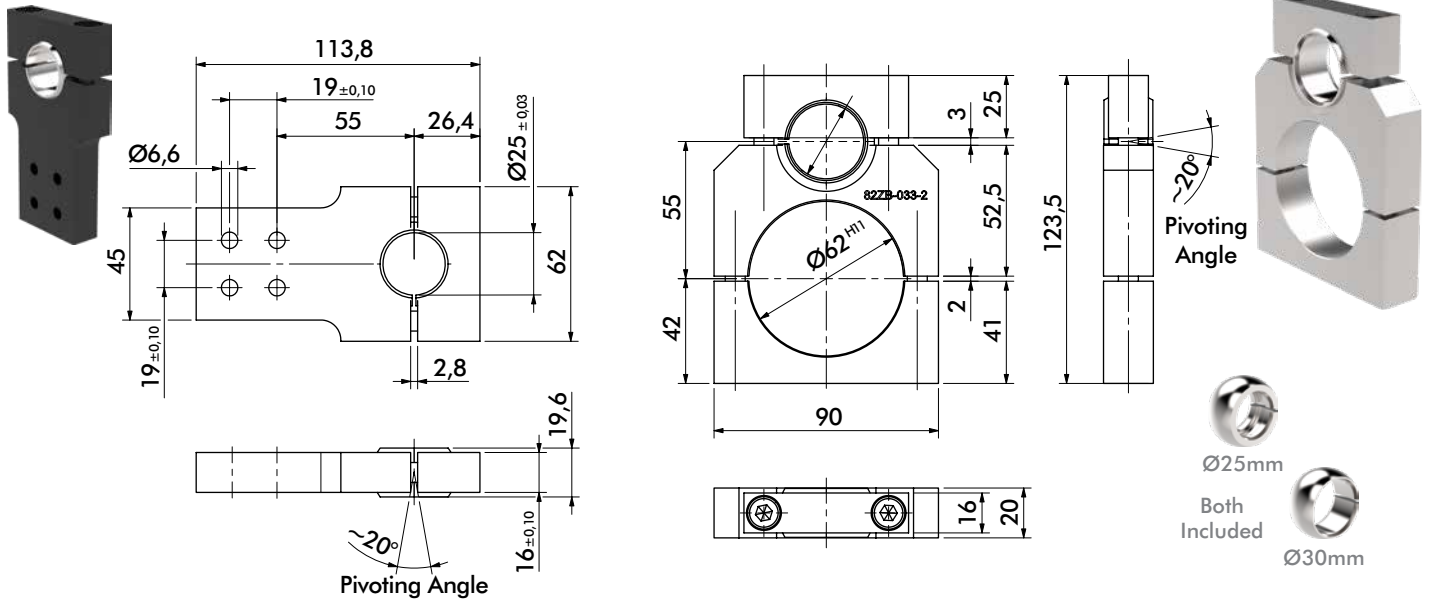


Mount Part Number **8MA-273-1**
Rear Flange

84A3 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

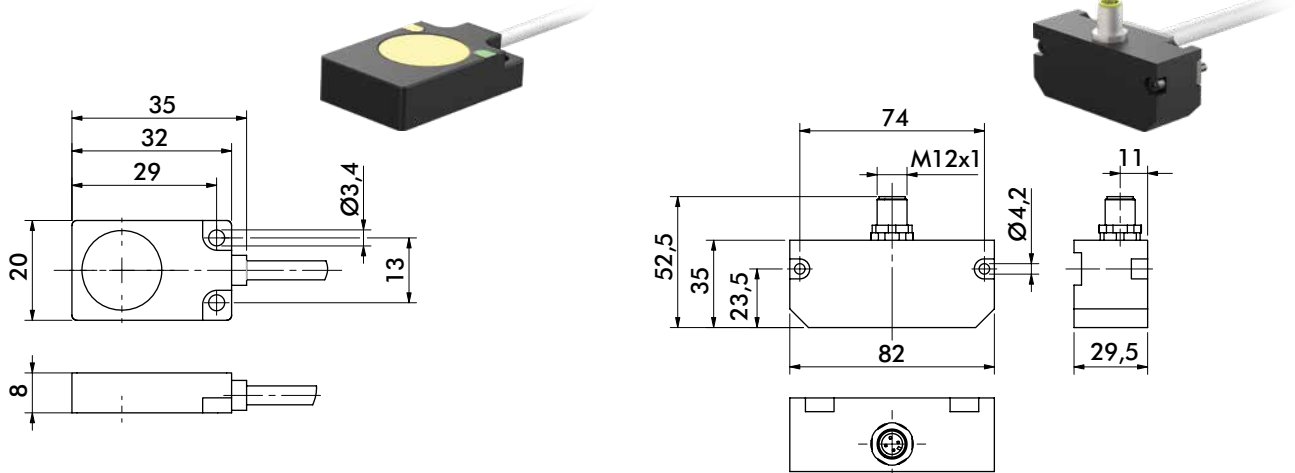
Mounts



Mount	Part Number
Rear Swivel Ball	82ZB-007-1

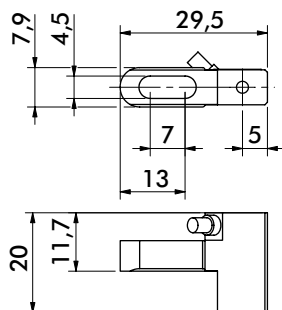
Mount	Part Number
On-Body Swivel Ball	82ZB-033-2

Sensors



Workpiece Control Sensor	Part Number
7mm Sensing Distance, 2m Cable	8EA-092-1

Position Control Set Sensor	Part Number
For 76° Opening Angle Only	8EA-022-4



Double Sheet Control Sensor	Part Number
1.5mm Sensing Distance	8EA-087-1

84A5-1 SERIES

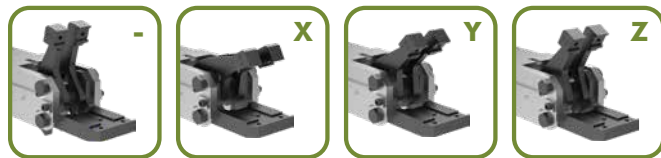
Cam Type Sheet Metal Grippers | Ordering Information

84A5 - 11 D5 A AA PA

Fixed Lower Jaw Opening Options

Description

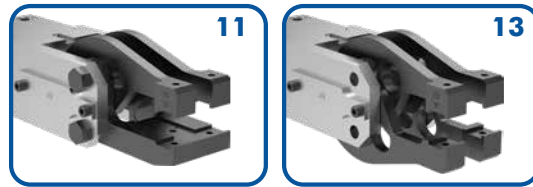
- 76° Jaw Opening (Standard)
- X 30° Jaw Opening
- Y 45° Jaw Opening
- Z 60° Jaw Opening



Jaw Arrangement Options

Description

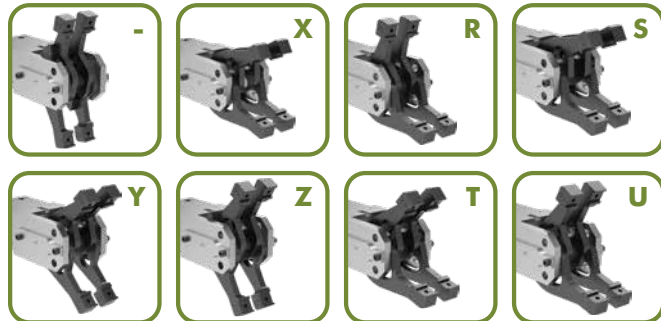
- 11 Double Upper, Single Lower, Straight Design
- 13 Double Upper and Lower, Straight Design



Moveable Lower Jaw Opening Options

Description

- 76° Jaw Opening (Symmetrical)
- X 30° Jaw Opening (Symmetrical)
- Y 45° Jaw Opening (Symmetrical)
- Z 60° Jaw Opening (Symmetrical)
- R 76° Upper/15° Lower Jaw
- S 30° Upper/15° Lower Jaw
- T 45° Upper/15° Lower Jaw
- U 60° Upper/15° Lower Jaw

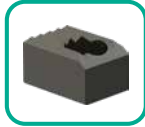


Specifications	Unit	
Piston	mm	50
Actuation Time (open/close)	sec	0.6
Air Consumption per Double Stroke at 5 bar	L	0.66

Gripper Teeth and Points Options (Upper and Lower)

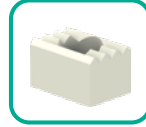
Steel Teeth

- 00** None
- AA** 8JZ-014-3



Plastic Teeth

- 00** None
- KA** 8JZ-021-1*



*Cannot be used with **A8** sensor option.

Steel Points (Upper only)

- 00** None
- PA** 8MJ-1001-1
- PB** 8MJ-1002-1
- PC** 8MJ-1003-1

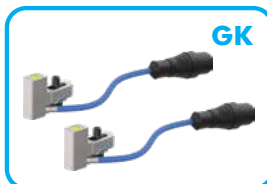
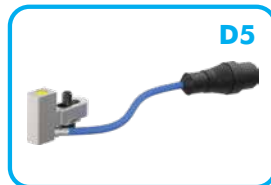


Shims for gripper teeth available
Order Separately **8SB-003-1**
Dimensions: 14,8 x 13 x 0,15 mm

Sensor Options

- | | Description |
|-----------|----------------------------------------------------------------------------|
| 00 | None |
| A8 | Workpiece Control, Switching Distance 7mm
8EA-092-1 (for 84A5-11 only)* |
| D5 | Double Sheet Control, M12x1 Plug - 8EA-087-1 |
| GK | 2X D5 |
| GN | A8 + D5 (for 84A5-11 only) |

*Cannot be used with **KA** plastic teeth option.



Shims for Sensor A8 available
Order Separately **8MB-003-1**

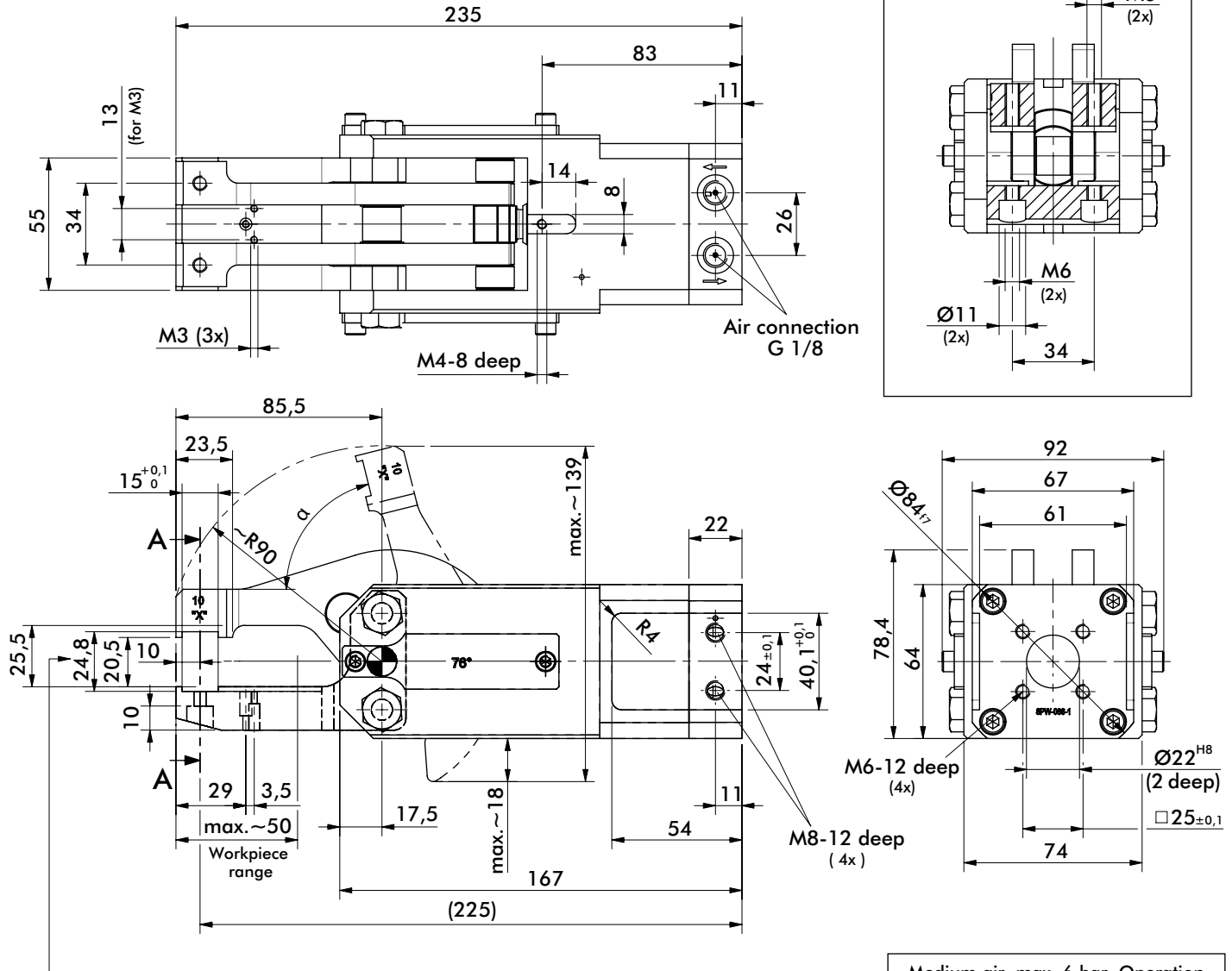
Mounting Options

- | | Description |
|----------|-------------------------|
| 0 | None |
| A | Rear Flange - 8MA-196-1 |



84A5.11 SERIES (SINGLE FIXED LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

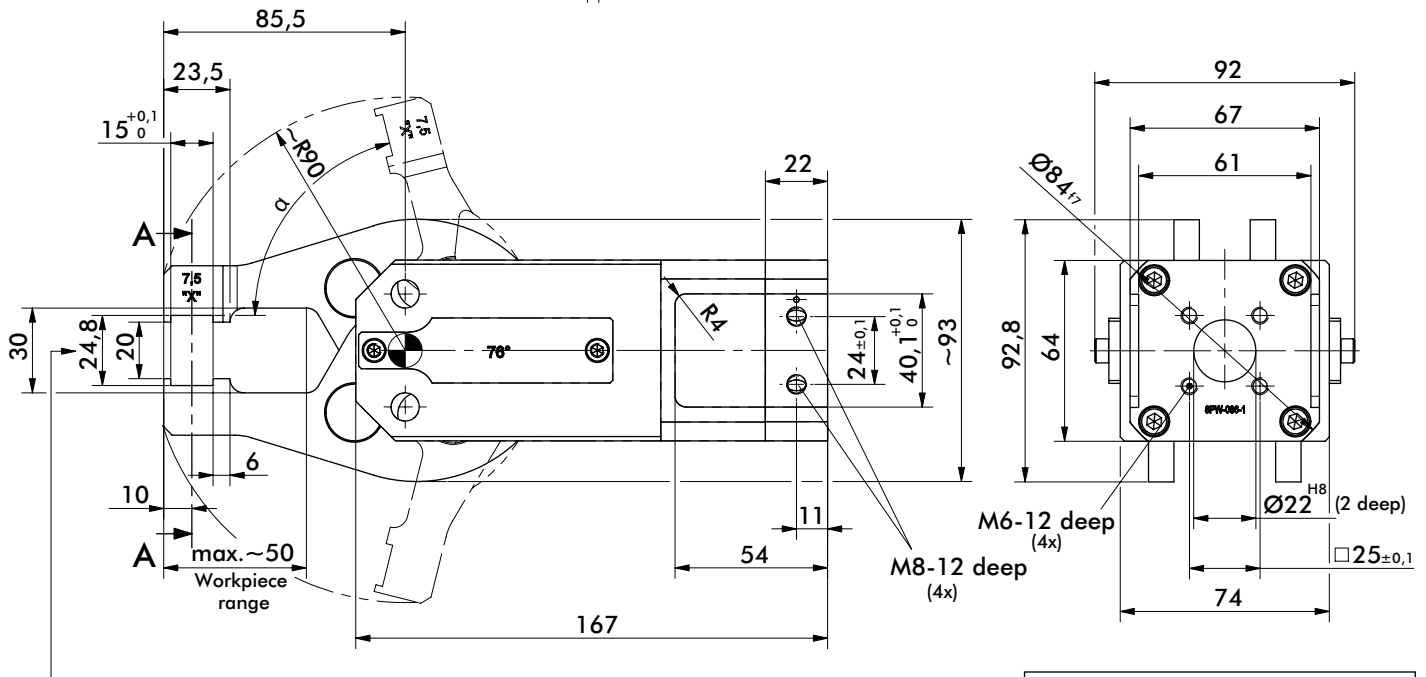
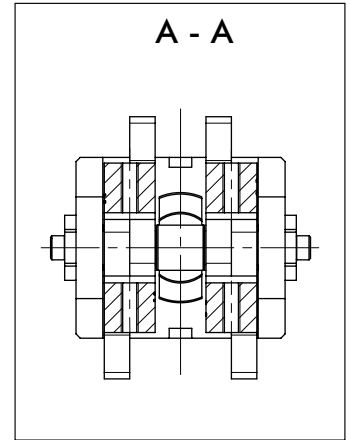
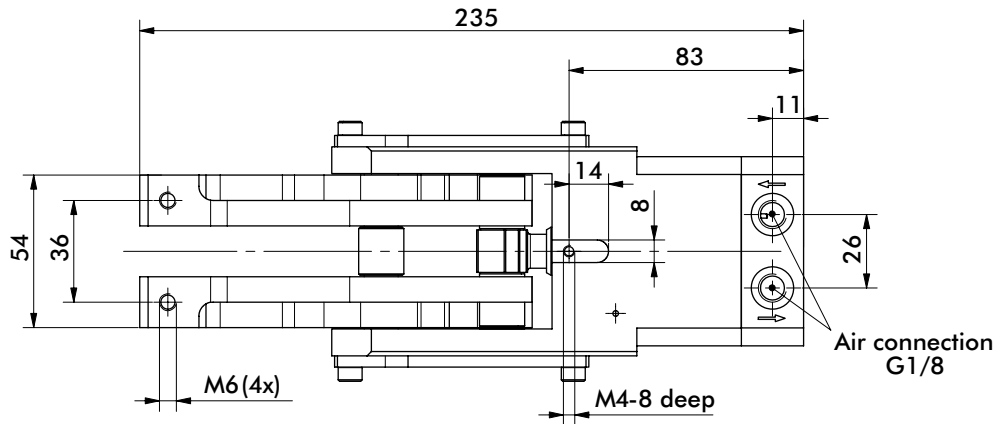
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A5.11	Opening Angle α	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	2000 [450]	2,8 [6.17]
X	30°		
Y	45°		
Z	60°		

84A5.13 SERIES (DOUBLE SYMMETRICAL JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

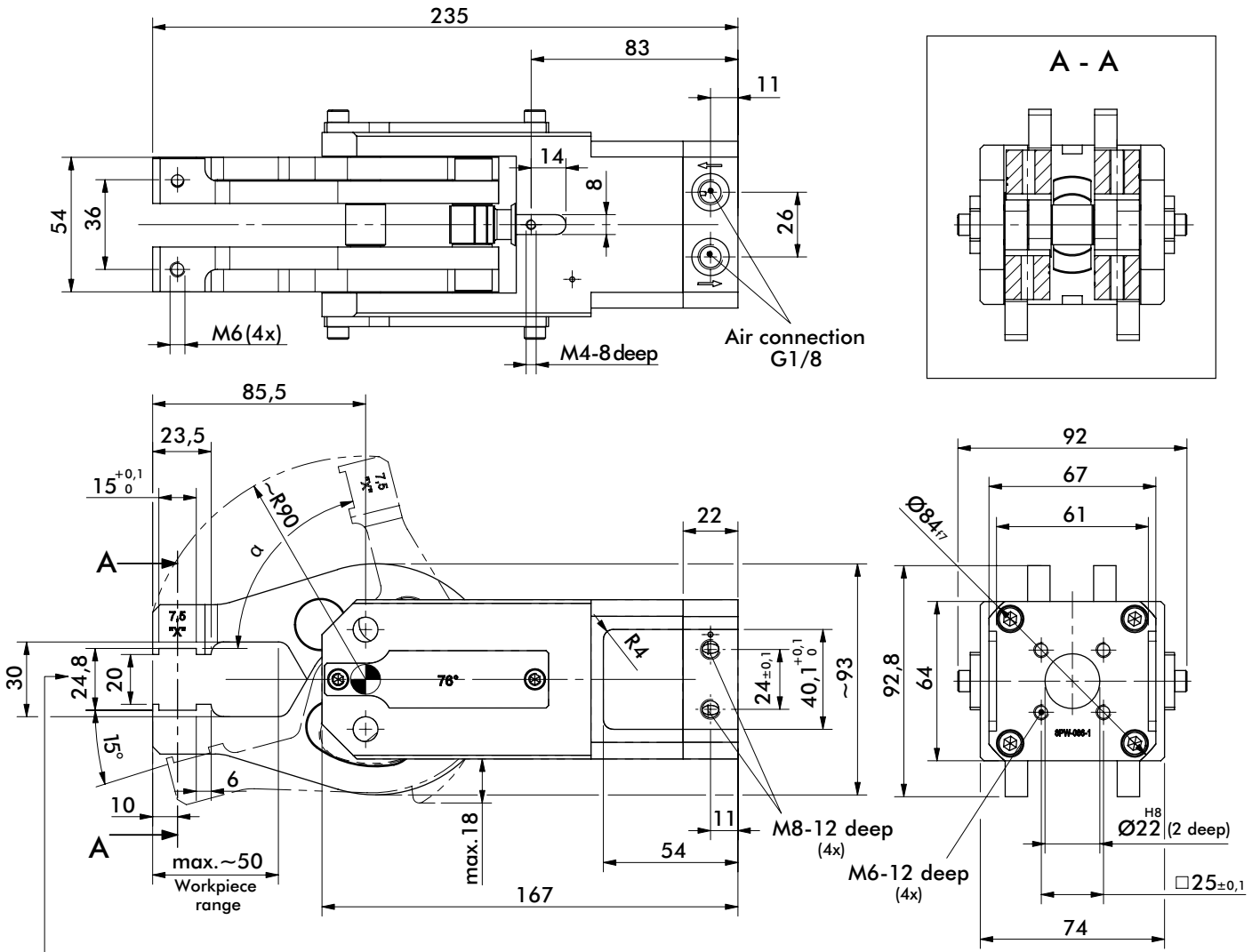
Medium air, max. 6 bar. Operation with oil-free air is permissible.

NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warranty.

Model 84A5.13	Opening Angle α Symmetrical	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
-	76°	1200 [270]	2,8 [6.17]
X	30°		
Y	45°		
Z	60°		

84A5.13 SERIES (DOUBLE 15° LOWER JAW)

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

Medium air, max. 6 bar. Operation with oil-free air is permissible.

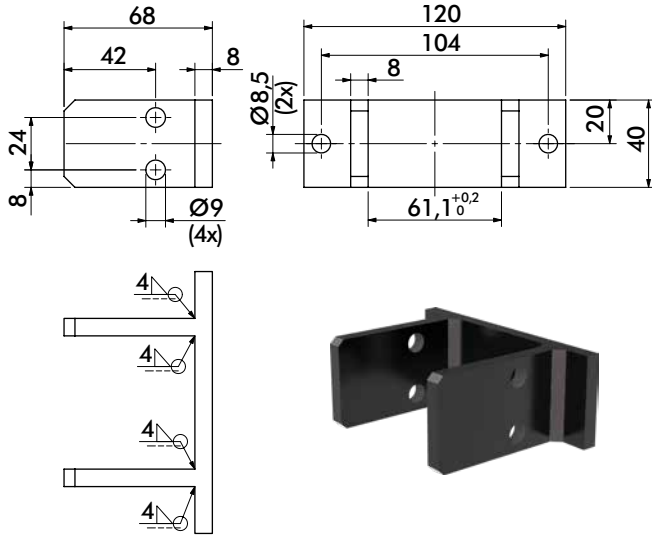
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model 84A5.13	Opening Angle α Upper/Lower	Clamping force at 5 bar ~N [lbs]	Weight Kg [lbs]
R	76°/15°	1200 [270]	2,8 [6.17]
S	30°/15°		
T	45°/15°		
U	60°/15°		

84A5-1 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Mount



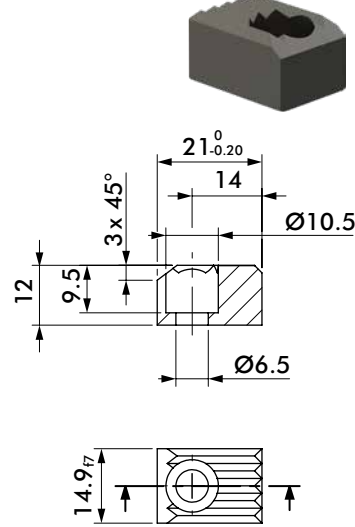
Mount

Rear Flange

Part Number

8MA-196-1

Steel Teeth



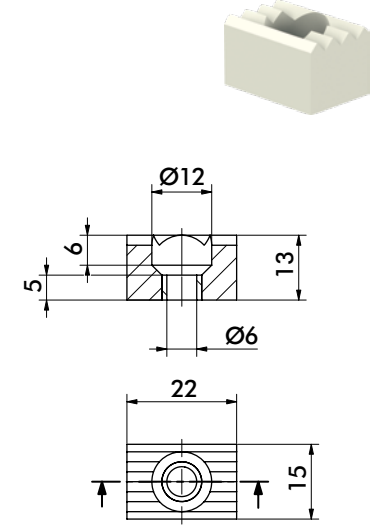
Steel Teeth

Serrated

Part Number

8JZ-014-3

Plastic Teeth



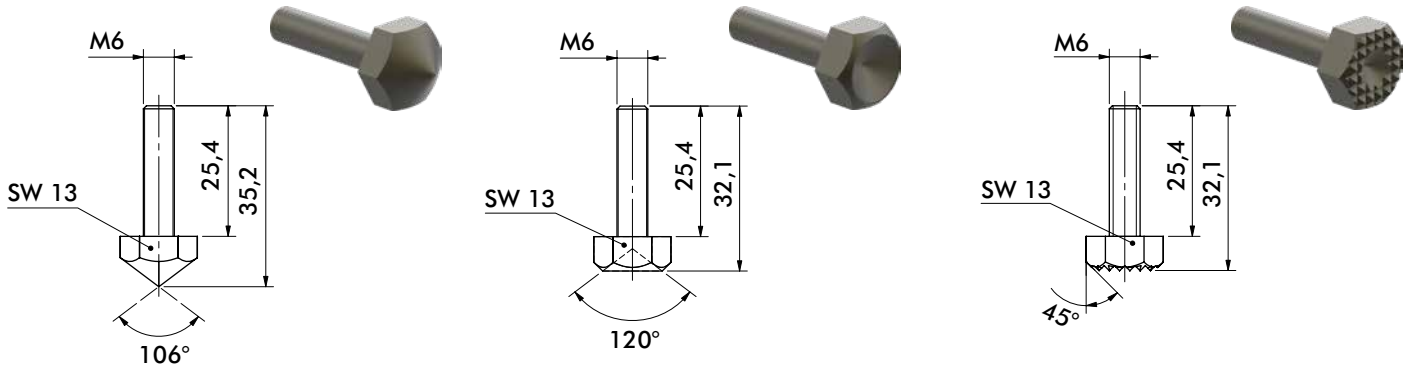
Plastic Teeth

Serrated

Part Number

8JZ-021-1

Steel Points



Steel Point

Pointed

Part Number

8MJ-1001-1

Steel Point

Flat

Part Number

8MJ-1002-1

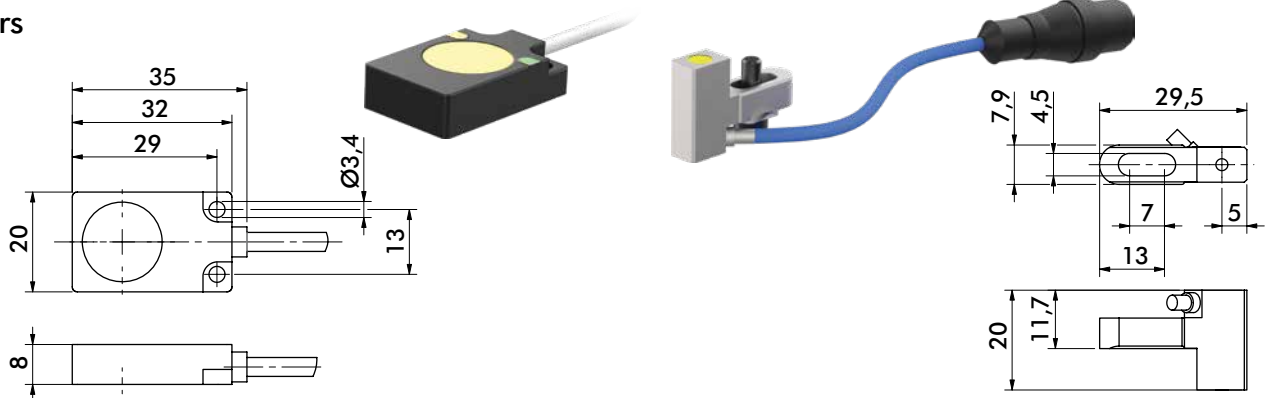
Steel Point

Serrated

Part Number

8MJ-1003-1

Sensors



Workpiece Control Sensor

7mm Sensing Distance, 2m Cable

Part Number

8EA-092-1

Double Sheet Control Sensor

1.5mm Sensing Distance

Part Number

8EA-087-1

84L2-1 SERIES

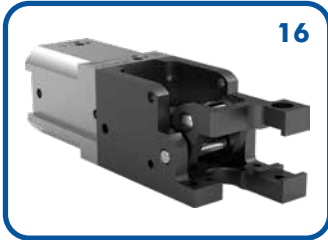
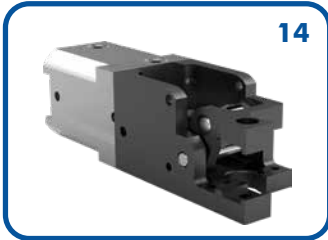
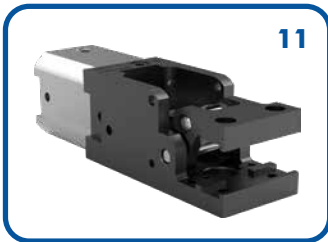
Cam Type Sheet Metal Grippers | Ordering Information



Jaw Arrangement Options

Description

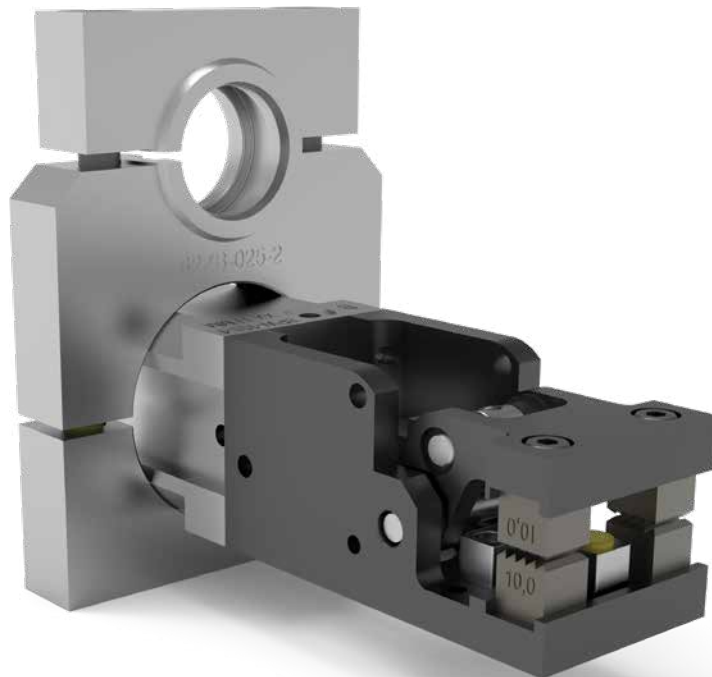
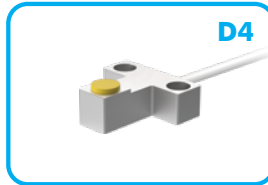
- 11** Double
- 14** Single, Right
- 16** Single, Left



Sensor Options

Description

- 00** None
- D4** Part Present Sensor, 3mm Sensing Distance, 2m Cable
8EA-164-1
- D7** Part Present Sensor, 3mm Sensing Distance, M12x1 Plug
8EA-165-1



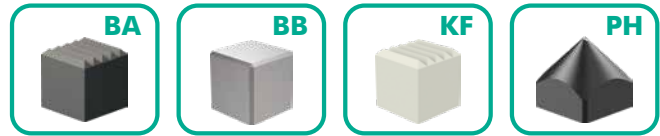
84L2-1 SERIES

Cam Type Sheet Metal Grippers | Ordering Information

Gripper Teeth Options

Upper Teeth Options

- 00** None
- BA** Hardened - 8JZ-027-1
- BB** Soft Steel - 8JZ-028-1
- KF** 90 Shore - 8JZ-045-2
- PH** Hardened - 8JZ-029-1



Lower Teeth Options

- 00** None
- BA** Hardened - 8JZ-027-1
- BB** Soft Steel - 8JZ-028-1
- KF** 90 Shore - 8JZ-045-2



Shims for gripper teeth available
Order Separately **8SB-039-1**
Dimensions: 10 x 10 x 0,1 mm

Mounting Options

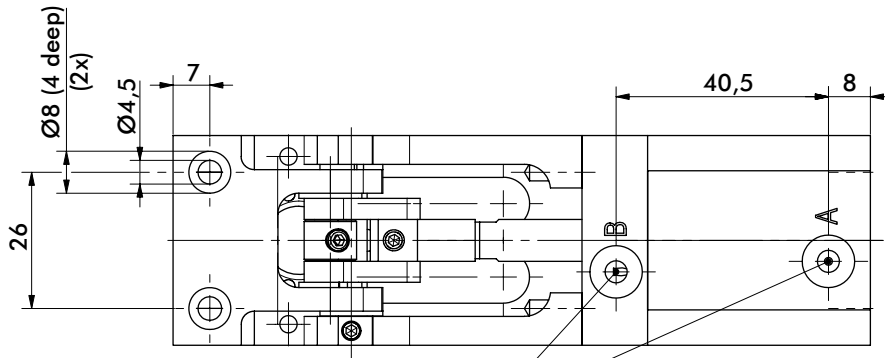
Description

- 0** None
- I** Ø20mm Rear Rod - 8MA-165-1
- J** Ø25mm Rear Rod - 8MA-166-1
- Z** Ø1.00" Rear Rod - 8MA-168-1
- V** Rear Flange - 8MA-147-1
- W** On-Body Swivel Ball - 82ZB-025-2

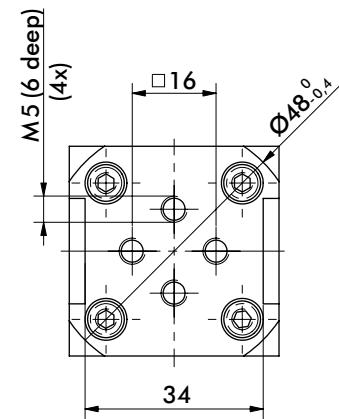
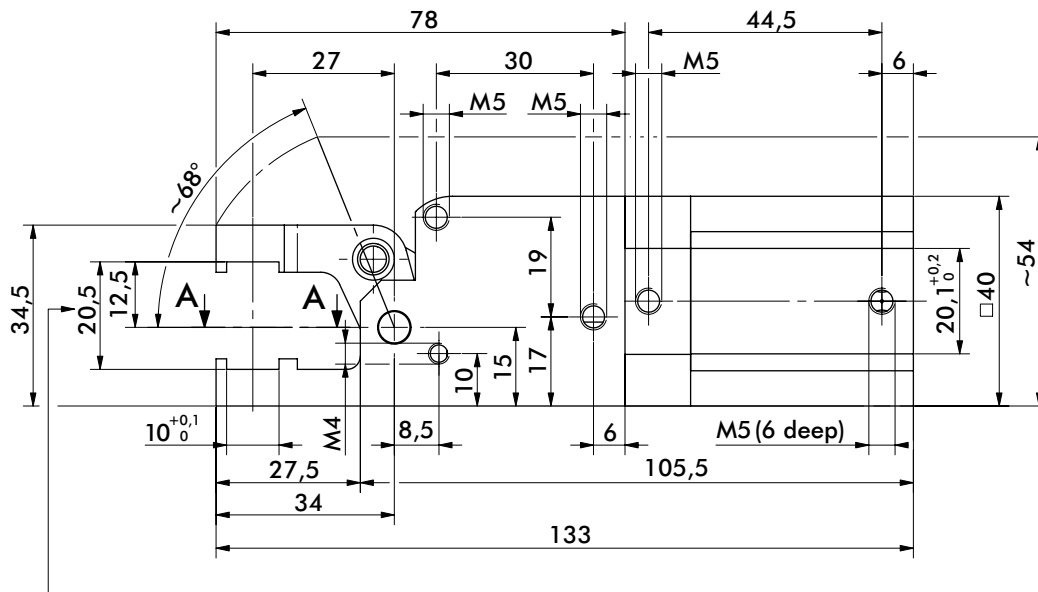
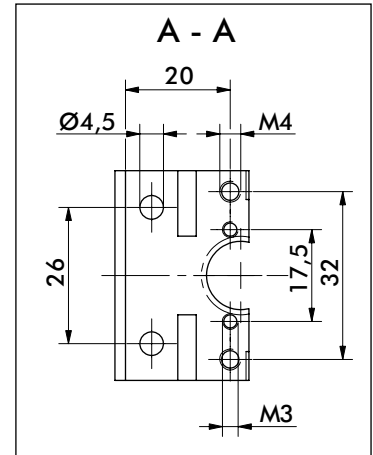


84L2-11 SERIES

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Air connection M5. Turning cylinder-air connection possible in 4x 90° increments.



Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

Medium air, max. 6 bar. Operation with oil-free air is permissible.

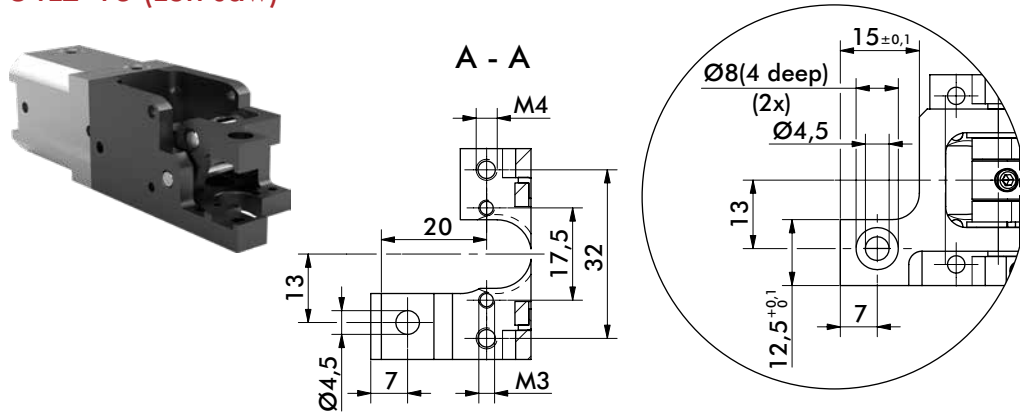
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model	Clamping Force at 5 bar ~N [lbs]	Piston mm [in.]	Air Consumption per Double Stroke at 5 bar [L]	Weight Kg [lbs]	Acuation Time Open/Close Sec.
84L2-11	74 [16.6]	25 [0.98]	0,19	0,4 [0.88]	0.2

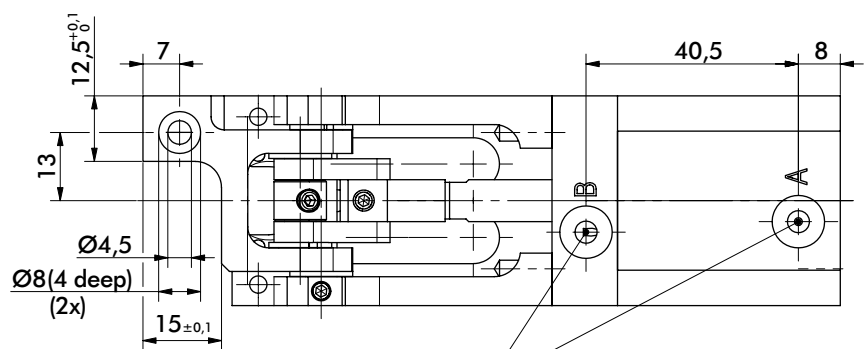
84L2-14/84L2-16 SERIES

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

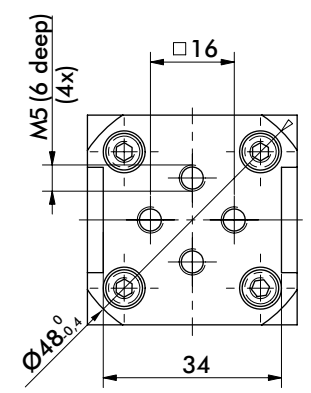
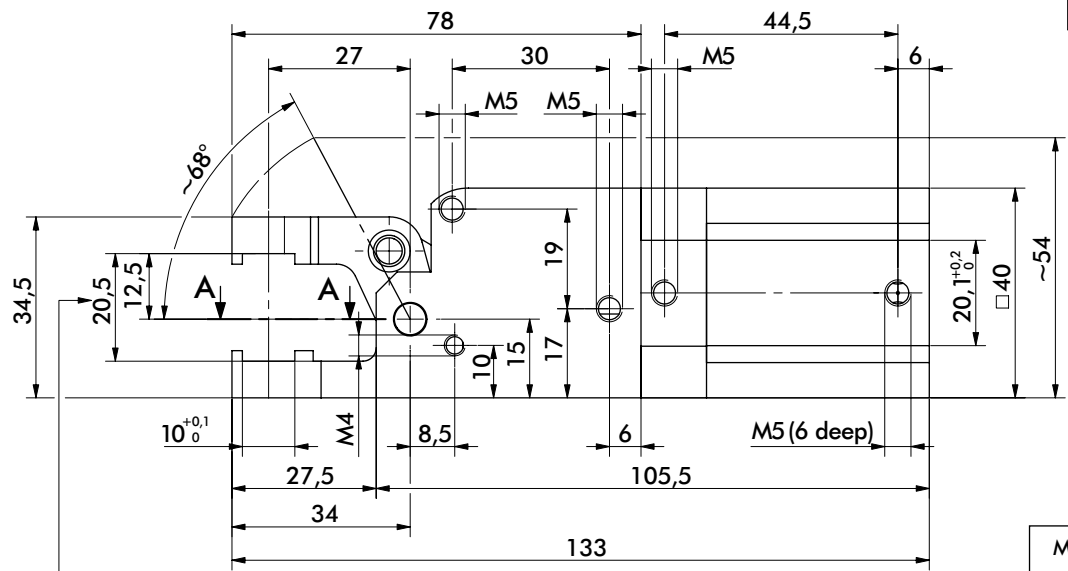
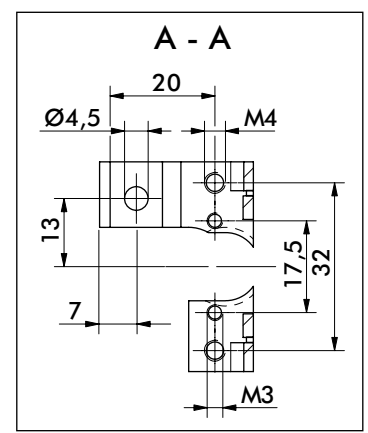
84L2-16 (Left Jaw)



84L2-14 (Right Jaw)



Air connection M5. Turning cylinder-air connection possible in 4x 90° increments.



Medium air, max. 6 bar. Operation with oil-free air is permissible.

Addition of gripper teeth height and thickness of the clamped plate must be 20,5 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

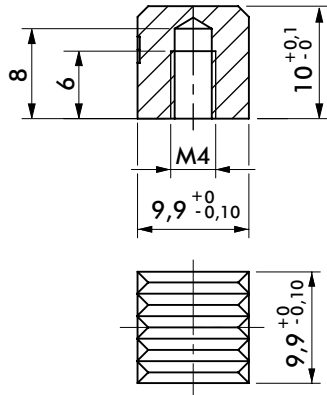
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model	Clamping Force at 5 bar ~N [lbs]	Piston mm [in.]	Air Consumption per Double Stroke at 5 bar [L]	Weight Kg [lbs]	Acuation Time Open/Close Sec.
84L2-14/84L2-16	74 [16.6]	25 [0.98]	0,19	0,37 [0.82]	0.2

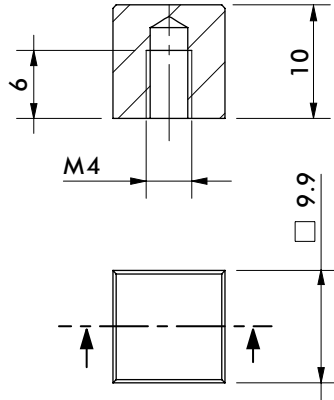
84L2-4 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Steel Teeth

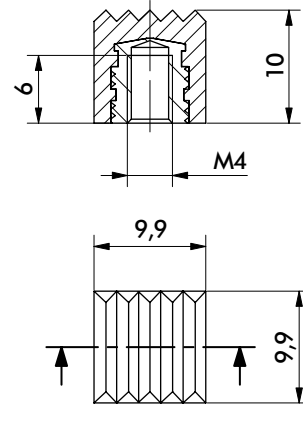


Hardened Steel Teeth Part Number
Serrated **8JZ-027-1**



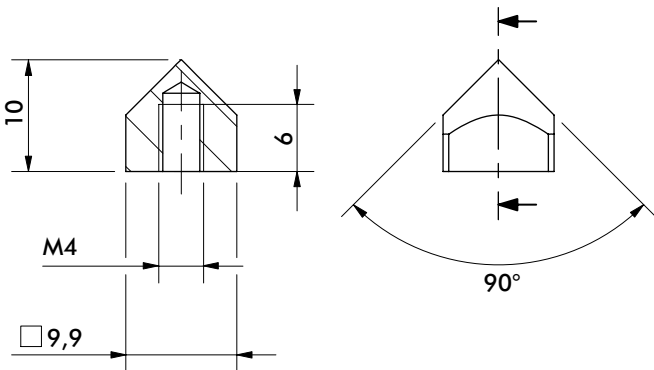
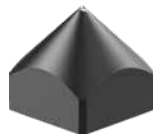
Soft Steel Teeth Part Number
Non-Serrated **8JZ-028-1**

Plastic Teeth



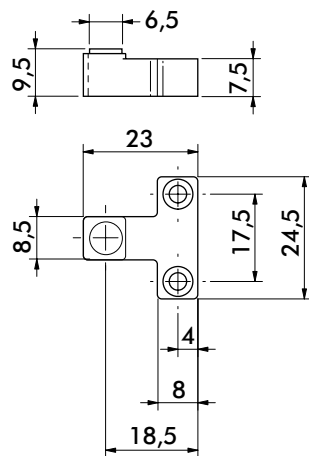
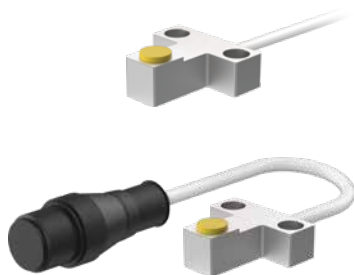
Plastic Teeth Part Number
90 Shore, Serrated **8JZ-045-2**

Steel Points



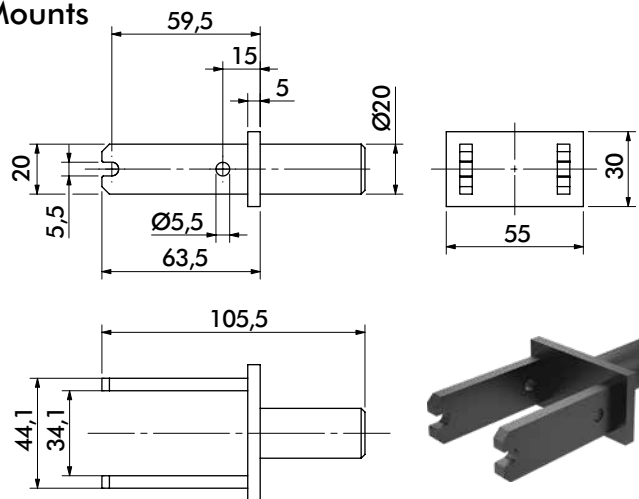
Hardened Steel Point Part Number
Pointed **8JZ-029-1**

Sensors



Part Present Sensor Part Number
3mm Sensing Distance, 2m Cable **8EA-164-1**
3mm Sensing Distance, M12X1 **8EA-165-1**

Mounts

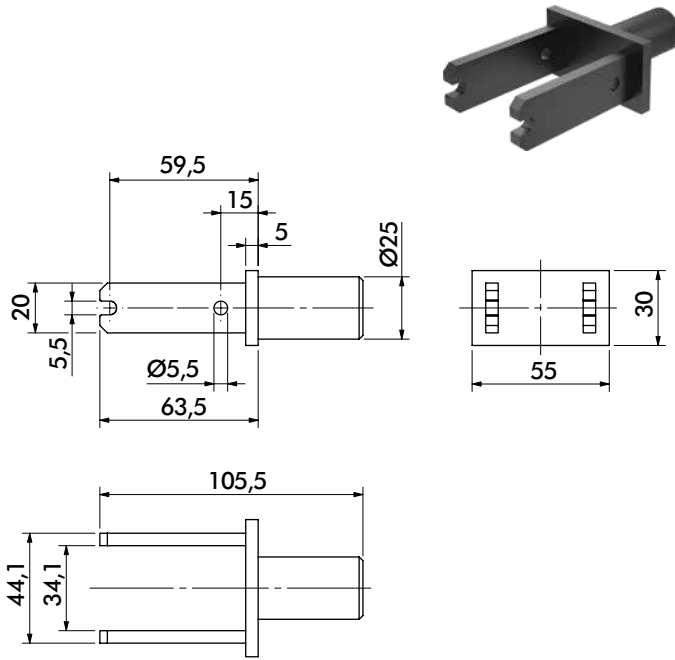


Mount Part Number
Ø20mm Rear Rod **8MA-165-1**

84L2-1 ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Mounts

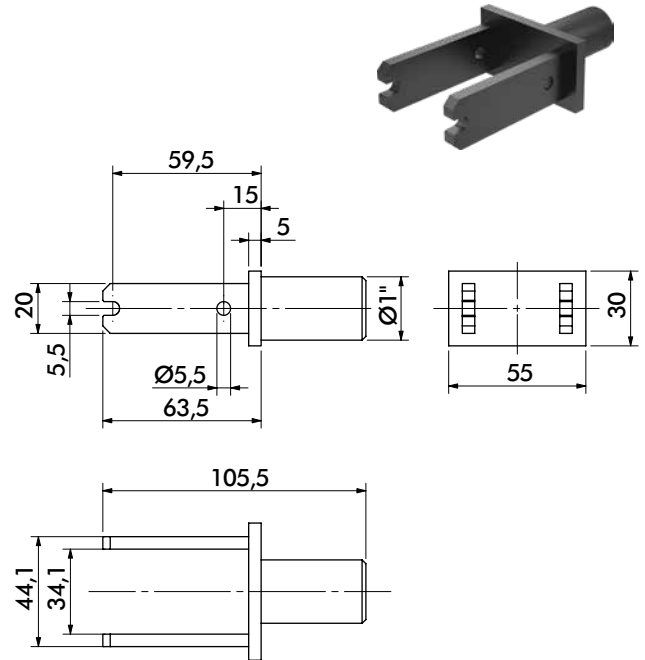


Mount

Ø25mm Rear Rod

Part Number

8MA-166-1

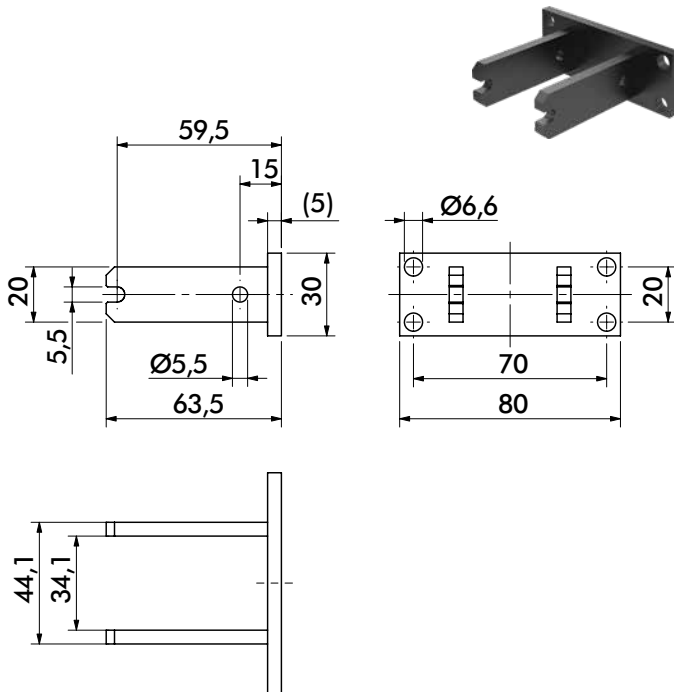


Mount

Ø1.00" Rear Rod

Part Number

8MA-168-1

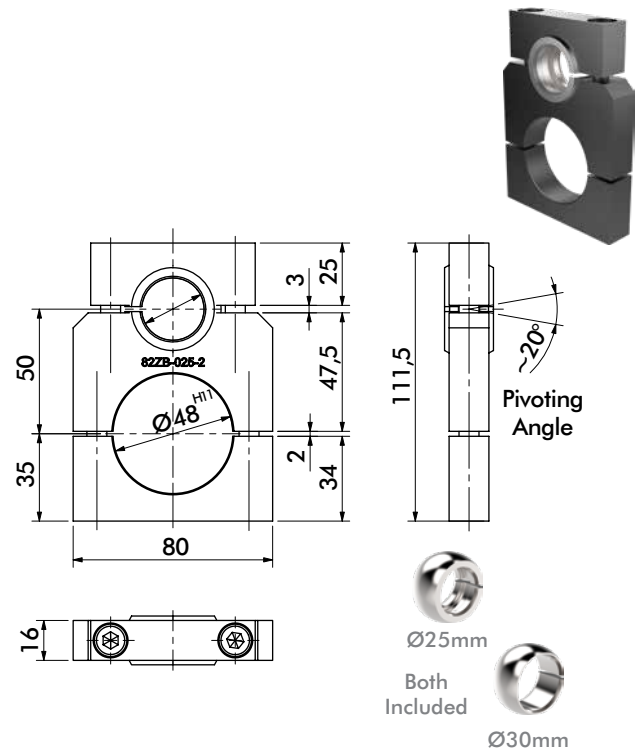


Mount

Rear Flange

Part Number

8MA-147-1



Mount

On-Body Swivel Ball

Part Number

82ZB-025-2

84L3-2 SERIES

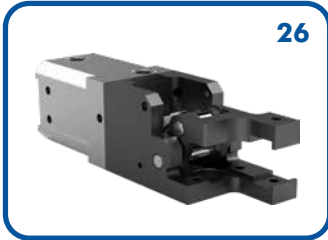
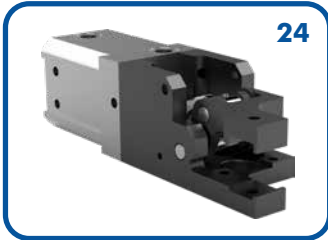
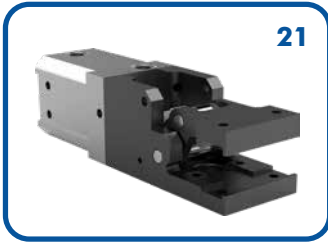
Cam Type Sheet Metal Grippers | Ordering Information



Jaw Arrangement Options

Description

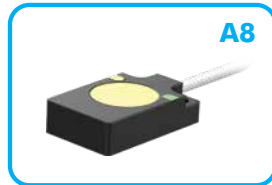
- 21** Double
- 24** Single, Right
- 26** Single, Left



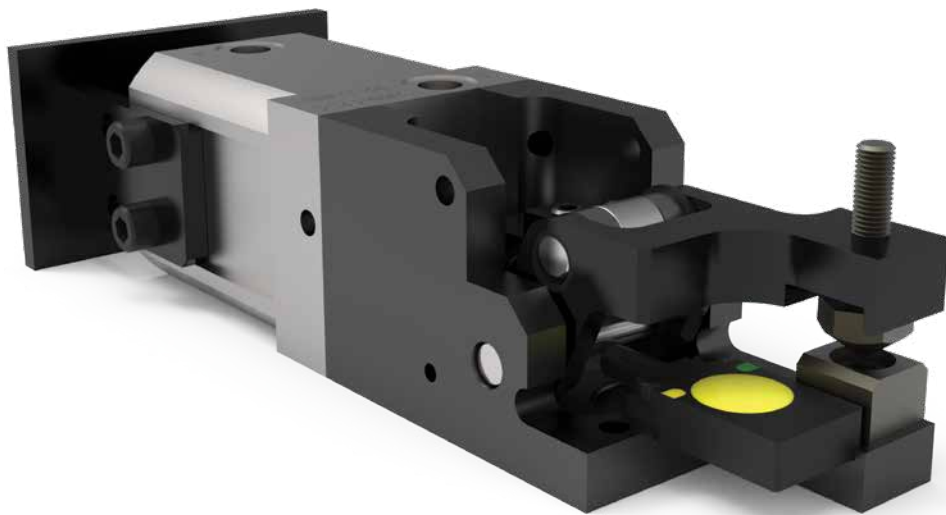
Sensor Options

Description

- 00** None
- A8** Workpiece Control, Switching Distance 7mm
8EA-092-1
- A9** Workpiece Control, Switching Distance 7mm,
M12x1 Plug, 3 Pin - 8EA-092-2



Shims for Sensor available
Order Separately **8MB-003-1**



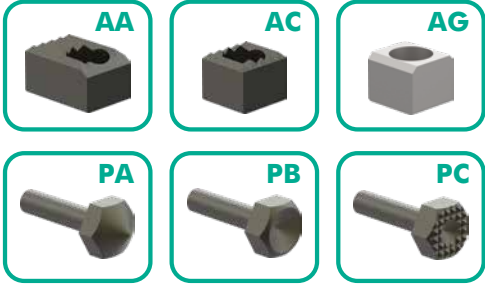
84L3-2 SERIES

Cam Type Sheet Metal Grippers | Ordering Information

Gripper Teeth and Points Options

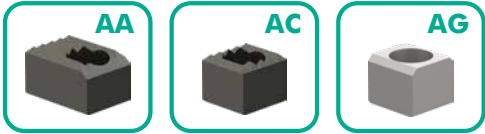
Upper Teeth Options

- 00** None
- AA** 14,9x21x12mm - 8JZ-014-3
- AC** 14,9x14x12mm - 8JZ-043-1
- AG** 14,9x14x12mm - 8JZ-050-1
- PA** 8MJ-1001-1
- PB** 8MJ-1002-1
- PC** 8MJ-1003-1



Lower Teeth Options

- 00** None
- AA** 14,9x21x12mm - 8JZ-014-3
- AC** 14,9x14x12mm - 8JZ-043-1
- AG** 14,9x14x12mm - 8JZ-050-1

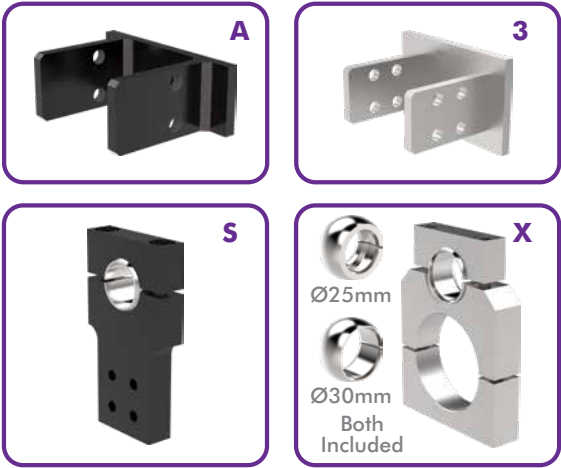


Shims for gripper teeth available
Order Separately **8SB-003-1**
Dimensions: 14,8 x 13 x 0,15 mm

Mounting Options

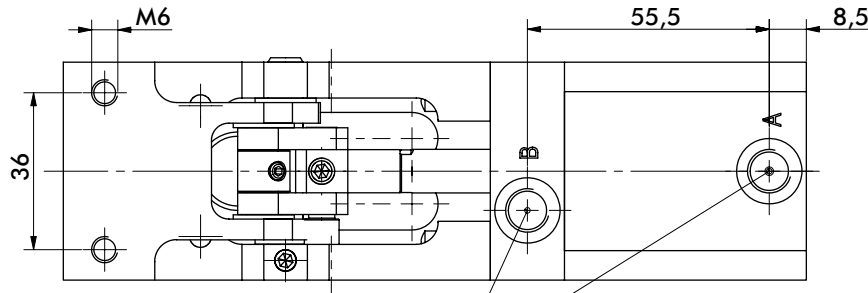
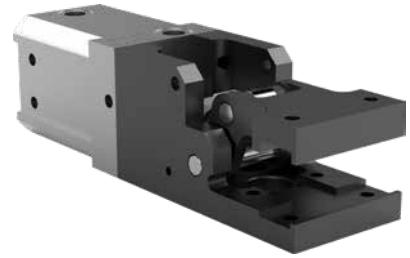
Description

- 0** None
- A** Rear Flange - 8MA-006-1
- 3** Rear Flange - 8MA-273-1
- S** Rear Swivel Ball - 82ZB-007-1
- X** On-Body Swivel Ball - 82ZB-033-2

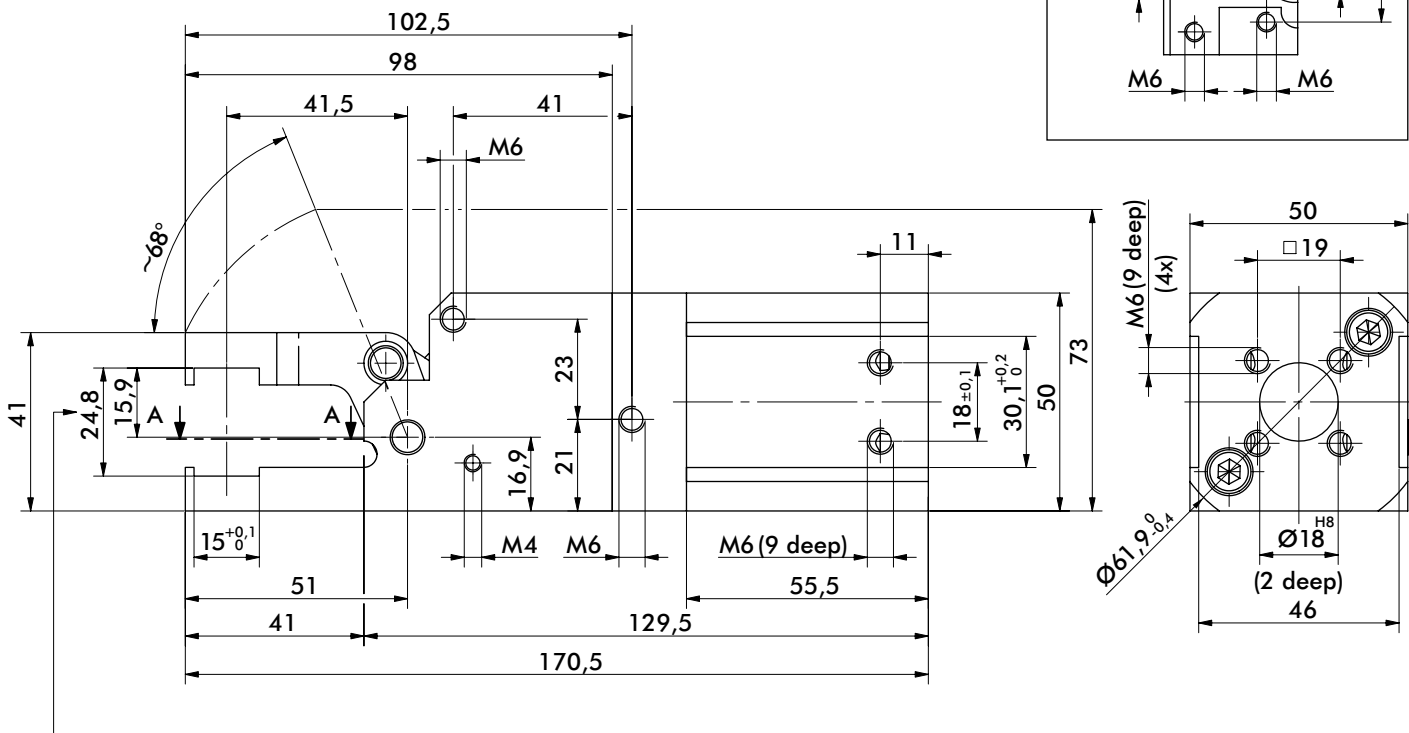
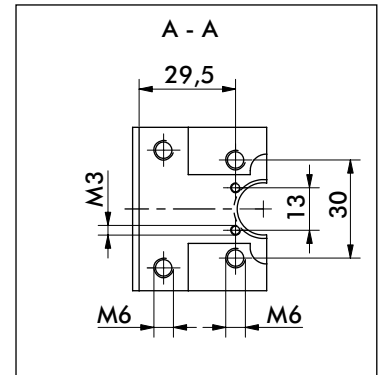


84L3-21 SERIES

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications



Air connection G1/8. Turning cylinder-air connection possible in 4x 90° increments.



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

Medium air, max. 6 bar. Operation with oil-free air is permissible.

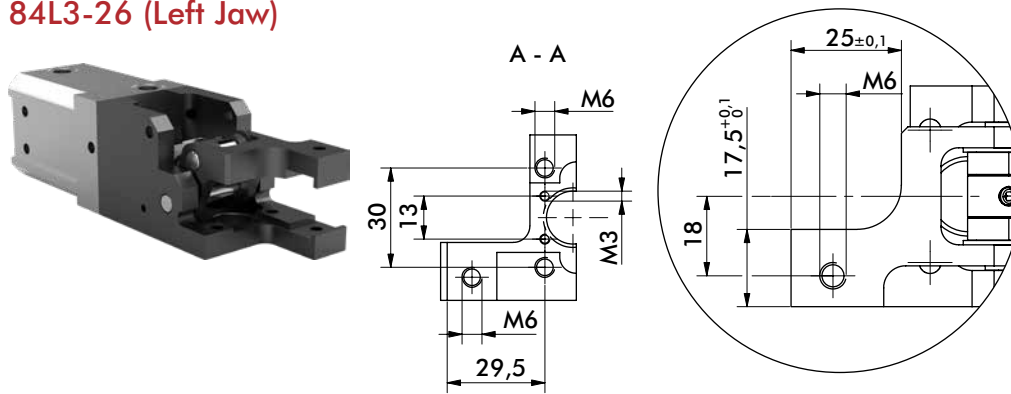
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model	Clamping Force at 5 bar ~N [lbs]	Piston mm [in.]	Air Consumption per Double Stroke at 5 bar [L]	Weight Kg [lbs]	Acuation Time Open/Close Sec.
84L3-21	135 [30.3]	32 [1.26]	0,3	0,8 [1.76]	0.2

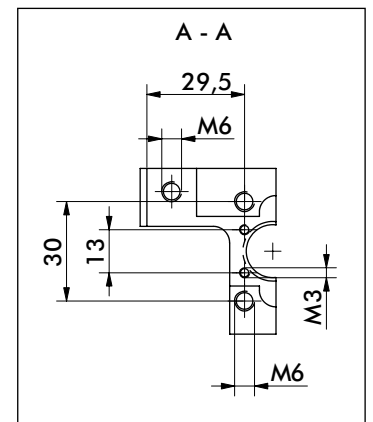
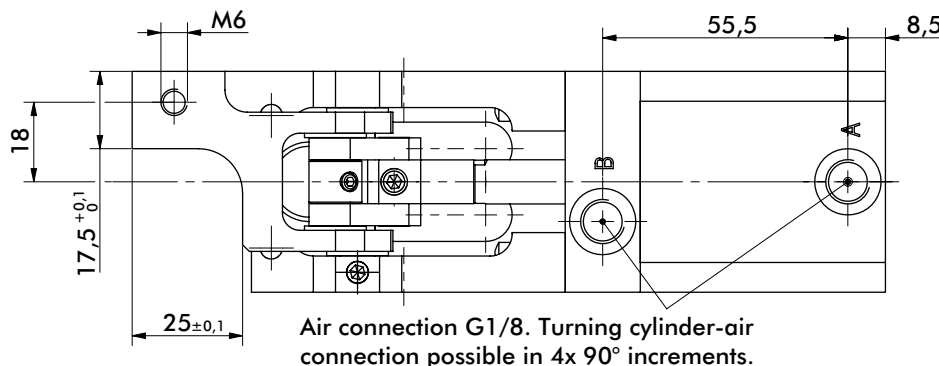
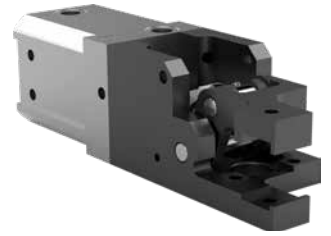
84L3-24/84L3-26 SERIES

Cam Type Sheet Metal Grippers | Dimensions and Technical Specifications

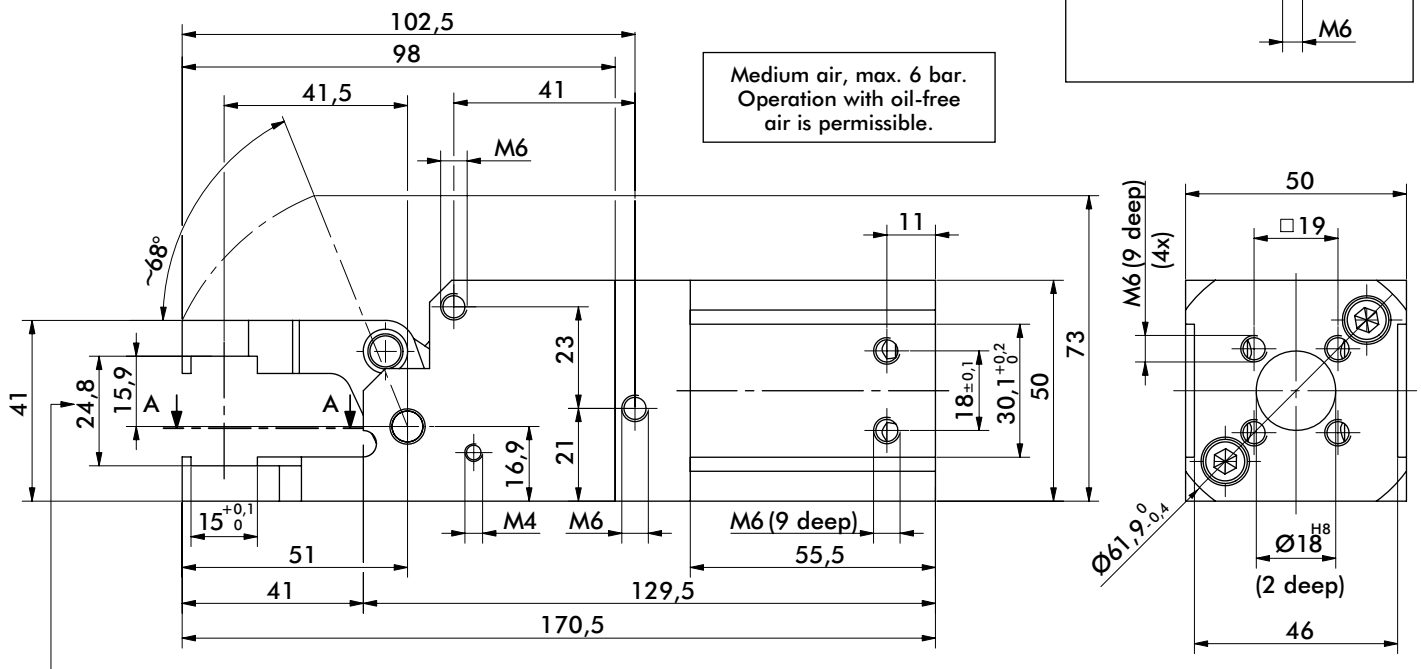
84L3-26 (Left Jaw)



84L3-24 (Right Jaw)



Medium air, max. 6 bar.
Operation with oil-free air is permissible.



Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind off the gripper teeth.

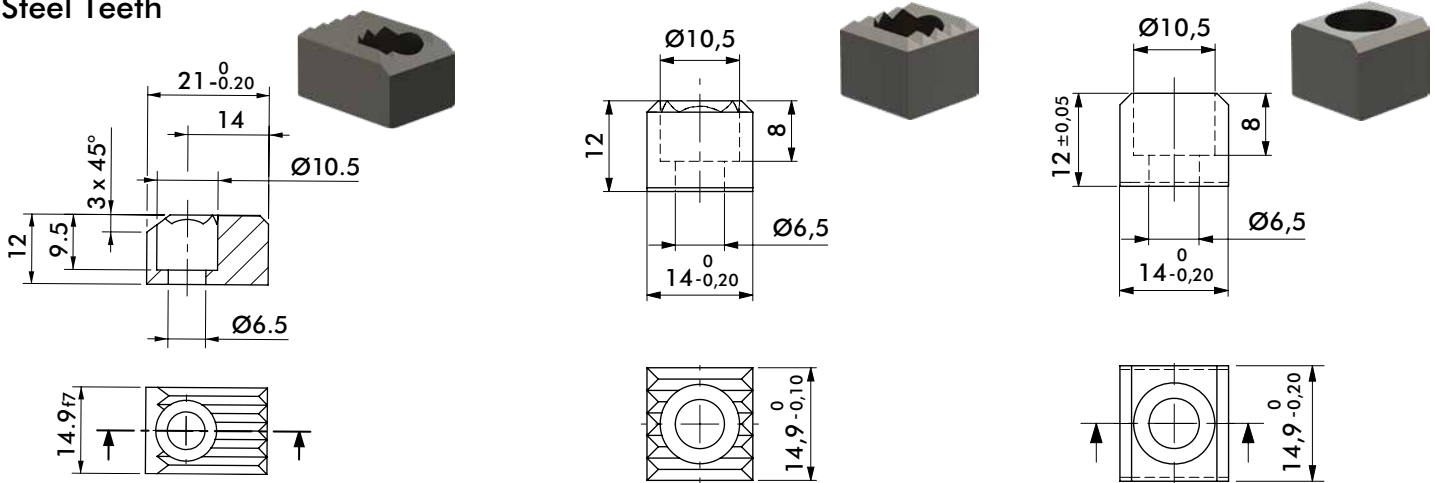
NOTE! Any extension of the moveable or fixed gripper jaws as well as the additional attachment of weights will void warrantee.

Model	Clamping Force at 5 bar ~N [lbs]	Piston mm [in.]	Air Consumption per Double Stroke at 5 bar [L]	Weight Kg [lbs]	Actuation Time Open/Close Sec.
84L3-24/84L3-26	135 [30.3]	32 [1.26]	0,3	0,75 [1.65]	0.2

84L3 SERIES ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Steel Teeth

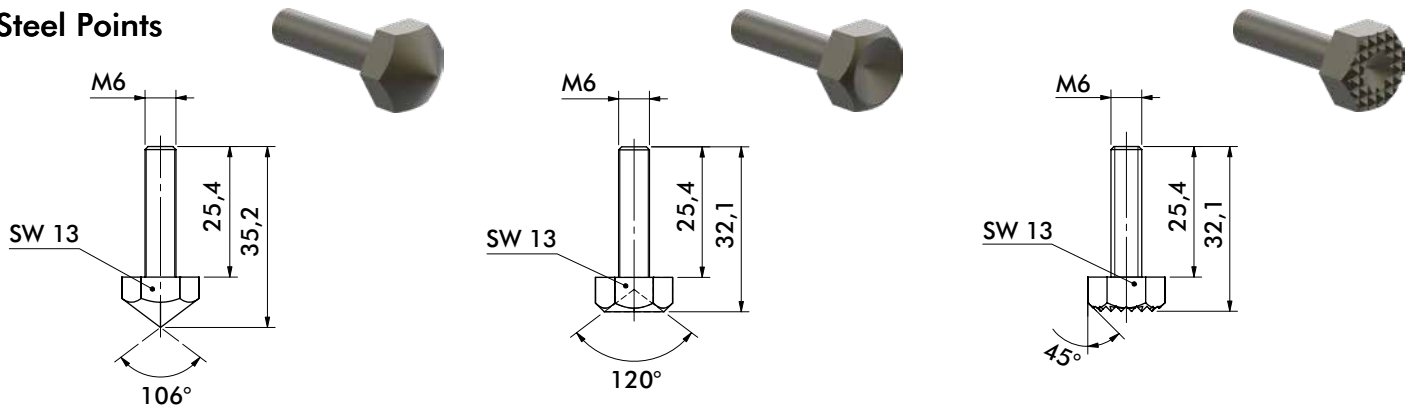


Steel Teeth Part Number
Serrated **8JZ-014-3**

Steel Teeth Part Number
Serrated **8JZ-043-1**

Steel Teeth Part Number
Flat **8JZ-050-1**

Steel Points

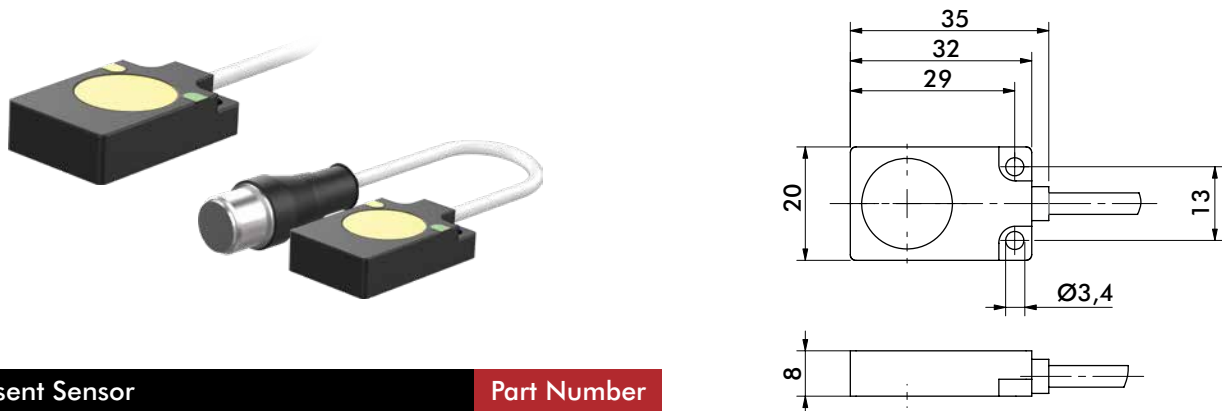


Steel Point Part Number
Pointed **8MJ-1001-1**

Steel Point Part Number
Flat **8MJ-1002-1**

Steel Point Part Number
Serrated **8MJ-1003-1**

Sensors

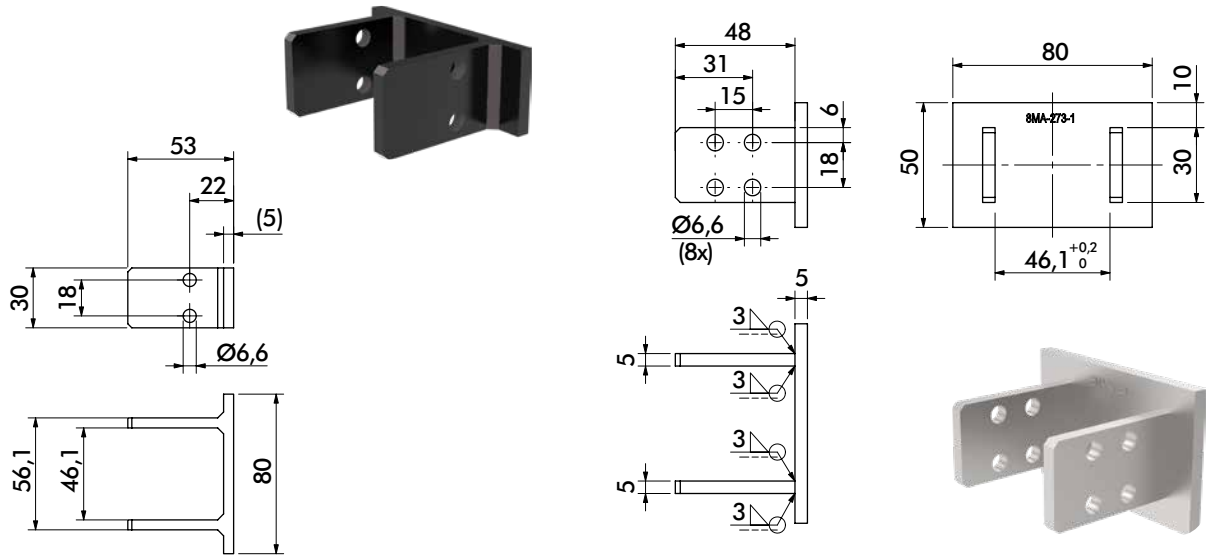


Part Present Sensor Part Number
Switching Distance 7mm **8EA-092-1**
Switching Distance 7mm, M12x1 Plug, 3 Pin **8EA-092-2**

84L3 ACCESSORIES

Cam Type Sheet Metal Grippers | Dimensions and Ordering Information

Mounts



Mount

Rear Flange

Part Number

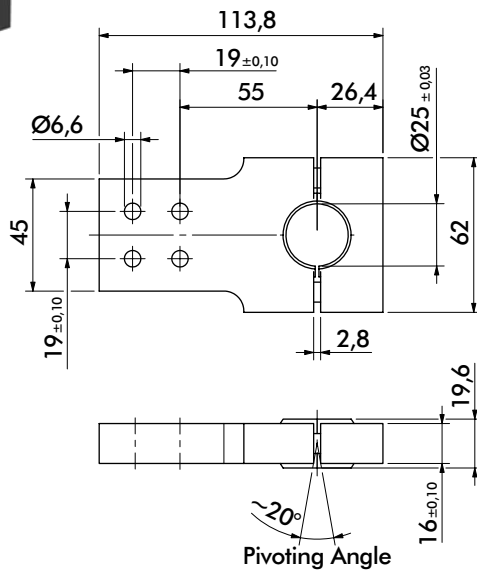
8MA-006-1

Mount

Rear Flange

Part Number

8MA-273-1

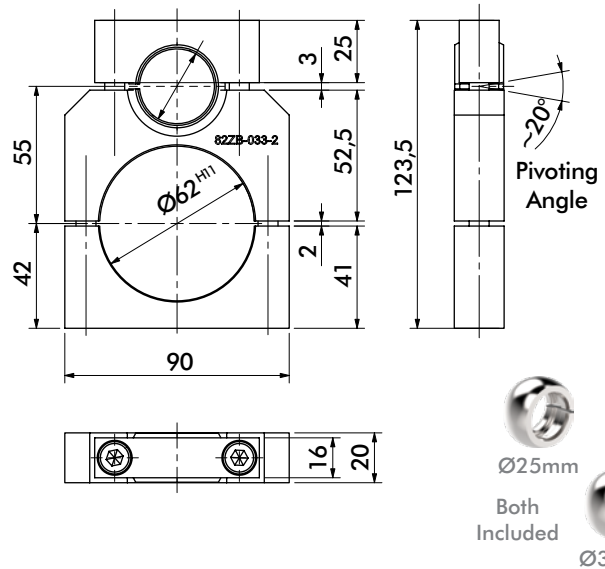


Mount

Rear Swivel Ball

Part Number

82ZB-007-1



Mount

On-Body Swivel Ball

Part Number

82ZB-033-2

GR84 SERIES

Toggle Lock Sheet Metal Grippers | Ordering Information

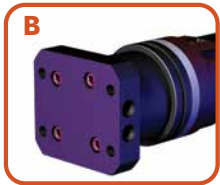
GR84-15 - BE - DD - 9S9 - RRSS - A1 - XX - 01

Cylinder Type & Porting

Step 1 - Cylinder Type Choose One

B **E**

- B** Flange Base
- C** Round Cylinder



Step 2 - Cylinder Ports Choose One

B **E**

- E** English (1/8 NPT)
- M** Metric (1/8 G)

Jaw Arm Option

Description

DD Double Arm

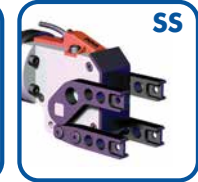
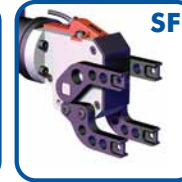
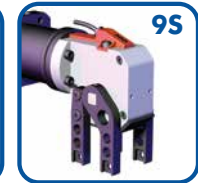
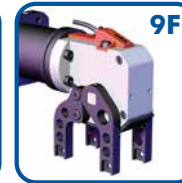
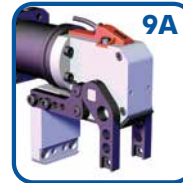


Jaw Arrangement & Opening

Step 1 - Jaw Arrangement Choose One

9S **9**

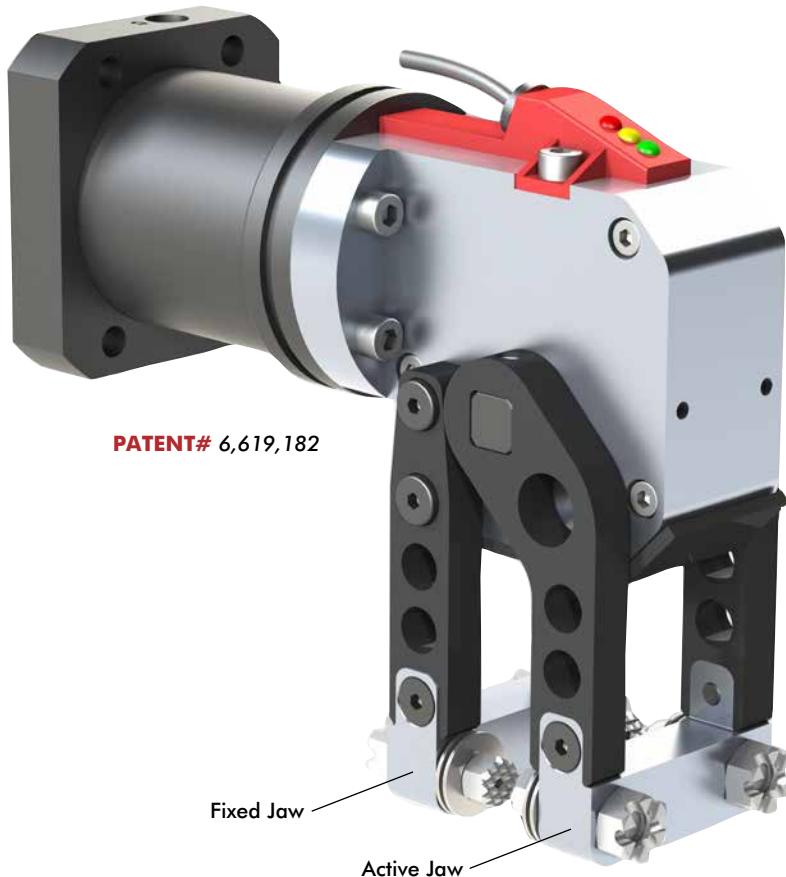
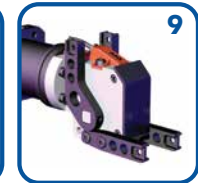
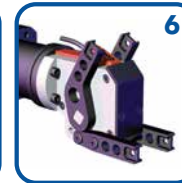
- 9A** 90° Grip Adj. Flange
- 9F** 90° Grip Flange
- 9S** 90° Grip Standard
- SA** Straight Adj. Flange
- SF** Straight Flange
- SS** Straight Standard



Step 2 - Active Jaw Opening Choose One

9S **9**

- 3** 30° Preset
- 6** 60° Preset
- 9** 90° Preset



PATENT# 6,619,182

Fixed Jaw

Active Jaw

For GR-84 Mounting Options

Please Refer to **GR1 Series** "Mounting Options" for style of mounting and use the "Replacement Part#" to order the Preferred Mounting Style (See pages SG-TLG-31 to 33).

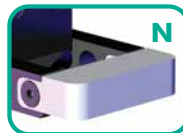
Jaw Block & Insert Options

Step 1 - Active Jaw Block Option Choose One

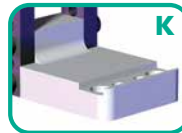
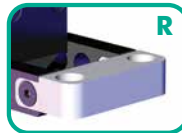
R R S S

X No Block
R Regular Block

N Blank Block (No Tips)
M Jaw Block for Block Inserts "B" Only



For **9F 9S SF SS**:
When choosing Active Jaw Block "M" Fixed Jaw Block must be "M"
M M B S



For **9A SA**:
When choosing Active Jaw Block "M" Fixed Jaw Block must be "K"
M K B S

Step 2 - Fixed Jaw Block Options Choose One Above -or-

R R S S

L Flange Block (for **9F** & **SF** Fixed Jaw Only)
K Adjustable Jaw Block (for **9A** & **SA** Fixed Jaw Only)

Step 3 - Active Jaw Insert Options Choose One

R R S S

P Point **T** Self-Adjusting Serrated **N** Non-Standard
C Cup **X** None
U Urethane **Z** Blank
S Serrated **B** Block (*See **STEP 4** below for **Block Insert Options**)



Step 4 - Fixed Jaw Insert Options Choose One Above

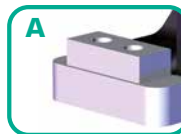
R R S S

-or-

Step 4 - "B" Block Insert Options Choose One
*(Active and Fixed Jaws Use Common Inserts)

M M B S

S Serrated
U Urethane
A Aluminum
N Non-Standard



(Sensing mounts can not be used with (B) Block Option inserts)

Guard Options

Description

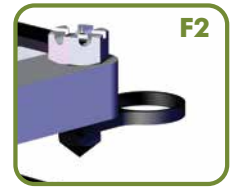
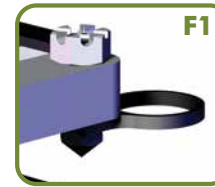
XX No Face Guard
01 Face Guard
02 Face + Skid Guard



Sensor Mounts

Description

XX No Sensor Mounts
F1 Ø18mm Sensor
F2 Ø12mm Sensor



Sensor Options

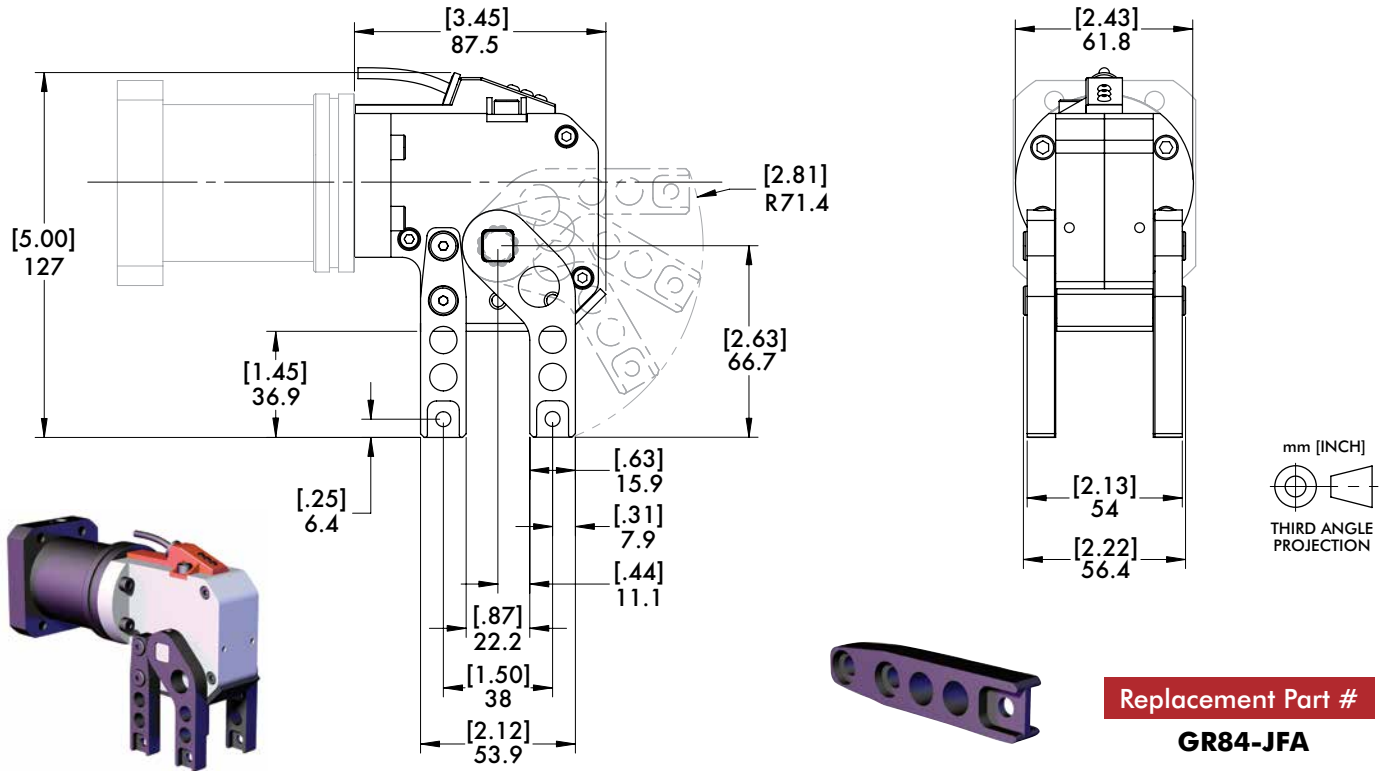
Description

A1 (Turck) VDC
B8 (Pepperl Fuchs) VDC
C8 (DE-STA-CO) VDC
C9 (Allen-Bradley) VDC
D1 (Turck) AC/DC
E3 (Namco) VDC
E4 (Pepperl Fuchs) VDC
E5 (Efcator) VDC
E6 (Baluff) VDC
XC Cover Only
(See page SG-TGL-13 for sensor specifications)

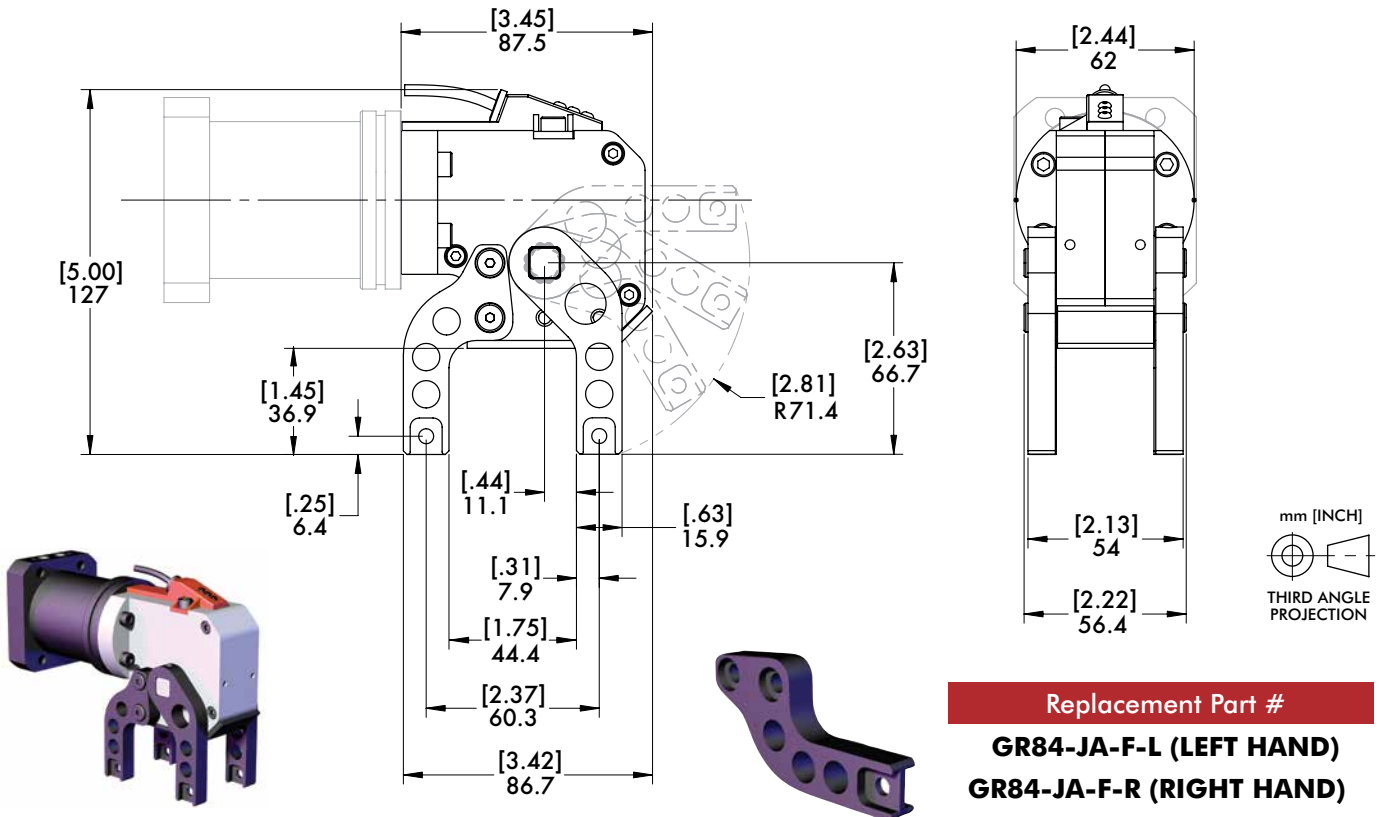
GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"9Sx" 90° Jaw Arrangement - Standard Fixed Jaw



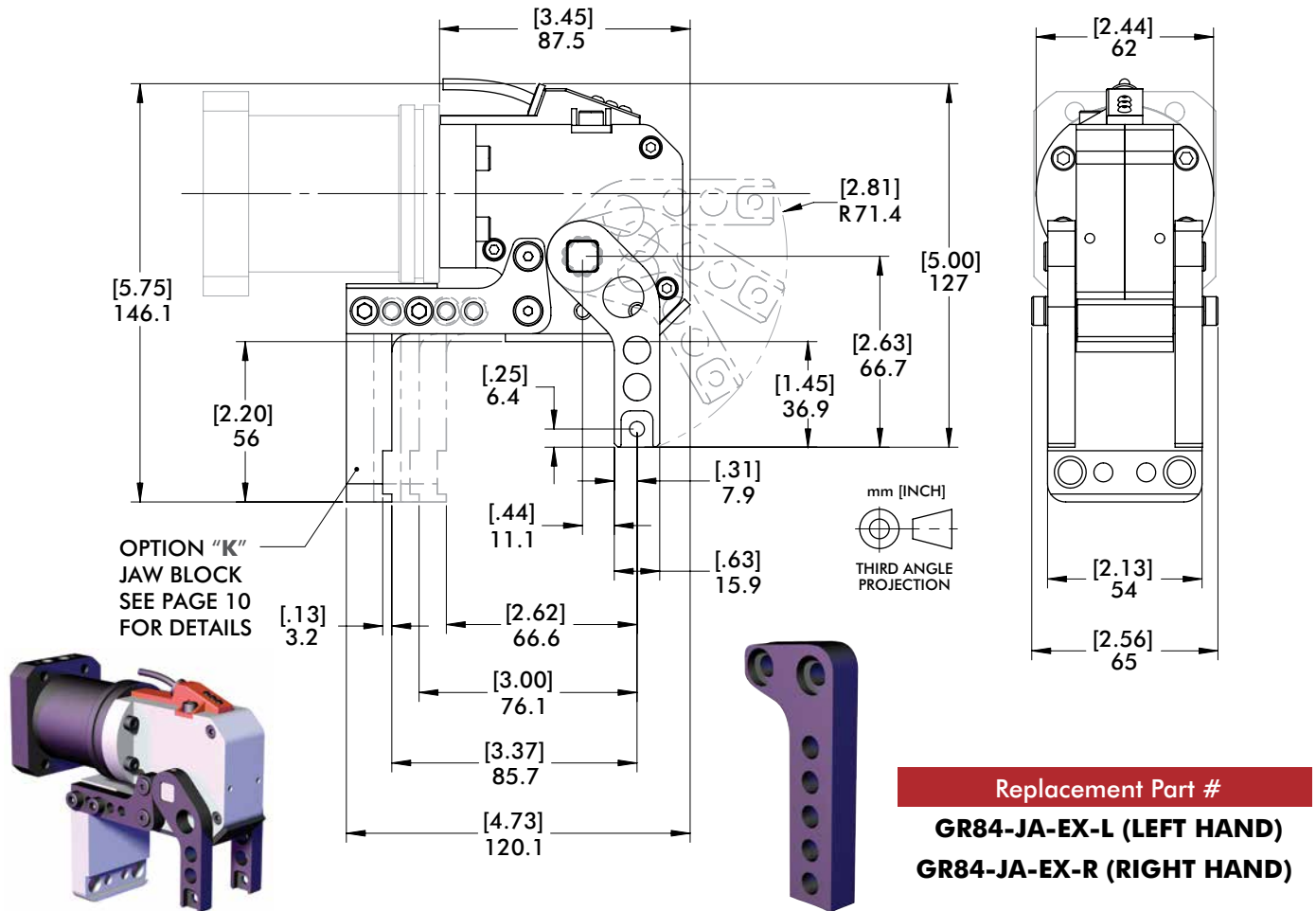
"9Fx" 90° Jaw Arrangement - Flange Fixed Jaw



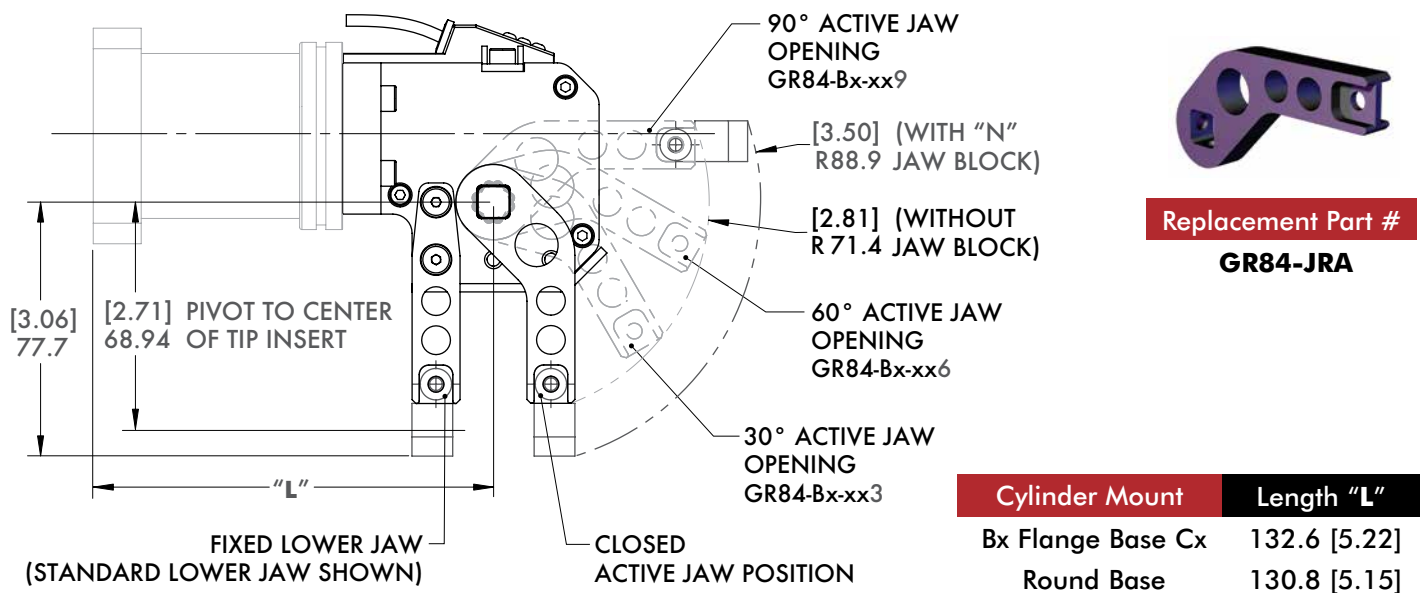
GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"9Ax" 90° Jaw Arrangement - Adjustable Fixed Jaw



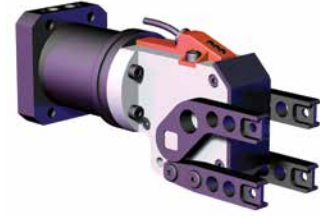
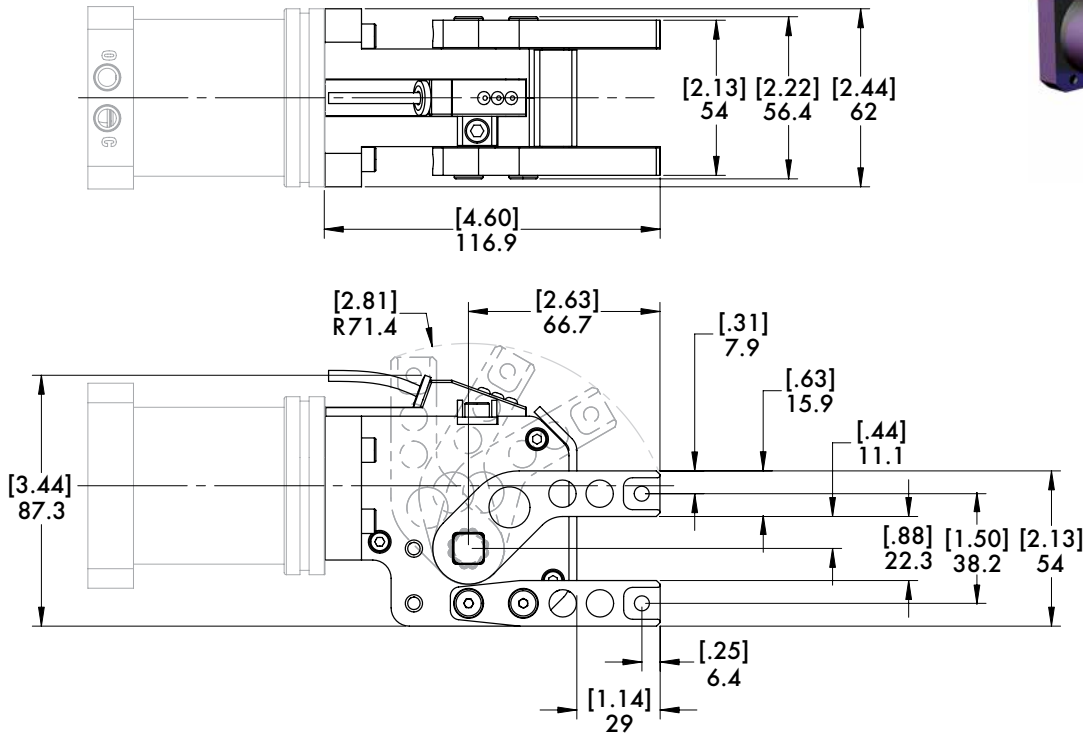
"xx3", "xx6", "xx9" 90° Jaw Arrangement - Preset Active Jaw Opening



GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

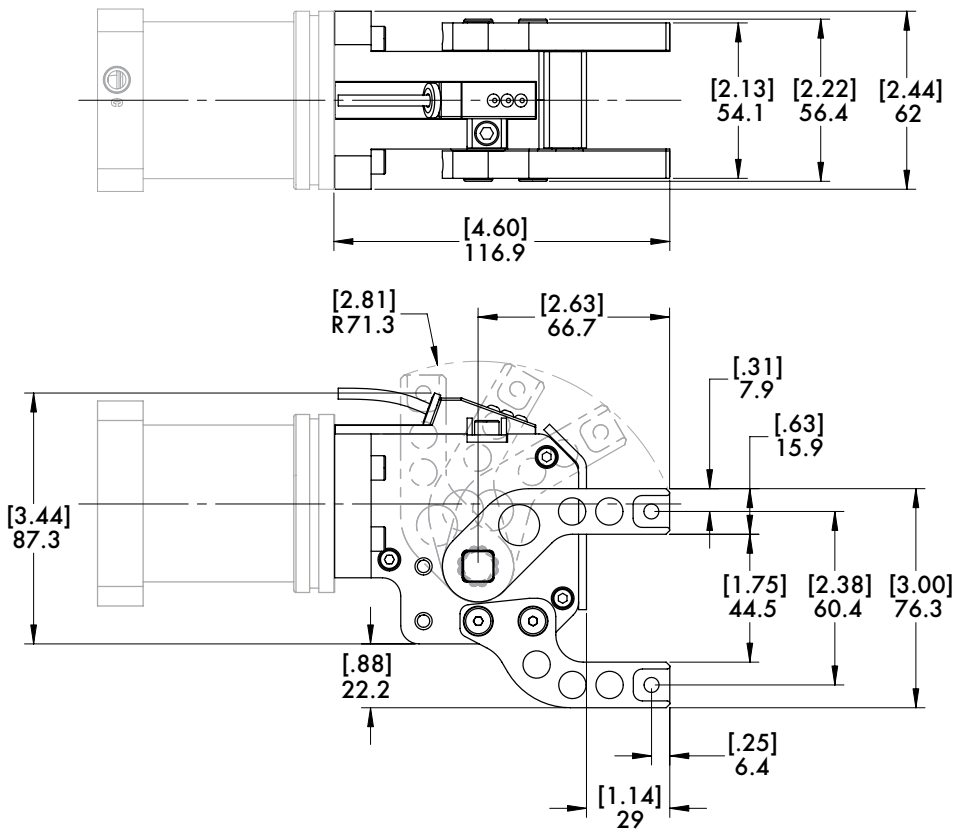
"SSx" Straight Jaw Arrangement - Standard Fixed Jaw



mm [INCH]
THIRD ANGLE PROJECTION



"SFx" Straight Jaw Arrangement - Flange Fixed Jaw



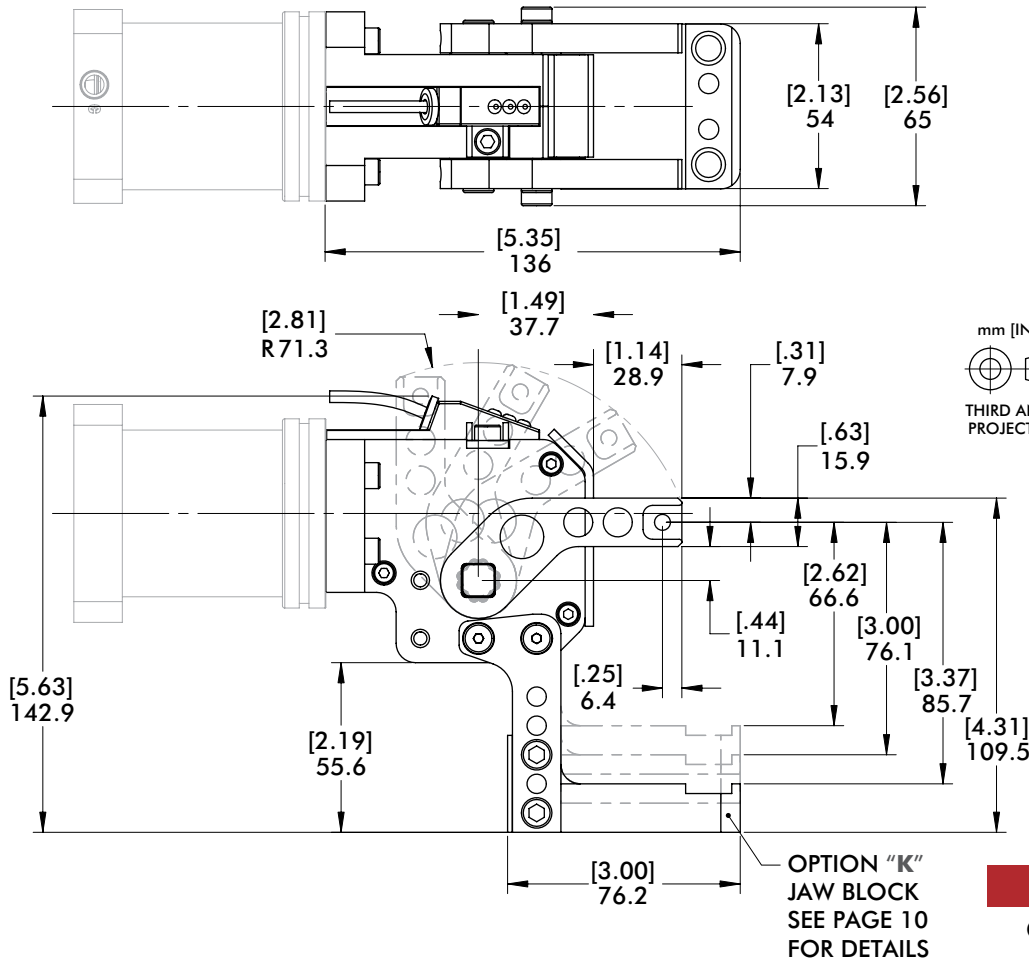
mm [INCH]
THIRD ANGLE PROJECTION



GR84 SERIES

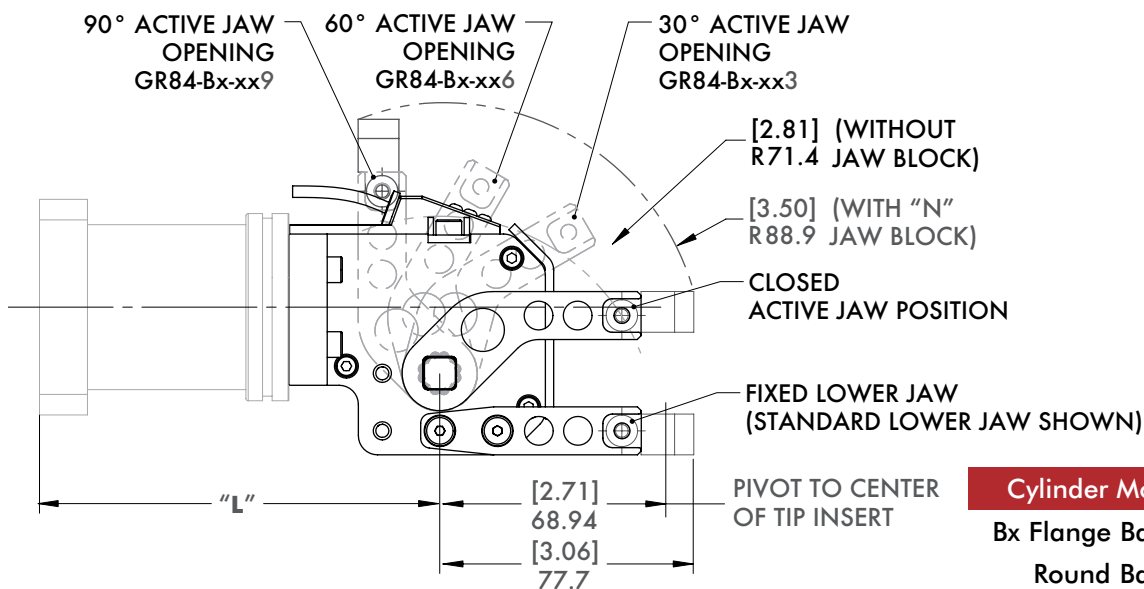
Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"SAx" Straight Jaw Arrangement - Adjustable Fixed Jaw



Replacement Part #
GR84-JA-EX-L (LEFT HAND)
GR84-JA-EX-R (RIGHT HAND)

"xx3", "xx6", "xx9" Straight Jaw Arrangement - Preset Active Jaw Opening



Replacement Part #
GR84-JRA

mm [INCH]

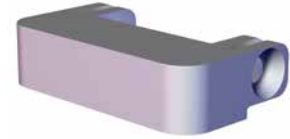
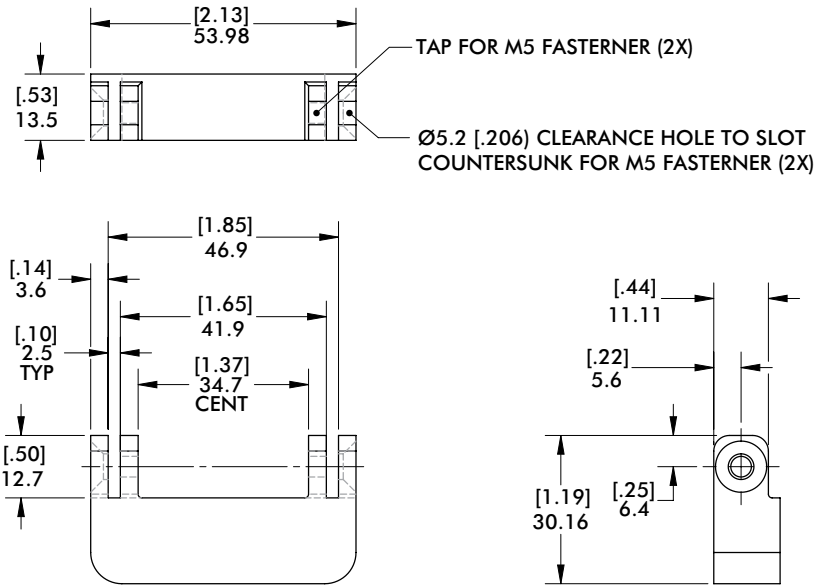
THIRD ANGLE PROJECTION

Cylinder Mount	Length "L"
Bx Flange Base Cx	132.6 [5.22]
Round Base	130.8 [5.15]

GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

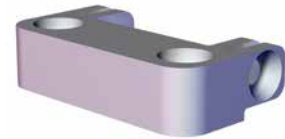
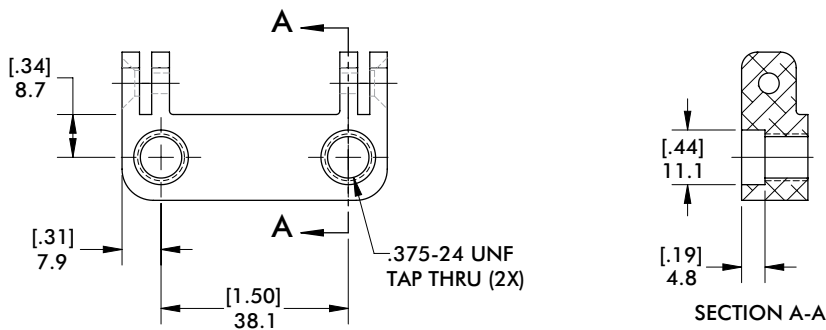
"N" Blank Jaw Block



Replacement Part #

GR84-JB

"R" Point Insert Jaw Block



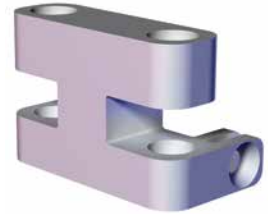
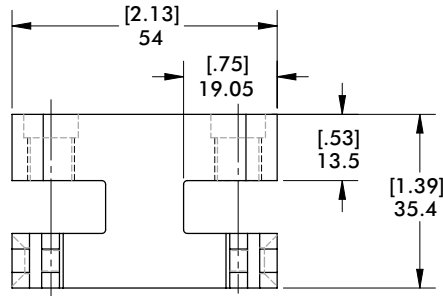
Replacement Part #

GR84-JB-3824

GR84 SERIES

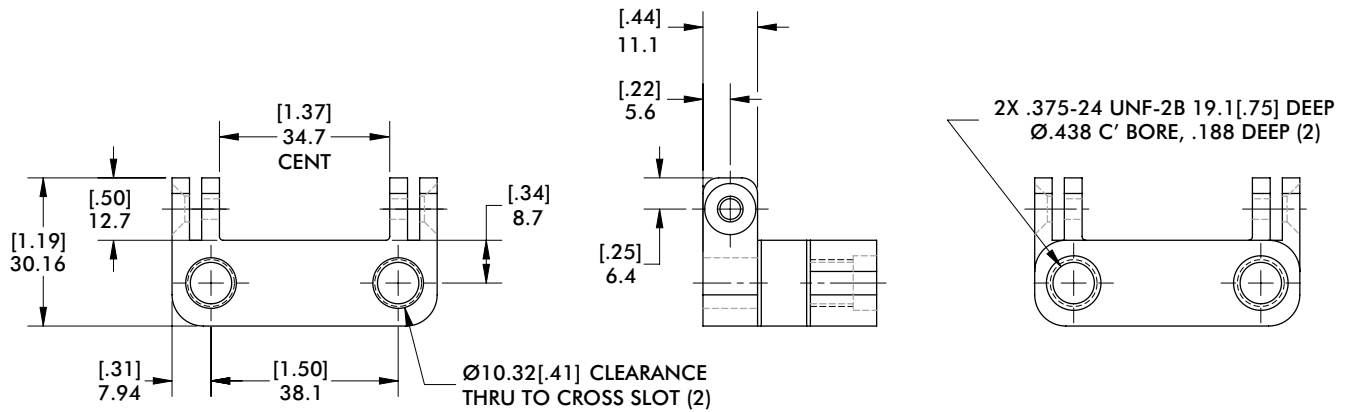
Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"L" Flange Point Insert Jaw Block

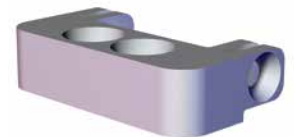


Replacement Part #

GR84-JB-F-3824

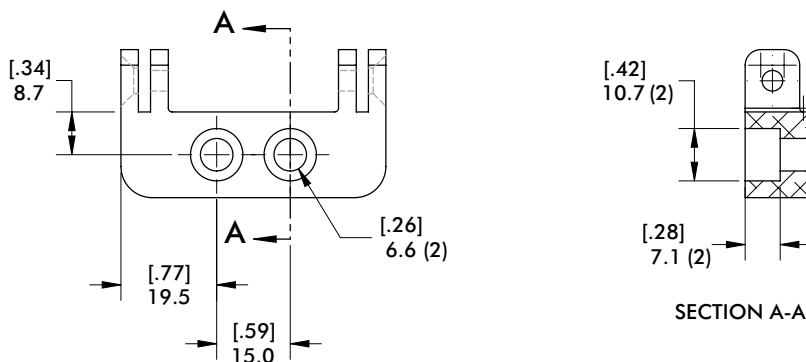


"M" Block Insert Jaw Block



Replacement Part #

GR84-JB-BM6

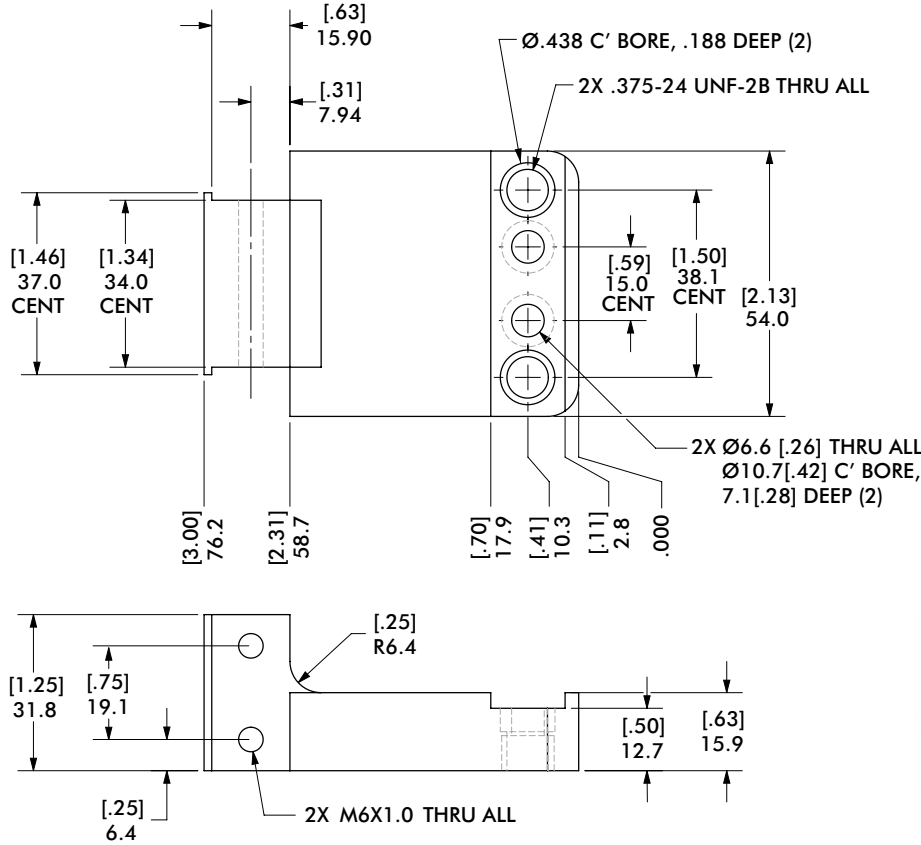


GR84 SERIES

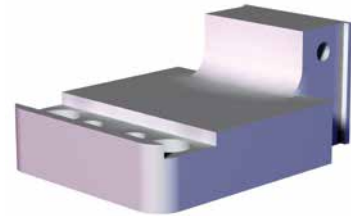
Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"K" Adjustable Jaw Block

(Can only be used with "SA" and "9A" fixed lower jaw)



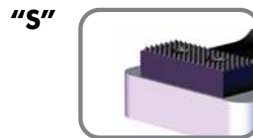
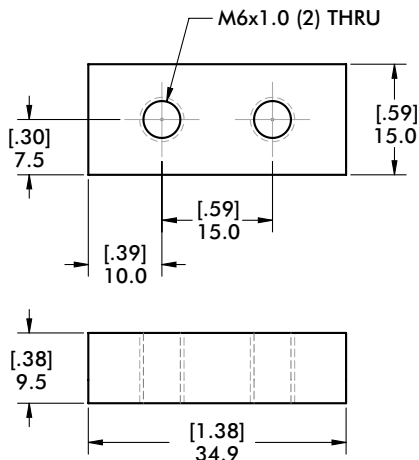
THIS JAW BLOCK GR84-JB-ADJ
CAN ONLY BE USED ON
SA AND 9A FIXED LOWER JAW



Replacement Part #
GR84-JB-ADJ

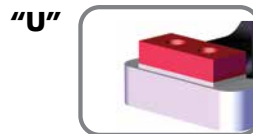
"S", "U", "A" Block Inserts

(Can only be used with "K" and "M" jaw blocks)



Serrated Block Inserts

Replacement Part #
GR84-JB-SS



Urethane Block Inserts

Replacement Part #
GR84-JB-UP



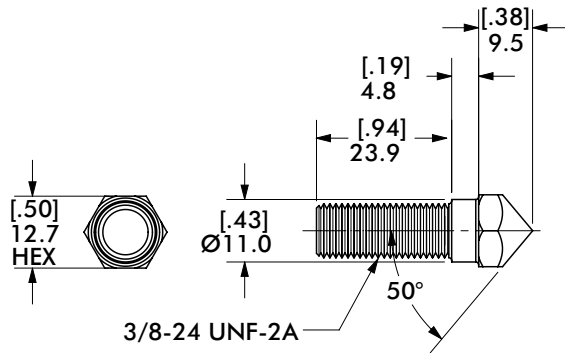
Aluminum Block Inserts

Replacement Part #
GR84-JB-PA

GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"P", "C", "S", "T", "U" Jaw Inserts



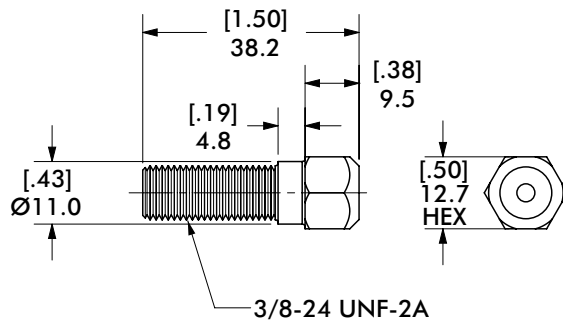
"P"



Point Jaw Inserts

Replacement Part #

GR0107



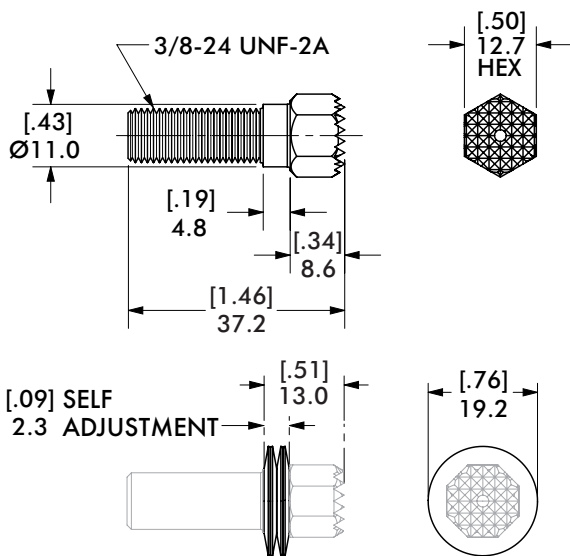
"C"



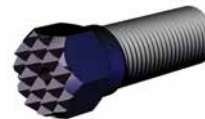
Cup Jaw Inserts

Replacement Part #

GR0108



"S"

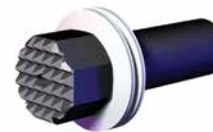


Serrated Jaw Inserts

Replacement Part #

GR0342

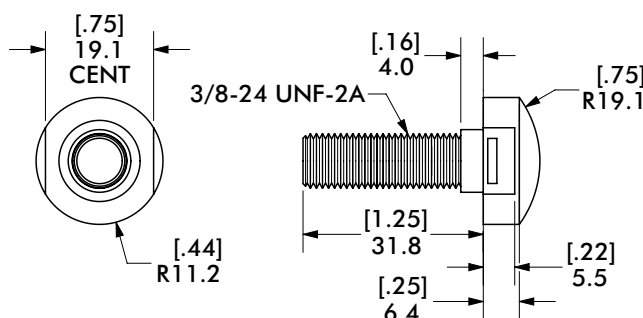
"T"



Self-Adjusting
Serrated Jaw Inserts

Includes (1) GR0342 and
(4) Belleville Washers
Part# 329-TPR-BDA-047

Self-adjusting jaw inserts require jaw blocks to have clearance holes in place of the standard tap thread in order for the inserts to function properly.



"U"



Urethane Jaw Inserts

Replacement Part #

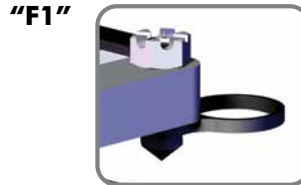
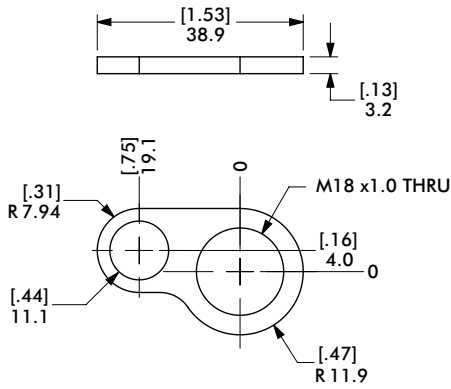
GR0353

GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"F1" Ø18mm Sensor Mount

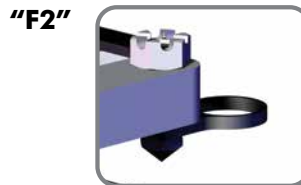
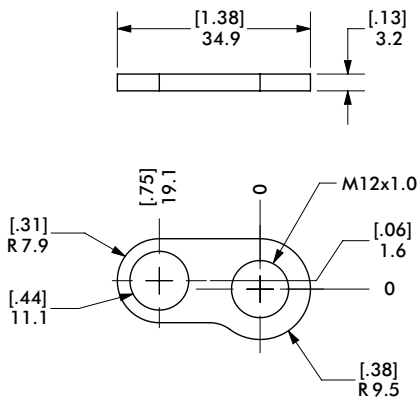
(Can only be used with "K" and "M" jaw blocks)



Replacement Part #
CPI-PM-18

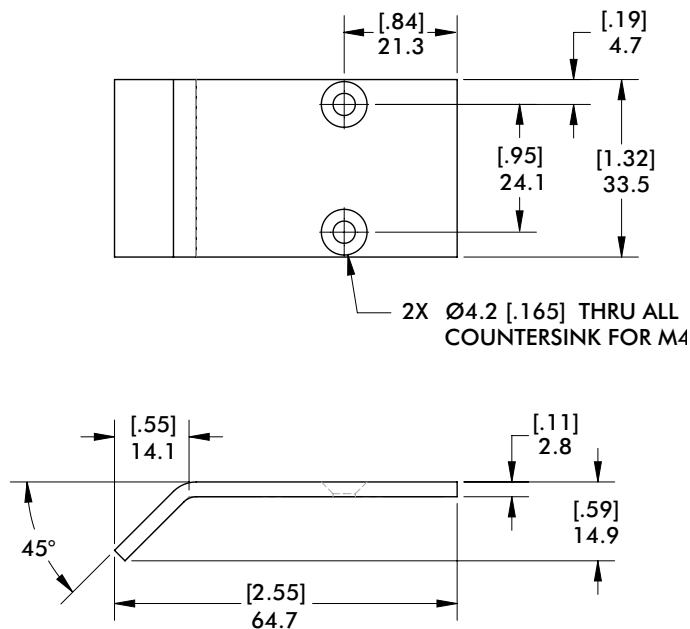
"F2" Ø12mm Sensor Mount

(Can only be used with "K" and "M" jaw blocks)



Replacement Part #
CPI-PM-12

"01", "02" Face and Skid Guard



FACE GUARD



FACE AND SKID GUARD

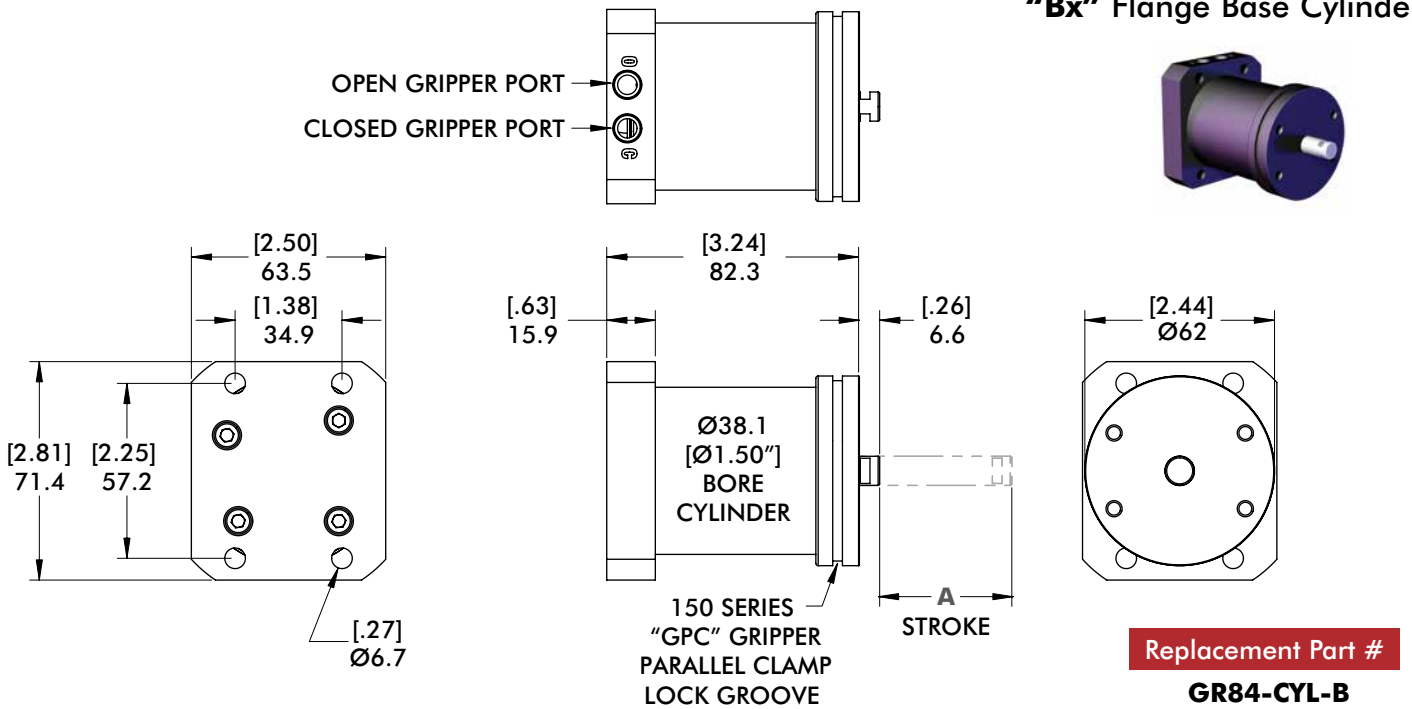


Replacement Part #
GR84-JFG

GR84 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"Bx" Flange Base Cylinder

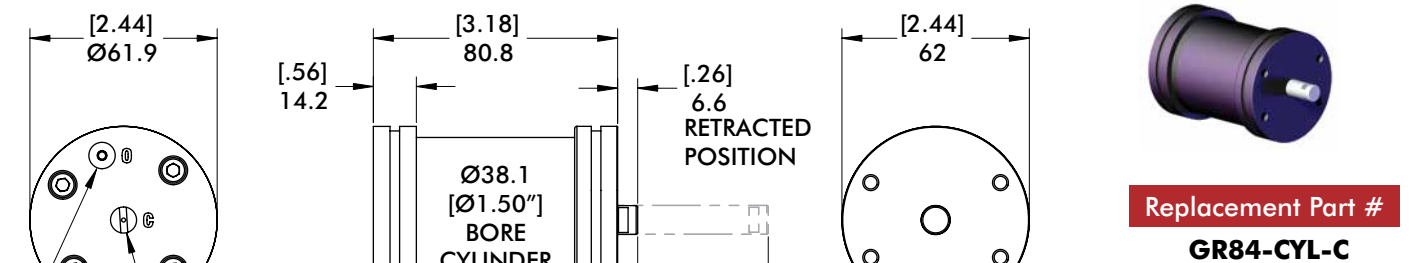


CYLINDER PORTS
E = 1/8" NPT (ENGLISH)
M = 1/8" G (METRIC)

PATENT# 6,619,182

Jaw Opening	30°	60°	90°
STROKE "A"	21.3 [.84]	32.8 [1.29]	42.9 [1.69]

"Cx" Round Base Cylinder



CYLINDER PORTS
E = 1/8" NPT (ENGLISH)
M = 1/8" G (METRIC)

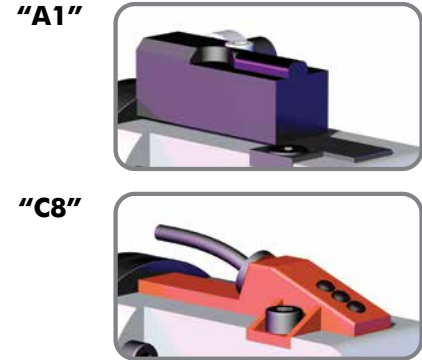
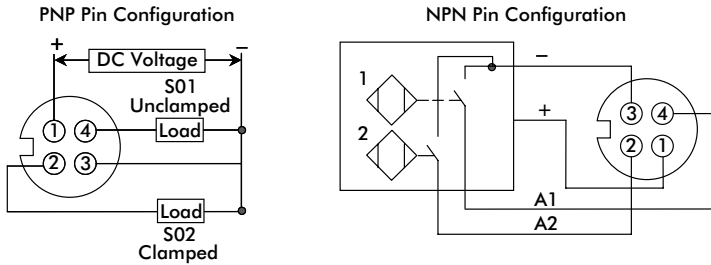
PATENT# 6,619,182

Jaw Opening	30°	60°	90°
STROKE "A"	21.3 [.84]	32.8 [1.29]	42.9 [1.69]

GR84 SERIES

Toggle Lock Sheet Metal Grippers | Technical Information and Ordering Information

Wiring Diagram of Electrical Sensing System

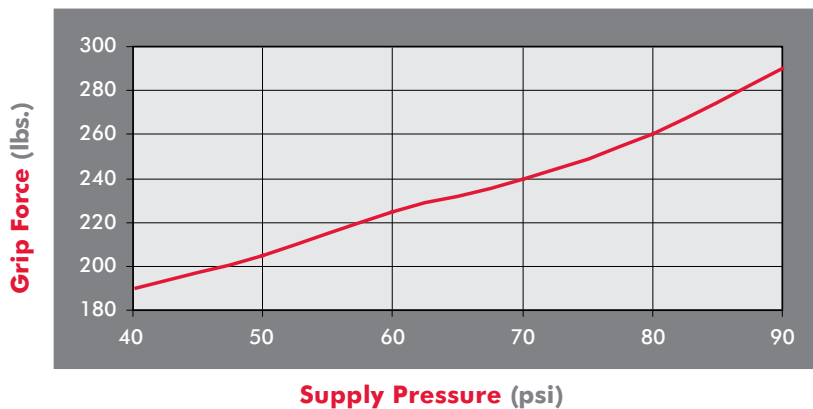


Open/Closed Sensor Options:

"A1" (Turck) Replacement Part# "8EA-054-1" + "GR84-SB"	10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
<i>(Fasteners required for "A1" replacement: (2) M5x0.5 10mm FHCS, (1) M4 x 0.7 20mm SHCS)</i>	
"B8" (Pepperl Fuchs) Replacement Part# "8EA-031-1"	10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
"C8" (DE-STA-CO Brand)	10...30 VDC 150mA, PNP, 4-Pin, M8, Pico
"C9" (Allen-Bradley) Replacement Part# "8EA-1006-1"	10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
"D1" (Turck) Replacement Part# "8EA-1002-1"	20...250 AC/DC 150mA, 5-Pin, 1/2-20, Mini
"E3" (Namco) Replacement Part# "8EA-1007-1"	10...30 VDC 150mA, NPN, 4-Pin, M12
"E4" (Pepperl Fuchs) Replacement Part# "8EA-1010-1"	10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
"E5" (Efector) Replacement Part# "8EA-1012-1"	10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
"E6" (Baluff) Replacement Part# "8EA-1019-1"	10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
"XC" Cover Only Replacement Part# "GR84-SC"	No Sensor Supplied

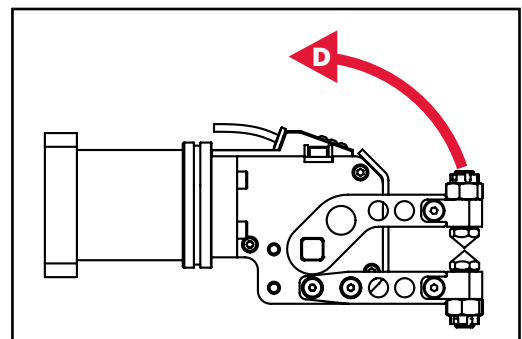
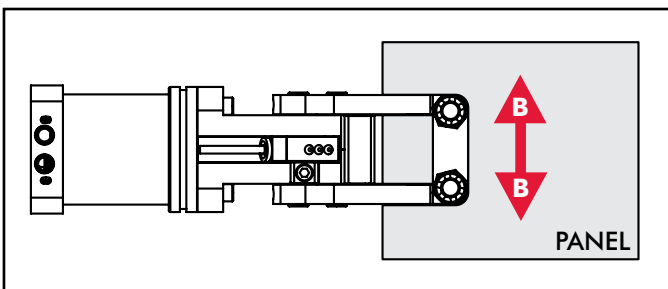
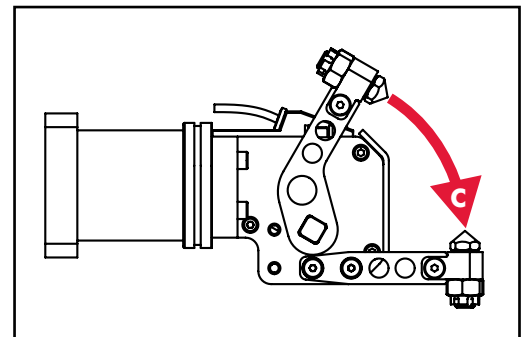
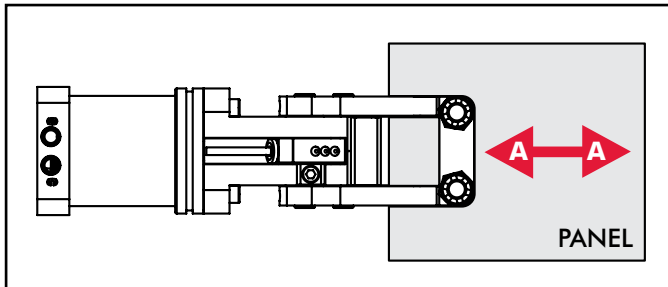
Specifications:

Weight:	3.2 lb [1.5 kg]
Grip Range (Standard and Flange with Jaw Inserts)	0 to 0.31" [0mm - 8mm]
Arm Position Tolerance:	±0.33°
Arm Lateral Tolerance:	±0.3mm
Cycle Speed @ 60 psi:	0.6 Sec (Open/Closed)
Displacement Per Cycle @ 60psi:	6.0 in3
Max Air Consumption @ 100 cycles/min:	34 ft3/min
Reliability:	
Mean Time Between Failure:	3.5 Million Cycles
Mean Time To Repair:	30 Minutes



Self-locking Linkage System

The GR84 Mini-Clamp utilizes a self-locking linkage system. If the air is lost while fully closed, the mini-clamp will continue to hold the part. The amount of air required to achieve the high gripping forces is greater than pressure to release or open the mini-clamp. If there is a slight drop of pressure during the opening cycle, the mini-clamp will still release the part. Other self locking systems can jam and require more air to release the part than it would need to grip it.



Single Jaw Arm Styles				
Pressure	"A"	"B"	"C"	"D"
2.8 bar [40 psi]	31.8 kg [70 lb]	31.8 kg [70 lb]	86.2 kg [190 lb]	294.8 kg [650 lb]
3.4 bar [50 psi]	34.0 kg [75 lb]	34.0 kg [75 lb]	93.0 kg [205 lb]	294.8 kg [650 lb]
4.1 bar [60 psi]	36.3 kg [80 lb]	36.3 kg [80 lb]	102.1 kg [225 lb]	294.8 kg [650 lb]
4.8 bar [70 psi]	38.6 kg [85 lb]	38.6 kg [85 lb]	108.9 kg [240 lb]	294.8 kg [650 lb]
5.5 bar [80 psi]	40.8 kg [90 lb]	40.8 kg [90 lb]	117.9 kg [260 lb]	294.8 kg [650 lb]
6.2 bar [90 psi]	43.1 kg [95 lb]	43.1 kg [95 lb]	131.5 kg [290 lb]	294.8 kg [650 lb]

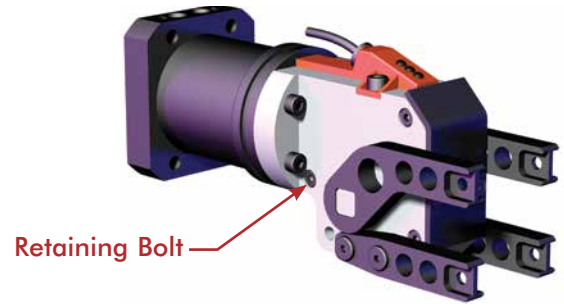
Double Jaw Arm Styles				
Pressure	"A"	"B"	"C"	"D"
2.8 bar [40 psi]	34.0 kg [75 lb]	34.0 kg [75 lb]	86.2 kg [190 lb]	589.4 kg [1300 lb]
3.4 bar [50 psi]	36.3 kg [80 lb]	36.3 kg [80 lb]	93.0 kg [205 lb]	589.4 kg [1300 lb]
4.1 bar [60 psi]	38.6 kg [85 lb]	38.6 kg [85 lb]	102.1 kg [225 lb]	589.4 kg [1300 lb]
4.8 bar [70 psi]	40.8 kg [90 lb]	40.8 kg [90 lb]	108.9 kg [240 lb]	589.4 kg [1300 lb]
5.5 bar [80 psi]	43.1 kg [95 lb]	43.1 kg [95 lb]	117.9 kg [260 lb]	589.4 kg [1300 lb]
6.2 bar [90 psi]	45.4 kg [100 lb]	45.4 kg [100 lb]	131.5 kg [290 lb]	589.4 kg [1300 lb]

GR84 SERIES

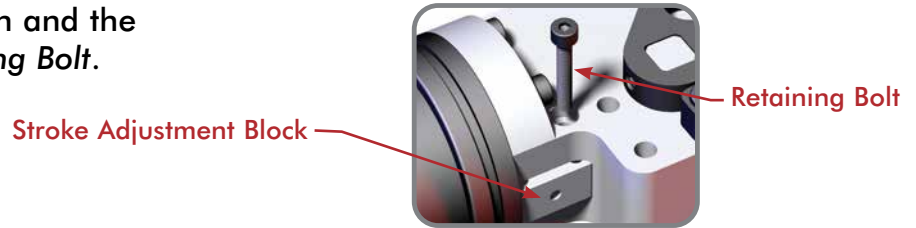
Toggle Lock Sheet Metal Grippers | Technical Information

Jaw Opening Adjustment

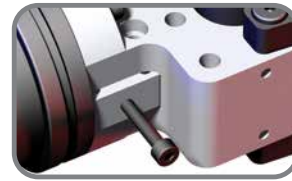
The **GR84** Modular Mini-Clamp offers a feature allowing the jaw opening angle to be changed in the field. The **GR84** Modular Mini-Clamp is ordered with a preset jaw opening angle. Follow the instructions below to change the jaw opening angle.



With the jaws in the closed position and the air off, loosen and remove *Retaining Bolt*.

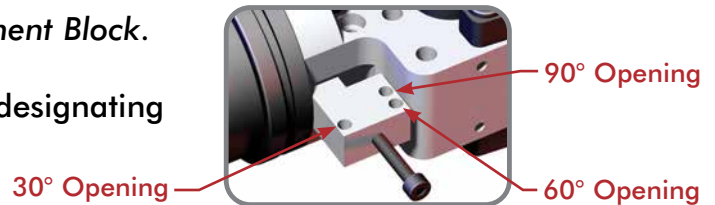


Thread retaining bolt into the bottom of the *Stroke Adjustment Block*.

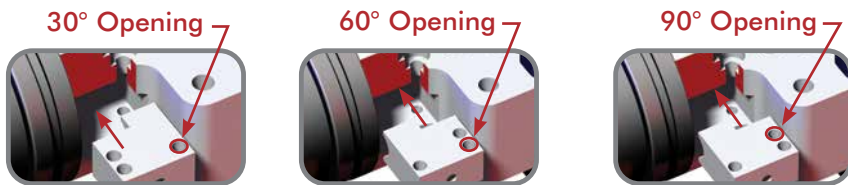


Use *Retaining Bolt* to remove the *Stroke Adjustment Block*.

There are holes in the *Stroke Adjustment Block* designating three different jaw opening angles.



Position the *Stroke Adjustment Block* so the *Retaining Bolt* hole aligns with the desired jaw opening hole.



Replace and tighten *Retaining Bolt* to secure the stroke adjustment block in the new position.

Once the mechanical adjustment is complete, the sensor must be relocated to detect the new target location.

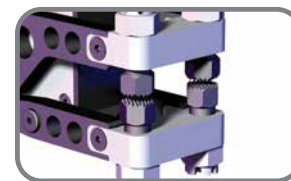
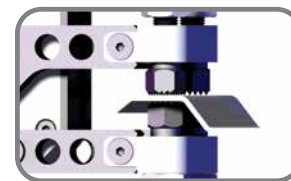
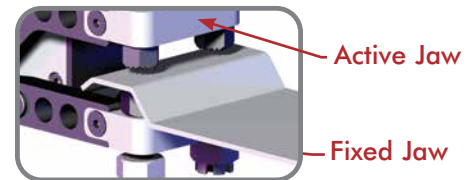
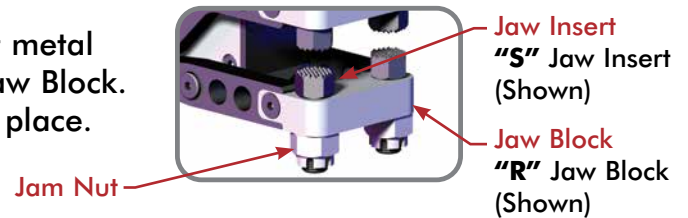


Jaw Opening Adjustment

All Jaw Inserts can be adjusted for different sheet metal thicknesses. The *Jaw Insert* is threaded into the *Jaw Block*. The *Jam Nut* is used to secure the *Jaw Insert* into place.

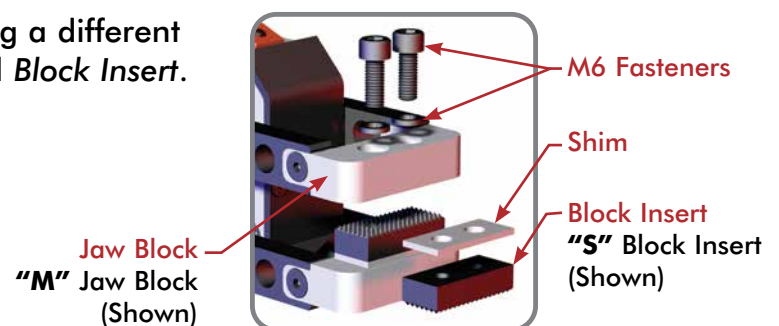
(This procedure can be used for both the GR84 Mini-Clamp and GR1 Grippers)

- Loosen jam nuts to allow jaw inserts to be adjusted.
- Adjust jaw inserts fully toward jaw blocks.
- Adjust jaw inserts on the fixed jaw toward panel to establish panel location.
- Hold fixed jaw inserts in place and tighten jam nuts.
- With panel in position, and clamp in closed position, adjust the jaw inserts on the active jaw. (Make sure to close the clamp by air pressure and not by hand.)
- Turn the jaw inserts by hand until they make contact with the panel and can no longer turn.
- Open the clamp and continue to turn the active jaw Inserts (1) turn further toward the part. This ensures there will be a tight grip on the panel.
- Hold active jaw inserts in place and tighten jam nuts.



Block Insert Adjustment

Block Insert height can be adjusted by placing a different thickness *Shim* between the *Jaw Block* and *Block Insert*.



Manual Lock Override

The GR84 Modular Mini-Clamp's manual lock override enables the gripper to be release from the closed position. This lock override eliminates the need to cycle air to the mini-clamp in order to open the jaws, if the part needs to be removed.

- With the air off, using a 3mm hex wrench, rotate the *Release Screw* approximately 15° clockwise.
- Once unlocked, the Mini-Clamp Jaws can be manually opened.



GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Ordering Information

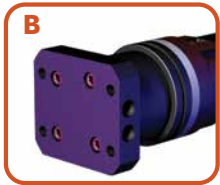


Cylinder Type & Porting

Step 1 - Cylinder Type Choose One

B **E**

- B** Flange Base
- C** Round Cylinder



Step 2 - Cylinder Ports Choose One

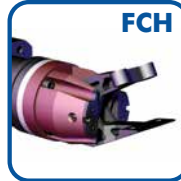
B **E**

- E** English (1/8 NPT)
- M** Metric (1/8 G)

Jaw Arrangement Options

Step 1 - Jaw Arrangement Choose One

- 045** 45° Angular
- 45C** 45° Chisel
- FCH** 45° Fixed Chisel
- 9DJ** 90° Drop Jaw
- 90F** 90° Fixed Lower
- 9FS** 90° Fixed Lower Limited Stroke
- 180** 180° Angular



PATENT#S 6,619,182 , 6,988,696 , 6,361,095

Open/Closed Sensor

Sensors Type	Description
T04	Internal Sensor
XXX	No Sensor

Part Present Sensor*

Sensor Type	Description
A04	Turck (4-PIN)
P03	P & F (4-PIN)
XXX	No Sensor



*Part Present Sensor Option is only available on the Double Point Insert Option and not available for the 9DJ, 45C and FCH Jaw Arrangement Options or any of the Block Insert Options. With 90F and 9FS, GR0326 is not necessary for the Part Present Sensor as the sensor is mounted in the lower jaw. See pages SG-TGL-34 to 37 for specifications.

Mount Options

Step 1 - Mount Type Choose One

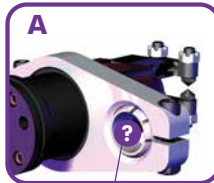
M X

- A Parallel Swivel Mount
- B Rear Swivel Clamp Mount
- C Rear Fixed Welded Style
- D Rear Fixed Clamp Mount
- X No Mount

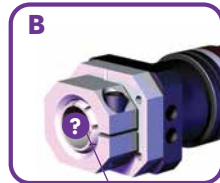
Step 2 - Mount Ball/Rod Size Choose One

M X

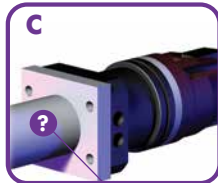
- 1 1.00" w/Metric Fasteners
- 2 1.25" w/Metric Fasteners
- 3 25mm Metric Fasteners
- 4 30mm Bodybuilder/Metric
- 5 1.50" (Type C Only)
- 6 40mm (Type C Only)
- 7 M1514 (Type D Only)
- X No Mount



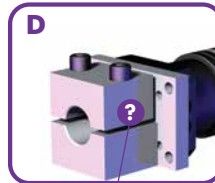
1 2 3 4
Mount Ball Sizes Available



1 2 3 4
Mount Ball Sizes Available



1 3 5 6
Mount Rod Sizes Available



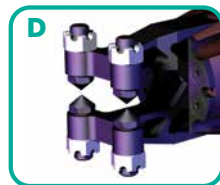
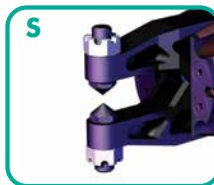
7
Mount Size Available

Points & Tip Insert Options

Step 1 - Point Tip Options Choose One

D P

- S Single Point
- D Double Point



Step 2 - Upper Tip Insert Options Choose One

D P

- P Point
- C Cup
- U Urethane
- S Serrated
- X No Tips



Step 3 - Lower Tip Insert Options Choose One Above

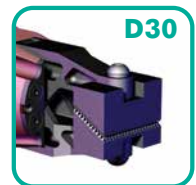
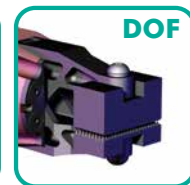
D P

- or -

Block Insert Options†

- Block Insert Choose One
- DDB Double Draw Bead
 - DOF Double Offset
 - D30 Double 30° Angle
 - SDB Single Draw Bead
 - SOF Single Offset
 - S30 Single 30° Angle
 - SED Single Extended Draw Bead

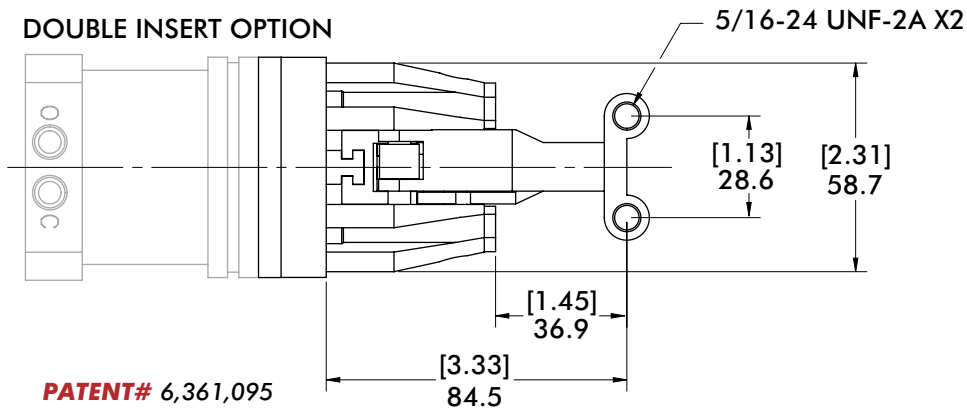
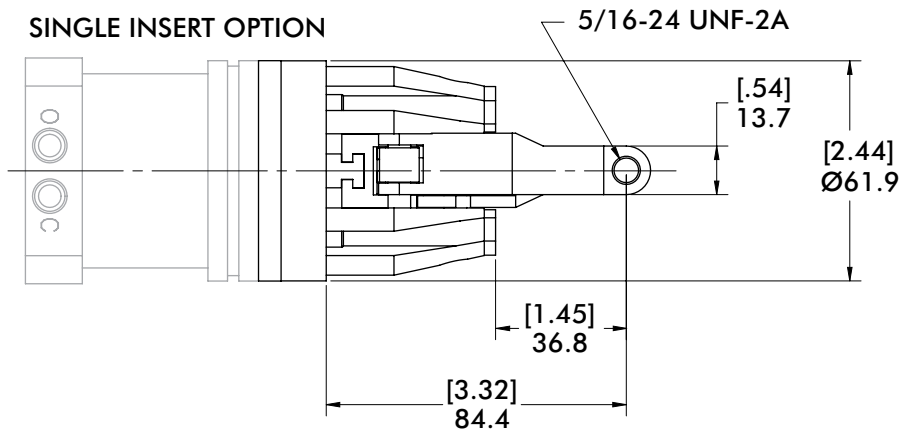
† Only available on the 180 Angular Jaw Arrangement.



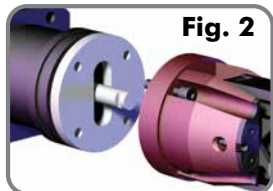
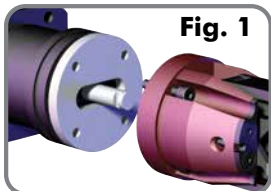
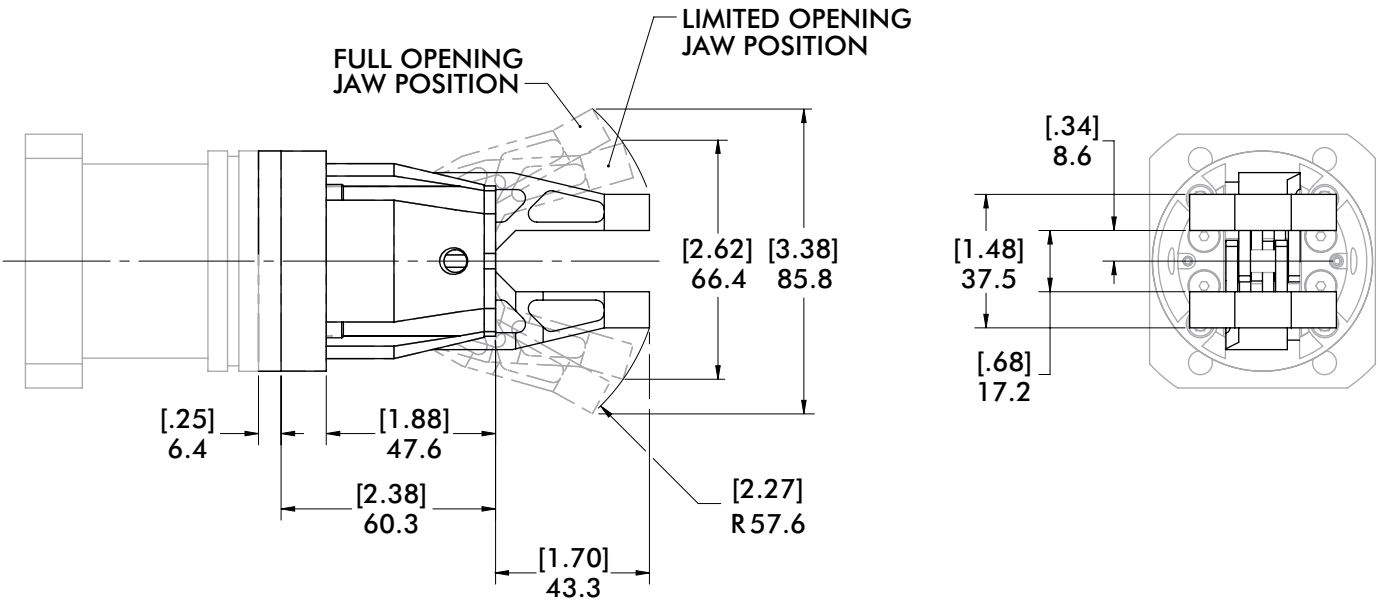
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

"045" 45° Angular Jaw Arrangement - Single and Double Insert



PATENT# 6,361,095



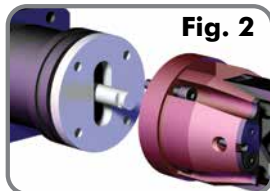
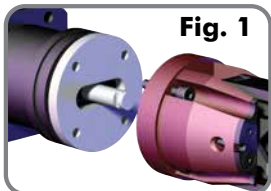
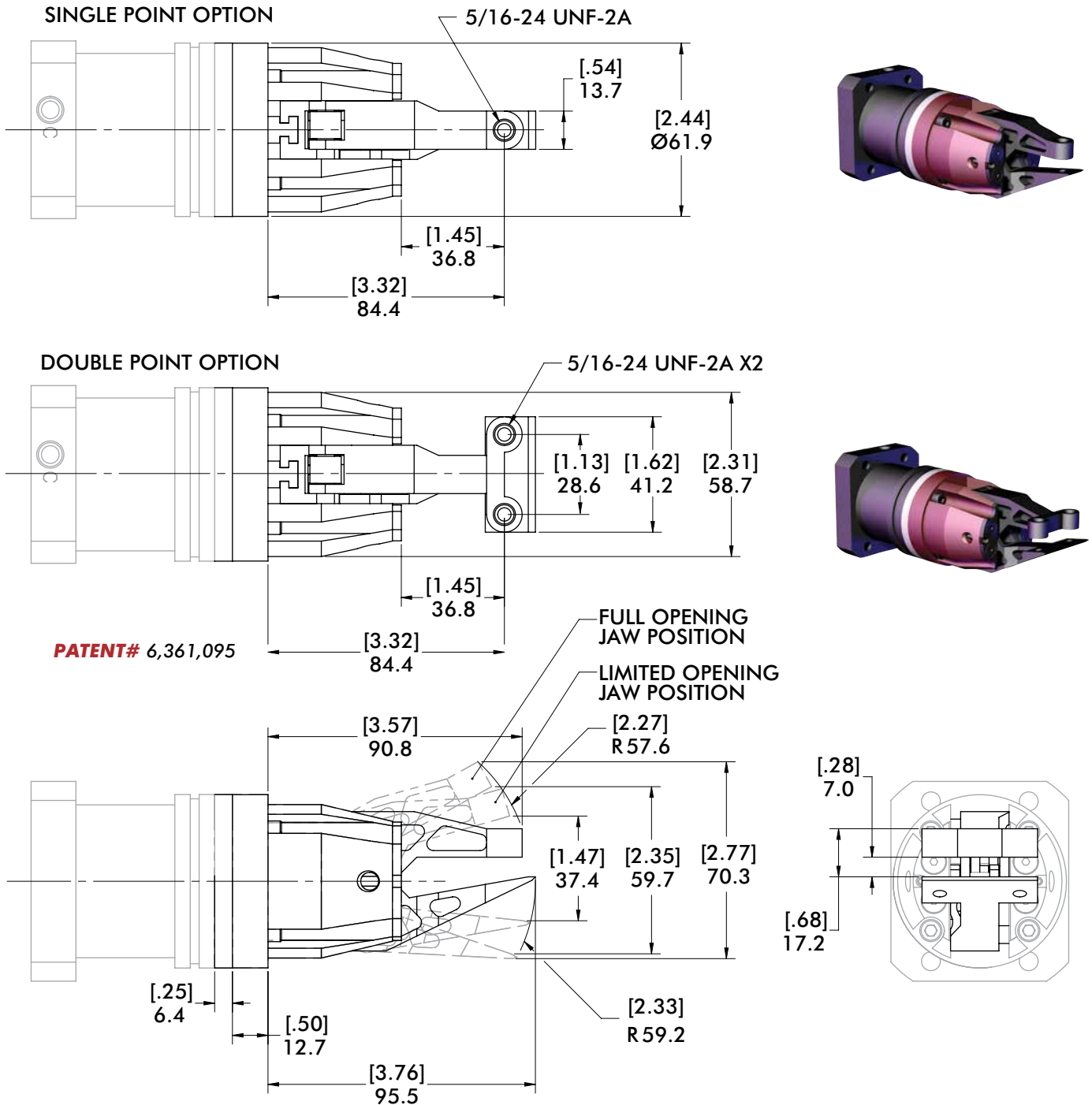
For Limited Stroke Option

1. Loosen fasteners securing gripper body from cylinder.
2. Pull gripper body away so fasteners clear the spacer.
3. Rotate Spacer 90° (Fig. 2).
4. Reattach gripper body to cylinder and tighten fasteners.

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

"45C" 45° Chisel Lower Jaw Arrangement - Single and Double Insert



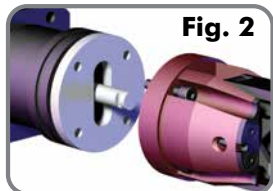
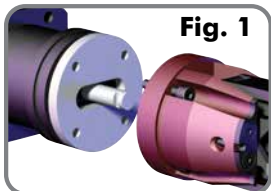
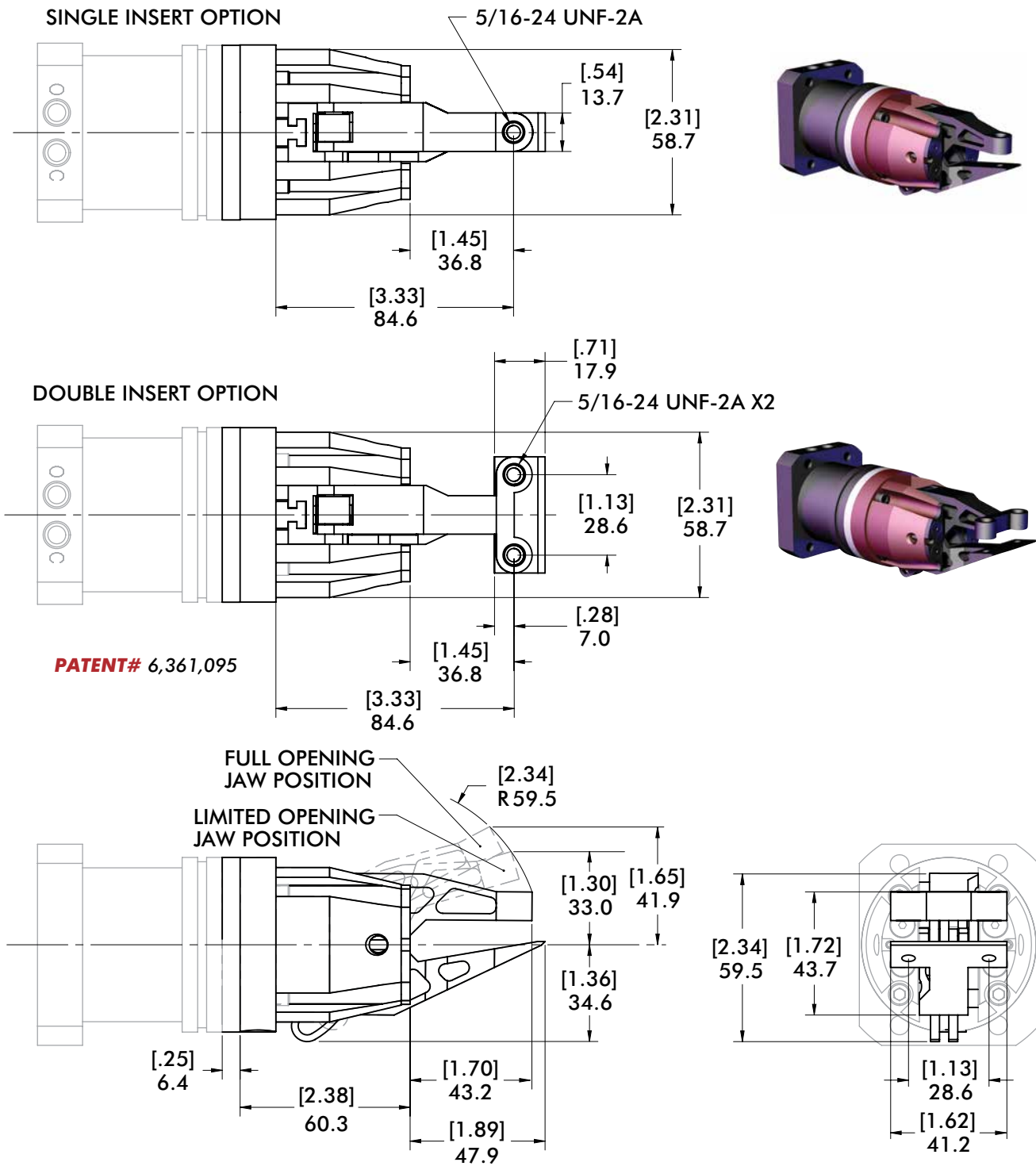
For Limited Stroke Option

1. Loosen fasteners securing gripper body from cylinder.
2. Pull gripper body away so fasteners clear the spacer.
3. Rotate Spacer 90° (Fig. 2).
4. Reattach gripper body to cylinder and tighten fasteners.

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

“FCH” Fixed Chisel Jaw Arrangement - Single and Double Insert



For Limited Stroke Option

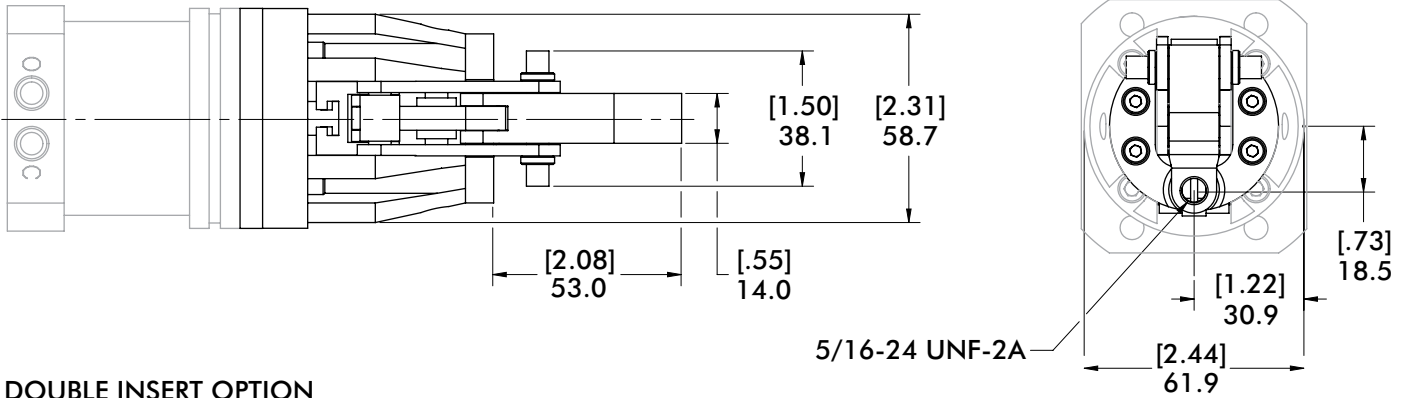
1. Loosen fasteners securing gripper body from cylinder.
2. Pull gripper body away so fasteners clear the spacer.
3. Rotate Spacer 90° (Fig. 2).
4. Reattach gripper body to cylinder and tighten fasteners.

GR1-15 SERIES

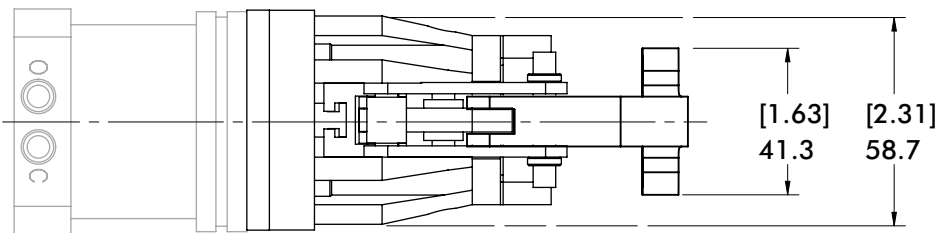
Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

"9DJ" 90° Drop Jaw Arrangement - Single and Double Insert

SINGLE INSERT OPTION



DOUBLE INSERT OPTION



PATENT# 6,361,095

FULL JAW OPENING POSITION (97°)

LIMITED JAW OPENING POSITION (62°)

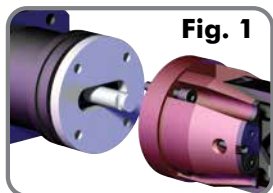
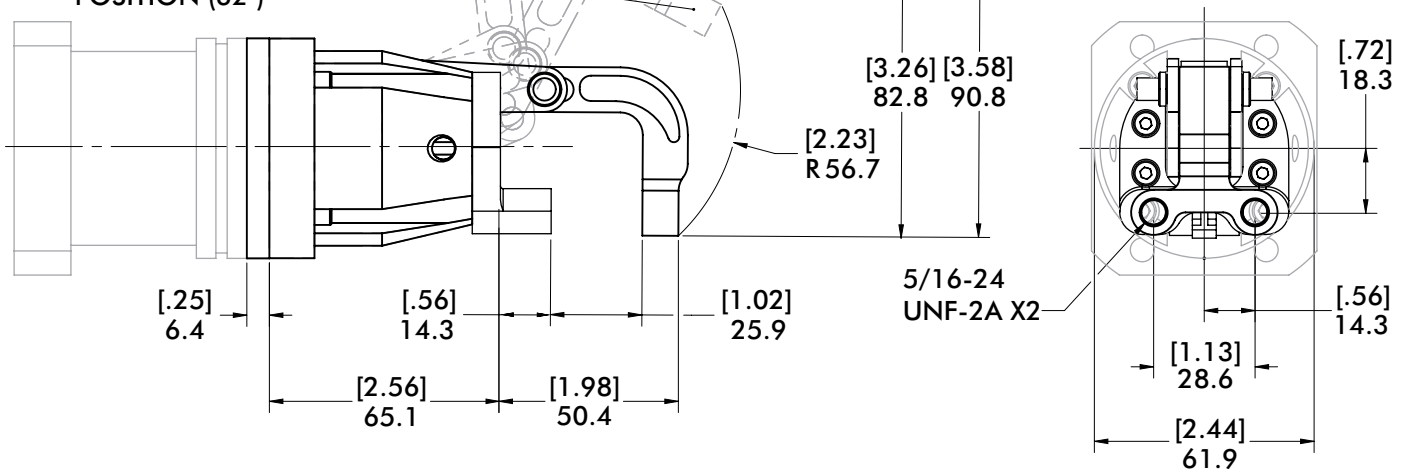


Fig. 1

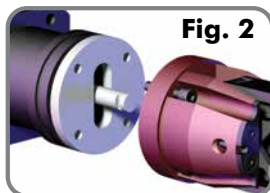


Fig. 2

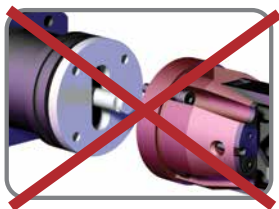
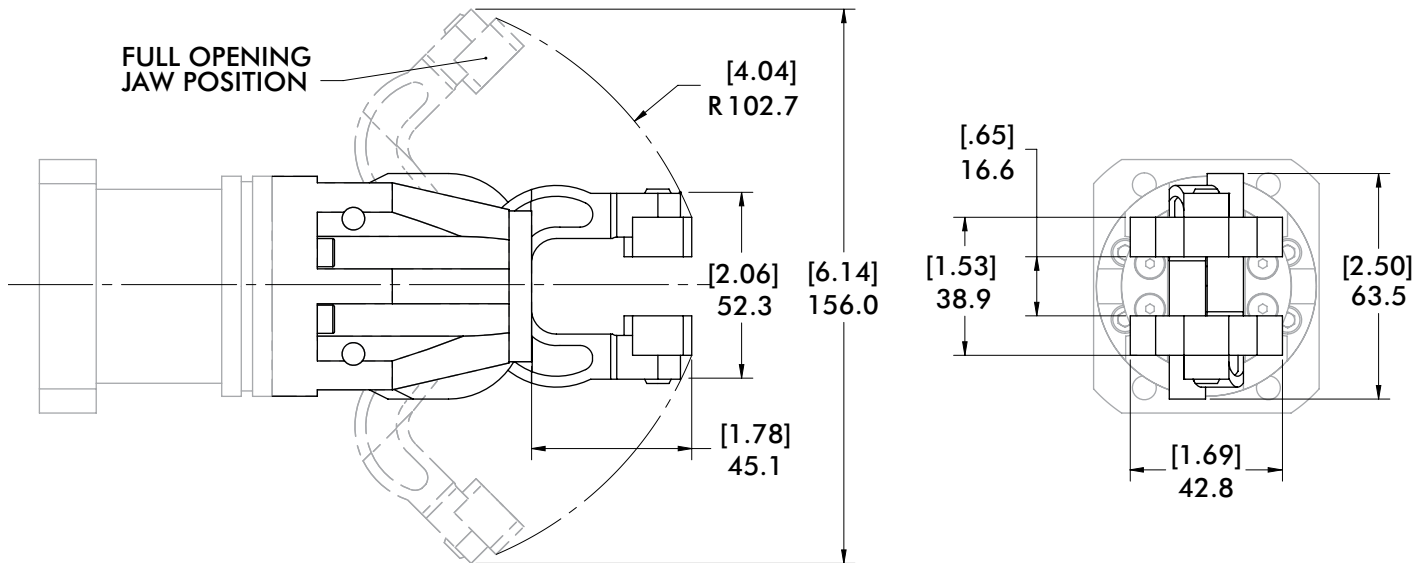
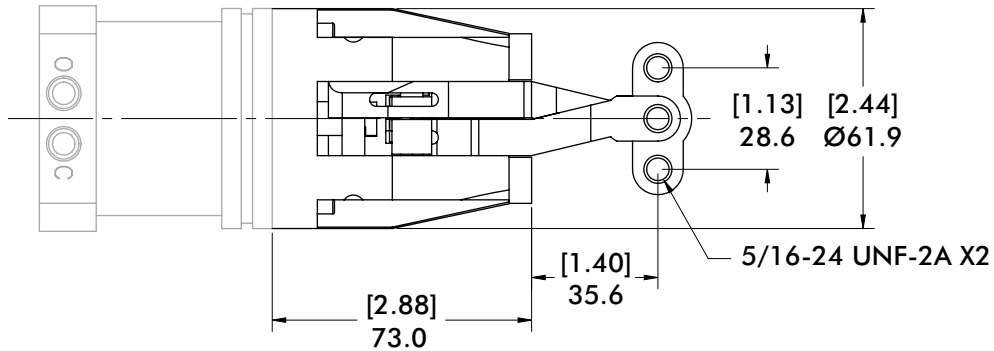
For Limited Stroke Option

1. Loosen fasteners securing gripper body from cylinder.
2. Pull gripper body away so fasteners clear the spacer.
3. Rotate Spacer 90° (Fig. 2).
4. Reattach gripper body to cylinder and tighten fasteners.

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

"180" 180° Angular Jaw Arrangement - Double Insert

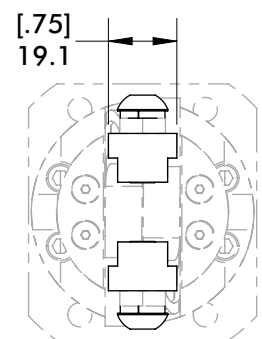
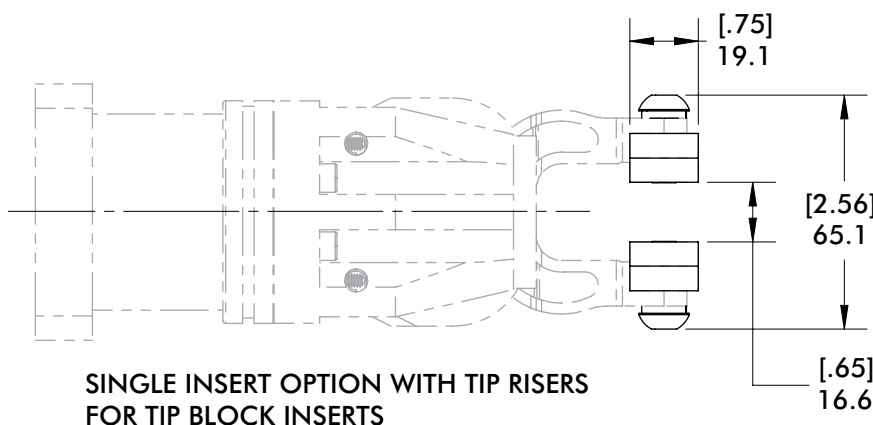
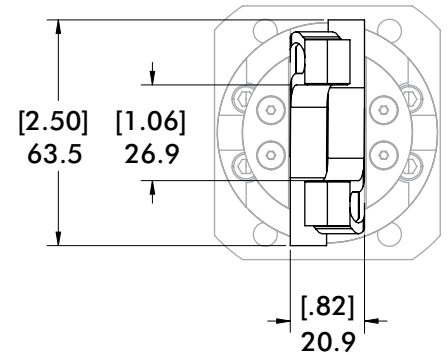
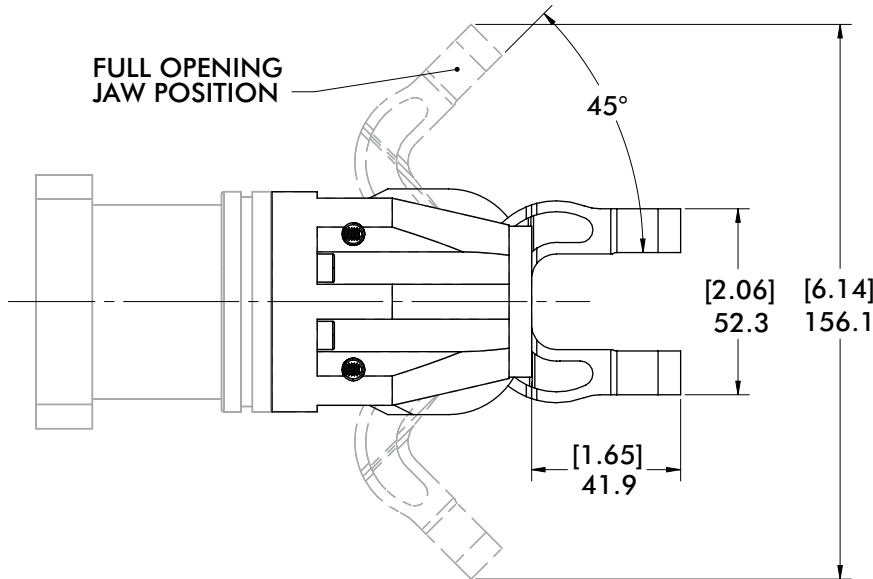
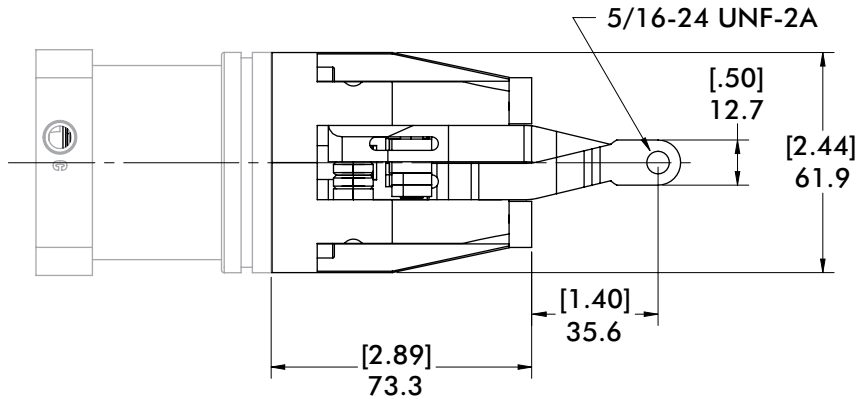


Limited Stroke Ring is **NOT** Available

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

"180" 180° Angular Jaw Arrangement - Single Insert



Tip Risers for Block Inserts

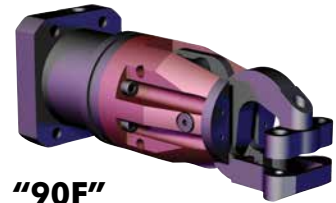
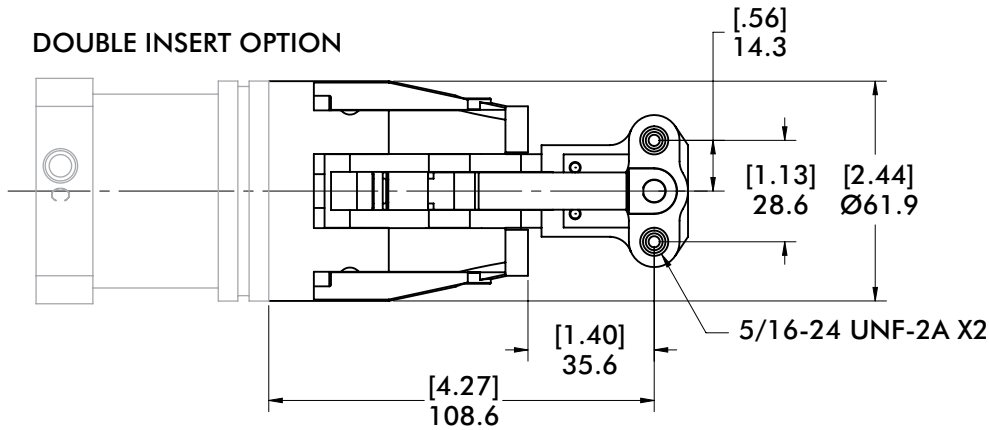
Replacement Part #

GR0314-TR

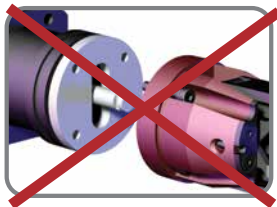
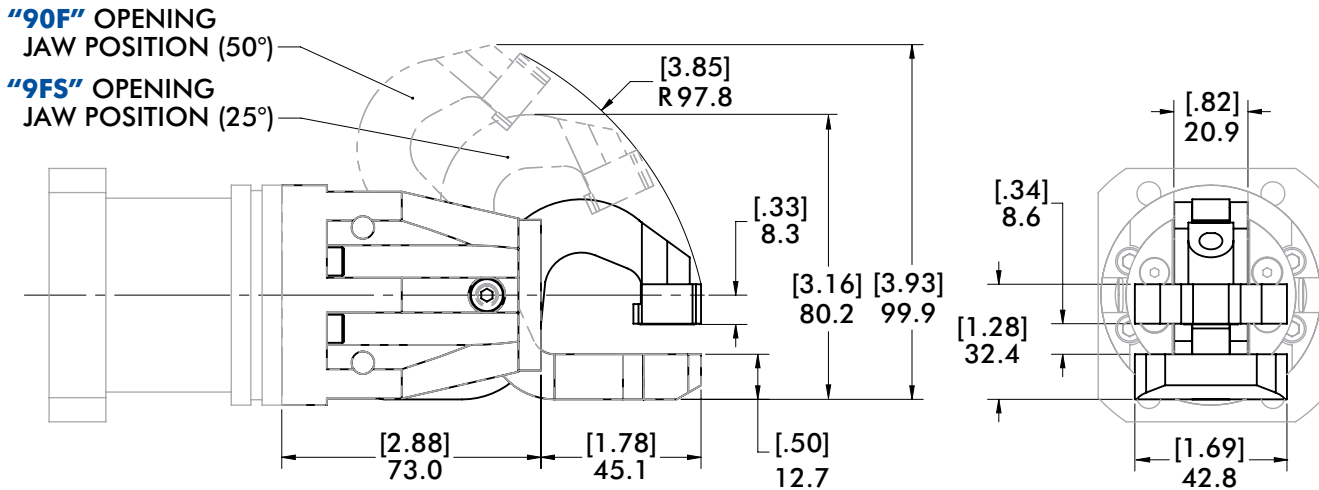
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Specifications

"90F" and "9FS" Fixed Lower Jaw Arrangement - Double Insert



"90F"
Full Arm Opening



Limited Stroke Ring is **NOT** Available

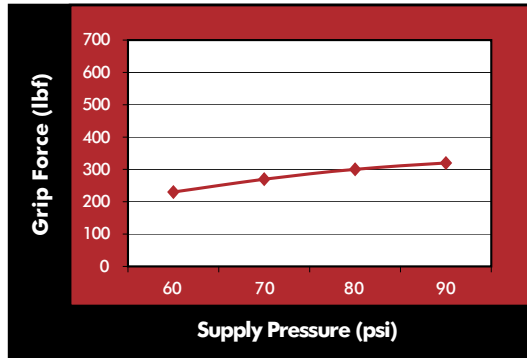


"9FS"
Limited Arm Opening
(Stroke Limiter Installed)

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Grip Force and Technical Specifications

045/45C/FCH



"045" 45° Angular



Weight:
1 kg [2.2 lb]
Grip Range:
0" - 0.125" [0 - 3mm]

"45C" 45° Chisel



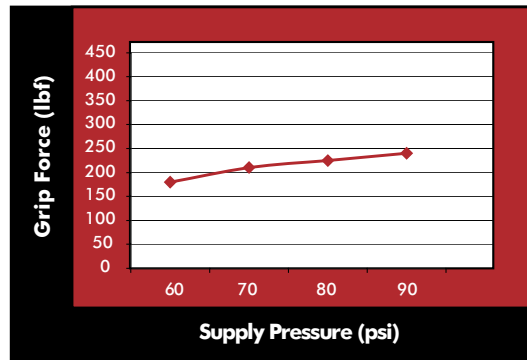
Weight:
1 kg [2.2 lb]
Grip Range:
0" - 0.063" [0 - 1mm]

"FCH" 45° Fixed Chisel



Weight:
1 kg [2.2 lb]
Grip Range:
0" - 0.063" [0 - 1mm]

9DJ

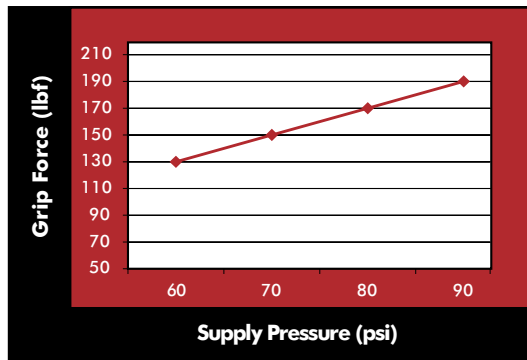


"9DJ" 90° Drop Jaw



Weight:
1 kg [2.2 lb]
Grip Range:
0" - 0.125" [0 - 3mm]

90F/9FS

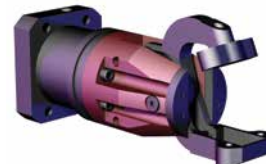


"90F" 90° Fixed Lower



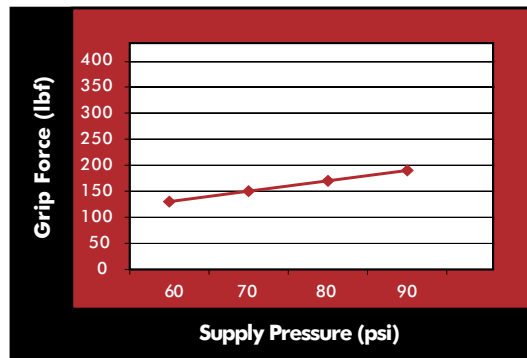
Weight:
1.1 kg [2.6 lb]
Grip Range:
0" - 0.125" [0 - 3mm]

"9FS" 90° Fixed Lower with Limited Stroke



Weight:
1.1 kg [2.6 lb]
Grip Range:
0" - 0.125" [0 - 3mm]

180



"180" 180° Angular



Weight:
1.2 kg [2.7 lb]
Grip Range:
0" - 0.125" [0 - 3mm]

Technical Information

(for all GR1 Gripper Jaw Styles)

Air Requirements:

Recommended operating Pressure:
2-6 bar [30-90 psi]

Ports: 1/8" BSPP [1/8" NPT]

Air flow controls recommended for maximum life

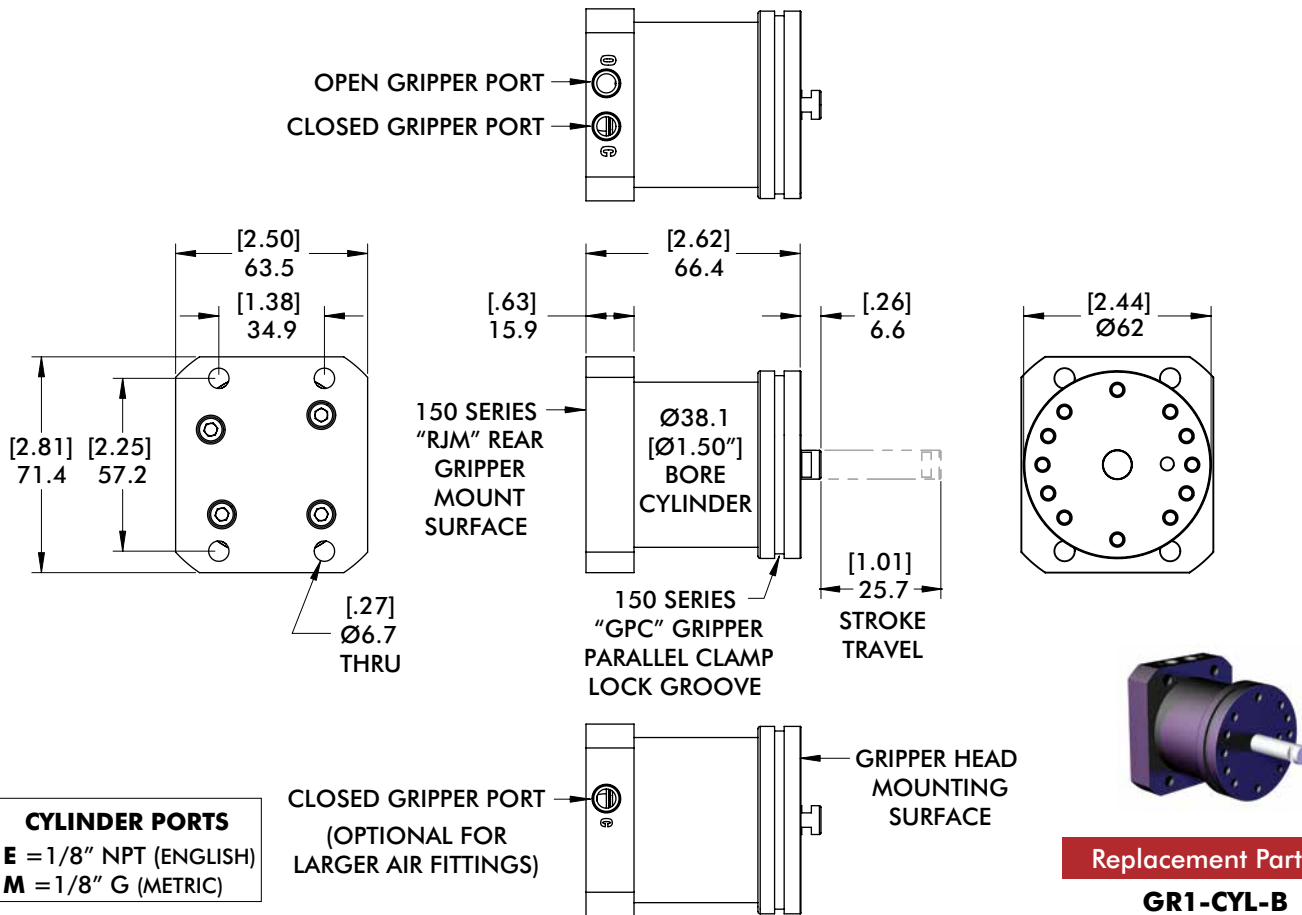
Operating Temperature:

0° - 93°C [32° - 200°F]

GR1-15 SERIES

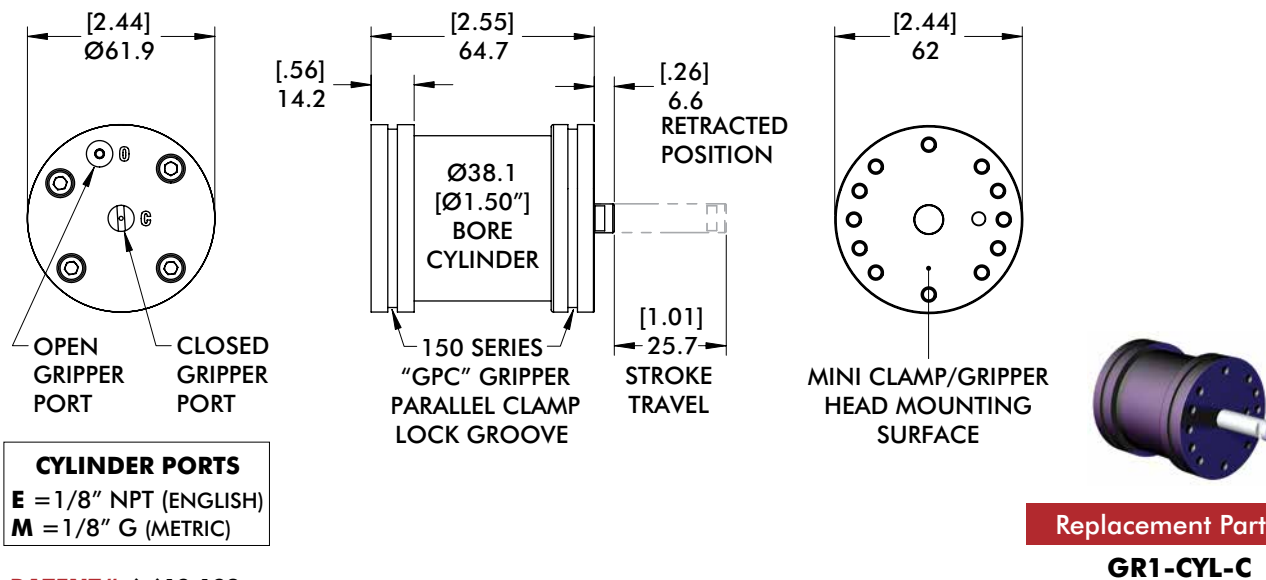
Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"Bx" Flange Base Cylinder



PATENT# 6,619,182

"Cx" Round Base Cylinder

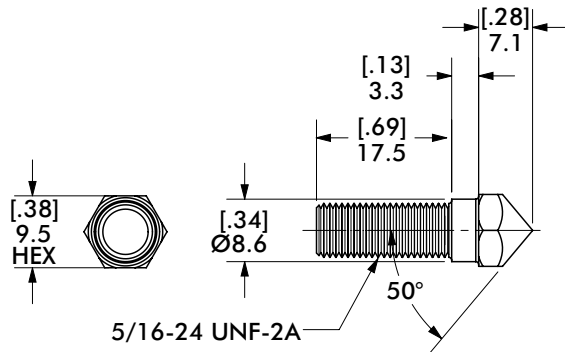


PATENT# 6,619,182

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"P", "C", "S", "U" Jaw Inserts



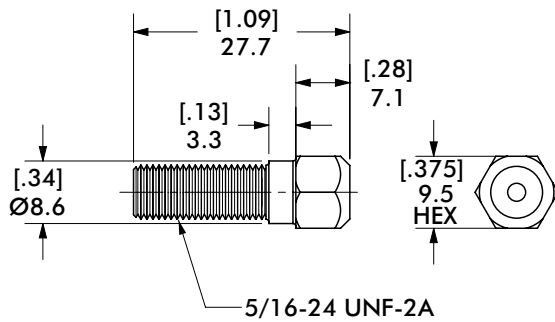
"P"



Point Jaw Inserts

Replacement Part #

GR0304



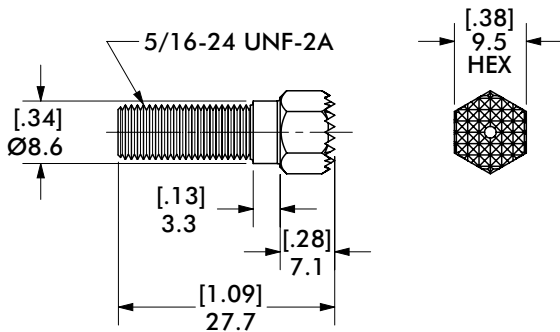
"C"



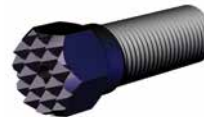
Cup Jaw Inserts

Replacement Part #

GR0305



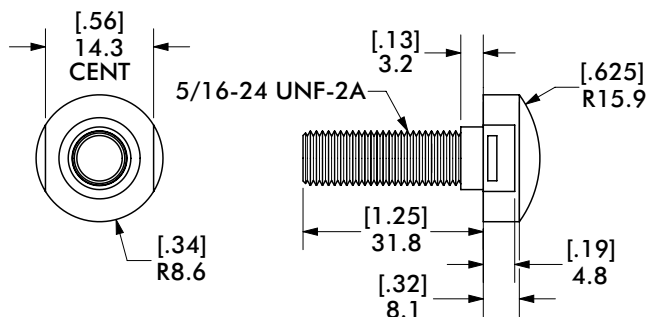
"S"



Serrated Jaw Inserts

Replacement Part #

GR0341



"U"



Urethane Jaw Inserts

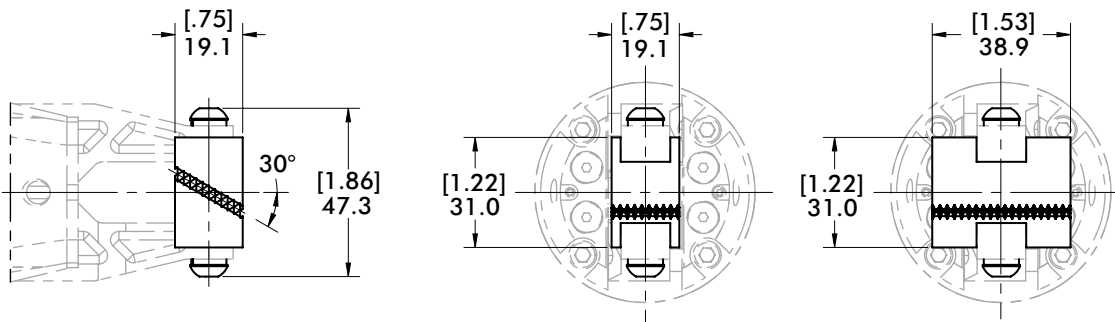
Replacement Part #

GR0338

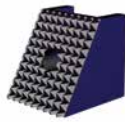
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"S30" and "D30" 30° Angle Serrated Block Inserts



"S30"



"D30"



Single Upper/Lower
30° Angle Insert Block

Replacement Part #

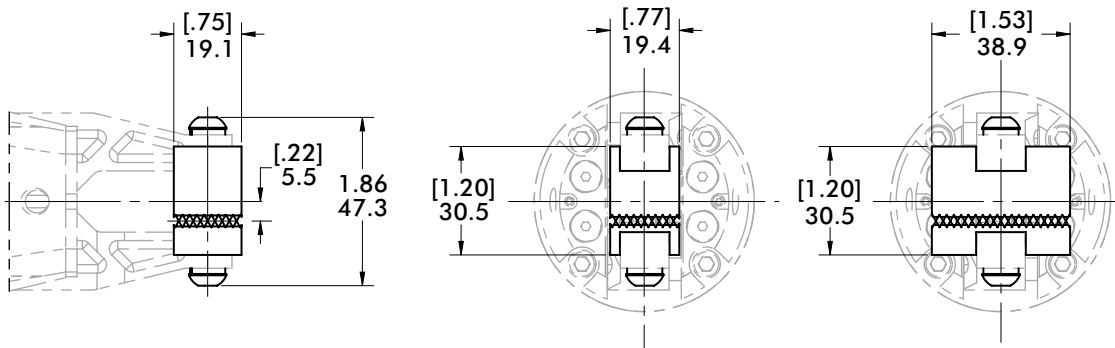
GR1-INS-SD30S

Double Upper/Lower
30° Angle Insert Block

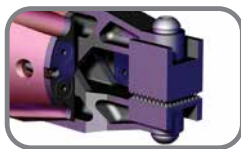
Replacement Part #

GR1-INS-D30S

"SOF" and "DOF" Offset Serrated Block Inserts



"SOF"



"DOF"



Single Upper
Offset Insert Block

Replacement Part #

GR1-INS-SDUOS

Single Lower
Offset Insert Block

Replacement Part #

GR1-INS-SDLOS

Double Upper
Offset Insert Block

Replacement Part #

GR1-INS-DUOS

Double Lower
Offset Insert Block

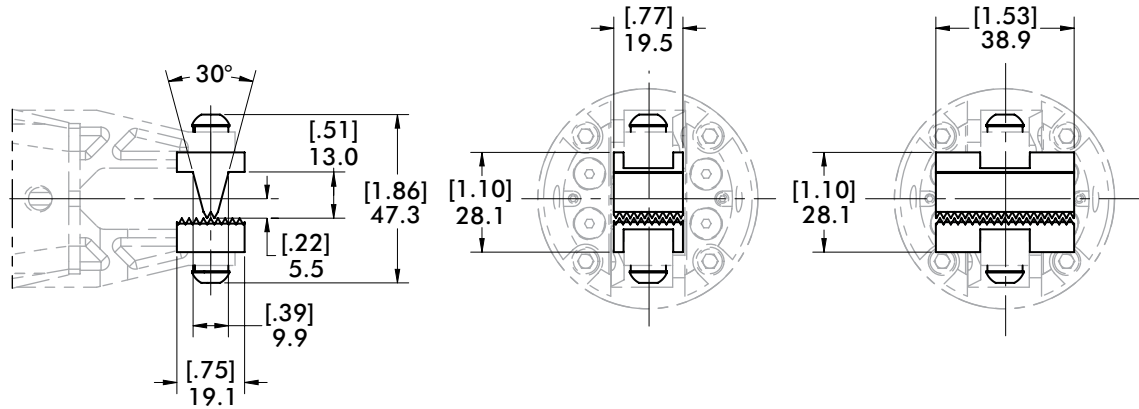
Replacement Part #

GR1-INS-DLOS

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

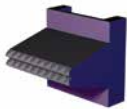
"SDB" and "DDB" Draw Bead Serrated Block Inserts



"SDB"



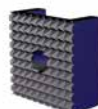
"DDB"



Single Upper
Draw Bead Insert Block

Replacement Part #

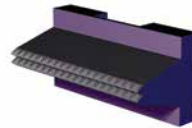
GR1-INS-Sddb



Single Lower
Draw Bead Insert Block

Replacement Part #

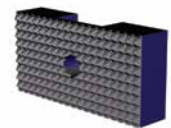
GR1-INS-SdLoS



Double Upper
Draw Bead Insert Block

Replacement Part #

GR1-INS-DDB

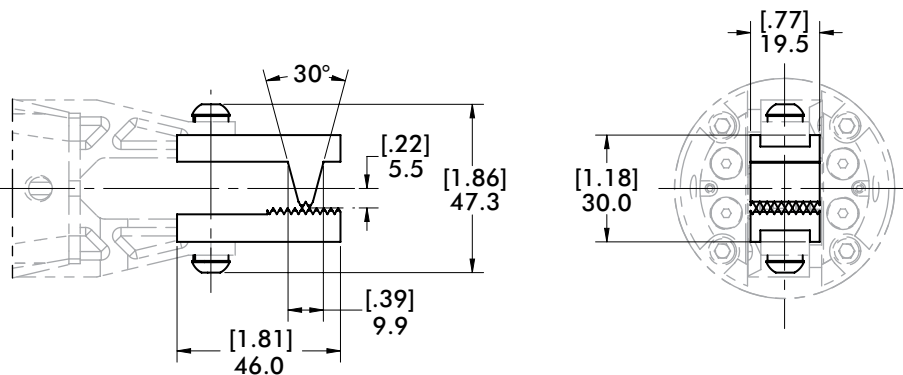


Double Lower
Draw Bead Insert Block

Replacement Part #

GR1-INS-DLoS

"SED" Extended Draw Bead Serrated Block Inserts



"SED"



Upper Extended
Draw Bead Insert Block

Replacement Part #

GR1-INS-Sddb-3



Lower Extended
Draw Bead Insert Block

Replacement Part #

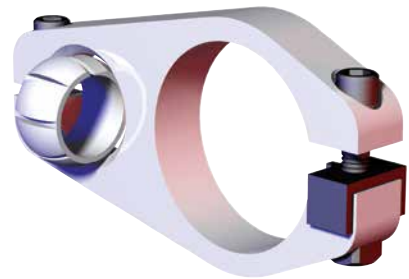
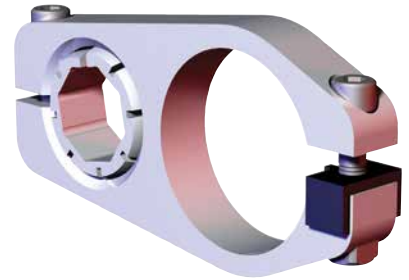
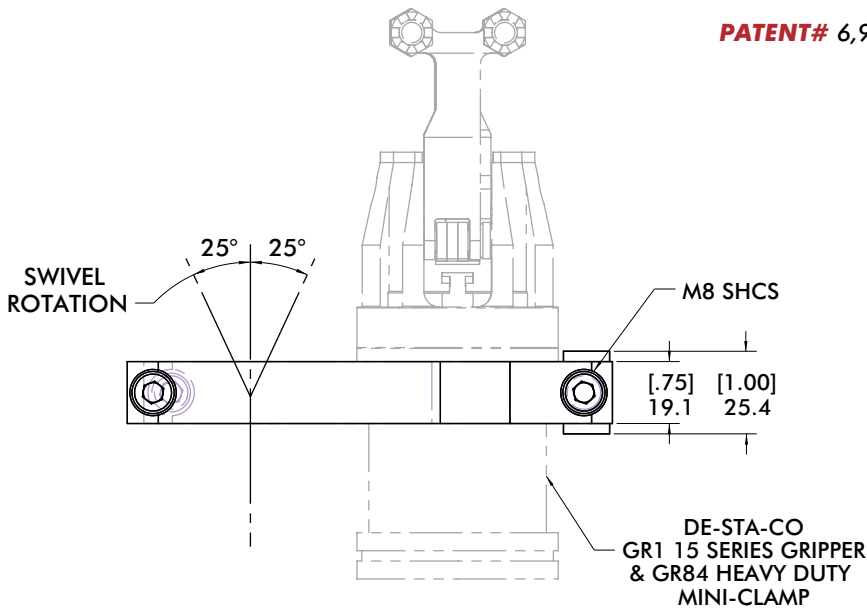
GR1-INS-SdLoS-3

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

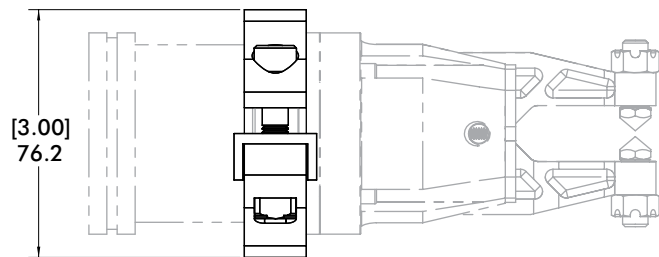
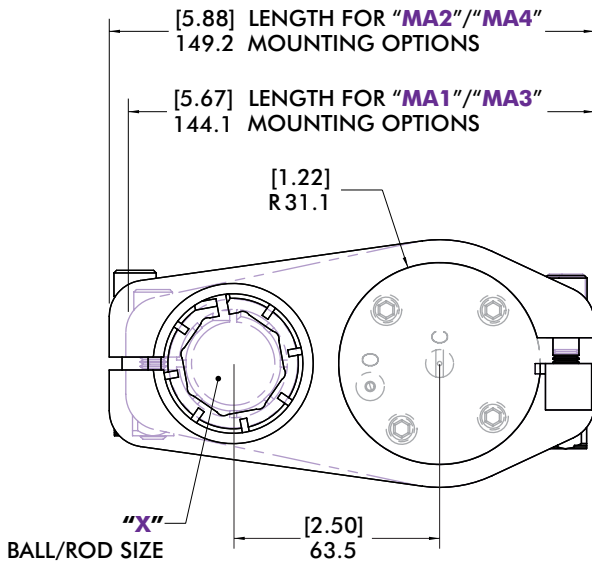
"MAx" Swivel Parallel Gripper Mounts

PATENT# 6,988,696



Snap-In Ball

Special patented design allows user to replace ball without disassembly



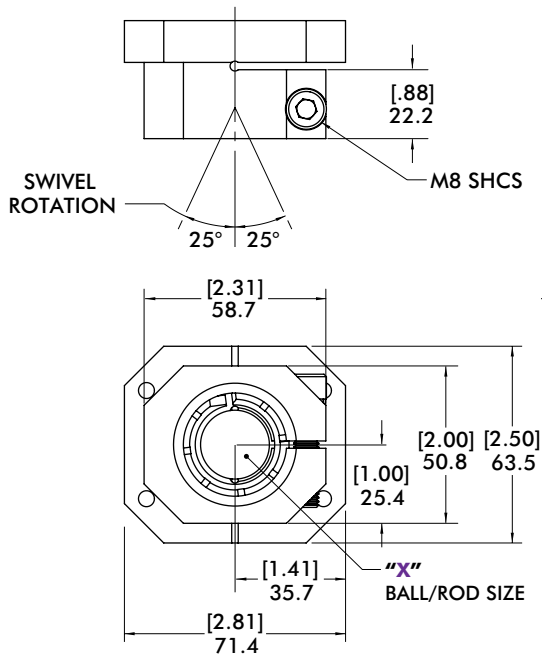
Mounting Option	Rod/Ball "X"	Replacement Part#
MA1	Ø1.00"	CPI-GPC-150-100S-DC
MA2	Ø1.25"	CPI-GPC-150-125S-DC
MA3	Ø25mm	CPI-GPC-150-25MS-DC
MA4*	30mm BB	CPI-GPC-150-30BBS-DC

*"MA4" and "MB4" Mounts to the 30mm BodyBuilder™ octagonal extruded aluminum boom. For more information on this octagonal boom, please refer to the BodyBuilder™ Robotic End Effector Systems Catalog.

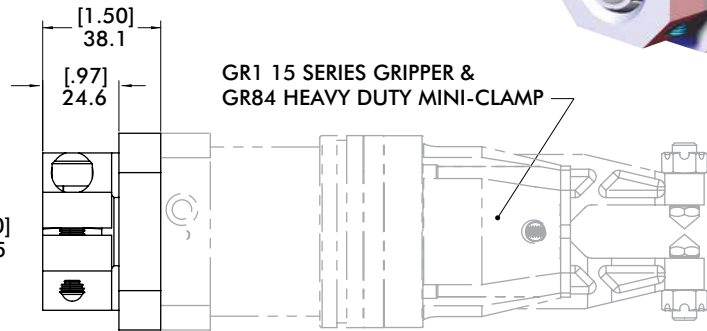
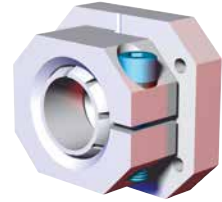
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"MB1" and "MB3" Rear Swivel Gripper Mount

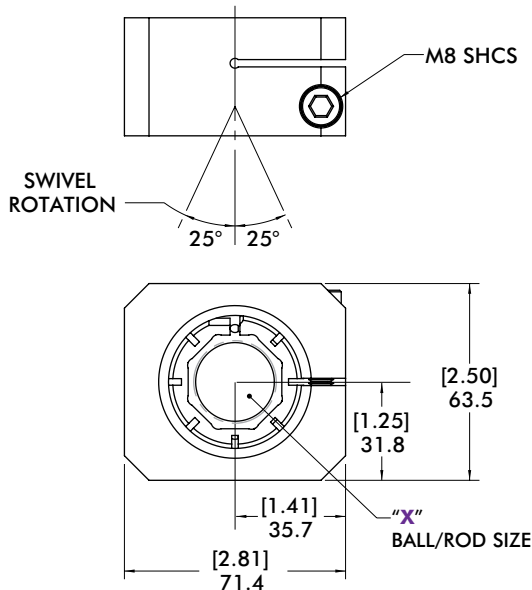


PATENT# 6,988,696

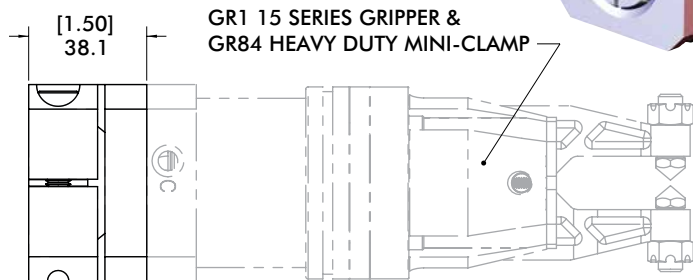
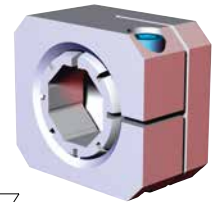


Mounting Option	Rod/Ball "X"	Replacement Part#
MB1	Ø1.00"	CPI-RJM-150-100S
MB3	Ø25mm	CPI-RJM-150-25S

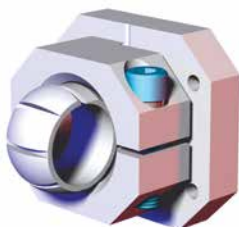
"MB2" and "MB4" Rear Swivel Gripper Mount



PATENT# 6,988,696



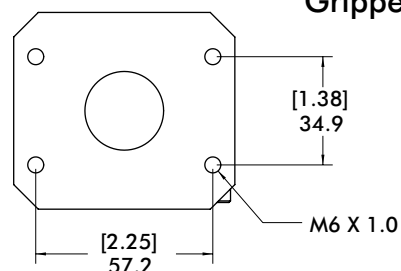
Mounting Option	Rod/Ball "X"	Replacement Part#
MB2	Ø1.25"	CPI-RJM-150-125S
MB4*	30mm BB	CPI-RJM-150-30BBS



Snap-In Ball
Special patented design allows user to replace ball without disassembly

PATENT# 6,988,696

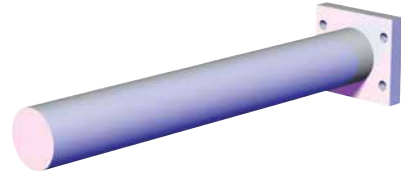
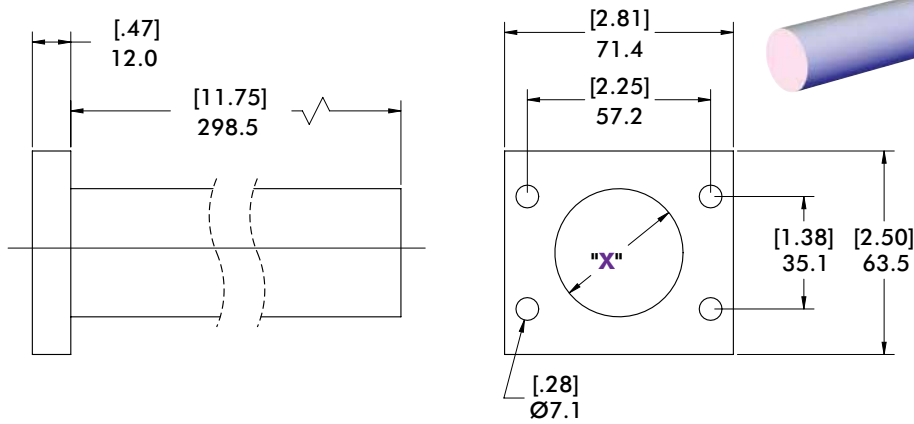
"MBx" Rear Swivel Gripper Mount Gripper Mounting Pattern



GR1-15 SERIES

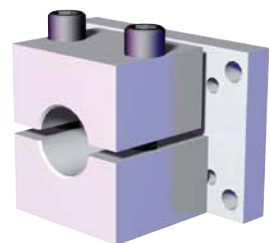
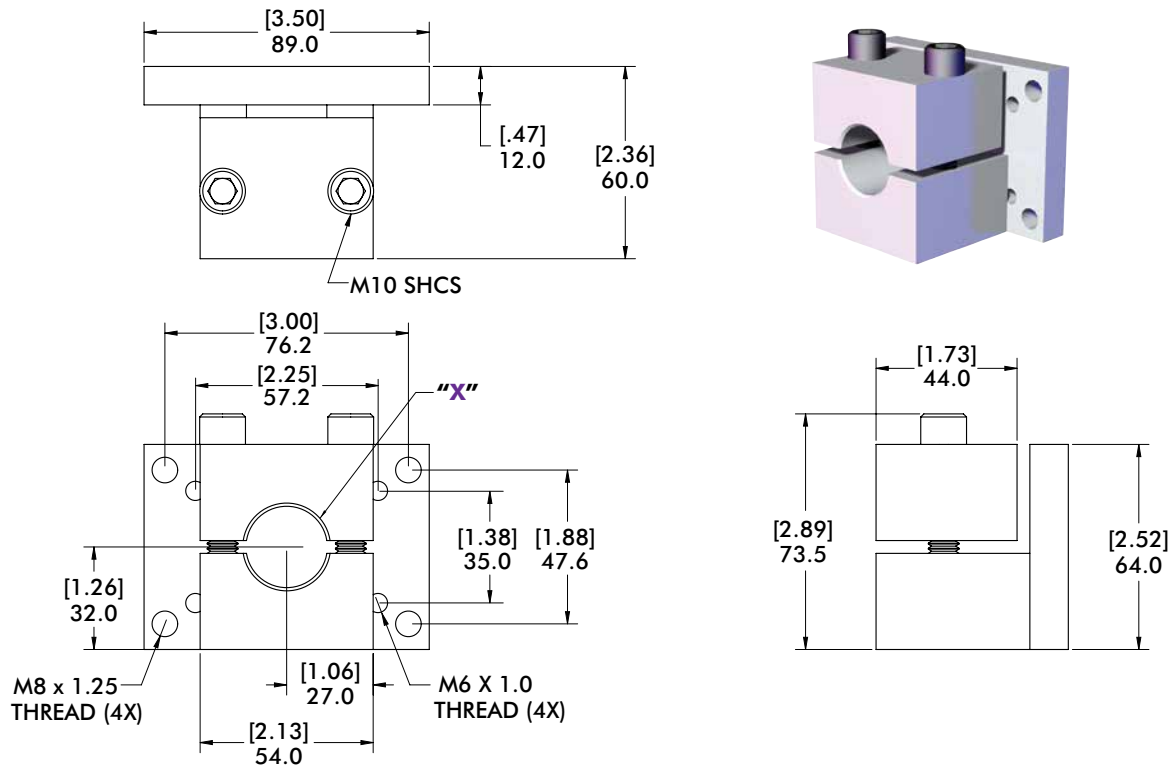
Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

"MCx" Swivel Parallel Gripper Mounts



Mounting Option	Rod "X"	Replacement Part#
MC1	Ø1.00"	CPI-RJM-150-100
MC3	Ø25mm	CPI-RJM-150-25
MC5	Ø1.50"	CPI-RJM-150-150
MC6	Ø40mm	CPI-RJM-150-40

"MD7" Rear Fixed Clamp Mount

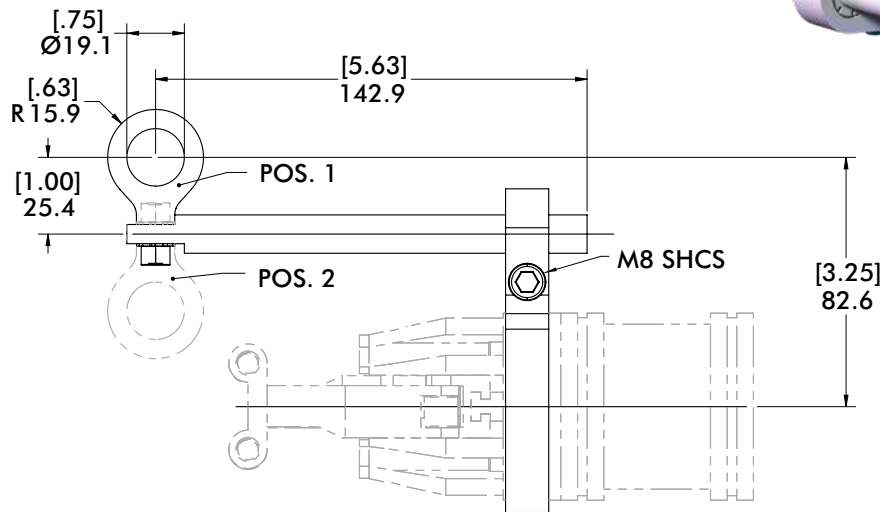
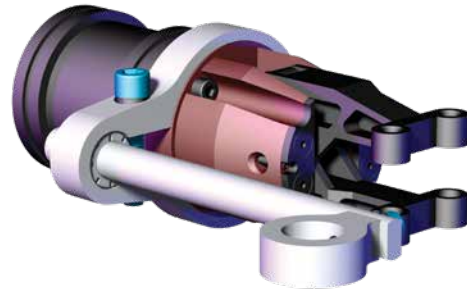


Mounting Option	Rod/Ball "X"	Replacement Part#
MD7	Ø1.00"	M1514

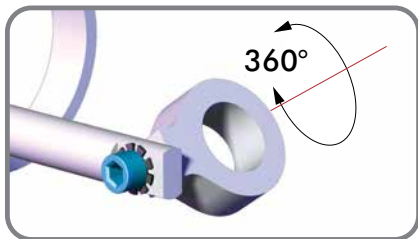
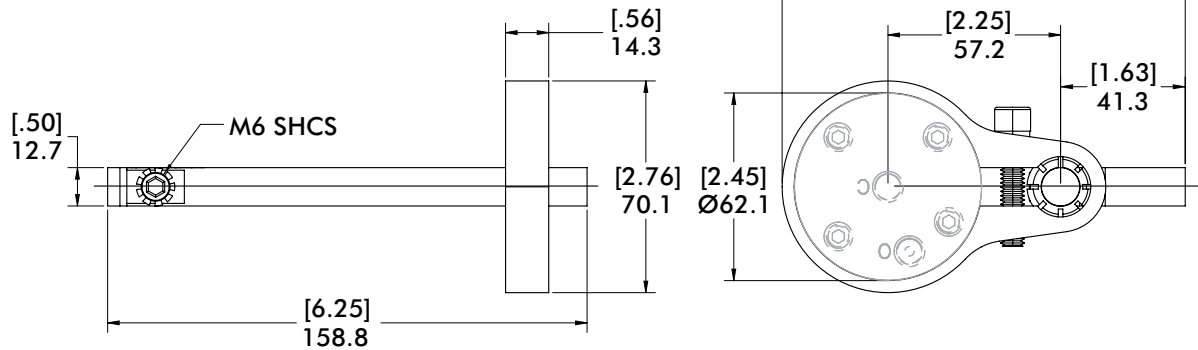
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

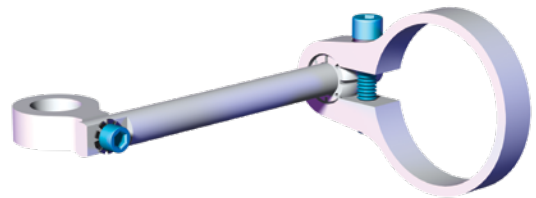
18mm Swivel Proximity Sensor Mount



POS. 1 = NON ROTATING MOUNTING
 POS. 2 = 360° ROTATIONAL MOUNTING



**POS. 2: 360° ROTATION OPTION
 ALONG ONE AXIS**



Replacement Part #

CPI-GPM-15-18

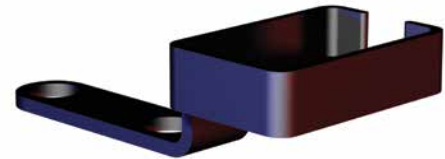
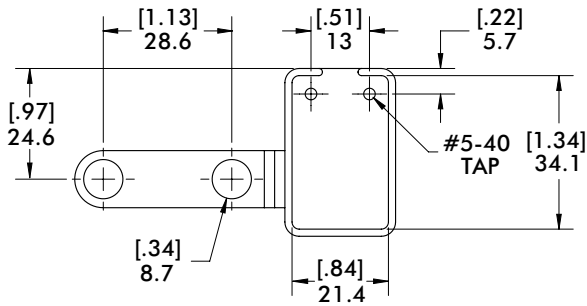
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions, Technical and Ordering Information

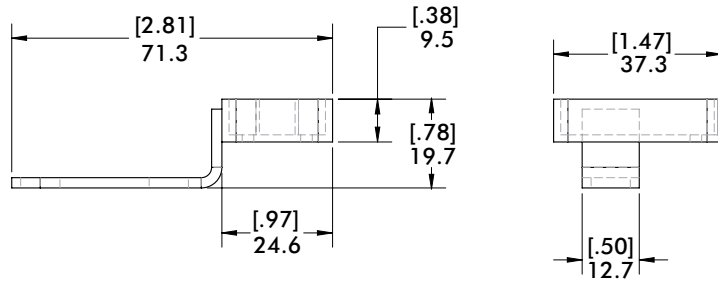
"A04" and "P03" Sensor Options

"A04" (Turck) Replacement Part# "Bi 5-Q08-VP6X2-0.2M-RS4.4T" ..10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
 "P03" (P & F) Replacement Part# "NBB5-F104M-E2-C-200MM-V1" ..10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
 (Sensors include "GR0326" Proximity Switch Mount when ordered with GR1-15 Series.)

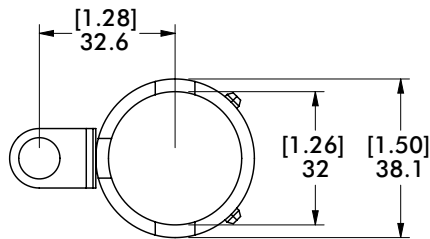
Proximity Switch Mount for "A04" and "P03" Sensor Options



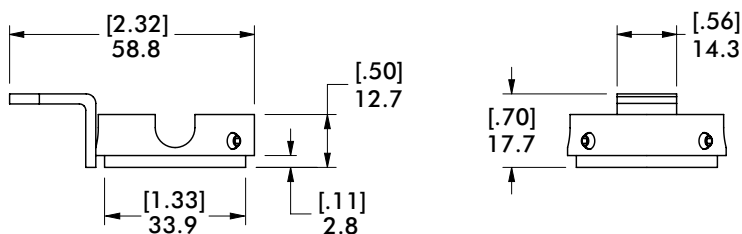
Replacement Part #
GR0326



Barrel Style Proximity Switch Mount



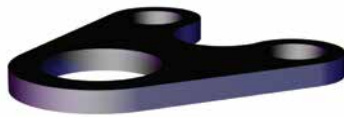
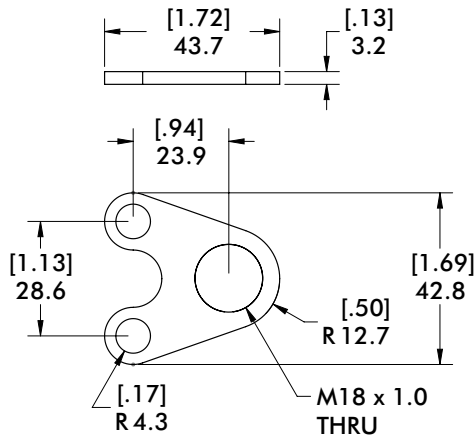
Replacement Part #
GR1-15-PM-31



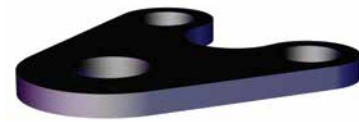
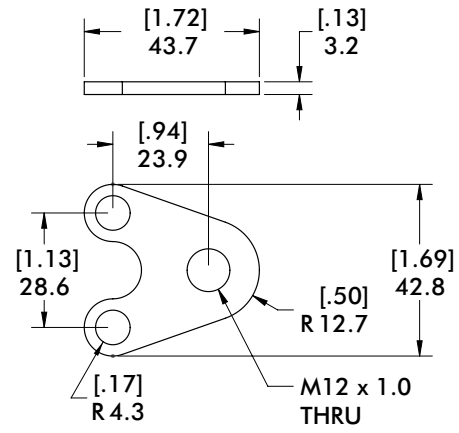
GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

Ø18mm and Ø12mm Inline Proximity Switch Mount

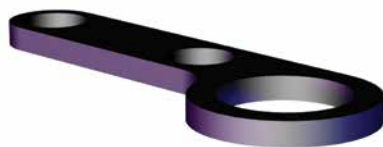
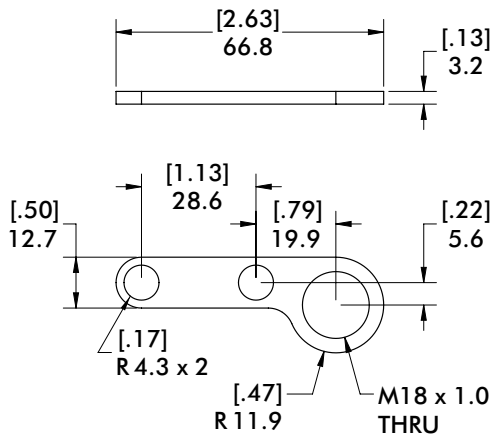


Replacement Part #
CPI-PM-15D-18

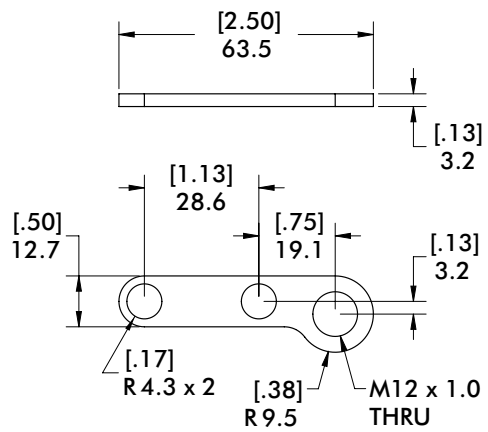


Replacement Part #
CPI-PM-15D-12

Ø18mm and Ø12mm Offset Proximity Switch Mount



Replacement Part #
CPI-PM-15S-18



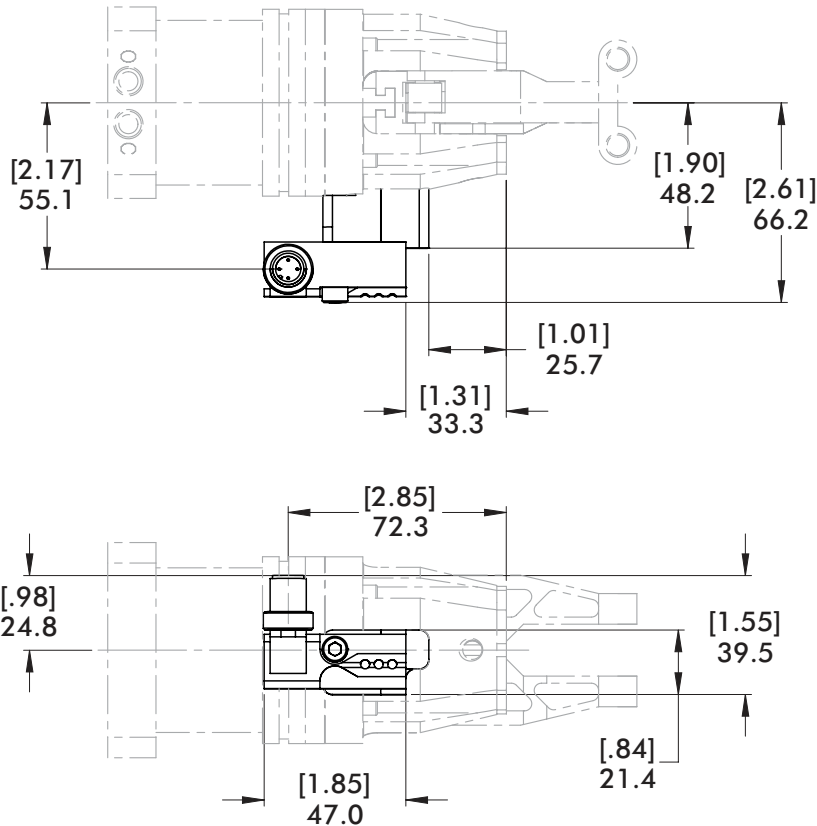
Replacement Part #
CPI-PM-15S-12

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions, Technical and Ordering Information

"T04" Open/Closed Sensor Option

This sensor option can only be used at full stroke.



Replacement Part

CPI-GR1-15-TK-DC-T04

This Sensor Part Number is used on the following GR1 Gripper Styles

"T04"



This sensor option is used in conjunction with a special gripper body used in place of the standard gripper body in order for the sensor to function properly.

"T04" Proximity Switch Wiring



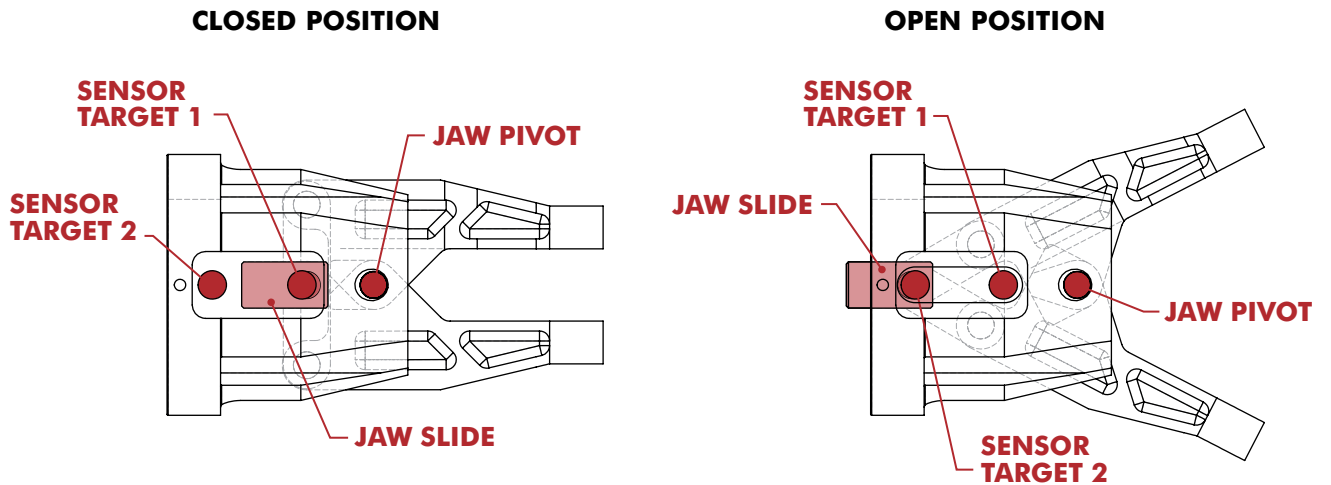
PIN 1) BROWN: POSITIVE POWER
 PIN 2) BLACK: SIGNAL FOR GRIPPER CLOSED
 PIN 3) BLUE: NEGATIVE POWER
 PIN 4) BLACK: SIGNAL FOR GRIPPER OPEN

3 amps, 250 volts, VDC
 4-Pin Euro Micro Connector

GR1-15 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Technical Information

"T04" Open/Closed Target Position



"045" 45° Angular



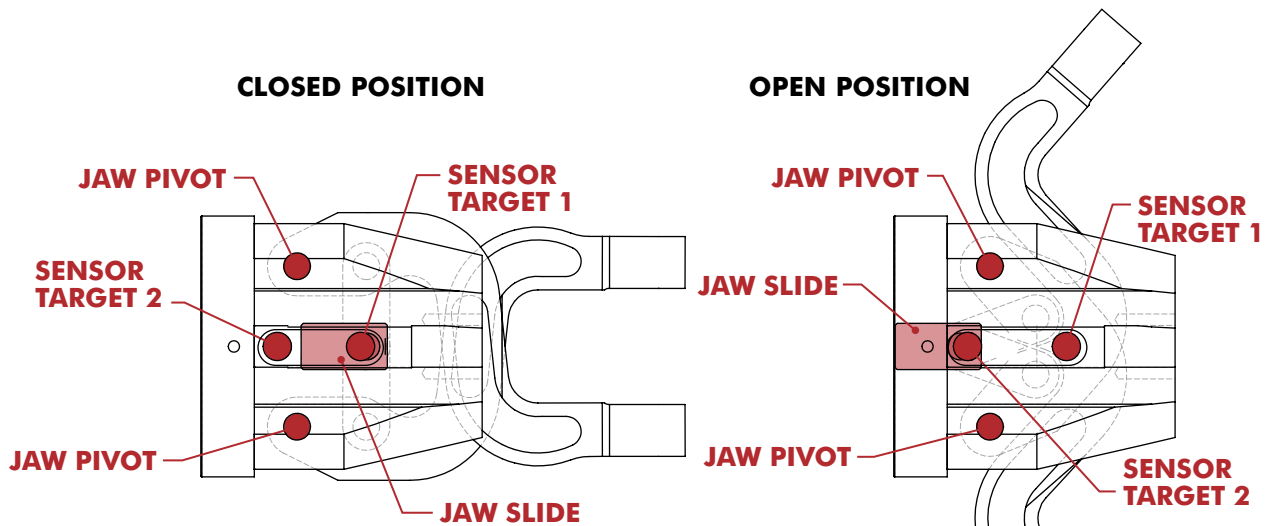
"45C" 45° Chisel



"FCH" 45° Fixed Chisel



"9DJ" 90° Drop Jaw



"90F" 90° Fixed Lower



"9FS" 90° Fixed Lower with Limited Stroke



"180" 180° Angular



GR1-20 SERIES

Toggle Lock Sheet Metal Grippers | Ordering Information

GR1-20 - **BE** - 180 - **DXX** - **MXX** -

Cylinder Type & Porting

Step 1 - Cylinder Ports Choose One

B **E**

- E** English (1/8 NPT)
- M** Metric (1/8 G)

Open/Closed Sensor

Sensors Type	Description
T04	Internal Sensor
(Leave Blank)	No Sensor

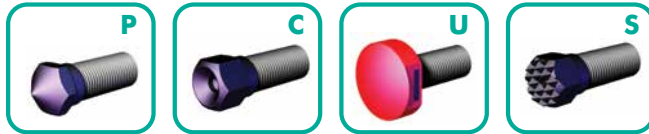
(See page SG-TGL-43 for sensor specifications)

Tip Insert Options

Step 2 - Upper Tip Insert Options Choose One

D **P** **P**

- P** Point
- C** Cup
- U** Urethane
- S** Serrated
- X** No Tips



Step 3 - Lower Tip Insert Options Choose One Above

D **P** **P**

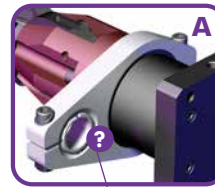
For tip insert dimensions and replacement part #'s, please refer to **GR84** Mini Clamp Tip Insert options.

Mount Options

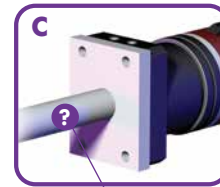
Step 1 - Mount Type Choose One

M **X** **X**

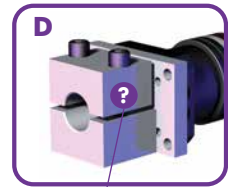
- A** Parallel Swivel Mount
- C** Rear Fixed Welded Style
- D** Rear Fixed Clamp Mount
- X** No Mount



1 **3**
Mount Ball Sizes Available



1 **3**
Mount Rod Sizes Available



7
Mount Size Available

Step 2 - Mount Ball/Rod Type Choose One

M **X** **X**

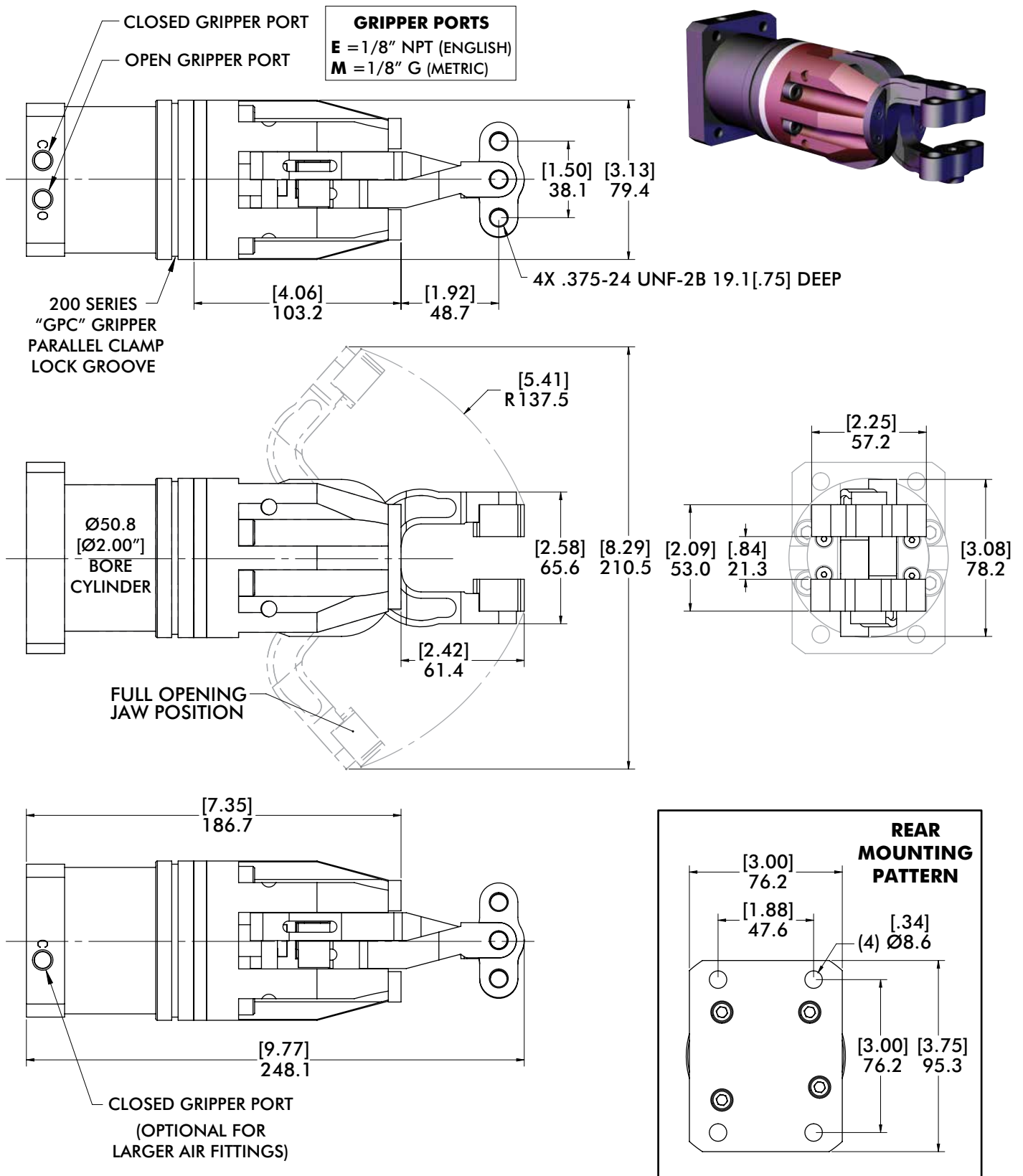
- 1** 1.00" w/Metric Fasteners (A & C Only)
- 3** 25mm Metric Fasteners (A & C Only)
- 7** M1514 (Type D Only)
- X** No Mount



GR1-20 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions

"180" 180° Angular Jaw Arrangement - Double Insert

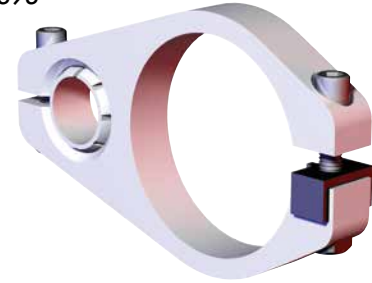
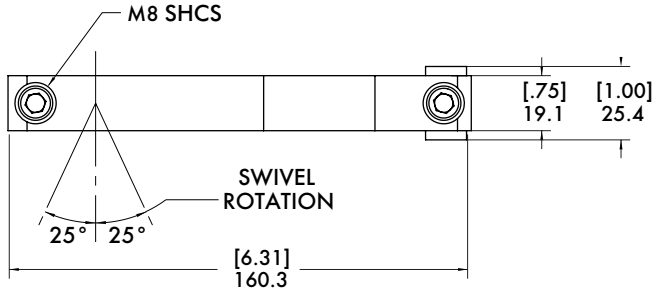


GR1-20 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions and Ordering Information

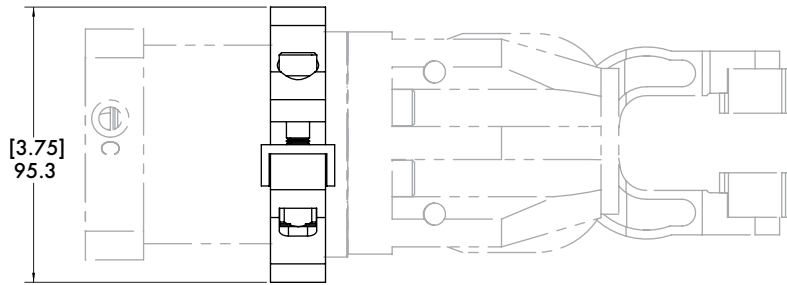
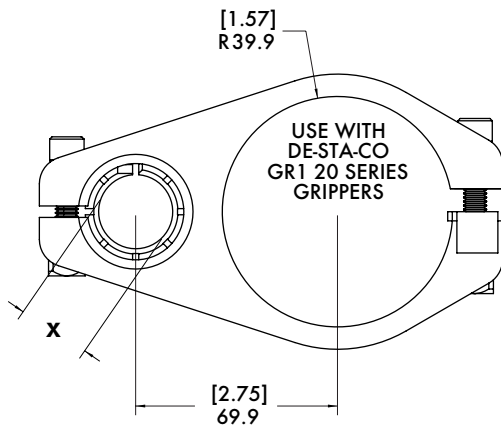
"MAX" Swivel Parallel Gripper Mounts

PATENT# 6,988,696



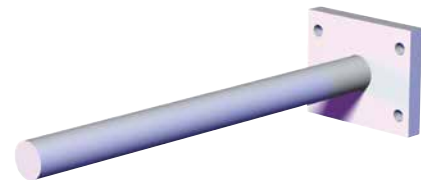
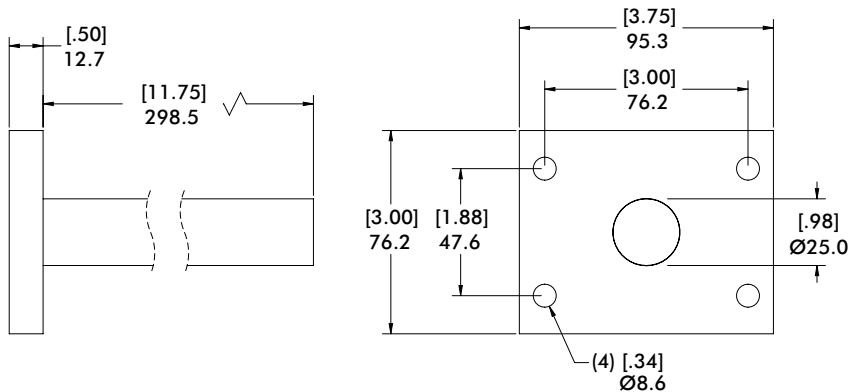
Snap-In Ball

Special patented design allows user to replace ball without disassembly



Mounting Option	Rod/Ball "X"	Replacement Part #
MA1	Ø1.00"	CPI-GPC-200-100S-DC
MA3	Ø25mm	CPI-GPC-200-25MS-DC

"MCx" Rear Fixed Welded Mount

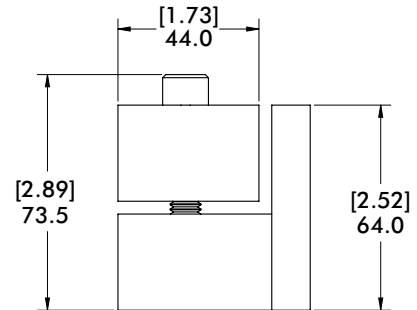
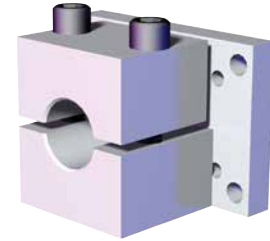
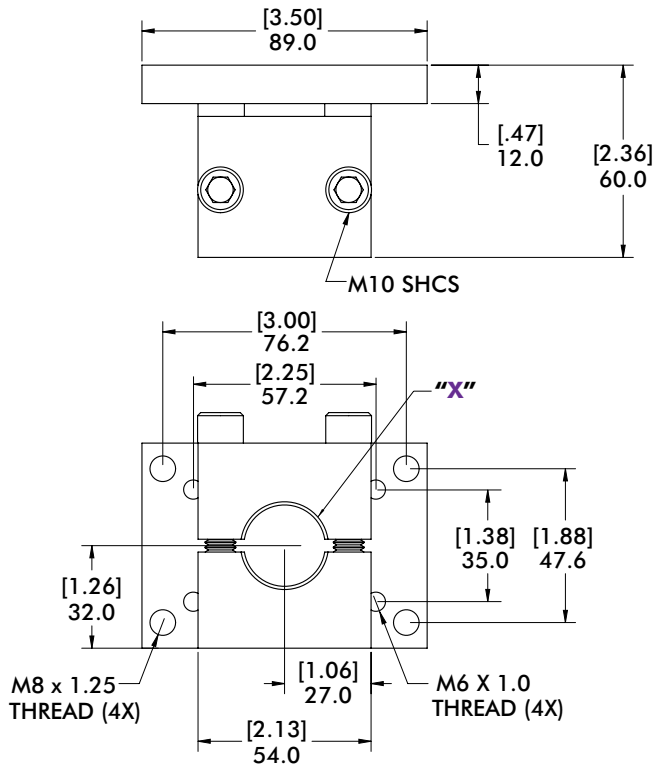


Mounting Option	Rod/Ball "X"	Replacement Part #
MC1	Ø1.00"	CPI-RJM-200-100
MC3	Ø25mm	CPI-RJM-200-25

GR1-20 SERIES

Toggle Lock Sheet Metal Grippers | Dimensions, Ordering Information

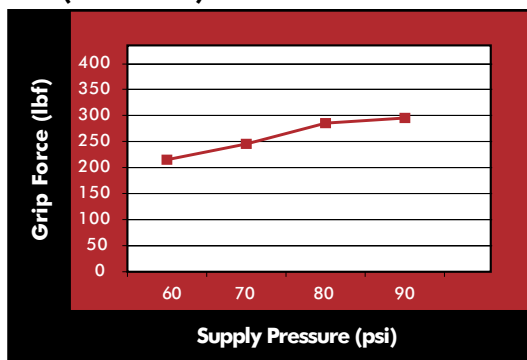
"MD7" Rear Fixed Clamp Mount



Mounting Option	Rod/Ball "X"	Replacement Part #
MD7	Ø1.00"	M1514

Technical Information

180 (20 SERIES)



"180" 180° Angular



Weight:
2.4 kg [5.4 lb]
Grip Range:
0" - 0.125" [0 - 3mm]

Air Requirements:

Recommended operating Pressure:
2-6 bar [30-90 psi]
Ports: 1/8" BSPP [1/8" NPT]
Air flow controls recommended for maximum life

Operating Temperature:

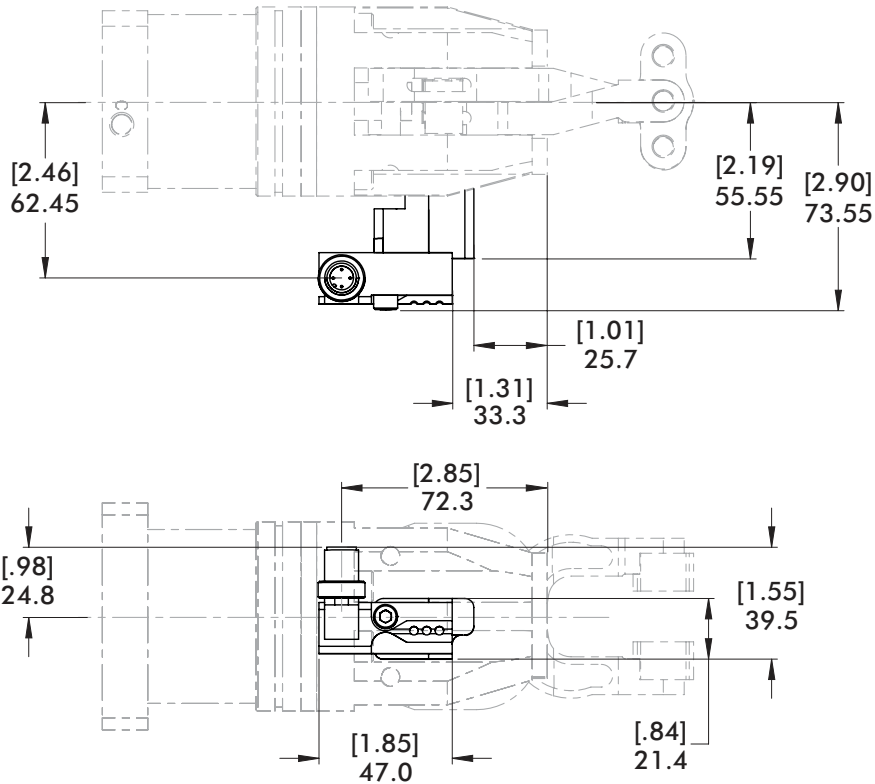
0° - 93°C [32° - 200°F]

SHEET METAL GRIPPERS

Toggle Lock Sheet Metal Grippers | Dimensions, Technical and Ordering Information

"T04" Open/Closed Sensor Option

This sensor option can only be used at full stroke.

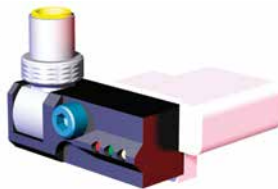


Replacement Part

CPI-GR1-15-TK-DC-T04

This Sensor Part Number is used on the following GR1 Gripper Styles

"T04"



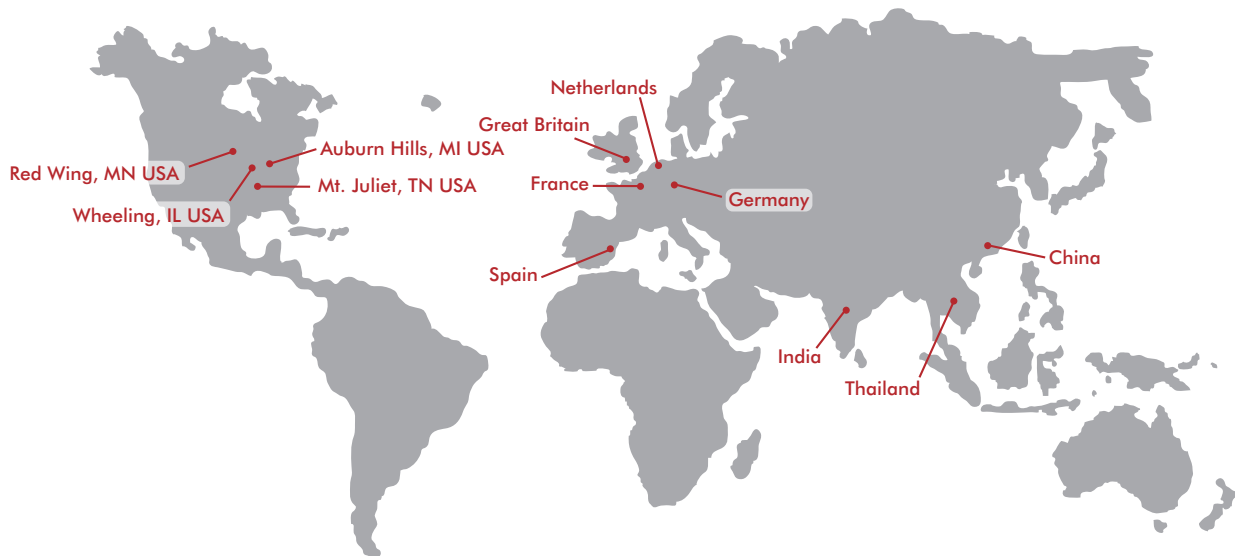
This sensor option is used in conjunction with a special gripper body used in place of the standard gripper body in order for the sensor to function properly.

"T04" Proximity Switch Wiring



- PIN 1) BROWN: POSITIVE POWER
- PIN 2) BLACK: SIGNAL FOR GRIPPER CLOSED
- PIN 3) BLUE: NEGATIVE POWER
- PIN 4) BLACK: SIGNAL FOR GRIPPER OPEN

3 amps, 250 volts, VDC
4-Pin Euro Micro Connector



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