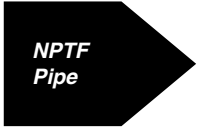
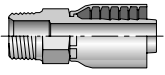
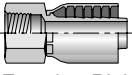

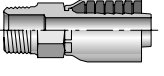

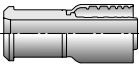
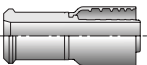
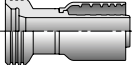


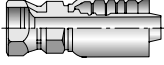
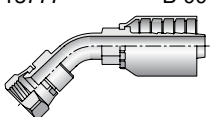
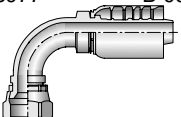
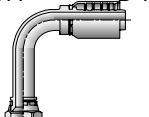

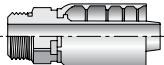

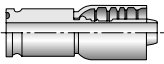
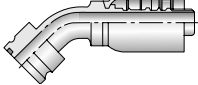
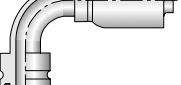

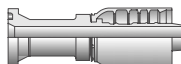
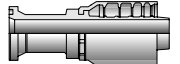
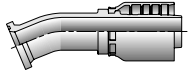
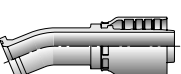
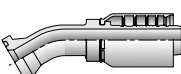
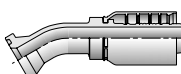
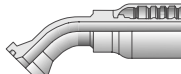
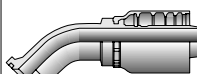
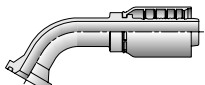
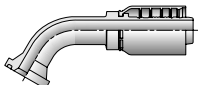
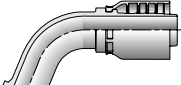

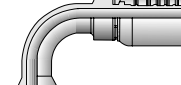

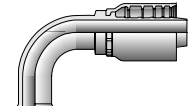

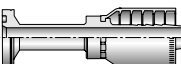


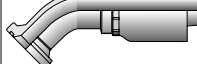
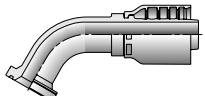
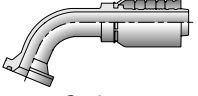
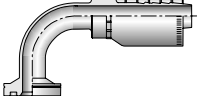

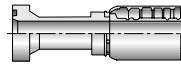
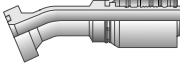
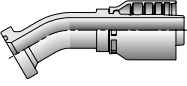
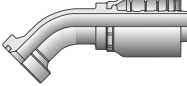
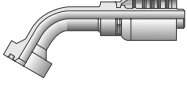
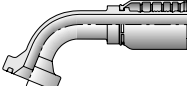
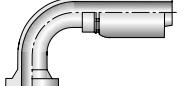

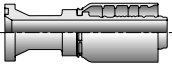
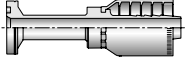




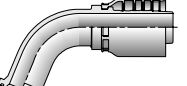
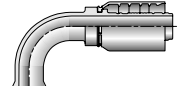



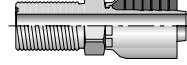
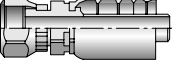
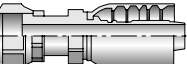
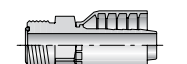



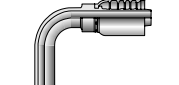



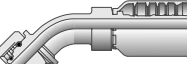
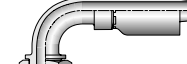

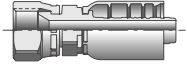
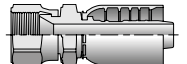
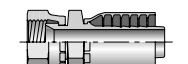
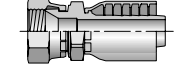
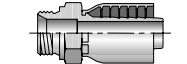
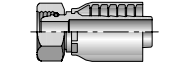
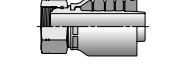
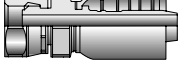


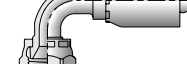
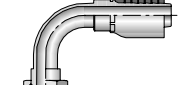

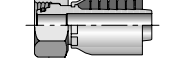
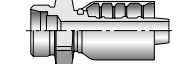

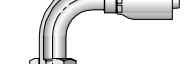
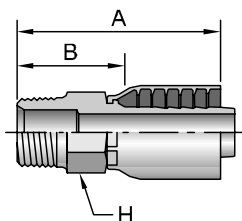


A	 NPTF Pipe	10177 B-96  Male - Rigid - Straight	10277 B-96  Female - Rigid Straight	 API	1AP77 B-96  Male - Rigid - Straight	 Hammer Union
	1HB77 B-97  Male - Hammer Union 90° Wing Nut	1HE77 B-97  Male - Hammer Union	1HN77 B-97  Female - Hammer Union	 JIC 37°	10377 B-97  Male - Rigid - Straight	10677 B-98  Female - Swivel Straight
B	13777 B-99  Female - Swivel 45° Elbow - Short	13977 B-99  Female - Swivel 90° Elbow - Short	14177 B-100  Female - Swivel 90° Elbow - Long	 Straight Thread O-Ring	10577 B-100  Male - Rigid - Straight	 Full Flange
	1X577 B-101  Full Flange - Straight	1X777 B-101  Full Flange 45° Elbow	1X977 B-101  Full Flange 90° Elbow	 Flange Code 61	11577 B-102  Code 61 - Straight	14A77 B-102  Straight (5,000 psi)
C	11677 B-103  Code 61 22-1/2° Elbow	14B77 B-103  22-1/2° Elbow (5,000 psi)	12677 B-103  Code 61 - 30° Elbow	14E77 B-104  30° Elbow (5,000 psi)	11777 B-104  Code 61 - 45° Elbow	14F77 B-104  45° Elbow (5,000 psi)
	12777 B-105  Code 61 - 60° Elbow	14G77 B-105  60° Elbow (5,000 psi)	11877 B-105  Code 61 67-1/2° Elbow	14M77 B-106  67-1/2° Elbow (5,000 psi)	11977 B-106  Code 61 - 90° Elbow	18977 B-106  Code 61 90° Elbow - Long
D	14N77 B-107  90° Elbow (5,000 psi)	 Flange Code 62	16A77 B-107  Code 62 - Straight	16B77 B-108  Code 62 22-1/2° Elbow	16E77 B-108  Code 62 - 30° Elbow	16F77 B-109  Code 62 - 45° Elbow
	16G77 B-109  Code 62 - 60° Elbow	16M77 B-110  Code 62 67-1/2° Elbow	16N77 B-110  Code 62 - 90° Elbow	 Caterpillar® Flange	1XA77 B-111  Caterpillar® - Flange	1XB77 B-111  Caterpillar® - Flange 22-1/2° Elbow
E						

1XE77 B-111  Caterpillar® Flange 30° Elbow	1XF77 B-112  Caterpillar® - Flange 45° Elbow	1XG77 B-112  Caterpillar® - Flange 60° Elbow	1XM77 B-112  Caterpillar® Flange 67-1/2° Elbow	1XN77 B-113  Caterpillar® Flange 90° Elbow	 Komatsu® Flange
1K577 B-113  Komatsu® Flange Straight	1KA77 B-113  Komatsu® HP Flange Straight	1K677 B-114  Komatsu® Flange 22-1/2° Elbow	1K777 B-114  Komatsu® Flange 45° Elbow	1KJ77 B-114  Komatsu® Flange 45° Elbow - Long	1K377 B-114  Komatsu® Flange 60° Elbow
1K877 B-115  Komatsu® Flange 67-1/2° Elbow	1K977 B-115  Komatsu® Flange 90° Elbow	1KN77 B-115  Komatsu® HP Flange 90° Elbow	1KR77 B-116  Komatsu® HP Flange 90° Elbow - Long	 Seal-Lok®	1JB77 B-116  Male - Bulkhead w/o Locknut
1JC77 B-116  Female - Swivel Straight - Short	1JS77 B-117  Female - Swivel Straight - Long	1J077 B-117  Male - Rigid w/O-Ring	1J777 B-118  Female - Swivel 45° Elbow	1J977 B-118  Female - Swivel 90° Elbow - Short	1J577 B-119  Female - Swivel 90° Elbow - Medium
1J177 B-119  Female - Swivel 90° Elbow - Long	 DIN "S" Series w/O-Ring	1D277 B-120  Male Metric S Rigid - 24° Cone	1C977 B-120  Female - Swivel Straight	10C77 B-121  Female Metric S Swivel - 45° Elbow	11C77 B-121  Female - Swivel 90° Elbow
 BSP	1FU77 B-121  Female - Swivel Straight - 30° Flare	1KU77 B-122  Female - Metric Swivel - 30° Flare	1MU77 B-122  Female - Metric Swivel - 30° Flare	1XU77 B-122  Female - Swivel 30° Flare	1D977 B-122  Male - Rigid Straight - 60° Cone
19277 B-123  Female - Swivel Straight - 60° Cone	1EA77 B-123  Female - Swivel Straight - 60° Cone	1GU77 B-123  Female - Swivel Straight - 60° Cone	1FY77 B-123  Female - Swivel 45° Elbow - 30° Flare	1B177 B-124  Female - Swivel 45° Elbow - 60° Cone	1FZ77 B-124  Female - Swivel 90° Elbow - 30° Flare
1B277 B-124  Female - Swivel 90° Elbow - 60° Cone	 24° Cone	1CA77 B-124  Female - Swivel Straight - 24° Cone	1ZM77 B-125  Male 24° Cone Rigid - Straight	1CE77 B-125  Female - Swivel 45° Elbow - 24° Cone	1CF77 B-125  Female - Swivel 90° Elbow - 24° Cone

10177

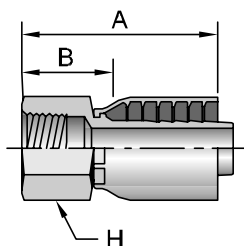
Male NPTF Pipe - Rigid - Straight



#	Thread	Hose I.D.	A		H	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	mm	inch	mm	
10177-6-8	3/8x18	1/2	2.51	63,9	22	1.29	32,9	•
10177-8-8	1/2x14	1/2	2.72	69,2	22	1.50	38,2	•
10177-8-12	1/2x14	3/4	3.43	87,1	30	1.79	45,5	•
10177-12-12	3/4x14	3/4	3.43	87,1	30	1.79	45,5	•
10177-12-16	3/4x14	1	3.85	97,8	36	1.90	48,3	•
10177-16-12	1x11-1/2	3/4	3.39	86,1	36	1.76	44,6	•
10177-16-16	1x11-1/2	1	4.04	102,6	36	2.09	53,1	•
10177-20-16	1-1/4x11-1/2	1	4.34	110,2	46	2.39	60,7	•
10177-20-20	1-1/4x11-1/2	1-1/4	4.57	116,1	46	2.30	58,4	•
10177-24-20	1-1/2x11-1/2	1-1/4	4.76	120,9	50	2.49	63,2	•
10177-24-24	1-1/2x11-1/2	1-1/2	4.89	124,2	50	2.50	63,5	•
10177-32-32	2x11-1/2	2	5.64	143,1	65	2.88	73,2	•

10277

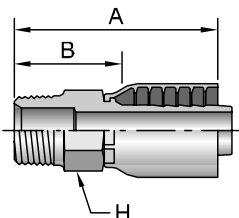
Female NPTF Pipe - Rigid - Straight



#	Thread	Hose I.D.	A		H	B	
Part Number	inch	inch	inch	mm	mm	inch	mm
10277-12-12	3/4x14	3/4	3.09	78,4	32	1.45	36,9
10277-16-16	1x11-1/2	1	3.86	98,0	41	1.91	48,5

1AP77

Male API Pipe - Rigid - Straight



#	Thread	Hose I.D.	A		H	B	
Part Number	inch	inch	inch	mm	mm	inch	mm
1AP77-24-24	1-1/2x11-1/2	1-1/2	5.16	131,1	50	2.77	70,4
1AP77-32-24	2x11-1/2	1-1/2	5.71	145,0	65	3.32	84,4
1AP77-32-32	2x11-1/2	2	6.32	160,4	65	3.56	90,4




Refer to Pressure Rating of Hose End Connections Chart on page E-45.

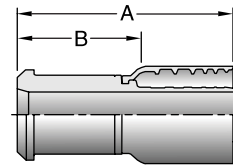
See Accessories Section for O-Rings and Flange Kits.

1HB77

Male Hammer Union - 90° Wing Nut

FIG 1502


#		A		B	
Part Number	Hose I.D. inch	inch	mm	inch	mm
1HB77-32-32	2	7.59	192,9	4.84	123,0

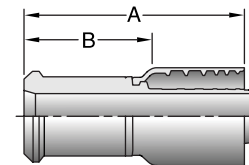


1HE77

Male Hammer Union - Straight

FIG 1502



#		A		B	
Part Number	Hose I.D. inch	inch	mm	inch	mm
1HE77-32-24	1-1/2	7.03	178,6	4.64	117,9
1HE77-32-32	2	7.60	192,9	4.84	123,0

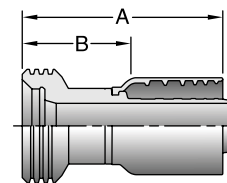


1HN77

Female Hammer Union - Straight




FIG 1502

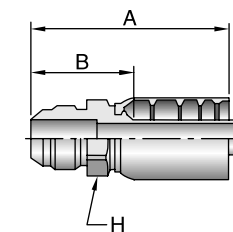
#			A		B	
Part Number	Thread inch	Hose I.D. inch	inch	mm	inch	mm
1HN77-32-32	4-1/8x3	2	6.95	176,4	4.19	106,5



10377

Male JIC 37° - Rigid - Straight

#			A			B	
Part Number	Thread inch	Hose I.D. inch	inch	mm	H mm	inch	mm
10377-8-8	1/2	3/4x16	2.61	66,4	22	1.39	35,4
10377-10-8	5/8	7/8x14	2.71	68,9	24	1.49	37,9
10377-10-10	5/8	7/8x14	3.01	76,4	24	1.66	42,2
10377-12-10	3/4	1-1/16x12	3.22	81,8	30	1.87	47,5
10377-12-12	3/4	1-1/16x12	3.53	89,6	30	1.89	48,1
10377-12-16	3/4	1-1/16x12	3.94	100,0	36	1.99	50,6
10377-16-12	1	1-5/16x12	3.69	93,6	36	2.05	52,2
10377-16-16	1	1-5/16x12	3.99	101,3	36	2.04	51,8
10377-20-16	1-1/4	1-5/8x12	4.33	109,9	50	2.38	60,5
10377-20-20	1-1/4	1-5/8x12	4.66	118,4	50	2.39	60,7
10377-24-24	1-1/2	1-7/8x12	4.93	125,2	50	2.54	64,5
10377-32-32	2	2-1/2x12	5.83	148,0	65	3.07	78,0



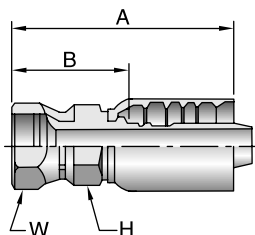
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

10677

Female JIC 37° - Swivel - Straight

ISO 12151-5



#									
Part Number	Thread		Hose I.D.	A	H	W	B		
	inch		inch	inch	mm	mm	inch	mm	
10677-6-8	3/8	9/16x18	1/2	2.75	69,7	22	19	1.53	38,8
10677-6-8C	3/8	9/16x18	1/2	2.75	69,7	22	19	1.53	38,8
10677-8-8	1/2	3/4x16	1/2	2.79	71,1	22	22	1.58	40,1
10677-8-8C	1/2	3/4x16	1/2	2.79	71,1	22	22	1.58	40,1
10677-8-10	1/2	3/4x16	5/8	2.97	75,5	24	22	1.63	41,3
10677-10-8	5/8	7/8x14	1/2	2.91	74,0	22	27	1.69	43,0
10677-10-10	5/8	7/8x14	5/8	3.18	80,7	24	27	1.83	46,5
10677-10-10C	5/8	7/8x14	5/8	3.18	80,7	24	27	1.83	46,5
10677-10-12	5/8	7/8x14	3/4	3.62	91,8	30	27	1.98	50,3
10677-10-12C	5/8	7/8x14	3/4	3.62	91,8	30	27	1.98	50,3
10677-12-8	3/4	1-1/16x12	1/2	3.17	80,4	30	32	1.95	49,5
10677-12-10	3/4	1-1/16x12	5/8	3.30	83,9	30	32	1.95	49,6
10677-12-12	3/4	1-1/16x12	3/4	3.68	93,5	30	32	2.05	52,0
10677-12-12C	3/4	1-1/16x12	3/4	3.77	95,7	30	36	2.13	54,2
10677-12-16	3/4	1-1/16x12	1	4.12	104,7	36	32	2.17	55,2
10677-14-12	7/8	1-3/16x12	3/4	3.88	98,5	36	36	2.24	56,9
10677-14-16	7/8	1-3/16x12	1	4.15	105,4	36	36	2.20	55,9
10677-16-12	1	1-5/16x12	3/4	3.89	98,7	36	41	2.25	57,3
10677-16-12C	1	1-5/16x12	3/4	4.01	101,8	36	46	2.37	60,3
10677-16-16	1	1-5/16x12	1	4.16	105,7	36	41	2.21	56,2
10677-16-16C	1	1-5/16x12	1	4.16	105,7	36	41	2.21	56,2
10677-16-20	1	1-5/16x12	1-1/4	4.84	123,0	46	41	2.57	65,3
10677-20-16	1-1/4	1-5/8x12	1	4.29	109,1	41	50	2.34	59,5
10677-20-16C	1-1/4	1-5/8x12	1	4.61	117,1	46	60	2.66	67,6
10677-20-20	1-1/4	1-5/8x12	1-1/4	4.86	123,5	46	50	2.59	65,8
10677-20-20C	1-1/4	1-5/8x12	1-1/4	4.92	125,0	46	60	2.65	67,3
10677-24-20	1-1/2	1-7/8x12	1-1/4	4.98	126,5	50	60	2.71	68,6
10677-24-24	1-1/2	1-7/8x12	1-1/2	5.34	135,7	50	60	2.95	75,0
10677-24-24C	1-1/2	1-7/8x12	1-1/2	5.55	140,9	50	65	3.16	80,3
10677-32-24	2	2-1/2x12	1-1/2	5.70	144,8	65	60	3.31	84,1
10677-32-32	2	2-1/2x12	2	6.29	159,8	65	75	3.54	89,9
10677-32-32C	2	2-1/2x12	2	6.29	159,8	65	75	3.54	89,9

All sizes of 10677 fittings are rated at 5,000 psi working pressure.

"C" suffix indicates stainless steel part. Some stainless steel parts are dimensionally different than the standard part.



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

13777

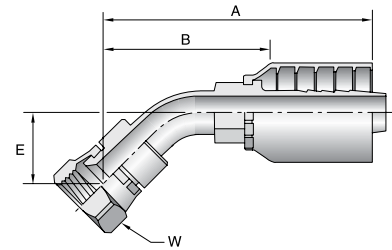
Female JIC 37° - Swivel - 45° Elbow - Short Drop

ISO 12151-5

#										
Part Number	Thread		Hose I.D.	A	E	W	B			
	inch		inch	inch	mm	inch	mm	mm	inch	mm
13777-8-8	1/2	3/4x16	1/2	2.86	72,7	0.59	15	22	1.64	41,8
13777-8-8C	1/2	3/4x16	1/2	2.86	72,7	0.59	15	22	1.64	41,8
13777-10-8	5/8	7/8x14	1/2	3.06	77,8	0.63	16	27	1.84	46,8
13777-10-10	5/8	7/8x14	5/8	3.40	86,3	0.63	16	27	2.05	52,1
13777-12-12	3/4	1-1/16x12	3/4	4.37	110,9	0.83	21	32	2.73	69,4
13777-12-12C	3/4	1-1/16x12	3/4	4.37	110,9	0.83	21	32	2.73	69,4
13777-16-12	1	1-5/16x12	3/4	4.49	114,0	0.94	24	41	2.85	72,5
13777-16-16	1	1-5/16x12	1	4.79	121,7	0.94	24	41	2.84	72,2
13777-20-20	1-1/4	1-5/8x12	1-1/4	6.42	163,1	1.26	32	50	4.15	105,4
13777-24-24	1-1/2	1-7/8x12	1-1/2	7.53	191,3	1.65	42	60	5.14	130,6
13777-24-24C	1-1/2	1-7/8x12	1-1/2	7.53	191,3	1.65	42	65	5.14	130,6
13777-32-32	2	2-1/2x12	2	8.58	218,0	2.20	56	75	5.83	148,1

All sizes of 13777 fittings are rated at 5,000 psi working pressure.

"C" suffix indicates stainless steel part. Some stainless steel parts are dimensionally different than the standard part.



13977

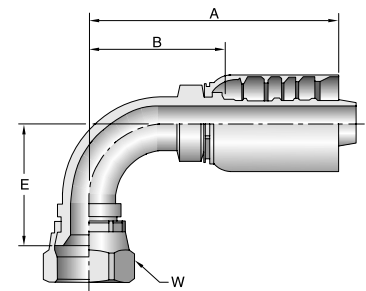
Female JIC 37° - Swivel - 90° Elbow - Short Drop

ISO 12151-5

#										
Part Number	Thread		Hose I.D.	A	E	W	B			
	inch		inch	inch	mm	inch	mm	mm	inch	mm
13977-8-8	1/2	3/4x16	1/2	2.78	70,7	1.14	29,0	22	1.56	39,7
13977-8-8C	1/2	3/4x16	1/2	2.78	70,7	1.14	29,0	22	1.56	39,7
13977-10-8	5/8	7/8x14	1/2	2.77	70,5	1.26	32,0	27	1.55	39,5
13977-10-10	5/8	7/8x14	5/8	3.21	81,5	1.26	32,0	27	1.86	47,3
13977-10-10C	5/8	7/8x14	5/8	3.21	81,5	1.26	32,0	27	1.86	47,3
13977-12-10	3/4	1-1/16x12	5/8	3.21	81,5	1.89	48,0	32	1.86	47,3
13977-12-12	3/4	1-1/16x12	3/4	4.23	107,4	1.89	48,0	32	2.60	66,0
13977-12-12C	3/4	1-1/16x12	3/4	4.23	107,4	1.89	48,0	32	2.60	66,0
13977-16-12	1	1-5/16x12	3/4	4.23	107,4	2.93	74,5	41	2.59	65,9
13977-16-16	1	1-5/16x12	1	4.72	119,9	2.93	74,4	41	2.77	70,4
13977-16-16C	1	1-5/16x12	1	4.72	119,9	2.93	74,4	46	2.77	70,4
13977-20-16	1-1/4	1-5/8x12	1	4.73	120,1	3.07	78,0	50	2.78	70,6
13977-20-20	1-1/4	1-5/8x12	1-1/4	6.28	159,5	3.07	78,0	50	4.01	101,8
13977-20-20C	1-1/4	1-5/8x12	1-1/4	6.28	159,5	3.07	78,0	60	4.01	101,8
13977-24-24	1-1/2	1-7/8x12	1-1/2	7.24	183,9	3.74	95,0	60	4.85	123,2
13977-24-24C	1-1/2	1-7/8x12	1-1/2	7.24	183,9	3.74	94,0	65	4.85	123,2

All sizes of 13977 fittings are rated at 5,000 psi working pressure.

"C" suffix indicates stainless steel part. Some stainless steel parts are dimensionally different than the standard part.



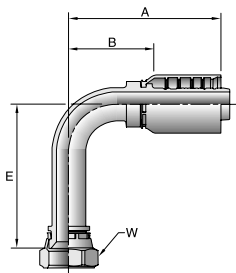
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

14177

Female JIC 37° - Swivel - 90° Elbow - Long Drop

ISO 12151-5

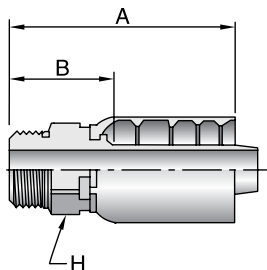


# Part Number	Thread inch		Hose I.D. inch	A inch mm		E inch mm		W mm	B inch mm		Additional Material Stainless Steel (C)
14177-8-8	1/2	3/4x16	1/2	2.78	70,7	2.52	64,0	22	1.56	39,7	●
14177-12-12	3/4	1-1/16x12	3/4	4.24	107,6	3.78	96,0	32	2.60	66,1	
14177-16-12	1	1-5/16x12	3/4	4.24	107,6	4.49	114,0	41	2.60	66,1	
14177-16-16	1	1-5/16x12	1	4.72	119,9	4.49	114,0	41	2.77	70,4	
14177-20-20C	1-1/4	1-5/8x12	1-1/4	6.37	161,8	5.21	132,3	60	4.10	104,1	

All sizes of 14177 fittings are rated at 5,000 psi working pressure.

10577

Male SAE Thread with O-Ring - Rigid - Straight



# Part Number	Thread inch		Hose I.D. inch	A inch mm		H mm	B inch mm		Additional Material Stainless Steel (C)
10577-8-8	1/2	3/4x16	1/2	2.39	60,8	22	1.17	29,8	●
10577-12-12	3/4	1-1/16x12	3/4	3.17	80,5	32	1.53	38,9	●
10577-16-12	1	1-5/16x12	3/4	3.38	85,8	36	1.74	44,3	●
10577-16-16	1	1-5/16x12	1	3.73	94,7	41	1.78	45,2	
10577-20-20	1-1/4	1-5/8x12	1-1/4	4.17	105,9	50	1.90	48,2	
10577-24-24	1-1/2	1-7/8x12	1-1/2	4.76	120,9	60	2.37	60,2	
10577-32-20	2	2-1/2x12	1-1/4	4.35	110,5	2-3/4	2.08	52,8	






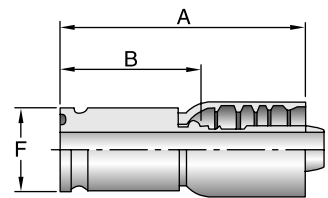
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1X577




Full Flange - Straight - Code 61/62

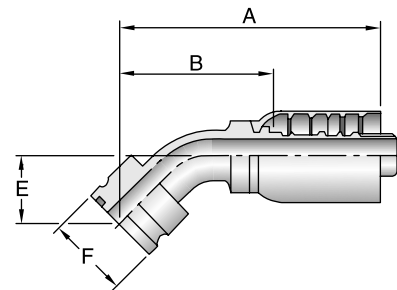
#			A			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	inch	mm
1X577-8-8	1/2	1/2	2.44	62,1	1.02	1.22	31,1
1X577-12-12	3/4	3/4	4.06	103,0	1.37	2.42	61,6
1X577-16-12	1	3/4	4.06	103,0	1.54	2.42	61,6
1X577-16-16	1	1	4.45	113,0	1.54	2.50	63,5
1X577-16-20	1	1-1/4	4.73	120,2	1.54	2.46	62,5
1X577-20-16	1-1/4	1	4.45	113,0	1.81	2.50	63,5
1X577-20-20	1-1/4	1-1/4	4.73	120,2	1.81	2.46	62,5
1X577-24-20	1-1/2	1-1/4	4.85	123,2	2.21	2.58	65,5
1X577-24-24	1-1/2	1-1/2	5.07	128,8	2.21	2.68	68,1
1X577-32-24	2	1-1/2	5.47	138,9	2.60	3.08	78,3
1X577-32-32	2	2	6.08	154,4	2.60	3.32	84,3



1X777




Full Flange - 45° Elbow - Code 61/62

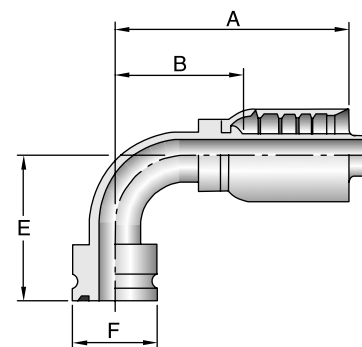
#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
1X777-12-12	3/4	3/4	4.67	118,5	1.12	28,5	1.37	3.03	77,0
1X777-16-12	1	3/4	4.66	118,3	1.12	28,5	1.54	3.02	76,8
1X777-16-16	1	1	5.11	129,8	1.26	32,0	1.54	3.16	80,3
1X777-16-20	1	1-1/4	6.06	153,9	1.50	38,0	1.54	3.79	96,2
1X777-20-16	1-1/4	1	5.35	135,9	1.50	38,0	1.81	3.40	86,4
1X777-20-20	1-1/4	1-1/4	6.73	171,0	1.58	40,0	1.81	4.46	113,3
1X777-24-20	1-1/2	1-1/4	6.89	175,0	1.73	44,0	2.21	4.62	117,3
1X777-24-24	1-1/2	1-1/2	7.85	199,4	1.97	50,0	2.21	5.46	138,7



1X977

Full Flange - 90° Elbow - Code 61/62

#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
1X977-8-8	1/2	1/2	3.14	79,8	1.69	43,0	1.02	1.92	48,9
1X977-12-12	3/4	3/4	4.24	107,6	2.38	60,5	1.37	2.60	66,1
1X977-12-16	3/4	1	4.33	109,9	2.76	70,0	1.37	2.38	60,5
1X977-16-12	1	3/4	4.24	107,6	2.38	60,5	1.54	2.60	66,1
1X977-16-16	1	1	4.73	120,1	2.76	70,0	1.54	2.78	70,6
1X977-16-20	1	1-1/4	5.44	138,2	3.54	90,0	1.54	3.17	80,5
1X977-20-16	1-1/4	1	4.73	120,1	2.76	70,0	1.81	2.78	70,6
1X977-20-20	1-1/4	1-1/4	6.28	159,5	3.54	90,0	1.81	4.01	101,8
1X977-24-20	1-1/2	1-1/4	6.28	159,5	3.54	90,0	2.21	4.01	101,8
1X977-24-24	1-1/2	1-1/2	7.24	183,9	4.09	104,0	2.21	4.85	123,2
1X977-32-32	2	2	8.75	222,1	5.43	138,0	2.60	5.99	152,2



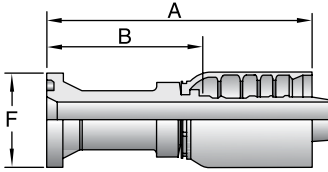
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

11577

SAE Code 61 Flange Head - Straight

ISO 12151-3-S-L

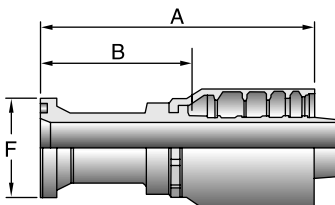


#	Flange	Hose I.D.	A		F	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	inch	inch	mm	
11577-8-8	1/2	1/2	3.52	89,6	1-3/16	2.30	58,6	•
11577-10-10	5/8	5/8	3.90	99,0	1-11/32	2.55	64,8	
11577-12-8	3/4	1/2	2.52	64,0	1-1/2	1.30	33,0	
11577-12-10	3/4	5/8	2.95	74,9	1-1/2	1.60	40,7	
11577-12-12	3/4	3/4	4.23	107,4	1-1/2	2.59	65,9	•
11577-12-16	3/4	1	4.70	119,4	1-1/2	2.75	69,8	
11577-16-12	1	3/4	3.27	82,9	1-3/4	1.63	41,5	
11577-16-16	1	1	4.70	119,4	1-3/4	2.75	69,9	•
11577-16-20	1	1-1/4	5.11	129,8	1-3/4	2.84	72,1	
11577-20-12	1-1/4	3/4	3.66	92,9	2	2.31	58,6	
11577-20-16	1-1/4	1	3.54	89,9	2	1.59	40,4	
11577-20-20	1-1/4	1-1/4	5.42	137,7	2	3.15	80,0	•
11577-20-24	1-1/4	1-1/2	5.76	146,3	2	3.37	85,6	
11577-24-16	1-1/2	1	3.78	96,0	2-3/8	1.83	46,5	
11577-24-20	1-1/2	1-1/4	3.94	100,1	2-3/8	1.67	42,4	
11577-24-24	1-1/2	1-1/2	5.52	140,2	2-3/8	3.13	79,5	•
11577-24-32	1-1/2	2	6.42	162,9	2-3/8	3.66	93,0	
11577-32-24	2	1-1/2	4.59	116,6	2-13/16	2.20	55,9	•
11577-32-32	2	2	6.43	163,2	2-13/16	3.67	93,2	•
11577-40-32	2-1/2	2	5.28	133,9	3-5/16	2.52	64,0	

14A77

SAE Code 61 Special Flange Head - Straight - 5,000 psi

ISO 12151-3-S-L



#	Flange	Hose I.D.	A		F	B	
Part Number	inch	inch	inch	mm	inch	inch	mm
14A77-20-12	1-1/4	3/4	3.66	92,9	2	2.02	51,4
14A77-20-16	1-1/4	1	3.54	89,9	2	1.59	40,4
14A77-20-20	1-1/4	1-1/4	5.42	137,7	2	3.15	80,0
14A77-20-24	1-1/4	1-1/2	5.76	146,3	2	3.37	85,6
14A77-24-16	1-1/2	1	3.78	96,0	2-3/8	1.83	46,5
14A77-24-20	1-1/2	1-1/4	3.94	100,1	2-3/8	1.67	42,4
14A77-24-24	1-1/2	1-1/2	5.52	140,2	2-3/8	3.13	79,6
14A77-24-32	1-1/2	2	6.42	162,9	2-3/8	3.66	93,0
14A77-32-24	2	1-1/2	4.59	116,6	2-13/16	2.20	55,9
14A77-32-32	2	2	6.43	163,3	2-13/16	3.67	93,2

Must be used with 5050HK Flange Kits



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

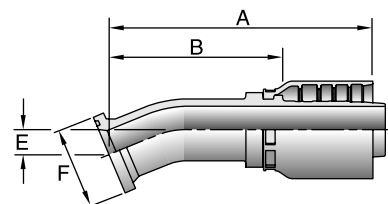
See Accessories Section for O-Rings and Flange Kits.

11677

SAE Code 61 Flange Head - 22-1/2° Elbow

ISO 12151-3-E22M-L

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
11677-12-12	3/4	3/4	4.84	122,9	0.43	11,0	1-1/2	3.20	81,4
11677-16-12	1	3/4	4.84	122,9	0.43	11,0	1-3/4	3.20	81,4
11677-16-16	1	1	5.44	138,2	0.55	14,0	1-3/4	3.49	88,7
11677-20-16	1-1/4	1	5.44	138,2	0.55	14,0	2	3.49	88,7
11677-20-20	1-1/4	1-1/4	7.05	179,1	0.59	15,0	2	4.78	121,4
11677-24-20	1-1/2	1-1/4	7.05	179,1	0.59	15,0	2-3/8	4.78	121,4
11677-24-24	1-1/2	1-1/2	8.01	203,5	0.71	18,0	2-3/8	5.62	142,8
11677-32-24	2	1-1/2	8.01	203,5	0.71	18,0	2-13/16	5.62	142,8
11677-32-32	2	2	9.12	231,7	0.87	22,0	2-13/16	6.37	161,7



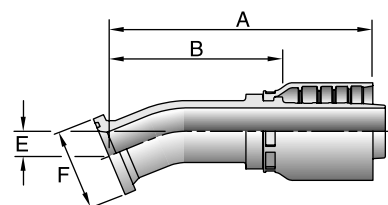
14B77

SAE Code 61 Special Flange Head - 22-1/2° Elbow - 5,000 psi

ISO 12151-3-E22M-L

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
14B77-20-20	1-1/4	1-1/4	7.05	179,1	0.59	15,0	2	4.78	121,4
14B77-24-24	1-1/2	1-1/2	8.01	203,5	0.71	18,0	2-3/8	5.62	142,8
14B77-32-32	2	2	9.12	231,7	0.87	22,0	2-13/16	6.37	161,7

Must be used with 5050HK Flange Kits

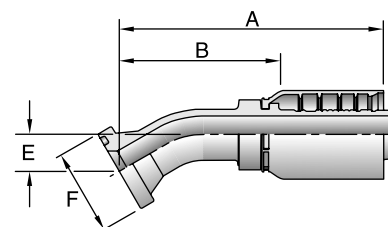


12677

SAE Code 61 Flange Head - 30° Elbow

ISO 12151-3-E30M-L

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
12677-12-12	3/4	3/4	4.77	121,1	0.63	16,0	1-1/2	3.13	79,6
12677-16-12	1	3/4	4.77	121,1	0.63	16,0	1-3/4	3.13	79,6
12677-16-16	1	1	5.36	136,1	0.75	19,0	1-3/4	3.41	86,6
12677-20-16	1-1/4	1	5.37	136,4	0.75	19,0	2	3.42	86,9
12677-20-20	1-1/4	1-1/4	6.94	176,3	0.87	22,0	2	4.67	118,6
12677-24-24	1-1/2	1-1/2	7.90	200,7	1.18	30,0	2-3/8	5.51	140,0
12677-32-24	2	1-1/2	7.90	200,7	1.18	30,0	2-13/16	5.51	140,0
12677-32-32	2	2	9.01	228,9	1.26	32,0	2-13/16	6.26	159,0

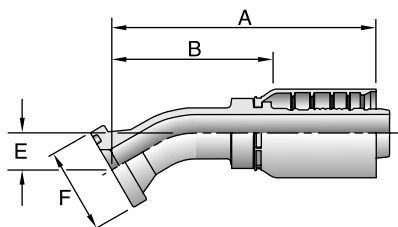





Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

14E77

SAE Code 61 Special Flange Head - 30° Elbow - 5,000 psi
ISO 12151-3-E30S-L

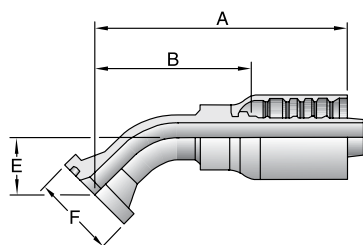





#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
14E77-24-24	1-1/2	1-1/2	7.90	200,7	1.18	30	2-3/8	5.51	140,0
14E77-32-32	2	2	9.01	228,9	1.26	32	2-13/16	6.26	159,0

Must be used with 5050HK Flange Kits

11777

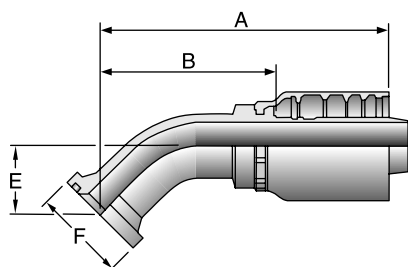
SAE Code 61 Flange Head - 45° Elbow
ISO 12151-3-E45M-L






#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
11777-8-8	1/2	1/2	3.11	79,0	0.79	20,0	1-3/16	1.89	48,0
11777-12-8	3/4	1/2	3.33	84,7	0.87	22,0	1-1/2	2.11	53,7
11777-12-10	3/4	5/8	3.77	95,7	1.00	25,5	1-1/2	2.42	61,5
11777-12-12	3/4	3/4	4.57	116,0	1.02	26,0	1-1/2	2.93	74,5
11777-12-16	3/4	1	4.98	126,5	1.26	32,0	1-1/2	3.03	76,9
11777-16-12	1	3/4	4.57	116,0	1.02	26,0	1-3/4	2.93	74,5
11777-16-16	1	1	5.11	129,8	1.26	32,0	1-3/4	3.16	80,3
11777-16-20	1	1-1/4	6.47	164,4	1.50	38,0	1-3/4	4.20	106,8
11777-20-16	1-1/4	1	5.11	129,8	1.26	32,0	2	3.16	80,3
11777-20-20	1-1/4	1-1/4	6.66	169,2	1.50	38,0	2	4.39	111,5
11777-24-20	1-1/2	1-1/4	6.66	169,2	1.50	38,0	2-3/8	4.39	111,5
11777-24-24	1-1/2	1-1/2	7.61	193,3	1.73	44,0	2-3/8	5.22	132,6
11777-32-24	2	1-1/2	7.61	193,3	1.73	44,0	2-13/16	5.22	132,6
11777-32-32	2	2	8.58	218,0	2.20	56,0	2-13/16	5.83	148,1

14F77

SAE Code 61 Special Flange Head - 45° - 5,000 psi
ISO 12151-3-E45M-L



#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
14F77-20-16	1-1/4	1	5.11	129,8	1.26	32,0	2	3.16	80,3
14F77-20-20	1-1/4	1-1/4	6.66	169,2	1.50	38,0	2	4.39	111,5
14F77-20-24	1-1/4	1-1/2	7.31	185,7	1.73	44,0	2	4.92	125,0
14F77-24-20	1-1/2	1-1/4	6.66	169,2	1.50	38,0	2-3/8	4.39	111,5
14F77-24-24	1-1/2	1-1/2	7.61	193,3	1.73	44,0	2-3/8	5.22	132,6
14F77-24-32	1-1/2	2	8.49	215,5	2.20	56,0	2-3/8	5.73	145,6
14F77-32-24	2	1-1/2	7.61	193,3	1.73	44,0	2-13/16	5.22	132,6
14F77-32-32	2	2	8.58	218,0	2.20	56,0	2-13/16	5.83	148,1

Must be used with 5050HK Flange Kits



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

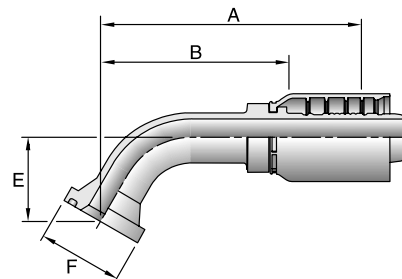
See Accessories Section for O-Rings and Flange Kits.

12777

SAE Code 61 Flange Head - 60° Elbow

ISO 12151-3-E60M-L

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
12777-12-12	3/4	3/4	5.27	133,8	1.46	37,0	1-1/2	3.63	92,3
12777-16-12	1	3/4	5.27	133,8	1.46	37,0	1-3/4	3.63	92,3
12777-16-16	1	1	5.96	151,4	1.73	44,0	1-3/4	4.01	101,9
12777-20-20	1-1/4	1-1/4	7.89	200,4	2.17	55,0	2	5.62	142,7
12777-24-20	1-1/2	1-1/4	7.89	200,4	2.17	55,0	2-3/8	5.62	142,7
12777-24-24	1-1/2	1-1/2	8.06	204,7	2.52	64,0	2-3/8	5.67	144,0
12777-32-32	2	2	8.74	222,1	3.27	83,0	2-13/16	5.99	152,1



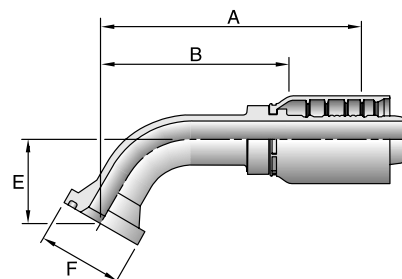
14G77

SAE Code 61 Special Flange Head - 60° Elbow - 5,000 psi

ISO 12151-3-E60M-L

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
14G77-20-16	1-1/4	1	5.97	151,6	1.73	44,0	2	4.02	102,1
14G77-20-20	1-1/4	1-1/4	7.89	200,4	2.17	55,0	2	5.62	142,7
14G77-24-24	1-1/2	1-1/2	8.06	204,7	2.52	64,0	2-3/8	5.67	144,0
14G77-32-24	2	1-1/2	8.06	204,7	2.52	64,0	2-13/16	5.67	144,0
14G77-32-32	2	2	8.74	222,1	3.27	83,0	2-13/16	5.99	152,1

Must be used with 5050HK Flange Kits

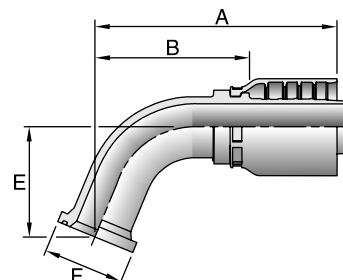


11877

SAE Code 61 Flange Head - 67-1/2° Elbow

ISO 12151-3-E67M-L

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
11877-8-8	1/2	1/2	3.76	95,6	1.18	30	1-3/16	2.54	64,6
11877-12-12	3/4	3/4	5.07	128,7	1.65	42	1-1/2	3.43	87,2
11877-16-12	1	3/4	5.07	128,7	1.65	42	1-3/4	3.43	87,2
11877-16-16	1	1	5.68	144,3	2.05	52	1-3/4	3.73	94,8
11877-20-20	1-1/4	1-1/4	7.58	192,6	2.52	64	2	5.31	134,8
11877-24-20	1-1/2	1-1/4	7.58	192,6	2.52	64	2-3/8	5.31	134,8
11877-24-24	1-1/2	1-1/2	7.74	196,6	2.91	74	2-3/8	5.35	135,9
11877-32-24	2	1-1/2	7.74	196,6	2.91	74	2-13/16	5.35	135,9
11877-32-32	2	2	8.72	221,4	3.82	97	2-13/16	5.97	151,5

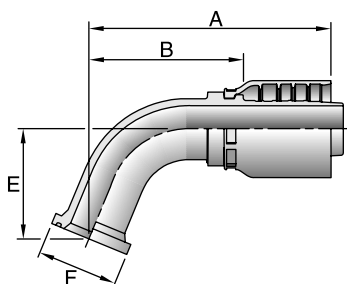





Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

14M77

SAE Code 61 Special Flange Head - 67-1/2° Elbow - 5,000 psi



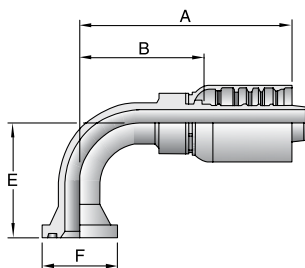
#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
14M77-24-24	1-1/2	1-1/2	7.73	196,3	2.91	74,0	2-3/8	5.34	135,7
14M77-32-32	2	2	8.72	221,4	3.82	97,0	2-13/16	5.97	151,5




Must be used with 5050HK Flange Kits

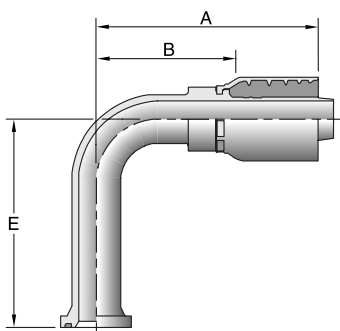
11977

SAE Code 61 Flange Head - 90° Elbow

ISO 12151-3-E90M-L






#			A		E			B		Additional Material Stainless Steel (C)
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm	
11977-8-8	1/2	1/2	2.99	76,0	1.61	41,0	1-3/16	1.77	45,0	•
11977-10-10	5/8	5/8	3.62	91,9	2.09	53,0	1-11/32	2.27	57,7	
11977-12-8	3/4	1/2	2.77	70,5	1.61	41,0	1-1/2	1.55	39,5	
11977-12-10	3/4	5/8	3.40	86,3	2.09	53,0	1-1/2	2.05	52,1	
11977-12-12	3/4	3/4	4.24	107,6	2.28	58,0	1-1/2	2.60	66,1	•
11977-12-16	3/4	1	4.41	112,0	2.76	70,0	1-1/2	2.46	62,5	
11977-16-10	1	5/8	3.21	81,5	2.09	53,0	1-3/4	1.86	47,3	
11977-16-12	1	3/4	4.24	107,6	2.28	58,0	1-3/4	2.60	66,1	•
11977-16-16	1	1	4.72	119,9	2.76	70,0	1-3/4	2.77	70,4	•
11977-16-20	1	1-1/4	5.44	138,2	3.54	90,0	1-3/4	3.17	80,5	
11977-20-12	1-1/4	3/4	4.23	107,4	2.28	58,0	2	2.59	65,9	
11977-20-16	1-1/4	1	4.72	119,9	2.76	70,0	2	2.77	70,4	
11977-20-20	1-1/4	1-1/4	6.28	159,5	3.54	90,0	2	4.00	101,8	•
11977-20-24	1-1/4	1-1/2	6.69	169,9	4.09	104,0	2	4.30	109,2	
11977-24-16	1-1/2	1	4.72	119,9	2.76	70,0	2-3/8	2.77	70,4	
11977-24-20	1-1/2	1-1/4	6.28	159,5	3.54	90,0	2-3/8	4.00	101,8	
11977-24-24	1-1/2	1-1/2	7.24	183,9	4.09	104,0	2-3/8	4.85	123,2	•
11977-32-24	2	1-1/2	7.24	183,9	4.09	104,0	2-13/16	4.85	123,2	
11977-32-32	2	2	8.75	222,1	5.43	138,0	2-13/16	5.99	152,2	•



18977

SAE Code 61 Flange Head - 90° Elbow - Long Drop

#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
18977-12-12	3/4	3/4	4.23	107,4	5.12	130,0	1-1/2	2.59	65,9
18977-16-16	1	1	4.72	119,9	4.60	116,8	1-3/4	2.77	70,4
18977-20-16	1-1/4	1	4.72	119,9	5.51	140,0	2	2.77	70,4



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

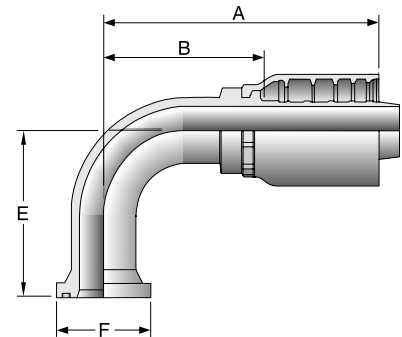
14N77

SAE Code 61 Special Flange Head - 90° Elbow - 5,000 psi

ISO 12151-3-E90M-L

#	Flange	Hose I.D.	A		E		F	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm	
14N77-20-16	1-1/4	1	4.72	119,9	2.76	70,0	2	2.77	70,3	
14N77-20-20	1-1/4	1-1/4	6.28	159,5	3.54	90,0	2	4.00	101,8	•
14N77-20-24	1-1/4	1-1/2	6.69	169,9	4.09	104,0	2	4.30	109,2	
14N77-24-20	1-1/2	1-1/4	6.28	159,5	3.54	90,0	2-3/8	4.00	101,8	
14N77-24-24	1-1/2	1-1/2	7.24	183,9	4.09	104,0	2-3/8	4.85	123,2	•
14N77-24-32	1-1/2	2	7.65	194,2	5.43	138,0	2-3/8	4.89	124,2	
14N77-32-24	2	1-1/2	7.24	183,9	4.09	104,0	2-13/16	4.85	123,2	
14N77-32-32	2	2	8.75	222,1	5.43	138,0	2-13/16	5.99	152,2	

Must be used with 5050HK Flange Kits

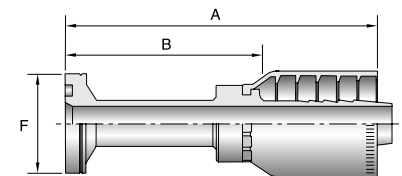


16A77

SAE Code 62 Flange Head - Straight

ISO 12151-3-S-S

#	Flange	Hose I.D.	A		F	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	inch	inch	mm	
16A77-8-8	1/2	1/2	3.51	89,3	1-1/4	2.29	58,3	
16A77-8-10	1/2	5/8	3.83	97,3	1-1/4	2.48	63,0	
16A77-12-10	3/4	5/8	2.95	74,9	1-5/8	1.60	40,7	
16A77-12-12	3/4	3/4	4.49	113,9	1-5/8	2.85	72,5	•
16A77-12-16	3/4	1	4.96	126,0	1-5/8	3.01	76,5	
16A77-16-12	1	3/4	3.47	88,1	1-7/8	1.83	46,6	
16A77-16-16	1	1	4.45	113,0	1-7/8	2.50	63,5	•
16A77-16-20	1	1-1/4	5.66	143,8	1-7/8	3.39	86,1	
16A77-20-16	1-1/4	1	4.05	102,9	2-1/8	2.10	53,4	•
16A77-20-20	1-1/4	1-1/4	5.73	145,6	2-1/8	3.46	87,8	•
16A77-20-24	1-1/4	1-1/2	6.06	153,9	2-1/8	3.67	93,2	
16A77-24-16	1-1/2	1	4.25	108,0	2-1/2	2.30	58,4	
16A77-24-20	1-1/2	1-1/4	4.65	118,1	2-1/2	2.38	60,4	•
16A77-24-24	1-1/2	1-1/2	6.39	162,3	2-1/2	4.00	101,6	•
16A77-32-24	2	1-1/2	5.23	132,8	3-1/8	2.84	72,2	
16A77-32-32	2	2	7.17	182,1	3-1/8	4.41	112,0	•



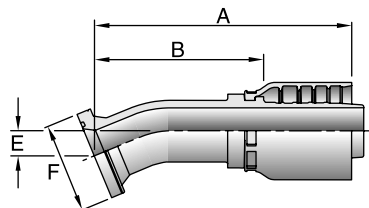
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

16B77

SAE Code 62 Flange Head - 22-1/2° Elbow

ISO 12151-3-E22M-S

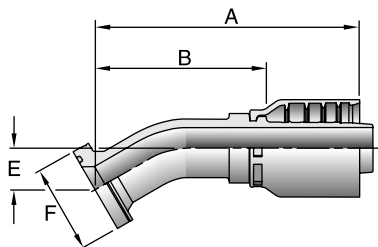


# Part Number	Flange inch	Hose I.D. inch	A		E		F	B	
			inch	mm	inch	mm	inch	inch	mm
16B77-12-12	3/4	3/4	4.84	122,9	0.43	11,0	1-5/8	3.20	81,4
16B77-16-12	1	3/4	4.85	123,1	0.43	11,0	1-7/8	3.21	81,6
16B77-16-16	1	1	5.44	138,2	0.55	14,0	1-7/8	3.49	88,7
16B77-20-16	1-1/4	1	5.44	138,2	0.55	14,0	2-1/8	3.49	88,7
16B77-20-20	1-1/4	1-1/4	7.05	179,1	0.59	15,0	2-1/8	4.78	121,4
16B77-24-20	1-1/2	1-1/4	7.05	179,1	0.59	15,0	2-1/2	4.78	121,4
16B77-24-24	1-1/2	1-1/2	8.01	203,5	0.71	18,0	2-1/2	5.62	142,8
16B77-32-32	2	2	9.12	231,7	0.87	22,0	3-1/8	6.37	161,7

16E77

SAE Code 62 Flange Head - 30° Elbow

ISO 12151-3-E30M-S



# Part Number	Flange inch	Hose I.D. inch	A		E		F	B	
			inch	mm	inch	mm	inch	inch	mm
16E77-12-12	3/4	3/4	4.77	121,1	0.63	16,0	1-5/8	3.13	79,6
16E77-16-12	1	3/4	4.64	117,8	0.63	16,0	1-7/8	3.00	76,3
16E77-16-16	1	1	5.36	136,1	0.75	19,0	1-7/8	3.41	86,6
16E77-20-16	1-1/4	1	5.36	136,1	0.75	19,0	2-1/8	3.41	86,6
16E77-20-20	1-1/4	1-1/4	6.94	176,3	0.87	22,0	2-1/8	4.67	118,6
16E77-24-20	1-1/2	1-1/4	6.94	176,3	0.87	22,0	2-1/2	4.67	118,6
16E77-24-24	1-1/2	1-1/2	7.90	200,7	1.18	30,0	2-1/2	5.51	140,0
16E77-32-24	2	1-1/2	7.90	200,7	1.18	30,0	3-1/8	5.51	140,0
16E77-32-32	2	2	9.01	228,9	1.26	32,0	3-1/8	6.26	159,0



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

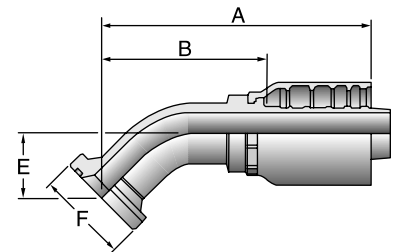
See Accessories Section for O-Rings and Flange Kits.

16F77

SAE Code 62 Flange Head - 45° Elbow

ISO 12151-3-E45M-S

#	Flange	Hose I.D.	A		E		F	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm	
16F77-8-8	1/2	1/2	3.11	79,0	0.75	19,0	1-1/4	1.89	48,0	
16F77-12-8	3/4	1/2	3.30	83,9	1.02	26,0	1-5/8	2.08	52,9	
16F77-12-10	3/4	5/8	3.77	95,7	1.00	25,5	1-5/8	2.42	61,5	
16F77-12-12	3/4	3/4	4.57	116,0	1.02	26,0	1-5/8	2.93	74,5	
16F77-12-16	3/4	1	4.98	126,5	1.26	32,0	1-5/8	3.03	77,0	
16F77-16-12	1	3/4	4.57	116,0	1.02	26,0	1-7/8	2.93	74,5	
16F77-16-16	1	1	5.11	129,8	1.26	32,0	1-7/8	3.16	80,3	•
16F77-16-20	1	1-1/4	6.06	153,9	1.50	38,0	1-7/8	3.79	96,2	•
16F77-20-16	1-1/4	1	5.11	129,8	1.26	32,0	2-1/8	3.16	80,3	•
16F77-20-20	1-1/4	1-1/4	6.66	169,2	1.50	38,0	2-1/8	4.39	111,5	•
16F77-20-24	1-1/4	1-1/2	7.31	185,7	1.73	44,0	2-1/8	4.92	125,0	•
16F77-24-20	1-1/2	1-1/4	6.66	169,2	1.50	38,0	2-1/2	4.39	111,5	•
16F77-24-24	1-1/2	1-1/2	7.61	193,3	1.73	44,0	2-1/2	5.22	132,6	•
16F77-32-24	2	1-1/2	7.61	193,3	1.73	44,0	3-1/8	5.22	132,6	•
16F77-32-32	2	2	8.58	218,0	2.20	56,0	3-1/8	5.83	148,1	•

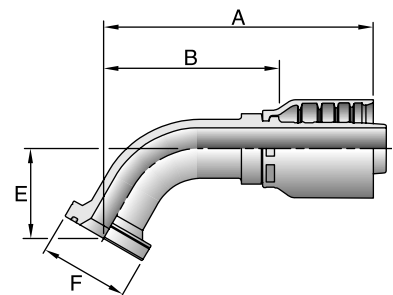


16G77

SAE Code 62 Flange Head - 60° Elbow

ISO 12151-3-E60M-S

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
16G77-12-12	3/4	3/4	5.27	133,8	1.46	37,0	1-5/8	3.63	92,3
16G77-16-12	1	3/4	5.27	133,8	1.46	37,0	1-7/8	3.63	92,3
16G77-16-16	1	1	5.96	151,4	1.73	44,0	1-7/8	4.01	101,9
16G77-20-16	1-1/4	1	6.07	154,2	1.73	44,0	2-1/8	4.12	104,7
16G77-20-20	1-1/4	1-1/4	7.89	200,4	2.17	55,0	2-1/8	5.62	142,7
16G77-24-20	1-1/2	1-1/4	7.89	200,4	2.17	55,0	2-1/2	5.62	142,7
16G77-24-24	1-1/2	1-1/2	8.06	204,7	2.52	64,0	2-1/2	5.67	144,0
16G77-32-32	2	2	8.74	222,1	3.27	83,0	3-1/8	5.99	152,1



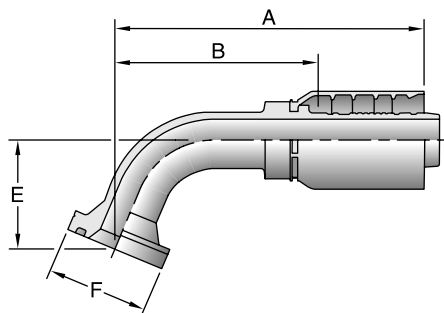
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

16M77

SAE Code 62 Flange Head - 67-1/2° Elbow

ISO 12151-3-E67M-S

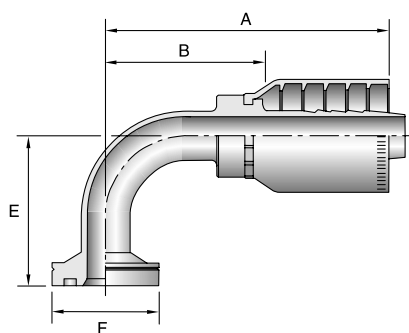


#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
16M77-16-16	1	1	5.70	144,8	2.01	51	1-7/8	3.75	95,3

16N77

SAE Code 62 Flange Head - 90° Elbow

ISO 12151-3 - E90M - S



#	Flange	Hose I.D.	A		E		F	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm	
16N77-8-8	1/2	1/2	2.77	70,5	1.61	41,0	1-1/4	1.55	39,5	●
16N77-8-10	1/2	5/8	3.09	78,5	2.13	54,0	1-1/4	1.74	44,2	
16N77-12-10	3/4	5/8	3.62	91,8	2.13	54,0	1-5/8	2.27	57,6	
16N77-12-12	3/4	3/4	4.24	107,6	2.28	58,0	1-5/8	2.60	66,1	●
16N77-12-16	3/4	1	4.41	112,0	2.76	70,0	1-5/8	2.46	62,5	
16N77-16-12	1	3/4	4.24	107,6	2.28	58,0	1-7/8	2.60	66,1	
16N77-16-16	1	1	4.72	119,9	2.76	70,0	1-7/8	2.77	70,4	●
16N77-16-20	1	1-1/4	5.44	138,2	3.54	90,0	1-7/8	3.17	80,5	●
16N77-20-16	1-1/4	1	4.83	122,7	2.76	70,0	2-1/8	2.88	73,2	
16N77-20-20	1-1/4	1-1/4	6.28	159,5	3.54	90,0	2-1/8	4.00	101,8	●
16N77-20-24	1-1/4	1-1/2	6.69	169,9	4.09	104,0	2-1/8	4.30	109,2	
16N77-24-20	1-1/2	1-1/4	6.28	159,5	3.54	90,0	2-1/2	4.00	101,8	●
16N77-24-24	1-1/2	1-1/2	7.24	183,9	4.09	104,0	2-1/2	4.85	123,2	●
16N77-24-32	1-1/2	2	7.65	194,2	5.43	138,0	2-1/2	4.89	124,2	
16N77-32-24	2	1-1/2	7.24	183,9	4.09	104,0	3-1/8	4.85	123,2	
16N77-32-32	2	2	8.75	222,1	5.43	138,0	3-1/8	5.99	152,2	●



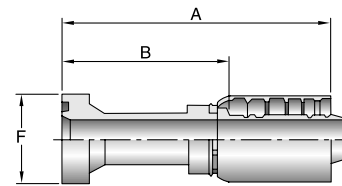
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1XA77

Caterpillar® Flange Head - Straight

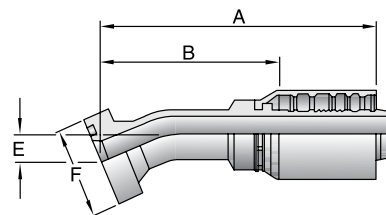
#	Flange	Hose I.D.	A		F	B	
Part Number	inch	inch	inch	mm	inch	inch	mm
1XA77-12-12	3/4	3/4	4.48	113,7	1-5/8	2.84	72,2
1XA77-12-16	3/4	1	4.96	126,0	1-5/8	3.01	76,5
1XA77-16-12	1	3/4	3.47	88,1	1-7/8	1.83	46,6
1XA77-16-16	1	1	5.54	140,7	1-7/8	3.59	91,2
1XA77-16-20	1	1-1/4	5.66	143,8	1-7/8	3.39	86,1
1XA77-20-16	1-1/4	1	4.10	104,1	2-1/8	2.15	54,6
1XA77-20-20	1-1/4	1-1/4	5.98	151,9	2-1/8	3.71	94,2
1XA77-20-24	1-1/4	1-1/2	6.32	160,5	2-1/8	3.93	99,8
1XA77-24-20	1-1/2	1-1/4	4.65	118,1	2-1/2	2.38	60,4
1XA77-24-24	1-1/2	1-1/2	6.94	176,3	2-1/2	4.55	115,6
1XA77-32-24	2	1-1/2	5.24	133,1	3-1/8	2.85	72,4
1XA77-32-32	2	2	7.56	191,9	3-1/8	4.80	121,9



1XB77

Caterpillar® Flange Head - 22-1/2° Elbow

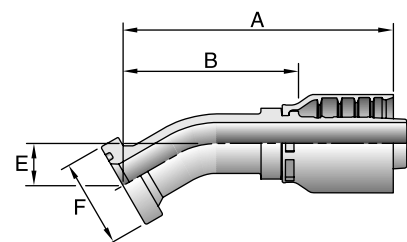
#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1XB77-12-12	3/4	3/4	5.09	129,2	0.55	14,0	1-5/8	3.45	87,7
1XB77-16-12	1	3/4	5.09	129,2	0.55	14,0	1-7/8	3.45	87,7
1XB77-16-16	1	1	5.66	143,8	0.55	14,0	1-7/8	3.71	94,2
1XB77-20-16	1-1/4	1	5.66	143,8	0.55	14,0	2-1/8	3.71	94,2
1XB77-20-20	1-1/4	1-1/4	6.97	177,1	0.67	17,0	2-1/8	4.70	119,4
1XB77-24-20	1-1/2	1-1/4	6.97	177,1	0.67	17,0	2-1/2	4.70	119,4
1XB77-24-24	1-1/2	1-1/2	8.07	205,0	0.71	18,0	2-1/2	5.68	144,3
1XB77-32-32	2	2	9.12	231,7	0.87	22,0	3-1/8	6.37	161,7



1XE77

Caterpillar® Flange Head - 30° Elbow

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1XE77-12-12	3/4	3/4	5.00	126,9	0.83	21,0	1-5/8	3.36	85,4
1XE77-16-12	1	3/4	5.02	127,4	0.75	19,0	1-7/8	3.38	86,0
1XE77-16-16	1	1	5.59	142,0	0.75	19,0	1-7/8	3.64	92,5
1XE77-20-16	1-1/4	1	5.55	141,0	0.87	22,0	2-1/8	3.60	91,5
1XE77-20-20	1-1/4	1-1/4	6.86	174,3	0.94	24,0	2-1/8	4.59	116,6
1XE77-24-20	1-1/2	1-1/4	6.86	174,3	0.94	24,0	2-1/2	4.59	116,6
1XE77-24-24	1-1/2	1-1/2	7.95	201,9	1.18	30,0	2-1/2	5.56	141,2
1XE77-32-32	2	2	9.01	228,9	1.26	32,0	3-1/8	6.26	159,0

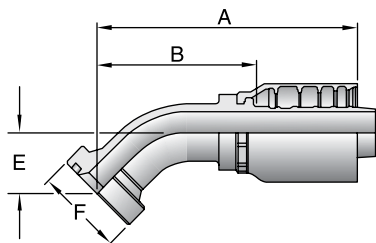


Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1XF77

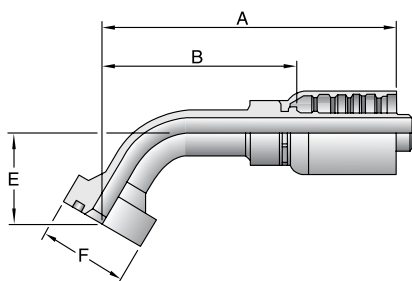
Caterpillar® Flange Head - 45° Elbow



#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1XF77-12-12	3/4	3/4	4.76	120,8	1.22	31,0	1-5/8	3.12	79,3
1XF77-16-12	1	3/4	4.76	120,8	1.22	31,0	1-7/8	3.12	79,3
1XF77-16-16	1	1	5.26	133,6	1.42	36,0	1-7/8	3.31	84,1
1XF77-20-16	1-1/4	1	5.26	133,6	1.42	36,0	2-1/8	3.31	84,1
1XF77-20-20	1-1/4	1-1/4	6.62	168,2	1.46	37,0	2-1/8	4.35	110,5
1XF77-24-20	1-1/2	1-1/4	6.62	168,2	1.46	37,0	2-1/2	4.35	110,5
1XF77-24-24	1-1/2	1-1/2	7.65	194,3	1.77	45,0	2-1/2	5.26	133,6
1XF77-32-32	2	2	8.58	218,0	2.20	56,0	3-1/8	5.83	148,1

1XG77

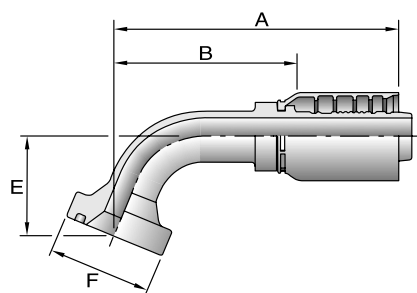
Caterpillar® Flange Head - 60° Elbow



#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1XG77-12-12	3/4	3/4	5.35	135,8	1.65	42,0	1-5/8	3.71	94,3
1XG77-16-12	1	3/4	5.35	135,8	1.65	42,0	1-7/8	3.71	94,3
1XG77-16-16	1	1	5.98	151,9	1.97	50,0	1-7/8	4.03	102,4
1XG77-20-16	1-1/4	1	6.12	155,4	1.73	44,0	2-1/8	4.17	105,9
1XG77-20-20	1-1/4	1-1/4	8.14	206,8	2.01	51,0	2-1/8	5.87	149,1
1XG77-24-20	1-1/2	1-1/4	7.47	189,8	2.01	51,0	2-1/2	5.20	132,1
1XG77-24-24	1-1/2	1-1/2	8.04	204,2	2.56	65,0	2-1/2	5.65	143,5
1XG77-32-32	2	2	8.74	222,1	3.27	83,0	3-1/8	5.99	152,1

1XM77

Caterpillar® Flange - 67-1/2° Elbow



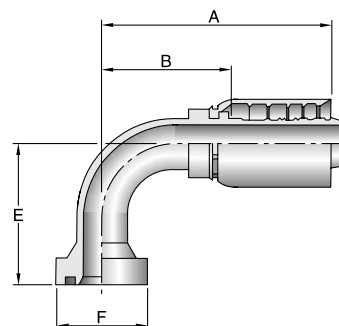
#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1XM77-12-12	3/4	3/4	5.17	131,2	1.77	45,0	1-5/8	3.53	89,8
1XM77-16-12	1	3/4	5.19	131,8	1.77	45,0	1-7/8	3.55	90,3
1XM77-16-16	1	1	5.84	148,3	2.05	52,0	1-7/8	3.89	98,8
1XM77-20-16	1-1/4	1	5.84	148,3	2.05	52,0	2-1/8	3.89	98,8
1XM77-20-20	1-1/4	1-1/4	8.05	204,5	2.05	52,0	2-1/8	5.78	146,8
1XM77-24-20	1-1/2	1-1/4	7.38	187,5	2.05	52,0	2-1/2	5.11	129,8
1XM77-24-24	1-1/2	1-1/2	7.74	196,6	2.91	74,0	2-1/2	5.35	135,9
1XM77-32-32	2	2	8.72	221,4	3.82	97,0	3-1/8	5.97	151,5

! Refer to Pressure Rating of Hose End Connections Chart on page E-45.

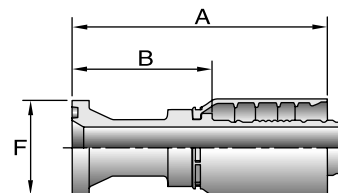
See Accessories Section for O-Rings and Flange Kits.

1XN77**Caterpillar® Flange Head - 90° Elbow**

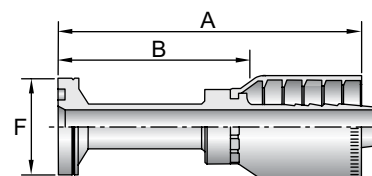
#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1XN77-12-12	3/4	3/4	4.23	107,4	2.48	63,0	1-5/8	2.59	65,9
1XN77-12-16	3/4	1	4.41	112,0	2.76	70,0	1-5/8	2.46	62,5
1XN77-16-12	1	3/4	4.23	107,4	2.48	63,0	1-7/8	2.59	65,9
1XN77-16-16	1	1	4.73	120,1	2.91	74,0	1-7/8	2.78	70,6
1XN77-16-20	1	1-1/4	5.44	138,2	3.70	94,0	1-7/8	3.17	80,5
1XN77-20-16	1-1/4	1	4.72	119,9	2.91	74,0	2-1/8	2.77	70,4
1XN77-20-20	1-1/4	1-1/4	6.28	159,5	3.70	94,0	2-1/8	4.01	101,8
1XN77-20-24	1-1/4	1-1/2	6.69	169,9	4.17	105,9	2-1/8	4.30	109,2
1XN77-24-20	1-1/2	1-1/4	6.28	159,5	3.03	77,0	2-1/2	4.01	101,8
1XN77-24-24	1-1/2	1-1/2	7.24	183,9	4.16	105,6	2-1/2	4.85	123,2
1XN77-32-24	2	1-1/2	7.24	183,9	4.16	105,6	3-1/8	4.85	123,2
1XN77-32-32	2	2	8.75	222,1	5.24	133,0	3-1/8	5.99	152,2

**1K577****Komatsu® Flange Head - Straight**

#	Flange	Hose I.D.	A		F	B	
Part Number	inch	inch	inch	mm	inch	inch	mm
1K577-16-16	1	1	4.70	119,4	1-3/4	2.75	69,9

**1KA77****Komatsu® High Pressure Flange Head - Straight**

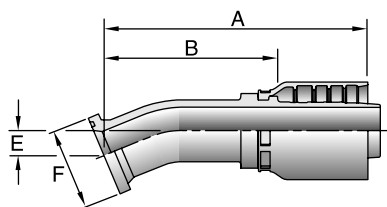
#	Flange	Hose I.D.	A		F	B	
Part Number	inch	inch	inch	mm	inch	inch	mm
1KA77-20-16	1-1/4	1	4.05	102,9	2-1/8	2.10	53,4
1KA77-20-20	1-1/4	1-1/4	5.73	145,6	2-1/8	3.46	87,9
1KA77-24-24	1-1/2	1-1/2	6.39	162,3	2-1/2	4.00	101,6
1KA77-32-32	2	2	7.17	182,0	2-9/16	4.41	112,0



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

A

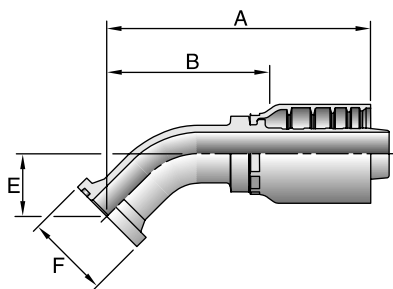


1K677

Komatsu® Flange Head - 22-1/2° Elbow

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1K677-16-20	1	1-1/4	6.48	164,6	0.59	15,0	1-3/4	4.21	106,9
1K677-24-24	1-1/2	1-1/2	8.01	203,5	0.71	18,0	2-3/8	5.62	142,8

B

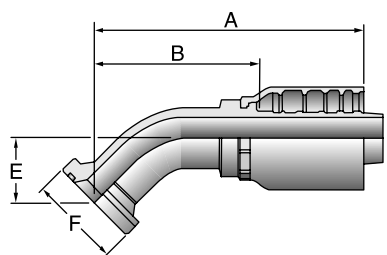


1K777

Komatsu® Flange Head - 45° Elbow

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1K777-10-10	5/8	5/8	4.58	116,3	1.03	26,0	1-11/32	3.23	82,1
1K777-12-12	3/4	3/4	4.57	116,0	1.02	26,0	1-1/2	2.93	74,5
1K777-16-12	1	3/4	4.57	116,0	1.02	26,0	1-3/4	2.93	74,5
1K777-16-16	1	1	5.63	143,0	1.26	32,0	1-3/4	3.68	93,5
1K777-20-20	1-1/4	1-1/4	6.66	169,2	1.50	38,0	2	4.39	111,5
1K777-24-24	1-1/2	1-1/2	7.61	193,3	1.73	44,0	2-3/8	5.22	132,6

C



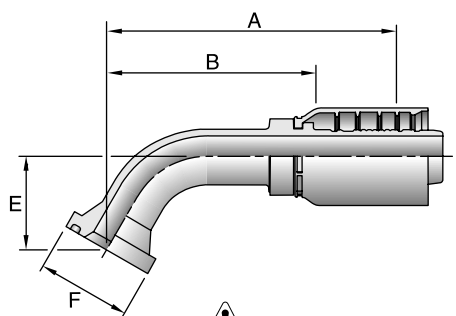
1KJ77

Komatsu® Flange Head - 45° Elbow - Long - High Pressure

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1KJ77-20-16	1-1/4	1	5.11	129,8	1.26	32,0	2-1/8	3.16	80,3
1KJ77-20-20	1-1/4	1-1/4	6.66	169,2	1.50	38,0	2-1/8	4.39	111,5

D

E



1K377

Komatsu® Flange Head - 60° Elbow

#	Flange	Hose I.D.	A		E		F	B	
Part Number	inch	inch	inch	mm	inch	mm	inch	inch	mm
1K377-12-12	3/4	3/4	5.27	133,8	1.46	37,0	1-1/2	3.64	92,4
1K377-16-16	1	1	6.24	158,5	1.73	44,0	1-3/4	4.29	109,0






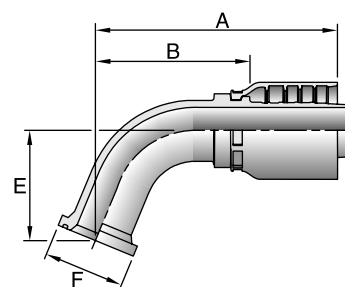
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1K877




Komatsu® Flange Head - 67-1/2° Elbow

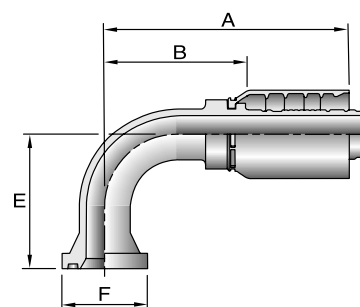
#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
1K877-16-16	1	1	5.98	151,9	2.01	51,0	1-3/4	4.03	102,4



1K977




Komatsu® Flange Head - 90° Elbow

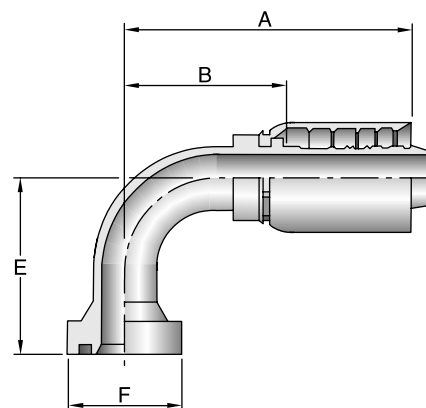
#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
1K977-10-10	5/8	5/8	3.72	94,5	2.17	55,0	1-11/32	2.37	60,2
1K977-12-12	3/4	3/4	4.24	107,7	2.28	58,0	1-1/2	2.60	66,0
1K977-12-16	3/4	1	4.41	112,0	2.76	70,0	1-1/2	2.46	62,5
1K977-16-12	1	3/4	4.24	107,7	2.17	55,0	1-3/4	2.60	66,0
1K977-16-16	1	1	5.00	127,0	2.76	70,0	1-3/4	3.05	77,5
1K977-16-20	1	1-1/4	5.71	145,1	3.54	90,0	1-3/4	3.44	87,4
1K977-20-16	1-1/4	1	4.72	119,9	2.76	70,0	2	2.77	70,4
1K977-20-20	1-1/4	1-1/4	6.28	159,5	3.54	90,0	2	4.01	101,8
1K977-20-24	1-1/4	1-1/2	6.69	169,9	4.09	104,0	2	4.30	109,2



1KN77

Komatsu® Flange Head - 90° Elbow - High Pressure

#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
1KN77-20-16	1-1/4	1	4.72	119,9	2.76	70,0	2-1/8	2.77	70,4
1KN77-20-20	1-1/4	1-1/4	6.28	159,5	3.54	90,0	2-1/8	4.01	101,8
1KN77-32-32	2	2	8.75	222,1	5.43	138,0	3-1/8	5.99	152,2

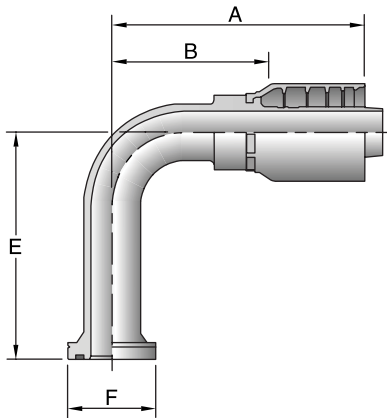





 **Refer to Pressure Rating of Hose End Connections Chart on page E-45.**

See Accessories Section for O-Rings and Flange Kits.

1KR77

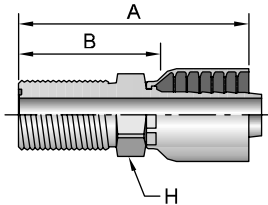
Komatsu® High Pressure Flange Head - 90° Elbow - Long Drop






#			A		E			B	
Part Number	Flange inch	Hose I.D. inch	inch	mm	inch	mm	inch	inch	mm
1KR77-20-20	1-1/4	1-1/4	6.37	161,8	5.51	140,0	2-1/8	4.10	104,1

1JB77

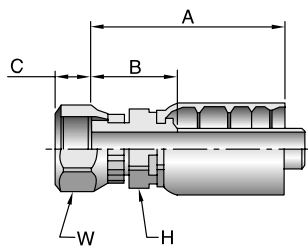
Male Seal-Lok® - Bulkhead without Locknut (with O-Ring)







#			A			B	
Part Number	Thread inch	Hose I.D. inch	inch	mm	mm	inch	mm
1JB77-12-12	1-3/16x12	3/4	4.34	110,2	41	2.70	68,7
1JB77-16-16	1-7/16x12	1	4.87	123,7	46	2.92	74,2

1JC77

Female Seal-Lok® - Swivel - Straight - Short
 ISO 12151-1-SWSA



# Part Number				A		C				B		Additional Material Stainless Steel (C)
	Thread inch		Hose I.D. inch	inch	mm	inch	mm	H mm	W mm	inch	mm	
1JC77-8-8	1/2	13/16x16	1/2	2.35	59,8	0.43	11,0	22	24	1.13	28,8	●
1JC77-10-10	5/8	1x14	5/8	2.75	69,8	0.48	12,0	24	30	1.40	35,6	
1JC77-12-8	3/4	1-3/16x12	1/2	2.63	66,9	0.55	14,0	30	36	1.41	35,9	
1JC77-12-12	3/4	1-3/16x12	3/4	3.16	80,2	0.55	12,0	30	36	1.52	38,7	●
1JC77-16-12	1	1-7/16x12	3/4	3.35	85,0	0.57	14,5	36	41	1.71	43,5	●
1JC77-16-16	1	1-7/16x12	1	3.59	91,2	0.57	14,5	36	41	1.64	41,7	●
1JC77-20-16	1-1/4	1-11/16x12	1	3.74	95,0	0.59	15,0	41	50	1.79	45,5	
1JC77-20-20	1-1/4	1-11/16x12	1-1/4	4.25	108,0	0.59	15,0	46	50	1.98	50,3	
1JC77-24-24	1-1/2	2x12	1-1/2	4.55	115,6	0.62	15,7	60	60	2.16	54,9	
1JC77-32-32	2	2-1/2X12	2	5.64	143,1	0.73	18,4	65	75	2.88	73,2	●

-32 size rated to 3,000 psi

! Refer to Pressure Rating of Hose End Connections Chart on page E-45.

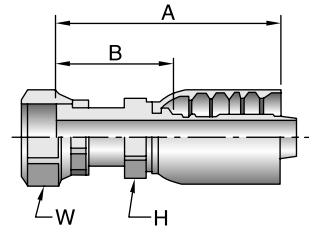
See Accessories Section for O-Rings and Flange Kits.

1JS77

Female Seal-Lok® - Swivel - Straight - Long
 ISO 12151-1-SWSB

# Part Number	Thread		Hose I.D. inch	A		H mm	W mm	B		Additional Material Stainless Steel (C)
	inch	inch	inch	mm	mm	mm	mm	inch	mm	
1JS77-6-8	3/8	11/16x16	1/2	2.67	67,8	22	22	1.45	36,8	●
1JS77-8-8	1/2	13/16x16	1/2	2.80	71,2	22	24	1.58	40,2	
1JS77-10-8	5/8	1x14	1/2	2.95	75,0	24	30	1.73	44,0	
1JS77-10-10	5/8	1x14	5/8	3.21	81,5	24	30	1.86	47,3	
1JS77-10-12	5/8	1x14	3/4	3.58	90,8	30	30	1.94	49,4	●
1JS77-12-8	3/4	1-3/16x12	1/2	3.15	80,1	30	36	1.93	49,1	
1JS77-12-10	3/4	1-3/16x12	5/8	3.35	85,1	30	36	2.00	50,8	
1JS77-12-12	3/4	1-3/16x12	3/4	3.68	93,4	30	36	2.04	51,9	
1JS77-12-16	3/4	1-3/16x12	1	4.18	106,2	36	36	2.23	56,7	●
1JS77-16-12	1	1-7/16x12	3/4	3.90	99,0	36	41	2.26	57,5	
1JS77-16-16	1	1-7/16x12	1	4.19	106,4	36	41	2.24	56,9	
1JS77-16-20	1	1-7/16x12	1-1/4	4.71	119,7	46	41	2.44	62,0	
1JS77-20-16	1-1/4	1-11/16x12	1	4.29	108,9	41	50	2.34	59,5	●
1JS77-20-20	1-1/4	1-11/16x12	1-1/4	4.78	121,4	46	50	2.51	63,8	
1JS77-24-20	1-1/2	2x12	1-1/4	4.80	121,9	50	60	2.53	64,2	
1JS77-24-24	1-1/2	2x12	1-1/2	5.12	130,0	60	60	2.73	69,4	
1JS77-32-32	2	2-1/2x12	2	6.28	159,5	65	75	3.52	89,4	●

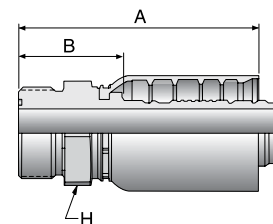
-32 size rated to 3,000 psi



1J077

Male Seal-Lok® - Rigid - Straight - (with O-Ring)
 ISO 12151-1-S

# Part Number	Thread		Hose I.D. inch	A		H mm	B		Additional Material Stainless Steel (C)
	inch	inch	inch	mm	mm	mm	inch	mm	
1J077-8-8	13/16x16	1/2	2.46	62,6	22	1.24	31,6		
1J077-10-8	1x14	1/2	2.67	67,9	27	1.45	36,9		
1J077-10-10	1x14	5/8	2.86	72,6	27	1.51	38,4		
1J077-12-10	1-3/16x12	5/8	2.97	75,4	30	1.62	41,2		
1J077-12-12	1-3/16x12	3/4	3.27	82,9	32	1.63	41,5		
1J077-16-12	1-7/16x12	3/4	3.32	84,3	41	1.68	42,8		
1J077-16-16	1-7/16x12	1	3.74	95,0	41	1.79	45,5		
1J077-20-16	1-11/16x12	1	3.82	97,0	50	1.87	47,5		
1J077-20-20	1-11/16x12	1-1/4	4.31	109,5	50	2.04	51,8		●
1J077-24-20	2x12	1-1/4	4.56	115,8	60	2.29	58,1		
1J077-24-24	2x12	1-1/2	4.75	120,6	60	2.36	59,9		
1J077-32-32	2-1/2x12	2	5.46	138,8	70	2.71	68,8		



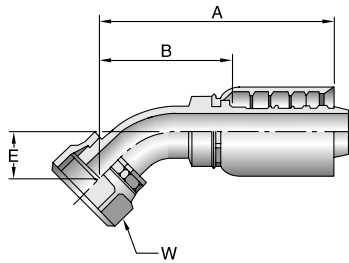
Refer to Pressure Rating of Hose End Connections Chart on page E-45.




See Accessories Section for O-Rings and Flange Kits.

1J777

Female Seal-Lok® - Swivel - 45° Elbow

ISO 12151-1-SWE45

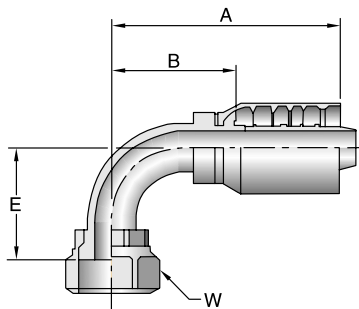





#				A		E			B		Additional Material Stainless Steel (C)
Part Number	Thread inch		Hose I.D. inch	inch	mm	inch	mm	mm	inch	mm	
1J777-8-8	1/2	13/16x16	1/2	2.86	72,7	0.59	15	24	1.64	41,8	
1J777-10-8	5/8	1x14	1/2	2.97	75,5	0.63	16	30	1.75	44,6	
1J777-10-10	5/8	1x14	5/8	3.28	83,3	0.63	16	30	1.93	49,0	
1J777-12-10	3/4	1-3/16x12	5/8	3.60	91,4	0.83	21	36	2.25	57,2	
1J777-12-12	3/4	1-3/16x12	3/4	4.39	111,4	0.83	21	36	2.75	70,0	
1J777-16-12	1	1-7/16x12	3/4	4.49	114,0	0.94	24	41	2.85	72,5	
1J777-16-16	1	1-7/16x12	1	4.79	121,7	0.94	24	41	2.84	72,2	●
1J777-20-16	1-1/4	1-11/16x12	1	4.83	122,7	0.98	25	50	2.88	73,2	
1J777-20-20	1-1/4	1-11/16x12	1-1/4	6.12	155,5	0.98	25	50	3.85	97,8	
1J777-24-20	1-1/2	2x12	1-1/4	6.19	157,3	1.06	27	60	3.92	99,5	
1J777-24-24	1-1/2	2x12	1-1/2	7.53	191,3	1.65	42	60	5.14	130,6	

1J977

Female Seal-Lok® - Swivel - 90° Elbow - Short Drop

ISO 12151-1-SWES90



#										
Part Number	Thread inch		Hose I.D. inch	A		E		W	B	
			inch	mm	inch	mm	mm	mm	inch	mm
1J977-8-8	1/2	13/16x16	1/2	2.78	70,7	1.14	29	24	1.56	39,7
1J977-10-8	5/8	1x14	1/2	2.77	70,5	1.26	32	30	1.55	39,5
1J977-10-10	5/8	1x14	5/8	3.21	81,5	1.26	32	30	1.86	47,3
1J977-10-12	5/8	1x14	3/4	3.74	94,9	1.26	32	30	2.10	53,4
1J977-12-8	3/4	1-3/16x12	1/2	2.77	70,5	1.89	48	36	1.55	39,5
1J977-12-10	3/4	1-3/16x12	5/8	3.21	81,5	1.89	48	36	1.86	47,3
1J977-12-12	3/4	1-3/16x12	3/4	4.24	107,6	1.89	48	36	2.60	66,1
1J977-16-12	1	1-7/16x12	3/4	4.23	107,4	2.20	56	41	2.59	65,9
1J977-16-16	1	1-7/16x12	1	4.73	120,1	2.20	56	41	2.78	70,6
1J977-16-20	1	1-7/16x12	1-1/4	5.63	143,0	2.20	56	41	3.36	85,3
1J977-20-16	1-1/4	1-11/16x12	1	4.72	119,9	2.52	64	50	2.77	70,4
1J977-20-20	1-1/4	1-11/16x12	1-1/4	6.20	157,5	2.52	64	50	3.93	99,8






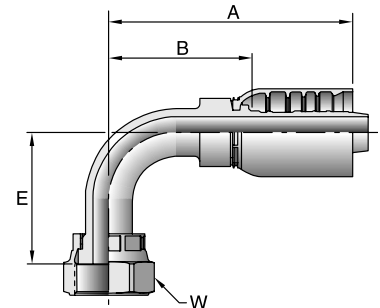
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1J577

Female Seal-Lok® - Swivel - 90° Elbow - Medium Drop
 ISO 12151-1 - SWEM90

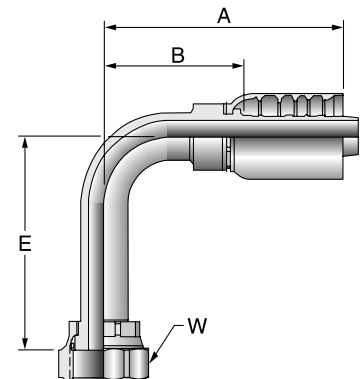
#				A		E			B		Additional Material Stainless Steel (C)
Part Number	Thread inch		Hose I.D. inch	inch	mm	inch	mm	mm	inch	mm	
1J577-8-8	1/2	13/16x16	1/2	2.77	70,5	1.61	41	24	1.55	39,5	
1J577-10-10	5/8	1x14	5/8	4.11	104,4	1.85	57	30	2.76	70,1	
1J577-12-12	3/4	1-3/16x12	3/4	4.24	107,6	2.28	58	36	2.60	66,1	
1J577-16-12	1	1-7/16x12	3/4	4.23	107,5	2.80	71	41	2.60	66,0	
1J577-16-16	1	1-7/16x12	1	4.72	119,9	2.80	71	41	2.77	70,4	
1J577-20-20	1-1/4	1-11/16x12	1-1/4	6.20	157,5	3.07	78	50	3.93	99,8	●
1J577-24-24	1-1/2	2x12	1-1/2	7.36	186,9	3.39	86	60	4.97	126,3	●



1J177

Female Seal-Lok® - Swivel - 90° Elbow - Long Drop
 ISO 12151-1-SWEL90

# Part Number	Thread inch	Hose I.D. inch	A		E		W	B		Additional Material Stainless Steel (C)
			inch	mm	inch	mm	mm	inch	mm	
1J177-8-8	13/16x16	1/2	2.77	70,5	2.52	64	24	1.55	39,5	
1J177-10-10	1x14	5/8	3.21	81,5	2.76	70	30	1.86	47,3	
1J177-12-10	1-3/16x12	5/8	3.21	81,5	3.78	96	36	1.86	47,3	
1J177-12-12	1-3/16x12	3/4	4.23	107,4	3.78	96	36	2.59	65,9	
1J177-16-12	1-7/16x12	3/4	4.23	107,4	4.49	114	41	2.59	65,9	
1J177-16-16	1-7/16x12	1	4.73	120,1	4.49	114	41	2.78	70,6	
1J177-20-16	1-11/16x12	1	4.73	120,1	5.08	129	50	2.78	70,6	
1J177-20-20	1-11/16x12	1-1/4	6.29	159,8	5.08	129	50	4.02	102,1	•
1J177-24-24	2x12	1-1/2	7.24	183,9	5.55	141	60	4.85	123,2	



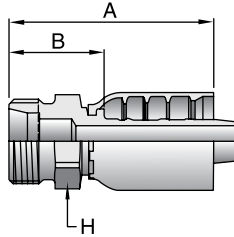
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1D277

Male Metric S - Rigid - Straight - (24° Cone)

End Connection per ISO 8434-1-BHS

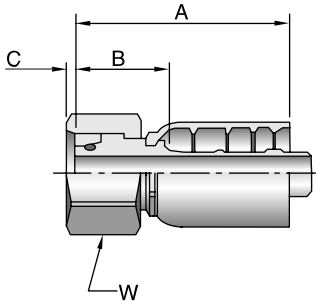


#							
Part Number	Thread mm	Hose I.D. inch	A		H mm	B	
			inch	mm		inch	mm
1D277-16-8	M24x1,5	1/2	2.53	64,4	24	1.31	33,4
1D277-20-10	M30x2	5/8	2.85	72,4	30	1.50	38,1
1D277-20-12	M30x2	3/4	3.29	83,6	30	1.66	42,1
1D277-25-12	M36x2	3/4	3.39	86,3	36	1.76	44,8
1D277-25-16	M36x2	1	3.79	96,3	36	1.84	46,8
1D277-30-16	M42x2	1	3.91	99,3	46	1.96	49,8
1D277-38-20	M52x2	1-1/4	4.50	114,3	55	2.23	56,6
1D277-38-24	M52x2	1-1/2	4.75	120,5	55	2.36	59,9

1C977

Female Metric S - Swivel - Straight - (24° Cone with O-Ring)

ISO 12151-2-SWS



#										
Part Number	Thread mm	Hose I.D. inch	A		C		W mm	B		Additional Material Stainless Steel (C)
			inch	mm	inch	mm		inch	mm	
1C977-12-8	12 M20x1,5	1/2	2.39	60,8	0.03	1,0	24	1.17	29,8	•
1C977-16-8	16 M24x1,5	1/2	2.34	59,5	0.09	2,0	30	1.12	28,5	•
1C977-16-10	16 M24x1,5	5/8	2.64	67,0	0.09	2,0	30	1.29	32,8	•
1C977-16-12	16 M24x1,5	3/4	3.19	80,9	0.09	2,0	30	1.55	39,5	•
1C977-20-8	20 M30x2	1/2	2.46	62,5	0.05	1,3	36	1.24	31,5	•
1C977-20-10	20 M30x2	5/8	2.64	67,0	0.05	1,3	36	1.29	32,8	•
1C977-20-12	20 M30x2	3/4	2.97	75,5	0.05	1,3	36	1.34	34,0	•
1C977-25-10	25 M36x2	5/8	2.68	68,0	0.10	2,6	46	1.33	33,8	•
1C977-25-12	25 M36x2	3/4	3.00	76,5	0.10	2,6	46	1.37	35,0	•
1C977-25-16	25 M36x2	1	3.60	91,4	0.10	2,6	46	1.65	41,9	•
1C977-30-12	30 M42x2	3/4	3.17	80,4	0.19	5,0	50	1.53	39,0	•
1C977-30-16	30 M42x2	1	3.50	89,0	0.19	5,0	50	1.55	39,5	•
1C977-30-20	30 M42x2	1-1/4	4.09	103,9	0.19	5,0	50	1.82	46,2	•
1C977-38-20	38 M52x2	1-1/4	3.92	99,6	0.27	6,9	60	1.65	42,0	•
1C977-38-24	38 M52x2	1-1/2	4.08	103,7	0.24	6,0	60	1.69	43,1	•

When measuring overall length to end of nut, B + C dimensions must be used to calculate cut-off allowance.



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

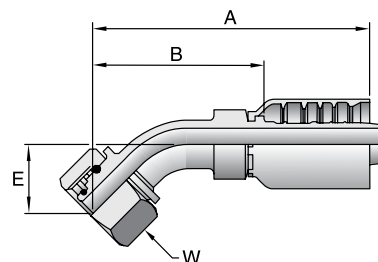
See Accessories Section for O-Rings and Flange Kits.

10C77

Female Metric S - Swivel - 45° Elbow - (24° Cone with O-Ring)

ISO 12151-2-SWE-45

#				A		E		W	B	
Part Number	Thread	Hose I.D.		inch	mm	inch	mm	mm	inch	mm
10C77-16-8	16 M24x1,5	1/2		3.28	83,4	0.93	23,5	30	2.06	52,4
10C77-20-10	20 M30x2	5/8		4.20	106,7	1.10	28,0	36	2.85	72,4
10C77-20-12	20 M30x2	3/4		4.74	120,4	1.18	30,0	36	3.10	78,8
10C77-25-12	25 M36x2	3/4		4.70	119,3	1.14	29,0	46	3.06	77,8
10C77-25-16	25 M36x2	1		5.59	141,9	1.30	33,0	46	3.64	92,4
10C77-30-16	30 M42x2	1		5.58	141,8	1.30	33,0	50	3.63	92,3
10C77-38-20	38 M52x2	1-1/4		6.60	167,7	1.44	36,5	60	4.33	110,0
10C77-38-24	38 M52x2	1-1/2		7.81	198,4	1.93	49,0	60	5.42	137,7

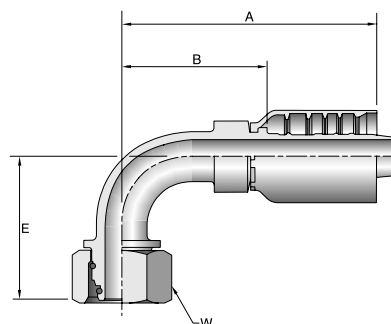


11C77

Female Metric S - Swivel - 90° Elbow - (24° Cone with O-Ring)

ISO 12151-2-SWE

#			A		E		W	B		Additional Material Stainless Steel (C)
Part Number	Thread	Hose I.D.	inch	mm	inch	mm	mm	inch	mm	
11C77-16-8	M24x1,5	1/2	3.02	76,6	1.77	45	30	1.80	45,6	•
11C77-20-10	M30x2	5/8	3.62	92,0	2.09	53	36	2.27	57,8	
11C77-20-12	M30x2	3/4	4.25	107,9	2.36	60	36	2.61	66,4	
11C77-25-12	M36x2	3/4	4.25	107,9	2.32	59	46	2.61	66,4	
11C77-25-16	M36x2	1	5.16	131,1	2.75	70	46	3.21	81,6	
11C77-30-16	M42x2	1	5.16	131,0	2.72	69	50	3.21	81,6	
11C77-30-20	M42x2	1-1/4	5.71	145,1	2.87	73	50	3.44	87,4	
11C77-38-20	M52x2	1-1/4	6.28	159,5	3.07	78	60	4.01	101,8	•
11C77-38-24	M52x2	1-1/2	7.24	183,9	3.98	101	60	4.85	123,2	

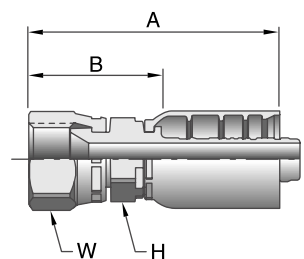


1FU77

Female BSP Parallel Pipe - Swivel - (30° Flare)

B8363 Code F

#			A		H	W	B	
Part Number	Thread	Hose I.D.	inch	mm	mm	mm	inch	mm
1FU77-8-8	1/2x14	1/2	2.89	73,4	22	27	1.67	42,4
1FU77-12-12	3/4x14	3/4	3.71	94,1	32	36	2.07	52,6
1FU77-16-16	1x11	1	4.31	109,5	41	41	2.36	60,0
1FU77-20-20	1-1/4x11	1-1/4	4.88	123,9	50	50	2.60	66,1
1FU77-24-24	1-1/2x11	1-1/2	5.42	137,7	60	60	3.03	77,1

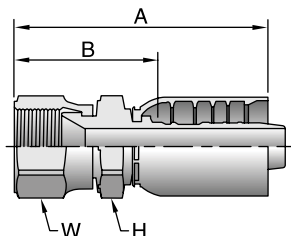


Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1KU77

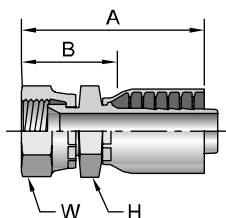
Female Metric - Swivel - Straight (30° Flare)



#								
Part Number	Thread	Hose I.D.	A		H	W	B	
	mm	inch	inch	mm	mm	mm	inch	mm
1KU77-10-10	M24x1,5	5/8	3.44	87,5	32	32	2.09	53,2
1KU77-12-12	M30x1,5	3/4	3.79	96,3	36	36	2.16	54,8
1KU77-16-16	M33x1,5	1	4.61	117,1	41	41	2.66	67,6

1MU77

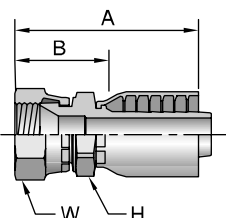
Female Metric - Swivel - Straight (30° Flare)



#								
Part Number	Thread	Hose I.D.	A		H	W	B	
	mm	inch	inch	mm	mm	mm	inch	mm
1MU77-8-8	M22x1,5	1/2	2.89	73,4	22	27	1.67	42,4

1XU77

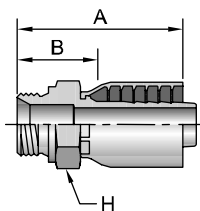
Female Metric - Swivel - Straight (30° Flare)



#								
Part Number	Thread	Hose I.D.	A		H	W	B	
	mm	inch	inch	mm	mm	mm	inch	mm
1XU77-10-10	M24x1,5	5/8	3.44	87,5	30	32	2.09	53,2
1XU77-10-12	M24x1,5	3/4	3.79	96,3	32	32	2.16	54,8
1XU77-12-12	M30x1,5	3/4	3.93	99,7	32	36	2.29	58,3
1XU77-16-16	M33x1,5	1	4.55	115,6	36	41	2.60	66,1
1XU77-20-20	M36x1,5	1-1/4	5.18	131,4	46	46	2.90	73,7
1XU77-24-24	M42x1,5	1-1/2	5.65	143,4	50	55	3.26	82,7

1D977

Male BSP Parallel Pipe - Rigid - Straight (60° Cone)



#								
Part Number	Thread	Hose I.D.	A		H	B		
	inch	inch	inch	mm	mm	inch	mm	
1D977-12-12	3/4x14A	3/4	3.43	87,0	32	1.79	45,6	
1D977-16-16	1x11A	1	3.98	101,0	41	2.03	51,5	
1D977-20-20	1-1/4x11A	1-1/4	4.44	112,8	50	2.17	55,1	
1D977-24-24	1-1/2x11A	1-1/2	4.88	124,0	55	2.49	63,3	



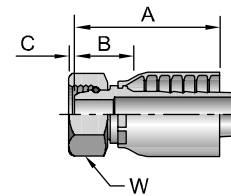
Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

19277

Female BSP Parallel Pipe - Swivel - Straight (60° Cone)

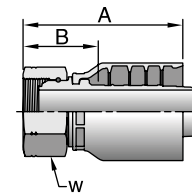
# Part Number	Thread inch	Hose I.D. inch	A		C		W	B		Additional Material Stainless Steel (C)
			inch	mm	inch	mm	mm	inch	mm	
19277-12-12	3/4x12	3/4	2.86	72,6	0.35	8,9	32	1.22	31,1	
19277-16-16	1x11	1	3.58	90,9	0.36	9,2	41	1.63	41,4	
19277-20-20	1-1/4x11	1-1/4	4.24	107,7	0.41	10,4	50	1.97	50,0	•
19277-24-24	1-1/2x11	1-1/2	4.07	103,4	0.45	11,5	55	1.68	42,7	
19277-32-32	2x11	2	4.93	125,1	0.50	13,3	70	2.17	55,1	



1EA77

Female BSP Parallel Pipe - Swivel - Straight (60° Cone with O-Ring)

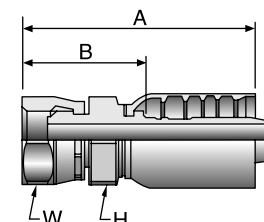
# Part Number	Thread inch	Hose I.D. inch	A		W	B	
			inch	mm	mm	inch	mm
1EA77-24-24	1-1/2x11	1-1/2	4.05	102,9	55	1.66	42,2
1EA77-32-32	2x11	2	4.63	117,7	70	1.88	47,8



1GU77

Female BSP Parallel Pipe - Swivel - (60° Cone)

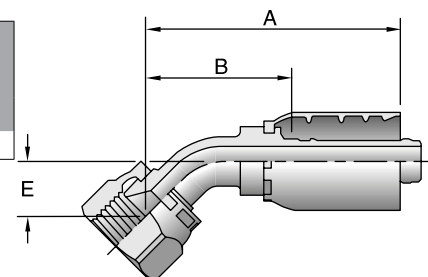
# Part Number	Thread inch	Hose I.D. inch	A		H	W	B		Additional Material Stainless Steel (C)
			inch	mm	mm	mm	inch	mm	
1GU77-8-8	1/2x14	1/2	2.97	75,5	27	27	1.75	44,5	•
1GU77-12-12	3/4x14	3/4	3.74	94,9	36	36	2.10	53,4	•
1GU77-16-16	1x11	1	4.33	110,0	41	41	2.38	60,5	•
1GU77-20-20	1-1/4x11	1-1/4	4.91	124,7	46	50	2.64	67,0	
1GU77-24-24	1-1/2x11	1-1/2	5.49	139,3	60	60	3.09	78,6	•
1GU77-32-32	2x11	2	6.04	153,4	70	70	3.28	83,4	



1FY77

Female BSP Parallel Pipe - Swivel - 45° Elbow (30° Flare)

# Part Number	Thread inch	Hose I.D. inch	A		E		W	B	
			inch	mm	inch	mm	mm	inch	mm
1FY77-8-8	1/2x14	1/2	2.90	73,8	0.63	16	27	1.68	42,8

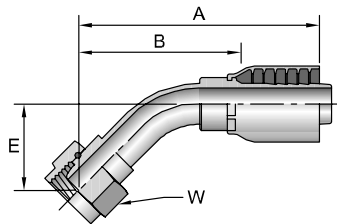


Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1B177

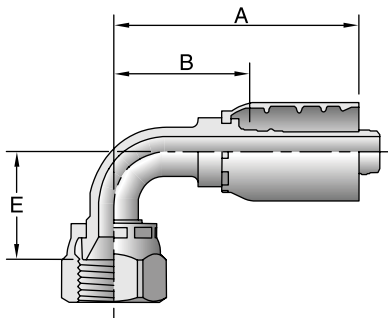
Female BSP Parallel Pipe - Swivel - 45° Elbow (60° Cone)



#	Thread	Hose I.D.	A		E		W	B	
Part Number	inch	inch	inch	mm	inch	mm	mm	inch	mm
1B177-16-16	1x11	1	5.71	145,0	1.42	36	41	3.76	95,5
1B177-20-20	1-1/4x11	1-1/4	6.66	169,2	1.50	38	50	4.39	111,5
1B177-24-24	1-1/2x11	1-1/2	7.93	201,4	2.05	52	55	5.54	140,7

1FZ77

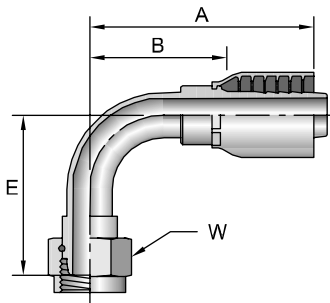
Female BSP Parallel Pipe - Swivel - 90° Elbow (30° Flare)



#	Thread	Hose I.D.	A		E		W	B	
Part Number	inch	inch	inch	mm	inch	mm	mm	inch	mm
1FZ77-8-8	1/2x14	1/2	2.78	70,7	1.22	31	27	1.56	39,7

1B277

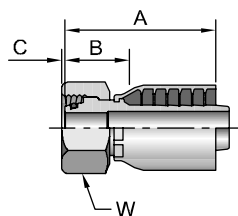
Female BSP Parallel Pipe - Swivel - 90° Elbow (60° Cone)



#	Thread	Hose I.D.	A		E		W	B		Additional Material Stainless Steel (C)
Part Number	inch	inch	inch	mm	inch	mm	mm	inch	mm	
1B277-12-12	3/4x14	3/4	4.26	108,1	2.17	55,0	32	2.62	66,6	•
1B277-16-16	1x11	1	5.16	131,0	2.89	73,5	41	3.21	81,5	
1B277-20-20	1-1/4x11	1-1/4	6.28	159,5	3.15	80,0	50	4.01	101,8	
1B277-24-24	1-1/2x11	1-1/2	7.24	183,9	4.04	102,5	55	4.85	123,2	

1CA77

Female Metric L - Swivel - Straight (24° Cone with O-Ring)



#	Thread	Hose I.D.	A		C	W	B	
Part Number	mm	inch	inch	mm	mm	mm	inch	mm
1CA77-15-8	M22x1,5	1/2	2.45	62,3	0.05	27	1.23	31,3
1CA77-18-10	M26x1,5	5/8	2.59	65,8	0.03	32	1.24	31,5
1CA77-22-12	M30x2	3/4	2.86	72,6	0.15	36	1.22	31,1
1CA77-28-16	M36x2	1	3.52	89,4	0.08	41	1.57	39,9
1CA77-35-20	M42x2	1-1/4	3.95	100,4	0.06	50	1.68	42,6
1CA77-42-24	M52x2	1-1/2	4.18	106,2	0.14	60	1.79	45,5

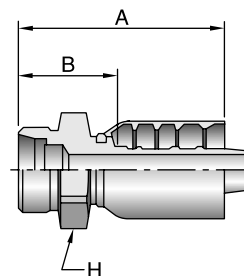
! Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.

1ZM77

Male 24° Cone Metric - Rigid - Straight

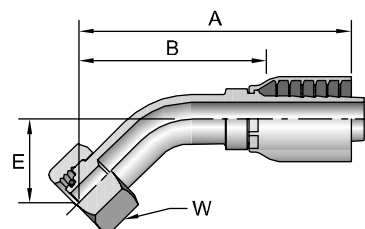
# Part Number	Thread mm	Hose I.D. inch	A		H	B	
			inch	mm	mm	inch	mm
1ZM77-22-10	M30x1,5	5/8	2.83	71,8	36	1.48	37,6
1ZM77-22-12	M30x1,5	3/4	3.17	80,4	36	1.53	39,0
1ZM77-28-12	M36x1,5	3/4	3.38	85,8	41	1.74	44,3
1ZM77-28-16	M36x1,5	1	3.77	95,8	41	1.82	46,2
1ZM77-35-16	M45x1,5	1	3.85	97,8	50	1.90	48,3



1CE77

Female Metric L - Swivel - 45° Elbow (24° Cone with O-Ring)

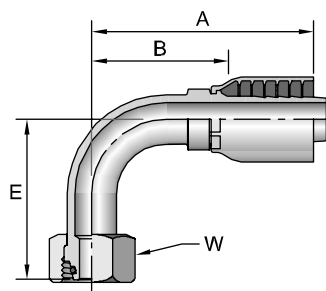
# Part Number	Thread mm	Hose I.D. inch	A		E		W	B	
			inch	mm	inch	mm	mm	inch	mm
1CE77-15-8	M22x1,5	1/2	3.25	82,7	0.91	23	27	2.03	51,7
1CE77-42-24	M52x2	1-1/2	7.69	195,3	1.93	49	60	5.30	134,6



1CF77

Female Metric L - Swivel - 90° Elbow (24° Cone with O-Ring)

# Part Number	Thread mm	Hose I.D. inch	A		E		W	B	
			inch	mm	inch	mm	mm	inch	mm
1CF77-15-8	M22x1,5	1/2	2.99	76,0	1.73	44	27	1.77	45,1
1CF77-28-16	M36x2	1	5.16	105,4	2.72	69	46	2.20	55,9
1CF77-35-20	M45x2	1-1/4	6.28	159,5	3.12	79	50	4.01	101,8
1CF77-42-24	M52x2	1-1/2	7.08	179,8	3.97	101	60	4.69	119,2



Refer to Pressure Rating of Hose End Connections Chart on page E-45.

See Accessories Section for O-Rings and Flange Kits.