

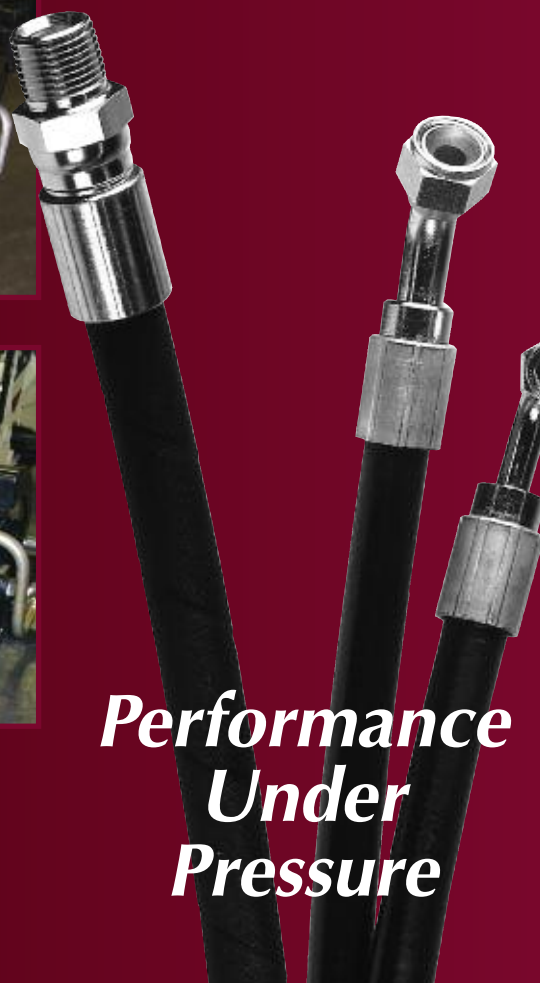
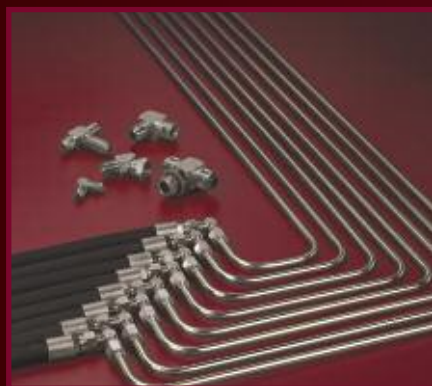
MID-STATE

"Performance Under Pressure"



Accessories Catalog

*Catalog ACC215b
Dated June 2009
Supersedes all previous catalogs*



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*Performance
Under
Pressure*



TERMS AND CONDITIONS

- Payment Terms:** Net 30 days from invoice date. Please pay from invoice. Statement will be sent only upon request.
- Credit:** Orders will be shipped on an open account basis after credit approval.
- Freight:** All items are F.O.B. shipping point unless otherwise noted. Freight prepaid on shipments of \$3000 to \$5000 depending upon location.
- Returns:** Defective items may be returned with prior approval within 14 days of original shipment. ALL RETURNS MUST BE ACCOMPANIED BY OUR WRITTEN AUTHORIZATION. Hose assemblies and tube assemblies are made to special order and MAY NOT BE RETURNED unless defective.
- Cancellations:** Cancellations will be accepted subject to charges for costs incurred to date of cancellation.
- Warranty:** For a period of one year after date of purchase Mid-State warrants it's products to be free from defects in materials and workmanship when properly installed and maintained. Defective products will be replaced or credit given. LIABILITY IS LIMITED TO THE INVOICE VALUE OF THE MERCHANDISE RETURNED. IN NO EVENT SHALL MID-STATE BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER. This is our entire warranty. No other warranty either implied or expressed, is given.

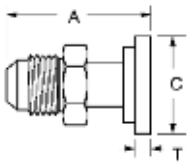
HYDRAULIC HOSE ACCESSORIES

SPLIT FLANGE ADAPTERS (Code 61)

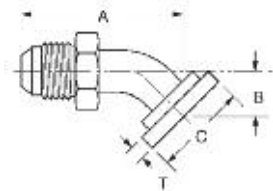
(Male 37° JIC x Code 61 Flange)

Split flange adapters eliminate the need for special hose ends. Interconnect pumps and valves with S.A.E. flange outlets using low cost standard hose ends.

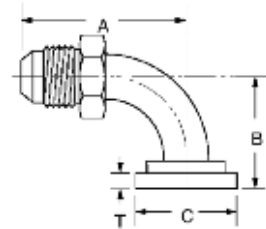
Straight



45° Elbow



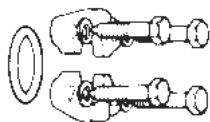
90° Elbow



Part Number Code 61	Tube Size	Flange Size	A	B	Dia. C	T	Male JIC Thread
50008	1/2	1/2	2.66	—	1.188	.265	3/4 - 16
50008 x 12	1/2	3/4	2.72	—	1.500	.265	3/4 - 16
50012	3/4	3/4	2.62	—	1.500	.265	1 1/16 - 12
50016	1	1	2.74	—	1.750	.315	1 5/16 - 12
50016 x 20	1	1 1/4	2.74	—	2.000	.315	1 5/16 - 12
50020 x 16	1 1/4	1	2.80	—	1.750	.315	1 5/8 - 12
50020	1 1/4	1 1/4	3.27	—	2.000	.315	1 5/8 - 12
50024	1 1/2	1 1/2	3.42	—	2.375	.315	1 7/8 - 12
50032	2	2	4.24	—	2.812	.375	2 1/2 - 12
54508	1/2	1/2	2.91	.78	1.188	.265	3/4 - 16
54508 x 12	1/2	3/4	2.93	.84	1.500	.265	3/4 - 16
54512	3/4	3/4	3.28	1.03	1.500	.265	1 1/16 - 12
54516	1	1	3.61	1.06	1.750	.315	1 5/16 - 12
54516 x 20	1	1 1/4	3.61	1.06	2.000	.315	1 5/16 - 12
54520 x 16	1 1/4	1	3.67	1.06	1.750	.315	1 5/8 - 12
54520	1 1/4	1 1/4	3.36	1.15	2.000	.315	1 5/8 - 12
54524	1 1/2	1 1/2	4.61	1.41	2.375	.315	1 7/8 - 12
54532	2	2	6.28	2.00	2.812	.375	2 1/2 - 12
59008	1/2	1/2	2.54	1.63	1.188	.265	3/4 - 16
59008 x 12	1/2	3/4	2.54	1.69	1.500	.265	3/4 - 16
59012	3/4	3/4	2.79	2.19	1.500	.265	1 1/16 - 12
59016	1	1	3.61	2.38	1.750	.315	1 5/16 - 12
59016 x 20	1	1 1/4	3.61	2.38	2.00	.315	1 5/16 - 12
59020 x 16	1 1/4	1	3.66	2.38	1.750	.315	1 5/8 - 12
59020	1 1/4	1 1/4	3.52	2.62	2.00	.315	1 5/8 - 12
59024	1 1/2	1 1/2	4.32	3.12	2.375	.315	1 7/8 - 12
59032	2	2	5.95	4.50	2.812	.375	2 1/2 - 12

SPLIT FLANGE KITS

COMPLETE KIT: includes 2 flange, 1 O-Ring, 4 bolts and 4 lockwashers.



Code 61 Complete Kit Part Number	Size	Kit Components Part Number							
		Flanges	Size	O-Ring	Size	Bolts	Sizes Used On	Lock Wash.	Sizes Used On
SFK-8	1/2	8X251	1/2	8X252	1/2	8X253	1/2	8X254	1/2
SFK-12	3/4	12X251	3/4	12X252	3/4	12X253	3/4 & 1	12X254	3/4 & 1
SFK-16	1	16X251	1	16X252	1		3/4 & 1	12X254	3/4 & 1
SFK-20	1 1/4	20X251	1 1/4	20X252	1 1/4	20X253	1 1/4	20X254	1 1/4
SFK-24	1 1/2	24X251	1 1/2	24X252	1 1/2	24X253	1 1/2 & 2	24X254	1 1/2 & 2
SFK-32	2	32X251	2	32X252	2		1 1/2 & 2	24X254	1 1/2 & 2

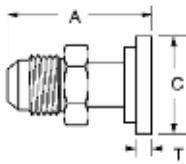
HYDRAULIC HOSE ACCESSORIES

SPLIT FLANGE ADAPTERS (Code 62)

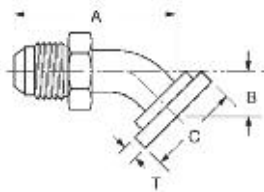
(Male 37° JIC x Code 62 Flange)

Split flange adapters eliminate the need for special hose ends. Interconnect pumps and valves with S.A.E. flange outlets using low cost standard hose ends.

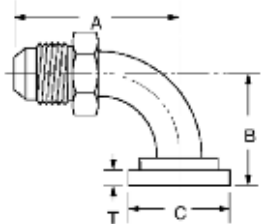
Straight



45° Elbow



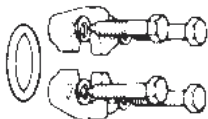
90° Elbow



Part Number Code 62	Tube Size	Flange Size	A	B	Dia. C	T	Male JIC Thread
60008	1/2	1/2	2.32	1.25	—	.305	3/4 - 16
60012	3/4	3/4	2.64	1.62	—	.345	1 1/16 - 12
60016	1	1	3.44	1.88	—	.375	1 5/16 - 12
60020	1 1/4	1 1/4	3.97	2.12	—	.405	1 5/8 - 12
60024	1 1/2	1 1/2	4.97	2.50	—	.495	1 7/8 - 12
60032	2	2	5.22	3.12	—	.495	2 1/2 - 12
64508	1/2	1/2	2.12	1.10	1.25	.305	3/4 - 16
64512	3/4	3/4	2.56	1.32	1.62	.345	1 1/16 - 12
64516	1	1	3.34	1.43	1.88	.375	1 5/16 - 12
64520	1 1/4	1 1/4	3.49	1.87	2.12	.405	1 5/8 - 12
64524	1 1/2	1 1/2	6.31	3.07	2.50	.495	1 7/8 - 12
64532	2	2	8.19	3.74	3.12	.495	2 1/2 - 12
69008	1/2	1/2	1.57	2.11	1.25	.305	3/4 - 16
69012	3/4	3/4	1.93	2.56	1.62	.345	1 1/16 - 12
69016	1	1	2.35	2.90	1.88	.375	1 5/16 - 12
69020	1 1/4	1 1/4	2.91	3.46	2.12	.405	1 5/8 - 12
69024	1 1/2	1 1/2	5.44	6.53	2.50	.495	1 7/8 - 12
69032	2	2	7.38	8.22	3.12	.495	2 1/2 - 12

SPLIT FLANGE KITS

COMPLETE KIT: includes 2 flange, 1 O-Ring, 4 bolts and 4 lockwashers.



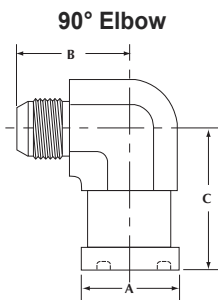
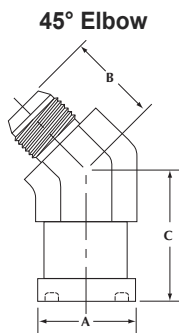
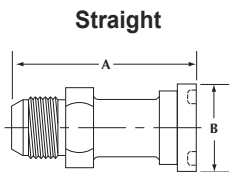
Code 62 Complete Kit Part Number	Size	Kit Components Part Number							
		Flanges	Size	O-Ring	Size	Bolts	Sizes Used On	Lock Wash.	Sizes Used On
SFK62-12	3/4	12x262	3/4	12x252	3/4	12x263	3/4	12x254	3/4
SFK62-16	1	16x262	1	16x252	1	16x263	1	20x254	1
SFK62-20	1 1/4	20x262	1 1/4	20x252	1 1/4	20x263	1 1/4	24x254	1 1/4
SFK62-24	1 1/2	24x262	1 1/2	24x252	1 1/2	24x263	1 1/2	24x264	1 1/2
SFK62-32	2	32x262	2	32x252	2	32x263	2	32x254	2

HYDRAULIC HOSE ACCESSORIES

SPLIT FLANGE ADAPTERS (Code 61) One Piece

(Male 37° JIC x Code 61 Flange)

One-piece carbon steel construction eliminates potential leak points. Compact design simplifies assembly in restrictive areas within a hydraulic system. Uses SFK and SFK62 Split Flange kits.



Part Number	Tube Size	Male O-Ring Boss	Male O-Ring Face Seal	Flange Size	A	B	C	Male JIC Thread
300-08-08	1/2	—	—	1/2	2.60	1.18	—	3/4 - 16
300-08-12	1/2	—	—	3/4	2.75	1.50	—	3/4 - 16
300-12-12	3/4	—	—	3/4	2.75	1.50	—	1 1/16 - 12
300-12-16	3/4	—	—	1	2.80	1.75	—	1 1/16 - 12
300-16-16	1	—	—	1	2.80	1.75	—	1 5/16 - 12
300-16-20	1	—	—	1 1/4	2.80	2.00	—	1 5/16 - 12
300-20-16	1 1/4	—	—	1	2.80	1.75	—	1 5/8 - 12
300-20-20	1 1/4	—	—	1 1/4	2.80	2.00	—	1 5/8 - 12
300-20-24	1 1/4	—	—	1 1/2	3.38	2.37	—	1 5/8 - 12
300-24-20	1 1/2	—	—	1 1/4	3.40	2.00	—	1 7/8 - 12
300-24-24	1 1/2	—	—	1 1/2	3.50	2.37	—	1 7/8 - 12
300-24-32	1 1/2	—	—	2	3.73	2.81	—	1 7/8 - 12
300-32-24	2	—	—	1 1/2	4.20	2.37	—	2 1/2 - 12
300-32-32	2	—	—	2	3.98	2.81	—	2 1/2 - 12
300-32-40	2	—	—	2 1/2	—	—	—	2 1/2 - 12
340-12-12	3/4	—	—	3/4	1.50	1.28	1.58	1 1/16 - 12
340-16-16	1	—	—	1	1.75	1.47	1.85	1 5/16 - 12
340-20-20	1 1/4	—	—	1 1/4	2.00	1.59	2.04	1 5/8 - 12
340-24-24	1 1/2	—	—	1 1/2	2.37	1.78	2.38	1 7/8 - 12
340-32-32	2	—	—	2	2.81	2.22	3.00	2 1/2 - 12
390-08-12	1/2	—	—	3/4	1.50	1.66	2.13	3/4 - 16
390-12-12	3/4	—	—	3/4	1.50	1.66	2.13	1 1/16 - 12
390-12-16	3/4	—	—	1	1.75	1.81	2.37	1 1/16 - 12
390-16-12	1	—	—	3/4	1.50	1.66	2.13	1 5/16 - 12
390-16-16	1	—	—	1	1.75	1.81	2.37	1 5/16 - 12
390-16-20	1	—	—	1 1/4	2.00	2.06	2.62	1 5/16 - 12
390-20-16	1 1/4	—	—	1	1.75	1.81	2.37	1 5/8 - 12
390-20-20	1 1/4	—	—	1 1/4	2.00	2.06	2.62	1 5/8 - 12
390-20-24	1 1/4	—	—	1 1/2	2.37	2.33	3.15	1 5/8 - 12
390-24-20	1 1/2	—	—	1 1/4	—	—	—	1 7/8 - 12
390-24-24	1 1/2	—	—	1 1/2	2.37	2.33	3.15	1 7/8 - 12
390-24-32	1 1/2	—	—	2	2.81	3.06	4.25	1 7/8 - 12
390-32-32	2	—	—	2	2.81	3.06	4.25	2 1/2 - 12

Please Note: Split Flange Kits are found on page 1.

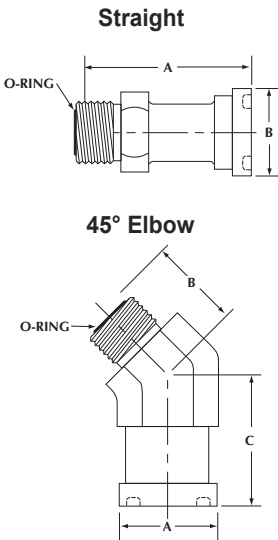


HYDRAULIC HOSE ACCESSORIES

SPLIT FLANGE ADAPTERS (Code 61)

One Piece

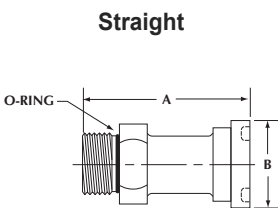
(Male O-Ring Face Seal x Code 61 Flange)



Part Number	Tube Size	Male O-Ring Boss	Male O-Ring Face Seal	Flange Size	A	B	C	Male ORS Thread
304-08-08	—	—	1/2	1/2	2.45	1.18	—	1 1/16 - 12
304-12-12	—	—	3/4	3/4	2.75	1.50	—	1 1/16 - 12
304-16-12	—	—	1	3/4	2.75	1.50	—	1 7/8 - 12
304-16-16	—	—	1	1	2.80	1.75	—	1 7/8 - 12
304-20-16	—	—	1 1/4	1	2.80	1.75	—	1 1/16 - 12
304-16-20	—	—	1	1 1/4	2.80	2.00	—	1 7/8 - 12
304-20-20	—	—	1 1/4	1 1/4	2.80	2.00	—	1 1/16 - 12
304-24-20	—	—	1 1/2	1 1/4	3.20	2.00	—	2 - 12
304-20-24	—	—	1 1/4	1 1/2	3.50	2.37	—	1 1/16 - 12
304-24-24	—	—	1 1/2	1 1/2	3.50	2.37	—	2 - 12
304-24-32	—	—	1 1/2	2	3.33	2.81	—	2 - 12
344-12-12	—	—	3/4	3/4	1.50	1.28	1.58	1 3/16 - 12
344-16-16	—	—	1	1	1.75	1.47	1.85	1 7/8 - 12
344-20-20	—	—	1 1/4	1 1/4	2.00	1.59	2.04	1 1/16 - 12
344-24-24	—	—	1 1/2	1 1/2	2.37	1.78	2.38	2 - 12

Please Note: Face Seal O-Ring is included with part. Split Flange O-Rings are found on page 104 of Catalog MS0215b.

(Male O-Ring Face Boss x Code 61 Flange)



Part Number	Tube Size	Male O-Ring Boss	Male O-Ring Face Seal	Flange Size	A	B	C	Male Str. Thread
302-08-08	—	1/2	—	1/2	2.49	1.18	—	3/4 - 16
302-12-12	—	3/4	—	3/4	2.61	1.50	—	1 1/16 - 12
302-16-12	—	1	—	3/4	2.88	1.50	—	1 5/16 - 12
302-12-16	—	3/4	—	1	2.74	1.75	—	1 1/16 - 12
302-16-16	—	1	—	1	2.61	1.75	—	1 5/16 - 12
302-20-16	—	1 1/4	—	1	3.13	1.75	—	1 5/8 - 12
302-16-20	—	1	—	1 1/4	2.74	2.00	—	1 5/16 - 12
302-20-20	—	1 1/4	—	1 1/4	3.13	2.00	—	1 5/8 - 12
302-24-20	—	1 1/2	—	1 1/4	3.43	2.00	—	1 7/8 - 12
302-20-24	—	1 1/4	—	1 1/2	3.30	2.37	—	1 5/8 - 12
302-24-24	—	1 1/2	—	1 1/2	3.14	2.37	—	1 7/8 - 12
302-32-24	—	2	—	1 1/2	3.63	2.37	—	2 1/2 - 12
302-24-32	—	1 1/2	—	2	3.79	2.81	—	1 7/8 - 12
302-32-32	—	2	—	2	3.63	2.81	—	2 1/2 - 12

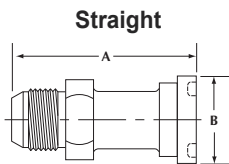
Please Note: Boss O-Ring is included with part. Boss O-Rings are found on page 88 of Catalog MS0215b.

HYDRAULIC HOSE ACCESSORIES

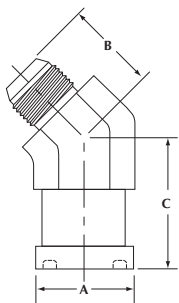
SPLIT FLANGE ADAPTERS (Code 62)

One Piece

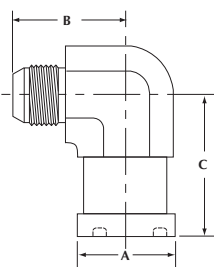
(Male 37° JIC x Code 62 Flange)



45° Elbow



90° Elbow



Part Number	Tube Size	Male O-Ring Boss	Male O-Ring Face Seal	Flange Size	A	B	C	Male JIC Thread
600-08-08	1/2	—	—	1/2	2.61	1.25	—	3/4 - 16
600-12-12	3/4	—	—	3/4	2.75	1.62	—	1 1/16 - 12
600-12-16	3/4	—	—	1	2.80	1.87	—	1 1/16 - 12
600-16-12	1	—	—	3/4	2.75	1.62	—	1 5/16 - 12
600-16-16	1	—	—	1	2.80	1.87	—	1 5/16 - 12
600-16-20	1	—	—	1 1/4	3.05	2.12	—	1 5/16 - 12
600-20-16	1 1/4	—	—	1	2.80	1.87	—	1 5/8 - 12
600-20-20	1 1/4	—	—	1 1/4	3.05	2.12	—	1 5/8 - 12
600-20-24	1 1/4	—	—	1 1/2	3.50	2.50	—	1 5/8 - 12
600-24-20	1 1/2	—	—	1 1/4	3.30	2.12	—	1 7/8 - 12
600-24-24	1 1/2	—	—	1 1/2	3.50	2.50	—	1 7/8 - 12
600-24-32	1 1/2	—	—	2	3.98	3.12	—	1 7/8 - 12
600-32-24	2	—	—	1 1/2	4.49	2.50	—	2 1/2 - 12
600-32-32	2	—	—	2	4.23	3.12	—	2 1/2 - 12
640-12-12	3/4	—	—	3/4	1.62	1.28	1.58	1 1/16 - 12
640-16-16	1	—	—	1	1.87	1.47	1.85	1 5/16 - 12
640-20-20	1 1/4	—	—	1 1/4	2.12	1.59	2.04	1 5/8 - 12
640-24-24	1 1/2	—	—	1 1/2	2.50	1.78	2.38	1 7/8 - 12
640-32-32	2	—	—	2	3.12	2.22	3.00	2 1/2 - 12
690-08-08	1/2	—	—	1/2	1.25	1.66	2.13	3/4 - 16
690-08-12	1/2	—	—	3/4	1.62	1.66	2.13	3/4 - 16
690-12-12	3/4	—	—	3/4	1.62	1.66	2.13	1 1/16 - 12
690-16-12	1	—	—	3/4	1.62	1.66	2.13	1 5/16 - 12
690-12-16	3/4	—	—	1	1.87	1.81	2.37	1 1/16 - 12
690-16-16	1	—	—	1	1.87	1.81	2.37	1 5/16 - 12
690-20-16	1 1/4	—	—	1	1.87	1.81	2.37	1 5/8 - 12
690-16-20	1	—	—	1 1/4	2.12	2.06	2.76	1 5/16 - 12
690-20-20	1 1/4	—	—	1 1/4	2.12	2.06	2.76	1 5/8 - 12
690-24-20	1 1/2	—	—	1 1/4	2.12	2.19	2.76	1 7/8 - 12
690-20-24	1 1/4	—	—	1 1/2	2.50	2.33	3.15	1 5/8 - 12
690-24-24	1 1/2	—	—	1 1/2	2.50	2.33	3.15	1 7/8 - 12
690-32-24	2	—	—	1 1/2	2.50	3.06	4.25	2 1/2 - 12
690-24-32	1 1/2	—	—	2	3.12	3.06	4.25	1 7/8 - 12
690-32-32	2	—	—	2	3.12	3.06	4.25	2 1/2 - 12

Please Note: Split Flange Kits are found on page 2.

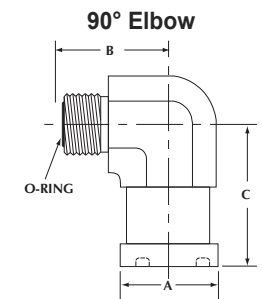
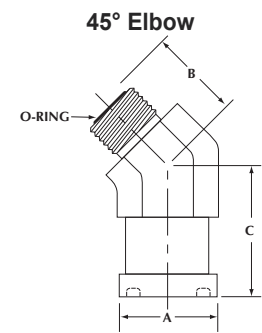
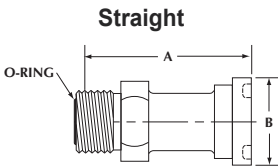


HYDRAULIC HOSE ACCESSORIES

SPLIT FLANGE ADAPTERS (Code 62)

One Piece

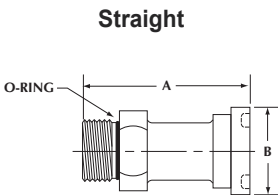
(Male O-Ring Face Seal x Code 62 Flange)



Part Number	Tube Size	Male O-Ring Boss	Male O-Ring Face Seal	Flange Size	A	B	C	Male ORS Thread
604-08-08	—	—	1/2	1/2	2.58	1.25	—	1 3/16 - 16
604-12-12	—	—	3/4	3/4	2.75	1.62	—	1 3/16 - 12
604-16-12	—	—	1	3/4	2.75	1.62	—	1 7/8 - 12
604-12-16	—	—	3/4	1	2.80	1.87	—	1 3/16 - 12
604-16-16	—	—	1	1	2.80	1.87	—	1 7/8 - 12
604-20-16	—	—	1 1/4	1	3.20	1.87	—	1 11/16 - 12
604-16-20	—	—	1	1 1/4	3.05	2.12	—	1 7/8 - 12
604-20-20	—	—	1 1/4	1 1/4	3.05	2.12	—	1 11/16 - 12
604-24-20	—	—	1 1/2	1 1/4	3.30	2.12	—	2 - 12
604-20-24	—	—	1 1/4	1 1/2	3.50	2.50	—	1 11/16 - 12
604-24-24	—	—	1 1/2	1 1/2	3.50	2.50	—	2 - 12
604-24-32	—	—	1 1/2	2	3.58	3.12	—	2 - 12
644-12-12	—	—	3/4	3/4	1.62	1.28	1.58	1 3/16 - 12
644-16-16	—	—	1	1	1.87	1.47	1.85	1 7/8 - 12
644-20-20	—	—	1 1/4	1 1/4	2.12	1.59	2.04	1 11/16 - 12
644-24-24	—	—	1 1/2	1 1/2	2.50	1.78	2.38	2 - 12
694-12-12	—	—	3/4	3/4	1.62	1.66	2.13	1 3/16 - 12
694-12-16	—	—	3/4	1	1.87	1.81	2.37	1 3/16 - 12
694-16-12	—	—	1	3/4	1.62	1.66	2.13	1 7/8 - 12
694-16-16	—	—	1	1	1.87	1.81	2.37	1 7/8 - 12
694-16-20	—	—	1	1 1/4	2.12	2.06	2.76	1 7/8 - 12
694-20-16	—	—	1 1/4	1	1.87	1.81	2.37	1 11/16 - 12
694-20-20	—	—	1 1/4	1 1/4	2.12	2.06	2.76	1 11/16 - 12
694-20-24	—	—	1 1/4	1 1/2	2.50	2.33	3.15	1 11/16 - 12
694-24-30	—	—	1 1/2	1 1/4	2.12	2.06	2.76	2 - 12
694-24-24	—	—	1 1/2	1 1/2	2.50	2.33	3.15	2 - 12

Please Note: Face Seal O-Ring is included with part. Split Flange O-Rings are found on page 104 of Catalog MS0215b.

(Male O-Ring Face Boss x Code 62 Flange)



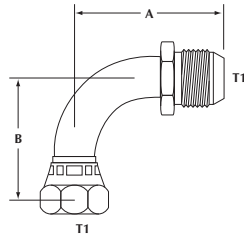
Part Number	Tube Size	Male O-Ring Boss	Male O-Ring Face Seal	Flange Size	A	B	C	Male Str. Thread
602-08-08	—	1/2	—	1/2	2.50	1.25	—	3/4 - 16
602-12-12	—	3/4	—	3/4	2.62	1.62	—	1 1/16 - 12
602-16-12	—	1	—	3/4	2.88	1.62	—	1 5/16 - 12
602-12-16	—	3/4	—	1	2.75	1.87	—	1 1/16 - 12
602-16-16	—	1	—	1	2.62	1.87	—	1 5/16 - 12
602-20-16	—	1 1/4	—	1	3.44	1.87	—	1 5/8 - 12
602-16-20	—	1	—	1 1/4	3.12	2.12	—	1 5/16 - 12
602-20-20	—	1 1/4	—	1 1/4	3.00	2.12	—	1 5/8 - 12
602-24-20	—	1 1/2	—	1 1/4	3.44	2.12	—	1 7/8 - 12
602-20-24	—	1 1/4	—	1 1/2	3.31	2.50	—	1 5/8 - 12
602-24-24	—	1 1/2	—	1 1/2	3.19	2.50	—	1 7/8 - 12
602-32-24	—	2	—	1 1/2	4.24	2.50	—	2 1/2 - 12
602-24-32	—	1 1/2	—	2	3.90	3.12	—	1 7/8 - 12
602-32-32	—	2	—	2	3.75	3.12	—	2 1/2 - 12

Please Note: Boss O-Ring is included with part. Boss O-Rings are found on page 88 of Catalog MS0215b.

HYDRAULIC HOSE ACCESSORIES

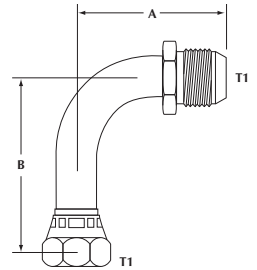
JIC 37° TUBE ELBOW 90° - LONG BRAZED CONSTRUCTION

Part No. 6500-L- (Dash Size)
 Male JIC 37° Flare
 — Female JIC 37° Swivel



JIC 37° TUBE ELBOW 90° - EXTRA LONG BRAZED CONSTRUCTION

Part No. 6500-LL- (Dash Size)
 Male JIC 37° Flare
 — Female JIC 37° Swivel

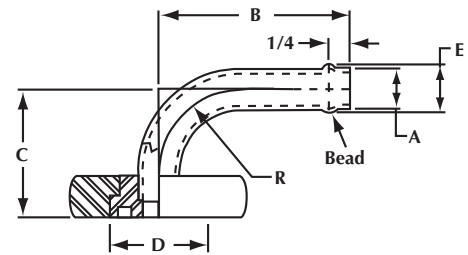


Dash Size (Steel)	T1 Straight Thread	Tube Size	A	B
08-08	3/4 - 16	1/2	1.76	1.09
10-10	7/8 - 14	5/8	1.87	1.23
12-12	1 1/16 - 12	3/4	2.46	1.82
16-16	1 5/16 - 12	1	2.79	2.14

Dash Size (Steel)	T1 Straight Thread	Tube Size	A	B
08-08	3/4 - 16	1/2	1.89	2.43
10-10	7/8 - 14	5/8	2.00	2.83
12-12	1 1/16 - 12	3/4	2.46	3.73
16-16	1 5/16 - 12	1	2.65	4.32

HYDRAULIC HOSE ADAPTERS

These flange headed fittings are designed to be connected to a Return or Suction line within a hydraulic system feeding back to the tank. A hose clamp is to be used directly in front of the bead to ensure a snug, hose to coupling fit.



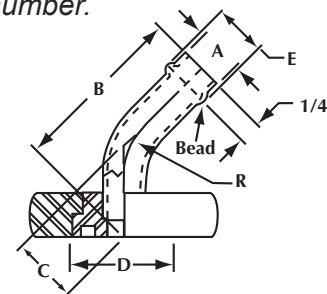
Shown with optional captive flange

90° ELBOW HOSE INSERT ASSEMBLY — 23867-F

(Hose I.D. x S.A.E. Flanged Head)

Part Number w/Flange	A Hose I.D.	SAE Flange Head Size (4 Bolt)	B	C	D	E	R Radius
23867-12-16F	3/4	1	2 9/16	2	1 3/4	0.816	1 1/4
23867-16-20F	1	1 1/4	2 15/16	2 1/4	2	1.106	1 1/2
23867-20F	1 1/4	1 1/4	3 9/16	2 1/2	2	1.356	1 3/8
23867-20-16F	1 1/4	1	3 9/16	2 1/2	1 3/4	1.356	1 3/8
23867-20-24F	1 1/4	1 1/2	3 9/16	2 9/16	2 3/8	1.356	2
23867-24F	1 1/2	1 1/2	4 1/16	2 15/16	2 3/8	1.624	2 1/4
23867-24-20F	1 1/2	1 1/4	4 1/16	2 15/16	2	1.624	2 1/4
23867-24-32F	1 1/2	2	4 1/16	2 15/16	2 13/16	1.624	2 1/4
23867-32F	2	2	4 3/16	4 1/4	2 13/16	2.146	3
23867-32-24F	2	1 1/2	4 19/16	4 9/16	2 3/8	2.146	3
23867-32-40F	2	2 1/2	4 19/16	4 9/16	3 5/16	2.146	3
23867-32-48F	2	3	4 19/16	4 3/8	4	2.146	3
23867-40F	2 1/2	2 1/2	6 11/16	4 3/4	3 5/16	2.646	3 3/4
23867-40LF	2 1/2	2 1/2	6 11/16	6	3 5/16	2.646	3 3/4
23867-40-32F	2 1/2	2	6 11/16	5	2 13/16	2.646	3 3/4
23867-40-48F	2 1/2	3	6 11/16	4 19/16	4	2.646	3 3/4
23867-48F	3	3	6 13/16	5 1/2	4	3.146	4 1/2
23867-48-56F	3	3 1/2	6 13/16	5 1/2	4 1/2	3.146	4 1/2

Please Note: To order without captive flange, remove "F" suffix from the part number.



Shown with optional captive flange

45° ELBOW HOSE INSERT ASSEMBLY — 23868-F

(Hose I.D. x S.A.E. Flanged Head)

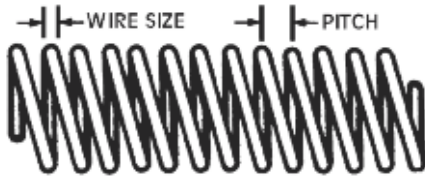
Part Number w/Flange	A Hose I.D.	SAE Flange Head Size (4 Bolt)	B	C	D	E	R Radius
23868-20F	1 1/4	1 1/4	3 31/64	1 7/64	2	1.356	1 3/8
23868-24F	1 1/2	1 1/2	4 3/64	1 5/16	2 3/8	1.624	2 1/4
23868-32F	2	2	4 19/16	1 3/4	2 13/16	2.146	3
23868-32-24F	2	1 1/2	4 59/64	1 51/64	2 3/8	2.146	3
23868-32-40F	2	2 1/2	4 27/32	1 51/64	3 5/16	2.146	3
23868-40F	2 1/2	2 1/2	5 43/64	1 35/64	3 5/16	2.646	3 3/4
23868-48F	3	3	5 63/64	1 13/16	4	3.146	4 1/2
23868-48-64F	3	4	6 1/4	2 5/64	5	3.146	4 1/2

Please Note: To order without captive flange, remove "F" suffix from the part number.

HYDRAULIC HOSE ACCESSORIES

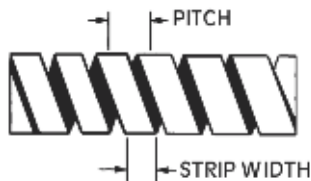
SPRING GUARDS

Round & flat wire spring guards slip over the hose to protect against chafing, cutting and other rough service applications. Hose assemblies can be ordered with a spring guard.



Part Number	Coil I.D.	Wire	Pitch
A1900	.515	.063	.188
A1901	.550	.063	.188
A1902	.610	.063	.188
A1903	.650	.080	.188
A1904	.750	.080	.188
A1905	.835	.080	.188
A1906	.900	.080	.188
A1907	.990	.080	.188
A1908	1.055	.080	.188
A1909	1.110	.080	.250
A1910	1.240	.080	.250
A1912	1.380	.120	.375
A1913	1.630	.120	.375
A1915	1.810	.120	.375
A1916	2.000	.120	.375
A1917	2.125	.120	.375
A1919	2.300	.120	.375

FLAT WIRE



Part Number	Coil I.D.	Strip Thickness	Strip Width	Pitch
A2900	.515	.028	.375	.500
A2901	.550	.028	.375	.500
A2902	.610	.028	.375	.500
A2903	.650	.028	.375	.500
A2904	.750	.028	.375	.500
A2905	.835	.028	.500	.688
A2906	.900	.028	.500	.688
A2907	.990	.028	.500	.688
A2911	1.300	.028	.500	.688
A2915	1.880	.042	.500	.812
A2916	1.910	.042	.500	.812
A2917	2.130	.042	.500	.812
A2919	2.300	.042	.500	.812

SPIRAL WRAP TUBING

Abrasion resistant spiral wrap tubing. Polyethylene, ultraviolet resistant in black. Rated for up to 122°F. Perfect to protect a single hose or bundle.



Part Number	Hose I.D.	Approx. Wall Thickness	Spool Length
PWLD-4	¼	0.045	100
PWLD-6	⅜	0.052	100
PWLD-8	½	0.062	100
PWLD-12	¾	0.065	100
PWLD-16	1	0.110	50
PWLD-20	1 ¼	0.135	100
PWLD-24	1 ½	0.145	100
PWLD-32	2	0.175	50
PWLD-56	3 ½	0.190	50
PWLD-96	6	0.185	20

NYLON ABRASION SLEEVE

A hose protection product used to help protect hose from abrasions and cuts. Perfect for abrasive applications due to rubbing or dragging of the hose assembly. Useful for bundling two or more hose assemblies together, in addition to the protective qualities.



Part Number	Lay Flat Dimension	Nominal I.D.
NHS-071	1.19	0.71
NHS-077	1.25	0.77
NHS-090	1.50	0.90
NHS-100	1.66	1.00
NHS-114	1.88	1.14
NHS-125	2.03	1.25
NHS-130	2.13	1.30
NHS-138	2.25	1.38
NHS-153	2.50	1.53
NHS-159	2.56	1.59
NHS-170	2.75	1.70
NHS-175	2.81	1.75
NHS-185	3.00	1.85
NHS-207	3.31	2.08
NHS-225	3.63	2.25
NHS-238	3.81	2.38
NHS-254	4.06	2.54
NHS-264	4.25	2.64
NHS-286	4.56	2.86
NHS-296	4.75	2.96
NHS-334	5.31	3.34
NHS-366	5.81	3.66

HYDRAULIC HOSE ACCESSORIES

DIAMONDBACK HOSE SLEEVE

This sleeve meets the new line of sight operator specification, EN982 ISO Norm 833 EN414 as mandated by the EU. Ultra tight construction contains oil spillage from pin hole leaks. Meets abrasion standard ISO 6945 and conductivity standard ISO 8031. Offers optima UV and abrasion protection.



Part Number	Lay Flat Dimension	Nominal I.D.
TEXS17	1.18	0.67
TEXS20	1.22	0.79
TEXS23	1.54	0.91
TEXS25	1.65	0.98
TEXS27	1.77	1.06
TEXS31	2.05	1.22
TEXS36	2.24	1.42
TEXS40	2.60	1.57
TEXS44	2.83	1.73
TEXS47	3.03	1.85
TEXS55	3.50	2.17
TEXS60	3.82	2.36
TEXS73	4.65	2.87
TEXS75	4.76	2.95
TEXS93	5.87	3.66

REUSABLE BUNDLE SLEEVE

Constructed of 1050 ballistic nylon with a urethane coating. Perfect for sleeving a bundle of hose. Uses a hook and loop closure system.



Part Number	Hose I.D.	Approx. Wall Thickness	Spool Length
TQS-2	2"	2" Velcro Sleeve	150'
TQS-3	3"	3" Velcro Sleeve	150'
TQS-4	4"	4" Velcro Sleeve	150'
TQS-5	5"	5" Velcro Sleeve	150'
TQS-6	6"	6" Velcro Sleeve	150'
TQS-7	7"	7" Velcro Sleeve	150'
TQS-8	8"	8" Velcro Sleeve	150'

HANGING STRAP BINDING

Hanging straps are held in place with a 3/8" grommet. Strapping material is reinforced Ballistic Cordura Nylon. Buckle system with a hook and loop closure system pulls tight against the bundle of hose. Perfect for anchoring routed bundles of hose.



Part Number	Circumference of Hose Bundle
HS404	4"
HS406	6"
HS408	8"
HS412	12"
HS416	16"
HS420	20"
HS424	24"

CINCH STRAPS

Cinch straps are made of a reinforced Ballistic Cordura Nylon. Buckle system with a hook and loop closure system pulls tight against the bundle of hose. Perfect for bundling and system routing hose.



Part Number	Circumference of Hose Bundle
CS404	4"
CS406	6"
CS408	8"
CS412	12"
CS416	16"
CS420	20"
CS424	24"

HYDRAULIC HOSE ACCESSORIES

FIRESLEEVE

Firesleeve is a flame resistant sheathing constructed of tightly-woven fiberglass coated with a specially compounded, highly temperature-resistant, silicon rubber. Continuous exposure up to 500°F. Up to 2000°F for 15-20 minutes. Up to 3000°F for durations of 15-30 seconds.



Part Number	Sleeve I.D.	Roll Length
A6908	0.50	100'
A6910	0.63	100'
A6912	0.75	100'
A6914	0.88	100'
A6916	1.00	100'
A6920	1.25	100'
A6924	1.50	100'
A6928	1.75	100'
A6932	2.00	100'
A6936	2.25	100'
A6940	2.50	100'
A6948	3.00	100'



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