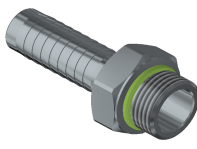
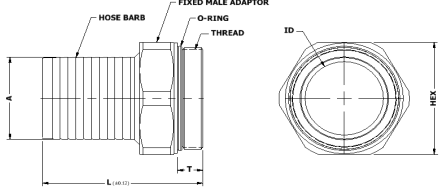
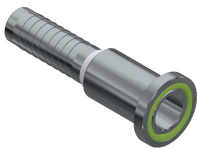
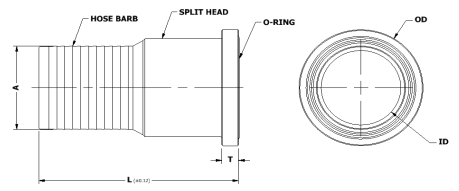


Part Number	Est. Weight (lbs)	Dimensions* (inches)					Thread
		ID	L	A	T	HEX	
HF12BA0012MSAE1A	0.37	0.58	3.28	0.77	0.59	1.37	1-1/16-12 UN
HF16BA0016MSAE1A	0.51	0.83	3.33	1.03	0.59	1.62	1-5/16-12 UN
HF20BA0020MSAE1A	0.71	1.09	3.44	1.29	0.59	1.87	1-5/8-12 UN
HF24BA0024MSAE1A	0.90	1.3	3.5	1.54	0.59	2.12	1-7/8-12 UN
HF32BA0032MSAE1A	1.46	1.8	3.69	2.02	0.59	2.75	2-1/2-12 UN
HF40BA0040MSAE1A	2.03	2.24	4.11	2.52	0.59	3.25	3-12 UN
HF48BA0048MSAE1A	2.91	2.72	4.79	3.03	0.59	3.75	3-1/2-12 UN
HF64BA0064MSAE1A	4.57	3.61	5.38	4.04	0.59	4.75	4-1/2-12 UN

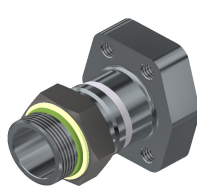
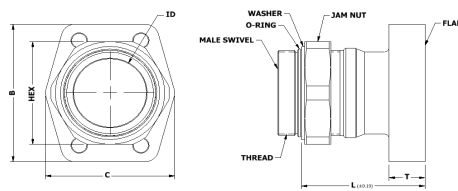
*Dimensions are typical for Steel, Stainless Steel, and all O-ring material choices.

Part Number	Est. Weight (lbs)	Dimensions* (inches)				
		ID	L	A	T	OD
HF12BA0012FS31A	0.40	0.58	4.17	0.77	0.27	1.50
HF16BA0016FS31A	0.58	0.83	4.16	1.03	0.31	1.75
HF20BA0020FS31A	0.77	1.09	4.35	1.29	0.31	2.00
HF24BA0024FS31A	0.81	1.30	4.43	1.54	0.31	2.38
HF32BA0032FS31A	1.39	1.80	4.53	2.02	0.38	2.81
HF40BA0040FS31A	2.17	2.24	4.99	2.52	0.38	3.31
HF48BA0048FS31A	3.41	2.72	5.50	3.03	0.38	4.00
HF64BA0064FS31A	4.75	3.61	6.18	4.04	0.45	5.00

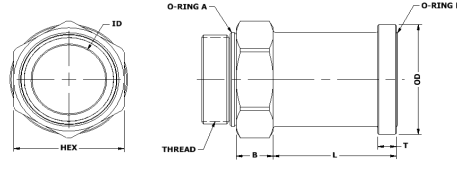
*Dimensions are typical for Steel, Stainless Steel, and all O-ring material choices.

Part Number	Est. Weight (lbs)	Dimensions* (inches)							
		ID	L	B	T	HEX	Thread	C	Flange
HF12F30012MSAE1A	1.18	0.79	2.62	2.56	0.71	1.50	1-1/16-12 UN	1.97	3/4" C.61
HF16F30016MSAE1A	1.41	0.98	2.70	2.76	0.71	1.75	1-5/16-12 UN	2.17	1" C.61
HF20F30020MSAE1A	2.21	1.25	2.96	3.11	0.83	2.00	1-5/8-12 UN	2.68	1-1/4" C.61
HF24F30024MSAE1A	3.16	1.50	3.18	3.66	0.98	2.25	1-7/8-12 UN	3.07	1-1/2" C.61
HF32F30032MSAE1A	4.14	2.00	3.38	4.01	0.98	3.00	2-1/2-12 UN	3.54	2" C.61
HF40F30040MSAE1A	5.74	2.48	3.58	4.49	0.98	3.50	3-12 UN	4.13	2-1/2" C.61
HF48F30048MSAE1A	8.20	2.87	3.76	5.28	1.06	4.00	3-1/2-12 UN	4.88	3" C.61
HF64F30064MSAE1A	10.22	3.90	3.68	6.38	1.06	5.00	4-1/2-12 UN	5.75	4" C.61


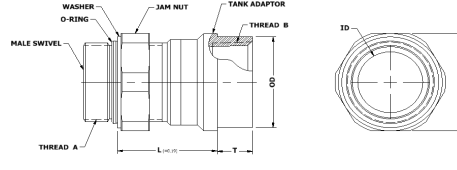
*Dimensions are typical for Steel, Stainless Steel, and all O-ring material choices.

Part Number	Est. Weight (lbs)	Dimensions* (inches)						
		ID	L	B	T	HEX	Thread	OD
HF08FS3008MSAE1A	0.50	0.50	1.58	0.42	0.27	1.00	1-1/16-12 UN	1.19
HF12FS3012MSAE1A	0.62	0.75	1.64	0.50	0.27	1.37	1-1/16-12 UN	1.50
HF16FS3016MSAE1A	0.78	1.00	1.64	0.50	0.31	1.62	1-5/16-12 UN	1.75
HF20FS3020MSAE1A	1.12	1.25	2.09	0.63	0.31	1.87	1-5/8-12 UN	2.00
HF24FS3024MSAE1A	1.39	1.50	2.09	0.63	0.31	2.12	1-7/8-12 UN	2.37
HF32FS3032MSAE1A	2.02	2.00	2.34	0.63	0.38	2.75	2-1/2-12 UN	2.81
HF40FS3040MSAE1A	2.51	2.50	2.55	0.63	0.38	3.25	3-12 UN	3.31
HF48FS3048MSAE1A	3.72	3.00	2.59	0.75	0.38	3.75	3-1/2-12 UN	4.00
HF64FS3064MSAE1A	4.79	4.00	2.69	0.75	0.45	4.75	4-1/2-12 UN	5.00


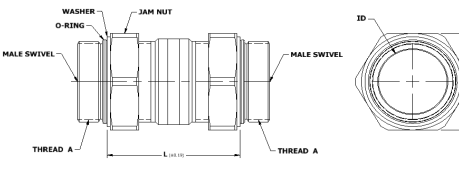
*Dimensions are typical for Steel, Stainless Steel, and all O-ring material choices.

Part Number	Est. Weight (lbs)	Dimensions* (inches)						
		ID	L	OD	T	HEX	Thread A	Thread B
HF12FNPT0012MSAE1A	0.59	0.75	1.70	1.24	0.62	1.50	1-1/16-12 UN	3/4 NPT
HF16FNPT0016MSAE1A	0.74	1.00	1.70	1.49	0.62	1.75	1-5/16-12 UN	1 NPT
HF20FNPT0020MSAE1A	1.13	1.25	1.91	1.86	0.68	2.00	1-5/8-12 UN	1-1/4 NPT
HF24FNPT0024MSAE1A	1.39	1.50	2.02	2.11	0.68	2.25	1-7/8-12 UN	1-1/2 NPT
HF32FNPT0032MSAE1A	2.44	2.00	2.18	2.61	0.75	3.00	2-1/2-12 UN	2 NPT
HF40FNPT0040MSAE1A	3.63	2.50	2.36	3.24	0.87	3.50	3-12 UN	2-1/2 NPT
HF48FNPT0048MSAE1A	5.03	3.00	2.66	3.99	0.87	4.00	3-1/2-12 UN	3 NPT
HF64FNPT0064MSAE1A	6.46	4.00	2.66	4.99	0.87	5.00	4-1/2-12 UN	4 NPT

*Dimensions are typical for Steel, Stainless Steel, and all O-ring material choices.

Part Number	Est. Weight (lbs)	Dimensions* (inches)		
		ID	L	THREAD A
HF12MSAE0012MSAE1A	0.78	0.75	2.40	1-1/16-12 UN
HF16MSAE0016MSAE1A	0.98	1.00	2.40	1-5/16-12 UN
HF20MSAE0020MSAE1A	1.46	1.25	2.69	1-5/8-12 UN
HF24MSAE0024MSAE1A	1.85	1.50	2.90	1-7/8-12 UN
HF32MSAE0032MSAE1A	3.55	2.00	3.22	2-1/2-12 UN
HF40MSAE0040MSAE1A	4.32	2.50	3.23	3-12 UN
HF48MSAE0048MSAE1A	5.55	3.00	3.57	3-1/2-12 UN
HF64MSAE0064MSAE1A	7.22	4.00	3.58	4-1/2-12 UN

*Dimensions are typical for Steel, Stainless Steel, and all O-ring material choices.