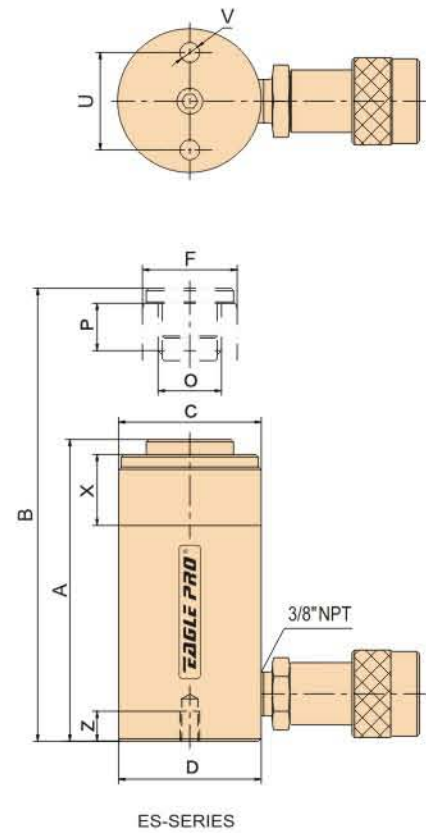
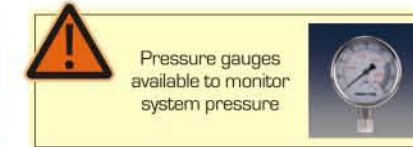
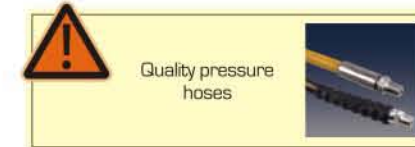


ES-SERIES GENERAL PURPOSE, SINGLE ACTING CYLINDERS



Cylinder Capacity @ 700 Bar (10,000 PSI) Metric Ton (US Ton)	Stroke in	Model	Cylinder Effective Area in ²	Oil Capacity in ³	Collapsed Height		Extended Height	
					A in	B in	A in	B in
5 (5.5)	0.63	ES-50	1.10	0.70	1.65	2.28		
	0.98	ES-51	1.10	1.09	4.33	5.31		
	2.95	ES-53	1.10	3.25	6.50	9.45		
	5.00	ES-55	1.10	5.50	8.46	13.46		
	6.97	ES-57	1.10	7.67	10.75	17.72		
	9.13	ES-59	1.10	10.05	12.72	21.85		
10 (11)	1.02	ES-101	2.25	2.30	3.50	4.53		
	2.13	ES-102	2.25	4.78	4.76	6.89		
	4.13	ES-104	2.25	9.29	6.73	10.87		
	6.14	ES-106	2.25	13.80	9.72	15.87		
	7.99	ES-108	2.25	17.96	11.73	19.72		
	10.12	ES-1010	2.25	22.73	13.74	23.86		
	11.97	ES-1012	2.25	26.89	15.75	27.72		
	14.02	ES-1014	2.25	31.49	17.72	31.73		
15 (16.5)	0.98	ES-151	3.29	3.23	4.88	5.87		
	2.01	ES-152	3.29	6.60	5.87	7.87		
	3.98	ES-154	3.29	13.06	7.87	11.85		
	5.98	ES-156	3.29	19.66	10.67	16.65		
	7.99	ES-158	3.29	26.25	12.68	20.67		
	10.00	ES-1510	3.29	32.85	14.69	24.68		
	12.01	ES-1512	3.29	39.44	16.65	28.66		
	14.02	ES-1514	3.29	46.04	18.66	32.68		
	1.02	ES-251	5.15	5.27	5.47	6.50		
	1.97	ES-252	5.15	10.13	6.50	8.46		
4.02	ES-254	5.15	20.66	8.46	12.48			
6.22	ES-256	5.15	32.00	10.75	16.97			
8.27	ES-258	5.15	42.53	12.72	20.98			
10.28	ES-2510	5.15	52.86	14.72	25.00			
12.24	ES-2512	5.15	62.98	16.73	28.98			
14.25	ES-2514	5.15	73.31	18.74	32.99			
8.23	ES-308	6.85	56.35	15.24	23.46			
50 (55)	2.01	ES-502	10.99	22.06	6.93	8.94		
	4.02	ES-504	10.99	44.11	8.94	12.95		
	6.26	ES-506	10.99	68.77	11.10	17.36		
	13.27	ES-5013	10.99	145.75	18.11	31.38		
75 (82.5)	6.14	ES-756	16.10	98.87	11.22	17.36		
	13.11	ES-7513	16.10	211.05	19.37	32.48		
95 (102.3)	6.61	ES-1006	20.62	136.30	14.06	20.67		
	10.24	ES-10010	20.62	210.94	17.68	27.91		



Collar Thread C in	Collar Thread Length X in	Outside Diameter D in	Piston Rod Diam. F in	Piston Internal Thread O —	Piston Thread Length P in	Base Fix Hoses			Weight lbs	Model
						Bolt Circle U in	Thread V in	Thread Depth Z in		
—	—	2.32X1.65	0.98	—	—	1.10	0.22	—	1.8	ES-50
1 1/2"-16	1.10	1.50	0.98	3/4"-16 UNF	0.63	0.98	1/4"-20 UNC	0.55	2.2	ES-51
1 1/2"-16	1.10	1.50	0.98	3/4"-16 UNF	0.63	0.98	1/4"-20 UNC	0.55	2.9	ES-53
1 1/2"-16	1.10	1.50	0.98	3/4"-16 UNF	0.63	0.98	1/4"-20 UNC	0.55	3.7	ES-55
1 1/2"-16	1.10	1.50	0.98	3/4"-16 UNF	0.63	0.98	1/4"-20 UNC	0.55	4.6	ES-57
1 1/2"-16	1.10	1.50	0.98	3/4"-16 UNF	0.63	0.98	1/4"-20 UNC	0.55	5.1	ES-59
2 1/4"-14	1.02	2.25	1.50	10-24 UNC	0.24	1.54	5/16"-18 UNC	0.47	3.7	ES-101
2 1/4"-14	1.02	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	4.8	ES-102
2 1/4"-14	1.02	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	6.4	ES-104
2 1/4"-14	1.10	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	9.0	ES-106
2 1/4"-14	1.02	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	10.8	ES-108
2 1/4"-14	1.10	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	12.3	ES-1010
2 1/4"-14	1.02	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	14.1	ES-1012
2 1/4"-14	1.02	2.25	1.50	1"-8 UNC	0.75	1.54	5/16"-18 UNC	0.47	15.8	ES-1014
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	7.0	ES-151
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	8.1	ES-152
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	11.0	ES-154
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	14.3	ES-156
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	16.9	ES-158
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	19.1	ES-1510
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	21.6	ES-1512
2 3/4"-16	1.38	2.76	1.65	1"-8 UNC	0.98	1.85	3/8"-16 UNC	0.47	23.8	ES-1514
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	11.7	ES-251
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	13.6	ES-252
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	17.6	ES-254
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	22.7	ES-256
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	26.6	ES-258
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	31.0	ES-2510
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	34.1	ES-2512
3 5/16"-12	2.13	3.39	2.24	1 1/2"-16 UN	1.02	2.28	1/2"-13 UNC	0.75	38.3	ES-2514
3 5/16"-12	1.97	4.13	2.24	1 1/2"-16 UN	1.02	2.36	M8	0.47	47.3	ES-308
5"-12	2.17	5.00	3.15	—	—	3.74	1/2"-13 UNC	0.75	31.7	ES-502
5"-12	2.17	5.00	3.15	—	—	3.74	1/2"-13 UNC	0.75	39.8	ES-504
5"-12	2.17	5.00	3.15	—	—	3.74	1/2"-13 UNC	0.75	48.8	ES-506
5"-12	2.17	5.00	3.15	—	—	3.74	1/2"-13 UNC	0.75	75.5	ES-5013
5 3/4"-12	1.77	5.75	3.74	—	—	—	—	—	67.1	ES-756
5 3/4"-12	1.77	5.75	3.74	—	—	—	—	—	110.7	ES-7513
6 7/8"-12	1.73	6.97	4.13	—	—	5.47	3/4"-10 UNC	0.98	131.3	ES-1006
6 7/8"-12	1.73	6.97	4.13	—	—	5.47	3/4"-10 UNC	0.98	160.4	ES-10010