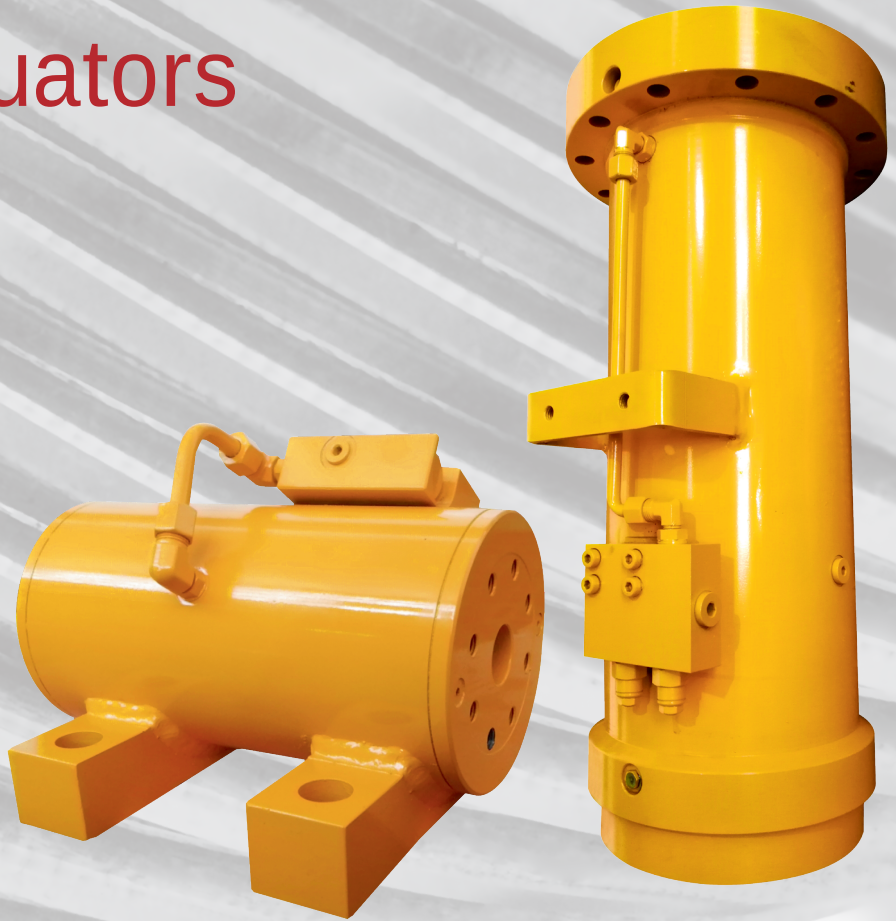


ACTUTORQ™

Helical Hydraulic Rotary Actuators





ATC Series

Rotation	180°, 360°
Max Drive Torque	190Nm-2825Nm
Max Holding Torque	630Nm-9400Nm
Moment capacity	565Nm-11300Nm
Mounting	Flange



ATM Series

Rotation	180°
Max Drive Torque	508Nm-4400Nm
Max Holding Torque	1300Nm-10530Nm
Max Straddle Moment	2500Nm-31600Nm
Max Cantilever Moment	1356Nm-15820Nm
Mounting	Foot



ATH Series

Rotation	180°, 360°
Max Drive Torque	1920Nm-42900Nm
Max Holding Torque	4900Nm-11000Nm
Max Straddle Moment	13400Nm-170000Nm
Max Cantilever Moment	5200Nm-64400Nm
Mounting	Flange, Foot



ATS Series

Rotation	200°, 220°
Max Drive Torque	2830Nm-6780Nm
Max Holding Torque	6100Nm-14350Nm
Max Straddle Moment	4240Nm-10170Nm
Mounting	Foot

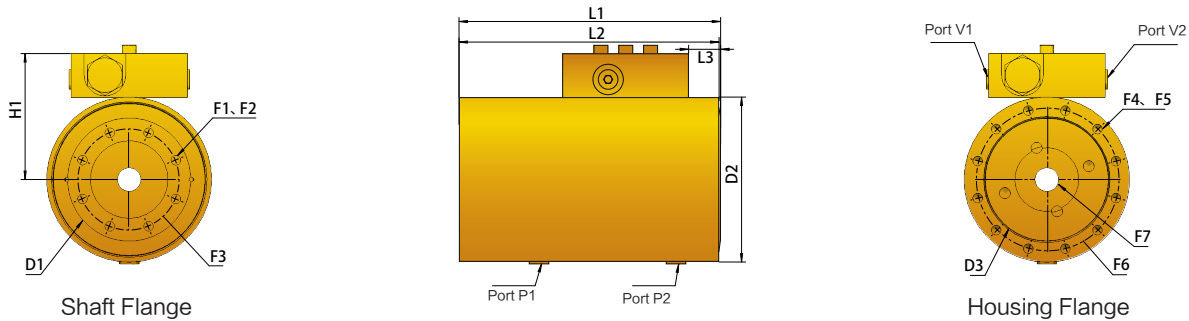


Model Code Reference Guide

AT-25-G-HF-180/90-SS-W-T
 1 2 3 4 5 6 7 8 9

Model Code	ATC Series	ATM Series	ATH Series	ATS Series
1 Autuator Series	C	M	H	S
2 Model	1.7 15	4.5 39	17 95 380	25
	3.0 25	8.2	25 125	45
	5.5	15	42 165	60
	9.5	25	65 215	27
3 Measurement System	G Metric System	Y Imperial System	GD/YD Custom Design	
4 Housing Configuration	HF Rear Flange	DJ Foot Mount	DJ Foot Mount QF Front Flange	DJ Foot Mount
5 Standard Rotation	180 180 ° 360 360 °	180 180 °	180 180 ° 360 360 °	220 220 °
6 Special Rotations	Standard design with internal stop tube to limit rotation—indicates final rotation.			
7 Shaft/End cap Configuration	S Mounting holes in shaft flange only	S Mounting holes in shaft with through-hole or tie rod SS Mounting holes in shaft and end cap flanges	S Mounting holes in shaft flange only SS Mounting holes in shaft and end cap flanges	SH Dual Spline
8 Valve Options	P Counterbalance Valve	W No Valve	V Valve Ready	
9 Seals	B Standard Seals and Bearings	T Special Seals and Bearings		

ATC Series Specification

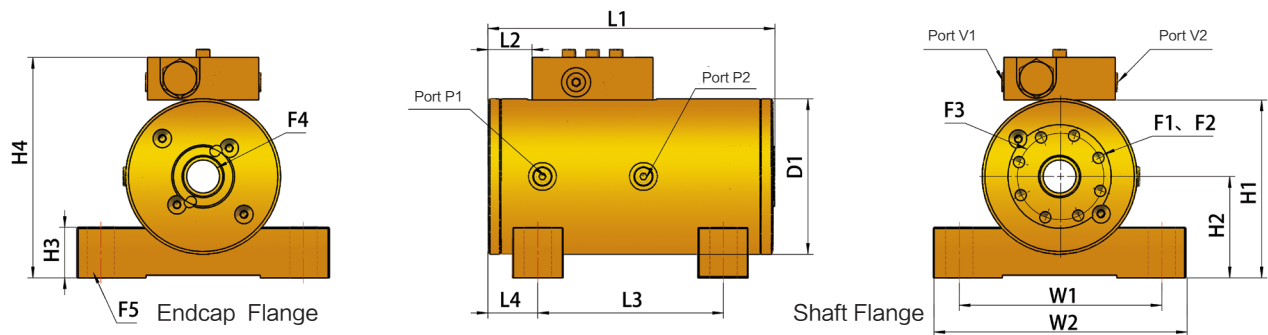


ATC Series			1.7	3.0	5.5	9.5	15	25
Torque (A)	Drive Torque	in-lb@3000psi Nm@210bar	1700 190	3000 340	5500 620	9500 1075	15000 1695	25000 2825
	Holding Torque	in-lb@3000psi Nm@210bar	5560 630	11000 1200	17000 1900	34000 3800	50000 5650	83000 9400
Moment Capacity Cantilever Mount (B)	Capacity	in-lb Nm	5000 565	9000 1020	20000 2260	50000 5650	80000 9040	100000 11300
Radial Capacity (C)	Radial	lb kg	2000 907	3000 1360	4000 1850	8000 3630	11000 4990	15000 6800
Axial Capacity (D)	Axial	lb kg	2000 907	3000 1360	4000 1850	8000 3630	11000 4990	15000 6800
Displacement	180°	in ³ cc	3.91 63.9	7.4 121	11.7 192	22.3 365	33.7 552	55.8 914
	360°	in ³ cc		14.80 243	23.4 384	44.7 733	67.4 1105	111.6 1829
Approximate Weight	180°	lb kg	14.0 6.35	24.2 11.0	33.4 15.2	58.3 26.5	100.3 45.6	127.4 57.9
	360°	lb kg		29.0 13.2	45.8 20.8	79.9 36.3	123.6 56.2	187.2 85.1
D1 Shaft mounting surface diameter		in mm	3.04 77.2	3.50 89.0	4.00 102	5.00 127	5.81 148	7.27 185
D2 Housing diameter		in mm	3.90 100	4.70 119	5.30 135	6.70 170	7.80 198	8.90 226
D3 Mounting flange inner diameter		in mm	3.02 76.7	3.66 93.0	4.12 105	5.28 134	6.16 157	7.32 186

ATC Dimensional Data

ATC Model			1.7	3.0	5.5	9.5	15	25
F1 Mounting holes, shaft flange	Imperial Deep in		5/16-18 0.50	5/16-18 0.50	3/8-16 0.63	1/2-13 0.75	1/2-13 0.75	5/8-11 1.00
	Metric Deep mm		M8*1.25 12.0	M8*1.25 12.0	M10*1.5 16.0	M12*1.75 19.1	M12*1.75 19.1	M16*2 25.4
F2 Quantity of mounting holes, shaft flange			8	8	12	12	12	12
F3 Bolt circle diameter, shaft flange	in mm		2.125 54.0	2.875 73.0	3.125 80.0	4.000 102	5.000 127	5.500 140
F4 Mounting holes, housing flange	Imperial Deep in		5/16-18 0.50	5/16-18 0.50	3/8-16 0.63	1/2-13 0.75	1/2-13 0.75	5/8-11 0.75
	Metric Deep mm		M8*1.25 12.0	M8*1.25 12.0	M10*1.5 16.0	M12*1.75 19.1	M12*1.75 19.1	M12*1.75 19.1
F5 Quantity of mounting holes, housing flange			8	8	12	12	12	12
F6 Bolt circle diameter, housing flange	in mm		3.375 86.0	4.063 103	4.625 117	5.938 151	6.875 175	8.000 203
F7 Shaft through-hole diameter	in mm		0.56 14.3	0.66 17.0	0.84 21.3	1.41 35.7	1.80 45.7	2.63 66.7
H1 Centerline to valve top	in mm		3.15 80.0	3.53 89.7	3.85 97.8	4.53 115	5.07 129	5.63 143
L1 Overall Length	180°	in mm	5.50 140	5.63 143	6.13 156	7.25 184	8.83 224	9.50 241
	360°	in mm		7.45 189	8.35 212	10.15 258	12.25 311	13.64 346
L2 Overall Length, non-rotating	180°	in mm	5.45 138	5.58 142	6.08 154	7.17 182	8.72 221	9.40 239
	360°	in mm		7.40 188	8.30 211	10.07 256	12.14 308	13.54 344
L3 Shaft flange to counterbalance valve	180°	in mm	1.00 25.4	1.06 26.9	1.09 27.7	1.10 27.9	1.52 38.6	1.73 43.9
	360°	in mm		0.89 22.6	0.97 24.6	1.68 42.7	2.37 60.2	2.77 70.4
P1, P2 Ports, housing	inch	ISO-11926/SAE Series of ports. Sizes are 7/16. See drawings for details.						
V1, V2 Ports, valve	metric	ISO-1179-1/BSPP 'G' Series of ports. Sizes are 1/8. See drawings for details.						

ATM Dimensional Data

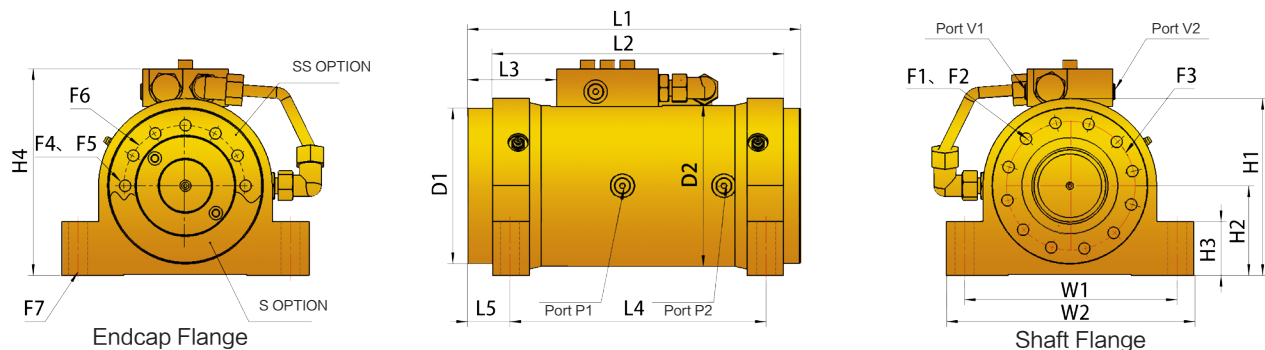


ATM Model			4.5	8.2	15	25	30	39
Torque (A)	Drive Torque	in-lb@3000psi Nm@210bar	4500 508	8200 930	15000 1690	25000 2830	30000 3390	39000 4400
	Holding Torque	in-lb@3000psi Nm@210bar	11800 1300	21000 2400	38720 4400	62900 7100	75220 8500	93200 10530
Moment Capacity (B)	Cantilever Mount	in-lb Nm	12000 1356	22000 2485	48000 5420	100000 11300	120000 13560	140000 15820
	Straddle Mount	in-lb Nm	22500 2500	40000 4500	90000 10200	145000 16400	250000 28250	280000 31600
Radial Capacity (C)	Radial	lb kg	3050 1380	4700 2130	9230 4190	12300 5580	14850 6680	21000 9530
Axial Capacity (D)	Axial	lb kg	1100 500	1500 680	2200 1000	3100 1410	3500 1570	3900 1770
Displacement	180°	in³ cc	8.05 132	14.3 234	26.6 436	44.6 726	53.8 876	65.7 1077
Approximate Weight	180°	lb kg	28.4 12.8	38.9 17.5	67.8 30.5	115.6 52.0	130.2 58.6	172.7 77.7
D1 Shaft and endcap flange diameter		in mm	4.10 104	4.60 117	5.60 142	6.70 170	7.15 182	7.70 196
D2 Housing diameter		in mm	4.00 101	4.50 114	5.50 139	6.50 165	7.00 177	7.50 191
F1 Threaded mounting hole, shaft flange		Imperial Deep in	3/8-16 0.54	3/8-16 0.54	1/2-13 0.75	3/4-10 1.13	3/4-10 1.13	3/4-10 1.25
		Metric Deep mm	M10*1.5 12.7	M10*1.5 15.2	M12*1.75 19.1	M20*2.5 30.0	M20*2.5 30.0	M20*2.5 28.0
F2 Quantity of mounting hole, shaft flange			6	8	8	8	8	10
F3 Bolt circle diameter, shaft flange		in mm	2.125 53.9	2.626 65.0	3.375 85.0	4.000 102	4.330 110	4.750 121
F4 Mounting holes, housing flange		Imperial Deep in	3/4 Through	1 Through	1 Through	---	---	---
		Metric Deep mm	M20 Through	M24 Through	M24 Through	---	---	---

ATM Dimensional Data

DM Model		4.5	8.2	15	25	30	39
F5 Housing foot clearance hole, required bolt size	in mm	5/8 M16	3/4 M20	1 M24	1 M24	1 1/4 M30	1 1/4 M30
F6 Shaft center threaded hole	Imperial Deep in	---	---	---	1-8 2	1 1/4-7 2	1 1/4-7 2 in
	Metric Deep mm	---	---	---	M24*3 25	M30*3.5 25	1 1/4-7 2 in
F7 Threaded Mounting hole, endcap flange	Imperial Deep in	---	---	---	1/2-13 0.75	5/8-11 0.94	5/8-11 0.91
	Metric Deep mm	---	---	---	M12*1.75 18	M16*2 24	M16*2 23
F8 Quantity of mounting holes, endcap flange		---	---	---	8	8	10
F9 Bolt circle diameter, endcap flange	in mm	---	---	---	4.25 108	4.528 115	4.75 121
H1 Overall height (excluding valve)	in mm	4.67 119	5.32 135	6.21 158	7.60 193	8.10 206	8.60 218
H2 Height to centerline	in mm	2.60 66.0	3.00 76.2	3.38 85.9	4.25 108	4.53 115	4.75 121
H3 Foot height	in mm	1.35 34.3	1.50 38.1	1.75 44.5	2.50 63.5	2.62 66.5	2.75 70.0
H4 Overall height (with valve)	in mm	5.76 146	6.41 163	7.28 185	8.66 220	9.06 230	9.64 245
L1 Overall Length	in mm	7.40 188	8.50 216	9.75 248	11.75 298	12.50 318	13.25 337
L2 Overall Length, non-rotating	in mm	6.80 173	7.76 197	9.01 229	10.87 276	11.65 296	12.37 314
L3 Mounting length	in mm	4.38 111	5.50 140	6.00 152	7.25 184	7.75 196	8.50 216
L4 Shaft flange to mounting hole	in mm	1.49 37.9	1.48 37.6	1.85 47.0	2.25 57.2	2.30 58.5	2.38 60.5
W1 Mounting width	in mm	5.50 145	6.00 152	7.75 197	8.75 222	9.50 241	10.50 267
W2 Overall width	in mm	7.00 178	7.50 191	9.75 248	11.00 279	12.00 305	13.00 330
P1, P2 Ports, housing	inch	ISO-11926/SAE Series of ports. Sizes are 7/16. See drawings for details.					
V1, V2 Ports, valve	metric						

ATH Foot Mounted Dimensional Data

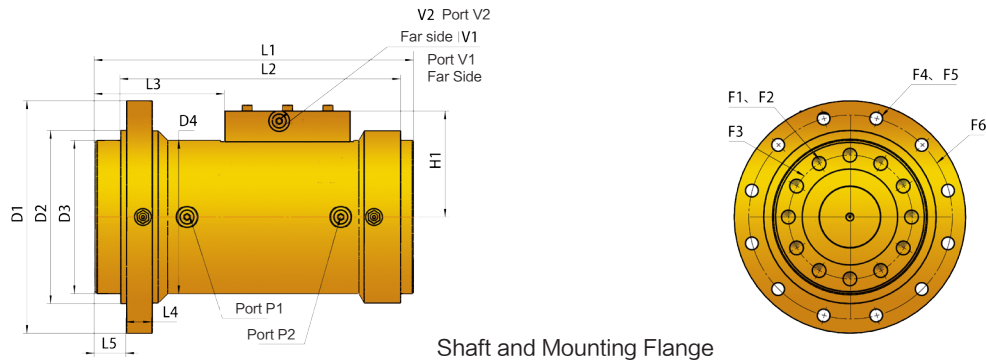


ATH Model			17	25	42	65	95	125	165	215	380
Torque (A)	Drive Torque	in-lb @3000psi Nm @210 bar	17000 1920	25000 2820	42000 4750	65000 7340	95000 10700	125000 14100	165000 18600	215000 24300	380000 42900
	Holding Torque	in-lb @3000psi Nm @210 bar	43600 4900	60400 6800	103000 12000	162000 18000	232000 26000	306000 35000	404000 46000	520000 59000	936000 110000
Moment Capacity (B)	Cantilever mount	in-lb Nm	45900 5200	62500 7100	105000 11900	162500 18400	261250 29500	343750 38800	495000 55900	645000 72900	570000 64400
	Straddle mount 180°	in-lb Nm	119000 13400	150000 16900	273000 30800	423000 47800	665000 75100	875000 90900	1155000 130500	1105000 170000	1155000 170000
	Straddle mount 360°	in-lb Nm	170000 19200	218000 24600	402000 45400	630000 71200	987000 111500	1295000 146000	1755000 197700	2270000 256500	1155000 170000
Radial Capacity (C)	Radial	lb kg	4000 1800	5000 2300	8000 6600	11000 5000	15000 6800	18000 8200	22000 10000	26000 11800	26000 11800
Axial Capacity (D)	Axial	lb kg	3000 1400	4000 1800	6000 2700	8000 3600	10000 4500	13000 5900	15000 6800	18000 8200	18000 8200
Displacement	180°	in ³ cc	29.8 492	42.5 688	72.2 1180	114 1870	164 2688	216 3540	284 4654	366 6000	622 10200
	360°	in ³ cc	60.0 983	85.0 1390	144 2360	228 3740	327 5360	432 7080	569 9325	732 12000	1244 20400
Approximate Weight	180°	lb kg	76.0 34.5	110 49.9	160 72.6	240 110	360 160	490 220	610 280	790 360	1100 500
	360°	lb kg	100 45.4	140 63.5	220 100	310 140	450 200	630 290	810 370	1000 455	1470 660
D1 Shaft and endcap flange diameter		in mm	5.47 139	6.09 155	7.22 183	8.22 209	9.22 234	10.34 263	11.35 288	12.22 310	12.22 310
D2 Housing diameter		in mm	5.50 140	6.00 152	7.00 178	8.00 203	9.00 229	10.0 254	11.0 279	12.0 305	12.0 305
F1 Threaded mounting hole, shaft flange		Imperial Deep in	1/2-13 0.75	5/8-11 0.94	3/4-10 1.13	7/8-9 1.31	1-8 1.38	1 1/8-7 1.69	1 7/8-7 1.69	1 1/4-7 1.88	1 1/4-7 1.88
F2 Quantity of mounting holes: 12		Metric Deep mm	M12*1.75 18.0	M16*2 23.9	M20*2.5 30.0	M22*2.5 33.0	M24*3 36.1	M27*3 40.6	M27*3 40.6	M30*3.5 44.9	M30*3.5 44.9
F3 Bolt circle diameter, shaft flange		in mm	4.50 115	5.00 125	5.88 150	6.75 170	7.75 195	8.50 215	9.50 240	10.00 255	10.00 255

ATH Foot Mounted Dimensional Data

ATH Model		17	25	42	65	95	125	165	215	380
F4 Threaded mounting hole, endcap flange, deep	Imperial Deep in	3/8 -16 0.56	1/2-13 0.75	5/8-11 0.94	3/4-10 1.13	7/8-9 1.31	1-8 1.50	1-8 1.50	1 1/8-7 1.69	1 1/8-7 1.69
F5 Quantity of mounting holes: 12	Metric Deep mm	M10*1.5 15.0	M12*1.75 18.0	M16*2 23.9	M20*2.5 30.0	M22*2.5 33.0	M24*3 36.1	M24*3 36.1	M27*3 40.1	M27*3 40.1
F6 Bolt circle diameter, endcap flange	in mm	4.25 108	4.75 120	5.25 133	6.00 150	6.75 170	7.50 190	8.25 210	9.00 230	9.00 230
F7 Housing foot clearance hole, required bolt size	in mm	5/8 M16	3/4 M20	7/8 M22	1 M24	1 1/8 M24	1 1/4 M30	1 1/4 M30	1 1/2 M36	1 1/2 M36
H1 Overall height	in mm	6.15 156	7.34 186	8.35 212	9.45 240	10.86 276	11.99 305	12.88 327	14.25 362	14.25 362
H2 Height to centerline	in mm	3.15 80.0	3.74 94.9	4.25 108	4.80 122	5.51 140	6.06 154	6.50 165	7.25 184	7.25 184
H3 Foot height	in mm	1.89 48	2.75 69.9	3.07 77.9	3.47 88.1	4.13 105	4.33 110	4.73 120	5.32 135	5.32 135
H4 Overall height	in mm	7.50 179	7.91 201	8.90 226	10.68 271	11.16 298	12.21 310	13.15 334	14.40 366	14.40 366
L1 Overall Length 180°	in mm	11.73 298	12.72 323	14.37 365	16.24 413	18.70 475	20.63 524	21.71 551	23.62 600	35.67 906
L1 Overall Length 360°	in mm	16.81 427	18.51 470	21.18 538	24.20 615	27.76 705	30.55 776	32.92 836	35.57 906	53.86 1368
L2 Overall Length, non-rotating 180°	in mm	10.26 261	11.27 286	12.73 323	14.27 363	16.95 431	18.21 463	19.39 493	21.02 534	33.37 848
L2 Overall Length, non-rotating 360°	in mm	15.44 392	17.05 433	19.54 496	22.23 565	26.01 661	28.13 715	30.49 775	33.19 843	51.69 1313
L3 Shaft flange to counterbalance valve 180°	in mm	2.96 75.2	5.27 134	5.61 143	5.75 146	6.00 152	7.27 185	7.73 196	8.69 221	14.71 374
L3 Shaft flange to counterbalance valve 360°	in mm	5.85 149	6.19 157	7.75 197	9.15 232	10.50 267	12.13 308	13.32 338	14.71 374	24.73 628
L4 Mounting Length 180°	in mm	9.02 229	9.76 248	11.06 281	12.36 314	14.73 374	15.75 400	16.77 426	18.00 460	30.16 766
L4 Mounting Length 360°	in mm	14.09 358	15.55 395	17.87 454	20.83 516	23.78 604	25.67 652	27.88 708	30.16 766	47.56 1208
L5 Shaft flange to mounting hole	in mm	1.50 38.1	1.73 43.9	1.97 50.0	2.24 56.9	2.36 59.9	2.92 74.2	2.99 75.9	3.15 80.0	3.15 80.0
W1 Mounting width	in mm	7.48 190	9.06 230	10.24 260	11.81 300	13.39 340	14.96 380	16.14 410	17.72 450	17.72 450
W2 Overall width	in mm	8.74 222	10.55 268	12.21 310	13.78 350	15.75 400	17.60 447	19.06 484	20.87 530	20.87 530
P1, P2 Ports, housing inch ISO-11926/SAE Series of ports. Sizes vary from 7/16 to 3/4. See drawings for details. V1, V2 Ports, valve metric (ISO-1179-1/BSPP 'G' Series of ports. Sizes vary from 1/4 thru 1/2.) See drawings for details.										

ATH Flange Mounted Dimensional Data

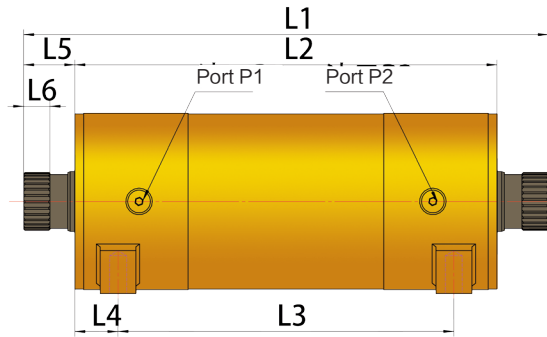
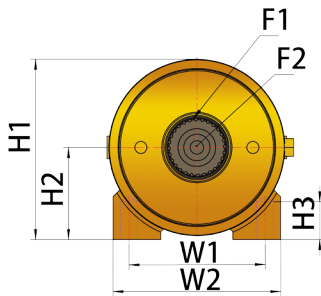


ATH Model			17	25	42	65	80	95	125	165	215	380
Torque (A)	Drive Torque	in-lb @3000psi Nm @210 bar	17000 1920	25000 2820	42000 4750	65000 7340	80000 9000	95000 10700	125000 14100	165000 18600	215000 24300	380000 42900
	Holding Torque	in-lb @3000psi Nm @210 bar	43600 4900	60400 6800	103000 12000	162000 18000	195000 22000	232000 26000	306000 35000	404000 46000	520000 59000	936000 110000
Moment Capacity (B)	Cantilever mount	in-lb Nm	45900 5200	62500 7100	105000 11900	162500 18400	162500 18400	261250 29500	343750 38800	495000 55900	645000 72900	570000 64400
Radial Capacity (C)	Radial	lb kg	4000 1800	5000 2300	8000 6600	11000 5000	11000 5000	15000 6800	18000 8200	22000 10000	26000 11800	26000 11800
Axial Capacity (D)	Axial	lb kg	3000 1400	4000 1800	6000 2700	8000 3600	8000 3600	10000 4500	13000 5900	15000 6800	18000 8200	18000 8200
Displacement	180°	in ³ cc	29.8 492	42.5 688	72.2 1180	114 1870	137 2250	164 2688	216 3540	284 4654	366 6000	622 10200
	360°	in ³ cc	60.0 983	85.0 1390	144 2360	228 3740	275 4500	327 5360	432 7080	569 9325	732 12000	1470 660
Approximate Weight	180°	lb kg	76.0 34.5	110 49.9	160 72.6	240 110	290 130	360 160	490 220	610 280	790 360	1100 500
	360°	lb kg	100 45.4	140 63.5	220 100	310 140	360 160	450 200	630 290	810 370	1000 455	1470 660
D1 Shaft and endcap flange diameter		in mm	7.87 200	9.25 235	11.02 280	12.40 315	11.02 280	13.98 355	15.60 396	17.40 442	18.70 475	18.70 475
D2 Pilot diameter		lb mm	5.91 150	6.89 175	8.07 205	9.05 230	8.86 225	10.23 260	11.42 290	12.40 315	13.38 340	13.38 340
D3 Shaft and endcap flange diameter		in mm	5.47 139	6.09 155	7.22 183	8.22 209	8.22 209	9.21 234	10.35 263	11.34 288	12.22 310	12.22 310
D4 Housing diameter		in mm	5.50 140	6.00 152	7.00 178	8.00 203	8.07 205	9.00 229	10.0 254	11.0 279	12.0 305	12.0 305

ATH Flange Mounted Dimensional Data

ATH Model		17	25	42	65	80	95	125	165	215	380
F1 Threaded mounting hole, shaft flange	Imperial Deep in	1/2-13 0.75	5/8-11 0.94	3/4-10 1.13	7/8-9 1.31	7/8-9 1.31	1-8 1.38	1 1/8-7 1.69	1 7/8-7 1.69	1 1/4-7 1.88	1 1/4-7 1.88
F2 Quantity of mounting holes: 12	Metric Deep mm	M12*1.75 18.0	M16*2 23.9	M20*2.5 30.0	M22*2.5 33.0	M22*2.5 33.0	M24*3 36.1	M27*3 40.6	M27*3 40.6	M30*3.5 44.9	M30*3.5 44.9
F3 Bolt circle diameter, shaft flange	lb mm	4.50 115	5.00 125	5.88 150	6.75 170	6.75 170	7.75 195	8.50 215	9.50 240	10.00 255	10.00 255
F4 Housing flange clearance hole, bolt size F5 Quantity of mounting holes: 12	Imperial metric	3/8 M10	1/2 M12	5/8 M16	3/4 M20	3/4 M20	7/8 M22	1 M24	1 1/8 M27	1 1/4 M30	1 1/4 M30
F6 Bolt circle diameter, housing flange	in mm	6.90 175	8.10 206	9.65 245	10.83 275	9.84 250	12.21 310	13.85 345	14.96 380	16.14 410	16.14 410
H1 Centerline to valve top	in mm	3.90 99.1	4.17 106	4.65 118	5.15 131	6.10 155	5.65 144	6.15 156	6.66 169	7.16 182	7.16 182
L1 Overall Length 180°	in mm	11.73 298	11.73 298	14.37 365	16.95 413	16.89 429	18.70 475	20.63 524	21.71 551	23.62 600	35.67 906
L1 Overall Length 360°	in mm	16.81 427	18.51 470	21.18 538	24.20 615	732.5	27.76 705	30.55 776	32.92 836	35.57 906	53.86 1368
L2 Overall Length, non-rotating 180°	in mm	10.26 261	11.14 283	12.73 323	14.27 363	14.92 379	16.95 431	18.21 463	19.39 493	21.02 534	33.37 848
L2 Overall Length, non-rotating 360°	in mm	15.34 390	16.93 430	19.54 496	22.23 565	26.01 661	26.01 661	28.13 715	30.49 775	33.19 843	51.69 1313
L3 Shaft flange to counterbalance valve 180°	in mm	2.96 75.2	5.27 134	5.61 143	5.75 146	6.00 152	6.00 152	7.27 185	7.73 196	8.69 221	14.71 374
L3 Shaft flange to counterbalance valve 360°	in mm	5.85 149	6.19 157	7.75 197	10.50 267	10.50 267	12.13 308	13.32 338	14.71 374	24.73 628	
L4 Mounting flange thickness	in mm	0.99 25.2	1.02 25.9	1.22 30.9	1.30 33.0	1.97 51.0	1.58 40.1	1.65 41.9	1.81 45.9	2.05 52.0	2.05 52.0
L5 Shaft flange to mounting flange face	in mm	1.06 26.9	1.26 32	1.38 35.1	1.65 41.9	0.79 20.0	1.58 40.1	2.09 53.1	2.13 54.1	2.20 55.9	2.20 55.9
P1, P2 Ports, housing	inch	ISO-11926/SAE Series of ports. Sizes vary from 7/16 to 3/4. See drawings for details.									
V1, V2 Ports, valve	metric	ISO-1179-1/BSPP 'G' Series of ports. Sizes vary from 1/4 thru 1/2. See drawings for details.									

ATS Dimensional Data

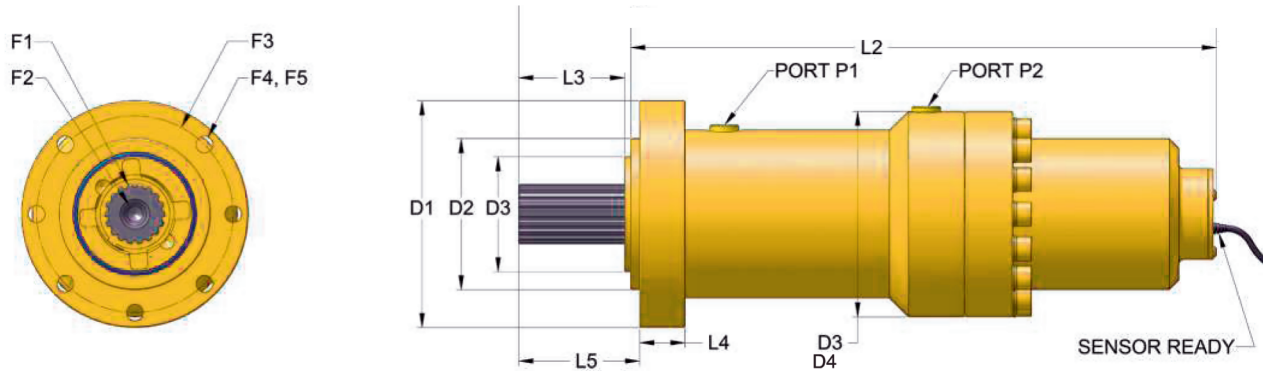


ATS Model			ATS25	ATS27	ATS45	ATS60
Torque (A)	Drive Torque	in-lb@3000psi Nm@ 210bar	25000 2830	27000 3050	45000 5090	60000 6780
	Holding Torque	in-lb@3000psi Nm@ 210bar	542000 6100	542000 6100	94000 10600	127000 14350
	Standard Rotation		220°	220°	220°	220°
Moment Capacity (B)	Straddle Mount	in-lb Nm	37500 4240	40500 4575	67500 7630	90000 10170
Radial Capacity (C)	Radial	lb kg	4500 2040	4500 2040	6900 3130	8600 3900
Axial Capacity (D)	Axial	lb kg	4500 2040	4500 2040	6900 3130	8600 3900
Displacement	220°	in ³ cc	47.3 775	48.8 800	82.8 1357	101 1652
Approximate Weight	220°	lb kg	74.0 33.6	72.0 33	128 58.1	166 75.3
D1 Housing diameter		in mm	5.50 140	5.46 139	6.50 165	7.00 178
D2 Optional spline adapter diameter		in mm	3.15 80.0	3.15 80.0	3.54 89.9	3.87 98.3
F1 Shaft spline, both ends		Inch metric	Inch models comply with ANSI B92.1. Metric models comply with DIN5480. Ask for drawings to see details			
F2 Shaft threaded mounting hole, both ends	Imperial deep in		1/2-13 1.21	1/2-13 1.21	1/2-13 1.21	5/16-18(Q'ty 3) .050 on 1.50" bolt circle
	metric deep mm		M12 × 1.75 35.1	M12 × 1.75 35.1	M12 × 1.75 35.1	M12 × 1.75(Q'ty 1) 35.1
F3 Threaded mounting hole, housing feet	Imperial deep in		5/8-11 1.00	5/8-11 1.00	3/4-10 1.00	7/8-9 1.31
	metric deep mm		M16 × 2 19	M16 × 2 19	M20 × 2.5 25	M22 × 2.5 30

ATS Dimensional Data

ATS Model		ATS25	ATS27	ATS45	ATS60
H1 Overall height (excluding valve)	in mm	5.9 150	5.61 142	6.85 176	8.00 203
H2 Height to centerline	in mm	2.88 73.2	2.88 73.2	3.30 83.9	4.00 102
H3 Overall height (excluding valve)	in mm	6.79 173	6.81 173	7.72 196	8.64 220
L1 Overall length, rotating, with optional adapter	in mm	16.95 431	16.95 431	22.08 561	23.94 608
L2 Overall length, rotating, without optional adapter	in mm	16.41 417	16.41 417	21.50 546	22.81 579
L3 Overall length, non-rotating	in mm	13.20 335	13.20 335	16.62 422	17.50 445
L4 Mounting length	in mm	10.50 265	10.95 221	12.50 320	12.50 320
L5 Mounting hole to end of shaft	in mm	2.96 75.1	2.96 75.1	4.50 113	516 130
L6 Shaft extension	in mm	1.61 40.9	1.61 40.9	2.44 61.9	2.66 67.6
L7 Spline length	in mm	0.88 21.6	0.88 21.6	1.58 40.0	1.92 49.0
L8 Optional spline adapter length	in mm	1.28 32.5	1.28 32.5	2.07 52.6	2.42 60.5
L9 Housing end to valve	in mm	3.44 87	3.44 87	4.97 126	5.59 142
W1 Mounting width	in mm	4.25 104	4.25 104	5.25 140	5.5 150
W2 Overall foot width	in mm	5.24 133	5.24 133	6.69 170	8.00 203
P1, P2 Ports, housing	inch	ISO-11926/SAE Series of ports. Sizes vary from 7/16 to 9/16. See drawings for details.			
V1, V2 Ports, valve	metric	ISO-1179-1/BSPP 'G' Series of ports. Sizes vary from 1/8 thru 1/4. See drawings for details.			

ATS Dimensional Data



ATS12		Imperial metric
Torque (A)	Drive Torque	12010in-lb @3000psi
		1356Nm @ 207bar
	Holding Torque	22020in-lb @3000psi
		2486Nm @ 207bar
Radial Capacity (C)	Radial	2220lb 999kg
Axial Capacity (D)	Axial	5520lb 2483kg
Displacement	180°	34.42in ³ 564cm ³
Approximate Weight	180°	57.8lb 26kg

- The new series can rotate up to 360 degrees
- Uniaxial spline output
- Install sensor options
- Easy to adjust end position

ATS12	i n (mm)
D1 Overall flange diameter	5.90in(150 mm)
D2 Pilot diameter	3.94in(99.95 mm)
D3 Shaft and endcap flange diameter	3in(76.2 mm)
D4 Housing diameter	5.35in(135.9 mm)
F1 Shaft spline	DIN 5480-W40x2x18x8f
F2 Shaft mounting hole	1/2-13(M12x1.75)
F3 Bolt circle diameter housing flange	5.12in(130 mm)
F4 Mounting through hole diameter housing flange	0.43in(11.0 mm)
F5 Quantity of mounting holes	7
L1 Overall length	18.20in(462 mm)
L2 Overall length, non-rotating	15.27in(387.9 mm)
L3 Spline length	2.76in(70.1 mm)
Mounting flange thickness	1.18in(30.0 mm)
L5 Shaft end to mounting surface	3.15in(80.0 mm)

Specification charts are for general reference only. Consult drawings for actual values and tolerances.

Advantage and Application



Advantage

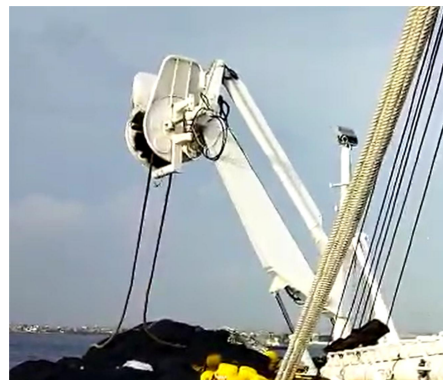
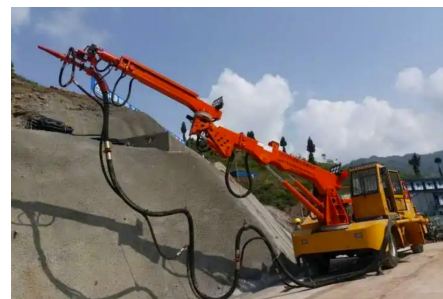
- No Internal leakage
- Compact solutions
- Powerful and Durable
- Accurate hold position
- Any rotation angle optional



Application

Hydraulic Rotary Actuators can replace multiple components to simplify your design. High forces and high holding torques make actuators tremendous application.

- Construction
- Mining
- Multiple equipment
- Material handling
- Energy
- Marine
- Agriculture
- Many others





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