

**PNEUMATIC ROTARY ACTUATORS
AP SERIES**

TORQUE OUTPUT SPRING RETURN ACTUATORS (SR) FOR BALL VALVES - SPRINGS TYPE S

MODEL	N° OF SPRINGS FOR EACH SIDE OF PISTON	OPERATING PRESSURE - BAR / PSI														SPRING STROKE	
		3		4		5		6		7		8					
		44	58	73	87	102	116										
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°		
AP1SR	2	6.5	5.4	9.4	8.3	12.4	11.3	15.3	14.2	19.3	18.2	22.4	21.3	3.5	2.4		
		58.0	48.2	83.8	74.0	110.6	100.8	136.5	126.7	172.2	162.3	199.8	190.0	31.2	21.4		
	3	5.3	3.7	8.2	6.6	11.2	9.6	14.1	12.5	18.1	16.5	21.2	19.6	5.2	3.6		
		47.3	33.0	73.1	58.9	99.9	85.6	125.8	111.5	161.5	147.2	189.1	174.8	46.4	32.1		
	4	4.1	1.9	7	4.8	10	7.8	12.9	10.7	16.9	14.7	20	17.8	7.0	4.8		
		36.6	16.9	62.4	42.8	89.2	69.6	115.1	95.4	150.7	131.1	178.4	158.8	62.4	42.8		
AP2SR	2	10.3	8.5	15.0	13.2	19.7	17.9	24.4	22.6	29.1	27.3	33.8	32.0	5.6	3.8		
		91.9	75.8	133.8	117.7	175.7	159.7	217.6	201.6	259.6	243.5	301.5	285.4	50.0	33.9		
	3	8.4	5.7	13.1	10.4	17.8	15.1	22.5	19.8	27.2	24.5	31.9	29.2	8.4	5.7		
		74.9	50.8	116.9	92.8	158.8	134.7	200.7	176.6	242.6	218.5	284.5	260.5	74.9	50.8		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		
AP3SR	2	22.0	18.0	32.0	28.0	42.0	38.0	52.0	48.0	62.0	58.0	72.0	68.0	12.0	8.0		
		196.2	160.6	285.4	249.8	374.6	339.0	463.8	428.2	553.0	517.4	642.2	606.6	107.0	71.4		
	3	18.0	12.0	28.0	22.0	38.0	32.0	48.0	42.0	58.0	52.0	68.0	62.0	18.0	12.0		
		160.6	107.0	249.8	196.2	339.0	285.4	428.2	374.6	517.4	463.8	606.6	553.0	160.6	107.0		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		
AP3.5SR	2	41.5	30.0	58.5	47.0	75.5	64.0	92.5	81.0	109.5	98.0	126.5	115.0	21.0	9.5		
		370.2	267.6	521.8	419.2	673.5	570.9	821.1	722.5	976.7	874.2	1128.4	1025.8	187.3	84.7		
	3	32.0	20.0	49.0	37.0	66.0	54.0	83.0	71.0	100.0	88.0	117.0	105.0	31.0	19.0		
		285.4	178.4	437.1	330.0	588.7	481.7	740.4	633.3	892.0	785.0	1043.6	936.6	276.5	169.5		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		
AP4SR	2	52.7	42.4	76.7	66.4	100.7	90.4	123.7	113.4	149.7	139.4	173.7	152.4	28.6	18.3		
		470.1	378.2	684.2	592.3	898.2	806.4	1103.4	1011.5	1335.3	1243.4	1549.4	1462.8	255.1	163.2		
	3	43.0	28.0	67.0	52.0	91.0	76.0	114.0	99.0	140.0	125.0	164.0	153.6	43.0	28.0		
		383.6	249.8	597.6	463.8	811.7	677.9	1016.9	883.1	1248.8	1115.0	1462.9	1370.1	383.6	249.8		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		
AP4.5SR	2	96.8	77.5	140.4	121.1	184.0	164.7	227.6	208.3	271.2	251.9	314.8	295.5	53.3	34.0		
		863.4	691.3	1252.4	1080.2	1641.3	1469.1	2030.2	1858.0	2419.1	2246.9	2808.0	2635.9	475.4	303.2		
	3	79.8	50.9	123.4	94.5	167.0	138.1	210.6	181.7	254.2	225.3	297.8	268.9	79.9	51.0		
		711.8	454.0	989.7	757.9	1339.3	1107.6	1689.0	1457.2	2038.7	1806.9	2388.4	2156.6	712.7	454.9		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		
AP5SR	2	123.7	99.4	178.7	154.4	234.7	210.4	289.7	265.4	345.2	320.9	400.7	376.4	67.6	43.3		
		1103.4	886.6	1594.0	1377.2	2093.5	1876.8	2594.1	2367.4	3079.2	2862.4	3574.2	3357.5	603.0	386.2		
	3	103.0	66.0	158.0	121.0	214.0	177.0	269.0	232.0	324.5	287.5	380.0	343.0	101.0	64.0		
		918.8	588.7	1409.4	1079.3	1908.9	1578.8	2399.5	2069.4	2894.5	2564.5	3389.6	3059.6	900.9	570.9		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		
AP5.5SR	2	176.2	132.8	258.7	215.3	337.5	294.1	416.4	373.0	495.2	451.8	574.0	530.6	100.0	56.6		
		1571.7	1184.6	2307.6	1920.5	3010.5	2623.4	3714.3	3327.2	4417.2	4030.1	5120.1	4733.0	892.0	504.8		
	3	147.9	82.8	230.4	165.3	309.2	244.1	388.1	323.0	466.9	401.8	545.7	480.6	150.0	84.9		
		1319.2	738.5	2055.2	1474.5	2758.1	2177.4	3461.9	2881.2	4164.7	3584.1	4867.6	4287.0	1338.0	757.3		
	4	=	=	=	=	=	=	=	=	=	=	=	=	=	=		
		=	=	=	=	=	=	=	=	=	=	=	=	=	=		

NOTE: Air pressure below 80 P.S.I. will not normally be sufficient compress the 6 springs in each end cap. The number of springs must, therefore, be adjusted.