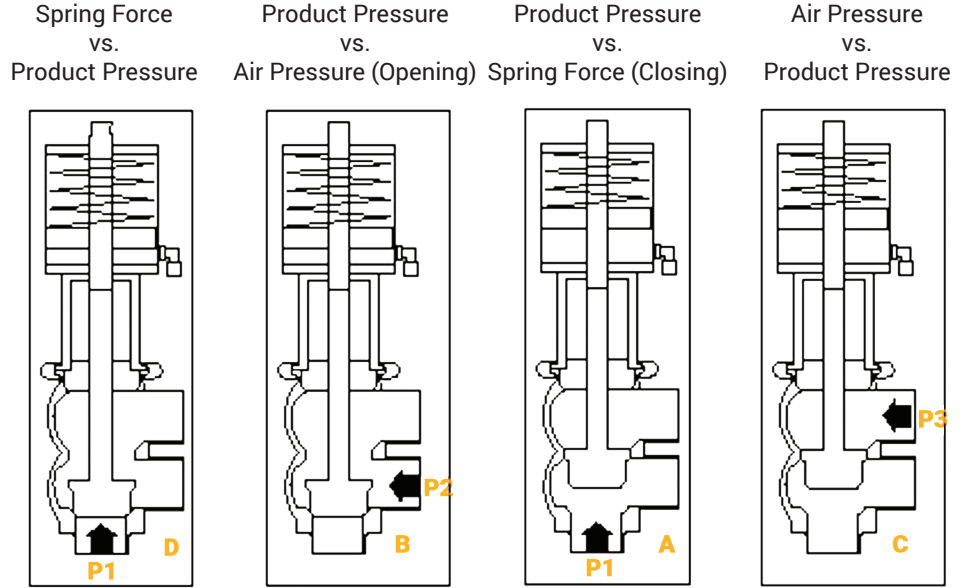


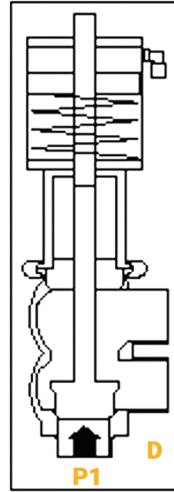
Spring Return (Air-to-Raise) Holding Pressure Charts



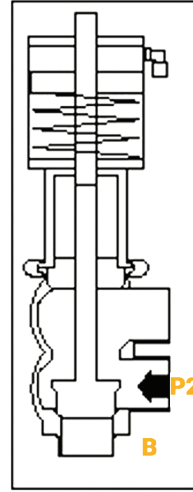
Plant Supply Air	Valve Size	Actuator Size	Seat Material	Spring Force vs. Product Pressure		Product Pressure vs. Air Pressure (Opening)		Product Pressure vs. Spring Force (Closing)		Air Pressure vs. Product Pressure	
				bar	PSI	bar	PSI	bar	PSI	bar	PSI
80 PSI	1"	1"	Elastomer	12.3	178.4	16.0	232.0	6.8	98.6	16.0	232.0
			PTFE	10.3	149.4	16.0	232.0	6.9	100.1	16.0	232.0
	1½"	2"	Elastomer	17.3	251.1	16.0	232.0	12.1	175.5	16.0	232.0
			PTFE	9.8	142.1	16.0	232.0	13.6	197.2	14.9	216.1
	2"	2"	Elastomer	9.3	134.9	9.8	142.1	8.2	118.9	8.8	127.6
			PTFE	10.6	153.7	10.3	149.4	7.6	110.2	9.8	142.1
	2½"	3"	Elastomer	14.0	203.0	10.8	156.6	11.3	163.1	14.3	207.4
			PTFE	10.1	146.0	15.2	220.4	12.9	187.1	13.6	197.2
	3"	3"	Elastomer	9.5	137.8	9.3	134.9	8.3	120.4	8.8	127.6
			PTFE	9.8	142.1	10.2	147.9	8.3	120.4	10.9	158.1
	4"	3"	Elastomer	4.8	69.6	5.3	76.9	5.2	75.4	5.4	78.3
			PTFE	5.0	72.5	5.6	81.2	5.5	79.8	5.9	85.6
45 PSI	1"	1"	Elastomer	80 PSI required for spring return actuators (Do not exceed 80 PSI)							
			PTFE								
	1½"	2"	Elastomer								
			PTFE								
	2"	2"	Elastomer								
			PTFE								
	2½"	3"	Elastomer								
			PTFE								
	3"	3"	Elastomer								
			PTFE								
	4"	3"	Elastomer								
			PTFE								

Spring Return (Air-to-Lower) Holding Pressure Charts

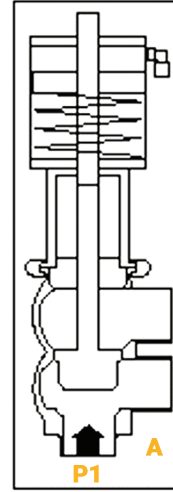
Air Pressure vs. Product Pressure



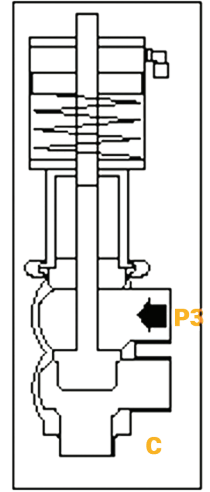
Product Pressure vs. Spring Force (Opening)



Product Pressure vs. Air Pressure (Closing)



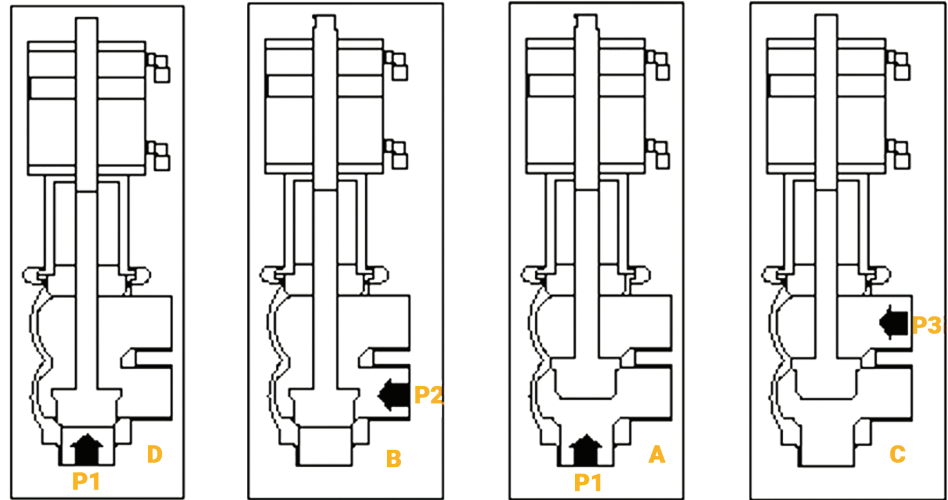
Spring Force vs. Product Pressure



Plant Supply Air	Valve Size	Actuator Size	Seat Material	Air Pressure vs. Product Pressure		Product Pressure vs. Spring Force (Opening)		Product Pressure vs. Air Pressure (Closing)		Spring Force vs. Product Pressure	
				bar	PSI	bar	PSI	bar	PSI	bar	PSI
80 PSI	1"	1"	Elastomer	16.0	232.0	9.3	134.9	12.8	185.6	11.8	171.1
			PTFE	16.0	232.0	11.8	170.8	15.0	217.5	9.3	134.9
	1½"	2"	Elastomer	16.0	232.0	15.8	229.1	14.8	214.6	16.0	232.0
			PTFE	8.8	127.6	16.0	232.0	14.0	203.0	13.6	197.2
	2"	2"	Elastomer	10.1	146.5	9.2	133.4	8.1	117.5	9.5	137.8
			PTFE	8.1	117.5	10.1	146.5	8.4	121.8	9.2	133.4
	2½"	3"	Elastomer	15.8	229.1	12.8	185.6	11.0	159.5	12.9	187.1
			PTFE	9.7	140.7	14.8	214.6	13.4	194.3	11.8	171.1
	3"	3"	Elastomer	10.0	145.0	9.3	134.9	9.3	134.9	9.1	132.0
			PTFE	10.0	145.0	9.1	131.7	9.3	134.9	9.7	140.7
	4"	3"	Elastomer	5.3	76.9	5.3	76.9	5.1	74.0	4.8	69.6
			PTFE	4.4	63.8	5.6	81.2	5.8	84.1	4.4	63.8
45 PSI	1"	1"	Elastomer	80 PSI required for spring return actuators (Do not exceed 80 PSI)							
			PTFE								
	1½"	2"	Elastomer								
			PTFE								
	2"	2"	Elastomer								
			PTFE								
	2½"	3"	Elastomer								
			PTFE								
	3"	3"	Elastomer								
			PTFE								
	4"	3"	Elastomer								
			PTFE								

Double Acting Actuators (Air-to-Air) Holding Pressure Charts

Air Pressure
vs.
Product Pressure



Plant Supply Air	Valve Size	Actuator Size	Seat Material	bar		PSI		bar		PSI	
				bar	PSI	bar	PSI	bar	PSI	bar	PSI
80 PSI	1"	1"	Elastomer	45 PSI required for double acting actuators (Do not exceed 45 PSI)							
			PTFE								
	1½"	2"	Elastomer								
			PTFE								
	2"	2"	Elastomer								
			PTFE								
2½"	3"	Elastomer									
		PTFE									
3"	3"	Elastomer									
		PTFE									
4"	3"	Elastomer									
		PTFE									
45 PSI	1"	1"	Elastomer	12.3	178.4	16.0	232.0	6.8	98.6	16.0	232.0
			PTFE	10.3	149.4	16.0	232.0	6.9	100.1	16.0	232.0
	1½"	2"	Elastomer	17.3	251.1	16.0	232.0	12.1	175.5	16.0	232.0
			PTFE	9.8	142.1	16.0	232.0	13.6	197.2	14.9	216.1
	2"	2"	Elastomer	9.3	134.9	9.8	142.1	8.2	118.9	8.8	127.6
			PTFE	10.6	153.7	10.3	149.4	7.6	110.2	9.8	142.1
	2½"	3"	Elastomer	14.0	203.0	10.8	156.6	11.3	163.1	14.3	207.4
			PTFE	10.1	146.0	15.2	220.4	12.9	187.1	13.6	197.2
	3"	3"	Elastomer	9.5	137.8	9.3	134.9	8.3	120.4	8.8	127.6
			PTFE	9.8	142.1	10.2	147.9	8.3	120.4	10.9	158.1
	4"	3"	Elastomer	4.8	69.6	5.3	76.9	5.2	75.4	5.4	78.3
			PTFE	5.0	72.5	5.6	81.2	5.5	79.8	5.9	85.6