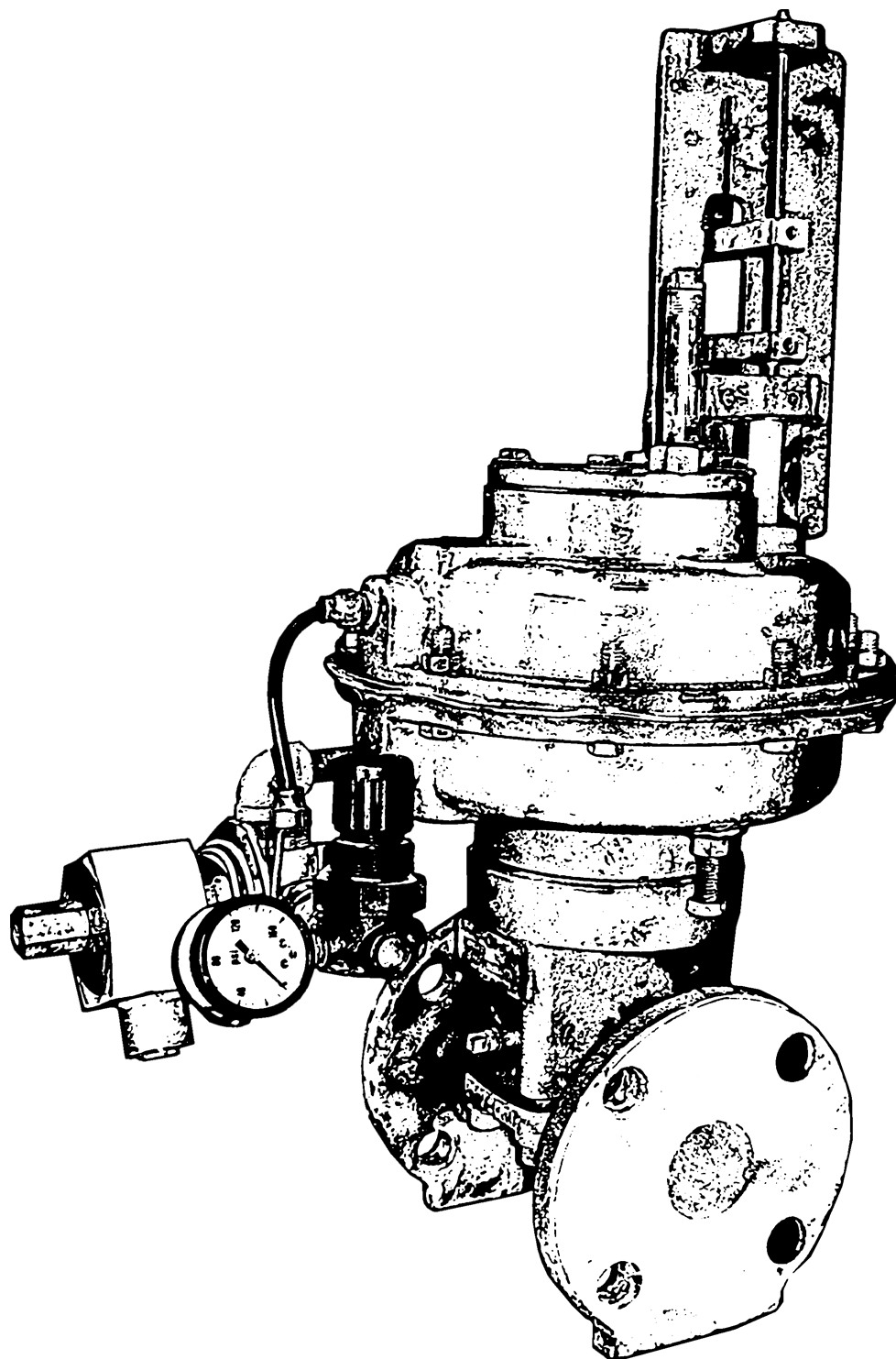




TRU-TECH VALVE
SIMPLIFY YOUR WORLD.

ENGINEERING DATA

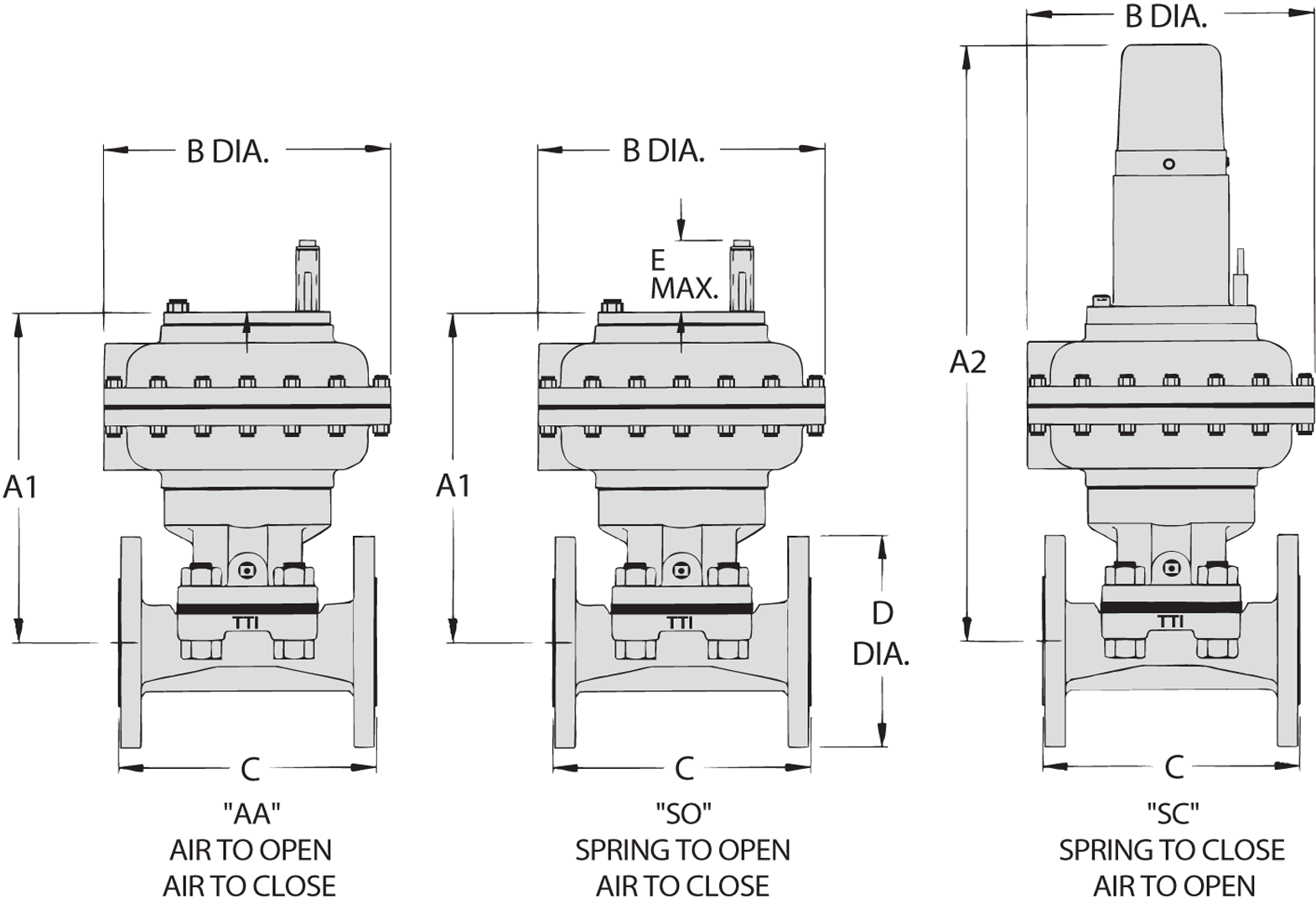
PNEUMATICALLY OPERATED DIAPHRAGM VALVES



PNEUMATIC ACTUATOR

DIMENSIONS AND TECHNICAL DATA

Actuator Sizes 10 - 20 - 35



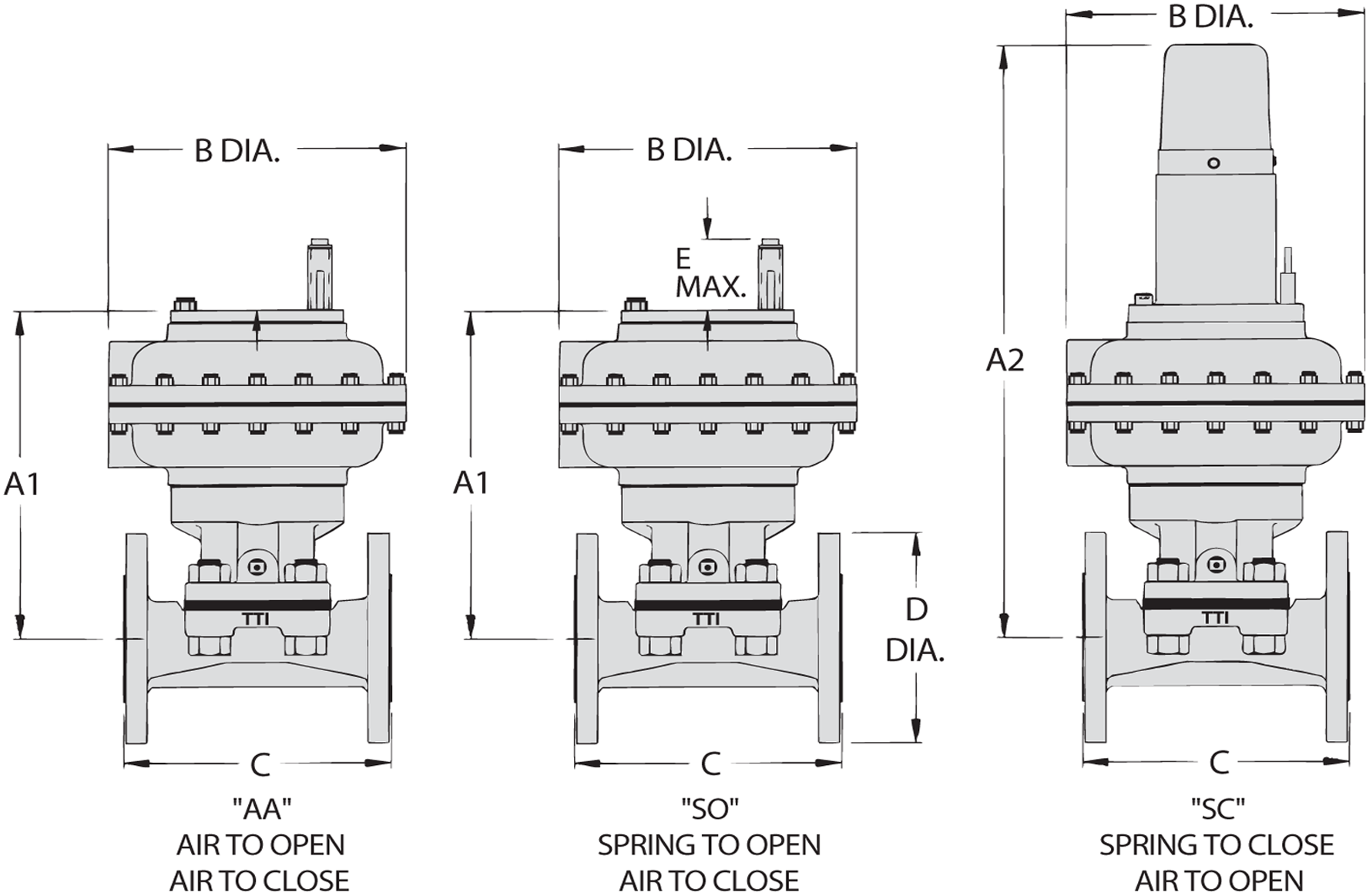
Pneumatic Actuator Dimensions and Technical Data														
Valve Size	C	D	E	#10 Actuator			#20 Actuator			#35 Actuator			Valve Stroke	
				A1	A2	B	A1	A2	B	A1	A2	B	TF	TT
1/2	5.0	2.6	2.8	9.3	19.1	6.3	9.4	19.2	7.8	11.1	20.9	9.5	0.33	0.33
3/4	5.0	2.6	2.8	9.3	19.1	6.3	9.4	19.2	7.8	11.1	20.9	9.5	0.33	0.33
1	5.0	2.6	2.8	9.3	19.1	6.3	10.1	19.9	7.8	11.8	21.7	9.5	0.33	0.33
1 1/4	7.0	2.6	2.8	10.1	19.8	6.3	10.2	24.6	7.8	11.4	26.4	9.5	0.33	0.47
1 1/2	7.0	2.6	2.8	10.1	19.8	6.3	10.2	24.6	7.8	11.4	26.4	9.5	0.75	0.47
2	7.0	2.6	2.8	9.6	19.8	6.3	10.2	24.6	7.8	11.4	26.4	9.5	0.75	0.47
2 1/2	8.0	3.3	3.5	NA	NA	NA	10.6	25.6	7.8	12.4	27.3	9.5	1.19	0.75
3	8.0	3.3	3.5	NA	NA	NA	10.6	25.6	7.8	12.4	27.3	9.5	1.19	0.75
4	9.0	3.3	3.5	NA	NA	NA	NA	NA	NA	13.9	28.9	9.5	1.78	1.19
Actuator Stroke (IN.)				1.75			2.25			2.75				
Effective Area (SQ.IN.)				14			19			34				
Maximum Air Pressure (PSI)				100										

Dimensions approximate only.
Valves may have a combination of drilled holes and threaded holes on flanges.
Contact factory for additional information.

PNEUMATIC ACTUATOR

DIMENSIONS AND TECHNICAL DATA

Actuator Sizes 60 - 90 - 140 - 280



Pneumatic Actuator Dimensions and Technical Data																	
Valve Size	C	D	E	#60 Actuator			#90 Actuator			#140 Actuator			#280 Actuator			Valve Stroke	
				A1	A2	B	A1	A2	B	A1	A2	B	A1	A2	B	TF	TT
1 1/2	7.0	2.6	2.8	12.1	27.1	12.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.75	0.47
2	7.0	2.6	2.8	12.1	27.1	12.3	12.1	41.5	15.0	NA	NA	NA	NA	NA	NA	0.75	0.47
2 1/2	8.0	3.3	3.5	13.1	28.1	12.3	13.1	42.5	15.0	14.2	43.8	18.0	NA	NA	NA	1.19	0.75
3	8.0	3.3	3.5	13.1	28.1	12.3	13.1	42.5	15.0	14.2	43.8	18.0	NA	NA	NA	1.19	0.75
4	9.0	3.3	3.5	14.7	29.7	12.3	14.8	44.0	15.0	15.8	45.8	18.0	27.7	57.3	18.0	1.78	1.19
5	10.5	4.8	5.0	18.2	33.2	12.3	18.3	47.6	15.0	19.3	48.9	18.0	31.2	60.8	18.0	2.63	1.78
6	10.5	4.8	5.0	18.2	33.2	12.3	18.3	47.6	15.0	19.3	48.9	18.0	31.2	60.8	18.0	2.63	1.78
8	11.5	4.8	5.0	18.2	33.2	12.3	18.3	47.6	15.0	19.3	48.9	18.0	31.2	60.8	18.0	-	2.63
Actuator Stroke (IN.)				3.13			4.10			5.00			5.00				
Effective Area (SQ.IN.)				59			85			141			281				
Maximum Air Pressure (PSI)				100													

Dimensions approximate only.
Valves may have a combination of drilled holes and threaded holes on flanges.
Contact factory for additional information.

TRU-TECH DIAPHRAGM VALVE AND PNEUMATIC OPERATOR SIZING

TO SELECT CORRECT OPERATOR:

1. SELECT VALVE SIZE & TOPWORKS SIZE
(SEE CHART "B")
2. DETERMINE TYPE DIAPHRAGM
(ELASTOMER OR TFE)
3. DETERMINE MAX. FLUID LINE PRESSURE
4. DETERMINE MIN. AIR SUPPLY PRESSURE
5. SELECT OPERATOR ACTION (AA, SO, SC)
 - AA - AIR TO OPEN, AIR TO CLOSE
 - SO - SPRING TO OPEN, AIR TO CLOSE
 - SC - SPRING TO CLOSE, AIR TO OPEN
6. DETERMINE FROM CHART "A" THE SMALLEST
SUITABLE OPERATOR

NUMBER 35 OPERATOR

SC ACTION

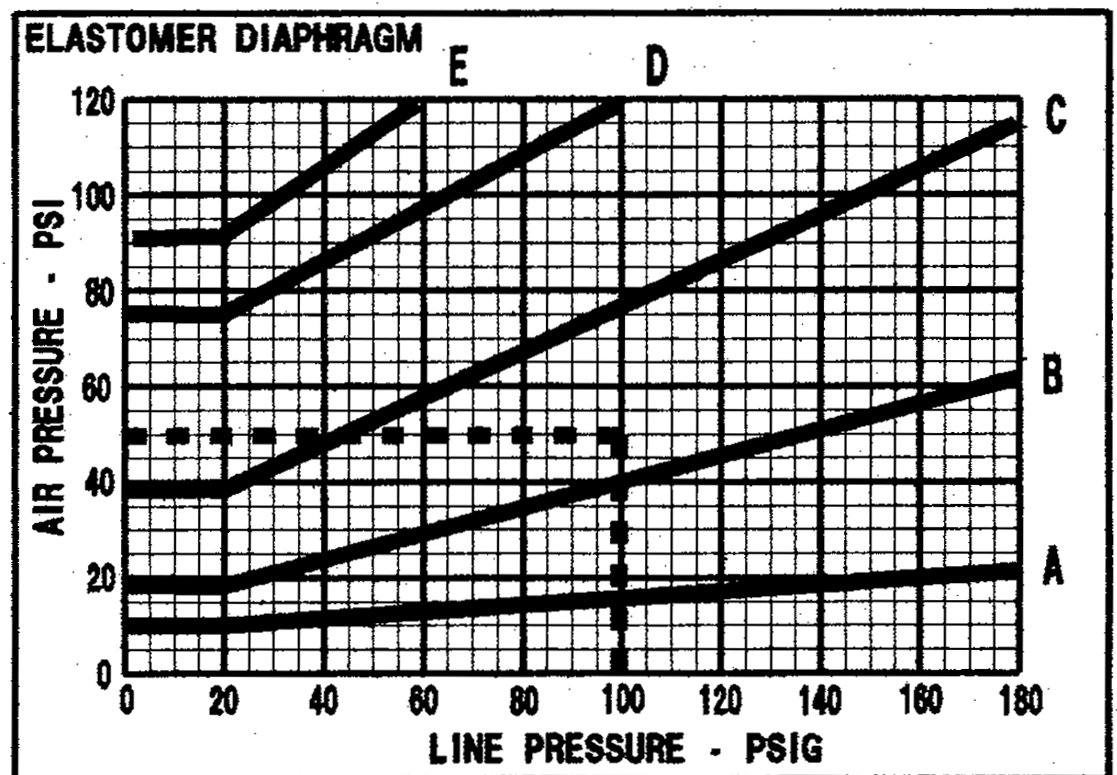


CHART A

EXAMPLE:

GIVEN A 2" VALVE, ELASTOMER DIAPHRAGM WITH A MAX. FLUID PRESSURE OF 100 PSI
AND A MIN. AVAILABE AIR PRESSURE OF 50 PSI AND A OPERATOR ACTION "SC".
SELECT #35 PNEUMATIC OPERATOR. NOTE UNIT WILL FUNCTION AT 40 PSI

CHART B

TRU-TROL VALVE SIZE (WEIR TYPE)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8
TOP WORKS SIZE	A	A	A	A	B	B	C	C	D	E	F
TRU-FLOW VALVE SIZE (STRAIGHT THRU TYPE)	1/2	3/4	1	1	-	-	1-1/2	2	2-1/2- 3	4	6

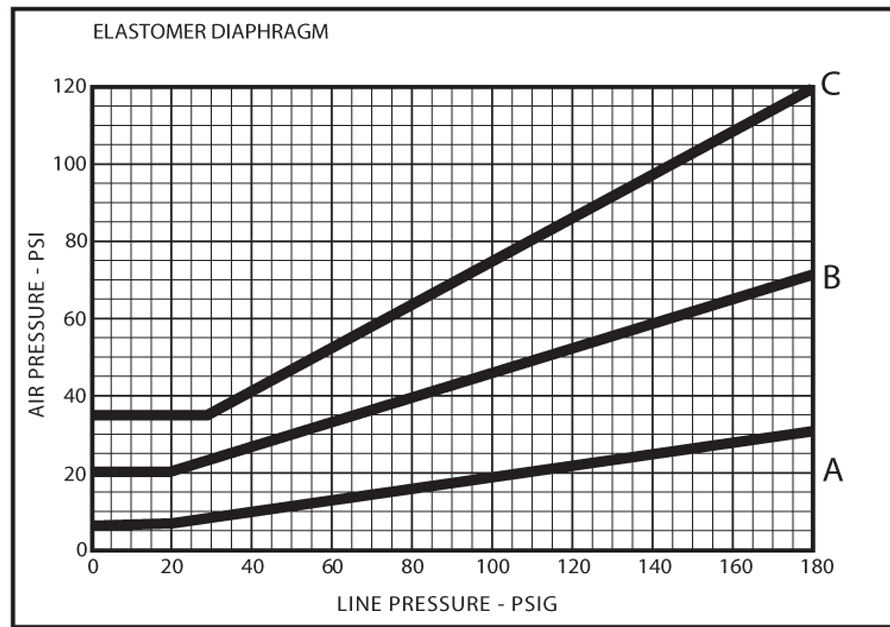


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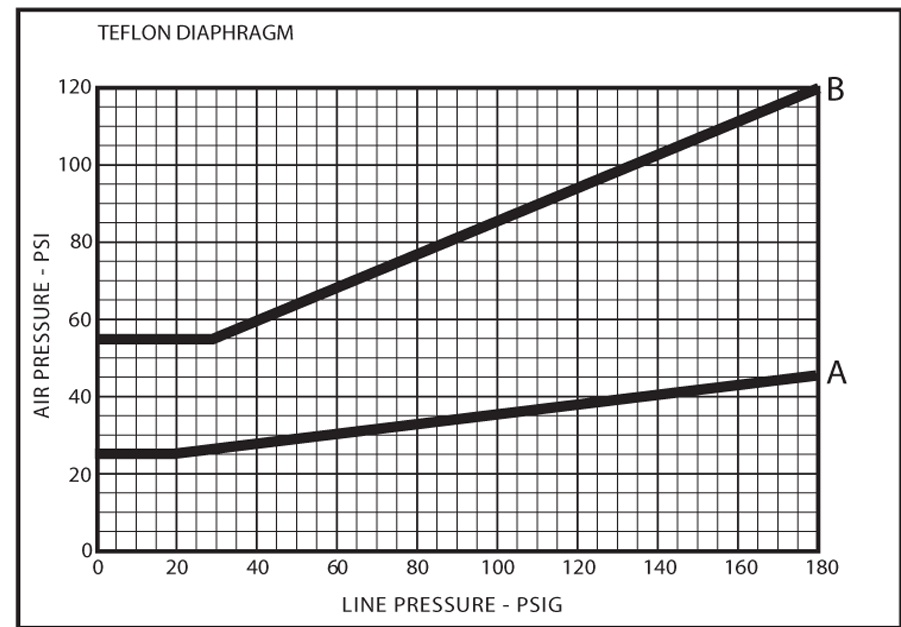
Pneumatic Operator Sizing

NUMBER 10 OPERATORS

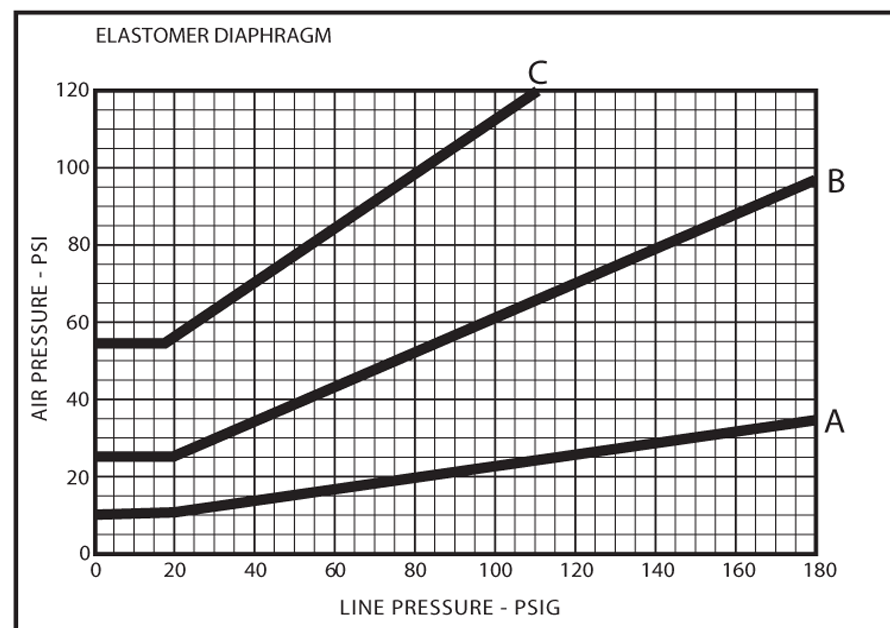
AA & SO ACTION



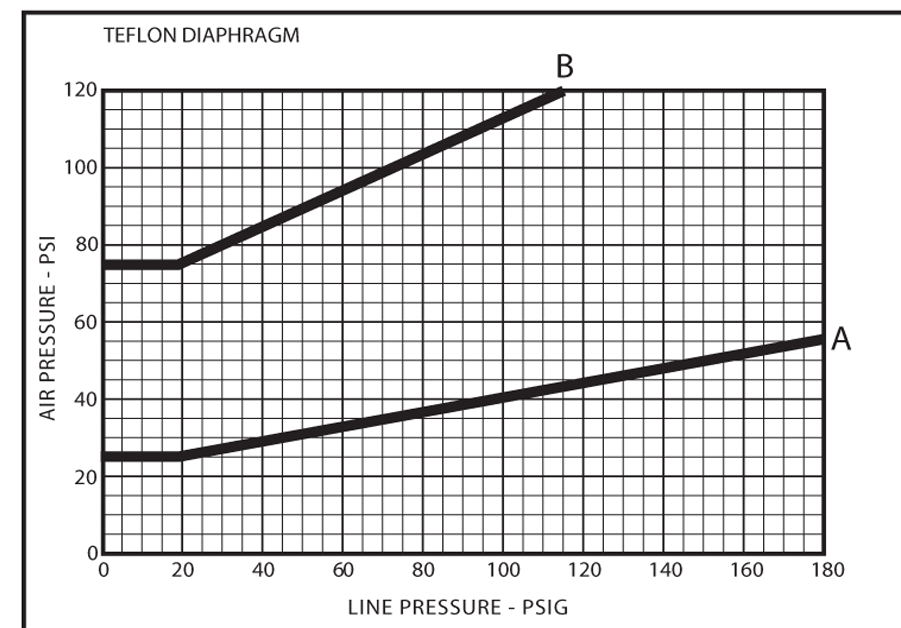
AA & SO ACTION



SC ACTION

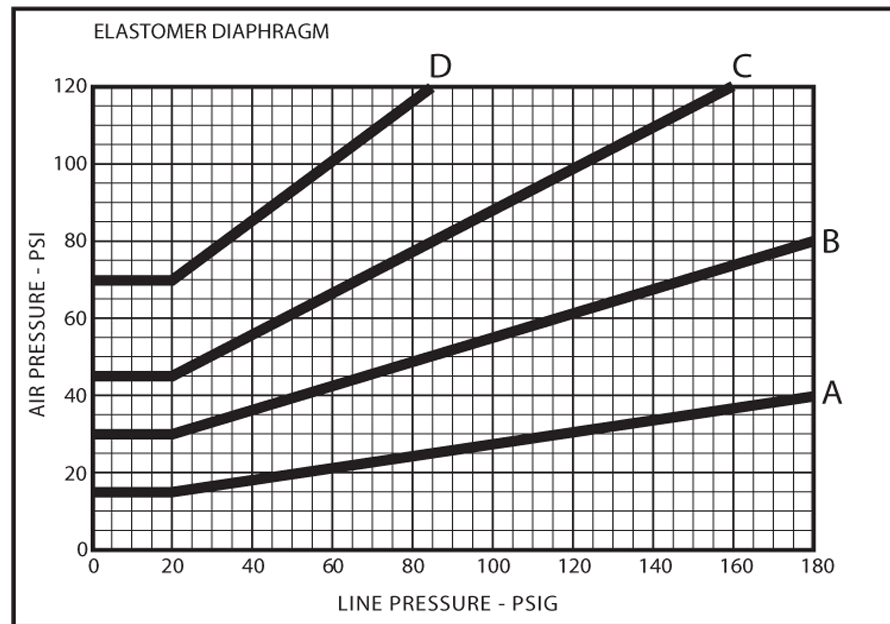


SC ACTION

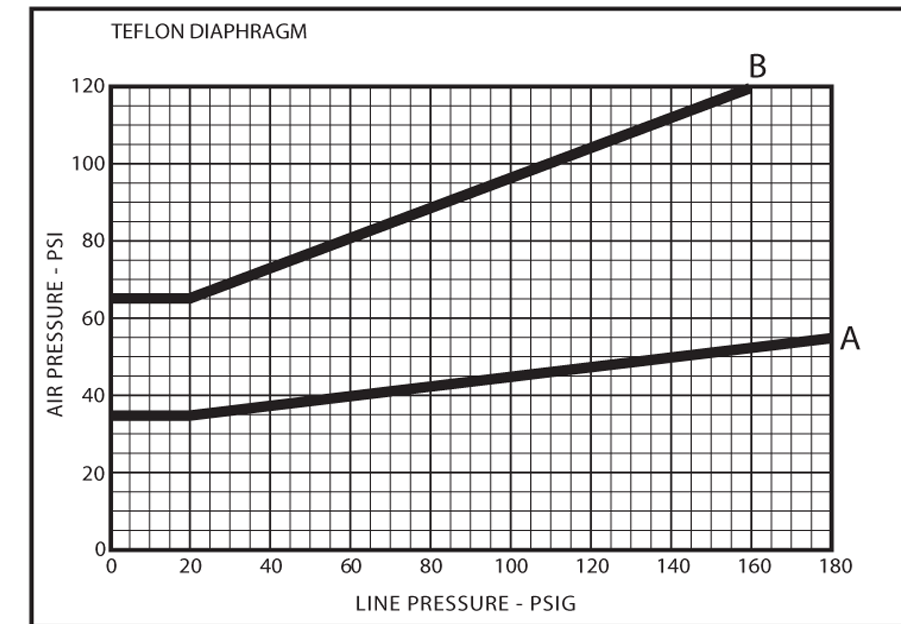


NUMBER 20 OPERATORS

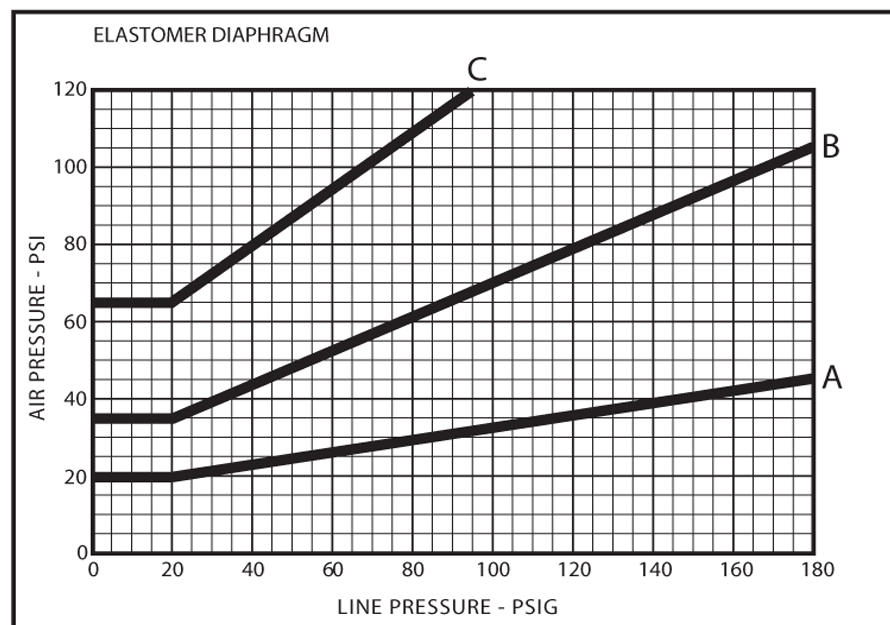
AA & SO ACTION



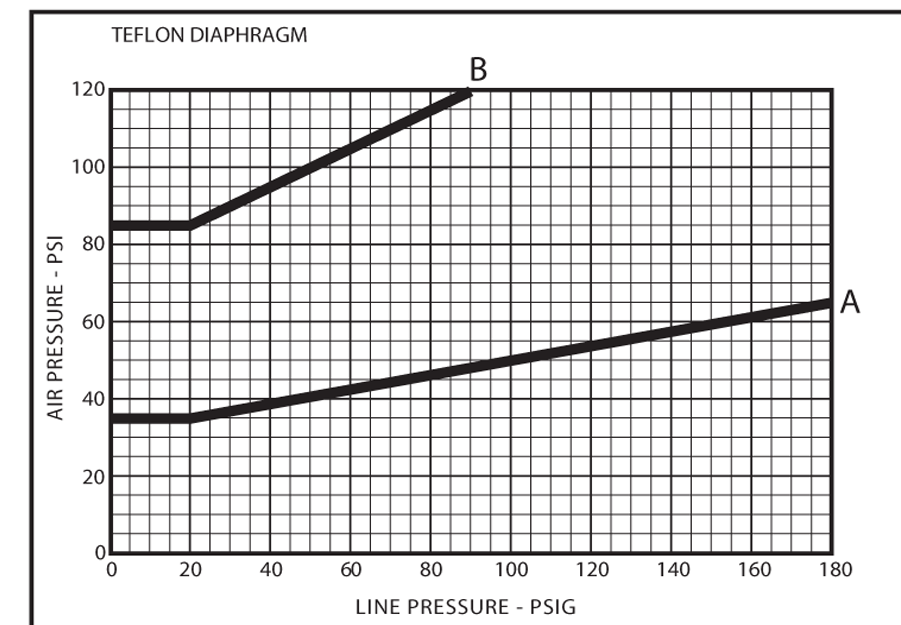
AA & SO ACTION



SC ACTION



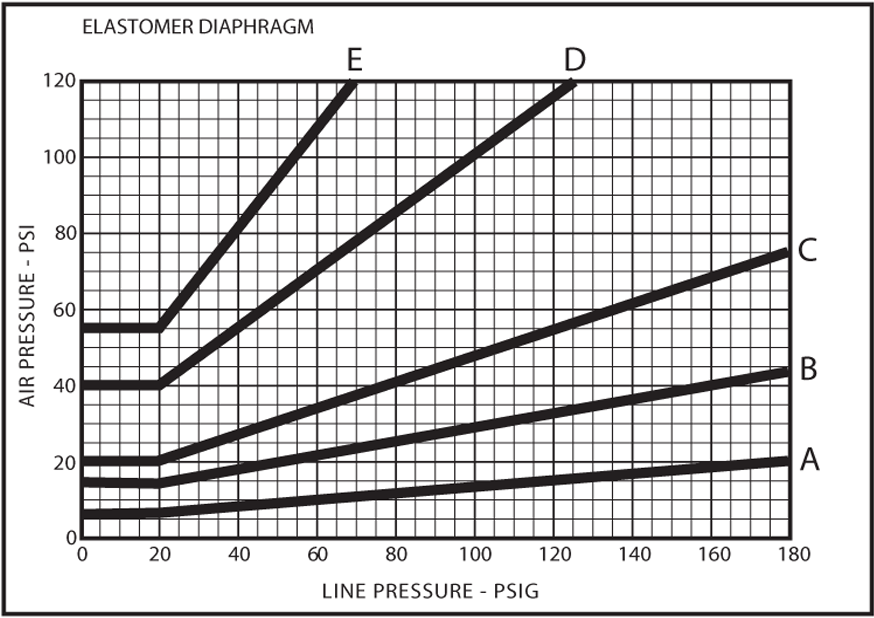
SC ACTION



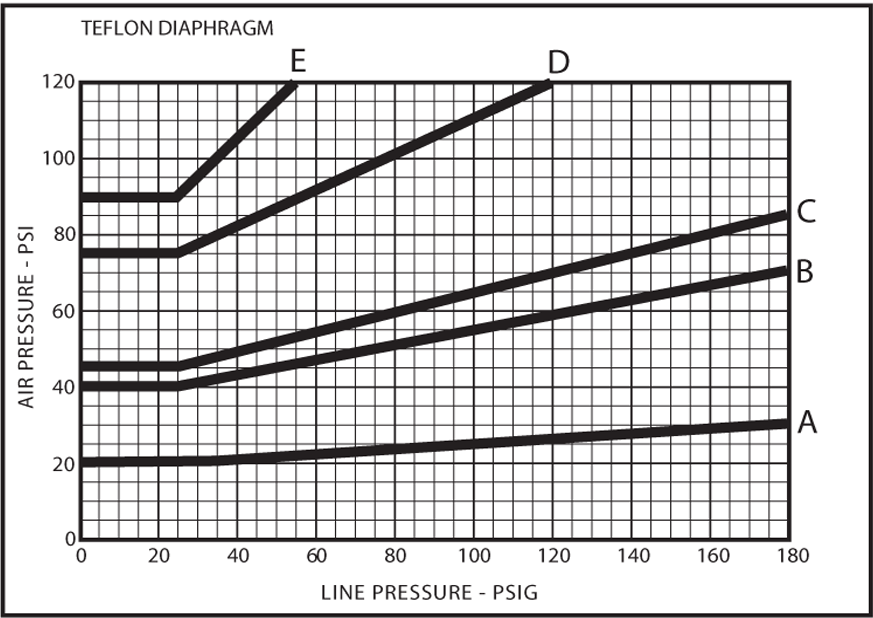
Pneumatic Operator Sizing

NUMBER 35 OPERATORS

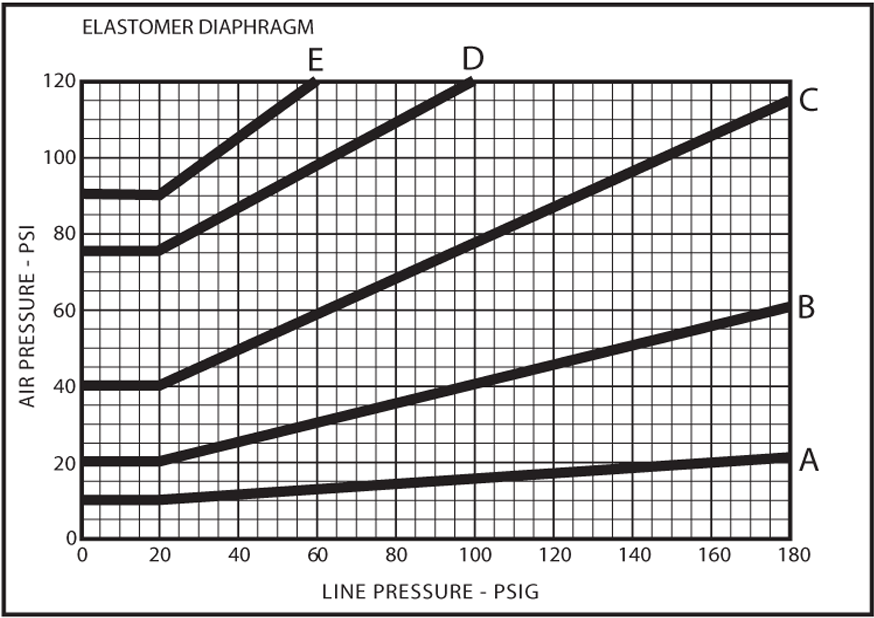
AA & SO ACTION



AA & SO ACTION



SC ACTION



SC ACTION

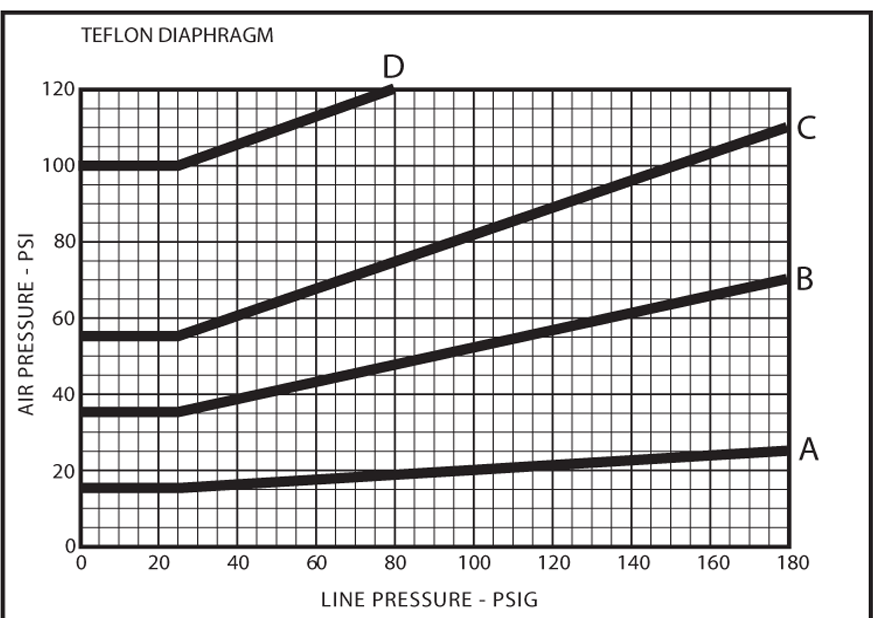
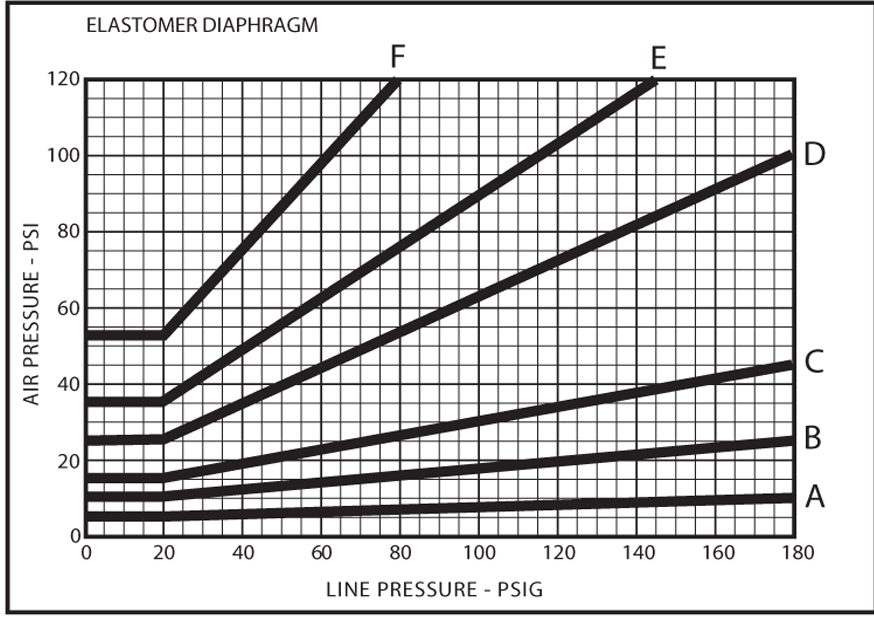


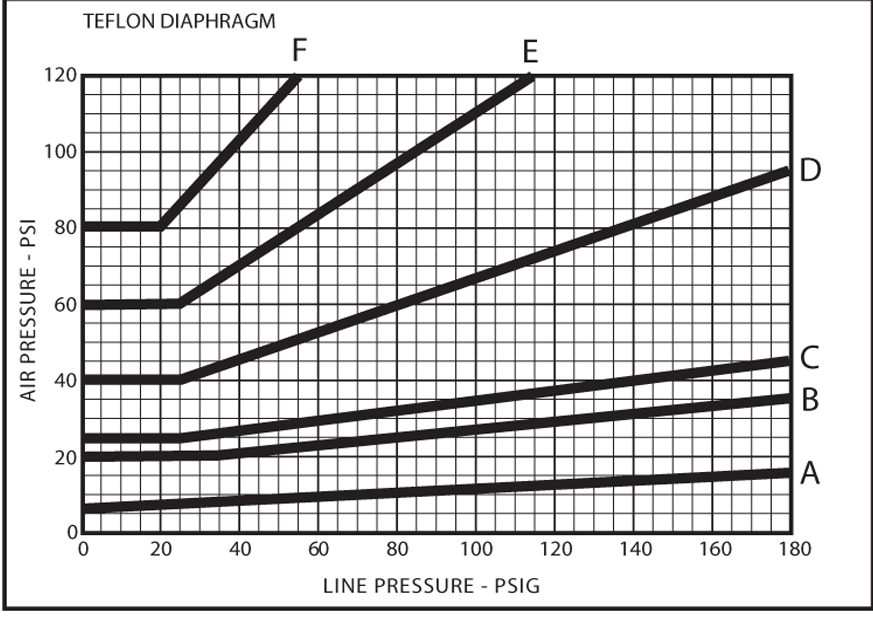
CHART A

NUMBER 60 OPERATORS

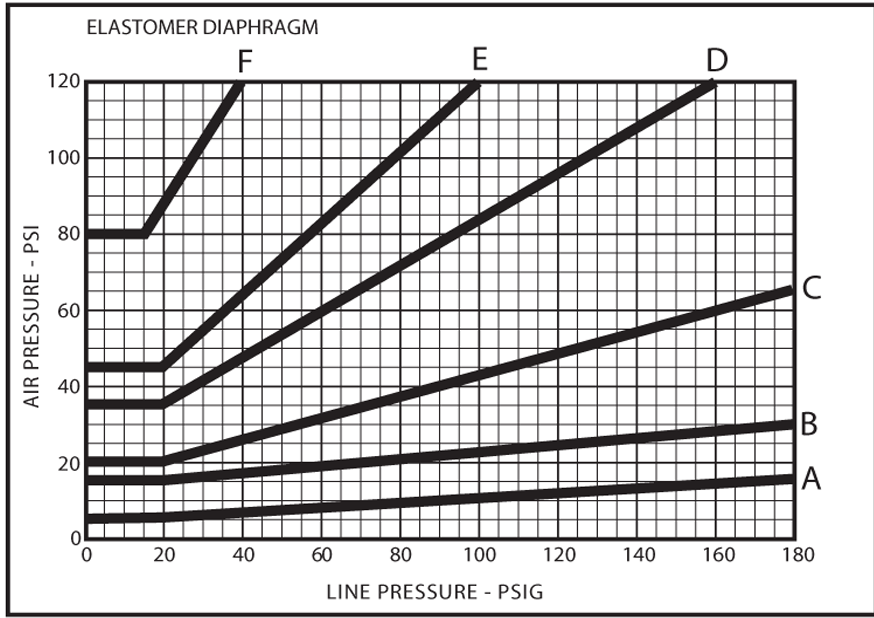
AA & SO ACTION



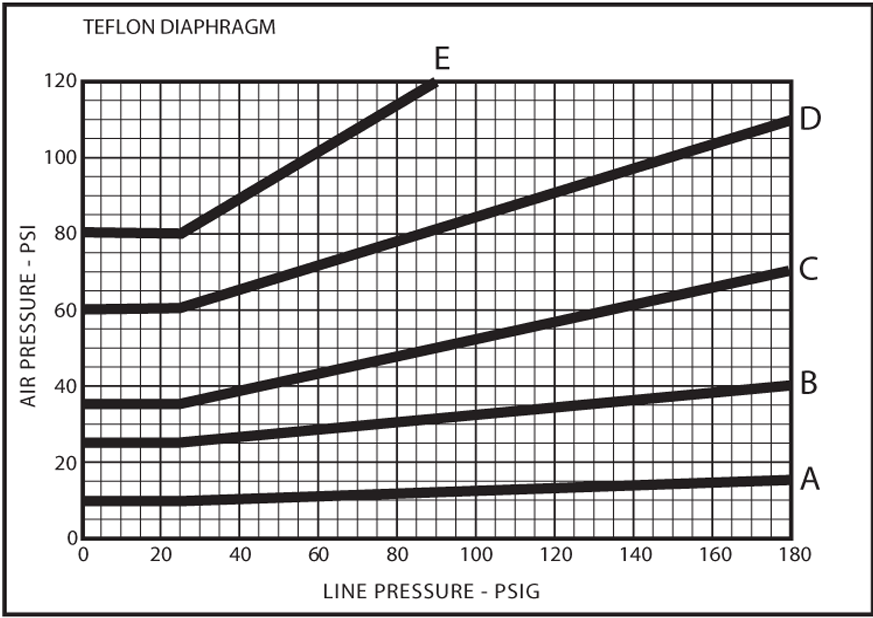
AA & SO ACTION



SC ACTION



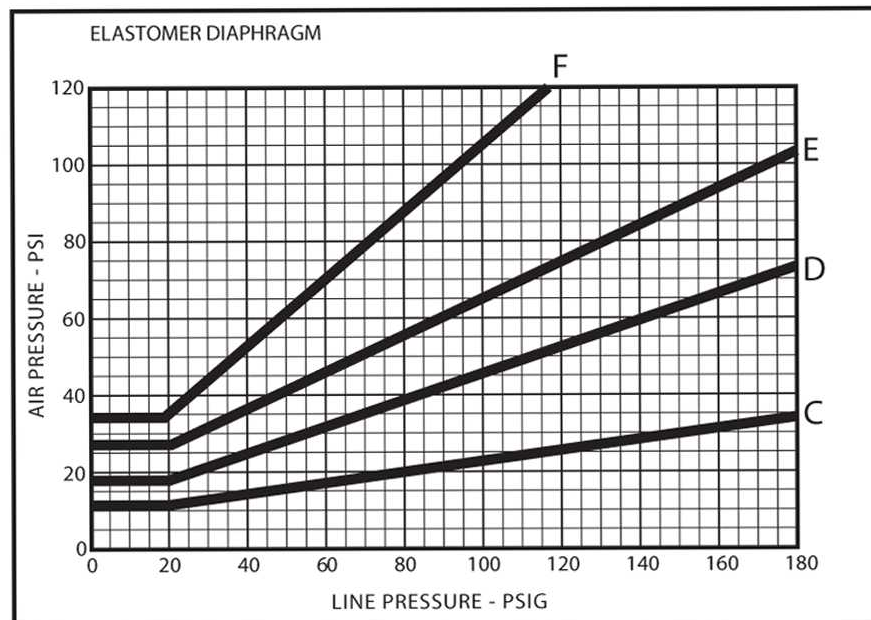
SC ACTION



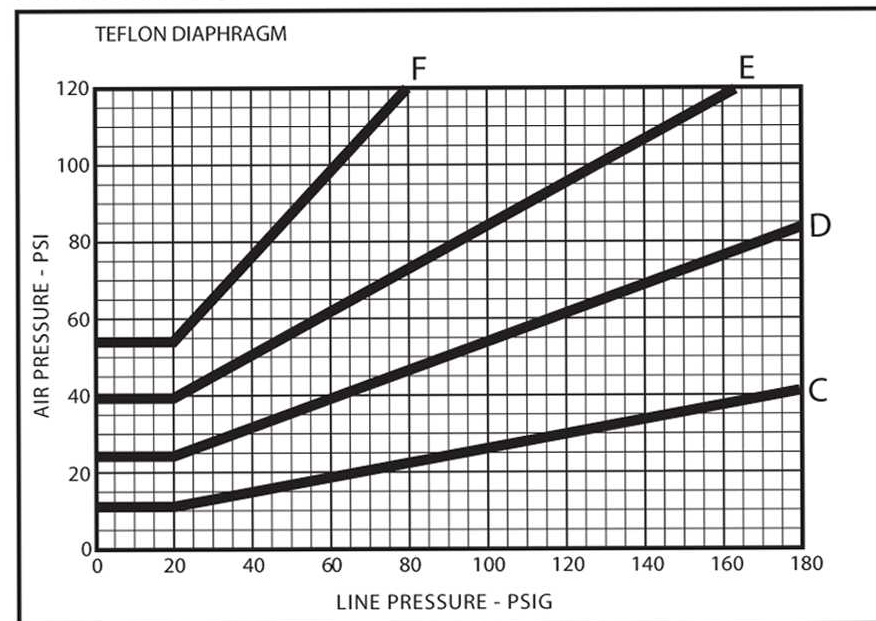
Pneumatic Operator Sizing

NUMBER 90 OPERATORS

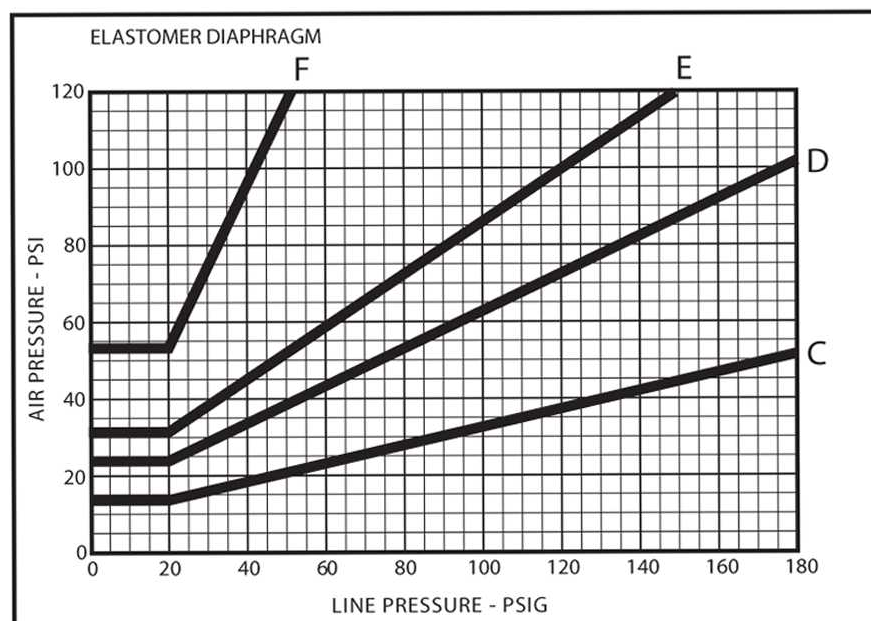
AA & SO ACTION



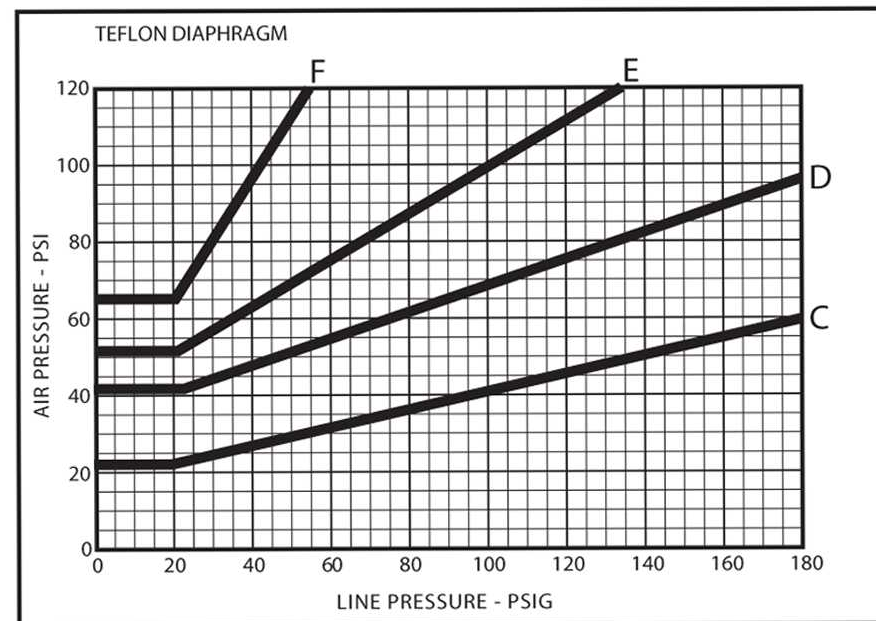
AA & SO ACTION



SC ACTION

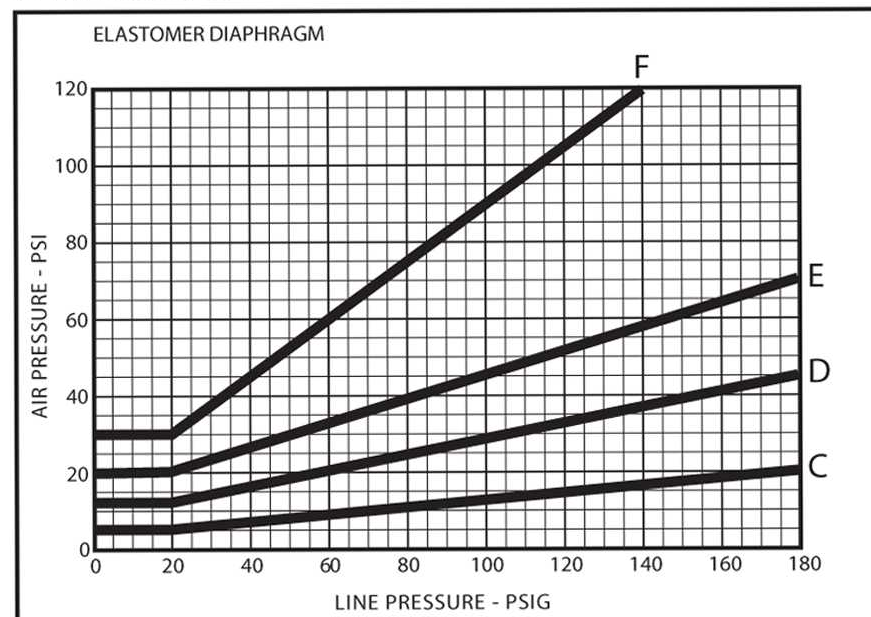


SC ACTION

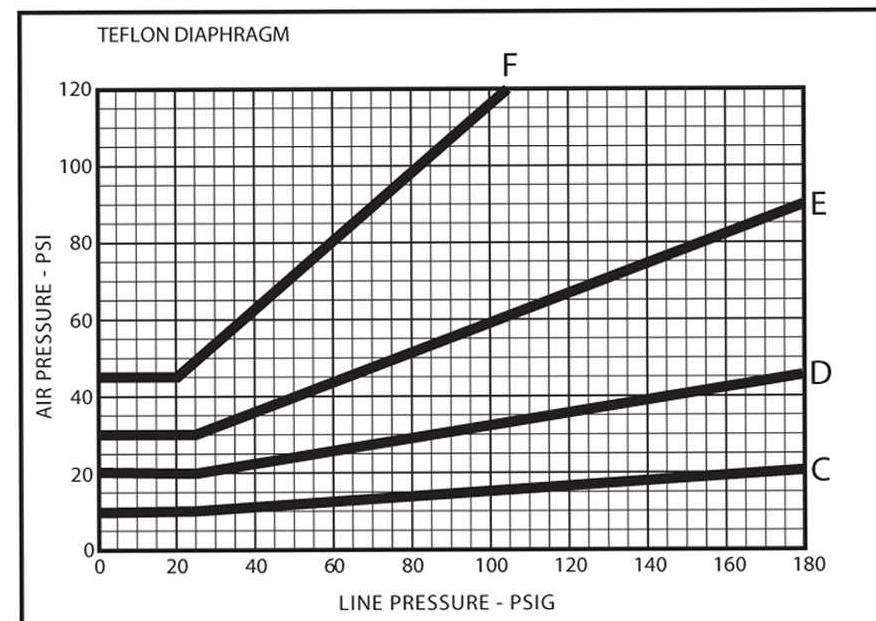


NUMBER 140 OPERATORS

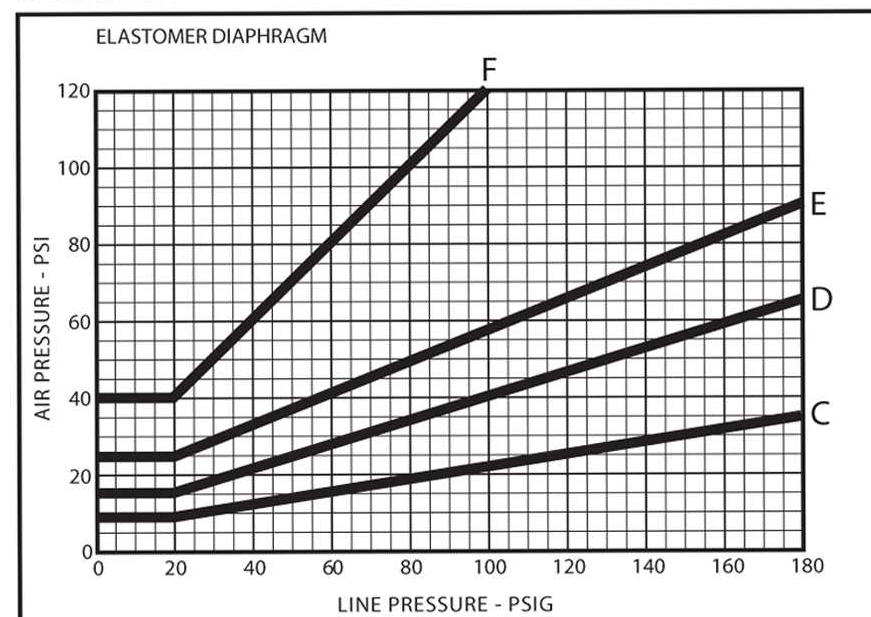
AA & SO ACTION



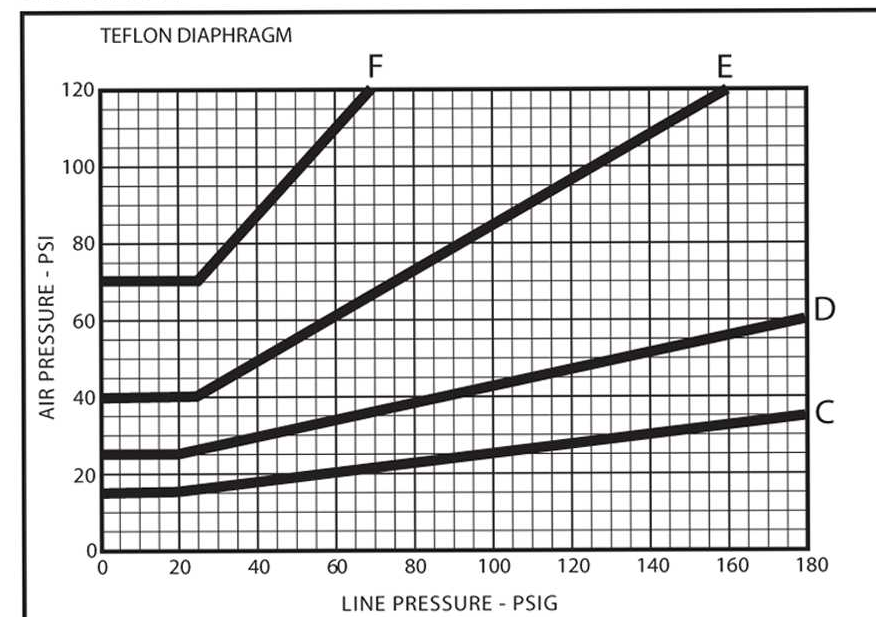
AA & SO ACTION



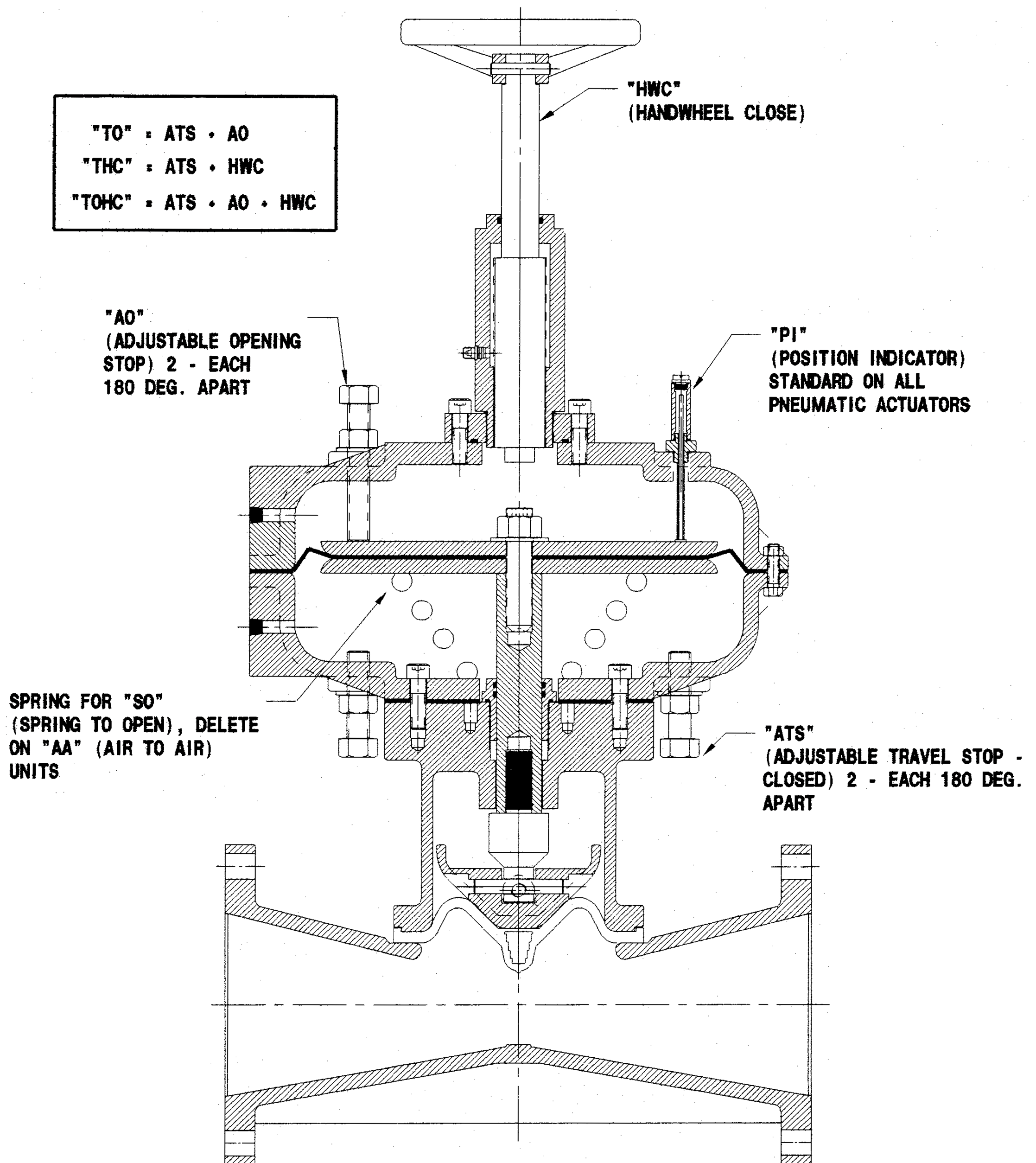
SC ACTION



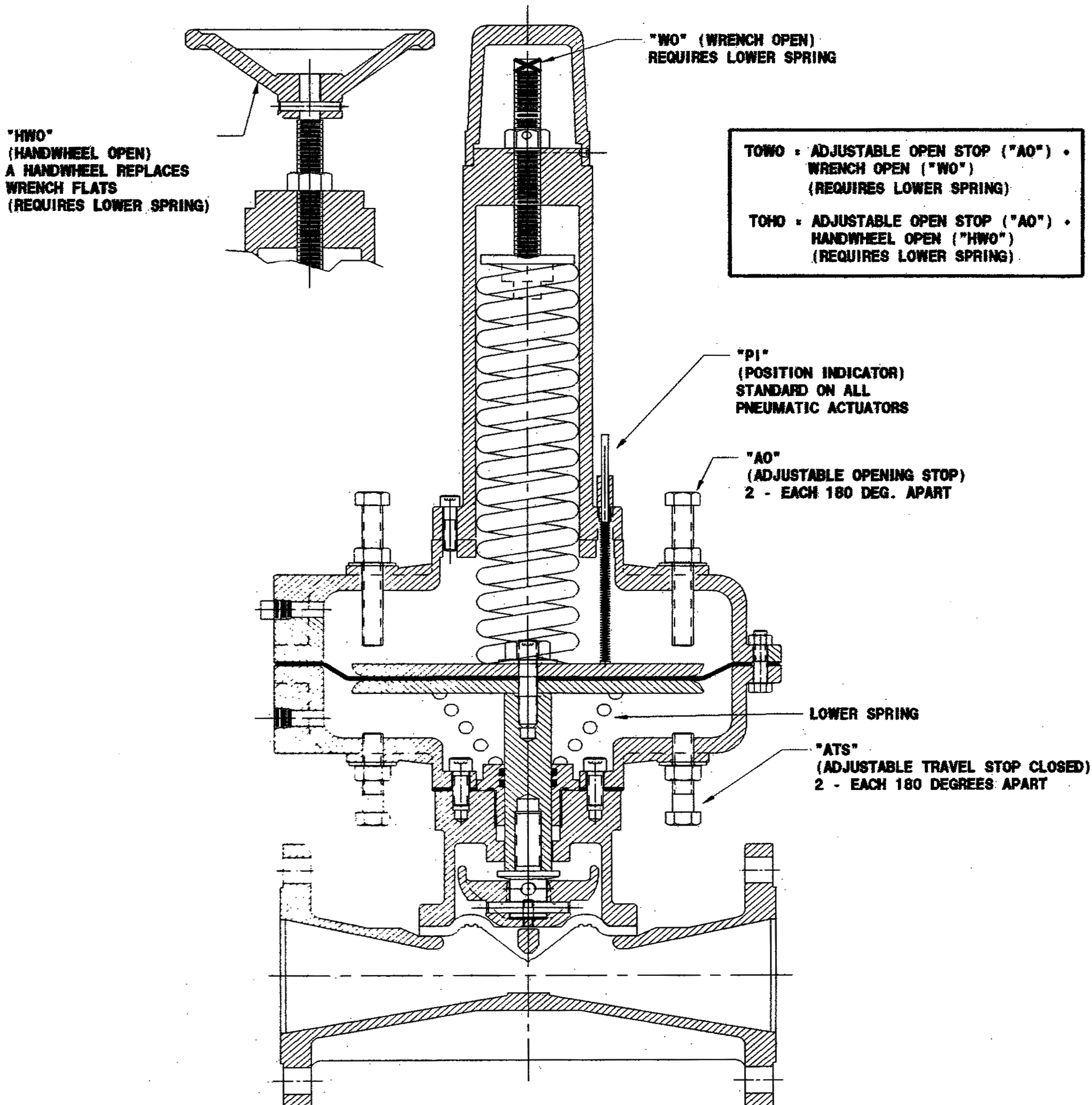
SC ACTION



Pneumatically Actuated Valve Accessories for "AA" Air to Open, Air to Close Actuators and "SO" Spring to Open, Airt to Close Actuators



Pneumatically Actuated Valve Accessories for "SC" Spring to Close, Air to Open Actuators



Pneumatic Actuator Air Consumption

Air Consumption (IN³)
One (Up or Down) Stroke
TTV Diaphragm Actuator (AA, SO, SC)

BONNET SIZE	TRU-TROL MAXI-TROL VALVE SIZE	TRU-FLOW MAXI-FLOW VALVE SIZE	ACTUATOR MODEL NUMBER						
			10	20	35	60	90	140	280
A	1", 1-1/4"	1/2", 3/4"	6	12	19	-	-	-	
A/B	1", 1-1/4"	1-1/2", 2"	9	18	27	46	-	-	
C	2-1/2", 3"	1-1/2", 2"	-	21	32	55	77	-	
D	4"	2-1/2", 3"	-	-	51	87	124	-	
E	5", 6"	4"	-	-	-	130	182	315	-
F	8"	5", 6"	-	-	-	192	269	465	930
CASE VOLUME, MAX. (IN ³)			40	80	172	335	470	1225	2600



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