

## W60/W80 Series

SHUT OFF AND DIVERT VALVES



Engineering excellence, allied to stringent quality control, ensures that SPX FLOW's unrivalled range of WCB products complies with the highest international standards for hygiene.

In the light of growing pressure worldwide to deliver safe, high quality food, all SPX FLOW products are designed for easy cleanability, while minimizing the use of valuable resources, such as energy.

The WCB product portfolio includes a wide range of pumps, valves, heat exchangers, mixers and homogenizers designed for use in the food, dairy and brewing industries, as well as in chemical, healthcare, pharmaceutical processing and heavy industries.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world. Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands.

Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets.

To learn more about SPX FLOW capabilities, its latest technology innovations and complete service offerings, please visit [www.spxflow.com](http://www.spxflow.com).

## W60/W80 Series Shut Off & Divert Valves

### APPLICATION

When stopping or diverting flow in a process system, the W60 single seat valve line provides both a flexible and reliable solution. These valves are pneumatically or manually operated, and offered in a wide variety of body configurations.

Available in 1" to 6" (25mm – 152mm) OD sizes.

Adapters: Refer to page 27 for descriptions of W80 options.

### MATERIALS

Product Wetted: ASTM 316L (UNS-S31603); (DIN-1.4404)

Non-Product: ASTM 304 (UNS-S30400); (DIN-1.4301)

Seat Material: Tef Flow™ (Std) See Page 3 for other available seat options.

Elastomers: FKM (Std)  
EPDM (Opt)  
FFKM (Opt)

Finish:  $\leq 32Ra$  ( $\leq 0.8 \mu m$ ) Other finishes available upon request

### PRESSURE RATINGS

STANDARD ADAPTER					
SIZE	MAXIMUM PRESSURE AT 70°F/21°C	MAXIMUM PRESSURE AT 160°F/71°C	MAXIMUM PRESSURE AT 180°F/82°C	MAXIMUM PRESSURE AT 250°F/121°C	
<b>1.0"</b> 25mm	<b>500</b> 34	<b>375</b> 26	<b>375</b> 26	<b>250</b> 17	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>500</b> 34	<b>375</b> 26	<b>375</b> 26	<b>250</b> 17	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>450</b> 31	<b>350</b> 24	<b>350</b> 24	<b>250</b> 17	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>400</b> 28	<b>300</b> 21	<b>300</b> 21	<b>200</b> 14	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>350</b> 24	<b>250</b> 17	<b>250</b> 17	<b>150</b> 10	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>200</b> 14	<b>150</b> 10	<b>150</b> 10	<b>125</b> 9	<b>PSI</b> Bar
<b>6.0"</b> 152mm	<b>150</b> 10	<b>100</b> 7	<b>100</b> 7	<b>75</b> 5	<b>PSI</b> Bar

**Note:**  
\*6" valves available in W61 Shutoff and W65 Divert only.

# Typical Product Applications





## PRESSURE RATINGS

HIGH PRESSURE ADAPTER AND CLAMPS				
SIZE	MAXIMUM PRESSURE AT 70°F/21°C	MAXIMUM PRESSURE AT 180°F/82°C	MAXIMUM PRESSURE AT 250°F/121°C	
<b>1.0"</b>	<b>1220</b>	<b>1160</b>	<b>1100</b>	<b>PSI</b>
25mm	84	80	76	Bar
<b>1.5"</b>	<b>1220</b>	<b>1160</b>	<b>1100</b>	<b>PSI</b>
38mm	84	80	76	Bar
<b>2.0"</b>	<b>900</b>	<b>855</b>	<b>830</b>	<b>PSI</b>
50mm	62	59	57	Bar
<b>2.5"</b>	<b>720</b>	<b>690</b>	<b>660</b>	<b>PSI</b>
63mm	50	48	46	Bar
<b>3.0"</b>	<b>600</b>	<b>575</b>	<b>550</b>	<b>PSI</b>
76mm	41	40	38	Bar
<b>4.0"</b>	<b>570</b>	<b>546</b>	<b>525</b>	<b>PSI</b>
101mm	39	37	36	Bar

**Note:**

3, 4 or 6 inch high pressure clamp not available.  
For other valve types contact factory. For all valve options see Valve Key Datasheet (DS-1204).

## OPTIONS AND ACCESSORIES

SEAT TYPE	MAXIMUM TEMPERATURE °F / °C *	APPLICATION	SERIES
 TEF-FLOW™ (TF)	180/82	Standard seat of choice. General Purpose, >90% of applications	W60
 TEF-FLOW™ "p" (TFP)	280/137	High Temp High Pressure Pressure Relief	W60 W80
 Tri Ring (TR) EPDM, FKM	Oper. 280/137EPDM Steril. 275/135EPDM Oper. 350/176 FKM Steril. Consult Factory FKM	High Pressure Large Particulate	W60 W80
 Metal (M)	375/190	High Pressure High Flow Large Particulate	W60 W80

**Note:**

For higher temperature applications than those listed, please consult the factory.  
\*Operating conditions such as flow rate and pressure must be considered when operating near max temperature rating.

### Beverage

- Beer
- Cider
- Fruit Drinks
- Liquid Sugar and Glucose
- Soft Drinks
- Wine
- Wort



### Food

- Animal Oils
- Flavorings
- Pet Food
- Soups and Sauces
- Vegetable Juices
- Vegetable Oils
- Vinegars



### Dairy

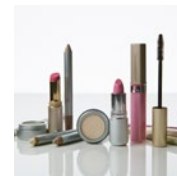
- Cream
- Milk
- Milk Concentrate
- Raw Milk
- Skimmed Milk
- Whey
- Whey Concentrate



### Pharmaceutical and

### Toiletries

- Emulsions
- Extracts
- Lotions
- Perfumes
- WFI (Water for Injection)
- High Purity Water
- Pure Water



### Chemical

- Additives
- Adhesives
- Coatings
- Contaminated Liquids
- Detergents
- Emulsions
- Paint



## Control Tops

### WAUKESHA CHERRY-BURRELL CONTROL TOP



#### FEATURES AND BENEFITS

- Transparent Control Top keeps all electrical components visible.
- Maintainable, designed with the user in mind, making assembly and troubleshooting worry free and easy.
- Waukesha Cherry-Burrell uses the industry's most widely recognized electrical components, so access to off the shelf replacement parts is easy, ensuring quick delivery and less down time.
- NEMA 4x (IP64)
- Stainless Steel Control Top Option



#### CONNECTOR OPTIONS

- S/O Cord Grip for hard wire (std)
- Quick Disconnect Pin Connectors

#### INTERFACE OPTIONS

- AS-i Field Bus Card
- Device Net Field Bus Network Card

#### POSITION INDICATION

- Set & Forget Switch
- Inductive Proximity Switches 20-140V AC/DC, 2-Wire (Std)
- Microswitches 24V DC, 110V AC
- Intrinsically safe options 5-24V DC



#### SOLENOID VALVES

- 24VDC or 110V AC
- Select from 0 to 3 Solenoids

### CU4 & CU4plus CONTROL TOP



#### FEATURES AND BENEFITS

- Automated control and position monitoring for reliable processing
- Reduces compressed air and electrical connections
- Helps reduce external solenoid valve cabinets
- Accelerates valve response time
- Innovative seat lift detection is fully integrated without need for external sensor wiring to provide additional position monitoring
- Reliability and long service life - robust clamp connection, reinforced stainless steel air coupling threads to avoid air leakages, and water tight seals
- Ease of operation - contains manual override solenoids and adjustment screw to throttle air flow to actuator to ensure optimal opening and closing
- Clarity - clear and bright indication of valve position - 5 diodes in LED panel and convenient location
- Standardization - same control top used on various SPX FLOW valve lines, offers common look and controls interface
- NEMA 6 (IP67) washdown rating



#### CONNECTOR OPTIONS

- S/O Cord Grip for hard wire (standard)
- M12 4-pin connector (optional)

#### INTERFACE OPTIONS

- 24V DC Direct Connect
- AS-i Field Bus Card

#### POSITION INDICATION OPTIONS

- CU4: 2 internal feedback sensors for valve open/valve closed position detection
- CU4plus: Automatic teaching of all positions with press of single button

#### SOLENOID VALVES

- 24V DC or 110V AC
- Select 1 solenoid or solenoid with NOT element (air/air or air assist)

## 8681 CONTROL TOP

### 8681 Control Tops



#### FEATURES AND BENEFITS

- Contact free position sensor including (3) programmable feedback signals
- Positions easily taught via intuitive push buttons or Autotune feature to ensure quick & easy set-up
- Ultra-bright 360° visual LED position indication with adjustable red, yellow, & green color assignments provide clarity from all points of view and avoid confusion
- Manual override and air throttle adjustable solenoids to assist start-up, maintenance, and troubleshooting
- Up to IP69K washdown rating available (IP65/67 as standard) for high washdown environments
- Built-in microcontroller tracks cycles and alerts operator when preventive maintenance is required
- Simple and robust stainless steel adapter & chemically resistant polycarbonate head
- Supplied by industry leading Burkert Fluid Controls

#### CONNECTOR OPTIONS

- Quick Disconnect Pin Connector

#### INTERFACE OPTIONS

- AS-i Field Bus Card
- DeviceNet™ Field Bus Network Card
- Available on request CANOpen, IO-Link

#### POSITION INDICATION

- (3) programmable position sensors in control top

#### SOLENOID VALVES

- 24V DC
- Manual override and air throttle adjustment
- Up to (3) available in control top

## Actuator Options

### STROKE LENGTH

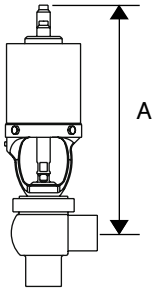
VALVE SIZE	W61/W63 W81/W83 STANDARD STROKE	W62/W65 W82/W85 STANDARD STROKE	W61/W63 W81/W83 LONG STROKE	W62/W65 W82/W85 LONG STROKE	W61 Y-BODY EXTRA LONG STROKE
<b>1.0"</b> 25mm	<b>0.625</b> 16	<b>0.625</b> 16	-- --	-- --	-- --
<b>1.5"</b> 38mm	<b>0.813</b> 21	<b>0.688</b> 17	-- --	-- --	-- --
<b>2.0"</b> 50mm	<b>0.813</b> 21	<b>0.688</b> 17	-- --	-- --	-- --
<b>2.5"</b> 63mm	<b>0.813</b> 21	<b>0.688</b> 17	<b>1.870</b> 47	<b>1.690</b> 43	<b>4.200</b> 107
<b>3.0"</b> 76mm	<b>0.813</b> 21	<b>0.688</b> 17	<b>2.310</b> 59	<b>2.090</b> 53	<b>4.200</b> 107
<b>4.0"</b> 101mm	<b>0.813</b> 21	<b>0.688</b> 17	<b>3.220</b> 82	<b>2.940</b> 75	<b>5.200</b> 132
<b>6.0"</b> 152mm	-- --	-- --	<b>3.220</b> 82	<b>3.020</b> 77	-- --

#### Air Volume Required

- 4" AR = 12.7 in<sup>3</sup>/81 cm<sup>3</sup>
- 4" AL = 14 in<sup>3</sup>/90 cm<sup>3</sup>
- 5" AR = 21.5 in<sup>3</sup>/138 cm<sup>3</sup>
- 5" AL = 27.1 in<sup>3</sup>/174 cm<sup>3</sup>
- 6" AR = 36.1 in<sup>3</sup>/223 cm<sup>3</sup>
- 6" AL = 33.1 in<sup>3</sup>/213 cm<sup>3</sup>

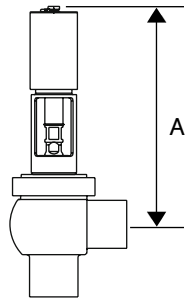
**Note:** Normal air supply requirement: 50 PSI for 4, 5, and 6 inch, A, B and C size actuators and long stroke actuators; 75 PSI for 4, 5, and 6 inch heavy duty spring actuators. These estimates may vary depending on other factors such as air pressure, pipe line pressure and air routing through solenoid. Standard stroke length is the same for maintainable and maintenance-free actuators.

**“A” - DIMENSIONS**



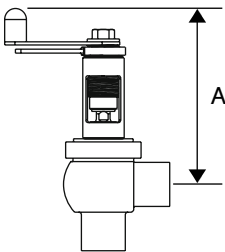
**4AR-4" Air to Raise Maintainable**

VALVE SIZE	4 AR 4 AL 4 AA	5 AR 5 AL 5 AA	6 AR 6 AL 6 AA	4* RHAR	5* RHAR	6* RHAR	4* RHAL	5* RHAL	6* RHAL	6 ARLG ALLG
<b>1.0"</b> 25mm	<b>12.58</b> 320	<b>13.89</b> 353	<b>15.65</b> 398	--	--	--	--	--	--	--
<b>1.5"</b> 38mm	<b>12.58</b> 320	<b>13.89</b> 353	<b>15.65</b> 398	<b>15.89</b> 404	<b>17.27</b> 439	<b>19.14</b> 486	--	--	--	--
<b>2.0"</b> 50mm	<b>12.83</b> 326	<b>14.14</b> 359	<b>15.90</b> 404	<b>16.14</b> 410	<b>17.62</b> 448	<b>19.38</b> 492	<b>16.42</b> 417	<b>17.74</b> 451	<b>18.72</b> 475	--
<b>2.5"</b> 63mm	<b>13.08</b> 332	<b>14.39</b> 366	<b>16.15</b> 410	<b>16.39</b> 416	<b>17.77</b> 451	<b>19.64</b> 499	<b>16.67</b> 423	<b>17.99</b> 457	<b>18.97</b> 482	<b>25.30</b> 643
<b>3.0"</b> 76mm	<b>13.33</b> 339	<b>14.64</b> 372	<b>16.40</b> 417	<b>16.64</b> 423	<b>18.02</b> 458	<b>19.89</b> 505	<b>16.92</b> 430	<b>18.24</b> 463	<b>19.22</b> 488	<b>25.50</b> 648
<b>4.0"</b> 101mm	<b>13.81</b> 351	<b>15.12</b> 384	<b>16.88</b> 429	<b>17.13</b> 435	<b>18.50</b> 470	<b>20.37</b> 517	<b>17.41</b> 442	<b>18.73</b> 476	<b>19.70</b> 500	<b>26.00</b> 660
<b>6.0"</b> 152mm	--	--	--	--	--	--	--	--	--	<b>27.20</b> 691



**M - Micrometer**

VALVE SIZE	HLG	H	M	4AL3	4AR3	4 ALLG ARLG	6 AALG	6 ARY ALY	A1 A2 A3 **	B1 B2 B3 **	C1 C2 C3 **
<b>1.0"</b> 25mm	--	<b>8.65</b> 220	<b>8.80</b> 224	<b>14.66</b> 372	<b>16.07</b> 408	--	--	--	<b>14.51</b> 369	<b>15.73</b> 399	<b>17.50</b> 444
<b>1.5"</b> 38mm	--	<b>8.65</b> 220	<b>8.80</b> 224	<b>14.68</b> 373	<b>16.07</b> 408	--	--	--	<b>14.51</b> 369	<b>15.73</b> 399	<b>17.50</b> 444
<b>2.0"</b> 50mm	--	<b>8.90</b> 226	<b>9.10</b> 231	<b>14.93</b> 379	<b>16.32</b> 415	--	--	--	<b>14.76</b> 375	<b>15.98</b> 406	<b>17.75</b> 451
<b>2.5"</b> 63mm	<b>11.60</b> 295	<b>9.15</b> 232	<b>9.30</b> 236	<b>15.10</b> 384	<b>16.57</b> 421	<b>23.10</b> 587	<b>19.70</b> 500	<b>36.90</b> 937	<b>15.01</b> 381	<b>16.23</b> 412	<b>18.00</b> 457
<b>3.0"</b> 76mm	<b>11.80</b> 300	<b>9.40</b> 239	<b>9.60</b> 244	<b>15.30</b> 389	<b>16.82</b> 427	<b>23.40</b> 594	<b>20.40</b> 518	<b>36.80</b> 935	<b>15.26</b> 388	<b>16.48</b> 418	<b>18.25</b> 463
<b>4.0"</b> 101mm	<b>12.30</b> 312	<b>9.88</b> 251	<b>10.00</b> 254	<b>15.80</b> 401	<b>17.30</b> 439	<b>23.90</b> 607	<b>21.80</b> 554	<b>38.10</b> 968	<b>15.75</b> 400	<b>16.96</b> 431	<b>18.73</b> 476
<b>6.0"</b> 152mm	<b>12.40</b> 315	--	--	--	--	--	<b>22.80</b> 579	--	--	--	--



**H - Hand Lock  
HLG - Hand Lock, long stroke  
6YLG - Hand Lock**

All "A" Dimension are in fully extended (open) position.

\*For sizing Over-Pressure valves, select a Heavy-Duty spring actuator with a holding pressure greater than the desired relief pressure. Designate with the "R" the valve model (i.e. WR61) and actuator size (i.e. 5RHAR). Refer to DS-1224 for more details on Over-Pressure Valves.

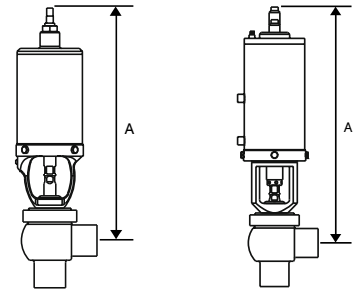
**CONTROL TOP DIMENSIONAL ADDER**

CONTROL TOP	ACTUATOR		
	MAINTAINABLE		MAINTENANCE-FREE
	4" & 5"	6"	
WCB	4.12"	4.45"	3.75"
WCB-LONG STROKE	6.02"		N/A
CU4	3.60"		3.75"
8681	7.70"		7.20"

Note: Add control top dimension above to "A" dimension of selected valve and actuator size

# Actuators

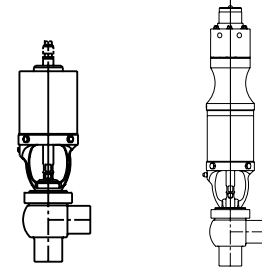
- 4AR - 4" (101mm) Air to Raise
- 4HAR<sup>3</sup> - 4" (101mm) Air to Raise, Heavy Duty Spring
- 4RHAR<sup>4</sup> - 4" (101mm) Air to Raise, Spring Adjustable, Heavy Duty Spring
- 4ARLG - 4" (101mm) Air to Raise, Long Stroke
- 4AL - 4" (101mm) Air to Lower
- 4HAL<sup>3</sup> - 4" (101mm) Air to Lower, Heavy Duty Spring
- 4RHAL<sup>4</sup> - 4" (101mm) Air to Lower, Spring Adjustable, Heavy Duty Spring
- 4ALLG - 4" (101mm) Air to Lower, Long Stroke
- 4AA - 4" (101mm) Air to Air



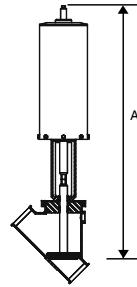
4AL3 - 4" Air to Lower, 3 position

4AR3 - 4" Air to Raise, 3 position

- 5AR - 5" (127mm) Air to Raise
- 5HAR<sup>3</sup> - 5" (127mm) Air to Raise, Heavy Duty Spring
- 5RHAR<sup>4</sup> - 5" (127mm) Air to Raise, Spring Adjustable, Heavy Duty Spring
- 5AL - 5" (127mm) Air to Lower
- 5HAL<sup>3</sup> - 5" (127mm) Air to Lower, Heavy Duty Spring
- 5RHAL<sup>4</sup> - 5" (127mm) Air to Lower, Spring Adjustable, Heavy Duty Spring
- 5AA - 5" (127mm) Air to Air



- 6AR - 6" (152mm) Air to Raise
- 6HAR<sup>3</sup> - 6" (152mm) Air to Raise, Heavy Duty Spring
- 6RHAR<sup>4</sup> - 6" (152mm) Air to Raise, Spring Adjustable, Heavy Duty Spring
- 6ARLG - 6" (152mm) Air to Raise, Long Stroke
- 6AL - 6" (152mm) Air to Lower
- 6HAL<sup>3</sup> - 6" (152mm) Air to Lower, Heavy Duty Spring
- 6RHAL<sup>4</sup> - 6" (152mm) Air to Lower, Spring Adjustable, Heavy Duty Spring
- 6ALLG - 6" (152mm) Air to Lower, Long Stroke
- 6AA - 6" (152mm) Air to Air
- 6ARY<sup>2</sup> - 6" (152mm) Air to Raise, Extra Long Stroke
- 6ALY<sup>2</sup> - 6" (152mm) Air to Lower, Extra Long Stroke

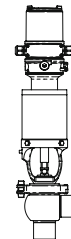


6ARY - 6" Air to Raise, extra long stroke

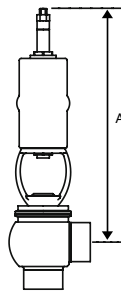
- 4ARP 4" (101 mm) Air to Raise w/positioner
- 4ALP 4" (101 mm) Air to Lower w/positioner

- 5ARP 5" (127 mm) Air to Raise w/positioner
- 5ALP 5" (127 mm) Air to Lower w/positioner

- 6ARP 6" (152 mm) Air to Raise w/positioner
- 6ALP 6" (152 mm) Air to Lower w/positioner



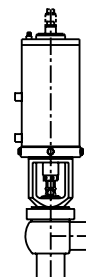
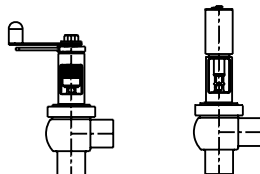
- A1 - 3" (74mm) Air to Raise
- A2 - 3" (74mm) Air to Lower
- A3 - 3" (74mm) Air to Air
- B1 - 4.5" (110mm) Air to Raise
- B2 - 4.5" (110mm) Air to Lower
- B3 - 4.5" (110mm) Air to Air
- C1 - 6.5" (165mm) Air to Raise
- C2 - 6.5" (165mm) Air to Lower
- C3 - 6.5" (165mm) Air to Air



A1-3" (74mm) Air to Raise, Maintenance Free

- 4ALEP 4" (102 mm) Air to Lower, Electropneumatic Positioner
- 5ALEP 5" (127 mm) Air to Lower, Electropneumatic Positioner
- 6ALEP 6" (152 mm) Air to Lower, Electropneumatic Positioner
- 4AREP 4" (102 mm) Air to Raise, Electropneumatic Positioner
- 5AREP 5" (127 mm) Air to Raise, Electropneumatic Positioner
- 6AREP 6" (152 mm) Air to Raise, Electropneumatic Positioner

**H** Hand Lock  
**M** Micrometer



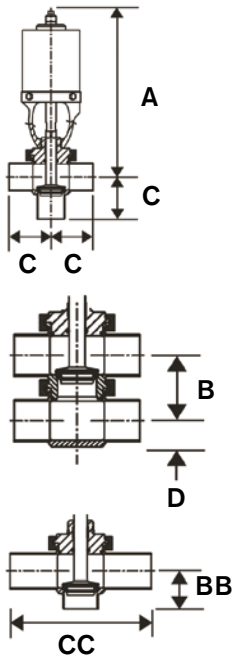
- 4AR3 4" (101 mm) Air to Raise, 3 position
- 4AL3 4" (101 mm) Air to Lower, 3 position

<sup>2</sup> Used with Y-Body valves. Consult with application engineering for use with 6" (152 mm) OD size valves.

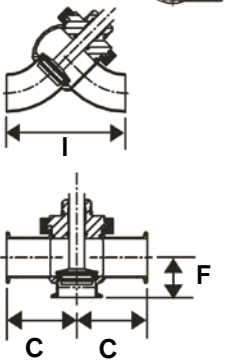
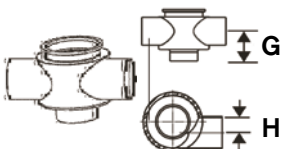
<sup>3</sup> Use TFP metal or TR seats for heavy spring actuators.

<sup>4</sup> Used with over-pressure valves, use TFP or metal seats.

**BODY CONFIGURATIONS (1 OF 2)**

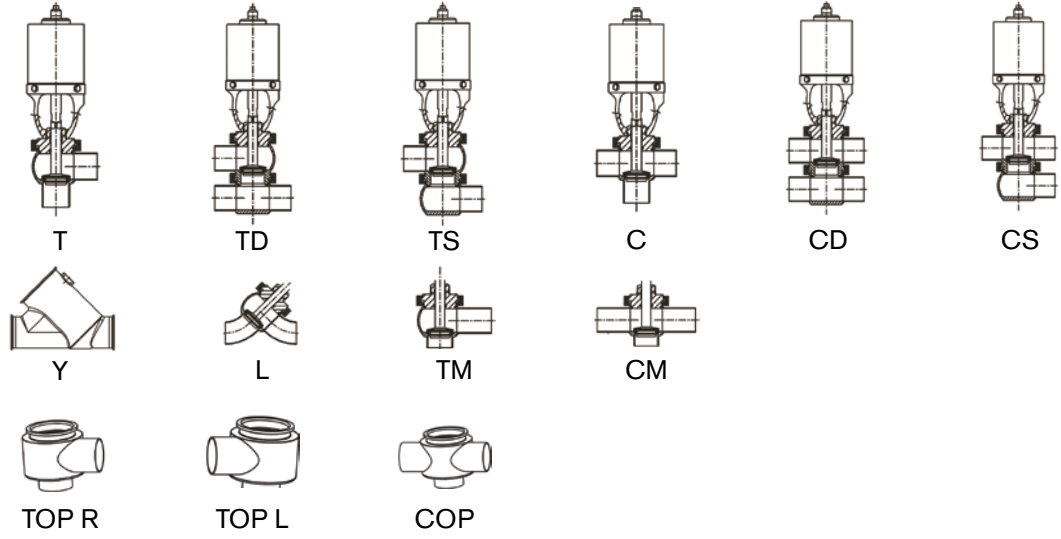


**TM and CM Bodies**

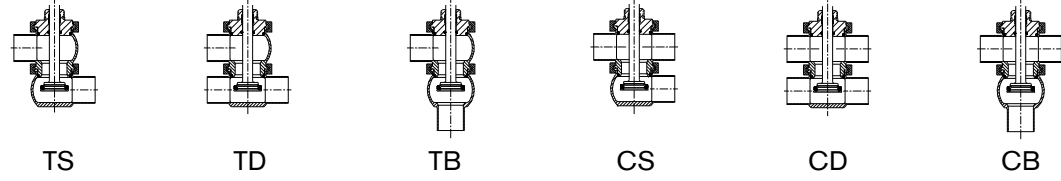


**TPS and CPS Bodies**

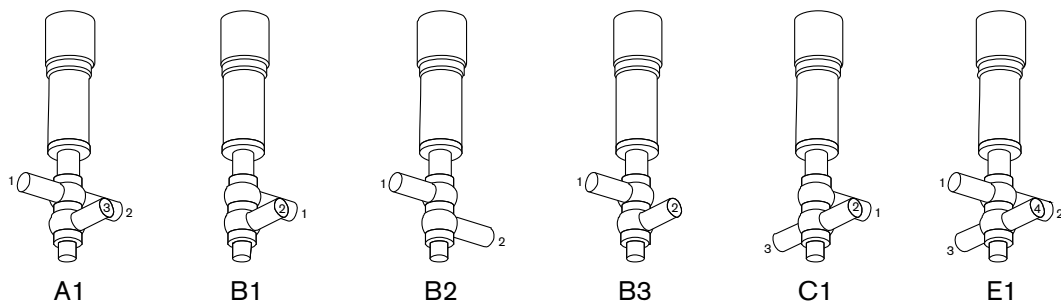
**W61 Shut-off**



**W63/W83 Shut-off (W68R/W88R Throttling)**



**W61 and W63 Shut-off - One Piece Bodies**



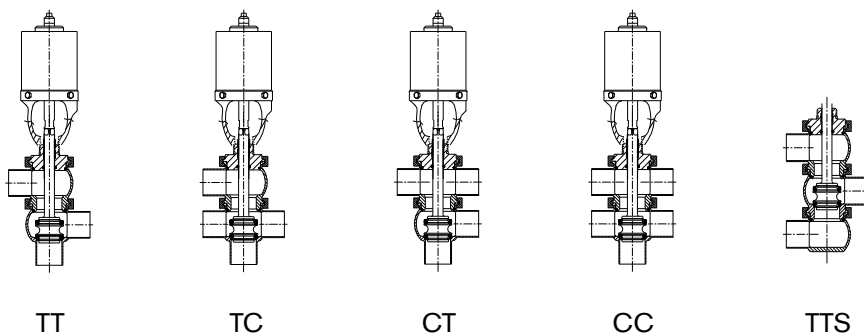
**VALVE DIMENSIONS**

VALVE SIZE	A	B	BB	C BUTTWELD	C S-LINE	CC	D	F S-LINE	G BUTTWELD	G S-LINE	H	I BUTTWELD	I S-LINE	
1.0" 25mm	SEE PAGE 6 FOR ACTUATOR OPTIONS	2.63 67	1.98 50	2.00 51	3.12 79	8.00 203	0.69 18	1.83 46	2.00 51	2.50 64	0.85 21	4.76 121	6.23 158	
1.5" 38mm		2.63 67	1.84 47	2.25 57	2.75 70	8.00 203	0.94 24	1.69 43	2.00 51	2.50 64	0.60 15	4.76 121	5.85 149	
2.0" 50mm		3.13 80	2.14 54	3.00 76	3.50 89	8.00 203	1.19 30	1.99 51	2.13 54	2.63 67	0.68 17	6.23 158	7.33 186	
2.5" 63mm		3.63 92	2.38 60	3.00 76	3.50 89	8.00 203	1.44 37	2.27 58	2.38 60	2.88 73	0.81 20	7.69 195	8.79 223	
3.0" 76mm		4.13 105	2.64 67	3.25 83	3.75 95	8.00 203	1.69 43	2.55 65	2.75 70	3.25 83	0.93 23	9.15 232	10.25 260	
4.0" 101mm		5.11 130	3.11 79	3.88 99	4.50 114	12.00 305	2.32 59	3.15 80	3.25 83	3.88 99	1.09 28	11.95 304	13.29 338	
6.0" 152mm		7.04 179	--	6.00 152	6.88 175	--	4.03 102	--	4.00 102	4.88 124	--	--	--	--

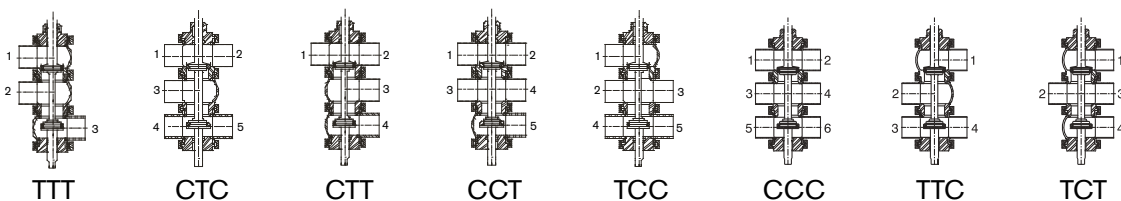


## BODY CONFIGURATIONS (2 OF 2)

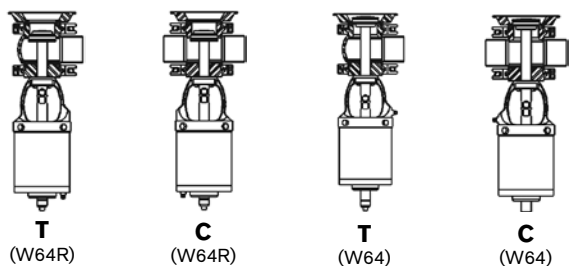
### W62/W82 Divert



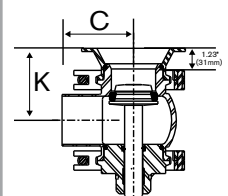
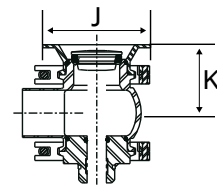
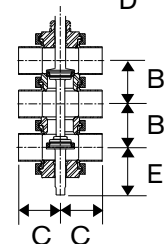
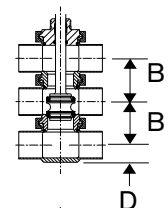
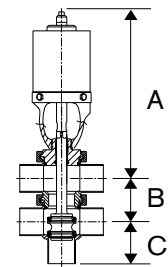
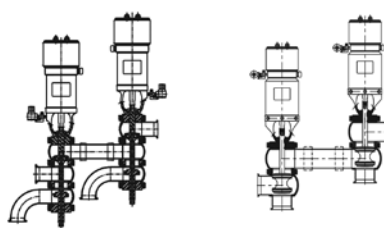
### W65/W85 Divert (W685/W885 Throttling)



### W64/W84 Tank Outlet (NOTE: Tank Flanges sold separately)



### W265/W285 FDV W262/W282 FDV



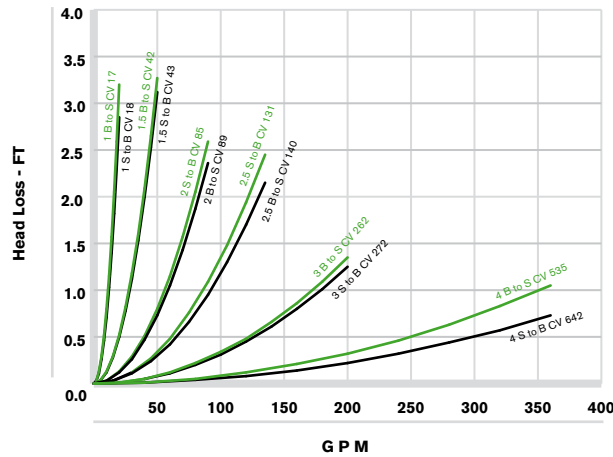
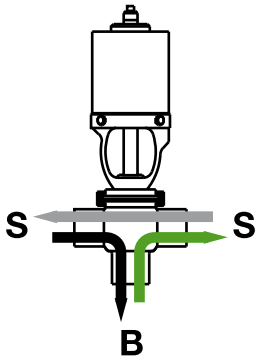
## VALVE DIMENSIONS

VALVE SIZE	A	B	C BUTTWELD	C S-LINE	D	E	J	K
1.0" 25mm	SEE PAGE 6 FOR ACTUATOR OPTIONS	2.63	2.00	3.12	0.69	3.91	5.00	2.54
		67	51	79	18	99	127	65
1.5" 38mm		2.63	2.25	2.75	0.94	3.97	5.00	2.54
		67	57	70	24	101	127	65
2.0" 50mm		3.13	3.00	3.50	1.19	4.22	5.00	2.79
		80	76	89	30	107	127	71
2.5" 63mm		3.63	3.00	3.50	1.44	4.55	5.50	3.04
		92	76	89	37	116	140	77
3.0" 76mm		4.13	3.25	3.75	1.69	4.73	6.00	3.29
	105	83	95	43	120	152	84	
4.0" 101mm	5.11	3.88	4.50	2.32	5.06	6.00	3.79	
	130	99	114	59	129	152	96	
6.0" 152mm	7.04	6.00	6.88	4.03	6.20	--	--	
	179	152	175	102	157	--	--	

# Pressure Loss Curves

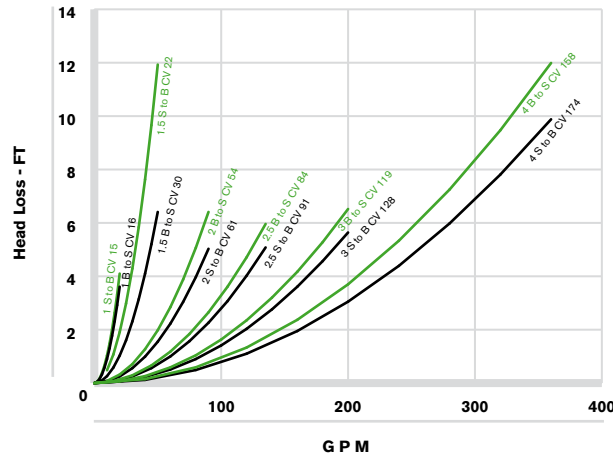
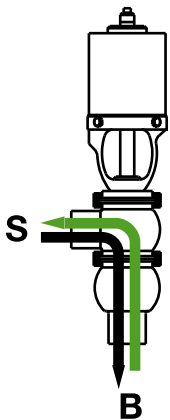
W80 valves are charted below under corresponding W60 header.  
 Curves are based on water 70°F (21°C).

## MODEL W61 & W64R

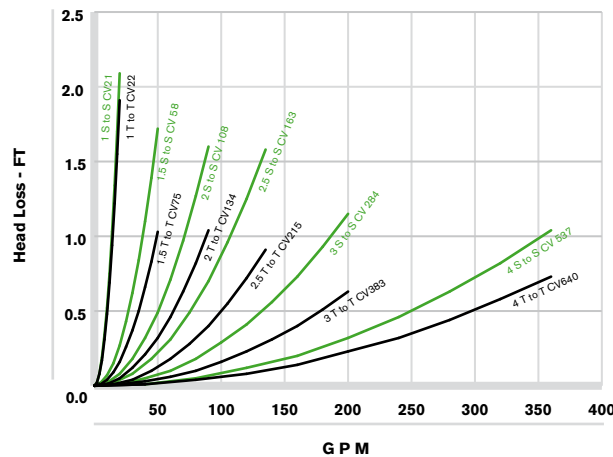
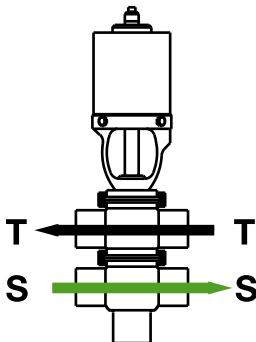


\*Note: For W61 S to S curves see W62 T to T curves.

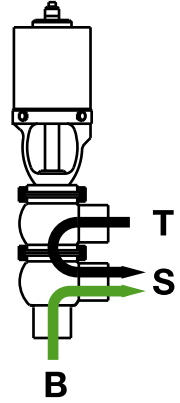
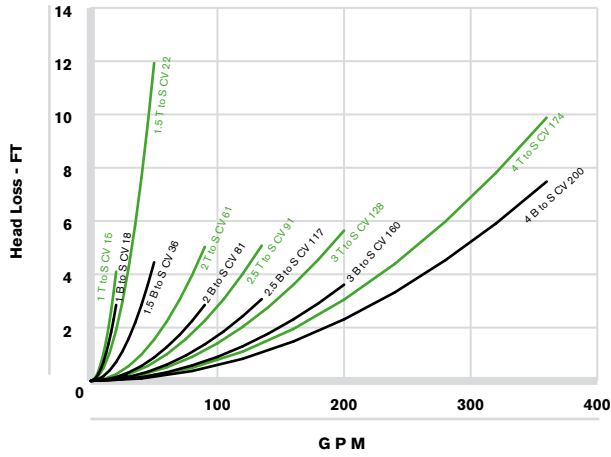
## MODEL W63 & W64



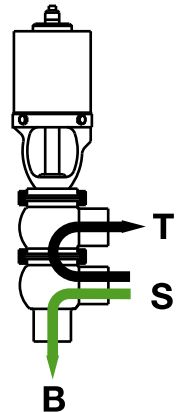
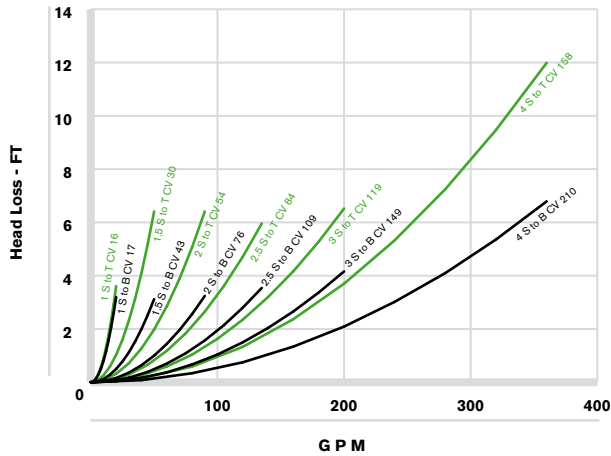
## MODEL W62



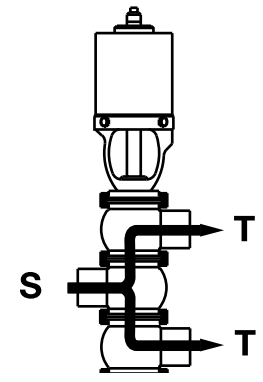
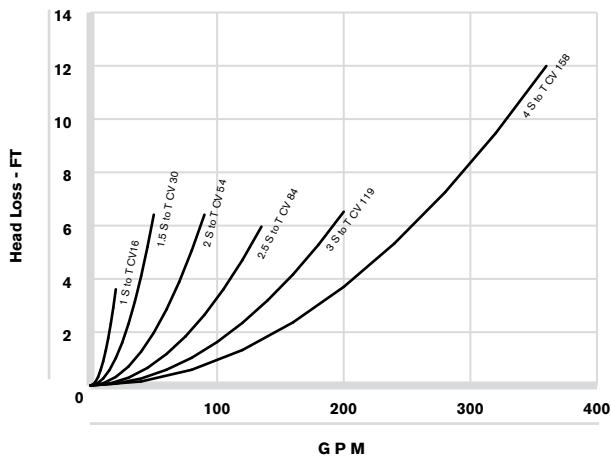
**MODEL W62**



**MODEL W62**



**MODEL W65**

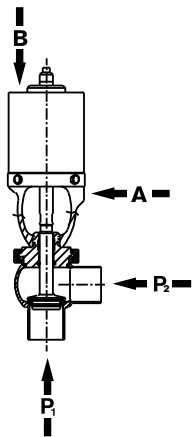


NOTE: Pressure drop curves shown are for estimation purposes only. Contact application engineering for s

# W61 & W64R Holding Pressure Charts

**W80 Holding Pressures are charted under the corresponding W60 header.**

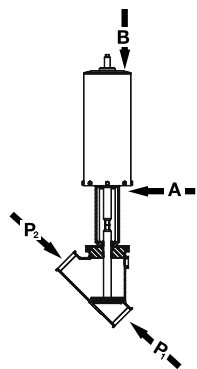
- If pressure rating is higher than documented in tables consult factory before exceeding.
- Minimum air supply requirements: 50 PSI for 4, 5 and 6 inch standard spring actuators; 75 PSI for 4, 5 and 6 inch heavy spring and 4 and 6 inch long stroke actuators; 87 PSI for A, B and C size actuators.
- For sizing Over-Pressure valves, select a Heavy-Duty spring actuator with a holding pressure greater than the desired relief pressure. Designate with the "R" valve model (i.e. WR61) and actuator size (i.e. 5RHAR).
- Please contact the factory for holding pressure values not listed.



VALVE SIZE	ACTUATOR SIZE									PSI Bar
	BOTTOM PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:									
	4AR	4HAR	5AR	5HAR	6AR	6HAR	A1	B1	C1	
<b>1.0"</b>	<b>160</b>	<b>213</b>	<b>251</b>	--	<b>347</b>	--	--	--	--	<b>PSI</b>
25mm	11	15	17	--	24	--	--	--	--	Bar
<b>1.5"</b>	<b>125</b>	<b>177</b>	<b>220</b>	<b>378</b>	<b>317</b>	--	<b>96</b>	<b>273</b>	--	<b>PSI</b>
38mm	9	12	15	26	22	--	7	19	--	Bar
<b>2.0"</b>	<b>70</b>	<b>99</b>	<b>124</b>	<b>212</b>	<b>178</b>	<b>338</b>	<b>54</b>	<b>153</b>	<b>370</b>	<b>PSI</b>
50mm	5	7	9	15	12	23	4	11	26	Bar
<b>2.5"</b>	<b>45</b>	<b>64</b>	<b>79</b>	<b>136</b>	<b>114</b>	<b>216</b>	<b>34</b>	<b>98</b>	<b>236</b>	<b>PSI</b>
63mm	3	4	5	9	8	15	2	7	16	Bar
<b>3.0"</b>	<b>31</b>	<b>44</b>	<b>55</b>	<b>94</b>	<b>79</b>	<b>150</b>	<b>24</b>	<b>68</b>	<b>164</b>	<b>PSI</b>
76mm	2	3	4	6	5	10	2	5	11	Bar
<b>4.0"</b>	<b>18</b>	<b>25</b>	<b>31</b>	<b>54</b>	<b>45</b>	<b>87</b>	<b>13</b>	<b>38</b>	<b>92</b>	<b>PSI</b>
101mm	1	2	2	4	3	6	1	3	6	Bar

VALVE SIZE	ACTUATOR SIZE									PSI Bar
	SIDE PORT (P <sub>2</sub> ), AIR TO PORT A, WILL OPEN AGAINST:									
	4AR 50PSI/ 3BAR	4HAR 75PSI/ 5BAR	5AR 50PSI/ 3BAR	5HAR 75PSI/ 5BAR	6AR 50PSI/ 3BAR	6HAR 75PSI/ 5BAR	A1 50PSI/ 3BAR	B1 50PSI/ 3BAR	C1 50PSI/ 3BAR	
<b>1.0"</b>	<b>223</b>	<b>371</b>	<b>356</b>	--	--	--	<b>67</b>	<b>127</b>	--	<b>PSI</b>
25mm	15	26	25	--	--	--	5	9	--	Bar
<b>1.5"</b>	<b>270</b>	<b>419</b>	<b>398</b>	--	--	--	<b>67</b>	<b>127</b>	--	<b>PSI</b>
38mm	19	29	27	--	--	--	5	9	--	Bar
<b>2.0"</b>	<b>132</b>	<b>205</b>	<b>195</b>	<b>261</b>	<b>278</b>	<b>334</b>	<b>33</b>	<b>62</b>	<b>123</b>	<b>PSI</b>
50mm	9	14	13	18	19	23	2	4	8	Bar
<b>2.5"</b>	<b>80</b>	<b>124</b>	<b>118</b>	<b>158</b>	<b>168</b>	<b>202</b>	<b>20</b>	<b>38</b>	<b>74</b>	<b>PSI</b>
63mm	6	9	8	11	12	14	1	3	5	Bar
<b>3.0"</b>	<b>54</b>	<b>84</b>	<b>79</b>	<b>106</b>	<b>113</b>	<b>136</b>	<b>13</b>	<b>25</b>	<b>50</b>	<b>PSI</b>
76mm	4	6	5	7	8	9	1	2	3	Bar
<b>4.0"</b>	<b>29</b>	<b>45</b>	<b>43</b>	<b>57</b>	<b>61</b>	<b>72</b>	<b>7</b>	<b>14</b>	<b>27</b>	<b>PSI</b>
101mm	2	3	3	4	4	5	0	1	2	Bar

## W61Y-BODY (AIR-TO-RAISE) - EXTRA LONG STROKE



Note: Y-Body must use 6ARY/AL Actuator

VALVE SIZE	ACTUATOR SIZE		PSI Bar
	PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:	PORT (P <sub>2</sub> ), AIR TO PORT A, WILL OPEN AGAINST:	
	6ARY	6ARY 50PSI/3BAR	
<b>2.5"</b>	<b>44</b>	<b>52</b>	<b>PSI</b>
63mm	3	3	Bar
<b>3.0"</b>	<b>34</b>	<b>35</b>	<b>PSI</b>
76mm	2	2	Bar
<b>4.0"</b>	<b>16</b>	<b>16</b>	<b>PSI</b>
101mm	1	1	Bar

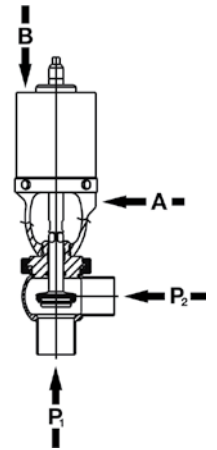
## W61 AR (AIR-TO-RAISE) - LONG STROKE

VALVE SIZE	ACTUATOR SIZE						
	BOTTOM PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:			SIDE PORT (P <sub>2</sub> ), AIR TO PORT A, WILL OPEN AGAINST:			
	4ARLG	6ARLG	6ARY	4ARLG 50PSI/ 3BAR	6ARLG 50PSI/ 3BAR	6ARY 50PSI/ 3BAR	
<b>2.5"</b> 63mm	<b>33</b> 2	<b>112</b> 8	--	<b>93</b> 6	<b>170</b> 12	--	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>23</b> 2	<b>80</b> 6	--	<b>63</b> 4	<b>112</b> 8	--	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>13</b> 1	<b>44</b> 3	--	<b>34</b> 2	<b>62</b> 4	--	<b>PSI</b> Bar
<b>6"</b> 152mm	--	<b>21</b> 2	<b>15</b> 1	--	<b>30</b> 2	<b>29</b> 2	<b>PSI</b> Bar

## W61 AL/HAL (AIR-TO-LOWER) - STANDARD STROKE

VALVE SIZE	ACTUATOR SIZE									
	BOTTOM PORT (P <sub>1</sub> ), AIR TO PORT B1, WILL HOLD AGAINST:									
	4AL 50PSI/ 3BAR	4HAL 75PSI/ 5BAR	5AL 50PSI/ 3BAR	5HAL 75PSI/ 5BAR	6AL 50PSI/ 3BAR	6HAL 75PSI/ 5BAR	A2 50PSI/ 3BAR	B2 50PSI/ 3BAR	C2 50PSI/ 3BAR	
<b>1.0"</b> 25mm	<b>111</b> 8	<b>221</b> 15	<b>218</b> 15	<b>245</b> 17	<b>383</b> 26	<b>328</b> 23	--	--	--	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>76</b> 5	<b>185</b> 13	<b>187</b> 13	<b>184</b> 13	<b>353</b> 24	<b>213</b> 15	<b>31</b> 2	<b>43</b> 3	--	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>43</b> 3	<b>104</b> 7	<b>105</b> 7	<b>104</b> 7	<b>198</b> 14	<b>120</b> 8	<b>18</b> 1.2	<b>24</b> 2	<b>46</b> 3	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>27</b> 2	<b>66</b> 5	<b>67</b> 5	<b>66</b> 5	<b>127</b> 9	<b>77</b> 5	<b>11</b> 0.8	<b>16</b> 1.1	<b>30</b> 2	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>19</b> 1	<b>46</b> 3	<b>47</b> 3	<b>46</b> 3	<b>88</b> 6	<b>53</b> 4	<b>8</b> 0.5	<b>11</b> 0.8	<b>21</b> 1.4	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>11</b> 1	<b>27</b> 2	<b>27</b> 2	<b>27</b> 2	<b>50</b> 3	<b>32</b> 2	<b>4</b> 0.3	<b>6</b> 0.4	<b>12</b> 1	<b>PSI</b> Bar

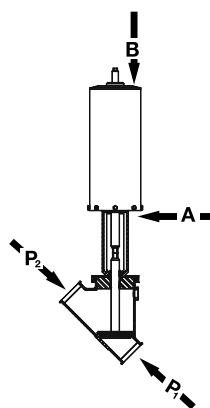
VALVE SIZE	ACTUATOR SIZE									
	SIDE PORT (P <sub>2</sub> ), (STEM LOWERED) ACTUATOR SPRING OPENS STEM AGAINST:									
	4AL	4HAL	5AL	5HAL	6AL	6HAL	A2	B2	C2	
<b>1.0"</b> 25mm	<b>288</b> 20	<b>361</b> 25	--	--	--	--	--	--	--	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>300</b> 21	<b>409</b> 28	--	--	--	--	<b>154</b> 11	<b>430</b> 30	--	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>164</b> 11	<b>200</b> 14	<b>216</b> 15	<b>388</b> 27	<b>260</b> 18	--	<b>76</b> 5	<b>211</b> 15	<b>502</b> 35	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>99</b> 7	<b>121</b> 8	<b>131</b> 9	<b>234</b> 16	<b>157</b> 11	<b>361</b> 25	<b>46</b> 3	<b>127</b> 9	<b>303</b> 21	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>67</b> 5	<b>81</b> 6	<b>88</b> 6	<b>158</b> 11	<b>106</b> 7	<b>243</b> 17	<b>31</b> 2	<b>86</b> 6	<b>204</b> 14	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>36</b> 2	<b>44</b> 3	<b>47</b> 3	<b>85</b> 6	<b>57</b> 4	<b>131</b> 9	<b>17</b> 1	<b>47</b> 3	<b>112</b> 8	<b>PSI</b> Bar



**W61 AL (AIR-TO-LOWER) - LONG STROKE**

VALVE SIZE	ACTUATOR SIZE						
	SIDEPORT (P <sub>2</sub> ), ACTUATOR SPRING OPENS STEM AGAINST:			PORT (P1), AIR TO PORT B, WILL HOLD CLOSED AGAINST:			
	4ALLG	6ALLG	6ALY	4ALLG 50PSI/ 3BAR	6ALLG 50PSI/ 3BAR	6ALY 50PSI/ 3BAR	
<b>2.5"</b> 63mm	<b>53</b> 4	<b>147</b> 10	--	<b>69</b> 5	<b>136</b> 9	--	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>39</b> 3	<b>104</b> 7	--	<b>45</b> 3	<b>90</b> 6	--	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>24</b> 2	<b>60</b> 4	--	<b>23</b> 2	<b>47</b> 3	--	<b>PSI</b> Bar
<b>6.0"</b> 152mm	--	<b>29</b> 2	<b>29</b> 2	--	<b>23</b> 2	<b>17</b> 1	<b>PSI</b> Bar

**W61Y-BODY (AIR-TO-LOWER) - EXTRA LONG STROKE**



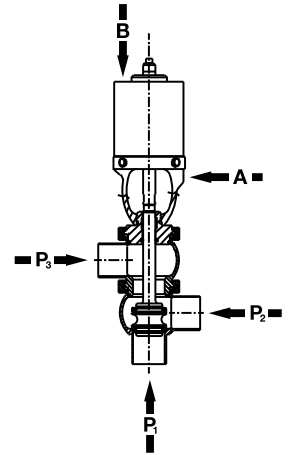
VALVE SIZE	ACTUATOR SIZE		
	PORT (P <sub>2</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:	PORT (P <sub>2</sub> ), AIR TO PORT A, WILL OPEN AGAINST:	
	6ALY	6ALY 50PSI/3BAR	
<b>2.5"</b> 63mm	<b>57</b> 4	<b>52</b> 4	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>46</b> 3	<b>35</b> 2	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>27</b> 2	<b>16</b> 1	<b>PSI</b> Bar

## W62 Holding Pressure Charts

- If pressure rating is higher than documented in tables consult factory before exceeding.
- Minimum air supply requirements: 50 PSI for 4, 5 and 6 inch standard spring actuators; 75 PSI for 4, 5 and 6 inch heavy spring and 4 and 6 inch long stroke actuators; 87 PSI for A, B and C size actuators.
- Please contact the factory for holding pressure values not listed.

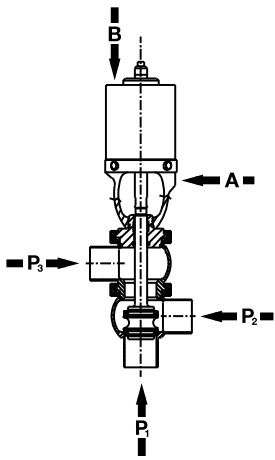
### W62 AR/HAR (AIR-TO-RAISE) - STANDARD STROKE

VALVE SIZE	ACTUATOR SIZE									
	BOTTOM PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:									
	4AR	4HAR	5AR	5HAR	6AR	6HAR	A1	B1	C1	
<b>1.0"</b>	<b>125</b>	<b>177</b>	<b>220</b>	<b>378</b>	<b>317</b>	--	<b>84</b>	<b>269</b>	<b>641</b>	<b>PSI</b>
25mm	9	12	15	26	22	--	6	19	44	Bar
<b>1.5"</b>	<b>125</b>	<b>177</b>	<b>220</b>	<b>378</b>	<b>317</b>	--	<b>84</b>	<b>269</b>	<b>641</b>	<b>PSI</b>
38mm	9	12	15	26	22	--	6	19	44	Bar
<b>2.0"</b>	<b>70</b>	<b>99</b>	<b>124</b>	<b>212</b>	<b>178</b>	<b>338</b>	<b>48</b>	<b>156</b>	<b>372</b>	<b>PSI</b>
50mm	5	7	9	15	12	23	3	11	26	Bar
<b>2.5"</b>	<b>45</b>	<b>64</b>	<b>79</b>	<b>136</b>	<b>114</b>	<b>216</b>	<b>32</b>	<b>102</b>	<b>243</b>	<b>PSI</b>
63mm	3	4	5	9	8	15	2	7	17	Bar
<b>3.0"</b>	<b>31</b>	<b>44</b>	<b>55</b>	<b>94</b>	<b>79</b>	<b>150</b>	<b>22</b>	<b>72</b>	<b>171</b>	<b>PSI</b>
76mm	2	3	4	6	5	10	2	5	12	Bar
<b>4.0"</b>	<b>19</b>	<b>26</b>	<b>32</b>	<b>55</b>	<b>45</b>	<b>88</b>	<b>13</b>	<b>41</b>	<b>98</b>	<b>PSI</b>
101mm	1	2	2	4	3	6	1	3	7	Bar



VALVE SIZE	ACTUATOR SIZE									
	SIDE PORT (P <sub>2</sub> ), AIR TO ACTUATOR (WITH STEM RAISED), SPRING WILL LOWER AGAINST:									
	4AR	4HAR	5AR	5HAR	6AR	6HAR	A1	B1	C1	
<b>1.0"</b>	<b>238</b>	<b>293</b>	<b>320</b>	--	--	--	<b>84</b>	<b>269</b>	<b>641</b>	<b>PSI</b>
25mm	16	20	22	--	--	--	6	19	44	Bar
<b>1.5"</b>	<b>253</b>	<b>308</b>	<b>333</b>	--	--	--	<b>84</b>	<b>269</b>	<b>641</b>	<b>PSI</b>
38mm	17	21	23	--	--	--	6	19	44	Bar
<b>2.0"</b>	<b>142</b>	<b>173</b>	<b>187</b>	<b>336</b>	<b>239</b>	--	<b>48</b>	<b>156</b>	<b>3</b>	<b>PSI</b>
50mm	10	12	13	23	16	--	3	11	26	Bar
<b>2.5"</b>	<b>91</b>	<b>111</b>	<b>120</b>	<b>215</b>	<b>153</b>	<b>367</b>	<b>32</b>	<b>102</b>	<b>2</b>	<b>PSI</b>
63mm	6	8	8	15	11	25	2	7	17	Bar
<b>3.0"</b>	<b>63</b>	<b>77</b>	<b>83</b>	<b>149</b>	<b>106</b>	<b>255</b>	<b>22</b>	<b>72</b>	<b>171</b>	<b>PSI</b>
76mm	4	5	6	10	7	18	2	5	12	Bar
<b>4.0"</b>	<b>37</b>	<b>44</b>	<b>48</b>	<b>86</b>	<b>61</b>	<b>147</b>	<b>13</b>	<b>41</b>	<b>98</b>	<b>PSI</b>
101mm	3	3	3	6	4	10	10	1	3	Bar

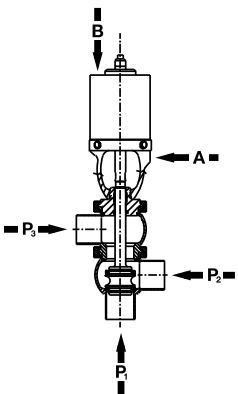
**W62 AR/HAR (AIR-TO-RAISE) - STANDARD STROKE (CONTINUED)**



VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>2</sub> ), AIR TO PORT A, WILL RAISE STEM (OPENS) AGAINST:									
	4AR 50PSI/ 3BAR	4HAR 75PSI/ 5BAR	5AR 50PSI/ 3BAR	5HAR 75PSI/ 5BAR	6AR 50PSI/ 3BAR	6HAR 75PSI/ 5BAR	A1 50PSI/ 3BAR	B1 50PSI/ 3BAR	C1 50PSI/ 3BAR	
<b>1.0"</b>	<b>270</b>	<b>419</b>	<b>398</b>	--	--	--	<b>45</b>	<b>46</b>	<b>92</b>	<b>PSI</b>
25mm	19	29	27	--	--	--	3	3	6	Bar
<b>1.5"</b>	<b>270</b>	<b>419</b>	<b>398</b>	--	--	--	<b>45</b>	<b>46</b>	<b>92</b>	<b>PSI</b>
38mm	19	29	27	--	--	--	3	3	6	Bar
<b>2.0"</b>	<b>132</b>	<b>205</b>	<b>195</b>	<b>261</b>	<b>278</b>	<b>334</b>	<b>23</b>	<b>24</b>	<b>48</b>	<b>PSI</b>
50mm	9	14	13	18	19	23	2	2	3	Bar
<b>2.5"</b>	<b>80</b>	<b>124</b>	<b>118</b>	<b>158</b>	<b>168</b>	<b>202</b>	<b>14</b>	<b>15</b>	<b>30</b>	<b>PSI</b>
63mm	6	9	8	11	12	14	1	1	2	Bar
<b>3.0"</b>	<b>54</b>	<b>84</b>	<b>79</b>	<b>106</b>	<b>113</b>	<b>136</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>PSI</b>
76mm	4	6	5	7	8	9	1	1	1	Bar
<b>4.0"</b>	<b>28</b>	<b>44</b>	<b>42</b>	<b>56</b>	<b>61</b>	<b>71</b>	<b>5</b>	<b>6</b>	<b>11</b>	<b>PSI</b>
101mm	2	3	3	4	4	5	0	0	1	Bar

VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>2</sub> ), AIR TO PORT A, (WITH STEM RAISED), WILL HOLD AGAINST:									
	4AR 50PSI/ 3BAR	4HAR 75PSI/ 5BAR	5AR 50PSI/ 3BAR	5HAR 75PSI/ 5BAR	6AR 50PSI/ 3BAR	6HAR 75PSI/ 5BAR	A1 50PSI/ 3BAR	B1 50PSI/ 3BAR	C1 50PSI/ 3BAR	
<b>1.0"</b>	<b>118</b>	<b>264</b>	<b>264</b>	<b>272</b>	<b>438</b>	<b>185</b>	<b>45</b>	<b>46</b>	<b>92</b>	<b>PSI</b>
25mm	8	18	18	19	30	13	3	3	6	Bar
<b>1.5"</b>	<b>99</b>	<b>244</b>	<b>247</b>	<b>239</b>	<b>421</b>	<b>121</b>	<b>45</b>	<b>46</b>	<b>92</b>	<b>PSI</b>
38mm	7	17	17	16	29	8	3	3	6	Bar
<b>2.0"</b>	<b>48</b>	<b>119</b>	<b>121</b>	<b>117</b>	<b>206</b>	<b>59</b>	<b>23</b>	<b>24</b>	<b>48</b>	<b>PSI</b>
50mm	3	8	8	8	14	4	2	2	3	Bar
<b>2.5"</b>	<b>29</b>	<b>72</b>	<b>73</b>	<b>71</b>	<b>125</b>	<b>36</b>	<b>14</b>	<b>15</b>	<b>30</b>	<b>PSI</b>
63mm	2	5	5	5	9	2	1	1	2	Bar
<b>3.0"</b>	<b>20</b>	<b>49</b>	<b>49</b>	<b>48</b>	<b>84</b>	<b>24</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>PSI</b>
76mm	1	3	3	3	6	2	1	1	1	Bar
<b>4.0"</b>	<b>10</b>	<b>25</b>	<b>26</b>	<b>24</b>	<b>45</b>	<b>9</b>	<b>5</b>	<b>6</b>	<b>11</b>	<b>PSI</b>
101mm	1	2	2	2	3	1	0	0	1	Bar

**W62 AR (AIR-TO-RAISE) - LONG STROKE**

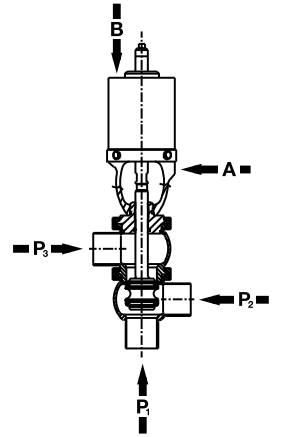


VALVE SIZE	ACTUATOR SIZE								
	PORT (P <sub>2</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:		PORT (P <sub>2</sub> ), AIR TO ACTUATOR (WITH STEM RAISED), SPRING WILL LOWER AGAINST:		PORT (P <sub>2</sub> ), AIR TO PORT A, WILL RAISE STEM (OPENS) AGAINST:		PORT (P <sub>3</sub> ), AIR TO PORT A, WITH STEM RAISED WILL HOLD AGAINST:		
	4ARLG	6ARLG	4ARLG	6ARLG	4ARLG	6ARLG	4ARLG	6ARLG	
<b>2.5"</b>	<b>33</b>	<b>112</b>	<b>49</b>	<b>135</b>	<b>93</b>	<b>170</b>	<b>75</b>	<b>145</b>	<b>PSI</b>
63mm	2	8	3	9	6	12	5	10	Bar
<b>3.0"</b>	<b>23</b>	<b>78</b>	<b>36</b>	<b>97</b>	<b>63</b>	<b>114</b>	<b>48</b>	<b>94</b>	<b>PSI</b>
76mm	2	5	2	7	4	8	3	6	Bar
<b>4.0"</b>	<b>13</b>	<b>44</b>	<b>23</b>	<b>59</b>	<b>34</b>	<b>62</b>	<b>23</b>	<b>47</b>	<b>PSI</b>
101mm	1	3	2	4	2	4	2	3	Bar



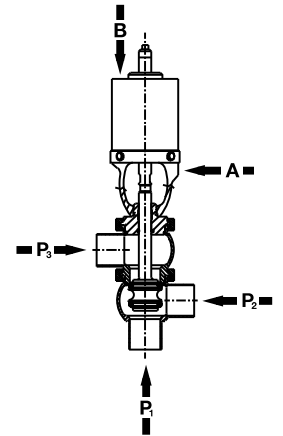
**W62 AL (AIR-TO-LOWER) - LONG STROKE**

ACTUATOR SIZE									
ACTUATOR SIZE	PORT (P <sub>1</sub> ), AIR TO PORT B HOLDS CLOSED AGAINST:		PORT (P <sub>2</sub> ), (STEM LOWERED) SPRING OPENS STEM AGAINST:		PORT (P <sub>2</sub> ), AIR TO PORT B, (WITH STEM RAISED) WILL CLOSE STEM AGAINST:		PORT (P <sub>3</sub> ), (STEM RAISED) ACTUATOR SPRING HOLDS AGAINST:		
	4ALLG	6ALLG	4ALLG	6ALLG	4ALLG	6ALLG	4ALLG	6ALLG	
<b>2.5"</b> 63mm	<b>69</b> 5	<b>135</b> 9	<b>54</b> 4	<b>148</b> 10	<b>85</b> 6	<b>158</b> 11	<b>36</b> 2	<b>123</b> 8	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>45</b> 3	<b>91</b> 6	<b>39</b> 3	<b>103</b> 7	<b>59</b> 4	<b>110</b> 8	<b>24</b> 2	<b>83</b> 6	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>22</b> 2	<b>47</b> 3	<b>24</b> 2	<b>61</b> 4	<b>33</b> 2	<b>62</b> 4	<b>13</b> 1	<b>45</b> 3	<b>PSI</b> Bar



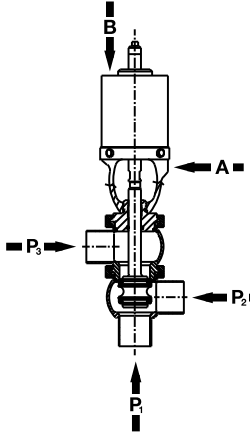
**W62 AL/HAL (AIR-TO-LOWER) - STANDARD STROKE**

ACTUATOR SIZE										
VALVE SIZE	BOTTOM PORT (P <sub>1</sub> ), AIR TO PORT B, WILL HOLD AGAINST:									
	4AL 50PSI/ 3BAR	4HAL 75PSI/ 5BAR	5AL 50PSI/ 3BAR	5HAL 75PSI/ 5BAR	6AL 50PSI/ 3BAR	6HAL 75PSI/ 5BAR	A2 50PSI/ 3BAR	B2 50PSI/ 3BAR	C2 50PSI/ 3BAR	
<b>1.0"</b> 25mm	<b>76</b> 5	<b>185</b> 13	<b>187</b> 13	<b>184</b> 13	<b>353</b> 24	<b>213</b> 15	<b>33</b> 2	<b>69</b> 5	<b>162</b> 11	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>76</b> 5	<b>185</b> 13	<b>187</b> 13	<b>184</b> 13	<b>353</b> 24	<b>213</b> 15	<b>33</b> 2	<b>69</b> 5	<b>162</b> 11	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>43</b> 3	<b>104</b> 7	<b>105</b> 7	<b>104</b> 7	<b>198</b> 14	<b>120</b> 8	<b>19</b> 1	<b>40</b> 3	<b>94</b> 6	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>27</b> 2	<b>66</b> 5	<b>67</b> 5	<b>66</b> 5	<b>127</b> 9	<b>77</b> 5	<b>12</b> 1	<b>26</b> 2	<b>61</b> 4	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>19</b> 1	<b>46</b> 3	<b>47</b> 3	<b>46</b> 3	<b>88</b> 6	<b>53</b> 4	<b>9</b> 1	<b>18</b> 1	<b>43</b> 3	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>16</b> 1	<b>27</b> 2	<b>27</b> 2	<b>28</b> 2	<b>50</b> 3	<b>33</b> 2	<b>5</b> 0	<b>10</b> 1	<b>25</b> 2	<b>PSI</b> Bar



ACTUATOR SIZE										
VALVE SIZE	SIDE PORT (P <sub>2</sub> ), (STEM LOWERED), SPRING OPENS STEM AGAINST:									
	4AL	4HAL	5AL	5HAL	6AL	6HAL	A2	B2	C2	
<b>1.0"</b> 25mm	<b>335</b> 23	<b>409</b> 28	--	--	--	--	<b>109</b> 8	<b>307</b> 21	<b>750</b> 52	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>335</b> 23	<b>409</b> 28	<b>441</b> 30	--	--	--	<b>109</b> 8	<b>307</b> 21	<b>750</b> 52	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>164</b> 11	<b>200</b> 14	<b>216</b> 15	<b>388</b> 27	<b>260</b> 18	--	<b>57</b> 4	<b>159</b> 11	<b>390</b> 27	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>99</b> 7	<b>121</b> 8	<b>131</b> 9	<b>234</b> 16	<b>157</b> 11	<b>361</b> 25	<b>35</b> 2	<b>99</b> 7	<b>242</b> 17	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>67</b> 5	<b>81</b> 6	<b>88</b> 6	<b>158</b> 11	<b>106</b> 7	<b>243</b> 17	<b>24</b> 2	<b>68</b> 5	<b>166</b> 11	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>31</b> 2	<b>43</b> 3	<b>47</b> 3	<b>84</b> 6	<b>57</b> 4	<b>129</b> 9	<b>13</b> 1	<b>38</b> 3	<b>92</b> 6	<b>PSI</b> Bar

**W62 AL/HAL (AIR-TO-LOWER) - STANDARD STROKE (CONTINUED)**



VALVE SIZE	ACTUATOR SIZE									
	BOTTOM PORT (P <sub>2</sub> ), AIR TO PORT B, (WITH STEM RAISED), WILL CLOSE STEM AGAINST:									
	4AL 50PSI/ 3BAR	4HAL 75PSI/ 5BAR	5AL 50PSI/ 3BAR	5HAL 75PSI/ 5BAR	6AL 50PSI/ 3BAR	6HAL 75PSI/ 5BAR	A2 50PSI/ 3BAR	B2 50PSI/ 3BAR	C2 50PSI/ 3BAR	
<b>1.0"</b>	<b>189</b>	<b>301</b>	<b>288</b>	<b>379</b>	--	--	<b>33</b>	<b>69</b>	<b>162</b>	<b>PSI</b>
25mm	13	21	20	26	--	--	2	5	11	Bar
<b>1.5"</b>	<b>204</b>	<b>316</b>	<b>301</b>	<b>404</b>	--	--	<b>33</b>	<b>69</b>	<b>162</b>	<b>PSI</b>
38mm	14	22	21	28	--	--	2	5	11	Bar
<b>2.0"</b>	<b>115</b>	<b>176</b>	<b>169</b>	<b>227</b>	<b>260</b>	<b>356</b>	<b>19</b>	<b>40</b>	<b>94</b>	<b>PSI</b>
50mm	8	12	12	16	18	25	1	3	6	Bar
<b>2.5"</b>	<b>73</b>	<b>114</b>	<b>108</b>	<b>145</b>	<b>166</b>	<b>227</b>	<b>12</b>	<b>26</b>	<b>61</b>	<b>PSI</b>
63mm	5	8	7	10	11	16	1	2	4	Bar
<b>3.0"</b>	<b>51</b>	<b>79</b>	<b>75</b>	<b>101</b>	<b>115</b>	<b>158</b>	<b>9</b>	<b>18</b>	<b>43</b>	<b>PSI</b>
76mm	4	5	5	7	8	11	1	1	3	Bar
<b>4.0"</b>	<b>32</b>	<b>45</b>	<b>43</b>	<b>59</b>	<b>66</b>	<b>92</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>PSI</b>
101mm	2	3	3	4	5	6	0	1	2	Bar

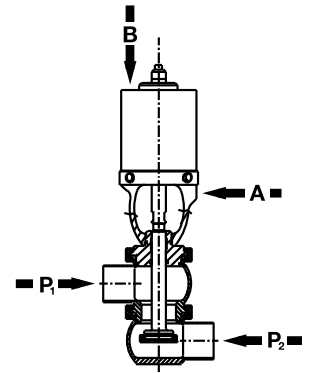
VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>2</sub> ), (STEM RAISED), ACTUATOR SPRING HOLDS AGAINST:									
	4AL	4HAL	5AL	5HAL	6AL	6HAL	A2	B2	C2	
<b>1.0"</b>	<b>184</b>	<b>253</b>	<b>300</b>	<b>531</b>	<b>402</b>	--	<b>109</b>	<b>307</b>	<b>750</b>	<b>PSI</b>
25mm	13	17	21	37	28	--	8	21	52	Bar
<b>1.5"</b>	<b>164</b>	<b>233</b>	<b>290</b>	<b>497</b>	<b>385</b>	--	<b>109</b>	<b>307</b>	<b>750</b>	<b>PSI</b>
38mm	11	16	20	34	27	--	8	21	52	Bar
<b>2.0"</b>	<b>81</b>	<b>114</b>	<b>142</b>	<b>244</b>	<b>189</b>	<b>323</b>	<b>57</b>	<b>159</b>	<b>390</b>	<b>PSI</b>
50mm	6	8	10	17	13	22	4	11	27	Bar
<b>2.5"</b>	<b>49</b>	<b>69</b>	<b>86</b>	<b>147</b>	<b>114</b>	<b>195</b>	<b>35</b>	<b>99</b>	<b>242</b>	<b>PSI</b>
63mm	3	5	6	10	8	13	2	7	17	Bar
<b>3.0"</b>	<b>33</b>	<b>46</b>	<b>58</b>	<b>99</b>	<b>77</b>	<b>131</b>	<b>24</b>	<b>68</b>	<b>166</b>	<b>PSI</b>
76mm	2	3	4	7	5	9	2	5	11	Bar
<b>4.0"</b>	<b>15</b>	<b>24</b>	<b>31</b>	<b>52</b>	<b>41</b>	<b>68</b>	<b>13</b>	<b>38</b>	<b>92</b>	<b>PSI</b>
101mm	1	2	2	4	3	5	1	3	6	Bar

## W63 & 64 Holding Pressure Charts

- If pressure rating is higher than documented in tables consult factory before exceeding.
- Minimum air supply requirements: 50 PSI for 4, 5 and 6 inch standard spring actuators; 75 PSI for 4, 5 and 6 inch heavy spring and 4 and 6 inch long stroke actuators; 87 PSI for A, B and C size actuators.
- <sup>1</sup>For sizing Over-Pressure valves, select a Heavy-Duty spring actuator with a holding pressure greater than the desired relief pressure. Designate with the "R" valve model (i.e. WR61) and actuator size (i.e. 5RHAR).
- Please contact the factory for holding pressure values not listed.

### W63 AR/HAR (AIR-TO-RAISE) - STANDARD STROKE

VALVE SIZE	ACTUATOR SIZE									
	BOTTOM PORT (P <sub>2</sub> ), STEM RAISED, ACTUATOR SPRING WILL OPEN AGAINST:									
	4AR	4HAR	5AR	5HAR <sup>1</sup>	6AR	6HAR	A1	B1	C1	
<b>1.0"</b>	<b>203</b>	<b>257</b>	<b>289</b>	--	<b>384</b>	--	--	--	--	<b>PSI</b>
25mm	14	18	20	--	26	--	--	--	--	Bar
<b>1.5"</b>	<b>253</b>	<b>308</b>	<b>333</b>	--	<b>426</b>	--	--	--	--	<b>PSI</b>
38mm	17	21	23	--	29	--	--	--	--	Bar
<b>2.0"</b>	<b>142</b>	<b>173</b>	<b>187</b>	<b>336</b>	<b>239</b>	--	--	--	--	<b>PSI</b>
50mm	10	12	13	23	16	--	--	--	--	Bar
<b>2.5"</b>	<b>91</b>	<b>111</b>	<b>120</b>	<b>215</b>	<b>153</b>	<b>367</b>	--	--	--	<b>PSI</b>
63mm	6	8	8	15	11	25	--	--	--	Bar
<b>3.0"</b>	<b>63</b>	<b>77</b>	<b>83</b>	<b>149</b>	<b>106</b>	<b>255</b>	--	--	--	<b>PSI</b>
76mm	4	5	6	10	7	18	--	--	--	Bar
<b>4.0"</b>	<b>37</b>	<b>44</b>	<b>48</b>	<b>86</b>	<b>61</b>	<b>147</b>	--	--	--	<b>PSI</b>
101mm	3	3	3	6	4	10	--	--	--	Bar

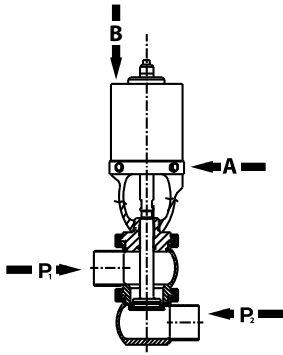


VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>1</sub> ), AIR TO PORT A, WILL HOLD VALVE CLOSED AGAINST:									
	4AR 50PSI/ 3BAR	4HAR <sup>1</sup> 75PSI/ 5BAR	5AR 50PSI/ 3BAR	5HAR <sup>1</sup> 75PSI/ 5BAR	6AR 50PSI/ 3BAR	6HAR <sup>1</sup> 75PSI/ 5BAR	A1 50PSI/ 3BAR	B1 50PSI/ 3BAR	C1 50PSI/ 3BAR	
<b>1.0"</b>	<b>165</b>	<b>312</b>	<b>305</b>	<b>353</b>	<b>478</b>	<b>339</b>	--	--	--	<b>PSI</b>
25mm	11	22	21	24	33	23	--	--	--	Bar
<b>1.5"</b>	<b>99</b>	<b>244</b>	<b>247</b>	<b>239</b>	<b>421</b>	<b>121</b>	--	--	--	<b>PSI</b>
38mm	7	17	17	16	29	8	--	--	--	Bar
<b>2.0"</b>	<b>48</b>	<b>119</b>	<b>121</b>	<b>117</b>	<b>206</b>	<b>59</b>	--	--	--	<b>PSI</b>
50mm	3	8	8	8	14	4	--	--	--	Bar
<b>2.5"</b>	<b>29</b>	<b>72</b>	<b>73</b>	<b>71</b>	<b>125</b>	<b>36</b>	--	--	--	<b>PSI</b>
63mm	2	5	5	5	9	2	--	--	--	Bar
<b>3.0"</b>	<b>20</b>	<b>49</b>	<b>49</b>	<b>48</b>	<b>84</b>	<b>24</b>	--	--	--	<b>PSI</b>
76mm	1	3	3	3	6	2	--	--	--	Bar
<b>4.0"</b>	<b>10</b>	<b>25</b>	<b>26</b>	<b>24</b>	<b>45</b>	<b>9</b>	--	--	--	<b>PSI</b>
101mm	1	2	2	2	3	1	--	--	--	Bar

### W63 AR (AIR-TO-RAISE) - LONG STROKE

VALVE SIZE	ACTUATOR SIZE				
	PORT (P <sub>2</sub> ), STEM RAISED, ACTUATOR SPRING WILL OPEN AGAINST:		PORT (P <sub>1</sub> ), AIR TO PORT A, WILL HOLD VALVE CLOSED AGAINST:		
	4ARLG	6ARLG	4ARLG	6ARLG	
<b>2.5"</b>	<b>48</b>	<b>131</b>	<b>77</b>	<b>149</b>	<b>PSI</b>
63mm	3	9	5	10	Bar
<b>3.0"</b>	<b>37</b>	<b>97</b>	<b>48</b>	<b>94</b>	<b>PSI</b>
76mm	3	7	3	6	Bar
<b>4.0"</b>	<b>23</b>	<b>58</b>	<b>23</b>	<b>47</b>	<b>PSI</b>
101mm	2	4	2	3	Bar

**W63 AL/HAL (AIR-TO-LOWER) - STANDARD STROKE**



VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:									
	4AL	4HAL	5AL	5HAL	6AL	6HAL	A2	B2	C2	
<b>1.0"</b> 25mm	<b>231</b> 16	<b>301</b> 21	<b>349</b> 24	--	<b>442</b> 30	--	--	--	--	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>164</b> 11	<b>233</b> 16	<b>290</b> 20	<b>497</b> 34	<b>385</b> 27	--	<b>161</b> 11	<b>386</b> 27	--	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>81</b> 6	<b>114</b> 8	<b>142</b> 10	<b>244</b> 17	<b>189</b> 13	<b>323</b> 22	<b>59</b> 4	<b>174</b> 12	<b>403</b> 28	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>49</b> 3	<b>69</b> 5	<b>86</b> 6	<b>147</b> 10	<b>114</b> 8	<b>195</b> 13	<b>35</b> 2	<b>105</b> 7	<b>243</b> 17	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>33</b> 2	<b>46</b> 3	<b>58</b> 4	<b>99</b> 7	<b>77</b> 5	<b>131</b> 9	<b>24</b> 2	<b>71</b> 5	<b>164</b> 11	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>17</b> 1	<b>24</b> 2	<b>31</b> 2	<b>52</b> 4	<b>41</b> 3	<b>68</b> 5	--	--	--	<b>PSI</b> Bar

VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>2</sub> ), AIR TO PORT B, WILL OPEN AGAINST:									
	4AL 50PSI/ 3BAR	4HAL 75PSI/ 5BAR	5AL 50PSI/ 3BAR	5HAL 75PSI/ 5BAR	6AL 50PSI/ 3BAR	6HAL 75PSI/ 5BAR	A2 50PSI/ 3BAR	B2 50PSI/ 3BAR	C2 50PSI/ 3BAR	
<b>1.0"</b> 25mm	<b>154</b> 11	<b>265</b> 18	<b>257</b> 18	<b>319</b> 22	420 29	--	--	--	--	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>204</b> 14	<b>316</b> 22	<b>300</b> 21	<b>404</b> 28	<b>462</b> 32	--	--	--	--	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>115</b> 8	<b>178</b> 12	<b>169</b> 12	<b>227</b> 16	<b>260</b> 18	<b>356</b> 25	--	--	--	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>73</b> 5	<b>114</b> 8	<b>108</b> 7	<b>145</b> 10	<b>166</b> 11	<b>227</b> 16	--	--	--	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>51</b> 4	<b>79</b> 5	<b>75</b> 5	<b>101</b> 7	<b>115</b> 8	<b>158</b> 11	--	--	--	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>30</b> 2	<b>45</b> 3	<b>43</b> 3	<b>59</b> 4	<b>66</b> 5	<b>92</b> 6	--	--	--	<b>PSI</b> Bar

**W63 AL (AIR-TO-LOWER) - LONG STROKE**

VALVE SIZE	ACTUATOR SIZE				
	PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:		PORT (P <sub>2</sub> ), AIR TO PORT B, WILL OPEN STEM AGAINST:		
	4ALLG	6ALLG	4ALLG	6ALLG	
<b>2.5"</b> 63mm	<b>36</b> 2	<b>123</b> 8	<b>85</b> 6	<b>158</b> 11	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>24</b> 2	<b>83</b> 6	<b>59</b> 4	<b>110</b> 8	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>13</b> 1	<b>45</b> 3	<b>33</b> 2	<b>62</b> 4	<b>PSI</b> Bar

# W65 Holding Pressure Charts

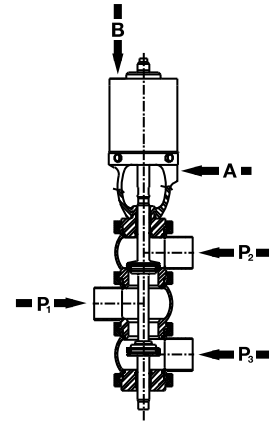
- If pressure rating is higher than documented in tables consult factory before exceeding.
- Minimum air supply requirements: 50 PSI for 4, 5 and 6 inch standard spring actuators; 75 PSI for 4, 5 and 6 inch heavy spring and 4 and 6 inch long stroke actuators; 87 PSI for A, B and C size actuators.
- Please contact the factory for holding pressure values not listed.

## W65 AR/HAR (AIR-TO-RAISE) - STANDARD STROKE

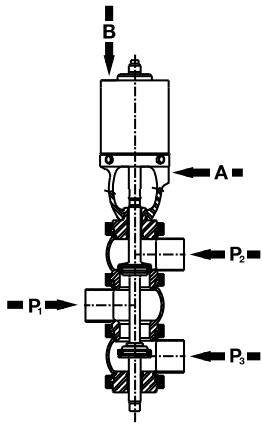
VALVE SIZE	ACTUATOR SIZE									
	BOTTOM PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:									
	4AR	4HAR	5AR	5HAR	6AR	6HAR	A1	B1	C1	
<b>1.0"</b>	<b>214</b>	<b>284</b>	<b>336</b>	--	--	--	<b>120</b>	<b>338</b>	<b>801</b>	<b>PSI</b>
25mm	15	20	23	--	--	--	8	23	55	Bar
<b>1.5"</b>	<b>162</b>	<b>230</b>	<b>289</b>	<b>495</b>	<b>418</b>	--	<b>120</b>	<b>338</b>	<b>801</b>	<b>PSI</b>
38mm	11	16	20	34	29	--	8	23	55	Bar
<b>2.0"</b>	<b>76</b>	<b>109</b>	<b>139</b>	<b>237</b>	<b>200</b>	<b>367</b>	<b>62</b>	<b>176</b>	<b>416</b>	<b>PSI</b>
50mm	5	8	10	16	14	25	4	12	29	Bar
<b>2.5"</b>	<b>50</b>	<b>70</b>	<b>87</b>	<b>150</b>	<b>126</b>	<b>239</b>	<b>39</b>	<b>109</b>	<b>258</b>	<b>PSI</b>
63mm	3	5	6	10	9	16	3	8	18	Bar
<b>3.0"</b>	<b>34</b>	<b>47</b>	<b>59</b>	<b>101</b>	<b>85</b>	<b>161</b>	<b>26</b>	<b>75</b>	<b>177</b>	<b>PSI</b>
76mm	2	3	4	7	6	11	2	5	12	Bar
<b>4.0"</b>	<b>19</b>	<b>26</b>	<b>32</b>	<b>56</b>	<b>46</b>	<b>89</b>	<b>15</b>	<b>42</b>	<b>98</b>	<b>PSI</b>
101mm	1	2	2	4	3	6	1	3	7	Bar

VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>2</sub> ), STEM RAISED, SPRING LOWERS STEM AGAINST:									
	4AR	4HAR	5AR	5HAR	6AR	6HAR	A1	B1	C1	
<b>1.0"</b>	<b>344</b>	<b>418</b>	--	--	--	--	<b>65</b>	<b>272</b>	<b>801</b>	<b>PSI</b>
25mm	24	29	--	--	--	--	4	19	55	Bar
<b>1.5"</b>	<b>344</b>	<b>418</b>	<b>433</b>	--	--	--	<b>65</b>	<b>272</b>	<b>801</b>	<b>PSI</b>
38mm	24	29	30	--	--	--	4	19	55	Bar
<b>2.0"</b>	<b>169</b>	<b>205</b>	<b>218</b>	<b>392</b>	<b>279</b>	--	<b>34</b>	<b>141</b>	<b>416</b>	<b>PSI</b>
50mm	12	14	15	27	19	--	2	10	29	Bar
<b>2.5"</b>	<b>102</b>	<b>124</b>	<b>132</b>	<b>237</b>	<b>168</b>	<b>404</b>	<b>21</b>	<b>88</b>	<b>258</b>	<b>PSI</b>
63mm	7	9	9	16	12	28	1	6	18	Bar
<b>3.0"</b>	<b>69</b>	<b>83</b>	<b>89</b>	<b>160</b>	<b>114</b>	<b>274</b>	<b>14</b>	<b>60</b>	<b>177</b>	<b>PSI</b>
76mm	5	6	6	11	8	19	1	4	12	Bar
<b>4.0"</b>	<b>37</b>	<b>45</b>	<b>49</b>	<b>89</b>	<b>63</b>	<b>152</b>	<b>8</b>	<b>33</b>	<b>98</b>	<b>PSI</b>
101mm	3	3	3	6	4	10	1	2	7	Bar

VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>2</sub> ), AIR TO PORT A, WILL RAISE STEM AGAINST:									
	4AR 50PSI/ 3BAR	4HAR 75PSI/ 5BAR	5AR 50PSI/ 3BAR	5HAR 75PSI/ 5BAR	6AR 50PSI/ 3BAR	6HAR 75PSI/ 5BAR	A1 50PSI/ 3BAR	B1 50PSI/ 3BAR	C1 50PSI/ 3BAR	
<b>1.0"</b>	<b>223</b>	<b>371</b>	<b>356</b>	--	--	--	<b>36</b>	<b>66</b>	<b>157</b>	<b>PSI</b>
25mm	15	26	25	--	--	--	2	5	11	Bar
<b>1.5"</b>	<b>275</b>	<b>425</b>	<b>403</b>	--	--	--	<b>36</b>	<b>66</b>	<b>157</b>	<b>PSI</b>
38mm	19	29	28	--	--	--	2	5	11	Bar
<b>2.0"</b>	<b>138</b>	<b>212</b>	<b>200</b>	<b>272</b>	<b>285</b>	<b>361</b>	<b>19</b>	<b>34</b>	<b>81</b>	<b>PSI</b>
50mm	10	15	14	19	20	25	1	2	6	Bar
<b>2.5"</b>	<b>79</b>	<b>124</b>	<b>117</b>	<b>157</b>	<b>167</b>	<b>200</b>	<b>12</b>	<b>21</b>	<b>51</b>	<b>PSI</b>
63mm	5	9	8	11	12	14	1	1	3	Bar
<b>3.0"</b>	<b>53</b>	<b>83</b>	<b>79</b>	<b>106</b>	<b>113</b>	<b>135</b>	<b>8</b>	<b>15</b>	<b>35</b>	<b>PSI</b>
76mm	4	6	5	7	8	9	1	1	2	Bar
<b>4.0"</b>	<b>29</b>	<b>45</b>	<b>43</b>	<b>57</b>	<b>61</b>	<b>73</b>	<b>4</b>	<b>8</b>	<b>19</b>	<b>PSI</b>
101mm	2	3	3	4	4	5	0	1	1	Bar

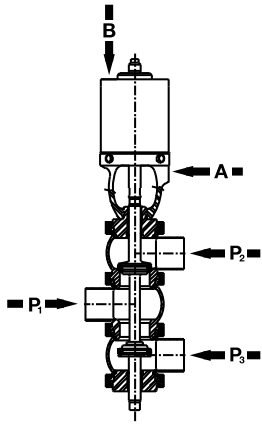


**W65 AR/HAR (AIR-TO-RAISE) - STANDARD STROKE (CONTINUED)**



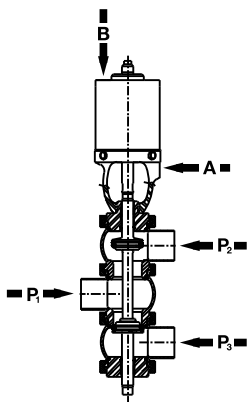
VALVE SIZE	ACTUATOR SIZE									PSI Bar
	PORT (P <sub>1</sub> ), AIR TO PORT A, (WITH STEM RAISED), WILL HOLD AGAINST:									
	4AR 50PSI/ 3BAR	4HAR 75PSI/ 5BAR	5AR 50PSI/ 3BAR	5HAR 75PSI/ 5BAR	6AR 50PSI/ 3BAR	6HAR 75PSI/ 5BAR	A1 50PSI/ 3BAR	B1 50PSI/ 3BAR	C1 50PSI/ 3BAR	
<b>1.0"</b> 25mm	<b>93</b> 6	<b>238</b> 16	<b>241</b> 17	<b>228</b> 16	<b>416</b> 29	<b>102</b> 7	<b>68</b> 5	<b>76</b> 5	<b>106</b> 7	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>113</b> 8	<b>258</b> 18	<b>259</b> 18	<b>263</b> 18	<b>433</b> 30	<b>167</b> 12	<b>68</b> 5	<b>76</b> 5	<b>106</b> 7	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>48</b> 3	<b>119</b> 8	<b>120</b> 8	<b>116</b> 8	<b>206</b> 14	<b>58</b> 4	<b>35</b> 2	<b>40</b> 3	<b>55</b> 4	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>29</b> 2	<b>72</b> 5	<b>73</b> 5	<b>70</b> 5	<b>125</b> 9	<b>35</b> 2	<b>22</b> 2	<b>25</b> 2	<b>34</b> 2	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>19</b> 1	<b>48</b> 3	<b>48</b> 3	<b>46</b> 3	<b>83</b> 6	<b>22</b> 2	<b>15</b> 1	<b>17</b> 1	<b>23</b> 2	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>10</b> 1	<b>25</b> 2	<b>26</b> 2	<b>24</b> 2	<b>45</b> 3	<b>10</b> 1	<b>8</b> 1	<b>9</b> 1	<b>13</b> 1	<b>PSI</b> Bar

**W65 AR (AIR-TO-RAISE) - LONG STROKE**



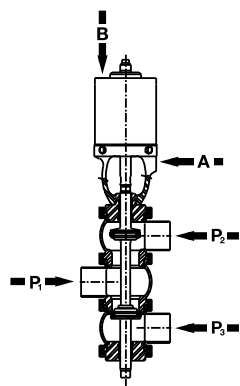
VALVE SIZE	ACTUATOR SIZE								PSI Bar
	PORT (P <sub>1</sub> ), ACTUATOR SPRING HOLDS CLOSED AGAINST:		PORT (P <sub>1</sub> ), (STEM RAISED) SPRING LOWERS STEM AGAINST:		PORT (P <sub>2</sub> ), AIR TO PORT A, WILL RAISE STEM AGAINST:		PORT (P <sub>2</sub> ), (WITH STEM RAISED) WILL HOLDS AGAINST:		
	4ARLG	6ARLG	4ARLG	6ARLG	4ARLG	6ARLG	4ARLG	6ARLG	
<b>2.5"</b> 64mm	<b>36</b> 2	<b>123</b> 8	<b>53</b> 4	<b>147</b> 10	<b>93</b> 6	<b>170</b> 12	<b>76</b> 5	<b>146</b> 10	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>24</b> 2	<b>83</b> 6	<b>39</b> 3	<b>103</b> 7	<b>63</b> 4	<b>114</b> 8	<b>48</b> 3	<b>94</b> 6	<b>PSI</b> Bar
<b>4.0"</b> 102mm	<b>13</b> 1	<b>45</b> 3	<b>21</b> 1	<b>60</b> 4	<b>34</b> 2	<b>62</b> 4	<b>26</b> 2	<b>48</b> 3	<b>PSI</b> Bar
<b>6.0"</b> 152mm	--	<b>19</b> 1	--	<b>26</b> 2	--	<b>24</b> 2	--	<b>18</b> 1	<b>PSI</b> Bar

**W65 AL (AIR-TO-LOWER) - LONG STROKE**



VALVE SIZE	ACTUATOR SIZE								PSI Bar
	PORT (P <sub>1</sub> ), AIR TO PORT B, WILL HOLD CLOSED AGAINST:		PORT (P <sub>1</sub> ), (STEM RAISED) SPRING HOLDS CLOSED AGAINST:		PORT (P <sub>2</sub> ), AIR TO PORT B, WILL LOWER STEM AGAINST:		PORT (P <sub>2</sub> ), STEM LOWERED, ACTUATOR SPRING RAISES STEM AGAINST:		
	4ALLG	6ALLG	4ALLG	6ALLG	4ALLG	6ALLG	4ALLG	6ALLG	
<b>2.5"</b> 64mm	<b>76</b> 5	<b>149</b> 10	<b>36</b> 2	<b>123</b> 8	<b>93</b> 6	<b>173</b> 12	<b>53</b> 4	<b>147</b> 10	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>48</b> 3	<b>97</b> 7	<b>24</b> 2	<b>83</b> 6	<b>63</b> 4	<b>117</b> 8	<b>39</b> 3	<b>103</b> 7	<b>PSI</b> Bar
<b>4.0"</b> 102mm	<b>24</b> 2	<b>49</b> 3	<b>13</b> 1	<b>45</b> 3	<b>34</b> 2	<b>64</b> 4	<b>24</b> 2	<b>60</b> 4	<b>PSI</b> Bar
<b>6.0"</b> 152mm	--	<b>18</b> 1	--	<b>19</b> 1	--	<b>24</b> 2	--	<b>26</b> 2	<b>PSI</b> Bar

**W65 AL/HAL (AIR-TO-LOWER) - STANDARD STROKE**

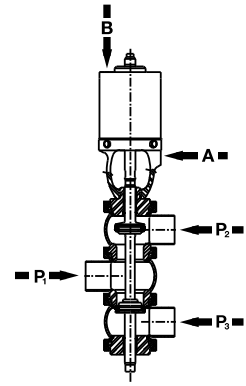


VALVE SIZE	ACTUATOR SIZE									PSI Bar
	PORT (P <sub>1</sub> ), AIR TO PORT B, WILL HOLD CLOSED AGAINST:									
	4AL 50PSI/ 3BAR	4HAL 75PSI/ 5BAR	5AL 50PSI/ 3BAR	5HAL 75PSI/ 5BAR	6AL 50PSI/ 3BAR	6HAL 75PSI/ 5BAR	A2 50PSI/ 3BAR	B2 50PSI/ 3BAR	C2 50PSI/ 3BAR	
<b>1.0"</b> 25mm	<b>149</b> 10	<b>295</b> 20	<b>292</b> 20	<b>327</b> 23	--	--	<b>49</b> 3	<b>74</b> 5	<b>164</b> 11	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>96</b> 7	<b>241</b> 17	<b>245</b> 17	<b>237</b> 16	--	<b>267</b> 18	<b>49</b> 3	<b>74</b> 5	<b>164</b> 11	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>44</b> 3	<b>115</b> 8	<b>117</b> 8	<b>110</b> 8	<b>226</b> 16	<b>120</b> 8	<b>25</b> 2	<b>38</b> 3	<b>85</b> 6	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>31</b> 2	<b>73</b> 5	<b>74</b> 5	<b>74</b> 5	<b>140</b> 10	<b>86</b> 6	<b>16</b> 1	<b>24</b> 2	<b>53</b> 4	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>21</b> 1	<b>50</b> 3	<b>50</b> 3	<b>50</b> 3	<b>94</b> 6	<b>59</b> 4	<b>11</b> 1	<b>16</b> 1	<b>36</b> 2	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>12</b> 1	<b>27</b> 2	<b>28</b> 2	<b>28</b> 2	<b>52</b> 4	<b>33</b> 2	<b>6</b> 0	<b>9</b> 1	<b>20</b> 1	<b>PSI</b> Bar

VALVE SIZE	ACTUATOR SIZE									PSI Bar
	PORT (P <sub>1</sub> ), (STEM RAISED), SPRING HOLDS CLOSED AGAINST:									
	4AL	4HAL	5AL	5HAL	6AL	6HAL	A2	B2	C2	
<b>1.0"</b> 25mm	<b>158</b> 11	<b>227</b> 16	<b>285</b> 20	--	<b>380</b> 26	--	<b>113</b> 8	<b>323</b> 22	<b>776</b> 53	<b>PSI</b> Bar
<b>1.5"</b> 38mm	<b>178</b> 12	<b>248</b> 17	<b>300</b> 21	--	<b>397</b> 27	--	<b>113</b> 8	<b>323</b> 22	<b>776</b> 53	<b>PSI</b> Bar
<b>2.0"</b> 50mm	<b>80</b> 6	<b>114</b> 8	<b>142</b> 10	<b>243</b> 17	<b>188</b> 13	<b>322</b> 22	<b>59</b> 4	<b>168</b> 12	<b>403</b> 28	<b>PSI</b> Bar
<b>2.5"</b> 63mm	<b>49</b> 3	<b>69</b> 5	<b>86</b> 6	<b>147</b> 10	<b>114</b> 8	<b>196</b> 14	<b>37</b> 3	<b>104</b> 7	<b>250</b> 17	<b>PSI</b> Bar
<b>3.0"</b> 76mm	<b>32</b> 2	<b>46</b> 3	<b>57</b> 4	<b>98</b> 7	<b>76</b> 5	<b>129</b> 9	<b>25</b> 2	<b>71</b> 5	<b>171</b> 12	<b>PSI</b> Bar
<b>4.0"</b> 101mm	<b>17</b> 1	<b>24</b> 2	<b>31</b> 2	<b>52</b> 4	<b>41</b> 3	<b>68</b> 5	<b>14</b> 1	<b>40</b> 3	<b>95</b> 7	<b>PSI</b> Bar

**W65 AL/HAL (AIR-TO-LOWER) - STANDARD STROKE (CONTINUED)**

VALVE SIZE	ACTUATOR SIZE									
	BOTTOM PORT (P <sub>2</sub> ), AIR TO PORT B, (WITH STEM RAISED), WILL CLOSE STEM AGAINST:									
	4AL 50PSI/ 3BAR	4HAL 75PSI/ 5BAR	5AL 50PSI/ 3BAR	5HAL 75PSI/ 5BAR	6AL 50PSI/ 3BAR	6HAL 75PSI/ 5BAR	A2 50PSI/ 3BAR	B2 50PSI/ 3BAR	C2 50PSI/ 3BAR	
<b>1.0"</b>	<b>278</b>	<b>428</b>	<b>407</b>	--	--	--	<b>13</b>	<b>27</b>	<b>180</b>	<b>PSI</b>
25mm	19	30	28	--	--	--	1	2	12	Bar
<b>1.5"</b>	<b>258</b>	<b>408</b>	<b>389</b>	--	--	--	<b>13</b>	<b>27</b>	<b>180</b>	<b>PSI</b>
38mm	18	28	27	--	--	--	1	2	12	Bar
<b>2.0"</b>	<b>134</b>	<b>207</b>	<b>197</b>	<b>265</b>	<b>300</b>	<b>415</b>	<b>7</b>	<b>14</b>	<b>93</b>	<b>PSI</b>
50mm	9	14	14	18	21	29	0	1	6	Bar
<b>2.5"</b>	<b>81</b>	<b>125</b>	<b>119</b>	<b>160</b>	<b>182</b>	<b>249</b>	<b>4</b>	<b>9</b>	<b>58</b>	<b>PSI</b>
63mm	6	9	8	11	13	17	0	1	4	Bar
<b>3.0"</b>	<b>55</b>	<b>85</b>	<b>81</b>	<b>109</b>	<b>124</b>	<b>171</b>	<b>3</b>	<b>6</b>	<b>40</b>	<b>PSI</b>
76mm	4	6	6	8	9	12	0	0	3	Bar
<b>4.0"</b>	<b>31</b>	<b>47</b>	<b>45</b>	<b>61</b>	<b>68</b>	<b>95</b>	<b>2</b>	<b>3</b>	<b>22</b>	<b>PSI</b>
101mm	2	3	3	4	5	7	0	0	2	Bar



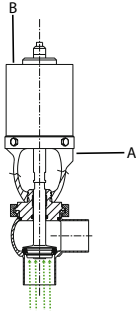
VALVE SIZE	ACTUATOR SIZE									
	PORT (P <sub>3</sub> ), (STEM RAISED), ACTUATOR SPRING HOLDS AGAINST:									
	4AL	4HAL	5AL	5HAL	6AL	6HAL	A2	B2	C2	
<b>1.0"</b>	<b>288</b>	<b>360</b>	<b>400</b>	--	--	--	<b>110</b>	<b>320</b>	<b>788</b>	<b>PSI</b>
25mm	20	25	28	--	--	--	8	22	54	Bar
<b>1.5"</b>	<b>302</b>	<b>414</b>	<b>446</b>	--	--	--	<b>110</b>	<b>320</b>	<b>788</b>	<b>PSI</b>
38mm	21	29	31	--	--	--	8	22	54	Bar
<b>2.0"</b>	<b>170</b>	<b>206</b>	<b>222</b>	<b>398</b>	<b>265</b>	--	<b>57</b>	<b>166</b>	<b>409</b>	<b>PSI</b>
50mm	12	14	15	27	18	--	4	11	28	Bar
<b>2.5"</b>	<b>99</b>	<b>120</b>	<b>130</b>	<b>233</b>	<b>157</b>	<b>359</b>	<b>35</b>	<b>103</b>	<b>254</b>	<b>PSI</b>
63mm	7	8	9	16	11	25	2	7	18	Bar
<b>3.0"</b>	<b>66</b>	<b>81</b>	<b>87</b>	<b>157</b>	<b>105</b>	<b>241</b>	<b>24</b>	<b>71</b>	<b>174</b>	<b>PSI</b>
76mm	5	6	6	11	7	17	2	5	12	Bar
<b>4.0"</b>	<b>36</b>	<b>44</b>	<b>48</b>	<b>85</b>	<b>57</b>	<b>131</b>	<b>14</b>	<b>39</b>	<b>97</b>	<b>PSI</b>
101mm	2	3	3	6	4	9	1	3	7	Bar



## Air Assist Charts

- <sup>1</sup> Refer to W61 & W65 holding pressure charts for spring only holding force.
- <sup>2</sup> Refer to W62 & W63 holding pressure charts for spring only holding force.
- <sup>3</sup> Air requirements: 50 PSI to actuate 4", 5", & 6" Actuators 75 PSI to actuate 4", 5" & 6" heavy spring and 4" & 5" long stroke actutators; 87 PSI for A, B, and C size actuators (refer to holding pressure charts for holding power).

### AIR BOOST FOR PORT B



PRODUCT PRESSURE APPLIED TO BOTTOM OF PLUG.

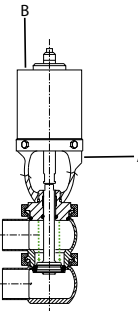
ACTUATOR SIZE	PRODUCT RATIO PER VALVE SIZE						
	1" (25MM)	1.5" (36MM)	2" (59MM)	2.5" (64MM)	3" (76MM)	4" (102MM)	6" (152MM)
"4" (102mm)	6.50	6.50	3.70	2.40	1.60	0.90	--
"5" (127mm)	10.40	10.40	5.80	3.70	2.60	1.50	--
"6" (152mm)	15.00	15.00	8.40	5.40	3.70	2.10	0.95
Y-BODY*	--	--	--	2.20	1.70	0.93	--
"A" Size (74mm)	3.50	3.50	2.00	1.30	0.90	0.50	--
"B" Size (110mm)	8.10	8.10	4.50	2.90	2.00	1.10	--
"C" Size (165mm)	18.60	18.60	10.40	6.70	4.60	2.60	--

Note: \* Y Body Valve is only available with 6ARY and 6ALY actuators

Chart shows additional product holding pressure per 1 PSI or BAR of air applied to port B to:

- air assist spring holding force<sup>1</sup> (spring to close)
- calculate holding power on air to air actuator
- calculate additional holding power above the nominal air requirement of the actuator<sup>3</sup>
- Maximum Air Assist Pressures should not exceed:
  - 70 psi on 4", 5", 6" Maintainable Actuators
  - 15 psi on A, B or C sized Maintenance Free Actuator
- Air Assist pressures should be air regulated to the lowerest required amount of air pressure

### AIR BOOST FOR PORT A



ACTUATOR SIZE	PRODUCT RATIO PER VALVE SIZE						
	1" (25MM)	1.5" (36MM)	2" (59MM)	2.5" (64MM)	3" (76MM)	4" (102MM)	6" (152MM)
"4" (102mm)	6.50	6.50	3.70	2.40	1.60	0.90	--
"5" (127mm)	10.40	10.40	5.80	3.70	2.60	1.50	--
"6" (152mm)	15.00	15.00	8.40	5.40	3.70	2.10	0.95
Y-BODY*	--	--	--	2.20	1.70	0.93	--
"A" Size (74mm)	4.70	4.70	2.30	1.40	0.90	0.50	--
"B" Size (110mm)	10.80	10.80	5.30	3.20	2.20	1.20	--
"C" Size (165mm)	24.80	24.80	12.10	7.30	4.90	2.70	--

Chart shows additional product holding pressure per 1 PSI or BAR of air applied to port A to:

- air assist spring holding force<sup>1</sup> (spring to close)
- calculate holding power on air to air actuator
- calculate additional holding power above the nominal air requirement of the actuator<sup>3</sup>
- Maximum Air Assist Pressures should not exceed:
  - 70 psi on 4", 5", 6" Maintainable Actuators
  - 15 psi on A, B or C sized Maintenance Free Actuator
- Air Assist pressures should be air regulated to the lowerest required amount of air pressure

#### Example:

W61T-3" with 5" Air to Raise (Spring to Close) actuator required to hold against 75 PSI product pressure.

Holding pressure required: 75 PSI

Minus Spring only holding force: - 55 PSI

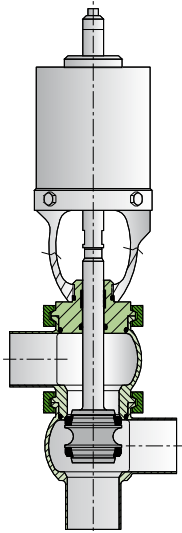
(From page 16)

Additional holding power required: 20 PSI \_\_\_\_\_

$$\text{Air Assist pressure required} = \frac{\text{Additional holding power required}}{\text{Product Ratio from chart above}} = \frac{20}{2.6}$$

7.79 PSI Air Required

## W60 Series Valves: Safe, Strong and Sanitary



W62TT

### Cleanable, Designed For Sanitary / Hygienic Applications

- 316L Stainless Steel wetted parts
- Minimal internal crevices and high surface finishes
- Free-spinning, snap-on TFM or PEEK seats for reliable sealing: choice of Tef-Flow, Tef-Flow P, tri-ring, or metal
- Captive, supported stationary seals located forward to the product zone: choice of o-ring, quad, or wiping stem seals
- Free draining in multiple positions – including upside down
- 3-A compliant, FDA approved materials

### Heavy-duty Construction

- Machined-from-bar body construction can withstand mishandlings of active plant environment & lead to long service life
- Consistently thick body wall dimensions & laser welded port extensions minimize body distortion during manifolding & extreme fluid temperature changes
- Deep, inter-locking bodies and adapters
- Heavy-Duty Clamps & High Pressure Adapters for up to 1220 PSI applications
- Multiple split TFM bearing support of stems

### Flexibility & Modularity

- Major components (body, stem, adapter, actuators) are modular in design to quickly and easily assemble or retrofit in field a valve to meet specific applications
- Choice of standard fully maintainable actuator or cost-effective maintenance-free actuator with 5-year warranty with various sizes and spring options
- True-line mix body sizes and custom 45° or other angled ports available to match complicated pipe design
- One-piece bodies or two-piece clamped
- AL6XN alloy product zone parts available for corrosive products
- Custom port lengths and center-to-center dimensions can match competitor and legacy series valves to provide easy drop-in replacements
- Various control top models available to fit customer needs: cost-effective CU4 full-featured, robust WCB control tops, or state-of-the-art Burkert 8681



Heavy-duty Construction

### Low Cost of Ownership

- Heavy-duty construction maximizes service life
- Minimum proprietary parts gives off-the-shelf availability and low price of most spares and components
- Available spare parts from local distributor or factory in Delavan, WI
- Modular design enables multi-use parts, easy training & familiarity with whole family of valves, minimum spares required on shelf
- Long life standard actuator is field-maintainable with finger-safe, caged springs and cartridge piston assemblies
- Commonality of parts: same part numbers used multiple places
- Simple, easy-to-maintain design is intuitive and does not require advanced mechanical skills

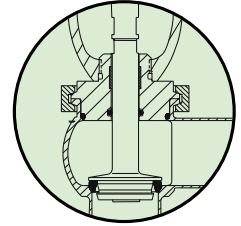
### Domestic Manufacture, Local Support

- Value-Added Distributor Relationships
- Face-to-Face Representation
- Manufacturing, Assembly, Inventory, Engineering & Customer Service in Delavan, Wisconsin, USA

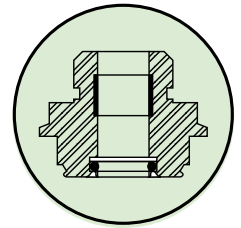


## Valve Adapter Options

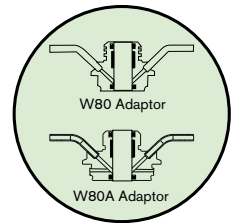
The 'standard' adapter is used on all models of short and long stroke W60 Series valves. Machined from 316LSS bar with a thick cross-section, the adapter adds strength to the valve body and provides alignment for the stem. The outer perimeter seals to the valve body with an O-ring that is located forward to the product zone to minimize crevices. The product stem passes through the adapter and is sealed to the adapter with an O-ring. A TFM split bearing guides the stem and takes up the mechanical loading imparted by hydraulic forces. This increases the service life of the stem seal. Adapters are made in 1"-6" (25mm -152mm) sizes.



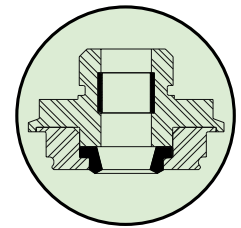
The pressure limitation of the W60 adapter is the sealing capability of the dynamic O-ring on the product stem. This variation of the W60 adapter uses a backing ring added on the atmospheric side to support the stem O-ring. This significantly boosts the pressure rating on the stem O-ring. The product stem passes through the adapter and is sealed to the adapter with an O-ring and is guided by a TFM split bearing.



This adapter is used to convert a 'standard' W60 series valve to a W80. The outer perimeter seals to the valve body with an O-ring that is located forward to the product zone to minimize crevices. The product stem passes through the adapter and is sealed in the upper part and the lower part of the adapter with O-rings. The space between the O-rings is flushed with a suitable liquid or steam. The TFM split bearing is located in the flushed chamber. Adapters are made in 1"-6" (25mm - 152mm) sizes. For vacuum-rated, extended shelf-life (ESL) applications, the W80A adapter adds steam trace to the adapter-to-valve body connection.



For high-risk and hard to clean product applications, the wiping stem seal fills the gap between the product zone and the traditional O-ring stem seal. The adapter is a two-piece design to allow easy inspection or replacement of the wiping stem seal. The outer perimeter seals to the valve body with an O-ring that is located forward to the product zone to minimize crevices. A TFM split bearing is used to guide and support the valve stem.





Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit [www.spxflow.com](http://www.spxflow.com)

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Identification Number: DS-1201-US

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