



## Pneumatic Actuated Sanitary Cavity Filled Direct Mount Ball Valve – Clamp End – BS4825

- No Dead Space in Through Path
- Encapsulated Seats
- Seats and Seals Comply with FDA, 3A and WRAS Requirements
- Good for use with CIP
- Sizes ½" - 4"
- Fully Maintainable
- Actuation in Spring and Double Acting Versions

### DESCRIPTION

#### Valve

A 3-piece sanitary ball valve with ISO 5211 mounting platform for automatic operation. Offered with TFM 1600 (FDA approved) Cavity filled ball seats and seals. ASTM A351 CF8M 316 Stainless steel construction, 316 trim. Ta-Luft self adjusting stem sealing. Chemically polished external surface, mechanical polish 0.8um internal. Valve holds ATEX, PED, CE and many more approvals.

#### Actuator

The valve is fitted to a powerful pneumatic, rack and pinion actuator in either single or double acting versions. 30% safety factor is included for repeatability and reliability. In addition the actuator can accommodate pilot solenoid valves, switchbox position indicators and inductive sensors, onto its Namur Interface pads. Actuator holds ATEX, PED, CE and SIL2.

#### Easy to Order

Using our unique selector tool you can build your perfect valve, actuator and accessory combination with ease.

### Valve Certification



#### Description

A true full bore ball valve, suitable for sanitary applications, having polished body, TFM 1600 cavity filled seats and seals. Fully maintainable and suitable for CIP. Direct mount ISO 5211 mounting platform enabling either a Spring Closed/Open or Double Acting Pneumatic Actuator to be fitted.



#### Beschreibung

Ein echter Kugelhahn mit voller Bohrung, der für die Hygiene geeignet ist  
Anwendungen mit poliertem Körper, hohlraumgefüllten TFM 1600-Sitzen und Dichtungen. Vollständig wartbar und für KVP geeignet. Direkt montierte Montageplattform ISO 5211, an der entweder ein federgeschlossener / offener oder ein doppelwirkender pneumatischer Antrieb montiert werden kann.



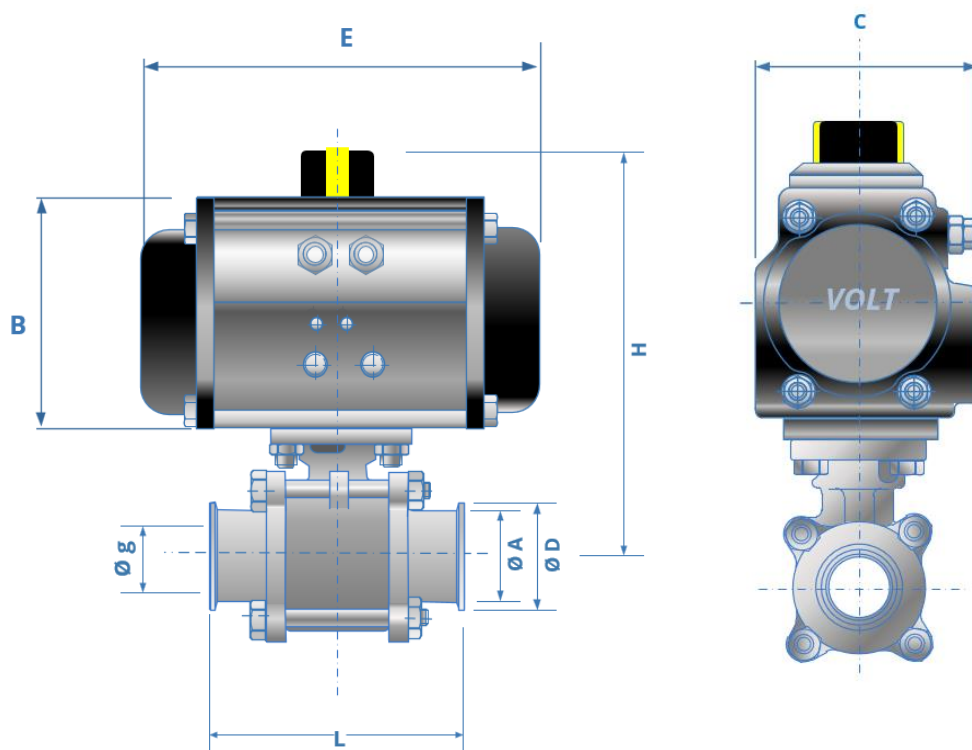
#### Descripción

Una verdadera válvula de bola de paso total, adecuada para aplicaciones sanitarias. aplicaciones, con cuerpo pulido, asientos y sellos llenos de cavidad TFM 1600. Totalmente mantenible y apto para CIP. Plataforma de montaje ISO 5211 de montaje directo que permite instalar un actuador neumático de resorte cerrado / abierto o de doble acción.



#### Description

Un vrai robinet à tournant sphérique à passage intégral, adapté aux sanitaires applications, ayant un corps poli, des sièges et des joints remplis de cavité TFM 1600. Entièrement maintenable et adapté au CIP. Plateforme de montage à montage direct ISO 5211 permettant de monter un actionneur pneumatique à ressort fermé / ouvert ou à double effet.

**Technical Information**

400 psi/g Pressure rated  
ATEX approved with anti static  
device for ball-stem-body.  
Nace MR-0175 compliant  
Inspection & Testing: API 598  
End connections: BS 4825  
Design Rating: ASME B16.34,  
BS4825

**Spring Return Dimensions and Weights**

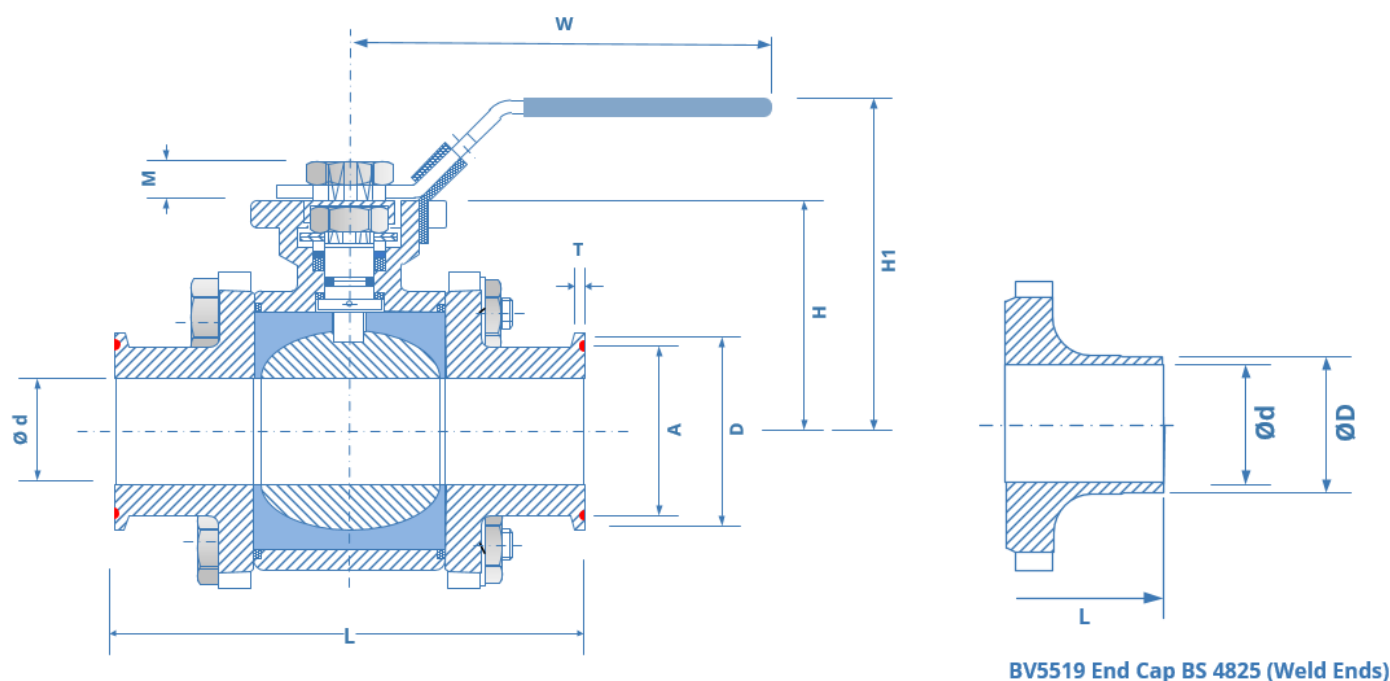
| Size   |     | SR Actuator | Øg   | ØA   | ØD   | L   | B   | C   | E   | H   | KG Clamp | KG OD Weld |
|--------|-----|-------------|------|------|------|-----|-----|-----|-----|-----|----------|------------|
| 1/2"   | 15  | HP50S       | 9.5  | 20.3 | 25.4 | 90  | 93  | 72  | 144 | 135 | 1.85     | 1.81       |
| 3/4"   | 20  | HP50S       | 15.9 | 20.3 | 25.4 | 90  | 93  | 72  | 144 | 142 | 2.11     | 2.06       |
| 1"     | 25  | HP63S       | 22.2 | 43.5 | 50.5 | 100 | 107 | 85  | 163 | 165 | 3.14     | 2.99       |
| 1 1/2" | 40  | HP66S       | 34.9 | 43.5 | 50.5 | 125 | 107 | 85  | 202 | 178 | 5.29     | 5.24       |
| 2"     | 50  | HP75S       | 47.6 | 56.5 | 64   | 150 | 124 | 96  | 210 | 202 | 7.35     | 7.25       |
| 2 1/2" | 65  | HP88S       | 60.3 | 70.5 | 77.5 | 190 | 136 | 108 | 247 | 236 | 12.5     | 12.2       |
| 3"     | 80  | HP100S      | 73   | 83.5 | 91   | 220 | 148 | 123 | 268 | 257 | 17.6     | 17.35      |
| 4"     | 100 | HP115S      | 97.6 | 110  | 119  | 270 | 166 | 141 | 316 | 306 | 31.6     | 31         |

**Double Acting Dimensions and Weights**

| Size   |     | DA Actuator | Øg   | ØA   | ØD   | L   | B   | C   | E   | H   | KG Clamp | KG OD Weld |
|--------|-----|-------------|------|------|------|-----|-----|-----|-----|-----|----------|------------|
| 1/2"   | 15  | HP50D       | 9.5  | 20.3 | 25.4 | 90  | 93  | 72  | 144 | 135 | 1.85     | 1.81       |
| 3/4"   | 20  | HP50D       | 15.9 | 20.3 | 25.4 | 90  | 93  | 72  | 144 | 142 | 2.11     | 2.06       |
| 1"     | 25  | HP63D       | 22.2 | 43.5 | 50.5 | 100 | 107 | 85  | 163 | 165 | 3.14     | 2.99       |
| 1 1/2" | 40  | HP66D       | 34.9 | 43.5 | 50.5 | 125 | 107 | 85  | 202 | 178 | 5.29     | 5.24       |
| 2"     | 50  | HP75D       | 47.6 | 56.5 | 64   | 150 | 124 | 96  | 210 | 202 | 7.35     | 7.25       |
| 2 1/2" | 65  | HP88D       | 60.3 | 70.5 | 77.5 | 190 | 136 | 108 | 247 | 236 | 12.5     | 12.2       |
| 3"     | 80  | HP100D      | 73   | 83.5 | 91   | 220 | 148 | 123 | 268 | 257 | 17.6     | 17.35      |
| 4"     | 100 | HP115D      | 97.6 | 110  | 119  | 270 | 166 | 141 | 316 | 306 | 31.6     | 31         |

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## SERIES BV5519 Sanitary Ball Valve – Clamp Ends to BS4825



BV5519 End Cap BS 4825 (Weld Ends)

### Dimensions and Weights

| Size      | d    | A    | D    | T    | L   | H   | H1  | W   | P  | M  | E1 | E2  | U1 | U2 |
|-----------|------|------|------|------|-----|-----|-----|-----|----|----|----|-----|----|----|
| 1/2" 15   | 9.5  | 20.3 | 25.4 | 3.7  | 90  | 42  | 72  | 147 | 9  | 9  | 36 | 42  | 6  | 6  |
| 3/4" 20   | 15.9 | 20.3 | 25.4 | 3.7  | 90  | 49  | 79  | 147 | 9  | 9  | 36 | 50  | 6  | 7  |
| 1" 25     | 22.2 | 43.5 | 50.5 | 2.85 | 100 | 58  | 90  | 177 | 11 | 11 | 42 | 50  | 6  | 7  |
| 1 1/2" 40 | 34.9 | 43.5 | 50.5 | 2.85 | 125 | 71  | 103 | 197 | 14 | 14 | 50 | 70  | 7  | 9  |
| 2" 50     | 47.6 | 56.5 | 64   | 2.85 | 150 | 78  | 110 | 197 | 14 | 14 | 50 | 70  | 7  | 9  |
| 2 1/2" 65 | 60.3 | 70.5 | 77.5 | 2.85 | 190 | 100 | 150 | 267 | 17 | 17 | 70 | 102 | 9  | 11 |
| 3" 80     | 73   | 83.5 | 91   | 2.85 | 220 | 109 | 159 | 267 | 17 | 17 | 70 | 102 | 9  | 11 |
| 4" 100    | 97.6 | 110  | 119  | 2.85 | 270 | 140 | 212 | 400 | 22 | 22 | –  | 102 | –  | 11 |

### CAVITY FILLED SEATS

Cavity filled seats are designed to eliminate the cavity around the ball, minimize trapped fluid in the valve body that can contaminate the process. Mars Cavity Filled Seats offer excellent performance in control of food products, pharmaceuticals and high velocity applications. Maintenance seal kits are available on request.

### Valve Details

| Size      | Flow CV | Torque Nm | Stem mm | ISO     | KG (Approx.) |         |
|-----------|---------|-----------|---------|---------|--------------|---------|
|           |         |           |         |         | Clamp        | OD Weld |
| 1/2" 15   | 18      | 6         | 9       | F03-F04 | 0.69         | 0.65    |
| 3/4" 20   | 36      | 8         | 9       | F03-F05 | 0.95         | 0.92    |
| 1" 25     | 48      | 14        | 11      | F04-F05 | 1.46         | 1.31    |
| 1 1/2" 40 | 165     | 22        | 14      | F05-F07 | 2.89         | 2.84    |
| 2" 50     | 207     | 32        | 14      | F05-F07 | 4.35         | 4.25    |
| 2 1/2" 65 | 450     | 50        | 17      | F07-F10 | 8.2          | 7.9     |
| 3" 80     | 780     | 75        | 17      | F07-F10 | 11.6         | 11.35   |
| 4" 100    | 1360    | 115       | 22      | F10     | 22.6         | 22      |

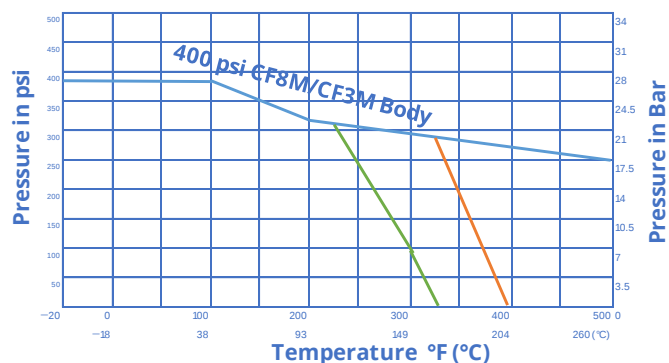
The torque figures do not include any safety factor and we recommend a minimum of 30% be added for actuation. Figures are based on 10 bar g clean water.

## SERIES BV5519 Sanitary Ball Valve – Clamp Ends to BS4825

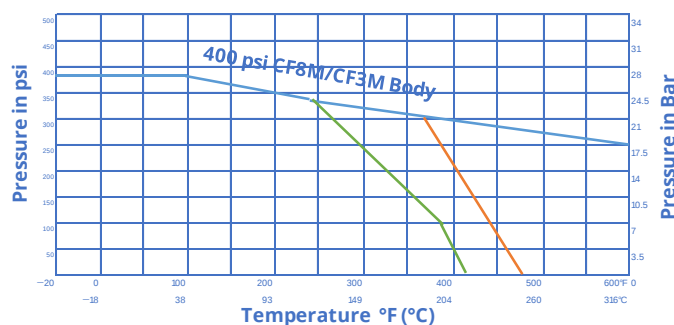
### Technical Information

#### Pressure – Temperature Ratings

The pressure temperature data of ball valves is determined not only by valve shell materials, but by the sealing materials used for ball valve seats, gland packings and flange gaskets.



Floating Ball Valves, 400 psi  
DN15 - DN32  
Full bore ½"-1¼"



Floating Ball Valves, 400 psi  
DN15 - DN32  
Full bore 1½"- 4"

### Torque Values

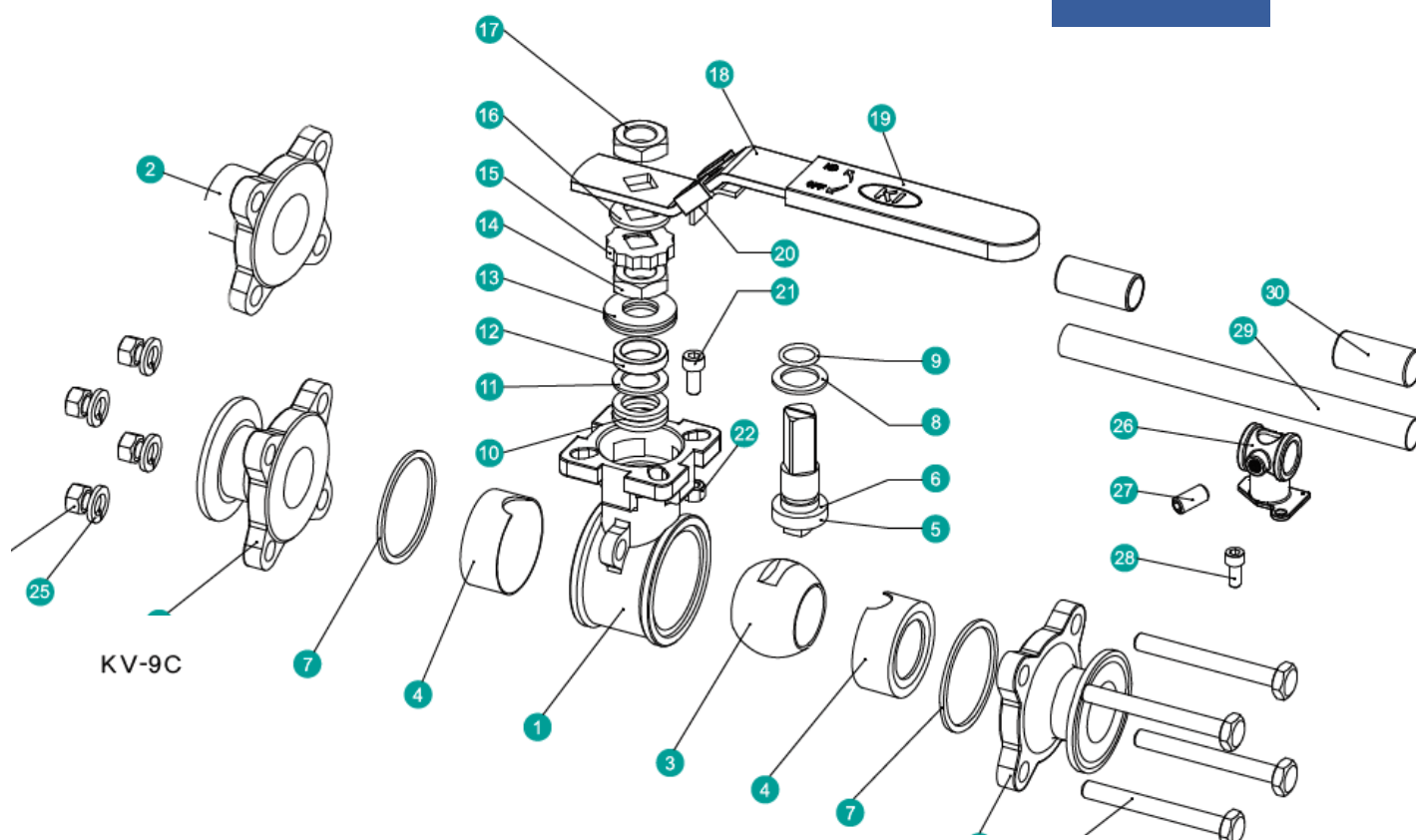
Close to Open torque at various differential pressure  $\Delta P$ , standard seats TFM 1600

| Size $\Delta P$ |     | 75 psi |       | 75 psi |       | 75 psi |       | 75 psi |       |
|-----------------|-----|--------|-------|--------|-------|--------|-------|--------|-------|
|                 |     | 5 Bar  |       | 5 Bar  |       | 5 Bar  |       | 5 Bar  |       |
| Inch            | DN  | N-m    | in-lb | N-m    | in-lb | N-m    | in-lb | N-m    | in-lb |
| 1/2"            | 15  | 5      | 44    | 5      | 44    | 5      | 44    | 5      | 44    |
| 3/4"            | 20  | 6      | 53    | 6      | 53    | 6      | 53    | 6      | 53    |
| 1"              | 25  | 10     | 88    | 10     | 88    | 11     | 97    | 11     | 97    |
| 1 1/2"          | 40  | 19     | 168   | 19     | 168   | 22     | 195   | 24     | 212   |
| 2"              | 50  | 25     | 221   | 29     | 257   | 32     | 283   | 34     | 301   |
| 2 1/2"          | 65  | 40     | 354   | 45     | 398   | 49     | 434   | 52     | 460   |
| 3"              | 80  | 65     | 575   | 72     | 637   | 81     | 717   | 88     | 779   |
| 4"              | 100 | 100    | 885   | 110    | 973   | 122    | 1080  | 132    | 1168  |

### Notes

Please include a minimum of 30% safety factor when sizing for actuators.

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## MATERIAL OF CONSTRUCTION

| NO. | PART NAME                               | MATERIALS     |              |             |
|-----|-----------------------------------------|---------------|--------------|-------------|
| 1   | Body                                    | CF3M(1.4409)  | CF8M(1.4408) | CF8(1.4308) |
| 2   | End Cap (Clamp)                         | CF3M(1.4409)  | CF8M(1.4408) | CF8(1.4308) |
|     | End Cap (BW)                            | CF3M(1.4409)  | CF3M(1.4409) | CF8(1.4308) |
| 3   | Ball                                    | CF3M          | CF8M         | CF8         |
| 4   | Ball Seat                               | PTFE/TFM1600  |              |             |
| 5   | Stem                                    | 316L          | 316          | 304         |
| 6   | Anti-Static                             | 316L          | 316          | 304         |
| 7   | Body Gasket                             | PTFE          |              |             |
| 8   | Thrust washer                           | PTFE          |              |             |
| 9   | O-Ring                                  | FKM           |              |             |
| 10  | Packing                                 | PTFE          |              |             |
| 11  | Bushing                                 | 304           |              |             |
| 12  | Gland                                   | 316           |              |             |
| 13  | Belleville Washer                       | 301           |              |             |
| 14  | Stem Nut                                | A194-8        |              |             |
| 15  | Stop-lock-Cap                           | 304           |              |             |
| 16  | Handle Gland                            | 304           |              |             |
| 17  | Handle Nut (NPS $\frac{1}{2}$ ~NPS3)    | A194-8        |              |             |
| 18  | Handle (NPS $\frac{1}{2}$ ~NPS3)        | 304           |              |             |
| 19  | Handle Sleeve (NPS $\frac{1}{2}$ ~NPS3) | VINYL PLASTIC |              |             |
| 20  | Lock Device (NPS $\frac{1}{2}$ ~NPS3)   | 304           |              |             |
| 21  | Stop Bolt                               | A2-70         |              |             |
| 22  | Stop Nut                                | A2-70         |              |             |
| 23  | Bolting                                 | A193-B8/A2-70 |              |             |
| 24  | Bolt Nut                                | A194-8/A2-70  |              |             |
| 25  | Bolt Washer                             | 304           |              |             |
| 26  | Handle Adapter (NPS4)                   | A351-CF8      |              |             |
| 27  | Set Screw (NPS4)                        | A2-70         |              |             |
| 28  | Bolting (NPS4)                          | A2-70         |              |             |
| 29  | Pipe Handle (NPS4)                      | A53+PLATED Zn |              |             |
| 30  | Handle Sleeve (NPS4)                    | VINYL PLASTIC |              |             |

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## Easy Automation from Valves Online



The HP range of pneumatic actuators offer a robust and reliable unit specifically designed for use with quarter-turn valves. Available in double and single acting. Both of these actuators are used when a high number of operations are required or when, fast cycling is called for. All our sizing has been based on adding a minimum of 30% safety factor and sized on you using a minimum of 5.5 bar pilot air pressure. The actuators all carry ATEX approval coupled with CE certification. These actuators can be customised and fitted with switchboxes, proximity switches, solenoid pilot valves and speed control devices.

### Pilot Solenoid Valve

The HP range of pneumatic actuators offer a robust and reliable unit specifically designed for use with quarter-turn valves. Available in double and single acting.

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### Switchbox and Inductive Sensors

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