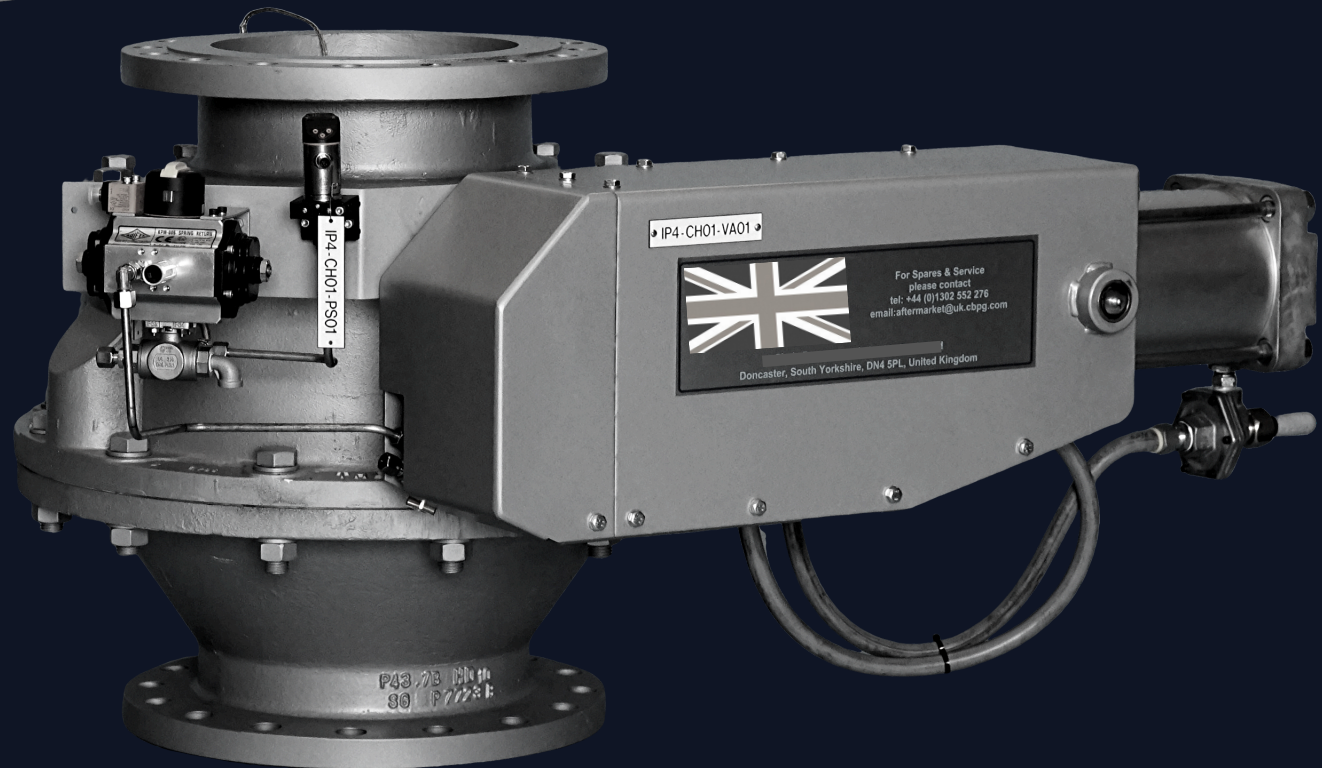


  
**CLYDE**  
 Pneumatic Conveying

  
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 CLYDE Pneumatic Conveying

your pneumatic conveying and service partner



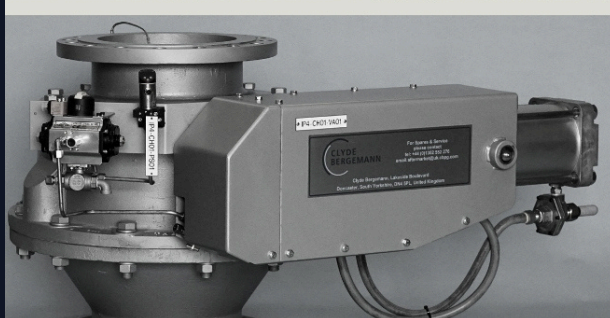
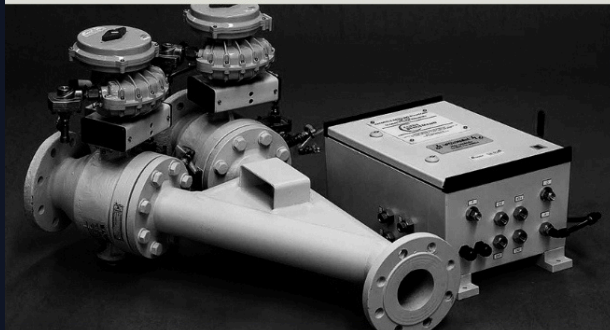
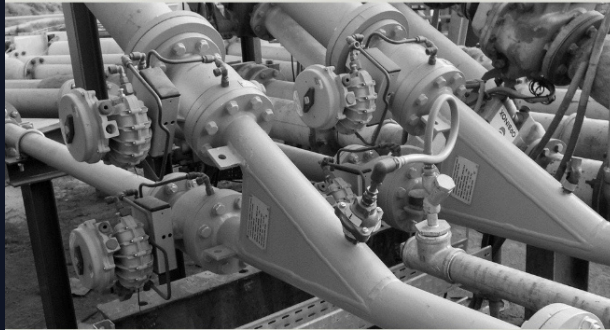
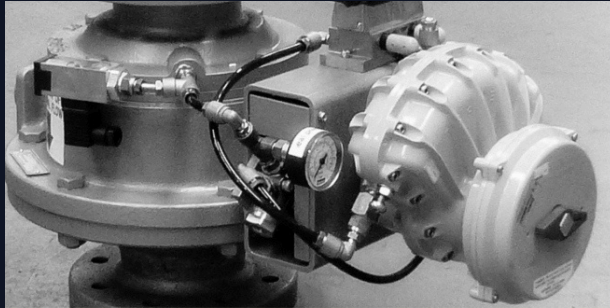
## THE ORIGINAL DOME VALVE

Heavy duty pneumatic  
 bulk solids cut-off valve



often imitated, never duplicated...

We are proud of the certificate given to our company by Clyde Pneumatic Conveying for our superior business performance as their main partner in Europe.



# CERTIFIED RESELLER CERTIFICATE



## BMT Enerji Servis A.S.

BMT Enerji Servis A.S. has been awarded the status of Certified Reseller and is hereby authorised to sell and distribute original Clyde Pneumatic Conveying Ltd Dome Valve spare parts in the Turkish markets.

It indicates that the company is holding itself with high standards, offers genuine great service and is highly competent to offer Clyde Pneumatic Conveying Dome Valve spare parts with added assurance and back-up from the original Dome Valve producer.

**Craig A. Buckley**

Sales & Marketing  
Director

May 2024





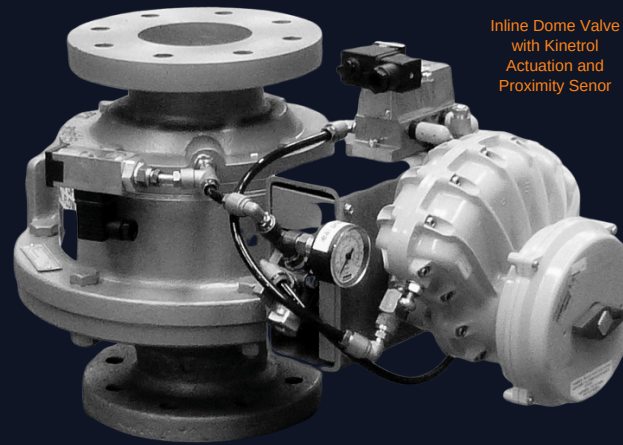
World-wide reputation for reliability with over 100,000 installations globally.

This pressure tight actuated bulk materials cut-off valve is simple in design and construction resulting in extremely sustainable process reliability even in the most difficult of applications.

Proven in industry to be one of the toughest valves on the market to date.



18 barg high pressure inline Dome Valve with heavy duty pneumatic cylinder

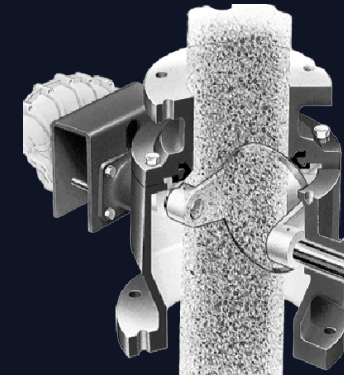


Inline Dome Valve with Kinetrol Actuation and Proximity Sensor

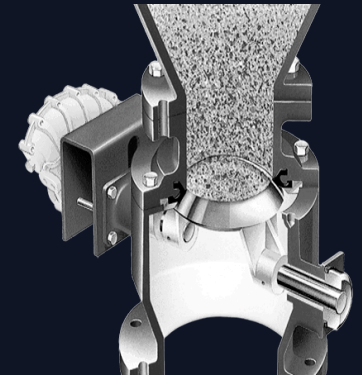


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- full bore unobstructed material flow
- simple, fully proven design
- can cut through moving or static columns of material
- wide range of valve sizes 50 - 400mm
- forms a pressure tight seal when closed
- standard valves designed for 7.0 barg but can deal with pressures up to 30 barg
- can handle temperatures from -20 to 480degC
- over 3,000,000 cycles between major maintenance
- normal inflatable seal life 1,000,000 cycles
- fast acting cylinder or vane actuation
- low operational expenditure



Valve Fully Open Position



Valve Fully Closed Position

A pair of inline Dome Valves used to divert material in a pneumatic conveying pipeline, also known as a Dome type Switching Valve



User options extend to the type of Dome both in terms of raw material and surface coating. The Dome is normally produced from SG Iron but other material and designs can be considered on application.

A common design is to adopt a 'flat-top' Dome configuration to help reduce build up seen with cohesive and sticky materials.

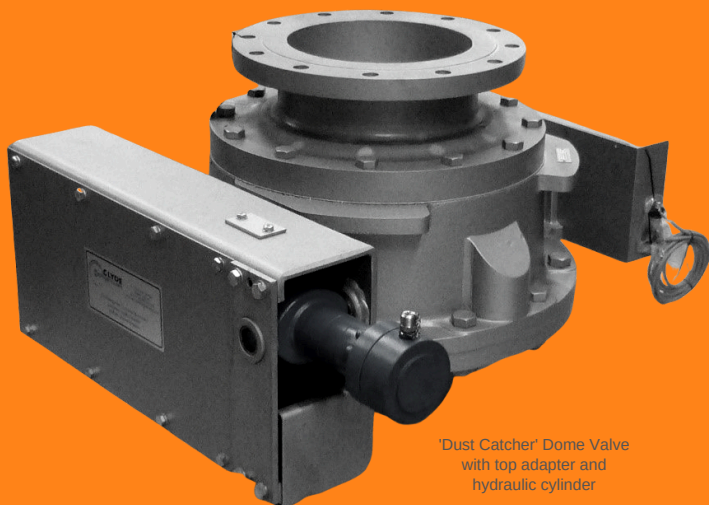
Dome surface coatings include:

1. Chrome - for sticky or abrasive materials
2. ENP or Tungsten Carbide - for abrasive materials
3. Epoxy Resin - for corrosive materials

These coatings can also be extended to the internal surfaces of the valve body and the adapters.

All Dome Valves are capable of handling fine granular materials and hard abrasive products.

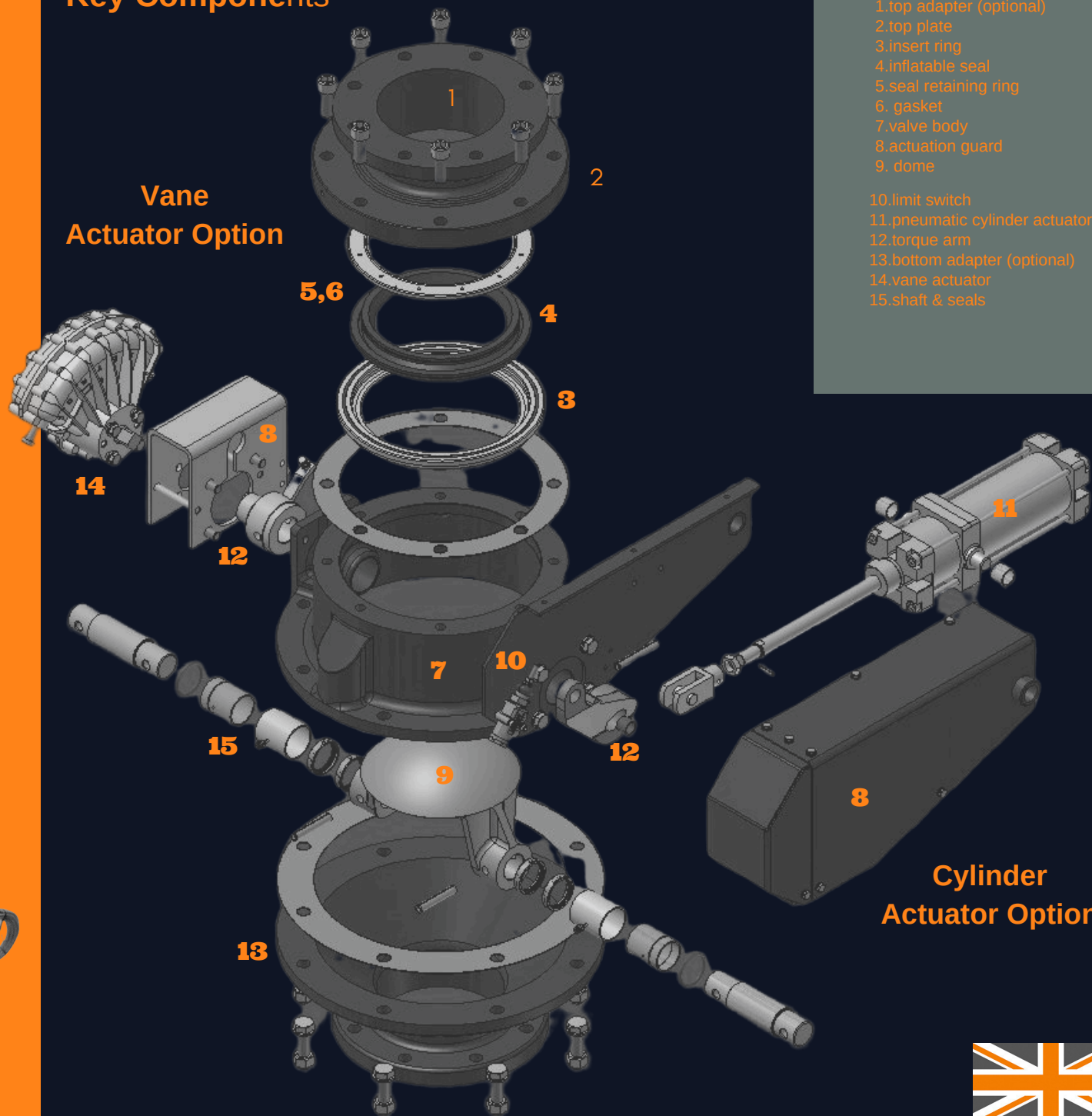
General Vane actuator models are used for materials with a grain size below 2mm. Cylinder actuated valves are used for materials with grain size above 2mm.



'Dust Catcher' Dome Valve  
with top adapter and  
hydraulic cylinder

## Key Components

### Vane Actuator Option



#### Component Key:

- 1.top adapter (optional)
- 2.top plate
- 3.insert ring
- 4.inflatable seal
- 5.seal retaining ring
6. gasket
- 7.valve body
- 8.actuation guard
9. dome
- 10.limit switch
- 11.pneumatic cylinder actuator
- 12.torque arm
- 13.bottom adapter (optional)
- 14.vane actuator
- 15.shaft & seals

### Cylinder Actuator Option



Dome Valve Selection Chart

|  |   |   |  |   |   |   |   |
|--|---|---|--|---|---|---|---|
|  | <b>DVS Dome Valve</b><br>STANDARD BULKHEAD<br>Inlet side pressure tight up to 0.5 bar(g)<br>Outlet side pressure tight up to 7 bar(g)<br><br>PFA                      PHV<br>-20°C to 135°C      135°C to 220°C |  | <b>DVT Dome Valve</b><br>TOP INLET ADAPTER<br>Inlet and outlet sides pressure tight up to 7 bar(g)<br><br>PFA                      PHV<br>-20°C to 135°C      135°C to 220°C |  | <b>DVB Dome Valve</b><br>BOTTOM OUTLET ADAPTER<br>Inlet side pressure tight up to 0.5 bar(g)<br>Outlet side pressure tight up to 7 bar(g)<br><br>PFA                      PHV<br>-20°C to 135°C      135°C to 220°C |  | <b>DVI Dome Valve</b><br>INLINE<br>Inlet and outlet sides pressure tight up to 7 bar(g)<br><br>PFA                      PHV<br>-20°C to 135°C      135°C to 220°C |
|--|---|---|--|---|---|---|---|

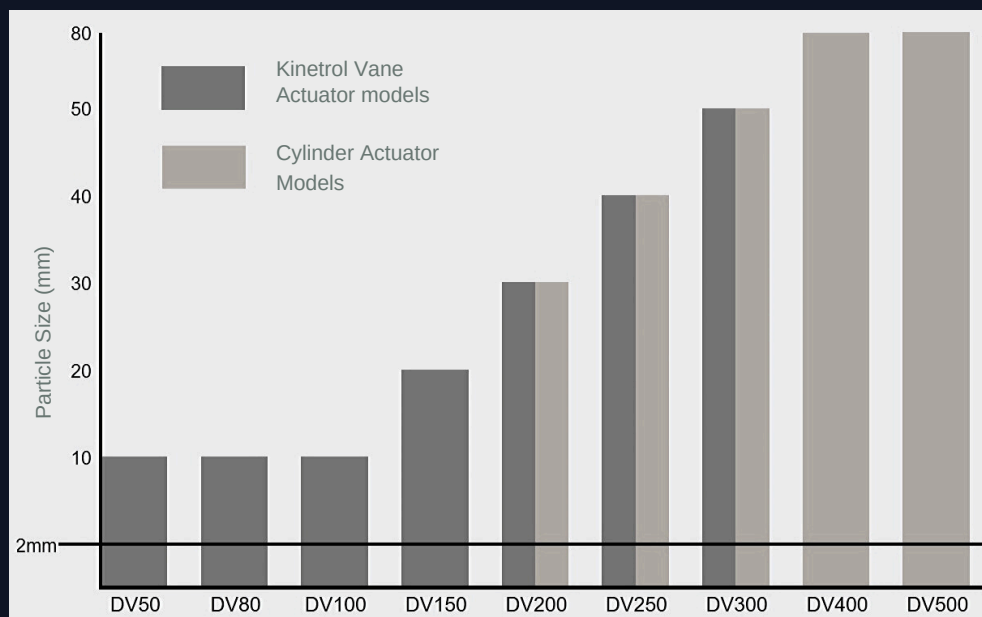
| SIZES (mm) | KINETROL ACTUATOR MODELS |             |             |             |             |             |             |             |
|------------|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 50         |                          |             |             |             |             |             | DV 50 IFVO  | DV 50 IVVO  |
| 80         |                          |             |             |             |             |             | DV 80 IFVO  | DV 80 IVVO  |
| 100        | DV 100 SFVO              | DV 100 SVVO | DV 100 TFVO | DV 100 TVVO | DV 100 BFVO | DV 100 BVVO | DV 100 IFVO | DV 100 IVVO |
| 150        | DV 150 SFVO              | DV 150 SVVO | DV 150 TFVO | DV 150 TVVO | DV 150 BFVO | DV 150 BVVO | DV 150 IFVO | DV 150 IVVO |
| 200        | DV 200 SFVO              | DV 200 SVO  | DV 200 TFVO | DV 200 TVVO | DV 200 BFVO | DV 200 BVVO | DV 200 IFVO | DV 200 IVVO |
| 250        | DV 250 SFVO              | DV 250 SVVO | DV 250 TFVO | DV 250 TVVO | DV 250 BFVO | DV 250 BVVO | DV 250 IFVO | DV 250 IVVO |
| 300        | DV 300 SFVO              | DV 300 SVVO | DV 300 TFVO | DV 300 TVVO | DV 300 BFVO | DV 300 BVVO | DV 300 IFVO | DV 300 IVVO |
| SIZES (mm) | CYLINDER ACTUATOR MODELS |             |             |             |             |             |             |             |
| 200        | DV 200 SFCO              | DV 200 SVCO | DV 200 TFCO | DV 200 TVCO | DV 200 BFCO | DV 200 BVCO | DV 200 IFCO | DV 200 IVCO |
| 250        | DV 250 SFCO              | DV 250 SVCO | DV 250 TFCO | DV 250 TVCO | DV 250 BFCO | DV 250 BVCO | DV 250 IFCO | DV 250 IVCO |
| 300        | DV 300 SFCO              | DV 300 SVCO | DV 300 TFCO | DV 300 TVCO | DV 300 BFCO | DV 300 BVCO | DV 300 IFCO | DV 300 IVCO |
| 350        | DV 350 SFCO              | DV 350 SVCO | DV 350 TFCO | DV 350 TVCO | DV 350 BFCO | DV 350 BVCO | DV 350 IFCO | DV 350 IVCO |
| 400        | DV 400 SFCO              | DV 400 SVCO | DV 400 TFCO | DV 400 TVCO | DV 400 BFCO | DV 400 BVCO | DV 400 IFCO | DV 400 IVCO |
| 450        | DV 450 SFCO              | DV 450 SVCO | DV 450 TFCO | DV 450 TVCO | DV 450 BFCO | DV 450 BVCO | DV 450 IFCO | DV 450 IVCO |
| 500        | DV 500 SFCO              | DV 500 SVCO | DV 500 TFCO | DV 500 TVCO | DV 500 BFCO | DV 500 BVCO | DV 500 IFCO | DV 500 IVCO |

| DV  | DOME VALVE Model Code References |                            |
|-----|----------------------------------|----------------------------|
| 100 | SIZE (mm)                        |                            |
| S   | CONFIGURATION                    |                            |
|     | S=BULKHEAD                       | T=TOP ADAPTER              |
|     | B=BOTTOM ADAPTER                 | I=INLINE                   |
| F   | TEMPERATURE                      |                            |
|     | F= -20°C to 135°C                | V= 135°C to 220°C          |
| V   | ACTUATOR TYPE                    |                            |
|     | V=DOUBLE ACTING VANE             | C=CYLINDER                 |
| O   | SPECIAL FEATURES                 |                            |
|     | O=NO SPECIAL FEATURES            | S=SPECIAL FEATURE REQUIRED |

| DV         | 200   | I      | V              | C        | O                   |
|------------|-------|--------|----------------|----------|---------------------|
| DOME VALVE | 200mm | INLINE | 135oC to 220oC | CYLINDER | NO SPECIAL FEATURES |



## Moving & static column cut-off

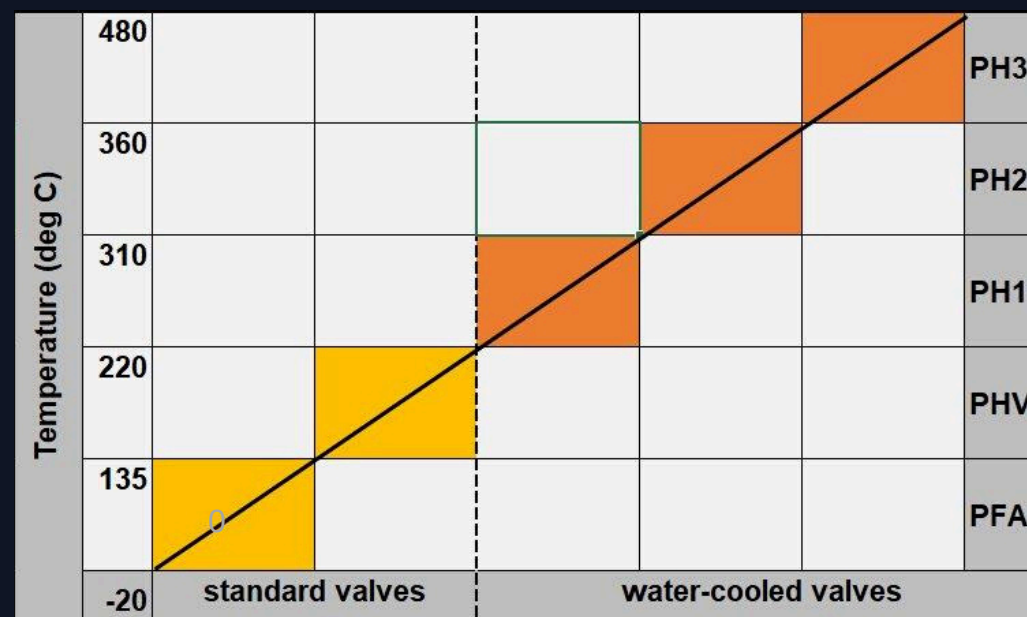


All Dome Valves are capable of handling fine materials and hard abrasive products.

Vane actuator models can cut through static columns of material up to 2mm particle size. They can also cut through moving columns of powders and granular products similar to Limestone above 2mm.

Cylinder actuated models have the added capability of being able to cut through static columns of material above 2mm.

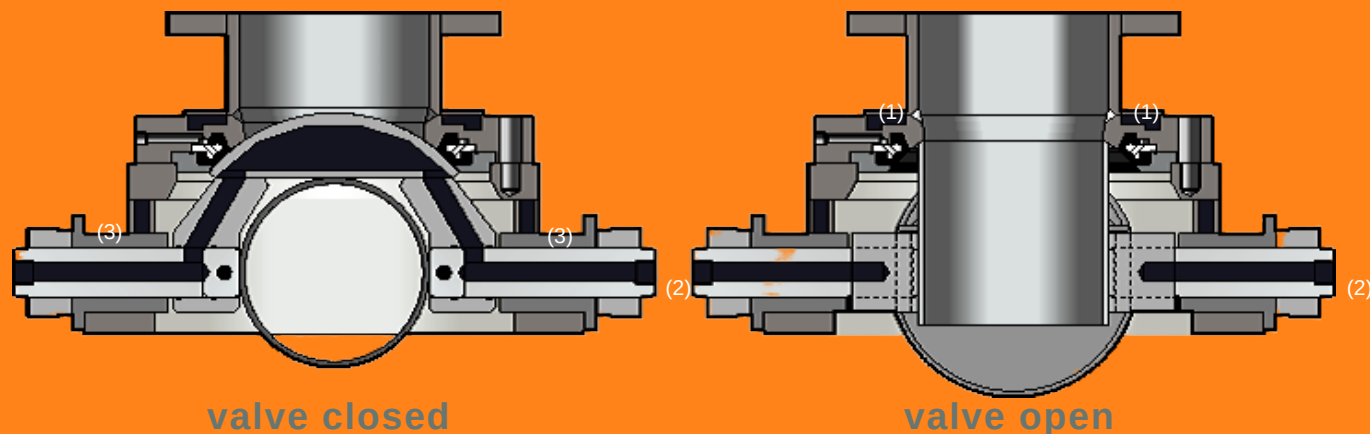
## Dome Valve Temperature Ratings



|     |              |                   |
|-----|--------------|-------------------|
| PFA | standard     | -20 --- 135 deg C |
| PHV | standard     | -20 --- 220 deg C |
| PH1 | water-cooled | -20 --- 310 deg C |
| PH2 | water-cooled | -20 --- 360 deg C |
| PH3 | water-cooled | -20 --- 480 deg C |



## Water Cooled Dome Valve cross section



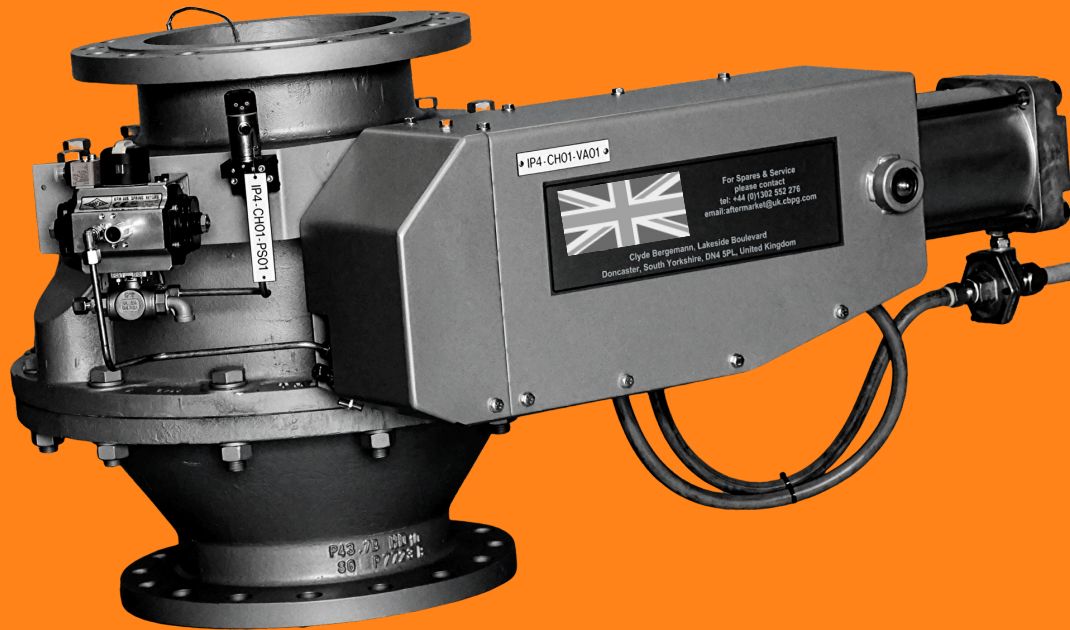
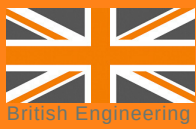
- (1) PH1 water-cooled top plate
- (2) PH2 as PH1 with additional water cooled Dome
- (3) PH3 as PH2 with additional water cooled body

| Valve Size | PH1<br>Litres/min | PH2<br>Litres/min | PH3<br>Litres/min |
|------------|-------------------|-------------------|-------------------|
| 50mm       | 2                 | -                 | 4                 |
| 80mm       | 2                 | -                 | 6                 |
| 100mm      | 3                 | 6                 | 10                |
| 125mm      | 5                 | 11                | 17                |
| 150mm      | 5                 | 11                | 17                |
| 200mm      | 6                 | 13                | 20                |
| 250mm      | 8                 | 18                | 27                |
| 300mm      | 10                | 22                | 33                |
| 400mm      | -                 | -                 | -                 |
| 500mm      | -                 | -                 | -                 |



# REFERENCES





# THE ORIGINAL DOME VALVE

often imitated, never duplicated...



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## BMT SITE SERVICE

- Assembly control of the assembled pneumatic conveying system
- Cold and Hot performance test of pneumatic system
- Detailed check up and reporting of the dome valves and auxillary equipment
- Detailed reporting on commissioned equipment and spare parts requirements
- Technical support and training of the existing equipment
- Fault detection and solution suggestions on the equipment

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