# **BRV BACKING/ROUGHING VALVE**



Edwards backing/roughing valves with ISO NW roughing and forepump terminations feature manual or pneumatic actuation. They combine the function of separate backing/roughing valves in one integral 3 port unit.

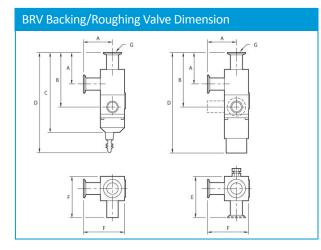
A flexible neoprene connector is supplied for the backing connection. The roughing and forepump ports terminate in the appropriate NW termination.

#### **Features and benefits**

- Easy to operate both ports closed position
- Long life 100,000 operations or more
- Position indicator on pneumatic valve
- Leak tight to better than 10<sup>-9</sup>mbar ls<sup>-1</sup>/  $8 \times 10^{-10}$  Torr l s<sup>-1</sup>







| (mm)               | А            | В            | С         | D            | E            |              | G            |
|--------------------|--------------|--------------|-----------|--------------|--------------|--------------|--------------|
| BRV10K             | 30           | 90           | 134       | 169          | 52.5         | 49           | NW10         |
| BRV10PK            | 30           | 90           | -         | 198          | 52.5         | 49           | NW10         |
| BRV25K             | 50           | 98           | 155       | 195          | 82           | 75           | NW25         |
| BRV25PK            | 50           | 98           | -         | 203          | 82           | 75           | NW25         |
|                    |              |              |           |              |              |              |              |
| (inches)           | А            | В            | С         | D            | E            | F            | G            |
| (inches)<br>BRV10K | A<br>1.17    | B<br>3.51    | C<br>5.23 | D<br>6.59    | E<br>2.05    | F<br>1.91    | G<br>NW10    |
|                    |              |              |           |              |              |              |              |
| BRV10K             | 1.17         | 3.51         |           | 6.59         | 2.05         | 1.91         | NW10         |
| BRV10K<br>BRV10PK  | 1.17<br>1.17 | 3.51<br>3.51 | 5.23<br>- | 6.59<br>7.72 | 2.05<br>2.05 | 1.91<br>1.91 | NW10<br>NW10 |

### Applications

The valves have been designed particularly for the Diffstak\* pumping systems, but have applications where a compact change-over valve is required in the pressure range  $10^{.7}$  - 2000 mbar / 8 x  $10^{.8}$  - 1500 Torr.

## **Technical Data**

| Construction materials                         |  |  |  |
|--|--|--|--|
| Body and pneumatic cylinder                    | HE 30TF aluminum   |  |  |
| Lever and bonnet<br>(manual)                   | Glass reinforced plastic   |  |  |
| Operating shaft/valve seat                     | Stainless steel  |  |  |
| Body seals, port seals,<br>shaft seal 'O' ring | Fluoroelastomer  |  |  |
| Leak rate                                      |  |  |  |
| Overall  | $< 10^{-9}$ mbar ls <sup>-1</sup> / $< 8 \times 10^{-10}$ Torr l s <sup>-1</sup> |  |  |
| Across ports                                   | $< 10^{-9}$ mbar ls <sup>-1</sup> / $< 8 \times 10^{-10}$ Torr l s <sup>-1</sup> |  |  |
| NW coupling                                    | $< 10^{-9}$ mbar ls <sup>-1</sup> / $< 8 \times 10^{-10}$ Torr l s <sup>-1</sup> |  |  |
| Operating pressure range                       | 10 <sup>-7</sup> - 2100 mbar / 8 x 10 <sup>-8</sup> - 1575 Torr                  |  |  |
| Max baking temperature                         |  |  |  |
| Pneumatic                                      | 70°C   |  |  |
| Manual   | 90°C   |  |  |
| Reliability (MTTF)                             | 100000 cycles  |  |  |
| Recommended air pressure                       | 2.8 - 4.2 bar / 40.6 - 61 psi  |  |  |
| Maximum air pressure                           | 7.0 bar / 102 psi  |  |  |
| Minimum air pressure                           | 2.4 bar / 35 psi   |  |  |
| Air connections                                | 1/8 in BSP, for 6 mm Ø plastic or<br>copper tube                                 |  |  |
| Microswitch rating                             | 24 V 1.5 A a.c. or d.c.  |  |  |
| Weight   |  |  |  |
| BRV10K   | 350g / 12oz  |  |  |
| BRV10PK  | 380g / 13oz  |  |  |
| BRV25K   | 860g / 30oz  |  |  |
| BRV25PK  | 900g / 31.7oz  |  |  |
|  |  |  |  |

#### BRV Backing/Roughing Valve

**Ordering information** 

| Product description  | Order no: |
|--|-----------|
| BRV10K, Manual Operation   | C32103000 |
| BRV10PK Backing/Roughing Valve Pneumatic<br>Operation                    | C32104000 |
| BRV25K Backing/Roughing Valve, Manual Operation                          | C32303000 |
| BRV25PK Backing/Roughing Valve, Pneumatic<br>Operation                   | C32304000 |
| BRV25PK Backing/Roughing Valve, Pneumatic<br>Operation, Inline Flanges   | C32304900 |
| BRV25PK Backing/Roughing Valve, Pneumatic<br>Operation, All NW25 Flanges | C32303500 |

| Accessories & Spares  | Order no: |
|---|-----------|
| NW10 Flexible Sleeve For 15mm OD Tube                       | C26501002 |
| NW25 Flexible Sleeve For 28mm OD Tube                       | C26501004 |
| O Ring Viton 1119 Pk 2                                      | H02106119 |
| O Ring Viton 0215 Pk 5                                      | H02106025 |
| O Ring Viton 024 Pk 5                                       | H02106261 |
| O Ring Viton Vit 031 Pk 2                                   | H02106262 |
| 5 Port Lightweight Electropneumatic Control Valve 24V a.c.  | B28703030 |
| 5 Port Lightweight Electropneumatic Control Valve 24V d.c.  | B28703055 |
| 5 Port Lightweight Electropneumatic Control Valve 110V a.c. | B28703031 |
| 5 Port Lightweight Electropneumatic Control Valve 230V a.c. | B28703032 |