



Flow Data



# 132 Balancing Valve Kv Value

 $K_v$  relates to the balancing valve's pressure loss with the ball valve in the full open position, which is the minimum pressure loss.

The pressure loss increases as the ball valve is regulated towards the closed position.

$$K_V = Q$$
 where  $Q = \text{flow rate m}^3/\text{h}$ .  
 $\sqrt{\Delta P}$   $\Delta P = \text{differential pressure in bar}$ .

### Kv Values - Pressure Loss

| Valve Size | 1⁄2" | 3⁄4" | 3⁄4" | 1"  | 1¼"  | 11⁄2″ | 2"   |
|------------|------|------|------|-----|------|-------|------|
| Kv m³/h    | 0.9  | 2.5  | 5.4  | 7.2 | 13.1 | 27.8  | 46.4 |

#### **Flow Range**

| Valve Size       | 1⁄2"   | 3⁄4"   | 3⁄4"    | 1"       | 1¼"      | 11⁄2″     | 2"        |
|------------------|--------|--------|---------|----------|----------|-----------|-----------|
| Flow Range - l/m | 2 to 7 | 5 to13 | 7 to 28 | 10 to 40 | 20 to 70 | 30 to 120 | 50 to 200 |

#### **Flow Meter**

The flow meter for each size has an incremental scale corresponding to the flow range and the actual flow rates passing through the valve can be read direct without the need for a manometer and flow charts.

The area on the flow charts within the green bands represents the flow rates of the flow meter.

#### **Installation - Straight Pipe Lengths**



It is important that there should be minimum of 5 diameters of straight pipe upstream without intrusions, of the 132 for repeatable performance. Straight pipe downstream of the valve is not required.

If the valve is downstream of a pump then 10 diameters of straight pipe should be allowed before the valve.

Less than these diameters will increase inaccuracy to an unacceptable level, the value of which is unpredictable as it is not a stable value.

### 1/2" - Product Code 132402



| Kv with valve fully open Kv m³/h | Flow range |       | Flow range |           |
|----------------------------------|------------|-------|------------|-----------|
| 0.9                              | 2 l/m      | 7 l/m | 0.033 l/s  | 0.117 l/s |

# <sup>3</sup>/<sub>4</sub>" - Product Code 132512



| Kv with valve fully open Kv m³/h | Flow range |        | Flow range |           |
|----------------------------------|------------|--------|------------|-----------|
| 2.5                              | 5 l/m      | 13 l/m | 0.083 l/s  | 0.217 l/s |

# <sup>3</sup>/<sub>4</sub>" - Product Code 132522



| <pre>Kv with valve fully open Kv m³/h</pre> Flow range |       | range  | Flow range |          |
|--|-------|--------|------------|----------|
| 5.4  | 7 l/m | 28 l/m | 0.117 l/s  | 0.35 l/s |

#### 1" - Product Code 132602



| Kv with valve fully open Kv m³/h | Flow range |        | Flow range |          |
|----------------------------------|------------|--------|------------|----------|
| 7.2                              | 10 l/m     | 40 l/m | 0.167 l/s  | 0.67 l/s |

# 1¼" - Product Code 132702



| Kv with valve fully open Kv m³/h | Flow range |        | Flow range |          |
|----------------------------------|------------|--------|------------|----------|
| 13.1                             | 20 l/m     | 70 l/m | 0.33 l/s   | 1.17 l/s |

### 1<sup>1</sup>/<sub>2</sub>" - Product Code 132802



| Kv with valve fully open Kv m³/h | Flow range |         | Flow range |          |
|----------------------------------|------------|---------|------------|----------|
| 27.8                             | 30 l/m     | 120 l/m | 0.50 l/s   | 2.00 l/s |

### 2" - Product Code 132902



| Kv with valve fully open Kv m³/h | Flow range |         | Flow range |          |
|----------------------------------|------------|---------|------------|----------|
| 46.4                             | 50 l/m     | 200 l/m | 0.83 l/s   | 3.33 l/s |

Notes:

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