

- > **Port size: 1" ISO G/NPT**
- > **Heavy duty construction**
- > **Manually adjustable**
- > **Quick and accurate control of inlet pressures**



### Technical features

The L45 is a 1/2" balanced, spring loaded, pressure maintaining valve, used for quick and accurate control of inlet pressures. Ideal for low and medium pressure applications. It is manually adjustable for maintaining a set pressure of upstream media, its heavy duty construction allows it to be installed in the most arduous of environments.

#### Applications:

- Compressors
- Dryer systems
- Filter systems
- Brewery plants
- Gas & liquid sampling
- Pump pressure control
- Research laboratories
- Aerospace ground support

#### Medium:

Liquid and gases

#### Maximum inlet pressure:

70 barg (1015 psig)

#### Control pressure range:

0,5 ... 11 barg (7,3 ... 160 psig)

2,8 ... 28 barg (41 ... 406 psig)

4 ... 40 barg (58 ... 580 psig)

7 ... 70 barg (102 ... 1015 psig)

#### Leakage:

Bubble tight (standard, typically 10<sup>-6</sup> atm.cm<sup>3</sup>/sec<sup>-1</sup>)  
Helium leak tested to 10<sup>-8</sup> atm.cm<sup>3</sup>/sec<sup>-1</sup> (on request)

#### Ambient/Media temperature:

Elastomer:

NBR:

-10 ... +100°C (+14 ... +212°F)

FPM:

-20 ... +150°C (-4 ... +302°F)

EPDM:

-30 ... +115°C (-22 ... +239°F)

Body:

Carbon Steel:

-10 ... +100°C (+14 ... 212°F)

Stainless Steel:

-40 ... +150°C (-40 ... 302°F)

#### Materials:

Body:

Carbon steel BS 970 230M07, stainless steel BN 10272 1.4401

Spring housing:

Carbon steel BS 970 230M07, stainless steel BS 3146/4 316

Seat: stainless steel BS EN 10088 1.4401

Elastomers: NBR, FPM, EPDM

### Technical data

Symbol	Port size	Valve seat size (mm)	Valve seat size (inch)	Seat flow area (mm <sup>2</sup> )	Seat flow area (inch <sup>2</sup> )	Port flow area (mm <sup>2</sup> )	Port flow area (inch <sup>2</sup> )	Flow coefficient (Kv)	Flow coefficient (Cv)	Weight (kg)	Model
	1"	12,7	0.5	97	0.15	387	0.60	2,9	3.4	8	L45

### Option selector

L45★★★★★

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**Option selector spare kits**

**L45S★★**

Outlet Pressure	Substitute
0,5 ... 11 barg	<b>P</b>
0,5 ... 28 barg	<b>S</b>
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0,5 ... 70 barg	<b>X</b>

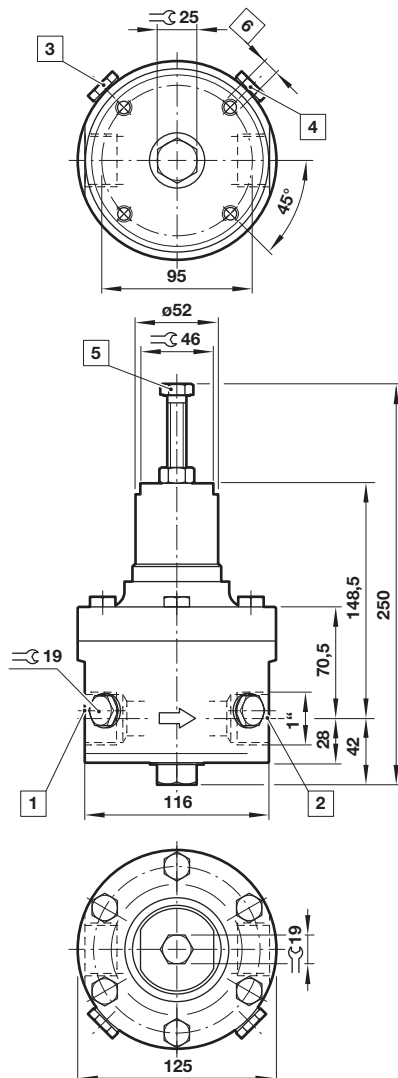
Elastomer	Substitute
NBR	<b>N</b>
FPM	<b>V</b>
EPDM	<b>E</b>

**Spares BOM**

Description	Material	QTY	Diaphragm option	Piston option
Diaphragm	Rubber	1	X	—
Valve pad	Rubber	1	X	X
'O'-Ring	Rubber	1	X	X
'O'-Ring	Rubber	1	X	X
'O'-Ring	Rubber	1	X	X
'O'-Ring	Rubber	1	—	X
'O'-Ring	Rubber	1	—	X

**Dimensions**

Dimensions in mm  
Projection/First angle



- 1 Inlet port
- 2 Outlet port
- 3 Optional gauge port G1/4 (inlet pressure)
- 4 Optional gauge port G1/4 (outlet pressure)
- 5 Adjustable screw
- 6 Mounting threads M8 x 10 deep

**Warning**

Do not use these products where pressures and temperatures can exceed those listed under »**Technical features**«.

Before using these products with fluids other than those specified within published specifications, consult IMI Precision Engineering, Thompson Valves Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate

safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.