

## 616D Safety Valve



### TECHNICAL SPECIFICATION

#### Approvals

BS6759 Pt 2  
PED certified Category IV

#### Materials

Body - Aluminium (-30 to 200°C)  
Trim - PTFE/Bronze

#### Size Range

Size	Orifice mm <sup>2</sup>	Min (Barg) Pressure	Max (Barg) Pressure
DN40 (1½")	1140	0.2	2.5
DN50 (2")	2027	0.2	2.5

#### Kdr (Coefficient of discharge)

Air Variable

#### Maximum Back Pressure

Not applicable on open discharge

#### Connections

Screwed In x Open discharge

#### Construction

Top Guided

#### Cap Options

Dome

#### Sizing

Refer to Capacity Charts (page 60-67)

### DESIGN

The type 616D is a spring operated high capacity safety valve for low-pressure air applications. It is designed to deliver precise relieving and re-seating pressures while the protected open discharge gives downward flow. The non-stick seating surfaces give positive shut-off and freedom from sticking, whilst the mixture of aluminium and gunmetal make it light but very robust. Typically used on blowers or bulk transfer road/rail transport vehicles.

It is specially designed to give overpressure protection of positive displacement air blowers and associated tanks or pressure vessels.

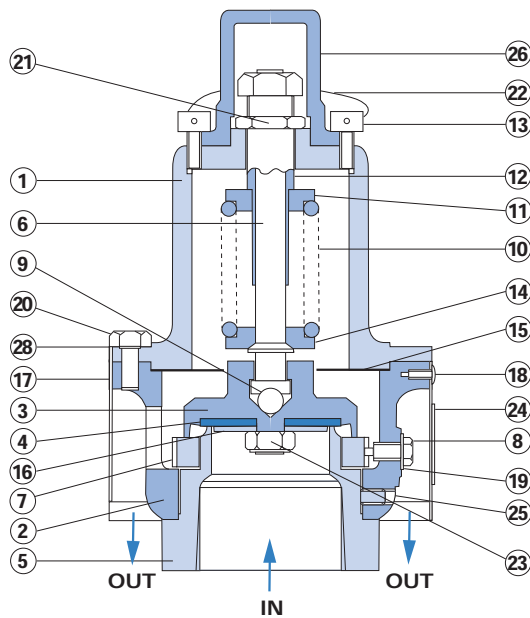
### INSTALLATION OF 616D

Mount the valve in a vertical position whenever possible. (It may be mounted at any angle up to 45° without detriment.) Ensure that the valve discharge is unobstructed and does not create a hazard to persons or property.

The branch leading to the valve must be the same nominal bore as the valve (or larger) and bushed down at the valve entry. The length must be kept as short as possible.

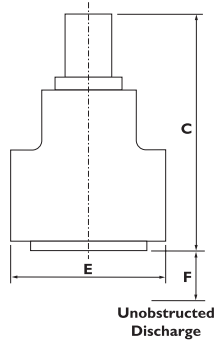
Due to the adverse effect of pressure pulsations from the usual Rootes-type blowers, the valve should not be mounted within 1.25m of the blower outlet. However, no valve or other obstruction must intervene between the blower and the safety valve.

## PARTS



ITEM	PART	MATERIAL
1	Cover	Aluminium
2	Body	Aluminium
3	Disc Holder	Aluminium
4	Disc	PTFE
5	Seat	Bronze
6	Spindle	St. St.
7	Blow Down Ring	Bronze
8	Setting Screw	Ni. pl. Steel
9	Spindle Ball	St. St.
10	Spring	St. St.
11	Upper Spring Cap	Mild Steel
12	Adjusting Screw	Brass
13	Cap Screw	St. St.
14	Bottom Spring Cap	Mild Steel
15	Dust Shield	Aluminium
16	Disc Support	Zi. pl. Steel
17	Cowl	Zi. pl. Steel
18	Self Tapping Screw	Zi. pl. Steel
19	Shakeproof Washer	St. St.
20	Set Screw	St. St.
21	Locknut	Brass
22	Wire and Lead Seal	Lead & St. St.
23	Self Locking Nut	Brass
24	Nameplate	Aluminium
25	Grub Screw	Steel
26	Locking Dome	Nylon
28	Starwasher	St. St.

## DIMENSIONS



Valve Type	Valve Size	Inlet (BSP)	C	E	F	Weight (kg)
Screwed	DN40	1 1/2"	194	102	10	1.8
	DN50	2"	205	127	13	2.0

All dimensions in mm.

## FIGURE NUMBERING

FIGURE No.	BODY MATERIAL	TRIM MATERIAL	CAP	CONNECTION
616D	Aluminium	PTFE / Bronze	Dome	Screwed Bottom Inlet Open Discharge