Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

When Size Matters

Unique SSSV

Application
The Small Single Seat Valve with its sanitary and modular design is applicable for a wide range of tasks either as a stop valve with two (2) or three (3) ports or as a change-over valve with three (3) to five (5) ports. The valve is suitable for use in food, beverage, dairy and pharmaceutical industries.

Working principle
The valve is remote-controlled by means of compressed air or manually operated.
The small single seat valve is very reliable due to its simple design and few moving parts.

Standard Design
The Small Single Seat Valve comes as a pneumatic or manual operated in either a one or two body configuration.
The plug is a PVDF plug. All components are assembled by means of clamp rings, whereas the piston and valve plug have a threaded connection. In order to facilitate installation the valve is only partly assembled when delivered. The valve has welding or clamp ends as standard.

The Unique Small Single Seat Valve range covers the sizes DN/OD 12.7 mm and 19 mm.

CERTIFIED HYGIENIC ENGINEERING & DESIGN EHEDG EUROPEAN GROUP TYPE EL August 2004 TD 523-152

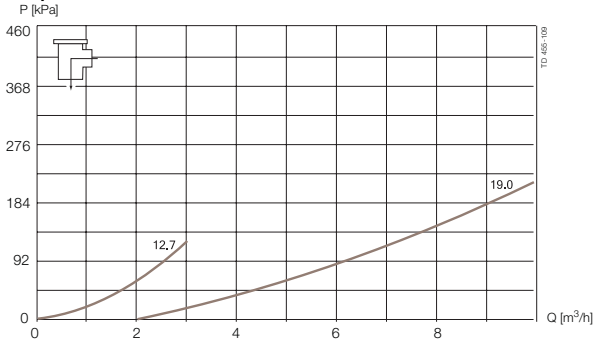


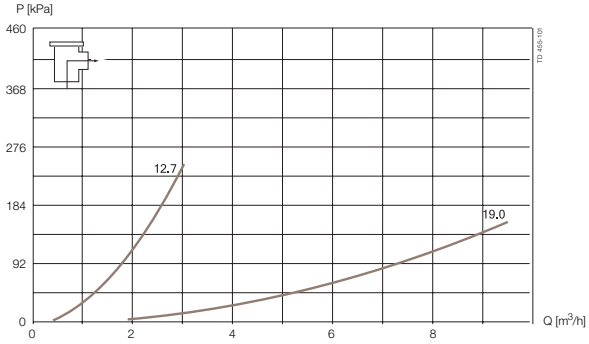
Pneumatic and manual Small Single Seat Valve

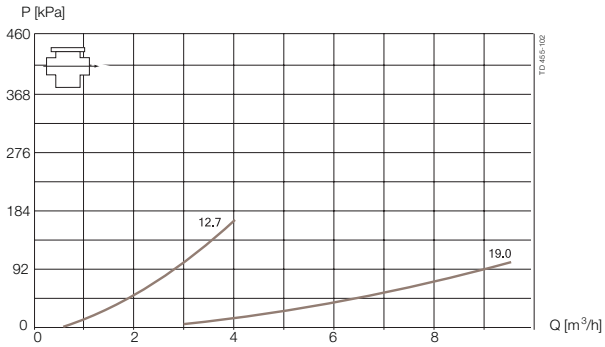
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Pressure drop/capacity diagrams

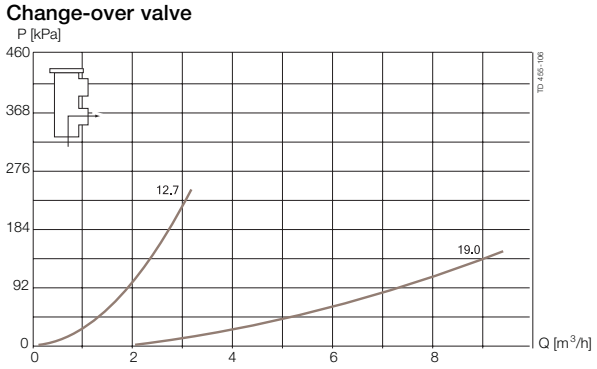
Stop valve

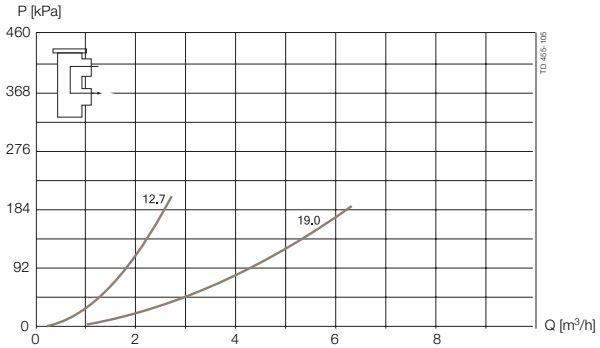


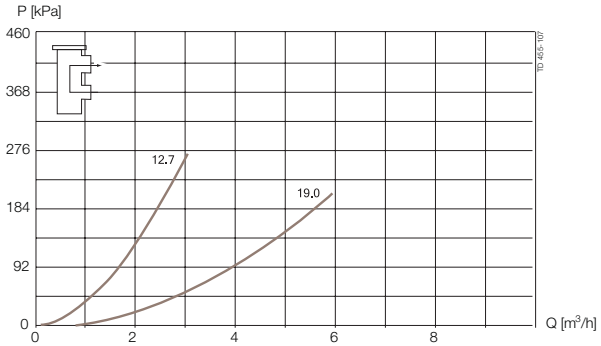


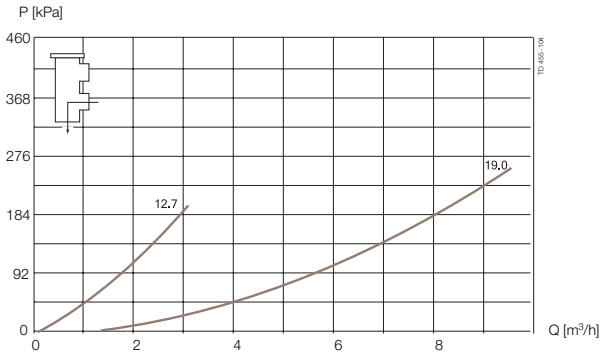


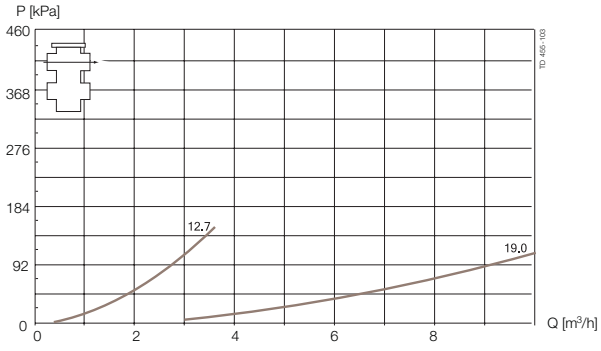
Change-over valve











NOTE! For the diagrams the following applies:

Medium:	Water
Measurement:	In accordance with VDI 2173

Pressure data for Unique Small Single Seat Valve

Actuator type / function

10. Pneumatic downward movement, spring return (NO-lower seat)
20. Pneumatic upward movement, spring return (NC-lower seat)

Table 1: Stop and change-over valve. The table shows the approx. static pressure (p) in bar without leakage at the valve seat.

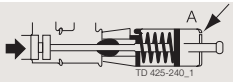
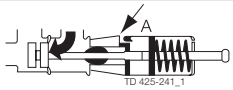
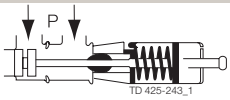
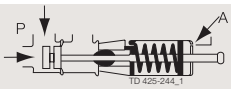
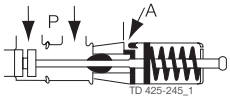
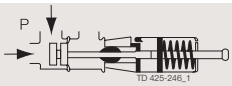
Actuator / Valve body combination and direction of pressure	Air pressure (bar)	Plug position	Valve size	
			DN/OD 12.7 mm	DN/OD 19 mm
		NO	Min. 10	Min. 10
	2 3 4	NO NO NO	2.0 Min. 10	- 3.0 Min. 10
	2 3	NC NC	9.0 Min. 10	- Min. 10
		NC	Min. 10	Min. 10

Table 2: Stop and change-over valves. The table shows the approx. static pressure (p) in bar against which the valve can open.

Actuator / Valve body combination and direction of pressure	Air pressure (bar)	Plug position	Valve size	
			DN/OD 12.7 mm	DN/OD 19 mm
		NO	Min. 10	Min. 10
	2 3 4	NO NO NO	9.0 Min. 10 -	- 6.0 Min. 10
	2	NC	Min. 10	Min. 10
		NC	Min. 10	Min. 10

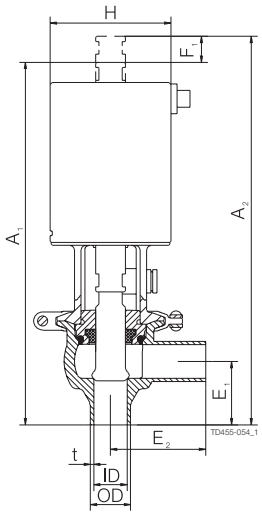
A = Air

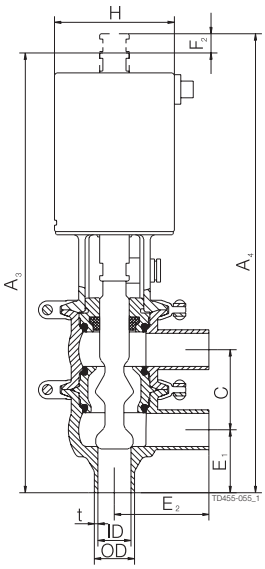
P = Actual product pressure

Dimensions (mm)

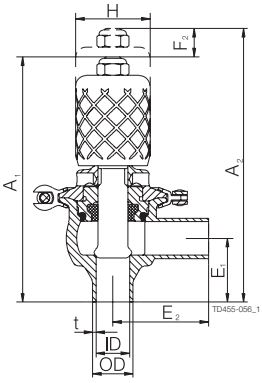
Nominal Size	Remote-controlled DN/OD 12.7mm	Remote-controlled DN/OD 19mm	Manually operated DN/OD 12.7mm	Manually operated DN/OD 19mm
A_1	172.2	171.2	109.7	112.7
A_2	179.2	182.2	116.7	123.7
A_3	200.2	209.2	141.7	150.7
A_4	207.2	220.2	148.7	161.7
C	32.3	38.1	32.3	38.1
OD	12.7	19.0	12.7	19.0
ID	9.5	15.8	9.5	15.8
t	1.6	1.6	1.6	1.6
E_1	29.8	29.9	29.8	29.9
E_2	45.0	45.0	45.0	45.0
F_1	7.0	11.0	7.0	11.0
F_2	7.0	11.0	7.0	11.0
H	57.0	57.0	35.0	35.0
Weight (kg) - Stop valve	1.07	1.10	0.5	0.53
Weight (kg) - Change-over valve	1.36	1.41	0.8	0.85

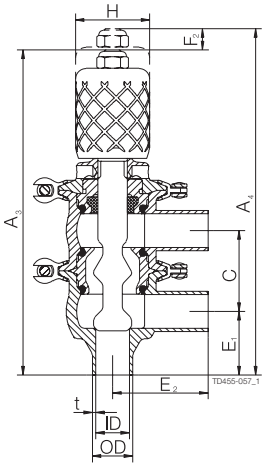
(900-233)





Stop valve and change over valve





Manual stop valve and change-over valve

Caution, opening/closing time:
Opening/closing time will be effected by the following:

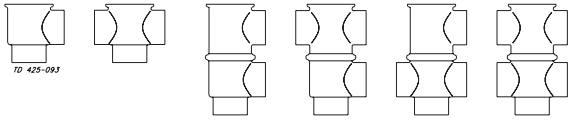
- The air supply (air pressure).
- The length and dimensions of the air hoses.
- Number of valves connected to the same air hose.
- Use of single solenoid valve for serial connected air actuator functions.
- Product pressure.

Air Connections Compressed air:
R 1/8" (BSP), internal thread.

Technical data

Max. product pressure: . . . . . .1000 kPa (10 bar).
Min. product pressure: . . . . . .Full vacuum.
Temperature range: . . . . . .-10°C to +140°C (EPDM)
Air pressure: . . . . . .100 to 700 kPa (1 to 7 bar).

Valve body combinations



20 30 21 22 31 32

Actuator function

- Pneumatic downward movement, spring return (NO).
- Pneumatic upward movement, spring return (NC).
- Manually operated.

Air consumption (litres free air) for one stroke	
Size	12.7-19mm
Stop valve/Change-over valve	0.06 x Air pressure (bar)
Actuator function	NO and NC

Product wetted steel parts: . . . . . .Acid-resistant steel 1.4404 (316L).
Finish inside: . . . . . .Ra ≤0.5µm.
Other steel parts: . . . . . .Stainless steel 1.4307 (304L).
Plug: . . . . . .PVDF.
Product wetted seals: . . . . . .EPDM.
Other seals: . . . . . .NBR.

Options

A. 3.1.B Certificate.
B. Adapter for IndiTop, ThinkTop and ThinkTop Basic.
C. Control and Indication: IndiTop, ThinkTop or ThinkTop Basic.
D. Product wetted seals of HNBR or FPM.
E. Stainless steel seal disc replacing standard lip seal.
F. Clamp with wingnut.
G. Clamp connection.

Ordering

Please state the following when ordering:

- Size.
- Body with welding ends or clamp ends.
- Actuator function, NC or manual.
- Options.

Note!

For further details, see also PD 65036 and instruction IM 70860.

This product has EHEDG certification

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The information contained herein is correct at the time of issue, but may be subject to change without prior notice.

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