Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

Simply Unique Single Seat

Unique SSV Tank Outlet

General Information
The new generation that meets the highest demands of your process in terms of hygiene and safety. Unique Single Seat Tank Outlet Valves are built on a well-proven, platform from an installed base of more than one million valves.

Application
Unique Single Seat Valve is a pneumatic seat valve in a hygienic and modular design for a wide field of applications, e.g. as a Shut-off version closing up against the tank or as a reverse acting valve opening into the tank.

Unique Single Seat Tank Outlet Valve is an air-operated seat valve in a hygienic and modular design giving a wide field of applications, e.g. closing up against tank or open into tank with one or two ports.

Working principle
The valve is remote-controlled by means of compressed air. It has few and simple moveable parts which results in a very reliable valve and low maintenance cost.

Standard design
The Unique Single Seat Tank Outlet Valve come in a one body configuration, which can be delivered with or without a tank flange. The valve features an optimized life span of the seals through a defined compression design. The actuator is connected to the valve body using a yoke and all components are assembled with clamp rings.

To facilitate installation the valve is only partly assembled when delivered. The valve has welding ends as standard and is available with fittings as option.

The Unique Single Seat Tank Outlet Valve range covers the sizes from DN50 to DN100 and DN/OD 51 mm to 101.6 mm.

The body can be turned in any position if the clamps are slightly loosened. The tank flange is welded directly into the tank. (Important! Observe welding guideline in instruction manual) The tank flange is supplied with TÜV approval AD 2000 and inspection certificate 3.1 according to EN10204.

The actuator comes with a 5 years warranty.

Other valves in the same basic design
The Unique SSV valve range includes several purpose built valves. Below listed are some of the valve models available, though please use the Alfa Laval computer aided selection tool (CAS) for full access to all models and options.

- Reverse acting valve.
- Long stroke valve.
- Manually operated valve.
- Aseptic valve.
- Tangential valve.



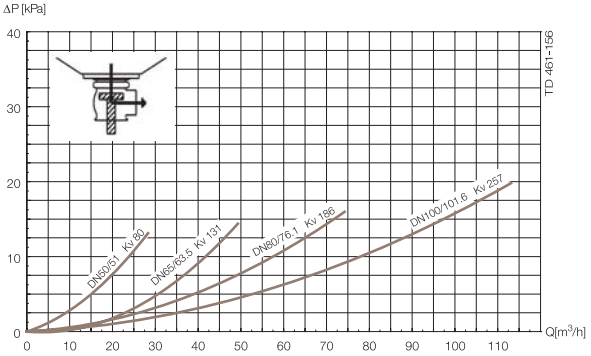
Unique Single Seat Tank Outlet Reverse Acting and Shut-off Valve.

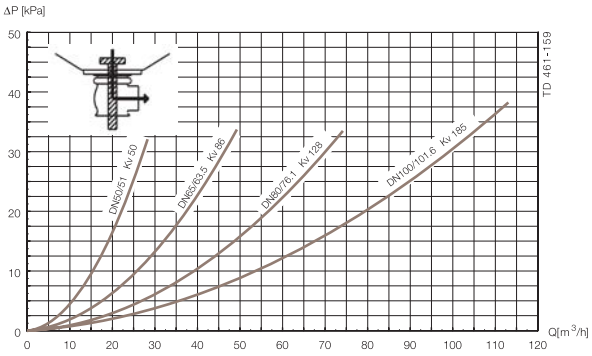
Unique Single Seat Valve is designed, tested and approved according to EHEDG guidelines.

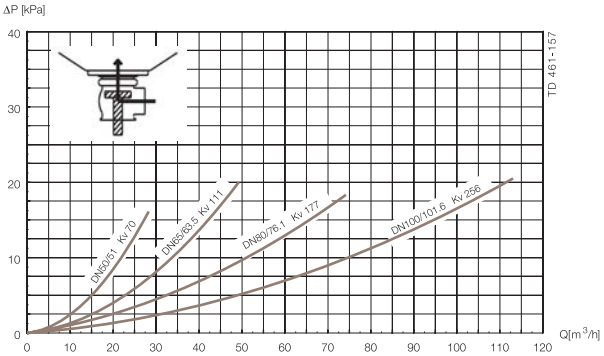
CERTIFIED HYGIENIC ENGINEERING EHEDG EUROPEAN GROUP TYPE EL August 2004 TD 523-152

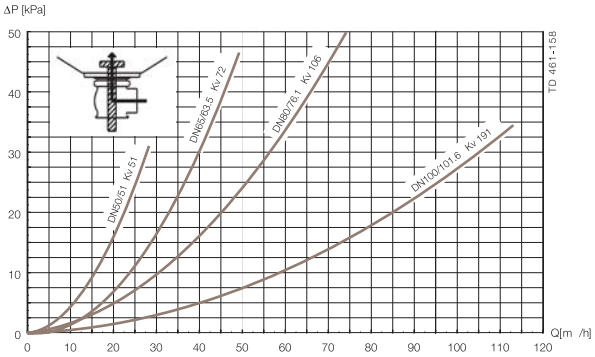
Gillain & Co NV | Boomsesteenweg 85, B-2630 Aartselaar | Tel. +32 3 870 60 80, Fax +32 3 870 60 89 | advice@gillain.com | www.gillain.com

Pressure drop/capacity diagrams









Note!

For the diagrams the following applies:

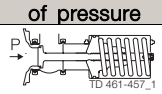
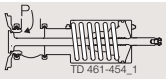
Medium: Water (20° C)

Measurement: In accordance with VDI2173

Pressure data for Unique Single Seat Valve Tank Outlet

Table 1

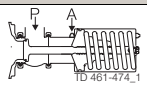
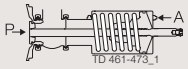
Max. pressure in bar without leakage at the valve seat

Actuator / Valve body combination and direction of pressure	DN50 DN/OD 51 mm	DN 65 DN/OD 63.5 mm	DN 80 DN/OD 76.1 mm	DN 100 DN/OD 101.6 mm
	7.2	4.2	6.4	4.2
	8.4	4.5	6.8	4.4

P = Product pressure

Table 2

Max. pressure in bar against which the valve can open.

Actuator / Valve body combination and direction of pressure	Air pressure (bar)	Valve size			
		DN50 DN/OD 51 mm	DN 65 DN/OD 63.5 mm	DN 80 DN/OD 76.1 mm	DN 100 DN/OD 101.6 mm
	6	10.0	9.0	10.0	6.9
	6	10.0	8.3	9.9	6.6

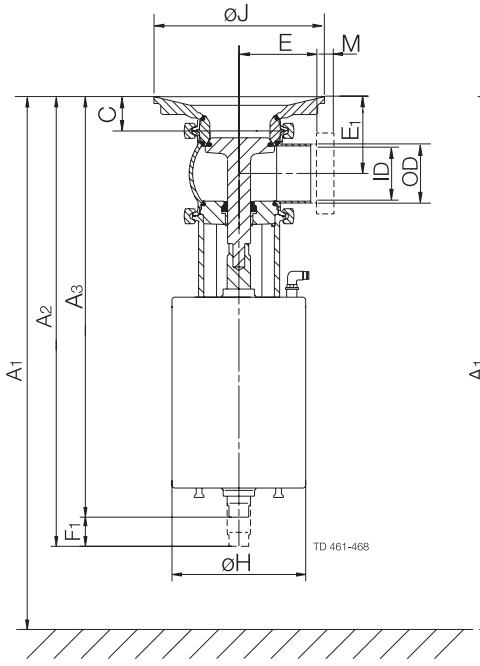
A = Air
P = Product pressure

Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

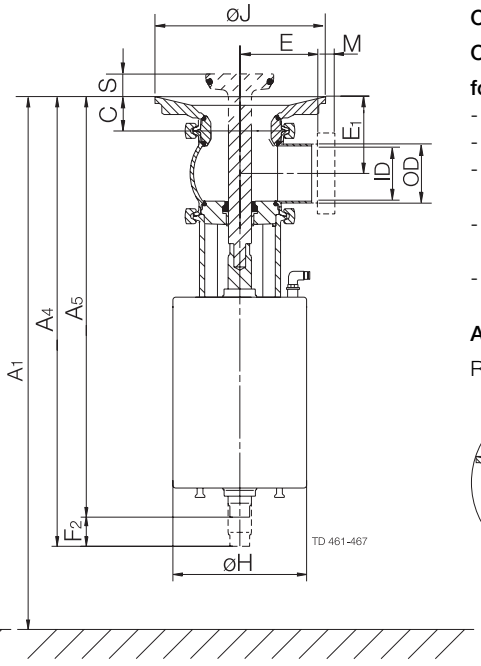
Dimensions (mm)

Size	51 mm	63.5 mm	76.1 mm	101.6 mm	DN 50	DN 65	DN 80	DN 100
A_1	426	439	479	503	429	445	487	506
A_2	393	406	446	470	396	412	454	473
A_3	368	381	416	440	371	387	424	443
A_4	390	403	443	467	393	409	451	470
A_5	364	377	412	436	367	383	420	439
C	30	30	30	30	30	30	30	30
OD	51	63.5	76.1	101.6	53	70	85	104
ID	47.8	60.3	72.9	97.6	50	66	81	100
t	1.6	1.6	1.6	2	1.5	2	2	2
E	62	82	87	120	62	82	87	120
E_1	67	73	79	92	68	76	84	93
F_1	25	25	30	30	25	25	30	30
F_2	26	26	31	31	26	26	31	31
øH	114.9	114.9	154.3	154.3	114.9	114.9	154.3	154.3
øJ	148	163	178	198	148	163	178	198
S	16	16	21	21	16	16	21	21
M/ISO clamp	21	21	21	21	-	-	-	-
M/DIN clamp	-	-	-	-	21	28	28	28
M/DIN male	-	-	-	-	23	25	25	30
M/SMS male	20	24	24	35	-	-	-	-
Weight (kg)								
Standard	7.1	8.3	13.3	15.9	7.1	8.5	13.8	15.9
Reverse Acting	7.2	8.4	13.5	16.1	7.2	8.6	14	16

A1= min. Installation measure to allow that valve can be lifted out of the tank flange / valve body (if Indication Unit is mounted, height must be add)



Standard



Reverse Acting

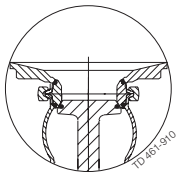
Caution, opening/closing time:

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.



PTFE plug seal (TR2)

Technical Data

Max. product pressure in pipeline (depends on valve specifications): . . . . .1000 kPa (10 bar)
Max. product pressure in tank (depends on valve specifications and temperature): . . . . . .1000 kPa (10 bar) if max. 20°C
. . . . . .850 kPa (8.5 bar) if max. 100°C
. . . . . .750 kPa (7.5 bar) if max. 150°C
Min. product pressure: . . . . . .Full vacuum.
Temperature range: . . . . . .-10°C to +140°C (EPDM)
Air pressure: . . . . . .500 to 700 kPa (5 to 7 bar).

Valve Body Combinations



001
010(RA)

002
020(RA)

Actuator function

Air consumption (litres free air) for one stroke	
DN50-65 **DN/OD 51-63.5 mm**	**DN80-100** **DN/OD 76.1-101.6 mm**
0.5 x air pressure [bar]	1.3 x air pressure [bar]

Materials

Product wetted steel parts: . . . . . .1.4404 (316L) (internal Ra < 0.8 µm)
Other steel parts 1.4301 (304)
Plug seal: . . . . . .EPDM
Other product wetted seals: . . . . . .EPDM (standard)
Other seals . . . . . .NBR

Options

A. Male parts or clamp liners in accordance with required standard.
B. Control and Indication: IndiTop, ThinkTop or ThinkTop Basic.
C. Product wetted seals in HNBR or FPM.
D. Plug seals HNBR, FPM or TR2 plug (floating PTFE design).
E. High pressure actuator.
F. Long stroke actuator (not available for Reverse Acting version).
G. Maintainable actuator.
H. External surface finish bright.

Ordering

Please state the following when ordering:

- Size.
- Connections if not welding ends.
- NO or A/A actuator.
- Valve body combination.
- Options.

Note!

For further details, see instruction ESE00305.

Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

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

Gillain & Co NV | Boomsesteenweg 85, B-2630 Aartselaar | Tel. +32 3 870 60 80, Fax +32 3 870 60 89 | advice@gillain.com | www.gillain.com