

CHAPTER 4 DOUBLE SEAL VALVES

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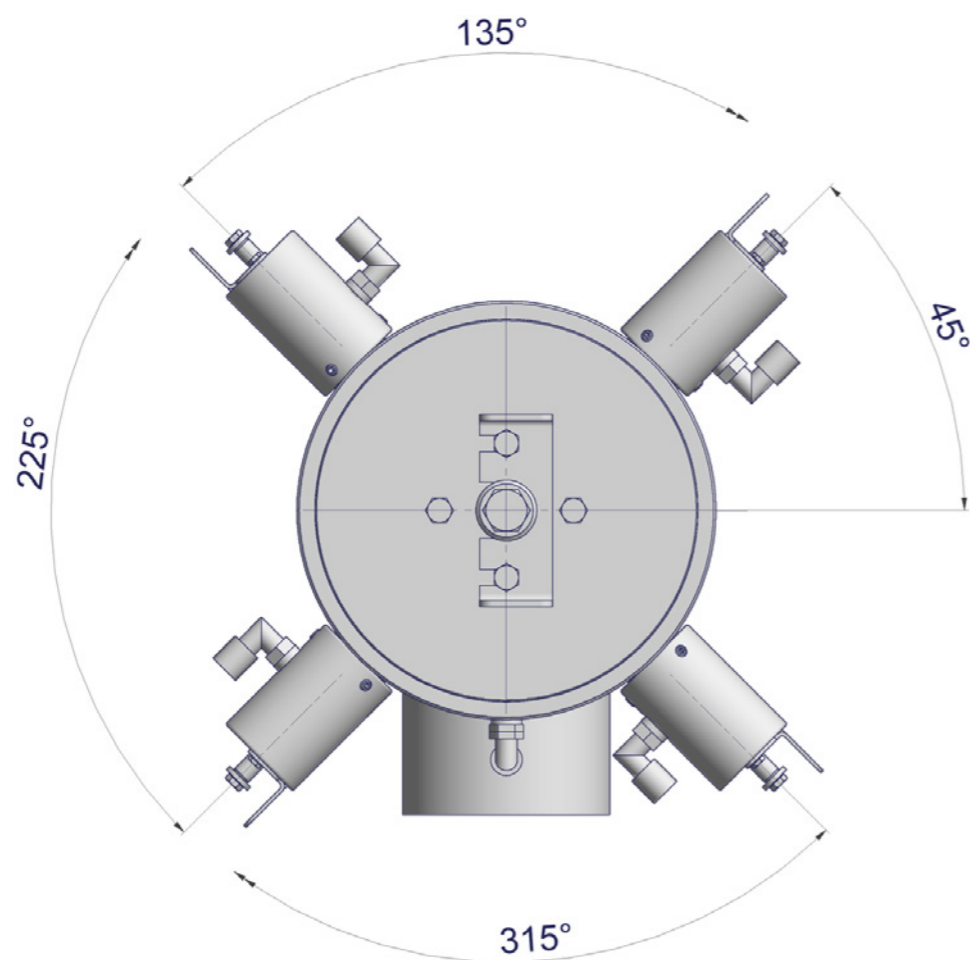
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DOUBLE SEAL VALVES DD FROM RIEGER ARE AVAILABLE IN VARIOUS DESIGNS.

The leakage valve and the CIP valve can be mounted flexibly in position.



Depending on the requirements of the conditions on site, there are straight or bent connection or leakage outlets available.



RIEGER Double Seal Valves DD are used for reliable separation of liquid products from cleaning agents in pipes. They are the link between leakage butterfly valve and mix proof valve. Both seats are directly combined like in the leakage butterfly valve. But it is a right angle valve with ball body which complies with the hygienic requirements. The leakage space is situated between the separating gaskets. The leakage fluid is drained off through the leakage valve.

Optional, also a rinsing CIP valve is available. The design of the one-piece solid and dead space free valve body guarantees optimal CIP/CIP cleaning possibilities.

The valves are applied in plants of breweries, beverages, dairies and food industries.

ABSOLUTE PRODUCT SAFETY

- / radial sealing of valve seats
- / safe separation of products
- / leakage is safely drained off

SERVICEABILITY

- / seal replacement without special tools
- / removable upwards

EFFICIENCY

- / standard O-rings
- / few gaskets
- / minimal maintenance costs

CONSTRUCTION OF THE VALVE

- / one-piece solid valve body
- / no dead spaces
- / safe CIP/SIP cleaning

MATERIAL

- / in contact with product 1.4404/AISI 316L
- / optional 1.4435/AISI 316L
- / not in contact with product 1.4301/AISI 304
- / all Valves are available in special alloys, such as Hastelloy® C-22, 1.4539/904L, 1.4529, AL-6XN® and others.

GASKETS

- / EPDM or FKM (other materials on request)
- / PEEK for media with solids

TEMPERATURES

- / maximum continuous operation 130 °C* (EPDM)
- / steam sterilization 150 °C* (EPDM)

PRESSURE

- / closing pressure 6 bar standard, 10 bar and higher pressures available upon request
- / air pressure min. 6 bar / max. 10 bar

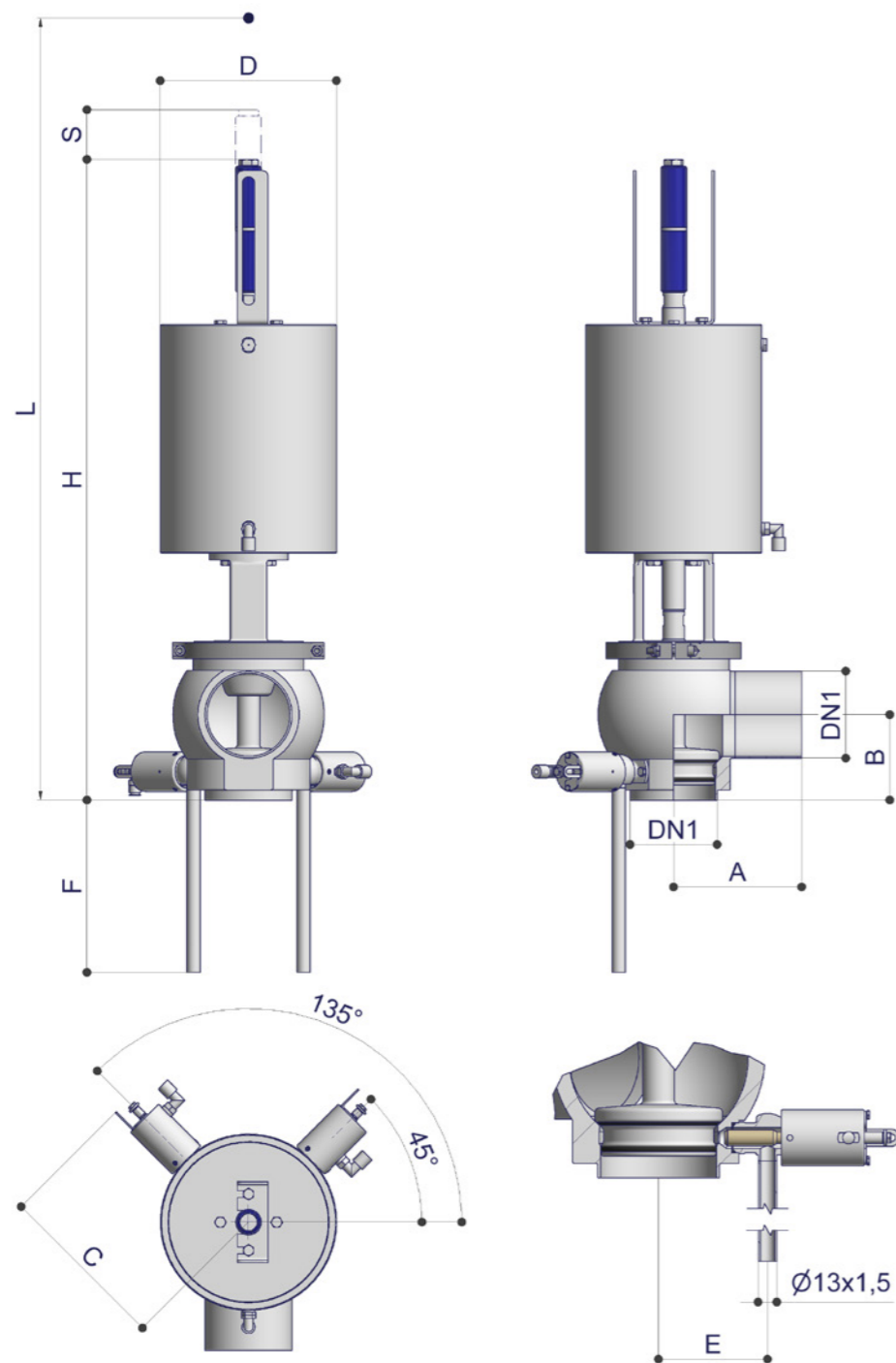
SURFACES

- / in contact with product Ra ≤ 0,8 µm [32 µin] mechanically polished
- / not in contact with product Ra ≤ 1,6 µm [63 µin] mechanically polished
- / higher quality surface finishes and e-polishing available upon request

* dependent upon operating conditions

DD31.01.100 with 2 CIP valves

pneumatic – air to open-spring to close NC – with straight CIP tubes



DN DIN	Dimension	A	B	C	D	DN1	E	F	H	L	Hub(S)	kg
40	41 x 1,5	70	64	145	88	40	54	169	385	475	30	9,5
50	53 x 1,5	80	64	152	111	50	60,5	172	442	541	30	12,5
65	70 x 2	100	75	160	132	65	68	167	490	603	30	17,3
80	85 x 2	125	83,3	168	172	80	76	168	625	756	49	28
100	104 x 2	150	91	176,5	172	100	85	168	642	789	49	32

Dimensions for valves in Inch on request. In case of order you get a 3D step file for your construction.

Double Seal Right Angle Valve Type L

with straight CIP tubes
CIP valves in 45° position



DN DIN	Reference Number	Price
40	20010.0500.01.0006.32	on request
50	20010.0500.01.0007.32	on request
65	20010.0500.01.0008.32	on request
80	20010.0500.01.0009.32	on request
100	20010.0500.01.0010.32	on request

2 CIP valves = type 100
1 x air to open-spring to close NC
1 x spring to open-air to close NO

DN DIN	Reference Number	Price
40	20010.0200.01.0006.32	on request
50	20010.0200.01.0007.32	on request
65	20010.0200.01.0008.32	on request
80	20010.0200.01.0009.32	on request
100	20010.0200.01.0010.32	on request

1 CIP valve = type 150
1 x spring to open-air to close NO

DN Inch	Reference Number	Price
1 1/2"	20010.0500.01.0026.32	on request
2"	20010.0500.01.0027.32	on request
2 1/2"	20010.0500.01.0028.32	on request
3"	20010.0500.01.0029.32	on request
4"	20010.0500.01.0030.32	on request

2 CIP valves = type 100
1 x air to open-spring to close NC
1 x luftschließend-federöffnend NO

DN Inch	Reference Number	Price
1 1/2"	20010.0200.01.0026.32	on request
2"	20010.0200.01.0027.32	on request
2 1/2"	20010.0200.01.0028.32	on request
3"	20010.0200.01.0029.32	on request
4"	20010.0200.01.0030.32	on request

1 CIP-Ventil = Typ 150
1 x luftschließend-federöffnend NO

Double Seal Double Right Angle Valve Type T

with straight CIP tubes
CIP valves in 45° position



DN DIN	Reference Number	Price
40	20010.0501.01.0006.32	on request
50	20010.0501.01.0007.32	on request
65	20010.0501.01.0008.32	on request
80	20010.0501.01.0009.32	on request
100	20010.0501.01.0010.32	on request

2 CIP valves = type 100
1 x air to open-spring to close NC
1 x spring to open-air to close NO

DN DIN	Reference Number	Price
40	20010.0201.01.0006.32	on request
50	20010.0201.01.0007.32	on request
65	20010.0201.01.0008.32	on request
80	20010.0201.01.0009.32	on request
100	20010.0201.01.0010.32	on request

1 CIP valve = type 150
1 x spring to open-air to close NO

DN Inch	Reference Number	Price
1 1/2"	20010.0501.01.0026.32	on request
2"	20010.0501.01.0027.32	on request
2 1/2"	20010.0501.01.0028.32	on request
3"	20010.0501.01.0029.32	on request
4"	20010.0501.01.0030.32	on request

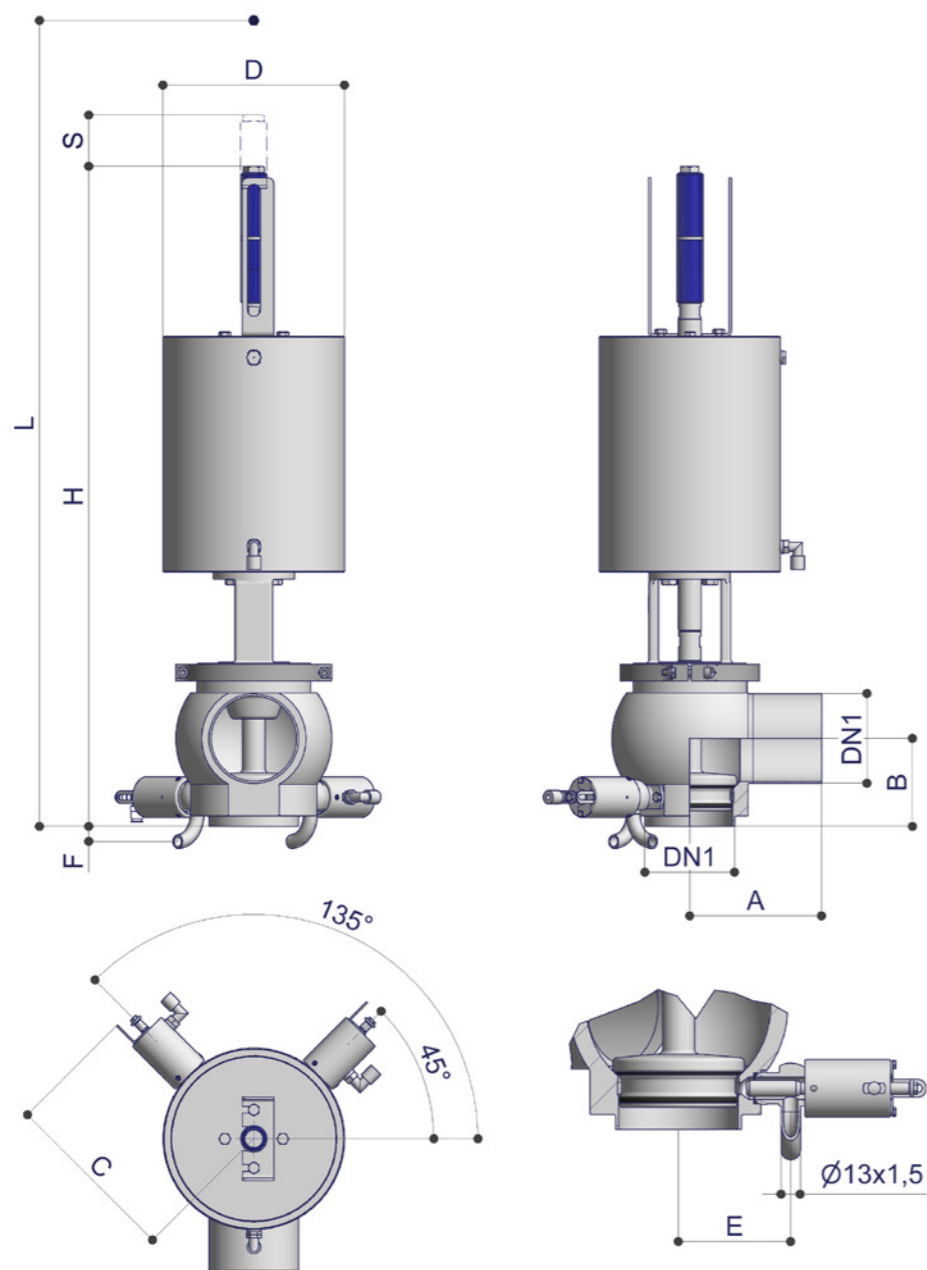
2 CIP valves = type 100
1 x air to open-spring to close NC
1 x spring to open-air to close NO

DN Inch	Reference Number	Price
1 1/2"	20010.0201.01.0026.32	on request
2"	20010.0201.01.0027.32	on request
2 1/2"	20010.0201.01.0028.32	on request
3"	20010.0201.01.0029.32	on request
4"	20010.0201.01.0030.32	on request

1 CIP valve = type 150
1 x spring to open-air to close NO

DD31.01.100 with 2 CIP valves

pneumatic – air to open-spring to close NC – with bent CIP tubes



DN DIN	Dimension	A	B	C	D	DN1	E	F	H	L	Hub(S)	kg
40	41 x 1,5	70	64	145	88	40	54	15	385	475	30	9,5
50	53 x 1,5	80	64	152	111	50	60,5	18	442	541	30	12,5
65	70 x 2	100	75	160	132	65	68	13	490	603	30	17,3
80	85 x 2	125	83,3	168	172	80	76	14	625	756	49	28
100	104 x 2	150	91	176,5	172	100	85	14	642	789	49	32

Dimensions for valves in Inch on request. In case of order you get a 3D step file for your construction.

Double Seal Right Angle Valve Type L

with bent CIP tubes
CIP valves in 45° position



DN DIN	Reference Number	Price
40	20110.0500.01.0006.32	on request
50	20110.0500.01.0007.32	on request
65	20110.0500.01.0008.32	on request
80	20110.0500.01.0009.32	on request
100	20110.0500.01.0010.32	on request

2 CIP valves = type 200
1 x air to open-spring to close NC
1 x spring to open-air to close NO

DN DIN	Reference Number	Price
40	20110.0200.01.0006.32	on request
50	20110.0200.01.0007.32	on request
65	20110.0200.01.0008.32	on request
80	20110.0200.01.0009.32	on request
100	20110.0200.01.0010.32	on request

1 CIP valve = type 500
1 x spring to open-air to close NO

DN Inch	Reference Number	Price
1 1/2"	20110.0500.01.0026.32	on request
2"	20110.0500.01.0027.32	on request
2 1/2"	20110.0500.01.0028.32	on request
3"	20110.0500.01.0029.32	on request
4"	20110.0500.01.0030.32	on request

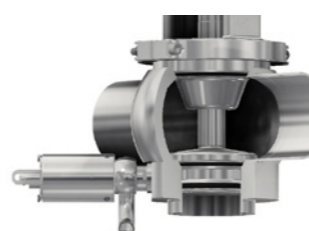
2 CIP valves = type 200
1 x air to open-spring to close NC
1 x spring to open-air to close NO

DN Inch	Reference Number	Price
1 1/2"	20110.0200.01.0026.32	on request
2"	20110.0200.01.0027.32	on request
2 1/2"	20110.0200.01.0028.32	on request
3"	20110.0200.01.0029.32	on request
4"	20110.0200.01.0030.32	on request

1 CIP valve = type 500
1 x spring to open-air to close NO

Double Seal Double Right Angle Valve Type T

with bent CIP tubes
CIP valves in 45° position



DN DIN	Reference Number	Price
40	20110.0501.01.0006.32	on request
50	20110.0501.01.0007.32	on request
65	20110.0501.01.0008.32	on request
80	20110.0501.01.0009.32	on request
100	20110.0501.01.0010.32	on request

2 CIP valves = type 200
1 x air to open-spring to close NC
1 x spring to open-air to close NO

DN DIN	Reference Number	Price
40	20110.0201.01.0006.32	on request
50	20110.0201.01.0007.32	on request
65	20110.0201.01.0008.32	on request
80	20110.0201.01.0009.32	on request
100	20110.0201.01.0010.32	on request

1 CIP valve = type 500
1 x spring to open-air to close NO

DN Inch	Reference Number	Price
1 1/2"	20110.0501.01.0026.32	on request
2"	20110.0501.01.0027.32	on request
2 1/2"	20110.0501.01.0028.32	on request
3"	20110.0501.01.0029.32	on request
4"	20110.0501.01.0030.32	on request

2 CIP valves = type 200
1 x air to open-spring to close NC
1 x spring to open-air to close NO

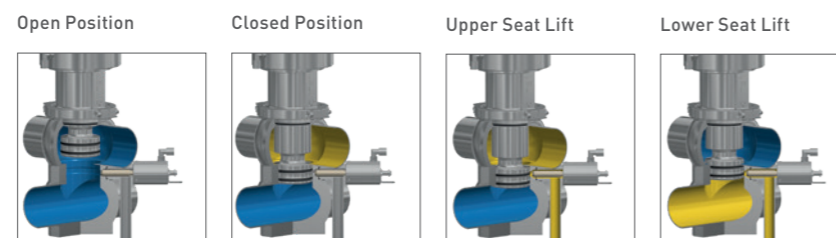
DN Inch	Reference Number	Price
1 1/2"	20110.0201.01.0026.32	on request
2"	20110.0201.01.0027.32	on request
2 1/2"	20110.0201.01.0028.32	on request
3"	20110.0201.01.0029.32	on request
4"	20110.0201.01.0030.32	on request

1 CIP valve = type 500
1 x spring to open-air to close NO

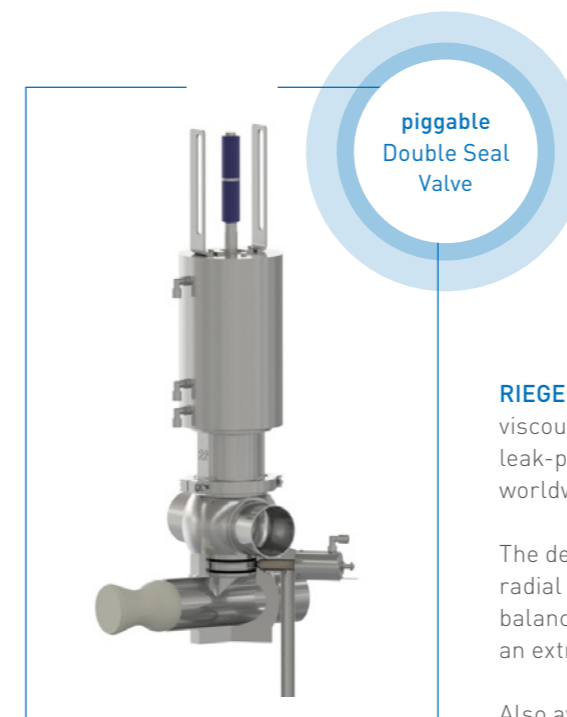
SUSTAINABLE AND EFFICIENT PRODUCTION WITH THE N4 PIGGABLE DOUBLE SEAL VALVE. COMMON IN MANY INDUSTRIES THANKS TO ITS VARIETY OF USES.



- / maximum product efficiency
- / low waste water costs and environmental burden
- / reduced cleaning periods and costs
- / minimization of cleaning water consumption
- / minimization of cleaning agent consumption



Switching between main and CIP valve



RIEGER Double Seal Valves N4 are piggable or applicable for highly viscous media. They provide reliable protection for your product by leak-proof separating not compatible products. They prove themselves worldwide in systems for the beverage and food industries.

The design of its one-piece valve housing and the two radial sealings of both valve seats allow, together with the balanced valve disks a perfectly safe CIP/SIP cleaning and an extremely high level of security for your products.

Also available in 3-A version.

ABSOLUTE PRODUCT SAFETY

- / radial sealing of both valve seats
- / balanced valve disk
- / easy cleaning by lifting of both valve seats in both directions

CONSTRUCTION OF THE VALVE

- / one-piece solid valve body
- / no weld torsion
- / only 3 seals in product space
- / safe CIP/SIP cleaning

SERVICEABILITY

- / seal replacement without special tools
- / low need of control air pressure
- / removable upwards

ADDITIONAL CERTIFICATES

- / in 3-A-design possible

EFFICIENCY

- / standard O-rings
- / Standard actuator with 2 lift functions
- / few gaskets
- / minimal maintenance costs
- / piggable

ADVANTAGES FOR YOU – BENEFITS FOR YOUR SYSTEM

100%
reduction of product loss

15 min
less cleaning time required compared to cleaning without pigging

+80%
of cleaning media can be reduced

+15%
of production capacities can be released

pig velocity: max. 1,5m/s; flushing after pigging: 3min; pigging time: 3,5min; costs of flushing water: 3,68 EUR

Product recovery before CIP
/ reduced loss of good product during cleaning

Minimized consumption of cleaning chemicals
/ reduced expenses on cleaning media
/ increase in environmental friendliness

Minimized cleaning time and downtime
/ reduced opportunity costs
/ free capacities for production



MATERIAL
/ in contact with product 1.4404/AISI 316L
/ optional 1.4435/AISI 316L
/ not in contact with product 1.4301/AISI 304
/ all Valves are available in special alloys, such as Hastelloy® C-22, 1.4539/904L, 1.4529, AL-6XN® and others.

GASKETS
/ EPDM or FKM (other materials on request)
/ PEEK for media with solids

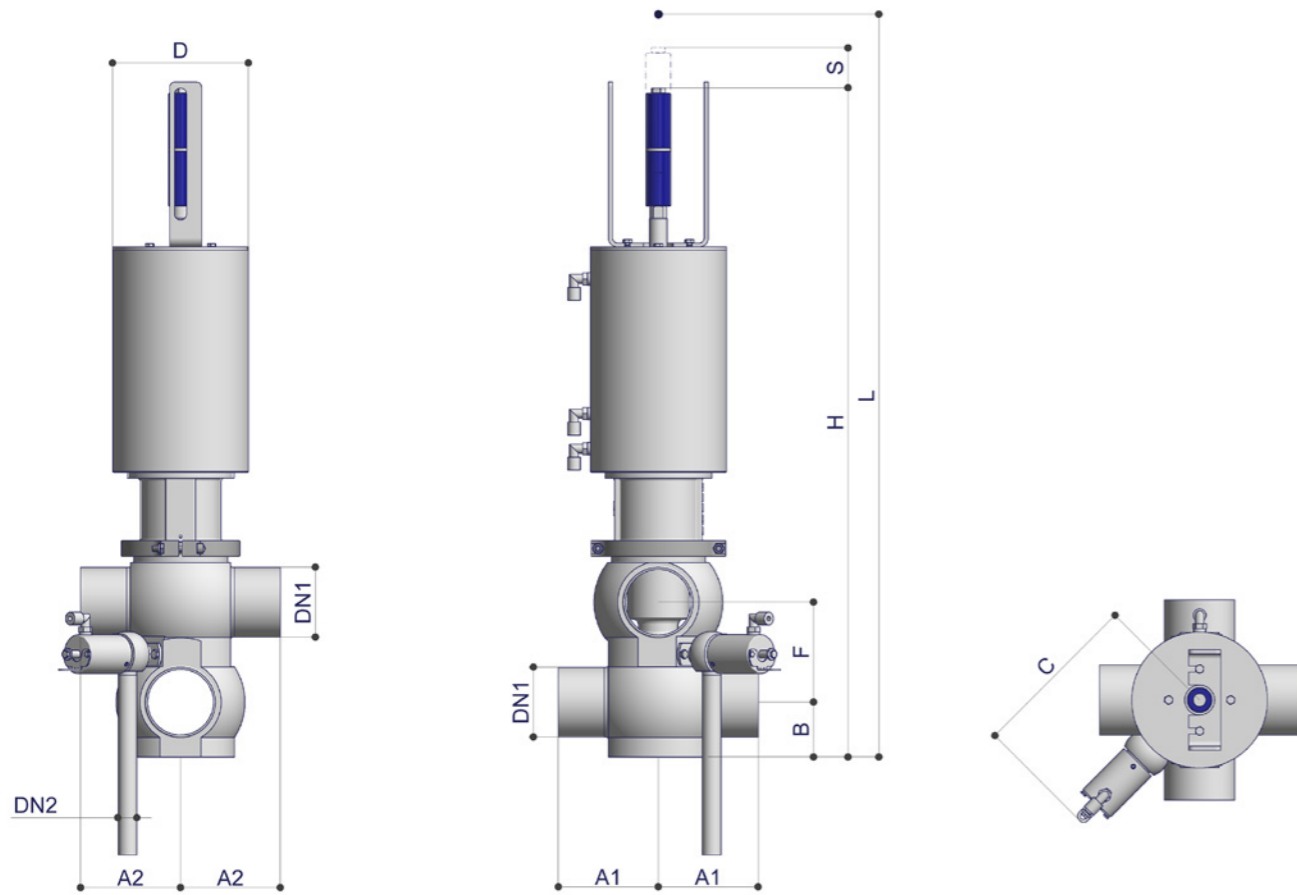
TEMPERATURES
/ maximum continuous operation 130 °C* (EPDM)
/ steam sterilization 150 °C* (EPDM)

PRESSURE
/ closing pressure 30 bar standard, 10 bar and higher pressures available upon request
/ air pressure min. 6 bar / max. 10 bar

SURFACES
/ in contact with product Ra ≤ 0,8 µm (32 µin) mechanically polished
/ not in contact with product Ra ≤ 1,6 µm (63 µin) mechanically polished
/ higher quality surface finishes and e-polishing available upon request

* dependent upon operating conditions

Double Seal Valves N4 – piggable – DIN
pneumatic – air to open-spring to close NC

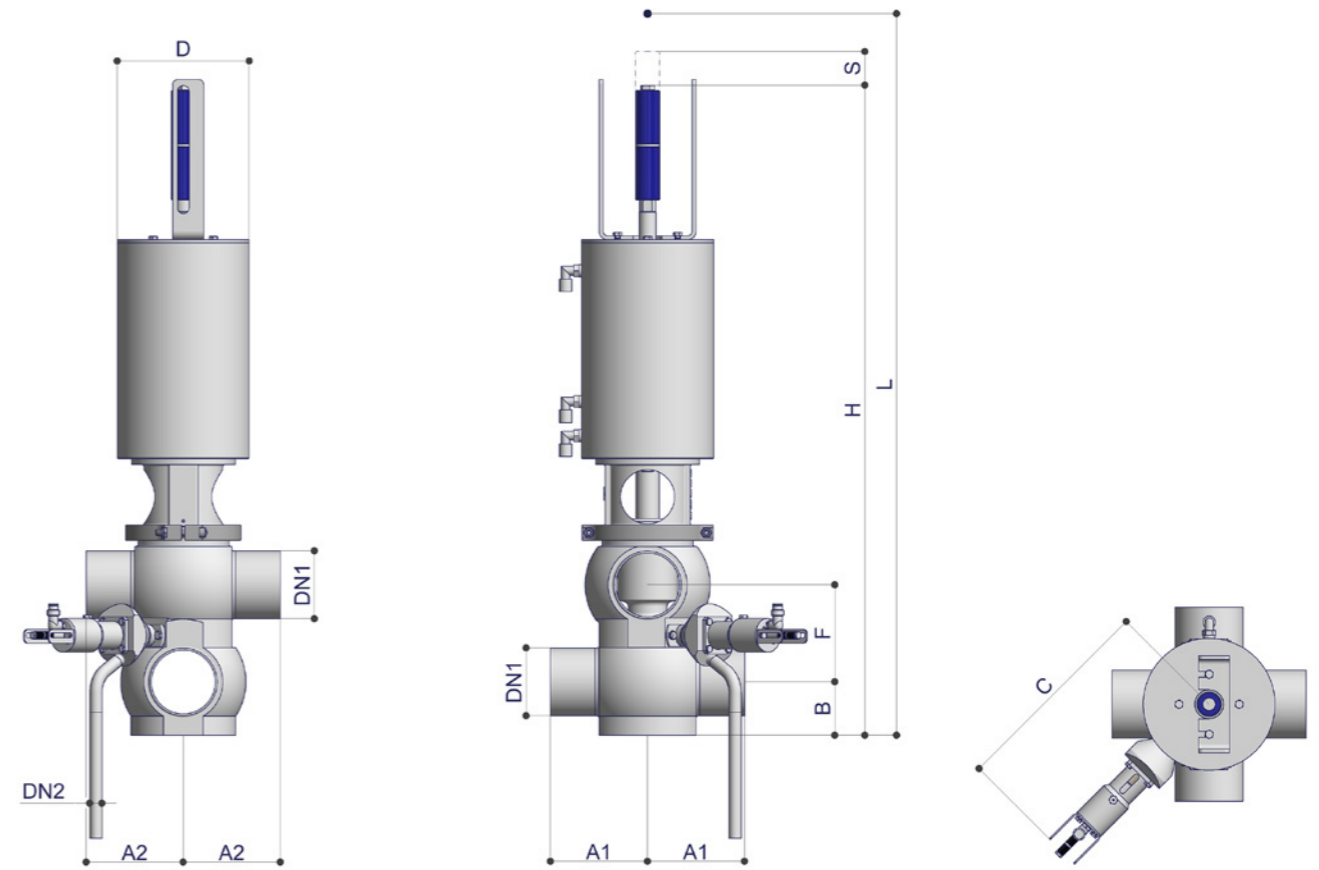


DN DIN	Dimension	A1/A2	B	C	D	DN1	DN2	F	L	H	Hub	max. bar in pigging line	kg
40	41 x 1,5	100	30,4	156,5	111	40	19x1,5	72	664	573	40	13 (PN 16)	16,5
50	53 x 1,5	100	47	162,5	111	50	19x1,5	87,5	720	611	40	8,5 (PN 10)	19
65	70 x 2	100	55	170	136	65	19x1,5	100	789	670	44,5	9 (PN 10)	28
80	85 x 2	125	70,5	178	174	80	19x1,5	115	887	750	46	10 (PN 10)	42
100	104 x 2	150	75	188	211	100	19x1,5	134	998	842	55	7 (PN 10)	62
150	on request												

Type N4.03 – A-C-D		
DN DIN	Reference Number	Price
40	34200.1300.01.0606.32	on request
50	34200.1300.01.0707.32	on request
40	34200.1300.01.0606.32	on request
50	34200.1300.01.0707.32	on request
100	34200.1300.01.1010.32	on request
125	34200.1300.01.1111.32	on request
150	34200.1300.01.1212.32	on request

Type N4.04 – A-B-C-D		
DN DIN	Reference Number	Price
40	34200.1400.01.0606.32	on request
50	34200.1400.01.0707.32	on request
40	34200.1400.01.0808.32	on request
50	34200.1400.01.0909.32	on request
100	34200.1400.01.1010.32	on request
125	34200.1400.01.1111.32	on request
150	34200.1400.01.1212.32	on request

Double Seal Valves N4 – piggable – Inch 3-A Standard
pneumatic – air to open-spring to close NC



DN Inch	Dimension	A1/A2	B	C	D	DN1	DN2	F	L	H	Hub	max. bar in pigging line	kg
1 ½"	38,1 x 1,65	100	28,8	200	111	1 ½"	12,7x1,65	69	617	525	40	13	16,5
2"	50,8 x 1,65	100	47	206	111	2"	13x1,5	85	667	562	40	8,5	18,5
2 ½"	63,5 x 1,65	100	54	212	136	2 ½"	12,7x1,65	95	776	661	44,5	9	28
3"	76,2 x 1,65	125	64	220	174	3"	12,7x1,65	107	859	732	46	10	42
4"	101,6 x 2,11	150	79	231	235	4"	13x1,5	131,5	956	806	55	7	62
6"	on request												

Type N4.03 – A-C-D		
DN Inch	Reference Number	Price
1 ½"	34200.1300.01.2626.32	on request
2"	34200.1300.01.2727.32	on request
2 ½"	34200.1300.01.2828.32	on request
3"	34200.1300.01.2929.32	on request
4"	34200.1300.01.3030.32	on request
6"	34200.1300.01.3232.32	on request

Type N4.04 – A-B-C-D		
DN Inch	Reference Number	Price
1 ½"	34200.1400.01.2626.32	on request
2"	34200.1400.01.2727.32	on request
2 ½"	34200.1400.01.2828.32	on request
3"	34200.1400.01.2929.32	on request
4"	34200.1400.01.3030.32	on request
6"	34200.1400.01.3232.32	on request

Double Seal Valves N4 – piggable –DIN reduced

Type N4.04 – A-B-C-D

pneumatic – air to open-spring to close NC

up large – down small Type 150

DN DIN	Reference Number	Price
65 / 40	34200.1400.01.0806.32	on request
65 / 50	34200.1400.01.0807.32	on request
80 / 40	34200.1400.01.0906.32	on request
80 / 50	34200.1400.01.0907.32	on request
80 / 65	34200.1400.01.0908.32	on request
100 / 40	34200.1400.01.1006.32	on request
100 / 50	34200.1400.01.1007.32	on request
100 / 65	34200.1400.01.1008.32	on request
100 / 80	34200.1400.01.1009.32	on request
125 / 40	34200.1400.01.1106.32	on request
125 / 50	34200.1400.01.1107.32	on request
125 / 65	34200.1400.01.1108.32	on request
125 / 80	34200.1400.01.1109.32	on request
125 / 100	34200.1400.01.1110.32	on request
150 / 40	34200.1400.01.1206.32	on request
150 / 50	34200.1400.01.1207.32	on request
150 / 65	34200.1400.01.1208.32	on request
150 / 80	34200.1400.01.1209.32	on request
150 / 100	34200.1400.01.1210.32	on request
150 / 125	34200.1400.01.1211.32	on request

up large – down small Type 150

DN DIN	Reference Number	Price
40 / 65	34200.1400.01.0608.32	on request
50 / 65	34200.1400.01.0708.32	on request
40 / 80	34200.1400.01.0609.32	on request
50 / 80	34200.1400.01.0709.32	on request
65 / 80	34200.1400.01.0809.32	on request
40 / 100	34200.1400.01.0610.32	on request
50 / 100	34200.1400.01.0710.32	on request
65 / 100	34200.1400.01.0810.32	on request
80 / 100	34200.1400.01.0910.32	on request
40 / 125	34200.1400.01.0611.32	on request
50 / 125	34200.1400.01.0711.32	on request
65 / 125	34200.1400.01.0811.32	on request
80 / 125	34200.1400.01.0911.32	on request
100 / 125	34200.1400.01.1011.32	on request
40 / 150	34200.1400.01.0612.32	on request
50 / 150	34200.1400.01.0712.32	on request
65 / 150	34200.1400.01.0812.32	on request
80 / 150	34200.1400.01.0912.32	on request
100 / 150	34200.1400.01.1012.32	on request
125 / 150	34200.1400.01.1112.32	on request

In case of order you get a 3D step file for your construction.

Gasket Kits

product side for double seal valve type DD

EPDM		
DN DIN	Reference Number	Price
40	5007085	on request
50	5003724	on request
65	5004220	on request
80	5004221	on request
100	5002739	on request

FKM		
DN DIN	Reference Number	Price
40	5008158	on request
50	5008160	on request
65	5008152	on request
80	5008154	on request
100	5008156	on request

Gasket Kits

product side for double seal valve type N4 piggable

DIN			Inch	
DN	Reference Number	Price	Reference Number	Price
40/1 1/2"	5006705	on request	5006916	on request
50/2"	5006704	on request	5006123	on request
100/4"	5005894	on request	5006917	on request
125	5006706	on request	5006124	on request
150	5006707	on request	5006918	on request

inserts for CIP and leakage valve on request.