209N – Vertical Non-Return Valve

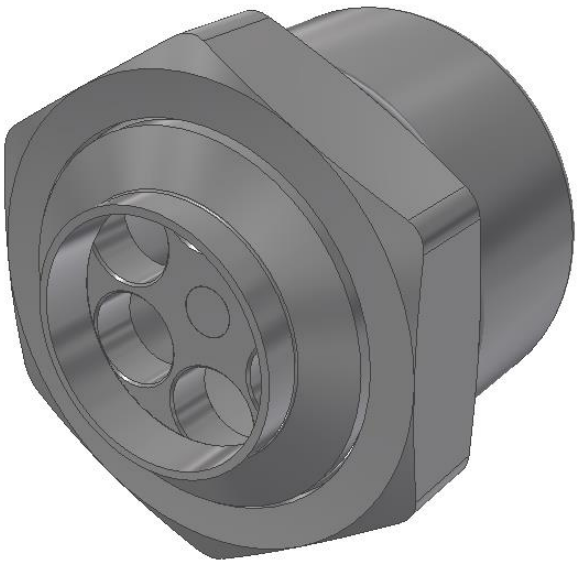
Manufactured in 316L SS our non-return valve has a light action spring that allows liquid to flow in one direction only. The standard housing is manufactured with a concentric inner chamber that allows the valve to self-drain when installed in a vertical position.

Horizontal installation will require and alternative eccentric design that is available in the Pharma version of the valve design.

The piston face is kept as large as possible to minimise the pressure drop and also to allow particles to pass through the inner flow plate/guide plate.

The housing closure method varies to match the end connections. Nuts are used to close the housings with screwed connections while clamps are used with ferrule end connections.

Suitable for C.I.P applications the valve is easily dismantled for sterilisation and the seals supplied as standard are EPDM with other materials available to order, such as silicone, Viton®/FKM and PTFE.



Size range:

1/2” to 6” BS sizes and 25 to 104mm in Metric

End Connections:

Plain butt-weld ends, Clamp, RJT, IDF, DIN 11851, ILC, SMS and BSP

We can also attach other fittings including DIN11864 and DIN11853-1/2/3

Internal Surface Finish:

The standard finish is 120 Grit which is approximately equal to 1.0 µM Ra
We offer higher finishes of 0.8 and 0.5 µM Ra on request with printouts

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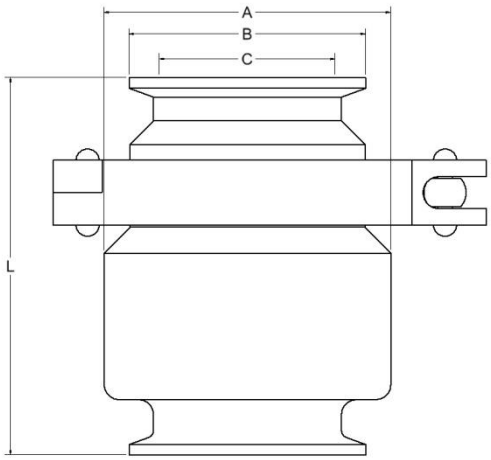
Clamp Non-Return Valve –309N
Vertical Application



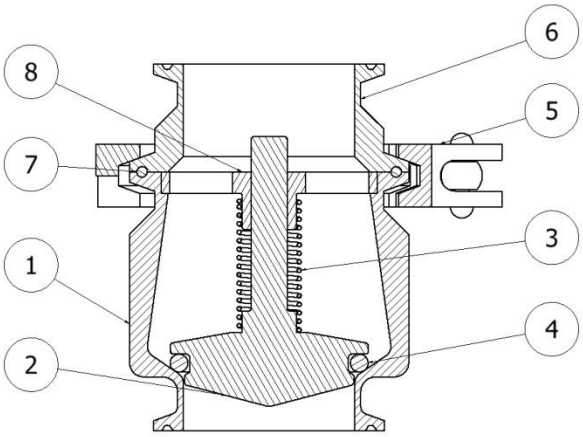
Size	A	B	C	L	Part Number
½″	25	25	9.5	74	309N-A013
¾″	40	25	15.8	75	309N-A019
1″	50.5	50.5	22.2	94	309N-A026
1.½″	64	50.5	34.9	95	309N-A038
2″	77.5	64	47.6	102	309N-A051
2.½″	91	77.5	60.3	111	309N-A064
3″	119	91	73.0	125	309N-A076
4″	131	119	97.6	136	309N-A102

Technical Data:

- Maximum working pressure 15 Bar **(Clamp Valve only)**
- High flow rate and particle size through the drilled flow plate
- Choice of PTFE, EPDM, Viton and Silicone O Rings
- Fitted with low pressure springs for vertical application
- Machined from forged bar
- Surface finish printouts available
- Material certification to EN10204 3.1
- FDA approved seals and gaskets

Spares List:

1. Valve Housing
2. Piston / Sutter
3. Spring
4. O Ring Seal
5. Clamp
6. Outlet
7. Housing Seal
8. Flow Plate / Diaphragm



Clamp Valve for illustration only

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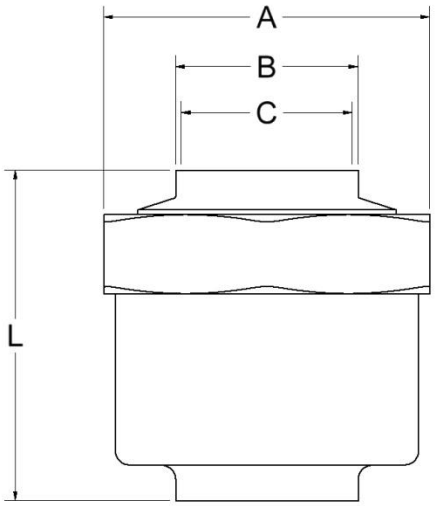
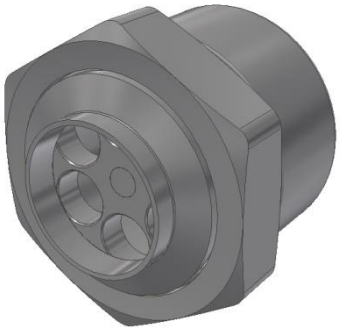
Plain Ended Butt Weld (BS) Non-Return Valve –209N
Vertical Application

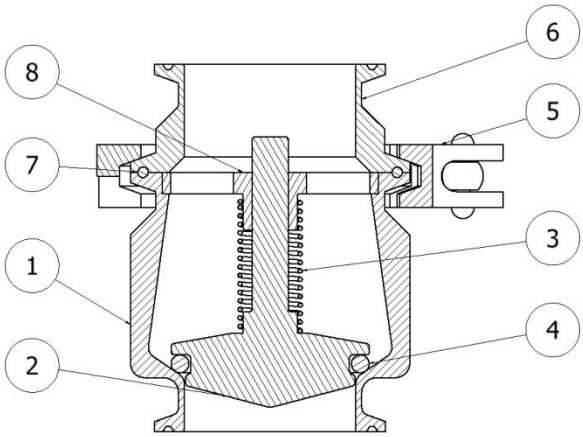




Size	A	B	C	L	Part Number
1″	65	25.4	22.4	85	209N-A026
1.½″	80	38.1	35.1	94	209N-A038
2″	92	50.8	47.8	93	209N-A051
2.½″	104	63.5	60.5	106	209N-A064
3″	130	76.2	72.9	111	209N-A076
4″	130	101.6	97.6	118	209N-A102

Technical Data:

- Maximum working pressure 10 Bar
- High flow rate and particle size through the drilled flow plate
- Choice of PTFE, EPDM, Viton and Silicone O Rings
- Fitted with low pressure springs for vertical application
- Machined from Forged Bar
- Surface finish printouts available
- Material certification to EN10204 3.1
- FDA approved seals and gaskets



Spares List:

1. Valve Housing
2. Piston / Sutter
3. Spring
4. O Ring Seal
5. Clamp
6. Outlet
7. Housing Seal
8. Flow Plate / Diaphragm

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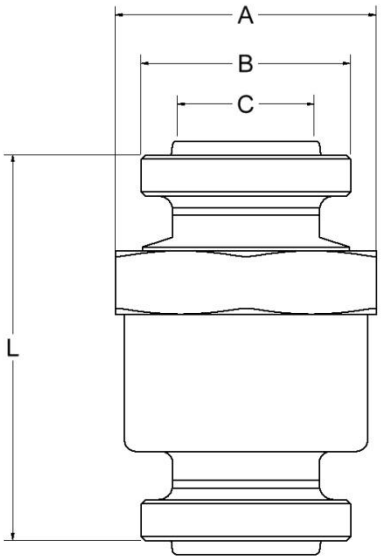
RJT Male (BS) Non-Return Valve –509N
Vertical Application

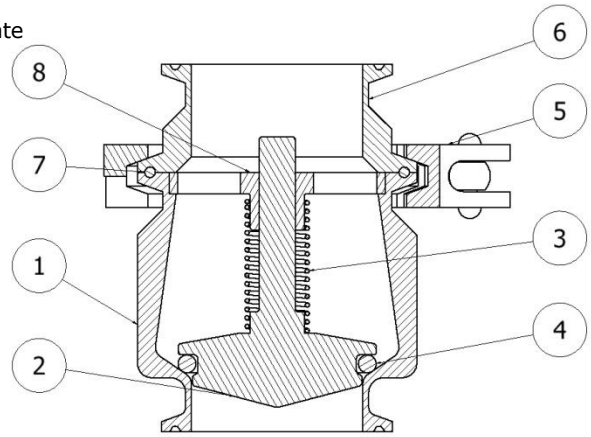


Size	A	B	C	L	Part Number
1″	65	46-8	22.4	MTO	509N-A026
1.½″	80	58-8	35.1	MTO	509N-A038
2″	92	73-6	47.8	MTO	509N-A051
2.½″	104	85-6	60.5	MTO	509N-A064
3″	130	98-6	72.9	MTO	509N-A076
4″	130	123-6	97.6	MTO	509N-A102

MTO – Made to order

Technical Data:

- Maximum working pressure 10 Bar
- High flow rate and particle size through the drilled flow plate
- Choice of PTFE, EPDM, Viton and Silicone O Rings
- Fitted with low pressure springs for vertical application
- Machined from forged bar
- Surface finish printouts available
- Material certification to EN10204 3.1
- FDA approved seals and gaskets



Clamp Valve for illustration only

Spares List:

1. Valve Housing
2. Piston / Sutter
3. Spring
4. O Ring Seal
5. Clamp
6. Outlet
7. Housing Seal
8. Flow Plate / Diaphragm

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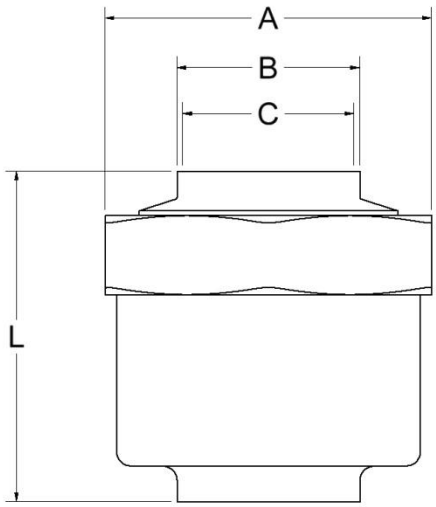
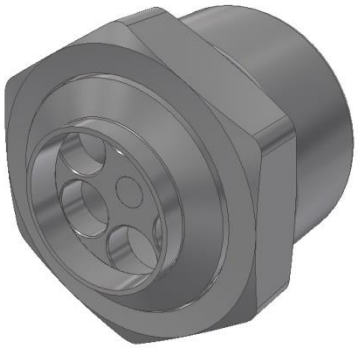
DIN (Former Series) Butt Weld Non-Return Valve –N09N - Vertical Application





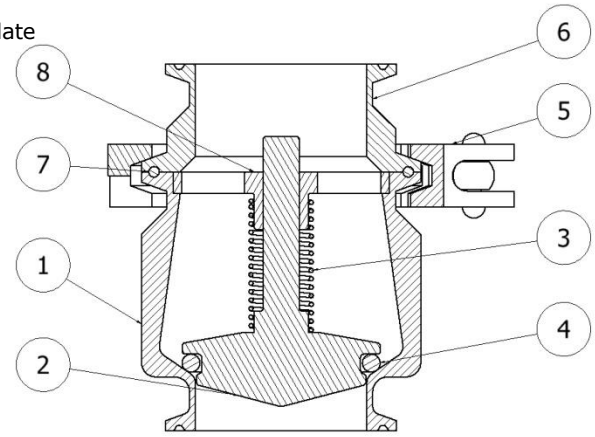
Size	A	B	C	L	Part Number
DN25	78	28	25	87	N09N-A028
DN32	92	34	31	89	N09N-A034
DN40	92	40	37	97	N09N-A040
DN50	112	52	49	101.5	N09N-A052
DN65	138	70	66	119.5	N09N-A070
DN80	148	85	81	132	N09N-A085
DN100	148	101.6	97.6	118	N09N-A102
DN104	148	104	100	118	N09N-A104

Technical Data:

- Maximum working pressure 10 Bar
- High flow rate and particle size through the drilled flow plate
- Choice of PTFE, EPDM, Viton and Silicone O Rings
- Fitted with low pressure springs for vertical application
- Machined from forged bar
- Surface finish printouts available
- Material certification to EN10204 3.1
- FDA approved seals and gaskets

Spares List:

1. Valve Housing
2. Piston / Sutter
3. Spring
4. O Ring Seal
5. Clamp
6. Outlet
7. Housing Seal
8. Flow Plate / Diaphragm



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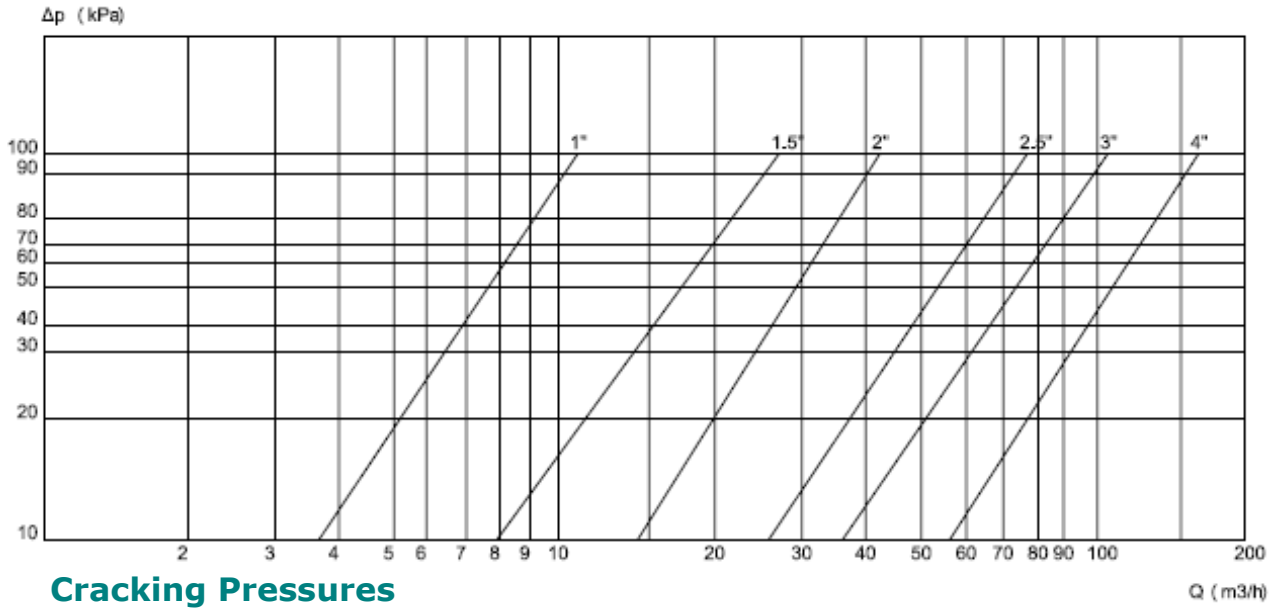
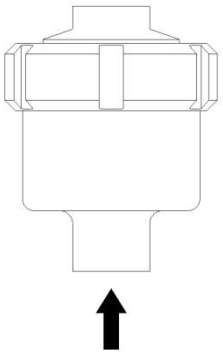
Flow Diagram



Cracking Pressures

209N – NRV Vertical Cracking Pressures
Range given in Bar

Size	Direction of Flow	Min	Max
25	A	0.152	1.283
	B	0.116	1.247
28	A	0.119	0.996
	B	0.089	0.966
38/40	A	0.055	0.418
	B	0.029	0.392
51	A	0.036	0.228
	B	0.008	0.200
63	A	0.083	0.101
	B	0.057	0.075
70	A	0.073	0.089
	B	0.046	0.061
76	A	0.069	-
	B	0.040	-
85	A	0.063	-
	B	0.036	-



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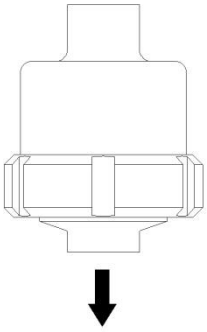

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