

## WAFER-TYPE NON-RETURN VALVE RD40 DN 15 – DN 100

### DESCRIPTION

The RD40 all stainless steel disc check valves have a compact design and are specially designed for use with steam and hot condensate.

### MAIN FEATURES

Low pressure drop.

Simple and compact design.

Overall lengths according to DIN EN 558-1 (DIN 3202 part 3, series K4).

**OPTIONS:** Various soft sealing options:  
EPDM (E), NBR (N), VITON (V), PTFE (T).  
Inconel springs.

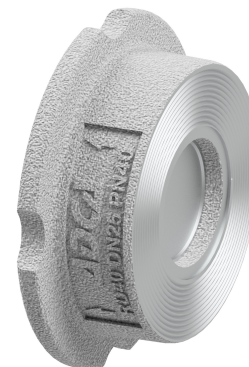
**USE:** Saturated steam, water and other gases and liquids compatible with the construction.

**AVAILABLE MODELS:** RD40 – stainless steel.

**SIZES:** 1/2" to 4"; DN 15 to DN 100.

**CONNECTIONS:** Sandwiched between flanges as per EN 1092 or ASME.

**INSTALLATION:** Horizontal or vertical installation.  
See IMI – Installation and maintenance instructions.



RECOMMENDED LIMITS OF OPERATION WITH SOFT SEALS			
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EPDM (E)	NBR (N)	VITON (V)	PTFE (T)
130 °C	95 °C	180 °C	180 °C

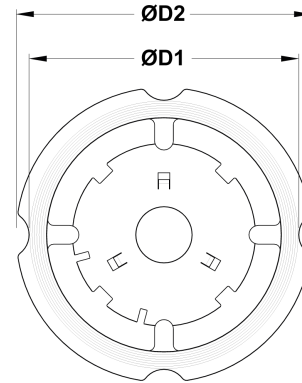
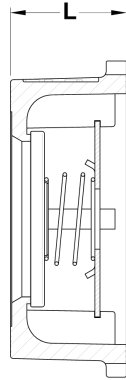
CE MARKING – GROUP 2 (PED – European Directive)	
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PN 40	Category
1/2" to 1 1/4" – DN 15 to 32	SEP
1 1/2" to 4" – DN 40 to 100	1 (CE marked)

BODY LIMITING CONDITIONS	
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WAFER PN 40 *	
ALLOWABLE PRESSURE	RELATED TEMPERATURE
40 bar	100 °C
33,7 bar	200 °C
31,8 bar	250 °C
29,7 bar	300 °C

\* According to EN 1092.  
Minimum operating temperature: - 10 °C.



DIMENSIONS				
SIZE	D1	D2	L	WEIGHT (kg)
1/2" – DN 15	43	50	16	0,18
3/4" – DN 20	53	60	19	0,2
1" – DN 25	62	70	22	0,25
1 1/4" – DN 32	75	81	28	0,5
1 1/2" – DN 40	86	91	32	0,7
2" – DN 50	96	105	40	1,3
2 1/2" – DN 65	115	125	46	1,7
3" – DN 80	133	147	50	2,5
4" – DN 100	154	167	60	3,5

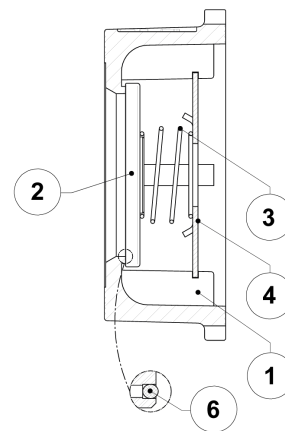
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Body	A351 CF8M / 1.4408
2	* Disc	AISI 316 / 1.4401
3	* Spring	AISI 302 / 1.4300
4	Star	AISI 316 / 1.4401
6	* Soft seal	EPDM; NBR; VITON; PTFE

\* Available spare parts.

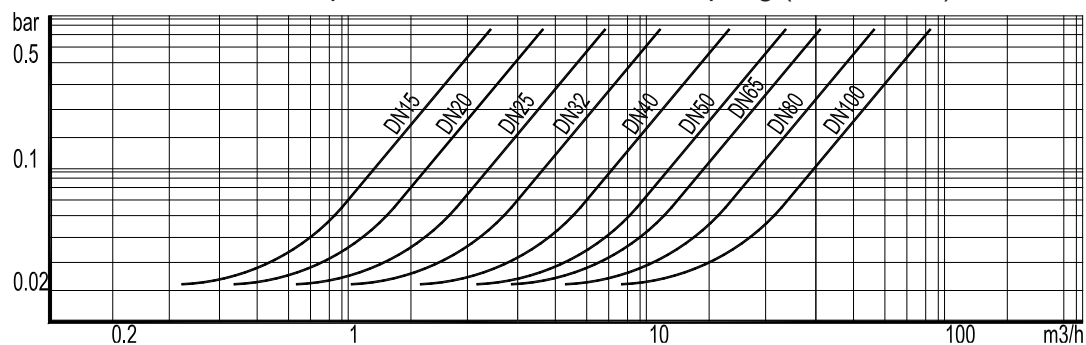
MINIMUM OPENING PRESSURES WITH STANDARD SPRING (mbar)							
SIZE	D.P. ↑	D.P. →	D.P. ↓	D.P. * ↑			
1/2" – DN 15	25	23	21	2			
3/4" – DN 20	25	23	21	2			
1" – DN 25	25	23	21	2			
1 1/4" – DN 32	27	24	21	3			
1 1/2" – DN 40	28	25	21	4			
2" – DN 50	29	25	21	4			
2 1/2" – DN 65	30	26	21	5			
3" – DN 80	31	26	21	5			
4" – DN 100	33	27	21	6			

→ : Flow direction.

\* Vertical installation without springs (bottom to top).



Pressure drop, horizontal flow, standard spring (water – 20°)



To determine the pressure drop of other mediums the equivalent water flow volume has to be calculated:

$$V_w = \sqrt{\frac{Q}{1000}} \times V$$

Vw = Equivalent water flow volume in m³/h; Q = Density in kg/m³; V = Flow volume in m³/h

## WAFER-TYPE NON-RETURN VALVE RD40 DN 125 – DN 200

### DESCRIPTION

The RD40 disc check valves have a compact design and are specially designed for use with steam and hot condensate.

### MAIN FEATURES

Low pressure drop.  
Simple and compact design.  
Overall lengths according to DIN EN 558-1 (DIN 3202 part 3, series K4).

**OPTIONS:** Various soft sealing options:  
EPDM (E), NBR (N), VITON (V), PTFE (T).  
Inconel springs.

**USE:** Saturated steam, water and other gases and liquids compatible with the construction.

**AVAILABLE MODELS:** RD40 – carbon steel body, stainless steel disc and seat.

**SIZES:** 5" to 8"; DN 125 to DN 200.

**CONNECTIONS:** Sandwiched between flanges as per EN 1092 or ASME.

**INSTALLATION:** Horizontal or vertical installation.  
See IMI – Installation and maintenance instructions.



RECOMMENDED LIMITS OF OPERATION WITH SOFT SEALS			
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EPDM (E)	NBR (N)	VITON (V)	PTFE (T)
130 °C	95 °C	180 °C	180 °C

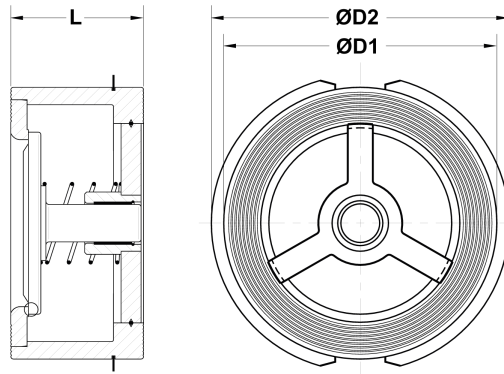
CE MARKING – GROUP 2 (PED – European Directive)	
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PN 40	Category
DN 125 to 200	2 (CE marked)

BODY LIMITING CONDITIONS	
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WAFER PN 40 *	
ALLOWABLE PRESSURE	RELATED TEMPERATURE
40 bar	100 °C
33,7 bar	200 °C
31,8 bar	250 °C
29,7 bar	300 °C

\* According to EN 1092.  
Minimum operating temperature: - 10 °C.

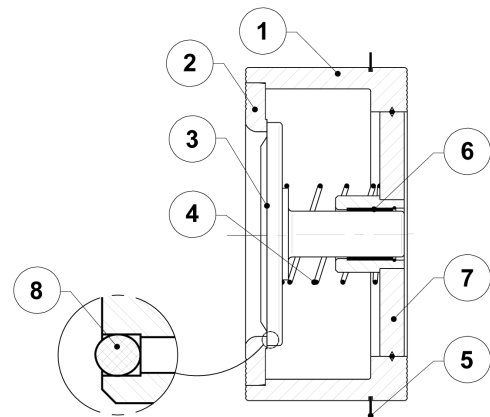


DIMENSIONS							
SIZE	PN 10/16	PN 40		CLASS 150	CLASS 300	L	WEIGHT (kg)
	D1	D1	D2 *	D1	D2 *		
5" – DN 125	192	192	-	192	212	90	10
6" – DN 150	218	-	226	218	247	106	14
8" – DN 200	273	-	290	273	304	140	24

\* Centering ring required

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Body	S355JR / 1.0045
2	Seat	AISI 316 / 1.4401
3	* Disc	AISI 316 / 1.4401
4	* Spring	AISI 302 / 1.4300
5	Centering ring	AISI 304 / 1.4301
6	Bearing	Steel Fe Zn
7	Star	S355JR / 1.0045
8	* Soft seal	EPDM; NBR; VITON; PTFE

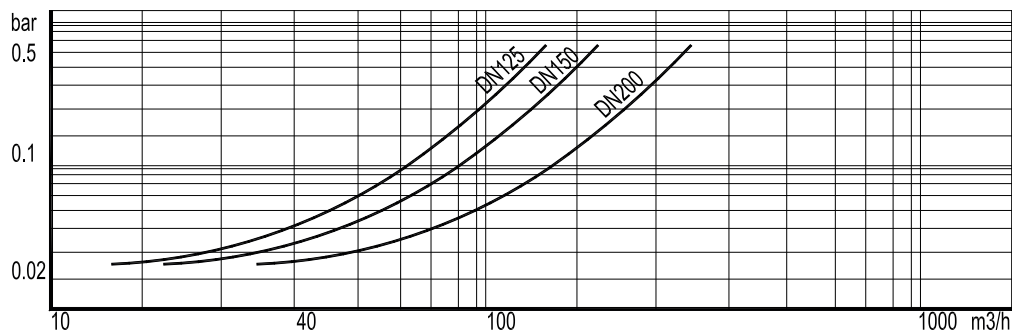
\* Available spare parts.



MINIMUM OPENING PRESSURES WITH STANDARD SPRING (mbar)						
SIZE	D.P.		D.P.		D.P.	
	↑	→	→	↓	↓	↓
5" – DN 125	37	22	22	7	7	7
6" – DN 150	40	25	25	10	10	10
8" – DN 200	46	28	28	10	10	10

→ : Flow direction.

Pressure drop, horizontal flow, standard spring (water – 20°)



To determine the pressure drop of other mediums the equivalent water flow volume has to be calculated:  $V_w = \sqrt{\frac{Q}{1000}} \times V$

$V_w$  = Equivalent water flow volume in m<sup>3</sup>/h;  $Q$  = Density in kg/m<sup>3</sup>;  $V$  = Flow volume in m<sup>3</sup>/h