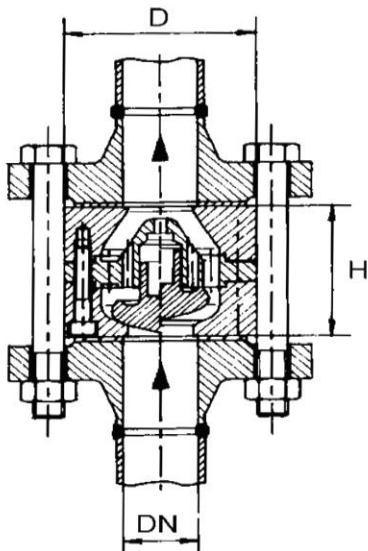


Functional elements and used materials:

1 Valve seat	1.4057 – AISI431	1.4571 – AISI 316Ti
2 Sealing body	PEEK	PEEK
3 Valve stop	1.4057 – AISI431	1.4571 – AISI 316Ti
4 Counter flange	1.4057 – AISI431	1.4571 – AISI 316Ti
5 Allen screw	DIN 912-A2	DIN 912-A2

Application:



The type ERV valves are designed for mounting between two standard flanges according to:

DIN 1092-1, ASME B16.5 und ASME B16.5 RTJ

and is self-centering between the connection bolts.

Medium: all gases and temperatures up to 200°C = valve body 1.4057 or 1.4571 with sealing body PEEK

Dimensions and weights:

Turbo check valve DN15 (1/2")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 15 EN 10902-1 Form B2	16 bar	52	55	-	0,7	200	21625.3-01	21685.3-01
	25 bar							
	40 bar							
	63 bar							
	100 bar							
	160 bar	73	70	-	2	150	21714.3-01	21734.3-01
	250 bar					50	31370.3-00	31371.3-00
	320 bar							
400 bar								
1/2" ASME B16.5 RF/SF	150 lbs	45	55	-	0,6	150	30078.3-01	30122.3-01
	300 lbs	52	55	-	1,4	200	21631.3-01	21691.3-01
	400 lbs							
	600 lbs	62	70	-	1,5		21634.3-01	21694.3-01
	900 lbs							
	1500 lbs							
2500 lbs								
1/2" ASME B16.5 RTJ	300 lbs	52	75	R11	0,9	200	21640.3-01	21700.3-01
	400 lbs							
	600 lbs							
	900 lbs	62	75	R12	1,5		21646.3-01	21706.3-01
	1500 lbs							
	2500 lbs							

Turbo check valve DN20 (3/4")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 20 EN 10902-1 Form B2	40 bar	63	60	-	1	200	30005.3-01	30152.3-01
	100 bar	71	80	-	1,9		100	25000.3-01
	(160 bar)							
	(250 bar)							
3/4" ASME B16.5 RF/SF	150 lbs	54	60	-	1	200	30135.3-01	
	300 lbs	63	60	-			30134.3-01	30123.3-01
	400 lbs							
	600 lbs	66	80	-			30116.3-01	30474.3-01
	1500 lbs							
	2500 lbs							
3/4" ASME B16.5 RTJ	1500 lbs	66	80	R14	1,6	200	30029.3-01	30478.3-01

Turbo check valve DN25 (1")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 25 EN 10902-1 Form B2	16 bar	71	60	-	1,4	200	20825.3-02	20885.3-01
	25 bar							
	40 bar							
	63 bar	82	80	-	1,9		30486.3-01	30491.3-01
	100 bar							
	160 bar							
	250 bar							
320 bar	90	95	-	4	100	31374.3-00	31375.3-00	
					50	25004.3-01	30878.3-01	
1" ASME B16.5 RF/SF	150 lbs	63	60	-	1,3	200	30011.3-01	30146.3-01
	300 lbs	71	60	-	1,4		20831.3-01	20891.3-01
	400 lbs							
	600 lbs	71	80	-	1,9		30074.3-01	30118.3-01
	900 lbs							
	1500 lbs							
2500 lbs	82	80	-	2,3	30997.3-01	31001.3-01		
1" ASME B16.5 RTJ	300 lbs	71	80	R16	1,9	200	20840.3-01	20900.3-01
	400 lbs							
	600 lbs							
	900 lbs							
	1500 lbs							

Turbo check valve DN32 (1 ¼")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 32 EN 10902-1 Form B2	16 bar	81	60	-	1,7	200	21025.3-01	21085.3-01
	25 bar							
	40 bar							
	100 bar	86	75	-	2,1		150	30481.3-01
1 ¼" ASME B16.5 RF/SF	300 lbs	81	60	-	1,7	200	21031.3-01	21091.3-01
	400 lbs							
	600 lbs							
	900 lbs							
	1500 lbs							
1 ¼" ASME B16.5 RTJ	300 lbs	81	75	R18	2,2	200	21040.3-01	21100.3-01
	400 lbs							
	600 lbs							
	900 lbs							
	1500 lbs							

Turbo check valve DN40 (1 1/2")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 40 EN 10902-1 Form B2	16 bar	93	65	-	2,4	200	21225.3-02	21285.3-01
	25 bar							
	40 bar							
	63 bar					150	31388.3-00	31390.3-00
	100 bar							
	160 bar							
1 1/2" ASME B16.5 RF/SF	150 lbs	93	65	-	2,4	200	21314.3-01	30355.3-01
	300 lbs							
	400 lbs							
	600 lbs					150	31384.3-00	31385.3-00
	900 lbs							
	1500 lbs							
2500 lbs	108	85	-	4,8	50	30113.3-01		
1 1/2" ASME B16.5 RTJ	300 lbs	94	80	R20	2,7	200	21240.3-01	21300.3-01
	400 lbs							
	600 lbs							
	900 lbs					150	31386.3-00	31387.3-00
	1500 lbs							

Turbo check valve DN50 (2")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 50 EN 10902-1 Form B2	16 bar	107	70	-	3,3	200	20025.3-01	20085.3-01
	25 bar							
	40 bar							
	63 bar					150	31388.3-00	31390.3-00
	100 bar							
2" ASME B16.5 RF/SF	150 lbs	102	70	-	3,1	200	30044.3-01	30656.3-01
	300 lbs	107	70	-	3,3			
	400 lbs							
	600 lbs							
	900 lbs	141	70	-	7,2	150	20034.3-01	20094.3-01
	1500 lbs					50	31392.3-00	31393.3-00
2" ASME B16.5 RTJ	300 lbs	109	85	R23	4,2	200	20040.3-01	20100.3-01
	400 lbs							
	600 lbs							
	900 lbs	141	85	R24	8,2	150	20046.3-01	20106.3-01
	1500 lbs					50	31394.3-00	31395.3-00

Turbo check valve DN65 (2 1/2")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 65 EN 10902-1 Form B2	16 bar	128	80	-	4,8	200	20225.3-02	20285.3-02
	25 bar							
	40 bar					100	31396.3-00	31397.3-00
	63 bar							
2 1/2" ASME B16.5 RF/SF	150 lbs	121	80	-	4,3	200	30600.3-01	30605.3-01
	300 lbs							
	400 lbs	128	80	-	4,8		20231.3-01	20291.3-01
	600 lbs							
2 1/2" ASME B16.5 RTJ	300 lbs	129	95	R26	5,8	200	20240.3-01	20300.3-01
	400 lbs							
	600 lbs							

Turbo check valve DN80 (3")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK	
DN 80 EN 10902-1 Form B2	16 bar	143	90	-	6,3	200	20425.3-01	20485.3-01	
	25 bar								
	40 bar					150	31398.3-00	31399.3-00	
3" ASME B16.5 RF/SF	150 lbs	188	90	-	4,7				200
	300 lbs								
	400 lbs	143	90	-	6,3	150	31400.3-00	31401.3-00	
	600 lbs								
3" ASME B16.5 RTJ	300 lbs	143	90	R31	6,3	200	20440.3-01	20500.3-01	
	400 lbs								
	600 lbs								150

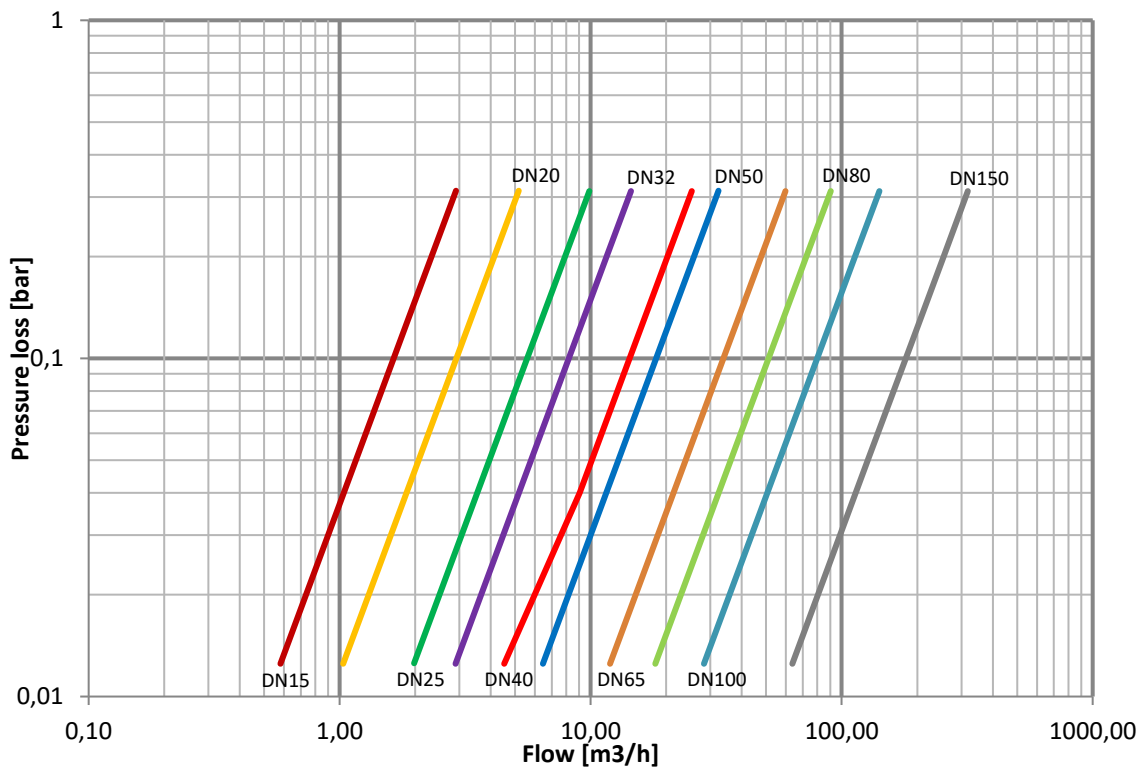
Turbo check valve DN100 (4")

Design	Max. Operating Pressure PS (geom. Fitting to PN)	Valve Ø D [mm]	Height H [mm]	Ring shape	Weight [kg]	Max. Temperature TS [°C]	Part -No.: 1.4057- PEEK	Part -No.: 1.4571 - PEEK
DN 100 EN 10902-1 Form B2	16 bar	164	110	-	9,1	200	20625.3-01	20685.3-01
	25 bar							
	40 bar					100	31404.3-00	31405.3-00
4" ASME B16.5 RF/SF	150 lbs	164	110	-	9,1			
	300 lbs							
	400 lbs							
	600 lbs	180	130	-	15,5	100	20634.3-01	20694.3-01
4" ASME B16.5 RTJ	600 lbs							

Spare sealing bodies

	DN 15 (1/2")	DN 20 (3/4")	DN 25 (1")	DN32 (1 1/4")	DN 40 (1 1/2")	DN50 (2")	DN65 (2 1/2")	DN80 (3")	DN 100 (4")
PEEK	21622.3-01	21622.3-01	20822.3-01	21022.3-01	21222.3-01	20022.3-01	20222.3-01	20422.3-01	20622.3-01
Weight (g)	10	10	15	23	41	56	110	159	328

Pressure loss figure



Pressure loss Water at full opening

Conversion to other media, calculate the equivalent water volume flow:

$$\dot{V}_w = \dot{V} * \sqrt{\frac{\rho}{1000}}$$

$$\dot{V}_w = \text{equivalent water flow rate} \left[\frac{m^3}{h} \right]$$

$$\dot{V} = \text{flow rate of the medium at operating conditions} [m^3/h]$$

$$\rho = \text{density of the medium at operating conditions} [kg/m^3]$$

Additional at vertical installation, flow upwards: + 3 mbar