

# Stop valve with bellow seals

Model 248

VYC



EN ASME/ANSI



Stop valve with bellow seals, maintenance-free, designed with external spindle and support guide, thus avoiding the atmospheric emissions of conventional valves.

Works with: steam, hot and superheated water, thermal oil, process water, gases, glycol, compressed air, neutral fluids, etc. Applications in: process industry, shipbuilding, air conditioning systems, thermal oil installations and systems, vacuum installations ... etc.

In accordance with the requirements of the pressure equipment directive 2014/68/EU.

## Specifications

- Design and manufacture compliant with EN 13709.
- Distances between flanges compliant with EN 558 series 1 and ASME B16.10.
- Flanges compliant with EN 1092-1, EN 1092-2 and ASME B16.5.
- Designed to be environmentally friendly.
- Materials carefully selected for wear, temperature and corrosion resistance.
- Valve free from silicones and asbestos.
- Simple construction.
- Easy installation with mounting possible at any position between 270° and 90°.
- Internal body designed to offer favourable flow profile.
- Long life cycle with high operating efficiency.
- Practically maintenance-free.
- Spindle with opening indicator, torque limiter and greasing nipple.
- Spindle with external thread which allows higher working temperatures and a longer service life.
- Safety seals with high-quality graphite rings. They guarantee total prevention of atmospheric emissions in the unlikely event of a bellows breakage. This is a requirement of DIN Standard 4754 in thermal fluid installations.
- Removable gasket designed to avoid the transmission of vibration to the valve's spindle.
- Double-walled bellows, robust, welded to the spindle forming a water-tight assembly, next to the seal and disc, without any possibility of rotation so as to avoid breakages. The bellows disc is concave and joined to the bellows. This saves energy and contributes to the area round the valve handle being at a suitable temperature for operator safety.
- Stainless steel bellows welded to the plasma. Airtightness tested with helium, ensuring absolute reliability and long life.
- Reinforced support guide in a bridge design which provides thermal insulation.
- Ergonomic handle with protective cap for the spindle.
- In accordance with the safety specifications, the valve is an inseparable part of the set. When attaching the valve to any point of opening or closure, external blocking systems must be used, and the handwheel must never be dismantled.
- Treated closing surfaces, which are grinded, lapped and burnished in order to achieve a degree of leak-tightness that even exceeds that required by EN 12266-1 class A.
- All the valves are rigorously tested and verified.
- All components are numbered, registered and checked. If requested in advance, material, casting, test and efficiency certificates will be enclosed with the valve, and with the instruction manual, in accordance with P.E.D. 2014/68/EU.

## IMPORTANT

We recommend, if necessary, the use of thermal and acoustic insulation textile jackets Model 008.

On order:

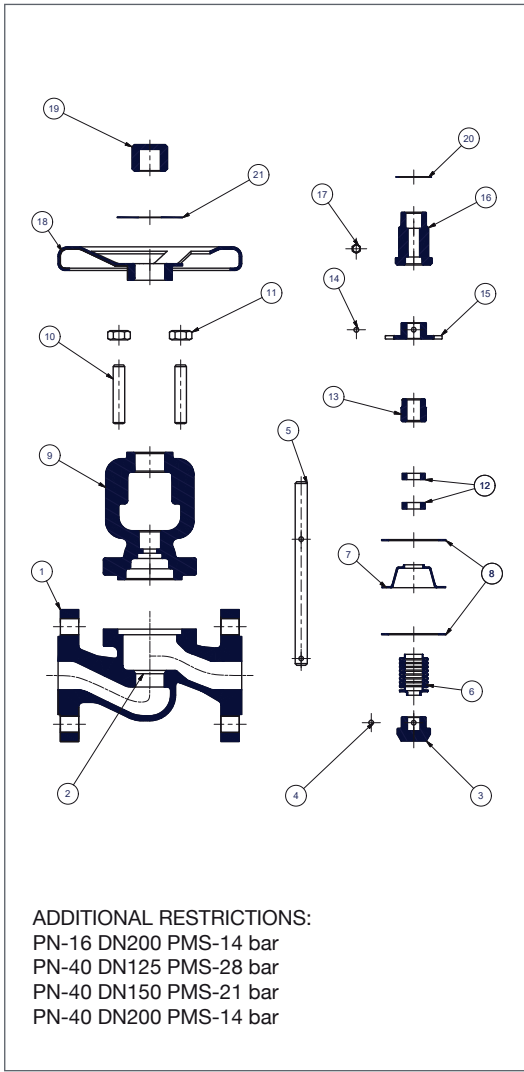
- Option for manufacturing in other materials for special working conditions (high temperatures, fluids, etc).
- Other connections.
- Plug with regulating cone.
- Soft Plug.

Nº PIECE	PIECE	NODULAR IRON				CAST STEEL				STAINLESS STEEL			
1	Body	Nodular iron (EN-5.3103)				Cast steel (EN-1.0619)				Stainless steel (EN-1.4408)			
2	Seat	Stainless steel (EN-1.4021)				Stainless steel (EN-1.4021)				Stainless steel (EN-1.4408)			
3	Conical plug (1)	Stainless steel (EN-1.4021)				Stainless steel (EN-1.4021)				Stainless steel (EN-1.4401) + Stellite n°6			
4	Pin	Stainless steel (EN-1.4301)				Stainless steel (EN-1.4301)				Stainless steel (EN-1.4401)			
5	Rod	Stainless steel (EN-1.4021)				Stainless steel (EN-1.4021)				Stainless steel (EN-1.4401)			
6	Bellow	Stainless steel (EN-1.4301)				Stainless steel (EN-1.4301)				Stainless steel (EN-1.4404)			
7	Bellow disc	Stainless steel (EN-1.4301)				Stainless steel (EN-1.4301)				Stainless steel (EN-1.4401)			
8	Gasket body	Graphite + Stainless steel (EN-1.4301)				Graphite + Stainless steel (EN-1.4301)				Graphite + Stainless steel (EN-1.4401)			
9	Guide support	Nodular iron (EN-5.3103)				Cast steel (EN-1.0619)				Stainless steel (EN-1.4408)			
10	Bolt/Screw	Cast steel (EN-1.1191)				Cast steel (EN-1.1191)				Stainless steel (EN-1.4401)			
11	Nut	-				Cast steel (EN-1.1141)				Stainless steel (EN-1.4401)			
12	Packing	Graphite				Graphite				Graphite			
13	Stuffing box	Cast steel (EN-1.1191)				Cast steel (EN-1.1191)				Stainless steel (EN-1.4305)			
14	Pin	Cast steel (EN-1.1231)				Cast steel (EN-1.1231)				Stainless steel (EN-1.4301)			
15	Removable lock washer	Cast steel (EN-1.0037)				Cast steel (EN-1.0037)				Stainless steel (EN-1.4301)			
16	Insert nut	Cast steel (EN-1.1191)				Cast steel (EN-1.1191)				Bras (EN-CW617N)			
17	Grease fitting	Bras (EN-CW617N)				Bras (EN-CW617N)				Bras (EN-CW617N)			
18	Handwheel	Cast steel (EN-1.0517)				Cast steel (EN-1.0517)				Cast steel (EN-1.0517)			
19	Cap	Cast steel (EN-1.1191)				Cast steel (EN-1.1191)				Cast steel (EN-1.1191)			
20	Shim ring	Stainless steel (EN-1.4301)				Stainless steel (EN-1.4301)				Stainless steel (EN-1.4301)			
21	Plate	Aluminium				Aluminium				Aluminium			
DN		15 to 200 (EN, ANSI)											
PN		16				40							
OPERATING CONDITIONS EN 1092-1	PRESSURE [bar]	16,00	15,50	14,70	11,20	40,00	37,10	33,30	23,80	40,00	40,00	33,70	27,40
	MAXIMUM TEMPERATURE [°C]	RT	150	200	350	RT	100	200	400	RT	100	200	400
	MINIMUM TEMPERATURE [°C]	-10				-10				-40			
CLASS		150#											
OPERATING CONDITIONS 150# ASME B16.5	PRESSURE [bar]					19,60	17,70	13,80	5,50	19,00	16,20	13,70	6,50
	MAXIMUM TEMPERATURE [°C]					RT	100	200	425	RT	100	200	400
	MINIMUM TEMPERATURE [°C]					-29				-29			
CLASS		300#											
OPERATING CONDITIONS 300# ASME B16.5	PRESIÓN [bar]					51,10	46,60	43,80	28,80	49,60	42,20	35,70	29,40
	MAXIMUM TEMPERATURE [°C]					RT	100	200	425	RT	100	200	400
	MINIMUM TEMPERATURE [°C]					-29				-29			

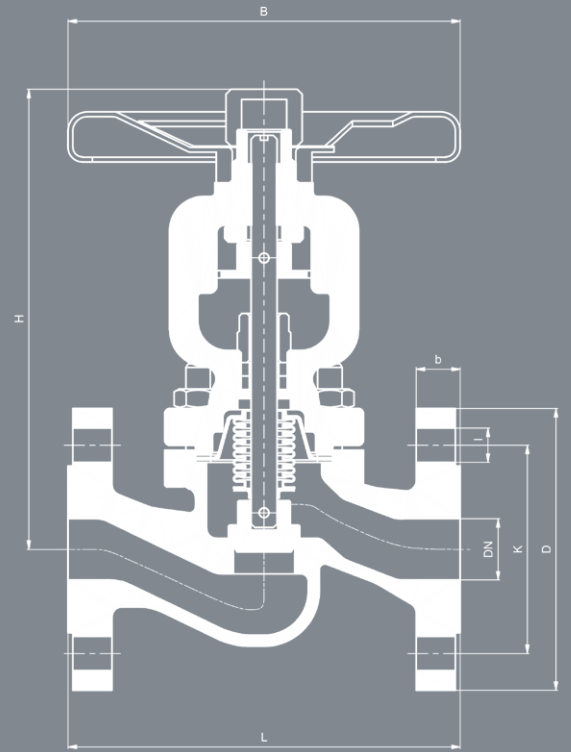
(1) Balanced plug on versions DN-200 Cast steel and Stainless steel.  
RT: Room Temperature (-10 °C to 50 °C).

MODEL	248																															
DN	15				20				25				32				40															
NPS	1/2"				3/4"				1"				1 1/4"				1 1/2"															
CONNECTIONS	I - Flanges PN-16 EN 1092-2																															
	II - Flanges PN-40 EN 1092-1																															
	III - Flanges Class 150 lbs ASME / ANSI B16.5																															
	IV - Flanges Class 300 lbs ASME / ANSI B16.5																															
H (PN16, PN40)	192				192				207				207				245															
H (class 150 lbs and 300 lbs)	240				240				256				267				325															
L EN-558 (PN-16, PN40)	130				150				160				180				200															
L ASME B16.10 (class 150 lbs)	108				117				127				140				165															
L ASME B16.10 (class 300 lbs)	152				178				203				216				229															
B	140				140				160				160				180															
D	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV												
K	95	95	90	95	105	105	100	115	115	115	110	125	140	140	115	135	150	150	125	155												
I	65,00	65,00	60,30	66,70	75,00	75,00	69,90	82,60	85,00	85,00	79,40	88,90	100,00	100,00	88,90	98,40	110,00	110,00	98,40	114,30												
b	14,00	14,00	15,90	15,90	14,00	14,00	15,90	19,10	14,00	14,00	15,90	19,10	18,00	18,00	15,90	19,10	18,00	18,00	15,90	22,20												
b	16,00	16,00	11,20	14,30	18,00	18,00	12,70	15,90	18,00	18,00	14,30	17,50	18,00	18,00	15,90	19,10	18,00	18,00	17,50	20,70												
DRILLS Nº	4				4				4				4				4															
WEIGHT IN kgs.	NODULAR IRON		3,80		-		4,40		-		5,60		-		7,10		-		9,10		-											
	CAST STEEL		4,20		4,00		5,00		4,80		6,00		7,00		6,20		8,00		10,00		7,80		12,00		14,00		10,00		16,00		19,00	
	STAINLESS STEEL																															
CODE 2005-248.	NODULAR IRON		5026	-	-	-	5346	-	-	-	5106	-	-	-	5146	-	-	-	5126	-	-	-	-	-	-	-	-	-	-	-	-	
	CAST STEEL		-	8024	80241	80242	-	8344	83441	83442	-	8104	81041	81042	-	8144	81441	81442	-	8124	81241	81242	-	-	-	-	-	-	-	-	-	
	STAINLESS STEEL		-	8022	80221	80222	-	8342	83421	83422	-	8102	81021	81022	-	8142	81421	81422	-	8122	81221	81222	-	-	-	-	-	-	-	-	-	-

\* Casting  
\*\* Forging

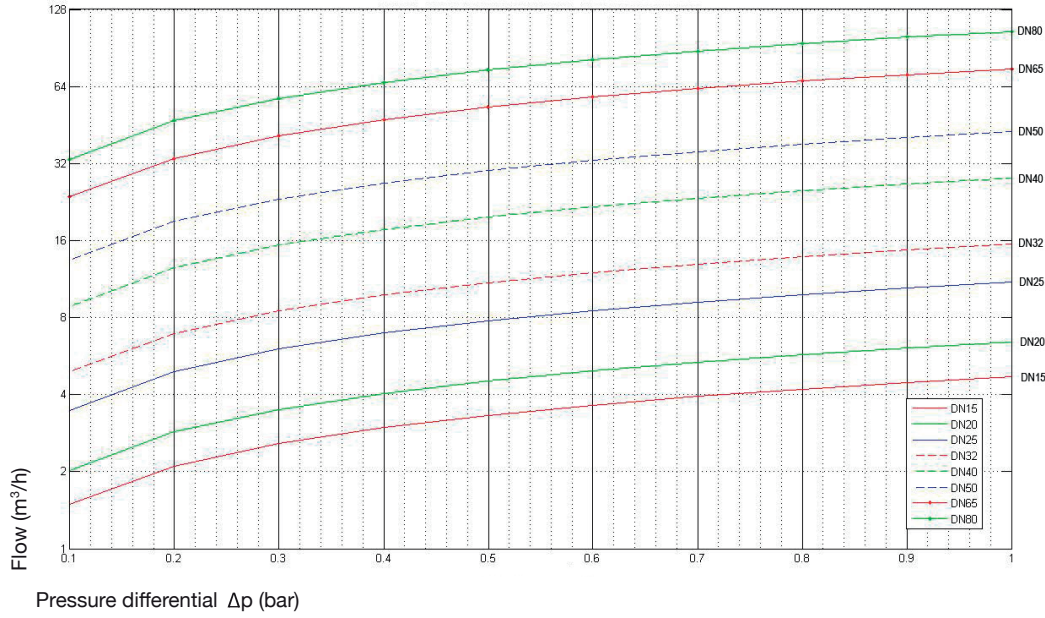


FLOW COEFFICIENT EN 60534-2-3 Water at 20°C	
DN	Kvs m3/h Δp= 1 bar
15	4,70
20	6,80
25	11,40
32	16,30
40	29,00
50	43,50
65	74,00
80	109,00
100	172,00
125	277,00
150	408,00
200	708,00



248																																																																																																															
50				65				80				100				125				150				200																																																																																							
2"				2 1/2"				3"				4"				5"				6"				8"																																																																																							
I - Flanges PN-16 EN 1092-2																																																																																																															
II - Flanges PN-40 EN 1092-1																																																																																																															
III - Flanges Class 150 lbs ASME / ANSI B16.5																																																																																																															
IV - Flanges Class 300 lbs ASME / ANSI B16.5																																																																																																															
253				295				328				385				427				480				672																																																																																							
*315/**348				330				380				405				455				513				683																																																																																							
230				290				310				350				400				480				600																																																																																							
203				216				241				292				356				406				495																																																																																							
267				292				318				356				400				444				559																																																																																							
200				220				250				300				350				400				450																																																																																							
I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV																																																																																
165	165	150	165	185	185	180	190	200	200	190	210	220	235	230	255	250	270	255	280	285	300	280	320	340	375	345	380																																																																																				
125,00	125,00	120,70	127,00	145,00	145,00	139,70	149,20	160,00	160,00	152,40	168,30	180,00	190,00	190,50	200,00	210,00	220,00	215,90	235,00	240,00	250,00	241,30	269,90	295,00	320,00	298,50	330,20																																																																																				
18,00	18,00	19,10	19,10	18,00	18,00	19,10	22,20	18,00	18,00	19,10	22,20	18,00	22,00	19,10	22,20	18,00	26,00	22,20	22,20	22,00	26,00	22,20	22,20	22,00	30,00	22,20	26,00																																																																																				
18,00	20,00	19,10	22,30	18,00	22,00	22,30	25,40	20,00	24,00	23,90	28,60	20,00	24,00	23,90	31,80	22,00	26,00	23,90	35,00	22,00	28,00	25,40	36,60	24,00	34,00	28,60	41,70																																																																																				
4				8				4				8				8				8				8				12				12				8				12																																																																							
11,80				-				20,80				-				27,00				-				39,10				-				54,60				61,90				-				78,70				85,10				-				157,00				164,30				-																																															
13,00				21,00				26,00				22,80				29,00				38,00				29,70				35,00				51,00				43,00				58,00				76,00				60,00				68,00				78,00				125,00				86,50				93,50				104,00				173,00				172,50				180,50				162,00				297,00																			
5206				-				-				5226				-				-				5306				-				-				5406				-				-				5506				-				-				5606				-				-				5806				-				-				-																											
-				8204				82041				82042				-				8224				82241				82242				-				8304				83041				83042				-				8404				84041				84042				-				8504				85041				85042				-				8604				86041				86042				-				8804				88041				88042			
-				8202				82021				82022				-				8222				82221				82222				-				8302				83021				83022				-				8402				84021				84022				-				8502				85021				85022				-				8602				86021				86022				-				8802				88021				88022			

Flow diagram



Flow diagram

