



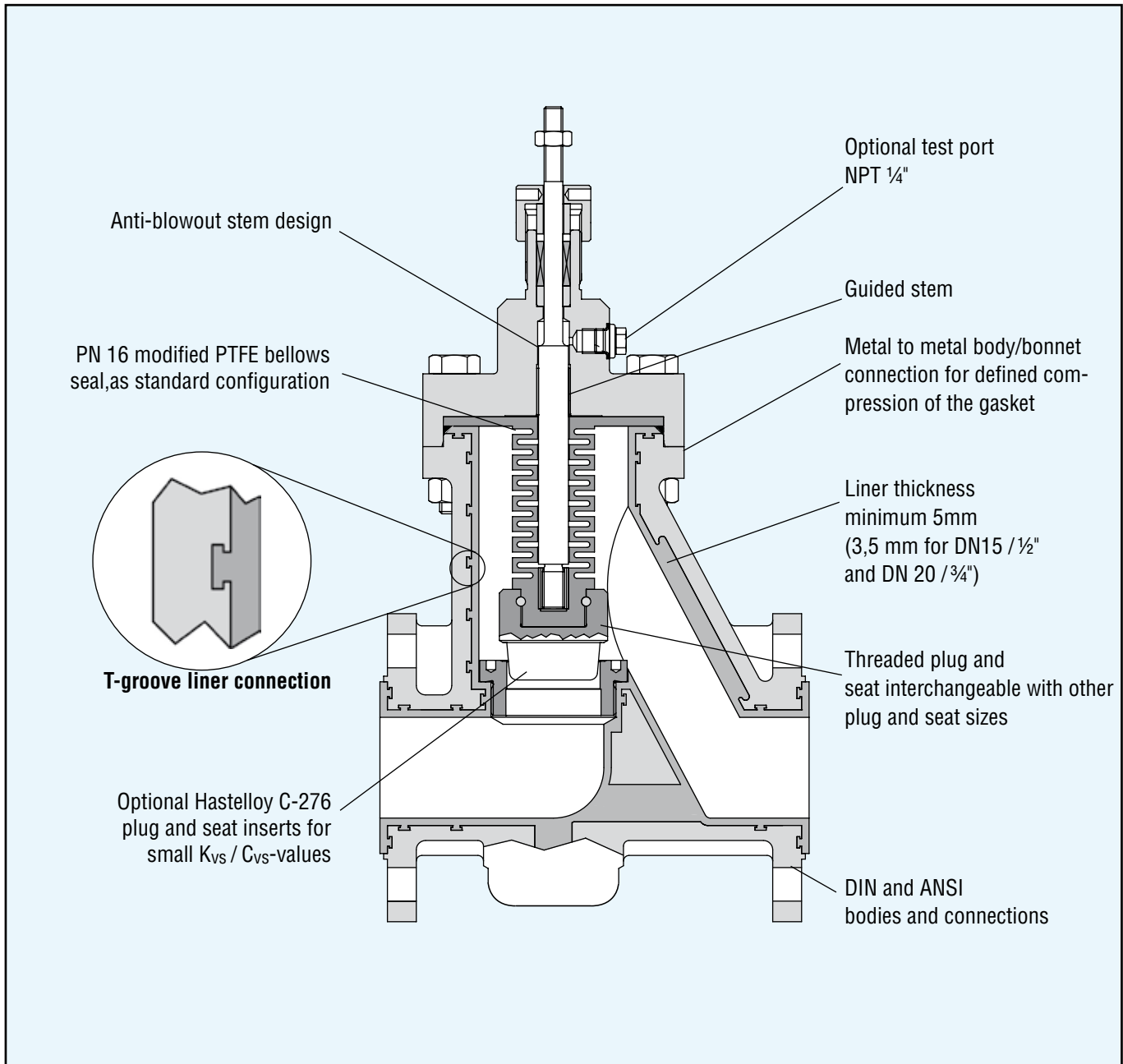
# ***Kämmer® Series 132000*** ***Corrosive Application Valves***



***Experience In Motion***

## Series 132000

### Description



**Figure 1: 132000 Body Assembly**

The new series 132000 control valve completes the range of lined valves within the FLOWSERVE corporation. Many years of experience in the manufacture of lined ball and plug valves and the sophisticated experience of manufacturing excellent reproducible trims for linear valves are combined in this new product.

High quality lining materials such as PFA (standard), PVDF, PP, ETFE and FEP as well as PFA antistatic cover most mediums and applications. The revolutionary PTFE bellows design allows a standard pressure rating of PN 16. The increased flow capacity means that the most economical valve can be chosen for the application.

## Series 132000

### Features and Benefits

Features	Benefits
<b>Liner materials</b>	High Quality liner materials PFA (standard), FEP, PVDF, PP, ETFE for most corrosive applications.
<b>Liner thickness</b>	A minimum liner material thickness of 3,5 - 5 mm provides highest protection from the medium.
<b>Liner connection</b>	T-grooves ensure a positive mechanical connection between the liner material and the valve body.
<b>Bellows seal</b>	Standard PN 16 bellows seal manufactured from modified PTFE permit universal valve applications.
<b>Hastelloy plug and seat inserts</b>	Hastelloy C276 plug and seat inserts for small $K_{vs}/C_v$ values. Reproducible $K_{vs}/C_v$ values and characteristics as well as large rangeability.
<b>Face-to-Face</b>	DIN bodies PN 16, integral flanges, DIN face-to-face dimensions DIN bodies with integral flanges drilled in accordance with ANSI Class 150. ANSI bodies with ANSI face-to-face dimensions and ANSI Class 150 flanges.
<b>Safety</b>	Anti-blowout stem design for all sizes, optional test connection for bellows seal leak detection and safety packing ensure maximum safety

### Trim Design

Threaded plug and seat design for easy replacement and maintenance. Excellent reproduceable trims and  $C_v$ -values based on long term experience even for small and very small  $C_v$ -values

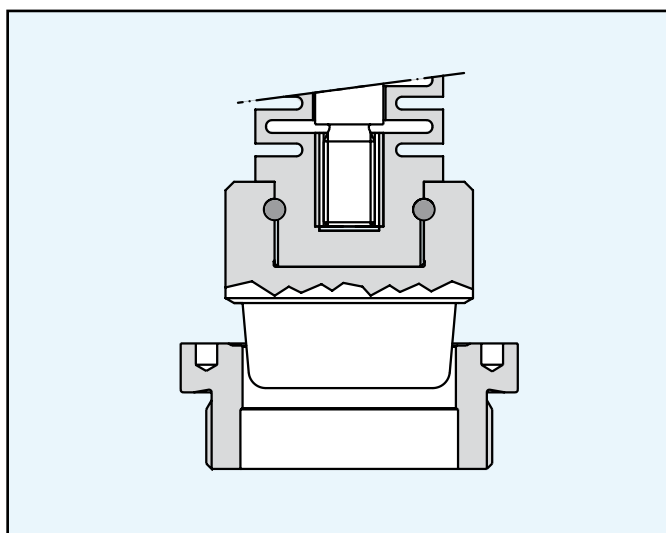


Figure 2: Plug and seat PTFE

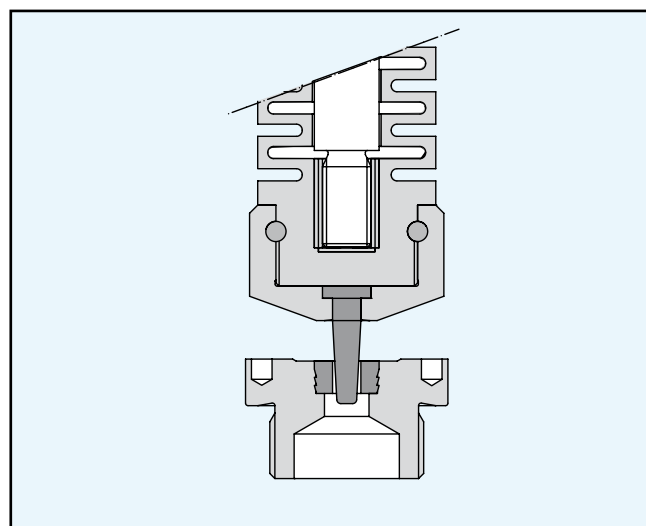


Figure 3: Hastelloy plug and seat inserts

## Series 132000

### Lining Materials

The liner material, the seat and the bellows seal are the only parts which are in contact with the medium. High quality lining materials such as PFA, (Perfluoroalkoxy resin) protect the metal parts of the valve assembly. T-grooves provide an extremely positive connection between the liner and the valve metal body, especially important in vacuum applications. Liner thickness is at least 5mm (3,5 mm liner thickness for DN 15 / ½" and DN 20 / ¾").

Liner materials are available in most common combinations. PFA, FEP, PP, PVDF ETFE or antistatic PFA cover most application requirements.

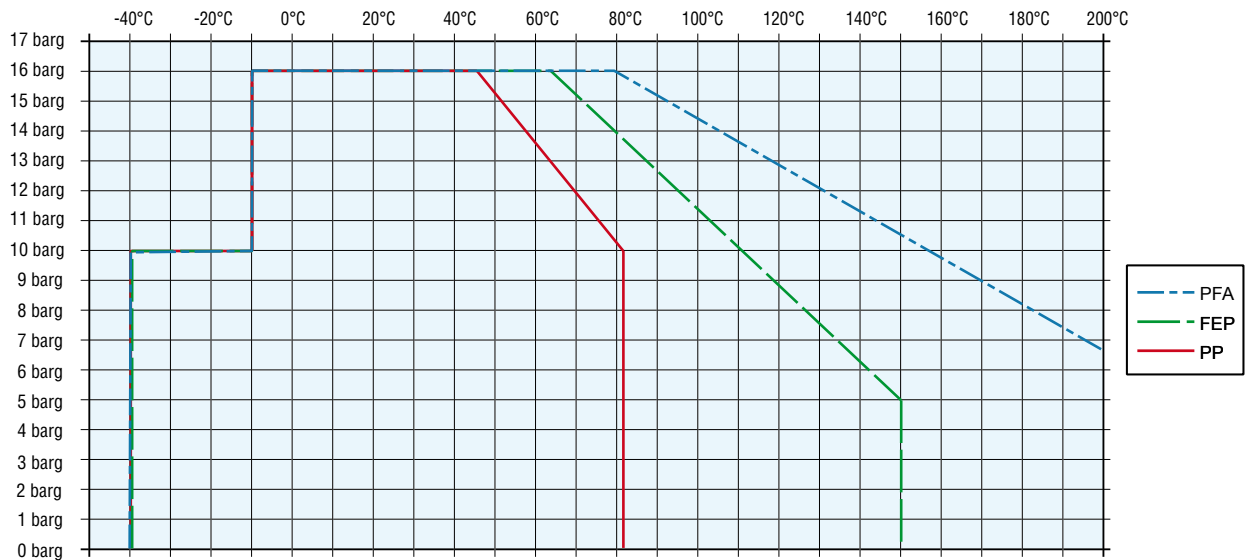


Figure 4: Pressure Temperature Diagram

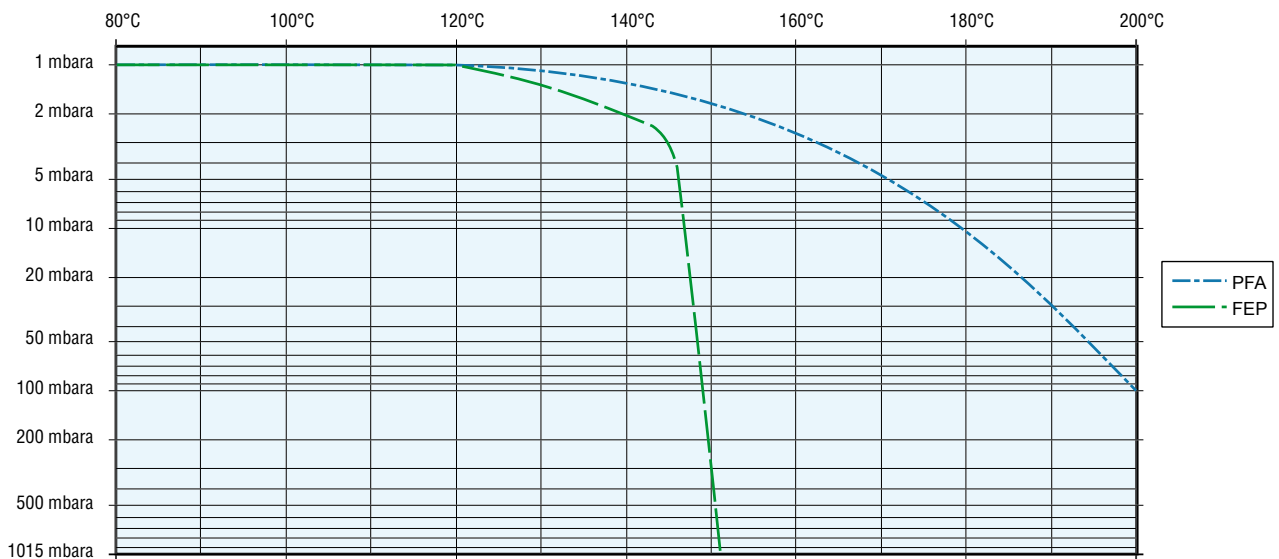


Figure 5: Vacuum Temperature Diagram

## Series 132000

### K<sub>Vs</sub> / C<sub>v</sub> Table

Body Size DIN	Stroke mm	Seat Diameter mm	Flow Coefficient K <sub>v</sub>	Standard Plug Material	Standard Seat Material	Rangeability
15 20	10	3	0.011	Hastelloy C-276 <sup>1</sup>	Hastelloy C-276 <sup>1</sup>	50 : 1
			0.017			
			0.025			
			0.040			
			0.063			
		4.5	0.10	Hastelloy C-276 <sup>1,2</sup>	TFM 1600 <sup>2,3</sup>	
			0.16			
			0.25			
			0.40			
		7	0.63	TFM 1600 <sup>3</sup>	TFM 1600	
			1.0			
		1.6				
10	2.5	TFM 1600	TFM 1600			
15	5.0	TFM 1600	TFM 1600			
25	10	3	0.011	Hastelloy C-276 <sup>1</sup>	Hastelloy C-276 <sup>1</sup>	50 : 1
			0.017			
			0.025			
			0.040			
			0.063			
	4.5	0.10	Hastelloy C-276 <sup>1,2</sup>	TFM 1600 <sup>2,3</sup>		
		0.16				
		0.25				
		0.40				
	7	0.63	TFM 1600 <sup>3</sup>	TFM 1600		
		1.0				
	1.6					
10	2.5	TFM 1600	TFM 1600 <sup>3</sup>			
12	4.0	TFM 1600	TFM 1600 <sup>3</sup>			
16	6.3	TFM 1600	TFM 1600 <sup>3</sup>			
25	13	TFM 1600	TFM 1600 <sup>3</sup>			
40	20	12	4.0	TFM 1600	TFM 1600	50 : 1
		16	6.3			
		20	10			
		25	16			
		40	32			
50	20	16	6.3	TFM 1600	TFM 1600	
		20	10			
		25	16			
		32	25			
		50	47			
80	40	25	16	TFM 1600	TFM 1600	
		32	25			
		40	40			
		50	63			
		80	120			
100	40	40	40	TFM 1600	TFM 1600	
		50	63			
		63	100			
		100	180			

<sup>1</sup> Hastelloy C-176 inserts (other materials upon request).

<sup>2</sup> TFM 1600 valve plug and seat rings are available for Cv sizes 0.1 to 0.74 with 1 : 25 rangeability.

<sup>3</sup> optional hastelloy C-276 inserts.

## Series 132000

### Standard Materials of Construction

**Table 1: Body and Lining materials**

<b>Body/Bonnet material</b>	0.7043 (GGG 40.3)
<b>Body pressure class</b>	PN 16 ANSI Class 150
<b>End connections</b>	Integral flanges: DIN PN 16 ANSI Class 150
<b>Lining material</b>	PFA, FEP, PVDF PFA antistatic ETFE
<b>Liner thickness</b>	3,5 - 6 mm

**Table 3: Bellows seal**

<b>Material</b>	Modified PTFE TF 1620 for DN 15, 20, 25 TFM 1600 for DN 40, 50, 80, 100
<b>Pressure</b>	16 bar at 120 °C

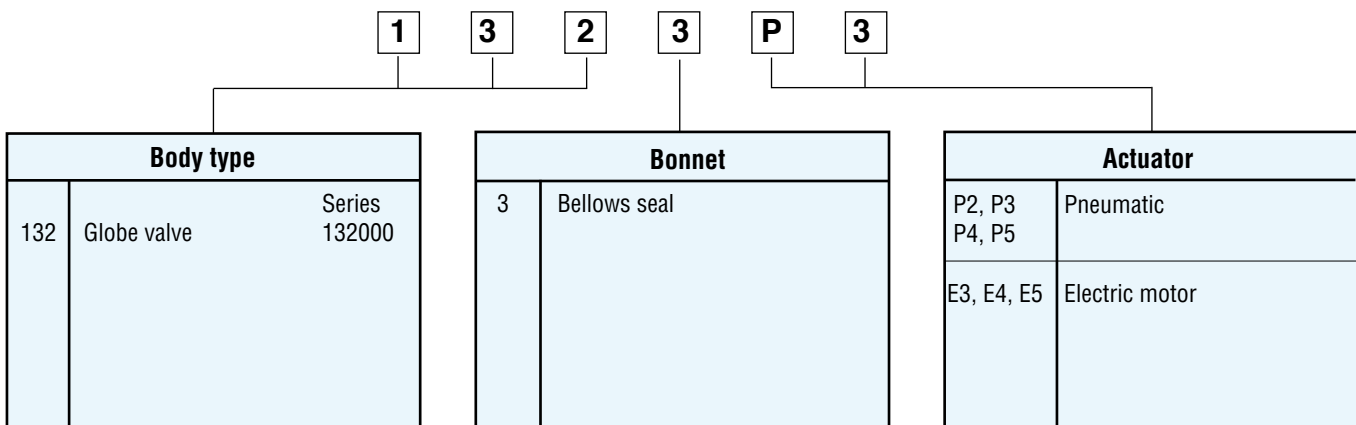
**Table 4: Options**

<b>Bellows seal</b>	Hastelloy C276
<b>Stem</b>	Hastelloy C276

**Table 2: Trim**

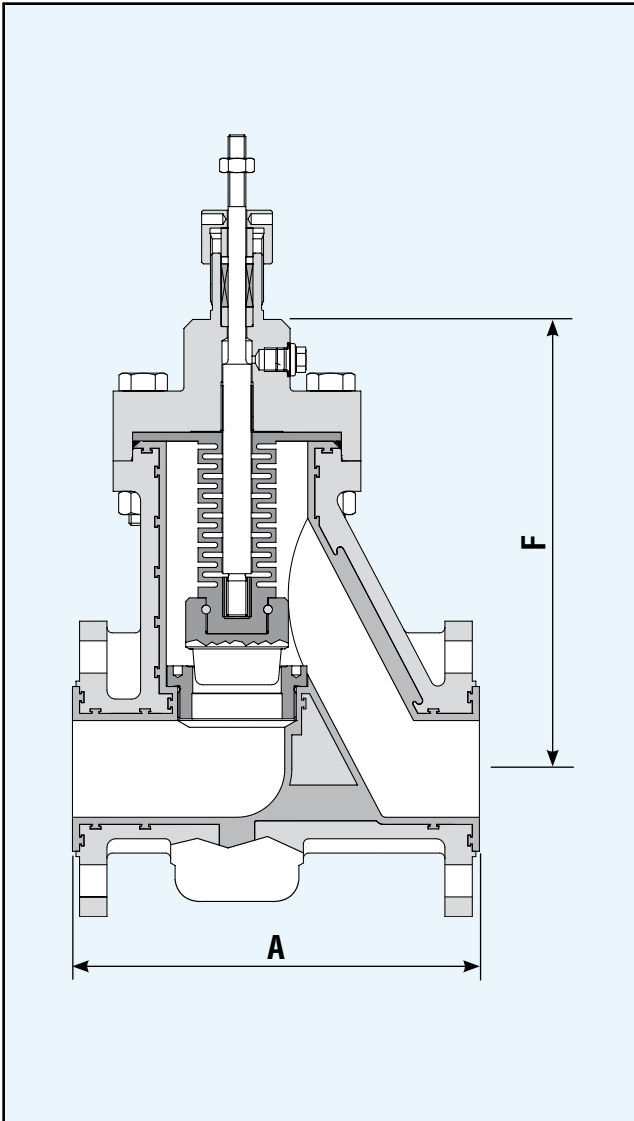
<b>K<sub>vs</sub>-values</b>	See table 2
<b>Rangeability</b>	50 : 1
<b>Material</b>	Modified PTFE for small K <sub>vs</sub> / C <sub>v</sub> : Hastelloy C276 plug and /or seat inserts
<b>Leakage class</b>	≤ 0,01 of rated K <sub>vs</sub> /C <sub>v</sub> -value, class VI acc. to DIN IEC 534
<b>Characteristics</b>	Equal percentage Linear On - Off

### Valve Code



## Series 132000

### Dimensions (mm) and Weights (kg)



**Table 5: Dimensions**

Size	Dimensions			
	A DIN PN 16	A Class 150 DIN	A Class 150 ANSI	F
DN 15 / 1/2"	130	130	130	185
DN 20 / 3/4"	130	130	130	185
DN 25 / 1"	160	160	184	240
DN 40 / 1 1/2"	200	200	222	245
DN50 / 2"	230	230	254	250
DN 80 / 3"	310	310	298	400
DN 100 / 4"	350	350	350	450

**Table 6: Weights**

Size	Type	
	DIN	ANSI
DN 15 / 1/2"	6	6
DN 20 / 3/4"	6	6
DN 25 / 1"	11	12
DN 40 / 1 1/2"	17	19
DN50 / 2"	19	21
DN 80 / 3"	39	37
DN 100 / 4"	44	44



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