

Kammer Series 185000

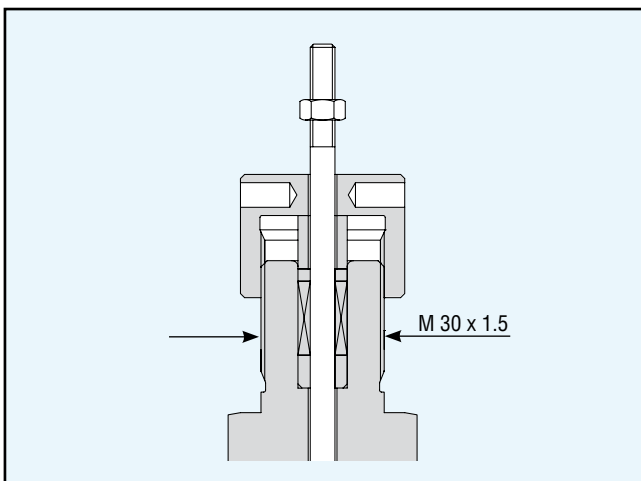
Laboratory Valves



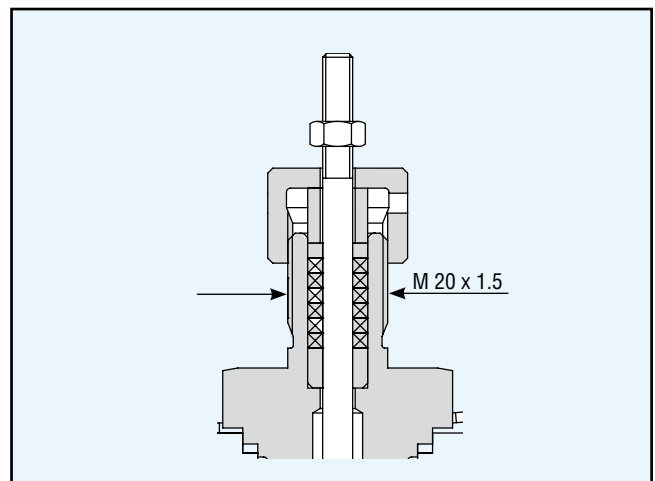
Series 185000

Description

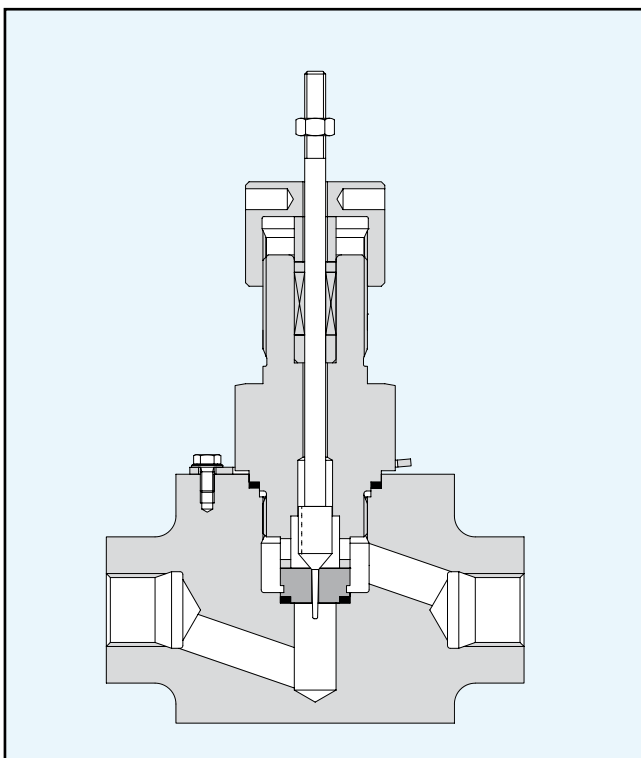
Kämmer microflow series 185000 / 285000 and 187000 / 287000 are ½" laboratory valves designed for precision controlling. The bodies in stainless steel and C-steel are manufactured from forged material, the bodies for all other special materials are manufactured from bar stock. The bodies are, therefore, easy to adapt for application requirements. Together with the series 1 or 2 actuators they form a compact control valve. Upon request a special calculating programme is available to define the K_{vs} values and the actual rangeability.



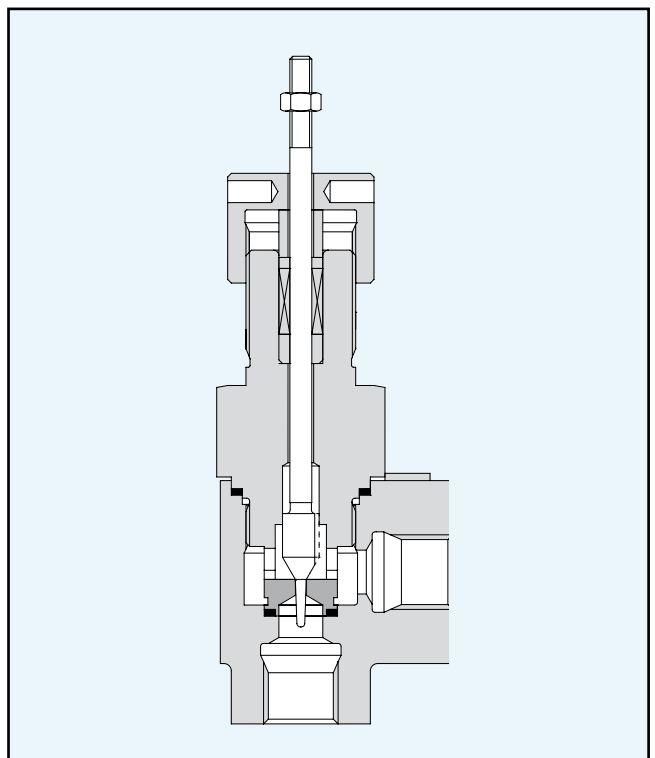
Series 185000 with connection M30 for actuator series 2 and 4



Series 285000 with connection M20 for actuator series 1 and 4



Series 185000 / 285000 globe valve



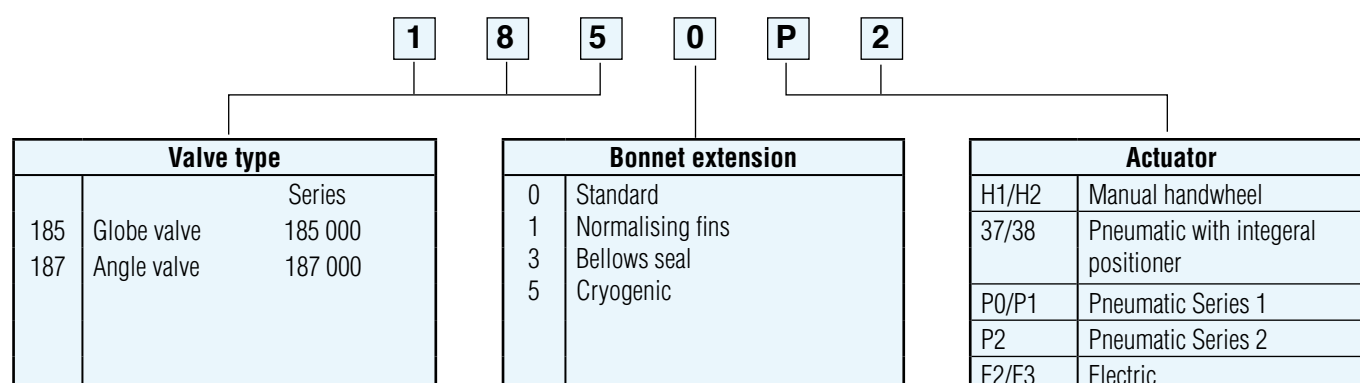
Series 187000 / 287000 angle valve

Series 185000

Technical Data

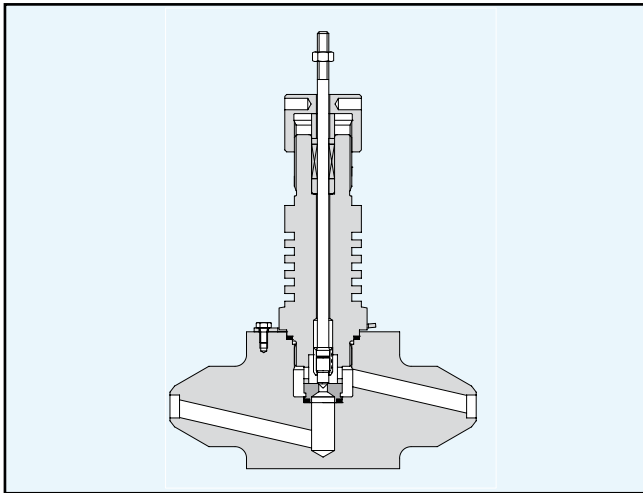
Valve body style	Globe valve and angle valve (angle valve with female thread only)			
Characteristics	Equal%, Linear, On-Off			
Seat leakage	< 0.01% of rated k_{vs} (ANSI Class IV)			
Material for valve plug / seat ring	See table page 5			
Packing	PTFE for temperatures up to 200 °C Grafoil for temperatures over 200 °C PTFE packing for oxygen service Packing according to German clean air act			
PTFE soft seat (T = max. 150 °C)	In seat ring $K_{vs} \geq 0.1$			
Body gasket	PTFE for temperatures up to 200 °C Grafoil for temperatures over 200 °C			
Extensions	Standard, normalizing fins, bellows seal, cryogenic			
Optional steam jacket	G 1/4" or NPT 1/4", other connections on request			
Kvs values	See table on page 5			
Sizes DIN	10	15	20	25
DIN-flange PN 10 - 160	X	X	X	X
DIN-flange PN 250 - 400	X	X	X	-
Sizes ANSI	-	1/2"	3/4"	1"
Class 150 - 2500	-	X	X	X
Connections	G 1/2", NPT 1/2" or flange connections			
Body material	316 SS, optional: Hastelloy B/C, Nickel, Monel, Titanium, Zirconium, Inconel			

Valve Code

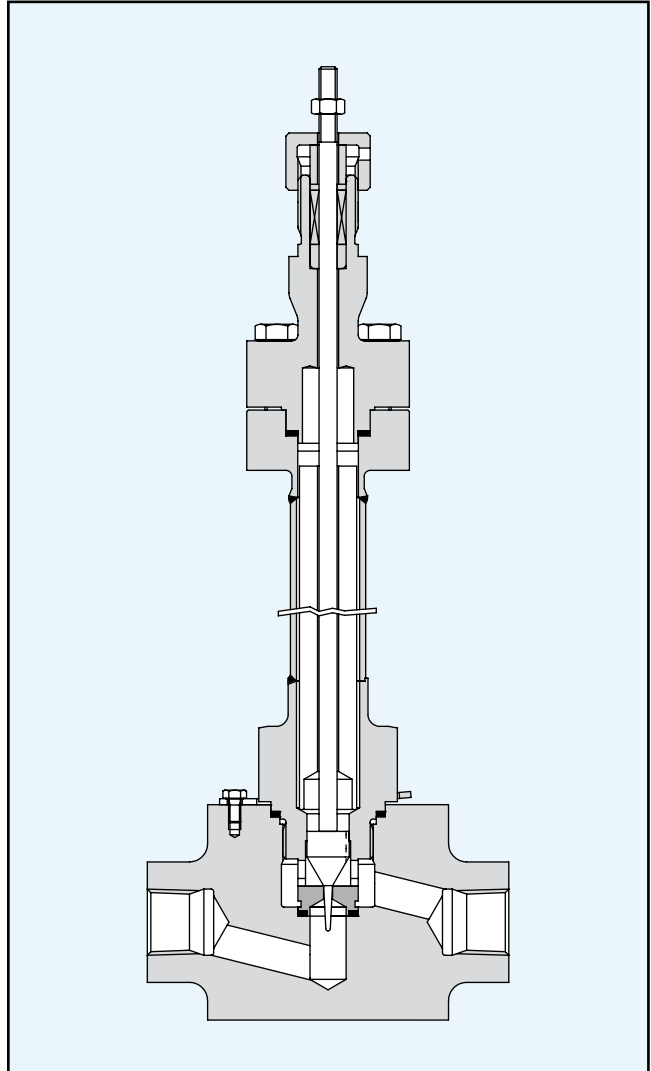


Series 185000

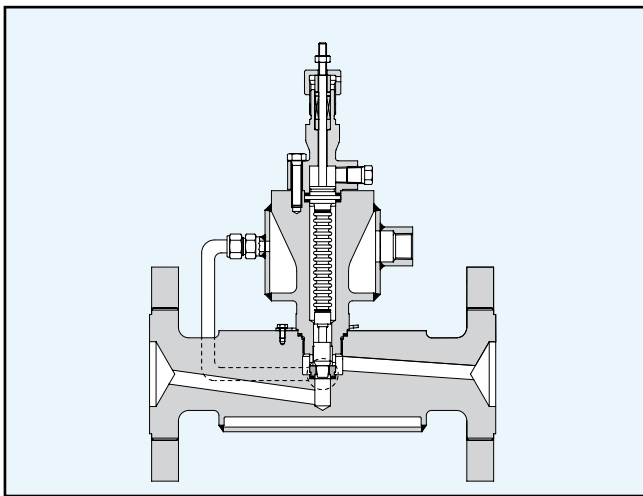
Designs



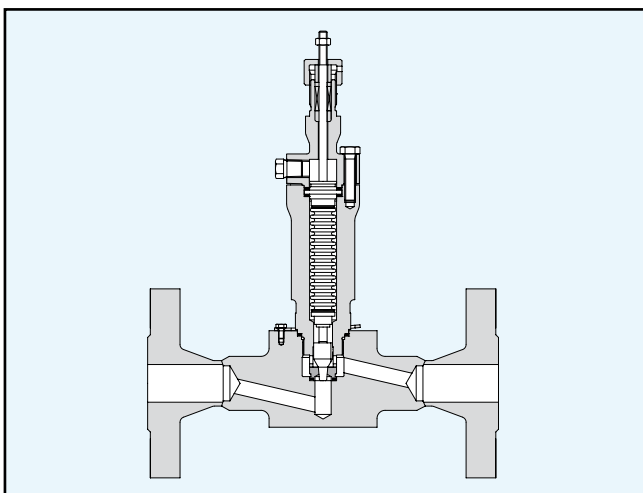
Valve with normalising fins



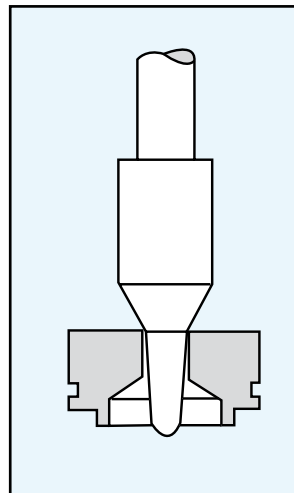
Valve with cryogenic extension



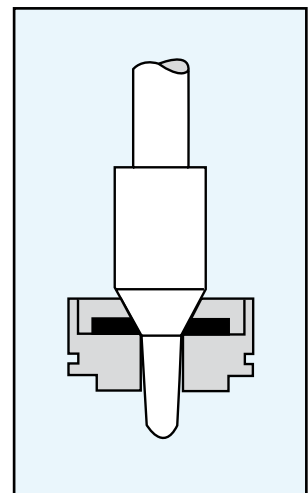
Valve with steam jacket



Valve with bellows seal



Standard trim



Trim with PTFE soft seat
(T = max. 150° C)

Series 185000

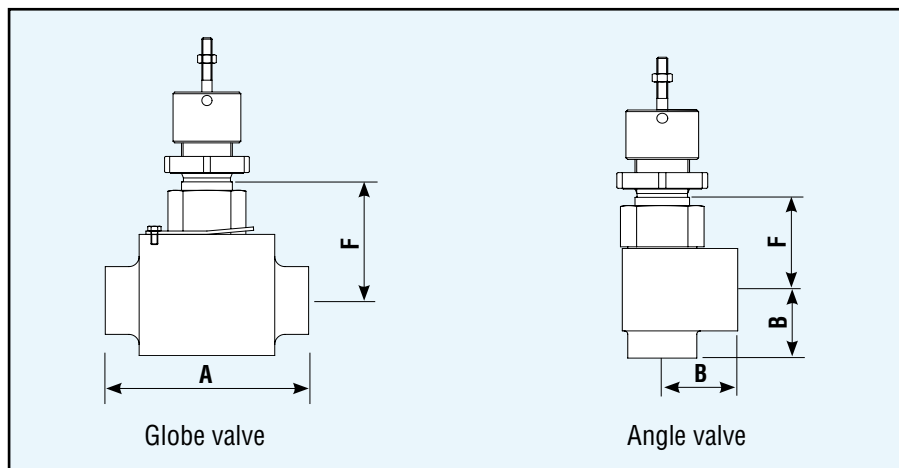
Standard K_{VS} values

K_{VS} values *	Reynolds Factor Kämmer	Stroke	Stem diameter (mm)	Seat diameter (mm)	Rangeability**	Plug material, Standard	Seat material, Standard	Characteristics lin	Characteristics equal%	Alternative materials for seat/plug		
										Tungsten carbide; Hastelloy C	Nickel; Monel; Titanium; Alloy 6	
0.000001	0.019	10	6	2	25:1	Alloy 6	1.4122		X			
0.000016	0.024								X			
0.000025	0.030								X			
0.000004	0.038								X			
0.000063	0.049								X			
0.00001	0.062	10	6	2	25:1	Alloy 6	1.4122		X			
0.000016	0.079								X			
0.000025	0.100								X			
0.00004	0.128								X			
0.000063	0.162								X			
0.0001	0.206	10	6	2	25:1	Alloy 6	1.4122		X	X		
0.00016	0.249								X	X		
0.00025	0.298								X	X		
0.0004	0.360								X	X		
0.00063	0.432								X	X		
0.001	0.520	10	6	2	25:1	Alloy 6	1.4122		X	X		
0.0016	0.628								X	X		
0.0025	0.751								X	X		
0.004	0.871								X	X		
0.0063	0.931								X	X		
0.01	0.940	10	6	3	50:1	Alloy 6	1.4571	X	X	X	X	
0.016	0.968								X	X	X	X
0.025	0.983								X	X	X	X
0.04	0.990								X	X	X	X
0.063	1.000								X	X	X	X
0.1	1.000	10	6	3	50:1	1.4571	1.4571	X	X	X	X	
0.16	1.000								X	X	X	X
0.25	1.000			4.5					X	X	X	X
0.4	1.000								X	X	X	X
0.63	1.000								X	X	X	X
1.0	1.000	10	6	7	50:1	1.4571	1.4571	X	X	X	X	
1.6	1.000								X	X	X	X
2.5	1.000							10		X	X	X

* $K_{VS} \leq 0,25 = K_V \times F_R$ acc. to ICE 534 ** For calibrating conditions

Series 185000

Dimensions (mm) and Weights (kg)



Dimension A / B

Size		Female thread		DIN-Flange			ANSI-Flange				
DIN	ANSI	Globe	Angle	PN 10-40	PN 63-160	PN250-400	Class 150	Class 300	Class 600	Class 1500	Class 2500
10	-	-	-	130	210	-	-	-	-	-	-
15	½"	120	43/43	130	210	230	178	190	203	216	264
20	¾"	-	-	150	230	230	181	194	206	119	273
25	1"	-	-	160	230	260	184	197	210	154	308

Dimension F

Size	Standard	Fins	Bellows		Cryogenic
			PN 10-100	PN160-250	
all	65	105	200	250	S*

*S = Special design to customer specifications.

Weights

Size		Female thread		DIN-Flange			ANSI-Flange				
DIN	ANSI	Globe	Angle	PN 10-40	PN 63-160	PN250-400	Class 150	Class 300	Class 600	Class 1500	Class 2500
10	-	-	-	4.5	4.9	5.4	4.5	4.8	5.0	5.4	5.6
15	½"	3.8	3.8	4.6	5.1	5.8	4.6	5.0	5.3	5.8	6.1
20	¾"	-	-	4.9	7.5	8.5	5.9	5.5	7.7	8.5	8.8
25	1"	-	-	5.7	7.7	9.0	5.7	6.1	7.3	9.0	9.5

Other Kämmer micro-flow valves



Kämmer micro-flow series 030000

Kämmer series 030000 ½" low flow valves are designed for precision controlling up to PN40. The body is a precision casting for high finishing accuracy. Together with the series 1 actuator it forms a compact control valve. Upon request a special calculating programme is available to define the K_{vs} -values and the actual rangeability.



Kämmer micro-flow series 080000/081000

Kämmer series 080000 / 081000 ¼" low flow laboratory valves are designed for precision controlling up to PN400. The body is manufactured from bar stock stainless steel and is easily adapted to meet application requirements. Together with the series 1 actuator it forms an extremely compact control valve.

Upon request a special calculating programme is available to define the K_{vs} values and the actual rangeability.



Kämmer micro-flow series L80000

With this innovative valve concept, Flowserve Kämmer Valves sets standards in the micro-valve world. From its beginnings in 1966, Kämmer has been considered a world leader for precision and reproducibility in micro-flow applications and now completes its micro-valve series with the L80000 laboratory valve. The patented design with a moving stainless steel ball as the sealing device and the modular construction destine the series L80000 as an "All-rounder" in the areas of laboratory and pilot installation technology. Various options with respect to design and materials leave hardly anything to be desired. With regard to flexibility and adaptability this valve series is best suited to meet your most demanding applications.



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