FLOWSERVE

Kämmer Series 020000

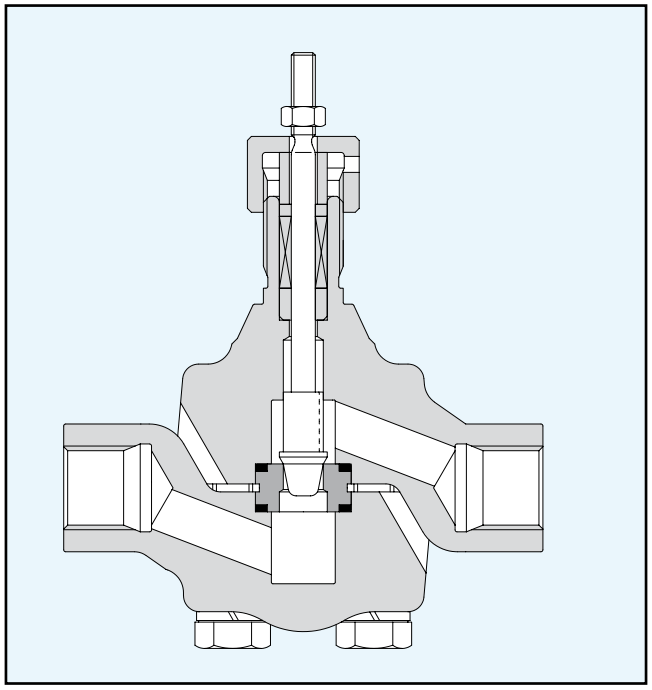
Split Body Valves

Experience In Motion

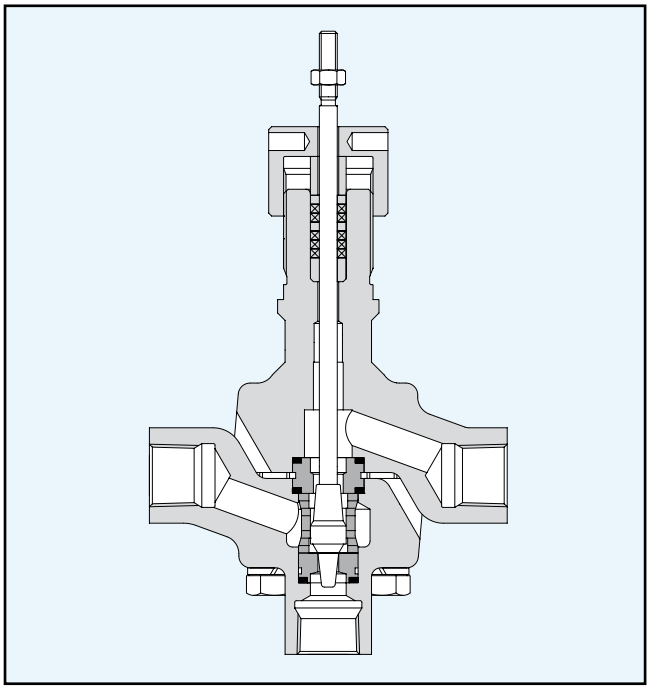
Series 020000

Description

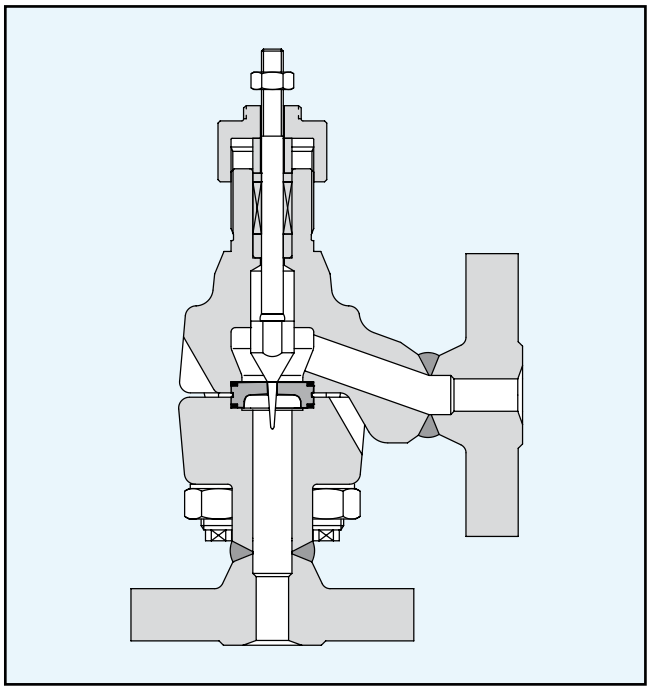
Kämmer Series 020000 are split body style valves manufactured from forged material. This engineering design easily adapts to meet application requirements. Furthermore this design makes the valves easy to clean and maintain.



Series 020000 globe valve



Series 023000 3-way valve



Series 021000 angle valve

Series 020000

Technical Data

Valve body style	Globe, angle, 3-way			
Characteristics	Equal%, Linear, On - Off			
Rangeability	See table on page 5			
Seat leakage	≤ 0.01% of rated k_{vs} value, Class IV acc. to DIN IEC 534 - higher requirements on request			
Material for plug / seat	See table on page 5			
PTFE soft seat (T = max. 150 °C)	Valve seat with PTFE insert k_{vs} 0.1 - 2.5			
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 (TA-Luft)			
Body gasket	PTFE for temperatures up to +200 °C 316Ti/Grafoil and Grafoil for temperatures over +200 °C			
Extensions	Standard, normalising fins, bellows seal, cryogenic			
k_{vs} values	See table on page 5			
Body material	1.4571			
Connections*				
DIN sizes:	**10**	**15**	**20**	**25**
DIN-Flanges PN 10 - 40	X	X	X	X
DIN-Flanges PN 63 - 400	X	X	–	–
ANSI sizes:	–	½″	¾″	1″
Class 150 - 300	–	X	X	X
Class 600 - 2500	–	X	–	–
Threaded	ISO 228 - G ½″ or NPT ½″, PN 10 - 400			

*Tube fittings, weld ends and other connections on request.

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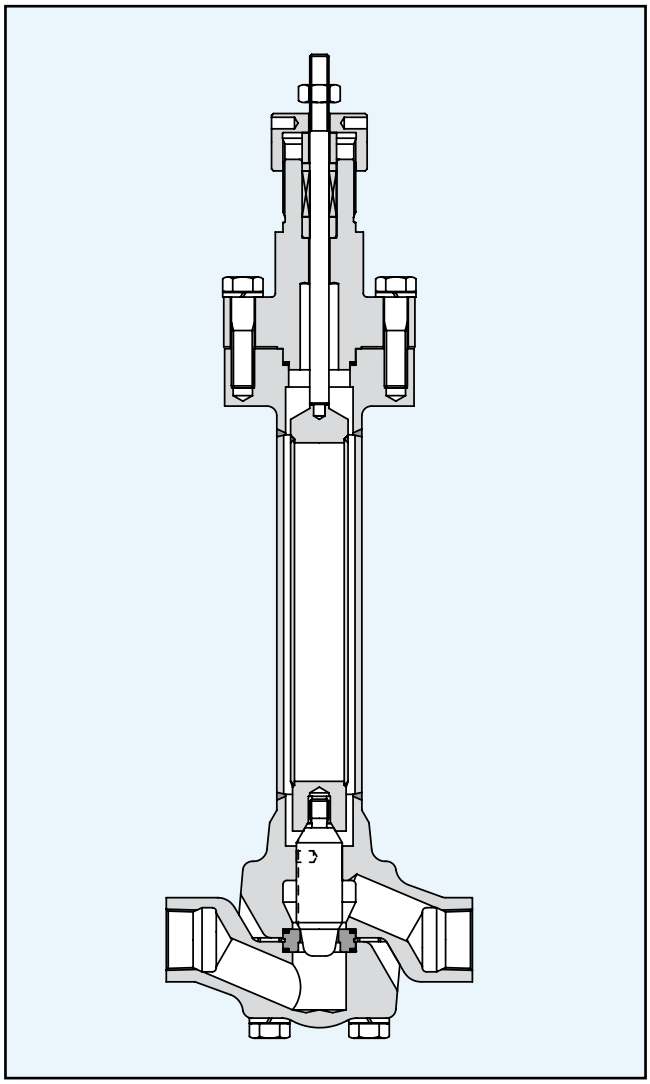
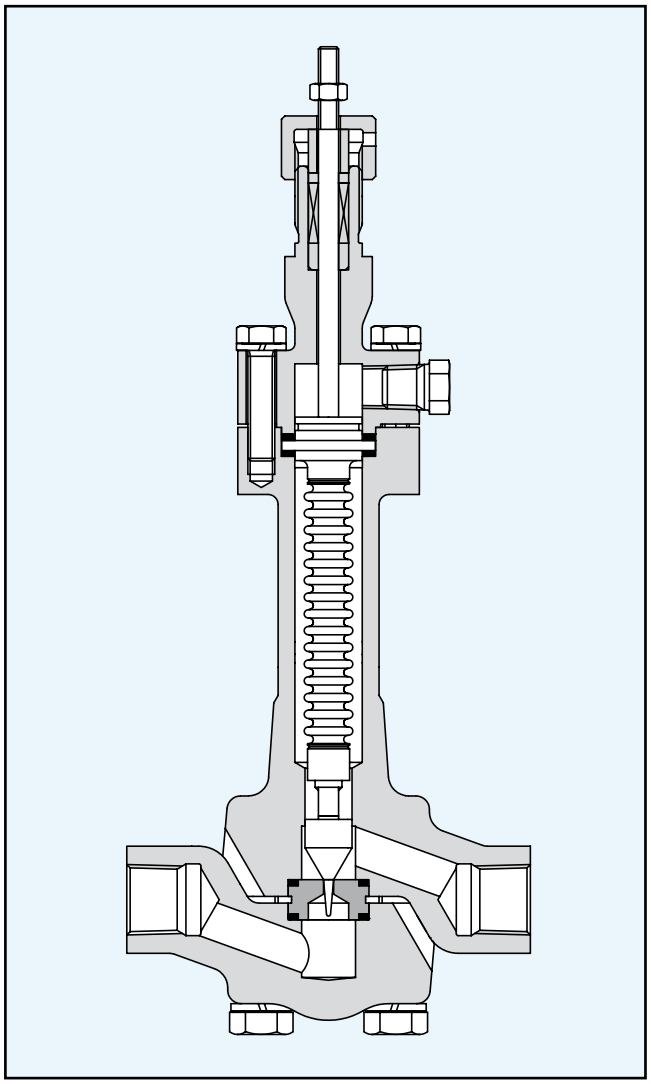
Series 020000

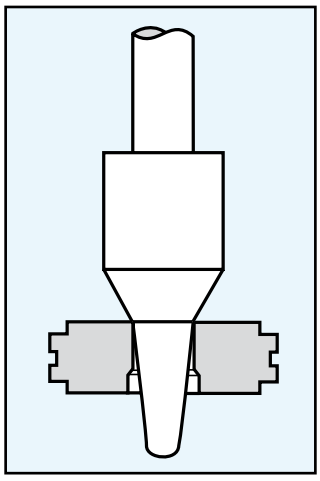
Designs



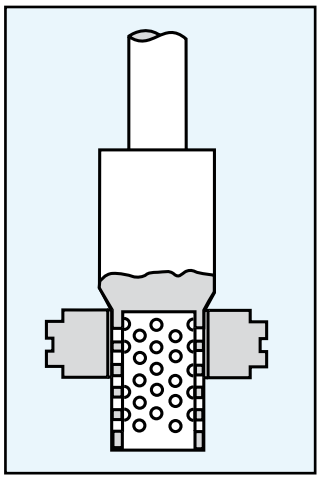
Valve with cryogenic extension



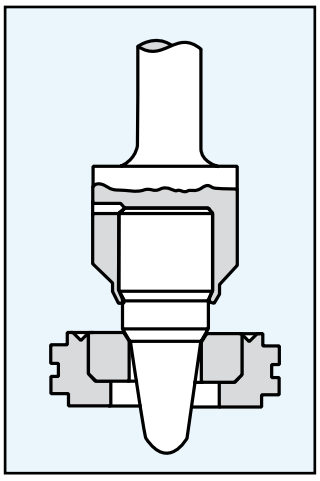
Valve with bellows seal



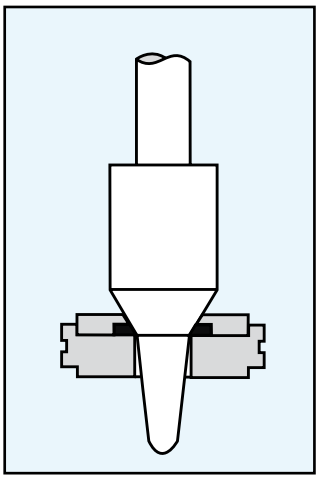
Standard trim



Low noise cage trim



Ceramics or tungsten carbide plug tip and seat



Trim with PTFE soft seat,
T = max. 150 °C (series 011000)

Series 020000

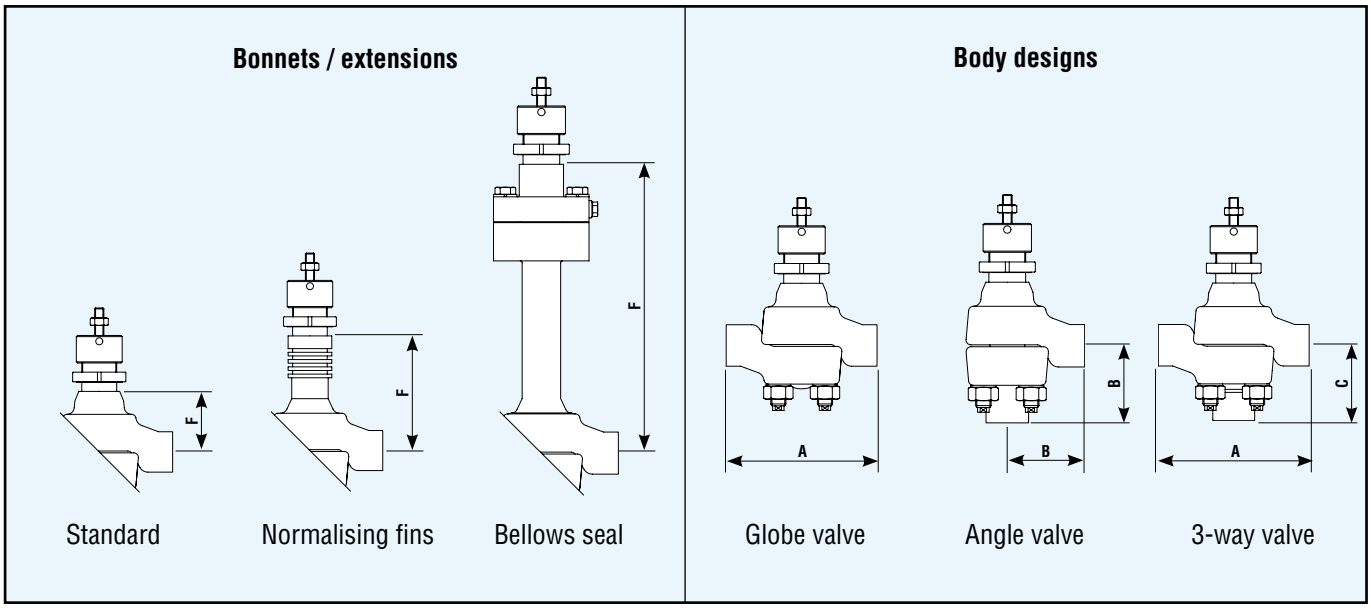
Standard K_{VS} Values

K_{VS} values*	Reynolds factor, Kämmer (F_R)	Stroke (mm)	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; Ceramics	Nickel; Monel; Titanium; Alloy 6
0.000001	0.019	10	6	2	25:1	Alloy 6	1.4122	-	X	-	-
0.0000016	0.024							-	X	-	-
0.0000025	0.030							-	X	-	-
0.000004	0.038							-	X	-	-
0.0000063	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
0.10	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							X	X	X	X
0.40	1.000			4.5				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	X

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

Series 020000

Dimensions (mm)



Dimension F

Connection	Standard	Fins	Bellows PN 10 - 100	Bellows PN 160 - 250
All valves	45	85	230	305

Dimensions for valves with cryogenic extensions on request.

Dimension B / C

Valve size	Threaded	DIN Flange			DIN Flange (RF)*				
	PN 10 - 400	PN 10 - 40	PN 63 - 160	PN 250 - 400	Class 150	Class 300	Class 600	Cl. 900/1500	Class 2500
10 / ¼″	-	85	105	115	-	-	-	-	-
15 / ½″	60	90	105	115	89	95	102	108	132
20 / ¾″	-	95	115	-	90	97	103	-	-
25 / 1“	-	100	115	-	92	98	105	-	-

Dimension A

Valve size	Threaded	DIN Flange			DIN Flange (RF)*				
	PN 10 - 400	PN 10 - 40	PN 63 - 160	PN 250 - 400	Class 150	Class 300	Class 600	Cl. 900/1500	Class 2500
10 / ¼″	-	130	210	230	-	-	-	-	-
15 / ½“	120	130	210	230	178	190	203	216	264
20 / ¾″	-	150	230	-	181	194	206	-	-
25 / 1″	-	160	230	-	184	197	210	-	-

* Face-to-face dimensions of valves with other flange facings on request.

Series 020000

Weights (kg)

Valve series	Valve size		Threaded PN 10 - 40	DIN Flange PN			ANSI Flange Class			
				10 - 40	63 - 160	250 - 400	150	300	600	900 - 2500
020000 Standard	10	-	-	3.5	4.4	6.5	-	-	-	-
	15	½″	2.3	3.7	4.6	8.7	3.3	3.8	4.0	8.0
	20	¾″	-	4.4	-	-	3.7	4.8	-	-
	25	1″	-	4.9	-	-	4.4	5.5	-	-
020100 Fins	10	-	-	3.7	4.6	6.7	-	-	-	-
	15	½″	2.5	3.9	4.8	8.9	3.5	4.0	4.2	8.2
	20	¾″	-	4.6	-	-	3.9	5.0	-	-
	25	1″	-	5.1	-	-	4.5	5.7	-	-
020300 Bellows	10	-	-	4.6	5.5/7.5	7.6/9.6	-	-	-	-
	15	½″	3.4	4.8	5.7/7.7	9.8/11.8	4.4	4.9	5.1	9.1
	20	¼″	-	5.5	-	-	4.8	5.9	-	-
	25	1″	-	6.0	-	-	5.4	6.6	-	-
023000 Standard	10	-	-	4.2	5.6	7.7	-	-	-	-
	15	½″	2.4	4.5	5.9	10.0	3.9	4.6	5.0	9.0
	20	¾″	-	5.6	-	-	4.5	6.2	-	-
	25	1″	-	6.3	-	-	5.4	6.9	-	-
023100 Fins	10	-	-	4.4	5.8	9.9	-	-	-	-
	15	½″	2.6	4.7	6.1	10.1	4.1	4.8	5.2	9.2
	20	¾″	-	5.8	-	-	4.7	6.4	-	-
	25	1″	-	6.5	-	-	5.6	7.1	-	-

Weights for valves with cryogenic extensions on request.

Valve Code

0	2	0	0	P	3

Valve design

		Series
020	Globe valve	020 000
021	Angle valve	021 000
023	3-way valve	023 000

Bonnets / extensions

0	Standard
1	Normalising fins
3	Bellows seal
5	Cryogenic extension

Actuator

H2, H3	Manual handwheel
P2, P3	Pneumatic, Series 2
37, 38	Pneumatic, Series 4
E2, E3	Electric

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