

# General Service Valves

**Series 035000 Globe Valves**

**Series 031000 Angle Valves**

**Series 033000 3-Way-Valves**

## Description

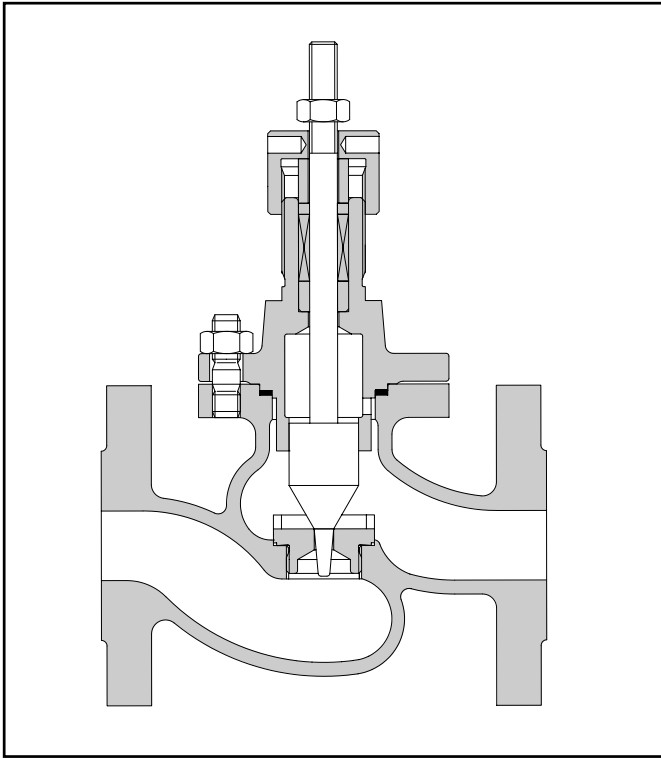
Kammer's series 035000/031000/033000 is a competitive line of general service control valves designed to meet many common applications. This valve series is compact, lightweight and extremely accurate. The valves are available in sizes between DN 15 - 150 (1/2" - 6") and are easily modified for special applications.



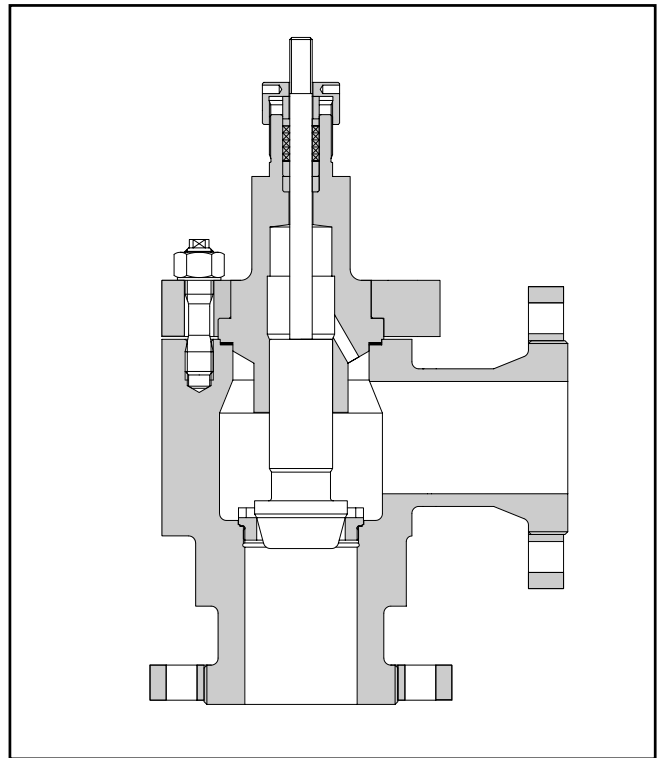
## Technical Data

<b>Valve body styles</b>	Globe-, angle-, 3-way valves							
<b>Characteristics</b>	Equal %, Linear, On - Off							
<b>Seat leakage, standard</b>	< 0,01% of rated $k_{vs}$ value, class IV acc. to DIN IEC 534 - other requirements on request							
<b>Material for plug / seat ring</b>	316 stainless steel, with hard faced plug shaft ( $\geq$ DN 25). Stellite facing, Hastelloy B/C, Nickel, Monel, Titanium, Ceramics, Tungsten carbide optional. Noise reduction by multi-hole cage plug and additional silencer inside the valve body							
<b>PTFE soft seat (T = max. 150 °C)</b>	Valve plug with PTFE insert for $\geq k_{vs}$ 0.1							
<b>Packing</b>	PTFE for temperatures up to 200 °C Grafoil for temperatures over 200 °C PTFE for oxygen service Packing according to German clean air act (TA-Luft)							
<b>Body gaskets</b>	PTFE for temperatures up to 200 °C Grafoil for temperatures over 200 °C							
<b>Extensions</b>	Standard, normalizing fins, bellows seal							
<b>Steam jacket connections</b>	Screwed G 1/2", flanges DN 15 PN 40							
<b><math>k_{vs}</math> values</b>	See table on page 4							
<b>Valve sizes</b>	DIN	15	25	40	50	80	100	150
	ANSI	1/2"	1"	1 1/2"	2"	3"	4"	6"
<b>Stroke</b>	mm	10	20	20	20	40	40	40
<b>DIN Flanges</b>	PN 10 - 40	x	x	x	x	x	x	x
	PN 63 - 160	x	x	x	x	x	x	x
<b>ANSI Flanges</b>	Class 150/300	x	x	x	x	x	x	x
	Class 600/900	x	x	x	x	x	x	x
<b>Body materials:</b>								
<b>Forged steel</b>	C22.8 (1.0460)	x						
	A105 (1.0432)	x	x	x	x			
	1.4571* (316Ti)	x	x	x	x			
<b>Cast carbon steel</b>	GS-C25N (1.0619)		x	x	x	x	x	x
	WCB (1.1136)		x	x	x	x	x	
<b>Cast stainless steel</b>	1.4581	x	x	x	x	x	x	x
	CF3M*	x	x	x	x	x	x	x

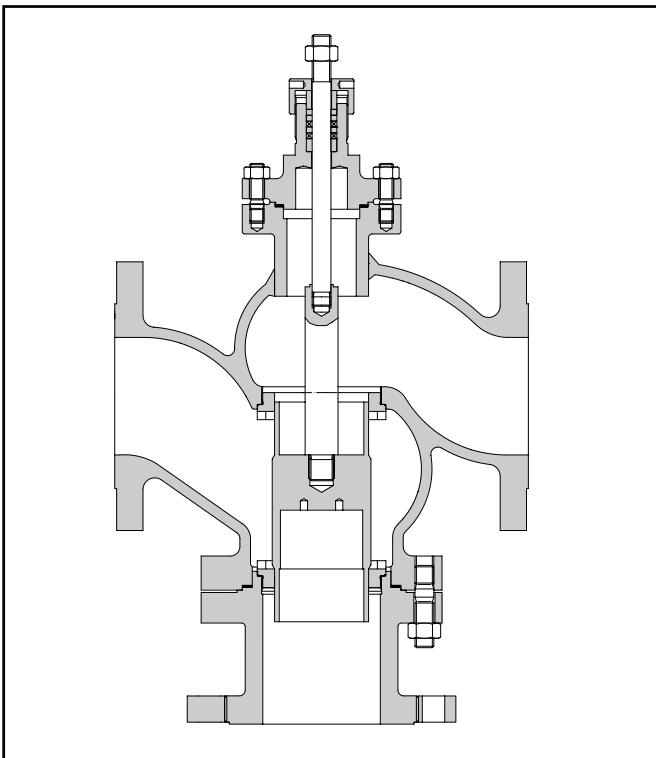
\*Material for cryogenic applications down to -270 °C. Bodies also available in Hastelloy C276 (2.4618), Monel 400 (2.4368) and Inconel 600 (2.4816). Other stainless steel and nickel based alloys on request.



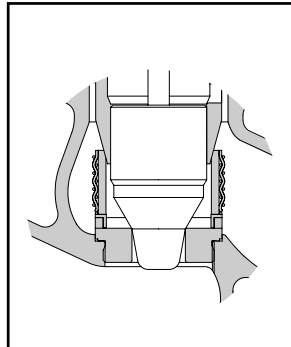
Globe valve



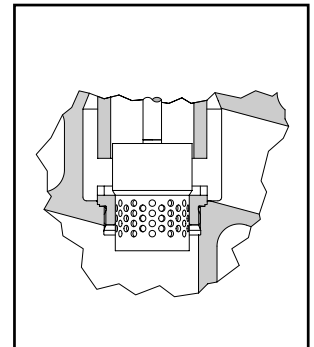
Angle valve



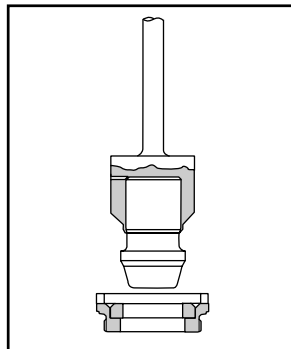
3-way valve



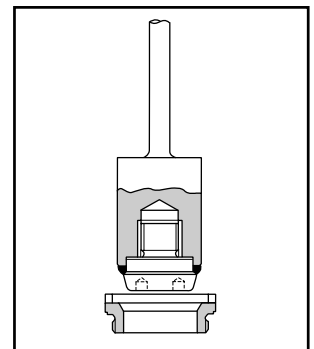
Silencer



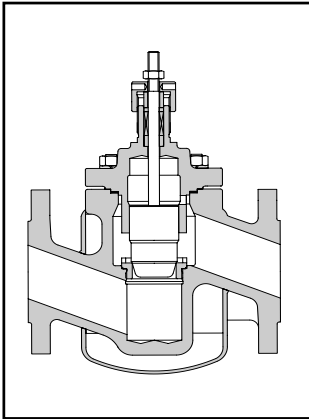
Multi-hole cage plug



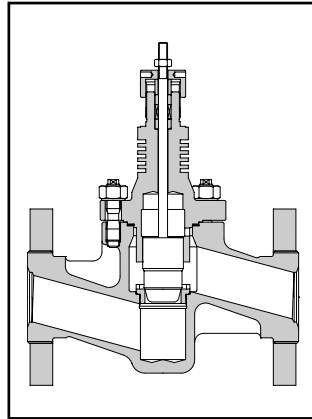
Ceramics or tungsten carbide plug tip and seat



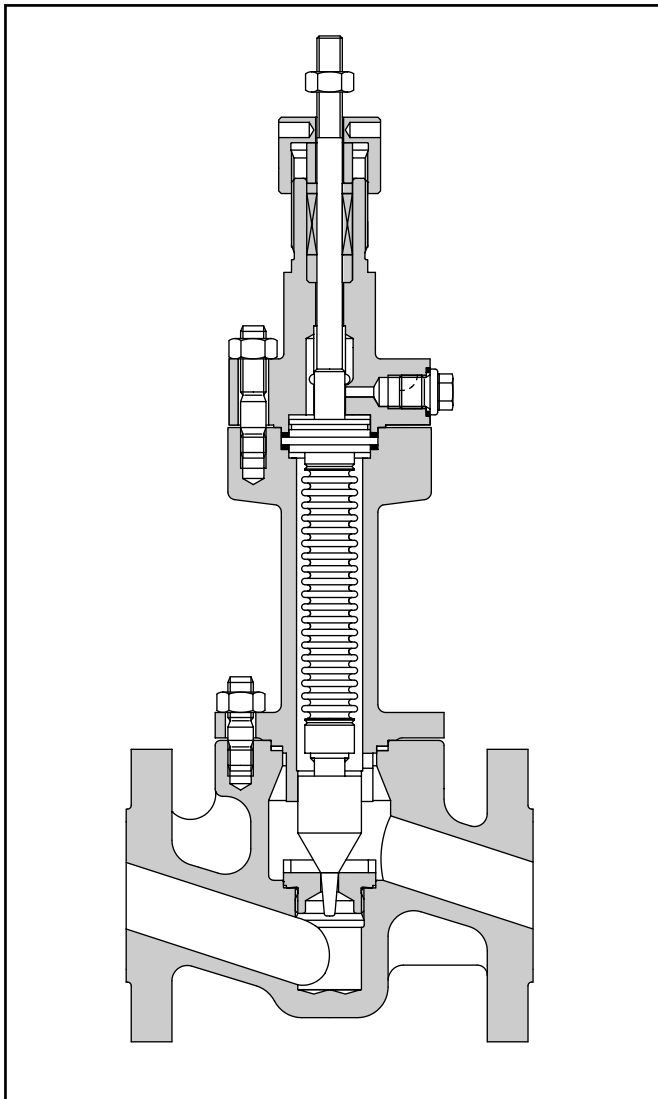
Trim with PTFE soft seat.  
(T = max. 150 °C)



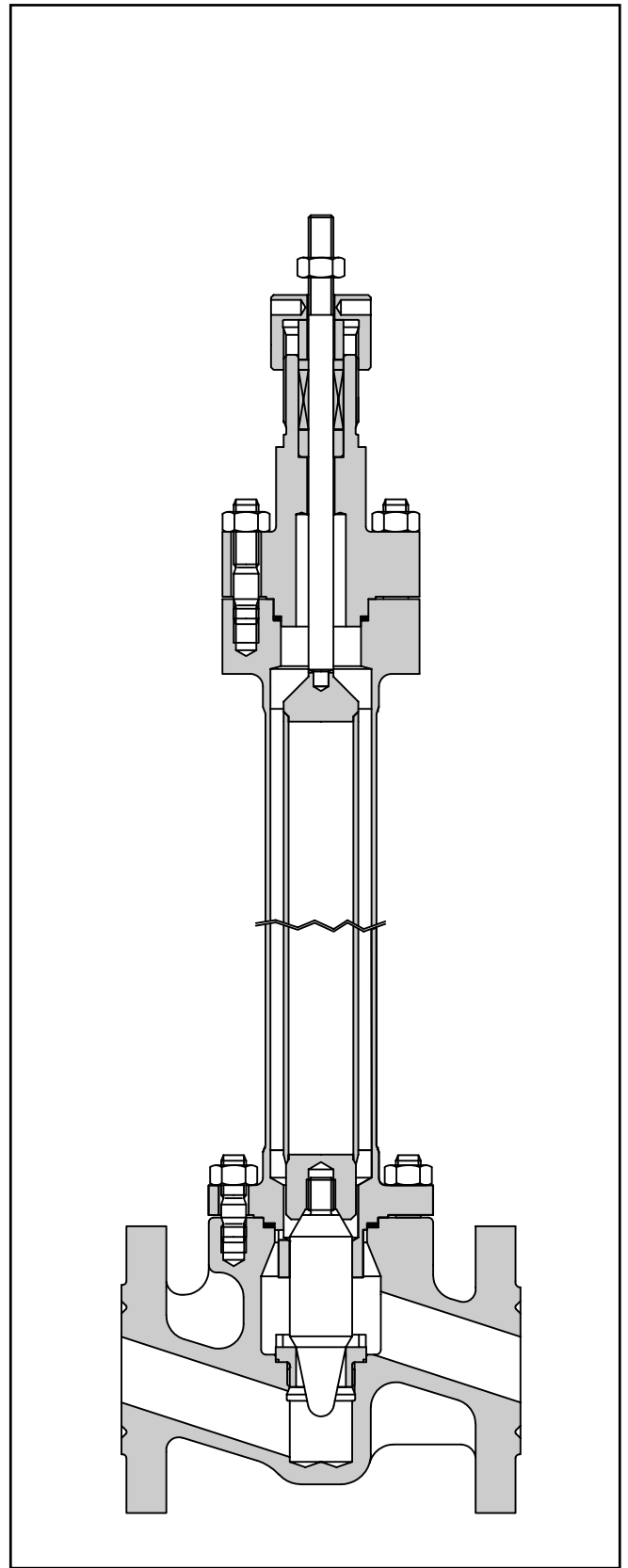
Valve with steam jacket



Normalizing fins for temp. from -30 to 0 °C and from +200 to 400 °C



Bellows seals are available up to 270 bar service pressure. Standard bellows material is 321 stainless steel. Special materials for extraordinary service on request



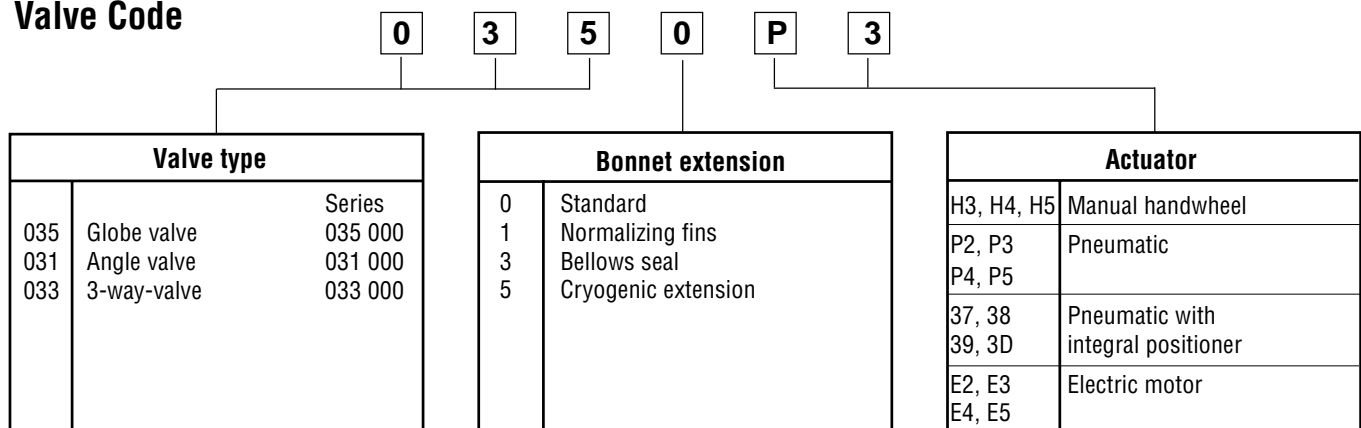
Control valve with extension for cryogenic service. Body and extension material 321 stainless steel for service temperatures down to -196 °C

### Standard $K_{VS}$ Values

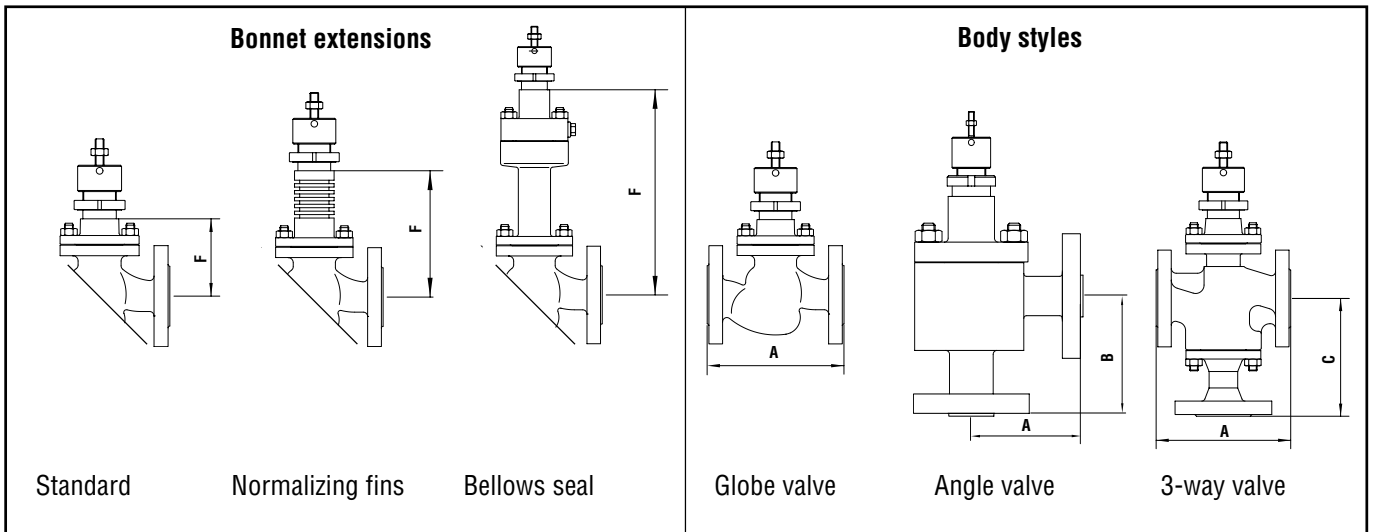
									Seat diameter (mm)	Rangeability**	Seat material (standard)	Plug material (standard)
Size DIN	15	25	40	50	80	100	150					
Size ANSI	1/2"	1"	1 1/2"	2"	3"	4"	6"					
Stroke (mm)	10	20	20	20	40	40	40					
Stem diameter (mm)	6	10	10	10	16	16	16					
								0,010	3	50:1	Stellite	316
								0,016	3	50:1	Stellite	316
								0,025	3	50:1	Stellite	316
								0,04	3	50:1	Stellite	316
								0,063	3	50:1	Stellite	316
								0,10	4,5	50:1	316	316
								0,16	4,5	50:1	316	316
								0,25	4,5	50:1	316	316
								0,4	4,5	50:1	316	316
								0,63	4,5	50:1	316	316
								1,0	7	50:1	316	316
								1,6	7	50:1	316	316
								2,5	10	50:1	316	316
								4,0	12	50:1	316	316
								6,3	16	50:1	316	316
								10	20	50:1	316	316
								16	25	50:1	316	316
								25	32	50:1	316	316
								40	40	50:1	316	316
								63	50	50:1	316	316
								100	63	50:1	316	316
								160	80	50:1	316	316
								250	100	50:1	316	316
								400	125	50:1	316	316

\*  $K_{VS} \leq 0,25 = K_V \times F_R$  in acc. with IEC 534      \*\*For calibrating conditions  
 Further special  $K_{VS}$  trims on request.

### Valve Code



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



#### Face to face dimensions A / B / C, DIN design (mm)

DN	Globe valve A			Angle valve A / B			3-way valve C
	PN 10 - 40	PN 63 - 160	PN 250 - 320	PN 10 - 40	PN 63 - 160	PN 250 - 320	PN 10 - 40
15	130	210	230	90	105	115	-
25	160	230	260	100	115	130	140
40	200	260	300	115	130	150	170
50	230	300	350	125	150	175	170
80	310	380	450	155	190	225	280
100	350	430	520	175	215	260	280
150	480	550	700	225	275	350	360

#### Height F (mm) und weight (kg), DIN design

DN	Standard		Normalising fins				Bellows seal						
	PN 10-40	PN 63 - 160	PN 10-40	PN 63-160	PN 10-40	PN 63-160	PN 10-40	PN 63-160	PN 10-40	PN 63-160			
	Height	Weight	Height	Weight	Height	Weight	Height	Weight	Height	Weight	Height	Weight	
15	90	6	130	19	130	27	130	7	130		195	9	250
25	90	6,5	150	43	150	27	150	7,5	150		240	9	310
40	130	13,5	190	47	190	57	190	14,5	190		270	18,5	340
50	130	16	190		190	61	190	17	190		270	21	340
80	200	39	260				260	40			430	45	
100	225	48	285				285	49			455	54	
150	330	125	390				390	130			430	135	

#### Face to face dimensions A / B / C, ANSI design RF (mm)

DN	Globe valve A						Angle valve A / B						3-way-valve C	
	Class 150	Class 300	Class 600	Class 900	Class 1500	Class 2500	Class 150	Class 300	Class 600	Class 900	Class 1500	Class 2500	Class 150	Class 300
1/2"	178	190	203	216	216	264	89	95	102	108	108	132	-	-
1"	184	197	210	254	254	308	92	98	105	127	127	154	140	140
1 1/2"	222	235	251	305	305	384	111	117	125	152	152	192	171	171
2"	254	267	286	368	368	451	127	133	143	184	184	225	171	171
3"	298	318	337	381	470	578	149	159	168	190	235	289	279	279
4"	352	368	394	457	546	673	176	184	197	229	273	337	279	279
6"	451	473	508	610	705	914	225	236	254	305	352	457	362	362

#### Height F (mm) and weight (kg), ANSI design RF

DN	Standard		Normalizing fins				Bellows seal						
	Class 150 - 300	Class 600 - 900	Class 1500 - 2500	Class 150 - 900	Class 1500 - 2500	Class 150 - 300	Class 600 - 900	Class 150 - 300	Class 600 - 900	Class 150 - 300	Class 600 - 900		
	Height	Weight	Height	Weight	Height	Weight	Height	Weight	Height	Weight	Height	Weight	
1/2"	90	7	130	21	130	31	130	7,5	130		195	9	250
1"	90	8,5	150	46	150	31	150	9	150		240	11	310
1 1/2"	130	15	190	51	190	61	190	16	190		270	21	340
2"	130	18	190		190	65	190	19	190		270	24	340
3"	200	42	260				260	44			430	48	
4"	225	51	285				285	53			455	57	
6"	330	130	390				390	135			430	139	

**Germany**

**Flowserve Essen GmbH  
Kammer Ventile  
Manderscheidtstrasse 19  
D-45141 Essen  
Tel.: (02 01 ) 89 19 5 • Fax: (02 01 ) 89 19 600**

**Flowserve Essen GmbH**  
Sales Office Hamburg

Tel.: (02 01) 89 19 665  
Fax: (02 01) 89 19 662

**Flowserve Essen GmbH**  
Sales Office Niederrhein  
Hoher Weezer Weg 27a

D - 47574 Goch  
Tel.: (0 28 23) 9 80 02  
Fax: (0 28 23) 9 80 03

**Flowserve Essen GmbH**  
Sales Office West  
Büdericher Straße 8

D - 47877 Willich  
Tel.: (0 21 54) 20 20 71  
Fax: (0 21 54) 20 20 73

**Flowserve Essen GmbH**  
Sales Office Maintal  
Robert-Bosch-Strasse 11

D - 63477 Maintal  
Tel.: (0 61 81) 42 404 11  
Fax: (0 61 81) 42 404 29

**Flowserve Essen GmbH**  
Sales Office Frankfurt  
Steinweg 22

D - 65824 Schwalbach a. Ts.  
Tel.: (06196) 85 203  
Fax: (06196) 84 462

**Flowserve Essen GmbH**  
Sales Office Südwest  
Am Mühlhübel 13

D - 67686 Mackenbach  
Tel.: (06 374) 99 27 84  
Fax: (06 374) 99 27 85

**Flowserve Essen GmbH**  
Sales Office Augsburg  
Staatsstraße 10

D - 86450 Altenmünster  
Tel.: (0 82 95) 9 00 03  
Fax: (0 82 95) 9 00 04

**Flowserve Essen GmbH**  
Sales Office Ost  
Oberhasel 18

D - 07407 Kirchhasel  
Tel.: (0 36 72) 43 19 82  
Fax: (0 36 72) 43 19 89

**FRANCE**

Flowserve S.A.S.  
SEREG  
12, av. du Québec, BP645  
F- 91965 Courtaboeuf Cedex

Tel.: +33 1 60 92 32 87  
Fax: +33 1 60 92 32 99

**USA / CANADA**

Flowserve (FCD)  
KAMMER VALVES, INC.  
1300 Parkway View Drive  
Pittsburgh, Pa 15205 U.S.A.

Tel.: +1 412 787 - 8803  
Fax: +1 412 787 -1944

**SWITZERLAND**

Flowserve S.A.  
Kammer Vannes.  
Allée du Quartz 1  
CH-2300 La Chaux-de-Fonds

Tel.: +41 (0) 32 925 9700  
Fax: +41 (0) 32 926 5422

**NETHERLANDS**

Flowserve BV  
FCD  
Van Leeuwenhoekweg 6  
NL - LX Hellevoetsluis

Tel.: +31 181 33 00 44  
Fax: +31 181 33 00 40

**AUSTRALIA**

Flowserve Australia PTY LTD  
14 Dalmore Drive  
Scoresby VICTORIA 3179

**AUSTRALIA**

Tel.: +61 3 9764 0060  
Fax: +61 3 9764 0013

**AUSTRIA**

Flowtec Industrietechnik GmbH  
Weinitzenstrasse 1  
8045 Graz

**AUSTRIA**

Tel.: +43 (0) 316 69 70 69-0  
Fax: +43 (0) 316 69 70 69-9

**DENMARK**

Axflow A/S  
solvang 6  
3450 Allerød

**DENMARK**

Tel.: +45 4816 8858  
Fax: +45 7010 3555

**FINLAND**

KONTRAM OY  
PO. Box 88  
02201 Espoo

**FINLAND**

Tel. +358 9 8866 4500  
Fax: +358 9 8866 4599

**GREAT BRITAIN**

Flowserve  
Station Road, Pershore  
Worcestershire, WR10 2BZ

**ENGLAND**

Tel.: +441386 554 551  
Fax: +441386 554 968

**IRELAND**

Flexachem Manufacturing Ltd  
Donnybrook Commercial Centre  
Douglas, Cork

**IRELAND**

Tel.: +353 21 363742  
Fax: +353 21 891297

**ISRAEL**

TECHNOMAD LTD  
19 Hashikma Str.  
Azor 58009

**ISRAEL**

Tel.: +972 3 5585550  
Fax: +972 3 5585090

**ITALY**

EUROVALVE S.R.L.  
Via Camicie Rosse 11  
20090 Opera (MI)

**ITALY**

Tel.: +390 2 57 6018 45  
Fax: +390 2 57 6017 00

**JAPAN**

TOKO VALEX Co., Ltd  
2-17, 4-chome, Matsushima  
Edogawa-Ku, Tokyo

**JAPAN 132**

Tel.: +81 3 3655 6769  
Fax: +81 3 3655 5181

**NORWAY**

NOR Instruments A.S.  
Jerikoveien 26  
1067 Oslo

**NORWAY**

Tel.: +47 2210 05 00  
Fax: +47 2210 0510

**R. O. C.**

Eagle Process Service Ud.  
Suite 4, 5th Floor No. 312  
Chung Hsiao E. Road, Sec. 4  
Taipei, Taiwan, R. O. C.  
TAIWAN

Tel.: +8862 2751 6197  
Fax: +8862 2781 4640

**SINGAPORE**

Valtek Asia Pacific Operations  
c/o Durco-Valtek Asia  
12, Tuas Avenue 20  
Singapore 2263  
SINGAPORE

Tel.: +65 862 3332  
Fax: +65 862 4940

**SOUTH AFRICA**

Valtek South Africa (Pty.) Ltd  
P. O. Box 9279  
Edenglen 1613

**SOUTH AFRICA**

Tel.: +2711 609 2094-96  
Fax: +2711 609 3735

**SWEDEN**

alnab  
Ögårdesvägen  
433 86 Partille

**SWEDEN**

Tel.: +46 31 44 94 50  
Fax: +46 31 44 94 55



All data subject to change without notice