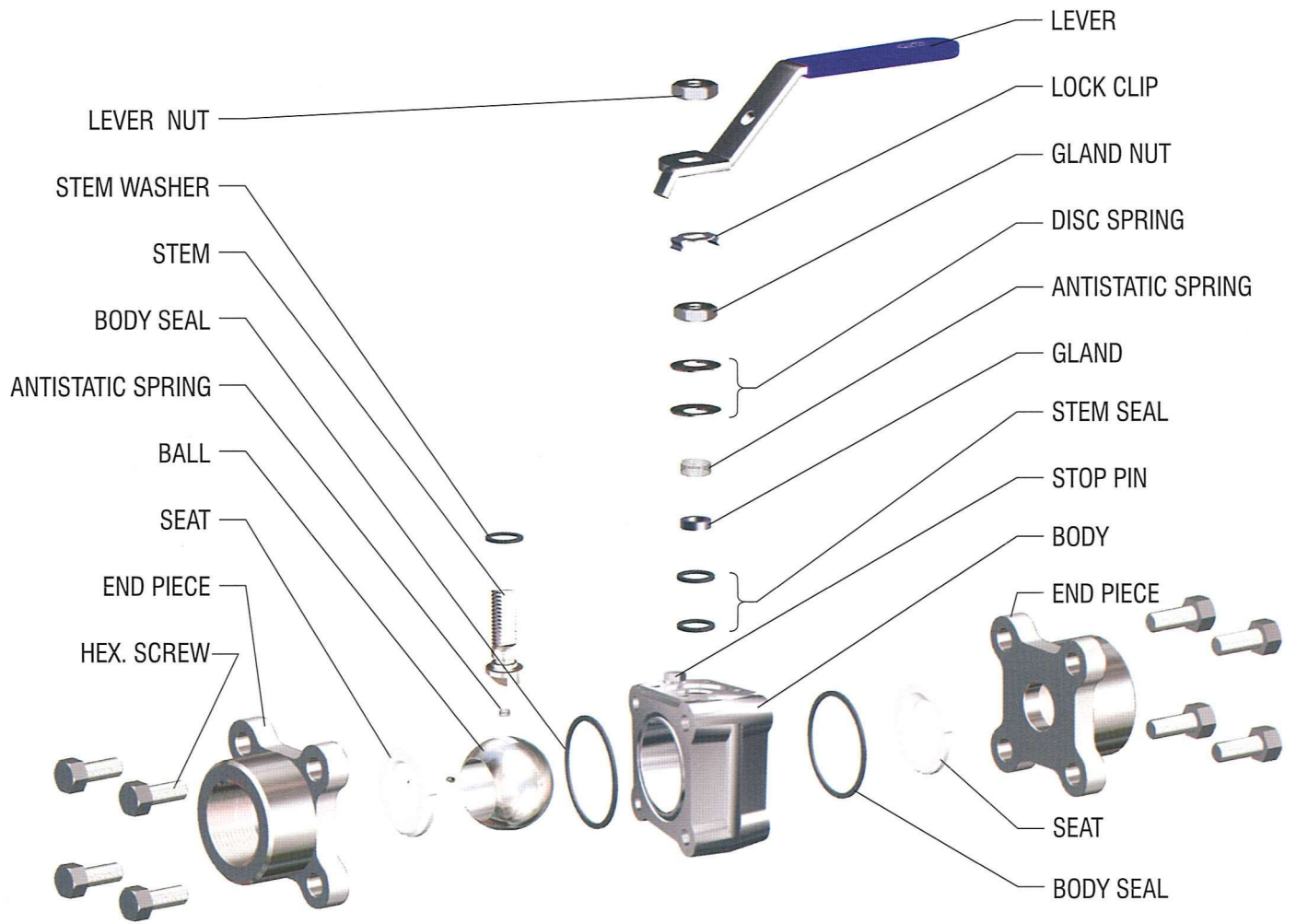


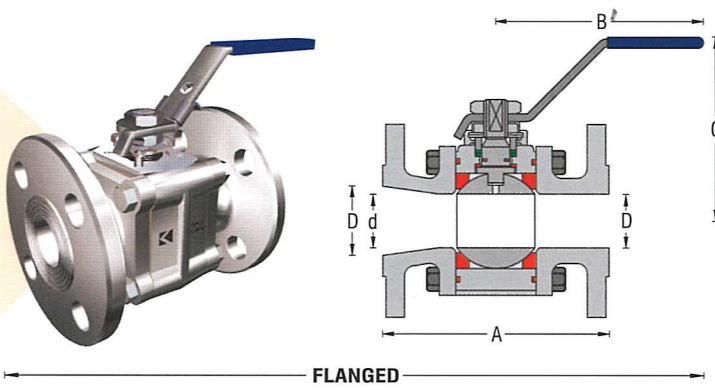


**FLOATING BALL VALVE THREE PIECE,  
THREE PIECE THREE WAY & TWO PIECE  
THREE WAY REDUCED & FULL BORE**

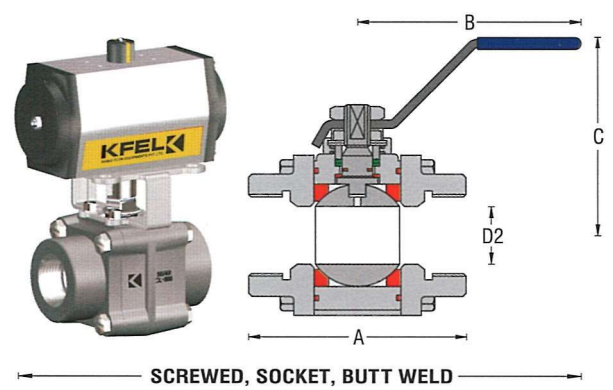
# THREE PIECE



# THREE PIECE, REDUCED & FULL BORE



**FLANGED**



**SCREWED, SOCKET, BUTT WELD**

DESIGN STD : BS EN ISO 17292 (BS 5351) TESTING STD : EN 12266-1

Test Pressure in bar (psi)				
Pressure rating	Class 150	Class 300	Class 600	Class 800
Hyd. Shell	30 (435)	76 (1102)	150 (2176)	207 (3002)
Seat	REFER TECHNICAL DATA			
Air Seat	6.9 (100)			

## SERIES >>>>>

- K'R3/K'F3 (Class 150)
- K'R3/K'F3 (Class 300)
- K'R3/K'F3 (Class 600)
- K'R3/K'F3 (Class 800)

## APPLICATIONS

- > Chemical Process Plants
- > Fertilizer Plants
- > Dyes and Pigments
- > Pesticides
- > Caustic Chlorine Plants
- > Hazardous Fluids
- > Acids and Alkalies
- > Gas

**RB = REDUCED BORE**

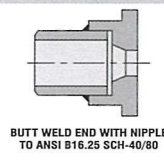
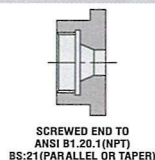
**FB = FULL BORE**

Dimensions are in mm (inch)

size	← A →				← B →		C	d	D	← D2 →		← Wt1 →						
	mm	Class	Class	SE,SWE,BWE	RB	FB				RB	FB	RB	FB	Class 150		Class 300		SE,SWE,BWE
(Inch)	150	300	RB	FB	RB	FB	RB	RB & FB	RB	FB	RB	FB	RB	FB	RB	FB	RB	FB
8	-	-	64	64	120	120	80	-	-	08	08	-	-	-	-	0.7	0.7	
(1/4)	-	-	(2.5)	(2.5)	(4.7)	(4.7)	(3.1)	-	-	(0.3)	(0.3)	-	-	-	-	(1.5)	(1.5)	
10	-	-	64	64	120	120	80	-	-	11	11	-	-	-	-	0.7	0.7	
(3/8)	-	-	(2.5)	(2.5)	(4.7)	(4.7)	(3.1)	-	-	(0.4)	(0.4)	-	-	-	-	(1.5)	(1.5)	
15	108	140	64	64	120	120	80	11	13	11	13	1.5	1.7	2.4	2.7	0.7	0.8	
(1/2)	(4.3)	(5.5)	(2.5)	(2.5)	(4.7)	(4.7)	(3.1)	(0.4)	(0.5)	(0.4)	(0.5)	(3.3)	(3.7)	(5.3)	(5.3)	(1.5)	(1.5)	
20	117	152	70	75	120	145	85	13	20	13	20	1.7	2.5	3.3	3.8	0.9	1.5	
(3/4)	(4.6)	(6.0)	(2.8)	(3.0)	(4.7)	(5.7)	(3.3)	(0.5)	(0.8)	(0.5)	(0.8)	(3.7)	(5.5)	(7.3)	(8.4)	(2.0)	(3.3)	
25	127	165	88	88	145	145	90	20	25	20	25	2.6	2.9	4.3	4.9	1.6	2.0	
(1)	(5.0)	(6.5)	(3.5)	(3.5)	(5.7)	(5.7)	(3.5)	(0.8)	(1.0)	(0.8)	(1.0)	(5.7)	(6.4)	(9.5)	(10.8)	(3.5)	(4.4)	
32	140	178	105	105	145	175	105	25	32	25	32	3.8	4.2	5.1	6.8	2.2	3.1	
(1 1/4)	(5.5)	(7.0)	(4.1)	(4.1)	(5.7)	(6.9)	(4.1)	(1.0)	(1.3)	(1.0)	(1.3)	(8.4)	(9.3)	(11.2)	(15.0)	(4.8)	(6.8)	
40	165	190	114	114	175	175	110	32	38	32	38	5.7	6.5	9.3	10.2	3.5	4.7	
(1 1/2)	(6.5)	(7.5)	(4.5)	(4.5)	(6.9)	(6.9)	(4.3)	(1.3)	(1.5)	(1.3)	(1.5)	(12.6)	(14.3)	(20.5)	(22.5)	(7.7)	(10.4)	
50	178	216	130	145	175	300	135	38	50	38	50	8.2	9.5	11.2	14.5	4.9	8.5	
(2)	(7.0)	(8.5)	(5.1)	(5.7)	(6.9)	(11.8)	(5.3)	(1.5)	(2.0)	(1.5)	(2.0)	(18.1)	(21.0)	(24.7)	(32.0)	(10.8)	(18.7)	

## Materials >>>>>

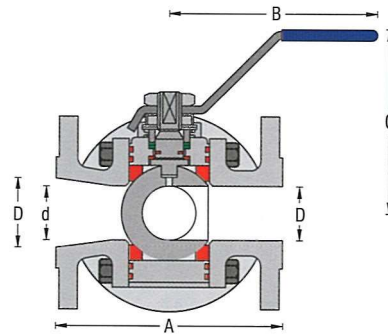
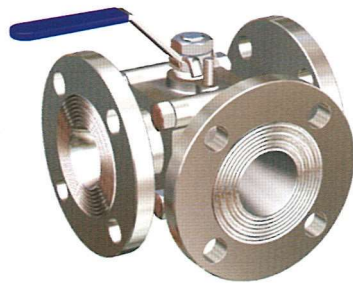
Body / End piece	Forged Carbon steel ASTM A105/ Cast Carbon Steel ASTM A 216 Gr.WCB/ Stainless Steel ASTM A 182 Gr. F 304/F316. ASTM A351 Gr.CF8 / CF8M / CF3 / CN7M / Duplex
Ball / Stem	STAINLESS STEEL ASTM A276 TYPE 410 / 304 / 316 , A20 / Duplex
Seat	PTFE / CFT / GFT / DELRIN / NYLON / PEEK / METAL
Stem Washer	GFT / Grafoil
Stem Seal / Body Seal	Grafoil
Lever	Steel
Body Studs / Nuts	ASTMA193 Gr. B7/ASTMA194 Gr. 2H
Surface Protection for Carbon	Base Phosphating. Additional External Coating : Silver Streak Aluminum Paint
Steel Valves	



END DETAILS

- > Net in Kg. (lbs) approx. (without obligation)
- > Valves can be supplied to suit ASME/BS/DIN Flanges.
- > Flanged Ends not available in Forging.
- > Valves can be supplied with Pad-Lock, Electric, Pneumatic or Gear Actuators and accessories like Limit Switch, Solenoid Valve Air Filter Regulator etc.
- > Actuator Bracket Mounting as per ISO 5211.
- > Please Specify Working Pressure, Temperature & Service conditions.
- > Other materials not mentioned above available on request.

# THREE PIECE-THREE WAY, REDUCED & FULL BORE



DESIGN STD : BS EN ISO 17292 (BS 5351) TESTING STD : EN 12266-1

Test Pressure in bar (psi)			
Pressure rating		Class 150	Class 300
Hyd. Shell		30 (435)	76 (1102)
Seat		REFER TECHNICAL DATA	
Air Seat		6.9 (100)	

## SERIES >>>>>>

KR3-3W / KF3-3W (Class 150)  
KR3-3W / KF3-3W (Class 300)

## APPLICATIONS

- ▶ Chemical Process Plants
- ▶ Fertilizer Plants
- ▶ Dyes and Pigments
- ▶ Pesticides
- ▶ Caustic Chlorine Plants
- ▶ Hazardous Fluids
- ▶ Acids and Alkalies
- ▶ Gas

RB = REDUCED BORE

FB = FULL BORE

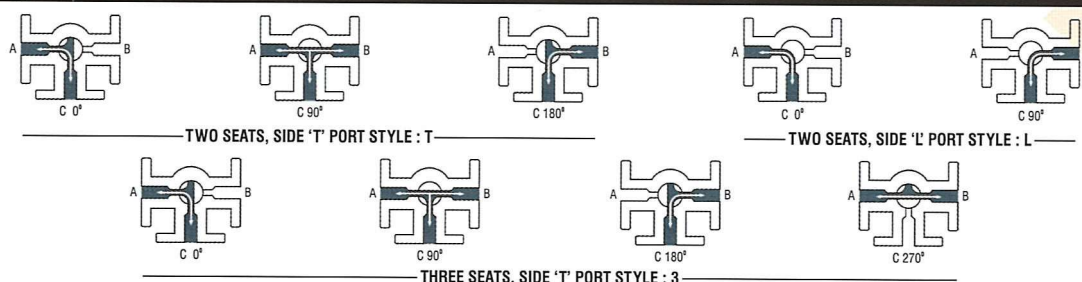
Dimensions are in mm (inch)

size	← A →		← B →		C	d	D	← Wt1 →			
	Class		RB	FB				Class 150		Class 300	
	mm							RB	FB	RB	FB
15 (1/2)	108 (4.3)	140 (5.5)	175 (6.9)	175 (6.9)	80 (3.1)	11 (0.4)	13 (0.5)	1.8 (4.0)	2.0 (4.4)	3.0 (6.6)	3.5 (7.7)
20 (3/4)	117 (4.6)	152 (6.0)	175 (6.9)	175 (6.9)	85 (3.3)	13 (0.5)	19 (0.7)	2.2 (4.9)	3.0 (6.6)	4.0 (8.8)	4.6 (10.1)
25 (1)	127 (5.0)	165 (6.5)	175 (6.9)	175 (6.9)	90 (3.5)	19 (0.7)	25 (1.0)	3.2 (7.1)	3.5 (7.7)	5.0 (11.0)	5.8 (12.8)
32 (1 1/4)	140 (5.5)	178 (7.0)	175 (6.9)	184 (7.2)	105 (4.1)	25 (1.0)	32 (1.3)	4.6 (10.1)	4.8 (10.6)	6.0 (13.2)	7.6 (16.8)
40 (1 1/2)	165 (6.5)	190 (7.5)	184 (7.2)	184 (7.2)	110 (4.1)	32 (1.3)	38 (1.5)	6.5 (14.3)	7.5 (16.5)	10.0 (22.0)	12.0 (26.5)
50 (2)	178 (7.0)	216 (8.5)	184 (7.2)	-	135 (5.3)	38 (1.5)	50 (2.0)	9.6 (21.2)	-	12.0 (26.5)	-

## Materials >>>>>>

Body / End piece	Carbon Steel ASTM A216 Gr.WCB Stainless Steel ASTM A351 Gr. CF8/ CF8M / CF3M / CN7M / Duplex
Ball / Stem	STAINLESS STEEL ASTM A276 TYPE 410 / 304 / 316 , ASTM A351 Gr.CN7M/ Duplex
Seat	PTFE / CFT / GFT / DELRIN / NYLON / PEEK / METAL
Stem Washer	GFT / Grafoil
Stem Seal / Body Seal	Grafoil
Lever	Steel
Body Studs / Nuts	ASTM A193 Gr. B7/ ASTM A194 Gr. 2H
Surface Protection for Carbon	Base Phosphating. Additional External Coating : Silver Streak Aluminum Paint
Steel Valves	

## FLOW PATTERN

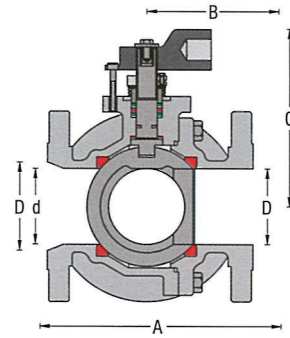
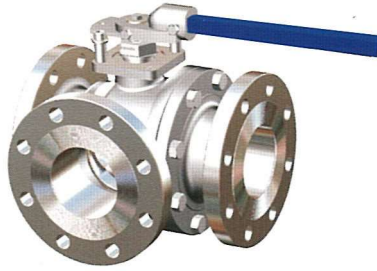


▶ Net in Kg. (lbs) approx. (without obligation) ▶ Valves can be supplied to suit ASME/BS/DIN Flanges.

▶ Valves can be supplied with Pad-Lock, Electric, Pneumatic or Gear Actuators and accessories like Limit Switch, Solenoid Valve Air Filter Regulator etc.

▶ Actuator Bracket Mounting as per ISO 5211. ▶ Please Specify Working Pressure, Temperature & Service conditions. ▶ Other materials not mentioned above available on request.

# TWO PIECE-THREE WAY, REDUCED & FULL BORE



DESIGN STD : BS EN ISO 17292 (BS 5351) TESTING STD : EN 12266-1

Test Pressure in bar (psi)			
Pressure rating		Class 150	Class 300
Hyd.	Shell	30 (435)	76 (1102)
	Seat	REFER TECHNICAL DATA	
Air	Seat	6.9 (100)	

## SERIES >>>>>

KR 2-3 W / KR 2-3 W (Class 150)  
KR 2-3 W / KF 2-3 W (Class 300)

## APPLICATIONS

- ▶ Chemical Process Plants
- ▶ Fertilizer Plants
- ▶ Dyes and Pigments
- ▶ Pesticides
- ▶ Caustic Chlorine Plants
- ▶ Hazardous Fluids
- ▶ Acids and Alkalies
- ▶ Gas

RB = REDUCED BORE

FB = FULL BORE

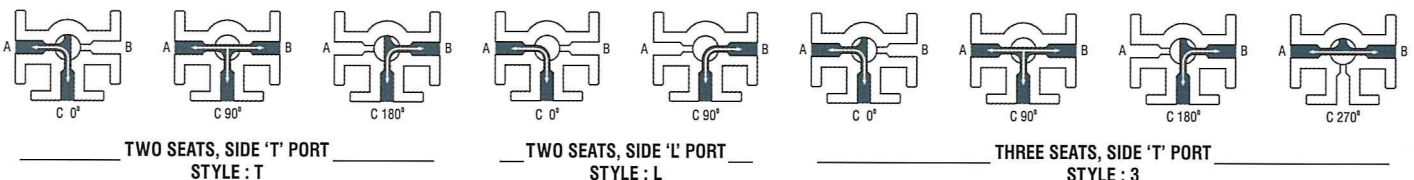
Dimensions are in mm (inch)

size	← A →			← B →				C	d	D	← Wt1 →			
	Class 150		Class 300	RB	FB	RB	FB				Class 150		Class 300	
(Inch)	2 SEATS	3 SEATS	2&3 SEATS	RB	FB	RB	FB		RB	RB&FB	RB	FB	RB	FB
50	178	203	216	-	307	-	352	135	-	50	-	14	-	19
(2)	(7.0)	(8.0)	(8.5)	-	(12.1)	-	(13.9)	(5.3)	-	(2)	-	(30.9)	-	(41.9)
65	190	222	241	307	482	352	492	155	50	64	17	24	18	2.9
2 1/2	(7.5)	(8.7)	(9.5)	(12.1)	(19.0)	(31.9)	(19.4)	(6.1)	(2.0)	(2.5)	(37.5)	(52.9)	(39.7)	(63.9)
80	203/305 <sup>2</sup>	241	283	482	482	492	592	170	58	76	26	29	33	40
(3)	(8.0/12.0 <sup>2</sup> )	(9.5)	(11.1)	(19.0)	(19.0)	(19.4)	(23.3)	(6.7)	(2.3)	(3.0)	(57.3)	(63.9)	(72.8)	(88.2)
100	229/394 <sup>2</sup>	305	305	482	592	592	790	205	76	98	38	50	53	68
(4)	(90/15.5 <sup>2</sup> )	(12.0)	(12.0)	(19.0)	(23.3)	(23.3)	(31.1)	(8.1)	(3.0)	(3.9)	(83.8)	(110.2)	(116.8)	(149.9)
150	267	394	403	592	790	790	*	265	98	152	48	90	91	136
(6)	(10.5)	(15.5)	(15.9)	(23.3)	(31.1)	(31.1)	*	(10.4)	(3.9)	(6.0)	(105.8)	(198.4)	(200.6)	(299.8)
200	457	457	502	790	*	*	*	*	144	203	100	147	180	190
(8)	(18.0)	(18.0)	(19.8)	(31.1)	*	*	*	*	(5.7)	(8.0)	(220.5)	(324.1)	(396.8)	(418.9)
250	533	533	568	*	*	*	*	*	187	250	168	240	270	380
(10)	(21.0)	(21.0)	(22.4)	*	*	*	*	*	(7.4)	(9.8)	(370.4)	(529.1)	(595.2)	(837.8)
300	610	610	648	*	*	*	*	*	228	300	195	300	350	425
(12)	(24.0)	(24.0)	(25.5)	*	*	*	*	*	(9.0)	(11.8)	(429.9)	(661.4)	(771.6)	(937.0)

## Materials >>>>>

Body / End piece	Carbon Steel ASTM A216 Gr.WCB Stainless Steel ASTM A351 Gr. CF8/ CF8M / CF3M / CN7M / Duplex
Ball / Stem	STAINLESS STEEL ASTM A276 TYPE 410 / 304 / 316 , ASTM A351 Gr.CN7M/ Duplex
Seat	PTFE / CFT / GFT / DELRIN / NYLON / PEEK / METAL
Stem Washer	GFT / Grafoil
Stem Seal / Body Seal	Grafoil
Lever	Steel
Body Studs / Nuts	ASTM A193 Gr. B7/ASTM A194 Gr. 2H
Surface Protection for Carbon	Base Phosphating, Additional External Coating : Silver Streak Aluminum Paint
Steel Valves	

## FLOW PATTERN



▶ Net in Kg. (lbs) approx. (without obligation) ▶ Valves can be supplied to suit ASME/BS/DIN Flanges.

▶ Valves can be supplied with Pad-Lock, Electric, Pneumatic or Gear Actuators and accessories like Limit Switch, Solenoid Valve Air Filter Regulator etc.

▶ Actuator Bracket Mounting as per ISO 5211. ▶ Please Specify Working Pressure, Temperature & Service conditions. ▶ Other materials not mentioned above available on request.

# TECHNICAL DATA

## Cv VALUE

SIZE mm (inch)	10 (3/8)	15 (1/2)	20 (3/4)	25 (1)	32 (1 1/4)	40 (1 1/2)	50 (2)	65 (2 1/2)	80 (3)	100 (4)	125 (5)	150 (6)	200 (8)	250 (10)	300 (12)
RB	8	10	15	35	58	91	115	272	303	542	780	970	2300	3375	5538
FB	8	20	42	88	142	210	396	615	1099	2171	3500	5200	9418	15170	24900

## BREAK AWAY TORQUE VALUE FOR SOFT SEATED Nm (ft. lbs.)

SIZE mm (inch)	10 (3/8)	15 (1/2)	20 (3/4)	25 (1)	32 (1 1/4)	40 (1 1/2)	50 (2)	65 (2 1/2)	80 (3)	100 (4)	125 (5)	150 (6)	200 (8)	250 (10)	300 (12)	
20 (290)	RB	3.0 (2.2)	3.0 (2.2)	3.0 (2.2)	5.5 (4.0)	11.0 (8.1)	13.0 (9.6)	18.5 (13.6)	33.0 (24.4)	46.0 (33.9)	81.0 (59.8)	120.0 (88.5)	166.0 (122.5)	350.0 (258.3)	540.0 (398.5)	945.0 (697.4)
	FB	3.0 (2.2)	3.0 (2.2)	6.0 (4.4)	7.5 (5.5)	14.0 (10.3)	18.5 (13.6)	31.0 (22.8)	58.0 (42.8)	83.0 (61.3)	141.0 (104.1)	152.0 (112.0)	324.0 (239.1)	540.0 (398.5)	945.0 (697.4)	2340.0 (1727.0)
50 (725)	RB	3.5 (2.6)	3.5 (2.6)	3.5 (2.6)	7.5 (5.5)	13.0 (9.6)	14.0 (10.3)	22.0 (16.2)	59.0 (43.5)	79.0 (58.3)	107.0 (78.9)	147.0 (108.4)	166.5 (122.5)	570.0 (420.6)	980.0 (723.2)	-
	FB	3.5 (2.6)	3.5 (2.6)	7.5 (5.5)	10.5 (7.7)	19.5 (14.4)	22.0 (16.2)	46.0 (33.9)	87.0 (64.2)	109.0 (80.4)	167.0 (123.2)	440.0 (324.5)	490.0 (361.6)	970.0 (715.8)	-	-
70 (1102)	RB	6.0 (4.4)	6.0 (4.4)	6.0 (4.4)	10.0 (7.4)	-	-	-	-	-	-	-	-	-	-	-
	FB	7.0 (5.2)	7.0 (5.2)	11.0 (8.1)	-	-	-	-	-	-	-	-	-	-	-	-

■ FOR RE-INFORCED PTFE SEAT MULTIPLY ABOVE VALUES BY 1.2, FOR METAL SEAT BY 2.25 & PEEK SEAT BY 2.5

## HYDRO TEST PRESSURE IN Kg/Cm<sup>2</sup> (psi)

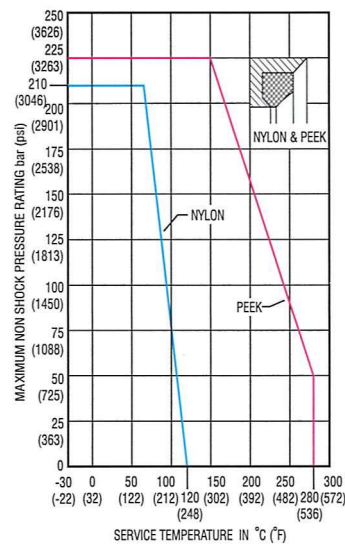
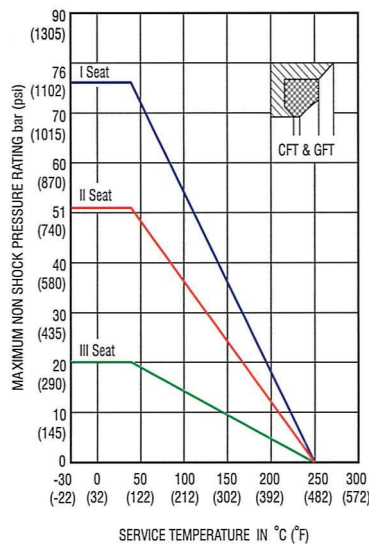
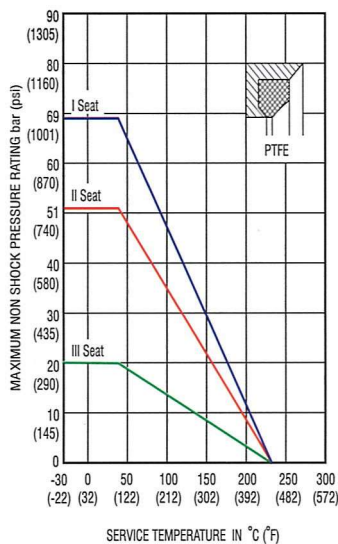
EN 12266 -1

SIZE mm (inch)	Materials	Materials													
		Class 150		Class 300		Class 150		Class 300		Class 150		Class 300		Class 600 & 800	
8 (1/4)	TO	50 (327)	23 (167)	59 (428)	23 (167)	22 (158)	57 (411)	18 (131)	48 (347)	69*/76** (500/551)	981*/1081** (706/783)	51 (368)	51 (368)	20 (145)	20 (145)
65 (2 1/2)	TO	100 (725)	23 (167)	51 (368)	22 (158)	20 (145)	51 (368)	18 (131)	48 (347)	20 (145)	20 (145)	20 (145)	20 (145)	20 (145)	20 (145)
125 (6)	TO	300 (2150)	20 (145)	20 (145)	20 (145)	20 (145)	20 (145)	18 (131)	20 (145)	20 (145)	20 (145)	20 (145)	20 (145)	20 (145)	20 (145)

- Materials
- I) WCB, WC6, WC9, LCC
- II) CF3, CF8, CF3M, CF8M, CF8C, LCB
- III) CN7M

■ For API 6D Valves, Testing shall be carried out at full rated pressure. ★ PTFE ★★ RPTFE

## PRESSURE TEMPERATURE RATING



Seat Symbol	Nominal Valve Size PTFE, CFT & GFT
I	8 (1/4) To 50 (2)
II	65 (2 1/2) To 100 (4)
III	125 (5) To 300 (12)

### FEATURES

- Fire Safe :
  - API 6FA - III Edition
  - API 607 - V Edition
- Anti Static
- Anti Blow Out Stem
- Fugitive Emission
- Cavity Pressure Relief
- Pressure Temperature Rating : ASME B16.34
- Compliant To API 608 Also



KHIMJI FLOW EQUIPMENTS PVT. LTD.

**Khimji Flow Equipments Private Limited.**  
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Revadihal Village Hubli - 580 026.  
E : [info@kfel.com](mailto:info@kfel.com), W : [www.kfel.com](http://www.kfel.com)