



Pekos[®] V A L V E S



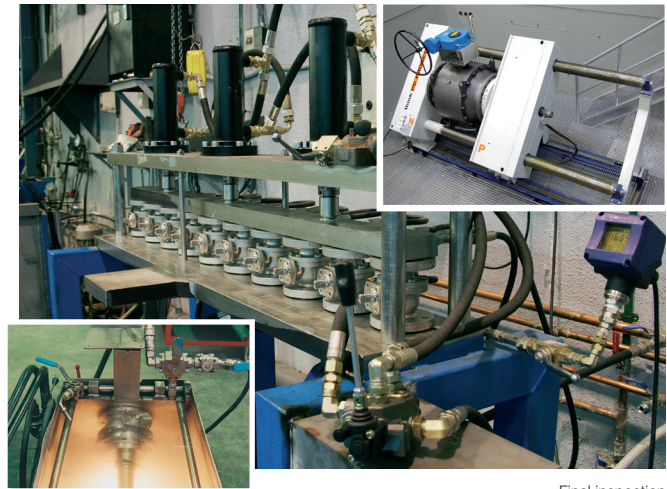
Ball valves



Certifications and tests



Firesafe test



Final inspection

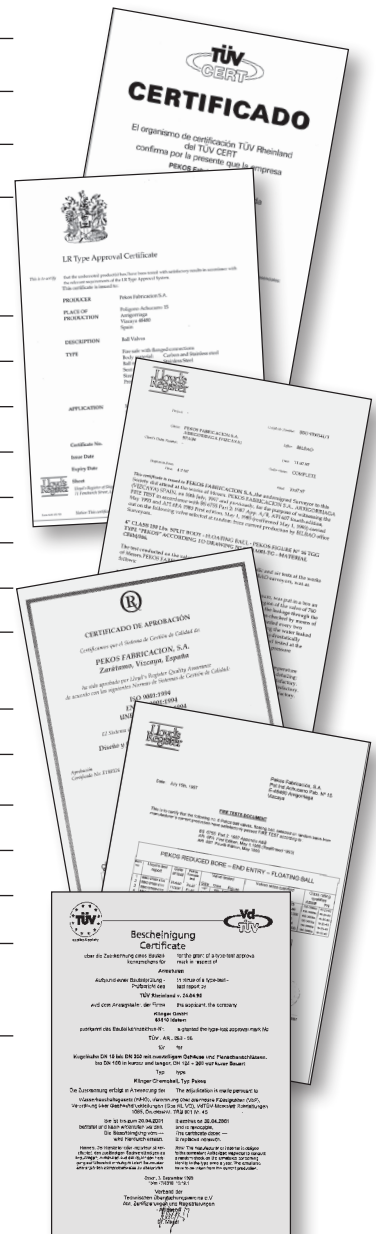
Cryogenic test

Certificates of the company

ISO 14001	Environmental Management system
ISO 9001	Quality Management system
API Monogram	Standard API 6D. certificate number: 6D-0363

Certificates of the product

Lloyd's Type Approval	Fire Safe & type approval
DNV Type Approval	Type approval
TÜV A352.09 AD Merkblatt A4	Design of the valves
TA - Luft ISO 15848 + VDI 2440	Stem tightness for gas emissions
Directive 2014/68/EU	Pressure equipment directive (CE marking)
Directive 2014/34/EU	ATEX directive - (Ex)II2GD c Tx)
BS 6364	Valves for cryogenic service (Type Approval)
EN 161 / EN 23553	Automatic shut-off valves for gas burners and gas equipment
Helium -40 °C	Leeds University test
EAC	TR CU 010 - TR CU 012 - TR CU 032
Sanitary approval (Russian)	Food processing and Pharmaceutical industry
IEC 61508	SIL3 CAPABLE
UKR SEPRO	Ukraine Certificate
DVGW-EN 13774	Valves for gas distribution with maximum operating pressure less than or equal to 16 bar



Some Company Approvals

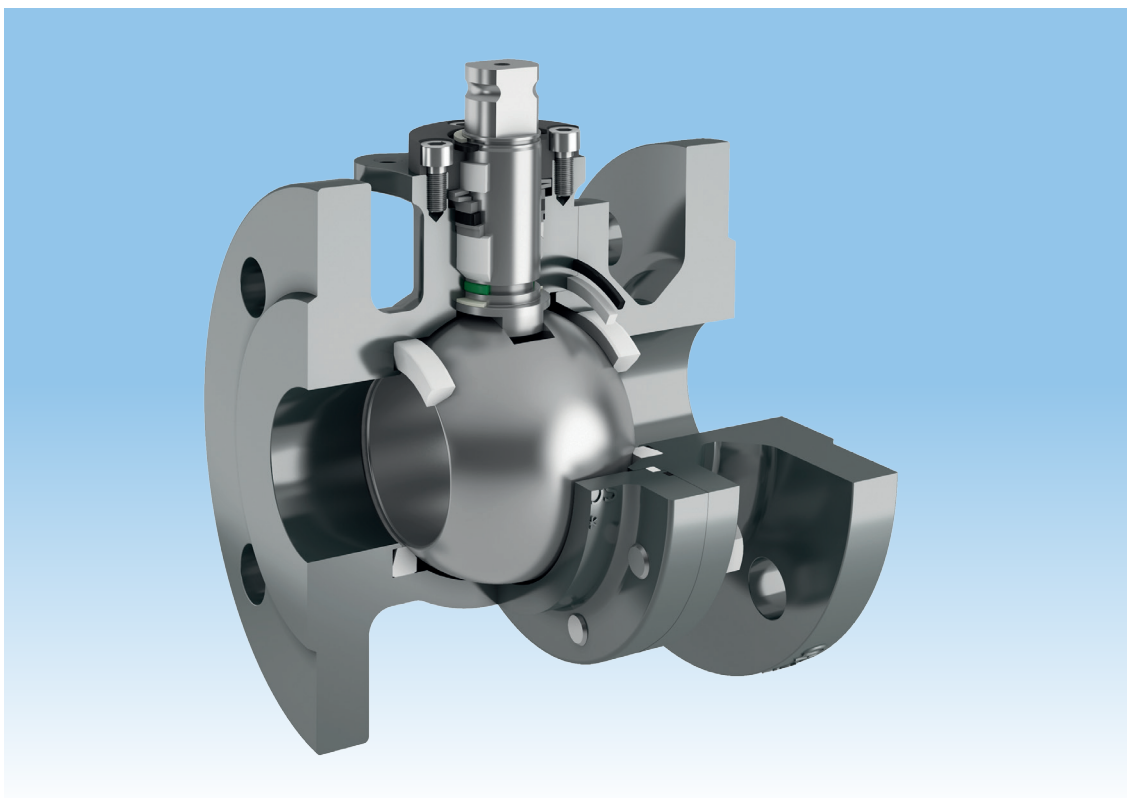
- Repsol-YPF (Spain)
- Al Furat Petroleum (Syria)
- Sasol Technology (South Africa)
- EGPC (Egypt)
- China Petroleum (China)
- Qatar Petroleum (Qatar)
- Petroleum Development Oman (PDO)
- KUWAIT Oil Co. (KOC)
- Zadco (UAE)

General features

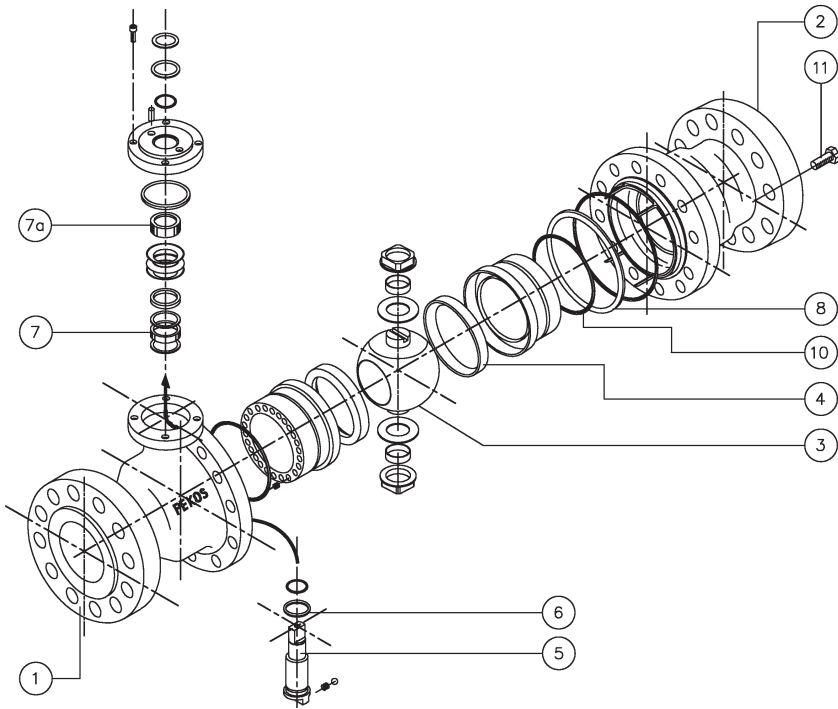
- ▼ Design as per EN-12516 , ISO 17292
- ▼ Construction DIN3357 PN10 up to PN40
- ▼ Face to Face as per EN558
- ▼ Flanged drilled as per EN-1092-1 (PN10-40) and ISO7005-1 (PN10-49)

Body constructions and desing advantages

- ▼ Floating ball
- ▼ Guided ball
- ▼ Full Trunnion
- ▼ Split body 2-3 pieces or 1 piece (side-entry)
- ▼ Full and Reduced bore
- ▼ Bidirectional
- ▼ ISO 5211 Top Flange
- ▼ Anti-blow out stem
- ▼ Antistatic stem
- ▼ Autoadjustable packing / Maintenance free
- ▼ Standard construction Fire Safe
- ▼ Self cavity pressure relief
- ▼ Low emission design
- ▼ Double Block and Bleed



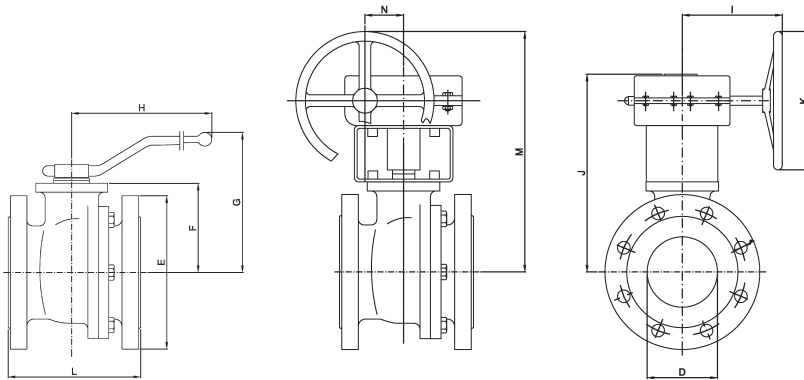
FULL TRUNNION 2 PIECES



Standard materials

Item	Description	Figure	
		ZGS04 TTTG ZGS24 TTTG	ZGS06 TTTG ZGS26 TTTG
1-2	Body	1.0619	1.4408
3	Ball	1.4408	
4	Seat	PTFE (T) PTFE + FG (R) PTFE + CG (S)	
5	Stem	1.4462	
6	Stem seal	PTFE + FG (R)	
7	Packing 1	PTFE (T)	
7a	Packing 2	Graphite	
8	Body seal 1	PTFE (T)	
10	Body seal 2	Graphite	
11	Body bolt	A2-70	A4-70

Special alloys under request.



Weight (kg)

DN	Weight		
	F1 (1)	F5 (3)	Gear Box
50	8	-	-
80	11,5	-	-
100	17,5	-	-
125	70	56	15
150	110	75/83	15
200	194	134/147	21
250	335	228/254	21
300	491	321/372	21

When two values are indicated, the first correspond to PN16 and the second to PN40.

Dimensions (mm)

DN	D	L		E		F	G	H	I	J	K	M	N
		F1 (1)	F5 (3)	PN16	PN40								
50	50	230	-	105	165	84	153	293	-	-	-	-	-
80	80	310	-	200	200	114	205	350	-	-	-	-	-
100	100	350	-	220	235	128	220	350	-	-	-	-	-
125	125	-	325	250	250	158	-	-	210	326	400	479	71
150	150	-	350	285	300	175	-	-	210	343	400	496	71
200	200	-	400	340	375	245	-	-	272	418	500	566	86
250	250	-	450	405	450	285	-	-	272	458	500	682	86
300	300	-	500	460	515	336	-	-	272	518	600	732	105

(1) EN 558 serie 1 - (3) EN 558 serie 15 or 27.
Dimensions with gear box correspond only to PN16, gear box for PN40 under request.

Technical features

Breakaway torques (Nm)

Floating & Guided

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
PN16	8	10	14	23	31	46	55	85	110	240	380	540	950	1200
PN40	12	14	17	30	40	65	85	130	190	350	470	975	1290	1450

Full Trunnion

DN	50	80	100	125	150	200	250	300
PN16	46	100	139	320	420	620	1075	1360
PN40	94	242	395		875	1364	1794	2187

Test are made with water and standar seats maximum P according to body at seat rating. With S or R seats type and with clean fluids, the above torque values should be increased 30%.
Breakaway torque can be increased approximately 50% after long periods of inactivity during the first cycles.

Kv values

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
Kv (m³ /h)	20	44	88	105	200	310	480	960	1700	2450	4100	8200	11500	18300

Leak tests

Test specifications according DIN 3230 part 3, EN 12266-1
Class A and ISO 5208.

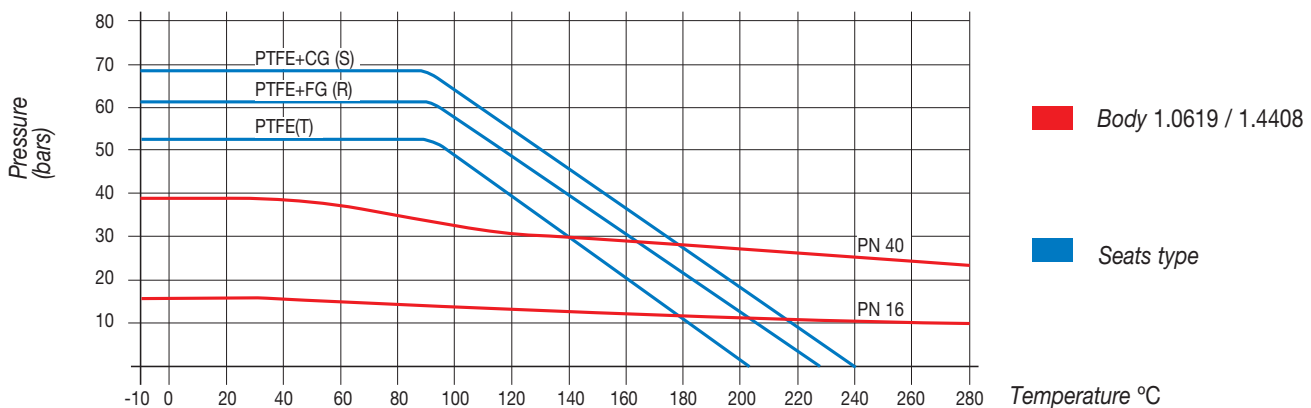
	Hydraulic shell test	Hydraulic seat test	Pneumatic seat test
PN 10	15 bar	11 bar	6 bar
PN 16	24 bar	18 bar	6 bar
PN 40	60 bar	44 bar	6 bar

Test Duration

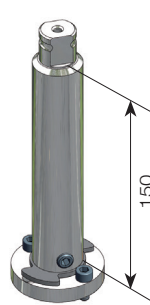
DN	BODY	SEAT
50	0.25 min	1 min
65	1 min	
80		
100		
125		
150	2 min	2 minn
200		
250		
300		

Pressure-Temperature limitations

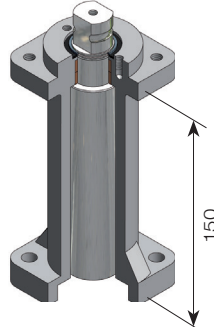
Pressure - Temperature graph



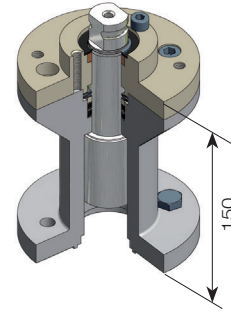
Stem extensions



Simple stem extension

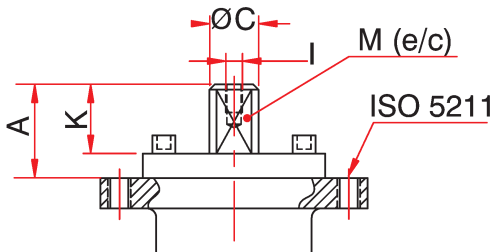


Standard extension



Security and fugitive emission detector

Top flange ISO 5211

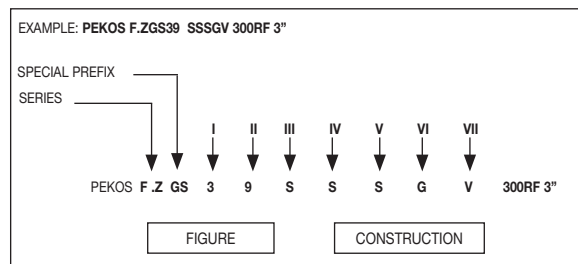


DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
ISO 5211	F05-1	F05-2	F07		F10		F12		F14					
M	11	11	14	14	17	17	17	22	22	27	27	36	36	36
C	14	14	18	18	22	22	22	28	28	36	36	48	48	48
A	13.5	13.5	19.5	19.5	30	30	30	40	40	50	50	63	63	73
K	11	11	17	17	20	20	20	22	22	35	35	40	40	60
I	M4	M4	M4	M4	M6	M6	M6	M8	M8	M8	M8	M8	M8	M8

How to order PEKOS ball valves

SERIES	SPECIAL PREFIX	FIGURE		COMPONENT OTHER THAN BALL & BODY
		I CLASS	B BODY BALL	
Z-Updated packing system	B-Sampling valve	0 - F4/F5	0 Special	Special
	C-Cavity filler	1 - CL-150	1 Cast iron	CF8M
	D-Seat and stem Sealant fitting	2 - F1/F2	1 Cast iron	1.4408
	D4-Seat Sealant fitting	3 - CL-300		CF8M
	D5-Stem Sealant fitting	4 - CL-400		1.4408
	DBB-3 pieces, 2 balls	5 - Tank bottom		CF8
	F-Security stem extension	6 - CL-600	2 Cast iron	1.4027
	G-Guided ball	7 - 4 ways		CA15
	H-Heating jacket (semi)	8 - 3 ways		AISI 410
	I-Inclined stem	9 - Wafer		A105/LF2+ENP
	J-Heating jacket (full)	15 - CL-1500	3	1.0619 A105/LF2+ENP
	K-3 pieces	25 - CL-2500		1.0352 1.4027
	M-Metallic seat	80 - CL-800	3	WCC A105
	N-PMSS	90 - CL-900		CA15
	O-Degreased		4	1.0619 1.4408
	P-Protected seat			1.0352 1.4462
	R-Scraper Seat			WCC CF8M
	RB-Reduced Bore			A105 F51
	S-Spring seat		5	LCC
	TH-Threaded Body			LF2
U-Unidirectional		1.0619QT LF2 + ENP		
V-O-ring seat		1.622		
W-Welded body		6	1.0352	
X-Double Piston effect			CF8M CF8M	
			F316 F51	
			1.4408 1.4408	
		1.4401 1.4462		
		1.4539 1.4539		
		904L 904L		
		8	CF3M CF3M	
			F316L F51	
			1.4409 1.4409	
			1.4404 1.4462	
		9	LCC CF8M	
			LF2 F51	
			1.0619QT 1.4408	
			1.6220 1.4462	

CONSTRUCTION						
III SEAT	IV BALL	V BODY SEAL		VI	VII STEM O-RING	
		1	2			
B-PFA	B-PFA	B- PFA			A-FEPM	
C-Cr Carbide (CrC)	G-GRAPHITE	A-FEPM			E-EPDM	
D-DELFIN®	R-PTFE + 25% FG	B-PFA			F-FLUOROSILICONE (FVMQ)	
E-PTFE+EKONOL	S-PTFE+ 25% CG	C-METAL SEAL			H-HNBR	
G-GRAPHITE	T-PTFE	E-EPDM			I-SILICONE (VMQ)	
H-COLMONOY	U-UHMWPE	F-FLUOROSILICONE (FVMQ)			K-FFKM	
K-PCTFE		G-GRAPHITE			L-CHLOROPRENE	
L-Stellite		H-HNBR			N-NBR	
N-DEVILON® V		I-SILICONE (VMQ)			O-NEOPRENE	
O-PEEK+PTFE+FG		K-FFKM			V-FKM	
P-PEEK		L-CHLOROPRENE				
Q-PEEK + 12% PTFE		N-NBR				
R -PTFE + 25% FG		R-PTFE + 25% FG				
S-PTFE+ 25% CG		S-PTFE + 25% CG				
T-PTFE		T-PTFE				
U-UHMWPE		U-UHMWPE				
V-FKM		V-FKM				
X-PTFE + 50% SS.						
W-Tu Carbide (WC)						
Z-PEEK+PTFE+CG						



DIN
From DN15 up to DN 600
DIN PN 10 up to PN 420
From -196° C up to +700° C



Split body floating



Full trunnion



Cryogenic



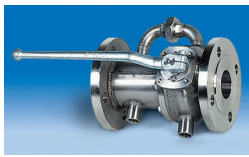
End entry floating



3 & 4 way floating and trunnion



Wafer



Heating jacket



Tank bottom



Metal to metal



Three piece forged



www.pekos.es

Sales & Headquarters:
Rec del Molinar, 9 - P.I. El Circuit
08160 Montmeló (Barcelona) - Spain

Factory:
Bildosola industrialdea
48142 Artea (Vizcaya) - Spain

Tel.: (+34) 93 568 92 56

pekos@pekos.es

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