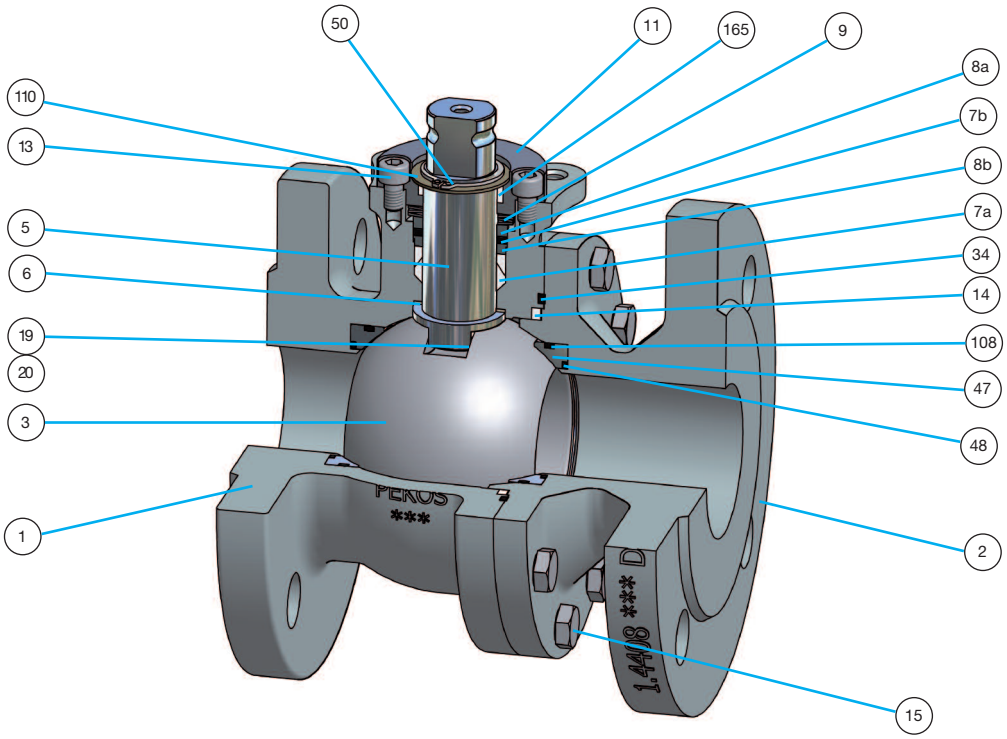
Metal to Metal Ball valve



Desing features

- Suitable for abrasive media
- O-ring construction, maximum temperatura 180ºC
- Except for hardened ball and seats, the construction is identical to all soft seated Pekos ball valves which results in:
  - Short lead times
  - Soft seated Pekos valve can be easily converted to metal seated by changing ball & seats
- Low break away torques
- Protected seats
- Greater flexibility to attend requests for special materials.

Standard construction materials

			DIN		ANSI	
ITEM	DESCRIPTION	CAN.	M 06 CRTG	M 04 CRTG	M 16 CRTG	M 14 CRTG
1	Body	1	1.4408	1.0619	A351 CF8M	A216 WCC
2	Body 2	1	1.4408	1.0619	A351 CF8M	A216 WCC
3	Ball	1	1.4408+Cr-C	1.4408+Cr-C	CF8M+Cr-C	CF8M+Cr-C
5	Stem	1	1.4401	1.4401	AISI 316	AISI316
6	Stem seal	1	PTFE+FV	PTFE+FV	PTFE+FV	PTFE+FV
7a	Stem Packing 1	1	PTFE+FV	PTFE+FV	PTFE+FV	PTFE+FV
7b	Stem Packing 2	1	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
8a	Gland packing 1	1	1.4401	1.4401	AISI 316	AISI 316
8b	Gland Packing 2	1	1.4301	1.4301	AISI 304	AISI 304
9	Spring washer	3	1.4310	1.4310	AISI 301	AISI 301
11	Cover	1	1.4408	1.4408	A351CF8M	A351CF8M
13	Cover bolt	2+2	A4-70	8.8	A4-70	8.8
14	Body seal 1	1	PTFE	PTFE	PTFE	PTFE
15	Body bolt	-	A4-70	A2-70	A193 B8M	A193 B7M
19	Spring	1	1.4319	1.4319	AISI 302	AISI 302
20	Ball	1	1.4401	1.4401	AISI 316	AISI 316
34	Body seal 2	1	GRAPHITE	GRAPHITE	GRAPHITE	GRAPHITE
47	Metal seat	2	1.4401+Cr-C	1.4401+Cr-C	AISI 316+Cr-C	AISI 316+Cr-C
48	O ring spring	2	Viton	Viton	Viton	Viton
50	Subjection ring	1	1.4301	1.4301	AISI 304	AISI 304
108	Seat O ring	2+2	Viton	Viton	Viton	Viton
110	Subjection ring seal	1	1.4401 Nitrided	1.4401 Nitrided	AISI 316 Nitrided	AISI 316 Nitrided
165	Stem guide seal	1	PTFE+FV	PTFE+FV	PTFE+FV	PTFE+FV

ANSI

- Construction as per BS5351 and EN ISO 17292
- Flanges ASME B16.5
- Face to Face as per ANSI B16.10 and API 6D
- Top flange ISO 5211
- Rating: 150 and 300 lbs
- Floating ball.

DIN

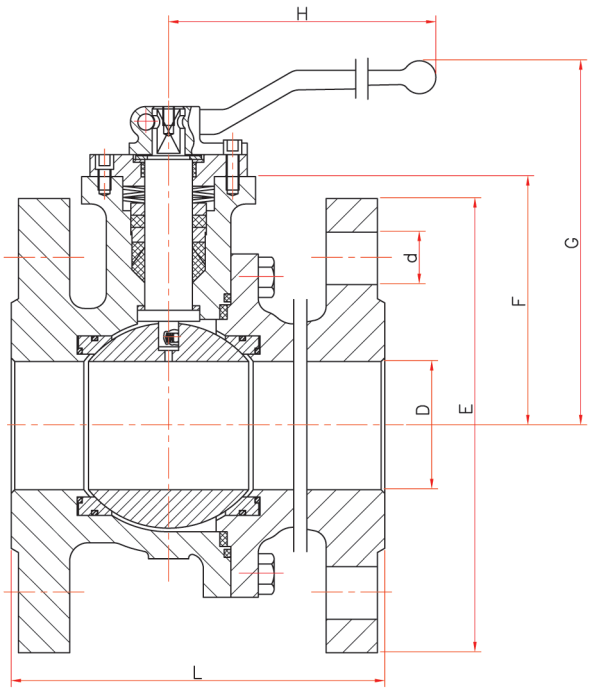
- Construction DIN 3357 and ISO 17292
- Flanges EN 1092-1
- Face to Face as per EN 558-1 and DIN 3202
- Top flange ISO 5211
- Rating: PN 16 and 40
- Floating ball.

Metal to Metal Ball valve

Dimensions

ANSI									
NPS	D	L		E		F	G	H	ISO5211
		150 lbs	300 lbs	150 lbs	300 lbs				
1/2"	15	108	140	89	95	52	103	185	F05
3/4"	20	117	152	99	118	54	105	185	F05
1"	25	127	165	108	124	60	111	185	F05
1 1/2"	40	165	191	127	156	75	136	300	F07
2"	50	178	216	152	165	84	144	300	F07
2 1/2"	65	190	-	178	-	96	157	300	F07
3"	80	203	283	191	210	114	202	355	F10
4"	100	229	305	229	254	128	216	355	F10
6"	150	394	-	279	-	175	280	680	F12
8"	200	457	-	343	-	245	358	750	F14

DIN									
DN	L			E		F	G	H	ISO5211
	F1	F4	F5	PN 16	PN 40				
15	130	115		95	95	52	100	185	F05
20	150	120		105	105	54	102	185	F05
25	160	125		115	115	60	110	185	F05
32	180	130		140	140	65	115	185	F05
40	200	140		150	150	75	136	293	F07
50	230	150		165	165	83	144	293	F07
65	290	170		185	185	96	157	293	F07
80	310	180		200	200	114	202	350	F10
100	350	190		220	235	128	216	350	F10
125			325	250	-	158	259	680	F12
150			350	285	-	175	280	680	F12
200			400	340	-	245	358	750	F14



Leak tests

According API 598, ISO 5208 Rate C, EN12266 Rate C, ANSI FCI 70 Class V (on request class VI or leakage 0).

Class	Hydraulic shell test	Hydraulic seat test	Pneumatic seat test
150 Lbs/PN 16	30/24 bar	22/18 bar	6 bars
300 Lbs/PN 40	78/60 bar	57/44 bar	6 bars

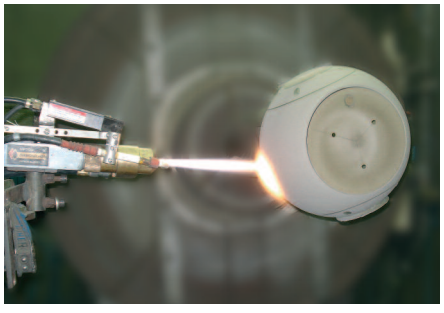
Size	Shell test Test Duration minimum	Seat test	
		Test duration minimum	Maximum leakage rate as per class V (ml / min.)
1/2" to 1 1/2" (DN15-40)	15 sec	15 sec	0.2-0.3
2" to 6" (DN50-150)	60 sec	60 sec	1.2-3.3
8" (DN 200)	120 sec	120 sec	9

Breakaway torque in Nm*

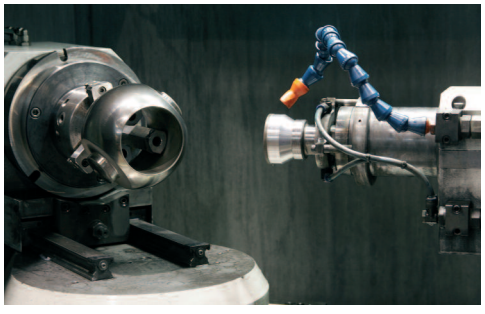
DN	15	20	25	32	40	50	65	80	100	125	150	200
NPS	1/2"	3/4"	1"	-	1 /12"	2"	2 1/2"	3"	4"	-	6"	8"
150Lbs	10	12	20	-	53	62	98	158	230	-	530	770
300Lbs	16	19	28	-	60	102	140	235	380	-	-	-
PN16	9	11	18	25	49	52	95	150	210	420	520	650
PN40	15	20	25	40	59	77	115	230	350	-	-	-

* Breakaway to ΔP maximum for each rating.Test made with water at ambient Temperature, excluding safety factor.

Coating and grinding



Cr-Carbide Application



Grinding

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