

**Forged Steel Ball valves**  
Class 400, 600, 800, 1500 and 2500

**General features**

**CONSTRUCTION:**

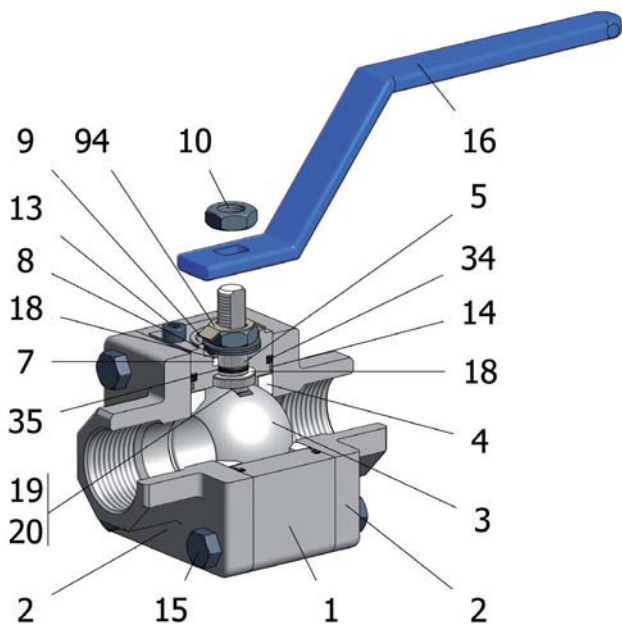
- Floating ball
- Three pieces
- Soft seat
- Bidirectional
- Self-cavity pressure relief
- Anti Blow out proof stem
- Autoadjustable packing
- Antistatic device

**STANDARDS:**

- Design:**  
 API 6D, ANSIB16.34, API 607  
 BS 6755-1  
 ISO 5211
- Ends:**  
 NPT (ANSI B1.20.1)  
 BSPP (DIN 259, ISO 228/1)  
 Butt weld ANSI 16.25  
 Socket weld ANSI 16.11

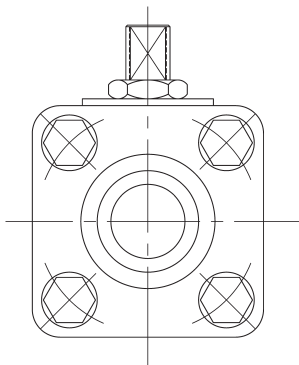
**OFFICIAL APPROVALS :**

- Type Approval (Fire safe)
- PED 97/23 EC
- ATEX 94/9 EC
- SIL 3
- ISO 9001
- API 6D



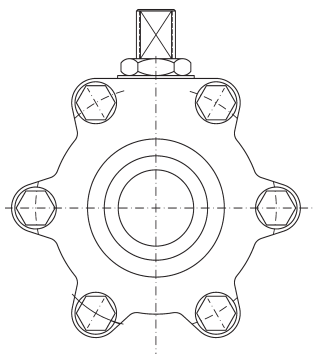
Item	Qty	Description	Materials	
			K809 SGSGV KRB 809 SGSGV	K806 SGSGV KRB 806 SGSGV
1	1	Body 1	A350 LF2/A105	A182 F316 L/F316
2	2	Body 2	A350 LF2/A105	A 182 316L
3	1	Ball	AISI 316	AISI 316
4	2	Seats	PTFE+CG (S)	PTFE+CG (S)
5	1	Stem	AISI 316	AISI 316
6	1	Stem seals	PTFE+CG (S)	PTFE+CG (S)
7	1	Packing ring	Graphite (G)	Graphite (G)
8	1	Gland packing	AISI 316	AISI 316
9	2	Spring washer	AISI 301	AISI 301
10	2	Stem nut	AISI 304	AISI 304
13	2	Stop bolt	A4-70	A4-70
14	2	Body seal 1	PTFE+CG (S)	PTFE+CG (S)
15	8-12-16	Body bolt	A193 B7M	A193 B8M
16	1	Handle	C.Steel+Epoxi	C.Steel+Epoxi
18	1	Thrust washer	PTFE+CG (S)	PTFE+CG (S)
19	1	Spring	AISI 302	AISI 302
20	1	Ball	AISI 316	AISI 316
34	2	Body seal 2	Graphite (G)	Graphite (G)
35	1	Oring stem	Viton® (V)	Viton® (V)
94	1	Stop washer	AISI 301	AISI 301

**Different shapes**



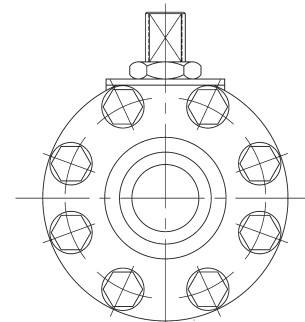
1/4" to 1 1/2"  
Full Bore

1/2" to 2"  
Reduced Bore



2" to 2 1/2"  
Full Bore

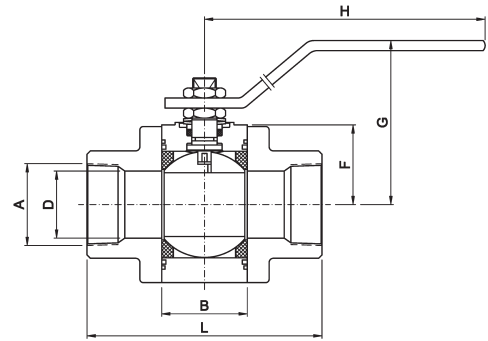
2 1/2" to 3"  
Reduced Bore



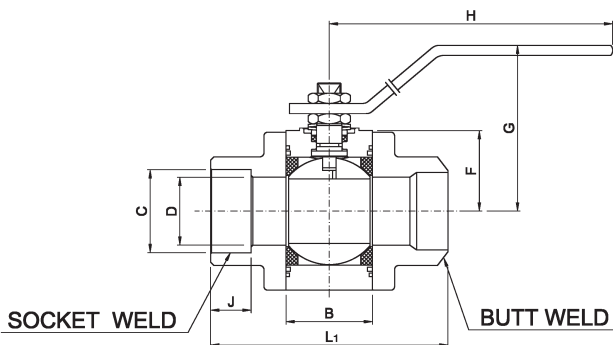
3" Full Bore

4" Reduced Bore

**■ Dimensions**

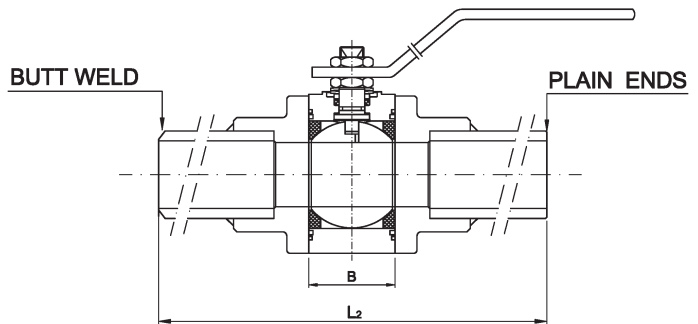


SCREWED NPT -BSPP



SOCKET WELD

BUTT WELD



BUTT WELD

PLAIN ENDS

WELDED NIPPLES

**Full Bore**

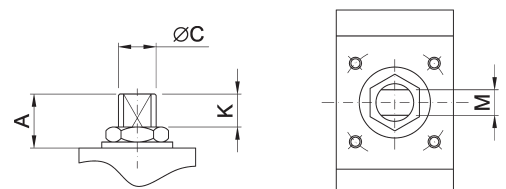
NPS	Class	A	B	D	F	G	H	L	L <sub>1</sub>	L <sub>2</sub>	E	C	J (min.)
1/4"	800	1/4"	19	11	31	82	145	75	75	275	29	14.5	9.5
3/8"		3/8"	19	11	31	82	145	75	75	275	29	18	9.5
1/2"		1/2"	21	15	34	85	145	80	80	280	36	22	9.5
3/4"		3/4"	28	21	39	101	180	100	100	300	44	27.5	12.5
1"		1"	37	25	38	105	180	110	110	310	53	34	12.5
1 1/4"		1 1/4"	44	32	41	108	180	120	120	320	64	43	12.5
1 1/2"	1 1/2"	51	38	47	110	233	140	140	340	76	49	12.5	
2"	600	2"	60	49	58	119	233	142	191	-	83	61.5	16
2 1/2"		2 1/2"	72	62	70	143	425	170	210	-	104	74	16
3"		3"	72	76	88	170	425	229	305	-	115	90	16

**Reduced Bore**

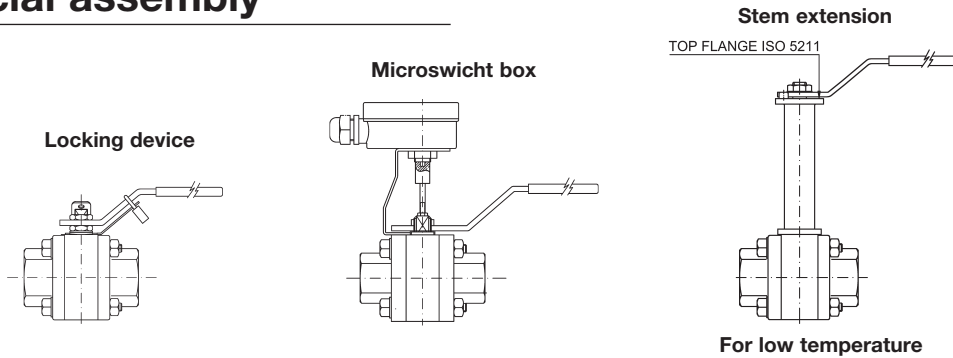
NPS	Class	A	B	D	F	G	H	L	L <sub>1</sub>	L <sub>2</sub>	E	C	J (min.)
1/2"	800	1/2"	19	11	31	82	145	75	75	275	29	22	9.5
3/4"		3/4"	21	15	34	85	145	80	80	280	36	27.5	12.5
1"		1"	28	21	39	101	180	100	100	300	44	34	12.5
1 1/4"		1 1/4"	37	25	38	105	180	110	110	310	53	43	12.5
1 1/2"		1 1/2"	44	32	41	108	180	120	120	320	64	49	12.5
2"		2"	51	38	47	110	233	140	140	340	76	61.5	16
2 1/2"	600	2 1/2"	60	49	58	119	233	142	191	-	83	74	16
3"		3"	72	62	70	143	425	170	210	-	104	90	16
4"		4"	72	76	88	170	425	229	305	-	134	115.5	19

**Top flange ISO 5211**

NPS F.B.	NPS R.B.	ISO 5211	M	oC	A	K
1/4"	-	F03	5.5	M10X1	9	5
3/8"	1/2"	F03	5.5	M10X1	9	5
1/2"	3/4"	F03	5.5	M10X1	10	5
3/4"	1"	F04	7.5	M12X1,25	15	12
1"	1 1/4"	F04	7.5	M12X1,25	20	12
1 1/4"	1 1/2"	F05	9	M15X1,5	20	12
1 1/2"	2"	F05	9	M15X1,5	25	12
2"	2 1/2"	F05	9	M15X1,5	28	12
2 1/2"	3"	F07	16	M22X1,5	29	17
3"	4"	F07	18	M24X2	36	17



## Special assembly



## Technical information

### Breakaway torque (Nm)

NPS	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Full Bore	11	11	16	19	23	25	65	78	91	120	-
Reduced Bore	-	-	11	16	19	23	25	65	78	91	120

Test performed with water at room temperature and maximum  $\Delta P$  according with the valve rating.

### Kv VALUES (m<sup>3</sup>/h)

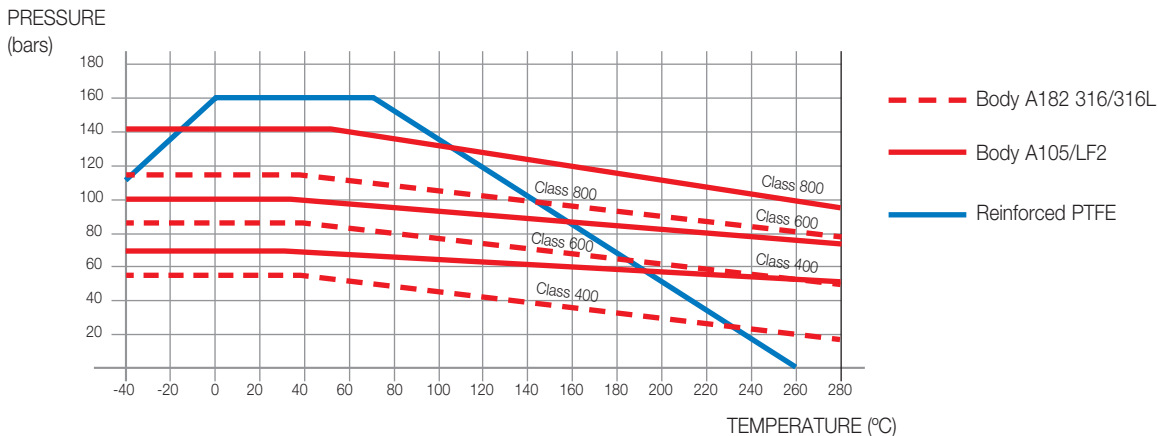
NPS	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Full bore	9	9	16	32	42	78	102	230	385	590	-
Reduced Bore	-	-	10	18	36	45	80	118	235	395	595

### PRESSURE TEST (bars) According to EN 12266 Class A, API 598, ISO 5208, BS6755-1

Class	Hydraulic				Pneumatic
	shell test		Seat test		
	A105/LF2	A182 F316/F316L	A105/LF2	A182 F316/F316L	Seat test
400	104	83	76	61	6
600	156	124	114	91	6
800	208	173	152	127	6

Size	Minimum duration (sec)	
	Shell test	Seat test
1/4" to 1 1/2"	15	15
2"	15	60
2 1/2" to 4"	60	60

## Pressure-Temperature graphic



### Pekos Valves S.A.

C/ Rec del Molinar, 9 - Poligono Ind. El Circuit  
08160 Montmeló - Barcelona (Spain)

Tel.: (+34) 93 568 92 56  
Fax.: (+34) 93 579 92 44

pekos@pekos.es  
www.pekos.es