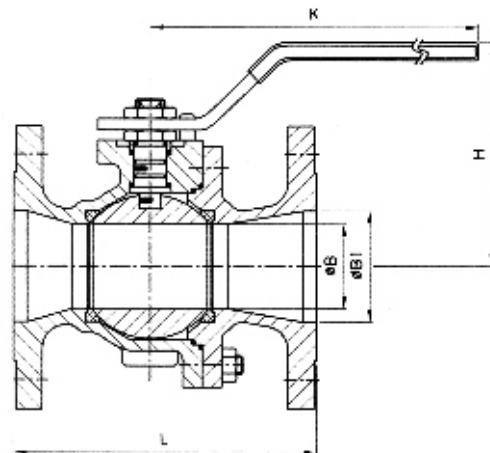


CAST STEEL, 2 PIECE, FLOATING BALL FULL and REDUCED PORT



Features

- ◆ Hawa Valves Cast Steel Ball Valves have been designed to meet the requirements BS 5351/ASME B 16.34/API 6D-ISO 14313/API 608/MSS SP 72
- ◆ Face to Face and End to End dimensions conform to ASME B 16.10 / ISO 5752 / BS 2080 /API 6D-ISO 14313/ DIN
- ◆ End flange dimensions conform to ASME B 16.5 / ISO 7005-1 / API 605 / BS 3293 / DIN
- ◆ Butt weld end dimensions conform to ASME B 16.25
- ◆ Fire tested design to API 607/API 6FA/BS 6755-II
- ◆ Flexible lip seats compensate for wear and changes in pressure
- ◆ Blow out proof stem construction
- ◆ Antistatic devices ensure electrical continuity between ball, stem & body
- ◆ Triple stem sealing
- ◆ ISO 5211 top pad for simplified gear/actuator mounting
- ◆ Valves meet the requirements of fugitive emission levels Shell category B as per MESC SPE 77/312



Options

- ◆ One, two or three piece construction
- ◆ For low temperature and cryogenic services (cold box and non-cold box applications) extended bonnet as per BS 6364 available
- ◆ Locking arrangement
- ◆ Gear, Electrical, Hydraulic or Pneumatic actuator available
- ◆ Soft seats are recommended for service temperature up to 260 Deg.C and for higher temperatures a metal to metal seating offered
- ◆ Can be supplied with GRAYLOC END HUB, under project license from GRAYLOC PRODUCTS®, UK.

Materials

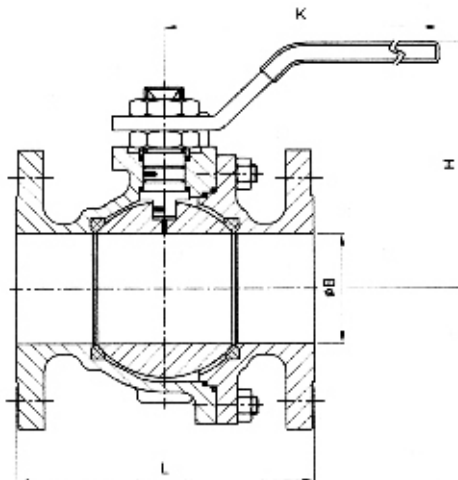
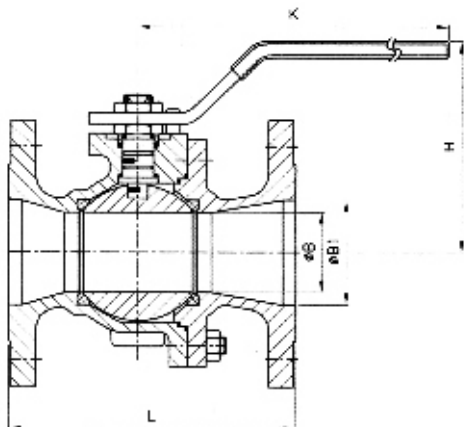
Part Name	Material Option
Body	ASTM A 216 WCB / A 217 WC6 / A 217 WC9 / A 217 C5 / A 217 C12 / A 351 CF8 / A 351 CF8M / A 351 CF3 / A 351 CF3M / A 352 LCB
Side Piece	ASTM A 216 WCB / A 217 WC6 / A 217 WC9 / A 217 C5 / A 217 C12 / A 351 CF8 / A 351 CF8M / A 351 CF3 / A 351 CF3M / A 352 LCB
Ball	ASTM A 351 CF8 / A 351 CF8M / A 182 F304 / A 182 F316 / A 182 F 6a
Body Seal	PTFE / Graphoil / Spiral Wound SS 316 with Graphoil
Seats	PTFE / GET / Graphite filled PTFE
Stem	ASTM A 182 F304 / A 182 F316 / A 182 F 6a
Gland Bush	ASTM A 182 F304 / A 182 F316 / A 182 F 6a
Gland Packing	Graphoil / PTFE
Stem Packing	Graphite filled PTFE / Graphoil
Gland Nut	Stainless Steel
Stem Nut	Stainless Steel
Lever	Carbon Steel with PVC
Disc Spring	Carbon Steel
Studs / Bolts	ASTM A 193 B7 / A 193 B7M / A 193 B8 / A 193 B8M / A 320 L7
Nut	ASTM A 194 2H / A 194 B7M / A 194 B / A 194 8M / A 194 4/7

* Valves are available in Duplex & Super Duplex Stainless Steel and Nickel Aluminium Bronze. Please indicate Trim required and ask for individual technical data sheets provided separately for these special materials.

* Compliant to NACE MR-0175 (2002)

CAST STEEL, 2 PIECE, FLOATING BALL FULL and REDUCED PORT

BALL VALVES



Dimensions

Full Port

ISO DN 20 / ASME 150 Class

Size	DN	15	20	25	40	50	65	80	100	150	200
L - RF		108	118	127	165	178	190	203	229	267 (SP) / 394 (LP)	292 (SP) / 457 (LP)
B		12.5	17	24	37	49	64	75	98	148	198
H (approx.)		65	70	80	95	110	135	145	170	235	275
K		150	155	160	180	200	225	325	350	500	600
Wt. (approx) kg		3	4	5	8	12	21	26	43	80 (SP) / 105 (LP)	155 (SP) / 178 (LP)

ISO DN 50 / ASME 300 Class

Size	DN	15	20	25	40	50	65	80	100	150	200
L - RF		140	152	165	190	216	241	282	305	403	502
B		12.5	17	24	37	49	64	75	98	148	198
H (approx.)		70	85	90	105	120	145	160	195	250	290
K		155	160	180	200	225	325	350	500	600	700
Wt. (approx) kg		3	5	7	13	15	28	32	55	105	170

Reduced Port

ISO DN 20 / ASME 150 Class

Size	DN	15	20	25	40	50	65	80	100	150	200
L - RF		108	118	127	165	178	190	203	229	292 (SP) / 457 (LP)	155 (SP) / 178 (LP)
B		9	12.5	17	28	36	50	57	75	98	144
H (approx.)		65	70	80	95	110	135	145	170	210	250
K		145	150	155	160	180	200	225	325	350	500
Wt. (approx) kg		3	4	4	6	9	14	19	29	57 (SP) / 70 (LP)	125 (SP) / 150 (LP)

ISO DN 50 / ASME 300 Class

Size	DN	15	20	25	40	50	65	80	100	150	200
L - RF		140	152	165	190	216	241	282	305	403	502
B		9	12.5	17	28	36	50	57	75	98	144
H (approx.)		70	85	90	105	120	145	160	195	225	275
K		150	155	160	180	200	225	325	350	500	600
Wt. (approx) kg		3	4	5	8	14	22	28	41	75	140

