

CAST STEEL PRESSURE SEAL BONNET



Features

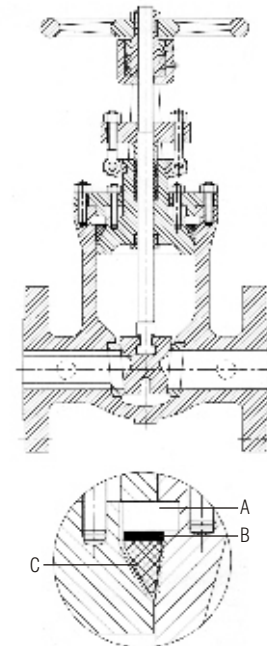
- ▶ Hawa Pressure Seal Gate Valves have been designed to meet the requirements of API 600 - ISO 10434 / BS 1414 / API 6D - ISO 14313 / ASME B 16.34
- ▶ Face to Face and End to End dimensions conform to ASME B 16.10 / ISO 5752 / BS 2080 / DIN
- ▶ End flange dimensions conform to ASME B 16.5 / ISO 7005-1 / API 605 / BS 3293 / DIN
- ▶ Butt weld end dimensions conform to ASME B 16.25
- ▶ The stem nut design allows for the removal of the hand-wheel while keeping the Stem and Gate in a fixed position.
- ▶ Anti-frictional Ball bearings are provided for ease of operation.
- ▶ The strength of Stem to Gate connection is stronger than the strength of the Stem at the root of the operating thread
- ▶ Outside screw and yoke construction
- ▶ All the valves provided with backseat arrangement duly satellite faced
- ▶ Bi-directional shut-off
- ▶ The gland is of self aligning two piece type
- ▶ Deep stuffing box
- ▶ Body ports are streamlined, permitting unobstructed flow, reduces turbulence, results in lower pressure drop & lower erosion
- ▶ The securely welded Seat-rings are satellite faced cylindrical bottom seated type having ample cross section for strength
- ▶ The gasket design ensures self sealing under pressure
- ▶ The inner row of studs establish the initial seal of the Pressure seal joint
- ▶ Valves meet the requirements of fugitive emission levels Shell category B as per MESC SPE 77/312

Options

- ▶ Solid, flexible, split wedge, double disc and parallel Slide Gate configurations available
- ▶ 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
- ▶ 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
Bonnet	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
Wedge ®	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
Stem	ASTM A 276 410 / A 276 304 / A 276 304L / A 276 316L
Seat Rings ®	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
Back Up Ring	ASTM A 216 WCB / A 351 CF8 / A 351 CF8M
Thrust Ring	ASTM A 216 WCB / A 351 CF8 / A 351 CF8M
Back Seat Bushing	Stellited
Gland	ASTM A 276 410 / A 276 304 / A 276 304L / A 276 316L
Gland Flange	Carbon Steel / Stainless Steel
Stem Nut	ASTM A 439 Gr.D2 / Al. Bronze
Lock Nut	Carbon Steel / SS 304
Gland Packing	Graphoil
Gasket	Soft Iron / SS 304 / Graphoil
Gland Eye - Bolt & Nut	Carbon Steel / Stainless Steel
Cross Bolts & Nuts	Carbon Steel / Stainless Steel
Hand Wheel	Carbon Steel
Hand Wheel Nut	Carbon Steel
Grease Nipple	Carbon Steel
Grub Screw	Carbon Steel
Studs / Bolts	ASTM A 193 B7 / A 193 B7M / A 193 BBM / A 320 L7
Nut	ASTM A 194 2H / A 194 8 / A 194 8M / A 194 4 / 7



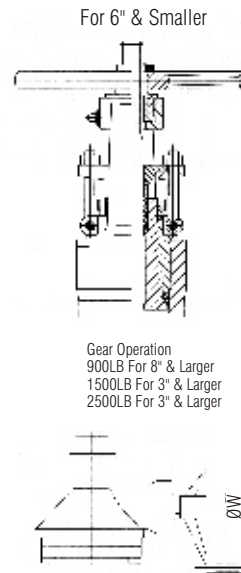
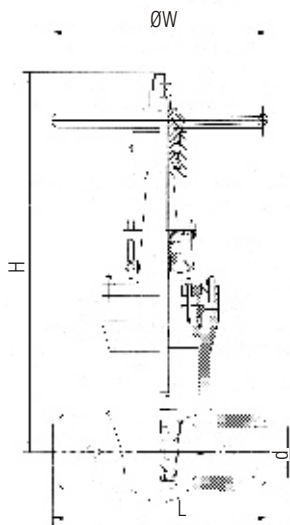
- A Back Up Ring** : Absorbs thrust applied by internal pressure
- B Thrust Ring** : Protects the soft metallic gasket from deformation
- C Gasket** : Unique angular design provides superior sealing

* 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.

@ CS & Alloy Steel Wedges and Seat Rings will be overlaid with 13% CR. or STELLITE 6 as per customer specifications.

* Compliant to NACE MR-0175 (2002)

CAST STEEL PRESSURE SEAL BONNET



Dimensions

ISO PN 110 / ASME 600 Class

Size	DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L		292	330	356	432	508	559	660	787	838	889	991	1092	1194	1397
L1 - SP		178	216	254	305	381	457	584	711	813	889	991	1092	1194	1397
H (approx)		525	610	650	775	825	1050	1200	1450	1600	1800	2050	2245	2400	2670
ØW		250	250	300	350	400	500	600	600	400*	450*	450*	500*	500*	550*
Wt. (approx) kg		35	55	62	105	160	205	400	690	815	1125	1650	2025	2325	3980

ISO PN 150 / ASME 900 Class

Size	DN	50	65	80	100	125	150	200	250	300	350	400	450	500
L		368	419	381	457	559	610	737	838	965	1029	1130	1219	1321
L1 - SP		216	254	305	356	432	508	660	787	914	991	1092	1219	1321
H (approx)		550	645	670	790	855	1075	1225	1500	1635	1830	2145	2300	2485
ØW		300	300	300	400	450	300	350*	400*	400*	450*	500*	500*	550*
Wt. (approx) kg		75	90	96	136	225	275	490	825	1150	1500	2100	2750	3400

ISO PN 260 / ASME 1500 Class

Size	DN	50	65	80	100	125	150	200	250	300	350	400	450
L		368	419	470	546	673	705	832	991	1130	1257	1384	1537
L1 - SP		216	254	305	406	483	559	711	864	991	1067	1194	1346
H (approx)		570	670	725	850	890	1125	1235	1520	1650	1875	2275	2365
ØW		300	300	300*	300*	300*	350*	350*	400*	400*	450*	550*	550*
Wt. (approx) kg		95	110	125	205	256	330	655	1200	2010	2850	3450	4250

ISO PN 420 / ASME 2500 Class

Size	DN	50	65	80	100	125	150	200	250	300
L		451	508	578	673	794	914	1022	1270	1422
L1 - SP		279	330	368	457	533	610	762	914	1041
H (approx)		600	695	740	890	970	1135	1350	1680	1750
ØW		400	450	300*	350*	350*	350*	400*	450*	450*
Wt. (approx) kg		110	130	140	225	295	495	825	1480	2400

* Gear Operation suggested. Dimensions on request.
Abbreviation : SP - Short Pattern