

CAST STEEL THROUGH CONDUIT - API 6D**Features**

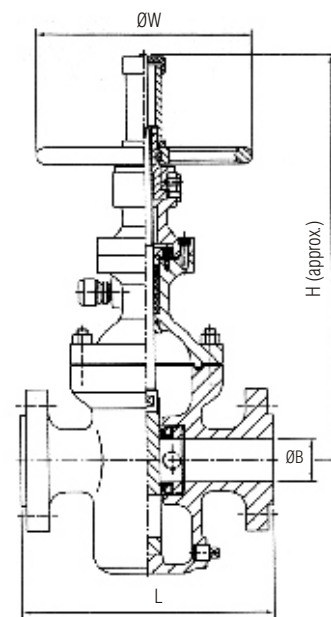
- ▶ These Hawa Valves have been designed to meet the requirements of API-6D/ISO 14313/ASME B 16.34
- ▶ Face to Face and End to End dimensions conform to ASME B 16.10/ISO 5752/BS 2080/DIN
- ▶ End flange dimensions conform to ASME B 16.5/ISO 7005-1/API 605/BS 3293/DIN
- ▶ Butt weld end dimensions conform to ASME B 16.25
- ▶ Slab type gate to avoid jamming associated with wedge gate
- ▶ Pressure energized floating seat rings with PTFE inserts
- ▶ Double Block & Bleed Design
- ▶ Weather proof operating system ▶ Easy maintenance with valve in-line
- ▶ Through conduit piggable passage ▶ Anti-frictional Ball bearings are provided in higher sizes and classes
- ▶ Outside screw and yoke construction
- ▶ All the valves provided with backseat arrangement ▶ Bi-directional shut-off ▶ Deep stuffing box
- ▶ Body ports are streamlined, permitting unobstructed flow, reduces turbulence, results in lower pressure drop and lower erosion
- ▶ The Body to Bonnet joint is flat in ISO PN 20 / ASME 150# valves, a male and female joint is used in PN 50 / 300# & PN 110 / 600# and ring joint is used in higher classes
- ▶ Specially designed die formed graphite packing, controlled clearance between stem, gland & bonnet bushing for guaranteed low emissions meet 100 ppm maximum fugitive emission levels as per Shell SPE 77/312

Options

- ▶ 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
Gate[@]	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
Yoke	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
Seat Insert	PTFE / VITON
'O' Ring	VITON
Back Seat Bushing	ASTM A 276 410 / A 276 304 / A 276 304L / A 276 316L
Gland Nut	ASTM A 276 410 / A 276 304 / A 276 304L / A 276 316L
Stem Nut	ASTM A 439 Gr.D2 / Al. Bronze
Lock Nut	Carbon Steel / SS 304
Gland Packing	Chevron Ring / Graphoil / PTFE
Bonnet 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
Stem Enclosure	Carbon Steel
Hand Wheel Nut	Carbon Steel
Stem Indicator	Stainless Steel
Drain Plug	Stainless Steel
Anti-friction Bearing	Standard
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



Dimensions on request for sizes 2" NPS to 36" NPS in ratings 150 through 2500.



* 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 Gate and Seat Rings will be ENP coated unless specified otherwise overlaid with 13% CR. or STELLITE 6 as per customer specifications.

* Compliant to NACE MR-0175 (2002)