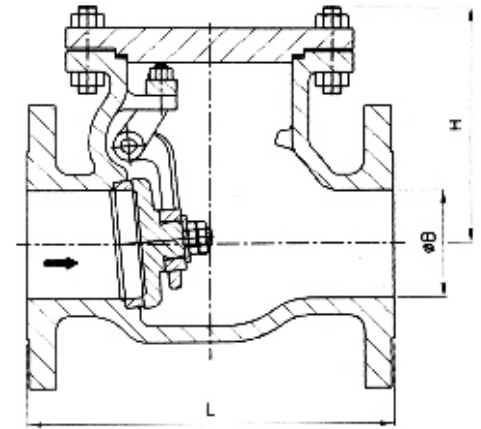


CAST STEEL BOLTED COVER**Features**

- ▶ Hawa Valves Cast Steel Check Valves have been designed to meet the requirements of BS 1868/ASME B 16.34/API 6D-ISO14313
- ▶ 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 Seat-rings are cylindrical bottom seated type having ample cross section for strength are provided with welded in and threaded Seat-rings will be supplied on request. In case of SS valves the Seat-rings are integral to Body
- ▶ The Body to Bonnet joint is a male & female in ISO PN 20, PN 50 & PN 110 / ASME 150#, 300# & 600# valves and ring joint is used in higher classes
- ▶ Valves meet the requirements of fugitive emission levels Shell category B as per MESC SPE 77/312

Options

- ▶ Tilting disc design available
- ▶ Check Valves can be supplied with counter weight or dash pot arrangement
- ▶ Full opening, piggable design available
- ▶ Can be supplied with GRAYLOC END HUB, under project license from GRAYLOC PRODUCTS®, UK.

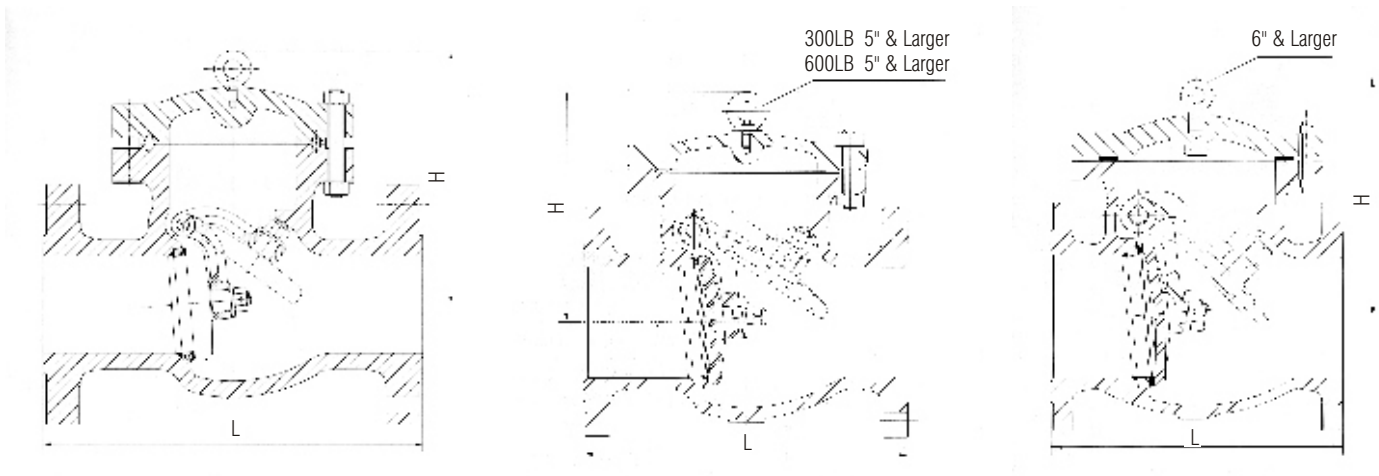
**Materials**

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
Cover	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
Disc[@]	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
Hinge	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
Hinge Bracket	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
Hinge Pin	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
Disc Nut	Carbon Steel / Stainless Steel
Washer	Carbon Steel / Stainless Steel
Gasket	Soft Iron / SS 304 / Graphoil
Studs / Bolts	ASTM A 193 Gr B7 / A 193 Gr B7M / A 193 Gr B8 / A 193 Gr B8M / A 320 Gr L7
Nut	ASTM A 194 Gr 2H / A 194 Gr B7M / A 194 Gr B / A 194 Gr 8M / A 194 Gr 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.

@ 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 BOLTED COVER

Dimensions
ISO PN 20 / ASME 150 Class

Size	DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
**L-RF, LI-BW		203	216	241	292	330	356	495	622	699	787	864	977	977	1295
H (approx)		155	190	200	225	245	260	305	390	410	435	530	570	625	675
Wt. (approx) kg		16	25	34	46	75	89	120	220	337	471	575	788	916	1275

ISO PN 50 / ASME 300 Class

Size	DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
**L-RF, LI-BW		267	292	318	355	400	444	533	622	711	838	863	977	1016	1346
H (approx)		180	200	225	240	275	310	370	410	440	500	545	605	675	785
Wt. (approx) kg		26	32	53	73	110	157	234	348	450	650	800	970	1350	2210

ISO PN 110 / ASME 600 Class

Size	DN	50	65	80	100	125	150	200	250	300	350	400	450	500
**L-RF, LI-BW		292	330	355	431	508	558	660	787	838	889	991	1092	1194
H (approx)		190	215	250	260	310	350	420	490	525	580	630	690	810
Wt. (approx) kg		33	49	62	95	120	195	360	465	725	875	1075	1475	1900

ISO PN 150 / ASME 900 Class

Size	DN	50	65	80	100	125	150	200	250	300	350
**L-RF, LI-BW		368	419	381	457	559	610	737	838	965	1029
H (approx)		195	235	260	275	320	370	435	520	530	580
Wt. (approx) kg		55	70	90	135	165	295	525	900	1075	1225

ISO PN 260 / ASME 1500 Class

Size	DN	50	65	80	100	125	150	200
**L-RF, LI-BW		368	419	470	546	673	705	832
H (approx)		220	270	290	310	350	410	485
Wt. (approx) kg		70	85	115	175	180	370	680

