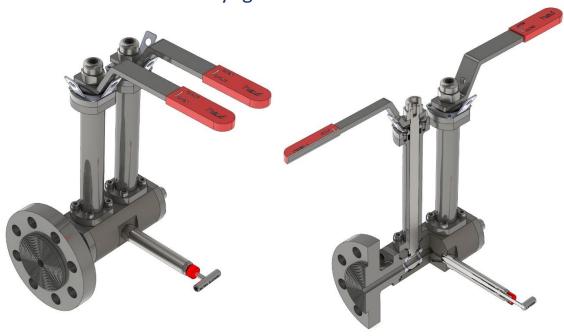


# Cryogenic Bolted DBB



# SS Body, SS Trim Double Block and Bleed Valve

## **CDBB Series**

BSPT, NPT, Socket Weld, Butt Weld, Flanged Ends

Applications Liquid, Gas & Oxygen Services

Working Temperature -196°C to +150°C Working Pressure #300 to #1500

#### **Standards**

Degreased, Packed, and labelled
Design accordance with EN12516 part 1 & 2, EN1626, MSS SP 77/200, BS6364, ASME B16.34
End Connection: ISO 7-1, ASME B1.20.1, ASME B 16.11, ASME B16.25
Tested to ISO 5208, API 598

#### Notes

Various materials Inconel etc, schedule pipe and tube connection are available upon request

Oxygen Cleaning can be provided upon request.

Extension with longer length available upon request

### Pressure build-up prevention

The HAVI cryogenic DBB valve is designed with no trapped cavities. A cavity relief hole faces upstream and eliminates pressure build-up caused by thermal expansion.

### Minimum thermal expansion

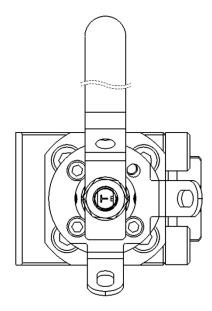
Using one-size-up and double the amount of body bolts reduces linear thermal expansion and dramatically decreases the likelihood of leakage to the atmosphere. In addition, spring washers compensate for thermal contraction of valve parts that occur during the thermal cycles.

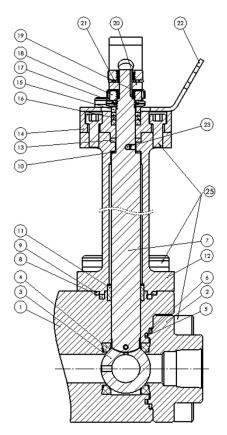
#### Efficient heat transfer

The HAVI standard bonnet length design complies with BS6364/MSS SP 77/200 for non-cold-box applications. The long neck bonnet insulates the stem seal from the low temperatures of cryogenic fluids, thus enabling safe and long-lasting seal service. A thin layer of liquid cryogenic media between the bonnet ID and the stem OD, enables safe evaporation of cryogenic fluid at the ambient environment temperature









ITEM NO.	DESCRIPTION	MATERIAL
1	BODY	A479 Gr. 316
2	END CONNECTOR	A479 Gr. 316
3	BALL	A479 Gr. 316
4	SEAT	P.C.T.F. E
5	BODY GASKET	GRAPHITE
6	BODY GASKET	P.C.T.F. E
7	EXTENDED STEM	A479 Gr. 316
8	BONNET GASKET	P.C.T.F. E
9	BONNET GASKET	GRAPHITE
10	THRUST WASHER	TEF-G
11	LOWER STEM BEARING	TEF-G
12	BONNET EXTENSION	A479 Gr. 316
13	BONNET COVER GASKET	GRAPHITE
14	BONNET COVER	A479 Gr. 316
15	GLAND	316 S.S.
16	GLAND PACKING	TEF-C
17	BELLEVILLE WASHER	301 S.S.
18	LOCK NUT	316 S.S.
19	NUT LOCK COVER	304 S.S.
20	HAND LEVER	304 S.S.
21	TOOTHED LOCK WASHER	304 S.S.
22	LOCK PLATE	304 S.S.
23	ANTI-STATIC BALL	304 S.S.
24	ANTI-STATIC SPRING	304 S.S.
25	FASTNERS	S.S.