

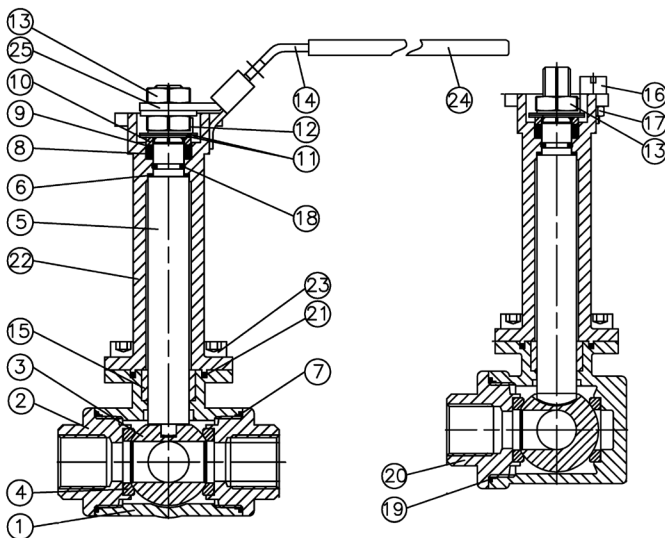
# 3-WAY CRYOGENIC CHANGE OVER BALL VALVE

## TYPE 1680: T-PORT



### GENEREL

DIMENSION:	1/2"
PRESSURE:	1000 PSI (69 BAR)
TEMPERATURE:	-196°C TO +204°C
(PRESSURE AND TEMPERATURE ARE INTERDEPENDENT)	
CONNECTION:	THREAD
MATERIAL:	ACID-PROOF STAINLESS STEEL
ISO TOP FLANGE:	ISO 5211
STEM EXTENSION:	100 MM



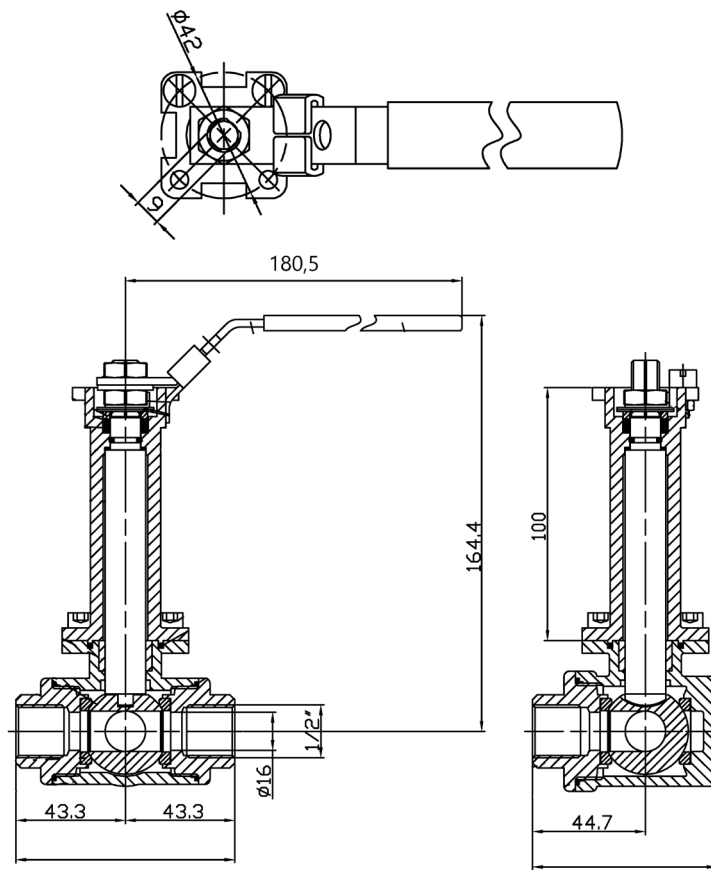
POS	DESCRIPTION	MATERIAL
1	BODY	STAINLESS STEEL CF8M
2	END CAP	STAINLESS STEEL CF8M
3	BALL	STAINLESS STEEL CF8M
4	SEAT	PCTFE (KEL-F)
5	ANTI STATIC STEM	17-4 PH SS
6	THRUST WASHER	PCTFE (KEL-F)
7	END SEALS	GRAFOIL
8	STEM PACKING	PCTFE
9	THRUST WASHER	TFM 1600
10	GLAND BUSH	STAINLESS STEEL AISI 304
11	BELLEVILLE WASHER	STAINLESS STEEL AISI 304
12	STOP	STAINLESS STEEL AISI 304
13	HANDLE NUT	STAINLESS STEEL AISI 304
14	HANDLE	STAINLESS STEEL AISI 304
15	STEM PACKING	PTFE + 25% CARBON
16	STOP BOLT	STAINLESS STEEL AISI 304
17	STOP NUT	STAINLESS STEEL AISI 304
18	O-RING	VITON
19	END SEALS	GRAFOIL
20	END CAP	STAINLESS STEEL CF8M
21	END SEALS	GRAFOIL
22	EXTENSION	STAINLESS STEEL CF8M
23	EXTENSION BOLT	STAINLESS STEEL AISI 304
24	SLEEVE	VINYL
25	WASHER	STAINLESS STEEL AISI 304

### DESCRIPTION

- **3-way cryogenic change over ball valve with temperature span from -196°C to +204°C.** Suitable for nitrogen, CO<sub>2</sub>, oxygen, ect. All valves are degreased for oxygen.
- **Long neck prevents freezing of the stem packing** as this is located at the top of the stem extension. This minimizes the risk of leakage.
- **Wax cast ball valve in acid-proof stainless steel.** Wax casting gives a very clean surface structure.
- **ISO 5211 mounting flange** for direct mounting of actuator without the use of coupling and bracket. This compact unit gives fewer transitions = less "slack".
- **Traceability on all valves.** On request material certificate EN10204/3.1 can be delivered with the valve.
- **Helium tested leakage rate** 1 x 10<sup>-4</sup> mbar l/s He.
- **Degreased for oxygen** - oil/grease.

DS-1680-UK-12-2022-REV. B  
We reserve the right for changes.

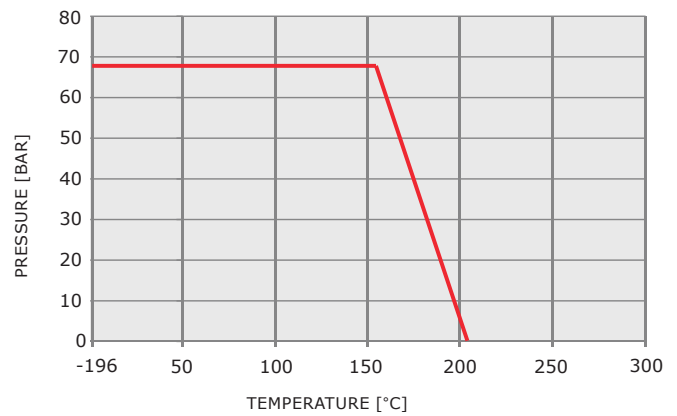
**DIMENSION**



**FLOW PLANS**

PORT	1	2	3
TYPE			
<b>T</b>			

**PRESSURE/TEMPERATURE GRAPH**



**VALVE DATA**

DIM	*TORQUE	WEIGHT	Kv-VALUES
[MM]	[NM]	[KG]	[m³/h]
15	31.2	1.69	11.71

\*) Torque figure included 30% safety factor.