

# Cryogenic Stainless Steel Top Entry Ball Valve (Lever Operating Type)

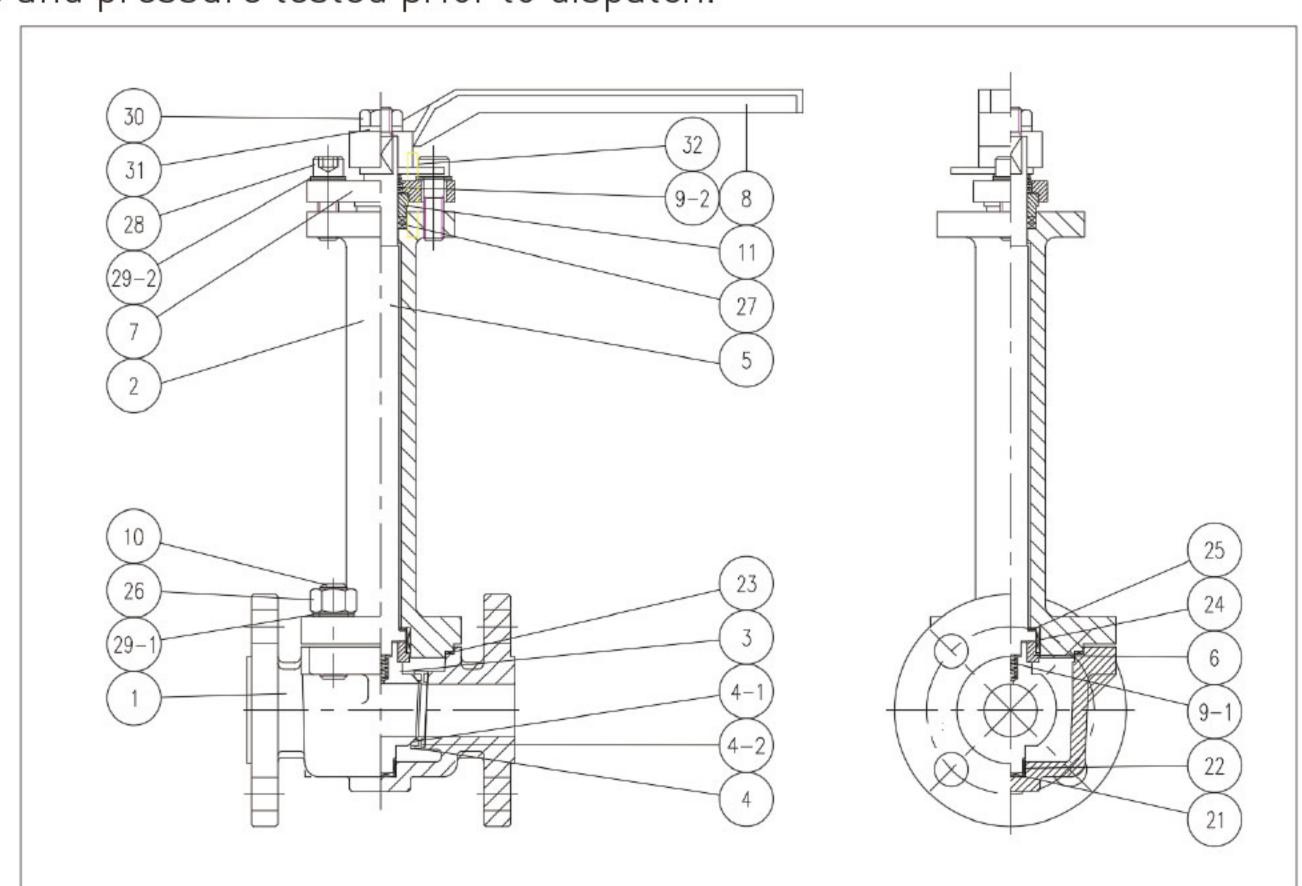
The stainless steel top-entry ball valve is a bolted bonnet type and is designed to allow the ball to be detached from the top of the body for easy maintenance. The connection method is provided by flange, butt welding, socket welding, and screwing.

Antistatic and fire safety design applicable to flammable fluids were applied.

It holds the type approval of the 4 major overseas classifications (DNV, BV, LR, ABS) and the Korean Register of Shipping (KR).

All valves are assembled in clean room conditions and pressure tested prior to dispatch.





#### **Bill of Materials**

NO.	PART NAME	Q'TY	MATERIAL	NO.	PART NAME	Q'TY	MATERIAL
1	BODY	1	A351-CF8M	12	STOPPER	1	A240-316
2	BONNET	1	A351-CF8M	21	BALL PACKING	1	PTFE
3	BALL	1	A276-316	22	LOWER BEARING	1	316SS + G.P
4	SEAT RING	2	A276-316	23	BONNET GASKET	1	GRAPHITE
4-1	SOFT SEAT	2	PCTFE	24	UPPER BEARING	1	316SS + G.P
4-2	BACK SEAT	2	GRAPHITE	25	STEM PACKING	1	GRAPHITE
5	STEM	1	A276-316	26	HEX' NUT	4	A194-8M
6	BALL SLEEVE	1	A276-316	27	GLAND PACKING	2	GRAPHITE
7	GLAND FLANGE	1	A276-316	28	WRENCH BOLT	2	A193-B8M
8	LEVER	1	A351-CF8M	29-1	LOCK WASHER	4	316SS
9-1	SPRING	1	316SS	29-2	LOCK WASHER	2	316SS
9-2	SPRING	1	316SS	30	HEX' NUT	1	316SS
10	STUD BOLT	4	A193-B8M	31	SPRING WASHER	1	316SS
11	GLAND	1	A276-316	32	STOPPER PIN	1	316SS

### **Production Range**

STANDARD	TYPE	CLASS	SIZE
ANSI, ASME, API	BOLTED BONNET	150#	1/2" ~ 2"







Sub-Zero Cryogenic Test Returning to Ambient



## Cryogenic Stainless Steel Top Entry Ball Valve (Worm Gear Operating Type)

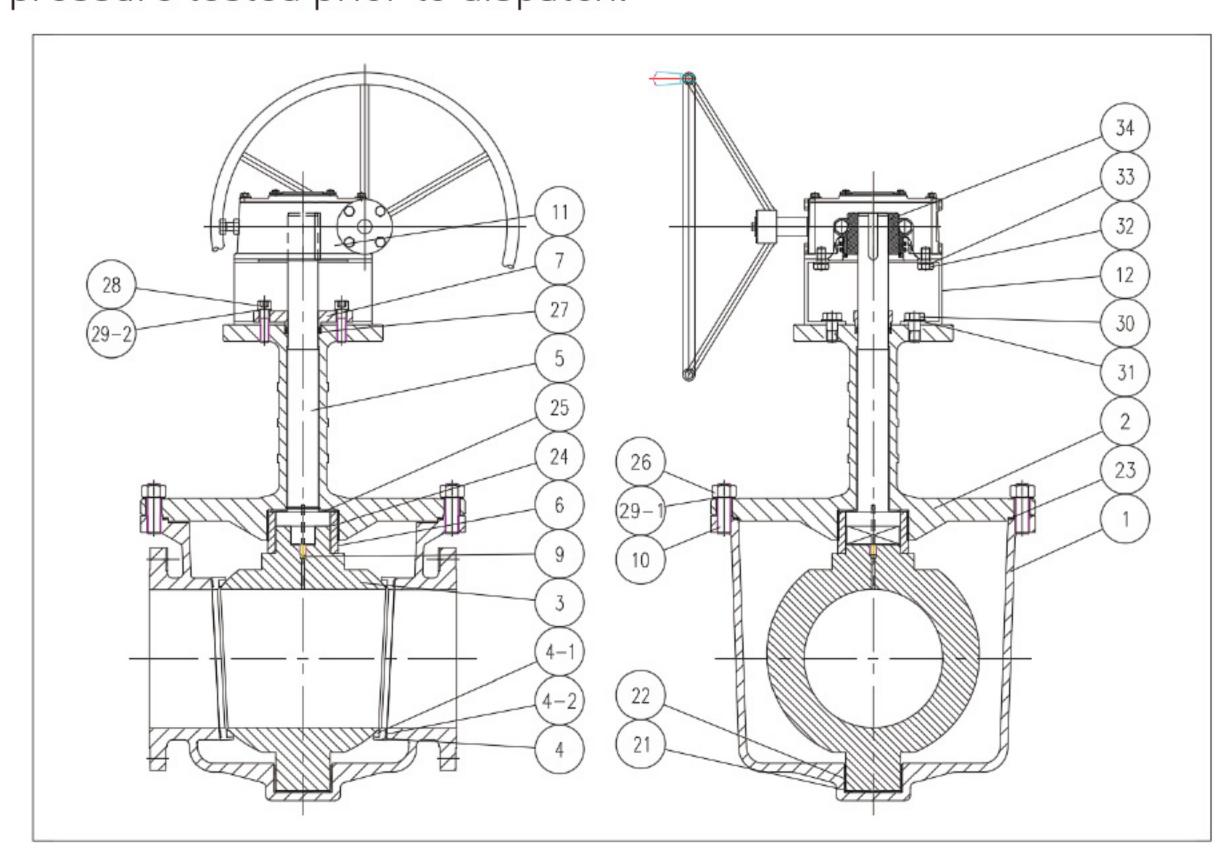
The stainless steel top-entry ball valve is a bolted bonnet type and is designed to allow the ball to be detached from the top of the body for easy maintenance. The connection method is provided by flange, butt welding, socket welding, and screwing.

Antistatic and fire safety design applicable to flammable fluids were applied.

It holds the type approval of the 4 major overseas classifications (DNV, BV, LR, ABS) and the Korean Register of Shipping (KR).

All valves are assembled in clean room conditions and pressure tested prior to dispatch.





#### **Bill of Materials**

NO.	PART NAME	Q'TY	MATERIAL	NO.	PART NAME	Q'TY	MATERIAL
1	BODY	1	A351-CF8M	21	BALL PACKING	1	PTFE
2	BONNET	1	A351-CF8M	22	LOWER BEARING	1	316SS + G.P
3	BALL	1	A276-316	23	BONNET GASKET	1	GRAPHITE
4	SEAT RING	2	A276-316	24	UPPER BEARING	1	316SS + G.P
4-1	SOFT SEAT	2	PCTFE	25	STEM PACKING	1	GRAPHITE
4-2	BACK SEAT	2	GRAPHITE	26	HEX' NUT	4	A194-8M
5	STEM	1	A276-316	27	GLAND PACKING	2	GRAPHITE
6	BALL SLEEVE	1	A276-316	28	WRENCH BOLT	2	A193-B8M
7	GLAND FLANGE	1	A240-316	29-1	LOCK WASHER	4	316SS
8	LEVER	1	A351-CF8M	29-2	LOCK WASHER	2	316SS
9-1	SPRING	1	316SS	30	HEX' NUT	1	316SS
9-2	SPRING	1	316SS	31	SPRING WASHER	1	316SS
10	STUD BOLT	4	A193-B8M	32	HEX' BOLT	1	316SS
11	WORM GEAR	1	A536 Gr.65-45-12	33	SPRING WASHER	1	316SS
12	BRACKET	1	A240-316	34	KEY	1	S45C

### **Production Range**

STANDARD	STANDARD TYPE		SIZE	
ANSI, ASME, API	BOLTED BONNET	150#	2-1/2" ~ 12"	









Returning to Ambient

Cryogenic Test