# 3-PCS Cryogenic Ball Valve

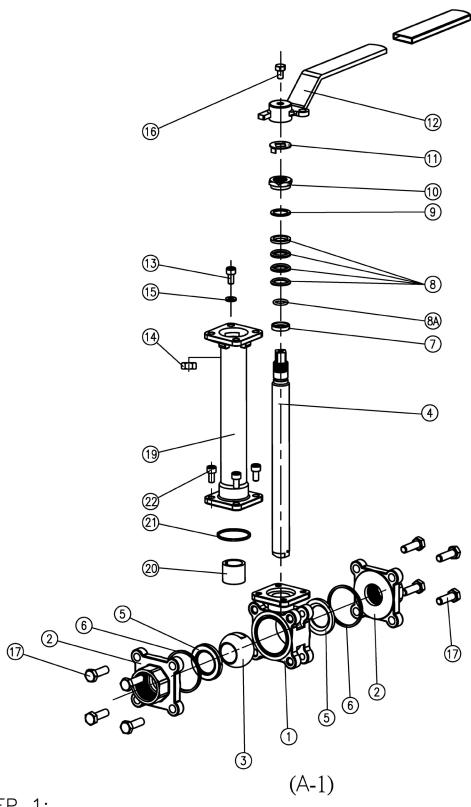
Installation, Operation & Maintenance





# 1. STEPS OF INSTALLATION

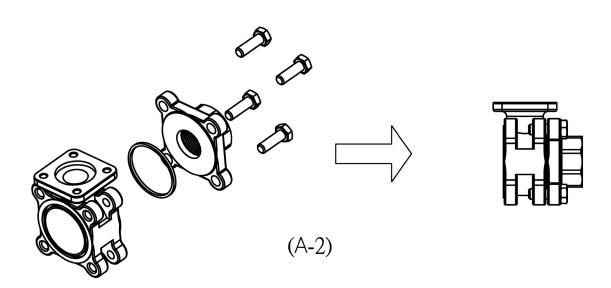




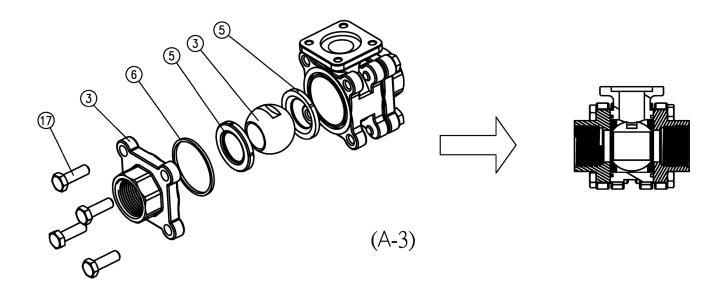
STEP 1:

A-1): Complete explode view drawing.





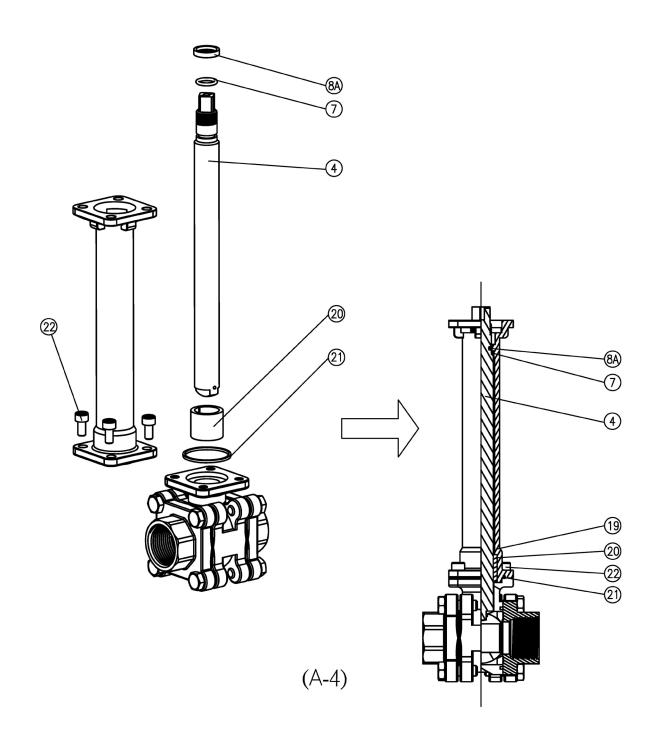
STEP 2: A-2):Showing single side assembly drawing. . Put part (6),(2) on the valve body (1) in order, Tighten the bolts (17) properly and evenly.



## STEP 3:

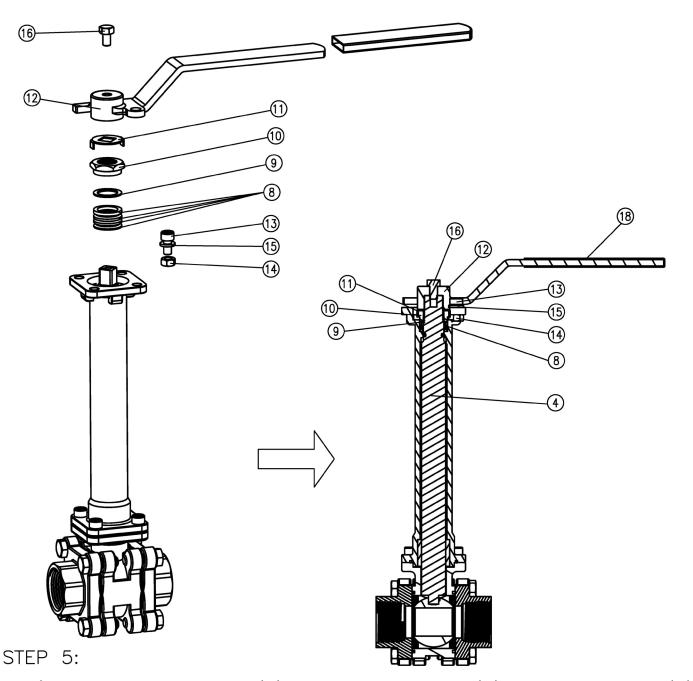
A-3):Put the seat (5) & ball (3) align into the valve body (1), Put parts, seat(5), seal(6), cap(2), body bolt(17) on the other side, following step 2 to complete assembly.





STEP 4: A-4) Put the parts (7),(8) in order to the stem (4) and assemble to the inside of the extension (19), position thrust bearing (20) & extension gasket(21) at right place, tighten the extension bolts (22) properly and evenly.





A-4): Put stem packing (8) & thrust washer (9) into the stem (4) tighten the stem nut (10) properly and evenly.

(11) lock saddle must be positioned right to the hexagon sides to prevent it from loosening.

Assemble the parts (12)(16)(18)(15)(13)(14) in order, check the port if it is at right direction during open/close operation of lf not, it takes the opposite procedures to dismantle the parts.

### STEPS OF INSTALLATION



Size	Torque (N.M) (under normal atmospheric temperature)	Torque (N.M) (under - 196°C)	Stem Nut Tightening Torque (N.M)	Body Bolt Tightening Torque (N.M)	Extension Bonnet Tightening Torque (N.M)	KV
1/2"	12	26	9.04~10.17	17.52	6.78	16.34
3/4"	16	38	9.04~10.17	17.52	6.78	30.10
1"	21	47	12.43~14.69	17.52	9.04	43.00
1 1/4"	29	68	12.43~14.69	33.90	9.04	94.60
1 1/2"	37	85	15.82~18.08	33.90	17.52	172.00
2"	59	160	15.82~18.08	58.76	33.90	301.00

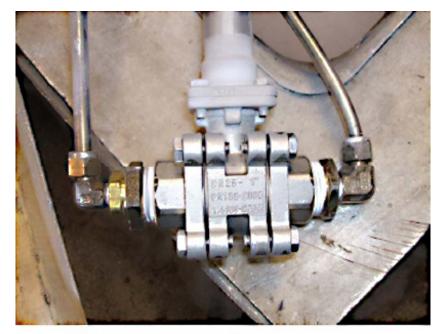
<sup>\*</sup>Torque figures include 30% safety factors.

## 2. CERTIFIKATER, TESTS



# **CERTIFIKATER, TESTS**









# **The Expert Leader**

## **Concepts for flow technology**

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