

CRYOGENIC GLOBE CONTROL VALVE INSTALLATION & MAINTENANCE MANUAL

1. INTRODUCTION

The Mitech Cryogenic Globe Control Valve is similar to the standard Mitech Globe Control Valve and therefore the GCV Maintenance Manuals should be referred to when assembling and disassembling this valve.

The cryogenic valve incorporates a bonnet extension so as to remove the actuator and stem packing away from the medium passing through the valve body

If the valve is to be used on Oxygen service, ensure that all parts have been degreased before and after reassembly.

2. APPLICATION DETAILS

- Cryogenic is when the temperature is in the region of -273°C to -65°C .
- Gas is converted through cooling and condensing under pressure to change its state into a liquid state, which will be easier and more manageable to transport.
- The material used is stainless steel or bronze as they are both able to retain their strength and toughness at these low temperatures.
- The most common cryogenic fluids are: Liquid Oxygen, Hydrogen, Nitrogen, Liquid Natural Gases and Helium.
- If the valve is to be used on Oxygen service, ensure that all parts have been degreased before and after reassembly.

3. DISASSEMBLY OF CRYOGENIC VALVE

The valve should be disassembled according to the Globe Control Valve Maintenance Manual. The only difference with the cryogenic valve will be a bonnet extension and therefore an extra guide and bonnet gasket will be present.

4. REASSEMBLY OF CRYOGENIC VALVE

Reassemble the valve according to the steps set out in the Globe Control Valve Maintenance manual. Replace packing and gaskets.

5. PARTS LIST

ITEM	DESCRIPTION	ITEM	DESCRIPTION
2	Body	24	Actuator Mounting Bolts
8	Standard Bonnet	25	Actuator Stem
9	Bonnet Flange	31	Cylinder Cap
13	Gland Flange Stud	33	Adjusting Screw
14	Gland Flange	38	Indicator Plate
15	Gland Flange Nut	50	Cover Ring
16	Bonnet Stud	51	Bonnet Extension
17	Bonnet Nut	52	Cryogenic Bonnet
18	Actuator Mounting Flange	53	Cryogenic Spacer
19	Mounting Bar	54	Shaft Extension
20	Mounting Flange Screw	56	Cryogenic Gasket
23	Cylinder	57	Grub Screw

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6. DRAWING – CRYOGENIC VALVE

