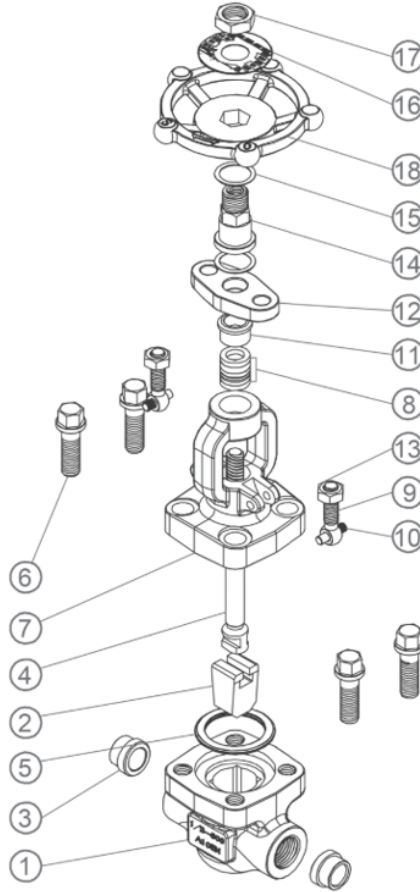


Installation, Operation, and Maintenance Instructions Forged Stainless Steel Gate Valves and Forged Steel Gate Valves CVC Series 28

PART NO.	PART NAME
1	Body
2	Disc
3	Seat Ring
4	Stem
5	Gasket
6	Bonnet Bolt
7	Bonnet
8	Packing
9	Gland Bolt
10	Gland Studs
11	Packing Flange
12	Gland Flange
13	Nut
14	Stem Nut
15	Washer
16	Nameplate
17	Hand Wheel Nut
18	Hand Wheel



Operation:

Fluids flow through gate valves in straight line path. There is little resistance to flow and the resulting pressure drops are small. A gate like disk (wedge) is actuated by the screw and hand wheel. The gate valve is closed by turning the hand wheel clockwise until it hits dead end and sitting tightly between the seats (fully closed). The stem rises when the valve is being opened by turning the hand wheel counter-clockwise until it stops (fully open).

1. Storage and Protection:

- 1.1 Valves shall be stored in a dry warehouse, with end covers installed.
- 1.2 For long term storage, valves shall be checked periodically, and cleaned to remove dirt and foreign material. Special care shall be taken for the cleanliness of seat surfaces, to prevent damage to the seat and disc or wedge.

2. Pre- Installation Check List:

- 2.1 Before installing the valve, check the valve identification tag carefully to verify that it is the correct valve for the application.
- 2.2 Remove the plastic cap from both ends, check inside passage and seal surface. Clean as necessary to remove all dirt and foreign material.
- 2.3 Check for loose nuts, bolts and stem thread damage. Turn the valve fully open and fully closed to make sure it is operating properly.
- 2.4 Installation technician must follow all the safety standards and codes national and local imposed for his system.

3. Inspection Maintenance and Disassembly:

- 3.1 Make sure there is no pressure in the line before performing any maintenance on the valve.
- 3.2 For valves welded in the line. Skip 3.3 and 3.4
- 3.3 Remove the valve from the line. Work in a clean, free of dust, debris, and well lighted area. For safety and comfort, do the repairs on a table with a vise.
- 3.4 Clamp the valve body to the vise.
- 3.5 Remove the cover bolts to separate the cover with top assembly from the body.
- 3.6 Check and replace damaged cover gaskets.
- 3.7 Examine the wedge and seat surfaces for damage. Excessive wear may require replacement of the damaged component. Minor damage or wear may be repaired by re-lapping or stoning the seat faces. For valves welded in the line with damaged seats, repair of the seats is very difficult or impossible. Valves may have to be replaced

4. Reassembly:

Reassemble the valve in the reverse order of disassembly.

Torque Tables

Bolt Material: A193 B7

Diameter of bolt(in)	Torque(lb-in)	Diameter of bolt (in)	Torque(lb-ft)
1/4	40	1	267
5/6	81	1-1/8	380
3/8	147	1-1/4	530
7/16	244	1-3/8	730
1/2	353	1-1/2	940
9/16	527	1-5/8	1200
5/8	730	1-3/4	1520
3/4	1345	1-7/8	1860
7/8	2150	2	2330

Bolt Material: A193 B8

Diameter of bolt(in)	Torque(lb-in)	Diameter of bolt (in)	Torque(lb-ft)
1/4	16	1	108
5/6	32	1-1/8	153
3/8	58	1-1/4	216
7/16	96	1-3/8	294
1/2	140	1-1/2	378
9/16	210	1-5/8	475
5/8	290	1-3/4	617
3/4	540	1-7/8	745
7/8	860	2	935