

## API 6A Slab Gate Valve

### 1. General

**CCSC API 6A Slab Gate Valve** is high performance, bi-directional slab gate valve which is ideal valve for high pressure, critical service application 3000 through 20000 psi on well-heads, production trees and manifolds.

CCSC Slab Gate Valve was developed to satisfy the need for a high quality reliable valve which is reasonable priced. All CCSC Gate valve makes full use of modern materials and manufacturing techniques. It is easy to maintain, conforms to international design requirements and Quality Assurance Program. CCSC Gate Valves are manufactured to API 6A Specification as a basic minimum, in a plant that is API Q1 and ISO9001 approved and Certified.



### 2. Available Spec.

SERVICE	:Oil, Gas, H2S Service
Size	:2 – 7 inch
WORKING PRESSURE	:2000 - 15,000PSI
WORKING TEMPRATURE	:P-X
MATERIAL CLASS	:AA -HH
CONNECTION	: Flanged & Thread

### 3. Design Code

API 6A, NACE MR.0175

### 4. Feature

- Forged or Cast Body & Bonnet

All type gate valve bodies and bonnets are manufactured from forged or cast AISI 4130/4140 low alloy or AISI 410 SS steel. Other materials for extreme service, such as Inconel or Duplex stainless steel are available

to order.

- Metal-to-Metal Seat to Body Interface

Precision lapped faces between the gate and seat ensure a metal-to-metal pressure tight seal is maintained. Seat is lapped on both surface to give a true metal to metal seal between the body and seat. This seal is further reinforced and protected by a Teflon or Viton lip seal, giving bubble tight sealing performance at pressure below 10 psi.

- Gate & Seat Design

The seat in the gate valve are fully floating, this combined with a solid slab gate gives a true downstream seal resulting in exceptionally low operating forces.

- Bi-directional Sealing

All CCSC Gate Valve is a true bi-directional valve. Being fully symmetrical, it will effectively seal pressure from either direction without the risk of pressure lock. If the valve is used in uni-directional application, the gate and seats can be reversed to give a extra service life.

- Gate Guided

The gate is guided positively by the valve body and close fitting stainless steel skirts. The skirts minimize the ingress of well fluid mud and sand into the body cavity.

- Body to Bonnet Seal

A metal-to-metal seal is achieved between the body and bonnet using metal-to-metal sealing technology. The seal ring is re-useable.

- Non-rising Stem with Backseat

The stem used in the CCSC gate valve is manufactured from Alloy-Nitrided or 17-4 stainless steel. Being of the non-rising design, valve operation will not increase the pressure in the body cavity. Seal against the bonnet, providing means to replace the valve stem packing with the valve is under pressure.

- Stem Seal

All stem seals are non-elastomeric and are inert to most known liquids and gases. Being made from PTFE/R-PTFE stem frictional resistance is minimized resulting in lower operating torque. The stem seal design is suitable for all temperature range and services. Graphite stem packing is option on user request.

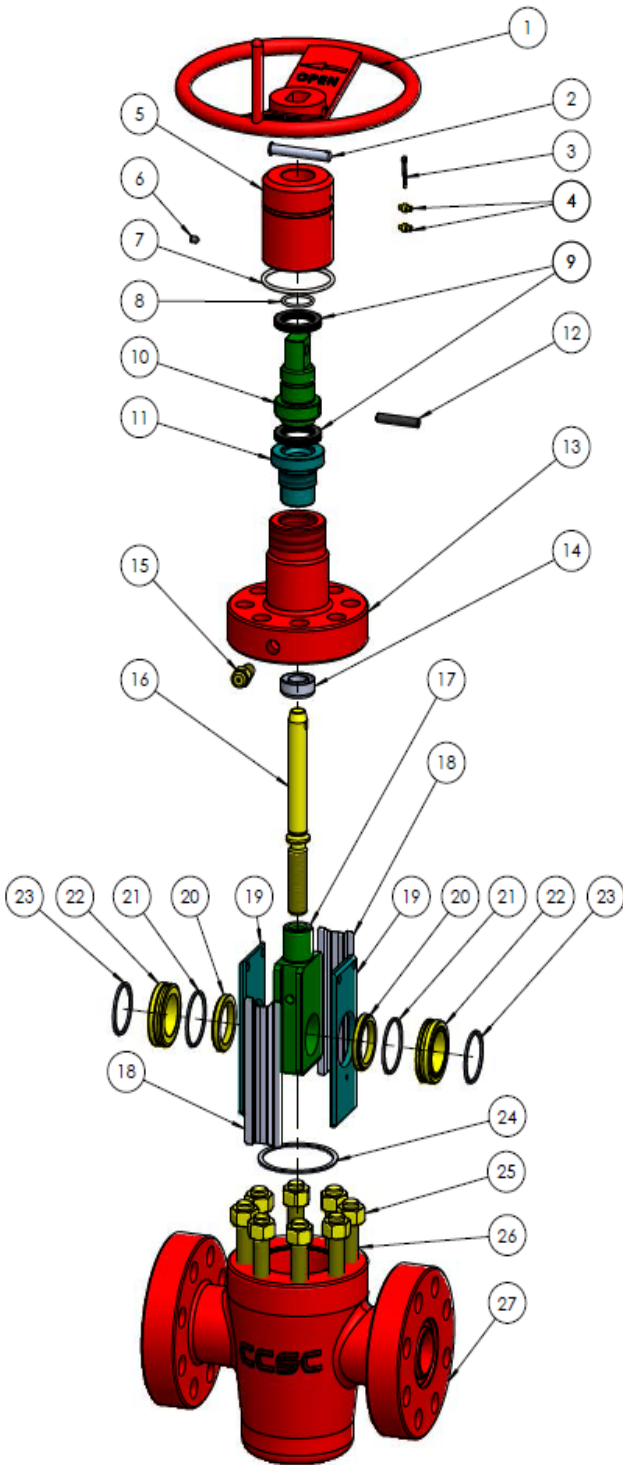
- Bearing

Heavy duty thrust bearing are used to absorb stem thrust and reduce operating torque. A grease fitting is located on the bearing cap to allow for lubrication to ensure continued trouble-free operation.

## 5. Material Specification for API 6A Valve

Service Condition	Parts							
	Body	Bonnet	Stem	Gate	Seat	Stem Seal	Seat Seal	Bonnet Seal
API Class AA (Trim A) General Non-corrosive	Alloy Steel Forging or casting	Alloy Steel Forging	Alloy Nitrided	Alloy Nitrided	Alloy Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class BB (Trim B) General Slightly Corrosive	Alloy Steel Forging or casting	Alloy Steel Forging	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class CC (Trim C) General, Moderately Corrosive, CO2	410 Stainless steel	410 Stainless steel	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class DD (Trim D) Sour Non-corrosive	Alloy Steel Forging or casting	Alloy Steel Forging	Alloy Nitrided	Alloy Nitrided	Alloy Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class EE (Trim E) Sour Slightly Corrosive	Alloy Steel Forging or casting	Alloy Steel Forging	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class EE-1 (Trim E1) Sour Highly Corrosive CO2	Alloy Steel Forging or casting	Alloy Steel Forging	Inconel 718	410 SS w/Hard facing	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class FF (Trim F) Sour, Moderately Corrosive, H2S	410 Stainless steel	410 Stainless steel	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class FF-1 (Trim F1) Sour Highly Corrosive H2S and CO2 H2S	410 Stainless steel	410 Stainless steel	Inconel 718	410 SS w/Hard facing	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class HH (Trim H) High Corrosion	Alloy Steel w/625 Claded	Alloy Steel w/625 Claded	Inconel 718	Inconel 718/625 w/Hard facing	Inconel 718/625 w/Hard facing	Teflon FKM Graphite PEEK	Viton	Inconel 718

**Cameron FC Type Valve Parts:**



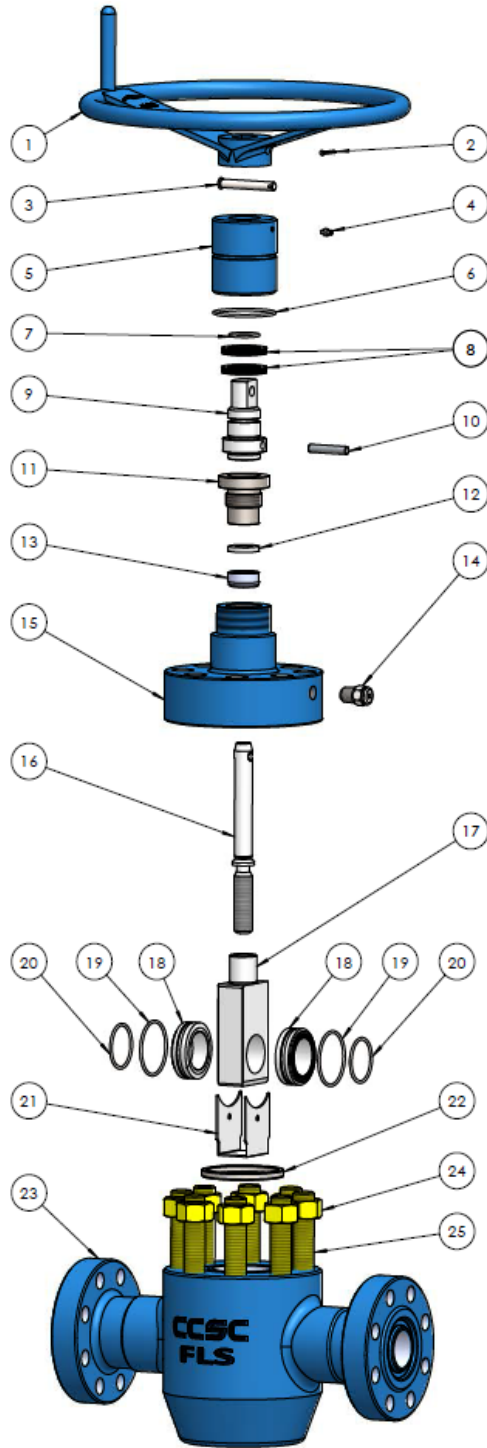
**MATERIAL LIST**

NO.	DESCRIPTION	QTY.
1	HAND WHEEL	1
2	PIN	1
3	COTTER PIN 4X30	1
4	GREASE NIPPLE M6	2
5	BEARING CAP	1
6	TAPERED SET SCREW M8X10	1
7	O-RING 83X5.3	1
8	O-RING 37X3.5	1
9	BEARING	2
10	STEM ADAPTER	1
11	PACKING GLAND	1
12	PIN	1
13	BONNET	1
14	SEAL PACKING	1
15	GREASE FITTING	1
16	STEM	1
17	GATE	1
18	GUIDE PLATE	2
19	RETAINER PLATE	2
20	SEAT	2
21	SEAL RING	2
22	BODY BUSHING	2
23	BUSHING SEAL RING	2
24	BONNET GASKET	1
25	NUTS	8
26	STUDS	8
27	BODY	1

**REPAIR KITS**

NO.	DESCRIPTION	QTY.
7	O-RING 83X5.3	1
8	O-RING 37X3.5	1
16	STEM	1
17	GATE	1
20	SEAT	2
21	SEAL RING	2
22	BODY BUSHING	2
23	BUSHING SEAL RING	2

**Cameron FLS Type Valve Parts:**



**MATERIAL LIST**

NO.	DESCRIPTION	QTY.
1	HAND WHEEL	1
2	COTTOR PIN 4x30	1
3	PIN 12x85	1
4	OIL CAP M6x1	1
5	BEARING CAP	1
6	O-RING 83x3.5	1
7	O-RING 37x3.5	1
8	BEARING	2
9	STEM ADAPTER	1
10	STEM PIN 11.18x61	1
11	PACKING GLAND	1
12	TOP PACKING	1
13	U-PACKING	1
14	GREASE FITTING	1
15	BONNET	1
16	STEM	1
17	GATE	1
18	SEAT	2
19	OUTER SEAL 70.66x3.5	2
20	INNER SEAL 56.69x3.5	2
21	RETAINER PLATE	1
22	BONNET GASKET	1
23	BODY	1
24	NUTS	8
25	STUDS	8

**REPAIR KITS**

NO.	DESCRIPTION	QTY.
6	O-RING 83x3.5	1
7	O-RING 37x3.5	1
16	STEM	1
17	GATE	1
18	SEAT	2
19	OUTER SEAL 70.66x3.5	2
20	INNER SEAL 56.69x3.5	2

## 6. INSPECTION, QUALITY CERTIFICATE AND AFTER-SALE SERVICE

### 6.1 Inspection

We adopt factory inspection and on-site inspection. If the product passes on-site inspection, it will enter warranty period. The inspection conforms to the protocol signed by the two parties and product manufacturing standard. Any kind of third party inspection is acceptable.

### 6.2 Quality Certificate

- 1) All the equipment are manufactured according to ISO9001 and API standard
- 2) Warranty period is 18 months after receiving the goods or 12 months after operation. If there are quality problems within warranty period, the supplier is responsible for solving problems in time at any time.
- 3) If failure and potential safety hazard appear during operation because of designing defect, the supplier will improve the equipment for free.
- 4) We will provide complete high quality technical document and brochure of the whole equipment in English.

### 6.3 Documentations

- 1) Traceability Documents: (Including Raw Material Test Certificate, NDT Report, Pressure Test Report, etc.)
- 2) General Assembly Drawing

### **Cameron FC Type Valve Parts:**

For more information about our **Gate Valve**, please feel free to contact us:

[sale@ccscpetro.com](mailto:sale@ccscpetro.com)

Or visit us: [http://www.ccscpetro.com/gate\\_valve.html](http://www.ccscpetro.com/gate_valve.html)