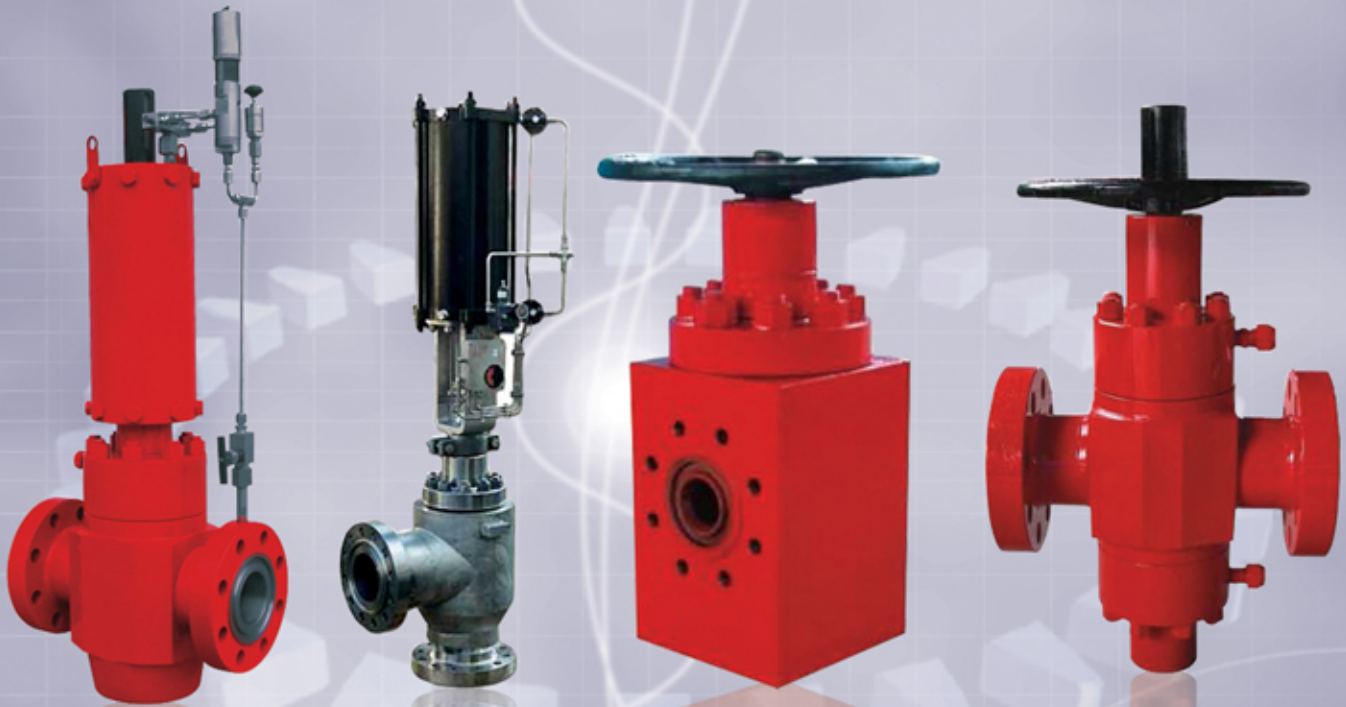


valstroke™

High Pressure, high performance valve designed and tested to
API 6A standards.



GATE VALVE SERIES

Non Rising Stem Gate Valve

Features:

- Metal Seated between body and bonnet
- Backseat seal between stem and bonnet
- Hard surface or anti-corrosion & wear resistance sealing
- Open or Close indicator shows the state of the valve
- Low operating torque

Specifications:

Design:	API 6A
Size Range:	1-13/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC,DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Gate:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Stem:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW

Rising Stem Gate Valve (with or without balancing stem)

Features:

- Metal Seated between body and bonnet
- Backseat seal between stem and bonnet
- Hard surface or anti-corrosion & wear resistance sealing
- Low operating torque
- Designed for high pressure applications

Specifications:

Design:	API 6A
Size Range:	1-13/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC,DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Gate:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Stem:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW



With
Balancing Stem

Actuated Gate Valve

Features:

- Hydraulic or Pneumatic Actuated
- Metal Seated between body and bonnet
- Backseat seal between stem and bonnet
- Hard surface or anti-corrosion & wear resistance sealing
- Low operating torque
- Designed for high pressure applications

Specifications:	
Design:	API 6A
Size Range:	1-13/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC, DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Gate:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Stem:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW



Hydraulic Actuated Gate Valve



Pneumatic Actuated Gate Valve

Surface Safety Valve

Non Rising Stem Gate Valve

Features:

- Reverse Acting Gate
- Option of Pneumatic, Diaphragm, Hydraulic Actuation
- Intergradable to DCS System
- Metal Seated between body and bonnet
- Hard surface or anti-corrosion & wear resistance sealing

Specifications:

Design:	API 6A
Size Range:	1-13/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC,DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Gate:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Stem:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW

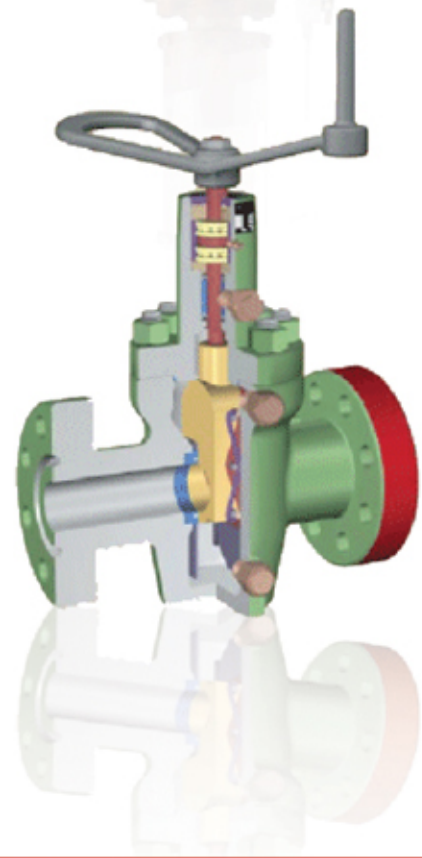
Expanding Gate Valve

Features:

- Metal Seated between body and bonnet
- Hard surface or anti-corrosion & wear resistance sealing
- Designed for high pressure applications

Specifications:

Design:	API 6A
Size Range:	1-13/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC,DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Gate:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Stem:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW



Slurry Gate Valve

Features:

- Specially designed for high pressure slurry flow
- Easy to operate
- Reliable and fast shutdown during emergency

Specifications:

Design:	API 6A
Size Range:	2" up to 5"
Working Pressure:	3,000 to 5,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC, DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Disc:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Seat:	Option of Steel or Rubber core
End Connection:	Flange, Threaded, Union, BW

Applications: Widely used in mud flow line during oilfield drilling activities.



Check Valve

Features:

- Wear & Scour Resistance
- Reliable performance

Specifications:

Design:	API 6A
Size Range:	2-1/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC, DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Disc:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Seat:	Stainless Steel
Seat:	Option of Steel or Rubber core
End Connection:	Flange, Threaded, Union, BW

Applications: Wellhead Flow Control in oil and gas production



CHOKES VALVE SERIES

Adjustable Needle Choke Valve



Features:

- Options of Manual, Hydraulic or Pneumatic Operated.
- Wear & Scour Resistance
- Reliable performance
- Needle design flow controlling system

Specifications:

Design:	API 6A
Size Range:	2-1/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC, DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Choke Head:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Choke Threaded Sleeve:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW

Applications: Wellhead Control or wellhead manifold in oil and gas production

Adjustable Barrel Choke Valve

Features:

- Options of Manual, Hydraulic or Pneumatic Operated.
- Wear & Scour Resistance
- Reliable performance
- Machined from Metal Block

Specifications:

Design:	API 6A
Size Range:	2-1/16" up to 7-1/16"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC, DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Choke Head:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Choke Threaded Sleeve:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW

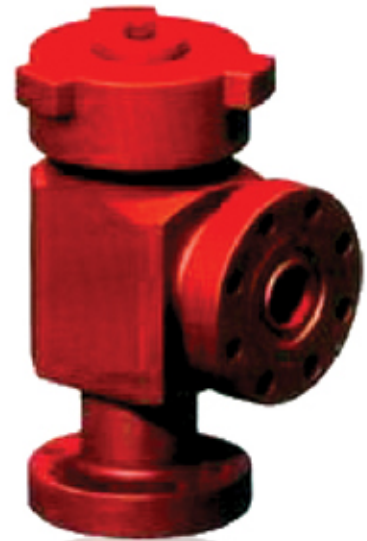
Applications: Wellhead Flow Control in oil and gas production



Positive Choke Valve

Features:

- Wear & Scour Resistance
- Reliable performance



Specifications:

Design:	API 6A
Size Range:	2-1/16" up to 5-1/8"
Working Pressure:	2,000 to 20,000PSI
Working Temperature:	K, L, P, R, S, T, U, V
Performance Specification Level:	PSL1, PSL2, PSL3, PSL4
Performance Requirement Level:	PR1, PR2
Material:	AA, BB, CC, DD, EE, FF
Body:	Carbon Steel, Alloy Steel, Stainless Steel
Choke Head:	Carbon Steel, Alloy Steel, Stainless Steel + HF, Stainless + QBQ
Choke Threaded Sleeve:	Stainless Steel
Seat:	Alloy Steel, Stainless + HF, Stainless + QBQ
End Connection	Flange, Threaded, Union, BW

External Sleeve Adjustable Choke Valve

Nozzle Bean Selection Table

Equivalent Orifice DIA. (Bean Size)	20	32	48	64	80	96	112	128	144	160
Orifice Area (in ²)	0.077	0.196	0.442	0.785	1.227	1.767	2.405	3.142	3.976	4.909
CV* Values	1.4	3.7	8.3	14.8	23.2	33.3	45.4	59.3	75.0	92.6
2" FB 3" RB		•	•	•						
3" FB 4" RB			•	•	•	•	•			
4" FB 6" RB					•	•	•	•	•	•
6" FB 8" RB							•	•	•	•
Equivalent Orifice DIA. (Bean Size)	176	192	208	224	240	256	272	288	304	
Orifice Area (in ²)	5.940	7.069	8.296	9.621	11.0447	12.57	14.1863	15.90	17.72	
CV* Values	112.1	141	166	192	221	251	284	318	354	
2" FB 3" RB										
3" FB 4" RB										
4" FB 6" RB	•	•								
6" FB 8" RB	•	•	•	•	•	•	•	•	•	

*CV values listed above are the approximation for each bean size and may vary for different valve configurations.

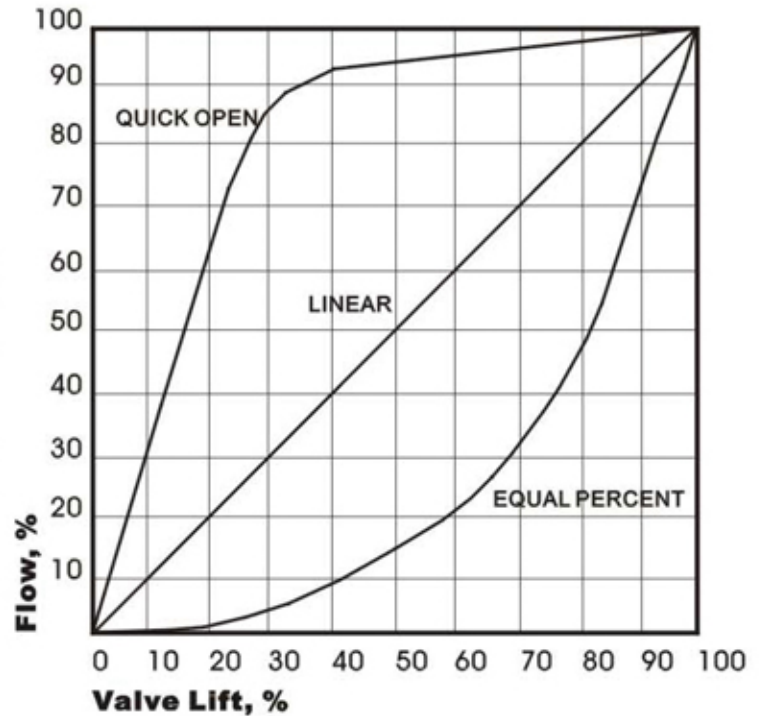
Trim Configuration

The three basic types of flow characteristics are quick opening, linear, and equal percentage.

Controllability of a valve throughout its range is maximized with equal percent trim. This trim meets the precise control requirements at low set points, yet still offers overall flow capacity.

The linear configuration provides good control in the upper range but suffers from poor control in the lower region.

Quick opening trim is only suitable for use at the upper end of its travel.



NPS		H	
FB	RB	Close in mm	Open in mm
2"	3"x2"	12.80 325	13.70 348
3"	4"x3"	15.75 400	17.32 440
4"	6"x4"	19.10 485	21.06 535
6"	8"x6"	24.5 622	27.48 698

NPS	2"		3"		4"		6"	
	L in mm	A in mm	L in mm	A in mm	L in mm	A in mm	L in mm	A in mm
150LB	7.00 178	13.78 350	7.25 184	13.78 350	8.25 210	13.78 350	10.00 254	17.72 450
300LB	7.25 184	13.78 350	7.63 194	13.78 350	8.75 222	13.78 350	10.38 264	17.72 450
600LB	7.63 194	13.78 350	8.25 210	13.78 350	9.5 241	17.72 450	11.38 289	17.72 450
900LB	8.75 222	13.78 350	8.75 222	13.78 350	10.00 254	17.72 450	12.25 311	23.62 600
1500LB	8.75 222	13.78 350	9.5 241	13.78 350	10.38 264	17.72 450	13.50 343	23.62 600
2500LB	10.00 254	13.78 350	11.38 289	13.78 350	13.00 330	17.72 450	17.25 438	23.62 600
2000PSI	7.63 194	13.78 350	8.25 210	13.78 350	9.5 241	17.72 450	11.38 289	17.72 450
3000PSI	8.75 222	13.78 350	8.75 222	13.78 350	10.00 254	17.72 450	12.25 311	23.62 600
5000PSI	8.75 222	13.78 350	9.5 241	13.78 350	10.38 264	17.72 450	13.50 343	23.62 600

NPS	3"x2"		4"x3"		6"x4"		8"x6"	
	L in mm	A in mm	L in mm	A in mm	L in mm	A in mm	L in mm	A in mm
150LB	7.25 184	13.78 350	8.25 210	13.78 350	10.00 254	13.78 350	13.5 343	17.72 450
300LB	7.63 194	13.78 350	8.75 222	13.78 350	10.38 264	13.78 350	13.88 352.5	17.72 450
600LB	8.25 210	13.78 350	9.5 241	13.78 350	11.38 289	17.72 450	15.00 381.0	17.72 450
900LB	8.75 222	13.78 350	10.00 254	13.78 350	12.25 311	17.72 450	16.12 410	23.62 600
1500LB	9.5 241	13.78 350	10.38 264	13.78 350	13.50 343	17.72 450	18.13 460	23.62 600
2500LB	11.38 289	13.78 350	13.00 330	13.78 350	17.25 438	17.72 450	22.25 565	23.62 600
2000PSI	8.25 210	13.78 350	9.5 241	13.78 350	11.38 289	17.72 450	15.00 381.0	17.72 450
3000PSI	8.75 222	13.78 350	10.00 254	13.78 350	12.25 311	17.72 450	16.12 410	23.62 600
5000PSI	9.5 241	13.78 350	10.38 264	13.78 350	13.50 343	17.72 450	18.13 460	23.62 600

HOW TO ORDER

Structure Feature Material Options

6 NPS	VC Type	6 Pressure Class	RF End Connection	HW Operator	/ Device	B01 Body and Bonnet	Y Seat Sealing
A	B	C	D	E		F	G

Example: 6 inch Expanding Gate Valve, 600 LB Raised Face Flange, Handwheel operated. Body material A216 WCB, Metal to Metal Seat

A	Nominal Size	B	Valve Type	C	Pressure Class
1-13/16"	1-13/16"	VA	Non-Rising Stem Gate Valve	1	150LB
2"	2"	VB	Rising Stem Gate Valve	3	300LB
2-1/16"	2-1/16"	VC	Expanding Gate Valve	4	400LB
2-1/2"	2-1/2"	VD	Slurry Gate Valve	6	600LB
2-9/16"	2-9/16"	VE	External Sleeve Choke Valve	9	900LB
2-13/16"	2-13/16"	VF	Needle Adjustable Choke Valve	15	1500LB
3"	3"	VG	Positive Choke Valve	25	2500LB
3-1/16"	3-1/16"	VH	Swing Check Valve	1kA	1,000psi
3-1/8"	3-1/8"	VI	Lift Check Valve	2kA	2,000psi
4"	4"			3kA	3,000psi
4-1/16"	4-1/16"			5kA	5,000psi
5-1/8"	5-1/8"			10kA	10,000psi
6"	6"			15kA	15,000psi
7-1/16"	7-1/16"			20kA	20,00psi
8"	8"				

D	End Connection	F	Body and Bonnet Material	G	Seat Sealing Material
RF	Raised face	B01	A216 WCB	P	PTFE
RTJ	Ring Type Joint	B02	A216 WCC	R	R-PTFE
BW	Butt Welded	B03	A352 LCB	N	Nylon
NPT	NPT Thread	B04	A352 LCC	V	Viton
		B05	A351 CF8M	D	Devlon
		B06	A351 CF8	B	NBR
		B07	A217 WC6	H	PEEK
		B08	A217 WC9	Y	Metal to Metal
		B09	A217 CA15		
		B10	AISI 4130		
		B11	AISI 4135		
		B12	AISI 4140		
		B13	AISI 410SS		
		B14	Duplex UNS31803		
		B15	Super Duplex UNS32760		



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