WILLIAM E. WILLIAMS

VALVE CORPORATION

est. 1918

Founded in 1918, William E. Williams Valve Corporation has continuously produced high quality valves for industrial and commercial applications including: oil refining, chemical processing, power generation, mining, paper, pharmaceutical processes, as well as, commercial and military shipbuilding.

Product improvements exceeding the latest environmental standards are constantly being implemented. Recently, we initiated a totally contained bonnet gasket design, which, with our standard stem packing, exceeds most fugitive emission requirements.

Williams' valves are designed, manufactured and tested to meet and exceed all applicable specifications to which they are constructed. Our goal is to produce high quality valves, fully traceable, at prices competitive in the global marketplace and deliveries to match the "just in time" requirements of today's business world. In order to accomplish this goal, we maintain large inventories of finished products to support our distribution network.

All products are completely traceable to chemical, physical and pressure test records. Additional non-destructive testing is offered when specified.

We have years of experience working on special requirements: electric, hydraulic or pneumatic automation, gear operators emergency shut-off valves, soft seats and discs, by-pass valve installations and extended bonnets.

We believe that William E. Williams has a record of quality equal to or better than any in the valve industry. We are a privately owned company whose accomplishments have been achieved by the dedication and commitment of our employees to provide a standard of excellence in all our products for you, our present and future customers.

This condensed catalog is intended to provide an overview of our products. Detailed drawings are available in several formats. We appreciate your business and want to be your primary valve source.

Sincerely,

Richard Sherman
President

600 - 0191

6D - 1421

ISO 9001:2008
REGISTERED FIRM

ABS
TYPE APPROVED PRODUCT

A105N Forged Steel, Bolted and Welded Bonnet Rising Stem, OS&Y

Gate Valves

ANSI **Class 150**

F15F *(Flanged)*
Size range: ¼" to 2"

ANSI **Class 300**

F30F *(Flanged)*
Size range: ¼" to 2"

ANSI **Class 800**

F80T *(Threaded)*
F80SW *(Socket Weld)*
F80TXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

ANSI **Class 1500**

F150T *(Threaded)*
F150SW *(Socket Weld)*
F150TXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

Features / Options

- Full Port or Standard Port
- Bolted Bonnet with spiral-wound gasket
- Threaded and seal welded bonnet
- Pressure seal bonnet
- Integral backseat
- Integral or welded flanges
- Extended Body and Bonnet design available

A105N Forged Steel, Bolted and Welded Bonnet Rising Stem, OS&Y

Globe / Y Pattern Globe Valves

ANSI **Class 150**

F152F *(Flanged)*
Size range: ¼" to 2"

ANSI **Class 800**

F802T / F802YT *(Threaded)*
F802T / F802YSW *(Socket Weld)*
F802TXS / F802YTXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

ANSI **Class 1500**

F1502T / F1502YT *(Threaded)*
F1502SW / F1502YSW *(Socket Weld)*
F1502TXS / F1502YTXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

Features / Options

- Bolted Bonnet with spiral-wound gasket
- Threaded and seal welded bonnet
- Pressure seal bonnet
- Y pattern design
- Integral or welded flanges
- Extended Body and Bonnet design available

A105N Forged Steel, Bolted/ Welded Bonnet
Check Valves

ANSI **Class 150** Swing Check

F151F *(Flanged)*
Size range: ½" to 2"

ANSI **Class 800** Swing Check

F801T *(Threaded)*
F801SW *(Socket Weld)*
F801TXS *(Socket Weld x Threaded)*
Size range: ½" to 2"

ANSI **Class 800** Lift Check

F801LT *(Threaded)*
F801LSW *(Socket Weld)*
F801LTXS *(Socket Weld x Threaded)*
Size range: ½" to 2"

ANSI **Class 1500** Swing Check

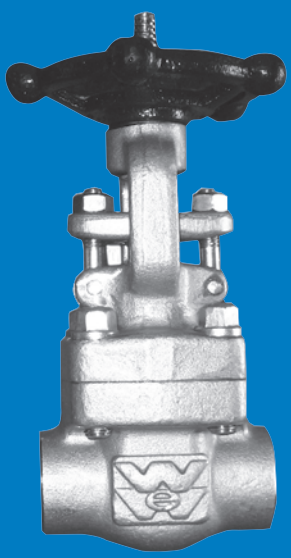
F1501T *(Threaded)*
F1501SW *(Socket Weld)*
F1501TXS *(Socket Weld x Threaded)*
Size range: ½" to 2"

ANSI **Class 1500** Lift Check

F1501LT *(Threaded)*
F1501LSW *(Socket Weld)*
F1501LTXS *(Socket Weld x Threaded)*
Size range: ½" to 2"

Features / Options

- Bolted bonnet with spiral wound gasket
- Threaded and seal welded bonnet
- Pressure seal bonnet
- Integral or welded flanges



A182 F316 Stainless Steel, Bolted/Welded Bonnet Rising Stem, OS&Y
Gate Valves

ANSI **Class 800**

FS80T *(Threaded)*
FS80SW *(Socket Weld)*
FS80TXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

ANSI **Class 1500**

FS150T *(Threaded)*
FS150SW *(Socket Weld)*
FS150TXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

A182 F316 Stainless Steel, Bolted/Welded Bonnet Rising Stem, OS&Y
Globe / Y Pattern Globe Valves

ANSI **Class 800**

FS802T / FS802YT *(Threaded)*
FS802T / FS802YSW *(Socket Weld)*
FS802TXS / FS802YTXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

ANSI **Class 1500**

FS1502T / FS1502YT *(Threaded)*
FS1502SW / FS1502YSW *(Socket Weld)*
FS1502TXS / FS1502YTXS *(Socket Weld x Threaded)*
Size range: ¼" to 2"

A216 Cast Steel, Bolted Bonnet Rising Stem, OS&Y
Gate Valves
(listed by figure number prefix)

600 - 0191

ANSI **Class 150**

15F *(Flanged)* **15W** *(Butt Weld)*
Size range: 1½" to 60"

ANSI **Class 300**

30F *(Flanged)* **30W** *(Butt Weld)*
Size range: 2" to 54"

ANSI **Class 600**

60F *(Flanged)* **60W** *(Butt Weld)*
Size range: 2" to 48"

ANSI **Class 900**

90F *(Flanged)* **90W** *(Butt Weld)*
Size range: 3" to 24"

ANSI **Class 1500**

150F *(Flanged)* **150W** *(Butt Weld)*
Size range: 2" to 24"

Features / Options Rising Stem

- Seal-welded seat ring (threaded available)
- Bosses for taps, bypass and drains
- Graphite packing-standard
- Contained gaskets (150lb and 300lb round bonnet)
- Ring Joint bonnet gasket (600lb-1500lb)
- Fully guided, flexible wedges
- Fugitive emission tested
- Pressure seal available (600lb-1500lb)
- Easily adapted for automation
- NACE trims available

A216 Cast Steel Non-Rising Stem, NRS
Gate Valves
(listed by figure number prefix)

600 - 0191

ANSI **Class 150**

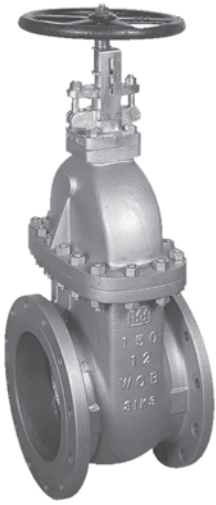
N15F *(Flanged)* **N15W** *(Butt Weld)*
Size range: 2" to 30"

ANSI **Class 300**

N30F *(Flanged)* **N30W** *(Butt Weld)*
Size range: 2" to 24"

Features / Options NRS

- Seal-welded seat ring (threaded available)
- Bosses for taps, bypass and drains
- Graphite packing-standard
- Contained gaskets (150lb and 300lb round bonnet)
- Fully guided wedges
- Calibrated position indicator
- Standard trim: Bronze or 13% CR/Hard Face
- Adaptable for reach-rod systems



Applicable Standards Rising Stem & NRS

- API 600, API 598
- ANSI B16.34 Std Cl
- Face to Face, ANSI B16.10
- End Flanges ANSI B16.5 or ANSI B16.47 Cl. B
- Buttweld Ends ANSI B16.25

A216 WCB Cast Steel
Globe Valves
(listed by figure number prefix)

ANSI **Class 150**
152F *(Flanged)* **152W** *(Butt Weld)*
Size range: 2″ to 24″

ANSI **Class 300**
302F *(Flanged)* **302W** *(Butt Weld)*
Size range: 2″ to 24″

ANSI **Class 600**
602F *(Flanged)* **602W** *(Butt Weld)*
Size range: 2″ to 16″

ANSI **Class 900**
902F *(Flanged)* **902W** *(Butt Weld)*
Size range: 3″ to 16″

ANSI **Class 1500**
1502F *(Flanged)* **1502W** *(Butt Weld)*
Size range: 2″ to 16″

A216 WCB Cast Steel
Angle Valves
(listed by figure number prefix)

ANSI **Class 150**
153F *(Flanged)* **153W** *(Butt Weld)*
Size range: 2″ to 12″

ANSI **Class 300**
303F *(Flanged)* **303W** *(Butt Weld)*
Size range: 2″ to 12″

Features / Options
- Seal-welded seat ring (threaded available)
- Bolted bonnet (pressure seal available)
- Graphite packing standard & contained bonnet gaskets
- Bosses for taps, bypass and drains

A216 WCB Cast Steel
Swing Check Valves
(listed by figure number prefix)

ANSI **Class 150**
151F *(Flanged)* **151W** *(Butt Weld)*
Size range: 2″ to 48″

ANSI **Class 300**
301F *(Flanged)* **301W** *(Butt Weld)*
Size range: 2″ to 36″

ANSI **Class 600**
601F *(Flanged)* **601W** *(Butt Weld)*
Size range: 2″ to 36″

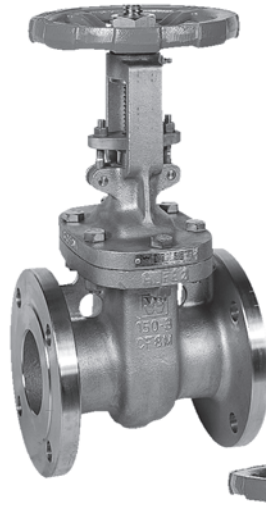
ANSI **Class 900**
901F *(Flanged)* **901W** *(Butt Weld)*
Size range: 3″ to 24″

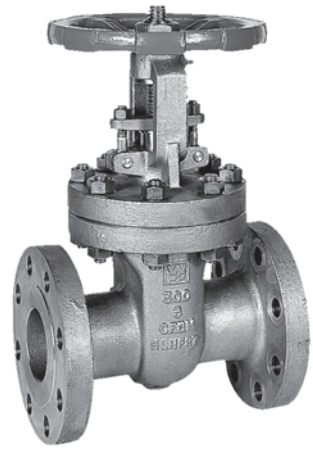
ANSI **Class 1500**
1501F *(Flanged)* **1501W** *(Butt Weld)*
Size range: 2″ to 24″

Features / Options
- Seal-welded seat ring (threaded available)
- Bolted cover (pressure seal available)
- Graphite contained bonnet gaskets
- Bosses for taps, bypass and drains

Applicable Standards: Globe, Angle and Swing Check
- ANSI B16.34 Std Cl
- Face to Face, End to End, ANSI B16.10
- End Flanges ANSI B16.5 or ANSI B16.47 Cl. B
- Buttweld Ends ANSI B16.25

A351 CF8M Stainless Steel
Gate Valves
(listed by figure number)





ANSI **Class 150**

S15F6-316 *(Flanged)*
Size range: ½" to 36"

ANSI **Class 300**

S30F6-316 *(Flanged)*
Size range: ½" to 36"

ANSI **Class 600**

S60F6-316 *(Flanged)*
Size range: 1" to 36"

ANSI **Class 900**

S90F6-316 *(Flanged)*
Size range: 3" to 24"

ANSI **Class 1500**

S150F6-316 *(Flanged)*
Size range: 2" to 24"

Features / Options

- Contained gaskets (teflon or graphite)
- Fully guided, flexible wedges
- Fugitive emission tested
- Backseat for packing under pressure
- Heavy wall and renewable seats available
- Soft seating available
- Angle pattern available

Applicable Standards

- Shell wall thickness API 603, MSS SP42, ANSI B16.34
- Heavy wall (API 600) available
- Face to face, end to end ANSI B16.10
- Flange dimensions ANSI B16.5
- Weld end dimensions ANSI B16.25

A351 CF8M Stainless Steel
Globe Valves
(listed by figure number)

ANSI **Class 150**

S152F6-316 *(Flanged)*
Size range: 2" to 16"

ANSI **Class 300**

S302F6-316 *(Flanged)*
Size range: 2" to 16"

ANSI **Class 600**

S602F6-316 *(Flanged)*
Size range: 2" to 16"

Features / Options

- Bosses for taps, bypass and drains
- Contained gaskets (teflon or graphite)
- Class 900 and 1500 available
- Suitable for soft seats
- Stop-check optional
- Angle pattern available

Applicable Standards

- Shell wall thickness MSS SP42, ANSI B16.34
- Face to face, end to end ANSI B16.10
- Flange dimensions ANSI B16.5
- Weld end dimensions ANSI B16.25

A351 CF8M Stainless Steel
Swing Check Valve
(listed by figure number)

ANSI **Class 150**

S151F6-316 *(Flanged)*
Size range: 2″ to 36″

ANSI **Class 300**

S301F6-316 *(Flanged)*
Size range: 2″ to 30″

ANSI **Class 600**

S601F6-316 *(Flanged)*
Size range: 2″ to 24″

ANSI **Class 900**

S901F6-316 *(Flanged)*
Size range: 3″ to 24″

ANSI **Class 1500**

S1501F6-316 *(Flanged)*
Size range: 2″ to 24″

Features / Options

- Contained gaskets (teflon or graphite)
- Composition disc available
- Optional lever and weight or spring

Applicable Standards

- Shell wall thickness MSS SP42, ANSI B16.34
- Face to face, end to end ANSI B16.10
- Flange dimensions ANSI B16.5
- Weld end dimensions ANSI B16.25

A351 CF8M Stainless Steel
Threaded Valves
(listed by figure number)

Gate Rising Stem 200lb WOG

S25T6316
Size range: ½″ to 2″

Gate/NRS 200lb WOG

SN20T6316
Size range: ½″ to 2″

Globe 200 lb WOG

S202T6316
Size range: ½″ to 2″

Swing Check 200 lb WOG

S201T6316
Size range: ½″ to 2″

Features / Options

- S25T6316: Rising stem, threaded bonnet
- SN20T6316: Non-rising stem, threaded bonnet
- S202T6316: Rising handwheel, threaded bonnet
- S201T6316: 45° Y pattern design, threaded cover

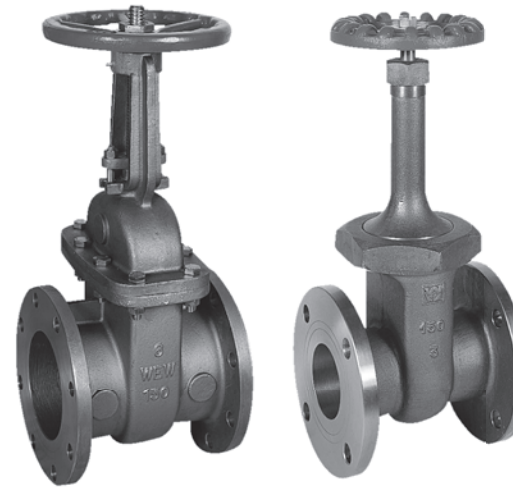
Applicable Standards

- Threaded end in accordance with NPT specification
- ANSI B.2.1 200lb WOG Temp. 350°F

B62 Bronze/Bronze Trim Rising Stem & Non-Rising Stem

Gate Valves

(listed by figure number prefix)



ANSI **Class 150**

111F-*Union Bonnet, Rising Stem*
Size range: ¾" to 4"

142F-*Bolted Bonnet OS&Y*
Size range: 2" to 12"

141F-*Bolted Bonnet Non-Rising Stem*
Size range: 2" to 12"

Features / Options

- Solid wedge and integral backseat

Applicable Standards

- ANSI B16.24, MSS SP6, MSS SP9, MSS SP25, MSS SP82

B62 Bronze

Globe Valves

(listed by figure number)

ANSI **Class 150**

1160F-*Union Bonnet Globe*
Size range: ½" to 3"

B15G-Flanged-*Bolted Bonnet Globe*
Size range: 2" to 8"

Features / Options

- Rising handwheel
- Swivel disc
- Integral backseat
- Stop check feature optional

Applicable Standards

- ANSI B16.24, MSS SP6, MSS SP9, MSS SP25, MSS SP82

B62 Bronze

Angle Valves

(listed by figure number)

ANSI **Class 150**

B15A-Flanged-*Bolted Bonnet*
Size range: 2" to 8"

Features / Options

- Rising handwheel
- Swivel disc
- Integral backseat
- Stop check feature optional

Applicable Standards

- ANSI B16.24, MSS SP6, MSS SP9, MSS SP25, MSS SP82

Optional Materials

- B61
- Aluminum Bronze
- Monel
- Titanium

B62 Bronze/Bronze Trim
Swing Check Valves
(listed by figure number)

Swing Check Class 150lb

B15SW-*Bolted Cover, Flanged End*
Size range: 2" to 12"

Features / Options

- Bolted cover, optional lever & weight or spring

Applicable Standards

- ANSI B16.24, MSS SP6, MSS SP9, MSS SP25, MSS SP82

B62 Bronze
Hose End Valves
(listed by figure number)

Hose End Globe Class 150lb

115F-*Bolted Bonnet OS&Y*
Size range: 1½" to 2½"

Hose End Angle Class 150lb

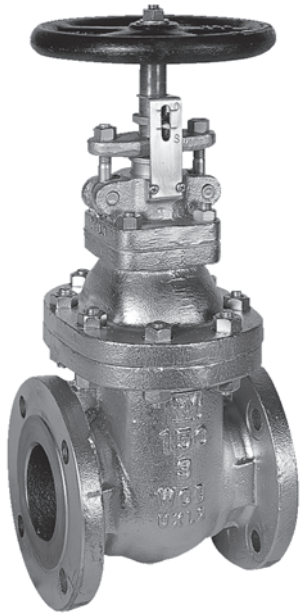
215F-*Bolted Bonnet OS&Y*
Size range: 1½" to 2½"

Features / Options

- Bolted bonnet, rising handwheel, integral seat, integral backseat
- 150lb FF Flanged End x NST Conn. with cap and chain
- Optional hose threads
- Special order: IPT: Iron pipe thread; NYFD: NYC Fire Dept.

Applicable Standards

- ANSI B16.24, MSS SP6, MSS SP9, MSS SP25, MSS SP82



A216 Cast Steel/Bronze Trim
Cast Steel/ Bronze Trim
(listed by figure number)

15F-4AB *Bolted Bonnet, OS&Y Rising Stem Gate*
N15F-4AB *Bolted Bonnet, NRS Non-Rising Stem Gate*
Size range: 2" to 30"

152F-4AB *Bolted Bonnet, Globe*
153F-4AB *Bolted Bonnet, Angle*
151F-4AB *Bolted Cover, Check*
Size range: 2" to 16"

Applicable Standards Rising Stem & NRS

- API 600, API 598
- ANSI B16.34 Std Cl
- Face to Face, ANSI B16.10
- End Flanges ANSI B16.5
- Buttweld Ends ANSI B16.25

A216 WCB Cast Steel
316 SS Trim
Ball Valves
(listed by figure number)

Ball Class 150lb

W16F6RT-*Flanged End, Reduced Port*
W17F6RT-*Flanged End, Full Port*
Size range: 2" to 12"

Ball Class 300lb

W36F6RT-*Flanged End, Reduced Port*
W37F6RT-*Flanged End, Full Port*
Size range: 2" to 12"

Ball Class 600lb

W66F6RT-*Flanged End, Reduced Port*
W67F6RT-*Flanged End, Full Port*
Size range: 2" to 12"

A351 CF8M Stainless Steel
316 SS Trim
Ball Valves
(listed by figure number)

Ball Class 150lb

W16F66RT-*Flanged End, Reduced Port*
W17F66RT-*Flanged End, Full Port*
Size range: 2" to 12"

Ball Class 300lb

W36F66RT-*Flanged End, Reduced Port*
W37F66RT-*Flanged End, Full Port*
Size range: 2" to 12"

Ball Class 600lb

W66F66RT-*Flanged End, Reduced Port*
W67F66RT-*Flanged End, Full Port*
Size range: 2" to 8"

***Note: For gear operator add suffix code GO**

Features / Options

- Fire-safe design, API 607
- Blowout-proof stem
- Adjustable stem packing, anti-static device
- Integral ISO mounting pad for actuation
- Integral locking device
- Reinforced teflon seats
- 316 SS Ball and Stem is standard on all items
- Other materials available on special order

Applicable Standards

- Shell wall thickness API 6D Design
- Face to face API 6D Design
- Flange dimensions ANSI B16.5

NOTE: Gear operators recommended for 8" and larger

Trunnion Mounted Ball Valves

6D - 1421

Two Piece Design: Body: A216 Gr WCB; Ball: A105+ENP; Seats: Reinforced Teflon

ANSI **Class 150**

T16F1RT -Flanged End, Reduced Port
T17F1RT -Flanged End, Full Port

ANSI **Class 300**

T36F1RT -Flanged End, Reduced Port
T37F1RT -Flanged End, Full Port

ANSI **Class 600**

T66F1RT -Flanged End, Reduced Port
T67F1RT -Flanged End, Full Port

Two Piece Design; Body: A216 Gr WCB; Ball: A182 F316; Seats: Reinforced Teflon

ANSI **Class 150**

T16F6RT -Flanged End, Reduced Port
T17F6RT -Flanged End, Full Port

ANSI **Class 300**

T36F6RT -Flanged End, Reduced Port
T37F6RT -Flanged End, Full Port

ANSI **Class 600**

T66F6RT -Flanged End, Reduced Port
T67F6RT -Flanged End, Full Port

Two Piece Design; Body: A351 CF8M; Ball: A182 F316; Seats: Reinforced Teflon

ANSI **Class 150**

T16F66RT -Flanged End, Reduced Port
T17F66RT -Flanged End, Full Port

ANSI **Class 300**

T36F66RT -Flanged End, Reduced Port
T37F66RT -Flanged End, Full Port

ANSI **Class 600**

T66F66RT -Flanged End, Reduced Port
T67F66RT -Flanged End, Full Port

Features / Options:

- API 6D design
- NACE to MR0175
- Double Block and Bleed
- Fire Safe to API 607
- Sizes 2" to 36"

Available:

- Pressure classes: 150, 300, 600, 900, 1500 and 2500
- Body Design: Two Piece, Three Piece, Top Entry.
- End Connections: Raised Face Flanged, RTJ, Butt Weld
- Body Materials: WCB/A105; LCB/LF2; CF8/F304; CF8M/F316
- Ball Materials: LF2/316/304 A105+ENP
- Seat Materials: Reinforced Teflon; Virgin Teflon; Viton; Devlon; Nylon; Peek.
- Acessories: Gear Operator, Motor Operator, Bare Stem.

A216 WCC Cast Steel, Rising Stem

API-6D Thru Conduit Slab Gate Valves

(listed by figure number prefix)

ANSI **Class 150**

18F *(Flanged)* **18W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 300**

38F *(Flanged)* **38W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 600**

68F *(Flanged)* **68W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 900**

98F *(Flanged)* **98W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 1500**

158F *(Flanged)* **158W** *(Butt Weld)*
Size range: 2" to 24"

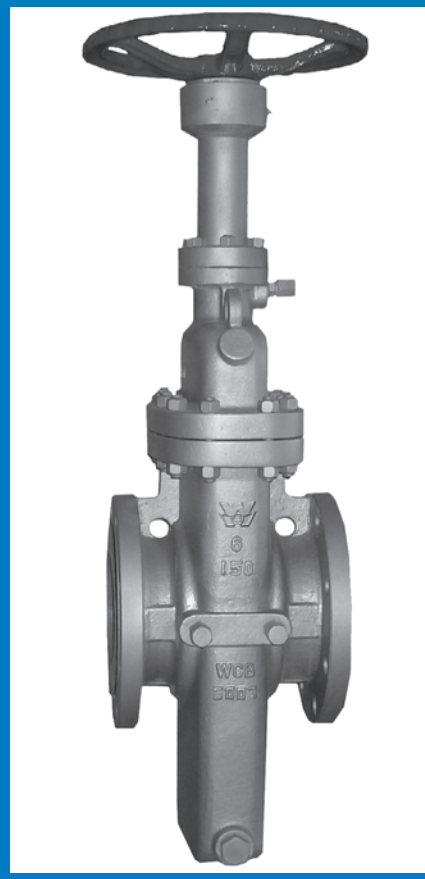
Features / Options

- Full bore allows for pigs & scrapers
- Continual low turbulent flow
- Block & bleed capable
- Long lasting protected seat faces
- Self relieving floating seats
- Bosses for taps & bypass
- Ring joint bonnet gasket (600lb-4500lb)
- Fugitive emission tested
- NACE MR-01-75

Applicable Standards

- API-6D Design
- Face to face API-6D Design
- End Flanged ANSI B16.5 or ANSI B16.47
- Buttweld Ends ANSI B16.25

NOTE: Gear operators recommended for 6" and larger



A216 WCB Cast Steel, Rising Stem

API-6D Thru Conduit Expanding Gate Valves

(listed by figure number prefix)

ANSI **Class 300**

39F *(Flanged)* **39W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 600**

69F *(Flanged)* **69W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 900**

99F *(Flanged)* **99W** *(Butt Weld)*
Size range: 2" to 36"

ANSI **Class 1500**

159F *(Flanged)* **159W** *(Butt Weld)*
Size range: 2" to 24"

Features / Options

- Full bore allows for pigs & scrapers
- Low torque mechanical seal
- Continual low turbulent flow
- Block & bleed capable
- Long lasting protected seat faces
- Self relieving floating seats
- Bosses for taps & bypass
- Ring joint bonnet gasket (600lb-4500lb)
- Fugitive emission tested
- NACE MR-01-75

Applicable Standards

- API-6D Design
- Face to face API-6D Design
- End Flanged ANSI B16.5 or ANSI B16.47
- Buttweld Ends ANSI B16.25
- Fire safe API-6FA / API-607

NOTE: Gear operators recommended for 6" and larger

A216 WCB Cast Steel, Pressure Seal Bonnet, Rising Stem
Gate Valves
(listed by figure number prefix)

ANSI **Class 600**

60W3 PS *(Butt Weld)*
Size range: 2" to 24"

ANSI **Class 900**

90W3 PS *(Butt Weld)*
Size range: 2" to 24"

ANSI **Class 1500**

150W3 PS *(Butt Weld)*
Size range: 2" to 24"

ANSI **Class 2500**

250W3 PS *(Butt Weld)*
Size range: 2" to 24"

Features / Options

- Seal-welded seat ring
- Bosses for taps & bypass
- Pressure seal bonnet
- Fully guided, wedges

A216 WCB Cast Steel, Pressure Seal Bonnet, Rising Stem
Globe Valves
(listed by figure number prefix)

ANSI **Class 600**

602W3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 900**

902W3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 1500**

1502W3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 2500**

2502W3 PS *(Butt Weld)*
Size range: 2" to 12"

Features / Options

- Seal-welded seat ring
- Bosses for taps & bypass
- Pressure seal bonnet
- Fully guided disc

A216 WCB Cast Steel, Pressure Seal Bonnet, Rising Stem
Y Pattern Globe
(listed by figure number prefix)

ANSI **Class 600**

602YW3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 900**

902YW3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 1500**

1502YW3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 2500**

2502YW3 PS *(Butt Weld)*
Size range: 2" to 12"

Features / Options

- Seal-welded seat ring
- Bosses for taps & bypass
- Pressure seal bonnet
- Fully guided, disc

A216 WCB Cast Steel, Pressure Seal Cap
Swing Check
(listed by figure number prefix)

ANSI **Class 600**

601W3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 900**

901W3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 1500**

1501W3 PS *(Butt Weld)*
Size range: 2" to 12"

ANSI **Class 2500**

2501W3 PS *(Butt Weld)*
Size range: 2" to 12"

Features / Options

- Seal-welded seat ring
- Bosses for taps & bypass
- Pressure seal cap

A216 WCB Cast Steel 13% CR/Hard Face

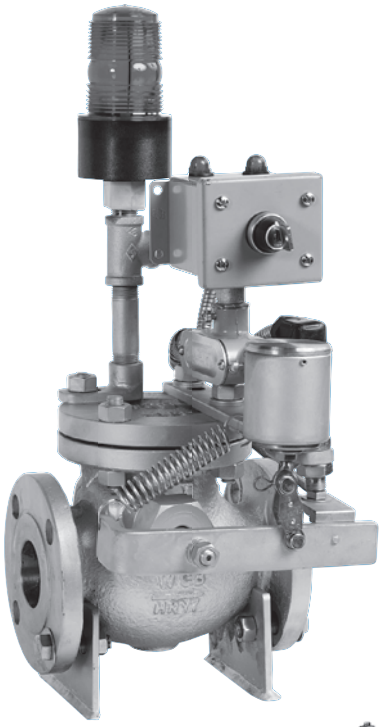
Emergency Shut Off Valves

(listed by figure number)

Emergency Shut Off Class 150lb RF

PL-2-*With lever and adjustable weight*
PSL-2-*With lever & spring and fusible link*
CPSL-2-*With pneumatic actuator and fusible link*
APL-1-*With solenoid (NEMA 7) and fusible link*
APL-1TS-*With temp. sensor, solenoid and fusible link*
APL-1HL-*With liquid lever switch, solenoid and fusible link*
GOSV-1-*With spring loaded diaphragm & pressure reg.*
Size range: 2" to 16"

***300lb RF also available**



A351 CF8M Stainless Steel 316 SS Trim

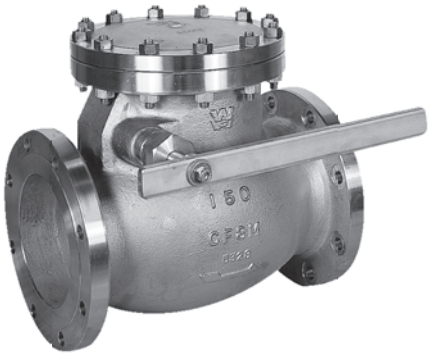
Emergency Shut Off Valves

(listed by figure number)

Emergency Shut Off Class 150lb RF

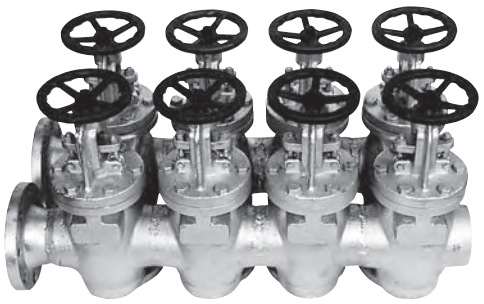
SPL-6-*With lever and adjustable weight*
SPSL-6-*With lever & spring and fusible link*
SCPSL-6-*With pneumatic actuator and fusible link*
SAPL-6-*With solenoid (NEMA 7) and fusible link*
SAPL-6TS-*With temp. sensor, solenoid and fusible link*
SAPL-6HL-*With liquid lever switch, solenoid and fusible link*
SGOSV-6-*With spring loaded diaphragm & pressure reg.*
Size range: 2" to 16"

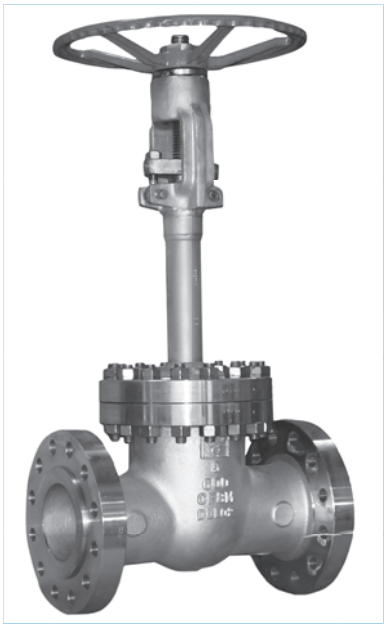
***300lb RF also available**

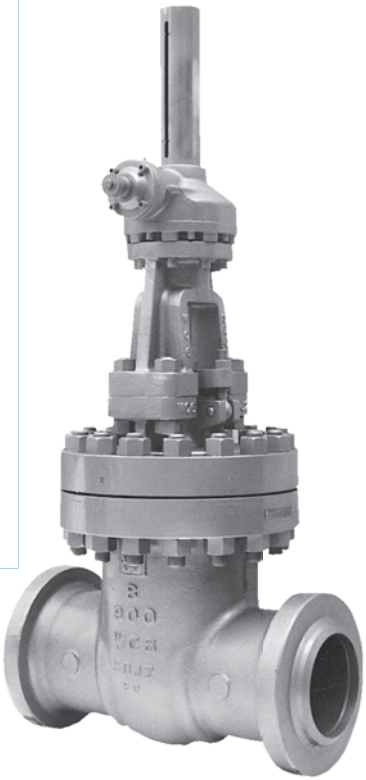


Special Products

- **Cryogenic Extensions**
- **Tilting Disc Check Valves**
- **Manifold Valves**
- **Total Actuation Packages**
- **Non Slam Check Valves**







Valve Material Specifications

KEY PHYSICAL PROPERTIES	CAST		FORGED	
	ASTM	SUFFIX	ASTM	SUFFIX
CARBON STEEL				
0.25 C Max	A216	WCA	A105	A105
		WCB	A106	A106
		WCC		
LOW TEMPERATURE STEEL				
0.25 C Max	A352-LCA	LCA		
	A352-LCB	LCB	A350LF2	LF2
	A352-LCC	LCC		
0.5 Mo	A352-LC1	LC1		
2 Ni	A352-LC2	LC2		
3 Ni	A352-LC2-1	LC2-1		
3.5 Ni	A352-LC3	LC3	A350LF3	LF3
4.5 Ni	A352-LC4	LC4		
9 Ni	A352-LC9	LC9		
ALLOY STEEL				
0.5 Mo	A217-WC1	WC1	A182-F1	F1
0.5 Cr - 0.5 Mo	A217-WC4	WC4	A182-F2	F2
0.6 Cr - Ni-0.2 Mo	A487-4C	4C		
0.75 Cr - 0.75 Ni - 1 Mo	A182-WC5	WC5		
1 Cr - 0.5 Mo	A182-F12	F12		
1.25 Cr - 0.5 Mo	A217-WC6	WC6	A182-F11	F11
1.25 Cr - 0.5 Mo	A217-WC11	WC11		
2.25 Cr - 1 Mo	A217-WC9	WC9	A182-F22	F22
3 Cr - 1 Mo	A182-F21	F21		
5 Cr - 0.5 Mo	A217-C5	C5	A182-F5	F5
9 Cr - 1 Mo	A217-C12	C12	A182-F9	F9
9 Cr - 1 Mo-0.2 V	A217-C12A	C12A		
STAINLESS STEEL				
13 Cr	A217-CA15	CA15	A182-F6A	F6A
13 Cr - 4 Ni			A182-F6NM	F6NM
17 Cr			A182-F430	F430
18 Cr - 8 Ni			A182-F304H	F304H
18 Cr - 8 Ni with Molybdenum			A182-F316H	F316H
18 Cr - 8 Ni with Titanium			A182-F321	F321
18 Cr - 8 Ni with Titanium			A182-F321H	F321H
18 Cr - 8 Ni with Columbium			A182-F347H	F347H
19 Cr - 9 Ni	A351-CF8	CF8	A182-F304	F304
19 Cr - 10 Ni Low Carbon	A351-CF3	CF3	A182-F304L	F304L
19 Cr - 10 Ni - 2 Mo	A351-CF8M	CF8M	A182-F316	F316
19 Cr - 10 Ni - 2 Mo Low Carbon	A351-CF3M	CF3M	A182-F316L	F316L
19 Cr - 9 Ni - Cb	A351-CF8C	CF8C	A182-F347	F347
13 Cr - 4 Ni - 0.7 Mo	A351-CA6NM	CA6NM		
16 Cr - 4 Ni			A564-630	630
22 Cr - 13 Ni - 5 Mo			A182-FXM19	FXM19
DUPLEX STEEL				
19-22 Cr 27.5-30.5 Ni 2-3 Mo	A351-CN7M	CN7M	B473	
25.5-26.5 Cr 4.7-6 Ni 1.7-2.2 Mo	A351-CD4MCu	CD4M Cu	A182-F50	F50
18-21 Cr 9-13 Ni 3-4 Mo	A351-CG8M	CG8M		
19.5-20.5 Cr 17.5-19.5 Ni 6-7 Mo	A351-CK3MCuN	CK3MCuN	A182-F44	F44
24.5-26.5 Cr 4.7 Ni 1.7-2.2 Mo	A890-1A	1A	A182-F50	F50
21-23.5 Cr 4.5-6.5 Ni 2.5-3.5 Mo	A890-4A	4A	A182-F51	F51
24-26 Cr 6-8 Ni 4-5 Mo	A890-5A	5A	A182-F53	F53
24-26 Cr 6.5-8.5 Ni 3-4 Mo	A890-6A	6A		

Pressure Temperature Ratings

(COMPLIES WITH ANSI B16.34 - 1981 - STD CLASS VALVES)

Working Pressure (PSIG)

Class	Temp. ° F.	(1) A216 WCB	(2) A217 C5	(3) A217 WC6	(3) A217 WC9	(4) A352 LCB	(4) A352 LC3
150	-20 to 100	285	290	290	290	265	290
	200	260	260	260	260	250	260
	300	230	230	230	230	230	230
	400	200	200	200	200	200	200
	500	170	170	170	170	170	170
	600	140	140	140	140	140	140
	650	125	125	125	125	125	125
	700	110	110	110	110	-	-
	750	95	95	95	95	-	-
	800	80	80	80	80	-	-
	850	65	65	65	65	-	-
	900	50	50	50	50	-	-
	950	35	35	35	35	-	-
	1000	20	20	20	20	-	-
300	-20 to 300	740	750	750	750	695	750
	200	675	750	710	715	655	750
	300	655	730	675	675	640	730
	400	635	705	660	650	620	705
	500	600	665	\640	640	585	665
	600	550	605	605	605	535	605
	650	535	590	590	590	525	590
	700	535	570	570	570	-	-
	750	505	530	530	530	-	-
	800	410	500	510	510	-	-
	850	270	440	485	485	-	-
	900	170	355	450	450	-	-
	950	105	260	380	380	-	-
	1000	50	190	225	270	-	-
600	-20 to 600	1480	1500	1500	1500	1390	1500
	200	1350	1500	1425	1430	1315	1500
	300	1315	1455	1345	1355	1275	1455
	400	1270	1410	1315	1295	1235	1410
	500	1200	1330	1285	1280	1165	1330
	600	1095	1210	1210	1210	1065	1210
	650	1075	1175	1175	1175	1045	1175

Working Pressure (PSIG)

Class	Temp. ° F.	(1) A216 WCB	(2) A217 C5	(3) A217 WC6	(3) A217 WC9	(4) A352 LCB	(4) A352 LC3
600	700	1065	1135	1135	1135	-	-
	750	1010	1065	1065	1065	-	-
	800	825	995	1015	1015	-	-
	850	535	880	975	975	-	-
	900	345	705	900	900	-	-
	950	205	520	755	755	-	-
	1000	105	385	445	535	-	-
900	-20 to 100	2200	2250	2250	2250	2085	2250
	200	2025	2250	2135	2150	1970	2250
	300	1970	2185	2020	2030	1915	2185
	400	1900	2115	1975	1945	1850	2115
	500	1840	1995	1925	1920	1745	1995
	600	1640	1815	1815	1815	1600	1815
	650	1610	1765	1765	1765	1570	1765
	700	1600	1705	1705	1705	-	-
	750	1510	1595	1595	1595	-	-
	800	1235	1490	1525	1525	-	-
	850	805	1315	1460	1460	-	-
	900	510	1060	1350	1350	-	-
	950	310	780	1130	1130	-	-
	1000	155	575	670	805	-	-
1500	-20 to 100	3705	3750	3750	3750	3470	3750
	200	3375	3750	3560	3580	3280	3750
	300	3280	3640	3365	3385	3190	3640
	400	3170	3530	3290	3240	3085	3530
	500	2995	3325	3210	3200	2910	3325
	600	2735	3025	3025	3025	2665	3025
	650	2685	2940	2940	2940	2615	2940
	700	2665	2840	2840	2840	-	-
	750	2520	2660	2660	2660	-	-
	800	2060	2485	2540	2540	-	-
	850	1340	2195	2435	2435	-	-
	900	860	1765	2245	2245	-	-
	950	515	1305	1885	1885	-	-
	1000	260	960	1115	1340	-	-

NOTES:
(1) PERMISSABLE, BUT NOT RECOMMENDED FOR PROLONGED USAGE ABOVE ABOUT 800° F.
(2) NOT TO BE USED OVER 1050° F. FLANGED END RATINGS TERMINATE AT 1000° F.
(3) NOT TO BE USED OVER 1100° F. FLANGED END RATINGS TERMINATE AT 1000° F.
(4) MPT TO BE USED OVER 650° F.

Casting Materials

Williams Material Suffix	Common Designation	ASTM Casting Specification	Service Recommendations
WCB	Carbon Steel	ASTM A216 Grade WCB	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +800°F (+425°C)
LCB	Low Temp Carbon Steel	ASTM A352 Grade LCB	Low temperature applications to -50°F (-46°C). Not for use above +650°F (+340°C).
LCC	Low Temp Carbon Steel	ASTM A352 Grade LCB	Low temperature applications to -50°F (-46°C). Not for use above +650°F (+340°C).
LC1	Low Temp Carbon Steel	ASTM A352 Grade LC1	Low temperature applications to -75°F (-59°C). Not for use above +650°F (+340°C).
LC2	Low Temp Carbon Steel	ASTM A352 Grade LC2	Low temperature applications to -100°F (-73°C). Not for use above +650°F (+340°C).
LC3	3½% Nickel Steel	ASTM A352 Grade LC3	Low temperature applications to -150°F (-101°C). Not for use above +650°F (+340°C).
WC6	1¼%Chrome ½% Moly Steel	ASTM A217 Grade WC6	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +1100°F (+593°C).
WC9	2¼%Chrome	ASTM A217 Grade C9	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +1100°F (+593°C).
C5	5%Chrome ½% Moly	ASTM A217 Grade C5	Mild corrosive or erosive applications as well as non-corrosive applications at temperatures between -20°F (-30°C) and +1200°F (+649°).
C12	9%Chrome 1% Moly	ASTM A217 Grade C12	Mild corrosive or erosive applications as well as non-corrosive applications at temperatures between -20°F (-30°C) and +1200°F (+649°C).
CA6NM	12% Chrome Steel	ASTM A487 Grade CA6NM	Corrosive application at temperatures between -20°F (-30°C) and +900°F (+482°C).
CA15	12% Chrome	ASTM A217 Grade CA15	Corrosive application at temperatures up to +1300°F (+704°C)
CF8M	316SS	ASTM A351 Grade CF8M	Corrosive or either extremely low or high temperature non-corrosive services between -450°F (-268°C) and +1200°F (+649°C). Above +800°F (+425°C) specify carbon content of 0.04% or greater.
CF8C	347SS	ASTM 351 Grade CF8C	Primarily for high temperature, corrosive applications between -450°F (-268°C) and +1200°F (+649°C). Above +1000°F (+540°C) specify carbon content of 0.04% or greater.
CF8	304SS	ASTM A351 Grade CF8	Corrosive or extremely high temperatures non-corrosive services between -450° (-268°C) and +1200°F (+649°C). Above +800°F (+425°C) specify carbon content of 0.04% or greater.
CF3	304L SS	ASTM A351 Grade CF3	Corrosive or non-corrosive services to +800F (+425°C).
CF3M	316L SS	ASTM A351 Grade CF3M	Corrosive or non-corrosive services to +800F (+425°C).
CN7M	Alloy-20	ASTM A351 Grade CN7M	Good resistance to hot sulfuric acid to +800F (+425°C).
M-35	Monel	ASTM 743 Grade M3-35-1	Weldable grade. Good resistance to corrosion by all common organic acids and salt water. Also highly resistant to most alkaline solutions to +750°F (+400°C).
N-12M	Hastelloy B	ASTM A743 Grade N-12M	Is well suited for handling hydrofluoric acid at all concentrations and temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
CW12M	Hastelloy C	ASTM A743 Grade CW-12M	Good resistance to strong oxidation conditions. Good properties at high temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
CY-40	Inconel	ASTM A743 Grade CY-40	Very good for high temperature service. Good resistance to strongly corrosive media and atmosphere to +800°F (+425°C).
B62	Bronze	ASTM B62	Water, oil or gas: up to 400°F. Excellent for brine and seawater service.

Sales Agent:

William E. Williams Valve Corporation
38-52 Review Avenue
Long Island City NY 11101
phone: 718/392.1660
fax: 718/729.5106
e-mail: wew@williamsvalve.com
website: www.williamsvalve.com

Warranty
Seller warrants the material to be free of defects in material and workmanship, under normal use and proper operation, for a period of one year from date of delivery to a common carrier for shipment to buyer. Seller's obligation is limited to: (1) Repair of the material, or (2) replacement of any part or parts proven defective in material or workmanship, or (3) refund of the purchase price. The choice of said remedies shall be determined by seller in its sole discretion.

All implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed and excluded. The within limited warranty is exclusive and in lieu of all other warranties, guaranties, agreements and similar obligations of seller be liable for consequential or incidental damages.

JAN 2014