INTEGRAL
INDUSTRIAL MANAGEMENT CORPORATION
"Your essential source of integrated solutions"

Globe, Gate, and Check Valves

HP forged globe valve
Optimized design
Model VA400

Multipurpose globe valve leverages a simplified Sempell design to provide an optimized economical solution.

Features

• T-pattern globe type
• One-piece die-forged body design • Wear resistant stellited body seat • Limited number of components
• Visual position indicator
• Manual or automated
• Non-rotating stem stem
• Low pressure loss
• Double bearings for low actuation forces

Applications:

Vents, drains, bypass systems, warm-up lines, wherever reliable leak tight performance is required.

HP forged globe valve
High performance
Model VA500

Globe valve with one-piece die-forged body designed for isolation and control of high temperature and high pressure applications. This multipurpose globe valve is suitable wherever reliable leak tight performance is required.

Features

• Stellited seat surface
• One-piece disc-stem made of corrosion resistant 17 % Cr-steel optional stellited
• Loose backseat
• Easy to maintain
• Manual or automated
• Visual position indicator
• Screw-down non-return configuration available
• Angular pattern available
• Special customized designs, features and materials on request

Applications

Vents, drains, bypass systems, warm-up lines, in process control industries such as power generation, hydrocarbon production, chemical processing, and refining

EMERSON
Sempell
FASANI VALVE
DEWRANCE
YARWAY

Sources:

Emerson Product Brochure: Sempell Overview Brochure, Sempell, Isolation Valves

HP forged globe valve
Customized design
Model VA510

Forged steel globe valve designed for isolation and control of high temperature and high pressure applications. This multipurpose globe valve is suitable for manual
or automated operation and can be customized for special applications.

Features
- Stellited seat surface
- One-piece disc-stem made of corrosion resistant 17 % Cr-steel
- Loose backseat
- Outside screw and yoke - non-rising handwheel
- Visual position indicator
- Optional high-temperature design with cooling ribs
- Special customized designs, features and materials are available on request

Applications
Vents, drains, bypass systems, warm-up lines, in conventional power plants.

Pressure seal cast globe valve
ModelFasani Style B

Y and T pattern globe valves specifically designed for high pressure and high temperature applications, where tight shutoff and low pressure loss is required.

Features
- Designed acc. to ASME B16.34 with wall thickness acc. to API 600
- Designed for maximum safety and flow efficiency
- Face to face dimensions acc. to ASME B16.10
- Seat is welded-in
- Stellite gr.6 overlay on seat and disc; Stellite gr.21 overlay on bonnet
- Position indicator is offered as standard
- Standard ISO top mounting

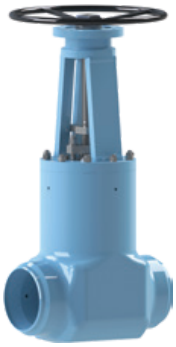
Applications
Main and reheat steam, feedwater isolation, and general service isolation and non-return.

HP forged globe valve
High performance
Model VA250 / Raisteam 6022- 6025, 6032-6035

Forged steel isolation valve with T,
Y and A-pattern configuration and pressure seal cover design for high pressure applications.

Features
- Seat and disc surfaces hardfaced or stellited
- Body and stem guiding available • Pressure seal bonnet
- Electric actuator on request
- Throttling disc on request
- Non-return or screw-down non-return configuration on request
- Special customized designs, features and materials are available

Applications
Throughout a power plant including main steam systems and reheat steam systems as well as feedwater applications.



HP wedge forged gate valve
Model GA251-GA253 / Raisteam 6012-6015

Pressure seal gate valve with split wedge made from forged steel offers excellent seat tightness in both directions, the ideal solution to harsh service conditions including high pressure and high temperature applications.

Features
- Stellited seat/wedge surface
- Split plate, elastic wedge or split wedge with spherical ring
- Fixed backseat
- Electric and hydraulic actuators on request
- Bypass-arrangements for pressure equalizing or pre-warming on request
- Drain, vent and overpressure studs on request
- Special customized designs, features and materials are available

Applications
Throughout a power plant including main steam systems and reheat steam systems as well as feedwater applications.

HP parallel slide forged gate valve

Model GA254-GA255 / Raisteam 6112-6115

Pressure seal parallel slide gate valve made from forged steel offers excellent seat tightness in both directions, the ideal solution to harsh service conditions including high pressure and high temperature applications.

Features

- Stellited seat/plate surface
- Parallel slide or parallel plate with integral overpressure protection
- Fixed backseat
- Electric or hydraulic actuator on request
- Bypass-arrangements for pressure equalizing or pre-warming on request
- Drain, vent and overpressure studs on request
- Special customized designs, features and materials are available.

Applications

Throughout a power plant including main steam systems and reheat steam systems as well as feedwater applications.

HP parallel slide forged gate valve

ModelDewrance P91R

High pressure and temperature bonnet guided parallel slide gate valve improve resistance to thermal fatigue, reduce component failure and extend service life.

Features

- Bonnet guided stem support removes the need for in-body guiding
- Hardfaced stellited flat backseat for reliable gland sealing if required
- External anti-rotation device for seat/disc alignment, also serves a visual position indication and travel stop in the closed position
- Integral disc carrier/disc assembly ensures correct alignment and facilitates easy dismantling of internal components
- Disc designed to be the 'wear element' to allow easy refurbishment and prolong seat life.
- Eyelet follower option available

Applications

Specifically designed for use in high pressure water and steam applications including main steam systems and reheat steam systems.

Pressure seal cast gate valve

ModelFasani Style A

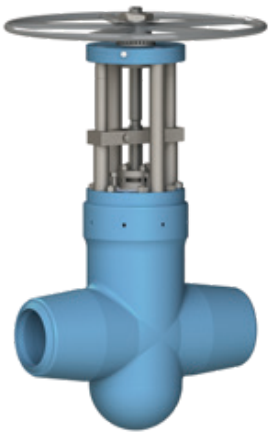
Robust gate valves specifically designed for high pressure applications in the power industry.

Features

- Available in flexible gate and parallel slide configurations
- Seats are welded in
- Position indicator is offered as standard
- Stellite gr. 6 overlay on seat and wedge or disc; Stellite gr. 21 overlay on backseat
- End to end dimensions acc. to ASME B16.10 short pattern
- Standard ISO top mounting

Applications

Designed for high pressure applications in the power industry, in particular feedwater, steam lines and general isolation services.



Parallel slide cast gate valve

ModelDewrance P67-P95

High pressure and temperature parallel slide gate valve with eyelet follower (conduit) design for high seat velocities and long reliable service life.

Features

- Eyelet follower providing a smooth flow path and maximum performance
- Welded-in hardfaced stellited seats
- Longer seat life with eyelet follower due to reduced erosion
- Lower pressure drop characteristic than wedge gate valve
- Minimized flow turbulence
- Higher allowable seat velocity

Applications

Specifically designed for use in high pressure water and steam applications, such as main steam isolation, boiler feed-pump isolation, feed heater isolation, spray water and general service isolation duty.

HP forged check valve

Model VR500

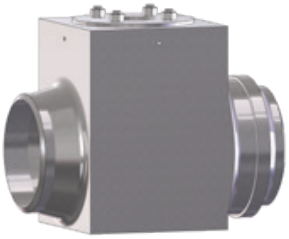
Forged steel piston type check valve designed for high temperature and high pressure applications wherever a reverse flow has to be avoided. The return spring allows reliable function even in vertical installations.

Features

- Stellited seat surface
- Piston made of 17 % Cr-steel
- Return spring for vertical installation
- Separated guiding bush
- Optional screw-down non-return configuration

Applications

All water-steam cycle applications with flow in one direction only and to protect systems that can be affected by reverse flow.



HP forged swing check valve

ModelKR400/Raisteam 6042-6045

Forged steel swing check valve with pressure seal cover, recommended to prevent flow reversal in severe applications.

Features

- One-piece block-design
- Seat and flap surfaces hardfaced or stellited
- Swing check disc
- Internal shaft without stuffing box
- Tilting disc configuration on request
- Minimum flow nozzle on request
- Special customized designs, features and materials are available

Applications

Designed to prevent a backflow in water and steam systems for all high pressure power applications.

Pressure seal cast swing check valve

Model Fasani Style B

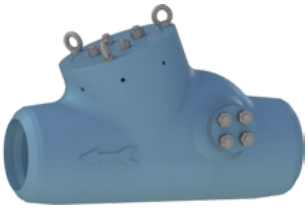
Swing check valve specifically designed for high pressure and high temperature applications requiring flow reversal protection.

Features

- Unidirectional valve design
- Self / quick closing with reverse flow or no flow in pipeline
- In open position disc is outside the flow path providing unrestricted flow, less turbulence and pressure loss
- Renewable seat is easily replaced
- Designed for maximum safety and flow efficiency
- Can be installed on both horizontal and vertical (upflow) piping

Applications

Main steam and feedwater applications.
Steam and water service requiring flow reversal prevention.



Pressure seal cast tilting disc check valve

Model Dewrance F67-F95

Tilting disc check valve specifically designed for high pressure and high temperature applications requiring flow reversal protection.

Features

- Triple offset seat geometry prevents the disc slamming and provides stable disk operation with quick closing
- Inclined seat geometry to minimize pressure loss and ensure positive seating on gravity alone
- Disc seat is manufactured directly in the body with no welding to avoid any distortion of seat face
- Removeable cover for easy access and in-line maintenance
- Designed for maximum safety and flow efficiency
- Can be installed on both horizontal and vertical (upflow) piping

Applications

Main steam and feedwater applications.
Steam and water service requiring flow reversal prevention.

Cast swing check valve with power assist
Model 802

A free-swinging design enables the valve to close by the disc weight, preventing damage in the turbine from backflow steam. A pneumatic or hydraulic actuator supports the quick closing function.

Features

- Pressure sealing design
- Hardfaced sealing faces at disc and body seat
- Easy maintenance
- Indication of control angle directly at disc lever
- Actuator mounting possible on either left or right hand side
- Limit switches indicate valve status
- No overpressure build up in the HP turbine

Applications

Cold reheat application. Protects the turbine from backflow with weight loaded disc or quick closing pneumatic/ hydraulic actuator.

Cast swing check valve
Model 803 / Model FasaniBB

A free-swinging check valve design enables valve to close by disc weight in the event of reversed flow, also available with side mounted actuators and spring closing design.

Features

- Bolted bonnet design
- Vertical seat design with a large (75°) disc opening angle provides reduced pressure loss
- Hardfaced sealing faces at disc and body seat
- Easy maintenance
- Complete disc closure at no flow conditions due to offset between the seating surface and the lever
- Anti-rotation device to avoid damage due to induced flow instability
- Quarter turn actuators ensure safe conditions for operators

Applications

Turbine steam extraction application. Prevents backflow after sudden load reductions or turbine trip.
indicates disc opening angle.

Cast tilting disc check valve
Model Dewrance B07-B67

Cast tilting disc check valve designed specifically for extraction steam and cold reheat non-return applications, utilizing triple offset seating geometry providing reliable and stable operation with positive closure.

Features

- Internal counterweight to balance disc under low load conditions
- Direct deposited seats
- Tilting disc design for quick closing due to lower center of gravity
- Lightweight disc with minimum travel, quick closing in < 1 second
- Self-draining geometry
- Easy access through cover
- Automatic self-closure on flow reversal
- Low cost maintenance

Applications

Bled steam, extraction steam and reverse current check valves; quick close and cold reheat non-return check valves, and turbine exhaust for non-return turbine protection on steam turbines.

Yarway Welbond 5600 Series High Pressure Globe Valve

In-line repairable high pressure globe valve designed to provide maximum service life with minimum maintenance

These valves have become the established stop valve in all modern high pressure power plants.

FEATURES

• Fastest in-line repair - Repairable in-line more easily and at less cost than other similar valve. Stem, disc, and packing can be quickly removed through the yoke, and the seat fully exposed for "like new" restoration.

• High dependability - One-piece forged body without pressure welds, seal welds, pressure-containing threads or gaskets, body/bonnet joints, or any of their related problems.

• Greater durability - Solid Stellite® disc and seat ring all but eliminates cracking. Extra thickness of the seat ring also provides enough material to renew the seating surface over and over again.

• Available off-the-shelf - An in-depth stocking program makes Welbond® valves available to you directly off-the-shelf (socketweld ends standard to NPS 2½ / DN 65).

• Convertible feature - The complete premachining of each valve body means one of the backseat designs can be converted
to the other, simply by reassembly with alternate backseat bushing.

Source:

Emersoon Datasheet: Welbond 5600 Series, High Pressure Globe Valve