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# Product Overview



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Product Overview



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- **Extract of Special Ball Valves**
  - Valves for Slurry Service
  - Valves for High Cycling Service
  - Valves for Continuous / Discontinuous Dosing
  - etc.
- **Accessories**



# General Product Range

Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
A MEMBER OF  
**KITZ** CORPORATION



- **Two-Way and Multi-Port / Diverter Ball Valves**
  - **Switch Units for Relief-Valves**
  - **Ball Valves produced acc. all standards (e.g. DIN, ISO, ANSI, JIS, GOST)**
  - **Medium:** Fluids, Gas, Solids (incl. corrosive, abrasive mediums)
  - **Pressure Range:** PN 6 (Class 150) to PN 420 (Class 2500)
  - **Temperature Range:** -196 ° C (-320 ° F) to +800 ° C (+1500 ° F)
  - **Size Range:** DN 15 (1/2") to DN 600 (24") Full Bore and Reduced Bore
  - **Materials:** Carbon Steel / Stainless Steel / Titanium / Hastelloy & Duplex / Inconel & Monel, other special materials
- ❖ Other materials, dimensions and pressure classes on request

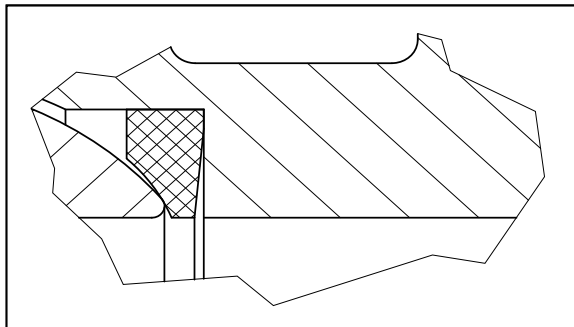


# Soft-seated Systems

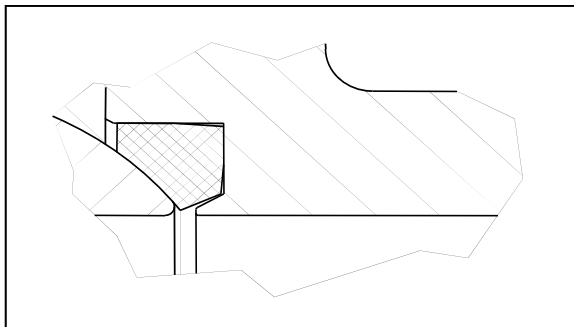
Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
A MEMBER OF  
**KITZ** CORPORATION

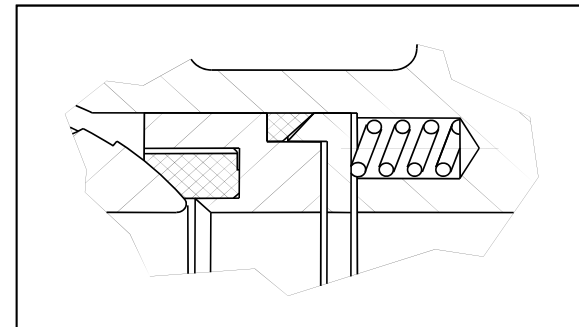
**Pre loaded**



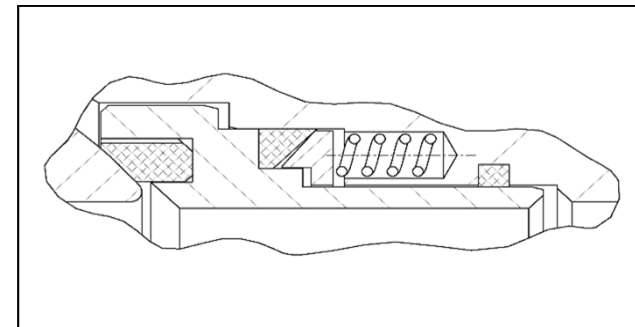
**Pre loaded**  
**Fire Safe, High Pressure Applications**



**Spring loaded**



**Spring loaded**  
**with protected spring area**



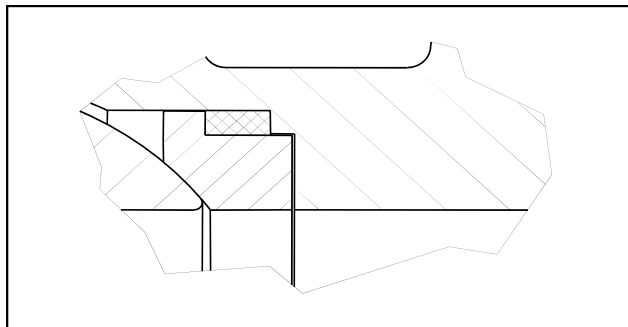


# Metal-seated Systems

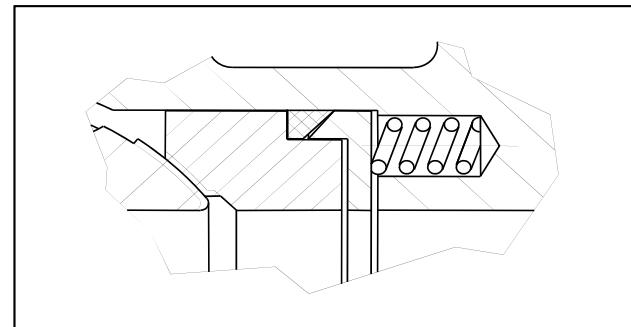
Product Overview



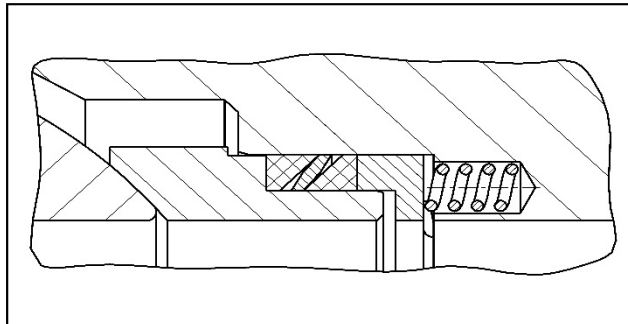
**Graphite pre loaded**



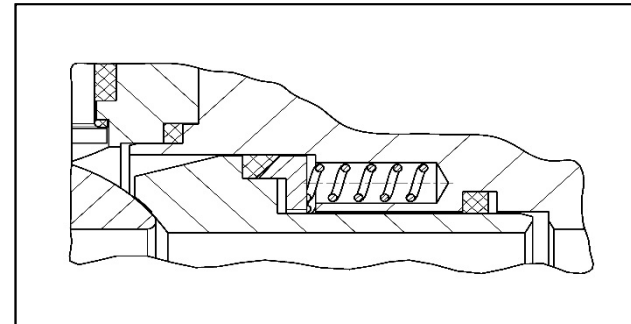
**Spring loaded**



**High pressure spring loaded**



**Spring loaded with protected spring area**



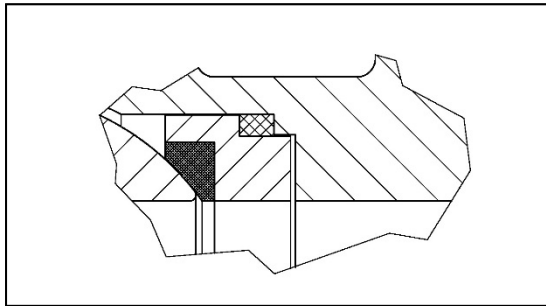


# Carbon-seated Systems

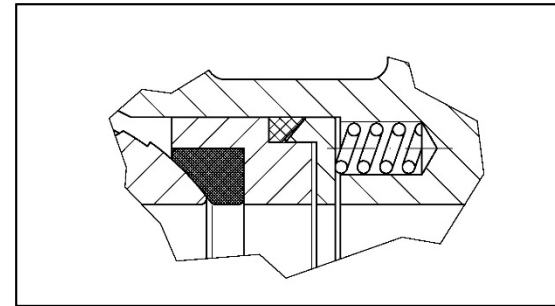
Product Overview

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EIN UNTERNEHMEN DER  
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**Pre loaded**



**Spring loaded**



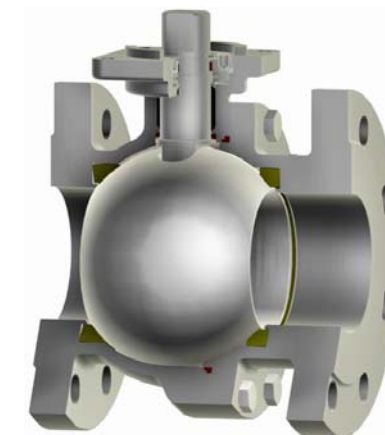
# Standard Floating Ball Valves with Compact Seats

Product Overview



## 75-S

Service: Normal application  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 150 / NPS ½" to 6" (flanged acc. EN 1092-1 and ANSI B16.5)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -60 to 200° C / -20 to 400° F  
Design: 2-Piece Body  
Materials: 1.0619 / A 216 WCB and 1.4408 / A 351 CF8M / Investment Casting



## 75-M

Service: Normal application (not covered by 75-S)  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 150 / NPS ½" to 6" (flanged acc. EN 1092-1 and ANSI B16.5)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -60 to 450° C / -20 to 850° F  
Design: 2-Piece Body  
Materials: 1.0619 / A 216 WCB and 1.4408 / A 351 CF8M / Investment Casting



# Standard Floating Ball Valves with Compact Seats

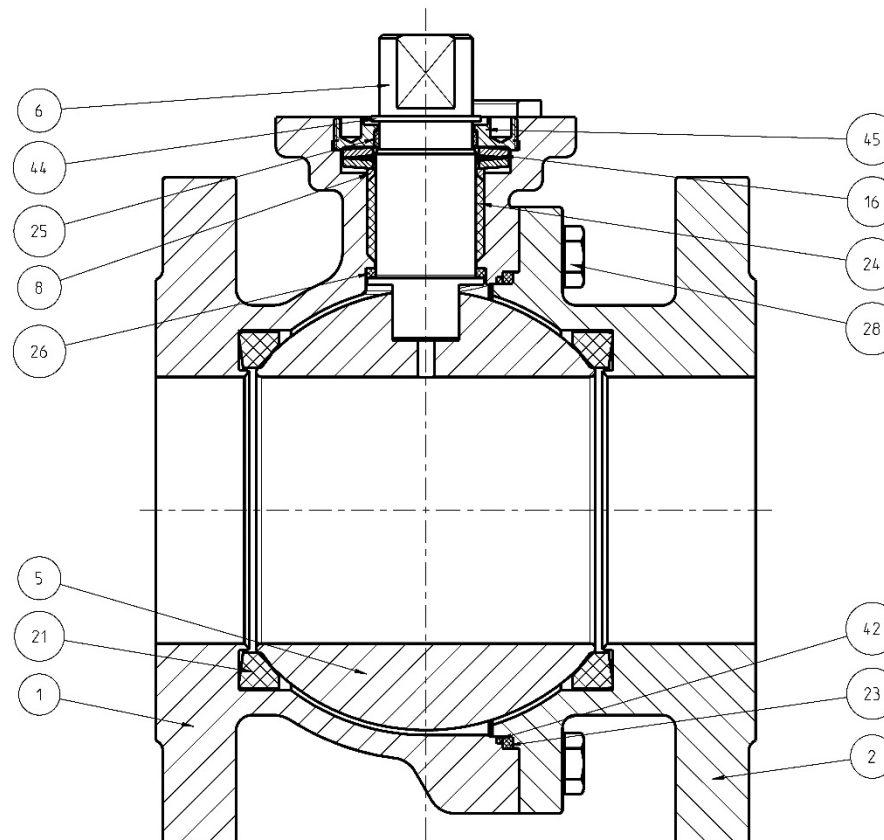
Product Overview



## Series 75-S

### Design:

- ☐ Soft-seated
- ☐ Split body design
- ☐ Floating ball seat supported
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 16 Plate Spring
- 21 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Sealing Ring
- 28 Screw
- 42 Sealing Ring
- 44 Locking Ring
- 45 Threaded Ring



# Standard Floating Ball Valves with Compact Seats

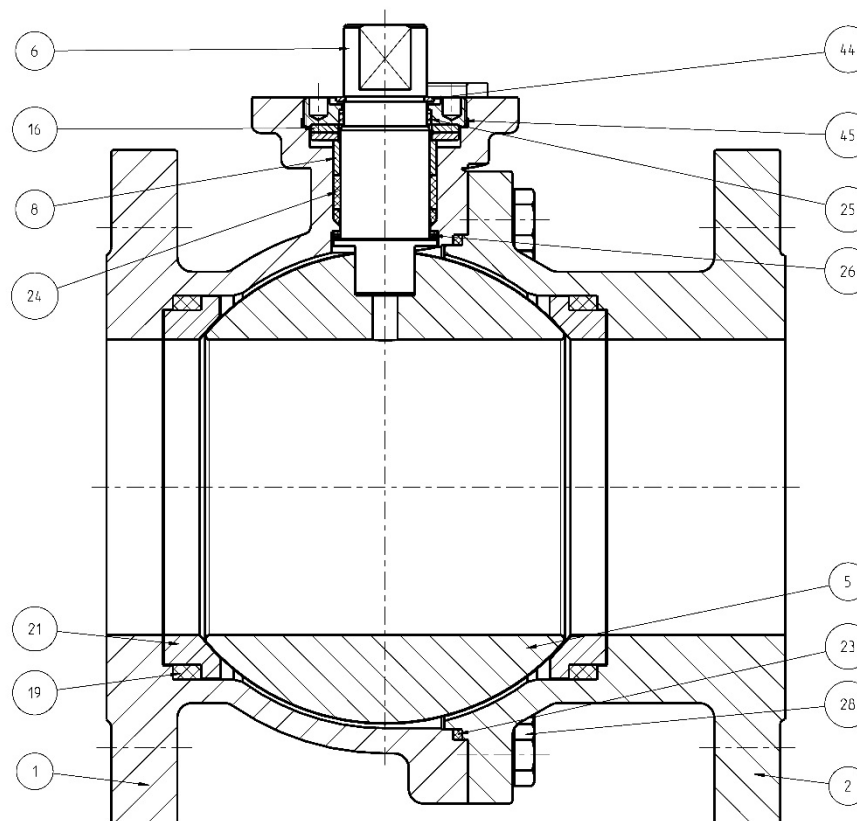
Product Overview



## Series 75-M

### Design:

- ☐ Metal-seated
- ☐ Split body design
- ☐ Floating ball seat supported
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 16 Plate Spring
- 21 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Sealing Ring
- 28 Screw
- 44 Locking Ring
- 45 Threaded Ring

# Standard Floating Ball Valves with Compact Seats

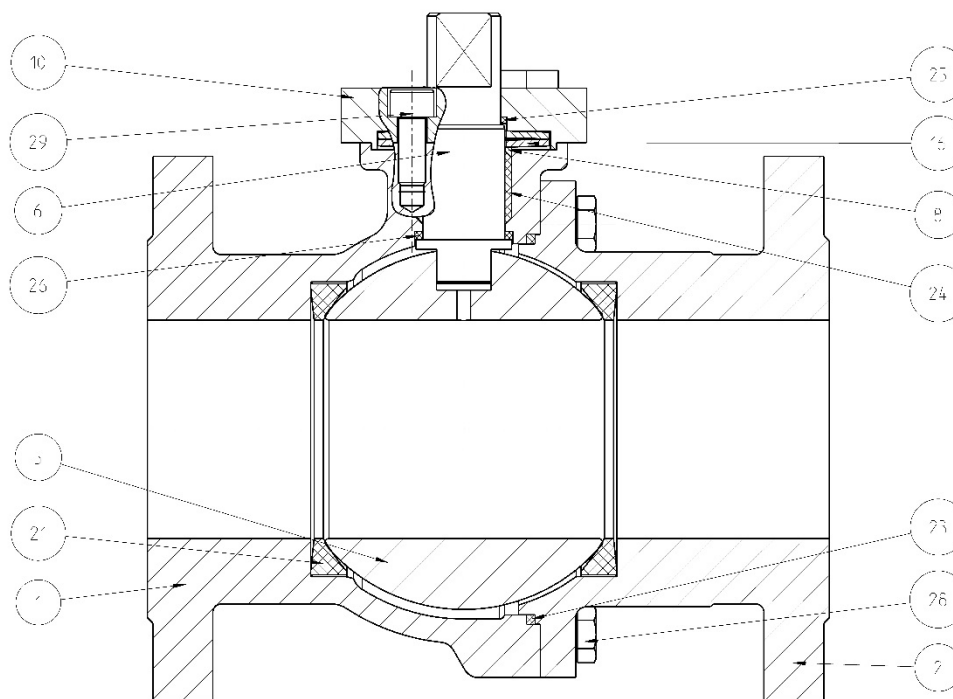
Product Overview



## Series 70-S

### Design:

- ☐ Soft-seated
- ☐ Split body design
- ☐ Floating ball seat supported
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 10 Bearing Cover
- 16 Plate Spring
- 21 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Sealing Ring
- 28 Screw
- 29 Screw

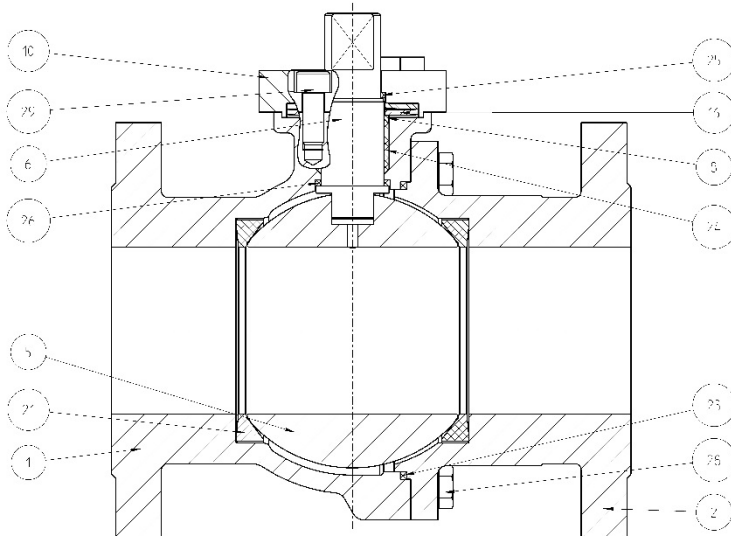
# Standard Floating Ball Valves with Compact Seats

Product Overview

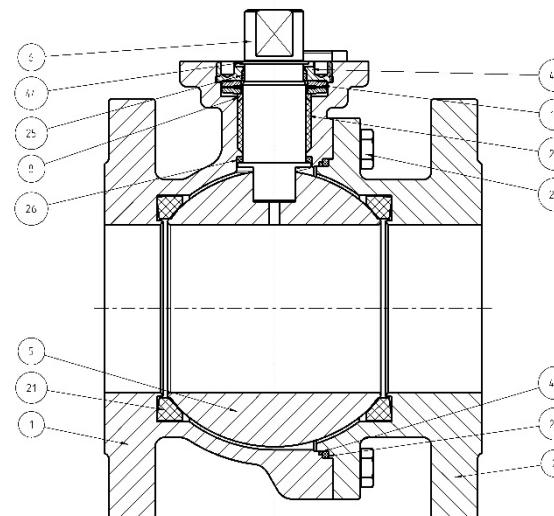


## Comparison 70-S / 75-S

**Type 70-S**



**Type 75-S**



- No cover part
- Double body seal
- with Fire Safe Design
- Investment casting  
1.4408 / A 351 CF8M  
1.0619 / A 216 WCB  
Up to DN 150 / 6"  
Class 150 / 300
- Only flanged
- BASF-Norm
- Euro-Norm

# Standard Floating Ball Valves with Compact Seats

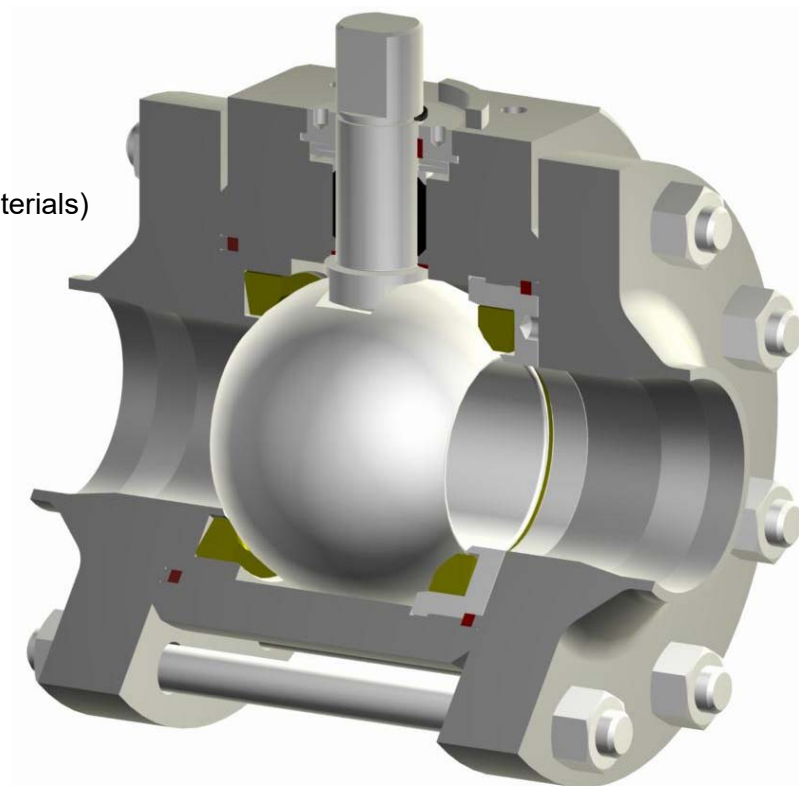
Product Overview



## Series 11-S

### 11-S

Service: Special application (nuclear power stations, special materials)  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 100 / NPS ½" to 4"  
(all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -60 to 200° C / -20 to 400° F  
Design: 3-Piece Body  
Materials: All Materials (Forged / Sandcasting)



# Standard Floating Ball Valves with Compact Seats

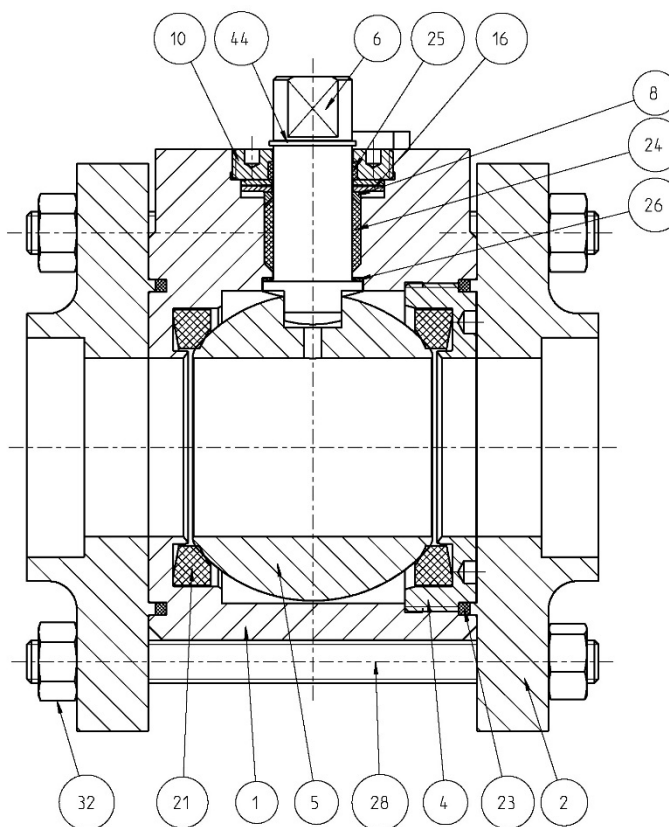
Product Overview



## Series 11-S

### Design:

- ☐ Soft-seated
- ☐ 3-Piece body design
- ☐ Floating ball seat supported
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 16 Plate Spring
- 21 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Bearing Ring
- 28 Screw
- 32 Nut
- 44 Locking Ring
- 45 Threaded Ring

# Standard Ball Valves with Spring Loaded Seats

Product Overview

**perrin** GmbH  
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EIN UNTERNEHMEN DER  
KITZ GROUP

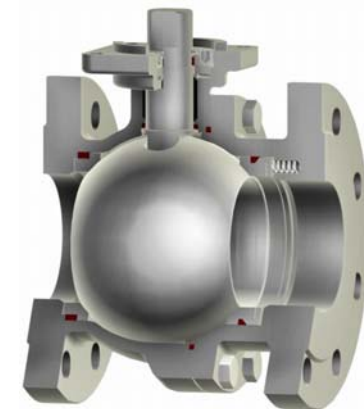
## 85-S

Service: Standard application (Vacuum Service)  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 150 / NPS ½" to 6" (flanged acc. EN 1092-1 and ANSI B16.5)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -60 to 200° C / -20 to 400° F  
Design: 2-Piece Body, one side spring loaded  
Materials: 1.0619 / A 216 WCB and 1.4408 / A 351 CF8M / Investment Casting



## 85-M

Service: Standard application (not covered by 85-S)  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 300 / NPS ½" to 12" (all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -60 to 450° C / -20 to 850° F  
Design: 2-Piece Body, one side spring load  
Materials: All Materials (Forged / Sandcasting)





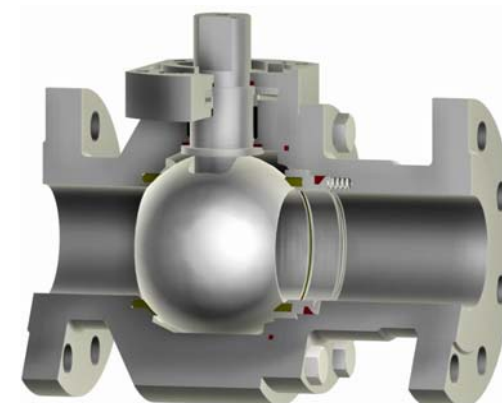
## Standard Ball Valves with Spring Loaded Seats

Product Overview



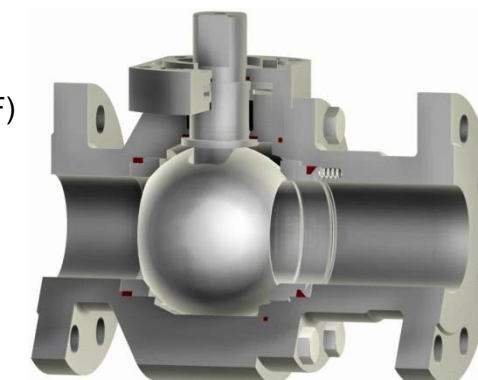
### 80-S

Service: Standard application (Vacuum Service (not covered by 85-S))  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 300 / NPS ½" to 12" (all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -60 to 250° C / -20 to 450° F  
Design: 2-Piece Body, one side spring load  
Materials: All Materials (Forged / Sandcasting)



### 80-M

Service: Standard metal seated application (not covered by 85-M), up to 450° C (850° F)  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 300 / NPS ½" to 12" (all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 250 / Class 150 to 1500  
Temperature: -60 to 450° C / -20 to 850° F  
Design: 2-Piece Body, one side spring loaded  
Materials: All materials (Forged / Sandcasting)





# Standard Ball Valves with Spring Loaded Seats

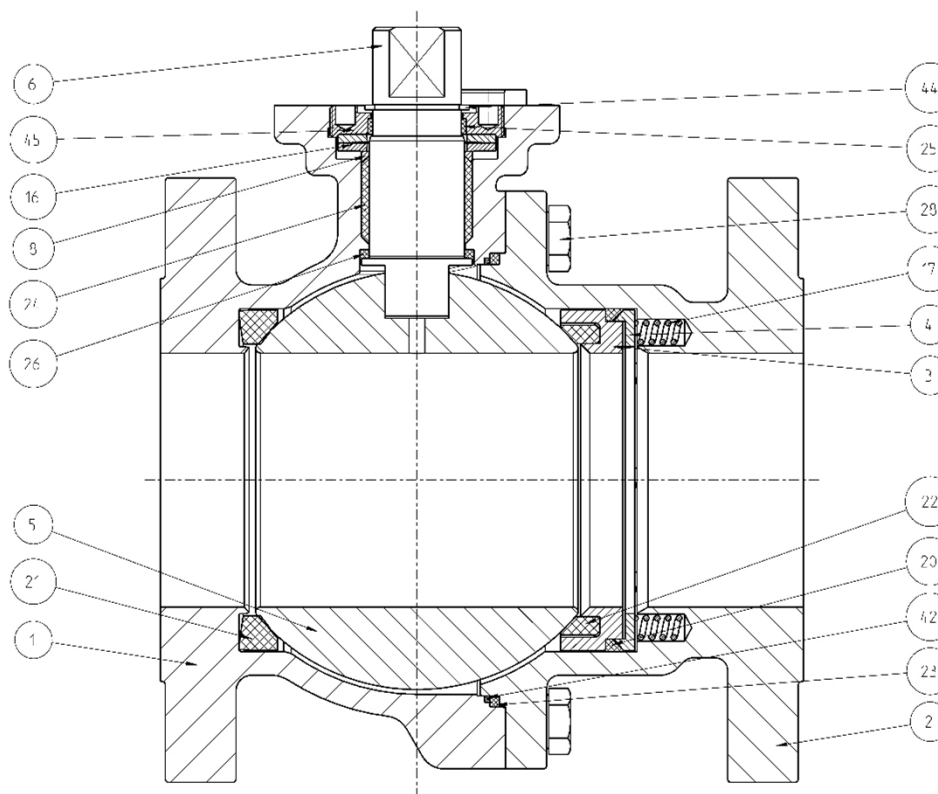
Product Overview



## Series 85-S

### Design:

- ☐ Soft-seated
- ☐ Split body design
- ☐ Floating ball with spring-supported seat
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 03 Retainer Ring
- 04 Retainer Ring
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 16 Plate Spring
- 17 Coil Spring
- 20 Sealing Ring
- 21 Seat Ring
- 22 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Sealing Ring
- 28 Screw
- 42 Sealing Ring
- 44 Locking Ring
- 45 Threaded Ring



# Standard Ball Valves with Spring Loaded Seats

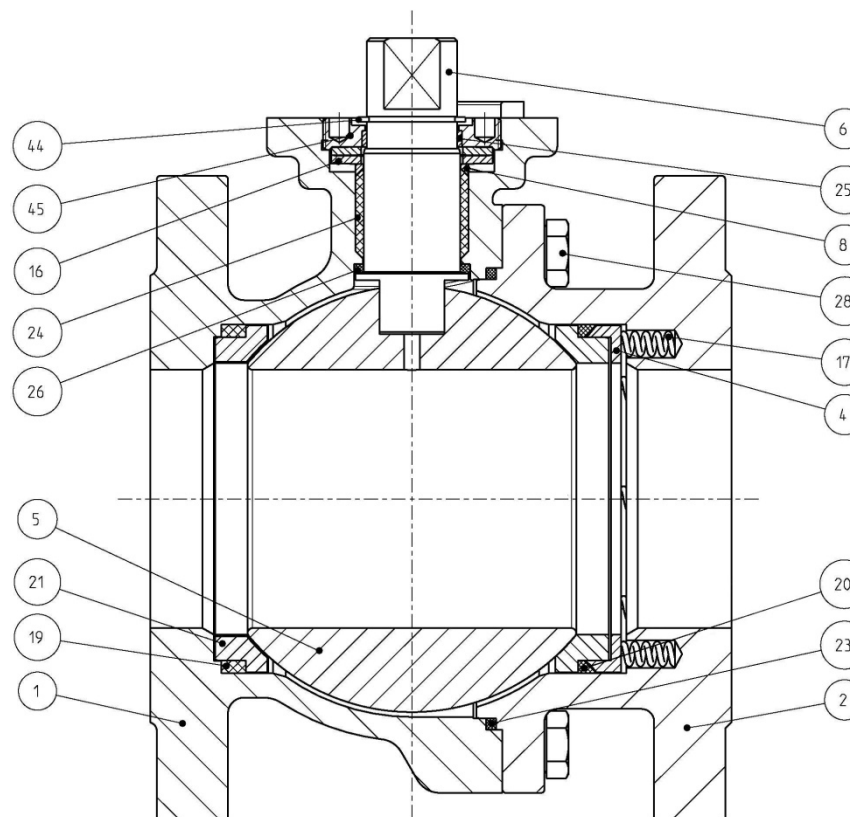
Product Overview



## Series 85-M

### Design:

- ☐ Metal-seated
- ☐ Split body design
- ☐ Floating ball with spring-supported seat
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 04 Retainer Ring
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 16 Plate Spring
- 17 Coil Spring
- 20 Sealing Ring
- 21 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Bearing Ring
- 28 Screw
- 44 Locking Ring
- 45 Threaded Ring



## Standard Ball Valves with Spring Loaded Seats

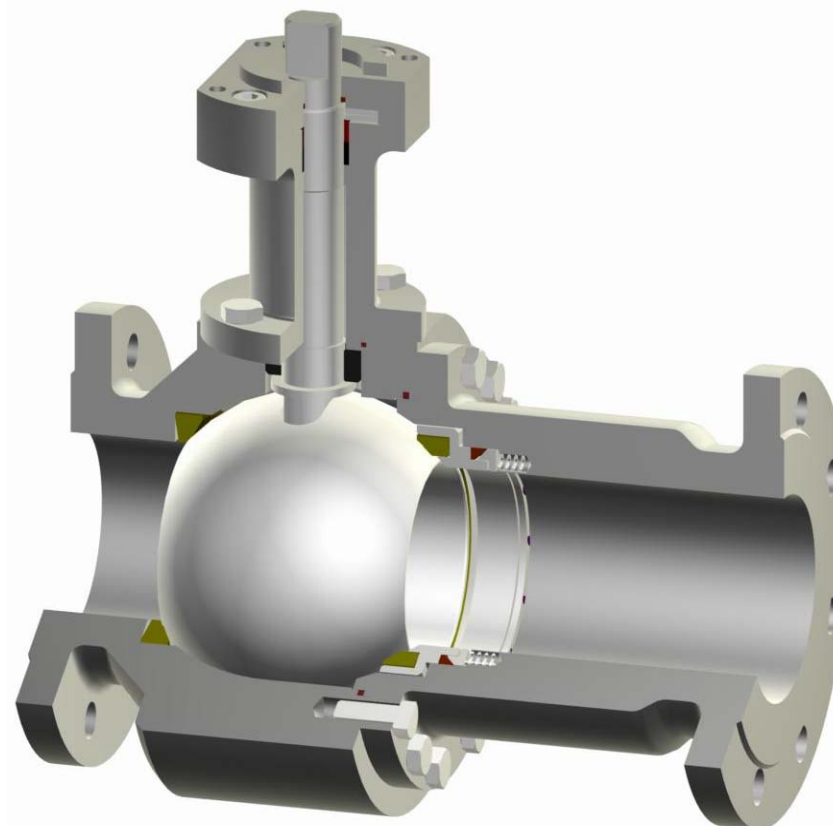
Product Overview



### Series 80-K

#### 80-K

Service: Cryogenic application  
Medium: LNG, LPG  
Size: DN 15 to 100 / NPS ½" to 4"  
(all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 40 / Class 150 to 300  
Temperature: -196 to 250° C / -321 to 450° F  
Design: 2-Piece Body, one side spring load  
Materials: All Materials (Forged / Sandcasting)



# Standard Ball Valves with Spring Loaded Seats

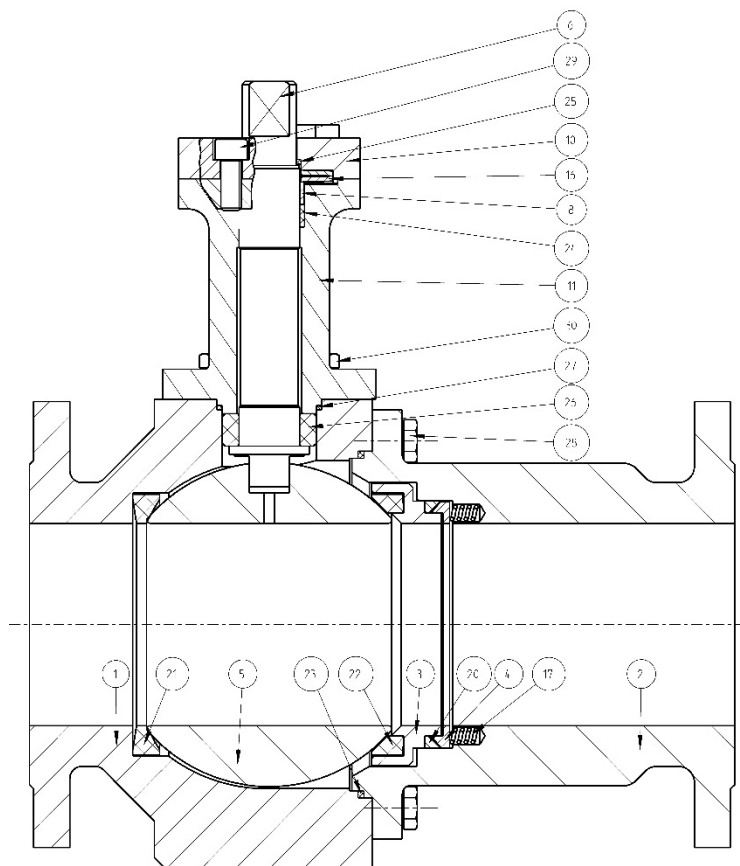
Product Overview



## Series 80-K

### Design:

- ☐ Soft-seated
- ☐ Split body design
- ☐ Floating ball with spring-supported seat
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- |       |                     |
|-------|---------------------|
| 01    | Body                |
| 02    | Body End Connection |
| 03    | Retainer Ring       |
| 04    | Seat Retainer       |
| 05    | Ball                |
| 06    | Stem                |
| 08    | Gland Washer        |
| 10    | Bearing Cover       |
| 11    | Extension           |
| 16    | Plate Spring        |
| 17    | Coil Spring         |
| 20    | Sealing Ring        |
| 21    | Seat Ring           |
| 22    | Seat Ring           |
| 23    | Body Gasket         |
| 24    | Stem Packing        |
| 25    | Bearing Ring        |
| 26    | Bearing             |
| 27    | Body Gasket         |
| 28-30 | Screw               |



# Trunnion Mounted Ball Valves

Product Overview



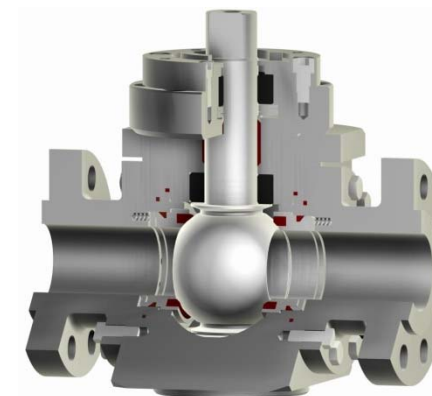
## 14-S

Service: PERRIN "Allround Valve"  
(High Pressure, Double Block and Bleed / Double Isolation and Bleed)  
Medium: Gas, Fluids, etc.  
Size: DN 25 to 600 / NPS 1" to 24" (all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 420 / Class 150 to 2500  
Temperature: -60 to 250° C / -20 to 450° F  
Design: 2-Piece or 3-Piece Body, both side spring loaded  
Materials: All Materials (Forged / Sandcasting)



## 16-S

Service: High Cycling application  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 300 / NPS ½" to 12" (all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 250 / Class 150 to 1500  
Temperature: -60 to 250° C / -20 to 450° F  
Design: 3-Piece Body, both side spring loaded, ball with integral stem  
Materials: All Materials (Forged / Sandcasting)





# Trunnion Mounted Ball Valves

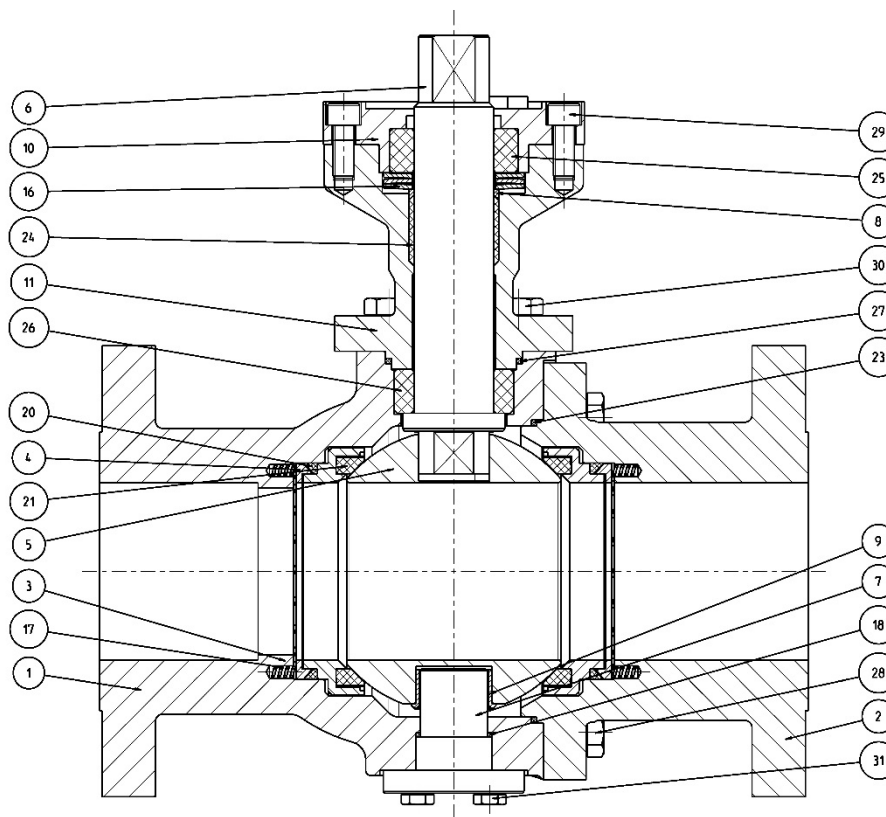
Product Overview



## Series 14-S

### Design:

- ☐ Soft-seated
- ☐ Split body design
- ☐ Trunnion mounted ball with spring-supported seat
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 03 Retainer Ring
- 04 Retainer Ring
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 10 Bearing Cover
- 11 Extension
- 16 Plate Spring
- 17 Coil Spring
- 20 Sealing Ring
- 21 Seat Ring
- 22 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Sealing Ring
- 27 Body Gasket
- 28 Screw
- 29 Screw
- 30 Screw



# Trunnion Mounted Ball Valves

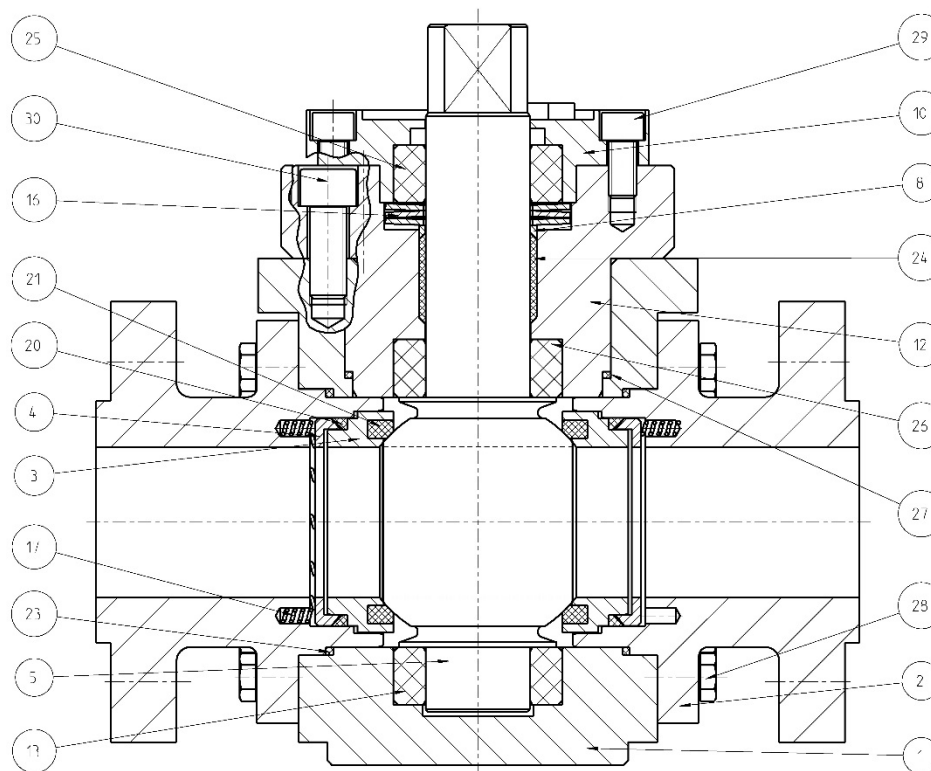
Product Overview



## Series 16-S

### Design:

- ☐ Soft-seated
- ☐ Split body design
- ☐ Trunnion mounted ball with spring-supported seat and integral stem
- ☐ Cavity relief system
- ☐ Anti blowout proof stem
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 03 Retainer Ring
- 04 Retainer Ring
- 05 Ball
- 06 Stem
- 08 Gland Washer
- 10 Bearing Cover
- 11 Extension
- 16 Plate Spring
- 17 Coil Spring
- 20 Sealing Ring
- 21 Seat Ring
- 22 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Sealing Ring
- 27 Body Gasket
- 28 Screw
- 29 Screw
- 30 Screw



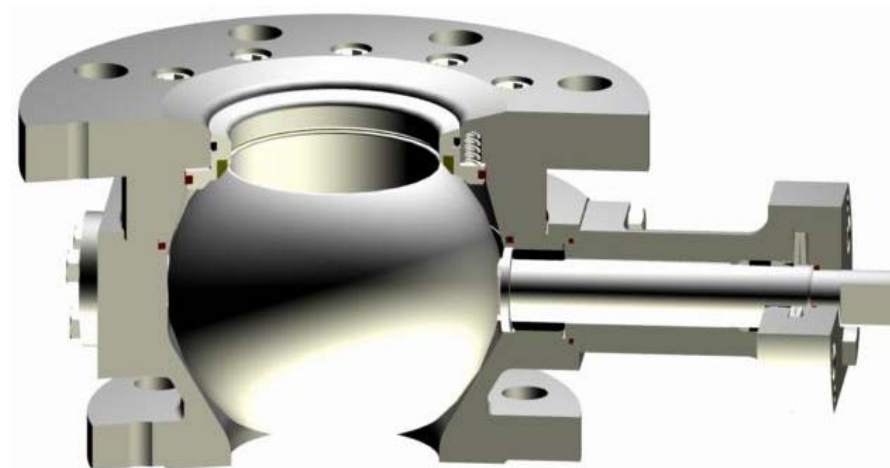
# Trunnion Mounted Ball Valves

Product Overview



## 15-S

Service: Tank Bottom (Reactor) Outlet Valve  
Medium: Gas, Fluids, etc.  
Size: DN 15 to 300 / NPS ½" to 12"  
(all connections: flanged, butt-welded, bolted)  
Pressure: PN 10 to 40 / Class 150 to 300  
Higher Pressure Classes possible on request  
Temperature: -196 to 250° C / -321 to 450° F  
Design: Special Form Type 14-S, of 2 piece body,  
ball and stem 2 pieces  
Single seat, cavity free  
Materials: All Materials (Forged / Sandcasting)







# Trunnion Mounted Ball Valves

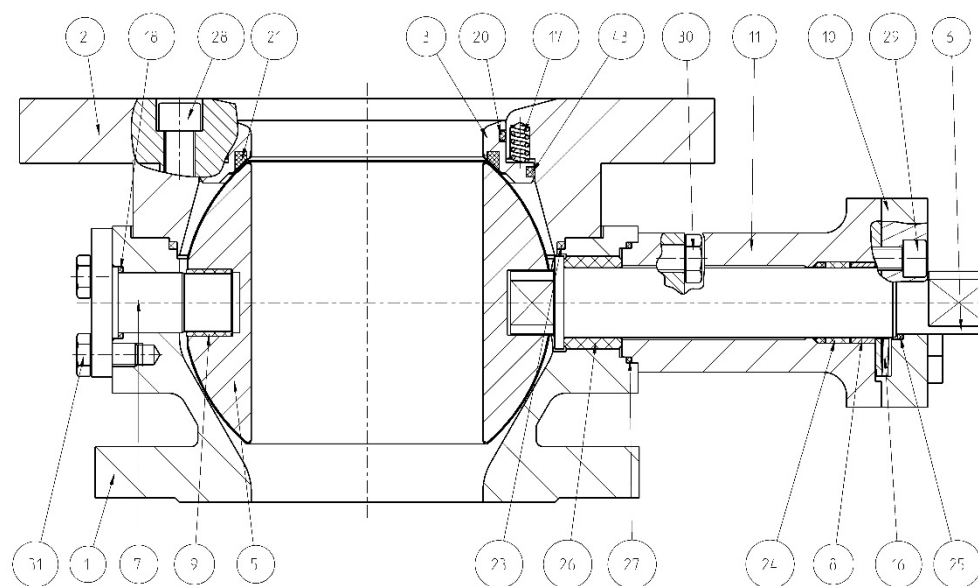
Product Overview



## Series 15-S

### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball
- ☐ Anti blowout proof stem
- ☐ Cavity free
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



### Parts List:

- 01 Body
- 02 Body End Connection
- 03 Retainer Ring
- 05 Ball
- 06 Stem
- 07 Lower Trunnion
- 08 Gland Washer
- 09 Bearing Bush
- 10 Bearing Cover
- 11 Extension
- 16 Plate Spring
- 17 Coil Spring
- 18 Body Gasket
- 20 Round Ring
- 21 Seat Ring
- 23 Body Gasket
- 24 Stem Packing
- 25 Bearing Ring
- 26 Bearing Ring
- 27 Body Gasket
- 28 Screw
- 29 Screw
- 30 Screw
- 31 Screw
- 43 Sealing Ring



# Trunnion Mounted Ball Valves

Product Overview



## 17-S / 17-K / 17-N

Top Entry Design

Forged / Sandcasting

FB / RB

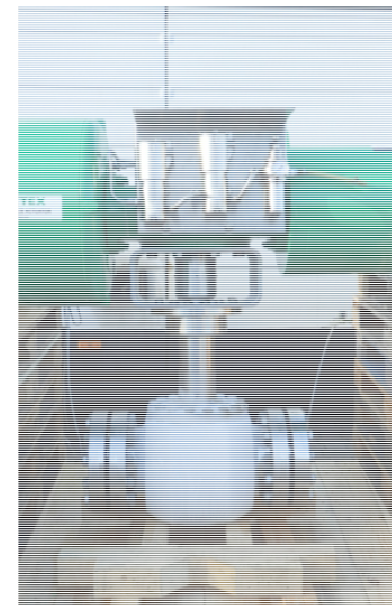
All Materials

DN 15 to 500, PN 16 to 100

DN ½" to 20" , Class 150 to 600

All Connections (Flanged, BW, SW, Bolted)

Application: Offshore, LNG/LPG, currently not competitive against other standard LNG competitor, therefore only for special application





# Trunnion Mounted Ball Valves

Product Overview



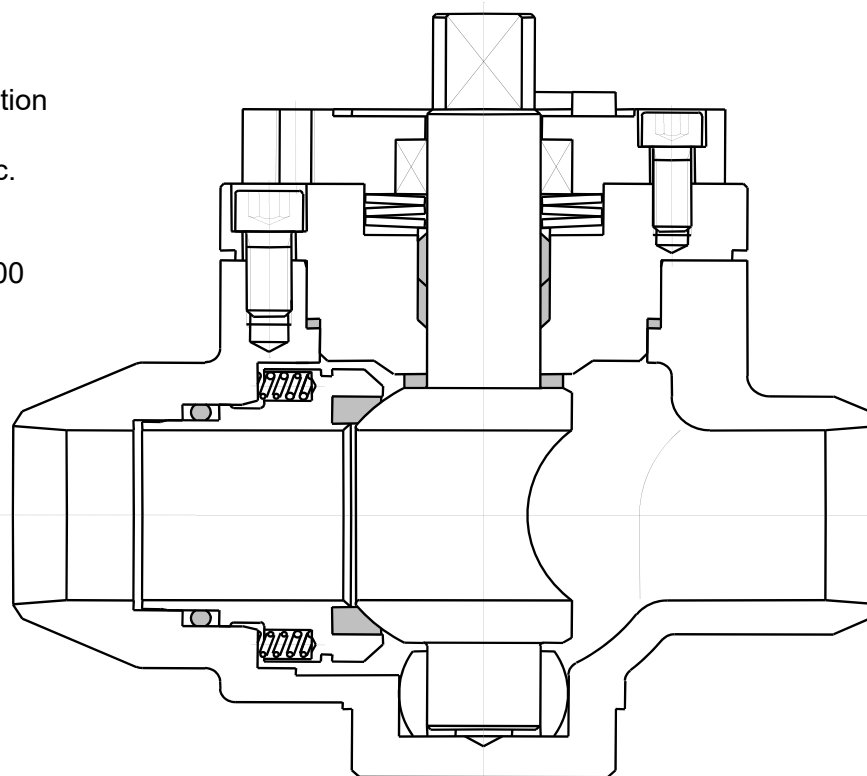
## Series 17-S

**Service:** Normal application

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 16 to 100  
Class 150 to 600

**Temp.:** -60 to 250° C  
-20 to 450° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Top-Entry design
- ☐ Trunnion mounted ball with integral stem
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



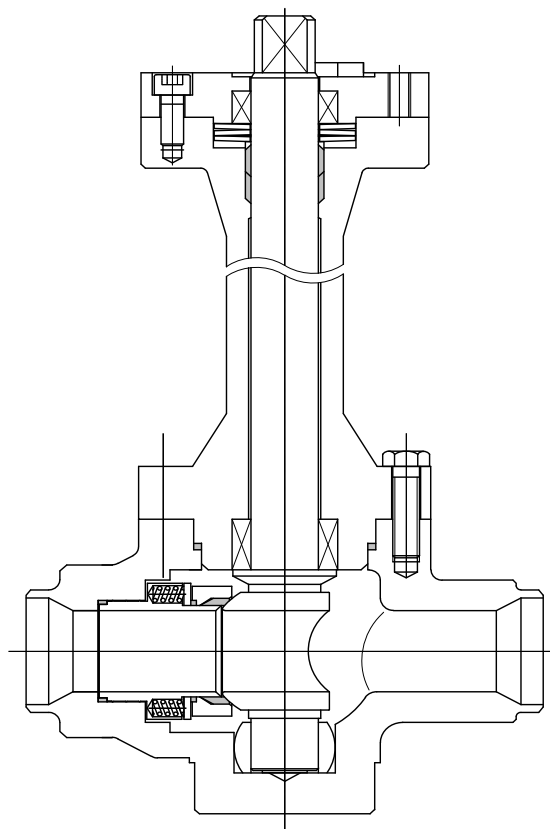
# Trunnion Mounted Ball Valves

Product Overview



## Series 17-K

**Service:** Cryogenic  
**Medium:** LNG, LPG  
**Pressure:** PN 16 to 100  
Class 150 to 600  
**Temp.:** -196 to 100° C  
-380 to 212° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Top-Entry design
- ☐ Trunnion mounted ball  
with integral stem
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Standard Multi Port Valves

Product Overview



## 20-S

3-way Floating Design

90° ports

L- or T-port

Forged / Sandcasting

FB / RB

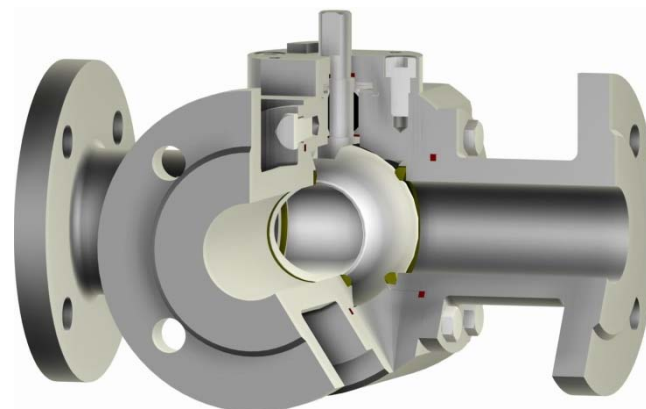
All Materials

DN 15 to 100, PN 10 to 40

DN ½" to 4" , Class 150 to 300

All Connections (Flanged, BW, SW, Bolted)

Application: 90° port Standard 3-way applications



## 21-S

3-way Trunnion Mounted Design

90° ports

L- or T-port

Forged / Sandcasting

FB / RB

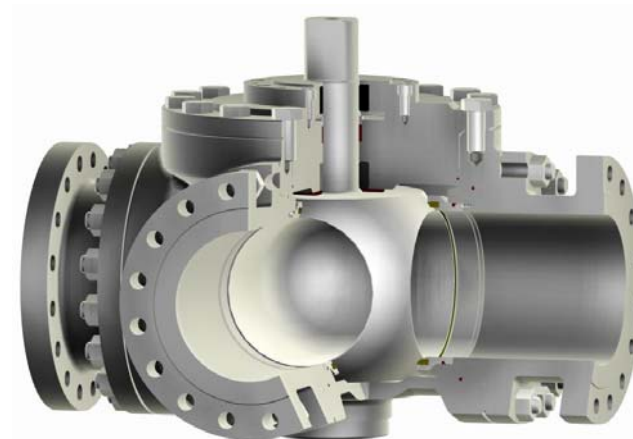
All Materials

DN 15 to 500, PN 10 to 250

DN ½" to 20" , Class 150 to 1500

All Connections (Flanged, BW, SW, Bolted)

Application: 90° port 3-way applications, not covered by 20-S





## Standard Multi Port Valves

Product Overview



### 27-S

3-way Floating Design

90° L-port

Forged / Sandcasting

FB / RB

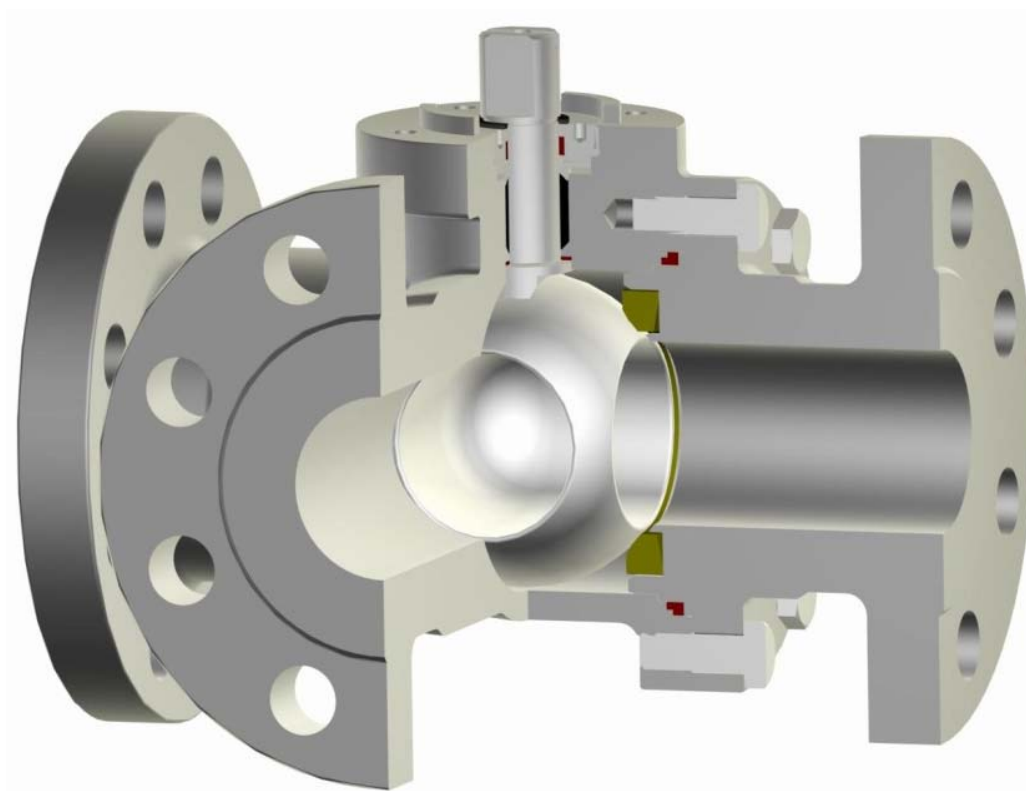
All Materials

DN 25 to 100

DN 1" to 4" , Class 150 to 300

All Connections (Flanged, BW, SW, Bolted)

Application: 90° port Standard 3-way applications





# Standard Multi Port Valves

Product Overview



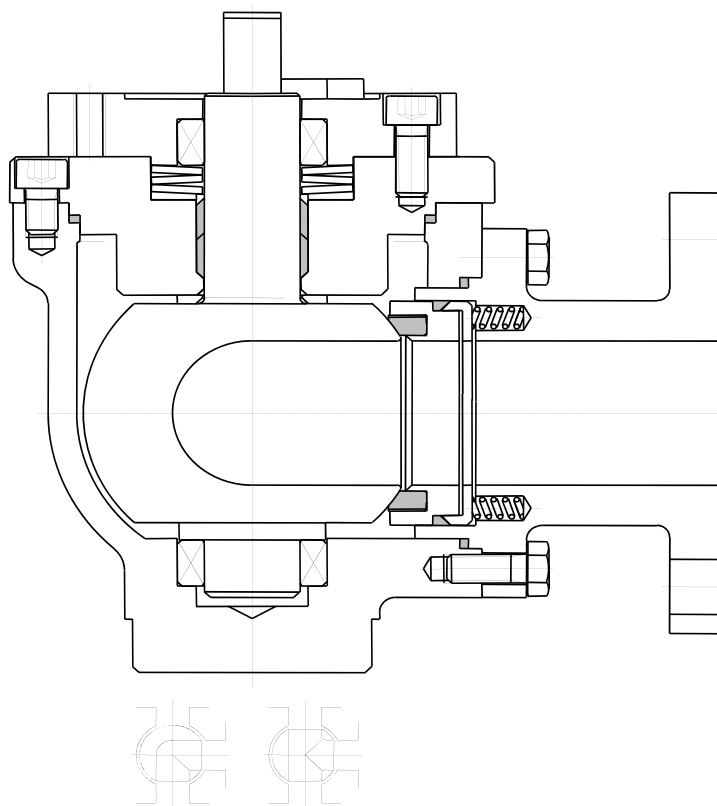
## Series 21-S

**Service:** Diverter Valve  
Normal application

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 250° C  
-20 to 450° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 90° L- or T-Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



## Standard Multi Port Valves

Product Overview



### 22-S

3-way Trunnion Mounted Design

120° ports

"Forged / Sandcasting

FB / RB

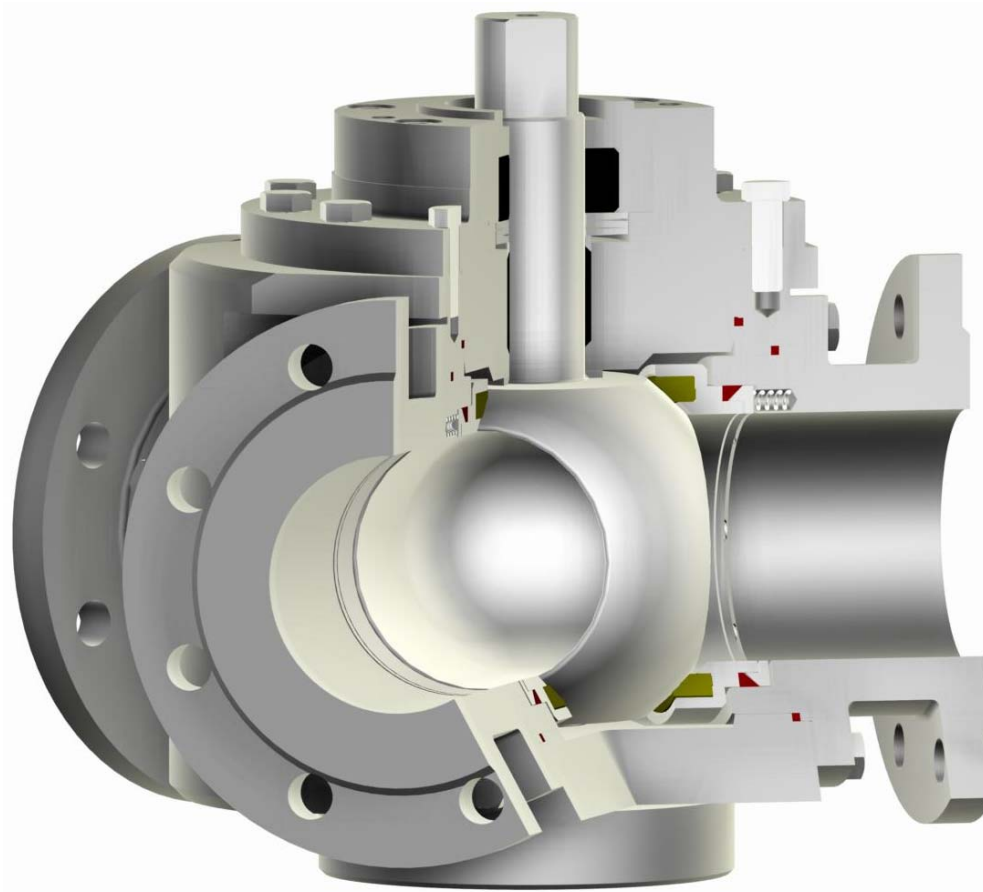
All Materials

DN 15 to 500, PN 10 to 250

DN ½" to 20" , Class 150 to 1500

All Connections (Flanged, BW, SW, Bolted)

Application: 120° port 3-way applications, PE/PP  
(e.g. Heimont process)





# Standard Multi Port Valves

Product Overview



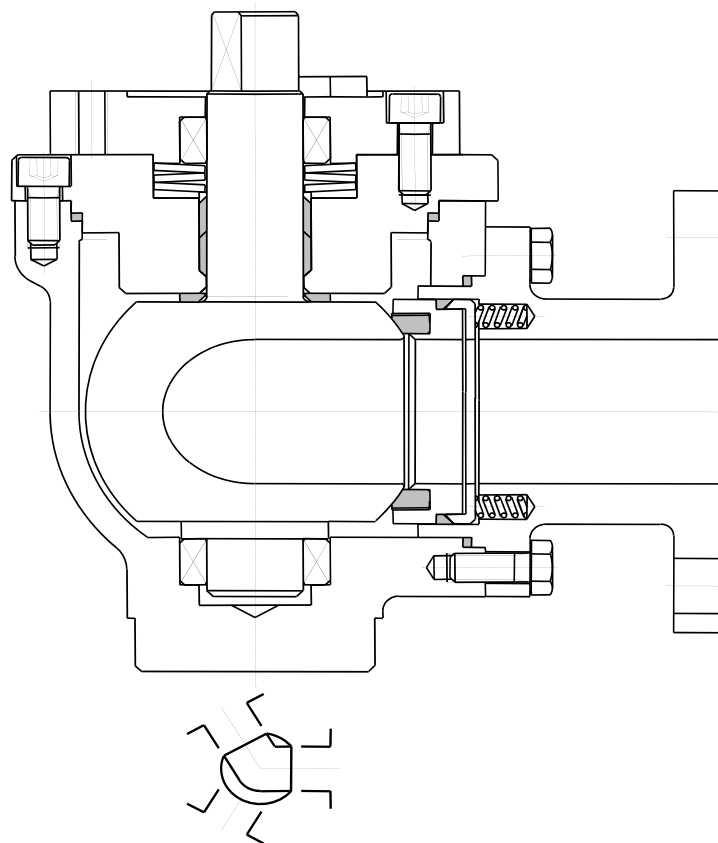
## Series 22-S

**Service:** Diverter Valve  
Normal application

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 250° C  
-20 to 450° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 120° L-Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211

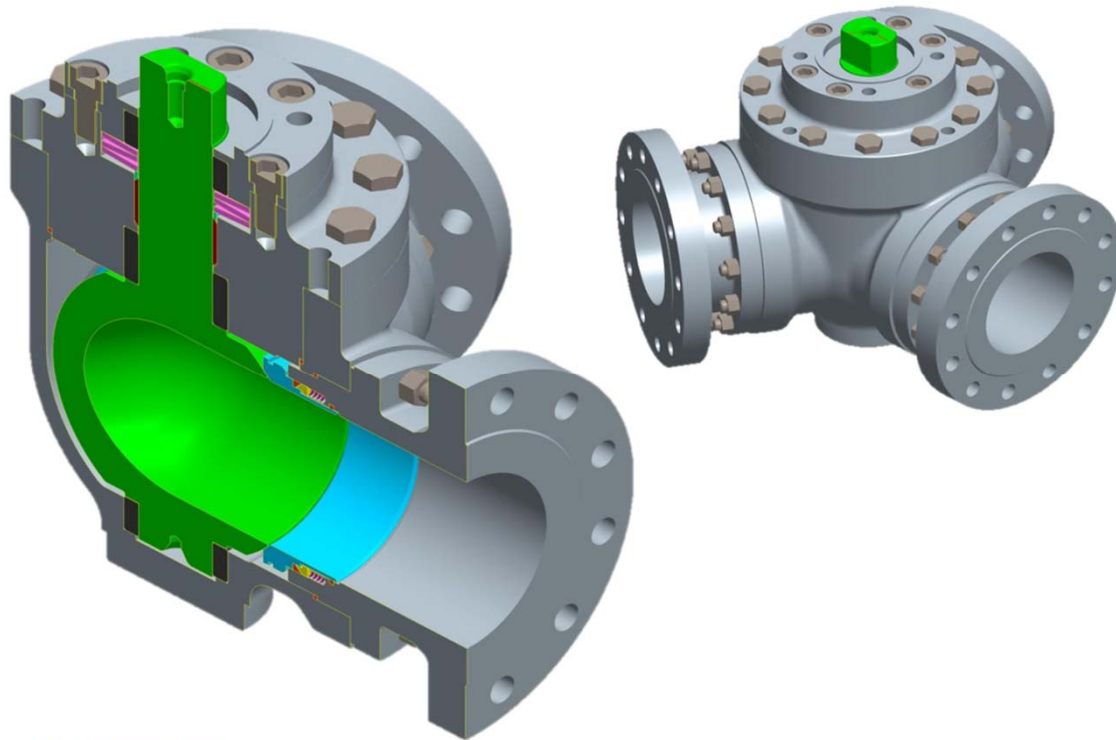


# Standard Multi Port Valves

Product Overview



## Perrin 3-way 120° valves for PP service (Heimont process)



### Design:

- ❑ 3-way valve with 120° ports
  - ⇒ less pressure drop than 90° design
- ❑ Trunnion mounted design
  - ⇒ lower torque, less wear than floating design
- ❑ Ball and seat hardfaced with Perrit or seat from PEEK
  - ⇒ resistant against most abrasive solids
- ❑ Ball and stem one piece
  - ⇒ no wear between ball and stem at high frequency cycling
- ❑ Seatsystem with spring protected area
  - ⇒ no solids can enter into the spring room and block the seatsystem



## Standard Multi Port Valves

Product Overview



### 23-S

4-way Trunnion Mounted Design

4 x 90° ports in the same level

Double L" (X) - port

Forged / Sandcasting

FB / RB

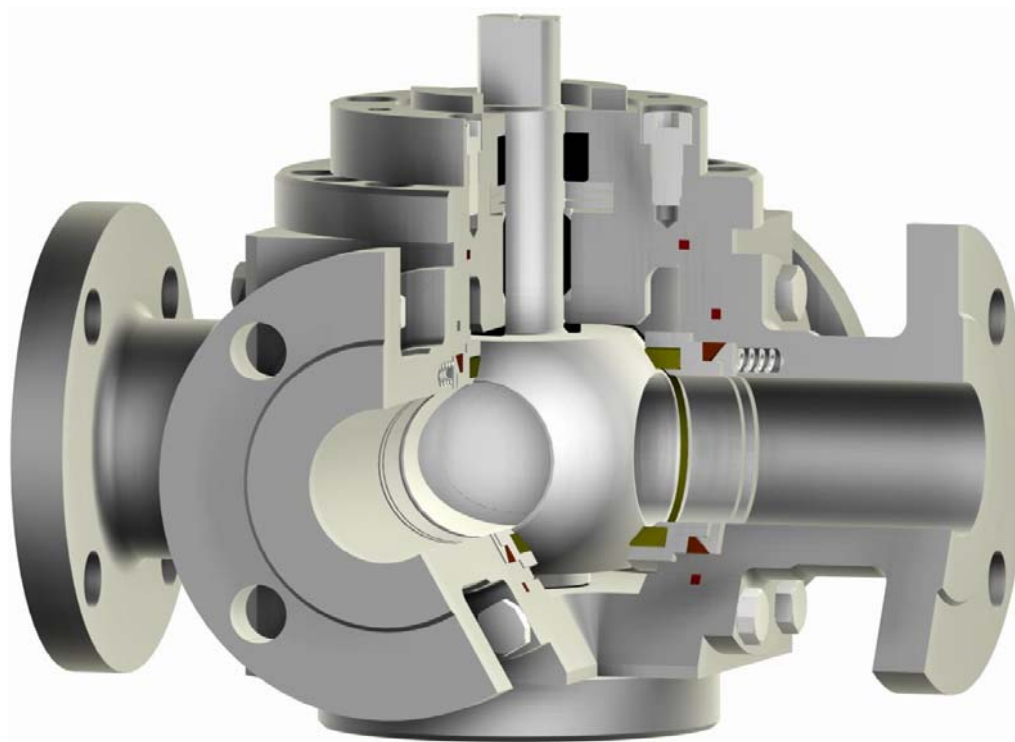
All Materials

DN 15 to 500, PN 10 to 250

DN 1/2" to 20" , Class 150 to 1500

All Connections (Flanged, BW, SW, Bolted)

Application: 4-way applications, Metering Systems  
(Volume measurement)



# Standard Multi Port Valves

Product Overview



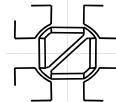
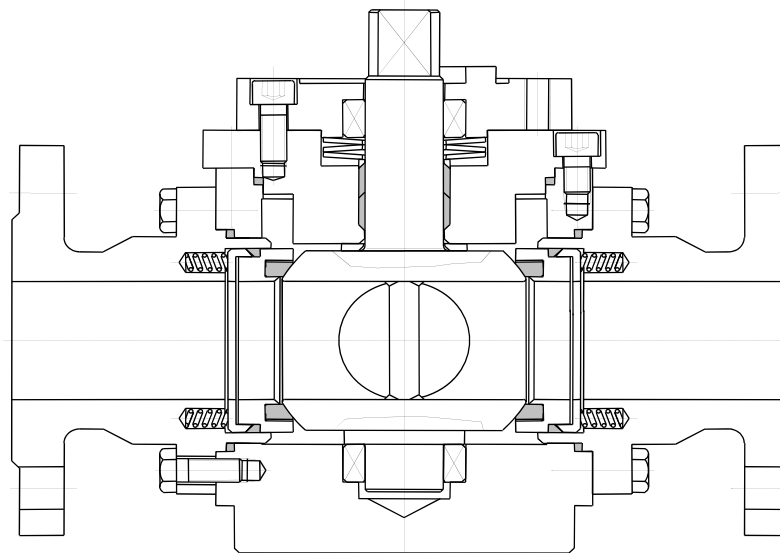
## Series 23-S

**Service:** Metering System  
Normal application

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 250° C  
-20 to 450° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 90° X-Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211

# Standard Multi Port Valves

Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
EIN UNTERNEHMEN DER  
KITZ GROUP

## Series 23-S





## Standard Multi Port Valves

Product Overview



### 24-S

Diverter Valve

Inlet from the bottom

2 – 6 Outlets in the horizontal level

Trunnion Mounted Design

L or double L - port

Forged / Sandcasting

FB / RB

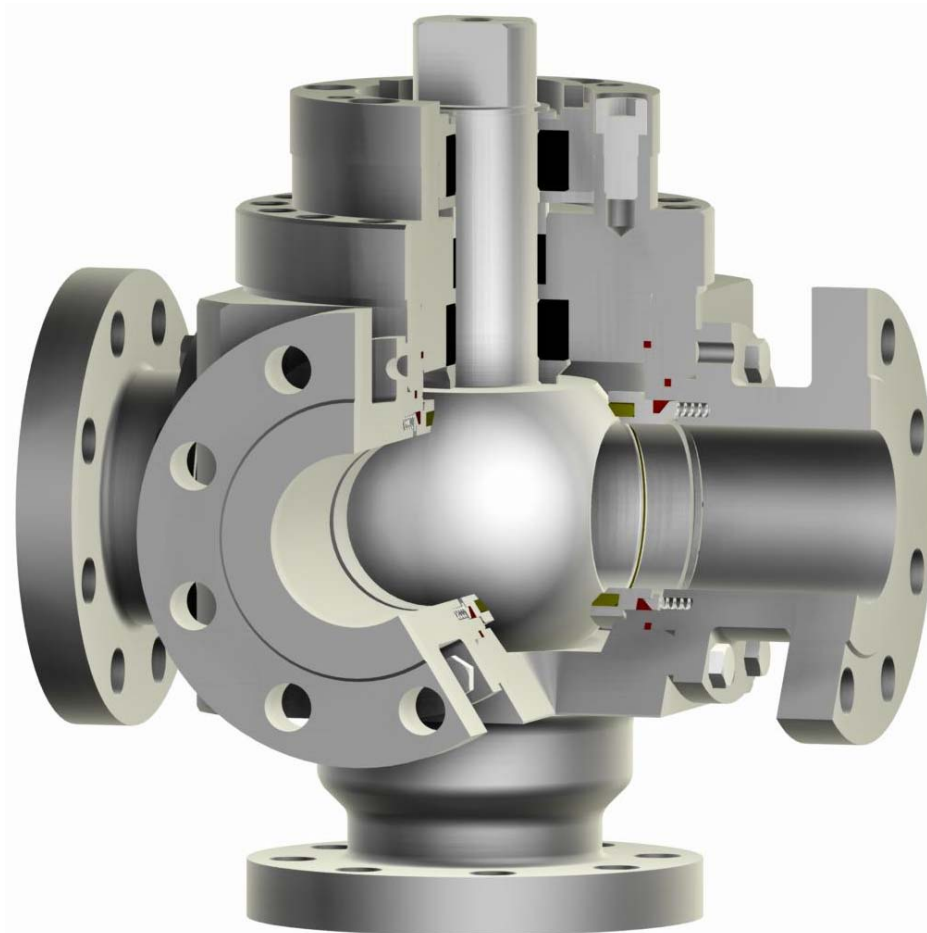
All Materials

DN 15 to 500, PN 10 to 250

DN ½" to 20" , Class 150 to 1500

All Connections (Flanged, BW, SW, Bolted)

Application: Diverting of Medium  
(from Tank into different piping's)



# Standard Multi Port Valves

Product Overview



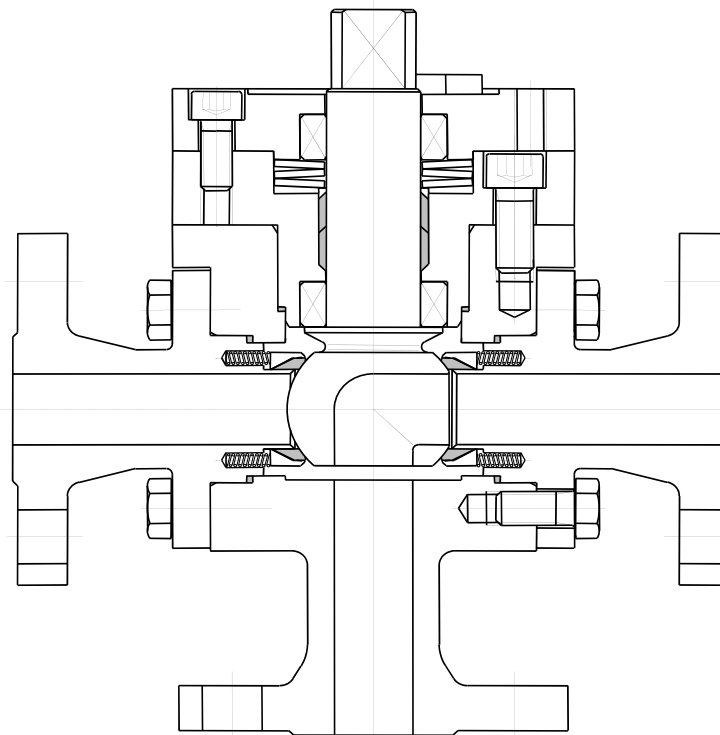
## Series 24-S

**Service:** Switch unit for  
safety valves  
Normal application

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 250° C  
-20 to 450° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball  
with integral stem
- ☐ 90° double L-Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211





## Standard Multi Port Valves

Product Overview



### 25-S

Diverter Valve

Trunnion Mounted Design

25-S Ball with 30° port

Forged / Sandcasting

FB / RB

All Materials

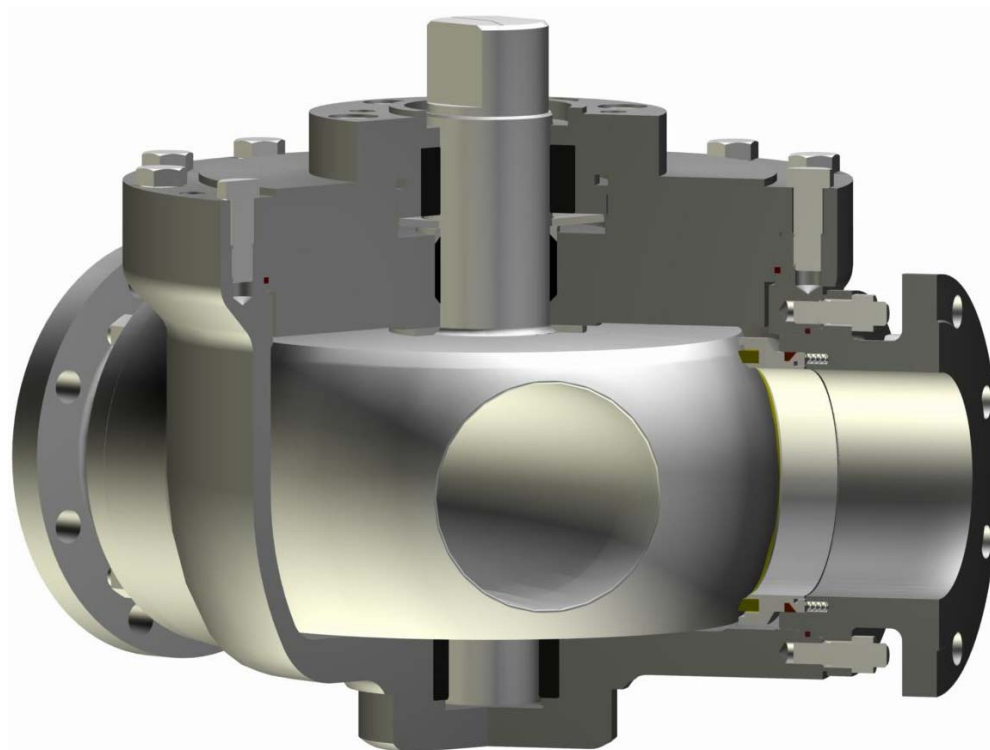
DN 15 to 250, PN 10 to 40

DN 1/2" to 10", Class 150 to 300

All Connections (Flanged, BW, SW, Bolted)

Application: Diverter valves for Transportation of Solids  
(low pressure lost due to small angles)

25-S: 2 Both outlets with nearly same output





# Standard Multi Port Valves

Product Overview



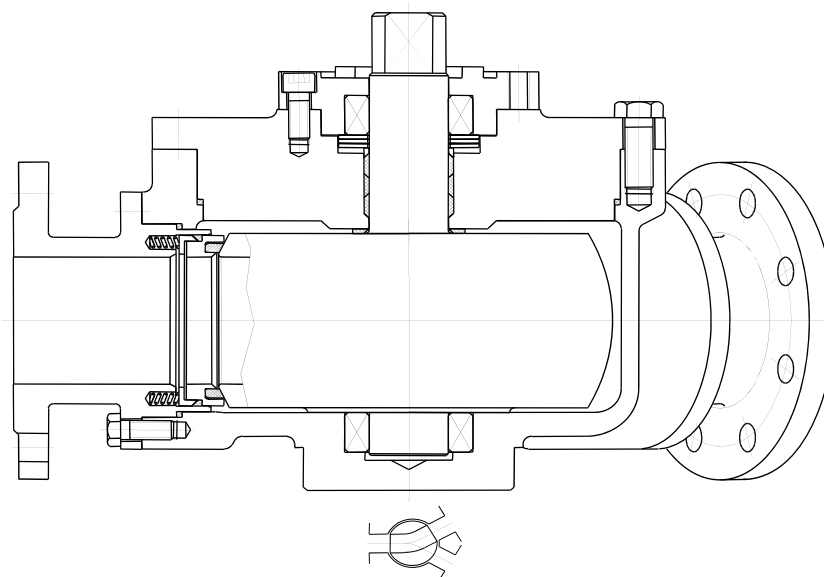
## Series 25-S

**Service:** Diverter valve  
Normal application

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 40  
Class 150 to 300

**Temp.:** -60 to 250° C  
-20 to 450° F



### Design:

- ☐ Soft-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 30° 'Y' Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211





# Metal Seated Valves

Product Overview



## Floating Metal Seated Valves

Standard metal seated valve:

### 85-M

2 piece body

Investment Casting

FB / RB

1.0619 / A 216 WCB and 1.4408 / A 351 CF8M

DN 15 to 150

PN 10 to 40 Flanged DIN EN 1092-1

DN ½" to 6"

Class 150 to 300 Flanged ANSI B 16.5

Application: Standard Metal seated Application up to 450° C (850° F)

### 80-M

2 piece body

Forged / Sandcasting

FB / RB

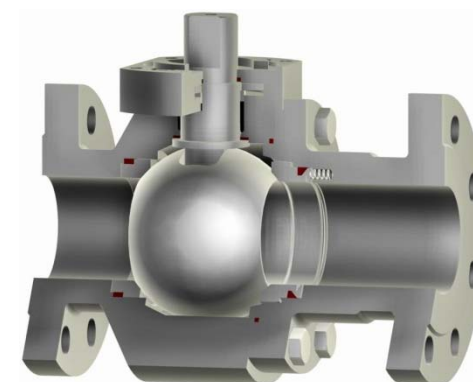
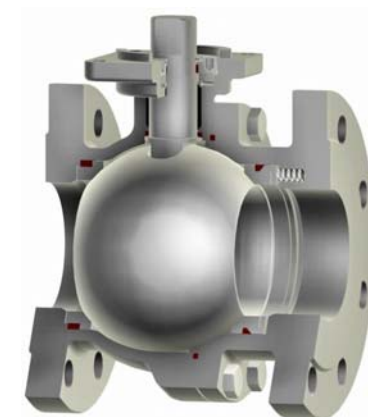
All Materials

DN 15 to 300, PN 10 to 250

DN ½" to 12", Class 150 to 1500

All Connections (Flanged, BW, SW, Bolted)

Application: Standard Metal Seated Application (not covered by 85-M), up to 450° C (850° F)





# Metal Seated Valves

Product Overview



## Floating Metal Seated Valves

### 88-M

2 piece body

Forged / Sandcasting

FB / RB

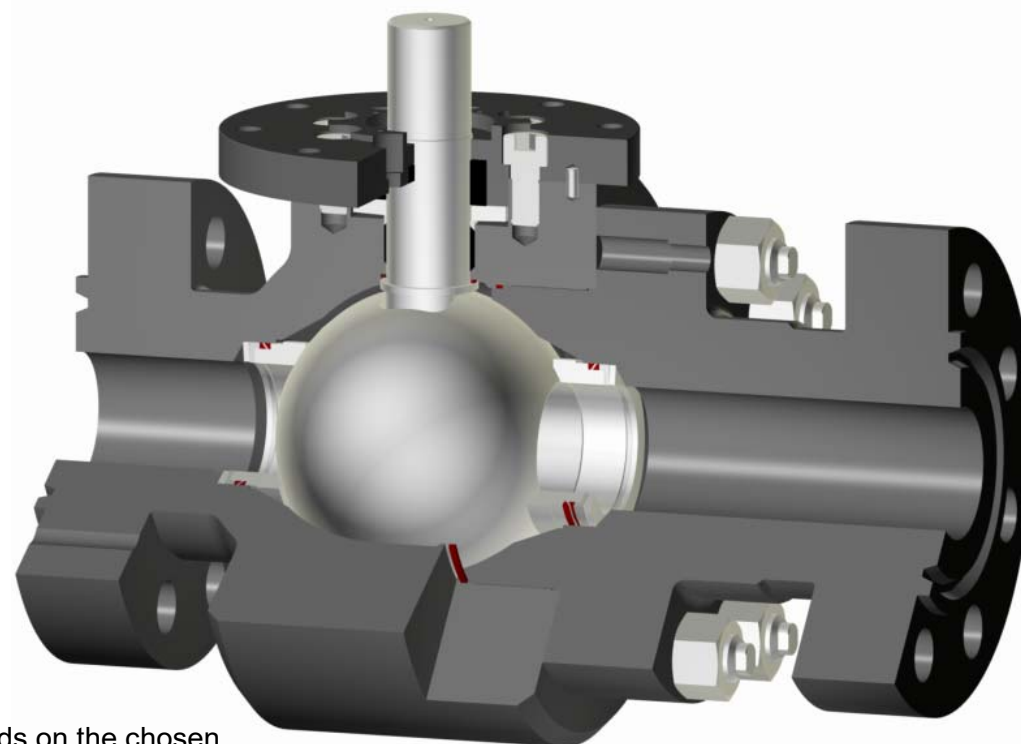
Carbon Steel

DN 50 to 600, PN 16 to PN 420

DN 2", to 24", Class 150 to 2500

All Connections (Flanged, BW, SW, Bolted)

Application: Severe service transport of solids and high viscous liquids like slurry application up to 450° C (850° F)



\*The maximum differential pressure for operating depends on the chosen nominal size and pressure rating and will be decided within the order



# Metal Seated Valves

Product Overview



## Series 80-M

**Service:** Hot and/or Abrasive media

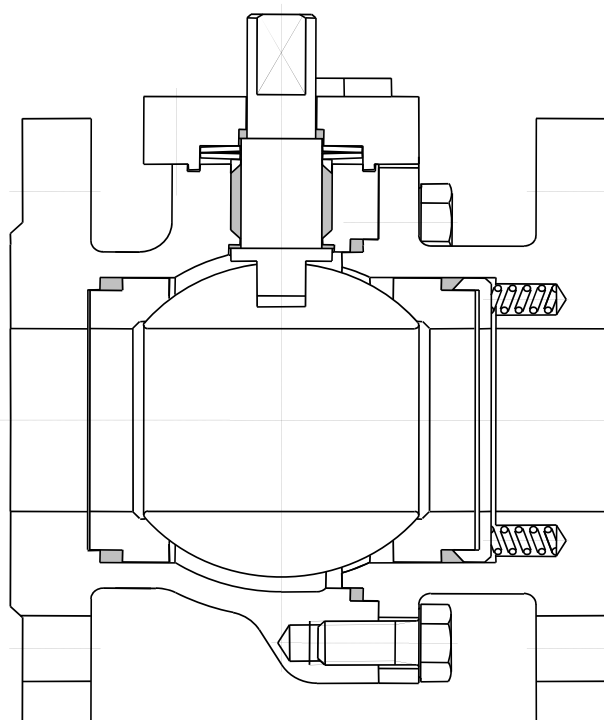
**Medium:** Gas, Fluids, Steam, Powder

**Pressure:** PN 10 to 250

Class 150 to 1500

**Temp.:** -60 to 450° C

-20 to 850° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Floating ball
- ☐ Anti blowout proof stem
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Metal Seated Valves

Product Overview



## Trunnion Mounted Metal Seated Valves

### 14-M

2 or 3 piece body, ball and stem 2 pieces

Forged / Sandcasting

FB / RB

All Materials

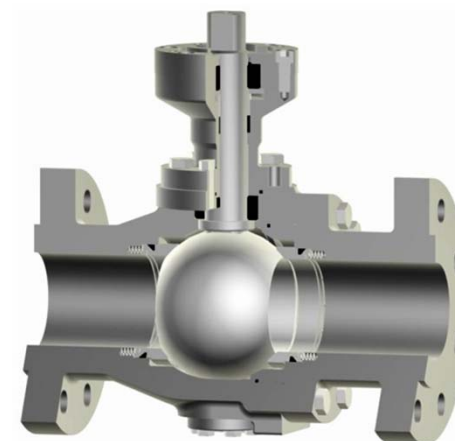
DN 15 to 600, PN 10 to 420

DN ½" to 24" , Class 150 to 2500

All Connections (Flanged, BW, SW, Bolted)

Application: High Pressure, Double Block and Bleed / Double Isolation and Bleed

**Perrin "Allround Valve"**



### 16-M

3 piece body, body and stem 1 piece

Forged / Sandcasting

FB / RB

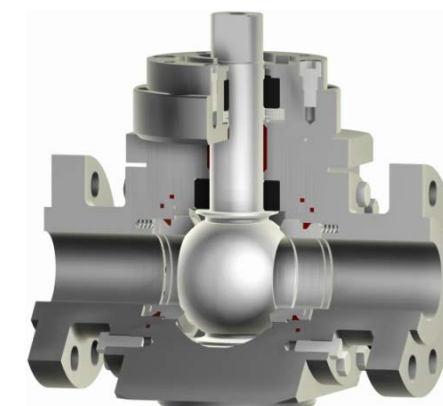
All Materials

DN 15 to 300, PN 10 to 250

DN ½", to 12", Class 150 to 1500

All Connections (Flanged, BW, SW, Bolted)

Application: High Cycling Application





# Metal Seated Valves

Product Overview



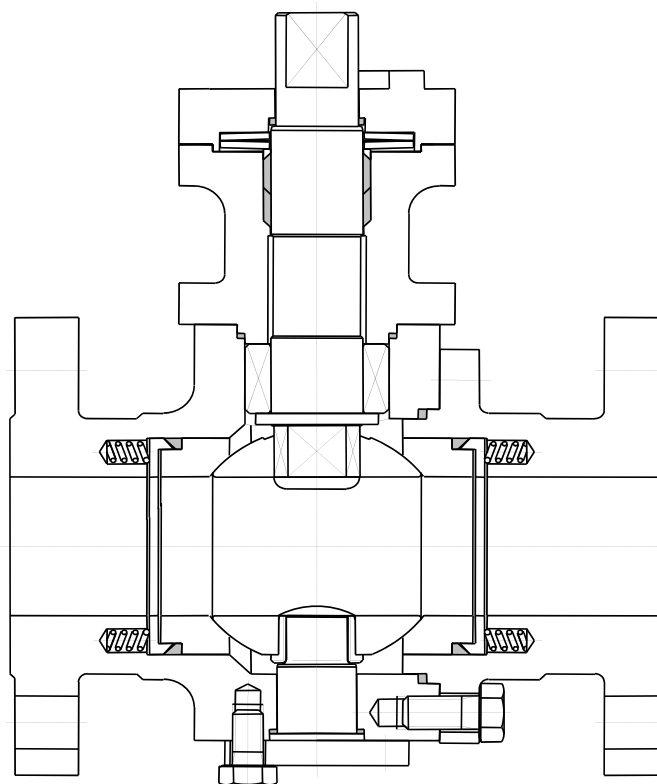
## Series 14-M

**Service:** Hot and/or Abrasive media

**Medium:** Gas, Fluids, Steam, Powder

**Pressure:** PN 10 to 420  
Class 150 to 2500

**Temp.:** -60 to 550° C  
-20 to 1000° F



### Design:

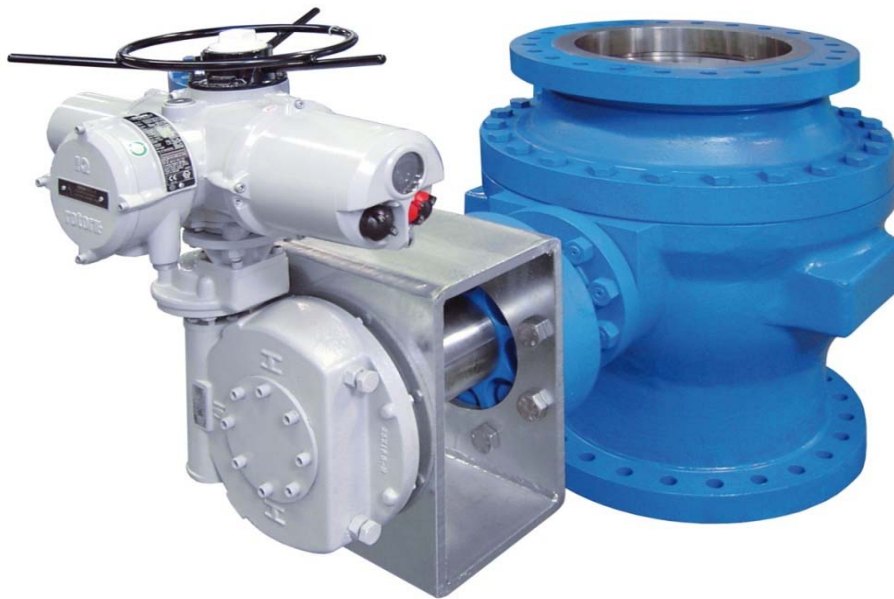
- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball
- ☐ Anti blowout proof stem
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211

# Metal Seated Valves

Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
EIN UNTERNEHMEN DER  
KITZ GROUP

## Series 14-M





# Metal Seated Valves

Product Overview



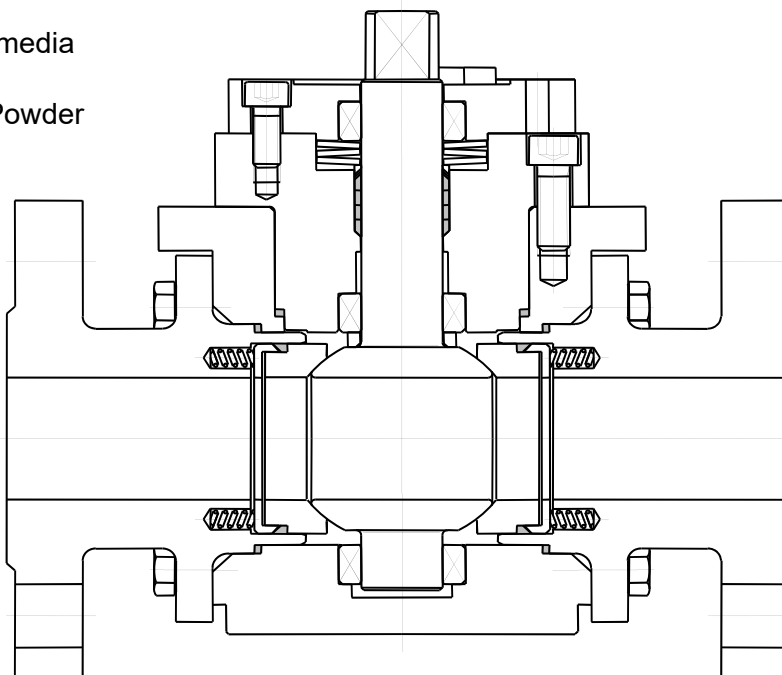
## Series 16-M

**Service:** Hot and/or Abrasive media

**Medium:** Gas, Fluids, Steam, Powder

**Pressure:** PN 16 to 250  
Class 150 to 1500

**Temp.:** -60 to 550° C  
-20 to 1000° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# ***Metal Seated Valves***

Product Overview



## **Other Metal Seated Valves**

All Other Trunnion Mounted Types (15, 17, 19, 21, 22, 23, 24, 25)  
are also available as metal seated valves





# Metal Seated Valves

Product Overview



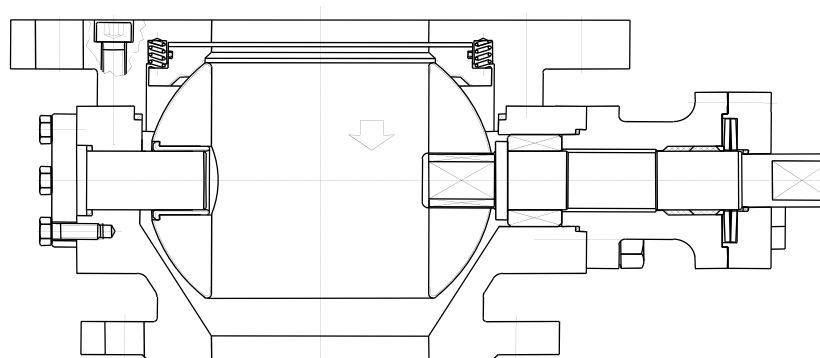
## Series 15-M

**Service:** Tank-Bottom  
Ball Valve  
Hot and/or Abrasive media

**Medium:** Gas, Fluids,  
Steam, Powder

**Pressure:** PN 16 to 40  
Class 150 to 300

**Temp.:** -60 to 450° C  
-20 to 850° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball
- ☐ Anti blowout proof stem
- ☐ Cavity free
- ☐ Live-loaded  
stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Metal Seated Valves

Product Overview



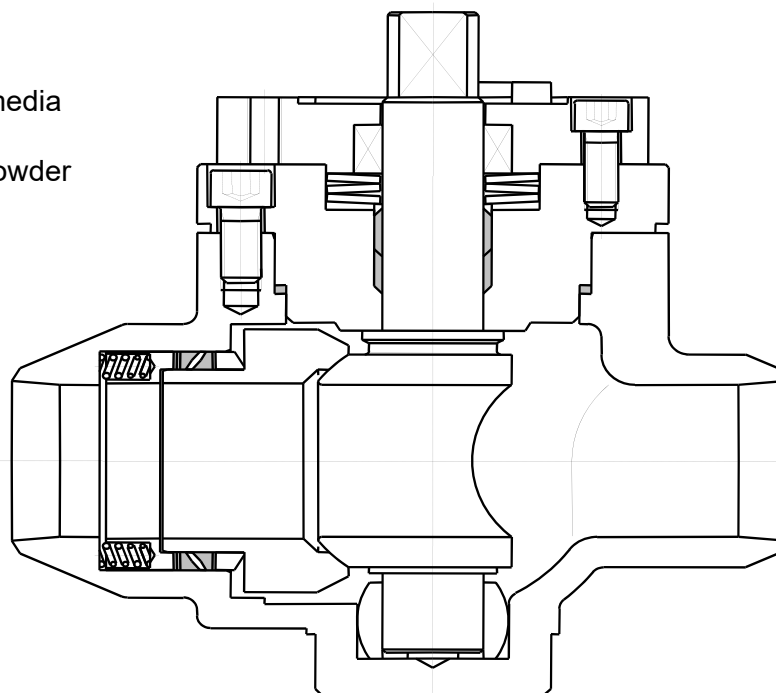
## Series 17-M

**Service:** Hot and/or Abrasive media

**Medium:** Gas, Fluids, Steam, Powder

**Pressure:** PN 16 to 100  
Class 150 to 600

**Temp.:** -60 to 450° C  
-20 to 850° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Metal Seated Valves

Product Overview



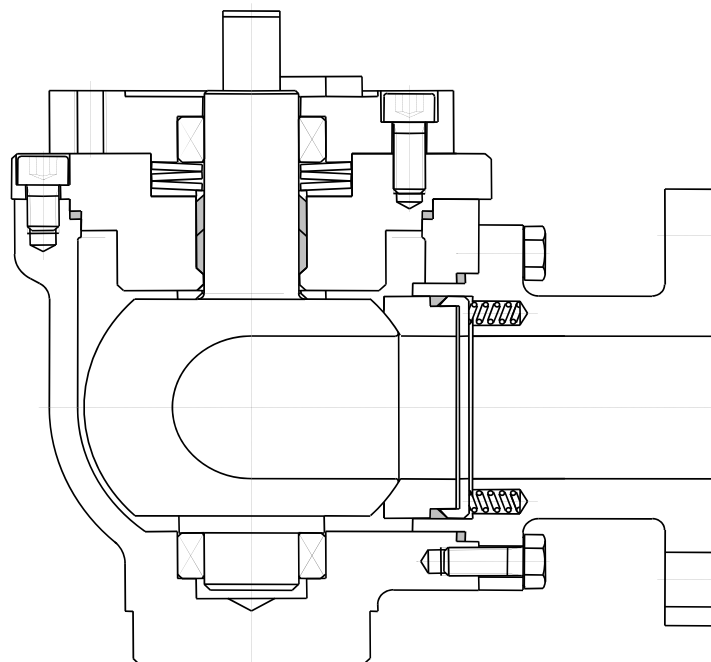
## Series 21-M

**Service:** Diverter Valve  
Hot and/or Abrasive media

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 550° C  
-20 to 1000° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 90° 'L or T' Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Metal Seated Valves

Product Overview



## Series 21-M





# Metal Seated Valves

Product Overview



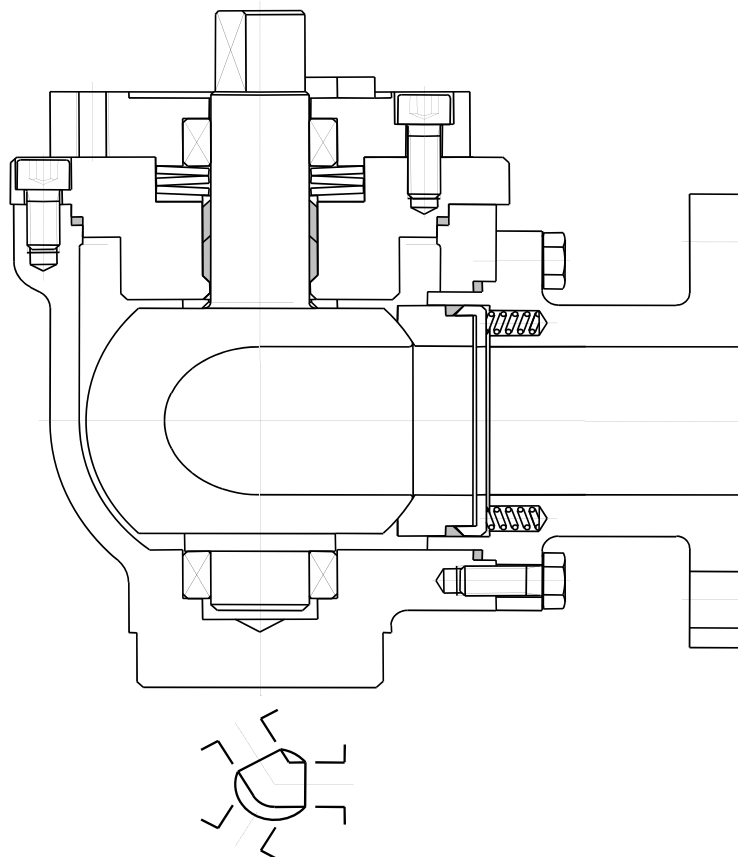
## Series 22-M

**Service:** Diverter Valve  
Hot, Abrasive

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 550° C  
-20 to 1000° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 120° 'L' Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Metal Seated Valves

Product Overview



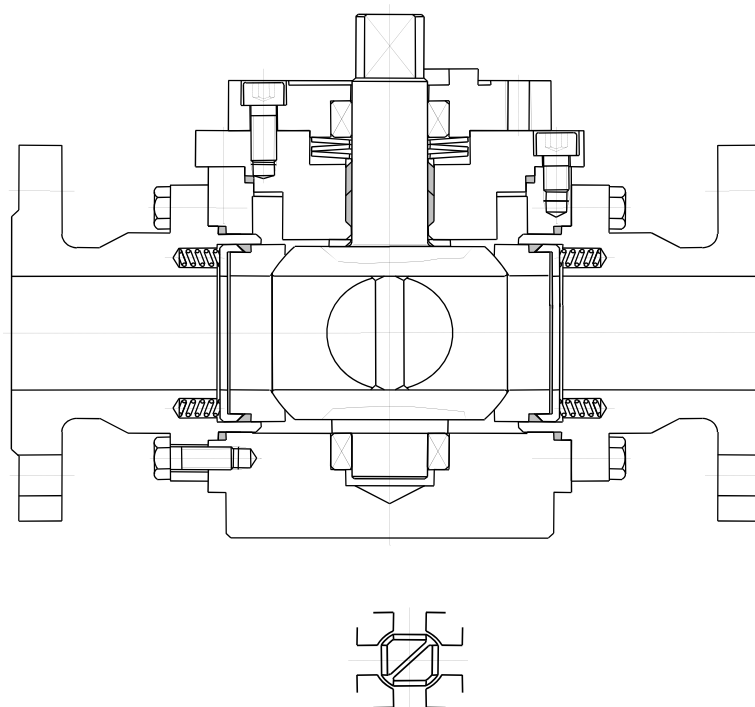
## Series 23-M

**Service:** Diverter Valve  
Hot, Abrasive

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 1500

**Temp.:** -60 to 550° C  
-20 to 1000° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball  
with integral stem
- ☐ 90° 'X' Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



# Metal Seated Valves

Product Overview



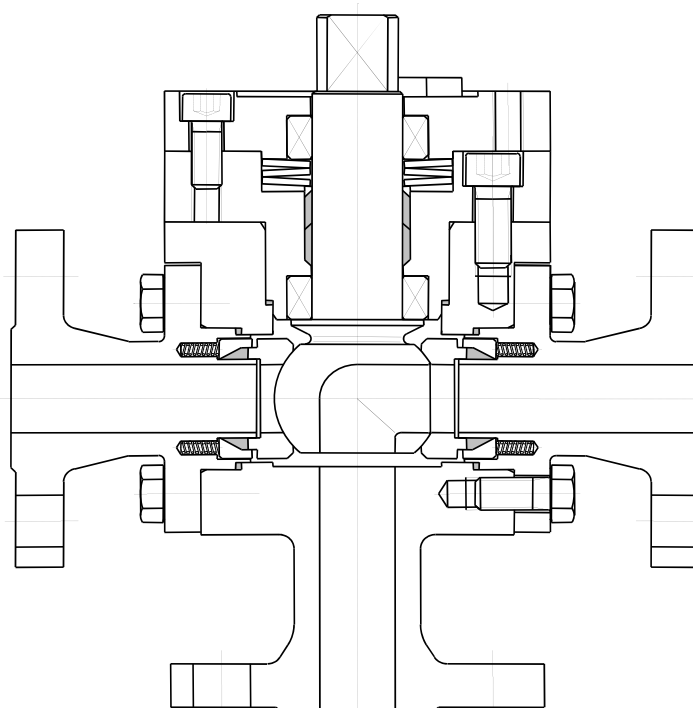
## Series 24-M

**Service:** Switch unit for  
safety valves  
Hot, Abrasive

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 250  
Class 150 to 300

**Temp.:** -60 to 550° C  
-20 to 1000° F



### Design:

- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball  
with integral stem
- ☐ 90° 'Double-L' Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



## Metal Seated Valves

Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
EIN UNTERNEHMEN DER  
KITZ GROUP

### Series 24-M







# Metal Seated Valves

Product Overview



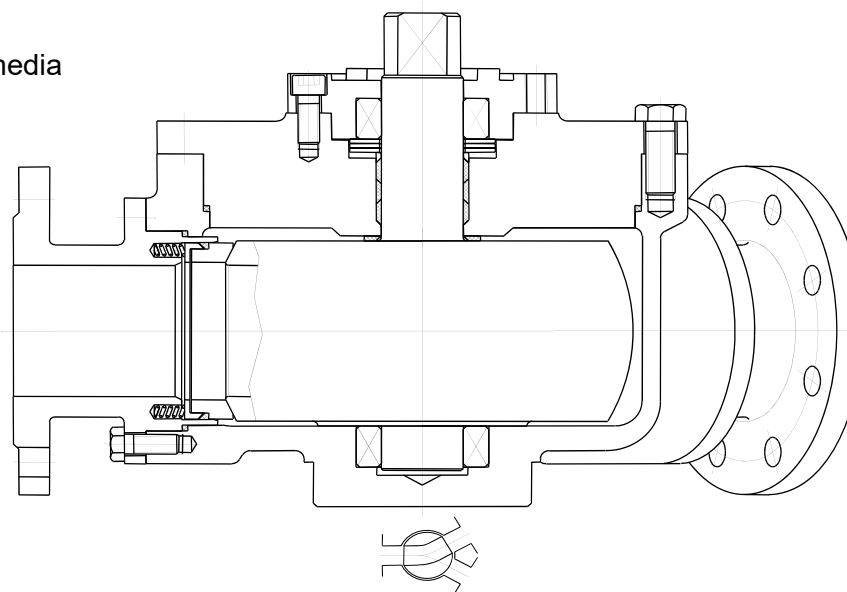
## Series 25-M

**Service:** Diverter valve  
Hot and/or Abrasive media

**Medium:** Gas, Fluids, etc.

**Pressure:** PN 10 to 40  
Class 150 to 300

**Temp.:** -60 to 450° C  
-20 to 1000° F



### Design:

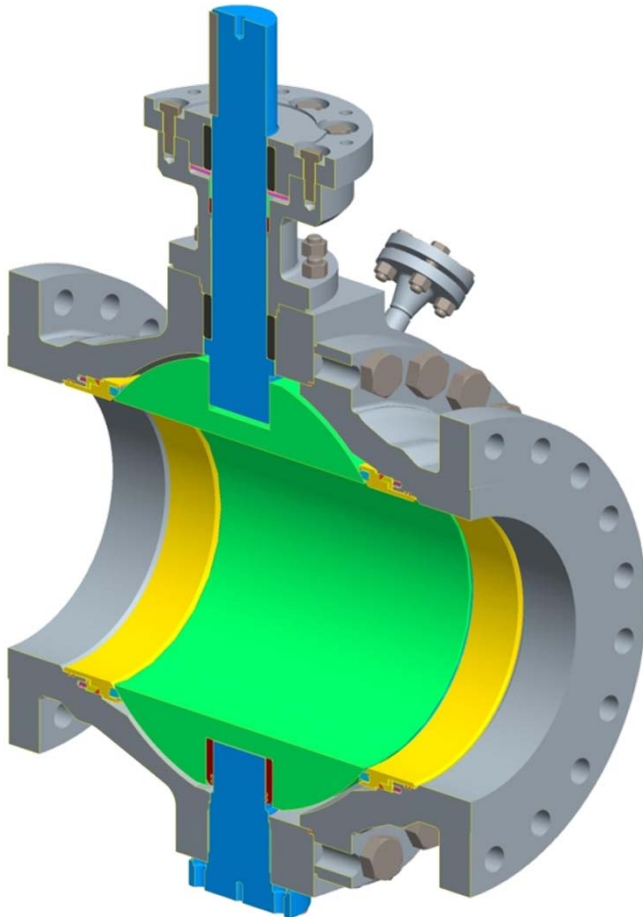
- ☐ Metal-seated
- ☐ Spring-supported seat
- ☐ Split body design
- ☐ Trunnion mounted ball with integral stem
- ☐ 30° "Y" Port
- ☐ Cavity relief system
- ☐ Live-loaded stem packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



## ***Extract of Special Ball Valves***

# Perrin Valves for Slurry Service

Product Overview

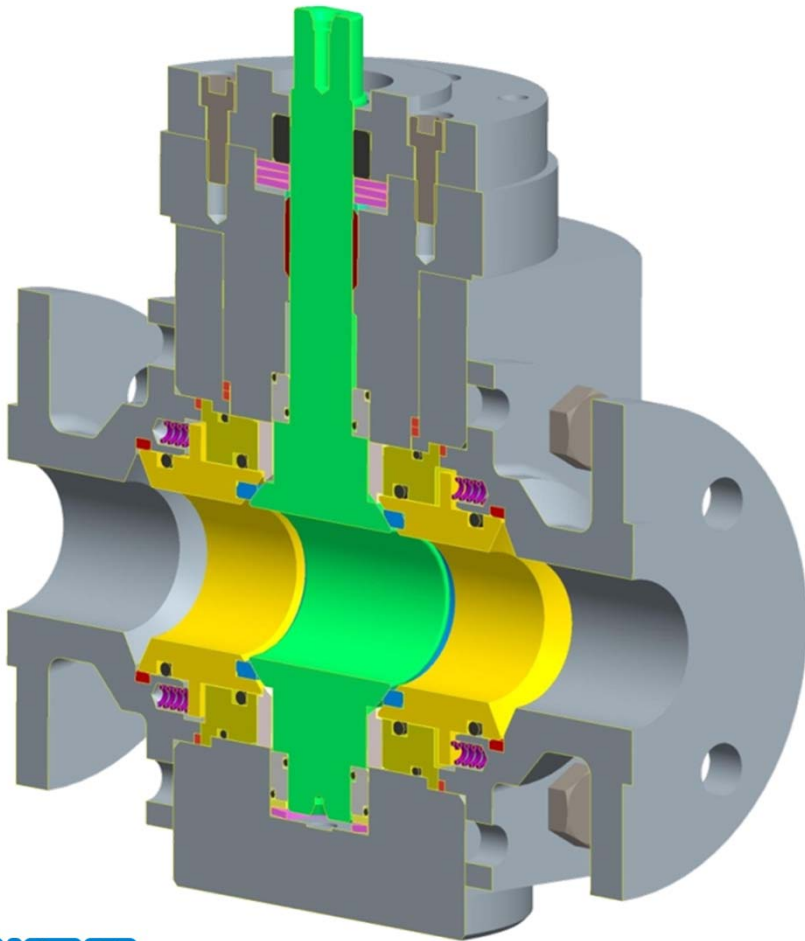


## Advantages of valve design

- Trunnion mounted design
  - lower torque, less wear than floating design
- Ball and seat hardfaced with Perrit or seat from PEEK
  - resistant against most abrasive solids
- seatsystem with spring protected area
  - no solids can enter into the spring room and block the seatsystem
- DBB design
  - valve upstream tight from both sides, leakage control via bleed connection possible

## Perrin Valves for High Cycling Service (Reactor Outlet)

Product Overview



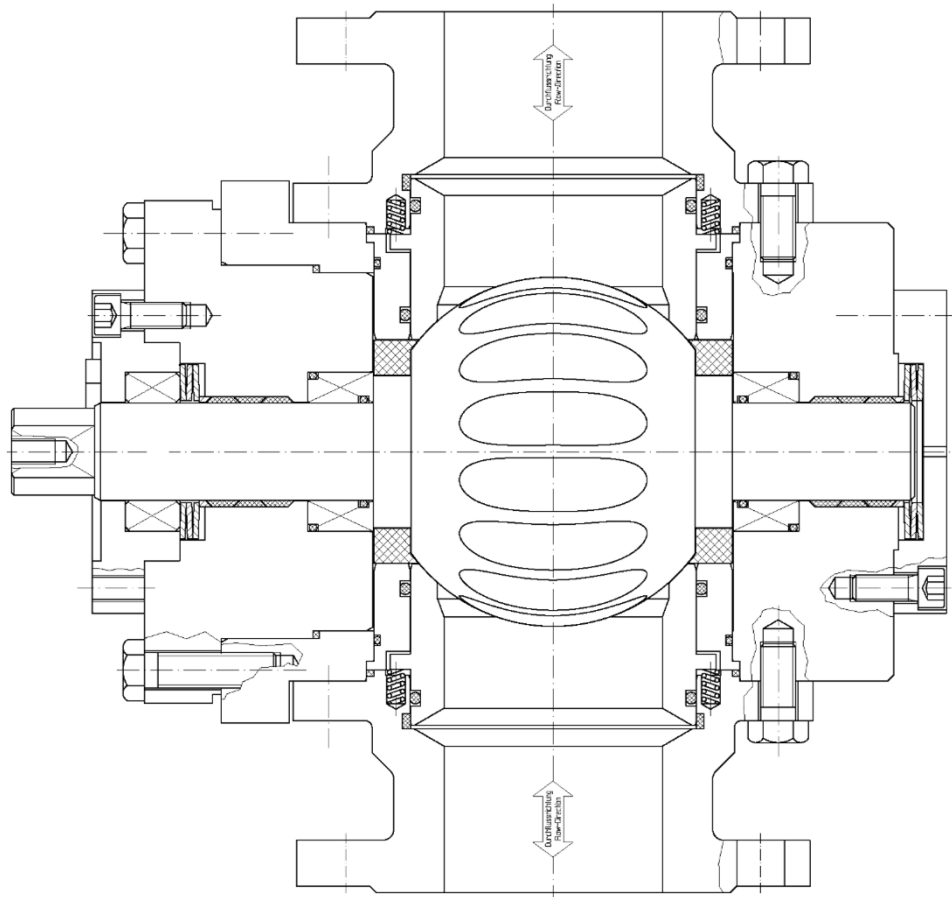
### Advantages of valve design

- Trunnion mounted design
  - lower torque, less wear than floating design
- Ball and seat hardfaced with Perrit or seat from PEEK
  - resistant against most abrasive solids
- Ball and stem one piece
  - no wear between ball and stem at high frequency cycling
  - 1.000.000 cycles are possible
- seatsystem with spring protected area (O-ring protected)
  - no solids can enter into the spring room and block the seatsystem
- cavity filled with cavity filler (PTFE or PEEK)
  - solids can not enter in the cavity and block the valve

# Perrin Continuous (Catalyst) Dosing Valve

Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
EIN UNTERNEHMEN DER  
KITZ CORPORATION



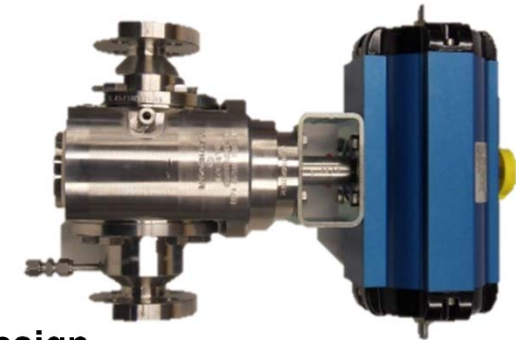
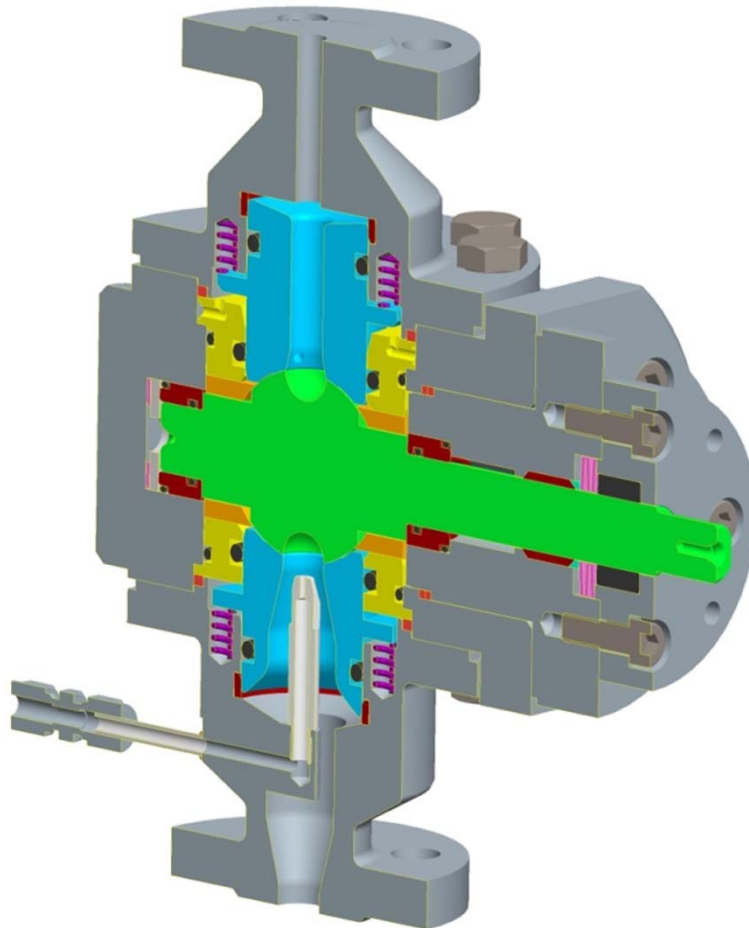
## Advantages of valve design

- Continuous dosing (of catalysts)
  - volume control of injected catalyst via speed control
- Trunnion mounted design
  - lower torque, less wear than floating design
- Ball and seat hardfaced with Perrit
  - resistant against most abrasive solids
- Ball and stem one piece
  - no wear between ball and stem after long service
- Seatsystem with spring protected area (O-ring protected)
  - no solids can enter into the spring room and block the seatsystem
- Cavity filled with cavity filler (PTFE or PEEK)
  - solids can not enter in the cavity and block the valve

# Perrin Discontinuous (Catalyst) Dosing Valve

Product Overview

**perrin** GmbH  
KUGELHÄHNEN / BALL VALVES  
A MEMBER OF  
**KITZ** CORPORATION

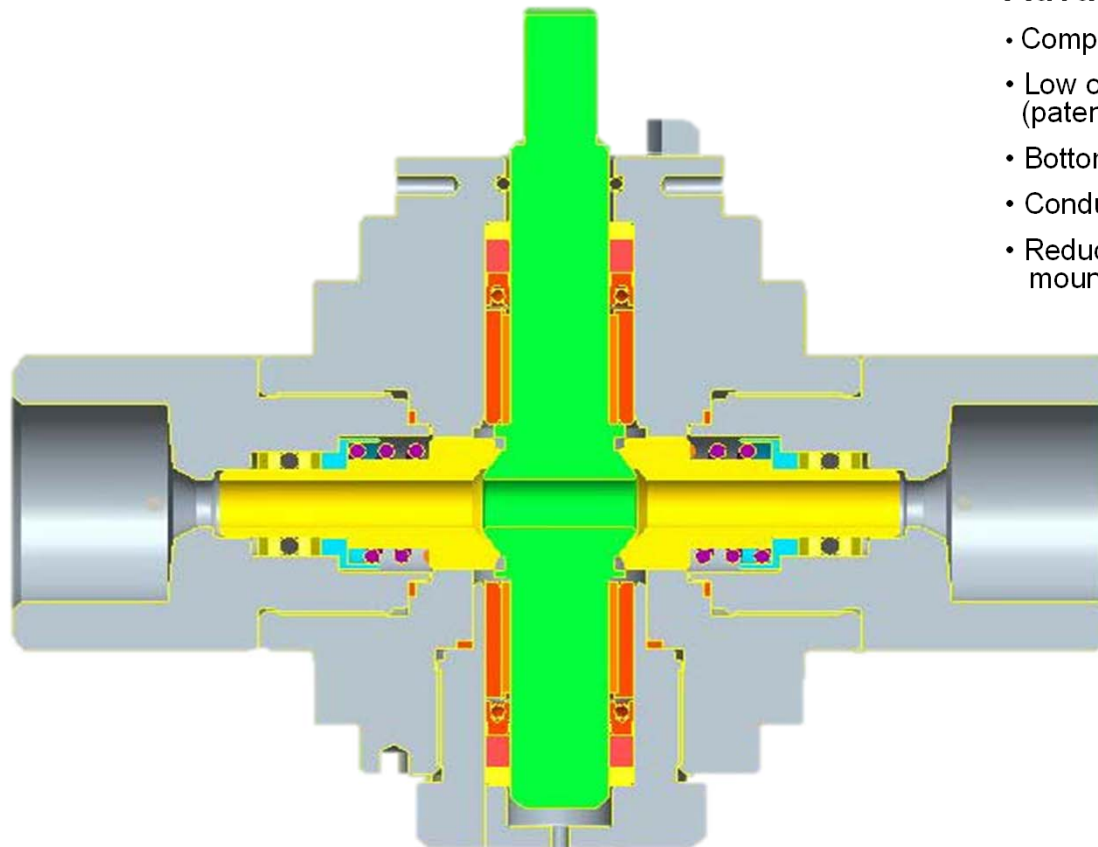


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# Perrin High Pressure Valve for Hydrogen Stations

Product Overview



## Advantages of valve design

- Compact size and low weight design.
- Low operation torque of the balance stem design (patent pending) of no thrust forces
- Bottom entry type ball valve for easy to maintenance
- Conduct durability test of 40,000 cycles
- Reduced space design of the actuator direct mount construction





# High Temperature Valve

Product Overview

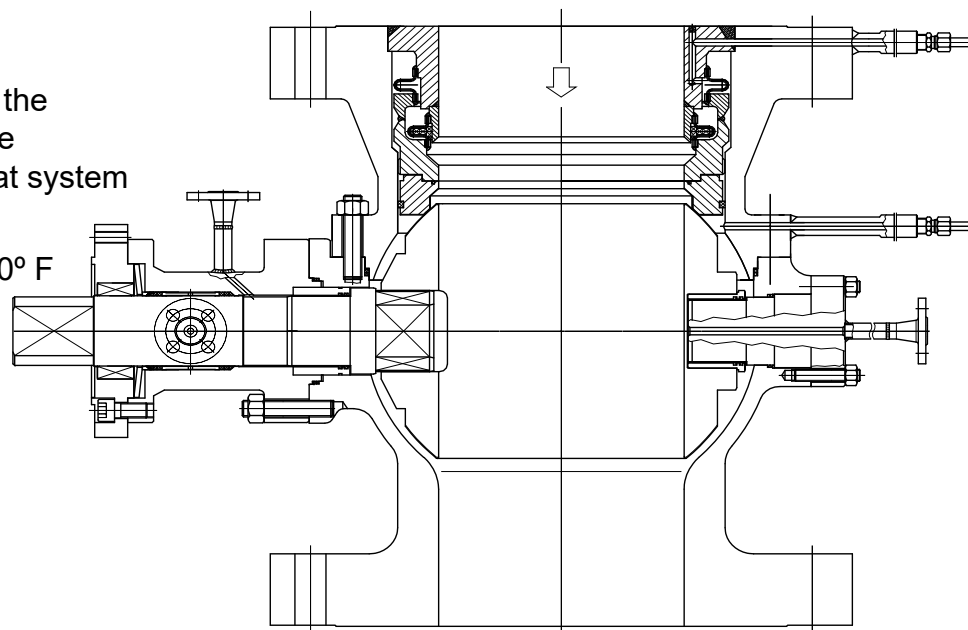


**Service:** Special

**Medium:** Solids

**Pressure:** depending on the pressure of the pneumatic seat system

**Temp.:** up to max.  
1000° C / 1830° F



## Design:

- ☐ Metal-seated  
up to 5 bar  $\Delta p$
- ☐ Pneumatic  
seat system
- ☐ Split body design
- ☐ Trunnion mounted ball
- ☐ Cavity relief system
- ☐ Live-loaded stem  
packing
- ☐ Anti-Static device
- ☐ Fire Safe design
- ☐ DIN/EN/ISO 5211



## PERRIN links Nidderau with the world



# Questions are welcome

[postoffice@perrin.de](mailto:postoffice@perrin.de)