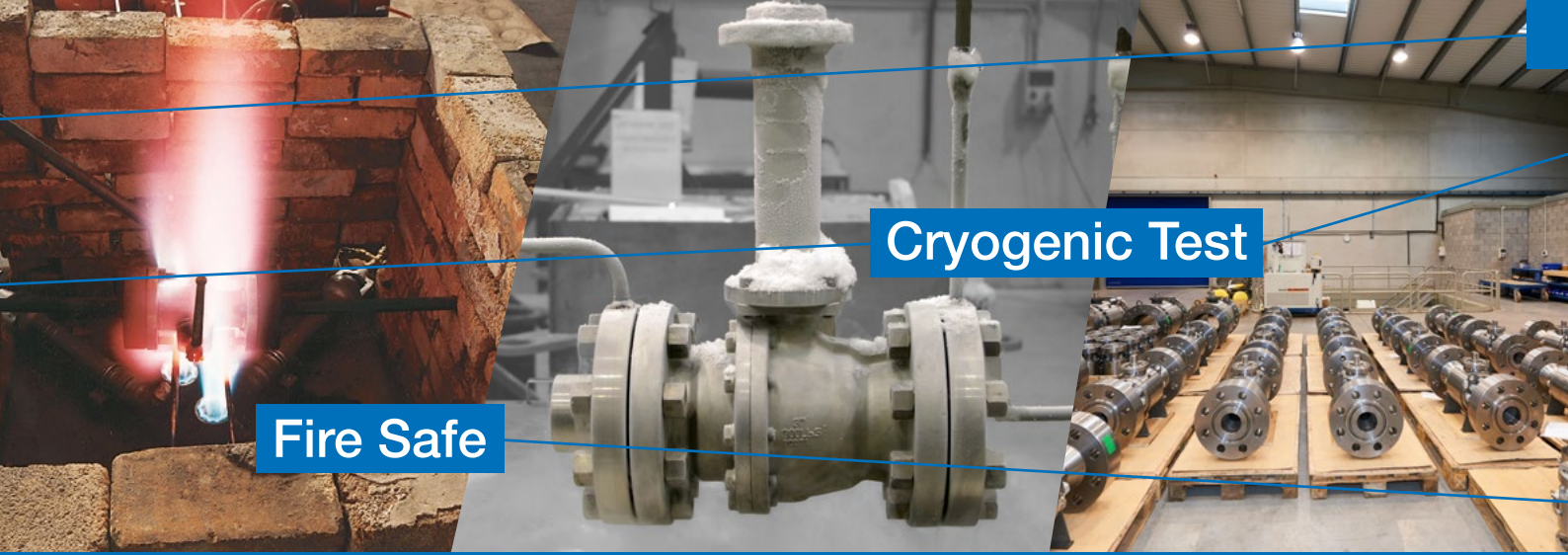


Ball valves

**Metal
SEATED**



Pekos
V A L V E S



Certifications and tests

Certificates of the company

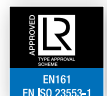
- ISO 14001 Enviromental Management System
- ISO 9001 Quality Management system
- API Monogram API Q1 & API-6D
- ISO 45001:2018 Design, assembly and management of manufacturing of ball valves

Certificates of the product

- DNV Type approval
- Lloyd's Register Fire Safe & Type Approval
- TÜV A352.09 AD Merkblatt A4 Design of the valves
- TA - Luft ISO 15848-1 + VDI 2440.. Stem tightness for gas emissions
- Helium -40 °C..... Leeds University test
- Directive 2014/68/EU Pressure equipment directive (CE marking)
- Directive 2014/34/EU ATEX- directive - (Ex II2GD c T-)
- BS 6364 Valves for Cryogenic Service
- EN 161 / EN 23553 / EN 16678 Automatic shut-off valves for Gas / Oil burners and equipment
- EAC..... TR CU 010 - TR CU 012 - TR CU 032
- Sanitary approval (Russian) Food processing and Pharmaceutical industry
- IEC 61508 SIL3 CAPABLE
- UKR SEPRO Ukraine Certificate
- DVGW-EN 13774 Valves for gas distribution with MOP 16 bar
- API 6D Monogram..... Certificate N° 6D-0363
- NSF International ANSI 372

Some Company Approvals

- Repsol-YPF (Spain)
- Al Furat Petroleum (Syria)
- Sasol Technology (South Africa)
- EGPC (Egypt)
- China Petroleum (China)
- OMV / Petrom
- Borealis
- Solvay
- Qatar Petroleum (Qatar)
- Petroleum Development Oman (PDO)
- KUWAIT Oil Co. (KOC)
- Zadco (UAE)
- National Iranian Oil Engineering & Construction Co (Irán)
- ADENOC
- INOVYN / INEOS
- Neste



General features

- Floating Ball / Trunnion
- Split body/ End Entry/ Top Entry
- Full / Reduced bore
- Bidirectional
- Self-cavity pressure relief
- Spring loaded seat
- Anti Blow out stem
- Antistatic device
- DBB /DiB
- Auto adjustable packing

Standards

- Top flange ISO5211
- Flanges ASME B16.5, EN 1092-1
- Face to face ANSI B16.10, EN 558
- Testing API 598, API 6D, BS6755-1, EN-12266, ISO 5208, ANSI FCI 70
- Design API 6D, B16.34, EN-12516, ISO 17292
- Materials according to NACE MR0175



COATING MATERIALS

Chrome Carbide (CrC)

Chrome Carbide is the standard coating for Pekos ball valves, is well suited to very high temperature gas or liquid applications and has excellent resistance to wear, erosion and corrosive media. It has certain limitations in chlorine services and wet sulfur.

Hard Chromium (HCr)

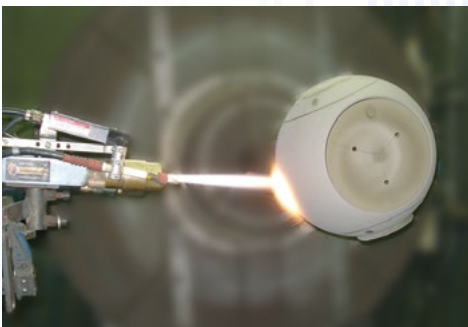
Hard Chromium is suited to a wide range of applications in liquids and gases. It is limited to moderate pressures and temperatures. HCr is not suitable for strong acids and fluids with high chloride content.

Tungsten Carbide (WC-Co)

Tungsten Carbide is very resistant to wear and erosion from slurries, powders, muds. It works well in cryogenic applications, hydrocarbon gases and liquids, oxygen and dry gas services. It has limitations in corrosive services and condensates.

Cobalt Based Alloy

Cobalt based coating (Stellite) provide a excellent mechanical wear resistance, superior corrosion resistance and a good performance in high temperature (up to 535°C). Stellite is used in a lot of applications in pulp and paper industries and refining applications.



Coating

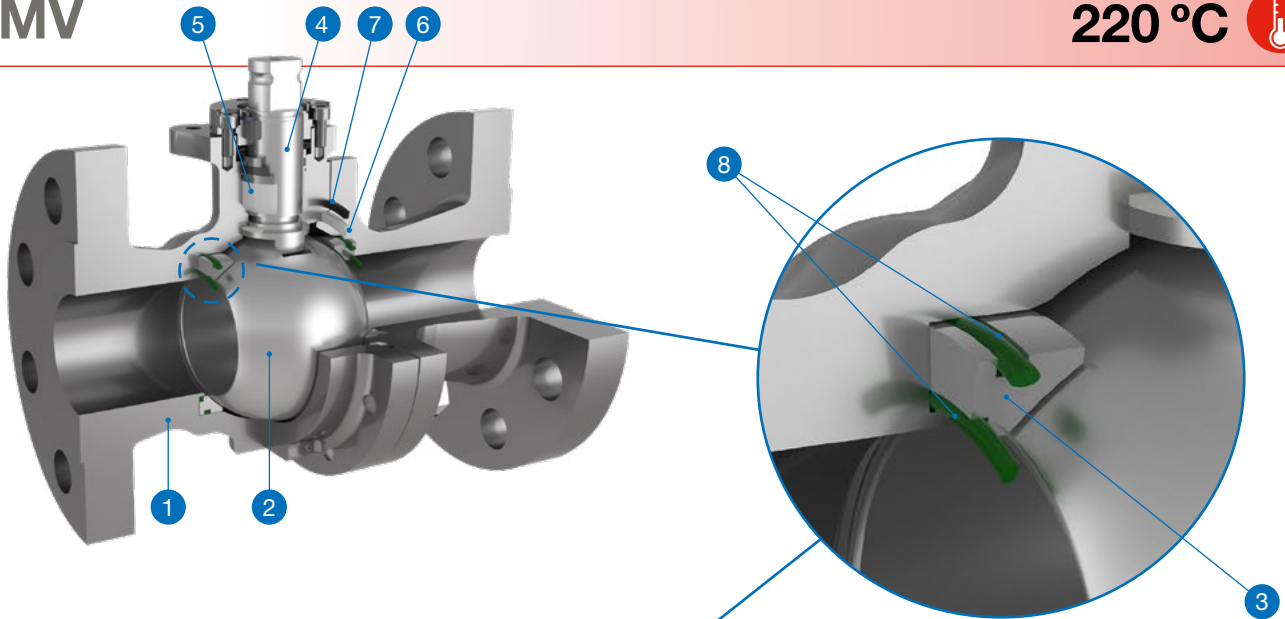


Grinding

FLOATING

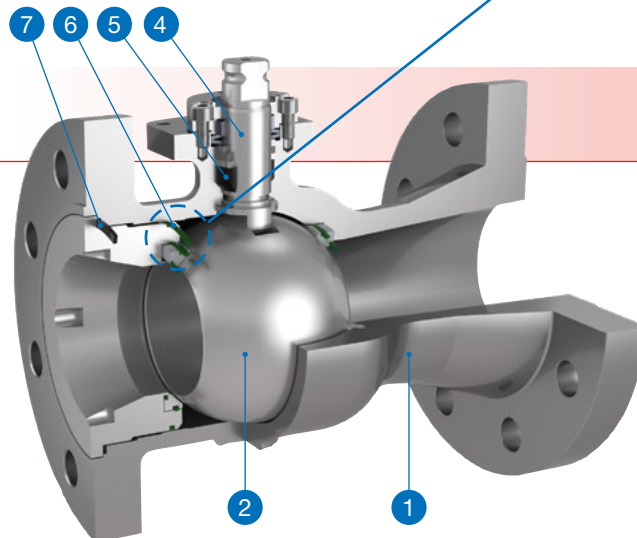
ZMV

220 °C



ZMVRB

220 °C



Standard Materials

Item	Description	ZMV & ZMVRB (ANSI)*		ZMV (DIN)*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A216 WCC/A352 LCC	A351 CF8M	1.0619/1.6220	1.4408
2	Ball	CF8M+Cr-Carbide		1.4408+Cr-Carbide	
3	Seats	AISI 316+Cr-Carbide		1.4401+Cr-Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	RPTFE		RPTFE	
6	Body seal 1	RPTFE / FKM		RPTFE	
7	Body seal 2	Graphite		Graphite	
8	O-ring	FKM		FKM	

* Other material construction for diferent service upon request

Range

ZMV	
SIZE	RATING
DN 15 - 50	PN 63 - 100
DN 15 - 125	PN 25 - 40
DN 15 - 200	PN 10 -16
1/2" - 2"	Class 600
1/2" - 4"	Class 300
1/2" - 8"	Class 150

ZMVRB	
SIZE	RATING
1/2" - 6"	Class 300
1/2" - 10"	Class 150

GENERAL FEATURES

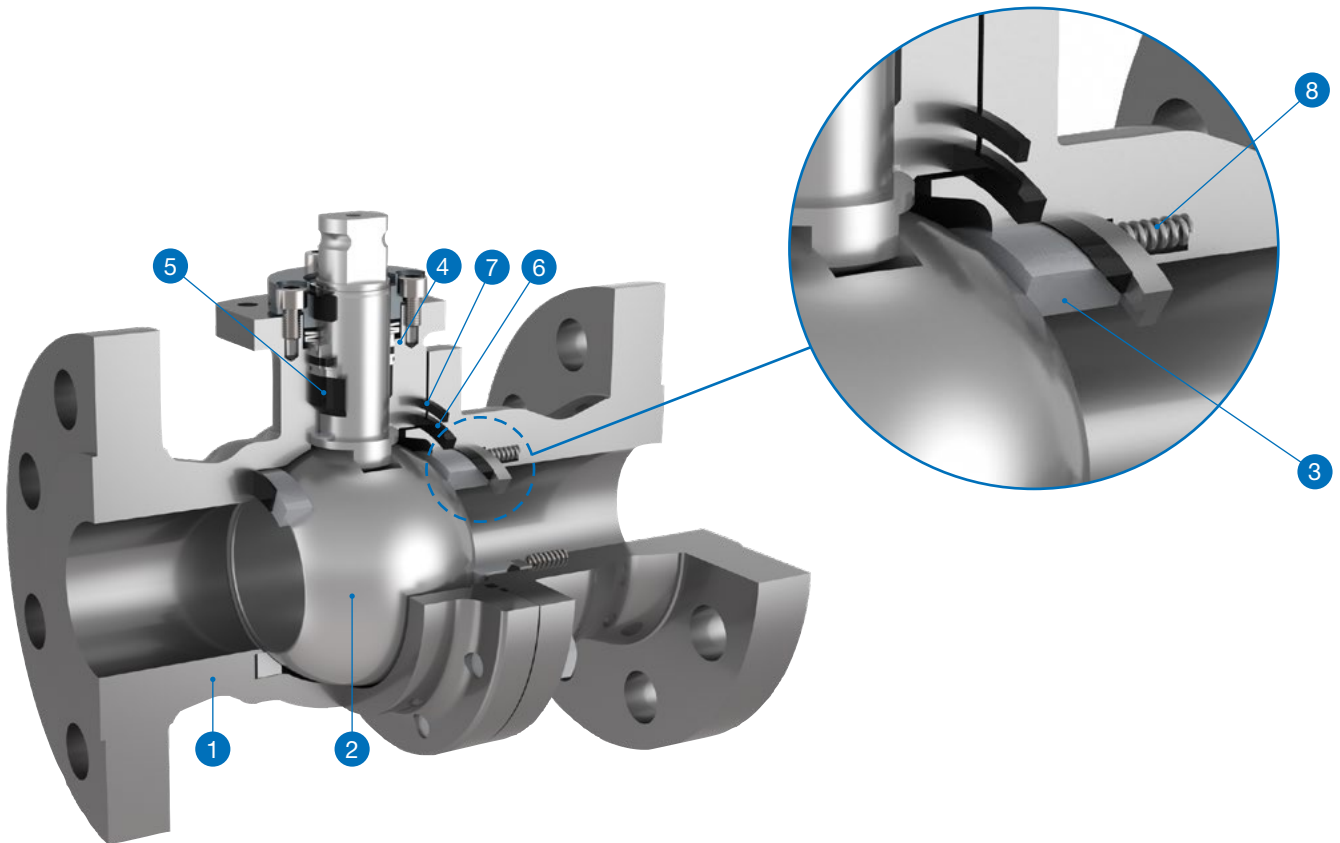
- Floating ball.
- Full / Reduced bore.
- Split / One piece body.
- Bidirectional.
- Anti blow out stem.
- Auto-adjustable packing.
- Anti static device.
- Self-cavity pressure relief.
- Seat with O-rings.

FLOATING

ZMS

400 °C

Up to 640°C
with F Stem Extension



Standard Materials

Item	Description	ANSI*		DIN*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A216 WCC / A352LCC	A351 CF8M	1.0619 / 1.6220	1.4408
2	Ball	CF8M+Cr-Carbide		1.4408+Cr-Carbide	
3	Seats	AISI 316+Cr-Carbide		1.4401+Cr-Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	Graphite		Graphite	
6	Body seal 1	Graphite		Graphite	
7	Body seal 2	Graphite		Graphite	
8	Spring Seat	Inconel X750		Inconel X750	

* Other material construction for different service upon request

Range

ZMS	
SIZE	RATING
DN 15 - 50	PN 63 - 100
DN 15 - 125	PN 25 - 40
DN 15 - 200	PN 10 - 16
1/2" - 2"	Class 600
1/2" - 4"	Class 300
1/2" - 8"	Class 150

GENERAL FEATURES

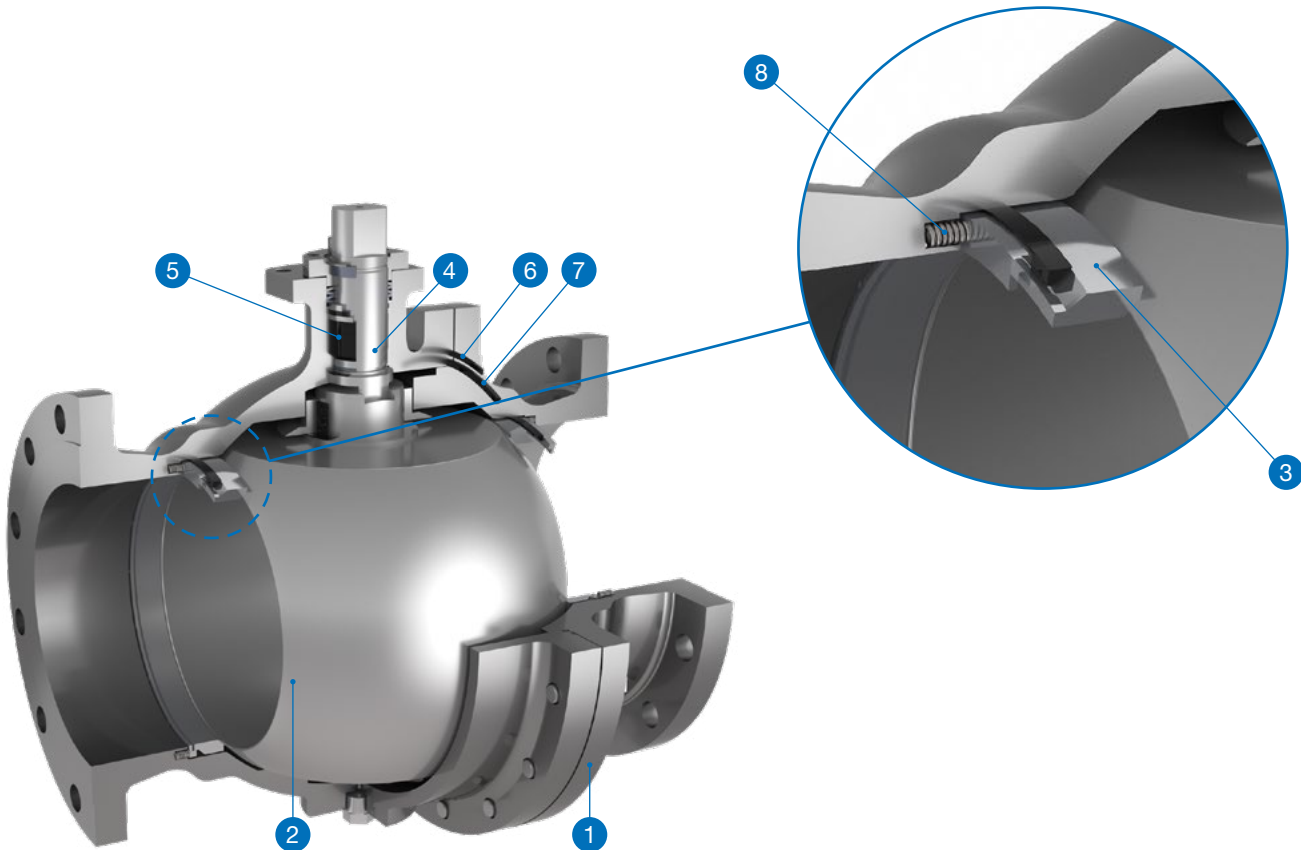
- Floating ball.
- Full bore.
- Split body.
- Bidirectional.
- Anti blow out stem.
- Auto-adjustable packing.
- Anti static device.
- Self-cavity pressure relief.
- Spring loaded seat / Floating.

FULL TRUNNION 2 PCS

ZGMS

400 °C

Up to 640°C
with F Stem Extension



Standard Materials

Item	Description	ANSI*		DIN*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A216WCC / A352 LCC	A351 CF8M	1.0619 / 1.6620	1.4408
2	Ball	CF8M+Cr-Carbide		1.4408+Cr-Carbide	
3	Seats	AISI 316+Cr-Carbide		1.4401+Cr-Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	Graphite		Graphite	
6	Body seal 1	Graphite		Graphite	
7	Body seal 2	Graphite		Graphite	
8	Spring Seat	Inconel X750		Inconel X750	

* Other material construction for diferent service upon request

Range

ZGMS	
SIZE	RATING
DN40-200	PN10-40
DN40-300	PN10-16
1 1/2" - 8"	Class 300
1 1/2" - 12"	Class 150

GENERAL FEATURES

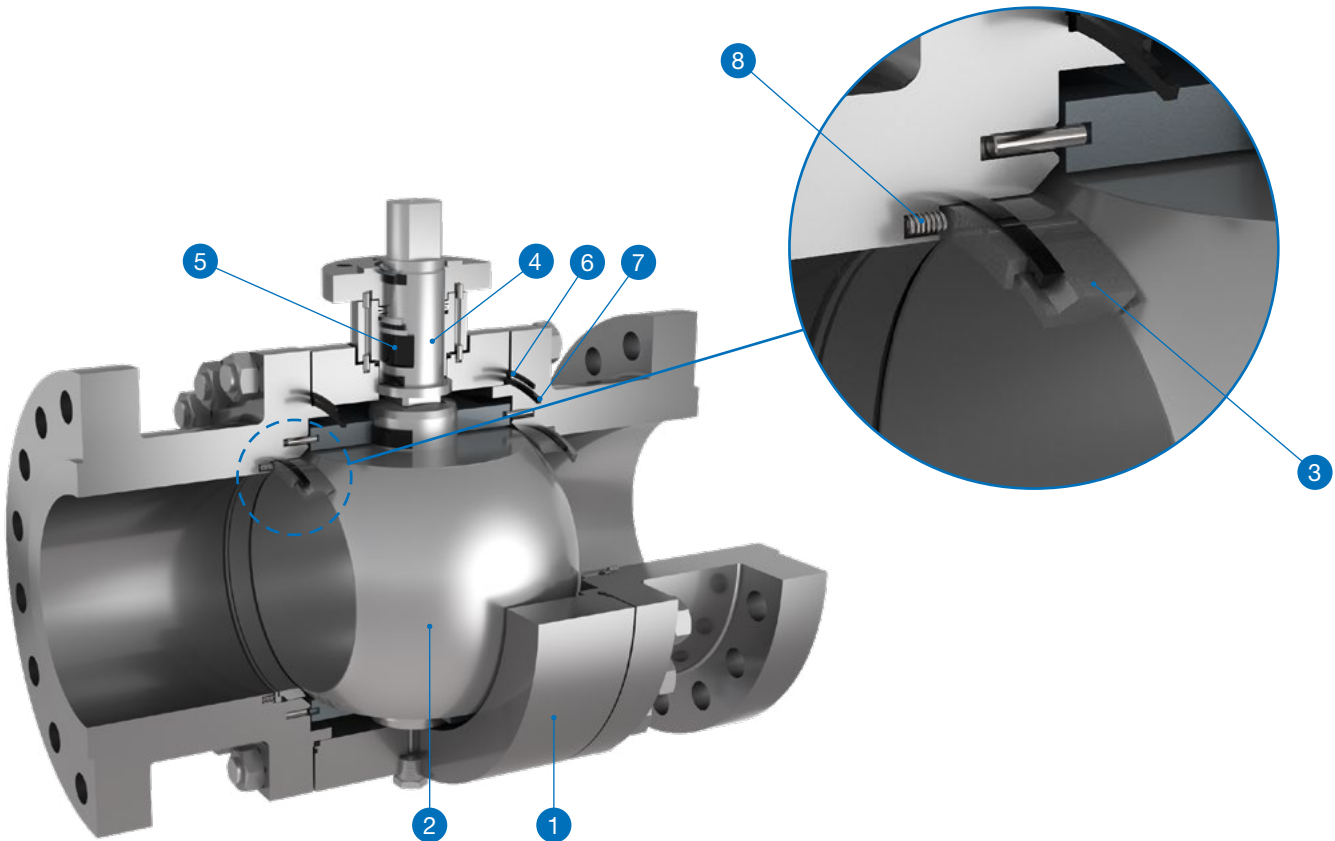
- Trunnion / DBB
- Split body.
- Full bore.
- Bidirectional.
- Anti blow out stem.
- Auto-adjustable packing.
- Antistatic device.
- Self-cavity pressure relief.
- Spring loaded seats.

FULL TRUNNION 3 PCS

ZGKMS / ZGKMSRB

400 °C

Up to 640°C
with F Stem Extension



Standard Materials

Item	Description	ANSI*		DIN*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A105/A350 LF2	A182 F316	1.0352	1.4401
2	Ball	F316 + Cr-Carbide/XM-19 + Cr-Carbide		1.4401+Cr-Carbide/XM-19	
3	Seats	F316 + Cr-Carbide/XM-19 + Cr-Carbide		1.4401+Cr Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	Graphite		Graphite	
6	Body seal 1	Graphite		Graphite	
7	Body seal 2	Graphite		Graphite	
8	Spring Seat	Inconel X750		Inconel X750	

* Other material construction for diferent service upon request

Range

ZGKMS	
SIZE	RATING
DN 15 - 300	PN 320 - 400
DN 15 - 500	PN 160 - 250
DN 15 - 1050	PN 10 - 100
1/2" - 12"	Class 2500
1/2" - 20"	Class 900 - 1500
1/2" - 42"	Class 150 - 600

GENERAL FEATURES

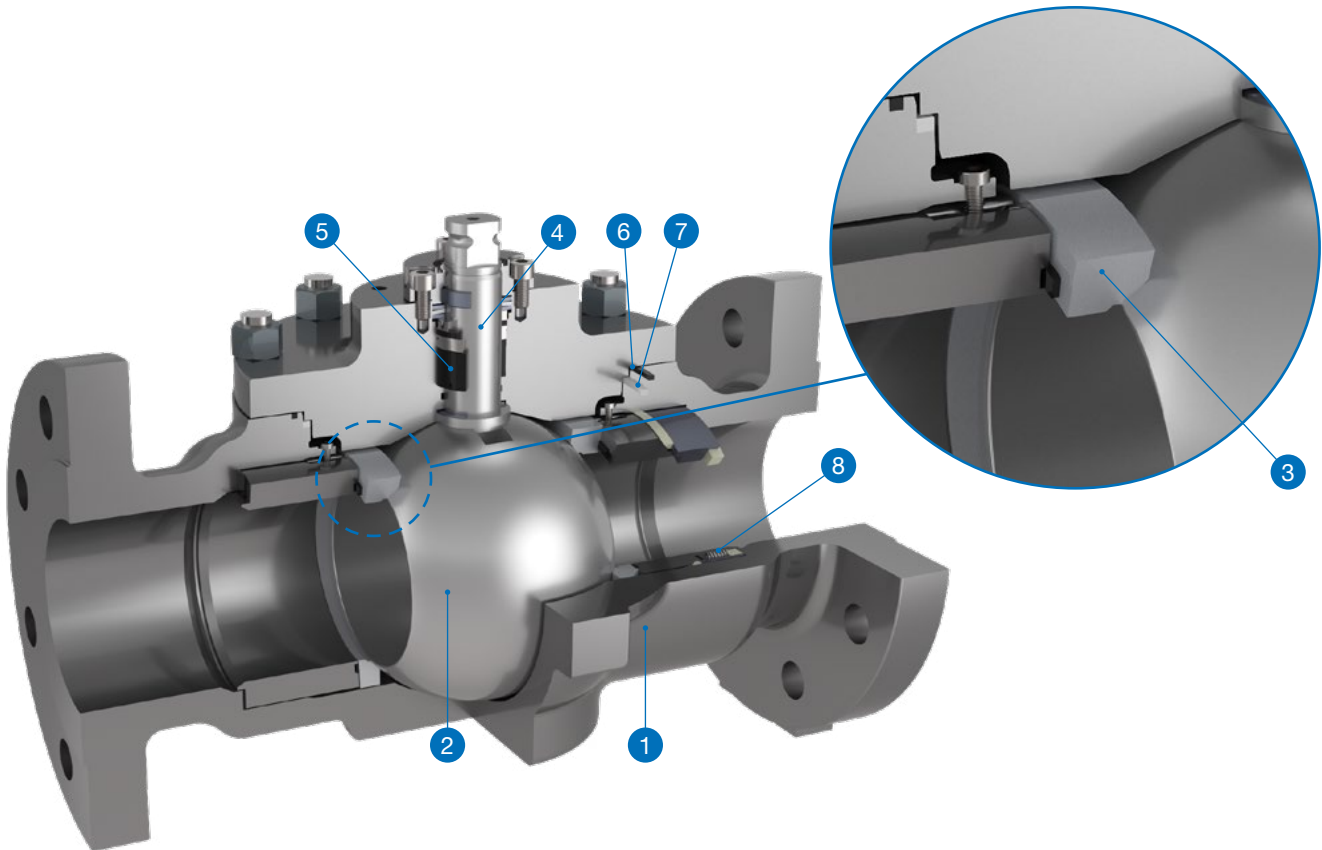
- Trunnion / DBB
- 3 Pieces.
- Full / Reduced bore.
- Bidirectional.
- Anti blow out stem.
- Auto-adjustable packing.
- Antistatic device.
- Self-cavity pressure relief.
- Double Block and Bleed.
- Spring loaded seats.

TOP ENTRY FLOATING

ZTEMS / ZTEMSRB

400 °C

Up to 640°C
with F Stem Extension



Standard Materials

Item	Description	ANSI*		DIN*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A216 WCC / A352 LCC	A351 CF8M	1.0619 / 1.6620	1.4408
2	Ball	F316 + Cr carbide		1.4401 + Cr. Carbide	
3	Seats	AISI 316 + Cr Carbide		1.4401 + Cr. Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	Graphite		Graphite	
6	Body seal 1	Graphite		Graphite	
7	Body seal 2	Graphite		Graphite	
8	Spring Seat	Inconel X750		Inconel X750	

* Other material construction for diferent service upon request

Range

ZTEMS	
SIZE	RATING
DN15-50	PN 63 - 100
DN15-100	PN 16 - 40
1/2" - 2"	Class 600
1/2" - 4"	Class 300
1/2" - 8"	Class 150

GENERAL FEATURES

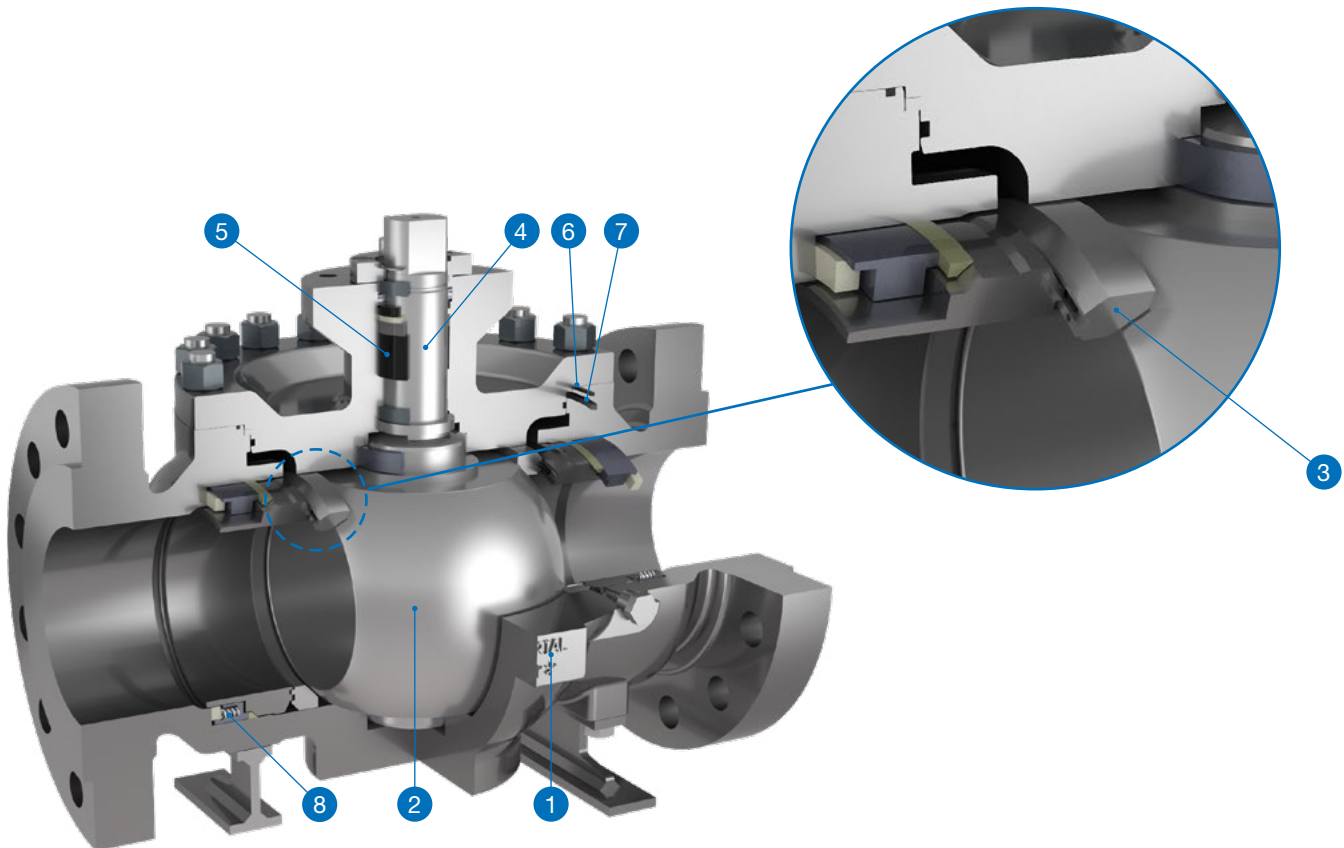
- Floating Ball.
- Top Entry.
- Full / Reduced bore.
- Bidirectional.
- Anti blow out stem.
- Auto-adjustable packing.
- Antistatic device.
- Self-cavity pressure relief.
- Allows in-line maintenance.
- Spring loaded seats.

TOP ENTRY FULL TRUNNION

ZTEGMS / ZTEGMSRB

400 °C

Up to 640°C
with F Stem Extension



Standard Materials

Item	Description	ANSI*		DIN*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A216WCC/ A352 LCC	A351 CF8M	1.0619/1.6620	1.4408
2	Ball	F316 + Cr. Carbide		1.4401 + Cr. Carbide	
3	Seats	AISI 316 + Cr. Carbide		1.4401 + Cr. Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	Graphite		Graphite	
6	Body seal 1	Graphite		Graphite	
7	Body seal 2	Graphite		Graphite	
8	Spring Seat	Inconel X750		Inconel X750	

* Other material construction for diferent service upon request

Range

ZTEGMS	
SIZE	RATING
DN80 - 1050	PN 320-400
DN80 - 500	PN 160-250
DN80 - 600	PN 10-100
3" - 12"	Class 2500
3" - 20"	Class 900-1500
3" - 42"	Class 150-600

GENERAL FEATURES

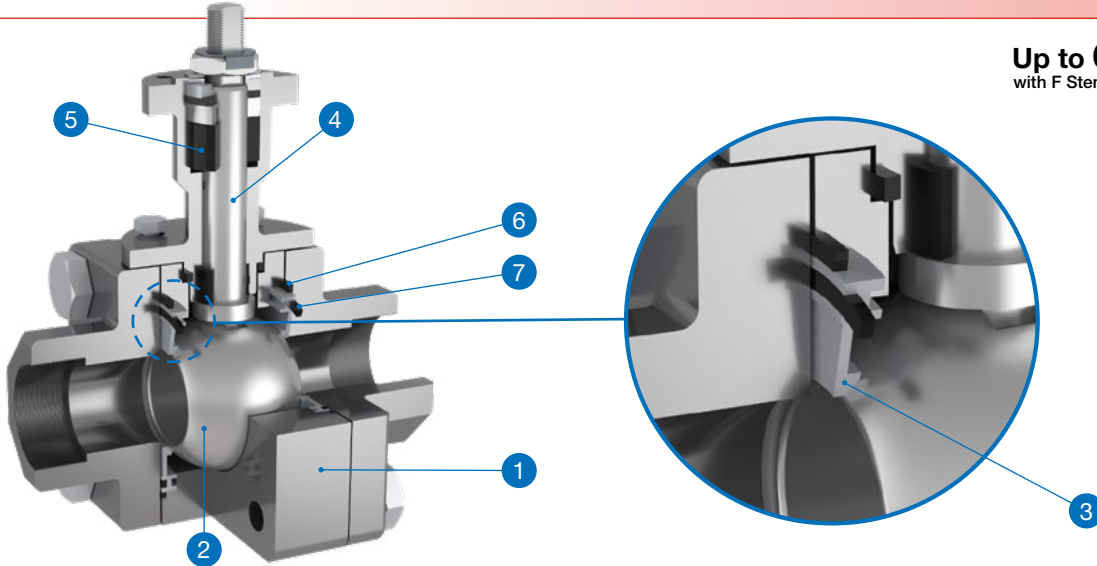
- Top Entry.
- Trunnion / DBB
- Full / Reduced Bore.
- Bidirectional.
- Anti blow out stem.
- Auto-adjustable packing.
- Antistatic device.
- Self-cavity pressure relief.
- Allows in-line maintenance.
- Spring loaded seats.

3 PCS

ZKMS / ZKMSRB

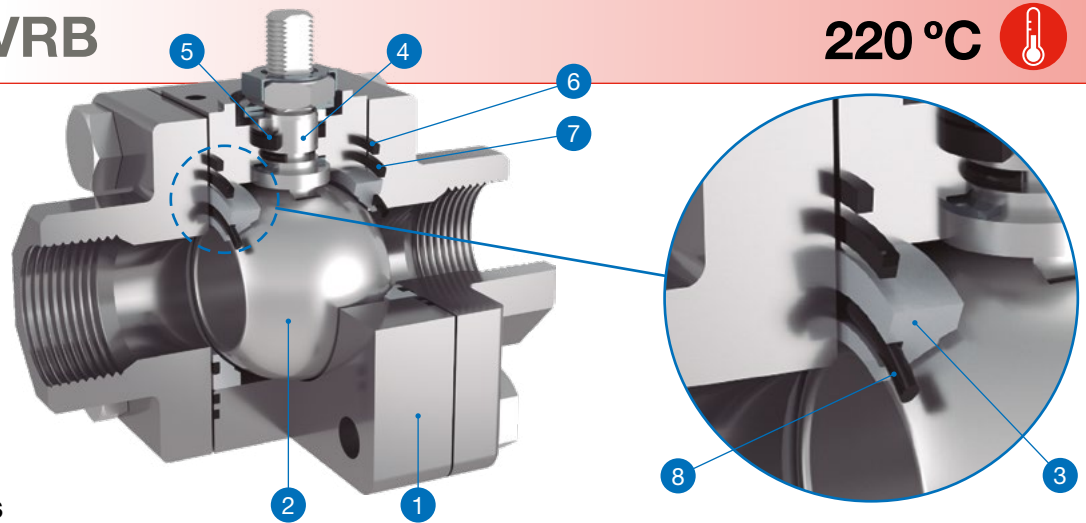
400 °C

Up to 640°C
with F Stem Extension



KMV / KMVRB

220 °C



Standard Materials

Item	Description	ZKMS*		ZKMV*	
		Carbon steel	Stainless steel	Carbon steel	Stainless steel
1	Body	A182 F316/316L	A105/A350 LF2	A182 F316/316L	A105/A350 LF2
2	Ball	F316/F316L		F316/F316L + Cr-Carbide	
3	Seats	AISI 316 + F51		AISI 316 + Cr-Carbide	
4	Stem	XM-19		XM-19	
5	Stem packing	Graphite		Graphite	
6	Body seal 1	Graphite		RPTFE	
7	Body seal 2	Graphite		Graphite	
8	O-ring	—		FKM	

* Other material construction for different service upon request

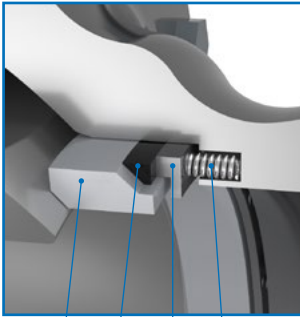
Range

SIZE	RATING
1/4" - 1"	Class 800
1/4" - 4"	Class 150

GENERAL FEATURES

- 3 PCS Body
- Full / Reduced bore.
- Bidirectional.
- Antistatic device.
- Anti blow out stem.
- Auto-adjustable packing.
- Self-cavity pressure relief.
- Loaded seats.

SEATS MODELS

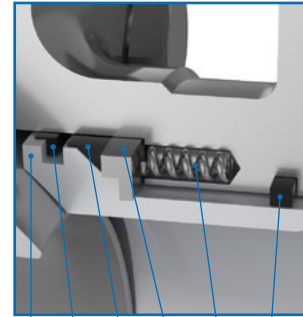


47 108 48 45

Spring Loaded

High Temperature

Item	Description
108	Seat Seal
45	Spring Seat
47	Metal Seat
48	Ring Seat

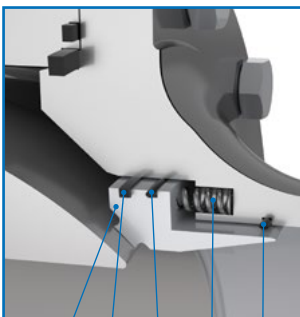


47 46b 46a 44b 45 46c

Protected

Dust Proof

Item	Description
47	Metal Seat
46c	Seat Seal 3
46b	Seat Seal 2
46a	Seat Seal 1
45	Spring Seat
44b	Ring Seat

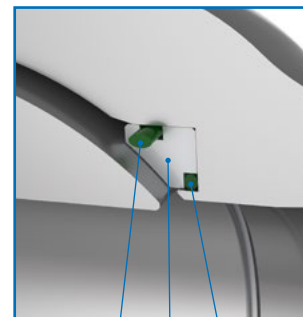


47 46 108 45 108

Protected and Scrapper

Sticky Material

Item	Description
108	Seat Seal 2
47	Metal Seat
46	Seat Seal 1
45	Spring Seat



108 47 48

Pulp & Paper

Max. Temp: FKM up to 220°C
Max. Temp: FKM up to 327°C

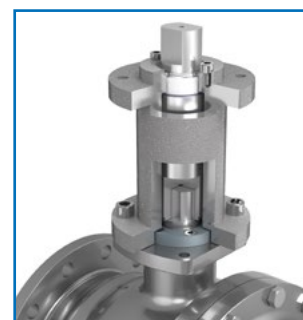
Item	Description
108	O-ring Seat
48	O-ring spring Seat
47	Metal Seat

STEM EXTENSIONS



Simple F

- Length 150 mm.
- Only Lever Operated.
- No Stem Packing.
- No gasket between valve & Stem extension.
- Manufactured from bar material.



Standard

- Length 150mm.
- Top Flange ISO 5211
- No Stem Packing.
- No gasket between valve & Stem extension.
- Stem guide seal on top.
- Housing in cast material.



Security F

- **High Temperature & Low emission**
- Length 150 mm.
- Top Flange ISO 5211
- Stem Packing on Top, no packing in valve.
- Gasket between valve & Stem extension.

Up to 640°C



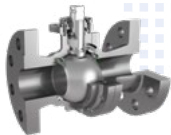
Security F with Fugitive Detector (F1)

- **High Temperature & Low emission**
- Length 150 mm.
- Top Flange ISO 5211
- Double stem packing
- Gasket between valve & stem extension.
- Grease injector or fugitive detector between the two packings in the stem extension.

Up to 640°C



Metal SEATED



**FLOATING
ZMV**



**FULL TRUNNION
2PCS ZGMS**



**TOP ENTRY
FLOATING ZTEMS**



**FLOATING
ZMVRB**



**FULL TRUNNION
3PCS ZGKMS**



**TOP ENTRY FULL
TRUNNION ZTEGMS**



**FLOATING
ZMS**



**3PCS
ZKMS**



**3PCS
KMV**



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