

## Two-Way Ball Valves Series 16



16-S

DN: ½" to 10"  
PN: ANSI Class 150/900  
Temp.: -40°C to +250°C



16-M

DN: ½" to 10"  
PN: ANSI Class 150/900  
Temp.: -40°C to +450°C



16-H

DN: ½" to 4"  
PN: ANSI Cl. 150/2500  
Temp.: -40°C to +450°C



16.123

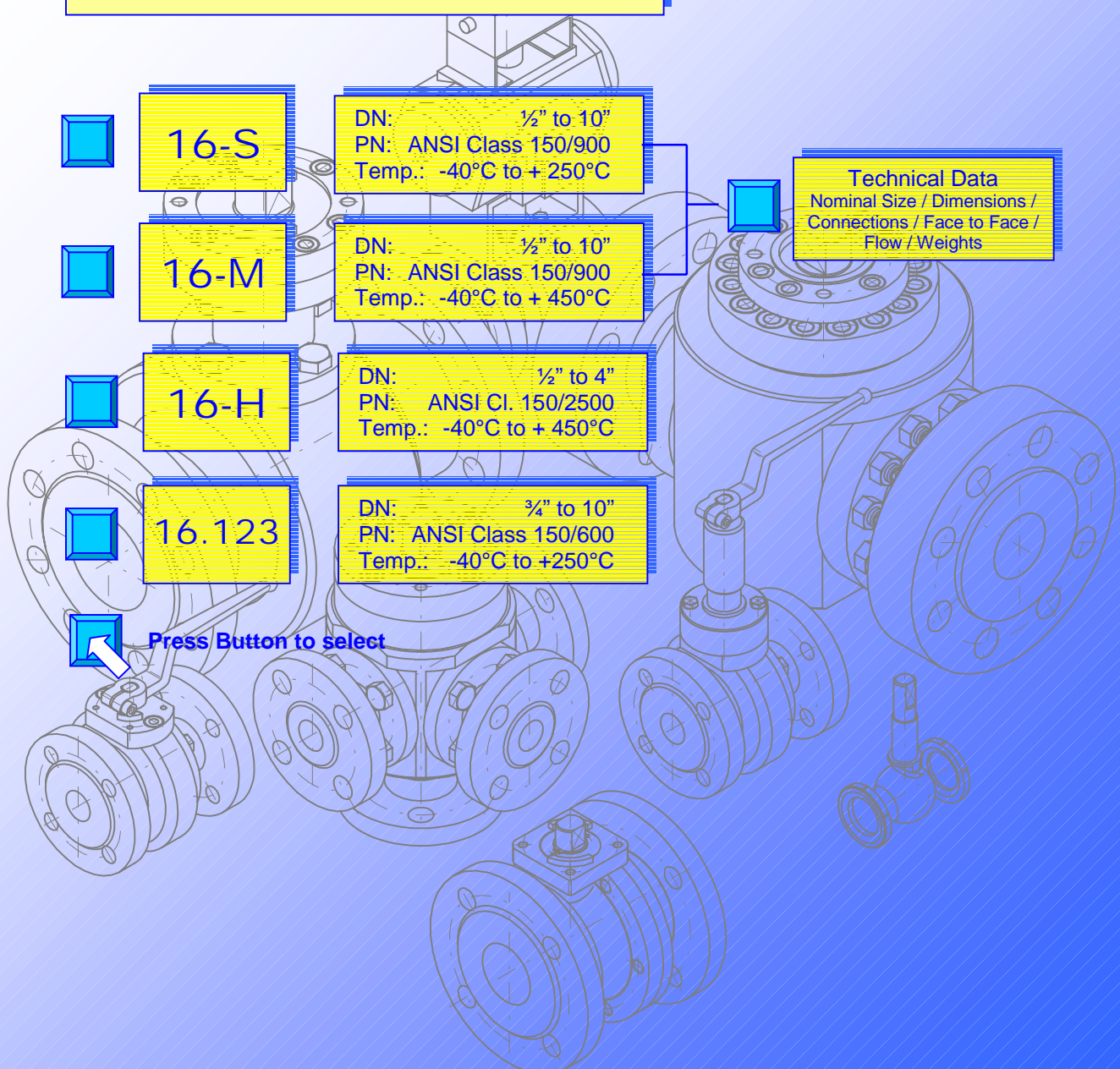
DN: ¾" to 10"  
PN: ANSI Class 150/600  
Temp.: -40°C to +250°C



Press Button to select

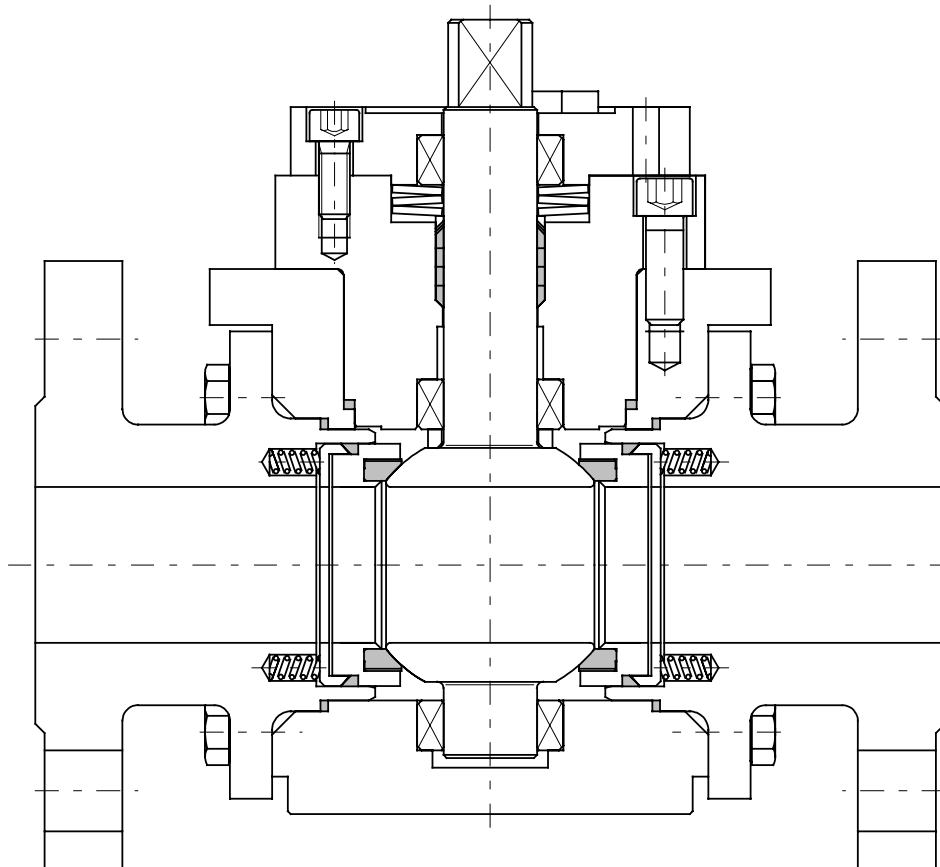


Technical Data  
Nominal Size / Dimensions /  
Connections / Face to Face /  
Flow / Weights



## Two-Way Ball Valve Series 16-S

DN ½" to 10"



### Description:

This PERRIN ball valve design features a split body, bolted flanges and bonnet and a trunnion mounted solid ball stem. The seat system and the stem packing are spring loaded, resulting in very good sealing properties and a constant torque not influenced by temperature fluctuations.

The actuator mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

Stem extensions, locking devices and actuators with accessories can be field mounted at any time.

The ball valve is extruded in antistatic-design, with anti blowout proof stem and, as desired, in "fire-safe" design. The stem packing has examined TA-Luft.

### Range of application:

DN ½" to 10"	PN ANSI Cl. 150/900	Temperature -40°C to 250°C
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## 1.0 Main parts

item	designation
1	body
2	body end connection
3	retainer ring
4	retainer ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	bearing
14	distance ring
16	plate spring
17	coil spring
20	sealing ring
21	seat ring
23	body gasket
24	stem packing
25	bearing
26	bearing
27	body gasket
28	screw
29	screw
30	screw

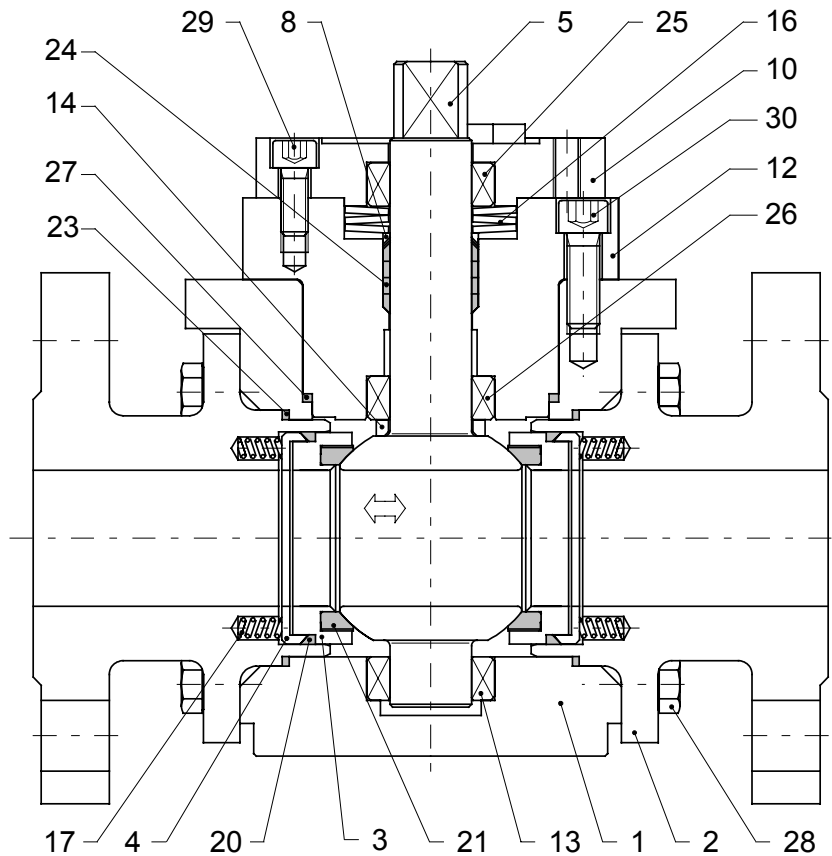


fig. 1  
ball valve, series 16-S

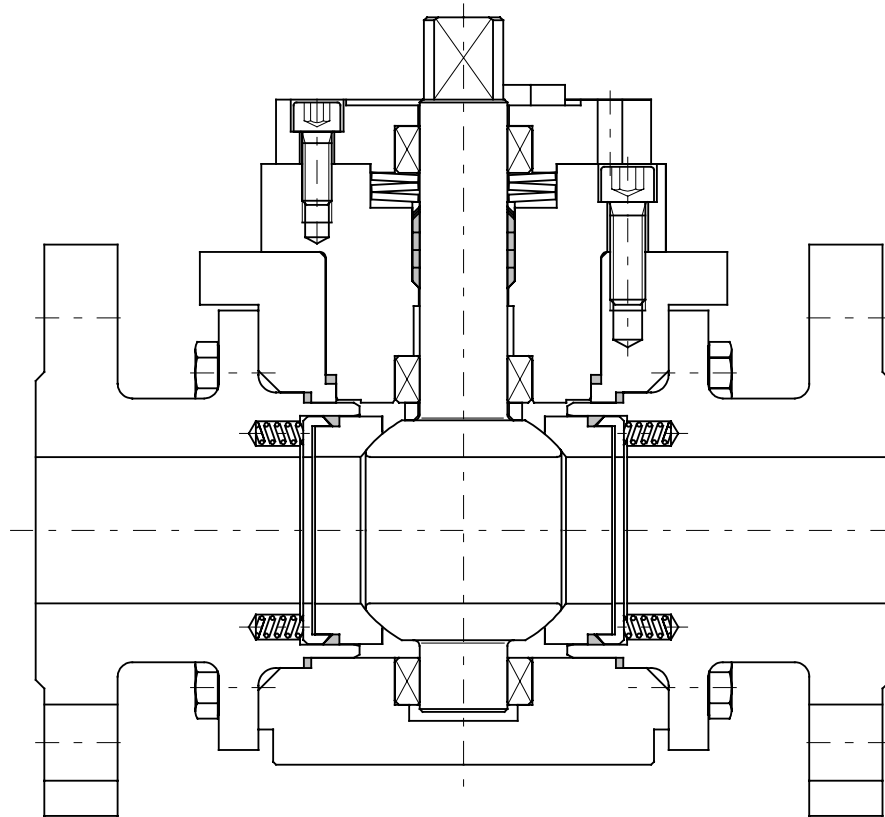
## 2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C <sup>1)</sup>	-10°C to 250°C <sup>1)</sup>
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
3-4	retainer ring	1.4571	1.4571
5	ball	1.4571 / 1.4408	1.4571 / 1.4408
8	gland washer	1.4571	1.4571
10	bearing cover		1.0460
12	cover	1.4571 / 1.4408	1.0460 / 1.0619
13	bearing	Carbon-Antimon	Carbon-Antimon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	sealing ring	PTFE - TFM	PTFE - TFM
21	seat ring		
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing	Carbon	Carbon
26	bearing	Carbon-Antimon	Carbon-Antimon
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

1) Materials for lower/higher temperatures on request..

## Two-Way Ball Valve Series 16-M

DN ½" to 10"



### Description:

This PERRIN ball valve design features a split body, bolted flanges and bonnet and a trunnion mounted solid ball stem. The metallic seat system and the stem packing are spring loaded, resulting in very good sealing properties and a constant torque not influenced by temperature fluctuations.

The actuator mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

Stem extensions, locking devices and actuators with accessoires can be field mounted at any time. The

The ball valve is extruded in antistatic-design, with anti blowout proof stem and in "fire-safe" design. The stem packing has examined TA-Luft.

### Range of application:

DN ½" to 10"	PN ANSI Cl. 150/900	Temperature -40°C to 450°C
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## 1.0 Main parts

item	designation
1	body
2	body end connection
4	retainer ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	bearing
14	distance ring
16	plate spring
17	coil spring
20	sealing ring
21	seat ring
23	body gasket
24	stem packing
25	bearing
26	bearing
27	body gasket
28	screw
29	screw
30	screw

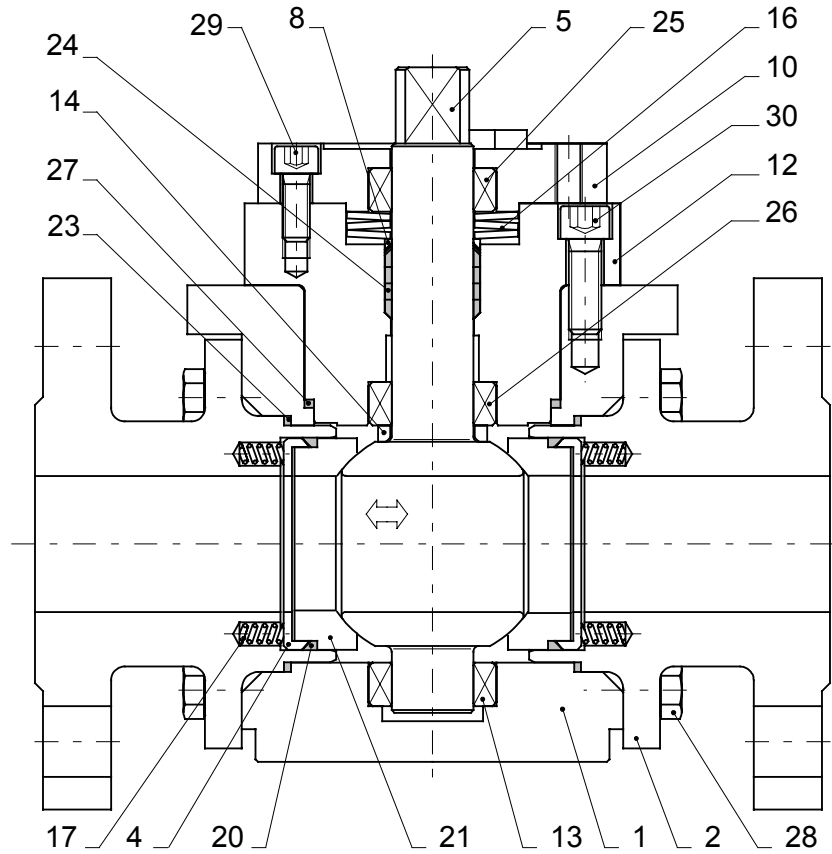


fig. 1  
ball valve, series 16-M

Technical modifications are reserved.

## 2.0 Materials

item	designation	temperatures:	
		-40°C to 450°C <sup>1)</sup>	-10°C to 450°C <sup>1)</sup>
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
4	retainer ring	1.4571	1.4571
5	ball	1.4571 / 1.4408 coated	1.4571 / 1.4408 coated
8	gland washer	1.4571	1.4571
10	bearing cover		1.0460
12	cover	1.4571 / 1.4408	1.0460 / 1.0619
13	bearing	Carbon-Antimon	Carbon-Antimon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	Inconel X 750	Inconel X 750
20	sealing ring	Graphite	Graphite
21	seat ring	1.4571 coated	1.4571 coated
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing	Carbon	Carbon
26	bearing	Carbon-Antimon	Carbon-Antimon
27	body gasket	Graphite	Graphite
28-30	screw	A 2-70	A 2-70

1) Materials for lower/higher temperatures on request..

# Technical data, Series 16-S; 16-M

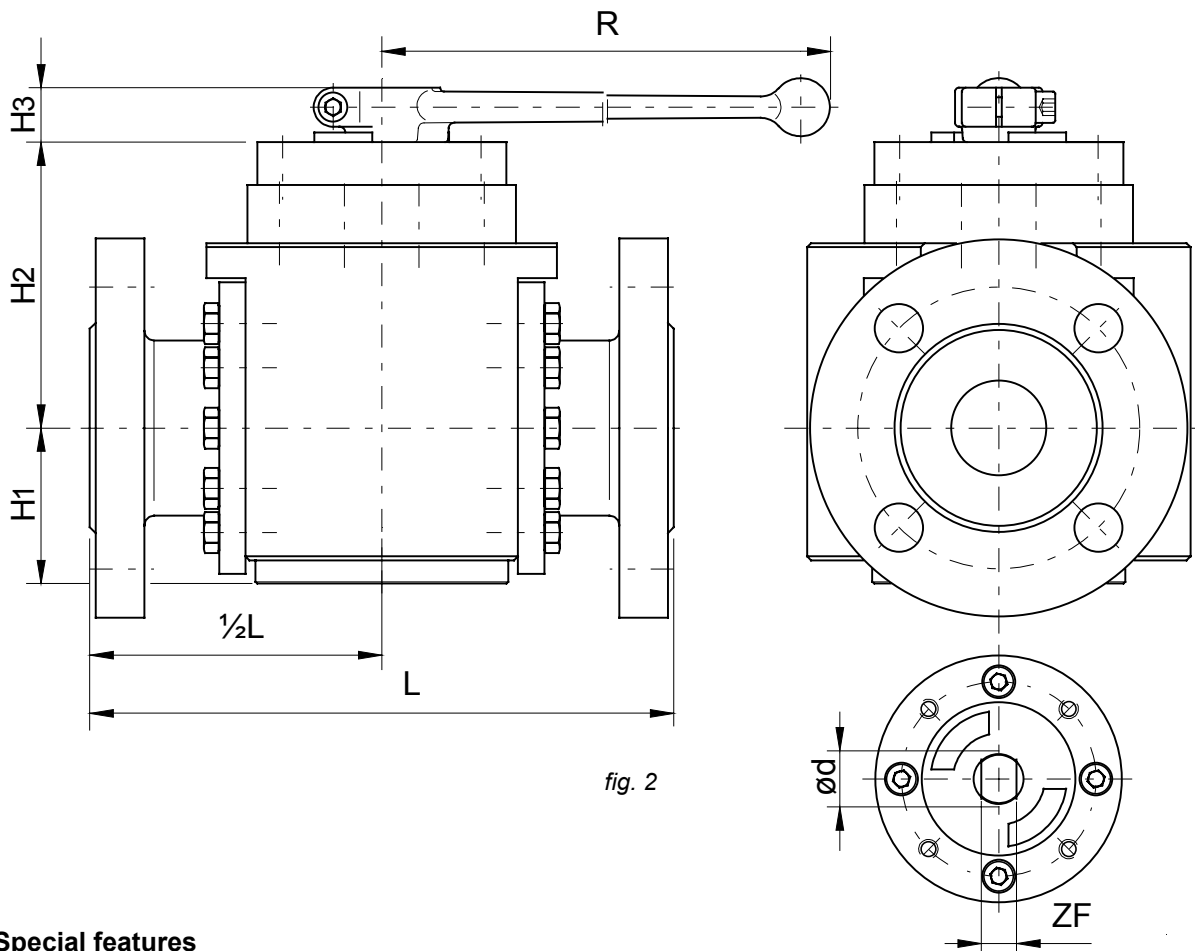
## 3.0 Technical data

### 3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow $K_{v100}$ [m <sup>3</sup> /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]					
										ANSI			DIN 558-1		ANSI Cl.600	DIN 558-1		actuator-connection DIN/ISO 5211
										Cl.600 RF/FF	L		FTF2	FTF2				
1/2"	15	50	89	19		180	13	10	20		165	210		23		25	F 05	
3/4"	20	55	95	23		300	17	12	38		190	230		26		27	F 07	
1"	25	60	105	23		300	17	12	65		216	230		28		28	F 07	
1 1/4"	32																	
1 1/2"	40	75	135	28		450	27	18	196		241	260		46		47	F 10	
2"	50	80	147	28		450	27	18	325		292	300		61		62	F 10	
2 1/2"	65	105	178	37		800	40	32	598		330	340		93		94	F 12	
3"	80	115	191	37		800	40	32	960		356	380		120		122	F 12	
4"	100	125	201	37		800	40	32	1650		432	430		227		227	F 12	
5"	125																	
6"	150	175	265	41		--	68	44	4200		559	550					F 16	
8"	200	215	303	41		--	68	44	8130		660	650					F 16	
10"	250	255	360	174		--	98	--	13500		787	775					F 25	

dimensions in mm

Technical modifications are reserved.



## 3.2 Special features

profit:

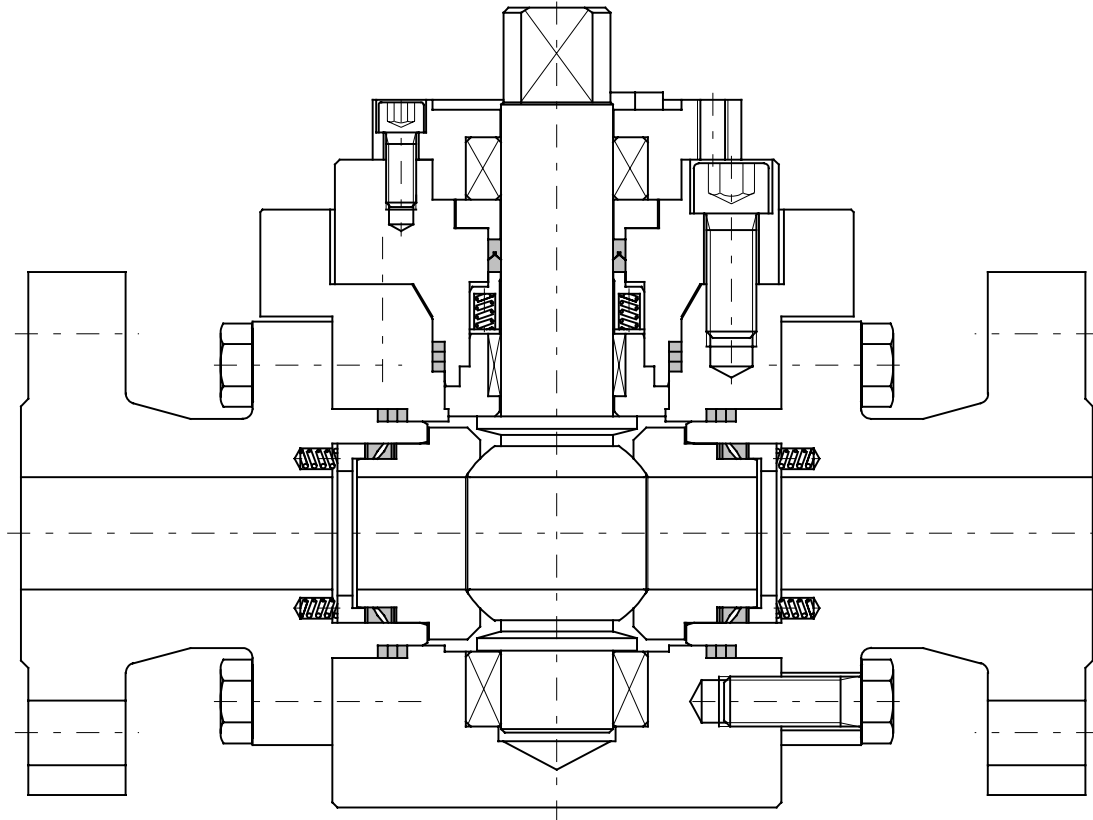
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- two piece body
- trunnion mounted ball with integral stem
- no welds
- spring loaded seat system
- live loaded stem packing

## Two-Way Ball Valve Series 16-H

DN 1/2" to 4"



### Description:

This PERRIN ball valve design features a split body, bolted flanges and bonnet and a trunnion mounted solid ball stem. The metallic seat system and the stem packing are spring loaded, resulting in very good sealing properties and a constant torque not influenced by temperature fluctuations.

The actuator mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

Stem extensions, locking devices and actuators with accessories can be field mounted at any time. The

The ball valve is extruded in antistatic-design, with anti blowout proof stem and in "fire-safe" design. The stem packing has examined TA-Luft.

### Range of application:

DN 1/2" to 4"	PN ANSI Cl. 150/2500	Temperature -40°C to 450°C
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## 1.0 Main parts

item	designation
1	body
2	body end connection
4	retainer ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	bearing
17	coil spring
20	stem packing
21	seat ring
23	body gasket
24	stem packing
25	bearing
26	bearing-unit
27	body gasket
28	screw
29	screw
30	screw
32	retainer ring
33	coil spring
34	ring

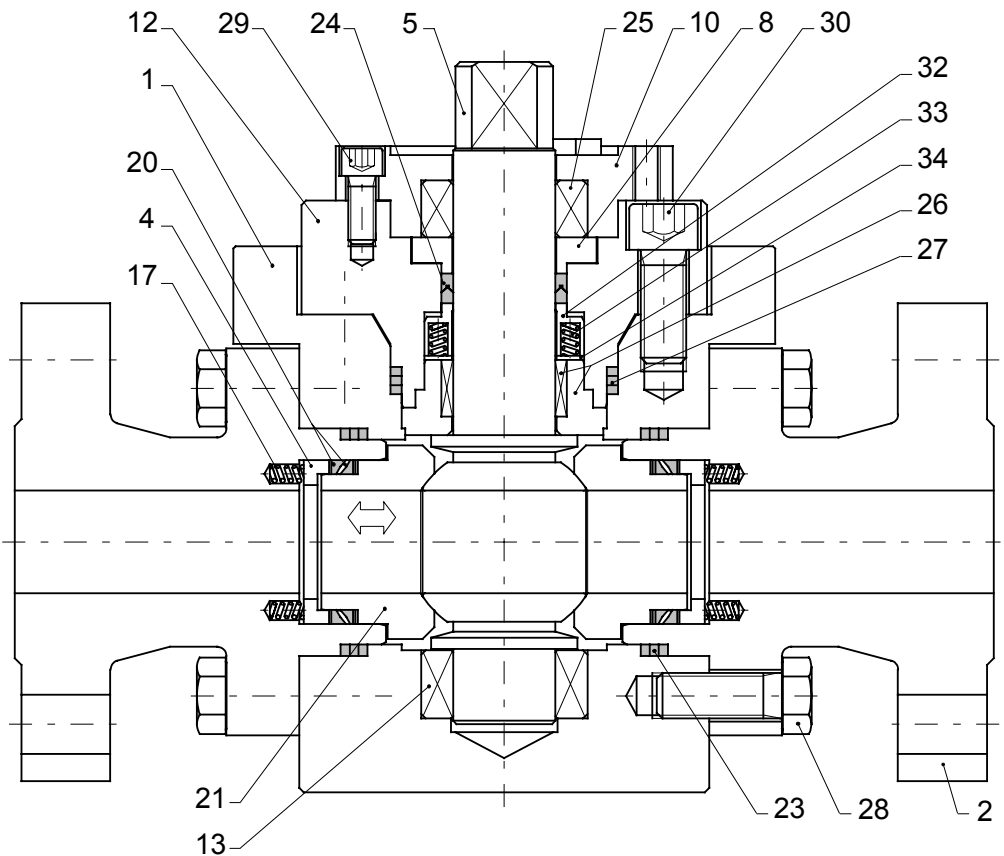


fig. 1  
ball valve, series 16-H

## 2.0 Materials

item	designation	temperatures:		
		-40°C to 450°C <sup>1)</sup>	-10°C to 450°C <sup>1)</sup>	to 250°C
1	body	1.4571 / 1.4408	1.0460 / 1.0619	... / ...
2	body end connection			
4	retainer ring	1.4571	1.4571	1.4571
5	ball	1.4571 / 1.4408 coated	1.4571 / 1.4408 coated	1.4571 / 1.4408
8	gland washer	1.4571	1.4571	1.4571
10	bearing cover		1.0460	... / ...
12	cover	1.4571 / 1.4408	1.0460 / 1.0619	... / ...
13	bearing	Carbon-Antimon	Carbon-Antimon	Carbon-Antimon
17	coil spring	Inconel X 750	Inconel X 750	1.4571
20	stem packing	1.4571 - Graphite	1.4571 - Graphite	1.4571 - Graphite
21	seat ring	1.4571 coated	1.4571 coated	PTFE - TFM
23	body gasket	Graphite	Graphite	
24	stem packing			PTFE - Graphite
25	bearing	Carbon	Carbon	Carbon
26	bearing-unit	1.4571 - Carbon-Antimon	1.4571 - Carbon-Antimon	1.4571 - Carbon-Antimon
27	body gasket	Graphite	Graphite	PTFE - TFM
28-30	screw	A 2-70	A 2-70	1.4571
32	retainer ring	1.4571	1.4571	
33	coil spring	Inconel X 750	Inconel X 750	
34	ring	1.4571	1.4571	

1) Materials for lower/higher temperatures on request..

### 3.0 Technical data

#### 3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow $K_{v100}$ [m <sup>3</sup> /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		actuator-connection DIN/ISO 5211			
										ANSI	Perrin Standard		ANSI Class 1500	Perrin Standard				
		C.1500 RF/FF	L	L	L	L												
1/2"	15	61	104	23	159	300	17	12	20		216		230		27		28	F 07
3/4"	20	65	107	23	162	300	17	12	38		229		260		29		30	F 07
1"	25	70	117	28	135	450	27	18	65		254		260		33		34	F 10
1 1/4"	32	70	117	28	135	450	27	18	117		279		300		38		40	F 10
1 1/2"	40	98	135	37	168	800	43	32	196		305		300		55		55	F 12
2"	50	110	174	37	207	800	43	32	325		368		350		76		75	F 12
2 1/2"	65	120	196	37	230	800	43	32	598		419		400		118		118	F 12
3"	80	145	235	41	--	--	68	44	960		470		450		155		155	F 16
4"	100	175	270	41	--	--	68	44	1650		546		520		185		185	F 16

dimensions in mm

Technical modifications are reserved.

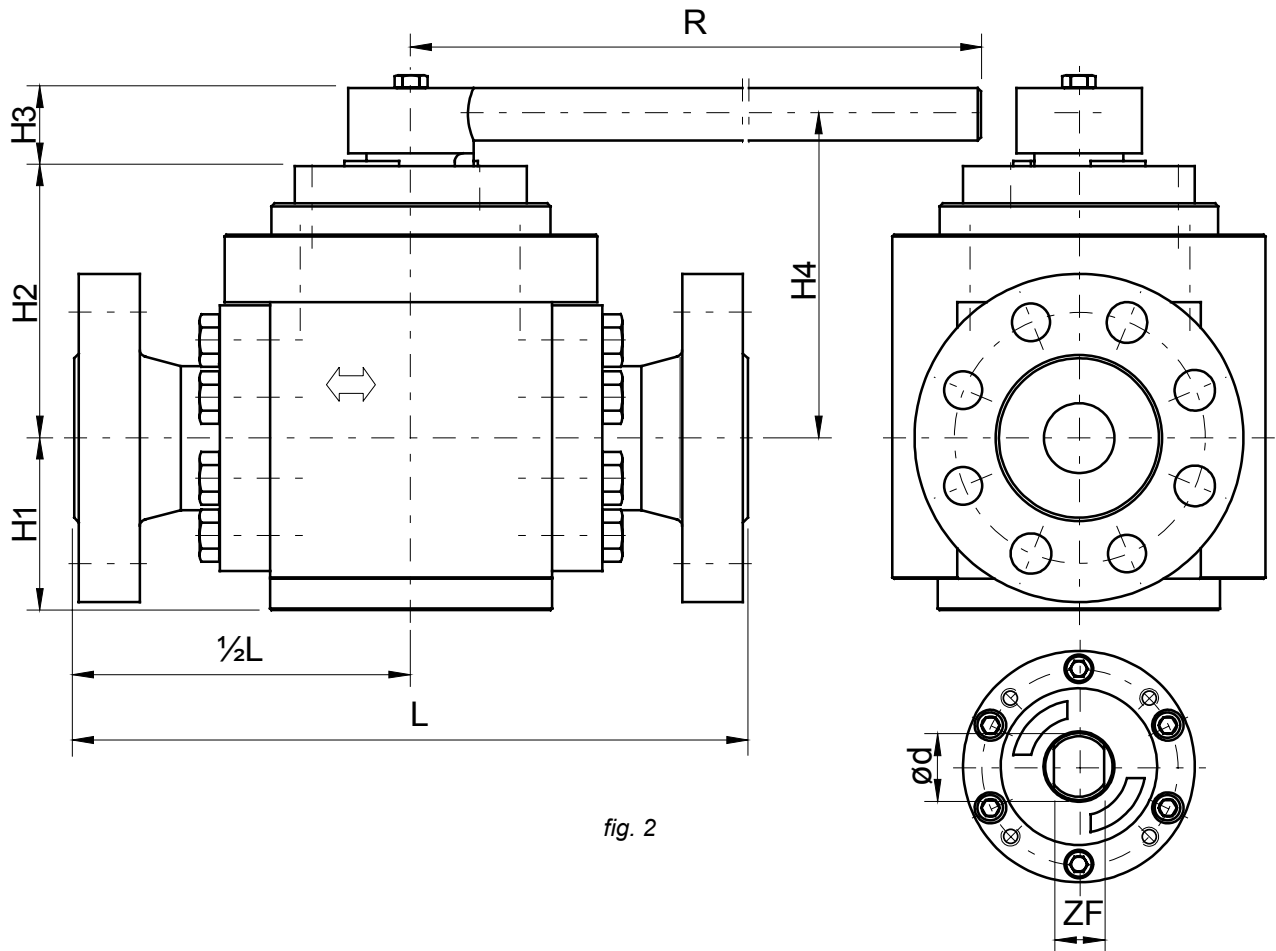


fig. 2

### 3.2 Special features

profit:

- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

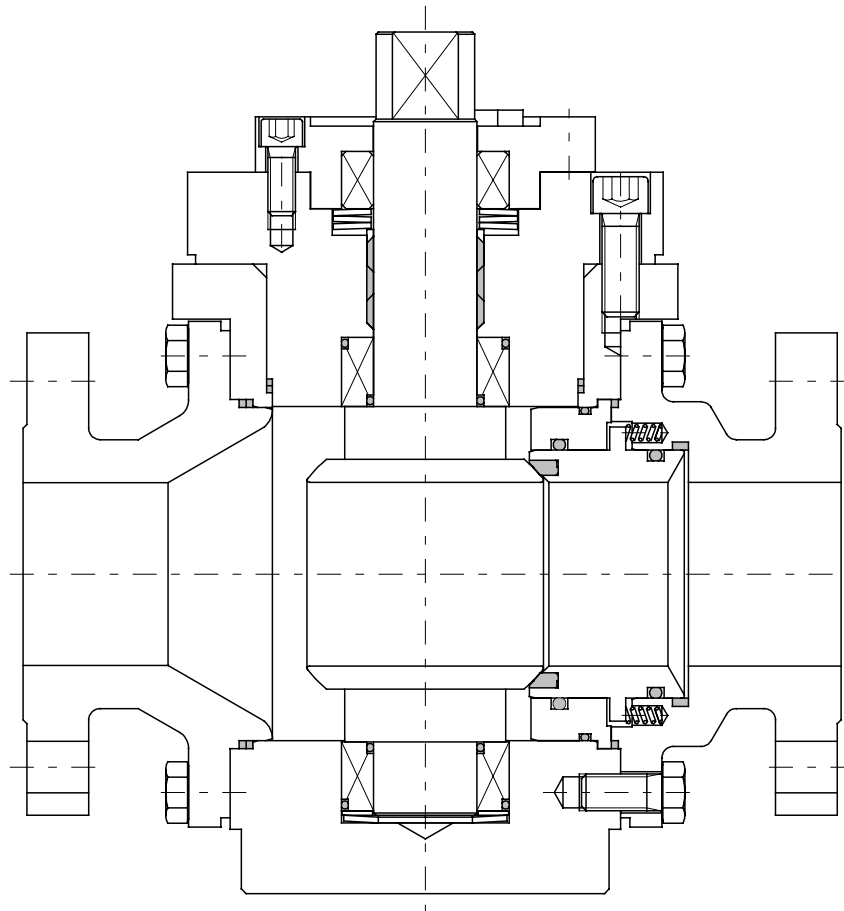
design:

- two piece body
- trunnion mounted ball with integral stem
- no welds
- spring loaded seat system
- live loaded stem packing

## Two-Way Ball Valve

# Series 16.123

DN 3/4" to 10"



### Description:

This PERRIN ball valve design features a split body, bolted flanges and bonnet and a trunnion mounted solid ball stem. The seat system and the stem packing are spring loaded, resulting in very good sealing properties and a constant torque not influenced by temperature fluctuations. This series is special designed for the production of Polyethylene and Polypropylene and can be supplied with full or reduced port. The spring-system for the seat rings is protected against medium by o-rings.

The actuator mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

Stem extensions, locking devices and actuators with accessoires can be field mounted at any time.

The ball valve is extruded in antistatic-design, anti blowout proof stem and in "fire-safe" design. The stem packing has examined TA-Luft.

### Range of application:

DN 3/4" to 10"	PN ANSI Cl. 150/600	Temperature -40°C to 250°C
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## 1.0 Main parts

item	designation
1	body
2	body end connection
4	ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	bearing
16	plate spring
17	coil spring
20	sealing ring
21	seat-unit
23	body gasket
24	stem packing
25	bearing
26	bearing
27	body gasket
28	screw
29	screw
30	screw
35-39	o-ring
40	ring
41	plate spring

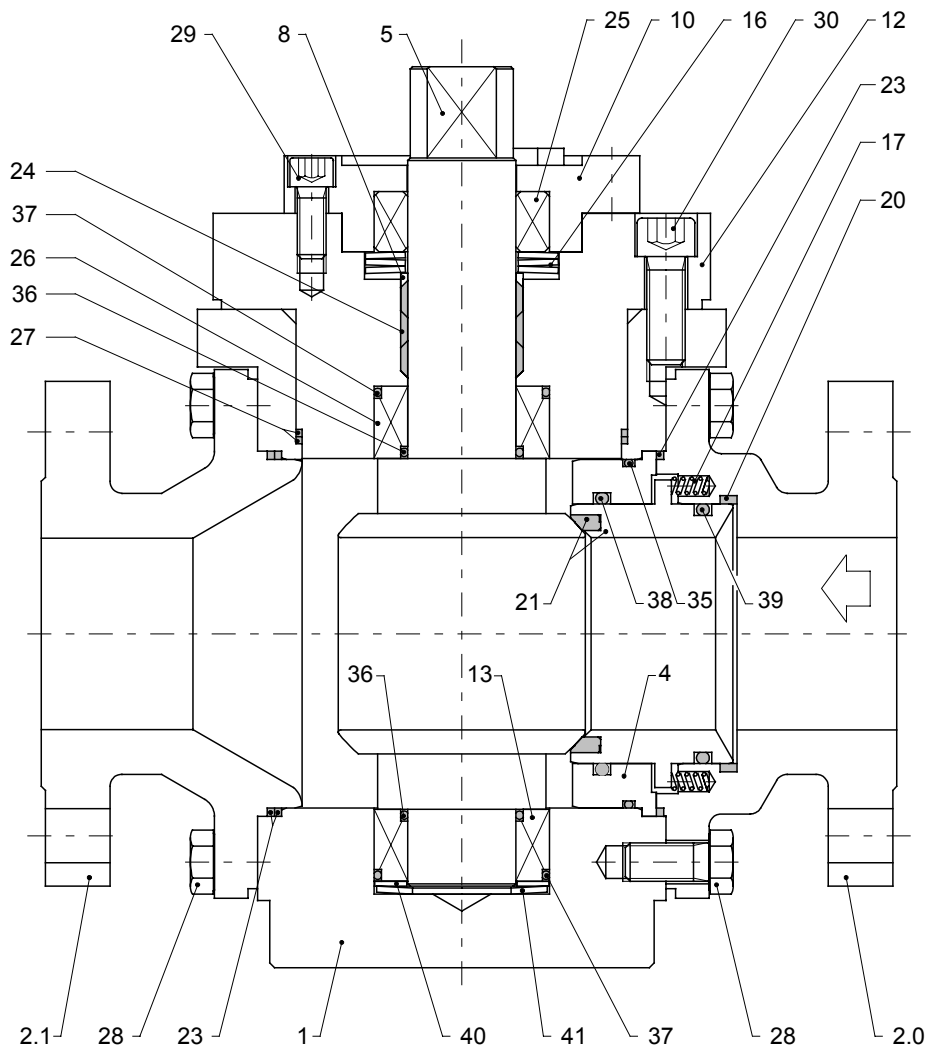


fig. 1  
ball valve, series 16.123

## 2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C <sup>1)</sup>	-10°C to 250°C <sup>1)</sup>
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
4	ring	1.4571	1.4571
5	ball	1.4571 / 1.4408 coated	1.4571 / 1.4408 coated
8	gland washer	1.4571	1.4571
10	bearing cover	1.4571	1.0460
12	cover	1.4571 / 1.4408	1.0460 / 1.0619
13	bearing	PEEK	PEEK
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	sealing ring	Graphite	Graphite
21	seat ring	1.4571 - PEEK	1.4571 - PEEK
23	body gasket	Graphite	Graphite
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing	Carbon	Carbon
26	bearing	PEEK	PEEK
27	body gasket	Graphite	Graphite
28-30	screw	A 2-70	A 2-70
35-39	o-ring	Polymer / Elastomer	Polymer / Elastomer
40	ring	1.4571	1.4571
41	plate spring	1.4568	1.8159

1) Materials for lower/higher temperatures on request..

### 3.0 Technical data

#### 3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow $K_{V100}$ [m <sup>3</sup> /h] $\Delta p=1\text{bar}$	face to face			connections  flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	weight [kg]			actuator-connection DIN/ISO 5211
										ANSI Cl.600		DIN 558-1		weight [kg]	actuator-connection		
		H1	H2	H3		$\varnothing D$	$\varnothing d$	ZF		L	L	ANSI				DIN 558-1	
1/2"	15							44									
3/4"	20	77	110	23		140	17	12		229	230			27	27	F 07	
1"	25	77	110	23		140	17	12		254	230			29	28	F 07	
1 1/4"	32																
1 1/2"	40	96	139	28		180	27	18		196	241	260		64	47	F 10	
2"	50	106	166	28		215	27	18		325	292	300		61	62	F 10	
2 1/2"	65	111	178	37		250	43	32		598	330	340		93	94	F 12	
3"	80	139	199	37		280	43	32		960	356	380		120	122	F 12	
4"	100	150	215	37		300	43	32		1650	432	430		227	227	F 12	

dimensions in mm

Technical modifications are reserved.

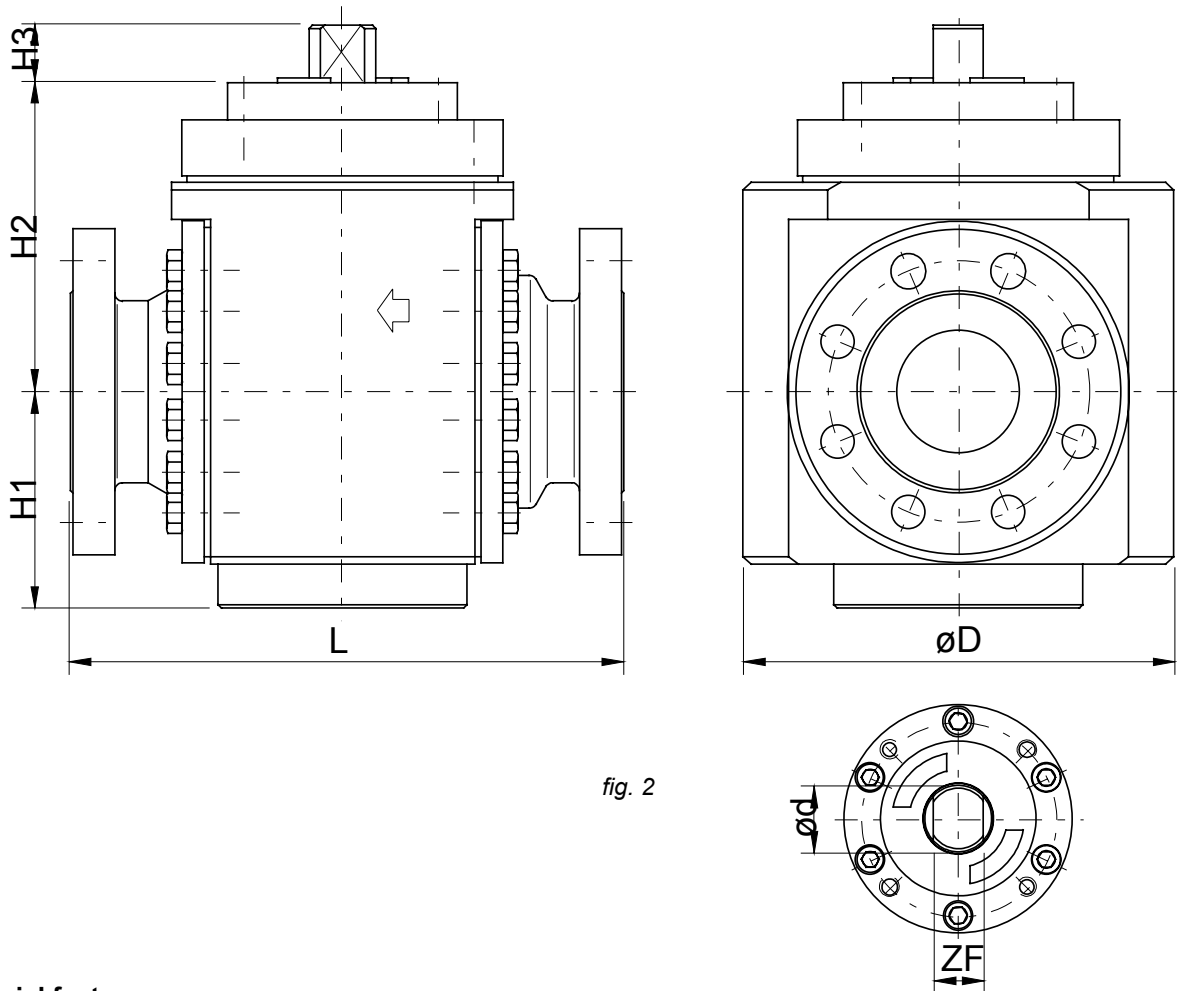


fig. 2

### 3.2 Special features

profit:

- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- splitted body
- trunnion mounted ball with integral stem
- no welds
- spring loaded seat system
- live loaded stem packing