

DATA SHEETS

**Two Way
Ball Valves**

**Multiway
Ball Valves**

**Tank Bottom
Ball Valves**

**Diverter
Ball Valves**

Accessories











**Schematic
Drawings**

References

**Distribution
Organisation**

 **Press Button to Select**

Two Way Ball Valves

	Series 11	DN: ½" to 4" PN: ANSI Cl. 150/300 Temp.: -40°C to 200°C	body: splitted ball: seat supported seat: pre-loaded
	Series 70	DN: ½" to 6" PN: ANSI Cl. 150/600 Temp.: -160°C to 350°C	body: two-piece ball: seat supported seat: pre-loaded
	Series 71 Sampling Valve	DN: ½" to 6" PN: ANSI Cl. 150/300 Temp.: -40°C to 200°C	body: splitted ball: seat supported seat: pre-loaded
	Series 75	DN: ½" to 6" PN: ANSI Cl. 150/300 Temp.: -60°C to 200°C	body: two-piece ball: seat supported seat: pre-loaded
	Series 80	DN: ½" to 12" PN: ANSI Cl. 150/900 Temp.: -196°C to 650°C	body: two-piece ball: seat supported seat: spring loaded
	Series 85	DN: ½" to 6" PN: ANSI Cl. 150 Temp.: -60°C to 400°C	body: two-piece ball: seat supported seat: spring loaded
	Series 90	DN: 1" to 6" PN: ANSI Cl. 150 Temp.: -40°C to 450°C	body: two-piece ball: trunnion mounted seat: spring loaded
	Series 14	DN: 1" to 20" PN: ANSI Cl. 150/600 Temp.: -40°C to 800°C	body: two-piece ball: trunnion mounted seat: spring loaded
	Series 16	DN: 1" to 10" PN: ANSI Cl. 150/2500 Temp.: -40°C to 450°C	body: splitted ball: trunnion mounted seat: spring loaded
	Series 17 Top-Entry	DN: ½" to 20" PN: ANSI Cl. 150/600 Temp.: -196°C to 450°C	body: one-piece ball: trunnion mounted seat: spring loaded



Press Button to Select

Tank Bottom Ball Valves



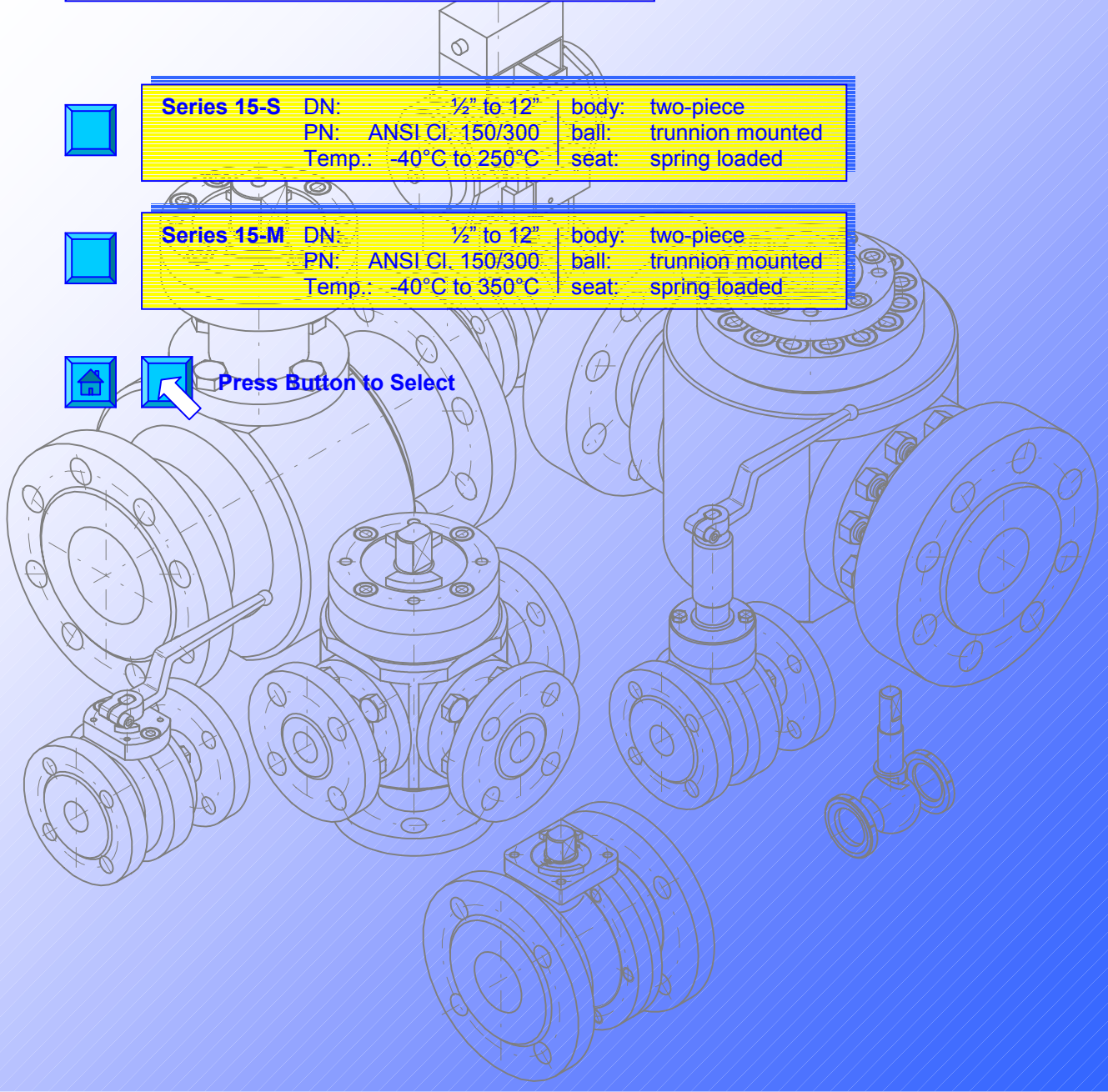
Series 15-S	DN: ½" to 12"	body: two-piece
	PN: ANSI Cl. 150/300	ball: trunnion mounted
	Temp.: -40°C to 250°C	seat: spring loaded



Series 15-M	DN: ½" to 12"	body: two-piece
	PN: ANSI Cl. 150/300	ball: trunnion mounted
	Temp.: -40°C to 350°C	seat: spring loaded





Press Button to Select




Multiway Ball Valves

90° Three Way Ball Valves


	Series 20	DN: ½" to 4"	body: splitted
		PN: ANSI Cl. 150/300	ball: seat supported
		Temp.: -10°C to 350°C	seat: pre-loaded port: L- or T-bore

	Series 21	DN: ½" to 20"	body: splitted
		PN: ANSI Cl. 150/600	ball: trunnion mounted
		Temp.: -40°C to 550°C	seat: spring loaded port: L- or T-bore


120° Three Way Ball Valves

	Series 22	DN: ½" to 20"	body: splitted
		PN: ANSI Cl. 150/600	ball: trunnion mounted
		Temp.: -40°C to 550°C	seat: spring loaded port: 120° L-bore

Four Way Ball Valves

	Series 23	DN: ½" to 20"	body: splitted
		PN: ANSI Cl. 150/600	ball: trunnion mounted
		Temp.: -40°C to 550°C	seat: spring loaded port: 90° X-bore

Multiway Ball Valves with vertical in-/outlet

	Series 24	DN: ½" to 10"	body: splitted
		PN: ANSI Cl. 150/300	ball: trunnion mounted
		Temp.: -40°C to 450°C	seat: spring loaded port: L- or 2xL-bore



Press Button to Select

Diverter Ball Valves



Series 25-S	DN:	½" to 8"	body:	splitted
	PN:	ANSI Cl. 150	ball:	trunnion mounted
	Temp.:	-40°C to 250°C	seat:	spring loaded
			port:	L- bore >150°



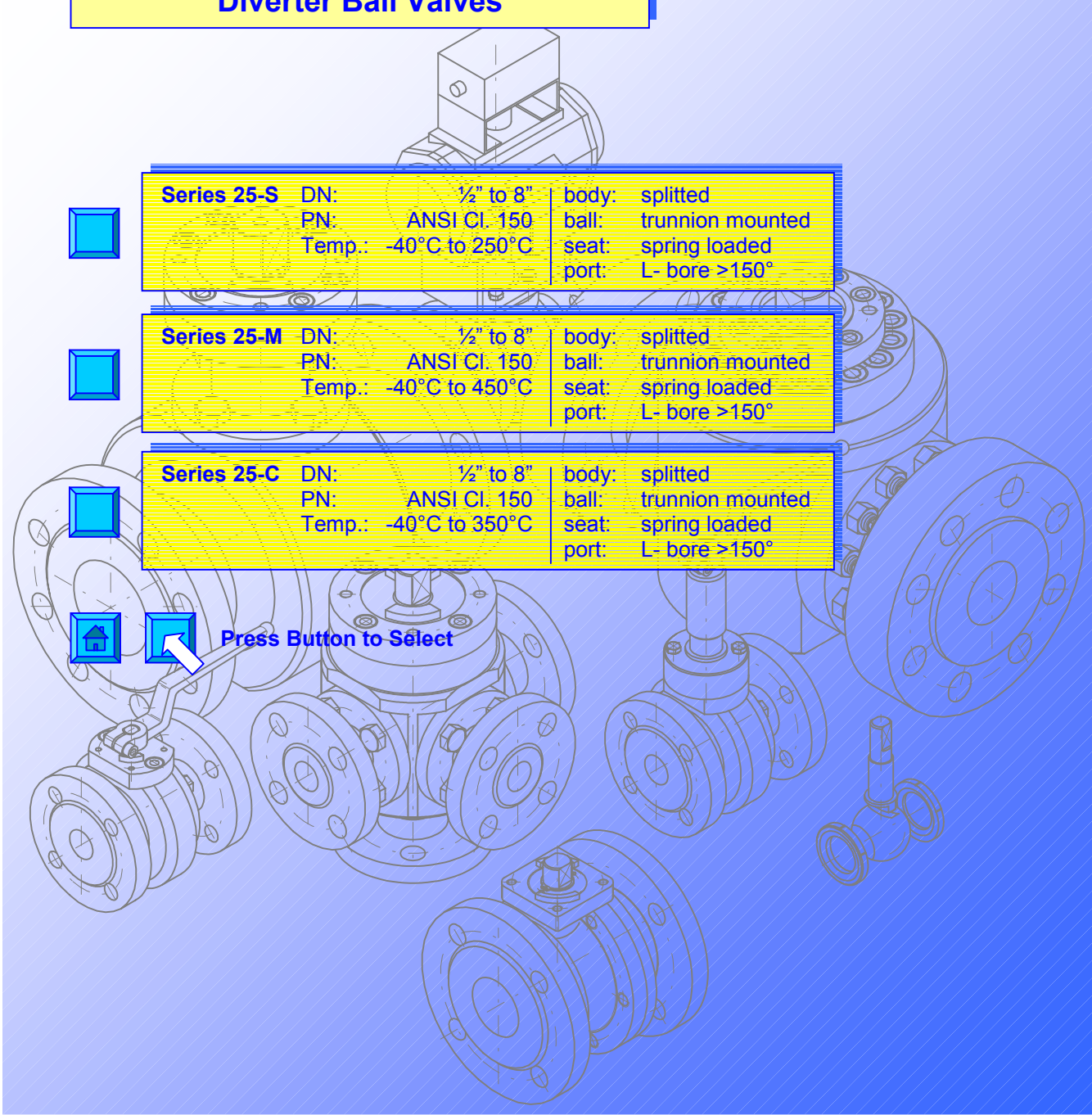
Series 25-M	DN:	½" to 8"	body:	splitted
	PN:	ANSI Cl. 150	ball:	trunnion mounted
	Temp.:	-40°C to 450°C	seat:	spring loaded
			port:	L- bore >150°



Series 25-C	DN:	½" to 8"	body:	splitted
	PN:	ANSI Cl. 150	ball:	trunnion mounted
	Temp.:	-40°C to 350°C	seat:	spring loaded
			port:	L- bore >150°

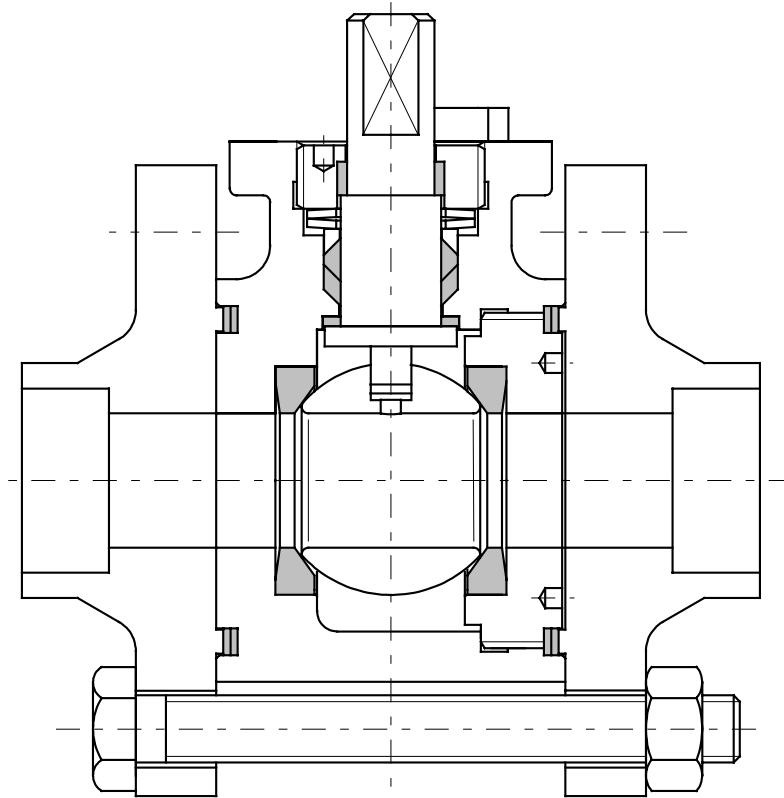


Press Button to Select



Two-Way Ball Valve Series 11-S

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a three piece body and a floating, seat supported ball. The stem packing is spring loaded the seat rings with pressure relief warranty are pre-loaded. Through dismantling the central piece the interior parts could be exchanged comfortably. The pipe remains stable.

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 extradited in antistatic-design, with anti blowout proof stem and, as desired, "fire-safe" tested. The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 4"	PN ANSI Cl. 150/300	Temperature -40°C to 200°C
------------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
4	retainer ring
5	ball
6	stem
8	gland washer
10	threaded ring
16	plate spring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
32	nut

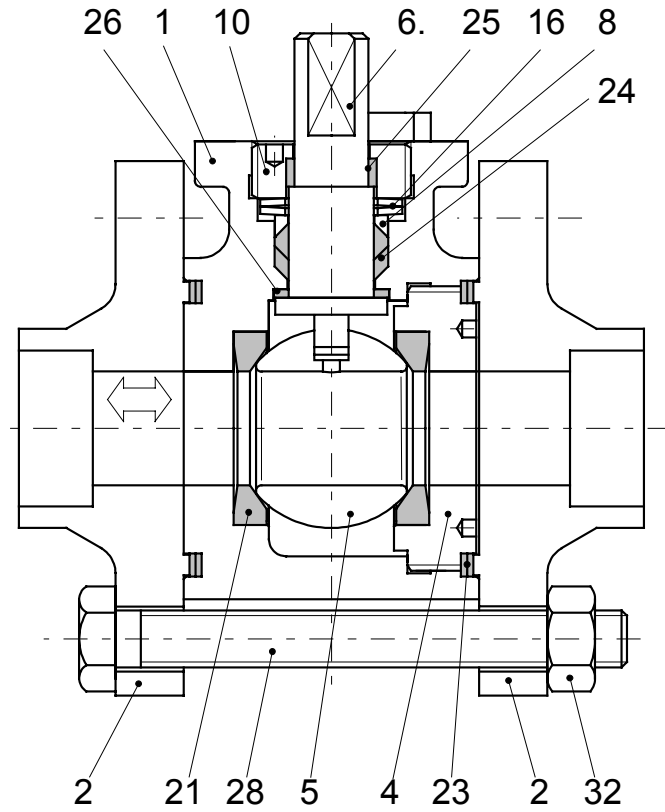


fig. 1
ball valve, series 11-S

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 200°C ¹⁾	-10°C to 200°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	threaded ring		
16	plate spring	1.4568	1.8159
21	seat ring	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25-26	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
28	screw	A 2-70	A 2-70
32	nut	A 2	A 2

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

3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)	pipe	valve- port	dimensions									flow K_{V100} [m ³ /h] $\Delta p=$ 1bar	face to face		connections	weight [kg]		actuator- connection DIN/ISO 5211
			H1	H2	H3	H4	$\varnothing D$	$\varnothing d$	ZF	R	t		L	LM				
full port	15	15	47	50	19	95	22	13	10	180	10	20	110	52	welding ends: butt weld and socket weld end acc. to DIN 3239 T2 Reihe 5 for ISO pipes, threads: acc. to DIN 259 or NPT		3,5	F 05
	20	20	47	50	19	95	27,5	13	10	180	13	38	110	52		3,5	F 05	
	25	25	47	62	19	106	34,5	13	10	180	13	65	110	52		3,8	F 05	
	32	32	64	81	23	126	43	17	12	300	13	117	140	75		4,9	F 07	
	40	40	64	81	23	126	49	17	12	300	16	196	140	75		6	F 07	
	50	50	72	89	23	134	61,5	17	12	300	16	325	160	90		7,8	F 07	
	65	65	88	99	23	144	77	17	12	300	16	598	180	105		9,9	F 07	
	80	80	104	125	28	153	90	27	18	450	16	960	200	125		17	F 10	
reduced port	20	15	47	50	19	95	27,5	13	10	180	13	20	110	52		3,4	F 05	
	25	20	47	50	19	95	34,5	13	10	180	13	38	110	52		3,8	F 05	
	32	25	47	62	19	106	43	13	10	180	13	65	110	52		4,9	F 05	
	40	32	64	81	23	126	49	17	12	300	13	117	140	75		6	F 07	
	50	40	64	81	23	126	61,5	17	12	300	16	196	140	75		7,8	F 07	
	65	50	72	89	23	134	77	17	12	300	16	325	160	90		9,9	F 07	
	80	65	88	99	23	144	90	17	12	300	16	598	180	105		17	F 07	
	100	80	104	125	28	153	115,5	27	18	450	16	960	200	125		19	F 10	

dimensions in mm

Technical modifications are reserved.

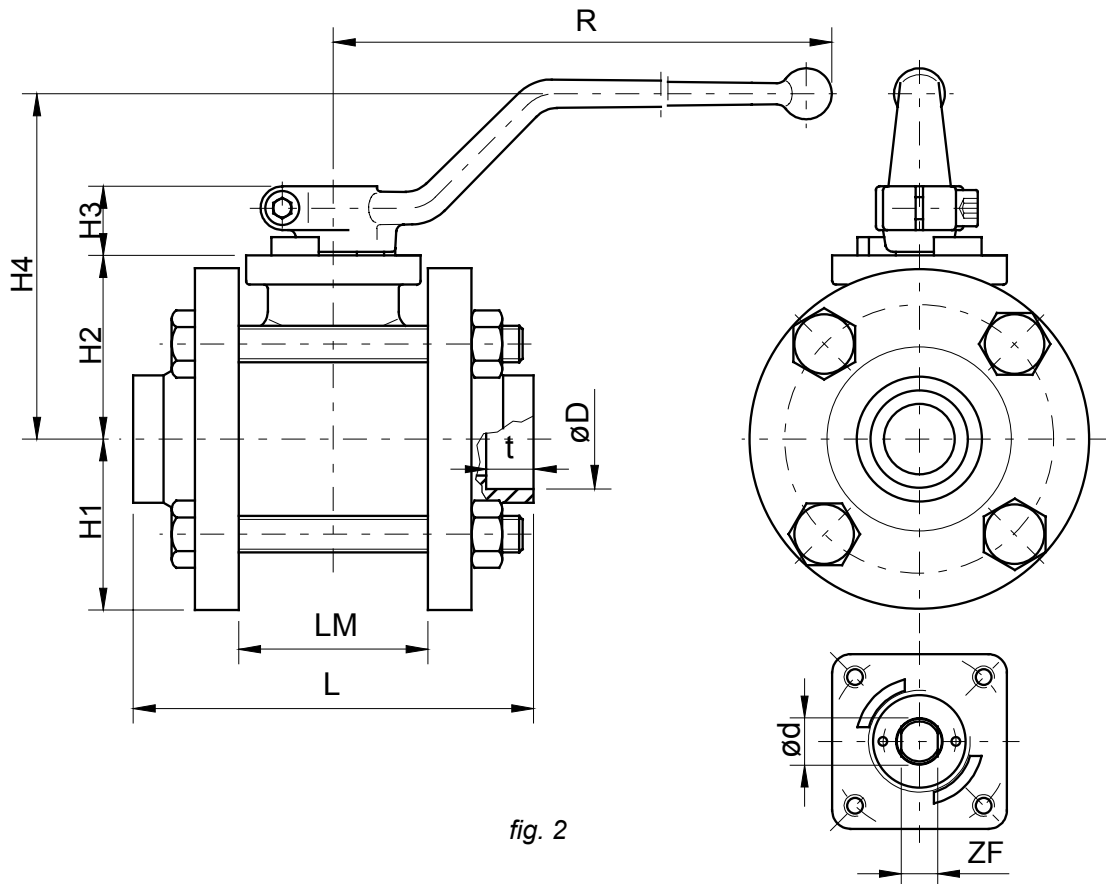


fig. 2

3.2 Special features

profit:

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

design:

- three piece body
- removable midsection
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing

Two-Way Ball Valves Series 70



70-S

DN: ½" to 6"
PN: ANSI Class 150/300
Temp.: -40°C to 200°C



70-M

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -10°C to 350°C



70-C

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -10°C to 350°C



70-K

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -160°C to 160°C



70-H

DN: ½" to 4"
PN: ANSI Class 150/900
Temp.: -40°C to 200°C



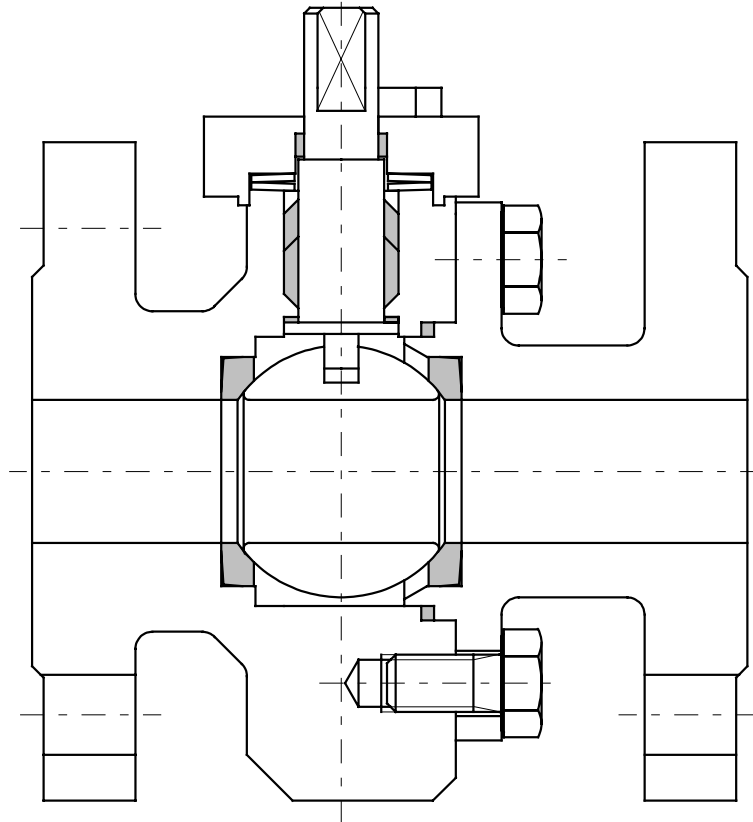
Technical Data
nominal size / dimensions /
connections / flow /
face to face / weights



Press Button to select

Two-Way Ball Valve Series 70-S

DN 1/2" to 6"



Description:

This PERRIN ball valve design features a two piece body and a floating, seat supported ball. The stem packing is spring loaded the seat rings with pressure relief warranty are pre-loaded.

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, with anti blowout proof stem and, as desired, " fire-safe" tested. The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 6"	PN ANSI Cl. 150/300	Temperature -40°C to 200°C
------------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

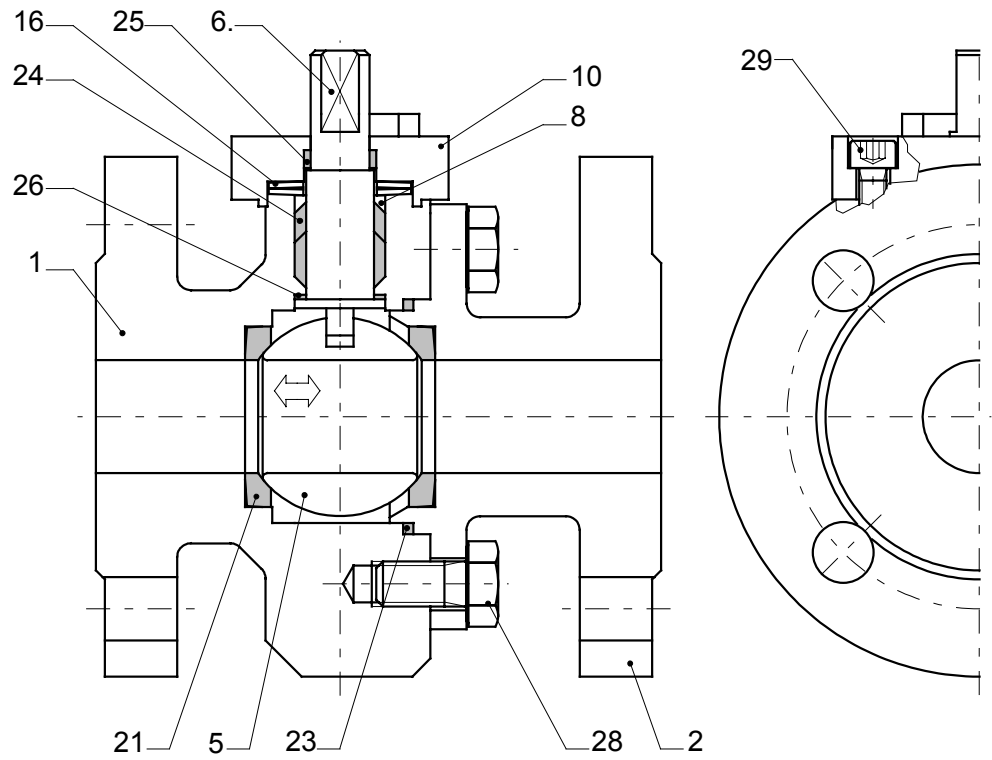


fig. 1
ball valve, series 70-S

Technical modifications are reserved.

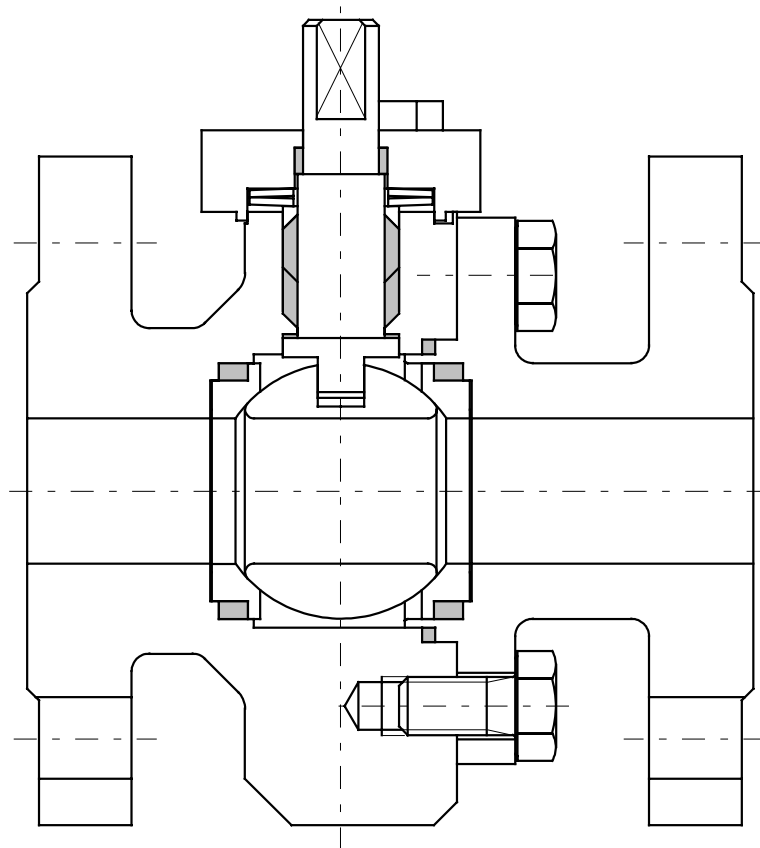
2.0 Materials

item	designation	temperatures:	
		-40°C to 200°C ¹⁾	-10°C to 200°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
21	seat ring	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25-26	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
28-29	screw	A 2-70	A 2-70

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

Two-Way Ball Valve Series 70-M

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a two piece body and a floating, seat supported ball. The stem packing is spring loaded, the metal seat rings are pre-loaded.

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 extradited 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. 150/300	Temperature -10°C to 350°C
------------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
20	sealing ring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

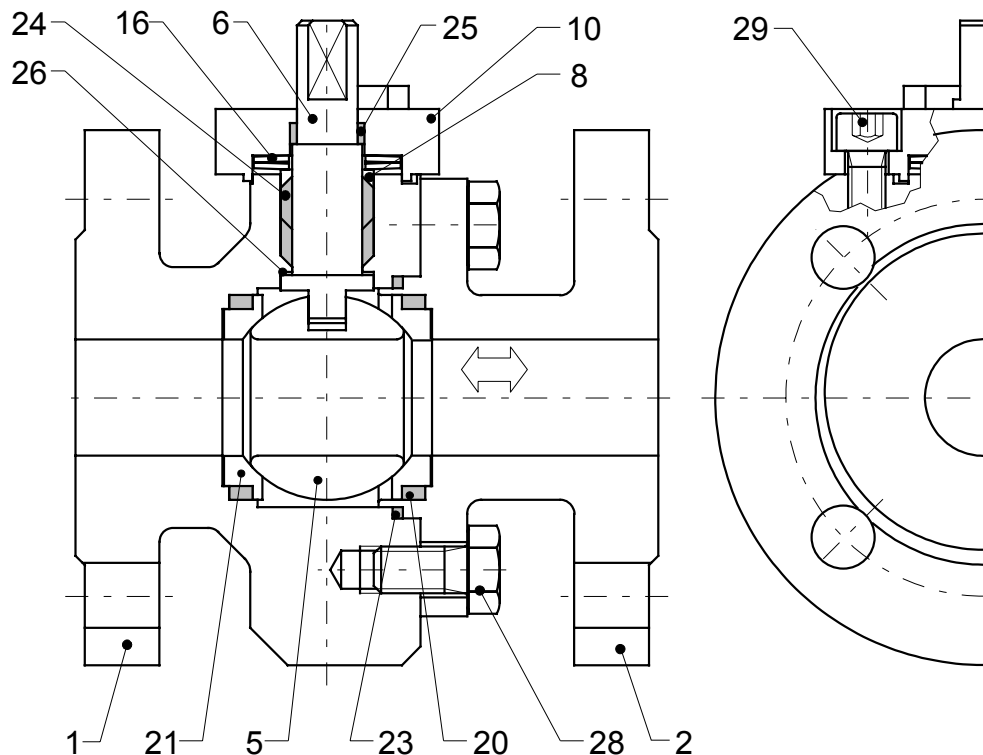


fig. 1
ball valve, series 70-M

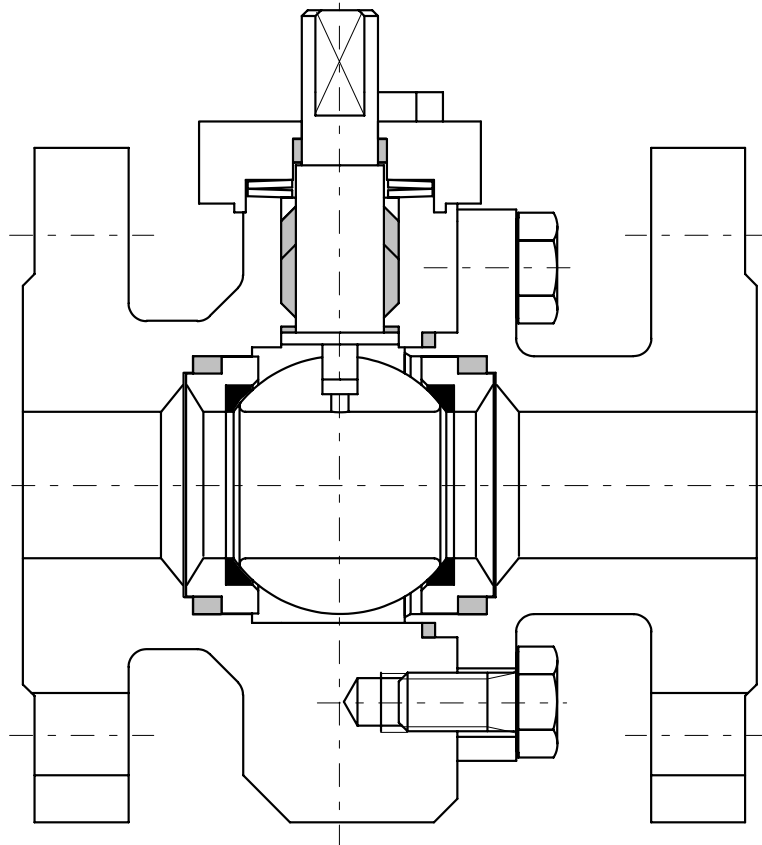
2.0 Materials

item	designation	temperatures:	
		-10°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4408 coated	1.4571 / 1.4408 coated
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
20	sealing ring	Graphite	Graphite
21	seat ring	1.4571 coated / 3.1707	1.4571 coated / 3.1707
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	1.0037.07	1.0037.07
26	bearing ring	Graphite with SS	Graphite with SS
28-29	screw	A 2-70	A 2-70

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

Two-Way Ball Valve Series 70-C

DN ½" to 6"



Description:

This PERRIN ball valve design features a two piece body and a floating, seat supported ball. The stem packing is spring loaded, the seat units are pre-loaded.

The actuator mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/EN/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, with anti blowout proof stem and in " fire-safe design". The stem packing has examined TA-Luft.

Range of application:

DN ½" to 6"	PN ANSI Cl. 150/300	Temperature -60°C to 350°C
----------------	------------------------	-------------------------------

1.0 Main parts

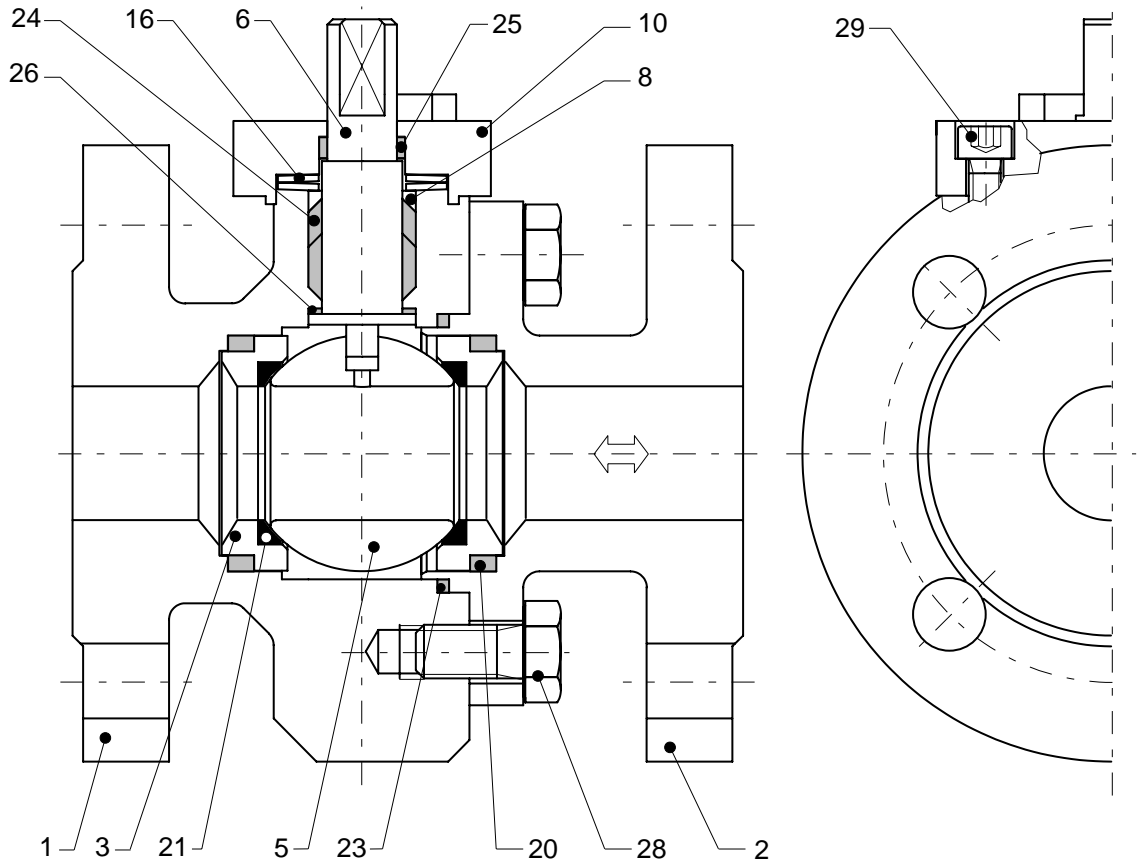


fig. 1
ball valve, series 70-C

Technical modifications are reserved.

item	designation	temperatures:	
		-60°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4310	1.4310
20	sealing ring	Graphite	Graphite
21	seat-unit	1.4571 / Carbon-Antimon	1.4571 / Carbon-Antimon
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	1.0037.07	1.0037.07
26	bearing ring	Graphite with SS	Graphite with SS
28-29	screw	A 2-70	A 2-70

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

Technical data, Series 70-S; 70-M; 70-C

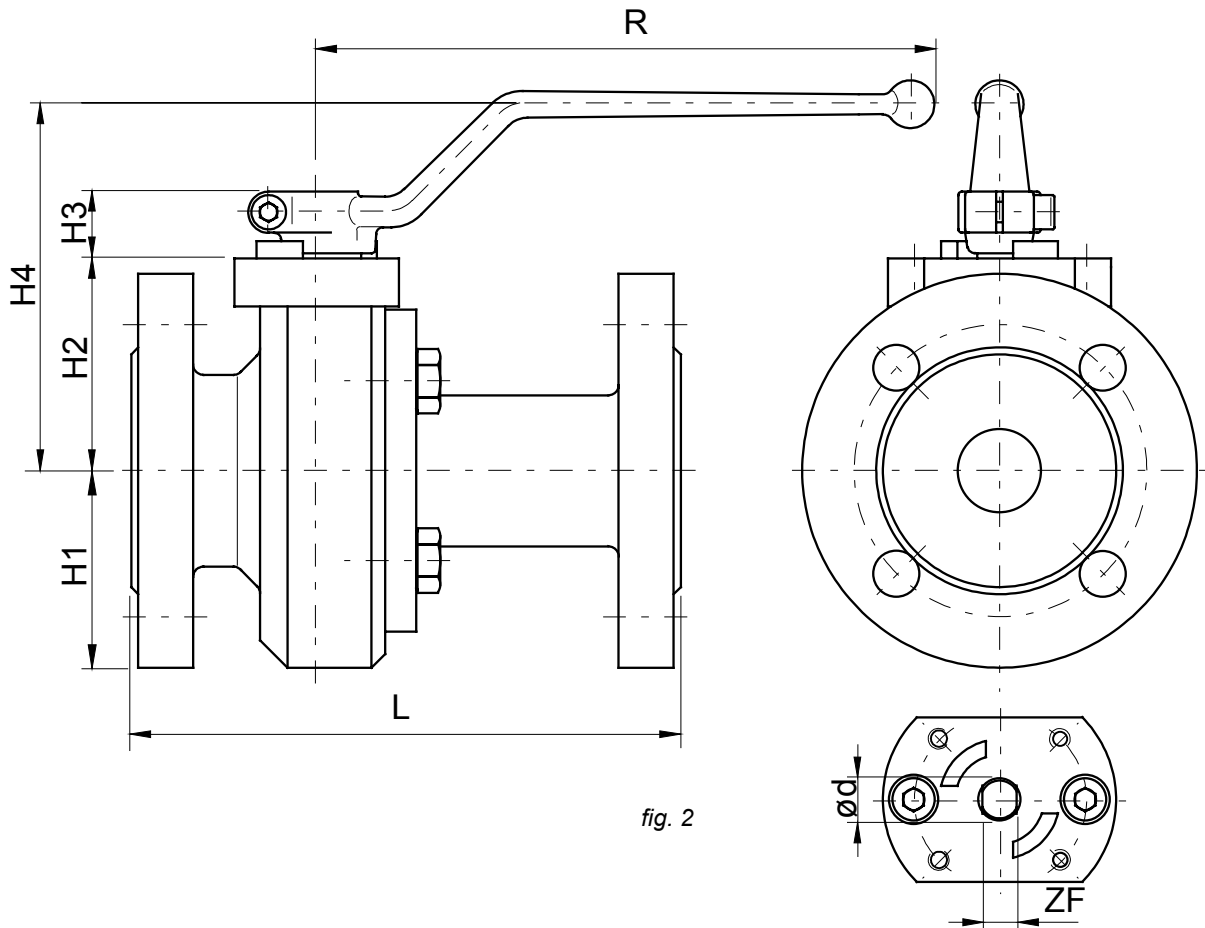
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							Flow K_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face				connections	weight [kg]			actuator-connection DIN/ISO 5211				
										ANSI		DIN 558-1			Cl.150 RF/FF	Cl.300 RF/FF	FTF1		FTF27	Cl.150 RF/FF	DIN 558-1	
										L	L	L	L								FTF1	FTF27
1/2"	15	47,5	50,5	19	95	180	13	10	20	108	140	130	115	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	4,0	4,3	4,0	F 05				
3/4"	20	52,5	50,5	19	95	180	13	10	38	117	152	150	120		5,5	6,0	5,5	F 05				
1"	25	58	62	19	106	180	13	10	65	127	165	160	125		6,0	6,8	6,0	F 05				
1 1/4"	32	70	67,5	19	112	180	13	10	117	140	178	180	130		10,1	11,0	10,0	F 05				
1 1/2"	40	75	80,5	23	126	300	17	12	196	165	190	200	140		13,3	13,7	12,9	F 07				
2"	50	83	89	23	134	300	17	12	325	178	216	230	150		15,0	18,0	14,6	F 07				
2 1/2"	65	92,5	99	23	144	300	17	12	598	190	241	290	170		25,0	26,5	24,5	F 07				
3"	80	105	125	28	153	450	27	18	960	203	283	310	180		34,5	43,5	30,0	F 10				
4"	100	120	140	28	168	450	27	18	1650	229	305	350	190		44,0	56,0	38,0	F 10				

dimensions in mm

Technical modifications are reserved.



3.2 Special features

profit:

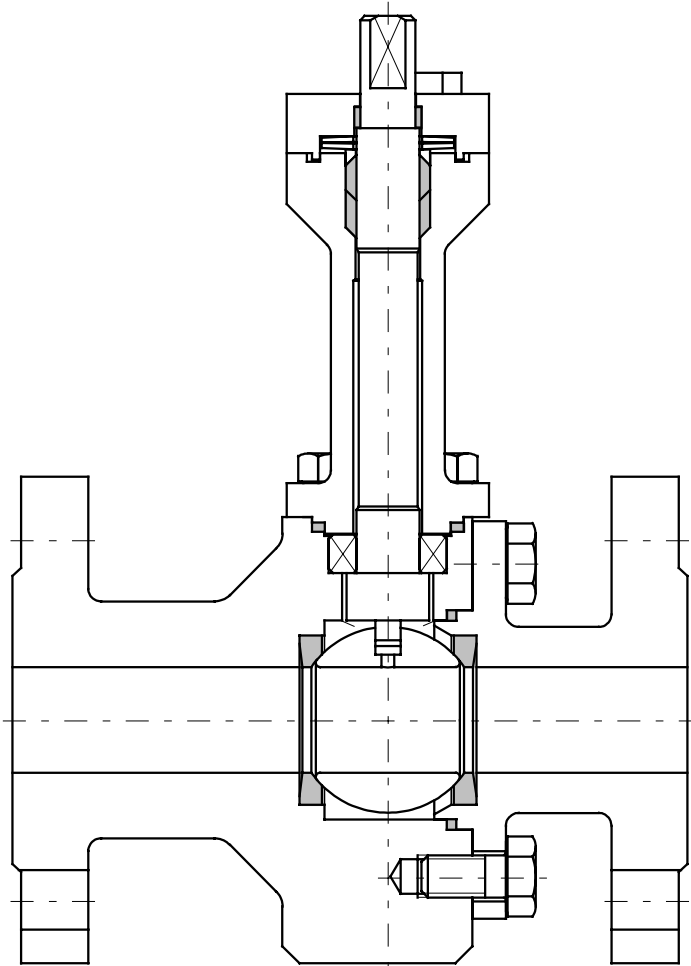
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing

Two-Way Ball Valve Series 70-K

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a two piece body, a insulation extension and a floating, seat supported ball. The stem packing is spring loaded, the seat rings with pressure relief warranty are pre-loaded.

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

Range of application:

DN 1/2" to 4"	PN ANSI Cl. 150/300	Temperature -160°C to 160°C
------------------	------------------------	--------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
11	extension
16	plate spring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing
27	body gasket
28	screw
29	screw
30	screw

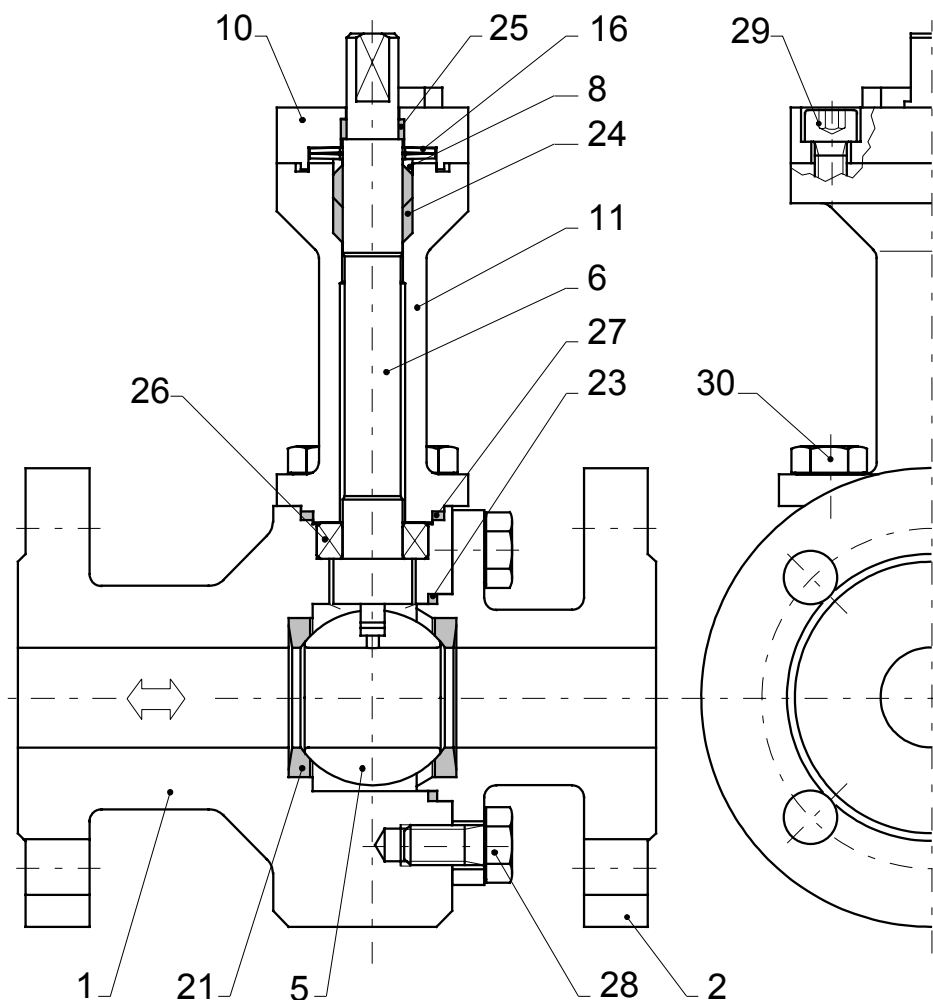


fig. 1
ball valve, series 70-K

2.0 Materials

item	designation	temperatures:		
		-100°C to 100°C ¹⁾	-60°C to 100°C ¹⁾	-160°C to 160°C ¹⁾
1	body	1.4571	1.0566	
2	body end connection			
5	ball	1.4571	1.4571	
6	stem	1.4571	1.4571	
8	gland washer			
10	bearing cover			
11	extension			
16	plate spring	1.4568	1.4568	
21	seat ring	PCTFE	PCTFE	TFM 1600
23	body gasket	PTFE - TFM	PTFE - TFM	
24	stem packing	PTFE - Graphite	PTFE - Graphite	
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass	
26	bearing	PEEK	PEEK	
27	body gasket	PTFE - TFM	PTFE - TFM	
28-30	screw	A 2-70	A 2-70	

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 ³ /h] $\Delta p=1\text{bar}$	face to face				connections	weight [kg]			actuator-connection DIN/ISO 5211
										ANSI		DIN 558-1			ANSI Cl.150 RF/FF	DIN 558-1 FTF1	DIN 558-1 FTF27	
		H1	H2	H3	H4	R	ϕd	ZF		L	L	L	L					
1/2"	15	47,5	37	100	181	180	13	10	20	108	140	130	115	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	4,7	5,1	4,7	F 05
3/4"	20	52,5	37	100	181	180	13	10	38	117	152	150	120		6,2	6,7	6,2	F 05
1"	25	58	48	100	192	180	13	10	65	127	165	160	125		6,7	7,5	6,7	F 05
1 1/4"	32	70	54	100	198	180	13	10	117	140	178	180	130		10,8	11,7	10,7	F 05
1 1/2"	40	75	60	100	204	300	17	12	196	165	190	200	140		15,0	15,4	14,6	F 07
2"	50	83	70	100	214	300	17	12	325	178	216	230	150		16,7	19,7	16,3	F 07
2 1/2"	65	92,5	81	100	225	300	17	12	598	190	241	290	170		26,7	28,2	26,2	F 07
3"	80	105	95	129	243	450	27	18	960	203	283	310	180		38,3	47,3	33,8	F 10
4"	100	120	111	129	259	450	27	18	1650	229	305	350	190		47,8	59,8	41,8	F 10

dimensions in mm

Technical modifications are reserved.

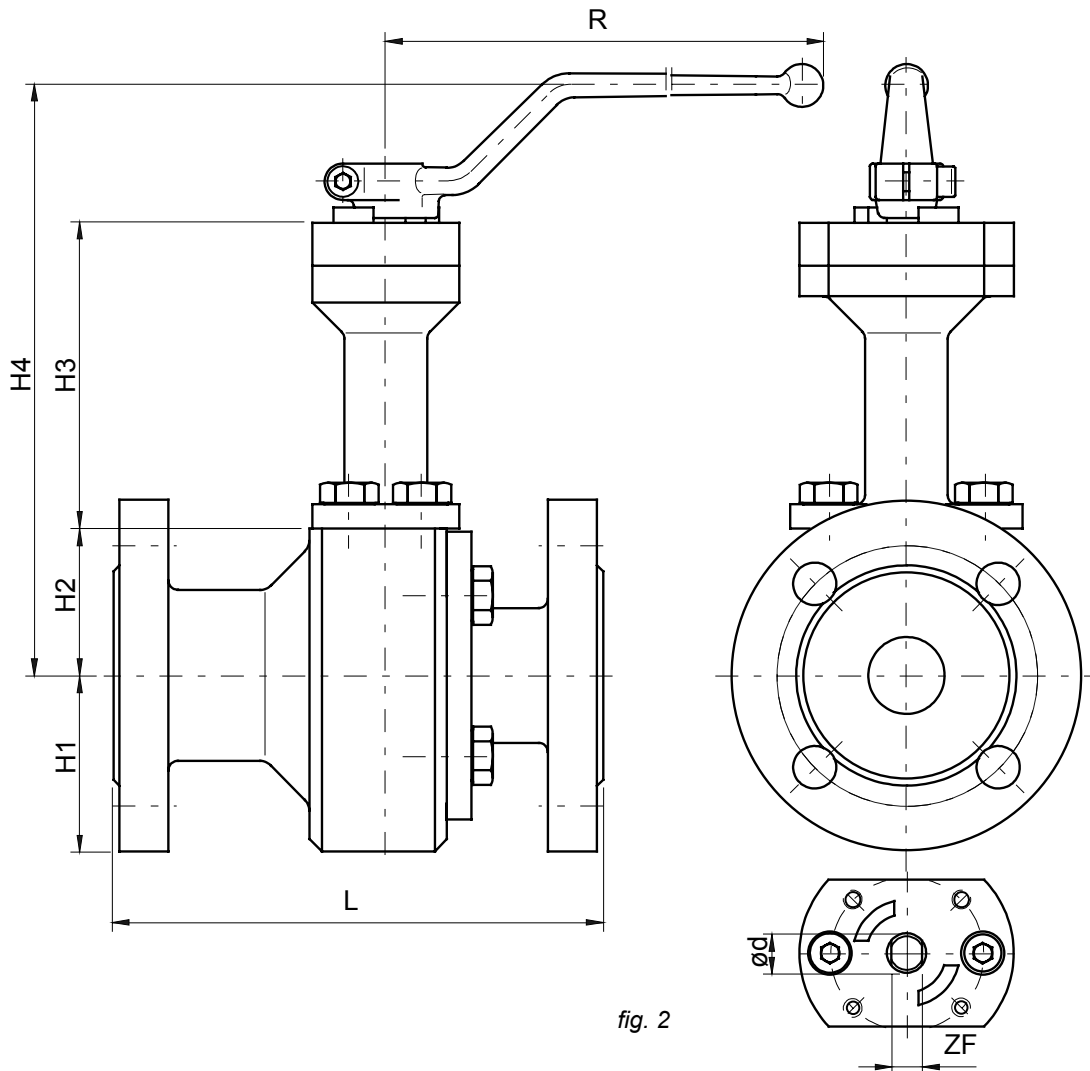


fig. 2

3.2 Special features

profit:

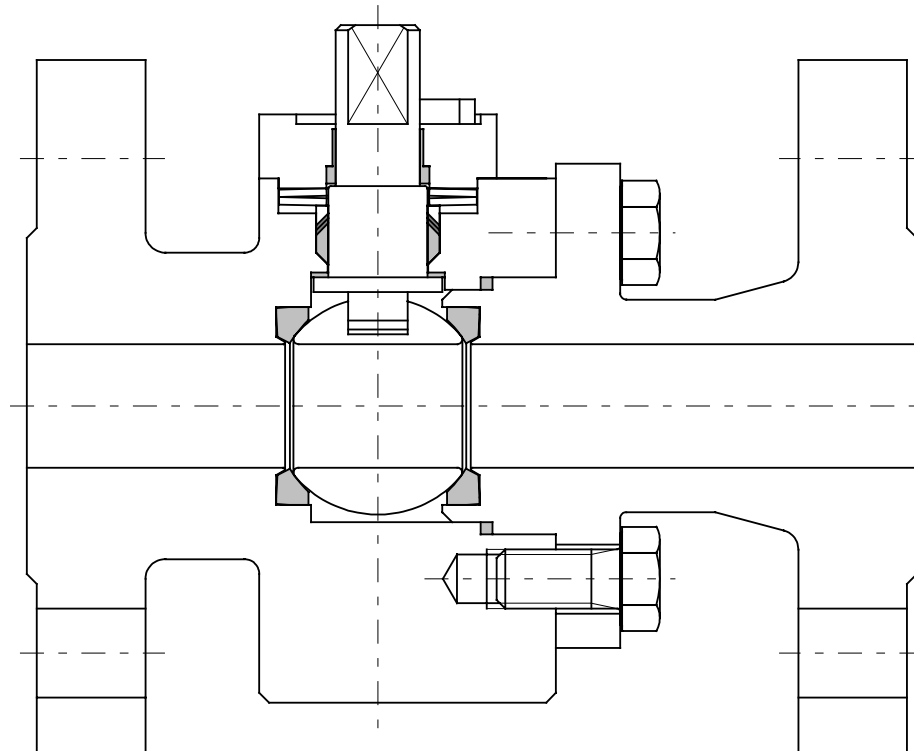
- ready to take actuator
- minimal abrasion
- standard Connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing
- extension for insulation

Two-Way Ball Valve Series 70-H

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a two piece body and a floating, seat supported ball. The stem packing is spring loaded the seat are pre-loaded.

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

Range of application:

DN 1/2" to 4"	PN ANSI Cl. 150/900	Temperature -40°C to 200°C
------------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
21	seat ring
23	body gasket
24	stem packing
25	bearing bush
26	bearing ring
28	screw
29	screw

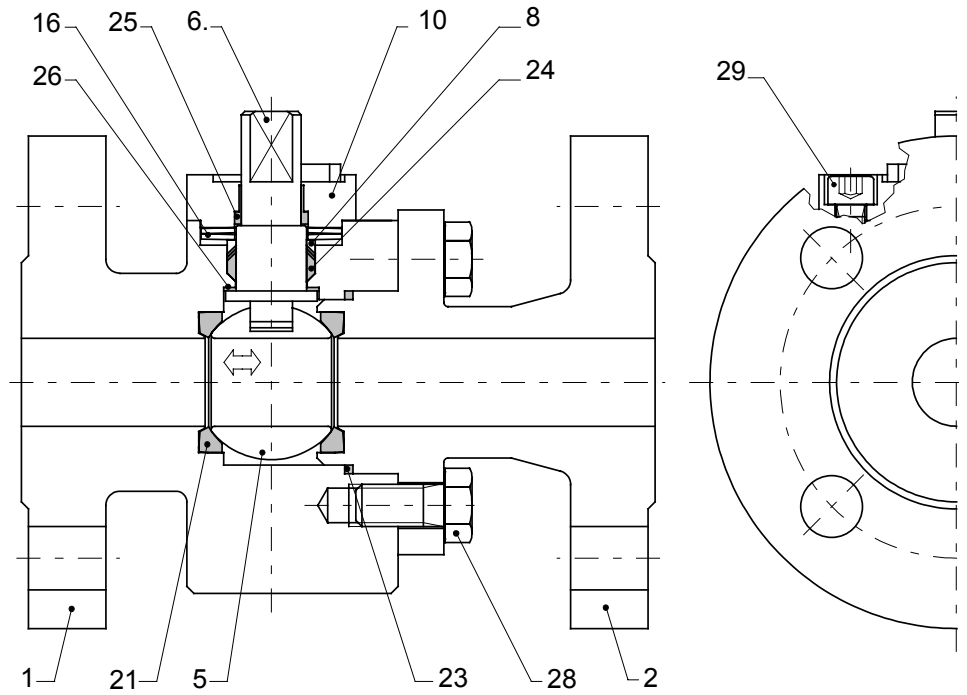


fig. 1
ball valve, series 70-H

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 200°C ¹⁾	-10°C to 200°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4462	1.4462
8	gland washer	1.4571	1.4571
10	bearing cover		1.0460
16	plate spring	1.4568	1.8159
21	seat ring	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing bush	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing ring		
28-29	screw	A 2-70	A 2-70

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 ³ /h] $\Delta p=1\text{bar}$	face to face			connections	weight [kg]			actuator-connection DIN/ISO 5211
										ANSI		DIN 558-1		ANSI Cl.600 RF/FF	DIN 558-1 FTF2	ANSI Cl.600 RF/FF	
		H1	H2	H3	H4	R	$\varnothing d$	ZF		L	L						
1/2"	15	53	59	19	101	180	13	10	20		165	210	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	9		10	F 05
3/4"	20	62	59	21	101	300	17	12	38		190	230		10		11	F 07
1"	25	62	59	21	101	300	17	12	65		216	230		14		14	F 07
1 1/4"	32	64	88	28	108	450	27	18	117		229	260		18		19	F 10
1 1/2"	40	64	91	28	111	450	27	18	196		241	260		20		22	F 10
2"	50	78	98	28	116	450	27	18	325		292	300		28		29	F 10
2 1/2"	65	90	110	28	125	450	27	18	598		330	340		31		32	F 10
3"	80	105	138	37	170	800	43	32	960		356	380		48		49	F 12
4"	100	115	174	37	206	800	43	32	1650		432	430		63		63	F 12

dimensions in mm

Technical modifications are reserved.

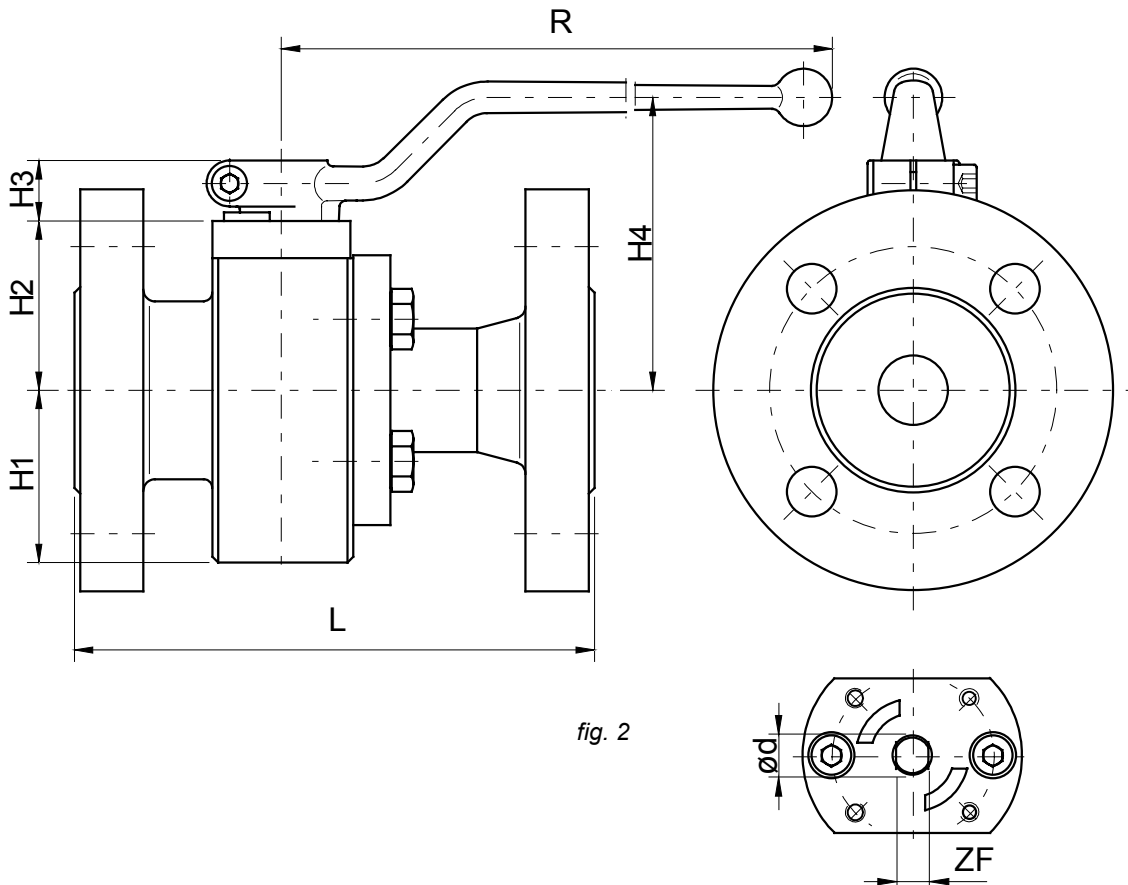


fig. 2

3.2 Special features

profit:

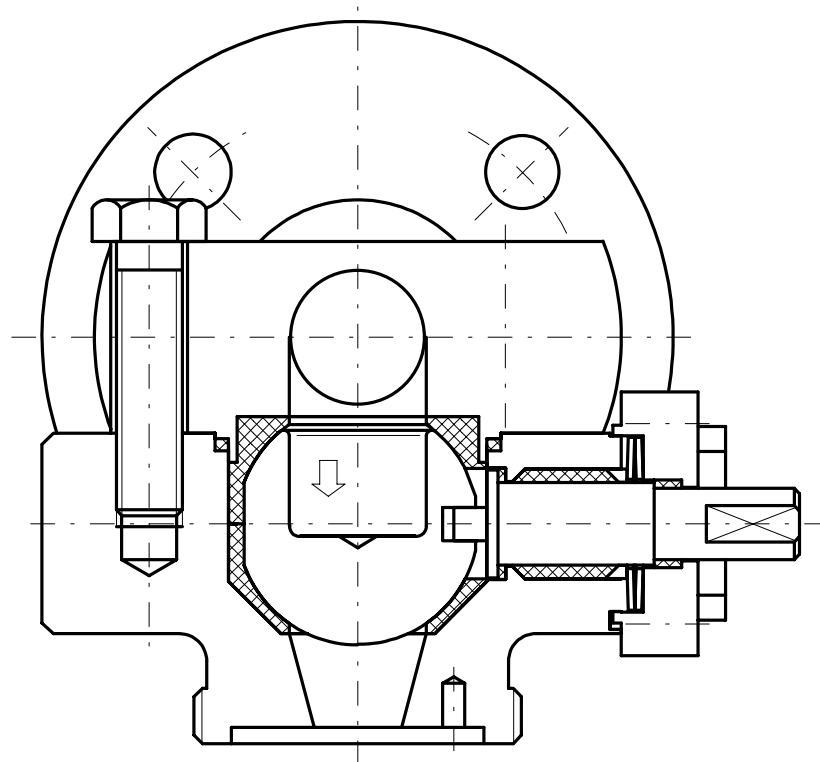
- ready to take actuator
- minimal abrasion
- standard Connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing

Sampling Valve Series 71-S

for pipes systems
from DN 1/2" to 6"



Description:

This PERRIN ball valve design features a two piece body, a floating, seat supported ball with pocket hole, a compact seat system and a universal-connection for different sampling-systems with integrated air vent. The stem packing is spring loaded.

The stem packing has examined TA-Luft (Air Act). The ball valve is extradited in antistatic-design and with anti blowout proof stem.

Stem extensions, locking devices and actuators with accessoires can be field mounted at any time. The mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

1.0 Main Parts

Item	designation
1	pipe-body
2	valve-body
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
21	half-shade seat
22	half-shade seat
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

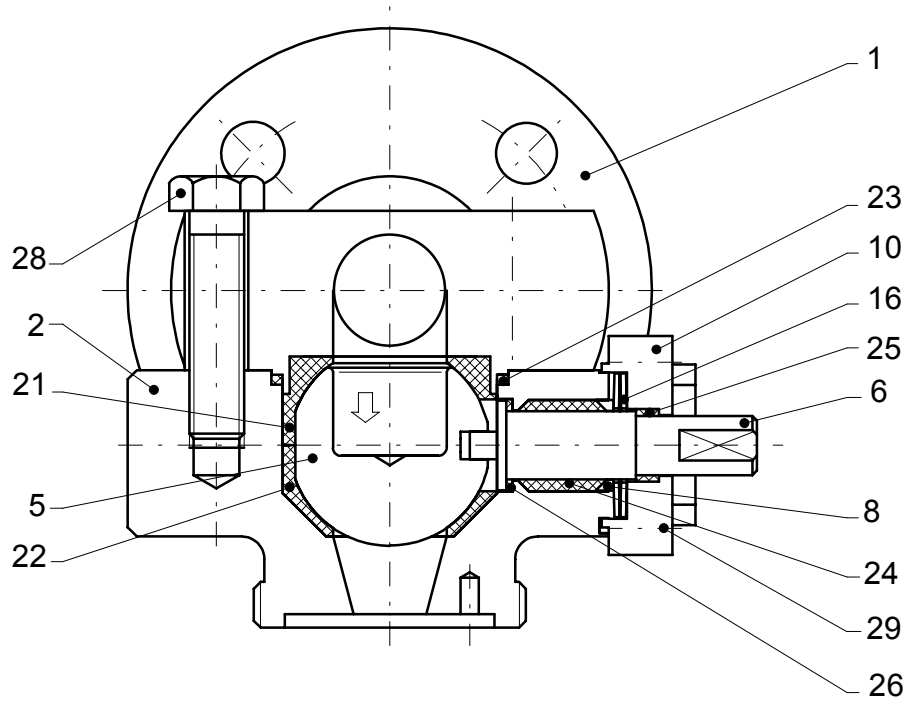


fig. 1
sampling valve, series 71-S

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 200°C	-10°C to 200°C
1	pipe-body	1.4571 / 1.4408	1.0460 / 1.0619
2	valve-body		
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4310	1.8159
21-22	half-shade seat	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25-26	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
28-29	screw	A 2-70	A 2-70

Designs for lower/higher temperatures and special materials (f.ex. Titanium, Hastelloy) on request.

3.0 Technical Data

3.1 Nominal size / Dimensions / Connections / Weights

nominal pipe size (DN)		dimensions							sampling-volume [ml] ¹⁾	face to face			connections (pipe-system)	weight [kg]			actuator connection DIN/ISO 5211	
										ANSI ²⁾		DIN 558-1		ANSI RF/FF	DIN 558-1			
		Cl.300 RF/FF	FTF1	FTF1	FTF27	FTF1	FTF27											
1"	25	74	40	58	62	19	106	180	20		L	L	--	flanges to DIN 2501 or ANSI B 16.5		6,8	--	F05
2"	50	133	69	83	62	19	106	180	60		L	L	--			18,0	--	F05 / F07
3"	80	149	69	100	89	23	134	300	60		L	L	--			43,5	--	
4"	100	159	69	118	89	23	134	300	60		L	L	--			56,0	--	

dimensions in mm

¹⁾ Lower sampling-volumes acc. to customers specification, higher on request.

²⁾ face to face dim. valid for ANSI Class 150 and 300.

Technical modifications are reserved.

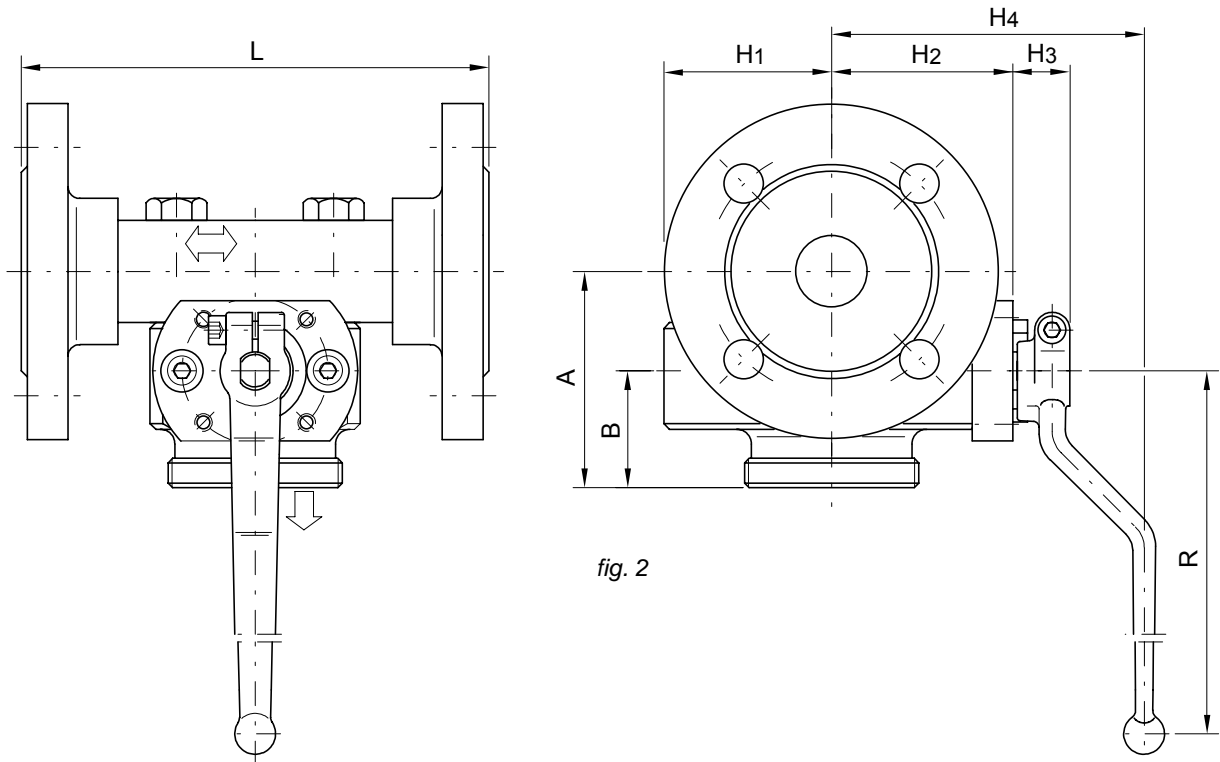


fig. 2

3.2 Range of application:

DN (pipe size) 1/2" to 6"	PN ANSI Cl. 150/300	Temperature -40°C to 200°C
------------------------------	------------------------	-------------------------------

Alternate sizes, pressure- and temperature-ranges on request.

3.3 Special features

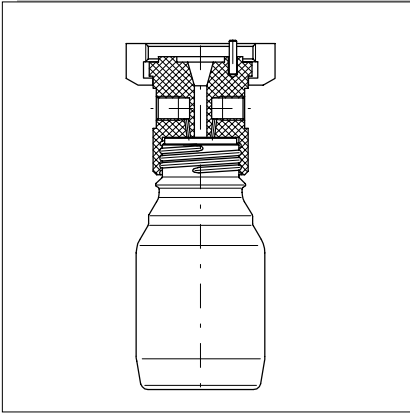
profit:

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

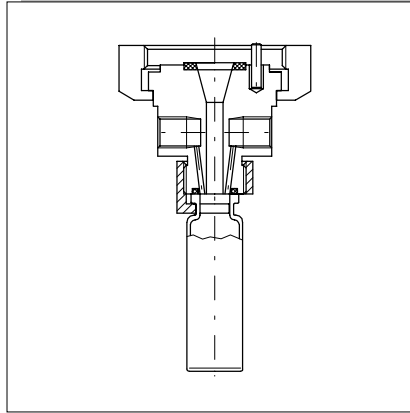
design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing

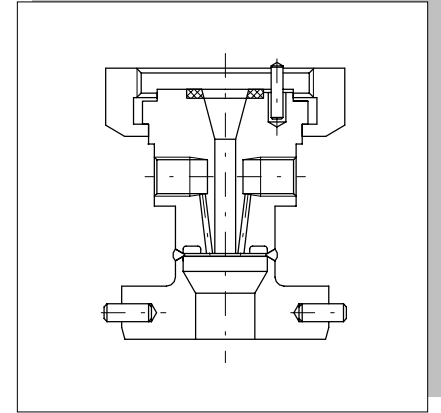
4.0 Accessories



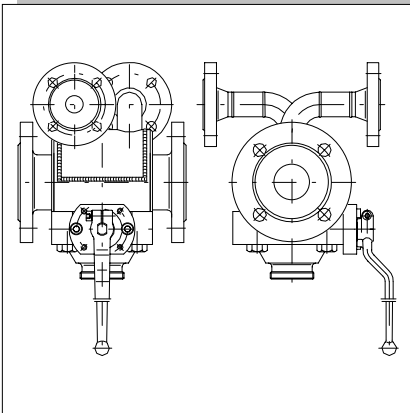
*fig. 3
adapter for thread connection GL45
in PTFE or SS*



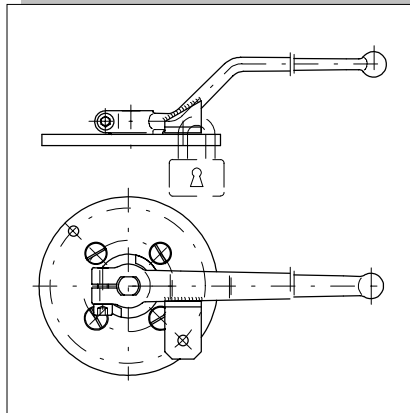
*fig. 4
adapter with connection for
septic-bottle*



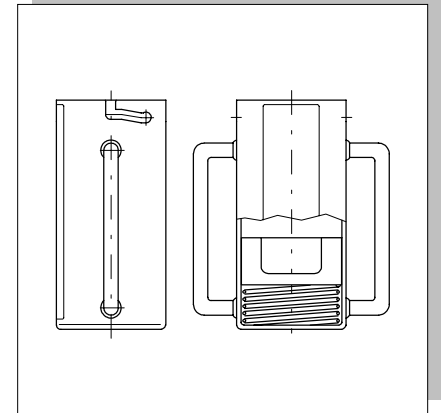
*fig. 5
adapter for pick-up case*



*fig. 6
heating- / cooling-jacket*



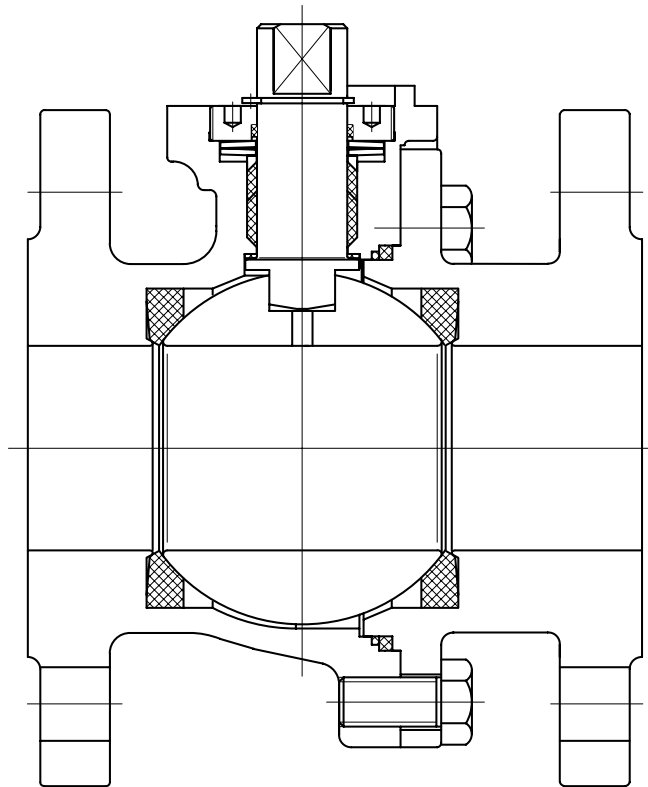
*fig. 7
locking device*



*fig. 8
pick-up case*

Two-Way Ball Valve Series 75-S

DN ½" to 6"



Description:

This PERRIN ball valve design features a Two-Piece Body and a Floating, Seat-Supported Ball. The Stem Packing is Spring-Loaded and the Seats, with a cavity pressure relief guarantee, are Pre-Loaded.

The Actuator Mounting Flange corresponds to the NAMUR recommendations, with dimensions to DIN/EN/ISO 5211.

Stem Extensions, Locking Devices and Actuators with Accessories, can be field mounted at any time.

The Stem Top-works-dimension can be supplied to DIN/EN/ISO 5211 : 2001 or to the BASF-Standard WN 14-003.

This ball valve incorporates an antistatic-design, an anti blowout proof stem to BS 5351 and is "Fire-Safe" certified. The Stem Packing is also TA-Luft approved / certified.

Range of Application:

DN ½" to 6"	PN ANSI CL150 CL300 <= 2,5"	Temperatures -60°C to +200°C
----------------	-----------------------------------	---------------------------------

1.0 Main Parts

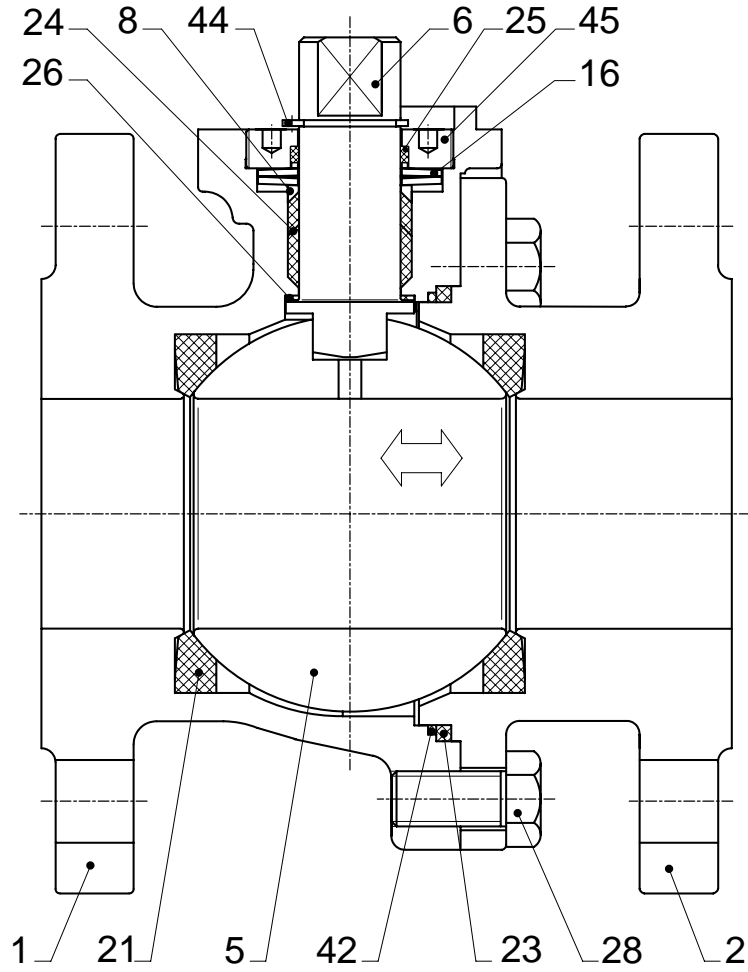


Fig. 1
Ball Valve, Series 75-S

Technical modifications are reserved.

Item	Designation	Temperatures:	
		-60°C to +200°C	-10°C to +200°C
1	Body	1.4408	1.0619
2	Body End Connection		
5	Ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	Stem	1.4462 / 1.4571	1.4462 / 1.4571
8	Gland Washer	1.4571	1.4571
16	Plate Spring	1.4310	1.4310
21	Seat Ring	PTFE - TFM	PTFE - TFM
23	Body Gasket	Graphite	Graphite
24	Stem Packing	PTFE - Graphite	PTFE - Graphite
25	Bearing Ring	Graphite	Graphite
26	Bearing Ring	PTFE - 25% Glass	PTFE - 25% Glass
28	Screw	A 2-70	A 2-70
42	Body Gasket	PTFE - 25% Glass	PTFE - 25% Glass
44	Locking Ring	A 2	A 2
45	Threaded Ring	1.4571	1.4571

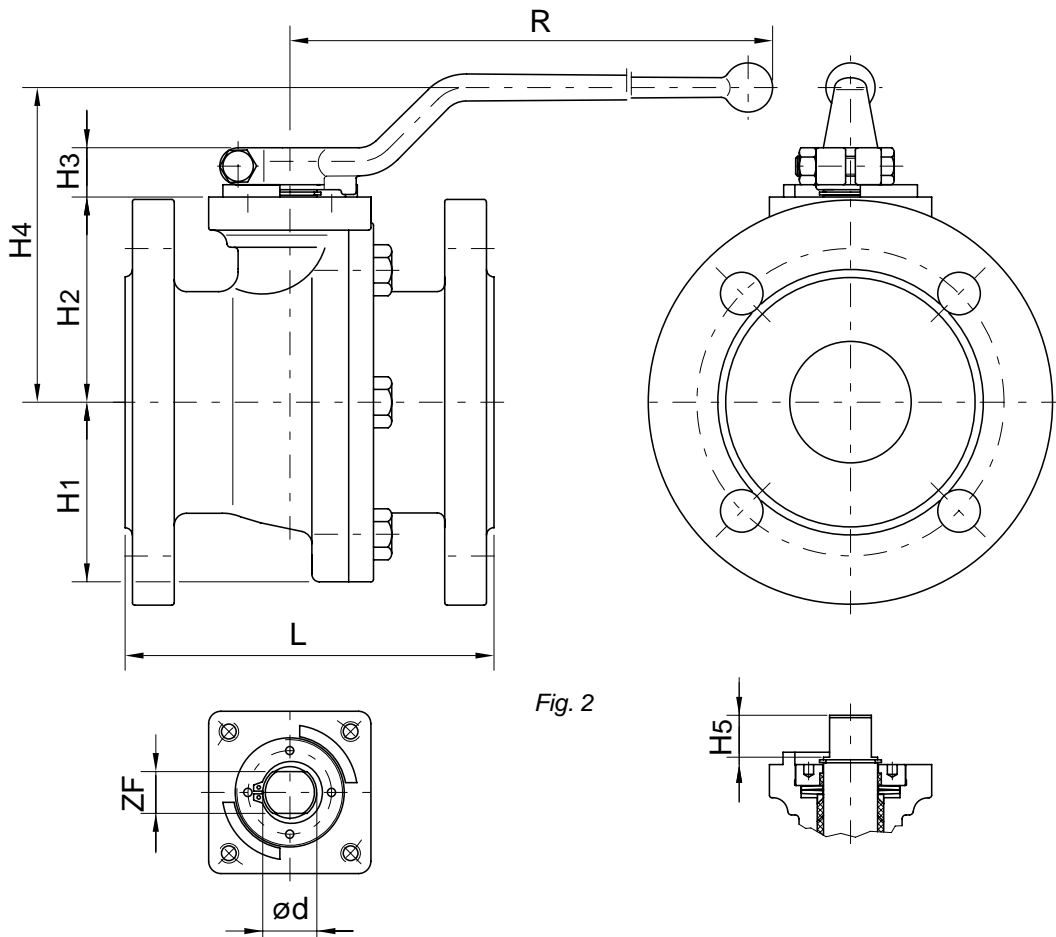
2.0 Technical data

2.1 Nominal Size / Dimensions / Connections / Flow / Weights

nominal size (DN)		dimensions											flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		actuator-connection DIN/ISO 5211
							EN-Standard			BASF-Standard				ANSI			Cl. 150 RF/FF	Cl. 300 RF/FF	
		H1	H2	H3	H4	R	$\varnothing d$	ZF	H5	$\varnothing d$	ZF	H5		Cl. 150 RF/FF	Cl. 300 RF/FF				
1/2"	15	40,5	47,5	19	84	180	18	14	14	18	14	14	20	108	140	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	3	3,6	F 05
3/4"	20	40,5	47,5	19	84	180	18	14	14	18	14	14	38	117	152		4	4,7	F 05
1"	25	47	50	19	87	180	18	14	14	18	14	14	65	127	165		5	5,7	F 05
1 1/4"	32	53	55,5	19	92	180	18	14	14	18	14	14	117	140	178		7	9	F 05
1 1/2"	40	66	75,5	20	120	300	22	17	17	22	17	17	196	165	190		10	12,5	F 07
2"	50	73	83,5	20	128	300	22	17	17	22	17	17	325	178	216		12	14,6	F 07
2 1/2"	65	84	94	20	139	300	22	17	17	22	17	17	598	190	241		18	21	F 07
3"	80	91	113	22	177	450	28	22	22	26	19	19	960	203			22		F 10
4"	100	107	127	22	191	450	28	22	22	26	19	19	1650	229			32		F 10
5"	125	135	161	27	188	700	36	27	27	33	24	24	2720	381			49		F 12
6"	150	156	180	40	220	700	48	36	36	42	30	30	4200	394			83		F 14

Dimensions in mm

Technical modifications are reserved.

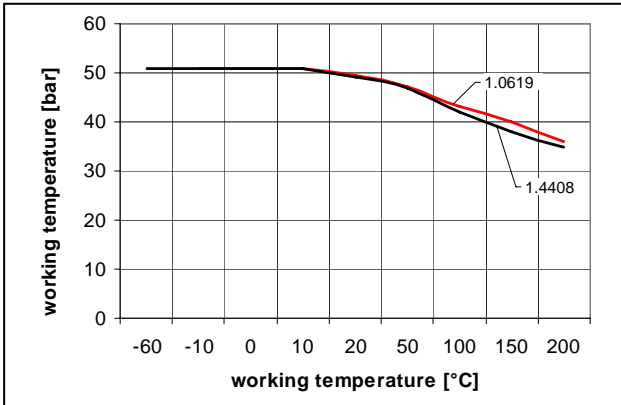


2.2 Special Features

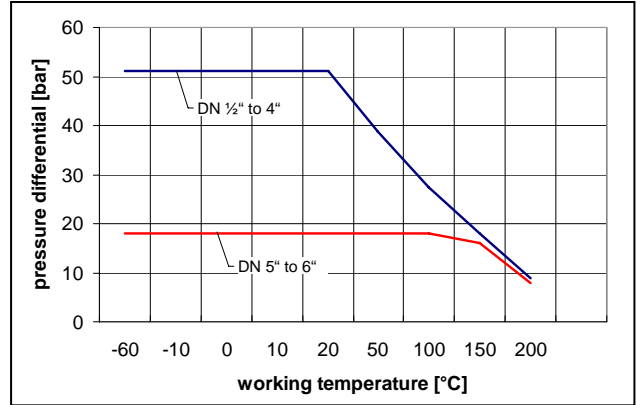
Design:

- Two Piece Body
- Floating Ball
- No Welds
- Anti Blowout Proof Stem
- Live Loaded Stem Packing

2.3 Pressure-Temperature-Diagram Body



2.4 Pressure-Temperature-Diagram Seat / TFM 1600



Technical modifications are reserved.

Two-Way Ball Valves Series 80



80-S

DN: ½" to 12"
PN: ANSI Class 150/300
Temp.: -40°C to 250°C



80-M

DN: ½" to 10"
PN: ANSI Class 150/300
Temp.: -40°C to 450°C



80-C

DN: ½" to 10"
PN: ANSI Class 150/300
Temp.: -40°C to 350°C



80-K

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -196°C to 100°C



80-H

DN: ½" to 4"
PN: ANSI Class 150/900
Temp.: -40°C to 200°C



80-E

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -40°C to 600°C



80-N

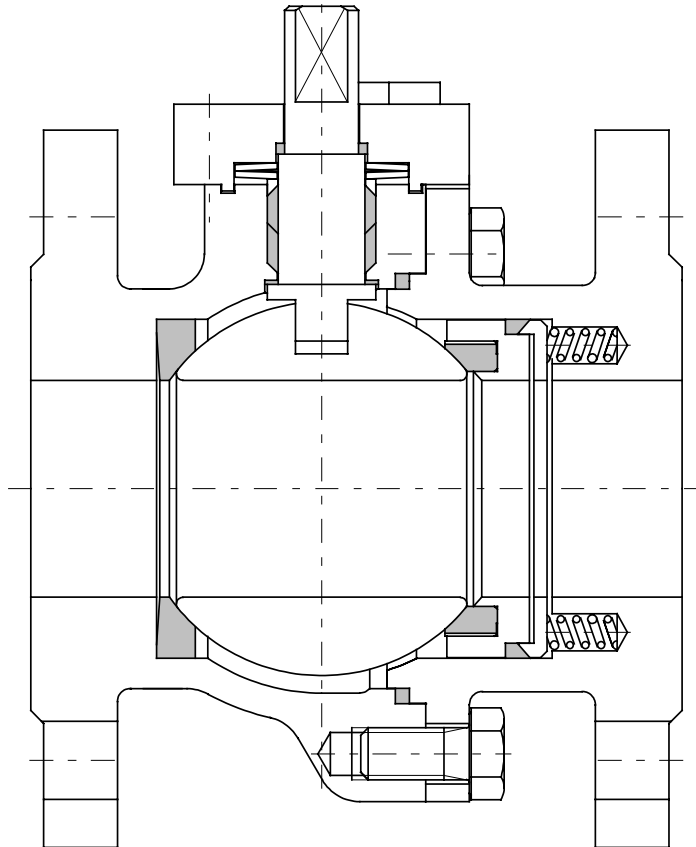
DN: ½" to 6"
PN: ANSI Class 150/300
Temp.: -196°C to 100°C



Press Button to select

Two-Way Ball Valve Series 80-S

DN ½" to 12"



Description:

This PERRIN ball valve design features a two piece, bolted body and a floating, seat supported ball. 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 accessoires can be field mounted at any time. The

The ball valve is extradited 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 12"	PN ANSI Cl. 150/300	Temperature -40°C to 250°C
-----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
3	retainer ring
4	retainer ring
5	ball
6	stem
8	gland washer
10	bearing cover
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 ring
28	screw
29	screw

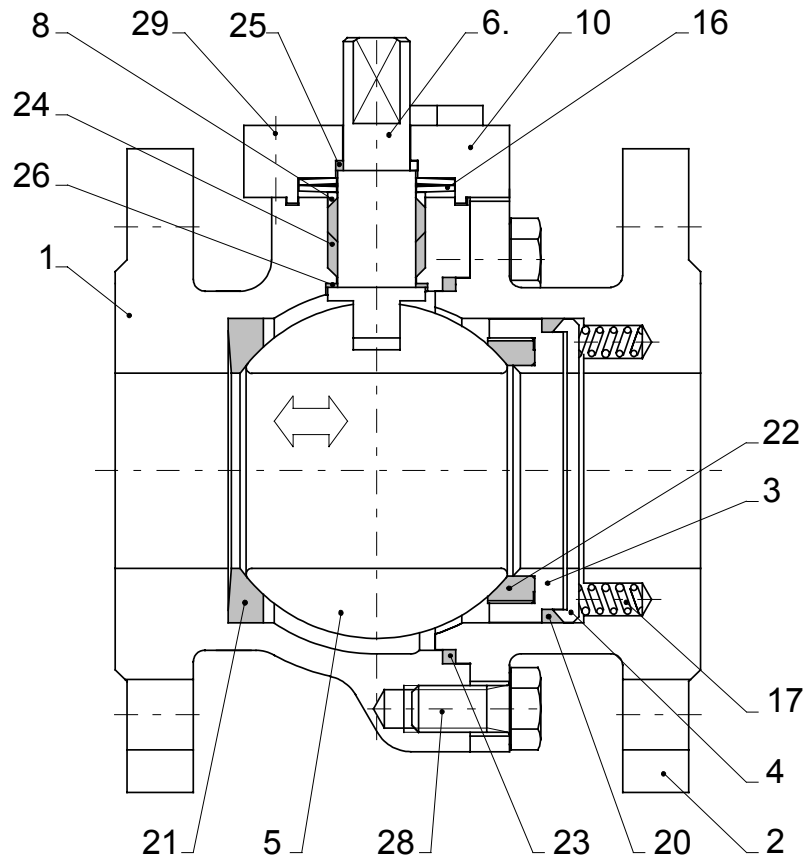


fig. 1
ball valve, series 80-S

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		1.0460
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	sealing ring	PTFE - TFM	PTFE - TFM
21-22	seat ring		
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing ring		
28-29	screw	A 2-70	A 2-70

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

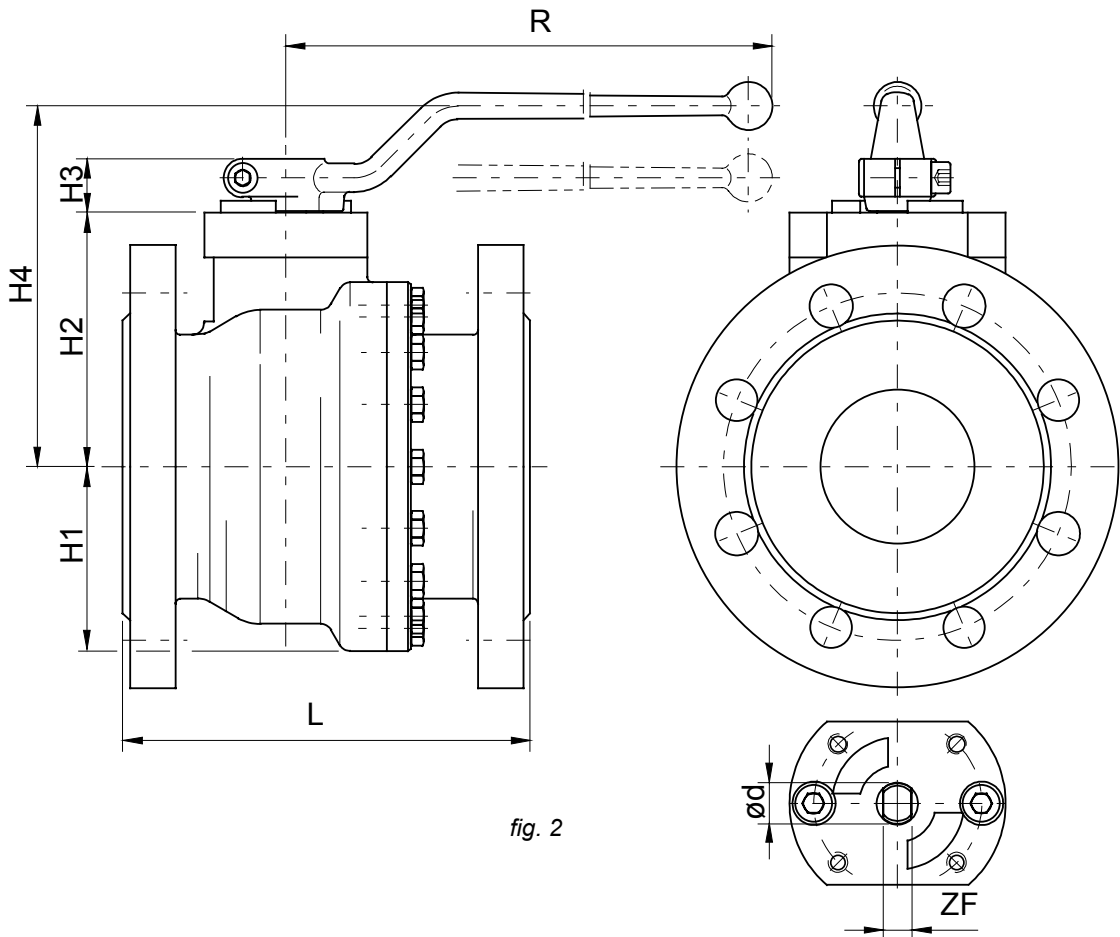
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face				connections	weight [kg]			actuator-connection DIN/ISO 5211				
										ANSI		DIN 558-1			Cl.150 RF/FF	Cl.300 RF/FF	FTF1		FTF27	Cl.150 RF/FF	DIN 558-1	
										L	L	L	L								FTF1	FTF27
1/2"	15	38	50,5	19	95	180	13	10	20	108	140	130	115	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	3,5	3	3,5	F 05				
3/4"	20	44	50,5	19	95	180	13	10	38	117	152	150	120		7	6	7	F 05				
1"	25	47	62	19	106	180	13	10	65	127	165	160	125		7,2	6	7,2	F 05				
1 1/4"	32	58	67,5	19	112	180	13	10	117	140	178	180	130		9,2	10	9,5	F 05				
1 1/2"	40	64	80,5	23	126	300	17	12	196	165	190	200	140		9,5	10	19,5	F 07				
2"	50	72	89	23	134	300	17	12	325	178	216	230	150		15	18	14,6	F 07				
2 1/2"	65	80	99	23	144	300	17	12	598	190	241	290	170		25	26,5	24,5	F 07				
3"	80	91	125	28	153	450	27	18	960	203	283	310	180		34,5	43,5	30	F 10				
4"	100	106	140	28	168	450	27	18	1650	229	305	350	190		44	56	38	F 10				
5"	125	131	158	37	222	800	43	32	2720		381		325		60		58	F 12				
6"	150	170	197	37	261	800	43	32	4200	394	403		350		88		86	F 12				
8"	200	210	241	33	--	--	58	38	8130	457	502		400		156		152	F 14				
10"	250	225	282	33	--	--	58	38	13500	533	568		450		225		210	F 14				
12"	300	263	338	41	--	--	68	44	20100	610			500					F 16				

dimensions in mm

Technical modifications are reserved.



3.2 Special features

profit:

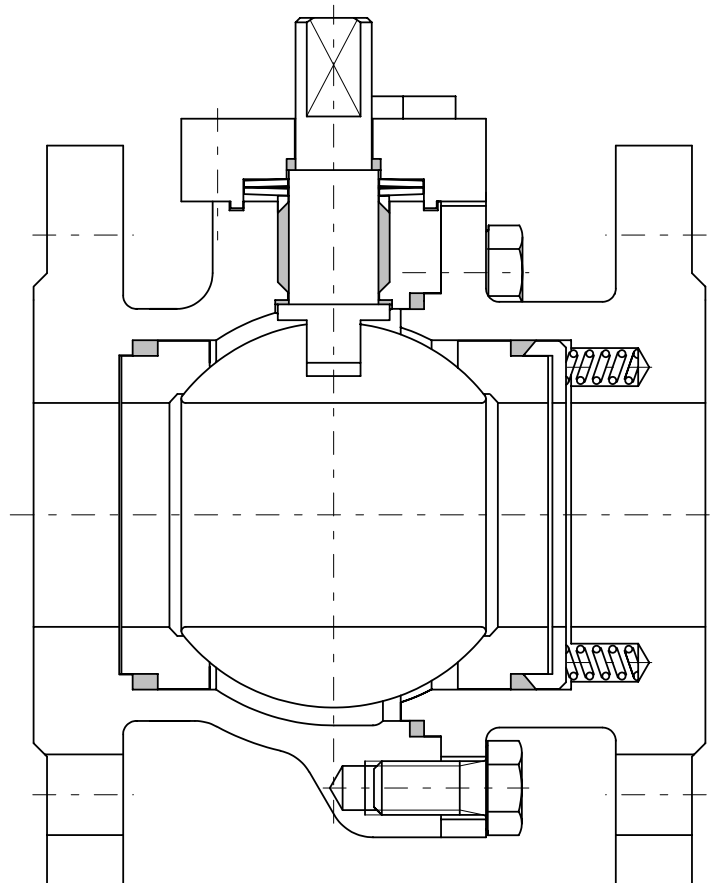
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

Two-Way Ball Valve Series 80-M

DN ½" to 10"



Description:

This PERRIN ball valve design features a two piece, bolted body and a floating, seat supported ball. 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/EN/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, 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. 150/300	Temperature -60°C to 450°C
-----------------	------------------------	-------------------------------

1.0 Main parts

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

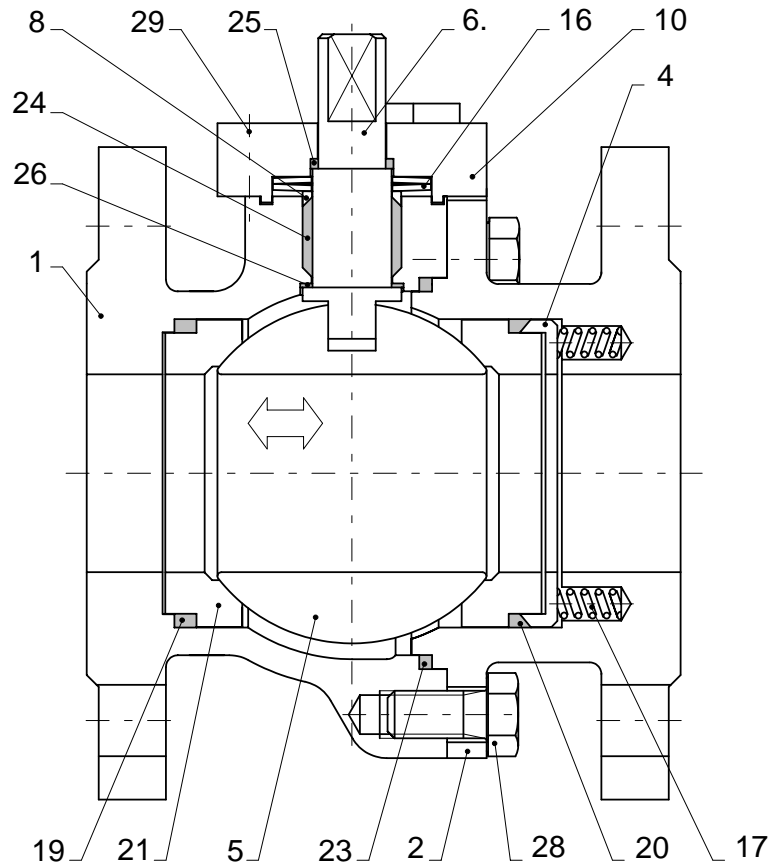


fig. 1
ball valve, series 80-M

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-60°C to 400°C	-10°C to 450°C ¹⁾
1	body	1.4571	1.0460 / 1.0619
2	body end connection		
4	retainer ring	1.4571	1.4571
5	ball	1.4541 coated	1.4571 / 1.4408 coated
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
19	sealing ring	Graphite	Graphite
20	sealing ring		
21	seat ring	1.4571 coated / 3.1707	1.4571 coated / 3.1707
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	1.0037.07	1.0037.07
26	bearing ring	Graphite with SS	Graphite with SS
28-29	screw	A 2-70	A 2-70

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 ³ /h] $\Delta p=1\text{bar}$	face to face				connections	weight [kg]			actuator-connection DIN/ISO 5211	
										ANSI		DIN 558-1			ANSI		DIN 558-1		
										Cl.150 RF/FF	Cl.300 RF/FF	FTF1	FTF27		Cl.150 RF/FF	Cl.300 RF/FF	FTF1		FTF27
1/2"	15	38	50	19	95	180	13	10	20	108	140	130	115	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	3,5	3,5	3	F 05	
3/4"	20	44	62	23	107	300	17	12	38	117	152	150	120		7	7	6	F 07	
1"	25	47	62	23	107	300	17	12	65	127	165	160	125		7,2	7,2	6,5	F 07	
1 1/4"	32	58	81	28	119	450	27	18	117	140	178	180	130		9,2	10	9,5	F 10	
1 1/2"	40	64	81	28	119	450	27	18	196	165	190	200	140		13,3	12,7	12,9	F 10	
2"	50	72	101	28	139	450	27	18	325	178	216	230	150		15	18	14,6	F 10	
2 1/2"	65	80	106	28	144	450	27	18	598	190	241	290	170		25	26,5	24,5	F 10	
3"	80	91	125	37	189	800	40	32	960	203	283	310	180		34,5	43,5	30	F 12	
4"	100	106	140	37	204	800	40	32	1650	229	305	350	190		44	56	38	F 12	
5"	125	131	158	37	222	800	40	32	2720	381	381		325		60		58	F 12	
6"	150	170	206	33	--	--	58	38	4200	394	403		350		88		86	F 14	
8"	200	210	263	41	--	--	68	38	8130	457	502		400		232		225	F 16	
10"	250	282	304	41	--	--	68	38	13500	533	568		450		468		462	F 16	

dimensions in mm

Technical modifications are reserved.

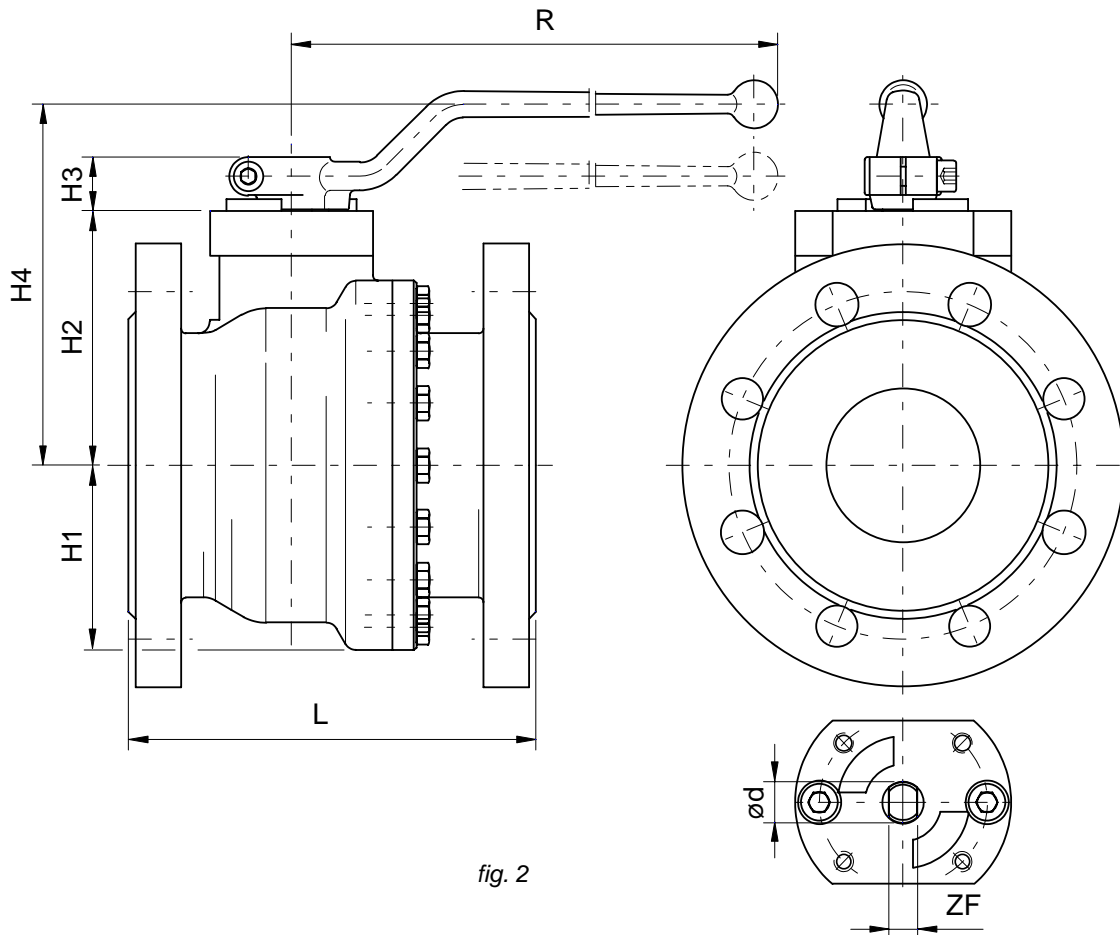


fig. 2

3.2 Special features

profit:

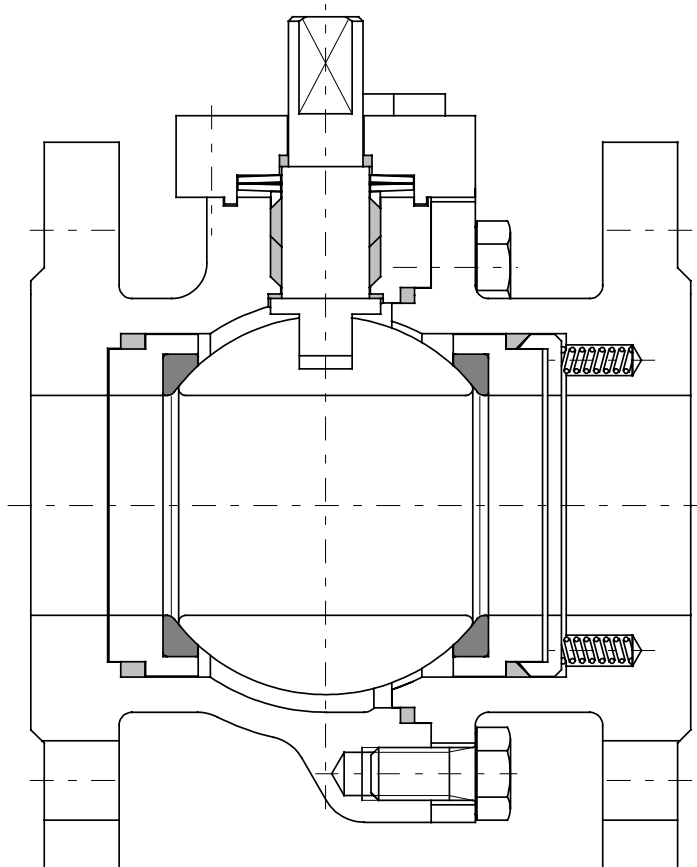
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

Two-Way Ball Valve Series 80-C

DN ½" to 10"



Description:

This PERRIN ball valve design features a two piece, bolted body and a floating, seat supported ball. 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 accessoires can be field mounted at any time.

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. 150/300	Temperature -40°C to 350°C
-----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
4	retainer ring
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
17	coil spring
19	sealing ring
20	sealing ring
21	seat-unit
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

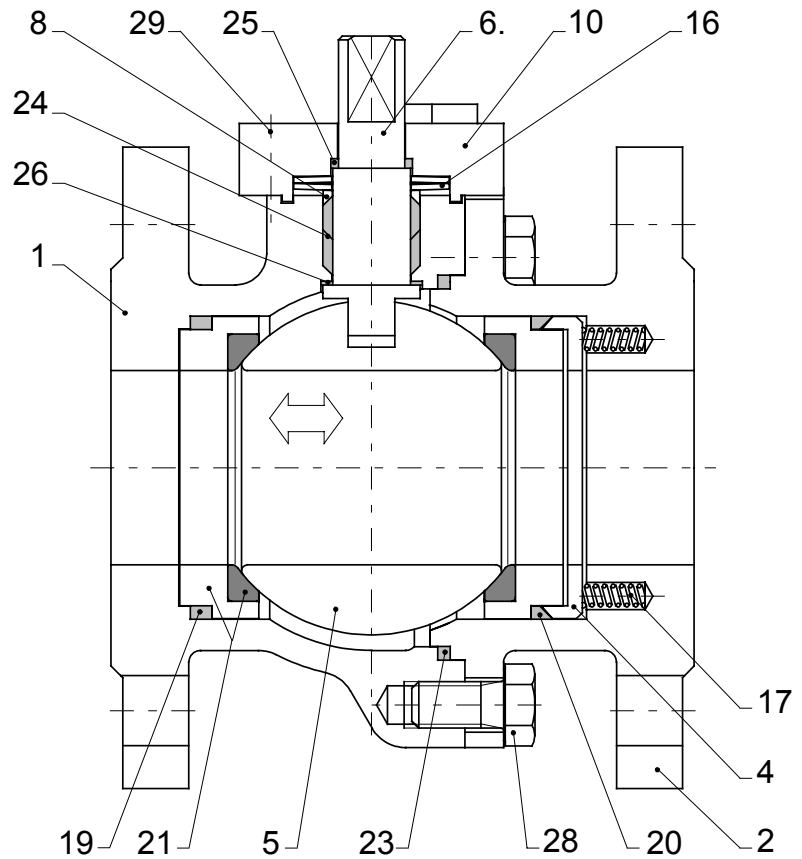


fig. 1
ball valve, series 80-C

2.0 Materials

item	designation	temperatures:	
		-40°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
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 ²⁾	1.4571 / 1.4408 ²⁾
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
19	sealing ring	Graphite	Graphite
20	sealing ring		
21	seat-unit	1.4571 - Carbon-Antimon	1.4571 - Carbon-Antimon
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	1.0037.07	1.0037.07
26	bearing ring	Graphite with SS	Graphite with SS
28-29	screw	A 2-70	A 2-70

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

2) Optionally coated.

3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow K_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face				connections	weight [kg]			actuator-connection DIN/ISO 5211
										ANSI		DIN 558-1			ANSI		DIN 558-1	
										Cl.150 RF/FF	Cl.300 RF/FF	FTF1	FTF27		Cl.150 RF/FF	Cl.300 RF/FF	FTF1	
1/2"	15	38	50,5	19	95	180	13	10	20	108	140	130	115	flanges to DIN 2501 or ANSI B 16.5 (Other connections on request)	3,5	3	3,5	F 05
3/4"	20	44	62	23	107	300	17	12	38	117	152	150	120		7	6	7	F 07
1"	25	47	62	23	107	300	17	12	65	127	165	160	125		7,2	6	7,2	F 07
1 1/4"	32	58	81	28	119	450	27	18	117	140	178	180	130		9,2	10	9,5	F 10
1 1/2"	40	64	81	28	119	450	27	18	196	165	190	200	140		9,5	10	19,5	F 10
2"	50	72	101	28	139	450	27	18	325	178	216	230	150		15	18	14,6	F 10
2 1/2"	65	80	106	28	144	450	27	18	598	190	241	290	170		25	26,5	24,5	F 10
3"	80	91	125	37	189	800	40	32	960	203	283	310	180		34,5	43,5	30	F 12
4"	100	106	140	37	204	800	40	32	1650	229	305	350	190		44	56	38	F 12
5"	125	131	158	37	222	800	40	32	2720	381	381		325		60		58	F 12
6"	150	170	206	33	--	--	58	38	4200	394	403		350		88		86	F 14
8"	200	210	263	41	--	--	68	38	8130	457	502		400		156		152	F 16
10"	250	282	304	41	--	--	68	38	13500	533	568		450		225		210	F 16

dimensions in mm

Technical modifications are reserved.

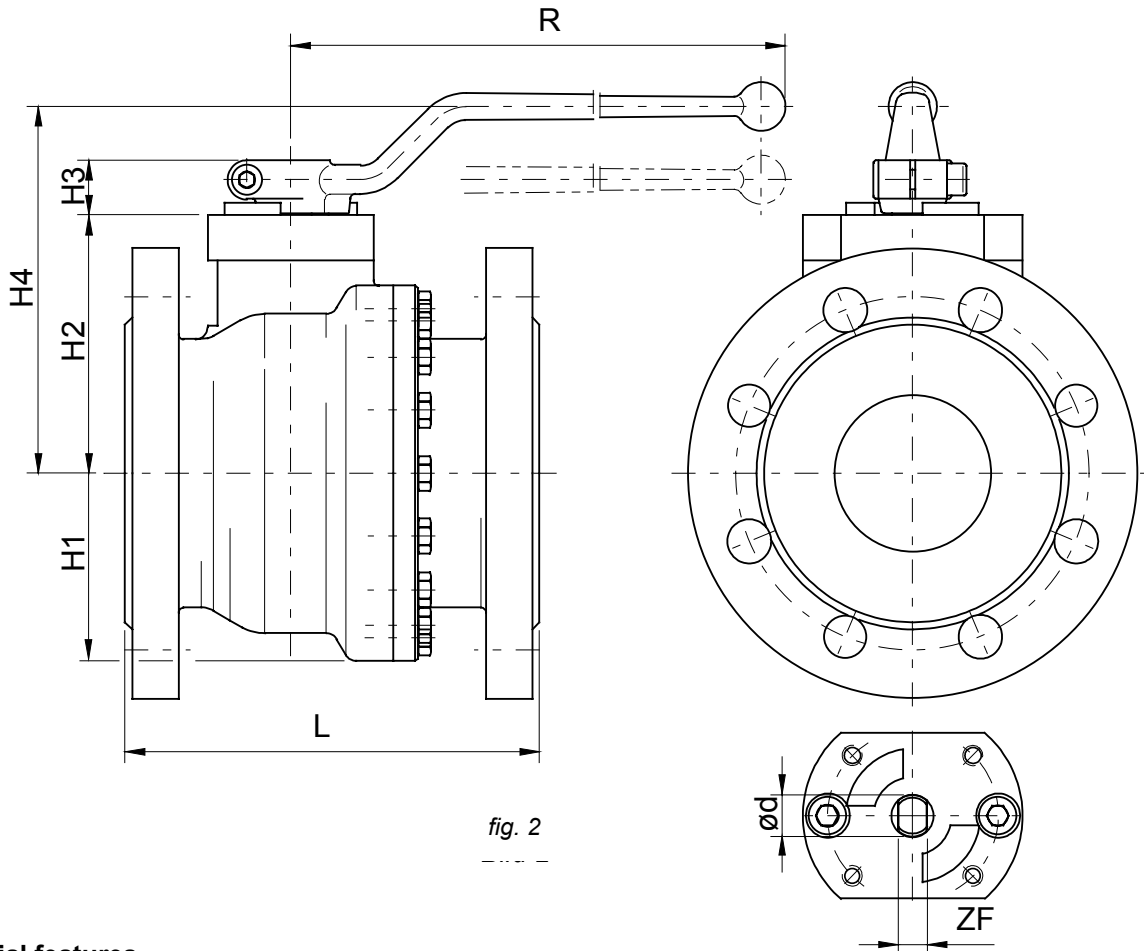


fig. 2

3.2 Special features

profit:

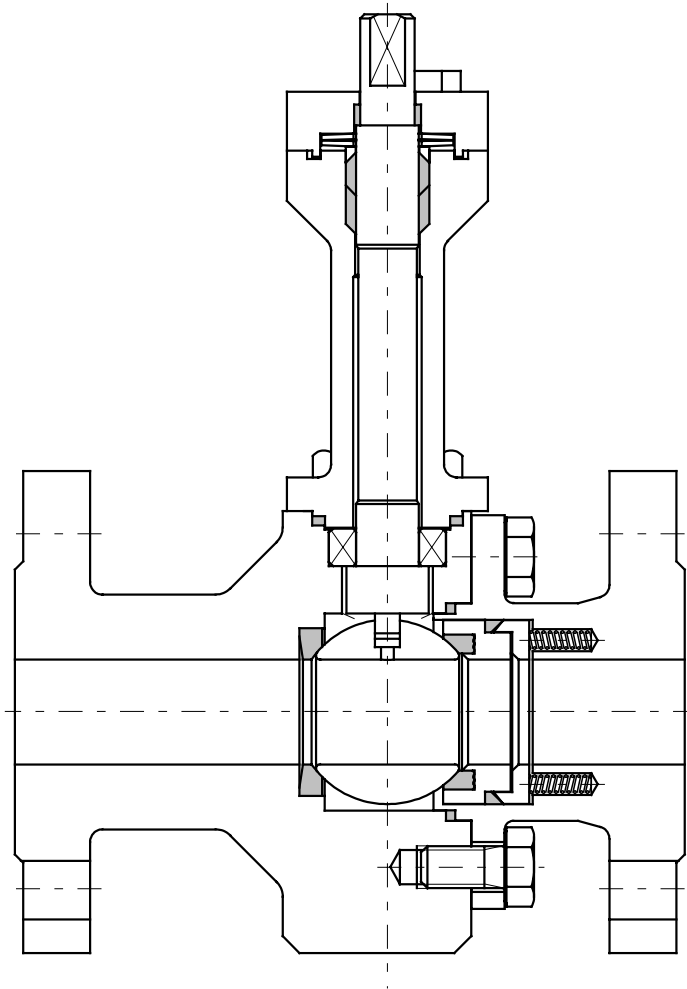
- ready to take actuator
- minimal abrasion
- standard Connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

Two-Way Ball Valve Series 80-K

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a two piece, bolted body, a insulation extension and a floating, seat supported ball. 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 accessoires can be field mounted at any time. The

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

Range of application:

DN 1/2" to 4"	PN ANSI Cl. 150/300	Temperature -196°C to 100°C
------------------	------------------------	--------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
3	retainer ring
4	retainer ring
5	ball
6	stem
8	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	screw
29	screw
30	screw

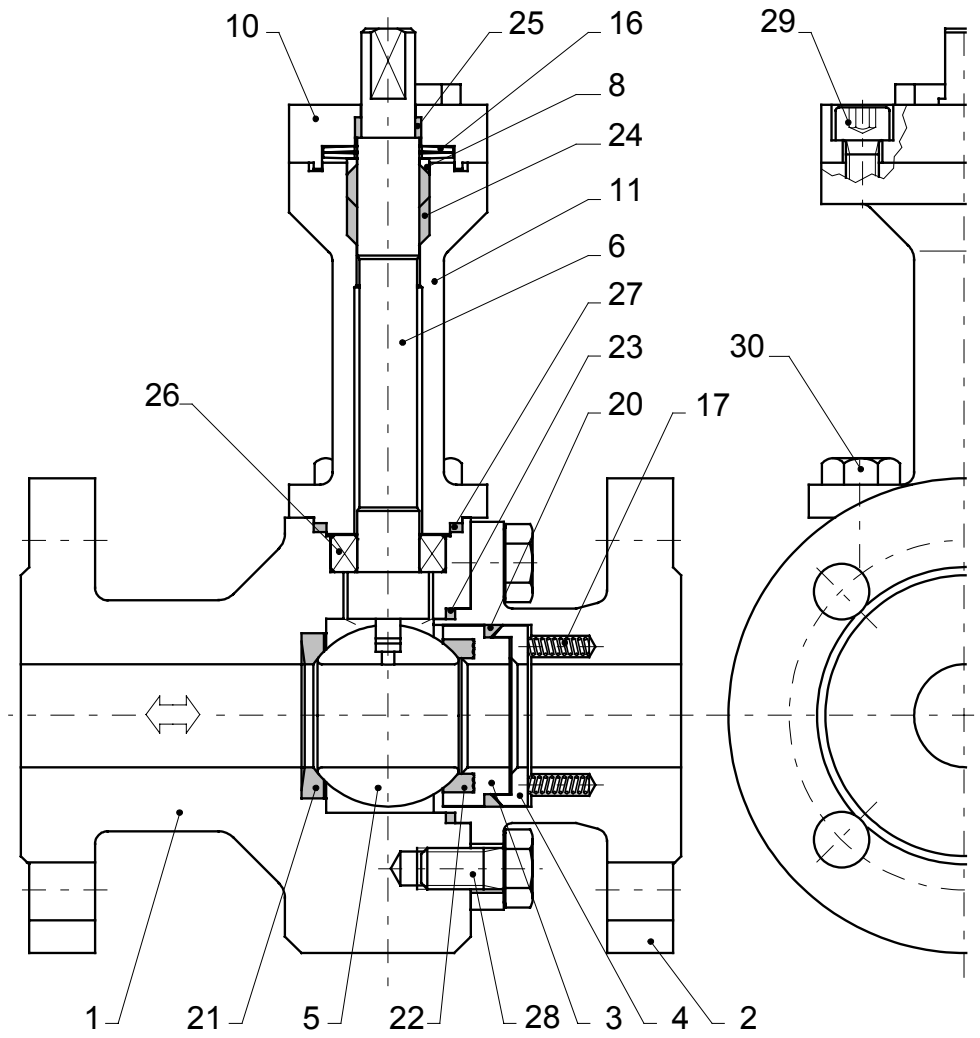


fig. 1
ball valve, series 80-K

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-196°C to 100°C	-50°C to 100°C
1	body	1.4571	1.0566
2	body end connection		1.4571
3-4	retainer ring		1.4571
5	ball		1.4571
6	stem	1.4462	1.4462
8	gland washer	1.4571	1.4571
10	bearing cover		
11	extension		
16	plate spring	1.4568	1.4568
17	coil spring	1.4571	1.4571
20	sealing ring	PTFE - TFM	PTFE - TFM
21-22	seat ring	PCTFE	PCTFE
23	body gasket	PTFE - TFM	PTFE - TFM
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	PEEK	PEEK
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions								flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face				connections	weight [kg]			actuator connection DIN/ISO 521.1
											ANSI		DIN 558-1			ANSI Cl.150 RF/FF		DIN 558-1 FTF1 FTF27	
		H1	H2	H3 ¹⁾	H3 ²⁾	H4	R	ϕd	ZF		L	L	L	L		L	L		
1/2"	15	47,5	37	100	250	44	180	13	10	20	108	140	130	115	4,7	5,1	4,7	F 05	
3/4"	20	52,5	37	100	250	44	180	13	10	38	117	152	150	120	6,2	6,7	6,2	F 05	
1"	25	58	48	100	250	44	180	13	10	65	127	165	160	125	6,7	7,5	6,7	F 05	
1 1/4"	32	70	54	100	250	44	180	13	10	117	140	178	180	130	10,8	11,7	10,7	F 05	
1 1/2"	40	75	60	100	250	44	300	17	12	196	165	190	200	140	15,0	15,4	14,6	F 07	
2"	50	83	70	100	250	44	300	17	12	325	178	216	230	150	16,7	19,7	16,3	F 07	
2 1/2"	65	92,5	81	100	250	44	300	17	12	598	190	241	290	170	26,7	28,2	26,2	F 07	
3"	80	105	95	129	280	28	450	27	18	960	203	283	310	180	38,3	47,3	33,8	F 10	
4"	100	120	111	129	280	28	450	27	18	1650	229	305	350	190	47,8	59,8	41,8	F 10	

flanges to DIN 2501 or ANSI B 16.5 (other connections on request)

dimensions in mm
¹⁾ up to -100°C
²⁾ -101°C to -196°C

Technical modifications are reserved.

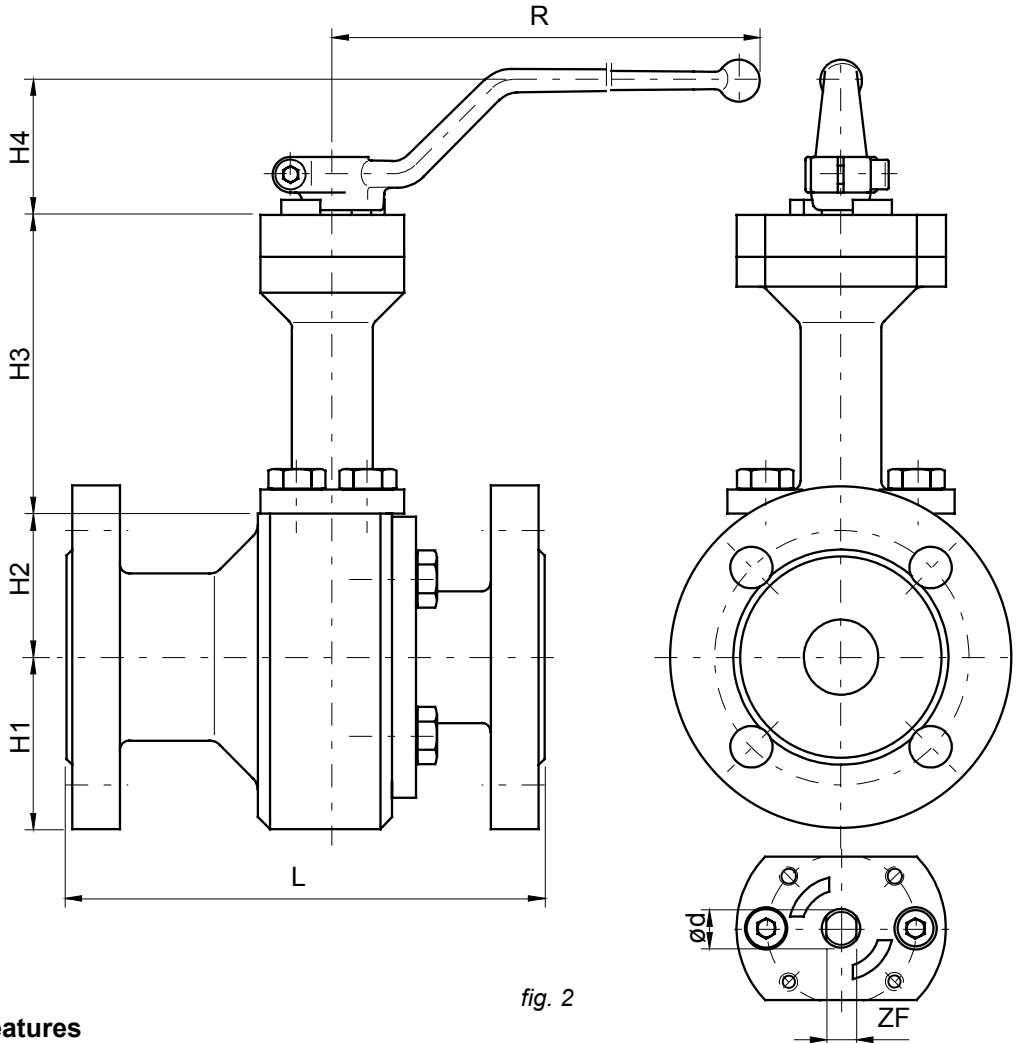


fig. 2

3.2 Special features

profit:

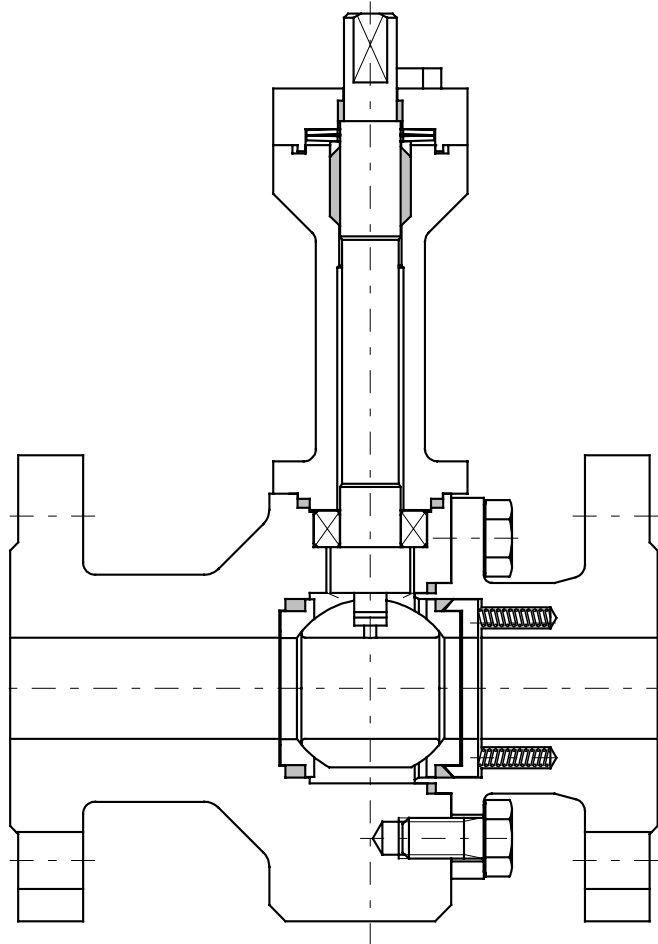
- ready to take actuator
- minimal abrasion
- standard Connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing
- spring loaded seat system
- extension for insulation

Two-Way Ball Valve Series 80-E

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a two piece, bolted body, a insulation extension and a floating, seat supported ball. 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 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. 150/300	Temperature -40°C to 600°C
------------------	------------------------	-------------------------------

1.0 Main parts

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

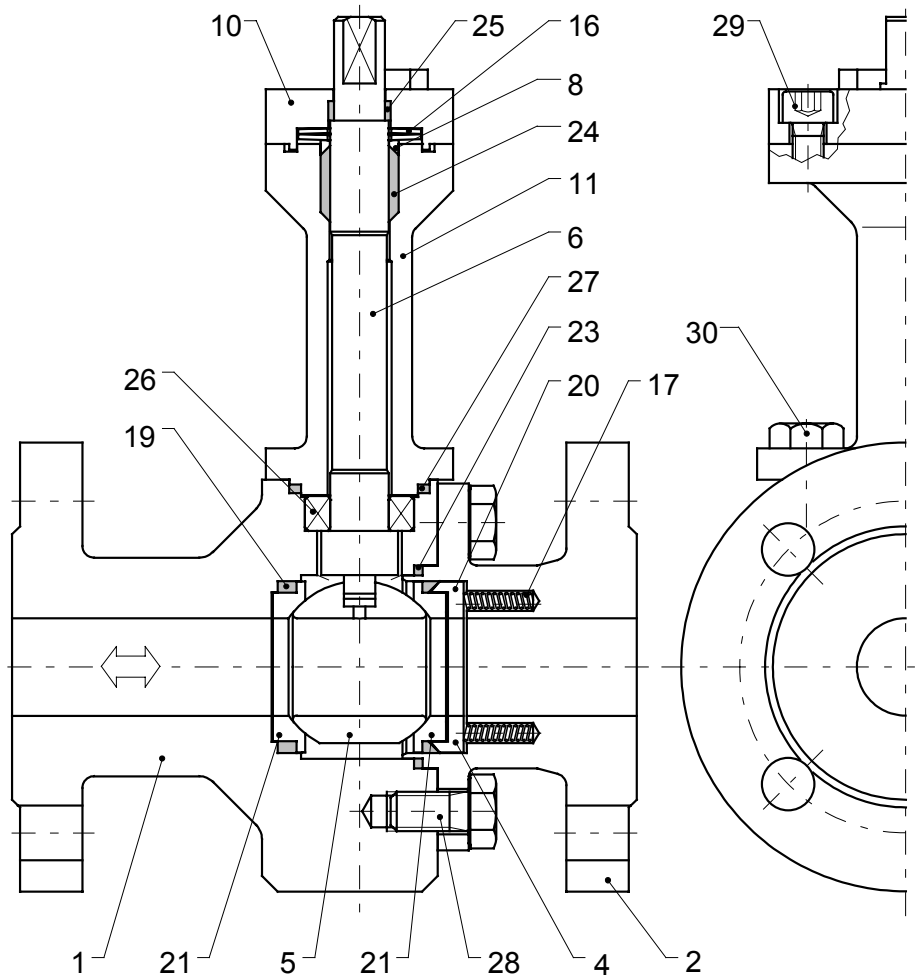


fig. 1
ball valve, series 80-E

2.0 Materials

item	designation	temperatures:	
		-40°C to 600°C	-10°C to 400°C
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
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		1.0460
11	extension		
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 / 3.1707	1.4571 coated / 3.1707
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
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.

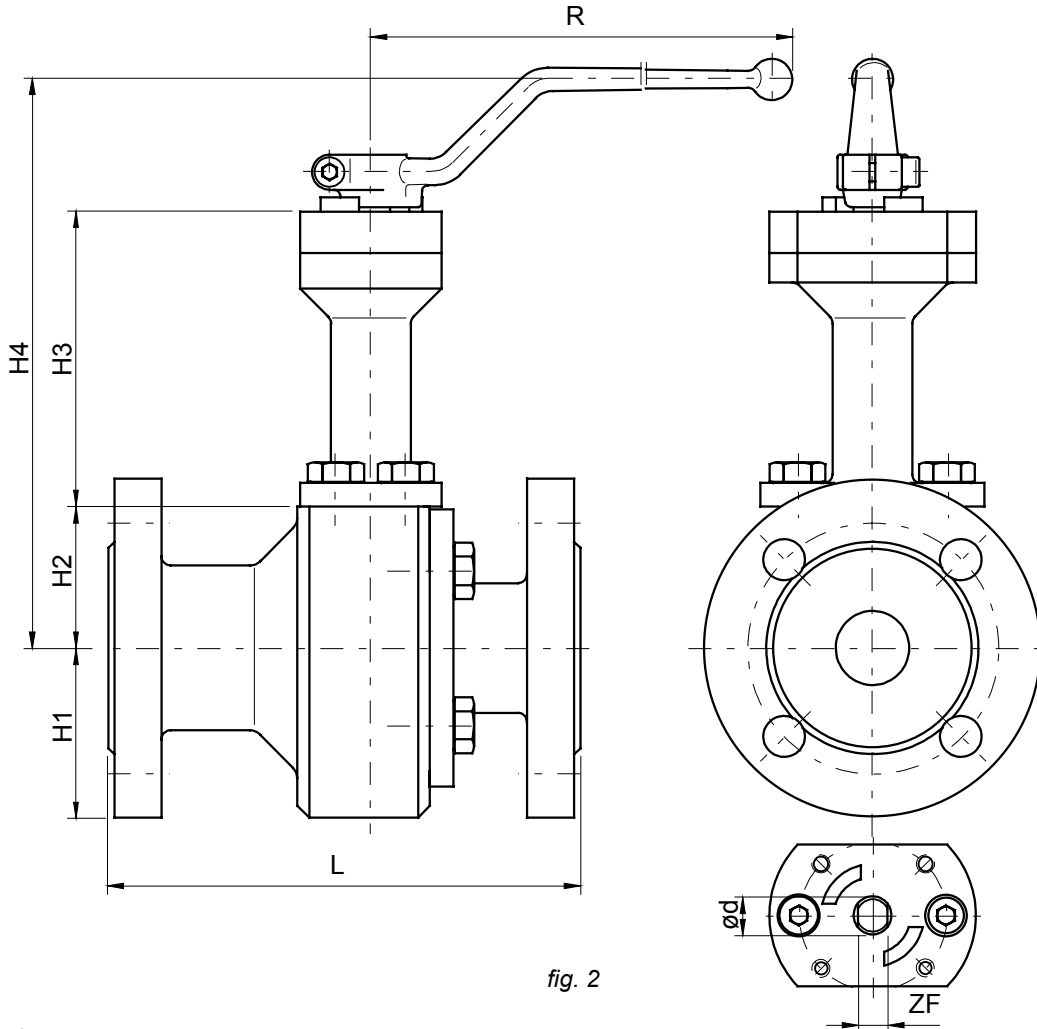
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow K_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face			connections	weight [kg]			actuator-connection DIN/ISO 5211
										ANSI		DIN 558-1		ANSI Cl.300	DIN 558-1 FTF1	ANSI Cl.300	
		H1	H2	H3	H4	R	ϕd	ZF		L	L						
1/2"	15	47,5	51	100	195	300	17	12	20		140	130		4,7		5,0	F 07
3/4"	20	52,5	62	100	206	300	17	12	38		152	150		6,2		6,7	F 07
1"	25	62	47	100	192	300	17	12	65		165	160		6,7		7,5	F 07
1 1/4"	32	70	52	100	197	300	17	12	117		178	180		10,8		11,7	F 07
1 1/2"	40	85	74	100	202	450	27	18	196		190	200		15,0		15,4	F 10
2"	50	90	80	100	209	450	27	18	325		216	230		16,7		19,7	F 10
2 1/2"	65	92,5	90	100	219	450	27	18	598		241	290		26,7		28,2	F 10
3"	80	105	109	140	278	800	40	32	960		283	310		38,3		47,3	F 12
4"	100	120	124	140	293	800	40	32	1650		305	350		47,8		59,8	F 12

dimensions in mm

Technical modifications are reserved.



3.2 Special features

profit:

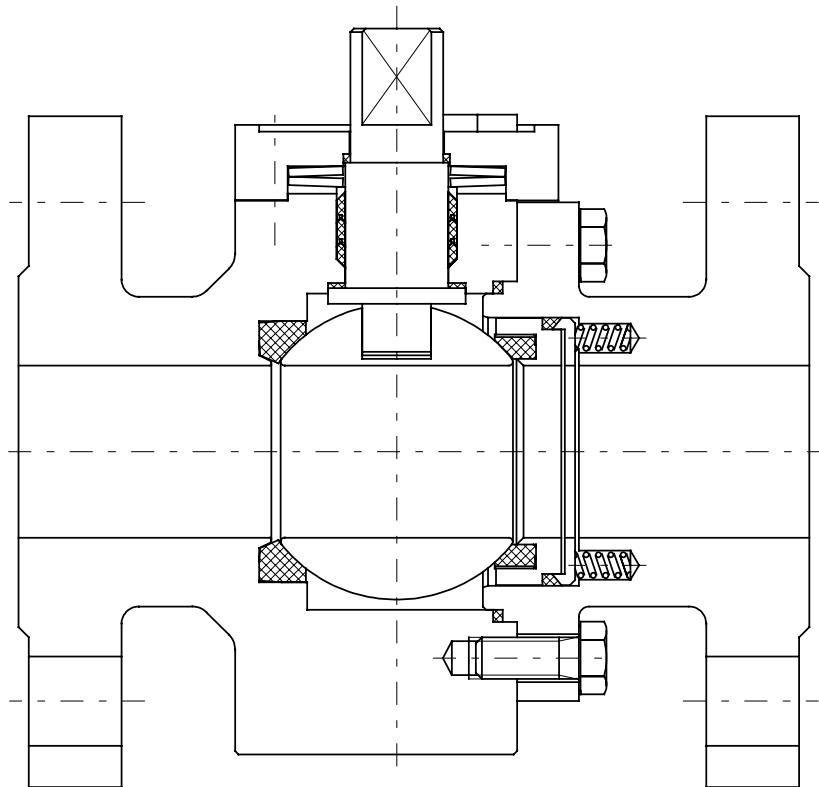
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing
- extension for insulation

Two-Way Ball Valve Series 80-H

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a two piece, bolted body and a floating, seat supported ball. 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 accessoires can be field mounted at any time. The

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 1/2" to 4"	PN ANSI Cl. 150/900	Temperatures -40°C to 200°C
------------------	------------------------	--------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
3	retainer ring
4	retainer ring
5	ball
6	stem
8	gland washer
10	bearing cover
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 ring
28	screw
29	screw

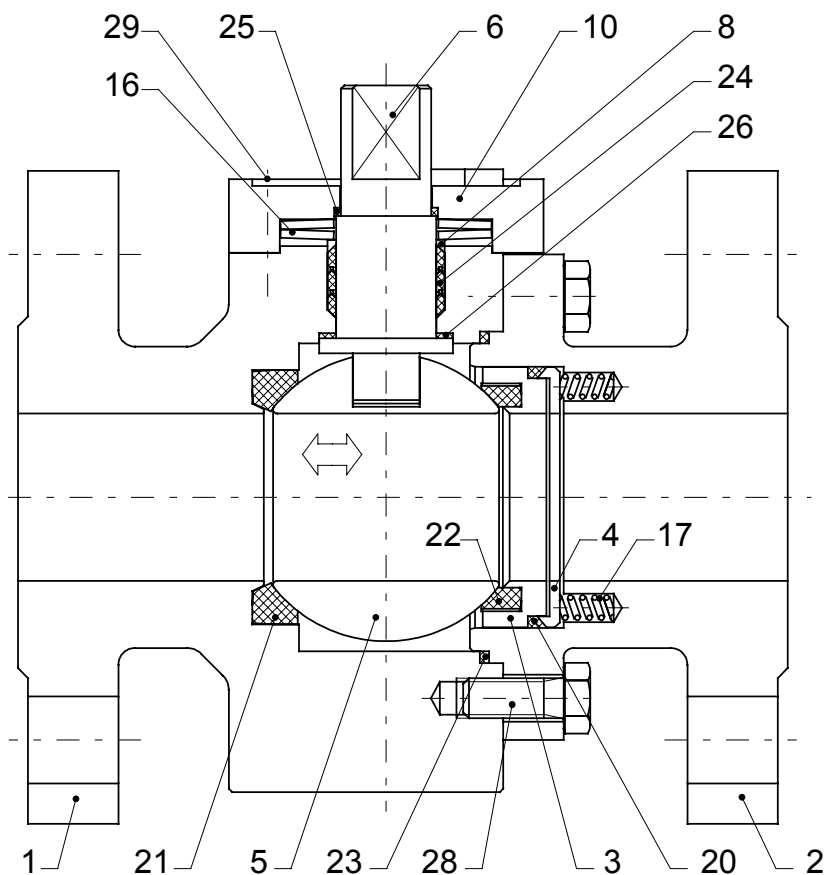


fig. 1
ball valve, series 80-H

2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	sealing ring	PTFE - TFM	PTFE - TFM
21-22	seat ring		
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing ring		
28-29	screw	A 2-70	A 2-70

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 ³ /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		
										ANSI	DIN 558-1		actuator-connection DIN/ISO 5211		
		Cl.600 RF/FF	FTF2	ANSI Cl.600 RF/FF	DIN 558-1										
		H1	H2	H3	H4	R	$\varnothing d$	ZF	L	L					
1/2"	15	53	59	19	101	180	13	10	20	165	210		9	10	F 05
3/4"	20	62	59	21	101	300	17	12	38	190	230		10	11	F 07
1"	25	62	59	21	101	300	17	12	65	216	230		14	14	F 07
1 1/4"	32	64	88	28	108	450	27	18	117	229	260		18	19	F 10
1 1/2"	40	64	91	28	111	450	27	18	196	241	260		20	22	F 10
2"	50	78	98	28	116	450	27	18	325	292	300		28	29	F 10
2 1/2"	65	90	110	28	125	450	27	18	598	330	340		31	32	F 10
3"	80	105	138	37	170	800	43	32	960	356	380		48	49	F 12
4"	100	115	174	37	206	800	43	32	1650	432	430		63	63	F 12

dimensions in mm

Technical modifications are reserved.

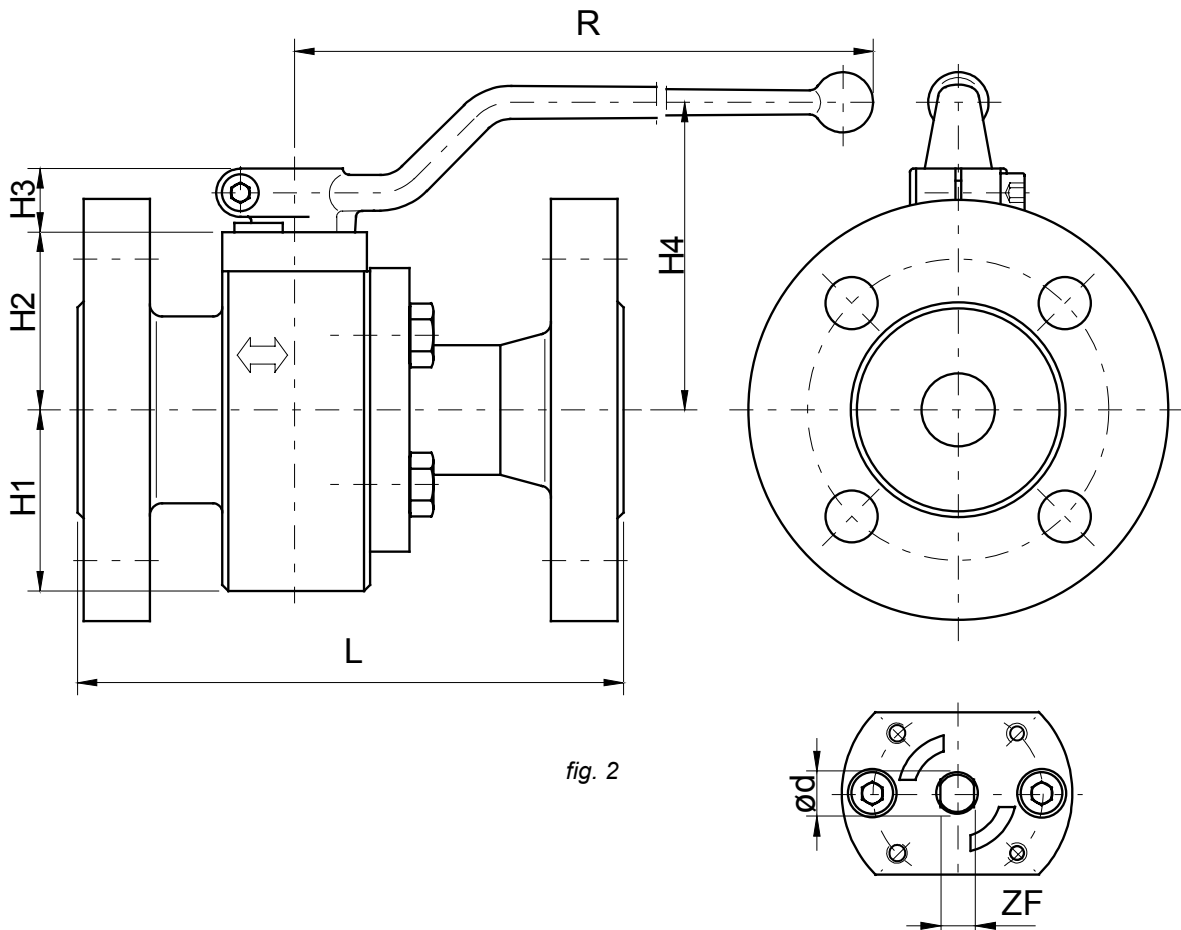


fig. 2

3.2 Special features

profit:

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

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

Two-Way Ball Valve Series 80-N

DN ½" to 6"



Description:

This PERRIN ball valve design features a two piece, bolted body, a extension for insulation and a floating, seat supported ball. The seat system is spring loaded, cavity relief and bi-directional suitable up to full Δp . The valve is designed acc. low temperature standards BS 6364, EN 1626, EN 12 567 and OCIMF. The stem sealing is realized by spring energized sealings.

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

Locking devices and actuators with accessories can be mounted at any time.

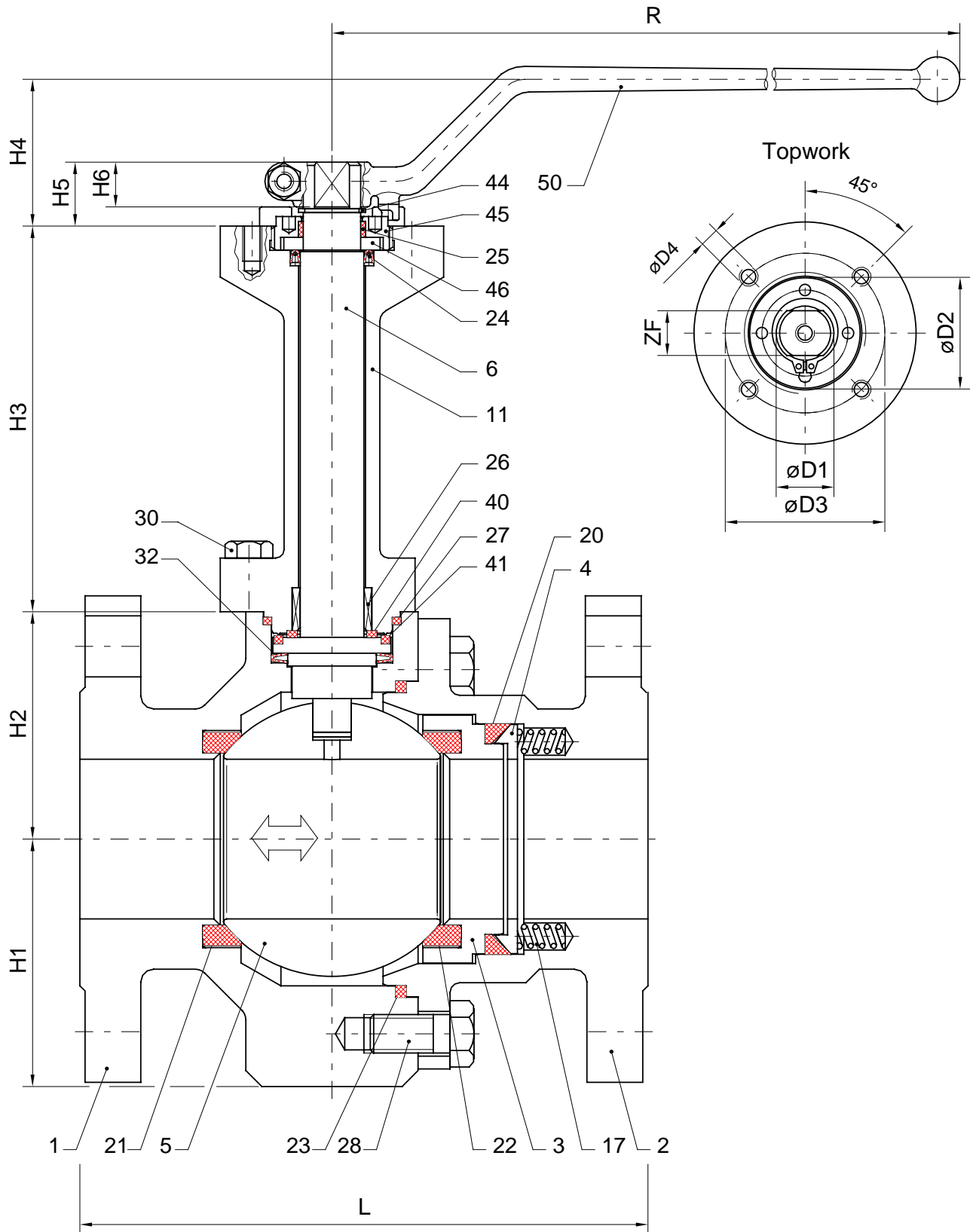
The ball valve incorporates an anti-static design, with anti-blow-out stem and fire-safe tested according API 607.

Range of application:

DN ½" to 6"	PN ANSI Cl. 150/300	Temperature -196°C to 100°C -320°F to 212°F
----------------	------------------------	---

1.0 Main parts and dimensions

Technical modifications are reserved.



item	designation	temperatures:	
		-196°C to 100°C -320°F to 212°F	-50°C to 100°C -58°F to 212°F
1	body	1.4571 / 1.4408 (A182 F316 Ti / A351 CF8M)	1.0566/1.5638 (A350LF2/A352 LCB)
2	body end connection		
3-4	retainer ring	1.4571 (A 182 F316 Ti)	1.4571 (A 182 F316 Ti)
5	ball	1.4571 / 1.4408 (A182 F316 Ti / A351 CF8M)	1.4571 / 1.4408 (A182 F316 Ti / A351 CF8M)
6	stem	1.4571 (A182 F316 Ti)	1.4571 (A182 F316 Ti)
11	extension	1.4571 (A182 F316 Ti)	1.4571 / 1.0566 (A 182 F316 Ti / A350 LF2)
17	coil spring	1.4571 (A182 F316 Ti)	1.4571 (A182 F316 Ti)
20	sealing ring	Graphite	Graphite
21-22	seat ring	PCTFE	PCTFE
23	body gasket	Graphite	Graphite
24	sealing ring	UHMW	UHMW
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	1.4571 (A182 F316 Ti) coated	1.4571 (A182 F316 Ti) coated
27	body gasket	Graphite	Graphite
28-30	screw	A 2-70 (A 193 B8)	A 2-70 (A 193 B8)
32	sealing ring	UHMW	UHMW
40	sealing ring	PTFE - 25% Glass	PTFE - 25% Glass
41	sealing ring	Graphite	Graphite
44	locking ring	1.4122 (A182 F316)	1.4122 (A182 F316)
45	threaded ring	1.4571 (A182 F316 Ti)	1.4571 (A182 F316 Ti)
46	disk	1.4571 (A182 F316 Ti)	1.4571 (A182 F316 Ti)
50	lever unit	1.4308 (A351 CF8C)	1.4308 (A351 CF8C)

All DIN materials are equivalent to the above mentioned ASTM materials.

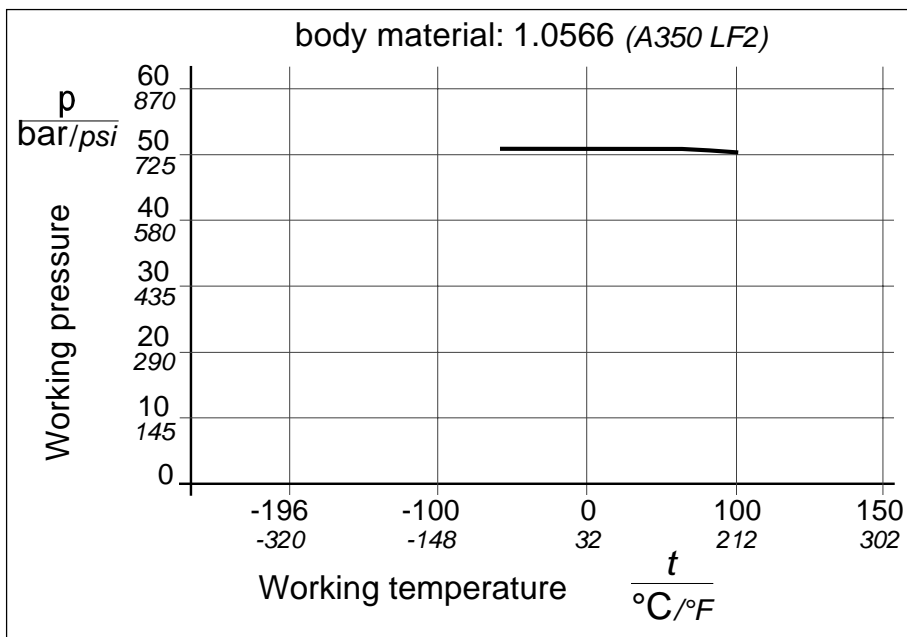
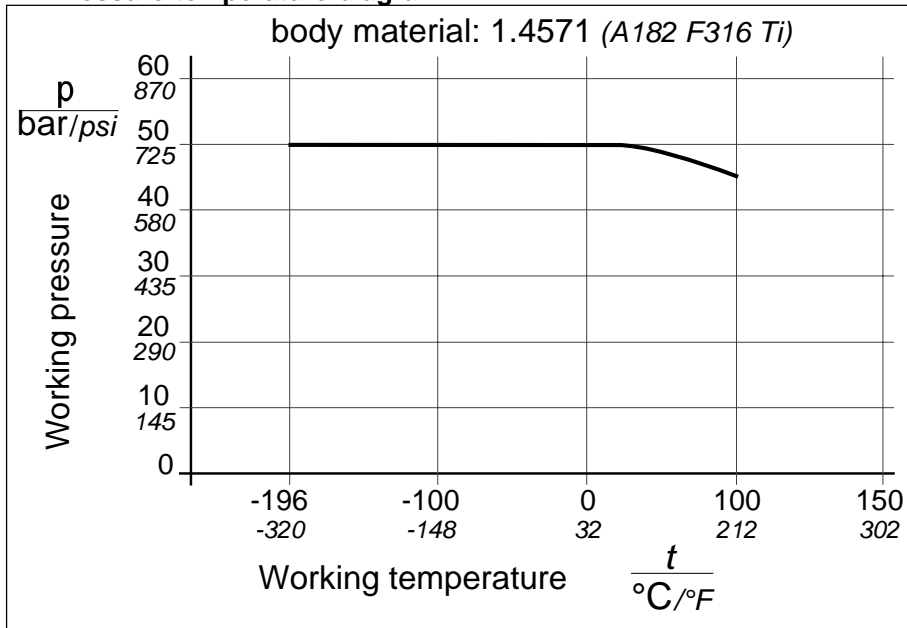
2.0 Technical data

2.1 Nominal size / Dimensions / Flow

Nominal size (DN)		dimensions [mm] [in.]													face to face		flow k_{v100} Cv	actuator connection DIN/ISO 5211
		H1	H2	H3 ¹⁾	H4	H5	H6	øD1	øD2	øD3	øD4	R	ZF	[mm] [in.]				
														Cl.150 RF/FF	Cl.300 RF/FF	L		
½"	15	55 2,16	47 1,85	121 4,76	44 1,73	20 0,78	14 0,55	18 0,71	35 1,37	50 1,97	M6	180 7,08	14 0,55	108 4,25	140 5,5	20 23	F 05	
¾"	20	55 2,16	47 1,85	121 4,76	44 1,73	20 0,78	14 0,55	18 0,71	35 1,37	50 1,97	M6	180 7,08	14 0,55	117 4,6	152 6	38 44	F 05	
1"	25	55 2,16	47 1,85	121 4,76	44 1,73	20 0,78	14 0,55	18 0,71	35 1,37	50 1,97	M6	180 7,08	14 0,55	127 5	165 6,5	65 76	F 05	
1¼"	32	63 2,48	55 2,16	121 4,76	44 1,73	20 0,78	14 0,55	18 0,71	35 1,37	50 1,97	M6	180 7,08	14 0,55	140 5,5	178 7	117 137	F 05	
1½"	40	75 2,95	60 2,36	121 4,76	44 1,73	20 0,78	17 0,67	22 0,87	55 2,16	70 2,75	M8	300 11,81	17 0,67	165 6,5	190 7,5	196 229	F 07	
2"	50	76 2,99	71 2,79	121 4,76	44 1,73	20 0,78	17 0,67	22 0,87	55 2,16	70 2,75	M8	300 11,81	17 0,67	178 7	216 8	325 380	F 07	
2½"	65	93 3,66	81 3,19	181 7,12	71 2,79	20 0,78	17 0,67	22 0,87	55 2,16	70 2,75	M8	300 11,81	17 0,67	190 7,5	241 9,5	598 698	F 07	
3"	80	109 4,29	100 3,94	181 7,12	71 2,79	25 0,98	22 0,86	28 1,10	70 2,75	102 4,01	M10	450 17,72	22 0,86	203 8	283 11	960 1220	F 10	
4"	100	120 4,72	111 4,37	181 7,12	71 2,79	25 0,98	22 0,86	28 1,10	70 2,75	102 4,01	M10	450 17,72	22 0,86	229 9	305 12	1650 1925	F 10	
5"	125	131 5,16	159 6,26	181 7,12	64 2,52	27 1,06	25 0,98	36 1,42	85 3,34	125 4,92	M12	700 27,56	27 1,06		381 15	2720 3170	F 12	
6"	150	151 5,94	178 7,01	181 7,12	64 2,52	38,5 1,51	36 1,41	48 1,89	100 3,94	140 5,51	M16	700 27,56	36 1,41	394 15,5	403 15,9	4200 4900	F 14	

¹⁾ other stem extension length's on request.

2.2 Pressure-temperature-diagram



Technical modifications are reserved.

2.3 Special features

design:

- two piece body
- floating ball
- anti-blow-out stem
- live loaded stem sealing
- extension for insulation
- cavity relief
- bi-directional service
- spring loaded seat system

Two-Way Ball Valves Series 85



85-S

DN: 1/2" to 6"
PN: ANSI Class 150
Temp.: -60°C to 250°C

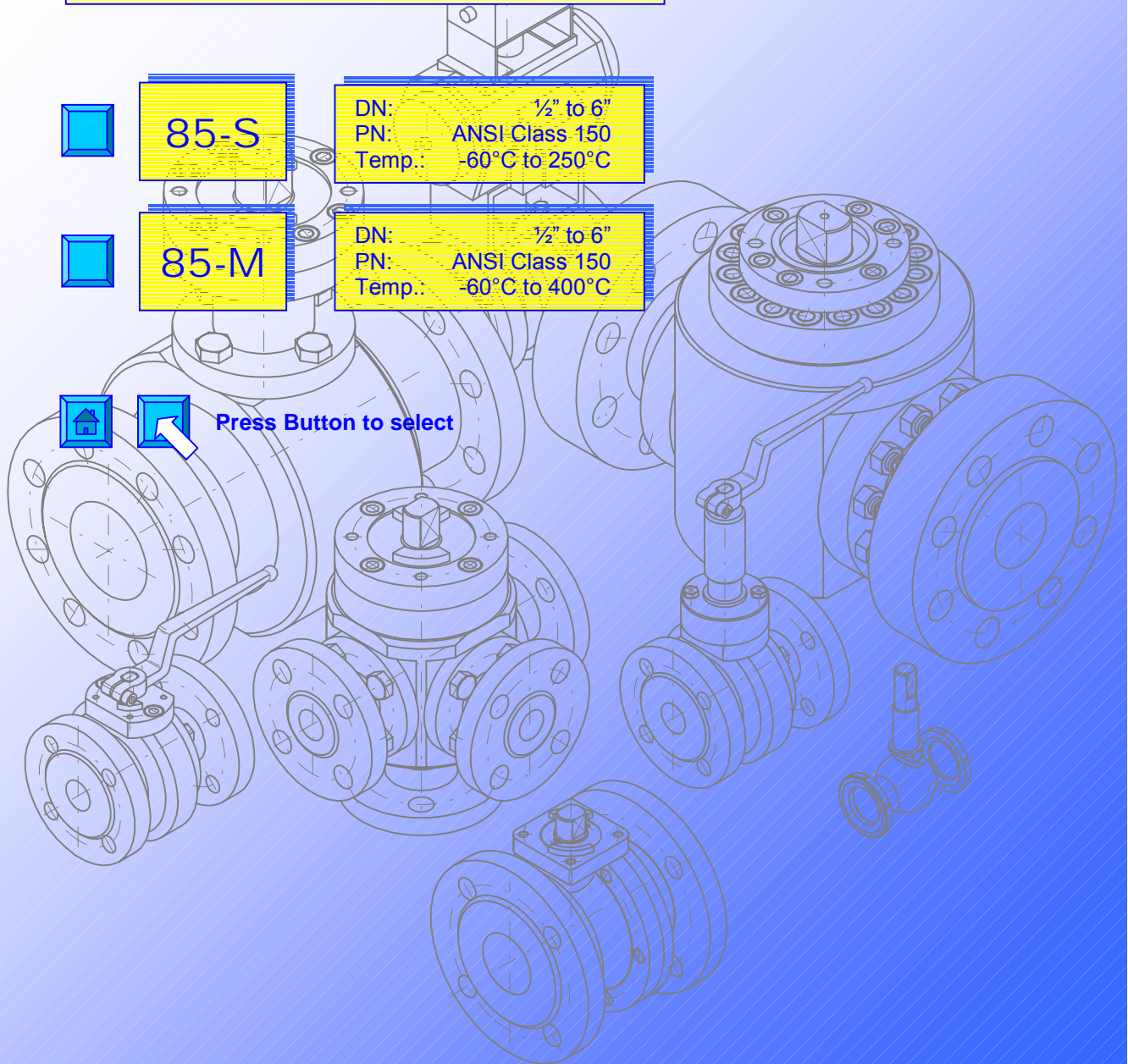


85-M

DN: 1/2" to 6"
PN: ANSI Class 150
Temp.: -60°C to 400°C

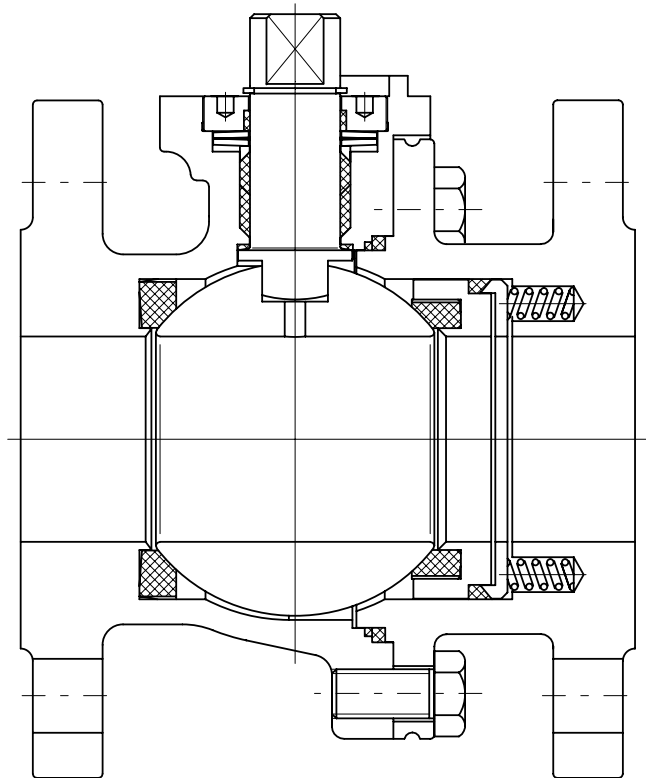


Press Button to select



Two-Way Ball Valve Series 85-S

DN 1/2" to 6"



Description:

This PERRIN ball valve design features a two piece body and a floating, seat supported ball. The seat system with pressure relief warranty and the stem packing are spring loaded, resulting in very good sealing properties not influenced by temperature fluctuations as well at vacuum service.

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

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

The stem-connection-dimension can be supplied acc. to DIN/EN/ISO 5211 or acc. to the BASF-Standard WN 14-003.

The ball valve incorporates an anti-static design, with anti-blow-out stem and, as desired, "fire-safe" tested. The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 6"	PN ANSI CL150/300	Temperatures -60°C to +250°C
------------------	----------------------	---------------------------------

1.0 Main parts

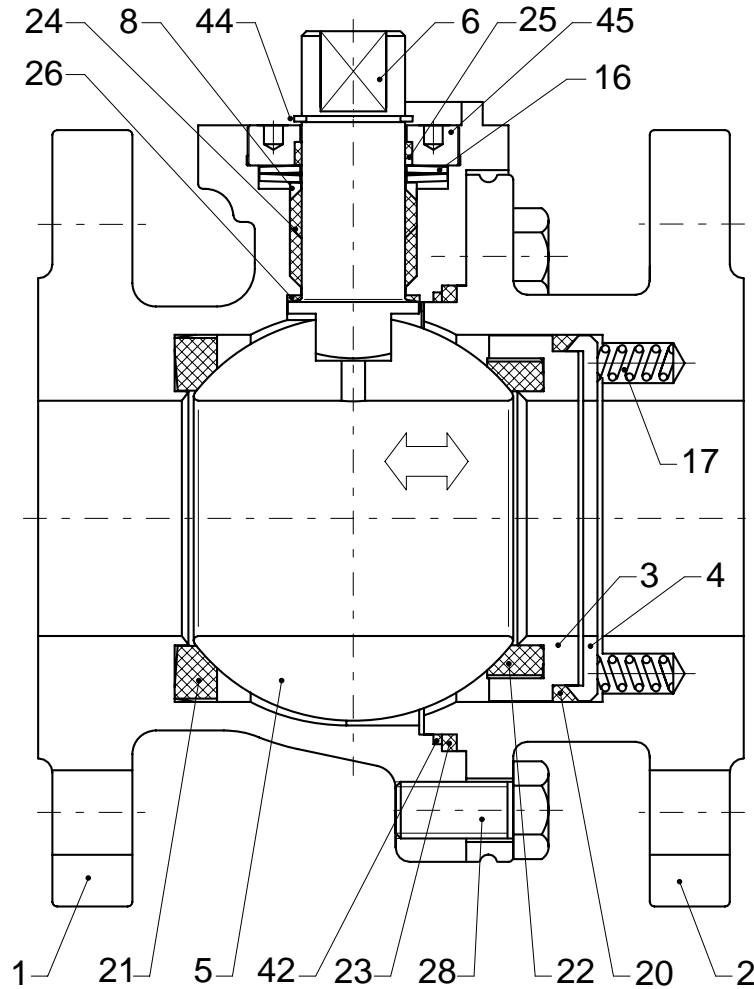


fig. 1
ball valve, series 85-S

Technical modifications are reserved.

item	designation	temperatures:	
		-60°C to +250°C	-10°C to +250°C
1	body	1.4408	1.0619
2	body end connection		
3-4	retainer ring	1.4571	1.4571
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4462 / 1.4571	1.4462 / 1.4571
8	gland washer	1.4571	1.4571
16	plate spring	1.4310	1.4310
17	coil spring	1.4571	1.4571
21-22	seat ring	PTFE - TFM	PTFE - TFM
20	sealing ring		
23	body gasket	Graphite	Graphite
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing ring	Graphite	Graphite
26	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
28	screw	A 2-70	A 2-70
42	body gasket	PTFE - 25% Glass	PTFE - 25% Glass
44	locking ring	A 2	A 2
45	threaded ring	1.4571	1.4571

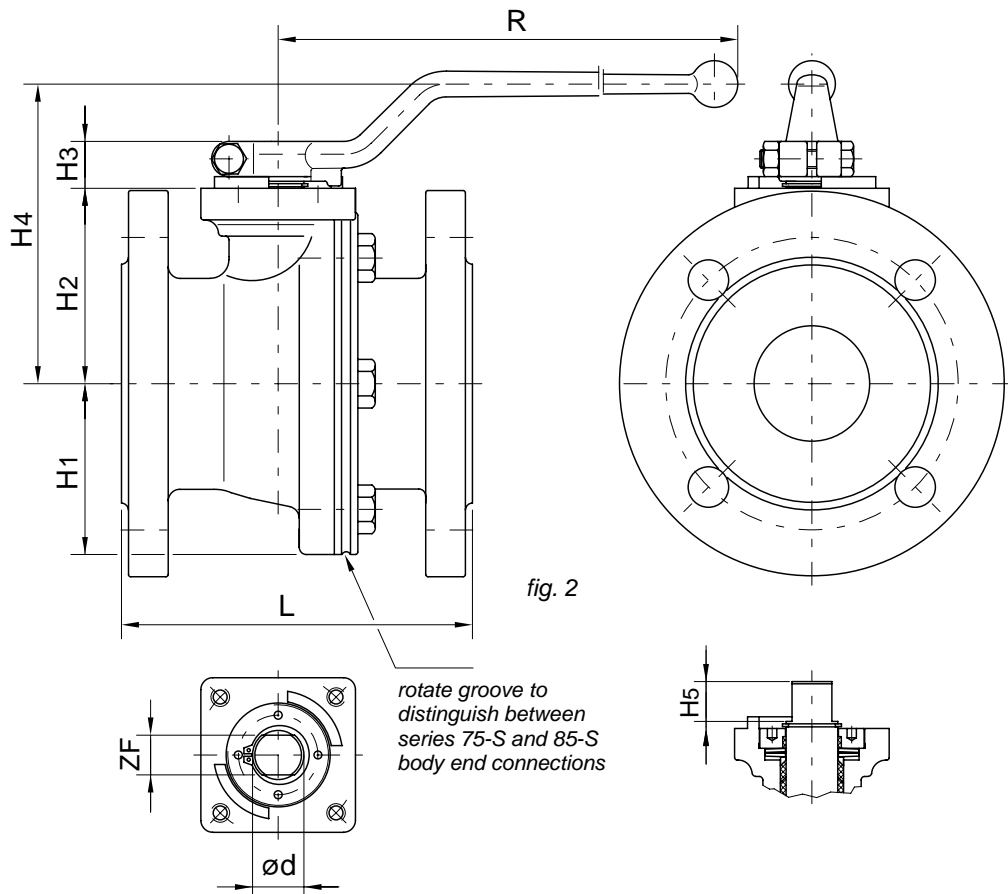
2.0 Technical data

2.1 Nominal size / Dimensions / Connections / Flow / Weights

nominal size (DN)		dimensions											flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		actuator-connection DIN/ISO 5211
														EN-Standard					
		H1	H2	H3	H4	R	ϕd	ZF	H5	ϕd	ZF	H5		Cl. 150 RF/FF	Cl. 300 RF/FF				
1/2"	15	40,5	47,5	19	84	180	18	14	14	18	14	14	20	108	140	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	3	3,6	F 05
3/4"	20	40,5	47,5	19	84	180	18	14	14	18	14	14	38	117	152		4	4,7	F 05
1"	25	47	50	19	87	180	18	14	14	18	14	14	65	127	165		5	5,7	F 05
1 1/4"	32	53	55,5	19	92	180	18	14	14	18	14	14	117	140	178		7	9	F 05
1 1/2"	40	66	75,5	20	120	300	22	17	17	22	17	17	196	165	190		10	12,5	F 07
2"	50	73	83,5	20	128	300	22	17	17	22	17	17	325	178	216		12	14,6	F 07
2 1/2"	65	84	94	20	139	300	22	17	17	22	17	17	598	190	241		18	21	F 07
3"	80	91	113	22	177	450	28	22	22	26	19	19	960	203	283		22	28	F 10
4"	100	107	127	22	191	450	28	22	22	26	19	19	1650	229	305		32	39	F 10
5"	125	135	161	27	188	700	36	27	27	33	24	24	2720	381	381		49	62	F 12
6"	150	156	180	40	220	700	48	36	36	42	30	30	4200	394	403	83	111	F 14	

dimensions in mm

Technical modifications are reserved.

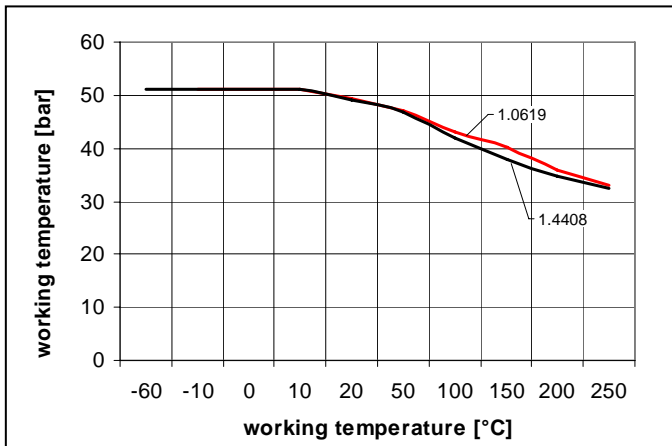


2.2 Special features

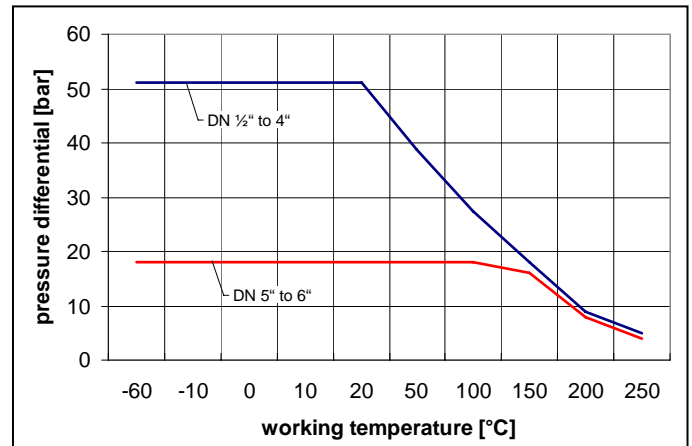
design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing
- spring loaded seat system

2.3 Pressure-temperature-diagram body



2.4 Pressure-temperature-diagram seat / TFM 1600



2.5 Torques at Δp 10 bar

nominal size (DN)	M_{min} [Nm]	$M_{min} * F$ [Nm]	$M_{adm.}$ [Nm]
1/2"	11	22	195
3/4"	12	24	195
1"	12	24	195
1 1/4"	15	60	195
1 1/2"	25	50	353
2"	34	68	353
2 1/2"	54	108	353
3"	90	180	535
4"	138	276	535
5"	305	610	1404
6"	448	896	2174

F = safety factor 2

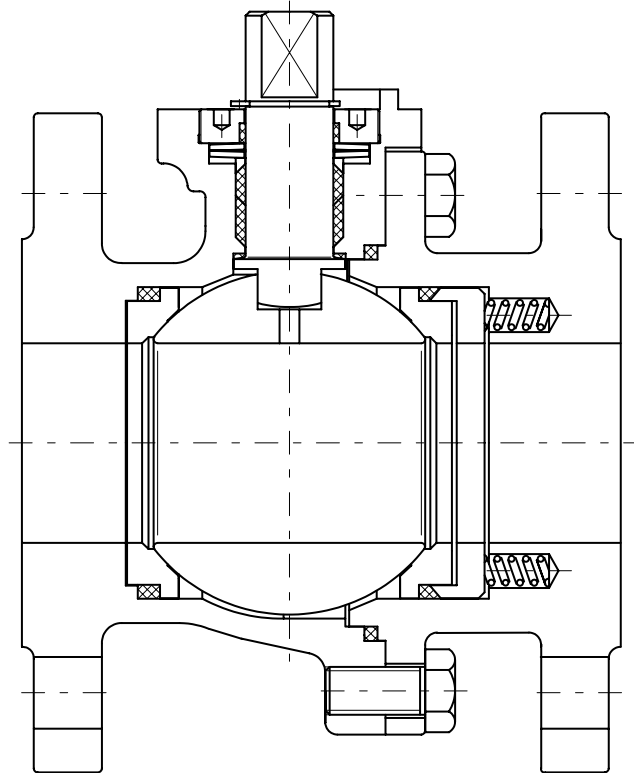
2.6 Volumina

nominal size (DN)	cavity-volume ball valve [ccm]		
	ball port	ball ambient space	total, by closed ball
1/2"	15	5	22
3/4"			
1"	18	7	27
1 1/4"			
1 1/2"	80	30	120
2"	140	40	198
2 1/2"			
3"	530	170	770
4"	980	240	1340
5"			
6"			

Technical modifications are reserved.

Two-Way Ball Valve Series 85-M

DN 15 to 150
DN ½" to 6"



Description:

This PERRIN ball valve design features a two piece, bolted body and a floating, seat supported ball. 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/EN/ISO 5211.

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

The stem-connection-dimension can be supplied acc. to DIN/EN/ISO 5211 or acc. to the BASF-Standard WN 14-003.

The ball valve is extradited in antistatic-design, with anti blowout proof stem acc. to EN736-3 and in "fire-safe design". The stem packing has examined TA-Luft.

Range of application:

DN 15 to 150 <i>½" to 6"</i>	PN 10 - 16 - 25 - 40 <i>ANSI Class 150</i>	Temperatures -60°C to +400°C
------------------------------------	--	---------------------------------

1.0 Main Parts

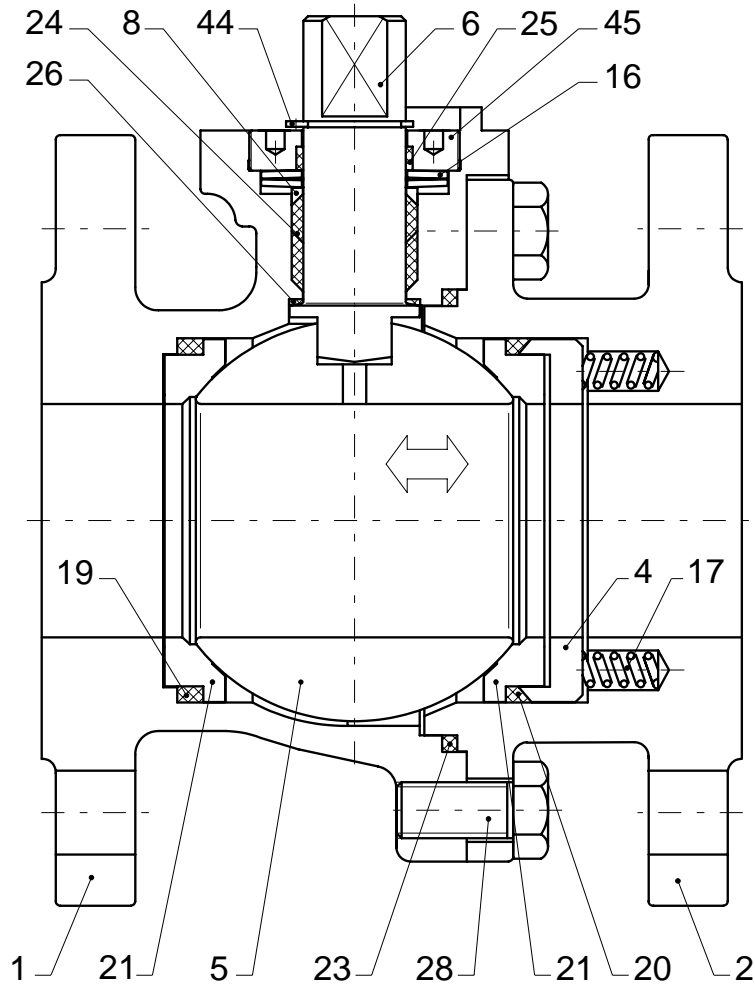


fig. 1
ball valve, series 85-M

Technical modifications are reserved.

item	designation	temperatures	
		-60°C to +300°C	-10°C to +400°C
1	body	1.4408	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
6	stem	1.4571	1.4571
8	gland washer	SS 316	SS 316
16	plate spring	1.4310	1.4310
17	coil spring	1.4571	1.4571
19	sealing ring	Graphite	Graphite
20	sealing ring		
21	seat ring	1.4571 coated / 3.1707	1.4571 coated / 3.1707
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring		
26	bearing ring	Graphit with SS	Graphit with SS
28	screw	A 2-70	A 2-70
44	locking ring	1.4122	1.4122
45	threaded ring	1.4571	1.4571

2.0 Technical data

2.1 Nominal size / Dimensions / Connections / Flow / Weights

nominal size (DN)		dimensions											flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		actuator-connection DIN/ISO 5211	
								EN-Standard			BASF-Standard			ANSI	Cl. 150 RF/FF		Cl. 150 RF/FF			
		H1	H2	H3	H4	R	$\varnothing d$	ZF	H5	$\varnothing d$	ZF	H5								L
1/2"	15	40,5	47,5	20	84	180	18	14	15	18	14	15	20	108	flanges to DIN 2501 or ANSI B 16.5 (other connections on request)	3		F 05		
3/4"	20	40,5	47,5	20	84	180	18	14	15	18	14	15	38	117		4		F 05		
1"	25	47	50	20	87	180	18	14	15	18	14	15	65	127		5		F 05		
1 1/4"	32	53	55,5	20	92	180	18	14	15	18	14	15	117	140		7		F 05		
1 1/2"	40	66	75,5	25	120	300	22	17	22	22	17	22	196	165		10		F 07		
2"	50	73	83,5	25	128	300	22	17	22	22	17	22	325	178		13		F 07		
2 1/2"	65	84	94	25	139	300	22	17	22	22	17	22	598	190		19		F 07		
3"	80	91	113	27	177	450	28	22	24	26	19	24	960	203		22		F 10		
4"	100	107	127	27	191	450	28	22	24	26	19	24	1650	229		31		F 10		
5"	125	135	161	42,5	188	700	36	27	40	33	24	34	2720	381		51		F 12		
6"	150	156	180	42,5	220	700	48	36	40	42	30	40	4200	394		80		F 14		

dimensions in mm

Technical modifications are reserved

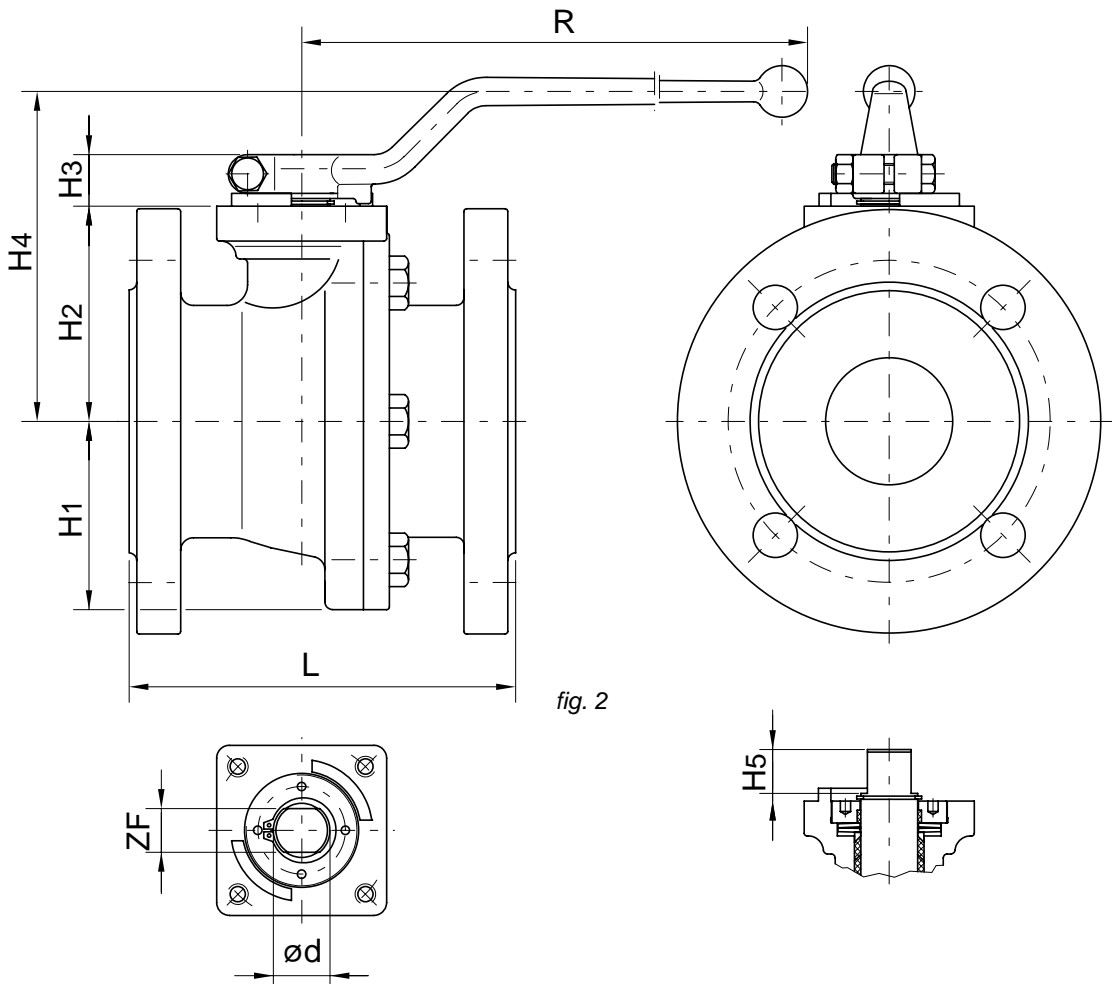


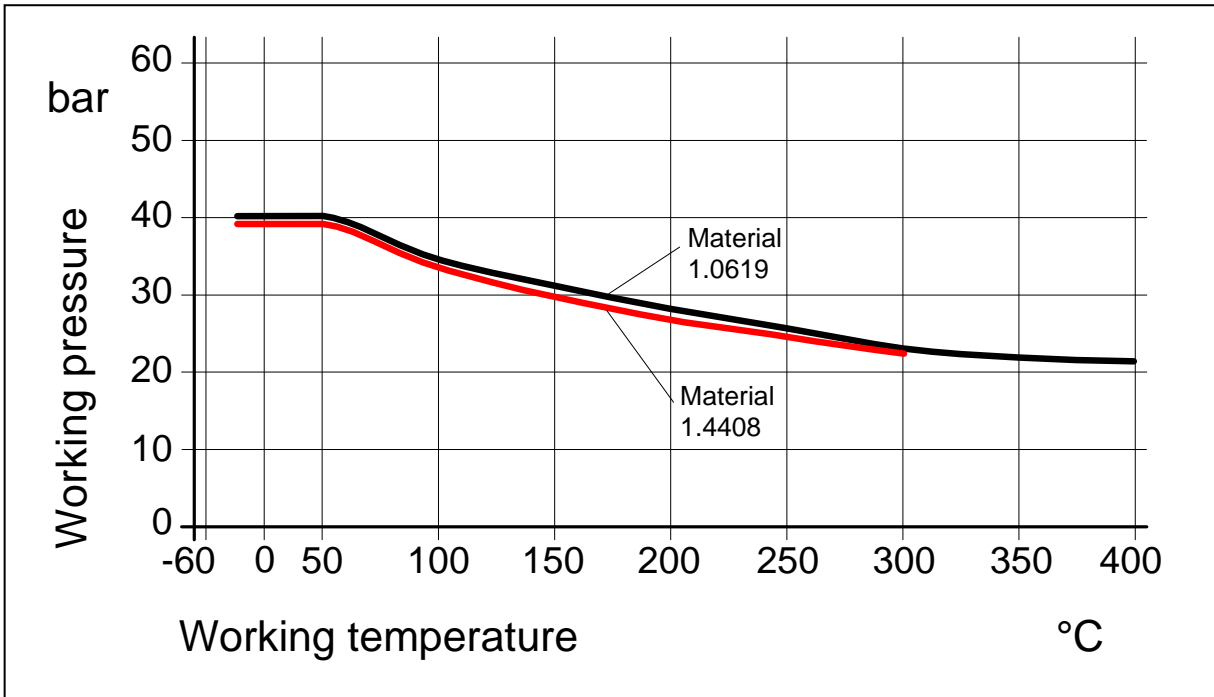
fig. 2

2.2 Special features

design:

- two piece body
- floating ball
- no welds
- anti blowout proof stem
- live loaded stem packing
- spring loaded seat system

2.3 Pressure-temperature-diagram



Technical modifications are reserved.

Two-Way Ball Valves Series 90



90-S

DN: 1" to 6"
PN: ANSI Class 150
Temp.: -40°C to +250°C



90-M

DN: 1" to 6"
PN: ANSI Class 150
Temp.: -40°C to +450°C



90-C

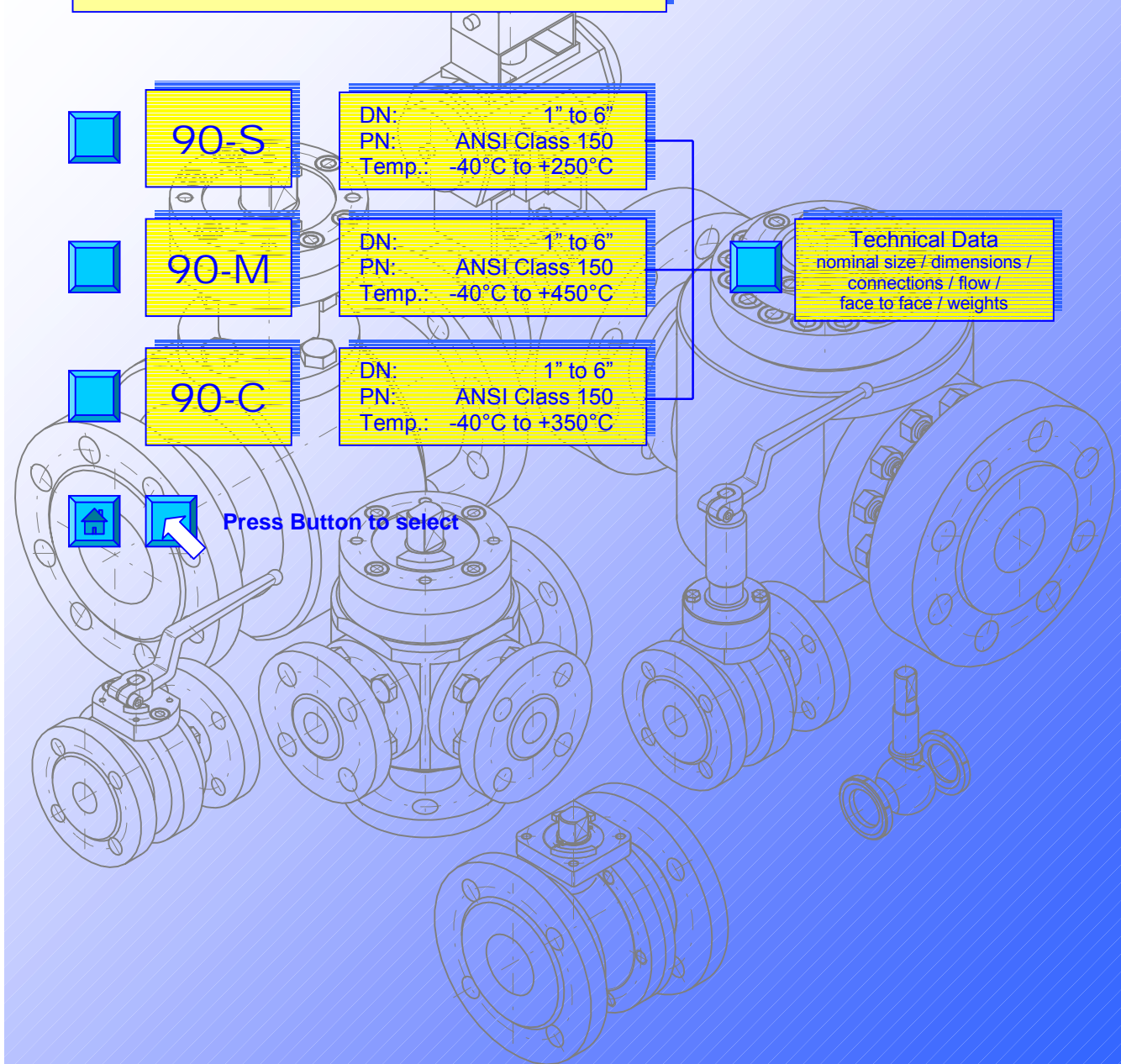
DN: 1" to 6"
PN: ANSI Class 150
Temp.: -40°C to +350°C



Technical Data
nominal size / dimensions /
connections / flow /
face to face / weights

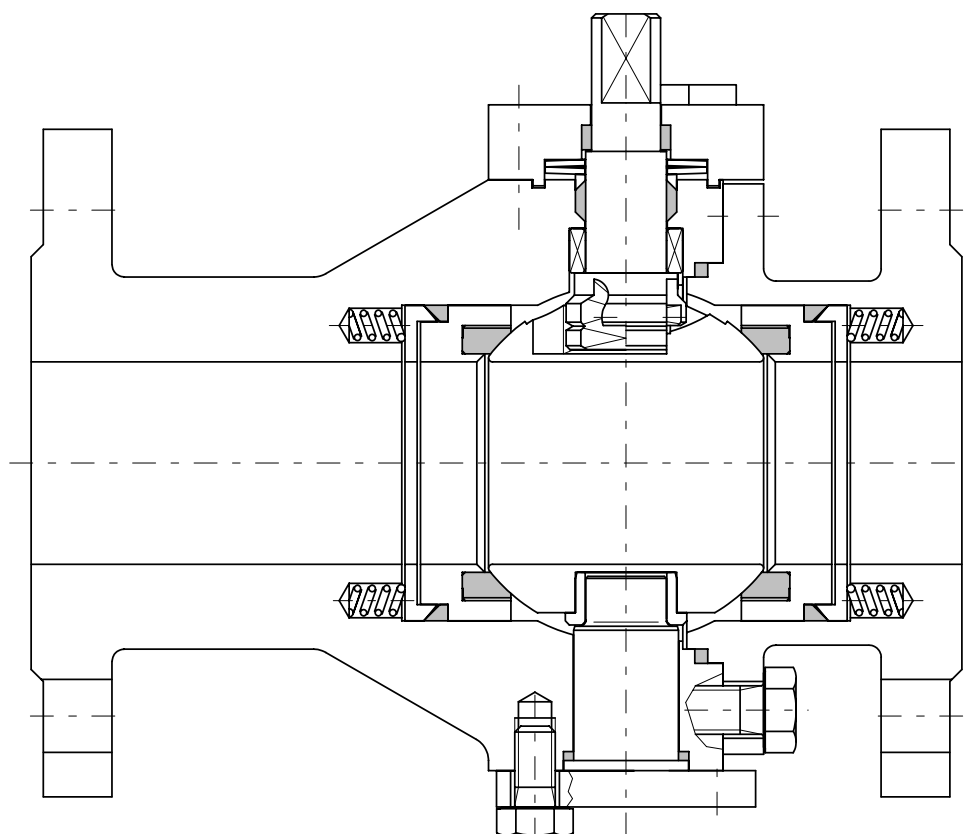


Press Button to select



Two-Way Ball Valve Series 90-S

DN 1" to 24"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. 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/EN/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, with anti blowout proof stem and, as desired, in "fire-safe design". The stem packing has examined TA-Luft.

Range of application:

DN 1" to 24"	PN ANSI Class 150	Temperature -60°C to 250°C
-----------------	----------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
3	retainer ring
4	retainer ring
5	ball
6	stem
7	lower trunnion
8	gland washer
9	bearing bush
10	bearing cover
16	plate spring
17	coil spring
18	body gasket
20	sealing ring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing
28	screw
29	screw
31	screw

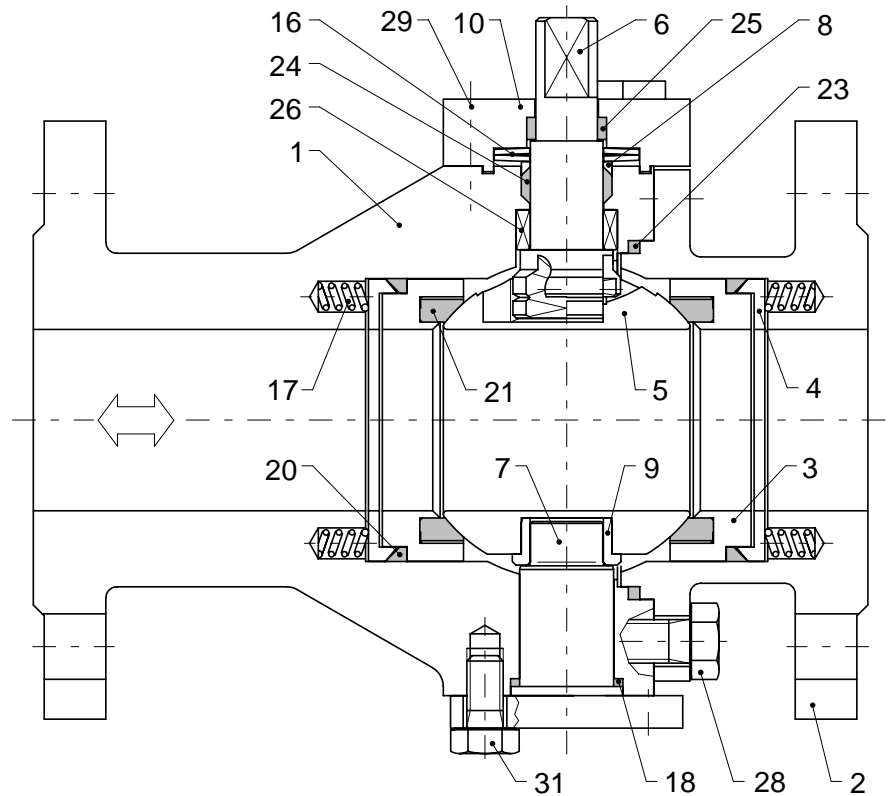


fig. 1
ball valve, series 90-S

Technical modifications are reserved.

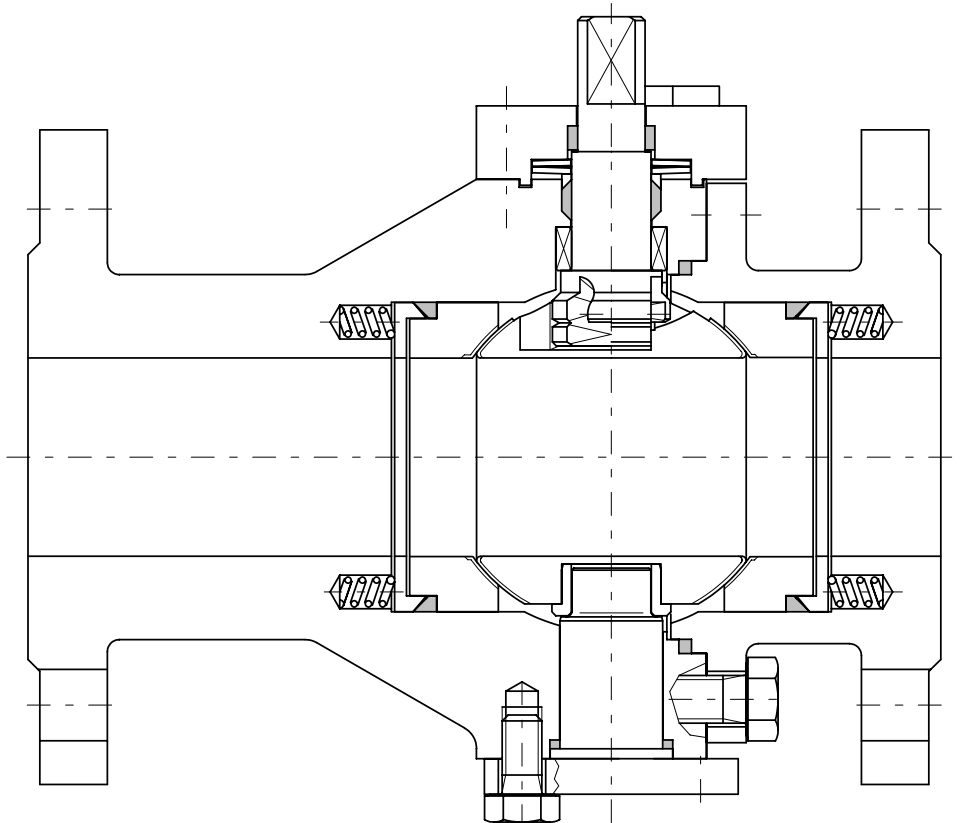
2.0 Materials

item	designation	temperatures:	
		-60°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
7	lower trunnion		
8	gland washer		
9	bearing bush	PEEK	PEEK
10	bearing cover	1.4571	1.0460
16	plate spring	1.4310	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	PTFE - TFM	PTFE - TFM
20	sealing ring		
21	seat ring		
23	body gasket	PTFE - Graphite	PTFE - Graphite
24	stem packing		
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	PEEK	PEEK
28-29	screw	A 2-70	A 2-70
31	screw		

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

Two-Way Ball Valve Series 90-M

DN 1" to 24"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. 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 ball valve is extradited 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" to 24"	PN ANSI Class 150	Temperature -60°C to 450°C
-----------------	----------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
4	retainer ring
5	ball
6	stem
7	lower trunnion
8	gland washer
9	bearing bush
10	bearing cover
16	plate spring
17	coil spring
18	body gasket
20	sealing ring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing
28	screw
29	screw
31	screw

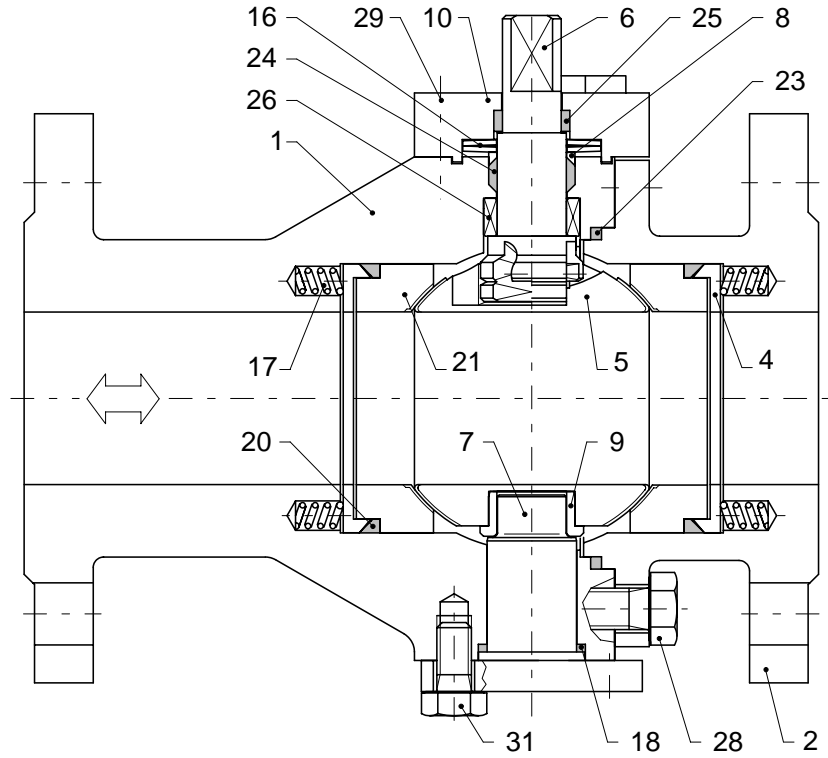


fig. 1
ball valve, series 90-M

Technical modifications are reserved.

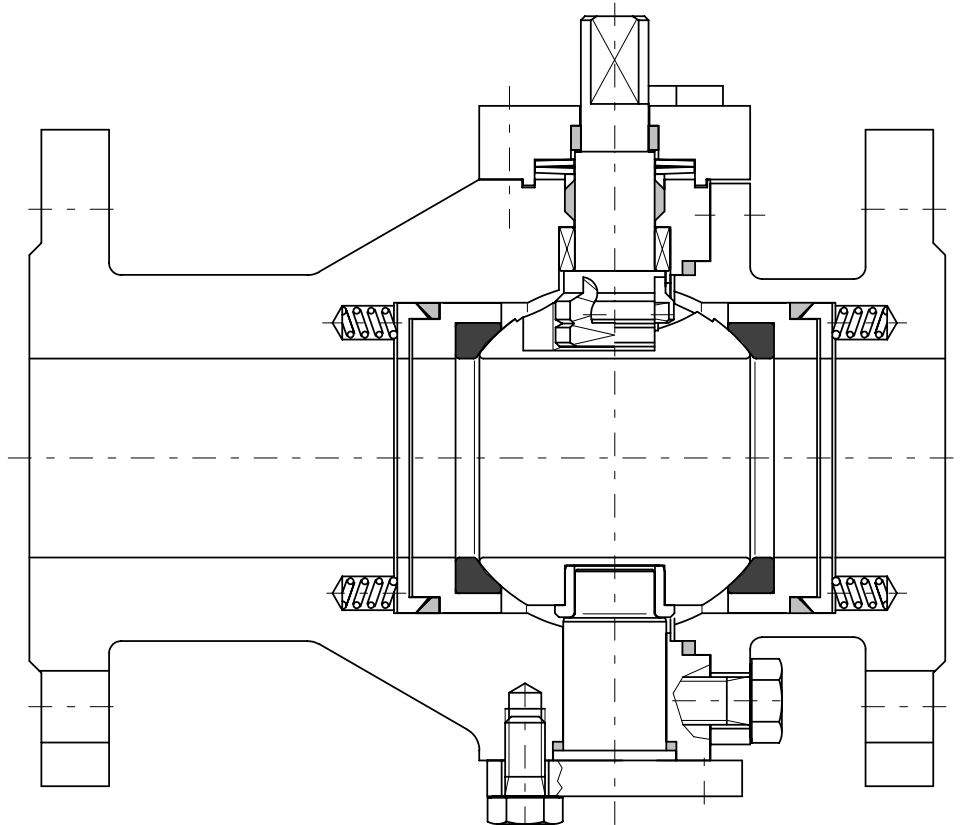
2.0 Materials

item	designation	temperatures:	
		-60°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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
6	stem	1.4571	1.4571
7	lower trunnion	1.4571 coated	1.4571 coated
8	gland washer	1.4571	1.4571
9	bearing bush	1.4571 coated	1.4571 coated
10	bearing cover	1.4571	1.0460
16	plate spring	1.4310	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	Graphite	Graphite
20	sealing ring		
21	seat ring	1.4571 coated	1.4571 coated
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	PEEK	PEEK
26	bearing	Carbon-Antimon	Carbon-Antimon
28-29	screw	A 2-70	A 2-70
31	screw		

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

Two-Way Ball Valve Series 90-C

DN 1" to 24"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. The carbon 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/EN/ISO 5211.

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

The ball valve is extradited 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" to 24"	PN ANSI Class 150	Temperature -60°C to 350°C
-----------------	----------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
4	retainer ring
5	ball
6	stem
7	lower trunnion
8	gland washer
9	bearing bush
10	bearing cover
16	plate spring
17	coil spring
18	body gasket
20	sealing ring
21	seat-unit
23	body gasket
24	stem packing
25	bearing ring
26	bearing
28	screw
29	screw
31	screw

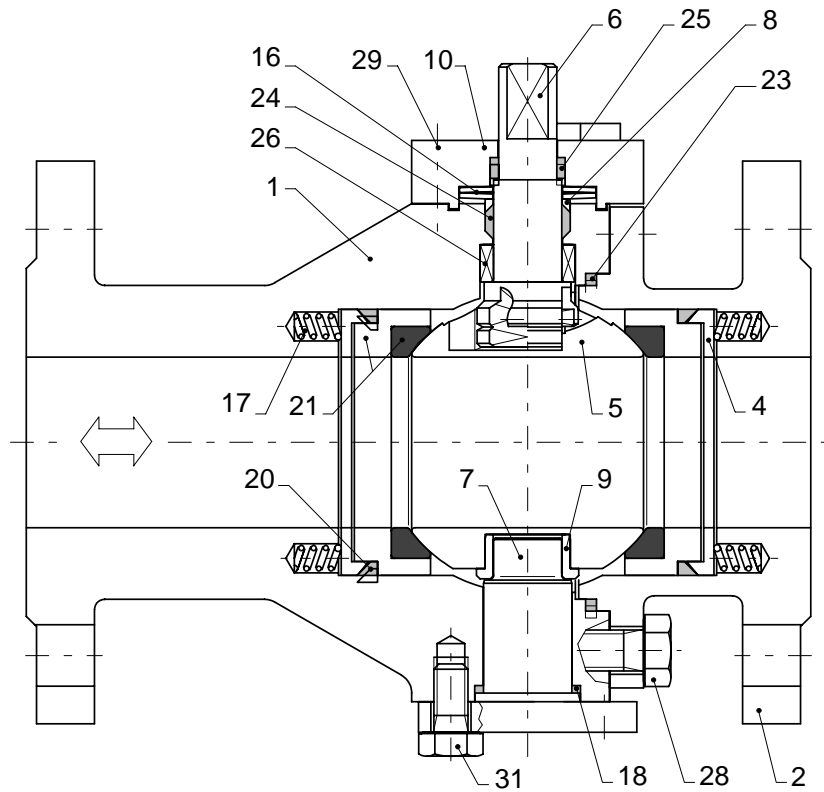


fig. 1
ball valve, series 90-C

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-60°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
7	lower trunnion	1.4571 coated	1.4571 coated
8	gland washer	1.4571	1.4571
9	bearing bush	1.4571 coated	1.4571 coated
10	bearing cover	1.4571	1.0460
16	plate spring	1.4310	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	Graphite	Graphite
20	sealing ring		
21	seat-unit	1.4571 / Carbon-Antimon	1.4571 / Carbon-Antimon
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	PEEK	PEEK
26	bearing	Carbon-Antimon	Carbon-Antimon
28-29	screw	A 2-70	A 2-70
31	screw		

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

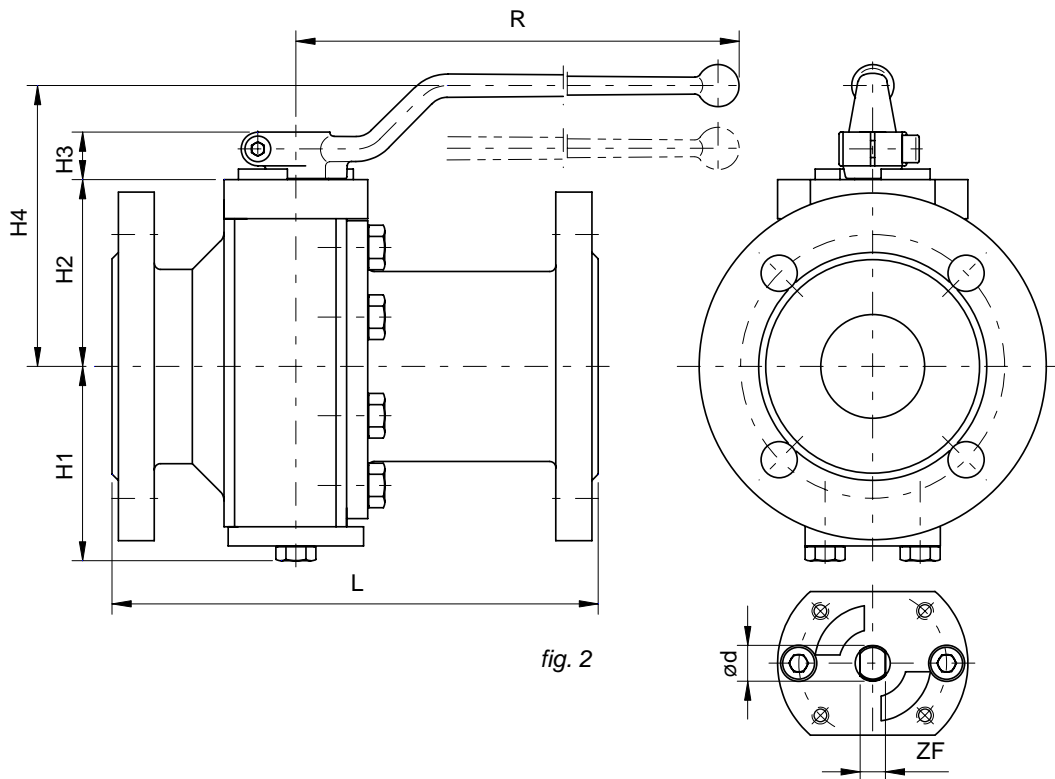
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face			connections	weight [kg]			actuator-connection DIN/ISO 5211
										ANSI Cl.150 RF/FF L	DIN 558-1			ANSI Cl.150	DIN 558-1		
											FTF1 L	FTF45 L			FTF1	FTF45	
1"	25	68	62	19	107	180	13	10	65	165	160		6,5	6		F 05	
1¼"	32																
1½"	40																
2"	50	92	88	23	133	300	17	12	325	216	230		12,5	13		F 07	
2½"	65																
3"	80	108	125	28	153	450	27	18	960	283	310	280	27	30	27	F 10	
4"	100	126	140	28	168	450	27	18	1650	305	350	300	31	34	31	F 10	
5"	125																
6"	150	169	173	37	224	800	40	32	4200	403	480		89	95		F 12	
8"	200																
10"	250	260	300	37	340	800	60	38	13500	533	730			360		F 12	
12"	300																
14"	350	380	500	48	550	--	95	55	29000	686	980			1020		F 16	
16"	400	430	540	48	680	--	95	55	38100	762	1100			1480		F 16	
18"	450	470	590	94	685	--	100	65		864	1200			1650		F 25	
20"	500	500	620	94	715	--	100	65	57000	914	1250			2040		F 25	
24"	600	570	700	94	795	--	100	65	83000	1067	1450			3050		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:

- splitted body
- trunnion mounted ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

Two-Way Ball Valves Series 14



14-S

DN: 1" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to 250°C



14-M

DN: 1" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to 550°C



14-C

DN: 1" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to 350°C

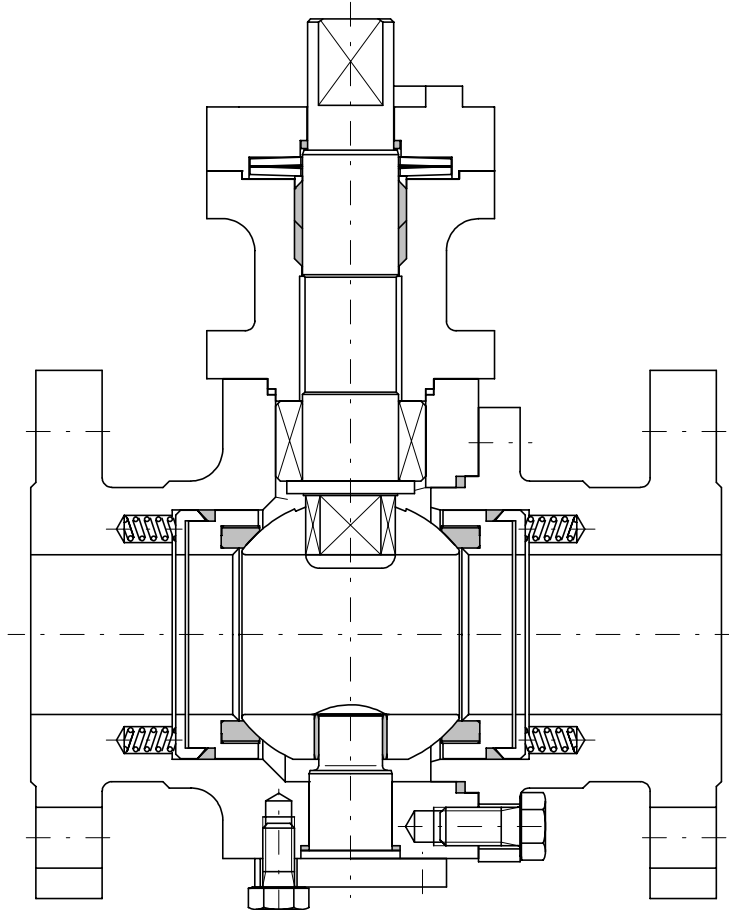
Technical Data
nominal size / dimensions /
connections / flow /
face to face / weights



Press Button to select

Two-Way Ball Valve Series 14-S

DN 1" to 20"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. 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 accessoires can be field mounted at any time. The

The ball valve is extradited 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 1" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 250°C
-----------------	------------------------	-------------------------------

1.0 Main parts

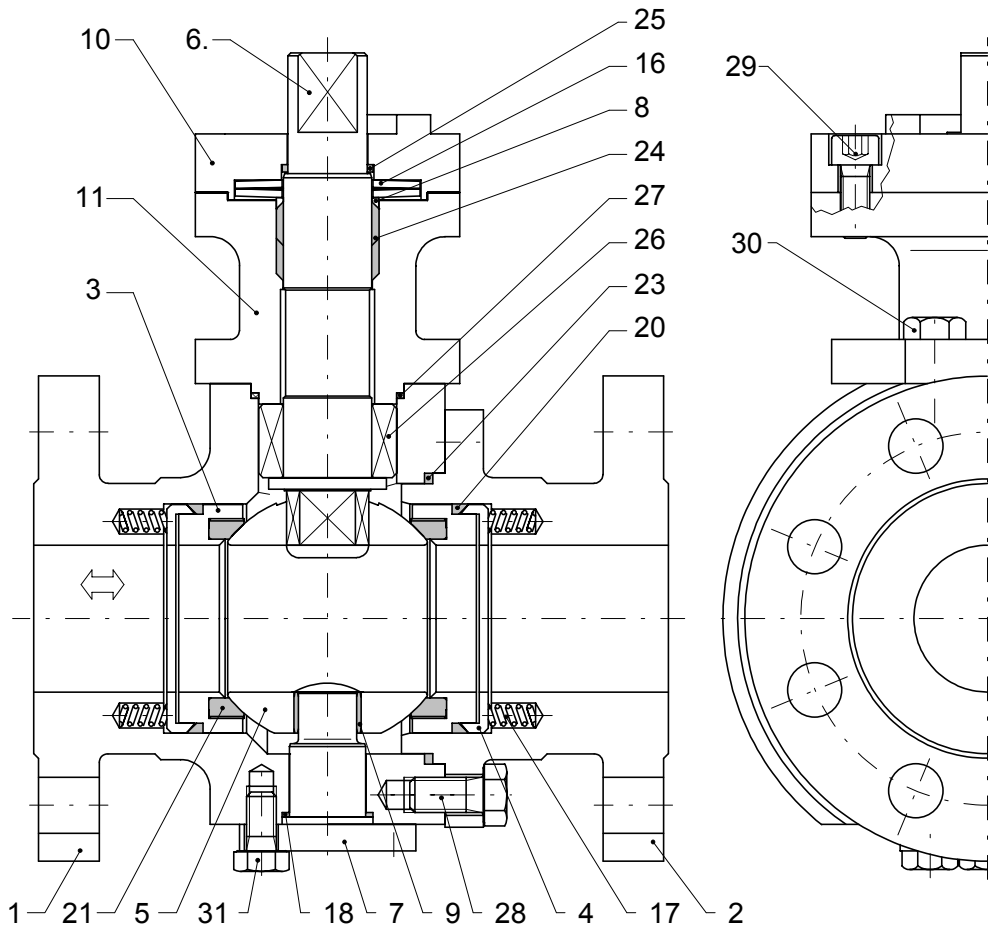


fig. 1
ball valve, series 14-S

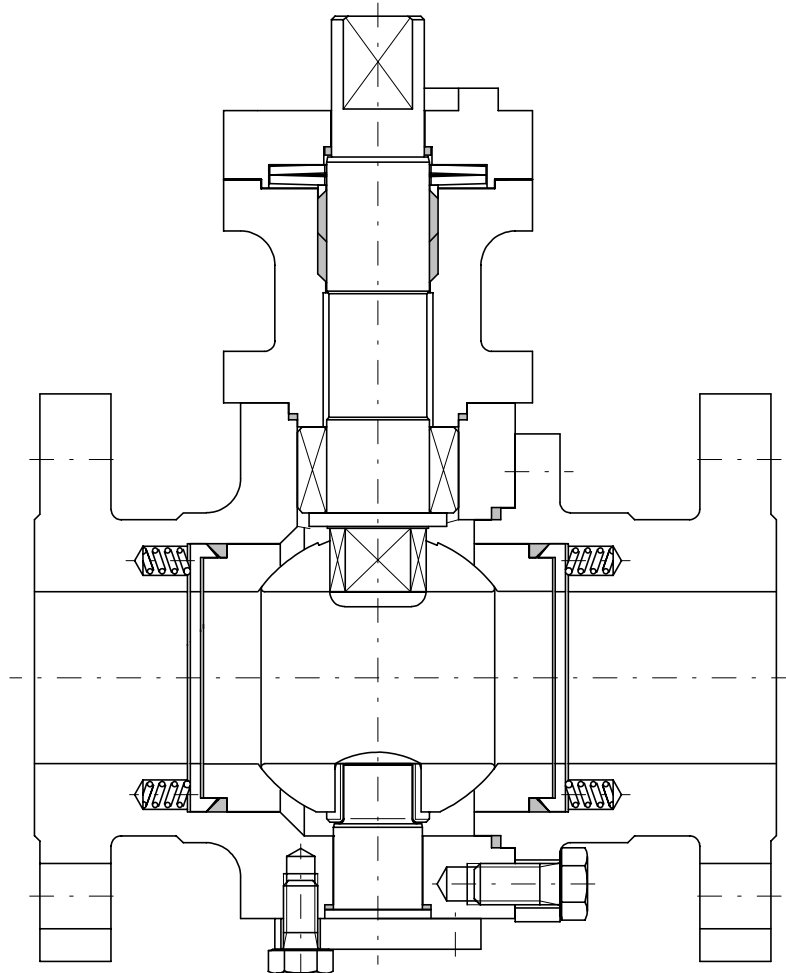
Technical modifications are reserved.

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
7	lower trunnion		
8	gland washer		
9	bearing bush	PEEK	PEEK
10	bearing cover	1.4571	1.0460
11	extension		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	PTFE - TFM	PTFE - TFM
20	sealing ring		
21	seat ring		
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	PEEK	PEEK
27	body gasket	PTFE - TFM	PTFE - TFM
28-31	screw	A 2-70	A 2-70

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

Two-Way Ball Valve Series 14-M

DN 1" to 20"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. 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 1" to 20"	PN ANSi Cl. 150/600	Temperature -40°C to 550°C
-----------------	------------------------	-------------------------------

1.0 Main parts

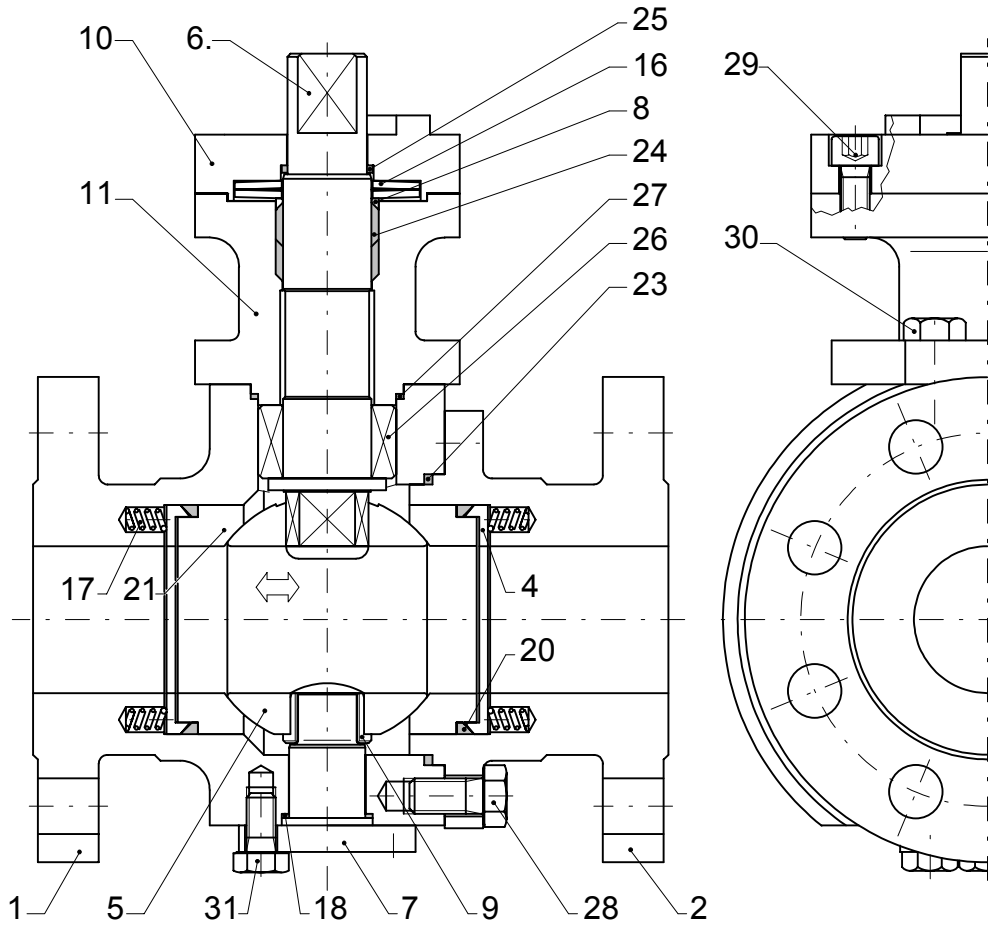


fig. 1
ball valve, series 14-M

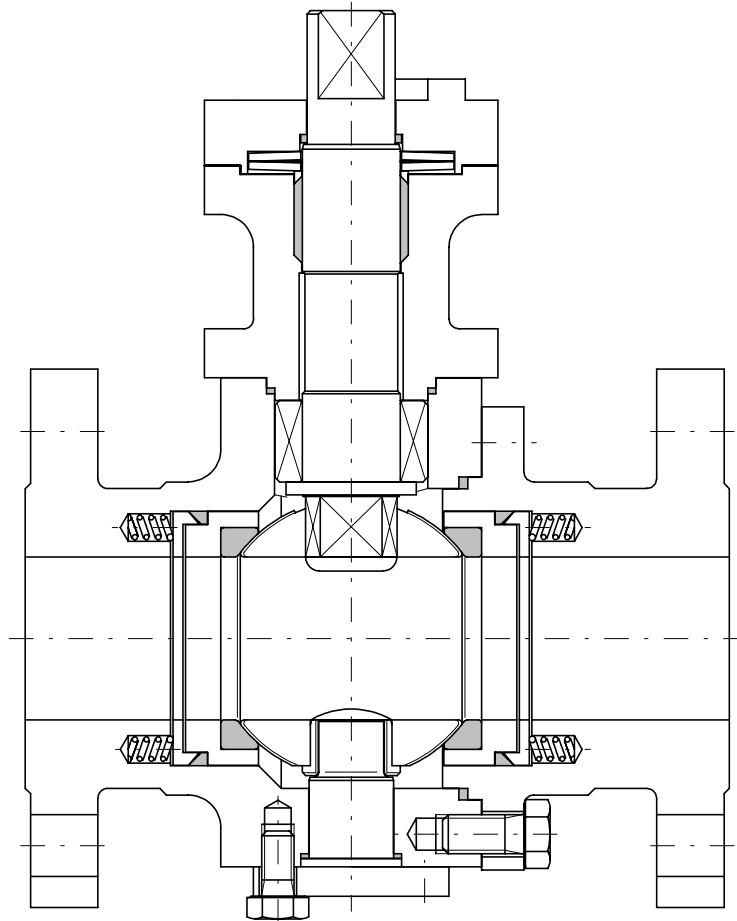
Technical modifications are reserved.

item	designation	temperatures:	
		-40°C to 550°C ¹⁾	-10°C to 450°C ¹⁾
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 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
7	lower trunnion	1.4571 coated	1.4571 coated
8	gland washer	1.4571	1.4571
9	bearing bush	1.4571 coated	1.4571 coated
10	bearing cover	1.4571	1.0460
11	extension		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	Graphite	Graphite
20	sealing ring		
21	seat ring	1.4571 coated	1.4571 coated
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	Carbon-Antimon	Carbon-Antimon
27	body gasket	Graphite	Graphite
28-31	screw	A 2-70	A 2-70

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

Two-Way Ball Valve Series 14-C

DN 1" to 20"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. The carbon 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 1" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 350°C
-----------------	------------------------	-------------------------------

1.0 Main parts

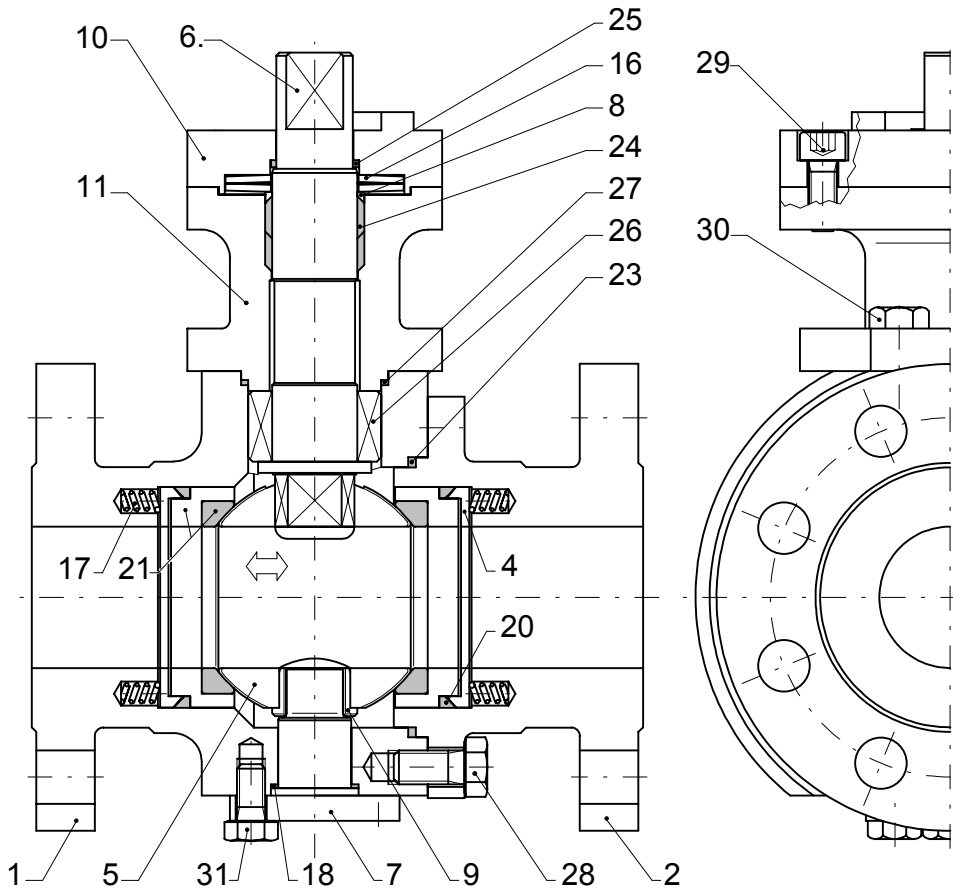


fig. 1
ball valve, series 14-C

Technical modifications are reserved.

item	designation	temperatures:	
		-40°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
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 ²⁾	1.4571 / 1.4408 ²⁾
6	stem	1.4571	1.4571
7	lower trunnion	1.4571 coated	1.4571 coated
8	gland washer	1.4571	1.4571
9	bearing bush	1.4571 coated	1.4571 coated
10	bearing cover	1.4571	1.0460
11	extension		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	Graphite	Graphite
20	sealing ring		
21	seat-unit	1.4571 / Carbon-Antimon	1.4571 / Carbon-Antimon
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	Carbon-Antimon	Carbon-Antimon
27	body gasket	Graphite	Graphite
28-31	screw	A 2-70	A 2-70

1) Materials for lower/higher temperatures on request.

2) Optionally coated.

2.0 Technical data Series 14-S, 14-M, 14-C

2.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions								flow k_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face			connections	weight [kg]			actuator-connection DIN/ISO 5211
											ANSI ²⁾		DIN 558-1		FTF1	FTF15	ANSI ²⁾	
		RF/FF	L	FTF1	L	RF/FF	FTF1	FTF15										
1/2"	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3/4"	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1"	25	61	47	67	23	159	300	17	12	65	165	160	--	8	8	--	F 07	
1 1/4"	32	72	52	67	23	164	300	17	12	117	178	180	--	11	11	--	F 07	
1 1/2"	40	80	72	84	28	176	450	27	18	196	190	200	--	16	15	--	F 10	
2"	50	86	80	85	28	184	450	27	18	325	216	230	--	30	31	--	F 10	
2 1/2"	65	100	90	85	28	194	450	27	18	598	330	290	270	50	48	47	F 10	
3"	80	119	104	140	37	273	700	40	32	960	283	310	280	69	72	69	F 12	
4"	100	132	124	140	37	293	700	40	32	1650	305	350	300	84	89	84	F 12	
5"	125	138	132	140	37	301	700	40	32	2720	381	400	325	105	109	98	F 12	
6"	150	173	165	142	33	--	--	58	38	4200	403	480	350	140	148	135	F 14	
8"	200	225	216	150	41	--	--	68	44	8130	419	600	400	270	285	270	F 16	
10"	250	268	257	195	41	--	--	82	55	13500	457	730	450	360	375	360	F 16	

dimensions in mm

²⁾ valid for ANSI Class 300 and Class 600

Technical modifications are reserved.

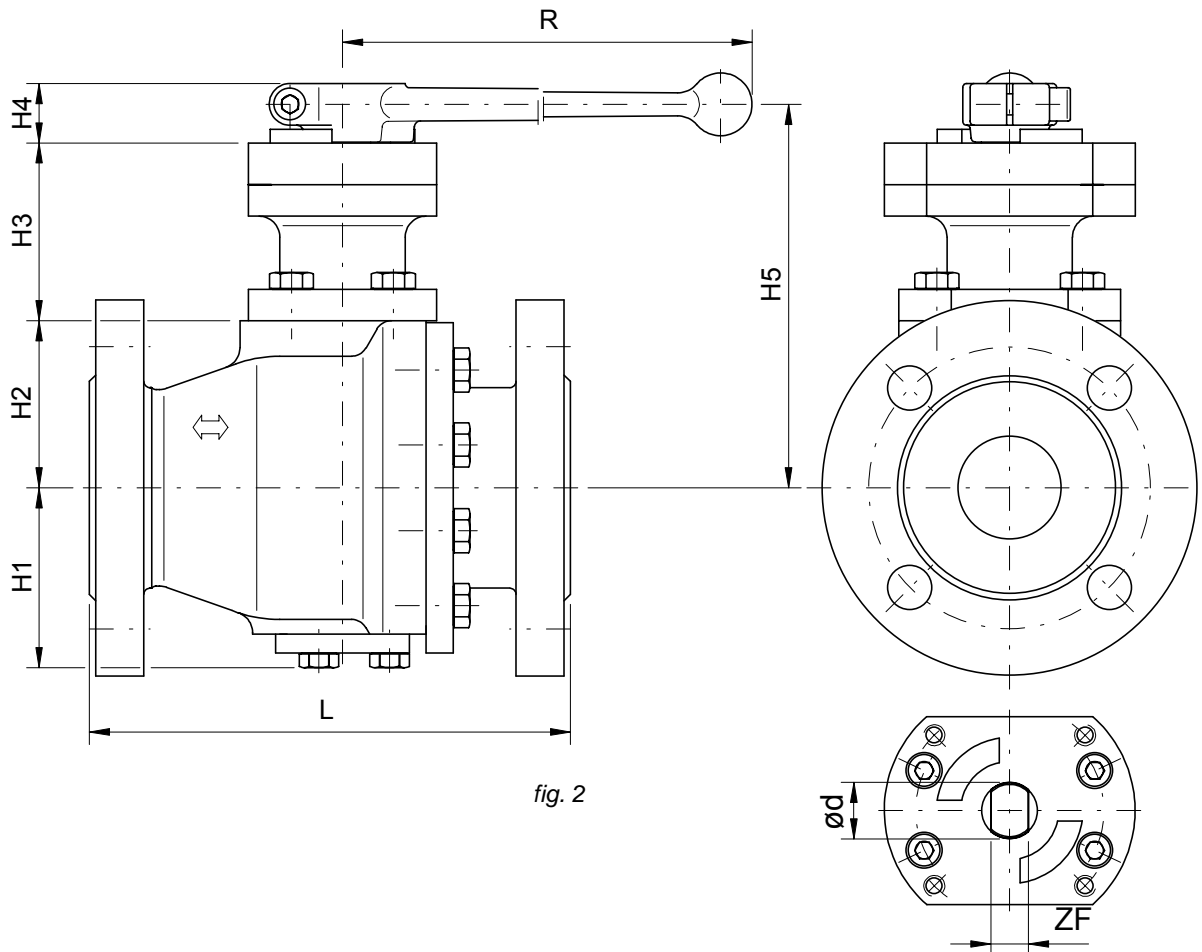


fig. 2

3.2 Special features

profit:

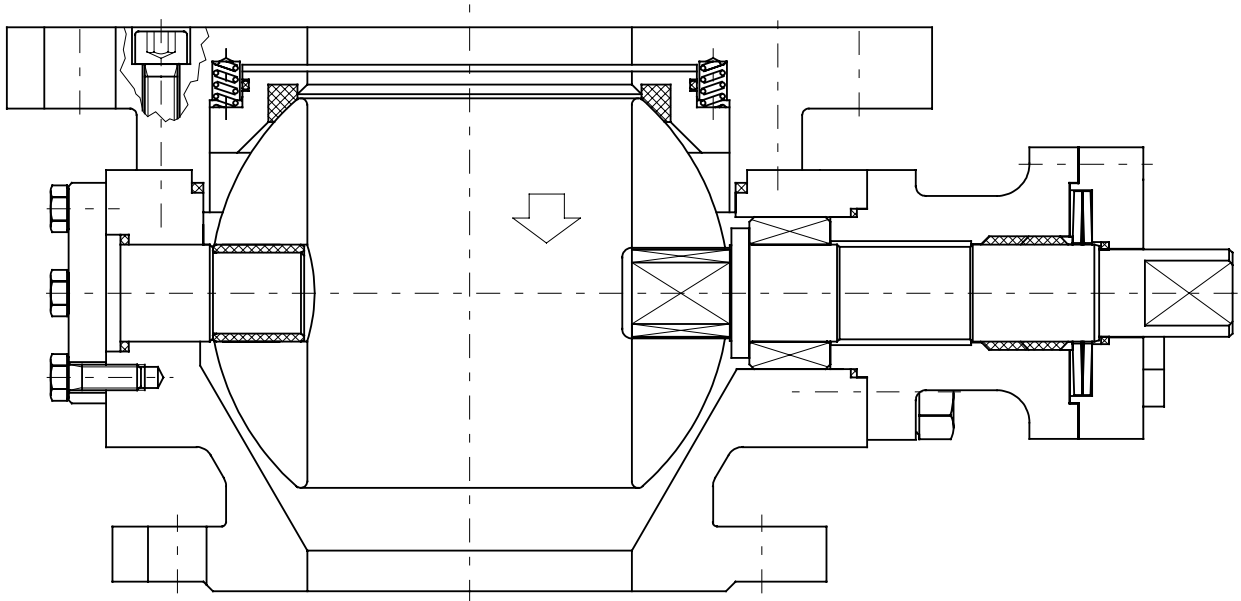
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

design:

- two piece body
- trunnion mounted ball
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

Tank-Bottom Ball Valve Series 15-S

DN 1" to 12"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. 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. By using the larger inlet-flange the clearance volume above the ball can be reduced to a minimum.

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

Range of application:

DN 1" to 12"	PN ANSI Cl. 150/300	Temperature -40°C to 250°C
-----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
3	retainer ring
5	ball
6	stem
7	lower trunnion
8	gland washer
9	bearing bush
10	bearing cover
11	extension
16	plate spring
17	coil spring
18	body gasket
20	o-ring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing
27	body gasket
28	screw
29	screw
30	screw
31	screw

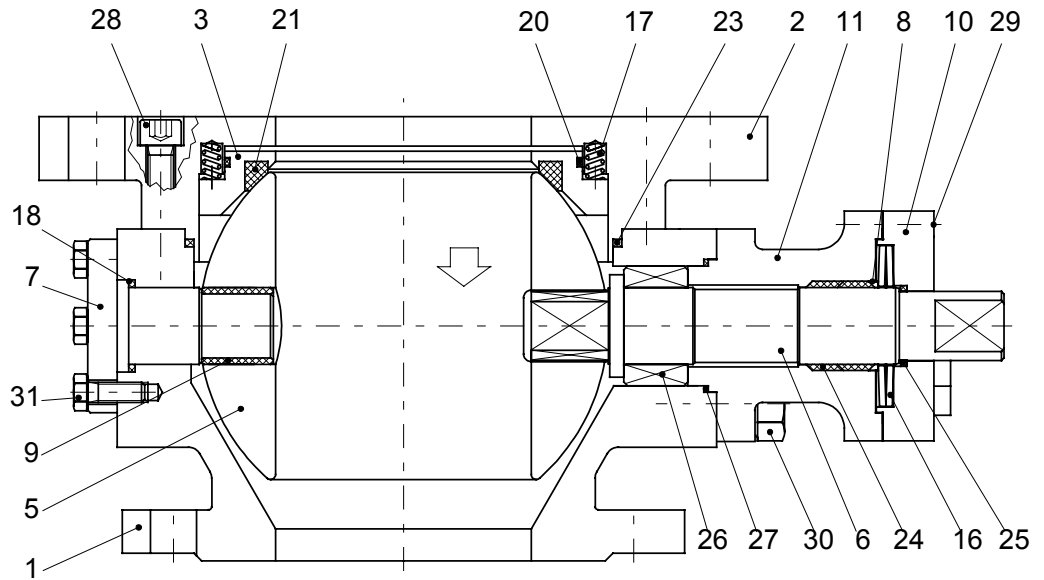


fig. 1
ball valve, series 15-S

Technical modifications are reserved.

2.0 Materials

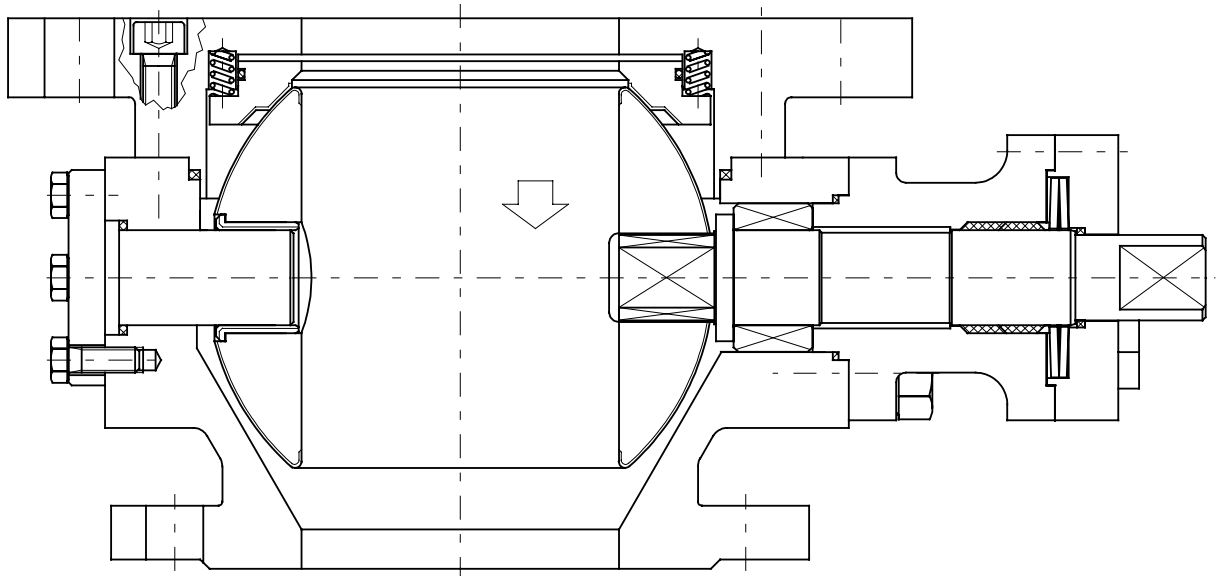
item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
3	retainer ring	1.4571	1.4571
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
7	lower trunnion		
8	gland washer		
9	bearing bush	PEEK	PEEK
10	bearing cover	1.4571	1.0460
11	extension		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	PTFE - TFM	PTFE - TFM
20	o-ring	Polymer or Elastomer	Polymer or Elastomer
21	seat ring	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	Carbon-Antimon	Carbon-Antimon
27	body gasket	PTFE - TFM	PTFE - TFM
28-31	screw	A 2-70	A 2-70

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

Tank-Bottom Ball Valve

Series 15-M

DN 1" to 12"



Description:

This PERRIN ball valve design features a two piece, bolted body and a trunnion mounted ball. 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. By using the larger inlet-flange the clearance volume above the ball can be reduced to a minimum.

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 extradited 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" to 12"	PN ANSI Cl. 150/300	Temperature -40°C to 350°C
-----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
7	lower trunnion
8	gland washer
9	bearing bush
10	bearing cover
11	extension
16	plate spring
17	coil spring
18	body gasket
20	o-ring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing
27	body gasket
28	screw
29	screw
30	screw
31	screw

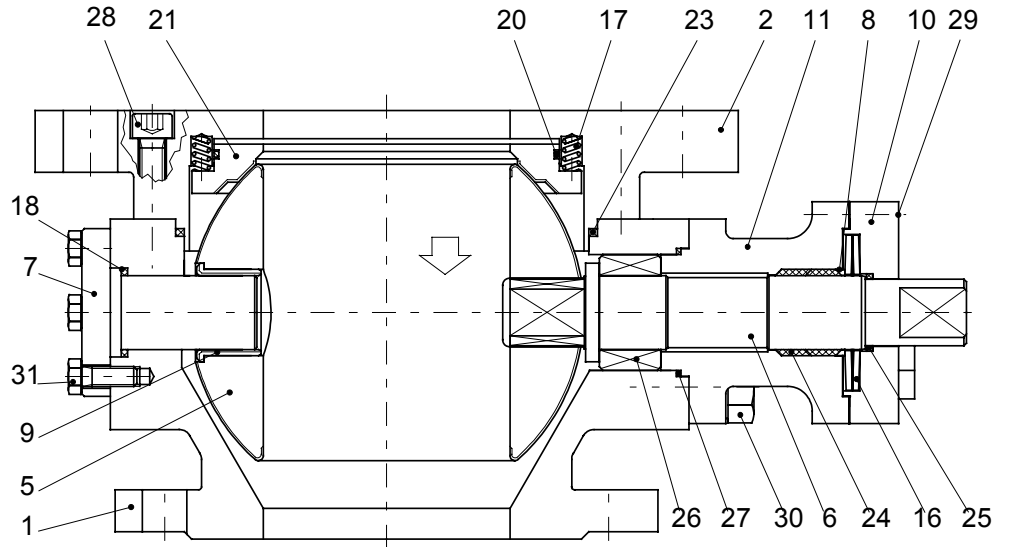


fig. 1
ball valve, series 15-M

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4408 coated	1.4571 / 1.4408 coated
6	stem	1.4571	1.4571
7	lower trunnion		
8	gland washer		
9	bearing bush	1.4571 coated	1.4571 coated
10	bearing cover	1.4571	1.0460
11	extension		
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
18	body gasket	Graphite	Graphite
20	o-ring	Polymer or Elastomer	Polymer or Elastomer
21	seat ring	1.4571 coated	1.4571 coated
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
26	bearing	Carbon-Antimon	Carbon-Antimon
27	body gasket	Graphite	Graphite
28-31	screw	A 2-70	A 2-70

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

Technical data, Series 15-S; 15-M

3.0 Technical data

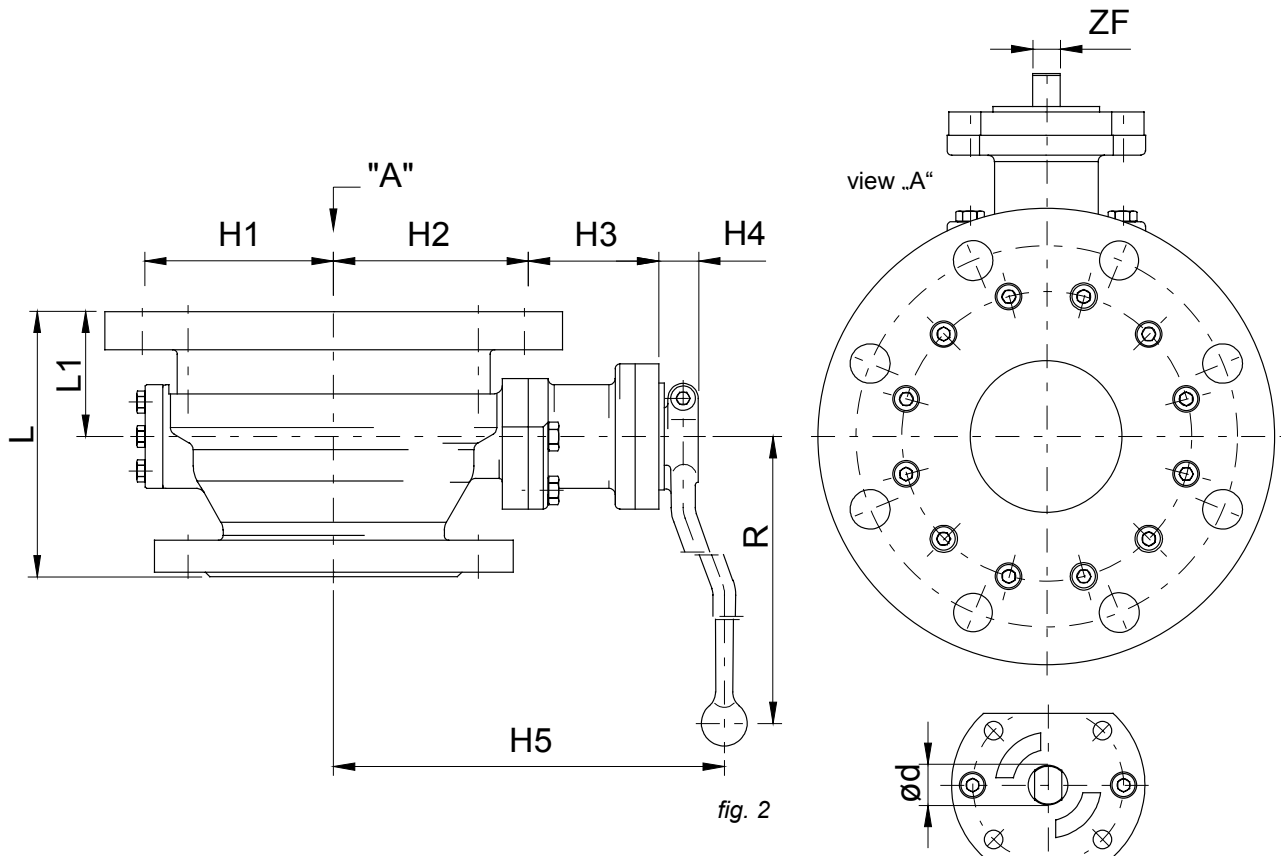
3.1 Nominal size / Dimensions / Connections / Flow / Weights

nom. size		dimensions								flow k_{V100} [m ³ /h] $\Delta p=$ 1bar	face to face				connections	weight [kg]		actuator- connection DIN/ISO 5211
inlet	outlet	H1	H2	H3	H4	H5	ϕd	ZF	R		ANSI- ²⁾ flanges Class 150, RF/FF		DIN- flanges PN 16 - 25			ANSI	DIN	
											L	L1	L	L1				
40	25	61	47	67	23	159	17	12	300	65	98	43	98	43	7,5	7,5	F 07	
50	32	72	52	67	23	164	17	12	300	117	98	48	98	48	11	11	F 07	
65	40	80	72	84	28	176	27	18	450	196	112	60	112	60	14,5	14,5	F 10	
80	50	86	80	85	28	184	27	18	450	325	124	64	124	64	31	31	F 10	
100	65	100	90	85	28	194	27	18	450	598	135	67	135	67	48	48	F 10	
125	80	119	104	140	37	273	40	32	800	960	164	81	164	81	72	72	F 12	
150	100	132	124	140	37	293	40	32	800	1650	174	82	174	82	89	89	F 12	
200	125	138	132	140	37	301	40	32	800	2720	275	113	275	113	109	109	F 12	
250	150	173	165	142	33	--	58	38	--	4200	292	135	292	135	125	125	F 14	
250	200	225	216	150	41	--	68	44	--	8130	345	154	345	154	285	285	F 16	
300	250	268	257	195	41	--	82	55	--	13500	405	185	405	185	375	375	F 16	
350	300	278	308	230	41	--	82	55	--	20500	470	253	470	253	585	585	F 16	

dimensions in mm

²⁾ ANSI Class 300 on request

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
- no welds
- anti blowout proof stem
- spring loaded seat system
- live loaded stem packing

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

Technical Data

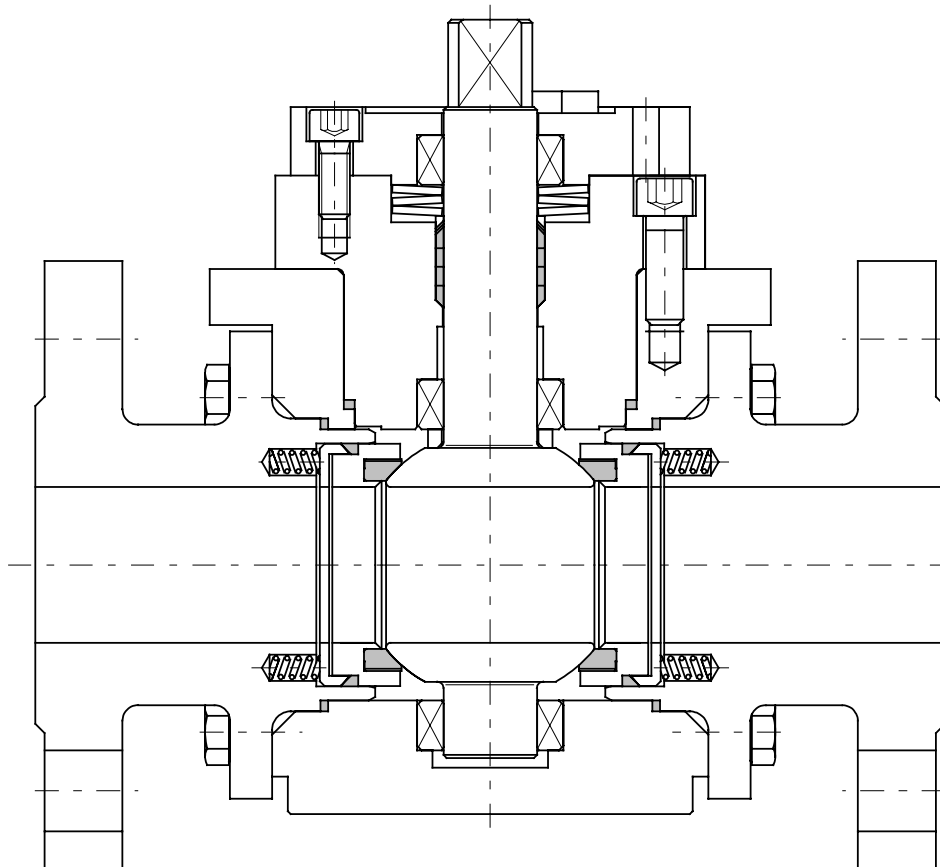
Nominal Size / Dimensions /
Connections / Face to Face /
Flow / Weights



Press Button to select

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
-----------------	------------------------	-------------------------------

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

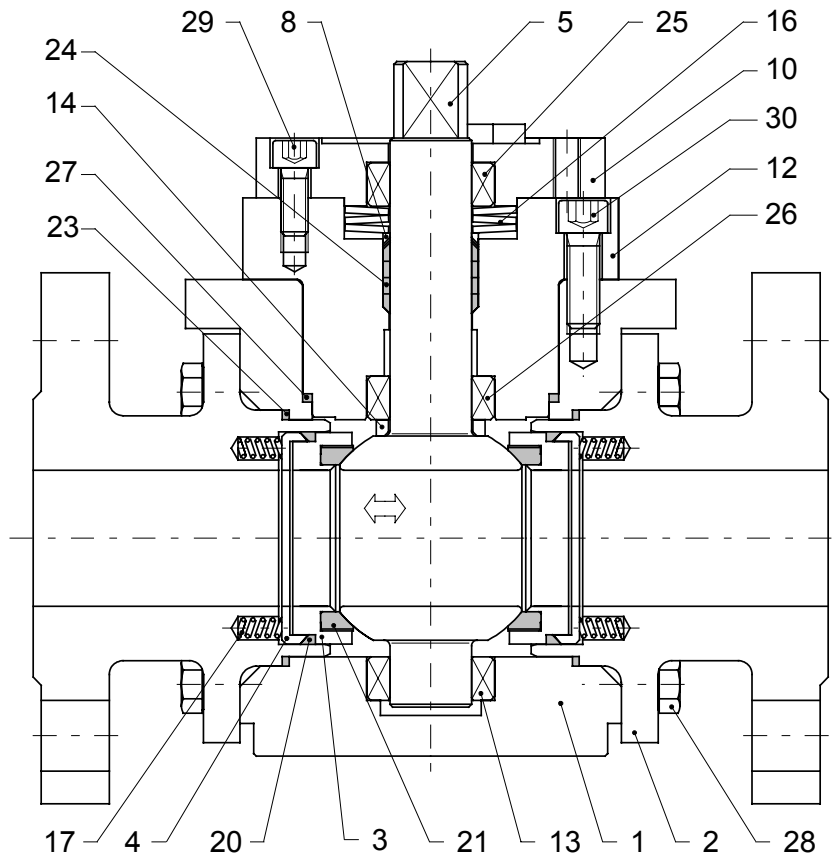


fig. 1
ball valve, series 16-S

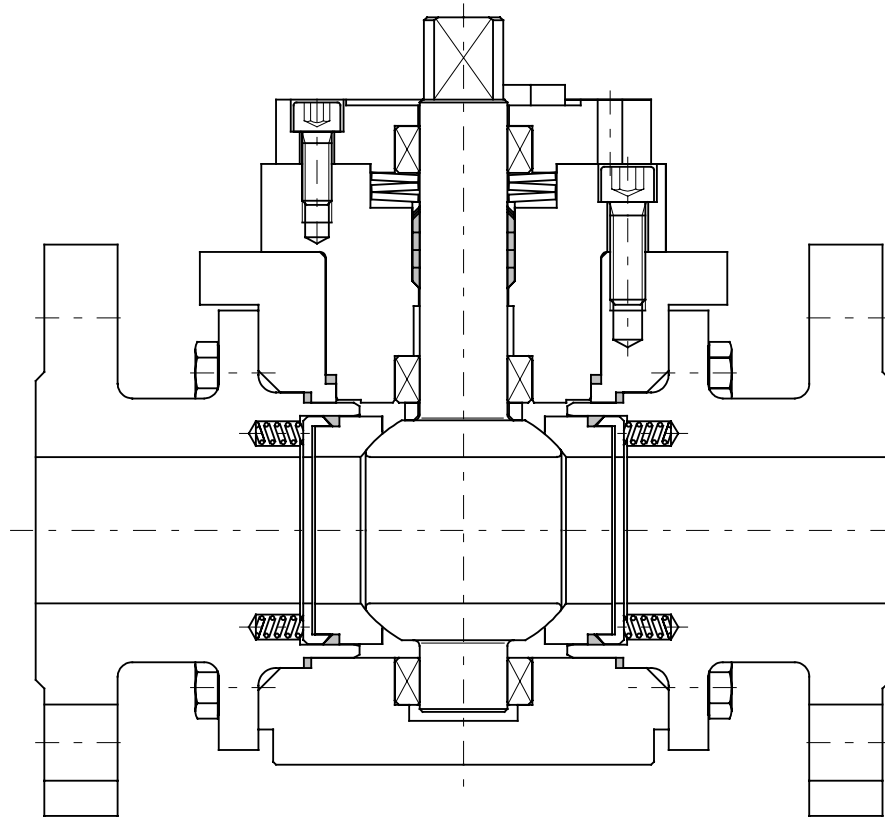
2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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
-----------------	------------------------	-------------------------------

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

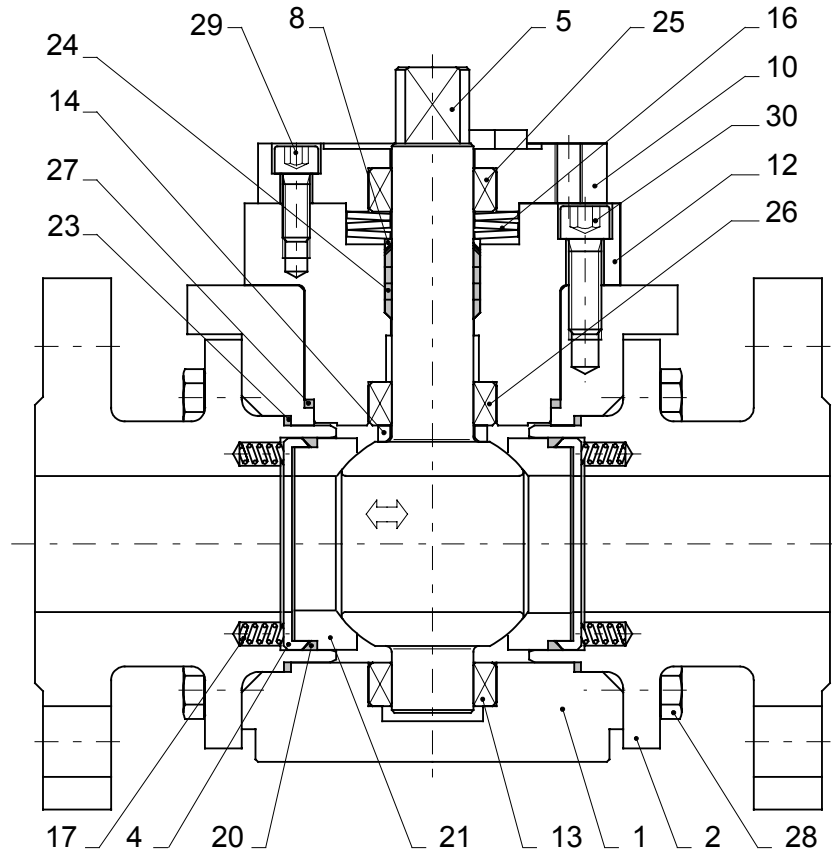


fig. 1
ball valve, series 16-M

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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

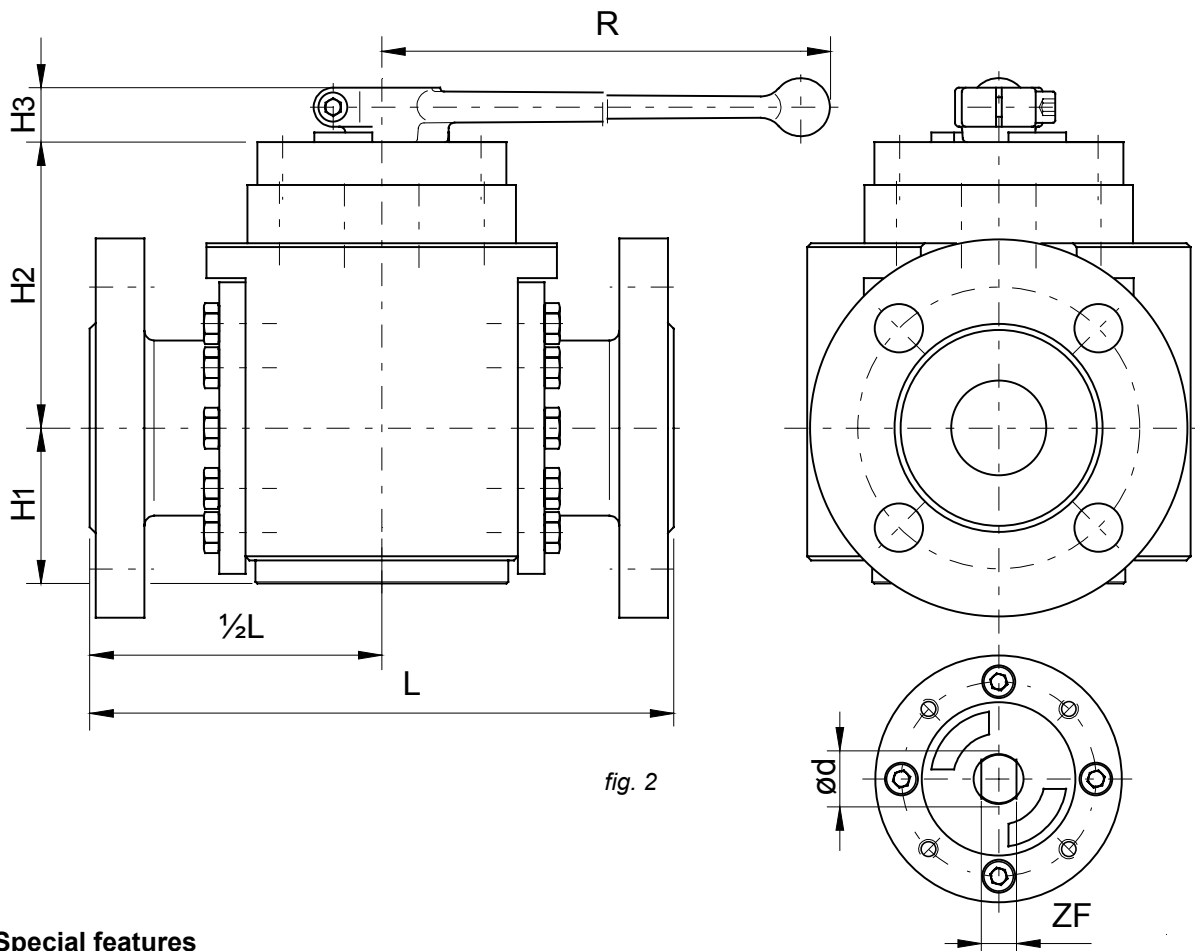
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow K_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		actuator-connection DIN/ISO 5211		
										ANSI	DIN 558-1		ANSI Cl.600	DIN 558-1 FTF2			
										Cl.600 RF/FF	L					L	
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:

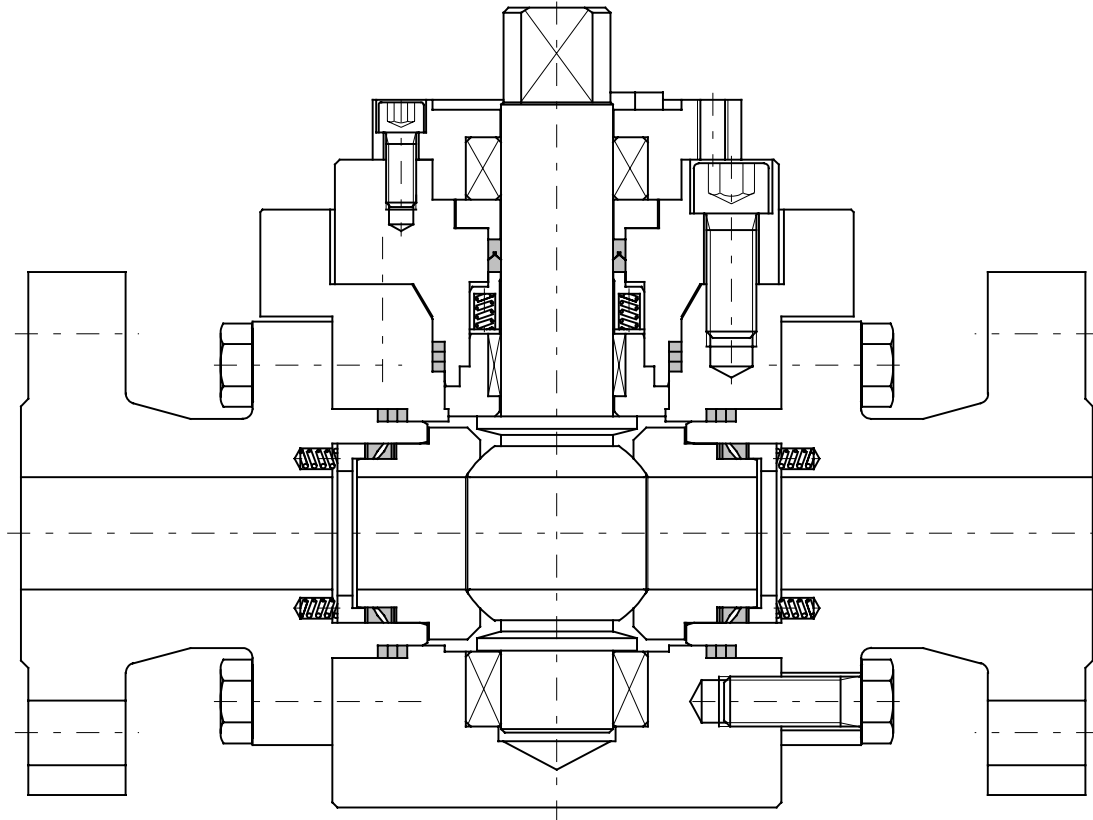
- ready to take actuator
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance

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
------------------	-------------------------	-------------------------------

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

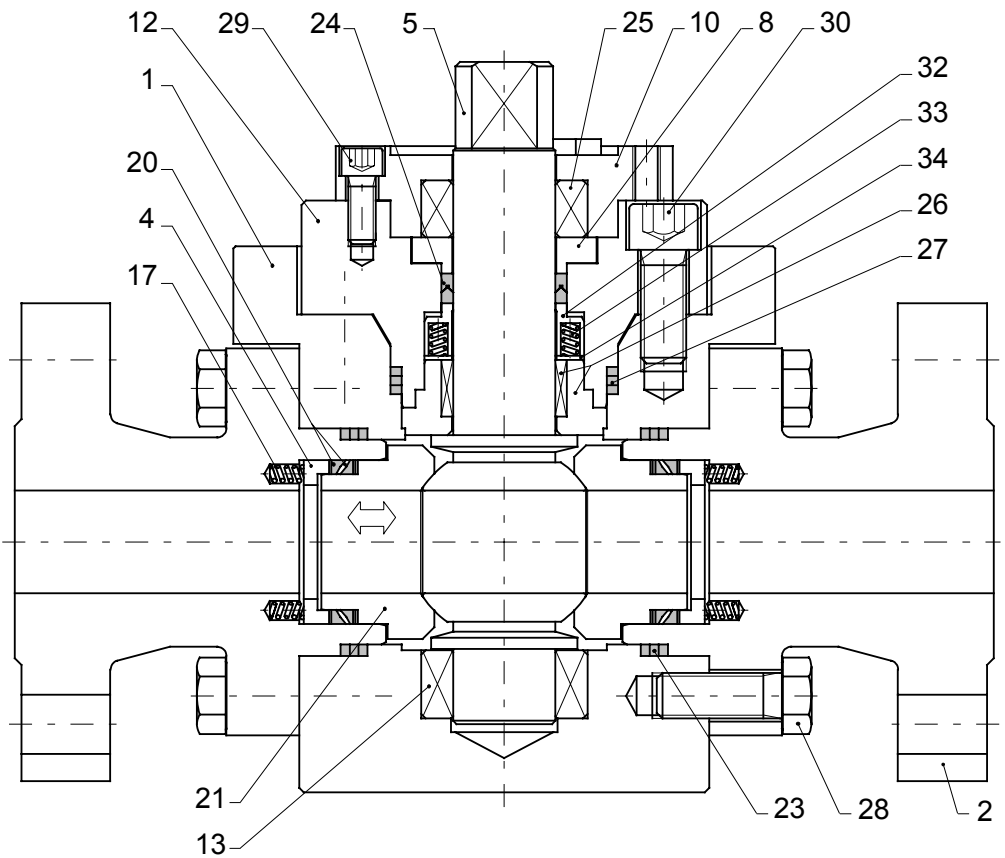


fig. 1
ball valve, series 16-H

2.0 Materials

item	designation	temperatures:		
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾	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	A 2-70
32	retainer ring	1.4571	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..

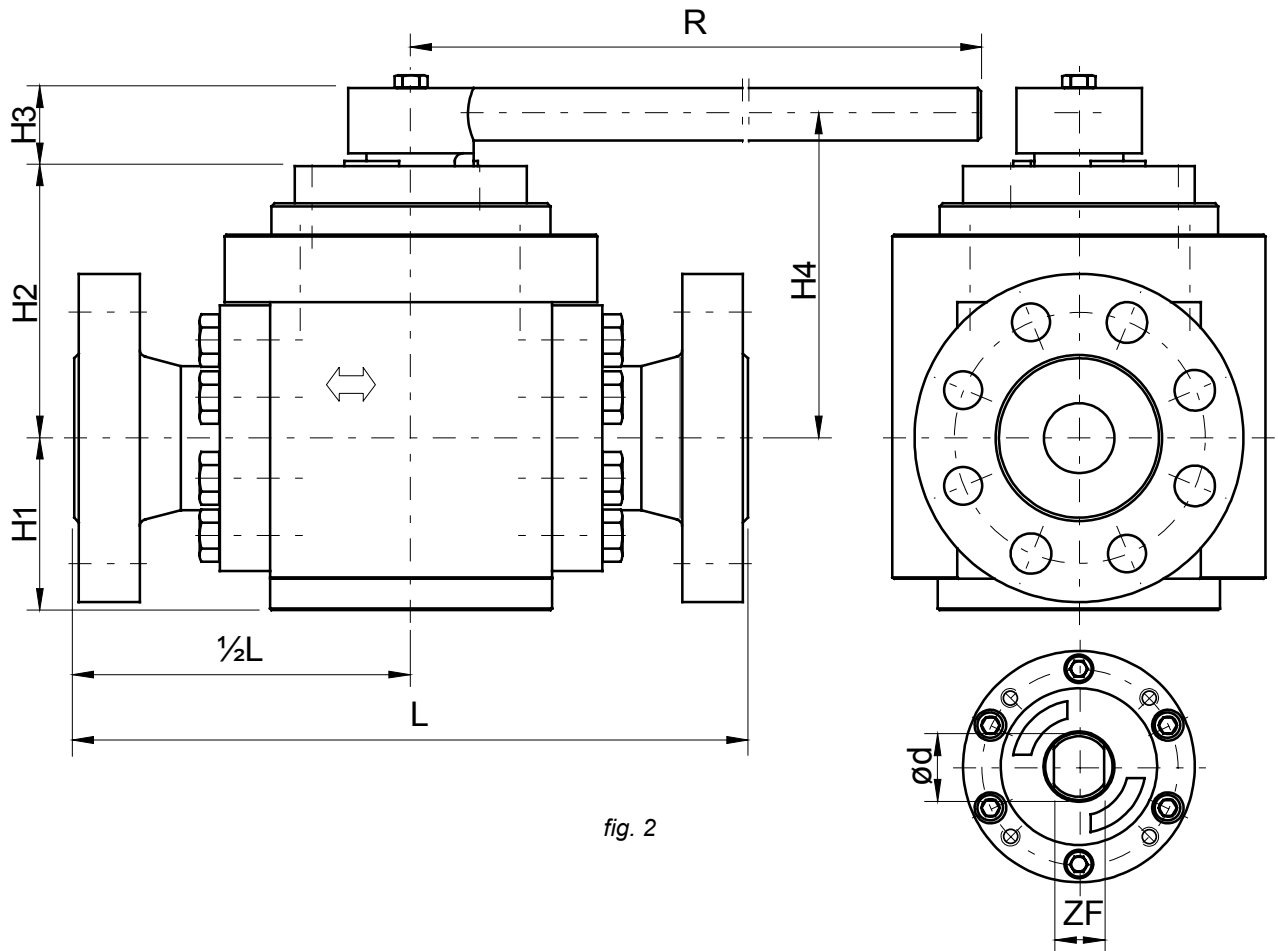
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow K_{v100} [m ³ /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					
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.



3.2 Special features

profit:

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

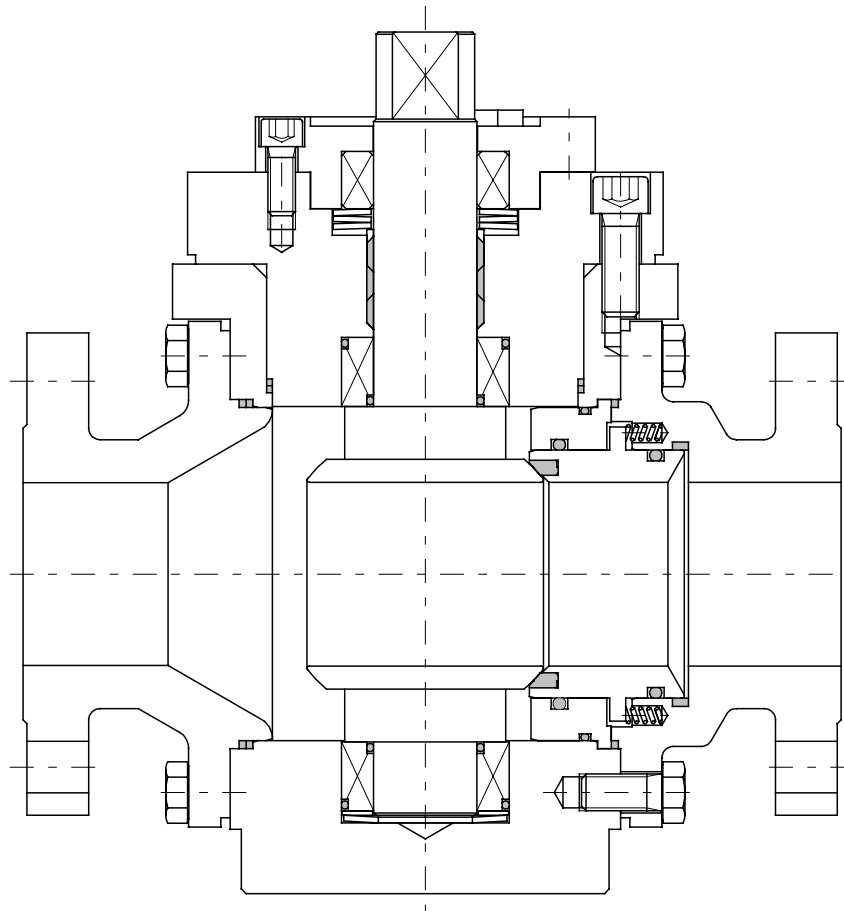
design:

- 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
-------------------	------------------------	-------------------------------

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

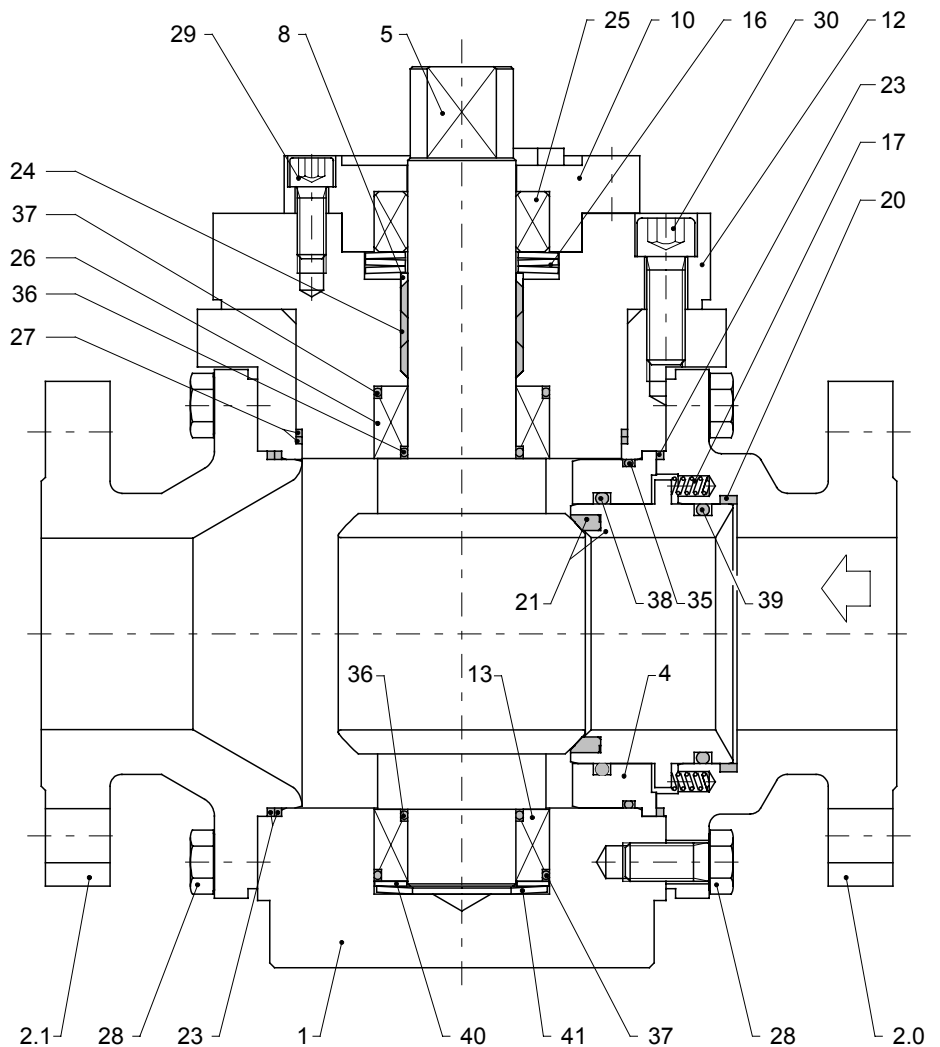


fig. 1
ball valve, series 16.123

2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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..

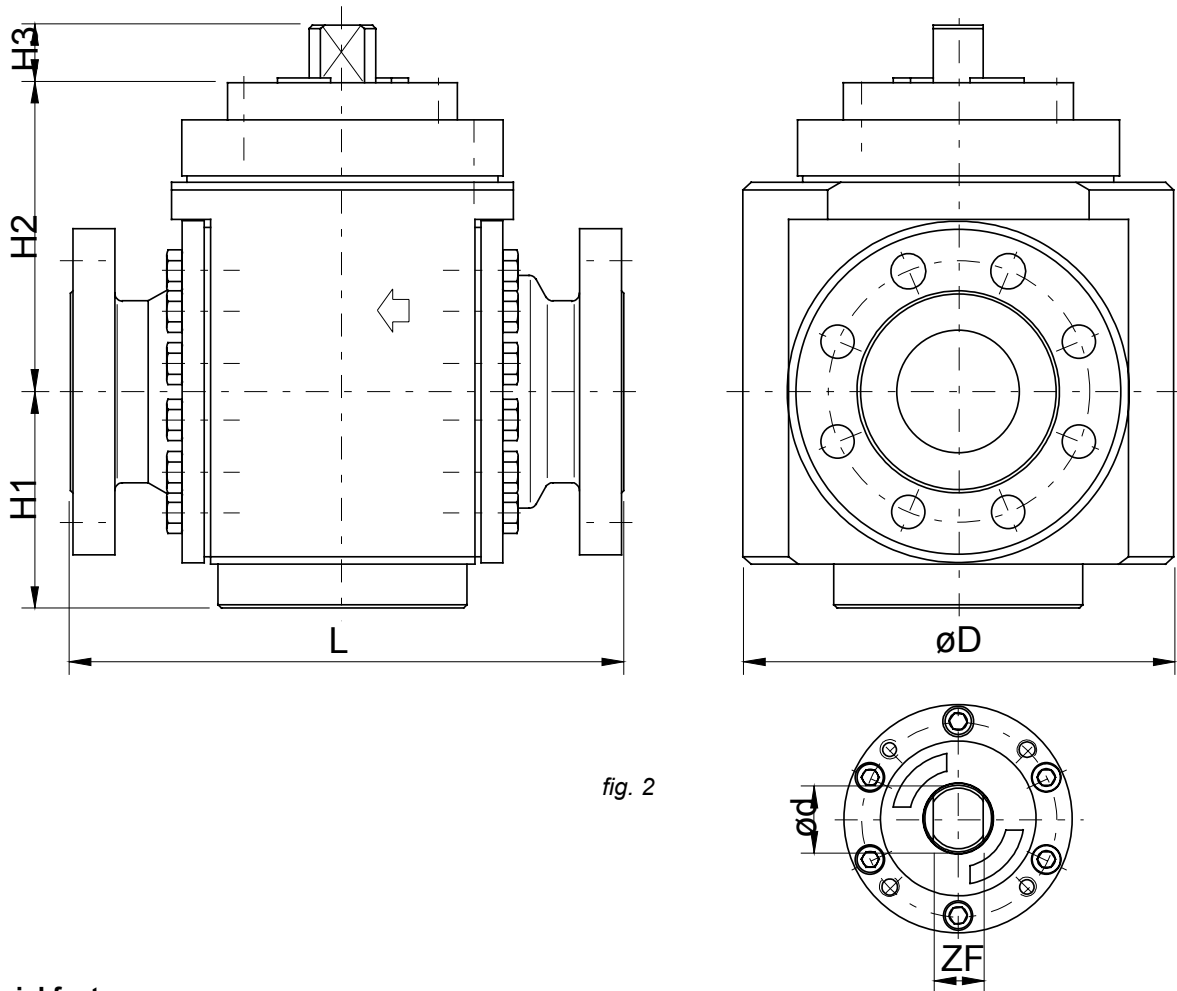
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow K_{V100} [m ³ /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		ANSI	DIN 558-1		
		H1	H2	H3		$\varnothing D$	$\varnothing d$	ZF		L	L	FTF2			FTF2		
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.



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

“Top-Entry“ Two-Way Ball Valves Series 17

17-S

DN: ½" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +250°C

17-M

DN: ½" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +450°C

17-K

DN: ½" to 8"
PN: ANSI Class 150/600
Temp.: -196°C to +100°C

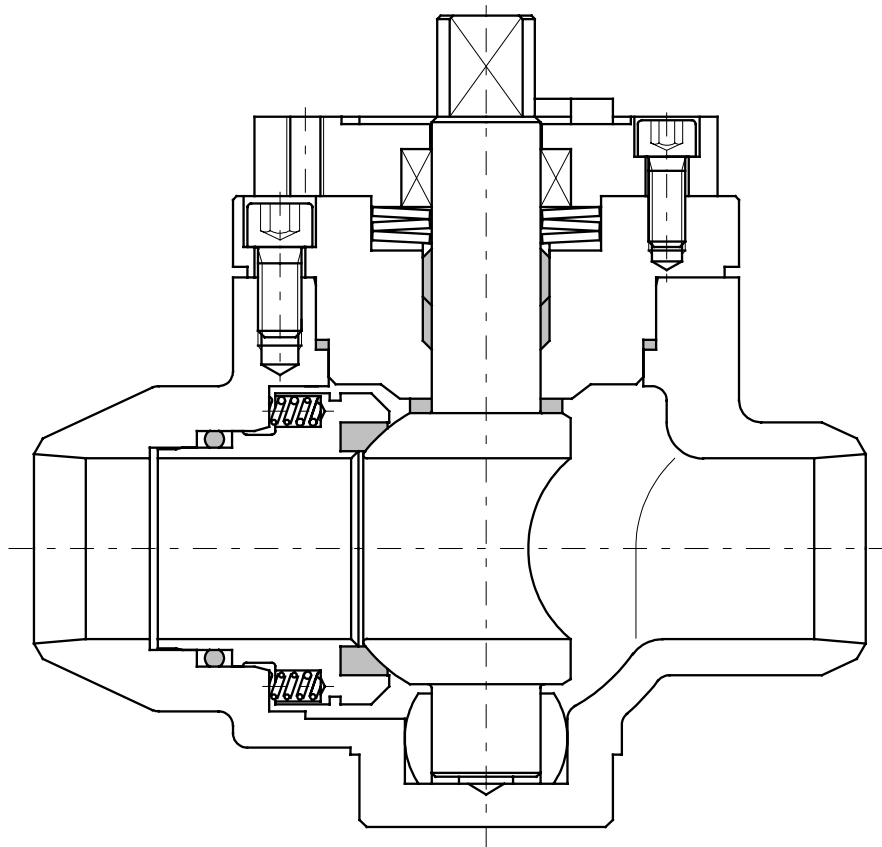
Technical Data
nominal size / dimensions /
connections / flow /
face to face / weights



Press Button to select

„Top-Entry“
Two-Way Ball Valve
Series 17-S

DN ½“ to 20“



Description:

This PERRIN ball valve design features a one-piece body, bolted cover 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 Top-Entry valve can be directly welded into the pipe without damage to the internals. Easy replacing and inspection of trim parts by removal of the bolted cover. Trapping of product and built up of pressure is not possible due to the single seat system.

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- and, as desired, in "fire-safe" design. The stem packing has examined TA-Luft.

Range of application:

DN ½“ to 20“	PN ANSI Cl. 150/600	Temperature -40°C to 250°C
-----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
3	retainer ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	pendulum baring
14	distance disc
15	gland washer
16	plate spring
17	coil spring
20	o-ring
21	seat ring
24	stem packing
25	bearing
27	body gasket
29	screw
30	screw

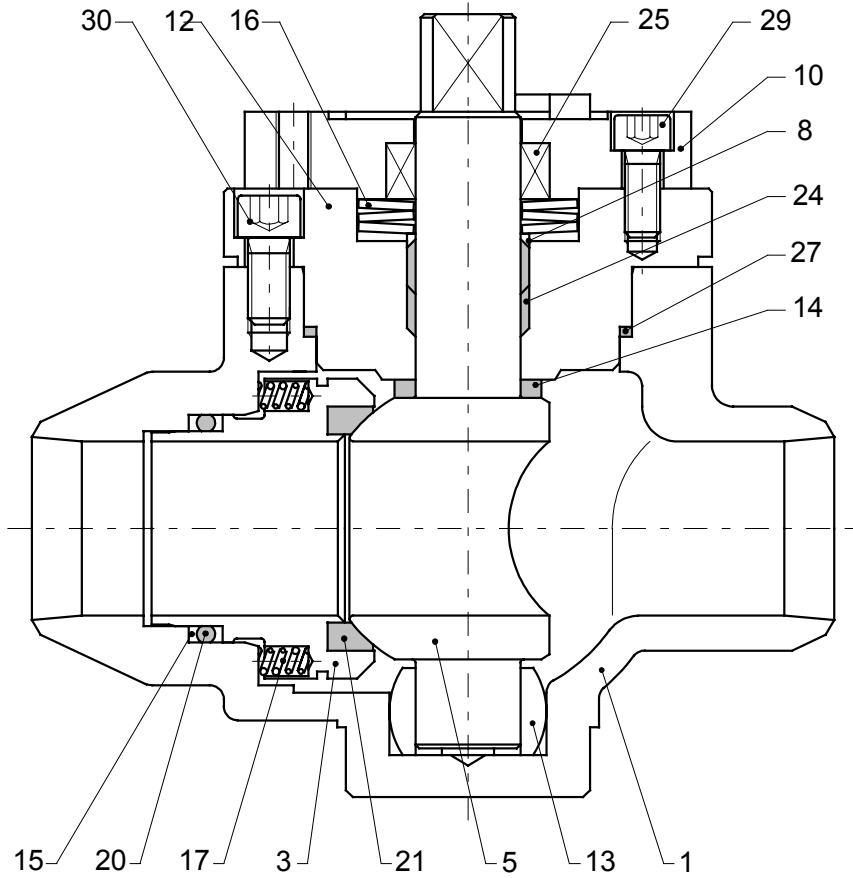


fig. 1
ball valve, series 17-S

Technical modifications are reserved.

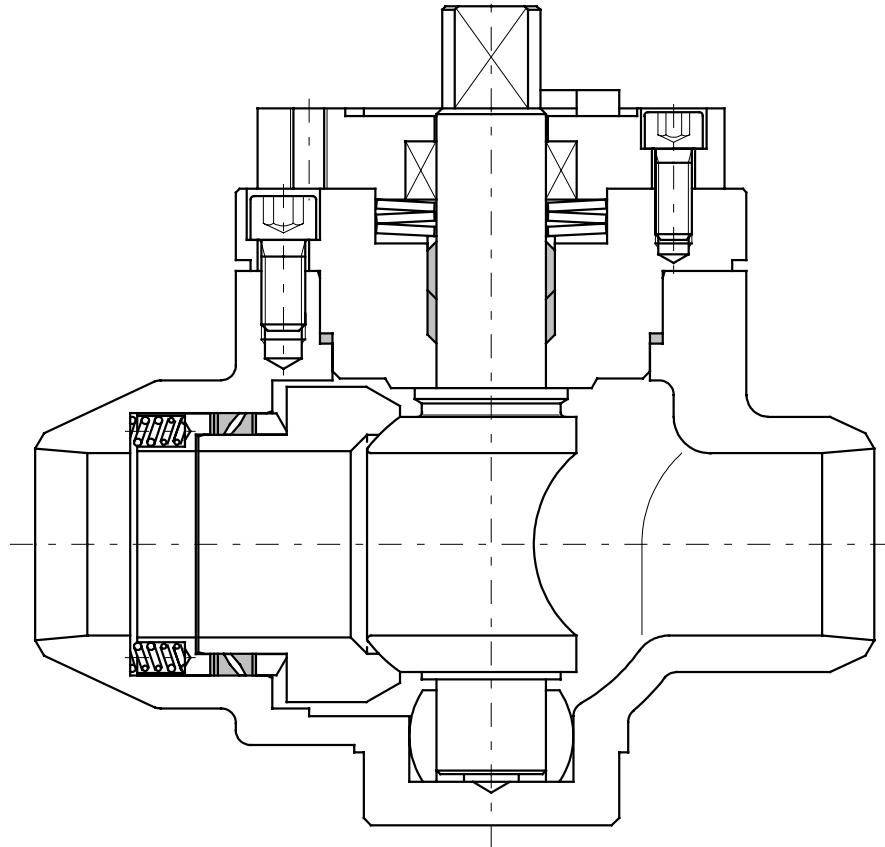
2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
3	retainer ring	1.4571	1.4571
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
8	gland washer	1.4571	1.4571
10	bearing cover		1.0460
12	cover		
13	pendulum baring		1.4571
14	distance disc	PTFE - 25% Glass	PTFE - 25% Glass
15	gland washer	PTFE	PTFE
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	o-ring	Polymer / Elastomer	Polymer / Elastomer
21	seat ring	PTFE - TFM	PTFE - TFM
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing	Carbon	Carbon
27	body gasket	PTFE - TFM	PTFE - TFM
29-30	screw	A 2-70	A 2-70

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

„Top-Entry“
Two-Way Ball Valve
Series 17-M

DN ½“ to 20“



Description:

This PERRIN ball valve design features a one-piece body, bolted cover 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 Top-Entry valve can be directly welded into the pipe without damage to the internals. Easy replacing and inspection of trim parts by removal of the bolted cover. Trapping of product and built up of pressure is not possible due to the single seat system.

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 extradited in antistatic- and „fir-safe“ design. The stem packing has examined TA-Luft.

Range of application:

DN ½“ to 20“	PN ANSi Cl. 150/600	Temperature -40°C to 450°C
-----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
3	retainer ring
4	retainer ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	pendulum baring
16	plate spring
17	coil spring
20	seat packing
21	seat ring
24	stem packing
25	bearing
27	body gasket
29	screw
30	screw

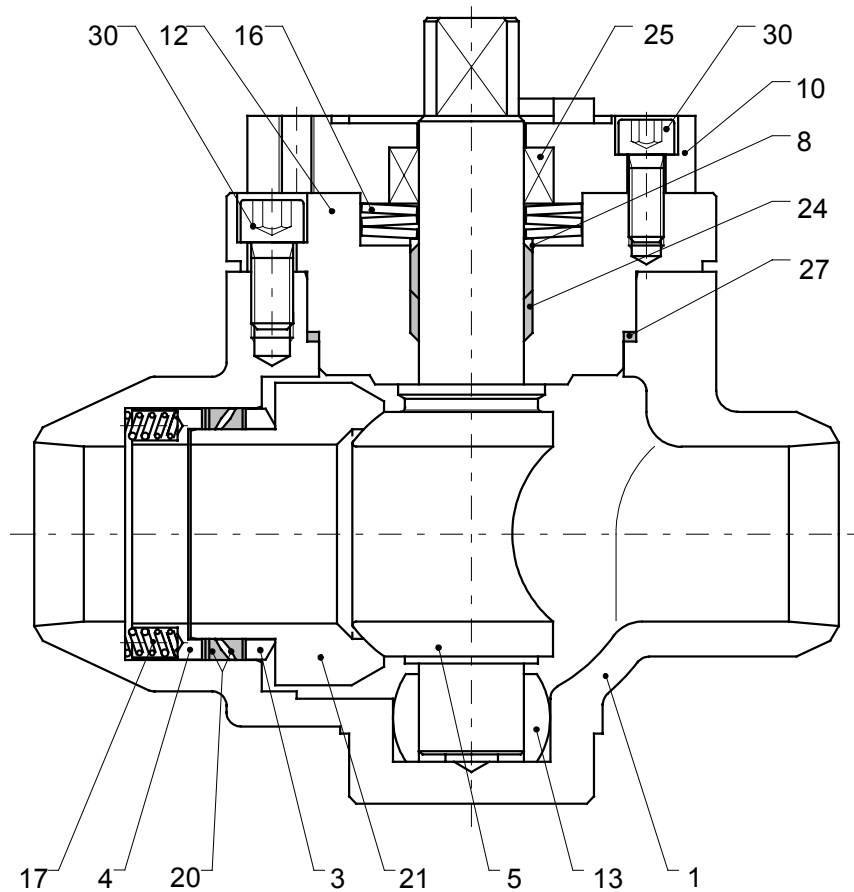


fig. 1
ball valve, series 17-M

2.0 Materials

item	designation	temperatures:	
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
3	retainer ring	1.4571	1.4571
4	retainer ring		
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
13	pendulum baring		1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	seat packing	1.4571 - Graphite	1.4571 - Graphite
21	seat ring	1.4571 coated	1.4571 coated
24	stem packing	Graphite	Graphite
25	bearing	Carbon	Carbon
27	body gasket	Graphite	Graphite
29-30	screw	A 2-70	A 2-70

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

3.0 Technical data Series 17-S; 17-M

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions								flow k_{v100} [m ³ /h] $\Delta p=$ 1bar	face to face ²⁾		connections	weight [kg]		actuator-connection DIN/ISO 5211
											DIN 558-1			weight [kg]		
		H1	H2	H3	H4	B	R	ϕd	ZF		FTF1	FTF2		FTF1	FTF2	
1/2"	15	52	78	23	124	100	300	17	12	17		210			7	F 07
3/4"	20	52	78	23	124	100	300	17	12	30		230			7,5	F 07
1"	25	52	78	23	124	100	300	17	12	52		230			7,5	F 07
1 1/4"	32															
1 1/2"	40	10	102	28	120	130	450	27	18	155		200			12	F 10
2"	50	77	120	28	120	150	450	27	18	250		230			16	F 10
2 1/2"	65															
3"	80	100	152	37	190	190	800	40	32	660		310			38	F 12
4"	100	120	167	37	205	220	800	40	32	990		350			50	F 12
5"	125															
6"	150	170	191	33	--	300	--	57	38	2250		480			115	F 14
8"	200	215	255	41	--	400	--	68	44	4200		600			225	F 16
10"	250	250	286	41	--	500	--	68	44	6700		730			330	F 16

dimensions in mm

²⁾ Valid for ANSI Class 150 and Class 300

Technical modifications are reserved.

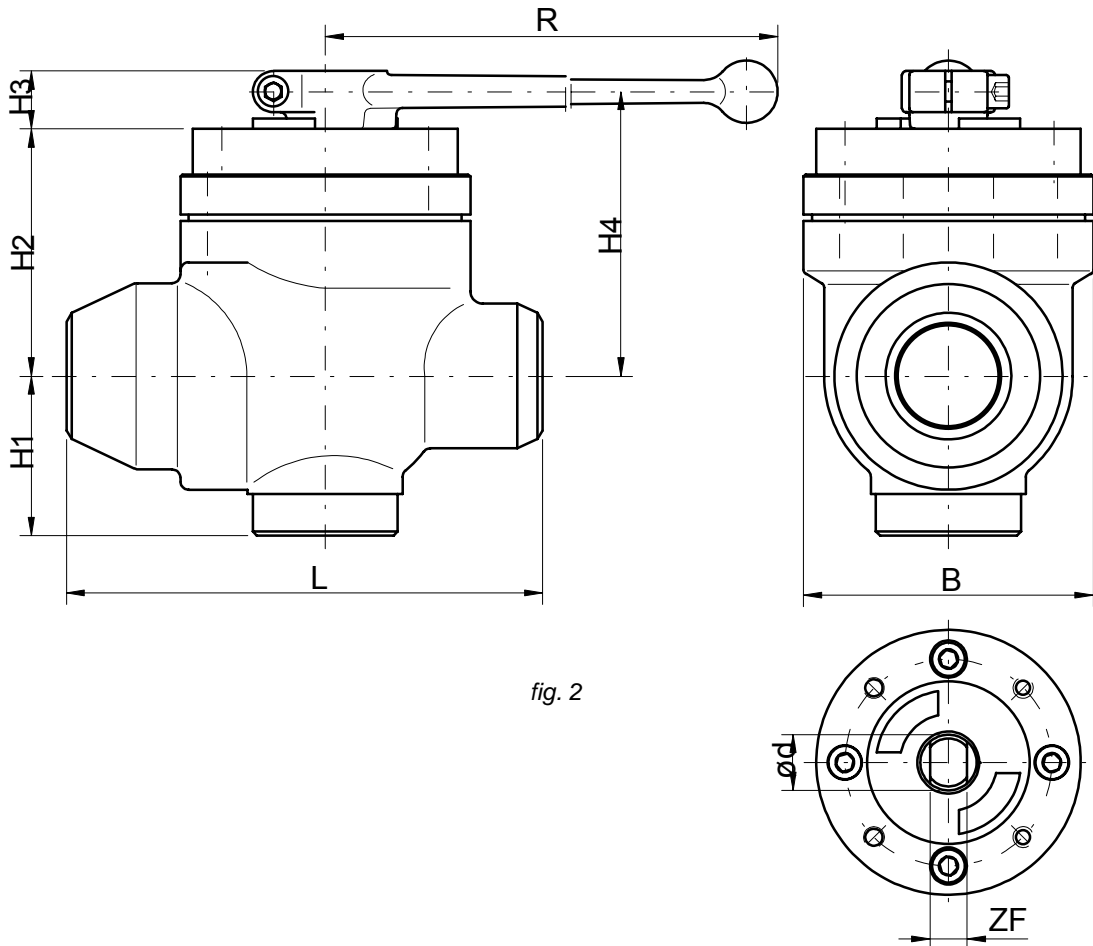


fig. 2

3.2 Special features

profit:

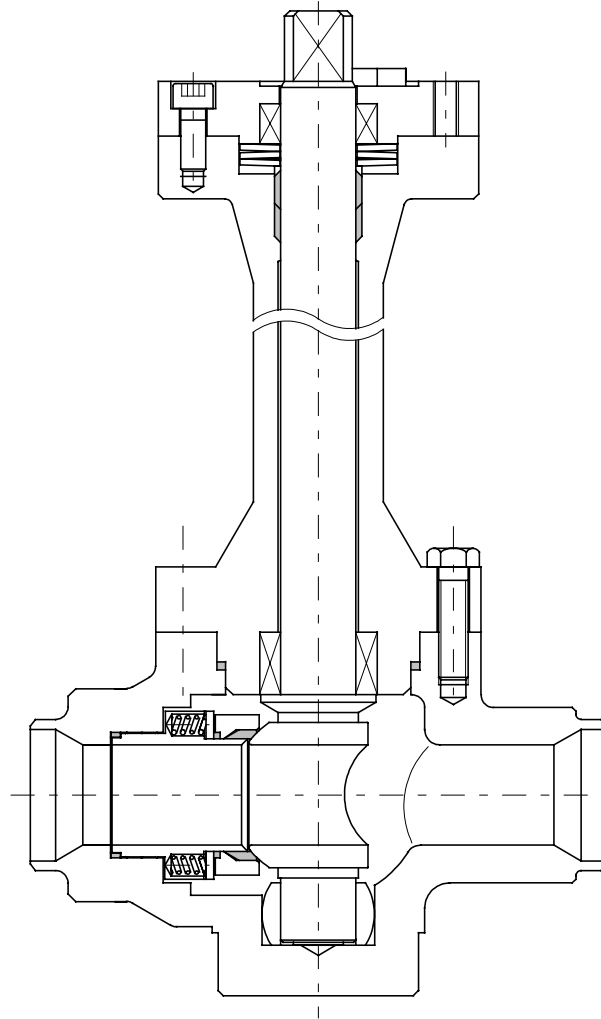
- no trapping of medium
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance
- ready to take actuator

design:

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

„Top-Entry“
Two-Way Ball Valve
Series 17-K

DN 1/2" to 8"



Description:

This PERRIN ball valve design features a one-piece body, bolted cover 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 Top-Entry valve can be directly welded into the pipe without damage to the internals. Easy replacing and inspection of trim parts by removal of the bolted cover. Trapping of product and built up of pressure is not possible due to the single seat system.

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- and „fir-safe“ design. The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 8"	PN ANSI Cl. 150/600	Temperature -196°C to 100°C
------------------	------------------------	--------------------------------

1.0 Main parts

item	designation
1	body
3	retainer ring
4	retainer ring
5	ball
8	gland washer
10	bearing cover
12	cover
13	pendulum baring
15	retainer disc
16	plate spring
17	coil spring
20	sealing ring
21	seat ring
24	stem packing
25	bearing
26	bearing
27	body gasket
29	screw
30	screw
35	sealing ring

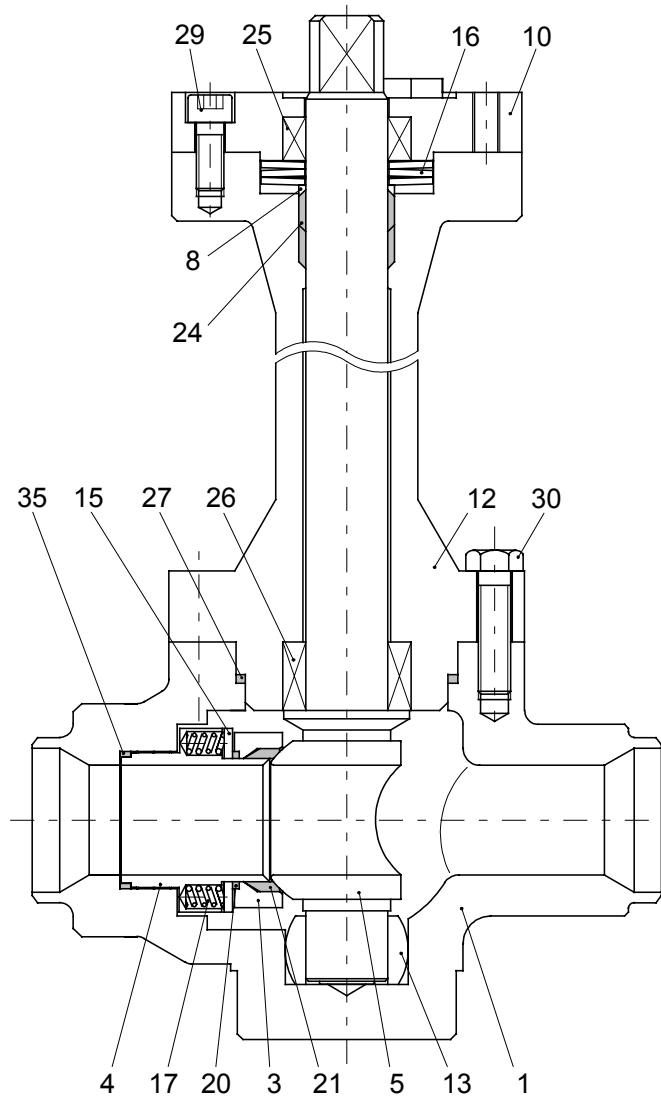


fig. 1
ball valve, series 17-K

2.0 Materials

item	designation	temperatures:		
		-196°C to 100°C		
1	body	1.4541 / 1.4552		
3	retainer ring	1.4571		
4	retainer ring			
5	ball	1.4541 / 1.4552		
8	gland washer	1.4571		
10	bearing cover			
12	cover	1.4541		
13	pendulum baring	1.4571		
15	retainer disc			
16	plate spring	1.4401		
17	coil spring	1.4571		
20	sealing ring	Graphite		
21	seat ring	PCTFE		
24	stem packing	PTFE-Graphite		
25	bearing	Carbon		
26	bearing	Carbon-Antimon		
27	body gasket	Graphite		
29-30	screw	A 2-70		
35	sealing ring	PCTFE		

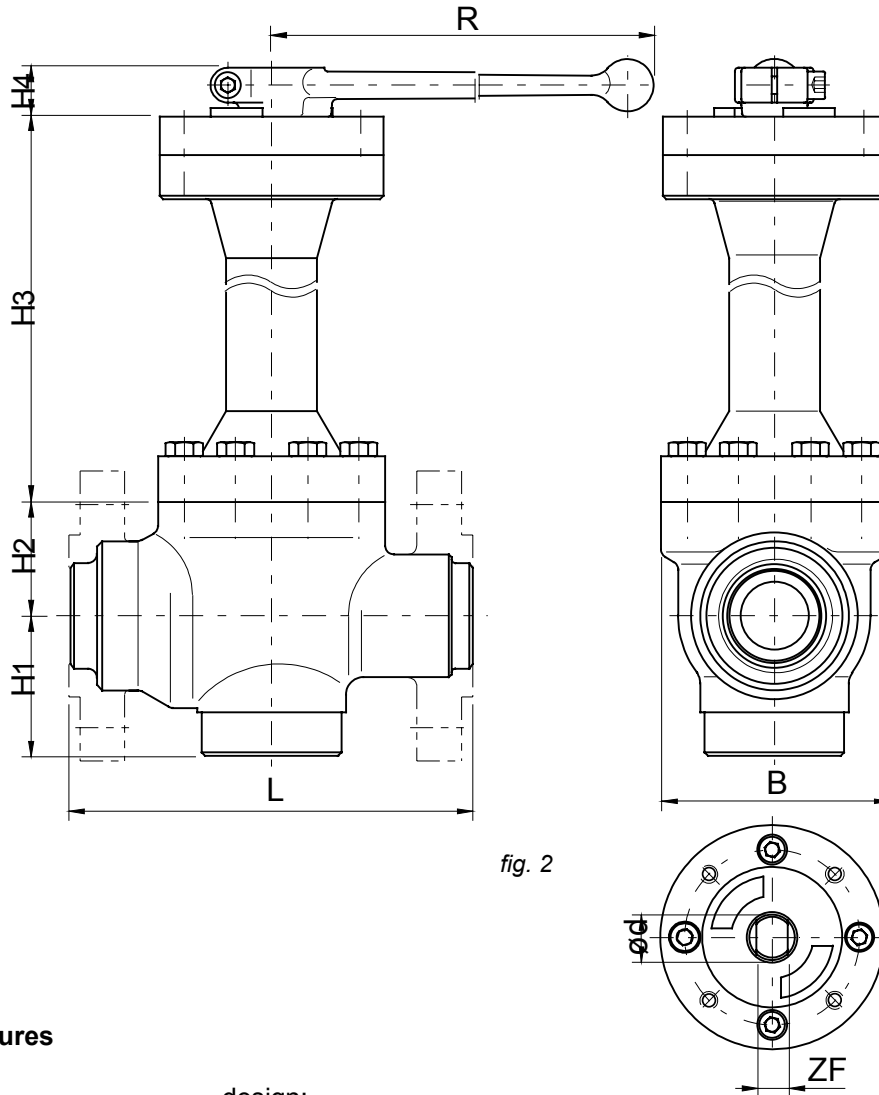
3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)	dimensions									flow K_{V100} [m ³ /h]	face to face ²⁾		connections	weight [kg]		actuator-connection DIN/ISO 5211
	H1	H2	H3	H4	B	R	ød	ZF	DIN 558-1		FTF1	FTF2				
									L					L		
1/2"	15	65	55	292	23	100	300	17	12	17		210			11	F 07
3/4"	20	65	55	292	23	100	300	17	12	30		230			12,5	F 07
1"	25	65	55	292	23	100	300	17	12	52		230			13	F 07
1 1/4"	32															
1 1/2"	40	80	65	348	28	130	450	27	18	155		200			23	F 10
2"	50	85	75	348	28	150	450	27	18	250		230			25	F 10
2 1/2"	65	100	90	348	28	170	450	27	18	420		290			58	F 10
3"	80	120	107	406	37	190	800	40	32	660		310			62	F 12
4"	100	130	105	406	37	220	800	40	32	990		350			65	F 12
5"	125															
6"	150	165	140	398	33	300	--	57	38	2250		480			130	F 14
8"	200	215	185	408	41	400	--	68	44	4200		600			295	F 16

dimensions in mm

Technical modifications are reserved.



3.2 Special features

profit:

- no trapping of medium
- minimal abrasion
- standard connections
- constant torque
- minimal maintenance
- ready to take actuator

design:

- one piece body
- trunnion mounted ball with integral stem
- no welds
- spring loaded seat system
- live loaded stem packing
- extension for insulation

90° Three-Way Ball Valves Series 20



20-S

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -40°C to 200°C



20-M

DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -10°C to 350°C



20-C

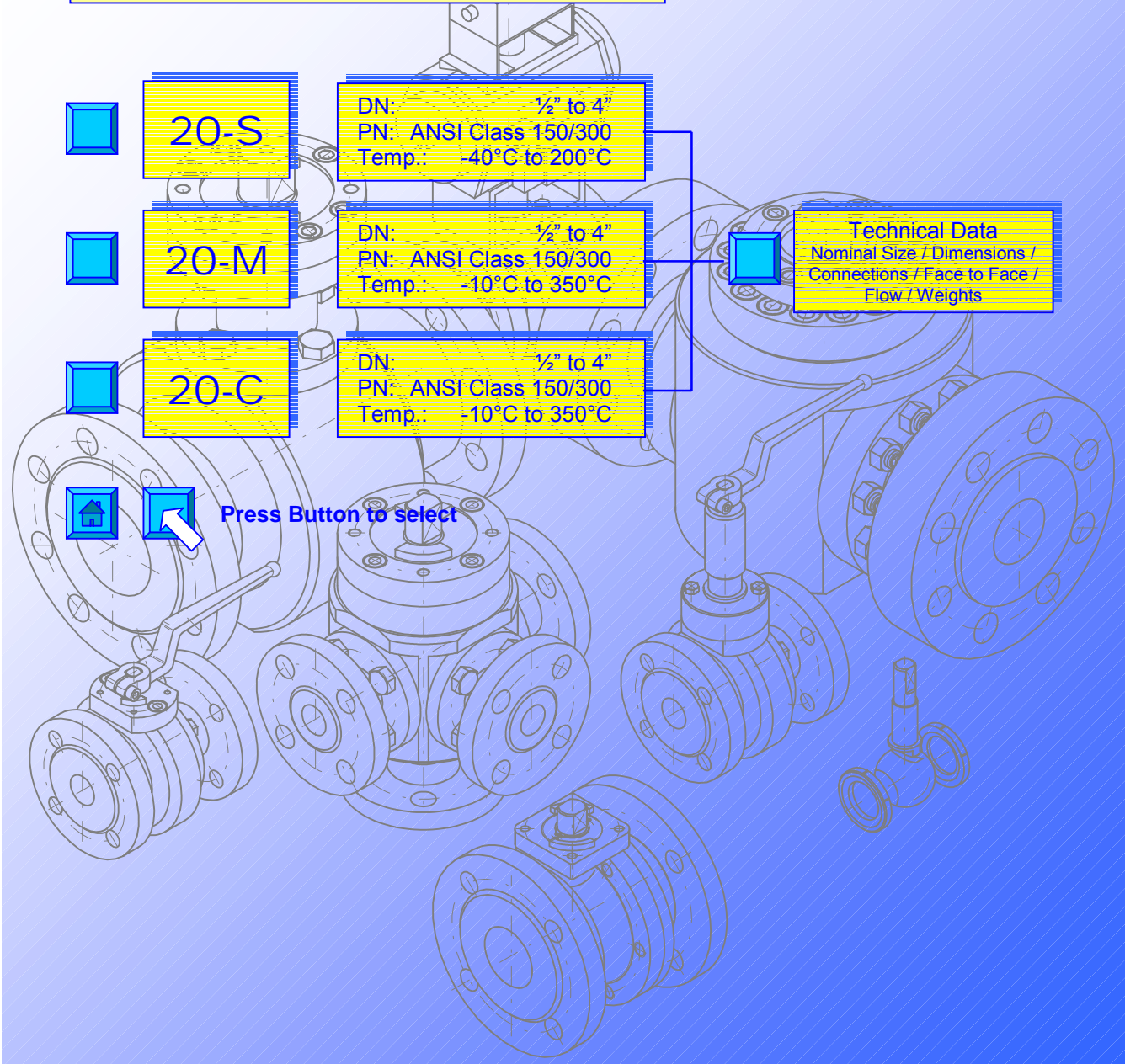
DN: ½" to 4"
PN: ANSI Class 150/300
Temp.: -10°C to 350°C



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



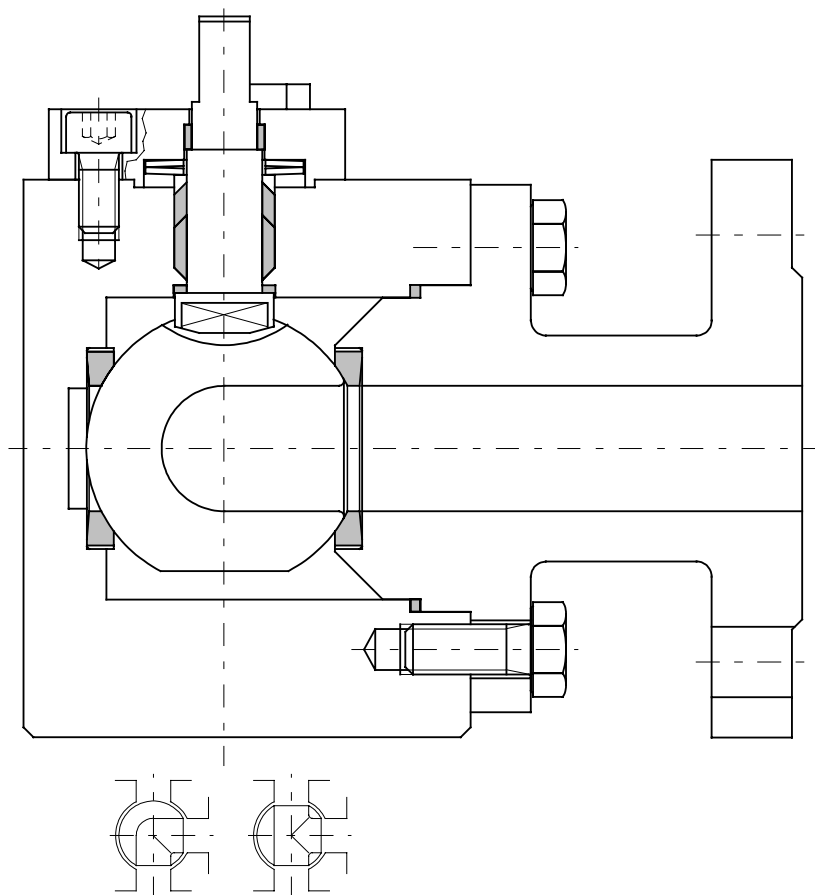
Press Button to select



Three-Way Ball Valve 90°

Series 20-S

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a split body and a floating, seat supported ball. The stem packing is spring loaded, the seat units are pre-loaded.

The ball is available with an 90° L- or T-port design.

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

Range of application:

DN 1/2" to 4"	PN ANSI Cl. 150/300	Temperature -10°C to 200°C
------------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

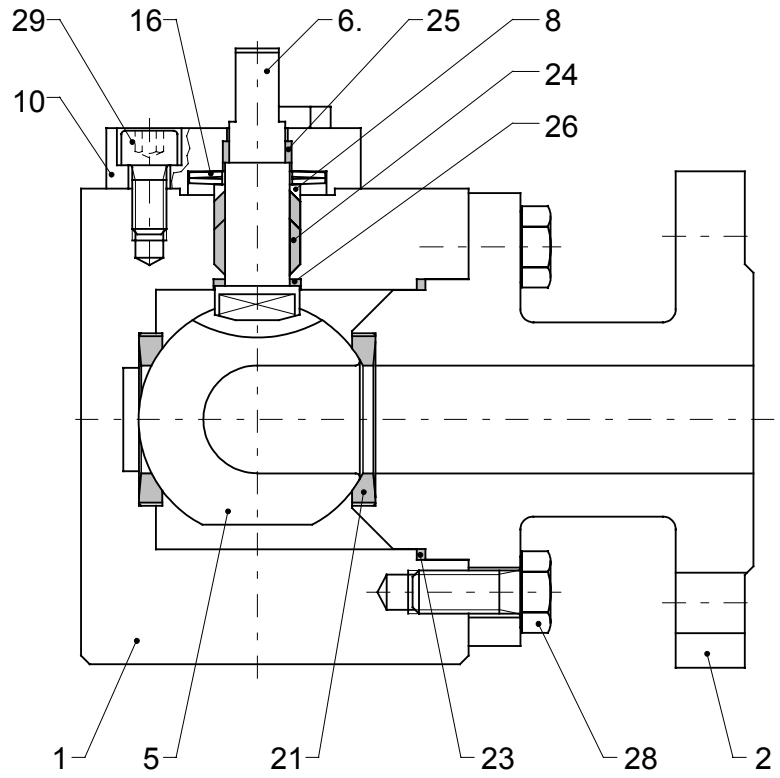


fig. 1
ball valve, series 20-S

Technical modifications are reserved.

2.0 Materials

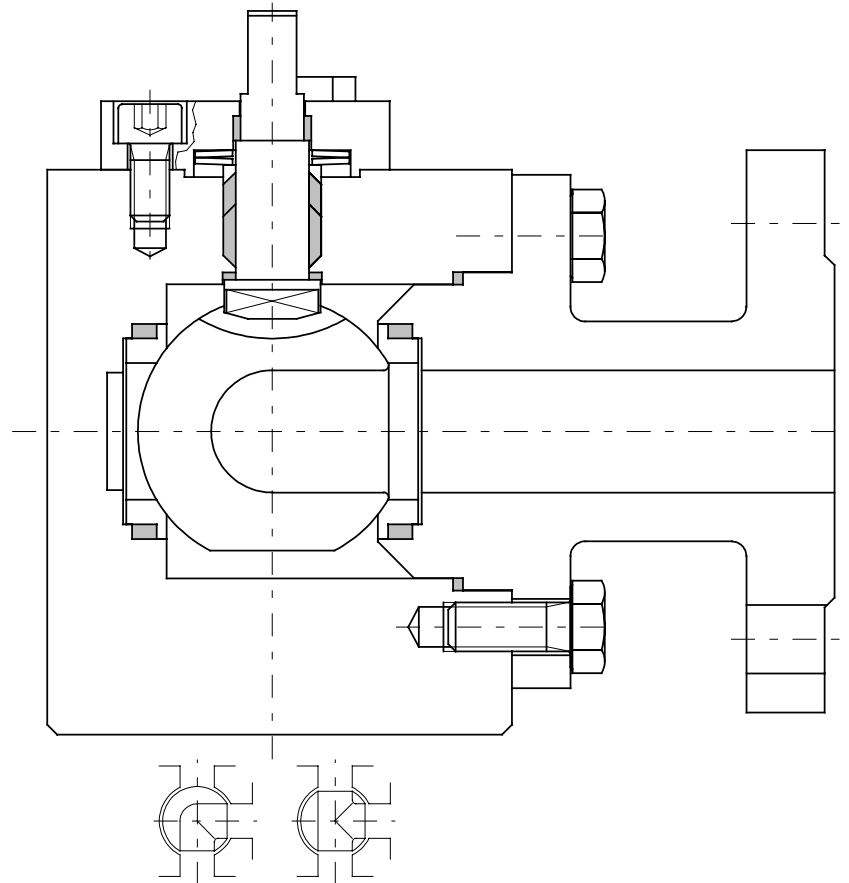
item	designation	temperatures:	
		-10°C to 200°C ¹⁾	-10°C to 200°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
21	seat ring	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25-26	bearing ring	PTFE - 25% Glass	PTFE - 25% Glass
28-29	screw	A 2-70	A 2-70

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

Three-Way Ball Valve 90°

Series 20-M

DN 1/2" to 4"



Description:

This PERRIN ball valve design features a split body and a floating, seat supported ball. The stem packing is spring loaded, the seat units are pre-loaded.

The ball is available with an 90° L- or T-port design.

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, 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. 150/300	Temperature -10°C to 350°C
------------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
20	sealing ring
21	seat ring
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

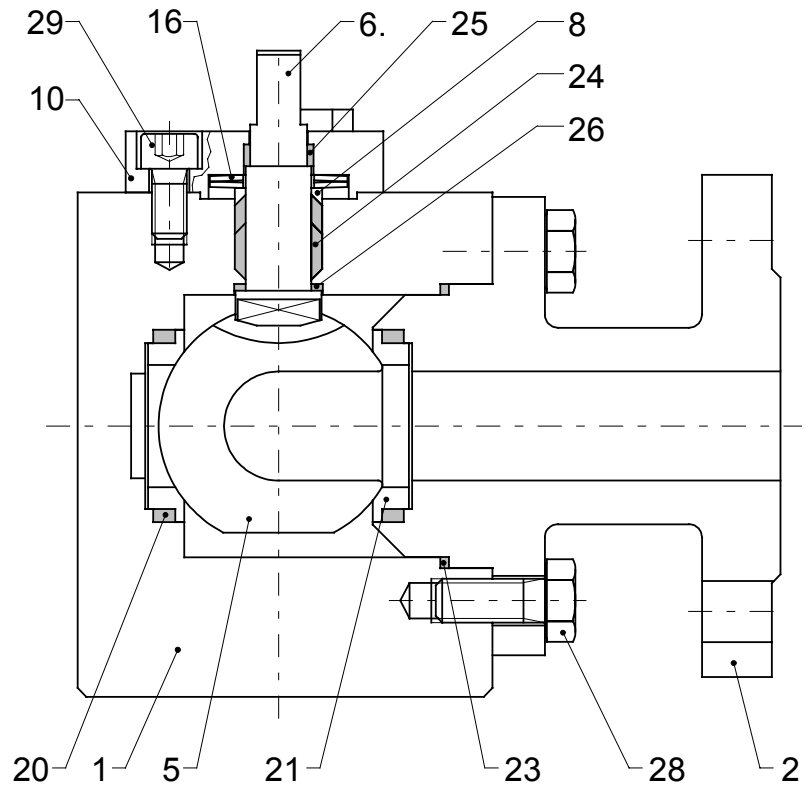


fig. 1
ball valve, series 20-M

Technical modifications are reserved.

2.0 Materials

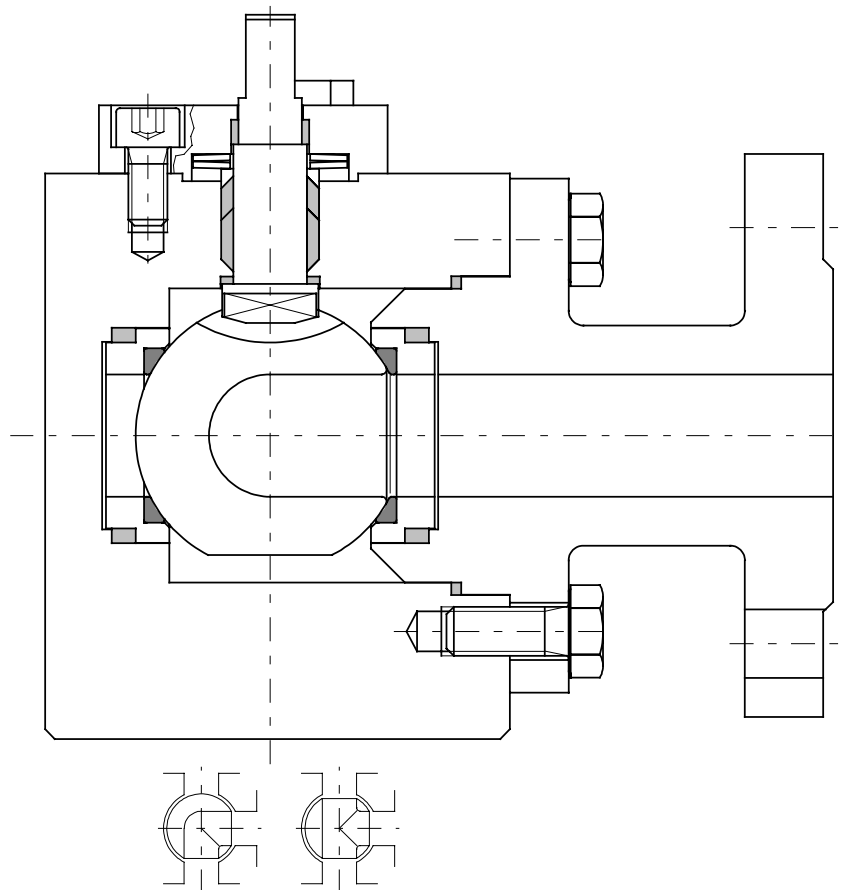
item	designation	temperatures:	
		-10°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4408 coated	1.4571 / 1.4408 coated
6	stem	1.4571	1.4571
8	gland washer		1.0460
10	bearing cover		1.8159
16	plate spring	Graphite	Graphite
20	sealing ring	1.4571 coated	1.4571 coated
21	seat ring	Graphite	Graphite
23	body gasket		
24	stem packing	1.0037.07	1.0037.07
25	bearing ring	Graphite with SS	Graphite with SS
26	bearing ring	A 2-70	A 2-70
28-29	screw		

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

Three-Way Ball Valve 90°

Series 20-C

DN ½" to 4"



Description:

This PERRIN ball valve design features a split body and a floating, seat supported ball. The stem packing is spring loaded, the seat units are pre-loaded.

The ball is available with an 90° L- or T-port design.

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

Range of application:

DN ½" to 4"	PN ANSI Cl. 150/300	Temperature -10°C to 350°C
----------------	------------------------	-------------------------------

1.0 Main parts

item	designation
1	body
2	body end connection
5	ball
6	stem
8	gland washer
10	bearing cover
16	plate spring
20	sealing ring
21	seat-unit
23	body gasket
24	stem packing
25	bearing ring
26	bearing ring
28	screw
29	screw

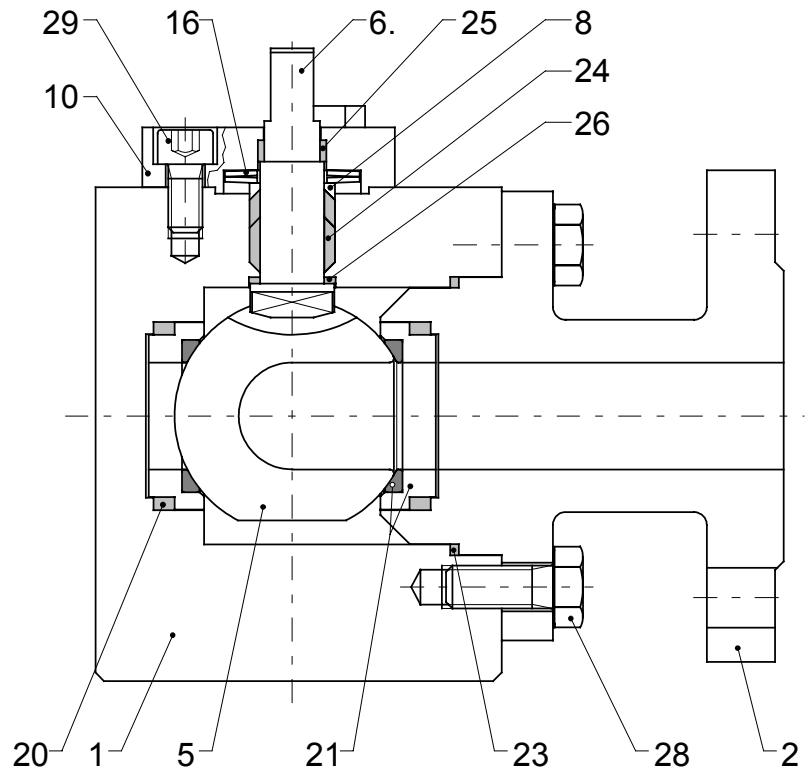


fig. 1
ball valve, series 20-C

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-10°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
5	ball	1.4571 / 1.4404 / 1.4408	1.4571 / 1.4404 / 1.4408
6	stem	1.4571	1.4571
8	gland washer		
10	bearing cover		
16	plate spring	1.4568	1.8159
20	sealing ring	Graphite	Graphite
21	seat-unit	1.4571 - Carbon-Antimon	1.4571 - Carbon-Antimon
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing ring	1.0037.07	1.0037.07
26	bearing ring	Graphite	Graphite
28-29	screw	A 2-70	A 2-70

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

Technical Data, Series 20-S; 20-M; 20-C

3.0 Technical data

3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow k_{V100} [m ³ /h] $\Delta p=1\text{bar}$ diversion=90°		face to face ²⁾		connections	weight [kg]		actuator-connection DIN/ISO 5211
											DIN 558-1			weight [kg]		
		H1	H2	H3	H4	ϕd	R	ZF	L	T	FTF1	FTF2		FTF1	FTF2	
1/2"	15	40	54	19	98	13	180	10	5	2,5	--	210	--	7,5	F 05	
3/4"	20	68	67,5	19	112	13	180	10			--	230	--	8,5	F 05	
1"	25	68	67,5	19	112	13	180	10	20	10	--	230	--	12,5	F 05	
1 1/4"	32	70	67,5	19	112	13	180	10			--	260	--	21	F 05	
1 1/2"	40	78	80,5	23	126	17	300	12			--	260	--	29	F 07	
2"	50	83	88,5	23	134	17	300	12	158	79	230	300	32	40	F 07	
2 1/2"	65	85	99	23	144	17	300	12			290	340	55	63	F 07	
3"	80	90	125	28	153	27	450	18			310	380	64	73	F 10	
4"	100	135	140	28	168	27	450	18	832	418	350	430	88	105	F 10	

dimensions in mm

²⁾ valid for ANSI Cl. 150 and ANSI Cl. 300

Technical modifications are reserved.

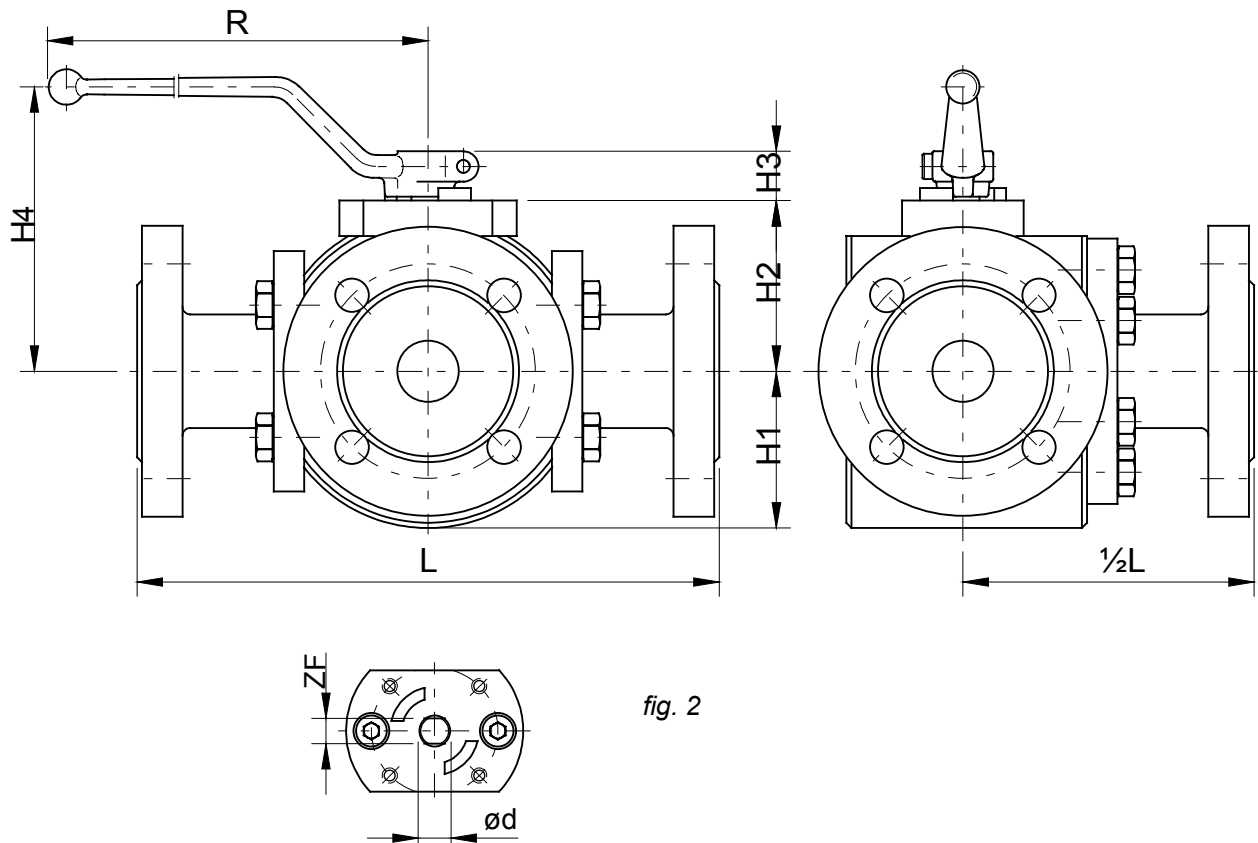


fig. 2

3.2 Special features

profit:

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

design:

- splitt body
- floating ball
- L- or T-port
- no welds
- anti blowout proof stem
- live loaded stem packing

90° Three-Way Ball Valves Series 21

21-S

DN: ½" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +250°C

21-M

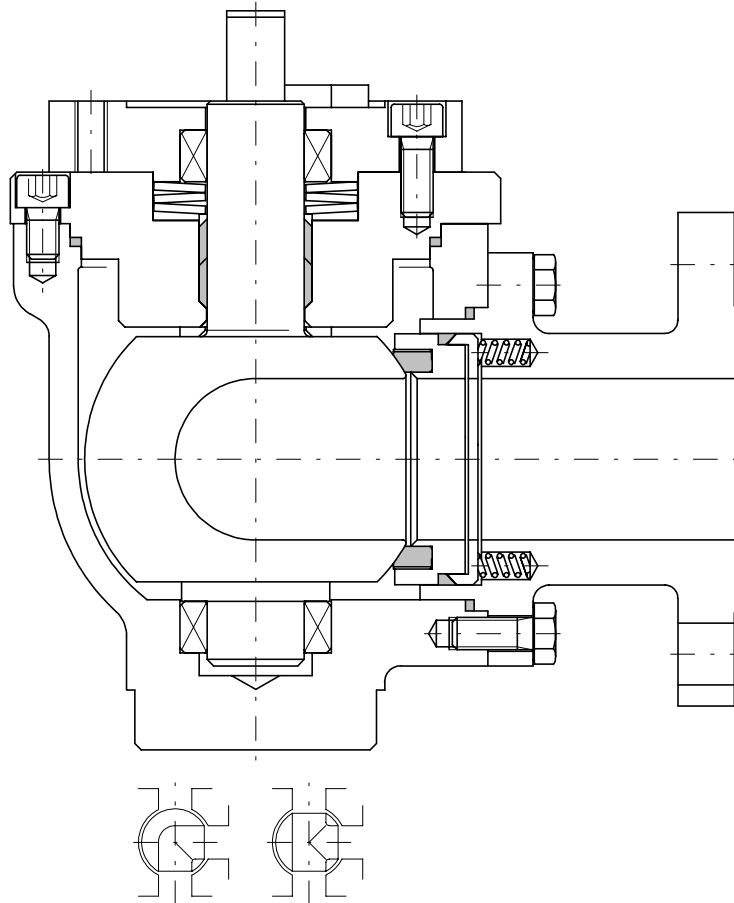
DN: ½" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +450°C

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

  Press Button to select

Three-Way Ball Valve 90° Series 21-S

DN ½" to 20"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral 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 ball is available with a L- or T-port design.

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 and, as desired, in "fire-safe" design. The stem packing has examined TA-Luft.

Range of application:

DN ½" to 20"	PN ANSI C. 150/600	Temperature -40°C to 250°C
-----------------	-----------------------	-------------------------------

1.0 Main parts

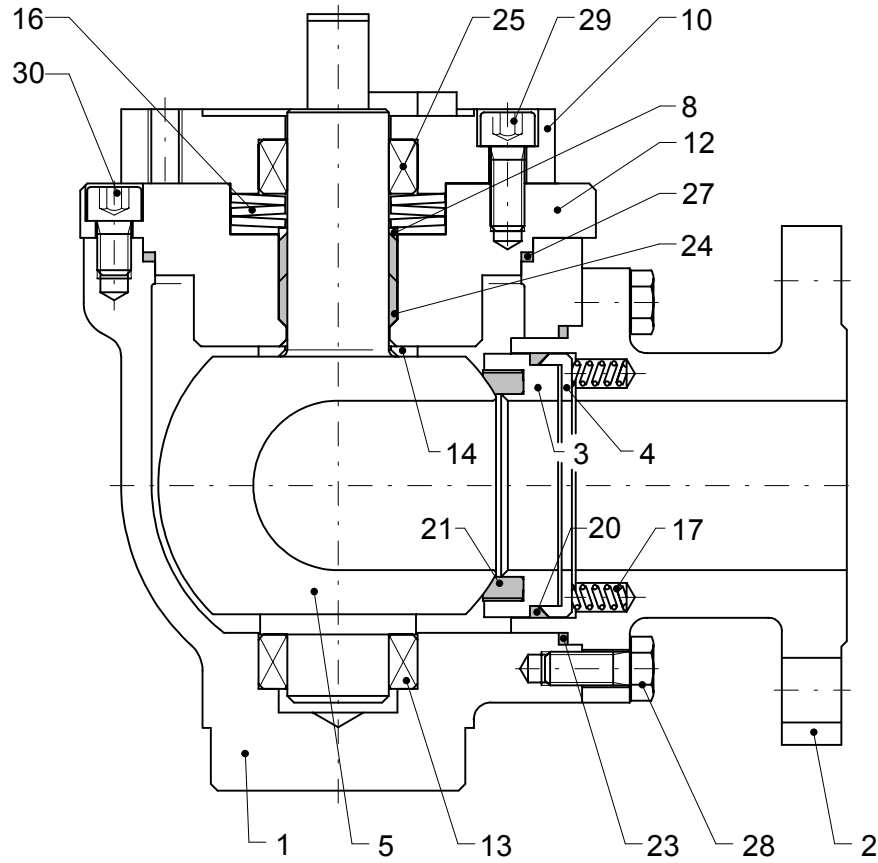


fig. 1
ball valve, series 21-S

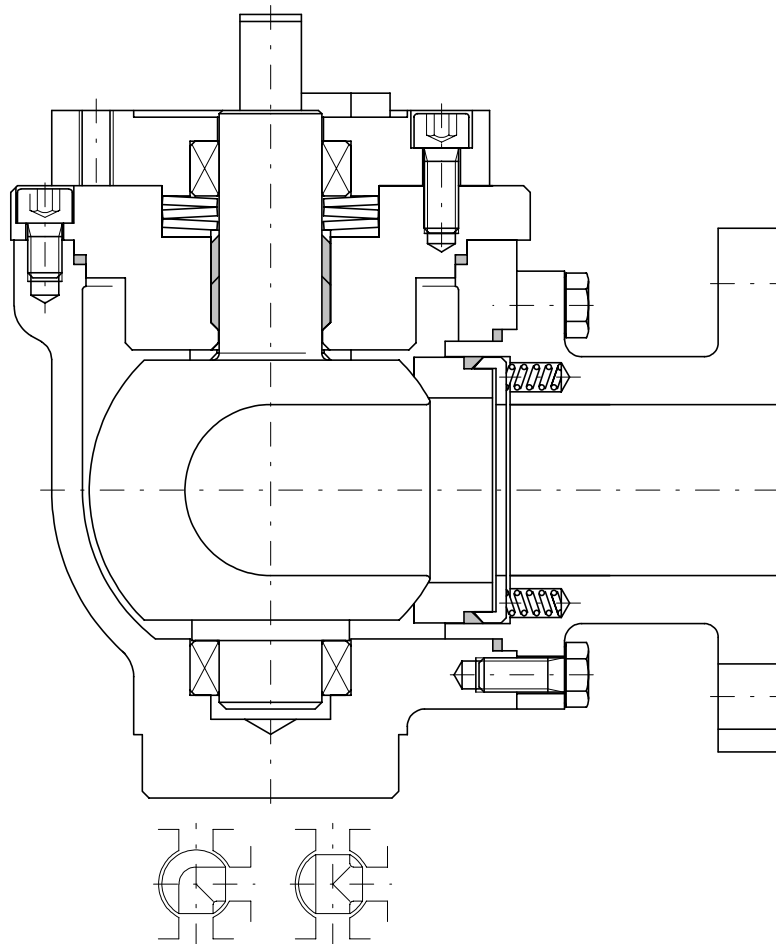
Technical modifications are reserved.

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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	Carbon
14	distance ring	PTFE - 25% Glass	PTFE - 25% Glass
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
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

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

Three-Way Ball Valve 90° Series 21-M

DN ½" to 20"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral stem. The metal 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 ball is available with a L- or T-port design.

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- and "fire-safe" design. The stem packing has examined TA-Luft.

Range of application:

DN ½" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 450°C
-----------------	------------------------	-------------------------------

1.0 Main parts

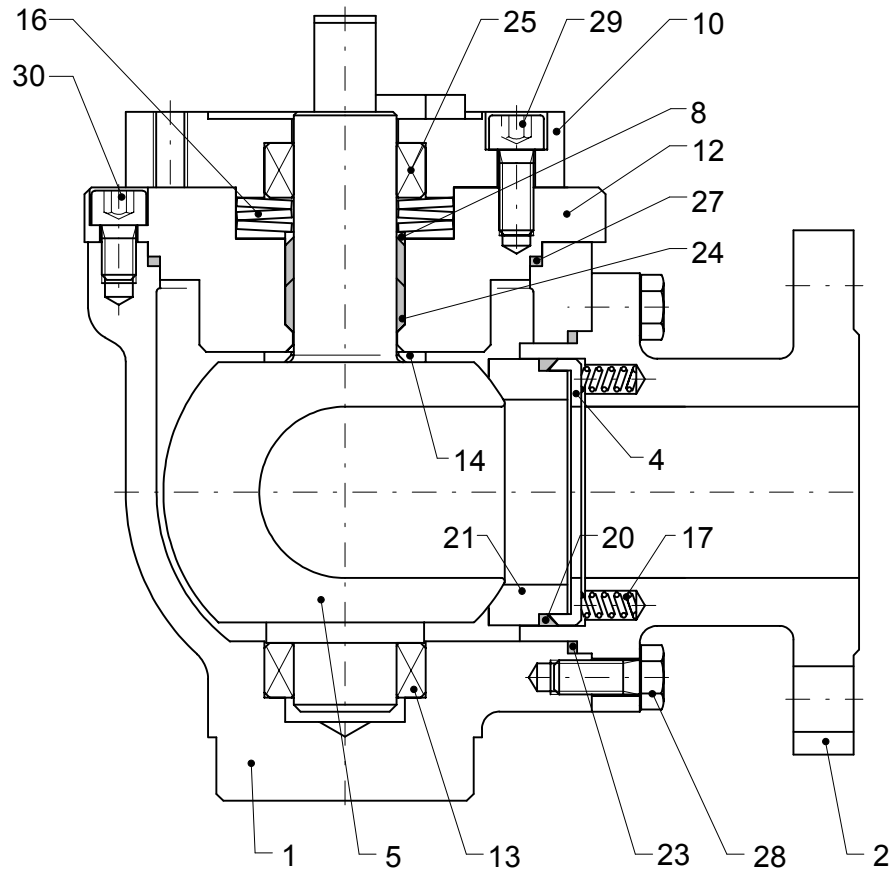


fig. 1
ball valve, series 21-M

Technical modifications are reserved.

item	designation	temperatures:	
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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	Carbon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
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
27	body gasket	Graphite	Graphite
28-30	screw	A 2-70	A 2-70

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

2.0 Technical data, series 21-S, 21-M

2.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow k_{V100} [m ³ /h] $\Delta p=1\text{bar}$ diversion=90°		face to face ²⁾		connections	weight [kg]			actuator-connection DIN/ISO 5211
											DIN 558-1			weight [kg]			
		H1	H2	H3	H4	ϕd	R	ZF	ball port	FTF1	FTF2	FTF1		FTF2	FTF1	FTF2	
1/2"	15	47	58	19	103	13	180	10			--	210		--	8	F 05	
3/4"	20	48	70	19	115	13	180	10			--	230		--	10	F 05	
1"	25	56	74	23	119	17	300	12	20	10	--	230		--	14	F 07	
1 1/4"	32	60	80	23	125	17	300	12			--	260		--	22	F 07	
1 1/2"	40	85	100	28	150	27	450	18			--	260		--	31	F 10	
2"	50	90	112	28	140	27	450	18	158	79	230	300		33	43	F 10	
2 1/2"	65	97	119	28	147	27	450	18			290	340		54	61	F 10	
3"	80	108	156	37	190	40	800	32			310	380		70	83	F 12	
4"	100	119	167	37	201	40	800	32	832	418	350	430		98	115	F 12	
5"	125	138	178	33	--	58	--	38			400	500		124	130	F 14	
6"	150	174	201	33	--	58	--	38			480	550		156	160	F 14	
8"	200	220	266	41	--	68	--	44	3883	1950	600	650		252	256	F 16	
10"	250	246	284	41	--	68	--	44			--	775		--		F 16	

dimensions in mm

²⁾ valid for ANSI Cl. 150 to Cl. 300

Technical modifications are reserved.

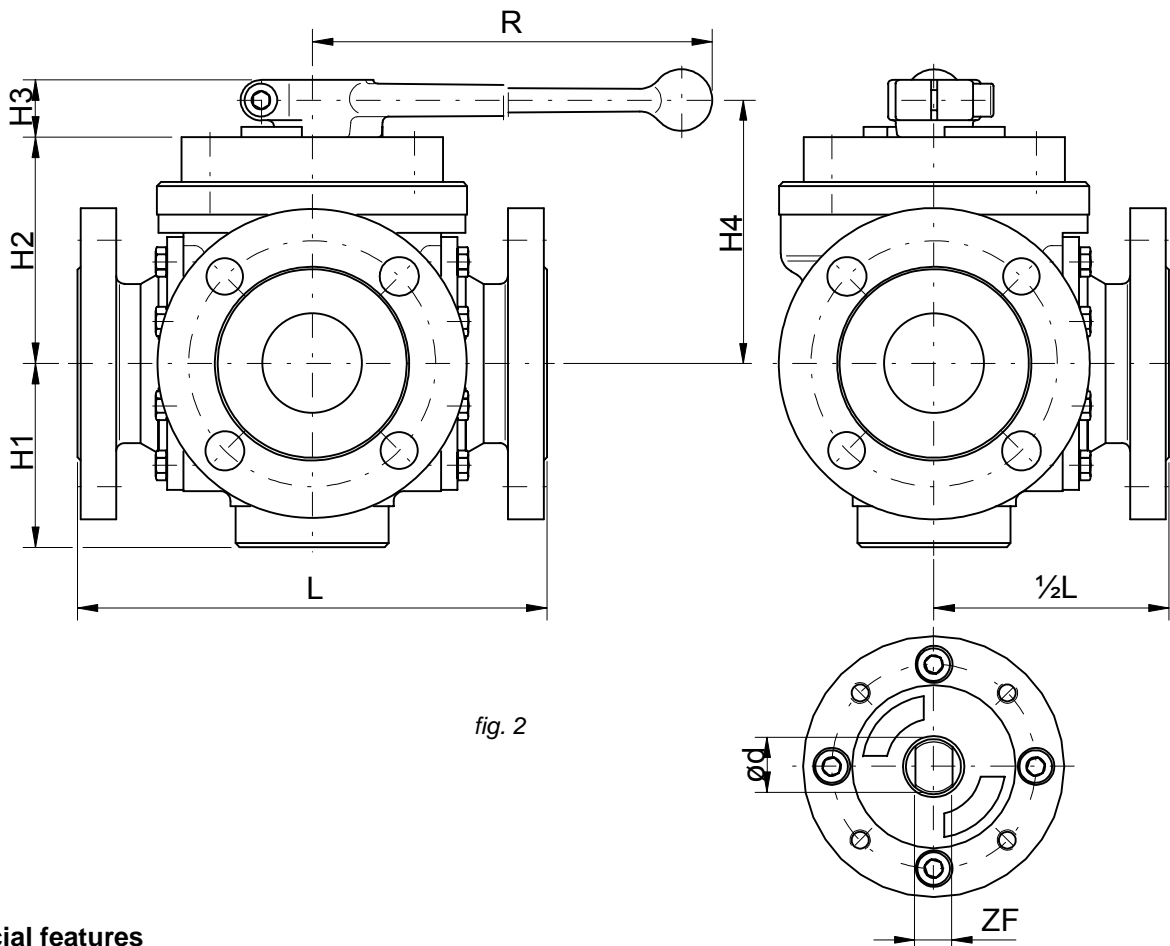


fig. 2

2.2 Special features

design:

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

120° Three-Way Ball Valves Series 22



22-S

DN: ½" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +250°C



22-M

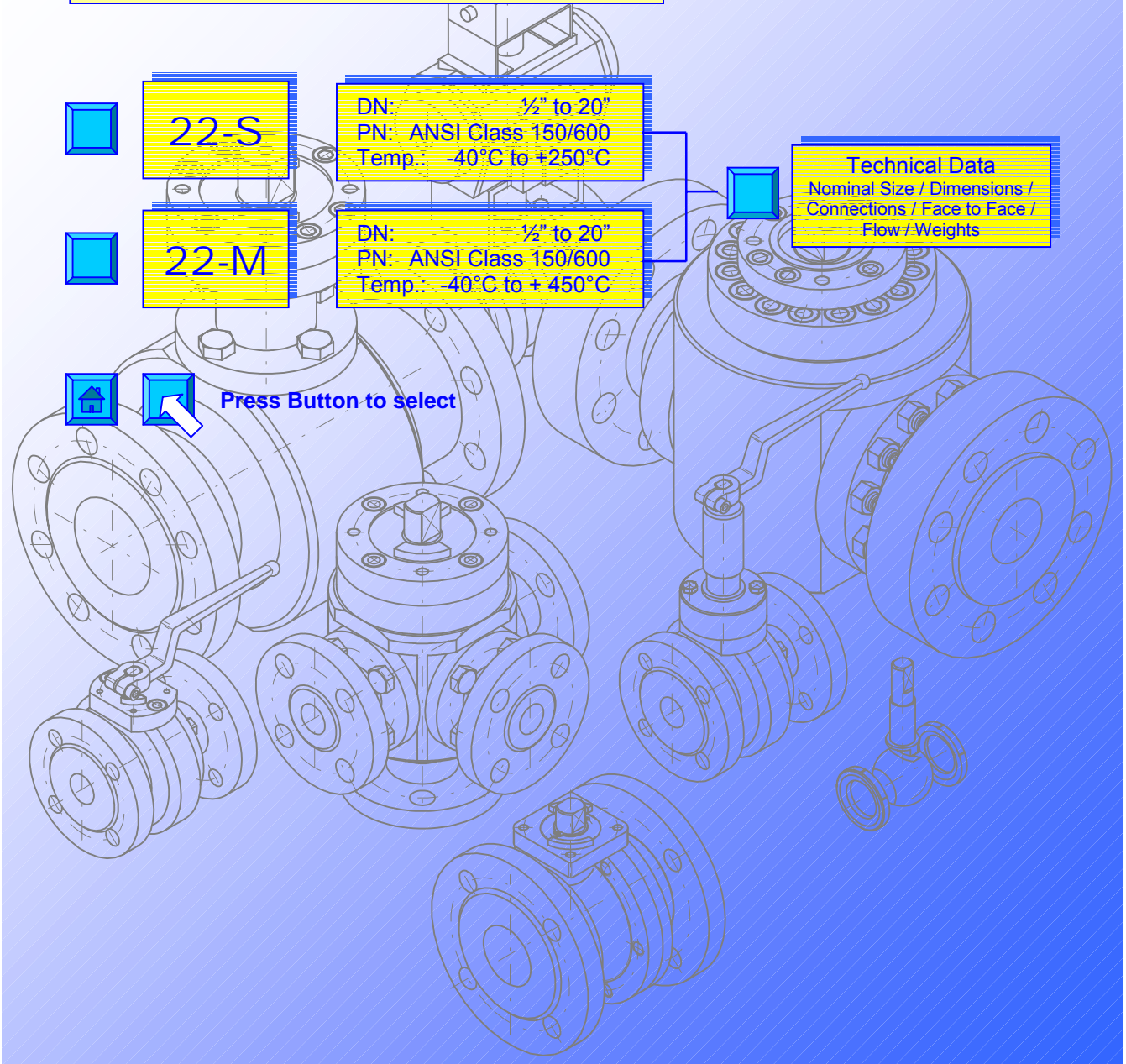
DN: ½" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +450°C



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



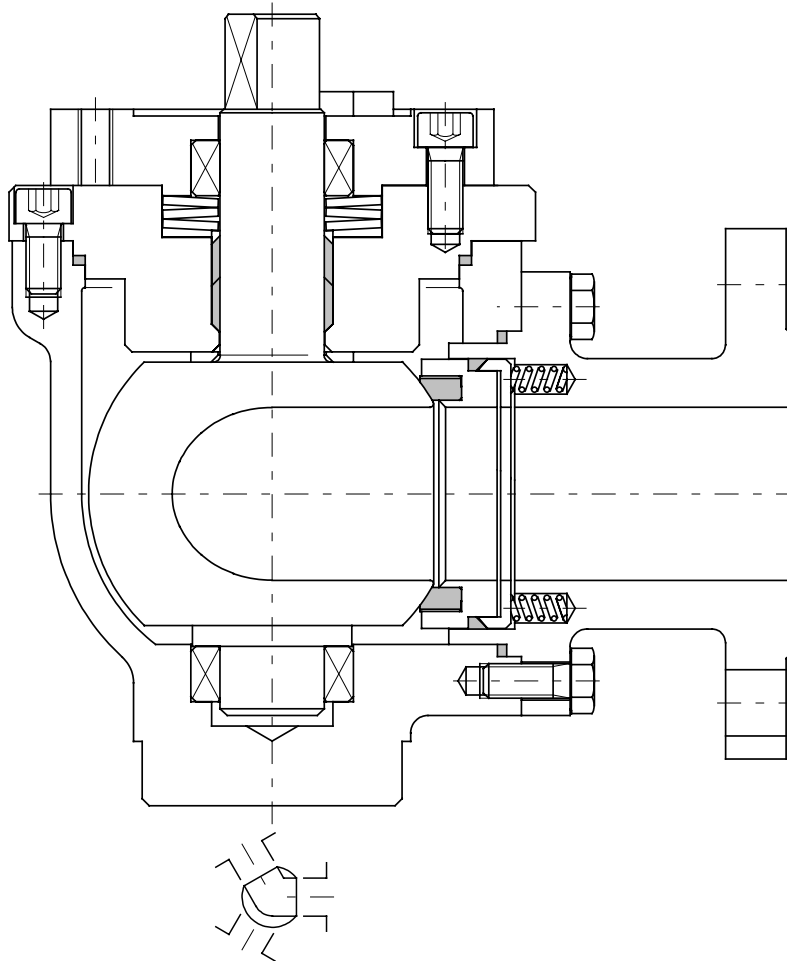
Press Button to select



Three-Way Ball Valve 120°

Series 22-S

DN ½" to 20"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral 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 ball features an 120° L-port design.

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 and, as desired, in "fire-safe" design. The stem packing has examined TA-Luft.

Range of application:

DN ½" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 250°C
-----------------	------------------------	-------------------------------

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
27	body gasket
28	screw
29	screw
30	screw

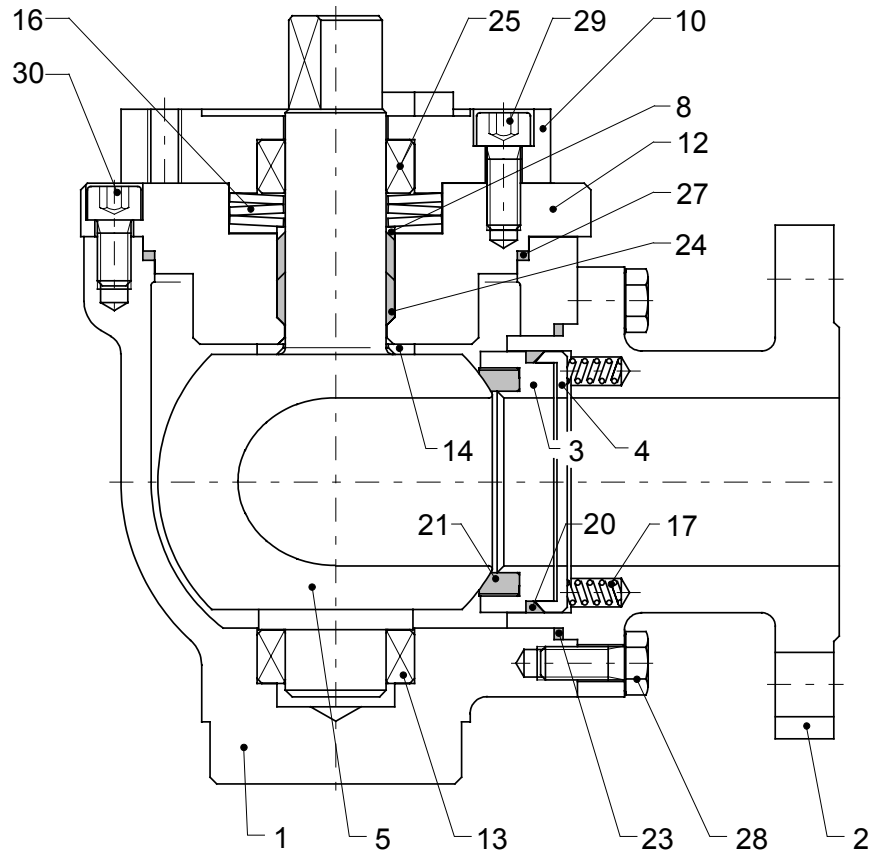


fig. 1
ball valve, series 22-S

2.0 Materials

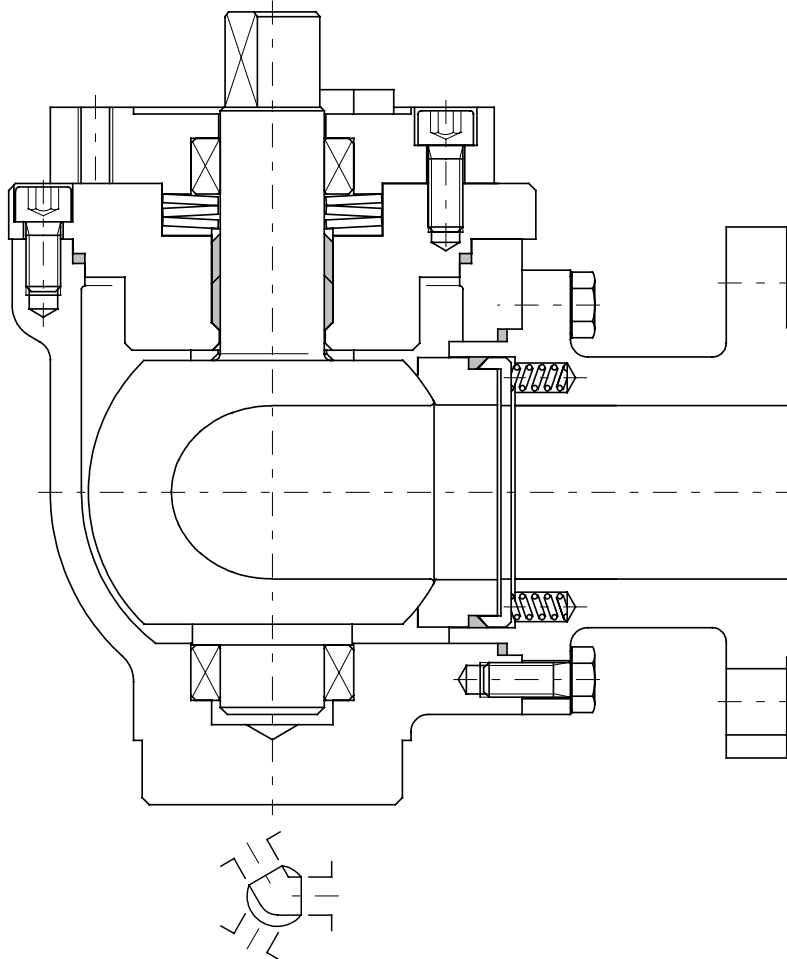
item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
3-4	retainer ring	1.4571	1.4571
5	ball	1.4571 / 1.4408	1.4571 / 1.4408
8	gland washer	1.4571	1.4571
10	bearing cover		1.0460
12	cover	1.4571 / 1.4408	1.0460 / 1.0619
13	bearing	Carbon	Carbon
14	distance ring	PTFE - 25% Glass	PTFE - 25% Glass
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
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

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

Three-Way Ball Valve 120°

Series 22-M

DN ½" to 20"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral 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 ball features an 120° L-port design.

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 and, as desired, in "fire-safe" design. The stem packing has examined TA-Luft.

Range of application:

DN ½" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 450°C
-----------------	------------------------	-------------------------------

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
27	body gasket
28	screw
29	screw
30	screw

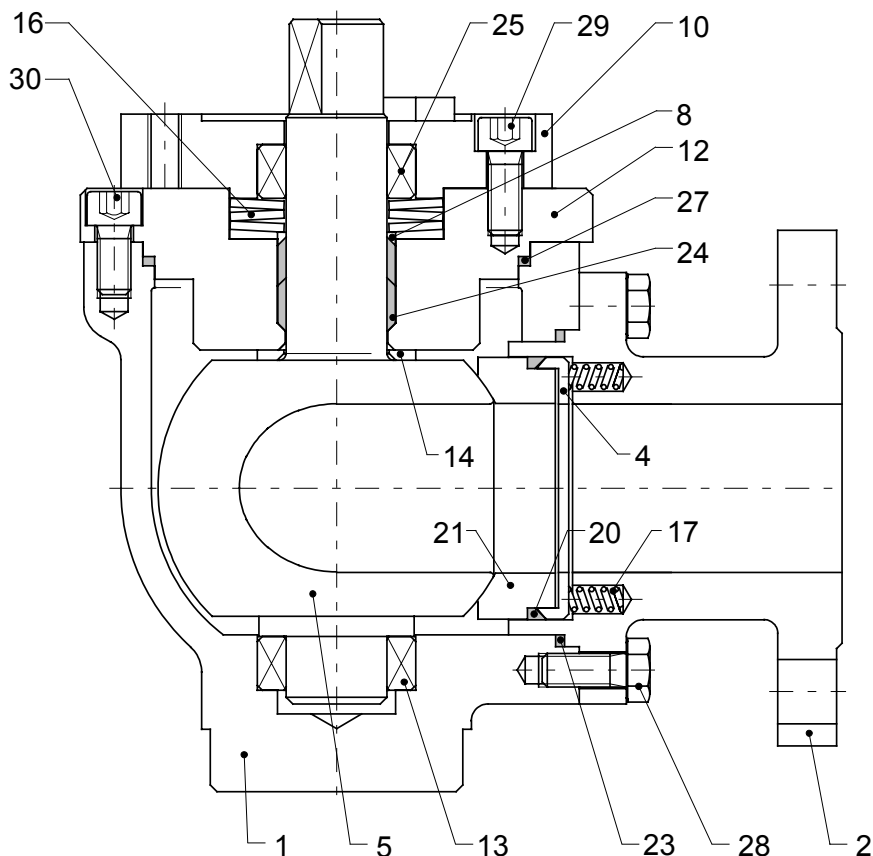


fig. 1
ball valve, series 22-M

2.0 Materials

item	designation	temperatures:	
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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	Carbon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
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
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 22-S; 22-M

3.0 Technical data

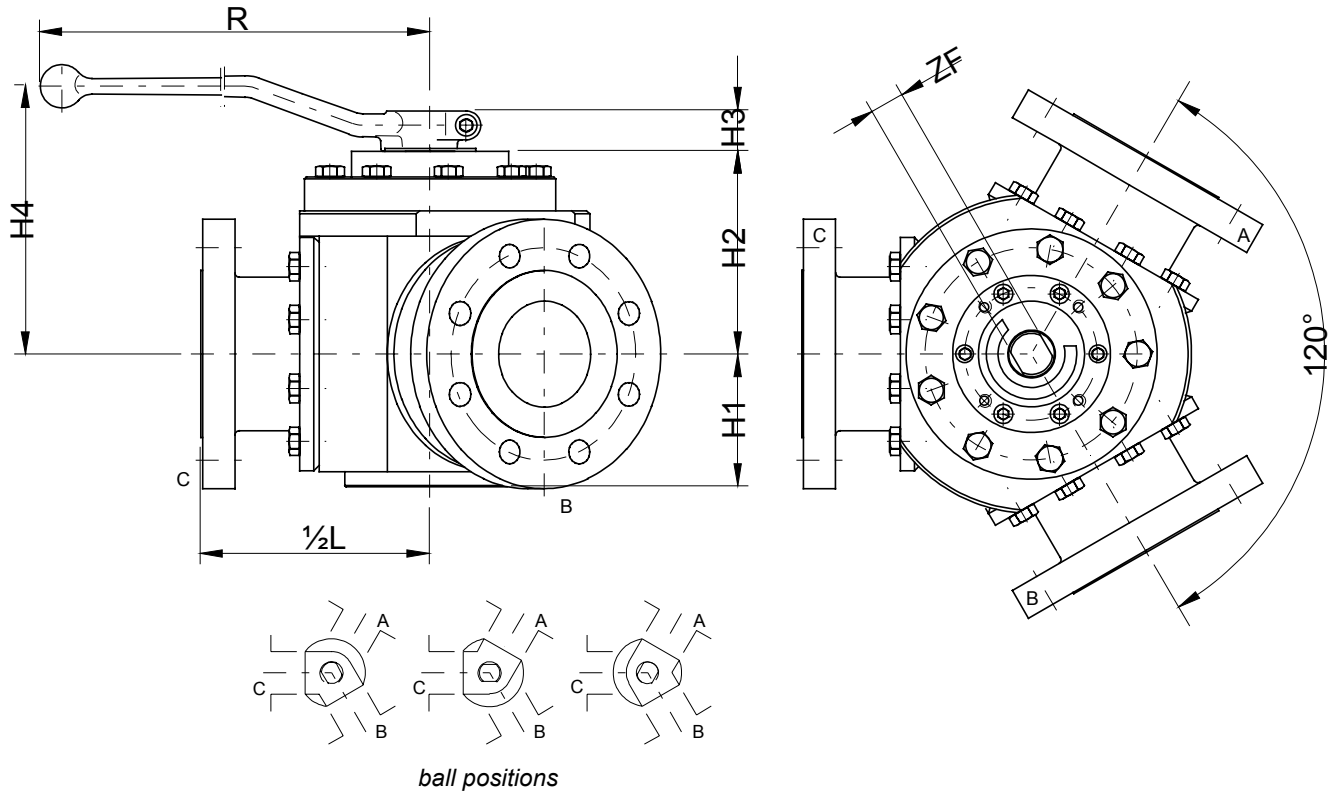
3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions								flow K_{v100} [m ³ /h] $\Delta p=1\text{bar}$	face to face ²⁾		connections	weight [kg]		actuator-connection DIN/ISO 5211
											DIN 558-1			FTF1	FTF2	
		H1	H2	H3	H4	R	ZF	L	L							
1/2"	15	47	58	19	103		180	10	20	--	210		--	8	F 05	
3/4"	20	48	70	19	115		180	10	36	--	230		--	10	F 05	
1"	25	56	74	23	119		300	12	57	--	230		--	14	F 07	
1 1/4"	32	60	80	23	125		300	12	94	--	260		--	26	F 07	
1 1/2"	40	85	100	28	150		450	18	148	--	260		--	31	F 10	
2"	50	90	112	28	140		450	18	231	230	300		33	43	F 10	
2 1/2"	65	97	119	28	147		450	18	392	290	340		54	61	F 10	
3"	80	108	156	37	190		800	32	594	310	380		70	83	F 12	
4"	100	119	167	37	201		800	32	929	350	430		98	115	F 12	
5"	125	138	178	33	--		--	38	1452	400	500		124	130	F 14	
6"	150	174	201	33	--		--	38	2092	500	550		156	160	F 14	
8"	200	220	266	41	--		--	44		600	650		252	256	F 16	
10"	250	246	284	41	--		--	44		--	775		--		F 16	

dimensions in mm

²⁾ valid for ANSI Class 150 and Class 300

Technical modifications are reserved.



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

Four-Way Ball Valves Series 23

23-S

DN: 1/2" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +250°C

23-M

DN: 1/2" to 20"
PN: ANSI Class 150/600
Temp.: -40°C to +450°C

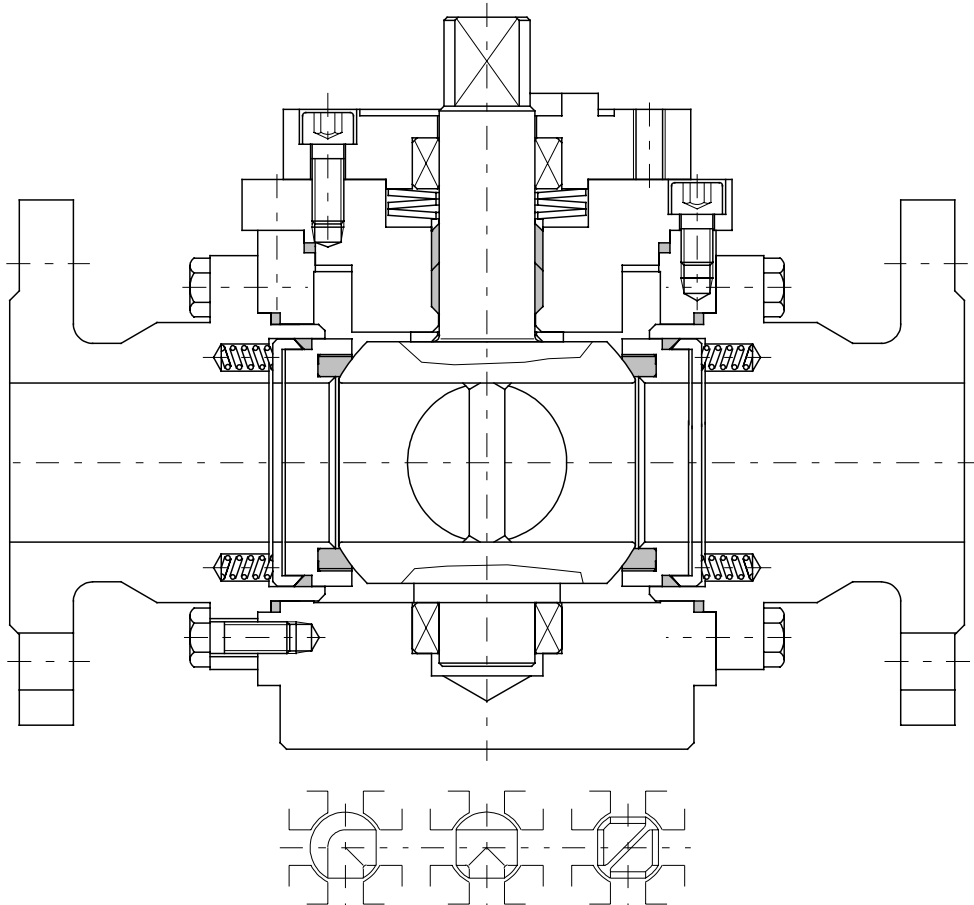
Technical Data

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

  Press Button to select

Four-Way Ball Valve Series 23-S

DN 1/2" to 20"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral stem. The metal 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 ball is available with a L-, T- or X-port design.

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 and, as desired, in "fire-safe design". The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 250°C
-------------------	------------------------	-------------------------------

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
27	body gasket
28	screw
29	screw
30	screw

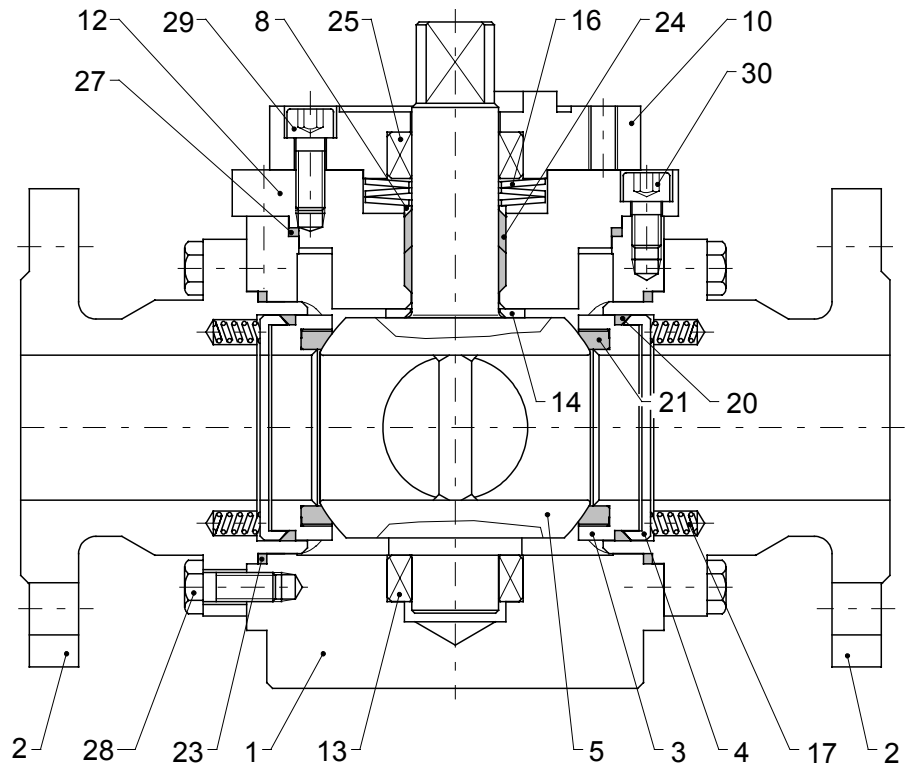


fig. 1
ball valve, series 23-S

Technical modifications are reserved.

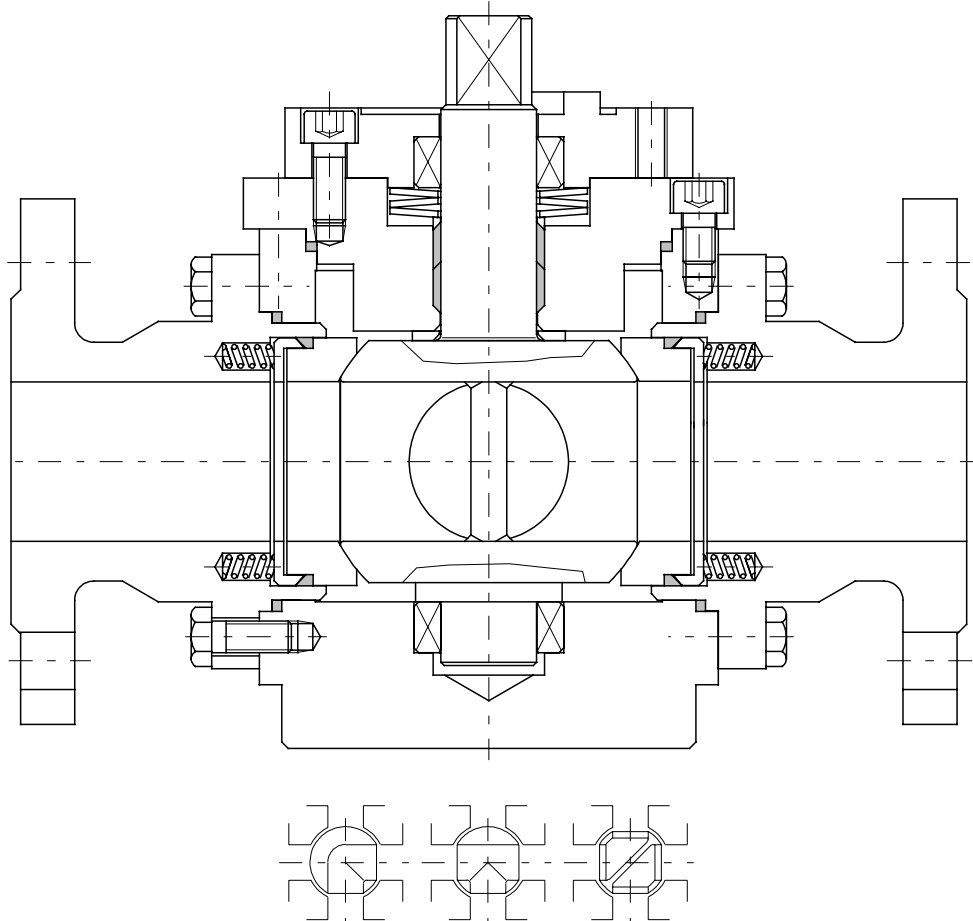
2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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	Carbon
14	distance ring	PTFE - 25% Glass	PTFE - 25% Glass
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
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

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

Four-Way Ball Valve Series 23-M

DN ½" to 20"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral stem. The metal 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 ball is available with a L-, T- or X-port design.

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- and "fire-safe" design. The stem packing has examined TA-Luft.

Range of application:

DN ½" to 20"	PN ANSI Cl. 150/600	Temperature -40°C to 450°C
-----------------	------------------------	-------------------------------

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
27	body gasket
28	screw
29	screw
30	screw

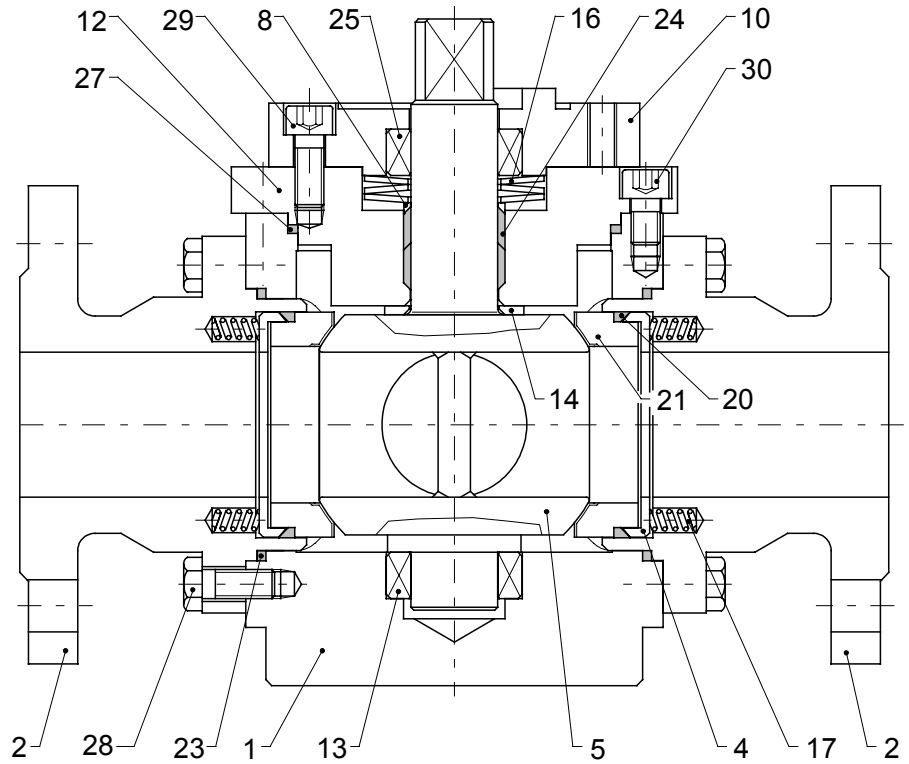


fig. 1
ball valve, series 23-M

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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	Carbon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
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
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 23-S; 23-M

3.0 Technical data

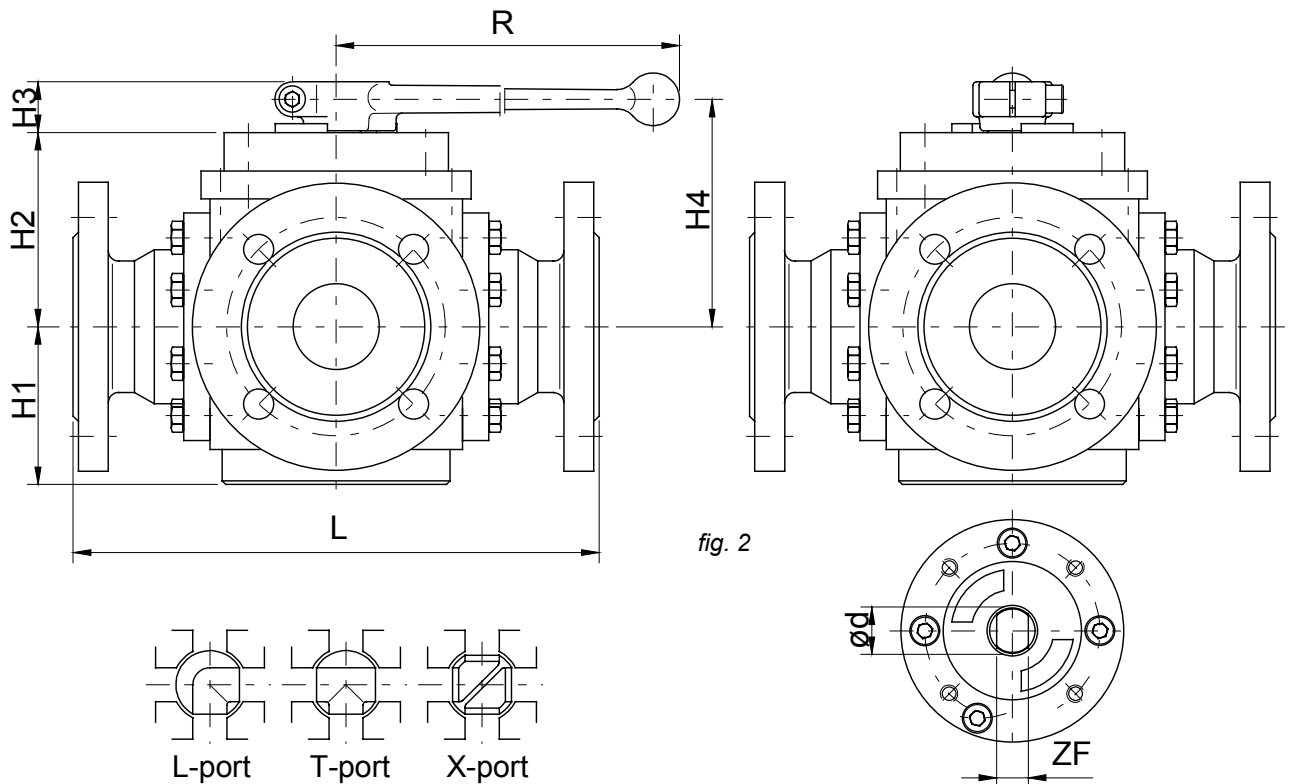
3.1 Nominal size / Dimensions / Connections / Weights

Nominal size (DN)		dimensions								face to face ²⁾		connections	weight [kg]		actuator-connection DIN/ISO 5211
										DIN 558-1			DIN 558-1		
		H1	H2	H3	H4	ød	R	ZF	FTF1	FTF2	FTF1		FTF2		
1/2"	15	47	58	19	103	13	180	10	--	210	--	9	F 05		
3/4"	20	48	70	19	115	13	180	10	--	230	--	11	F 05		
1"	25	56	74	23	119	17	300	12	--	230	--	15	F 07		
1 1/4"	32	60	80	23	125	17	300	12	--	260	--	28	F 07		
1 1/2"	40	85	100	28	150	27	450	18	--	260	--	34	F 10		
2"	50	90	112	28	140	27	450	18	230	300	38	48	F 10		
2 1/2"	65	97	119	28	147	27	450	18	290	340	60	65	F 10		
3"	80	108	156	37	190	40	800	32	310	380	76	89	F 12		
4"	100	119	167	37	201	40	800	32	350	430	108	125	F 12		
5"	125	138	178	33	--	58	--	38	400	500	135	140	F 14		
6"	150	174	201	33	--	58	--	38	500	550	170	175	F 14		
8"	200	220	266	41	--	68	--	44	600	650	275	285	F 16		

dimensions in mm

²⁾ valid for ANSI Cl. 150 to Cl. 400

Technical modifications are reserved.



3.2 Special features

profit:

- ready to take actuator
- minimal abrasion
- standard Connections
- constant torque
- minimal maintenance
- high corrosion-resistance

design:

- splitt body
- trunnion mounted ball with integral stem
- ball with L-, T- or X-port
- spring loaded seat system
- live loaded stem packing
- no welds

Multiway Ball Valves
with vertical in-/outlet
Series 24

24-S

DN: ½" to 10"
PN: ANSI Class 150/300
Temp.: -40°C to +250°C

24-M

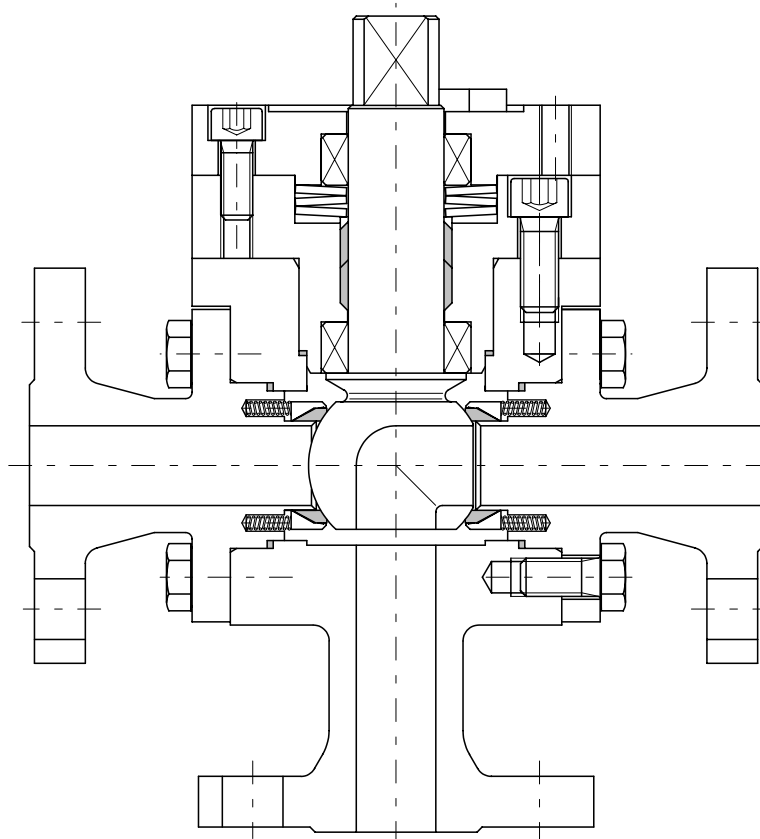
DN: ½" to 10"
PN: ANSI Class 150/300
Temp.: -40°C to +450°C

Technical Data

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

  **Press Button to select**

Multiway Ball Valve with vertical in-/outlet Series 24-S DN ½" to 10"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral 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 valve is available with one vertical in-/outlet and with two until four connections. The ball can be designed with a L- or double-L-port.

The actuator mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/EN/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 and, as desired, in „fire-safe design“. The stem packing has examined TA-Luft.

Range of application:

DN ½" to 10"	PN ANSI Cl. 150/600	Temperature -60°C to 250°C
-----------------	------------------------	-------------------------------

1.0 Main parts

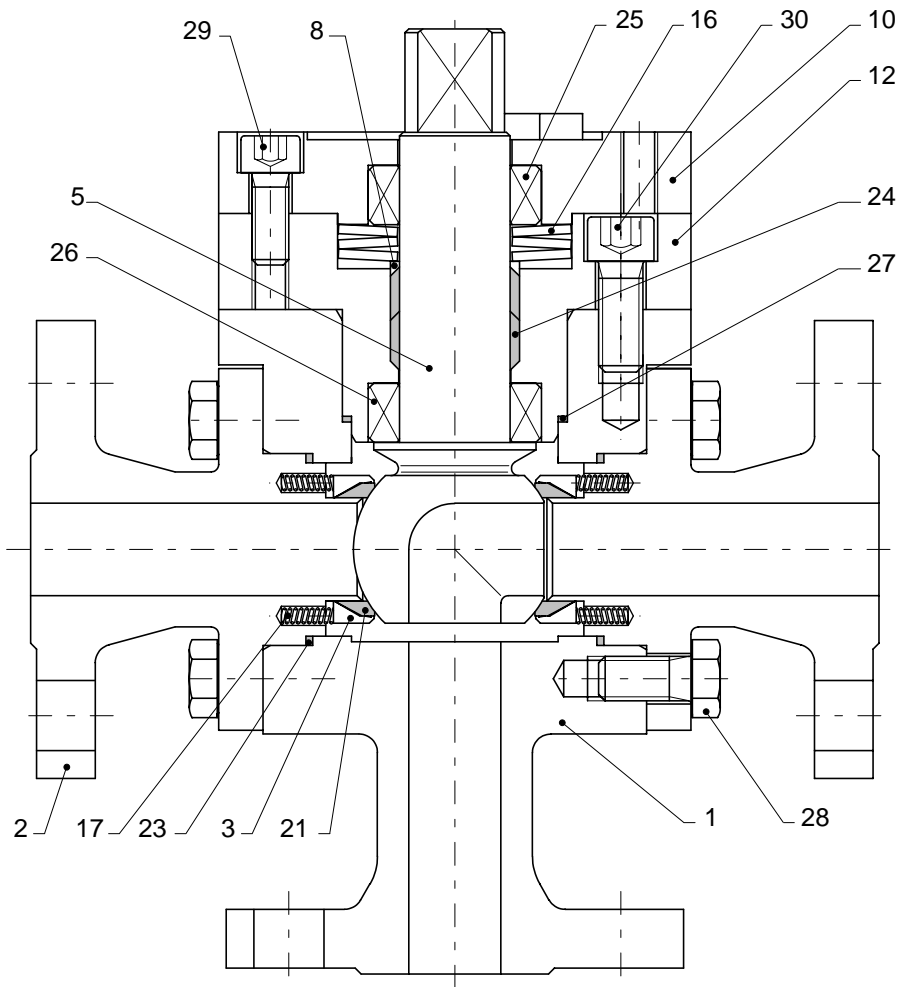


fig. 1
ball valve, series 24-S

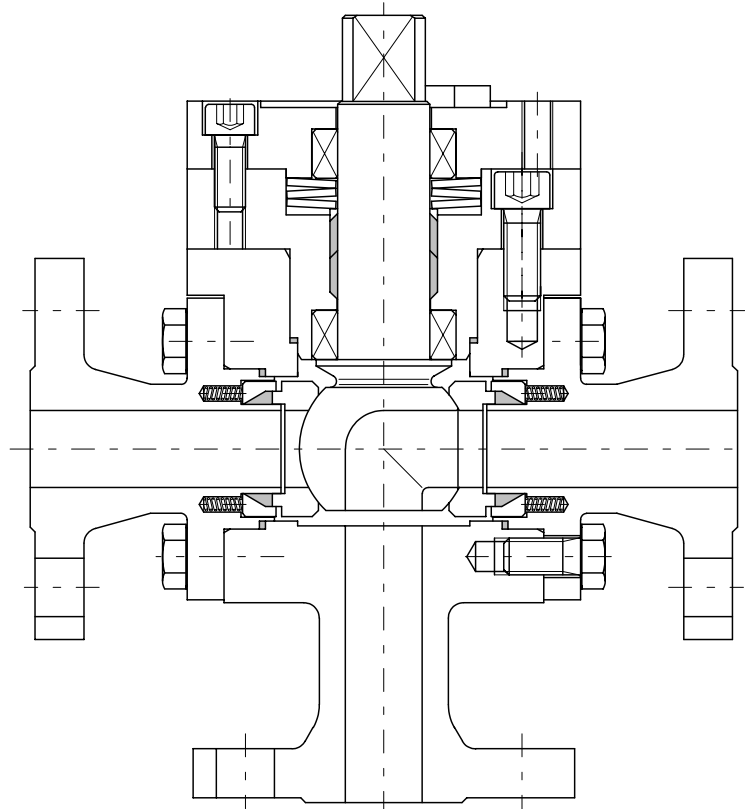
Technical modifications are reserved.

item	designation	temperatures:	
		-60°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
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	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
16	plate spring	1.4310	1.8159
17	coil spring	1.4571	1.4571
21	seat ring	PTFE - TFM	PTFE - TFM
23	body gasket		
24	stem packing	PTFE - Graphite	PTFE - Graphite
25	bearing	Carbon	Carbon
26	bearing		
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

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

Multiway Ball Valve with vertical in-/outlet Series 24-M

DN ½" to 10"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral stem. The metal 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 valve is available with one vertical in-/outlet and with two until four connections. The ball can be designed with a L- or double-L-port.

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

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

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

Range of application:

DN ½" to 10"	PN ANSI Cl. 150/600	Temperature -60°C to 450°C
-----------------	------------------------	-------------------------------

1.0 Main parts

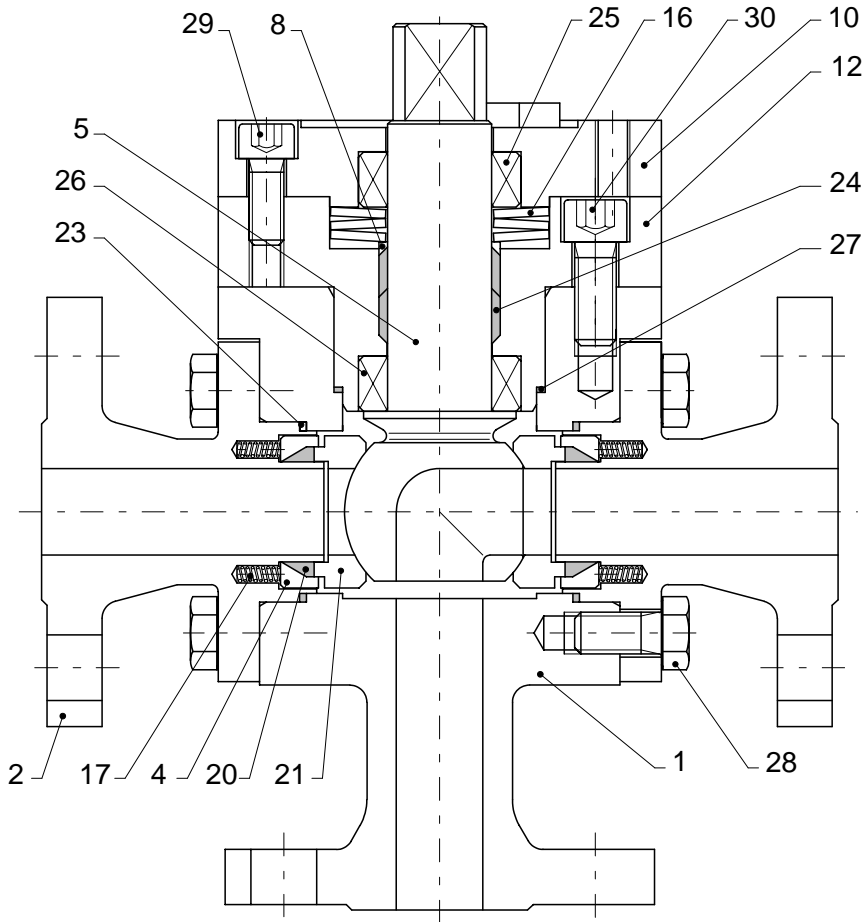


fig. 1
ball valve, series 24-M

Technical modifications are reserved.

item	designation	temperatures:	
		-60°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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
16	plate spring	1.4310	1.8159
17	coil spring	1.4571	1.4571
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		
27	body gasket	Graphite	Graphite
28-30	screw	A 2-70	A 2-70

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

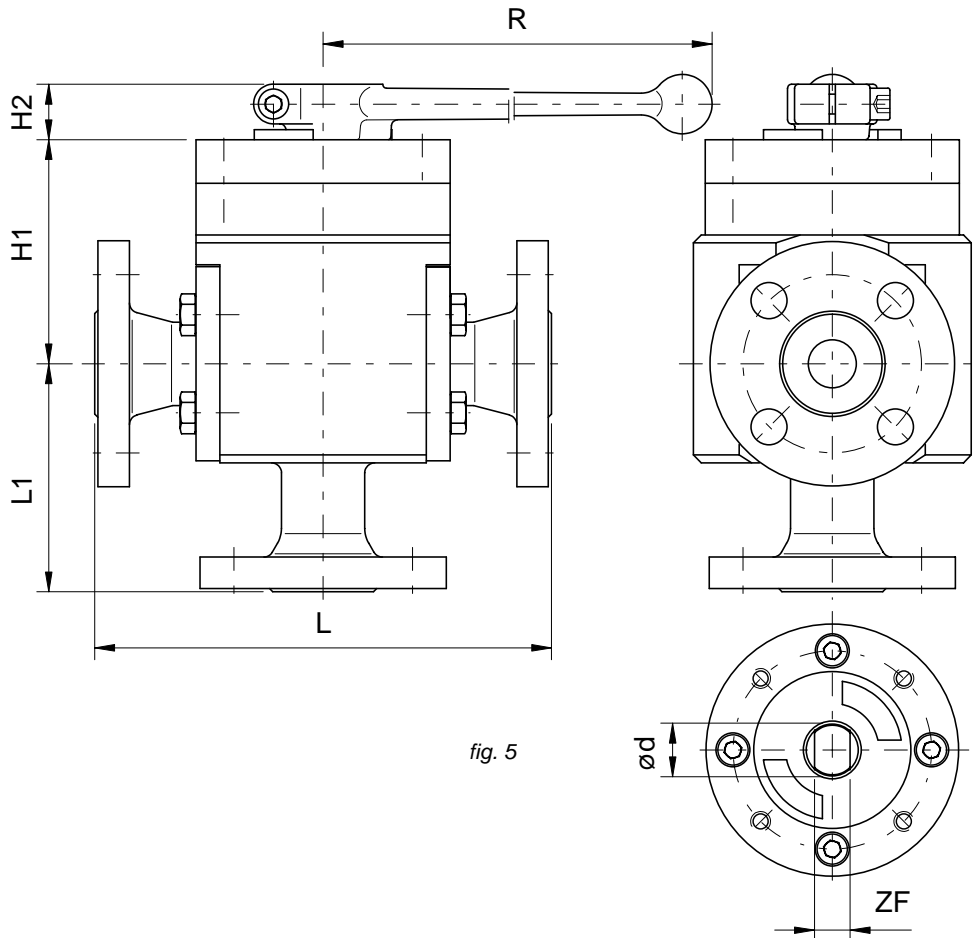
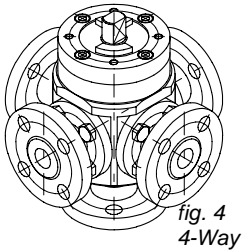
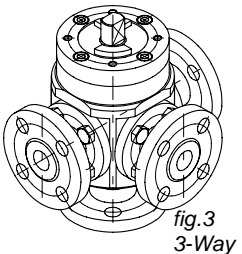
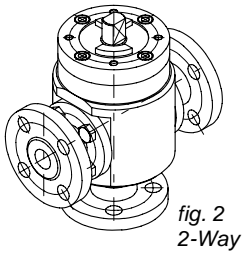
2.0 Technical data

2.1 Nominal size / Dimensions / Connections / Weights

Nominal size (DN)	dimensions							face to face		connection s	weight [kg]		actuator-connection DIN/ISO 5211
	H1	H2		ød	R	ZF		DIN 558-1 FTF1 / FTF2	L		L1	DIN 558-1 FTF1 / FTF2	
½"	15	90	23	17	300	12			210	105		10	F 07
¾"	20	113	28	27	450	18			230	115		12	F 10
1"	25	113	28	27	450	18			230	115		16	F 10
1¼"	32												
1½"	40	113	28	27	450	18			260	130		34	F 10
2"	50	122	28	27	450	18			300	150		45	F 10
2½"	65												
3"	80	181	37	42	800	32			310	155		85	F 12
4"	100	198	33	57	800	38			350	175		120	F 14
5"	125												
6"	150	340	41	68	--	44			480	240		155	F 16
8"	200	369	41	68	--	44			600	300		265	F 16
10"	250	395	173	98	--	--			730	365		495	F 25

dimensions in mm

Technical modifications are reserved.



2.2 Special features

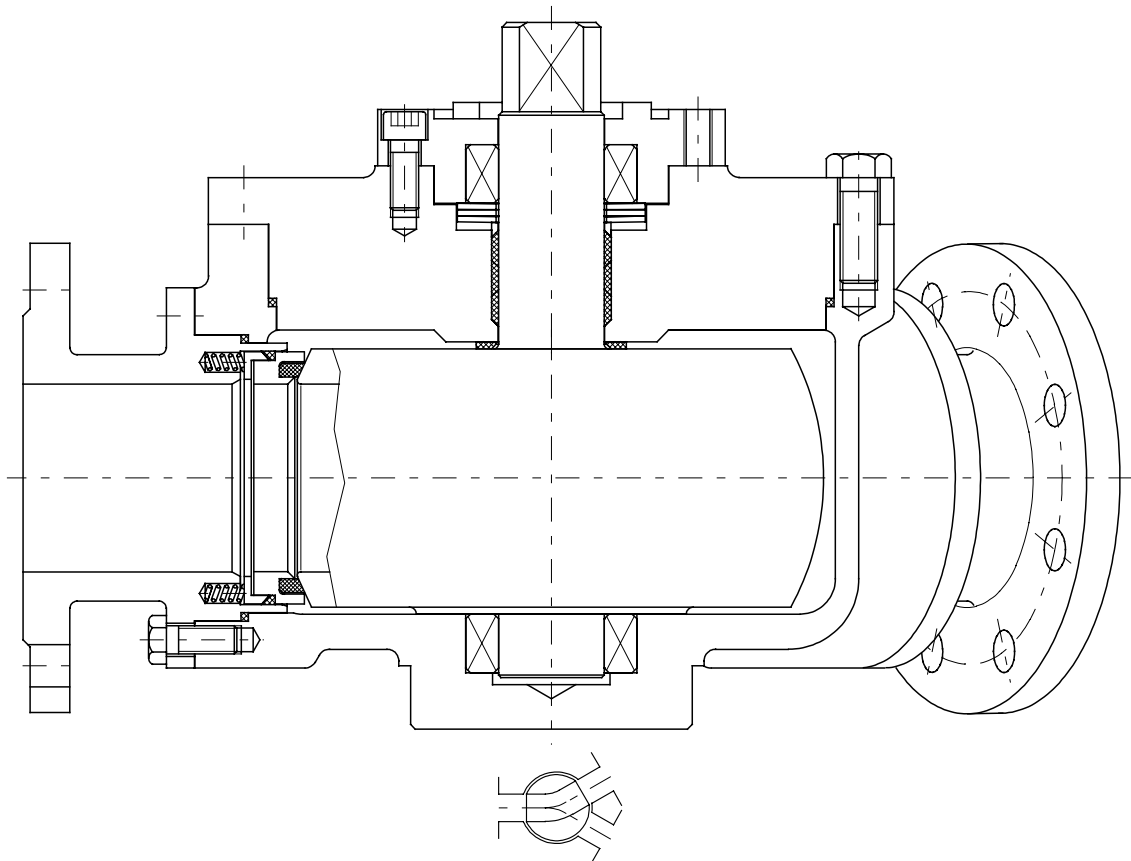
design:

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

Diverter Valve

Series 25-S

DN 1/2" to 8"



Description:

This PERRIN ball valve design features a splitt body and a trunnion mounted ball with integral 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 ball features an 30° port design.

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 extradited in antistatic-design and, as desired, in "fire-safe design". The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 8"	PN ANSI Class 150	Temperature -40°C to 250°C
------------------	----------------------	-------------------------------

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
27	body gasket
28	screw
29	screw
30	screw

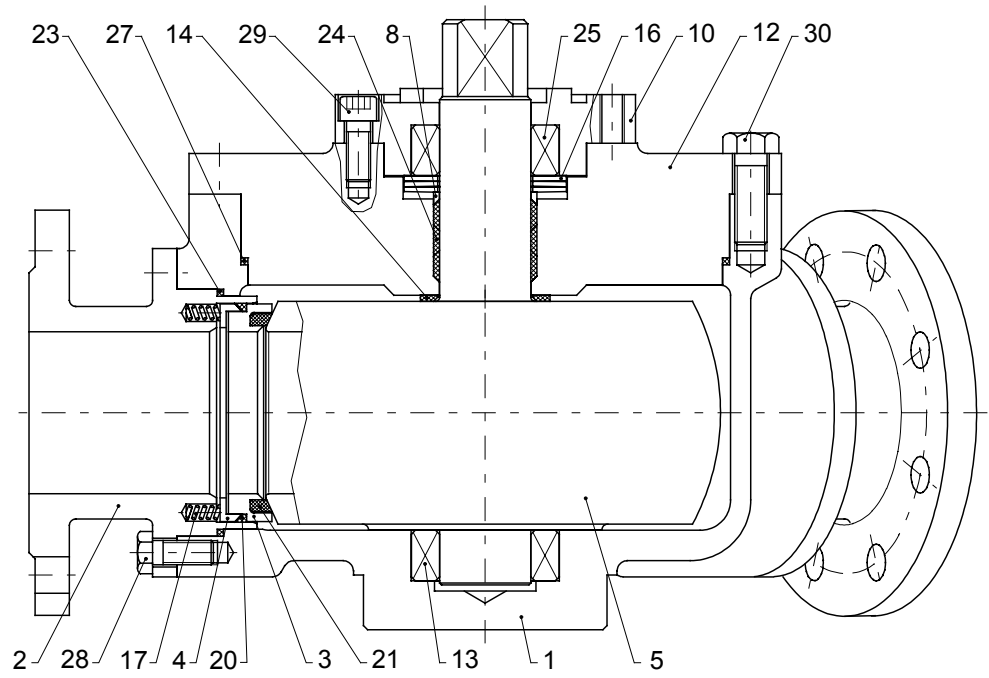


fig. 1
ball valve, series 25-S

Technical modifications are reserved.

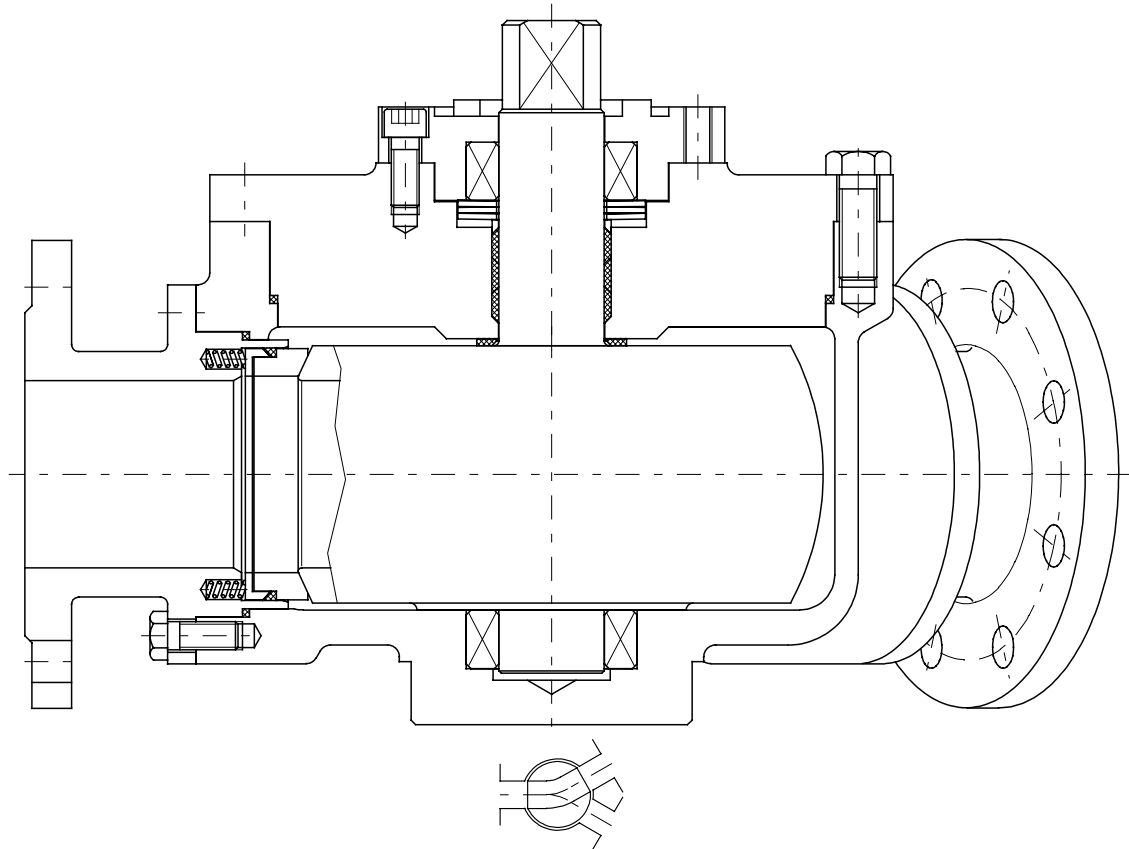
2.0 Materials

item	designation	temperatures:	
		-40°C to 250°C ¹⁾	-10°C to 250°C ¹⁾
1	body	1.4571 / 1.4408	1.0460 / 1.0619
2	body end connection		
3	retainer ring	1.4571	1.4571
4	retainer ring		
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	Carbon
14	distance ring	PTFE - 25% Glass	PTFE - 25% Glass
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
27	body gasket	PTFE - TFM	PTFE - TFM
28-30	screw	A 2-70	A 2-70

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

Diverter Valve Series 25-M

DN 1/2" to 8"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral 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 ball features an 30° port design.

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 extradited in antistatic- and „fire-safe“ design. The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 8"	PN ANSI Class 150	Temperature -40°C to 450°C
------------------	----------------------	-------------------------------

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
27	body gasket
28	screw
29	screw
30	screw

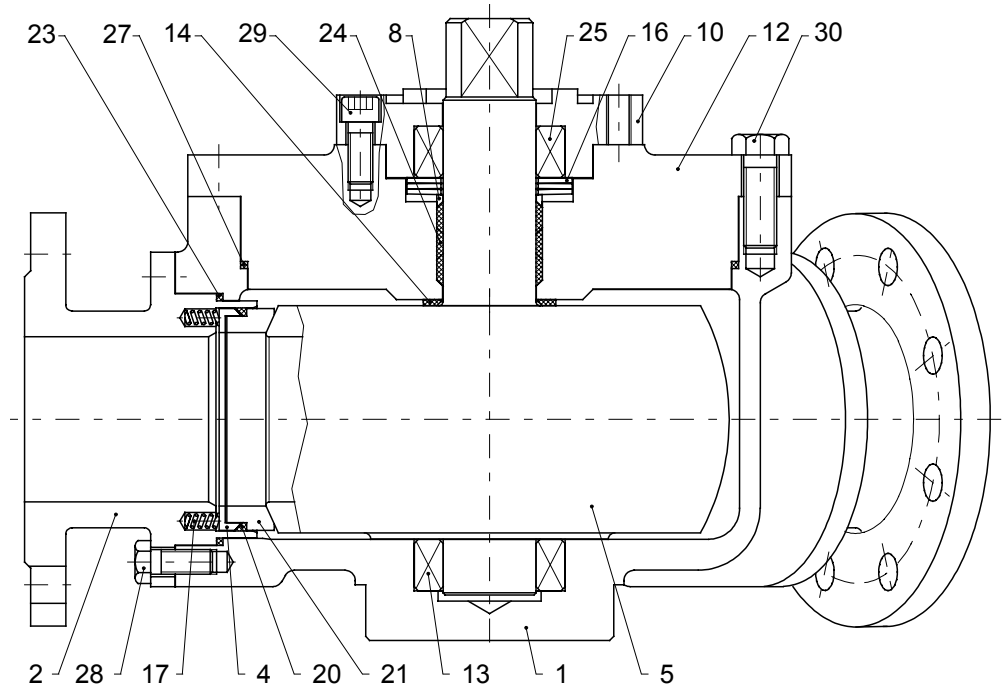


fig. 1
ball valve, series 25-M

Technical modifications are reserved.

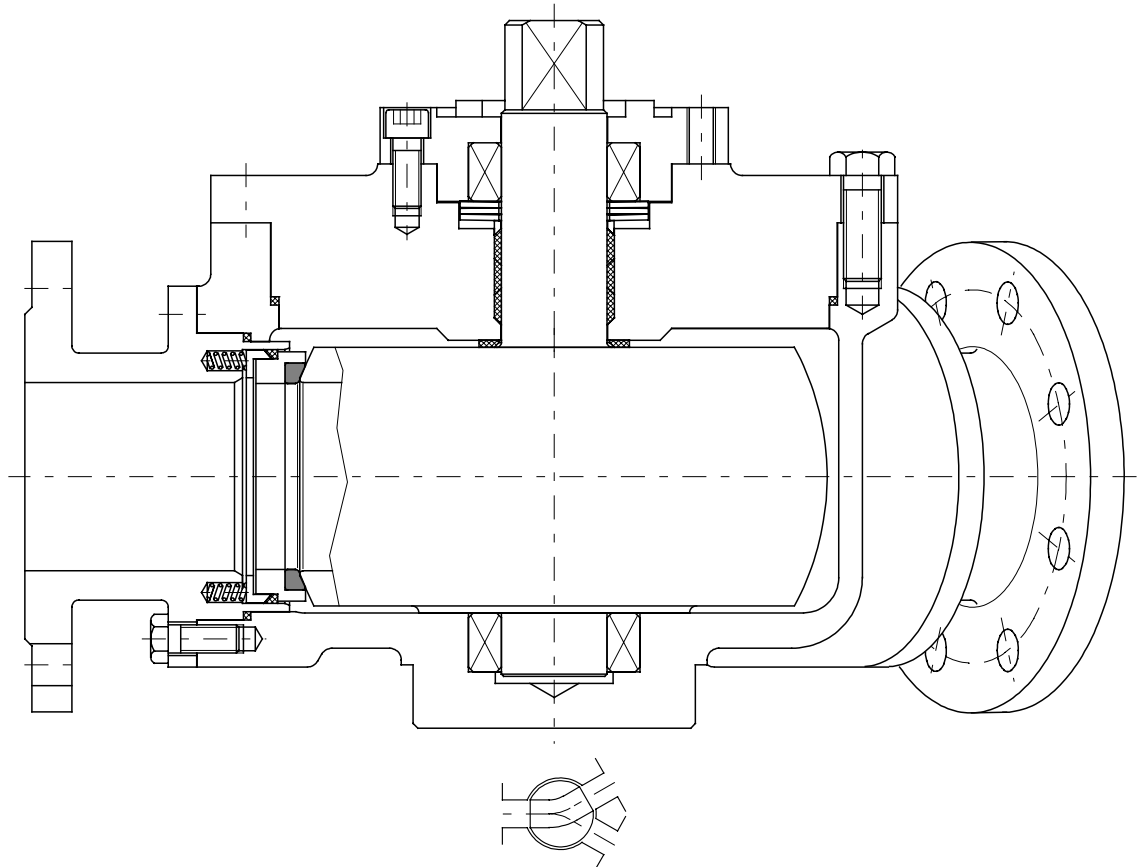
2.0 Materials

item	designation	temperatures:	
		-40°C to 450°C ¹⁾	-10°C to 450°C ¹⁾
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	Carbon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
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
27	body gasket	Graphite	Graphite
28-30	screw	A 2-70	A 2-70

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

Diverter Valve Series 25-C

DN 1/2" to 8"



Description:

This PERRIN ball valve design features a split body and a trunnion mounted ball with integral stem. The carbon 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 ball features an 30° port design.

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 extradited in antistatic- and „fire-safe“ design. The stem packing has examined TA-Luft.

Range of application:

DN 1/2" to 8"	PN ANSI Class 150	Temperature -40°C to 350°C
------------------	----------------------	-------------------------------

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-unit
23	body gasket
24	stem packing
25	bearing
27	body gasket
28	screw
29	screw
30	screw

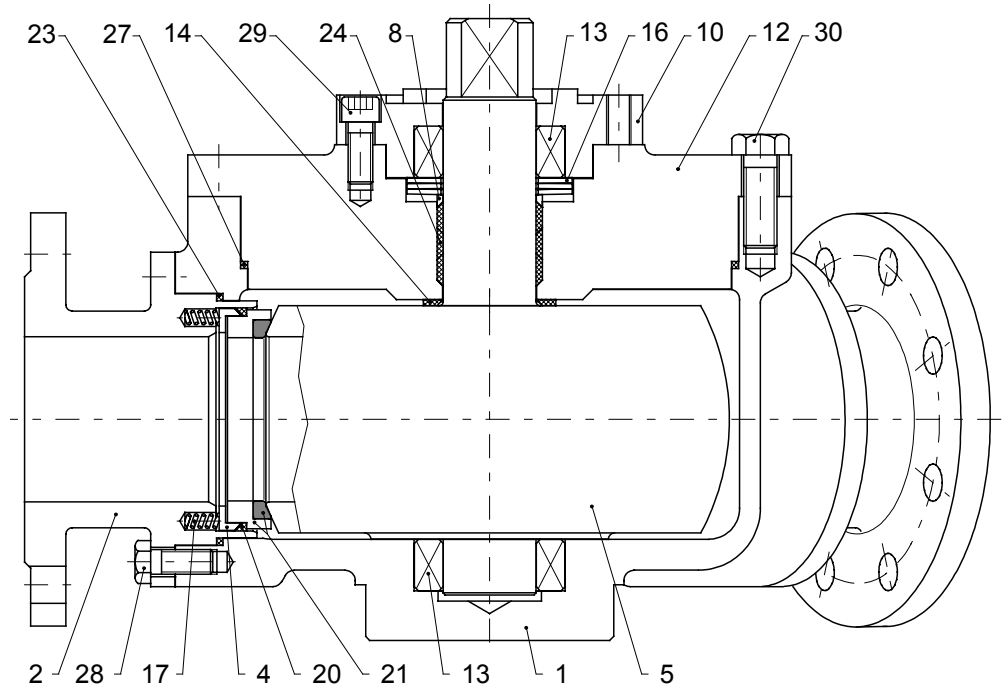


fig. 1
ball valve, series 25-C

Technical modifications are reserved.

2.0 Materials

item	designation	temperatures:	
		-40°C to 350°C ¹⁾	-10°C to 350°C ¹⁾
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	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	Carbon
14	distance ring	1.4571	1.4571
16	plate spring	1.4568	1.8159
17	coil spring	1.4571	1.4571
20	sealing ring	Graphite	Graphite
21	seat-unit	1.4571 - Carbon-Antimon	1.4571 - Carbon-Antimon
23	body gasket	Graphite	Graphite
24	stem packing		
25	bearing	Carbon	Carbon
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 25-S; 25-M; 25-C

3.0 Technical data

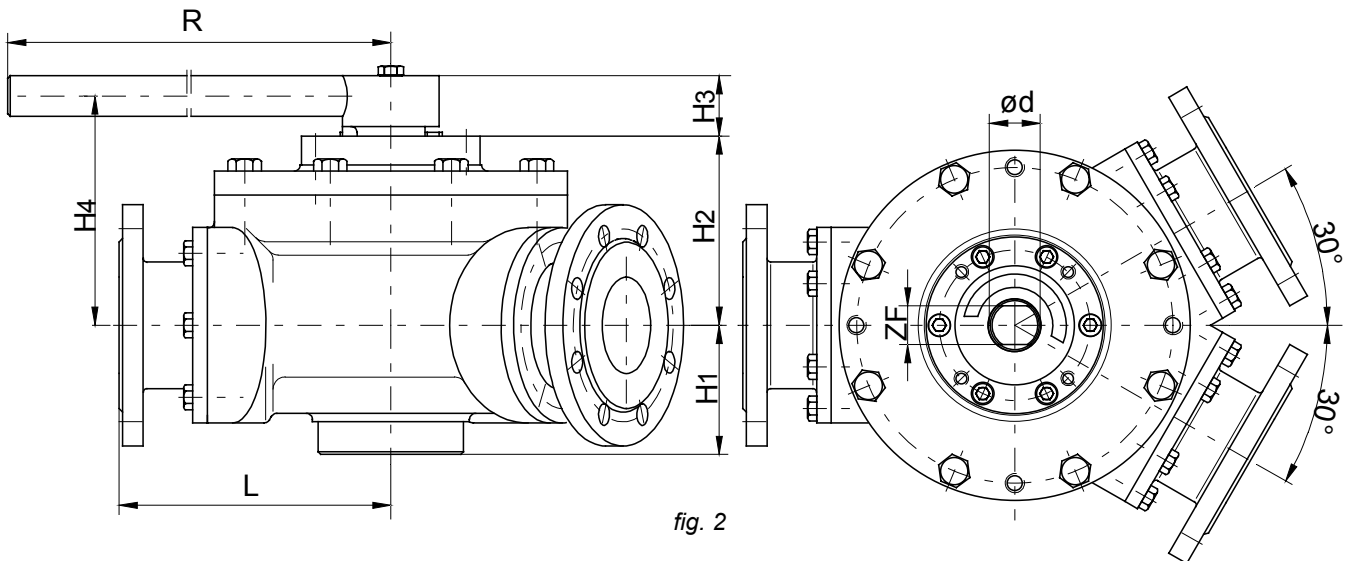
3.1 Nominal size / Dimensions / Connections / Flow / Weights

Nominal size (DN)		dimensions							flow k_{V100} [m ³ /h] $\Delta p=1\text{bar}$	face to face		connections	weight [kg]		actuator-connection DIN/ISO 5211
		H1	H2	H3	H4	R	$\varnothing d$	ZF		Perrin Standard ²⁾	L				
1/2"	15														
3/4"	20	55	92	28	148	450	27	18	38		160				F 10
1"	25	55	92	28	148	450	27	18	64		160				F 10
1 1/4"	32														
1 1/2"	40														
2"	50	95	125	37	158	800	40	32	258		200				F 12
2 1/2"	65														
3"	80	107	157	37	190	800	40	32	660		225				F 12
4"	100	116	168	37	201	800	40	32	1030		260				F 12
5"	125	140	177	33	--	--	57	38			290				F 14
6"	150	180	240	160	--	--	80	--	2320		310				F 16
8"	200	245	265	160	--	--	80	--	4125		500				F 16

dimensions in mm

²⁾ shortest face to face dim.

Technical modifications are reserved.



3.2 Special features

profit:

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

design:

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

ACCESSORIES




open type

Stem-Extension´s



closed type



closed type
with DIN/EN/ISO connection



Locking Device



Snap-In Device



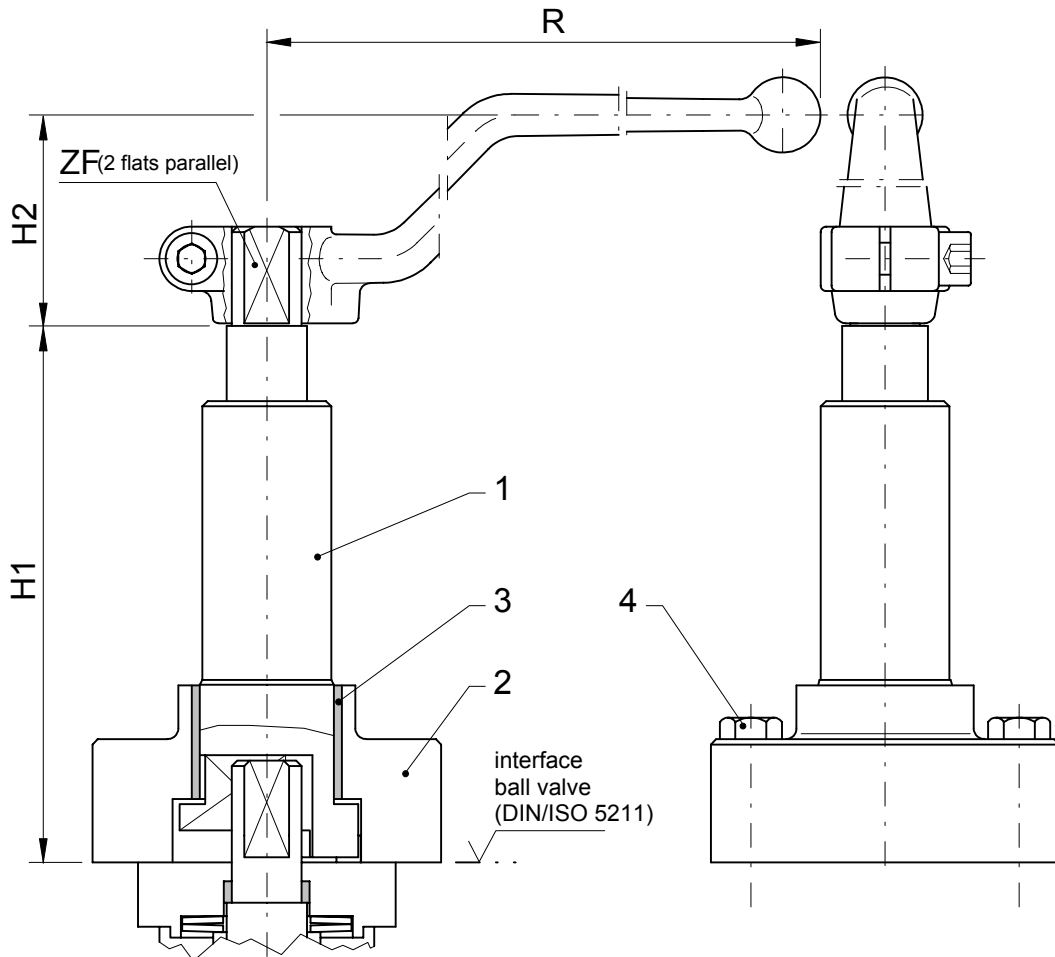
**combined Snap-In
Locking Device**



Press Button to select

Stem-Extension

- open type -



Technical modifications are reserved.

Description:

This PERRIN-Stem-Extension can be field mounted at any time. The mounting flange corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211. Origin lever can be used from our existing ball valve. If not available, please order separately.

Connections / Dimensions

connection DIN/ISO 5211	dimensions [mm]				
	ZF	H1 ¹⁾	H2	R	
F 05	10	100	45	180	
F 07	12	100	45	300	
F 10	18	100	20	450	
F 12	32	100	34	800	

Materials

item	designation	stainless- steel	
1	extension	1.4301	
2	centering cover	1.4301	
3	bearing	PTFE-Bronze	
4	screw	A 2-70	

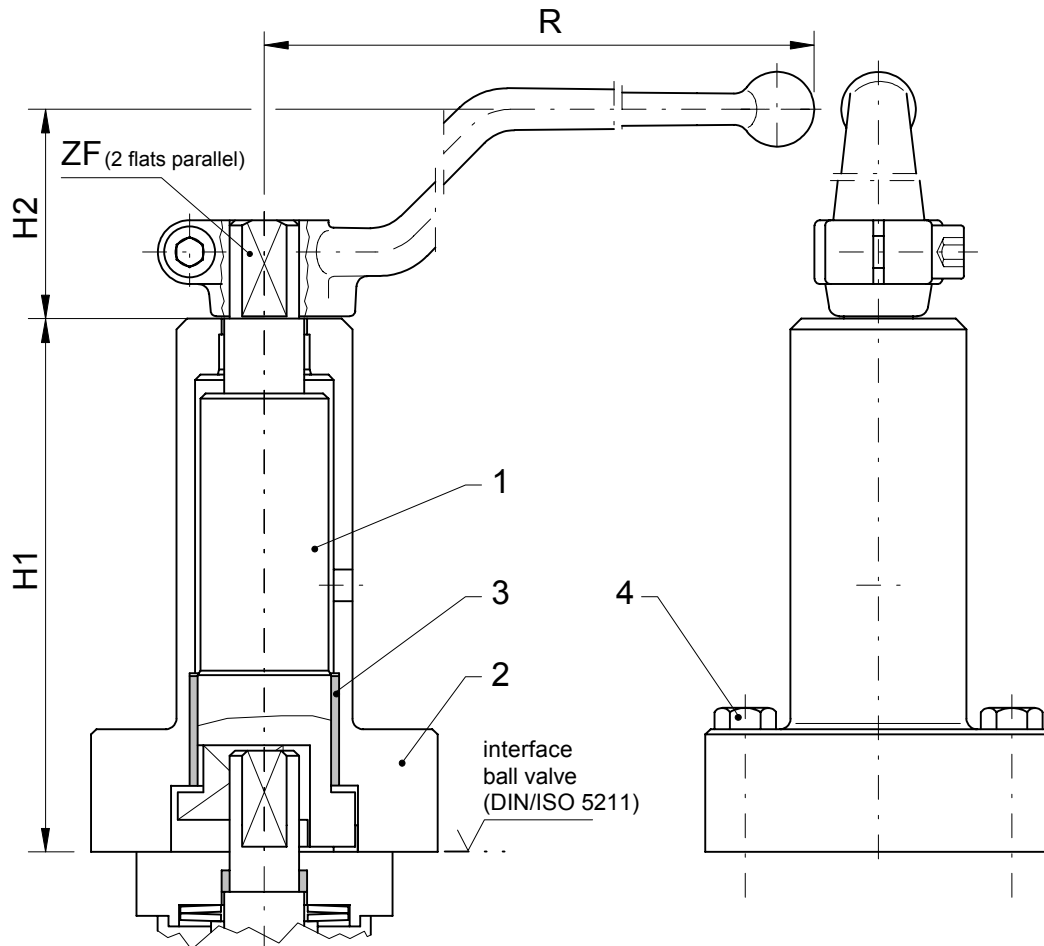
¹⁾ other dimensions on request.

SO 05/99 E0

PERRIN GmbH

Stem-Extension

- closed type -



Technical modifications are reserved.

Description:

This PERRIN-Stem-Extension can be field mounted at any time. Insulation can be fitted and tightened directly to the extension. Available without rotation limit or limit for 90°, 120° or 180° motion. The interface connection to the ball valve top corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211. Origin lever can be used from our existing ball valve. If not available, please order separately.

Connections / Dimensions

connection DIN/ISO 5211	dimensions [mm]			
	ZF	H1 ¹⁾	H2	R
F 05	10	100	45	180
F 07	12	100	45	300
F 10	18	100	20	450
F 12	32	100	34	800

Materials

item	designation	stainless- steel	
1	extension	1.4301	
2	case	1.4301	
3	bearing	PTFE-Bronze	
4	screw	A 2-70	

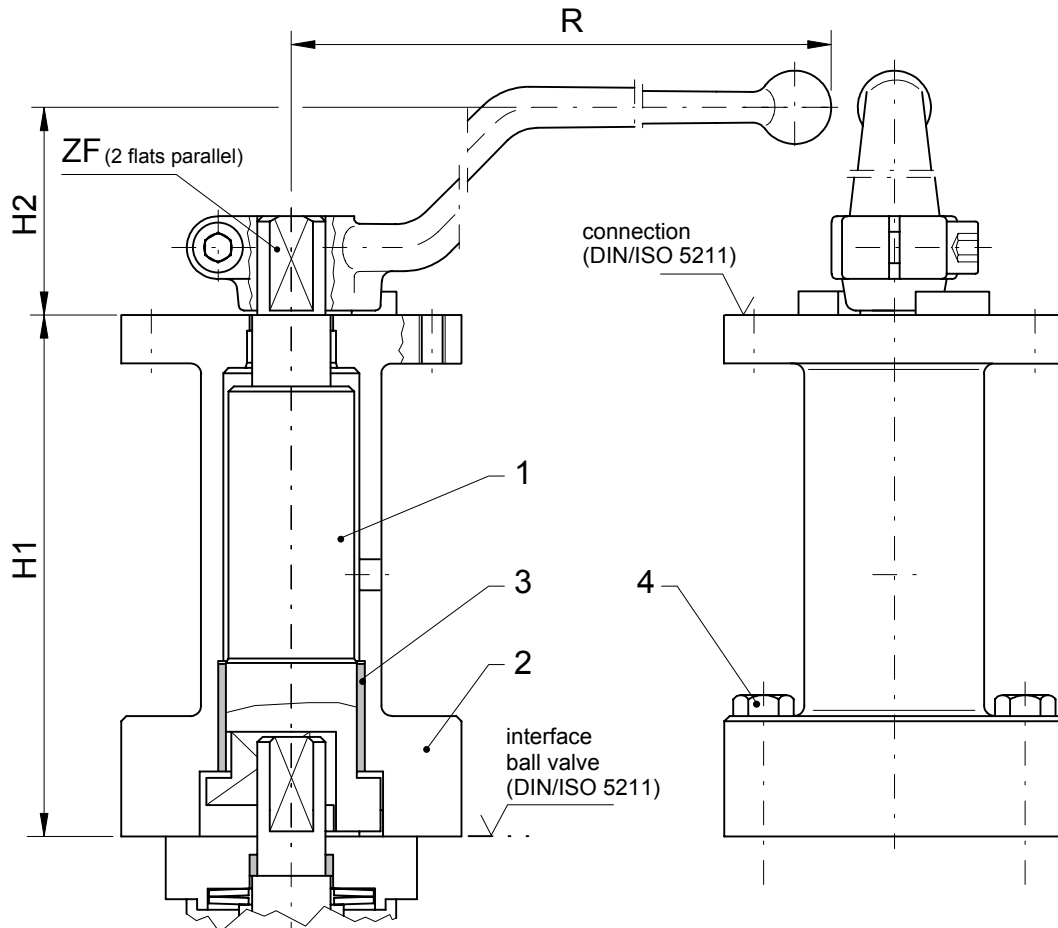
¹⁾ other dimensions on request

SG 06/99 E1

PERRIN GmbH

Stem-Extension

- closed type -
- with DIN/ISO connection -



Technical modifications are reserved.

Description:

This PERRIN-Stem-Extension can be field mounted at any time. Insulation can be fitted and tightened directly to the extension. Available without rotation limit or limit for 90°, 120° or 180° motion. The connections are corresponding to the NAMUR recommendations with dimensions to DIN/ISO 5211. Actuators and accessories can be field mounted at any time. Origin lever can be used from our existing ball valve. If not available, please order separately.

Connections / Dimensions

connection DIN/ISO 5211	dimensions [mm]			
	ZF	H1 ¹⁾	H2	R
F 05	10	100	45	180
F 07	12	100	45	300
F 10	18	100	20	450
F 12	32	100	34	800

Materials

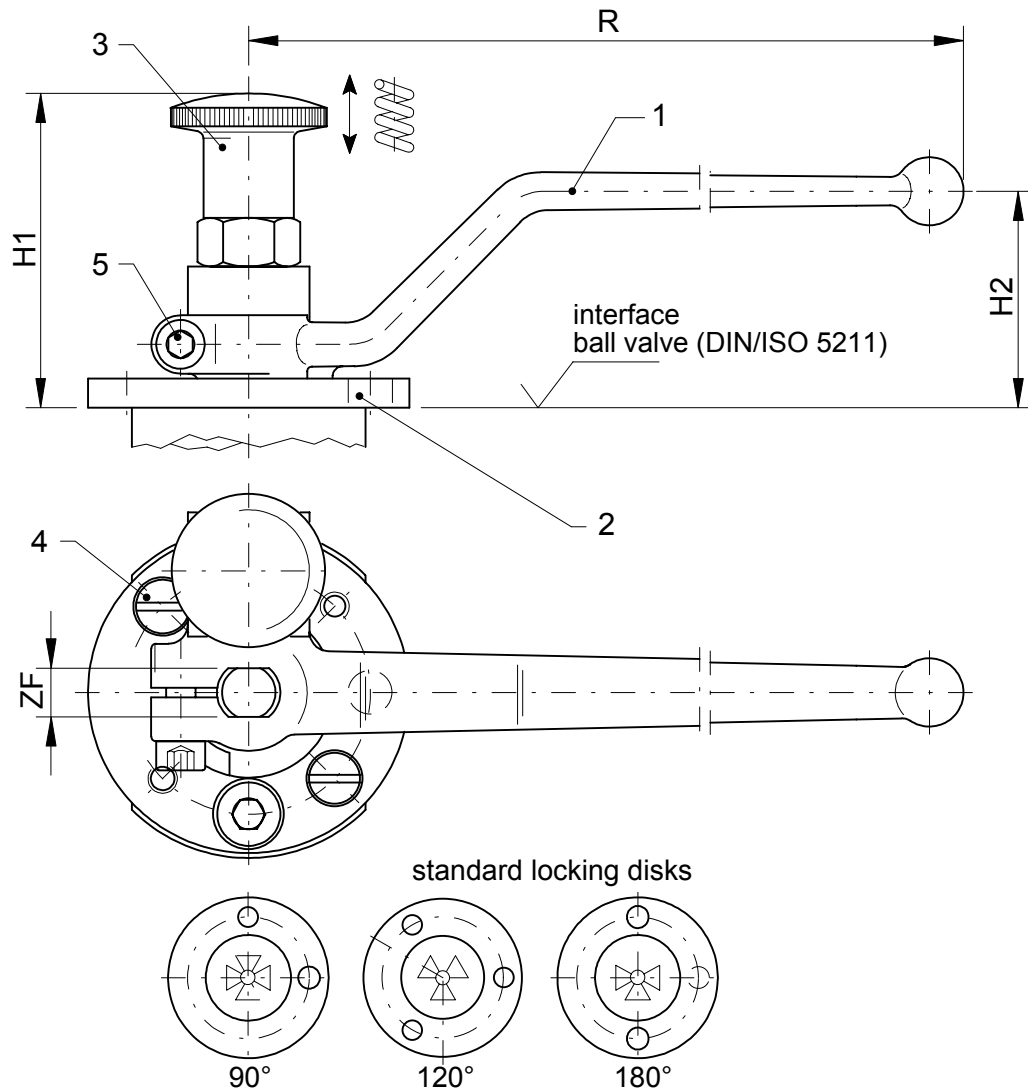
item	designation	stainless- steel	
1	extension	1.4301	
2	case	1.4301	
3	bearing	PTFE-Bronze	
4	screw	A 2-70	

¹⁾ other dimensions on request.

SGDIN 05/99 E1

PERRIN GmbH

Snap-In Locking Device



Technical modifications are reserved.

Description:

This PERRIN-Snap-In-Locking-Device can be field mounted at any time. The device is available with locking disks for 90°, 120° or 180° operating angle. The interface connection to the ball valve top corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

Connections / Dimensions

connection DIN/ISO 5211	dimensions [mm]				
	ZF	H1	H2	R	
F 05	10	65	45	180	
F 07	12	65	45	300	
F 10	18	71	20	450	
F 12	32	71	34	800	

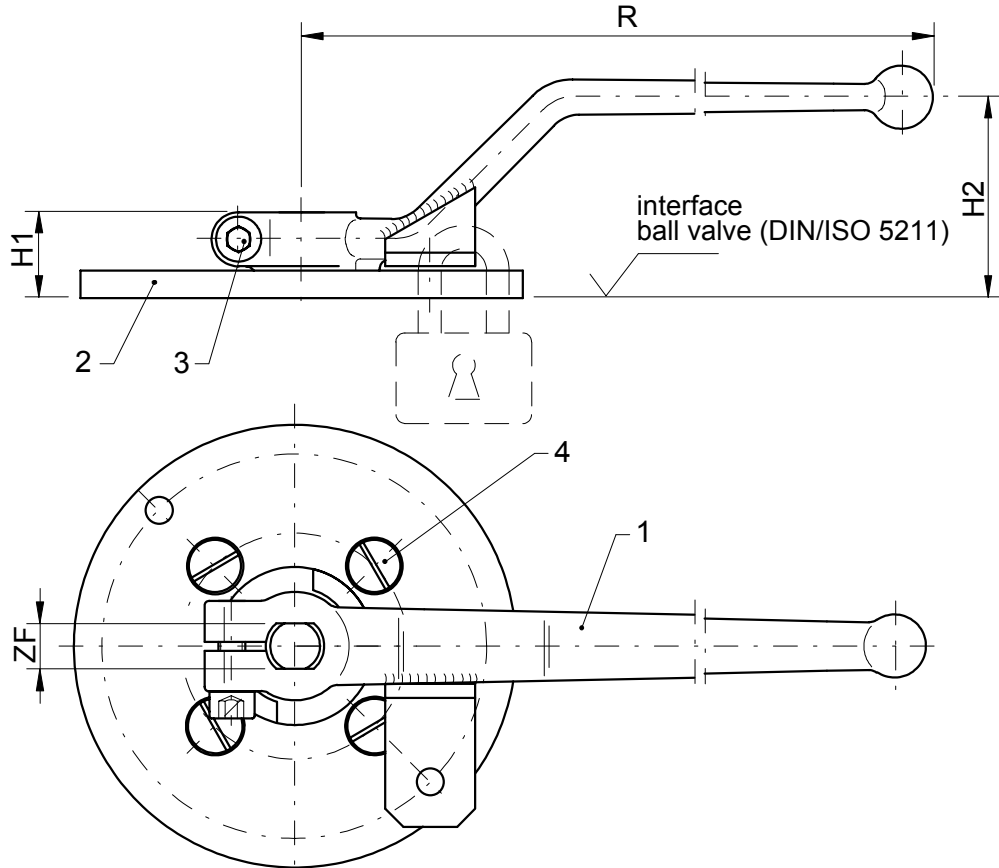
Materials

item	designation		
1	lever	1.0401 galvan.	
2	locking disk	1.0406 galvan.	
3	locking bolt	1.0721	
4	screw	4.8 galvanised	
5	screw	8.8 galvanised	

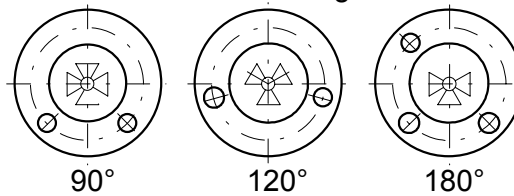
RE-05/99 E0

PERRIN GmbH

Locking Device



standard locking disks



Technical modifications are reserved.

Description:

This PERRIN-Locking-Device can be field mounted at any time. The device is available with locking disks for 90°, 120° or 180° operating angle. The interface connection to the ball valve top corresponds to the NAMUR recommendations with dimensions to DIN/ISO 5211.

Connections / Dimensions

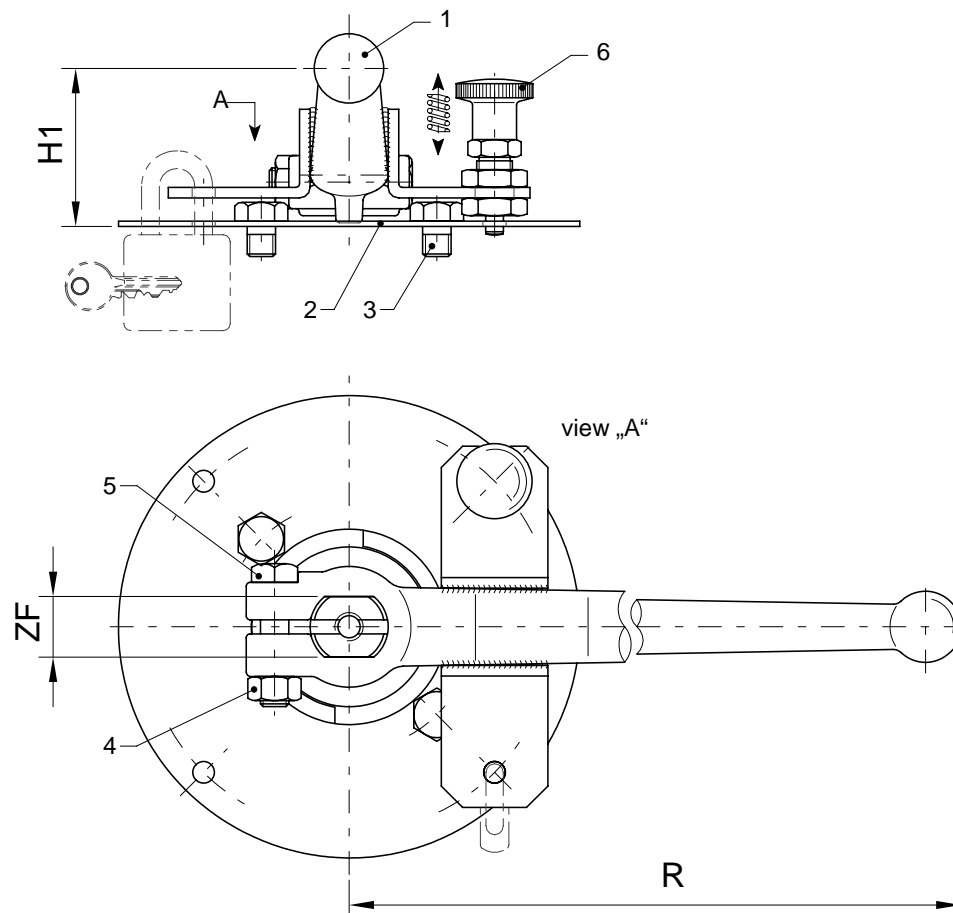
connection DIN/ISO 5211	dimensions [mm]			
	ZF	H1	H2	R
F 05	10	19	45	180
F 07	12	23	45	300
F 10	18	28	20	450
F 12	32	35	34	800

Materials

item	designation		
1	lever	1.0401 galvan.	
2	locking disk	1.0406 galvan.	
3	screw	8.8 galvanised	
4	screw	4.8 galvanised	

SE-05/99 E0

Combined Snap-In Locking Device



Description:

This combined PERRIN-Snap-In-Locking-Device can be field mounted at any time. The device is available with locking disks for 90°, 120° or 180° operating angle. Optionally the stem-connection-dimension can be supplied acc. to DIN/EN/ISO 5211 or acc. to the BASF-Standard WN 14-003.

Connections / Dimensions

connection DIN/EN/ISO 5211	dimensions [mm]					
	EN-Standard			BASF-Standard		
	ZF	H1	R	ZF	H1	R
F 05	14	39	180	14	39	180
F 07	17	45	300	17	45	300
F 10	22	64	450	19	61	450

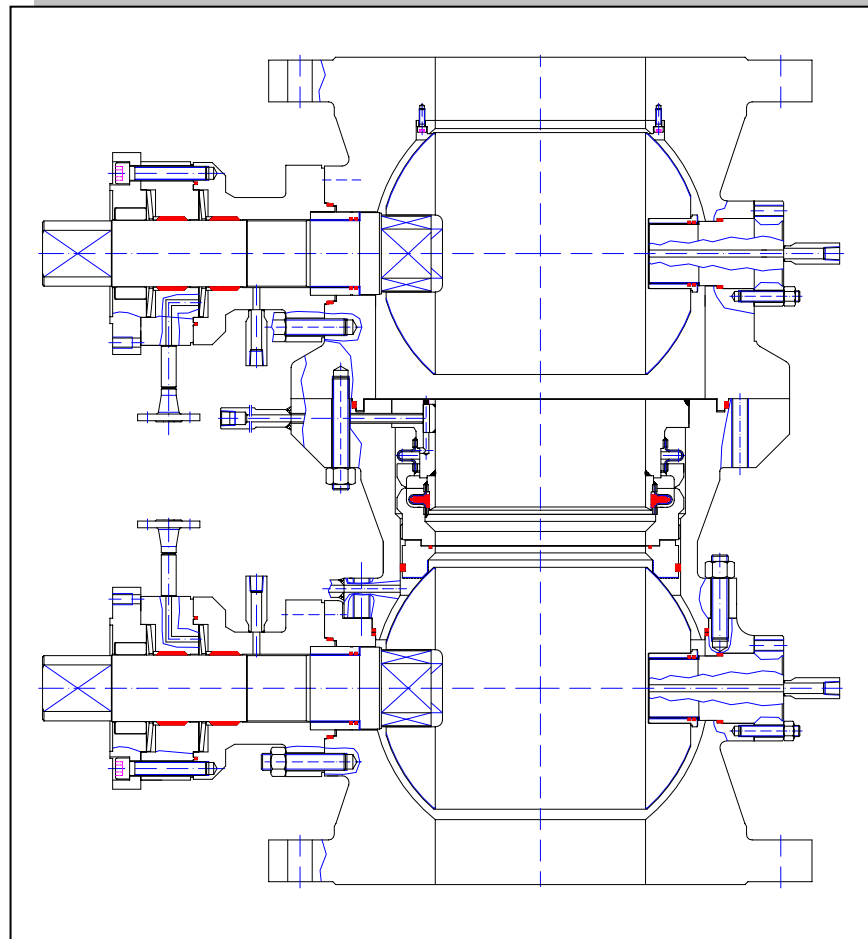
Materials

item	designation	material
1	locking disk	1.4301
2	lever	1.4308
3	screw	A 2-70
4	screw	A 2-70
5	nut	A 4
6	locking bolt	1.0721

SR_e0

Valve Combination Series 14-E

Nominal Size: DN 12" (full bore)
 Pressure Class: ANSI Class 300
 Temperature Design: 775°C (1427°F)
 Medium: Iron Ore Fines

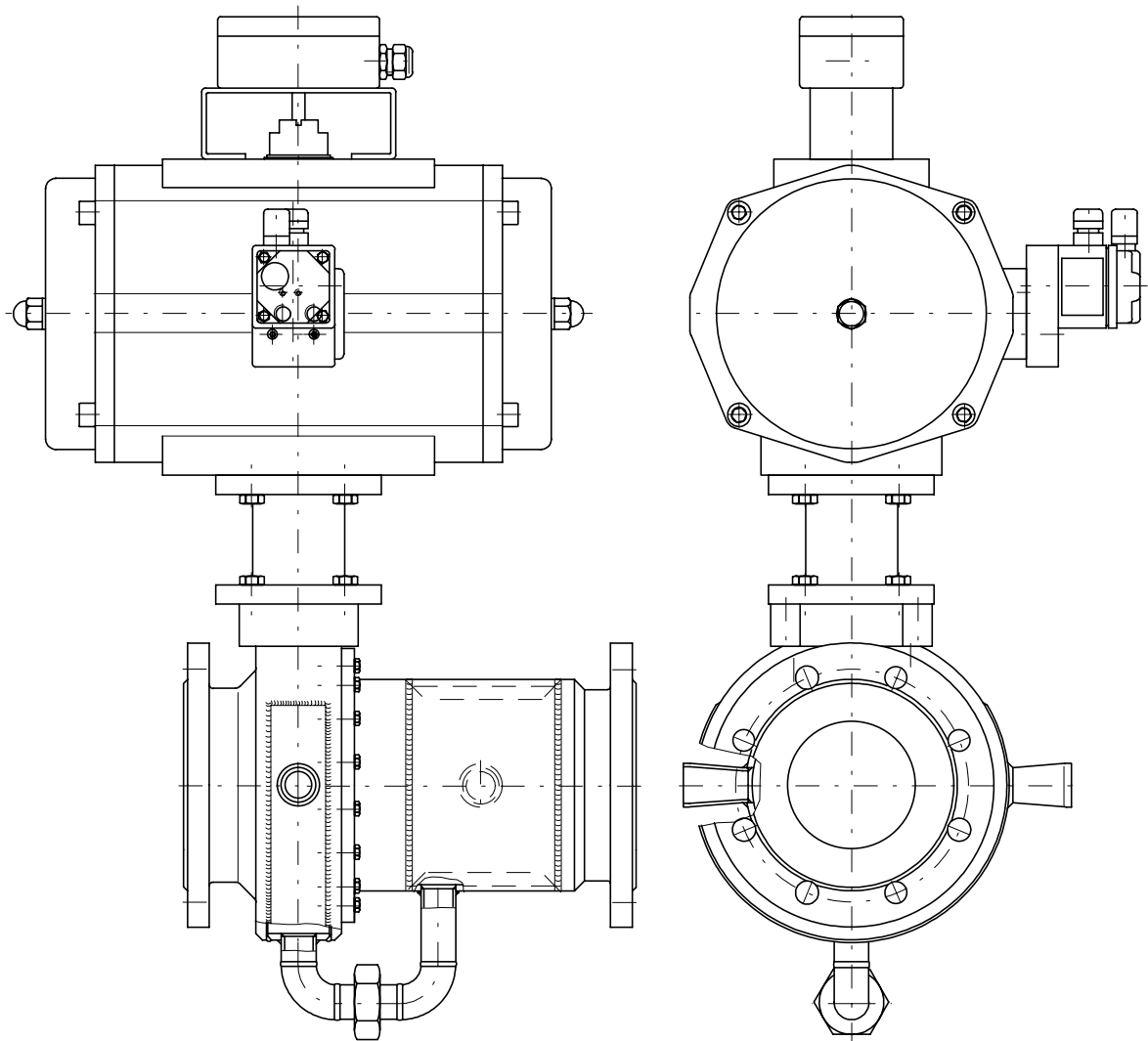


- Application: LOCK-HOPPER-SYSTEM
 Installation: In vertical pipe
 Function: - The upper, seatless valve with wear-ring is in charge for locking the solid material.
 - The lower valve with pneumatic seat system block the transport-gas from the pressureless system.
- Special Features: - Graphite/N₂-Injection for minimizing of abrasion.
 - Graphite/N₂-Injection for bearing protection.
 - Double stage gland packing with connection for leakage-control and/or purging of block-gas.
 - Low-wear, pneumatic seat system to press the seat ring against the ball.
- Scope of supply: Delivered with control system and piping as a operative unit.

schematic drawing

Heating jacket

jacketed two-way ball valve
with insulation extension
and pneumatic actuator



Technical modifications are reserved.

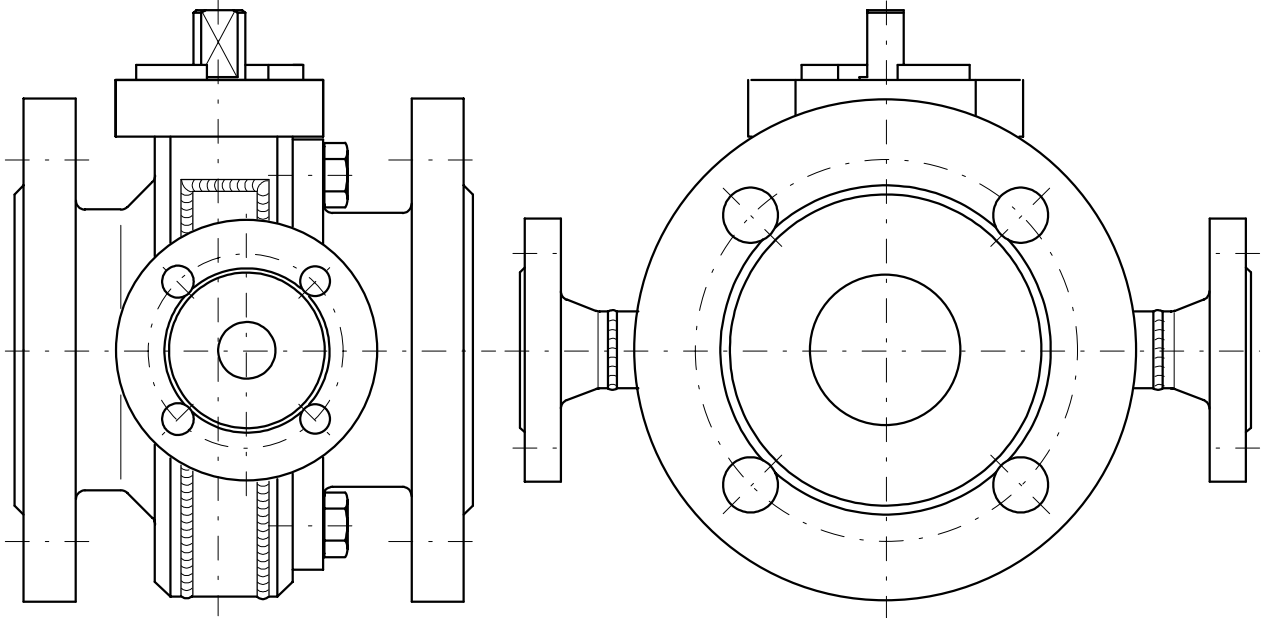
PERRIN GmbH

schematic drawing

Heating jacket

two-way ball valve
with jacketed body

Technical modifications are reserved.

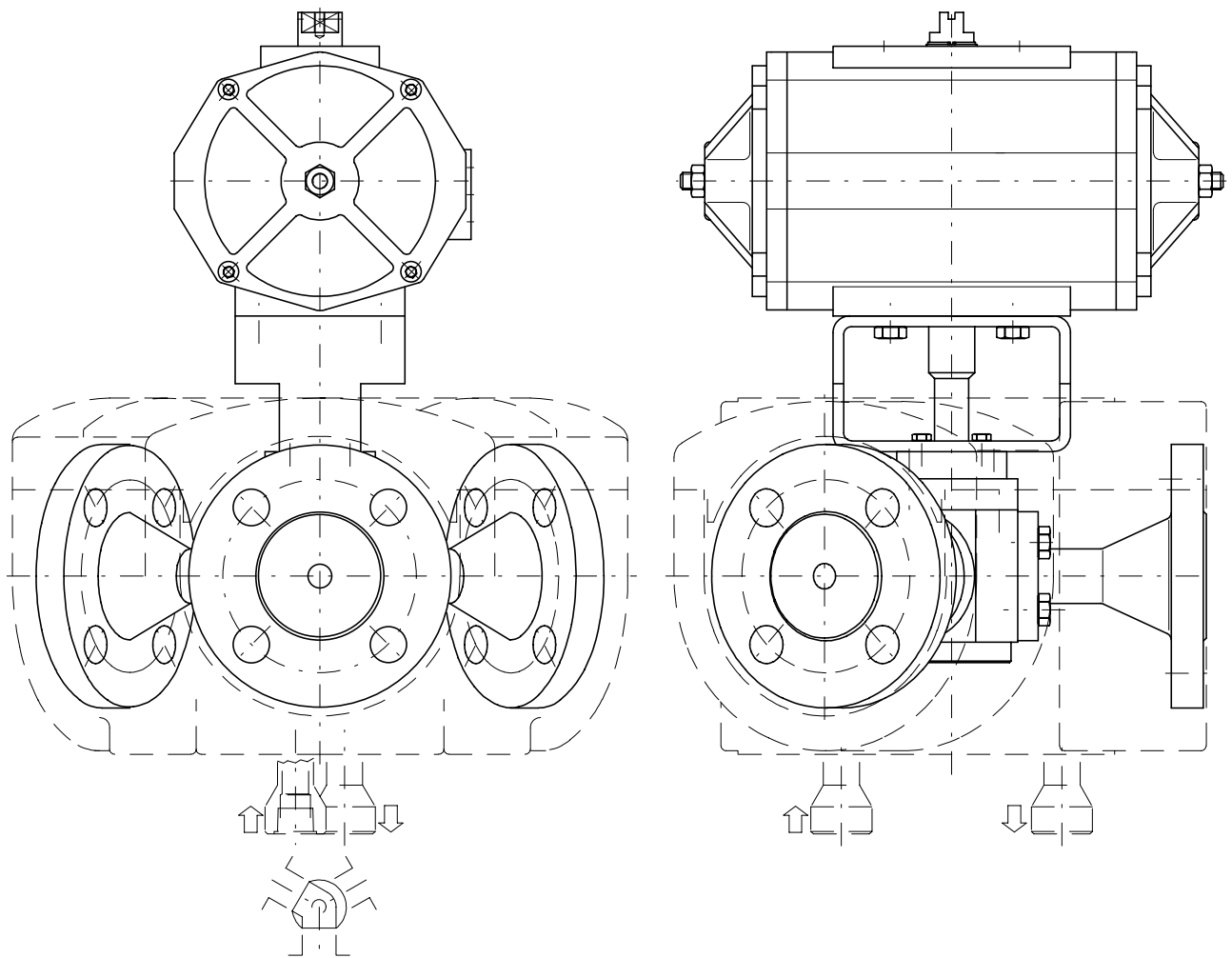


schematic drawing

Heating jacket

120° three-way ball valve with
oversize-flanges, fullsize heating jacket
and pneumatic actuator

Technical modifications are reserved.

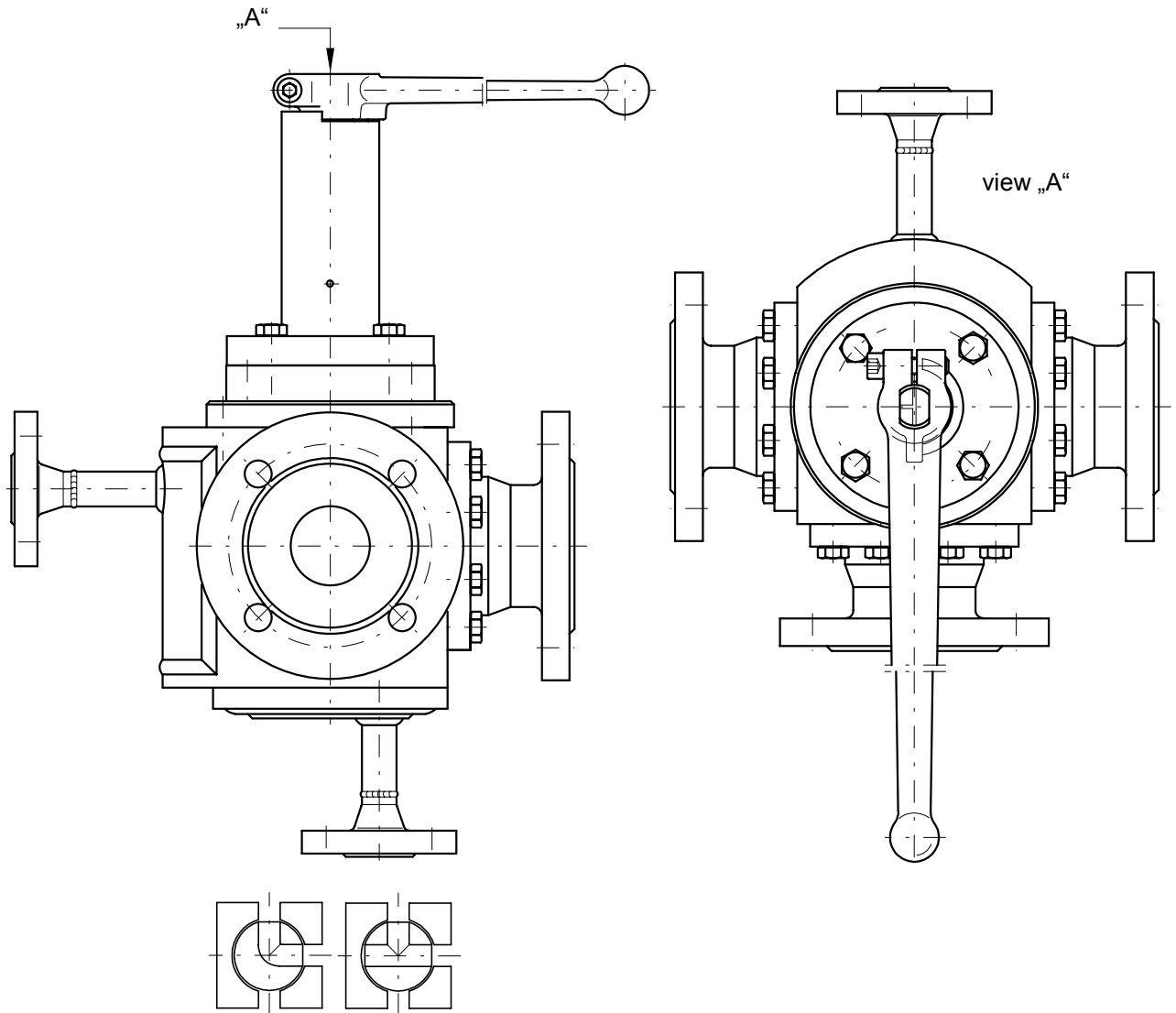


schematic drawing

Heating jacket

jacketed three-way ball valve
with stem extension

Technical modifications are reserved.



PERRIN GmbH

schematic drawing

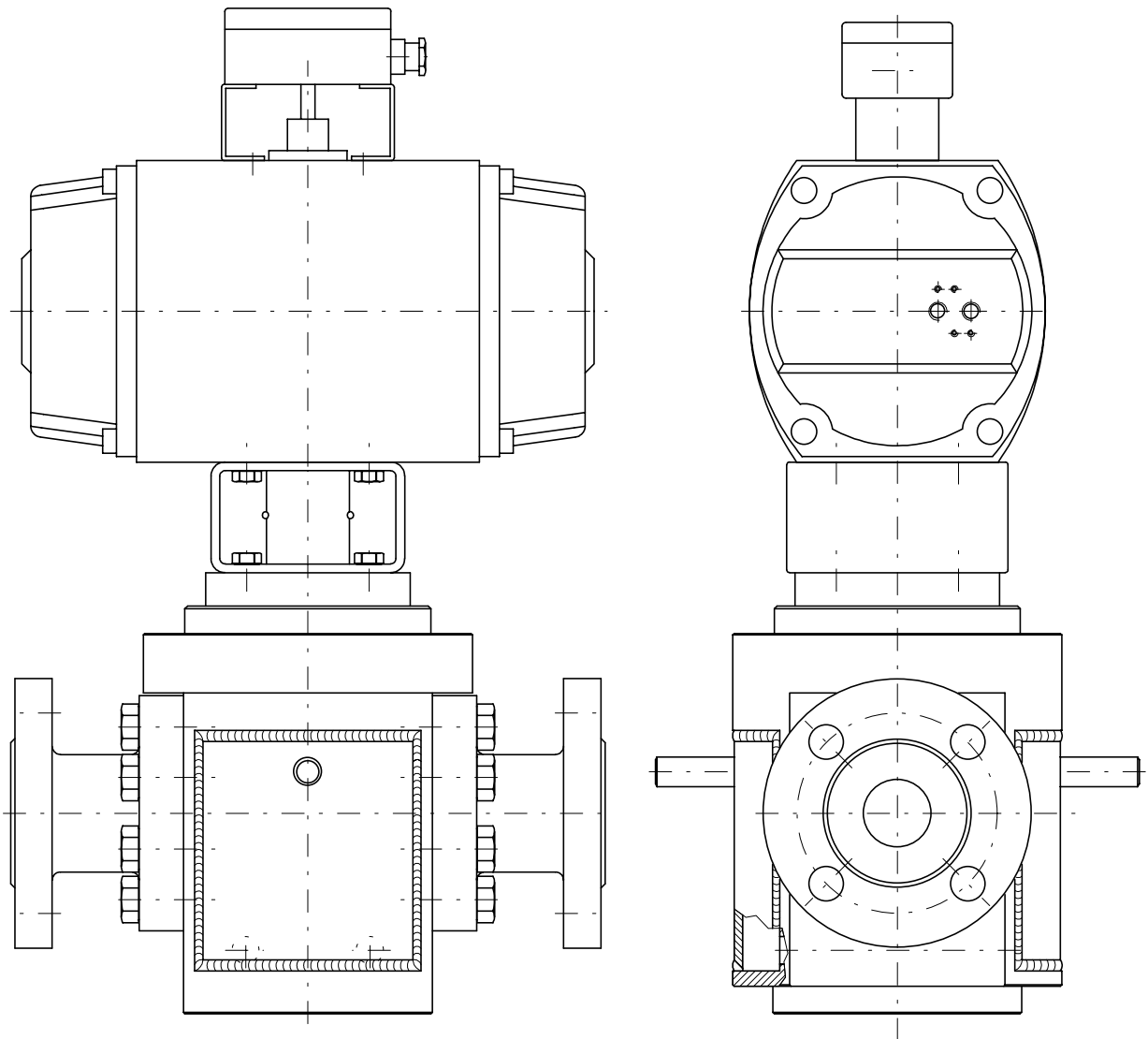
Heating jacket

two-way ball valve

Series 16

with pneumatic actuator

Technical modifications are reserved.



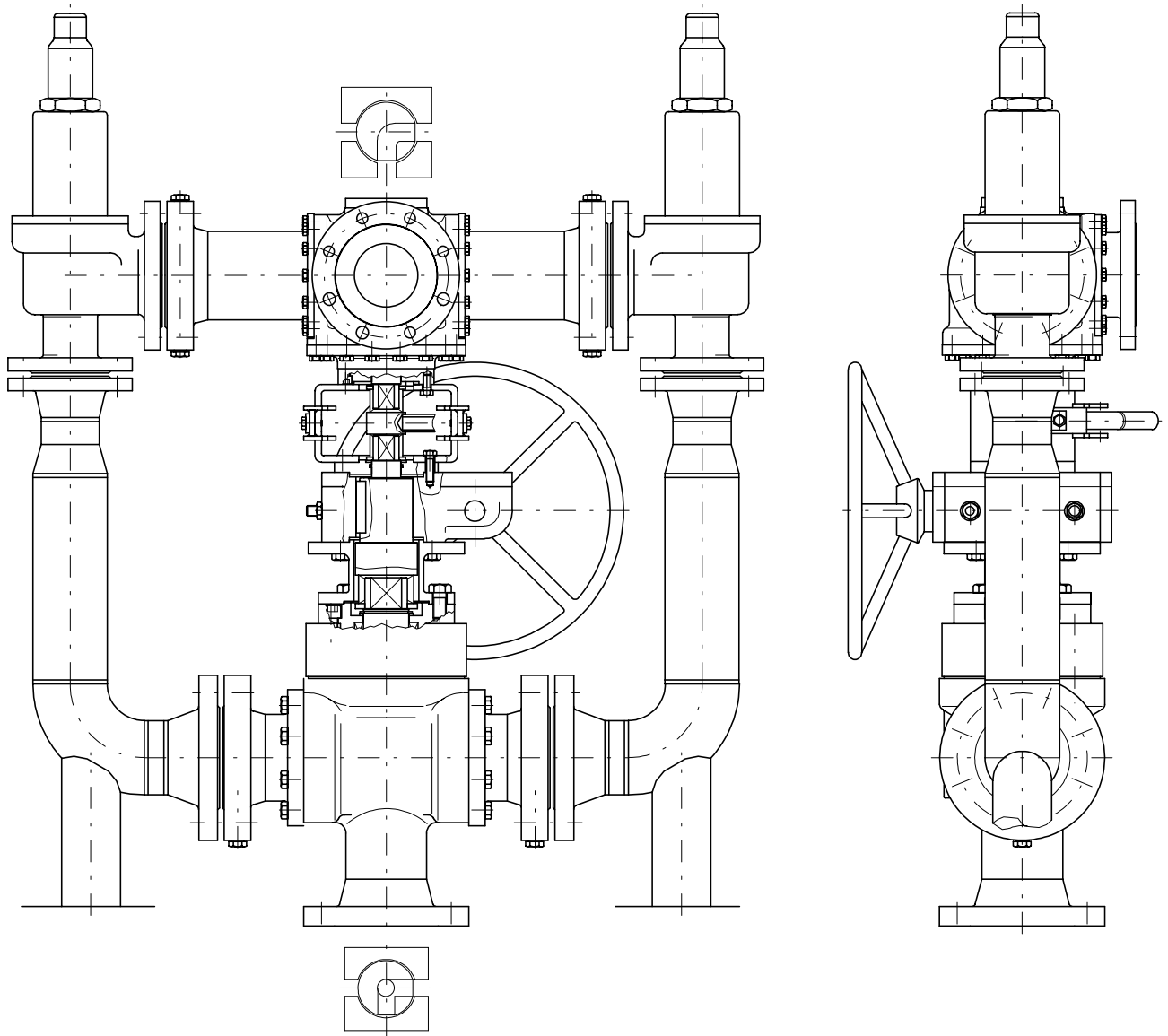
schematic drawing

Switch-over unit

(including piping and safety valves)

Combination of Series 21 and 24 Ball Valves

Technical modifications are reserved.





CERTIFICATE

The TÜV CERT Certification Body
of TÜV Management Service GmbH

certifies in accordance
with TÜV CERT procedures that

PERRIN GmbH

D-61130 Niederau
D-17291 Prenzlau

has established
and applies a Quality System for

**Development, Manufacturing and Marketing
of Ball Valves**

An audit was performed, Report No. 70007518

Proof has been furnished that the requirements
according to

DIN EN ISO 9001 :2000

are fulfilled. The certificate is valid until **September 2005**.

Certificate Registration No. 12 100 7091

Munich, November 14, 2002



TÜV
MANAGEMENT SERVICE

TÜV CERT Certification Body
of TÜV Management Service GmbH
Unternehmensgruppe TÜV SÜD AG



CERTIFICATE

The TÜV CERT Certification Body
of TÜV Hessen

hereby certifies in accordance with TÜV CERT
procedures that

PERRIN GmbH
D-61130 Niederau
D-17291 Prenzlau

has established and applies a quality system for

Manufacturing of Ball Valves
TRB 801 Nr. 45

An audit was performed, Report No. 4071 9435

Proof has been furnished that the requirements according to
Directive 97/23/EC (Pressure Equipment Directive), Module H + H1
are fulfilled.

The certificate is valid until **October 2003**

Certificate Registration No. 73 202 820

The manufacture is entitled to label all printing devices produced under the
scope of this quality management system with our registration number
as follows

CE 0091



Munich, 14.11.2002

TÜV CERT Certification Body
of TÜV Hessen

Distribution Organisation

German Representations

North

Klahn & Partner
Am Borgkamp 5
23701 Eutin
Phone: +49 45 21 78 35 3
Fax: +49 45 21 90 52
E-Mail: klahn@t-online.de

Berlin/Brandenburg

DS Partner für Messtechnik
Dipl.-Ing. Dieter Stoike
Kalmanweg 11 a
12355 Berlin
Phone.: +49 30 66 90 92 10
Fax: +49 30 66 90 92 11
Mobil: 0174 – 31 48 79 8

NRW

Joachim Palfrey
Techn. Betriebswirt HVVL
Hardtstraße 25
46282 Dorsten-Oestrich
Phone: +49 36 2 99 33 94
Fax: +49 36 2 99 33 95
Mobil: 0172-69 29 28 2

Thüringen/Sachsen

Andreas Wittig
Winkel 9
39365 Wormsdorf
Phone: +49 39 4 09 57 0
Fax: +49 39 4 09 74 29
Mobil: 0171-77 51 68 5
E-Mail:
wittig-werksvertretung@t-online.de

Hessen (Chemie)

Peter Wegjan
Dipl. Ing. Chemietechnik
Am Ziegelweiher 26
61130 Nidderau
Phone: +49 61 87 93 56 69
Fax: +49 61 87 93 56 70
Mobil: 0172-69 29 28 3
E-Mail: wegjan@perrin.de

Hessen (Ing. Office)

Rainer Göttgens
Nikolaus-Groß-Str. 20
45529 Hattingen
Phone.: +49 23 24 94 53 85
Fax: +49 23 24 94 53 86
Mobil: 0172-69 29 28 6
E-Mail: r.goettgens@perrin.de

Pfalz

Horst Lang GmbH
Voltastraße 18
67133 Maxdorf
Phone: +49 62 37 56 95
Fax: +49 62 37 39 39
E-Mail: ho.lang@t-online.de

Baden-Baden/Franken

CS_Flüssigkeitstechnik
Adersbacher Straße 40
74889 Sinsheim
Phone.: +49 72 61 97 14 80
Fax: +49 72 61 97 14 81
Mobil: 0177-29 74 33 6
E-Mail: info@cs-flutech.de

South Bavaria

Armaturenvertrieb Eichinger
Pergerstraße 8
84567 Perach
Phone: +49 86 70 98 67 67
Fax: +49 86 70 98 67 68
Mobil: 0171-6 33 00 55
E-Mail: a.v.e@t-online.de

Distribution-Partners in Europe

Austria (Linz)

*Armaturenvertrieb Eichinger
Pergerstraße 8*

D-84567 Perach

Phone: +49 86 70 98 67 67

Fax: +49 86 70 98 67 68

Mobil: 0171-6 33 00 55

E-Mail: a.v.e@t-online.de

Belgium

*Denver International N.V
Sint Antoniuslei 45*

B - 2930 Brasschaat

Phone: +32 3 66 54 03 2

Fax: +32 3 66 54 06 4

E-Mail:

denver.international@ping.be

Finnland

*OY FAGERBERG
PROCESS ARMATUR AB*

P.O. Box 42

SF - 04201 Kerava

Phone: +35 89 27 45 56 0

Fax: +35 89 27 45 56 10

E-Mail: fagerberg@fagerberg.fi

France

*PERRIN France
Chemin de Vignes 21*

F - 92380 Garches

Phone: +33 1 47 95 14 91

Fax: +33 1 47 41 62 74

E-Mail: perrin@wanadoo.fr

France (Lyon)

SNE Perrin

Emmanuel Ducelier

Le Vincent

F - 38440 Meyssies

Phone: +33 47 45 84 17 0

Fax: +33 47 45 84 17 1

E-Mail: sne.perrin@wanadoo.fr

Italy

Ivan Terkay

Via A. Grossich 2

I - 20131 Milano

Phone: +39 02 26 64 82 5

Fax: +39 02 26 64 82 5

Mobil: +39 33 58 01 41 26

E-Mail: ivntrk@tiscalinet.it

Luxemburg

Carl Spaeter,

Luxembourg S.à r.l.

6. rue Belle-Vue

L - 8013 Strassen

Phone: +35 2 31 70 70

Fax: +35 2 31 69 22

E-Mail: spaeter@pt.lu

Switzerland

PANATEC AG

Spittelstraße 18

CH - 8712 Stäfa

Phone: +41 19 28 14 00

Fax: +41 19 28 14 01

E-Mail: info@panatecag.ch

U.K

*Industrial Planners &
Constructors Ltd.*

Neptune Works, Uskway

GB - Newport South Wales

NP20 2SS

Phone: +44 16 33 25 05 11

Fax: +44 16 33 25 32 19

E-Mail: rav.charles@rowecord.com

Intercontinental Distribution-Partners

Australia

Metaval Consolidated Pty. Ltd.
P.O. Box 1093
Croydon, 3136

Phone: +61 3 97 61 40 00
Fax: +61 3 97 61 40 06
E-Mail:
controls@metaval.com.au

Brasil

ASVOTEC Termoinustrial Ltda.
Fernando Balester
Rod. Conego Cyriaco S. Pires,
S/No. KM01, 131900-000
Monte Mor - Sao Paulo - Brazil
Phone: +55 19 38 79 87 77 / 87 20
Fax: +55 19 38 79 21 79
E-Mail: comercial@asvotec.com.br

China Beijing

Advanced Controls Beijing Office
A901 Wuhua Building,
No. 4 Che Gong Zhuang Street
Xi Cheng District,
100044 Beijing, China
Phone: + 86 10 68 00 22 33
Fax: + 86 10 68 00 19 80
E-Mail:
Beijing@AdvancedControlsLtd.com

China Shanghai

Advanced Controls Shanghai Office
Unit 903, Huaxia Bank Plaza
No. 256, Pudong South Road
200120 Shanghai, China
Phone: + 86 21 511 509 88
Fax: + 86 21 511 509 89
E-Mail:
Shanghai@AdvancedControlsLtd.com

Iran

FARIS International Co.
Valiasr Ave., Sarve st., no. 74
Tehran 19689
IRAN

Phone: +98 21 87 87 81 7
Fax: +98 21 87 99 56 1
E-Mail: tavakoli@fraisintl.com

Malaysia

Advanced Controls (M) Sdn Bhd
Unit 1019,Block A Damansara Intan,
1,Jalan SS20/27,
47400 Malaysia

Phone: + 603 7877 3140
Fax: + 603 7877 3142
E-Mail:
Malaysia@AdvancedControlsLtd.com

Mexico

Maass Forjas de Mexico,
S.A. de C.V.
Norte 70-A N-5643
Bondojoito México D.F., 07850

Phone: +52 2 60 30 22 1
Fax: +52 5 76 08 52 4
E-Mail: maassf@avantel.net

Singapore

Advanced Controls Pte Ltd
Blk. 196, Pandan Loop,
06-13, Pantech Industrial Complex
128384 Singapore

Phone: + 65 67 79 51 00
Fax: + 65 67 79 54 00
E-Mail:
Sales@AdvancedControlsLtd.com

South Africa

ZIMMERMANN & JANSEN S.A.
(Pty.) Ltd., 11 Michelin Street
Vanderbuijlpark, 1900.
Tvl./South Africa

Phone: +27 16 98 6 01 59
Fax: +27 16 98 6 05 10
E-Mail: zandj@zandj.co.za

South Korea

DAEMIN INDUSTRIAL CO.
#108-1001 Doosan Bldg.
990 Dabsipri-dong,
Dongdaemun-gu, Seoul, Korea

Phone: +82 2 33 94 78 86
Fax: +82 2 33 94 78 87
E-Mail: iwking@hanmir.com

Taiwan

CROESUS INDUSTRIAL CORP.
P.O. Box 68-463
Taipei / Taiwan

Phone: +886 2 25 57 99 55
Fax: +886 2 25 57 99 59
E-Mail:croesus9@ms35.hinet.net

United Arabian Emirates

ARAB DEVELOPMENT Est.
P.O.Box 2761
Abu Dhabi / U.A.E.

Phone: +971 2 6 44 73 73
Fax: +971 2 6 44 44 06 6
E-Mail:
george.thomas@emiratesholdings.com