

# SUN WP

2-PIECE BALL VALVE—FULL BORE

## MAIN STANDARD FEATURES

- CONSTRUCTION: AISI 316
- CERTIFICATIONS: DVGW for gas  
TÜV for TA Luft
- DIAMETER: from DN10 - 3/8" to DN 50 - 2"
- PRESSURES: from 160 BAR to 40 BAR
- TEMPERATURE LIMITS: from -20°C to +150°C
- ISO 5211 mounting plate
- BLOW-OUT PROOF stem from 3/4" to 2"
- CONNECTIONS: F/F UNI-ISO 7/1 Rp – DIN 2999 parallel  
M/F (male UNI-ISO 7/1 R taper, female parallel)
- WRAPPING SEATS
- TRIPLE stem-packing with labyrinth effect and automatic adjustment by Belleville washers
- NON-WETTED parts in stainless steel
- OPERATION devices: lever
- Tested for vacuum 1-10<sup>-3</sup> STD CC/SEC



DVGW GAS  
APPROVED

## STANDARD PART NUMBERS

**Art. 2551**  
female/female

**Art. 2552**  
male/female

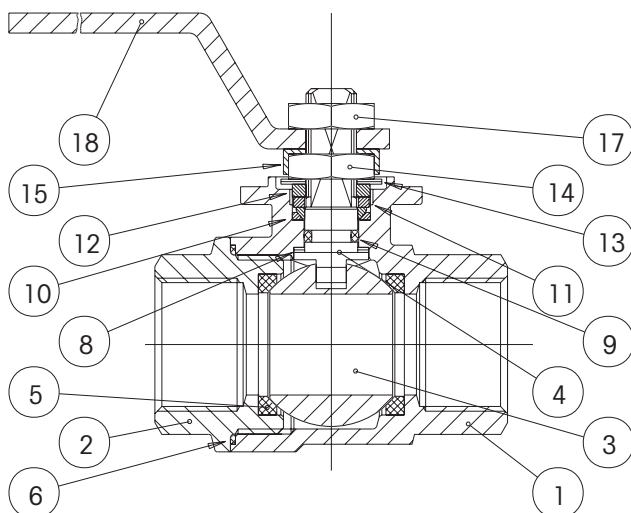
## SPECIAL EXECUTIONS

- 15% GLASS-FILLED PTFE. Temperature limits -20°C + 175°C
- PTFE+CARBOGRAPHITE: use up to 195°C, for steam up to 180°C
- FEMALE CONNECTIONS: NPT ANSI B1.20.1
- Stems with antistatic device from 3/4" to 2"
- Degreased version
- SUNNY WP valve (SUN WP polished)
- On request the valve is available with ATEX certificate (from 3/4" to 2")
- For further special requests please consult our technical/commercial service

## GENERAL APPLICATIONS

Use as an ON-OFF valve for: chemical products, for water and pneumatic installations, gas, water, vacuum. For steam within limited working conditions and with special seals. All parts have to be adequately degreased if the valves have to be used for oxygen.

For special utilizations ascertain the compatibility with process features and the corrosion resistance also by the relevant table.

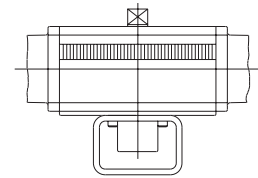
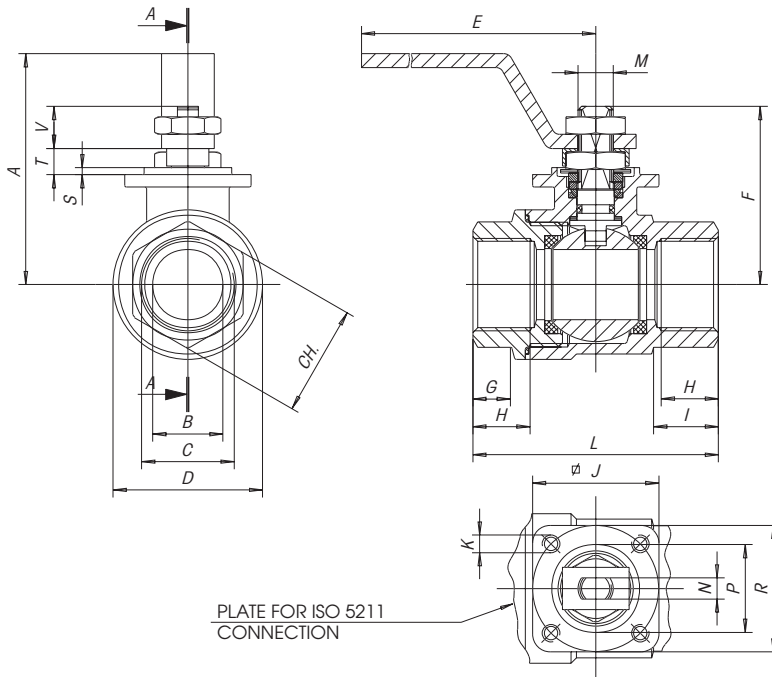


## LIST OF COMPONENTS AND MATERIALS

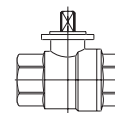
REF.	PART	MATERIAL	DIN MAT.	QTY
1	BODY	AISI 316	1.4408	1
2	FEMALE END	AISI 316	1.4408	1
3	BALL	AISI 316	1.4401	1
4	STEM	AISI 316	1.4401	1
5	SEAT	PTFE	-	2
6	SIDE SEALING RING	PTFE	-	1
8	UPPER SEALING RING	PTFE	-	2
9	STEM O-RING	VITON	-	1
10	UPPER SEALING COUPLE	PTFE	-	1
11	PACKING GLAND	AISI 304	1.4301	1
12	OPERATION STOP	AISI 304	1.4301	1
13	BELLEVILLE WASHERS	AISI 301	1.4310	2
14	STEM RETAINING NUT	AISI 304	1.4301	1
15	FIXING NUT PLATE	AISI 304	1.4301	1
17	LOCKING NUT	AISI 304	1.4301	1
18	LEVER HANDLE	AISI 304	1.4301	1

# SUN WP

## 2-PIECE BALL VALVE—FULL BORE



By removing the lever handle, the SUN WP valve can be directly mounted on an actuator by the special bracket with screws, the stem adapter and by replacing the operation stop (part 12) of the valve (kit supplied upon request).



C (inch)	A	B	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T	V	hex. key	oct. key	ISO conn.	weight in gr MF	weight in gr MF
3/8"	52	10	29	110	37	8.5	11.4	13.5	36	M5	50	M8	4	25	36	2	6	9.5	21.5	-	F03	250	235
1/2"	55	15	34	110	42	10	15	18	36	M5	60	M8	4	25	36	2	6	9.5	26.5	-	F03	350	315
3/4"	66	20	42.5	140	52	11.5	16.3	18	36	M5	70	M10	6	25	36	2	7.5	12	31.5	-	F03	565	510
1"	70	25	50.5	140	56	14	19.1	27.5	36	M5	85	M10	6	25	36	2	7.5	12	40.5	-	F03	855	765
1 1/4"	85	32	63	180	68	15.5	21.4	28.5	42	M5	95	M12	8	30	42	3	9.5	13.5	-	49.5	F04	1395	1270
1 1/2"	91	40	75.5	180	74	18.5	21.4	23	42	M5	105	M12	8	30	42	3	9.5	13.5	-	54.5	F04	1945	1810
2"	105	50	91	230	87	22.5	25.7	35	50	M6	125	M16	10	35	50	3	11.3	17.8	-	69.5	F05	3320	3160

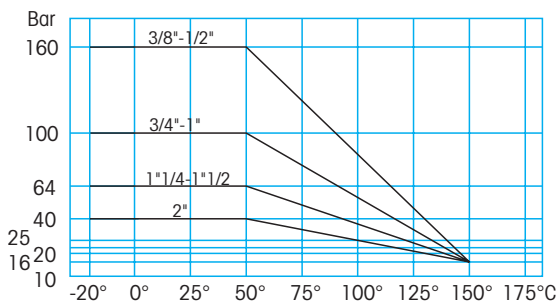
### BREAKAWAY TORQUES in Nm

PN - bar	DN size	10	15	20	25	32	40	50
		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
0		1.6	3.2	3.6	4.6	11.5	19	27.5
16		1.8	4.3	4.9	5.9	15	24	38
40		2.5	5.1	6	6.9	16.7	28.6	42
64		3.2	5.6	6.8	8	18.4	32	
100		3.8	6.5	8.5	10			
160		5	8					

The values in Nm may vary as a function of the seals material, temperature and type of medium. For a firm operation of the various types of actuators, in the different working conditions it is necessary to consider a safety factor of 1.5. During operation, with frequent open and close cycles, the operating torque can decrease considerably in comparison with the initial breakaway torque.

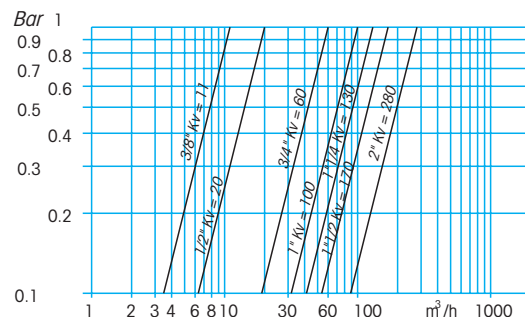
### PRESSURE/TEMPERATURE DIAGRAM

At each pressure level corresponds the admissible temperature level.



### LOSS OF HEAD DIAGRAM/FLOW RATE

The Kv value is the flow rate causing a pressure drop of 1 bar



# SUN WP

2-PIECE BALL VALVE - FULL BORE WITH DOUBLE ACTING PNEUMATIC ACTUATOR

## ACTUATOR FEATURES

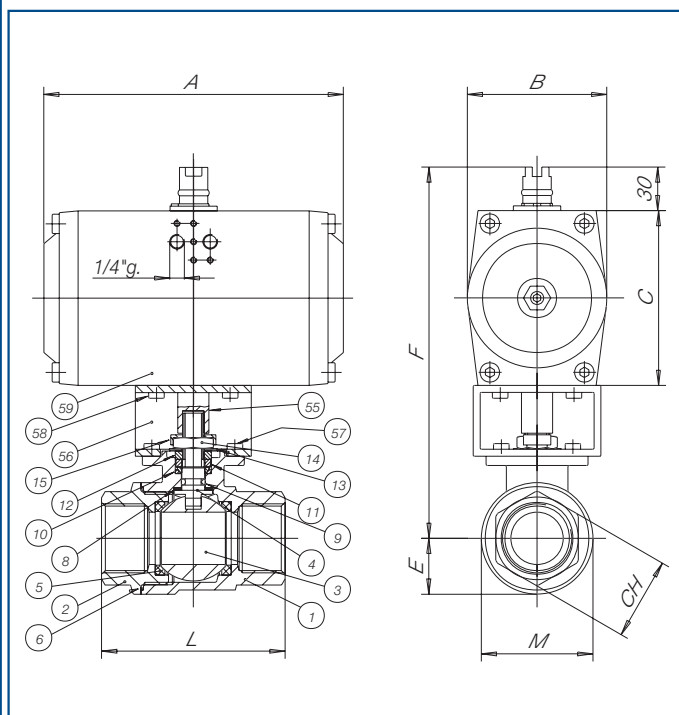
- Rotation angle: 90°
- Standard version for temperature between -20°C and + 90°C
- Supply maximum pressure: 10 bar (8bar for DNA045)
- Nominal pressure: 5,62 bar
- Supply medium: dry filtered compressed air, not necessarily lubricated
- Lubrication: in such a case use a non-detergent or NBR compatible oil

## STANDARD VALVE FEATURES

- Working temperature: from -20°C to +150°C
- Maximum working pressure with actuator: from 160 bar to 40 bar
- CONNECTIONS: F/F UNI-ISO 7/1 Rp - DIN 2999 parallel  
M/F (male UNI-ISO 7/1 R taper, female parallel)
- BLOW-OUT PROOF stem from 3/4" to 2"
- ISO 5211 mounting plate
- For general applications and special versions see technical table of manual valve
- In the below table the part number and the valve code refer to the standard valve female/female



SIZE	PART NUMBER	weight in gr.	A	B	C	E	F	CH hexa.	CH octo.	L	M	ACTUATOR code	VALVE code	MOUNTING KIT code
3/8"	D31AA20300	808	110	53	68	14.5	157.5	21.5	-	50	29	DNA045AZ00	V400H203	K1GA0003
1/2"	D31AA20400	895	110	53	68	17	162.5	26.5	-	60	34	DNA045AZ00	V400H204	K1GA0003
3/4"	D31AA20500	1110	110	53	68	21.5	168.5	31.5	-	70	42.5	DNA045AZ00	V400H205	K1GA0105
1"	D31AA20600	1720	127	59	74	25.5	188.5	40.5	-	85	50.5	DGA052AX00	V400H206	K1GA0206
1 1/4"	D31AA20700	2880	133	70	88	31.5	220	-	49.5	95	63	DGA063AX00	V400H207	K1GA0207
1 1/2"	D31AA20800	4135	132	83	100	38	238	-	54.5	105	75.5	DGA075AX00	V400H208	K1GA0208
2"	D31AA20900	5620	132	83	100	46	245	-	69.5	125	91	DGA075AX00	V400H209	K1GA0009



## LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	QTY	MATERIAL
1	BODY	1	AISI 316
2	FEMALE END	1	AISI 316
3	BALL	1	AISI 316
4	STEM	1	AISI 316
5	SEAT	2	PTFE
6	SIDE SEALING RING	1	PTFE
8	UPPER SEALING RING	1	PTFE
9	STEM O-RING	1	VITON
10	UPPER SEALING COUPLE	1	PTFE
11	PACKING GLAND	1	AISI 304
12	WASHER	1	AISI 304
13	BELLEVILLE WASHERS	2	AISI 301
14	STEM RETAINING NUT	1	AISI 304
15	FIXING NUT PLATE	1	AISI 304
55	ACTUATOR SHAFT	1	C.S.
56	BRACKET	1	C.S.
57	BRACKET/VALVE SCREW	4	8.8
58	BRACKET/ACTUATOR SCREW	4	8.8
59	ACTUATOR	1	

For accessories see relevant catalogue sheet

# SUN WP

2-PIECE BALL VALVE - FULL BORE WITH SPRING RETURN PNEUMATIC ACTUATOR

## ACTUATOR FEATURES

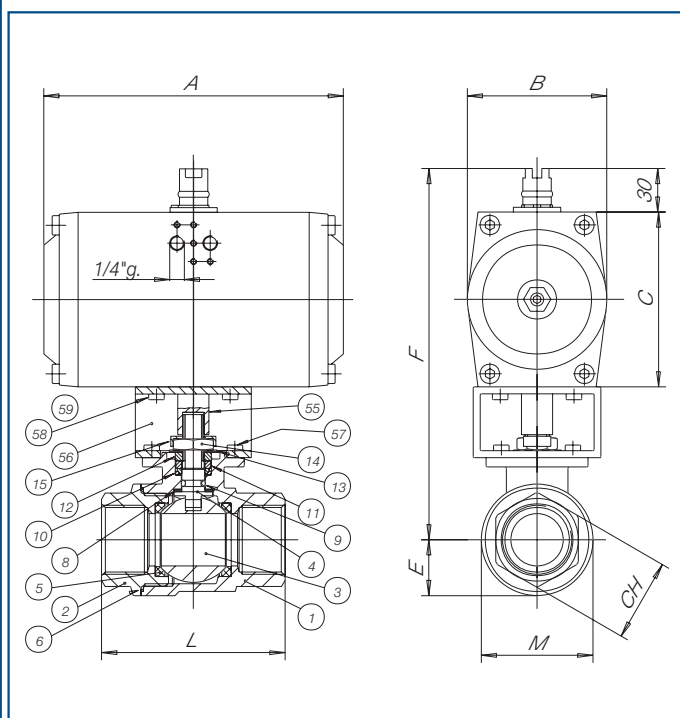
- Rotation angle: 90°
- Standard version for temperature between -20°C and + 90°C
- Supply maximum pressure: 10 bar (8bar for SNA045)
- Nominal pressure: 5,62 bar
- Supply medium: dry filtered compressed air, not necessarily lubricated
- Lubrication: in such a case use a non-detergent or NBR compatible oil
- STANDARD: **SPRING CLOSES/AIR OPENS**, clockwise automatic closing

## STANDARD VALVE FEATURES

- Temperature limits: from -20°C to +150°C
- Maximum working pressure with actuator: from 160 bar to 40 bar
- CONNECTIONS: F/F UNI-ISO 7/1 Rp – DIN 2999 parallel  
M/F (male UNI-ISO 7/1 R taper, female parallel)
- BLOW-OUT PROOF stem from 3/4" to 2"
- ISO 5211 mounting plate
- For general applications and special versions see technical table of manual valve
- In the below table the part number and the valve code refer to the standard valve female/female



SIZE	PART NUMBER	weight in gr.	A	B	C	E	F	CH hexd.	CH octo.	L	M	ACTUATOR code	VALVE code	MOUNTING KIT code
3/8"	S31AA20300	880	110	53	68	14.5	157.5	21.5	-	50	29	SNA0452W00	V400H203	K1GA0003
1/2"	S31AA20400	1375	127	59	74	17	178.5	26.5	-	60	34	SGA0524X00	V400H204	K1GA0204
3/4"	S31AA20500	1590	127	59	74	21.5	184.5	31.5	-	70	42.5	SGA0524X00	V400H205	K1GA0205
1"	S31AA20600	2475	133	70	88	25.5	202.5	40.5	-	85	50.5	SGA0634X00	V400H206	K1GA0306
1 1/4"	S31AA20700	3800	132	83	100	31.5	232	-	49.5	95	63	SGA0754X00	V400H207	K1GA0307
1 1/2"	S31AA20800	6000	203	100	117	38	255	-	54.5	105	75.5	SGA0924X00	V400H208	K1GA0208
2"	S31AA20900	9490	222	120	140	46	285	-	69.5	125	91	SGA1104X00	V400H209	K1GA0109



## LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	QTY	MATERIAL
1	BODY	1	AISI 316
2	FEMALE END	1	AISI 316
3	BALL	1	AISI 316
4	STEM	1	AISI 316
5	SEAT	2	PTFE
6	SIDE SEALING RING	1	PTFE
8	UPPER SEALING RING	1	PTFE
9	STEM O-RING	1	VITON
10	UPPER SEALING COUPLE	1	PTFE
11	PACKING GLAND	1	AISI 304
12	WASHER	1	AISI 304
13	BELLEVILLE WASHERS	2	AISI 301
14	STEM RETAINING NUT	1	AISI 304
15	FIXING NUT PLATE	1	AISI 304
55	ACTUATOR SHAFT	1	C.S.
56	BRACKET	1	C.S.
57	BRACKET/VALVE SCREW	4	8.8
58	BRACKET/ACTUATOR SCREW	4	8.8
59	ACTUATOR	1	

For accessories see relevant catalogue sheet

# SUNNY

## 2-PIECE BALL VALVE—FULL BORE

### MAIN STANDARD FEATURES

- CONSTRUCTION: AISI 316
- DIAMETER: from DN08 - 1/4" to DN 50 - 2"
- PRESSURES: from 100 BAR to 40 BAR
- TEMPERATURE LIMITS: from -20°C to +150°C
- BLOW-OUT PROOF stem
- CONNECTIONS: F/F UNI-ISO 7/1 Rp – DIN 2999 parallel  
M/F (male UNI-ISO 7/1 R taper, female parallel)
- WRAPPING SEATS
- TRIPLE stem-packing with labyrinth effect and automatic adjustment by Belleville washers
- NON-WETTED parts in stainless steel
- OPERATION devices: lever or T-handle
- Tested for vacuum: 1-10<sup>-3</sup> STD CC/SEC



### STANDARD PART NUMBERS

#### Art. 2621

female/female w/lever

#### Art. 2622

male/female w/lever

#### Art. 2631

female/female w/T-handle up to 1"

#### Art. 2632

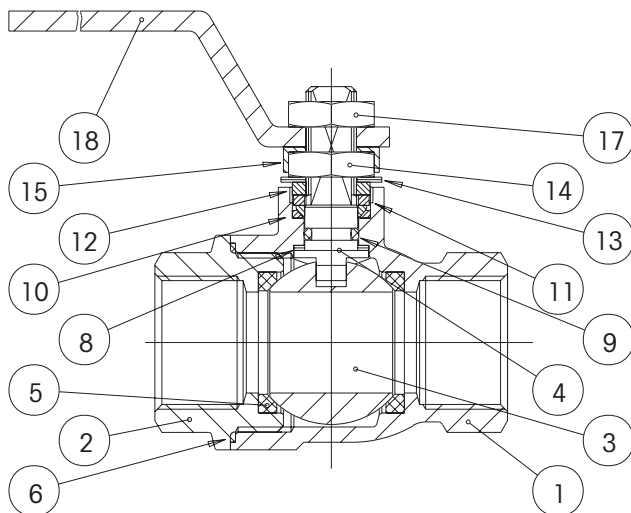
male/female w/T-handle up to 1"

### SPECIAL EXECUTIONS

- 15% GLASS-FILLED PTFE. Temperature limits -20°C + 175°C
- PTFE+CARBOGRAPHITE: use up to 195°C, for steam up to 180°C
- FEMALE CONNECTIONS: NPT ANSI B1.20.1
- Stems with antistatic device from 3/4" to 2"
- Degreased version
- Available also in SUNNY WP version, obtained from SUN WP series
- On request the valve is available with ATEX certificate (from 3/4" to 2")

### GENERAL APPLICATIONS

Use as an ON-OFF valve for: chemical, sanitation and food products, for water and pneumatic installations, gas, water, vacuum. For steam within limited working conditions and with special seals. All parts have to be adequately degreased if the valves have to be used for oxygen. For special utilizations ascertain the compatibility with process features and the corrosion resistance also by the relevant table.

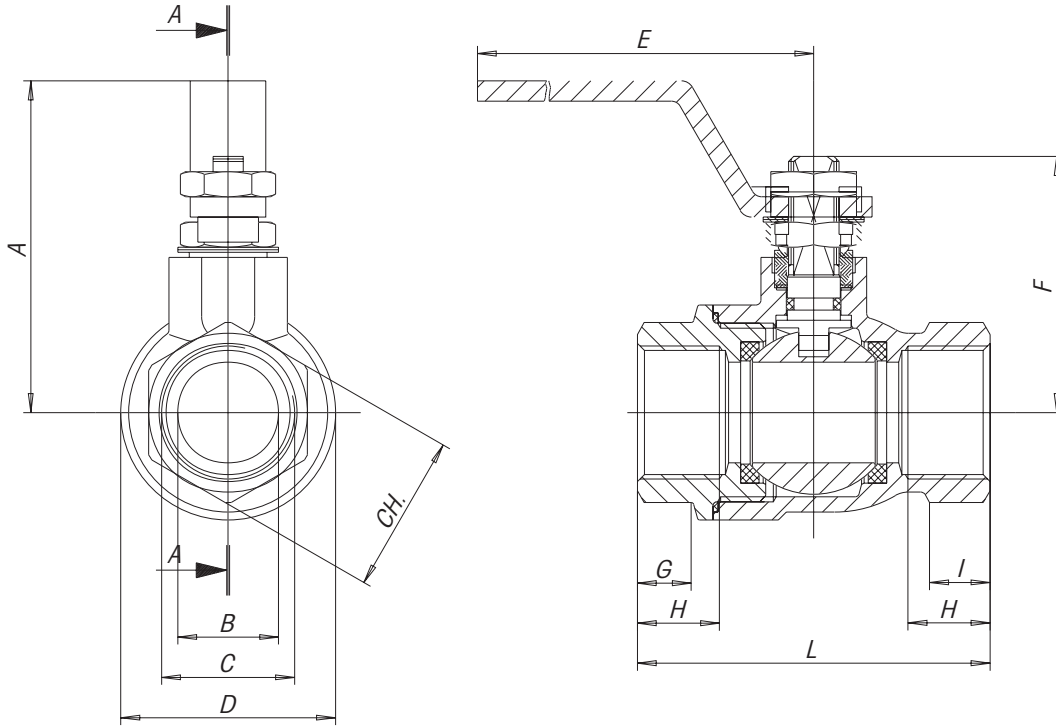


### LIST OF COMPONENTS AND MATERIALS

REF.	PART	MATERIAL	DIN MAT.	QTY
1	BODY	AISI 316	1.4408	1
2	FEMALE END	AISI 316	1.4408	1
3	BALL	AISI 316	1.4401	1
4	STEM	AISI 316	1.4401	1
5	SEAT	PTFE	-	2
6	SIDE SEALING RING	PTFE	-	1
8	UPPER SEALING RING	PTFE	-	2
9	STEM O-RING	VITON	-	1
10	UPPER SEALING COUPLE	PTFE	-	1
11	PACKING GLAND	AISI 304	1.4301	1
12	OPERATION STOP	AISI 304	1.4301	1
13	BELLEVILLE WASHERS	AISI 304	1.4301	2
14	STEM RETAINING NUT	AISI 304	1.4301	1
15	FIXING NUT PLATE	AISI 304	1.4301	1
17	LOCKING NUT	AISI 304	1.4301	1
18	LEVER HANDLE	AISI 304	1.4301	1

# SUNNY

## BALL VALVE—REDUCED BORE



C (inch)	A	B	D	E	F	G	H	I	L	hex. key	oct. key	weight in gr MF	weight in gr F/F
1/4"	52	8	29	110	37	8.5	11.4	8	50	21.5	-	230	220
3/8"	52	10	29	110	37	8.5	11.4	8	50	21.5	-	230	205
1/2"	55	15	34	110	42	10	15	9.5	60	26.5	-	315	275
3/4"	66	20	42.5	140	52	11.5	16.3	11.5	70	31.5	-	535	465
1"	70	25	50.5	140	56	14	19.1	13.5	85	40.5	-	805	710
1 1/4"	85	32	63	180	68	15.5	21.4	16	95	-	49.5	1320	1180
1 1/2"	91	40	75.5	180	74	18.5	21.4	16	105	-	54.5	1875	1740
2"	105	50	91	230	87	22.5	25.7	23.5	125	-	69.5	3130	2930

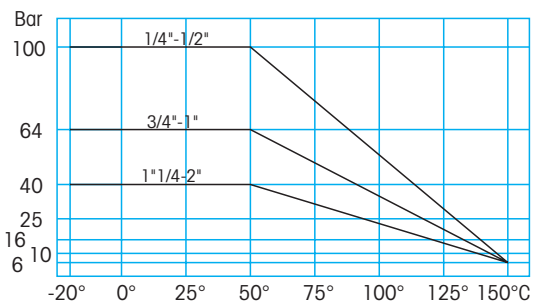
### BREAKAWAY TORQUES in Nm

PN - bar	DN size	10	15	20	25	32	40	50
		1/4-3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
0		1.6	3.2	3.6	4.6	11.5	19	27.5
16		1.8	4.3	4.9	5.9	15	24	38
40		2.5	5.1	6	6.9	16.7	28.6	42
64		3.2	5.6	6.8	8			
100		3.8	6.5					

The values in Nm may vary as a function of the seals material, temperature and type of medium. For a firm operation of the various types of actuators, in the different working conditions it is necessary to consider a safety factor of 1.5. During operation, with frequent open and close cycles, the operating torque can decrease considerably in comparison with the initial breakaway torque.

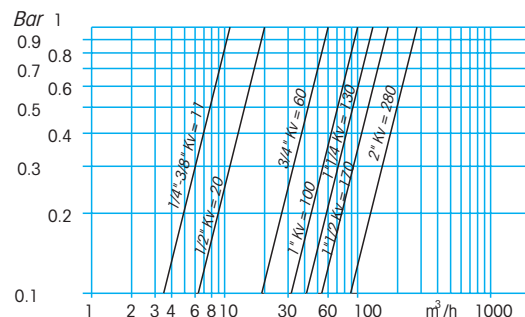
### PRESSURE/TEMPERATURE DIAGRAM

At each pressure level corresponds the admissible temperature level.



### LOSS OF HEAD DIAGRAM/FLOW RATE

The Kv value is the flow rate causing a pressure drop of 1 bar



# TRISTAR

3-WAY BALL VALVE—FULL BORE

## MAIN STANDARD FEATURES

- CONSTRUCTION: AISI 316
- DIAMETER: from DN10 - 3/8" to DN 50 - 2"
- PRESSURES: from PN 40 to PN 25
- TEMPERATURE LIMITS: from -20°C to +160°C
- CONNECTIONS: F/F UNI-ISO 7/1 Rp – DIN 2999 parallel
- WRAPPING seats
- NON - WETTED parts in stainless steel
- OPERATION devices: lever handle
- TRIPLE stem-packing with labyrinth effect
- BALL: "L" bored  
"T" bored
- 90° lever rotation clockwise



## STANDARD PART NUMBERS

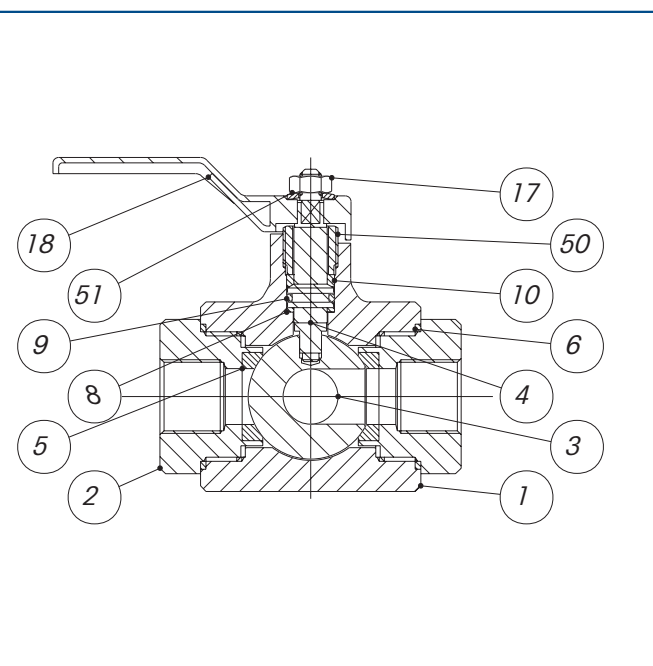
- Art. 2831** female/female with "L" bored ball  
**Art. 2851** female/female with "T" bored ball

## SPECIAL EXECUTIONS

- Female connections: NPT ANSI B1.20.1
- 15% GLASS-FILLED PTFE. Temperature limits -20°C + 175°C
- PTFE+CARBOGRAPHITE: temperature limits -20°C + 195°C
- Degreased version
- ISO 5211 mounting plate for actuator
- Valve for pneumatic actuator
- Different flow combinations obtainable by removing the lever and rotating the stem in order to position the ball as requested during installation (the valve is supplied in the standard version)
- For further special requests please consult our technical/commercial service

## GENERAL APPLICATIONS

Use as an ON-OFF valve for: diversion or mixing of fluids and gases in chemical plants, food, HEVAC and water plants. All parts have to be adequately degreased if the valves have to be used for oxygen. For special utilizations ascertain the compatibility with process features and the corrosion resistance also by the relevant table.

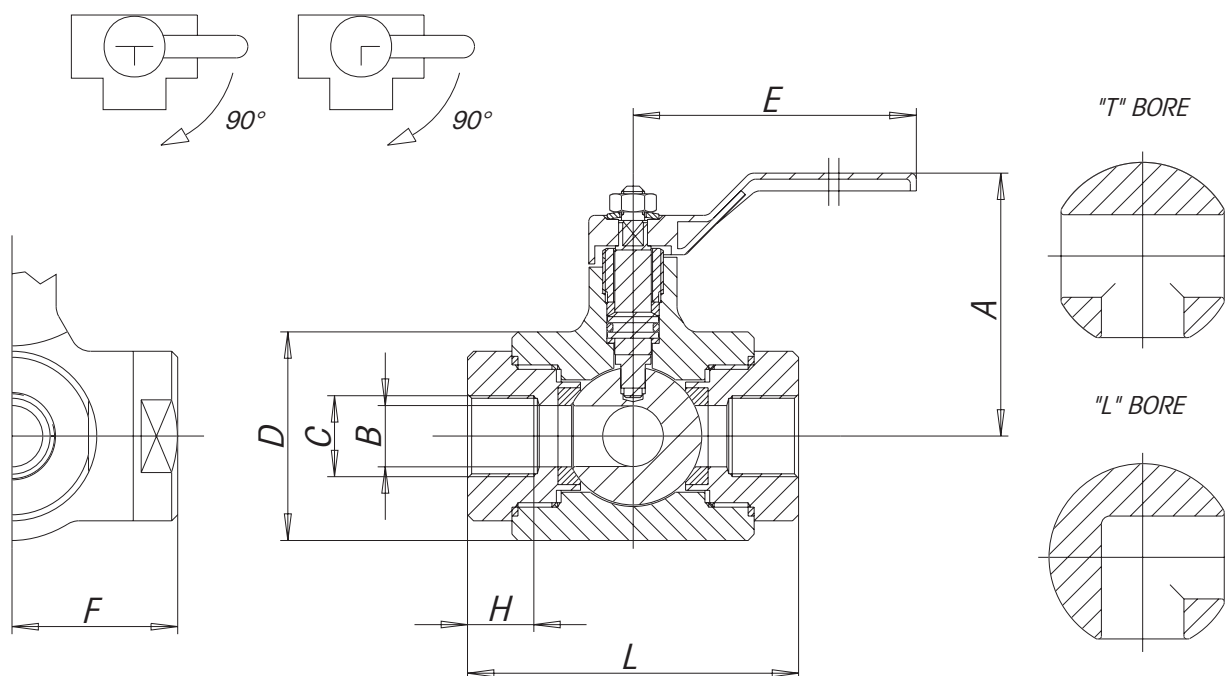


## LIST OF COMPONENTS AND MATERIALS

REF.	PART	MATERIAL	DIN MAT.	QTY
1	BODY	AISI 316	1.4401	1
2	FEMALE END	AISI 316	1.4401	1
3	BALL	AISI 316	1.4401	1
4	STEM	AISI 316	1.4401	1
5	SEAT	PTFE	-	4
6	SIDE SEALING RING	PTFE	-	3
8	UPPER SEALING RING	PTFE	-	1
9	STEM O-RING	VITON	-	1
10	UPPER SEALING COUPLE	PTFE	-	1
17	LOCKING NUT	AISI 304	1.4301	1
18	LEVER HANDLE	AISI 304	1.4301	1
50	THREADED GLAND	AISI 303	1.4305	1
51	WASHER	AISI 304	1.4301	1

# TRISTAR

3-WAY BALL VALVE—FULL BORE



C (Inch)	A	B	D	E	F	H	L	weight in gr. FF
3/8"	77	12	45	126	36	-	72	1000
1/2"	82	15	52	126	41	15	82	1200
3/4"	85	20	60	148	46	16.3	92	1900
1"	95	25	70	148	51	19.1	102	2500
1 1/4"	115	32	85	180	59	21.4	118	4300
1 1/2"	130	40	100	180	67	21.4	134	6600
2"	140	50	110	185	72	25.7	144	8000

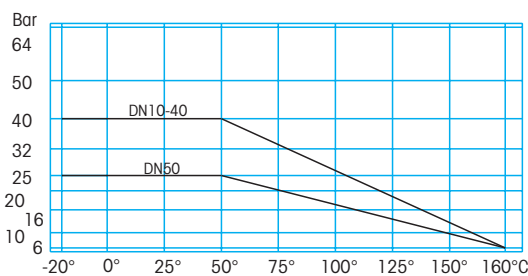
## BREAKAWAY TORQUES in Nm

PN - bar	DN size	10 3/8"	15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"
	0	10	12	23	25	33	40	50
25	12.2	15.5	29.5	29	40.5	46	60	
40	14	18	32.5	31	43	48		

The values in Nm may vary as a function of the seals material, temperature and type of medium. For a firm operation of the various types of actuators, in the different working conditions it is necessary to consider a safety factor of 1.5. During operation, with frequent open and close cycles, the operating torque can decrease considerably in comparison with the initial breakaway torque.

## PRESSURE/TEMPERATURE DIAGRAM

At each pressure level corresponds the admissible temperature level.





# MOON AISI 316

WAFER BALL VALVE – FULL BORE

## MAIN STANDARD FEATURES

- CONSTRUCTION: AISI 316
- General prescriptions: BS 5351
- Certifications: FIRE SAFE to: BS 6755 - API 6 FA - API 607  
DVGW for gas  
TÜV for TA Luft
- DIAMETER: from DN 15- to DN 100  
(for DN 100 to DN 200 see SELENE valve)
- PRESSURES: PN 16/40 from DN 15 to DN 32 body machined from bar  
PN 16 from DN 40 to DN 100 body from casting
- TEMPERATURE LIMITS: from -20°C to +180°C
- CONNECTIONS with flanges: UNI 2223-2229 and DIN 2501 BL. 1
- FLANGE DRILLING: METRIC
- With contained ball up to DN25
- BLOW-OUT PROOF stem with antistatic device (from DN40)
- WRAPPING SEATS
- TRIPLE stem-packing with labyrinth effect and automatic adjustment by Belleville washers
- ISO 5211 mounting plate for actuators
- NON-WETTED parts in stainless steel
- OPERATION device: lever handle

## SPECIAL EXECUTIONS

- 15% GLASS-FILLED PTFE with temperature limits -20°C + 195°C
- PTFE+CARBOGRAPHITE with temperature limits -20°C + 210°C
- Integral seats in PTFE from DN15 to DN100
- From DN 40 to DN 100 PN 25/40 from bar
- From 1/2" to 4" ANSI 150: through drilled flanges
- Reduction gear with manual operation
- Stem extensions: 50 mm or 100 mm
- Yellow lever handle for gas
- Heating jacket (see MOON CR series)
- Drilled ball and unidirectional valve
- Degreased version
- Antistatic device from DN15 to DN32
- On request the valve is available with ATEX certificate
- For further special requests please consult our technical/commercial service



DVGW GAS  
APPROVED

## STANDARD PART NUMBERS

Art. 2871

standard

## GENERAL APPLICATIONS

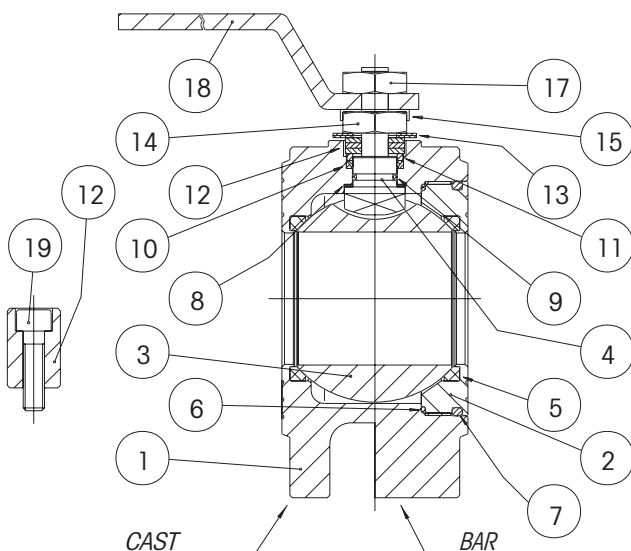
Use as an ON-OFF valve for: chemical products, food plants, distribution lines for gas, air, water. Suitable for vacuum  $1 \cdot 10^{-3}$  STD CC, steam up to +195°C with PTFE+CARBOGRAPHITE and for industrial installations in general.

Thanks to its reduced face to face dimensions and its intrinsic features it offers wide applications in new projects also as an alternative to the split body valve.

For special utilizations ascertain the compatibility with process features and the corrosion resistance also by the relevant table.

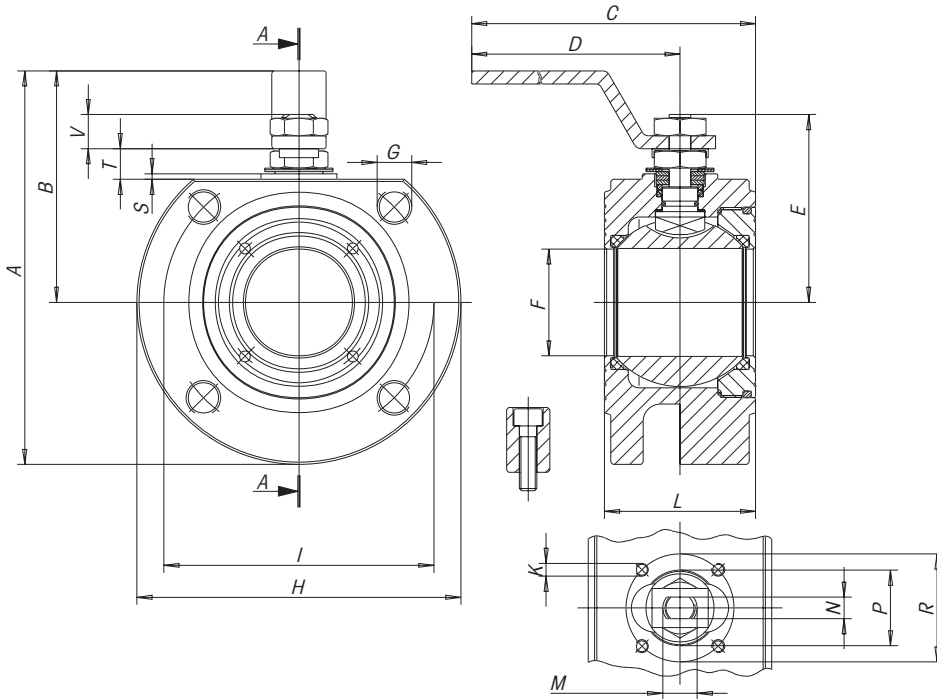
## LIST OF COMPONENTS AND MATERIALS

REF.	PART	MATERIAL	DIN MAT.	QTY
1	BODY	AISI 316/CF8M	1.4408/1.4401	1
2	THREADED LOCKING RING	AISI 316	1.4401	1
3	BALL	AISI 316	1.4401	1
4	STEM	AISI 316	1.4401	1
5	SEAT	PTFE		2
6	SIDE SEALING RING	PTFE		1
7	O-RING	NBR		1
8	UPPER RING	PTFE		2
9	STEM O-RING	VITON		1
10	UPPER SEALING COUPLE	PTFE		1
11	PACKING GLAND	AISI 304	1.4301	1
12	OPERATION STOP	S.S.		1
13	BELLEVILLE WASHERS	50CrV4		2
14	STEM RETAINING NUT	S.S.		1
15	FIXING NUT PLATE	AISI 304	1.4301	1
17	LOCKING NUT	S.S.		1
18	LEVER HANDLE	S.S.		1
19	OPERATION STOP SCREW	S.S.		1



# MOON AISI 316

WAFER BALL VALVE - FULL BORE

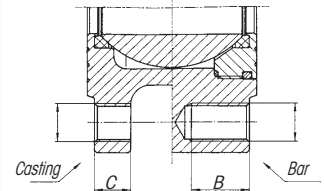


**FLANGE DRILLINGS UNI2223-67**

SIZE	A	B (PN40)	C (PN16)
DN15	M12	14	0
DN20	M12	16	0
DN25	M12	16	0
DN32	M16	18	0
DN40	M16	18	13
DN50	M16	18	15
DN65	M16	20	15
DN80	M16	24	17
DN100	M16	20	17
DN100	M20	24	0

**FLANGE DRILLINGS ANSI 150**

SIZE	A	B (PN40)	C (PN16)
DN15	1/2"	13	0
DN20	1/2"	14	0
DN25	1/2"	16	0
DN32	1/2"	17	0
DN40	1/2"	19	0
DN50	5/8"	20	(*) 16.4 (17.4)
DN65	5/8"	24	(*) 16.4 (20.6)
DN80	5/8"	24	(*) 18.4 (22.2)
DN100	5/8"	24	(*) 18.4 (22.2)



SIZE	A	B	C	D	E	F	G	H	K	I	L	M	N	P	R	S	T	V	N. Holes	PN	ISO	Weight in gr.
DN15	110	65	160	140	48	15	M12	90	M5	65	35	M10	6	25	36	2	8	9	4	40	F03	1345
DN20	120	70	160	140	51	20	M12	100	M5	75	38	M10	6	25	36	2	8	9	4	40	F03	1810
DN25	137	82	200	180	62.5	25	M12	110	M5	85	43	M12	8	30	42	2	11.5	11.5	4	40	F04	2505
DN32	150	85	205	180	67	32	M16	130	M5	100	50	M12	8	30	42	2	9.5	11.5	4	40	F04	3995
DN40	172	102	260	230	80	40	M16	140	M6	110	60	M16	10	35	50	2.5	14	16	4	16	F05	4190
DN50	185	110	265	230	87	50	M16	165	M6	125	70	M16	10	35	50	2.5	14	16	4	16	F05	5790
DN65	225	137.5	400	350	119.5	65	M16	185	M8	145	95	M22	14	55	70	3	18.7	20.8	4	16	F07	10200
DN80	245	150	410	350	129.5	78	M16	200	M8	160	118	M22	14	55	70	3	18.7	20.8	8	16	F07	13700
DN100	275	165	580	508	148.5	96	M16	220	M10	180	140	M27	16	70	102	3	22.2	25.3	8	16	F10	20000

For DN 125 to DN 200 see "SELENE" split body wafer valve

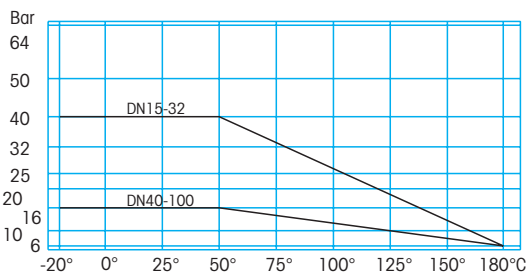
**BREAKAWAY TORQUES in Nm**

PN - bar	DN size	15	20	25	32	40	50	65	80	100
0		4	7	10	16	25	35	55	75	150
16		4.8	8.5	11.3	19	28	39	59	84.5	168
25		5.2	9.1	12	20.5	29.5	41.5	62.5	92	180
40		6	10.5	13	22.5	31.5	44	67	99	195

The values in Nm may vary as a function of the seals material, temperature and type of medium. For a firm operation of the various types of actuators, in the different working conditions it is necessary to consider a safety factor of 1.5. During operation, with frequent open and close cycles, the operating torque can decrease considerably in comparison with the initial breakaway torque.

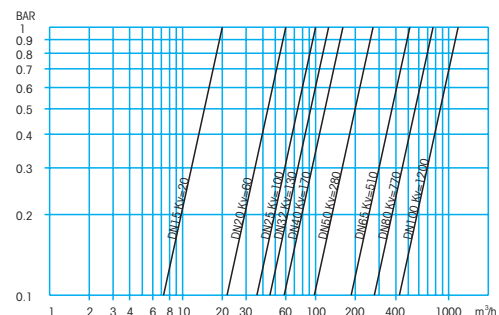
**PRESSURE/TEMPERATURE DIAGRAM**

At each pressure level corresponds the admissible temperature level.



**LOSS OF HEAD DIAGRAM/FLOW RATE**

The Kv value is the flow rate causing a pressure drop of 1 bar



# MOON AISI 316

WAFER BALL VALVE – FULL BORE WITH **DOUBLE ACTING PNEUMATIC ACTUATOR**

## ACTUATOR FEATURES

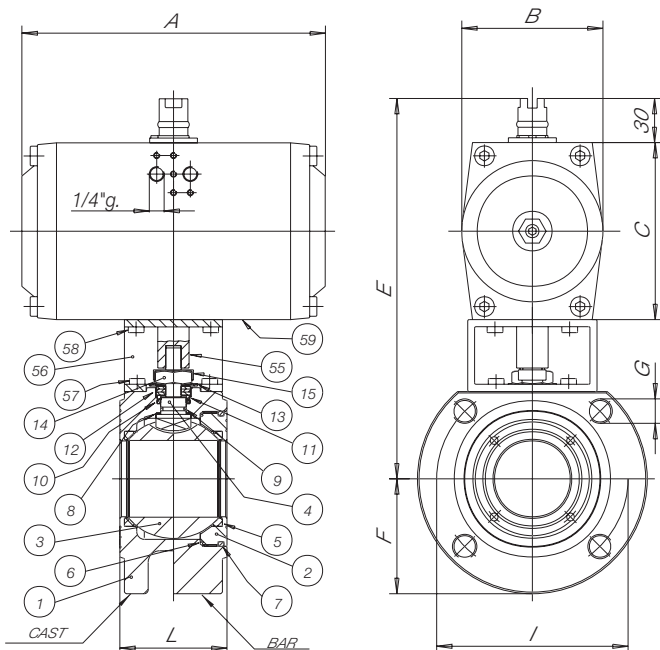
- Rotation angle: 90°
- Standard version for temperature between -20°C and + 90°C
- Supply maximum pressure: 10 bar (8bar for DNA045)
- Nominal pressure: 5,62 bar
- Supply medium: dry filtered compressed air, not necessarily lubricated
- Lubrication: in such a case use a non-detergent or NBR compatible oil

## STANDARD VALVE FEATURES

- General prescriptions: BS 5351, Fire safe BS 6755-API 6 FA- API 607
- Working temperature: from -20°C to +180°C
- Maximum working pressure with actuator: **PN 16** (PN 25 and 40 on request)
- CONNECTIONS with flanges: UNI 2223-2229 AND DIN 2501 BL.1
- FLANGE DRILLING: METRIC
- BLOW-OUT PROOF stem with antistatic device
- For general applications and special versions see technical table of manual valve
- In the below table the part number and the valve code refer to the standard valve **PN 16** and **PN 40** where applicable



SIZE	PART NUMBER	weight in gr.	A	B	C	E	F	G	I	L	PN	ACTUATOR code	VALVE code	MOUNTING KIT code
DN15	D41AA60400	1880	110	53	68	167	45	M12	65	35	40	DNA045AZ00	V415X604	K1GA0004
DN20	D41AA60500	2360	110	53	68	170	50	M12	75	38	40	DNA045AZ00	V415X605	K1GA0004
DN25	D41AA60600	3370	127	59	74	202	55	M12	85	43	40	DGA052AX00	V415X606	K1GA0006
DN32	D41AA60700	5450	133	70	88	222	65	M16	100	50	40	DGA063AX00	V415X607	K1GA0007
DN40	D41AA60800	7640	132	83	100	238	70	M16	110	60	16	DGA075AX00	V415X608	K1GA0008
DN50	D41AA60900	10000	182	91	108	253	75	M16	125	70	16	DGA083AX00	V415X609	K1GA0008
DN65	D41AA61000	18715	203	100	117	294	87.5	M16	145	95	16	DGA092AX00	V415X610	K1GA0010
DN80	D41AA61100	24785	222	120	140	327	95	M16	160	118	16	DNA110AX00	V415X611	K1GA0011
DN100	D41AA61200	40800	300	137	160	378	110	M16	180	140	16	DNA127AX00	V415X612	K1GA0012



## LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	QTY	MATERIAL
1	BODY	1	AISI 316/CF8M
2	THREADED LOCKING RING	1	AISI 316
3	BALL	1	AISI 316
4	STEM	1	AISI 316
5	SEAT	2	PTFE
6	SIDE SEALING RING	1	PTFE
7	O-RING	1	NBR
8	UPPER SEALING RING	2	PTFE
9	STEM O-RING	1	VITON
10	UPPER SEALING COUPLE	1	PTFE
11	PACKING GLAND	1	AISI 304
12	WASHER	1	S.S.
13	BELLEVILLE WASHERS	2	50CrV4
14	STEM RETAINING NUT	1	S.S.
15	FIXING NUT PLATE	1	AISI 304
55	ACTUATOR SHAFT	1	C.S.
56	BRACKET	1	C.S.
57	BRACKET/VALVE SCREW	4	8.8
58	BRACKET/ACTUATOR SCREW	4	8.8
59	ACTUATOR	1	

For accessories see relevant catalogue sheet

# MOON AISI 316

WAFER BALL VALVE – FULL BORE WITH SPRING RETURN PNEUMATIC ACTUATOR

## ACTUATOR FEATURES

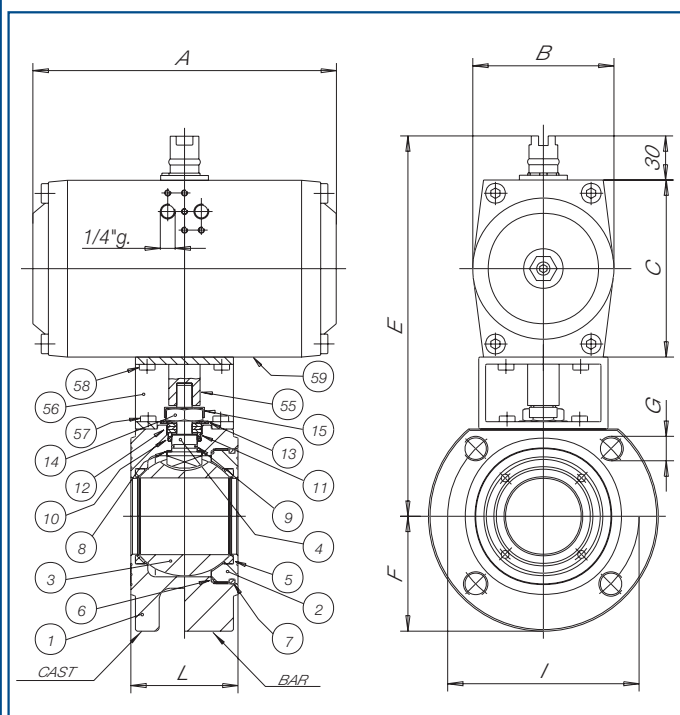
- Rotation angle: 90°
- Standard version for temperature between -20°C and + 90°C
- Supply maximum pressure: 10 bar (8bar for DNA045)
- Nominal pressure: 5,62 bar
- Supply medium: dry filtered compressed air, not necessarily lubricated
- Lubrication: in such a case use a non-detergent or NBR compatible oil

## STANDARD VALVE FEATURES

- General prescriptions: BS 5351, Fire safe BS 6755-API 6 FA- API 607
- Working temperature: from -20°C to +180°C
- Maximum working pressure with actuator: **PN 16** (PN 25 and 40 on request)
- CONNECTIONS with flanges: UNI 2223-2229 AND DIN 2501 BL.1
- FLANGE DRILLING: METRIC
- BLOW-OUT PROOF stem with antistatic device
- For general applications and special versions see technical table of manual valve
- In the below table the part number and the valve code refer to the standard valve **PN 16** and PN 40 where applicable



SIZE	PART NUMBER	weight in gr.	A	B	C	E	F	G	I	L	PN	ACTUATOR code	VALVE code	CÓD. KIT
DN15	S41AA60400	2320	127	59	74	183	45	M12	65	35	40	SGA0524X00	V415X604	K1GA0104
DN20	S41AA60500	3360	133	70	88	200	50	M12	75	38	40	SGA0634X00	V415X605	K1GA0005
DN25	S41AA60600	4780	132	83	100	228	55	M12	85	43	40	SGA0754X00	V415X606	K1GA0106
DN32	S41AA60700	6900	182	91	108	242	65	M16	100	50	40	SGA0834X00	V415X607	K1GA0107
DN40	S41AA60800	9370	203	100	117	255	70	M16	110	60	16	SGA0924X00	V415X608	K1GA0108
DN50	S41AA60900	13020	222	120	140	285	75	M16	125	70	16	SNA1104X00	V415X609	K1GA0108
DN65	S41AA61000	25120	300	137	160	337	87.5	M16	145	95	16	SNA1274X00	V415X610	K1GA0110
DN80	S41AA61100	38390	380	172	198	395	95	M16	160	118	16	SNA1604X00	V415X611	K1GA0111
DN100	S41AA61200	51270	380	172	198	426	110	M16	180	140	16	SNA1605X00	V415X612	K1GA0112



## LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	QTY	MATERIAL
1	BODY	1	AISI 316/CF8M
2	THREADED LOCKING RING	1	AISI 316
3	BALL	1	AISI 316
4	STEM	1	AISI 316
5	SEAT	2	PTFE
6	SIDE SEALING RING	1	PTFE
7	O-RING	1	NBR
8	UPPER SEALING RING	2	PTFE
9	STEM O-RING	1	VITON
10	UPPER SEALING COUPLE	1	PTFE
11	PACKING GLAND	1	AISI 304
12	WASHER	1	S.S.
13	BELLEVILLE WASHERS	2	50CrV4
14	STEM RETAINING NUT	1	S.S.
15	FIXING NUT PLATE	1	AISI 304
55	ACTUATOR SHAFT	1	C.S.
56	BRACKET	1	C.S.
57	BRACKET/VALVE SCREW	4	8.8
58	BRACKET/ACTUATOR SCREW	4	8.8
59	ACTUATOR	1	

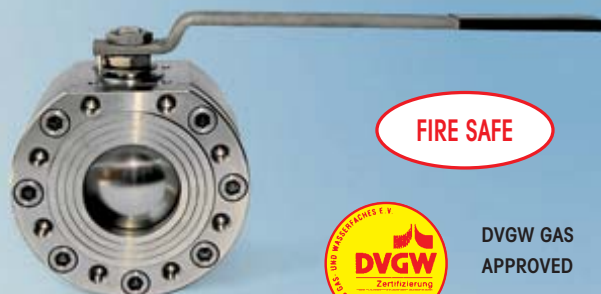
For accessories see relevant catalogue sheet

# SELENE AISI 316

WAFER SPLIT BODY BALL VALVE – FULL BORE

## MAIN STANDARD FEATURES

- CONSTRUCTION: AISI 316
- General prescriptions: BS 5351
- Certifications to FIRE SAFE to: BS 6755 - API 6 FA - API 607 up to DN100  
STÜV for TA Luft up to DN100
- DIAMETER: from DN 50 to DN 200
- PRESSURES: PN 16/40 from DN 50 to DN 100  
PN 16 DN 125, 150, 200
- TEMPERATURE LIMITS: from -20°C to +180°C
- CONNECTIONS with flanges: UNI 2223-2229 and DIN 2501 BL.1
- FLANGE DRILLING: METRIC
- BLOW-OUT PROOF stem with antistatic device
- WRAPPING SEATS
- ISO 5211 mounting plate for actuators
- OPERATION device: lever handle
- BOLTED flange for ball retaining
- With contained ball



## STANDARD PART NUMBERS

Art. 2901  
PN16

Art. 2902  
PN40

## GENERAL APPLICATIONS

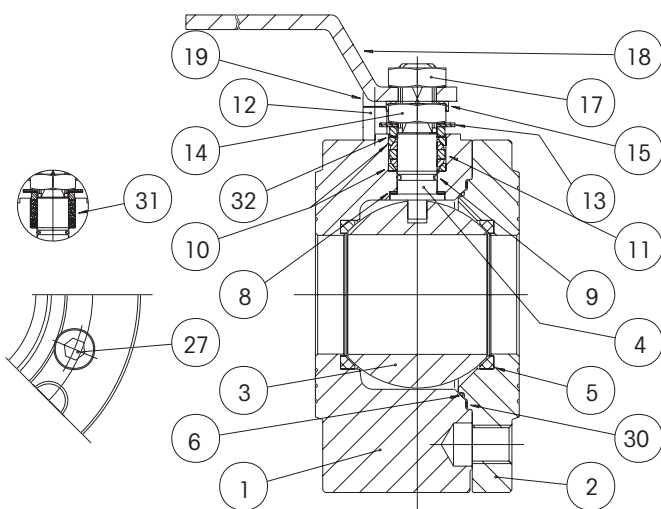
Use as an ON-OFF valve for: installations for gas, water, air distribution. Suitable for vacuum  $1 \cdot 10^{-3}$  STD CC, steam up to +195°C with PTFE+CARBOGRAPHITE and for industrial plants in general. Thanks to its reduced face to face dimensions and its intrinsic features it offers wide applications in new projects also as an alternative to the standard split body valve. For special utilizations ascertain the compatibility with process features and the corrosion resistance also by the relevant table.

## SPECIAL EXECUTIONS

- 15% GLASS-FILLED PTFE with temperature limits -20°C + 195°C
- PTFE+CARBOGRAPHITE with temperature limits -20°C + 210°C
- Integral seats in PTFE up to DN100
- DN 125 to DN 200 PN 25/40
- Reduction gear with manual operation
- Stem extensions: 50 mm or 100 mm up to DN 100
- Yellow lever handle for gas
- Degreased version
- For further special requests please consult our technical/commercial service

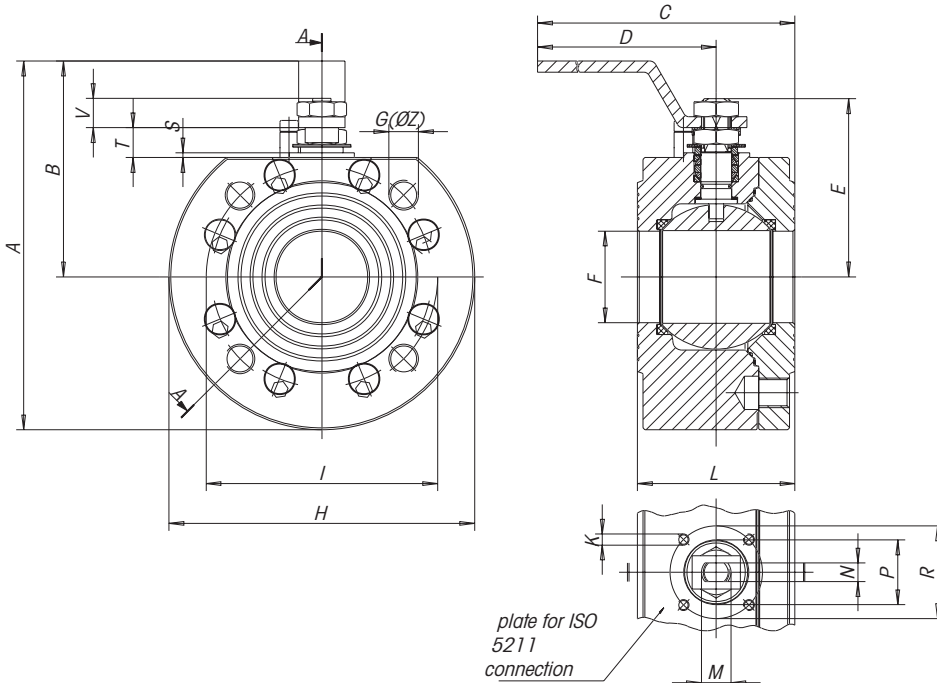
## LIST OF COMPONENTS AND MATERIALS

REF.	PART	MATERIAL	DIN MAT.	QTY
1	BODY	AISI 316	1.4401	1
2	FLANGE	AISI 316	1.4401	1
3	BALL	AISI 316	1.4401	1
4	STEM	AISI 316	1.4401	1
5	SEAT	PTFE		2
6	SIDE SEALING RING	PTFE		1
8	UPPER RING	PTFE		3
9	STEM O-RING	VITON		1
10	UPPER SEALING COUPLE	PTFE		2
11	PACKING GLAND	AISI 304	1.4301	2
12	OPERATION STOP	AISI 304	1.4301	1
13	BELLEVILLE WASHERS	AISI 301	1.4310	2
14	STEM RETAINING NUT	AISI 304	1.4301	1
15	FIXING NUT PLATE	AISI 304	1.4301	1
17	LOCKING NUT	AISI 304	1.4301	1
18	LEVER HANDLE	AISI 304	1.4301	1
19	OPERATION STOP SCREW	AISI 304	1.4301	1
27	FLANGE LOCKING SCREW	AISI 304	1.4301	1
30	SIDE SEALING RING	GRAFITO PURO		1
31	V SHAPED CHEVRON TYPE	PTFE+GRAFITO		1
32	UPPER RING	PTFE		1



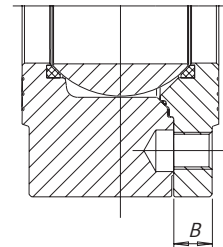
# SELENE AISI 316

WAFER SPLIT BODY BALL VALVE - FULL BORE



FLANGE DRILLINGS UNI2223-67

SIZE	A	B
DN65	M16	20
DN80	M16	24
DN100	M16	20
DN100	M20	24
DN125	M16	22
DN150	M20	22
DN200	M20	24



SIZE	A	B	C	D	E	F	G	H	K	I	L	M	N	P	R	S	T	V	N. Holes	PN	ISO	Weight in gr.
DN40	183	108	273	230	87	40	M16	150	M6	110	76	M16	10	-	50	-	10	14	4	40	F05	8750
DN50	199	117	273	230	94.5	49.5	M16	165	M6	125	85	M16	10	35	50	2.5	16	14	4	40	F05	11000
DN65	232	139	372	320	119.5	65	M16	185	M8	145	103	M22	14	55	70	3	19	20.5	4	16	F07	17500
DN65	232	139	372	320	119.5	65	M16	185	M8	145	103	M22	14	55	70	3	19	20.5	8	40	F07	17300
DN80	249	149	381	320	129.5	78	M16	200	M8	160	122	M22	14	55	70	3	19	20.5	8	40	F07	22800
DN100	277	167	448	370	148.5	96	M16	220	M10	180	155	M27	16	70	102	3	22.2	25.3	8	16	F10	34500
DN100	284	167	448	370	148.5	96	M20	235	M10	190	155	M27	16	70	102	3	22.2	25.3	8	40	F10	39000
DN125	309	181	455	370	166.5	118	M16	255	M10	210	170*	M27	16	70	102	3	22.2	25.3	8	16	F10	51220
DN150	388	241	500	395	197.5	144	M20	259	M12	240	210*	M42	26	-	125	-	4	29	8	16	F12	80960
DN200	458	276	829	674	232.5	192	M20	365	M12	295	310*	M42	26	-	125	-	4	29	12	16	F12	177060

\* from 2005      DN125 : L 185      DN150 : L 235      DN200 : L 315

### BREAKAWAY TORQUES in Nm

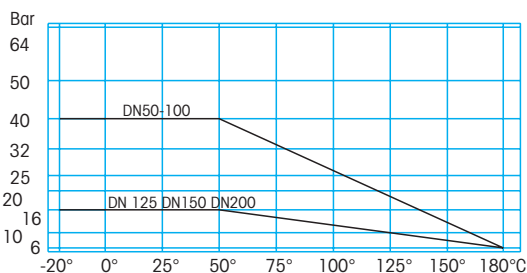
DN size	50	65	80	100	125	150	200
0	35	55	75	150	240	310	600
16	39	59	84.5	168	300	400	800
25	41.5	62.5	92	180			
40	44	67	99	195			

Nm

The values in Nm may vary as a function of the seals material, temperature and type of medium. For a firm operation of the various types of actuators, in the different working conditions it is necessary to consider a safety factor of 1.5. During operation, with frequent open and close cycles, the operating torque can decrease considerably in comparison with the initial breakaway torque.

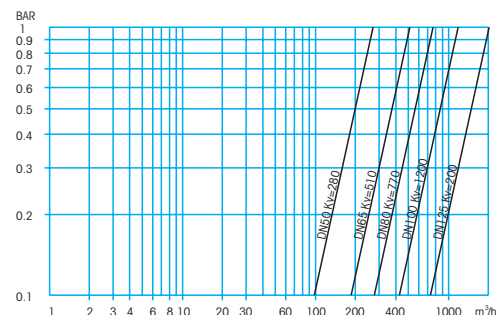
### PRESSURE/TEMPERATURE DIAGRAM

At each pressure level corresponds the admissible temperature level.



### LOSS OF HEAD DIAGRAM/FLOW RATE

The Kv value is the flow rate causing a pressure drop of 1 bar



# SELENE AISI 316

WAFER SPLIT BODY BALL VALVE - FULL BORE WITH **DOUBLE ACTING** PNEUMATIC ACTUATOR

## ACTUATOR FEATURES

- Rotation angle: 90°
- Standard version for temperature between -20°C and + 90°C
- Supply maximum pressure: 10 bar (8bar for DNA045)
- Nominal pressure: 5,62 bar
- Supply medium: dry filtered compressed air, not necessarily lubricated
- Lubrication: in such a case use a non-detergent or NBR compatible oil

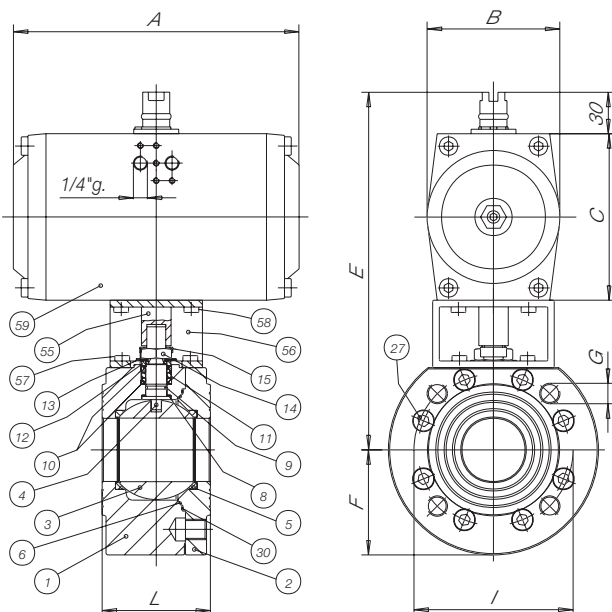
## STANDARD VALVE FEATURES

- General prescriptions: BS 5351, Fire safe to: BS 6755-API 6 FA- API 607
- Working temperature: from -20°C to +180°C
- Maximum working pressure with actuator: **PN 16** (PN 25 and 40 on request)
- CONNECTIONS with flanges: UNI 2223-2229 AND DIN 2501 BL.1
- FLANGE DRILLING: METRIC
- BLOW-OUT PROOF stem with antistatic device
- For general applications and special versions see technical table of manual valve
- In the below table the part number and the valve code refer to the standard valve **PN 16** and PN 40 where applicable



SIZE	PART NUMBER	weight in gr.	A	B	C	E	F	G	I	L	PN	ACTUATOR code	VALVE code	MOUNTING KIT code
DN50	D91AA60900	13700	182	91	108	260.5	82.5	M16	125	85	40	DGA083AX00	V901X609	K1GA0008
DN65	D91AA61000	21215	203	100	117	294	92.5	M16	145	103	16	DGA092AX00	V901X610	K1GA0010
DN65	D92AA61000	21015	203	100	117	294	92.5	M16	145	103	40	DGA092AX00	V902X610	K1GA0010
DN80	D91AA61100	28085	222	120	140	327	100	M16	160	122	40	DNA110AX00	V901X611	K1GA0011
DN100	D91AA61200	43800	300	137	160	382	110	M16	180	155	16	DNA127AX00	V901X612	K1GA0012
DN100	D92AA61200	48300	300	137	160	382	117.5	M20	190	155	40	DNA127AX00	V902X612	K1GA0012
DN125	D91AA61300	77000	380	172	198	430	128	M16	210	170*	16	DNA160AX00	V901X613	K1GA0013
DN150	D91AA61400	114000	450	224	255	542	148	M20	240	210*	16	DNA160AX00	V901X614	K1GA0014
DN200	D91AA61500	224000	450	224	255	564	183	M20	295	310*	16	DNA210AX00	V901X615	K1GA0015

\* from 2005    DN125 : L 185    DN150 : L 235    DN200 : L 315



## LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	QTY	MATERIAL
1	BODY	1	AISI 316/CF8M
2	FLANGE	1	AISI 316
3	BALL	1	AISI 316
4	STEM	1	AISI 316
5	SEAT	2	PTFE
6	SIDE SEALING RING	1	PTFE
8	UPPER RING	3	PTFE
9	STEM O-RING	1	VITON
10	UPPER SEALING COUPLE	1	PTFE
11	PACKING GLAND	1	AISI 304
12	WASHER	1	AISI 304
13	BELLEVILLE WASHERS	2	AISI 301
14	STEM RETAINING NUT	1	AISI 304
15	FIXING NUT PLATE	1	AISI 304
27	FLANGE LOCKING SCREW	8	AISI 304
30	SIDE SEALING RING	1	GRAPHITE
55	ACTUATOR SHAFT	1	C.S.
56	BRACKET	1	C.S.
57	BRACKET/VALVE SCREW	4	8.8
58	BRACKET/ACTUATOR SCREW	4	8.8
59	ACTUATOR	1	

For accessories see relevant catalogue sheet

# SELENE AISI 316

WAFER SPLIT BODY BALL VALVE - FULL BORE WITH **SPRING RETURN PNEUMATIC ACTUATOR**

## ACTUATOR FEATURES

- Rotation angle: 90°
- Standard version for temperature between -20°C and +90°C
- Supply maximum pressure: 10 bar
- Nominal pressure: 5,62 bar
- Supply medium: dry filtered compressed air, not necessarily lubricated
- Lubrication: in such a case use a non-detergent or NBR compatible oil
- STANDARD: **SPRING CLOSES/AIR OPENS**, clockwise automatic closing

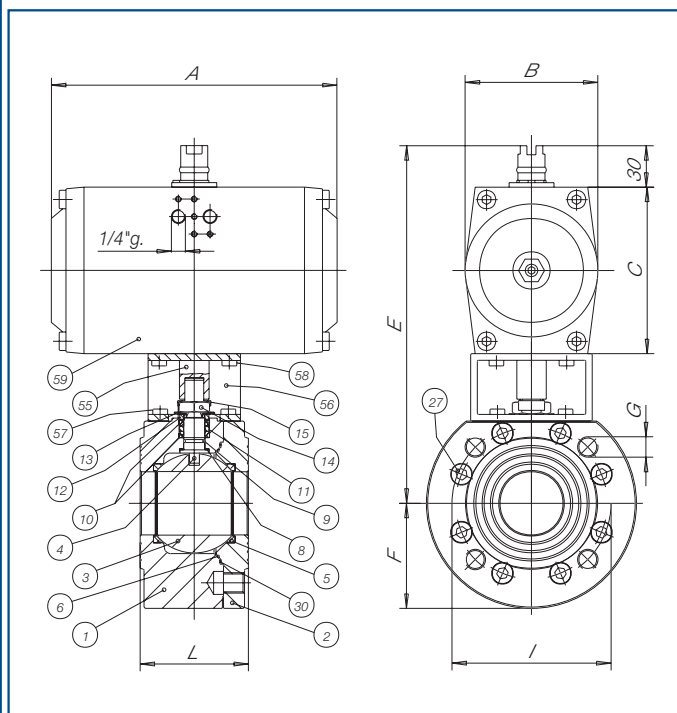
## STANDARD VALVE FEATURES

- General prescriptions: BS 5351, Fire safe BS 6755-API 6 FA- API 607
- Working temperature: from -20°C to +180°C
- Maximum working pressure with actuator: **PN 16** (PN 25 and 40 on request)
- CONNECTIONS with flanges: UNI 2223-2229 AND DIN 2501 BL.1
- FLANGE DRILLING: METRIC
- BLOW-OUT PROOF stem with antistatic device
- For general applications and special versions see technical table of manual valve
- In the below table the part number and the valve code refer to the standard valve **PN 16** and PN 40 where applicable



SIZE	PART NUMBER	weight in gr.	A	B	C	E	F	G	I	L	PN	ACTUATOR code	VALVE code	MOUNTING KIT code
DN50	S91AA60900	16720	222	120	140	292,5	82.5	M16	125	85	40	SNA1104X00	V901X609	K1GA0108
DN65	S91AA61000	27620	300	137	160	337	92.5	M16	145	103	16	SNA1274X00	V901X610	K1GA0110
DN65	S92AA61000	27420	300	137	160	337	92.5	M16	145	103	40	SNA1274X00	V902X610	K1GA0110
DN80	S91AA61100	41690	380	172	198	395	100	M16	160	122	40	SNA1604X00	V901X611	K1GA0111
DN100	S91AA61200	54270	380	172	198	430	110	M16	180	155	16	SNA1605X00	V901X612	K1GA0112
DN100	S92AA61200	58770	380	172	198	430	117.5	M20	190	155	40	SNA1605X00	V902X612	K1GA0112
DN125	S91AA61300	93000	450	224	255	492	128	M16	210	170*	16	SNA2104X00	V901X613	K1GA0113
DN150	S91AA61400	171000	683	272	302	594	148	M20	240	210*	16	SNA2544X00	V901X614	K1GA0114
DN200	S91AA61500	261000	603	272	302	634	183	M20	295	310*	16	SNA2554X00	V901X615	K1GA0115

\* from 2005    DN125 : L 185    DN150 : L 235    DN200 : L 315



## LIST OF VALVE COMPONENTS AND MATERIALS

REF.	PART	QTY	MATERIAL
1	BODY	1	AISI 316/CF8M
2	FLANGE	1	AISI 316
3	BALL	1	AISI 316
4	STEM	1	AISI 316
5	SEAT	2	PTFE
6	SIDE SEALING RING	1	PTFE
8	UPPER RING	3	PTFE
9	STEM O-RING	1	VITON
10	UPPER SEALING COUPLE	1	PTFE
11	PACKING GLAND	1	AISI 304
12	WASHER	1	AISI 304
13	BELLEVILLE WASHERS	2	AISI 301
14	STEM RETAINING NUT	1	AISI 304
15	FIXING NUT PLATE	1	AISI 304
27	FLANGE LOCKING SCREW	8	AISI 304
30	SIDE SEALING RING	1	GRAPHITE
55	ACTUATOR SHAFT	1	C.S
56	BRACKET	1	C.S.
57	BRACKET/VALVE SCREW	4	8.8
58	BRACKET/ACTUATOR SCREW	4	8.8
59	ACTUATOR	1	

For accessories see relevant catalogue sheet