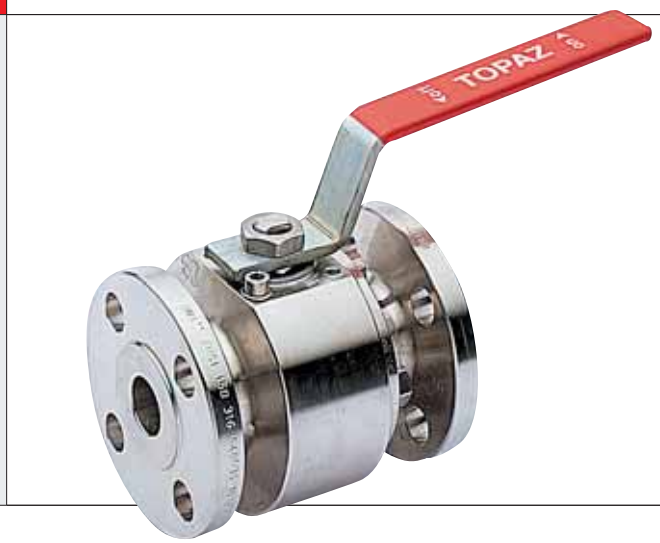
TOPAZ
ANSI 150

Ball valve in stainless steel, of solid and advanced design is backed by the twenty-year experience gained by ENOLGAS in production of ball valves.
In order to keep tolerances and material quality constant, investment casting of body and end adapter was preferred to forging, with careful subsequent toolings on CNC machines, which guarantee a high quality standard.
Leading design and accurate machining and finishing of the valves guarantee a perfect tightness and lifetime troubleless working operations.



TECHNICAL FEATURES

Full bore.
The machining of the body takes place on CNC high precision machines, so as to guarantee the compliance with the design specifications.
Possibility of stops at 90° by operation without lever.
Blow-out proof stem with labyrinth sealing system adjustable by Belleville washers.
Equipped with wrapping seats ensuring long life cycles.
Perfect air bubble-free sealing.
Maintenance free.
All valves are tested at 25 bar pressure, for a period exceeding 48 hours.
Fire safe to BS 6755, API 6FA, API 607.
General prescriptions to BS 5351.
Connection with actuators to ISO 5211.

END CONNECTIONS

Flanges to UNI 2223-2229
DIN 2501 BL. 1
DIN 3202
ANSI B 16.5
ANSI B 16. 10.

WORKING PRESSURE

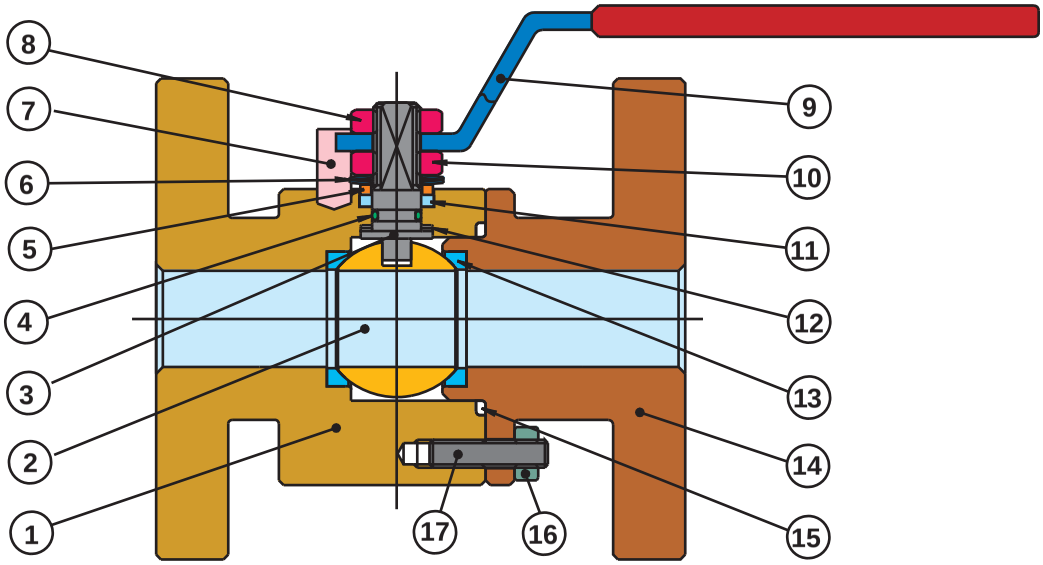
ANSI 150.

TEMPERATURE LIMITS

From -20°C to +180°C.

UTILISATION

TOPAZ is suitable for air, gas, water, oil and for industrial plants.



Item	Description	TOPAZ stainless steel		TOPAZ carbon steel	
1	Body	From bar	AISI 316	D 1.4401	A 105	
2	Ball	Forged	AISI 316	D 1.4401	AISI 304	D 1.4301
3	Stem	From bar	AISI 316	D 1.4401	AISI 304	D 1.4301
4	O-ring	Green or black	Fluoroelastomer		Fluoroelastomer	
5	Packing washer	From bar	AISI 316	D 1.4401	AISI 304	D 1.4301
6	Spring washers	Drawn	AISI 301	D 1.4310	50CrV4	
7	Operation stop pin	From bar	AISI 304	D 1.4301	Carbon steel 8.8	
8	Locking nut	Forged	AISI 304	D 1.4301	A 105 Nickel-plated	
9	Lever handle	P.V.C. insulated red color	A 105 Nickel-plated		A 105 Nickel-plated	
10	Stem retaining nut	Forged	AISI 304	D 1.4301	A 105 Nickel-plated	
11	Upper stem packing	From bar	Virgin P.T.F.E.*		Virgin P.T.F.E.*	
12	Thrust washer	From bar	Virgin P.T.F.E.*		Virgin P.T.F.E.*	
13	Ball seats	From bar	Virgin P.T.F.E.		Virgin P.T.F.E.	
14	Body flange	From bar	AISI 316	D 1.4401	A 105	
15	Static gasket	From bar	Virgin P.T.F.E.*		Virgin P.T.F.E.*	
16	Locking nut	Forged	AISI 304	D 1.4301	A 105 Nickel-plated	
17	Stud bolt	From bar	A 193 B8		A 193 B7	

* Graphite, for fire safe.

ISO 9001
Cert. n° 0015

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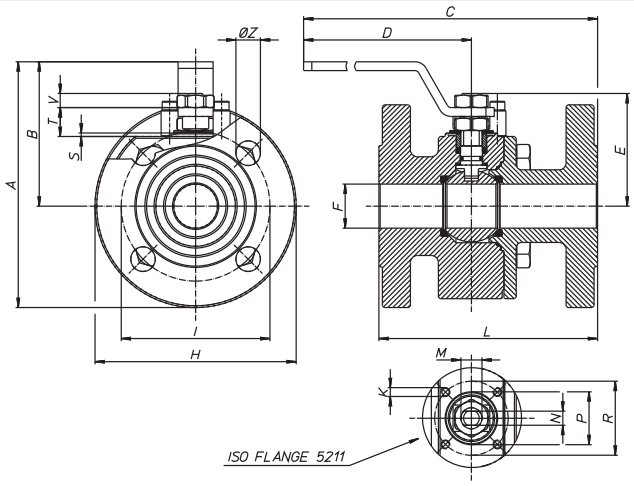
SPECIAL EXECUTIONS



- 15% GLASS-FILLED PTFE with temperature limits -20°C + 195°C
- PTFE+CARBOGRAPHITE with temperature limits -20°C + 210°C
- Degreased version
- Antistatic device from DN15 to DN32
- ATEX construction
- Body in LF2
- For further special requests please consult our technical/commercial service

AVAILABLE ACCESSORIES

Extended stem for insulated pipes.

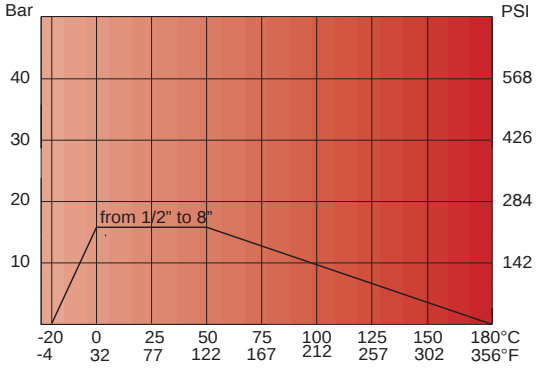
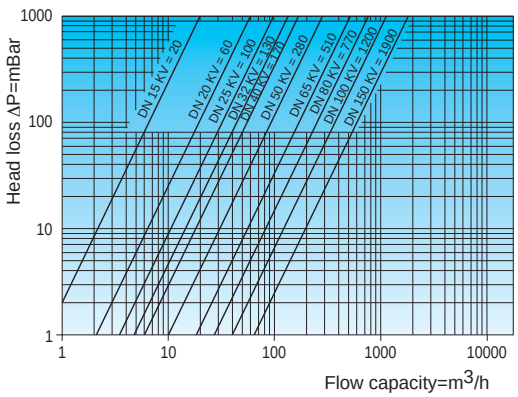
Size	AA mm	BB mm	CC mm	DD mm	EE mm	FF mm	GG mm	HH mm	KK mm	II mm	LL mm	MM mm	NN mm	PP mm	RR mm	SS mm	TT mm	VV mm	NN° holes	ISO FLANGE	weight gr
1/2"	110,5	66	200	140	48	15	16	89	M5	60,5	108	M10	6	-	36	-	5	9	4	F03	3600
3/4"	118	69	207	140	51	20	16	98,5	M5	70	117	M10	6	25	36	2	8	9	4	F03	3750
1"	136	82	254	180	62,5	25	16	108	M5	79,4	127	M12	8	30	42	2	11,5	11,5	4	F04	5525
1"1/4	146	87	267	180	67	32	16	117,5	M5	88,9	140	M12	8	30	42	2	10	11	4	F04	8320
1"1/2	171,5	108	337	230	87,5	40	16	127	M6	98,4	165	M16	10	35	50	2,5	14,5	15,5	4	F05	10260
2"	190	115	345	230	94,5	49,5	19	150	M6	120,7	178	M16	10	35	50	2,5	14,5	15,5	4	F05	13755
2"1/2	228	139	438	320	122,5	65	19	178	M8	139,7	190	M22	14	55	70	3	18,7	23,8	4	F07	23130
3"	245	150	448	320	132,5	78	19	190,5	M8	152,4	203	M22	14	55	70	3	18,7	23,8	4	F07	29235
4"	273	163	523	370	148,5	96	19	220	M10	190,5	229	M27	16	-	102	-	1,5	26	8	F10	39385
6"	389	249	815	584	200	144	22	280	M12	241,3	394	M42	26	-	125	-	4	31,5	8	F12	114100
8"	460	288	841	584	235	192	22	343	M12	298,4	457	M42	26	-	125	-	4	27	8	F12	203485

Breaking Torque in Nm

DN Size	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
PN-bar 00	4	7	15	21	26	36	51	81	130
PN-bar 16	5	8	17	23	28	39	54	86	150
PN-bar 40	6	10	22	28	32	45	62	120	200
	Nm								

Values in Nm can change depending on the material used for seats, on temperature and on the fluid used.
For a safe working of the various sorts of servocontrol, it is necessary to consider a safety factor = 1,5 in each condition. While the valve is working, with frequent on/off cycles, the operationg torque can become extremely low in comparison with the beginning one.

PRESSURE/TEMPERATURE DIAGRAM



LOSS OF HEAD DIAGRAM