# **TENAX**

Ball valves in stainless steel, of solid and advanced design is backed by the twenty-year experience gained by ENOLGAS in the 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**Triple sealing blow outproof stem.

Two spring washers on top of the stem packing. Quarter turn stop working also without lever. Full bore.

#### **END CONNECTIONS**

Female screwed to ISO 7/1 Rp = DIN 2999.

Male screwed to ISO 228/1 = DIN 259.

Special threads (BSPT, NPT, etc.) available on request.

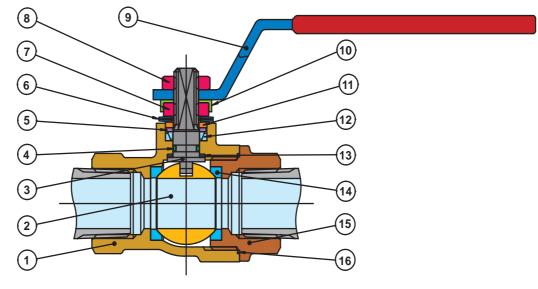
## WORKING PRESSURE PN 100 (1/4") to PN 40

TEMPERATURE LIMITS From -20°C to +150°C.

#### **UTILISATION**

Chemicals, oil derivatives, hydraulics, pneumatics, water, gases, steam and vacuum.

For special uses, see the table of chemical resistance.



	Item	Description	Material					
1	Body	Investment casting	AISI 316	D 1.4408				
2	Ball	Forged	AISI 316	D 1.4401				
3	Stem	From bar	AISI 316	D 1.4401				
4	O-ring	Green or black	Fluoroelastomer					
5	Packing washer	From bar	AISI 304	D 1.4301				
6	Spring washers	Drawn	AISI 301	D 1.4310				
7	Stem retaining nut	Forged	AISI 304	D 1.4301				
8	Locking nut	Forged	AISI 304	D 1.4301				
9	Lever handle	P.V.C. insulated red color	AISI 304	D 1.4301				
10	Fixing-nut plate	Blanked	AISI 304	D 1.4301				
11	Operation-stop	Blanked	AISI 304	D 1.4301				
12	Stem packing	From bar	Virgin P.T.F.E.					
13	Thrust washer	From bar	Virgin P.T.F.E.					
14	Ball seats	From bar	Virgin P.T.F.E.					
15	End adapter	Investment casting	AISI 316	D 1.4408				
16	Static gasket	From bar	Virgin P.T.F.E.					



# **TENAX**

## **SPECIAL EXECUTIONS**

- 15% GLASS-FILLED PTFE Temperature limits -20°C + 175°C
- PTFE+CARBOGRAPHITE: use up to 180°C
- Stems with antistatic device from 3/4" to 2"
- Degreased version
- On request the valve is available with ATEX certificate (from 3/4" to 2")
- For further special request please consult our technical/commercial service

#### **AVAILABLE ACCESSORIES**

• Extended stem for insulated pipes.

1		D
١		
	B SIZE C	F

Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	SW. EXA.	SW. OCT.	MF weight gr.	FF weight ar.					
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					
11/4"	85	32	63	180	68	15,5	21,4	16	95	-	49,5	1320	1180					
11/2"	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					

## **Breaking Torque in Nm**

DI	l size	<b>10</b> 1/4-3/8"	<b>15</b> 1/2"	<b>20</b> 3/4"	<b>25</b>	<b>32</b> 1 1/4"	<b>40</b> 1 1/2"	<b>50</b> 2"	
	0	1,6	3,2	3,6	4,6	11,5	19	27,5	
bar	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	
P	64	3,2	5,6	6,8	8				
	100	3,8	6,5						
						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.

