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FUNDIÇÃO DE FERRO, S.A.

DESDE
SINCE 1946

OPERATIONS MANUAL



**Soft sealing gate valve
with PE spigot ends
"Model 3000"**



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1. GENERAL DESCRIPTION

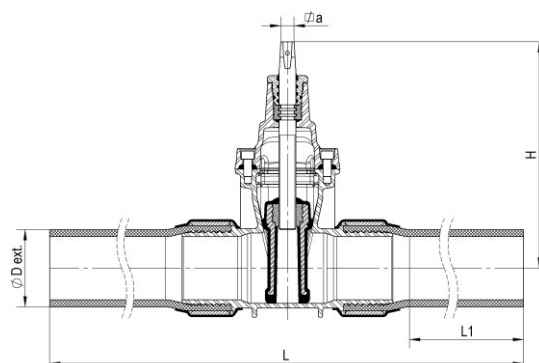
THE SOFT SEALING GATE VALVE with PE extremities Model 3000, is a sectioning valve of a smooth and straight passage, built according to standard EN 1171 and tested in accordance to standard EN 13774.

This valve has a tube PE100 (SDR11/SDR1) at its extremities to be joined by electro welding or top welding, being available from DN 50 to DN 300 and PN 10.

The soft sealing gate valve with PE extremities Model 3000 is used in gas applications with a maximum working pressure of up to 10 bar. In the application of these valves the relevant regulations must be followed and observed, regulation of prevention of accidents, standards applicable to EU branding, national or international directives in terms of handling, installation and operation.

1.1 DIMENSIONAL CHARACTERISTICS

The dimensional characteristics referred in standard EN 1171 (building), are described in the technical catalogue sheets of the model.



Example

Soft Sealing Gate Valve with PE Extremities – TECHNICAL SHEET 16.301				
D ext	L	L1	H	a

1.2 LEAK TESTING

Before being made available to its customers, all valves without exception are tested for working conditions, pressure, leaks and checking torque tightening before shipping from the factory, according to the requisites of standards EN 13774 and EN 12266-1 and the test records kept in conformity with the requisites of the “Pressure Equipment” directive 97/23/CE.

Hydraulic pressure test (Mpa)		
PN	sealing	body
10	1,1	1,8
Leakage class – rated A in accordance with norm EN12266-1		

Note:

1 bar = 0,1 Mpa

1.3 SERVICE TEMPERATURE

Maximum working temperature
-10°C to 40°C

2. IDENTIFICATION OF POTENTIAL RISKS

There were not identified any potential use risks during its development. Its commercialization and after-sales service is not associated or realize any assembly or operational risks.

3. INSTALLATION/HANDLING

It is very important that the surface of the valve sealing is protected from dust and rubbish during the installation process thus preventing non conforming sealing.

It is the responsibility of the final user to ensure that the fluid flow is clean and clear of rubbish before the valve installation. Not ensuring this operation may reduce or hinder the sealing of the valve.

The handling and installation must be done by qualified personnel, complying with the local, national or international regulations in existence.

Whenever, for lifting and handling of valves, mechanical means are required, these must be appropriate and should be applied the lifting accessories, as shown in the figure, in the locations marked for that purpose, on the valves



During valve installation the necessary procedures must be taken into account to ensure that it is aligned with the tubing/ accessories in order to avoid any tension load that may act upon the body of the valve.

Diameter of handwheels to maneuver the valve:

DN	HANDWHEEL	
	Diameter	□
40/50	160	14
60/65/75/80	200	17
100	250	19
125/150	315	19
200	400	24
250/300	600	27

The Model 3000 valves have a bidirectional flow, being supplied in series with a clockwise shutting direction. By request they can be supplied with an anti clockwise shutting direction.

The shutting torque is described in Table 1.

	DN	Series		MOT Gate valve Series 3000
		PE pipe	FLANGED S14 / S15	
Model 3000	40	-	DN 40	50
	50	63	DN 50	
	60		DN 60	60
	65	75	DN 65	65
	80	90	DN 80	80
	100	110	DN 100	100
	125	125	DN 125	125
		140		
	150	160	DN 150	150
		180		
	200	200	DN 200	200
		225		
	250	250	DN 250	250
		280		
	300	315	DN 300	300

Table 1 - MOT

4. MAINTENANCE

Only qualified personnel can install these valves, they should not be handled, used, installed or operated in such a way that can damage or expose the valves to excessive or abnormal loads. The Model 3000 valves were designed to be exempt of mandatory periodic maintenance, however because conditions may change from one installation to another the technical area recommends that said valves be operated (opening and shutting cycles) once a year in order to guarantee a perfect working order. In the shutting cycle the binary indicated in section 3, table 1 should be used.

In the operation that involves loosening the gland nut, the following procedure should be followed when it is being re tightened:

- Valves DN 200; DN 250 and DN 300 - LOCKTITE 222 thread blocker should be applied

After the gland nut is tightened, it is corrected with the torque wrench in accordance with Table 2.

Table 2 - Gland Nut Torque

DN	PE Tube	TORQUE
50	63	220 Nm
65	75	280 Nm
80	90	
100	110	320 Nm
125	125	
	140	
150	160	360 Nm
	180	
200	200	400 Nm
	225	
250	250	
	280	
300	315	

The valves should be stored with the wedge half open and the wedge should not be exposed to sunlight or any other source of light during storage.

If you have any doubts to apply the valve, please call our COMMERCIAL SERVICES 239 490 100 or email comercial@fucoli-somepal.pt