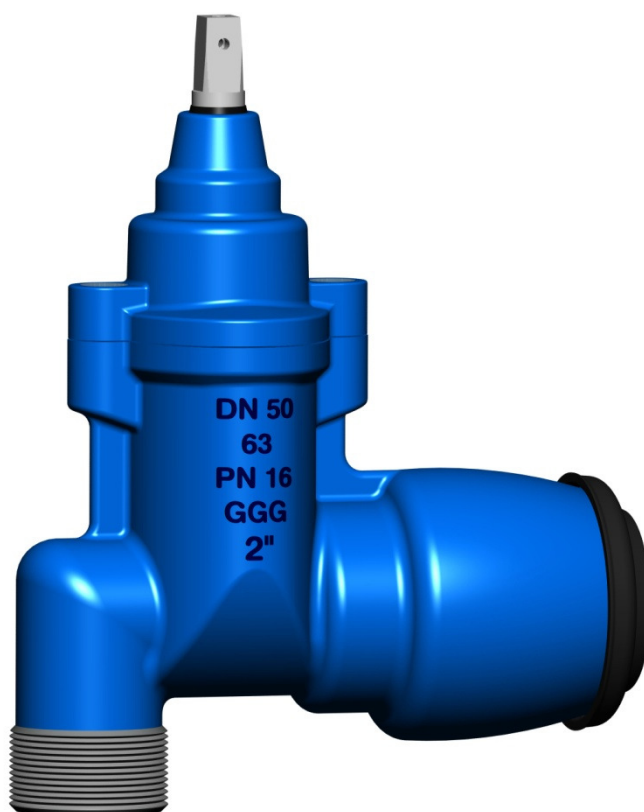




Fucoli - Somepal
FUNDIÇÃO DE FERRO, S.A.

OPERATION MANUAL



GATE VALVE WITH ANGULAR EXTERNAL THREAD/SOCKET CONNECTION FOR PE PIPES "SERIES SÉCULO XXI"



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1. DESCRIPTION

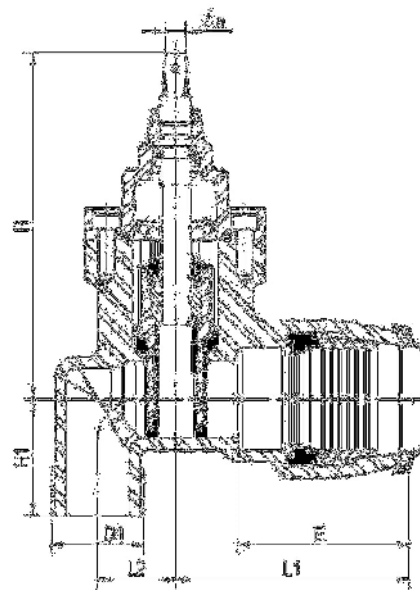
1.1 Description of function

The GATE VALVES WITH ANGULAR EXTERNAL THREAD/SOCKET CONNECTION FOR PE PIPES Series SÉCULO XXI are gate valve for OPEN-CLOSE operation, corresponding to the nominal diameter. They may be used in any flow direction. Construction according to EN 1171. The GATE VALVES WITH ANGULAR EXTERNAL THREAD/SOCKET CONNECTION FOR PE PIPES Series SÉCULO XXI are available for PN10, PN16.

1.2 Materials

component	material	standard
body	ductile iron (EN-GJS-500-7)	DIN EN 1563
bonnet	ductile iron (EN-GJS-500-7)	DIN EN 1563
gate	brass for DN50 ductile iron (EN-GJS-500-7)	DIN EN 1982 DIN EN 1563
gate covering	coated with elastomer EPDM with CE marking	BS EN 681-1
stem	stainless steel Aisi 420, 303 or 316L	EN 10088-1
mouth sealing	elastomer EPDM with CE marking	BS EN 681-1
orings	elastomer with CE marking	BS EN 681-1
tension ring	POM (methylene polioxide)	-
protection cap	elastomer with CE marking	BS EN 681-1
bolts	stainless steel A2, sealed with hot melt	EN 10088-1
coating inside and outside	epoxy paint applied electrostatically with thickness $\geq 250 \mu\text{m}$	DIN 30677

1.3 Dimensional



DN	PE Øext.	D1 (BSP)	L1	L2	E	H	H1	a	closure turns required	weight (Kg)
25	32	G 1¼"	92.5	31	70	171	55	13.1	6.5	2.7
32	40	G 2"	102.5	37	77	202	65	13.1	10.0	4.7
40	50	G 2"	127.5	42	96	202	70	13.1	10.0	5.3
50	63	G 2"	150	50	110	230	80	13.1	12.5	7.5

1.4 Tightness tests

All the valves, without exception, are individually tested at factory, according to standard EN 1074-2 and EN 12266-1.

hydraulic pressure test (bar)		
PN	sealing	body
10	11	17
16	18	25
Class of leakage – degree A according to standard EN 12266-1		

1.5 Working temperature

maximum working temperature	maximum working pressure
to 20°C	PN
to 30°C	0.87xPN
to 40°C	0.74xPN
Using the reducing factor according to standard EN 12201-2 annex A	

2. POTENTIAL RISK IDENTIFICATION

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. INSTALATION INSTRUCTIONS

Remove all packing material from the valve. Prior to the valve installation examine the pipeline for debris, impurities and foreign matter. If there the pipeline should be cleaned.

The valve is operated, in its various models and diameters, by means of square cap, handwheel or extension spindle, its handling should be performed by qualified persons for the purpose.



Handwheel



Square cap



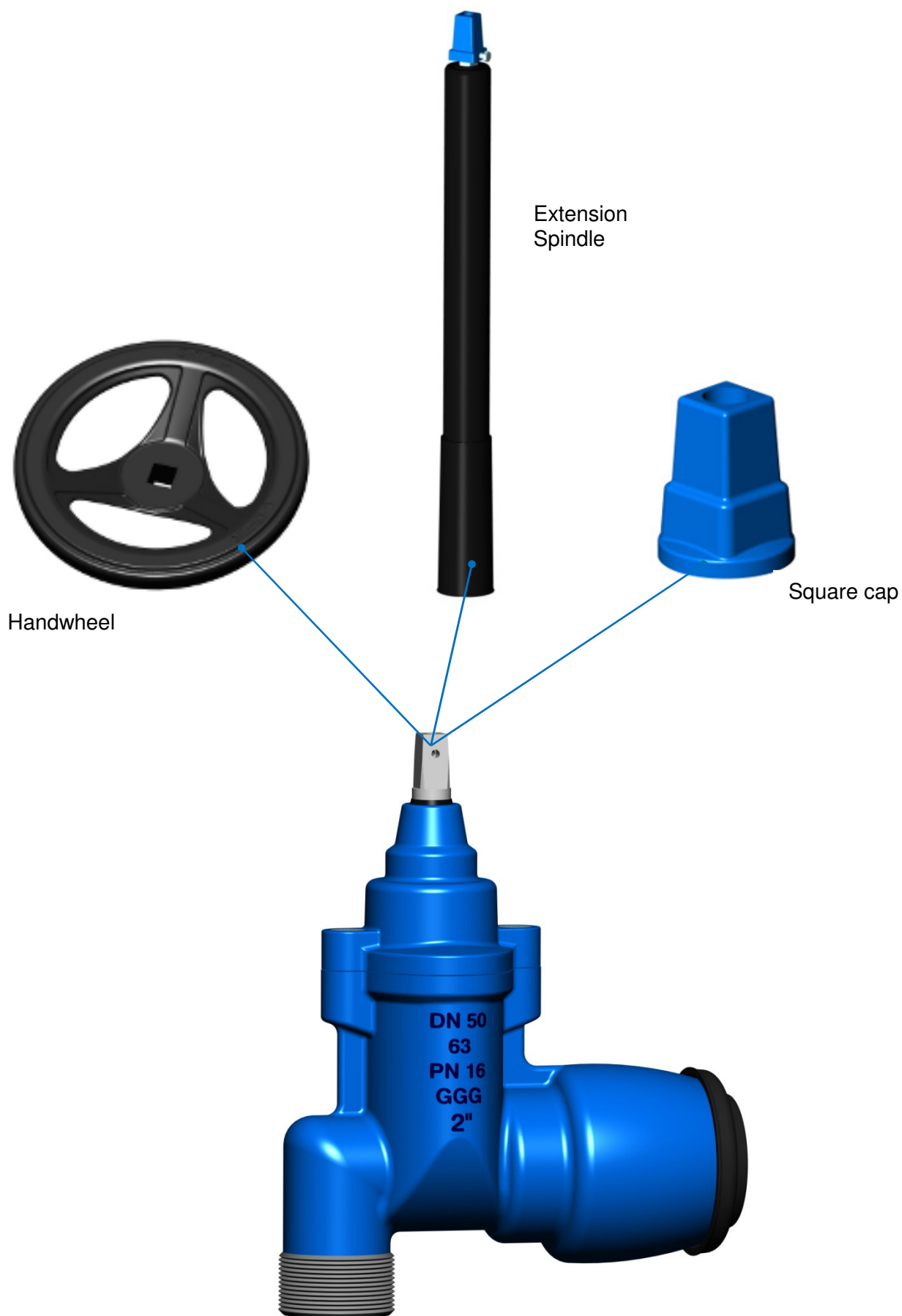
Extension Spindle

The valve is bidirectional flow direction, may be used in any flow direction. From series the valve is provided with clockwise closing direction. By Customer request can be supplied with counter clockwise closing direction.

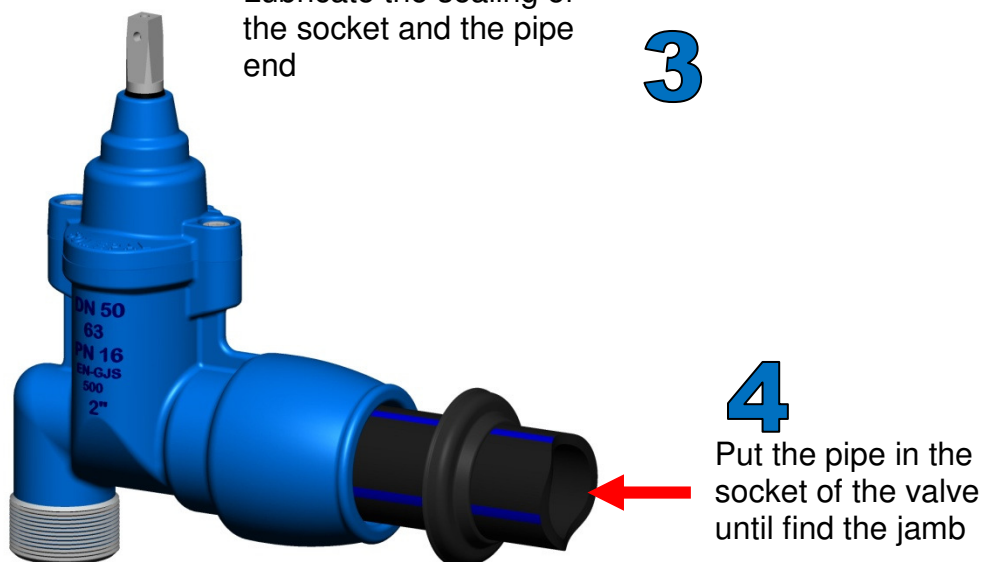
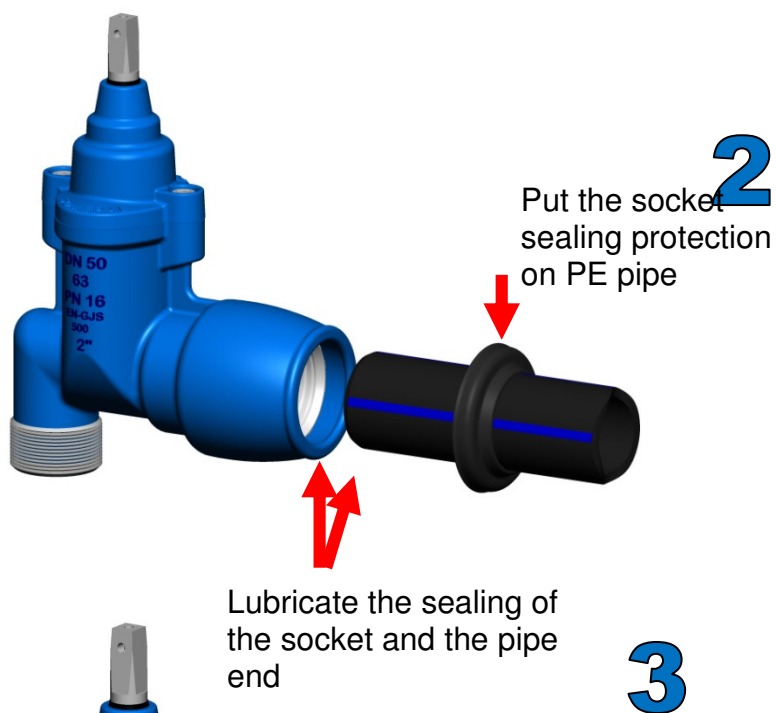
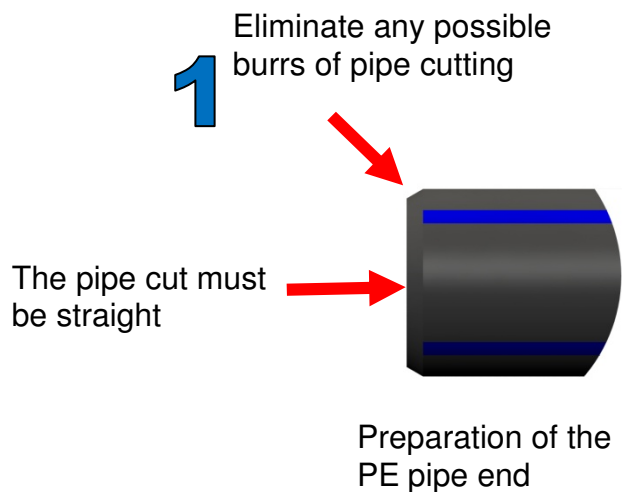
The opening and closing torque are listed in Table 1 and are according with EN 1074-2 and EN 12570.

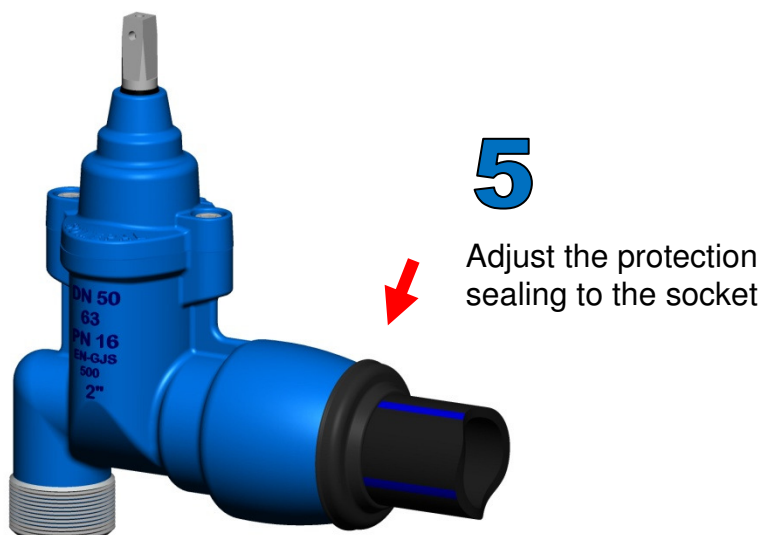
Table 1 – Maximum operating torque (MOT)

VALVE TYPE	DN	MOT ACCORDING WITH STANDARD EN 1074-2 e EN 12570	FUCOLI-SOMEPAL SOFT SEALING GATE VALVE SERIES SÉCULO XXI TORQUE
SERVICE CONNECTION	25	48	10
	32		15
	40		
	50	50	25

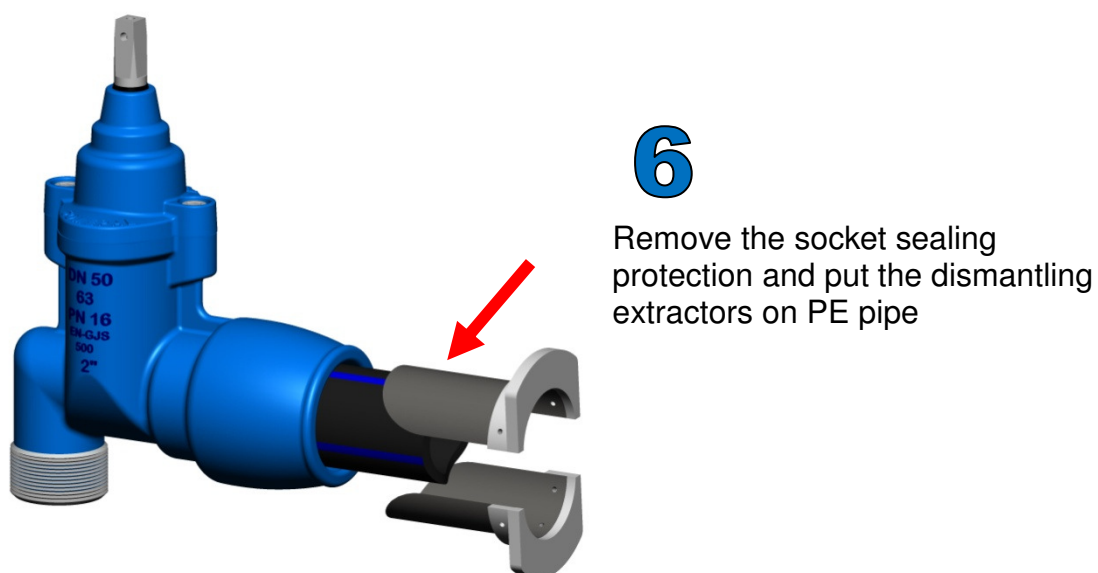


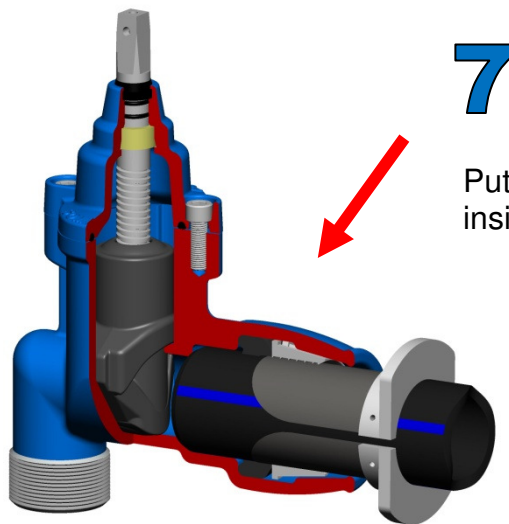
INSTRUCTION FOR THE ASSEMBLING OF THE PE PIPE ON THE VALVE



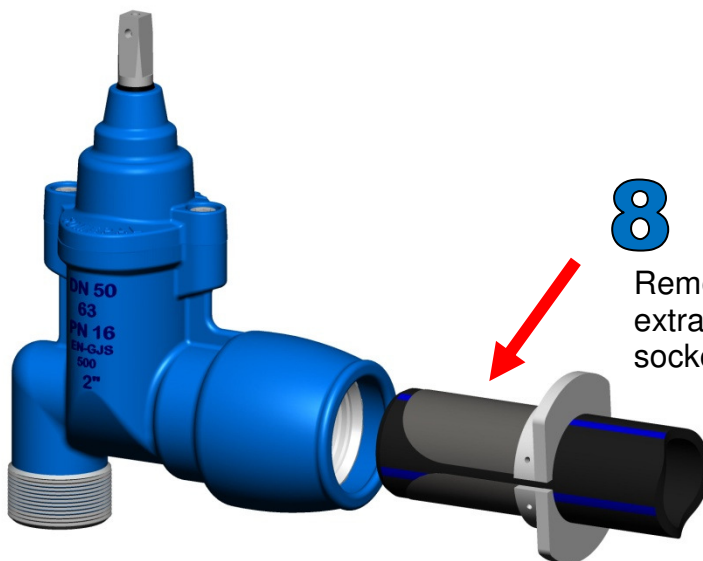


INSTRUCTIONS TO REMOVE THE PIPE OF THE VALVE





Put the dismantling extractors inside the socket of the Valve



Remove the pipe together with extractors from the interior socket of the Valve

4. MAINTENANCE

Due to its robust design and materials used, the GATE VALVES WITH ANGULAR EXTERNAL THREAD/SOCKET CONNECTION FOR PE PIPES Series SÉCULO XXI are maintenance free.