

PEWOUNIGRIP

The **best connection**
for pipeline systems



Instalation and operation manual Couplings and Flangadaptors

PEWOUNIGRIP

Universal Grip Coupling and Flange adaptor

1. Description

Universal Grip couplings and Flange Adaptors allow pipe connections and gripping with different external diameters and/or with different materials.

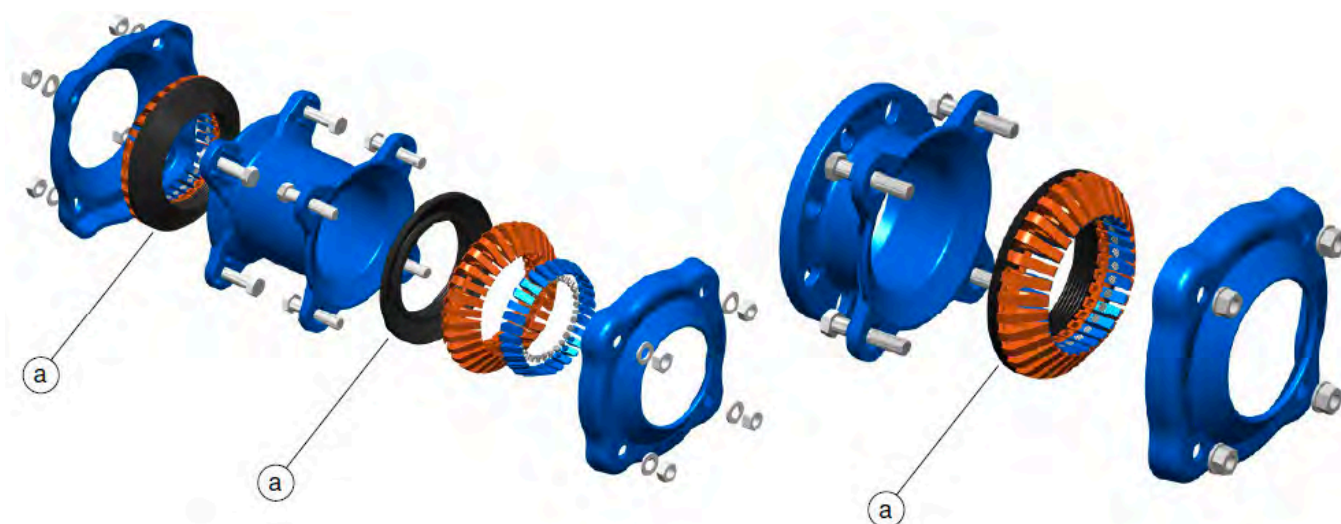
The system warrants the set (pipes + fittings) sealing and gripping, without pipe disconnections. The sealing is carried through a seal with o-rings, mounted on a ring made by the grip support, which will slide until being pressed on the pipe.

Pipes blocking take place through zinced and tempered milled rivets system mounted on the conical claws that fit and grip the pipes, causing no damage to the pipes.

The developed system allows pipe connections above or below the surface, without component change needs.



PEWOBAR Universal Grip Coupling
PEWOBAR Universal Flange Adaptor



Picture 1

Materials and characteristics

In picture 1, (a) reference identifies the system seals. Depending on the purpose, for which they are, they may be made of the following materials:

Elastomer NBR, according to ISO 6447 (rubber seals - joint rings used for gas supply pipes and fittings).
Elastomer EPDM, approved for drinkable water, according to EN 681-1 and ZA annex – with CE mark (Elastomeric seals. Material requirements for pipe joint seals used in water and drainage applications).

Plus Range Grip couplings and flange adaptors with working characteristics:

- Maximum working pressure:
 - Water: PN 16 Bar (29Bar)
 - Gas: PN 5 Bar (12.5 Bar)
- Working temperature:
 - 20°C to +60°C

Reference	Tourqe	Bolt
39/52	50-70 Nm	M12
49/64		
63/83		
72/93		
78/103		
87/117		
100/130	90-120 Nm	M16
117/147		
138/168		
152/182		
172/202		
198/228		
217/257		
245/285		
300/340		
340/380		
390/430		

Table A - Bolt torque Universal Grip Coupling and Flange Adaptor

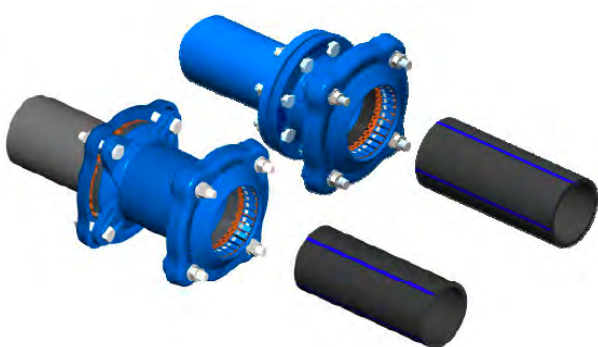
Installation instructions

3.1 Look up in the table B, for the Universal Grip coupling, or Table C, for the Universal Flange Adaptor, to check pipe dimensions and materials to connect and select the most suitable coupling or flange adaptor.

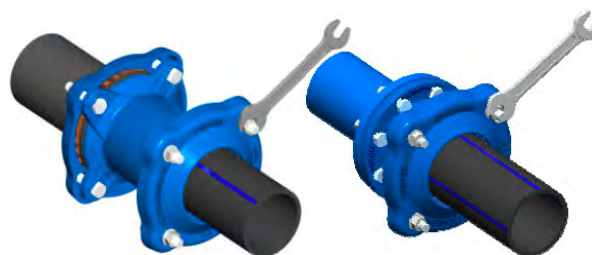
3.2 Check the pipe ends condition, ensure they are cleaned and free any surface defects that might affect the perfect coupling sealing such as waste, cuts, edge, burr, etc.

3.3 Pipes must be placed inside the coupling aligned with each other and with the ends concentric - Picture 2. For easier installation, pipe ends should be marked with the minimum and maximum depths, as shown in table B or C. Pipes must be inserted into the coupling to a depth between the minimum and maximum presented in table B or C.

3.4 Make the bolts tightness according to the bolt torque shown in table A. Tight diametrically opposed bolts, giving each nut one or two turns at a time to ensure that the sealing and gripping system do tie uniformly around the pipe end - Picture 3.



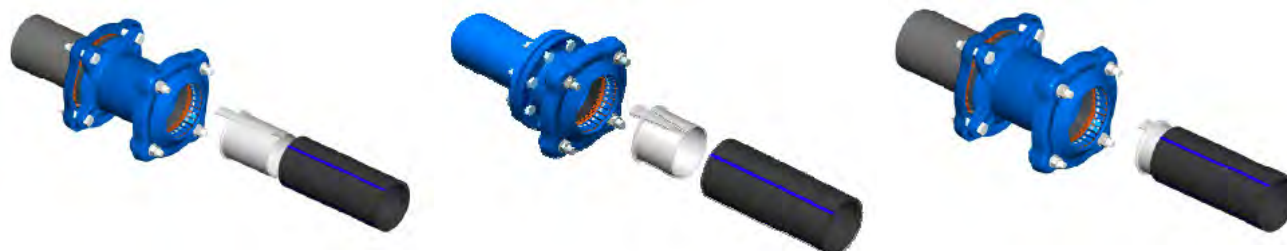
Picture 2



Picture 3 (Bolt Torque - Consult Table A)

Note:

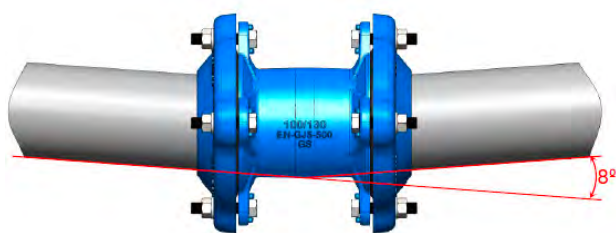
For use in PE and PVC pipes it is recommended to use stainless steel inserts inside those pipes – Picture 4.



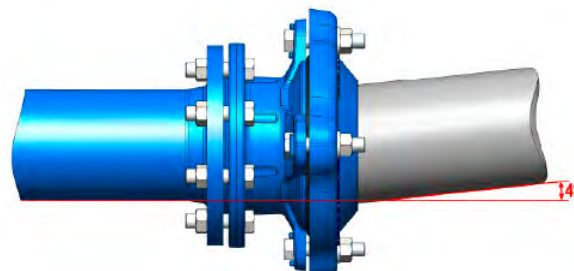
Picture 4

Pipe angular deflection

Besides the capacity to connect and grip pipes with different materials and diameters the Universal Grip Coupling system, also allows an 8° pipe angular deflection in the symmetry axle - Picture 5 and 4° for the Universal Flange Adaptor system - Picture 6.



Picture 5



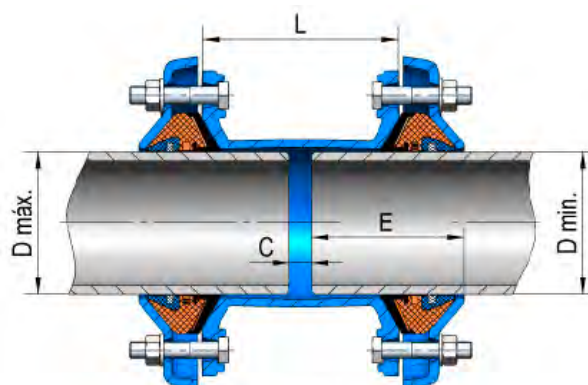
Picture 6

Maintenance

After installed, the multimaterial coupling and flange adaptor with Universal grip system, doesn't require any maintenance action.

PEWOUNIGRIP Ø 39-430 mm / PN 16 EPDM

Instalation and operation manual



Picture 5

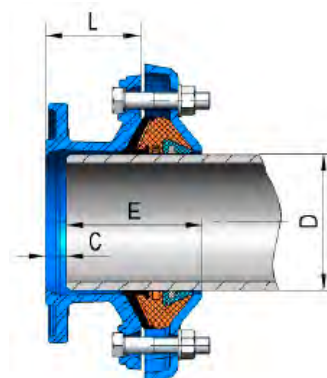
PEWOUNIGRIP

POD	L mm	E		C min. mm	Suitable for pipe outside diameters in mm:								Weight kg.
		min. mm	max. mm		PE/PVC	Ductile/ Cast Iron	Steel	Asbestos Cement Class					
								6	12	18	24	30	
39/52	145	90	115	20	40		42,4						5,1
					50		48,3						
49/64	145	90	115	20	50	56	48,3						5,6
					63		60,3						
63/83	170	105	133	20	63	66	76,1	66	66	66	66	66	12,1
					75	77		76	76	76	76	78	
						82							
72/93	170	105	133	20	75	77	76,1	76	76	76	76	78	
					90	82	88,9						
78/103	170	105	133	20	90	82	88,9	96	96	96	98	78	
						98	101,6						
87/117	170	105	133	20	90	98	88,9	96	96	96	98	104	
					110		101,6	116	116				
							114,3						
100/130	180	105	137	25	110	118	101,6	116	116	118	122	104	16,2
					125		114,3					128	
117/147	180	105	137	25	125	118	139,7	141	141	118	122	128	18,2
					140	144				145			
138/168	180	105	137	25	140	144	139,7	141	141	118	122	128	20
					160			168	168				
152/182	215	115	152	25	160	170	168,3	168	168	174	180	157	21,6
					180		177,8						
172/202	215	115	152	25	180		177,8			174	180	188	22,6
					200		193,7						
198/228	215	115	152	25	200	222	219,1	220	222	228			27,8
					225								
217/257	220	130	162	35	225	222	244,5	220	222	228	238	250	31,1
					250								
245/285	300	150	200	35	250	274	273,1	272	276			250	42
					280								
300/340	300	150	200	35	315	326	323,9	324	330	338			46,5
340/380	300	150	200	55	355	378	355,6	376			352	366	57
390/430	300	150	200	55	400	429	406,4	428				426	73,2

Table B

PEWOUNIGRIP Ø 39-430 mm / PN 16 EPDM

Instalation and operation manual



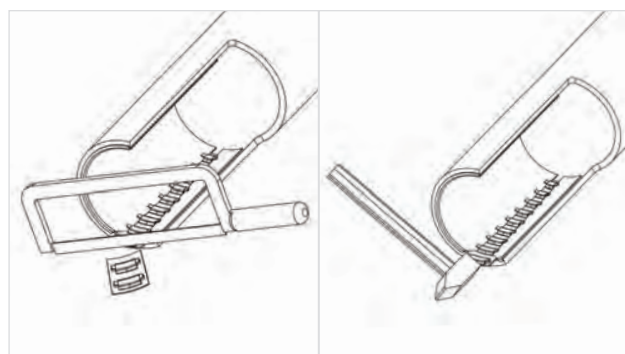
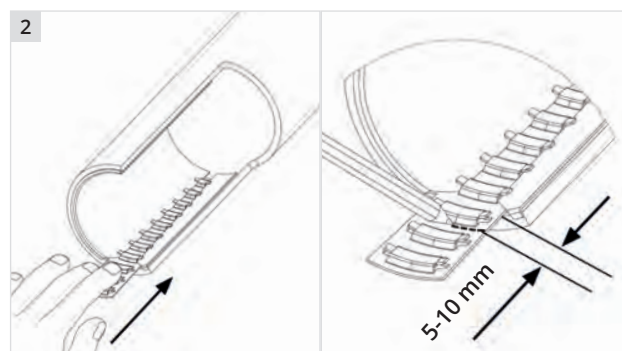
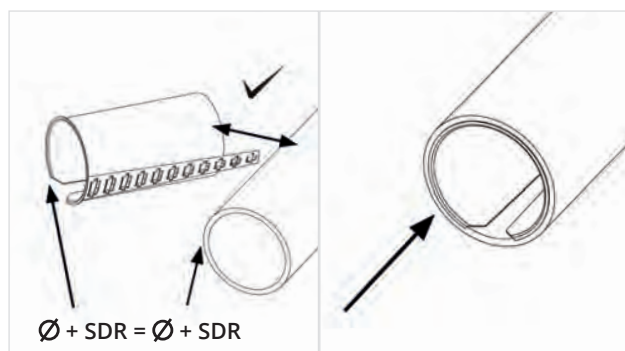
Picture 6

PEWOUNIGRIP Flangeadaptor

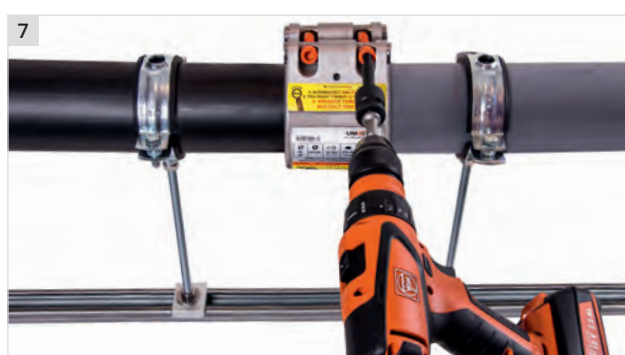
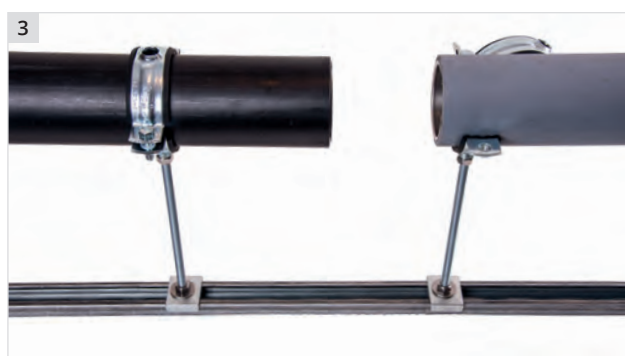
Nominal Size DN mm	POD	L mm	E		C min. mm	Suitable for pipe outside diameters in mm:										Weight kg.
						PE/PVC	Ductile/ Cast Iron	Steel	Asbestos Cement Class							
			6	12	18				24	30						
50	39/52	85	90	120	15	40		42,4						4,1		
						50		48,3								
40	49/64	85	90	120	15	50	56	48,3					4,2			
						63		60,3								
60/65	63/83	85	105	128	15	63	66	76,1	66	66	66	66	66	7,6		
						75	77		76	76	76	76				
							82									
80	78/103	85	105	128	15	90	82	88,9	96	96	96	98	78	8,4		
						98	101,6									
80/100	87/117	85	105	128	15	90	98	88,9	96	96	96	98	104	9,2		
						110		101,6	116	116						
								114,3								
100	100/130	90	105	130	20	110	118	101,6	116	116	118	122	104	10		
						125		114,3					128			
125	117/147	90	105	130	20	125	118	139,7	141	141	118	122	128	11,6		
						140	144				145					
150	152/182	110	115	145	20	160	170	168,3	168	168	174	180	157	14		
						180		177,8								
200	198/228	110	115	145	20	200	222	219,1	220	222	228			18		
						225										
250	245/285	150	150	180	30	250	274	273,1	272	276			250	27,8		
						280										
300	300/340	150	150	180	30	315	326	323,9	324	330	338			34,3		
350	340/380	150	150	180	40	355	378	355,6	376			352	366	41,2		
400	390/430	150	150	180	40	400	429	406,4	428				426	50,8/52,8		

Table C

STÜTZHÜLSEN MIT KEIL / SUPPORT SLEEVES WITH WEDGE



ECO-STÜTZHÜLSEN OHNE KEIL / SUPPORT SLEEVES WITHOUT WEDGE





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Online-Checklist:



Own test laboratory

- Corrosion tests
- Fire tests
- Vacuum tests
- Vibration tests
- Bending tests
- Pressure tests
- Tensile tests