

BEULCO[®]

BEULCO Repair.
Repair Range For Pipelines.



R/R1

**FOR
EVERYTHING.**

EXCEPT HIGH VOLTAGE.

BEULCO Repair - R / R1

universal connector and repair connector



With BEULCO Repair, a new range of innovative repair products emerged. Our customers' concerns are important to us. For that reason we developed BEULCO Repair – We want to offer simple, safe and flexible products for repairing pipe damages. We are pleased to present two products of this range:

universal connector made of plastic for cold and warm water up to 40°C

repair connector made of brass for cold and hot water up to 75°C

BEULCO Repair Universal Connector

The universal connector is designed in a way that it enables the connection of different pipe types. As an innovative product it is particularly qualified for repairing pipe damages in the field of cold and hot water up to 40°C.



Applications

Repair work:

The connector is extensively used by water companies, installers and civil contractors for repair works.

New installations:

The connector plays a major role for new installations. Here it is often used for connections between PE pipes and metal pipes.

Network expansions:

The universal connector is particularly useful for the expansion of supply and disposal networks. No matter which one of above mentioned pipes is available – by means of the universal connector there will be no problems.

Due to the material's special characteristics, the connector is also suitable for challenging applications – e.g. mining, industrial applications, agriculture, waste water systems, etc.

More details see pages 4-9.

Article overview see pages 8-9.

BEULCO Repair Connector

BEULCO Repair Connector

The repair connector was designed for repairing PVC-c and PP-R pipes which has been installed several times in the 90s and now become gradually leak. They offer a cheaper alternative for complex repairs and reinstallations in the field of cold and hot water up to 75°C.



Applications

Repair works:

With this connector you can repair damages at PVC-C and PP-R pipes. The assortment comprises connectors with male and female threads as well as repair connectors and couplings which can balance damages in the lengths of 180, 200, 220 and 240 mm.

More details starting on page 11.

Article overview see pages 14-15.



Characteristics

Dynamic sealing method

The especially formed seal has a great compressing area ensuring that it fits tightly even with higher tolerances. There will be no deformation or displacement due to the pressing ring.

Large seal

The large seal enables the application even with lightly oval pipes and reliably bridges slight pipe surface damages.

Push and screw technology

Before installing the pipe should be chamfered and deburred so that it can be pushed into the connector with less efforts. The assembly can be done without special tools.

Simple disassembly

The connector has been designed in a way that it can be easily disassembled only by loosening the nut. The components can then be removed without any problems.

Advanced material

The thermoplastic material of high performance is characterized by resistance against UV radiations, chemicals and corrosion. Additionally it does not release any odour and flavour substances.

Chemical resistance

The chemical resistance of the used material enables the application with other fluids than water. The following is provided as a guide for the compatibility of various chemicals. In special cases or if you have doubts please contact us.

Chemical*	Satisfactory	Not Satisfactory
Ammonium Hydroxide	x	
Alcohol	x	
Acetone		x
Auto Transmission Fluid	x	
Antifreeze	x	
Benzene		x
Butane	x	
Calcium Salts	x	
Caustic Soda (40% aqueous)	x	
Cresol		x
Citric Acid (10% aqueous)	x	
Copper Salts	x	
Ethylene Alcohol	x	
Ethyl Glycol	x	
Diesel	x	
Formic Acid		x

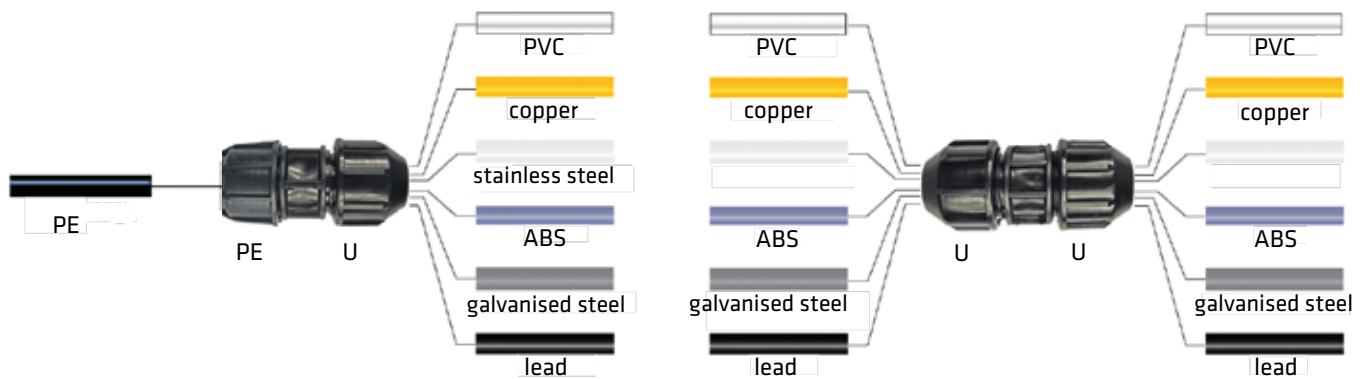
Chemical*	Satisfactory	Not Satisfactory
Gasoline		x
Hydrochloric Acid		x
Kerosene		x
Mineral Oils	x	
Methane	x	
Methylene Chloride		x
Nitric Acid		x
Petroleum Oils	x	
Sewerage	x	
Sodium Cyanide	x	
Sulphuric Acid		x
Toluene		x
Turpentine		x
Transformer Oil	x	
Zinc Salt Solution	x	

* with liquid temperature 20°C

Product Range

 <p>coupling universal x universal dimensions U: 15 - 61 mm</p>	 <p>reduction coupling universal x universal dimensions U: 21 - 43 mm</p>	 <p>coupling universal x PE dimensions U: 15 - 61 mm PE: 20 - 63 mm</p>	 <p>elbow 90° universal x PE dimensions U: 15 - 27 mm PE: 25 - 32 mm</p>	 <p>refitting set from PE to universal dimensions U: 15 - 35 mm</p>
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Combination possibilities



PE = plastic pipe connection

U = universal connection

Overview of suitable pipe dimensions**

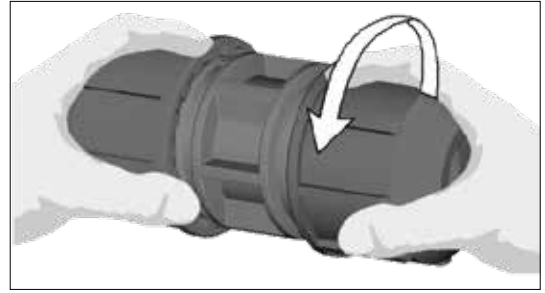
Pipe material	15-21 mm	21-27 mm	27-35 mm		34-39 mm	39-43 mm	47-49 mm	59-61 mm
PE (DIN 8074)	16/20 mm	25 mm	32 mm			40 mm		
PE-X (DIN 16893)	16/20 mm	25 mm	32 mm			40 mm		
PVC (DIN 8062, row 5)	16/20 mm	25 mm	32 mm			40 mm		
copper (DIN EN 1057)	15/18 mm	22 mm	28 mm	35 mm	42 mm			
stainless steel	15/18 mm	22 mm	28 mm	35 mm	42 mm			
ABS (DIN EN ISO 15493:2003-10)	16/20 mm	25 mm	32 mm			40 mm		
galvanised steel (DIN EN 10255)	3/8" (17,2 mm)	1/2" (21,3 mm)	3/4" (26,9 mm)	1" (33,7 mm)		1 1/4" (42,4 mm)	1 1/2" (48,3 mm)	2" (60,3 mm)
lead	3/8"	1/2"	3/4"		1"	1 1/4"	1 1/2"	2"

**This overview is only a reference point for the outer diameters and the suitability. Please measure the outer diameter of those pipes that are not listed here.

Installation Instruction Universal Connector



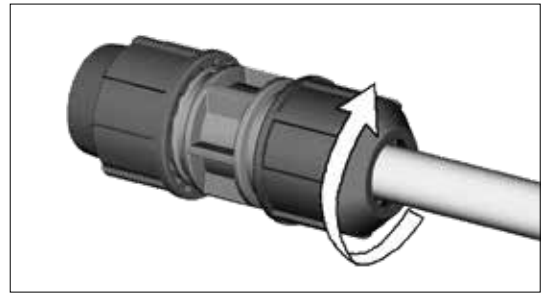
Step 1
Cut the pipe square. We recommend to chamfer the edges (in case of plastic pipes with chamfering tool, model 8880, product group A3).



Step 2
Loosen the nut without separating it from the housing.



Step 3
Insert the pipe up to the stop.

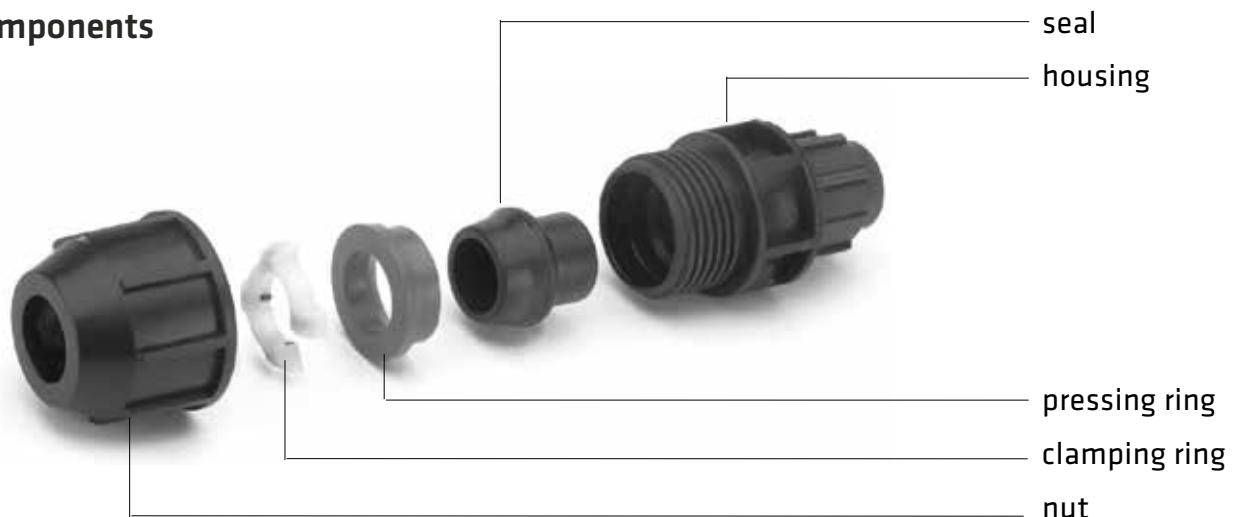


Step 4
Tighten the nut firmly by hand and additionally by a tool.

Note: The nut will not touch the stop of the basic body if the pipe's diameter is at the limit of the permissible outer diameter of the connector.

For disassembling please loosen the nut by a pipe wrench and just pull out the pipe.

Components



Refitting a PE pipe connection to a universal connection



Step 1

Disassemble all components of the PE connection (1, 2, 3 and 4) and remove them.



Step 2

Put the seal (4) into the housing (5) until the upper edge is almost on the same level with the housing's edge.



Step 3

Put the sliding ring (3) with its flat side up on top of the seal.



Step 4

Put the clamping ring (2) onto the sliding ring (3) so that the steel grippers lie onto the flat side of the insert.



Step 5

Put on the nut (1) and fasten it with one turn so that the pipe can still be pushed into the coupling.

Universal connector - BEULCO Repair - R



COUPLING

Model 9905U

with universal connection on both sides

dimension universal x universal	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
15 - 21	●	●	5	19,88	372560
21 - 27	●	●	5	21,52	372577
27 - 35	●	●	5	30,70	372584
34 - 39	●	●	5	48,11	372591
39 - 43	●	●	5	49,74	372607
47 - 49	●	●	5	68,29	372614
59 - 61	●	●	5	83,14	372621



COUPLING - REDUCED

Model 99050U

with universal connection on both sides, reduced

dimension universal x universal	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
21 - 27 x 15 - 21	●	●	5	20,30	372638
27 - 35 x 15 - 21	●	●	5	27,25	372645
39 - 43 x 27 - 35	●	●	5	34,37	372669



COUPLING

Model 99055U

with universal connection and PE pipe connection

dimension universal x PE pipe cnection	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
15 - 21 x 20	●	●	5	14,99	372676
15 - 21 x 25	●	●	5	15,66	372683
21 - 27 x 20	●	●	5	17,86	372690
21 - 27 x 25	●	●	5	16,23	372706
27 - 35 x 25	●	●	5	22,46	372720
27 - 35 x 32	●	●	5	25,19	372737
34 - 39 x 32	●	●	5	27,91	372744
34 - 39 x 40	●	●	5	31,51	372751
39 - 43 x 32	●	●	5	27,73	372768
47 - 49 x 50	●	●	5	40,63	372775
47 - 49 x 63	●	●	5	48,66	372782
59 - 61 x 63	●	●	5	54,21	372799

APPLICATION D ● = Drinking Water
W ● = Water



ELBOW 90°
Model 99301U

with universal connection and PE pipe connection

dimension universal x PE pipe connection	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
15 - 21 x 25	●	●	5	16,77	372805
21 - 27 x 32	●	●	5	20,43	372829



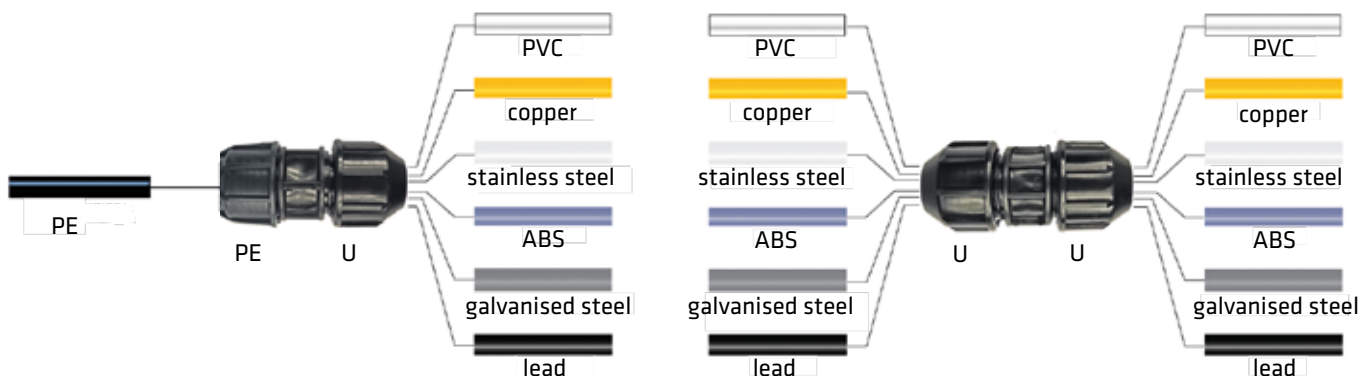
REFITTING SET

Model 9990U

To refit a PE connection to a universal connector for the transition to pipes made of PVC, copper, stainless steel, ABS, galvanised steel and lead consisting of: pressing nut, clamping ring, pressing ring and sealing ring.

for pipe outer diameter (mm)	dimension PE connector (mm)	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
15 - 21	25	●	●	1	11,16	375684
21 - 27	32	●	●	1	14,23	375691
27 - 35	40	●	●	1	16,28	375707

Possible combinations



REPAIRING.

**INSTEAD
OF REINSTALLING.**

BEULCO Repair - R1

Repair connector for PP-R- and PVC-C-pipes

Do you know the problem?

Drinking water supply pipes of PVC-C and PP-R pipes with which houses have been renovated and equipped in the 90s become more and more lead after 20 – 25 years. Many pipe producers do not longer offer repair parts or the repair is too complex. So the owner has no alternative as to renovate the pipes completely.

We have the solution!

As experienced producer of connectors in the field of pipe systems we have dealt with this problem together with our customers. Now we can offer a cheap alternative for the repair of PVC-C and PP-R pipes for hot water.

Instead of complex repairs by welding or adhering the BEULCO push-in connector enables to repair the damage in short time. Conduits can be filled shortly after their installations. An additional advantage is that special tools are not necessary.

Simply repairing instead of expensively renovating and disposing. In this way the budget is credited and the environment is protected.

Application

- Drinking water
- Cold and hot water up to 75°C



Characteristics

smart-grip-technology

This connector is designed in a way that it clamps the pipe with a material protecting smart-grip-technology. The pipe is only claimed as it is necessary for pression relations. So the pipe is not unnecessarily stressed.

Sealing

The connector has separated sealing and clamping function which are independent. This fact makes the connector extremely safe.

Advanced material

Our connectors are made of thermally unstressed brass and Ecobrass. Ecobrass is a lead-free alloy, qualified for the use in drinking water areas according to European Drinking Water Directive 98/837EC. The material meets the hygienic and legal requirements for drinking water. The reliable brass is characterized by dezincification resistance and high durability.

The structure



The metal clamping claw enables a torsion-free assembly by its positioning. The connector can easily be dismounted.

Possible combinations



Note:

The repair connector is also suitable for connect PP-R-pipes with PVC-C-pipes. Therefore it is important to change the insert pipe according to the pipe wall thickness!

In the 1990s the pipes listed below were often installed. We have tested these pipes in combination with the repair connector positive in our own testing track and field tests.

Manufacturer	Name	Kind of pipe	SDR
Aquatherm	green pipe S / fusiotherm	PP-R (single-shift)	SDR 6
WKT		PVC-C	SDR 9
TECE	Quickpipe	PVC-C	
Friatec	Friatherm starr	PVC-C	

! The insert depth of the pipe is made visible by a marking on the fitting body.



Installation instruction: Connector for PP-R and PVC-C-pipes



Step 1
Cut the pipe at a right angle at the previously affixed marking.



Step 2
Chamfer the pipe up to the inner diameter (e.g. with chamfering tool model 8880, item 124527).



Step 3
Mark the insertion depth on the pipe and press the insert pipe in up to the limit stop.



Step 4
Insert the pipe up to the marking.

Installation instruction: Repair connector /-coupling for PP-R- or PVC-C-pipe



Step 1
Cut the pipe at a right angle at the previously affixed marking.



Step 2
Chamfer the pipe up to the inner diameter (e.g. with chamfering tool model 8880, item 124527).



Step 3
Mark the insertion depth on the pipe and press the insert pipe in up to the limit stop.



Step 4
Screw the repair connector with the fitting (regard a suitable sealing!).



Step 5
Slide the repair connector on the pipe up to the marking.

Note:

Concerning repair couplings, step 3 has to be carried out on both sides, step 4 is dropped.

We recommend to lengthen the couplings and the connectors to their maximum lengths when installing and to shorten the pipe. If this is not possible, you have to set fixed points in front of and behind the connector.



CONNECTOR, MALE THREAD

Model 1101V

with plastic pipe connection and male thread

plastic pipe dimension (mm)	pipe material	thread	H	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
25 x 2,8	PVC-C	3/4"	●	●	●	5	18,90	377848
25 x 4,2	PP-R	3/4"	●	●	●	5	18,90	377602
32 x 3,6	PVC-C	1"	●	●	●	5	23,90	377855
32 x 5,4	PP-R	1"	●	●	●	5	23,90	377619
40 x 4,5	PVC-C	1 1/4"	●	●	●	2	39,90	377862
40 x 6,7	PP-R	1 1/4"	●	●	●	2	39,90	377626
50 x 5,6	PVC-C	1 1/2"	●	●	●	2	54,90	377879
50 x 8,3	PP-R	1 1/2"	●	●	●	2	54,90	377633



CONNECTOR, FEMALE THREAD

Model 11110V

with plastic pipe connection and female thread

plastic pipe dimension (mm)	pipe material	thread	H	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
25 x 2,8	PVC-C	3/4"	●	●	●	5	20,90	377725
25 x 4,2	PP-R	3/4"	●	●	●	5	20,90	377480
32 x 3,6	PVC-C	1"	●	●	●	5	25,90	377732
32 x 5,4	PP-R	1"	●	●	●	5	25,90	377497
40 x 4,5	PVC-C	1 1/4"	●	●	●	2	41,90	377749
40 x 6,7	PP-R	1 1/4"	●	●	●	2	41,90	377503
50 x 5,6	PVC-C	1 1/2"	●	●	●	2	57,90	377756
50 x 8,3	PP-R	1 1/2"	●	●	●	2	57,90	377510

REPAIR CONNECTOR, MALE THREAD

Model 1102V

with plastic pipe connection and male thread
for bridging pipe damages



plastic pipe dimension (mm)	pipe material	bridgeable length (mm)	H	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
25 x 2,8	3/4" PVC-C	180	●	●	●	1	88,90	377817
25 x 4,2	3/4" PP-R	180	●	●	●	1	88,90	377572
32 x 3,6	1" PVC-C	200	●	●	●	1	99,90	377800
32 x 5,4	1" PP-R	200	●	●	●	1	99,90	377565
40 x 4,5	1 1/4" PVC-C	220	●	●	●	1	122,90	377824
40 x 6,7	1 1/4" PP-R	220	●	●	●	1	122,90	377589
50 x 5,6	1 1/2" PVC-C	240	●	●	●	1	139,90	377831
50 x 8,3	1 1/2" PP-R	240	●	●	●	1	139,90	377596

APPLICATION	H	● = hot water up to 75°C
	D	● = drinking water
	W	● = water

REPAIR COUPLING

Model 1106



with 2 equal plastic pipe connections
for bridging pipe damages

plastic pipe dimension (mm)	pipe material	bridgeable length (mm)	H	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
25 x 2,8	PVC-C	180	●	●	●	1	114,90	377770
25 x 4,2	PP-R	180	●	●	●	1	114,90	377534
32 x 3,6	PVC-C	200	●	●	●	1	127,90	377763
32 x 5,4	PP-R	200	●	●	●	1	127,90	377527
40 x 4,5	PVC-C	220	●	●	●	1	159,90	377787
40 x 6,7	PP-R	220	●	●	●	1	159,90	377541
50 x 5,6	PVC-C	240	●	●	●	1	173,90	377794
50 x 8,3	PP-R	240	●	●	●	1	173,90	377558



CLAMPING RING

Model 1191V

dimension	H	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
25	●	●	●	1	3,61	377459
32	●	●	●	1	3,17	377466
40	●	●	●	1	4,17	377473
50	●	●	●	1	5,97	378012



INSERT PIPE

Model 8900V

dimension	pipe material	H	D	W	pkg. unit	gross price/ piece (Euro)	EAN no. 4027848-
25 x 2,8	PVC-C	●	●	●	2	3,00	377688
25 x 4,2	PP-R	●	●	●	2	3,00	377640
32 x 3,6	PVC-C	●	●	●	2	4,00	377695
32 x 5,4	PP-R	●	●	●	2	4,00	377657
40 x 4,5	PVC-C	●	●	●	2	6,00	377701
40 x 6,7	PP-R	●	●	●	2	6,00	377664
50 x 5,6	PVC-C	●	●	●	2	8,00	377718
50 x 8,3	PP-R	●	●	●	2	8,00	377671



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