

'YOUR REPAIR IS OUR CARE'

United Pipeline Products



PRODUCT CATALOGUE



ROMACON

HEGAWA

UNI-COUPLING

ROMACON PETRO

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The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change.
Please consult our general conditions of supply.

UNITED PIPELINE PRODUCTS



Picture: **The United Pipeline Products team**

Introduction

After years of integration and relocations, we would like to present our group of companies. Since November 19, 2010, the official opening of our new location, we have named our umbrella holding United Pipeline Products.

This name highlights our internal unity / vision and the active sector in which our independent businesses operate.

Since 19 November 2010, United Pipeline Products has been made up of the following companies:

1. HUWA international pipeline products bv
2. ROMACON pipeline products bv
3. ROMACON Petro bv
4. GEKAVE international bv
5. HEGAWA bv
6. UNI-Coupling bv

Brought together in one new production and sales location, in response to the changing international environment in the water, gas, oil and energy markets.

The individual companies will continue to operate independently, since this has proved very successful over the past 30 years.

We now have a presence in over 50 countries and are proud to be the largest producer in Europe in the field of stainless steel repair clamps. We hope to continue to serve you in the future.



United Pipeline Products is ready for the future

Our machinery has been up-dated and our entire building is equipped with all the latest environmentally friendly technologies:

- (geothermal installation, ultrasonic stain bath),
- automation systems (ERP, EXACT, bar code printers, VOIP),
- production technologies (MIG/MAG /TIG welding robots),
- PLC-controlled automated cutting and punching line.

As a group we also ensure that our products meet the current international standards for drinking water pipes, gas supply, etc. This means that we can supply gaskets in EPDM, NBR and VITON with various labels (ACS, WRAS, BS, KTW). For our repair clamps, we use only high quality stainless steel (AISI 316 (EN 1.4401) / AISI 304 (EN 1.4301)). Outlets and flanges are available to meet all international standards (ANSI, DIN and EN). Of course we are a NEN-EN-ISO 9001:2008 certified company.

Our experienced staff is educated and fully trained to help customers solve all possible issues related to pipe repair and hot tapping as well as providing useful advice. Our “special products division” has skilled and certified welders that guarantee high quality results for our specially engineered products.



At the same time we moved to a new location and united our forces, we also streamlined and adjusted production processes where necessary.



UNITED PIPELINE PRODUCTS ON THE JOB



ROMACON REPAIR CLAMP OVERVIEW

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacón repair clamps are used for the permanent repair of damaged pipes above and below ground

For water, gas and petrochemical fluids



RS-1



RS-2



RS-3



RS-O



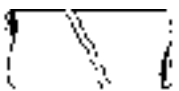
RS-C



Snap Clamp

Application

Following types of damage can be repaired with Romacón repair clamps:



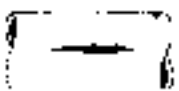
Cracks or fractures in asbestos-cement and cast iron pipes



Pin holes in cast iron or steel pipes



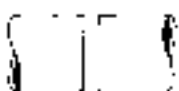
Pin holes in asbestos-cement, cast iron, steel and plastic pipes



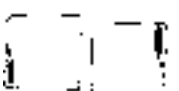
Cracks in asbestos-cement, cast iron, steel and plastic pipes



Torn sockets or welded tees



Ends of pipe with small space in between



Ends of pipe misaligned or of different diameters



Ends of pipe in a light curve



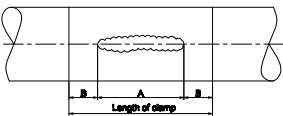
Broken asbestos-cement pipe coupling



Burst rubber in asbestos-cement pipe coupling

Product ranges

- RS-1 repair clamps have a working range of 7-11 mm depending on the diameter.
- RS-2 repair clamps have a working range of 20-22 mm depending on the diameter.
- RS-3 repair clamps have a working range of 30-33 mm depending on the diameter.
- RS-O repair clamps have a maximum working range of 4 mm.
- RS-C repair clamps have a working range of 4-11 mm depending on the diameter.
- Snap Clamp repair clamps have working range of 3-7 mm depending on the diameter.



Product length

- The length of the clamp = $A + 2B$, but minimum pipe diameter. A = length of crack or hole, B = a minimum of 75 mm, depending on the length of crack, size of hole or opening and pressure.
- For PVC pipes, the width of the clamps should be 50% longer and bolt torque should be reduced by 50%. We prefer that you consult your Romacón distributor.

Installation conditions

- The maximum allowable distance between two pipe ends should not exceed 10 mm.
- The maximum allowable deflection is 2 degrees.
- The maximum allowable offset should not exceed 3 mm.

Material specifications

- All metal parts: stainless steel AISI 304 (1.4301) or AISI 316L (1.4404).
- Metal parts have been deburred and are sonar passivated to restore the corrosion resistance to its original state after the welding process.
- Extra strong U-shaped lifter bars.
- Stainless steel PTFE teflon coated bolts to prevent galling.
- Wide diameter stainless steel washers.
- Snap Clamp materials deviate from above specifications. Specifications available on the Snap Clamp product page.

Others

- No loose parts that may get lost during installation.
- No special tools required: a simple wrench will do the job.
- Under most circumstances the clamps can be installed without releasing the pressure on the pipe.
- The clamps are separately packed into strong double-rib cartons. For export overseas we use strong, seaworthy crates.
- Repair clamps type RS-1 are available with additional grip for easier installation in smaller clamp sizes.



Rubber gasket specifications

Romacón repair clamps can be supplied with the following types of rubber depending on the type of repair clamp:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact Romacón	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

- The rubber is tapered and has a waffle pattern.
- The rubber is 50 degrees shore for rough surfaces.
- Seamless rubber lining for every clamp diameter up to and including 300 mm OD.
- Bridge plate is vulcanized into the rubber gasket.
- Special tape is used to fix the rubber gasket to the stainless steel band. This tape is flexible and reinforced with glassfibre thread to withstand hot and humid conditions and guarantee a long storage capability.

REPAIR CLAMP TYPE RS-1

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacon stainless steel repair clamps type RS-1 are used for permanent repairs of broken and damaged pipes

For water, gas and petrochemical fluids



Application

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC *
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romacon or a Romacon distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depends on the type of break or damage, pipe OD, medium etc.

- Pipe DN 40 up to and including DN 150: 16 bar
- Pipe DN 175 up to and including DN 300: 10 bar

Our clamps can be modified to cope with higher working pressures.

*** Please contact Romacon or your distributor for more information regarding pressures on gas pipes.*

Available sizes

RS-1 clamps are available in many different working ranges for pipes of DN 40 up to and including DN 350. Please consult our price-list for more details on the working ranges. Available lengths: 150, 200, 250, 300, 400, 500 and 600 mm.

Available rubber gaskets

RS-1 clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact Romacon	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

REPAIR CLAMP TYPE RS-2

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacon stainless steel repair clamps type RS-2 are used for permanent repairs of broken and damaged pipes

For water, gas and petrochemical fluids



Application

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC *
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romacon or a Romacon distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depends on the type of break or damage, pipe OD, medium etc.

- Pipe DN 80 up to and including DN 150: 16 bar
- Pipe DN 175 up to and including DN 500: 10 bar

Our clamps can be modified to cope with higher working pressures.

*** Please contact Romacon or your distributor for more information regarding pressures on gas pipes.*

Available sizes

RS-2 clamps are available in many different working ranges for pipes of DN 80 up to and including DN 800. Please consult our price-list for more details on the working ranges. Available lengths: 200, 250, 300, 400, 500 and 600 mm.

Available rubber gaskets

RS-2 clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact Romacon	max 200 degr. C.

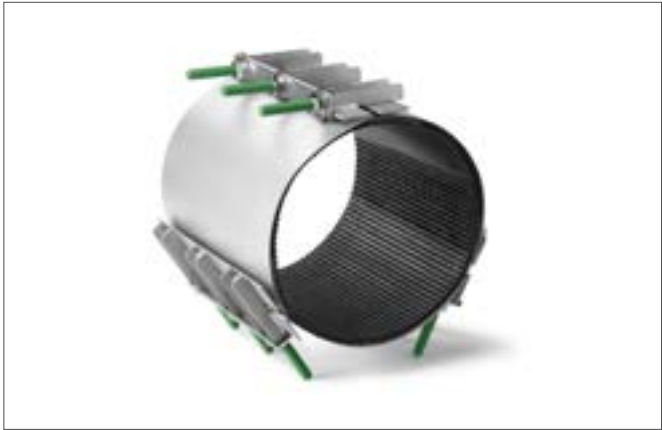
Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

REPAIR CLAMP TYPE RS-3

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romac stainless steel repair clamps type RS-3 are used for permanent repairs of broken and damaged pipes

For water, gas and petrochemical fluids



Application

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC*
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romac or a Romac distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depend on the type of break or damage, pipe OD, medium etc.

- Pipe DN 250 up to and including DN 500: 10 bar
- Pipe DN 500 up to and including DN 600: 6 bar
- Pipe DN 700: 4 bar
- Pipe DN 800: 2 bar

Please consult our price-list for working pressures of larger pipe OD's. Our clamps can be modified to cope with higher working pressures.

*** Please contact Romac or your distributor for more information regarding pressures on gas pipes.*

Available sizes

RS-3 clamps are available in many different working ranges for pipes of DN 250 up to and including DN 1000. Please consult our price-list for more details on the working ranges. Available lengths: 300, 400, 500 and 600 mm. Other lengths available on request. If you need to repair larger pipes we can offer 4 band or 5 band clamps. Please contact us for more information.

Available rubber gaskets

RS-3 clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact Romac	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

INTERNAL REPAIR CLAMP

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romac internal repair clamps are used for permanent repairs of broken and damaged pipes from the inside

For water, gas and petrochemical fluids



Application

Internal repair clamps can be installed inside pipes of various materials and offer a cost & labour effective permanent repair solution for the renewal of leaking pipes, in order to conserve water and to protect the environment.

The product can be installed from ranges of 20 inch / 500 mm or larger and a safe operating pressure can be exercised up to 240 psi / 16 bar. The special profile on the external side of the rubber gasket will ensure a complete sealing surface between the expansion sections and the pipeline to be repaired.

A very solid and functional expansion system takes care of the proper distribution of the forces on the rubber seal, so that a perfect sealing will be created. During the installation of the stainless steel sections one only has to use a screwdriver and a ratchet wrench. In other words, no complicated and costly equipment or long installation time is required.

Internal repair clamps have a low amount of parts and are light weight which is an appreciated and welcome feature during installing expansion procedures.

By selecting an ultra-low profile internal construction system, the optimum water flow characteristics can be maintained.

The problem

Leakage of pipe joints in the stormwater and sewage watertransportation is a known , and costly fact! The consequences of water loss result in increased pumping & energy cost, including maintenance and lost revenues. Sewage leakage will not only contaminate the surroundings but the waste is also not being transported for proper treatment.

The solution

In order to resolve these damaging liabilities concerning the ecology, Romac has found a very simple and functional method, after a two year research program. An ingenious, internal stainless steel repair clamp which is suitable for waste water piping has been designed and tested.

Material specifications

- All the metal components for this simplified internal sealing procedure are made of stainless steel 316L quality material and are fully passivated.
- Internal repair clamps are supplied with an NBR gasket.

TAPPING CLAMP

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romaccon stainless steel tapping clamps are used to make permanent (hot) taps on different pipe types

For water, gas and petrochemical fluids



Application

Romaccon tapping clamps can be equipped with a threaded outlet up to 4". The standard outlets are threaded according to ISO/DIN or BSP. American CC or IP threads can be supplied upon request.

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC*
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romaccon or a Romaccon distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depends on the type of break or damage, pipe OD, medium etc.

- Pipe DN 40 up to and including DN 150: 16 bar
- Pipe DN 175 up to and including DN 300: 10 bar

Our clamps can be modified to cope with higher working pressures.

*** Please contact Romaccon or your distributor for more information regarding pressures on gas pipes.*

Available sizes

RS-1 tapping clamps are available from range 38-42. Available lengths: 150, 200, 250, 300, 400, 500 and 600 mm.

RS-2 tapping clamps are available from ranges 88-110. Available lengths: 200, 250, 300, 400, 500 and 600 mm.

Size of the threaded outlet or nipple	Available from range on RS1	Available from range on RS2	Minimum length in mm for RS1 / RS2
1/2"	38-42	88-110	150 / 200
3/4"	44-51	88-110	150 / 200
1"	48-55	88-110	150 / 200
1,1/4"	60-67	88-110	150 / 200
1,1/2"	60-67	88-110	150 / 200
2"	82-90	88-110	200
2,1/2" ***	not available	108-128	300
3" ***	not available	133-155	300
4" ***	not available	158-180	400

**** Only available on double band calmps, with a reinforced upper scale.*

Material specifications

- Sockets and nipples are threaded according to ISO 7/DIN or BSP. Special designed outlets are available on request. Please contact your distributor.
- The outlets are 100 % air tested after welding.

Other tapping clamp rubber gasket and product material specifications are identical to the specifications of the standard repair clamps.

DRILLING SADDLE

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romaccon stainless steel drilling saddles are used for making connections to valves, t-joints (branch pipes), shut-off valves, pipe and conduit fittings, etc.

For water, gas and petrochemical fluids



Application

Drilling saddles can be supplied with special branch pipes (among others, POLVA and branch pipes with male and female threading). Under most circumstances the clamps can be installed without releasing the pressure on the pipe.

Pressure ratings

Pressure ratings for water ** depend on the type of break or damage, pipe OD, medium etc.

- Pipe DN 40 up to and including DN 150: 16 bar
- Pipe DN 175 up to and including DN 300: 10 bar

*** Please contact Romaccon or your distributor for more information regarding pressures on gas pipes.*

Available sizes

Drilling saddles can be supplied with branch sizes starting at 1/2" to 2". Special branch sizes can be supplied on request. We can also supply the required branch pipes for blow-forming equipment applications.

Drilling saddles are available in many different working ranges for pipes of DN 80 up to and including DN 350. Please consult our price-list for more details on the working ranges. The length of the drilling saddle is standard 150 mm.

Material specifications

- All metal parts: stainless steel AISI 304 or AISI 316L.
- Metal parts have been deburred and are passivated to restore the corrosion resistance to its original state after the welding process.
- Double band (two sections) with a working range of 18-22 mm depending on the diameter. For an overview of all working ranges please see our price-list.
- Seamless rubber lining for every clamp diameter.
- U-shaped lifter bars.
- Stainless steel, electrolytic zinc plated nuts to prevent galling.
- Stainless steel washers.

Available rubber gaskets

Drilling saddles can be supplied with standard certified NBR rubber gaskets in the upper scale, EPDM on request. The rubber is tapered and has a waffle pattern. Band gasket is always EPDM.

EPDM	- potable water - waste water	max 60 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

TAPPING TEE TYPE SST

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romaccon stainless steel tapping tee type SST are used for permanent (hot) taps on several pipe types

For water, gas and petrochemical fluids



Application

The SST is in fact a reinforced double band clamp with a flanged outlet. The standard working range is 20mm. The upper body is reinforced to accomodate the installation of valves and drilling equipment.

The full circumferential seal allows you to tap size on size with confidence. No more need for heavy, hard to assemble, cast iron sleeves. The full circle design reduces stress on the pipe opposite of the tap and reinforces the pipe.

The tapping tee is easy to install. No specially trained personnel or tools needed. A wrench to tighten bolts is the only tool required to install the sleeve.

The built-in range of 20 mm allows one sleeve to fit various classes of steel, PVC, ductile iron, cast iron or asbestos-cement pipe which results in inventory reduction. The high tensile strength of stainless steel allows us to manufacture the lightest tapping sleeve in the industry. Easy to handle and less load on the pipe.

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC *
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romaccon or a Romaccon distributor for more information regarding the application and restrictions on these pipe types.*

Available sizes

SST tapping tee clamps are available for pipe diameters from DN 80 up to and including DN 800. Standard length: 500 mm. Besides our standard program, we are able to manufacture any range or length that you may require.

Material specifications

Other tapping tee rubber gasket and product material specifications are identical to the specifications of the standard repair clamps.

Pressure ratings

Pressure ratings depend on the type of pipe, branch OD, medium etc. In general, SST tapping Tees are for use on pipes up to and including DN 600 mm and can resist a pressure of 16 bar. Please contact Romaccon or your distributor for more information regarding pressures on gas pipes.

Flange design

Flanges are drilled acc. to DIN 2576 and NEN 1092-1. The flange thickness is 24 mm for flanges up to DN 200 and 26 mm for flanges up to up to DN 300. Standard flanges are flat faced PN 10, but raised faced, ASA and PN 16 flanges are available upon request.

REPAIR CLAMP TYPE RS-O

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romaccon stainless steel repair clamps type RS-O are used for permanent repairs of broken and damaged pipes

For water, gas and petrochemical fluids



Application

The RS-O repair clamp is in fact a small version of the RS-1 repair clamp, having a range of max. 4 mm. The clamp is used on pipes for which RS-1 clamps are not available due to the small pipe diameter. RS-O is available for pipe nominal diameters 1/2" up to 2". Available length 75, 100 and 150 mm.

The clamps can be used on the following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC *
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romaccon or a Romaccon distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depend on the type of break or damage, pipe OD, medium etc. In general, RS-O clamps can resist a working pressure of 16 bars.

*** Please contact Romaccon or your distributor for more information regarding pressures on gas pipes.*

Available sizes

RS-O clamps are available in several different working ranges from 19-23 to 60-64. Please consult our price-list for more details on the working ranges. Available lengths: 75, 100 and 150 mm.

Available rubber gaskets

RS-O clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

REPAIR CLAMP TYPE RS-C

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romaccon stainless steel repair clamps type RS-C are used for permanent repairs of damaged pipes

For water, gas and petrochemical fluids



Application

The RS-C Clamp is designed for pipes of DN 20 up to and including DN 200 RS-C clamps can be used as an economical alternative to RS-1 clamps, but only for local damages.

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Steel (St.)
- Asbestos Cement (AC)
- PE coated steel
- PVC*
- GRP*
- PE*

** If pipe repair clamps are to be used on plastic pipes, please always contact Romaccon or a Romaccon distributor for more information regarding the application and restrictions on these pipe types.*

Pressure ratings

Pressure ratings for water ** depend on the type of break or damage, pipe OD, medium etc. In general, RS-C clamps can resist a working pressure of 16 bar for pipes up to DN 150 and 10 bar for pipes with DN > 150.

*** Please contact Romaccon or your distributor for more information regarding pressures on gas pipes.*

Available sizes

RS-C clamps are available in several different working ranges for pipes of DN 20 up to and including DN 200. Please consult our price-list for more details on the working ranges. Available lengths: 100, 150 and 200 mm.

Available rubber gaskets

RS-C clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact Romaccon	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

REPAIR CLAMP TYPE SNAP CLAMP

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romaccon type Snap Clamps are used for the permanent repair of damaged pipes above ground

For water, gas and petrochemical fluids



Application

Snap Clamps provide a fast and economic repair to small damages in pipes up to DN 300. They are applied on board of ships and by plumbers for repairs above ground. The rubber partially covers the inside of the band and allows the repair of small holes caused by corrosion or frost.

The clamps can be used on following pipe types:

- Ductile Iron (DI)
- Cast Iron (CI)
- Copper
- Steel (St.)

Pressure ratings

- Pipe OD 21-111 mm 16 bar
- Pipe OD 112-229 mm 10 bar
- Pipe OD 272-329 mm 6 bar

Maximum pressure for gas pipes is 4 bar (for all pipe od's up to incl. 329 mm)

Available sizes

Snap Clamps are available for pipes up to DN 300 and length 75, 150 and 225 mm. We will send you a price-list with all available ranges upon request. For larger ranges we can supply double band snap clamps.

Material specifications

- Lugs: ductile iron GGG 40 according to DIN 1693 or malleable iron GTW 40 according to DIN 1692, surface sheradized with 15 microns zinc.
- Band: stainless steel according to AISI 304.
- Bolts: special mushroom head square neck bolts. Bolt size M10 up to 2" and M12 for larger sizes. Material according to class 4.6, surface galvanized with 5 microns zinc.
- Hexagon nuts: according to DIN 934 class 5, surface galvanized with 5 microns zinc.
- Washer: according to DIN 125a, surface galvanized with 5 microns zinc.

Available rubber gaskets

Snap Clamps clamps can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.

REPAIR SET TYPE ERS

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacón stainless steel emergency repair sets (ERS) are used for the permanent repair of damaged pipes

For water, gas and petrochemical fluids



Application

The function of the emergency repair set is to reduce the stock that has to be carried by the water companies and to improve the availability of clamps in case of emergency repairs.

Especially for larger repair clamps that are relatively seldom used, it is convenient to have the combi repair clamp available so that any required clamp with a diameter between 91 and 780 mm can be assembled from the sections in the emergency repair set.

The sections are packed in a wooden crate and each time that two or more sections are used, the used sections can be re-ordered to complete the crate for the next emergency.

The sections, which increase in size, are marked A,B,C,D and E.

Standard section length is 400 mm

Clamp combinations

Use the table on the second page on the right to find the right combination of clamp sections for the range you need. This combination list is also supplied with a complete emergency repair set.

Pressure ratings

The pressure for which the clamp can be used varies with the number of sections, pipe diameter, medium etc. Use the following table as a guide:

Pipe OD	For water	For gas
91-271	16 Bar	6 Bar
272-374	10 Bar	4 Bar
365-545	10 Bar	3 Bar
546-632	6 Bar	1 Bar
632-669	4 Bar	0,5 Bar
669-780	2 Bar	0,5 Bar

Nominal working pressure under ideal circumstances.

Available rubber gaskets

Emergency Repair Sets can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
EPDM HT	- potable water - waste water	max 150 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.
VITON	- several chemicals please contact Romacón	max 200 degr. C.

Our rubber gaskets are certified to European standards, such as ACS (France) and WRAS (UK). Please contact us for a detailed list of current certifications.

ERS SECTION COMBINATIONS

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

RS-1 (one part)	Plate lenght	Clamp length	Range	
			Min. OD	Max. OD
A	317	400 / 500 / 600	91	98
B	383	400 / 500 / 600	111	121
C	446	400 / 500 / 600	131	141
D	543	400 / 500 / 600	162	172
E	637	400 / 500 / 600	193	203

RS-2 (two parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B	700	400 / 500 / 600	213	233
	C	763	400 / 500 / 600	233	253
	D	860	400 / 500 / 600	264	284
B	E	954	400 / 500 / 600	295	315
	C	829	400 / 500 / 600	253	273
	D	926	400 / 500 / 600	284	304
C	E	1020	400 / 500 / 600	314	334
	D	989	400 / 500 / 600	304	324
D	E	1083	400 / 500 / 600	335	355
	E	1180	400 / 500 / 600	366	386

RS-3 (three parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B and C	1146	400 / 500 / 600	354	384
	B and D	1243	400 / 500 / 600	386	416
	B and E	1337	400 / 500 / 600	416	446
	C and D	1306	400 / 500 / 600	406	436
	C and E	1400	400 / 500 / 600	436	466
	D and E	1497	400 / 500 / 600	467	497
B	C and D	1327	400 / 500 / 600	426	456
	C and E	1466	400 / 500 / 600	456	486
	D and E	1563	400 / 500 / 600	487	517
C	D and E	1626	400 / 500 / 600	508	538

RS-4 (four parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B, C and D	1689	400 / 500 / 600	527	567
	B, C and E	1783	400 / 500 / 600	558	598
	B, D and E	1880	400 / 500 / 600	589	629
D	D, E and A	1327	400 / 500 / 600	609	649
C	C, D and E	1626	400 / 500 / 600	629	669

RS-5 (five parts)	Combined with	Plate lenght	Clamp length	Range	
				Min. OD	Max. OD
A	B, C, D and E	2326	400 / 500 / 600	730	780

SPLIT BARREL

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacón split barrel repair clamps are used to repair leaking couplings, broken AC couplings, leaking bell joint connections and high pressure pipes

For water, gas and petrochemical fluids



Application

With the split barrel repair clamp it is possible to repair the pipe without removing the broken coupling. Furthermore it can be easily installed even under rough and wet conditions. No special tools are needed, only a torque wrench.

Pressure ratings

The clamp is suitable for pressures up to 40 bar on pipes with a diameter up to 1500 mm and length up to 5.000 mm.

Available sizes

Split barrel repair clamps are designed and manufactured according to the specifications of each individual situation. Contact our sales department and fill out the “split barrel size request form”. This form provides us with all the necessary details to make the quotation and, at a later stage, manufacture the product. We will need to know the pipe diameter, repair situation, pressure and medium as well as the required length.

If possible please provide us with a sketch or picture of the repair situation.

Material specifications

- Material: stainless steel AISI 304 or 316.
- Bolts and nuts: stainless steel AISI 304 or 316 with PTFE coating to avoid galling.
- Depending on the size and weight of the product, a hinge construction will be provided to lift the split barrel over the pipe.
- A vent needs to be installed for testing purposes and to enable the medium to escape during installation. A vent valve is not included with the product.

Available rubber gaskets

Split barrels can be supplied with the following types of rubber:

EPDM	- potable water - waste water	max 60 degr. C.
NBR	- natural gas - potable water - waste water	max 70 degr. C.

- Axial gaskets are seated in grooves in each half of the split barrel.
- Restraint strips are welded in to prevent the rubber from flowing out during installation.
- The initial radial seal is obtained by tightening the end bolts at each end of the barrel.

DUCTILE TAPPING SADDLE (DTS)

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacón ductile tapping saddles are used to make permanent (hot) taps on existing or new pipe lines

For water and gas pipes



Application

The DTS saddle can be used to make taps on all pipe types except PE for water and gas applications. This saddle is ideal for pipes covered with polyethylene, but also fits old pipes perfectly. When the DTS saddle is placed, the polyethylene layer does not have to be removed. Applicable for various types of material, such as asbestos-cement, cast iron and steel. There are test reports available upon request.

Available sizes

The DTS Saddle can be supplied with a tapped service outlet of 1/2” up to and including 2”. Also available with branch according to Polva 1 1/2” to 2”. Special service outlets are available upon request. The product can be supplied from DN 40 up to and including DN 600 with a strap width 60 mm.

DN in mm	Working Range
40	56-57
50	58-72
60	72-82
80	82-102
80	88-108
100	106-130
125	129-158
150	159-186
175	184-210
200	211-244
225	235-255
250	264-298
300	315-358
325-600	On request

Material specifications

- Solid, well thought-out construction.
- High quality GGG 50 ductile iron.
- Produced according to DIN 3543, Part 1.
- Saddle is provided with epoxy coating, EWS epoxy according GSK-diridives RAL-G2-662 DVGW-W-270, which prevents rust.
- DVGW (G87 e 087) approved.
- Perfect seal through flat O-ring, which is enclosed in the chamber of the alignment saddle (see illustration). Through a special combination of O-ring and flat ring, a two-fold seal is obtained. The rubber for ring gasket is NBR.
- Wide, 100% stainless steel lower bracket.
- Lower bracket provided with a special rubber band.
- Stainless steel, electrolytic zinc plated nuts, to prevent fretting.

Other saddle solutions



Please contact Romacón or your distributor for more information regarding alternative saddle solutions and specifications.

ECO INSERT

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacón stainless steel inserts are used to reinforce PE and PVC pipes from the inside to allow the use of compression couplings

For water, gas and petrochemical fluids



Application

Romacón inserts are designed to reinforce pipe ends by providing inside support for PE or PVC pipes when pipe couplings or flange adaptors are used for the connection of these pipes. The inserts are produced for one pipe size. Its thin wall construction will not disturb the flow characteristics of the medium.

Available sizes

Below table provides an indication of the standard Insert product range. Please contact Romacón or a Romacón distributor for more information regarding bigger pipe size Inserts.

Material specifications

- Inserts are made of stainless steel AISI 304. AISI 316 available on request.

PE pipe size	Length
50 x 2,9	100
50 x 3,7	100
50 x 4,6	100
63 x 3,6	100
63 x 5,8-5,1	100
63 x 8,6	100
75 x 4,3	100
75 x 6,8-6,5	100
75 x 10,3	100
90 x 2,7-2,2	120
90 x 5,4-5,1	120
90 x 8,2-7,8	120
90 x 12,3	120
110x 6,6-6,3	120
110 x 10,0-9,5-9,1	120
110 x 15,1	120

PE pipe size	Length
125 x 3,7-3,1	120
125 x 7,4-7,1	120
125 x 11,4	120
140 x 12,8	140
140 x 8,0	140
160 x 4,5-3,9	140
160 x 9,5-9,1	140
160 x 14,6	140
180 x 6,0	140
180 x 10,7-10,2	140
180 x 16,4	140
200 x 6,9	160
200 x 11,9-11,4	160
200 x 18,2	160

PE pipe size	Length
225 x 6,3-5,5	160
225 x 13,4-12,8	160
225 x 20,5	160
250 x 9,6	160
250 x 14,8-14,2	160
250 x 22,7	160
280 x 8,7	160
280 x 16,6-15,9	160
280 x 25,4	160
315 x 9,2	160
315 x 12,4	160
315 x 17,9	160
315 x 18,7	160
315 x 28,6	160
355 x 20,1	160
355 x 32,3	160
355 x 35,0	160
355 x 40,0	160

INSERT WITH WEDGE

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacón stainless steel inserts are used to reinforce PE and PVC pipes from the inside to allow the use of compression couplings

For water, gas and petrochemical fluids



Application

Romacón inserts are designed to reinforce pipe ends by providing inside support for PE or PVC pipes when pipe couplings or flange adaptors are used for the connection of these pipes. The inserts are supplied with a wedge to overcome the tolerances in the plastic pipes. Its thin wall construction will not disturb the flow characteristics of the medium.

Available sizes

Below table provides an indication of the standard Insert product range. Please contact Romacón or a Romacón distributor for more information regarding bigger pipe size Inserts.

Material specifications

- Inserts are made of stainless steel AISI 304. AISI 316 available on request.

PE pipe size	Length
63 x 3,6	175
63 x 5,8-5,1	175
63 x 8,6	175
75 x 4,3	175
75 x 6,8-6,5	175
75 x 10,3	175
90 x 2,7-2,2	175
90 x 5,4-5,1	175
90 x 8,2-7,8	175
90 x 12,3	175
110 x 6,6-6,3	175
110 x 10x0-9x5	175
110 x 15,1	175
125 x 3,7-3,1	175
125 x 7,4-7,1	175
125 x 11,4	175

PE pipe size	Length
140 x 12,8	175
140 x 8,0	175
160 x 4,5-3,9	200
160 x 9,5-9,1	200
160 x 14,6	200
180 x 6,0	200
180 x 10,7-10,2	200
180 x 16,4	200
200 x 6,9	200
200 x 11,9-11,4	200
200 x 18,2	200
225 x 6,3-5,5	225
225 x 13,4-12,8	225
225 x 20,5	225

PE pipe size	Length
250 x 9,6	225
250 x 14,8-14,2	225
250 x 22,7	225
280 x 8,7	225
280 x 16,6-15,9	225
280 x 25,4	225
315 x 9,2	225
315 x 12,4	225
315 x 17,9	225
315 x 18,7	225
315 x 28,6	225

LP COUPLING

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Romacou LP Couplings are designed for above ground connection of pipes

In bulk transport systems or pipe mail systems



Application

The coupling is suitable for negative pressures and pressures up to 3 bar. Couplings for higher pressures can be supplied on request.

Installation

Maximum torque 45 Nm. The locking bar is designed in such way that the nuts are locked during tightening.

The installation of the coupling is very easy. Just push the coupling over the pipe ends and fasten the bolts. Disassembling the couplings before installation is not necessary. There are no loose parts.

Available sizes

LP Couplings are available in many different working ranges for pipes of DN 65 up to and including DN 250. Please consult our price-list for more details on the working ranges. Available lengths: 100, 150 and 200 mm. The working range of the LP Coupling is 2 mm on the outside pipe diameter.

Material specifications

- The body consists of stainless steel AISI 304.
- The tightening bars and bolts are made of galvanised steel.
- M10 bolts with hexagon socket head screws.
- If required, the coupling can be supplied with all parts made of stainless steel AISI 304 which makes the product suitable for underground applications.
- Standard rubber quality is EPDM. Other grades are available on request.

TOOLS

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS



Torcofix K Torque Wrench

Controlled screw tightening in the most widely used range of tightening on mechanical joints, repair clamps, sleeves, service saddles, tapping sleeves, flange bolts, couplings and hydrants with a range of 40-200 Nm or 30-150 lbf.

- For use in almost all industrial manufacturing areas.
- Release system triggers a tactile and audible signal for perfect installation.
- Sturdy, satin chrome-plated tubular steel design, with chrome-plated ratched head and high-quality synthetic components.
- Dual scale Nm and lbf below a window with a magnifying glass effect.



Deep Socket Set

The Deep Socket set contains 4 socket sizes that help to fasten the most common nut sizes on mechanical joints, repair clamps, sleeves, service saddles, tapping sleeves, flange bolts, couplings and hydrants.

Large diameter barrels make fast hand tightening easy. Operates with any 1/2" drive manual or impact wrench. Deep sockets are available individually or in a set. The Deep Socket set is also available with the Torcofix K Torque Wrench.



DoubleShot Wrench Set

Double shot wrenches provide greater flexibility in dealing with the most common nut sizes that fasten mechanical joints, repair clamps, sleeves, service saddles, tapping sleeves, flange bolts, couplings and hydrants.

All of the DoubleShot wrenches have the "Bolt-Thru" design that lets bolts pass entirely through sockets and arm head so nuts can be secured on any threaded length. They are therefore perfect for installing all of our products. DoubleShot wrenches are available individually or in sets.



Pipe cleaning strap

Prepares surfaces prior to cutting and drilling. Unique circular blades cut in every direction, allowing free movement of the strap. The pipe cleaning strap is manufactured using anti static belting, which ensures safety when working on any pipeline especially those carrying inflammable materials. The cleaning strap is suitable for cleaning mains up to 12" diameter, however longer versions for larger diameter pipes are available upon request.

The user-friendly handles incorporate a shortening device, which allows the operator to reduce the length of the cleaning strap to suit the diameter of the main being cleaned. The handles incorporate a anti-spin handle which is kind to the operators hands. Unlike other models, the Romacou pipe cleaning Strap incorporates cleaning teeth which are circular in design which enables each button to create a cutting action in both directions cleaning the pipe quicker and easier than conventional models.



The best connection for pipeline systems

Since Hegawa was founded in 2004, the company has become a major supplier of pipeline connection products to the water and gas, shipbuilding and building industries.

We focus mainly on couplings, flange adaptors, dismantling joints and expansion joints.

Today, we supply products ranging from DN 50 to DN 3000 mm. This includes a range of standard products, such as the wide range and plus range up to DN 1200 mm.

We also deliver specially made products, such as gripping couplings and flange adaptors, dismantling joints and expansion joints up to DN 3000 mm.

Hegawa is your supplier of the complete range of pipeline connection products. We have over 25 years of experience in this business and have a deep understanding of the problems which occur in pipeline processes. We work together with our customers to find the best solutions for their challenges.

As part of the United Pipeline Products Group, we can supply a complete solution that will give our customers the advantages of having one supplier for all the connections they need.

Frits Berben, Managing Director Hegawa B.V.



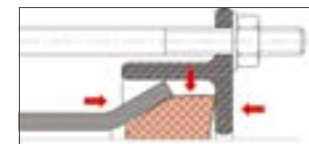
HEGAWA FittoSize

COUPLINGS, FLANGE ADAPTORS AND REDUCING COUPLING

Application

Hegawa straight fit to size couplings, flange adaptors and reducing couplings are manufactured to join most types of plain ended rigid pipes or to join a plain ended pipe to a flanged fitting, pipe or valve.

Working pressures may vary from 10 to 40 bar, depending on application. Flanges can be drilled to suit various international standards like ISO, DIN, BS and ANSI. Available from DN 50 to DN 2500 mm.



A set of trackhead bolts are tightened moving the end-rings towards each other, compressing the wedge-shaped rubber gaskets in the space formed by the end-ring, the flared middlering and the pipe surface forming a long-term leak-proof seal. To assure long term sealing without any additional maintenance after the initial installation, the design of the components is of extreme importance.

The most important component of the coupling is the rubber gasket. The material compound must be capable of retaining ultrahigh loading, extreme temperature variations, vibration, impact and flexing that can be caused by many variables in the pipeline system.

The Hegawa gasket compound uniquely developed and engineered to resist all these conditions, when confined in properly designed metal components, guarantees long term performance on many type of sources, including natural gas, oil and under many extreme conditions.

Hegawa couplings are approved by German Lloyd's (GL), DNV and American Bureau of Shipping (ABS).



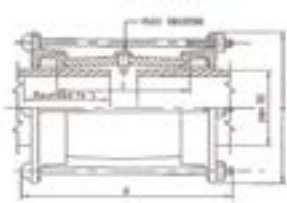
Advantages

- The flexibility of the coupling easily absorbs an axial expansion or contraction of max. 10 mm. Flange adaptors can absorb an axial expansion or contraction of max. 5 mm.
- Maximum deflection of 6°.
- The couplings and flange adaptors can absorb vibrations.
- Long radius curves or slight bends can be laid without special bends.
- Accommodates deflection before, during or after installation and service.
- Accepts some disalignment in straight pipes.
- Easy installation, all you need is a spanner.
- A (removable) locating plug can be installed on request.

Please contact us for more technical information, installation instructions or technical drawings.

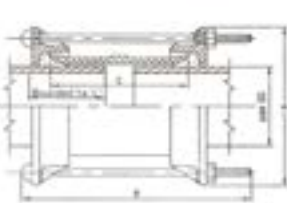
Material specifications

- High quality rolled steel to BS4360:1986 Grade 43A.
- Fusion bonded epoxy coating, thickness approx. 200 microns.
- A hot dipped galvanized coating or a transit primer is available on request.
- EPDM or NBR rubber gaskets.
- Bolts and nuts are made of steel BS970: Part1:1983 Grade 070 and are hot dipped galvanized.



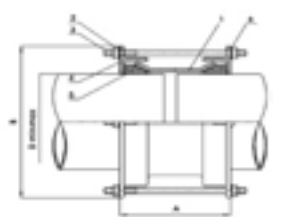
Pipe Couplings

DN mm	Pipe o.d. in mm	Tol. On o.d. for length L in mm	L mm	A mm	B mm	Sleeve C x av. Thicknesss in mm	Bolts & nuts Qty. x dia. x length	Weight kg	WP bar
50	60,3	+/- 0,8	100	89	147	80 x 4,8	2 x M12 x 140 mm	2,5	46
65	76,1	+/- 0,8	100	155	172	100 x 6,0	2 x M12 x 165 mm	2,6	46
80	88,9	+/- 0,8	100	153	172	100 x 7,1	3 x M12 x 165 mm	3,2	46
100	114,3	+/- 0,8	100	178	172	100 x 7,1	3 x M12 x 165 mm	3,3	46



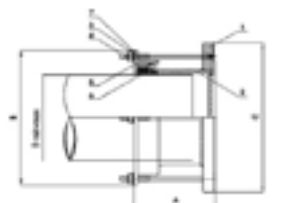
Pipe Couplings

DN mm	Pipe o.d. in mm	Tol. On o.d. for length L in mm	L mm	A mm	B mm	Sleeve C x av. Thicknesss in mm	Bolts & nuts Qty. x dia. x length	Weight kg	WP bar
125	139,7	+ 1,6 - 0,8	100	228	175	100 x 6	4 x M12 x 165 mm	4,8	46
150	168,3	+ 1,6 - 0,8	100	256	175	100 x 6	4 x M12 x 165 mm	8,6	37
200	219,1	+ 1,6 - 0,8	100	313	175	100 x 6	6 x M12 x 165 mm	10,9	36
250	273,1	+ 1,6 - 0,8	100	370	175	100 x 6	6 x M12 x 165 mm	13,3	35
300	323,9	+ 1,6 - 0,8	100	421	175	100 x 6	6 x M12 x 165 mm	15,3	35
350	355,6	+ 2,4 - 0,8	150	452	239	150 x 6	6 x M12 x 165 mm	18	26
400	406,4	+/- 1,6	150	503	239	150 x 6	8 x M12 x 230 mm	20	26
450	457,2	+/- 1,6	150	554	239	150 x 6	8 x M12 x 230 mm	24	26
500	508	+/- 1,6	150	605	239	150 x 6	10 x M12 x 230 mm	25	26
550	558,8	+/- 1,6	150	655	239	150 x 6	10 x M12 x 230 mm	30	26
600	609,6	+/- 1,6	150	707	239	150 x 6	10 x M12 x 230 mm	32	24
650	660,4	+/- 1,6	150	757	239	150 x 6	12 x M12 x 230 mm	42	24
700	711,2	+/- 1,6	150	812	240	150 x 6	14 x M12 x 230 mm	47	24
800	812,8	+/- 1,6	150	914	240	150 x 6	14 x M12 x 230 mm	53	20
900	914,4	+/- 1,6	150	1015	265	150 x 6	16 x M12 x 230 mm	56	20
1000	1016	+/- 1,6	150	1117	265	150 x 6	18 x M12 x 230 mm	71	16
1200	1219,2	+/- 1,6	150	1346	265	150 x 6	22 x M12 x 230 mm	118	16



Pipe Couplings

DN mm	Pipe o.d. in mm	Tol. On o.d. for length L in mm	A mm	B mm	Weight kg
350	355,6	+ 7,0 - 7,0	220	470	25
350	378	+ 7,0 - 7,0	220	494	27
400	406,4	+ 7,0 - 7,0	220	522	28
400	429	+ 7,0 - 7,0	220	545	30
450	480	+ 7,0 - 7,0	220	596	33
500	508	+ 7,0 - 7,0	220	620	36
500	532	+ 7,0 - 7,0	220	648	38
550	558,8	+ 7,0 - 7,0	220	672	40
600	609,6	+ 7,0 - 7,0	220	722	43
600	635	+ 7,0 - 7,0	220	750	45
650	660	+ 7,0 - 7,0	220	775	45



Flange Adaptors

DN mm	Pipe o.d. in mm	Tol. On o.d. for length L in mm	A mm	B mm	C mm	Weight kg
350	355,6	+ 7,0 - 7,0	220	470	505	34
350	378	+ 7,0 - 7,0	220	494	505	36
400	406,4	+ 7,0 - 7,0	220	522	565	40
400	429	+ 7,0 - 7,0	220	545	565	42
450	480	+ 7,0 - 7,0	220	596	610	49
500	508	+ 7,0 - 7,0	220	620	670	54
500	532	+ 7,0 - 7,0	220	648	670	59
600	609,6	+ 7,0 - 7,0	220	722	780	67
600	635	+ 7,0 - 7,0	220	750	780	70
700	711,2	+ 7,0 - 7,0	220	825	895	91

DN mm	Pipe o.d. in mm	Tol. On o.d. for length L in mm	A mm	B mm	Weight kg
700	711,2	+ 7,0 - 7,0	220	825	52
700	738	+ 7,0 - 7,0	220	854	54
800	812,8	+ 7,0 - 7,0	220	925	65
800	842	+ 7,0 - 7,0	220	958	67
900	914,4	+ 7,0 - 7,0	220	1030	80
900	945	+ 7,0 - 7,0	220	1060	82
1000	1016	+ 7,0 - 7,0	220	1130	94
1000	1048	+ 7,0 - 7,0	220	1160	96
1200	1220	+ 7,0 - 7,0	320	1230	112
1200	1255	+ 7,0 - 7,0	320	1260	114

DN mm	Pipe o.d. in mm	Tol. On o.d. for length L in mm	A mm	B mm	C mm	Weight kg
700	732	+ 7,0 - 7,0	220	854	895	92
800	812,8	+ 7,0 - 7,0	220	925	1015	108
800	842	+ 7,0 - 7,0	220	958	1015	101
900	914,4	+ 7,0 - 7,0	220	1030	1115	124
900	945	+ 7,0 - 7,0	220	1060	1115	135
1000	1016	+ 7,0 - 7,0	220	1130	1230	148
1000	1048	+ 7,0 - 7,0	220	1160	1230	135
1200	1220	+ 7,0 - 7,0	320	1230	1330	178
1200	1255	+ 7,0 - 7,0	320	1260	1330	163

HEGAWA Fastfit

WIDE RANGE

Application

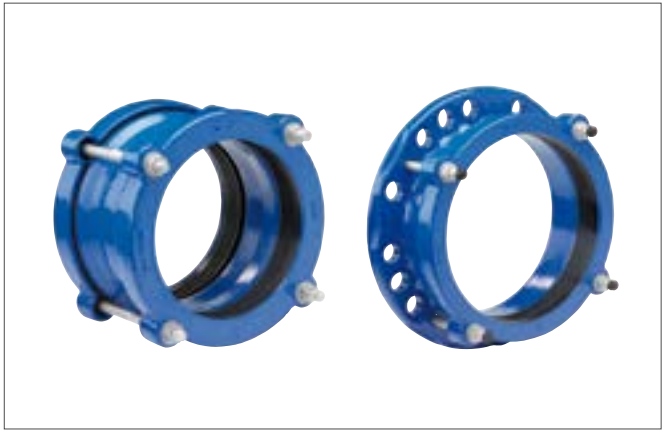
The Hegawa FastFit Wide Range products offer the possibility to cover a much larger diameter range than in the past. More pipe materials can be jointed whether in steel, ductile iron, cast iron, asbestos cement, PVC or almost any other rigid pipe material.

Pipe Couplings

DN mm	DN inches	Range	Weight kg
50	2	59-73	3,8
65	2,5	72-85	4,3
80	3	88-103	5,9
100	4	109-128	6,6
125	5	132-146	7,7
125	5	139-153	7,7
150	6	159-182	10,2
175	7	192-209	12,0
200	8	218-235	13,5
225	9	250-267	18,0
250	10	271-289	19,0
300	12	315-332	21,5
300	12	322-340	21,5
400	16	417-437	30,0

Flange Adaptors

DN mm	DN inches	Range	Weight kg
50	2	59-73	4,1
65	2,5	72-85	4,6
80	3	88-103	6,2
100	4	109-128	7,0
125	5	132-146	9,2
125	5	139-153	9,2
150	6	159-182	11,5
175	7	192-209	13,0
200	8	218-235	15,2
225	9	250-267	18,8
250	10	271-289	20,5
300	12	315-332	24,5
300	12	322-340	24,5
400	16	400-429	49,0
400	16	417-437	49,5
500	20	500-532	58,0
500	20	526-546	68,5
600	24	630-650	85,0

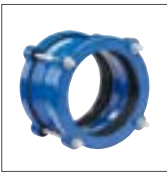


Material specifications

- Material: High quality ductile iron GGG 50.
- Coating: Epoxy coating, providing a long term corrosion protection along with resistance to abrasion and impact.
- Other coatings are available on request.
- Bolts and nuts: High grade Steel 8.8 fasteners, coated with Dacromet™ Grade B 500. Dacromet™ coating is based on zinc and aluminium flakes that are passivated throughout the entire layer providing excellent anticorrosion characteristics.
- Stainless steel bolts and nuts are available on request.
- Rubber gaskets: EPDM Grade E / WA as per BS EN 681-1:1996. NBR gaskets are available on request.

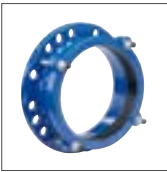
Advantages

- Working pressures up to 16 bars.
- Angular deflection 6° for couplings.
- DIN, BS and ANSI in one flange design.



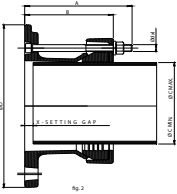
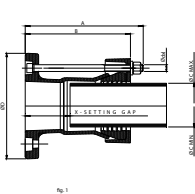
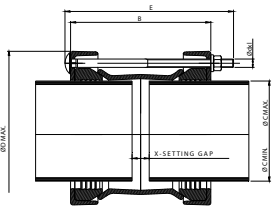
Pipe Couplings

Coupling Type	Range Ø C		Sleeve L. mm	No. mm	Bolts D mm	l mm	B mm	Ø D mm	E mm	X		Weight kg
	Min. mm	Max. mm								Min. mm	Max. mm	
DN50-2"	59	73	100	4	M 12	170	154	153	197	20	30	3,8
DN65-2,5"	72	85	100	4	M 12	170	154	166	197	20	30	4,3
DN80-3"	88	103	100	4	M 12	170	154	185	197	20	30	5,9
DN100-4"	109	128	100	4	M 12	190	163	211	197	20	30	6,6
DN125-5"	132	146	100	4	M 12	190	163	237	197	20	30	7,7
DN125-5"	139	154	100	4	M 12	190	163	237	197	20	30	7,7
DN150-6"	159	182	100	4	M 12	190	163	274	197	20	30	10,2
DN175-7"	192	209	100	4	M 12	190	163	299	197	20	30	12,0
DN200-8"	218	235	100	4	M 12	190	194	323	197	20	30	13,5
DN225-9"	250	267	100	6	M 12	190	194	362	197	20	30	18,0
DN250-10"	271	289	100	6	M 12	190	194	390	197	20	30	19,0
DN300-12"	315	332	100	6	M 12	190	204	401	197	20	30	21,5
DN300-12"	322	340	100	6	M 12	190	204	401	197	20	30	21,5
DN400-16"	417	437	130	8	M 14	250	220	536	257	20	30	30,0



Flange Adaptors

Coupling Type	Range Ø C		Fig.	No. mm	Bolts D mm	l mm	A mm	B mm	Ø D mm	X		Weight kg
	Min. mm	Max. mm								Min. mm	Max. mm	
DN50-2"	59	73	1	4	M 12	130	139	125	165	50	60	4,1
DN65-2,5"	72	85	1	4	M 12	130	139	125	185	50	60	4,6
DN80-3"	88	103	2	4	M 12	120	129	100	220	10	30	6,2
DN100-4"	109	128	2	4	M 12	120	129	105	225	10	35	7,0
DN125-5"	132	146	2	4	M 12	120	131	105	285	10	35	9,2
DN125-5"	139	154	2	4	M 12	120	131	105	285	10	35	9,2
DN150-6"	159	182	2	4	M 12	120	131	105	286	10	30	11,5
DN175-7"	192	209	2	4	M 12	120	131	105	340	10	35	13,0
DN200-8"	218	235	2	4	M 12	120	131	105	340	10	30	15,2
DN225-9"	250	267	2	6	M 12	120	131	115	405	10	35	18,8
DN250-10"	271	289	2	6	M 12	120	134	115	405	10	35	20,5
DN300-12"	315	332	2	6	M 12	120	134	115	482	10	35	24,5
DN300-12"	322	340	2	6	M 12	120	134	115	482	10	35	24,5
DN400-16"	400	429	2	8	M 14	180	195	142	536	10	35	49,0
DN400-16"	417	437	2	8	M 14	190	205	142	536	10	35	49,5
DN500-20"	500	532	2	10	M 14	180	195	142	618	10	35	58,0
DN500-20"	526	546	2	10	M 14	180	195	142	618	10	35	68,5
DN600-24"	630	650	2	10	M 14	180	195	142	734	10	35	85,0



HEGAWA Fastfit plus
PLUS RANGE

Application

Hegawa Plus Range products have an outside diameter range of up to 34 mm. This means within every nominal size nearly all outside pipe diameters can be joined, whether in steel, ductile iron, cast iron, asbestos cement, PVC or almost any other rigid pipe material.

Pipe Couplings

DN mm	DN inches	Range	Weight
50	2	43-64	6,4
65	2,5	63-84	7,8
80	3	85-107	9,5
100	4	107-134	13
125	5	132-160	14,5
150	6	159-192	20,7
175	7	192-227	22,4
200	8	218-252	25,4
250	10	266-300	31,8
300	12	315-350	36,7

Flange Adaptors

DN mm	DN inches	Range	Weight
50	2	43-64	4,4
65	2,5	63-84	5,5
80	3	85-107	7,4
100	4	107-134	10,8
125	5	132-160	11,6
150	6	159-192	17,8
175*	7	192-227	24,3
200	8	218-252	26,3
250	10	266-300	31,4
300	12	315-350	38,5

* Flange size DN 200

Sleeve length for couplings is 200 mm



Material specifications

- Material: High quality ductile iron GGG 450-10.
- Coating: High Quality epoxy, providing a long term corrosion protection along with resistance to abrasion and impact.
- Other coatings are available on request.
- Bolts and nuts: High grade Steel 8.8 fasteners, coated with Dacromet™ Grade B 500. Dacromet™ coating is based on zinc and aluminium flakes that are passivated throughout the entire layer providing excellent anticorrosion characteristics.
- Stainless steel bolts and nuts are available on request.
- Rubber gaskets: EPDM Grade E / WA as per BS EN 681-1:1996. NBR Rubber is available on request.

Advantages

- Working pressures up to 16 bars.
- Angular deflection 6° for couplings.
- DIN, BS and ANSI in one flange design.



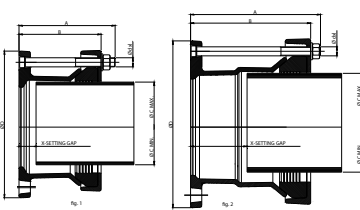
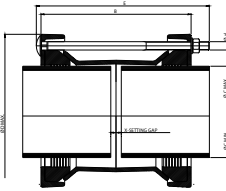
Pipe Couplings

Coupling Type	Range Ø C		Sleeve L. mm	No. mm	Bolts		B mm	Ø D mm	E mm	X		Weight kg
	Min. mm	Max. mm			D mm	l mm				Min. mm	Max. mm	
DN50-2"	43	64	200	4	M 12	290	260	150	297	20	120	6,4
DN65-2,5"	63	84	200	4	M 12	290	260	174	297	20	120	7,8
DN80-3"	85	107	200	4	M 12	290	260	198	297	20	120	9,5
DN100-4"	107	134	200	4	M 16	320	270	240	328	20	110	13
DN125-5"	132	160	200	4	M 16	320	270	271	328	20	100	14,5
DN150-6"	158	192	200	4	M 16	320	288	316	328	20	100	20,7
DN175-7"	192	227	200	4	M 16	320	288	349	328	20	100	22,4
DN200-8"	218	252	200	4	M 16	320	288	372	328	20	100	25,4
DN250-10"	266	300	200	6	M 16	320	288	426	328	20	100	31,8
DN300-12"	315	350	200	6	M 16	320	288	471	328	20	105	36,7



Flange Adaptors

Coupling Type	Range Ø C		Fig.	No. mm	Bolts		A mm	B mm	Ø D mm	X		Weight kg
	Min. mm	Max. mm			D mm	l mm				Min. mm	Max. mm	
DN50-2"	43	64	1	4	M 12	120	128	110	165	20	40	4,4
DN65-2,5"	63	84	1	4	M 12	120	128	110	185	25	40	5,5
DN80-3"	85	107	2	4	M 12	165	175	158	200	60	90	7,4
DN100-4"	107	134	2	4	M 16	190	200	180	230	75	100	10,8
DN125-5"	132	160	1	4	M 16	160	170	145	274	30	65	11,6
DN150-6"	158	192	2	4	M 16	220	232	215	305	100	120	17,8
DN175-7"	192	227	1	4	M 16	220	232	215	345	30	115	24,3
DN200-8"	218	252	2	4	M 16	250	262	240	370	95	145	26,3
DN250-10"	266	300	2	6	M 16	270	282	260	415	120	165	31,4
DN300-12"	315	350	2	6	M 16	270	282	260	483	120	165	38,5

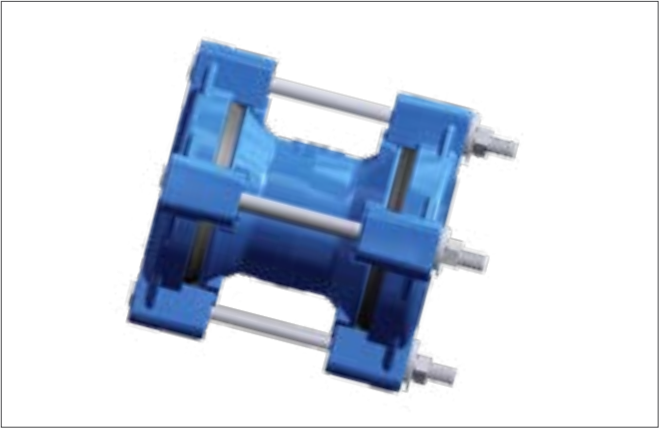


HEGAWA Fastfit

EXTRA WIDE RANGE

Application

Hegawa Fastfit Extra Wide Range couplings, flange adaptors and reducing couplings are suitable for a working pressure up to 16 bars. Suitable for joining pipes of different rit materials, such as cast iron, steel, asbestos cement, stainless steel, PVC, PE (insert required) and so on. Suitable for use with sewage.



Material specifications

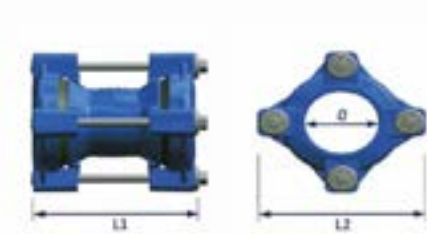
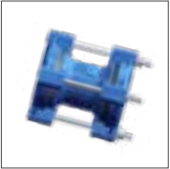
- Middlringing : Nodular cast iron GGG 50 to EN 1514, EN 1563, BS 6920. Epoxy Coated.
- Followers : Nodular cast iron GGG 50 to EN 1514, EN 1563, BS 6920. Epoxy Coated.
- Bolts and nuts : Steel quality 8.8. to DIN 931, DIN 934, DIN 9021, Dacromet coated.

Flange drilling

- Universal drilling according to:
- EN 1092-2 PN10/16
- ANSI up to DN 400
- BSTD up to DN 400 (except for DN 250)

Reducing Couplings

DN mm	Range mm	Article Reference:	L1 mm	L2 mm	Weight kg
200	194-226 / 216-246	HEG-URRCSL-7/8-S-E	255	368	21,0
250	244-276 / 266-297	HEG-URRCSL-9/10-S-E	255	419	23,0
300	315-345 / 345-375	HEG-URRCSL-12/14-S-E	255	499	31,0
350	353-387 / 400-435	HEG-URRCSL-14/16-S-E	295	565	47,0
400	400-435 / 435-470	HEG-URRCSL-16/18-S-E	302	600	47,0
450	475-510 / 530-565	HEG-URRCSL-18/20-S-E	302	695	55,0
500	499-534 / 530-565	HEG-URRCSL-20/22-S-E	302	695	55,0
500	530-565 / 575-610	HEG-URRCSL-22/24-S-E	302	695	65,0
500	575-610 / 610-645	HEG-URRCSL-24/24-S-E	302	775	65,0
600	610-645 / 645-680	HEG-URRCSL-24/26-S-E	302	810	65,0



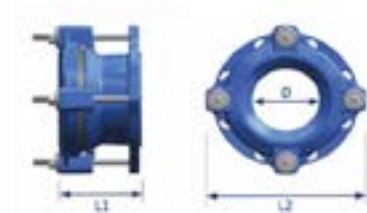
Pipe Couplings

DN mm	Range mm	Article Reference:	L1 mm	L2 mm	Weight kg
50	60-80	HEG-URCSL-2-S-E	186	190	6,5
60/65	70-90	HEG-URCSL-2,5-S-E	186	200	7,0
80	88-113	HEG-URCSL-3-S-E	186	223	8,0
100	107-132	HEG-URCSL-4-S-E	186	242	8,5
125	133-159	HEG-URCSL-5-S-E	206	269	10,0
150	159-184	HEG-URCSL-6-S-E	206	296	12,0
150/175	165-195	HEG-URCSL-7-S-E	222	317	14,5
200	194-226	HEG-URCSL-8-S-E	222	348	19,5
200	216-246	HEG-URCSL-8A-S-E	222	368	19,5
250	244-276	HEG-URCSL-10-S-E	242	398	23,0
250	266-297	HEG-URCSL-10A-S-E	242	419	24,5
300	315-345	HEG-URCSL-12-S-E	242	469	26,5
300	345-375	HEG-URCSL-12A-S-E	242	499	32,0
350	375-405	HEG-URCSL-14-S-E	242	529	33,5
400	400-435	HEG-URCSL-16-S-E	292	565	46,0
400	435-470	HEG-URCSL-16A-S-E	292	600	51,0
450	475-510	HEG-URCSL-18-S-E	292	640	51,0
500	499-534	HEG-URCSL-20-S-E	292	665	60,0
500	530-565	HEG-URCSL-20A-S-E	292	695	60,0
600	610-645	HEG-URCSL-24-S-E	292	775	70,0
600	645-680	HEG-URCSL-24A-S-E	292	810	71,0
700	710-745	HEG-URCSL-28-S-E	300	895	85,0
800	810-845	HEG-URCSL-32-S-E	300	995	100,0
900	913-949	HEG-URCSL-36-S-E	300	1115	-
1000	1016-1052	HEG-URCSL-40-S-E	300	1218	-
1100	1108-1133	HEG-URCSL-44-S-E	300	1299	-
1100	1142-1167	HEG-URCSL-44A-S-E	300	1333	-
1200	1209-1234	HEG-URCSL-48-S-E	300	1400	-
1200	1245-1270	HEG-URCSL-48A-S-E	300	1436	-
1400	1412-1437	HEG-URCSL-56-S-E	300	1603	-
1400	1452-1477	HEG-URCSL-56A-S-E	300	1643	-



Flange Adaptors

DN mm	Range mm	Article Reference:	L1 mm	L2 mm	Weight kg
50	60-80	HEG-URCFA-2-S-E	145	190	6,0
60/65	70-90	HEG-URCFA-2,5-S-E	145	200	6,5
80	88-113	HEG-URCFA-3-S-E	150	223	7,5
100	107-132	HEG-URCFA-4-S-E	125	242	7,5
125	133-159	HEG-URCFA-5-S-E	140	269	8,5
150	159-184	HEG-URCFA-6-S-E	175	296	12,0
150/175	165-195	HEG-URCFA-7-S-E	183	317	14,0
200	194-226	HEG-URCFA-8-S-E	183	348	18,0
200	216-246	HEG-URCFA-8A-S-E	183	368	18,0
250	244-276	HEG-URCFA-10-S-E	158	398	21,0
250	266-297	HEG-URCFA-10A-S-E	158	419	21,0
300	315-345	HEG-URCFA-12-S-E	158	469	25,5
300	345-375	HEG-URCFA-12A-S-E	200	499	31,5
350	353-387	HEG-URCFA-14-S-E	158	529	34,5
350	375-405	HEG-URCFA-14A-S-E	200	529	34,5
400	400-435	HEG-URCFA-16-S-E	209	565	38,0
400	435-470	HEG-URCFA-16A-S-E	298	600	53,0
400	470-505	HEG-URCFA-16B-S-E	304	645	60,0
450	475-510	HEG-URCFA-18-S-E	298	640	64,0
500	499-534	HEG-URCFA-20-S-E	208	665	59,0
500	530-565	HEG-URCFA-20A-S-E	208	695	59,0
500	575-610	HEG-URCFA-20B-S-E	208	695	65,0
600	610-645	HEG-URCFA-24-S-E	208	775	69,0
600	645-680	HEG-URCFA-24A-S-E	298	810	93,0
700	710-745	HEG-URCFA-28-S-E	220	910	10,0
700	758-793	HEG-URCFA-28A-S-E	306	964	125,0
800	810-845	HEG-URCFA-32-S-E	225	995	125,0
800	867-904	HEG-URCFA-32A-S-E	306	1025	135,0
900	913-949	HEG-URCFA-36-S-E	200	1115	-
1000	1016-1052	HEG-URCFA-40-S-E	200	1230	-
1100	1108-1133	HEG-URCFA-44-S-E	200	1340	-
1100	1142-1167	HEG-URCFA-44A-S-E	200	1340	-
1200	1209-1234	HEG-URCFA-48-S-E	200	1455	-
1200	1245-1270	HEG-URCFA-48A-S-E	200	1455	-
1400	1412-1437	HEG-URCFA-56-S-E	200	1675	-
1400	1452-1477	HEG-URCFA-56A-S-E	200	1675	-



HEGAWA Long sleeve
UNIVERSAL COUPLINGS

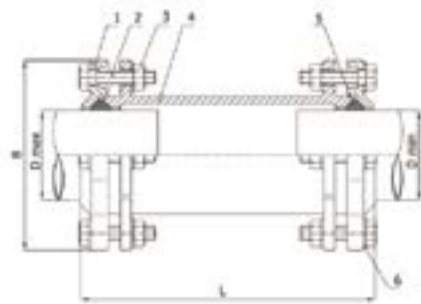
Application

Hegawa Long Sleeve Universal Couplings for cast iron, steel and PE/PVC pipes for water and wastewater. The full sleeve with rubber seal is used for connecting and repairing cast iron, steel and PVC pipes (inclucing any combination).



Pipe Couplings

DN mm	Range	Length L mm	Width B mm	Weight kg
80	84-99	365+-5	215	13,1
100	103-118	365+-5	235	14,4
150	157-170	365+-5	300	26,6
200	215-225	365+-5	360	33,80



Material specifications

- Followers/End ring: ductile iron EN-GJS-500-7 to PN-EN 1563:2000 (1)
- Bolts: S235JR, galvanised steel to PN-EN 24017 (2)
- Nuts: S235JR, galvanised steel to PN-EN 24032 (3)
- Middlering: ductile iron EN-GJS-500-7 to PN-EN 1563:2000 (4)
- Gasket: NBR or EPDM to PN-92/C-01604.01 (5)
- Washer: S235JR, galvanised steel to ISO 7089 (6)
- Coating: Epoxy coating, providing a long term corrosion protection along with resistance to abrasion and impact.

HEGAWA Wide Range
PLUS COUPLINGS FOR CAST IRON, STEEL AND PE/
PVC PIPE

Application

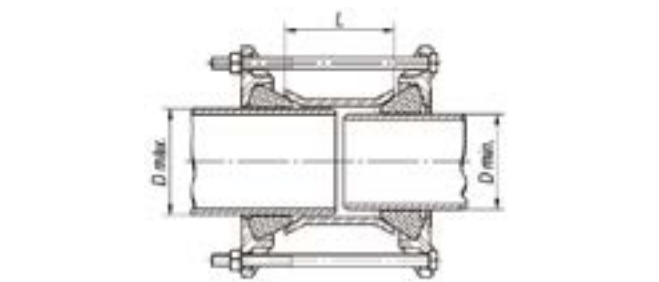
Allows the connection between pipes with several external diameters and different materials (e.g. PVC, ductile iron, steel and fibrocement pipes). Has two sealing rings, with incorporated orings, that assures an extremely efficient sealing. It allows to a maximum angle deflection of 6°.

Pipe Couplings

Range mm	L mm	Weight kg.
25-55	110	5,0
39-69	110	5,6
46-76	110	5,8
48-78	110	5,8
57-87	110	6,8
63-93	110	7,2
78-108	110	7,6
87-117	110	8,2
100-130	110	9,0
108-138	110	10,0
117-147	120	10,4
129-159	120	11,0
138-168	120	12,0
152-182	120	13,2
159-189	120	14,0
172-202	120	14,8
186-216	120	16,0
198-228	120	16,4
218-253	130	22,0
245-280	130	24,0
266-301	150	30,2
297-332	150	32,8
314-349	150	34,0
343-378	150	37,0
375-410	150	44,2
396-431	200	51,2
420-455	200	57,0
457-492	200	67,0
497-532	200	70,0
525-560	200	73,7
533-568	200	75,0
575-610	200	80,0
625-660	200	87,0



Range mm	L mm	Weight kg.
660-695	200	91,0
710-745	200	139,0
724-765	200	144,0
810-845	200	154,0
829-870	200	166,0
934-975	250	234,0
1034-1075	250	254,0
1219-1260	250	302,0



Material specifications

- Locking rings: ductile iron EN-GJS-500 to DN EN 1563
- Body: ductile iron EN-GJS-500 to DN EN 1563
- Gasket: EPDM to BS EN 681-1
- Bolts: Steel quality 8.8. to ISO 898-1, Dacromet coated
- Nuts and washers: Steel quality 8.8. to ISO 898-2, Dacromet coated
- Coating: Epoxy paint potable resicoat 9000 R4 Blue applied electrostatically with 250 µm to DIN 30677
- Rubber gaskets: EPDM. NBR/SBR Rubber is available on request.

HEGAWA Fastfit grip
PLUS RANGE GRIP COUPLINGS AND FLANGE
ADAPTORS

Application

The Hegawa FastFit Plus Range Grip couplings and flange adaptors are a range of universal gripping products from DN 50 u.t.i. DN 400 which enables you to make locking connections on steel, ductile iron, cast iron, asbestos cement, GRP, PE and PVC pipes from 39 mm o.d. u.t.i. 430 mm o.d.



Technical concept

The new Plus Range Gripping products gives you a range of maximum 40 mm to connect all different pipe materials with each other and make them pull-out resistant. The new developed gasket in combination with the POM grippers results in a leaktight, pull-out resistant connection.

The sealing is being made through the incorporated O-rings making small separate chambers and taking care for a quick leaktight sealing. The POM grippers in combination with the incorporated steel rivets take care for the locking device. It is a universal design that can be used on all the pipe materials without changing them.

User friendly

The locking bolt head design takes care for an easy installation by only using a torque wrench. The product is able to take up angular deflection up to 8° (for flange adaptors up to 4°). Suitable for a working pressure up to 16 bars for water and 5 bars for gas applications. Tested in accordance to EN 14525, EN 545, EN 969.

Note: for use on PE and PVC pipes we recommend you to use inserts.

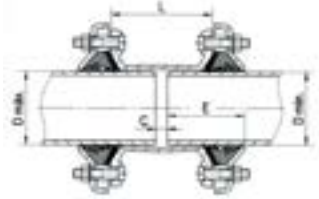
Material specifications

- Middlering / flange adaptor body: ductile cast iron GGG 50 to EN-GJS-500-7
- Followers: ductile cast iron GGG 50 to EN-GJS-500-7
- Rubber gaskets: EPDM or NBR to BS EN 681-1
- Grippers: POM (methylene polioxide)
- Rivets with milling: tempered steel cq 15
- Bolts and washers: stainless steel A2 (X5 CrNi 18-10) to EN 10088-1
- Nuts: stainless steel A4 (X5 CrNiMo 17-12-2) to EN 10088-1
- Coating: Resicoat epoxy, blue colour, to DIN 30677



HEGAWA

FASTFIT PLUS RANGE GRIP COUPLINGS

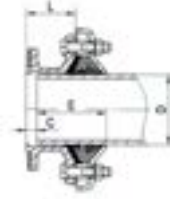


Pipe Couplings

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		66	66	66	66	66	12,1		
					75		77	76,1							
							82		76	76	76	76		78	
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			
							101,6							116	116
					110		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	118	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		220	222	228			27,8		
					225		219,1								
217/257	220	130	162	35	225	222		220	222	228	238	250	31,1		
					250		244,5								
245/285	300	150	200	35	250	274		272	276			250	42		
					280		273,1								
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		

HEGAWA

FASTFIT PLUS RANGE GRIP FLANGE ADAPTORS



Flange Adaptor

Nominal Size DN mm	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	
50	39/52	85	90	120	15	40 50		42,4 48,3						4,1
40	49/64	85	90	120	15	50 63	56	48,3 60,3						4,2
60/65	63/83	85	105	128	15	63	66		66	66	66	66	66	7,6
						75	77 82	76,1	76	76	76	76	78	
80	78/103	85	105	128	15	90	82 98	88,9 101,6	96	96	96	98	78	8,4
80/100	87/117	85	105	128	15	90		88,9 101,6	96	96				9,2
						110	114,3	116	116	96	98	104		
100	100/130	90	105	130	20	110 125	118	101,6 114,3	116	116	118	122	104 128	10
125	117/147	90	105	130	20	125 140	118 144	139,7	141	141	118 145	122	128	11,6
150	152/182	110	115	145	20	160 180	170	168,3 177,8	168	168	174	180	157	14
200	198/228	110	115	145	20	200 225	222	219,1	220	222	228			18
250	245/285	150	150	180	30	250 280	274	273,1	272	276			250	27,8
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

HEGAWA Fittosize grip
FITTOSIZE GRIP COUPLINGS, FLANGE ADAPTORS
AND REDUCING COUPLINGS

Application

Hegawa introduces, pull-out resistant (locking), FittoSize Couplings, Flange adaptors and Reducing couplings. These products are available from DN 350 u.t.i. DN 1400 mm and are suitable for use on steel, ductile/cast iron, PVC and PE pipes.

Technical concept

The FittoSize Gripping range has been developed as an answer to the growing need for simple and high quality connection products to connect more types of pipe materials and to make it pull-out resistant at once.

The products are easy to install and no special tools are needed. Only a torque wrench is needed in order to get the necessary torque on the bolts.

Installation can be done under all circumstances, even under wet conditions.

The FittoSize Gripping products are the simple and quick solution to all your repair needs of pipeline and laying of new pipelines.



Material specifications

- Material: Products are being made from steel i.e. S235JR to EN 10020.
- Coating: High quality epoxy, providing a long term corrosion protection along with resistance to abrasion and impact. It's blue coloured.
- Bolts and nuts: Standard it will be delivered with steel galvanized bolts and nuts. On request the products can be delivered with stainless steel bolts and nuts.
- Rubber gaskets: EPDM to EN 681-1.
- Gripping elements: High quality gripping elements made from steel and galvanized.

Advantages

- Available with all flange drillings.
- Working pressures up to 16 bars.



Pipe Couplings

DN mm	Range in mm	A mm	B mm	Weight kg
350 PE/PVC	343-357	320	487	31
350 Steel	348-362	320	487	28
350 Ductile	371-385	320	510	30
400 PE/PVC	393-407	320	532	32
400 Steel	399-413	320	538	31
400 Ductile	422-436	320	561	33
450 PE	443-457	320	582	31
450 Ductile	473-487	320	612	36
500 PE/PVC	493-507	320	632	39
500 Steel	501-515	320	640	39
500 Ductile	525-539	320	664	41
600 PE/PVC	623-637	320	762	47
600 Steel	603-617	320	742	46
600 Ductile	628-642	320	767	48
700 PE/PVC	703-717	320	842	55
700 Steel	704-718	320	843	55
700 Ductile	731-745	320	870	57
800 PE/PVC	793-807	320	932	65
800 Steel	806-820	320	945	68
800 Ductile	835-849	320	974	70
900 PE/PVC	893-907	320	1032	79
900 Steel	907-921	320	1046	83
900 Ductile	938-952	320	1077	85
1000 PE/PVC	993-1007	320	1132	96
1000 Steel	1009-1023	320	1148	97
1000 Ductile	1041-1055	320	1180	99
1200 Steel	1213-1227	420	1352	115
1200 Ductile	1248-1262	420	1387	117

Flange Adaptors

DN mm	Range in mm	A mm	B mm	C mm	Weight kg
350 PE/PVC	343-357	285	487	505	32
350 Steel	348-362	285	487	505	32
350 Ductile	371-385	285	510	505	32
400 PE/PVC	393-407	285	532	565	38
400 Steel	399-413	285	538	565	38
400 Ductile	422-436	285	561	565	35
450 PE	443-457	285	582	610	38
450 Ductile	473-487	285	612	610	43
500 PE/PVC	493-507	285	632	670	48
500 Steel	501-515	285	640	670	48
500 Ductile	525-539	285	664	670	48
600 PE/PVC	623-637	285	762	780	83
600 Steel	603-617	285	742	780	83
600 Ductile	628-642	285	767	780	83
700 PE/PVC	703-717	285	842	895	99
700 Steel	704-718	285	843	895	100
700 Ductile	731-745	285	870	895	105
800 PE/PVC	793-807	285	932	1015	117
800 Steel	806-820	285	945	1015	135
800 Ductile	835-849	285	974	1015	143
900 PE/PVC	893-907	285	1032	1115	163
900 Steel	907-921	285	1046	1115	166
900 Ductile	938-952	285	1077	1115	169
1000 PE/PVC	993-1007	285	1132	1230	174
1000 Steel	1009-1023	285	1148	1230	175
1000 Ductile	1041-1055	285	1180	1230	230
1200 Steel	1213-1227	390	1352	1330	210
1200 Ductile	1248-1262	390	1387	1330	278

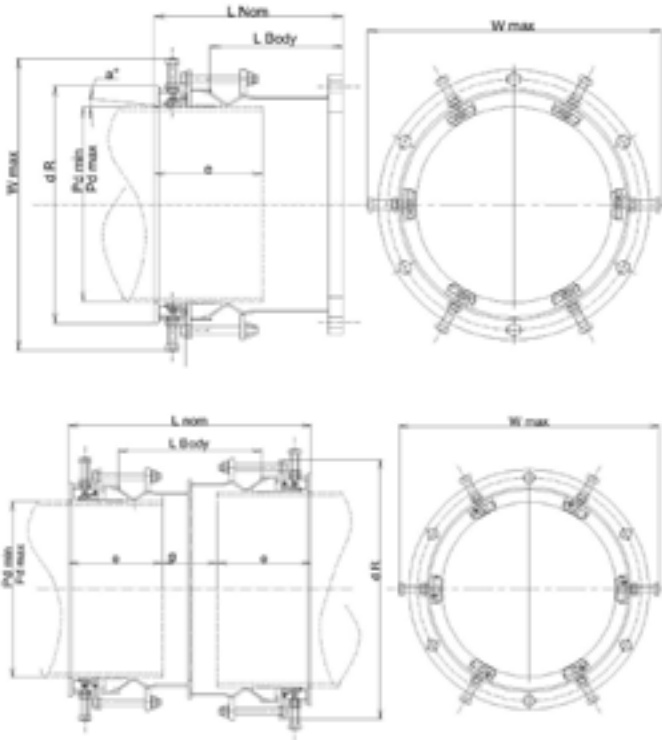
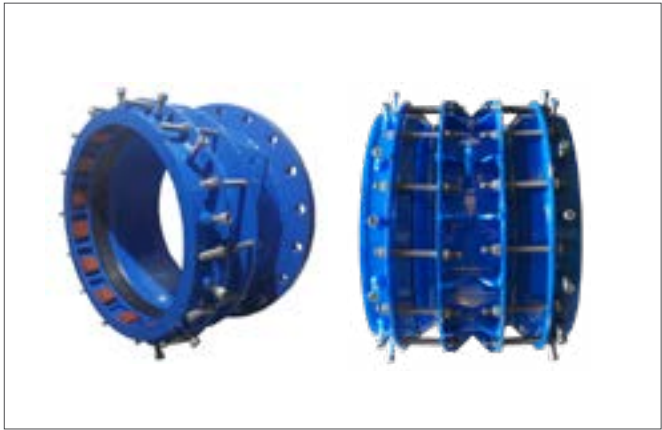
HEGAWA WideTolerance
WIDE TOLERANCE RANGE END RESTRAINED
MECHANICAL COUPLINGS AND FLANGE ADAPTERS

Application

Hegawa universal wide-tolerance range end restrained mechanical couplings and flange adapters provide end-load resistant connections between plain ended pipes and flange elements or connections between plain ended pipes of the same or different outside diameters.

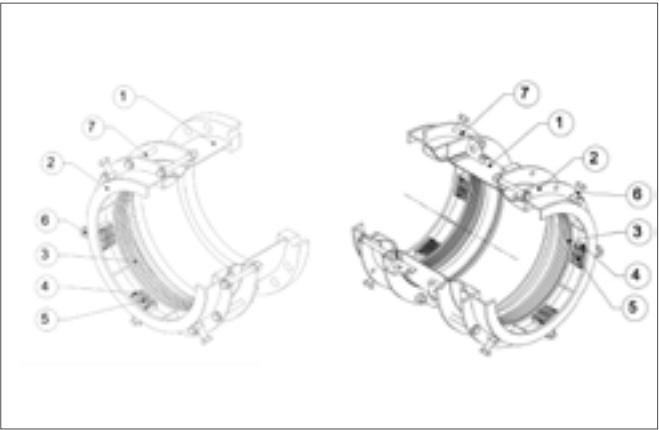
Advantages

- DN 300 up to and including DN 1200
- Suitable for any pipe material
- 30 mm tolerance on pipe OD
- Installation requires only a torque wrench
- Easy to install even on out-of-round pipes
- Easy installation to be performed on side bolts only.
- Dynamically restrain axial movement of pipes
- Allow angular deflection before and after installation
- Working pressures 10 bar or 16 bar



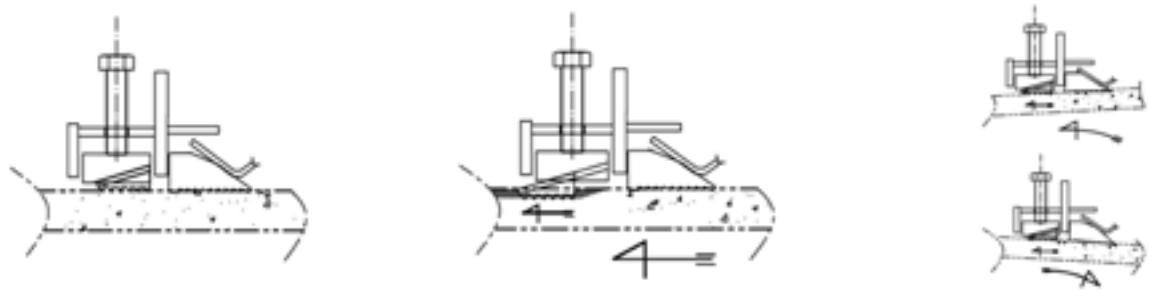
Material specifications

Nr.	Parts	Materials	Standard
1	Body & Flange	S275JR Steel	EN 10025
2	End Rings	S275JR Steel	EN 10025
3	Rubber Ring	EPDM	EN 681
4	Gripper Case	XYLAN Coated C40 Steel	
5	Grippers	XYLAN Coated C40 Steel	
6	Gripper Bolts	Steel Grade 12.9 Galva-nised	EN ISO 898-1, 4018, 7091
7	Ring Bolts, Nuts & Washers	Galvanised	EN ISO 898-1, 4018, 7091
-	Body Coating	Fusion Bonded Epoxy	WRAS Approved



References	Description
ANSI/AWWA C219	Bolted sleeve-type couplings for plain-end pipes
BS 8561	Specification for mechanical fittings for use in the repair, connection and renovation of pressurized water supply pipelines. Requirements and test methods.
EN 10025	European standard for structural steel
EN 681-1	Elastomeric seals. Material requirements for pipe joint seals used in water and drainage applications
EB 682	Elastomeric seals. Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids
EN ISO 891-1	Mechanical properties of fasteners made of carbon steel and alloy steel
EN ISO 4018	Hexagon head screws. Product grade C
EN ISO 7091	Plain washers: normal series. Product grade C
EN 545	Ductile iron pipes, fittings, accessories and their joints for water pipelines. Requirements and test methods

Technical concept



The Restraint Unit is engaged by tightening the Socket head Cap Screw (12.9) until the metal teeth engage firmly onto the pipe.

The Restraint Unit is then ticked into position, if the parent pipe tries to pull out, the restraint unit complete with the metal teeth will follow and lock into position.

The Restraint Unit will move in an angular direction after locking, still holding the pipe in position.

HEGAWA Fastfit grip
COUPLINGS AND FLANGE ADAPTORS FOR PE / PVC
PIPES

Application

Hegawa now introduces the new pull-out resistance “Fastfit Grip” pipe coupling and flange adaptors for PE and PVC pipes.

Technical concept

The coupling consists of a sleeve that is placed between two end-rings. Between end-rings and sleeve, grip rings, press rings and gaskets are positioned. The end-rings are pressed onto the sleeve when the bolts are tightened. The rubber gasket, pressed by the press ring and grip ring, then completely fills up the space between pipe and coupling.

Because of the strong compression and the high quality of the rubber gasket, the pressure on the ring that guarantees the leak tight sealing, will remain on the required quality level for many years.

By tightening the bolts the press ring and the grip ring will press the gasket inside, until the press ring makes contact with the sleeve. From then on the brass grip ring starts to reduce it's diameter, and the sharp profile of the grip ring starts to cut into the PE pipe. After the bolts are tightened, until a metal-metal contact is reached, the coupling is ready for use.



Features

- Pre-assembled delivery of all types of couplings and adaptors (no dismantling is needed before use).
- A minimum of different parts.
- No special tools required.
- Nut protected against turning during tightening.
- No high skills needed to install properly.
- Metal to metal contact indicates a proper instalment. Over-tightening is not possible.
- PE pipes can easily be inserted by over-dimensioning of the grip ring and gasket inside diameter.
- Even at max. tolerance of the pipe diameter, no chamfer of pipe ends is needed.
- Designed for PE and PVC pipes.
- Flange adaptors follow DIN, BS, and Ansi PN 10/16. (for more details see our list).
- No support liner necessary for PE/PVC PN 10/16 quality.
- Only three bolts for sizes up to DN 110, four bolts for sizes up to 180, five bolts up to DN 280 and eight bolts up to DN 315.

Material specifications

- End rings, press rings, sleeves and adaptors are made of high quality ductile iron GGG 450-10.
- Grip rings: brass MS 58 up to including DN 300.
- Rubber gaskets: EPDM grade W.
- Bolts and nuts: Dacromet coated steel bolts. Stainless steel bolts in grade A2-70 are available on request.
- Coating: Dupont Alesta epoxy powder coating.



Pipe Couplings

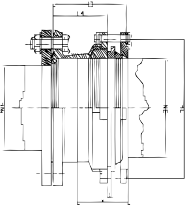
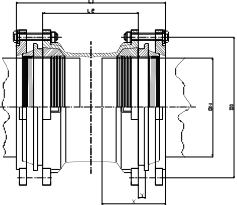
POD	D1	L1	L2	X	Y	No.	Bolts D	L	Weight kg.
63	130	214	130	90	6,5	6	M12	65	4,5
90	160	232	140	100	8,0	6	M12	65	6,5
110	180	241	146	105	8,5	6	M12	65	8,0
125	197	245	150	115	9,0	6	M12	65	9,5
160	235	272	174	115	10,5	8	M12	75	13,5
180	257	282	180	115	11,0	8	M12	75	16,0
225	306	309	200	125	11,0	10	M12	90	23,0
250	343	323	200	135	11,0	10	M12	90	36,5
280	375	332	200	140	12,0	10	M12	90	39,5
315	410	348	210	140	15,0	16	M12	90	46,5



Flange Adaptors

POD	Flange DN1	D1	L3	L4	X	Y	No.	Bolts D	L	Weight kg.
63	80	130	107	65	90	6,5	3	M12	65	4,5
90	80	160	115	70	100	8,0	3	M12	65	4,5
110	100	180	120	73	105	8,5	3	M12	65	5,0
125	100	197	158	110	115	9,0	3	M12	65	6,5
160	150	235	138	90	115	10,5	4	M12	75	8,5
180	150	257	176	125	115	11,0	4	M12	75	9,0
225	200	306	185	125	125	11,0	5	M12	90	12,5
250	250	343	192	130	130	11,0	5	M12	90	20,5
280	250	375	206	140	140	12,0	5	M12	90	20,5
315	300	410	219	150	140	15,0	8	M12	90	26,0

Flange ND	Pipe OD mm	Flange Info					ANSI 150	
		PN 10	16	A	BS 10 D	E		
DN80 3"	63	+	+				+	
DN80 3"	90	+	+				+	
DN100 4"	110	+	+	+	+	+	+	
DN100 4"	125	+	+	+	+	+	+	
DN150 6"	160	+	+				+	
DN150 6"	180	+	+				+	
DN200 8"	225	+	+	+	+	+	+	
DN250 10"	250	+	+			+	+	
DN250 10"	280	+	+			+	+	
DN300 12"	315	+	+				+	



HEGAWA
FLANGED, RESTRAINED DISMANTELING JOINTS

Application

The Hegawa Flanged restrained dismantling joints are double flanged fittings that allow longitudinal adjustment in flanged pipe systems. They have been developed to provide greater flexibility at the planning and installation stages of flanged pipe systems and also for subsequent maintenance.

Technical concept

The Hegawa Flanged restrained dismantling joints are particularly suitable for simplifying the installation and removal of all kind of valves, pumps and flanged pipes and fittings. Typical applications include pumping stations, water treatment works, sewage treatment works, plant rooms, meter chambers, power generation equipment and gas distribution stations.

Available from DN 50 mm up to including DN 1600 mm.

Flanges can be drilled to suit various international standards like ISO, DIN, BS and ANSI for pressure classes PN 10, PN 16, PN 25 and PN 40.

If you have any technical questions that are not answered in this brochure, please do not hesitate to contact Hegawa or your Hegawa distributor.

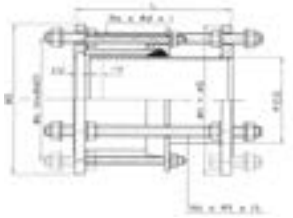
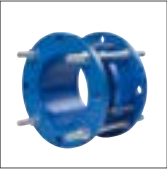


Material specifications

- Material: High quality rolled steel to BS4360:1986 Grade 43A.
- Coating: Fusion bounded epoxy coating, thickness approx. 200 microns. Other coatings such as hot dipped galvanized, transit coating or other epoxy coatings are available on request.
- Rubber gaskets: EPDM or NBR.
- Tie bars and nuts: Made of steel BS970:Part1:1983 Grade 070 and are hot dip galvanized to BS729. Stainless steel tie bars and nuts are available on request.

Advantages

- Accommodates up to 50 mm / 2" longitudinal adjustment.
- Allows for fast and simple maintenance of valves and pumps.
- Simplifies future pipework modifications and reduces down time.
- Installed with a spanner and a torque wrench, no special tools needed.
- Absorbs vibrations.
- Accepts some disalignment in straight pipes.



Flanged, restrained dismantling joints type HD-1

Nominal diameter mm	PN	Overall length in medium position mm	Tolerance +/- V mm	Flange o.d ø D mm	Flange specification		Size Tie bars Mt x lt	Number of tie bars	Weight each kg
					Pitch Circle ø K mm	Number of bolt holes n x ød2			
50	10, 16	180	20	165	125	4x18	M16x280	2	8,0
65	10, 16	180	20	185	145	4x18	M16x280	2	9,5
80	10, 16	200	20	200	160	8x18	M16x310	4	12,5
100	10, 16	200	20	220	180	8x18	M16x310	4	14,5
125	10, 16	200	20	250	210	8x18	M16x310	4	18,0
150	10, 16	200	20	285	240	8x22	M20x340	4	21,5
200	10	220	25	340	295	8x22	M20x340	4	29,0
	16	220	25	340	295	12x22	M20x340	6	31,5
250	10	220	25	395	350	12x22	M20x360	6	42,0
	16	230	25	405	355	12x26	M20x370	6	45,5
300	10	220	25	445	400	12x22	M20x360	6	47,5
	16	250	25	460	410	12x26	M24x410	6	54,0
350	10	230	25	505	460	16x22	M20x360	8	66,0
	16	260	25	520	470	16x26	M24x410	8	80,0
400	10	230	25	565	515	16x26	M24x370	8	79,0
	16	270	25	580	525	16x30	M27x430	8	97,5
450	10	250	25	615	565	20x26	M24x390	10	92,5
	16	270	25	640	585	20x30	M27x430	10	114,0
500	10	260	25	670	620	20x26	M24x390	10	105,0
	16	280	25	715	650	20x33	M30x460	10	147,5
600	10	260	25	780	725	20x30	M27x410	10	130,0
	16	300	25	840	770	20x36	M33x480	10	196,5
700	10	260	25	895	840	24x30	M27x410	12	165,5
	16	300	25	910	840	24x36	M33x480	12	211,0
800	10	290	25	1015	950	24x33	M30x460	12	229,0
	16	320	25	1025	950	24x39	M36x525	12	280,0
900	10	290	25	1115	1050	28x33	M30x460	14	261,0
	16	320	25	1125	1050	28x39	M36x525	14	323,0
1000	10	290	25	1230	1160	28x36	M33x480	14	307,0
	16	325	25	1255	1170	28x42	M39x550	14	407,0
1100	10	300	25	1340	1270	32x36	M33x480	16	351,0
	16	325	25	1355	1270	32x42	M39x550	16	448,5
1200	10	320	25	1455	1380	32x39	M36x525	16	430,5
	16	325	25	1485	1390	32x48	M45x575	16	587,5



Flanged, restrained dismanteling joints type HD-2

Pipe/flange Nom. Bore	PN	Max L	Tol. L	D	K	Bolts		Studs	
						No.	Hole	Size (d)	Lenght (a)
50	10, 16, 25	200	+/- 25	165	125	4	18	16	310
80	10, 16, 25	200	+/- 25	200	160	8	18	16	310
100	10, 16, 25	220	+/- 25	220	180	8	18	16	340
150	10, 16	220	+/- 25	285	240	8	22	20	340
	25	230	+/- 25	300	250	8	26	24	370
	10	250	+/- 25	340	295	8	22	20	410
200	16	250	+/- 25	340	295	12	22	20	410
	25	250	+/- 25	360	310	12	26	24	410
	10	250	+/- 25	395	350	12	22	20	410
250	16	250	+/- 25	405	355	12	26	24	410
	25	250	+/- 25	425	370	12	30	27	410
	10	250	+/- 25	445	400	12	22	20	410
300	16	250	+/- 25	460	410	12	26	24	410
	25	250	+/- 25	485	430	16	30	27	410
	10	260	+/- 25	505	460	16	22	20	410
350	16	260	+/- 25	520	470	16	26	24	410
	25	300	+/- 25	555	490	16	33	30	460
	10	300	+/- 25	565	515	16	26	24	460
400	16	300	+/- 25	580	525	16	30	27	460
	25	300	+/- 25	620	550	16	36	33	500
	10	300	+/- 25	615	565	20	26	24	460
450	16	300	+/- 25	640	585	20	30	27	460
	25	300	+/- 25	670	600	20	36	33	500
	10	300	+/- 25	670	620	20	26	24	460
500	16	300	+/- 25	715	650	20	33	30	460
	25	320	+/- 25	730	660	20	36	33	500
	10	320	+/- 25	780	725	20	30	27	480
600	16	320	+/- 25	840	770	20	36	33	520
	25	340	+/- 25	845	770	20	39	36	540
	10	320	+/- 25	895	840	24	30	27	480
700	16	320	+/- 25	910	840	24	36	33	520
	25	380	+/- 25	960	875	24	42	39	580
	10	340	+/- 25	1015	950	24	33	30	520
800	16	340	+/- 25	1025	950	24	39	36	540
	25	380	+/- 25	1085	990	24	48	45	620
	10	340	+/- 25	1115	1050	28	33	30	520
900	16	340	+/- 25	1125	1050	28	39	36	540
	25	380	+/- 25	1185	1090	28	48	45	620
	10	360	+/- 25	1230	1160	28	36	33	550
1000	16	360	+/- 25	1255	1170	28	42	39	580
	25	400	+/- 25	1320	1210	28	56	52	660
	10	360	+/- 25	1340	1270	32	36	33	550
1100	16	360	+/- 25	1355	1270	32	42	39	580
	10	360	+/- 25	1455	1380	32	39	36	580
	16	380	+/- 25	1485	1390	32	48	45	620
1200	25	450	+/- 25	1530	1420	32	56	52	750
	10	380	+/- 25	1575	1490	32	42	39	620
	16	380	+/- 25	1585	1490	32	48	45	620
1300	10	380	+/- 25	1675	1590	36	42	39	600
	16	380	+/- 25	1685	1590	36	48	45	630
	1500	10	400	+/- 25	1785	36	42	39	620
1600	10	400	+/- 25	1915	1820	40	48	45	630

HEGAWA

BELL JOINT REPAIR CLAMPS

Application

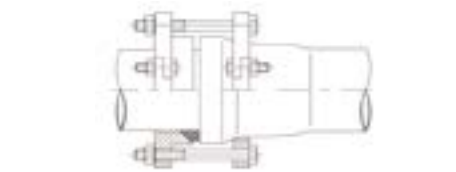
The Hegawa Bell Joint Repair clamps have been developed to repair collars. It provides an effective, permanent repair of leaking spigot and socket joints. Once installed, the gasket reinforces the seal to the spigot and socket joint.



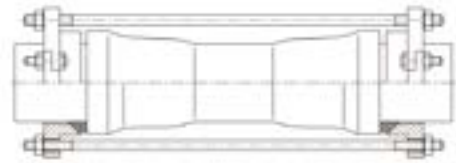
Technical concept

The Hegawa Bell Joint Repair clamp will allow repairs to be made to the spigot and socket joint whilst the main line is pressurised. Once installed there is no future maintenance required, it is a permanent repair.

DN mm	Range in mm	Weight kg
50	62-68	3,5
65	75-84	4,5
80	94-100	8,5
100	114-120	9,5
150	166-173	11,5
200	217-224	13,5
250	270-276	18,5
300	321-328	20,0
350	373-380	27,0
400	424-431	30,5
500	527-534	37,5
600	630-638	50,0



Also available for pipes with two bell joints or to repair Asbestos collars:



Material specifications

- Bolts & Nuts: steel to S235JR - PN-EN 24032, galvanized
- Flange: ductile iron EN-GJS-500-7 to PN-EN 1563:2000
- Rubber gasket: EPDM or NBR
- Coating: Flanges will be fusion bounded epoxy coated, blue colour, 200 micron.
- Larger sizes available on request.

HEGAWA
EXPANSION JOINT

Application

If a pipeline is subject to a change in length caused by a change in temperature of the surroundings, by the medium or if these changes are caused by other circumstances, such as sinking of the support, the Hegawa Expansion Joint is the ideal tool to absorb forces caused by the change of length.

Technical concept

The Hegawa Expansion Joint is a sliding type which is sealed by a long packing tube. The great advantage of this design is that one expansion joint is able to change its length up to 250 mm. Another advantage is that any type of packing can be used which allows the Hegawa Expansion Joint to be engineered for any medium.

The Hegawa Expansion Joint can be supplied in a nominal diameter of 50 mm up to 600 mm in AISI 304 stainless steel with standard a synthetic Teflon impregnated packing to minimise maintenance.

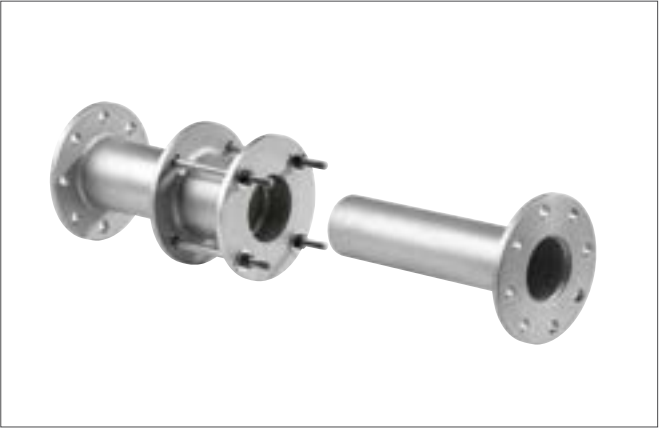
The Expansion Joint is available with flanges or pipe ends that are bevelled for welding also they can be ordered with a restriction device. Once fabricated the stainless steel expansion joint is stained and fully passivated, to obtain the highest possible degree of corrosion resistance.

As the Hegawa Expansion Joint is engineered for each application, requirements such as special lengths, alternative materials or special packing can be incorporated in the design.



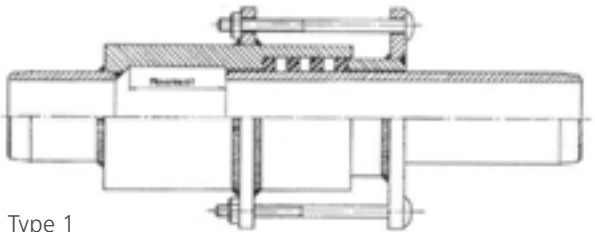
Please give the following data with your enquiry

1. Application
 - 1.1 Medium
 - 1.2 Temperature
 - 1.3 Expected temperature change
 - 1.4 Change cycle
 - 1.5 Pressure
2. Pipe
 - 2.1 Outside diameter
 - 2.2 Pipe wall thickness
 - 2.3 Pipe material
3. Type of Expansion Joint
 - 3.1 Change in length to be absorbed
 - 3.2 Flanged or bevelled ends
 - 3.3 Whether a restriction is required
 - 3.4 Type of packingg
4. Drawing of the pipe installation and pipe support
5. Special requirements



Type 1

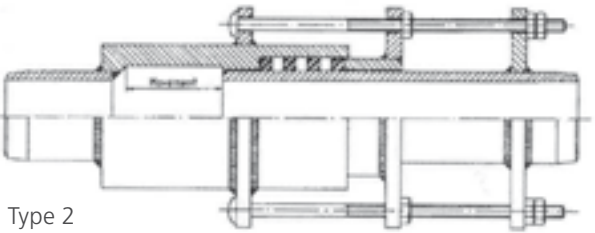
Type 1 is a single-end expansion joint allowing up to 250 mm of pipe displacement. The standard packing for all types consists of alternate resilient rings and PTFE lubricating rings.



Type 1

Type 2

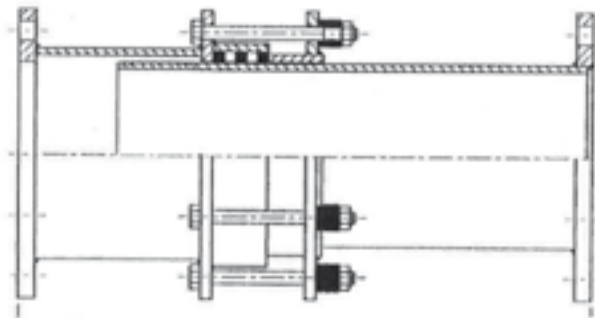
Type 2 is also a single-end expansion joint with a constrained displacement feature thus limiting the amount of pipe withdrawal. Slip pipes for type 2 expansion joints are supplied in the regular way.



Type 2

Type 3

Type 3 is a flanged-end expansion joint allowing up to 250 mm of pipe displacement. The standard packing for all types consists of alternate resilient sealing rings and PTFE lubricating rings.



Type 3

HEGAWA

DUCTILE IRON REPAIR CLAMPS FOR WATER AND GAS SERVICE

Application

Hegawa Ductile Iron Repair Clamps have been designed for the permanent repair of ductile iron, cast iron and steel pipes. Even on badly corroded pipes.



Technical concept

The ‘waffle’ type of rubber with incorporated bridging plates will take care for a quick and permanent leaktight seal. The Hegawa ductile iron repair clamps are constructed of ductile iron half housings giving them a high strength. The clamps will support and seal around the pipe for full length of the body, ensuring that sealing effectiveness is maintained in all circumstances. The inherent strength of the clamps will cater for circumferential pipe shear and also realign pipes.

The clamps can be installed easily, no specialist installation tools are required. Only a torque wrench to confirm the correct bolt torque. The clamps are fully epoxy coated, taking care for a long term corrosion protection. No further protection such as wrapping is required.

Available sizes

The clamps are available from DN 50 u.t.i. DN 300 and can be supplied with a threaded outlet.

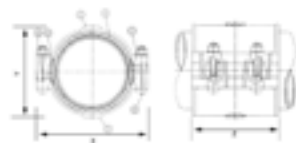
Nominal Diameter		O.D. Range		X (mm)	Dimensions		Bolts No. Diameter Length	Weight (Kg)	Outlet BSP Threaded Size
		Min (mm)	Max (mm)		Y (Max) (mm)	Z (mm)			
2"	DN50	66.0	75.0	150	110	200	4-M12 x 65mm	4.1	3/4"
2 1/2"	DN65	75.0	84.0	159	119	200	4-M12 x 65mm	4.4	3/4"
3"	DN80	92.3	103.0	184	145	200	4-M16 x 95mm	4.9	3/4"
4"	DN100	115.0	125.6	211	167	200	4-M16 x 95mm	6.0	1/2", 3/4" or 1"
5"	DN125	141.0	153.9	239	182	200	4-M16 x 95mm	7.5	3/4" or 1"
6"	DN150	166.0	181.2	267	217	200	4-M16 x 95mm	8.3	3/4" or 1"
7"	DN175	200.0	210.0	296	238	200	4-M16 x 95mm	9.0	3/4" or 1"
8"	DN200	216.5	226.0	313	269	200	4-M16 x 95mm	9.5	1"
8"	DN200	230.2	243.5	328	281	200	4-M16 x 95mm	10.8	3/4" or 1"
9"	DN225	243.0	267.0	362	307	212	4-M16 x 120mm	13.6	3/4" or 1"
10"	DN250	269.0	294.0	395	322	250	6-M16 x 120mm	18.5	1/2", 3/4" or 1"
12"	DN300	323.0	349.0	450	387	300	8-M16 x 120mm	25.2	1/2", 3/4" or 1"

Material specifications

- Solid, well thought-out construction.
- Material: High quality GGG40 ductile iron.
- Coating: High quality epoxy, providing a long term corrosion protection along with resistance to abrasion and impact. It’s blue coloured.
- Bridge Plate Material: AISI 304
- Rubber gasket is EPDM. Applicable for gas (SBR Rubber is available on request).
- Bolts and Nuts: Standard it will be delivered with carbon steel galvanized bolts and nuts.

Working pressures

The Hegawa Ductile Iron Repair Clamps have been designed for 16 bar working pressure and a test pressure of 24 bars with water applications.



Hegawa Ductile Iron Clamps HNN

DN	Range Dmin - Dmax (mm)	Height A (mm)	Width B (mm)	Weight (kg)
1/2"	20-23	100	115	1,90
3/4"	25-28	100	120	2,00
1"	31-35	120	127	2,60
1 1/4"	41-45	120	138	2,70
1 1/2"	48-52	140	145	3,35
2"	57-61	140	158	3,70



Hegawa Ductile Iron Clamps HUU

DN	Range Dmin - Dmax (mm)	Height A (mm)	Width B (mm)	Weight (kg)
80	88-99	225	219	9,75
100	107-119	225	246	11,40
150	157-171	225	291	13,80
200	219-226	310	352	26,40
250	270-276	310	420	37,00
300	320-328	310	471	41,60



Hegawa Ductile Iron Clamps HUUU

DN	Range Dmin - Dmax (mm)	Height A (mm)	Width B (mm)	Weight (kg)
80	88-100	170	185	7,55
100	107-119	170	200	8,00
150	157-171	220	245	12,70
200	218-225	250	300	18,90



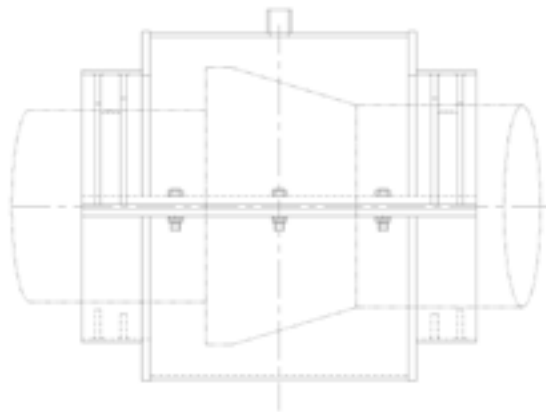
HEGAWA Collars

PN16 RATED ENCAPSULATION COLLARS

Application
Up to 16 mm tolerant encapsulating collar for joining and repairing pipes, sockets, leaking elements or for tapping. Suitable for use as a coupling.

Technical concept
Universal wide tolerance permanent repair collars, encapsulation collars and tapping tees providing the fastest and cost effective solution to high and low pressure repair problems and tapping issues. Available in diameters from 80 mm to 250 mm. Other diameters are fabricated on request.

- Advantages**
- Easiest and fastest installation: only side bolts to be tightened.
 - Easy to put even on oval pipes.
 - Suitable for any pipe material.
 - Angular compensation of up to 6° before or after installation
 - The same fitting can be used either to repair a leaking socket or a damaged pipe.
 - 360° coverage.
 - High pressure rating.
 - Long body to account for the majority of repair issues.



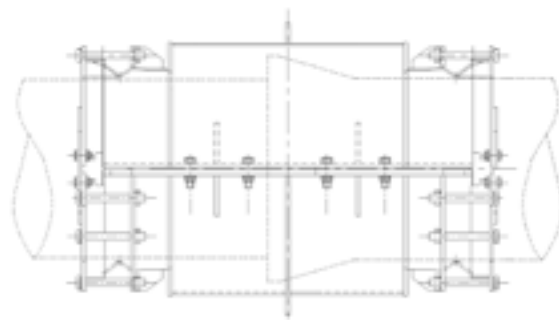
HEGAWA Collars

PN16 RATED WIDE-TOLERANCE ENCAPSULATION COLLARS

Application
Wide range encapsulation collar, 30 mm tolerance on pipe outside diameter for repairing pipes, sockets, leaking elements or hot-tapping applications.

Technical concept
Universal wide tolerance permanent repair collars, encapsulation collars and tapping tees that provide solution to high and low pressure repair problems and tapping issues. Available in diameters from 350 mm to 1200 mm. Other diameters are fabricated on request.

- Advantages**
- Maximum flexibility on rigid pipes owing to wide tolerance range.
 - Easy to put even on oval pipes.
 - Suitable for any pipe material.
 - Angular compensation of up to 6° before or after installation
 - The same fitting can be used either to repair a leaking socket or a damaged pipe.
 - Large rubber rings ensure best adaptability to pipe surfaces and ovalization.
 - High pressure rating.



A problem solver to rely on!



The UNI-Coupling is available in various types.

UNI-Grip

- + To connect metal - metal
- + For restraint jointing
- + Patented wedge shaped seal
- + 2 grip rings for metal pipes
- + Stainless steel 1.4571 (W5) quality

UNI-Plastgrip

- + To connect plastic - plastic
- + For restraint jointing
- + Patented wedge shaped seal
- + 2 grip rings for plastic pipes
- + Stainless steel 1.4571 (W5) quality

UNI-Combigrp

- + To connect metal - plastic
- + For restraint jointing
- + Patented wedge shaped seal
- + 1 grip ring for metal pipes
- + 1 grip ring for plastic pipes
- + Stainless steel 1.4571 (W5) quality

UNI-Flex

- + To connect metal - plastic
- + To connect metal - metal
- + To connect plastic - plastic
- + For flexible jointing
- + Patented wedge shaped seal
- + Stainless steel 1.4571 (W5) quality

UNI-Rep

- + To connect metal - plastic
- + To connect metal - metal
- + To connect plastic - plastic
- + For flexible jointing
- + Patented wedge shaped seal
- + Clamp mechanism for repairing under pressure
- + Stainless steel 1.4571 (W5) quality

With outlet

- + Pipe coupling with outlet for use on all pipe materials
- + Coupling with outlet available on request
- + Stainless steel 1.4571 (W5) quality

UNI-Grip



UNI-Flex



UNI-Plastgrip



UNI-Rep



UNI-Combigrp



With outlet



TECHNICAL DATA OVERVIEW

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

Type	Ø (mm)	Width (mm)	Pressure PN 	Pressure PN 
 UNI-Grip	21 - 172	45 - 110	16	70 to 32
	172 - 745	138 - 146	16 to 2.5	25 to 6
 UNI-Plastgrip	39 - 172	60 - 110	10	16
	172 - 640	140 - 146	10 to 2.5	16 to 6
 UNI-Combigrp	39 - 172	60 - 110	10	16
	172 - 640	140 - 146	10 to 2.5	16 to 6
 UNI-Flex	21 - 172	45 - 110	16	25
	172 - 2090 Bigger on request	140 210 - 280 - 420 Details on next page	16 to 2.5	25 to 6
 UNI-Rep	33 - 172	60 - 110	16	25
	172 - 2090 Bigger on request	140 210 - 280 - 420 Details on next page	16 to 6	25 to 10

Wider range	OD (mm)	Number of couplers	Material quality	Material thickness
UNI-Coupling	21 - 47.5 47.5 - 172	7 15	standard W5 standard W5	to 5 mm thickness to 5 mm thickness

Connecting	Metal - Metal	Plastic - Plastic	Metal - Plastic	Restrained / Flexible
UNI-Grip	X			restrained
UNI-Plastgrip		X		restrained
UNI-Combigrp			X	restrained
UNI-Flex	X	X	X	flexible
UNI-Rep	X	X	X	flexible

Sealing material	EPDM	NBR	Viton (on request)	Silicone (on request)
Temperature range	-30 °C - +125 °C	-20 °C - +80 °C	-20 °C - +180 °C	
Medium	drinking water, wastewater, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	ozone, oxygen, acids, gas, oil and fuel (only with strip insert)	

Quality	Housing	Lock bars	Bolts	Anchoring
W5	1.4571 / 316 Ti	1.4571 / 316 Ti	A4 – 80 / 316 Ti	1.4404 / 316 L & 1.4310 / 301

TECHNICAL DATA OVERVIEW

PIPELINE PRODUCTS FOR WATER, GAS AND INDUSTRIAL APPLICATIONS

UNI-Flex & UNI-Rep couplings are available in multiple widths

Type	Ø (mm)	Width (mm)	Pressure PN	
 UNI-Flex / UNI-Rep	250 - 2090 Bigger on request	210	Up to 25	
 UNI-Flex / UNI-Rep	300 - 2090 Bigger on request	280	Up to 25	
 UNI-Flex / UNI-Rep	300 - 2090 Bigger on request	420	Up to 25	



Sealing material	EPDM	NBR	Viton (on request)	Silicone (on request)
Temperature range	-30 °C - +125 °C	-20 °C - +80 °C	-20 °C - +180 °C	
Medium	drinking water, wastewater, compressed air, alcohol and solids	water, gas, oil, fuel, and other hydrocarbons	ozone, oxygen, acids, gas, oil and fuel (only with strip insert)	
Quality	Housing	Lock bars	Bolts	Anchoring
W5	1.4571 / 316 Ti	1.4571 / 316 Ti	A4 – 80 / 316 Ti	1.4404 / 316 L & 1.4310 / 301

PROJECT PICTURES

UNI-COUPLING



ROMACON PETRO®

PIPELINE REPAIR PRODUCTS FOR HIGH
PRESSURE PIPES IN THE OIL- GAS-
AND PETROCHEMICAL INDUSTRY



PIPE FIT

SPLIT REPAIR SLEEVE

Romacón Petro Split Repair Sleeves are used for making permanent repairs to onshore and offshore pipelines

For water, gas and petrochemical fluids

Application

- for on shore installation
- for off shore installation, with zinc anodes and marine epoxy coating
- weldable, with heat insulating gaskets
- with girder rings, if required

Split sleeves are widely used for making repairs to a variety of high or low pressure and high or low temperature pipelines, containing oil, water, gas, steam and chemical fluids.

The clamp halves are joined by bolts to form a high integrity pressure vessel around the damaged or leaking pipe.

Sealing is provided by elastomer seals of the highest quality selected for compatibility with the pipeline fluid and operating temperature.

The split sleeves may also be welded after installation to provide a permanent repair. It may be completely seal-welded with the pipe line in operation.

Material specifications

Standard Clamp Components	
Body (shell)	A216 WCB, A216 WCC, A352 LCC, A516 Gr.70 (Suitable for normally corrosive services)
Stud bolts	A193 Gr. B7
Nuts	A194 Gr. 2H
Gaskets	NBR or Viton
Coating	Yellow Epoxy Polyamide, standard or Marine epoxy



Standard sizes

Other sizes and lenghts available on request

API Pipe Size (inches)	Sealing length (inches)	Total length ansi 400/600 (inches)	Total length ansi 900 (inches)
4	5 1/2	9,25	9,25
6	5 1/2	9,25	11
8	5 1/2	9,25	11
10	5 1/2	11	11
12	5 1/2	11	11
14	8	14	12,5
16	8	14	14
18	8	14	14
20	8	14	14
22	8	14	14
24	8	14	15,75
26	8	15	15,75
28	8	15	15,75
30	8	15	17,25
32	8	15	17,25
34	8	15	17,25
36	8	16	17,25
38	8	16	19
40	8	16	19
42	8	17,5	19
48	8	17,5	20,5

Design features and methods

Safety: The clamps are fully compensatory pressure vessels, hydrostatically tested to 1.3 times the rated working pressure (as per ASME Section VIII Div.1 clause UG-99).

All Clamps are equipped with a 1” NPT vent port.

Design criteria and industry standards: All split sleeves are tested in accordance with the API specification 6H, “Specification for End Closures, Connectors, and Swivels”, ASME BOILER AND PRESSURE VESSEL CODE, Section VIII; and with ANSI standards B-31.3, B31.4, & B31.8, where applicable.

Certification: EN 10204 3.1

Ease of installation and maintenance: All split sleeves are designed to be installed with the most common tools available and are readily field repairable, including full seal replacement.

Economy: Split sleeve repair clamps are designed utilizing the latest technology, allowing optimization of design techniques and materials, resulting in lower weight, reduced bending tendencies, and a more economical.

Split sleeves are suitable for sour environment

This type of split sleeve is designed to be used in hydrogen sulfide (H2S) bearing hydrocarbon service. For sour services, the body material will meet NACE MR0175.

Certification and testing

Non destructive testing (NDT):

- 100 % magnetic particle inspection (MPI) for stiffener to shell weld (fillet)
- 100 % ultrasonic testing of vent plug welds
- 100 % MPI of hinge welds

Hydrotest as per ASME Section VIII Div.1 clause UG-99

Additional material specifications:

ANSI pressure classes 300, 400, 600, 900 and 1500.

Design based on: ASME Sec. VIII, API 6H , ANSI B31.4, B31.8 and Split Sleeve Software 3S).

Design control and stress analysis with Finite Element Package.

Gaskets: The highest quality NBR or VITON elastomer seal precisely compatible with the line fluid and ambient temperature will be installed into the split sleeves.

- NBR temperature range is from - 20 °C to + 80 °C
- HNBR temperature range is from - 20 °C to + 150 °C
- VITON temperature range is from - 20 °C to + 200 °C

Gaskets are replaceable without any special tools.

Girder rings can be installed upon clients request.

Double Row Sealing (DRS) design is also available. This special design is more suitable for where probable leakage is much costly or dangerous; such as gaseous services & offshore applications.

Weldable split sleeves

All clamps can be fully prepared for welding after installation (welding procedure is available on request).

Heat insulators (parallel to the seals) protect the seals from heat during the welding of the sleeves to the pipe.

PIPE MATE

PIPE REINFORCEMENT SLEEVE

Romaccon Petro Pipe mates are designed to reinforce non leaking, weakened, dented or damaged pipelines

For water, gas and petrochemical fluids

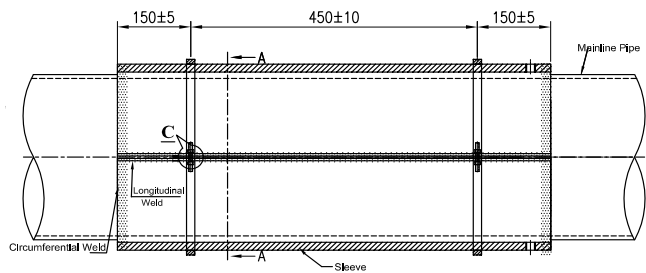
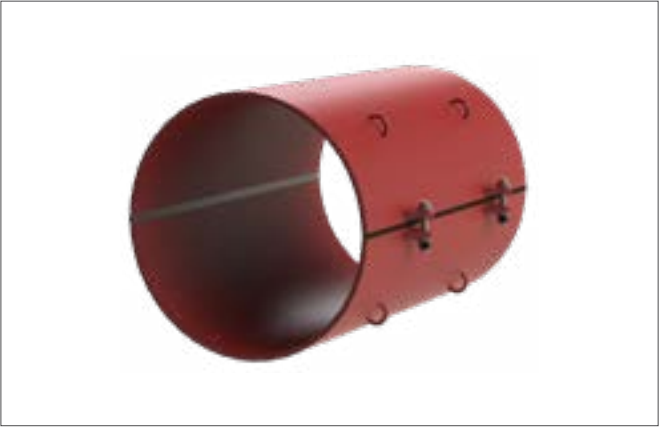
Product description

Pipe mates are designed to reinforce non leaking, weakened, dented or damaged pipelines while the line remains on stream. Supplied for any specified pressure, wall thickness and class. Supplied in various lengths and materials as specified by the client. Length up to 3.000 mm

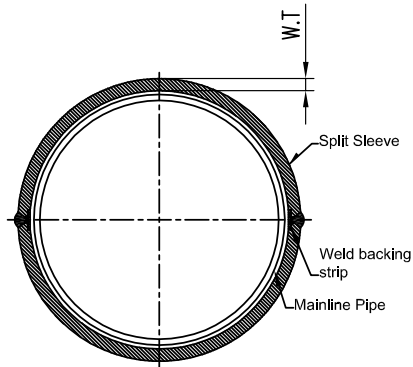
Material specifications

Pipe mates are manufactured from steel plate ASTM A516 Gr. 70 (Equivalent to A572 Gr. 50) or material acc. to API 5L x 65. Longitudinal butt-welding is required for all applications and back-up strips are furnished. For pressure containing applications, the sleeve must be fully seal-welded to the pipeline.

Standard Clamp Components	
Body (shell)	A516 Gr. 70 or API 5L x 65
Back strip	A36



Basic drawing of a pipe mate reinforced sleeve



NEEDLE CLAMP

PITHOLE REPAIR CLAMP

Romaccon Petro needle clamps are pithole repair clamps and are the appropriate solution to repair small corrosion pits in steel pipes.

For water, gas and petrochemical fluids

Product description

No surface preparation is required and a simple wrench is sufficient to install the clamp. The needle guides the tip of the conical rubber gasket to enter the corroded area.

By tightening the plug, the rubber gasket sufficiently compresses to seal off the leak.

Maximum working pressure is 2000 psi (138 bar).

The needle clamp can be installed by your own personnel.

Material specifications

Standard Clamp Components	
Body	Stainless steel AISI 304
Stud bolts	A193 Gr. B7
Nuts	A194 Gr. 2H
Gasket	NBR or Viton
Pilot Pin	Stainless steel AISI 316
Packing force screw	ASTM A105, galvanized
Thrust washer	Brass
Dual dia pin	Stainless steel AISI 316



weld cap



Basic drawing of a needle clamp

PROJECT PICTURES

ROMACON PETRO



METAALUNIE CONDITIONS

Metaalunie Terms and Conditions 1 January 2014

General Terms and Conditions issued by Koninklijke Metaalunie (the Dutch organization for small and medium-sized enterprises in the metal industry), referred to as the METAALUNIE TERMS AND CONDITIONS, filed at the Registry of the Rotterdam District Court on 1 January 2014.
Issued by Koninklijke Metaalunie, P.O. Box 2600, 3430 GA Nieuwegein, the Netherlands.
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Article 1: Applicability

- 1.1. These Terms and Conditions apply to all offers made by members of Koninklijke Metaalunie, all agreements they conclude and all agreements that may result therefrom, all this in so far as the Metaalunie member is offeror or supplier.
- 1.2. A Metaalunie member using these Terms and Conditions is referred to as the Contractor. The other party is referred to as the Client.
- 1.3. In the event of any conflict between the substance of the agreement concluded between the Contractor and the Client and these Terms and Conditions, the provisions of the agreement will prevail.
- 1.4. These Terms and Conditions may only be used by Metaalunie members.

Article 2: Offers

- 2.1. All offers are without obligation.
- 2.2. If the Client provides the Contractor with data, drawings and the like, the Contractor may rely on their accuracy and completeness and will base its offer on the same.
- 2.3. The prices stated in the offer are based on delivery ex works, Contractor's place of establishment, in accordance with the Incoterms 2010. Prices are exclusive of VAT and packaging.
- 2.4. If the Client does not accept the Contractor's offer, the Contractor is entitled to charge the Client for all costs incurred by the Contractor in making the offer to the Client.

Article 3: Intellectual property rights

- 3.1. Unless otherwise agreed in writing, the Contractor retains the copyright and all industrial property rights in the offers made by it and in the designs, pictures, drawings, models (including trial models), software and the like provided by it.
- 3.2. The rights in the data referred to in paragraph 1 of this article will remain the property of the Contractor irrespective of whether the costs of their production have been charged to the Client. These data may not be copied, used or shown to third parties without the Contractor's prior express written consent. The Client will owe the Contractor an immediately payable penalty of € 25,000 for each breach of this provision. This penalty may be claimed in addition to damages pursuant to the law.
- 3.3. On the Contractor's first demand, the Client must return the data provided to it as referred to in paragraph 1 of this Article within the time limit set by the Contractor. Upon breach of this provision, the Client will owe the Contractor an immediately payable penalty of € 1,000 per day. This penalty may be claimed in addition to damages pursuant to the law.

Article 4: Advice and information provided

- 4.1. The Client cannot derive any rights from advice or information it obtains from the Contractor if this does not relate to the assignment.
- 4.2. If the Client provides the Contractor with data, drawings and the like, the Contractor may rely on their accuracy and completeness in the performance of the agreement.
- 4.3. The Client indemnifies the Contractor from and against all liability to third parties relating to use of the advice, drawings, calculations, designs, materials, samples, models and the like provided by or on behalf of the Client.

Article 5: Delivery period / performance period

- 5.1. The delivery period and/or performance period will be set by the Contractor on an approximate basis.
- 5.2. In setting the delivery period and/or performance period, the Contractor will assume that it will be able to perform the assignment under the conditions known to it at that time.
- 5.3. The delivery period and/or performance period will only commence once agreement has been reached on all commercial and technical details, all necessary data, final and approved drawings and the like are in the Contractor's possession, the agreed payment or instalment has been received and the necessary conditions for performance of the assignment have been satisfied.
- 5.4.
 - a. In the event of circumstances that differ from those that were known to the Contractor when it set the delivery period and/or performance period, it may extend the delivery period and/or performance period by such period as it needs to perform the assignment under such circumstances. If the work cannot be incorporated into the Contractor's schedule, it will be performed as soon as the Contractor's schedule so permits.
 - b. In the event of any contract addition, the delivery period and/or performance period will be extended by such period as the Contractor needs to (cause to) supply the materials and parts for such work and to perform the contract addition. If the contract addition cannot be incorporated into the Contractor's schedule, the work will be performed as soon as the Contractor's schedule so permits.
 - c. If the Contractor suspends its obligations, the delivery period and/or performance period will be extended by the duration of the suspension. If the continuation of the work cannot be incorporated into the Contractor's schedule, the work will be performed as soon as the Contractor's schedule so permits.
 - d. In the event of inclement weather, the delivery period and/or performance period will be extended by the resulting delay.
- 5.5. The Client is required to pay all costs incurred by the Contractor as a result of delay affecting the delivery period and/or performance period as referred to in Article 5.4.
- 5.6. If the delivery period and/or performance period is/are exceeded, this will in no event entitle to damages or termination.

**koninklijke
metaalunie**

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