

# Large Diameter Multigrip Fittings

Large bore, wide tolerance PE restraint fittings, also suitable for most pipe materials



## Applications

New installation and repair  
 Potable water  
 Waste water  
 Irrigation  
 Stormwater  
 Petro-chemical

Marine

Full restraint in the pipeline

## Product Attributes

30mm OD tolerance  
 Sealing gaskets and end restraint grippers are independent

Rilsan Nylon 11 coated

Couplers

Flange adaptors

Stepped couplers

Wide tolerance

For more than 80 years, Nova Siria has been leading the way with the manufacture large diameter and custom made fittings, exporting around the world. Nova Siria production is flexible and fully capable of providing emergency support.

The Nova Siria multi-grip product is used as a problem solver for many applications:

- Joining PE to PE, specialists in larger sizes
- Connecting PE to other pipe materials
- Overcoming joint difficulties due to tolerance issues on pipe
- Steps up or down between different nominal bores in a pipeline

### Applications

- 30 mm OD tolerance
- Sealing gaskets and end restraint grippers are independent
- Rilsan Nylon 11 coated for corrosion protection and suitability with potable water
- Available as couplers, flange adaptors, and stepped couplers
- Specialists in large restraint couplers, from 315 mm - 1200 mm +
- Support liners also manufactured by Nova Siria and used with PE applications
- Suitable for transitions between different pipe materials and sizes
- No need for heating blankets or specialist equipment on PE features
- 30 mm tolerance range on pipe outside diameter
- PN10 and PN16 rated grippers
- Single or separate bolts
- Usable on HDPE, steel and ductile iron with outside diameter greater than 288 mm
- Sealing rings and end restraint grippers are independent
- Grippers are universal – the same fitting can be used on HDPE, steel, and DI
- End restraint grippers are separate and independent from the sealing rings
- All bespoke couplers, flange adaptors and specials can be manufactured with MULTIGRIP grippers
- No need for heating blankets or re-rounding tools or any other specialist equipment, merely a torque wrench
- MULTIGRIP diameter range is from 288 mm to over 1000 mm for all types

- 16 bar rated working pressure up till 710 mm nominal bore (24 bar test). 10 bar for 800mm and over

### Materials

- Body and compression flange: S235JR steel
- Bolts, nuts, washers: zinc coated steel or grade A2 AISI 304 SS
- Sealing rings: EPDM or NBR
- End restraint grippers: tempered steel with dacromet coating in alternative martensitic stainless steel grippers
- Anticorrosion coating: Rilsan Nylon 11

The pipe locking end restraint system with radial grippers provides a mechanical axial restraint of pipes which need to be connected:

- It is suitable for polyethylene, PVC, steel and cast/ductile iron pipes
- Provides restraints which are separate and independent from hydraulic seal
- Guarantees perfect mechanical restraint for all the tolerance range of the fitting
- The pipe-locking system provides a fast and inexpensive connection of pipes with any diameter even in special operating conditions 11

Our wide-range steel couplings are designed and tailor-made on demand and are suitable for pipes of any material:

- Straight couplings: connection of pipes having the same or different outside diameters or diameters which are included in coupling's tolerance range
- Reduced / stepped couplings: connection of pipes with very different outside diameters
- Endcaps: end of line interruptions or pipe maintenance
- Flange adaptors: connection with flange components (valves-gate valves etc)

## Installation Guide

1. Check that the outside diameter of the pipes lie within the range written on the coupling's label\*.
2. Partially unscrew the gripper bolts.
  - The gripper bolts must not be tightened before tightening the follower bolts.
  - The gripper bolts are painted in red on the outer edge.
3. Smooth out all weldings and spikes on the pipes spigot ends.
4. Remove any grits and dirt cleaning the pipe surfaces thoroughly where the coupling is going to be installed.
5. Measure the coupling's length, L.  
Mark the pipe spigot ends at L/2 to ensure the coupling will be centred over the gap once installed.
6. Lubricate all accessible faces of the sealing rings.
7. Slide the mechanical coupling onto one of the pipe spigot ends.
8. Bring the pipes into position until they are approximately 20 mm apart.
9. Slide the coupling over the gap centring it with the marks.
10. Check that the two pipe ends and the coupling are on the same axis. Use supports if necessary.
11. Tighten the follower bolts with a torque wrench in a criss-cross fashion increasing the torque gradually in steps of 5Nm every full round to pull the followers evenly. Check that the followers remain parallel to one another.
12. Do not tighten the gripper bolts before tightening the follower bolts. The gripper bolts are painted in red on the outer edge. Please make sure the red side is shown before tightening.
13. After having fully tightened the follower bolts to the recommended torque value, tighten the gripper bolts by hand until they all touch the pipe surface.
14. Tighten the gripper bolts with the torque wrench in a criss-cross fashion increasing the torque gradually by 5Nm every full round until the recommended torque value is achieved.
15. After having fully tightened the grippers' bolts, it is necessary to check again the compression bolts and close them again in order to achieve the suggested torque.

### Recommended torque for the m16 follower bolts

- Diameters from 288 mm to 799 mm 60/80 Nm on PE pipes and metal pipes
- Diameters > 800 mm 150/170 Nm on PE pipes and metal pipes

### Recommended torque for the gripper bolts

- 50 Nm on PE pipes (\*\*) from 288 mm to 799 mm for Multigrip S
- 60 Nm on PE pipes (\*\*) from 288 mm to 799 mm for Multigrip D
- 120 Nm on metal pipes from 288 mm to 799 mm
- 130/150 Nm on PE and metal pipes for diameter > 800 mm

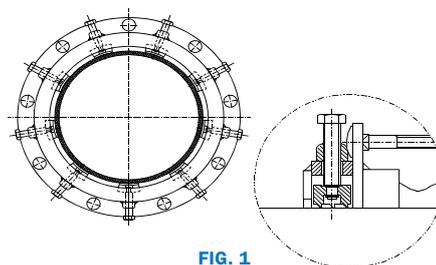


FIG. 1

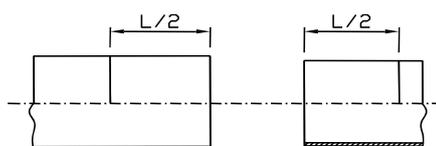


FIG. 2

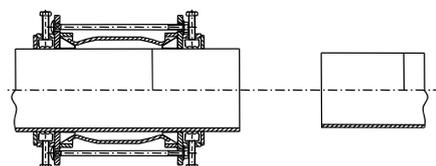


FIG. 3

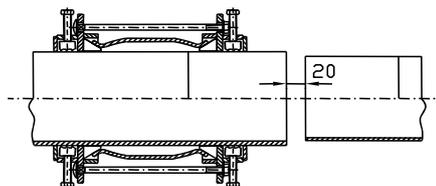


FIG. 4

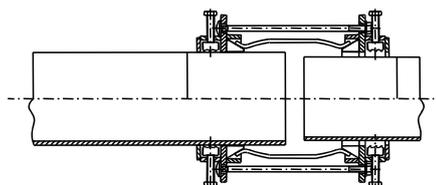


FIG. 5

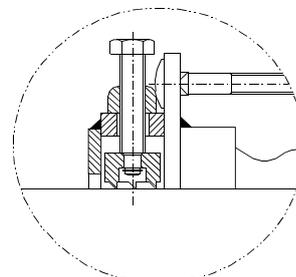


FIG. 6

\* PE pipes require the use of appropriate reinforcing liners

\*\* In case of PE pipes, the whole surface of the arch-shaped grippers have to penetrate the plastic pipe so that no space should be seen between each gripper arched surface and the pipe after tightening. This might be achieved with less than the maximum recommended torque depending on the pipe surface - please check visually.

# QUOTE REQUEST FORM



## 1. PIPE FEATURES

Nominal diameter		Nominal pressure, Maximum operating pressure	
Outside diameter side A		Outside diameter side B (if different from side A)	
Pipe material side A		Pipe material side B (if different from side A)	
Pipe type (class, SDR etc) side A		Pipe type (class, SDR etc) side B	
Other pipe features			

## 2. FLUIDS INVOLVED AND PHYSICAL PROPERTIES

Water	<input type="checkbox"/>	Gas	<input type="checkbox"/>	Sewage	<input type="checkbox"/>	Oil	<input type="checkbox"/>
Chemicals				Min/max fluid temperature			
Other							

## 3. TYPE OF FITTING / FLANGE DRILLING

Straight coupling	<input type="checkbox"/>	Reducer	<input type="checkbox"/>	Flange adaptor:	Flange pattern	<input type="checkbox"/>
					Flange DN	<input type="checkbox"/>

## 4. OTHER FEATURES

Single bolt type				Double bolt type	
Dacromet coated bolts				Grade 304 / 316 SS bolts	
EPDM rubber rings				NBR Rubber rings	
Other special features					

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