

KRAUSZ®

a **MUELLER** brand

HYMAX GRIP® (DN40-DN300) INSTALLATION INSTRUCTIONS

HYMAX GRIP® RESTRAINT COUPLING

HYMAX GRIP® FLANGE ADAPTOR

HYMAX GRIP® REDUCER

HYMAX GRIP® END CAP



JOIN



REPAIR



RESTRAIN



TAP

MUELLER

WARNING



Caution: This product is not intended for use on natural gas piping, or any other type of gas piping. To do so could result in escaping gas that could ignite and cause property damage, serious injury or death.

IMPORTANT

- **THE HYMAX GRIP** is a stab-on type restraint coupling that is approved for use with the following pipe types: CI, DI, Steel, PE, PVC and AC*, when installing a new restraint product in the existing line. As AC pipe type quality varies, the responsibility for using the solution on AC pipe type lies solely with the installer.
- **THE HYMAX GRIP SERIES ARE STAB-ON TYPE COUPLINGS.** Do not disassemble the product. Do not loosen the bolts.
- **LUBRICATION OF PRODUCT AND PIPES:** except steel, PVC, and PE pipes, all rough-surfaced pipes must be lubricated with a water-based gasket lubricant in order to achieve a proper seal. Do not lubricate PVC, Steel or PE pipe surface.
- **DO NOT LUBRICATE BOLTS AND NUTS.** Bolts are pre-lubricated with a MAG (Molecular anti-galling) coating. Greasing bolts or nuts voids manufacturer's warranty.
- **TIGHTEN BOLTS TO THE TORQUE** value provided on the label in one continuous step. Krausz products do not require a gradual increase of torque over a specified period, nor do they require re-torque. The minimal torque requirements must be achieved prior to any recharging of the line.
- **USE A TORQUE WRENCH TO TIGHTEN THE BOLTS.** A torque wrench will assure a proper torque has been applied to the coupling. Do not use other tools to tighten the coupling's bolts!
- **THE PRODUCT IS APPROVED FOR USE AT THE FOLLOWING CONDITIONS:**
 - Working pressure up to 16 bars as indicated on product label.
 - Operation temperature: -30°C to +50°C.
- **PIPE STIFFENERS OR INSERTS ARE REQUIRED** when used on PE and PVC pipes. Only full circle stiffeners are approved for use with Krausz products. Such stiffeners can be purchased from Krausz. Please contact your local distributor for the stiffeners' catalogue.
- **IN CASE OF HARSH ENVIRONMENT CONDITIONS,** further corrosion resistance measures should be set in place to ensure the durability of the solution.
- **WHEN REUSING A PRODUCT,** complete end rings should be replaced.
- **AT ALL TIMES,** the local regulations, rules and classifications of the organizations and authorities responsible for the material selection, product specification, construction planning, construction, construction acceptance and operation must be observed. The installation team must be instructed in the use of the Hymax Grip.

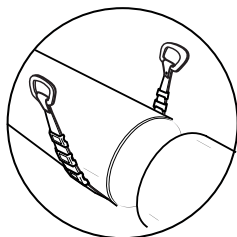
DO NOT USE HYMAX GRIP ON FRP PIPES!

PREPARE PRODUCT AND PIPE FOR INSTALLATION:

STEP 1: PREPARE THE PIPE ENDS. CLEAN AND DE-SCALE THE PIPE AS NEEDED

Make sure that:

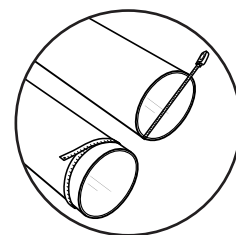
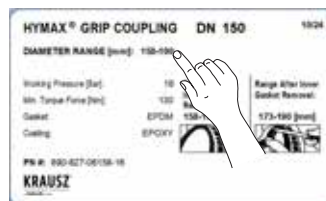
- The pipe is clear from debris.
- The pipe is not out of round and is free of scratches, dents, flats and defects.
- The end rings are centered on the coupling - if they are not, please contact your local distributor for return and replacement



STEP 2: MEASURE

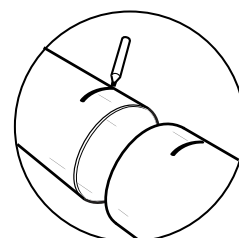
Make sure that:

the coupling size range (as indicated on the product's label) will fit the pipes properly



STEP 3: MARK THE PIPE

Mark pipe end to the minimum required stab depth as indicated on the product label.

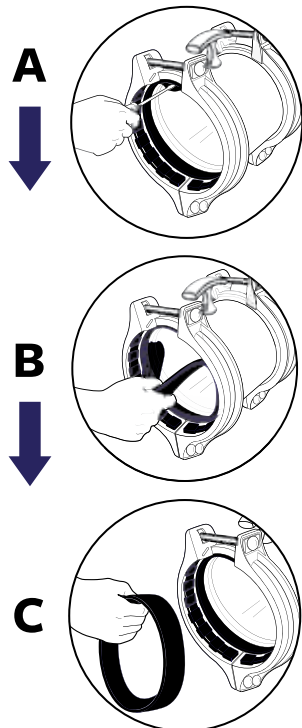


STEP 4: HYMAX GRIP GASKETS AND SIZES

The inner gasket can be removed to accommodate larger OD pipes.

If a larger OD is required, fold the inner layer, separate the two gaskets by inserting a screwdriver between the two layers, and pull the layer out of the product.

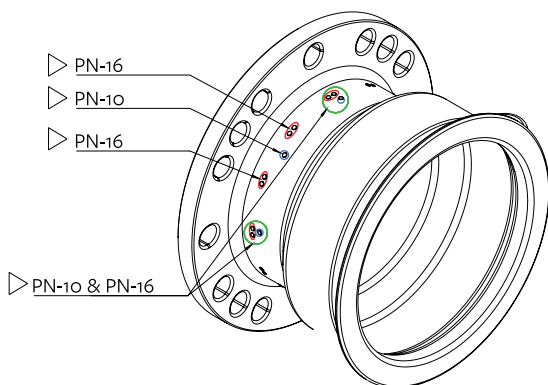
NOTE: Do not remove the inner gasket unless the OD falls within the upper range of the product. The proper range sizes are shown on the product label. In case you have removed the inner gasket by mistake, please see page 4.



STEP 5: FOR HYMAX GRIP FLANGE ADAPTOR ONLY

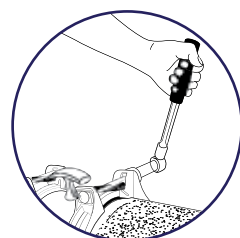
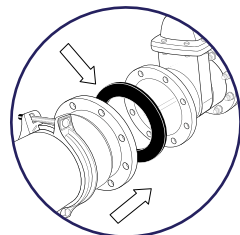
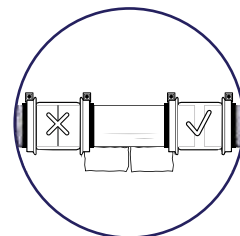
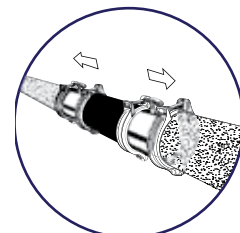
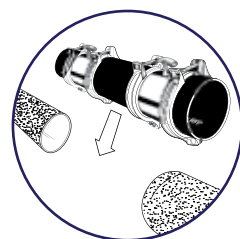
For sizes DN175-DN250 only - notice the markings on the product relating to the drilling patterns, as follows:

| SIZES | PN10 | PN16 | PN10/16 |
|---------------------------------------|---------------|---------------|---------------|
| DN175 (190-240) with Flange DN200 | 1 DOT Marking | 2 DOT Marking | 3 DOT Marking |
| DN175/200 (198-230) with Flange DN200 | | | |
| DN200 (214-264) | | | |
| DN250 (266-316) | | | |



STEP 6: POSITION THE COUPLING FOR INSTALLATION

- Slide the product on both sides of the replacement pipe with top-facing bolts and lower the pipe and couplings into the ditch. Lower the replacement pipe, and the HYMAX GRIP positioned on it, into the ditch.
- Slide the Grips outward so that they cover the marks made in step 3.
- Make sure that the pipes are not touching inside the body of the product. there must be space between the pipes for Continuous Dynamic Deflection to take place.
- Make sure that the pipes are properly supported. The HYMAX GRIP is not designed to carry the weight of the pipes.
- For Flange Adaptor: assemble the flange joint using flange bolts. Make sure you use a flat gasket between the flanges (not provided).



STEP 7: TIGHTEN

Tighten the Grip's bolts to the right torque shown on the product label. When you finish, re-check the torque again.

STEP 8: RECHARGE

Recharge the line and check for leaks. If any leakage is evident, reduce the pressure in the line and increase bolt torque by up to 50%*. For DN 40-80 increase bolt torque by up to 30%. Verify again no leaks are evident along the seal.

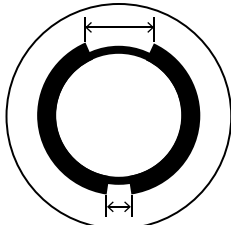
*In exceptional cases, where increasing bolt torque beyond standard declaration is required, contact your KRAUSZ local representative for more information.

BEFORE INSTALLATION:

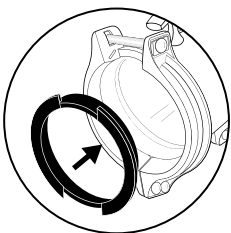
In case you have removed the inner gasket by mistake (prior to use of the product), and need to return it into place, remove the restraint teeth chain first, by pressing it with both thumbs so it shrinks and comes out.



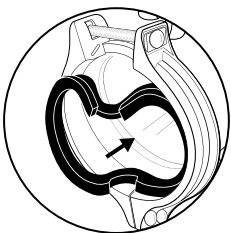
The gasket has 2 different gaps – A. A wide gap that is positioned below the main closing bolt. B.



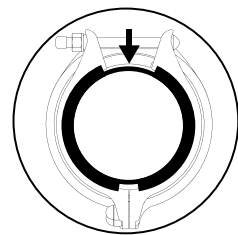
Place the gasket inside the product with the wide gap in the upper part of the product and the narrow gap in its lower part.



The gasket cannot be returned into the product unless you fold it to an 8 shape.



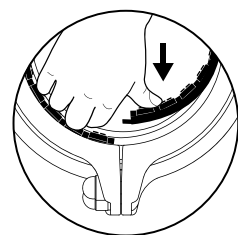
Release the folded gasket so it spreads over the entire circumference of the flange adaptor and sets in its final location. It is possible to make additional adjustments as needed.



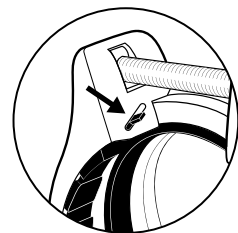
After securing final location of the gasket, return the restraint teeth chain to its proper location. Notice the small protrusion at the end of the chain.



The protrusion must be in the lower part of the chain.



For final placement insert the protrusion into its intended slot – see drawing - and press hard with your thumbs until the protrusion in the other end sits well in place.



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