



# coupling

## Layflat Hose Coupler Installation Manual



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This manual is an installation manual and reference guide for the following Metal 360 Inc. coupler set lines: Shug, Vic, and Menders.

Please use this manual as a reference for initial assembly and use for the entire lifespan of the product. Failure to do so could result in bodily harm, equipment damage, and/or financial loss. Metal 360 Inc. will not be held liable for any damages arising from failure of not following the instructions found herein.

**WARNING:**

**Improper installation and maintenance will void any warranty for the product.**

# **360** coupling

## Shug Coupler Sets



Shug Coupler sets are designed as hose connectors for PVC, nitrile, and/or polyurethane hose in thicknesses from 0.120" to 0.200". They can be used in supply and/or drag applications.

**ALWAYS** be aware what the pressure rating is for the coupler you're working on

**ALWAYS** release pressure before removing any clamps or bolts

**ALWAYS** wear safety glasses

**ALWAYS** inspect all components for wear or damage before assembly or re-assembly.

**NEVER** close inline valves while pumping.

**WARNING:**

**There is enough pressure in the couplers, when in use, to cause fatal injury. Always read complete instructions before attempting any work on any coupler.**

# List of Components and Tools Needed



Barb 2X



Segment Set 2X



Clamp 1X



Insert 1X



Gasket 2X

## Tool List

Soft face hammer

Socket wrench

5/16" hex bit socket

3/8" hex bit (if assembling M3CS10HDA - M3CS12HDA)

Torque wrench



1. Assemble both segment sets, applying anti-seize compound on the bolts and loosely turning them into the threads.

The segment set will need to be loose



2. Slide the assembled segment set over the hose end with the rounded side facing away from the hose end.



3. Insert the barb into the hose and tap into the hose with a soft face hammer until hose end is seated firmly against



4. Set the segment set over the barb making sure that the profiles align. It is important that this step is done correctly as an incorrect fitting segment set can result in hose slippage and injury.

See examples at the bottom for incorrect segment set placement.



**TOO FAR ON!**



**TOO FAR OFF!**



5. Tighten all bolts, alternating between segments. Use a torque wrench to tighten all bolts to torque specs listed on page 10. Failure to tighten all bolts to torque specs may result in hose slippage and injury.

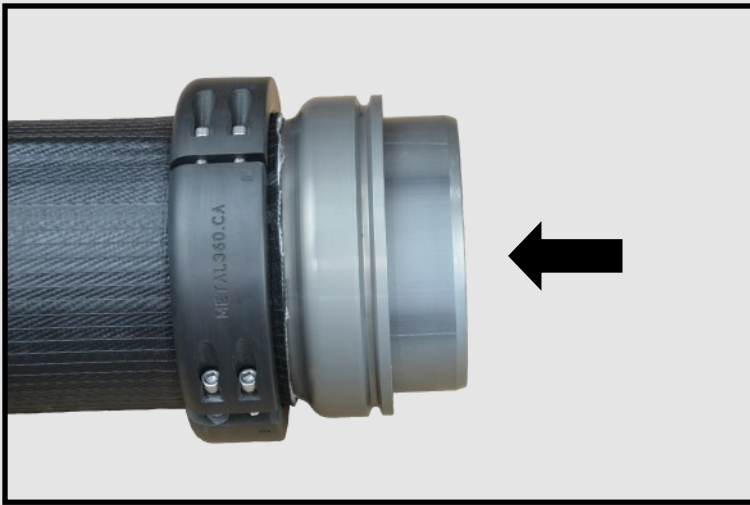
**ATTENTION:**

Re-torque bolts after 12 hours of pressure.

**ATTENTION:**

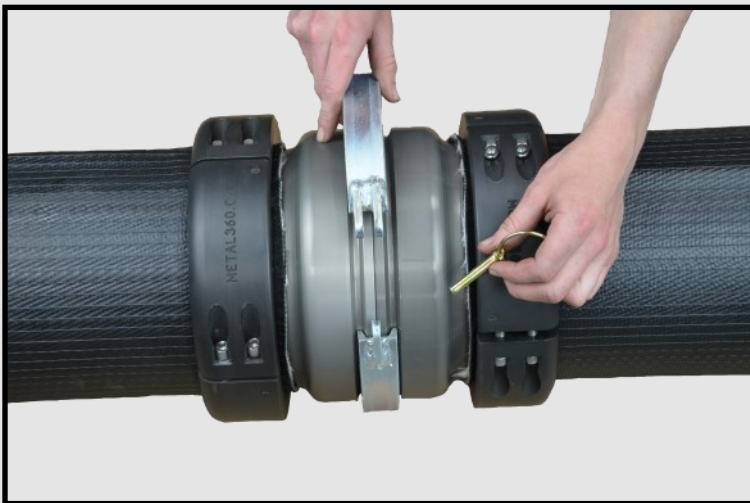
Adjustment to torque specs may be necessary, depending on what type of hose is being used.





6. Slide insert into barb

7. Repeat steps 2 to 5 and slide barb over the insert



8. Place clamp over both end grooves of the barbs and insert lynch pin

# Specifications

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Pressure Rating for Shug Coupler Sets in PSI	
4" Coupler Set	300
4.5" Coupler Set	300
5" Coupler Set	300
5.5" Coupler Set	300
6" Coupler Set	300
7" Coupler Set	300
7.25" Coupler Set	300
8" Coupler Set	300
10" Coupler Set	300
10" HF Coupler Set	300
10" SS Coupler Set	300
12" Coupler Set	200
12" HF Coupler Set	200

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Torque Specs for Bolt Sizes		
3/8" segment set bolts	45 ft/lbs.	5/16" hex bit socket
1/2" segment set bolts	60 ft/lbs.	3/8" hex bit socket

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# **360** coupling

## Mender Sets



Mender sets are designed to repair holes or tears in drag or supply lines. They can be used in various PVC, nitrile, and polyurethane hoses ranging in thickness from 0.120" to 0.200.

**ALWAYS** be aware what the pressure rating is of the mender set you want to install

**ALWAYS** release pressure before attempting to install a mender set.

**ALWAYS** wear safety glasses

**ALWAYS** inspect all components for wear or damage before assembly

**NEVER** close inline valves while liquid is flowing

**WARNING:**

**There is enough pressure in the menders, when in use, to cause fatal injury.  
Always read complete instructions before attempting any work on any  
menders.**

## List of Components and Tools



Barb 1x



Segment Set 2x

### Tool List

Soft Face Hammer

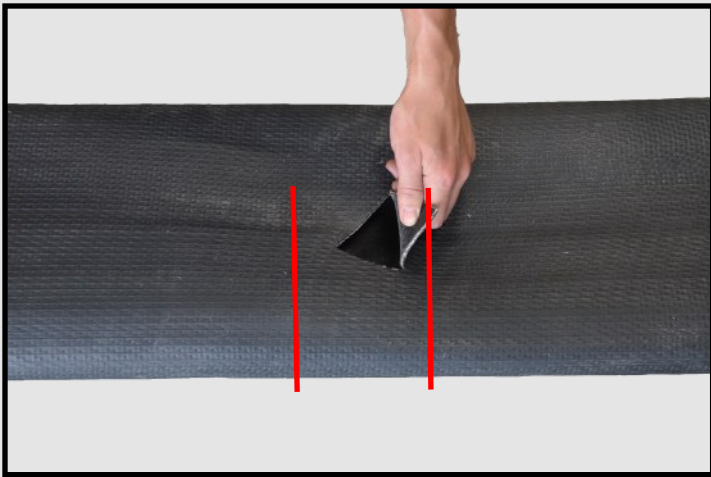
Anti-seize compound

Socket wrench

5/16" hex bit socket

3/8" hex bit (if assembling M3MCS10HDA or M3MCS12HDA)

Torque wrench



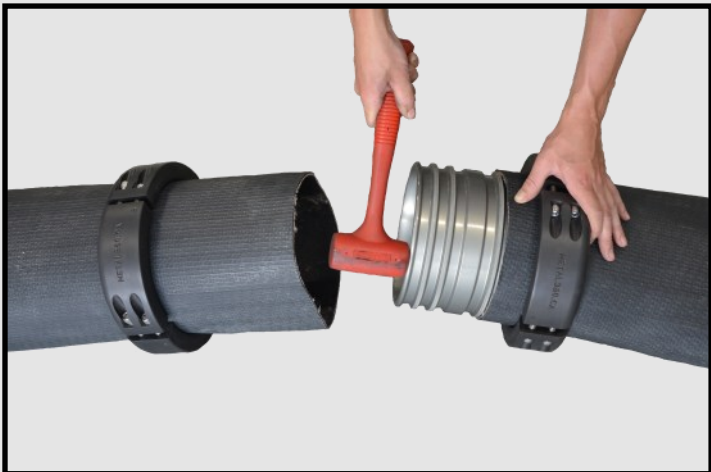
1. Locate and identify the damage to the hose. Two perpendicular cuts need to be made.



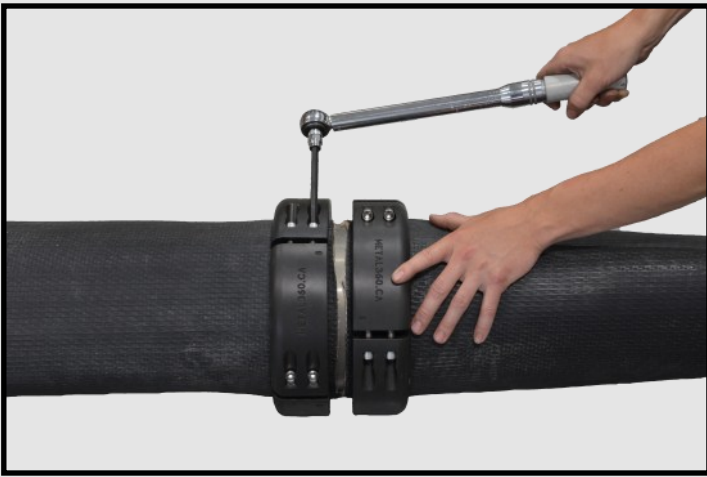
2. Apply anti-seize compound to bolts and loosely assemble both segment sets. **The sets have to be assembled loosely in order to complete the next step.**



3. Slide assembled segment sets over hose ends.



4. Tap the barb into one hose end and slide the other hose end over the other barb end.



5. Slide segments back over the barb and tighten, making sure that the profiles of the segment sets and barb match.



6. Tighten bolts with torque wrench according to spec found on page 16.

**ATTENTION:**

**Re-torque bolts after 12 hours of pressure.**

**ATTENTION:**

**Adjustment to torque specs may be necessary, depending on what type of hose is being used.**

# Specifications

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## Pressure Rating for Mender Sets in PSI

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4" Mender Set	300
4.5" Mender Set	300
5" Mender Set	300
5.5" Mender Set	300
6" Mender Set	300
7" Mender Set	300
7.25" Mender Set	300
8" Mender Set	300
10" Mender Set	300
12" Mender Set	200

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## Torque Specs for Bolt Sizes

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3/8" segment set bolts	45 ft/lbs.	5/16" hex bit socket
1/2" segment set bolts	60 ft/lbs.	3/8" hex bit socket

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# **360** coupling

## Vic Coupler Set



Vic coupler sets are designed to connect various PVC, nitrile, and polyurethane hoses ranging in thickness from 0.120" to 0.200. These couplers are usually used in waste transfer applications.

**ALWAYS** be aware what the pressure rating is of the mender set you want to install

**ALWAYS** release pressure before attempting to install a mender set.

**ALWAYS** wear safety glasses

**ALWAYS** inspect all components for wear or damage before assembly

**NEVER** close inline valves while pumping.

**WARNING:**

**There is enough pressure in the couplers, when in use, to cause fatal injury.  
Always read complete instructions before attempting any work on any  
coupler.**

# List of Components and Tools



Vic barb



Vic segment set  
1x

**Note:** the clamp is not supplied by Metal 360 Inc

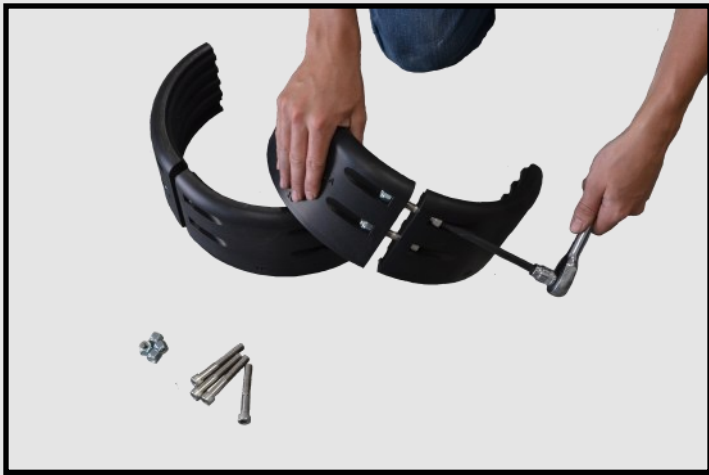
## Tool List

Soft –face Hammer

Socket wrench

5/16” hex bit socket

Torque wrench



1. Loosely assemble the segment set.

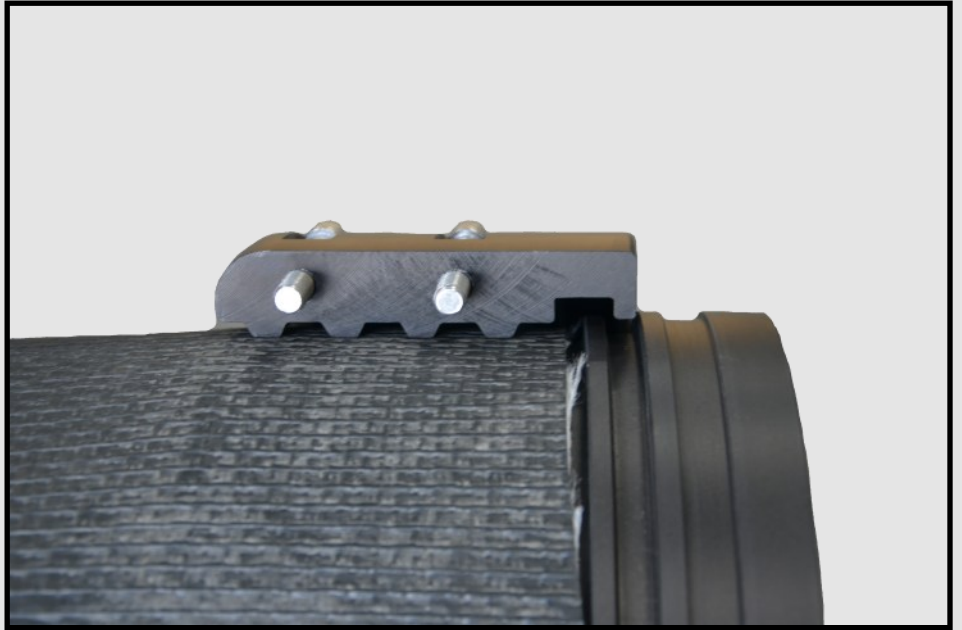


2. Slide segment set over the hose with the rounded side facing away from the hose end.

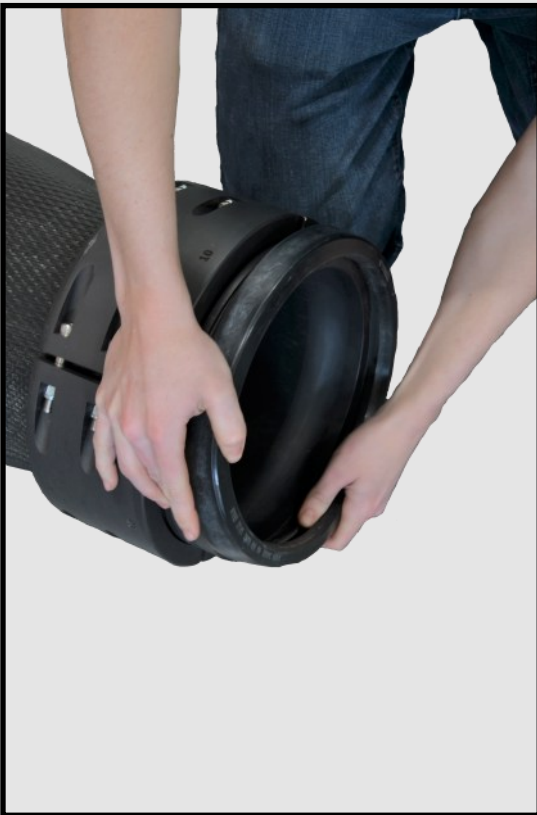


3. Insert barb into hose and tap into position with a soft face hammer. Hose should butt up against the raised lip.

4. Slide the segment set back over the barb like shown below. Slightly tighten bolts.



5. Stretch the gasket over the end of the barb making sure it lines up like the picture below.





6. Tighten the bolts of alternating segments to the torque specs specified on page 23.



7. Repeat steps 1-5 with the other side and mate the two flanges together making sure that the gasket is centered.



8. Place clamp over the gasket and bolt together. Make sure the clamp is bolted tight enough together. See picture below.



# Specifications

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## Pressure Ratings for Vic Coupler Sets in PSI

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4" Vic Coupler Set	300
6" Vic Coupler Set	300
8" Vic Coupler Set	300
10" Vic Coupler Set	300
10" SS Vic Coupler Set	300
12" Vic Coupler Set	200

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## Torque Specs for Bolt Sizes

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3/8" segment set bolts	45 ft/lbs.	5/16" hex bit socket
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## Contact Information

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## Mailing Address

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- All of our couplings are compatible with industry standards
  - Please contact us for technical specifications
  - PDF catalogue is available for download on our website
  - Our products have a 1 year Warranty from date of sale
  - Warranty not valid if pressure rating was exceeded or from physical abuse or severe wear from pumping abrasive or corrosive liquids
  - All of our products are made in Canada
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**360** coupling