

Safety & Technical Alert

Avoiding the Danger of Interconnecting the 2" Figure 602 and 1002 Female Sub with a 2" Figure 1502 Wing Nut

The mixing of 2" Figure 602 and 1002 components with 2" Figure 1502 union components has been known to cause serious incidents over the years. Previous solutions to the issue have focused on training and communication. While these remain very important components of accident prevention, FMC Technologies is implementing a change to components with the 2" Figure 602 and 1002 female subs that will eliminate the possibility of the female subs being mismatched with a 2" Figure 1502 wing nut.

For many years, FMC Technologies, as well as a number of organizations such as the IADC, SPE, and CAODC have issued warnings and bulletins about the dangers associated with the mismatching of hammer union components having the same size but different figure numbers. (Refer to TAO11, April 2006, Rev. A, FMC Technologies "Safety & Technical Alert – Avoiding the Dangers of Mismatching Swivel Joint Components")

The industry has been well informed about the dangers involved and many companies have taken the necessary steps to educate their personnel as well as trying to standardize on the 2" Figure 1502 union and limit the use of 2" Figure 602 and 1002 unions in areas where the possibility of mismatching can occur.

This change involves reducing the major thread diameter so the female sub will not engage the internal thread of the wing nut. The strength of the connection is not compromised by this change. The new female subs will also have a raised shoulder behind the thread marked appropriately to help identify the new parts.

Even though this design change will prevent the connecting of the new 2" Figure 602 and 2" Figure 1002 female subs with a 2" Figure 1502 wing nut, it will allow the newly redesigned subs to completely and safely connect to their respective existing 2" Figure 602 and 1002 union assemblies currently in service. It will still be important to continue checking product markings to avoid mismatching figure numbers.

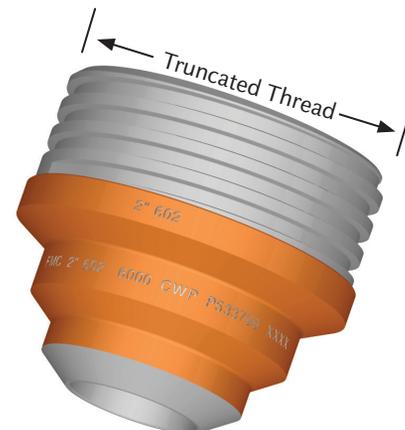
In addition to these design changes, FMC Technologies is discontinuing the manufacture of all products that contain the 2" Figure 402 hammer union design.

Please note that the sale and the promotion of the use of FMC 2" Figure 602/1502 Go No-Go Gauge tool (Part Number: P511389) will be continued to determine if a particular 2" female sub is a 2" Figure 602/1002 female sub or a 2" Figure 1502 female sub.

The 2" Figure 602/1502 Go No-Go tool has been available to the industry since 2000.



2" figure 602 female sub before modification



2" figure 602 female sub after modification

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Warnings and Safety Instructions

FMC Technologies cannot anticipate all of the situations a user may encounter while installing and using FMC products. Therefore, the user of FMC products MUST know and follow all applicable industry specifications and practices on the safe installation and use of these products. For additional safety information, refer to FMC Technologies product catalogs, product-brochures and installation, operating and maintenance manuals, which can be accessed at www.fmctechnologies.com/fluidcontrol or contact FMC Technologies at 800/772-8582.

WARNING

1. Never mix or assemble components, parts or end connections with different pressure ratings. Mismatched conditions, including but not limited to that of a 2" Figure 1502 male sub end connected to a 2" Figure 602 female sub, may fail under pressure resulting in death, serious personal injury or severe property damage.
2. Never use or substitute non FMC components or parts in FMC products or assemblies.
3. Never modify or repair FMC products in a manner not specifically directed in instructions published by FMC Technologies.
4. Never strike, tighten, loosen or attempt repairs on pressurized components or connections.
5. Never exceed the rated working pressure of the product.
6. Complete and proper make-up of components and connections is required to attain rated working pressure. Always apply essential care, attention, handling and inspection to threaded components before, during and after make-up.
7. Never use severely worn, eroded or corroded products. Contact FMC Technologies for more information on how to identify the limits of erosion and corrosion.
8. Never strike wing union nuts having severely flattened and extruded ears. This condition can result in flying debris leading to serious personal injury and must immediately be addressed by either grinding off extruded material or removing the nut from service.
9. Always follow safe practices when using products in overhead applications. Products not properly secured could fall.
 - Never exceed the load rating of lifting devices on products or lifting equipment.
 - Use of FMC products in suspension applications can result in over-stress conditions leading to catastrophic failure. If externally applied loads are anticipated, consult factory.
10. Always follow safe practices when manually lifting and carrying products.
11. Always select only appropriate product and materials for the intended service:
 - Never expose standard service products to sour gas fluids. (Refer to NACE MR0175). Do not interchange sour gas with standard service components.
 - Always use appropriate safety precautions when working with ferrous products in below freezing temperatures. Freezing temperatures lower the impact strength of ferrous materials.
12. Always follow manufacturer's instructions and Material Safety Data Sheet directions when using solvents.
13. Always make certain that personnel and facilities are protected from residual hazardous fluids before disassembly of any product.
14. Whenever leakage is detected from FMC Technologies products, remove them from service immediately to prevent death, serious personal injury and/or property damage.

SAFETY INSTRUCTIONS: The application of FMC products are in working environments and systems which must be properly designed and controlled. Safety procedures and policies MUST be clearly established by the user and followed. Always use appropriate protective equipment.

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