

September 2009

# “M3162” Series Clamp Hose Coupling



## WARNING

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death.

Fisher® equipment must be installed, operated, and maintained in accordance with federal, state, and local codes and Emerson Process Management Regulator Technologies, Inc. instructions. The installation in most states must also comply with NFPA No. 58 or ANSI K61.1 standards.

Only personnel trained in the proper procedures, codes, standards, and regulations of the LP-Gas industry should install and service this equipment.

## Introduction

### Scope of the Manual

This instruction manual covers installation and maintenance for Fisher M3162 Series Clamp Style Hose Couplings used on LP-Gas and anhydrous ammonia. This manual does not address care and maintenance of the hose. Consult the hose manufacturer for information related to the hose.

### Description

The M3162 Series Clamp Style Hose Couplings are designed to provide ACME or NPT end connections on 1/2 to 3-inch (13 to 76 mm) inside diameter LP-Gas and Anhydrous Ammonia hose. A ribbed metal nipple is inserted into the hose and 2 clamps are held in place over the outside diameter of the hose. Two bolts are tightened to hold the clamps in place and to create a sealing force.

Standard couplings come in 1/2 to 3 NPT male connections. Swivel constructions provide 1-3/4, 3-1/4 or 4-1/4-inch female ACME Swivel connections.

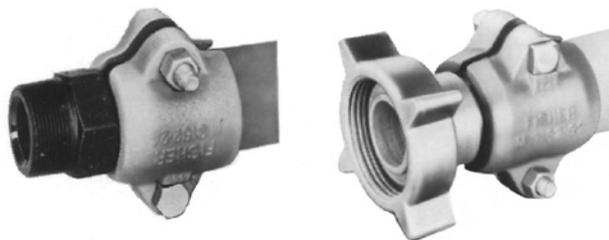


Figure 1. Types M3162 and M3162 Swivel Nuts

## Specifications

See Table 1 Specifications for specific materials and sizes of clamps and hoses.



## WARNING

The Type M3162-32B Swivel Hose Clamp is not suitable for NH<sub>3</sub> applications as it contains a brass Acme Nut. Anhydrous Ammonia will corrode and weaken brass resulting in failure that could lead to personal injury.

If the coupling is to be used in service other than LP-Gas or anhydrous ammonia, contact the factory to determine if the materials are suitable for the particular service.

## Installation



## WARNING

### Failure to

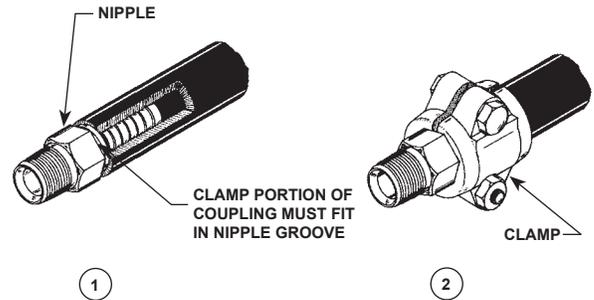
- properly install the raised clamp rim in the nipple groove,
- properly tighten the bolts, and
- pressure test the final hose clamp assembly may result in hose clamp failure and release of product that could result in personal injury or property damage.



# M3162 Series

**Table 1. Specifications for Specific Materials and Sizes of Clamps and Hoses**

TYPE NUMBER	COUPLING STYLE	SIZE	HOSE I.D., INCH (mm)	APPROXIMATE HOSE O.D., INCH (mm)
M3162-08	Clamp Type, Standard Outlet	1/2 NPT	1/2 (13)	15/16 (24)
M3162-12		3/4 NPT	3/4 (19)	1-1/4 (32)
M3162-16		1 NPT	1 (25)	1-1/2 (38)
M3162-20		1-1/4 NPT	1-1/4 (32)	2 (51)
M3162-24		1-1/2 NPT	1-1/2 (38)	2-1/4 (57)
M3162-32		2 NPT	2 (51)	2-3/4 (70)
M3162-48		3 NPT	3 (76)	3-3/4 (95)
M3162-12S	Clamp Type, Swivel Nut Outlet	1-3/4-inch F. Acme	3/4 (19)	1-1/4 (32)
M3162-32S		3-1/4-inch F. Acme	2 (51)	2-3/4 (70)
M2162-32B				
M3162-38S		4-1/4-inch F. Acme	3 (76)	3-3/4 (95)



**Figure 2. Installation**

- Use the correct type of hose for product to be handled. The hose must have dimensions as found in Table 1 for proper installation of the clamp to the hose.
- Cut the end of the hose square and to the desired hose length.
- Use a suitable hose lubricant on the nipple serrations and inside of the hose to help ease the insertion of the nipple into the hose.
- Screw the nipple into the hose until the hose is against the nipple groove shoulder. See Figure 2, (1).
- Make sure the raised rim on the clamp end fits into the nipple groove as shown in drawing Figure 2, (2).
- Tighten the bolts snugly until the clamp and hose are pressure tight. The gap between the 2 clamps under each bolt should be approximately the same distance apart. The 2 Clamp halves should not come into contact with each other. If this occurs, it indicates that either the hose inside diameter is oversized or that the hose outside diameter is undersized.
- Pressure test the assembly 350 psi (24,1 bar) or to your companies hose pressure test requirements. There should be no leakage at the hose clamp.
- Bolts may need to be retightened periodically to maintain pressure tightness of the hose assembly.

## LP-Gas Equipment

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