Application Data

Important Safety Information

Read this page before using any of the information in this catalog. This catalog is designed to be used as a guide in selecting the proper hose for the applications listed herein. It contains many cautions, warnings, guidelines, and directions for the safe and proper use of Boston hose. All these directions and footnotes should be read and understood before specifying or using any of these hoses.

Throughout this catalog, potentially harmful situations are highlighted with the following symbols.

 This symbol is used to indicate imminently hazardous situations which, if not avoided, will result in serious injury or death.

 This symbol is used to indicate potentially hazardous situations which, if not avoided, could result in serious injury or death.

 This symbol is used to indicate potentially hazardous situations which, if not avoided, may result in property or equipment damage.

Some of the most common problems in the chemical hose industry result from improper hose and coupling selection, improper assembly techniques, failure to correctly inspect and test hose assemblies, and improper cleaning practices and hose assembly storage techniques.

In turn, these situations can lead to material leakage, spraying, spattering, end blow-offs, explosions, and other situations that may result in serious personal injury and property damage.

Personal injuries caused by improper hose assembly specification, installation, and usage could include cuts and abrasions, serious burns, irreparable eye damage, or even death. Therefore, for your safety and the safety of others working around you, Eaton strongly urges you to read and comply with all safety information printed in this publication.

 **WARNING:** Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose may result in its failure to perform in the manner intended and may result in serious injury, death, and damage to property.

 **WARNING:** Testing can be dangerous and should be done only by trained personnel using proper tools and procedures. Failure to follow such procedures might result in serious injury, death, or damage to property.

Consult the coupling manufacturer to make sure you choose the correct coupling and proper assembly for the application, or contact Eaton Technical Support.

Before using any hoses in this catalog, consult the safety section in this catalog, and Chemical Compatibility Chart on page 21 or Boston Hose Chemical Resistance Guidelines. If you do not have the most recent copy, contact Eaton Customer Support at 1-888-258-0222.

Selection of Hose

Selection of the proper Boston hose for an application is essential to the proper operation and safe use of the hose and related equipment. Inappropriate hose selection may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids or flying projectiles. To avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog. Some of the factors to consider in proper hose selection are:

- hose size
- hose length
- hose ends
- fluid conveyed
- bends
- temperature
- hose pressure
- static head pressure
- installation design

These factors and the supplemental information contained in this catalog should be considered in selecting the proper hose for your application. If you have any questions regarding the proper hose for your application, please contact Eaton at 1-888-258-0222.

Application Data

Important Safety Information

Proper Selection of Hose Ends

Selection of the proper Boston hose end or coupling is essential to the proper operation and safe use of hose assemblies and related equipment. Inadequate attention to the selection of the end fittings may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of an incompatible hose end or coupling, you should carefully review the information in this catalog. Some of the factors which are involved in the selection of the proper hose couplings are:

- fluid compatibility
- temperature
- installation design
- hose size
- corrosion requirements
- fluid conveyed

The given hose and hose end selection factors and the other information contained in this catalog should be considered by you in selecting the proper hose end fitting for your application.

If you have any questions regarding the use of hose/hose ends, please contact Eaton Technical Support at 1-888-258-0222.

Hose Installation

Proper installation is essential to the proper operation and safe use of the hose assembly and related equipment.

Improper hose assembly installation may result in serious injury or property damage caused by spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from improper hose assembly installation carefully review the information in this catalog. Some of the factors to be considered when installing a hose assembly are:

- hose elongation or contraction
- proper bend radius/hose routing under pressure
- elbows and adapters to relieve strain
- protection from rubbing or abrasion high temperature sources
- protection against excessive movement
- twisting from pressure spikes/surges

These hose assembly installation factors and the other information in this catalog should be considered by you before installing the hose assembly. If you have any questions regarding proper hose installation, please contact Eaton Technical Support at 1-888-258-0222.

Hose Maintenance

Proper maintenance of the hose is essential to the safe use of the hose and related equipment. Hose should be stored in a dry place. Hose should also be visually inspected. Any hose that has a cut or gouge in the cover that exposes the reinforcement should be retired from service. Hoses should also be inspected for kinking or broken reinforcement. If the outside diameter of the hose is reduced by 20% or more, the hose should be repaired or removed from service. Inadequate attention to hose maintenance may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids, flying projectiles, or other substances.

Coll-O-Crimp Hose, Hose Ends and Assembly Equipment Compatibility

The Coll-O-Crimp Equipment Package, Coll-O-Crimp Hose Ends and Coll-O-Crimp Hose have been engineered and designed as a complete hose assembly system. Each component of the Coll-O-Crimp hose assembly system is compatible with other Coll-O-Crimp components to which it relates. Component compatibility, along with the use of quality components, insures the production of reliable hose assemblies when assembled properly. The use or intermixing of fittings and hose not specifically engineered and designed for use with each other and Coll-O-Crimp equipment is not recommended and may result in the production of unsafe or unreliable hose assemblies. This can result in hose assembly leakage, hose separation or other failures which can cause serious bodily injury or property damage from spraying fluids, flying projectiles, or other substances.

Equipment

Coll-O-Crimp
T-440

Refer to safety information regarding Coll-O-Crimp hose, hose fittings and assembly equipment compatibility on pages 3-4.

The Coll-O-Crimp II Plus is ideal for factory, high performance machine operations, construction and mine locations. This machine offers the capabilities of crimping all of the crimp style hose ends Eaton offers. With this coverage, this heavy-duty crimper can handle all of your crimping needs.

Capacity: 3/16" I.D. 1 fiber braid through 2" 6 spiral hose; for hoses other than 4 and 6 spiral, conversion tooling is required. See pages 170-173 for details.

Mounting: Bench

Size: 27" high, 12" wide, 21" deep

Weight: 450 lbs.

Pump Required (sold separately): T-441

T-440-1 • Coll-O-Crimp II Plus Press and T-440-M Instructions ONLY.

Refer to pages 170 through 178 for Coll-O-Crimp tooling, tooling packages and pumps.

Note: Seal kits for T-410 and T-440 are not sold separately. Crimpers must be sent in and torqued by Eaton.

Refer to safety information regarding Coll-O-Crimp crimping procedures on pages 168-169.

Note: These packages include tooling to crimp H430 hose. For additional tooling order from pages 170-178.

CAUTION

The Coll-O-Crimp power source has the pressure relief valve set at 5,000 PSI. Damage to the press will result if higher pressures are used and warranty may be voided.

T-440-N • Coll-O-Crimp II Plus Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-440-1	C-O-C II Plus Press
T-441	220v 2-stage Electric Pump
T-410-BB	Switch
T-410-4CN	430 'U' N/S Collet – 1/2" I.D.
T-410-5CN	430 'U' N/S Collet – 3/4" I.D.
T-410-6CN	430 'U' N/S Collet – 1" I.D.
T-410-7CN	430 'U' N/S Collet – 1-1/4" I.D.
T-410-8N	430 'U' N/S Collet – 1-1/2" I.D.
T-410-9N	430 'U' N/S Collet – 2" I.D.
T-410-22	36" Pump to Press Hose Assembly
T-440-M	Instructions

Note: For T-410 press, use T-410-BB switch replacement.

Repair & Replacement Items:

CATALOG NUMBER	DESCRIPTION
T-410-26R	Base Plate Insert (7")
T-410-26	Base Plate Insert (6.5")
T-410-28	Tool Locator Bracket
T-410-B	Pusher Bolts and Washers
W-EQCR-TE007-E	Shroud Decal
T-440-M	Instructions for T-440-1
T-410-P	Pusher Set (2) for T-410-1 and T-440-1
T-410-BB	Pump Switch for the T-410-1 crimper when using T-421-U or T-421U-110 Pump
T-410-1M	Microswitch for T-410-1 & T-440-1
T-421-FP	4 prong female electrical outlet See page 178 for illustration.
T-400-G	1.5 oz. Tube High Efficiency Teflon Grease
T-401-SVF	Fenner Shuttle Valve
T-420-14	Replacement Cage for T-410 and T-470 collets with "C" suffix

Equipment

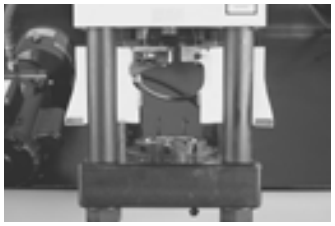
T-420 & T-440 Crimping Procedure

Procedure when using T-410 or T-420 Series collets. Spacer ring may be required. Please refer to Hose End & Tool Selector Chart in the back of this catalog for tooling specifications.

T-440 used in example.

WARNING

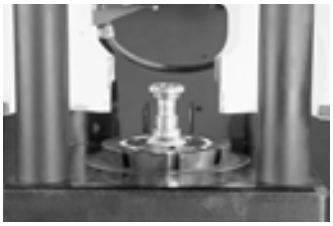
You must hold the hose assembly in place from below throughout the crimping operation. Do not place fingers or hands at the crimping point during operation. Failure to follow this procedure could result in serious injury to your hand or finger.



1. Open pusher halves. Select proper size collet for hose type being crimped. Insert collet as shown.

2. Place proper size Coll-O-Crimp hose end on hose. Be sure hose is bottomed in hose end.

2a. When making a hose assembly on the T-440-1 C-O-C machine using a 47032E-632 on each end, you must manually remove the spring loaded collet retainer ring in order for the hose end to fit through the opening.



3. Insert hose assembly from below, between collet halves. Crimp locating knurls must align with top surface of collet.

4. T-440-1: Close pusher halves and activate pump by turning on switch. When pusher contacts the base plate, the crimp is complete.

4. T-420-1: Pull activating lever down. Pusher halves will close. Continue to pull activating lever down (pump will activate) until pusher contacts the base plate. The crimp is complete. Release activating lever. Pusher will automatically return, and pusher halves will open. Remove hose assembly and measure nominal crimp diameter (see step 6).

5. T-440-1: Release switch. Pusher will automatically return. Open pusher halves. Remove factory crimped assembly and inspect.

6. To insure a proper crimp has been completed, measure the nominal crimp diameter. Refer to the Hose End

and Tool Selector Chart in back of catalog for procedure and crimp diameter.