

# 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

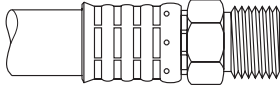
The Coll-O-Crimp Equipment Package, Coll-O-Crimp Hose Ends and Coll-O-Crimp Hose have been engineered and designed as a complete hose assembly system. Each component of the Coll-O-Crimp hose assembly system is compatible with other Coll-O-Crimp components to which it relates. Component compatibility, 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.

# Couplings

## Coll-O-Crimp

### 'E' Series

#### Hose End Series: 'E' Series



Refer to important safety information found on pages 3-4 of this catalog.

**Note:** Refer to current price list for availability of cataloged items. Configurations and dimensions subject to change without notice.

**Typical Application:** General purpose low- and medium-pressure fluid transfer.

**Compatible Hose:** H265/Ultraforce, H275/Polyforce, H285/Clearforce

**Pressure:** Determined by maximum working pressure for hose size and hose end configuration whichever is lesser.

**Material:** AISI/SAE 12L14 carbon steel

**Plating:** Zinc; yellow dichromate finish

**Advantages:** Wide selection of hose and end configurations allowing for a diverse number of applications where hose compatibility is a problem.

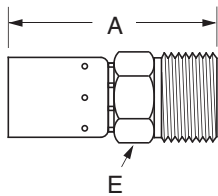
**Ordering Information:** Order individually by catalog number.

**Assembly Instructions:** See Hose End & Tool Selector Chart for crimp specifications.

**Assemble With:** T-400-1, T-410-1, T-420-1, T-440-1, T-460, T-462, T-465-1, T480.

**Label Set:** FS-1200

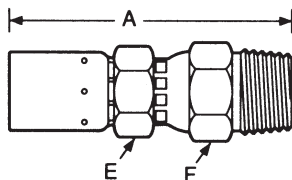
#### Male Pipe Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
3/16	1/8	03E-102	1/8-27	1.58	.75	.09	7/16
3/16	1/4	03E-104	1/4-18	1.83	1.00	.09	9/16
1/4	1/8	04E-102	1/8-27	1.60	.75	.16	7/16
1/4	1/4	04E-104	1/4-18	1.79	1.00	.16	9/16
1/4	3/8	04E-106	3/8-18	1.82	1.00	.16	11/16
5/16	1/4	05E-104	1/4-18	1.86	.94	.22	9/16
5/16	3/8	05E-106	3/8-18	1.89	1.00	.22	11/16
3/8	1/4	06E-104	1/4-18	1.90	1.00	.27	9/16
3/8	3/8	06E-106	3/8-18	1.93	1.00	.27	11/16
3/8	1/2	06E-108	1/2-14	2.17	1.25	.27	7/8
1/2	3/8	08E-106	3/8-18	2.02	1.00	.38	3/4
1/2	1/2	08E-108	1/2-14	2.27	1.25	.38	7/8
3/4	3/4	12E-112	3/4-14	2.51	1.31	.61	1-1/16
1	1	16E-116	1-11-1/2	2.95	1.63	.84	1-3/8

#### Male Pipe Swivel

**Note:** Swivel for installation purposes only. (Not for temperatures above 200°F.)



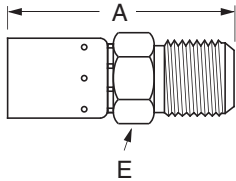
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04E-J04	1/4-18	2.68	1.81	.16	5/8	13/16
5/16	1/4	05E-J04	1/4-18	2.75	1.81	.22	5/8	13/16
3/8	3/8	06E-J06	3/8-18	2.79	1.81	.27	11/16	7/8
1/2	1/2	08E-J08	1/2-14	3.03	2.00	.39	3/4	7/8
3/4	3/4	12E-J12	3/4-14	3.73	2.50	.61	1-1/4	1-1/4

†To determine the correct length of hose, subtract the cut-off factor for each end fitting from the overall length of assembly.

# Couplings

## Coll-O-Crimp 'E' Series

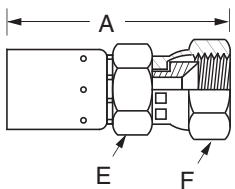
### SAE 37° Male Rigid



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/4	04E-504	7/16-20	1.78	.94	.16	1/2
1/4	5/16	04E-505	1/2-20	1.78	.94	.19	9/16
1/4	3/8	04E-506	9/16-18	1.82	1.00	.22	5/8
5/16	5/16	05E-505	1/2-20	1.86	.94	.22	9/16
3/8	3/8	06E-506	9/16-18	1.92	1.00	.22	5/8
3/8	1/2	06E-508	3/4-16	2.08	1.19	.33	13/16
1/2	1/2	08E-508	3/4-16	2.18	1.19	.38	13/16
1/2	5/8	08E-510	7/8-14	2.31	1.25	.42	15/16
3/4	3/4	12E-512	1-1/16-12	2.63	1.44	.61	1-1/8
1	1	16E-516	1-5/16-12	2.83	1.50	.84	1-3/8

### SAE 37° Female Swivel

(Exceptions Noted, Refer to Footnotes)



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
3/16	1/4	03E-604 <sup>a</sup>	7/16-20	1.89	1.00	.09	7/16	9/16
1/4	1/4	04E-604 <sup>a</sup>	7/16-20	1.92	1.13	.16	7/16	9/16
1/4	5/16	04E-605 <sup>a</sup>	1/2-20	2.00	1.19	.16	1/2	5/8
1/4	3/8	04E-606 <sup>c</sup>	9/16-18	2.06	1.25	.16	9/16	11/16
5/16	5/16	05E-605 <sup>a</sup>	1/2-20	2.07	1.19	.22	1/2	5/8
5/16	3/8	05E-406 <sup>b</sup>	5/8-18	2.03	1.13	.22	9/16	3/4
5/16	3/8	05E-606 <sup>c</sup>	9/16-18	2.12	1.19	.22	9/16	11/16
3/8	3/8	06E-406 <sup>b</sup>	5/8-18	2.06	1.13	.27	9/16	3/4
3/8	3/8	06E-606 <sup>c</sup>	9/16-18	2.19	1.25	.27	9/16	11/16
3/8	1/2	06E-608 <sup>a</sup>	3/4-16	2.30	1.38	.27	3/4	7/8
1/2	1/2	08E-608 <sup>a</sup>	3/4-16	2.39	1.38	.38	3/4	7/8
1/2	5/8	08E-610 <sup>a</sup>	7/8-14	2.51	1.50	.38	7/8	1
3/4	3/4	12E-412 <sup>b</sup>	1-1/16-14	2.76	1.56	.61	1	1-1/4
3/4	3/4	12E-612 <sup>c</sup>	1-1/16-12	2.76	1.56	.61	1	1-1/4
1	1	16E-616 <sup>c</sup>	1-5/16-12	3.05	1.75	.84	1-1/4	1-1/2

†To determine the correct length of hose, subtract the cut-off factor for each end fitting from the overall length of assembly.

<sup>a</sup> Swivel nuts are universal

<sup>b</sup> both SAE 37° and 45° connections.

<sup>c</sup> SAE 37° flare connection only.