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.

Application Data

Technical Torque Specifications

SAE 37° AND 45° FLARE FITTINGS
FOR ZINC PLATED STEEL WITHOUT THREAD SEALANT OR LUBRICATION

Size	Fraction	Decimal	Inch-Pounds	Foot-Pounds	Meter-Newtons	Additional Turns of Hex-Flats**
- 04	1/4″	0.250	130-150	11-12	15-17	2
- 05	5/16″	0.312	165-195	14-16	19-22	2
- 06	3/8″	0.375	235-265	20-22	27-30	1-1/4
- 08	1/2″	0.500	525-575	44-48	59-65	1
- 10	5/8″	0.625	600-700	50-58	68-79	1
- 12	3/4″	0.750	950-1050	79-88	107-119	1
- 16	1″	1.000	1400-1500	117-125	158-170	1
- 20	1-1/4″	1.250	1900-2100	158-175	215-237	1
- 24	1-1/2″	1.500	2250-2550	188-213	254-288	1
- 32	2″	2.000	3000-3400	250-283	339-384	1

***Additional Turns of Hex-Flats required after finger tightening.*
THIS IS THE RECOMMENDED METHOD OF TIGHTENING BOTH 37° SWIVELS & 45° FLARE FITTINGS.

STRAIGHT THREAD O-RING FITTINGS
FOR ZINC PLATED STEEL WITHOUT SEALANT OR LUBRICATION

Size	Fraction	Decimal	Inch-Pounds	Foot-Pounds	Meter-Newtons
- 04	1/4″	0.250	156-180	13-15	18-20
- 05	5/16″	0.312	204-228	17-19	23-26
- 06	3/8″	0.375	264-288	22-24	30-33
- 08	1/2″	0.500	480-516	40-43	54-58
- 10	5/8″	0.625	516-576	43-48	58-65
- 12	3/4″	0.750	816-900	68-75	92-102
- 16	1″	1.000	1344-1476	112-123	152-167
- 20	1-1/4″	1.250	1752-1932	146-161	198-218
- 24	1-1/2″	1.500	1848-2040	154-170	209-231
- 32	2″	2.000	2616-2880	218-240	296-325

FOR-SEAL® FITTINGS
FOR ZINC PLATED STEEL WITHOUT THREAD SEALANT OR LUBRICATION

			FOR-SEAL Swivel Nut Fitting			O-Ring Boss Straight Thread O-Ring Locknut		
Size	Fraction	Decimal	Inch-Pounds	Foot-Pounds	Meter-Newtons	Inch-Pounds	Foot-Pounds	Meter-Newtons
- 04	1/4″	0.250	120-144	10-12	14-16	168-192	14-16	19-22
- 06	3/8″	0.375	216-240	18-20	24-27	288-312	24-26	33-35
- 08	1/2″	0.500	384-420	32-35	43-48	600-720	50-60	68-81
- 10	5/8″	0.625	552-600	46-50	62-68	864-960	72-80	98-109
- 12	3/4″	0.750	780-840	65-70	88-95	1500-1620	125-135	170-183
- 16	1″	1.000	1104-1200	92-100	125-136	2400-2640	200-220	271-298
- 20	1-1/4″	1.250	1500-1680	125-140	170-190	2520-3360	210-280	285-380
- 24	1-1/2″	1.500	1800-1980	150-165	203-224	3240-4320	270-360	366-488

TORQUE VALUE CONVERSION CHART

Inch - Pounds	=	0.0833 Foot - Pounds	Foot - Pound	=	12 Inch - Pounds
Inch - Pounds	=	0.1131 Meter - Newtons	Foot - Pounds	=	1.357 Meter - Newtons
Meter - Newtons	=	8.8430 Inch - Pounds	Meter - Newtons	=	0.7369 Foot - Pounds

NOTE: Please consult Eaton for other material torque ratings.