EATON | Boston

Transfer Hose Products

Master Catalog

BOSTON®

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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 Information

www.hydraulics.eaton.com
1-888-258-0222

Our "800" service is provided for your benefit and is available from 7:30 AM to 5:00 PM Monday through Friday Central time.

The Technical Support Group will assist you with information relative to:

- Part number interchanges
- Boston part number verification
- Hose, hose ends, and fitting identification based on application information
- Identification of tube and pipe fittings based on description and dimensions
- Applications not listed in current catalogs
- Chemical resistance ratings
- Dimensions
- Coll-O-Crimp hose crimper information, troubleshooting, and replacement parts
- Selection of correct Coll-O-Crimp tooling
- Construction, materials, and properties of hose and fittings
- Eaton tools and accessories for Boston hose
- Hose assembly troubleshooting and problem solving
- Referral to a Boston Distributor or Area Sales Manager

Application Data

Hose Quick Reference Chart

AIR & MULTI-PURPOSE HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
HIGH WORKING PRESSURE									
Concord Yellow Jack	H6008	39	Nitrile RMA Class A	Neoprene/ Pinpricked	Wire Braid	400-1500	1/2" thru 4"	Yellow	Class A oil resistant tube. MSHA approved. Pin-pricked cover. Continuous permanent brand.
Bulldog Gold	H6009	40	Nitrile RMA Class A	Carboxylated Nitrile/Pin Pricked	Wire Braid	400-1500	3/4" thru 4"	Black	Class A oil resistant tube. Superior abrasion resistance. Continuous permanent brand.
Contactor's Air	H9622	41	Nitrile RMA Class A	Neoprene/ Pinpricked	Wire Braid	500-1000	1/2" thru 2"	Yellow	Class A oil resistant tube. Pinpricked cover. Continuous permanent brand.
MEDIUM WORKING PRESSURE									
Concord Air	H6002	42	Nitrile	Nitrile/ Pinpricked	Fiber Braid/ Ply	300-400	1/2" thru 2"	Red	Excellent weather and abrasion resistance. Pinpricked cover.
Mineforce	H1571	43	Modified Vinyl	PVC/Nitrile Blend	Fiber Spiral	400	1/2" thru 1"	Yellow	Light weight. Flexible. Abrasion, age, and ozone resistant.
LOW WORKING PRESSURE									
Perfection 300	H1776 & H1777	44	Nitrile RMA Class A	Vinyl Nitrile	Fiber Braid	325	1/4" thru 1-1/2"	Red	Abrasion, oil, and weather resistant.
Easy Couple	H201	45	Nitrile RMA Class A	Neoprene/ Vinyl Nitrile	Fiber Braid	250	1/4" thru 3/4"	Black, Blue, Gray	Push-On Hose Ends, Black color MSHA approved.
Ultraforce	H265	46	Modified Vinyl	Thermoplastic	Spiral	Fiber	350 thru 2"	1/4" Red	Blue, Nonconductive. Abrasion Resistant. Non-marking pinpricked cover.
Polyforce II	H275	47	PVC	PVC Pinpricked	Fiber Spiral	125-250	3/16" thru 2"	Red, Blue, Yellow	Light weight. Abrasion, age, and ozone resistant. Flexible.
Shock Safe	H9949	48	Nitrile	Vinyl Nitrile	Fiber Braid	275	1/4" thru 1"	Red	Nonconductive. Abrasion, oil, and weather resistant.
Marathoner	H1979-H1983	49	Blended Nitrile	Neoprene/ Pinpricked	Fiber Spiral	200-300	1/4" thru 1"	Red, Green, Yellow, Black	Longer lengths. Abrasion and oil resistant. Variety of colors.
Performer II	H115 & H116	50	Nitrile	Vinyl Nitrile	Fiber Braid	225-300	1/4" thru 1-1/2"	Red	Abrasion, oil, and weather resistant.
GENERAL PURPOSE AIR AND WATER									
Bosflex A/W	H105 & H106	51	EPDM	EPDM	Fiber Spiral	200-300	1/4" thru 1"	Red	Pinpricked cover. Abrasion, age, and heat resistant.
Industrial A/W	H1812	52	EPDM	EPDM	Fiber Braid	250-275	1/4" thru 1-1/2"	Red	Abrasion, age, and heat resistant. Excellent coupling retention for impulse applications.

Application Data

Hose Quick Reference Chart

CLEANING SERVICE HOSES

Hose Name	Product #	Page	Cover	Rein.	WP (PSI)	Size	Color	Features
Supraforce	H1531	54	Thermoplastic	Fiber Spiral	300-400	1/4" thru 1"	Yellow	Nonconductive. Light weight. Flexible.
Pressure Washer	H345	55	Vinyl Nitrile	1 Wire Braid	3,000	1/4" thru 1/2"	Blue	High pressure. Non-marking. MSHA approved.
Concord Sandblast	H0034	56	SBR	Fiber Braid/Ply	100-150	1/2" thru 1-1/2"	Black	Static dissipating tube. Weather and ozone resistant.

WATER SUCTION & DISCHARGE HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
SUCTION & DISCHARGE									
Royalflex 1196	H1196	58	Thermoplastic Vinyl Nitrile	Thermoplastic Vinyl Nitrile	100% Polyester and Helical Wire	200-300	1-1/2" thru 4"	Blue	Long lengths available. Crush and kink resistant. No delamination. Long service life.
Otter Water Suction and Discharge	H0364	59	EPDM	EPDM	Fiber Spiral/Ply	75-125	1-1/4" thru 8"	Black	Abrasion, weather and diluted agricultural chemical resistant.
Flexbuilt K-10 Water Suction	H0100	60	PVC	PVC	Rigid Vinyl Helix	35-65	1-1/2" thru 6"	Green	Light weight and abrasion resistant.
DISCHARGE									
Leader Water Discharge	H0378 & H0379	61	EPDM	EPDM	Fiber Spiral	80-150	1-1/2" thru 8"	Black	Heavy duty. Resistant to diluted chemicals.
Flexbuilt K-50 Water Discharge	H0500	62	PVC	PVC	Woven Synthetic Yarn	35-75	1-1/2" thru 6"	Blue	Folds flat. Light weight.
GENERAL PURPOSE									
Contrac-Force	H1719	63	PVC	PVC	Fiber Spiral	150	5/8" and 3/4"	Black	Lightweight and flexible. Abrasion and weather resistant. 50' coupled assemblies and 500' uncoupled reels.
Green Garden Hose	H8679	64	Synthetic Rubber	Synthetic Rubber	Fiber Spiral	100	5/8" and 3/4"	Green	Cut and gouge resistant. Light weight and flexible.
Contractors Water	H1987	65	EPDM	EPDM/ Pinpricked	Fiber Spiral	150	5/8" and 3/4"	Black	Abrasion, age, heat, and weather resistant.

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Hose Quick Reference Chart

MATERIAL HANDLING HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
DRY BULK TRANSFER									
Lynx Softwall Dry Material	H0319	67	Natural Rubber/SBR Blend	SBR	Fiber Spiral	50	4"	Black	Natural Rubber tube is static dissipating. Abrasion, age, and weather resistance. Discharge only.
Lynx HD Softwall Dry Material	H0521	68	Natural Rubber/SBR Blend	SBR	Fiber Spiral	50	4" and 5"	Black	1/4" thick heavy wall tube for extended service life. Natural Rubber tube is static dissipating. Abrasion, age, and weather resistance. Discharge only.
Sabertooth Dry Material	H0347	69	Natural Rubber/SBR Blend	SBR	Fiber Spiral with Helical Wire	100	3" and 4"	Black	Natural rubber tube is static dissipating. Hard wall for higher pressures. Abrasion, age, and weather resistance. Suction or discharge service.
HOT AIR									
Wildcat Hot Air	H0349	70	EPDM	EPDM/ Pin Pricked	Fiber Spiral/ Ply with Helical Wire	100-150	3" and 4"	Brown	Hot air blower hose for hot, dry, oil-free applications. Heat resistance +300°F. Age and weather resistant. Poor resistance to petroleum.

SPECIALTY SERVICE HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
Hot Tar Pumping	H9603	72	Nitrile	CPE/Pin Pricked	Wire Braid	250	1"	Black	Ozone and weather resistant. Handles intermittent temperatures of up to 400˚F.
Chemforce	H1560, H1561 & H1562	73	PVC/ Polyurethane Blend	PVC	Fiber Spiral	250, 600, or 800	3/8" thru 3/4"	Green, Yellow, Blue	Compatible with hydrocarbon-based aromatic chemicals. Excellent for pest control and lawn service.
Hydrocarbon Drain	H9690	74	Nitrile	CPE/Pin Pricked	Wire Braid	250	3/4"	Blue	High temp (up to 350˚F), oil, and abrasion resistant.
Nitrogen Service	H8811	75	Nitrile	Neoprene/ Pinpricked	Fiber Spiral	300	1/2" and 3/4"	Yellow, Blue	Pinpricked cover. Abrasion, age, and oil resistant.
Kelly Power	H0377	76	Neoprene	Neoprene	Wire Spiral	3000	2"	Black	Abrasion, oil, and weather resistant.
Nyall	H1941 & H1942	77	Nylon	Neoprene (Black), Vinyl Nitrile (Colors)	Fiber Braid	500-750	1/4" thru 1"	Black, Red	Excellent chemical compatibility. Easy to clean. Low coefficient of friction. Paint and adhesive transfer.
Black Cat Hot Tar	H0372 & H0616	78	Nitrile	Neoprene Ply	Fiber-glass Braids w/Helical Wire	200	2" thru 4"	Black	Heat and oil resistant. Light weight. Handles intermittent temperatures of hot tar up to +400˚F. (corrugated also available)
Bulldog Fuel Oil Delivery	H901	80	Nitrile RMA Class A	Vinyl Nitrile	Fiber Braid	250	1-1/4" thru 1-1/2"	Red	RMA Class A nitrile tube. Smooth, non-marking cover. Lightweight/Flexible.
Black Line LPG	H900	81	Nitrile	Vinyl Nitrile/ Pinpricked	Fiber Braid, 1" Built with SS Static Wires	100/1 Natural Gas	1/4" thru 1"	Black	UL 21 approved for LP Gas transfer. Abrasion resistant.
Chemical Booster	82-5751 82-5752	82	Rubber	Rubber	Textile Braid	800	3/4" thru 1"	Red	Abrasion, ozone and weather resistant.

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Hose Quick Reference Chart

FOOD INDUSTRY SERVICE HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
FOOD PREPARATION									
Clear Vinyl Tubing	H1602-H1632	84	PVC	PVC	None	20-60	1/8" thru 2"	Clear	FDA approved materials. NSF-51 certified. Non-conductive.
Clearforce	H285	85	PVC	PVC	Fiber Spiral	75-250	3/16" thru 2"	Clear	FDA approved materials. NSF-51 certified. Light weight. Flexible. Flow or blockage readily visible.
Aquaforce	H1592	86	Clear PVC	PVC/Pin Pricked	Fiber Spiral	150	1/2" thru 1"	Red	FDA approved materials. Temporary potable water lines.
FOOD CLEAN UP									
Creamery/ Packing House	H1066	87	Nitrile	Vinyl Nitrile/ Pinpricked	Fiber Braid	200	3/4"	White	Abrasion, animal fat, oil, and weather resistant. Heat resistant. Pin-pricked cover, non-marking cover.
Washdown 1000	H9610	88	Nitrile	Vinyl Nitrile	Wire Braid	1000	3/8" thru 3/4"	Yellow, Grey	Abrasion, animal fat, vegetable oil, and weather resistant. Heat and detergent resistant.
Washdown 1250	H9673	89	Nitrile	Vinyl Nitrile	Fiber Braid	1250	3/8" thru 3/4"	Grey	Abrasion, animal fat, vegetable oil, and weather resistant. Heat and detergent resistant.
LIQUID BULK TRANSFER									
Grey Food Transfer	H0384	90	Vinyl Nitrile	Vinyl Nitrile	Fiber with Helical Wire	150	1-1/2" thru 4"	Light Grey	FDA approved materials. Abrasion, animal fat, and weather resistant. Suction or discharge service. Easy to clean.
Lion Food Transfer	H0350	91	Vinyl Nitrile	Vinyl Nitrile	Fiber with Helical Wire	250	1-1/2" thru 4"	White	FDA approved materials. Abrasion, animal fat, and weather resistant. Suction or discharge service. Easy to clean.
DRY BULK TRANSFER									
Dry Bulk Food Discharge	H0413	92	White Natural Rubber	Natural Rubber/SBR Blend	Fiber Braid with SS Static Wires	50	4"	Grey	FDA approved materials. Discharge of dry bulk food products. Abrasion and weather resistant. Dual static grounding wires for electric charge dissipation.

Application Data

Hose Quick Reference Chart

CHEMICAL SERVICE HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
ACID SUCTION									
Tiger	H0345	95	EPDM	EPDM	Fiber Spiral/ Ply w/ Helical Wire	150	1-1/2" thru 6"	Yellow	Excellent chemical and ozone resistance. Continuous branding with caution label. Suction/discharge. Flexible.
Cheetah	H0423	96	Hypalon	Neoprene	Fiber Spiral with Helical Wire	150	1-1/2" thru 4"	Yellow	Excellent chemical and ozone resistance. Continuous print brand w/caution label. Suction/discharge. Flexible.
ACID DISCHARGE									
Leopard	H0346	97	EPDM	EPDM	Fiber Spiral	100-150	1-1/2" thru 4"	Yellow	Discharge only. Excellent chemical and ozone resistance. Continuous print brand with caution label. Flexible.
CHEMICAL TRANSFER									
Panther Chemical Transfer*	H8359	98	Clear Cross Link Polyethylene (XLPE)	EPDM	Fiber Braid/ Ply w/ Helical Wire	150-200	1" thru 4"	Yellow	Chemical and solvent resistant. Easy to clean. Low coefficient of friction - rapid fluid flow. Continuous impression branding.
Panther RC Teflon®*	H0643	99	FEP Teflon FDA Approved Material	EPDM	Fiber Ply w/ Dual Helical Wire	250-500	1/2" thru 3"	Yellow	High temperature resistant tube - up to 300°F. Chemical, abrasion, ozone, and weather resistant cover. Premium chemical resistant Teflon tube. Flexible and light weight.
Green Cross-Link	H0378 & H0615	100	Clear Cross Link Polyethylene (XLPE)	EPDM	Fiber Braid/ Ply with Helical Wire	100-150	1" thru 4"	Green	Chemical and solvent resistant. Easy to clean. Low coefficient of friction - rapid fluid flow. Continuous impression branding. (corrugated also available)
Chemcat	H0523 & H0599	102	UHMW FDA Approved Material	EPDM	Fiber Braid/ Ply w/ Helical Wire	150-200	3/4" thru 6"	Purple, Green, Blue	Abrasion, chemical, and ozone resistance. Rated for open-end steam cleaning. Easy to clean. (corrugated also available)
Armorcat	H0554 & H0060	104	UHMW FDA Approved Material	EPDM	Wire Braid w/SS Static Wires	300	1-1/2" thru 4"	Red	Crush, abrasion, chemical, and ozone resistance. Rated for open-end steam cleaning. Dual ground wires to dissipate static charge. (corrugated also available)
Maurader	H068132 HO68140 HO68148	106	UHMW FDA Approved Material	EPDM	Fiber Braid/ Ply w/ Helical Wire	200	2" thru 3"	Blue, Green	Abrasion, chemical, and ozone resistance. Chemical, petroleum and solvent resistant. Easy to clean.
HOT LIQUID TRANSFER									
Alleycat	H9699	107	Synthetic EPDM Rubber		Wire Braid w/SS Static Wires	500	1-1/2" thru 3"	Yellow	Temperature resistance up to +300°F. High pressures up to 500PSI. Wire braid resistance to crushing. Grounding wires for static dissipation. Rated for open-end steam cleaning. Abrasion, chemical, and ozone resistant.
Cougar CPE	H0661	108	CPE	EPDM	Fiber Ply w/ Helical Wires	150	1-1/2" thru 3"	Brown	Abrasion, chemical, and ozone resistant. Long hose life. Petroleum, acid, heat and alcohol resistant. Corrugated for greater flexibility.

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Hose Quick Reference Chart

PETROLEUM SERVICE HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
Light Duty Petroleum	H0436	110	Vinyl Nitrile	Vinyl Nitrile	Fiber 4 Spiral with Helical Wire	100	1-1/2" thru 4"	Black	Animal fat, abrasion, oil, and weather resistant. Impression branded.
Bobcat LT Light Weight Tank Truck	H0369	111	Vinyl Nitrile	Vinyl Nitrile (Red), Neoprene (Black)	Fiber 2 Ply with Helical Wire	100	2" thru 4"	Red, Black	Light weight and flexible (corrugated) - easy to handle. Abrasion, oil, and weather resistant. Continuous brand.
Medium Duty									
Puma	H0363	112	Vinyl Nitrile	Vinyl Nitrile	Fiber with Helical Wire	150	1" thru 8"	Red, Black	Abrasion, oil, and weather resistant. Continuous brand.
Heavy Duty									
Jaguar Heavy Duty	H0327	113	Vinyl Nitrile	Vinyl Nitrile	Fiber 2 Ply with Helical Wire	250	1-1/2" thru 6"	Orange (6" w/ Black Vinyl Nitrile Cover)	Meets OSHA color requirements for flexible pipe systems. Oil, abrasion, and weather resistant.
Royalflex 1193*	H1193	114	Nitrile	Nitrile	100% Poly. & Helical Wire	200-300	1-1/2" thru 4"	Black	Best crush and kink resistance (more turns of helical wire per inch). Light weight and flexible. Tube and cover through polyester injected sock (homogeneous)- no delamination.

STEAM HOSES

Hose Name	Product #	Page	Tube	Cover	Rein.	WP (PSI)	Size	Color	Features
200 L.L.	H6027	119	EPDM	EPDM/ Pin Pricked	1 Wire Braid	200	3/8" thru 3/4"	Black	Heat, age, ozone and weather resistant. Excellent heat resistance.
Concord 250	H9568	120	EPDM	EPDM/Pin Pricked	2 Wire Braid	250	1/2" thru 1"	Black, Red	Heat, age, ozone and weather resistant. Excellent heat resistance.
Concord 250 O.R.	H9682	121	EPDM	Special Oil Resistant Compound/ Pinpricked	2 Wire Braid	250	1/2" thru 1"	Black, Red	Oil resistant. Excellent heat resistance.
Concord Standard Steam Spiral Stripe	H0084	122	Patrex (Chlorobutyl)	EPDM/ Pinpricked	2 Wire Braid, 2 SS Static Wires	250	1/2" thru 2"	Black and Red Spiral Stripe	Heat, age, ozone and weather resistant. Excellent heat resistance.

**MTO - Made To Order*

Application Data

General Hose Information

Hose Construction

A hose consists of three components including the tube, reinforcement, and cover. Each component serves an important function in contributing to the overall performance of the hose.

Components of a hose:

Tube functions:

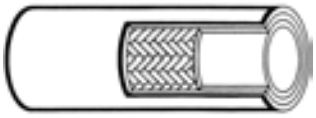
- Conveys media
- Temperature resistant
- Protects reinforcement and cover
- Dissipates static electricity

Reinforcement functions:

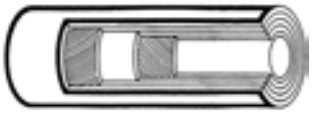
- Supports pressure/vacuum
- Supports tube
- Controls elongation/shrinking of hose OD/ID
- Helps fitting retention

Reinforcement types:

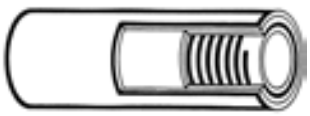
1) Braid - carbon steel or fiber
2) Spiral - carbon steel or fiber
3) Helical - carbon steel



Braid reinforcement



Spiral reinforcement



Helical reinforcement

Cover functions:

- Protects reinforcement from external environment
- Provides weather, abrasion, chemical, temperature, and ozone resistance

Hose Selection

Selecting the proper hose for an application is critical to ensure safety of people and property, as well as long hose life. Therefore, it is important to understand the factors involved.

These factors are:

- Application
- Pressure and/or suction
- Environment
- Compatibility with material conveyed
- Temperature
- Size
- Flexibility
- Bend radius
- Weight

Application

The first step in properly selecting a hose is to identify the application and material to be transferred. Then consider the hoses available for that type of service. Boston hose is intended for specific applications and materials.

⚠ WARNING Hose use and care: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material.

A special application consideration, especially in gases, petroleum-based liquids, volatile solvents, and dry material transfer applications, is whether the velocity of the material being transferred will cause static buildup. This, in turn, can cause an explosion.

According to Rubber Manufacturers Association (RMA) Hose Handbook IP-2 1996:

Electrical engineers differ in opinion on the effects of static electricity and the means of dissipating it. In handling gasoline and other petroleum-based liquids, recognized national associations and companies have conflicting opinions on the need for conductive hoses.

Until a consensus is reached among all associations, laboratories and users and a standard practice is established, it is essential that the user determine the need for a static bonded hose based on (a) the intended use of the hose, (b) instructions from the company's Safety Division, (c) the ensurer, and (d) the laws of the States in which the hose will be used.

Some types of hose include a body reinforcing wire. This wire can be used for electrical continuity provided that proper contact is made between it and the hose coupling. This can be done by extending the body wire to the ends of the hose, or by attaching a light static wire to the outermost coils of the body wire. This lighter wire is led through the ends of the hose and attached to the couplings. In nonwire reinforced hose, a static wire can be included in the hose body.

The tendency has been toward a grounding connection completely separate from the hose or to have the tube or cover of the hose conducting. Examples would be sand blast hose with conducting tube or aircraft fueling hose with a conducting cover.

An internal static wire could break or lose contact with the couplings and not be detected visually. This could occur from an unusual stress imposed on the hose.

Finally, be aware that many industries have governing agencies that issue mandatory or suggested guidelines for the use of hose in certain applications.

Application Data

General Hose Information

Pressure & Suction

The selected hose and coupling must be able to continually withstand the maximum pressure that will be generated in the application.

⚠ WARNING Hose use and care: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

It may be reassuring to know that every length of Boston chemical transfer hose is pressure tested to 1-1/2 times the working pressure before it is packaged and shipped. Equally reassuring is the fact that Boston chemical hose has a 4:1 safety factor.** This means the burst pressure is a minimum of four times greater than the working pressure.

***Boston Otter and Boston Leader water hoses are rated 3:1 and can be used in some light chemical applications.*

⚠ CAUTION In suction applications, suction (or vacuum) considerations are as critical to hose life as pressure considerations. Hoses in these applications are vulnerable to crushing forces because the atmospheric pressure outside the hose is greater than the pressure inside the hose. A hose not having the proper suction rating for your applications may collapse and result in equipment failure.

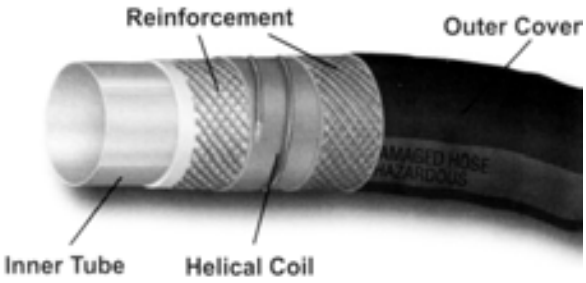
Boston suction hoses have helical wire reinforcement and are rated for full vacuum. "Inches of mercury" is the standard of measurement for vacuum. Full vacuum is equal to 29.92 inches of mercury.

Environment & Compatibility

Environment refers to both the external environment and the internal environment in which the hose will be working. Different components of the hose will be affected by these two types of environment.

Most hoses consist of three components: an inner tube, a reinforcement, and an outer cover.

Elastomers are the basic ingredient of all rubber compounds. However, be aware that when specifying tube and cover compounds, significant application differences may exist between two compounds listed as having the same basic elastomer.



For example, Boston's Tiger and Otter hoses list inner tubes made from EPDM, but *recommended* use for each of these hoses is quite different.

These differences occur because compounds contain many materials in addition to elastomers. Some of these materials include processing aids, carbon black, vulcanization agents, accelerators, age resistors, and other ingredients. Before making assumptions about the suitability of a particular hose for a given application, always read the "Applications" information for each specific hose listed in this catalog.

The first hose component, the inner tube, conveys the material being transferred. The tube must be compatible with these materials. This is the hose's internal environment. Whenever you specify a Boston hose, refer to the chemical resistance chart in this catalog.

⚠ DANGER Never transfer material in an inner tube that is not compatible with that material. Likewise, never use hose at temperatures, pressures, or chemical concentrations above those recommended by Eaton. Doing so will weaken or deteriorate the hose, leading to leakage, hose bursting, or end blow-offs. Personal injury or death can result.

The next hose component, the reinforcement, is the strength member of the hose. Reinforcement usually consists of fiber, thermoplastic, carbon steel, or stainless steel spirals, braids and coils. The helical coil is used in all hardwall hoses and is required in vacuum and suction applications. The coil is necessary to help the hose withstand atmospheric pressure that is greater than the internal pressure of the hose to prevent the hose from collapsing. It is usually made of steel or thermoplastic monofilament.

Application Data

General Hose Information

The final hose component is the outer cover. The outer cover protects the reinforcement from the external environment. It is usually rubber, thermoplastic, fiber, or metal. The hose outer cover must protect against weathering, abrasion, chemicals, extreme temperature ranges, ozone, and other adverse conditions.

The "Elastomers" chart in this catalog (page 31) contains a listing of general characteristics of some common elastomers and their physical properties as they relate to specific service needs. When application questions arise, contact Eaton Technical Support at 1-888-258-0222.

Heat can be a catalyst for chemical reaction. When selecting a Boston hose, consider both the ambient temperature and the temperature of the material being conveyed.

⚠ WARNING Do not use a hose at temperatures that exceed the hose temperature rating. Doing so could deteriorate the hose, leading to leaks, hose bursting, and end blow-offs. This could result in serious personal injury or death.

Cold temperatures are another consideration. Hose must be flexible and be able to withstand temperatures well below 0°F in some applications.

Be aware that rated hose temperatures do not imply that a hose can handle all materials within the listed temperature range and concentration.

For specific application information and hose temperature ratings, always follow the guidelines in this catalog, or contact Eaton Technical Support at 1-888-258-0222.
All chemicals listed in the chart are rated at 70°F unless otherwise stated.

Size

Size can refer to the length of the hose, the inner diameter (I.D.), and the outer diameter (O.D.). To determine the correct length of hose for an application, always remember to subtract the cut-off factor for each end fitting or coupling from the overall length of the assembly. For example, if the total length of the assembly needs to be 20 feet, and each end extends past the hose three inches, the cut-off factor is three inches at each end, or six inches total. Twenty feet minus six inches yields a hose length of 19-1/2 feet.

Remember to subtract the cut-off factor for each end fitting when preparing hose.

Inner diameter is important in relation to volume transfer requirements. The larger the hose inner diameter, the greater the volume of material that can be transferred in a given time.

Cut-off Factor

⚠ WARNING Be aware that if you replace a hose with one having a different I.D. than the original hose, material velocity could increase or decrease, possibly creating static electricity. This could lead to an explosion causing serious injury or death.

Temperature vs. Pressure Table for Reinforced PVC Hose

The table below has been prepared to demonstrate the effects of temperature vs. working pressure on reinforced PVC hose products. Working pressures for PVC hoses are tested at 68°F (20°C).

Example:

2-Spiral hose has stated working pressure of 250 PSI at 68°F (20°C)

At 104°F (40°C) working pressure = 250 PSI x 56% = 140 PSI.

Example:

4-Spiral hose has stated working pressure of 400 PSI at 68°F (20°C)

At 140°F (60°C) working pressure = 400 PSI x 43% = 172 PSI.

NOTE: WORKING PRESSURE DECREASES AS TEMPERATURE INCREASES. HOSE MUST BE PROPERLY COUPLED TO OBTAIN THE SPECIFIED PRESSURE RATING.

TEMPERATURE		ALLOWABLE PERCENT OF ORIGINAL WORKING PRESSURE	
°C	°F	Clear Tubing and 2-Spiral	4-Spiral
20	68	100%	100%
25	77	86%	90%
30	86	75%	81%
35	95	65%	73%
40	104	56%	66%
45	113	47%	59%
50	120	40%	53%
55	131	33%	47%
60	140	27%	43%
65	149	23%	40%
70	158	20%	38%
75	167	17%	37%
80	176	15%	35%

Application Data

General Hose Information

Hose Maintenance

Hose has a limited life based on the severity and type of chemical contact, environment or exposure to heat and petroleum products. Eaton recommends the following maintenance procedure to determine when hose should be replaced.

General Test and Inspection Procedures for Hose

An inspection and hydrostatic test should be done periodically to ensure hose is suitable for continued service.

A visual inspection of the hose should be made for loose covers, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service.

The periodic inspection should include a hydrostatic test for one minute at 150 percent of the recommended working pressure of the hose. An exception to this would be woven jacketed fire hose. During the hydrostatic test, the hose should be straight, not coiled or in a kinked position. Water is the usual test medium and, following the test, the hose may be flushed with alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

Hose Inspection

Hose assemblies shall be inspected and tested immediately after the hose is subjected to abnormal abuse such as: severe end pull, flattening or crushing or sharp kinking. As you inspect a hose assembly, remember that most hose failures occur between the coupling and the first three feet along the hose length. Pay close attention to this area. Any hose that has been recoupled shall be proof-tested for one minute at 150 percent of the recommended working pressure of the hose, and inspected before being placed in service.

⚠ SAFETY WARNING: Before conducting any pressure tests on hose, provision must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

The following guidelines should be adhered to during testing and/or inspection:

1. **Air or any other compressible gas must never be used as the test medium because of the explosive action of the hose should a failure occur. Such a failure might result in possible damage to property and serious bodily injury.**
2. **Air should be removed from the hose by bleeding it through an outlet valve while the hose is being filled with the test medium.**
3. **Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10 foot (3m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in such a manner that they do not contact the hose which must be free to move.**
4. **The outlet end of hose is to be bulwarked so that a blown-out fitting will be stopped.**
5. **Provisions must be made to protect testing personnel from the forces of the pressure medium if a failure occurs.**
6. **Testing personnel must never stand in front of or in back of the ends of a hose being pressure tested.**
7. **If liquids such as gasoline, oil, solvent, or other hazardous fluids are used as the test fluid, precautions must be taken to protect against fire or other damage should a hose fail and the test liquid be sprayed over the surrounding area.**

Woven jacket fire hose should be tested in accordance with the service test provisions contained in the current edition of National Fire Protection Association Bulletin No. 1962—Standard for the Care, Use and Service Testing of Fire Hose, Chapter 5.

Visual Inspection

1. Hose

Any cuts, gouges or tears in the cover which do not expose the reinforcement should be repaired before the hose is returned to service. If the reinforcement is exposed, retire the hose from service.

Covers may show surface cracking or crazing due to prolonged exposure to sunlight, ozone, or high temperature during soak tank cleaning. Such deterioration, which does not expose reinforcing materials, is not cause for retirement.

Check for signs of soft spots, blisters, and kinking. If soft spots exist, pressure test the hose assembly and determine whether it is necessary to discard it.

⚠ WARNING If cover blisters exist, be careful not to pop them. If the hose was damaged in such a way that material was allowed to leak between the cover and inner tube, the blisters may contain this material. If the material is hazardous and splatters when the blisters are popped, it could cause serious physical injury.

Look for any indication of kinking or broken reinforcement as evidenced by any permanent distortion, longitudinal ridges, or bulges.

According to RMA IP-11-7 Chemical Hose Bulletin, crushed or kinked spots where the hose O.D. is reduced by 20 percent or more of the normal O.D. indicate the hose probably has internal damage. The hose assembly must be removed from service to ensure the safety of people in the work area.

⚠ WARNING: Kinks can cause hose to burst, leading to bodily harm.

Hose containing kinked or crushed spots where the hose O.D. is reduced by 20 percent may be used if the hose passes the hydrostatic tests. Use a caliper to measure the hose outer diameter at several places around the diameter to determine any O.D. reduction. An inspection mirror and a flashlight can be used to inspect the inner tube for abuse, wear, and/or chemical attack.

2. Couplings

All metals are subject to attack by various chemicals. Check with the manufacturer to make sure that suitable end fittings, appropriate to both the hose and the chemical being handled, are being used.

Exposed surfaces of couplings, flanges and nipples shall be examined for cracks or excessive corrosion. Either condition shall cause the hose assembly to be retired from service. Any evidence of coupling or nipple slippage on the hose is cause for removing the hose assembly from service.

The Rubber Manufacturers Association (RMA) has published a series of technical bulletins which detail maintenance, testing, and inspection recommendations.

Because the life expectancy of the hose is limited, the user must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials. The periodic inspection and testing procedures described here provide a schedule of specific measures which constitute a minimum level of user action to detect signs indicating hose deterioration or loss of performance before conditions leading to malfunction or failure are reached.

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

Hydrostatic Pressure Test

For large-bore hose being used in dock service, an inspection card which describes the hose, manufacturer, date received, purchase order number, and date of installation should be maintained for each hose. The inspection card should be used to record the test results and condition of the hose.

Eaton recommends that new hose assemblies be hydrostatically tested before being placed in service. Hydrostatic testing should be done at periodic intervals to determine if a hose is suitable for continued service. The hydrostatic test and examination shall be conducted in the following manner.

Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10 foot (3m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in such a manner that they do not contact the hose which must be free to move.

1. Hose shall lie in a straight and horizontal position supported on rollers to permit easy movement when under the test pressure.
2. Water should be used as the test liquid. Never pressure test with solvents, corrosive liquids, or with compressed gases.
3. Fill the hose with water with the outlet end raised and the outlet valve open to ensure the complete removal of air. When all the air has been expelled, close the outlet valve and lower the raised end.
4. For new hose, raise the pressure to 2 times the rated working pressure of the hose and hold for 5 minutes. During this hold period, the hose shall be examined for leaks at the couplings, fitting slippage, or for any indication of weakness in the hose structure.
5. For used hose, test with a pressure of 1-1/2 times the rated working pressure of the hose for one minute and examine as above.
6. Completely relieve test pressure from the system prior to releasing hose from test equipment.
7. Thoroughly drain the water from the hose after completion of the hydrostatic test.

Electrical Continuity

When required by the user, electrical continuity between the fittings shall be tested using an ohm meter. The hose must be clean and dry for this test.

Application Data

General Hose Information

General Care and Maintenance of Hose

Hose should not be subjected to any form of abuse in service. It should be handled with reasonable care. Hose should not be dragged over sharp or abrasive surfaces unless specifically designed for such service. Care should be taken to protect hose from severe end loads for which the hose or hose assembly was not designed. Hose should be used at or below its rated working pressure; any changes in pressure should be made gradually so as to not subject the hose to excessive surge pressures. Hose should not be kinked or be run over by equipment. In handling large size hose, dollies should be used whenever possible; slings or handling rigs, properly placed, should be used to support heavy hose used in oil suction and discharge service.

Hose Repair

There are some circumstances in which chemical hoses can be repaired. For example, if a hose has been kinked near the coupling and a close inspection of the assembly reveals that this is the only damage, the assembly can be repaired.

⚠ WARNING Wear safety glasses, gloves, and protective clothing when cutting hose. They will help protect your eyes and skin from flying debris. When recoupling a used hose assembly, begin by cutting the hose far enough beyond the shank to eliminate the possibility of cutting into the shank. When cutting out a kink, cut behind the kink far enough so that the ID/OD of the remaining hose is round. Use calipers to confirm roundness. Make sure to cut the hose squarely. Next wipe the inner tube of the cut end with a clean rag.

Before recoupling the hose, make sure to carefully inspect the tube. This is important because it is easy to see the condition of the tube and reinforcement of the hose when the coupling is cut off. Look for any evidence of deterioration of the hose tube. If there are signs of deterioration, remove the hose assembly from service. If after close inspection none of these signs is present, the hose may be recoupled.

Any hose that has been used to convey an abrasive material, such as plastic pellets and powders, should not be recoupled due to the inherent thickness reduction that results from the transfer of abrasive materials.

Finally, pressure test and tag any recoupled assembly as recommended.

Storage

Proper storage conditions can enhance and extend substantially the ultimate life of hose products. Rubber hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials. The appropriate method for storing hose depends to a great extent on its size (diameter and length), the quantity to be stored, and the way in which it is packaged. Hose should not be piled or stacked to such an extent that the weight of the stack creates distortions on the lengths stored at the bottom. Since hose products vary considerably in size, weight, and length, it is not practical to establish definite recommendations on this point. Hose having a very light wall will not support as much load as could a hose having a heavier wall or hose having a wire reinforcement. Hose which is shipped in coils or bales should be stored so that the coils are in a horizontal plane.

Storage Do's:

- Whenever feasible, rubber hose products should be stored in their original shipping containers which provide some protection against the deteriorating effects of oils, solvents, and corrosive liquids; shipping containers also afford some protection against ozone and sunlight.
- Certain rodents and insects will damage rubber hose products, and adequate protection from them should be provided. Be sure ends are capped to keep out insects, rodents, and other contaminants that can damage the hose.
- Hose shipped in coils or bales should be stored so the coils are in a horizontal plane.
- Store items on a first-in, first-out basis. Remember that even under the best of conditions, an unusually long shelf life will deteriorate certain rubber products. Inspect and test the hose assembly before placing it in service. Usually, any wear or damage will be apparent during inspection or testing.
- The ideal temperature for the storage of rubber products ranges from 50° to 70°F (10-21°C) with a maximum limit of 100°F (38°C). If stored below 32°F (0°C), some rubber products become stiff and will require warming before being placed in service.
- Storage areas should be relatively cool and dark, and free of dampness and mildew. Items should be stored on a first-in, first-out basis, since even under the best of conditions, an unusually long shelf life could deteriorate certain rubber products.

Storage Don'ts:

- Don't pile or stack hose to such an extent that the weight of the stack distorts the lengths stored on the bottom. Remember that hose having a very light wall will not support as much load as a hose having a heavier wall or wire reinforcement.

- Don't store rubber products near heat sources such as radiators and base heaters, or near electrical equipment that might generate ozone. Also do not store hose for long periods in geographical areas of known high ozone concentration. Ozone ages rubber.
- Don't expose hose to direct or reflected sunlight during storage. This ages rubber
- Don't store uncovered hose under fluorescent or mercury lamps. They generate light waves harmful to rubber.
- Don't hang hose assemblies on hooks, nails, or other devices which could cut or damage hose.

The Rubber Manufacturers Association has published separately a series of Hose Technical Information bulletins describing hoses designed for different applications which detail Maintenance, Testing and Inspection recommendations. Refer to the *RMA Catalog of Publications*, issued annually, to determine the availability of the latest edition. Bulletins published include the following:

Publication No.

IP 11—1— Steam Hose

IP 11—2 — Anhydrous Ammonia Hose

IP 11—4— Oil Suction and Discharge Hose

IP 11—5— Welding Hose

IP 11—6— Fire Hose

IP 11—7— Chemical Hose

IP 11—8— Fuel Dispensing Hose

Rubber Manufacturers Association

1400 K Street, N.W.

Washington, D.C. 20005

RMA Publications order desk: (800) 325-5095

Proper Used Hose Storage

Before placing used hose in storage, completely drain it and flush out any potentially explosive vapors or corrosive residues.

Also make sure you dispose of waste in a manner that complies with federal, state, and local environmental regulations.

⚠ WARNING: Take extreme care when flushing out a chemical hose with water. Some chemicals, such as concentrated acids, may react with water and cause spattering. These materials can cause serious personal injury or death if they get into eyes or onto skin. Wear safety glasses, gloves and other protective clothing to help guard against this.

Continue by laying the hose assembly on a solid support, allowing air to circulate through it. This helps extend the hose life. Further, store the hose in a cool, dark, dry place at a temperature ideally between 50°F and 70°F.

Proper Hose Handling

Proper hose handling can help preserve hose assembly life and work environment safety. Therefore, consider the following points when handling hose assemblies.

- Avoid crushing or kinking the hose. This can cause severe damage to the reinforcement that isn't always obvious when looking at the cover.
- Do not drag the hose or lift a large bore hose from the middle of its length with the ends hanging down. Doing so can cause kinking, cover cuts, hose reinforcement damage, and coupling damage.
- Limit the curvature of the hose to the minimum bend radius recommended by the manufacturer. Also avoid sharp bends at the end fittings and at manifold connections.
- Do not exceed pressure and temperature limits because this could damage the hose and ultimately result in serious bodily injury or property damage. Monitor pressure and temperature during hose use.
- Never allow chemicals, solvents, or any other hazardous materials to drip onto ground. Always comply with environmental laws.
- Never allow chemicals to drip on the exterior of a hose or allow hose to lay in a pool of chemicals. The hose cover may not have the chemical resistance of the tube. If a corrosive material comes into contact with the hose reinforcement, the result could be early hose failure.
- Avoid extreme flexing of the hose near the coupling. If necessary, use elbows in the piping system to assure a straight line connection with the hose.
- Protect hose from heat, flame, cutting, and twisting. Use shields or clamps to do this.
- Support hose to avoid mechanical strain on couplings.
- Be aware that dropping or dragging the assembly, chemical incompatibility, exposure to temperature extremes, or extensive internal coupling abrasion can cause leaks and reduce coupling retention.

⚠ WARNING: Do not use damaged hose. Doing so could result in serious personal injury or death.

Application Data

General Hose Information

Cleaning Hose Assemblies

Cleaning of hose assemblies should be done at a facility with the means of disposing of wastes and hazardous materials properly. All water and/or cleaning solutions used should be retained and disposed of in a way that complies with applicable laws.

Boston does not recommend that distributors handle hose assemblies that have not been cleaned properly.

When you clean a tank or change the materials to be transferred, clean the hose assemblies. Three methods can be used: the soak tank, the closed loop system, or the rotating brush. The most appropriate method will depend on the hose use and location.

⚠ WARNING: Use of pressure wands to clean hose is not recommended. The high concentration of heat and pressure in a confined area can damage the hose inner tube and lead to hose bursting, leakage, spraying, or end blow-offs. This could cause serious personal injury or death.

⚠ WARNING: Always wear safety glasses, gloves, and protective clothing when cleaning hose, no matter which hose cleaning method you use. Otherwise, burns, blisters, eye damage or other injuries could occur.

If you choose the soak tank method, the cleaning solution usually caustic soda and water- should be no more than 150°F. Gently lay the hose in the cleaning solution to prevent it from splashing.

Soak the hose no more than 15 minutes to prevent the hose from becoming brittle with a shortened service life. Flush the hose thoroughly with clean water. After making sure that all the water is drained from the hose, store the hose in a cool, dry place. Once the hose has cooled (approximately 45 minutes), cap the ends to keep contaminants out.

The second method of cleaning is the closed-loop system. With this method, the caustic solution used to clean the tank is also pumped through the hose and back to the tank. Typically, fluid is 180°F and is pumped through the system until the tank is clean.

When the cleaning process is complete, flush the hose thoroughly with water. Store the hose in a cool, dry place. Cap the ends to keep contamination out.

⚠ WARNING: Strong acids should be thoroughly drained prior to and after cleaning to avoid an exothermic reaction.

RMA Class Oil Resistance

Rubber hose is used to convey petroleum products both in the crude and refined stages. The aromatic content of refined gasoline is often adjusted to control the octane rating. The presence of aromatic hydrocarbons in this fuel generally has a greater effect on rubber components than do aliphatic hydrocarbons. Aromatic materials in contact with rubber tend to soften it and reduce its physical properties. For long lasting service, the buyer of gasoline hose should inform the hose manufacturer of the aromatic content of the fuel to be handled so that the proper tube compound can be recommended for the specific application.

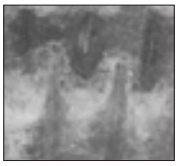
The effects of oil on rubber depend on a number of factors that include the type of rubber compound, the composition of the oil, the temperature and time of exposure. Rubber compounds can be classified as to their degree of oil resistance based on their physical properties after exposure to a standard test fluid. In this RMA classification, the rubber samples are immersed in IRM 903 oil at 100°C for 70 hours. (See ASTM Method D-471 for a detailed description of the oil and the testing procedure.) As a guide to the user of the hose in contact with oil, the oil resistance classes and a corresponding description are listed.

PHYSICAL PROPERTIES AFTER EXPOSURE TO OIL

	Volume Change Maximum	Tensile Strength Retained
Class A (High oil resistance)	+25%	80%
Class B (Medium-High oil resistance)	+65%	50%
Class C (Medium oil resistance)	+100%	40%

Application Data

General Hose Information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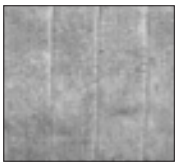
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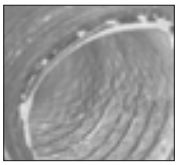
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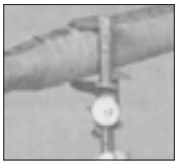
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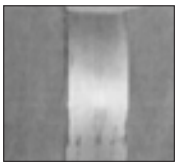
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⚠ WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

Hose failures can be caused by conditions such as excessive pressures, fluid incompatibility, extreme temperatures and many more. Eaton has illustrated below some of the more common failures. If the conditions you are experiencing are not listed, please contact Technical Support at 1-888-258-0222.

1. **Problem:** The hose has exposed reinforcement and a loose cover. This could be caused by an abrasive environment or the life of the hose has been exceeded.

Solution: Route hose properly to avoid excessive abrasion. Some hoses are made with materials that handle abrasion better.

2. **Problem:** Cracks in the hose cover can be caused by prolonged exposure to sunlight, ozone or high temperatures.

Solution: Store hose in cool dark areas when possible. Do not store or use the hose where the recommended temperature rating is exceeded.

3. **Problem:** Cuts, gouges, or tears in hose tube can be caused by improper cleaning with high-pressure water wand.

Solution: Do not use high pressure water wand to clean hoses. Instead, three cleaning methods are commonly used: the soak tank, the closed loop system or the rotating brush. The most appropriate method will depend on the hose use and location.

4. **Problem:** Bubbling and flaking of the tube material caused by the tube not being compatible with the chemical being conveyed.

Solution: Check the chemical resistance guidelines to make sure the hose you are using is compatible with the chemical(s) being transferred. Also, make sure the hose can handle the application temperatures.

5. **Problem:** Deterioration of the hose tube has caused the reinforcement to be exposed. This may be caused by abrasive material being conveyed through a hose not made for this abrasive material or hose life has been exceeded.

Solution: Make sure that the hose can handle the material being conveyed. Possibly use a hose with a thicker tube.

6. **Problem:** Hose is kinked due to exceeding the minimum bend radius of the hose. The result is damaged reinforcement.

Solution: To avoid this problem, check the minimum bend radius of the hose and route the hose so the minimum bend radius is not exceeded.

7. **Problem:** Improperly banded shank may create a possible leak path.

Solution: Make sure the coupling is secured tightly and according to manufacturer's specifications. Bands should be placed inside of the barbs on the coupling shank, toward the coupling side. The band farthest from the hose end should be tightened first. If two bands are present, Eaton suggests rotating the clamp buckles 180° from each other.

8. **Problem:** Overtightened band could cause leaks, spraying and end blow-offs. Band was applied with excessive pressure and cut the cover of the hose causing reinforcement to be exposed.

Solution: Do not attach bands at pressures that are too high. Apply the bands to the manufacturer's recommended settings.

9. **Problem:** The steam hose has developed cracks in the cover due to heat in the application.

Solution: Steam hose has a limited service life. It should be inspected before every use. Any crack that exposes the reinforcement is a reason for the hose to be removed from service.

Application Data

Chemical Compatibility Chart

These tables alphabetically list commonly used materials of various chemical composition. After each fluid listing you will find the basic hose tube and fitting materials rated according to their chemical resistance to each individual fluid. All ratings are at 70˚F. The chart is intended to be used as a guide only. Consult Eaton Technical Support at 1-888-258-0222 for further information.

WARNING – Selection of Hose: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of the hose for your application can result in 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 the wrong hose, you should carefully review the information in this catalog.

WARNING – Proper Selection of Hose Fittings: Selection of the proper fittings for the hose and application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the fittings for your application can result in serious bodily injury or property damage resulting from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of the wrong fitting, you should carefully review the information in this catalog.

WARNING – The following list of chemicals is offered as a guide to the chemical resistance properties of the tube material of the hoses shown. It should be used as a guide only, as the degree of resistance of any elastomer to a particular fluid depends upon such variables as temperature, concentration, pressure conditions, velocity of flow, duration of exposure, aeration, stability of the fluid, etc.

Therefore, when in doubt, it is advisable not to use the hose. If this is not practical, tests should be devised that simulate actual service conditions as nearly as possible. Eaton offers additional technical assistance.

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	Brass	Steel	316 Stainless
Acetaldehyde	G	G	X	X	X	X	G	G	F	G	F	X	X	X	—	X	X	G
Acetic Acid (Concentrated)	G	G	X	X	X	X	G	G	X	G	X	X	X	X	G	X	X	G
Acetic Acid (Dilute)	G	G	F	X	X	F	G	G	X	G	F	X	G	X	G	X	X	G
Acetic Anhydride	G	G	X	G	G	X	G	G	X	G	F	X	X	X	G	X	F	F
Acetone	G	G	X	X	X	X	G	G	F	G	F	X	F	X	G	G	G	G
Acrylonitrile	G	G	G	X	X	X	G	G	—	X	X	X	—	X	G	—	G	G
Air	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Alcohols:																		
Amyl Alc.	G	G	X	G	G	F	G	G	G	G	G	G	G	X	G	G	F	F
Butyl Alc., Butanol	G	G	X	G	G	G	G	G	G	G	G	G	—	X	G	G	G	G
Ethyl Alc., Ethanol	G	G	F	G	G	G	G	G	G	G	G	G	G	X	G	G	F	G
Isopropyl Alcohol, Isopropanol	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G
Methyl Alcohol, Methanol	G	G	X	G	G	G	G	G	G	G	G	G	G	X	G	G	F	G
Aluminum Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	X	X	F
Aluminum Fluoride	G	G	G	G	G	F	G	G	X	G	G	G	—	G	X	X	X	X
Aluminum Hydroxide	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	X	F	G

G - Good *F - Fair* *X - Not Recommended* *— - Insufficient Information*

Application Data

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	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Aluminum Nitrate	G	G	G	G	G	G	G	G	F	G	G	G	—	X	—	X	X	G
Aluminum Sulfate	G	G	G	G	G	G	G	G	F	G	G	G	G	G	G	X	X	G
Alums	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	X	X	F
Ammonia, Anhydrous	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	X	F	G
Ammonia Solution (10%)	G	G	G	G	G	F	G	G	X	G	G	F	X	X	X	X	G	G
Ammonium Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	X	G	F
Ammonium Hydroxide	G	G	X	F	F	F	G	G	X	G	G	F	X	X	G	X	F	G
Ammonium Nitrate	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	—	—	G
Ammonium Phosphate	G	G	F	G	G	G	G	G	G	G	G	G	G	F	G	X	X	G
Ammonium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	F
Amyl Acetate	G	G	X	X	X	X	G	G	G	F	X	X	F	X	X	G	F	G
Amyl Alcohol	G	G	X	G	G	F	G	G	G	G	G	G	G	X	G	G	F	F
Aniline	G	G	X	X	X	X	G	G	X	X	X	X	X	X	X	X	G	G
Aniline Dyes	G	G	X	F	F	F	G	G	X	G	F	F	X	X	X	X	X	F
Animal Oils and Fats	G	G	G	G	G	X	G	G	—	F	F	X	G	X	F	G	G	G
Anti—Freeze (Glycol Base)	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	G	G
Aqua Regia	X	X	X	X	X	X	G	F	X	X	X	X	X	X	X	—	X	X
Aromatic Hydrocarbons	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G
Asphalt Emulsion	X	X	X	G	X	X	G	G	—	X	X	X	G	X	F	G	G	G
Barium Chloride	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	X	F	G
Barium Hydroxide	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	X	G	G
Barium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	X	G	X	G	G	G
Barium Sulfide	G	G	G	G	G	G	G	G	—	G	G	G	X	G	G	X	X	G
Beet Sugar Liquors	G	G	G	G	G	G	G	G	G	X	G	G	—	X	G	X	G	G
Benzaldehyde	G	G	X	X	X	X	G	G	G	F	X	X	X	X	X	F	F	G
Benzene, Benzol	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	F	G	G	G
Benzoic Acid	G	G	X	X	X	G	G	G	X	X	X	X	X	X	G	F	X	F
Black Sulfate Liquor	G	F	X	F	F	G	G	G	X	G	F	X	G	X	X	X	G	G

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Application Data

Chemical Compatibility Chart

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Bleach Solution	F	F	F	X	X	X	G	G	X	G	F	X	F	F	G	X	X	G
Borax Solution	G	G	G	F	F	G	G	G	—	G	G	G	G	G	G	G	G	G
Boric Acid	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	X	G
Brake Fluid (Glycol Ether Base)	G	G	X	X	X	F	G	G	—	G	X	X	—	X	G	G	G	G
Brine	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	—	X	F
Bromine	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	X	X	X
Butyl Acetate	G	G	X	X	X	X	G	G	—	F	X	X	F	X	F	G	G	G
Butyl Alcohol, Butanol	G	G	X	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G
Calcium Bisulfite	G	G	G	G	G	G	G	G	X	G	G	G	X	G	X	X	X	X
Calcium Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	X	F	F
Calcium Hydroxide	G	G	G	F	F	G	G	G	G	G	F	G	G	X	G	F	G	G
Calcium Hypochlorite	G	G	G	F	F	F	G	G	X	G	F	X	F	X	G	F	X	F
Cane Sugar Liquors	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	F	G	G
Carbon Dioxide (Dry)	G	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	G	G
Carbon Dioxide (Wet)	G	G	G	G	G	G	G	G	G	G	G	F	—	G	—	F	G	G
Carbon Disul-fide (Bisulfide)	F	X	X	X	X	X	G	G	X	X	X	X	X	G	X	G	G	G
Carbon Monoxide (Hot)	—	—	X	F	F	F	G	G	X	F	G	X	G	F	G	X	F	G
Carbon Tetrachloride	G*	G*	X	X	X	X	G	G	G	X	X	X	F	X	X	G	G	G
Carbonic Acid	G	G	G	G	G	G	G	G	—	G	G	G	X	G	X	X	X	F
Castor Oil	G	G	G	G	G	F	G	G	—	F	G	X	F	F	G	G	G	G
Cellosolve Acetate	G	G	X	X	X	X	G	G	—	F	F	X	X	X	X	X	X	G
Chlorinated Solvents	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	F
Chloroacetic Acid	G	G	X	X	X	X	G	G	X	F	X	X	X	X	X	X	X	F
Chloro-benzene	G*	G*	X	X	X	X	G	G	X	X	X	X	X	X	—	F	F	G
Chlorine Gas (Dry)	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	F	F	G
Chlorine Gas (Wet)	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	X	X	X
Chloroform	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G
Chlorosul-fonic Acid	F*	F*	X	X	X	X	G	G	X	X	X	X	X	X	X	X	F	X

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Chemical Compatibility Chart

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Chromic Acid (under 25%	G	X	F	X	X	X	G	G	X	G	G	X	X	X	X	X	X	G
Chromic Acid (25-40%)	G	X	X	X	X	X	G	G	X	G	G	X	X	X	X	X	X	F
Citric Acid	G	G	G	F	F	G	G	G	F	G	G	G	G	X	X	X	X	G
Coke Oven Gas	X	X	X	X	X	X	G	G	—	X	X	X	—	X	X	F	G	G
Copper Chloride	G	G	G	G	G	F	G	G	X	G	G	G	G	G	X	X	X	G
Copper Cyanide	G	G	G	G	G	F	G	G	G	G	G	G	—	G	—	X	X	G
Copper Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	G
Corn Syrup (Non-food)	G	G	G	G	G	F	G	G	—	G	F	F	G	G	—	—	G	G
Cottonseed Oil	G	G	F	G	G	X	G	G	—	F	F	X	G	G	G	G	G	G
Creosote	G	G	X	F	F	X	G	G	X	X	F	X	X	F	F	F	—	G
Cresol	G	G	X	X	X	X	G	G	X	X	X	X	X	X	G	—	G	G
Cyclohexanol	G	G	X	F	F	F	G	G	G	G	G	F	—	—	G	G	F	G
Dextrose (Food Grade)	G	X	X	X	X	X	G	G	X	X	X	X	X	X	X	—	—	G
Dichloro-benzene	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	—	—	G
Diesel Fuel	G	G	X	G	G	X	G	G	—	X	F	X	F	F	G	G	G	G
Diethanol-amine	G	G	X	F	X	X	G	G	—	G	X	F	X	X	—	X	G	G
Diethylene-triamine	G	G	X	F	X	X	G	G	X	G	X	F	—	X	—	—	—	—
Dowtherm A	—	—	X	X	X	X	G	G	X	X	X	X	X	—	X	X	F	G
Enamel (Solvent Base)	G	G	X	F	F	X	G	G	—	X	X	X	G	—	G	G	—	G
Ethanolamine	G	G	X	F	F	X	G	G	—	G	X	G	—	X	—	X	G	G
Ethers (Ethyl Ether)	G	G	X	X	X	X	G	G	—	X	X	X	X	X	G	G	G	G
Ethyl Alcohol	G	G	F	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G
Ethyl Acetate	G	G	X	X	X	X	G	G	G	G	X	X	F	X	F	G	G	G
Ethyl Acrylate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	F	—	G	G
Ethyl Methacrylate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	F	—	G	G
Ethylamine	G	G	X	X	X	X	G	G	X	F	X	X	—	X	—	G	—	G
Ethyl Cellulose	G	G	X	F	F	F	G	G	—	F	F	G	—	F	G	F	G	F
Ethyl Chloride	G*	G*	X	X	X	X	G	G	—	X	X	X	X	F	X	F	F	G
Ethylene-diamine	G	G	X	F	X	G	G	G	X	G	F	G	—	X	—	G	G	G
Ethylene Dibromide	G	G	X	X	X	X	G	G	—	X	X	X	—	X	—	—	—	—

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	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Ethylene Dichloride	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	G	X	X
Ethylene Glycol	G	G	G	G	G	G	G	G	G	G	G	G	G	F	G	F	G	G
Ethylene Oxide	G	G	X	X	X	X	G	G	—	X	X	X	G	X	X	X	F	F
Fatty Acids	G	G	G	F	F	X	G	G	G	F	X	X	G	—	F	F	F	G
Ferric Chloride 5%	G	G	G	G	G	G	G	G	G	G	G	G	—	F	G	X	X	X
Ferric Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	—	G	X	X	F
Fertilizer Salts Solution	G	G	G	F	F	F	G	G	—	G	G	G	—	—	—	—	—	G
Formaldehyde	G	G	X	F	F	F	G	G	G	G	X	F	F	X	G	F	X	G
Formic Acid	G	G	X	F	F	F	G	G	X	G	X	X	X	X	G	F	X	G
Freon 12**	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	G	G	G
Freon 134a**	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	—	G	G
Fuel Oil	G	G	F	G	G	F	G	G	—	X	X	X	—	F	G	F	G	G
Furfural	G	G	X	X	X	X	G	G	X	F	F	X	—	—	F	F	G	G
Gasoline (Refined)	G	G	X	F	F	X	G	G	G	X	X	X	G	F	G	G	G	G
Gasoline (Unleaded)	G	G	X	G	G	X	G	G	G	X	F	X	X	X	G	G	G	G
Gasoline (10% Ethanol)	G	G	X	G	G	X	G	G	G	X	X	X	X	X	—	G	G	G
Gasoline (10% Methanol)	G	G	X	F	F	X	G	G	G	X	X	X	X	X	—	G	G	G
Glucose (Non-food)	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Glycerine, Glycerol (Non-food)	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G
Greases	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	G	G	G
Green Sulfate Liquor	G	G	G	F	F	F	G	G	X	G	G	G	X	G	X	X	X	G
Heptane	G	G	X	G	G	F	G	G	G	X	F	X	G	F	G	G	G	G
Hexane	G	G	X	G	G	F	G	G	G	X	F	X	G	F	G	G	G	G
Houghto Safe 273 to 640	G	G	F	G	G	G	G	G	—	G	—	F	—	X	G	G	G	G
Houghto Safe 5046, 5047F	G	G	G	G	G	G	G	G	—	X	X	X	G	X	G	G	G	G
Houghto Safe 1000 Series	G	G	X	X	X	X	G	G	—	G	X	X	—	X	—	G	G	G
Hydraulic Oils:																		
Straight Petroleum Base	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	G	G	G
Water Petro-leum Emulsion	G	G	—	G	G	F	G	G	—	X	F	X	G	X	G	G	G	G
Water Glycol	G	G	X	G	G	G	G	G	G	G	X	F	X	X	G	G	G	G

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Hydraulic Oils:																		
Straight Phosphate Ester	G	G	X	X	X	X	G	G	G	G	X	X	—	X	G	G	G	G
Phos. Ester/ Petroleum Blend	G	G	X	X	X	X	G	G	G	X	X	X	—	X	G	G	G	G
Polyol Ester	G	G	—	G	G	X	G	G	—	X	—	X	—	G	G	G	G	G
Hydrobromic Acid (under 48%)	G	G	G	X	X	X	G	G	X	G	G	X	X	X	G	X	X	X
Hydrochloric Acid	G	G	G	X	X	X	G	G	X	G	G	X	X	X	G	X	X	X
Hydrocyanic Acid	G	G	G	F	F	X	G	G	X	F	G	X	X	—	X	X	F	G
Hydrofluoric Acid (under 50%)	G	G	F	X	X	X	G	G	X	F	G	X	X	X	X	X	X	G
Hydrofluoric Acid (over 50%)	G	G	X	X	X	X	G	G	X	X	G	X	X	X	X	X	X	G
Hydrofluo-silicic Acid	G	G	G	F	F	X	G	G	X	G	G	X	—	—	G	X	X	X
Hydrogen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	G
Hydrogen Peroxide	F	F	—	X	X	X	G	G	X	F	X	X	—	—	G	X	X	G
Hydrogen Sulfide	G	G	G	X	X	X	G	G	X	X	F	X	G	—	X	F	F	F
Hydrolube	G	G	G	G	G	F	G	G	—	G	—	—	F	X	—	G	G	G
Iodine	F	F	X	F	X	X	G	G	X	G	G	X	—	X	G	X	X	X
Isocyanates	G	X	X	X	X	X	G	—	X	X	X	X	X	X	X	—	—	—
Isopropyl Alcohol, Isopropanol	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G
Isopropyl-amine	G	G	X	X	X	F	G	G	—	F	X	F	—	—	—	G	—	G
Iso-Octane	G	G	X	G	G	F	G	G	G	X	F	X	G	X	G	G	G	G
Jet Fuel (Transfer Only)	G	G	X	G	G	F	G	G	G	X	X	X	G	F	G	G	F	G
Kerosene	G	G	X	G	G	F	G	G	G	X	F	X	F	G	G	G	G	G
Lacquer	G	G	X	X	X	X	G	G	G	X	X	X	X	X	F	G	X	G
Lacquer Solvents	G	G	X	X	X	X	G	G	G	X	X	X	F	X	F	G	X	G
Lactic Acid	G	G	G	X	X	G	G	G	G	F	G	X	X	X	X	F	F	G
Lime Sulfur	G	G	G	X	X	G	G	G	F	G	F	F	—	—	—	X	—	G
Lindol	G	G	—	X	X	X	G	G	G	G	X	X	—	X	—	F	G	G
Linseed Oil	G	G	G	G	G	X	G	G	G	X	F	X	F	F	G	F	G	G
Lubricating Oils	G	G	G	G	G	F	G	G	G	X	F	X	G	F	G	G	G	G
Lye	G	G	G	F	F	G	G	G	F	G	G	G	—	X	F	F	X	G
Magnesium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	F	F	G
Magnesium Hydroxide	G	G	G	F	F	G	G	G	G	G	F	G	—	X	G	G	G	G

G - Good *F - Fair* *X - Not Recommended* *— - Insufficient Information* **For Intermittent Transfer Only* ***Use Approved Freon Hose*

Application Data

Chemical Compatibility Chart

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Magnesium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	—	G	F	G	G
Mercuric Chloride	G	G	F	F	F	G	G	G	X	G	G	F	—	—	X	X	X	X
Mercury	G	G	F	G	G	G	G	G	G	G	G	F	G	G	G	X	G	G
Methyl Alc., Methanol	G	G	X	G	G	G	G	G	G	G	G	G	G	F	G	F	G	G
Methyl Acrylate	G	G	X	X	X	X	G	G	X	F	X	X	—	X	X	G	G	G
Methyl Bromide	X	X	X	X	X	X	G	G	F	X	X	X	X	X	X	G	G	G
Methyl Chloride	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	F	G	G	G
Methylene Chloride	G*	G*	X	X	X	X	G	G	F	X	X	X	X	X	X	G	G	G
Methyl-t-Butyl Ether (MTBE)	G	G	X	F	F	X	G	G	G	X	X	X	—	—	G	—	G	G
Methyl Ethyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	G	X	X	G	G	G
Methyl Iso-butyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	—	X	X	G	G	G
Methyl Iso-propyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	—	X	X	G	G	G
Methyl Methacrylate	G	G	X	X	X	X	G	G	—	X	X	X	—	X	X	—	G	G
Mineral Oil	G	G	F	G	G	F	G	G	G	X	F	X	G	G	G	G	G	G
Mineral Spirits	G	G	X	G	G	F	G	G	G	X	X	X	G	F	G	G	G	G
Naphtha	G	G	X	F	F	F	G	G	G	X	X	X	G	F	G	F	G	G
Napthalene	G	G	X	X	X	X	G	G	G	X	X	X	F	F	G	F	G	G
Nickel Acetate	G	G	G	X	X	G	G	G	G	G	G	G	—	X	—	G	G	G
Nickel Chloride	G	G	G	G	G	F	G	G	G	G	G	G	X	X	G	X	X	F
Nickel Sulfate	G	G	G	G	G	F	G	G	G	G	G	G	—	F	G	X	X	G
Nitric Acid (under 35%)	G	F*	G	X	X	X	G	G	X	F	F	X	X	X	X	X	X	G
Nitric Acid (35% to 60%)	F	X	F	X	X	X	G	G	X	X	X	X	X	X	X	X	X	G
Nitric Acid (over 60%)	X	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	G
Nitrobenzene	G	G	X	X	X	X	G	G	—	X	X	X	X	X	X	F	G	G
Nitrogen Gas ◇	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G
Nitrous Oxide	G	G	X	X	X	X	G	G	F	X	X	G	X	X	X	G	G	G
Oleic Acid	G	G	F	F	F	X	G	G	G	F	F	X	G	F	G	F	F	G
Oleum (Fuming Sulfuric Acid)	X	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	F	G

G - Good *F - Fair* *X - Not Recommended* *— - Insufficient Information* **For Intermittent Transfer Only* ***Use Approved Freon Hose*

◇ Use Pinpricked hose for gas applications

Application Data

Chemical Compatibility Chart

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Oxalic Acid	G	G	G	X	X	X	G	G	X	G	X	X	X	—	G	F	X	G
Oxygen (non-breathing,non-welding)	G	G ◇	G	F	F	G	G	G	G	G	G	F	G	G	G	G	G	G
Ozone (300 pphm)	F	F	X	X	X	X	G	G	X	G	G	X	X	G	G	—	F	G
Paint (Solvent Base)	G	G	X	F	F	X	G	G	G	X	X	X	—	X	—	G	G	G
Palmitic Acid	G	G	F	F	F	F	G	G	G	F	X	X	G	X	G	X	F	F
Paper Mill Liquors	G	G	X	F	F	F	G	G	X	G	F	F	X	X	—	—	—	—
Pentane	G	G	X	G	G	F	G	G	—	X	F	X	G	X	G	G	G	G
Perchloro-ethylene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	F	G	G
Petroleum Ether	G	G	X	G	F	X	G	G	G	X	X	X	—	G	G	G	G	G
Petroleum Oils	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	G	G	G
Phenol	G	G	X	X	X	X	G	G	X	X	X	X	X	—	G	F	X	F
Phosphoric Acid (to 85%)	G	G	G	X	X	F	G	G	X	G	G	F	X	X	X	X	X	F
Picric Acid (Molten)	X	X	X	X	X	X	G	G	X	X	F	X	X	X	X	X	X	F
Picric Acid (Solution)	G	G	X	F	F	X	G	G	X	F	G	X	X	F	X	X	X	F
Potassium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	F	X	G
Potassium Cyanide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G
Potassium Dichromate	G	G	G	X	X	X	G	G	—	G	X	X	—	G	G	X	G	G
Potassium Hydroxide	G	G	G	F	F	F	G	G	F	G	G	G	F	X	G	F	X	G
Potassium Permanganate	G	G	G	X	X	X	G	G	X	G	G	G	X	X	—	—	—	—
Potassium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	F	F	G
Propane Liquid***	—	—	—	G	—	—	—	G	—	—	—	—	—	—	—	G	G	G
Propylene Glycol	G	G	F	G	F	G	G	G	—	G	G	G	G	—	G	F	G	G
Pyridine	G	G	X	X	X	X	G	G	X	F	X	X	X	X	X	F	G	G
Sea Water	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	F	G
Silver Nitrate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	—	X	X	F
Skydrol	G	G	X	X	X	X	G	G	G	G	X	X	—	X	G	G	G	G
Soap Solution	G	G	G	G	G	F	G	G	G	G	G	X	G	G	G	G	G	G
Sodium Bicarbonate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Sodium Bisulfate	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	F	F	F

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****Use Propane Approved Hose Only ◇ Use Pinpricked Hose for Gas Applications*

Application Data

Chemical Compatibility Chart

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Sodium Bisulfite	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	X	G
Sodium Borate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G
Sodium Carbonate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G
Sodium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	F	G
Sodium Cyanide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	F	G
Sodium Hydroxide	G	G	G	F	F	G	G	G	F	G	G	G	—	X	F	F	X	G
Sodium Hypochlorite	G	G	G	X	X	X	G	G	X	G	G	X	G	X	F	X	X	F
Sodium Nitrate	G	G	G	G	G	F	G	G	G	G	G	G	G	F	G	F	G	G
Sodium Perborate	G	G	G	G	G	X	G	G	F	G	X	G	G	X	X	F	F	G
Sodium Peroxide	G	G	X	F	F	F	G	G	X	G	F	X	G	X	X	X	F	G
Sodium Phosphates	G	G	G	G	G	F	G	G	G	G	G	G	G	G	X	F	F	F
Sodium Silicate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Sodium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Sodium Sulfide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	G
Sodium Thiosulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	X	X	G
Soybean Oil	G	G	F	G	G	F	G	G	—	F	G	X	G	G	G	G	G	G
Stannic Chloride	G	G	G	G	G	X	G	G	X	G	G	G	G	G	G	X	X	X
Steam 450°F	X	X	X	X	X	X	G	G	X	G	X	X	X	X	X	F	F	G
Stearic Acid	G	G	F	F	F	F	G	G	G	F	F	X	G	G	G	X	X	G
Stoddard Solvent	G	G	X	G	G	F	G	G	G	X	X	X	G	G	G	G	G	G
Styrene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G
Sulfur 70°F	G	G	F	X	X	G	G	G	G	G	G	X	G	F	G	X	X	G
Sulfur 200°F	X	X	X	X	X	X	G	G	X	X	G	X	X	X	X	X	X	G
Sulfur Chloride	G	G	X	X	X	X	G	G	X	X	F	X	X	X	G	X	X	X
Sulfur Dioxide	X	X	X	X	X	X	G	G	X	G	X	X	X	X	X	X	—	G
Sulfuric Acid (under 50%)	G	G	G	X	X	X	G	G	X	G	G	X	X	X	X	X	X	X
Sulfuric Acid (51% to 70%)	G	G	G	X	X	X	G	G	X	F	G	X	X	X	X	X	X	X

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****Use Propane Approved Hose Only* *◇ Use Pinpricked Hose for Gas Applications*

Application Data

Chemical Compatibility Chart

FLUID	HOSE MATERIAL															METALS		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neo-prene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypa-lon	Natural Rubber/ SBR	Hytrel	Poly-urethane	CPE	Brass	Steel	316 Stain-less
Sulfuric Acid (71% to 95%)	G	F	X	X	X	X	G	G	X	F	F	X	X	X	X	X	X	X
Sulfuric Acid (96% to 98%)	G	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X
Tannic Acid	G	G	G	F	F	F	G	G	X	G	G	G	G	G	G	F	X	G
Tar	X	X	X	F	F	F	G	G	G	X	X	X	G	F	F	F	F	G
Tartaric Acid	G	G	G	G	G	F	G	G	G	G	G	G	—	G	G	F	X	F
Tetrachloro-ethane	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	—	—	G
Tetrahydro-furan (THF)	G	G	X	X	X	X	G	G	—	X	X	X	—	X	—	—	—	G
Toluene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G
Transmission Oil (Petrol. Base)	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	G	G	G
Trichloro-ethane	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G
Trichloro-ethylene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G
Tung Oil	G	G	—	G	G	F	G	G	—	X	F	X	G	F	X	F	G	G
Turpentine	G	G	X	F	F	X	G	G	G	X	X	X	F	X	F	F	G	G
Urea (Water Solution)	G	G	G	X	X	G	G	G	G	G	G	G	G	G	G	—	G	G
Uric Acid	G	G	G	—	—	—	G	G	G	—	—	—	X	X	—	—	—	F
Varnish	G	G	X	X	X	X	G	G	G	X	X	X	—	X	F	G	G	G
Vegetable Oil (Non-food)	G	G	F	G	G	X	G	G	G	X	G	X	—	G	—	G	G	G
Vinegar	G	G	G	F	F	G	G	G	X	G	G	F	—	X	F	X	F	G
Vinyl Acetate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	—	F	G	G
Water (non-potable)	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Water— Glycol Mixture	G	G	X	G	G	G	G	G	G	G	X	F	X	X	G	G	G	G
Water— Petroleum Mixture	G	G	—	G	G	F	G	G	G	X	F	X	G	X	G	G	G	G
Xylene	G*	G*	X	X	X	X	G	G	G	X	X	X	F	X	X	G	G	G
Zinc Chloride	G	G	G	G	G	G	G	G	X	G	G	G	X	G	X	X	X	X
Zinc Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	X	X	X	G

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Application Data

Elastomer Chart

The chart below shows the general characteristics of some of the common rubber compounds. Elastomers are mixed with various chemicals to provide a wide range of physical properties for specific service needs.

ASTM DESIGNATION	COMMON NAME	COMPOSITION	GENERAL PROPERTIES
CR	Neoprene	Chloroprene	•Good abrasion •Good weathering resistance •Good oil resistance •Flame retarding
NBR	Nitrile (Buna-N)	Acrylonitrile-butadiene	•Excellent oil resistance •Moderate resistance to aromatics
IIR	Butyl	Isobutylene-isoprene	•Excellent ozone resistance •Good resistance to fire resistant fluids •Good heat resistance •Low permeability •Poor resistance to petroleum fluids
CIIR	Chlorinated Butyl	Chloro-isobutylene isoprene	•Same as Butyl
SBR	SBR	Styrene-butadiene	•Good abrasion resistance •Poor resistance to petroleum fluids
EPDM	EPDM	Ethylene-propylene diene terpolymer	•Excellent ozone resistance •Good chemical resistance •Good temperature resistance •Poor resistance to petroleum fluids
XLPE	Cross-Linked Polyethylene	Polyethylene & cross linking agents	•Excellent chemical resistance
PA	Nylon	Polyamide	•Good abrasion resistance •Good chemical resistance •Low coefficient of friction
CSM	Hypalon	Chloro-sulfonated Polyethylene	•Excellent ozone resistance •Good abrasion resistance •Good heat resistance •Fair petroleum qualities
NR	Natural Rubber	Polyisoprene	•Excellent abrasion resistance •Acid resistance •Not oil resistant
V-NBR	Vinyl Nitrile	PVC/NBR	•Good ozone resistance •Good resistance to animal fats & oils •Good petroleum resistance
UHMWPE	Ultra-high molecular weight polyethylene	Polyethylene	•Excellent chemical resistance •Moderate heat resistance •FDA-accepted material
CM	CPE	Chlorinated Polyethylene	•Excellent ozone resistance •Excellent weathering resistance •Good abrasion resistance •Good heat resistance •Good resistance to petroleum oils
XNBR	Carboxylated Nitrile	Carboxylated Acrylonitrile-butadiene	•Excellent abrasion resistance •Excellent oil resistance •Excellent weather resistance
PTFE	Teflon	Polytetrafluoroethylene	•Excellent temperature resistance •Excellent chemical resistance •FDA accepted material •Low coefficient of friction for high flow rates and easy cleaning •Excellent resistance to thermocycling
PVC	PVC	Polyvinylchloride	•Resistant to many chemicals •Good Flexibility
FEP	Teflon	Fluorinated Ethylene Propylene	•Excellent temperature resistance •Excellent chemical resistance •FDA accepted material •Low coefficient of friction for high flow rates and easy cleaning •Excellent resistance to thermocycling

Application Data

Mass Equivalents Chart

MASS EQUIVALENTS TABLE

Pounds (lb)	Grams (g)	Kilograms (kg)	Tons	Ounces (oz)
1	453.5930	0.4536	0.0005	16
10	4535.9300	4.5359	0.0050	160
20	9071.8600	9.0719	0.0100	320
30	13607.7900	13.6078	0.0150	480
40	18143.7200	18.1437	0.0200	640
50	22679.6500	22.6797	0.0250	800
60	27215.5800	27.2156	0.0300	960
70	31751.5100	31.7515	0.0350	1120
80	36287.4400	36.2874	0.0400	1280
90	40823.3700	40.8234	0.0450	1440
100	45359.3000	45.3593	0.0500	1600
120	54431.1600	54.4312	0.0600	1920
130	58967.0900	58.9671	0.0650	2080
140	63503.0200	63.5030	0.0700	2240
150	68038.9500	68.0390	0.0750	2400
160	72574.8800	72.5749	0.0800	2560
170	77110.8100	77.1108	0.0850	2720
180	81646.7400	81.6467	0.0900	2880
190	86182.6700	86.1827	0.0950	3040
200	90718.6000	90.7186	0.1000	3200
210	95254.5300	95.2545	0.1050	3360
220	99790.4600	99.7905	0.1100	3520
230	104326.3900	104.3264	0.1150	3680
240	108862.3200	108.8623	0.1200	3840
250	113398.2500	113.3983	0.1250	4000
260	117934.1800	117.9342	0.1300	4160
270	122470.1100	122.4701	0.1350	4320
280	127006.0400	127.0060	0.1400	4480
290	131541.9700	131.5420	0.1450	4640
300	136077.9000	136.0779	0.1500	4800
310	140613.8300	140.6138	0.1550	4960
320	145149.7600	145.1498	0.1600	5120
330	149685.6900	149.6857	0.1650	5280
340	154221.6200	154.2216	0.1700	5440
350	158757.5500	158.7576	0.1750	5600
360	163293.4800	163.2935	0.1800	5760
370	167829.4100	167.8294	0.1850	5920
380	172365.3400	172.3653	0.1900	6080
390	176901.2700	176.9013	0.1950	6240
400	181437.2000	181.4372	0.2000	6400

Mass = 1 kg = 0.001 metric ton = 2.20462 lb_m = 35.27392 oz

1 lb_m = 16 oz = 5 x 10^{-4} ton = 453.593 g = 0.53593 kg

Length = 1 m = 100 cm = 1000 mm = 10^6 microns (µm) = 10^{10} angstroms (Å)

= 39.37 in = 3.2808 ft = 1.0936 yd = 0.0006214 mile

Application Data

Temp. & Pressure Conversion Chart

Temperature Conversions Chart

Degrees F (Fahrenheit)	Degrees K (Kelvin)	Degrees C (Celsius)
-40	233.15	-40.00
-20	253.15	-28.89
0	273.15	-17.78
20	293.15	-6.67
40	313.15	4.44
60	333.15	15.56
80	353.15	26.67
100	373.15	37.78
120	393.15	48.89
140	413.15	60.00
160	433.15	71.11
180	453.15	82.22
200	473.15	93.33
220	493.15	104.44
240	513.15	115.56
260	533.15	126.67
280	553.15	137.78
300	573.15	148.89
320	593.15	160.00
340	613.15	171.11
360	633.15	182.22
380	653.15	193.33
400	673.15	204.44
420	693.15	215.56
440	713.15	226.67
460	733.15	237.78
480	753.15	248.89
500	773.15	260.00

Pressure Conversions Chart

PSI (lbs/ square inch)	kPa (kilo pascals)	bar	atm	mm Hg
0	0.00	0.00	0.00	0.00
10	68.95	0.69	0.68	517.15
20	137.89	1.38	1.36	1034.30
30	206.84	2.07	2.04	1551.44
40	275.79	2.76	2.72	2068.59
50	344.73	3.45	3.40	2585.74
60	413.68	4.14	4.08	3102.89
70	482.63	4.83	4.76	3620.03
80	551.58	5.52	5.44	4137.18
90	620.53	6.21	6.12	4654.33
100	689.47	6.89	6.80	5171.48
110	758.42	7.58	7.49	5688.62
120	827.37	8.27	8.17	6205.77
130	896.31	8.96	8.86	6722.92
140	965.26	9.65	9.53	7240.07
150	1034.21	10.34	10.21	7757.21
160	1103.16	11.03	10.89	8274.36
170	1172.10	11.72	11.57	8791.50
180	1241.05	12.41	12.25	9308.66
190	1309.99	13.10	12.93	9825.80
200	1378.95	13.79	13.61	10342.95
210	1447.89	14.48	14.29	10860.10
220	1516.84	15.17	14.98	11377.25
230	1585.79	15.86	15.66	11894.39
240	1654.74	16.55	16.33	12411.54
250	1723.68	17.25	17.01	12928.69
260	1792.63	17.93	17.69	13445.84
270	1861.58	18.62	18.37	13962.98
280	1930.53	19.31	19.05	14480.13
290	1999.47	19.99	19.73	14997.28
300	2068.42	20.68	20.41	15514.43
310	2137.37	21.37	21.09	16031.57
320	2206.31	22.06	21.77	16548.72
330	2275.26	22.75	22.46	17065.87
340	2344.21	23.44	23.14	17583.01
350	2413.16	24.13	23.82	18100.16
400	2757.89	27.58	27.22	20685.90
450	3102.63	31.03	30.62	23271.64
500	3447.37	34.47	34.02	25857.38
1000	6894.73	68.95	68.05	51714.75
1250	8618.41	86.18	85.06	64643.44
1500	10342.10	103.42	102.07	77572.12
1750	12065.78	120.66	119.08	90500.81
2000	13789.47	137.90	136.09	103429.50
2250	15513.15	155.13	153.10	116358.19
2500	17236.83	172.37	170.11	129286.88
2750	18960.52	189.60	187.13	142215.57
3000	20684.20	206.84	204.14	155144.26
4000	27578.93	275.79	272.18	206859.01
5000	34473.67	344.74	340.23	258573.76

Pressure = 1 atm = 1.01325 x 10^5 N/m^2 (Pa_2) = 101.325 kPa = 1.01325 bars
= 1.01325 x 10^6 dynes/cm^2
= 760 mm Hg at 0°C (torr) = 10.333 m H_2O at 4°C
=14.696 lbf/$in.^2$ (psi) = 33.9 ft H_2O at 4°C
= 29.921 in Hg at 0°C

Application Data

Area & Circumference Chart

AREA & CIRCUMFERENCE OF CIRCLES FOR GIVEN CIRCLE DIAMETERS

Dia. (inches)	Area (sq. inches)	Circumference (inches)
1/32	0.00077	0.09813
1/16	0.00307	0.19625
3/32	0.00690	0.29438
1/8	0.01227	0.39250
5/32	0.01917	0.49063
3/16	0.02760	0.58875
7/32	0.03756	0.68688
1/4	0.04906	0.78500
9/32	0.06209	0.88313
5/16	0.07666	0.98125
11/32	0.09276	1.07938
3/8	0.11039	1.17750
13/32	0.12956	1.27563
7/16	0.15025	1.37375
15/32	0.17249	1.47188
1/2	0.19625	1.57000
17/32	0.22155	1.66813
9/16	0.24838	1.76625
19/32	0.27674	1.86438
5/8	0.30664	1.96250
21/32	0.33807	2.06063
11/16	0.37104	2.15875
23/32	0.40553	2.25688
3/4	0.44156	2.35500
25/32	0.47913	2.45313
13/16	0.51822	2.55125
27/32	0.55885	2.64938
7/8	0.60102	2.74750
29/32	0.64471	2.84563
15/16	0.68994	2.94375
31/32	0.73670	3.04188
1	0.78500	3.14000
1/32	0.83483	3.23813
1/16	0.88619	3.33625
3/32	0.93909	3.43438
1/8	0.99352	3.53250
5/32	1.04948	3.63063
3/16	1.10697	3.72875
7/32	1.16600	3.82688
1/4	1.22656	3.92500
9/32	1.28866	4.02313
5/16	1.35229	4.12125
11/32	1.41745	4.21938
3/8	1.48414	4.31750
13/32	1.55237	4.41563
7/16	1.62213	4.51375
15/32	1.69342	4.61188
1/2	1.76625	4.71000
17/32	1.84061	4.80813
9/16	1.91650	4.90625
19/32	1.99393	5.00438
5/8	2.07289	5.10250
21/32	2.15338	5.20063
11/16	2.23541	5.29875
23/32	2.31897	5.39688
3/4	2.40406	5.49500
25/32	2.49069	5.59313
13/16	2.57885	5.69125
27/32	2.66854	5.78938
7/8	2.75977	5.88750
29/32	2.85252	5.98563
15/16	2.94682	6.08375
31/32	3.04264	6.18188
2	3.14000	6.28000
1/32	3.23889	6.37813
1/16	3.33932	6.47625
3/32	3.44127	6.57438
1/8	3.54477	6.67250
5/32	3.64979	6.77063
3/16	3.75635	6.86875
7/32	3.86444	6.96688
1/4	3.97406	7.06500
9/32	4.08522	7.16313
5/16	4.19791	7.26125
11/32	4.31213	7.35938
3/8	4.42789	7.45750
13/32	4.54518	7.55563
7/16	4.66400	7.65375
15/32	4.78436	7.75188
1/2	4.90625	7.85000
17/32	5.02967	7.94813
9/16	5.15463	8.04625
19/32	5.28112	8.14438
5/8	5.40914	8.24250
21/32	5.53870	8.34063
11/16	5.66979	8.43875
23/32	5.80241	8.53688
3/4	5.93656	8.63500
25/32	6.07225	8.73313
13/16	6.20947	8.83125
27/32	6.34823	8.92938
7/8	6.48852	9.02750
29/32	6.63034	9.12563
15/16	6.77369	9.22375
31/32	6.91858	9.32188
3	7.06500	9.42000
1/32	7.21295	9.51813
1/16	7.36244	9.61625
3/32	7.51346	9.71438
1/8	7.66602	9.81250
5/32	7.82010	9.91063
3/16	7.97572	10.00875
7/32	8.13288	10.10688
1/4	8.29156	10.20500
9/32	8.45178	10.30313
5/16	8.61354	10.40125
11/32	8.77682	10.49938
3/8	8.94164	10.59750
13/32	9.10799	10.69563
7/16	9.27588	10.79375
15/32	9.44530	10.89188
1/2	9.61625	10.99000
17/32	9.78874	11.08813
9/16	9.96275	11.18625
19/32	10.13831	11.28438
5/8	10.31539	11.38250
21/32	10.49401	11.48063
11/16	10.67416	11.57875
23/32	10.85584	11.67688
3/4	11.03906	11.77500
25/32	11.22381	11.87313
13/16	11.41010	11.97125
27/32	11.59792	12.06938
7/8	11.78727	12.16750
29/32	11.97815	12.26563
15/16	12.17057	12.36375
31/32	12.36452	12.46188

Application Data

Area & Circumference Chart

AREA & CIRCUMFERENCE OF CIRCLES FOR GIVEN CIRCLE DIAMETERS CONT.

Dia. (inches)	Area (sq. inches)	Circumference (inches)
4	12.56000	12.56000
1/32	12.75702	12.65813
1/16	12.95557	12.75625
3/32	13.15565	12.85438
1/8	13.35727	12.95250
5/32	13.56042	13.05063
3/16	13.76510	13.14875
7/32	13.97131	13.24688
1/4	14.17906	13.34500
9/32	14.38834	13.44313
5/16	14.59916	13.54125
11/32	14.81151	13.63938
3/8	15.02539	13.73750
13/32	15.24081	13.83563
7/16	15.45775	13.93375
15/32	15.67624	14.03188
1/2	15.89625	14.13000
17/32	16.11780	14.22813
9/16	16.34088	14.32625
19/32	16.56549	14.42438
5/8	16.79164	14.52250
21/32	17.01932	14.62063
11/16	17.24854	14.71875
23/32	17.47928	14.81688
3/4	17.71156	14.91500
25/32	17.94538	15.01313
13/16	18.18072	15.11125
27/32	18.41760	15.20938
7/8	18.65602	15.30750
29/32	18.89596	15.40563
15/16	19.13744	15.50375
31/32	19.38045	15.60188
5	19.62500	15.70000
1/32	19.87108	15.79813
1/16	20.11869	15.89625
3/32	20.36784	15.99438
1/8	20.61852	16.09250
5/32	20.87073	16.19063
3/16	21.12447	16.28875
7/32	21.37975	16.38688
1/4	21.63656	16.48500
9/32	21.89491	16.58313
5/16	22.15479	16.68125
11/32	22.41620	16.77938
3/8	22.67914	16.87750
13/32	22.94362	16.97563
7/16	23.20963	17.07375
15/32	23.47717	17.17188
1/2	23.74625	17.27000
17/32	24.01686	17.36813
9/16	24.28900	17.46625
19/32	24.56268	17.56438
5/8	24.83789	17.66250
21/32	25.11463	17.76063
11/16	25.39291	17.85875
23/32	25.67272	17.95688
3/4	25.95406	18.05500
25/32	26.23694	18.15313
13/16	26.52135	18.25125
27/32	26.80729	18.34938
7/8	27.09477	18.44750
29/32	27.38377	18.54563
15/16	27.67432	18.64375
31/32	27.96639	18.74188
6	28.26000	18.84000
1/32	28.55514	18.93813
1/16	28.85182	19.03625
3/32	29.15002	19.13438
1/8	29.44977	19.23250
5/32	29.75104	19.33063
3/16	30.05385	19.42875
7/32	30.35819	19.52688
1/4	30.66406	19.62500
9/32	30.97147	19.72313
5/16	31.28041	19.82125
11/32	31.59088	19.91938
3/8	31.90289	20.01750
13/32	32.21643	20.11563
7/16	32.53150	20.21375
15/32	32.84811	20.31188
1/2	33.16625	20.41000
17/32	33.48592	20.50813
9/16	33.80713	20.60625
19/32	34.12987	20.70438
5/8	34.45414	20.80250
21/32	34.77995	20.90063
11/16	35.10729	20.99875
23/32	35.43616	21.09688
3/4	35.76656	21.19500
25/32	36.09850	21.29313
13/16	36.43197	21.39125
27/32	36.76698	21.48938
7/8	37.10352	21.58750
29/32	37.44159	21.68563
15/16	37.78119	21.78375
31/32	38.12233	21.88188
7	38.46500	21.98000
1/32	38.80920	22.07813
1/16	39.15494	22.17625
3/32	39.50221	22.27438
1/8	39.85102	22.37250
5/32	40.20135	22.47063
3/16	40.55322	22.56875
7/32	40.90663	22.66688
1/4	41.26156	22.76500
9/32	41.61803	22.86313
5/16	41.97604	22.96125
11/32	42.33557	23.05938
3/8	42.69664	23.15750
13/32	43.05924	23.25563
7/16	43.42338	23.35375
15/32	43.78905	23.45188
1/2	44.15625	23.55000
17/32	44.52499	23.64813
9/16	44.89525	23.74625
19/32	45.26706	23.84438
5/8	45.64039	23.94250
21/32	46.01526	24.04063
11/16	46.39166	24.13875
23/32	46.76959	24.23688
3/4	47.14906	24.33500
25/32	47.53006	24.43313
13/16	47.91260	24.53125
27/32	48.29667	24.62938
7/8	48.68227	24.72750
29/32	49.06940	24.82563
15/16	49.45807	24.92375
31/32	49.84827	25.02188
8	50.24000	25.12000

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.

Application Data

Coupling Thread Data & Flange Size

			Compatible Thread	
THREADS	**SYSTEM NAME**	**SEAL METHOD**	**FEMALE**	**MALE**
IPT	Iron Pipe Thread. The generic name for all pipe threads	—	—	—
NPT	American Standard “tapered” pipe thread	Thread fit (with sealer)	NPT	NPT NPTF
NPTF*	American Standard tapered “dryseal” pipe thread	Thread fi t	NPTF	NPT
		Thread fit (with sealer)	NPTF	NPTF
NPSM	American Standard “straight” pipe thread for mechanical joints	Washer	NPSM	NPSM NPT NPTF
		Mechanical (metal to metal)	NPSM	NPSM NPT NPTF
NPSH	American Standard “straight” pipe thread for hose coupling and nipples	Washer	NPSH	NPSH

**When NPTF threads are once used, they require sealing compound for future use.*

Hose

Air & Multi-Purpose Intro

Important Air & Multi-Purpose Hose Safety Information!

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.

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, or damage to property.

WARNING: Consult with the Coupling Manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

WARNING: Be aware that if you replace a hose with one having a different I.D. than the original hose, material velocity could increase or decrease, possibly creating static electricity. This could lead to an explosion causing serious injury or death.

WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

AIR & MULTI-PURPOSE HOSE BENEFITS

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation.
- Longer hose life.
- Full range of sizes and styles.
- Boston multi-purpose hoses are designed to match capability with the job you need to do. Boston brand products offer a well-rounded choice of hose styles for services ranging from high pressure use in heavy construction to economical hose for light duty agricultural and industrial applications.

Every Hose is Easily Identified

- Every foot of hose is easily identified by means of permanent branding. This makes hose selection on the job quicker, easier and safer, and buying hose is easier too—because you can tell at a glance that you're getting exactly the hose you ordered.

Multi-Purpose Hose for Specialized Uses

- Eaton calls them "MULTI-PURPOSE" hoses, meaning they'll do a tremendous variety of jobs. In many cases one Boston hose can replace several different "special purpose" styles. This helps keep expenses low.

Brand Name Identity (and the quality that goes behind it)

- With the Boston brand name on the hose you buy, you are assured maximum value and consistent quality. With over 100 years worth of reputation at stake, we wouldn't have it any other way.

Hose

High Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Concord Yellow Jack

Tube: Nitrile (RMA Class A)

Reinforcement: Wire, 1, 2, or 3 Braid

Cover: Neoprene/Pinpricked MSHA Approved

Color: Yellow

Temperature Range: -40°F To +200°F

Type Of Branding: Impression

Working Pressure: 400-1500 PSI

Type Of Coupling: 430 'U' Series, Swaged/Crimped, Interlocking, or Steel Nipple. Clamps —Interlocking.

Branding: Boston Concord Yellow Jack Air

Features:

- Neoprene cover
- Nitrile tube (RMA Class A)
- Continuous permanent brand
- Wide range of sizes

Advantages:

- Abrasion, oil, and weather resistant
- Good oil resistance
- Easy identification
- Many applications

Markets:

- Construction Industry
- Oil Field Equipment
- Drilling Equipment
- Mining

Applications:

- Provide power to air-operated construction equipment. (Bull lines, jackhammer, etc.)
- Power air-operated drills, boring, and mining equipment

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H600808	1/2	12.7	1	31/32	24.6	40	1,500	50
H600808-100								100
H600808-150								150
H600812	3/4	19.1	1	1-1/4	31.8	62	1,200	50
H600812-100								100
H600812-150								150
H600816	1	25.4	1	1-1/2	38.1	80	1,000	50
H600816-100								100
H600816-150								150
H600820	1-1/4	31.8	1	1-13/16	46.0	122	650	50
H600820-100								100
H600820-150								150
H600824	1-1/2	38.1	2	2-1/8	53.9	143	600	50
H600824-100								100
H600824-150								150
H600832	2	50.8	2	2-21/32	67.4	216	600	50
H600832-100								100
H600832-150								150
H600840	2-1/2	63.5	2	3-5/32	80.1	240	400	50
H600840-100								100
H600840-150								150
H600848	3	76.2	2	3-23/32	94.4	310	400	50
H600848-100								100
H600848-150								150
H600864	4	101.6	3	5	127.0	579	400	50
H600864-100								100
H600864-150								150

Hose

High Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Bulldog Gold

Tube: Nitrile (RMA Class A)

Reinforcement: Wire, 1, 2, or 3 Braid

Cover: Carboxylated Nitrile/Pinpricked

Color: Black

Temperature Range: -40°F To +250°F

Type Of Branding: Printed Strip

Working Pressure: 500-1200 PSI

Type Of Coupling: 430 'U' Series, Non-Reattachable (Swaged), Interlocking, or Steel Nipple. Clamps —Interlocking.

Features:

- Carboxylated Nitrile cover
- Nitrile tube (RMA Class A)
- Continuous permanent brand

Advantages:

- Excellent abrasion, oil, and weather resistant
- Excellent lube oil resistance and high temperature resistance
- Easy identification

Markets:

- Construction Industry
- Oil Field Equipment
- Drilling Equipment
- Mining
- All Markets

Applications:

- Provide power to air-operated construction equipment. (Bull lines, jackhammer, etc.)
- Power air-operated drills, boring, and mining equipment
- Use when you need a reinforced hose for extremely abusive applications

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H600912	3/4	19.1	1	1-1/4	31.8	64	1,200	2,100	50
H600912-100									100
H600912-150									150
H600916	1	25.4	1	1-1/2	38.1	80	1,000	1,500	50
H600916-100									100
H600916-150									150
H600920	1-1/4	31.8	1	1-13/16	46.0	120	800	—	50
H600920-100									100
H600920-150									150
H600924	1-1/2	38.1	2	2-1/8	53.9	134	600	—	50
H600924-100									100
H600924-150									150
H600932	2	50.8	2	2-21/32	67.4	197	600	—	50
H600932-100									100
H600932-150									150
H600940	2-1/2	63.5	2	3-5/32	80.1	250	600	—	50
H600940-100									100
H600940-150									150
H600948	3	76.2	2	3-23/32	94.4	315	600	—	50
H600948-100									100
H600948-150									150
H600964	4	101.6	3	5	127.0	532	500	—	50
H600964-100									100
H600964-150									150

**MTO–Made To Order*

Hose

High Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Contractors Air

Tube: Nitrile (RMA Class A)

Reinforcement: Wire, 1 or 2 Braid

Cover: Neoprene/Pinpricked

Color: Yellow

Temperature Range: -40°F To +200°F

Type Of Branding: Ink Print

Working Pressure: 500-1000 PSI

Type Of Coupling: 430 'U' Series, Non-Reattachable (Swaged), Interlocking, or Steel Nipple. Clamps —Interlocking.

Features:

- Neoprene cover
- Nitrile tube (RMA Class A)
- Continuous permanent brand
- Wide range of sizes

Advantages:

- Abrasion, oil, and weather resistant
- Good oil resistance
- Easy identification
- Many applications

Markets:

- Construction Industry
- Oil Field Equipment
- Drilling Equipment
- Mining

Applications:

- Provide power to air-operated construction equipment. (Bull lines, jackhammer, etc.)
- Power air-operated drills, boring, and mining equipment

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H962208	1/2	12.7	1	15/16	23.8	34	1,000	50
H962208-100								100
H962208-150								150
H962212	3/4	19.1	1	1-3/16	30.2	44	1,000	50
H962212-100								100
H962212-150								150
H962216	1	25.4	1	1-1/2	38.1	61	850	50
H962216-100								100
H962216-150								150
H962220	1-1/4	31.8	1	1-23/32	43.7	81	500	50
H962220-100								100
H962220-150								150
H962224	1-1/2	38.1	2	2-1/8	53.9	150	500	50
H962224-100								100
H962224-150								150
H962232	2	50.8	2	2-21/32	67.4	204	500	50
H962232-100								100
H962232-150								150

Hose

Medium Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Concord Air

Tube: Nitrile

Reinforcement: Fiber, 2 Braid or 2 Ply

Cover: Neoprene 1/2", 3/4" & 1" Pinpricked
Vinyl Nitrile 1-1/4", 1-1/2", 2" & 3" Pinpricked

Color: Red

Temperature Range: -40°F To +200°F

Type Of Branding: Impression

Working Pressure: 300-400 PSI

Type Of Coupling: 'U' Series or 430 'U' Series, Interlocking, Non-Reattachable (Swaged), Quick Acting, Long Shank, Steel Nipple. Clamps —Interlocking or Bands.

Features:

- Neoprene cover
- Nitrile tube
- Continuous permanent brand
- Two textile braids or ply

Advantages:

- Abrasion, oil, and weather resistant
- Good oil resistance
- Easy identification
- Easy to handle
- Kink resistant

Markets:

- Construction Industry
- Forest Industry
- Metal Working
- Mining

Applications:

- Provide power to air-operated construction equipment
- Transfer air and water
- Power air-operated drills, boring, and mining equipment

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H600208	1/2	12.7	2 Br	29/32	23.0	31	400	—	50
H600208-100									100
H600208-150									150
H600212	3/4	19.1	2 Br	1-3/16	30.2	46	400	—	50
H600212-100									100
H600212-150									150
H600216	1	25.4	2 Br	1-1/2	38.1	67	400	—	50
H600216-100									100
H600216-150									150
H600220	1-1/4	31.8	2 Ply	1-13/16	46.0	86	400	—	50
H600220-100									100
H600220-150									150
H600224	1-1/2	38.1	2 Ply	2-1/16	52.4	99	400	—	50
H600224-100									100
H600224-150									150
H600232	2	50.8	2 Ply	2-5/8	66.7	127	300	—	50
H600232-100									100
H600232-150									150
H600248	3	76.2	2 Ply	3-9/16	90.49	192	200	600	50
H600248-100									100
H600248-150									150

**MTO–Made To Order*

Hose

Medium Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Mineforce

Tube: Modified Vinyl

Reinforcement: Fiber, 4 Spiral

Cover: PVC/Nitrile Blend Wrapped Impression Finish

Color: Yellow

Temperature Range: -20°F To +150°F

Type Of Branding: Ink Print

Working Pressure: 400 PSI

Type Of Coupling: 'U' Series with 3/4", Interlocking, Non-Reattachable Quick Acting, Long Shank, or Steel Nipple. Clamps —Interlocking, (Swaged).

Do not use internal expanded couplings.

Features:

- Light weight
- Flexible
- Bright yellow cover
- Modified vinyl tube
- Rubber modified thermoplastic cover
- Packaged in 50 & 100 foot lengths
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:

- Easy to handle
- Easy to route
- Very visible; safety
- Moderate oil resistance
- Abrasion, age, ozone and moderate oil resistance
- Exact lengths; no waste

Markets:

- Mining
- Construction
- Ship Building
- Paper/Pulp Processing
- Food processing

Applications:

- High pressure air tools
- Transfer air and water
- Water supply
- Water washdown

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H157108	1/2	12.7	4	5/16	7.9	30	400	5,000	50
H157108-100									100
H157112	3/4	19.1	4	1-3/16	30.2	40	400	—	50
H157112-100									100
H157116	1	25.4	4	1-15/32	37.3	55	400	5,000	50
H157116-100									100

Stated working pressures are tested at 68°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

**MTO–Made To Order*

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Perfection 300

Tube: Nitrile (RMA Class A)

Reinforcement: Fiber, 1 or 2 Braid

Cover: Vinyl Nitrile

Color: Red

Temperature Range: -40°F To +180°F

Type Of Branding: Ink Print

Working Pressure: 325 PSI

Type Of Coupling: 'U' Series or 430 'U' Series, Long Shank, Standard Serrated Nipple or Steel Nipple. Clamps —Interlocking or Bands.

Features:

- Vinyl nitrile cover
- Nitrile tube (RMA Class A)
- Continuous permanent brand
- Multi-purpose hose
- High working pressure
- Braided reinforcement

Advantages:

- Abrasion, oil, and weather resistant
- Good oil resistance
- Easy identification
- Wide variety of applications
- Rugged; long life
- Better coupling retention for impulse applications

Markets:

- Assembly/Manufacturers
- Construction Industry
- Forest Industry
- Metal Working
- Mining
- Ship Building

Applications:

- Pneumatic tools on production line; convey air and water
- Provide power to air operated equipment
- Convey air and water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H177704-500R	1/4	6.3	1	1/2	12.7	11	325	500
H177604-500R	1/4	6.3	2	19/32	15.1	15	325	500
H177705-500R	5/16	7.9	1	5/8	15.9	17	325	500
H177706-500R	3/8	9.5	1	21/32	16.7	17	325	500
H177606-500R	3/8	9.5	2	23/32	18.3	20	325	500
H177708-500R	1/2	12.7	1	13/16	20.6	24	325	500
H177608-500R	1/2	12.7	2	7/8	22.2	31	325	500
H177610-500R	5/8	15.9	2	1	25.4	36	325	500
H177612-500R	3/4	19.1	2	1-5/32	29.4	44	325	500
H177616-300R	1	25.4	2	1-7/16	36.5	46	325	300
H177620-300R	1-1/4	31.8	2	1-3/4	44.5	65	325	300
H177624-300R	1-1/2	38.1	2	2	50.8	82	325	300

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Easy Couple

Tube: Vinyl Nitrile (RMA Class A)

Reinforcement: Fiber, 1 Braid

Cover: Neoprene MSHA approved (BK), Vinyl Nitrile (BU,GY,RD,YW,GN)

Color: Black (BK), Gray (GY), Blue (BU), Red (RD), Green (GN) & Yellow (YW)

Temperature Range: -40°F To +200°F

Type Of Branding: Ink Print

Working Pressure: 250 PSI

Type Of Coupling: 100 'B' Series, Barbed Inserts, Quick Acting, Long Shank, or Push on Couplings (clamps not required). Clamps—Interlocking, Bolt, or Band.

Features:

- Neoprene cover Vinyl nitrile cover
- Nitrile tube (RMA Class A)
- Continuous permanent brand
- Six colors
- Light weight & flexible
- Easily coupled
- Braid reinforcement

Advantages:

- Abrasion, oil, and weather resistant
- Good oil resistance
- Easy identification
- Color code air systems
- Easy to handle
- Use push-on couplings; no need for clamps
- Better coupling retention for impulse applications

Markets:

- Assembly/Manufacturers
- Mining
- Construction Industry
- Plastic Molding

Applications:

- Pneumatic tools on production line; convey air, water, oils, etc.; transfer lubricated air to valves and cylinders; low pressure hydraulics
- Black hose cover only has been accepted by MSHA (2G-13C) for underground use in lube oil lines, pneumatic, and low pressure hydraulics

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MIN. BEND RADIUS (IN.)	STANDARD LENGTH (FT)
H20104	1/4	6.3	1	1/2	12.7	8	250	3	50(GY,BU,RD,GN,YW,BK)
H20104-250R									250(GY,BU,RD,GN,YW,BK)
H20104-500R									500(GY,BU,RD,GN,YW,BK)
H20106	3/8	9.5	1	21/32	16.7	13	250	3	50(GY,BU,RD,GN,YW,BK)
H20106-250R									250(GY,BU,RD,GN,YW,BK)
H20106-500R									500(GY,BU,RD,GN,YW,BK)
H20108	1/2	12.7	1	3/4	19.1	15	250	5	50(GY,BU,RD,GN,YW,BK)
H20108-250R									250(GY,BU,RD,GN,YW,BK)
H20108-500R									500(GY,BU,RD,GN,YW,BK)
H20110-250R	5/8	15.9	1	15/16	23.8	20	250	6	250(GY,BU,RD,GN,YW,BK)
H20112-250R	3/4	19.1	1	1-1/16	27.0	26	250	7	250(GY,BU,RD,GN,YW,BK)

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Ultraforce

Tube: Modified Vinyl

Reinforcement: Fiber, 2 Spiral

Cover: Rubber Modified, Non-Marking Thermoplastic/Pinpricked

Color: Blue (BU) & Red (RD)
(Other colors made on a Made To Order basis)

Temperature Range: -20°F To +180°F

Type Of Branding: Ink Print

Working Pressure: 125-350 PSI

Type Of Coupling: 'E' Series, 265 'P' Series, Barbed Inserts, Quick Acting, Short or Long Shank. Clamps—Bolt, Brass Collar, or Band.
Do not use internal expanded couplings.

Features:
- Light weight
- Flexible
- Modified vinyl tube
- Rubber modified thermoplastic cover
- 95% one piece reels and coils
- Continuous permanent brand
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:
- Easy to handle
- Easy to route
- Medium-high oil resistance
- Abrasion, age, ozone and moderate oil resistance
- Economical; less waste
- Easy identification
- Safety

Markets:
- Assembly/Manufacturers
- Light Chemical Processing
- Construction
- Food processing
- Metal Working
- Mining
- Oil Industry
- Paper/Pulp Processing
- Plywood/Chip Board Manufacturing
- Ship Building

Applications:
- Transfer air and water
- Air tools
- Water supply
- Robotics
- Water washdown

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	APPROX. NOMINAL O.D. (IN.)	(MM)	LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESSURE (PSI)	MTO* MIN. ORDER QTY.	STANDARD REELS (FT)	MIN BEND RADIUS (IN.)
H26504	1/4	6.4	2	1/2	12.7	9	350		50(BU,RD)	3/4
H26504-600R									600*(BU,RD)	
H26506	3/8	9.5	2	41/64	16.3	12	350		50(BU,RD)	1-1/4
H26506-600R									600*(BU,RD)	
H26508	1/2	12.7	2	25/32	19.8	17	300—		50(BU,RD)	2
H26508-500R									500*(BU,RD)	
H26510-500R	5/8	15.9	2	7/8	22.2	20	250	5,000	500*(BU,RD)	
H26512	3/4	19.1	2	1-1/16	26.9	26	250		50(BU,RD)	2-1/2
H26512-500R									500*(BU,RD)	
H26514-200R	7/8	22.2	2	1-1/8	28.6	27	225	5,000	200**(BU,RD)	3-1/2
H26516	1	25.4	2	1-5/16	33.3	35	200—		50(BU,RD)	
H26516-200R									200**(BU,RD)	
H26520-100	1-1/4	31.8	2	1-11/16	42.9	61	150		100**(BU,RD)	
H26524-100	1-1/2	38.1	2	1-15/16	49.2	73	150		100**(BU,RD)	
H26532-100	2	50.8	2	2-1/2	63.5	105	125		100**(BU,RD)	

Stated working pressures are tested at 68°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

**MTO–Made To Order*

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Polyforce II

Tube: PVC

Reinforcement: Fiber, 2 Spiral

Cover: PVC/Pinpricked

Color: Red (RD), Blue (BU), Yellow (YW)

Temperature Range: -10°F To +150°F

Type Of Branding: Ink Print

Working Pressure: 125-250 PSI

Type Of Coupling: 'E' Series, 265 'P' Series, Barbed Inserts, Quick Acting or Long Shank.
Clamps—Single Bolt, Brass Collar or Band.
Do not use internal expanded couplings.

Features:

- Light weight
- Flexible
- PVC tube
- PVC cover
- 95% one piece reels and coils
- Continuous permanent brand
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:

- Easy to handle
- Easy to route
- Moderate oil resistance
- Abrasion, age, ozone and moderate oil resistance
- Economical; less waste
- Easy identification

Markets:

- Assembly/Manufacturers
- Light Chemical Processing
- Construction
- Food processing
- Metal Working
- Mining
- Oil Industry
- Paper/Pulp Processing
- Plywood/Chip Board Manufacturing
- Ship Building

Applications:

- Transfer air and water
- Air tools
- Water supply
- Robotics
- Water washdown
- Lubricated air

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H27503-600R*	3/16	4.8	2	27/64	10.7	6	250	6,000	600*(RD)
H27504	1/4	6.4	2	1/2	12.7	7	250	—	50(RD,BU,YW)
H27504-600R									600*(RD,BU,YW)
H27505-600R*	5/16	7.9	2	33/64	13.1	8	250	6,000	600*(RD)
H27506	3/8	9.5	2	5/8	15.9	12	250	—	50(RD,BU,YW)
H27506-600R									600*(RD,BU,YW)
H27508	1/2	12.7	2	3/4	19.1	15	250	—	50(RD,BU,YW)
H27508-500R									500*(RD,BU,YW)
H27510-500R	5/8	15.9	2	57/64	22.6	21	250	—	500*(RD)
H27512	3/4	19.1	2	1-1/32	26.2	23	250	—	50(RD)
H27512-500R									500*(RD)
H27516	1	25.4	2	1-5/16	33.3	34	200	—	50(RD)
H27516-200R									200**(RD)
H27520-100	1-1/4	31.8	2	1-11/16	42.9	52	200	—	100**(RD)
H27524-100	1-1/2	38.1	2	1-15/16	49.2	61	200	—	100**(RD)
H27532-100	2	50.9	2	2-1/2	63.5	91	125	—	100*(RD)

Stated working pressures are tested at 68°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

**MTO–Made To Order*

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Shock-Safe

Tube: Nitrile (non-conductive)
Reinforcement: Fiber, 2 Braid
Cover: Vinyl Nitrile (non-conductive)
Color: Red
Temperature Range: -40°F To +180°F
Type Of Branding: Ink Print
Working Pressure: 275 PSI
Type Of Coupling: 'U' Series, Barbed Inserts, Quick Acting, Long Shank, or Steel Nipple. Clamps—Brass Collar, Interlocking, Single Bolt, Band or Wire.

Features:
- Vinyl nitrile cover
- Nitrile tube
- Continuous permanent brand
- Non-conductive
- Each reel factory tested to exceed minimum electrical resistivity of one megaohm per inch at 1000 volts D.C.

Advantages:
- Abrasion, oil, and weather resistant
- Medium oil resistance
- Easy identification
- Suitable for use around electrical equipment
- Safety

Markets:
- Metal Working
- Utility Company
- Aluminum Industry

Applications:
- Use as general purpose air/water hose where hoses must be non-conductive

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD REELS (FT)
H994904-500R	1/4	6.3	2	19/32	15.1	15	275	500
H994906-500R	3/8	9.5	2	23/32	18.3	19	275	500
H994908-500R	1/2	12.7	2	7/8	22.2	27	275	500
H994912-500R	3/4	19.1	2	1-5/32	29.4	41	275	500
H994916-300R	1	25.4	2	1-7/16	36.5	64	275	300

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Marathoner

Tube: Blended Nitrile

Reinforcement: Fiber, 2 or 4 Spiral

Cover: Neoprene/Pinpricked

Color: Red (RD), Green (GN), Yellow (YW), Black (BK)

Temperature Range: -40°F To +180°F

Type Of Branding: Ink Print

Working Pressure: 200-300 PSI

Type Of Coupling: 'U' Series, Barbed Inserts, Quick Acting or Long Shank. Clamps—Bolt, Band or Wire.

Features:

- Neoprene cover
- Blended nitrile tube
- Continuous permanent brand
- Longer lengths

Advantages:

- Abrasion, oil, and water resistant
- Medium oil resistant
- Easy identification
- Economical; less waste

Markets:

- Assembly/Manufacturers
- Lumber/Woodworking
- Plywood Mfg.
- Paper/Pulp Processing
- Metal Working

Applications:

- Pneumatic tools on production line
- Transfer air and water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD REELS (FT)
H198104-600R	1/4	6.3	2	1/2	12.7	10	200	600(RD)
H198204-600R	1/4	6.3	4	5/8	15.9	13	300	600(RD)
H198105-600R	5/16	7.9	2	5/8	15.9	12	200	600(RD)
H198205-600R	5/16	7.9	4	11/16	17.3	13	300	600(RD)
H198106-600R	3/8	9.5	2	11/16	17.3	15	200	600(RD)
H198206-600R	3/8	9.5	4	3/4	18.3	18	300	600(RD)
H198108-600R	1/2	12.7	2	13/16	20.6	19	200	600(RD)
H198208-600R	1/2	12.7	4	7/8	25.4	23	300	600(RD)
H198210-600R	5/8	15.9	4	1-1/32	26.2	25	300	600(RD)
H198112-250	3/4	19.1	4	1-3/16	30.2	37	225	5-50's(RD)
H198112-600R	3/4	19.1	4	1-3/16	30.2	37	225	600(RD)
H198212-250	3/4	19.1	4	1-3/16	30.2	37	300	5-50's(RD)
H198212-600R	3/4	19.1	4	1-3/16	30.2	37	300	600(RD)
H198216-450R	1	25.4	4	1-7/16	36.5	64	200	450(RD)

Hose

Low Working Pressure

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Performer II

Tube: Nitrile

Reinforcement: Fiber, 1 or 2 Braid

Cover: Vinyl Nitrile

Color: Red

Temperature Range: -40°F To +180°F

Type Of Branding: Ink Print

Working Pressure: 225-300 PSI

Type Of Coupling: 'U' Series, 430 'U', Barbed Inserts, Quick Acting, Long Shank, Series or Steel Nipple. Clamps—Interlocking, Bolt, Band or Wire.

Features:

- Vinyl nitrile cover
- Nitrile tube (RMA Class A)
- Continuous permanent brand
- Multi-purpose hose
- High working pressure
- Braided reinforcement

Advantages:

- Abrasion, oil, and weather resistant
- High oil resistance
- Easy identification
- For many applications
- Better coupling retention for impulse applications

Markets:

- Assembly/Manufacturers
- Construction Industry
- Forest Industry
- Metal Working
- Mining
- Ship Building
- Plastic Molding

Applications:

- Pneumatic tools on production line
- Provide power to air operated equipment
- Convey air and water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD REELS (FT)
H11604-550R	1/4	6.3	1	1/2	12.7	10	225	550
H11504	1/4	6.3	2	19/32	15.1	15	300	50
H11504-550R								550
H11605-550R	5/16	7.9	1	5/8	15.9	14	225	550
H11505	5/16	7.9	2	21/32	15.9	14	300	50
H11505-550R								550
H11606-550R	3/8	9.5	1	21/32	16.7	15	225	550
H11506	3/8	9.5	2	3/32	18.3	19	300	50
H11506-550R								550
H11608-550R	1/2	12.7	1	13/16	20.6	21	225	550
H11508	1/2	12.7	2	7/8	22.2	27	300	50
H11508-550R								550
H11512	3/4	19.1	2	1-5/32	29.4	41	300	50
H11512-550R								550
H11516	1	25.4	2	1-7/16	36.5	46	250	50
H11516-300R								300
H11520	1-1/4	31.8	2	1-3/4	44.5	65	225	50
H11520-300R								300
H11524	1-1/2	38.1	2	2	50.8	82	225	50
H11524-300R								300

Hose

General Air & Water

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Bosflex A/W

Tube: EPDM

Reinforcement: Fiber, 2 or 4 Spiral, or 2 Braid

Cover: EPDM/Pinpricked

Color: Red (RD), Black (BK)

Temperature Range: -40°F To +180°F

Type Of Branding: Ink Print

Working Pressure: 200-300 PSI

Type Of Coupling: 'U' Series, Barbed Inserts, Quick Acting, Short or Long Shank. Clamps—Interlocking, Bolt, Band or Wire.

Features:

- EPDM cover
- EPDM tube
- Continuous permanent brand
- Longer lengths

Advantages:

- Abrasion, age, and water resistant
- Heat resistant
- Easy identification
- Economical; less waste

Markets:

- Agriculture
- Assembly/Manufacturers
- Construction
- Food Industry
- Metal Working
- Mining
- Oil Industry
- Paper/Pulp
- Ship Building

Applications:

- Spraying and conveying water based liquid fertilizers and pesticides
- Transfer air and water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD REELS (FT)
H10604	1/4	6.3	2 Sp	1/2	12.7	10	200	—	50(BK,RD)
H10604-600R									600(BK,RD)
H10504	1/4	6.3	4 Sp	5/8	15.9	14	300	—	50(RD)
H10504-600R									600 (RD)
H10605-600R	5/16	7.9	2 Sp	19/32	15.1	13	200	10,000	600(BK)
H10505-600R	5/16	7.9	4 Sp	11/16	17.5	14	300	—	600 (RD)
H10606	3/8	9.5	2 Sp	11/16	17.5	15	200 —	—	50(BK,RD)
H10606-600R									600(BK,RD)
H10506	3/8	9.5	4 Sp	3/4	19.1	18	300	—	50(RD)
H10506-600R									600 (RD)
H10608	1/2	12.7	2 Sp	13/16	20.6	19	200	—	50(BK,RD)
H10608-600R									600(BK,RD)
H10508	1/2	12.7	4 Sp	7/8	22.2	23	300	—	50(RD)
H10508-600R									600(RD)
H10610-600R	5/8	15.9	2 Sp	31/32	24.6	28	200	—	600(BK)
H10510-600R	5/8	15.9	4 Sp	1-1/32	26.2	30	300	—	600(RD)
H10612-250	3/4	19.1	4 Sp	1-3/16	30.2	40	300	—	5-50'S(RD)
H10612-600R									600 (RD)
H10512	3/4	19.1	4 Sp	1-3/16	30.2	37	225	—	50(BK,RD)
H10512-250									5-50's(BK,RD)
H10512-600R									600(BK,RD)
H10516	1	25.4	4 Sp	1-7/16	36.5	60	200	—	50(BK,RD)
H10516-400R									400(RD)
H10516-450R									400(BK)
H10520-300R	1-1/4	31.8	2 Br	1-3/4	44.5	65	200	—	300(BK)
H10524-300R	1-1/2	38.1	2 Br	2	50.8	82	200	—	300(BK)

**MTO–Made To Order*

Hose

General Air & Water

Refer to warnings and safety information on pages 3-4 and page 38.

Boston Industrial A/W

Tube: EPDM
Reinforcement: Fiber, 2 Braid
Cover: EPDM
Color: Red
Temperature Range: -40°F To +180°F
Type Of Branding: Ink Print
Working Pressure: 250-275 PSI
Type Of Coupling: 'U' Series, 430 'U', Barbed Inserts, Quick Acting, Long Shank, Series or Steel Nipple. Clamps—Interlocking, Bolt, Band or Wire.

Features:
- EPDM cover
- EPDM tube
- Braided reinforcement
- Continuous permanent brand
- Wide range of sizes

Advantages:
- Age, heat, and ozone resistant
- Heat resistant (limited oil resistance)
- Excellent coupling retention for impulse applications
- Easy identification
- For many applications

Markets:
- Agriculture
- Assembly/Manufacturers
- Construction
- Food Industry
- Metal Working
- Mining
- Oil Industry
- Paper/Pulp Industry
- Ship Building

Applications:
- Spraying and conveying water based liquid fertilizers and pesticides
- Transfer air and water; pneumatic tools

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD REELS (FT)
H181204-500R	1/4	6.3	2	19/32	15.1	16	275	500
H181205-500R	5/16	7.9	2	21/32	16.7	17	275	500
H181206-500R	3/8	9.5	2	23/32	18.3	19	275	500
H181208-500R	1/2	12.7	2	7/8	22.2	27	250	500
H181210-500R	5/8	15.9	2	1	25.4	36	250	500
H181212-500R	3/4	19.1	2	1-5/32	29.4	41	250	500
H181216-300R	1	25.4	2	1-7/16	36.5	46	250	300
H181220-300R	1-1/4	31.8	2	1-3/4	44.5	65	250	300
H181224-300R	1-1/2	38.1	2	2	50.8	82	250	300

Hose

Cleaning Service Intro

Important Cleaning Service Hose Safety Information!

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.

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, or damage to property.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

WARNING: Do not use hose at temperatures that exceed the hose temperature rating. Doing so could deteriorate the hose, leading to leaks, hose bursting, and end blow-offs. This could result in serious personal injury or death.

WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

CLEANING SERVICE HOSE BENEFITS

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation. Longer hose life.

Job Related Cleaning Service

- Eaton makes a variety of hose styles for cleaning and sandblast applications. Each product is manufactured to the specifications required to make it best suited for the job.

Every Hose is Easily Identified

- Every foot of hose is easily identified by means of permanent branding. This makes hose selection on the job quicker, easier and safer, and buying hose is easier too—because you can tell at a glance that you're getting exactly the hose you ordered.

Brand Name Identity

- With the Boston brand name on the hose you buy, you are assured of maximum value and consistent quality. With over 100 years worth of reputation at stake we wouldn't have it any other way.

Hose

Cleaning Service Hoses

Refer to warnings and safety information on pages 3-4 and page 53.

Boston Supraforce

Tube: Rubber Modified Thermoplastic
Reinforcement: Fiber, 2 Spiral
Cover: Rubber Modified Thermoplastic
Color: Yellow
Temperature Range: +10°F To +180°F
Type Of Branding: Ink Print
Working Pressure: 300-400 PSI
Type Of Coupling: Barbed Inserts. Clamps—Brass Collar.
Do not use internal expanded couplings.

Features:
- Light weight
- Flexible
- PVC tube
- Rubber modified thermoplastic cover
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:
- Easy to handle
- Easy to route
- Moderate oil resistance
- Good age, abrasion, ozone, and oil resistance
- No electrical build-up

Markets:
- Food processing
- Meat Packing Plants
- Construction

Applications:
- High pressure spray
- Washdown
- High pressure air

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MIN. BEND RADIUS (IN.)	MTO* MIN. ORDER QTY.	STD. REELS (FT)
H153104-500R	1/4	6.3	4	1/2	12.7	9	400	3	5,000	500
H153106-500R	3/8	9.5	4	11/16	17.5	15	400	4-1/2	5,000	500
H153108-500R	1/2	12.7	4	25/32	19.8	17	400	6	5,000	500
H153110-500R	5/8	15.9	4	1-1/2	25.4	28	400	7-1/2	5,000	500
H153112-500R	3/4	19.1	4	1-1/8	28.6	32	400	9	—	500
H153116-300R	1	25.4	4	1-7/16	36.5	48	300	12	5,000	300

Stated working pressures are tested at 68°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

**MTO - Made to Order*

Hose

Cleaning Service Hoses

Refer to warnings and safety information on pages 3-4 and page 53.

Boston Pressure Washer

Tube: Nitrile RMA Class A Oil Resistance
Reinforcement: Wire, 1 Braid
Cover: Vinyl Nitrile MSHA Approved
Color: Blue
Temperature Range: -40°F To +200°F
Type Of Branding: Ink Print
Working Pressure: 3000 PSI
Type Of Coupling: 'M' Series

Features:
- Neoprene cover
- Nitrile tube
- Flexible one-wire braid

Advantages:
- Non-marking
- Abrasion, heat, ozone, and weather resistant
- Heat and detergent resistant
- Easy to handle at 3,000 PSI

Markets:
- Industrial Cleaning Markets
- Food Industry
- Construction Industry
- Marine
- Agricultural

Applications:
- Pressure was engines, equipment, tanks, buildings, and roof cleaning, etc.
- Washdown of food processing facilities and equipment (not resistant to animal fats)
- High pressure cleaning and degreasing
- Boat cleaning
- Pressure wash engines, farm equipment, tanks and buildings

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX WORKING PRESS. (PSI)	M' SERIES NOM. CRIMP DIAMETER	STANDARD REELS (FT)
H34504	1/4	16.3	1	1/2	12.7	13	3,000	.630	50
H34504-100									100
H34504-250R									250
H34504-500R									500
H34506	3/8	9.5	1	5/8	15.9	18	3,000	.765	50
H34506-100									100
H34506-250R									250
H34506-500R									500
H34508	1/2	12.7	1	25/32	19.8	25	3,000	.915	50
H34508-100									100
H34508-250R									250
H34508-500R									500

Hose

Cleaning Service Hoses

Refer to warnings and safety information on pages 3-4 and page 53.

Boston Concord Sandblast

Tube: Natural Rubber

Reinforcement: Fiber, 2 Braid or 2 Ply

Cover: SBR

Color: Black

Temperature Range: -40°F To +150°F

Type Of Branding: Impression

Working Pressure: 100-150 PSI

Type Of Coupling: Sandblast Couplings that attach to O.D. of hose.

Features:

- SBR cover
- Continuous, natural rubber tube
- Conductive tube
- Continuous permanent brand
- Flexible

Advantages:

- Abrasion, age and weather resistant
- Abrasion resistant
- Static dissipating
- Easy identification
- Easy to handle

Markets:

- Construction Industry
- Metal Working
- Ship Building

Applications:

- Conveys sand from sandblast equipment to clean steel or concrete before painting or sealing
- Conveys sand or shot for cleaning purposes

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H003408	1/2	12.7	2 Br	1-1/16	27.0	40	150	50
H003408-100								100
H003408-150								150
H003412	3/4	19.1	2 Br	1-1/2	38.1	70	150	50
H003412-100								100
H003412-150								150
H003416	1	25.4	2 Br	1-15/16	49.2	110	150	50
H003416-100								100
H003416-150								150
H003420	1-1/4	31.8	2 Ply	2-5/32	54.8	130	125	50
H003420-100								100
H003420-150								150
H003424	1-1/2	38.1	2 Ply	2-25/64	60.7	140	100	50
H003424-100								100
H003424-150								150
H003432	2	50.8	2 Ply	2-7/8	73.0	174	100	50
H003432-150								150

Hose

Water Suction & Discharge Intro

Important Water Suction & Discharge Hose Safety Information!

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.

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, or damage to property.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

WARNING: Do not use hose at temperatures that exceed the hose temperature rating. Doing so could deteriorate the hose, leading to leaks, hose bursting, and end blow-offs. This could result in serious personal injury or death.

WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

WATER SUCTION & DISCHARGE HOSE BENEFITS

4:1 Safety Factor (Burst: Working Pressure) or 3:1 Safety Factor on Contractors Water, Green Garden Hose, Otter, and Leader.

- Safer operation.
- Longer hose life

Job Related Construction Service

- Eaton makes a wide variety of hose styles for water suction and discharge applications. Each product is manufactured utilizing the components and construction which makes it best suited for the job to be performed.

Pressure and Vacuum Rated

- Eaton manufactures braided and spiral hoses using the latest technology in wire and synthetic yarns. As a result, Boston hoses are pressure and vacuum resistant, as well as flexible and easy to handle.

Quality Assured

- Value through design and quality control assures you of maximum performance from Boston products.

Hose

Suction & Discharge

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Royalflex 1196

Tube/Cover: Thermoplastic Vinyl Nitrile MSHA Approved

Reinforcement: 100% Polyester and Helical Wire

Color: Blue

Temperature Range: -20°F To +180°F

Type Of Branding: Ink Print

Suction: Full Vacuum

Working Pressure: 200-300 PSI (Depending on coupling)

Type Of Coupling: For permanently attached coupling, contact Boston. Long Shank, Cam and Groove or Interlocking. Clamps—Interlocking or Band.

Features:

- Thermoplastic vinyl nitrile homogeneous tube and cover
- Ribbed cover
- More turns of helical wire per inch
- Higher working pressures
- Light Weight
- Flexible
- Longer lengths
- MSHA approved

Advantages:

- Abrasion, some chemical and heat resistance
- Sure grip
- More crush and kink resistant
- 300 PSI applications
- Easy to handle
- Economical; eliminates couplings

Markets:

- Agriculture
- Construction
- Foundries
- Mining
- Oil Exploration/Drilling
- Paper Industry
- Petroleum/Petrochemical
- Tank Truck
- Waste Hauling
- Waste Treatment Plant

Applications:

- Transfer of water, liquid diluted fertilizers and pesticides
- Pumping, suction, and discharge of water and slurries

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	NOMINAL O.D. (IN.)	(MM)	APPROX. WEIGHT (LBS./FT.)	MAXIMUM WORKING PRESS. (PSI)	MIN. BEND RADIUS (IN.)	(MM)	STANDARD REELS (FT)
H119624	1-1/2	38.1	2	50.8	.81	300	6	152	50
H119624-60									60
H119624-100									100
H119624-120									120
H119632	2	50.8	2-1/2	63.5	1.09	300	8	203	50
H119632-60									60
H119632-100									100
H119632-120									120
H119640	2-1/2	63.5	3	76.2	1.32	300	10	254	50
H119640-60									60
H119640-100									100
H119640-120									120
H119648	3	76.2	3-1/2	88.9	1.94	250	12	305	50
H119648-60									60
H119648-100									100
H119648-120									120
H119664	4	102.0	4-1/2	115.9	2.72	200	16	406	50
H119664-60									60
H119664-100									100
H119664-120									120

Packaging is one 50, 60,100, or 120 foot length per box.

Longer lengths available on special order.

Hose

Suction & Discharge

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Otter Water Suction & Discharge

Tube: EPDM

Reinforcement: Fiber, 4 Spiral, 2 or 4 Ply and Helical Wire

Cover: EPDM

Color: Black

Temperature Range: -10°F To +180°F

Type Of Branding: Impression

Suction: Full Vacuum

Working Pressure: 75-125 PSI (Depending on coupling) 3:1 Safety Factor

Type Of Coupling: Cam and Groove, Water Suction, Combination Nipple, or Swaged/Crimped. Clamps—Single Bolt, Double Bolt or Band.

Features:

- EPDM cover
- EPDM tube
- Longer lengths

Advantages:

- Abrasion and weather resistant
- Resistant to diluted agricultural fertilizers
- Economical; eliminates waste

Markets:

- Agriculture
- Construction Industry
- Equipment Rental
- Mining
- Ship Building
- Oil Exploration/Drilling
- Tank Truck

Applications:

- Transfer of water based liquid fertilizers and pesticides
- Pumping, suction, and discharge of water and slurries
- Convey Water
- Transfer and haul salt water (brine)

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	MTO* MINIMUM ORDER QTY.	STANDARD LENGTH (FT)
H036420-150	1-1/4	31.8	2 Ply	1-51/64	45.6	85	125	6	152.4	—	150
H036424-50											50
H036424-100	1-1/2	38.1	4 Sp	2	50.8	87	125	5	127.0	—	100
H036424-150											150
H036432-50											50
H036432-100	2	50.8	4 Sp	2-1/2	63.5	112	125	6	152.4	—	100
H036432-150											150
H036440-150	2-1/2	63.5	2 Ply	3-1/16	77.8	139	100	12	304.8	—	150
H036448-100	3	76.2	4 Sp	3-9/16	90.5	168	100	12	304.8	—	100
H036464-50											50
H036464-100	4	101.6	4 Sp	4-9/16	115.9	219	75	14	355.6	—	100
H036464-150											150
H036480-150	5	127.0	2 Ply	5-3/4	146.1	384	100	—		300	150
H036496-20	6	152.4	2 Ply	6-47/64	171.1	456	80	31	787.4	—	20
H036496											50
H036496-100											100
H036496-150											150
H03648A-20	8	203.2	4 Ply	8-53/64	224.2	662	80	32	812.8	—	20
H03648A											50

**MTO–Made To Order*

Hose

Suction & Discharge

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Flexbilt K-10 Suction & Discharge

Tube: Polyvinyl Chloride (PVC)
Reinforcement: Rigid Vinyl Helix
Color: Green
Temperature Range: -10°F To +150°F
Suction: Full Vacuum at 120°F; 27" of mercury at 150°
Working Pressure: 50-100 PSI at 72°F; 35-65 PSI at 150°F
Type Of Coupling: Cam and Groove, Water Suction, or Combination Nipple. Clamps—Double Bolt or Band.

Features:
- PVC construction
- 100' Lengths
- Rigid vinyl helix

Advantages:
- Light weight
- Abrasion resistant
- Economical; less waste
- Offers suction and discharge

Markets:
- Construction
- Equipment Rental
- Mining, Liquid Waste

Applications:
- Pumping, suction, and discharge of water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI) 72°F	150°F	MIN. BEND RADIUS (IN.)	STANDARD LENGTH (FT)
H010024-100	1-1/2	38.1	1-13/16	46.0	40	100	65	3.5	100
H010032-100	2	50.8	2-3/8	60.3	57	85	45	5.0	100
H010040-100	2-1/2	63.5	2-7/8	73.0	69	80	45	5.5	100
H010048-100	3	76.2	3-7/16	87.3	94	75	40	9.5	100
H010064-100	4	101.6	4-1/2	114.3	147	65	40	11.5	100
H010096-20	6	152.4	6-9/16	166.6	290	50	35	25.0	20

Stated working pressures are listed above at 72°F and 150°F. Working pressure decreases as temperature increases.

Hose
Discharge

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Leader Water Discharge

Tube: EPDM
Reinforcement: Fiber, 2 or 4 Spiral, 2 Ply
Cover: EPDM
Color: Black
Temperature Range: -10°F To +150°F
Type Of Branding: Impression
Working Pressure: 80-150 PSI
3:1 Safety Factor
Type Of Coupling: Cam and Groove, Combination Nipple.
Clamps—Double Bolt or Band.

Features:
- EPDM cover
- EPDM tube
- Continuous permanent brand
- Available in longer lengths

Advantages:
- Abrasion and weather resistant
- Resistant to diluted chemicals
- Easy identification
- Economical; less waste

Markets:
- Construction
- Equipment Rental
- Mining
- Ship Building
- Tank Truck
- Agricultural

Applications:
- Water discharge
- Heavy duty with 150 PSI
- Mild chemicals only

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
Light Duty								
H030724-100	1-1/2	38.1	2 Sp	1-13/16	46.0	57	100	100
H030732-100	2	50.8	2 Sp	2-5/16	58.7	73	100	100
H030740-150	2-1/2	63.5	2 Ply	2-7/8	73.0	90	100	150
H030748-100	3	76.2	2 Sp	3-13/32	84.1	110	100	100
H030764-100	4	101.6	2 Sp	4-13/32	109.5	145	100	100
H030780-150	5	127.0	2 Ply	5-3/8	136.5	179	100	150
H030796-150	6	152.4	2 Ply	6-3/8	161.9	214	80	150
H03078A-150	8	203.2	2 Ply	8-25/64	213.1	283	80	150
Heavy Duty								
H037924-100	1-1/2	38.1	4 Sp	21/16	52.4	64	150	100
H037932-100	2	50.8	4 Sp	2-9/16	65.1	85	150	100
H037940-150	2-1/2	63.5	2 Ply	2-29/32	73.8	104	150	150
H037948-100	3	76.2	4 Sp	3-9/16	90.5	123	150	100
H037964-100	4	101.6	4 Sp	4-9/16	115.9	161	150	100
H037980-150	5	127.0	2 Ply	5-13/32	137.3	207	150	150
H037996-150	6	192.4	2 Ply	6-29/64	163.9	255	150	150
H03798A-150	8	203.2	2 Ply	8-13/32	213.5	313	100	150

Hose
Discharge

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Flexbilt K-50 Water Discharge

Tube & Cover: Polyvinyl Chloride (PVC)
Reinforcement: Woven Synthetic Yarn
Color: Blue
Temperature Range: -10°F To +150°F
Type Of Branding: Impression
Working Pressure: 35-75 PSI
Type Of Coupling: Cam and Groove, Water Suction, or Combination Nipple.
Clamps—Double Bolt, Band or Wire.

Features:
- PVC construction
- Soft wall
- Smooth cover

Advantages:
- Light weight
- Abrasion resistant
- Folds flat for easy storage
- Easy to move
- Easy to clean

Markets:
- Construction
- Equipment Rental
- Mining

Applications:
- Open-end water discharge

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H050024-300	1-1/2	38.1	17	75	300
H050032-300	2	50.8	22	60	300
H050040-300	2-1/2	63.5	29	60	300
H050048-300	3	76.2	40	50	300
H050064-300	4	101.6	53	45	300
H050096-300	6	152.4	82	35	300

Stated working pressures are tested at 70°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship the relationship between working pressure and temperature for reinforced PVC hose.

Hose
General Purpose

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Contrac-Force

Tube: Polyvinyl Chloride (PVC)
Reinforcement: Fiber, 2 Spiral
Cover: Polyvinyl Chloride (PVC)
Color: Black
Temperature Range: -15°F To +150°F
Type Of Branding: Ink Print
Working Pressure: 150 PSI
3:1 Safety Factor
Type Of Coupling: Machined brass hex head GHT.

Features:
- Light weight & flexible
- PVC tube and cover
- Continuous permanent brand
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:
- Easy to handle and route
- Abrasion, age and ozone resistant
- Easy Identification

Markets:
- Construction

Applications:
- Water transfer and washdown

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H171910-50C	5/8	15.9	2	53/64	21.0	18	150	100 pieces	5-50's
H171910-500								5,000	500
H171912-50C	3/4	19.1	2	1-3/64	26.6	24	150	—	5-50's
H171912-500								5,000	500

Stated working pressures are tested at 70°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

**MTO - Made to Order*

Hose
General Purpose

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Green Garden Hose

Tube: Synthetic Rubber
Reinforcement: Fiber, 2 Spiral
Cover: Synthetic Rubber
Color: Green
Temperature Range: -30°F To +160°F
Working Pressure: 100 PSI
3:1 safety factor
Type Of Coupling: Machined brass hex head GHT.

Features:
- Light weight & flexible
- Synthetic rubber tube and cover

Advantages:
- Easy to handle
- Cut and gouge resistant

Markets:
- All

Applications:
- Low pressure water transfer

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H867910-600R	5/8	15.9	2	29/32	23.0	19	100	600
H867910C-250	5/8	15.9	2	29/32	23.0	19	100	5-50's

Hose
General Purpose

Refer to warnings and safety information on pages 3-4 and page 57.

Boston Contractors Water

Tube: EPDM
Reinforcement: Fiber, 2 Spiral
Cover: EPDM/Pinpricked
Color: Black
Temperature Range: -30°F To +160°F
Type Of Branding: Ink Print
Working Pressure: 150 PSI
3:1 Safety Factor
Type Of Coupling: Machined brass hex head GHT. Short Shank or Barbed Inserts. Clamps—Brass Collar, Single Bolt or Band.

Features:
- EPDM cover
- EPDM tube
- Continuous permanent brand

Advantages:
- Abrasion, age, heat, and weather resistant
- Heat resistant
- Easy identification

Markets:
- Construction

Applications:
- Water transfer and washdown

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H198710	5/8	15.9	2	15/16	24.6	23	150	50
H198710-600R								600
H198712	3/4	19.1	2	1-3/32	28.6	30	150	50
H198712-600R								600
H198710-50C	5/8	15.9	2	15/16	24.6	23	150	5-50's
H198712-50C	3/4	19.1	2	1-3/32	28.6	30	150	5-50's

Hose

Material Handling Intro

Important Material Handling Hose Safety Information!

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.

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, or damage to property.

WARNING: Consult with the Coupling Manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

WARNING: Do not use hose at temperatures that exceed the hose temperature rating. Doing so could deteriorate the hose, leading to leaks, hose bursting, and end blow-offs. This could result in serious personal injury or death.

MATERIAL HANDLING HOSE BENEFITS

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation. Longer hose life

Environmental Resistance

- The tube and cover materials of the Boston "Big Cats" are designed to assure maximum life and top value. They are sophisticated hoses for demanding jobs.

Built to Make Work Faster, Easier and Safer

- Moving and connecting hose several times a day isn't easy work. Each of the "Big Cats" is designed to be as easy to handle as safety and job performance will allow.

Honest Value

- There is only one way to make hose cost less—build it cheaper. You won't find compromises in the "Big Cats." That's why we put the Boston brand name on them.

Job Related Construction Service

- Eaton makes a variety of hose styles for material handling applications. Each product is manufactured utilizing the components and construction which make it best suited for the job to be performed.

Hose
Dry Bulk Transfer

Refer to warnings and safety information on pages 3-4 and page 66.

Boston Lynx Softwall Dry Material

Tube: Natural Rubber/SBR Blend (3/16" tube thickness) Static Dissipating

Reinforcement: Fiber, 2 Spiral

Cover: SBR

Color: Black

Temperature Range: -10°F To +150°F

Type Of Branding: Printed Strip

Working Pressure: 50 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove, or Combination Nipple. Clamps—Band.

Features:
- SBR cover
- Natural rubber/SBR blend tube 3/16" thick
- Conductive tube
- Continuous printed brand
- Available in longer lengths
- Soft wall hose

Advantages:
- Abrasion, age and weather resistant
- Static dissipating
- Easy identification
- Economical; less waste
- Folds flat for easy storage

Markets:
- Tank Truck
- In-plant Transfer
- Bottling Plant
- Coal Plant

Applications:
- Transfer of dry bulk (cement, sand, lime, etc.); discharge of any abrasive materials
- Transfer of bottle caps
- Transfer of cleaning agents

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H031964-100	4	101.6	2	4-5/8	117.5	225	50	100

Hose
Dry Bulk Transfer

Refer to warnings and safety information on pages 3-4 and page 66.

Boston Lynx HD Softwall Dry Material

Tube: Natural Rubber/SBR Blend (1/4" tube thickness) Static Dissipating

Reinforcement: Fiber, 2 Spiral

Cover: SBR

Color: Black

Temperature Range: -10°F To +150°F

Type Of Branding: Printed Strip

Working Pressure: 50 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove, or Combination Nipple. Clamps—Band.

Features:

- SBR cover
- Natural rubber/SBR blend tube 1/4" thick
- Conductive tube
- Continuous printed brand
- Available in longer lengths
- Soft wall hose

Advantages:

- Abrasion, age and weather resistant
- Static dissipating
- Easy identification
- Economical; less waste
- Folds flat for easy storage

Markets:

- Tank Truck
- In-plant Transfer
- Bottling Plant
- Coal Plant

Applications:

- Transfer of dry bulk (cement, sand, lime, etc.); discharge of any abrasive materials
- Transfer of bottle caps
- Transfer of cleaning agents

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H052164-100	4	101.6	2	4-13/16	122.2	300	50	500	100
H052180-150	5	127	2	5-7/8	149.2	320	50	—	150

**MTO - Made to Order*

Hose
Dry Bulk Transfer

Refer to warnings and safety information on pages 3-4 and page 66.

Boston Sabertooth Dry Material

Tube: Natural Rubber/SBR Blend
Static Dissipating

Reinforcement: Fiber, 4 Spiral and Helical Wire

Cover: SBR

Color: Black

Temperature Range: -10°F To +160°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 100 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove, or Combination Nipple. Clamps—Band.

Features:
- SBR cover
- Natural rubber/SBR blend tube
- Conductive tube
- Continuous printed brand
- Available in longer lengths

Advantages:
- Abrasion, age and weather resistant
- Static dissipating
- Easy identification
- Economical; less waste

Markets:
- Tank Truck
- In-plant Transfer
- Bottling Plant
- Coal Plant

Applications:
- Transfer of dry bulk (cement, sand, lime, plastics, animal feed, etc.); suction/discharge of any abrasive materials
- Transfer of bottle caps
- Transfer of cleaning agents

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MIN. BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H034748-100	3	76.2	4	4	101.6	320	100	9	228.6	100
H034764-100	4	101.6	4	5	127.0	440	100	11	279.4	100

Hose
Hot Air Transfer

Refer to warnings and safety information on pages 3-4 and page 66.

Boston Wildcat Hot Air

Tube: EPDM

Reinforcement: Fiber, 4 Spiral or 2 Ply and Helical Wire

Cover: EPDM/Pinpricked

Color: Brown

Temperature Range: +300°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 100-150 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove, or Combination Nipple. Clamps—Band.

Features:
- EPDM cover
- EPDM tube
- Continuous printed brand/brown color
- Longer lengths
- Pin pricked

Advantages:
- Abrasion, heat and weather resistant
- Heat resistant (intermittent service to 350˚F)
- Easy identification
- Economical; less waste
- Hot air permeation

Markets:
- Tank Trucks
- In-plant Transfer
- Construction

Applications:
- Hot air blower hose; hot, dry, non-oily air applications

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH
H034948-100	3	76.2	4 Sp	3-47/64	94.9	230	150	9	228.6	100
H034964	4	101.6	2 Ply	4-39/64	117.1	290	100	11	279.4	50
H034964-100										100
H034964-150										150

Heat resistant (intermittent service to 350°F).

Important Specialty Service Hose Safety Information!

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.

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, or damage to property.

WARNING: Do not use chemical hose at temperatures or pressures above those recommended by the manufacturer. All operators must be thoroughly trained in the care and use of this hose and must at all times wear protective clothing. A hose or system failure could cause the release of a poisonous, corrosive or flammable material.

WARNING: Consult with the Coupling Manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

WARNING: Do not use hose at temperatures that exceed the hose temperature rating. Doing so could deteriorate the hose, leading to leaks, hose bursting, and end blow-offs. This could result in serious personal injury or death.

WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

Speciality Services Hose Benefits

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation. Longer hose life

Remove the Guesswork from Selecting, Buying and Using Critical Application Hose

- When you're handling easily contaminated or hazardous material, it is critical to select the proper hose. The high visibility branding and color coding of Boston removes the guesswork for hose selection.

Environmental Resistance

- The tube and cover materials of Boston hose products are designed to assure maximum hose life at a superior value to the customer. Specialty service Boston hoses are sophisticated transfer products for demanding jobs. Exceptional aging, weathering and heat resistant properties keep the hose flexible and easy to use.

Permanent Branding for Easy Identification

- The name of the hose and the working pressure are molded into the hose cover...can't rub off. This makes hose selection on the job quicker, easier and safer.

The Boston Reputation for Quality

- Your assurance of dependable performance.

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Hot Tar Pumping

Tube: Nitrile (RMA Class A)
Reinforcement: Wire, 2 Braid
Cover: CPE/Pinpricked
Color: Black
Temperature Range: +350°F
Type Of Branding: Impression
Working Pressure: 250 PSI
Type Of Coupling: Wolf Coupling, 430 'U' Series, Interlocking or Steel Nipple. Clamps—Interlocking

Features:
- CPE cover
- Nitrile tube
- Continuous permanent brand/black cover

Advantages:
- Abrasion, oil, heat, and weather resistant
- Oil and heat resistant; handles intermittent temperatures of hot tar up to 400˚F
- Easy identification
- Assures proper use

Markets:
- Road Construction
- Roof Construction

Applications:
- Convey hot tar/asphalt in road projects
- Convey hot tar

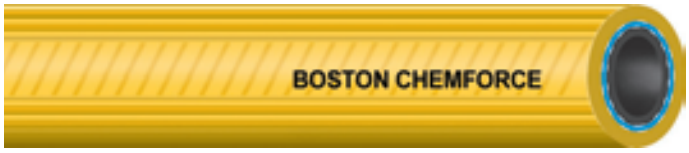
PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H960316	1	25.4	2	19/16	39.7	90	250	12	304.8	50
H960316-100										100
H960316-150										150

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Chemforce



Tube: PVC/Polyurethane Blend
Reinforcement: Fiber, 2 or 4 Spiral
Cover: PVC
Color: Yellow (YW), Green (GN) or Blue (BU)
Temperature Range: +15°F to +160°F
Type Of Branding: Unbranded
Working Pressure: 250, 600, 800 PSI
Type Of Coupling: Barbed Inserts. Clamps—Brass Collar. **Do not use internal expanded couplings**.

Features:
- Polyurethane/PVC blend tube
- Durable non-marking PVC cover
- Light weight
- Color availability
- Non-conductive
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:
- Compatible with hydrocarbon based aromatic chemicals for pest control
- Excellent abrasion resistance
- Good ozone resistance
- Easy to handle and store
- Easy identification for color coded applications

Markets:
- Agriculture
- Nursery
- Orchard
- Landscape
- Lawn Care Services

Applications:
- Weed and pest control spraying; suitable for use with aromatic based hydrocarbons

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD COILS (FT)
H156006-300R	3/8	9.5	2	13/20	16.5	13	250	3,000	300(GN)
H156008-300R	1/2	12.7	2	21/25	21.3	17	250	3,000	300(GN)
H156012-300R	3/4	19.1	2	1-1/40	26.0	35	250	3,000	300(GN)
H156106-300R	3/8	9.5	4	13/20	16.5	13	600	—	300(YW)
H156108-300R	1/2	12.7	4	21/25	21.3	17	600	—	300(YW)
H156110-300R	5/8	15.9	4	39/40	24.8	27	600	3,000	300(YW)
H156112-300R	3/4	19.1	4	1-7/50	29.0	35	600	—	300(YW)
H156206-300R	3/8	9.5	4	13/20	16.5	14	800	3,000	300(BU)
H156208-300R	1/2	12.7	4	21/25	21.3	21	800	—	300(BU)
H156212-300R	3/4	19.1	4	1-7/50	29.0	36	800	3,000	300(BU)

Stated working pressures are tested at 70°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

** MTO - Made to Order*

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Hydrocarbon Drain

Tube: Nitrile (RMA Class A)
Reinforcement: Wire, 2 Braid
Cover: Chlorinated Polyethylene (CPE)/Pinpricked
Color: Blue
Temperature Range: +350°F
Type Of Branding: Printed Strip
Working Pressure: 250 PSI
Type Of Coupling: Wolf Coupling or Interlocking. Clamps—Interlocking.

Features:
- CPE cover
- Nitrile tube
- Blue cover

Advantages:
- Temperature, oil, and abrasion resistant
- Oil resistant
- Easy identification in color code systems

Markets:
- Petroleum

Applications:
- Hydrocarbon drain service

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H969012-150	3/4	19.1	2	1-5/16	34.1	60	250	150

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Nitrogen Service

Tube: Nitrile
Reinforcement: Fiber, 4 Spiral
Cover: Neoprene/Pinpricked
Color: Yellow (YW), Blue (BU)
Temperature Range: Ambient (70°F)
Type Of Branding: Ink Print
Working Pressure: 300 PSI
Type Of Coupling: 'U' Series, Barbed Inserts, Long Shank. Clamps—Interlocking, Band.

Features:

- Neoprene cover
- Nitrile tube
- Continuous permanent brand
- Flexible

Advantages:

- Abrasion, age, and oil resistant
- Abrasion and oil resistant
- Easy identification
- Easy to handle

Markets:

- Chemical/Petroleum Industry

Applications:

- Transfer of nitrogen at ambient temperatures

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H881108-250	1/2	12.7	4	7/8	22.2	23	300	40 pieces	5-50's(YW)
H881112-250	3/4	19.1	4	1-3/16	30.2	38	300	—	5-50's(YW, BU)
H881112-600R									600 (BU)

**MTO - Made to Order*

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Kelly Power

Tube: Nitrile (RMA Class A)
Reinforcement: Wire, 4 Spiral
Cover: Neoprene
Color: Black
Temperature Range: -40°F to +250°F
Type Of Branding: Printed Strip
Working Pressure: 3000 PSI
4:1 Safety Factor
Type Of Coupling: 430 'U' Series.

Features:
- Neoprene cover
- Neoprene tube
- Patch brand

Advantages:
- Abrasion, oil and weather resistant
- Good oil resistance
- Easy identification

Markets:
- Oil Exploration
- Drilling

Applications:
- Rotary drilling on portable drilling rigs, work over rigs, and slim hole rigs

PRODUCT NUMBER`	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H037732	2	50.8	4	2-21/32	67.5	310	3,000	25	635	50*

**150's available on request.*

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Nyall

Tube: Nylon
Reinforcement: Fiber, 1 or 2 Braid
Cover: Neoprene (BK), Vinyl Nitrile (RD)
Red—RMA Class B Oil Resistance
Color: Black (BK), Red (RD)
Temperature Range: -30°F to +160°F
Type Of Branding: Ink Print
Working Pressure: 500-750 PSI
Type Of Coupling: 'U' Series, Barbed Inserts, Quick Acting or Steel Nipple. Clamps—Interlocking, Band.

Features:
- Neoprene cover Vinyl Nitrile cover
- Nylon tube
- Continuous permanent brand
- High working pressure multi-purpose hose

Advantages:
- Abrasion, oil and weather resistant
- Compatible with many fluids (See Chemical Resistance Chart)
- Excellent flow rate
- No swelling
- Easy to clean
- Easy identification
- Wide variety of applications

Markets:
- Agriculture
- Equipment Rental
- Assembly/Manufacturers
- Chemical/Petroleum Industry
- Lumber/Paper/Pulp Industry
- Food Processing Industry
- Construction
- Ship Building

Applications:
- Fertilizer and pesticides spray
- General service application; convey air, water, oils, paints, etc.
- Transfer of chemicals, solvents, paints, glues, and petroleum products (See Chemical Resistance Chart)
- Paint spray
- Convey air, water, and fuels; paint spray

PRODUCT NUMBER`	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	STANDARD REELS (FT)
H194104-500R	1/4	6.3	1	1/2	12.7	10	500	500(RD, BK)
H194105-500R	5/16	7.9	1	9/16	14.3	13	500	500(BK)
H194106-500R	3/8	9.5	1	11/16	17.5	15	500	500(RD, BK)
H194108-500R	1/2	12.7	1	25/32	19.8	19	500	500(RD)
H194208-500R	1/2	12.7	2	7/8	22.2	26	750	500(RD, BK)
H194212-500R	3/4	19.1	2	1-3/16	30.2	40	750	500(RD)
H194216-300R	1	25.4	2	1-1/2	38.1	56	500	300(RD)

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Blackcat Hot Tar & Asphalt

Tube: Nitrile

Reinforcement: 2 Fiberglass Plys and Helical Wire

Cover: Neoprene

Color: Black

Temperature Range: +350°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 200 PSI (Depending on Coupling)*

Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band (only for pressures up to 50 PSI).

Features:

- Neoprene cover
- Nitrile tube
- Continuous printed brand and caution label every ten feet
- Fiberglass braid

Advantages:

- Abrasion, oil and weather resistant
- Heat and oil resistant
- Handles intermittent temperatures of hot tar up to +400˚F
- Light weight
- Easy to handle
- Longer life
- Easy identification
- Assures proper use

Markets:

- Tank Trucks
- Construction
- Oil Field
- Manufacturing Plants

Applications:

- Loading or unloading, pumping, suction, or gravity flow discharge; transfer of hot tar
- Transfer of asphalt in roofing shingle plant

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H037232-150	2	50.8	2	2-15/16	74.6	234	200	7	177.8	150
H037240-150	2-1/2	63.5	2	3-7/16	87.3	285	200	10	254.0	150
H037248-150	3	76.2	2	3-15/16	97.6	333	200	10	254.0	150
H037264-150	4	101.6	2	4-31/32	126.2	453	200	12	304.8	150

Handles intermittent temperature of hot tar and asphalt up to +400°F.

**Please contact Eaton Technical Support for applications at continuous elevated temperatures above 250°F.*

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Boston Blackcat Hot Tar & Asphalt Corrugated

Tube: Nitrile
Reinforcement: 2 Fiberglass Plys and Helical Wire
Cover: Neoprene
Color: Black
Temperature Range: +350°F
Type Of Branding: Printed Strip
Suction: Full Vacuum
Working Pressure: 200 PSI (Depending on Coupling)*
Type Of Coupling: Cam and Groove, Combination Nipple, or Swaged/Crimped. Clamps—Interlocking or Band (only for pressures up to 50 PSI).

Features:
- Neoprene cover
- Nitrile tube
- Continuous printed brand and caution label every ten feet
- Fiberglass braid

Advantages:
- Abrasion, oil and weather resistant
- Heat and oil resistant
- Handles intermittent temperatures of hot tar up to +400˚F
- Light weight
- Easy to handle
- Longer life
- Easy identification
- Assures proper use

Markets:
- Tank Trucks
- Construction
- Oil Field
- Manufacturing Plants

Applications:
- Loading or unloading, pumping, suction, or gravity flow discharge; transfer of hot tar
- Transfer of asphalt in roofing shingle plant

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H061632	2	50.8	2	3	76.2	234	200	5	127	50
H061632-100										100
H061632-150										150

Handles intermittent temperature of hot tar and asphalt up to +400°F.

**Please contact Eaton Technical Support for applications at continuous elevated temperatures above 250°F.*

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Bulldog Fuel Oil Delivery

Tube: Nitrile (RMA Class A)
Reinforcement: Fiber, 2 Braid
Cover: Vinyl Nitrile
Color: Red
Temperature Range: -40°F to +180°F
Type Of Branding: White Ink Print
Working Pressure: 250 PSI
Type Of Coupling: Internally Expanded Permanent Petroleum Couplings or Reattachable Fuel Oil Couplings

Features:
- Neoprene cover
- Nitrile tube
- Continuous printed brand and caution label every ten feet
- Fiberglass braid

Advantages:
- Abrasion, oil and weather resistant
- Heat and oil resistant
- Handles intermittent temperatures of hot tar up to +400˚F
- Light weight
- Easy to handle
- Longer life
- Easy identification
- Assures proper use

Markets:
- Tank Trucks
- Construction
- Oil Field
- Manufacturing Plants

Applications:
- Loading or unloading, pumping, suction, or gravity flow discharge; transfer of hot tar
- Transfer of asphalt in roofing shingle plant

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 (FT)	MAXIMUM WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H90120-150	1-1/4	31.8	2	1-3/4	44.5	65	250	150
H90122-150	1-3/8	34.9	2	1-55/64	47.0	75	250	150
H90124-150	1-1/2	38.1	2	2	50.8	85	250	150

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Boston Black Line Liquid Propane Gas (LPG)

Tube: Nitrile

Reinforcement: Fiber Braid
(1" has 2 Stainless Steel Static Wires)

Cover: Vinyl Nitrile, Pinpricked

Color: Black

Temperature Range: -40°F to +140°F (Hose is capable of this rating. LP-Gas should never be elevated above 100°F)

Standards: UL 21 Approved LP-Gas/Natural Gas

Type Of Branding: Ink Print

Working Pressure: LP-Gas 350 PSIG Max WP
Natural Gas 1 PSIG Max WP
5:1 Safety Factor on 350 PSIG

Type Of Coupling: Boston 'U' Series.

Features:

- Neoprene cover
- Nitrile tube
- Continuous printed brand and caution label every ten feet
- Fiberglass braid

Advantages:

- Abrasion, oil and weather resistant
- Heat and oil resistant
- Handles intermittent temperatures of hot tar up to +400˚F
- Light weight
- Easy to handle
- Longer life
- Easy identification
- Assures proper use

Markets:

- Tank Trucks
- Construction
- Oil Field
- Manufacturing Plants

Applications:

- Loading or unloading, pumping, suction, or gravity flow discharge; transfer of hot tar
- Transfer of asphalt in roofing shingle plant

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 (FT)	MAXIMUM WORKING PRESS. (PSIG)	STANDARD REELS* (FT)	MIN. BEND RADIUS (INCH)
H90004-500R	1/4	6.3	1	37/64	14.7	12	350/1	500	3
H90006-500R	3/8	9.5	1	23/32	18.3	17	350/1	500	4.5
H90008-500R	1/2	12.7	1	29/32	23.0	24	350/1	500	6
H90012-500R	3/4	19.1	2	1-15/64	31.4	41	350/1	500	9
H90016-150	1	25.4	2	1-1/2	38.1	52	350/1	150	12
H90016-500R								500	

**All lengths on reels are in 50' increments.*

WARNING: Natural gas transfer applications:

- Hose should only be used in open, well ventilated areas.
- Maximum working pressure should not exceed 1 PSIG (UL Specification).
- Not for use in vehicles using compressed natural gas.

Hose

Specialty Service Hoses

Refer to warnings and safety information on pages 3-4 and page 71.

Chemical Booster

Tube: Synthetic Rubber
Reinforcement: Textile, 2 Braid
Cover: Synthetic Rubber
Color: Red
Temperature Range: -40°F to +180°F
Type Of Branding: White Ink Print
Working Pressure: 800 PSI
Type Of Coupling: Spanner Hole Type - Chrome Plated Aluminum or Polished Brass

Features:
- Synthetic rubber cover
- Synthetic rubber tube
- Braided reinforcement

Advantages:
- Abrasion, ozone and weather resistant.
- Resistant to fire fighting chemicals.
- Best coupling retention for safe, high pressure service.

Markets:
- Fire Fighting Equipment

Applications:
- Pressure booster hose on fire fighting equipment.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 (FT)	MAXIMUM WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
82-5751-22	3/4	19.1	2	1-1/4	31.8	56	800	50
82-5751-42	3/4	19.1	2	1-1/4	31.8	56	800	100
82-5751-82	3/4	19.1	2	1-1/4	31.8	56	800	200
82-5752-22	1	25.4	2	1-19/32	40.5	81	800	50
82-5752-42	1	25.4	2	1-19/32	40.5	81	800	100
82-5752-62	1	25.4	2	1-19/32	40.5	81	800	150
82-5752-82	1	25.4	2	1-19/32	40.5	81	800	200

WARNING: Consult the coupling manufacturer to make sure you choose the correct coupling and proper assembly for the application.

Before using this hose, consult the chemical resistance chart or Boston Hose Chemical Resistance Guidelines.

If you do not have a most recent copy, contact Eaton.

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

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.

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, or damage to property.

WARNING: Consult with the coupling manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

WARNING: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Boston hose you choose must meet or exceed the required working pressure, and must have a safety factor to allow for surge pressure.

WARNING: Do not use hose at temperatures that exceed the hose temperature rating. Doing so could deteriorate the hose, leading to leaks, hose bursting, and end blow-offs. This could result in serious personal injury or death.

WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

FOOD INDUSTRY & TRANSFER HOSE BENEFITS

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation.
- Longer hose life.

Remove the Guesswork from Selecting, Buying and Using Critical Application Hose

- When you are handling easily contaminated or hazardous material it is critical to select the proper hose. The high visibility branding and color coding removes the guesswork from hose selection.

Environmental Resistance

- The tube and cover materials of the Boston "Big Cats" are designed to assure maximum life and top value. They are sophisticated hoses for demanding jobs.

Built to Make Work Faster, Easier and Safer

- Moving and connecting hose several times a day isn't easy work. Each of the "Big Cats" is designed to be as easy to handle as safety and job performance will allow.

Honest Value

- There is only one way to make hose cost less—build it cheaper. You won't find compromises in the "Big Cats". That's why we put the Boston brand name on them.

The Boston Reputation for Quality

- Your assurance of dependable performance.

Hose

Food Preparation

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Clear Vinyl Tubing

Material: Clear PVC, FDA approved material, NSF-51 Certified

Color: Clear

Tolerance: +.005°F I.D. and O.D.

Temperature Range: +15°F to +150°F

Working Pressure: 20-60 PSI

Type Of Coupling: Barbed Inserts with Outer Sleeve, Ferrule or Clamps.

Features:

- Clear PVC tube
- Clear PVC Non-marking cover
- Constructed from FDA approved materials
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:

- Moderate oil resistance
- Abrasive, age, and ozone resistance, won't mark white surfaces; flow or blockage is readily visible
- Acceptable in food markets

Markets:

- Food Processing
- Industrial

Applications:

- Potable water, food and beverage dispensing; bottling plants, ice making machines
- Air-conditioning drainage, refrigeration drainage, furnace drainage

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	NOMINAL O.D. (IN.)	(MM)	MAXIMUM WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H160204-100	1/8	3.2	1/4	6.4	65	100*
H160305-100	3/16	4.7	5/16	7.9	55	100*
H160406-100	1/4	6.4	3/8	9.5	55	100*
H160408-100	1/4	6.4	1/2	12.7	60	100*
H160507-100	5/16	7.9	7/16	11.1	50	100*
H160608-100	3/8	9.5	1/2	12.7	45	100*
H160609-100	3/8	9.5	9/16	14.3	50	100*
H160610-100	3/8	9.5	5/8	15.9	55	100*
H160810-100	1/2	12.7	5/8	15.9	30	100*
H160811-100	1/2	12.7	11/16	17.3	40	100*
H160812-100	1/2	12.7	3/4	19.1	45	100*
H161013-100	5/8	15.9	13/16	20.6	35	100*
H161014-100	5/8	15.9	7/8	22.2	40	100*
H161216-100	3/4	19.1	1	25.4	35	100*
H161418-100	7/8	22.2	1-1/8	28.6	30	100**
H161620-100	1	25.4	1-1/4	31.8	25	100**
H162024-100	1-1/4	31.8	1-1/2	38.1	20	100**
H162430-100	1-1/2	38.1	1-7/8	47.6	25	100**
H162432-100	1-1/2	38.1	2	50.1	35	100**
H163240-100	2	50.1	2-1/2	63.5	35	100**

Stated working pressures are tested at 70°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

** Standard length pattern in boxes. ** Standard length pattern in coils.*

Hose
Food Preparation

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Clearforce

Tube: Clear PVC, FDA approved materials, NSF-51 Certified

Reinforcement: Fiber, 2 Spiral

Cover: Clear PVC, FDA approved materials, NSF-51 Certified

Color: Clear

Tolerance: +.005°F I.D. and O.D.

Temperature Range: +15°F to +150°F

Type Of Branding: Ink Print

Working Pressure: 75-250 PSI

Type Of Coupling: 'E' Series, 265 'P' Series, Barbed Inserts, Quick Acting, Short or Long Shank. Clamps—Band, Brass Collars, or Single Bolt. **Do not use internal expanded couplings.**

Features:

- Light weight
- Flexible
- Clear PVC tube
- Clear PVC Non-marking cover
- 95% one piece coils
- Continuous permanent brand
- Constructed from FDA approved materials
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:

- Easy to handle
- Easily routed
- Moderated oil resistance
- Abrasion, age, and ozone resistant, won't mark white surfaces; flow or blockage is readily visible
- Economical; less waste
- Easily identifiable
- Acceptable in food markets

Markets:

- Agriculture
- Food Processing
- Marine
- Industrial

Applications:

- Spraying and conveying fertilizer and pesticides
- Potable water, food and beverage dispensing; powdered food manufacturing; bottling plants; dish washer manufacturers
- Water and bilge lines; washdown hose, etc.
- In-plant air and water service

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	STANDARD COILS (FT)*
H28503-300	3/16	4.7	2	3/8	9.5	5	250	300
H28504	1/4	6.4	2	29/64	11.5	7	250	50
H28504-300R								300
H28505-300R	5/16	7.9	2	17/32	13.5	8	250	300
H28506	3/8	9.5	2	19/32	15.1	9	225	50
H28506-300R								300
H28508	1/2	12.7	2	3/4	19.1	15	200	50
H28508-300R								300
H28510-300R	5/8	15.9	2	7/8	22.2	17	200	300
H28512	3/4	19.1	2	1-1/32	26.2	23	150	50
H28512-300R								300
H28516	1	25.4	2	1-5/16	33.3	32	125	50
H28516-200R								200
H28520-100	1-1/4	31.8	2	1-11/16	42.9	58	100	100
H28524-100	1-1/2	38.1	2	1-15/16	49.2	69	100	100
H28532-100	2	50.1	2	2-1/2	63.5	100	75	100

Stated working pressures are tested at 70°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

** 95% one piece coils.*

Hose
Food Preparation

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Aquaforce

Tube: Clear PVC, FDA approved materials, NSF-51 Certified
Reinforcement: Fiber, 2 Spiral
Cover: PVC/Pinpricked
Color: Red
Temperature Range: +15°F to +150°F
Type Of Branding: Ink Print
Working Pressure: 150 PSI
Type Of Coupling: Barbed Inserts, Quick Acting, Short or Long Shank.
Clamps—Single Bolt, Brass Collar, or Band.
Do not use internal expanded couplings.

Features:
- Clear PVC tube
- Clear PVC Non-marking cover
- Constructed from FDA approved materials
- Factory tested to exceed minimum electrical resistivity of one megohm per inch at 1000 volts D.C.

Advantages:
- Moderate oil resistance
- Abrasive, age, and ozone resistance, won't mark white surfaces; flow or blockage is readily visible
- Acceptable in food markets

Markets:
- Food Processing
- Industrial

Applications:
- Potable water, food and beverage dispensing; bottling plants, ice making machines
- Air-conditioning drainage, refrigeration drainage, furnace drainage

PRODUCT NAME	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)**
H159208-300R	1/2	12.7	2	3/4	19.1	15	200	3,000	300
H159212-300R	3/4	19.1	2	1-1/32	26.2	23	150	—	300
H159216-200R	1	25.4	2	1-5/16	33.3	32	125	3,000	200

**MTO - Made to Order ** 95% one piece coils*

Stated working pressures are tested at 70°F. Working pressure decreases as temperature increases. See chart on page 14 showing the relationship between working pressure and temperature for reinforced PVC hose.

Hose
Food Clean-Up

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Creamery/Packing

Tube: Nitrile
Reinforcement: Fiber, 2 Braid
Cover: Vinyl Nitrile/Pinpricked
Color: White
Temperature Range: -40°F to +180°F
Type Of Branding: Ink Print
Working Pressure: 200 PSI
Type Of Coupling: 'U' Series, Barbed Inserts, Quick Acting, Short or Long Shank. Clamps—Band.

Features:
- Vinyl nitrile cover
- Nitrile tube
- Continuous permanent brand
- White color
- Pin pricked

Advantages:
- Abrasion, animal fat, oil, and weather resistant
- Heat resistant
- Easy identification
- Non-marking
- Convey hot water to 180˚F

Markets:
- Food Industry
- Meat Packing & Rendering
- Chicken Processing
- Dairies
- Canneries
- Syrup Manufacturing

Applications:
- Washdown of food processing facilities and equipment

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	STANDARD COILS (FT)
H106612-500	3/4	19.1	2	1-1/4	31.8	52	200	500
H1066RN	3/4	19.1	Molded rubber nozzles available on request.					

Hose
Food Clean-Up

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Washdown 1000®

Tube: Nitrile
Reinforcement: Wire, 1 Braid
Cover: Vinyl Nitrile
Color: Yellow (YW), Grey (GR)
Temperature Range: -40°F to +180°F
Type Of Branding: Ink Print
Working Pressure: 1,000 PSI
Type Of Coupling: 'M' Series, 'U' Series, 430 'U' Series or Interlocking. Clamps—Interlocking.

Features:
- Vinyl nitrile cover
- Nitrile tube
- Continuous permanent brand
- Longer lengths

Advantages:
- Abrasion, animal fat, vegetable oil, and weather resistant
- Heat resistant
- Detergent resistant
- Easy identification
- Economical; less waste

Markets:
- Food Industry
- Poultry Processing
- Industrial Cleaning Markets
- Construction Industry

Applications:
- Washdown of food processing facilities and equipment
- Transfer of hot detergent type solutions for cleaning equipment, tanks, buildings, etc.; maximum temperature of +180˚F
- Convey air and water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	MTO* MIN. ORDER QTY.	STANDARD COILS (FT)
H961006-350R	3/8	9.5	1	11/16	17.5	25	1,000	5	—	350(YW)
H961008-350R	1/2	12.7	1	27/32	21.4	32	1,000	7	—	350(YW)
H961012-350R	3/4	19.1	1	1-5/32	29.4	46	1,000	9-1/2	—	350(YW)
H962706-350R	3/8	9.5	1	11/16	17.5	25	1,000	5	4,800	350(GR)
H962708-350R	1/2	12.7	1	27/32	21.4	32	1,000	7	3,600	350(GR)

Reels will vary from 300 to 400 feet with maximum of 3 pieces per reel, no piece less than 50 feet.

**MTO - Made to Order*

Hose
Food Clean-Up

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Washdown 1250®

Tube: Nitrile
Reinforcement: Fiber, 1 and 2 Braid
Cover: Vinyl Nitrile
Color: Grey
Temperature Range: -40°F to +180°F
Type Of Branding: Ink Print
Working Pressure: 1,250 PSI
Type Of Coupling: 'U' Series, Steel Nipple or Interlocking. Clamps—Interlocking.

Features:
- Vinyl nitrile cover
- Smooth cover
- Nitrile tube
- Continuous permanent brand/grey cover
- Longer lengths

Advantages:
- Abrasion, animal fat, vegetable oil, and weather resistant
- Easy to clean
- Heat resistant
- Detergent resistant
- Easy identification
- Economical; less waste

Markets:
- Food Industry
- Poultry Processing
- Industrial Cleaning Markets
- Construction Industry

Applications:
- Washdown of food processing facilities and equipment
- Transfer of hot detergent type solutions for cleaning equipment, tanks, buildings, etc.; maximum temperature +180˚F
- Convey air and water

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD REELS** (FT)
H967306-350R	3/8	9.5	1	45/64	17.8	16	1,250	—	350
H967308-350R	1/2	12.7	2	55/64	22.9	23	1,250	—	350
H967312-350R	3/4	19.1	2	1-11/64	29.8	30	1,250	3,200	350

**MTO - Made to Order ** Reels will vary from 300 to 400 feet with maximum of 3 pieces per reel, no piece less than 50 feet.*

Hose

Liquid Bulk Transfer

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Grey Food Transfer

Tube: Vinyl Nitrile, FDA Approved Materials
Reinforcement: Fiber, 4 Spiral and Helical Wire
Cover: Vinyl Nitrile
Color: Grey
Temperature Range: -40°F to +180°F
Type Of Branding: Impression
Suction: Full Vacuum
Working Pressure: 150 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove, Combination Nipple or Swaged/Crimped/Internal Expanded. Clamps—Band.

Features:
- Vinyl nitrile cover
- Vinyl nitrile tube
- Continuous permanent brand
- Grey cover
- Smooth bore

Advantages:
- Abrasion, animal fat, oil and weather resistant
- Animal and vegetable oil resistant
- Easy identification
- Meets FDA requirements
- Rapid fluid flow
- Easy to clean

Markets:
- Food Industry
- Tank Truck
- Rail Car
- In-plant

Applications:
- Transfer by pumping, suction, and discharge of non-dairy food products
- Transfer of bulk liquid, sugar, syrups, and vegetable oils from tank trucks to candy manufacturers, bottling plants, processors, etc.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H038424-100	1-1/2	38.1	4	2-1/8	54.0	120	150	4	101.6	100
H038432-100	2	50.8	4	2-5/8	66.7	145	150	5	127.0	100
H038448-100	3	76.2	4	3-5/8	92.1	220	150	9	228.6	100
H038464-100	4	101.6	4	4-5/8	117.5	315	150	11	279.4	100

White cover available as a made-to-order.

Hose

Liquid Bulk Transfer

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Lion Food Transfer

Tube: Vinyl Nitrile, FDA Approved Materials
Reinforcement: Fiber, 2 Ply and Helical Wire
Cover: Vinyl Nitrile
Color: White
Temperature Range: -40°F to +180°F
Type Of Branding: Printed strip
Suction: Full Vacuum
Working Pressure: 250 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove, Combination Nipple or Swaged/Crimped/Internal Expanded. Clamps—Band.

Features:
- Vinyl nitrile cover
- Vinyl nitrile tube
- Printed strip brand every ten feet
- White tube and cover
- Smooth bore

Advantages:
- Abrasion, animal fat, oil and weather resistant
- Animal and vegetable oil resistant
- Easy identification
- Meets FDA requirements
- Rapid fluid flow
- Easy to clean

Markets:
- Food Industry
- Tank Truck
- Rail Car

Applications:
- Transfer by pumping, suction, and discharge of non-dairy food products
- Transfer of bulk liquid, sugar, syrups, and vegetable oils from tank trucks to candy manufacturers, bottling plants, processors, etc.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H035024-150	1-1/2	38.1	2	2-1/8	54.0	130	250	4.0	101.6	150
H035032-150	2	50.8	2	2- 5/8	66.7	160	250	5.0	127.0	150
H035048-150	3	76.2	2	3-5/8	92.1	213	250	12.5	317.5	150
H035064-150	4	101.6	2	4-21/32	118.3	352	250	12.5	317.5	150

Hose

Dry Bulk Transfer

Refer to warnings and safety information on pages 3-4 and page 83.

Boston Dry Bulk Food Discharge

Tube: White Natural Rubber, FDA Approved Materials

Reinforcement: 2 Ply Fiber with Dual Stainless Steel Static Wires

Cover: Natural Rubber/SBR Blend

Color: Grey

Temperature Range: -20°F to +160°F

Type Of Branding: Impression

Discharge: Dry Bulk Food Discharge

Working Pressure: 50 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove. Clamps—Band.

Features:

- Grey SBR/natural rubber cover
- 7/32" natural rubber tube (white)
- Continuous printed brand
- Longer lengths
- Minimum 4-to-1 safety factor
- Dual static wire

Advantages:

- Abrasion and weather resistant
- Abrasion resistant for dry bulk food; FDA approved materials
- Easy identification
- Economical; less waste
- Meets industry standards
- Ground to coupling for increased static dissipation

Markets:

- Food Industry
- Plastic Industry
- Tank Truck Industry

Applications:

- Transfer of dry bulk food products
- Transfer of plastic pellets
- Transfer of bulk sugar, flour, rice, corn starch, and plastic pellets.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H041364-100	4	101.6	2	4-3/4	120.7	225	50	11	279.4	100

Hose

Chemical Service Intro

Important Chemical Service Hose Safety Information!

WARNING: A failure of chemical hose in service can result in serious injury, death, or damage to property. All chemical hose manufacturers recommend specific hose constructions to handle various chemicals. IF AFTER CAREFUL REVIEW OF THE CHEMICAL RESISTANCE CHART FOUND IN THIS CATALOG, YOU HAVE ANY QUESTIONS ABOUT PROPER SELECTION OF THE HOSE, DO NOT USE OR RECOMMEND THE HOSE WITHOUT FIRST CONSULTING EATON FOR TECHNICAL ASSISTANCE. IF YOU DO NOT HAVE A MOST RECENT COPY, CONTACT CUSTOMER SUPPORT AT 1-888-258-0222.

The chemical resistance chart lists the more commonly used materials, chemicals, solvents, oils, etc. The recommendations are based on room temperature and pressure conditions normally recommended for the particular type of hose being used. Where conditions beyond this can be met readily, they have been so indicated; where conditions are not normal and cannot be readily met, Boston should always be consulted. The chart does not imply conformance to the Food & Drug Administration requirements or Federal or State Laws when handling food products.

The list of chemicals is offered as a guide to the chemical resistance properties of the tube material of the hoses shown. It should be used as a guide only, as the degree of resistance of any elastomer with a particular fluid depends upon such variables as temperature, concentration, pressure conditions, velocity of flow, duration of exposure, aeration, stability of the fluid, etc. Therefore, when in doubt, it is advisable not to use the hose and you should contact your Boston representative for assistance.

Do not use chemical hose at temperatures or pressures above those recommended by the manufacturer. All operators must be thoroughly trained in the care and use of this hose and must at all times wear protective clothing. A hose or system failure could cause the release of a poisonous, corrosive or flammable material.

WARNING: If cover blisters exist, be careful not to pop them. If the hose was damaged in such a way that material was allowed to leak between the cover and inner tube, the blisters may contain this material. If the material is hazardous and splatters when the blisters are popped, it could cause serious physical injury.

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, or 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.

Chemical Hose Benefits

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation.
- Longer hose life

Remove the Guesswork from Selecting, Buying and Using Critical Application Hose

- When you're handling easily contaminated or hazardous material it is critical to select the proper hose. The high visibility branding and color coding removes the guess work for hose selection.

Environmental Resistance

- The tube and cover materials of Boston hose products are designed to assure maximum hose life at a superior value to the customer. Specialty service Boston hoses are sophisticated transfer products for demanding jobs. Exceptional aging, weathering and heat resistant properties keep the hose flexible and easy to use.

Built to Make Work Faster, Easier and Safer

- Moving and connecting hose several times a day isn't easy work. Each of the "Big Cats" is designed to be easy to handle as safety and job performance will allow.

Honest Value

- There is only one way to make hose cost less—build it cheaper. You won't find compromises in the "Big Cats." That's why we put the Boston brand name on them.

Chemical Service Hose Maintenance, Testing and Inspection

Foreword

The object of the following procedures is to detect any weakness in a hose assembly before the weakness causes failure of a hose in service. While these testing and inspection procedures may be applied to any hose, the periodic testing and inspection procedures outlined herein are mandatory for all hoses.

Rules for proper selection, handling, use and storage of hose are to be carefully followed. It is imperative that hose, while in storage or in service, not be subjected to any form of abuse such as kinking, exposure to an environment involving extremes of temperature, corrosive or oxidizing fumes or liquids, oils and solvents, ozone, etc. The procedures outlined in the RMA Hose Handbook, Chapter IX, Care, Maintenance and Storage of Hose should be followed carefully.

Scope

This procedure is intended as a guide for the inspection, maintenance, and testing of chemical hose. It covers hose containing carcass reinforcements of woven fiber fabric; fiber cords; fiber or wire braids; flat, oval or round wire helix; spiral wire or cable; or any combinations of these reinforcements. Chemical hose is available with various types of ends or, where specified, suitable metal fittings.

Handling

Crushing or kinking of the hose can cause severe damage to the reinforcement. Care should be exercised to prevent mishandling.

Do not drag the hose or lift large bore hose from the middle of its length with the ends hanging down. Limit the curvature of the hose to the bend radius recommended by the manufacturer and avoid sharp bends at the end fittings and at manifold connections.

Operation

Important: Personnel involved in an operation using chemical hose must use safety precautions such as wearing eye or face protection, rubber gloves, boots, and other types of protective clothing.

Pressures and temperatures are to be monitored to see that the hose is not exposed to conditions above specified limits. Exceeding specified limits could injure the hose and result in damage to property and serious bodily harm.

Never allow chemicals to drip on the exterior of a hose or allow hose to lay in a pool of chemicals since the hose cover may not have the chemical resistance of the tube. Should a corrosive material come in contact with the reinforcing material, early failure could result.

If kinking or crushing occurs, examine the hose carefully, and, if the outside diameter is reduced 5% to 20%, the hose must be immediately subjected to the Hydrostatic Pressure Test and Examination. If the reduction in diameter is more than 20%, retire the hose from service.

Care must be taken when different chemicals are conveyed in the same hose; the chemicals may react and shorten the service life of the hose. When it is impractical to disconnect the hose line after use, drain any remaining chemical from the hose.

Storage

Before placing chemical hose in storage, the hose must be completely drained and any potentially explosive vapors or corrosive residues flushed out.

WARNING: EXTREME CARE MUST BE TAKEN WHEN FLUSHING OUT A CHEMICAL HOSE WITH WATER; SOME CHEMICALS, SUCH AS CONCENTRATED ACIDS, MAY REACT WITH WATER AND CAUSE SPATTERING WHICH COULD RESULT IN SERIOUS INJURY TO EYES OR OTHER AREAS OF THE BODY.

When flushing a hose, disposal of the effluent must be made in such a manner that environmental problems are not created.

Chemical hose should be stored so that air can circulate through it. This procedure helps extend the life of the hose. Hose should be stored in a cool, dark, dry place at a temperature less than 100°F (38°C).

Frequency of Inspection and Pressure Testing

When chemical hose is used in bulk transfer service, it shall be visually inspected daily and hydrostatically tested every 90 days. The details of the examination and testing are listed in this catalog. An inspection card and recording system should be adopted for chemical hose used in dock applications.

WARNING: Consult with the coupling manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: Kinks can cause hose to burst, leading to bodily harm.

This information taken from the Rubber Manufacturers Association, Hose Technical Information Sub Committee, IP-11-7 Chemical Hose, Copyright 1979, Revised 1987. (202) 682-1338

Hose
Acid Suction

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Tiger Acid Suction

Tube: EPDM
Reinforcement: Fiber, 4 Spiral or 4 Ply and Helical Wire
Cover: EPDM
Color: Yellow
Temperature Range: -45°F to +180°F
Type Of Branding: Printed Strip
Suction: Full Vacuum
Working Pressure: 150 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- EPDM tube
- Continuous printed brand
- Yellow cover
- Flexible

Advantages:
- Chemical and ozone resistant; longer hose life.
- Acid and chemical resistant
- Easy identification
- Color coded for flexible pipe systems
- Easy to handle

Markets:
- Chemical Industry
- Mining Industry
- Foundries
- Lumber/Woodworking
- Plywood Mfg.
- Pulp/Paper Processing
- Food Processing
- Tank Truck
- Railroad Tank Car
- Metal Working

Applications:
- Transfer of acids and chemicals through pumping, suction, and discharge.
- Transfer of chemicals and acids for processing products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Etching; cleaning.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H034524-100	1-1/2	38.1	4 Sp	2-1/8	60.3	155	150	4	101.6	100
H034532-100	2	50.8	4 Sp	2-5/8	73.0	192	150	5	127.0	100
H034548-150	3	76.2	4 Sp	3-5/8	100.0	286	150	9	228.6	150
H034564-150	4	101.6	4 Sp	4-43/64	125.4	369	150	11	279.4	150
H034596-150	6	152.4	4 Ply	7-7/32	183.4	782	150	30	762.0	150

Hose
Acid Suction

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Cheetah Acid Suction

Tube: Hypalon®
Reinforcement: Fiber, 2 Ply and Helical Wire
Cover: Neoprene
Color: Yellow
Temperature Range: -40°F to +200°F
Type Of Branding: Printed Strip
Suction: Full Vacuum
Working Pressure: 150 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- Neoprene cover
- Hypalon tube
- Continuous printed brand
- Yellow cover
- Flexible
- Transfer of acids and chemicals

Advantages:
- Age, chemical and ozone resistant; longer hose life.
- Acid and chemical resistant
- Easy identification
- Meets OSHA color requirements for flexible pipe systems
- Easy to handle
- Flexibility of applications

Markets:
- Chemical Industry
- Lumber/Woodworking
- Plywood Mfg.
- Pulp Processing
- Tank Truck
- Railroad Tank Car
- Metal Working

Applications:
- Transfer of acids and chemicals through pumping, suction, and discharge.
- Transfer of chemicals for processing products.
- Loading and unloading, pumping, or gravity flow discharge
- Etching; cleaning.

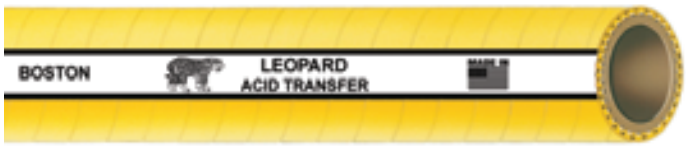
PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H042324-150	1-1/2	38.1	2	2-3/8	60.3	155	150	6	152.4	150
H042332-150	2	50.8	2	2-7/8	73.0	192	150	9	228.6	150
H042348-150	3	76.2	2	3-15/16	100.0	286	150	20	508.0	150
H042364-150	4	101.6	2	4-15/16	125.4	369	150	30	762.0	150

Hypalon® is a registered trademark of DuPont Dow Elastomers.

Hose
Acid Discharge

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Leopard Acid Discharge



Tube: EPDM
Reinforcement: Fiber, 4 Spiral
Cover: EPDM
Color: Yellow
Temperature Range: -45°F to +180°F
Type Of Branding: Printed Strip
Working Pressure: 100-150 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- EPDM tube
- Continuous printed brand
- Yellow cover
- Flexible

Advantages:
- Chemical and ozone resistant; longer hose life.
- Acid and chemical resistant
- Easy identification
- Color coded for flexible pipe systems
- Easy to handle
- Meets OSHA color requirements for flexible pipe systems

Markets:
- Chemical Industry
- Mining Industry
- Foundries
- Lumber/Woodworking
- Plywood Mfg.
- Pulp/Paper Processing
- Food Processing
- Tank Truck
- Railroad Tank Car
- Metal Working

Applications:
- Transfer of acids and chemicals through pumping, suction, and discharge.
- Transfer of chemicals and acids for processing products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Etching; cleaning.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MAXIMUM BEND RADIUS (IN.)	(MM)	MTO*MIN. ORDER QTY.	STANDARD LENGTH (FT)
H034624-100	1-1/2	38.1	4	2-17/64	57.4	120	150	6	152.4	—	100
H034632-100	2	50.8	4	2-3/4	69.9	150	150	9	228.6	—	100
H034648-100	3	76.2	4	3-3/4	98.0	210	100	20	508.0	—	100
H034664	4	101.6	4	4-55/64	123.4	260	100	30	762.0	500	50

**MTO - Made to Order*

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Panther Chemical Transfer

Tube: Clear Cross-Linked Polyethylene (XLPE)
Reinforcement: Fiber, 2 Braid or 2 Ply and Helical Wire
Cover: EPDM
Color: Yellow
Temperature Range: -45°F to +150°F
Type Of Branding: Printed Strip
Suction: Full Vacuum
Working Pressure: 150-200 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- Clear cross-linked polyethylene tube
- Printed strip brand and caution label every ten feet
- Smooth bore
- Every length serialized

Advantages:
- Chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- Easy identification
- Safety
- High visibility
- Rapid fluid flow
- Easy to clean
- Safety and maintenance records

Markets:
- Chemical/Petroleum Industry
- Lumber/Woodworking
- Plywood Mfg.
- Pulp/Paper Processing
- Tank Truck
- Railroad Tank Car

Applications:
- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing products.
- Loading and unloading, pumping, suction, or gravity flow discharge

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H835916-150	1	25.4	2 Br	1-17/32	38.9	72	200	5	127.0	1,650	150
H835920-150	1-1/4	31.8	2 Ply	1-7/8	47.6	86	200	8	203.2	1,350	150
H835924-150	1-1/2	38.1	2 Ply	2-1/8	54.0	89	200	8	203.2	1,200	150
H835932-150	2	50.8	2 Ply	2-5/8	66.7	113	200	9	228.6	900	150
H835940-150	2-1/2	63.5	2 Ply	3-1/8	79.4	140	150	12	304.8	750	150
H835948-150	3	76.2	2 Ply	3-5/8	92.1	164	150	16	406.4	600	150
H835964-150	4	101.6	2 Ply	4-11/16	119.1	239	150	21	533.4	450	150

**MTO - Made to Order*

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Panther RC Teflon

Tube: FEP Teflon FDA Approved Materials

Reinforcement: Fiber 2 Ply with Dual Helical Wires

Cover: EPDM

Color: Yellow

Temperature Range: -45°F to +300°F (Decrease working pressure 1% for every 2°F above 212°F)

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 150-500 PSI (Depending on coupling)

Type Of Coupling: Permanently Attached Couplings Recommended.

Features:

- EPDM cover
- FEP Teflon FDA Approved Materials
- Printed strip brand and caution label every ten feet
- Smooth bore
- Every length serialized

Advantages:

- Chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- Easy identification
- Safety
- High visibility
- Rapid fluid flow
- Easy to clean
- Safety and maintenance records

Markets:

- Chemical/Petroleum Industry
- Lumber/Woodworking Plywood Mfg.
- Pulp/Paper Processing
- Tank Truck
- Railroad Tank Car
- In-plant Transfer

Applications:

- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Food Transfer

PRODUCT NUMBER	NOMINAL I. D. (IN)	PLY	MINIMUM NOMINAL O.D. (IN)	MAX. WORKING PRESS. (PSI)	BEND RADIUS (IN.)	MTO* MIN ORDER QTY	STANDARD LENGTH (FT)
H064308-100	1/2	2	.950	500	3	500	100
H064312-100	3/4	2	1.230	500	3	500	100
H064316-100	1	2	1.520	450	4	500	100
H064320-100	1-1/4	2	1.730	350	8.5	500	100
H064324-100	1-1/2	2	2.120	300	9	500	100
H064332-100	2	2	2.671	250	10.5	500	100
H064340-100	2-1/2	2	3.200	200	16.5	500	100
H064348-100	3	2	3.880	200	20	500	100
H064364-100	4	2	4.968	150	30	500	100

**MTO - Made to Order*

Meets ozone resistance of 50 pphm when tested to ASTM D-622 Procedure 9.

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Green Cross-Link

Tube: Clear Cross-Linked Polyethylene (XLPE)
Reinforcement: Fiber, 2 Braid or 2 Ply and Helical Wire
Cover: EPDM
Color: Green
Temperature Range: -45°F to +150°F
Type Of Branding: Impression
Suction: Full Vacuum
Working Pressure: 150-200 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- Clear cross-linked polyethylene tube
- Continuous impression brand
- Green cover
- Smooth bore
- Serialized lengths

Advantages:
- Chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- Easy identification
- Rapid fluid flow
- Easy to clean
- Safety and maintenance records

Markets:
- Chemical/Petroleum Industry
- Lumber/Woodworking
- Plywood Mfg.
- Pulp/Paper Processing
- Tank Truck
- Railroad Tank Car\
- Waste Hauling

Applications:
- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing products.
- Loading and unloading, pumping, suction, or gravity flow discharge

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H037816-150	1	25.4	2 Br	1-17/32	38.9	72	200	5	127.0	150
H037820-150	1-1/4	31.8	2 Ply	1-7/8	47.6	86	200	8	203.2	150
H037824-150	1-1/2	38.1	2 Ply	2-1/8	54.0	89	200	8	203.2	150
H037832-150	2	50.8	2 Ply	2-5/8	66.7	113	200	9	228.6	150
H037848-150	3	76.2	2 Ply	3-5/8	92.1	164	150	16	406.4	150
H037864-150	4	101.6	2 Ply	4-11/16	119.1	239	150	21	533.4	150

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Green Cross-Link Corrugated

Tube: Clear Cross-Linked Polyethylene (XLPE)
Reinforcement: Fiber, Ply and Helical Wire
Cover: EPDM
Color: Green
Temperature Range: -45°F to +150°
Type Of Branding: Impression
Suction: Full Vacuum
Working Pressure: 150-200 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- Clear cross-linked polyethylene tube
- Continuous impression brand
- Green cover
- Smooth bore
- Serialized lengths

Advantages:
- Chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- Easy identification
- Rapid fluid flow
- Easy to clean
- Safety and maintenance records

Markets:
- Chemical/Petroleum Industry
- Lumber/Woodworking
- Plywood Mfg.
- Pulp/Paper Processing
- Tank Truck
- Railroad Tank Car
- Waste Hauling

Applications:
- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing products.
- Loading and unloading, pumping, suction, or gravity flow discharge

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H061532-150	2	50.8	2	2-5/8	66.7	113	200	7	152.4	—	150
H061548-150	3	76.2	2	3-5/8	92.1	164	150	12	304.8	—	150

**MTO - Made to Order*

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Chemcat Petrochemical

Tube: Ultra High Molecular Weight Polyethylene (U.H.M.W.) FDA Approved Materials

Reinforcement: Fiber, 2 Ply or 4 Ply and Helical Wire (3/4" and 1" Dual Stainless Steel Static Wires)

Cover: EPDM

Color: Purple (PR), Green (GN), Blue (BU)

Temperature Range: -45°F to +160°F†

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 150-200 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- Clear U.H.M.W. polyethylene tube (FDA Approved Materials)
- Easy to maintain
- Continuous brand
- Ultra smooth tube
- Available in colors

Advantages:
- Abrasion, chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- May be cleaned with steam, open end discharge only
- Easy identification
- Performance
- Easy to clean
- Color coded hose systems

Markets:
- Chemical/Petroleum Industry
- In-plant Transfer
- Mixing Operations
- Forest Products
- Lumber/Woodworking
- Plywood Mfg.
- Pulp Processing
- Bulk Hauling
- Barges
- Tank Trucks
- Railroad Tank Car

Applications:
- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing wood products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Food Transfer

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H052312-150	3/4	19.1	2	1-13/64	30.6	31	200	4	152.4	150(PR)
H052316-150	1	25.4	2	1-17/32	38.9	55	200	5-1/2	152.4	150(PR)
H052320-150	1-1/4	31.8	2	1-7/8	47.6	67	200	6	152.4	150(PR)
H052324-150	1-1/2	38.1	2	2-1/8	54.0	89	200	7-1/2	152.4	150(PR)
H052332-150	2	50.8	2	2-5/8	67.0	116	200	8	152.4	150(PR,GN,&BU)
H052340-150	2-1/2	63.5	2	3-1/8	79.4	142	200	8	203.2	150(PR)
H052348-150	3	76.2	2	3-5/8	92.2	168	200	9	229.0	150(PR,GN,&BU)
H052364-150	4	101.6	2	4-43/64	118.7	226	150	15	381.0	150(PR)
H052396-150	6	152.4	4	7	177.8	721	150	30	762.0	150(PR)

†Contact Eaton Technical Support at 1-888-258-0222 for higher temperature applications

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94

Boston Chemcat Petrochemical Corrugated

Tube: Ultra High Molecular Weight Polyethylene (U.H.M.W.) FDA Approved Materials

Reinforcement: Fiber, 2 Ply and Helical Wire

Cover: EPDM

Color: Purple

Temperature Range: -45°F to +160°F†

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 150-200 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- EPDM cover
- Clear U.H.M.W. polyethylene tube (FDA Approved Materials)
- Easy to maintain
- Continuous printed brand
- Ultra smooth tube
- Corrugated cover

Advantages:
- Abrasion, chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids;
- May be cleaned with steam, open end discharge only
- Easy identification
- Performance
- Easy to clean
- Increased flexibility; light weight

Markets:
- Chemical/Petroleum Industry
- In-plant Transfer
- Mixing Operations
- Forest Products
- Lumber/Woodworking
- Plywood Mfg.
- Pulp Processing
- Bulk Hauling
- Barges
- Tank Trucks
- Railroad Tank Car

Applications:
- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing wood products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Food Transfer

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	PLY	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H059916-150	1	25.4	2	1-17/32	38.9	55	200	3.0	76.2	1,650	150
H059920-150	1-1/4	31.8	2	1-7/8	47.6	67	200	4.0	101.6	1,350	150
H059924-150	1-1/2	38.1	2	2-1/8	54.0	89	200	4.0	101.6	—	150
H059932-150	2	50.8	2	2-5/8	67.0	116	200	5.0	127.0	—	150
H059948-150	3	76.2	2	3-5/8	92.2	168	200	6.5	165.1	—	150
H059964-150	4	101.6	2	4-43/64	118.7	226	150	9.5	241.3	—	150

†Contact Eaton Technical Support at 1-888-258-0222 for higher temperature applications

**MTO - Made to Order*

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Armorcat Petrochemical

Tube: Ultra High Molecular Weight Polyethylene (U.H.M.W.) FDA Approved Materials

Reinforcement: Wire, 2 Braid, 2 Stainless Steel Static Wires in 1", 1-1/2" and 2". 3" & 4" has Helical Wires.

Cover: EPDM

Color: Red

Temperature Range: -45°F to +160°F†

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 300 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:
- Two wire braids
- EPDM cover
- Clear U.H.M.W. polyethylene tube (FDA Approved Materials)
- Easy to maintain
- Dual stainless steel ground wires
- Ultra smooth tube

Advantages:
- Resistant to permanent crushing
- Abrasion, chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- May be cleaned with steam, open end discharge only
- Static dissipating for a safe connection
- Easy to clean

Markets:
- Chemical/Petroleum Industry
- In-plant Transfer
- Transportation Hoses
- Mixing Operations
- Chemical Handling
- Forest Products
- Lumber/Woodworking
- Plywood Mfg.
- Pulp Processing
- Bulk Hauling
- Barges
- Tank Trucks
- Railroad Tank Cars

Applications:
- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing wood products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Food Transfer

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	INCHES MERCURY VACUUM	MINIMUM BEND RADIUS (IN.)	(MM)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H055416-150	1	25.4	2	1-17/32	38.9	55	300	25	6	152.4	2,550	150
H055424-150	1-1/2	38.1	2	2-1/16	52.4	97	300	25	8	203.2	—	150
H055432-150	2	50.8	2	2-19/32	65.9	155	300	25	14	355.6	—	150
H055448-150	3	76.2	2	3-5/8	92.1	231	300	25	22	558.8	—	150
H055464-150	4	101.6	2	4-43/64	118.7	422	300	25	22	—	—	150

†Contact Eaton Technical Support at 1-888-258-0222 for higher temperature applications.

**MTO - Made to Order*

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Armorcat Petrochemical Corrugated

Tube: Ultra High Molecular Weight Polyethylene (U.H.M.W.) FDA Approved Materials

Reinforcement: Wire, 2 Braid, 2 Stainless Steel Static Wires

Cover: EPDM

Color: Red

Temperature Range: -45°F to +160°F†

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 300 PSI (Depending on coupling)

Type Of Coupling: Cam and Groove or Swaged/Crimped. Clamps—Interlocking or Band.

Features:

- Two wire braids
- EPDM cover
- Clear U.H.M.W. polyethylene tube (FDA Approved Materials)
- Easy to maintain
- Dual stainless steel ground wires
- Ultra smooth tube

Advantages:

- Resistant to permanent crushing
- Abrasion, chemical and ozone resistant; longer hose life.
- Chemical, petroleum, and solvent resistant; won't contaminate, or discolor fluids
- May be cleaned with steam, open end discharge only
- Static dissipating for a safe connection
- Easy to clean

Markets:

- Chemical/Petroleum Industry
- In-plant Transfer
- Transportation Hoses
- Mixing Operations
- Chemical Handling
- Forest Products
- Lumber/Woodworking
- Plywood Mfg.
- Pulp Processing
- Bulk Hauling
- Barges
- Tank Trucks
- Railroad Tank Cars

Applications:

- Transfer of acids, chemicals, solvents, and petroleum products.
- Transfer of chemicals and solvents for processing wood products.
- Loading and unloading, pumping, suction, or gravity flow discharge
- Food Transfer

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	INCHES MERCURY VACUUM	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H006032-150	2	50.8	2	2-19/32	65.9	155	300	25	12	304.8	150

†Contact Eaton Technical Support at 1-888-258-0222 for higher temperature applications.

Hose
Chemical Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Marauder

Tube: Modified Ultrahigh Molecular Weight Polyethylene (U.H.M.W.) FDA Approved Materials

Reinforcement: Fiber, 2 Ply and Helical Wire

Cover*: EPDM (H0683 Modified U.H.M.W. available with 900 ft minimum order)

Color: Blue & Green (other colors available with 900 ft minimum order)

Temperature Range: -45°F to +250°F (depends on media being transferred, please contact technical support at 1-888-258-0222 for temperatures above 160°F)

Type Of Branding: Printed Strip

Working Pressure: 200 PSI (depends on coupling)

Type Of Coupling: Cam and Groove or Swaged/Crimped.

Clamps: Interlocking or Band.

*Modified U.H.M.W. cover wrap for superior abrasion resistance available with 900 ft minimum order.

Features:
- Superior flexibility
- Tight bend radius
- Light weight
- Easy to clean
- Available with modified U.H.M.W. cover wrap for superior abrasion resistance
- FDA approved materials

Advantages:
- 40% less force to bend than Corrugated Chemcat
- Chemical, petroleum and solvent resistant.
- Abrasion, chemical and ozone resistant.

Markets:
- Bulk Hauling
- Barges
- Tank Trucks
- Railroad Tank Cars
- In-plant Transfer
- Transportation
- Mixing Operations
- Chemical Handling

Applications:
- Loading and unloading, pumping, suction, or gravity flow discharge
- Transfer of acids, chemicals and solvents.
- Food Transfer

CATALOG NUMBER	NOMINAL I.D. (IN)	(MM)	PLY	NOMINAL O.D. (IN)	(MM)	APPROX. WEIGHT (LBS) PER 100 FT	MAX. WORKING PRESS. (PSI)	MIN. BEND RADIUS (IN)	STANDARD LENGTHS (FT)
H068132	2	50.8	2	2-5/8	67.0	116	200	5	150(GR,BU)
H068140	2-1/2	63.5	2	3-1/8	79.4	142	200	6	150(GR,BU)
H068148	3	76.2	2	3-5/8	92.2	168	200	6.5	150(GR,BU)

Hose

Hot Liquid Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Alleycat

Tube: Synthetic Rubber Specially Compounded for High Temperature Applications

Reinforcement: Wire Braid, 2 Stainless Steel Static Wires (1-1/2" and 2"). 2 Steel Helical Wires (3").

Cover: EPDM

Color: Yellow

Temperature Range: -40°F to +300°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 500 PSI (Depending on coupling and clamp)

Type Of Coupling: Interlocking, Cam and Groove or Swaged/Crimped.
Clamps—Interlocking, Swaged/Crimp Ferrule or Band.

Features:

- Wire braid
- Dual stainless steel static
- EPDM cover
- Specially compounded tube

Advantages:

- Permanent crush-resistant
- 500 psi in all sizes
- Abrasion, age- and ozone-resistant cover
- Handles up to 300˚F
- May be cleaned with steam, open end discharge only
- Safe transfer of hot cleaning solution

Markets:

- Pulp and Pater Industry
- Industrial Cleaning

Applications:

- In-plant transfer of liquors and cleaning solutions
- Tank Spinner
- Hot Caustics

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	WIRE BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND MTO MIN. RADIUS (IN.)	STANDARD ORDER QTY.	LENGTH (FT)
H969924	1-1/2	38.1	2	2-3/16	55.6	150	500	8	—	50
H969924-150										150
H969932	2	50.8	2	2-11/16	68.3	177	500	16	—	50
H969932-150										150
H969948	3	76.2	2	3-23/32	94.5	300	500	24	2850	50
H969948-150										150

Hose

Hot Liquid Transfer

Refer to warnings and safety information on pages 3-4 and pages 93-94.

Boston Cougar CPE Corrugated

Tube: Chlorinated Polyethylene (CPE)
Reinforcement: Fiber, 2 Ply Helical Wires
Cover: Corrugated EPDM
Color: Brown
Temperature Range: -45°F to +275°F
Type Of Branding: Printed Strip
Suction: Full Vacuum
Working Pressure: 150 PSI (Depending on coupling)
Type Of Coupling: Swaged/Crimped, Cam and Groove. Clamps—Ferrule or Band.

Features:
- EPDM cover
- CPE tube
- Continuous printed brand
- Brown cover

Advantages:
- Abrasion, chemical, and ozone resistant. Longer hose life.
- Chemical, petroleum, acid and alcohol resistant. Heat resistant.
- Easy identification
- Color coded hose systems.

Markets:
- Chemical/Petroleum Industry
- In-plant Transfer
- Mixing Operations
- Forest Products
- Lumber/Woodworking
- Plywood Manufacturing
- Pulp Processing
- Bulk Hauling
- Barges
- Tank Trucks
- Railroad Tank Cars

Applications:
- Transfer of acids, chemicals, alcohols and petroleum products.
- Transfer of chemicals, and acids for processing wood products.
- Loading and unloading, pumping, suction, or gravity flow discharge

CATALOG NUMBER	NOMINAL I.D. (IN)	(MM)	BRAID	NOMINAL O.D. (IN)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTHS (FT)
H066124-150	1-1/2	38.1	2	2-1/8	54.0	89	150	6	152.4	150
H066132-150	2	50.8	2	2-5/8	67.0	116	150	6	152.4	150
H066148-150	3	76.2	2	3-5/8	92.2	168	150	9	229.0	150

Hose

Petroleum Service Intro

Important Petroleum Service Hose Safety Information!

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.

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, or damage to property.

WARNING: Consult with the Coupling Manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

WARNING: Never use a hose to transfer material it is not specifically meant to transfer. Doing so could deteriorate the hose and result in leaking, hose bursting, or end blow-offs. This could lead to serious personal injury or death. Always transfer material in a hose that is designed specifically to transfer that material. This information is listed in this catalog.

WARNING: If cover blisters exist, be careful not to pop them. If the hose was damaged in such a way that material was allowed to leak between the cover and inner tube, the blisters may contain this material. If the material is hazardous and splatters when the blisters are popped, it could cause serious physical injury.

WARNING: Kinks can cause hose to burst, leading to bodily harm.

PETROLEUM HOSE BENEFITS

4:1 Safety Factor (Burst: Working Pressure)

- Safer operation.
- Longer hose life

Environmental Resistance

- The tube and cover materials of the Boston "Big Cats" are designed to assure maximum life and top value. They are sophisticated hoses for demanding jobs.

Remove the Guesswork from Selecting, Buying and Using Critical Application Hose

- When you are handling hazardous material, it is critical to select the proper hose. Boston products' high visibility branding and color coding removes the guesswork for hose selection.

Built to Make Work Faster, Easier and Safer

- Moving and connecting hose several times a day isn't easy work. Each of the "Big Cats" is designed to be easy to handle as safety and job performance will allow.

The Boston Reputation for Quality

- Your assurance of dependable performance.

Hose

Light Duty Petroleum

Refer to warnings and safety information on pages 3-4 and page 109.

Boston Light Duty Petroleum

Tube: Vinyl Nitrile
Reinforcement: Fiber, 4 Spiral and Helical Wires
Cover: Vinyl Nitrile
Color: Black
Temperature Range: -40°F to +160°F
Type Of Branding: Impression
Suction: Full Vacuum
Working Pressure: 100 PSI (Depending on coupling)
Type Of Coupling: Cam and Groove or Combination Nipple.
Clamps—Band.

Features:

- Vinyl nitrile cover
- Vinyl nitrile tube
- Continuous impression brand
- Minimum 4-to-1 safety factor

Advantages:

- Abrasion, animal fat, oil and weather resistant
- Easy identification
- Meets R.M.A. requirements

Markets:

- Petrochemical/Petroleum Industry
- Paper/Pulp Industry
- Oil Exploration and Drilling
- Ship Building

Applications:

- Transfer of petroleum products
- Transfer of crude oil, salt water, fresh water, and slurries.

CATALOG NUMBER	NOMINAL I.D. (IN)	(MM)	SPIRAL	NOMINAL O.D. (IN)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTHS (FT)
H043624-100	1-1/2	38.1	4	2	50.8	106	100	5	127.0	100
H043632-100	2	50.8	4	2-1/2	63.5	128	100	6	152.4	100
H043648-100	3	76.2	4	3-9/16	90.5	192	100	12	304.8	100
H043664-100	4	101.6	4	4-9/16	115.9	267	100	14	355.6	100

Hose

Light Duty
Petroleum

Refer to warnings and safety information on pages 3-4 and page 109.

Boston Bobcat LT Light Weight Petroleum

Tube: Vinyl Nitrile

Reinforcement: Fiber, 2 Ply and Helical Wires

Cover: Vinyl Nitrile (RD), Neoprene (BK)

Color: Red (RD) or Black (BK)

Temperature Range: -40°F to +180°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 100 PSI (Depending on coupling and clamps)

Type Of Coupling: Cam and Groove, Combination Nipple or Swaged/Crimped. Clamps—Band.

Features:

- Vinyl nitrile cover
- Vinyl nitrile tube
- Continuous printed brand with caution label every ten feet
- Light weight and flexible

Advantages:

- Abrasion, oil and weather resistant
- Easy identification
- Safety
- Easy to route; easy to handle

Markets:

- Petrochemical/Petroleum Industry
- Oil Exploration and Drilling
- Tank Trucks
- Gasoline Drop
- Waste Hauling

Applications:

- Transfer and blending of petroleum products
- Transfer of crude oil, salt water, fresh (non-potable) water, and slurries.
- Loading or unloading, pumping, suction, or gravity flow discharge

CATALOG NUMBER	NOMINAL I.D. (IN)	(MM)	PLY	NOMINAL O.D. (IN)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTHS (FT)
H036932-150	2	50.8	2	2-1/2	63.5	119	100	3	76.2	150 (RD,BK)
H036948-150	3	76.2	2	3-1/2	88.9	188	100	5	127.0	150 (RD,BK)
H036964-150	4	101.6	2	4-1/2	114.3	240	100	7	177.8	150 (RD,BK)
H036832-150	2	50.8	2	2-1/2	63.5	119	150	3	76.2	150 (RD,BK)
H036848-150	3	76.2	2	3-1/2	88.9	188	150	5	127.0	150 (RD)

Hose

Medium Duty Petroleum

Refer to warnings and safety information on pages 3-4 and page 109.

Boston Puma Petroleum

Tube: Vinyl Nitrile

Reinforcement: Fiber, 2 Braid, 2 or 4 Ply and Helical Wires

Cover: Vinyl Nitrile

Color: Red (RD) or Black (BK)

Temperature Range: -40°F to +180°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 150 PSI (Depending on coupling and clamps)

Type Of Coupling: Cam and Groove, Combination Nipple or Swaged/Crimped. Clamps—Band.

Features:

- Vinyl nitrile cover
- Vinyl nitrile tube
- Continuous printed brand

Advantages:

- Abrasion, animal fat, oil and weather resistant
- Easy identification

Markets:

- Petrochemical/Petroleum Industry
- Paper/Pulp Industry
- Oil Exploration and Drilling
- Ship Building
- Tank Trucks
- Railroad Tank Cars
- Waste Hauling

Applications:

- Transfer of petroleum products
- Transfer of crude oil, salt water, fresh (non-potable) water, and slurries.
- Loading or unloading, pumping, suction, or gravity flow discharge

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	REINF.	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)*
H036316-150	1	25.4	2 Ply	1-31/64	37.7	75	150	6	152.4	150(BK)
H036320-150	1-1/4	31.8	2 Ply	1-25/32	45.2	85	150	6	152.4	150(BK)
H036324-50										50
H036324-100	1-1/2	38.1	4 Sp	2-1/16	52.4	98	150	5	127.0	100(BK)
H036324-150										150
H036332-50										50
H036332-100	2	50.8	4 Sp	2-9/16	65.1	115	150	6	152.4	100(BK,RD)
H036332-150										150
H036340-150	2-1/2	63.5	2 Ply	3-1/32	77.0	140	150	9	228.6	150(BK)
H036348-100	3	76.2	4 Sp	3-9/16	90.5	166	150	12	304.8	100(BK,RD)
H036364-50										50
H036364-100	4	101.6	4 Sp	4-9/16	115.9	224	150	14	355.6	100(BK)
H036364-150										150
H036396-25	6	152.4	2 Ply	6-55/64	174.2	514	150	30	762.0	25(BK)
H036396-100										100(BK)
H036396-150										150(BK)
H03638A-25	8	203.2	4 Ply	8-55/64	225.0	674	150	—	—	25(BK)
H03638A										50(BK)

**150 foot lengths available upon request.*

Hose

Heavy Duty Petroleum

Refer to warnings and safety information on pages 3-4 and page 109.

Boston Jaguar Heavy Duty Petroleum

Tube: Vinyl Nitrile

Reinforcement: Fiber, 2 or 4 Ply and Helical Wires

Cover: Vinyl Nitrile

Color: Orange (6" & 8" Jaguar has a black Vinyl Nitrile cover)

Temperature Range: -40°F to +180°F

Type Of Branding: Printed Strip

Suction: Full Vacuum

Working Pressure: 250 PSI (Depending on coupling and clamps)

Type Of Coupling: Cam and Groove, Combination Nipple or Swaged/Crimped. Clamps—Band.

Features:

- Vinyl nitrile cover
- Vinyl nitrile tube
- Continuous printed brand and caution label every ten feet
- Orange cover

Advantages:

- Abrasion, animal fat, oil and weather resistant
- Easy identification
- Meets OSHA color requirements for flexible pipe systems

Markets:

- Tank Trucks
- Railroad Tank Cars
- Waste Hauling
- Petrochemical/Petroleum Industry

Applications:

- Loading and unloading, pumping, suction
- Bottom loading, gravity flow discharge
- Transfer of petroleum products

CATALOG NUMBER	NOMINAL I.D. (IN)	(MM)	PLY	NOMINAL O.D. (IN)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTHS (FT)
H032724-150	1-1/2	38.1	2	2-1/16	52.4	99	250	4.0	101.6	150
H032732-150	2	50.8	2	2-9/16	65.1	124	250	5.0	127.0	150
H032740-150	2-1/2	63.5	2	3-1/32	77.0	161	250	7.5	190.5	150
H032748-150	3	76.2	2	3-9/16	90.5	200	250	8.0	203.2	150
H032764-150	4	101.6	2	4-9/16	115.9	292	250	12.5	317.5	150
H032796	6	152.4	4	7-1/4	184.2	721	250	30.0	762.0	50
H032796-100										100
H032796-150										150
H03278A	8	203.2	4	9-1/8	231.8	909	250	32.0	812.0	50
H03278A-100										100
H03278A-150										150

Hose

Heavy Duty Petroleum

Refer to warnings and safety information on pages 3-4 and page 109.

Boston Royalflex 1193 Petroleum

Tube: Nitrile

Reinforcement: 100% Polyester and Helical Wires

Color: Black

Temperature Range: -20°F to +180°F

Suction: Full Vacuum

Working Pressure: 200-300 PSI (Depending on coupling)

Type Of Coupling: For permanently attached coupling, contact Eaton. Cam and Groove, Long Shank, Interlocking or Swaged. Clamps—Interlocking, Band or Dixon Holedall II.

Features:

- Nitrile tube and cover
- More turns of helical wire per inch
- Higher working pressure
- Light weight
- Flexible
- Longer lengths

Advantages:

- Abrasion, oil and weather resistant
- More crush and kink resistant
- 300 PSI applications
- Easy to handle
- Economical; eliminates couplings

Markets:

- Tank Trucks
- Industrial Cleaning
- Petroleum/Petrochemical
- Refineries
- Tank car
- Storage Tanks
- Oil Exploration/Drilling
- Waste Hauling

Applications:

- Transfer of petroleum and chemicals

PRODUCT NAME	NOMINAL I.D. (IN.)	(MM)	NOMINAL O.D. (IN.)	(MM)	APPROX WEIGHT W/O FITTINGS (LB/FT)	(KG/M)	MAXIMUM WORKING PRESS. (PSI)	(BAR)	MINIMUM BEND RADIUS (IN.)	(MM)	MTO MIN. ORDER QTY.	STANDARD LENGTH (FT)
H119324	1-1/2	38.1	2	50.8	.80	1.191	300	20.68	6	152	1,000	50
H119324-60												60
H119324-100												100
H119324-120												120
H119332	2	50.8	2-1/2	63.5	1.10	1.652	300	20.68	8	203	1,000	50
H119332-60												60
H119332-100												100
H119332-120												120
H119340	2-1/2	63.5	3	76.2	1.34	1.994	300	20.68	10	254	1,000	50
H119340-60												60
H119340-100												100
H119340-120												120
H119348	3	76.2	3-1/2	88.9	2.00	2.992	250	17.24	12	305	1,000	50
H119348-60												60
H119348-100												100
H119348-120												120
H119364	4	102.0	4-1/2	114.3	2.72	4.084	200	13.79	16	406	1,000	50
H119364-60												60
H119364-100												100
H119364-120												120

Important Steam Hose Safety Information!

WARNING: Exposure to steam is hazardous. If not properly controlled, steam can cause property damage, serious bodily injury, or death. In order to avoid property damage, serious injury, or death, you must select the proper steam hose for the given application. Also, proper installation, usage and maintenance of the steam hose you select will contribute to increased operator safety.

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: Only specially trained persons should engage in applications or testing procedures that require particular skills. Failure to do so may result in damage to the hose products or to other property and more importantly, may result in serious injury.

WARNING: Steam heat is hotter than 212°F (boiling water) and increases in temperature as pressure increases. See safety information in this catalog.

STEAM HOSE BENEFITS

10:1 Safety Factor (Burst: Working Pressure)

- Safer operation
- Longer hose life

Heat Resisting Patrex or EPDM Tubes

- Boston products' exclusive elastomers with superior heat resistance provide for longer service life...and will resist flaking rubber particles (popcorning) and will handle most steam cleaner detergents.

Hi-Strength Steel Wire Braided Reinforcement

- Keeps the hose limber and easy to handle. Adds versatility...hot water cleaning to high pressure process steam service.

EPDM or Oil Resistant

- Stand up to the dragging, scuffing and abuse found in many applications.

Covers

- Ensures maximum service life and value. Exceptional aging, weathering, and heat resisting properties keep the hose flexible and easy to use.

Permanent Branding for Easy Identification

- The name of the hose and the working pressure are molded into the hose cover...can't rub off. This lets the operator know that the hose is for steam service.

The Boston Brand Reputation for Quality

- Your assurance of dependable performance.

Hose

Steam Service Safety Tips

Make Your Selection With Safety in Mind

- Be sure to select a hose identified as steam hose.
- Hose identification should be in the form of permanent branding on the hose outer cover, not just on the package.
- You must identify the type of service the steam hose is required to accomplish.
  - a) Is the hose manually handled?
  - b) What is the anticipated frequency of use?
  - c) What is the actual pressure of the steam service?
  - d) Is it subject to surges or peak pressures?
  - e) What is the temperature of the steam?
  - f) Saturated (wet) or superheated (dry) steam?
  - g) What are the external conditions in the area where the hose will be used?
- You should recognize that spillage or accumulations of corrosive chemicals or petroleum based materials externally can have a deteriorating effect on the hose cover.

Making Sure the Hose is Installed Properly

- Be certain to use hose couplings designed for steam hose service. Follow the coupling manufacturer's instruction for coupling attachment. Check tightness with each use.
- Avoid extreme flexing of the hose near the coupling. If necessary use elbows in the piping system to assure a straight line connection with the hose.
- Installing and using a shut-off valve between the steam source and the hose will maximize service life and operator safety, and we consider such a value mandatory for safe operation.
- The use of spring guards can relieve some of the acute flexing encountered in heavy manual handling applications.
- Provide a suitable means of storing the hose when not in use. A permanent rack or tray will minimize the damage to the hose in storage. Do not hang the hose on a hook, nail, or other device which could cut or damage the hose.

Common Sense with Steam Hose

- Provide operators with adequate safety clothing. Include gloves, rubber boots, full length protective clothing and eye protection. The objective is to provide protection from scalding burns resulting from splash back of steam or hot water.
- Ensure that the work area is free of tripping hazards and other clutter.
- Check the tightness of the coupling with each use.
- Do not allow the hose to remain pressurized when not in service. Turning off the pressure can provide dramatic increases in steam hose service life.
- Periodic maintenance of steam hose can pay big dividends. All steam hoses are expected to wear out in time. It is important to continually be on the lookout for hose that has deteriorated to the point where it can no longer provide safe service. The following guidelines can help in that determination.

Operators should be aware of the obvious signs of trouble.

They include:

- Cover blisters or lumps
- Cuts or gouges in the outside of the hose which expose the reinforcement
- Hardened or inflexible hose
- Steam leakages at the coupling ends or anywhere along the length of the hose
- Flattened or kinked areas which have damaged the hose
- A reduction of steam flow indicating that the tube is swelling

When any of the above abnormalities appear it is good safety sense to immediately remove the hose from service. Once removed, the hose can be carefully inspected before further use. Steam hose failures occur near the ends due to flexing and strain at the couplings. In those cases the hose can frequently be cut back and recoupled, providing additional service life. Hose used in continuous high pressure/ temperature service should be inspected periodically for signs of tube hardening. In most cases it is necessary to remove a coupling for tube inspection.

Hose

Steam Service Safety Tips

Selection Factors

There are many facts that have to be known about an application before a steam hose can be specified. Some of the most important considerations are:

- Steam pressure
- Steam temperature
- Whether the steam is superheated or saturated
- Magnitude of surges in temperature or pressure
- External conditions where the hose will be used
- How often the hose will be used
- Duration of each use
- How long the hose will be idle
- Whether manual handling will be required

It is helpful to read the lay line on steam hose. Every hose designed for steam use should be marked with the manufacturer's name, hose type and operating pressure. If this information is not visible on the lay line, don't use the hose for steam. Many steam hoses are also date-coded with the date of manufacture. This information helps spot hoses that should be replaced due to age. While many industrial hoses have a built-in safety factor of 4:1 (they can withstand pressures four times greater than the rating on the cover), steam hoses have a minimum safety factor of 10:1, per standards of the Rubber Manufacturers Association. This factor emphasizes the extreme dangers present with steam use. A hose should never be used to carry pressures higher than it is rated to handle, in spite of the safety factor.

Hose couplings are extremely important when steam is being handled. The potential for serious injury is significant if a coupling blows off under pressure. High temperatures and pressures inside steam hose act like a pressure cooker and cause the inside and outside diameters to shrink during use. Couplings must be specifically designed to combat this effect. Only couplings designed for steam hose should be used, because they include several crucial features:

- Proper material for steam, usually plated steel
- Bite-the-wire permanently attached coupling or Bolt-on clamp which can be retorqued repeatedly
- Ground-joint connection to avoid static charge buildup
- Strength to resist slippage due to hose shrinkage

Hose

Steam Hose Recommendations

The Boston Wolf Coupling offers significant advantages over the traditional bolt-style steam hose end. The Wolf ferrule is designed to grip the hose reinforcement to provide long-lasting coupling retention. This design avoids the problem of "cold flow" by involving the reinforcement as part of the coupling retention method rather than relying on the compression of the rubber cover by a bolt-style coupling. By using the Wolf Permanent Attach Coupling, the requirement for periodically retightening a bolt-style clamp is avoided. Additionally, there are no clamps to get hung up on obstacles in the plant.

1 Install an OSHA approved safety cable on the hose at every junction to prevent whipping of the end if the coupling should disconnect.

2 Ensure continuous static grounding of the hose at each coupling.

3 If the clamps are a bolt-on style, tighten them to the correct torque before use. Use calibrated torque wrenches, not impact or other types.

4 Repairs on steam hoses and couplings should be done only by fully qualified distributors or fabricators.

5 All workers near the hose should wear full protective safety gear including gloves, safety shoes, full-length protective clothing and protective glasses or goggles.

6 Perform a complete safety check before the steam is turned on. Inspect the area and remove all unnecessary objects and debris. Inspect the hose for gouges, kinks, worn areas, loose couplings and other potential safety problems.

7 Install a shut-off valve between the source of steam and hose assembly.

8 Use spring guards to protect the hose from kinking when handling of the hose is required.

9 Avoid excessive flexing of the hose, particularly near couplings. Flexing can weaken the assembly.

10 Examine connections to the steam source. Use straight connections instead of bending the hose. Install pipe elbows to ensure either straight vertical connections pointing downward, or a 45° downward angle that allows the hose to gently contact the ground without too much flexing.

11 Be aware of the danger of hammer effect and take steps to prevent it. Hammer effect is caused by spikes of extreme pressure; it can damage hose assemblies and break couplings free. The usual causes are blockage, pinched-off flow or valves being opened or closed too fast. Make personnel aware of both the danger and causes, and urge them to avoid actions that can cause the hammer effect.

12 When finished using steam, always close the pressure valve from the steam source. In addition to providing an extra safety margin, this action can extend the working life of the hose.

13 Add an extra measure of safety by ensuring that all steam hose connections are incompatible with other hoses in the plant or by color-coding for different applications. Manufacturers can often cooperate with these requests and suggest good color-coding systems.

14 Train workers to look for signs of problems during usage, such as steam leakage, loose clamps, hose shrinkage, cover damage or exposed reinforcement.

Hose

Steam Service Hose

Refer to warnings and safety information on pages 3-4 and pages 115-118.

Boston 200 L.L.

Tube: EPDM

Reinforcement: Wire, 1 Braid

Cover: EPDM/Pinpricked

Color: Black

Temperature Range: +388°F

Type Of Branding: Ink Print

Working Pressure: 200 PSI (Depending on coupling) 10:1 Safety Factor

Type Of Coupling: Boston Wolf Permanent Crimp Couplings or Interlocking. Clamps—Interlocking, (2 Bolt, 4 Bolt).

Features:

- EPDM cover
- EPDM tube
- Continuous ink print and date code
- Minimum 10-to-1 safety factor
- Long lengths

Advantages:

- Heat, age, ozone and weather resistant.
- Excellent heat resistance
- Handles most steam cleaning detergents
- Easy identification
- Meets safety standards of RMA
- Economical
- Fewer couplings

Markets:

- Chemical/Petroleum Industry
- Industrial Cleaning Markets
- Lumber/Woodworking
- Plywood Manufacturing
- Pulp Processing
- Ship Building
- Food Industry

Applications:

- Transfer of steam for processing products and cleaning equipment
- Transfer of steam for cleaning of equipment, tanks, buildings, etc.
- Transfer of hot water and steam

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H602706-350R	3/8	9.5	1	13/16	20.6	25	200	3,000	350
H602708-350R	1/2	12.7	1	15/16	23.8	28	200	—	350
H602712-350R	3/4	19.1	1	1-3/16	30.2	40	200	3,000	350

Not to be used as a pressure washer hose

**MTO - Made to Order*

Hose

Steam Service Hose

Refer to warnings and safety information on pages 3-4 and pages 115-118.

Boston Concord 250

Tube: EPDM

Reinforcement: Wire, 2 Braid

Cover: EPDM/Pinpricked

Color: Black (BK), Available in Red (RD)

Temperature Range: +450°F

Type Of Branding: Ink Print

Working Pressure: 250 PSI (Depending on coupling) 10:1 Safety Factor

Type Of Coupling: Boston Wolf Permanent Crimp Couplings or Interlocking. Clamps—Interlocking, (2 Bolt, 4 Bolt).

Features:

- EPDM cover
- EPDM tube
- Continuous ink print and date code
- Minimum 10-to-1 safety factor
- Available with red cover (made-to-order)
- Date code

Advantages:

- Heat, age, ozone and weather resistant.
- Excellent heat resistance
- Handles most steam cleaning detergents
- Easy identification
- Meets safety standards of RMA
- Color coding
- Safety & maintenance records

Markets:

- Chemical/Petroleum Industry
- Industrial Cleaning Markets
- Ship Building
- Food Industry
- Lumber/Woodworking
- Plywood Mfg./Cardboard
- Pulp Processing

Applications:

- Transfer of steam for processing products and cleaning equipment
- Transfer of steam or hot 200˚F detergent-type solutions for cleaning of equipment, tanks, buildings, etc.
- Transfer of steam to melt glues, waxes, etc.

PRODUCT NUMBER`	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
H956808	1/2	12.7	2	1-1/32	26.2	46	250	50(BK,RD)
H956812	3/4	19.1	2	1-11/32	34.1	70	250	50(BK,RD)
H956816	1	25.4	2	1-9/16	39.7	96	250	50(BK,RD)

Not to be used as a pressure washer hose

Hose

Steam Service Hose

Refer to warnings and safety information on pages 3-4 and pages 115-118.

Boston Concord 250 O.R.

Tube: EPDM

Reinforcement: Wire, 2 Braid

Cover: Special Oil Resistant Compound/Pinpricked

Color: Black (BK) or Red (RD)

Temperature Range: +450°F

Type Of Branding: Ink Print

Working Pressure: 250 PSI (Depending on coupling) 10:1 Safety Factor

Type Of Coupling: Boston Wolf Permanent Crimp Couplings or Interlocking. Clamps—Interlocking, (2 Bolt, 4 Bolt).

Features:

- Special cover
- EPDM tube
- Continuous ink print and date code
- Minimum 10-to-1 safety factor
- Date code

Advantages:

- Oil resistant.
- Excellent heat resistance
- Handles most steam cleaning detergents
- Easy identification
- Meets safety standards of RMA
- Safety & maintenance records

Markets:

- Chemical/Petroleum Industry
- Industrial Cleaning Markets
- Ship Building
- Food Industry
- Lumber/Woodworking
- Plywood Mfg./Cardboard
- Pulp Processing

Applications:

- Transfer of steam for processing products and cleaning equipment
- Transfer of steam or hot 200˚F detergent-type solutions for cleaning of equipment, tanks, buildings, etc.
- Transfer of steam to melt glues, waxes, etc.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	MTO* MIN. ORDER QTY.	STANDARD LENGTH (FT)
H968208	1/2	12.7	2	1-1/32	26.2	46	250	3000	50(BK,RD)
H968212	3/4	19.1	2	1-11 /32	34.1	70	250	3000	50(BK,RD)
H968216	1	25.4	2	1-9/16	39.7	96	250	3000	50(BK,RD)

Not to be used as a pressure washer hose

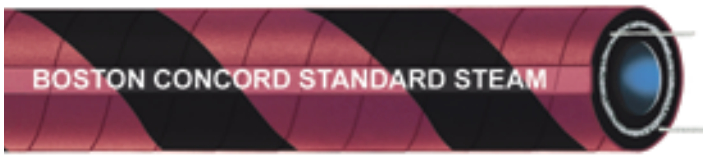
**MTO - Made to Order*

Hose

Steam Service Hose

Refer to warnings and safety information on pages 3-4 and pages 115-118.

Boston Concord Standard Steam & Concord Standard Steam-Spiral Stripe



Tube: Patrex (Chlorobutyl)

Reinforcement: Wire, 2 Braid, 2 Stainless Steel Static Wires

Cover: EPDM/Pinpricked

Color: Black (BK), Black and Red Stripe (RD)

Temperature Range: +450°F

Type Of Branding: Impression

Working Pressure: 250 PSI (Depending on coupling) 10:1 Safety Factor

Type Of Coupling: Interlocking. Clamps—Interlocking, (2 Bolt, 4 Bolt).

Features:

- EPDM cover
- Patrex (Chlorobutyl) tube
- Continuous impression brand and date code
- Minimum 10-to-1 safety factor
- Built in separate static wire
- Barber pole striped cover (RD)

Advantages:

- Heat, age, ozone and weather resistant.
- Excellent heat resistance
- Handles most steam cleaning detergents
- Easy identification
- Safety & maintenance records
- Meets safety standards of RMA
- Assures safe grounding
- Safety
- Color code system

Markets:

- Chemical/Petroleum Industry
- Industrial Cleaning Markets
- Ship Building
- Lumber/Woodworking
- Plywood Mfg./Cardboard
- Pulp Processing

Applications:

- Transfer of steam for processing products and cleaning equipment
- Transfer of steam or hot 200˚F detergent-type solutions for cleaning of equipment, tanks, buildings, etc.
- Transfer of steam to melt glues, waxes, etc.

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	BRAID	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT	MAXIMUM WORKING PRESS. (PSI)	STANDARD LENGTH (FT)*
H008408	1/2	12.7	2	1-1/8	28.6	55	250	50(BK,RD)
H008412	3/4	19.1	2	1-3/8	34.9	78	250	50(BK,RD)
H008416	1	25.4	2	1-5/8	41.3	100	250	50(BK,RD)
H008420	1-1/4	31.8	2	1-15/16	49.2	135	250	50(BK,RD)
H008424	1-1/2	38.1	2	2-3/16	55.6	155	250	50(BK,RD)
H008432	2	50.8	2	2-11/16	68.3	194	250	50(BK,RD)

Not to be used as a pressure washer hose

** 225 - 295 foot reels available as Made to Order*

Wolf Series Hose Couplings Used With Authorized Boston Hose

Selection of the proper hose and hose couplings needs to be made with specific applications in mind. Inadequate attention to selection of hose and couplings can result in hose leakage, bursting, or other failure which can result in serious bodily injury or property damage from steam discharge or flying projectiles.

The following are factors which need to be considered in the selection and use of Wolf Series hose couplings which are designed only to be used with Concord 250 Steam, Hot Tar Pumping and Hydrocarbon Drain hose.

- Hose size
- Temperature
- Hose pressure
- Hose length
- Material conveyed
- Static head pressure
- Bends
- Installation design
- Corrosion requirements

Please review the crimp specifications to determine the correct tooling to be used when crimping Wolf Series hose couplings to Boston hose.

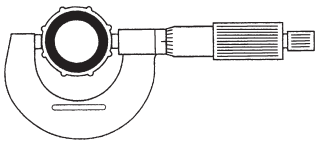
Boston Hoses and Wolf Coupling Compatibility

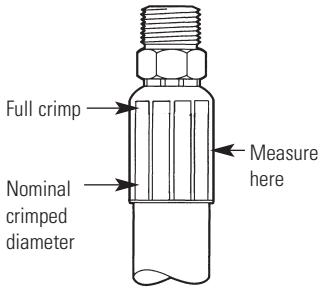
The Wolf couplings and Boston hoses identified in this literature have been engineered and designed as a complete hose assembly system. Each component of the assembly is compatible with the other. Component compatibility, along with the use of high quality components, ensures the production of reliable hose assemblies. The practice of intermixing hose and couplings not specifically engineered and designed for use together may result in the production of an unsafe and unreliable hose assembly. The Boston warranty is limited to apply only when the Wolf coupling and Boston hoses are assembled to our specifications.

WARNING: Intermixing components not specifically designed for use together may result in an unsafe and unreliable hose assembly, which can result in serious bodily injury or property damage.

WARNING: Only specially trained persons should engage in applications or testing procedures that require particular skills. Failure to do so may result in damage to the hose products or to other property and, more important, may result in serious bodily injury.

WARNING: Exposure to steam is hazardous. If not properly controlled, steam can cause property damage, serious bodily injury, or death. In order to avoid property damage, serious injury, or death, you must select the proper steam hose for the given application. Also, proper installation, usage and maintenance of the steam hose you select will contribute to increased operator safety.





Wolf Series Hose Couplings Should ONLY Be Used With Authorized Boston Hose

If this is a new installation, please refer to your Coll-O-Crimp Set-Up and Operating Instructions for installation procedures. Refer to page 154 of this catalog for safety information.

After the initial setup of the Coll-O-Crimp press, and purging of the system, the ram return stops may need to be repositioned.These stops are normally found rotated to their "inward" position to allow for a faster cycle time, when using other Coll-O-Crimp tooling. In order to easily accommodate the tooling and crimp the Wolf Series hose couplings, rotate the stops to their "outward" position and proceed as follows.

1. Activate the pump by pulling the activating lever or turning on the switch.
2. During the downward travel of the ram, rotate the stops to their outward position.
3. Release the activating lever or switch that permits the ram to fully retract into the press. The proper Wolf Series tooling may now be inserted into the base plate.
4. Place the proper size Wolf Series hose end onto the hose making sure the hose is bottomed in the hose end.
5. Insert the hose assembly from the bottom of the press and through the collet. The top surface of the collet should be positioned slightly above the ferrule shoulder. The surface of the crimp die should fully cover the coupling shell for a "full crimp". Hold and support the hose assembly from below the press while crimping to ensure that the hose remains completely inserted and bottomed into the hose end.
6. Close the pusher halves on the T-440-1 and activate the pump by turning on the switch. When the pusher contacts the base plate (or spacer ring if applicable), the crimp is complete.

7 Release the lever or switch and remove the hose assembly to inspect.

8. To ensure a proper crimp has been completed, measure the nominal crimp diameter.

Nominal Crimp Diameter Measurement:

Please place this catalog near your Coll-O-Crimp equipment for reference.

Measuring crimp diameters should be a part of the normal hose assembly procedure. To ensure a proper crimp diameter reading, follow these steps:

1 Measure the diameter in the middle of crimped portion of the hose end.

2. Place the caliper or micrometer in a position to allow a measurement across the pressed (flat) portion of the crimp.
3. See crimp diameters in the Hose End & Tool Selector Chart on pages 188-192.

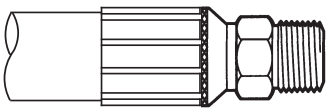
Note:

Wolf Series hose couplings are designed for use with 1/2", 3/4" & 1" Concord 250 Steam, 1" Hot Tar Pumping Hose and 3/4" Hydrocarbon Drain.

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

Couplings
Wolf Series

Hose End Series:
Wolf Series



Typical Application: High Pressure and Temperature applications such as steam, hydrocarbon drain, and hot tar transfer

Compatible Hose: Hot Tar Pumping, Concord 250, Concord 250 O.R. and Hydrocarbon Drain

Pressure: Determined by maximum working pressure for hose size.

Material: Zinc Yellow Dichromate finish.

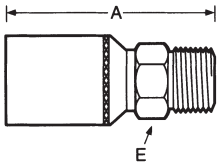
Advantages: Permanent attach coupling for steam hose service.

Ordering Information: Order individually by catalog number.

Assembly Instructions: See Hose End & Tool Seletor Chart for Boston crimp specifications.

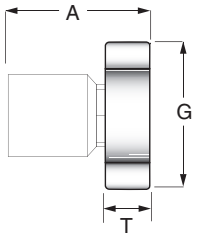
Refer to important safety information found on pages 3-4 of this catalog.

Male Pipe (NPTF) Rigid



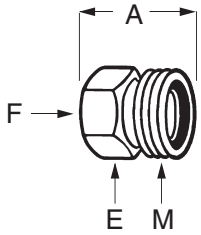
HOSE I.D.	CATALOG NUMBER	THREAD SIZE (NPTF)	A	HOLE DIA.	HEX E
1/2	87-0008-02	1/2—14	2.74	.36	.81
3/4	87-0012-02	3/4—14	3.68	.61	1-1/16
1	87-0016-02	1—11-1/2	4.05	.81	1-3/8

Wing Nut Swivel



HOSE I.D.	CATALOG NUMBER	THREAD SIZE (NPSM)	A	HOLE DIA.	G	T NOM.
1/2	87-0008-01	1—11-1/2	2.76	.36	2.25	.95
3/4	87-0012-01	1-1/2—11-1/2	3.48	.61	3.51	1.06
1	87-0016-01	1-1/2—11-1/2	3.51	.81	3.51	1.06

Female Spud



HOSE I.D.	CATALOG NUMBER	THREAD SIZE M (NPSM)	THREAD SIZE F (NPTF)	A	HOLE DIA.	HEX E
3/4	87-0012-03	1-1/2—11-1/2	3/4—14	1.185	.61	2
1	87-0016-03	1-1/2—11-1/2	1—11-1/2	1.185	.81	2

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

Couplings
General Information

Coupling Selection

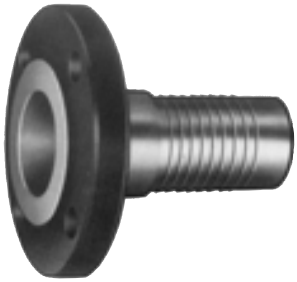
This catalog lists the most common type of coupling used for each hose. Consider the following items when selecting couplings for your application. Consult your coupling manufacturer and Eaton for further information about these items:

- Environment
- Temperature ranges - external environment year round, temperature of material being conveyed, and temperature of cleaning solution
- Maximum pressure requirements
- Corrosive resistance and compatibility with material being conveyed
- Conductivity - especially in flammable applications (non-spark brass cam lever arms)
- Gasket material required, if any, keeping in mind compatibility with the material being conveyed
- Port or fitting the hose assembly must be connected to
- Coating (if any) on coupling (i.e. zinc, etc.)

There are two general types of couplings to consider, field-attachable and permanent. The most common types of field-attachable end fittings include cam and groove, king combination nipple and flange.

Cam and groove coupling

King combination nipple coupling or "KC"

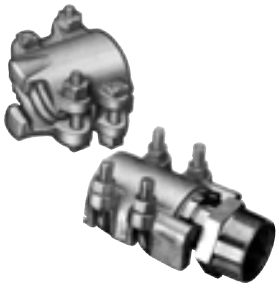


Flange end

Flat band clamp

Double bolt clamp.

Single bolt clamp



Interlocking clamps

Field-attachable couplings are usually secured by one of the following methods; flat bands, single bolt, double bolt or interlocking clamps.

Band clamps are generally used for applications requiring cam and groove style couplings (less than 150 psi). Bolt clamps generally offer greater security than bands and are therefore chosen more often for higher pressure applica-tions. They can also be retightened after a hose has been in service.

Permanent couplings are also used in applications where you could see pressures greater than 150 psi. These end fittings are swaged, crimped or internally expanded onto the hose. Internal expansion couplings exist for full-flow applications and allow easier assembly cleaning.

Couplings
General Information

Swaged coupling

Crimped coupling

Internally expanded coupling

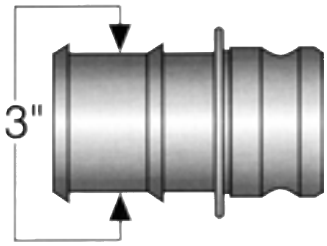
Some couplings have special coatings such as zinc or nickel plating. Always make certain any coating is compat-ible with the material being transferred and the external environment. Otherwise, contamination and/or failure could occur. The coupling manufacturer can provide you with this information.

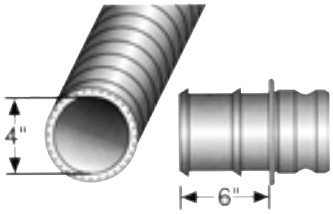
To make certain you have selected the right coupling for your application, always consult the coupling manufacturer. To help make coupling selection easier, Eaton includes coupling thread data and flange size information in this catalog.

Measuring Couplings

To determine the size of a coupling, measure the shank outer diameter (O.D.) between the shank barbs. The shank is the portion of a coupling that is inserted into the hose. A "three-inch" coupling will have a shank O.D. of three inches when the O.D. is measured between the shank barbs.

In general, the length of the coupling shank should be approximately one and a half times the inner diameter of the hose. For example, a hose with a four-inch diameter would require a coupling with a six-inch-long shank.





Installing Field-Attachable Couplings

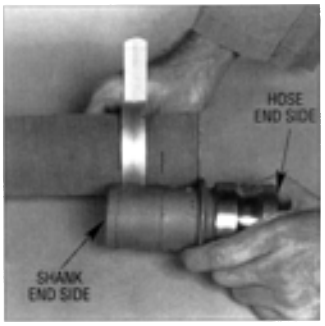
Before installing a coupling, be sure the shank is free of any burrs or sharp edges. This will make insertion into the hose easier and will help prevent inner tube hose damage.

WARNING: Never alter the shank of the coupling beyond removing any burrs. Altering the shank can reduce some of the coupling holding power or create sharp edges which could cut the hose tube. The resulting spraying, leaking, or end blow-offs could result in personal injury or death.

If the coupling will be secured by bands, hold the cou-pling near the hose and use a marker to indicate where the bands are to be located. A variety of shank designs is available, so always follow the manufacturer's recommen-dations for positioning bands.

Three common shank styles include the two-barb coupling, the combination nipple which consists of multiple barbs of the same size, and the coupling which has two large barbs and two smaller barbs.

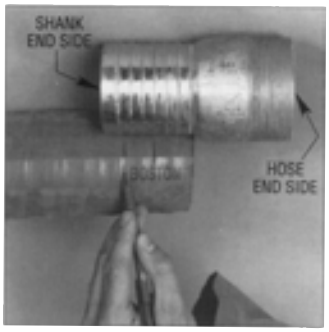
To attach bands to the two-barb coupling, hold the coupling along side the hose. Make a mark on the hose-end side of each barb. When attaching the coupling, place the bands just to the hose-end side of the marks.



Banding a two-barb coupling

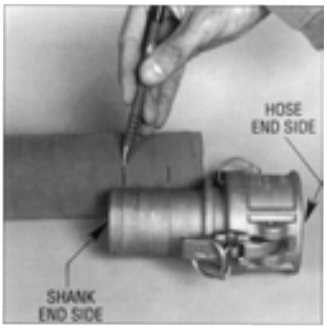
To band a combination nipple coupling, place a mark just to the hose-end side of the last barb of the shank (farthest from the hose end). Place a second mark midway between the first mark you make and the hose end.

Couplings
General Information



Banding a combination nipple shank.

To attach bands to a coupling with two large barbs and multiple small barbs, place marks on the hose-end side of the two large barbs 180° from each other.



Banding a coupling with two large barbs and two small barbs.

If two or more bands are to be installed, the band farthest from the end of the hose should be assembled at least half an inch from the end of the coupling shank.

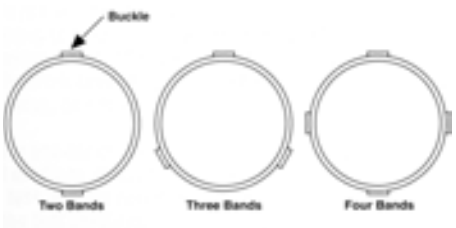
Coat the coupling shank with a mild soap and water solu-tion. Keep the hose and coupling shank aligned and press them together. Aligning them will help prevent damage to the tube and assure that the coupling reaches full insertion depth. Eaton recommends using a hydraulic or pneumatic powered pusher during coupling installation to prevent inner tube hose damage that can occur when using a rubber mallet.

Align the hose and coupling to prevent tube and coupling damage. Eaton recommends using an automatic coupling inserter to help achieve proper coupling alignment.

If the shank won't fit properly into the hose, select another coupling and try again. There are minimum and maximum shank tolerance dimensions for each coupling type. Consult each coupling manufacturer for specifications. Make sure you don't damage the tube.

Finally, secure the coupling. There are a variety of tools, securing mechanisms, and assembly procedures, so always follow the manufacturer's recommended procedures. Bands should be placed inside of the marks, toward the hose end side. The band farthest from the hose end should be tightened first.

n situations where two bands are present, Eaton suggests rotating the clamp buckles 180° from each other when assembling them. Rotating the buckles prevents possible leak paths. Always tighten the band farthest from the end of the hose assembly first.



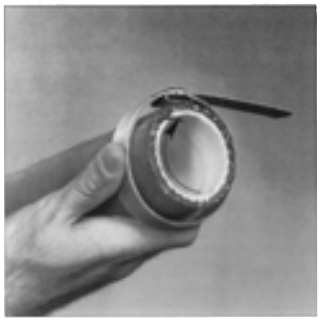
These illustrations show correct buckle position.

If three bands are present, space the clamp buckles 120° apart. For more than three bands, contact your clamp supplier.

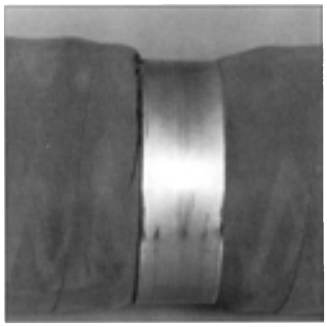
Eaton also recommends tightening the clamps in the same direction as the rotation of the wire helix (clockwise) if one is present. Doing so will prevent the wire helix and the bands from working against each other.

Couplings

General Information



Tighten clamps in the same direction as the helical wire.



Overtightened band

WARNING Do not overtighten coupling securing mechanisms. Doing so can cut the hose and cause leaks, spraying, and end blow-offs. This could lead to personal injury or death.

Installing Permanent Couplings

Permanent couplings are swaged, crimped or internally expanded onto the hose. Eaton is currently testing various couplings with Boston hose in order to make recommendations regarding assembly procedures. In the meantime, contact Eaton or the coupling and equipment manufacturers, or refer to the manufacturer's literature for further information.

Coupling Repair

The following items can be replaced on female cam and groove couplings: cam arms (handles), pins, rings, gaskets, and in some cases the ring/clip lock. To determine if the ring/clip or locking mechanism can be replaced, check with the coupling manufacturer.

To replace a cam arm, start by placing the coupling in a vise. Close the vise on the coupling body so that the vise jaws contact the coupling just below the cam arms. Make sure the cam arms are in full open position. Snug the vise securely.

CAUTION Do not tighten the vise excessively. Excessive vise pressure can distort the coupling.

Using a standard 1/4" round punch and a hammer or mallet, tap the cam arm pin through the cam arm and both lug holes. Holding onto the cam arm, remove the 1/4" round punch from cam arm lugs and lift out cam arm. Take the new cam arm pin and place either end into the cam arm lug hole. Using a hammer or mallet, gently tap the cam arm pin until it begins to enter the opening between the two cam arm lugs. Position the new cam arm between the two cam arm lugs and, with a hammer or mallet, gently tap the cam arm pin until it enters the hole in the cam arm. After the pin has entered that cam arm hole, continue tapping the pin until it is flush with the cam arm lug. Make sure the cam arm moves freely on the pin and that the pin fits snug in the lug holes.

Rings are replaced very easily. To take a ring off a cam arm, twist it off like you would take a key off of a key ring. The new ring is put on to the arm in the same fashion. When replacing a gasket, pull the old gasket out of the coupling with needle nose pliers. Next wipe the inside of the coupling where the gasket seats with a clean rag. Select a new replacement gasket that is the proper size and will meet the chemical compatibility requirements of the application. Finally, place the new gasket in the coupling so that it fits into the gasket recess and is seated flush against the coupling face.

Pressure test and tag any hose assembly that has been repaired.

Couplings
General Information

Safety Information

Choosing the correct coupling is important for maximum hose efficiency and safety. Couplings must be applied properly. Incorrect or improperly applied couplings can result in shorter hose life and hose failures. These failures can result in serious bodily harm or property damage.

Hose couplings have been carefully engineered over the years to meet specifi c safety requirements.

Some factors you should consider when choosing the proper coupling for a particular application are:

1. What is the material to be handled?
   a) Is it dangerous?
   b) Is it corrosive?
   c) Is it abrasive?
2. What are the pressures involved?
   a) High pressure
   b) Medium pressure
   c) Low pressure
   d) Suction
3. What means of connection are required?
   a) Threads
   b) Special locking
   c) Flanged ends

When selecting couplings, the end user should inform the distributor of the application and pressures involved when ordering hose assemblies, and it's up to the distributor to supply the right hose and coupling for that application.

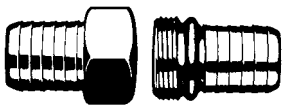
All hose assemblies should be treated with respect as potential hazards. Fittings, clamps or clips should be checked on a regular basis, and removed from service if damaged.

Shank length of coupling should be 1-1/2 times the inside diameter of the hose.

Combination nipples should only be used for suction and low pressure discharge applications.

WARNING: Consult with the Coupling Manufacturer to make sure you choose the correct coupling and proper assembly for the application. Such matching of hose and couplings, and assembling of couplings, should be performed only by trained personnel using proper tools and procedures. Failure to follow manufacturer's instructions or failure to use trained personnel may result in serious bodily injury and/or property damage.

Short Shank



Service: Low pressure air and water service
Size Range: 3/16" to 1"
Description: Cast brass with serrated shank; GHT, NPSM or NPT male and NPSH female; washer seal
Attachment: Clamps or bands

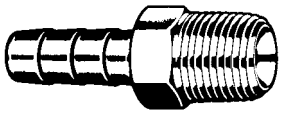
Long Shank

Service: Medium pressure air, water, sanitary and liquids in suction or discharge service
Size Range: 3/8" to 4"
Description: Machined steel or brass with serrated shank; NPT or NPSM male and female; thread seal to NPT and washer seal to NPSM female Attachment Bands or clamps

Couplings

General Information

Barbed Insets



Service: Low or medium pressure air, water and fl uids

Size Range: 3/16" to 1"

Description: Machined brass with serrated shank; NPT or NPTF male and rigid female, and NPSM swivel female; thread seal to NPT or NPTF female, and ball end or washer seal to NPSM female

Attachment: Bands or clamps

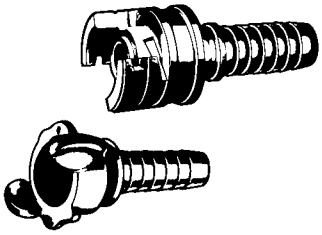
Interlocking

Service: High pressure air and water service, steam, high pressure spray, and LPG service

Size Range: 1/4" to 6"

Description: Plated malleable iron; insert and spud may be either steel or malleable iron; NPT male and female with ground joint or washer seal Attachment Four bolt or two bolt interlocking clamps

Quick Acting



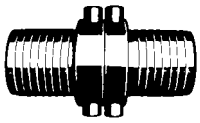
Service: Low to medium pressure; air, water or oil service where frequent and fast connections must be made

Size Range: 1/4" to 2"

Description: Plated malleable iron, stainless steel or bronze

Attachment: Interlocking clamps or bands

Water Suction



Service: Heavy duty water discharge and suction service

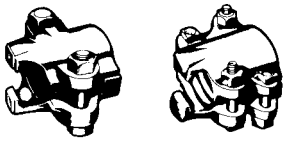
Size Range: 1" to 8"

Description: Malleable iron, aluminum and/or brass

Attachment: Clamps or bands

Couplings
General Information

Interlocking Clamp



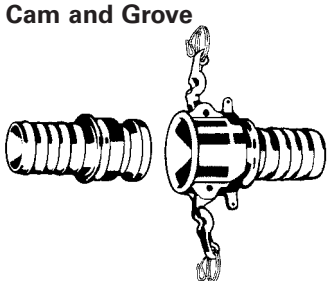
Service: Heavy duty high pressure applications such as air, steam, water, spray, LPG service

Size Range: 9/16" to 7 3/16" hose O.D.

Description: Malleable iron, plated

Attachment: Clamps bolted into position

Cam and Grove



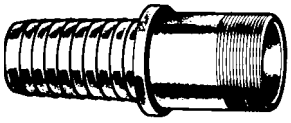
Service: Low and medium pressure water, petroleum and chemical transfer where fast connections are needed; also used for suction service

Size Range: 1/2" to 8"

Description: Aluminum, bronze, stainless steel, Monel, malleable iron; washer seal with no threads

Attachment: Clamps, bands, or crimp/swage ferrules

Swaged or Crimped



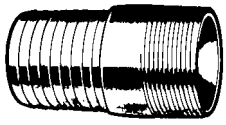
Service: For use on all types of hose where high pressures are used

Size Range: 1 1/4" to 8"

Description: Couplings consist of swaged fittings having serrated steel shanks with ferrules of plated steel

Attachment: Swaging or crimping equipment

Combination Nipple



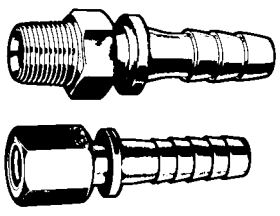
Service: Low or medium pressure suction and discharge of water, fluids, and material handling

Size Range: 1/2" to 12"

Description: Tubular steel, stainless, malleable iron, aluminum or brass with serrated shank; NPT male threads, grooved, or beveled for welding

Attachment: Clamps or bands

Steel Nipple



Service: Medium to high pressure: wide variety of applications.

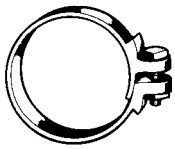
Size Range: 1/4" to 1"

Description: Machined from cold drawn bar steel, heat treated for toughness.

Attachment: Interlocking clamps

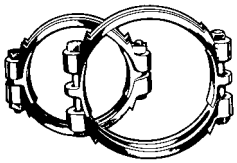
Couplings
General Information

Single Bolt Clamp



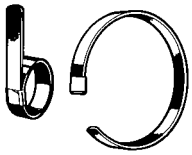
Service: Low pressure, and suction service on shank couplings, combination nipples, and pipe nipples
Size Range: 7/8" to 5 1/4" hose O.D.
Description: Cast malleable iron, plated.
Attachment: Bolted on hose

Double Bolt Clamp



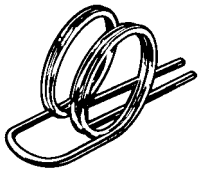
Service: Low or medium pressure, and suction service with large sizes of combination nipples, or couplings
Size Range: 3 1/2" to 17 1/2" hose O.D.
Description: Cast malleable iron, plated, and brass
Attachment: Applied over hose and bolted into position

Band Clamp



Service: Low or medium pressure, and suction service
Size Range: 3/4" to 6" hose O.D.
Description: Pre-formed flat stainless steel, high carbon steel
Attachment: Special locking band tool

Wire Hose Clamp



Service: Suitable for medium pressure, air, water or general purpose hose; good for hose with helical wire or corrugations; available in larger sizes for pin lug, serrated pipe nipple or combination nipples
Size Range: 5/8" to 13 1/4" hose O.D.
Description: Pre-formed round wire made of stainless steel, galvanized steel, copper, bronze or aluminum
Attachment: Wire ends pulled and crimped with special tool or machine

Brass Ferule

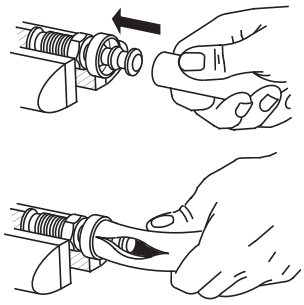
Service: Low or medium pressure air or water using general purpose hose and brass inserts
Size Range: 31/64" to 1 1/2" hose O.D
Description: Made from various gauge brass tubing; stamped with Standard Industrial Part Number
Attachment: Crimped on using either ribbed or plain die

Couplings

Field Attachable
100 'B' Series
Barb-Tite™

Use Hose H201/Easy Couple

Hose End Series:
100 'B' Series



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

Assembly Equipment
See page 185 for optional Assembly Tools.

CAUTION
Sealing integrity may be damaged by the use of clamps.

Typical Application: Low pressure shop or service air lines. Often used for low pressure lube and oil lines.

Compatible Hose: H201/Easy Couple

Pressure: Determined by maximum working pressure for hose size.

Material: CA360 brass

Advantages: Easy to assemble – just push the fitting onto the hose. No clamps needed! Low cost and a wide selection of configurations and sizes.

Ordering Information: Order individually by catalog number.

Assembly Instructions:

1. Lubricate insert.
2. Hold hose at angle as shown and push on and up over first barb.
3. Continue to push straight on until hose is seated under protective plastic cap. (Keep hand back from hose end area so that hose can expand.)

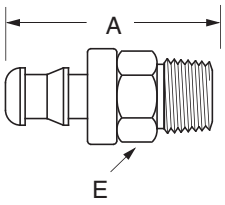
Disassembly Instructions:

1. Split hose as shown. Do not cut completely through hose. Sealing edge of barb could be damaged.
2. Bend hose and remove with quick pull.

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

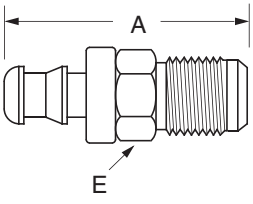
Label Set: FS-500

Male Pipe Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/8	10004B-102	1/8-27	1.29	.65	.172	7/16
1/4	1/4	10004B-104	1/4-18	1.52	.88	.172	9/16
5/16	1/8	10005B-102	1/8-27	1.36	.69	.234	1/2
5/16	1/4	10005B-104	1/4-18	1.57	.87	.234	9/16
3/8	1/8	10006B-102	1/8-27	1.46	.69	.297	1/2
3/8	1/4	10006B-104	1/4-18	1.65	.88	.297	9/16
3/8	3/8	10006B-106	3/8-18	1.65	.88	.297	11/16
1/2	3/8	10008B-106	3/8-18	1.85	.94	.391	11/16
1/2	1/2	10008B-108	1/2-14	2.10	1.19	.391	7/8
5/8	1/2	10010B-108	1/2-14	2.60	1.19	.484	7/8
3/4	3/4	10012B-112	3/4-14	2.66	1.25	.609	1-1/16

SAE 45° Flare Male Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/4	10004B-304	7/16-20	1.45	.81	.172	7/16
1/4	5/16	10004B-305	1/2-20	1.54	.94	.172	1/2
5/16	5/16	10005B-305	1/2-20	1.60	.94	.220	1/2
3/8	3/8	10006B-306	5/8-18	1.73	1.00	.297	5/8

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

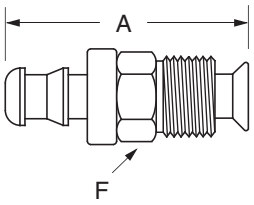
Couplings

Field Attachable 100 'B' Series Barb-Tite

Use Hose H201/Easy Couple

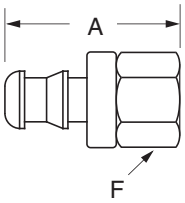
Inverted Male Swivel

(Steel Nut)



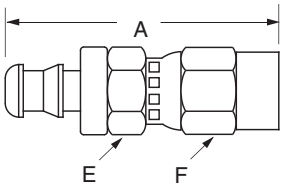
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX F
1/4	3/16	10004B-B03	3/8-24	1.39	1.13	.109	3/8
1/4	1/4	10004B-B04	7/16-24	1.42	1.13	.172	7/16
1/4	5/16	10004B-B05	1/2-20	1.52	1.19	.188	1/2
5/16	1/4	10005B-B04	7/16-24	1.81	1.11	.184	7/16
5/16	5/16	10005B-B05	1/2-20	1.60	.80	.234	1/2
5/16	3/8	10005B-B06	5/8-18	1.60	1.19	.234	5/8
3/8	5/16	10006B-B05	1/2-20	1.64	1.19	.234	1/2
3/8	3/8	10006B-B06	5/8-18	1.70	.97	.297	5/8
1/2	1/2	10008B-B08	3/4-18	2.24	1.25	.391	3/4

Female Inverted Rigid



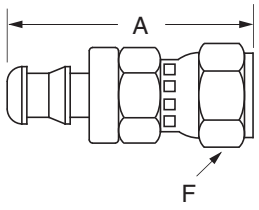
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX F
1/4	3/16	10004B-A03	3/8-24	1.12	.48	.172	1/2
1/4	1/4	10004B-A04	7/16-24	1.14	.50	.172	9/16
1/4	5/16	10004B-A05	1/2-20	1.18	.56	.172	5/8
5/16	5/16	10005B-A05	1/2-20	1.25	.56	.220	5/8
3/8	5/16	10006B-A05	1/2-20	1.32	.55	.297	5/8
3/8	3/8	10006B-A06	5/18-18	1.35	.63	.297	3/4
1/2	1/2	10008B-A08	3/4-18	1.73	.75	.391	7/8

Female Pipe Swivel



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	10004B-254	1/4-18	2.42	1.81	.172	3/4	5/8
3/8	3/8	10006B-256	3/8-18	2.77	2.00	.297	7/8	11/16
1/2	1/2	10008B-258	1/2-14	3.29	2.38	.391	1-1/8	7/8

SAE 37° Female Swivel



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX F
1/4	1/4	10004B-604[a]	7/16-20	1.38	.74	.172	9/16
1/4	5/16	10004B-605[a]	1/2-20	1.42	.81	.172	5/8
5/16	5/16	10005B-605[a]	1/2-20	1.54	.83	.234	11/16
3/8	5/16	10006B-605[a]	1/2-20	1.60	.88	.297	11/16
3/8	3/8	10006B-406[b]	5/8-18	1.73	.94	.297	3/4
3/8	3/8	10006B-606[c]	9/16-18	1.66	.88	.297	11/16
1/2	1/2	10008B-608[a]	3/4-16	2.06	1.06	.391	7/8
5/8	5/8	10010B-610[a]	7/8-14	2.67	1.19	.484	1
3/4	5/8	10012B-610[a]	7/8-14	2.69	1.25	.511	1
3/4	3/4	10012B-412[b]	1-1/16–14	2.69	1.19	.609	1-1/4
3/4	3/4	10012B-612[c]	1-1/16–12	2.69	1.19	.609	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.

a Swivel nuts are universal – both SAE 37° and 45° connections.

b SAE 45° flare connection only.

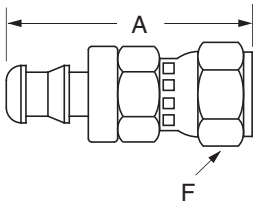
c SAE 37° flare connection only.

Couplings

Field Attachable
100 'B' Series
Barb-Tite

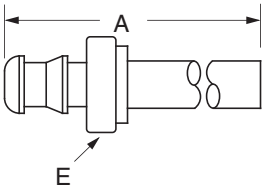
Use Hose H201/Easy Couple

SAE 45° Flare Female Swivel



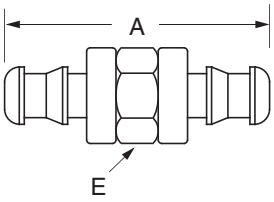
HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX F
3/8	3/8	10006B-406[b]	5/8-18	1.62	.88	.297	3/4
3/4	3/4	10012B-412[b]	1-1/16–14	2.66	1.25	.609	1-1/4

Straight Tube Rigid



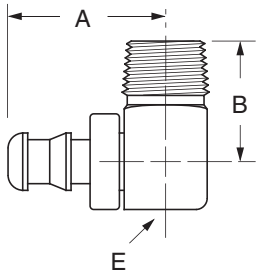
HOSE I.D.	TUBE SIZE	CATALOG NUMBER	TUBE DIA.	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	DIA. E
1/4	3/16	10004B-X03	.188	1.77	1.13	.172	13/32
1/4	/4	10004B-X04	.250	1.83	1.19	.172	13/32
1/4	5/16	10004B-X05	.312	1.85	1.25	.172	13/32
5/16	5/16	10005B-X05	.312	1.91	1.25	.228	7/16
3/8	3/8	10006B-X06	.375	2.04	1.27	.297	1/2

Hose Mender



HOSE I.D.	CATALOG NUMBER	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	10004B-Y04	1.76	.50	.172	1/2
5/16	10005B-Y05	1.85	.44	.234	9/16
3/8	10006B-Y06	1.97	.44	.297	5/8
1/2	10008B-Y08	2.33	.50	.391	3/4

Male Pipe Rigid 90° Elbow



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	B	HOSE CUT-OFF FACTOR†	HOLE DIA.	SQUARE E
5/16	1/8	10005B-C02	1/8-27	1.02	.94	.31	.228	1/2
5/16	1/4	10005B-C04	1/4-18	1.09	.94	.38	.228	9/16
3/8	1/8	10006B-C02	1/8-27	1.08	.94	.38	.297	1/2
3/8	1/4	10006B-C04	1/4-18	1.15	.94	.38	.297	9/16

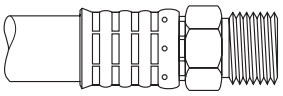
†To determine the correct length of hose, subtract the cut-off factor for each end fitting from the overall length of assembly.

b SAE 45° flare connection only.

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.

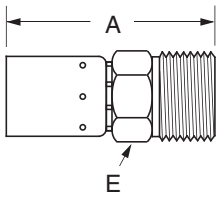
Ordering Information: Order individually by catalog number.

Assembly Instructions: See Hose End & Tool Seletor 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

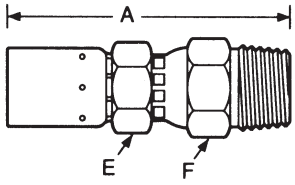
Male Pipe Rigid



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.)



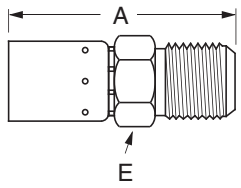
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04E-J04	1/4-18	2.68	1.81	.16	5/8	13/16
5/16	1/4	05E-J04	1/4-18	2.75	1.81	.22	5/8	13/16
3/8	3/8	06E-J06	3/8-18	2.79	1.81	.27	11/16	7/8
1/2	1/2	08E-J08	1/2-14	3.03	2.00	.39	3/4	7/8
3/4	3/4	12E-J12	3/4-14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

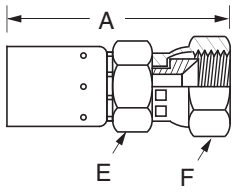
SAE 37° Male Rigid



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[a]	7/16-20	1.89	1.00	.09	7/16	9/16
1/4	1/4	04E-604[a]	7/16-20	1.92	1.13	.16	7/16	9/16
1/4	5/16	04E-605[a]	1/2-20	2.00	1.19	.16	1/2	5/8
1/4	3/8	04E-606[c]	9/16-18	2.06	1.25	.16	9/16	11/16
5/16	5/16	05E-605[a]	1/2-20	2.07	1.19	.22	1/2	5/8
5/16	3/8	05E-406[b]	5/8-18	2.03	1.13	.22	9/16	3/4
5/16	3/8	05E-606[c]	9/16-18	2.12	1.19	.22	9/16	11/16
3/8	3/8	06E-406[b]	5/8-18	2.06	1.13	.27	9/16	3/4
3/8	3/8	06E-606[c]	9/16-18	2.19	1.25	.27	9/16	11/16
3/8	1/2	06E-608[a]	3/4-16	2.30	1.38	.27	3/4	7/8
1/2	1/2	08E-608[a]	3/4-16	2.39	1.38	.38	3/4	7/8
1/2	5/8	08E-610[a]	7/8-14	2.51	1.50	.38	7/8	1
3/4	3/4	12E-412[b]	1-1/16–14	2.76	1.56	.61	1	1-1/4
3/4	3/4	12E-612[c]	1-1/16–12	2.76	1.56	.61	1	1-1/4
1	1	16E-616[c]	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.

a Swivel nuts are universal

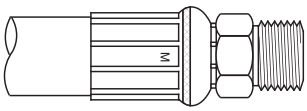
b both SAE 37° and 45° connections.

c SAE 37° flare connection only.

Couplings

Coll-O-Crimp
'M' Series

Hose End Series: 'M' Series



Typical Application: Pressure wash.

Compatible Hose: H345/Pressure Washer 3000

Material: AISI/SAE 12L14 carbon steel

Plating: Zinc; yellow dichromate finish

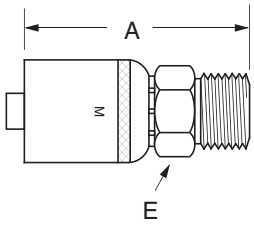
Advantages: Wide selection of hose and end configurations allowing a diverse number of applications. An ideal series to introduce hydraulics.

Ordering Information: Order individually by catalog number.

Assemble With: T-400-1, T-410-1, T-420-1, T-440-1, T-460, T-462, T-465-1, T-480.

Label Set: FS-3400

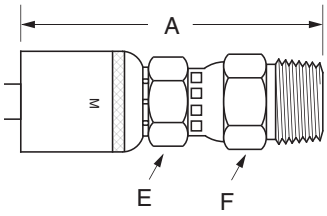
Male Pipe Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/4	04M-104	1/4-18	2.26	1.00	.16	9/16
3/8	3/8	06M-106	3/8-18	2.38	1.06	.25	11/16
1/2	1/2	08M-108	1/2-14	2.60	1.31	.36	13/16

Male Pipe Swivel

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



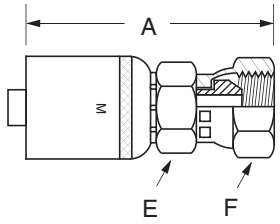
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04M-J04	1/4-18	3.15	1.88	.16	5/8	13/16
3/8	3/8	06M-J06	3/8-18	3.25	1.94	.25	11/16	7/8
1/2	1/2	08M-J08	1/2-14	3.46	2.19	.36	13/16	7/8

†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
'M' Series

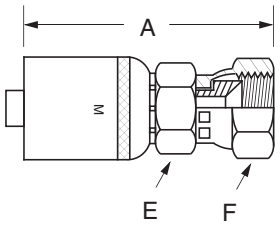
Female Straight Pipe Swivel



Note: Connects to male pipe fittings with internal seat.

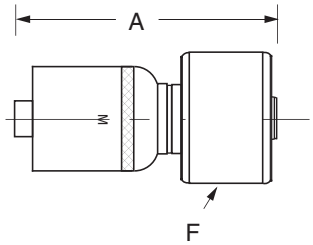
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	NPSM THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04M-054	1/4-18	2.32	1.06	.16	1/2	11/16
3/8	3/8	06M-056	3/8-18	2.49	1.19	.25	11/16	7/8
1/2	1/2	08M-058	1/2-14	2.71	1.44	.36	13/16	1

SAE 37° Female Swivel



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04M-604[a]	7/16-20	2.38	1.13	.16	9/16	9/16
3/8	3/8	06M-606[c]	9/16-18	2.63	1.31	.25	11/16	11/16
3/8	1/2	06M-608[a]	3/4-16	2.73	1.44	.25	11/16	7/8
1/2	1/2	08M-608[a]	3/4-16	2.64	1.38	.36	13/16	7/8

Pressure Washer



HOSE I.D.	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	DIA. F
1/4	04M-6PW	M22x1.5	2.40	1.12	.16	1-3/8
3/8	06M-6PW	M22x1.5	2.49	1.19	.25	1-3/8

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

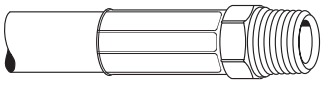
a Swivel nuts are universal.

c SAE 37° flare connection only.

Couplings

Coll-O-Crimp
265 'P' Series

Hose End Series:
265 'P' Series



Typical Application: General purpose low- pressure air and water lines.

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

Pressure: Determined by maximum working pressure for hose size.

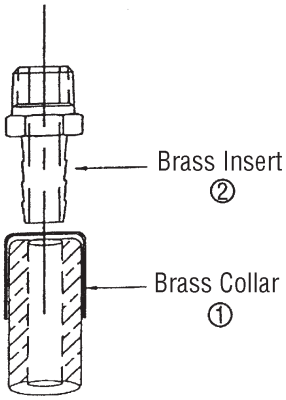
Material: CA360 Brass

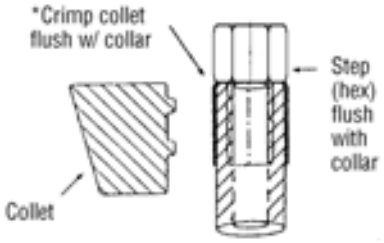
Advantages: One piece construction, easy to assemble, corrosion resistant..

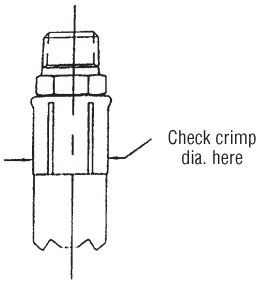
Ordering Information: Order individually by catalog number. To order replacement collar only, use base number followed by "COO" suffix. (Example: 26504P-COO)

Assemble With: T-400-1, T-410-1, T-420-1, T-440-1, T-460, T-462, T-465-1, T-480.

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







Componentry for 265 'P' Series Hose Ends

1. Brass Collar
2. Brass Insert

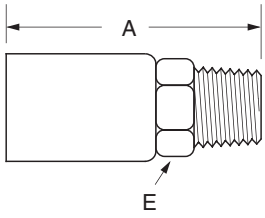
Assembly Instructions for 265 'P' Series Hose Ends

1. Push collar onto hose until bottomed.
2. Push insert into hose until step on insert (or hex) is flush with collar.
3. Check for bottoming by checking collar movement along insert. Hose is bottomed when collar cannot slide along insert.
4. Position top of collar so that it is flush with the top of the collet. Follow recommended Coll-O-Crimp operating procedures found in the back of this catalog.

Couplings

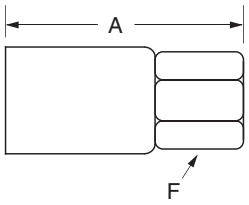
Coll-O-Crimp
265 'P' Series

Male Pipe Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/8	26504P-102	1/8-27	1.56	.56	.18	7/16
1/4	1/4	26504P-104	1/4-18	1.63	.63	.18	9/16
1/4	3/8	26504P-106	3/8-18	1.75	.75	.18	11/16
3/8	1/8	26506P-102	1/8-27	1.56	.56	.25	7/16
3/8	1/4	26506P-104	1/4-18	1.75	.75	.31	9/16
3/8	3/8	26506P-106	3/8-18	1.74	.75	.28	11/16
3/8	1/2	26506P-108	1/2-14	1.94	1.00	.28	7/8
1/2	1/4	26508P-104	1/4-18	1.73	.75	.37	9/16
1/2	3/8	26508P-106	3/8-18	1.71	.75	.37	11/16
1/2	1/2	26508P-108	1/2-14	1.94	1.00	.37	7/8
1/2	3/4	26508P-112	3/4-18	1.94	1.00	.37	1-1/8
3/4	1/2	26512P-108	1/2-14	1.94	1.00	.37	1-1/8
3/4	3/4	26512P-112	3/4-14	1.92	1.00	.56	1-1/8

Female Pipe Rigid



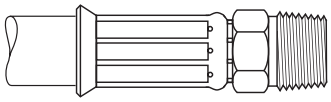
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX F
1/4	1/8	26504P-202	1/8-27	1.49	.50	.18	9/16
1/4	1/4	26504P-204	1/4-18	1.60	.63	.18	11/16
3/8	1/8	26506P-202	1/8-27	1.49	.50	.28	9/16
3/8	1/4	26506P-204	1/4-18	1.60	.63	.28	11/16
3/8	3/8	26506P-206	3/8-18	1.66	.69	.28	13/16
1/2	1/4	26508P-204	1/4-18	1.57	.63	.37	11/16
1/2	3/8	26508P-206	3/8-18	1.63	.69	.37	13/16
1/2	1/2	26508P-208	1/2-14	1.85	.88	.37	1
3/4	1/2	26512P-108	1/2-14	1.94	1.00	.37	1-1/8
3/4	3/4	26512P-112	3/4-14	1.92	1.00	.56	1-1/8

†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
'U' Series

Hose End Series:
'U' Series



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

Typical Application: General purpose low, medium, and high pressure fluid transfer.

Compatible Hose: Use Hose H105 & H106/Bosflex, H1066/Creamery Packing, H115 & H116/Performer II, H1571/Mineforce, H1776 & H1777/Perfection 300, H1812/Industrial A/W, H1941 & H1942/Nyall, H1981-H1983/Marathoner, H6002/Concord Air, H8811/Nitrogen Service, H900/Black Line, H9610/Washdown 1000, H9949/Shock Safe & H9673/Washdown 1250

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

Material: Low Carbon Steel

Plating: Zinc; yellow dichromate finish

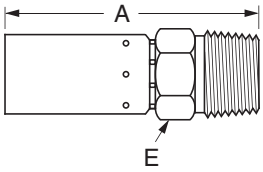
Advantages: Wide selection of hose and end configurations allowing a diverse number of applications. An ideal series to introduce hydraulics.

Ordering Information: Order individually by catalog number.

Assemble With: T-400-1, T-410-1, T-420-1, T-440, T-460, T-462, T-465 and T-480.

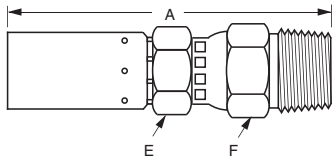
Label Set: FS-1100

Male Pipe Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/8	04U-102	1/8-27	2.31	.75	.16	9/16
1/4	1/4	04U-104	1/4-18	2.49	.94	.16	9/16
1/4	3/8	04U-106	3/8-18	2.52	1.00	.16	11/16
1/4	1/2	04U-108	1/2-14	2.77	1.06	.16	7/8
3/8	1/4	06U-104	1/4-18	2.52	1.00	.25	11/16
3/8	3/8	06U-106	3/8-18	2.52	1.00	.25	11/16
3/8	1/2	06U-108	1/2-14	2.77	1.25	.25	7/8
1/2	1/4	08U-104	1/4-18	2.56	.88	.28	13/16
1/2	3/8	08U-106	3/8-18	2.57	1.14	.36	3/4
1/2	1/2	08U-108	1/2-14	2.75	1.31	.36	13/16
1/2	3/4	08U-112	3/4-14	2.83	1.28	.36	1-1/16
5/8	3/8	10U-106	3/8-18	3.12	1.13	.48	15/16
5/8	1/2	10U-108	1/2-14	3.31	1.38	.48	15/16
5/8	3/4	10U-112	3/4-14	3.31	1.30	.48	1-1/16
3/4	1/2	12U-108	1/2-14	3.62	1.44	.61	1
3/4	3/4	12U-112	3/4-14	3.61	1.44	.61	1-1/16
3/4	1	12U-116	1–11-1/2	3.84	1.69	.61	1-3/8
1	3/4	16U-112	3/4-14	4.23	1.88	.81	1-1/4
1	1	16U-116	1–11-1/2	3.90	1.69	.81	1-3/8
1-1/4	1-1/4	20U-120	1-1/4–11-1/2	4.61	2.31	1.02	1-11/16

Male Pipe Swivel



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

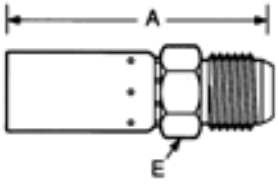
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04U-J04	1/4-18	3.38	1.88	.16	5/8	13/16
3/8	1/4	06U-J04	1/4-18	3.40	1.94	.25	11/16	13/16
3/8	3/8	06U-J06	3/8-18	3.38	1.94	.25	11/16	7/8
3/8	1/2	06U-J08	1/2-14	3.60	2.13	.25	3/4	7/8
1/2	3/8	08U-J06	3/8-18	3.45	2.00	.36	13/16	7/8
1/2	1/2	08U-J08	1/2-14	3.60	2.19	.36	13/16	7/8
3/4	3/4	12U-J12	3/4-14	4.73	2.56	.61	1	1-1/4
1	1	16U-J16	1–11-1/2	5.06	2.88	.80	1-1/4	1-3/8

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

Couplings

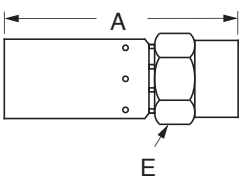
Coll-O-Crimp
'U' Series

SAE 37° Male Rigid



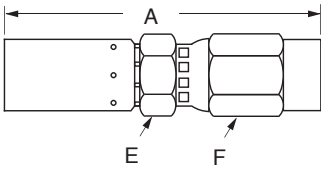
HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/4	04U-504	7/16-20	2.48	1.00	.16	1/2
1/4	5/16	04U-505	1/2-20	2.51	1.00	.16	9/16
1/4	3/8	04U-506	9/16-18	2.55	1.00	.16	5/8
3/8	3/8	06U-506	9/16-18	2.54	1.00	.25	11/16
3/8	1/2	06U-508	3/4-16	2.67	1.25	.25	13/16
3/8	5/8	06U-510	7/8-14	2.83	1.31	.25	15/16
1/2	1/2	08U-508	3/4-16	2.70	1.19	.38	13/16
1/2	5/8	08U-510	7/8-14	2.83	1.31	.36	15/16
1/2	3/4	08U-512	1-1/16–12	2.87	1.44	.36	1-1/8
5/8	1/2	10U-508	3/4-16	3.22	1.31	.39	15/16
5/8	5/8	10U-510	7/8-14	3.32	1.38	.48	15/16
5/8	3/4	10U-512	1-1/16–12	3.42	1.44	.48	1-1/8
3/4	5/8	12U-510	7/8-14	3.64	1.44	.43	1
3/4	3/4	12U-512	1-1/16–12	3.74	1.56	.61	1-1/16
3/4	7/8	12U-514	1-3/16–12	3.81	1.63	.61	1-1/4
3/4	1	12U-516	1-5/16–12	3.81	1.63	.61	1-3/8
1	7/8	16U-514	1-3/16–12	4.18	1.94	.72	1-1/4
1	1	16U-516	1-5/16–12	4.20	2.00	.81	1-3/8
1	1-1/4	16U-520	1-5/8–12	4.02	1.81	.81	1-11/16
1-1/4	1-1/4	20U-520	1- 5/8–12	4.60	2.31	1.02	1-11/16

Female Pipe Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/4	1/8	04U-202	1/8-27	2.20	.75	.16	5/8
1/4	1/4	04U-204	1/4-18	2.43	.94	.16	3/4
3/8	1/4	06U-204	1/4-18	2.46	1.06	.25	3/4
3/8	3/8	06U-206	3/8-18	2.57	1.13	.25	7/8
1/2	1/2	08U-208	1/2-14	2.82	1.38	.36	1-1/8
3/4	3/4	12U-212	3/4-14	3.71	1.56	.61	1-3/8

Female Pipe Swivel



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04U-254	1/4-18	3.52	2.06	.20	5/8	13/16
3/8	3/8	06U-256	3/8-18	3.61	2.19	.32	11/16	7/8
1/2	1/2	08U-258	1/2-14	3.85	2.38	.43	13/16	1-1/8
3/4	3/4	12U-262	3/4-14	4.81	2.63	.61	1	1-3/8
1	1	16U-266	1–11-1/2	5.26	3.06	.80	1-1/4	1-5/8

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

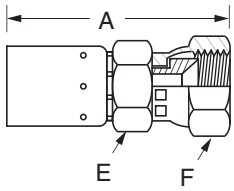
Note: Swivel for installation purposes only. (Not for temperatures above 200°F.)

Couplings

Coll-O-Crimp
'U' Series

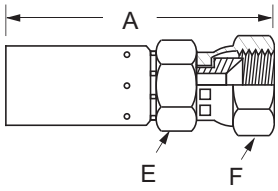
Female Straight Pipe Swivel (NPSM)

(Connects to male pipe fitting with internal seat.)



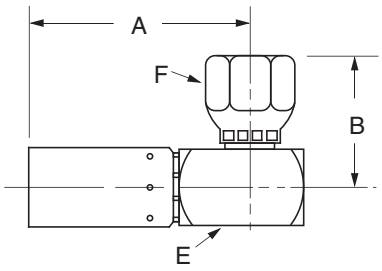
HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04U-054	1/4-18	2.55	1.06	.16	1/2	11/16
3/8	3/8	06U-056	3/8-18	2.65	1.19	.27	11/16	7/8
1/2	1/2	08U-058	1/2-14	2.85	1.44	.36	13/16	1
3/4	3/4	12U-062	3/4-14	3.77	1.63	.61	1	1-1/4
1	1	16U-066	1–11-1/2	4.34	2.13	.81	1-1/4	1-1/2
1-1/4	1-1/4	20U-070	1-1/4–11-1/2	4.76	2.44	1.08	1-11/16	1-7/8

SAE 37° Female Swivel



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/4	1/4	04U-604[a]	7/16-20	2.61	1.13	.16	9/16	9/16
1/4	5/16	04U-605[a]	1/2-20	2.67	1.18	.16	9/16	5/8
1/4	3/8	04U-606[c]	9/16-18	2.72	1.25	.16	9/16	11/16
3/8	1/4	06U-604[a]	7/16-20	2.66	1.25	.16	11/16	9/16
3/8	3/8	06U-406 b	5/8-18	2.68	1.25	.25	11/16	3/4
3/8	3/8	06U-606[c]	9/16-18	2.77	1.31	.25	11/16	11/16
3/8	1/2	06U-608[a]	3/4-16	2.86	1.44	.25	11/16	7/8
3/8	5/8	06U-610[a]	7/8-14	3.00	1.56	.25	7/8	1
3/8	3/4	06U-612[c]	1-1/16–12	3.15	1.69	.25	1	1-1/4
1/2	3/8	08U-606[c]	9/16-18	2.68	1.25	.30	13/16	11/16
1/2	1/2	08U-608[a]	3/4-16	2.79	1.38	.36	13/16	7/8
1/2	5/8	08U-610[a]	7/8-14	3.00	1.56	.36	13/16	1
1/2	3/4	08U-612[c]	1-1/16–12	3.12	1.44	.36	1	1-1/4
1/2	1	08U-616[c]	1-5/16–12	3.17	1.75	.36	1-1/4	1-1/2
5/8	1/2	10U-608[a]	3/4-16	3.48	1.56	.39	15/16	7/8
5/8	5/8	10U-610[a]	7/8-14	3.53	1.63	.48	15/16	1
5/8	3/4	10U-612[c]	1-1/16–12	3.64	1.75	.48	1	1-1/4
3/4	5/8	12U-610[a]	7/8-14	3.75	1.56	.48	1	1
3/4	3/4	12U-412[b]	1-1/16–14	3.86	1.69	.61	1	1-1/4
3/4	3/4	12U-612[c]	1-1/16–12	3.86	1.69	.61	1	1-1/4
3/4	7/8	12U-614[c]	1-3/16–12	3.88	1.69	.61	1-1/8	1-3/8
3/4	1	12U-616[c]	1-5/16–12	4.07	1.88	.61	1-1/4	1-1/2
1	3/4	16U-612[c]	1-1/16–12	4.37	2.13	.61	1-1/4	1-1/4
1	7/8	16U-614[c]	1-3/16–12	4.35	2.13	.72	1-1/4	1-3/8
1	1	16U-616[c]	1-5/16–12	4.46	2.25	.81	1-1/4	1-1/2
1	1-1/4	16U-620[c]	1-5/8–12	4.30	2.19	.81	1-5/8	2
1-1/4	1-1/4	20U-620[c]	1-5/8–12	4.90	2.63	1.02	1-11/16	2

SAE 37° Female Swivel 90° Elbow



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	B	HOSE CUT-OFF FACTOR†	HOLE DIA.	SQUARE E	HEX F
1/4	1/4	04U-554[c]	7/16-20	2.43	1.06	.95	.16	11/16	9/16
3/8	3/8	06U-556[c]	9/16-18	2.50	1.18	1.06	.25	11/16	11/16
1/2	1/2	08U-558[c]	3/4-16	2.75	1.35	1.31	.36	3/4	7/8
1/2	5/8	08U-560[c]	7/8-14	2.75	1.34	1.31	.36	3/4	1
3/4	5/8	12U-560[c]	7/8-14	4.15	1.54	2.00	.61	1-1/8	1
3/4	3/4	12U-562[c]	1-1/16–12	4.15	1.62	2.00	.61	1-1/8	1-1/4
3/4	7/8	12U-564[c]	1-3/16–12	4.15	1.68	2.00	.61	1-1/8	1-3/8

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

a Swivel nuts are universal Low Carbon Steel

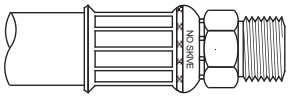
b both SAE 37° and 45° connections.

c SAE 37° flare connection only.

Couplings

430 'U' Series
No Skive

Hose End Series:
'U' Series



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

Typical Application: General purpose low, medium, and high pressure fluid transfer.

Compatible Hose: Use Hose H0377/Kelly Power, H115 & H116/Performer II, H1777/Perfection 300, H1812/Industrial A/W, H6002/Concord Air, H6008/Yellow Jack, H6009/Bulldog Gold & H9622/Contractors Air.

Material: Low Carbon Steel

Plating: Zinc; yellow dichromate finish

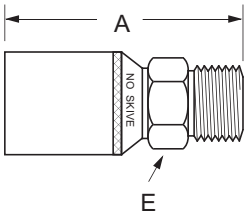
Assemble With: T-410-1 Coll-O-Crimp II, T-420-1 Coll-O-Crimp Super I, T-440-1 Coll-OCrimp II Plus or T-480.

Advantages: Wide selection of hose and end configurations allowing a diverse number of applications. An ideal series to introduce hydraulics.

Ordering Information: Order individually by catalog number. O-rings not supplied with split flange hose ends.

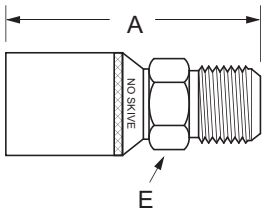
Label Set: FS-3100

Male Pipe (NPTF) Rigid



HOSE I.D.	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/2	1/2	43008U-108	1/2-14	3.56	1.69	.34	7/8
1/2	3/4	43008U-112	3/4-14	3.29	1.38	.34	1-1/16
3/4	3/4	43012U-112	3/4-14	3.68	1.69	.61	1-1/16
3/4	1	43012U-116	1–11-1/2	3.77	1.75	.61	1-3/8
1	3/4	43016U-112	3/4-14	3.86	1.81	.71	1-1/4
1	1	43016U-116	1–11-1/2	4.05	2.00	.81	1-3/8
1	1-1/4	43016U-120	1-1/4–11-1/2	4.08	2.06	.81	1-11/16
1-1/4	1-1/4	43020U-120	1-1/4–11-1/2	4.58	2.31	1.02	1-11/16
1-1/2	1-1/2	43024U-124	1-1/2–11-1/2	4.87	2.38	1.25	2
2	2	43032U-132	2–11-1/2	5.51	2.69	1.69	2-1/2

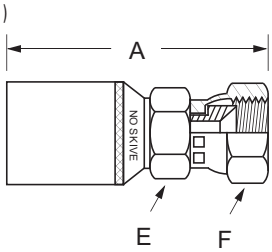
SAE 37° Male Rigid



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E
1/2	1/2	43008U-508	3/4-16	3.50	1.63	.34	7/8
1/2	5/8	43008U-510	7/8-14	3.30	1.38	.34	1
3/4	3/4	43012U-512	1-1/16–12	3.74	1.75	.61	1-1/8
3/4	7/8	43012U-514	1-3/16–12	3.81	1.81	.61	1-1/4
3/4	1	43012U-516	1-5/16–12	4.02	2.06	.61	1-3/8
1	1	43016U-516	1-5/16–12	4.02	2	.81	1-3/8
1	1-1/4	43016U-520	1-5/8–12	3.84	1.81	.81	1-11/16
1-1/4	1-1/4	43020U-520	1-5/8–12	4.57	2.31	1.02	1-11/16
1-1/2	1-1/2	43024U-524	1-7/8–12	4.95	2.50	1.25	2
2	2	43032U-532	2-1/2–12	5.57	2.75	1.69	2-5/8

SAE 37° Female Swivel

)



HOSE I.D.	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX E	HEX F
1/2	3/8	43008U-606[c]	9/16-18	3.56	1.69	.34	13/16	11/16
1/2	1/2	43008U-608[a]	3/4-16	3.67	1.75	.34	13/16	7/8
1/2	5/8	43008U-610[a]	7/8-14	3.72	1.81	.34	13/16	1
1/2	3/4	43008U-612[c]	1-1/16–12	3.76	1.88	.34	1	1-1/4
3/4	3/4	43012U-612[c]	1-1/16–12	4.08	2.06	.61	1	1-1/4
3/4	7/8	43012U-614[c]	1-3/16–12	3.90	1.88	.61	1-1/4	1-3/8
3/4	1	43012U-616[c]	1-5/16–12	4.01	2.00	.61	1-1/4	1-1/2
1	3/4	43016U-612[c]	1-1/16–12	4.19	2.19	.61	1-1/4	1-1/4
1	1	43016U-616[c]	1-5/16–12	4.28	2.25	.81	1-1/4	1-1/2
1	1-1/4	43016U-620[c]	1-5/8–12	4.12	2.06	.81	1-5/8	2
1-1/4	1-1/4	43020U-620[c]	1-5/8–12	4.87	2.63	1.02	1-11/16	2
1-1/4	1-1/2	43020U-624[c]	1-7/8–12	5.03	2.75	1.02	1-7/8	2-1/4
1-1/2	1-1/2	43024U-624[c]	1-7/8–12	5.29	2.81	1.25	2	2-1/4
2	2	43032U-632[c]	2-1/2–12	6.04	3.25	1.69	2-1/2	3

†To determine the correct length of hose, subtract the cut-off factor

a Swivel nuts are universal c SAE 37° flare connection only.

Equipment

Coll-O-Crimp
T-605VS

The T-605VS is designed for high-speed production crimping of hydraulic and fluid transfer hose assemblies. Equipped with Boston "bump-and-skirt" dies, the T-605VS produces OEM-quality crimps on Eaton 'U', '430U' and 'E' series hose ends. Optional flat-crimp dies allow crimping of other Boston hose ends and Boston Wolf Couplings.

Capacity: 3/16" I.D. fiber-braid through 2" 6-spiral hydraulic, pneumatic and fluid transfer hoses

Mounting: Tool Stand or Bench Mount

Weight: 293 lbs.

Standard Voltage: 230 three-phase

T-605VS-1 • Variable Crimp System ONLY!

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

Refer to pages 148 for Coll-O-Crimp tooling, tooling packages and pumps.

The Coll-O-Crimp power source has the pressure relief valve set at 10,000 PSI. Damage to the press will result if higher pressures are used and warranty will be voided.

T-605VS • T-605 Crimping System Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605VS-1	Variable Crimp System
T-605-CS	QC Tool Stand
T-605-80FP	Complete Set (17) Dies for Flat Crimp
T-605-104U	'U' Series, 'S' Series and 265 'P' Series Die Sets
T-605-430U	430 'U' Series Die Set

T-605VS-U • T-605 Crimping System Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605VS-1	Variable Crimp System
T-605-CS	QC Tool Stand
T-605-104U	'U' Series, 'S' Series and 265 'P' Series Die Sets
T-605-430U	430 'U' Series Die Set

T-605VS-B • T-605 Crimping System Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605VS-1	Variable Crimp System
T-605-CS	QC Tool Stand
T-605-80FP	Complete Set (17) Dies for Flat Crimp

Additional T-605 Crimping System Parts

CATALOG NUMBER	DESCRIPTION
T-605-CS	QC Tool Stand
T-605-TH	Tool Holder - Wall or Floor Mounted
T-605-DH	Quick Change Die Holder
T-605-DP	Set of retaining Pins for Dies

Collets may be ordered individually.

T-605-104U • 'U' Series, 'S' Series & 265 'P' Series Die Set for Crimping System T-605VS

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605-10404	Crimp dies for 04 'U', 04 'S', 26504 'P' & 26506 'P' hose ends
T-605-10406	Crimp dies for 06 'U', 06 'S' & 26508 'P' hose ends
T-605-10408	Crimp dies for 08 'U' & 08 'S' hose ends
T-605-10410	Crimp dies for 10 'U' & 26512 'P' hose ends
T-605-10412	Crimp dies for 12 'U' & 12 'S' hose ends
T-605-10416	Crimp dies for 16 'U' & 16 'S' hose ends
T-605-10420	Crimp dies for 20 'U' & 20 'S' hose ends

T-605-430U • 430 'U' Series Die Set for Crimping System T-605VS

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605-43008	Crimp dies for 43008 'U' hose ends
T-605-43012	Crimp dies for 43012 'U' hose ends
T-605-43016	Crimp dies for 43016 'U' hose ends
T-605-43020	Crimp dies for 43020 'U' hose ends
T-605-43024	Crimp dies for 43024 'U' hose ends
T-605-43032	Crimp dies for 43032 'U' hose ends

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

T-605-80FP • Complete Set (17) Dies for Flat Crimp*

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605-FP10	Crimp range 10-12mm (0.394"-0.472")
T-605-FP12	Crimp range 12-14mm (0.472"-0.551")
T-605-FP14	Crimp range 14-16mm (0.551"-0.629")
T-605-FP16	Crimp range 16-19mm (0.629"-0.748")
T-605-FP19	Crimp range 19-22mm (0.748"-0.866")
T-605-FP22	Crimp range 22-26mm (0.866"-1.023")
T-605-FP26	Crimp range 26-30mm (1.023"-1.181")
T-605-FP30	Crimp range 30-34mm (1.181"-1.338")
T-605-FP34	Crimp range 34-39mm (1.338"-1.535")
T-605-FP39	Crimp range 39-45mm (1.535"-1.771")
T-605-FP45	Crimp range 45-51mm (1.771"-2.007")
T-605-FP51	Crimp range 51-57mm (2.007"-2.244")
T-605-FP57	Crimp range 57-63mm (2.244"-2.480")
T-605-FP63	Crimp range 63-69mm (2.480"-2.716")
T-605-FP69	Crimp range 69-75mm (2.716"-2.953")
T-605-FP74	Crimp range 74-80mm (2.913"-3.149")
T-605-FP78	Crimp range 78-87mm (3.071"-3.425")

* For use when a full length flat crimp is required (i.e., only for Boston 'M' Series hose ends and for crimping Boston industrial hose). Not recommended for 'U' Series hose ends. Please refer to the Hose End & Tool Selector Chart for nominal crimp diameters for Boston industrial hoses with Boston 'U', 430 'U' and 'M' Series hose ends.

T-605-069E • 430 'U' Series Die Set for Crimping System T-605VS

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-605-E1	Crimp dies for 04 'E' & 06904 'E' hose ends
T-605-E2	Crimp dies for 05 'E' & 06905 'E' hose ends
T-605-E3	Crimp dies for 06 'E' & 06906 'E' hose ends
T-605-E4	Crimp dies for 08 'E' & 06908 'E' hose ends
T-605-E5	Crimp dies for 06908 'E' & 06910 'E' hose ends
T-605-E6	Crimp dies for 06910 'E' hose ends\
T-605-E7	Crimp dies for 12 'E' & 06912 'E' hose ends
T-605-E8	Crimp dies for 16 'E' & 06916 'E' hose ends
T-605-E9	Crimp dies for 06920 'E' hose ends

Equipment
Coll-O-Crimp Portable T-465

Portable Coll-O-Crimp

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

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 151.

The Portable Coll-O-Crimp is a completely PORTABLE hose assembly system. NO ELECTRICAL POWER SOURCE IS NEEDED. Hand pump powered, lightweight, vise or stand mounted, this crimper is ideal for your portable crimping needs.

Capacity: 3/16" I.D. 1 fiber braid through 1-3/8" I.D. 2 wire hose

Mounting: Vise/Stand

Size: 12-1/2" high, 8-1/2" wide, 5-1/2" deep

Weight: 31 lbs.

The vise bracket, die ring, pusher, decal and instruction kit are components of the T-465 Portable Coll-O-Crimp Press.

Pump Required (sold separately): T-460-2

CAUTION

Use T-460-2 10,000 PSI hand pump only.

CAUTION

The Coll-O-Crimp power source has the pressure relief valve set at 10,000 PSI. Damage to the press will result if higher pressures are used and warranty will be voided.

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

T-465-HP • Portable Coll-O-Crimp Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-465	Portable Coll-O-Crimp Press
T-460-2	Hand Pump (10,000 PSI)
T-450-3	Quick Disconnect Hose Assembly

T-465 HPU • Portable Coll-O-Crimp Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-465	Portable Coll-O-Crimp Press
T-400-2C	'U' Series Collet – 1/4"
T-400-3C	'U' Series Collet – 3/8"
T-400-4C	'U' Series Collet – 1/2"
T-400-10	Black Spacer Ring
T-400-62	Yellow Spacer Ring
T-450-3	Quick Disconnect Hose Assembly
T-460-2	Hand Pump

T-465-HP80 • Portable Coll-O-Crimp Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-465-HP	See above for contents.
T-80	Coll-O-Cut® Portable Saw

T-465 HPU80 • Portable Coll-O-Crimp Package

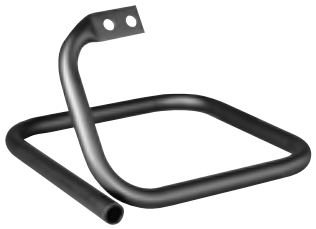
Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-465-HPU	See above for contents.
T-80	Coll-O-Cut Portable Saw

Equipment

Coll-O-Crimp Portable T-465

T-450-C • Portable Coll-O-Crimp Stand



The T-450-C Stand is designed specifically for your Portable Coll-O-Crimp T-465 Press. This stand allows you to use your press on a work bench or other flat surface without the need of a vise. Simply bolt the press onto the stand with the supplied bolts, and you're ready to make Coll-O-Crimp Hose Assemblies.

T-465-TB • Portable Coll-O-Crimp Tool Boxes

The T-465-TB tool boxes feature convient press, pump and collet storage while offering easy mobitiy of your hose assembly equipment. Supplied as a set, the T-465-TB tool boxes are an excellent addition to the portable Coll-O-Crimp System.

Includes one each:

CATALOG NUMBER	DESCRIPTION
T-460-10B	Small Tool Box Stores the T-465 and spacer rings. 15" x 9" x 8".
T-460-10BB	Large Tool Box Stores the T-460-2 and collets. 25" x 10" x 8".

T-465 Portable Coll-O-Crimp Repair and Replacement Items

CATALOG NUMBER	DESCRIPTION
T-450-P	Pusher
T-450-Q	Quick Disconnect Coupling
T-450-K	Pusher and Retainer Plate Repair Kit. Includes: T-450B Pusher bolt (1) T-450R Retainer plate (1) T-450S Retainer plate screw (2)
T-450-QK	Includes: T-450-Q and T-450-K
W-EQCR-TE011-E	Shroud Decal

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

Equipment

T-465 Crimping Procedure

1. Clamp the crimper into a vise or mount to a work bench using the mounting bracket.
2. Remove pusher and insert proper size collet halves.

3. Select proper Boston Coll-O-Crimp hose and end fitting. Insert hose into end fitting.

IMPORTANT: Make sure hose is bottomed on end fitting.

4. Insert hose assembly from below between the collet halves. Align dimples on hose end with top of collet. When crimping 229 'P', 265 'P', 338 'P' or H757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

5. Refer to Tool Selector Chart for proper spacer ring. Place appropriate spacer ring, with proper side up, on top of collet.

6. Replace pusher by Hanging it from Ramplate with bolt on top. Slide it back for centering. Close valve on hand pump and start pumping to crimp.

7. When spacer ring contacts die ring, the crimp is complete. Open valve on hand pump. Allow the ram and pusher to retract.
8. Remove pusher and spacer ring. Remove crimped assembly from below through the collet halves. Visually inspect the crimped end.
9. To insure a proper crimp has been completed, measure the nominal crimp diameter. Refer to Hose End and Tool Selector Chart in the back of this catalog for procedure and crimp diameters.

⚠ 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.

Equipment

Coll-O-Crimp Portable T-460 & T-462

T-464

For T-460 Tool Box see page 184.

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

Refer to safety information regarding Coll-O-Crimp crimping procedures on pages 153-154.

The T-460 is a completely portable hose assembly system. Lightweight, hand pump powered, and complete with a self-supporting base, this crimping press features layback positioning up to a 45° angle. With a maximum crimping capacity to 1-3/8" I.D. 2 wire hose, you cannot afford to be in the field without this system.

Capacity: 3/16" I.D. 1 fiber braid through 1-3/8" I.D. 2 wire hose
Mounting: Free standing base
Size: 15" high, 14" wide, 11-1/4" deep

Weight: 62 lbs.

T-464 • Portable Coll-O-Crimp Package

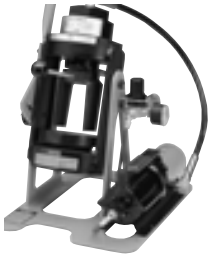
Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-460	Portable Coll-O-Crimp Press, Hand Pump & Hose Assembly Kit, and Instructions
T-400-2C	'U' Series Collet – 1/4"
T-400-3C	'U' Series Collet – 3/8"
T-400-4C	'U' Series Collet – 1/2"
T-400-10	Black Spacer Ring
T-400-62	Yellow Spacer Ring
T-460-M	Instructions

Replacement Items:

CATALOG NUMBER	DESCRIPTION
T-460-M	Instructions
T-460-P	Pusher
T-460-SPR	Slide Pull Rod
T-460-SF	Slide Flange
T-460-16	Hose Assembly
T-460-SP	Slide Plate
T-460-2	Hand Pump
T-460-SPK	Slide Pull Knob
W-EQCR-TE009-E	Shroud Decal

T-466



For T-462 Tool Box see page 184.

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

Refer to safety information regarding Coll-O-Crimp crimping procedures on pages 153-154.

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

This portable Coll-O-Crimp features an air/hydraulic pump making it the ideal system if you have the availability of compressed air in your shop or in the field via a portable compressor.

Capacity: 3/16" I.D. 1 fiber braid through 1-3/8" I.D. 2 wire hose
Mounting: Free standing base
Size: 15" high, 14" wide, 11-1/4" deep
Weight: 62 lbs.

T-466 • Portable Coll-O-Crimp Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-462	Portable Coll-O-Crimp Press, Air/Hydraulic Pump & Hose Assembly Kit
T-400-2C	'U' Series Collet – 1/4"
T-400-3C	'U' Series Collet – 3/8"
T-400-4C	'U' Series Collet – 1/2"
T-400-10	Black Spacer Ring
T-400-62	Yellow Spacer Ring
T-460-M	Instructions

Replacement Items:

CATALOG NUMBER	DESCRIPTION
T-460-M	Instructions
T-460-SPK	Slide Pull Knob
T-460-P	Pusher
T-460-SPR	Slide Pull Rod
T-460-SF	Slide Flange
T-462-16	Hose Assembly
T-460-SP	Slide Plate
T-462-V	Regulator
T-462-2	Air/Hydraulic Pump
W-EQCR-TE010-E	Shroud Decal

Equipment

T-460 Crimping Procedure

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

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. Slide pusher to back of machine and insert proper size collet halves.

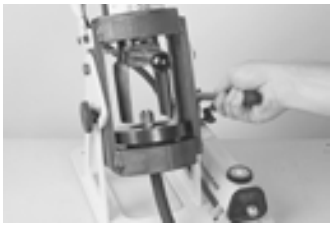
Note: Lubricate tapered cone seat with grease or equivalent before any crimping is done. Continued periodic lubrication is recommended.

2. Select proper Boston Coll-O-Crimp hose end fitting. Insert hose into end fitting.

IMPORTANT
Make sure hose is bottomed on end fitting.

3. Insert hose assembly from below between the collet halves. Align dimples on hose end with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

4. Refer to Tool Selector Chart for proper spacer ring. Place appropriate spacer ring, with proper side up, on top of collet. Hold uncrimped hose assembly in place throughout crimping operation.



5. Pull the pusher positioning handle as far forward as it will go. The pusher will now be in the proper position for crimping. Close valve located on rear of hand pump and start pumping to crimp.

6. When spacer ring contacts die ring, the crimp is complete. Open control valve on hand pump. Allow the ram and pusher to retract. Slide pusher clear and remove spacer ring. Remove crimped assembly from below through the collet halves. Visually inspect the crimped end. To insure a proper crimp has been completed, measure the nominal crimp diameter. Refer to Hose End and Tool Selector Chart in the back of this catalog for nominal crimp diameters of finished assemblies.

Equipment

T-462 Crimping Procedure

1. Slide pusher to back of machine and insert proper size collet halves.

Note: Lubricate tapered cone seat with grease or equivalent before any crimping is done. Continued periodic lubrication is recommended.

2. Select proper Boston Coll-O-Crimp hose end fitting. Insert hose into end fitting.

IMPORTANT
Make sure hose is bottomed on end fitting.

3. Insert hose assembly from below between the collet halves. Align dimples on hose end with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

4. Refer to spacer ring selector chart located in the back of this catalog. Place appropriate spacer ring, with proper side up, on top of collet. Hold uncrimped hose assembly in place throughout crimping operation.

5. Holding the uncrimped hose assembly in place throughout the crimping operation, pull the pusher positioning handle as far forward as it will go. The pusher will now be in the proper position for crimping. Hold down on activation button and start crimping.

6. When spacer ring contacts die ring, the crimp is complete. Hold the red lever down to allow the pusher to retract. Slide pusher clear and remove spacer ring. Remove crimped assembly from below through the collet halves. Visually inspect the crimped end. To insure a proper crimp has been completed, measure the nominal crimp diameter. Refer to Hose End and Tool Selector Chart in back of catalog for nominal crimp diameters of finished assemblies.

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

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.

Equipment
Coll-O-Crimp Portable T-480

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

T-480-HP

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

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 158.

Make factory-type hose assemblies anywhere-anytime! Versatile and portable, this package offers the ease of use you are looking for in a Coll-O-Crimp hose assembly system. The T-480 Coll-O-Crimp Press packages are offered in four options. Listed below are press/power unit packages.

For cabinets see pages 183-184 (not included).

T-480-HP • Portable Coll-O-Crimp Press & Hand Pump Package

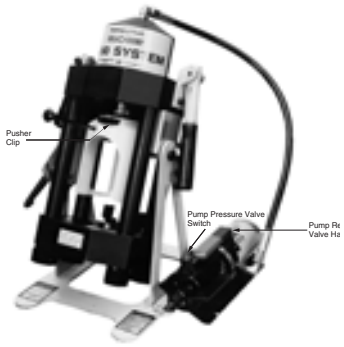
Capacity: 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose-
Mounting: Free Standing Base
Size: 22-1/2" high, 14" long, 10-1/2" wide
Total Weight: 112 lbs.

Pump Specifications:
Dimensions: 7-3/16" high, 22" long, 4-3/4" wide
Pressure: 0-10,000 psi
Outlet Port Size: 3/8" NPT
Hydraulic Oil: Enerpac
Reservoir Capacity: 55 cu. in.

Includes T-480-68 blue pusher extension ring. Refer to page 158 for instructions on the use of this ring.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

T-480-AH



O-Crimp tooling, tooling packages and pumps

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 159.

T-480-AH • Portable Coll-O-Crimp Press & Air/Hydraulic Pump Package

Capacity: 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose
Mounting: Free Standing Base
Size: 22-1/2" high, 14" long, 10-1/2" wide
Total Weight: 124 lbs.

Pump Specifications:
Dimensions: 5" high, 15-1/2" long, 5-5/8" wide
Pressure: 0-10,000 psi
Outlet Port Size: 3/8" NPT
Inlet Port: 1/4" NPT
Air Pressure: 60-100 psi
Hydraulic Oil: Enerpac
Reservoir Capacity: 36 cu. in.

Includes T-480-68 blue pusher extension ring. Refer to page 159 for instructions on the use of this ring.

Note: It is recommended that a filter, regulator, lubricator, and air pressure gauge be installed upstream from the pump. Filter, regulator and lubricator units are not included.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

Equipment

Coll-O-Crimp Portable T-480

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

T-480-TA

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

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 160.

T-480-TA • Portable Coll-O-Crimp Press & Turbo Air/Hydraulic Pump Package

Capacity: 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose
Mounting: Free Standing Base
Size: 22-1/2" high, 14" long, 10-1/2" wide
Total Weight: 116 lbs.

Pump Specifications:
Dimensions: 8-1/4" high, 14" long, 6-1/4" wide
Pressure: 0-10,000 psi
Outlet Port Size: 3/8" NPT
Inlet Port: 1/4" NPT
Air Pressure: 40-150 psi
Hydraulic Oil: Enerpac
Reservoir Capacity: 150 cu. in.

Includes T-480-68 blue pusher extension ring. Refer to page 160 for instructions on the use of this ring.

Note: It is recommended that a filter, regulator, lubricator, and air pressure gauge be installed upstream from the pump. Filter, regulator and lubricator units are not included.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

T-480-EP

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

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 161.

T-480-EP • Portable Coll-O-Crimp Press & 120v Electric Pump Package

Capacity: 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose
Mounting: Free Standing Base
Size: 22-1/2" high, 14" long, 10-1/2" wide
Total Weight: 134 lbs.

Pump Specifications:
Electrical Power Source: 15amp, 120v grounded 1Ph 50/60HZ
Dimensions: 14-1/4" high, 9-5/8" long, 9-5/8" wide
Pressure: 0-10,000 psi
Outlet Port Size: 3/8" NPT
Hydraulic Oil: Enerpac
Reservoir Capacity: 115.5 cu. in.
Flow: .5 to 1.0 gpm
Motor Ratting: 1/2" hp universal, 9 amps at 10,000 psi

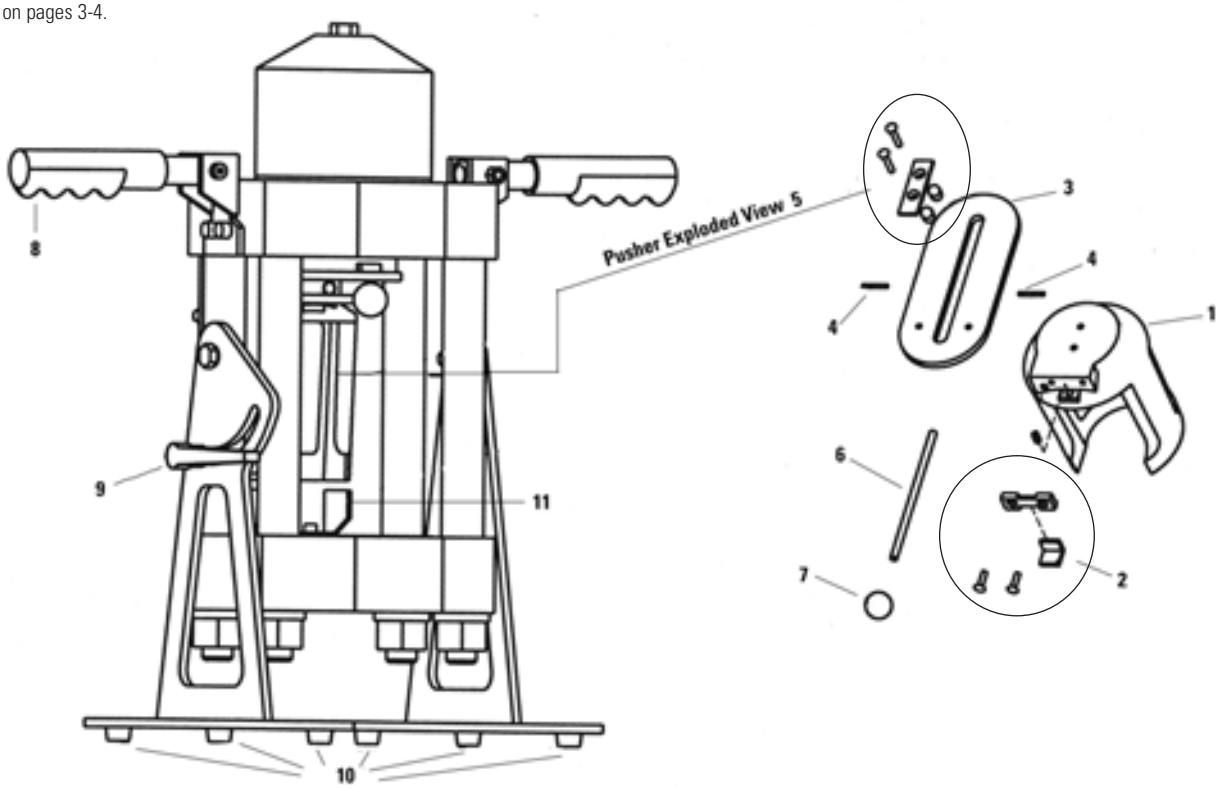
Includes T-480-68 blue pusher extension ring. Refer to page 161 for instructions on the use of this ring.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

Equipment

Coll-O-Crimp Portable T-480

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



Repair & Replacement Items

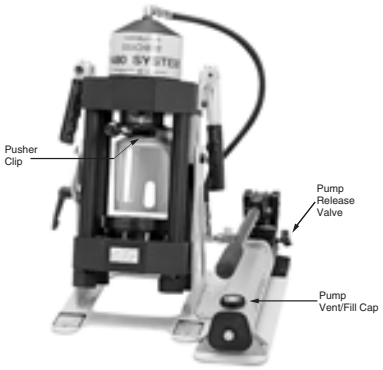
ITEM NUMBER	QTY.	PART NUMBER	DESCRIPTION	REMARKS
1	1	T-480-P	Pusher	
2	1	T-480-PSK	Pusher Stop Repair Kit	Includes pusher clip, 2 machine screws, pusher stop & spring
3	1	T-480-SP	Slider Plate	
4	2	140-05485-01*	Roll Pin	
5	1	T-480-SFK	Slide Flange Kit	Includes slide flange, 2 bushings & 2 machine screws
6	1	T-480-SPR	Slide Pull Rod	
7	1	T-480-SPK	Slide Pull Knob	
8	2	140-06601*	Vinyl Grip	
9	1	T-480-TBK	Tilt Bracket Knob	
10	6	140-06894*	Foot Pad	
11	1	T-480-69 Tool	Locator Bracket	
#	1	T-480-16	Hose Assembly	10,000 PSI replacement hose assembly for T-480-HP
#	1	T-480-17	Hose Assembly	10,000 PSI replacement hose assembly for T-480-TA and T-480-EP
#	1	T-480-18 Hose	Assembly	10,000 PSI replacement hose assembly for T-480-AH
#	1	140-06906*	Hydraulic Quick Coupler	Used with the T-480-TA and T-480-EP System
#	1	T-480-3	Turbo Air/Hydraulic Pump	Replacement pump for T-480-TA System
#	1	T-481-110	Electric Pump	Replacement pump for T-480-EP System
#	1	T-480-2	Hand Pump	Replacement pump for T-480-HP System
#	1	T-482-2	Air/Hydraulic Pump	Replacement pump for T-480-AH System
#	1	T-480-M	Set-up & Operating Guide	For T-480 System

Item not illustrated in parts breakdown.

* Please contact Customer Support at 1-888-258-0222 for price and availability on these items.

Equipment

Portable T-480-HP Crimping Procedure



1. Turn vent/ fill cap to **VENT** position to vent pump reservoir.
2. Close release valve on pump.

Note: Periodically lubricate die cavity with Boston T-400-G lubricant.

3. Release the pusher clip and slide pusher back.
4. Select the proper Boston hose, end fittings, and tooling (refer to the Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in end fitting.

5. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.

6. Holding uncrimped hose assembly in place, position T-480-68 blue pusher extension ring on top of collet.
7. Slide pusher forward, making sure pusher clip has locked.

8. Operate pump handle until T-480-68 blue pusher extension ring contacts the base plate, indicating that the crimp is complete. Open the RELEASE valve to retract pusher. Release the pusher clip and slide the pusher back. Remove the blue pusher extension ring from top of collet and then the crimped hose assembly from below.

Note: Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

FOR T-400 TOOLING

Note: The T-480-68 blue extesion ring is NOT used with T-400 tooling.

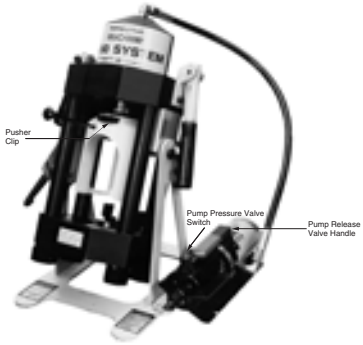
9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
   a. Insert the T-420-25 adapter die ring into the base plate die cavity.
   b. Periodically lubricate the T-420-25 adapter die ring or base plate die cavity.
   c. Use T-400 collets and spacer rings.
   d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

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.

Equipment

Portable T-480-AH Crimping Procedure



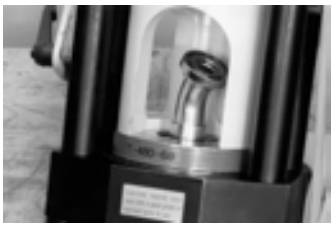
1. Attach air supply to pump.

Note: Periodically lubricate the die ring with Boston T-400-G lubricant.

2. Release the pusher clip and slide pusher back.
3. Select the proper Boston hose, end fittings and tooling (refer to Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in fitting.

4. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.

5. Holding uncrimped hose assembly in place, position T-480-68 blue extension ring on top of collet.
6. Slide pusher forward, making sure pusher clip has locked.



7. Press ACTIVATION button and hold untill T-480-68 blue pusher extension ring contacts the base plate, indicating that the crimp is complete. Depress PRESSURE valve to retract pusher. Release the pusher clip and slide the pusher back. Remove the blue pusher extension ring from top of collet and then crimped hose assembly from below.

Note: Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

FOR T-400 TOOLING

Note: The T-480-68 blue extesion ring is NOT used with T-400 tooling.

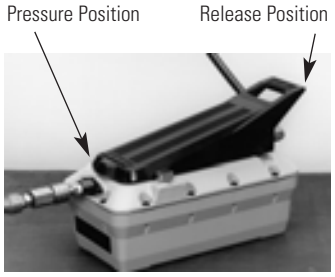
9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
   a. Insert the T-420-25 adapter die ring into the base plate die cavity.
   b. Periodically lubricate the T-420-25 adapter die ring or base plate die cavity.
   c. Use T-400 collets and spacer rings.
   d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

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.

Equipment

Portable T-480-TA Crimping Procedure



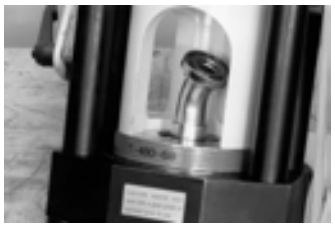
1. Connect hose assembly to pump and crimper.
2. Attach air supply to pump.
3. Vent pump by opening vent screw 1-2 turns.

Note: Periodically lubricate the die ring with Boston T-400-G lubricant.

4. Release the pusher clip and slide pusher back.
5. Select the proper Boston hose, end fittings and tooling (refer to the Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in fitting.

6. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.

7. Holding uncrimped hose assembly in place, position T-480-68 blue extension ring on top of collet.
8. Slide pusher forward, making sure pusher clip has locked.



9. Depress the PRESSURE end of treadle and hold untill T-480-68 blue pusher extension ring contacts the base plate, indicating that the crimp is complete. Depress the RELEASE end of treadle to retract pusher. Release the pusher clip and slide the pusher back. Remove the blue pusher extension ring from top of collet and then the crimped hose assembly from below.

Note: Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

FOR T-400 TOOLING

Note: The T-480-68 blue extesion ring is NOT used with T-400 tooling.

9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
   a. Insert the T-420-25 adapter die ring into the base plate die cavity.
   b. Periodically lubricate the T-420-25 adapter die ring or base plate die cavity.
   c. Use T-400 collets and spacer rings.
   d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

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.

Equipment

Portable T-480-EP Crimping Procedure

1. Connect hose assembly to pump and crimper. Check all connections to be sure they are tight and leak free.
2. Open the pump vent plug by turning it 1-2 turns.

Note: Periodically lubricate the die ring with Boston T-400-G lubricant.

3. Release the pusher clip and slide pusher back.
4. Select the proper Boston hose, end fittings and tooling (refer to Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in end fitting.

5. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.

6. Holding uncrimped hose assembly in place, position T-480-68 blue extension ring on top of collet.
7. Slide pusher forward, making sure pusher clip has locked.

8. Turn pump switch, located on side of shroud, to "ON" position. Press ADVANCE on pendant switch and hold until blue spacer extension ring contacts the base plate, indicating that the crimp is complete. Press RETRACT on the pendant switch and pusher will retract. Remove the blue pusher extension ring from top of collet and then the crimped hose assembly from below.

Note: Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

FOR T-400 TOOLING

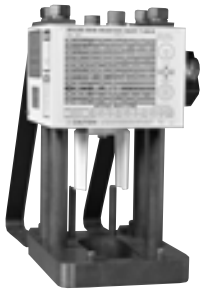
Note: The **T-480-68** blue extension ring is NOT used with T-400 tooling.

9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
   a. Insert the **T-420-25** adapter die ring into the base plate die cavity.
   b. Periodically lubricate the **T-420-25** adapter die ring or base plate die cavity.
   c. Use **T-400** collets and spacer rings.
   d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

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.

T-400 Coll-O-Crimp



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

Note: 25 ton (T-400-1 is C-O-C press only)

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 164.

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

CAUTION

The Coll-O-Crimp power source has the pressure relief valve set at 4000 to 4200 PSI. Damage to the press will result if higher pressures are used and warranty may be voided.

The Coll-O-Crimp I is the time-proven 'Mini-Factory' that you can easily set up in your own shop. Fast, easy, compact and various power sources available make this crimper versatile for even the smallest of workshops.

Capacity: 3/16" I.D. 1 fiber braid through 1-3/8" I.D. 2 wire hose
Mounting: Bench; FH-135X or C40X Cabinet.
For cabinets see pages 183-184.

Size: 16-1/4" high, 8" wide, 21-3/4" deep
Weight: 113 lbs.

T-400 • Coll-O-Crimp I Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-1	Coll-O-Crimp Press, T-400BB Switches and T-400-M Instructions
T-400-2C	'U' Series Collet – 1/4"
T-400-3C	'U' Series Collet – 3/8"
T-400-4C	'U' Series Collet – 1/2"
T-400-5C	'U' Series Collet – 3/4"
T-400-6C	'U' Series Collet – 1"
T-400-10	Spacer Ring – Black
T-400-11	Spacer Ring – Silver
T-400-62	Spacer Ring – Yellow
T-400-16**	36" T-421U Pump to Press Hose Assembly Instructions
T-400-8	Die Ring

Pump Required (sold separately): T-421U, T-421U-110, T-402-2 or T-403-2

**Not supplied when ordering a T-402 or T-403 package.

T-400 Coll-O-Crimp I Press/Pump Packages

The T-400 Coll-O-Crimp Press and tooling package can be supplied with a variety of power units for your particular needs. Listed below are press/power unit packages. For cabinets see page 184.

T-401 • C-O-C I & 220v Electric Pump Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400	Press and tooling package
T-421U	Electric Pump (220v, 1 phase)

T-401-110 • C-O-C I & 110v Electric Pump Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400	Press and tooling package
T-421U-110	110v, 1 Phase Pump

T-402 • C-O-C I & Air/Hydraulic Pump Package

Package Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400	Press and tooling package
T-402-2	Air/Hydraulic Pump
T-400-18	108" Hose assembly and fittings

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

Note: 25 ton (T-400-1 is C-O-C press only)

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 164.

T-400 Coll-O-Crimp I Press/Pump Packages Continued

The T-400 Coll-O-Crimp I Press and tooling package can be supplied with a variety of power units for your particular needs. Listed below are press/power unit packages. For cabinets see pages 183-184.

T-403 • C-O-C I & Hand Pump Package

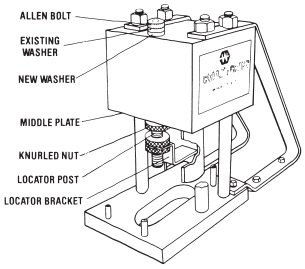
Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400	Press and tooling package/Less T-400-16
T-403-2	Hand Pump
T-400-19	60" hose assembly and fittings

T-414 • C-O-C I & 12v Electric Pump Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400	Press and tooling package
T-412	12 volt DC Electric Pump



Note: Remove locator assembly when crimping bent tube ends.

T-400-9 • Crimp Locator

The T-400-9 allows you to make large volumes of hose assemblies by automatically aligning hose ends in proper crimp location.

Installation Procedure

1. Remove the front Allen bolt using an Allen wrench or tool provided with kit.
2. Add the washer provided with the kit to existing washer as shown and torque the bolt down to approximately 75 ft.-lbs.
3. Attach the locator post of the pre-assembled locator to the bottom of the middle plate and lock it in place with one of the knurled nuts.
4. Align the dimples on the first assembly with top of collet to locate the crimp. Drop the locator bracket down to rest on top of the hose end. Lock the bracket in position with remaining two knurled nuts. The locator now can be used, instead of dimples, to locate crimp accurately and consistently on the remaining hose ends of the same size and type.

CAUTION
The Coll-O-Crimp power source has the pressure relief valve set at 4,000 to 4,200 PSI. Damage to the press will result if higher pressures are used and warranty may be voided.

T-400-1 Coll-O-Crimp I Repair and Replacement Items

CATALOG NUMBER	DESCRIPTION
T-400-B	Pusher Bolt
T-400-BB	Switch to interface T400-1 crimper to T421U pump or T-421U-110 pump
W-EQCR-TD003-E	Shroud Decal
T-400-G	1.5 oz. Tube High Efficiency Teflon Grease
T-400-K1	Seal Replacement Kit for T-400-1 Press
T-400-M	Instructions for T-400-1
T-400-S	Replacement press shroud with Decals.
T-400-8	Die Ring
T-400-13	Replacement collet cage for T-400 'U' Series collets, 1/4" and 3/8" sizes only, and 229 "P' Series collets, all sizes, with a 'C' suffix (2 required for each collet).
T-400-14	Replacement collet cage for T-400 'U' Series collets with a 'C' suffix, 1/2" through 1" only, (2 required for each collet).
T-400-90	Replacement collet cage for T-400 'E', 069 'E', and 'E' Series collets with a 'C' suffix (2 required for each collet).
T-432-15	Pusher

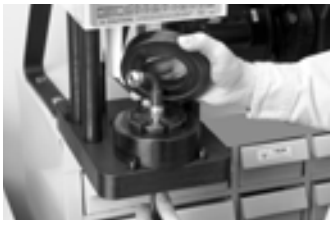
Equipment

Coll-O-Crimp
T-400

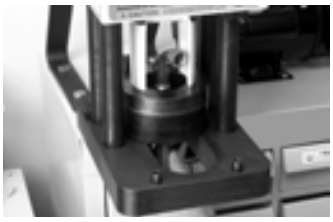
1. Place die ring **T-400-8** on base plate against front stops.
2. Insert properly-sized matched collet halves in the die ring.
   See chart on press.

3. Place the correct Coll-O-Crimp hose end on hose. Be sure hose is bottomed in hose end.

4. Insert hose assembly from below between the collet halves. Align the dimples on the hose end collar with the top of the collet. When crimping 229 'P', 265 'P', or 338 'P' or 757 'E' Series ends, the collar should be flush with the top of the collet.



5. Place specified side of spacer ring face down on collet with uncrimped hose assembly held in place. Refer to the Hose End & Tool Selection Chart in the back of this catalog for further instruction.
6. Slide entire assembly back against rear locating stops.



7. Activate pump to crimp hose end to hose. When spacer ring contacts die ring, crimping is complete. Release the electric switch to retract pusher. Slide entire assembly forward and remove spacer ring.

8. Remove factory-quality crimped hose assembly and visually inspect the crimped end. The crimp on the collar should be located ± 1/16" from the dimples or ridges.
9. To insure a proper crimp has been completed, measure the nominal crimp diameter. Refer to Hose End and Tool Selector Chart in back of catalog for procedure and crimp diameters.

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.

Equipment

Coll-O-Crimp Super I

T-420

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

The Coll-O-Crimp Super I is a versatile machine ideal for your shop, factory, construction, and mine locations. Big capacity combined with level activated crimping gives you wide coverage and a quick and simple way to make factory-quality hose assemblies.

Capacity: 3/16" I.D. 1 fiber braid through 1-1/4" 6 spiral hose; for hoses other than 4 and 6 spiral, conversion tooling is required. See pages 171-174 for details.
Mounting: Bench or C-40X cabinet. See pages 183-184 for cabinet (not included).
Size: 22" high, 10 " wide, 20-1/2" deep
Weight: 210 lbs.

CAUTION

The Coll-O-Crimp power source has the pressure relief valve set at 4000 to 4200 PSI. Damage to the press will result if higher pressures are used and warranty may be voided.

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 Boston.

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

Pump Required (sold separately):
T-421U or T-421U-110.

T-420-1 Coll-O-Crimp Super I Press Only.

T-420-N • Coll-O-Crimp Super I Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-420-1	Coll-O-Crimp Super I Press and T-420-M Instructions
T-421U	220v Electric Pump
T-400-2C	'U' Series Collet– 1/4"
T-400-3C	'U' Series Collet– 3/8"
T-400-4C	'U' Series Collet– 1/2"
T-400-5C	'U' Series Collet– 3/4"
T-400-6C	'U' Series Collet– 1"
T-400-10	Spacer Ring– Black
T-400-11	Spacer Ring– Silver
T-400-62	Yellow Spacer Ring
T-410-22	36" Pump to Press Hose Assembly
T-420-25	Adapter Ring for T-400
T-420-4CN	430 'U' Series Collet– 1/2"
T-420-5CN	430 'U' Series Collet–3/4"
T-420-6CN	430 'U' Series Collet– 1"
T-420-7CN	430 'U' Series Collet– 1-1/4"

T-420N-110 • Coll-O-Crimp Super I Package

Includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-420-1	Coll-O-Crimp Super I Press and T-420-M Instructions
T-421U-110	110v Electric Pump
T-400-2C	'U' Series Collet– 1/4"
T-400-3C	'U' Series Collet– 3/8"
T-400-4C	'U' Series Collet– 1/2"
T-400-5C	'U' Series Collet– 3/4"
T-400-6C	'U' Series Collet– 1"
T-400-62	Spacer Ring–Yellow
T-400-10	Spacer Ring– Black
T-400-11	Spacer Ring– Silver
T-410-22	36" Pump to Press Hose Assembly
T-420-25	Adapter Ring for T-400 Series Collets
T-420-4CN	430 'U' Series Collet– 1/2"
T-420-5CN	430 'U' Series Collet–3/4"
T-420-6CN	430 'U' Series Collet– 1"
T-420-7CN	430 'U' Series Collet– 1-1/4"

Equipment

Coll-O-Crimp Super I T-420

Coll-O-Crimp Super I Repair and Replacement Items

CATALOG NUMBER	DESCRIPTION
T-420-1M	Micro-Switch for T-420-1 Press
140-06977	Tool Locator Bracket
T-420-B	Pusher Bolt and Washers
W-EQCR-TE006-E	Shroud Decal
T-420-H	Handle
T-420-L	Light Bulb
T-420-LA	Light Assembly
T-420-LS	Light Switch
T-420-M	Instructions for T-420-1
T-420-P	Pusher Set (2) with Wear Plates and Screws
T-420-S	Press Shroud
T-420-26	Insert – Base Plate
T-420-G	Linkage Assembly
T-420-2R	Rack
T-420-2K	Pinion Shaft Assembly
T-420-2S	Replacement Pinion Gear Shaft
T-420-2G	Replacement Pinion Gear
T-400-G	1.5 oz. Tube High Efficiency Teflon Grease
T-421U-BC	Breather Cap for T-421U Pump
140-06745	Pusher Wear Plates (1) Left and (1) Right
140-06748	Pusher Wear Plates Screws (4)

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

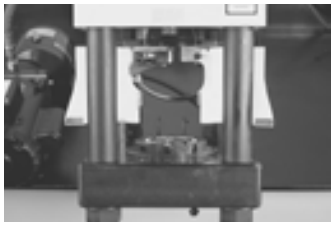
T-420 & T-440 Crimping Procedure

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

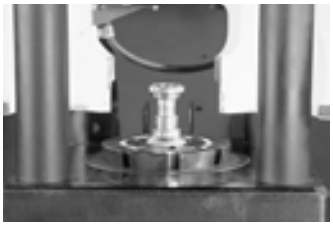
You must hold the hose assembly in place from below throughout the crimping operation. Do not place fingers or hands at the crimping point during operation. Failure to follow this procedure could result in serious injury to your hand or finger.



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.

Equipment

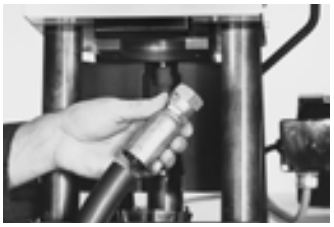
T-420 & T-440 Crimping Procedure

Procedure when using T-400 series collets. Please refer to Hosa End & Tool Selector Chart in the back of this catalog for tooling specifications.

T-420 used in example.

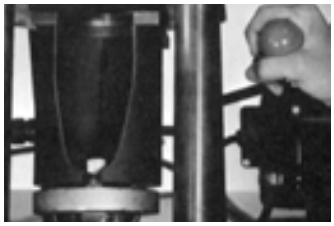
1. Hold switch "ON," As ram starts down, rotate the ram return stops "OUT" from their "IN" position. Release switch. Ram will return to the full up position allowing enough clearance for insertion of required tooling.

2. Open pusher halves and place adapter ring in the base plate cavity. Select proper size collet for hose type and size being crimped. Insert collet halves in adapter ring.



3. Place proper size Coll-O-Crimp hose end on hose. Be sure to bottom on hose.

4. Select proper spacer ring. Refer to the Spacer Ring Selector Chart located on front of press, or Hose End & Tool Selector Chart in back of catalog. Insert hose assembly from below, between collet halves. Align the dimples on the hose end collar with the top of the collet. When using the 229'P', 265'P', 338'P' and 757'E' series hose ends, the collar should be flush with the top of the collet.
5. Place appropriate side of spacer ring on top of collet.



6a. T-440-1: Close pusher halves. Hold switch on. When spacer ring bottoms on adapter ring the crimp is complete.

6b. Release switch to shut off pump and retract pusher halves. Open pusher halves. Remove factory-crimped hose assembly and inspect the crimp.

7a. 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.

7b. Release activating lever. Pusher will automatically return and pusher halves will open. Remove factory-crimped hose assembly and inspect the crimp.

8. To insure a proper crimp has been completed, measure the nominal crimp diameter. Refer to Hose End & Tool Selector Chart in back of catalog for procedure and crimp diameters.

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.

Equipment
Collet Kits

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

The tools listed above are offered in kits for any given hose type, or collets and tools can be purchased individually by catalog number. Refer to Hose End and Tool Selector Chart at the back of this catalog for proper spacer rings.

T-400-30 • 'E' Series Collet Kit

This kit can be used with the following C-O-C systems:
T-400-1, T-420-1, T-440-1, T-460, T-462, T-465 and T-480.

For Nylon and PVC Hose: H19405/Nyall, H265/Ultraforce, H275/Polyforce and H285/Clearforce

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-113C	Collet – 3/16" (H243 only)
T-400-31C	Collet – 1/4"
T-400-32C	Collet – 5/16"
T-400-33C	Collet – 3/8"
T-400-34C	Collet – 1/2"
T-400-35C	Collet – 3/4"
T-400-36C	Collet – 1"
FS-1200	Label Set/Layout Guide

Spacer Rings not included in T-400-30 kit.

T-400-67 • 'U' Series Collet Kit

This kit can be used with the following C-O-C systems: T-400-1, T-420-1, T-440-1, T-460, T-462, T-465 and T-480.

For Rubber Hose: H105 & H106/Bosflex, H1066/ Creamery/Packing, H115 & H116/Performer II, H1571/ Mineforce, H1776 & H1777/Perfection 300, H1812/Industrial A/W, H1941 & H1942/Nyall, H1981, H1982 & H1983/Marathoner, H6002/Concord Air, H8811/Nitrogen Service, H900/Black Line, H9610/Washdown 1000, H9673/Washdown 1250 and H9949/Shock Safe

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-2C	Collet – 1/4"
T-400-3C	Collet – 3/8"
T-400-4C	Collet – 1/2"
T-400-64C	Collet – 5/8"
T-400-5C	Collet – 3/4"
T-400-6C	Collet – 1"
T-400-12	Collet – 1-1/4"
FS-1100	Label Set/Layout Guide

Spacer Rings not included in T-400-67 kit.

T-400-131 • 'M' Series Collet Kit

This kit can be used with the following C-O-C systems: T-400-1, T-420-1, T-440-1, T-460, T-462, T-465 and T-480.

For Rubber Hose: H345/Pressure Washer and H9610/Washdown 1000

CATALOG NUMBER	DESCRIPTION
T-400-109C	Collet – 1/4"
T-400-110C	Collet – 3/8"
T-400-111C	Collet – 1/2"

T-410-80 • 430 'U' Series No Skive Collet Kit

This kit can be used with the following C-O-C systems:
T-410-1 and T-440-1 ONLY.

For Hose H0377/Kelly Power, H11524/Performer II, H177624/Perfection 300, H181224/Industrial A/W, H600224 & H600232/Concord Air, H6008, H600816, H00824, H600832/Concord Yellow Jack, H6009/Bulldog Gold, H961012/Washdown 1000, H9622/Contractors Air

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-410-4CN	Collet – 1/2"
T-410-5CN	Collet – 3/4"
T-410-6CN	Collet – 1"
T-410-7CN	Collet – 1-1/4"
T-410-8N	Collet – 1-1/2"
T-410-9N	Collet – 2"
FS-3100	Label Set

Equipment
Collet Kits

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

Refer to Hose End and Tool Selector Chart at the back of this catalog for proper spacer rings.

T-420-80 • 430 'U' Series No Skive Collet Kit

This kit can be used with the following C-O-C systems: T-420-1 and T-480. For Hose H11524/Performer II, H177624/Perfection 300, H181224/Industrial A/W, H600224 & H600232/Concord Air, H600816/Concord Yellow Jack, H600920/Bulldog Gold, H961012/Washdown 1000, H962208, H962212, H962216, H962220/Contractors Air

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-420-4CN	Collet - 1/2"
T-420-5CN	Collet - 3/4"
T-420-6CN	Collet - 1"
T-420-7CN	Collet - 1-1/4"
FS-3100	Label Set

T-480-80 • 'U' and 430 'U' Series Collet Kit

This kit can be used with the following C-O-C systems: T-420-1, and T-480 ONLY.

For Rubber Hose: H105 & H106/Bosflex, H1066/Creamery Packing, H115 & H116/Performer II, H1571/Mineforce, H1776 & H1777/Perfection 300, H1812/Industrial A/W, H1941 & H1942/Nyall, H1981, H1982 & H1983/Marathoner, H6002/Concord Air, H600816, H600824, H600832/Concord Yellow Jack, H6009/Bulldog Gold, H8811/Nitrogen Service, H900/Black Line, H9622/Contractors, H9610/Washdown 1000, H9673/Washdown 1250 and H9949/Shock Safe

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-2C	Collet – 1/4"
T-400-3C	Collet – 3/8"
T-400-4C	Collet – 1/2"
T-400-5C	Collet – 3/4"
T-400-6C	Collet – 1"
T-400-10	Spacer Ring - Black
T-400-11	Spacer Ring - Silver
T-400-62	Spacer Ring - Yellow
T-420-25	Adapter Ring for T-400 Series Collets
T-420-4CN	Collet – 1/2"
T-420-5CN	Collet – 3/4"
T-420-6CN	Collet – 1"
T-420-7CN	Collet – 1-1/4"
FS-1100	Label Set/Layout Guide ('U' Series)
FS-3100	Label Set (430 'U' Series)

* For use with H35012, H35016 & H54516 ONLY.

265 'P' Series Collets

For Hose Styles: H265/Ultraforce, H275/Polyforce, H285/Clearforce

These collets can be used with all C-O-C systems.

CATALOG NUMBER	DESCRIPTION
T-400-2C	Collet *
T-400-3C	Collet *
T-400-64C	Collet *

*T-400-2C is used for crimping 1/4" and 3/8" hose and fittings. T-400-3C is used for crimping 1/2" hose. T-400-64C is used for crimping 3/4" hose and fittings.

Equipment
Collet Kits

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

T-410-27 • Conversion Kit

For use if you have collets used on our smaller T-400 Coll-O-Crimp I and you are upgrading to a Coll-O-Crimp II Plus.

The tools listed below are offered in kits for any given hose type. For example, if you have a Coll-O-Crimp II Plus press and desire to be in the rubber hose business, order T-410-27 conversion kit and T-400-67 for all the collets needed to crimp rubber hose. Collets and tools may also be purchased individually by catalog number.

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-410-10	Spacer Ring – Black
T-410-11	Spacer Ring – Silver
T-410-25	Adapter Die Ring
T-410-41	Yellow Spacer Ring

EXAMPLE: If you desire to crimp hose other than 4 or 6 spiral hose, you will need the T-410-25 Adapter Die Ring which is included in the conversion kit above. This ring allows the use of standard Coll-O-Crimp I tooling, in the Coll-O-Crimp II Plus Press.

Adapter Die Rings

CATALOG NUMBER	DESCRIPTION
T-400-8	Adapter Die Ring for T-400 Collets (T-400-1 Press)
T-410-25	Adapter Die Ring for T-400 Collets (T-410-1, T-440-1 Presses)
T-420-25	Adapter Die Ring for T-400 Collets (T-420-1 Press and T-480 packages)

Die Ring Lubricant

CATALOG NUMBER	DESCRIPTION
T-400-G	1.5 oz. Tube High Efficiency Teflon Grease

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

Note: See Hose End and Tool Selector Chart in the back of this catalog for proper Spacer Ring selection for hose style and size desired.

Spacer Rings • T-400-1 C-O-C I

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-400-10	Black	T-400-38	Red
T-400-11	Silver	T-400-62	Yellow
T-400-37	Green	T-400-112	Tan

Spacer Rings • T-420-1 C-O-C Super I

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-400-10	Black	T-400-38	Red
T-400-11	Silver	T-400-62	Yellow
T-400-37	Green	T-400-112	Tan
		T-420-29*	Orange

* Spacer Ring for use on Coll-O-Crimp Super I Press ONLY.

If you desire to crimp hose using T-400 collets, you will need the T-420-25 Adapter Die Ring. This ring allows the use of standard Coll-O-Crimp I tooling.

Spacer Rings • T-440-1 C-O-C II Plus

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-410-10	Black	T-410-40	Red
T-410-11	Silver	T-410-41	Yellow
T-410-12	White	T-410-42	Tan
T-410-39	Green	T-410-93	Orange

T-410 Spacer rings can only be used on T-410-1 or T-440-1 Crimpers.

If you desire to crimp hose using T-400 collets, you will need the T-410-25 Adapter Ring. This ring allows the use of standard Coll-O-Crimp® I tooling.

Spacer Rings • T-460 Portable C-O-C

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-400-10	Black	T-400-38	Red
T-400-11	Silver	T-400-62	Yellow
T-400-37	Green	T-400-112	Tan

Spacer Rings • T-462 Portable C-O-C

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-400-10	Black	T-400-38	Red
T-400-11	Silver	T-400-62	Yellow
T-400-37	Green	T-400-112	Tan

Spacer Rings • T-465 Portable C-O-C

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-400-10	Black	T-400-38	Red
T-400-11	Silver	T-400-62	Yellow
T-400-37	Green	T-400-112	Tan

Spacer Rings • T-480 Portable C-O-C

CATALOG NUMBER	COLOR	CATALOG NUMBER	COLOR
T-400-10	Black	T-400-38	Red
T-400-11	Silver	T-400-62	Yellow
T-400-37	Green	T-400-112	Tan
T-420-29†	Orange	T-480-68*	Blue

*To be used with T-480 portable C-O-C and the T-420 collets ONLY.

†Used with 430 'U' Series No Skive hose ends and H14516 hose.

The tools listed above are offered in kits for any given hose type, or collets and tools can be purchased individually by catalog number.

Equipment

Coll-O-Crimp Pumps

T-402-2 • Air/Hydraulic Pump

(Some models have air port on right side)

For use with T-400-1.

Pump Specifications:

Dimensions: 5-1/4" high, 12-1/2" long, 5" wide
Weight: 18 lbs.
Operation Pressure: 4,000-4,200 PSI
Reservoir Capacity: 1 pint
Hydraulic Oil: Use Enerpac Oil ONLY
Outlet Port Size: 3/8" NPT
Inlet (Air) Port Size: 1/4" NPT
Air Pressure: 60 to 120 PSI
Filter: F23A3T02
Regulator: R23RGL02
Lubricator: L43MPL00

Note: It is recommended that a filter, regulator, lubricator and air pressure gauge be installed in the air line as close as possible to the pump. Filter, Regulator and Lubricator units not included.

T-403-2 • Hand Pump

For use with T-400-1.

Pump Specifications:

Dimensions: 7 high, 21" long, 4-3/4" wide
Weight: 9 lbs.
Operation Pressure: 4,000-4,200 PSI
Reservoir Capacity: 1 qt.
Outlet Port Size: 3/8" NPT
Hydraulic Oil: Use Enerpac Oil ONLY

T-400-36 Bracket for mounting T-403-2 Hand Pump to FH-135X cabinet.

T-411 • Electric Pump (220v) Kit

Replacement pump for T-410-1 C-O-C II Plus Press ONLY.

Kit consists of:

T-421U Electric Pump (220v)

T-410-BB Pump switch for T-410-1 crimper using T-421U pump.

Replacement Parts:

CATALOG NUMBER	DESCRIPTION
T-411-B	By-pass module
T-411-G	Release Handle Spring (Models prior to 1982)
T-411-S	Micro-Switch (Models prior to 1982)
T-401-1B	Replacement Gasket between motor and square reservoir
T-421-FP	220v 4 wire Female electrical receptacle. See page 245 for illustration.
T-401-1BC	Breather Cap for Fenner-Stone pumps
T-401-1G	Relief Handle Spring (Models prior to 1982)
T-401-1S	Toggle Switch
T-401-SVF	Fenner Shuttle Valve

For repair and replacement items for the following pumps please contact an Enerpac Distributor at www.enerpac.com: T-402-2, T-403-2, T-460-2, T-462-2, T-480-2, T-480-3, T-481-110 & T-482-2.

Equipment
Coll-O-Crimp Pumps

T-412 • Mobile Electric Pump

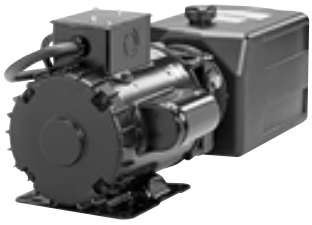
For use with T-400-1 and T-420-1.

Pump Specifications:

Dimensions: 7-1/2" high, 14-1/2" long, 9" wide
Weight: 65 lbs.
Operation Pressure: 4,000-4,200 PSI
Reservoir Capacity: 3 quarts
Outlet Port Size: 3/4"-16 straight thread
Motor: 12 volt D.C.
Hydraulic Oil: SAE 10W hydraulic oil or (ATF) automatic transmission fluid
Flow: 0.5 GPM

Replacement Parts:
T-401-1B Replacement Gasket between motor and square reservoir
T-401-1BC Breather Cap for Fenner-Stone pumps

T-421U • Electric Pump (220 Volt)



For use with T-400-1 and T-420-1.

Pump Specifications:

Dimensions: 7-1/2" high, 22" long, 10" wide
Weight: 75 lbs.
Operation Pressure: 4,000-4,200 PSI
Reservoir Capacity: 6 quarts
Outlet Port Size: 3/4"-16 Straight Thread
Motor: 1 H.P., 3450 R.P.M., 220 volts, 60 cycle, single phase
At 50 Hertz, RPM = 2,850
At 60 Hertz, RPM = 3,450
Hydraulic Oil*: ISO 32 hydraulic oil or (ATF) automatic transmission fluid
Flow: 2.5 GPM @ 750 PSI, 0.5 GPM @ 4000 PSI

Replacement Parts:

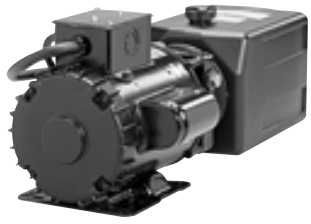
T-421-FP 220v 4 wire

Female electrical receptacle. See page 178 for illustration.

*For low temperature applications automatic transmission fluid can be substituted.

Note: It is recommended that the electric pump be used on a 15 amp. fused circuit. Pump wired for 220 volts, single phase.

T-421U-110 • Electric Pump (110 Volt)



For use with T-400-1 and T-420-1.

For dimensional data other than voltage information, refer to T-421U above.

Replacement Parts:

T-421U-BC Breather Cap

Note: It is recommended that the electric pump be used on an individual 30 amp. fused circuit.

Pump wired for 110 volts, single phase.

Equipment
Coll-O-Crimp Pumps

T-433 • Two Stage Piston Pump

For use with T-407 Production Press.

The Boston T-433 two stage piston pump power unit is a high capacity pump especially suited for the T-407 Production crimper. It features a two stage piston pump providing high flow at low pressure for fast ram approach and low flow at high pressure for actual crimping. When used in conjunction with the T-433-2 connector cable, the T-433 can be used as an optional high capacity pump for the T-400-1 or T-420-1 Coll-O-Crimp presses.

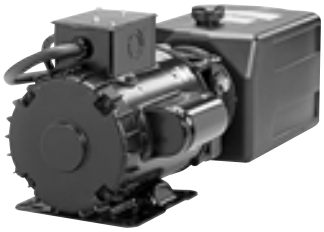
Pump Specifications:

Dimensions: 22" high, 12 " long, 15" long
Weight: 127 lbs.
Operation Pressure: 4,000 PSI
Reservoir Capacity: 2 gallons
Outlet Port Size: 3/8" Pipe Thread
Motor: 1-1/2" H.P., 220 volts 60hz single phase
Hydraulic Oil: Use Enerpac Oil ONLY
Flow: 2.78 GPM @ 800 PSI, 0.52 GPM @ 4000 PSI

Replacement Parts:

T-421-FP 220v 4 wire Female electrical receptacle. See page 178.
T-433-2 Interlock Cable.
T-433-1 Foot Switch Assembly

T-441 • Electric Pump (220 V)



For use with T-440-1 ONLY.

The Boston T-441 power unit is designed for use with the latest Coll-O-Crimp II Plus press. (Shown above only). It features a two-stage pump providing high flow at low pressure for fast ram approach and low flow at high pressure for actual crimping.

Pump Specifications:

Dimensions: 7-1/2" high, 22 " long, 10" wide
Weight: 75 lbs.
Operation Pressure: 5,000 PSI
Reservoir Capacity: 6 quarts
Outlet Port Size: 3/4-16 Straight Thread O-Ring
Motor: 1 H.P., 3450 R.P.M., 220 volts, 60 cycle, single phase
Hydraulic Oil: ISO 32 hydraulic oil automatic transmission fluid
Flow: 2.5 GPM @ 750 PSI, 0.5 GPM @ 5000 PSI

Replacement Parts:

T-421U-BC Breather Cap
T-421-FP 220v 4 wire Female electrical receptacle.

Note: T441 pump is to be used with T440-1 press only. When replacing the pump on a standard T-410 Coll-O-Crimp II Press (without the black switchbox on the side of the press) refer to the repair and replacement items on page 167.)

T-460-2 • Hand Pump

For use with T-450-1, T-460 and T-465.

Pump Specifications:

Dimensions: 5-5/8"High, 13-1/4" long, 3-3/4" wide
Weight: 4-1/2 lbs.
Operation Pressure: 0-10,000 PSI
Reservoir Capacity: 20 cu in.
Relief Valve Setting: 10,000 PSI
Hydraulic Oil: Use Enerpac Oil ONLY

For repair and replacement items for the following pumps please contact an Enerpac Distributor at www.enerpac.com: T-402-2, T-403-2, T-460-2, T-462-2, T-480-2, T-480-3, T-481-110 & T-482-2.

Equipment

Coll-O-Crimp Pumps

T-462-2 • Air/Hydraulic Pump

For use with T-462.

The Boston T-462-2 power unit is a air/hydraulic pump designed for use with the T-462 portable Coll-O-Crimp system. Ideal if you have the availability of compressed air in your shop or in the field via a portable compressor.

Pump Specifications:

Dimensions: 4" high, 13" long
Weight: 8 lbs.
Operation Pressure: 0-10,000 PSI
Reservoir Capacity: 10 cu in.
Relief Valve Setting: 10,000 PSI

Hydraulic Oil: Use Enerpac Oil ONLY
Regulator to be set for 100-120 PSI

Replacement Part: T-462-V Regulator

T-480-2 • Two-Stage Hand Pump

For use with T-480-1.

Pump Specifications:

Dimensions: 7" high x 21" long x 4-3/4" wide
Weight: 9 lbs.
Operation Pressure: 0-10,000 PSI
Hydraulic Oil: Use Enerpac Oil ONLY

T-480-3 • Turbo Air/Hydraulic Pump

For use with T-480-1.

Pump Specifications:

Dimensions: 8-1/4"High x 12-3/8" long x 8" wide
Weight: 16-1/2 lbs.
Operation Pressure: 0-10,000 PSI
Hydraulic Oil: Use Enerpac Oil ONLY

For repair and replacement items for the following pumps please contact an Enerpac Distributor at www.enerpac.com: T-402-2, T-403-2, T-460-2, T-462-2, T-480-2, T-480-3, T-481-110 & T-482-2.

Equipment

Coll-O-Crimp Pumps

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

T-481-110 • 110v Pump

For use with T-480-1.

Pump Specifications:

Dimensions: 14-14"High x 9-5/8" long x 9-5/8" wide
Weight: 32 lbs.

Operation Pressure: 0-10,000 PSI

Hydraulic Oil: Use Enerpac Oil ONLY

T-482-2 • Air/Hydraulic Pump

For use with T-480-1.

Pump Specifications:

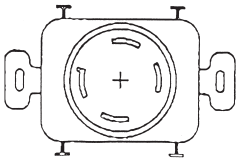
Dimensions: 5-1/2"High, 14-5/8" long, 5-5/8" wide

Weight: 12 lbs.

Operation Pressure: 0-10,000 PSI

Hydraulic Oil: Use Enerpac Oil ONLY

T-421-FP • 4 Prong Female Electrical Outlet



All Boston 220v Coll-O-Crimp power pumps are equipped with a four prong electrical outlet as illustrated. To obtain corresponding female wall receptacle order T-421-FP. For use with T-421U, T-441 & T-433 pumps.

Repair and Replacement Items for Discontinued T-401-1 Pump

CATALOG NUMBER	DESCRIPTION
T-401-1B	Replacement Gasket between motor and square reservoir
T-401-1BC	Breather Cap for Fenner-Stone pumps
T-401-1G	Relief Handle Spring (Models prior to 1982)
T-401-1S	Toggle Switch
T-401-SVF	Shuttle Valve for Fenner-Stone pump

For repair and replacement items for the following pumps please contact an Enerpac Distributor at www.enerpac.com: T-402-2, T-403-2, T-460-2, T-462-2, T-480-2, T-480-3, T-481-110 & T-482-2.

Equipment

Coll-O-Crimp Conversion Tooling

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

T-400-NP60 • Dayco NP60 Conversion Kit

The T-400-NP60 Conversion Kit is designed to allow the use of standard Coll-O-Crimp tooling, hose and hose ends in the Dayco NP60, (2) tie rod, crimp machine. Everything is included to convert the crimper to accept Boston tooling. This kit gives the crimper capacity to crimp up to and including 1-1/4" I.D. 4 spiral wire hose assemblies.

T-400-NP60 • Dayco NP60 Conversion Kit

Kit includes one each of the following:

PART DESCRIPTION	QTY
Base Plate Assembly	1
Dayco Pusher Spacer	1
3/8-16 x 1.75 Cap Screw	1
Adapter Ring for T-400 Collets	1
Instruction Kit	1

T-400-DE60 • Dayco to Weatherhead Conversion Kit

The T-400-DE60 Conversion Kit is designed to allow the use of standard Weatherhead Coll-O-Crimp tooling, hose and hose ends in the Dayco DE60, (4) tie rod, crimp machine. Everything is included to convert the crimper to accept Weatherhead tooling. This kit gives the crimper capacity to crimp up to and including 1-1/4" I.D. 4 spiral wire hose assemblies.

T-400-DE60 Kit:

Kit includes one each of the following:

PART DESCRIPTION	QTY
Base Plate Assembly	1
Dayco Pusher Spacer	1
3/8-16 x 1.75 Cap Screw	1
Adapter Ring for T-400 Collets	1
Instruction Kit	1

T-400-GT • Gates PC707 Conversion Kit

The T-400-GT Conversion Kit is designed to allow the use of standard Boston Coll-O-Crimp tooling, hose, and hose ends in the Gates PC707 crimper. Everything is included to convert the crimper to accept Boston tooling. This kit gives the crimper capacity to crimp up to and including 1-1/4" I.D. 2 wire hose factory-type hose assemblies. This kit does not include the T-400-8 Die Ring which is required for crimping. If you do not already have the die ring or collets, you can order the kit below.

T-400-GT kit includes:

Spacer (2)	Instructions
Pusher	10-24 x 1/4 Set Screws (2)

T-400-GTK • Gates PC707 Conversion Kit

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-GT	Conversion Kit
T-400-2C	'U' Series Collet –1/4"
T-400-3C	'U' Series Collet –3/8"
T-400-4C	'U' Series Collet –1/2"
T-400-5C	'U' Series Collet –3/4"
T-400-6C	'U' Series Collet – 1"
T-400-8	Die Ring –3/16" thru 1-1/4"
T-400-10	Spacer Ring – Black
T-400-11	Spacer Ring – Silver

Equipment

Coll-O-Crimp Conversion Tooling

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

T-400-GY

T-400-GY • Goodyear 99060 Conversion Kit

The T-400-GY Conversion Kit is designed to allow the use of standard Boston Coll-O-Crimp tooling, hose and hose ends in the Goodyear 99060 crimper. Everything is included to convert the crimper to accept Boston tooling. This kit gives the crimper capacity to crimp up to and including 1-1/4" I.D. 2 wire hose factory-type hose assemblies. This kit does not include the T-400-8 Die Ring which is required for crimping. If you do not already have the die ring or collets, you can order the kit below.

T-400-GY Kit includes: Bracket, Base and Instructions

T-400-GYK • Goodyear 99060 Conversion Kit

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-GY	Conversion Kit
T-400-2C	'U' Series Collet – 1/4"
T-400-3C	'U' Series Collet – 3/8"
T-400-4C	'U' Series Collet – 1/2"
T-400-5C	'U' Series Collet – 3/4"
T-400-6C	'U' Series Collet – 1"
T-400-8	Die Ring – 3/16" thru 1-1/4"
T-400-10	Spacer Ring – Black
T-400-11	Spacer Ring – Silver

T-400-PH

T-400-PH • Parker 80c Conversion Kit

The T-400-PH Conversion Kit is designed to allow the use of standard Boston Coll-O-Crimp tooling, hose, and hose ends in the Parker 80c crimper. Everything is included to convert the crimper to accept Boston tooling. This kit gives the crimper capacity to crimp up to and including 1-1/4" I.D. 2 wire hose factory-type hose assemblies. If you do not already have the collets and spacer rings, you can order the kit below.

T-400-PH Kit includes:

1/4-20 x 1 Cap Screw (4)	Dowel Pin Spacer (2)
1/4" Lockwasher (4)	Spacer Bracket (4)
Adapter Die Ring	Instructions

T-400-PHK • Parker 80c Conversion Kit

Kit includes one each of the following:

CATALOG NUMBER	DESCRIPTION
T-400-PH	Conversion Kit
T-400-2C	'U' Series Collet – 1/4"
T-400-3C	'U' Series Collet – 3/8"
T-400-4C	'U' Series Collet – 1/2"
T-400-5C	'U' Series Collet – 3/4"
T-400-6C	'U' Series Collet – 1"
T-400-10	Spacer Ring – Black
T-400-11	Spacer Ring – Silver

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

T-60A • Portable Cutter

An excellent heavy-duty cutting machine. The T-60A is a portable power saw that can cut all hoses, including wire-reinforced. Includes three abrasive blades.

Replacement Blade for T-60A: T-1060A 14" diameter
Motor: 3-1/2 H.P., 110/115 volts
Amps: 15
Weight: 45 lbs.
RPM: 3500

Note: 3 blades are mounted on shaft for shipping purposes. Remove prior to use.

T-10B • Hose Cutting Machine

The T-10B hose cutting machine assures quick, clean, right angle cuts, eliminating ragged and frayed cut ends which make hose assembly difficult and are a possible cause of premature hose failure. A powerful 1 H.P. motor and belt-driven blade cut all low, medium and high pressure fabric and wire-braided hose from 3/16" through 1-1/4" I.D. 2 wire hose. Specifically designed for cutting hose, the T-10B is a natural companion to the T-400-1 Coll-O-Crimp and T-300 hose assembly machines.

The T-10B is shipped complete with a 7" smooth edge cutting wheel capable of cutting one-wire hose through 1-1/4", T-1047. To receive T-10B with a scalloped bladeT-1047-1 capable of cutting two-wire hose through 1-1/4" instead of standard smooth blade, order T-10B-1.

Replacement Blades:
T-1047 (Smooth)
T-1047-1 (Scalloped)

Replacement Belt for

T-10C: T-10-V1 Belt

T-10B: T-10-V Belt

Motor: 1 H.P., 3450 RPM, 115 volts, 60 cycle, single phase

Size: 13" wide, 24" long, 17" high

Weight: 85 lbs.

Amps Drawn:
115 volts – 15

Replacement Parts:
T-10-D Hose/Dowel
T-10-H Handle
T-10-P Pusher

Equipment
Hose Cutting

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

T-9-1 and T-9-3 • Hose Cutting Machine

The T-9-1 and T-9-3 provide the capability for cutting multispiral and braided wire-reinforced hose through 2" I.D. This machine is a perfect companion for the T-440 Coll-O-Crimp II Plus. Includes scalloped blade.

Replacement Blade:

T-75-14 Scalloped
T-75-17 Carborundum
T-75-11 Smooth

Guard: T-9-G

T-9-1:

Motor: 3 H.P., 230 volts, 60 cycle, single phase
Size: 24" wide, 24" deep, 24" high
Weight: Approx. 255 lbs.
Amps Drawn:
At 230 volts – 17

T-9-3:

Motor: 3 H.P., 230 volts, 60 cycle, 3 phase
Size and Weight:
Same as T-9-1
Amps Drawn: At 230 volts – 8

Note: The T-9-1 and T-9-3 are shipped less a line cord and plug. An electrician is recommended for direct electrical hook-up.

T-70 • Hose Cutting Machine

This cutting machine easily handles all one and two braided wire hose through 4" I.D., up to 2" I.D. 4-spiral and up to 1-1/2" I.D. 6 multi-spial reinforced hose. That makes this machine ideal for cutting most hydraulic and pnuematic hoses as well as a variety of industrial fluid transfer hoses. The T-70 uses a 14" cutting blade for cutting all 1 & 2 wire braid and through 2" 4 spiral hose. The scalloped toothed blade is for cutting industrial transfer hoses through 4" and the smooth beveled blade for cutting hose with a wire braid cover. T-70 includes a scalloped blade.

Replacement Blade:
T-1070 Steel Scalloped
T-75-17 Steel
Scalloped Toothed
T-75-11 Steel Smooth Beveled

Motor: 4.2 H.P., 110/115 volts, single phase

Size: 22" wide, 19" deep, 25" high

Weight: Approx. 65 lbs.

Amps Drawn: 115 volts – 20

Hose Cutting and Skiving Wheels

CATALOG NUMBER	TYPE	BLADE DIA.	HOLE DIA.	MACHINE USED ON
Cutting Wheels				
T-1042	Carborundum	8"	5/8"	T-10A
T-1047	Steel Smooth	7"	5/8"	T-10B & T-10C
T-1047-1	Steel Scalloped	7"	5/8"	T-10B & T-10C
T-1060	Carborundum	12"	1"	T-60
T-1060A	Carborundum	14"	1"	T-60A
T-1070	Steel Scalloped	14"	1"	T-70
T-1071	Steel Scalloped Toothed	14"	1"	T-70
T-1072	Steel Smooth Beveled	14"	1"	T-70
T-1080	Carborundum	8"	1"	T-80
T-75-11	Steel Smooth	10"	3/4"	T-9/T-75
T-75-14	Steel Scalloped	10"	3/4"	T-9/T-75
T-75-17	Carborundum	10"	3/4"	T-9/T-75
Skiving Wheels				
T-1040	Wire	6"	5/8"	T-10
T-1046	Wire	8"	5/8"	T-10A
T-75-12	Wire	8"	1"	T-75
Belts				
T-76-B	Reinforced	1"		Old T-76/T-76-1

Equipment
Cabinets

C-40X • Stock Cabinet

Ideal for mounting the T-400-1 Coll-O-Crimp I Press and Pump or T-420-1 Coll-O-Crimp Super I. The sturdy C-40X Cabinet contains 40 heavy-duty plastic drawers that can be divided into one, two, three, or four compartments providing space for a large selection of Coll-O-Crimp hose ends and adapters.

Drawers: PD-40 (one drawer)
Dividers: PD-20 (24 per set)
Size: 46-1/2" high, 40" wide, 26" deep at base, 18" deep at top

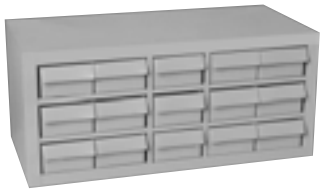
Weight: 228 lbs.

FH-135X • Stock Cabinet

The sturdy FH-135X Cabinet contains 50 heavy-duty plastic drawers that can be divided into one, two, or three compartments allowing you ample space for a large selection of Coll-O-Crimp hose ends and adapters. Ideal for mounting the Coll-O-Crimp I Press and Pump.

Drawers: PD-95 (one drawer)
Dividers: PD-15 (30 per set)
Size: 46-1/2" high, 33" wide, 14-1/2" deep
Weight: 115 lbs.

FH-15X • Stock Cabinet



Here is the ideal way to organize your inventory of hose ends and adapters. The rugged FH-15X Cabinet contains 15 plastic drawers for stocking hose ends and adapters.

Drawers: PD-95 (one drawer)
Dividers: PD-15 (30 per set)
Size: 13-5/8" high, 14-3/8" deep, 30-1/4" wide
Weight: 45 lbs.

HD-2X • Hose Center Display

The HD-2X hose display is built with a heavy steel inner frame which supports the weight of the hose reels, while its tough wooden sides provide additional durability. It is designed to hold both Boston bulk reels and boxed product. Handles are even provided to make loading the hose as safe and easy as possible.

Measurements: 22" wide x 30" deep x 57" tall
Weight: 54 lbs. (UPS Shipping)
Max. Capabilities: (3) Reels or (2) Reels & (4) Boxes

(Hose not included)

T-460-10BB • Coll-O-Crimp Tool Box

The T-460-10 Tool Box compliments our T-460 and T-462 portable crimpers by offering you storage for your collets, spacer rings, and perhaps an assortment of hose nds.

Measurements: 25"x9"x8"

T-460-TR • ToolRack

The T-460-TR wall mounted tool rack is rugged and built to last! The perfect shop accessory for Boston Coll-O-Crimp machines, the T-460-TR stores up to 10 collets and 4 spacer rings - organized and within easy reach.

For T-400 series collets.

Measurements: 24-1/2" Wide x 16" High x 7-1/2" Deep
Weight: 16 lbs.
(The T-460-TR rack does not included tooling)

T-101A • Barb-Tite End Assembly Tool

Assembly of Barb-Tite push-on hose ends is made easy with this handy tool. Easy and fast operation assures dependable, leak proof assemblies. Simply clamp hose in jaws, place hose end on push rod and pull the handle. Engineered for a lifetime of rugged service.

Weight: 1 lb.

Capacity: 1/4" to 1/2" I.D. hose only.

T-201 • Barb-Tite End Assembly Tool

This bench-mounted tool is actually two tools in one. Not only does it assemble Barb-Tite hose ends, it is also a hose cutter. To cut your hose, simply retract the handle, place the hose in the cutter area and pull the handle. After cutting the hose to the desired length, place the hose under the cam handle locking it in place with the hose end aligned with the appropriate mark on the label. Place the barbed end of the fitting against the end of the hose and then pull the handle forward to complete the installation. The T-201 Assembly Tool is an easy-to-use tool that does everything you need to create a hose assembly.

Replacement Blade: T-201B

NOTE: This tool is designed to cut fiber-reinforced rubber hose only.

Capacity: 1/4" to 3/4" I.D. hose ONLY.

Charts

Conversion Chart

INCHES FRACTIONS	DECIMALS	MM
–	.0004	.0100
–	.0040	.1000
–	.0100	.2500
1/64	.0156	.3970
–	.0197	.5000
–	.0295	.7500
1/32	.0313	.7940
–	.0394	1.0000
3/64	.0469	1.1910
–	.0590	1.5000
1/16	.0620	1.5880
5/64	.0781	1.9840
–	.0787	2.0000
3/32	.0940	2.3810
–	.0984	2.5000
7.64	.1090	2.7780
–	.1181	3.0000
1/8	.1250	3.1750
–	.1378	3.5000
9/64	.1410	3.5720
5/32	.1560	3.9690
–	.1575	4.0000
11/64	.1720	4.3660
–	.1770	4.5000
3/16	.1875	4.7630
–	.1969	5.0000
13/64	.2030	5.1590
–	.2165	5.5000
7/32	.2190	5.5560
15/64	.2340	5.9530
–	.2362	6.0000
1/4	.2500	6.3500
–	.2559	6.5000
17/64	.2656	6.7470
–	.2756	7.0000
9/32	.2810	7.1440
–	.2953	7.5000
19/64	.2970	7.5410
5/16	.3120	7.9380
–	.3150	8.0000
21/64	.3280	8.3340
–	.3350	8.5000
11/32	.3440	8.7310
–	.3543	9.0000
23/64	.3590	9.1280
–	.3740	9.5000
3/8	.3750	9.5250
25/64	.3910	9.9220

INCHES FRACTIONS	DECIMALS	MM
–	.3937	10.0000
13/32	.4060	10.3190
–	.4130	10.5000
27/64	.4220	10.7160
–	.4331	11.0000
7/16	.4380	11.1130
29/64	.4530	11.5090
15/32	.4690	11.9060
–	.4724	12.0000
31/64	.4840	12.3030
–	.4920	12.5000
1/2	.5000	12.7000
–	.5118	13.0000
33/64	.5156	13.0970
17/32	.5310	13.4940
35/64	.5470	13.8910
–	.5512	14.0000
9/16	.5630	14.2880
–	.5710	14.5000
37/64	.5790	14.6840
–	.5906	15.0000
19/32	.5940	15.0810
39/64	.6090	15.4780
5/8	.6250	15.8750
–	.6299	16.0000
41/64	.6406	16.2720
–	.6496	16.5000
21/32	.6560	16.6690
–	.6693	17.0000
43/64	.6720	17.0660
11/16	.6875	17.4630
45/64	.7030	17.8590
–	.7087	18.0000
23/32	.7190	18.2560
–	.7283	18.5000
47/64	.7340	18.6530
–	.7480	19.0000
3/4	.7500	19.0500
49/64	.7656	19.4470
25/32	.7810	19.8440
–	.7874	20.0000
51/64	.7970	20.2410
13/16	.8125	20.6380
–	.8268	21.0000
53/64	.8280	21.0340
27/32	.8440	21.4310
55/64	.8590	21.8280
–	.8662	22.0000

INCHES FRACTIONS	DECIMALS	MM
7/8	.8750	22.2250
57/64	.8906	22.6220
–	.9055	23.0000
29/32	.9062	23.0190
59/64	.9220	23.4160
15/16	.9375	23.8130
–	.9449	24.0000
61/64	.9530	24.2090
31/32	.9690	24.6060
–	.9843	25.0000
63/64	.9844	25.0030
1	1.0000	25.4000
–	1.0236	26.0000
1-1/32	1.0312	26.1940
1-1/16	1.0620	26.9880
–	1.0630	27.0000
1-3/32	1.0940	27.7810
–	1.1024	28.0000
1-1/8	1.1250	28.5750
–	1.1417	29.0000
1-5/32	1.1560	29.3690
–	1.1811	30.0000
1-3/16	1.1875	31.1630
1-7/32	1.2190	30.9560
–	1.2205	31.0000
1-1/4	1.2500	31.7500
–	1.2598	32.0000
1-9/32	1.2810	32.5440
–	1.2992	33.0000
1-5/16	1.3120	33.3380
–	1.3386	34.0000
1-11/32	1.3440	34.1310
1-3/8	1.3750	34.9250
–	1.3779	35.0000
1-13/32	1.4060	35.7190
–	1.4173	36.0000
1-7/16	1.4380	36.5130
–	1.4567	37.0000
1-15/32	1.4690	37.3060
–	1.4961	38.0000
1-1/2	1.5000	38.1000
1-17/32	1.5310	38.8940
–	1.5354	39.0000
1-9/16	1.5620	39.6880
–	1.5748	40.0000
1-19/32	1.5940	40.4810
–	1.6142	41.0000
1-5/8	1.6250	41.2750

INCHES FRACTIONS	DECIMALS	MM
–	1.6535	42.0000
1-31/32	1.6562	42.0690
1-11/16	1.6875	42.8630
–	1.6929	43.0000
1-23/32	1.7190	43.6560
–	1.7323	44.0000
1-3/4	1.7500	44.4500
–	1.7717	45.0000
1-25/32	1.7810	45.2440
–	1.8110	46.0000
1-13/16	1.8125	46.0380
1-27/32	1.8440	46.8310
–	1.8504	47.0000
1-7/8	1.8750	47.6250
–	1.8898	48.0000
1-29/32	1.9062	48.4190
–	1.9291	49.0000
1-15/16	1.9375	49.2130
–	1.9685	50.0000
1-31/32	1.9690	50.0060
2	2.0000	50.8000
–	2.0079	51.0000
2-1/32	2.0313	51.5940
–	2.0472	52.0000
2-1/16	2.0620	52.3880
–	2.0866	53.0000
2-3/32	20.9400	53.1810
2-1/8	2.1250	53.9750
–	2.1260	54.0000
2-5/32	2.1560	54.7690
–	2.1650	55.0000
2-3/16	2.1875	55.5630
–	2.2047	56.0000
2-7/32	2.2190	56.3560
–	2.2440	57.0000
2-1/4	2.2500	57.1500
2-9/32	2.2810	57.9440
–	2.2835	58.0000
2-5/16	2.3120	58.7380
–	2.3228	59.0000
2-11/32	2.3440	59.5310
–	2.3622	60.0000
2-3/8	2.3750	60.3250
–	2.4016	61.0000

Charts

Conversion Chart

INCHES FRACTIONS	DECIMALS	MM
2-13/32	2.4060	61.1190
2-7/16	2.4380	61.9130
–	2.4409	62.0000
2-15/32	2.4690	62.7060
–	2.4803	63.0000
2-1/2	2.5000	63.5000
–	2.5197	64.0000
2-17/32	2.5310	64.2940
–	2.5590	65.0000
2-9/16	2.5620	65.0880
2-19/32	2.5940	65.8810
–	2.5984	66.0000
2-5/8	2.6250	66.6750
–	2.6380	67.0000
2-21/32	2.6560	67.4690
–	2.6772	68.0000
2-11/16	2.6875	68.2630
–	2.7165	69.0000
2-23/32	2.7190	69.0560
2-3/4	2.7500	69.8500
–	2.7559	70.0000
2-25/32	2.7810	70.6439
–	2.7953	71.0000
2-13/16	2.8125	71.4376
–	2.8346	72.0000
2-27/32	2.8440	72.2314
–	2.8740	73.0000
2-7/8	2.8750	73.0250
2-29/32	2.9062	73.8190
–	2.9134	74.0000
2-15/16	2.9375	74.6130
–	2.9527	75.0000
2-31/32	2.9690	75.4060
–	2.9921	76.0000
3	3.0000	76.2000
3-1/32	3.0312	76.9940
–	3.0315	77.0000
3-1/16	3.0620	77.7880
–	3.0709	78.0000
3-3/32	3.0940	78.5810
–	3.1102	79.0000
3-1/8	3.1250	79.3750
–	3.1496	80.0000
3-5/32	3.1560	80.1690
3/16	3.1875	80.9630
–	3.1890	81.0000
3-7/32	3.2190	81.7560
–	3.2283	82.0000
3-1/4	3.2500	82.5500
–	3.2677	83.0000
3-9/32	3.2810	83.3440
–	3.3071	84.0000
3-5/16	3.3120	84.1377
3-11/32	3.3440	84.9314
–	3.3464	85.0000
3-3/8	3.3750	85.7250
–	3.3858	86.0000
3-13/32	3.4060	86.5190
–	3.4252	87.0000
3-7/16	3.4380	87.3130
–	3.4646	88.0000
3-15/32	3.4690	88.1060
3-1/2	3.5000	88.9000
–	3.5039	89.0000
3-17/32	3.5310	89.6940
–	3.5433	90.0000
3-9/16	3.5620	90.4877
–	3.5827	91.0000
3-19/32	3.5940	91.2810
–	3.6220	92.0000
3-5/8	3.6250	92.0750
3-21/32	3.6560	92.8960
–	3.6614	93.0000
3-11/16	3.6875	93.6630
–	3.7008	94.0000
3-23/32	3.7190	94.4560
–	3.7401	95.0000
3-3/4	3.7500	92.2500
–	3.7795	96.0000
3-25/32	3.7810	96.0440
3-13/16	3.8125	96.8380
–	3.8189	97.0000
3-26/32	3.8440	97.6310
–	3.8583	98.0000
3-7/8	3.8750	98.4250
–	3.8976	99.0000
3-29/32	3.9062	99.2190
–	3.9370	100.0000
3-15/16	3.9375	100.0130
3-31/32	3.9690	100.8060
–	3.9764	101.0000
4	4.0000	101.6000
4-1/16	4.0620	103.1880
4-1/8	4.1250	104.7750
–	4.1338	105.0000
4-3/16	4.1875	106.3630
4-1/4	4.2500	107.9500
4-5/16	4.3120	109.5380
–	4.3307	110.0000
4-3/8	4.3750	111.1250
4-7/16	4.4380	112.7130
4-1/2	4.5000	114.3000
–	4.5275	115.0000
4-9/16	4.5620	115.8880
4-5/8	4.6250	117.4750
4-11/16	4.6875	119.0630
–	4.7244	120.0000
4-3/4	4.7500	120.6500
4-13/16	4.8125	122.2380
4-7/8	4.8750	123.8250
–	4.9212	125.0000
4-15/16	4.9375	125.4130
5	5.0000	127.0000
–	.0004	.0100
–	.0100	.2500
1/64	.0156	.3970
–	.0197	.5000
–	.0295	.7500
–	.0040	.1000
1/32	.0313	.7940
–	.0394	1.0000
3/64	.0469	1.1910
–	.0590	1.5000
1/16	.0620	1.5880
5/64	.0781	1.9840
–	.0787	2.0000
3/32	.0940	2.3810
–	.0984	2.5000
7.64	.1090	2.7780
–	.1181	3.0000
1/8	.1250	3.1750
–	.1378	3.5000
9/64	.1410	3.5720
5/32	.1560	3.9690
–	.1575	4.0000
11/64	.1720	4.3660
–	.1770	4.5000
3/16	.1875	4.7630
–	.1969	5.0000
13/64	.2030	5.1590
–	.2165	5.5000
7/32	.2190	5.5560
15/64	.2340	5.9530
–	.2362	6.0000
1/4	.2500	6.3500
–	.2559	6.5000
17/64	.2656	6.7470
–	.2756	7.0000
9/32	.2810	7.1440
–	.2953	7.5000
19/64	.2970	7.5410
5/16	.3120	7.9380
–	.3150	8.0000
21/64	.3280	8.3340
–	.3350	8.5000
11/32	.3440	8.7310
–	.3543	9.0000
23/64	.3590	9.1280
–	.3740	9.5000
3/8	.3750	9.5250
25/64	.3910	9.9220
–	.3937	10.0000
13/32	.4060	10.3190
–	.4130	10.5000
27/64	.4220	10.7160
–	.4331	11.0000
7/16	.4380	11.1130
29/64	.4530	11.5090
15/32	.4690	11.9060
–	.4724	12.0000
31/64	.4840	12.3030
–	.4920	12.5000
1/2	.5000	12.7000
–	.5118	13.0000
33/64	.5156	13.0970
17/32	.5310	13.4940
35/64	.5470	13.8910
–	.5512	14.0000
9/16	.5630	14.2880
–	.5710	14.5000
37/64	.5790	14.6840
–	.5906	15.0000
19/32	.5940	15.0810
39/64	.6090	15.4780
5/8	.6250	15.8750
–	.6299	16.0000
41/64	.6406	16.2720
–	.6496	16.5000
21/32	.6560	16.6690

Chart

Hose End & Tool Selector Chart

Coll-O-Crimp Hose, Hose Fittings and Assembly Equipment Compatibility: The Coll-O-Crimp equipment package, Coll-O-Crimp end fittings, 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 eachother 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. The Eaton warranty is limited to apply only when Coll-O-Crimp end fittings and compatible Coll-O-Crimp hose are used with Coll-O-Crimp assembly equipment.

Proper Selection of Hose Ends: Selection of the proper end fittings for the hose end application is essential to the proper operation and safe use of the hose and related equipment.

Inadequate attention to the selection of the end fittings for your application can result in leaking or the hose ends blowing off the hose, leading to serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong end fitting, you should carefully review the information in this catalog.

Nominal Crimp Diameter Measurement:

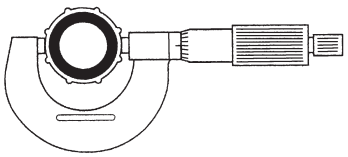
Measuring crimp diameters should be a part of the normal hose assembly procedure. To insure a proper crimp diameter reading, follow these steps:

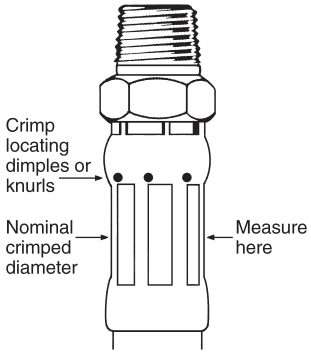
1. Measure the diameter in the middle of crimped portion of the hose end.
2. Place the caliper in a position to allow a measurement across the pressed (flat) portion of the crimp.
3. See crimp diameters on following chart.

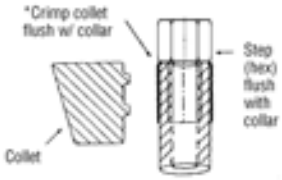
Note:
In larger sizes, calipers may be used; however, in smaller sizes, and in the 'E' Series thermoplastic hose ends, a point micrometer will provide an accurate reading.

Nominal crimp diameters are for Boston hose and end fittings when crimped with Boston Coll-O-Crimp tooling.

Note:
When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top surface of collet as shown.







HOSE TYPE	HOSE TYPE	HOSE I.D. (IN.)	SKIVE TOOL	HOSE END PREFIX	COLLET NUMBER	SPACER COLOR	RING SIDE	NOMINAL CRIMP DIA.
H037732	Kelly Power	2	N/R	43032 'U'	T-410-9N	N/R	N/R	2.897
H10506	Bosflex 300 (RD)	3/8	N/R	06 'U'	T-400-3C	Black	Up	.788
H10508	Bosflex 300 (RD)	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.940
H10512	Bosflex 225 (RD)	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.232
H10516	Bosflex 300 (RD)	1	N/R	16 'U'	T-400-6C	Silver	Up	1.522
H10604	Bosflex 200 (RD, BK)	1/4	N/R	04 'U'	T-400-2C	Black	DN	.560

N/R = Not Required

For wall mounting and in-shop area reference, order: Hose End & Tool Selector Wall Chart W-HOOV-MG002-E.

Chart

Hose End & Tool Selector Chart

HOSE TYPE	HOSE TYPE	HOSE I.D. (IN.)	SKIVE TOOL	HOSE END PREFIX	COLLET NUMBER	SPACER COLOR	RING SIDE	NOMINAL CRIMP DIA.
H10606	Bosflex 200 (RD, BK)	3/8	N/R	06 'U'	T-400-3C	Yellow	Up	.755
H10608	Bosflex 200 (RD, BK)	1/2	N/R	08 'U'	T-400-4C	Black	Up	.910
H10510	Bosflex 200 (RD)	5/8	N/R	10 'U'	T-400-64C	Black	Up	1.040
H10510	Bosflex 200 (BK)	5/8	N/R	10 'U'	T-400-64C	Yellow	Up	1.010
H10512	Bosflex 200 (RD, BK)	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H10516	Bosflex 200 (BK)	1	N/R	16 'U'	T-400-6C	Silver	Up	1.515
H10520	Bosflex 200 (BK)	1-1/4	N/R	20 'U'	T-400-12	Black	Up	1.835
H106612	Creamery/Packing	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H11504	Performer II (2 Br)	1/4	N/R	04 'U'	T-400-2C	Black	Up	.610
H11506	Performer II (2 Br)	3/8	N/R	06 'U'	T-400-3C	Black	Up	.788
H11508	Performer II (2 Br)	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.940
H11512	Performer II (2 Br)	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.225
H11516	Performer II (2 Br)	1	N/R	16 'U'	T-400-6C	Silver	Up	1.522
H11520	Performer II (2 Br)	1-1/4	N/R	20 'U'	T-400-12	Silver	Up	1.862
H11524	Performer II (2 Br)	1-1/2	N/R	43024 'U'	T-410-8N	N/R	N/R	2.285
H11604	Performer II (1 Br)	1/4	N/R	04 'U'	T-400-2C	Black	DN .	560
H11606	Performer II (1 Br)	3/8	N/R	06 'U'	T-400-3C	Yellow	Up	.745
H11608	Performer II (1 Br)	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.875
H157112	Mineforce	3/4	N/R	12 'U'	T-400-5C	Yellow	DN	1.164
H177704	Perfection 300	1/4	N/R	04 'U'	T-400-2C	Yellow	Up	.575
H177604	Perfection 300	1/4	N/R	04 'U'	T-400-2C	Silver	Up	.635
H177706	Perfection 300	3/8	N/R	06 'U'	T-400-3C	Black	DN	.730
H177606	Perfection 300	3/8	N/R	06 'U'	T-400-3C	Silver	Up	.810
H177708	Perfection 300	1/2	N/R	08 'U'	T-400-4C	Yellow	Up	.880
H177608	Perfection 300	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.940
H177610	Perfection 300	5/8	N/R	10 'U'	T-400-64C	Black	Up	1.040
H177612	Perfection 300	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H177616	Perfection 300	1	N/R	16 'U'	T-400-6C	Silver	Up	1.515
H177620	Perfection 300	1-1/4	N/R	20 'U'	T-400-12	Black	Up	1.840
H177624	Perfection 300	1-1/2	N/R	43024 'U'	T-410-8N	N/R	N/R	2.285
H181204	Industrial A/W	1/4	N/R	04 'U'	T-400-2C	Yellow	Up	.575
H181206	Industrial A/W	3/8	N/R	06 'U'	T-400-3C	Black	Up	.790
H181208	Industrial A/W	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.935
H181210	Industrial A/W	5/8	N/R	10 'U'	T-400-64C	Black	Up	1.040
H181212	Industrial A/W	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H181216	Industrial A/W	1	N/R	16 'U'	T-400-6C	Silver	Up	1.515
H181220	Industrial A/W	1-1/4	N/R	20 'U'	T-400-12	Black	Up	1.835
H181224	Industrial A/W	1-1/2	N/R	43024 'U'	T-410-8N	N/R	N/R	2.265
H194104	Nyall (RD,BK)	1/4	N/R	04 'U'	T-400-2C	Black	DN	.560
H194105	Nyall (BK)	5/16	N/R	05 'E'	T-400-32C	Yellow	Up	.560
H194106	Nyall (RD,BK)	3/8	N/R	06 'U'	T-400-3C	Black	DN	.730
H194108	Nyall (RD)	1/2	N/R	08 'U'	T-400-4C	Green	Up	.820
H194208	Nyall (RD,BK)	1/2	N/R	08 'U'	T-400-4C	Black	Up	.910
H194212	Nyall (RD)	3/4	N/R	12 'U'	T-400-5C	Black	Up	1.205
H194216	Nyall (RD)	1	N/R	16 'U'	T-400-6C	Silver	Up	1.520
H198104	Marathoner (RD)	1/4	N/R	04 'U'	T-400-2C	Black	DN	.560

N/R = Not Required

For wall mounting and in-shop area reference, order: Hose End & Tool Selector Wall Chart W-HOOV-MG002-E.

Chart

Hose End & Tool Selector Chart

HOSE TYPE	HOSE TYPE	HOSE I.D. (IN.)	SKIVE TOOL	HOSE END PREFIX	COLLET NUMBER	SPACER COLOR	RING SIDE	NOMINAL CRIMP DIA.
H198106	Marathoner (RD)	3/8	N/R	06 'U'	T-400-3C	Yellow	Up	.750
H198206	Marathoner (RD,GR,YW)	3/8	N/R	06 'U'	T-400-3C	Silver	Up	.805
H198306	Marathoner (BK)	3/8	N/R	06 'U'	T-400-3C	Black	Up	.785
H198108	Marathoner (RD)	1/2	N/R	08 'U'	T-400-4C	Black	Up	.910
H198208	Marathoner (BK,RD,GR,YW)	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.940
H198210	Marathoner (RD)	5/8	N/R	10 'U'	T-400-64C	Black	Up	1.040
H198212	Marathoner (BK,RD,GR,YW)	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H198216	Marathoner (RD)	1	N/R	16 'U'	T-400-6C	Silver	Up	1.515
H26504	Ultraforce	1/4	N/R	26504 'P'	T-400-2C	Green	Up .	520
H26506	Ultraforce	3/8 3/8	N/R N/R	06 'E' 26506 'P'	T-400-33C T-400-2C	Black Silver	Up Up	.660 .640
H26508	Ultraforce	1/2 1/2	N/R N/R	08 'E' 26508 'P'	T-400-34C T-400-3C	Black Black	Up Up	.810 .788
H26512	Ultraforce	3/4 3/4	N/R N/R	12 'E' 26512 'P'	T-400-35C T-400-64C	Black Silver	Up Up	1.090 1.070
H26516	Ultraforce	1	N/R	16 'E'	T-400-36C	Black	Up	1.340
H27504	Polyforce II	1/4	N/R	26504 'P'	T-400-2C	Green	Up	.520
H27506	Polyforce II	3/8 3/8	N/R N/R	06 'E' 26506 'P'	T-400-33C T-400-2C	Black Silver	Up Up	.660 .640
H27508	Polyforce II	1/2 1/2	N/R N/R	08 'E' 26508 'P'	T-400-34C T-400-3C	Black Black	Up Up	.810 .788
H27512	Polyforce II	3/4 3/4	N/R N/R	12 'E' 26512 'P'	T-400-35C T-400-64C	Black Silver	Up Up	1.090 1.070
H27516	Polyforce II	1	N/R	16 'E'	T-400-36C	Black	Up	1.340
H28504	Clearforce	1/4 1/4	N/R N/R	04 'E' 26504 'P'	T-400-31C T-400-2C	Black Green	Up Up	.500 .520
H28505	Clearforce	5/16	N/R	05 'E'	T-400-32C	Black	Up	.595
H28506	Clearforce	3/8 3/8	N/R N/R	06 'E' 26506 'P'	T-400-33C T-400-2C	Black Silver	Up Up	.660 .640
H28508	Clearforce	1/2 1/2	N/R N/R	08 'E' 26508 'P'	T-400-34C T-400-3C	Black Black	Up Up	.810 .788
H28512	Clearforce	3/4 3/4	N/R N/R	12 'E' 26512 'P'	T-400-35C T-400-64C	Black Silver	Up Up	1.090 1.070
H28516	Clearforce	1	N/R	16 'E'	T-400-36C	Black	Up	1.340

N/R = Not Required

For wall mounting and in-shop area reference, order: Hose End & Tool Selector Wall Chart W-HOOV-MG002-E.

Chart

Hose End & Tool Selector Chart

HOSE TYPE	HOSE TYPE	HOSE I.D. (IN.)	SKIVE TOOL	HOSE END PREFIX	COLLET NUMBER	SPACER COLOR	RING SIDE	NOMINAL CRIMP DIA.
H34504	Pressure Washer	1/4	N/R	04 'M'	T-400-109C	Yellow	Up	.630
H34506	Pressure Washer	3/8	N/R	06 'M'	T-400-110C	Yellow	Up	.765
H34508	Pressure Washer	1/2	N/R	08 'M'	T-400-111C	Yellow	DN	.915
H600208	Concord Air	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.940
H600212	Concord Air	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H600216	Concord Air	1	N/R	16 'U'	T-400-6C	Silver	Up	1.515
H600220	Concord Air	1-1/4	N/R	20 'U'	T-400-12	Yellow	DN	1.895
H600224	Concord Air	1-1/2	N/R	43024 'U'	T-410-8N	Orange	Up	2.230
H600232	Concord Air	2	N/R	43032 'U'	T-410-9N	N/R	N/R	2.890
H600808	Concord Yellow Jack	1/2	N/R	43008 'U'	T-605-FP26	N/R	N/R	1.160
H600812	Concord Yellow Jack	3/4	N/R	43012 'U'	T-605-FP34	N/R	N/R	1.390
H600816	Concord Yellow Jack	1	N/R	43016 'U'	T-410-6CN	Orange	Up	1.670
		1	N/R	43016 'U'	T-420-6CN	Orange	Up	1.670
H600820	Concord Yellow Jack	1-1/4	N/R	43020 'U'	T-605-FP39	N/R	N/R	1.930
H600824	Concord Yellow Jack	1-1/2	N/R	43024 'U'	T-410-8N	N/R	N/R	2.285
H600832	Concord Yellow Jack	2	N/R	43032 'U'	T-410-9N	Orange	Up	2.860
H600920	Bulldog Gold	1-1/4	N/R	43020 'U'	T-410-7CN	Orange	Up	2.000
		1-1/4	N/R	43020 'U'	T-420-7CN	Orange	Up	2.000
H600924	Bulldog Gold	1-1/2	N/R	43024 'U'	T-410-8N	White	Up	2.330
H600932	Bulldog Gold	2	N/R	43032 'U'	T-410-9N	N/R	N/R	2.905
H602708	200 LL Steam	1/2	N/R	Wolf Series	T-410-4CN	N/R	N/R	1.160
H602712	200 LL Steam	3/4	N/R	Wolf Series	T-410-72CN	N/R	N/R	1.400
H881108	Nitrogen Service	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.940
H881112	Nitrogen Service	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H90004	Black Line	1/4	N/R	'U'	T-400-2C	Black	Up	.610
H90006	Black Line	3/8	N/R	'U'	T-400-3C	Black	Up	.784
H90008	Black Line	1/2	N/R	'U'	T-400-4C	Silver	Up	.940
H90012	Black Line	3/4	N/R	'U'	T-400-5C	Silver	Up	1.235
H90016	Black Line	1	N/R	'U'	T-400-6C	Silver	Up	1.518
H956808	Concord 250	1/2	N/R	Wolf Series	T-605-FP30	N/R	N/R	1.220
H956812	Concord 250	3/4	N/R	Wolf Series	T-410-72CN	White	Up	1.510
		3/4	N/R	Wolf Series	T-605-FP34	N/R	N/R	1.510
H956816	Concord 250	1	N/R	Wolf Series	T-410-73CN	N/R	N/R	1.710
		1	N/R	Wolf Series	T-605-FP39	N/R	N/R	1.710

N/R = Not Required

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Chart

Hose End & Tool Selector Chart

HOSE TYPE	HOSE TYPE	HOSE I.D. (IN.)	SKIVE TOOL	HOSE END PREFIX	COLLET NUMBER	SPACER COLOR	RING SIDE	NOMINAL CRIMP DIA.
H960316	Hot Tar Pumping	1	N/R	Wolf Series	T-410-73CN	N/R	N/R	1.710
		1	N/R	Wolf Series	T-605-FP39	N/R	N/R	1.710
H961006	Washdown 1000 (GY,YW)	3/8	N/R	06 'U'	T-400-3C	Black	DN	.735
		3/8	N/R	06 'M'	T-400-110C	Black	Up	.805
H961008	Washdown 1000 (GY,YW)	1/2	N/R	08 'U'	T-400-4C	Black	DN	.862
		1/2	N/R	08 'M'	T-400-111C	Yellow	Up	.940
H961012	Washdown 1000 (YW)	3/4	N/R	12 'U'	T-400-5C	Yellow	Up	1.170
		3/4	N/R	43012 'U'	T-410-5CN	N/R	N/R	1.410
		3/4	N/R	43012 'U'	T-420-5CN	N/R	N/R	1.410
H962208	Contractors Air	1/2	N/R	43008 'U'	T-410-4CN	Orange	Up	1.115
		1/2	N/R	43008 'U'	T-420-4CN	Orange	Up	1.115
H962212	Contractors Air	3/4	N/R	43012 'U'	T-410-5CN	Orange	Up	1.370
		3/4	N/R	43012 'U'	T-420-5CN	Orange	Up	1.370
H962216	Contractors Air	1	N/R	43016 'U'	T-410-6CN	Orange	Up	1.665
		1	N/R	43016 'U'	T-420-6CN	Orange	Up	1.665
H962220	Contractors Air	1-1/4	N/R	43020 'U'	T-410-7CN	Orange	Up	1.985
		1-1/4	N/R	43020 'U'	T-420-7CN	Orange	Up	1.985
H962224	Contractors Air	1-1/2	N/R	43024 'U'	T-410-8N	N/R	N/R	2.235
H962232	Contractors Air	2	N/R	43032 'U'	T-410-9N	N/R	N/R	2.900
H967306	Washdown 1250	3/8	N/R	06 'U'	T-400-3C	Black	DN	.735
H967308	Washdown 1250	1/2	N/R	08 'U'	T-400-4C	Yellow	Up	.880
H967312	Washdown 1250	3/4	N/R	12 'U'	T-400-5C	Black	Up	1.208
H969012	Hydrocarbon Drain	3/4	N/R	Wolf Series	T-410-72CN	N/R	N/R	1.460
		3/4	N/R	Wolf Series	T-605-FP34	N/R	N/R	1.460
H994904	Shock Safe	1/4	N/R	04 'U'	T-400-2C	Silver	Up	.635
H994906	Shock Safe	3/8	N/R	06 'U'	T-400-3C	Black	Up	.785
H994908	Shock Safe	1/2	N/R	08 'U'	T-400-4C	Silver	Up	.935
H994912	Shock Safe	3/4	N/R	12 'U'	T-400-5C	Silver	Up	1.230
H994916	Shock Safe	1	N/R	16 'U'	T-400-6C	Black	Up	1.490

CODE COLOR KEY USED ON COLL-O-CRIMP PRESS

White	T-400-1, T-400-17, T-407, T-410-1◆ , T-420-1* ,T-440-1◆, T460-1, T-462-1, T-465-1, T480-1*.
Blue	T420-1, T-480-1• ONLY!
Black	T-410-1 & T-440-1 ONLY!
Gray	T-605VS ONLY!

N/R = Not Required

* = When Crimping on T-420-1 & T-480-1, Use Adapter Die Ring T-420-25 with T-400 Collets and Spacer Ring Shown in Chart.

• = Use T-480-68 Blue Pusher Extension Ring.

◆ = When Crimping on T-410-1 & T-440-1, Use Adapter Die Ring T-410-25 with T-400 Collets and T-410 Spacer Rings.

For wall mounting and in-shop area reference, order: Hose End & Tool Selector Wall Chart W-HOOV-MG002-E.

Glossary

A

abrasion: external damage to a hose assembly caused by its being rubbed on a foreign object; a wearing away by friction. adhesion: the strength of bond between cured rubber surfaces or between a cured rubber surface and a non-rubber surface.

ambient/atmospheric conditions: The surrounding conditions, such as temperature, pressure, and corrosion, to which a hose assembly is exposed.

ANSI: American National Standards Institute.

application working pressure: unique to customer's application. See pressure, working.

assembly: a general term referring to any hose coupled with end fittings of any style attached to one or both ends.

ASTM: American Society for Testing and Materials.

axial movement: compression or elongation along the longitudinal axis.

B

bend radius: the radius of a bent section of hose measured to the innermost surface of the curved portion.

bend radius, minimum: the smallest radius at which hose or tubing can be used. For Metal Hose: the radius of a bend measured to the hose centerline, as recommended by the manufacturer.

blister: a raised spot on the surface or a separation between layers, usually forming a void or air-filled space in the vulcanized hose.

bloom: a discoloration or change in appearance of the surface of a rubber hose caused by the migration of a liquid or a solid to the surface. Examples—Sulfur bloom, wax bloom. Not to be confused with dust on the surface from external sources.

bore: a fluid passageway.

braid: the woven portion of a hose used as reinforcement to increase pressure rating and add hoop strength. Various materials such as polyester, cotton or metal wire are used. A hose may have one or more braids, outside or between layers of hose material.

braided hose: hose in which the reinforcing material has been applied by braiding.

braider: a machine for making braid. The yarn is drawn off of several bobbins while they move in and out during their travel around the center of the machine. These yarns are thus intertwined in a regular manner according to the desired pattern.

braided ply: a layer of braided reinforcement.

brand: a mark or symbol identifying or describing a product and/or manufacturer, that is embossed, inlaid or printed.

burst pressure: pressure at which a hose will fail and burst. Most Boston hoses are rated with working pressures of 4 times the minimum burst pressure. Steam hoses are rated with a working pressure of 10 times the minimum burst pressure.

C

capped end: a seal on the end of a hose to protect internal reinforcement.

carcass: the fabric, cord and/or metal reinforcing section of a hose as distinguished from the hose tube or cover.

cemented end: a capped end accomplished by means of cement

chalking: the formation of a powdery surface condition due to disintegration of surface binder or elastomer by weathering or other destructive environments.

checking: the short, shallow cracks on the surface of a rubber product resulting from damaging action of environmental conditions.

chemical compatibility: the relative degree to which a material may contact another without corrosion, degradation or adverse change of properties.

chemical resistance: the ability of a particular polymer, rubber compound, or metal to exhibit minimal physical and/or chemical property changes when in contact with one or more chemicals for a specified length of time, at specified concentrations, pressure, and temperature.

cold flex: act or instance of bending or bowing a rubber hose under conditions of cold environment.

cold flexibility: relative ease of bending while being exposed to specified low temperature.

collar: 1) the portion of a fitting that is compressed by crimping to seal the hose onto the fitting barbs and create a permanent attachment; also called a ferrule. (With field attachable fittings, the lock and seal are accomplished mechanically by the collar without crimping); 2) a raised portion on the hose shank which functions as a connection for a ferrule or other locking device or functions as a hose stop.

Coll-O-Crimp: a line of hydraulic and pneumatic hose, hose end fittings, and fabrication equipment that is a registered trademark of Eaton Corporation.

combustible liquid: a combustible liquid is one having a flash point at or above +100°F (37.8°C).

compound: the mixture of rubber or plastic and other materials, which are combined to give the desired properties when, used in the manufacture of a product.

conductive: the ability to transfer electrical potential.

core: the inner portion of a hose, usually referring to the material in contact with the medium.

corrosion: the process of material degradation by chemical or electrochemical means.

corrosion resistance: ability of metal components to resist oxidation.

coupled lengths: individual lengths of hose with couplings attached. This may be, as specified, either the length of exposed hose or the overall length including couplings.

Glossary

coupling: a device attached to the end of hose or conduit to facilitate connection to a suitable fitting and insure a passageway.

coupling: a frequently used alternative term for hose end fitting.

cover steam: mark or line resulting from applying cover from calendered stock.

cover: the outer component usually intended to protect the carcass of a product.

CPE: chlorinated polyethylene, a rubber elastomer.

cracking: a sharp break or fissure in the surface, generally caused by strain and environmental conditions.

crazing: a surface effect on rubber articles characterized by multitudinous minute cracks.

crimp diameter: the distance across opposite flats after crimping.

crimp/crimping: a hose end fitting attachment method utilizing a number of dies mounted in a radial configuration. The dies close perpendicular to the hose and fitting axis, compressing the collar, ferrule, or sleeve around the hose.

cure: the act of vulcanization. See vulcanization.

cut-off factor: the hose length to be subtracted from the overall assembly length that allows for the hose coupling end connection extension beyond the end of the hose.

D

date code: any combination of numbers, letters, symbols or other methods used by a manufacturer to identify the time of manufacture of a product.

deburr: to remove ragged edges from the inside diameter of a hose end.

design factor: a ratio used to establish the working pressure of the hose, based on the burst strength of the hose.

DOT: Department of Transportation.

durometer: an instrument for measuring the hardness of rubber and plastic compounds.

E

eccentricity: the condition resulting from the inside and outside diameters not having a common center.

effusion: the escape, usually of gases, through a material. See permeation.

elastic limit: the limiting extent to which a body may be deformed and yet return to its original shape after removal of the deforming force.

elastomer: any one of a group of polymeric materials, usually designated thermoset, such as natural rubber, or thermoplastic, which will soften with application of heat.

elongation: the increase in length expressed numerically as a percentage of the initial length.

end force: an internal pressure which acts outward toward the ends of the tube.

endurance test: a service or laboratory test, conducted to product failure, usually under normal use conditions.

enlarged end: An end with inside diameter greater than that of the main body of hose.

EPDM: Ethylene Propylene Diene Monomer; an elastomer.

extrude/extruded/extrusion: forced through the shaping die of an extruder; extrusion may have a solid or hollow cross section.

F

fabric impression: impression formed on the rubber surface during vulcanization by contact with fabric jacket or wrapper.

fabricator: the producer of hose assemblies.

fatigue: the weakening or deterioration of a material occurring when a repetitious or continuous application of stress causes strain, which could lead to failure.

FDA: United States Food and Drug Administration.

fire sleeve: slip-on or integrally extruded sleeve used to retard the effects of fire in certain applications; most often made with silicone and/or ceramic fiber.

flammable gases/liquid/media: a flammable gas, including liquefied gas, is one having a closed cup flash point below +100°F (+37.8°C) and a vapor pressure greater than 25 psi. (174.2 KPa).

flange: (1) Metal ring attached to pipe nipples. (2) Raised edge on hose.

flex cracking: a surface cracking induced by repeated bending and straightening.

filler: the yarn which interlaces with the warp yarn to form a woven fabric.

flow rate: a volume of media being conveyed in a given time period.

fluid: a gas or liquid medium.

fluorocarbon: an organic compound containing fluorine directly bonded to carbon. The ability of the carbon atom to form a large variety of structural chains gives rise to many fluorocarbons and fluorocarbon derivatives.

G

GPM: gallons per minute.

GHT: garden hose thread.

H

heat resistance: the property or ability to resist the deteriorating effects of elevated temperatures.

helix: a shape formed by spiraling a wire or other reinforcement around the cylindrical body of a hose; typically used in suction hose.

hoop force: an internal pressure which acts outward on the walls of the inner tube.

hose: a flexible conduit consisting of a tube, reinforcement, and usually an outer cover.

hydrostatic testing: the use of liquid pressure to test a hose or hose assembly for leakage, twisting, and/or hose change-inlength.

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Glossary

I

I.D.: the abbreviation for inside diameter.

identification yarn: a yarn of single or multiple colors, usually embedded in the hose wall, used to identify the manufacturer.

impression: a design formed during vulcanization in the surface of a hose by a method of transfer, such as fabric impression or molded impression.

impulse: an application of force in a manner to produce sudden strain or motion, such as hydraulic pressure applied in a hose.

innertube: the innermost layer of a hose; the hose material in contact with the medium.

ISO: International Organization for Standardization.

J

jacket: (1) A seamless tubular braided or woven ply generally exposed on outside. (2) A woven fabric used during vulcanization by the wrapped "cure" method.

K

knitter: a machine capable of forming a fabric by the action of needles engaging threads in such a manner as to cause a sequence of interlaced loops from forming a continuous tubular structure.

kinking: a temporary or permanent distortion of the hose induced by bending beyond the minimum bend radius.

L

layer: a single thickness of rubber or fabric between adjacent parts.

layline: the line of printed information that runs parallel on the side of a manufactured hose giving details such as part number, PSI rating, hose size and manufacturing data.

leno breaker: an open-mesh fabric made from coarse ply yarns with a leno weave. A leno weave is one in which certain warp threads—termed doup or crossing threads—are passed from side to side of one or more ends—termed standard threads— and are bound in by the filling in this position. Where the crossed interlacing occurs an open perforated structure is formed.

lined hose: fire hose having a seamless woven jacket or jackets and an internal rubber tube.

LPG, LP Gas: the abbreviation for liquefied petroleum gas.

M

machine made: (1) Mandrel-built reinforced hose made by machine, as opposed to hose built by hand. (2) Tubing that is processed without internal support.

media, medium: the substance(s) being conveyed through a system.

mandrel: a form, usually of elongated round section, used for size and support hose during fabrication and/or vulcanization. It may be rigid or flexible.

mandrel built: a hose fabricated and/or vulcanized on a mandrel.

mandrel wrapped: built up by wrapping an unvulcanized sheet on a mandrel.

manufacturer's identification: a code symbol used on or in some hose to indicate the manufacturer.

MAWP: see pressure, maximum allowable working.

minimum bend radius (MBR): minimum radius to which a hose may be bent without compromising the integrity of construction. According to RMA IP-11-7 Chemical Hose Bulletin, crushed or kinked sections where the hose O.D. is reduced by 20% or more of the normal indicate internal damage of the reinforcement and/or tube.

MSDS: Material Safety Data Sheet.

MSHA: Mine Safety and Health Administration.

N

NAHAD: the abbreviation for the National Association of Hose & Accessories Distributors.

necking down: the diminution of the cross-section of a rubber hose.

nitrile rubber (NBR/Buna-N): a family of acrylonitrile elastomers used extensively for industrial hose.

nominal: a size indicator for reference only.

nomograph: a chart used to compare hose size to flow rate to recommended velocity.

non-conductive: the inability to transfer an electrical charge.

nozzle end: an end of hose in which both the inside and outside diameters are reduced.

NPT/NPTF: abbreviation for national pipe threads. See fitting/coupling - Pipe Thread Fittings.

NSF: National Sanitation Foundation.

nylon: a family of polyamide materials.

O

OAL: see overall length

O.D.: the abbreviation for outside diameter.

oil resistance: the ability of the materials to withstand exposure to oil.

oil swell: the change in volume of a rubber article resulting from contact with oil.

operating conditions: the pressure, temperature, motion, and environment to which a hose assembly is subjected.

overall length (OAL): the total length of a hose assembly, which consists of the free hose length plus the length of the coupling(s).

oxidation: the reaction of oxygen on a material, usually evidenced by a change in the appearance or feel of the surface or by a change in physical properties.

ozone cracking: the surface cracks, checks or crazing caused by exposure to an atmosphere containing ozone.

Glossary

ozone resistance: the ability to withstand the deteriorating effects of ozone (generally cracking).

P

Pancure: a vulcanization process in which the hose is taken from the covering operation, coiled either on reels or horizontal pans and placed directly into the vulcanizer.

permeation: the process of migration of a substance into and through another, usually the movement of a gas into and through a hose material; the rate of permeation is specific to the substance, temperature, pressure and the material being permeated.

pinpricked: perforations through the cover of a hose to vent permeating gases.

pitch: 1) the distance from one point on a helix to the corresponding point on the next turn of the helix, measured parallel to the axis; 2) the distance between the two peaks of adjacent corrugation or convolution.

plating: a material, usually metal, applied to another metal by electroplating, for the purpose of reducing corrosion; typically a more noble metal such a zinc is applied to steel.

plied yarns: a yarn made by twisting together two or more single yarns.

ply: an individual layer in hose construction.

polymer: a macromolecular material formed by the chemical combination of monomers, having either the same or different chemical compositions.

porous tube: (1) The physical conditions of a hose tube due to presence of pores. (2) A hose tube that has low resistance to permeation.

pressure: force ÷ unit area. For purposes of this document, refers to PSIG (pounds per square inch gauge).

pressure drop: the measure of pressure reduction or loss over a specific length of hose.

pressure, burst: the pressure at which rupture occurs.

pricker marks: the marks due to perforating the cover of the hose prior to or after vulcanization.

proof pressure test: a non-destructive hydrostatic pressure test applied to a product to show up possible defects.

psi (PSI): pounds of pressure per square inch of area (lb2/in).

PTFE: polytetrafluoroethylene, a high molecular weight fluoroplastic polymer with carbon atoms shielded by fluorine atoms having very strong inter atomic bonds, giving it chemical inertness.

PVC: polyvinyl chloride. A low cost thermoplastic material typically used in the manufacture of industrial hoses. The operating temperature range is -500ºF to +1750ºF (-295.5ºC to +954.4ºC).

R

reinforcement: (1) The strength members, consisting of fabric, cord, and/or metal, of a rubber hose. (2) The non-rubber elements making up a rubber hose. (3) The non-rubber compounding ingredients which impart increased tensile strength or other desirable properties.

RMA: The Rubber Manufacturers Association, Inc.

rough-bore hose: a wire reinforced hose in which a wire is exposed in the bore.

S

SAE: Society of Automotive Engineers.

safety factor: divisor of burst pressure used to determine working pressure.

service test: a test which makes the hose operate under service conditions in the actual equipment.

smooth bore hose: a wire reinforced hose in which the wire is not exposed in the bore.

smooth-bore: a term used to describe the type of inner core in a hose.

soft end: an end in which the rigid reinforcement of the body, usually wire, is omitted.

specification: a document setting forth pertinent details of a product.

specific gravity: the ratio of the weight of a given substance to the weight of an equal volume of water at a specified temperature.

spiral: a method of applying reinforcement in which there is not interlacing between individual strands of the reinforcement.

static wire: a wire incorporated in a rubber hose to give quality or additional power to conducting or transmitting static electricity.

straight end: an end with inside diameter the same as that of the main body.

standard: a document, or an object for physical comparison, for defining product characteristics, products, or processes, prepared by a consensus of a properly constituted group of those substantially affected and having the qualifications to prepare the standard for use.

static wire: wire incorporated in a hose to conduct static electricity.

stem: see nipple.

surge (spike): a rapid and transient rise in pressure.

swelling: an increase in volume or linear dimension of a specimen immersed in liquid or exposed to a vapor.

T

tight braid: (1) An unevenness in the braid reinforcement caused by one or more ends of the reinforcement being applied at a greater tension than the balance of the ends of the braided reinforcement. (2) Also refers to a localized necking down of the braided reinforcement caused by a braider stop or some other cause.

tube: the innermost continuous all-rubber or plastic element of a hose.

tubing: a non-reinforced, homogeneous conduit, generally of circular cross-section.

Glossary

U

UL: Underwriters' Laboratories, Inc.

V

vacuum: full vacuum is 29.92 in Hg.

vacuum resistance: the measure of a hoses ability to resist negative gauge pressure.

vibration: amplitude motion occurring at a given frequency.

viscosity: the resistance of a material to flow.

vulcanization: a process during which a rubber compound, through a change in its chemical structure, improves or extends elastic properties over a greater range of temperature.

W

warp: (1) The yarn that runs lengthwise in a woven fabric. Also called chain or twist. An individual thread of warp is termed an end. (2) The sheet of yarns laid together in parallel order on a beam to form a warp.

weathering: the surface deterioration of a hose cover during outdoor exposure, as shown by checking, cracking, crazing and chalking.

wire braid: a ply of braided wire reinforcement.

wire reinforced: a hose containing wires to give added strength, increased dimensional stability; crush resistance. See reinforcement

working pressure (WP): maximum pressure at which a hose is designed to operate.

working temperature: the temperature range of the application, may include the temperature of the fluid conveyed or the environmental conditions the assembly is exposed to in use.

woven jacket: a seamless jacket with continuous parallel warp yarns interlaced spirally with continuous filler elements.

wrapper marks: impressions left on the surface by the material used to wrap the hose during vulcanization. Usually shows characteristics of a woven pattern and wrapper with edge marks.

Y

yarn: a generic term for a continuous strand of textile fibers or filaments in a form suitable for knitting, weaving, or otherwise intertwining to form a textile fabric. It may comprise (a) a number of fibers twisted together, (b) a number of filaments laid together without twist (a sertwist yarn), (c) a number of filaments laid together with more or less twist, or (d) a singe filament with or without twist (a monofilament).

This Glossary of Terms, as utilized in the hose industry, includes some definitions from The Hose Handbook, published by the Rubber Manufacturers Association.

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Hose Selection Worksheet

This worksheet is designed to help you organize information for determining the best hose for a given application. The questions are based on the hose selection factors described earlier in this catalog.

When selecting a hose, always use this worksheet in conjunction with this catalog. Read all instructions concerning the hose you are selecting. If any questions arise contact Eaton Technical Support at 1-888-258-0222.

1. Application

If the application is new, what service is to be performed? _____

If it is an existing application, do not replace a failed hose without finding out the cause of the failure.

The hose may have been specified incorrectly originally. Ask the following questions:

What hose was in use? _____

Why did it fail? _____

How long did the hose last? _____

Have the service conditions changed since the failed hose was installed? _____

Any movement during loading or unloading process such as flexing or other repetitive motion? _____

What other hose conditions exist in addition to the one at the failure point? _____

Was hose cleaned and dried prior to transferring the next material? _____

Examine other hoses in similar service to avoid unexpected failures. _____

2. Pressure & Suction

What working pressure is required? _____

Are pressure surges involved in this application? How high? _____

What safety factor is required? _____

Is this a suction application? What vacuum rating is required? _____

3. Environment & Compatibility

Internal and external environment consideration. Internal environment relates to the material being conveyed. External environment relates to anything originating from outside the hose. Check all that apply.

- ☐ Abrasive materials (conveyants and external)
- ☐ Ozone
- ☐ Petroleum products (aromatics, aliphatics, etc.)
- ☐ Materials that could cut or gouge hose
- ☐ Animal fats (oils)
- ☐ Sparking or flames
- ☐ Solvents
- ☐ Cleaning with steam
- ☐ Acids/caustics

Material to be transferred? _____

Material concentration (%)? _____

What hose cleaning solution(s) will be used? _____

___ _____

Hose Selection Worksheet

4. Temperature

Temperature range of material to be transferred? Min. _____ Max. _____ Average _____

Year-round external environment temperature range? _____

Cleaning temperature? _____

5. Size

Flow (cubic feet per minute) requirements? _____

See RMA Water Discharge table.

Hose I.D. requirements given the flow requirements? _____

Pressure drop? _____

Length requirements (excluding hose ends)? _____

6. Flexibility & Bend Radius

Do space restrictions exist where the hose will be used? _____

Bend radius of the hose relative to space in which hose will be used? _____

Considering the intended use of the hose, how flexible will it need to be (check one)?

☐ Extremely flexible ☐ Slightly flexible ☐ Not an issue

7. Weight

How will the hose be handled during use, if all? _____

How important is the weight of the hose going to be in this application (check one)?

☐ Very important ☐ Slightly important ☐ Not an issue

8. Special Requirements

Will the selected hose need to possess any of the following features:

Branding information needed on the hose? _____

Color coding? _____

Any special designations required by agencies or associations? _____

Will any regulatory agency approvals be required? If yes, which one(s)? _____

Non-conductive rubber needed to prevent transmittal of electricity? _____

Static wire or static-dissipating tube to prevent static electricity buildup and discharge sparks? _____

Pinpricked cover to resist blistering when transferring hot materials or air/gases under pressure? _____

Abrasion sleeve or guard? _____

Heat shield? _____

Sub-zero exposure resistance? _____

Special assembly requirements? _____

Continuous transfer service or intermittent service? _____

Be sure to reference Boston chemical compatibility recommendations in the Boston Chemical Compatibility Chart on page 21.

If you have any questions, please contact Eaton Technical Support at 1-888-258-0222.

Product Warranty

For one year after date of purchase, Eaton warrants its products to be free from defects in materials and workmanship when properly installed and maintained. Products covered include those items contained in this catalog.

If during the warranty period, a product is discovered to be defective Eaton will, at its option, replace the warranted product or grant the purchaser a credit for the product claimed to be defective. Eaton will have the sole discretion to determine whether the product was defective.

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Eaton
14615 Lone Oak Road
Eden Prairie, MN 55344
USA

Tel: 952 937-9800
Toll-free: 888 258-0222
Fax: 952 974-7722

www.hydraulics.eaton.com

Eaton
14615 Lone Oak Road
Eden Prairie, MN 55344
USA
Tel: 952 937-9800
Fax: 952 974-7722
www.hydraulics.eaton.com

Eaton
20 Rosamond Road
Footscray
Victoria 3011
Australia
Tel: (61) 3 9319 8222
Fax: (61) 3 9318 5714

Eaton
Dr.-Reckeweg-Str. 1
D-76532 Baden-Baden
Germany
Tel: (49) 7221 682-0
Fax: (49) 7221 682-788

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