

# 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.

# 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.

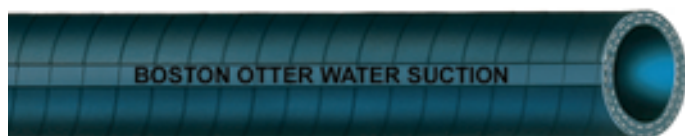
Longer lengths available on special order.

# 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.		NOMINAL O.D.		APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)		MIN. BEND RADIUS (IN.)	STANDARD LENGTH (FT)
	(IN.)	(MM)	(IN.)	(MM)		72°F	150°F		
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.)	NOMINAL I.D. (MM)	REINF.	NOMINAL O.D. (IN.)	NOMINAL O.D. (MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAX. WORKING PRESS. (PSI)	STANDARD LENGTH (FT)
<b>Light Duty</b>								
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
<b>Heavy Duty</b>								
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.)	NOMINAL I.D. (MM)	SPIRAL	NOMINAL O.D. (IN.)	NOMINAL O.D. (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