

ENGINEERING
TOMORROW

Danfoss

EMEA

Boston by Danfoss

Core Industrial hose products catalog





Boston[®] is back

Back for unparalleled leadership in the manufacturing of innovative industrial hose products. Delivering safety, performance and solutions with the same safety and performance, the same value and quality, the same trusted brand. With a 150-year reputation at stake, we wouldn't have it any other way.

Markets



Air & Multipurpose



Chemical



Food & Beverage



Material Handling



Oil & Petroleum



Specialty



Steam



Water

Applications

- Air transfer
- Beverage dispensing
- Chemical transfer
- Food/dairy transfer
- Hot air blower
- Washdown applications
- LPG transfer
- Nitrogen transfer
- Dry material & bulk transfer
- Mud suction & discharge
- Frac application
- Oil transfer
- Gasoline dispensing
- Steam transfer
- Hydrocarbon drain
- Water suction & discharge
- Plastic industry
- Agriculture
- Boom truck
- Automotive
- Heat control



Our history

A tradition of excellence



Danfoss industrial hose line comes from a long tradition of excellence and innovation. Boston Woven Hose & Rubber Company, founded in 1870, was among the first companies to produce a tubular rubber hose. These early pioneers in the industrial hose industry passed on their expertise from one generation to the next. In 150 years, Boston by Danfoss has grown from a tiny operation to a global leader in electrical components and systems for power quality, distribution and control; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulics and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety.

Who we are now

Engineering tomorrow

Boston

by Danfoss

At Danfoss, we value the knowledge of these early innovators, so much so that in 2021, we bought the company. Our Danfoss industrial hose products build upon the expertise of these early innovators in partnership with our cutting-edge technology to make us the leading authority in industrial hose.

Every industrial hose application requires something different, whether it's high or low pressure, fast or slow transfer rates, or materials that range from air to water to hazardous chemicals. With this wide range of requirements we are proud to announce that Danfoss brand is now **Boston by Danfoss**. At Boston by Danfoss, we have an extensive portfolio of industrial hoses to suit a range of markets and applications with unique requirements.

Proven process

Powerful performance

Danfoss Industrial hose line comes from a long tradition of excellence and innovation. With over 150 years of manufacturing expertise, Danfoss is one of the largest manufacturers of fluid conveyance products in the world. Our cutting-edge technology mixed with our unparalleled leadership in manufacturing has made us one of the world's most preferred supplies of industrial hose.



Every industrial hose application requires something different, whether it's high or low pressure, fast or slow transfer rates, or materials that range from air to water to hazardous chemicals. Danfoss has an extensive portfolio of industrial hoses to suit a range of markets and applications with unique requirements.



Innovative products

Boston industrial hose products are manufactured with a variety of compounds and reinforcements partnered with our proven process to achieve maximum quality and durability while also ensuring utmost flexibility and ease of use.

When safety and performance matter, the industrial hose you choose matters.



Largest manufacturer

Boston Woven Hose & Rubber Company, founded in 1870, was among the first to produce a tubular rubber hose. With 150+ years of knowledge and expertise, partnered with one of the largest manufacturing plants in the world, Danfoss bring you an extensive line of industrial hose products, meeting an array of markets and applications.

Introducing a new look for industrial hoses.

Laying it on the line

Our laylines provide critical information at a glance

Every hose is easily identified

Every foot of every Boston by Danfoss hose is easily identified with permanent branding allowing for quicker, easier and safer hose selection — at a glance you can see all the information needed to make the right choice.

Brand

Boston by Danfoss name on every hose is assurance that you are relying on a global leader.

Certification

Hose agency certifications assuring our products meet your safety requirements in the field.

Category / Application

Industry category & application for which the hose was designed for.

Boston by Danfoss



Bulldog Air

H600216

Air & Multipurpose
Medium Pressure

24.4 MM (1.00 IN)
DN25

MSHA 2G-IC-40C/2



Product name

Memorable product name and icon allowing for easy recognition in the field.

ID / DN

Inner dimension (millimeters and inches) and diameter nominal (DN), which also denotes the inside diameter.

Series / Size

Product series and size identification for additional verification that you are choosing the right product for your needs.

Boston by Danfoss

Brand name identity

(and the quality that goes behind it)

The Boston by Danfoss brand name is on every hose—safety and reliability are in every hose. With over 150 years worth of reputation you are assured maximum value and consistent quality with every hose product for every application.

Temperature

Working temperature range in Celsius and Fahrenheit.



Warning label

Warning labels on all hoses to ensure safety is a priority when handling Danfoss products.

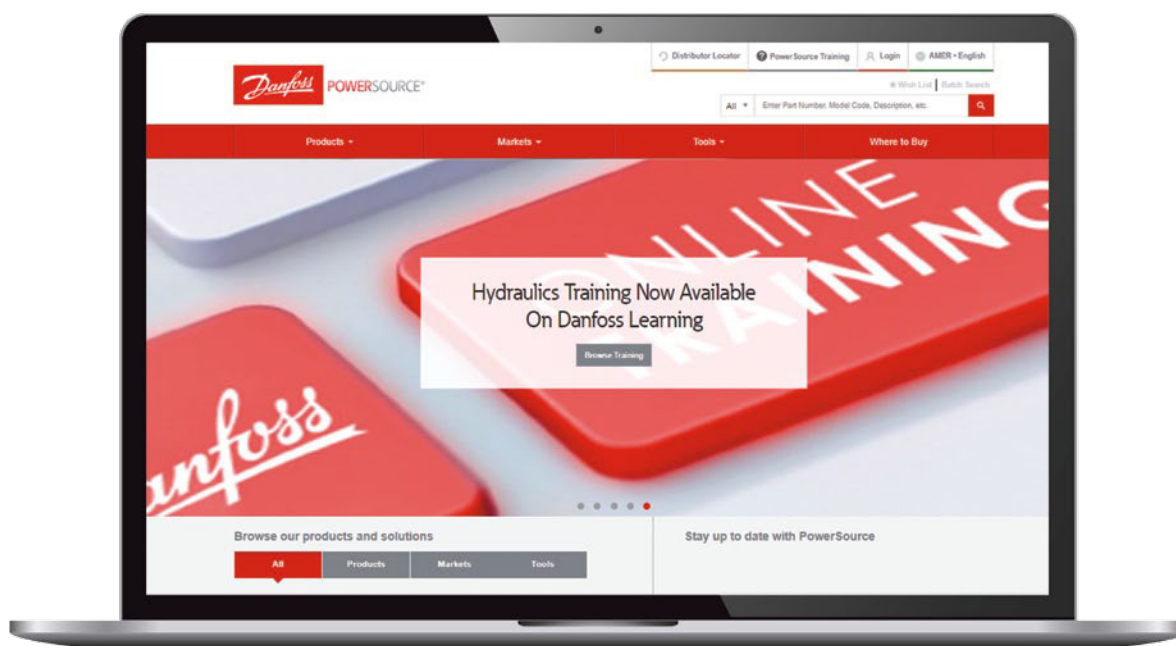
Operating pressure

Maximum operating pressure in BAR and pounds per square inch (PSI).

Knowledge is **power**

Single source for everything you need to know

POWERSOURCE®



Danfoss **PowerSource**

PowerSource: the online tool is your single source for everything you need to know about Danfoss' fluid conveyance products. With the click of your mouse, be immediately connected to Danfoss' extensive resources including: product literature library, training videos, crimp specs, hose assembly configurator, cross reference guides, and so much more...

Because this extensive product resource is online and the resources are digital, all of the information is easily transferable to your customers.



Products

Search, spec, and sell over 200,000 Danfoss Products.



Cross Reference

Find equivalent Danfoss parts for thousands of competitor parts.



Product Configurators

Generated customized bills of materials for hose assemblies, actuation, power and motion control products.



Literature & videos

Deliver detailed product and online training materials at the speed of businesses worldwide.



Locator

Find local and regional Danfoss product dealers.

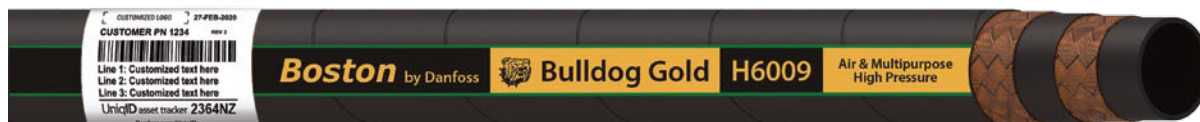


3D Models

View, download and share easy-to-use digital models.

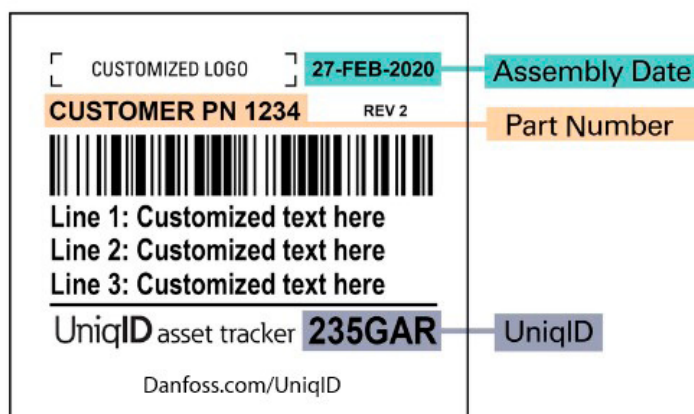
DanfossPowerSource.com

UniqID™ Asset tracker



Small label. **Big impact.**

The Danfoss UniqID asset management solution drives efficiency in every aspect of the asset lifecycle.



Track the complete product life cycle

Label, track and manage products while meeting OEM compliance requirements.



Manage assets on the go

Access asset information from anywhere, at any time.



Increase revenue

Secure aftermarket sales with the unique six-digit code.



Reduce downtime

Replace assets quickly and accurately.



Set schedules and run reports

Proactively manage upcoming maintenance and replacements needs.



Streamline record keeping

Minimize paper-based processes with our cloud-based solution.



To get started, contact UniqID@Danfoss.com or visit Danfoss.com/UniqID

How to use this catalog

The hose you need, the way you want it.

At Danfoss, we are proud to offer an extensive catalog of industrial hose solutions for every application in any working condition. This guide is a tool for navigating and selecting the best hose for the application by delivering the needed information quickly. We've divided these pages by order fulfillment, industry market segments, and application. Each hose page provides valuable information and other critical details to allow you to make the correct hose selection quickly.

Market categories

Color coding on each page for easy searching by market category and application type.



Ordering & hose numbering system

How to order

Accurate processing and prompt delivery of your order depends on easy identification of your requirements. Please order Boston brand parts using correct part numbers as described in this guide. Inquiries and orders should be directed to your distributor or:

Danfoss Distribution II
 A/S Nordborgvej 81,
 6430
 Nordborg, Denmark
<https://www.danfoss.com/en-us/products/dps/>
 Inside.Sales.DPS.EMEA@danfoss.com

Part numbers and dash sizes

Dash size designates the nominal size in 16th of an inch. This number immediately follows the part number and is separated from it with a dash.

Dimensions

Dimensions given in this guide for Boston products are approximate and should be used for reference only. Exact dimensional information for a given product is subject to change and varying tolerances; contact Danfoss directly for full

Safety information

Read this page before using any of the products/information in this catalog.

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With wide operating pressure ranges, optimal levels of abrasion resistance, long-lasting durability and high-performance transfer capabilities, Danfoss hoses and hose fittings provide the ultimate fluid conveyance solutions for a variety of equipment and applications around the world, including vehicles, aircraft, mining, food and beverage, and mobile and industrial equipment.

At Danfoss, we have invested a lot of time and resources in helping OEMs analyze the risks and hazards associated with their machines. We work to identify the right solutions to make their functional safety systems best in class.

Look to us for expert support with:

- Identifying the functional safety requirements for specific machine types
- Designing and selecting products or solutions to fulfill functional safety requirements
- Obtaining the relevant functional safety data

The information provided will ensure the best hose choice:

- By providing detailed construction and recommended application for each hose
- By listing suggestions on how to take care of the hose and maintenance for optimum service and safety

Before using any hose in this catalog, consult the safety section in this catalog and the guidelines on the Danfoss website for the most current information. If any questions arise contact Danfoss technical support at: DPS_FC_EMEA_TechSupport@danfoss.com

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 Danfoss Industrial hose. All these directions and footnotes should be read and understood before specifying or using any of these hoses.

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, Danfoss 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 Danfoss Technical Support. 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 Danfoss 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.

▲WARNING Couplings attached with bands or clamps may reduce the working pressure of the hose assembly to less than the maximum rated working pressure of the hose. Refer to the NAHAD Industrial Hose Assembly Guidelines.

Part number nomenclature

A hose part number is composed of several different elements, all combined to make the final number. The following is a diagram of an example hose part number and the elements that go into creating that number.

Hose type

The hose number is simply the type of hose you want to order.

Hose size

These are two digits after the base hose number. The hose size code follows industry standards.

Metric equivalents are found with the hose specification charts on each hose page within the hose section of the catalog.

Hose length

The hose length is indicated in feet. Metric equivalents are found in the length section of the hose specification charts.

Danfoss part numbers

E H K 0 0 7 - 3 2 Y W - M T 6 1



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Hose selection

Choose the right hose for the application

Danfoss recommends using the **STAMPED** process to aid in determining the correct hose and coupling for your application. 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 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.

S - Size (I.D., O.D. and length)

T - Temperature of material conveyed and environmental

A - Application, the conditions of use

M - Material being conveyed, type and concentration

P - Pressure to which the assembly will be exposed

E - Ends; style, type, orientation, attachment methods, etc.

D - Delivery testing, quality, packaging, and delivery requirements

1. Size

Flow (cubic feet per minute) requirements? _____

See Flow Capacity Chart.

Hose I.D. requirements given the flow requirements? _____

Pressure drop? _____

Length requirements (excluding hose ends)? _____

2. Temperature

Temperature range of material to be transferred?

Min. _____ Max. _____ Average _____

Year-round external environment temperature range? _____

Cleaning temperature? _____

3. Application

If the application is new, what service is to be performed? _____

4. Material: Compatibility & Environment

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)

☐ Petroleum products (aromatics, aliphatics, etc.)

☐ Materials that could cut or gouge hose

☐ Solvents

☐ Ozone

☐ Acids/caustics

☐ Animal fats (oils)

☐ Sparking or flames

☐ Cleaning with steam

Material to be transferred? _____

Material concentration (%)? _____

What hose cleaning solution(s) will be used? _____

5. 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? _____

6. Ends

End _____

Material _____

Attachment Method _____

7. Delivery

Qty. required _____ Date required _____ Pkg. requirements _____

Testing Required - ☐ No ☐ Yes If Yes, Type: _____

Certification Required - ☐ No ☐ Yes If Yes, Type: _____

Special Requirements/Other Information

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? _____

Pin-pricked 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? _____

Flexibility: 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

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

Be sure to reference chemical compatibility recommendations in the Chemical Resistance Charts.

If any questions arise contact Danfoss technical support at: DPS_FC_EMEA_TechSupport@danfoss.com

Market Categories

Our Market Categories with color coding for easy searching provides clear direction.

Made to Stock	Market Segment	Category/Application	Page
	Air & Multipurpose	High Pressure	20
		Medium Pressure	21
		Low Pressure	23
		Non-conductive General Purpose	26
		General Purpose	27
	Chemical	Suction & Discharge	33
		Discharge	37
		Specialty	38
	Food & Beverage	Food & Beverage Suction & Discharge	41
		Beverage Suction & Discharge	44
		Food & Beverage Discharge	45
		Cleaning Service	46
	Material Handling	Dry Material	49
		Concrete, Plaster & Grout	51
		Sandblast	54
	Oil & Petroleum	Suction & Discharge	57
		Blowout Preventer	63
	Specialty	LPG	67
		Nitrogen	69
		Specialized	70
	Steam	Steam	77
	Water	Suction & Discharge	86
		Pressure Washer	90
		Specialty	92
		Liquid Cooling	93
		Sewer Jetting	95
	Technical Information	Couplings	98
		Chemical Compatibility Chart	104
		General Hose Information	116

To order: [My.Danfoss.com](https://www.danfoss.com)

Focused inventory when you need it now.



Page	Hose	Description
Air & Multipurpose		
20	EHA500	Greyhound High Pressure Air
21	EHA505	Medium Duty Air
22	EHA501	Medium Duty Air
23	H201	Easy Couple
24	H275	Polyforce II
25	EHA504	Light Duty Air
26	EHW520	Non-Conductive Multipurpose
27	EHA508	Multipurpose
28	EHA509	Multipurpose - EPDM
29	EHA510	Multipurpose - EPDM
Chemical		
33	EHC006	UHMW-PE Heavy Duty
34	EHC036	Flat Corrugated UHMW-PE
35	EHC004	UHMW-PE
36	H0554	Armorcat®
37	EHC016	UHMW-PE Discharge
38	EHT453	Agricultural Spray
Food & Beverage		
41	EHB501	EPDM Medium Duty Beer/Wine
42	EHF020	UHMW-PE Alcohol
43	EHF002	Lemur™ Food & Beverage
44	EHT200	Bosphorus Steel Spiral
45	EHF001	Liquid Food Discharge
46	EHF003	Dairy Washdown
Material Handling		
49	EHK002	Dry Bulk Suction and Discharge
50	EHK004	Channeled Dry Bulk
51	EHK006	Marauder®
52	EHK007	Marauder® Heavy Duty
53	EHK005	Plaster and Grout Spraying
54	EHC500	Sandblast – 60mm ³

Page	Hose	Description
Oil & Petroleum		
57	EHP500	Petroleum Tank Truck
58	EHP531	Antistatic Fuel Transfer
59	EHP522	Yak™ Petroleum Heavy Duty
60	H0363	Puma®
61	EHP542	Puma® Flexible Flat Corrugated
62	EHP004	Oilfield Heavy Duty Liquid Mud
63	EC556	Blowout Preventer
Specialty		
67	EHG003	Liquid Propane Suction & Discharge
68	EHG006	Liquid Propane Delivery
69	EHG001	Nitrogen Transfer
70	EHJ003	Aircraft Refueling
71	EHN004	Steel Mill Heavy Duty Cooling Water Transfer
72	EHW500	Industrial Welding
Steam		
77	EHS001	Industrial Steam
78	EHS007	Steel Wire Reinforced Steam
79	EHS005	Steel Wire Reinforced Steam
80	EHS002	Textile Steam
81	EHS006	Steel Wire Reinforced Steam
Water		
86	EHW150	Mink
87	EHW027	Channeled EPDM Hot Water S & D
88	EHW009	Heavy Duty Water
89	EHW035	Heavy Duty Water
90	EC116	Manta™ 4K Medium Duty
91	EC216	Manta™ 7K Heavy Duty
92	H1196	Royalflex® Water
93	EHW094	Emperor™ Liquid Cooling
94	EHW194	Royal™ Liquid Cooling
95	EHS540	Sewer Jetting



Air and **Multipurpose**

Core products





Air and Multipurpose

High Pressure

Page

EHA500 Greyhound High Pressure Air

20



Application	High-pressure air service
Tube	Oil-resistant nitrile rubber
Reinforcement	High-tensile steel cord
Cover	SBR rubber blend
Temp	-40°C to +93°C, (-40°F to +200°F)
Pressure	41 bar / 600 psi

Medium Pressure

EHA505 Medium Duty Air

21



Application	Medium duty air service and pneumatic tools
Tube	Oil-mist resistant SBR rubber
Reinforcement	High-tensile synthetic textile
Cover	Abrasion, ozone and weather resistant SBR rubber blend
Temp	-25°C to +70°C, (-13°F to +158°F)
Pressure	20 bar / 290 psi

EHA501 Medium Duty Air

22



Application	Medium duty air service
Certifications	EN ISO 2398 Type 4, 2016 Type 2 Class A
Tube	Oil-mist resistant SBR rubber blend
Reinforcement	High-tensile synthetic textile
Cover	SBR rubber blend
Temp	-25°C to +70°C, (-13°F to +158°F)
Pressure	20.7 bar / 300 psi

Low Pressure

Page

H201 Easy Couple

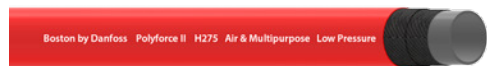
23



Application	Air and water transfer, power for air-operated and pneumatic tools
Certifications	MSHA approved, RMA Class A tube
Tube	Synthetic rubber
Reinforcement	1-braid fiber
Cover	Synthetic rubber
Temp	Air & water -40°C to +100°C, (-40°F to +212°F) Oil -40°C to +127°C, (-40°F to +260°F)
Pressure	13.8-20.7 bar / 200-300 psi

H275 Polyforce II

24



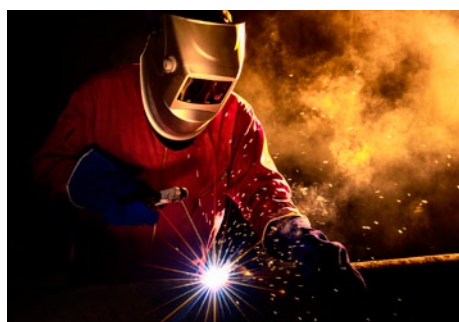
Application	Transfer of air and water. Air tools and lubricated air
Tube	PVC
Reinforcement	1 or 2-spiral braid
Cover	Pin-pricked PVC
Temp	-23°C to +65°C, (-10°F to +150°F)
Pressure	9-21 bar / 125-300 psi

EHA504 Light Duty Air

25



Application	Light duty air service and pneumatic tools
Tube	Oil-mist resistant SBR rubber
Reinforcement	High-tensile synthetic textile
Cover	Abrasion and weather resistant SBR rubber blend
Temp	-25°C to +70°C, (-13°F to +158°F)
Pressure	10 bar / 145 psi



Non-conductive General Purpose

Page

EHW520 Non-Conductive Multipurpose 26

Application	Air and water transfer, pneumatic tools and industrial welding
Tube	SBR rubber
Reinforcement	One textile spiral
Cover	SBR rubber blend
Temp	-40°C to +80°C, (-40°F to +176°F)
Pressure	20.7 bar / 300 psi

General Purpose

EHA508 Multipurpose 27

Application	For use with air or water
Tube	SBR rubber
Reinforcement	High-tensile synthetic textile
Cover	SBR rubber blend
Temp	-40°C to +100°C, (-40°F to +212°F)
Pressure	20 bar / 290 psi

EHA509 Multipurpose - EPDM 28

Application	For use with air or water and dust control
Tube	EPDM rubber
Reinforcement	High-tensile synthetic textile
Cover	EPDM rubber
Temp	-40°C to +120°C, (-40°F to +248°F)
Pressure	10 bar / 145 psi

EHA510 Multipurpose - EPDM 29

Application	For use with medium pressure air or water
Tube	EPDM rubber
Reinforcement	High-tensile synthetic textile
Cover	EPDM rubber
Temp	-40°C to +120°C, (-40°F to +248°F)
Pressure	20 bar / 290 psi



High Pressure



EHA500

Greyhound



Application

- High-pressure air service

Markets

- Construction
- Oil field equipment
- Drilling equipment
- Mining
- Rental industry
- Steel
- Paper

Construction

Tube Oil-resistant nitrile rubber

Reinforcement

High-tensile steel wire

Cover Pin-pricked, abrasion, ozone, and weather resistant SBR rubber blend

Color Yellow

Operating temperature

-40°C to +93°C

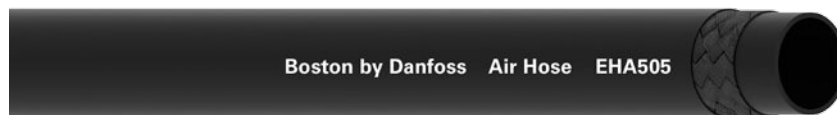
(-40°F to +200°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHA500-08YW	12.7	0.50	23.0	0.91	41.0	600	165.0	2400	65.0	2.56	0.51	0.34	100	330
EHA500-12YW	19.1	0.75	30.0	1.18	41.0	600	165.0	2400	95.0	3.74	0.62	0.42	100	330
EHA500-16YW	25.4	1.00	36.0	1.42	41.0	600	165.0	2400	125.0	4.92	0.88	0.59	100	330
EHA500-20YW	31.8	1.25	43.0	1.69	41.0	600	165.0	2400	160.0	6.30	1.12	0.75	100	330
EHA500-24YW	38.1	1.50	50.0	1.97	41.0	600	165.0	2400	190.0	7.48	1.55	1.04	100	330
EHA500-32YW	50.8	2.00	66.0	2.60	41.0	600	165.0	2400	225.0	8.86	2.51	1.69	100	330
EHA500-40YW	63.5	2.50	80.0	3.15	41.0	600	165.0	2400	315.0	12.40	3.36	2.26	100	330
EHA500-48YW	76.2	3.00	93.9	3.70	41.0	600	165.0	2400	380.0	14.96	4.49	3.02	100	330
EHA500-64YW	101.6	4.00	122.0	4.80	41.0	600	165.0	2400	510.0	20.08	6.77	4.55	100	330

Medium Pressure

EHA505

Medium Duty Air



Application

- Medium duty air service
- Pneumatic tools

Markets

- Construction
- Mining
- Rental industry
- Oil and gas exploration
- In-plant air service

Construction

Tube Oil-mist resistant SBR rubber

Reinforcement

High-tensile synthetic textile

Cover Abrasion, ozone, and weather resistant SBR rubber blend

Colors Black (BK), Yellow (YW)

Operating temperature

-25°C to +70°C
(-13°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHA505-04BK	6.0	0.25	13	0.51	20.0	290	64.0	928	0.16	0.11	100	330
EHA505-05BK	8.0	0.31	15	0.59	20.0	290	64.0	928	0.20	0.13	100	330
EHA505-06BK	10.0	0.39	18	0.71	20.0	290	64.0	928	0.27	0.18	100	330
EHA505-08BK	13.0	0.50	22	0.87	20.0	290	64.0	928	0.40	0.27	100	330
EHA505-10BK	16.0	0.63	25	0.98	20.0	290	64.0	928	0.45	0.30	100	330
EHA505-12BK	19.0	0.75	29	1.14	20.0	290	64.0	928	0.59	0.40	100	330
EHA505-16BK	25.0	1.00	37	1.46	20.0	290	64.0	928	1.89	1.27	100	330

Medium Pressure

EHA501

Medium Duty Air



Application

- Medium duty air service and pneumatic tools

Markets

- Construction
- Mining
- Oil and gas exploration
- Drilling equipment
- Rental industry
- Steel
- Quarries

Construction

Tube Oil-mist resistant SBR rubber blend

Reinforcement

High-tensile synthetic textile

Cover Abrasion, ozone, and weather resistant SBR rubber blend

Colors Yellow (YW), Black (BK)

Certification

TS 745 - EN ISO 2398 Type 4,
2016 Type 2 Class A

Operating temperature

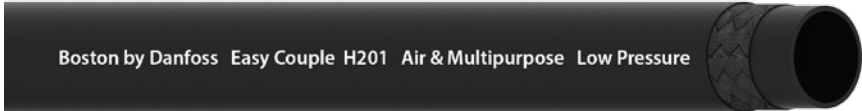
-25°C to +70°C
(-13°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHA501-08YW	12.7	0.50	22.0	0.87	20.7	300	64.0	928	65	2.56	0.33	0.22	61	200
EHA501-10YW	16.0	0.62	25.0	0.98	20.7	300	64.0	928	80	3.15	0.37	0.25	61	200
EHA501-12YW	19.0	0.75	29.0	1.14	20.7	300	64.0	928	95	3.74	0.50	0.33	61	200
EHA501-16YW	25.4	1.00	36.0	1.42	20.7	300	64.0	928	125	5.12	0.67	0.45	61	200
EHA501-20YW	32.0	1.25	44.0	1.73	20.7	300	64.0	928	300	11.81	0.96	0.64	61	200
EHA501-24YW	38.0	1.50	51.0	2.01	20.7	300	64.0	928	360	14.17	1.18	0.79	61	200
EHA501-28YW	44.5	1.75	60.0	2.36	20.7	300	64.0	928	400	15.75	1.63	1.10	61	200
EHA501-32YW	50.8	2.00	65.0	2.56	20.7	300	64.0	928	450	17.71	1.66	1.11	61	200
EHA501-40YW	63.5	2.50	80.0	3.15	20.7	300	64.0	928	600	23.62	2.45	1.65	61	200
EHA501-48YW	76.2	3.00	92.0	3.62	20.7	300	64.0	928	750	29.53	2.65	1.78	61	200
EHA501-64YW	101.6	4.00	118.0	4.65	20.7	300	64.0	928	1000	39.37	3.81	2.56	61	200

Low Pressure

H201

Easy Couple


 Boston by Danfoss Easy Couple H201 Air & Multipurpose Low Pressure
Application

- Air and water transfer
- Pneumatic tools
- Air tools

Markets

- Oil and gas exploration
- Construction
- Mining
- Plastic molding

Construction**Tube** Synthetic rubber (RMA Class A)**Reinforcement**

1-braid fiber

Cover Synthetic rubber
Colors Black (BK), Blue (BU),
Red (RD), Green (GR),
Gray (GY), Yellow (YW)
Certifications
 RMA Class A tube
 MSHA IC - 46/6 Black, MSHA IC - 84/62 Blue,
 MSHA IC - 84/47 Red, MSHA IC - 84/48 Green,
 MSHA IC - 84/64 Gray, MSHA IC - 84/63 Yellow
Operating temperature**Air and water**

-40°C to +100°C (-40°F to +212°F)

Oil

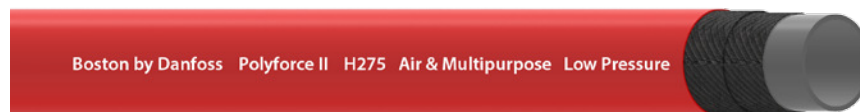
-40°C to +127°C (-40°F to +260°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
H20104BK-250R	6.4	0.25	13.5	0.53	20.7	300	83.0	1200	0.13	0.09	76.2	250
H20106BK-250R	9.5	0.38	17.5	0.69	20.7	300	83.0	1200	0.19	0.13	76.2	250
H20108BK-250R	12.7	0.50	19.8	0.78	20.7	300	83.0	1200	0.22	0.15	76.2	250
H20110BK-250R	15.9	0.62	24.4	0.96	20.7	300	83.0	1200	0.34	0.23	76.2	250
H20112BK-250R	19.0	0.75	27.2	1.07	20.7	300	83.0	1200	0.39	0.26	76.2	250
H20116BK-250R	25.4	1.00	35.4	1.39	13.8	200	55.0	800	0.57	0.38	76.2	250

Low Pressure

H275

Polyforce II



Application

- For transfer of air and water
- Air tools
- Lubricated air

Markets

- Construction
- Mining
- General industry
- In-plant air service
- Food processing

Construction

Tube PVC

Reinforcement

1 or 2-spiral fiber

Cover Pin-pricked PVC

Colors

Red (RD), Gray (GY),
Blue (BU), Yellow (YW),
Black (BK)

Operating temperature

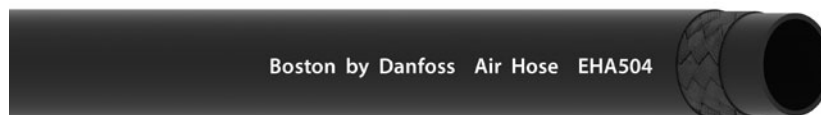
-23°C to +65°C
(-10°F to +150°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
H27504RD-600R	6.4	0.25	11.9	0.47	21.0	300	69.0	1000	15.9	0.63	0.10	0.07	182.9	600
H27506RD-600R	9.5	0.37	15.7	0.62	21.0	300	69.0	1000	25.4	1.00	0.16	0.12	182.9	600
H27508RD-500R	12.9	0.51	19.2	0.76	21.0	300	69.0	1000	31.8	1.25	0.20	0.15	152.4	500
H27512RD-500R	19.4	0.76	26.4	1.04	21.0	300	69.0	1000	63.5	2.50	0.34	0.23	152.4	500
H27516RD-200R	25.4	1.00	32.2	1.27	17.0	250	69.0	1000	63.5	2.50	0.51	0.34	60.1	200
H27520RD-100	32.1	1.26	42.7	1.68	10.0	150	41.0	600	76.2	3.00	0.28	0.52	30.5	100
H27524RD-100	38.4	1.51	49.1	1.93	10.0	150	41.0	600	88.9	3.50	0.34	0.61	30.5	100
H27532RD-100	50.8	2.00	63.0	2.48	9.0	125	34.0	500	101.6	4.00	0.51	0.91	30.5	100

Low Pressure

EHA504

Light Duty Air

**Application**

- Light duty air service
- Pneumatic tools

Markets

- Construction
- Mining
- Rental industry
- Oil and gas exploration
- In-plant air service

Construction

Tube Oil-mist resistant SBR rubber

Reinforcement

High-tensile synthetic textile

Cover Abrasion, ozone, and weather resistant SBR rubber blend

Colors Black (BK), Yellow (YW)

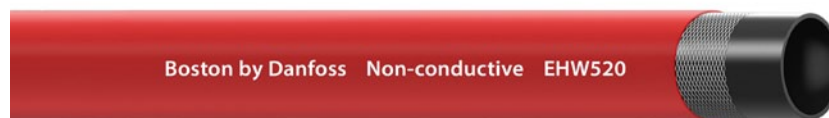
Operating temperature

-25°C to +70°C
(-13°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHA504-03BK	4.5	0.18	10.0	0.39	10.0	145	40.0	580	0.10	0.07	100	330
EHA504-04BK	6.0	0.25	11.0	0.43	10.0	145	40.0	580	0.11	0.07	100	330
EHA504-05BK	8.0	0.31	14.0	0.55	10.0	145	40.0	580	0.16	0.11	100	330
EHA504-06BK	10.0	0.39	16.0	0.63	10.0	145	40.0	580	0.19	0.13	100	330
EHA504-08BK	13.0	0.51	19.0	0.75	10.0	145	40.0	580	0.24	0.16	100	330
EHA504-10BK	16.0	0.63	23.0	0.91	10.0	145	40.0	580	0.34	0.23	100	330
EHA504-12BK	19.0	0.75	27.0	1.06	10.0	145	40.0	580	0.44	0.30	100	330
EHA504-16BK	25.0	1.00	34.0	1.34	10.0	145	40.0	580	0.64	0.43	100	330

Non-conductive General Purpose

EHW520

Non-Conductive*
Multipurpose

Application

- For use with air and water where electrical resistance is needed
- Pneumatic tools
- For use in industrial welding with acetylene, oxygen and LPG

Markets

- Construction
- Mining
- In-plant air service
- Oil and gas exploration

Construction

Tube SBR rubber**Reinforcement**

One textile spiral

Cover SBR rubber blend**Color** Red

Operating temperature

-40°C to +80°C
(-40°F to +176°F)

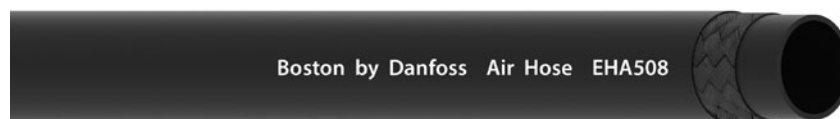
* Tested in accordance with ISO 8031.
Non-conductive under 500v electric tension

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHW520-04	6.4	0.25	11.9	0.47	20.7	300	60.0	870	0.13	0.09	100	330
EHW520-06	9.5	0.38	16.9	0.67	20.7	300	60.0	870	0.22	0.15	100	330
EHW520-08	12.7	0.50	20.9	0.82	20.7	300	60.0	870	0.32	0.22	100	330
EHW520-10	15.9	0.62	24.0	0.94	20.7	300	60.0	870	0.38	0.26	100	330
EHW520-12	19.0	0.75	26.9	1.06	20.7	300	60.0	870	0.43	0.29	100	330
EHW520-16	25.4	1.00	35.0	1.38	20.7	300	60.0	870	0.70	0.47	100	330

General Purpose

EHA508

Multipurpose

**Application**

- For use with air or water

Markets

- Construction
- Mining
- Rental industry
- Oil and gas exploration
- In-plant air service

Construction

Tube SBR rubber

Reinforcement

High-tensile synthetic textile

Cover Abrasion, ozone, and weather resistant SBR rubber blend

Color Black (BK), Blue (BU), Gray (GY), Yellow (YW)

Operating temperature

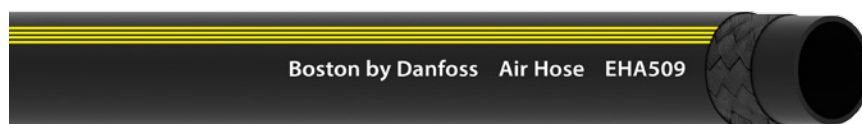
-40°C to +100°C
(-40°F to +212°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHA508-04BK	6.4	0.25	13	0.52	20.0	290	60.0	870	0.13	0.09	100	330
EHA508-05BK	7.9	0.31	15	0.59	20.0	290	60.0	870	0.15	0.10	100	330
EHA508-06BK	9.7	0.38	18	0.71	20.0	290	60.0	870	0.21	0.14	100	330
EHA508-08BK	12.7	0.50	22	0.87	20.0	290	60.0	870	0.30	0.20	100	330
EHA508-10BK	15.9	0.62	25	0.98	20.0	290	60.0	870	0.35	0.24	100	330
EHA508-12BK	19.0	0.75	29	1.14	20.0	290	60.0	870	0.45	0.30	100	330
EHA508-16BK	25.4	1.00	37	1.46	20.0	290	60.0	870	0.69	0.46	100	330

General Purpose

EHA509

Multipurpose - EPDM



Application

- For use with air, oil, hot or cold water and non-aggressive chemicals
- For dust control

Markets

- Construction
- Mining
- Rental industry
- Oil and gas exploration
- In-plant air service

Construction

Tube EPDM rubber

Reinforcement

High-tensile synthetic textile

Cover EPDM rubber

Color Black

Operating temperature

-40°C to +120°C

(-40°F to +248°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHA509-04	6.4	0.25	11	0.43	10.0	145	30.0	435	0.03	0.02	100	330
EHA509-05	7.9	0.31	14	0.55	10.0	145	30.0	435	0.05	0.03	100	330
EHA509-06	9.7	0.38	16	0.63	10.0	145	30.0	435	0.07	0.04	100	330
EHA509-08	12.7	0.50	20	0.79	10.0	145	30.0	435	0.08	0.05	100	330
EHA509-10	15.9	0.62	23	0.91	10.0	145	30.0	435	0.10	0.07	100	330
EHA509-12	19.0	0.75	27	1.06	10.0	145	30.0	435	0.12	0.08	100	330
EHA509-16	25.4	1.00	33	1.34	10.0	145	30.0	435	0.15	0.10	100	330

General Purpose

EHA510

Multipurpose - EPDM



Application

- For use with air, oil, hot or cold water and non-aggressive chemicals
- For dust control

Markets

- Construction
- Mining
- Rental industry
- Oil and gas exploration
- In-plant air service

Construction

Tube EPDM rubber

Reinforcement High-tensile synthetic textile

Cover EPDM rubber

Color Black

Operating temperature

-40°C to +120°C
(-40°F to +248°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHA510-04	6.4	0.25	13	0.52	20.0	290	60.0	870	0.13	0.09	100	330
EHA510-05	7.9	0.31	15	0.59	20.0	290	60.0	870	0.15	0.10	100	330
EHA510-06	9.7	0.38	18	0.71	20.0	290	60.0	870	0.21	0.14	100	330
EHA510-08	12.7	0.50	22	0.87	20.0	290	60.0	870	0.30	0.20	100	330
EHA510-10	15.9	0.62	25	0.98	20.0	290	60.0	870	0.35	0.24	100	330
EHA510-12	19.0	0.75	29	1.14	20.0	290	60.0	870	0.45	0.30	100	330
EHA510-16	25.4	1.00	37	1.46	20.0	290	60.0	870	0.69	0.46	100	330



Hose Inspection

Chemical Service Hose Maintenance, Testing and Inspection

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 ARPM 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 ARPM, Hose Technical Information Sub Committee, IP-11-7 Chemical Hose, Copyright 1979, Revised 1987. (202) 682-1338



Chemical

Core products



Elevated temperatures can change chemical resistance ratings. Please refer to the Chemical Compatibility information prior to use. Factors such as concentration, fluid contamination, and extreme temperatures may affect these performance specification. Please consult Danfoss catalog or technical support for proper application.



Chemical

Suction & Discharge

Page

EHC006 UHMW-PE Heavy Duty 33



Application	Suction and discharge of chemicals and high-aromatic solvents
Certifications	EN12115 Type SD-M, EC 1935/2004, FDA CFR title No. 21 art. 176.170 & art. 177.1520
Tube	UHMW-PE
Reinforcement	High-tensile synthetic textile, steel helical wire and dual anti-static copper wires
Cover	EPDM rubber
Temp	-40°C to +80°C, (-40°F to +176°F) Max ambient +121°C (+250°F)
Pressure	16 bar / 232 psi

EHC036 Flat Corrugated UHMW-PE 34



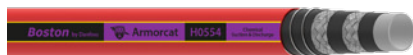
Application	Suction and discharge of chemicals, and solvents
Certifications	EC 1935/2004, FDA CFR title No. 21 art. 176.170 & art. 177.1520
Tube	UHMW-PE
Reinforcement	High tensile synthetic textile with dual steel wire helix and anti-static copper wire
Cover	Corrugated EPDM rubber
Temp	-40°C to +80°C, (-40°F to +176°F)
Pressure	16 bar / 232 psi

EHC004 UHMW-PE 35



Application	Suction and discharge of chemicals, and solvents
Certifications	EC 1935/2004, FDA CFR title No. 21 art. 176.170 & art. 177.1520
Tube	UHMW-PE FDA-approved material
Reinforcement	High-tensile synthetic textile, steel helical wire and anti-static copper wire
Cover	EPDM rubber
Temp	-40°C to +80°C, (-40°F to +176°F) Max ambient +121°C (+250°F)
Pressure	10.5 bar / 150 psi

H0554 Armorcat® 36



Application	Transfer of acids, chemicals, solvents, and petroleum products; Loading and unloading, pumping, suction, or gravity flow discharge
Certification	FDA compliant
Tube	UHMW-PE
Reinforcement	2-wire braid, dual stainless steel helical wire
Cover	EPDM
Temp	-40°C to +80°C, (-40°F to +176°F) Intermittent
Pressure	35 bar / 500 psi

Discharge

Page

EHC016 UHMW-PE Discharge 37



Application	Discharge of chemicals, and solvents
Tube	UHMW-PE
Reinforcement	High-tensile synthetic textile and anti-static copper wire
Cover	EPDM rubber
Temp	-40°C to +80°C, (-40°F to +176°F) Max ambient +121°C (+250°F)
Pressure	10 bar / 145 psi

Specialty

EHT453 Agricultural Spray 38



Application	Medium pressure spraying pesticides and fertilizers
Tube	PVC
Reinforcement	High-tensile synthetic textile
Cover	PVC
Temp	-10°C to +60°C, (+14°F to +140°F)
Pressure	50 bar / 725 psi

⚠WARNING Elevated temperatures can change chemical resistance ratings. Please refer to the Chemical Compatibility information prior to use. Factors such as concentration, fluid contamination, and extreme temperatures may affect these performance specification. Please consult Danfoss catalog or technical support for proper application.

Suction & Discharge

EHC006

UHMW-PE Heavy Duty



Application

- For suction and discharge of chemicals and high-aromatic solvents where electrical resistance is needed

Markets

- Chemical petroleum industry
- In-plant transfers
- Tank truck
- Paper/pulp industry
- Bulk hauling
- Oil and gas exploration

Construction

Tube UHMW-PE: Meets FDA and European requirements

Reinforcement

High-tensile synthetic textile, steel helical wire and dual anti-static copper wires

Cover Weather, ozone abrasion resistant EPDM rubber

Color Black (BK), Blue (BU)

Certifications

EN12115 Type SD-M, Regulation EC 1935/2004, FDA Regulation CFR title No. 21 Art. 176.170 and art. 177.1520

Operating temperature

-40°C to +80°C
(-40°F to +176°F)
Max ambient +121°C (+250°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHC006-12BK	19.0	0.75	31.0	1.22	16.0	232	64.0	928	187	7.36	94.8	28	0.67	0.45	61	200
EHC006-16BK	25.4	1.00	37.0	1.46	16.0	232	64.0	928	225	8.86	94.8	28	0.83	0.56	61	200
EHC006-20BK	31.8	1.25	44.0	1.73	16.0	232	64.0	928	262	10.31	94.8	28	1.04	0.70	61	200
EHC006-24BK	38.1	1.50	51.0	2.01	16.0	232	64.0	928	338	13.31	94.8	28	1.40	0.94	61	200
EHC006-32BK	50.8	2.00	67.0	2.64	16.0	232	64.0	928	410	16.14	94.8	28	2.25	1.51	61	200
EHC006-40BK	63.5	2.50	79.0	3.11	16.0	232	64.0	928	450	17.72	94.8	28	2.60	1.75	61	200
EHC006-48BK	76.2	3.00	92.0	3.62	16.0	232	64.0	928	525	20.67	94.8	28	3.22	2.16	61	200
EHC006-64BK	101.6	4.00	118.0	4.65	16.0	232	64.0	928	675	26.58	94.8	28	4.57	3.07	61	200
EHC006-96BK	152.4	6.00	177.2	6.98	16.0	232	64.0	928	1000	39.37	94.8	28	9.88	6.65	61	200

Suction & Discharge

EHC036

UHMWE-PE

Flat Corrugated



Application

- For transfer of chemicals and solvents
- Great for use in pharmaceutical and food industry

Markets

- Chemical industry
- Pulp/paper processing
- Tank truck
- In plant transfers
- Oil and gas exploration
- Pharmaceutical industry
- Food industry

Construction

Tube UHMW-PE
Meets FDA & European requirements

Reinforcement

High tensile synthetic textile with dual steel wire helix and anti-static copper wire

Cover Weather, ozone and chemical resistant flat corrugated EPDM rubber

Color Blue

Certifications

EC 1935/2004, FDA CFR Title No. 21 art 176.170, and art 177.1520

Operating temperature

-40°C to +80°C
(-40°F to +176°F)
Max. ambient +121°C (+250°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHC036-12BU	19.0	0.75	29.0	1.14	16.0	232	64.0	928	60	2.36	92.0	27.1	0.59	0.40	61	200
EHC036-16BU	25.0	1.00	37.0	1.46	16.0	232	64.0	928	75	2.95	92.0	27.1	0.69	0.47	61	200
EHC036-20BU	31.8	1.25	43.0	1.69	16.0	232	64.0	928	96	3.78	92.0	27.1	1.04	0.70	61	200
EHC036-24BU	38.1	1.50	52.0	2.05	16.0	232	64.0	928	115	4.53	92.0	27.1	1.23	0.83	61	200
EHC036-32BU	50.8	2.00	64.0	2.52	16.0	232	64.0	928	150	5.91	92.0	27.1	1.66	1.12	61	200
EHC036-48BU	76.2	3.00	91.0	3.58	16.0	232	64.0	928	230	9.06	92.0	27.1	3.16	2.12	61	200
EHC036-64BU	102.0	4.00	118.0	4.65	16.0	232	64.0	928	300	11.81	92.0	27.1	4.21	2.83	61	200
EHC036-96BU	152.0	6.00	173.0	6.81	16.0	232	64.0	928	600	23.62	92.0	27.1	7.55	5.07	61	200

Suction & Discharge

EHC004

UHMW-PE



Application

- For suction and discharge of chemicals and solvents where electrical resistance is needed

Markets

- Chemical petroleum industry
- In-plant transfers
- Tank truck
- Paper/pulp industry
- Bulk hauling
- Oil and gas exploration

Construction

Tube UHMW-PE,
Meets FDA & European requirements

Reinforcement

High-tensile synthetic textile, steel
helical wire and anti-static copper wire

Cover EPDM rubber

Colors Green (GN), Black (BK), Blue (BU)

Certifications

Regulation EC 1935/2004,
FDA Regulation CFR Title No.21
art. 176.170 and art. 177.1520

Operating temperature

-40°C to +80°C
(-40°F to +176°F)
Max ambient +121°C (+250°F)

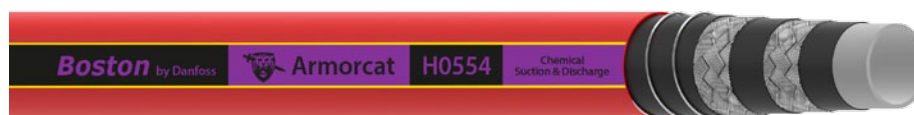
Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHC004-12GN	19.0	0.75	31	1.22	10.5	150	40.0	580	80	3.15	94.8	28	0.69	0.46	61	200
EHC004-16GN	25.4	1.00	37	1.46	10.5	150	40.0	580	110	4.33	94.8	28	0.82	0.55	61	200
EHC004-20GN	31.8	1.25	45	1.77	10.5	150	40.0	580	165	6.50	94.8	28	1.12	0.75	61	200
EHC004-24GN	38.1	1.50	52	2.05	10.5	150	40.0	580	225	8.86	94.8	28	1.50	1.01	61	200
EHC004-28GN	44.5	1.75	59	2.32	10.5	150	40.0	580	285	11.22	94.8	28	1.82	1.22	61	200
EHC004-32GN	50.8	2.00	67	2.64	10.5	150	40.0	580	350	13.78	94.8	28	2.28	1.53	61	200
EHC004-40GN	63.5	2.50	80	3.15	10.5	150	40.0	580	450	17.72	94.8	28	2.78	1.87	61	200
EHC004-44GN	70.0	2.75	87	3.43	10.5	150	40.0	580	550	21.65	94.8	28	3.18	2.14	61	200
EHC004-48GN	76.2	3.00	93	3.66	10.5	150	40.0	580	800	31.50	94.8	28	3.32	2.23	61	200
EHC004-64GN	101.6	4.00	120	4.72	10.5	150	40.0	580	1200	47.24	94.8	28	4.88	3.28	61	200

Suction & Discharge



H0554

Armorcat



Application

- For transfer of acids, chemicals, solvents, and petroleum products
- Loading and unloading, pumping, suction, or gravity flow discharge

Markets

- Chemical petroleum industry
- In-plant transfers
- Tank truck
- Paper/pulp industry
- Bulk hauling
- Oil and gas exploration

Construction

Tube UHMW-PE
FDA compliant material

Reinforcement

2-wire braid, dual stainless steel and helical wire
– 3.00" and 4.00" helical wire

Cover EPDM

Color Red

Certifications

FDA compliant

Operating temperature

-40°C to +80°C
(-40°F to +176°F)

Warning: Intermittent

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
H055412-100	19.0	0.75	32.1	1.26	35.0	500	140.0	2000	127.0	5.00	94.8	28	0.95	0.64	30.5	100
H055416-100	25.4	1.00	38.7	1.52	35.0	500	140.0	2000	152.4	6.00	94.8	28	0.82	0.55	30.5	100
H055420-100	31.8	1.25	44.6	1.75	35.0	500	140.0	2000	177.8	7.00	94.8	28	1.29	0.87	30.5	100
H055424-100	38.1	1.50	50.0	1.97	35.0	500	140.0	2000	203.2	8.00	94.8	28	1.44	0.97	30.5	100
H055432-100	50.8	2.00	65.9	2.59	35.0	500	140.0	2000	355.6	14.00	94.8	28	2.31	1.55	30.5	100
H055448-100	76.2	3.00	95.4	3.75	35.0	500	140.0	2000	558.8	22.00	94.8	28	3.44	2.31	30.5	100
H055464-100	101.6	4.00	121.2	4.77	35.0	500	140.0	2000	558.8	22.00	94.8	28	6.28	4.22	30.5	100

Discharge

EHC016

UHMW-PE Discharge



Application

- For discharge of corrosive chemicals and solvents

Markets

- Chemical petroleum industry
- In-plant transfers
- Tank truck
- Paper/pulp industry
- Bulk hauling
- Oil and gas exploration

Construction

Tube UHMW-PE

Reinforcement

High-tensile synthetic textile and anti-static copper wire

Cover EPDM rubber

Color Black (BK), Blue (BU), Green (GN)

Operating temperature

-40°C to +80°C

(-40°F to +176°F)

Max .ambient temperature
+121°C (+250°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHC016-12GN	19.0	0.75	30	1.18	10.0	145	40.0	580	0.56	0.38	61	200
EHC016-16GN	25.4	1.00	36	1.42	10.0	145	40.0	580	0.66	0.44	61	200
EHC016-20GN	31.8	1.25	45	1.77	10.0	145	40.0	580	1.19	0.80	61	200
EHC016-24GN	38.0	1.50	51	2.01	10.0	145	40.0	580	1.58	1.06	61	200
EHC016-28GN	44.5	1.75	59	2.32	10.0	145	40.0	580	1.75	1.18	61	200
EHC016-32GN	50.8	2.00	65	2.56	10.0	145	40.0	580	2.23	1.50	61	200
EHC016-40GN	63.5	2.50	79	3.11	10.0	145	40.0	580	2.50	1.68	61	200
EHC016-44GN	70.0	2.75	86	3.39	10.0	145	40.0	580	2.71	1.82	61	200
EHC016-48GN	76.2	3.00	92	3.62	10.0	145	40.0	580	3.21	2.16	61	200
EHC016-64GN	101.6	4.00	118	4.65	10.0	145	40.0	580	3.77	2.53	61	200

Specialty

EHT453

Agricultural Spray



Application

- Medium pressure spraying, pesticides and fertilizers

Markets

- Agriculture

Construction

Tube PVC to resist pesticides and fertilizers

Reinforcement

High-tensile synthetic textile

Cover PVC

Colors Black (BK), Yellow (YW), Red (RE), Orange (OR), Blue (BU)

Operating temperature

-10°C to +60°C
(+14°F to +140°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHT453-05YW	8.0	0.31	14.0	0.55	50.0	725	150	2175	0.15	0.10	100	330
EHT453-06YW	10.0	0.39	17.0	0.67	50.0	725	150	2175	0.20	0.13	100	330
EHT453-08YW	12.7	0.50	20.0	0.79	50.0	725	150	2175	0.27	0.18	100	330



Food and Beverage

Core products





Food and Beverage

Food and Beverage Suction and Discharge

EHB501 EPDM Medium Duty Beer/Wine 41



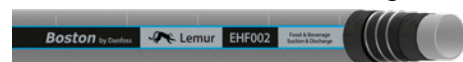
Application	Discharge of beverages; mineral water, beer, juices, wine & liquor
Certification	Meets European and FDA requirements
Tube	EPDM rubber
Reinforcement	High-tensile synthetic textile
Cover	EPDM rubber
Temp	-40°C to +120°C, (-40°F to +248°F)
Pressure	10 bar / 145 psi

EHF020 UHMW-PE Alcohol 42



Application	Suction and discharge of food containing high percentage of alcohol
Certification	Meets European and FDA requirements
Tube	UHMW-PE
Reinforcement	High-tensile synthetic textile with steel helical wire
Cover	EPDM rubber
Temp	-40°C to +80°C, (-40°F to +176°F)
Pressure	10 bar / 145 psi

EHF002 Lemur™ Food & Beverage 43



Application	Suction and discharge of milk, vegetable oil and beverages
Certification	Meets European and FDA requirements
Tube	Vegetable oil resistant food grade NBR rubber
Reinforcement	High-tensile synthetic textile with steel helical wire
Cover	NBR rubber blend
Temp	-40°C to +80°C, (-40°F to +176°F)
Pressure	10.5 bar / 150 psi

Beverage Suction and Discharge

EHT200 Bosphorus Steel Spiral 44



Application	Suction & delivery of water, mineral, fruit juices, liquids, etc.
Tube	Transparent plasticized PVC
Reinforcement	Shock resistant galvanized steel spiral wire
Temp	-5°C to +60°C, (+23°F to +140°F)
Pressure	2-7 bar / 29-100 psi

Food and Beverage Discharge

EHF001 Liquid Food Discharge 45



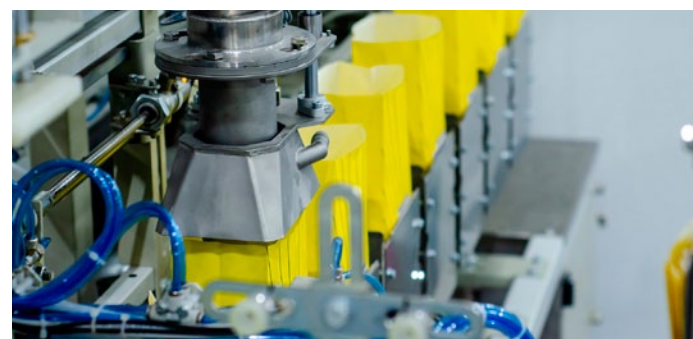
Application	Discharge of milk, vegetable oil and beverages
Certification	Meets European and FDA requirements
Tube	Vegetable oil-resistant NBR rubber
Reinforcement	High-tensile synthetic textile
Cover	NBR rubber blend
Temp	-40°C to +80°C, (-40°F to +176°F)
Pressure	10 bar / 145 psi

Cleaning Service

EHF003 Dairy Washdown 46



Application	Cleaning in food processing facilities
Certifications	EC 1935/2004 and EC2023/2006, FDA compliant
Tube	Synthetic rubber
Reinforcement	High-tensile synthetic textile
Cover	EPDM rubber
Temp	-40°C to +165°C, (-40°F to +329°F)
Pressure	7 bar / 100 psi



Food and Beverage Suction and Discharge

EHB501

Medium Duty Beer/Wine EPDM



Application

- For discharge of beverages such as mineral water, beer, fruit juices, wine and liquor

Markets

- Food processing
- Tank truck
- Breweries
- Distilleries

Construction

Tube White non-toxic, taste and odor-free EPDM

Reinforcement

High-tensile synthetic textile

Cover EPDM rubber

Color Red (RD), Blue (BU), Black (BK)

Certifications

Regulation EC 1935/2004,
EC 2023/2006, FDA Regulation
CFR title No.21 art 177.2600

Operating temperature

-40°C to +120°C
(-40°F to +248°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHB501-12RD	19.0	0.75	30.0	1.18	10.0	145	30.0	435	0.56	0.38	61	200
EHB501-16RD	25.4	1.00	37.0	1.46	10.0	145	30.0	435	0.72	0.48	61	200
EHB501-20RD	32.0	1.25	44.0	1.73	10.0	145	30.0	435	0.95	0.64	61	200
EHB501-24RD	38.0	1.50	51.0	2.01	10.0	145	30.0	435	1.19	0.80	61	200
EHB501-28RD	44.5	1.75	57.5	2.26	10.0	145	30.0	435	1.36	0.91	61	200
EHB501-32RD	50.8	2.00	65.0	2.56	10.0	145	30.0	435	1.66	1.12	61	200
EHB501-40RD	63.5	2.50	77.5	3.05	10.0	145	30.0	435	2.08	1.40	61	200
EHB501-48RD	76.2	3.00	92.0	3.62	10.0	145	30.0	435	2.68	1.80	61	200
EHB501-64RD	101.6	4.00	117.5	4.63	10.0	145	30.0	435	3.54	2.38	61	200

Food and Beverage Suction and Discharge

EHF020

UHMW-PE Alcohol



Application

- For suction and discharge of food and beverage containing high percentage of alcohol

Markets

- Breweries
- Distilleries
- Food processing

Construction

Tube White non-toxic, taste & odor-free
UHMW-PE
Meets FDA and European requirements

Reinforcement

High-tensile synthetic textile with steel
helical wire

Cover EPDM rubber

Color Red (RD) , Blue (BU), Black (BK)

Certifications

Regulation EC 1935/2004
FDA regulation CFR title No.21 art
177.2600

Operating temperature

-40°C to +80°C
(-40°F to +176°F)

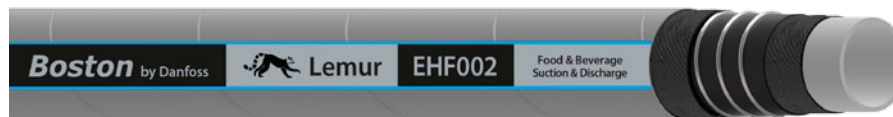
Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHF020-12RD	19.0	0.75	31.0	1.22	10.0	145	31.0	450	75	2.95	94.8	28	0.65	0.44	61	200
EHF020-16RD	25.4	1.00	38.0	1.50	10.0	145	31.0	450	100	3.94	94.8	28	0.86	0.58	61	200
EHF020-20RD	31.8	1.25	45.0	1.77	10.0	145	31.0	450	150	5.91	94.8	28	1.10	0.74	61	200
EHF020-24RD	38.1	1.50	52.0	2.05	10.0	145	31.0	450	200	7.87	94.8	28	1.43	0.96	61	200
EHF020-28RD	44.5	1.75	58.5	2.30	10.0	145	31.0	450	260	10.24	94.8	28	1.75	1.18	61	200
EHF020-32RD	50.8	2.00	66.0	2.60	10.0	145	31.0	450	300	11.81	94.8	28	2.11	1.42	61	200
EHF020-40RD	63.5	2.50	78.5	3.09	10.0	145	31.0	450	400	15.75	94.8	28	2.55	1.71	61	200
EHF020-48RD	76.2	3.00	93.0	3.66	10.0	145	31.0	450	800	31.50	94.8	28	3.47	2.33	61	200
EHF020-64RD	101.6	4.00	118.5	4.67	10.0	145	31.0	450	1200	47.24	94.8	28	4.52	3.04	61	200

Food and Beverage Suction and Discharge



EHF002

Lemur



Application

- For suction and discharge of milk, vegetable oil and beverages

Markets

- Food processing
- Tank truck
- Dairy processing
- Milk processing

Construction

Tube Vegetable oil-resistant food-grade NBR rubber

Meets FDA and European requirements

Reinforcement

High-tensile synthetic textile with a steel helical wire

Cover Oil, abrasion, ozone, and weather resistant NBR rubber blend

Color Gray (GY), Red (RD), Black (BK), Blue (BU)

Certification

Regulation EC 1935/2004, EC 2023/2006, FDA regulation CFR title No.21 art 177.2600

Operating temperature

-40°C to +80°C
(-40°F to +176°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHF002-24GY-100	38.1	1.50	52.0	2.06	10.5	150	31.5	450	120	4.72	94.8	28	1.65	1.11	61	200
EHF002-32GY-100	50.8	2.00	66.0	2.60	10.5	150	31.5	450	160	6.30	94.8	28	2.29	1.54	61	200
EHF002-40GY-100	63.5	2.50	78.5	3.09	10.5	150	31.5	450	280	11.02	94.8	28	2.80	1.88	61	200
EHF002-48GY-100	76.2	3.00	93.0	3.66	10.5	150	31.5	450	360	14.17	94.8	28	3.74	2.51	61	200
EHF002-64GY-100	101.6	4.00	118.5	4.67	10.5	150	31.5	450	450	17.72	94.8	28	4.73	3.18	61	200

Beverage Suction and Discharge

EHT200

Bosphorus

Non-toxic Steel Spiral



Application

- For suction & delivery of water, mineral, fruit juices, liquids, etc.

Markets

- Food & beverage
- Shipyards
- Buildings
- Agriculture
- Industrial machineries

Construction

Tube Strong, flexible and smooth non-toxic plasticized PVC
FDA compliant

Reinforcement

Shock resistant galvanized steel spiral wire

Color Clear

Certifications

FDA compliant

Operating temperature

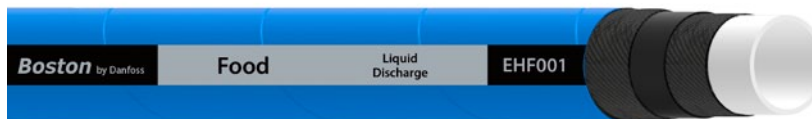
-5°C to +60°C
(+23°F to +140°F)

Number	Hose I.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHT200-08	12.7	0.50	7.0	100	21.0	305	25.0	0.98	88.3	26.0	0.18	0.12	91.4	300
EHT200-10	15.9	0.62	6.0	85	18.0	261	35.0	1.38	88.3	26.0	0.23	0.15	91.4	300
EHT200-12	19.0	0.75	5.0	75	15.0	218	50.0	1.97	88.3	26.0	0.34	0.23	91.4	300
EHT200-16	25.4	1.00	5.0	75	15.0	218	60.0	2.36	88.3	26.0	0.51	0.34	91.4	300
EHT200-20	31.8	1.25	4.3	62	13.0	189	75.0	2.95	88.3	26.0	0.65	0.44	91.4	300
EHT200-24	38.1	1.50	4.0	60	12.0	174	90.0	3.54	88.3	26.0	0.80	0.54	45.7	150
EHT200-32	50.8	2.00	3.0	40	9.0	131	125.0	4.92	78.5	23.0	1.20	0.81	45.7	150
EHT200-40	63.5	2.50	2.3	33	7.0	102	150.0	5.91	68.7	20.0	1.95	1.31	45.7	150
EHT200-48	76.2	3.00	2.0	29	6.0	87	195.0	7.68	68.7	20.0	2.50	1.68	45.7	150
EHT200-64	101.6	4.00	2.0	29	6.0	87	300.0	11.81	58.9	17.0	3.40	2.28	30.5	100
EHT200-80	127.0	5.00	2.0	29	6.0	87	385.0	15.16	58.9	17.0	4.70	3.16	30.5	100
EHT200-96	152.4	6.00	2.0	29	6.0	87	460.0	18.11	58.9	17.0	6.35	4.27	30.5	100

Food and Beverage Discharge

EHF001

Liquid Food



Application

- Discharge of milk, vegetable oil and beverages

Markets

- Food transfer
- Food tank truck
- Dairy processing

Construction

Tube White non-toxic, taste & odor-free, vegetable oil-resistant NBR rubber
Meets FDA and European requirements

Reinforcement

High-tensile synthetic textile

Cover Oil, abrasion, ozone, and weather resistant NBR rubber blend

Colors Blue (BU), Black (BK), Red (RD)

Certifications

Regulation EC 1935/2004, EC2023/2006,
FDA Regulation CFR title No.21 art
177.2600

Operating temperature

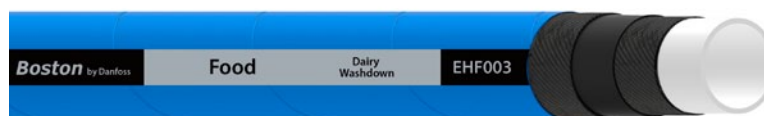
-40°C to +80°C
(-40°F to +176°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHF001-12BU	19.0	0.75	30.0	1.18	10.0	145	30.0	435	0.61	0.41	61	200
EHF001-16BU	25.4	1.00	37.0	1.46	10.0	145	30.0	435	0.79	0.53	61	200
EHF001-20BU	31.8	1.25	44.0	1.73	10.0	145	30.0	435	1.05	0.71	61	200
EHF001-24BU	38.1	1.50	51.0	2.00	10.0	145	30.0	435	1.31	0.88	61	200
EHF001-28BU	44.5	1.75	57.5	2.26	10.0	145	30.0	435	1.51	1.02	61	200
EHF001-32BU	50.8	2.00	65.0	2.56	10.0	145	30.0	435	1.84	1.24	61	200
EHF001-40BU	63.5	2.50	77.5	3.05	10.0	145	30.0	435	2.27	1.53	61	200
EHF001-48BU	76.2	3.00	92.0	3.62	10.0	145	30.0	435	2.93	1.97	61	200
EHF001-64BU	101.6	4.00	117.5	4.63	10.0	145	30.0	435	3.83	2.57	61	200

Cleaning Service

EHF003

Dairy Washdown



Application

- For cleaning in food processing plant

Markets

- Food processing

Construction

Tube Oil and steam resistant EPDM rubber
Meets FDA & European requirements

Reinforcement

High-tensile synthetic textile

Cover Oil, heat, abrasion, ozone and weather resistant EPDM rubber

Color Blue (BU), Black (BK), Red (RD)

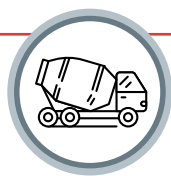
Certifications

Regulation EC 1935/2004
Regulation EC 2023/2006
FDA regulation CFR Title No.21 art 177.2600

Operating temperature

-40°C to +165°C, (-40°F to +329°F)

Number	Hose I.D.		Hose O.D.		Max Operating Pressure Hot Water +80°C		Max Operating Pressure Steam to +165°C		Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHF003-06BU	9.5	0.38	20.0	0.79	20.0	290	7.0	100	70.0	1015	0.30	0.20	61	200
EHF003-08BU	12.7	0.50	24.0	0.94	20.0	290	7.0	100	70.0	1015	0.41	0.28	61	200
EHF003-10BU	15.9	0.62	28.0	1.10	20.0	290	7.0	100	70.0	1015	0.51	0.34	61	200
EHF003-12BU	19.0	0.75	31.0	1.22	20.0	290	7.0	100	70.0	1015	0.60	0.40	61	200
EHF003-16BU	25.4	1.00	37.0	1.46	20.0	290	7.0	100	70.0	1015	0.68	0.46	61	200
EHF003-20BU	31.8	1.25	46.0	1.81	20.0	290	7.0	100	70.0	1015	1.07	0.72	61	200
EHF003-24BU	38.1	1.50	53.0	2.09	20.0	290	7.0	100	70.0	1015	1.34	0.90	61	200
EHF003-28BU	44.5	1.75	60.0	2.36	20.0	290	7.0	100	70.0	1015	1.57	1.06	61	200
EHF003-32BU	50.8	2.00	67.5	2.66	20.0	290	7.0	100	70.0	1015	1.97	1.32	61	200
EHF003-40BU	63.5	2.50	81.0	3.19	20.0	290	7.0	100	70.0	1015	2.50	1.68	61	200
EHF003-48BU	76.2	3.00	98.0	3.86	20.0	290	7.0	100	70.0	1015	3.66	2.46	61	200
EHF003-64BU	101.6	4.00	124.0	4.88	20.0	290	7.0	100	70.0	1015	4.83	3.25	61	200



Material Handling

Core products





Material Handling

Dry Material

Page

EHK002 Dry Bulk Suction and Discharge 49



Application	Suction and discharge of dry bulk materials, sand, gravel, dry cement
Tube	Static dissipating SBR rubber blend
Reinforcement	High-tensile synthetic textile with helical wire and anti-static copper wire
Cover	Abrasion resistant SBR rubber blend
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	10.5 bar / 150 psi

EHK004 Channeled Dry Bulk 50

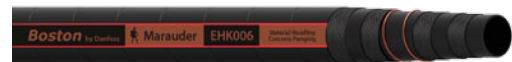


Application	Suction and discharge of dry bulk materials
Tube	Static dissipating SBR rubber blend
Reinforcement	High-tensile synthetic textile with helical wire and anti-static copper wire
Cover	Channeled SBR rubber blend
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	10 bar / 145 psi

Concrete, Plaster and Grout

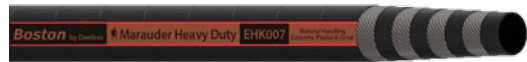
Page

EHK006 Marauder® 51



Application	High-pressure spraying plaster, grout, sand, gypsum, and ready-mixed concrete
Certification	ASME B30.27-2014
Tube	Abrasion resistant natural rubber
Reinforcement	High-tensile synthetic textile and anti-static copper wire
Cover	Pin-pricked special synthetic rubber
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	85 bar / 1233 psi

EHK007 Marauder® Heavy Duty 52



Application	Heavy duty, high pressure concrete pumping
Certification	ASME B30.27-2014
Tube	Abrasion resistant synthetic rubber and CBR blend
Reinforcement	High-tensile steel cords
Cover	Pin-pricked special synthetic rubber
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	86 bar / 1250 psi



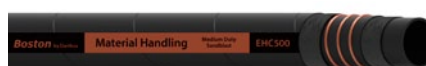
EHK005 Plaster and Grout Spraying 53



Application	High-pressure spraying plaster, grout, sand, gypsum, and ready-mixed concrete
Tube	Abrasion resistant SBR rubber blend
Reinforcement	High-tensile synthetic textile and anti-static copper wire
Cover	Pin-pricked SBR rubber blend
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	41 bar / 600 psi

Sandblast

EHK500 Sandblast – 60mm³ 54



Application	Conveys sand or shot for cleaning purposes, sandblast equipment to clean steel or concrete before painting or sealing
Certification	TS 5928 EN ISO 3861
Tube	Static dissipating SBR rubber blend
Reinforcement	High-tensile synthetic textile with anti-static copper wire
Cover	Pin-pricked SBR rubber blend
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	12.1 bar / 175 psi



Dry Material

EHK002

Dry Bulk
Suction & Discharge

Application

- For suction and discharge of dry bulk materials, sand, gravel, dry cement

Markets

- Construction
- Cement
- Swimming pool

Abrasion loss value acc. DIN53516 $\leq 60\text{mm}^3$

Construction

Tube Abrasion resistant, static dissipating SBR rubber blend

Reinforcement

High-tensile synthetic textile with helical wire and anti-static copper wire

Cover Abrasion, ozone, and weather resistant SBR rubber blend

Color Black

Operating temperature

-40°C to +70°C
(-40°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHK002-16BK	25.4	1.00	39.0	1.54	10.5	150	31.5	450	90	3.54	92.0	27.1	0.88	0.59	61	200
EHK002-20BK	31.8	1.25	45.0	1.77	10.5	150	31.5	450	110	4.33	92.0	27.1	1.05	0.71	61	200
EHK002-24BK	38.1	1.50	52.0	2.05	10.5	150	31.5	450	140	5.51	92.0	27.1	1.40	0.94	61	200
EHK002-32BK	50.8	2.00	66.0	2.60	10.5	150	31.5	450	240	9.44	92.0	27.1	1.98	1.33	61	200
EHK002-40BK	63.5	2.50	78.5	3.09	10.5	150	31.5	450	285	11.22	92.0	27.1	2.31	1.55	61	200
EHK002-48BK	76.2	3.00	92.0	3.62	10.5	150	31.5	450	325	12.80	92.0	27.1	3.11	2.09	61	200
EHK002-56BK	90.0	3.50	107.0	4.21	10.5	150	31.5	450	430	16.93	92.0	27.1	3.76	2.53	61	200
EHK002-64BK	101.6	4.00	120.0	4.72	10.5	150	31.5	450	480	18.90	92.0	27.1	4.55	3.06	61	200
EHK002-80BK	127.0	5.00	149.0	5.87	10.5	150	31.5	450	625	24.60	92.0	27.1	6.70	4.50	61	200
EHK002-96BK	152.4	6.00	174.5	6.87	10.5	150	31.5	450	780	30.70	92.0	27.1	8.81	5.92	61	200
EHK002-128BK	203.2	8.00	229.0	9.02	10.5	150	31.5	450	1150	45.27	80.0	24.0	13.69	9.20	61	200
EHK002-160BK	254.0	10.00	281.0	11.06	10.5	150	31.5	450	1150	61.00	80.0	24.0	17.16	11.54	61	200

Dry Material

EHK004

Channeled Dry Bulk



Application

- For suction and discharge of dry bulk materials, sand, gravel, dry cement

Markets

- Construction
- Cement
- Swimming pool

Construction

Tube Static dissipating SBR rubber blend

Reinforcement

High-tensile synthetic textile with helical wire and anti-static copper wire

Cover Channeled, abrasion, ozone, and weather resistant SBR rubber blend

Color Black

Operating temperature

-40°C to +70°C
(-40°F to +158°F)

Abrasion loss value acc. DIN53516 $\leq 60\text{mm}^3$

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHK004-16BK	25.4	1.00	36.0	1.42	10.0	145	30.0	435	80	3.15	92.0	27.1	0.77	0.52	61	200
EHK004-20BK	31.8	1.25	42.5	1.67	10.0	145	30.0	435	100	3.94	92.0	27.1	0.94	0.63	61	200
EHK004-24BK	38.1	1.50	48.4	1.91	10.0	145	30.0	435	120	4.72	92.0	27.1	1.09	0.73	61	200
EHK004-32BK	50.8	2.00	62.0	2.44	10.0	145	30.0	435	160	6.30	92.0	27.1	1.61	1.08	61	200
EHK004-40BK	63.5	2.50	76.0	2.99	10.0	145	30.0	435	200	7.87	92.0	27.1	2.14	1.44	61	200
EHK004-48BK	76.2	3.00	89.0	3.50	10.0	145	30.0	435	250	9.84	92.0	27.1	2.45	1.65	61	200
EHK004-56BK	90.0	3.50	104.5	4.11	10.0	145	30.0	435	300	11.81	92.0	27.1	3.43	2.31	61	200
EHK004-64BK	101.6	4.00	117.5	4.63	10.0	145	30.0	435	350	13.78	92.0	27.1	4.14	2.78	61	200
EHK004-80BK	127.0	5.00	145.5	5.73	10.0	145	30.0	435	450	17.72	92.0	27.1	6.31	4.24	61	200
EHK004-96BK	152.4	6.00	172.0	6.77	10.0	145	30.0	435	560	22.05	92.0	27.1	8.04	5.40	61	200

Concrete, Plaster & Grout



EHK006

Marauder



Application

- For high pressure concrete pumping
- For high pressure spraying plaster, grout, sand, gypsum, and ready mixed concrete
- Light weight for hand held applications

Markets

- Construction
- Cement
- Swimming pool
- Tunnel faces
- Dams

Construction

Tube Abrasion resistant anti-static natural rubber

Reinforcement

High tensile synthetic textile and anti-static copper wire

Cover Abrasion, ozone and weather resistant pin-pricked synthetic rubber

Color Black

Certifications

Meets the requirements of ASME B30.27-2014

Abrasion loss value acc. DIN53516 $\leq 60\text{mm}^3$

Operating temperature

-40°C to +70°C
(-40°F to +158°F)

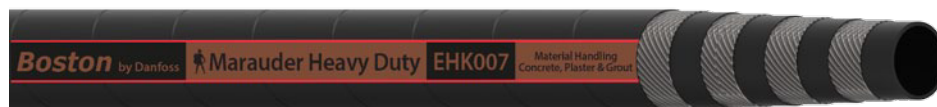
Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHK006-20BK	32.0	1.25	48.8	1.92	85.0	1233	178.0	2581	1.22	.820	61	200
EHK006-24BK	38.0	1.50	57.0	2.24	85.0	1233	178.0	2581	1.81	1.21	61	200
EHK006-32BK	50.8	2.00	72.0	2.83	85.0	1233	178.0	2581	2.40	1.61	61	200
EHK006-40BK	63.5	2.50	86.3	3.40	85.0	1233	178.0	2581	3.01	2.02	61	200
EHK006-48BK	76.2	3.00	99.6	3.92	85.0	1233	178.0	2581	3.65	2.45	61	200
EHK006-64BK	101.6	4.00	126.0	4.92	85.0	1233	178.0	2581	4.74	3.18	61	200
EHK006-80BK	127.0	5.00	154.4	6.08	85.0	1233	178.0	2581	6.38	4.29	61	200

Concrete, Plaster & Grout



EHK007

Marauder Heavy Duty



Application

- For high pressure concrete pumping and placing, used in the end of concrete pump boom
- Heavy duty construction for applications needing long lasting durability

Markets

- Construction
- Cement placement
- Boom truck

Construction

Tube Abrasion resistant anti-static natural rubber and CBR rubber blend

Reinforcement

High tensile steel cords

Cover Abrasion, ozone and weather resistant pin-pricked special synthetic rubber

Color Black

Certifications

Meets the requirements of ASME B30.27-2014

Abrasion loss value acc. DIN53516 $\leq 60\text{mm}^3$

Operating temperature

-40°C to +70°C
(-40°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHK007-32BK-MT61	50.8	2.00	70.0	2.76	86.0	1250	200.0	2900	200	7.87	3.03	2.04	61	200
EHK007-40BK-MT61	63.5	2.50	88.0	3.46	86.0	1250	200.0	2900	240	9.45	4.48	3.01	61	200
EHK007-48BK-MT61	76.2	3.00	102.0	4.02	86.0	1250	200.0	2900	275	10.83	5.46	3.67	61	200
EHK007-64BK-MT61	101.6	4.00	130.0	5.12	86.0	1250	200.0	2900	350	13.78	8.46	5.68	61	200
EHK007-80BK-MT61	127.0	5.00	155.0	6.10	86.0	1250	200.0	2900	425	16.73	9.63	6.47	61	200

Concrete, Plaster & Grout

EHK005

Plaster & Grout Spraying



Application

- For high-pressure spraying plaster, grout, sand, gypsum, and ready mixed concrete

Markets

- Construction
- Cement
- Swimming pool

Construction

Tube Abrasion resistant SBR rubber blend
Reinforcement

High-tensile synthetic textile and anti-static copper wire

Cover Abrasion, ozone, and weather resistant pin-pricked SBR rubber blend

Colors Black (BK), Gray (GY), Yellow (YW)

Abrasion loss value acc. DIN53516 $\leq 60\text{mm}^3$

Operating temperature

-40°C to +70°C
 (-40°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHK005-12BK	19.0	0.75	31.0	1.22	41.0	600	123.0	1800	90	3.54	0.54	0.36	61	200
EHK005-16BK	25.4	1.00	37.0	1.46	41.0	600	123.0	1800	120	4.72	0.65	0.44	61	200
EHK005-16ABK	25.4	1.00	38.0	1.50	41.0	600	123.0	1800	110	4.33	0.75	0.50	61	200
EHK005-19BK	30.0	1.18	44.0	1.73	41.0	600	123.0	1800	150	10.34	0.95	0.64	61	200
EHK005-20BK	32.0	1.25	46.0	1.81	41.0	600	123.0	1800	160	6.30	1.03	0.69	61	200
EHK005-22BK	35.0	1.38	49.0	1.93	41.0	600	123.0	1800	175	6.89	1.10	0.74	61	200
EHK005-24BK	38.0	1.50	54.0	2.13	41.0	600	123.0	1800	190	7.48	1.43	0.96	61	200
EHK005-28BK	44.5	1.75	61.0	2.40	41.0	600	123.0	1800	225	8.86	1.63	1.10	61	200
EHK005-32BK	50.8	2.00	68.0	2.68	41.0	600	123.0	1800	280	11.02	1.96	1.32	61	200
EHK005-38BK	60.0	2.36	80.0	3.15	41.0	600	123.0	1800	340	13.38	2.72	1.83	61	200
EHK005-40BK	63.5	2.50	83.5	3.29	41.0	600	123.0	1800	375	14.76	2.86	1.92	61	200
EHK005-42BK	65.0	2.56	85.0	3.35	41.0	600	123.0	1800	390	15.36	2.88	1.94	61	200
EHK005-44BK	70.0	2.76	90.0	3.54	41.0	600	123.0	1800	425	16.73	2.93	1.97	61	200
EHK005-48BK	76.2	3.00	96.2	3.79	41.0	600	123.0	1800	440	17.32	3.14	2.11	61	200
EHK005-64BK	101.6	4.00	122.0	4.80	41.0	600	123.0	1800	580	22.83	4.14	2.78	61	200
EHK005-80BK	127.0	5.00	155.0	6.10	41.0	600	123.0	1800	750	29.52	6.85	4.60	61	200

Sandblast

EHC500

Sandblast – 60mm³

Application

- Conveys sand or shot for cleaning purposes
- Conveys sand from sandblast equipment to clean steel or concrete before painting or sealing
- For blasting metal, stone and concrete

Markets

- Construction
- Metal working
- Ship building

Construction

Tube Static dissipating SBR rubber blend

Reinforcement

High-tensile synthetic textile with anti-static copper wire

Cover

Abrasion, ozone and weather resistant pin-pricked SBR rubber blend

Color Black

Certification

TS 5928 - EN ISO 3861

Operating temperature

-40°C to +70°C

(-40°F to +158°F)

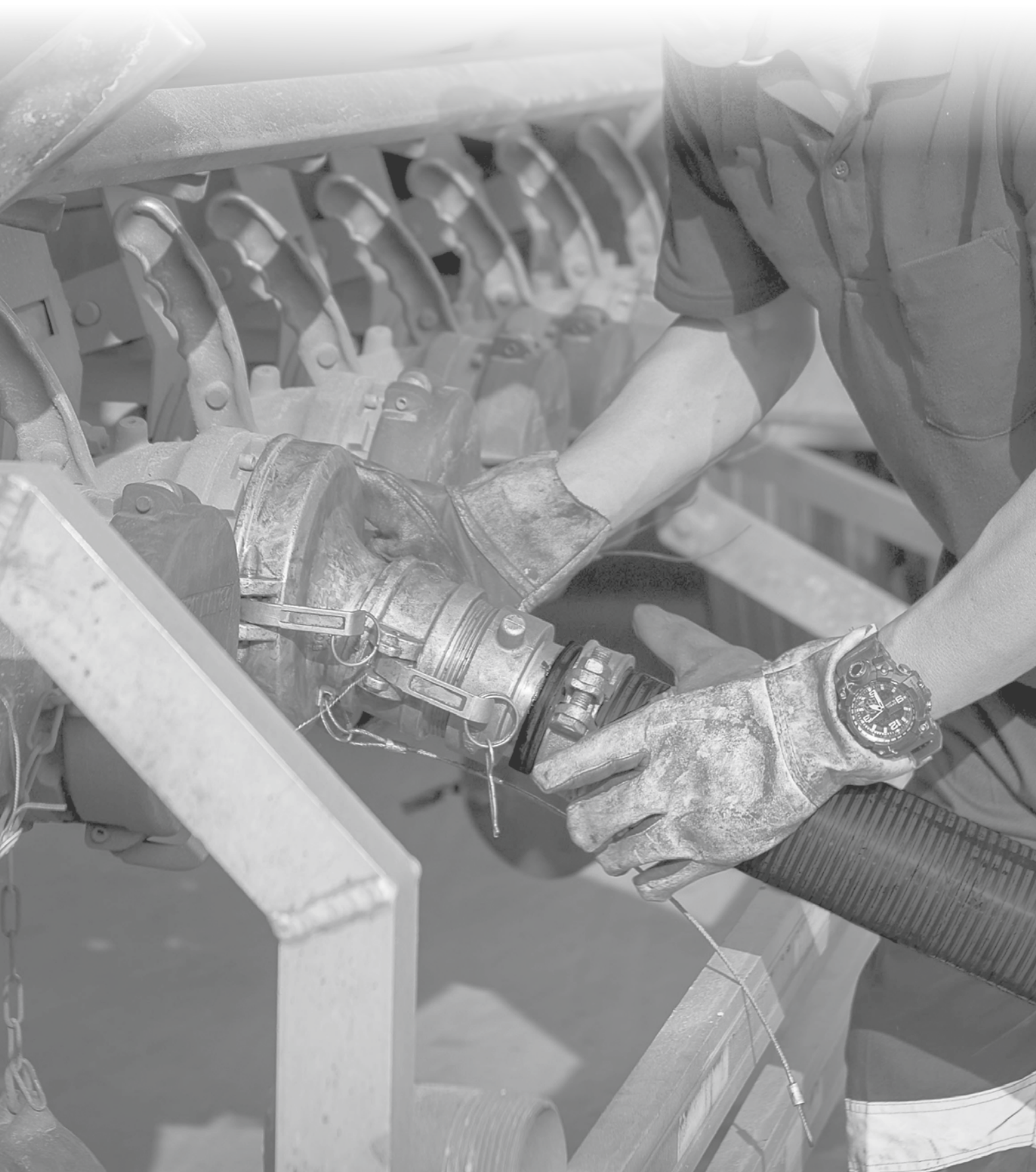
Abrasion loss value acc. DIN53516 ≤60mm³

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHC500-08BK	12.7	0.50	25	0.98	12.1	175	36.0	522	65	2.55	0.41	0.28	61	200
EHC500-08ABK	12.7	0.50	27	1.06	12.1	175	36.0	522	60	2.36	0.50	0.33	61	200
EHC500-10BK	16.0	0.62	28	1.10	12.1	175	36.0	522	85	3.35	0.48	0.32	61	200
EHC500-10ABK	16.0	0.62	30	1.18	12.1	175	36.0	522	80	3.15	0.58	0.39	61	200
EHC500-12BK	19.0	0.75	30	1.18	12.1	175	36.0	522	100	3.94	0.49	0.33	61	200
EHC500-12ABK	19.0	0.75	31	1.22	12.1	175	36.0	522	95	3.74	0.53	0.36	61	200
EHC500-12BBK	19.0	0.75	33	1.30	12.1	175	36.0	522	90	3.54	0.65	0.44	61	200
EHC500-16BK	25.4	1.00	39	1.54	12.1	175	36.0	522	125	4.92	0.81	0.55	61	200
EHC500-20BK	32.0	1.25	48	1.89	12.1	175	36.0	522	160	6.30	1.16	0.78	61	200
EHC500-24BK	38.0	1.50	54	2.13	12.1	175	36.0	522	200	7.87	1.34	0.90	61	200
EHC500-24ABK	38.0	1.50	56	2.20	12.1	175	36.0	522	190	7.48	1.53	1.03	61	200
EHC500-28BK	44.5	1.75	60	2.36	12.1	175	36.0	522	280	11.02	1.47	0.99	61	200
EHC500-28ABK	44.5	1.75	63	2.48	12.1	175	36.0	522	270	10.60	1.82	1.22	61	200
EHC500-32BK	50.8	2.00	69	2.72	12.1	175	36.0	522	325	12.79	2.03	1.36	61	200
EHC500-32ABK	50.8	2.00	73	2.87	12.1	175	36.0	522	315	12.40	2.48	1.67	61	200
EHC500-40BK	63.5	2.50	82	3.23	12.1	175	36.0	522	400	15.70	2.63	1.77	61	200
EHC500-48BK	76.2	3.00	96	3.78	12.1	175	36.0	522	450	17.70	3.09	2.08	61	200
EHC500-64BK	101.6	4.00	122	4.80	12.1	175	36.0	522	600	23.60	4.22	2.84	61	200



Oil & Petroleum

Core products





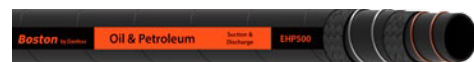
Oil & Petroleum

Suction and Discharge

Page

Page

EHP500 Petroleum Tank Truck 57



Application	Suction and discharge of petroleum products with aromatic content up to 50%
Tube	Conductive NBR rubber
Reinforcement	High-tensile synthetic textile with helical and anti-static copper wires
Cover	Special synthetic rubber
Temp	-35°C to +70°C, (-31°F to +158°F)
Pressure	10.5 bar / 150 psi

EHP531 Antistatic Fuel Transfer 58



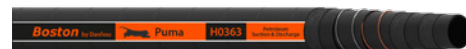
Application	Antistatic hose for suction and delivery of fuels and petroleum derivatives with aromatic contents up to 50%
Certification	ISO8031, $\Omega/m < 106$
Tube	Antistatic NBR blend rubber compound
Reinforcement	High tensile synthetic textile reinforcement with twin and 2 crossing link copper wires for hose grounding
Cover	NVC blend rubber compound
Temp	-35°C to +70°C, (-31°F to +158°F)
Pressure	20.7 bar / 300 psi

EHP522 Yak™ Petroleum Heavy Duty 59



Application	High-pressure suction and discharge of petroleum products with aromatic content up to 50%
Certification	RMA Class A
Tube	NBR rubber
Reinforcement	High-tensile synthetic textile with helical and anti-static copper wires
Cover	NBR rubber blend (RMA Class A)
Temp	-35°C to +70°C, (-31°F to +158°F)
Pressure	20.7 bar / 300 psi

H0363 Puma® 60



Application	Suction and discharge of petroleum products
Certifications	RMS Class A
Tube	NBR rubber, RMS Class A
Reinforcement	Fiber 2- or 4-ply with dual helical wires and anti-static copper wire
Cover	NBR rubber blend
Temp	-40°C to +82°C, (-40°F to +180°F)
Pressure	10.5 bar / 150 psi

EHP542 Puma® Flexible Flat Corrugated 61



Application	Suction and discharge of petroleum products with aromatic content up to 50%
Tube	Smooth oil resistant NBR rubber
Reinforcement	High tensile synthetic textile with dual steel helical and anti-static copper wire
Cover	Flat corrugated NBR rubber
Temp	-40°C to +90°C, (-40°F to +194°F)
Pressure	17.2 bar / 250 psi

EHP004 Oilfield Heavy Duty Liquid Mud 62



Application	Suction and discharge of high pressure liquid mud, mineral oils, etc.
Tube	Special synthetic blend
Reinforcement	High-tensile synthetic textile with dual steel helical and anti-static copper wire
Cover	CR blend
Temp	-35°C to +80°C, (-31°F to +176°F)
Pressure	40 bar / 580 psi

Blowout Preventer

EC556 Blowout Preventer 63



Application	Blow-out prevent system component. Prevention of pressure escape at the wellhead during drilling, on-shore oil and gas exploration
Tube	Oil-resistant NBR rubber
Reinforcement	Multiple high-tensile wire spiral layers
Cover	Red CSM
Temp	-40°C to +100°C, (-40°F to +212°F)
Pressure	350 bar / 5100 psi



Suction and Discharge

EHP500

Petroleum Tank Truck



Application

- For suction and discharge of petroleum products with aromatic content up to 50%

Markets

- Petroleum industry
- Paper/pulp industry
- Oil exploration
- Ship building
- Tank trucks
- Waste hauling
- Batch plants

Construction

Tube Conductive synthetic nitrile rubber

Reinforcement

High-tensile synthetic textile with helical and anti-static copper wires

Cover Special synthetic rubber

Color Black

Operating temperature

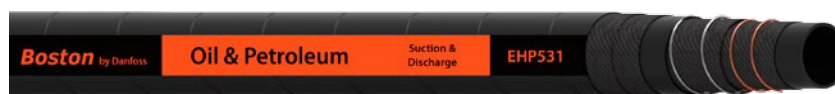
-35°C to +70°C
(-31°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHP500-12BK	19.0	0.75	30.0	1.18	10.5	150	31.5	450	70	2.76	94.8	28	0.59	0.40	61	200
EHP500-16BK	25.4	1.00	36.0	1.42	10.5	150	31.5	450	75	2.95	94.8	28	0.71	0.48	61	200
EHP500-20BK	31.8	1.25	43.0	1.69	10.5	150	31.5	450	85	3.35	94.8	28	0.91	0.61	61	200
EHP500-24BK	38.1	1.50	49.0	1.93	10.5	150	31.5	450	110	4.33	94.8	28	1.17	0.79	61	200
EHP500-28BK	44.5	1.75	56.0	2.20	10.5	150	31.5	450	150	5.91	94.8	28	1.36	0.91	61	200
EHP500-32BK	50.8	2.00	63.0	2.48	10.5	150	31.5	450	170	6.69	94.8	28	1.65	1.11	61	200
EHP500-40BK	63.5	2.50	77.0	3.03	10.5	150	31.5	450	210	8.27	94.8	28	2.13	1.43	61	200
EHP500-48BK	76.2	3.00	89.0	3.50	10.5	150	31.5	450	230	9.06	94.8	28	2.81	1.89	61	200
EHP500-56BK	88.9	3.50	105.0	4.13	10.5	150	31.5	450	300	11.81	94.8	28	3.61	2.43	61	200
EHP500-64BK	101.6	4.00	117.0	4.61	10.5	150	31.5	450	400	15.75	94.8	28	4.06	2.73	61	200
EHP500-80BK	127.0	5.00	145.0	5.71	10.5	150	31.5	450	550	21.65	94.8	28	6.21	4.17	61	200
EHP500-96BK	152.4	6.00	170.0	6.69	10.5	150	31.5	450	675	26.57	94.8	28	7.87	5.29	61	200
EHP500-128BK	203.2	8.00	228.0	8.98	10.5	150	31.5	450	1200	47.24	80.0	24	14.42	9.69	61	200
EHP500-160BK	254.0	10.0	282.0	11.10	10.5	150	31.5	450	1250	49.21	80.0	24	18.90	12.70	61	200
EHP500-192BK	304.8	12.0	338.0	13.31	10.5	150	31.5	450	2000	78.74	80.0	24	27.23	18.30	61	200

Suction and Discharge

EHP531

Antistatic Fuel Transfer



Application

Suction and delivery hose for fuels and petroleum derivatives with aromatic contents up to 50%.

Suitable for use with Gasoline, Diesel, Kerosene and Petroleum Oils.

Markets

- Oil platforms
- Fuelling,
- Storage tanks or other industrial facilities

Construction

Tube Black, smooth, high quality antistatic NBR Blend rubber compound

Reinforcement

High tensile synthetic textile reinforcement with twin embedded steel helix wire and 2 crossing link copper wires for hose grounding

Cover NVC blend rubber compound

Color Black

Certifications

ISO8031, $\Omega/m < 10^6$

Operating temperature

-35°C to +70°C
(-31°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHP531-16	25.4	1.00	37.0	1.46	20.7	300	62.0	900	127	5.00	80	23.7	0.79	0.53	61	200
EHP531-20	31.8	1.25	44.0	1.73	20.7	300	62.0	900	160	6.30	80	23.7	1.01	0.68	61	200
EHP531-24	38.1	1.50	52.0	2.05	20.7	300	62.0	900	190	7.48	80	23.7	1.54	1.04	61	200
EHP531-28	44.5	1.75	59.5	2.34	20.7	300	62.0	900	225	8.86	80	23.7	1.80	1.21	61	200
EHP531-32	50.8	2.00	67.0	2.64	20.7	300	62.0	900	255	10.04	80	23.7	2.19	1.47	61	200
EHP531-40	63.5	2.50	80.0	3.15	20.7	300	62.0	900	315	12.40	80	23.7	2.69	1.81	61	200
EHP531-48	76.2	3.00	92.0	3.62	20.7	300	62.0	900	370	14.57	80	23.7	3.42	2.30	61	200
EHP531-56	88.9	3.50	109.1	4.30	20.7	300	62.0	900	450	17.72	80	23.7	4.42	2.97	61	200
EHP531-64	101.6	4.00	120.0	4.72	20.7	300	62.0	900	510	20.08	80	23.7	4.79	3.22	61	200
EHP531-80	127.0	5.00	150.5	5.91	20.7	300	62.0	900	635	25.00	80	23.7	7.53	5.06	61	200
EHP531-96	152.4	6.00	177.0	6.97	20.7	300	62.0	900	760	29.92	80	23.7	10.22	6.87	61	200
EHP531-128	203.2	8.00	234.0	9.21	20.7	300	62.0	900	1000	39.97	80	23.7	18.70	12.57	61	200

Suction and Discharge



EHP522

Yak Petroleum
Heavy Duty

Application

- For high-pressure petroleum suction and discharge

For use with petroleum products with aromatic content up to 50%

Markets

- Tank truck
- Paper/pulp industry
- Oil exploration
- Ship building
- Batch plants

Construction

Tube NBR rubber

Reinforcement

High-tensile synthetic textile dual steel helical wire and anti-static copper wire

Cover NBR rubber blend

Color Black

Certification

RMA Class A

Operating temperature

-35°C to +70°C
(-31°F to +158°F)

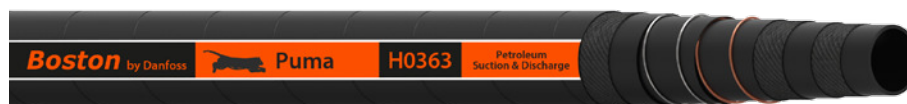
Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHP522-16BK	25.4	1.00	36.8	1.45	20.7	300	62.0	900	85	3.35	85	25	0.79	0.53	61	100
EHP522-20BK	31.8	1.25	44.0	1.73	20.7	300	62.0	900	100	3.94	85	25	1.04	0.70	61	100
EHP522-24BK	38.1	1.50	52.2	2.06	20.7	300	62.0	900	125	4.98	85	25	1.53	1.03	61	100
EHP522-28BK	44.5	1.75	59.3	2.33	20.7	300	62.0	900	175	6.89	85	25	1.78	1.20	61	100
EHP522-32BK	50.8	2.00	66.8	2.63	20.7	300	62.0	900	200	7.87	85	25	2.25	1.51	61	100
EHP522-40BK	63.5	2.50	79.9	3.15	20.7	300	62.0	900	250	9.84	85	25	2.82	1.90	61	100
EHP522-48BK	76.2	3.00	92.0	3.62	20.7	300	62.0	900	300	11.81	85	25	3.25	2.19	61	100
EHP522-56BK	90.0	3.50	109.2	4.30	20.7	300	62.0	900	340	13.39	85	25	4.53	3.04	61	100
EHP522-64BK	101.6	4.00	120.0	4.72	20.7	300	62.0	900	440	17.32	85	25	4.88	3.28	61	100
EHP522-80BK	127.0	5.00	149.8	5.90	20.7	300	62.0	900	580	22.83	80	24	7.32	4.92	61	100
EHP522-96BK	152.4	6.00	177.2	6.98	20.7	300	62.0	900	700	27.56	80	24	9.92	6.66	61	100
EHP522-128BK	203.2	8.00	234.0	9.21	20.7	300	62.0	900	1200	47.24	80	24	16.50	11.09	61	100

Suction and Discharge



H0363

Puma®



Application

- For suction and discharge of petroleum products

Markets

- Tank truck
- Paper/pulp industry
- Oil and gas exploration
- Ship building
- Batch plants

Construction

Tube NBR rubber (RMA Class A)

Reinforcement

2- or 4-ply fiber with dual helical wires and anti-static copper wire

Cover NBR rubber blend

Color Black

Certification

RMA Class A

Operating temperature

-40°C to +82°C
(-40°F to +180°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
H036312BK	19.0	0.75	28.8	1.13	10.5	150	42.0	600	110	4.33	94.8	28	0.59	0.40	61	200
H036316BK	25.4	1.00	38.0	1.50	10.5	150	42.0	600	152	5.98	94.8	28	0.91	0.61	61	200
H036320BK	31.8	1.25	45.0	1.77	10.5	150	42.0	600	190	7.48	94.8	28	1.09	0.73	61	200
H036324BK	38.1	1.50	52.5	2.07	10.5	150	42.0	600	200	7.87	94.8	28	1.44	0.97	61	200
H036332BK	50.8	2.00	65.0	2.56	10.5	150	42.0	600	255	10.04	94.8	28	2.01	1.35	61	200
H036340BK	63.5	2.50	77.0	3.03	10.5	150	42.0	600	315	12.40	94.8	28	2.30	1.55	61	200
H036348BK	76.2	3.00	90.5	3.56	10.5	150	42.0	600	380	14.96	94.8	28	2.93	1.97	61	200
H036364BK	101.6	4.00	116.2	4.57	10.5	150	42.0	600	510	20.08	94.8	28	3.78	2.54	61	200
H036396BK	152.4	6.00	174.0	6.85	10.5	150	42.0	600	780	30.71	94.8	28	8.45	5.68	61	200

Suction and Discharge

EHP542

Puma® Flexible
Flat Corrugated

Application

- For suction and discharge of petroleum products

For use with petroleum products with aromatic content up to 50%

Markets

- Petroleum industry
- Tank truck
- Oil and gas exploration
- Well service

Construction

Tube Smooth oil resistant NBR rubber

Reinforcement

High tensile synthetic textile with dual steel helical wire and anti-static copper wire

Cover Flat corrugated NBR rubber

Colors Black

Operating temperature

-40°C to +90°C
(-40°F to +194°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHP542-12BK	19.0	0.75	30.0	1.18	17.2	250	69.0	1000	19	0.75	92.0	27.1	0.51	0.34	61	200
EHP542-16BK	25.4	1.00	38.0	1.50	17.2	250	69.0	1000	25	0.98	92.0	27.1	0.76	0.51	61	200
EHP542-20BK	32.0	1.26	44.0	1.73	17.2	250	69.0	1000	32	1.26	92.0	27.1	1.02	0.68	61	200
EHP542-24BK	38.1	1.50	49.0	1.93	17.2	250	69.0	1000	38	1.50	92.0	27.1	0.97	0.65	61	200
EHP542-32BK	50.8	2.00	61.2	2.41	17.2	250	69.0	1000	51	2.01	92.0	27.1	1.38	0.93	61	200
EHP542-40BK	63.5	2.50	77.0	3.03	17.2	250	69.0	1000	64	2.50	92.0	27.1	2.01	1.35	61	200
EHP542-48BK	76.2	3.00	90.0	3.54	17.2	250	69.0	1000	75	2.96	92.0	27.1	2.45	1.65	61	200
EHP542-64BK	101.6	4.00	116.0	4.57	17.2	250	69.0	1000	102	4.00	92.0	27.1	3.59	2.41	61	200
EHP542-96BK	152.4	6.00	171.6	6.76	17.2	250	69.0	1000	152	6.00	92.0	27.1	8.50	5.71	61	200

Suction and Discharge

EHP004

Oilfield Heavy Duty
Liquid Mud

Application

- For heavy duty high pressure suction and discharge liquid mud, mineral oils, etc.

Markets

- Oil rig platform
- Oil and gas exploration

Construction

Tube Synthetic rubber

Reinforcement

High-tensile synthetic textile with dual steel helical wire and anti-static copper wire

Cover CR rubber

Color Black

Operating Temperature

-35°C to +80°C
(-31°F to +176°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHP004-64BK	101.6	4.00	127	5.00	40.0	580	165.0	2400	1020	40.16	80.0	24	6.91	4.65	61	200
EHP004-80BK	127.0	5.00	155	6.02	40.0	580	165.0	2400	1279	50.35	80.0	24	9.70	6.52	61	200

Blowout Preventer

EC556

Blowout Preventer



Application

- Blow-out prevent system component. Prevention of pressure escape at the wellhead during drilling, on-shore oil and gas exploration

Markets

- Gas drilling & exploration

Construction

Tube Black, oil-resistant nitrile

Reinforcement

Multiple high tensile wire spiral

Cover Red, specially compounded, flame resistant

Color Red CSM

Certifications

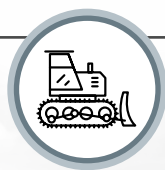
Lloyd's certified
API 16D Flame Resistant

Operating temperature

-40°C to +100°C

(-40°F to +212°F)

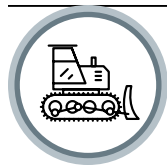
Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EC556-12	19.0	0.75	32.0	1.26	350.0	5,100	1,400.0	20,400	280	11.02	1.58	1.06	61	200
EC556-16	25.4	1.00	38.3	1.51	350.0	5,100	1,400.0	20,400	340	13.39	2.00	1.34	61	200
EC556-20	31.8	1.25	45.1	1.78	350.0	5,100	1,400.0	20,400	460	18.11	2.47	1.66	61	200
EC556-24	38.1	1.50	56.4	2.22	350.0	5,100	1,400.0	20,400	500	19.69	4.64	3.12	61	200
EC556-32	50.8	2.00	71.3	2.81	350.0	5,100	1,400.0	20,400	530	20.87	6.82	4.58	61	200



Specialty

Core products





Specialty

Gaseous: LPG

Page

EHG003 Liquid Propane Suction & Discharge 67



Application	For transfer and delivery of propane, butane and natural gas
Certification	TS EN 1762 Type SD
Tube	Static dissipating NBR
Reinforcement	High-tensile synthetic textile with steel helical wire
Cover	Pin-pricked synthetic rubber
Temp	-30°C to +70°C, (-22°F to +158°F)
Pressure	LP-Gas should never be elevated above 100°F 25 bar / 365 psi

EHG006 Liquid Propane Delivery 68



Application	Transfer and delivery of propane and butane, and natural gas in open, well ventilated areas (1 psiG max. working pressure)
Certification	TS EN 1762 Type D
Tube	Static dissipating, LPG resistant NBR rubber
Reinforcement	High tensile synthetic textile
Cover	NBR blend
Temp	-30°C to +70°C, (-22°F to +158°F)
Pressure	LP-Gas should never be elevated above 100°F 25 bar / 365 psi

Gaseous: Nitrogen

EHG001 Nitrogen Transfer 69



Application	For transfer of nitrogen
Tube	Synthetic rubber
Reinforcement	High-tensile synthetic textile
Cover	Synthetic rubber
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	20.7 bar / 300 psi

Specialized

Page

EHJ003 Aircraft Refueling 70



Application	Ground aircraft refueling suction and discharge, up to 30% aromatic content
Certification	ISO 1825:2017 Type E EI 1529:2014 Type E Grade 2
Tube	Synthetic rubber
Reinforcement	High-tensile synthetic textile with a dual steel helical wire and dual anti-static copper wires
Cover	CR rubber
Temp	-30°C to +65°C, (-22°F to +149°F)
Pressure	20 bar / 290 psi

EHN004 Steel Mill Heavy Duty Cooling Water Transfer 71



Application	Discharge of cooling water. Outside temperature up to 600°C.
Tube	EPDM rubber
Reinforcement	High-tensile synthetic textile
Cover	EPDM rubber and glass fiber
Temp	-40°C to +125°C, (-40°F to +257°F)
Pressure	10 bar / 145 psi

EHW500 Industrial Welding 72



Application	Industrial welding with oxygen or acetylene
Tube	SBR rubber blend
Reinforcement	High-tensile synthetic textile
Cover	SBR rubber blend
Temp	-30°C to +80°C, (-22°F to +176°F)
Pressure	20.7 bar / 300 psi



Gaseous: LPG

EHG003

Liquid Propane (LPG)



Application

- For transfer and delivery of propane and butane
- Transfer of natural gas in open, well ventilated areas (1 psiG max. working pressure)

Markets

- LPG delivery vehicles
- Petroleum refineries
- Chemical processing
- Tank truck

Construction

Tube LPG resistant, conductive NBR rubber

Reinforcement

High-tensile synthetic textile with steel helical wire

Cover Pin-pricked Synthetic rubber

Color Black

Certification

TS EN 1762 Type SD

Operating temperature

-30°C to +70°C

(-22°F to +158°F)

Hose is capable of this rating.
LP-Gas should never be elevated above 100°F (38°C).

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHG003-08BK	12.7	0.50	23	0.91	25.0	363	100.0	1450	55	2.17	80.0	24	0.44	0.30	61	200
EHG003-10BK	16.0	0.62	26	1.02	25.0	363	100.0	1450	75	2.95	80.0	24	0.52	0.35	61	200
EHG003-12BK	19.0	0.75	31	1.22	25.0	363	100.0	1450	100	3.94	80.0	24	0.68	0.46	61	200
EHG003-16BK	25.4	1.00	38	1.50	25.0	363	100.0	1450	140	5.51	80.0	24	0.90	0.61	61	200
EHG003-20BK	31.8	1.25	45	1.77	25.0	363	100.0	1450	190	7.48	80.0	24	1.17	0.79	61	200
EHG003-24BK	38.1	1.50	52	2.05	25.0	363	100.0	1450	200	7.87	80.0	24	1.50	1.00	61	200
EHG003-32BK	50.8	2.00	67	2.64	25.0	363	100.0	1450	280	11.02	80.0	24	2.19	1.47	61	200
EHG003-40BK	63.5	2.50	81	3.19	25.0	363	100.0	1450	380	14.96	80.0	24	2.91	1.96	61	200
EHG003-48BK	76.2	3.00	94	3.70	25.0	363	100.0	1450	460	18.11	80.0	24	3.58	2.41	61	200
EHG003-64BK	101.6	4.00	120	4.72	25.0	363	100.0	1450	625	24.61	80.0	24	4.56	3.07	61	200

Gaseous: LPG

EHG006

Liquid Propane Delivery



Application

- Liquid Propane discharge
- Nitrogen transfer
- Material Handling.

Transfer of natural gas in open, well ventilated areas (1 psiG max. working pressure)

Markets

- LPG Terminals and Depots
- Tanker Trucks and Rail Transport
- LPG Export and Import Facilities
- Refining and Petrochemical Plants
- Off-grid or Remote Power Plants

- LPG-Powered Vessels
- Chemical Production
- Autogas Refueling Stations
- Heavy Equipment and Vehicle Refueling (Mining Operations)

Construction

Tube Static dissipating, LPG resistant NBR rubber

Reinforcement

High tensile synthetic textile

Cover NBR blend cover

Color Black

Certifications

TS EN 1762 Type D

Operating temperature

-30°C to +70°C
(-22°F to +158°F)

Hose is capable of this rating.
LP-Gas should never be elevated above 100°F (38°C).

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHG006-16BK	25.4	1.00	38.0	1.50	25.0	363	100.0	1450	200	7.87	1.00	0.67	61	200
EHG006-20BK	31.8	1.25	45.0	1.77	25.0	363	100.0	1450	250	9.84	1.00	0.67	61	200
EHG006-24BK	38.1	1.50	52.4	2.06	25.0	363	100.0	1450	320	12.60	1.20	0.82	61	200
EHG006-32BK	51.0	2.00	66.4	2.61	25.0	363	100.0	1450	400	15.75	1.70	1.17	61	200

Gaseous: Nitrogen

EHG001

Nitrogen Transfer



Application

- For transfer of nitrogen

Markets

- Nitrogen tanks
- Tank truck

Construction

Tube Natural and synthetic rubber

Reinforcement

High-tensile synthetic textile

Cover Synthetic rubber blend

Color Black (BK), Blue (BU), Green (GN)
Orange (OR), Red (RD),
Yellow (YW)

Operating temperature

-40°C to +70°C
(-40°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHG001-08BK	12.7	0.50	22	0.87	20.7	300	62.0	900	0.33	0.22	61	200
EHG001-10BK	15.9	0.62	25	0.98	20.7	300	62.0	900	0.37	0.25	61	200
EHG001-12BK	19.0	0.75	29	1.14	20.7	300	62.0	900	0.50	0.34	61	200
EHG001-16BK	25.4	1.00	36	1.42	20.7	300	62.0	900	0.67	0.45	61	200
EHG001-20BK	31.8	1.25	44	1.73	20.7	300	62.0	900	0.96	0.65	61	200
EHG001-24BK	38.1	1.50	51	2.01	20.7	300	62.0	900	1.18	0.79	61	200
EHG001-28BK	44.5	1.75	60	2.36	20.7	300	62.0	900	1.63	1.10	61	200
EHG001-32BK	50.8	2.00	65	2.56	20.7	300	62.0	900	1.66	1.12	61	200
EHG001-40BK	63.5	2.50	80	3.15	20.7	300	62.0	900	2.45	1.65	61	200
EHG001-48BK	76.2	3.00	92	3.62	20.7	300	62.0	900	2.65	1.78	61	200
EHG001-64BK	101.6	4.00	118	4.65	20.7	300	62.0	900	3.81	2.56	61	200

Specialized

EHJ003

Aircraft Refueling
Suction & Discharge

Application

- For ground refueling and fuel discharge of aircraft

For use with petroleum products with aromatic content up to 30%

Markets

- Aircraft refueling

Construction

Tube Aviation gasoline and jet fuel resistant Nitrile rubber

Reinforcement

High-tensile synthetic textile with dual helical wire and dual anti-static copper wire, and a dual steel helical wire for smaller sizes

Cover CR rubber

Color Black

Certifications

ISO 1825:2017 Type E
EI 1529:2014 Type E Grade 2

Operating temperature

-30°C to +65°C
(-22°F to +149°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHJ003-12BK	19.0	0.75	31	1.22	20.0	290	80.0	1160	113	4.45	92.0	27.1	0.69	0.46	61	200
EHJ003-16BK	25.4	1.00	39	1.54	20.0	290	80.0	1160	150	5.91	92.0	27.1	0.97	0.65	61	200
EHJ003-20BK	31.8	1.25	46	1.81	20.0	290	80.0	1160	190	7.48	92.0	27.1	1.22	0.82	61	200
EHJ003-24BK	38.1	1.50	53	2.09	20.0	290	80.0	1160	225	8.86	92.0	27.1	1.59	1.07	61	200
EHJ003-32BK	50.8	2.00	67	2.64	20.0	290	80.0	1160	275	10.83	92.0	27.1	2.32	1.56	61	200
EHJ003-40BK	63.5	2.50	81	3.19	20.0	290	80.0	1160	300	11.81	92.0	27.1	2.86	1.92	61	200
EHJ003-48BK	76.2	3.00	95	3.74	20.0	290	80.0	1160	300	11.81	92.0	27.1	3.70	2.49	61	200
EHJ003-64BK	101.6	4.00	123	4.84	20.0	290	80.0	1160	450	17.72	92.0	27.1	5.17	3.48	61	200

Specialized

EHN004Steel Mill Heavy Duty
Cooling Water Transfer**Application**

- For discharge of cooling water
(Outside Temperature up to 600°C)

Markets

- Steel mill
- Foundries

Construction**Tube** EPDM rubber**Reinforcement**

High-tensile synthetic textile

Cover EPDM rubber and glass fiber**Colors** WhiteResistance $\leq 1 \times 10^9 \Omega/\text{m}$ **Operating temperature**

-40°C to +125°C

(-40°F to +257°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHN004-08	12.7	0.50	22	0.87	10.0	145	30.0	435	0.34	0.23	61	200
EHN004-10	16.0	0.62	26	1.02	10.0	145	30.0	435	0.44	0.30	61	200
EHN004-12	19.0	0.75	30	1.18	10.0	145	30.0	435	0.57	0.38	61	200
EHN004-16	25.4	1.00	37	1.46	10.0	145	30.0	435	0.74	0.50	61	200
EHN004-20	32.0	1.25	45	1.77	10.0	145	30.0	435	0.99	0.67	61	200
EHN004-24	38.0	1.50	52	2.05	10.0	145	30.0	435	1.24	0.83	61	200
EHN004-28	44.5	1.75	59	2.32	10.0	145	30.0	435	1.49	1.00	61	200
EHN004-32	50.8	2.00	65	2.56	10.0	145	30.0	435	1.64	1.10	61	200
EHN004-40	63.5	2.50	79	3.11	10.0	145	30.0	435	2.15	1.45	61	200
EHN004-48	76.2	3.00	94	3.70	10.0	145	30.0	435	3.02	2.03	61	200
EHN004-64	101.6	4.00	120	4.72	10.0	145	30.0	435	3.96	2.66	61	200

Specialized

EHW500

Industrial Welding



Application

- For industrial welding with oxygen or acetylene

Markets

- In-plant service
- Welding

Construction

Tube SBR rubber blend

Reinforcement

High-tensile synthetic textile

Cover

Flame, abrasion, and weather resistant SBR rubber blend

Colors

Red (RD), Green (GN),
Blue (BU)

Certifications

ISO 3821

Operating temperature

-30°C to +80°C
(-22°F to +176°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHW500-04RD	6.0	0.25	13.0	0.51	20.7	300	62.0	900	30	1.18	0.16	0.11	100	320
EHW500-05RD	8.0	0.31	15.0	0.59	20.7	300	62.0	900	40	1.57	0.19	0.13	100	320
EHW500M09RD	9.0	0.35	16.0	0.63	20.7	300	62.0	900	45	1.77	0.20	0.13	100	320
EHW500-06RD	10.0	0.38	17.0	0.67	20.7	300	62.0	900	50	1.97	0.22	0.15	100	320
EHW500-08RD	13.0	0.50	22.0	0.87	20.7	300	62.0	900	65	2.56	0.37	0.25	100	320



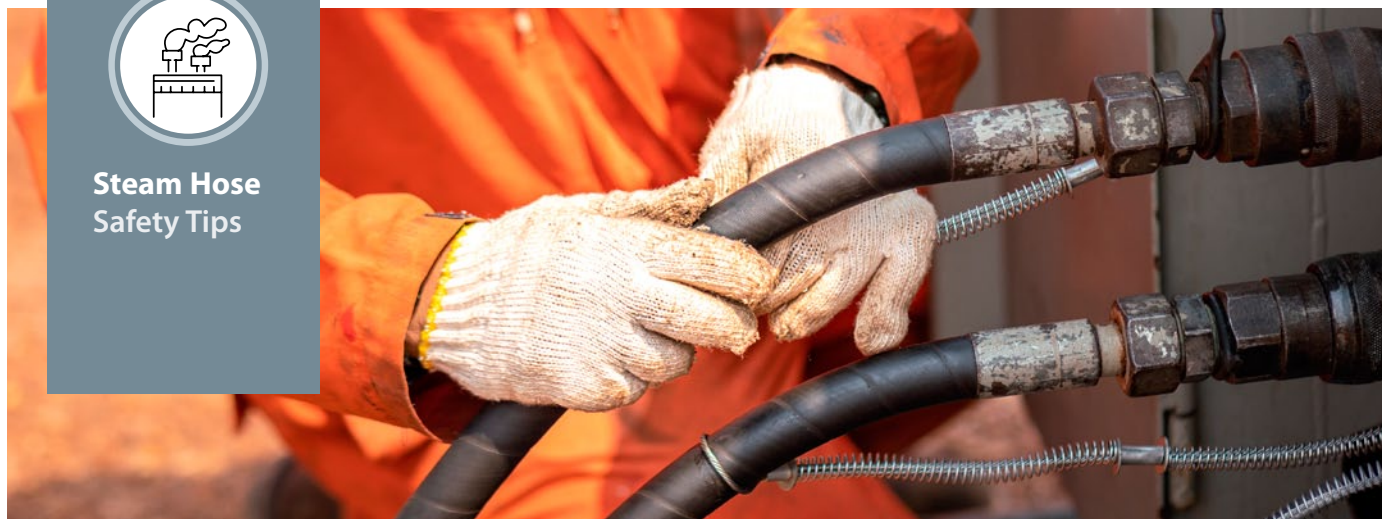
Steam

Core products





Steam Hose Safety Tips



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:

- 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.

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.



Steam Hose Safety Tips



Safety recommendation

1. Install an 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.



Steam

Steam

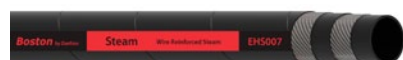
Page

EHS001 Industrial Steam 77



Application	Transfer of steam for processing products and cleaning equipment
Certification	ISO 6134 Type 2 Class A
Tube	EPM rubber blend
Reinforcement	High-tensile steel wire
Cover	Pin-pricked EPDM rubber blend
Temp	-40°C to +208°C, (-40°F to +406°F)
Pressure	17,2 bar / 250 psi

EHS007 Steel Wire Reinforced Steam 78



Application	Transfer of steam for processing products and cleaning equipment
Certification	ISO 6134-2 Class B Oil-resistant cover
Tube	EPDM rubber
Reinforcement	High-tensile steel wire cords
Cover	Pin-pricked EPDM rubber
Temp	-40°C to +210°C, (-40°F to +410°F)
Pressure	18 bar / 260 psi

EHS005 Steel Wire Reinforced Steam 79



Application	Transfer of steam for processing products and cleaning equipment
Certification	BS 5342 Type 2 Class A
Tube	Butyl rubber
Reinforcement	High-tensile steel wire cords
Cover	Pin-pricked EPDM rubber
Temp	-40°C to +208°C, (-40°F to +406°F)
Pressure	17.2 bar / 250 psi

EHS002 Textile Steam 80



Application	Transfer of steam for processing products and cleaning equipment
Tube	EPM rubber
Reinforcement	High-tensile synthetic textile
Cover	Pin-pricked EPDM rubber
Temp	-40°C to +208°C, (-40°F to +406°F)
Pressure	7 bar / 102 psi

Page

EHS006 Steel Wire Reinforced Steam 81



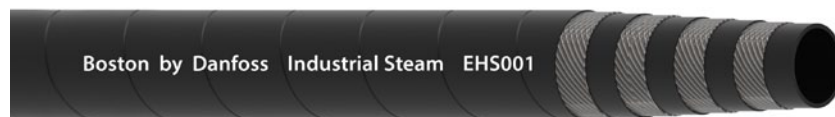
Application	Transfer of steam for processing products and cleaning equipment
Certification	ISO 6134-2A
Tube	EPDM rubber
Reinforcement	High-tensile steel wire cords
Cover	Pin-pricked EPDM rubber blend
Temp	-40°C to +208°C, (-40°F to +406°F), Intermittent to +232°C (+450°F)
Pressure	18 bar / 260 psi



Steam

EHS001

Industrial Steam

**Application**

- Transfer of steam for processing products and cleaning equipment

Markets

- Refining and petrochemical
- Paper industry
- Industrial cleaning markets
- Oil and gas exploration
- Steel
- Ship building

Construction**Tube** EPM blend**Reinforcement**

High-tensile steel wire cords

Cover Pin-pricked EPM**Colors** Black (BK), Red (RD)**Certifications**

EN ISO 6134 Type 2 Class A

Operating pressure

17.2bar (250PSI)

Operating temperature

-40°C to +208°C

(-40°F to +406°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHS001-08BK	12.7	0.50	24.0	0.94	17.2	250	172.0	2500	70	2.76	0.49	0.82	61	200
EHS001-10BK	15.9	0.62	27.0	1.06	17.2	250	172.0	2500	80	3.15	0.56	0.38	61	200
EHS001-12BK	19.0	0.75	32.0	1.26	17.2	250	172.0	2500	100	3.94	0.72	0.48	61	200
EHS001-16BK	25.4	1.00	38.5	1.52	17.2	250	172.0	2500	140	5.51	0.96	0.65	61	200
EHS001-20BK	31.8	1.25	46.0	1.81	17.2	250	172.0	2500	200	7.87	1.27	0.85	61	200
EHS001-24BK	38.1	1.50	52.0	2.05	17.2	250	172.0	2500	250	9.84	1.58	1.06	61	200
EHS001-32BK	50.8	2.00	67.0	2.64	17.2	250	172.0	2500	350	13.78	2.37	1.59	61	200
EHS001-40BK	63.5	2.50	79.5	3.13	17.2	250	172.0	2500	450	17.72	2.97	2.00	61	200
EHS001-48BK	76.2	3.00	93.0	3.66	17.2	250	172.0	2500	550	21.65	3.88	2.61	61	200
EHS001-64BK	101.6	4.00	124.0	4.88	17.2	250	172.0	2500	750	29.53	6.60	4.44	61	200

Steam

EHS007

Steel Wire Reinforced



Application

- Transfer of steam for processing products and cleaning equipment

Markets

- Refining and petrochemical
- Paper industry
- Industrial cleaning markets
- Oil and gas exploration
- Steel
- Ship building

Construction

Tube EPDM rubber

Reinforcement

High-tensile steel wire cords

Cover Pin-pricked, oil-resistant EDPM rubber, EN ISO 6134-Type 2 Class B

Color Black

Certifications

EN ISO 6134-Type 2 Class B

Operating temperature

-40°C to +210°C

(-40°F to +410°F)

Intermittent to +232°C (+450°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHS007-08BK	12.7	0.50	25	0.98	18.0	260	180.0	2610	130	5.12	0.56	0.38	61	200
EHS007-10BK	16.0	0.62	30	1.18	18.0	260	180.0	2610	160	6.30	0.78	0.52	61	200
EHS007-12BK	19.0	0.75	33	1.30	18.0	260	180.0	2610	190	7.48	0.82	0.55	61	200
EHS007-16BK	25.4	1.00	40	1.57	18.0	260	180.0	2610	250	9.84	1.07	0.72	61	200
EHS007-24BK	38.0	1.50	54	2.13	18.0	260	180.0	2610	380	14.96	1.87	1.26	61	200
EHS007-32BK	50.8	2.00	69	2.72	18.0	260	180.0	2610	500	19.68	2.70	1.82	61	200
EHS007-40BK	63.5	2.50	81	3.19	18.0	260	180.0	2610	630	24.80	3.21	2.16	61	200
EHS007-48BK	76.2	3.00	94	3.70	18.0	260	180.0	2610	750	29.53	4.18	2.81	61	200
EHS007-64BK	101.6	4.00	122	4.80	18.0	260	180.0	2610	1000	39.37	6.43	4.32	61	200

Steam

EHS005

Steel Wire Reinforced



Application

- Transfer of steam for processing products and cleaning equipment

Markets

- Refining and petrochemical
- Paper industry
- Industrial cleaning markets
- Oil and gas exploration
- Steel
- Ship building

Construction

Tube Butyl rubber

Reinforcement

High-tensile steel wire cords

Cover Pin-pricked EPDM rubber blend

Color Red (RD), Black (BK)

Certifications

ISO 6134 Type 2 Class A

Operating temperature

-40°C to +208°C

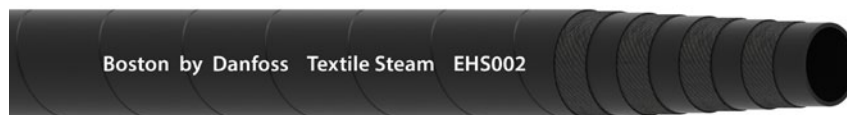
(-40°F to +406°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHS005-08RD	12.7	0.50	24.0	0.94	17.2	250	172.0	2500	70	2.76	0.49	0.32	61	200
EHS005-12RD	19.0	0.75	32.0	1.26	17.2	250	172.0	2500	100	3.94	0.72	0.48	61	200
EHS005-16RD	25.4	1.00	38.5	1.52	17.2	250	172.0	2500	140	5.51	0.96	0.65	61	200
EHS005-20RD	31.8	1.25	46.0	1.81	17.2	250	172.0	2500	200	7.87	1.27	0.85	61	200
EHS005-24RD	38.1	1.50	52.0	2.05	17.2	250	172.0	2500	250	9.84	1.58	1.06	61	200
EHS005-32RD	50.8	2.00	67.0	2.64	17.2	250	172.0	2500	350	13.78	2.37	1.59	61	200
EHS005-40RD	63.5	2.50	79.5	3.13	17.2	250	172.0	2500	450	17.72	2.97	2.00	61	200
EHS005-48RD	76.2	3.00	93.0	3.66	17.2	250	172.0	2500	550	21.65	3.88	2.61	61	200
EHS005-64RD	101.6	4.00	124.0	4.88	17.2	250	172.0	2500	750	29.53	6.60	4.44	61	200

Steam

EHS002

Textile Steam



Application

- Transfer of steam for processing products and cleaning equipment

Markets

- Refining and petrochemical
- Paper industry
- Industrial cleaning markets
- Oil and gas exploration
- Steel
- Ship building

Construction

Tube EPM rubber

Reinforcement

High-tensile synthetic textile

Cover Pin-pricked EPDM rubber

Color Black

Operating temperature

-40°C to +165°C

(-40°F to +329°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHS002-06BK	9.5	0.38	20.0	0.79	7.0	102	70.0	1015	0.27	0.18	61	200
EHS002-08BK	12.7	0.50	24.0	0.94	7.0	102	70.0	1015	0.32	0.22	61	200
EHS002-10BK	15.9	0.62	28.0	1.10	7.0	102	70.0	1015	0.46	0.31	61	200
EHS002-12BK	19.0	0.75	31.0	1.22	7.0	102	70.0	1015	0.46	0.36	61	200
EHS002-16BK	25.4	1.00	37.0	1.46	7.0	102	70.0	1015	0.61	0.41	61	200
EHS002-20BK	31.8	1.25	46.0	1.81	7.0	102	70.0	1015	0.94	0.63	61	200
EHS002-24BK	38.1	1.50	53.0	2.09	7.0	102	70.0	1015	1.17	0.79	61	200
EHS002-28BK	44.5	1.75	60.0	2.36	7.0	102	70.0	1015	1.40	0.94	61	200
EHS002-32BK	50.8	2.00	67.5	2.66	7.0	102	70.0	1015	1.75	1.18	61	200
EHS002-40BK	63.5	2.50	81.0	3.19	7.0	102	70.0	1015	2.23	1.50	61	200
EHS002-48BK	76.2	3.00	98.0	3.86	7.0	102	70.0	1015	3.31	2.23	61	200
EHS002-64BK	101.6	4.00	124.0	4.88	7.0	102	70.0	1015	4.44	2.98	61	200

Steam

EHS006

Steel Wire Reinforced



Application

- For saturated steam services at maximum pressure of 18 bar (260 psi)

Markets

- Refining and petrochemical
- Paper industry
- Industrial cleaning markets
- Oil and gas exploration
- Steel
- Ship building

Construction

Tube EPDM rubber

Reinforcement

High-tensile steel wire cords

Cover Pin-pricked EPDM rubber blend

Color Red (RD), Black (BK)

Certifications

EN ISO 6134-Type 2 Class A

Operating temperature

-40°C to +208°C

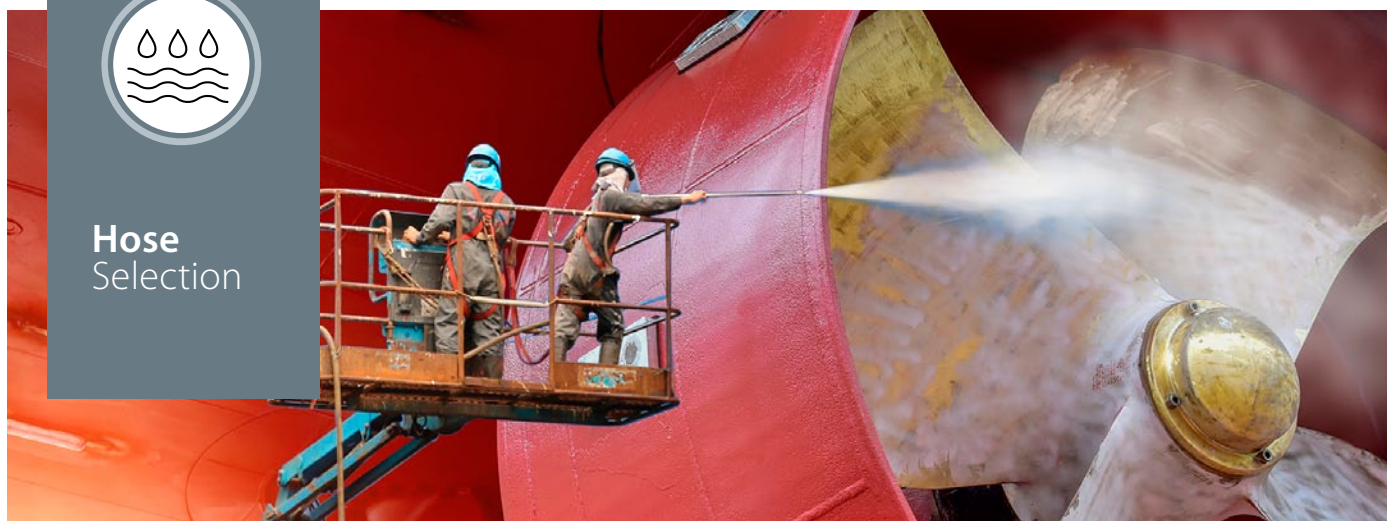
(-40°F to +406°F)

Intermittent to +232°C (+450°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHS006-08BK	12.7	0.50	25	0.98	18.0	260	180.0	2610	130	5.12	0.53	0.36	61	200
EHS006-12BK	19.0	0.75	33	1.30	18.0	260	180.0	2610	190	7.48	0.78	0.52	61	200
EHS006-16BK	25.4	1.00	40	1.57	18.0	260	180.0	2610	250	9.84	1.03	0.69	61	200
EHS006-20BK	32.0	1.25	48	1.89	18.0	260	180.0	2610	320	12.60	1.41	0.95	61	200
EHS006-24BK	38.0	1.50	54	2.13	18.0	260	180.0	2610	380	14.96	1.78	1.20	61	200
EHS006-32BK	50.8	2.00	69	2.72	18.0	260	180.0	2610	500	19.68	2.58	1.73	61	200
EHS006-40BK	63.5	2.50	81	3.19	18.0	260	180.0	2610	630	24.80	3.16	2.12	61	200
EHS006-48BK	76.2	3.00	94	3.70	18.0	260	180.0	2610	750	29.53	4.02	2.70	61	200
EHS006-64BK	101.6	4.00	122	4.80	18.0	260	180.0	2610	1000	39.37	6.22	4.18	61	200



Hose Selection



S.T.A.M.P.E.D.

Use this acronym as the guide to the right hose for the application

Danfoss recommends using the STAMPED process to aid in determining the correct hose and coupling for your application. 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 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 your company is an existing Danfoss Power Solutions partner, please contact your Account or Customer Service Representative.

When selecting the correct hose, use the acronym STAMPED as your guide to defining critical and important characteristics:

S - Size

- Flow (cubic feet per minute) requirements
- Hose I.D. requirements given the flow requirements
- Pressure drop
- Length, excluding hose ends

T - Temperature

- Consider ambient and internal temperatures as well as temperature impact on the material being conveyed
- Minimum and maximum temperature (°F and °C)
- What are the environmental conditions?

A - Application

- How will the hose be used?
- How often will the hose be used (continuous, intermittent)?
- Special hose construction needs (crush resistant)?
- Conductivity requirements (non-conductive, static conductive, static dissipating)?
- Government or industry standard requirements?

M - Material Being Conveyed

- Material to be transferred, liquid, solid or gas
- Material chemical name
- Material concentration (%)
- Temperature of materials
- What hose cleaning solution(s) will be used

P - Pressure

- What is the working pressure?
- Are pressure surges involved in this application? How high?
- Is this a suction application?

E - End Requirements

- What type of terminations? (Straight, male, etc.)

D - Delivery

- Identify how many items and when they need to be supplied
- Distributors — Call customer service
- End Users — Call distributors
- Are there any special packaging or branding requirements?



Water

Core products





Water

Suction & Discharge

Page

EHW150 Mink 86



Application	Oil resistant suction and discharge of water, mud and slurries; salt water (brine)
Certification	RMA Class B
Tube	SBR rubber blend
Reinforcement	High synthetic textile and steel helical wire
Cover	Oil resistant NBR rubber blend
Temp	-25°C to +70°C, (-13°F to +158°F)
Pressure	10.5 bar / 150 psi

EHW027 Channeled EPDM Hot Water S & D 87



Application	Suction and discharge of hot water in industrial applications
Tube	EPDM rubber
Reinforcement	High-tensile synthetic textile & steel helical wire
Cover	Channeled EPDM rubber
Temp	-40°C to +125°C, (-40°F to +257°F)
Pressure	10.5 bar / 150 psi

EHW009 Heavy Duty Water 88



Application	Suction and discharge of water
Tube	SBR rubber blend
Reinforcement	High-tensile synthetic textile and dual steel helical wire
Cover	SBR rubber blend
Temp	-25°C to +70°C, (-13°F to +158°F)
Pressure	17.2 bar / 250 psi

EHW035 Heavy Duty Water 89



Application	Suction and discharge of water in industrial and construction services
Tube	SBR rubber blend
Reinforcement	High-tensile synthetic textile and steel helix wire
Cover	SBR rubber blend
Temp	-25°C to +70°C, (-13°F to +158°F)
Pressure	20.7 bar / 300 psi

Pressure Washer

Page

EC116 Manta™ 4K Medium Duty 90



Application	For medium-duty pressure washer application
Certification	MSHA IC-261/9, BS EN1829-2 safety jet
Tube	NBR rubber blend
Reinforcement	1-wire braid
Cover	Smooth, oil, abrasion and weather resistant NBR rubber blend
Temp	-40°C to +150°C, (-40°F to +302°F) intermittent
Pressure	300 bar / 4350 psi

EC216 Manta™ 7K Heavy Duty 91



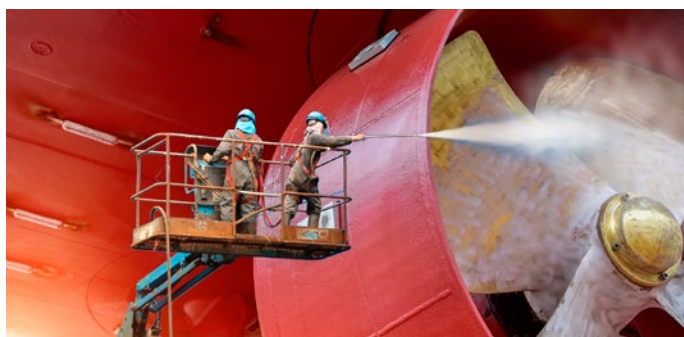
Application	For heavy-duty pressure washer application
Certification	MSHA IC-261/9, BS EN1829-2 safety jet
Tube	NBR rubber blend
Reinforcement	2-wire braid
Cover	Smooth, oil, abrasion and weather resistant NBR rubber blend
Temp	-40°C to +150°C, (-40°F to +302°F) intermittent
Pressure	500 bar / 7250 psi

Specialty

H1196 Royalflex® Water 92

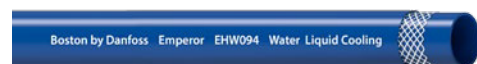


Application	Transfer of water, liquid, diluted fertilizers and pesticides; pumping, suction and discharge of water and slurries
Certification	MSHA IC-84/37
Tube	Blue PVC
Reinforcement	100% polyester and helical wire
Cover	Blue PVC
Temp	-29°C to +82°C, (-20°F to +180°F)
Pressure	14.0-21.0 bar / 200- 300 psi



Liquid Cooling

Page

EHW094 Emperor Liquid Cooling 93

Application	Liquid cooling, non-conductive
Certifications	UL 94 V-0 rated
Tube	TPU
Reinforcement	Polyester braid
Cover	Flexible, fire retardant TPU
Temp	-30°C to +100°C, (-22°F to +212°F)
Pressure	10-14 bar / 150-203 psi

EHW194 Royal Liquid Cooling 94

Application	Liquid cooling for data centers
Certifications	UL 94 V-0 rated
Tube	Peroxide-cured Synthetic EPDM rubber
Reinforcement	2-ply textile
Cover	Fire retardant EPDM
Temp	-40°C to +140°C, (-40°F to +284°F)
Pressure	5-16 bar / 73-232 psi

Sewer Jetting

EHS540 Sewer Jetting 95

Application	High pressure water cleaning and rinsing of sewage systems
Tube	Synthetic rubber
Reinforcement	High tensile synthetic textile
Cover	Synthetic rubber
Temp	-40°C to +70°C, (-40°F to +158°F)
Pressure	250 bar / 3625 psi

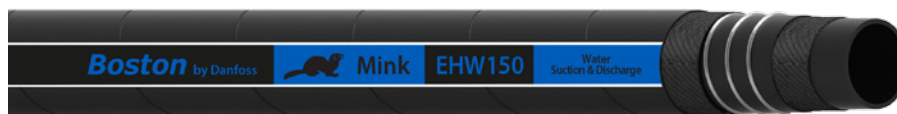


Suction & Discharge



EHW150

Mink



Application

- Pumping, suction and discharge of water, mud and slurries
- Convey water in applications where oil resistance is needed on outer cover
- Transfer and haul salt water (brine)

Markets

- Construction
- Equipment rental
- Mining
- Ship building
- Oil and gas exploration
- Tank truck

Construction

Tube SBR rubber blend

Reinforcement

High tensile synthetic textile and steel helical wire

Cover Oil resistant NBR rubber blend

Color Black

Certifications

RMA Class B

Operating temperature

-25°C to +70°C
(-13°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHW150-20BK	31.8	1.25	42.0	1.65	10.5	150	31.5	450	125	4.92	94.8	28	0.85	0.57	61	200
EHW150-24BK	38.1	1.50	49.0	1.93	10.5	150	31.5	450	150	5.91	94.8	28	1.16	0.78	61	200
EHW150-32BK	50.8	2.00	63.0	2.48	10.5	150	31.5	450	215	8.46	94.8	28	1.71	1.15	61	200
EHW150-40BK	63.5	2.50	76.0	2.99	10.5	150	31.5	450	280	11.02	94.8	28	2.10	1.41	61	200
EHW150-48BK	76.2	3.00	89.0	3.50	10.5	150	31.5	450	350	13.78	94.8	28	2.64	1.77	61	200
EHW150-64BK	101.6	4.00	115.0	4.52	10.5	150	31.5	450	490	19.29	94.8	28	3.67	2.47	61	200
EHW150-96BK	152.4	6.00	168.0	6.61	10.5	150	31.5	450	760	29.92	94.8	28	7.09	4.76	61	200

Suction & Discharge

EHW027

Channeled Hot Water Suction & Discharge


Application

- For suction and discharge of hot water in industrial applications

Markets

- Construction
- Industrial

Construction

Tube EPDM rubber

Reinforcement

High-tensile synthetic textile and steel helical wire

Cover Channeled EPDM rubber

Color Black

Operating temperature

-40°C to +125°C

(-40°F to +257°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHW027-12BK	19.0	0.75	29	1.14	10.5	150	31.5	450	40	1.57	94.8	28	0.50	0.34	61	200
EHW027-14BK	22.2	0.88	32	1.26	10.5	150	31.5	450	45	1.77	94.8	28	0.57	0.38	61	200
EHW027-16BK	25.4	1.00	35	1.38	10.5	150	31.5	450	50	1.97	94.8	28	0.62	0.41	61	200
EHW027-18BK	28.6	1.12	38	1.50	10.5	150	31.5	450	55	2.17	94.8	28	0.74	0.49	61	200
EHW027-20BK	31.8	1.25	42	1.65	10.5	150	31.5	450	65	2.56	94.8	28	0.81	0.54	61	200
EHW027-24BK	38.1	1.50	48	1.89	10.5	150	31.5	450	85	3.35	94.8	28	1.10	0.74	61	200
EHW027-32BK	50.8	2.00	62	2.44	10.5	150	31.5	450	120	4.72	94.8	28	1.35	0.91	61	200
EHW027-40BK	63.5	2.50	75	2.95	10.5	150	31.5	450	160	3.60	94.8	28	1.79	1.20	61	200
EHW027-48BK	76.2	3.00	90	3.54	10.5	150	31.5	450	190	7.48	94.8	28	2.55	1.71	61	200
EHW027-64BK	101.6	4.00	117	4.61	10.5	150	31.5	450	280	11.02	94.8	28	3.92	2.64	61	200
EHW027-80BK	127.0	5.00	146	5.75	10.5	150	31.5	450	350	13.78	80.0	24	6.04	4.06	61	200
EHW027-96BK	152.4	6.00	170	6.69	10.5	150	31.5	450	550	21.65	80.0	24	6.67	4.48	61	200

Suction & Discharge

EHW009

Heavy Duty Water
Suction & Discharge

Application

- For suction and discharge of water

Markets

- Construction
- Industrial

Construction

Tube SBR rubber blend

Reinforcement

High-tensile synthetic textile and dual steel helical wire

Cover Abrasion and weather resistant SBR rubber blend

Color Black

Operating temperature

-25°C to +70°C

(-13°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHW009-12BK	19.0	0.75	29.0	1.14	17.2	250	52.0	750	70	2.76	92.0	28	0.57	0.38	61	200
EHW009-16BK	25.4	1.00	35.0	1.38	17.2	250	52.0	750	100	3.94	92.0	28	0.72	0.48	61	200
EHW009-20BK	31.8	1.25	42.0	1.65	17.2	250	52.0	750	125	4.92	92.0	28	0.92	0.62	61	200
EHW009-24BK	38.1	1.50	50.0	1.97	17.2	250	52.0	750	150	5.91	92.0	28	1.34	0.90	61	200
EHW009-28BK	44.5	1.75	57.5	2.26	17.2	250	52.0	750	180	7.09	92.0	28	1.74	1.17	61	200
EHW009-32BK	50.8	2.00	64.0	2.52	17.2	250	52.0	750	240	9.45	92.0	28	1.92	1.29	61	200
EHW009-40BK	63.5	2.50	76.5	3.01	17.2	250	52.0	750	300	11.81	92.0	28	2.47	1.66	61	200
EHW009-44BK	70.0	2.75	84.0	3.31	17.2	250	52.0	750	340	13.39	92.0	28	2.79	1.87	61	200
EHW009-48BK	76.2	3.00	90.0	3.54	17.2	250	52.0	750	380	14.96	92.0	28	3.05	2.05	61	200
EHW009-64BK	101.6	4.00	118.0	4.65	17.2	250	52.0	750	500	19.69	92.0	28	4.86	3.26	61	200
EHW009-80BK	127.0	5.00	144.0	5.67	17.2	250	52.0	750	650	25.59	92.0	28	6.34	4.26	61	200
EHW009-96BK	152.4	6.00	173.0	6.81	17.2	250	52.0	750	850	33.46	92.0	28	9.39	6.31	61	200
EHW009-128BK	203.2	8.00	228.0	8.98	17.2	250	52.0	750	1200	47.24	80.0	24	14.88	10.00	61	200
EHW009-160BK	254.0	10.00	284.0	11.18	17.2	250	52.0	750	1600	62.99	80.0	24	20.76	13.95	61	200
EHW009-192BK	304.8	12.00	339.0	13.35	17.2	250	52.0	750	1900	74.80	80.0	24	28.48	19.14	61	200

Suction & Discharge

EHW035

Heavy Duty Water

**Application**

- For suction and discharge of water in industrial and construction services

Markets

- Construction
- Industrial
- Oil and gas exploration

Construction

Tube SBR rubber blend

Reinforcement

High-tensile synthetic textile and steel helix wire reinforcement

Cover SBR rubber blend

Color Black

Operating temperature

-25°C to +70°C
(-13°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHW035-32BK	50.8	2.00	64.0	2.52	20.7	300	62.1	900	240	9.45	92.0	27	1.90	1.28	61	200
EHW035-48BK	76.2	3.00	90.6	3.57	20.7	300	62.1	900	380	14.96	92.0	27	3.18	2.13	61	200
EHW035-64BK	101.6	4.00	120.2	4.73	20.7	300	62.1	900	525	20.67	92.0	27	5.36	3.60	61	200
EHW035-80BK	127.0	5.00	149.0	5.87	20.7	300	62.1	900	700	27.56	80.0	24	7.36	4.95	61	200
EHW035-96BK	152.4	6.00	172.8	6.80	20.7	300	62.1	900	850	33.46	80.0	24	8.65	5.81	61	200
EHW035-128BK	203.0	7.99	231.0	9.09	20.7	300	62.1	900	1250	49.21	80.0	24	16.03	10.77	61	200
EHW035-160BK	254.0	10.00	284.8	11.21	20.7	300	62.1	900	1650	64.96	80.0	24	21.57	14.50	61	200
EHW035-192BK	305.8	12.04	350.2	13.79	20.7	300	62.1	900	2100	82.68	80.0	24	36.32	24.41	61	200

Pressure Washer



EC116

Manta 4K



Application

- Medium duty to heavy duty pressure washing

Markets

- Car washes
- Home labor/cleaning (patio, siding, pool, deck, etc.)
- Heavy duty construction equipment cleaning
- Food and beverage processing
- Dock services and boat cleaning
- Surface preparation
- Water cutting

Construction

Tube NBR rubber blend

Reinforcement

1-wire braid

Cover Oil, abrasion and weather resistant
NBR rubber blend

Color Blue

Certifications

MSHA IC-261/9
Meets BS EN1829-2 safety jet requirements

Operating temperature

-40°C to +150°C Intermittent
(-40°F to +302°F Intermittent)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EC116-04BU	6.4	0.25	12.5	0.49	300.0	4350	900.0	13050	75	2.95	0.19	0.12	30.5	100
EC116-05BU	7.9	0.31	13.9	0.55	300.0	4350	900.0	13050	85	3.35	0.21	0.14	30.5	100
EC116-06BU	9.5	0.38	15.8	0.62	300.0	4350	900.0	13050	90	3.54	0.26	0.18	30.5	100
EC116-08BU	12.7	0.50	19.3	0.76	300.0	4350	900.0	13050	130	5.12	0.36	0.25	30.5	100

Pressure Washer



EC216

Manta 7K

**Application**

- Heavy duty high pressure washing

Markets

- Car washes
- Home labor/cleaning (patio, siding, pool, deck, etc.)
- Heavy duty construction equipment cleaning
- Food and beverage processing
- Dock services and boat cleaning
- Surface preparation
- Water cutting

Construction

Tube NBR rubber blend

Reinforcement

2-wire braid

Cover Oil, abrasion and weather resistant
NBR rubber blend

Color Blue

Certifications

MSHA IC-261/9
Meets BS EN1829-2 safety jet requirements

Operating temperature

-40°C to +150°C Intermittent
(-40°F to +302°F Intermittent)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EC216-04BU	6.4	0.25	13.5	0.53	500.0	7250	1,500.0	21750	75	2.95	0.29	0.20	30.5	100
EC216-05BU	7.9	0.31	15.3	0.60	500.0	7250	1,500.0	21750	85	3.35	0.34	0.23	30.5	100
EC216-06BU	9.5	0.38	17.5	0.69	500.0	7250	1,500.0	21750	90	3.54	0.42	0.28	30.5	100
EC216-08BU	12.7	0.50	21.0	0.83	500.0	7250	1,500.0	21750	130	5.12	0.58	0.39	30.5	100

Specialty

H1196

Royalflex Water



Application

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

Markets

- Petroleum industry
- Oil and gas exploration
- Tank trucks
- Waste hauling
- Batch plants

Construction

Tube Blue PVC

Reinforcement

100% polyester and helical wire

Cover Blue PVC

(MSHA approved)

Color Blue

Certification

MSHA IC-84/37

Operating temperature

-29°C to +82°C

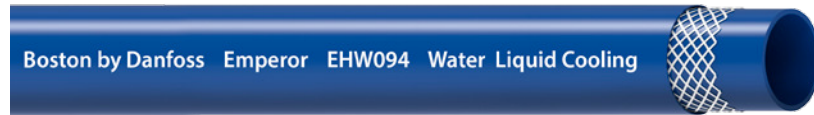
(-20°F to +180°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Vacuum		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
H119624-100	38.1	1.50	50.8	2.00	21.0	300	62.0	900	152.4	6.00	100	30	1.19	0.81	30.5	100
H119632-100	50.8	2.00	63.5	2.50	21.0	300	62.0	900	203.2	8.00	100	30	1.64	1.10	30.5	100
H119640-120	63.5	2.50	76.2	3.00	21.0	300	62.0	900	254.0	10.00	100	30	1.99	1.34	120.0	400
H119648-120	76.2	3.00	88.9	3.50	17.0	250	52.0	750	304.8	12.00	100	30	2.98	2.00	120.0	400
H119664-100	101.6	4.00	114.3	4.50	14.0	200	41.0	600	406.4	16.00	100	30	4.05	2.72	30.5	100

Liquid Cooling

EHW094

Emperor™

**Application**

- Liquid cooling, non-conductive

Markets

- Plasma cutting
- Electric vehicle/bus
- Injection molding
- Industrial equipment cooling

Construction**Tube** TPU**Reinforcement**

Polyester braid, non-conductive

Cover Flexible, fire retardant TPU**Color** Blue (BU), Black (BK), Red (RD)**Certification**

UL 94 V-0 rated

Operating temperature

-30°C to +100°C

(-22°F to +212°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EHW094-04BU-250RC	6.4	0.25	12.5	0.49	14.0	205	55.1	800	38.1	1.50	0.10	0.07
EHW094-06BU-250RC	9.5	0.38	15.7	0.62	14.0	205	55.1	800	50.8	2.00	0.14	0.09
EHW094-08BU-250RC	12.7	0.50	19.8	0.78	14.0	205	55.1	800	63.5	2.50	0.20	0.13
EHW094-10BU-250RC	15.9	0.62	23.2	0.91	10.0	145	41.3	600	76.2	3.00	0.25	0.17
EHW094-12BU-250RC	19.0	0.75	26.5	1.04	10.0	145	41.3	600	100.0	3.94	0.31	0.21
EHW094-16BU-250RC	25.4	1.00	33.4	1.31	10.0	145	41.3	600	150.0	5.91	0.40	0.27

Liquid Cooling

EHW194

Royal™

Boston by Danfoss Royal EHW194 Water Liquid Cooling

Application

- Suitable for use in data centers liquid cooling systems

Markets

- Data centers
- Electronic component cooling
- Telemedicine
- Cryptocurrency mining
- IT thermal management

Construction

Tube Peroxide-cured synthetic EPDM rubber

Reinforcement

2-ply textile

Cover Fire retardant Synthetic EPDM rubber

Color Black (BK), Blue (BU), Grey (GY), Red (RD)

Operating temperature

-40°C to +140°C
(-40°F to +284°F)

Certification

UL 94 V-0 rated
Exceeds ASTM E84 Class 1/A requirements

Number	Hose I.D.		Hose O.D.		Operating pressure without clamp		Burst pressure without clamp		Operating pressure with clamp		Burst pressure with clamp		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHW194-04RD-250R	6.4	0.25	15.0	0.59	5.0	73	15	218	16.0	232	48	696	50	2.0	0.21	0.14	76.2	250
EHW194-06RD-250R	9.5	0.37	18.5	0.73	5.0	73	15	218	16.0	232	48	696	65	2.5	0.28	0.18	76.2	250
EHW194-08RD-250R	12.7	0.50	22.0	0.87	5.0	73	15	218	16.0	232	48	696	75	3.0	0.36	0.24	76.2	250
EHW194-10RD-250R	15.9	0.63	25.2	0.99	5.0	73	15	218	16.0	232	48	696	100	4.0	0.43	0.29	76.2	250
EHW194-12RD-250R	19.0	0.75	29.7	1.17	5.0	73	15	218	16.0	232	48	696	125	5.0	0.56	0.38	76.2	250
EHW194-16RD-250R	25.4	1.00	36.5	1.44	5.0	73	15	218	16.0	232	48	696	150	6.0	0.75	0.50	76.2	250
EHW194 Thin-wall (TW) provides a smaller diameter for improved flexibility and lower bending force.																		
EHW194-04RD-250R	6.4	0.25	13.0	0.51	5.0	73	15	218	16.0	232	48	696	25	1.0	0.21	0.14	76.2	250
EHW194-06RD-250R	9.5	0.37	16.0	0.63	5.0	73	15	218	16.0	232	48	696	35	1.4	0.28	0.19	76.2	250

Sewer Jetting

EHS540

Sewer Jetting



Application

- For high pressure water cleaning and rinsing of sewage systems

Markets

- Waste management

Construction

Tube SBR rubber blend

Reinforcement High-tensile synthetic textile

Cover SBR rubber blend

Color Black

Operating temperature

-40°C to +70°C
(-40°F to +158°F)

Number	Hose I.D.		Hose O.D.		Operating Pressure		Min. Burst Pressure		Minimum Bend Radius		Weight		Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHS540-08BK	12.7	0.50	25.0	0.98	250.0	3625	625.0	9063	65	2.56	0.44	0.30	152.4	500
EHS540-12BK	19.0	0.75	31.6	1.24	250.0	3625	625.0	9063	90	3.54	0.56	0.38	152.4	500
EHS540-16BK	25.4	1.00	40.2	1.58	250.0	3625	625.0	9063	100	3.93	0.78	0.52	152.4	500
EHS540-20BK	32.0	1.25	48.0	1.89	250.0	3625	625.0	9063	130	5.12	1.06	0.71	152.4	500

Danfoss Industrial hose

Technical Information

Tools for selecting the correct
hose product for the application

Coupling selection

Chemical compatibility

General hose information

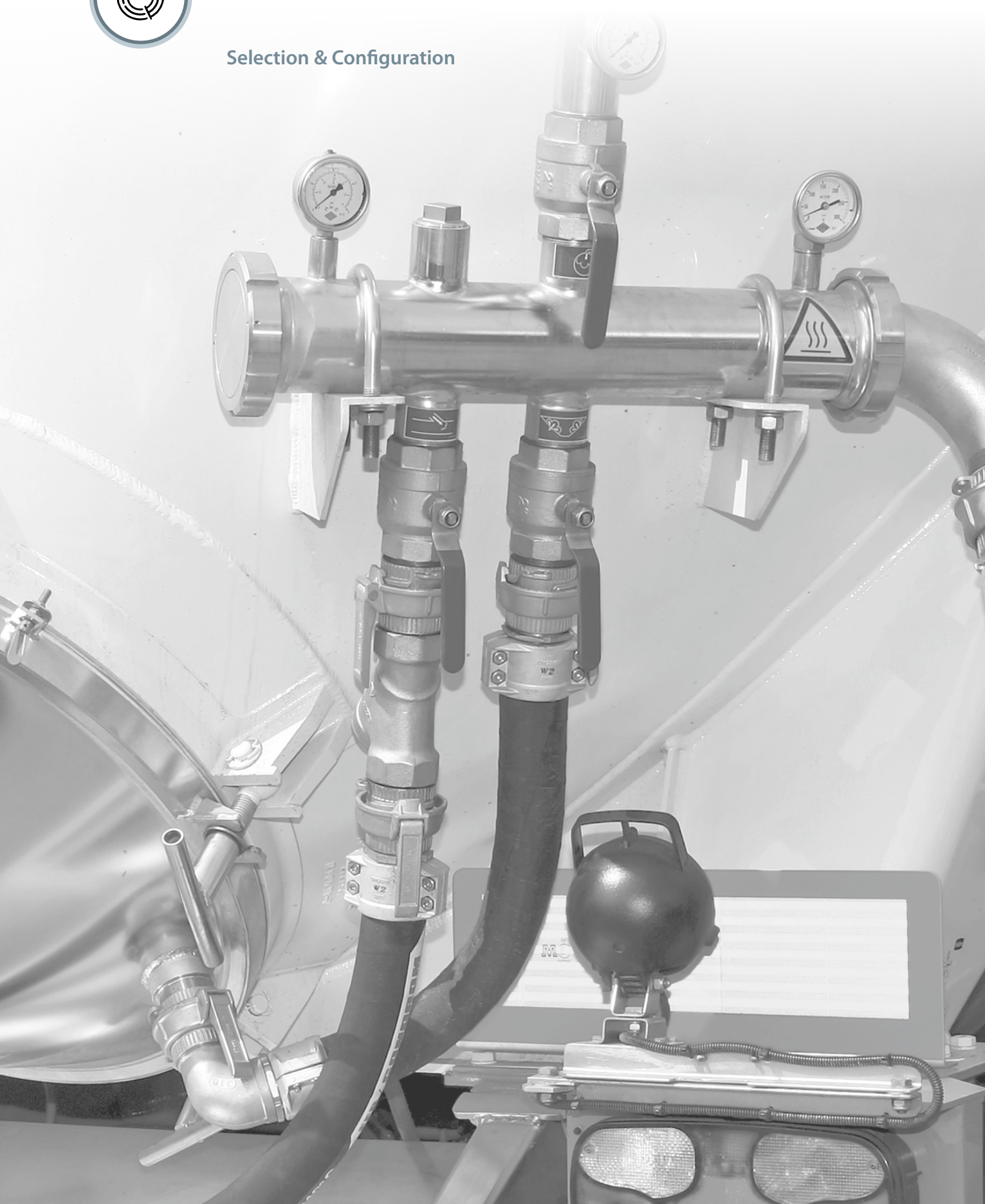
Hose index

For more information

DanfossPowerSource.com



Selection & Configuration



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 Danfoss for further information about these items:

Environment

External environment year round

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

Gasket compatibility with the material being conveyed is to be considered

Port or fitting

The port or fitting the hose assembly must be connected to

Coating on coupling

The coating on coupling (i.e. zinc, etc.), if any.

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 specific safety requirements.

When choosing the proper coupling, some factors you should consider for a particular application are:

- | | | |
|--|-------------------------------------|---|
| 1. What is the material to be handled? | 2. What are the pressures involved? | 3. What means of connection are required? |
| Is it dangerous? | High pressure | Threads |
| Is it corrosive? | Medium pressure | Special locking |
| Is it abrasive? | Low pressure | Flanged ends |
| | Suction | |

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.

Couplings General Information

Coupling Selection

Application and pressure

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.

Coupling types

There are two general types of couplings to consider, field-attachable and permanent.

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 10.34 bar (150 psi).

Bolt clamps generally offer greater security than bands and are therefore chosen more often for higher pressure applications. They can also be retightened after a hose has been in service.

Interlocking clamp engages the fitting in a manner which prevents the clamp from sliding off the fitting, typically a bolt or U-bolt style with interlocking fingers which engage an interlock ring on the fitting.

Permanent couplings are also used in applications where you could see pressures greater than 10.34 bar (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.



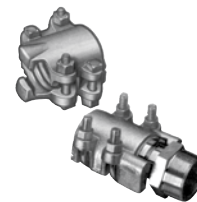
Flat band clamp



Double bolt clamp



Single bolt clamp



Interlocking clamps



Cam and groove coupling



King Combination nipple coupling or "KC"



Flange end

Couplings General Information

Coupling Configuration

Coupling Configurations Examples



Short Shank

Short Shank

Low pressure air and water service

Size Range: 3/16" to 1"

Cast brass with serrated shank; GHT, NPSM or NPT male and NPSH female; washer seal

Attachment: Clamps or bands



Long Shank

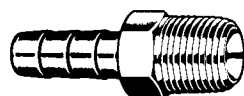
Long Shank

Medium pressure air, water, sanitary and liquids in suction or discharge service

Size Range: 3/8" to 4"

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



Barbed Inserts

Barbed Inserts

Low or medium pressure air, water and fluids

Size Range: 3/16" to 1"

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

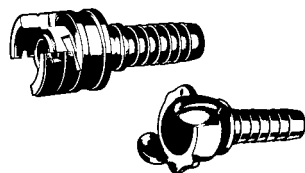
Interlocking

High pressure air and water service, steam, high pressure spray, and LPG service

Size Range: 1/4" to 6"

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

Quick Acting

Low to medium pressure; air, water or oil service where frequent and fast connections must be made

Size Range: 1/4" to 2"

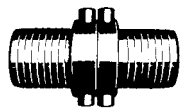
Plated malleable iron, stainless steel or bronze

Attachment: Interlocking clamps or bands

Couplings General Information

Coupling Configuration

Coupling Configurations Examples, continued



Water Suction

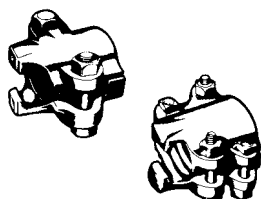
Water Suction

Heavy duty water discharge and suction service

Size Range: 1" to 8"

Malleable iron, aluminum and/or brass

Attachment: Clamps or bands



Interlocking Clamp

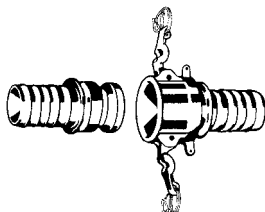
Interlocking Clamp

Heavy duty high pressure applications such as air, steam, water, spray, LPG service

Size Range: 9/16" to 7-3/16" hose O.D.

Malleable iron, plated

Attachment: Clamps bolted into position



Cam and Grove

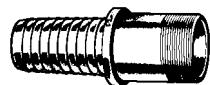
Cam and Grove

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"

Aluminum, bronze, stainless steel, Monel, malleable iron; washer seal with no threads

Attachment: Clamps, bands, or crimp/swage ferrules



Swaged or Crimped

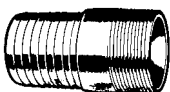
Swaged or Crimped

For use on all types of high pressures hose

Size Range: 1-1/4" to 8"

Couplings consist of swaged fittings having serrated steel shanks with ferrules of plated steel

Attachment: Swaging or crimping equipment



Combination Nipple

Combination Nipple

Low or medium pressure suction and discharge of water, fluids, and material handling

Size Range: 1/2" to 12"

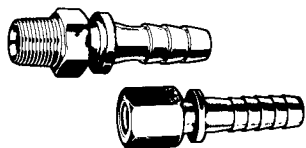
Description: Tubular steel, stainless, malleable iron, aluminum or brass with serrated shank; NPT male threads, grooved, or beveled for welding

Attachment: Clamps or bands

Couplings General Information

Coupling Configuration

Coupling Configuration Examples, continued



Steel Nipple

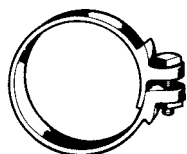
Steel Nipple

Low pressure air and water service

Size Range: 3/16" to 1"

Cast brass with serrated shank; GHT, NPSM or NPT male and NPSH female; washer seal

Attachment: Clamps or bands



Single Bolt Clamp

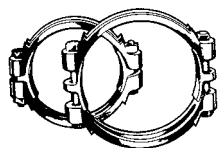
Single Bolt Clamp

Low pressure, and suction service on shank couplings, combination nipples, and pipe nipples

Size Range: 7/8" to 5-1/4" hose O.D.

Cast malleable iron, plated.

Attachment: Bolted on hose



Double Bolt Clamp

Double Bolt Clamp

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.

Cast malleable iron, plated, and brass

Attachment: Applied over hose and bolted into position



Band Clamp

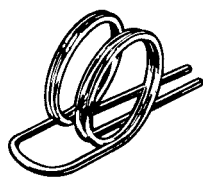
Band Clamp

Low or medium pressure, and suction service

Size Range: 3/4" to 6" hose O.D.

Pre-formed flat stainless steel, high carbon steel

Attachment: Special locking band tool



Wire Hose Clamp

Wire Hose Clamp

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.

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

Brass Ferule

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



Chemical Compatibility



Elevated temperatures can change chemical resistance ratings. Please refer to the Chemical Compatibility information prior to use. Factors such as concentration, fluid contamination, and extreme temperatures may affect these performance specification. Please consult Danfoss catalog or technical support for proper application.

Chemical Compatibility

Please refer to **Danfoss PowerSource** for the most up-to-date Fluid Compatibility information.

This information provides guidelines for the safe use of **Danfoss Industrial Hose and Tubing**. The information shown here was gathered through testing, and is accurate for controlled conditions (at 21°C unless otherwise noted). Factors such as concentration, fluid contamination, and extreme temperatures may affect these performance specifications. Contact Danfoss for recommendation and assistance.

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.

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 – Chemical resistance properties: 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. Danfoss offers additional technical assistance.

Fluid	Hose and Tubing material																		Metals			
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Acetaldehyde	G	G	X	X	X	X	G	G	F	G	F	X	X	X	—	G	X	G	X	X	X	G
Acetic Acid (Concentrated)	G	G	X	X	X	X	G	G	X	G	X	X	X	X	G	X	X	X	X	X	X	G
Acetic Acid (Dilute)	G	G	F	X	X	F	G	G	X	G	F	X	G	X	G	G	G	F	X	X	X	G
Acetic Anhydride	G	G	X	G	G	X	G	G	X	G	F	X	X	X	G	X	X	X	X	X	F	F
Acetone	G	G	X	X	X	X	G	G	F	G	F	X	F	X	G	X	G	G	X	G	G	G
Acrylonitrile	G	G	G	X	X	X	G	G	—	X	X	X	—	X	G	—	—	G	X	—	G	G
Air	G	G	G	G	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	G	G	F	G	F	F
Butyl Alc., Butanol	G	G	X	G	G	G	G	G	G	G	G	G	—	X	G	G	G	G	X	G	G	G
Ethyl Alc., Ethanol	G	G	F	G	G	G	G	G	G	G	G	G	G	X	G	F	G	G	G	G	F	G
Isopropyl Alcohol	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	G	G
Isopropanol																						
Methyl Alcohol	G	G	X	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	F	G
Methanol																						

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

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

*For Intermittent Transfer Only **Use Approved Freon Hose

Teflon is a trademark of The Chemours Company FC, LLC

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hydrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Aluminum Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	G	G	X	G	X	X	F
Aluminum Fluoride	G	G	G	G	G	F	G	G	X	G	G	G	—	G	X	G	G	X	G	X	X	X
Aluminum Hydroxide	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	X	F	G
Aluminum Nitrate	G	G	G	G	G	G	G	G	F	G	G	G	—	X	—	G	G	G	G	X	X	G
Aluminum Sulfate	G	G	G	G	G	G	G	G	F	G	G	G	G	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	G	G	F	G	X	X	F
Ammonia, Anhydrous	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	F	G
Ammonia Solution (10%)	G	G	G	G	G	F	G	G	X	G	G	F	X	X	X	—	G	G	—	X	G	G
Ammonium Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	G	G	X	G	X	G	F
Ammonium Hydroxide	G	G	X	F	F	F	G	G	X	G	G	F	X	X	G	G	G	G	F	X	F	G
Ammonium Nitrate	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	—	—	G
Ammonium Phosphate	G	G	F	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	G	X	X	G
Ammonium Sulfate	G	G	G	G	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	X	X	G	X	G	F	G
Amyl Alcohol	G	G	X	G	G	F	G	G	G	G	G	G	G	X	G	G	G	G	X	G	F	F
Aniline	G	G	X	X	X	X	G	G	X	X	X	X	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	X	X	X	X	F
Animal Oils and Fats	G	G	G	G	G	X	G	G	—	F	F	X	G	X	F	X	X	G	X	G	G	G
Anti—Freeze (Glycol Base)	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	F	G	G	G	G	G
Aqua Regia	X	X	X	X	X	X	G	F	X	X	X	X	X	X	X	X	X	X	F	—	X	X
Aromatic Hydrocarbons	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	G*	G	—	G	G	G
Asphalt Emulsion	X	X	X	G	X	X	G	G	—	X	X	X	G	X	F	X	—	G	F	G	G	G
Barium Chloride	G	G	G	G	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	X	G	G	G	G	G	G	X	G	G
Barium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	X	G	X	G	G	G	G	G	G	G
Barium Sulfide	G	G	G	G	G	G	G	G	—	G	G	G	X	G	G	G	G	X	G	X	X	G

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

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

Chemical Compatibility

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hytrek	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Beet Sugar Liquors	G	G	G	G	G	G	G	G	G	X	G	G	—	X	G	G	G	G	—	X	G	G
Benzaldehyde	G	G	X	X	X	X	G	G	G	F	X	X	X	X	X	X	X	G	X	F	F	G
Benzene, Benzol	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	F	X	X	G	F	G	G	G
Benzoic Acid	G	G	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G	X	G	F	X	F
Black Sulfate Liquor	G	F	X	F	F	G	G	G	X	G	F	X	G	X	X	G	G	X	G	X	G	G
Bleach Solution	F	F	F	X	X	X	G	G	X	G	F	X	F	F	G	G*	G	X	G	X	X	G
Borax Solution	G	G	G	F	F	G	G	G	—	G	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	G	G	G	G	X	X	G
Brake Fluid (Glycol Ether Base)	G	G	X	X	X	F	G	G	—	G	X	X	—	X	G	—	X	G	X	G	G	G
Brine	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	G	G	G	—	X	F
Bromine	X	X	X	X	X	X	G	X	X	X	X	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	—	X	G	X	G	G	G
Butyl Alcohol, Butanol	G	G	X	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	G	G
Calcium Bisulfite	G	G	G	G	G	G	G	G	X	G	G	G	X	G	X	G	G	G	G	X	X	X
Calcium Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	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	G	G	G	G	F	G	G
Calcium Hypochlorite	G	G	G	F	F	F	G	G	X	G	F	X	F	X	G	G	G	X	G	F	X	F
Cane Sugar Liquors	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	G	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	G	G	G	G
Carbon Dioxide (Wet)	G	G	G	G	G	G	G	G	G	G	G	F	—	G	—	G	G	G	G	F	G	G
Carbon Disulfide (Bisulfide)	F	X	X	X	X	X	G	G	X	X	X	X	X	G	X	—	X	X	—	G	G	G
Carbon Monoxide (Hot)	—	—	X	F	F	F	G	G	X	F	G	X	G	F	G	G	X	X	G	X	F	G
Carbon Tetrachloride	G*	G*	X	X	X	X	G	G	G	X	X	X	F	X	X	—	X	G	X	G	G	G
Carbonic Acid	G	G	G	G	G	G	G	G	—	G	G	G	X	G	X	G	G	G	G	X	X	F
Castor Oil	G	G	G	G	G	F	G	G	—	F	G	X	F	F	G	X	X	G	G	G	G	G
Cellosolve Acetate	G	G	X	X	X	X	G	G	—	F	F	X	X	X	X	X	—	G	G	X	X	G
Chlorinated Solvents	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	X	F	X	G	G	F

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

*For Intermittent Transfer Only

**Use Approved Freon Hose

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

Fluid	Hose and Tubing material																		Metals			
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR		Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Chloroacetic Acid	G	G	X	X	X	X	G	G	X	F	X	X	X	X	X	X	X	X	F	X	X	F
Chloro-benzene	G*	G*	X	X	X	X	G	G	X	X	X	X	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	X	X	X	G	F	F	G
Chlorine Gas (Wet)	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	X	X	X	F	X	X	X
Chloroform	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	X	X	F	U	G	G	G
Chlorosulfonic Acid	F*	F*	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	X	F	X
Chromic Acid (under 25%)	G	X	F	X	X	X	G	G	X	G	G	X	X	X	X	G	F	X	G	X	X	G
Chromic Acid (25-40%)	G	X	X	X	X	X	G	G	X	G	G	X	X	X	X	F	X	X	F	X	X	F
Citric Acid	G	G	G	F	F	G	G	G	F	G	G	G	G	X	X	G	G	X	G	X	X	G
Coke Oven Gas	X	X	X	X	X	X	G	G	—	X	X	X	—	X	X	—	G	—	G	F	G	G
Copper Chloride	G	G	G	G	G	F	G	G	X	G	G	G	G	G	X	G	G	X	G	X	X	G
Copper Cyanide	G	G	G	G	G	F	G	G	G	G	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	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	G	G	—	G	G
Cottonseed Oil	G	G	F	G	G	X	G	G	—	F	F	X	G	G	G	G	G	G	G	G	G	G
Creosote	G	G	X	F	F	X	G	G	X	X	F	X	X	F	F	X	X	X	X	F	—	G
Cresol	G	G	X	X	X	X	G	G	X	X	X	X	X	X	G	X	X	X	—	—	G	G
Cyclohexanol	G	G	X	F	F	F	G	G	G	G	G	F	—	—	G	G	F	G	X	G	F	G
Dextrose (Food Grade)	G	X	X	X	X	X	G	G	X	X	X	X	X	X	X	G	G	X	—	—	—	G
Dichloro-benzene	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	X	X	G	X	—	—	G
Diesel Fuel	G	G	X	G	G	X	G	G	—	X	F	X	F	F	G	—	X	G	—	G	G	G
Diethanol-amine	G	G	X	F	X	X	G	G	—	G	X	F	X	X	—	—	—	G	—	X	G	G
Diethylene-triamine	G	G	X	F	X	X	G	G	X	G	X	F	—	X	—	—	G	X	—	—	—	—
Dowtherm A	—	—	X	X	X	X	G	G	X	X	X	X	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	—	G	—	G
Ethanolamine	G	G	X	F	F	X	G	G	—	G	X	G	—	X	—	—	G	G	—	X	G	G
Ethers (Ethyl Ether)	G	G	X	X	X	X	G	G	—	X	X	X	X	X	G	X	X	G	X	G	G	G
Ethyl Alcohol	G	G	F	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G	G	F	G	G

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

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

Chemical Compatibility

Fluid	Hose and Tubing material																		Metals				
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR			Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Ethyl Acetate	G	G	X	X	X	X	G	G	G	G	X	X	F	X	F	F	G	G	X	X	G	G	G
Ethyl Acrylate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	F	—	—	X	X	—	G	G	G
Ethyl Methacrylate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	F	—	—	X	—	—	G	G	G
Ethylamine	G	G	X	X	X	X	G	G	X	F	X	X	—	X	—	—	G	X	—	G	—	G	G
Ethyl Cellulose	G	G	X	F	F	F	G	G	—	F	F	G	—	F	G	—	G	F	—	F	G	F	F
Ethyl Chloride	G*	G*	X	X	X	X	G	G	—	X	X	X	X	F	X	X	X	G	X	F	F	G	G
Ethylene-diamine	G	G	X	F	X	G	G	G	X	G	F	G	—	X	—	—	G	X	—	G	G	G	G
Ethylene Dibromide	G	G	X	X	X	X	G	G	—	X	X	X	—	X	—	—	—	F	—	—	—	—	—
Ethylene Dichloride	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	X	X	F	X	G	X	X	X
Ethylene Glycol	G	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	G	F	G	G	G
Ethylene Oxide	G	G	X	X	X	X	G	G	—	X	X	X	G	X	X	X	X	G	X	X	F	F	F
Fatty Acids	G	G	G	F	F	X	G	G	G	F	X	X	G	—	F	F	G	G	G	F	F	G	G
Ferric Chloride 5%	G	G	G	G	G	G	G	G	G	G	G	G	—	F	G	G	G	G	G	X	X	X	X
Ferric Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	X	X	F	F
Fertilizer Salts Solution	G	G	G	F	F	F	G	G	—	G	G	G	—	—	—	—	F	G	—	—	—	G	G
Formaldehyde	G	G	X	F	F	F	G	G	G	G	X	F	F	X	G	G	G	X	G	F	X	G	G
Formic Acid	G	G	X	F	F	F	G	G	X	G	X	X	X	X	G	G	G	X	—	F	X	G	G
Freon 12**	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	—	—	—	—	G	G	G	G
Freon 134a**	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	—	—	—	—	—	G	G	G
Fuel Oil	G	G	F	G	G	F	G	G	—	X	X	X	—	F	G	X	X	G	G	F	G	G	G
Furfural	G	G	X	X	X	X	G	G	X	F	F	X	—	—	F	X	X	X	X	F	G	G	G
Gasoline (Refined)	G	G	X	F	F	X	G	G	G	X	X	X	G	F	G	—	X	G	X	G	G	G	G
Gasoline (Unleaded)	G	G	X	G	G	X	G	G	G	X	F	X	X	X	G	—	X	G	F	G	G	G	G
Gasoline (10% Ethanol)	G	G	X	G	G	X	G	G	G	X	X	X	X	X	—	—	X	G	F	G	G	G	G
Gasoline (10% Methanol)	G	G	X	F	F	X	G	G	G	X	X	X	X	X	—	—	X	G	F	G	G	G	G
Glucose (Non-food)	G	G	G	G	G	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	G	G	G	G	G
Greases	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	—	G	G	G	G	G	G	G
Green Sulfate Liquor	G	G	G	F	F	F	G	G	X	G	G	G	X	G	X	G	G	X	F	X	X	G	G
Heptane	G	G	X	G	G	F	G	G	G	X	F	X	G	F	G	X	X	G	G	G	G	G	G

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

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**Use Approved Freon Hose

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

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Hexane	G	G	X	G	G	F	G	G	G	X	F	X	G	F	G	X	X	G	X	G	G	G
Houghto Safe 273 to 640	G	G	F	G	G	G	G	G	—	G	—	F	—	X	G	—	G	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	G	G
Houghto Safe 1000 Series	G	G	X	X	X	X	G	G	—	G	X	X	—	X	—	—	X	G	—	G	G	G
Hydraulic Oils:																						
Straight Petroleum Base	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	F	G	G	G	G	G	G
Water Petroleum Emulsion	G	G	—	G	G	F	G	G	—	X	F	X	G	X	G	—	F	G	—	G	G	G
Water Glycol	G	G	X	G	G	G	G	G	G	G	X	F	X	X	G	—	—	G	—	G	G	G
Hydraulic Oils:																						
Straight Phosphate Ester	G	G	X	X	X	X	G	G	G	G	X	X	—	X	G	—	X	G	—	G	G	G
Phos. Ester/Petroleum Blend	G	G	X	X	X	X	G	G	G	X	X	X	—	X	G	—	X	G	—	G	G	G
Polyol Ester	G	G	—	G	G	X	G	G	—	X	—	X	—	G	G	—	—	G	—	G	G	G
Hydrobromic Acid (under 48%)	G	G	G	X	X	X	G	G	X	G	G	X	X	X	G	G	G	X	G	X	X	X
Hydrochloric Acid	G	G	G	X	X	X	G	G	X	G	G	X	X	X	G	G	G	X	G	X	X	X
Hydrocyanic Acid	G	G	G	F	F	X	G	G	X	F	G	X	X	—	X	G	G	X	F	X	F	G
Hydrofluoric Acid (under 50%)	G	G	F	X	X	X	G	G	X	F	G	X	X	X	X	G	F	X	G	X	X	G
Hydrofluoric Acid (over 50%)	G	G	X	X	X	X	G	G	X	X	G	X	X	X	X	G	X	X	G	X	X	G
Hydrofluosilicic Acid	G	G	G	F	F	X	G	G	X	G	G	X	—	—	G	—	G	X	—	X	X	X
Hydrogen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	F	—	—	F	—	—	G
Hydrogen Peroxide	F	F	—	X	X	X	G	G	X	F	X	X	—	—	G	X	G	X	F	X	X	G
Hydrogen Sulfide	G	G	G	X	X	X	G	G	X	X	F	X	G	—	X	G	G	X	G	F	F	F
Hydrolube	G	G	G	G	G	F	G	G	—	G	—	—	F	X	—	—	G	G	—	G	G	G
Iodine	F	F	X	F	X	X	G	G	X	G	G	X	—	X	G	X	X	X	X	X	X	X
Isocyanates	G	X	X	X	X	X	G	—	X	X	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	G	G	G
Isopropyl-amine	G	G	X	X	X	F	G	G	—	F	X	F	—	—	—	—	—	X	—	G	—	G
Iso-Octane	G	G	X	G	G	F	G	G	G	X	F	X	G	X	G	—	X	G	X	G	G	G
Jet Fuel (Transfer Only)	G	G	X	G	G	F	G	G	G	X	X	X	G	F	G	—	X	G	X	G	F	G

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Chemical Compatibility

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hytrek	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Kerosene	G	G	X	G	G	F	G	G	G	X	F	X	F	G	G	X	X	G	X	G	G	G
Lacquer	G	G	X	X	X	X	G	G	G	X	X	X	X	X	F	X	F	G	X	G	X	G
Lacquer Solvents	G	G	X	X	X	X	G	G	G	X	X	X	F	X	F	X	F	G	X	G	X	G
Lactic Acid	G	G	G	X	X	G	G	G	G	F	G	X	X	X	X	G	G	G	G	F	F	G
Lime Sulfur	G	G	G	X	X	G	G	G	F	G	F	F	—	—	—	G	G	G	G	X	—	G
Lindol	G	G	—	X	X	X	G	G	G	G	X	X	—	X	—	—	—	G	X	F	G	G
Linseed Oil	G	G	G	G	G	X	G	G	G	X	F	X	F	F	G	X	G	G	G	F	G	G
Lubricating Oils	G	G	G	G	G	F	G	G	G	X	F	X	G	F	G	X	G	G	G	G	G	G
Lye	G	G	G	F	F	G	G	G	F	G	G	G	—	X	F	—	G	G	—	F	X	G
Magnesium Chloride	G	G	G	G	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	G	G	G
Magnesium Sulfate	G	G	G	G	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	G	G	X	G	X	X	X
Mercury	G	G	F	G	G	G	G	G	G	G	G	F	G	G	G	G	G	G	G	X	G	G
Methyl Alc., Methanol	G	G	X	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	X	F	G	G
Methyl Acrylate	G	G	X	X	X	X	G	G	X	F	X	X	—	X	X	—	—	X	—	G	G	G
Methyl Bromide	X	X	X	X	X	X	G	G	F	X	X	X	X	X	X	X	X	G	X	G	G	G
Methyl Chloride	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	F	X	X	G	X	G	G	G
Methylene Chloride	G*	G*	X	X	X	X	G	G	F	X	X	X	X	X	X	X	X	F	X	G	G	G
Methyl-t-Butyl Ether (MTBE)	G	G	X	F	F	X	G	G	G	X	X	X	—	—	G	—	—	G	—	—	G	G
Methyl Ethyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	G	X	X	X	G	G	X	G	G	G
Methyl Iso-butyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	—	X	X	X	G	G	X	G	G	G
Methyl Iso-propyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	—	X	X	—	G	G	X	G	G	G
Methyl Methacrylate	G	G	X	X	X	X	G	G	—	X	X	X	—	X	X	—	—	G	—	—	G	G
Mineral Oil	G	G	F	G	G	F	G	G	G	X	F	X	G	G	G	X	X	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	G	G
Naphtha	G	G	X	F	F	F	G	G	G	X	X	X	G	F	G	X	G	G	X	F	G	G
Naphthalene	G	G	X	X	X	X	G	G	G	X	X	X	F	F	G	X	X	G	X	F	G	G

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

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**Use Approved Freon Hose

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

Fluid	Hose and Tubing material																			Metals			
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR		Hydrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Nickel Acetate	G	G	G	X	X	G	G	G	G	G	G	G	—	X	—	G	G	G	G	G	G	G	G
Nickel Chloride	G	G	G	G	G	F	G	G	G	G	G	G	X	X	G	G	G	G	G	G	X	X	F
Nickel Sulfate	G	G	G	G	G	F	G	G	G	G	G	G	—	F	G	G	G	G	G	G	X	X	G
Nitric Acid (under 35%)	G	F*	G	X	X	X	G	G	X	F	F	X	X	X	X	G	F*	X	X	G	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	X	X	G	X	X	G
Nitric Acid (over 60%)	X	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	G	X	X	G
Nitrobenzene	G	G	X	X	X	X	G	G	—	X	X	X	X	X	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	G	G
Nitrous Oxide	G	G	X	X	X	X	G	G	F	X	X	G	X	X	X	—	X	F	F	G	G	G	G
Oleic Acid	G	G	F	F	F	X	G	G	G	F	F	X	G	F	G	X	G	G	G	G	F	F	G
Oleum (Fuming Sulfuric Acid)	X	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	X	X	F	G
Oxalic Acid	G	G	G	X	X	X	G	G	X	G	X	X	X	—	G	G	G	X	G	F	X	G	G
Oxygen (non-breathing, non-welding) ◇	G	G	G	F	F	G	G	G	G	G	G	F	G	G	G	G	G	G	G	G	G	G	G
Ozone (300 pphm)	F	F	X	X	X	X	G	G	X	G	G	X	X	G	G	X	X	X	X	X	—	F	G
Paint (Solvent Base)	G	G	X	F	F	X	G	G	G	X	X	X	—	X	—	—	F	G	—	G	G	G	G
Palmitic Acid	G	G	F	F	F	F	G	G	G	F	X	X	G	X	G	F	G	G	F	X	F	F	F
Paper Mill Liquors	G	G	X	F	F	F	G	G	X	G	F	F	X	X	—	—	X	X	—	—	—	—	—
Pentane	G	G	X	G	G	F	G	G	—	X	F	X	G	X	G	—	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	X	F	F	G	G	G
Petroleum Ether	G	G	X	G	F	X	G	G	G	X	X	X	—	G	G	X	X	G	F	G	G	G	G
Petroleum Oils	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	—	G	G	—	G	G	G	G
Phenol	G	G	X	X	X	X	G	G	X	X	X	X	X	—	G	X	X	X	X	F	X	F	F
Phosphoric Acid (to 85%)	G	G	G	X	X	F	G	G	X	G	G	F	X	X	X	G	G	X	G	X	X	F	F
Picric Acid (Molten)	X	X	X	X	X	X	G	G	X	X	F	X	X	X	X	G	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	G	X	X	X	X	X	X	F
Potassium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	G	F	X	G

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

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Chemical Compatibility

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Potassium Cyanide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G	F	X	G	G
Potassium Dichromate	G	G	G	X	X	X	G	G	—	G	X	X	—	G	G	G	G	F	G	X	G	G
Potassium Hydroxide	G	G	G	F	F	F	G	G	F	G	G	G	F	X	G	G	G	G	G	F	X	G
Potassium Permanganate	G	G	G	X	X	X	G	G	X	G	G	G	X	X	—	X	G	X	G	—	—	—
Potassium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	F	F	G
Propane Liquid***	—	—	—	G	—	—	—	G	—	—	—	—	—	—	—	X	—	—	—	G	G	G
Propylene Glycol	G	G	F	G	F	G	G	G	—	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	—	G	X	—	F	G	G
Sea Water	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	F	G
Silver Nitrate	G	G	G	G	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	—	X	G	—	G	G	G
Soap Solution	G	G	G	G	G	F	G	G	G	G	G	X	G	G	G	G	X	G	G	G	G	G
Sodium Bicarbonate	G	G	G	G	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	G	G	G	G	F	F	F
Sodium Bisulfite	G	G	G	G	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	G	G
Sodium Carbonate	G	G	G	G	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	G	G	G	G	X	F	G
Sodium Cyanide	G	G	G	G	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	G	G	G	F	F	X	G
Sodium Hypochlorite	G	G	G	X	X	X	G	G	X	G	G	X	G	X	F	G	G	X	G	X	X	F
Sodium Nitrate	G	G	G	G	G	F	G	G	G	G	G	G	G	F	G	G	G	G	G	F	G	G
Sodium Perborate	G	G	G	G	G	X	G	G	F	G	X	G	G	X	X	—	G	G	—	F	F	G
Sodium Peroxide	G	G	X	F	F	F	G	G	X	G	F	X	G	X	X	—	X	G	—	X	F	G
Sodium Phosphates	G	G	G	G	G	F	G	G	G	G	G	G	G	G	X	G	G	G	G	F	F	F
Sodium Silicate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G

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Fluid	Hose and Tubing material																			Metals			
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR			Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Sodium Sulfate	G	G	G	G	G	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	G	G	G	G	G	X	X	G
Sodium Thiosulfate	G	G	G	G	G	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	—	G	G	G
Stannic Chloride	G	G	G	G	G	X	G	G	X	G	G	G	G	G	G	G	G	G	F	G	X	X	X
Steam 232°C	X	X	X	X	X	X	G	G	X	G	X	X	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	G	G	G	G	F	X	X	G
Stoddard Solvent	G	G	X	G	G	F	G	G	G	X	X	X	G	G	G	X	X	G	G	G	G	G	G
Styrene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	X	G	X	X	G	G	G
Sulfur 21°C	G	G	F	X	X	G	G	G	G	G	G	X	G	F	G	G	G	G	G	G	X	X	G
Sulfur 93°C	X	X	X	X	X	X	G	G	X	X	G	X	X	X	X	—	X	X	—	—	X	X	G
Sulfur Chloride	G	G	X	X	X	X	G	G	X	X	F	X	X	X	G	—	G	X	—	X	X	X	X
Sulfur Dioxide	X	X	X	X	X	X	G	G	X	G	X	X	X	X	X	X	X	X	X	F	X	—	G
Sulfuric Acid (under 50%)	G	G	G	X	X	X	G	G	X	G	G	X	X	X	X	G	G	X	G	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	X	F	X	X	X
Sulfuric Acid (71% to 95%)	G	F	X	X	X	X	G	G	X	F	F	X	X	X	X	X	X	X	X	G	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	X	X	X	X	X
Tannic Acid	G	G	G	F	F	F	G	G	X	G	G	G	G	G	G	G	G	G	X	G	F	X	G
Tar	X	X	X	F	F	F	G	G	G	X	X	X	G	F	F	—	X	X	—	F	F	G	G
Tartaric Acid	G	G	G	G	G	F	G	G	G	G	G	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	—	F	F	X	—	—	—	G
Tetrahydrofuran (THF)	G	G	X	X	X	X	G	G	—	X	X	X	—	X	—	X	X	G	X	—	—	—	G
Toluene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	X	G*	G	X	G	G	G	G
Transmission Oil (Petrol. Base)	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	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*	F	—	G	G	G	G
Trichloro-ethylene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	X	G*	F	—	G	G	G	G
Tung Oil	G	G	—	G	G	F	G	G	—	X	F	X	G	F	X	—	—	G	—	F	G	G	G
Turpentine	G	G	X	F	F	X	G	G	G	X	X	X	F	X	F	X	G	G	G	F	G	G	G
Urea (Water Solution)	G	G	G	X	X	G	G	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G

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Chemical Compatibility

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Uric Acid	G	G	G	—	—	—	G	G	G	—	—	—	X	X	—	G	G	G	G	—	—	F
Varnish	G	G	X	X	X	X	G	G	G	X	X	X	—	X	F	X	G	G	X	G	G	G
Vegetable Oil (Non-food)	G	G	F	G	G	X	G	G	G	X	G	X	—	G	—	X	G	G	G	G	G	G
Vinegar	G	G	G	F	F	G	G	G	X	G	G	F	—	X	F	G	G	G	—	X	F	G
Vinyl Acetate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	—	X	—	G	X	F	G	G
Water (non-potable)	G	G	G	G	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	G	G	G
Water—Petroleum Mixture	G	G	—	G	G	F	G	G	G	X	F	X	G	X	G	G	F	G	G	G	G	G
Xylene	G*	G*	X	X	X	X	G	G	G	X	X	X	F	X	X	X	G*	G	X	G	G	G
Zinc Chloride	G	G	G	G	G	G	G	G	X	G	G	G	X	G	X	G	G	X	G	X	X	X
Zinc Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	X	G	G	G	G	X	X	G

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General hose information

Hose Construction

Danfoss' world-class manufacturing facility in Cerkezkoy, Turkey, has over 1 million square feet of hose manufacturing capacity making it one of the largest industrial hose plants in the world.

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

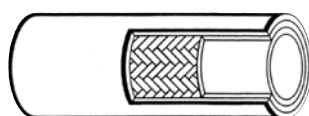
Reinforcement functions:

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

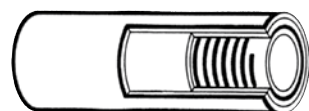
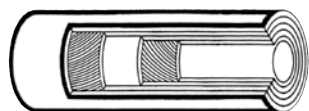
Reinforcement types:

1) Braid - carbon steel or fiber

2) Spiral - carbon steel or fiber



Braid reinforcement



3) Helical - carbon steel

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.

Factors include:

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

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. Danfoss Industrial 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 ARPM Hose Handbook 8th edition 2009:

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.

General hose information

Hose Construction

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 insurer, 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.

Pressure & Suction

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



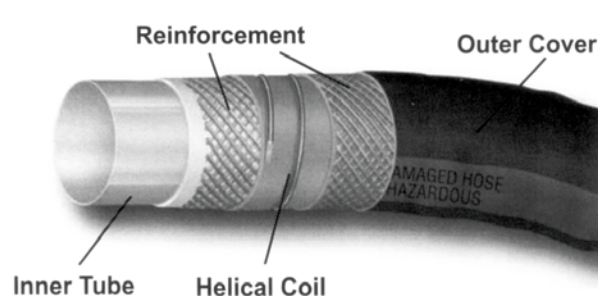
WARNING: Hose use and care: Consider both working pressure and pressure surges when determining "maximum" pressure. Failure to select a hose that meets both these requirements could lead to end blow-offs, hose leakage, and hose bursting. The result could be serious injury or death. The Danfoss Industrial 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 Danfoss Industrial chemical transfer hose is pressure tested to 1-1/2 times the working pressure before it is packaged and shipped.



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.

Danfoss Industrial 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, Danfoss Industrial'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 Danfoss Industrial 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 Danfoss. Doing so will weaken or deteriorate the hose, leading to leakage, hose bursting, or end blow-offs. Personal injury or death can result.

General hose information

Hose Construction

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.

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 contains a listing of general characteristics of some common elastomers and their physical properties as they relate to specific service needs.

Heat can be a catalyst for chemical reaction. When selecting a Danfoss Industrial 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 -17,8°C in some applications.

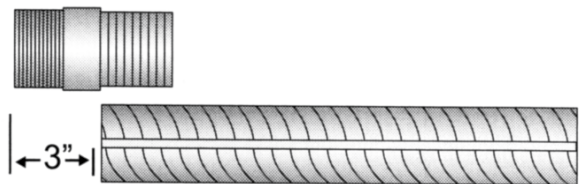
Be aware that rated hose temperatures do not imply that a hose can handle all materials within the listed temperature range and concentration.

All chemicals listed in the chart are rated at 21°C 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.



Cut-off Factor

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

Inner diameter is important

General hose information

Hose Maintenance

Hose Maintenance

Hose has a limited life based on the severity and type of chemical contact, environment or exposure to heat and petroleum products. Danfoss 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. 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.

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

General hose information

Hose Maintenance

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.

Danfoss 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.

General hose information

Hose Maintenance

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 would 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.

General hose information

Hose Maintenance

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.

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 10°C (50°F) and 21°C (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.

General hose information

Hose Maintenance

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.

Danfoss Industrial 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 66°C (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 82°C (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.

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. 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

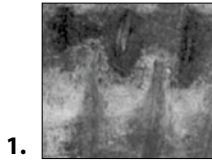
	Volume Change Maximum Retained	Tensile Strength
Class A (High oil resistance)	+25%	80%
Class B (Medium-High oil resistance)	+65%	50%
Class C (Medium oil resistance)	+100%	40%

General hose information

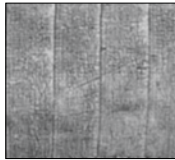
Problem - Solution



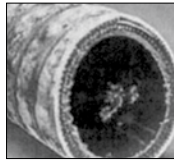
WARNING: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of hose for the application can result in serious bodily injury or property damage. In order to avoid serious bodily injury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



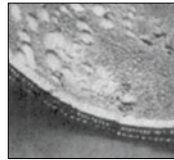
1.



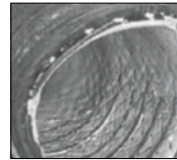
2.



3.



4.



5.

Hose failures can be caused by conditions such as excessive pressures, fluid incompatibility, extreme temperatures and many more. Danfoss has illustrated below some of the more common failures.

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.

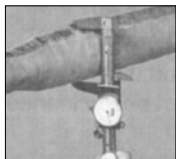
Solution: Do not use high pressure water wand to clean hoses. Instead, three cleaning methods are commonly used: the soak tank, the closed loop system or the rotating brush. The most appropriate method will depend on the hose use and location.

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.

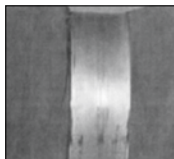
Solution: Make sure that the hose can handle the material being conveyed. Possibly use a hose with a thicker tube.



6.



7.



8.



9.

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, Danfoss 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.

Steam temperatures

Temperatures of Saturated Steam at various pressures

Kg-force per sq. centimetre pressure (kgf/cm ²)	Degrees centigrade	Degrees fahrenheit	Kg-force per sq. centimetre pressure (kgf/cm ²)	Degrees centigrade	Degrees fahrenheit
0	100.0	212.0	7.73	173.4	344.1
0.35	108.4	227.1	8.09	175.1	347.2
0.70	115.2	239.4	8.44	176.7	350.1
1.05	121.0	249.8	8.79	178.3	352.9
1.41	126.0	258.8	9.14	179.8	355.6
1.55	127.8	261.2	9.49	181.3	358.3
1.69	129.6	265.3	9.84	182.7	360.9
1.83	131.3	268.3	10.19	184.1	363.4
1.97	132.9	271.2	10.55	185.5	365.9
2.11	134.5	274.1	10.90	186.8	368.2
2.25	136.0	276.8	11.25	188.1	370.6
2.39	137.4	279.3	11.60	189.4	373.9
2.53	138.8	281.8	11.95	190.7	375.3
2.67	140.2	284.4	12.30	191.9	377.4
2.81	141.5	286.7	12.66	193.1	379.6
2.95	142.8	289.0	13.01	194.3	381.7
3.09	144.0	291.2	13.36	195.4	383.7
3.23	145.3	293.5	13.71	196.6	385.9
3.37	146.4	295.5	14.06	197.7	387.9
3.52	147.6	297.7	14.41	198.8	398.8
3.66	148.7	299.9	14.76	199.8	391.6
3.80	149.8	301.6	15.12	200.5	392.9
3.94	150.9	303.6	15.47	201.7	395.4
4.08	151.9	305.4	15.82	202.9	397.2
4.22	153.0	307.4	16.17	203.9	399.0
4.36	154.0	309.2	16.52	204.8	400.7
4.50	154.9	310.8	16.87	205.8	402.5
4.64	155.9	312.6	17.23	206.8	404.2
4.78	156.8	314.2	17.58	207.8	406.1
4.92	157.0	316.0	17.93	208.7	407.7
5.06	158.7	317.7	18.28	209.7	409.4
5.20	159.6	319.3	18.63	210.6	411.0
5.34	160.5	320.9	18.98	211.4	412.6
5.48	161.3	322.3	19.33	212.3	414.2
5.62	162.1	323.8	19.69	213.2	415.7
5.98	164.2	327.6	21.09	216.1	421.0
6.33	166.2	331.2	24.61	224.7	436.5
6.68	168.1	334.6	WARNING Steam heat is hotter than 100°C (boiling water) and increases in temperature as pressure increases.		
7.03	169.9	337.8			

General hose information

Hose selection: Flow capacities

Flow capacities of hose assemblies at suggested flow velocities

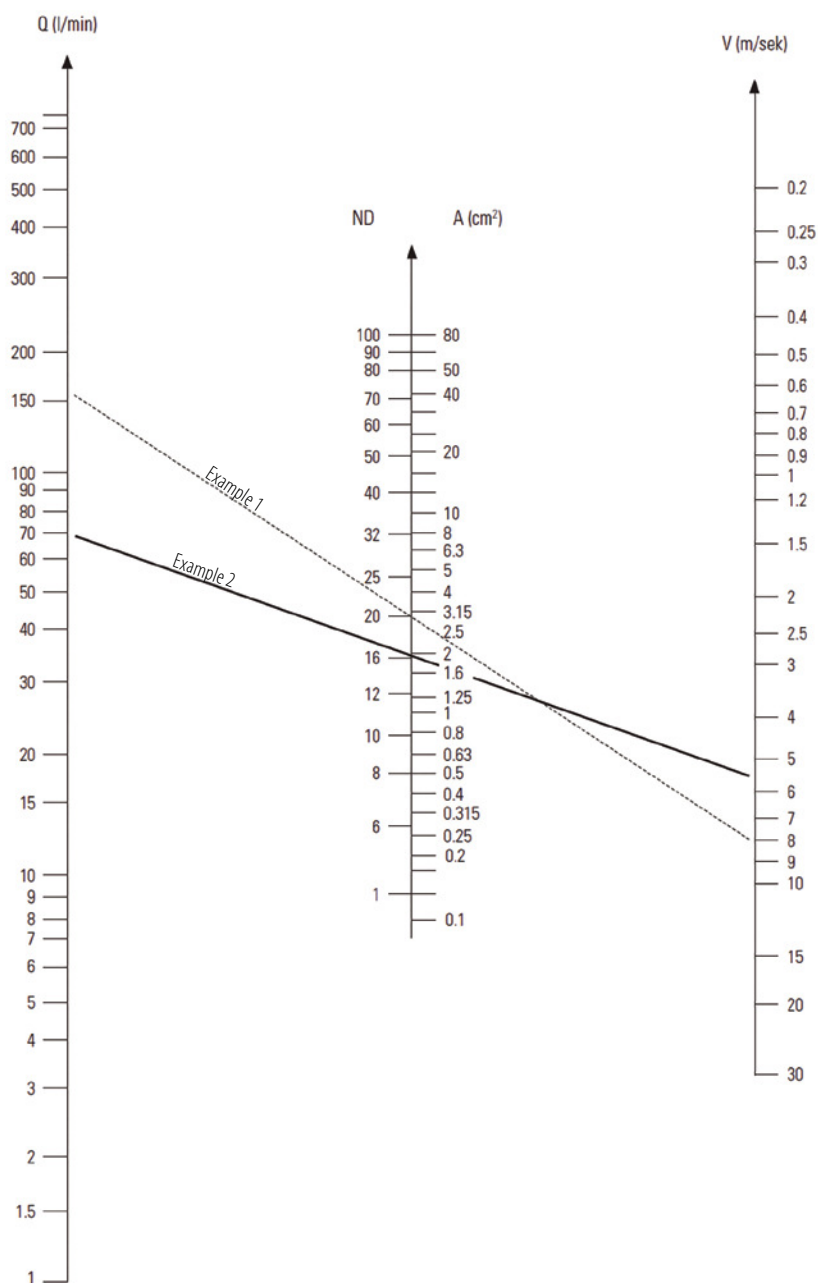
The chart below is designed and provided as an aid in the determination of the correct hose size.

Example 1:

A velocity $V = 8 \text{ m/s}$ and rate of $Q = 150 \text{ l/min}$ have been selected. The straight line linking these two values on the outer scales intersects the nominal hose diameter ND20 on the middle scale.

Example 2:

A velocity $V = 5.5 \text{ m/s}$ and flow rate of $Q = 66 \text{ l/min}$ have been selected. The straight line linking these two values on the outer scales intersects the nominal hose diameter ND16 on the middle scale. No allowance is incorporated for the resistance of the pipes, elbows and valves viscosity, the effect of temperature on viscosity and other factors.



Hose selection: Flow capacities pressure drop

Hose selection

Flow capacities pressure drop

Hose pressure drop

Pressure drop is expressed in milibar (mb) per 1 metre length of hose (smooth bore) without fittings.

Fluid spec. specific gravity = 0,85. Viscosity = 20 centi stokes (cs) ref MIL-H-5606 at +21°C. Dimensions: mm in bold type inches in light type

Hose pressure drop																						
DN acc. DIN	5	6	8	10	12	16	20	25	32	40	50	60	80									
DN (real)	4,8	6,4	6,4	8,0	9,5	10,3	12,7	12,7	15,9	15,9	19,0	22,2	25,4	28,6	31,8	35,0	38,1	46,0	50,8	60,3	60,3	76,2
Hose size	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32	-48	-48										
l/min. flow	1	242	75,4	75,4																		
litres per	2	466	146	146	66,1																	
min	4	996	293	293	133	58,6																
	8	2433	613	613	250	117	85															
	10	3540	880	880	335	144	103	45,4	45,4													
	15		1776	1776	660	273	182	68,6	68,6	27,4	27,4											
	20		3080	3080	1129	462	308	116	116	41,4	41,4	18,1										
	30				2159	887	592	228	228	81,8	81,8	31,8	13,6									
	40					1496	1000	379	379	141	141	50,0	26,3	14,0								
	50						1414	555	555	192	192	75,0	41,1	21,5	12,1							
	60						1938	756	756	263	263	111	55,9	29,6	15,6	9,87						
	70							970	970	373	373	154	71,4	37,4	18,3	13,3	8,51					
	80							1250	1250	475	475	200	89,5	49,1	28,0	16,8	11,0	6,91				
	90							1531	1531	560	560	237	115	66,0	34,1	21,1	13,5	8,50	3,61			
	100									653	653	274	137	73,1	40,8	25,1	15,8	10,0	4,25	2,71		
	125										964	964	393	196	103	59,2	35,6	22,7	14,5	5,78	3,79	
	150											567	273	147	77,4	49,8	31,8	19,4	8,57	5,44		
	175												7,5	349	186	106	60,4	41,0	26,5	11,0	7,12	3,06
	200												920	431	228	136	83,3	51,4	33,3	13,8	8,63	3,79
	250													642	347	198	124	78,5	49,9	20,8	13,2	6,01
	300													864	475	272	162	105	68,2	27,4	17,3	7,77
	400														832	483	303	177	118	47,7	32,4	13,9
	500															1159	690	425	250	164	66,0	43,3
	600																562	339	222	88,6	57,4	25,8
	700																	733	461	301	120	78,2
	800																		924	584	383	151
	900																			1144	706	468
	1000																				841	553
																					219	140
																						67,5
																						19,6

General hose information

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
EPM	Ethylene Propylene	Rubber Composition	• Excellent ozone resistance • Excellent chemical resistance • Good heat resistance • Poor resistance to petroleum based 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
EVA	EVA	Ethylvinylacetate	• Excellent flexibility • Chemical resistance
LLDPE	Linear, low density Polyethylene	Linear, low density Polyethylene	• Excellent ESCR resistant • FDA Approved NSF 51 material available
Nylon 11	Nylon 11	Nylon 11	• Good chemical resistance
PVC/PU Blend	PVC/PU Blend	Polyvinyl flouride/polyurethane Blend	• Excellent chemical resistance
PVDF	KYNAR®	Polyvinylidene flouride	• 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

Elastomer chart

ASTM Designation	Common Name	Composition	General Properties
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 • Excellent abrasion 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

About Danfoss Power Solutions

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster.

We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.

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- PLUS+1® operator interfaces
- PLUS+1® sensors
- PLUS+1® software services, support and training
- PLUS+1® software
- Position controls and sensors
- PVG proportional valves
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- Steering components and systems
- Synflex™ Optimum by Danfoss
- Telematics
- Weatherhead® by Danfoss
- Winner™ by Danfoss

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