



Americas Boston industrial hose core product line

# **Boston® by Danfoss**

Core industrial hose catalog







# Embracing a **fresh product strategy** for core industrial hose

Danfoss Power Solutions has launched a new Core Industrial Hose Strategy. This strategic initiative aims to provide customers with a comprehensive range of hoses, catering to various industries and applications including water, oil & petroleum, air & multipurpose, steam, material handling, chemical, J.P.G. and food & beverage.

With the implementation of the Core Industrial Hose Strategy, Danfoss ensures that these value-based hoses will be readily available at all times, accompanied by significantly shorter lead times. This commitment to improved availability and faster delivery underscores Danfoss' dedication to meeting the evolving needs of its customers, enabling them to streamline their operations and enhance overall efficiency.





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# **Our history**

## A tradition of excellence



Our 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.









Boston by Danfoss Royalflex H1196 Water Specialty



# 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.

## **Category / Application**

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

**Boston** by Danfoss



H600916

Air & Multipurpose High Pressure 25.4 MM (1.00 IN) DN25

→ 70 BAR (

## **Product name**

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

## Series / Size

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

## ID / DN

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



## **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.

1000 PSI)





Jse of damaged hose or improper use may result in bodily injury or property dama Consultant Danfoss catalog or call Technical Support for proper application. Always Consult coupling manufacturer for coupling specifications and assembly instruction



## **Warning label**

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

## **Operating pressure**

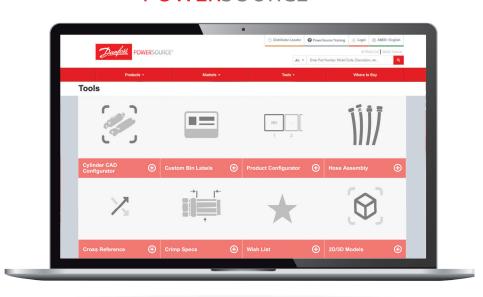
Maximum operating pressure in BAR and pounds per square inch (PSI).



# 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.



## Literature & videos

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



#### Cross Reference

Find equivalent Danfoss parts for thousands of competitor parts.



## Locator

Find local and regional Danfoss product dealers.



## **Product Configurators**

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



## 3D Models

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

## DanfossPowerSource.com



# **Marketing Resources**

Need more info? We have it!



## Visit

## Danfoss.com/industrialhose

Here you will find videos, a link to our entire portfolio, marketing materials and more.

# Boston Catalog & Market Brochures

Target market selling with key application and product mapping.



## Sell Sheets & Quick Reference Guide

Product DNA of what, where, how and who to sell against.



## Much more...

Browse other sales tools that are available.



To order: My.Danfoss.com



# Core industrial hose market categories, applications & products

















Bulldog Gold H6009 Air & Multipurpose Hose



Chemcat H0523 Chemical Hose



Joey Washdown 1000 H9610 Food & Beverage Hose

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Marauder EHK006 Material Handling Hose



Easy Couple H201 Air & Multipurpose Hose



Greyhound EHA500 High Pressure Air & Multipurpose Hose



Marauder Heavy Duty EHK007 Material Handling Hose





















Puma H0363 S&D Petroleum Hose



UL H900 LPG Hose







Fossa EHP150 S&D Petroleum Hose



Hydrocarbon Drain H9690 Specialty Hose



Concord 250 H9568 Steam Hose

Steam Slayer EH084



Mink EHW150 Water Hose



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## Core Industrial hose products



## High Pressure



## H6009

## Bulldog Gold



### **Application**

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

### Markets

- Construction
- Mining
- Oil and gas exploration
- Water drilling
- Ship building

#### Construction

**Tube** Nitrile (RMA Class A)

#### Reinforcement

1.00" - 1.25" 1-wire braid 1.50" - 3.00" 2-wire braid 4.00" 3-wire braid Cover Pin-pricked carboxylated nitrile

Color Black

#### Certification

RMA Class A

## Operating temperature

-40°C to +121°C  $(-40^{\circ}F \text{ to } +250^{\circ}F)$ 

Number	Hos	e I.D.	Hose	Hose O.D.		Operating Pressure		Min. Burst Pressure		Weight		ngth
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
H600924-100	38.1	1.50	54.2	2.13	41.0	600	165	2400	2.01	1.34	30.5	100
H600932-100	50.8	2.00	67.5	2.66	41.0	600	165	2400	2.95	1.97	30.5	100
H600940-100	63.5	2.50	80.2	3.16	41.0	600	165	2400	3.75	2.50	30.5	100
H600948-100	76.2	3.00	94.5	3.72	41.0	600	165	2400	4.72	3.15	30.5	100
H600964-100	101.6	4.00	127.0	5.00	35.0	500	138	2000	7.97	5.32	30.5	100

## Coupling info:



## Low Pressure

## H201

## Easy Couple

## Application

- Air and water transfer
- Pneumatic tools
- Air tools

### Markets

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

Boston by Danfoss Easy Couple H201 Air & Multipurpose Low Pressure



## 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) and 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

 $-40^{\circ}$ C to  $+100^{\circ}$ C ( $-40^{\circ}$ F to  $+212^{\circ}$ F)

Oil

-40°C to +127°C (-40°F to +260°F)

Hos	se I.D.	Hose	O.D.					We	eight	Len	ngth
mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
6.4	0.25	12.7	0.50	20.7	300	83.0	1200	0.13	0.09	76.2	250
9.5	0.38	17.0	0.67	20.7	300	83.0	1200	0.19	0.13	76.2	250
12.7	0.50	19.6	0.77	20.7	300	83.0	1200	0.22	0.15	76.2	250
15.9	0.62	23.6	0.93	20.7	300	83.0	1200	0.34	0.23	76.2	250
19.0	0.75	26.3	1.04	20.7	300	83.0	1200	0.39	0.26	76.2	250
25.4	1.00	35.0	1.38	13.8	200	55.0	800	0.57	0.38	76.2	250
	9.5 12.7 15.9	6.4     0.25       9.5     0.38       12.7     0.50       15.9     0.62       19.0     0.75	mm         in         mm           6.4         0.25         12.7           9.5         0.38         17.0           12.7         0.50         19.6           15.9         0.62         23.6           19.0         0.75         26.3	mm         in         mm         in           6.4         0.25         12.7         0.50           9.5         0.38         17.0         0.67           12.7         0.50         19.6         0.77           15.9         0.62         23.6         0.93           19.0         0.75         26.3         1.04	mm         in         mm         in         bar           6.4         0.25         12.7         0.50         20.7           9.5         0.38         17.0         0.67         20.7           12.7         0.50         19.6         0.77         20.7           15.9         0.62         23.6         0.93         20.7           19.0         0.75         26.3         1.04         20.7	mm         in         mm         in         bar         psi           6.4         0.25         12.7         0.50         20.7         300           9.5         0.38         17.0         0.67         20.7         300           12.7         0.50         19.6         0.77         20.7         300           15.9         0.62         23.6         0.93         20.7         300           19.0         0.75         26.3         1.04         20.7         300	mm         in         mm         in         bar         psi         bar           6.4         0.25         12.7         0.50         20.7         300         83.0           9.5         0.38         17.0         0.67         20.7         300         83.0           12.7         0.50         19.6         0.77         20.7         300         83.0           15.9         0.62         23.6         0.93         20.7         300         83.0           19.0         0.75         26.3         1.04         20.7         300         83.0	mm         in         mm         in         bar         psi         bar         psi           6.4         0.25         12.7         0.50         20.7         300         83.0         1200           9.5         0.38         17.0         0.67         20.7         300         83.0         1200           12.7         0.50         19.6         0.77         20.7         300         83.0         1200           15.9         0.62         23.6         0.93         20.7         300         83.0         1200           19.0         0.75         26.3         1.04         20.7         300         83.0         1200	Hose I.D.         Hose O.D.         Pressure         Pressure         Pressure         Wee           mm         in         mm         in         bar         psi         bar         psi         kg/m           6.4         0.25         12.7         0.50         20.7         300         83.0         1200         0.13           9.5         0.38         17.0         0.67         20.7         300         83.0         1200         0.19           12.7         0.50         19.6         0.77         20.7         300         83.0         1200         0.22           15.9         0.62         23.6         0.93         20.7         300         83.0         1200         0.34           19.0         0.75         26.3         1.04         20.7         300         83.0         1200         0.39	Hose I.D.         Hose O.D.         Pressure         Pressure         Pressure         Weight           mm         in         mm         in         bar         psi         kg/m         lbs/ft           6.4         0.25         12.7         0.50         20.7         300         83.0         1200         0.13         0.09           9.5         0.38         17.0         0.67         20.7         300         83.0         1200         0.19         0.13           12.7         0.50         19.6         0.77         20.7         300         83.0         1200         0.22         0.15           15.9         0.62         23.6         0.93         20.7         300         83.0         1200         0.34         0.23           19.0         0.75         26.3         1.04         20.7         300         83.0         1200         0.39         0.26	mm         in         mm         in         bar         psi         bar         psi         kg/m         lbs/ft         mtr           6.4         0.25         12.7         0.50         20.7         300         83.0         1200         0.13         0.09         76.2           9.5         0.38         17.0         0.67         20.7         300         83.0         1200         0.19         0.13         76.2           12.7         0.50         19.6         0.77         20.7         300         83.0         1200         0.22         0.15         76.2           15.9         0.62         23.6         0.93         20.7         300         83.0         1200         0.34         0.23         76.2           19.0         0.75         26.3         1.04         20.7         300         83.0         1200         0.34         0.23         76.2

## Coupling info:

## Core Industrial hose products



## 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

Yellow Color

## **Operating temperature**

-40°C to +93°C  $(-40^{\circ}F \text{ to } +200^{\circ}F)$ 

Number	Hose	ı.D.	Hose	O.D.	Opera Press			Burst ssure		mum Radius	Wei	ght	Leng	gth
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHA500-08YW-100	12.7	0.50	23.0	0.91	41.0	600	165	2400	65.0	2.56	0.51	0.34	30.5	100
EHA500-12YW-100	19.1	0.75	30.0	1.18	41.0	600	165	2400	95.0	3.74	0.62	0.42	30.5	100
EHA500-16YW-100	25.4	1.00	36.0	1.42	41.0	600	165	2400	125.0	4.92	0.88	0.59	30.5	100
EHA500-20YW-100	31.8	1.25	43.0	1.69	41.0	600	165	2400	160.0	6.30	1.12	0.75	30.5	100
EHA500-24YW-100	38.1	1.50	50.0	1.97	41.0	600	165	2400	190.0	7.48	1.55	1.04	30.5	100
EHA500-32YW-100	50.8	2.00	66.0	2.60	41.0	600	165	2400	225.0	8.86	2.51	1.69	30.5	100
EHA500-40YW-100	63.5	2.50	80.0	3.15	41.0	600	165	2400	315.0	12.40	3.36	2.26	30.5	100
EHA500-48YW-100	76.2	3.00	93.9	3.70	41.0	600	165	2400	380.0	14.96	4.49	3.02	30.5	100
EHA500-64YW-100	101.6	4.00	122.0	4.80	41.0	600	165	2400	510.0	20.08	6.77	4.55	30.5	100

## Coupling info:



## Chemical Transfer



## H0523

## Chemcat

## Application

• For transfer of acids, chemicals, solvents, and petroleum products

• Bulk hauling

Ship building

Forest products

- Food transfer
- Potable water

#### Markets

- Chemical petroleum industry
- In-plant transfers
- Tank truck
- Paper/pulp industry



#### Construction

Tube UHMW-PE,

FDA compliant material

### Reinforcement

2-ply fiber and dual helical wires

Cover EPDM

**Color** Green (GN), Purple (PR)

### Certifications

FDA compliant

Meets DIN & ANSI requirements

## Operating temperature

-40°C to +121°C (-40°F to +250°F)

Warning: Intermittent

Number	r Hose I.D. Hose O.D.		Operating Min. Bi Pressure Pressu							Jum	Wei	ght	Length			
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
H052312GN-100	19.0	0.75	30.6	1.20	20.7	300	82.8	1200	101.6	4.00	94.8	28	0.46	0.31	30.5	100
H052316GN-100	25.4	1.00	38.7	1.52	20.7	300	82.8	1200	139.7	5.50	94.8	28	0.82	0.55	30.5	100
H052320GN-100	31.8	1.25	47.8	1.88	20.7	300	82.8	1200	152.4	6.00	94.8	28	1.00	0.67	30.5	100
H052324GN-100	38.1	1.50	54.1	2.12	20.7	300	82.8	1200	190.5	7.50	94.8	28	1.33	0.89	30.5	100
H052332GN-100	50.8	2.00	66.8	2.62	20.7	300	82.8	1200	203.2	8.00	94.8	28	1.74	1.16	30.5	100
H052340GN-100	63.5	2.50	79.5	3.12	20.7	300	82.8	1200	203.2	8.00	94.8	28	2.13	1.42	30.5	100
H052348GN-100	76.2	3.00	92.2	3.62	17.2	250	68.8	1000	228.6	9.00	94.8	28	2.52	1.68	30.5	100
H052364GN-100	101.6	4.00	118.6	4.67	12.1	175	48.8	700	381.0	15.00	94.8	28	3.39	2.26	30.5	100

## Coupling info:

Visit PowerSource crimp specs at

 $\underline{\textbf{danfoss.com/crimp}} \text{ for crimp specifications}$ 

## Core Industrial hose products



## Cleaning Service



## H9610

## Joey Washdown 1000

## Application

• For washdown of food processing facilities and equipment

#### Markets

- Food processing
- Industry cleaning
- Construction
- Poultry



#### Construction

Tube Nitrile Reinforcement 1-braid wire

Cover Nitrile

Colors Yellow (YW), Gray (GY)

Operating temperature

-40°C to +82°C (-40°F to +180°F)

Number	Hos	e I.D.	Hose O.D.			ating sure	Min. Pres	Burst sure	Minim Bend Ra		Wei	ght	Leng	jth
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
H961006YW-350R	9.5	0.38	17.8	0.70	70.0	1000	280	4000	127.0	5.0	0.35	0.24	106.7	350
H961008YW-350R	12.7	0.50	21.6	0.85	70.0	1000	280	4000	177.8	7.0	0.48	0.32	106.7	350
H961012YW-350R	19.0	0.75	29.4	1.16	70.0	1000	280	4000	241.3	9.5	0.77	0.52	106.7	350

## Coupling info:

Core Industrial hose products

## 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 ≤60mm³

Operating	temperature
Operaniiu	tellibelatule

-40°C to +70°C (-40°F to +158°F)

Number	Hos	se I.D.	Hose	Hose O.D.		ating sure		Burst ssure	We	Length		
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
EHK006-20-100	32.0	1.25	48.8	1.92	85.0	1233	178	2581	1.22	.820	30.5	100
EHK006-24-100	38.0	1.50	57.0	2.24	85.0	1233	178	2581	1.81	1.21	30.5	100
EHK006-32-100	50.8	2.00	72.0	2.83	85.0	1233	178	2581	2.40	1.61	30.5	100
EHK006-40-100	63.5	2.50	86.3	3.40	85.0	1233	178	2581	3.01	2.02	30.5	100
EHK006-48-100	76.2	3.00	99.6	3.92	85.0	1233	178	2581	3.65	2.45	30.5	100
EHK006-64-100	101.6	4.00	126.0	4.92	85.0	1233	178	2581	4.74	3.18	30.5	100
EHK006-80-100	127.0	5.00	154.4	6.08	85.0	1233	178	2581	6.38	4.29	30.5	100

### Coupling info:

Core Industrial hose products



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 B30.27-2014Abrasion loss value acc. DIN53516 ≤60mm<sup>3</sup>

## Operating temperature

-40°C to +70°C  $(-40^{\circ}F \text{ to } +158^{\circ}F)$ 

Number	Hos	se I.D.	Hose O.D.			rating sure		Burst ssure		mum Radius	We	ight	Leng	gth
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EHK007-32-100	50.8	2.00	70.0	2.76	86.0	1250	200	2900	200	7.87	3.03	2.04	30.5	100
EHK007-40-100	63.5	2.50	88.0	3.46	86.0	1250	200	2900	240	9.45	4.48	3.01	30.5	100
EHK007-48-100	76.2	3.00	102.0	4.02	86.0	1250	200	2900	275	10.83	5.46	3.67	30.5	100
EHK007-64-100	101.6	4.00	130.0	5.12	86.0	1250	200	2900	350	13.78	8.46	5.68	30.5	100
EHK007-80-100	127.0	5.00	155.0	6.10	86.0	1250	200	2900	425	16.73	9.63	6.47	30.5	100

## Coupling info:

## Core Industrial hose products

## Suction & 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	Hos	e I.D.	Hose	Hose O.D.								Hose O.D.		ating sure	Min. Pres			imum Radius	Vac	uum	W	eight	Len	gth
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft								
H036312BK-100	19.0	0.75	28.8	1.13	10.5	150	42.0	600	110	4.33	94.8	28	0.59	0.40	30.5	100								
H036316BK-100	25.4	1.00	38.0	1.50	10.5	150	42.0	600	152	5.98	94.8	28	0.91	0.61	30.5	100								
H036320BK-100	31.8	1.25	45.0	1.77	10.5	150	42.0	600	190	7.48	94.8	28	1.09	0.73	30.5	100								
H036324BK-100	38.1	1.50	52.5	2.07	10.5	150	42.0	600	200	7.87	94.8	28	1.44	0.97	30.5	100								
H036332BK-100	50.8	2.00	65.0	2.56	10.5	150	42.0	600	255	10.04	94.8	28	2.01	1.35	30.5	100								
H036340BK-100	63.5	2.50	77.0	3.03	10.5	150	42.0	600	315	12.40	94.8	28	2.30	1.55	30.5	100								
H036348BK-100	76.2	3.00	90.5	3.56	10.5	150	42.0	600	380	14.96	94.8	28	2.93	1.97	30.5	100								
H036364BK-100	101.6	4.00	116.2	4.57	10.5	150	42.0	600	510	20.08	94.8	28	3.78	2.54	30.5	100								
H036396BK-100	152.4	6.00	174.0	6.85	10.5	150	42.0	600	780	30.71	94.8	28	8.45	5.68	30.5	100								

## Coupling info:

Core Industrial hose products



## Suction & Discharge



## **EHP150**

Fossa



### **Application**

• For suction and discharge of petroleum

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

#### Markets

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

### Construction

**Tube** NBR rubber (RMA Class A)

#### Reinforcement

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

copper wire

Cover Abrasion and weather resistant

NBR rubber blend

Color Black

### Certification

RMA Class A

#### Operating temperature

-35°C to +82°C  $(-31^{\circ}F to +180^{\circ}F)$ 

Number	Hos	e I.D.	Hose	O.D.		rating sure		Burst sure		imum Radius	Vac	uum	We	eight	Len	gth
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHP150-12BK-100	19.0	0.75	30.0	1.18	10.5	150	31.5	450	90	3.75	94.8	28	0.58	0.39	30.5	100
EHP150-16BK-100	25.4	1.00	36.0	1.41	10.5	150	31.5	450	110	4.33	94.8	28	0.71	0.48	30.5	100
EHP150-20BK-100	31.8	1.25	43.0	1.69	10.5	150	31.5	450	140	5.51	94.8	28	0.91	0.61	30.5	100
EHP150-24BK-100	38.1	1.50	49.0	1.93	10.5	150	31.5	450	170	6.69	94.8	28	1.17	0.79	30.5	100
EHP150-32BK-100	50.8	2.00	63.0	2.48	10.5	150	31.5	450	250	9.84	94.8	28	1.65	1.11	30.5	100
EHP150-40BK-100	63.5	2.50	76.0	2.99	10.5	150	31.5	450	310	12.20	94.8	28	2.13	1.43	30.5	100
EHP150-48BK-100	76.2	3.00	89.0	3.50	10.5	150	31.5	450	380	14.96	94.8	28	2.76	1.89	30.5	100
EHP150-64BK-100	101.6	4.00	117.0	4.60	10.5	150	31.5	450	510	20.08	94.8	28	4.06	2.73	30.5	100
EHP150-96BK-100	152.4	6.00	170.0	6.69	10.5	150	31.5	450	790	31.10	94.8	28	7.87	5.29	30.5	100
EHP150-128BK-100	203.2	8.00	228.0	8.97	10.5	150	31.5	450	1100	43.31	80.0	24	14.42	9.69	30.5	100

## Coupling info:

• For transfer and delivery of propane and

• Transfer of natural gas in open, well



LPG

## H900

## Raven

## Construction

**Tube** Synthetic rubber

## **Reinforcement**Textile braid

**Cover** Pin-pricked synthetic rubber

Color Black

## Certifications

UL 21 rated CAN/CGA 8.1 rated (CSA 8.1-2015 on -20 & -24)

Boston by Danfoss Raven H900 Specialty UL21 LPG

-40°C to +82°C (-40°F to +180°F)

Operating temperature

Hose is capable of this rating, LP-Gas should never be elevated above 100°F.

## ventilated areas (1 psiG max. working pressure)

**Application** 

## Markets

- Alternative energy
- Propane transferIn-plant tank transfer
- Agriculture
- Construction
- General industrial

#### Hose O.D. Weight Length in lbs/ft mtr mm mm bar kg/m ft H90004-500R 6.4 0.25 14.9 0.59 24.0 350 122 1750 0.18 0.12 152.4 500 H90006-500R 9.5 0.38 18.4 0.72 24.0 350 122 1750 0.25 0.17 152.4 500 H90008-500R 12.7 0.50 23.3 0.92 24.0 350 122 1750 0.36 0.24 152.4 500 H90012-500R 19.0 0.75 31.2 1.23 24.0 350 122 1750 0.61 0.41 152.4 500 H90016-300R 25.4 1.00 38.1 1.50 350 1750 0.77 0.52 91.4 24.0 122 300 H90020-250RC 46.0 24.0 1750 31.8 1.25 1.81 350 122 1.09 0.73 76.2 250 H90024-250RC 1.50 2.05 24.0 350 122 1.25 0.84 38.1 52.1 1750 76.2 250

#### Coupling info:

Core Industrial hose products



## Specialized



## H9690

## Hydrocarbon Drain

## ₩ Hydrocarbon Drain H9690 **Boston** by Danfoss

### **Application**

• For hydrocarbon drain service

#### Markets

- Petroleum
- Refineries

### Construction

Tube Synthetic rubber (RMA Class A)

Reinforcement

2-wire braid

Pin-pricked chlorinated polyethylene Cover

Color Blue

### Certifications

RMA Class A

## Operating temperature -40°C to +177°C

(-40°F to +350°F)

Number	Hos	e l.D.	Hose	O.D.	Opera Press		Min. Pres	Burst sure	Wei	ght	Lei	ngth
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
H969012	19.0	0.75	33.3	1.31	20.7	300	207	3000	0.89	0.60	15.2	50

## Coupling info:

## Core Industrial hose products



## Steam



## EH084

## Steam Slayer

## 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

# Boston by Danfoss Steam Slayer EH084 Steam Transfer

#### Construction

**Tube** Special chlorobutyl blend

#### Reinforcement:

2-wire braid

**Cover** Pin-pricked EPDM

**Color** Red & Black stripe

Black (EH080), Red (EH081)

## Operating temperature

-40°C to +208°C, (-40°F to +407°F) Continuous with saturated steam

+232°C (+450°F)

For intermittent superheated

Number	Hos	e I.D.	Hose (	Hose O.D.		ating sure	Min. Burst Pressure		Minimum Bend Radius		Wei	ght	Length	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mtr	ft
EH08408	12.7	0.50	27.6	1.08	17.2	250	172	2500	177.8	7.0	0.80	0.54	15.2	50
EH08412	19.1	0.75	33.5	1.31	17.2	250	172	2500	241.3	9.5	1.03	0.69	15.2	50
EH08416	25.4	1.00	40.4	1.59	17.2	250	172	2500	304.8	12.0	1.34	0.90	15.2	50

## Coupling info:

EH084 Assemblies	
Part Number	Description
FK6496HHH6000	EH08408, 50 ft.
FK6496KKK6000	EH08412, 50 ft.
FK6496MMK6000	EH08416, 50 ft.
Assembly includes male swivel ground joint fitti	1 1

## Core Industrial hose products



## Steam



## H9568

## Concord 250 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 **EPDM** Reinforcement

2-wire braid **Cover** Pin-pricked EPDM

Colors Black (BK), Red (RD)

## Operating temperature

 $-40^{\circ}$ C to  $+208^{\circ}$ C,  $(-40^{\circ}$ F to  $+407^{\circ}$ F) Continuous with saturated steam +232°C (+450°F) for intermittent superheated"

Number	Hose I.D.		Hose	O.D.	Opera Press			. Burst ssure	We	ight	Leng	gth
	mm	in	mm	in	bar	psi	bar	psi	kg/m	lbs/ft	mtr	ft
H956808BK	12.7	0.50	26.2	1.03	17.2	250	172	2500	0.68	0.46	15.2	50
H956812BK	19.0	0.75	34.1	1.34	17.2	250	172	2500	1.04	0.70	15.2	50
H956816BK	25.4	1.00	39.4	1.55	17.2	250	172	2500	1.43	0.96	15.2	50

## Coupling info:

Visit PowerSource crimp specs at **danfoss.com/crimp** for crimp specifications

H9568 Assemblies	
Part Number	Description
FK6500HHH6000	H956808, 50 ft.
FK6500KKK6000	H956812, 50 ft.
FK6500MMK6000	H956816, 50 ft.

Assembly includes male pipe solid & wing nut swivel ground joint fitting

## Core Industrial hose products



## EJ Series Crimp Couplings for steam hose

EJ series crimp couplings were specifically designed and tested for use with Danfoss hoses and wall thicknesses, use on other hose is not recommended.

## Wing Nut Swivel Ground Joint



Number	Hose	e I.D.	Thread size		DIM A	Hol	le Dia	DIM D		
	mm	in	NPSM	mm	in	mm	in	mm	in	
EJ5323-0808S	12.7	0.50	1-1/2 - 11-1/2	72.3	2.85	6.4	0.25	60.5	2.38	
EJ5323-1212S	19.1	0.75	1-1/2 - 11-1/2	72.3	2.85	12.7	0.50	90.4	3.56	
EJ5323-1216S	25.4	1.00	1-1/2 - 11-1/2	72.3	2.85	18.3	0.72	90.4	3.56	

## Male Pipe (NPTF) Rigid



Number	Hose	e I.D.	Thread size	C	DIM A	Hol	le Dia	Hex E		
	mm	in	NPTF	mm	in	mm	in	mm	in	
EJ5324-0808S	12.7	0.50	1/2 – 14	76.5	3.01	6.4	0.25	22.2	0.875	
EJ5324-1212S	19.1	0.75	3/4 – 14	77.8	3.08	12.7	0.50	30.2	1.188	
EJ5324-1616S	25.4	1.00	1 – 11-1/2	82.6	3.25	18.3	0.72	34.9	1.375	

## Female Spud



Number	Hos	e I.D.	Thread size			DIM A	Ho	le Dia	Hex E				
	mm	in	NPSM	NPTF	mm	in	mm	in	mm	in			
FF91058-08S	12.7	0.50	1-1/2 - 11-1/2	1-1/2 - 14	30.1	1.185	9.1	0.36	50.8	2.00			
FF91058-12S	19.1	0.75	1-1/2 - 11-1/2	3/4 – 14	30.1	1.185	15.5	0.61	50.8	2.00			
FF91058-16S	23.9	1.00	1-1/2 – 11-1/2	1 – 11-1/2	30.1	1.185	20.6	0.81	50.8	2.00			

## Assembly Instructions

#### Step 1

Cut the hose square to the required length using a cut-off wheel. Clean the cut end and hose bore.

#### Step 2

Mark the end of the hose with the correct insertion depth by size. See chart.

#### Step 3

Lubricate the I.D. of the hose with a water based lubricant such as P-80. A mixture of 5% dish soap/95% water can also be utilized.

#### Step 4

Insert the fitting into the hose. Twist the fitting while inserting to help with spreading the lubricant and easier insertion. Be sure the fitting is fully inserted by checking the end of the socket is aligned with the insertion depth mark on the hose.

#### Step 5

Crimp the hose to the specifications found in chart. Measure the crimp diameter in three locations utilizing calipers and take the average to verify that the crimp is within the specified range.

Also verify that the insertion depth mark on the hose is still at the end of the socket and that the hose has not pulled off of the fitting during the crimping process.

#### Steam applications are hazardous to both personnel and equipment.

These hazards are due to the high pressures and temperatures of steam conveyance. Hot water, low pressure steam and high pressure steam can cause severe scalding or bodily injury. Operators should use extreme caution to avoid burns. Danfoss understands the importance of utilizing quality products that provide maximum safety, especially when it comes to steam application, safety always comes first.

Hose Dash Size	Fitting Insertion Depth	Crimp Diameter B	Crimp Position C
		±0.12 mm ±0.005 in	±0.75 mm ±0.030 in
Steam Slaye	r Hose: EH080, EH08	1, EH084	
-08	34,7 mm	30,23 mm	32,39 mm
	1.37 in	1.190 in	1.275 in
-12	35,5 mm	35,94 mm	32,39 mm
	1.40 in	1.415 in	1.275 in
-16	34,7 mm	41,40 mm	32,39 mm
	1.37 in	1.630 in	1.275 in
Concord 250	Hose: H9568		
-08	34,7 mm	30,23 mm	32,39 mm
	1.37 in	1.190 in	1.275 in
-12	35,5 mm	35,94 mm	32,39 mm
	1.40 in	1.415 in	1.275 in
-16	34,7 mm	41,78 mm	32,39 mm
	1.37 in	1.645 in	1.275 in

None of the hoses listed are to be used as a pressure washer hose.

Contact your sales or customer service representative for availability, minimum order run & ordering information.

Core Industrial hose products



## Suction & Discharge



## H0364

## Otter



## Application

- Pumping, suction and discharge of water, mud and slurries
- Diluted agricultural fertilizers
- Convey water
- Transfer and haul salt water (brine)

## Markets

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

### Construction

Tube EPDM rubber

#### Reinforcement

High-tensile synthetic textile and

steel helical wire

EPDM rubber Cover

Black Color

## Operating temperature

-40°C to +120°C  $(-40^{\circ}F \text{ to } +248^{\circ}F)$ 

Number	Hose I.D. Hose O.D.		Operating Min. But Pressure Pressur					mum Radius	Vac	uum	We	eight	Length			
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
H036420-100	31.8	1.25	42.0	1.65	10.5	150	31.5	450	110	4.33	92.0	27.0	0.86	0.58	30.5	100
H036424-100	38.1	1.50	48.0	1.89	10.5	150	31.5	450	135	5.31	92.0	27.0	1.09	0.73	30.5	100
H036432-100	50.8	2.00	62.0	2.44	10.5	150	31.5	450	200	7.87	92.0	27.0	1.63	1.10	30.5	100
H036440-100	63.5	2.50	75.0	2.95	10.5	150	31.5	450	270	10.63	92.0	27.0	2.07	1.39	30.5	100
H036448-100	76.2	3.00	89.0	3.50	10.5	150	31.5	450	340	13.39	92.0	27.0	2.69	1.81	30.5	100
H036464-100	101.6	4.00	115.0	4.53	10.5	150	31.5	450	450	17.72	80.0	24.0	3.72	2.50	30.5	100
H036496-100	152.4	6.00	168.0	6.61	10.5	150	31.5	450	700	27.56	80.0	24.0	6.98	4.69	30.5	100

## Coupling info:

Core Industrial hose products



## Suction & Discharge



## **EHW150**

## Mink



- 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

## EHW150 Mink

#### Construction

Tube SBR rubber blend

#### Reinforcement

High tensile synthetic textile and

steel helical wire

Oil resistant NBR rubber blend Cover

Color Black

#### Certifications

RMA Class B

## Operating temperature

-25°C to +70°C  $(-13^{\circ}F \text{ to } +158^{\circ}F)$ 

Number	Hos	se I.D.	Hose	O.D.	Oper Pres	ating sure		Burst sure		imum I Radius	Vac	uum	We	eight	Len	igth
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	kg/m	lbs/ft	mtr	ft
EHW150-20-100	31.8	1.25	42.0	1.65	10.5	150	31.5	450	125	4.92	94.8	28	0.85	0.57	30.5	100
EHW150-24-100	38.1	1.50	49.0	1.93	10.5	150	31.5	450	150	5.91	94.8	28	1.16	0.78	30.5	100
EHW150-32-100	50.8	2.00	63.0	2.48	10.5	150	31.5	450	215	8.46	94.8	28	1.71	1.15	30.5	100
EHW150-40-100	63.5	2.50	76.0	2.99	10.5	150	31.5	450	280	11.02	94.8	28	2.10	1.41	30.5	100
EHW150-48-100	76.2	3.00	89.0	3.50	10.5	150	31.5	450	350	13.78	94.8	28	2.64	1.77	30.5	100
EHW150-64-100	101.6	4.00	115.0	4.52	10.5	150	31.5	450	490	19.29	94.8	28	3.67	2.47	30.5	100
EHW150-96-100	152.4	6.00	168.0	6.61	10.5	150	31.5	450	760	29.92	94.8	28	7.09	4.76	30.5	100

### Coupling info:

## Core Industrial hose products



## Specialty

## H1196

## Royalflex Water

## Boston by Danfoss Royalflex H1196 Water Specialty

## 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)

Blue Color

Certification

MSHA IC-84/37

## Operating temperature

-29°C to +82°C (-20°F to +180°F)

Number	Hos	Hose I.D. Hose O.D.		Operating Pressure			Min. Burst Pressure		imum I 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	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	900	203.2	8.00	100	30	1.64	1.10	30.5	100
H119640-100	63.5	2.50	76.2	3.00	21.0	300	62	900	254.0	10.00	100	30	1.99	1.34	30.5	100
H119648-100	76.2	3.00	88.9	3.50	17.0	250	52	750	304.8	12.00	100	30	2.98	2.00	30.5	100
H119664-100	101.6	4.00	114.3	4.50	14.0	200	41	600	406.4	16.00	100	30	4.05	2.72	30.5	100

## Coupling info:



# **Safety** information





# Safety information

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

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

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 or contact Technical Support.

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.

**AWARNING** 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.

**AWARNING** 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.

**AWARNING** 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.

**AWARNING** 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.

**AWARNING** 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.

**AWARNING** 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.

**AWARNING** 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 A 5 0 0 - 0 8 Y W - 1 0 0 Hose Type Hose Size Hose Color Hose Length

#### **Selection of Hose**

Selection of the proper Danfoss Industrial hose for an application is essential to the proper operation and safe use of the hose and related equipment. Inappropriate hose selection may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids or flying projectiles. To avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog. Some of the factors to consider in proper hose selection are known as STAMPED:

- **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

These factors and the supplemental information contained in this catalog should be considered in selecting the proper hose for your application. If you have any questions regarding the proper hose for your application, please contact Technical Support.

#### **Proper Selection of Hose Ends**

Selection of the proper Danfoss Industrial hose end or coupling is essential to the proper operation and safe use of hose assemblies and related equipment. Inadequate attention to the selection of the end fittings may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of an incompatible hose end or coupling, you should carefully review the information in this catalog. Some of the factors which are involved in the selection of the proper hose couplings are:

- · fluid compatibility
- temperature
- installation design
- hose size
- corrosion requirements
- fluid conveyed

The given hose and hose end selection factors and the other information contained in this catalog should be considered by you in selecting the proper hose end fitting for your application.

If you have any questions regarding the use of hose/hose ends, for North America contact Technical Support or your technical representative.

#### **Hose Installation**

Proper installation is essential to the proper operation and safe use of the hose assembly and related equipment.

**AWARNING** Improper hose assembly installation may result in serious injury or property damage caused by spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from improper hose assembly installation carefully review the information in this catalog. Some of the factors to be considered when installing a hose assembly are:

- hose elongation or contraction
- proper bend radius/hose routing under pressure
- elbows and adapters to relieve strain
- protection from rubbing or abrasion high temperature sources
- protection against excessive movement
- twisting from pressure spikes/surges

These hose assembly installation factors and the other information in this catalog should be considered by you before installing the hose assembly. If you have any questions regarding proper hose installation, or hose maintenance contact Technical Support.

Proper maintenance of the hose is essential to the safe use of the hose and related equipment. Hose should be stored in a dry place. Hose should also be visually inspected. Any hose that has a cut or gouge in the cover that exposes the reinforcement should be retired from service. Hoses should also be inspected for kinking or broken reinforcement. If the outside diameter of the hose is reduced by 20% or more, the hose should be repaired or removed from service. Inadequate attention to hose maintenance may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids, flying projectiles, or other substances.



# 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)?	
<b>2. Temperature</b> 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.  Acids/caustics	
Petroleum products (aromatics, aliphatics, etc.)	Animal fats (oils)
Materials that could cut or gouge hose	Sparking or flames
Solvents	☐ Cleaning with steam
Material to be transferred?	
Material concentration (%)?	
What hose cleaning solution(s) will be used?	
<b>5. Pressure &amp; Suction</b> 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?	

## Core Industrial hose products



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)?  Uery important  Slightly important  Not an issue

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

If you have any questions, please contact Danfoss Technical Support.

## Core Industrial hose products



## 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?

Is it dangerous? Is it corrosive?

Is it abrasive?

2. What are the pressures

involved?

High pressure

Medium pressure

Low pressure

Suction

3. What means of connection are required?

Threads

Special locking

Flanged ends

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.



## 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 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 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



Single bolt clamp





Cam and groove coupling



Flange end



Double bolt clamp



Interlocking clamps



King Combination nipple coupling or "KC"

## Core Industrial hose products



## Coupling Configurations

## **Coupling Configurations Examples**



**Short Shank** 

### **Short Shank**

Low pressure air and water service

3/16" to 1" Size Range:

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 Insets**

#### **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

1/4" to 6" Size Range:

Plated malleable iron; insert and spud may be either steel or malleable iron; NPT male and female with ground joint or washer

Attachment: Four bolt or two bolt interlocking clamps



## **Quick Acting**

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

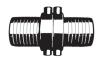
1/4" to 2" Size Range:

Plated malleable iron, stainless steel or bronze Attachment: Interlocking clamps or bands

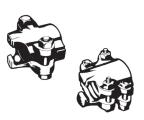
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## Coupling Configurations

### **Coupling Configurations Examples, continued**



**Water Suction** 



Interlocking Clamp



Cam and Grove



**Swaged or Crimped** 



**Combination Nipple** 

#### **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**

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**

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**

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**

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

## Core Industrial hose products



## Coupling Configurations

## **Coupling Configurations Examples**





Single Bolt Clamp



**Double Bolt Clamp** 



**Band Clamp** 

## **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**

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

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

Cast malleable iron, plated.

Attachment: Bolted on hose

## **Double Bolt Clamp**

Low or medium pressure, and suction service with large sizes of combination nipples, or couplings

3-1/2" to 17-1/2" hose O.D. Size Range:

Cast malleable iron, plated, and brass

Attachment: Applied over hose and bolted into position

## **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 Special locking band tool Attachment:



## Coupling Configurations

## **Coupling Configurations Examples**



Wire Hose Clamp



**Brass Ferule** 

## **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**

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





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