

Weatherhead® Fluid Conveyance **Field Guide**

Rubber Hydraulic Hose & Fittings • Industrial Hose • FACTS • Connectors



What should you know about fluid conveyance?

We put the world in motion

Whether your products move, turn, shape, mold, lift, dig, or haul, you can depend on Danfoss' fluid conveyance products to deliver the performance you need to stay competitive. Danfoss' unwavering dedication to leadership in mobile and industrial applications has made Danfoss one of the world's preferred suppliers of fluid conveyance systems, parts, controls and engineered solutions.

This Fluid Conveyance Field Guide was created as a quick reference tool for identifying and selling Danfoss' fluid conveyance products. The Field Guide is the ideal tool for those new to Danfoss' products or those having responsibility for a broad range of products.

This Field Guide provides the "core of the core" products that Danfoss Fluid Conveyance has to offer. For further or more detailed information on the fluid conveyance product lines go to:

www.Powersource.danfoss.com

The Danfoss logo is rendered in a white, elegant script font. The word "Danfoss" is written in a cursive style with a prominent underline that extends under the 's' and loops back under the 'n'.



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How to use the field guide

At Danfoss we are proud to offer an extensive catalog of Fluid Conveyance solutions that fit every application in every condition. This guide is a tool for navigating Danfoss' Fluid Conveyance categories, delivering the ability to find information quickly.

We've broken down each Fluid Conveyance category into easy to access sections that provide valuable selling tools and other crucial details for the core products in each product line.

Four field guide categories:

1. Rubber hydraulic hose and fittings
- machines, tools and accessories
2. Industrial Hose
3. Fuel, air conditioning,
transportation and specialty
4. Connectors

Each product line section includes:

1. Product line overview
with features/benefits
2. Typical applications
3. Need to know info that can include:
 - Comparison charts
 - Ordering and part information
 - Compatibility charts
4. Product information
5. Reference guides



This Field Guide was created as an overview of the Fluid Conveyance product lines.

For more information on our full offering, please visit: [Powersource.danfoss.com](https://powersource.danfoss.com) and [Danfoss.com](https://danfoss.com) > Products > hose, tubing, fittings and connectors

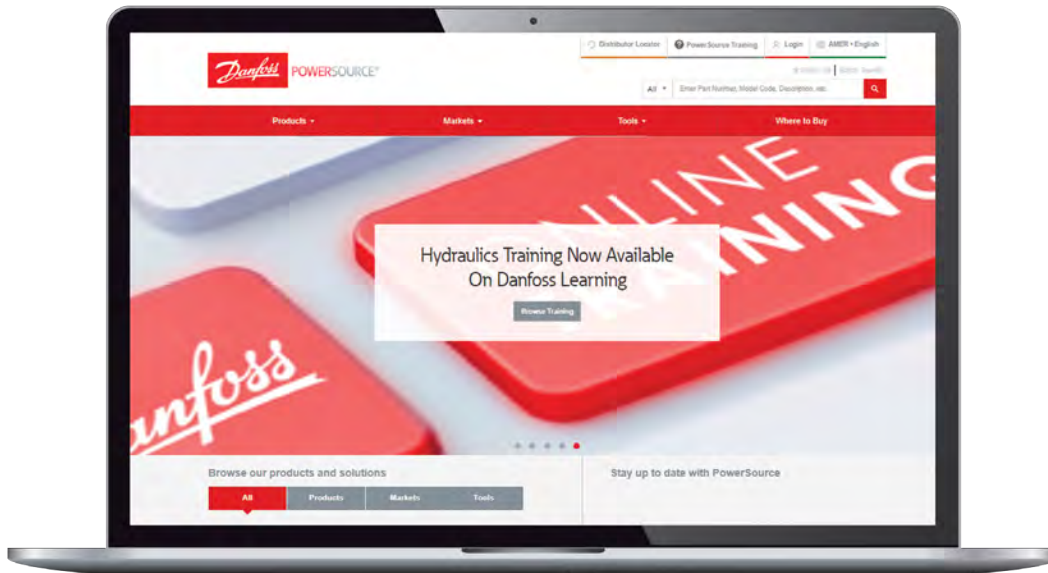
NOTICE:

It is important to note that not all FC products are represented in this guide.

Full product line offering information can be found at [Powersource.danfoss.com](https://powersource.danfoss.com) and [Danfoss.com](https://danfoss.com) > Products > hose, tubing, fittings and connectors

Danfoss PowerSource

Your information headquarters



Putting fluid conveyance information at your fingertips

Danfoss PowerSource is the hub for all of Fluid Conveyance. This informational site houses Danfoss' product, market and technical information including:

1. Searchable fluid conveyance product information:
 - Part numbers
 - Sizes
 - Performance and specifications
 - Branding information
2. Literature and videos
3. Product value propositions
4. Crimp specifications
5. Competitor cross reference tool
6. Coupling cross reference tool
7. Custom bin label tool
8. 2D/3D cad models
9. Hose assembly configurator
10. Marketplace (authenticated PowerSource only)
11. List prices and lead times (authenticated PowerSource only)

To access these tools and more, log in to PowerSource from the authenticated distributor portal site and then select tools.

[Powersource.danfoss.com](https://powersource.danfoss.com)

Custom bin labels

Get your custom bin labels today!

Danfoss has created a solution for all your instant bin label needs from the convenience of your office in just 3 simple steps.

1

Select template

2

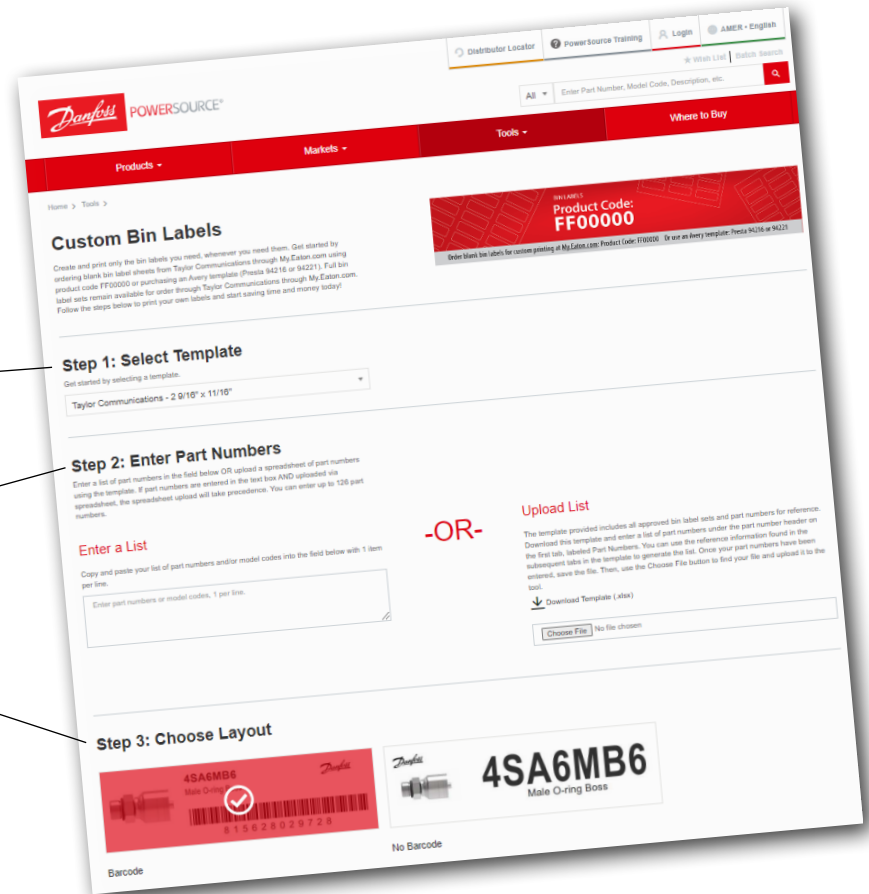
Enter part numbers

Keep it simple and upload your own file of part numbers.

3

Choose the layout

Configure label with or without barcode to maximize font size of part number and description.



Label template options:

- Order through Taylor Communications using product code FF00000 - size is 11/16" x 2 9/16"
- Avery template Presta 94216 - size is 3/4" x 2 1/4"
- Avery template Presta 94221 - size is 1" x 2 1/2"

This custom bin label web solution can be found at:
[Powersource.danfoss.com](https://powersource.danfoss.com) > Tools > Custom Bin Labels

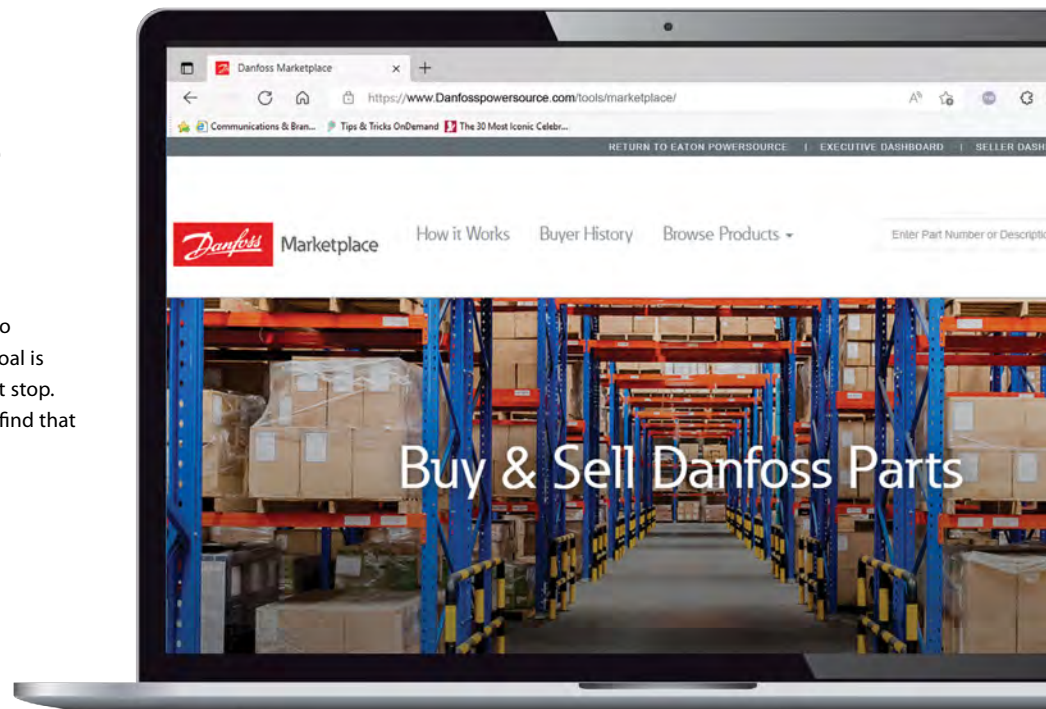
Danfoss Marketplace

Don't miss out, become part of the Marketplace community today!

Marketplace is the only site that provides access to Weatherhead non-core products. Whether your goal is buying or selling, Marketplace should be your first stop. Check it out today and don't miss your chance to find that rare part or sell your surplus inventory.

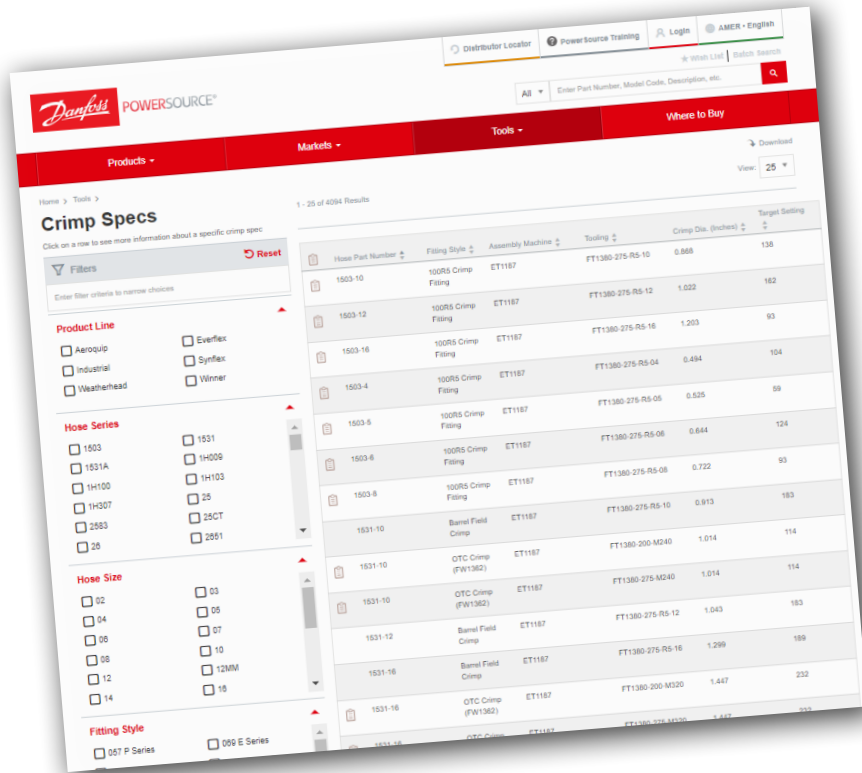
Marketplace

search · buy · post · sell



Danfoss PowerSource

Tools



Crimp specs

Danfoss has simplified the crimping process.

Visit the Crimp Spec tool at danfoss.com/crimp to find up to date crimp information. To find your crimp specs, select your assembly machine group, hose series, hose size, and fitting style. You can then download the results to Excel or PDF to see all relevant details, including all tooling needed for the job.

Danfoss' mobile crimp spec tool

Danfoss' mobile crimp spec tool provides a four-step guided selection process for quick access to crimp specs on your mobile device.

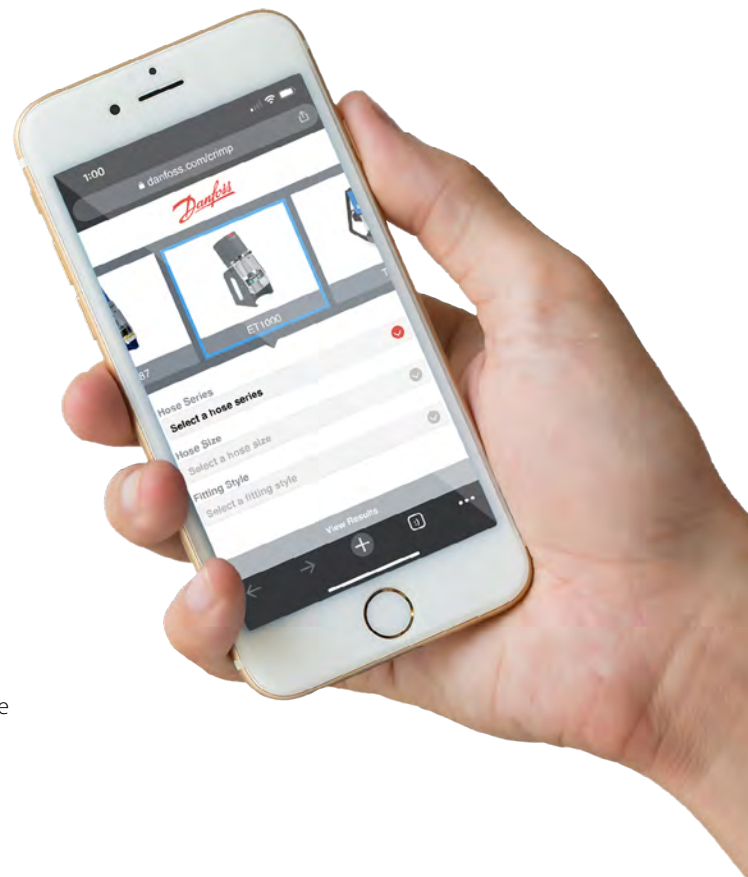
It's as easy as:

- Visit the Crimp Spec tool at danfoss.com/crimp
- Find your machine
- Select your hose series
- Select your hose size
- Find your fitting style

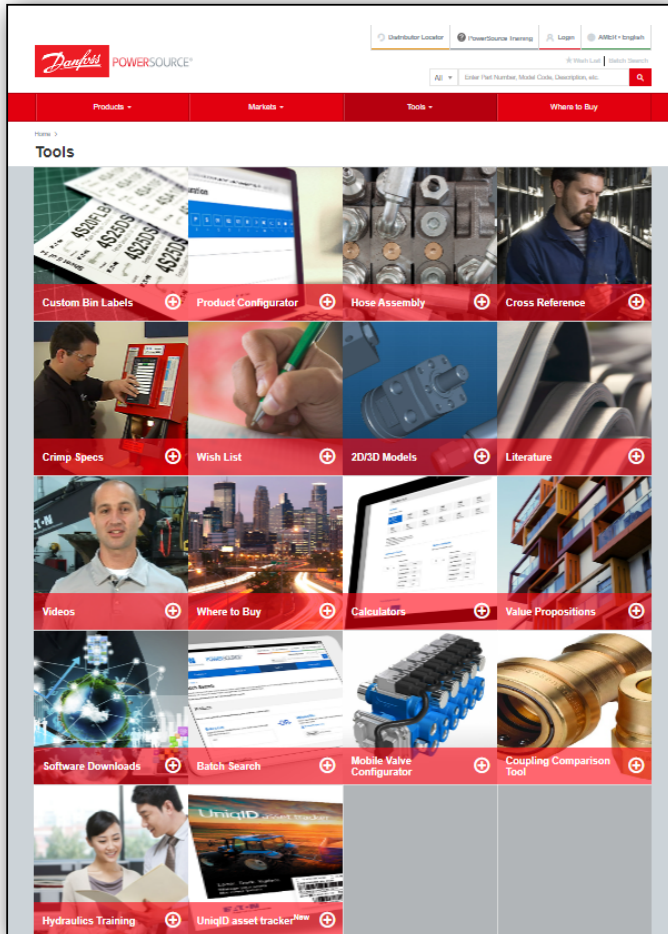
Get results, fast! You can even bookmark the crimp spec page and add it as an app on the home screen of your mobile device for easy access at any time!

For iOS, open the webpage in Safari, click the boxed arrow icon at the bottom of the screen, and select the plus sign icon "Add to Home Screen."

For Android, open the webpage, click the three vertical dots on the top right hand corner, and select "Add to Home Screen."



PowerSource information



Beyond the features highlighted on the previous pages, PowerSource also offers:

Literature -

Access the complete Danfoss Product Literature library, which includes product catalogs, brochures and sell sheets, operators manuals, repair documents, and technical and installation documents.

Videos -

View Danfoss' promotional, training, and help videos.

On demand presentations -

Access training videos in the On Demand Presentations section to learn about the latest products from Danfoss.

Sales kits -

Your one-stop-shop for selling tools on the benefits of Danfoss' products and services.

Hose assembly tool -

To build a hose assembly and then create a bill of materials, start by selecting a hose, hose ends, and specify the length.

Calculators -

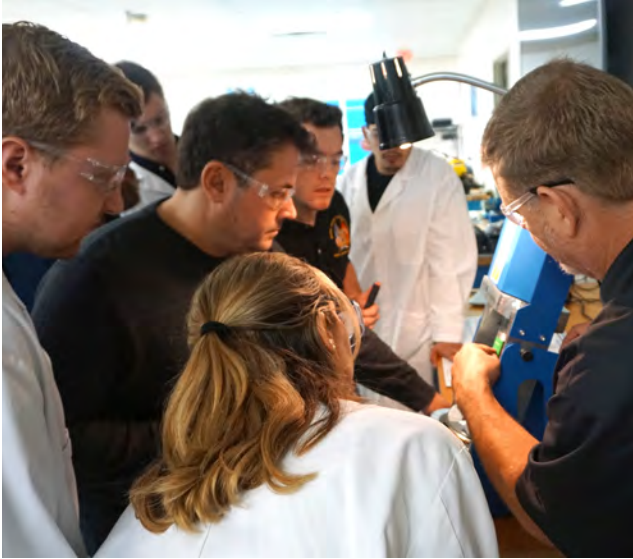
Danfoss' Hydraulic Calculators are designed to get you the right parts to suit your needs.

Training -

For almost 60 years, with a combined 140 years in hydraulics and education, Danfoss instructors have made Danfoss Hydraulics Training the educational standard for the industry. Our program offers decades of experience in the field of hydraulics, state-of-the-art classrooms, and fully equipped labs enable both hands-on and virtual training. Versatile instructors are also capable of taking their classes on the road to you.

Danfoss Training

Danfoss' Fluid Conveyance training



Knowledge is power, invest in your career!

Master Danfoss' core fluid conveyance products and more with the help of our training team! Danfoss offers in depth, formal training courses designed to make you an expert in the field.

Attend Danfoss' 200 Level Fluid Conveying Products School to learn more about general product and application information or Danfoss' 300-400 Level Fluid Conveying Products Specialist School for a class focused on more technical information as well as competitive advantage materials.

Danfoss Hydraulics Training
1660 Indian Wood Circle
Maumee, OH 43537
Phone toll free: 1-800-413-8809
Fax: (952) 906-3731

Danfoss Hydraulics Training
7945 Wallace Road
Eden Prairie, MN 55344
Phone toll free: 1-800-413-8809
Fax: (952) 906-3731

HydraulicsTraining@Danfoss.com



For a current class schedule, contact hydraulicstraining@danfoss.com for further details and training dates.

UniqID

Label. Track. Replace. Manage your assets like never before with Danfoss' UniqID asset tracker.

Danfoss' UniqID™ asset tracker is a cloud-based tool that can be used worldwide by Danfoss distributors. The UniqID asset tracker was created by Danfoss to label, manage, and track products. This tool accelerates replacement time by eliminating the need to physically bring in products to be replaced. While the tool is designed for Danfoss hose assemblies, it is versatile and can be applied across industrial products.



Complete asset lifecycle

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



Reduce downtime

Repair and replace quickly and accurately with instant hose assembly information for reorder ease. Minimize paper-based processes.



Manage assets on the go

Accessible on smartphones, tablets, and desktop applications anywhere, anytime.



Perform scheduling and reporting

Proactively manage upcoming maintenance and replacement needs via built-in scheduling. Run and export custom reports.



Increase revenue

Secure aftermarket sales with the unique six-digit code that directs customers back to the original hose assembler.

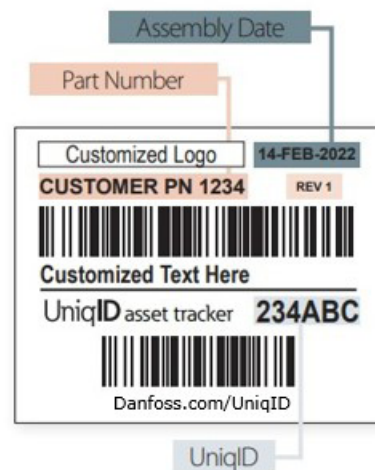


Streamline record keeping

Upload inspection info, testing certifications, engineering drawings, and much more.

Next steps

If you have additional questions or are interested in getting started, please contact UniqID@Danfoss.com or visit our website at www.Danfoss.com/UniqID. Danfoss' UniqID asset tracker is also available for download from the App Store or Google Play for on-the-go requests.



Rubber hydraulic hose & fittings

The right products
for the right application

Weatherhead by Danfoss H600

Weatherhead by Danfoss H280





Rubber hydraulic hose & fittings

Danfoss has a full range of braided and spiral hydraulic hoses and end fittings to meet the requirements of all low, medium and high pressure hydraulic applications. Whether you need high-performance hoses for critical systems or standard hoses for others, Danfoss' complete portfolio has you covered. Danfoss offers both premium and standard tier hoses and fittings to provide a complete system matched offering.

► Benefits:

- Highly engineered system of matched hose, fitting, and assembly equipment to provide the highest quality, most durable, and reliable hose assemblies.
- Danfoss has a 2-tiered product approach for offering the right product for the right application. Premium tiered hoses and fittings offer the highest level of performance and Standard tiered Winner™ products offer the most economical solution when just meeting the specification is good enough.
- Dura-Kote® plating technology is offered on all through the cover, one piece crimp fittings for both braided and spiral hoses.
- Dura-Seal™ technology is employed on all 4 and 6 spiral hose fittings to provide Class 0 cool-down leakage protection.
- Danfoss maintains a global manufacturing footprint that provides redundant manufacturing while maintaining the highest quality standards.










Rubber hydraulic hose

Need to know

► Typical applications:

Industrial and hydraulic systems of all types, including mobile on and off highway and stationary type equipment

Rubber hydraulic hose & fittings Quick reference chart

Specs		Hose type				Pressure range	WEATHERHEAD & WINNER CORE HOSES				
SAE	EN	Braided		Spiral			Winner Standard Tier	Weatherhead Premium Tier			
		1 BRAID	2 BRAID	4 SPIRAL	6 SPIRAL						
					PSI	STANDARD	PREMIUM	LOW-TEMP	HIGH-TEMP	ABRASION	
SAE 100R1	EN 857 Type 1SC	X				580 to 3,625	EC115	H180	-	H190H	H145R
SAE 100R2	EN 857 Type 2SC		X			1,300 to 6,500	EC215	H280/H881	H245L	H290H	-
SAE 100R4			X			60 to 305	WH004	H039	-	-	-
SAE 100R12	EN 856 R12			X		2,550 to 6,500	EC415	H430	-	H525H	-
SAE 100R13	EN 856 R13			X	X	5,100	EC420	H471	-	-	H430R
SAE 100R15				X	X	6,100	-	H600	H810L	-	-
SAE 100R17		X	X			3,000	EC118	H145	-	-	-









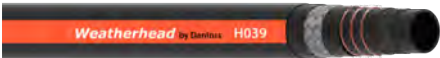

*These are basic performance specs for quick reference, many hose series meet and/or exceed additional specifications



**These are pressure ranges for all sizes in a series for quick reference

**Engineered
to last**

Danfoss hydraulic hose assemblies are backed by the following warranties:
 3 Year Warranty – All premium hoses assembled with premium fittings.
 1 Year Warranty – All standard hoses assembled with premium or standard fittings.

Two-tier rubber hydraulic hose product portfolio

The Core Premium hoses		Operating temperature	Abrasion resistance	Bend radius	Impulse cycles
PREMIUM		Certifications: SAE ABS EN MSHA ISO DNV USCG			
  Premium	HIGH: 260° F (127° C) LOW: -40° F (-40° C)	Dura-Tuff premium abrasion cover	1/2 Bend (H881 is 1/3 bend)	Exceed industry standard	
HIGH-TEMP		Certifications: SAE ABS EN MSHA ISO DNV USCG			
  High-Temp	HIGH: 302° F (150° C) LOW: -40° F (40° C)	CPE high temp	Full Bend	Exceed industry standard	
LOW-TEMP		Certifications: SAE EN MSHA ISO			
  Low-Temp	HIGH: 212° F (100° C) LOW: -70° F (-57° C)	Dura-Tuff premium abrasion cover	Full Bend	Exceed industry standard	
ULTRA-ABRASION		Certifications: SAE ABS EN MSHA ISO DNV			
  Abrasion	HIGH: 212° F (100° C) LOW: -40° F (40° C)	Bruiser ultra-abrasion cover	Full Bend	Exceed industry standard	
SUCTION		Certifications: SAE ABS EN MSHA			
  Suction	HIGH: 275° F (135° C) LOW: -40° F (40° C)	Standard cover	1/3 Bend	Exceed industry standard	

The Core Standard hoses	Operating temperature	Abrasion resistance	Bend radius	Impulse cycles
STANDARD	Certifications: SAE EN MSHA ISO DNV USCG			
 <div style="text-align: center;">  <p>Standard</p> </div>	<p>HIGH: 260° F (127° C)</p> <p>LOW: -40° F (-40° C)</p>	<p>Standard Cover</p>	<p>1/2 Bend (excluding EC118)</p>	<p>Meet industry standard</p>

What are the **core products?**

Core two-tier portfolio options

Danfoss' core rubber hydraulic portfolio is the heart of our product line. The core two-tier portfolio highlights the very best in technology and safety with hoses that are specifically designed to perform in a diverse range of applications, from the routine to the intense and all levels in-between.

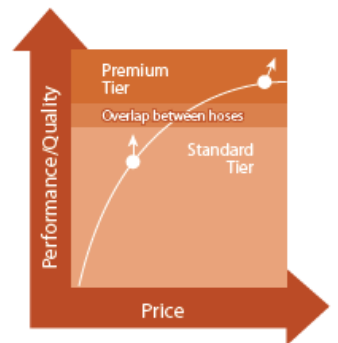
Why provide two-tier **core products?**

Benefits:

Expected benefits of a two tier product portfolio:

- Win across the entire platform
- Right product for every application
- Flexibility in price vs performance situations
- Compete in the fast growing standard tier market

Standard tier fastest growing



- Premium: Products with additional features, capabilities, and/or exceed industry specs
- Standard: Products that meet basic needs or industry specs



Premium



High-Temp



Low-Temp



Ultra-Abrasion



Suction



Standard

Premium

Our core premium hoses for OEM or aftermarket use exceed industry standards for pressure, temperature and abrasion resistance, with options adapted to handle your toughest jobs.

Performance examples:

- Impulse 150%
- 300K cycles
- 121° C
- High frequency flexing
- High pressure impulse

Standard

Winner[®] by Danfoss hoses meet all industry standards for pressure, temperature and abrasion resistance, offering the right product at a competitive price point for OEM markets.

Performance examples:

- Impulse 133%
- 200K cycles
- 100° C
- Normal frequency flexing
- Normal pressure impulse

Rubber hydraulic hose

Ordering and hose numbering system

How to order

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

Danfoss
14615 Lone Oak Road
Eden Prairie, MN 55344
952-937-9800;
888-258-0222;
www.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 Weatherhead 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 current information.

WARNING Hose assemblies

Danfoss manufactures the terminal ends of our hose fittings to the appropriate requirements established by the SAE. Therefore, the performance ratings of these hose fittings meet the SAE requirements. It is possible to order a hose assembly with a fitting terminal end that has a performance rating lower than the hose rating. When ordering hose assemblies, please keep the connecting end performance rating in mind since this may affect overall hose assembly performance. Hose assembly

components (hose and fittings) are easily assembled in the field. However, factory assembled reusable and crimped hose assemblies are available. For complete information, contact Danfoss.

Numbering system - hydraulic hose

- 1 Weatherhead hose is generally designated with the letter 'H'.*
- 2 Each hose is assigned a three or four digit base number from 001-9999, i.e., H069, H280, H470, H571.
- 3 The last two digits indicate inside hose diameter (I.D.) in sixteenths of an inch.

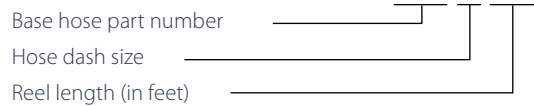
H 280 08

1 2 3

In the example used above 08 is equal to 8/16" – or 1/2" I.D. hose.

Reeled hose

Most core hoses are offered on reels of 250 or 500 ft lengths.



Note: Hose part numbers with no packaging suffix are 50 ft. coils. H28008 and H43016 would be examples.

Rubber hydraulic hose

Hose fittings numbering system

Numbering system - Hose fittings

Z-series hose fitting numbering system

Every type of Weatherhead hose fitting is designed to fit a certain group of hoses with limiting dimensions and tolerances. For your convenience the hoses used on each fitting style are indicated in the Weatherhead Master catalog hose fitting listings.

Crimp fittings

08 Z-25 8

① ② ③ ④

- 1 The **first two digits** indicate hose size (I.D.) in sixteenths of an inch.
- 2 Hose fitting type and material. This letter is always followed by a dash.
- 3 In the **Quick Identification** table in the Weatherhead Master Catalog find the connection end **part suffix** that is nearest to, but less than, your part suffix.

For example, if your connection end suffix is 258, the nearest lower part suffix in the table is 250, which indicates your connection end is **female pipe swivel**. Subtract this number to find your end connection size in sixteenths of an inch. In this example, 258 - 250 is 8, or 8/16 of an inch.
- 4 The last one or two digits indicate the size of the end connection in sixteenths of an inch. Refer to the individual catalog listing for metric and specialty ends.

4S/6S and 1R/2R hose fittings numbering system

Part numbers collapse to the shortest possible number of digits:

It is assumed that a fitting has a straight configuration unless a code is added to designate otherwise.

e.g., 4SA8FJ8 has a straight configuration
4SA8FJA8 has a 45° elbow configuration

Dashes and unnecessary zeros are not used.

e.g., 1/4" is designated by "4" not "-4" or "04"
5/8" is designated by "10" not "-10"

4S/6S and 1R/2R hose fitting numbering system

Complete nipple part number: 4S A 8 FJ A 8

Product group code _____

4S = 4S fitting part # for four spiral hose
6S = 6S fitting part # for six spiral hose
1R = Reusable fitting part # for 1 wire braided hose
2R = Reusable fitting part # for 2 wire braided hose

Material stock code _____

If material is round stock, then this position collapses.
A = inch hex stock (metric hex, this position collapses)

End connection size* _____

End connection code _____

BF = BSP Female Swivel (1 hex)
BP = BSP Male Parallel
BT = BSP Male Tapered
CT = Cat Flange
DK = 24 Male (light duty)
DL = DKO Female Swivel (light duty)
DS = DKO Female Swivel (heavy duty)
EK = 24 Male (heavy duty)
FH = Flange Code 62
FJ = Female JIC Swivel
FL = Flange Code 61
FR = Female ORS
FS = Female SAE Swivel
JF = JIS Female Swivel
JM = BSP Female Swivel (2 hexes)
KF = Komatsu Female Swivel
KS = Komatsu Split Flange
MB = Male Boss O-Ring
MF = Male Inverted Flare
MJ = Male JIC
MP = Male Pipe
MR = Male ORS
PF = Female Pipe Swivel
PS = Pipe Swivel

Connecting end configuration code _____

If nipple has a straight configuration, then this position collapses.
A = 45° D = 22-1/2°
B = 90°, standard or short drop
C = 90°, long drop
E = 67-1/2°
F = 30°
G = 60°

Hose size* _____

Material Designation _____

C = stainless steel, if fitting is zinc plated carbon steel (standard), this position collapses.

* When ordering sizes 3, 4, 5, 6 and 8 the part number requires only single digits.

Rubber hydraulic hose



Premium

1 Wire Braided

Premium

H180 hydraulic hose



Standards/Certifications:

Exceeds SAE 100R1 AT Type S, EN 857 1SC, ISO 1436-1 Type 1SC Performance

Sizes and pressure: (bar/psi)

-04 (255 /3700), -06 (235 /3400), -08 (221/3200), -10 (140 /2025),
-12 (138/2000) -16 (100/1500), -20 (69/1000), -24 (52/750), -32 (41/600)

Operating temperature:

-46°C to +127°C (-50°F to +260°F)

Available fittings:



Inner tube:
Synthetic rubber

Reinforcement:
1 steel braid

Cover:
Dura-Tuff high abrasion synthetic rubber

Typical application:
Low and medium pressure hydraulic systems, petroleum and water-based fluids, construction equipment, and agriculture equipment.

MSHA approved
USCG approved
DNV GL approved
ABS approved

Selling features:

Pressures, temperatures and abrasion resistance all exceed the industry standards. This provides more durability and longer life hose assemblies. Both crimp and field attachable fittings are offered with Dura-Kote plating.

Sells against:

Parker 387

Gates M3K

Continental XCP3



Standard

Standard

EC115 hydraulic hose



Standards/Certifications:

Meets EN 857 Type 1SC

Sizes and pressure: (bar/psi)

-04 (225 /3250), -06 (180 /2500), -08 (160/2300), -10 (130 /1900),
-12 (105/1525) -16 (88/1275), -20 (63/925), -24 (50/725), -32 (40/580)

Operating temperature:

-40°C to +100°C (-40°F to +212°F)

Available fittings:



Inner Tube:
Synthetic rubber

Reinforcement:
1 steel braid

Cover:
Synthetic rubber cover

Typical application:
Hydraulic system service with petroleum and water-based fluids, for general industrial service.

MSHA approved
USCG approved

Selling features:

Cost effective hose with a cost effective fitting option that meets the industry standard.

Sells against:

Ryco T3000, DF1D

Manuli T15N, R15N, R15C

NRP Jones A101



Premium

2 Wire Braided

Premium

H280 hydraulic hose



Standards/Certifications:

Exceeds SAE 100R16 Type S, EN 857 Type 2SC, ISO 11237-1 Type 2SC Performance, SAE J 1942-1

Sizes and pressure: (bar/psi)

-04 (448/6500), -06 (400/5900), -08 (345/5000), -10 (276/4000), -12 (241/3500)
-16 (207/3000), -20 (172/2500), -24 (138/2000), -32 (110/1600)

Operating temperature:

-46°C to +127°C (-50°F to +250°F)

Available fittings:



Inner tube:

Synthetic rubber

Reinforcement:

2 steel braids

Cover:

Dura-Tuff high abrasion synthetic rubber

Typical application:

Low and medium pressure hydraulic systems, petroleum and water-based fluids, Construction equipment, Agriculture equipment.

MSHA approved
USCG approved
DNV GL approved
ABS approved

Selling features:

On average, 14% higher pressures, 26% higher temperatures and better abrasion resistance than the competition.

Both crimp and field attachable fittings are offered with Dura-Kote plating.

Sells against:

Parker 387TC, 462TC, 471TC, 487TC
Gates M3K, M4K, M5K
Continental XCP3, XCP4, XCP5



Premium

2 Wire Braided

Premium

H881 Dynamax® hydraulic hose



Standards/Certifications:

Exceeds SAE 100R16, 100R19, EN 857 Type 2SC, ISO 18752

Sizes and pressure: (bar/psi)

-04 (450/6525), -06 (400/5800), -08 (360/5220), -10 (350/5075)
-12 (330/4785), -16 (280/4060), -20 (172/2500), -24 (138/2000)

Operating temperature:

-46°C to +126°C (-50°F to +260°F) at 1/2 SAE 100R2 bend radius

Available fittings:



Inner tube:

Dura-Pulse patented compound

Reinforcement:

2 steel braids

Cover:

Dura-Tuff high abrasion synthetic rubber

Typical application:

Low, medium and high pressure hydraulic systems, petroleum and water-based fluids, compact construction equipment, agricultural equipment, mining, oil and gas, aerial lifts, forestry/logging equipment, and waste trucks.

MSHA approved
DNV GL approved
ABS approved

Selling features:

1 million impulse cycle performance, 35% higher pressures, 26% higher temperature, superior flexibility (1/3 SAE 100R2 bend radius at 100°C), and better abrasion resistance than the competition.

Sells against:

Competitors 100R12 (4-wire spiral)
Parker 387TC, 462TC, 471TC, 487TC
Gates MXG, M3K, M4K, M5K
Continental XCP3, XCP4, XCP5

Rubber hydraulic hose

✓ Standard

Standard

EC215 hydraulic hose



Standards/Certifications:
Meets EN 857 Type 2SC, SAE J 1942-1

Sizes and pressure: (bar/psi)
-04 (400/5800), -06 (330/4800), -08 (275/4000), -10 (250/3650), -12 (215/3125)
-16 (165/2400), -20 (125/1800), -24 (100/1450), -32 (90/1300)

Operating temperature:
-40°C to +100°C (-40°F to +212°F)

Available fittings:



Inner tube:
Synthetic rubber

Reinforcement:
2 steel braids

Cover:
Synthetic rubber

Typical application:
Hydraulic system service with petroleum and water-based fluids, for general industrial service.

MSHA approved
USCG approved

Selling features:
Cost effective hose with a cost effective fitting option that meets the industry standard.

Sells against:
Ryco T3000, T4000, T5000, DF2D
Manuli T2SN, R2SN, R2SC
NRP Jones A102



Premium

Spiral R12

Premium

H430 high-pressure hydraulic hose



Standards/Certifications:

Exceeds SAE 100R12, EN 856 Type R12,
EN 856 Type 4SP Performance, SAE J 1942-1

Sizes and pressure: (bar/psi)

-06 (448/6500), -08 (415/6000), -10 (415/6000), -12 (380/5500),
-16 (350/5100) -20 (310/4500), -24 (275/4000), -32 (275/4000)

Operating temperature:

-40°C to +127°C (-40°F to +260°F)

Available fittings:



4S Series

Inner tube:

Synthetic rubber

Reinforcement:

4 wire spiral

Cover:

Dura-Tuff high abrasion
synthetic rubber

Typical application:

For very high pressure
hydraulic lines subjected to
pressure surges and flexing.
Typical applications include
construction, mining,
farming, and high
performance industrial
equipment.

MSHA approved

USCG approved

DNV GL approved

ABS approved

Selling features:

Pressures, temperatures
and abrasion resistance
all exceed the industry
standards. On average,
pressures are 24% higher.
This provides more
durability and longer life
hose assemblies.

Crimp fittings with Dura-
Seal technology provide
Class 0 cool down leakage.

Sells against:

Parker 487TC, 787TC, 797TC

Gates EFG4K, EFG5K, EFG6K

Continental XCP4S, XCP5S,
XCP6S



Standard

Standard

EC415 hydraulic hose



Standards/Certifications:

Meets SAE 100R12, SAE J 1942-1

Sizes and pressure: (bar/psi)

-06 (280/4050), -08 (280/4050), -10 (280/4050), -12 (280/4050),
-16 (280/4050) -20 (210/3050), -24 (175/2550), -32 (175/2550)

Operating temperature:

-40°C to +121°C (-40°F to +250°F)

Available fittings:



4S Series

Inner tube:

Synthetic rubber

Reinforcement:

4 wire spiral

Cover:

Synthetic rubber

Typical application:

Hydraulic systems service
with petroleum and water
based fluids, for general use.

MSHA approved

USCG approved

Selling features:

Cost effective spiral hose
that meets the industry
standard.

Crimp fittings with
Dura-Seal technology
provide Class 0 cool
down leakage.

Sells against:

Ryco H4000, H5000, H6000

Manuli R12

NRP Jones 1212, 1312

Rubber hydraulic hose



Premium

Spiral R13

Premium

H471 X-Flex® hydraulic hose



Standards/Certifications:

Exceeds SAE 100R13, EN 856 Type R13, ISO 3862 Type R13 Performance, SAE J 1942-1

Sizes and pressure: (bar/psi)

-12 (350/5100), -16 (350/5100), -20 (350/5100), -24 (350/5100), -32 (350/5100)

Operating temperature:

-40°C to +127°C (-40°F to +260°F)

Available fittings:



4S/6S Series

Inner tube:
Synthetic rubber

Reinforcement:
-12 to -24 size:
4 wire spiral
-32 size:
6 wire spiral

Cover:
Dura-Tuff high abrasion synthetic rubber

Typical application:
High pressure hydraulic system service with petroleum and water-base fluids for low temperature applications.

MSHA approved
USCG approved
DNV GL approved
ABS approved

Selling features:
Extremely flexible, requiring 46% less force to bend than competitor products. ½ bend radius for those compact routing applications.

Crimp fittings with Dura-Seal technology provide Class 0 cool down leakage.

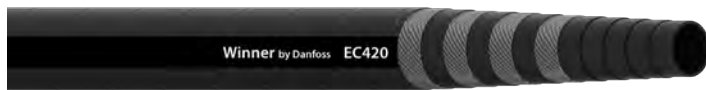
Sells against:
Parker 787TC
Gates EFG5K
Continental XCP55



Standard

Standard

EC420 hydraulic hose



Standards/Certifications:

Meets SAE 100R13, SAE J 1942-1

Sizes and pressure: (bar/psi)

-12 (350/5100), -16 (350/5100), -20 (350/5100), -24 (350/5100), -32 (350/5100)

Operating temperature:

-40°C to +121°C (-40°F to +250°F)

Available fittings:



4S/6S Series

Inner tube:
Synthetic rubber

Reinforcement:
-12, -16 size:
4 wire spiral
-20 to -32 size:
6 wire spiral

Cover:
Synthetic rubber

Typical application:
Suitable for use in hydraulic systems with high peak pressures and arduous operating conditions.

MSHA approved
USCG approved

Selling features:
Cost effective spiral hose that meets the industry standard.

Extremely flexible, requiring less force to bend than competitor products. ½ bend radius for those compact routing applications and easier installation

Crimp fittings with Dura-Seal technology provide Class 0 cool down leakage.

Sells against:
Ryco H5000
Manuli R13
NRP Jones 1213, 1313

Rubber hydraulic hose

Constant pressure



Premium

Braided R17

Premium

H145 3000 PSI constant pressure hose



Standards/Certifications:
SAE 100R17

Sizes and pressure: (bar/psi)
-04 (210/3045), -06 (210/3045), -08 (210/3045), -10 (210/3045),
-12 (210/3045), -16 (210/3045)

Operating temperature:
-04 to -08: -40°C to +121°C (-40°F to +250°F)
-10 to -16: -40°C to +100°C (-40°F to +212°F)

Available fittings:



Z Series

Inner tube:
Nitrile

Reinforcement:
Single or double wire braid

Cover:
Ozone flexible neoprene

Typical application:

- General industrial and hydraulic system service with petroleum and water-based fluids.
- Recommended for high-pressure oil lines used on construction equipment and other off-highway applications

USCG approved

Selling features:
3000 psi constant pressure hose that exceeds with impulse life, temperatures and abrasion resistance all exceeding the industry standards. This provides more durability and longer life hose assemblies.

Crimp fittings with Dura-Kote plating provide the ultimate corrosion protection.

Sells against:
Parker 387TC
Gates M3K
Continental XCP3



Standard

Braided R17

Standard

EC118 3000 PSI constant pressure hose



Standards/Certifications:
SAE 100R17

Sizes and pressure: (bar/psi)
-04 (210/3050), -06 (210/3050), -08 (210/3050),
-10* (210/3050), -12* (210/3050), -16* (210/3050)
*Two braids of high tensile wire

Operating temperature:
-46°C to +100°C (-40°F to +212°F)

Available fittings:



Z Series



Two-piece
Winner

Inner tube:
Synthetic rubber

Reinforcement:
1 or 2 wire braid

Cover:
Synthetic rubber

Typical application:
Low and medium pressure hydraulic systems with petroleum and water-based fluids

Construction equipment and agriculture equipment

MSHA approved

Selling features:
3000 psi constant pressure hose that is cost effective and meets industry standards.

Sells against:
Ryco T3000
Manuli Harvester/17 H01056
NRP Jones A151

Rubber hydraulic hose

High-temp/low-temp/abrasion

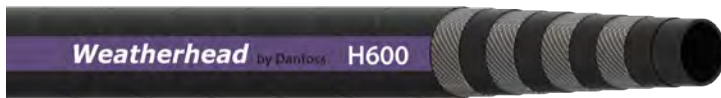


Premium

Spiral R15

Premium

H600 X-Flex hydraulic hose



Standards/Certifications:

Exceeds SAE 100R15, ISO 18752-DC Performance, SAE J 1942-1

Sizes and pressure: (bar/psi)

-12 (420/6100), -16 (420/6100), -20 (420/6100), -24 (420/6100), -32 (420/6100)

Operating temperature:

-40°C to +121°C (-40°F to +250°F)

Available fittings:



4S/6S Series

Inner tube:

Synthetic rubber

Reinforcement:

-12, -16 size:
4 wire spiral

-20, -24, -32 size:
6 wire spiral

Cover:

Dura-Tuff high abrasion
synthetic rubber

Typical application:

High pressure hydraulic
system service with
petroleum and
water-based fluids, for
general industrial service.

MSHA approved
USCG approved
ABS approved
DNV GL approved

Selling features:

Extremely flexible, requiring
less force to bend than
competitor products. ½ bend
radius for those compact
routing applications and
easier installation

Crimp fittings with
Dura-Seal technology provide
Class 0 cool down leakage.

Sells against:

Parker 797TC

Gates EFG6K

Continental XCP6S

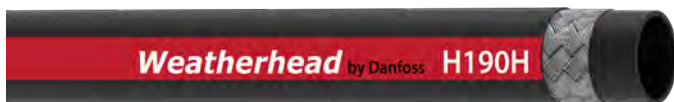


High-Temp

1 Wire Braided

Premium high temp.

H190H High-Temp hydraulic hose



Standards/Certifications:

Exceeds SAE 100R1 Type S, EN 853 1SN,
ISO 1436-1 Type 1SN performance

Sizes and pressure: (bar/psi)

-04 (225/3250), -06 (215/3125), -08 (175/2550), -10 (140/2050), -12 (125/1800)
-16 (90/1300), -20 (65/950), -24 (50/725), -32 (40/580)

Operating temperature:

-46°C to +150°C (-40°F to +302°F)

Available fittings:



Z Series

Inner tube:

CPE

Reinforcement:

2 steel braids

Cover:

Dura-Tuff high abrasion
synthetic rubber

Typical application:

Low and medium pressure
hydraulic systems,
petroleum and water-based
fluids, Construction
equipment, Agriculture
equipment.

MSHA approved
ISO 1436a

Selling features:

This hose performs
in extremely high
temperatures providing
optimum service life. In
addition the pressure
ratings are up to 48% higher
than the 100R1AT industry
specification.

Crimp fittings with
Dura-Kote plating provide
the ultimate corrosion
protection.

Sells against:

Parker 426

Gates G1H

Continental DR1SN

Rubber hydraulic hose

High-temp/low-temp/abrasion

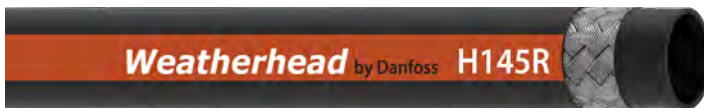


Ultra-Abrasion

1 and 2 Wire Braided

Premium abrasion


H145R Bruiser ultra-abrasion resistant 3000 PSI constant pressure hose



Standards/Certifications:
Exceeds SAE 100R17 performance

Sizes and pressure: (psi/bar)
1-wire braided: -04 (210/3050), -06 (210/3050), -08 (210/3050),
2-wire braided: -10 (210/3050), -12 (210/3050), -16 (210/3050)

Operating temperature:
-40°C to +100°C (-40°F to +212°F)

Available fittings:
 Z Series

Inner tube:
Nitrile

Reinforcement:
1 steel braid and
2 steel braid

Cover:
Synthetic rubber
intermediate cover, and
Bruiser ultra-abrasion
UHMPE outer cover

Typical application:
3,000 PSI constant working
pressure hose with abrasion
resistant cover. Ideal for
logging, construction,
mining and other off
highway applications.

Selling features:
Featuring the Bruiser cover,
this hose is up to
700x more abrasion
resistant than a standard
rubber covered hose.
For long life in the most
abrasive environments, this
hose outperforms all others.
Crimp fittings with
Dura-Kote plating provide
the ultimate corrosion
protection.

Sells against:
Parker 387ST, 436
Gates M3K-MTF
Continental ACP3



High-Temp

2 Wire Braided

Premium high temp.


H290H High-Temp hydraulic hose



Standards/Certifications:
Exceeds SAE 100R2AT Type S, EN 853 2SN, ISO 1436-1 type 2SN performance

Sizes and pressure: (bar/psi)
-04 (400/5800), -06 (345/5000), -08 (293/4250), -10 (250/3650),
-12 (215/3125) -16 (175/2550), -20 (155/2250), -24 (125/1800), -32 (105/1525)

Operating temperature:
-40°C to +150°C (-40°F to +302°F)

Available fittings:
 Z Series

Inner tube:
CPE

Reinforcement:
2 steel braid

Cover:
Black CPE

Typical application:
High pressure hose for
hydraulic fluid applications

MSHA approved

Selling features:
This hose performs
in extremely high
temperatures providing
optimum service life. In
addition the pressure
ratings are up to 48% higher
than the 100R2 at industry
specification.
Crimp fittings with
Dura-Kote plating provide
the ultimate corrosion
protection.

Sells against:
Gates G2H
Continental DR2SN
Parker 436

Rubber hydraulic hose

High-temp/low-temp/abrasion



Low-Temp

2 Wire Braided

Premium low temp.

H245L Low-Temp hydraulic hose



Standards/Certifications:

Exceeds SAE 100R16 Type S, EN 857 Type 2SC, ISO 11237-1 Type 2SC Performance

Sizes and pressure: (bar/psi)

-04 (414/6000), -06 (345/5000), -08 (310/4500), -10 (276/4000),
-12 (241/3500) -16 (193/2800), -20 (159/2300), -24 (138/2000), -32 (103/1500)

Operating temperature:

-57°C to +100°C (-70°F to +212°F)

Available fittings:



Z Series

Inner tube:

Weatherhead brand exclusive low temperature compound

Reinforcement:

2 steel braids

Cover:

Dura-Tuff high abrasion synthetic rubber

Typical application:

Low temperature flexing and hydraulic system service with petroleum and water-base fluids. For use in frigid environments on construction equipment and other mobile applications.

MSHA approved

Selling features:

Even in the coldest environments, this hose stays flexible and will not develop cover cracks. Tube and cover compounds engineered for low temperature performance provide long lasting durability.

Crimp fittings with Dura-Kote plating provide the ultimate corrosion protection.

Sells against:

Parker 301LT, 472LT

Gates G2L

Continental LR16SC

Rubber hydraulic hose

High-temp/low-temp/abrasion

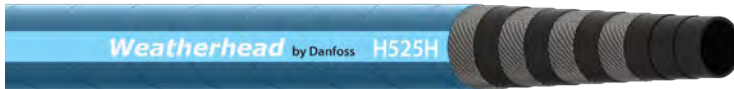


High-Temp

4 Wire Spiral

Premium high temp.

H525H High-Temp hydraulic hose



Standards/Certifications:

Exceeds SAE 100R12, EN 856 Type R12 performance

Sizes and pressure: (bar/psi)

-12 (345/5000), -16 (345/5000), -20 (240/3500), -24 (240/3500), -32 (225/3250)

Operating temperature:

-40°C to +150°C (-40°F to +302°F)

Available fittings:



4S Series

Inner tube:

Synthetic rubber

Reinforcement:

4 wire spiral

Cover:

Synthetic rubber

Typical application:

Hydraulic system service with petroleum, fire-resistant and water based fluids. Fuel and lubricating systems. For additional approved hydraulics fluids reference the fluid compatibility charts shown in Danfoss catalogs.

MSHA approved

Selling features:

Engineered compounds provided extended life in high temperature applications.

Crimp fittings with Dura-Seal technology provide Class 0 cool down leakage.

Sells against:

Parker 721, 722, 787

Gates EFG4K, EFG5K



Ultra-Abrasion

4 Wire Spiral

Premium abrasion

H430R Bruiser ultra-abrasion resistant high-pressure hydraulic hose



Standards/Certifications:

Exceeds SAE 100R12, EN 856 type R12 performance

Sizes and pressure: (bar/psi)

-06 (280/4050), -08 (280/4050), -10 (280/4050), -12 (280/4050), -16 (280/4050), -20 (210/3050), -24 (175/2550), -32 (175/2550)

Operating temperature:

-40°C to +121°C (-40°F to +250°F)

Available fittings:



4S Series

Inner tube:

Nitrile

Reinforcement:

4 wire spiral

Cover:

Synthetic rubber intermediate cover, and Bruiser ultra-abrasion UHMPE outer cover

Typical application:

High abrasion applications. Hydraulic system service with petroleum and water-base fluids, for general industrial service.

Selling features:

Pressures, temperatures and abrasion resistance all exceed the industry standards. 24% higher pressures on average. This provides more durability and longer life hose assemblies.

Crimp fittings with Dura-Seal technology provide Class 0 cool down leakage.

Sells against:

Parker 722ST

Gates EFG4K-MTF

Continental ARC12

Rubber hydraulic hose

High-temp/low-temp/abrasion



Low-Temp

4 and 6 Wire Spiral

Premium low temp.

EC810 Low-Temp hydraulic hose



Standards/Certifications:

Exceeds SAE 100R15 Type S, EN 856 Type R15 performance

Sizes and pressure: (bar/psi)

-12 (420/6100), -16 (420/6100), -20 (420/6100),
-24 (420/6100), -32 (420/6100)

Operating temperature:

-57°C to +100°C (-70°F to +212°F)

Available fittings:



4S/6S Series

Inner tube:

Exclusive low temperature

Reinforcement:

-12, -16 size:

4 wire spiral

-20 to -32 size:

6 wire spiral

Cover:

MSHA approved abrasion resistant cover

Typical application:

Hydraulic system with petroleum based fluids for low temperature applications.

MSHA approved

Selling features:

Even in the coldest environments, this hose stays flexible and will not develop cover cracks. Tube and cover compounds engineered for low temperature performance provide long lasting durability.

Crimp fittings with Dura-Seal technology provide Class 0 cool down leakage.

Sells against:

Parker 792LT

Gates EFG6KL

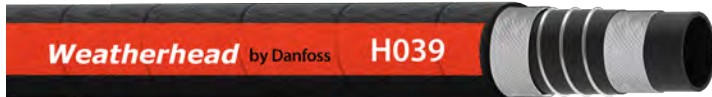


Suction

Suction and Return

Premium

H039 Suction and return hydraulic hose



Standards/Certifications:

Exceeds SAE 100R4

Sizes and pressure: (bar/psi)

-12 (21/300), -16 (17/250), -20 (14/200), -24 (10.5/150), -32 (7/100)

Operating temperature:

-40°C to +135°C (-40°F to +275°F)

Available fittings:



Z Series

Inner tube:

Synthetic rubber

Reinforcement:

One helical wire between two textile reinforcement layers

Cover:

Dura-Tuff high abrasion synthetic rubber

Typical application:

Suction and transfer applications for petroleum hydraulic fluids, fuel, lubricating oils, gasoline, water and many other industrial fluids

**MSHA Approved
USCG Approved
ABS**

Selling features:

This flexible 1/3 bend suction/return hose exceeds the SAE 100R4 specification. This provides more durability and longer life in applications.

Sells against:

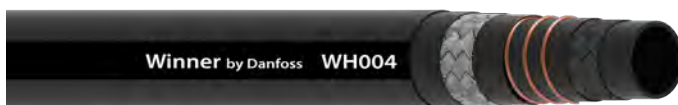
Parker 881, 881HT
Gates GMV, G4H
Continental HR4



Standard

Standard

WH004 suction and return hydraulic hose



Standards/Certifications:

Exceeds SAE 100R4 Performance

Sizes and pressure: (bar/psi)

-12 (21/305), -16 (17/245), -20 (14/205), -24 (10.5/150)
-32 (7/100), -40 (4/60), -48 (4/60)

Operating temperature:

-40°C to +100°C (-40°F to +212°F)

Available fittings:

Z Series and 1G (OTC): -12, -16, -20, -24 and -32
4T (Optimum) and Winner 2 pc Series: -12 and -16
Hose barb with band clamps: -12 thru -48 with a reduced operating pressure rating of 4 bar (60 psi).

Inner tube:

Oil resistant NBR

Reinforcement:

Textile with helical and anti-static wire

Cover:

Synthetic rubber

Typical application:

Suitable for use in suction applications for hydraulics, crude fuel, lubricating oils, gasoline, air, water and chemical transfer

MSHA approved

Selling features:

Cost competitive construction, 5 fitting options available (depending on size), helical steel coil for robust vacuum resistance, and flexible with 1/3 bend.

Sells against:

Ryco SRF, SRX
Manuli Spirtex
NRP Jones 2004

Rubber hydraulic hose

Fittings

Dura-Kote and Dura-Seal technology **extends the life** of your hose assembly



3X Carbon Steel Corrosion Protection

Dura-Kote Plating Technology

Hose fittings that will now offer 3x the corrosion protection on carbon steel fittings as compared to competitive hose fittings. Danfoss' Dura-Kote fittings provide up to 1000 hours of corrosion protection. This is a huge step forward in metal fitting corrosion protection.






4S/6S Fitting

Class 0 Cool-Down Leakage Protection

Dura-Seal Technology

This patent-pending innovation from Danfoss eliminates hose assembly cool-down leakage, while extending hose assembly life, reducing equipment down-time.

<p>Braided Hose Fittings</p>	<p>Features:</p>
<p>Premium Z Series</p> 	<ul style="list-style-type: none"> • New Dura-Kote plating technology for up to 1,000 hours of corrosion resistance • Bite the wire technology for best in class connection and sealing • Class zero leakage SAE J1176 on approved hose styles • Over 550 Z-Series part numbers available • Danfoss' MatchMate program provides identification markings on the hose, hose fittings, and crimp dies for quick and easy assembly
<p>Standard Two-piece Winner</p> 	<ul style="list-style-type: none"> • Non-skive, two-piece crimp fitting • One nipple part number for EC115, EC215 and EC118 standard hoses • Meets industry specifications when used with the EC115, EC215 and EC118 standard hoses • Clear silver hexavalent chromium-free plating • Carbon steel material
<p>Spiral Hose Fittings</p>	<p>Features:</p>
<p>Premium 4S/6S Spiral Series</p> 	<ul style="list-style-type: none"> • New Dura-Kote plating technology for up to 1,000 hours of corrosion resistance • New patent pending Dura-Seal technology to eliminate hose assembly cool-down leakage • Class zero leakage SAE J1176 on approved hose styles • Danfoss' MatchMate spiral-hose/fitting identification system program provides identification markings on the hose, hose fittings, and crimp dies for quick and easy assembly
<p>Reusable Hose Fittings</p>	<p>Features:</p>
<p>Premium Reusable</p> 	<ul style="list-style-type: none"> • New Dura-Kote plating technology for up to 1,000 hours of corrosion resistance • Engineered to provide peak performance with Danfoss' core braided hose products • Can be assembled in the field without special tooling • Reduced downtime • Quick repair

Intelligent laylines and engineered assemblies



Abrasion cover and sub brand

The new layline design also introduces straightforward terminology. Instantly identify enhanced features like abrasion resistance and flexibility by checking the sub-brand section of the layline.

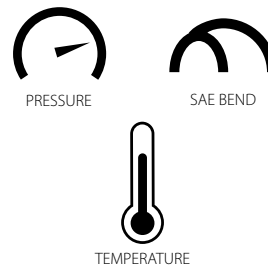
Agency specifications

Hose agency specifications are clearly defined on each hose. SAE, ISO, MSHA, DNV-GL, USCG, EN designation are displayed clearly on each hose, taking the guess work out of hose qualifications.

In addition, many of Danfoss' premium hydraulic hoses exceed SAE and EN specifications to offer superior performance. We will now consistently note this and other specification-related terms on the layline.

Global comprehension

The new layline design also introduces easy-to-identify icons and pictograms, which allow more users around the world to intuitively identify performance characteristics associated with each of Danfoss's rubber hydraulic hoses. Icons include temperature, bend radius, pressure, correct fitting type and more.



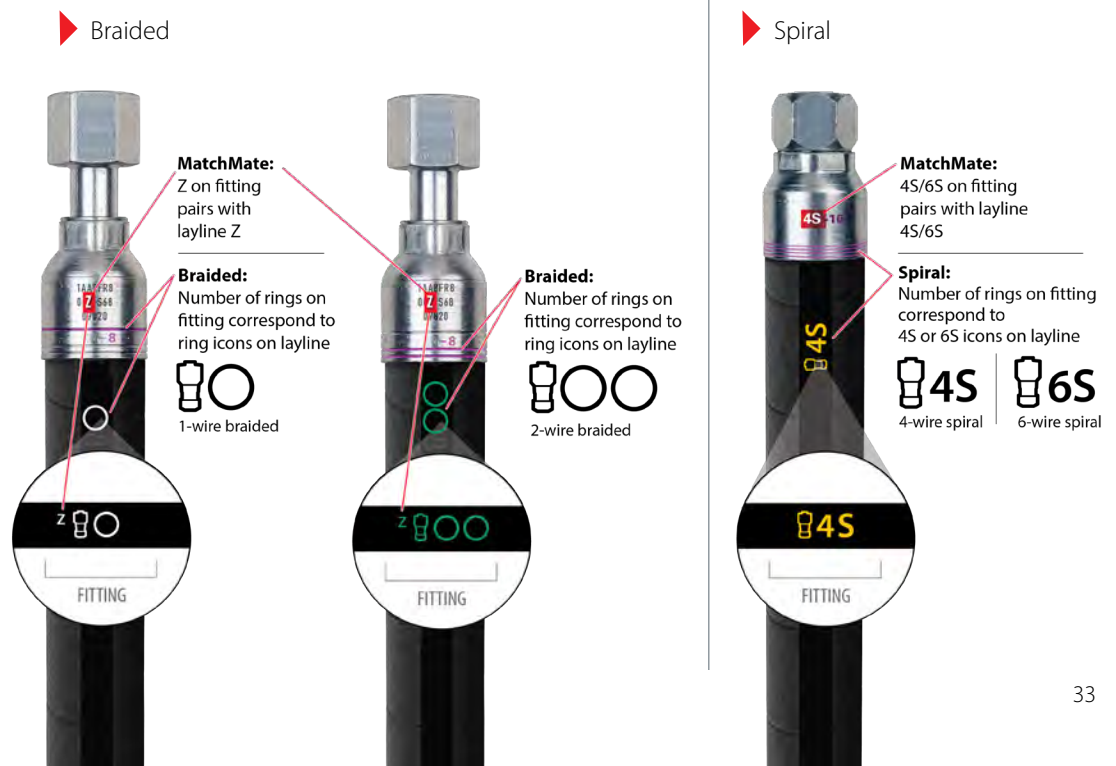
SAE bend radius

Each SAE hose standard specifies the minimum bend radius of a hose. This is defined as the smallest diameter the hose can be bent without kinking. However, Danfoss recognizes that merely meeting a standard is often not good enough for the tight routing needs of your applications. Many of our core hoses have long been engineered to perform at half or even one-third of the bend radius required by SAE.

For the first time, our laylines will now indicate when a hose exceeds the SAE bend radius requirement. This improvement in bend means easier routing, better performance and reduced hose length requirements.

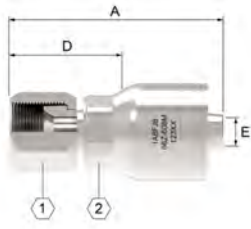
Fitting info

As part of this layline refresh, all of Danfoss' rubber hydraulic hoses will now utilize the simple, intuitive MatchMate hose and fitting system.



Rubber hydraulic hose

Z Series fittings

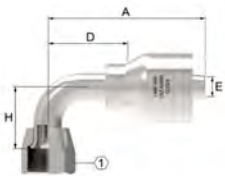


JIC/37° Female Swivel

Part #	Thread	Hose size
04Z-604	7/16 - 20	-04
04Z-605	1/2 - 20	-04
04Z-606	9/16 - 18	-04
06Z-604	7/16 - 20	-06
06Z-606	9/16 - 18	-06
06Z-608	3/4 - 16	-08
06Z-610	7/8 - 14	-06

Part #	Thread	Hose size
08Z-606	9/16 - 18	-08
08Z-608	3/4 - 16	-06
08Z-610	7/8 - 14	-08
08Z-612	1 1/16 - 12	-08
10Z-610	7/8 - 14	-10
10Z-612	1 1/16 - 12	-10
12Z-610	7/8 - 14	-12

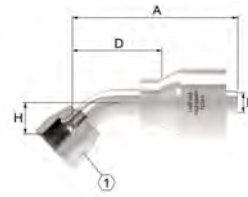
Part #	Thread	Hose size
12Z-612	1 1/16 - 12	-12
12Z-616	1 5/16 - 12	-12
16Z-616	1 5/16 - 12	-16
20Z-620	1 5/8 - 12	-20
24Z-624	1 7/8 - 12	-24
32Z-632	2 1/2 - 12	-32



JIC/37° Female Swivel,
90° Elbow

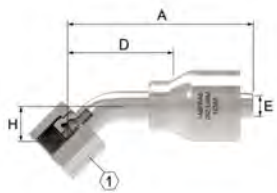
Part #	Thread	Hose size
04Z-664 ^a	7/16 - 20	-04
04Z-665 ^a	1/2 - 20	-04
04Z-666	9/16 - 18	-04

Part #	Thread	Hose size
06Z-664	7/16 - 20	-06
06Z-666	9/16 - 18	-06
06Z-668 ^a	3/4 - 16	-06
08Z-668 ^a	3/4 - 16	-08
08Z-670 ^a	7/8 - 14	-08
10Z-670 ^a	7/8 - 14	-10
12Z-672	1 1/16 - 12	-12
16Z-676	1 5/16 - 12	-16
20Z-677	1 5/8 - 12	-20
24Z-678	1 7/8 - 12	-24



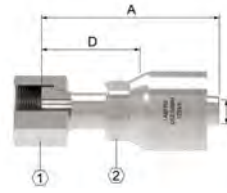
Female FOR-SEAL®
(ORS) Swivel,
45° Tube Elbow

Part #	Thread	Hose size
06Z-L66	1 1/16 - 16	-06
06Z-L68	1 3/16 - 16	-06
08Z-L66	1 1/16 - 16	-08
08Z-L68	1 3/16 - 16	-08
08Z-L70	1 - 14	-08
10Z-L70	1 - 14	-10
12Z-L72	1 3/16 - 12	-12
16Z-L72	1 3/16 - 12	-16
20Z-L80	1 11/16 - 12	-20
24Z-L84	2 - 12	-24



JIC/37° Female Swivel,
45° Tube Elbow

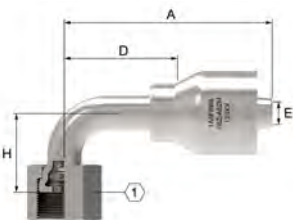
Part #	Thread	Hose size
04Z-684 ^a	7/16 - 20	-04
06Z-686	9/16 - 18	-06
06Z-688 ^a	3/4 - 16	-06
08Z-688 ^a	3/4 - 16	-08
10Z-690 ^a	7/8 - 14	-10
12Z-692	1 1/16 - 12	-12
16Z-696	1 5/16 - 12	-16
20Z-697	1 5/8 - 12	-20



Female FOR-SEAL®
(ORS) Swivel

Part #	Thread	Hose size
04Z-S64	9/16 - 18	-04
04Z-S66	1 1/16 - 16	-04
06Z-S64	9/16 - 18	-06

Part #	Thread	Hose size
06Z-S66	1 1/16 - 18	-06
06Z-S68	1 3/16 - 16	-06
08Z-S66	1 1/16 - 16	-08
08Z-S68	1 3/16 - 16	-08
08Z-S70	1 - 14	-08
08Z-S72	1 3/16 - 12	-08
10Z-S70	1 - 14	-10
12Z-S72	1 3/16 - 12	-12
16Z-S76	1 7/16 - 12	-16
16Z-S80	1 11/16 - 12	-16
20Z-S80	1 11/16 - 12	-20
24Z-S84	2 - 12	-24



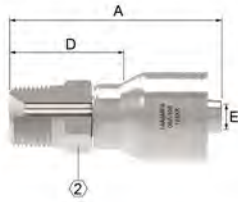
Female FOR-SEAL® (ORS) Short
Drop Swivel, 90° Tube Elbow

Part #	Thread	Hose size
04Z-A24	9/16 - 18	-04
04Z-A26	1 1/16 - 16	-04
06Z-A26	1 1/16 - 16	-06
06Z-A28	1 3/16 - 16	-06
08Z-A26	1 1/16 - 16	-08
08Z-A28	1 3/16 - 16	-08
08Z-A30	1 - 14	-08
10Z-A30	1 - 14	-10
12Z-A32	1 3/16 - 12	-12

Part #	Thread	Hose size
16Z-A36	1 7/16 - 12	-16
20Z-A40	1 11/16 - 12	-20
24Z-A44	2 - 12	-24

Rubber hydraulic hose

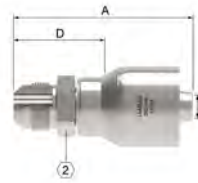
Z Series fittings



Male Pipe Rigid (NPTF)

Part #	Thread	Hose size
04Z-102	1/8 - 27	-04
04Z-104	1/4 - 18	-04
04Z-106	3/8 - 18	-04
04Z-108	1/2 - 14	-04
06Z-104	1/4 - 18	-06

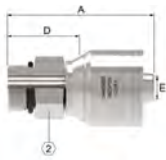
Part #	Thread	Hose size
06Z-106	3/8 - 18	-06
06Z-108	1/2 - 14	-06
08Z-106	3/8 - 18	-08
08Z-108	1/2 - 14	-08
08Z-112	3/4 - 14	-08
10Z-108	1/2 - 14	-10
12Z-112	3/4 - 14	-12
16Z-116	1-11 1/2	-16
20Z-120	1 1/4 - 11 1/2	-20
24Z-124	1 1/2 - 11 1/2	-24
32Z-132	2 - 11 1/2	-32



JIC/37° Male Rigid

Part #	Thread	Hose size
04Z-504	7/16 - 20	-04
04Z-505	1/2 - 20	-04
04Z-506	9/16 - 18	-04
06Z-506	9/16 - 18	-06

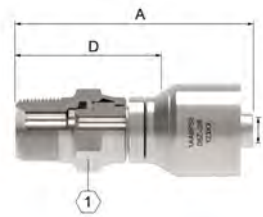
Part #	Thread	Hose size
06Z-508	3/4 - 16	-06
08Z-508	3/4 - 16	-08
08Z-510	7/8 - 14	-08
08Z-512	1 1/16 - 12	-08
10Z-510	7/8 - 14	-10
12Z-512	1 1/16 - 12	-12
12Z-516	1 5/16 - 12	-12
16Z-516	1 5/16 - 12	-16
20Z-520	1 5/8 - 12	-20
24Z-524	1 7/8 - 12	-24



Male Straight Thread O-ring Rigid

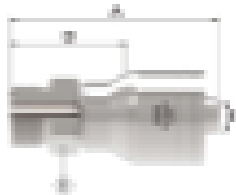
Part #	Thread	Hose size
04Z-P04	7/16 - 20	-04
04Z-P05	1/2 - 20	-04
04Z-P06	9/16 - 18	-04
06Z-P06	9/16 - 18	-06

Part #	Thread	Hose size
06Z-P08	3/4 - 16	-06
06Z-P10	7/8 - 14	-06
08Z-P08	3/4 - 16	-08
08Z-P10	7/8 - 14	-08
08Z-P12	1 1/16 - 12	-08
10Z-P10	7/8 - 14	-10
12Z-P12	1 1/16 - 12	-12
16Z-P16	1 5/16 - 12	-16
20Z-P20	1 5/8 - 12	-20
24Z-P24	1 7/8 - 12	-24



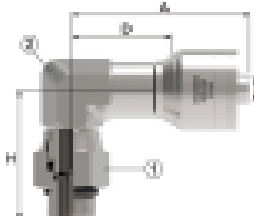
Male Pipe Swivel

Part #	Thread	Hose size
04Z-J04	1/4 - 18	-04
06Z-J04	1/4 - 18	-06
06Z-J06	3/8 - 18	-06
06Z-J08	1/2 - 14	-06
08Z-J06	3/8 - 18	-08
08Z-J08	1/2 - 14	-08
12Z-J12	3/4 - 14	-12
16Z-J16	1 - 11 1/2	-16



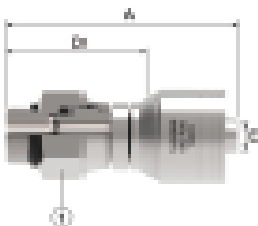
Male FOR-SEAL® (ORS) Rigid

Part #	Thread	Hose size
04Z-E64	9/16 - 18	-04
06Z-E66	1 1/16 - 16	-06
06Z-E68	1 3/16 - 16	-06
08Z-E68	1 3/16 - 16	-08
08Z-E70	1 - 14	-08
10Z-E70	1 - 14	-10
12Z-E72	1 3/16 - 12	-12
16Z-E76	1 7/16 - 12	-16
20Z-E80	1 11/16 - 12	-20



Male Straight Thread O-ring Swivel 90° Elbow

Part #	Thread	Hose size
04Z-R66	9/16 - 18	-04
06Z-R66	9/16 - 18	-06
06Z-R68	3/4 - 16	-06
06Z-R70	7/8 - 14	-06
08Z-R68	3/4 - 16	-08
08Z-R70	7/8 - 14	-08
08Z-R72	1 1/16 - 12	-08
12Z-R72	1 1/16 - 12	-12

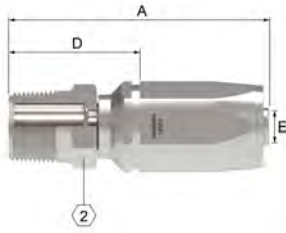


Male Straight Thread O-ring Swivel

Part #	Thread	Hose size
04Z-R04	-04	7/16 - 20
06Z-R06	-06	9/16 - 18
06Z-R08	-06	3/4 - 16
08Z-R08	-08	3/4 - 16
10Z-R08	-10	3/4 - 16
12Z-R10	-12	7/8 - 14

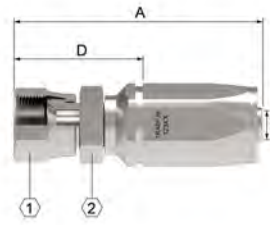
Rubber hydraulic hose

Reusable fittings (H180, EC115)



Male pipe

Part #	Thread	Hose size
1RA2MP4	1/8 - 27	-04
1RA4MP4	1/4 - 18	-04
1RA4MP6	1/4 - 18	-06
1RA6MP6	3/8 - 18	-06
1RA6MP8	3/8 - 18	-08
1RA8MP8	1/2 - 14	-08
1RA12MP12	3/4 - 14	-12
1RA16MP16	1 - 11 1/2	-16



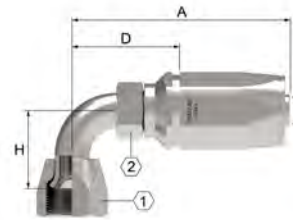
SAE 37° (JIC) swivel

Part #	Thread	Hose size
1RA4FJ4	7/16 - 20	-04
1RA6FJ6	9/16 - 18	-06
1RA8FJ8	3/4 - 16	-08
1RA12FJ12	1 1/16 - 12	-12
1RA16FJ16	5/16 - 12	-16



SAE 37° (JIC) swivel
45° elbow

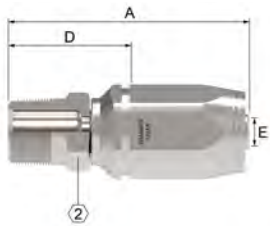
Part #	Thread	Hose size
1RA4FJA4	7/16 - 20	-04
1RA6FJA6	9/16 - 18	-06
1RA8FJA8	3/4 - 16	-08
1RA12FJA12	1 1/16 - 12	-12
1RA16FJA16	15/16 - 12	-16



SAE 37° (JIC) swivel
90° elbow

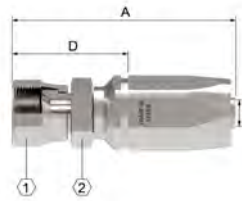
Part #	Thread	Hose size
1RA4FJB4	7/16 - 20	-04
1RA6FJB6	9/16 - 18	-06
1RA8FJB8	3/4 - 16	-08
1RA12FJB12	1 1/16 - 12	-12
1RA16FJB16	15/16 - 12	-16

Reusable fittings (H280, EC215)



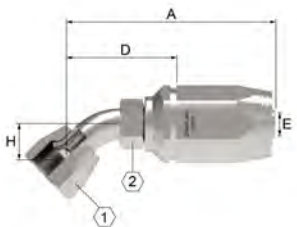
Male pipe

Part #	Thread	Hose size
2RA4MP4	1/4 - 18	-04
2RA6MP6	3/8 - 18	-06
2RA6MP8	3/8 - 18	-08
2RA8MP8	1/2 - 14	-08
2RA12MP12	3/4 - 14	-12
2RA12MP16	1 - 11 1/2	-167



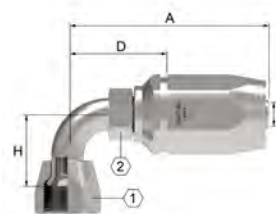
SAE 37° JIC swivel

Part #	Thread	Hose size
2RA4FJ4	7/16 - 20	-04
2RA6FJ6	9/16 - 18	-06
2RA8FJ8	3/4 - 16	-08
2RA12FJ12	1 1/16 - 12	-12
2RA16FJ16	15/16 - 12	-16



SAE 37° (JIC) swivel
45° elbow

Part #	Thread	Hose size
2RA4FJA4	7/16 - 20	-04
2RA6FJA6	9/16 - 18	-06
2RA8FJA8	3/4 - 16	-08
2RA12FJA12	1 1/16 - 12	-12
2RA16FJA16	15/16 - 12	-16

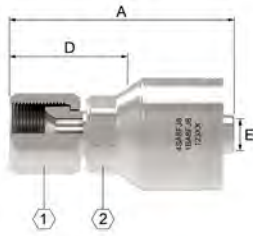


SAE 37° (JIC) swivel
90° elbow (short)

Part #	Thread	Hose size
2RA4FJB4	7/16 - 20	-04
2RA6FJB6	9/16 - 18	-06
2RA8FJB8	3/4 - 16	-08
2RA12FJB12	1 1/16 - 12	-12
2RA16FJB16	15/16 - 12	-16

Rubber hydraulic hose

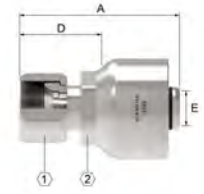
4S/6S fittings



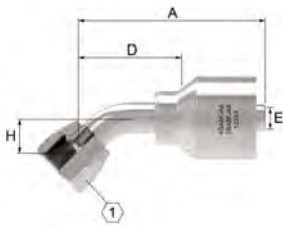
FJ - Female JIC/37° Swivel Straight

Part #	Hose size	Thread
4S	DN Dash size	in
4SA6FJ6	10 -6	9/16 - 18
4SA8FJ6	10 -6	3/4 - 16
4SA10FJ8	12 -8	7/8 - 14
4SA8FJ8	12 -8	3/4 - 16
4SA10FJ10	16 -10	7/8 - 14
4SA12FJ12	19 -12	1 1/16 - 12
4SA16FJ12	19 -12	1 5/16 - 12
4SA12FJ16	25 -16	1 1/16 - 12

Part #	Hose size	Thread
4SA16FJ16	25 -16	1 5/16 - 12
4SA20FJ20	31 -20	1 5/8 - 12
4SA24FJ24	38 -24	1 7/8 - 12
4SA32FJ32	51 -32	2 1/2 - 12



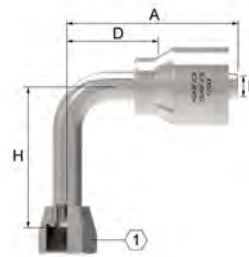
Part #	Hose size	Thread
6S	DN Dash size	in
6SA20FJ20	31 -20	1 5/8 - 12
6SA24FJ24	38 -24	1 7/8 - 12
6SA32FJ32	51 -32	2 1/2 - 12



FJA - Female JIC/37° Swivel 45° Elbow

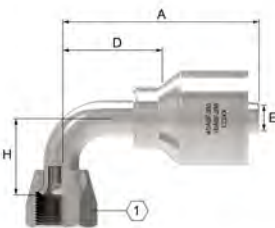
Part #	Hose size	Thread
4S	DN Dash size	in
4SA6FJA6	10 -6	9/16 - 18
4SA8FJA8	12 -8	3/4 - 16
4SA12FJA12	19 -12	1 1/16 - 12
4SA16FJA16	25 -16	1 5/16 - 12
4SA20FJA20	31 -20	1 5/8 - 12
4SA24FJA24	38 -24	1 7/8 - 12

Part #	Hose size	Thread
6S	DN Dash size	in
6SA20FJA20	31 -20	1 5/8 - 12
6SA24FJA24	38 -24	1 7/8 - 12



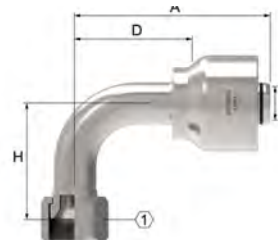
FJC - Female JIC/37° Swivel 90° Elbow - Long Drop

Part #	Hose size	Thread
4S	DN Dash size	in
4SA6FJC6	10 -6	9/16 - 18
4SA12FJC12	19 -12	1 1/16 - 12
4SA16FJC16	25 -16	1 5/16 - 12
4SA20FJC20	31 -20	1 5/8 - 12



FJB - Female JIC/37° Swivel 90° Elbow

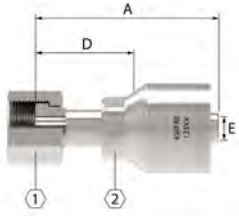
Part #	Hose size	Thread
4S	DN Dash size	in
4SA6FJB6	10 -6	9/16 - 18
4SA8FJB6	10 -6	3/4 - 16
4SA8FJB8	12 -8	3/4 - 16
4SA12FJB12	19 -12	1 1/16 - 12
4SA16FJB16	25 -16	1 5/16 - 12
4SA20FJB20	31 -20	1 5/8 - 12
4SA24FJB24	38 -24	1 7/8 - 12



Part #	Hose size	Thread
6S	DN Dash size	in
6SA20FJB20	31 -20	1 5/8 - 12
6SA24FJB24	38 -24	1 7/8 - 12

Rubber hydraulic hose

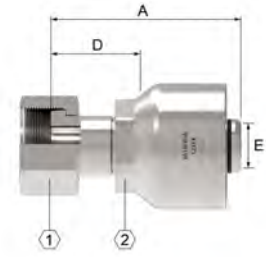
4S/6S fittings



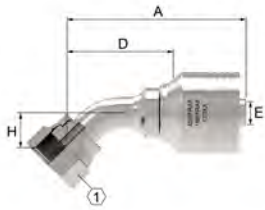
FR - Female ORS
Swivel Straight

Part #	Hose size		Thread
4S	DN	Dash size	in
4SA6FR6	10	-6	1 ¹¹ / ₁₆ - 16
4SA8FR8	12	-8	1 ³ / ₁₆ - 16
4SA10FR10	16	-10	1 - 14
4SA12FR12	19	-12	1 ³ / ₁₆ - 12
4SA16FR12	19	-12	1 ⁷ / ₁₆ - 12

Part #	Hose size		Thread
4SA16FR16	25	-16	1 ⁷ / ₁₆ - 12
4SA20FR20	31	-20	1 ¹¹ / ₁₆ - 12
4SA24FR24	38	-24	2 - 12

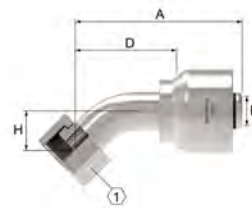


Part #	Hose size		Thread
6S	DN	Dash size	in
6SA20FR20	31	-20	1 ¹¹ / ₁₆ - 12
6SA24FR24	38	-24	2 - 12

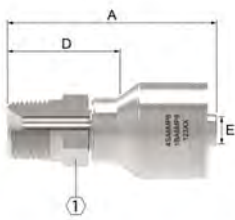


FRA - Female ORS Swivel
45° Elbow

Part #	Hose size		Thread
4S	DN	Dash size	in
4SA6FRA6	10	-6	1 ¹¹ / ₁₆ - 16
4S8FRA8	12	-8	1 ³ / ₁₆ - 16
4SA10FRA10	16	-10	1 - 14
4SA12FRA12	19	-12	1 ³ / ₁₆ - 12
4SA16FRA16	25	-16	1 ⁷ / ₁₆ - 12
4SA20FRA20	31	-20	1 ¹¹ / ₁₆ - 12
4SA24FRA24	38	-24	2 - 12

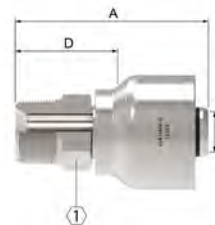


Part #	Hose size		Thread
6S	DN	Dash size	in
6SA20FRA20	31	-20	1 ¹¹ / ₁₆ - 12
6SA24FRA24	38	-24	2 - 12

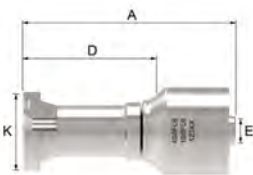


MP - Male Pipe NPTF –
Rigid Straight

Part #	Hose size		Thread
4S	DN	Dash size	in
4SA6MP6	10	-6	3/8 - 18
4SA8MP8	12	-8	1/2 - 14
4SA12MP12	19	-12	3/4 - 14
4SA16MP16	25	-16	1 - 11 ¹ / ₂
4SA20MP20	31	-20	1 ¹ / ₄ - 11 ¹ / ₂
4SA24MP24	38	-24	1 ¹ / ₂ - 11 ¹ / ₂
4SA32MP32	51	-32	2 - 11 ¹ / ₂

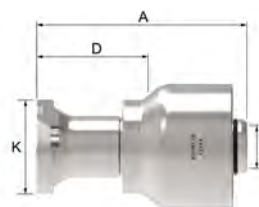


Part #	Hose size		Thread
6S	DN	Dash size	in
6SA20MP20	31	-20	1 ¹ / ₄ - 11 ¹ / ₂
6SA24MP24	38	-24	1 ¹ / ₂ - 11 ¹ / ₂
6SA32MP32	51	-32	2 - 11 ¹ / ₂



FL - SAE Code 61
Flange Straight

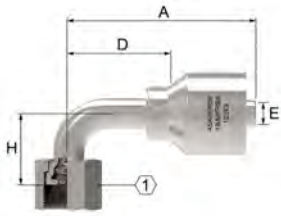
Part #	Hose size	
4S	DN	Dash size
4S8FL8	12	-8
4S16FL12	19	-12
4S16FL16	25	-16
4S20FL16	25	-16
4S20FL20	31	-20
4S24FL24	38	-24
4S32FL32	51	-32



Part #	Hose size	
6S	DN	Dash size
6S20FL20	31	-20
6S24FL24	38	-24
6S32FL32	51	-32

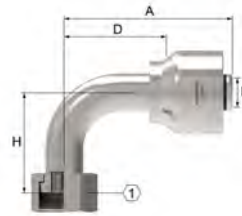
Rubber hydraulic hose

4S/6S fittings

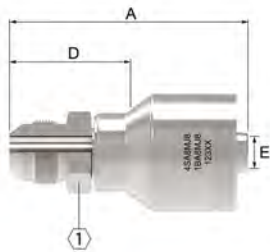


FRB - Female ORS Swivel
90° Elbow

Part #	Hose size		Thread
	DN	Dash size	
4S			in
4SA6FRB6	10	-6	1 ¹¹ / ₁₆ - 16
4SA8FRB8	12	-8	1 ³ / ₁₆ - 16
4S10FRB10.047	16	-10	1 - 14
4SA12FRB12	19	-12	1 ³ / ₁₆ - 12
4SA16FRB16	25	-16	1 ⁷ / ₁₆ - 12
4SA20FRB20	31	-20	1 ¹¹ / ₁₆ - 12
4SA24FRB24	38	-24	2 - 12

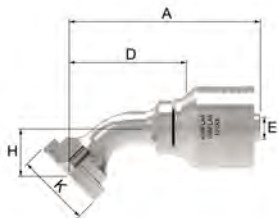


Part #	Hose size		Thread
	DN	Dash size	
6S			in
6SA20FRB20	31	-20	1 ¹¹ / ₁₆ - 12
6SA24FRB24	38	-24	2 - 12



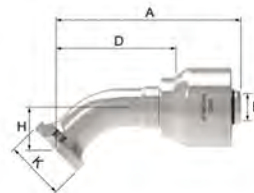
MJ - Male JIC/37° – Rigid
Straight

Part #	Hose size		Thread
	DN	Dash size	
4S			in
4SA6MJ6	10	-6	9 ⁹ / ₁₆ - 18
4SA10MJ8	12	-8	7 ⁷ / ₈ - 14
4SA8MJ8	12	-8	3 ³ / ₄ - 16
4SA10MJ10	16	-10	7 ⁷ / ₈ - 14
4SA12MJ12	19	-12	1 ¹ / ₁₆ - 12
4SA16MJ16	25	-16	1 ⁵ / ₁₆ - 12
4SA20MJ20	31	-20	1 ⁵ / ₈ - 12
4SA24MJ24	38	-24	1 ⁷ / ₈ - 12
4SA32MJ32	51	-32	2 ¹ / ₂ - 12

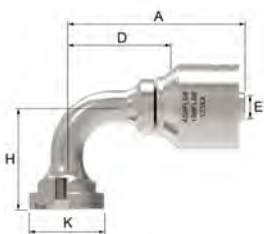


FLA - SAE Code 61 Flange
45° Elbow

Part #	Hose size	
	DN	Dash size
4S		
4S8FLA8	12	-8
4S12FLA12	19	-12
4S16FLA16	25	-16
4S20FLA20	31	-20
4S24FLA24	38	-24
4S32FLA32	51	-32



Part #	Hose size	
	DN	Dash size
6S		
6S20FLA20	31	-20
6S24FLA24	38	-24
6S32FLA32	51	-32



FLB - SAE Code 61 Flange
90° Elbow

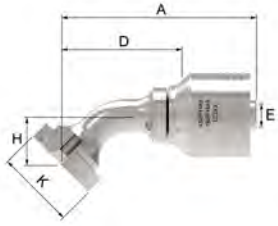
Part #	Hose size	
	DN	Dash size
4S		
4S8FLB8	12	-8
4S12FLB12	19	-12
4S16FLB16	25	-16
4S20FLB20	31	-20
4S24FLB24	38	-24
4S32FLB32	51	-32



Part #	Hose size	
	DN	Dash size
6S		
6S20FLB20	31	-20
6S24FLB24	38	-24
6S32FLB32	51	-32

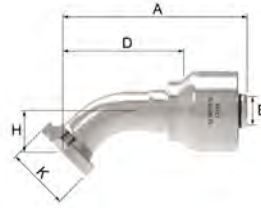
Rubber hydraulic hose

4S/6S fittings

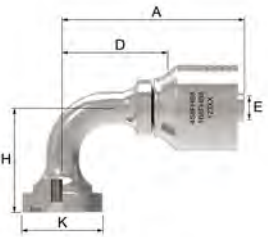


FHA - SAE Code 62 Flange
45° Elbow

Part #	Hose size	
	DN	Dash size
4S8FH8	12	-8
4S16FHA16	25	-16
4S20FHA20	31	-20
4S24FHA24	38	-24
4S32FHA32	51	-32

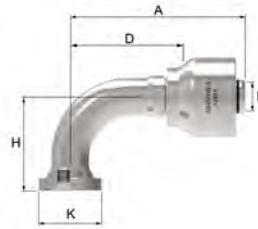


Part #	Hose size	
	DN	Dash size
6S20FHA20	31	-20
6S24FHA24	38	-24
6S32FHA32	51	-32

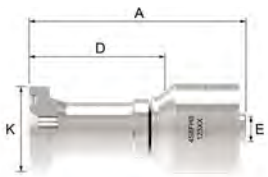


FHB - SAE Code 62 Flange
90° Elbow

Part #	Hose size	
	DN	Dash size
4S8FHB8	12	-8
4S12FHB12	19	-12
4S16FHB16	25	-16
4S20FHB20	31	-20
4S24FHB24	38	-24
4S32FHB32	51	-32

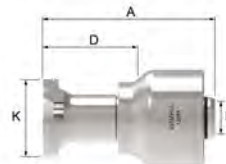


Part #	Hose size	
	DN	Dash size
6S20FHB20	31	-20
6S24FHB24	38	-24
6S32FHB32	51	-32



FH - SAE Code 62 Flange
Straight

Part #	Hose size	
	DN	Dash size
4S12FH12	19	-12
4S16FH16	25	-16
4S20FH20	31	-20
4S24FH24	38	-24
4S32FH32	51	-32



Part #	Hose size	
	DN	Dash size
6S20FH20	31	-20
6S24FH24	38	-24
6S32FH32	51	-32

Reference literature

Weatherhead rubber hydraulic hose and fitting catalog (America)
Publication #:
AF471357086124en

Winner hose and fittings catalog
Publication #:
AF427561072277en

Weatherhead core premium and standard rubber hydraulic hose chart
Publication #:
AV465270240605en

Danfoss Z-series wall chart
Publication #:
AV452872609750en

Danfoss 4S/6S spiral fitting wall chart
Publication #:
AV435153171853en

Label sets:

Z-series label set
Part # FF90645

4S/6S series label set
Part # FF91420

Core tooling label set
Part # FF91475

Sales kits:

Weatherhead sales kit
Part # PRO14771-01@P

Technical support:

For further questions and support, please contact Danfoss technical support at 1-888-258-0222 or fpgproductssupport@Danfoss.com

Digital copies:

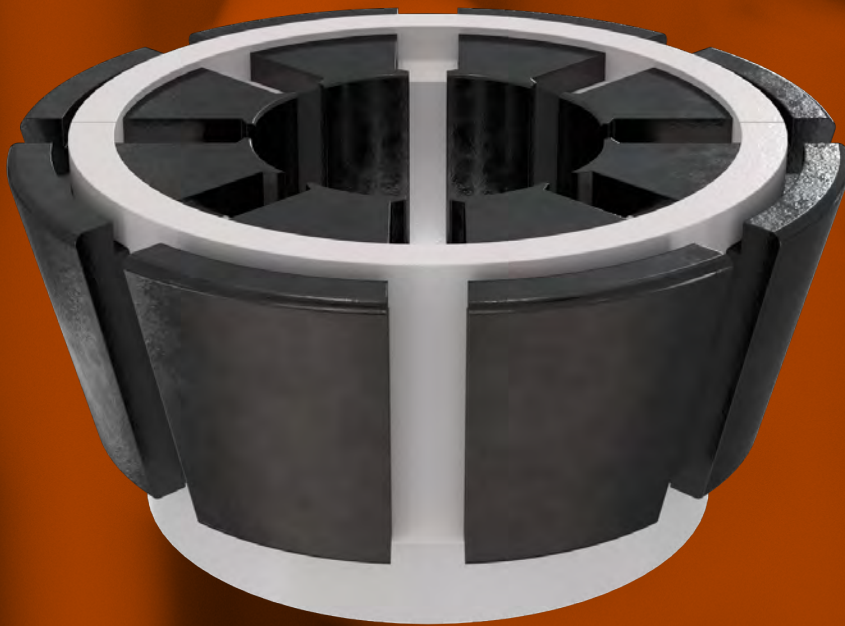
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866-541-0937

Machines, tools and accessories

The tools to make it work.







Machines, tools and accessories

With the new Danfoss-branded crimp machine portfolio, all customers now have access to the same crimp machines and tooling.

This simplified and improved offering includes lower cost options as well as both positive stop and variable machines to meet all of your application needs. Refer to the crimp machine comparison chart for details on the updated crimp machine portfolio and the uses, features, and capabilities of each of the machines.



► Benefits:

Crimpers

- Durable and suitable for any environment
- Can be mounted to work vehicles
- Easy to use
- Positive stop and variable crimpers in portable, general service and industrial production options

Tooling

- Color coded collets for easy identification
- Built in fitting locators to ensure correct crimp location

Hose saws and blades

- Cleaner and safer cuts
- Less smoke

Contamination control

- Provides industry leading cleanliness levels
- Available in hand-held and bench mount configurations

Danfoss branded stock cabinets

- Convenient and space saving storage
- Robust and durable options that allow for the mounting of crimp machines

Guardian sleeve

- Protects against pin hole leaks and bursts

Ensure success

Ensure the success of your hose assembly operation using Danfoss warranted hose assemblies made with Danfoss' superior hose products, hose ends, assembly machines, and tooling. Danfoss crimpers are durable and suitable for any environment, including hose centers, mines, and construction sites. Their ability to be mounted to work vehicles make their versatility even greater as on-site assemblies can be brought right to the application area. The simplicity of their design ensures ease of use from the novice to the most experienced assembler.

Danfoss' lineup of positive stop and variable crimpers includes portable, general service, and industrial production options.

A positive stop crimp machine uses a collet assembly and spacer ring combination to achieve a specific crimp diameter value. With a variable crimp machine, a specific crimp diameter value is achieved by changing a target setting on the machine. Positive stop machines are generally less expensive than the variable machines, but may require additional tooling. Compare our offering of crimp machines and their associated features to understand which crimper is best for you.



Machines, tools and accessories

Crimp machine comparison chart

Crimp machine comparison chart

Core crimp machines



ET1187



ET1000



FT1380e/
FT1380



T-420



FT1390



ET4001



ET5070

Production volume	Low	Low	Medium	Medium	Medium/high	Medium	High
Type	Variable	Positive stop	Variable	Positive stop	Variable	Positive stop	Variable
Capability-braided (up to)	1 1/4"	1"	1 1/4"	1 1/4"	2"	2"	3"
Capability-spiral (up to)	1"	1"	1 1/4"	1 1/4"	2"	2"	2 1/2"
Capability-industrial (up to)	1 1/4"	1"	1 1/4"	1 1/4"	2"	2"	4"
Application	Portable, job shops, maintenance departments	Portable, job shops, maintenance departments	Hose distributors, small assembly shops	Hose distributors, small assembly shops, factory, construction, mines	Hose distributors, assembly shops	Hose distributors, assembly shops, construction, mines	Industrial production facility, specialty
*Pump options	110v, air/hydraulic, 12v, hand pump	110v, air/hydraulic, 12v, hand pump	115v, 230v	110v, 220v	115v, 230v	220v	230v, 380v, 400v, 420v, 440v, 460v, 480v

*Capabilities based on Danfoss core hose and fitting products

*See pump ordering options for each machine for specific kit numbers

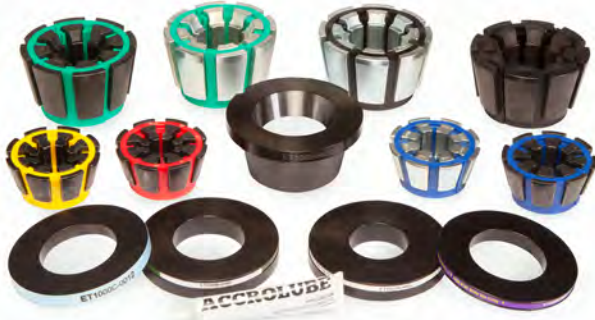
Color coded crimping

Danfoss' optimized tooling for positive stop machines features built-in fitting locators and collet cages that are color-coded to indicate dash size, all designed to make crimping a breeze. Refer to the color coding chart below.

Hose Dash Size	Collet Cage Color Code	1A (Z Series) Collet	4S Series Collet	6S Series Collet
		Black	Silver	Olive
-04	Red		N/A	N/A
-06	Yellow			N/A
-08	Blue			N/A
-10	Orange			N/A
-12	Green			N/A
-16	Black			N/A
-20	White			
-24	Dark Red			
-32	Dark Green			

Machines, tools and accessories

Positive stop and variable tooling options



Positive stop tooling:

Danfoss' new optimized tooling works with our positive stop machines, such as the ET1000, T-420, and ET4001.

Available packages

ET1000 tooling packages		ET4001 tooling packages	
ET1000TP-1001*	Conversion package Capabilities: Braided: -4 thru -16 Spiral: -8 thru -16	ET4001TP-1001*	Conversion package Capabilities: Braided: -4 thru -16 Spiral 4S: -8 thru -32 Excludes -5 and -10 sizes
ET1000TP-1002*	New placement package Capabilities: Braided: -4 thru -16 Spiral: -8 thru -16 Excludes -5 and -10 sizes	ET4001TP-1002*	New placement package Capabilities: Braided: -4 thru -32 Spiral 4S: -8 thru -32 Excludes -5 and -10 sizes
T-420 tooling packages		ET4001TP-1003**	Winner package Capabilities: Braided: -4 thru -24 Spiral 4S: -6 thru -32 **Excludes 4S-10 size
T420TP-1001*	Capabilities: Braided: -4 thru -16 Spiral: -8 thru -20		
T420TP-1002*	Winner package Capabilities: Braided: -4 thru -20 Spiral: -6 thru -20 Excludes -5 and -10 sizes		

*Conversion tooling packages were created with the assumption that customers have some of the tooling available, such as adapter bowls and spacer rings. New placement tooling packages were created with the assumption that the customer does not have any of the required tooling.

Always check Danfoss PowerSource Crimp Specs at danfoss.com/crimp to get a complete list of the tooling needed for the hoses and fittings you plan to crimp.

Machines, tools and accessories

Positive stop and variable tooling options



Variable tooling:

Danfoss' variable tooling is durable, doesn't require additional rings or bowls, and is available for our variable machines – the ET1187, FT1380, FT1390, and the ET5050.

Available packages

ET1187 tooling packages		FT1390 tooling packages	
ET4020TP-0002	Capabilities Braided: -4 thru -16 Spiral: -6 thru -12	ET4040TP-0007	Capabilities Braided: -4 thru -32 Spiral 4S: -6 thru -16
ET4020TP-0003	Capabilities Braided: -4 thru -20 Spiral: -6 thru -16	ET4040TP-0008	Capabilities Braided: -4 thru -32 Spiral 4S: -20 thru -32
FT1380 tooling packages		ET5070 tooling package	
ET4020TP-0002	Capabilities Braided: -4 thru -16 Spiral: -6 thru -12	ET5040C-0023	Capabilities Braided: -4 thru -32 Spiral: -6 thru -32
ET4020TP-0003	Capabilities Braided: -4 thru -20 Spiral: -6 thru -20		

Always check Danfoss PowerSource Crimp Specs at danfoss.com/crimp to get a complete list of the tooling needed for the hoses and fittings you plan to crimp.

Machines, tools and accessories

Ordering process

Once you have selected a machine, it's easy to place your order for Danfoss crimp machines, pump kits, and tooling packages.

Just follow the simplified chart below.

Machine	Part description	110v pump kit	220v pump kit	A/H pump kit
	ET1187-001	Base ET1187 machine with bench mount bracket, no pump	ET1000PK-003	ET1000PK-002
	ET1187-002	Base ET1187 machine with truck mount bracket, no pump	ET1000PK-003	ET1000PK-002
	ET1187-003	Base ET1187 Winner machine with bench mount bracket, no pump	ET1000PK-003	ET1000PK-002
	ET1187-004	Base ET1187 Winner machine with truck mount bracket, no pump	ET1000PK-003	ET1000PK-002
	ET1000-001	Base ET1000 machine, no pump	ET1000PK-003	ET1000PK-002
	FT1380-115/ FT1380e-115	115v machine		
	FT1380-115CSA/ FT1380e-115CSA	115v machine CSA		
	FT1380-230/ FT1380e-230	230v machine		
	FT1380-230CSA/ FT1380e-230CSA	230v machine CSA		
	T-420-1	Machine	ET420-007	ET420-008
	T-420-1CSA	Machine	ET420-007CSA	ET420-008CSA
	FT1390-115	115v machine		
	FT1390-115CSA	115v machine CSA		
	FT1390-230	230v machine		
	FT1390-230CSA	230v machine CSA		
	ET4001-004	Base ET4001 machine with hose kit, pump, work lamp		
	ET4001-004CSA	Base ET4001 machine with hose kit, pump, work lamp CSA approved		
	ET5070-001-230KT	ET5070 machine with tooling		
	ET5070-001-380KT	ET5070 machine with tooling		
	ET5070-001-400KT	ET5070 machine with tooling		
	ET5070-001-420KT	ET5070 machine with tooling		
	ET5070-001-440KT	ET5070 machine with tooling		
	ET5070-001-460KT	ET5070 machine with tooling		
	ET5070-001-480KT	ET5070 machine with tooling		

*Visit the Danfoss PowerSource Crimp Specs tool at danfoss.com/crimp to find the tooling needed for all of the hoses and fittings you plan to crimp. For desktop users—select your assembly machine(s), hose series and size, and fitting style to get your results. Locate the download icon and select either PDF or Excel to generate your custom chart.

Machines, tools and accessories

Ordering process

(Machines Continued)	12 v pump kit	Hand pump kit	Conversion tooling package	New placement tooling package	Winner tooling package	Machine package with optimized tooling
ET1187-001	ET1000PK-004	ET1000PK-001		ET4020TP-0002, ET4020TP-0003		
ET1187-002	ET1000PK-004	ET1000PK-001		ET4020TP-0002, ET4020TP-0003		
ET1187-003	ET1000PK-004	ET1000PK-001		ET4020TP-0002, ET4020TP-0003		
ET1187-004	ET1000PK-004	ET1000PK-001		ET4020TP-0002, ET4020TP-0003		
ET1000-001	ET1000PK-004	ET1000PK-001	ET1000TP-1001	ET1000TP-1002		ET1000-020, ET1000-021
FT1380-115 FT1380e-115				ET4020TP-0002, ET4020TP-0003		FT1380-115-8 FT1380-115-9
FT1380-115CSA FT1380e-115CSA				ET4020TP-0002, ET4020TP-0003		FT1380-115-8 CSA FT1380-115-8 CSA
FT1380-230 FT1380e-230				ET4020TP-0002, ET4020TP-0003		
FT1380-230CSA FT1380e-230CSA				ET4020TP-0002, ET4020TP-0003		
T-420-1			T420TP-1001	T420TP-1001	T420TP-1002	T-420-001, T-420-002
T-420-1CSA			T420TP-1001	T420TP-1001	T420TP-1002	T-420-001CSA, T-420-002CSA
FT1390-115				ET4040TP-0007, ET4040TP-0008		FT1390-115-12
FT1390-115CSA				ET4040TP-0007, ET4040TP-0008		FT1390-115-12 CSA
FT1390-230				ET4040TP-0007, ET4040TP-0008		
FT1390-230CSA				ET4040TP-0007, ET4040TP-0008		
ET4001-004			ET4001TP-1001	ET4001TP-1002	ET4001TP-1003	ET4001-015
ET4001-004CSA			ET4001TP-1001	ET4001TP-1002	ET4001TP-1003	ET4001-015CSA
ET5070-001-230KT				ET5040C-0023		ET5070-001-230KT
ET5070-001-380KT				ET5040C-0023		ET5070-001-380KT
ET5070-001-400KT				ET5040C-0023		ET5070-001-400KT
ET5070-001-420KT				ET5040C-0023		ET5070-001-420KT
ET5070-001-440KT				ET5040C-0023		ET5070-001-440KT
ET5070-001-460KT				ET5040C-0023		ET5070-001-460KT
ET5070-001-480KT				ET5040C-0023		ET5070-001-480KT

Note: For machine and tooling package contents, check out Danfoss' core crimp machine and tooling catalog, Publication No. A142666211733en-000101 on powersource.danfoss.com

Machines, tools and accessories

Helpful tools and accessories

Danfoss has simplified the crimping process.

Just use Danfoss' resource website, powersource.danfoss.com, to find up to date crimp spec information. Access the PowerSource crimp specs tool at danfoss.com/crimp.

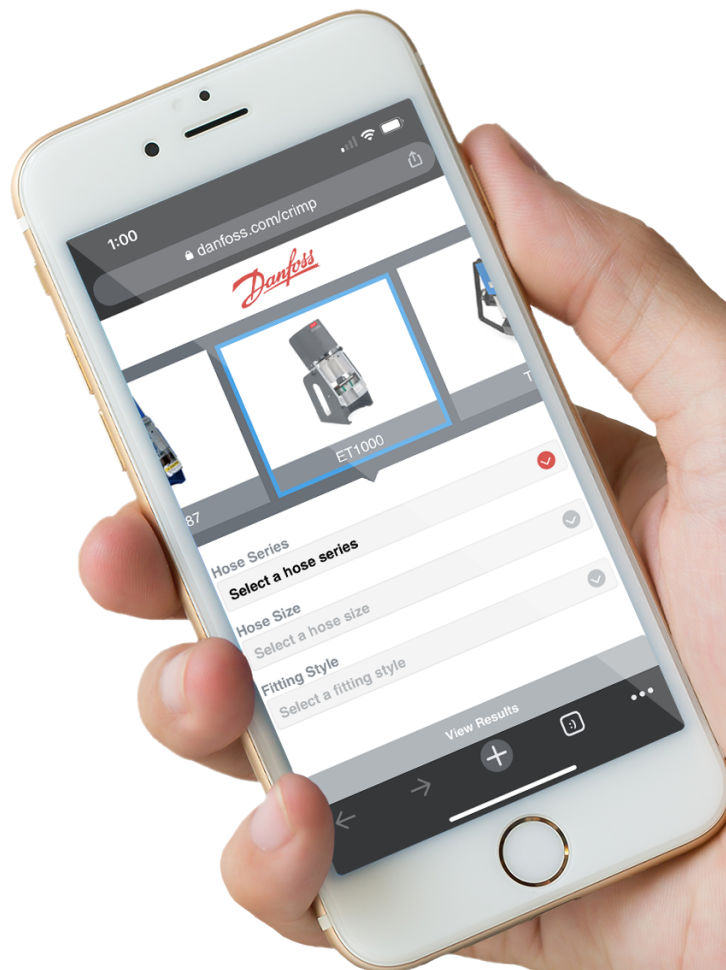
Mobile crimp tool

To find the proper crimp spec anytime and anywhere, the mobile crimp spec tool is available on PowerSource! Just visit danfoss.com/crimp on your mobile device and then add to your home screen for quick access.

To find your spec:

1. Find your machine
2. Select your hose series
3. Select your hose size
4. Find your fitting style

And you're ready to crimp!



Other assembly equipment

Danfoss offers a complete line of assembly equipment solutions designed to prep, assemble, clean, cap, and test your completed hose assembly. Check out some of our featured equipment below.



Hose saws and blades

We offer innovative saws and saw blades designed to offer the cleanest cuts with low smoke.



Contamination control

Danfoss offers hose cleaning systems to ensure your hose assembly is free of contaminants, and hose capping systems to make sure the assembly remains contaminant free during transit.



Danfoss Guardian sleeve FF90754

Danfoss' Guardian® Sleeve is designed to protect against damage or injury which may result from a hydraulic hose failure. The ultra-tight weave disperses pressure and fluids that may escape during a hose burst or pinhole leak. With this "line of sight" sleeving, both equipment operators and the environment are guarded from the effects of hose failures.

Access the brochure Document No. AM434956781701en-000101 for further details.

Machines, tools and accessories

Danfoss branded cabinets & storage

Organize your inventory

Danfoss branded stocking cabinets are the ideal way to organize your inventory of Danfoss hose ends, adapters, hoses and assembly tooling.



C-40X

The sturdy C-40X cabinet contains 40 heavy-duty drawers that can be divided into two, three, or four compartments providing space for a large selection of hose ends and adapters. It has mounting holes for the T-420, ET1187, and ET1000 crimp machines.

Dimensions:

46-1/2"H x 40"W;
26" Deep at base, 18" Deep at top.

Weight: 228 lbs.



C-15X

The rugged C-15X contains 15 extra large drawers that may be divided into two or three sections for those large, difficult to store items.

Dimensions:

13-5/8"H x 30-1/4"W; 14-3/8" Deep.

Weight: 45 lbs.



C-63X

This stock cabinet containing 63 drawers, which can be divided into two or three sections, is a nice addition to any store front.

Dimensions:

25"H x 30-1/4"W; 9-1/4" Deep.

Weight: 61 lbs.



FC-16X

The FC-16X contains 16 clear poly drawers that can be divided into two or three sections.

Dimensions:

11-3/4"H x 16-1/8"W; 9" Deep.

Weight: 13 lbs.



FH-135X

The sturdy FH-135X cabinet contains 50 heavy-duty drawers that can be divided into one, two, or three compartments allowing ample space for a large selection of hose ends and adapters. It includes mounting holes for the ET1187 and ET1000 crimp machines.

Dimensions:

46-1/2"H x 33"W; 14-1/2" Deep.

Weight: 115 lbs.



FH-40X

Provides convenient storage areas for those large size fittings and hose ends. This durable 20 gauge steel cabinet is made to handle abuse

Dimensions:

35" wide, 42" high, 12" deep

Weight: 200 lbs.

NOTE: Will not support crimp equipment.

Machines, tools and accessories

Danfoss branded cabinets & storage



C-632X

The C-632X consists of the CB-63X cabinet base, the C-15X cabinet, and two C-63X cabinets. This cabinet is a space saving, efficient addition to the modern store with a lobby type sales area. It requires a minimum amount of space, but does a maximum job merchandising a wide variety of products in 126 clear drawers. An additional 15 large, high impact drawers located in the bottom section provide ample space for large or heavy items.

Dimensions:

68-1/2"H x 30"W; 15" Deep.

Weight: 167 lbs.



HD-1X

The HD-1X cabinet offers the ideal solution for keeping 50-foot lengths of hose off the floor. Vertical slots in the cabinet keep hoses organized and clean. Consider bolting a C-15X stocking cabinet on top of the HD-1X to keep an inventory of hose ends readily available. Internal dimensions have changed from 7 narrow 4.3" sections to 5 wider 6.14" sections to accommodate larger hose sizes

Dimensions:

36"H x 31"W; 24" Deep.

Weight: 83 lbs.



HD-2X

The HD-2X hose display is designed to support the weight of Danfoss bulk reels and boxed product.

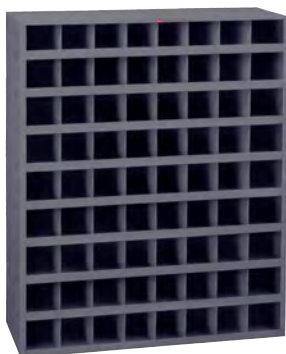
Dimensions:

22" wide x 30" deep x 57" tall

Weight: 54 pounds

Max Capabilities:

3 Reels or 2 Reels with 4 boxes



FH-72X

Large capacity all-welded cabinet provides 72 storage compartments. Fabricated from 20 gauge steel, the FH-72X will provide years of continued service.

Dimensions:

35" wide, 42" high, 12" deep

Weight: 200 lbs.

NOTE: Will not support crimp equipment.



FT1380DR-12

The lazy susan die cage rack offers easy 360-degree access to 12 of your FT1380 series crimp dies.

Dimensions:

18" wide, 10" high, 6" deep

Weight: 50 lbs.



TC-20

The TC-20 cabinet provides easy access to all your tooling needs. This collet cabinet fits Danfoss' core tooling products. Standard holes fit the ET425 series collets. Inserts are provided to fit the ET313 series collets

Dimensions:

28-1/2"H x 26-1/2"W; 12-3/4" Deep.

Weight: 37.5 lbs.

Machines, tools and accessories

Reference

Reference literature

Danfoss core crimp machines and tooling catalog:

Publication #:

AI426662111733en

Danfoss Guardian sleeve:

Publication #:

AM434956781701en

Danfoss cabinet brochure:

Publication #:

AV431646940840en

Weatherhead rubber hydraulic hose and fitting catalog (America)

Publication #:

AF471357086124en

Label sets

(Available through Taylor Communications):

FT1380/FT1390

Crimp machine labels:

JA507E-2

FT1380/FT1390

Control panel decals:

JA507D-CP-2

FT1380/FT1390 Die cage decals:

A-EQCR-TH002-E3

Core tooling label set:

Part # FF91475

FT1380/FT1390 Crimp machine labels

for Winner: E-EQCR-TT010-E

FT1380/FT1390 Control panel decals

for Winner: E-HOAS-TT009-E

Technical support:

For tools and machines technical support, product literature, videos, and more, please visit Danfosscrimpersupport.com or call 1-888-285-6627 (517-563-8800)

For further questions and support, please contact Danfoss technical support at 1-888-258-0222 or fpgproductssupport@Danfoss.com

Digital copies:

This literature is available electronically at: powersource.danfoss.com

Need a hard copy?

Order at Taylor Communications
CustomerService27@taylor.com
866-541-0937

Industrial Hose







Boston by Danfoss Industrial Hose

Innovation, experience, safety and convenience make up the foundation of our industrial hoses. Danfoss has been an industrial hose industry leader since 1870. We understand what you look for in hoses and we strive every day to ensure our hoses meet these standards.

Boston by Danfoss industrial hose line comes from a long tradition of excellence and innovation. Boston Woven Hose and 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. Our Boston by 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.



Industrial hose

Need to know

Benefits:

- Solutions for every needs
 - Low to high pressure
 - Slow to fast transfer
 - Simple to complex material
- Tradition of innovation and expertise
- World class manufacturing
- Safe and reliable solutions



Typical applications:

- Air and multipurpose
- Chemical
- Food and beverage
- Material handling
- Oil and gas exploration
- Gaseous
- Petroleum
- Specialty
- Steam
- Water
- Thermal management

Industrial hose designations:

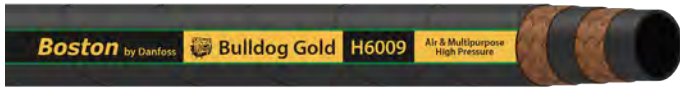
Application	Hose	Application	Hose
Air and multipurpose	H6009 Bulldog Gold	Oil and petroleum	EHP519 Puma Flex
	EHA500 Greyhound		EHP150 Fossa
	H201 Easy Couple		H901 Boston Bulldog Fuel Oil
	H275 Polyforce II		H1193 Royalflex Petroleum
	H6008 Bulldog Yellow Jack		H0363 Puma
	H1776 Perfection 300		H0377 Kelly Power
	H1812 Jackel		EHP009 Bengal
	H0105 BOSFLEX A/W		
H1982 Marathoner			
Chemical	H0554 Amorcat Petrochemical	Specialty	H9690 Hydrocarbon Drain
	H0599 Chemcat Flex		H8811 Nitrogen
	H0523 Chemcat		H0372 Black Cat Hot Tar and Asphalt
	H8359 Panther		H9603 Wolverine
	H0345 Tiger	H900 Raven	
H1941 NYALL	Steam	EH084 Steam Slayer	
H1942 NYALL		H9568 Concord 250 Steam	
Food and beverage	H0350 Lion	Water	EHW150 Mink
	EHF002 Lemur		H0364 Otter
	H285 Clearforce-R		H1196 Royalflex Water
	PT200 Clearforce		EHW028 Meerkat
H9610 Joey	EC116 Manta 4K		
Material handling	H0319 Lynx Soft Wall		EC216 Manta 7K
	H0521 Lynx Heavy Duty		EWH094 Emperor
	H0349 Wildcat		EHW194 Royal
	H0034 Concord Sandblast		
	EHK006 Marauder		
EHK007 Marauder Heavy Duty			

Industrial hose

Air and multipurpose

High pressure

H6009 Bulldog Gold® hose



Sizes and pressure: (bar/psi)

-16 (70/1000), -20(55/800), -24 (41/600), -32 (41/600),
-40 (41/600), -48 (41/600), -64 (35/500)

Operating temperature:

40°C to +121°C (-40°F to +250°F)

Available fittings:

Z Series(-20 to -32) • Union • Boss male • Ground joint female
Air hammer • Air king • Danfoss quick disconnect

Inner 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

Typical application:

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

Selling features:

- 4:1 safety factor
- Nitrile cover provides up to 3 times greater abrasion resistance than a standard rubber hose cover
- Higher degree of resistance against internal failure modes in high compression (heat) application
- Tube and cover exceed RMA Class A oil swell requirements
- Easy identification in tough environments

Sells against:

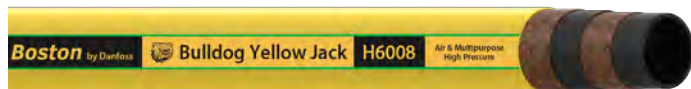
Parker THORO-BRAID

Continental PLICORD
SUPER ROCK

Gates 18 MB

High pressure

H6008 Bulldog Yellow Jack™ hose



Sizes and pressure: (bar/psi)

-16 (69/1000) -20 (45/650) -24 (42/600) -32 (42/600) -40 (28/400) -48 (28/400)

Operating temperature:

-40°C to +93°C (-40°F to +200°F)

Available fittings:

Z Series • Boss • Ground joint • Air hammer
Air King • Danfoss Hansen quick disconnect

Inner tube:

Vinyl nitrile (RMA Class A)

Reinforcement:

0.50" – 1.25" 1 wire braid
1.50" – 3.00" 2 wire braid
4.00" 3 wire braid

Cover:

Pin-pricked neoprene

Typical application:

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

MSHA approved

High pressure

EHA500 Greyhound™ hose



Sizes and pressure: (bar/psi)

-08 (41/600), -12 (41/600), -16(41/600), -20 (41/600),
-24 (41/600), -32 (41/600), -40 (41/600), -48 (41/600), -64 (41/600)

Operating temperature:

-40°C to +93°C (-40°F to +200°F)

Available fittings:

Boss • Ground joint • Air Hammer • Air King • Danfoss Hansen quick disconnect

Inner tube:

Oil-resistant nitrile blend

Reinforcement:

High-tensile steel wire

Cover:

Pin-pricked, abrasion, ozone, and weather resistant synthetic rubber

Typical application:

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

Selling features:

- 4:1 safety factor
- Yellow cover for high visibility
- Easy identification in the toughest environments

Low working pressure

H1776 Perfection 300® hose



Sizes and pressure: (bar/psi)

-4 (22,4/325), -6 (22,4/325), -8 (22,4/325), -10 (22,4/325),
-12 (22,4/325), -16 (22,4/325), -18 (22,4/325), -24 (22,4/325)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Z Series (-4 to -8) • Danfoss Hansen quick disconnect

Inner tube:

Vinyl Nitrile
(RMA Class A)

Reinforcement:

H1777: 1 braid fiber
H1776: 2 braid fiber

Cover:

Vinyl nitrile

Typical application:

- Air and water transfer
- Air tools

Industrial hose

Air and multipurpose

Low working pressure

H201 Easy Couple® hose



Sizes and pressure: (bar/psi)

-4 (21/300), -6 (21/300), -8 (21/300), -10 (21/300), -12 (21/300), -16 (21/300)

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)

Available fittings:

Socketless • Push-on couplings

Danfoss "B" Series • Danfoss Hansen quick disconnect

All sizes available in Black, Blue and Red

Green, Gray and Yellow available in certain sizes

Inner tube:

Vinyl Nitrile
(RMA Class A)

Reinforcement:

1 braid fiber

Cover:

(BK) Neoprene,
(BU, GN, GY, RD, YW)
Vinyl nitrile (All colors are
MSHA approved)

Typical application:

- Air and water transfer
- Pneumatic tools
- Air tools

Selling features:

- MSHA certified on all sizes and colors
- Optimal hose performance with robotics and data center cooling applications
- Proprietary Danfoss "Easy-Couple" technology
- Proven long life for less down time
- Excellent fitting retention
- Kink resistant and very flexible
- Leak-proof protection without crimping

Sells against:

Parker PUSH-LOK

Gates Plant Master Plus
300 Lock-On

Thermoid FLEX-LOC

Low working pressure

H275 Polyforce II® hose



Sizes and pressure: (bar/psi)

-04 (21/300), -06 (21/300), -08 (21/300), -10 (21/300), -12 (21/300)

-16 (17/250), -24 (10/150), -32 (9/125)

Operating temperature:

-23°C to +65°C (-10°F to +150°F)

Available fittings:

Danfoss "E" Series (-6, -8, -12, -16) • 265 "P" Series (-4, -6, -8, -12)

Z Series (-4, -6, -8, -12, -16) • Barbed inserts • Quick acting or long shank

Danfoss Hansen quick disconnect

Additional colors available.

Additional lengths available on select items.

Inner tube:

PVC

Reinforcement:

1 or 2-spiral fiber

Cover:

Pin-pricked PVC

Typical application:

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

Selling features:

- 4:1 safety factor
- General purpose air and water transfer hose
- PVC cover provides better abrasion resistance than standard rubber cover

Low working pressure

H1812 Jackel™ hose



Sizes and pressure: (bar/psi)

-04 (19,0/275), -06 (19,0/275), -08 (17,2/250), -10 (17,2/250),
-12 (17,2/250), -16 (17,2/250), -20 (17,2/250), -24 (17,2/250)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Z Series (-4 to -24) • Danfoss Hansen quick disconnect

Inner tube:
EPDM rubber

Reinforcement:
2 fiber braid

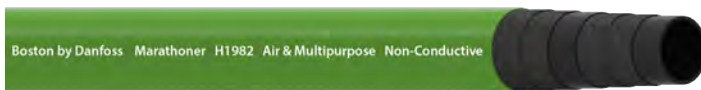
Cover:
EPDM rubber

Typical application:

- For transfer of air and water
- Pneumatic tools
- For spraying water-based fertilizers and pesticides

Low working pressure

H1982 Marathoner® non-conductive hose



Sizes and pressure: (bar/psi)

H1982 600R: -04 (20.7/300), -06 (20.7/300), -08 (20.7/300),
-10 (20.7/300), -12 (20.7/300), -16 (20.7/300)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Danfoss "U" Series (-4 to -8) • Z Series (-4 to -8)
Boss • Ground joint • Air hammer • Air king • Danfoss Hansen quick disconnect

Inner tube:
Nitrile blend

Reinforcement:
2 or 4-fiber spiral

Cover:
Abrasion, ozone, and weather resistant synthetic rubber

Typical application:

- Medium duty oil-resistant
- Air and water transfer

Selling features:

- 4:1 safety factor
- Non-conductive
- General Purpose Air and Water Transfer hose
- Completes breadth of portfolio to capitalize on core product market opportunities

Additional colors available.

Additional lengths available on select items.

Industrial hose

Air and multipurpose

Low working pressure

H0105 Bosflex® A/W hose



Sizes and pressure: (bar/psi)

-04 (19/275), -06 (19/275), -08 (17,2/250), -10 (17,2/250),
-12 (17,2/250), -16 (17,2/250), -20 (17,2/250), -24 (17,2/250)

Operating temperature:

-23°C to +82°C (-10°F to +180°F)

Available fittings:

Z Series (-4 to -24) • Danfoss Hansen quick disconnect

Inner tube:
EPDM rubber

Reinforcement:
4-fiber spiral
2-fiber braid (-20 & -24)

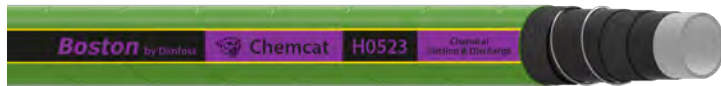
Cover:
EPDM

Typical application:

- For transfer of air and water
- Pneumatic tools
- For spraying of water-based fertilizers and pesticides

Suction and discharge

H0523 Chemcat® hose



Sizes and pressure: (bar/psi)

-12 (20.7/300), -16 (20.7/300), -20 (20.7/300), -24 (20.7/300), -32 (20.7/300),
-40 (20.7/300), -48 (17.2/250), -64 (12.1/175)

Operating temperature:

-40°C to +121°C (-40°F to +250°F) WARNING: Intermittent

Available fittings:

Cam and groove • Combination nipple • Male NPT

Note: Cannot use internal expanded fittings

Inner tube:

UHMW-PE FDA compliant material

Reinforcement:

2-ply fiber and dual helical wires

Cover:

EPDM

Typical application:

- For transfer of acids, chemicals, solvents, and petroleum products
- Food transfer
- Potable water

Selling features:

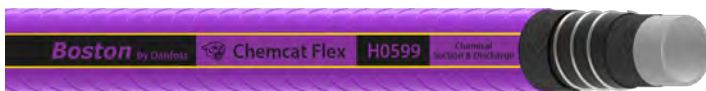
- 4:1 safety factor
- 50% greater pressure performance than ContiTech, Gates, and Parker.
- Easy identification in the toughest environments
- 42% increased temperature handling characteristics compared to standard EHC004/5
- Available in Purple cover to meet DIN requirements, and Green cover to meet ANSI requirements

Sells against:

Parker BLUE THUNDER
Continental FABCHEM
Gates Chem Master Plus
UHMWPE
Novaflex 4700

Low working pressure

H0599 Chemcat Flex™ hose



Sizes and pressure: (bar/psi)

-16 (20.7/300), -20 (20.7/300), -24 (20.7/300),
-32 (20.7/300), -48 (20.7/250), -64 (12.1/175)

Operating temperature:

-40°C to +121°C (-40°F to +250°F) WARNING: Intermittent

Available fittings:

Cam and groove • Combination nipple • Male NPT

Inner tube:

UHMW-PE
FDA compliant material

Reinforcement:

2-ply fiber with dual helical wire

Cover:

Corrugated EPDM

Typical application:

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

Selling features:

- 4:1 safety factor
- 50% greater pressure performance than ContiTech, Gates, and Parker.
- Easy identification in the toughest environments
- 42% increased temperature handling characteristics than EHC004/5
- Easy to move and handle on job site due to Corrugated cover (H0599).
- Available in Purple cover to meet DIN requirements, and Green cover to meet ANSI requirements

Sells against:

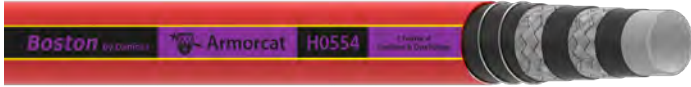
Parker BLUE THUNDER
Continental FABCHEM
Gates CHEMASTER
Novaflex 4700

Industrial hose

Chemical

Suction and discharge

H0554 Amorcat® petrochemical hose



Sizes and pressure: (bar/psi)

-12 (35/500), -16 (35/500), -24(35/500), -32 (35/500),
-48 (35/500), -64 (35/500)

Operating temperature:

-40°C to +180°C (-40°F to +176°F) Warning: Intermittent

Available fittings:

Cam and groove • Combination nipple • Male NPT

Inner tube:

UHMW-PE
FDA compliant material

Reinforcement:

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

Cover:

EPDM

Typical application:

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

Selling features:

- 4:1 safety factor
- Utilization of wire braid reinforcement is exclusive in the chemical market to Amorcat hose, not duplicated
- 2 wire braid reinforcement provides up to 2.5X greater pressure performance than standard 200 psi rated hoses
- Easy identification in the toughest environments
- Easy to move and handle on job site due to Corrugated cover (H0060)

Specialty

H1941 Nyal™ hose



Sizes and pressure: (bar/psi)

-04 (35/500), -05 (35/500), -06 (35/500), -08 (35/500)

Operating temperature:

-34°C to +71°C (-30°F to +160°F)

Available fittings:

Danfoss E Series

Inner tube:

Nylon

Reinforcement:

1 fiber braid

Cover:

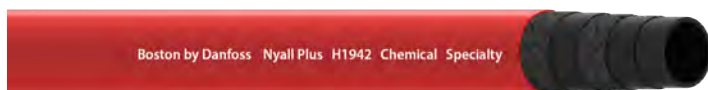
(BK) Neoprene
(RD) Vinyl Nitrile and
RMA Class B oil resistant

Typical application:

- Spraying pesticides and fertilizers
- Paint spray

Specialty

H1942 Nyall hose



Sizes and pressure: (bar/psi)
-08 (52/750), -12 (52/750), -16 (35/500)

Operating temperature:
-40°C to +82°C (-40°F to +180°F)

Available fittings:
Danfoss E Series

Inner tube:
Nylon

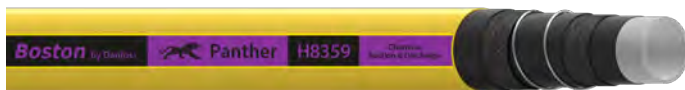
Reinforcement:
2-fiber braid

Cover:
(BK) Neoprene
(RD) Vinyl Nitrile and
RMA Class B oil resistant

Typical application:
• Spraying pesticides
and fertilizers
• Paint spray

Chemical, suction and discharge

H8359 Panther[®] hose



Sizes and pressure: (bar/psi)
-20 (70/1000) -24 (70/1000) -32 (70/1000) -40 (48/700) -48 (48/700) -64 (48/700)

Operating temperature:
-43°C to +66°C (-45°F to +150°F)

Available fittings:
Cam and groove • Combination nipple • Male NPT

Inner tube:
XLPE

Reinforcement:
2-ply fiber with helical wire

Cover:
EPDM

Typical application:
• For transfer of acids,
chemicals, solvents, and
petroleum products

Markets:
• Chemical petroleum
industry

- In-plant transfers
- Tank truck
- Paper/pulp industry
- Bulk hauling

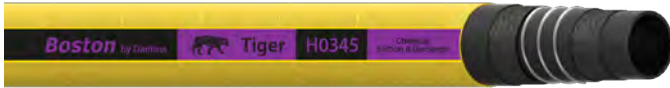
Selling features:
• Completes breadth of
portfolio to capitalize
on core product market
opportunities

Industrial hose

Chemical

Chemical, suction and discharge

H0345 Tiger[®] hose



Sizes and pressure: (bar/psi)

-24 (10.5/150) -32 (10.5/150) -48 (10.5/150) -64 (10.5/150) -96 (10.5/150)

Operating temperature:

-43°C to +82°C (-45°F to +180°F)

Available fittings:

Cam and groove • Combination nipple • Male NPT

Inner tube:

EPDM

Reinforcement:

2-ply fiber with helical wire

Cover:

EPDM

Typical application:

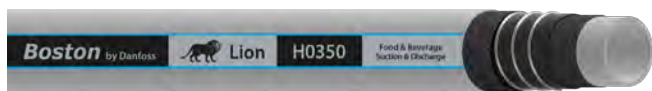
- For transfer of acids, chemicals, solvents, and petroleum products
- Loading and unloading, pumping, suction, or gravity flow discharge

Markets:

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

Food and beverage, suction and discharge

H0350 Lion[®] hose



Sizes and pressure: (bar/psi)

-32 (70/1000) -48 (70/1000) -64 (70/1000)

Standards/certifications:

FDA Approved

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

Vinyl nitrile, FDA compliant material

Reinforcement:

2-ply fiber with helical wire

Cover:

Vinyl nitrile

Typical application:

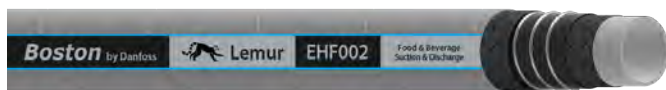
- For suction and discharge of non-dairy food products

Markets:

- Food processing
- Tank truck
- Rail car

Food and beverage, suction and discharge

EHF002 Lemur[™] hose



Sizes and pressure: (bar/psi)

-24 (10.5/150) -32 (10.5/150) -40 (10.5/150) -48 (10.5/150) -64 (10.5/150)

Standards/certifications:

FDA Approved

Operating temperature:

-40°C to +80°C (-40°F to +176°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

Vegetable oil-resistant food-grade NBR rubber. Meets FDA and European requirements.

Reinforcement:

High-tensile synthetic textile with a single steel helical wire

Cover:

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

Typical application:

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

Markets:

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

Industrial hose

Food and Beverage

Beverage discharge

H285 Clearforce R™ hose



Sizes and pressure: (bar/psi)

-03 (17.2/250), -04 (17.2/250), -05 (17.2/250), -06 (15.5/225),
-08 (13.8/200), -10 (13.8/200), -12 (10.5/150), -16 (8.5/125),
-20 (7/100), -24 (7/100), -32 (5/75)

Operating temperature:

-26°C to +66°C (-15°F to +150°F)

Available fittings:

Danfoss E Series (-4, -5, -6, -8, -12, -16)
265 P Series (-4, -5, -6, -8, -12)
Barbed inserts

Inner tube:

Clear PVC
NSF-51 certified
FDA compliant material

Reinforcement:

2 spiral fiber

Cover:

Clear PVC

Typical application:

- For food and beverage dispensing
- For spraying and conveying fertilizer and pesticides

Selling features:

- 4:1 safety factor
- Completes breadth of portfolio to capitalize in core product market opportunities

Beverage discharge

PT200 Clearforce® hose



Sizes and pressure: (bar/psi)

-04 (4.5/65), -04(3.9/55), -05 (3.9/55), -06 (3.9/55),
-08 (3/45), -10 (2/30), -12 (2.8/40), -16 (2.5/35)

Operating temperature:

-21°C to +41°C (-5°F to +150°F)

Available fittings:

Polyline • Self-Align with 2030x insert
Compression with 2030x insert • Molded Compression

Inner tube:

Clear PVC
NSF-51 certified
FDA compliant material

Cover:

Clear PVC

Typical application:

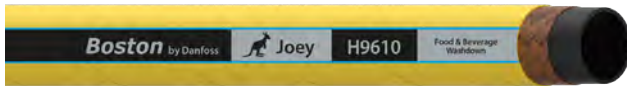
- For food and beverage dispensing
- For spraying and conveying fertilizer and pesticides
- Low pressure laboratory, industrial, agricultural or domestic application

Selling features:

- Completes breadth of portfolio to capitalize on core product market opportunities

Cleaning service

H9610 Joey™ hose



Sizes and pressure: (bar/psi)

-06 (70/1000), -08 (70/1000), -12 (70/1000)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Z Series (-6, -8)

Inner tube:

Nitrile

Reinforcement:

1 braid fiber

Cover:

Vinyl nitrile

Typical application:

- For washdown of food processing facilities and equipment

Selling features:

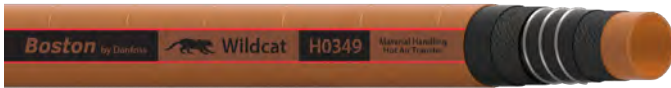
- 4:1 safety factor
- Completes breadth of portfolio to capitalize on core product market opportunities
- Fiber braid reinforcement does not oxidize (rust) when exposed due to cover damage, as compared to similar wire reinforced products

Industrial hose

Material handling

Dry material

H0349 Wildcat® hose



Sizes and pressure: (bar/psi)

-48 (10.5/150), -64 (7/100)

Operating temperature:

-34°C to +177°C (-30°F to +300°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

EPDM

Reinforcement:

Textile with dual helical wires

Cover:

Pin-pricked

EPDM

Typical application:

- Hot air blower hose
- Hot, dry, non-oily applications

Selling features:

- 4:1 safety factor
- Completes breadth of portfolio to capitalize on core product market opportunities
- Easy identification in the toughest environments

Sandblast

H0034 Concord Sandblast™ hose



Sizes and pressure: (bar/psi)

-08 (10.5/150), -12 (10.5/150), -16 (10.5/150),

-20 (10.5/150), -24 (10.5/150), -32 (10.5/150)

Operating temperature:

-40°C to +66°C (-40°F to +150°F)

Available fittings:

Sandblast couplings that attach to the O.D. of hose

Inner tube:

Natural rubber

Reinforcement:

4-ply textile

Cover:

Synthetic rubber

Typical application:

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

Selling features:

- 4:1 safety factor
- Completes breadth of portfolio to capitalize on core product market opportunities
- Easy identification in the toughest environments

Dry material

H0319 Lynx Soft Wall™ hose



Sizes and pressure: (bar/psi)

-64 (5/75), -80 (5/75)

Operating temperature:

-23°C to +66°C (-10°F to +150°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

SBR rubber blend,
3/16" tube thickness

Reinforcement:

2-ply textile and conductive
copper anti-static wire

Cover:

SBR rubber Blend

Typical application:

- Transfer of dry bulk
- Discharge of abrasive material
- Transfer of bottle caps
- Transfer of cleaning agents

Material handling, dry material

H0521 Lynx Heavy Duty™ hose



Sizes and pressure: (bar/psi)

-64 (5/75) -80 (5/75)

Operating temperature:

-23°C to +66°C (-10°F to +150°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

1/4" tube thickness natural
rubber blend

Reinforcement:

2-ply textile and conductive
copper anti-static wire

Cover:

SBR

Typical application:

- Transfer of dry bulk
- Discharge of abrasive material
- Transfer of bottle caps
- Transfer of cleaning agents

Markets:

- In-plant transfers
- Tank truck
- Bottling plant
- Coal plant
- Dry cement operations
- Well service

Industrial hose

Material handling

Concrete pumping

EHK006 Marauder® hose



Sizes and pressure: (bar/psi)

-16 (85/1233), -20 (85/1233), -24 (85/1233), -32 (85/1233),
-40 (85/1233), -48 (85/1233), -64 (85/1233), -80 (85/1233)

Operating temperature:

-40°C to +70°C (-40°F to +158°F)

Available fittings:

Victaulic Male NPT

Inner tube:

Abrasion resistant anti-static natural rubber

Reinforcement:

High tensile synthetic and antistatic copper wire

Cover:

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

Typical application:

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

Heavy duty concrete pumping

EHK007 Marauder Heavy Duty™ hose



Sizes and pressure: (bar/psi)

-32 (85/1233), -40 (85/1233), -48 (85/1233),
-64 (85/1233), -80 (85/1233), -96 (85/1233)

Operating temperature:

-40°C to +70°C (-40°F to +158°F)

Available fittings:

Victaulic Male NPT

Inner tube:

Abrasion resistant anti-static natural rubber and CBR rubber blend

Reinforcement:

High tensile steel cords

Cover:

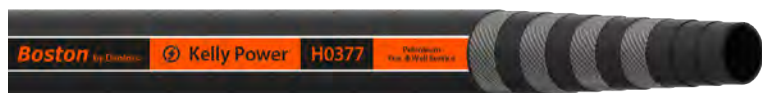
Abrasion, ozone, and weather resistant pin-pricked special synthetic rubber

Typical application:

- For high pressure concrete pumping
- Heavy duty construction for applications needing long lasting durability

Frac and well service

H0377 Kelly Power® hose



Sizes and pressure: (bar/psi)
-32 (207/3000)

Operating temperature:
-40°C to +121°C (-40°F to +250°F)

Available fittings:
Unions • Boss male

Inner tube:
Nitrile/Hypalon blend

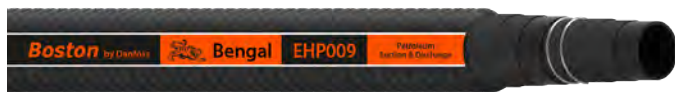
Reinforcement:
4-spiral wire

Cover:
Neoprene

Typical application:
• Rotary drilling on portable drilling rigs, work over rigs and slim hole rigs

Suction and discharge

EHP009 Bengal™ hose



Sizes and pressure: (bar/psi)
-24 (10.5/150), -32 (10.5/150), -40 (10.5/150),
-48 (10.5/150), -64 (10.5/150), -80 (10.5/150),

Operating temperature:
-30°C to +80°C (-22°F to +176°F)

Available fittings:
Cam and groove • Male NPT • Unions

Inner tube:
Nitrile blend

Reinforcement:
High-tensile synthetic textile with dual steel helical wires

Cover:
Corrugated SPR blend

Typical application:
• For transfer applications such as drilling mud or crude oil

Selling features:

- 3:1 safety factor
- Higher Capability compared to competition
 - 4 inch size has 11% greater burst pressure capabilities than Gates® SUPER-VAC™ hose
 - 6 inch size has 46% greater burst pressure capabilities than Gates® SUPER-VAC™ hose
- Application specific and easy identification in the toughest environments
- Easy to move and handle on site due to corrugated cover. Additionally, smaller bend radius can be achieved, as much as 33% compared to EHP500 smooth cover equivalent

Industrial hose

Oil and petroleum exploration

Suction and discharge

H0363 Puma[®] hose



Sizes and pressure: (bar/psi)

-12 (10.5/150), -16 (10.5/150), -20 (10.5/150), -24 (10.5/150), -32 (10.5/150),
-40 (10.5/150), -48 (10.5/150), -64 (10.5/150), -96 (10.5/150)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:
NBR rubber

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

Cover:
NBR rubber blend (RMA Class A)

Typical application:

- For suction and discharge of petroleum products

Selling features:

- 4:1 safety factor
- Easy identification in the toughest environments
- Alternative compound and high aromatic content (50%) capabilities
- 25% greater burst pressure capabilities compared to 3:1 design ratio products
- Cover meets RMA Class A oil swell requirements decreasing service failure in oil exposure applications as compared to a standard rubber cover

Petroleum, suction and discharge

EHP519 Puma Flex[™] hose



Sizes and pressure: (bar/psi)

-12 (10.5/150) -16 (10.5/150) -20 (10.5/150) -24 (10.5/150) -32 (10.5/150)
-40 (10.5/150) -48 (10.5/150) -64 (10.5/150) -96 (10.5/150)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:
NBR blend

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

Cover:
Flat corrugated NBR blend

Typical application:

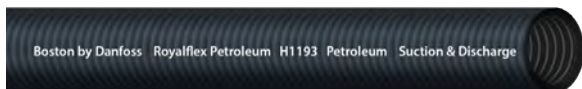
- Application**
- For suction and discharge of petroleum

Markets:

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

Suction and discharge

H1193 Royalflex[®] petroleum hose



Sizes and pressure: (bar/psi)

-24 (21/300), -32 (21/300), -40 (21/300), -48 (17/250), -64 (14/200)

Operating temperature:

-29°C to +82°C (-20°F to +180°F)

Available fittings:

Male NPT • Cam locks

Inner tube:
Nitrile blend

Reinforcement:
100% polyester and helical wire

Cover:
Nitrile blend

Typical application:

- For transfer of petroleum products
- B20 biodiesel applications

Selling features:

- 4:1 safety factor
- Single tube means zero failure from hose layer delamination
- Higher resistance to crush and vacuum collapse than traditional rubber hose
- Withstands 500lbs. of direct force and maintain 90%(OD) retention
- 25% better abrasion resistance than standard rubber cover hose
- Royalflex hose can be produced in length greater than 1000 ft. Reducing coupling cost and requirement by as much as 80%,
- Not duplicated in the market

Suction and discharge

EHP150 Fossa[™] hose



Sizes and pressure: (bar/psi)

-12(10.5/150), -16 (10.5/150), -20 (10.5/150), -24 (10.5/150), -32 (10.5/150),
-40 (10.5/150), -48 (10.5/150), -64 (10.5/150), -96 (10.5/150), -128 (10.5/150)

Operating temperature:

-35°C to +82°C (-31°F to +180°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:
NBR blend
(RMA Class A)

Reinforcement:
High-tensile synthetic textile with a single steel helical wire and anti-static copper wire

Cover:
Abrasion and weather resistant NBR blend
(RMA Class A)

Typical application:

- For suction and discharge of petroleum products

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

*available with red or orange layline

Industrial hose

Oil and petroleum exploration

Discharge

H901 Bulldog[®] fuel oil hose



Sizes and pressure: (bar/psi)

-16 (17.2/250), -20 (17.2/250), -22 (17.2/250), -24 (17.2/250)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Reattachable • Internally expanded permanent attached

Inner tube:
Nitrile rubber
(RMA Class A)

Reinforcement:
Double fiber braid

Cover:
Vinyl nitrile rubber

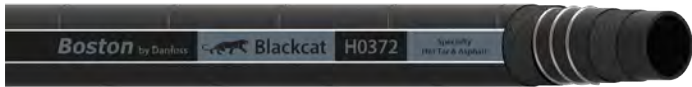
Typical application:
• For oil transfer for residential and/or commercial delivery

Selling features:

- 4:1 safety factor
- Easy identification in the toughest environments
- Tube meets RMA Class A oil swell requirements decreasing service failure in oil exposure applications as compared to a standard rubber tube material
- Ease of use and handling

Road construction

H0372 Blackcat® hot tar and asphalt hose



Sizes and pressure: (bar/psi)

-32 (13,8/200), -40 (13,8/200), -48 (13,8/200), -64 (13,8/200)

Operating temperature:

+121°C (+250°F) Continuous

+177°C(+350°F) Intermittent

Available fittings:

Cam and groove • Combination nipple

Inner tube:

Synthetic rubber

Reinforcement:

2-ply fiberglass
with helical wire

Cover:

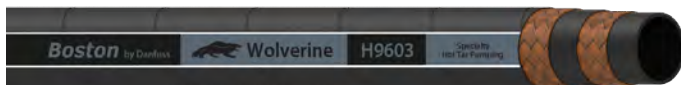
Synthetic rubber

Typical application:

- For suction and discharge of tar and asphalt

Petroleum, hot tar pumping

H9603 Wolverine™ hose



Sizes and pressure: (bar/psi)

-16 (17.2/500)

Operating temperature:

+177°C (+350°F) Intermittent

Available fittings:

Cam and groove • Combination nipple

Inner tube:

Nitrile
(RMA Class A)

Reinforcement:

2 wire braid

Cover:

Pin-pricked CPE

Typical application:

- For hot tar projects
NOTE: Not for asphalt.

Markets:

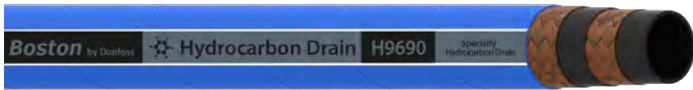
- Road construction
- Roof construction

Industrial hose

Specialty

Specialized

H9690 Hydrocarbon Drain™ hose



Sizes and pressure: (bar/psi)

-12 (21/300)

Operating temperature:

-40°C to +177°C (-40°F to +350°F)

Available fittings:

Boss male • Ground joint female • Danfoss EJ series

Inner tube:

Nitrile
(RMA Class A)

Reinforcement:

2 wire braid

Cover:

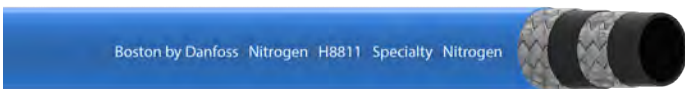
Pin-pricked chlorinated
polyethylene

Typical application:

• For hydrocarbon drain
service

Specialized

H8811 Nitrogen hose



Sizes and pressure: (bar/psi)

-12 (21/300)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Available fittings:

Barbed inserts • Boss male • Ground joint female

Inner tube:

Nitrile

Reinforcement:

4 spiral fiber

Cover:

Pin-pricked neoprene

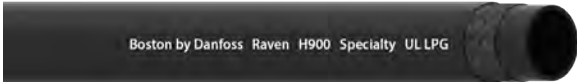
Typical application:

• For transfer of nitrogen
at ambient temperatures

LPG

H900 Raven™ hose

UL 21 approved



Sizes and pressure: (bar/psi)

-04 (24/350), -06 (24/350), -08 (24/350), -12 (24/350), -16 (24/350), -20 (24/350), -24 (24/350)

Operating temperature:

-40°C to +82°C (-40°F to +180°F)

Note:

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

Available fittings:

Swage or crimp male couplings • Danfoss Z series • Danfoss 1G series

Inner tube:

Synthetic rubber

Reinforcement:

Textile braid

Cover:

Pin-pricked synthetic rubber

Typical application:

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

Selling features:

- 5:1 safety factor
- Completes breadth of portfolio to capitalize on core product market opportunities

Industrial hose

Steam

Steam

EH084 Steam Slayer® hose



Sizes and pressure: (bar/psi)

-08 (17.2/250), -12 (17.2/250), -16 (17.2/250)

Operating temperature:

-40°C to +208°C (-40°F to +407°F) Continuous with saturated steam
+232°C (+450°F) For intermittent superheated

Available fittings:

Danfoss EJ Series

Inner tube:

Special chlorobutyl blend

Reinforcement:

2 wire braid

Cover:

Pin-pricked EPDM

Typical application:

- Transfer of steam for processing products and cleaning equipment

Selling features:

- 10:1 safety factor
- Leverage increased service life, safety and up-time on critical steam applications
- Engineered solution with EJ series crimp fitting
- Chlorobutyl tube is more heat and failure resistant than standard EPDM inner tube compounds

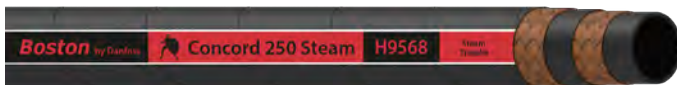
Sells against:

Parker Dragon Breath II

Continental Flexsteel
250CB-20

Steam

H9568 Concord 250 Steam™ hose



Sizes and pressure: (bar/psi)

-08 (17.2/250), -12 (17.2/250), -16 (17.2/250)

Maximum operating temperature:

+232°C (+450°F)

Available fittings:

Danfoss EJ Series

Inner tube:

EPDM

Reinforcement:

2 wire braid

Cover:

Pin-pricked EPDM

Typical application:

- Transfer of steam for processing products and cleaning equipment

Selling features:

- 10:1 safety factor
- Completes breadth of portfolio to capitalize on core product market opportunities

Suction and discharge

EHW150 Mink™ hose



Sizes and pressure: (bar/psi)

-20 (10.5/150), -24 (10.5/150), -32 (10.5/150), -40 (10.5/150),
-48 (10.5/150), -64 (10.5/150), -96 (10.5/150)

Operating temperature:

-25°C to +70°C (-13°F to +158°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

NBR rubber blend

Reinforcement:

High tensile synthetic textile and single steel helical wire

Cover:

Oil resistant NBR blend (RMA Class A)

Typical 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)

Suction and discharge

H0364 Otter® hose



Sizes and pressure: (bar/psi)

-20 (10.5/150), -24 (10.5/150), -32 (10.5/150), -40 (10.5/150),
-48 (10.5/150), -64 (10.5/150)

Operating temperature:

-23°C to +82°C (-10°F to +180°F)

Available fittings:

Cam and groove • Combination nipple

Inner tube:

EPDM

Reinforcement:

High-tensile synthetic textile and steel helical wire

Cover:

EPDM

Typical application:

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

Selling features:

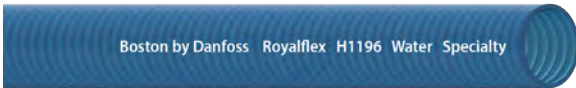
- 3:1 safety factor
- Easy identification in the toughest environments
- EPDM tube and cover construction provides chemical resistance in agricultural applications compared to EH360 SBR tube

Industrial hose

Water

Water

H1196 Royalflex® water hose



Sizes and pressure: (bar/psi)

-24 (20.7/300), -32 (20.7/300), -40 (20.7/300), -48 (17.5/250), -64 (13.8/200)

Operating temperature:

-29°C to +82°C (-20°F to +180°F)

Available fittings:

Male NPT • Cam and groove

Inner tube:

Thermoplastic vinyl nitrile

Reinforcement:

100% polyester and helical wire

Cover:

Thermoplastic vinyl nitrile (MSHA approved)

Typical application:

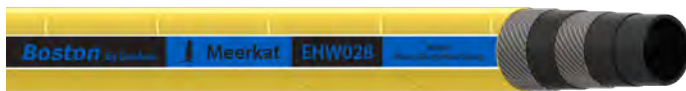
- Transfer of water, liquid diluted fertilizers and pesticides
- Pumping, suction and discharge of water and slurries

Selling features:

- 4:1 safety factor
- Single tube means zero failure from hose layer delamination
- Higher resistance to crush and vacuum collapse than traditional rubber hose
- Withstands 500lbs. of direct force and maintain 90%(OD) retention
- 25% better abrasion resistance than standard rubber cover hose
- Royalflex hose can be produced in length greater than 1000 ft. Reducing coupling cost and requirement by as much as 80%,
- Not duplicated in the market

Water, heavy duty mine spray

EHW028 Meerkat™ hose



Sizes and pressure: (bar/psi)

-08 (70/1000) -12 (70/1000) -16 (70/1000) -20 (70/1000) -24 (70/1000) -32 (70/1000) -40 (70/1000)

Operating temperature:

-35°C to +100°C (-31°F to +212°F)

Available fittings:

Male NPT • Danfoss Hansen quick disconnect

Inner tube:

Oil-mist resistant NBR blend

Reinforcement:

High-tensile steel wire

Cover:

MSHA pin-pricked neoprene blend

Typical application:

Application:

- High pressure air in mines

Markets:

- Mining
- Construction
- Equipment rental

Pressure wash

EC116 Manta 4K™ hose



Sizes and pressure: (bar/psi)

-04 (300/4350), -06 (300/4350), -08 (300/4350)

Operating temperature:

-40°C to +150°C (-40°F to +302°F) Intermittent (For pressure washer application only)

Available fittings:

Z Series • Winner 2pc

Inner tube:

NBR rubber blend

Reinforcement:

1 wire braid

Cover:

Oil, abrasion and, weather resistant NBR rubber blend

Typical application:

- Car washes
- Heavy duty construction equipment cleaning
- Food and beverage processing (where daily cleaning is required)
- Dock services and boat cleaning

Selling features:

- Smooth, non-marking cover
- Flexible, light weight hose
- Available in 50 ft and 100 ft continuous lengths
- Meets EN1829-2 for high pressure water jet equipment

Pressure wash

EC216 Manta 7K™ hose



Sizes and pressure: (bar/psi)

-04 (500/7250), -06 (500/7250), -08 (500/7250)

Operating temperature:

-40°C to +150°C (-40°F to +302°F) Intermittent (For pressure washer application only)

Available fittings:

Z Series • Winner 2pc

Inner tube:

NBR rubber blend

Reinforcement:

2 wire braid

Cover:

Oil, abrasion and, weather resistant NBR rubber blend

Typical application:

- Car washes
- Heavy duty construction equipment cleaning
- Food and beverage processing (where daily cleaning is required)
- Dock services and boat cleaning

Selling features:

- Smooth, non-marking cover
- Flexible, light weight hose
- Available in 50 ft and 100 ft continuous lengths
- Meets EN1829-2 for high pressure water jet equipment

Industrial hose

Liquid Cooling

Liquid cooling water

EHW094 Emperor™ hose



Sizes and pressure: (bar/psi)

-4 (14/203), -6 (14/203), -8 (14/203), -10 (10/150), -12 (10/150), -16 (10/150)

Operating temperature:

-30°C to +100°C (-22°F to +212°F)

Available fittings:

Danfoss 1G crimp • Danfoss 100B socketless • Danfoss Hansen quick disconnect

Inner tube:
TPU

Reinforcement:
Polyester braid,
non-conductive

Cover:
Flexible, fire retardant TPU

Typical application:

- Plasma cutting
- Electric vehicle and bus liquid cooling
- Injection molding
- Industrial equipment cooling
- Data centers

Selling features:

- UL 94 V-0 rated
- 25% lower force to bend compared to our EPDM solution. Lower force to bend reduces side load for fittings, QDC's for easier installation and maintenance.
- Lower cost compounds used while still meeting customer requirements (compared to silicone and PTFE materials).
- Construction resilient to constant flexing for longer life in application and reduced maintenance.
- Non-conductive construction provides added safety in high voltage environment.
- 15% lower weight (compared to a leading competitor's rubber hose) which reduces load on robotic arms and other motion devices.

Liquid cooling water

EWH194 Royal™ hose



Sizes and pressure: (bar/psi)

Without clamp: -4 (5/73), -6 (5/73), -8 (5/73), -10 (5/73), -12 (5/73), -16 (5/73)

With clamp: -4 (16/232), -6 (16/232), -8 (16/232), -10 (16/232), -12 (16/232), -16 (16/232)

Operating temperature:

-40°C to +140°C (-40°F to +284°F)

Available fittings:

Danfoss 1G crimp • Danfoss 100B socketless • Danfoss Hansen quick disconnect

Inner tube:
Peroxide-cured synthetic EPDM rubber

Reinforcement:
2-ply textile

Cover:
Fire retardant synthetic EPDM rubber. Colors: Black (BK), Blue (BU), Grey (GY), Red (RD)

Typical application:

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

Selling features:

- UL 94 V-0 rated
- Fire resistant cover
- Smooth-finish cover, low CoF
- Multiple color offerings
- Flexible with torsional strain and kink resistance

Reference literature

Boston by Danfoss America's
Master Catalog
Publication #: AF423242185650en

Boston Industrial Hose Wall Chart
Publication #: AV431878197971en

Technical support:

For further questions and support,
please contact Danfoss technical
support at 1-888-258-0222 or
fpgproductssupport@Danfoss.com

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Air conditioning hose and fittings



Danfoss EverCool GH001

Danfoss EverCool FC800

Danfoss EverCool EC007





Air conditioning hose and fittings

Customers today are demanding more from their vehicle. Every component and system must work harder and last longer, delivering consistent results mile after mile. Couple that with evolving environmental standards and you have manufacturers wondering how to design vehicles that are both productive and environmentally sustainable.

The answer, the EverCool family of high-performance A/C hoses! Our complete portfolio, which now includes the new EC007 barrier hose, as well as the industry-leading GH001 veneer hose and FC800 large bore hose, now provides options for the full range of mobile A/C applications. All three hoses in the portfolio are qualified with multiple refrigerants, including R1234yf.

► Benefits:

- Danfoss EverCool™ hoses exceed SAE J2064 standards.
- Danfoss EverCool hoses are compatible with multiple refrigerants.
- Danfoss EverCool GH001 = Lowest permeation than any other A/C hose in the market.
- Danfoss EverCool GH001 with EZ Clip™ system = Near zero permeation.
- Danfoss EverCool EC007 = Stronger performance than leading Type-C competitor.
- Danfoss EverCool FC800 = Highest flexibility large bore hose in today's market.
- Danfoss EZ Clip = More fitting connections than any other manufacturer.
- All EverCool hoses are backed by Danfoss' 3-year warranty.



Typical applications:

EverCool Applications	GH001 Applications	EZ Clip™ Applications	Platforms
<ul style="list-style-type: none"> • Mobile A/C • Refrigeration 	<ul style="list-style-type: none"> • Air conditioning • Refrigeration 	<ul style="list-style-type: none"> • Airport runways • Frozen drink machines • Portable cool rooms • Apple and produce cool rooms • Portable, movable systems • APU's 	<ul style="list-style-type: none"> • Building • Food and beverage • Mobile machinery and Equipment • Vehicles
Platforms	Platforms		
<ul style="list-style-type: none"> • Marine • Oil and gas • Vehicles 	<ul style="list-style-type: none"> • Marine • Mining, metals and minerals • Oil and gas • Vehicles 		

A/C hose comparison:

Compare our complete offering of A/C hoses and their associated features to understand which hose best fits your application.

	FC800 Large bore hose	EC007 Barrier hose	GH001 Veneer hose
Type	Type B	Type C	Type E
Construction	Synthetic elastomeric tube with steel wire reinforcement. Cover is heat-resistant textile yarn impregnated with a synthetic elastomeric cement.	Thermoplastic barrier between elastomeric layers. Textile reinforcement. Outer cover heat and ozone resistance synthetic elastomer.	Thermoplastic veneer lining inside diameter with elastomeric tube outer layer. Textile reinforcement. Outer cover heat and ozone resistant synthetic elastomer.
Available sizes	-12, -16, -20, -24	-6, -8, -10, -12, -14	-4, -6, -8, -10, -12, 16
Hose fittings	Reusable, factory and customer crimp	Flat/barrel crimp and factory crimp	EZ Clip system and factory crimp

Compatibility charts:

Refrigerant compatibility chart of refrigerant hoses

REFRIGERANT	HOSE STYLE GH001	FC800	EC007
R-1234YF	Y	Y	Y
R134A	Y	Y	Y
R407C	Y	Y	Y
R410A	Y	Y	Y
R404A	Y	*	Y

Y = Compatible N = Non-compatible

* Contact product support for application review

Lubricant compatibility chart

LUBRICANT	HOSE STYLE GH001	FC800	EC007
Mineral oil	Y	*	Y
PAG	Y	Y	Y
Ester oil	Y	Y	Y
Alkylbenzene	*	*	Y

Y = Compatible N = Non-compatible

* Contact product support for application review

Air conditioning hose and fittings

EverCool

A/C and refrigeration

EverCool™ GH001 hose



Standards/Certifications:

Exceeds SAE J2064 Type E, Class 1

Sizes and pressure: (bar/psi)

-04 (35/500), -06 (35/500), -08 (35/500), -10 (35/500), -12 (35/500), -16 (35/500)

Operating temperature:

-40°C to +140°C (-40°F to +284°F)

Available fittings:

EZ Clip fittings

Factory crimp: call Danfoss customer service 952-937-9800

Inner tube:

Dual extrusion technology
polyimide veneer

Reinforcement:

1 textile braid

Cover:

UV resistant EPDM

Typical application:

A/C systems for truck,
bus, agriculture,
construction equipment
and refrigeration systems

Selling features:

- 15% higher temp. range than competitors
- Exceeds OEM technical requirements
- Simple and fast assembly with EZ Clip
- Multiple uses and applications
- Perfect for field service of A/C systems
- GH001 with EZ Clip saves time and money
- Environmentally sound, with lowest permeation in the industry

Sells against:

Continental Galaxy 4860
Manuli Refrimaster Plus

Standard

EverCool EC700 hose



Standards/Certifications:

Exceeds SAE J2062 Type C, Class 1 A/C hose

Sizes and pressure: (bar/psi)

-06 (35/500), -08 (35/500), -10 (35/500), -12 (35/500), -14 (35/500)

Operating temperature:

-40°C to +135°C (-40°F to +275°F)

Available fittings:

Flat crimp fittings

Factory crimp: call Danfoss customer service 952-937-9800

Inner tube:

Elastomeric tube with
thermoplastic barrier

Reinforcement:

1 textile braid

Cover:

UV resistant elastomer

Typical application:

Truck, bus, agricultural
and construction vehicles

Selling features:

- Hose qualified with flat crimp fittings
- Excellent resistance to heat fatigue
- Available in popular liquid, discharge and suction sizes
- Best type C, A/C, hose in the industry for commercial vehicles
- New flat crimp fitting, designed for easy crimping
- Lower cost hose option, with lower cost crimp option

Sells against:

Continental Galaxy 4826
Continental Galaxy 4890
Parker 285

A/C and refrigeration

EverCool FC800 A/C hose



Standards/Certifications:

Exceeds SAE J2064 Type B

Sizes and pressure: (bar/psi)

-12 (35/500), -16 (35/500), -20 (35/500), -24 (35/500)

Operating temperature:

-40°C to +125°C (-40°F to +257°F)

Available fittings:

Field attachable/reusable

Customer crimp

Inner tube:

Chloroprene (CR)

Reinforcement:

1 wire braid

Cover:

EPDM

Typical application:

- Metro, large bus and rail
- Overhead cranes and stationary equipment

Selling features:

- Near zero permeation
- O-ring reusable fitting for assured sealing
- 3 year warranty
- Low greenhouse gas emissions
- Flexible for easy, large bore, hose routing
- Dependable in transit bus and rail applications

Sells against:

Manuli UltraStar

GH001/EC007

**How to order/
part # structure**

Bulk hose

Bulk hose should be ordered by specifying length in feet as shown below.

Specify quantity in feet: 500 ft.

Complete number:

Hose type _____

Hose size (refer to hose spec sheet) _____

GH001-08

Reeled hose

GH001 and EC007 hose is available on reels. Maximum number of lengths per reel is three (3). The approximate lengths per reel are shown below:

PART NUMBER	AVG # FT/REEL	MAX # PIECES/REEL	LENGTH REEL
GH001-6/EC007-06	560	3	40
GH001-8/EC007-08	575	3	40
GH001-10/EC007-10	560	3	40
GH001-12/EC007-12	367	3	45
GH001-16	250	3	40

Air conditioning hose and fittings

FC800 fittings - field attachable



Part #	Hose size	Thread
EJ5305-1212S	-12	1 ³ / ₁₁ - 12
EJ5305-1616S	-16	1 ⁷ / ₁₆ - 12
EJ5305-2020S	-20	1 ¹¹ / ₁₆ - 12
EJ5305-2424S	-24	2 - 12

Female ORS swivel



Part #	Hose size	Thread
EJ5306-1212S	-12	1 ¹ / ₁₆ - 12
EJ5306-1616S	-16	1 ⁵ / ₁₆ - 12
EJ5306-2020S	-20	1 ⁵ / ₈ - 12
EJ5306-2424S	-24	1 ⁷ / ₈ - 12

Female SAE/JIC swivel



Part #	Hose Size	Thread
EJ5361-1212S	-12	1 ¹ / ₁₆ - 12
EJ5361-1616S	-16	1 ⁷ / ₁₆ - 12
EJ5361-2020S	-20	1 ¹¹ / ₁₆ - 12
EJ5361-2424S	-24	2 - 12

Female ORS swivel - 45°



Part #	Hose Size	Thread
EJ5359-1212S	-12	1 ¹ / ₁₆ - 12
EJ5359-1616S	-16	1 ⁵ / ₁₆ - 12
EJ5359-2020S	-20	1 ⁵ / ₈ - 12

Female SAE/JIC swivel - 45°



Part #	Hose Size	Thread
EJ5362-1212S	-12	1 ³ / ₁₆ - 12
EJ5362-1616S	-16	1 ⁷ / ₁₆ - 12
EJ5362-2020S	-20	1 ¹¹ / ₁₆ - 12
EJ5362-2424S	-24	2 - 12

Female ORS swivel - 90°



Part #	Hose Size	Thread
EJ5360-1212S	-12	1 ¹ / ₁₆ - 12
EJ5360-1616S	-16	1 ⁵ / ₁₆ - 12
EJ5360-2020S	-20	1 ⁵ / ₈ - 12

Female SAE/JIC swivel - 90°

Air conditioning hose and fittings

FC800 fittings - field attachable



BOCK - straight

Part #	Hose Size	Thread
GA25126-16	-16	-
GA25126-20	-20	-
GA25126-24	-24	-



BOCK - 45°

Part #	Hose Size	Thread
GA25127-16	-16	-
GA25127-20	-20	-
GA25127-24	-24	-

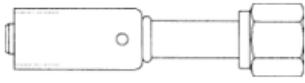


BOCK - 90°

Part #	Hose Size	Thread
GA25128-16	-16	-
GA25128-20	-20	-

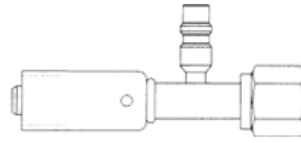
Air conditioning hose and fittings

EC007 fittings - flat crimp



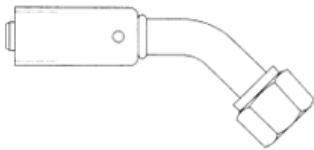
Bumped tube
O-ring female swivel

Part #	Hose Size	Thread
75706E-Z47	-6	5/8 - 18
75706E-Z49	-6	3/4 - 16
75708E-Z49	-8	3/4 - 16
75708E-Z51	-8	7/8 - 14
75710E-Z51	-10	7/8 - 14
75710E-Z53	-10	1 1/16 - 14
75712E-Z51	-12	7/8 - 14
75712E-Z53	-12	1 1/16 - 14



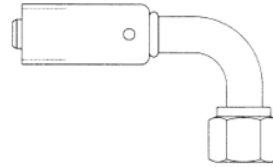
Bumped tube O-ring
female swivel w/port

Part #	Hose Size	Thread
75706E-Z57	-6	5/8 - 18
75708E-Z59	-8	3/4 - 16
75710E-Z61	-10	7/8 - 14
75712E-Z61	-12	7/8 - 14



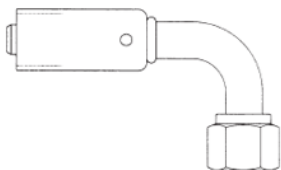
Bumped tube O-ring
female swivel - 45°elbow

Part #	Hose Size	Thread
75706E-W47	-6	5/8 - 18
75708E-W49	-8	3/4 - 16
75710E-W51	-10	7/8 - 14
75712E-W51	-12	7/8 - 14
75712E-W53	-12	1 1/16 - 14



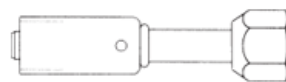
Bumped tube O-ring
female swivel -
90° elbow w/port

Part #	Hose Size	Thread
75706E	-6	5/8 - 18
75708E-Z99	-8	3/4 - 16
75710E-Z01	-10	7/8 - 14
75712E-Z01	-12	7/8 - 14



Female ORS
swivel - 90°

Part #	Hose Size	Thread
75706E-Z87	-6	5/8 - 18
75706E-Z89	-6	3/4 - 16
75708E-Z87	-8	5/8 - 18
75708E-Z89	-8	3/4 - 18
75710E-Z91	-10	7/8 - 14
75712E-Z91	-12	7/8 - 14
75712E-Z93	-12	1 1/16 - 14

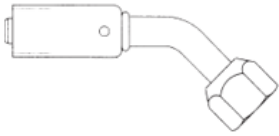


SAE 45° flare
female swivel

Part #	Hose Size	Thread
75706E-406	-6	5/8 - 18
75706E-408	-6	3/4 - 16
75708E-408	-8	3/4 - 16
75710E-410	-10	7/8 - 14
75712E-410	-12	7/8 - 14
75712E-412	-12	1 1/16 - 14

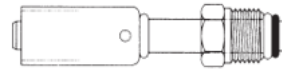
Air conditioning hose and fittings

EC007 fittings - flat crimp



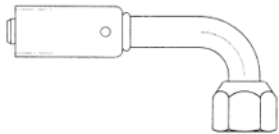
SAE 45° flare female swivel 45° elbow

Part #	Hose Size	Thread
75706E-486	-6	5/8 - 18
75708E-488	-8	3/4 - 16
75710E-490	-10	7/8 - 14
75712E-490	-12	7/8 - 14
75712E-492	-12	1 1/16 - 14



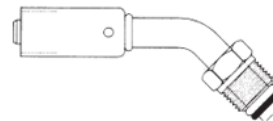
Bumped tube O-ring male swivel

Part #	Hose Size	Thread
75706E-Z06	-6	5/8 - 18
75706E-Z08	-6	3/4 - 18
75708E-Z08	-8	3/4 - 18
75710E-Z10	-10	7/8 - 18
75710E-Z12	-10	1 1/16 - 16
75712E-Z10	-12	7/8 - 18
75712E-Z12	-12	1 1/16 - 16



SAE 45° flare female swivel 90° elbow

Part #	Hose Size	Thread
75706E-466	-6	5/8 - 18
75708E-468	-8	3/4 - 16
75710E-470	-10	7/8 - 14
75712E-470	-12	7/8 - 14
75712E-472	-12	1 1/16 - 14



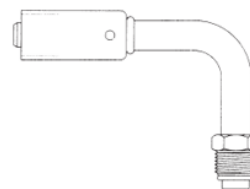
Bumped tube O-ring male swivel 45°

Part #	Hose Size	Thread
75706E-Z26	-6	5/8 - 18
75708E-Z28	-8	3/4 - 18
75710E-Z30	-10	7/8 - 18
75712E-Z30	-12	7/8 - 18
75712E-Z32	-12	1 1/16 - 14



Male rigid compression

Part #	Hose Size	Thread
75706E-756	-6	5/8 - 18
75706E-758	-6	3/4 - 16
75708E-756	-8	5/8 - 18
75708E-758	-8	3/4 - 16
75708E-760	-8	7/8 - 14
75710E-758	-10	3/4 - 16
75710E-760	-10	7/8 - 14
75712E-760	-12	7/8 - 14
75712E-762	-12	1 1/16 - 14

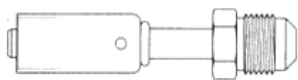


Bumped tube O-ring male swivel 90°

Part #	Hose Size	Thread
75706E-Z66	-6	5/8 - 18
75706E-Z68	-6	3/4 - 18
75708E-Z66	-8	5/8 - 18
75708E-Z68	-8	3/4 - 18
75710E-Z70	-10	7/8 - 18
75710E-Z72	-10	1 1/16 - 16
75712E-Z70	-12	7/8 - 18
75712E-Z72	-12	1 1/16 - 16

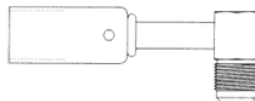
Air conditioning hose and fittings

EC007 fittings - flat crimp



Part #	Hose Size	Thread
75706E-306	-6	5/8 - 18
75708E-308	-8	3/4 - 16
75710E-310	-10	7/8 - 14
75712E-312	-12	1 1/16 - 14

SAE 45° male rigid



Part #	Hose Size	Thread
75706E-X06	-6	5/8 - 18
75708E-X08	-8	3/4 - 16
75710E-X10	-10	7/8 - 14
75712E-X12	-12	1 1/16 - 14

SAE 45° male rigid
90° elbow



Part #	Hose Size	Thread
75706E-Y36	-6	-
75706E-Y38	-6	-
75708E-Y38	-8	-
75708E-Y40	-8	-
75710E-Y40	-10	-
75710E-Y41	-10	-
75712E-Y41	-12	-

Hole splicer

Air conditioning hose and fittings

GH001 fittings - EZ Clip



Clips hose/
cage connection

Part #	Clip size	Description
1F40104-04C	-04	Clips for size -04 hose
1F40104-06C	-06	Clips for size -06 hose
1F40104-08C	-08	Clips for size -08 hose
1F40104-10C	-10	Clips for size -10 hose
1F40104-12C	-12	Clips for size -12 hose
1F40104-16C	-16	Clips for size -16 hose



Part #	Cage Size	Description
1F40105-04	-04	Cage for size -04 hose
1F40105-06	-06	Cage for size -06 hose
1F40105-08	-08	Cage for size -08 hose
1F40105-10	-10	Cage for size -10 hose
1F40105-12	-12	Cage for size -12 hose
1F40105-16	-16	Cage for size -16 hose



ORS female swivel
90° elbow

Part #	Hose Size	Thread
FJ5994-0404S	-4	9/16 - 18
FJ5994-01-0606S	-6	1 1/16 - 16
FJ5994-02-0808S	-8	3/16 - 16
FJ5994-04-1010S	-10	1 - 14
FJ5994-03-1212S	-12	1 3/16 - 12
FJ5994-08-1216S	-16	1 3/16 - 12



Female O-ring
90° elbow (short pilot)

Part #	Hose Size	Thread
FJ5985-0606S	-6	5/8 - 18
FJ5985-0608S	-8	5/8 - 18
FJ5985-0808S	-8	3/4 - 16
FJ5985-0810S	-10	3/4 - 16
FJ5985-1010S	-10	7/8 - 14
FJ5985-1012S	-12	7/8 - 14
FJ5985-1212S	-12	1 1/16 - 14
FJ5985-1216S	-16	1 1/16 - 14



Female O-ring
(short pilot)

Part #	Hose Size	Thread
FJ5984-0606S	-6	5/8 - 18
FJ5984-0608S	-8	5/8 - 18
FJ5984-0808S	-8	3/4 - 16
FJ5984-0810S	-10	3/4 - 16
FJ5984-1010S	-10	7/8 - 14
FJ5984-1012S	-12	7/8 - 14
FJ5984-1212S	-12	7/8 - 14



Female O-ring
90° elbow (long pilot)

Part #	Hose Size	Thread
FJ3288-01-0606S	-6	5/8 - 18
FJ3288-02-0808S	-8	3/4 - 16



Female O-ring
45° elbow (short pilot)

Part #	Hose Size	Thread
FJ3055-01-0606S	-6	5/8 - 18
FJ3055-03-0808S	-8	3/4 - 16
FJ3055-04-0810S	-10	3/4 - 16
FJ3055-05-1010S	-10	7/8 - 14
FJ3055-06-1012S	-12	7/8 - 14



Female O-ring
45° (short pilot)
w/R134a high side port

Part #	Hose Size	Thread
EJ3410-0808S	-8	3/4 - 16
EJ7375-01-1010S	-10	7/8 - 14

Air conditioning hose and fittings

GH001 fittings - EZ Clip



Part #	Hose Size	Thread
FJ3013-03-0808S	-8	3/4 - 16
FJ3013-01-0810S	-10	3/4 - 16

Female O-ring
90° (short pilot)
with/R134a high side port



Part #	Hose Size	Thread
FJ3047-1012S	-12	7/8 - 14
FJ3047-1016S	-16	7/8 - 14

Female O-ring 90° elbow
(long pilot) w/charge port
w/45° port rotation



Part #	Hose Size	Thread
FJ3012-02-1010S	-10	7/8 - 14
FJ3012-01-1012S	-12	7/8 - 14

Female O-ring
90° (short pilot)
w/R134a low side port



Straight splicer

Part #	Hose Size	Thread
FJ3045-0606S	-6	-
FJ3045-0808S	-8	-
FJ3045-1010S	-10	-
FJ3045-1212S	-12	-



Female O-ring 90° elbow
(long pilot)
w/charge port

Part #	Hose Size	Thread
FJ3289-01-0808S	-8	3/4 - 16
FJ3289-08-0808S	-8	3/4 - 16
FJ3289-02-1010S	-10	7/8 - 14



Straight splicer
w/R134a high
side port

Part #	Hose Size	Thread
FJ5995-0808S	-8	-
FJ5995-1010S	-10	-



Straight splicer w/R134a
low side port

Part #	Hose Size	Thread
FJ5986-1010S	-10	-
FJ5986-1212S	-12	-
FJ5986-1616S	-16	-



Male O-ring 45°
elbow (short pilot)

Part #	Hose Size	Thread
FJ3116-04-0608S	-8	5/8 - 18
FJ3116-05-1012S	-12	7/8 - 14

Air conditioning hose and fittings

GH001 fittings - EZ Clip



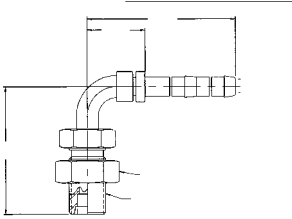
Part #	Hose Size	Thread
FJ3171-0808S	-8	-
FJ3171-1010S	-10	-
FJ3171-1212S	-12	-

Splicer w/switch port



Part #	Hose Size	Thread
FJ3019-03-0606S	-6	5/8 - 18
FJ3019-02-0608S	-8	5/8 - 18
FJ3019-07-1010S	-10	7/8 - 14
FJ3019-01-1012S	-12	7/8 - 14

Male O-ring 90° elbow (short pilot)



Part #	Hose Size	Thread
FJ3514-0808S	-8	3/4 - 16

Male bulkhead 90° elbow



Part #	Hose Size	Thread
FJ3052-0606S	-6	5/8 - 18
FJ3052-0608S	-8	5/8 - 18
FJ3052-1010S	-10	7/8 - 14
FJ3052-1012S	-12	7/8 - 14

Male O-ring (short pilot)



Part #	Hose Size	Thread
FJ3066-0808S	-8	-

“T” splice (3 hose connection)

Air conditioning hose and fittings

Reference

Reference literature

Danfoss A/C & refrigeration
hose and fittings catalog
Publication #
AF445859400076en

Danfoss EZ Clip Fact Sheet
Publication #:
AM440555169234en

Technical support:

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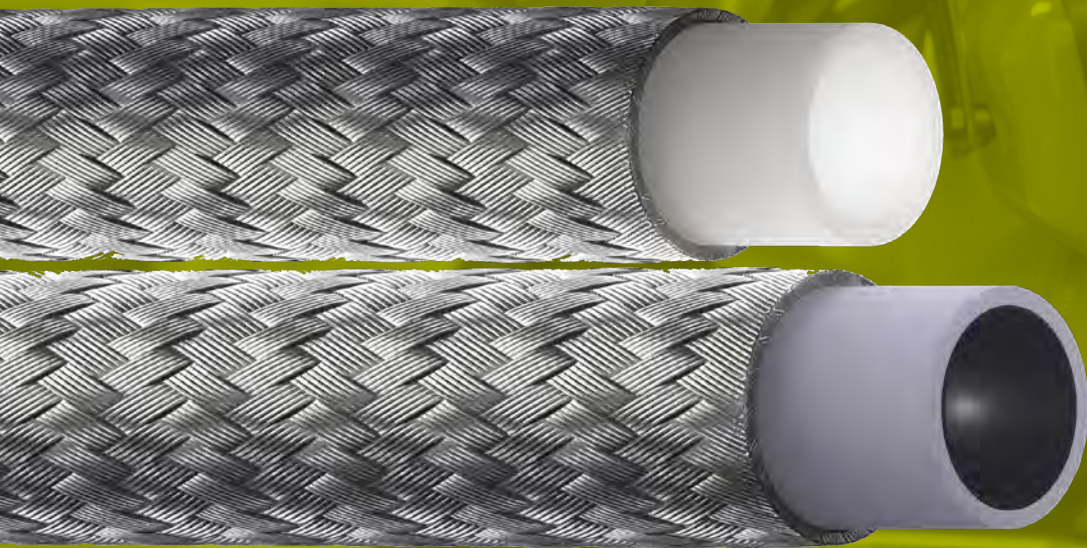
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Fuel, A/C, Thermoplastic and Specialty

PTFE hose and fittings







PTFE hose and fittings

As a pioneer in the production of hoses used in demanding conditions, Danfoss is pleased to announce two new additions to our family of hoses; Winner PTFE EN-TW and EC-TW PTFE hoses. Since 1961, Danfoss' Everflex™ hoses have been the premier choice for hose products made from premium grade Teflon™ fluoropolymer resin for use in truck, chemical, hot melt, steam, packaging, paint, machinery and many other demanding applications. These new Winner PTFE hoses compliment the Everflex family of products by providing performance that meets SAE 100R14 and are ideally suited for use in applications where high and low temperature, chemical resistance, low coefficient of friction, flexibility, and non-aging characteristics are required.

The **premier choice** for hose products made from premium grade Teflon™ fluoropolymer resin.



► Benefits:

- Wide temperature range, up to -65° F to 450° F (-54° C to 260° C) at rated pressures (greater range than rubber).
- Chemically resistant. It is impervious to degradation due to fluid exposure.
- Can withstand continuous flexing, vibration, or impulsing. It is less subject to cyclic fatigue than rubber or metal hoses.
- Very low coefficient of friction = higher fluid flow velocity especially when compared to metal hose.
- Unlimited shelf life and long service life.
- It is inert. It does not contaminate contents (for example, Teflon™ fluoropolymer is an FDA approved material for food contact).

► Typical applications:

- Bus, truck and off highway
- Industrial, mills, platen presses
- Chemical transfer, adhesive transfer
- Engine / Fuel
- Fire / rescue air
- Paint and paint spraying
- Steam applications

PTFE hoses:

Everflex Premium Thin wall 	Everflex Premium Thick wall 	Everflex Specialty Convuluted 	Winner PTFE Thin wall 
<p>2807 and FC465</p> <ul style="list-style-type: none"> • Exceeds SAE 100R14 performance • Aerospace grade T62 Teflon™ fluoropolymer resin • Higher pressure • Higher temperature • Certified to multiple industry specs <p>Fittings: E-Series AQP 2pc Reusable</p>	<p>S and SC Series</p> <ul style="list-style-type: none"> • Exceeds SAE 100R14 performance • Aerospace grade T62 Teflon™ fluoropolymer resin • 33% thicker tube than standard PTFE • Better heat cycling resistance • Better permeation resistance <p>Fittings: EverSwage fitting</p>	<p>80 and 85 Series</p> <ul style="list-style-type: none"> • Exceeds SAE 100R14 performance • Aerospace grade T62 Teflon™ fluoropolymer resin • Excellent kink resistance • Excellent bend radius • Large bore sizes available <p>Fittings: Convo-crimp fitting</p>	<p>EN-TW and EC-TW</p> <ul style="list-style-type: none"> • Meets SAE 100R14 standards • Standard PTFE resin • Competitive pressure and temp • Competitively price against competitive set <p>Fittings: E Series AQP 2pc Reusable</p>

PTFE hose and fittings

Ordering

1. Specify quantity required:
 - a. For bulk hose in random lengths, state quantity in feet. Ex. 150 ft. S-12.
 - b. For specified ("cut") lengths of hose, state number of pieces. 10 pcs. Ex. S-12-00200.
 - c. Danfoss reserves the right to ship +10% of the maximum reel length quantity or bulk quantity ordered.
2. Specify part number:
 - a. For bulk hose, state hose style number and dash size. Ex. 100 ft. S-12.
 - b. For cut lengths, state hose style number and dash size plus length to the nearest 1/8 inch. Ex. 10 pcs. S-12-00125 indicates 10 pieces S-12 hose, length of each piece 12-5/8 inches (the fifth digit of the length designator represents eighths of an inch).
3. Bulk Everflex hose is supplied in the following length patterns:

Sizes: -3 through -12

 - No less than 75% in lengths 25 feet or longer
 - No more than 25% in lengths 5 feet to 24 feet

Sizes: -14 through -24

 - No less than 65% in lengths 25 feet or longer
 - No more than 35% in lengths 5 feet to 25 feet
4. For large quantities or long lengths, please consult Danfoss for price and availability.

Note: Length tolerance for cut hose lengths, assemblies and sleeves is:

 - Up to and including 12": +/- 1/8"
 - Above 12" to and including 18": +/- 3/16"
 - Above 18" to and including 36": +/- 1/4"
 - Above 36": +/- 1% of length

Hose length patterns

Average length patterns

Part number	Minimum length ft	Average length ft	Maximum length ft.
S-3	5	400	700
S-4	5	170	500
S-5	5	130	400
S-6	5	100	300
S-8	5	150	500
S-10	5	300	600
S-12	5	240	500
S-16	5	140	300
S-16Z	5	30	58
S-20Z	5	30	58
SC-3	5	200	400
SC-4	5	210	300
SC-5	5	170	200
SC-6	5	65	200
SC-8	5	35	150
SC-10	5	60	100
SC-12	5	100	120
SC-16	5	50	75
2807-4	5	275	700
2807-5	5	85	500
2807-6	5	160	600

Part number	Minimum length ft	Average length ft	Maximum length ft.
2807-8	5	115	300
2807-10	5	110	300
2807-12	5	320	600
2807-16	5	200	400
S-18ZTW	5	80	150
SC-18ZTW	5	80	150
8012/8512	5	45	90
8016/8516	5	45	80
8020/8520	5	30	70
8024/8524	5	30	60
8032/8532	5	30	45

S-Series

Everflex® smooth bore non-dissipating hose



Standards/Certifications:
Exceeds SAE 100R14 Type A

Sizes and pressure: (bar/psi)

S-Series: -03 (241/3500), -04 (206/3000), -05 (206/3000), -06 (172/2500), -08 (137/2000), -10 (120/1750), -12 (103/1500), -16 (68/1000), -16z (86/1250), -20z (68/1000)

S316 Series: -04 (206/3000), -06 (172/2500), -08 (103/1500), -12 (86/1250), -16 (62/900)

Operating temperature:
-54°C to +230°C (-65°F to +450°F)

Available fittings:
EverSwage

Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Danfoss

Inner tube:
Non-conductive
Teflon™ fluoropolymer

Reinforcement/Cover:
304 or 316 stainless
steel braid

Typical application:

- Steam
- Compressor discharge
- Chemical transfer
- 316 Stainless braided hose can be used in marine application and other environments where corrosion is an issue.

Selling features:

- 33% thicker wall than standard PTFE hose
- Aerospace grade - DuPont T62 Teflon™ fluoropolymer resin
- Low coefficient of friction
- Ultra-sonic cleaning protects sensitive equipment
- Approved by FDA for food service use
- Higher Bend radius than standard PTFE hose

Sells against:
Parker 929 series

SG-Series

Everflex smooth bore static dissipating hose



Standards/Certifications:
Exceeds SAE 100R14 Type B

Sizes and pressure: (bar/psi)

SC-Series: -03 (241/3500), -04 (206/3000), -05 (206/3000), -06 (172/2500), -08 (137/2000), -10 (120/1750), -12 (103/1500), -16 (68/1000), -16z (86/1250), -20z (68/1000)

Operating temperature:
-54°C to +230°C (-65°F to +450°F)

Available fittings:
EverSwage

Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Danfoss

Inner tube:
Conductive Teflon™
fluoropolymer

Reinforcement/Cover:
304 or 316 stainless
steel braid

Typical application:

- Steam
- Compressor discharge
- Chemical transfer
- 316 Stainless braided hose can be used in marine application and other environments where corrosion is an issue.

Selling features:

- Conductive carbon layer, eliminates static discharge.
- 33% thicker wall than standard PTFE hose
- Highest level of corrosion resistance
- Ultra-sonic cleaning protects sensitive equipment
- Carbon layer approved by FDA for food service use
- Higher Bend radius than standard PTFE hose

Sells against:
Parker 929B series

PTFE hose and fittings

Hose

Teflon™ fluoropolymer

2807 hose



Standards/Certifications:

Exceeds SAE 100R14 Type A, DNV GL, USCG, ABS

Sizes and pressure: (bar/psi)

2807 Series: -03 (210/3000), -04 (210/3000), -05 (210/3000), -06 (175/2500), -08 (140/2000), -10 (105/1500), -12 (84/1200), -16 (70/1000), -20 (43/625)

Operating temperature:

-73°C to +260°C (-100°F to +500°F) Steam 200 PSI at +300°F max

Available fittings:

E Series • Weatherhead 2pc • field attachable

Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Danfoss

Inner tube:

Non-conductive Teflon™ fluoropolymer

Reinforcement/Cover:

Single layer 304 stainless steel wire braid

Typical application:

- Hot Steam
- Compressor discharge
- Hot air
- Most chemical applications
- Industrial and manufacturing
- Pharmaceutical applications

Selling features:

- Thin wall Aerospace grade Teflon™ fluoropolymer tube
- Certified to a number of specific industry standards.
- Low coefficient of friction and chemically inert.
- Designed for extreme conditions, where rubbers hoses fail
- Withstands continuous flexing, vibration and impulse
- Long lasting
- Unlimited shelf life

Sells against:

Parker 919 series

Titeflex TS2

Teflon™ fluoropolymer

FC465 hose



Standards/Certifications:

Exceeds SAE 100R14 Type A, DNV GL, USCG, ABS

Sizes and pressure: (bar/psi)

FC465 Series: -03 (207/3000), -04 (207/3000), -05 (207/3000), -06 (172/2500), -08 (138/2000), -10 (103/1500), -12 (83/1200), -16 (69/1000), -20 (43/625)

Operating temperature:

-73°C to +260°C (-100°F to +500°F) Steam 200 PSI at +300°F max

Available fittings:

E Series • Weatherhead 2pc • field attachable

Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Danfoss

Inner tube:

Conductive Teflon™ fluoropolymer

Reinforcement/Cover:

Single layer 304 stainless steel wire braid

Typical application:

- Hot Steam
- Compressor discharge
- Hot air
- Most chemical applications
- Industrial and manufacturing
- Pharmaceutical applications

Selling features:

- Thin wall Aerospace grade Teflon™ fluoropolymer tube
- Certified to a number of specific industry standards.
- Low coefficient of friction and chemically inert.
- Designed for extreme conditions, where rubbers hoses fail
- Withstands continuous flexing, vibration and impulse
- Long lasting
- Unlimited shelf life

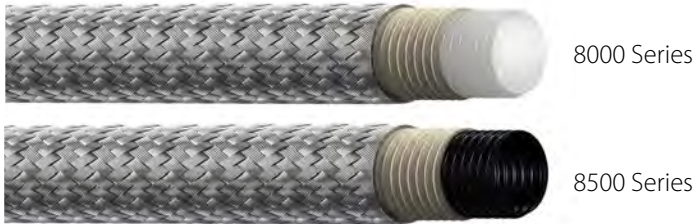
Sells against:

Parker 919 series

Titeflex TS2

8000 and 8500-Series

Convolute hose: 8500 conductive and 8000 non-conductive hose



Standards/Certifications:

Exceeds SAE100R14 standard

Sizes and pressure: (bar/psi)

-08 (103/1500), -12 (86/1250), -16 (62/900), -20 (62/900), -24 (52/750), -32 (35/500)

Operating temperature:

-54°C to +204°C (-65°F to +400°F)

Available fittings:

Conv-O-Crimp

Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Danfoss

Inner tube:

Convolute Teflon™ fluoropolymer

Reinforcement/Cover:

One or two layers of 304 stainless steel braid

Typical application:

- Automotive
- Platen presses
- Pharmaceutical
- Bus and truck
- Reverse osmosis
- Hydraulics
- Chemical processing
- Steam, air, water
- Tire manufacturing
- Electronics
- Steel mills
- Food processing
- Tank truck transfer

Selling features:

- Convolute tube made for Aerospace grade T62 Teflon™ fluoropolymer
- Most flexible Everflex Teflon™ fluoropolymer hose available
- Available in either non-conductive or conductive versions
- Convolute design, resists vacuum collapse
- Tighter bend radius than thin or thick wall PTFE hoses
- Perfect PTFE hose for presses and other constantly move application

Sells against:

Parker 939 and 939B series
Titeflex TC3

*8500 Series is for applications where flow induced electrostatic charges can occur.

Winner PTFE

EN-TW

Reduced, smooth bore PTFE hose

Non-conductive (non-dissipating) PTFE hose



Standards/Certifications:

Meets SAE 100R14 Type A

Sizes and pressure: (bar/psi)

-04 (210/3000), -06 (175/2500), -08 (140/2000), -10 (103/1500), -12 (86/1250), -16 (68/1000)

Operating temperature:

-54°C to +236°C (-65°F to +456°F)

Available fittings:

E Series • Weatherhead 2pc • field attachable

Inner tube:

Non-conductive PTFE

Reinforcement/Cover:

304 stainless steel wire braid

Typical application:

- Alternative fuels
- Bus, truck and off highway
- Chemical transfer
- Electric cooling
- Engine
- Fire/rescue air
- Hot press
- Paint and paint spraying
- Steam

Selling features:

- Non-conductive properties
- Standard tier performance at best value
- PTFE tube is virtually chemically inert
- Works best where rubber hoses fail
- Designed to fight growing Tier 3 competitors in performance and price
- Competitive temperature and pressure
- Versatile option, used in many applications and industries.

Sells against:

Kongsburg T1167 series
Imperial TSSV6 series

PTFE hose and fittings

Hose

Winner PTFE

EC-TW

Reduced, smooth bore PTFE hose
Conductive (static-dissipating) PTFE hose



Standards/Certifications:

Meets SAE 100R14 Type B

Sizes and pressure: (bar/psi)

-04 (210/3000), -06 (175/2500), -08 (140/2000),
-10 (103/1500), -12 (86/1250), -16 (68/1000)

Operating temperature:

-54°C to +236°C (-65°F to +456°F)

Available fittings:

E Series • Weatherhead 2pc • field attachable

Inner tube:

Conductive PTFE

Reinforcement/Cover:

304 stainless steel
wire braid

Typical application:

- Alternative fuels
- Bus, truck and off highway
- Chemical transfer
- Electric cooling
- Engine
- Fire/rescue air
- Hot press
- Paint and paint spraying
- Steam

Selling features:

- Conductive properties
- Standard tier performance at best value
- PTFE tube is virtually chemically inert
- Works best where rubber hoses fail
- Designed to fight growing Tier 3 competitors in performance and price
- Competitive temperature and pressure
- Versatile option, used in many applications and industries.

Sells against:

Kongsburg T1167 series
Imperial TSSV6 series

PTFE hose and fittings

E series fittings - 2807, EN-TW and EC-TW



SAE 37° (JIC)
female swivel

Some sizes available in both
Carbon Steel and Stainless Steel
ER series

Part #	Hose size	Thread
03E-604	-04	7/16 - 20
04E-604	-05	7/16 - 20
04E-605	-05	1/2 - 20
04E-606	-05	9/16 - 18

Part #	Hose size	Thread
05E-406	-06	5/8 - 18
05E-605	-06	1/2 - 20
05E-606	-06	9/16 - 18
06E-406	-07	5/8 - 18
06E-606	-07	9/16 - 18
06E-608	-07	3/4 - 16
07E-606	-08	9/16 - 18
08E-608	-10	3/4 - 16
08E-610	-10	7/8 - 14
10E-612	-12	1 1/16 - 12
12E-412	-14	1 1/16 - 14
12E-612	-14	1 1/16 - 12
14E-616	-16	1 5/16 - 12
16E-616	-18	1 5/16 - 12



Male pipe rigid (NPT)

Some sizes available in both
Carbon Steel and Stainless Steel
ER series

Part #	Hose size	Thread
03E-102	-04	1/8 - 27
03E-104	-04	1/4 - 18
04E-102	-05	1/8 - 27
04E-104	-05	1/4 - 18

Part #	Hose size	Thread
04E-106	-05	3/8 - 18
05E-104	-06	1/4 - 18
05E-106	-06	3/8 - 18
06E-104	-07	1/4 - 18
06E-106	-07	3/8 - 18
06E-108	-07	1/2 - 14
07E-106	-08	3/8 - 18
08E-106	-10	3/8 - 18
08E-108	-10	1/2 - 14
10E-112	-12	3/4 - 14
12E-112	-14	3/4 - 14
14E-116	-16	1 - 1 1/2
16E-116	-18	1 - 1 1/2



SAE 37° (JIC)
female swivel
90° tube elbow

Some sizes available in both
Carbon Steel and Stainless Steel
ER series

Part #	Hose size	Thread
04E-664	-05	7/16 - 20
04E-665	-05	1/2 - 20
05E-665	-06	1/2 - 20
05E-666	-06	9/16 - 18
06E-466	-07	9/16 - 18
06E-666	-07	9/16 - 18
06E-668	-07	3/4 - 16
08E-668	-10	3/4 - 16
08E-670	-10	7/8 - 14
12E-672	-14	1 1/16 - 12
16E-676	-18	1 5/16 - 12



Male pipe swivel (NPT)

Part #	Hose size	Thread
04E-J04	-05	1/4 - 18
05E-J04	-05	1/4 - 18
06E-J06	-07	3/8 - 18
08E-J08	-08	1/2 - 14
12E-J12	-14	3/4 - 14



SAE 37° (JIC) male rigid

Part #	Hose size	Thread
04E-504	-05	7/16 - 20
04E-505	-05	1/2 - 20
04E-506	-05	9/16 - 18
05E-505	-06	1/2 - 20
06E-506	-07	9/16 - 18
06E-508	-07	3/4 - 16
08E-508	-10	3/4 - 16
08E-510	-10	7/8 - 14
12E-512	-14	1 1/16 - 12
16E-516	-18	1 5/16 - 12



Straight tube brass

Part #	Hose size	Thread
08E-T58	-10	1 1/16 - 20
08E-T60	-10	1 3/16 - 18
12E-T60	-14	1 3/16 - 18
12E-T62	-14	1 - 18



Inverted male swivel

Part #	Hose size	Thread
04E-B03	-05	3/8 - 24
04E-B04	-05	7/16 - 24
04E-B05	-05	1/2 - 20
06E-B05	-07	1/2 - 20
06E-B06	-07	5/8 - 18
08E-B08	-10	3/4 - 18

⚠ WARNING: California
Proposition 65, see pg. 203.

PTFE hose and fittings

Weatherhead 2-piece fittings



SAE 37° (JIC) swivel

Part #	Hose size	Thread
FC9779-0404S	-03	7/16 - 20
FC9779-0505S	-04	1/2 - 20
FC9779-0606S	-05	9/16 - 18
FC9779-0808S	-08	3/4 - 16
FC9779-1010S	-08	7/8 - 14
FC9779-1212S	-10	1 1/16 - 12
FC9779-1616S	-14	1 5/16 - 12



SAE 37° (JIC) swivel stainless steel

Part #	Hose size	Thread
FC9779-0404-333	-03	7/16 - 20
FC9779-0606-333	-05	9/16 - 18
FC9779-0808-333	-08	3/4 - 16
FC9779-1010-333	-08	7/8 - 14
FC9779-1212-333	-10	1 5/16 - 12
FC9779-1616-333	-14	1 5/16 - 12



SAE 45° swivel

Part #	Hose size	Thread
FC7216-0404S	-03	7/16 - 20
FC7216-0505S	-04	1/2 - 20
FC7216-0606S	-08	5/8 - 18
FC7216-0808S	-08	3/4 - 16
FC7216-1010S	-10	7/8 - 14
FC7216-1212S	-14	1 1/16 - 14



SAE 45° swivel, 90° elbow

Part #	Hose size	Thread
FC5098-0404S	-03	7/16 - 20



Male pipe

Part #	Hose size	Thread
FC9846-0204S	-03	1/8 - 27
FC9846-0404S	-03	1/4 - 18
FC9846-0405S	-04	1/4 - 18
FC9846-0406S	-05	1/4 - 18
FC9846-0606S	-05	3/8 - 18
FC9846-0608S	-08	3/8 - 18
FC9846-0808S	-08	1/2 - 14
FC9846-1212S	-10	3/4 - 14
FC9846-1616S	-14	1 - 11 1/2

PTFE hose and fittings

EverSwage fittings - S and SC series



37° (JIC) swivel

Available in (S) Steel, (B) Brass,
(C) Carbon Steel

Part #	Hose size	Thread
S-1303	-03	3/8 - 24
S-1304	-04	7/16 - 20
S-1305	-05	1/2 - 20
S-1306	-06	9/16 - 18
S-1308	-08	3/4 - 16
S-1310	-10	7/8 - 14
S-1312	-12	1 1/16 - 12
S-1316	-16	1 5/16 - 12
S-1316Z	-16	1 5/16 - 12
S-1320Z	-20	1 5/8 - 12



45° brass swivel

Part #	Hose size	Thread
FITT. #30	-04	7/16 - 20
FITT. #31	-05	1/2 - 20
FITT. #32	-06	5/8 - 18
FITT. #33	-08	3/4 - 16
FITT. #34	-10	7/8 - 14
FITT. #35	-12	1 1/16 - 14



Male pipe NPT

Available in (S) Steel, (B) Brass,
(C) Carbon Steel

Part #	Hose size	Thread
S-1103	-03	1/8 - 27
S-1104-1	-04	1/8 - 27
S-1104-2	-04	1/4 - 18
S-1106-1	-06	1/4 - 18
S-1106-2	-06	3/8 - 18
S-1106-3	-06	1/2
S-1108-1	-08	3/8 - 18
S-1108-2	-08	1/2 - 14
S-1110	-10	1/2 - 14
S-1112	-12	3/4 - 14
S-1116	-16	1 - 11.5
S-1116Z	-16	1 - 11.5
S-1120Z	-20	1 1/4 - 11.5



37° (JIC)
female insert

Part #	Hose size	Thread
NJ-4-S	-04	-
NJ-5-B	-05	-
NJ-6-B	-06	-
NJ-8-B	-08	-
NJ-10-B	-10	-
NJ-12-B	-12	-
NJ-16-B	-16	-
NJ-20-B	-20	-

PTFE hose and fittings

Reference

Reference literature

Danfoss PTFE hose and fittings catalog
Publication #
AF445859319075en

Digital copies:

This literature is available electronically at:
powersource.danfoss.com

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fpgproductssupport@Danfoss.com



Fuel, A/C, Thermoplastic and Specialty

Air brake tube, hose and fittings

Danfoss EC038







Air brake tube, hose and fittings

For years, Danfoss has set the standard for air brake solutions and innovation in the transportation industry. Synflex™ by Danfoss Solstice™ and Eclipse™ tubing continues that innovation heritage with the use of proprietary thermoplastic materials and being the first to market with a multi-layered design. The Synflex Solstice and Eclipse tubing meets and exceeds SAE/DOT and DIN/ISO performance requirements in addition to the more stringent OEM customer requirements. The EC038 air brake hose is a versatile hose bringing performance and value to market.

Danfoss sets the **standard** for air brake solutions and **innovation** in the transportation industry.



Air brake tube, hose and fittings

Need to know

► Benefits:

Synflex Eclipse and Solstice Tube:

- Tested and approved by all major N.A. truck OEMS.
- Over 1 billion ft currently in service.
- Special nylon blend, eliminates supply interruptions caused by Nylon 12 supply issues.
- Qualified with standard industry fittings, provides end user with options.
- Lighter weight and easier to cut than rubber hose.

EC038 Air brake Hose:

- Better flexibility than thermoplastic tubing.
- Option over thermoplastic, in trailer to cab lines.

► Typical applications:

- Truck air brake systems
- Trailer air brake systems
- Auxiliary air systems
- Formed tubes (Tubing only)
- Formed and straight air brake harness assemblies (Tubing only)



Air brake tubing products

Air brake tubing products include: bulk tubing, straight harnesses, formed harnesses, brass connectors, slider coils and cold air assemblies

Air brake tubing Quick reference guide:

Designation	Family	Description	OD Sizes	Applicable Standards
SAE J844 - Type A Mono-Wall, non-reinforced	4245 4247	Polymide 12 (PA12) Solstice™ (PA alloy)	5/16" 1/4" only	FMVSS DOT 571.106 FMVSS DOT 571.302 SAE J844 SAE J1131
SAE J844 - Type B Multi-layer Reinforced	3270	Polymide 11 (PA11) Polymide 12 (PA12) Eclipse™ (multi-layer PA)	3/8", 1/2", 5/8", 3/4"	SAE J2494-3 Various OEM Specific

Air brake tube, hose and fittings

Tube

SAE J844 Type A - Monowall

Eclipse 4245 Series Solstice 4247 Series



Standards/Certifications:

Meets SAE J844 Type A, SAE J1131, SAE J2494-3, DOT-FMVSS 106

Sizes and pressure: (bar/psi)

4245: -2 (69,0/1000), -3 (83,0/1200), -5 (69,0/1000)

4247: -4 (83,0/1200)

Operating temperature:

-54°C to +93°C (-65°F to +200°F)

Available fittings:

Danfoss Brass fittings

Inner tube:

4245 - Nylon 12

4247 - Polyamide alloy

Typical application:

- Truck air brake systems
- Trailer air brake systems
- Auxiliary air systems
- Formed tubes
- Formed and straight air brake harness assemblies (not for use with fuel)

Selling features:

- Superior abrasion resistance
- Ease of cutting
- Enhanced flexibility and extension
- Flow performance
- UV stabilized, thermoformable
- Formed and straight air brake harness assemblies
- Available in standard and custom colors
- Available in all standard sizes

Sells against:

Parker 1120 series

Kuriyama Endure 151 series

SAE J844 Type B - Multilayer

Eclipse 3270 Series



Standards/Certifications:

MEETS: SAE J844 Type B, J1131, J2494-3, DOT FMVSS 106

Sizes and pressure: (bar/psi)

-06 (96,5/1400), -08 (65,5/950), -10 (62,1/900), -12 (55,2/800)

Operating temperature:

-54°C to +93°C (-65°F to +200°F)

Available fittings:

Danfoss Brass fittings

Inner tube:

Proprietary Nylon blend

Reinforcement:

Polyester yarn

Typical application:

- Truck air brake systems
- Trailer air brake systems
- Auxiliary air systems (not for use with fuel)

Selling features

- Superior abrasion resistance
- Ease of cutting
- Enhanced flexibility and extension
- Flow performance
- UV stabilized, thermoformable
- Formed and straight air brake harness assemblies
- Available in standard and custom colors
- Available in all standard sizes

Sells against:

Parker 1120 series

Kuriyama Endure 151 series

Air brake master pack reference sheet

O.D. Size	Part Numbers:		Coil length	Number of Coils	Master Carton	Weight per 100 ft	Type
	Eclipse	Solstice					
1/8"	4245-022X7		2000 ft	6	12000 ft	.33 lbs	Type A
5/32"	4245-025X6		1000 ft	6	6000 ft	.56 lbs	Type A
3/16"	4245-033X6		1000 ft	6	6000 ft	.71 lbs	Type A
1/4"	4245-041X6	4247-041X6	1000 ft	6	6000 ft	1.19 lbs	Type A
5/16"	4245-052X4		500 ft	6	3000 ft	1.54 lbs	Type A
3/8"	3270-061X4		500 ft	6	3000 ft	2.8 lbs	Type B
1/2"	3270-081X4		500 ft	3	1500 ft	3.8 lbs	Type B
5/8"	3270-101X3		250 ft	3	750 ft	7.0 lbs	Type B
3/4"	3270-121X3		250 ft	3	750 ft	8.6 lbs	Type B

Master carton = This is the minimum and you must order in these multiples.

The number codes below replace the "X" to designate color choice.

Standard Colors:

Black (0), Red (2), Orange (3), Yellow (4), Green (5) and Blue (6).

* Minimum for all sizes for a RTO color or Special lengths is 12,000 ft

Run-to-Order Colors:

White (1), Natural (7), Brown (C), Purple (D), Tan (E) and Silver (F).

Air brake

EC038 hose



Standards/Certifications:

Meets SAE J1402, DOT/FMVSS 106 Type All

Sizes and pressure: (bar/psi)

-04 (15,0/225), -06 (15,0/225), -08 (15,0/225)

Operating temperature:

-40°C to +212°C (-40°F to +100°F)

Available fittings:

Crimp: 338 "P" Series (-6 and -8 only)

Reusable: 338 "B" Series (-6 and -8 only)

Inner tube:

Highly engineered EPDM

Reinforcement:

Textile braid

Cover:

EPDM

Typical application:

Tractor to trailer lines, axle chamber lines and tractor service lines

Selling features:

- Traditional general purpose air brake hose
- Best performance for the value
- Light weight, easy to install
- Widely used on commercial vehicle jounce lines
- Competitive air brake performance

Sells against:

Gates TR500

Parker 293 series

Air brake tube, hose and fittings

Air brake tubing

Synflex Eclipse and Solstice short roll reference guide

Part number	Nominal OD	Color	Continuous foot per reel
5/32"			
4245-0250-0100	5/32"	Black	100
4245-0250-1000	5/32"	Black	1,000
1/8"			
4245-0220-0100	1/8"	Black	100
4245-0220-1000	1/8"	Black	1,000
3/16"			
4245-0330-0100	3/16"	Black	100
1/4" - Solstice			
4247-0410-0100	1/4"	Black	100
4247-0410-0500	1/4"	Black	500
4247-0410-1000	1/4"	Black	1,000
4247-0416-0100	1/4"	Blue	100
4247-0416-0500	1/4"	Blue	500
4247-0416-1000	1/4"	Blue	1,000
4247-041C-0100	1/4"	Brown	100
4247-041C-0500	1/4"	Brown	500
4247-041C-1000	1/4"	Brown	1,000
4247-0415-0100	1/4"	Green	100
4247-0415-0500	1/4"	Green	500
4247-0415-1000	1/4"	Green	1,000
4247-0413-0100	1/4"	Orange	100
4247-0413-0500	1/4"	Orange	500
4247-0412-0100	1/4"	Red	100
4247-0412-0500	1/4"	Red	500
4247-0412-1000	1/4"	Red	1,000
4247-041F-0100	1/4"	Silver	100
4247-041F-0500	1/4"	Silver	500
4247-041F-1000	1/4"	Silver	1,000
4247-0414-0100	1/4"	Yellow	100
4247-0414-0500	1/4"	Yellow	500
4247-0414-1000	1/4"	Yellow	1,000
5/16"			
4245-0520-0100	5/16"	Black	100
4245-0520-0500	5/16"	Black	500
4245-0520-1000	5/16"	Black	1,000
3/8"			
3270-0610-0100	3/8"	Black	100
3270-0610-0500	3/8"	Black	500
3270-0610-1000	3/8"	Black	1,000
3270-0616-0100	3/8"	Blue	100

Part number	Nominal OD	Color	Continuous foot per reel
3/8" cont.			
3270-0616-0500	3/8"	Blue	500
3270-0615-0100	3/8"	Green	100
3270-0613-0100	3/8"	Orange	100
3270-0613-0500	3/8"	Orange	500
3270-0612-0100	3/8"	Red	100
3270-0614-0100	3/8"	Yellow	100
3270-0614-0500	3/8"	Yellow	500
1/2"			
3270-0810-0100	1/2"	Black	100
3270-0810-0500	1/2"	Black	500
3270-0810-1000	1/2"	Black	1,000
3270-0816-1000	1/2"	Blue	1,000
3270-0816-0500	1/2"	Blue	500
3270-0816-0100	1/2"	Blue	100
3270-0815-0100	1/2"	Green	100
3270-0815-0500	1/2"	Green	500
3270-0813-0100	1/2"	Orange	100
3270-0813-0500	1/2"	Orange	500
3270-0812-0100	1/2"	Red	100
3270-0812-0500	1/2"	Red	500
3270-0814-0100	1/2"	Yellow	100
3270-0814-0500	1/2"	Yellow	500
5/8"			
3270-1010-0100	5/8"	Black	100
3270-1010-0250	5/8"	Black	250
3270-1016-0100	5/8"	Blue	100
3250-1016-0250	5/8"	Blue	250
3270-1015-0100	5/8"	Green	100
3270-1015-0250	5/8"	Green	250
3270-1013-0100	5/8"	Orange	100
3270-1013-0250	5/8"	Orange	250
3270-1012-0250	5/8"	Red	250
3270-1014-0100	5/8"	Yellow	100
3270-1014-0250	5/8"	Yellow	250
3/4"			
3270-1210-0100	3/4"	Black	100
3270-1210-0250	3/4"	Black	250
3270-1215-0100	3/4"	Green	100
3270-1215-0250	3/4"	Green	250
3270-1213-0100	3/4"	Orange	100

Air brake tube, hose and fittings

Brass Reusable Fittings - Eclipse/Synflex (4245, 4247 and 3270 tubing)



Q-Cab
45° connection
to male pipe

Part #	Hose size	Thread
217-35004-03	-4	1/8 - 27

Part #	Hose size	Thread
217-38404-03	-4	1/4 - 18
217-38604-03	-4	3/8 - 18
217-38206-03	-6	1/8 - 27
217-35006-03	-6	1/4 - 18
217-38606-03	-6	3/8 - 18
217-38408-03	-8	1/4 - 18
217-35008-03	-8	3/8 - 18
217-38808-03	-8	1/2 - 14
217-38610-03	-10	3/8 - 18
217-35010-03	-10	1/2 - 14



Q-Cab
90° connection
to male pipe

Part #	Hose size	Thread
217-40004-03	-4	1/8 - 27
217-43404-03	-4	1/4 - 18

Part #	Hose size	Thread
217-43604-03	-4	3/8 - 18
217-43206-03	-6	1/8 - 27
217-40006-03	-6	1/4 - 18
217-43606-03	-6	3/8 - 18
217-43408-03	-8	1/4 - 18
217-40008-03	-8	3/8 - 18
217-43808-03	-8	1/2 - 14
217-43610-03	-10	3/8 - 18
217-40010-03	-10	1/2 - 14



Q-Cab
female connector

Part #	Hose size	Thread
1866x4	-4	1/8
1866x4x4	-4	1/4

Part #	Hose size	Thread
1866x6x2	-4	1/8
1866x6x2	-6	1/4
1866x6x6	-6	3/8
1866x8x4	-8	1/4
1866x8x4	-8	3/8
1866x8x8	-8	1/2



Q-Cab
male connector

Part #	Hose size	Thread
1868x2.5x1	-2	1/16
1868x2.5	-2	1/8
1868x3	-3	1/8
1868x4	-4	1/8

Part #	Hose size	Thread
1868x4x4	-4	1/4
1868x4x6	-4	3/8
1868x6x2	-6	1/8
1868x6	-6	1/4
1868x6x6	-6	3/8
1868x6x8	-6	1/2
1868x8x4	-8	1/4
1868x8	-8	3/8
1868x8x8	-8	1/2
1868x10x6	-8	3/8
1868x10	-10	1/2
1868x12	-12	1/2



Q-Cab
90 elbow

Part #	Hose size	Thread
1869x2.5x1	-2	1/16
1869x2.5	-2	1/8
1869x3	-3	1/8
1869x3x4	-3	1/4

Part #	Hose size	Thread
1869x4	-4	1/8
1869x4x4	-4	1/4
1869x4x6	-4	1/8
1869x6x2	-6	1/4
1869x6	-6	3/8
1869x6x6	-6	1/8
1869x6x8	-6	1/4
1869x8x4	-8	3/8
1869x8	-8	1/2
1869x8x8	-8	1/4
1869x10x6	-10	3/8
1869x10	-10	1/2



Q-Cab
union tee

Part #	Hose size	Thread
1864x4	-4	-
1864x6	-6	-
1864x8	-8	-



Q-Cab
encapsulated
cartridge

Part #	Hose size	Thread
1861x2.5	-2	-
1861x3	-3	-
1861x4	-4	-
1861x6	-6	-
1861x8	-8	-
1861x10	-10	-
1861x12	-12	-

WARNING: California Proposition 65, see pg. 201.

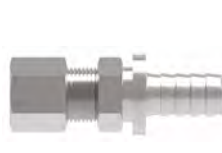
Air brake tube, hose and fittings

338P Series Crimp Fittings - EC038



Male pipe rigid

Part #	Hose size	Thread
33806P-104	3/8	1/4 - 18
33806P-106	3/8	3/8 - 18
33806P-108	3/8	1/2 - 14
33808P-106	1/2	3/8 - 18
33808P-108	1/2	1/2 - 14



Air brake slider

Part #	Hose size	Thread
33806P-Y66	3/8	17/32 - 24
33806P-Y68	3/8	11/16 - 20
33808P-Y68	1/2	11/16 - 20



Male pipe swivel

Part #	Hose size	Thread
33806P-J06	3/8	3/8 - 18



Air brake swivel

Part #	Hose size	Thread
33806P-Y76	3/8	3/4 - 20
33808P-Y76	1/2	3/4 - 20
33808P-Y78	1/2	7/8 - 20



SAE 45° female swivel

Part #	Hose size	Thread
33806P-406	3/8	5/8 - 18
33808P-408	1/2	3/4 - 16



Air brake adapter

Part #	Hose size	Thread
1390x6	3/8	3/4 - 20
1390x6x6	3/8	3/4 - 20
1390x6x8	3/8	3/4 - 20
1390x8	1/2	7/8 - 20
1390x8x8	1/2	7/8 - 20

Air brake tube, hose and fittings

338B Series Crimp Fittings - EC038



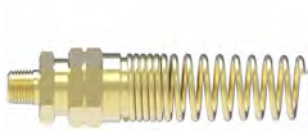
Male connector

Part #	Hose size	Thread
33806B-Y24	3/8	1/4 - 18
33806B-Y26	3/8	3/8 - 18
33806B-Y28	3/8	1/2 - 14
33808B-Y26	1/2	3/8 - 18
33808B-Y28	1/2	1/2 - 14



Female connector w/adaptor

Part #	Hose size	Thread
33806B-Y84	3/8	3/4 - 20
33806B-Y86	3/8	3/4 - 20
33808B-Y86	1/2	7/8 - 20



Male connector w/spring guard

Part #	Hose size	Thread
33806B-Y34	3/8	1/4 - 18
33806B-Y36	3/8	3/8 - 18
33806B-Y38	3/8	1/2 - 14
33808B-Y36	1/2	3/8 - 18
33808B-Y38	1/2	1/2 - 14



Hose mender

Part #	Hose size	Thread
33806B-Y06	3/8	--
33808B-Y08	1/2	--



Female connector

Part #	Hose size	Thread
33806B-Y76	3/8	5/8 - 18
33808B-Y78	1/2	3/4 - 16

Air brake tube, hose and fittings

Reference

Technical support:

For further questions and support, please contact Danfoss technical support at 1-888-258-0222 or fpgproductssupport@Danfoss.com

Digital copies:

This literature is available electronically at: powersource.danfoss.com

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Fuel, A/C, Thermoplastic and Specialty

Socketless hose and fittings

Weatherhead by Danfoss **H332**







Socketless hose and fittings

Danfoss' Easy Couple is the most recognized name in hose for air, water and general purpose applications. Easy Couple exceeds competitive working pressures, in all sizes, including size -16. H201 hose is compatible with fuel, lubricating oils, air and water, supporting a variety of applications from Ag and Construction to MRO programs. Easy Couple is a well-engineered hose that translates into longer uptime, more profitable and reliable use. In addition to the H201, Danfoss has a number of other Socketless hoses to fit the of today's demanding applications.



Boston by Danfoss Easy Couple® is the **most recognized** name in hose for air, water and general purpose applications.



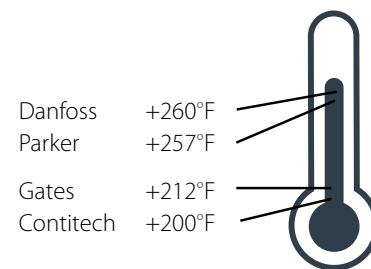
► Benefits:

- H201 hose is MSHA approved (all sizes/colors).
- Kink resistant and flexible.
- Highest temperature and pressure rating than most push-on style hoses.
- Fuel resistance, including B20.
- Quick and easy preparation of assemblies, no tools needed.

► Typical applications:

Applications:	Platforms:
<ul style="list-style-type: none"> • Air • Water • Fuel • General purpose • Transfer hose for air and water • Drain line 	<ul style="list-style-type: none"> • Aerospace • Buildings • Food and beverage • Government • Machine building • Marine • Mining, metals and minerals • Mobile machinery and equipment • Pharmaceuticals • Rail • Utilities • Vehicles • Water and wastewater

H201 Push-on hose product comparisons:



Danfoss	Parker	Gates	Continental
Easy Couple	Push-Lok	LOL Lock on	Autogrip
Size 4-16	Size 4-16	Size 4-12	Size 4-10

Socketless hose and fittings

Socketless hose

General purpose

Easy Couple H201 hose



Standards/Certifications:

MSHA approved - all colors/sizes

Sizes and pressure: (bar/psi)

-06 (21,0/300), -08 (21,0/300), -10 (21,0/300), -12 (21,0/300), -16 (21,0/300), -19 (21,0/300), -25 (21,0/300)

Operating temperature:

-40°C to +127°C (-40°F to +260°F)

Air applications: -40°C to +100°C (-40°F to +212°F)

Oil applications: -40°C to +127°C (-40°F to +260°F)

Water applications: -40°C to +100°C (-40°F to +212°F)

Available fittings:

Danfoss Socketless

Inner tube:

Nitrile

Reinforcement:

1 fiber braid

Cover:

Neoprene (black),
Vinyl nitrile (colored hoses)

Typical application:

General purpose hose, for fuel, lubricating oils, air, water and low pressure return lines in hydraulic system. Not recommended for hydraulic impulse applications and not approved for air brake applications

Selling features:

- MSHA certified on all sizes and colors
 - Optimal hose performance with robotics and data center cooling applications
 - Proprietary Danfoss "Easy-Couple" technology
 - Proven long life for less down time
 - Excellent fitting retention
 - Kink resistant and very flexible
 - Leak-proof protection without crimping
- Not recommended for hydraulic impulse applications and not approved for air brake applications.

Sells against:

Parker Push-Lok

Continental Autogrip

Gates Lock On

H201

How to order/ part # structure

Bulk hose

Bulk hose should be ordered by specifying length in feet as shown below.

Complete number:

H201 - 06 - BK

Hose type _____

Hose size _____

Cover colors _____

For alternate colors, change BK(Black) to BU(Blue), GN(Green), GY(Gray), RD(Red), YW(Yellow)

For reels: Add -250R or -500R to the end. Reel length is in ft.

50 Foot Boxes, 80% 1 piece, 20% 2 pieces,
250 foot reels, maximum # lengths 3,
500 foot reels, maximum # lengths 3

General purpose hose

H332 hose



Standards/Certifications:
SAE J1176, ASTM D5964

Sizes and pressure: (bar/psi)
-06 (21/305), -10 (21/305), -13 (21/305), -16 (21/305), -19 (21/305)

Operating Temperature:
-40°C to +150°C (-40°F to +302°F)
Air not to exceed +121°C (+250°F) and water not to exceed +82°C (+180°F)

Available Fittings:
Field Attachable 100 "B" Series

Inner tube:
CPE

Reinforcement:
1 textile braid

Cover:
Black CPE

Typical application:
General purpose low pressure air, diesel fuel, oil, and water lines

Selling features:

- Optimal hose performance with robotics and data center cooling applications
 - Perfect for low pressure air, water and diesel fuel transfer
 - Proven long life for less down time
 - Excellent fitting retention
 - Kink resistant and very flexible
 - Leak-proof protection without crimping
- Not recommended for hydraulic impulse applications and not approved for air brake applications.

Sells against:

Parker Push-Lok
Continental Autogrip
Gates Lock On

H332

How to order/ part # structure

Bulk hose

Bulk hose should be ordered by specifying length in feet as shown below.

Complete number: _____ H332 - 04 - 50C

Hose type _____

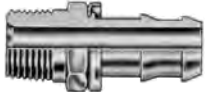
Hose size _____

Package length _____

For package length: Add -50C or -250R to the end. Length is in ft.

Socketless hose and fittings

100B-Series Fittings



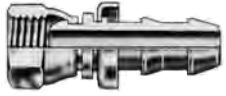
Male pipe rigid

Part #	Thread	Hose size
10004B-102	1/8 - 27	-4
10004B-104	1/4 - 18	-4
10005B-102	1/8 - 27	-5
10005B-104	1/4 - 18	-5
10006B-102	1/8 - 27	-6
10006B-104	1/4 - 18	-6
10006B-106	3/8 - 18	-6
10008B-106	3/8 - 18	-8
10008B-108	1/2 - 14	-8
10010B-108	1/2 - 14	-10
10012B-112	3/4 - 14	-12
10016B-116	1 - 11 1/2	-16



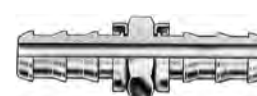
SAE 45° flare female swivel

Part #	Thread	Hose size
10006B-406	5/8 - 18	-6
10012B-412	1 1/16 - 14	-12



JIC 37° female swivel

Part #	Thread	Hose size
10004B-604	7/16 - 20	-4
10004B-605	1/2 - 20	-4
10005B-605	1/2 - 20	-5
10006B-605	1/2 - 20	-6
10006B-606	9/16 - 18	-6
10008B-608	3/4 - 16	-8
10010B-610	7/8 - 14	-10
10012B-610	7/8 - 14	-12



Hose mender

Part #	Thread	Hose size
10004B-Y04	-	-4
10005B-Y05	-	-5
10006B-Y06	-	-6
10008B-Y08	-	-8
10010B-Y10	-	-10
10012B-Y12	-	-12



Inverted male swivel

Part #	Thread	Hose size
10004B-B03	3/8 - 24	-4
10004B-B04	7/16 - 24	-4
10004B-B05	1/2 - 20	-4
10005B-B04	7/16 - 24	-5
10005B-B05	1/2 - 20	-5
10005B-B06	5/8 - 18	-5
10006B-B05	7/16 - 24	-6
10006B-B06	5/8 - 18	-6
10008B-B08	3/4 - 18	-8



Male pipe rigid 90° elbow

Part #	Thread	Hose size
10005B-C02	1/8 - 27	-5
10005B-C04	1/4 - 18	-5
10006B-C02	1/8 - 27	-6
10006B-C04	1/4 - 18	-6



Female inverted rigid

Part #	Thread	Hose size
10004B-A03	3/8 - 24	-4
10004B-A04	7/16 - 24	-4
10004B-A05	1/2 - 20	-4
10005B-A05	1/2 - 20	-5
10006B-A05	1/2 - 20	-6
10006B-A06	5/8 - 18	-6
10008B-A08	3/4 - 18	-8

Reference literature

Data Center Liquid Cooling Brochure
Publication #:
AD426643320679en

Technical support:

For further questions and support,
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Fuel, A/C, Thermoplastic and Specialty

Engine and fuel hose and fittings



Danfoss GH100





Engine and fuel hose and fittings

Danfoss offers a number solutions for the engine and fuel market ranging from the traditional 100R5 hose, to high tech biodiesel applications. Truck and mobile machine engine compartments are taking more heat than ever before, generating conditions that can typically shorten hose life. Danfoss' engine and fuel hoses are designed to take the heat without failing, due to our specially formulated tubing, like CPE and our durable hose cover materials. In addition, Danfoss tube formulation is constructed to withstand demanding fluids that continue to evolve over time.

► Benefits:

100R5 products

- Proven reliability, higher pressure, and global availability
- Patented CPE inner tube
- Broadest fitting offering for crimp and field assembly
- Multiple platforms including Ag and construction and mining
- Multiple applications, including fuel, steering, oil cooler and air brake
- Abrasion resistant textile covers
- Structural stability (select hoses - wire reinforced for crush resistance)

Fuel products

- Lightweight and flexible
- Multiple fitting options
- Small number of hoses for many fuel options
- High temperature resistance
- Cover options depending on the application



Engine and fuel hose and fittings

Need to know

Typical applications:

Fuel

- Engine fuel systems and Biodiesel use
- Low pressure oil applications
- Transmission oil cooler applications
- GH100/GH101 – Biodiesel up to B100 and synthetic oils

100R5

- General purpose truck, marine and hydraulic hose
- Steering applications
- Transmission oil coolers
- Air brake lines
- Gasoline, diesel fuel applications

Qualified with a variety of fuel types

GH100 and GH101 are qualified with ultra-low-sulfur diesel (ULSD), every blend of biodiesel up to 8100, and a variety of synthetic oils - for superior hose life even if your customers use different fuels from day to day.

Fuel and oil compatibility	
√	Ultra-low-sulfur diesel (ULSD)
√	B2 (SME and RME)
√	B5 (SME and RME)
√	B20 (SME and RME)
√	B100 (SME and RME)
√	Synthetic oils

Exceptional performance in extreme temperatures

Fuel type	Temperature
B2, B5 and B20	-40 C to 150 C
B100	-40 C to 125 C
Synthetic oils	-40 C to 150 C 175 C intermittent



Engine and fuel hose and fittings

Fuel

Diesel and biodiesel

GH100 Braided textile hose



Standards/Certifications:

Meets: ASTM D380, ASTM D6751, EN412, EN2240

Sizes and pressure: (bar/psi)

-04 (28,0/400), -06 (28,0/400), -08 (28,0/400),
-10 (24,0/350), -12 (24,0/350)

Operating temperature:

Up to B20: -40°C to +150°C (-40°F to +302°F)
Up to B100: -40°C to +125°C (-40°F to +257°F)
Oil-transmission application: -40°C to +165°C (-40°F to 320°F)

Available fittings:

327 E Series

Inner tube:

Danfoss developed HNBR

Reinforcement:

Single aramid braid

Cover:

1 fiber braid

Typical application:

- Engine fuel systems for diesel and biodiesel use
- Low pressure oil applications, including synthetics for transmission oil cooler applications
- Qualified with ultra-low-sulfur diesel (ULSD), every blend of biodiesel up to B100, and a variety of synthetic oils

Selling features:

- High temperature
- Most versatile fuel hose
- Deepest fuel type coverage
- Textile braid for abrasion resistance
- Lowest permeation resistance
- Flexible and easy to route

Sells against:

Parker 389 series
Gates 4219BF Barricade

Diesel and biodiesel

GH101 CPE rubber hose



Standards/Certifications:

Meets: ASTM D380, ASTM D6751, EN412, EN2240

Sizes and pressure: (bar/psi)

-04 (28,0/400), -06 (28,0/400), -08 (28,0/400), -10 (28,0/400)

Operating temperature:

Up to B20: -40°C to +150°C (-40°F to +302°F)
Up to B100: -40°C to +125°C (-40°F to +257°F)

Available fittings:

327 "E" Series

Inner tube:

Danfoss developed HNBR

Reinforcement:

Single aramid braid

Cover:

CPE cover

Typical application:

- Engine fuel systems for diesel and biodiesel use
- Low pressure oil applications, including synthetics for transmission oil cooler applications

Selling features:

- High temperature
- Most versatile fuel hose
- Deepest fuel type coverage
- Lowest permeation resistance
- Flexible and easy to route

Sells against:

Parker 389 series
Gates 4219BF Barricade

Fuel line

H057 Fuel line hose



Standards/Certifications:
Exceeds SAE 30R7

Sizes and pressure: (bar/psi)
-03 (3,4/50), -04 (3,4/50), -05 (3,4/50), -06 (3,4/50)

Operating temperature:
-40°C to +125°C (-40°F to +275°F)

Available fittings:
057 B Series

Inner tube:
Nitrile

Reinforcement:
1 textile braid

Cover:
Hypalon*

- Typical application:**
- Small engine fuel systems for gasoline, ethanol, diesel and up to B20 Biodiesel
 - Low pressure/high temperature fuel for passenger cars and light trucks; also small engine applications
 - Not intended for fuel injection applications

Selling features

- Flexible and easy to route
- Great general purpose fuel hose
- Compatible with Biodiesel, up to B20
- Durable Hypalon outer cover
- Multiple vehicle applications from small engine to passenger cars and light trucks

Sells against:

- Parker 389 and 395 series
- Gates 4219 series

*Hypalon is a registered trademark of E.I. du Pont

H057

**How to order/
part # structure**

Complete number: _____ **H057 - 04**

Hose type _____

Hose size _____

For package length:
Add -25R, -100R or -250R to the end.
Length is in feet.

GH100 / GH101

**How to order/
part # structure**

Complete number: _____ **GH100 - 8**

Hose type _____

Hose size _____

For package length:
Add -50 OR 250R to the end.
Length is in feet.

Engine and fuel hose and fittings

100R5

Textile and wire braid

H250H High-Temp hose



Standards/Certifications:

Exceeds SAE 100R5, ABS, DNV-GL, USCG

Sizes and pressure: (bar/psi)

-04 (210/3050), -06 (157/2300), -08 (140/2050), -10 (122/1750), -12 (105/1500), -16 (56/800)

Operating temperature:

-49°C to +150°C (-55°F to +302°F)

Air not to exceed: +121°C (+250°F)

Biodiesel use up to B20 and max temperature of 100°C (212°F)

Available fittings:

Crimp: 100R5 FJ; Reusable: SAE 100R5 style

Inner tube:

High-temp CPE

Reinforcement:

1-high tensile wire braid

Cover:

Black textile braid

Typical application:

- Air, gasoline, fuel, and lubrication oils
- Lower pressure hydraulics

Selling features:

- Specifically designed to exceed SAE 100R5 performance levels
- Wide temperature range
- Lighter weight 2-braid construction for greater flexibility
- Half bend radius for tight routing and flexibility
- Optimized for flat crimp assembly

Engine and air brake

H569 High-Temp hose



Standards/Certifications:

Meets SAE 100R5, SAE J1942/1, J1402 TYPE All, ABS

Sizes and pressure: (bar/psi)

-04 (210/3000), -05 (210/3000), -06 (157/2250), -08 (140/2000), -10 (122/1750), -12 (105/1500), -16 (56/800), -20 (43/625)

Operating temperature:

Hydraulic fluid: -48°C to +150°C (-55°F to +302°F)

Air brake: -40°C to +93°C (-40°F to +200°F)

Air: -40°C to +100°C (-40°F to +212°F)

Intermittent to +250°F

Available fittings:

Crimp: FJ series - flat crimp

Field attachable: 247 "N" series

Inner tube:

CPE

Reinforcement:

1 textile braid

1 single wire braid

Cover:

Blue textile braid

Typical application:

- General purpose truck, marine and hydraulic hose
- For use in air brake, diesel fuel, grease lines, high temperature petroleum oils and medium pressure hydraulic applications

Selling features:

- Most versatile general purpose hose available
- High temperature resistant CPE tube
- Approved for Marine applications
- Blue cover signifies high temperature rating
- Traditional 3 braid 100R5 construction
- Meets traditional 100R5 dimensional requirements
- DOT and SAE compliant

Sells against:

Parker 201 series
Continental DR5
Gates C5C

Truck

H353H High-Temp hose



Standards/Certifications:
Meets SAE J1402 type AI, DOT AI

Sizes and pressure: (bar/psi)
-04 (140/2000), -05 (105/1500), -06 (105/1500), -08 (87/1250),
-10 (70/1000), -12 (52/750), -16 (28/400), -24 (17/250)
16 size is not SAE J1402 or DOT approved for air brake applications.

Operating temperature:
Hot oil: -45°C to +150°C (-58°F to +302°F)
Air brake: -40°C to +93°C (-40°F to +200°F)

Available fittings:
Crimp: FJ series - flat crimp
Field attachable: 213 "N" series

Inner tube:
CPE

Reinforcement:
1 single wire braid

Cover:
Textile braid

Typical application:

- General purpose truck hose
- For use in air, gasoline, fuel, lubricating oils, and coolant applications

Selling features:

- High abrasion resistant cover

- Small number of hoses for many fuel options
- Proven reliability with high temperature resistance

General purpose truck

H169 hose



Standards/Certifications:
SAE 100R5, SAEJ1402 Type II, DOT All†, ABS

Sizes and pressure: (bar/psi)
-04 (210/3000), -05 (210/3000), -06 (157/2250), -08 (140/2000), -10 (12/1750), -12 (105/1500), -16 (56/800), -20 (43/625), -24 (35/500), -32 (24/350), -40 (24/350)

Operating temperature:
Hydraulic: -40°C to +100°C (-40°F to +212°F)
Air brake: -40°C to +93°C (-40°F to +200°F)
Hot oil: -40°C to +121°C (-40°F to +250°F)

Available fittings:
Crimp: FJ series - flat crimp
Field attachable: 247 "N" series (-04 to -16)

Inner tube:
Nitrile

Reinforcement:
1 textile braid
1 single wire braid

Cover:
1 textile braid

Typical application:

- General purpose truck and hydraulic hose
- For use in air brake, fuel, grease lines, high temperature petroleum oils and medium pressure hydraulic applications
- -16 thru -40 sizes are not SAE or DOT approved for air brake applications

Selling features:

- Most versatile general purpose hose available

- Standard temperature Nitrile tube
- Approved for Marine applications
- Durable textile cover
- Traditional 3 braid 100R5 construction
- Meets traditional 100R5 dimensional requirements
- Available in larger bore sizes
- DOT and SAE compliant

Sells against:
Parker 201 series
Continental DR5
Gates C5C

Engine and fuel hose and fittings

100R5 FJ crimp fittings - FC234, FC300 and FC350



SAE 37° (JIC)
female swivel

Part #	Hose Size	Thread
FJ3114-0404S	-4	7/16 - 20
FJ3114-0604S	-4	9/19 - 18
FJ3114-0405S	-5	7/16 - 20
FJ3114-0505S	-5	1/2 - 20
FJ3114-0606S	-6	9/19 - 18
FJ3114-0806S	-6	3/4 - 16
FJ3114-0608S	-8	9/19 - 18
FJ3114-0808S	-8	3/4 - 16

Part #	Hose Size	Thread
FJ3114-1008S	-8	7/8 - 14
FJ3114-0810S	-10	3/4 - 16
FJ3114-1010S	-10	7/8 - 14
FJ3114-1012S	-12	7/8 - 14
FJ3114-1212S	-12	1 1/16 - 12
FJ3114-1216S	-16	1 1/16 - 12
FJ3114-1616S	-16	1 5/16 - 12
FJ3114-2020S	-20	1 5/8 - 12

Part #	Hose Size	Thread
FJ3114-2024S	-24	1 5/8 - 12
FJ3114-2424S	-24	1 7/8 - 12
FJ3114-3232S	-32	2 1/2 - 12



SAE 45° female swivel 45°
elbow

Part #	Hose Size	Thread
FJ3246-0606S	-6	5/8 - 18
FJ3246-1212S	-12	1 1/16 - 14



SAE 37° (JIC) female swivel
45° elbow

Part #	Hose Size	Thread
FJ3249-0606S	-06	9/16 - 18
FJ3249-0608S	-08	9/16 - 18
FJ3249-1212S	-12	1 1/16 - 12
FJ3249-1616S	-16	1 5/16 - 12
FJ3249-2020S	-20	1 5/8 - 12



Universal female
swivel 45° elbow

Part #	Hose Size	Thread
FJ3243-0404S	-4	7/16 - 20
FJ3243-0405S	-5	7/16 - 20
FJ3243-0505S	-5	1/2 - 20
FJ3243-0808S	-8	3/4 - 16
FJ3243-0810S	-10	3/4 - 16
FJ3243-1010S	-10	7/8 - 14



Universal female
swivel 90° elbow

Part #	Hose Size	Thread
FJ3244-0404S	-4	7/16 - 20
FJ3244-0405S	-5	7/16 - 20
FJ3244-0505S	-5	1/2 - 20
FJ3244-0808S	-8	3/4 - 16
FJ3244-0810S	-10	3/4 - 16
FJ3244-1010S	-10	7/8 - 14
FJ3244-1012S	-12	7/8 - 14



SAE 45° female swivel
90° elbow

Part #	Hose Size	Thread
FJ3247-0606S	-6	5/8 - 18
FJ3247-1212S	-12	1 1/16 - 14



SAE 37° (JIC) female swivel
90° elbow

Part #	Hose Size	Thread
FJ3250-0604S	-4	9/16 - 18
FJ3250-0606S	-6	9/16 - 18
FJ3250-0608S	-8	9/16 - 18
FJ3250-1212S	-12	1 1/16 - 12
FJ3250-1216S	-16	1 1/16 - 12
FJ3250-1616S	-16	1 5/16 - 12
FJ3250-2020S	-20	1 5/8 - 12
FJ3250-2424S	-24	1 7/8 - 12

Engine and fuel hose and fittings

100R5 FJ crimp fittings - FC234, FC300 and FC350



Male pipe rigid

Part #	Hose size	Thread
FJ3152-0204S	-4	1/8 - 27
FJ3152-0404S	-4	1/4 - 18
FJ3152-0405S	-5	1/4 - 18
FJ3152-0406S	-6	1/4 - 18
FJ3152-0606S	-6	3/8 - 18
FJ3152-0608S	-8	3/8 - 18
FJ3152-0808S	-8	1/2 - 14
FJ3152-0810S	-10	1/2 - 14

Part #	Hose size	Thread
FJ3152-0812S	-12	1/2 - 14
FJ3152-1210S	-10	3/4 - 14
FJ3152-1212S	-12	3/4 - 14
FJ3152-1216S	-16	3/4 - 14
FJ3152-1616S	-16	1 - 11 1/2
FJ3152-2020S	-20	1 1/4 - 11 1/2
FJ3152-2424S	-24	1 1/2 - 11 1/2
FJ3152-3232S	-32	2 - 11 1/2



ORS swivel

Part #	Hose size	Thread
FJ3468-0404S	-4	9/16 - 18
FJ3468-0405S	-5	9/16 - 18
FJ3468-0605S	-5	11/16 - 16
FJ3468-0805S	-5	13/16 - 16
FJ3468-0606S	-6	11/16 - 16
FJ3468-0806S	-6	13/16 - 16
FJ3468-0608S	-8	11/16 - 16
FJ3468-0808S	-8	13/16 - 16
FJ3468-0810S	-10	13/16 - 16
FJ3468-1010S	-10	1 - 14
FJ3468-1210S	-10	13/16 - 12

Part #	Hose size	Thread
FJ3468-1212S	-12	13/16 - 12
FJ3468-1216S	-16	13/16 - 12
FJ3468-1616S	-16	17/16 - 12
FJ3468-1620S	-20	17/16 - 12
FJ3468-2020S	-20	1 11/16 - 12
FJ3468-2424S	-24	2 - 12



SAE 45° female swivel

Part #	Hose Size	Thread
FJ3094-0404S	-4	7/16 - 20
FJ3094-0405S	-5	7/16 - 20
FJ3094-0505S	-5	1/2 - 20
FJ3094-0606S	-6	5/8 - 18
FJ3094-0806S	-6	3/4 - 16
FJ3094-0808S	-8	3/4 - 16
FJ3094-0810S	-10	3/4 - 16
FJ3094-1010S	-10	7/8 - 14
FJ3094-1012S	-12	7/8 - 14
FJ3094-1212S	-12	1 1/16 - 14

Engine and fuel hose and fittings

247N Series Field Attachable Fittings - H069 and H569



SAE 37° (JIC)
female swivel

Part #	Thread	Hose size
24704N-604a	7/16 - 20	3/16
24705N-605a	1/2 - 20	1/4
24706N-604a	7/16 - 20	5/16
24706N-605a	1/2 - 20	5/16
24706N-606	9/16 - 18	5/16
24706N-608a	3/4 - 16	5/16
24708N-608a	3/4 - 16	13/32
24710N-608a	3/4 - 16	1/2
24710N-610a	7/8 - 14	1/2
24712N-612	1 1/16 - 12	5/8
24716N-616	1 5/16 - 12	7/8



SAE 45° female swivel

Part #	Thread	Hose size
24706N-406	5/8 - 18	5/16
24708N-406	5/8 - 18	13/32
24712N-412	1 1/16 - 14	5/8



SAE 37° (JIC) female
swivel 45° elbow

Part #	Thread	Hose size
24704N-684a	7/16 - 20	3/16
24705N-685a	1/2 - 20	1/4
24706N-686	9/16 - 18	5/16
24708N-688a	3/4 - 16	13/32
24710N-690a	7/8 - 14	1/2
24712N-692	1 1/16 - 12	5/8
24716N-696	1 5/16 - 12	7/8



SAE 45° female
swivel 90° elbow

Part #	Thread	Hose size
24706N-466	5/8 - 18	5/16
24712N-472	1 1/16 - 14	5/8



SAE 37° (JIC) female swivel
90° elbow

Part #	Thread	Hose size
24704N-664a	7/16 - 20	3/16
24705N-665a	1/2 - 20	1/4
24706N-666	9/16 - 18	5/16
24708N-668a	3/4 - 16	13/32
24710N-668a	3/4 - 16	1/2
24710N-670a	7/8 - 14	1/2
24712N-672	1 1/16 - 12	5/8
24716N-676	1 5/16 - 12	7/8



Male pipe rigid

Part #	Thread	Hose size
24704N-102	1/8 - 27	3/16
24704N-104	1/4 - 18	3/16
24705N-104	1/4 - 18	1/4
24706N-104	1/4 - 18	5/16
24706N-106	3/8 - 18	5/16
24708N-106	3/8 - 18	13/32
24708N-108	1/2 - 14	13/32
24710N-108	1/2 - 14	1/2
24710N-112	3/4 - 14	1/2
24712N-112	3/4 - 14	5/8

Engine and fuel hose and fittings

327E Series Crimp GH100 and GH101



SAE 37° (JIC)
female swivel

Part #	Thread	Hose size
32706E-606	9/16 - 18	-6
32708E-608	3/4 - 16	-8
32710E-610	7/8 - 14	-10
32712E-612	1 1/16 - 12	-12



ORS female swivel

Part #	Thread	Hose size
32706E-S66	1 1/16 - 16	-6
32708E-S68	1 3/16 - 16	-8
32710E-S70	1 - 14	-10
32712E-S72	1 3/16 - 12	-12



SAE 37° (JIC) female swivel
45° elbow

Part #	Thread	Hose size
32706E-686	9/16 - 18	-6
32708E-688	3/4 - 16	-8
32710E-690	7/8 - 14	-10
32712E-692	1 1/16 - 12	-12



ORS female swivel 45°
elbow

Part #	Thread	Hose size
32706E-L66	1 1/16 - 16	-6
32708E-L68	1 3/16 - 16	-8
32712E-L72	1 3/16 - 12	-12



SAE 37° (JIC) female
swivel 90° elbow

Part #	Thread	Hose size
32706E-666	9/16 - 18	-6
32708E-668	3/4 - 16	-8
32710E-670	7/8 - 14	-10
32712E-672	1 1/16 - 12	-12



ORS female swivel
90° elbow

Part #	Thread	Hose size
32706E-A26	1 1/16 - 16	-6
32708E-A28	1 3/16 - 16	-8
32712E-A30	1 3/16 - 12	-12

Engine and fuel hose and fittings

Reference

Technical support:

For further questions and support, please contact Danfoss technical support at 1-888-258-0222 or fpgproductssupport@Danfoss.com

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Fuel, A/C, Thermoplastic and Specialty

Thermoplastic hydraulic hose and fittings



Synflex Optimum by Danfoss 3TR7



Synflex Optimum by Danfoss 3TR7N





Synflex Optimum by Danfoss

Synflex Optimum® by Danfoss thermoplastic hydraulic hose and fittings empower design to be reimagined. Our system engineered portfolio offers streamlined product configurations that make it easy to find the perfect combination for every application.

As quality-driven measurements such as improved uptime, enhanced production and simplified maintenance all become critical benchmarks in a modern approach to fleet management, the added value Danfoss includes with its thermoplastic hydraulic hoses and fittings become the foundation for delivering exceptional platforms.



► Benefits:

Hose

- Light weight: 2X lighter than equivalent wire braided rubber hoses
- High abrasion resistance: exceed the stringent abrasion requirements specified for today's manufacturers
- Chemical resistance: Thermoplastic composition prevents absorption of most oils and fluids
- Temperature resistance: Improved hose functionality over a wide temperature range
- Thermoforming capabilities

Fittings

- Improved with Dura-Kote Plating
- Shorter profiles for easier installation and routing
- Use of captive nut for improved torque performance

Assemblies

- Conversion to more efficient crimp designs from swage
- Improved insertion force for assembly
- Formed fitting configurations are one piece vs brazed
- Easier to fit in tight spaces with hose flexibility and fitting design





► Typical applications:

- Aerial lifts
- Chemical transfer
- Forestry delimeter
- Marine steering
- Fork lifts
- Utility avehicles
- General hydraulics
- Horticulture

Synflex Optimum cross reference

Previous Number	NEW	Standard/ Certifications	Sizes
3130	3TR7	Meets SAE 100R7	-02, -03, -04, -05, -06, -08, -10, -12, -16
37AL	3TR7N	Exceeds SAE 100R7, non-conductive	-03, -04, -05, -06, -08, -10, -12, -16
3160	3TR7	Meets SAE 100R7	-02, -03, -04, -05, -06, -08, -10, -12, -16
3740	3TR7N	Exceeds SAE 100R7, non-conductive	-03, -04, -05, -06, -08, -10, -12, -16
3R80	3TR8	Exceeds SAE 100R8	-04, -06, -08, -12, -16
3E80	3TR8N	Exceeds SAE 100R8, non-conductive	-04, -06, -08, -12, -16
30CT	3TR18CT	Exceeds SAE 100R18	-04, -05, -06, -08, -10
Fittings	NEW		
903	4TA		
90H	4TA		
U Series	4TA		



100R7

100R8

100R18

3TR7 / 3TR7N Non-conductive

3TR8 / 3TR8N Non-conductive

3TR18CT



UV / Ozone protection

The thermoplastic polyurethane and polyester outer-cover resists ozone, ultraviolet light and aging.



Powerful performance

Lift and handle heavy loads with hose power ranges extending from 70 bar to 350 bar.



Easier routing and installation

Synflex Optimum R7 and R8 hose covers were formulated to require 50% less routing force reducing the chance of kinking.



Longer lasting

Abrasion resistance improvement of 10% that exceeds the requirements set by forklift and telehandler manufacturers.



Temperature resistance

Improved hose functionality over a wide temperature range – from 40°C (-40°F) to +100°C (212°F).



Chemical resistance

Thermoplastic composition paired with nylon lining prevents absorption of most oils and hydraulic fluids.



Custom thermoforming

Ability to mold into configurations that match system design.



Flexible design

Lightweight hose design drives performance efficiencies, reducing vehicle power requirements.

Fittings



■ R7 ■ R8 ■ R18

4TA Series

Optimized one-piece fitting crimps directly to Synflex R7, R8 and R18 hoses for the most robust economic connection.



■ R7 ■ R8

Z (with sleeve)

Leverage Danfoss' bestselling or existing high volume fitting on R7 and R8 hoses by adding a sleeve.



■ R7

901/902 Series

Field attachable reusable fitting that can be assembled with hand tools made specifically for R7 hose.



Fittings being rationalized from the portfolio include 903, 90H, 90N and U series.

Thermoplastic hydraulic

3TR7 hose



Standards/Certifications:
Meets SAE 100R7

Sizes and pressure: (bar/psi)
-02 (210/3050), -03 (210/3050), -04 (210/3050), -05 (175/2550), -06 (157/2300),
-08 (140/2050), -10 (105/1525), -12 (87/1250), -16 (69/1000)

Operating temperature:
For oil: -40°C to +100°C (-40°F to +212°F)
For water: -40°C to +66°C (-40°F to +150°F)

Available fittings:
4TA Series • Z w/sleeve (FF91064) • 901/902 Series

Inner tube:
Nylon

Reinforcement:
1 textile braid

Cover:
Perforated non-stick polyurethane

Typical application:

- General hydraulics
- Material handling
- Chemical transfer
- Marine steering
- Aerial equipment
- Lubrication systems

Selling features:

- Formulated to be at least 50% less sticky than legacy hose covers
- Fittings push onto Optimum hose much easier than legacy
- Smallest outer diameter allows compatibility with reusable fittings for flexibility of routing in tight spaces allowing the option of field repair in remote locations.
- 100R7, 100R8, and 100R18 utilize the same crimp hose fitting
- Flexibility through temperature range
- Permanent crimp and reusable fittings compatibility

Sells against:
Parker 540N
Gates TH7

Thermoplastic hydraulic

3TR7N hose



Standards/Certifications:
Exceeds SAE 100R7, Non-conductive

Sizes and pressure: (bar/psi)
-03 (210/3050), -04 (210/3050), -05 (175/2550), -06 (157/2300),
-08 (140/2050), -10 (105/1525), -12 (87/1250), -16 (69/1000)

Operating temperature:
For oil: -40°C to +100°C (-40°F to +212°F)
For water: -40°C to +66°C (-40°F to +150°F)

Available fittings:
4TA Series • Z w/sleeve (FF91064) • 901/902 Series

Inner tube:
Nylon

Reinforcement:
1 textile braid

Cover:
Non-perforated non-stick polyurethane

Typical application:

- General hydraulics
- Material handling
- Chemical transfer
- Marine steering
- Aerial equipment
- Lubrication systems

Selling features:

- Formulated to be at least 50% less sticky than legacy hose covers
- Fittings push onto Optimum hose much easier than legacy
- Smallest outer diameter allows compatibility with reusable fittings for flexibility of routing in tight spaces allowing the option of field repair in remote locations.
- 100R7, 100R8, and 100R18 utilize the same crimp hose fitting
- Flexible temperature range
- Permanent crimp and reusable fittings compatibility
- Extremely low currently leakage when subjected to high voltage (100R7N)

Sells against:
Parker 518D
Gates TH7NC

Synflex Optimum

Thermoplastic hydraulic

Thermoplastic hydraulic

3TR8 hose



Standards/Certifications:

Exceeds SAE 100R8

Sizes and pressure: (bar/psi)

-04 (350/5100), -06 (280/4050), -08 (245/3550), -12 (157/2300), -16 (140/2050)

Operating temperature:

For oil: -40°C to +100°C (-40°F to +212°F)

For water: -40°C to +66°C (-40°F to +150°F)

Available fittings:

4TA Series • Z w/sleeve (FF91064)

Inner tube:

Nylon

Reinforcement:

2 textile braid

Cover:

Perforated non-stick polyurethane

Typical application:

- General hydraulics
- Mobile equipment
- Chemical transfer
- Aerial equipment

Selling features:

- Formulated to be at least 50% less sticky than legacy hose covers
- Fittings push onto Optimum hose much easier than legacy
- 100R7, 100R8, and 100R18 utilize the same crimp hose fitting
- The same fitting style qualified on all hoses
- Long continuous lengths
- Flexibility through temperature range
- Extreme abrasion resistance

Sells against:

Parker 580N
Gates TH8

Thermoplastic hydraulic

3TR8N hose



Standards/Certifications:

Exceeds SAE 100R8, Non-conductive

Sizes and pressure: (bar/psi)

-04 (350/5100), -06 (280/4050), -08 (245/3550), -12 (157/2300), -16 (140/2050)

Operating temperature:

For oil: -40°C to +100°C (-40°F to +212°F)

For water: -40°C to +66°C (-40°F to +150°F)

Available fittings:

4TA Series • Z w/sleeve (FF91064)

Inner tube:

Nylon

Reinforcement:

2 textile braid

Cover:

Non-perforated non-stick polyurethane

Typical application:

- General hydraulics
- Mobile equipment
- Chemical transfer
- Aerial equipment

Selling features:

- Formulated to be at least 50% less sticky than legacy hose covers
- Fittings push onto Optimum hose much easier than legacy
- 100R7, 100R8, and 100R18 utilize the same crimp hose fitting
- The same fitting style qualified on all hoses
- Long continuous lengths
- Flexibility through temperature range
- Extreme abrasion resistance
- Extremely low currently leakage when subjected to high voltage (100R7N)

Sells against:

Parker 588N
Gates TH8NC

Thermoplastic hydraulic

3TR18CT hose



Standards/Certifications:
Exceeds SAE 100R18

Sizes and pressure: (bar/psi)
-04 (210/3050), -05 (210/3050), -06 (210/3050), -08 (210/3050), -10 (210/3050)

Operating temperature:
For oil: -54°C to +94°C (-65°F to +200°F)
For water: -54°C to +66°C (-65°F to +150°F)

Available fittings:
4TA Series

Inner tube:
Polyester

Reinforcement:
Synthetic fiber braid

Cover:
Perforated non-stick polyurethane

Typical application:

- General hydraulics
- Material handling
- Chemical transfer
- Construction
- Cold applications

Selling features:

- Fittings push onto Optimum hose much easier than legacy which eases the assembly process
- Flexibility in cold temperatures

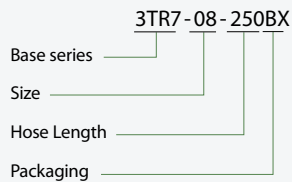
Sells against:
Parker 53LT
Parker 538LT
Gates TH18
Gates TH18NC

How to order:

100R7

3TR7 / 3TR7N Non-conductive

How to order/
part # structure

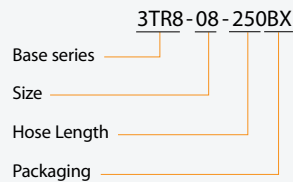


BC: continuous length in box
BX: 2 lengths per box, no length less than 20 ft.
RL: random length reel, 2 lengths per reel, no length less than 20 ft.
R: continuous length on reel

100R8

3TR8 / 3TR8N Non-conductive

How to order/
part # structure

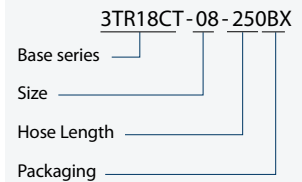


BC: continuous length in box
BX: 2 lengths per box, no length less than 20 ft.
RL: random length reel, 2 lengths per reel, no length less than 20 ft.
R: continuous length on reel

100R18

3TR18CT

How to order/
part # structure



BC: continuous length in box
BX: 2 lengths per box, no length less than 20 ft.
RL: random length reel, 2 lengths per reel, no length less than 20 ft.
R: continuous length on reel

Synflex Optimum

3TR7, 3TR7N, 3TR18CT: Twin-line, Tri-line, Multi-line

Available to bond up to 6 lines, see examples below of twin-line for each hose series.
Please see previous pages for hose specifications.

3TR7 Twin-line hose



Part #	Number of hose
3TR7-04-2-250BX	2
3TR7-05-2-250BX	2
3TR7-06-2-250BX	2
3TR7-08-2-250BX	2
3TR7-10-2-250BX	2
3TR7-12-2-250BX	2
3TR7-16-2-250BX	2

3TR7N Twin-line Non-conductive hose



Part #	Number of hose
3TR7N-04-2-250BX	2
3TR7N-05-2-250BX	2
3TR7N-06-2-250BX	2
3TR7N-08-2-250BX	2
3TR7N-10-2-250BX	2
3TR7N-12-2-250BX	2
3TR7N-16-2-250BX	2

3TR8 Twin-line hose



Part #	Number of hose
3TR8-04-2-250BX	2
3TR8-06-2-250BX	2
3TR8-08-2-250BX	2
3TR8-12-2-250BX	2
3TR8-16-2-250BX	2

3TR8N Twin-line Non-conductive hose



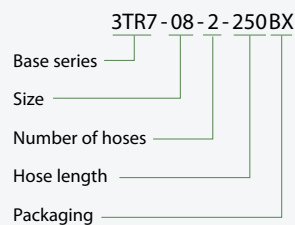
Part #	Number of hose
3TR8N-04-2-250BX	2
3TR8N-06-2-250BX	2
3TR8N-08-2-250BX	2
3TR8N-12-2-250BX	2
3TR8N-16-2-250BX	2

3TR18CT Twin-line hose



Part #	Number of hose
3TR18CT-04-2-250BX	2
3TR18CT-05-2-250BX	2
3TR18CT-06-2-250BX	2
3TR18CT-08-2-250BX	2
3TR18CT-10-2-250BX	2

How to order/part # structure



- BC: continuous length in box
- BX: 2 lengths per box, no length less than 20 ft.
- RL: random length reel, 2 lengths per reel, no length less than 20 ft.
- R: continuous length on reel

Designed for tough jobs.

As the pioneers of thermoforming technology, Synflex Optimum by Danfoss has taken the lead in overcoming hose routing and installation obstacles. Our application engineers work with customers developing designs and configurations that solve problems and improve manufacturing throughput.

Advantages

Flexibility

Our application engineers work with customer CAD models and develop routing best practices into customer's systems.

Speed

Quick turnaround of design proposals and quotations.

Hands-on support

Our field engineers can be on site for prototype installation and initial production runs.

Cutting edge technology

State of the art 3D printing for molds and fixtures providing quick design and prototype turnaround time.

Benefits

Smooth installations and quality control

Product manufacturing and design done in house, by Danfoss, combined with custom labeled and marked assemblies makes for easy installation.

Reduced cost and complexity

Elimination of fittings, connections and other attachments reduces leak points and provides an overall cost savings.

Variety of capabilities

Thermoforming can be done with almost all of Danfoss' thermoplastic hose and tube products creating endless combinations and opportunities.

Best routing practices

Ideal for tight fitting spaces and routing away from heat sources and abrasion points.



Synflex Optimum

4TA series fittings

Designed for efficiency.

Over 500+ combinations of terminal ends.



Best-in-class features come standard.

Seamless compatibility

Synflex Optimum fittings are optimized to work together with Synflex Optimum thermoplastic hydraulic hoses.

Single piece design

Synflex Optimum 4TA fittings follow a simple one-piece design that reduces matching errors during assembly, eliminates brazing failure risks and lowers assembly time.

Captive nut

A captive nut eliminates the weak spots found in other fittings. And it evenly distributes the force applied during assembly, helping prevent cracks and leaks that halt workflows and lead to unplanned downtime.

Easy assembly

Easier insertion, less force needed during assembly to push fitting onto hose

More configurations

Over 500+ combinations of terminal ends

Designed for ease of use.

Smaller profile

They have a compact design and smaller profile making it easier for routing and assembly installation, especially in tight spaces.

Easy identification

Part numbers printed on fittings for easy identification.



Designed to last.

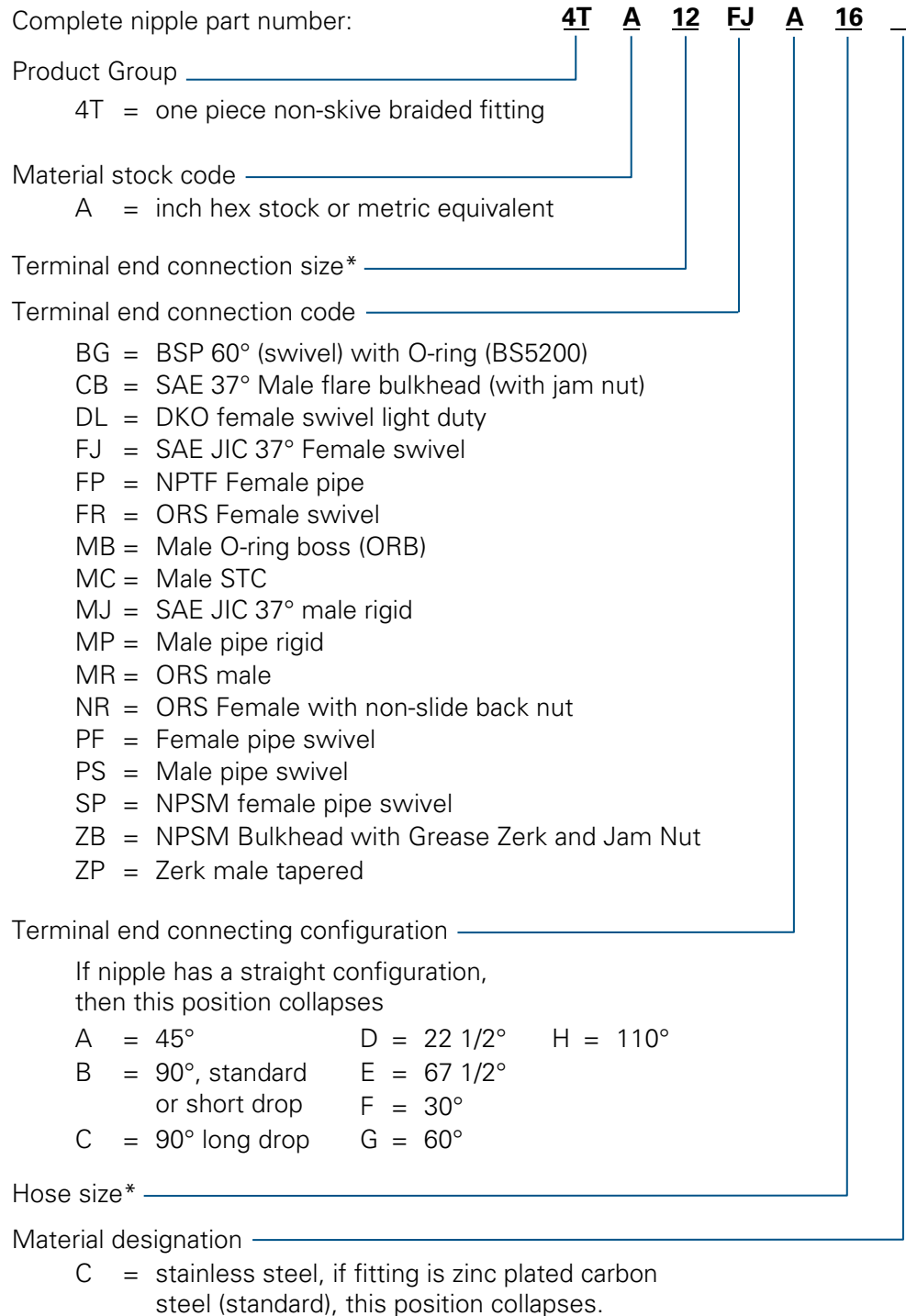
Corrosion resistance

Dura-Kote plating comes standard in our Synflex Optimum fittings. Dura-Kote plating delivers up to 3x the corrosion protection on carbon steel fittings as compared to competitive hose fittings. And provides up to 1,000 hours of corrosion resistance. This is a huge step forward in metal fitting corrosion protection.



Corrosion comparison after 650 hours of exposure to salt spray testing.

4TA series fitting nomenclature



* When ordering sizes 3, 4, 5, 6 and 8 the part number requires only single digits

Synflex Optimum

4TA series fittings



CB - JIC/37° male flare bulkhead (with jam nut)

Part #	Hose Size	Thread
4TA6CB6	-06	9/16 - 18



DL - DKO female swivel (light duty)

Part #	Hose Size	Thread
	in	mm
4T5DL4	-04	M12 x 1.5
4T8DL6	-06	M16 x 1.5



FJ - JIC/37° male flare bulkhead (with jam nut)

Part #	Hose Size	Thread
	in	in
4TA4FJ4	-04	7/16 - 20
4TA4FJ6	-06	7/16 - 20
4TA5FJ4	-04	1/2 - 20
4TA5FJ5	-05	1/2 - 20
4TA5FJ6	-06	1/2 - 20
4TA6FJ4	-04	9/16 - 18
4TA6FJ5	-06	9/16 - 18
4TA6FJ6	-06	9/16 - 18

Part #	Hose Size	Thread
	in	in
4TA8FJ6	-06	3/4 - 16
4TA8FJ8	-08	3/4 - 16
4TA10FJ8	-08	7/8 - 14
4TA12FJ8	-08	1 1/16 - 12
4TA12FJ10	-10	1 1/16 - 12
4TA12FJ12	-12	1 1/16 - 12
4TA16FJ16	-16	1 5/16 - 12



FJA - JIC/37° female swivel, 45° tube elbow

Part #	Hose Size	Thread
	in	in
4TA4FJA4	-04	7/16 - 20
4T6FJA5	-05	9/16 - 18
4TA6FJA6	-06	9/16 - 18
4TA8FJA6	-06	7/8 - 14
4TA8FJA8	-08	3/4 - 16
4TA10FJA8	-08	7/8 - 14



FJB - JIC/37° female swivel, 90° tube elbow

Part #	Hose Size	Thread
	in	in
4TA4FJB4	-04	7/16 - 20
4TA5FJB4	-04	1/2 - 20
4TA6FJB4	-04	9/16 - 18
4T6FJB5	-04	9/16 - 18
4TA6FJB6	-06	9/16 - 18
4TA8FJB6	-06	3/4 - 16
4TA8FJB8	-08	3/4 - 16
4TA10FJB8	-08	7/8 - 12
4TA12FJB12	-12	1 1/16 - 12



FJC - JIC/37° female swivel, 90° long drop tube elbow

Part #	Hose Size	Thread
	in	in
4TA4FJC4	-04	7/8 - 14
4TA6FJC6	-06	9/16 - 18
4TA8FJC6	-06	3/4 - 16
4TA8FJC8	-08	3/4 - 16
4TA10FJC8	-08	7/8 - 14



FP - NPTF female pipe

Part #	Hose Size	Thread
	in	in
4TA4FP4	-04	1/4 - 18
4TA8FP8	-08	1/2 - 14



FR - Female ORS swivel

Part #	Hose Size	Thread
	in	in
4TA4FR4	-04	9/16 - 18
4TA6FR4	-04	1 1/16 - 16
4TA6FR6	-06	1 1/16 - 16
4TA8FR6	-06	1 3/16 - 16
4TA8FR8	-08	1 3/16 - 16
4TA10FR8	-08	1 - 14
4TA10FR10	-10	1 - 14
4TA12FR12	-12	1 3/16 - 12



FRA - Female ORS swivel, 45 tube elbow

Part #	Hose Size	Thread
	in	in
4TA4FRA4	-04	9/16 - 18
4TA6FRA6	-06	1 1/16 - 12

Synflex Optimum

4TA series fittings



FRB - Female ORS swivel,
90 tube elbow short drop

Part #	Hose Size	Thread
	in	in
4TA4FRB4	-04	9/16 - 18
4TA6FRB4	-04	11/16 - 16
4TA6FRB6	-06	11/16 - 16
4TA8FRB8	-06	13/16 - 12



GB - Male cone,
60 block

Part #	Hose Size	Thread
	in	in
4TA6BGB6	-06	3/8 - 19



MB - Male straight
O-ring rigid

Part #	Hose Size	Thread
	in	in
4TA4MB4	-04	7/16 - 20
4TA5MB4	-04	1/2 - 20
4TA6MB4	-04	9/16 - 18
4TA6MB5	-05	1/2 - 20
4TA6MB6	-06	9/16 - 18
4TA8MB6	-06	3/4 - 16



MJ - JIC/37
male rigid

Part #	Hose Size	Thread
	in	in
4TA4MJ4	-04	7/16 - 20
4TA5MJ4	-04	1/2 - 20
4TA5MJ5	-05	1/2 - 20
4TA6MJ4	-04	9/16 - 18
4TA6MJ5	-05	9/16 - 18
4TA6MJ6	-06	9/16 - 18
4TA8MJ6	-06	3/4 - 16
4TA8MJ8	-08	3/4 - 16
4TA10MJ8	-08	7/8 - 14



MP - NPTF male pipe rigid

Part #	Hose Size	Thread
	in	in
4TA2MP4	-04	1/8 - 27
4TA4MP4	-04	1/4 - 18
4T4MP5	-05	1/4 - 18

Part #	Hose Size	Thread
	in	in
4TA4MP6	-06	1/4 - 18
4TA6MP4	-04	3/8 - 18
4T6MP5	-05	3/8 - 18
4TA6MP6	-06	3/8 - 18
4TA6MP8	-08	3/8 - 18
4TA8MP6	-06	1/2 - 14
4TA8MP8	-08	1/2 - 14
4TA12MP12	-12	3/4 - 14
4TA16MP16	-16	1 - 11 1/2



MR - ORS male

Part #	Hose Size	Thread
	in	in
4TA4MR4	-04	9/16 - 18
4TA6MR6	-06	11/16 - 16
4TA8MR6	-06	13/16 - 16
4TA8MR8	-08	13/16 - 16



NR - ORS female with
non-slide back nut

Part #	Hose Size	Thread
	in	in
4TA6NR6	-06	11/16 - 16
4TA10NR10	-10	1 - 14



PF - Female pipe
swivel

Part #	Hose Size	Thread
	in	in
4TA4PF4	-04	1/4 - 18
4TA6PF6	-06	3/8 - 18



PS - NPTF male
pipe swivel

Part #	Hose Size	Thread
	in	in
4TA4PS4	-04	1/4 - 18
4TA4PS5	-05	1/4 - 18
4TA6PS6	-06	3/8 - 18
4TA8PS8	-08	1/2 - 14
4TA12PS12	-12	3/4 - 14



SP - NPSM female
pipe swivel

Part #	Hose Size	Thread
	in	in
4TA4SP4	-04	1/4 - 18
4TA6SP6	-06	3/8 - 18
4TA8SP8	-08	1/2 - 14
4TA16SP16	-16	1 - 11 1/2

Connectors

Steel adapters

Make reliable connections with
Danfoss adapters and couplings







Steel Adapters

Danfoss' Connectors category consists of a broad portfolio of specialty connection products used across a variety of applications. One segment of this product line includes:

Steel Adapters - connect hoses, pipes and tubes in a hydraulic system. These connections help contain and direct the flow of hydraulic fluid in the conductor while preventing leaks and maintaining pressure.

► Benefits:

- High corrosion resistance with Dura-Kote plating
 - Longer life, lower replacement costs
 - Decreased likelihood of leaking
 - Less equipment downtime
 - Improved appearance of fluid conveyance components
- Higher operating pressures above SAE standards
 - Offers up to 50% higher operating pressures compared to other manufacturers
 - Allows the use of the same product line in multiple applications resulting in less product inventory
- Full system solution advantage - Danfoss hose, Danfoss fittings, assembled on Danfoss tooling and machines with Danfoss crimp specifications, all designed to work together. "The highest performing hydraulic hose assembly doesn't exist without a Danfoss adapter."

The **highest performing hose assembly** doesn't exist without a Danfoss adapter with Dura-Kote plating technology.



► Typical applications and platforms:

Machine building

- CNC machining
- Metal stamping
- Plastics

Mining, metals and minerals

- Coal mill
- Excavator
- Exploration drill rig

Mobile machinery and equipment

- Backhoe loader
- Combines
- Lift trucks

Oil and gas

- Downstream: Petrochemical
- Midstream: Pipeline
- Upstream: Onshore drilling operations

Rail

Renewables

Vehicles

- Fire and rescue
- Public transportation
- Wrecker

Higher pressure. Higher performance. Beyond SAE certified.

As one of the most trusted brands for quality, dependability, and service, we've further evolved our steel adapter's portfolio to deliver you even greater options along the highest performing, most reliable adapters in the market. By merging the Aeroquip and Weatherhead adapters into one Danfoss-branded product line, you now have access to more adapter configurations - up to 35% more - to help meet your next design challenge.

One Danfoss-branded steel adapter product line with up to 35% more configurations.



Expand the equation.

Achieve operating pressures up to 50% more than SAE.



Discover the additional value of using an Danfoss system of products designed to work together to achieve even higher operating pressures. When Danfoss hoses are combined with Danfoss 1A, 4S/6S fittings and Danfoss adapters, assemblies can perform up to 50% higher pressures than the SAE rating.

Allows the use of the same product line in multiple applications resulting in less product inventory

Steel Adapters

Need to know

Same exceptional Danfoss adapters — with improved corrosion resistance.

Dura-Kote plating technology



Danfoss **Competitor B** **Competitor P**

This is a comparison of current steel adapters after 650 hours of exposure to salt spray testing which far exceeds the SAE standard of 72 hours. Carbon steel fluid conveyance products protected with Danfoss' Dura-Kote technology resist rust longer than other carbon steel products available today.

- Same form and functional capabilities
- Same torque values and pressure ratings
- Same silver appearance
- Same procedures for assembly

Danfoss adapters come with Dura-Kote plating, which gives you up to 1,000 hours of corrosion resistance. Dura-Kote is an innovative plating technology for steel adapters, offering more corrosive protection for longer life, lower replacement costs, and improved appearance. This corrosion protection decreases the likelihood of leaking, which means less equipment downtime and greater productivity. Plus, there are no compatibility issues with Dura-Kote plating. The Danfoss adapters you rely on today will look, feel, and perform exactly the same.



In addition, Danfoss adapters carry a 5-year warranty, which is longer than most competitors. And we've improved packaging by adding thread caps to help prevent incidental damage during the shipping.

How does Dura-Kote compare?

	Brand name	White corrosion*	Red corrosion*
Danfoss	Dura-Kote	500 hrs	1,000 hrs
Competitor B	Zinc Trivalent	120 hrs	240 hrs
Competitor T	Zinc Trivalent	96 hrs	120 hrs
Competitor W	Zinc Trivalent	96 hrs	120 hrs
Competitor A	Zinc Trivalent	240 hrs	360 hrs
Competitor G	Zinc Trivalent	—	400 hrs

*Tests performed in accordance with ASTM B-117 have shown corrosion resistance up to hours observed.

The annual cost of corrosion in the U.S.?

\$1.1 TRILLION

Corrosion causes both direct and indirect economic losses. Protecting fittings and adapters with durable, high-quality plating dramatically reduces the need for replacement.

Oxidized fittings and adapters:

- Cause system contamination
- Eventually leak
- Are harder to work with
- Accelerate corrosion of adjacent components
- Eventually have to be replaced

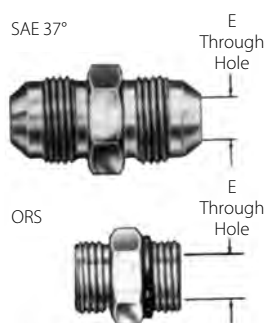
Thread size chart

The following chart is intended as a quick reference guide for thread size by dash size.

Dash size	N.P.T.F.		N.P.S.M. approx. dia.		SAE 45° auto. refriger.		SAE 37° (J.I.C.) hydraulic		SAE O-Ring boss		P.T.T. 30° automotive		SAE invert. flare		ORS	
	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.	Thread O.D.	Thread I.D.
-02	1/8-27		1/8-27		5/16-24		5/16-24		5/16-24		-		5/16-24		-	
-03	-		-		3/8-24		3/8-24		3/8-24		-		3/8-24		-	
-04	1/4-18		1/4-18		7/16-20		7/16-20		7/16-20		-		7/16-24		9/16-18	
-05	-		-		1/2-20		1/2-20		1/2-20		-		1/2-20		-	
-06	3/8-18		3/8-18		5/8-18		9/16-18		9/16-18		-		5/8-18		11/16-16	
-07	-		-		11/16-24		-		-		-		11/16-18		-	
-08	1/2-14		1/2-14		3/4-16		3/4-16		3/4-16		-		3/4-18		13/16-16	
-10	-		-		7/8-14		7/8-14		7/8-14		-		7/8-18		1-14	
-12	3/4-14		3/4-14		1 1/16-14		1 1/16-12		1 1/16-12		-		1 1/16-16		1 3/16-12	
-14	-		-		-		1 3/16-12		1 3/16-12		-		-		-	
-16	1-11 1/2		1-11 1/2		-		1 5/16-12		1 5/16-12		1 5/16-14		-		1 7/16-12	
-20	1 1/4-11 1/2		1 1/4-11 1/2		-		1 5/8-12		1 5/8-12		1 5/8-14		-		1 11/16-12	
-24	1 1/2-11 1/2		1 1/2-11 1/2		-		1 7/8-12		1 7/8-12		1 7/8-14		-		2-12	
-32	2-11 1/2		2-11 1/2		-		2 1/2-12		2 1/2-12		2 1/2-12		-		-	
-40	2 1/2-8		2 1/2-8		-		3-12		3-12		-		-		-	
-48	3-8		3-8		-		3 1/2-12		3 1/2-12		-		-		-	

Through hole dimensions

All dimensions are nominal. In jump size bodies, the minimum through hole dimensions will correspond to the smallest dash size.



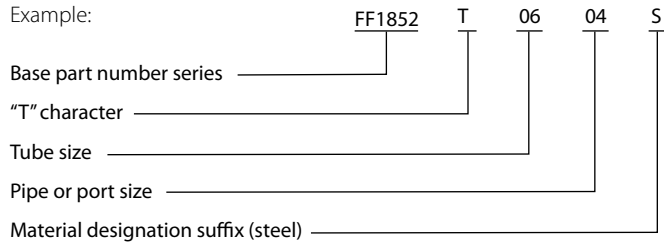
Dash size	E through hole			
	SAE 37°		ORS	
	mm	in	mm	in
-03	3,0	0.12	-	-
-04	4,3	0.17	4,3	0.17
-05	5,8	0.23	-	-
-06	7,6	0.30	6,6	0.26
-08	9,9	0.39	9,7	0.38
-10	12,2	0.48	12,2	0.48
-12	15,5	0.61	15,5	0.61
-16	21,3	0.84	20,6	0.81
-20	25,8	1.08	26,1	1.03
-24	33,3	1.31	32,0	1.26
-32	45,2	1.78	-	-

Steel Adapters

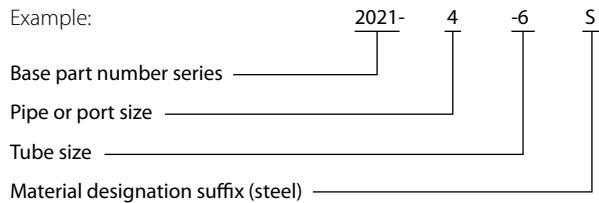
Part structure

How to order adapter part numbers

Adapter part numbers consist of a base number followed by a size designation. If the part number contains a "T" character between the base number and size designator, the first size designator signifies the tube size.

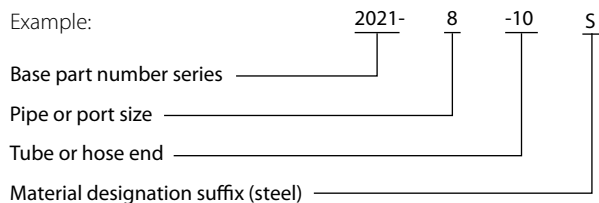


If the part number does not contain a "T" character between the base number and the size description, the first size designation signifies the port size.



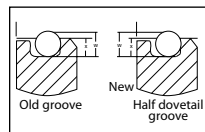
How to order adapters

Adapters are ordered using the complete part number as shown on the adapter pages.



ORS adapters conversion*

ORS adapters come standard with the half dovetail groove design. The half dovetail groove is manufactured with an angle on the OD wall. This angle captures the O-Ring for maximum retention. For ease of installation, a half dovetail groove installation tool may be used.



*Danfoss reserves the right to use straight groove on some ORS.

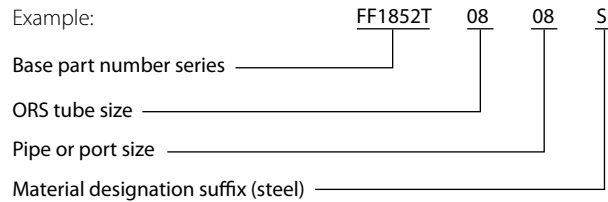
Half dovetail groove installation tool

The half dovetail groove installation tool compresses the O-Ring, allowing it to easily slide into the groove in the adapter. Use of the tool maximizes efficiency and minimizes any fatigue that may be associated with repeated insertions over an extended period of time. One tool is required per dash size (or by adapter size). Each tool comes with an illustrated instruction sheet. Tools are available by using the following part numbers: FT1405-04, FT1405-06, FT1405-08, FT1405-10, FT1405-12, FT1405-16, FT1405-20, FT1405-24.

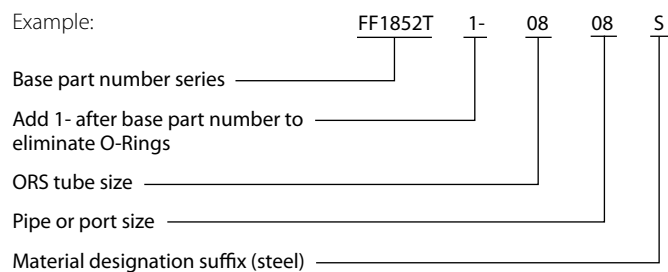


How to order ORS adapters and tube fittings

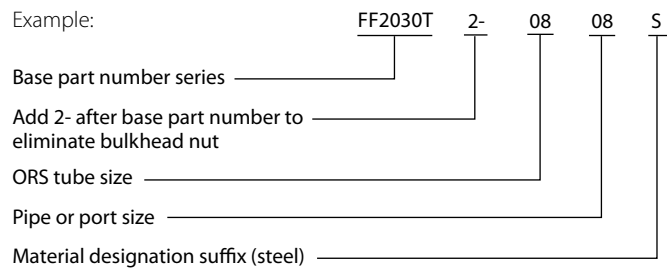
ORS tube fitting body with O-Ring, locknut and washer, where applicable.



ORS tube fitting body without O-Ring

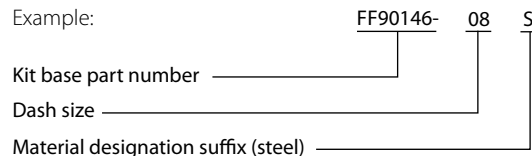


ORS bulkhead tube fitting body without bulkhead nut or O-Ring



ORS-TF tube fitting components

ORS-TF tube fittings, nut, ferrules, and sleeves can be ordered under the following kit part number:



By ordering a single part number in kit form, you will receive the components ready to be assembled to an ORS tube fitting body:

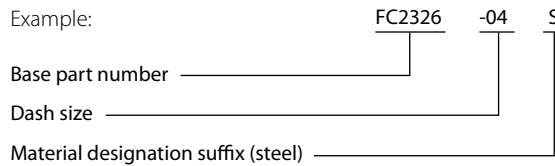
Example: FF90146-08S includes:

FC1851-08S	(ORS-TF Nut)
FF90102-08S	(ORS-TF Ferrule)
FF90103-08S	(ORS-TF Sleeve)

How to order ORS adapters and tube fittings (continued)

Nuts and shoulders (Braze type)

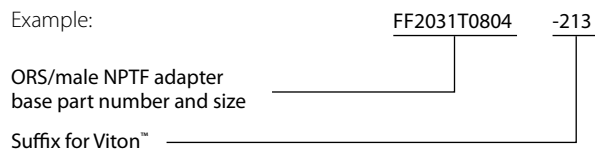
Nuts and shoulders can be ordered separately. Simply use the base number, dash size, and material designation.



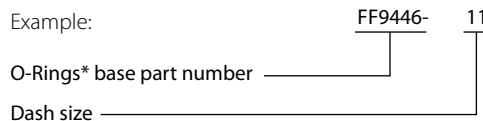
O-Rings

Buna-N O-Rings are standard. Other materials may also be specified by adding a material designator prefix if the part number begins with a numeric, and a material designator suffix if the part number begins with an alpha character. In all cases, the suffix "S" shall be omitted.

Material designation prefix/suffix	Material	Operating temperature range
S	90 Durometer Buna-N Nitrile Rubber	-40°F to +250°F (-40°C to +121°C)
212	80 Durometer EPDM Ethylene propylene diene monomer	-65°F to +300°F (-55°C to +150°C)
213	90 Durometer Viton Fluoroelastomer	-15°F to +400°F (-26°C to +204°C)
214	90 Durometer Buna-N Low temperature Nitrile	-65°F to +225°F (-55°C to +100°C)
352	70 Durometer Neoprene	-65°F to +300°F (-55°C to +150°C)



O-Rings can be ordered separately



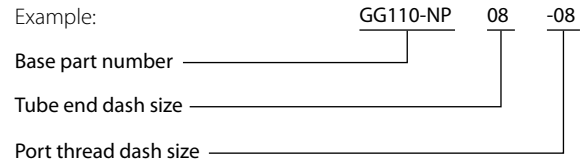
*See ORS O-Ring chart on page 115-117 in the Steel Adapters catalog E-MEAD-CC002-E.

Body material

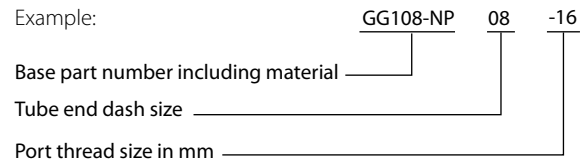
Steel is standard. Other materials may also be specified by adding a material designator prefix if the part number begins with a numeric, and a material designator suffix if the part number begins with an alpha character. In all cases, the suffix "S" shall be omitted.

Material designation prefix/suffix	Material
B (suffix only)	Brass
259	316-Stainless
4	Monel®
S	Steel

How to order Conversion adapters BSPP/BSPT



Metric



Dimension

Danfoss tube fittings are ordinarily designed and produced to the functional requirements set forth in SAE Standards J512, J513, J514, J1926 and J1453. However, in some cases the envelope dimensions of certain components vary slightly from cataloged or SAE referenced dimensions. The SAE reference numbers and fitting descriptions given are in accordance with SAE Standard J846.

Availability

All items listed in the current price schedule are normally carried in stock. Price and delivery of non-stocked and special parts may be obtained from your Danfoss Sales Representative or Distributor.

Loctite™ Vibra-Seal 516 for external pipe threads

Loctite Vibra-Seal has the following characteristics:

- Non-hardening thread sealant
- Resists shredding and peeling during assembly
- Can be reused up to 5 times without recoating
- Provides resistance to vibrational loosening
- Excellent resistance to solvents and oils
- Operating temperatures range -65°F to +250°F

Machine applied so that it leaves first 1/2 to 2 threads uncovered for ease of assembly. Because of the excellent characteristics of this product, we are offering Loctite Vibra-Seal on all of our parts that have male pipe threads. Factory applied Loctite for external pipe threads may be ordered for steel parts by adding the prefix "307-" to the completed part number, and dropping suffix "S" if the part number begins with a numeral.

Example: 307-2021-8-8.

If the part number begins with an alpha character, add the suffix "-307" to the completed part number and drop the suffix "S".

Example: FF2031T0606-307.

Loctite is a trademark of The Henkel Corporation.

Viton is a trademark of The Chemours Company FC, LLC.

Monel is a registered trademark of Special Metals Corporation group of Companies.

Steel Adapters

ORS: SAE ORB



Series	FF90146
Description	ORS tube fitting kit
Competitor Series	
Brennan/Airway/Tompkins	FS0304
WWF	4129
Parker	TL

Series	FF1852T
Description	ORS : SAE ORB Adapter
Competitor Series	SAE 520120
Brennan/Airway/Tompkins	FS6400
WWF	4314
Parker	F5OLO

Series	FF1868T
Description	90° ORS : SAE ORB Adapter
Competitor Series	SAE 520220
Brennan/Airway/Tompkins	FS6801
WWF	4515
Parker	CSOLO

ORS: SAE ORB



Series	FF2068T
Description	ORS : SAE ORB
Competitor Series	SAE 520320
Brennan/Airway/Tompkins	FS6802
WWF	4365
Parker	V5OLO

Series	FF2130T
Description	ORS Female : SAE ORB
Competitor Series	SAE 520181
Brennan/Airway/Tompkins	FS6540
WWF	FS6540
Parker	F65OL

Series	FF2211T
Description	ORS : SAE ORB long
Competitor Series	SAE 520122
Brennan/Airway/Tompkins	FS6400-L
WWF	4316
Parker	FF5OLO

ORS: SAE ORB



Series	FF2227T
Description	ORS : SAE ORB Long Adapter
Competitor Series	SAE521520
Brennan/Airway/Tompkins	FS6801-L
WWF	4515L
Parker	CC5OLO

Series	FF1854T
Description	ORS: SAE ORB Long Adapter
Competitor Series	SAE 520122
Brennan/Airway/Tompkins	4316
WWF	4316
Parker	FF5OLO

Series	FF1865T
Description	ORS: ORS: SAE ORB Adapter
Competitor Series	SAE 520428
Brennan/Airway/Tompkins	FS6804
WWF	4716
Parker	RSOLO

ORS: pipe



Series	FF2001T
Description	ORS: ORS: Male NPTF Adapter
Competitor Series	SAE 520425
Brennan/Airway/Tompkins	FS2601
WWF	4605
Parker	SLO

Series	FF2031T
Description	ORS: Male Pipe
Competitor Series	SAE 520102
Brennan/Airway/Tompkins	FS2404
WWF	4205
Parker	FLO

Series	FF2032T
Description	ORS : Male NPTF Adapter
Competitor Series	SAE 520202
Brennan/Airway/Tompkins	FS2501
WWF	4405
Parker	CLO

ORS: pipe



Series	FF2093T
Description	ORS : Male NPTF Adapter
Competitor Series	SAE 520302
Brennan/Airway/ Tompkins	FS2503
WWF	4355
Parker	VLO

ORS: ORS



Series	FF1857T
Description	ORS : ORS : ORS Female Adapter
Competitor Series	SAE 520433
Brennan/Airway/ Tompkins	FS6600
WWF	4707
Parker	S6LO



Series	FF1994T
Description	ORS : ORS Union
Competitor Series	SAE 520601
Brennan/Airway/ Tompkins	FS2700
WWF	4325
Parker	WLO-WLN



Series	FF2000T
Description	ORS : ORS
Competitor Series	SAE 520101
Brennan/Airway/ Tompkins	FS2403
WWF	4305
Parker	HLO

ORS: ORS



Series	FF2098T
Description	ORS : ORS Female
Competitor Series	SAE 520221
Brennan/Airway/ Tompkins	FS6500
WWF	4506
Parker	C6LO



Series	FF9767T
Description	ORS plug
Competitor Series	SAE 520109
Brennan/Airway/ Tompkins	FS2408
WWF	4229
Parker	PNLO



Series	FF9863
Description	ORS Cap Assembly
Competitor Series	SAE 520112
Brennan/Airway/ Tompkins	FS0304
WWF	4129
Parker	FNL

SAE: ORB



Series	900598
Description	SAE ORB Plug
Competitor Series	SAE 090109A
Brennan/Airway/ Tompkins	6408
WWF	7237
Parker	P5ON



Series	FF1010
Description	SAE ORB Reducer
Competitor Series	
Brennan/Airway/ Tompkins	6410
WWF	6410
Parker	F5OG5



Series	FF2138
Description	SAE ORB Plug, hollow hex
Competitor Series	SAE 090109B
Brennan/Airway/ Tompkins	6408-H
WWF	7238
Parker	HP5ON

Steel Adapters

Pipe



Series	2040
Description	External Pipe : Internal Pipe
Competitor Series	SAE 140139
Brennan/Airway/Tompkins	5405
WWF	3209
Parker	FG

Series	2045
Description	NPSM Internal Pipe Swivel: NPSM External Pipe
Competitor Series	SAE 140130
Brennan/Airway/Tompkins	1404
WWF	9205
Parker	107

Series	2046
Description	NPSM Internal Pipe Swivel: Internal Pipe
Competitor Series	SSAE 140131
Brennan/Airway/Tompkins	1405
WWF	9255
Parker	207

Pipe



Series	2047
Description	NPSM Internal Pipe Swivel: NPTF External Pipe
Competitor Series	SAE 140230
Brennan/Airway/Tompkins	1501
WWF	9405
Parker	2107

Series	2049
Description	NPSM Internal Pipe Swivel: NPTF External Male Pipe
Competitor Series	SAE 140330
Brennan/Airway/Tompkins	1503
WWF	9355
Parker	3107

Series	2081
Description	Male Pipe : Female Pipe Reducer
Competitor Series	SAE 140140
Brennan/Airway/Tompkins	5406
WWF	3109
Parker	PTR

Pipe



Series	2082
Description	Male Pipe Plug
Competitor Series	SAE 140109E
Brennan/Airway/Tompkins	5406-P
WWF	3159
Parker	HP

Series	2083
Description	Male Pipe: Male Pipe
Competitor Series	SAE 140137
Brennan/Airway/Tompkins	5404
WWF	3069
Parker	FF

Series	2084
Description	Male Pipe: Male Pipe Long
Competitor Series	
Brennan/Airway/Tompkins	5404-N
WWF	3069
Parker	FF

Pipe



Series	2085
Description	NPTF External Pipe: NPTF External Pipe
Competitor Series	SAE 140237
Brennan/Airway/Tompkins	5500
WWF	F3529
Parker	CR

Series	2087
Description	90° Elbow Internal Pipe: Internal Pipe
Competitor Series	SAE 140238
Brennan/Airway/Tompkins	5504
WWF	F3509
Parker	DD

Series	2088
Description	45° Elbow Male Pipe: Internal Pipe
Competitor Series	SAE 140339
Brennan/Airway/Tompkins	5503
WWF	F3359
Parker	CD45

Steel Adapters

Pipe



Series	2089
Description	90° Elbow Male Pipe: Internal Pipe
Competitor Series	SAE 140239
Brennan/Airway/Tompkins	5502
WWF	F3409
Parker	CD



Series	2090
Description	Tee Internal Pipe: Internal Pipe
Competitor Series	SAE 140438
Brennan/Airway/Tompkins	5605
WWF	F3709
Parker	MMO



Series	2092
Description	Tee Male Pipe: Internal Pipe
Competitor Series	SAE 140424
Brennan/Airway/Tompkins	5602
WWF	F3759
Parker	MRO

Pipe



Series	2096
Description	Internal Pipe: Internal Pipe
Competitor Series	SAE 140138
Brennan/Airway/Tompkins	5000
WWF	3309
Parker	GG



Series	2222
Description	Male Pipe Plug, Hollow Hex
Competitor Series	SAE 140109N
Brennan/Airway/Tompkins	5406-HP
WWF	3169
Parker	HHP



Series	2247
Description	NPTF External Pipe : External Pipe
Competitor Series	SAE 140337
Brennan/Airway/Tompkins	5501
WWF	5501
Parker	

Pipe



Series	2252
Description	NPTF External Pipe Swivel: NPTF Internal Pipe
Competitor Series	
Brennan/Airway/Tompkins	5702
WWF	
Parker	

SAE 37°: pipe



Series	2018
Description	Male Pipe : SAE 37° Swivel
Competitor Series	
Brennan/Airway/Tompkins	6505
WWF	9100
Parker	F6X



Series	2021
Description	Male Pipe : SAE 37° Male
Competitor Series	SAE 070102
Brennan/Airway/Tompkins	2404
WWF	5205
Parker	FTX



Series	2022
Description	Internal Pipe : SAE 37° Male
Competitor Series	SAE 070103
Brennan/Airway/Tompkins	2405
WWF	5255
Parker	GTX

Steel Adapters

SAE 37°: pipe



Series	2023
Description	External Pipe: SAE 37° Male
Competitor Series	SAE 070302
Brennan/Airway/Tompkins	2503
WWF	F5355
Parker	VTX

Series	2024
Description	External Pipe: SAE 37° Male
Competitor Series	SAE 070202
Brennan/Airway/Tompkins	2501
WWF	F5405
Parker	CTX

Series	2025
Description	Internal Pipe: SAE 37° Male
Competitor Series	SAE 070203
Brennan/Airway/Tompkins	2502
WWF	F5455
Parker	DTX

SAE 37°: pipe



Series	2240
Description	NPTF External Pipe : SAE 37° Male Bulkhead
Competitor Series	
Brennan/Airway/Tompkins	2706
WWF	2706LN
Parker	WFTX-WLN

Series	2242
Description	Internal Pipe: SAE 37° Female Swivel
Competitor Series	SAE 070603
Brennan/Airway/Tompkins	6506
WWF	9256
Parker	G6X

Series	2249
Description	NPTF External Pipe Swivel: SAE 37° Male
Competitor Series	
Brennan/Airway/Tompkins	5701
WWF	
Parker	

SAE 37°: pipe



Series	2250
Description	NPTF External Pipe: SAE 37° Female Swivel
Competitor Series	
Brennan/Airway/Tompkins	6501
WWF	9406
Parker	X6EF

Series	202113
Description	Male Pipe: SAE 37° Male Long
Competitor Series	
Brennan/Airway/Tompkins	2404-L
WWF	5205
Parker	FFTX

Pipe: SAE ORB



Series	2066
Description	NPSM Internal Pipe Swivel: SAE ORB
Competitor Series	SAE 149157
Brennan/Airway/Tompkins	6900
WWF	9315
Parker	507

Series	2068
Description	NPSM Internal Pipe Swivel: SAE ORB
Competitor Series	SAE 140247
Brennan/Airway/Tompkins	6901
WWF	9515
Parker	2507

Series	2216
Description	Internal Pipe: SAE ORB
Competitor Series	
Brennan/Airway/Tompkins	6405
WWF	3269
Parker	F50G

Steel Adapters

SAE 37°



Series	2027
Description	SAE 37° Male: SAE 37° Male
Competitor Series	SAE 070101
Brennan/Airway/Tompkins	2403
WWF	5305
Parker	HTX



Series	2033
Description	SAE 37° Male
Competitor Series	SAE 070401
Brennan/Airway/Tompkins	2603
WWF	F5705
Parker	JTX



Series	2039
Description	SAE 37° Male: SAE 37° Male
Competitor Series	SAE 070201
Brennan/Airway/Tompkins	2500
WWF	F5505
Parker	ETX

SAE 37°



Series	2041
Description	SAE 37° Male Bulkhead: SAE 37° Male
Competitor Series	SAE 070601
Brennan/Airway/Tompkins	2700
WWF	5325
Parker	WTX-WLN



Series	2043
Description	SAE 37° Male Bulkhead: SAE 37° Male
Competitor Series	SAE 070701
Brennan/Airway/Tompkins	2701
WWF	F5525
Parker	WETX-WLN



Series	2070
Description	SAE 37° Swivel: SAE 37° Male
Competitor Series	SAE 070321
Brennan/Airway/Tompkins	6502
WWF	F5356
Parker	V6X

SAE 37°



Series	2071
Description	SAE 37° Swivel: SAE 37° Male
Competitor Series	SAE 070221
Brennan/Airway/Tompkins	6500
WWF	F5506
Parker	C6X



Series	2215
Description	Straight SAE 37° Internal: SAE 37° Male
Competitor Series	SAE 070112
Brennan/Airway/Tompkins	2406
WWF	5015
Parker	TRTXN



Series	203101
Description	SAE 37° Swivel: SAE 37° Male
Competitor Series	SAE 070433
Brennan/Airway/Tompkins	6600
WWF	F5707
Parker	S6X

SAE 37°



Series	203102
Description	SAE 37° Male Bulkhead: SAE 37° Male
Competitor Series	SAE 070432
Brennan/Airway/Tompkins	6602
WWF	F5706
Parker	R6X



Series	210292
Description	SAE 37° Flare Union
Competitor Series	SAE 070112
Brennan/Airway/Tompkins	0304-C
WWF	5129
Parker	FNTX



Series	500454
Description	SAE 37° Female Swivel: SAE 37° Male Sweep Elbow
Competitor Series	
Brennan/Airway/Tompkins	6701
WWF	
Parker	

Steel Adapters

SAE 37°



Series	504095
Description	SAE 37° Female Swivel: SAE 37° Male
Competitor Series	
Brennan/Airway/ Tompkins	6701
WWF	
Parker	

Series	900599
Description	SAE 37° Plug
Competitor Series	SAE 070109
Brennan/Airway/ Tompkins	2408
WWF	5229
Parker	PNTX

Series	FF5163
Description	SAE 37° Female : SAE 37° Male
Competitor Series	SAE 071620
Brennan/Airway/ Tompkins	
WWF	
Parker	

SAE 37°: SAE ORB



Series	2061
Description	SAE ORB : SAE 37° Male
Competitor Series	SAE 070320
Brennan/Airway/ Tompkins	6802
WWF	F5365
Parker	V5OX

Series	2062
Description	SAE ORB : SAE 37° Male
Competitor Series	SAE 070220
Brennan/Airway/ Tompkins	6801
WWF	F5515
Parker	C5OX

Series	2266
Description	SAE ORB : SAE 37° Female
Competitor Series	
Brennan/Airway/ Tompkins	6402
WWF	9316
Parker	F65OX

SAE 37°: SAE ORB



Series	202702
Description	SAE ORB: SAE 37° Male
Competitor Series	SAE 070120
Brennan/Airway/ Tompkins	6400
WWF	5315
Parker	F5OX

Series	203005
Description	SAE ORB: SAE 37° Male
Competitor Series	SAE 070428
Brennan/Airway/ Tompkins	6804
WWF	F5716
Parker	R5OX

Series	206209
Description	SAE ORING Male: SAE 37° Male Extra Long
Competitor Series	SAE 071620
Brennan/Airway/ Tompkins	6801-L
WWF	F5515
Parker	

Split flange



Series	500024
Description	Split Flange: SAE 37° Male
Competitor Series	SAE CODE 61
Brennan/Airway/ Tompkins	1704
WWF	1704
Parker	

Series	500025
Description	Split Flange: SAE 37° Male
Competitor Series	SAE CODE 61
Brennan/Airway/ Tompkins	1700
WWF	1700
Parker	

Series	FF5162
Description	Split Flange : SAE 37° Male
Competitor Series	SAE CODE 61
Brennan/Airway/ Tompkins	
WWF	
Parker	

Split flange



Series	FF5540
Description	Split Flange: SAE 37° Male
Competitor Series	SAE CODE 62
Brennan/Airway/ Tompkins	1804
WWF	1804
Parker	



Series	FF5541
Description	Split Flange: SAE 37° Male
Competitor Series	SAE CODE 62
Brennan/Airway/ Tompkins	1800
WWF	1800
Parker	XHQ2

Versil-Flare



Series	73014
Description	Braze Port: SAE 37° Male
Competitor Series	
Brennan/Airway/ Tompkins	0403
WWF	403
Parker	XHB3



Series	1290
Description	Versil-Flare: SAE 37° Nut
Competitor Series	SAE 070110
Brennan/Airway/ Tompkins	0318
WWF	5105
Parker	BTX



Series	900605
Description	Versil-Flare Male SAE 37° Flared Sleeve
Competitor Series	SAE 070115
Brennan/Airway/ Tompkins	0319
WWF	5165
Parker	TX

Versil-Flare



Series	FF9605
Description	Versil-Flare Flareless Tube Ferrule
Competitor Series	
Brennan/Airway/ Tompkins	V0319
WWF	7165
Parker	



Series	FC2875
Description	Versil-Flare Male Flareless Tube Nut
Competitor Series	
Brennan/Airway/ Tompkins	C0318
WWF	7105
Parker	BU

Metric



Series	GG108
Description	SAE 37° Male : Metric Male
Competitor Series	ISO 9974
Brennan/Airway/ Tompkins	1864664
WWF	
Parker	



Series	GG106
Description	BSPP Male : SAE 37° Male
Competitor Series	
Brennan/Airway/ Tompkins	
WWF	
Parker	



Series	GG308
Description	90° Adjustable Elbow SAE 37° Male : Metric Male
Competitor Series	ISO 9974
Brennan/Airway/ Tompkins	7205
WWF	
Parker	

Steel Adapters

Ermeto tube fitting



Series	7105
Description	Ermeto TF Tube Nut
Competitor Series	SAE 080110
Brennan/Airway/ Tompkins	C0318
WWF	7105
Parker	BU



Series	7165
Description	Ermeto TF Sleeve
Competitor Series	SAE 080115B
Brennan/Airway/ Tompkins	C0319
WWF	7165A
Parker	TU



Series	7205
Description	Ermeto TF Male Connector
Competitor Series	SAE 080102
Brennan/Airway/ Tompkins	C2404
WWF	7205
Parker	FBU

Ermeto tube fitting



Series	7229
Description	Ermeto TF Plug
Competitor Series	SAE 080109
Brennan/Airway/ Tompkins	C2408
WWF	7229
Parker	PNU



Series	7255
Description	Ermeto TF Female Connector
Competitor Series	SAE 080103
Brennan/Airway/ Tompkins	C2405
WWF	7255
Parker	GBU



Series	7305
Description	Ermeto TF Small Hex Union
Competitor Series	SAE 080101
Brennan/Airway/ Tompkins	C2403
WWF	7305
Parker	HBU

Ermeto tube fitting



Series	7405
Description	Ermeto TF 90° Male Elbow
Competitor Series	SAE 080202
Brennan/Airway/ Tompkins	C2501
WWF	7405
Parker	CBU



Series	7505
Description	Ermeto TF 90° Union Elbow
Competitor Series	SAE 080201
Brennan/Airway/ Tompkins	C2500
WWF	7505
Parker	EBU

Adapter operating pressures

Dash Size	Inch Size	37° JIC	Male Pipe	Female Pipe	Male ORB/ ORS	Male ORB/ Non-ORS	Adj. ORB/ ORS	Adj. ORB/ non-ORS	ORS	Male Flareless	Code 61	Code 62	STC
-2	1/8	-	10,000	6,000	-	5,000	-	5,000	-	5,000	-	-	-
-3	3/16	-	-	-	9,000	5,000	6,000	5,000	-	5,000	-	-	-
-4	1/4	7,500	9,500	6,000	9,000	5,000	6,000	4,500	9,000	4,500	-	-	6,000
-5	5/16	7,000	-	-	9,000	5,000	6,000	4,500	-	4,000	-	-	-
-6	3/8	6,000	8,000	6,000	9,000	5,000	6,000	4,000	9,000	4,000	-	-	5,000
-8	1/2	5,000	6,000	5,000	9,000	4,500	6,000	4,000	9,000	4,000	5,000	6,000	4,250
-10	5/8	5,000	-	-	9,000	3,500	6,000	3,000	9,000	3,000	-	-	4,000
-12	3/4	5,000	5,500	5,500	6,000	3,500	6,000	3,000	6,000	3,000	5,000	6,000	4,000
-14	7/8	-	-	-	6,000	3,000	6,000	2,500	-	2,500	-	-	-
-16	1	5,000	4,500	3,000	6,000	3,000	5,000	2,500	6,000	2,500	5,000	6,000	4,000
-20	1-1/2	5,000	3,000	3,000	4,000	2,500	4,000	2,000	4,500	2,000	4,000	6,000	-
-24	1-1/4	3,000	3,000	3,000	4,000	2,500	3,000	2,000	4,000	1,500	3,000	6,000	-
-32	2	2,000	2,000	2,000	3,000	2,000	2,500	1,500	3,000	1,125	3,000	6,000	-

Regardless of the job, Danfoss has the right products to meet the challenge every time.

Additional products available from Danfoss.



Danfoss Brass Adapters

Precision-machined, SAE-approved Danfoss brass adapters are manufactured out of durable UNS C36000 brass. This provides outstanding corrosion resistance for a variety of applications from air brake to hydraulic and pneumatic systems. Large, uniform wrench pad areas have standard dimensions for easy assembly and disassembly using standard open-end wrenches.

Some of the available brass adapters include:

- SAE 45° flare
- Pipe
- Air brake
- Polyline flareless
- Selfalign
- Drain cocks
- Valves
- Molded tube compression
- Plastic tubing
- And many more

Check out our complete portfolio of Brass Adapters found in our catalog located on Powersource.danfoss.com



Danfoss STC Snap-To-Connect

Patented STC Snap-To-Connect products are threadless connectors that keep equipment up and running longer with simple, leak-free connections.

Danfoss has the broadest range of threadless connectors in the industry, and our patented STC technology excels in rigorous mobile applications in agriculture, construction, forestry, transportation, utility and lawn and turf. Because of their easy installation even in confined spaces, and virtually zero-leak performance (per SAE J1176), more than 25 million STC connections are currently in use worldwide.

STC benefits:

- Fast reliable one-hand connections requiring no assembly tools
- Eliminates cross-threading, over or undertorquing, and hose twisting
- Virtually zero leak performance
- Direct porting eliminates adapters to maximize cost savings
- Resists external contamination
- Allows easy disconnection with release tool

A full list of available STC products can be found in our catalog located on Powersource.danfoss.com

Reference literature

Danfoss steel adapters master catalog
Publication #:
AF444059448947en

Danfoss steel adapter wall chart
Publication #:
AV463753396526en

Technical support:

For further questions and support,
please contact Danfoss technical
support at 1-888-258-0222 or
fpjproductssupport@Danfoss.com

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Connectors

Quick Disconnect

Make reliable connections with
Danfoss Hansen adapters and couplings







Quick Disconnect couplings

For over 100 years, Danfoss Hansen has continued to manufacture and supply the highest performing quick disconnect couplings globally for many different market segments including agriculture, construction, transportation, and fire and rescue just to name a few. Danfoss Hansen quality and performance have never been compromised when it comes to engineering and manufacturing its full line of quick disconnect couplings. From traditional industry standards to custom couplings for the next generation of emerging markets and new advanced technologies, Danfoss Hansen continues to provide quick disconnect coupling solutions to meet your demands. And backed by the industry's leading 3 year warranty, you will have the lasting confidence in the performance of Danfoss Hansen quick disconnect couplings.



► Benefits:

It's good to understand where and why couplings are used.

- Couplings provide a means of quickly connecting and disconnecting a line without a loss of fluid or entrance of air into a system.
- If equipment needs to be assembled quickly or if it needs routine servicing or repair, then a coupling is a better choice for a fluid connection.
- When incorporating QD couplings, spillage of costly and dangerous liquids and others fluids can also be prevented. This contributes to a cleaner environment, making way for safer working conditions. This can also minimize and prevent the loss of hydraulic and other fluids which saves money.
- When choosing couplings, there are a few key selection criteria to keep in mind: the pressure rating of the system, if there are pressure spikes, the media or fluid being used for seal compatibility, and temperature.

Why use quick disconnect coupling over a conventional threaded connection?

Traditional fitting:

- No shut-off system: leakage after disconnection
- Cannot rotate while connected - line twisting decreases life of hose
- Additional assembly time
- Difficult handling, waste of time to disassemble (maintenance)
- Frequent disconnection effects seating performance, increases likelihood of leaking

Quick disconnect coupling:

- Shut-off system: sealing achieved upon disconnection
- Can rotate while connected, taking stress out of hose and extending life
- Ease of assembly in tight spaces
- Easy and fast to use (without tool), time saving and economical
- Increased mobility and access for maintenance



► Typical applications and platforms:

Alternative energy	Agriculture and forestry	Commercial vehicle	Oil and gas
<p>Alternative energy: Wind – Utility grade Hydro – Small and large MHK – Wave devices Solar panels Thermal management</p> <p>Popular hydraulic/fluid transfer quick disconnect couplings</p> <ul style="list-style-type: none"> • HK ISO B (Steel, Brass, Stainless Steel) • Full Bore • FF ISO 16028 (Steel) • MLFF ISO 16028 (Stainless Steel) <p>Popular pneumatic quick disconnect couplings 3000/4000/5000/6000</p>	<p>Agriculture/forestry: Self propeller sprayer Low HP tractor Harvester Combine Planters Specialty harvesters Tree harvesters</p> <p>Popular hydraulic/fluid transfer quick disconnect couplings</p> <ul style="list-style-type: none"> • FF ISO 16028 (Steel) • MLFF ISO 16028 (Stainless Steel) • 5600 ISO A (Steel, Stainless Steel) • FD70 • FD72 • FD76 <p>Popular pneumatic quick disconnect couplings</p> <ul style="list-style-type: none"> • Auto Flow • Safeline 	<p>Commercial vehicle: Refuse Transit mixer HD/MD On hwy trucks Bus Ground based military vehicles Sewer cleaners Snow plow/salt spray Fire and rescue Bulk tank trailers Car hauler trailers</p> <p>Hydraulic/fluid transfer couplings</p> <ul style="list-style-type: none"> • FF ISO 16028 (Steel) • MLFF ISO 16028 (Stainless Steel) • HK ISO B (Steel, Brass, Stainless Steel) • MLDB • H5000 <p>Pneumatic couplings</p> <ul style="list-style-type: none"> • 3000 <p>Specialty couplings</p> <ul style="list-style-type: none"> • 5400 (A/C and Refrigerant) 	<p>Oil and gas: Cranes Winches/mooring Material handling Fracking BOP Off shore drilling Hydraulic tongs ROV</p> <p>Hydraulic/fluid transfer couplings</p> <ul style="list-style-type: none"> • FF ISO 16028 (Steel) • MLFF ISO 16028 (Stainless Steel) • HK ISO B (Steel, Brass, Stainless Steel) • 5600 ISO A (Steel, Stainless Steel) • HKFR • 5100 • W6000 • FD96
Construction and mining	Discrete manufacturing/processing	Material handling	
<p>Construction and mining: Excavator Wheel loader Concrete pump Backhoe loader Skid steer loader Jack system Hydraulic drill Trench shoring</p> <p>Hydraulic/fluid transfer couplings</p> <ul style="list-style-type: none"> • FF ISO 16028 (Steel) • MLFF ISO 16028 (Stainless Steel) • HK ISO B (Steel, Stainless Steel) • 5600 • 5100 • FD96 • FD86 	<p>Discrete manufacturing/processing: Plastic IMM Blow molding Injection molding Metal cutting/machining Down press Image scanners Transformers</p> <p>Hydraulic/fluid transfer couplings</p> <ul style="list-style-type: none"> • FF ISO 16028 (Steel) • MLFF ISO 16028 (Stainless Steel) • HK ISO B (Steel, Stainless Steel) <p>Specialty couplings</p> <ul style="list-style-type: none"> • ST • Flo-Temp 	<p>Material handling: Lift trucks Booms Telehandlers Truck mounted cranes Scissor lifts Sweepers</p> <p>Hydraulic/fluid transfer couplings</p> <ul style="list-style-type: none"> • FD35 • FF ISO 16028 (Steel) • H5000 • 5600 ISO A (Steel, Stainless Steel) 	

Quick Disconnect couplings

Need to know

Coupling locking mechanisms

Coupling locking mechanisms	Description
Ball Lock	Uses a series of balls inside the socket to lock down in a groove on the plug. The benefit of this style is the manual or automatic push to connect that results in a firm connection. This is the most commonly used locking style. We don't recommend this for heavy vibration applications that can cause the locking balls to become damaged, a condition known as brinelling.
Flat Face	Technically a ball lock coupling. Its flat face design makes many think as if it is another type of locking mechanism. This product has gained popularity due to its ability to be wiped clean, and retain fluids. While it takes more force to connect, it remains a simple and effective design.
Screw To Connect	Commonly used for high pressure applications. This locking style can handle pressures in the 3,500 – 10,000 psi range. It takes more time to connect, but threads provide the connection strength.
Rings and pins	Other locking styles that you might come across and are typically used for pneumatic couplings

Coupling materials

Applications	Coupling materials	Seals Materials
Mineral oils	Steel	NBR up to 100°C FKM up to 200°C No EPDM
Ester phosphate oils	Steel	EPDM 175 (NAS 1613)
Water (Industrial)	Brass or Stainless steel	NBR EPDM
Steam	Brass Stainless steel	EPDM 192 up to 150°C EPDM 236 up to 287°C FFKM 242 up to 225°C
Food and Beverage	Stainless steel (316L)	EPDM 292
Air / Nitrogen	Steel Wet Air : Brass or Stainless steel	NBR High pressure
Alcohols	Stainless steel (316L)	FKM FFKM
Water Glycol	Brass Stainless steel	NBR up to 100°C EPDM up to 150°C
Chemicals	Generally Stainless steel	Generally FKM or FFKM

General purpose hydraulics



HK series

Standards/Certifications:
Meets/exceeds ISO 7241-1B

Material:
Steel, Brass, 303SS, 316SS

Sizes and pressure (bar/psi):

Steel: -2 (275/4000), -4 (345/5000), -6 (275/4000), -8 (345/5000), -12 (275/4000), -16 (275/4000), -20 (118/1700), -24 (152/2200), -40 (104/1500)

Brass: -2 (207/3000), -4 (186/2700), -6 (152/2200), -8 (155/2250), -12 (138/2000), -16 (103/1500), -20 (83/1200), -24 (104/1500), -40 (59/700)

Stainless: -2 (344/5000), -4 (255/3700), -6 (255/3700), -8 (293/4250), -12 (242/3500), -16 (207/3000), -20 (118/1700), -24 (152/2200), -40 (104/1500)

Markets and applications:

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Transportation
- Military
- Law Enforcement/Rescue
- Chemical
- Oil and Gas
- Consumer Products
- HVAC
- Food and Beverage
- Trucks
- Aerospace
- Medical



5600 series

Standards/Certifications:
Meets/exceeds ISO 7241-1A

Material:
Steel, 303 SS

Sizes and pressure (bar/psi):

-4 (350/5000), -6 (280/4000), -10 (280/4000), -12 (280/4000), -16 (280/4000)

Markets and applications:

- Hydraulic fluid transfer
- Agricultural equipment
- Construction equipment
- Dump, snow plow and maintenance vehicles
- In-plant manufacturing

Connection types:

Female NPTF
Female SAE
Female BSPP

Sells against:

Faster HNV
Parker 60
Stucchi IRB
Dixon H
Safeway S10/BS10/SS10
Foster FHK/DS

Selling features:

- Danfoss Hansen was the original designer of the HK coupling in 1915 setting the industry standard.
- Self-sealing poppet valve design provides excellent high and low pressure sealing.
- Zinc trivalent plated steel with stainless steel springs, balls and retaining rings.
- PTFE back up seal
- Wide array of customizations offered to suit all applications.
- Highest flow among leading manufacturers
- Higher flow equates to higher efficiency and less energy consumption, meaning lower cost

WARNING: California Proposition 65, see pg. 201.

Connection types:

Female NPTF
Female SAE
Female BSPP

Sells against:

Faster ANV
Parker 6600
Stucchi BIR
Dixon K
Safeway S56
Foster 6600

Selling features:

- Self-sealing poppet valve design provides excellent high and low pressure sealing.
- Streamlined valving provides minimum pressure drop.
- High resistance carbon steel with zinc trivalent plating.
- Wide array of customizations offered to suit all applications.
- Highest flow among leading manufacturers
- When a coupling restricts flow and increases pressure drop, heat builds. Excess heat causes premature damage to critical system components.

Quick Disconnect couplings

Couplings



FF/MLFF series

Standards/Certifications:
Meets/exceeds ISO 16028

Material:
Steel, 316L

Sizes and pressure (bar/psi):

-4 (400/5800), -6 (400/5800), -8 (400/5800),
-10 (400/5800), -12 (400/5800), -16 (400/5800),
-20 (300/4350), -24 (300/4350), -32 (300/4350)

Markets and applications:

- Transfer
- Construction equipment
- Agricultural equipment
- Utility vehicles
- On-Highway vehicles
- Stationary in-plant hydraulics and fluid transfer
- Interchangeable with HTMA couplings in the 3/8" size

Connection types:

Female NPTF
Female SAE
Female BSPP

Sells against:

Faster FFH
Parker FEM
Stucchi A
Dixon HT
Safeway FFE49
Foster FF

Selling features:

- Standard sleeve lock prevents accidental disconnection.
- Industry leading flow and operating pressure performance.
- Guardian Seal zinc trivalent plating offers up to 1,000 of corrosion resistance.
- Color coded rings allow for easy identification of lines to prevent cross connecting.
- Connect under pressure plug able to connect up to 350 bar.
- FF series superior flow saves cost by reducing fuel consumption



5100 series

Material:
Brass

Sizes and pressure (bar/psi):

-8 (207/3000), -12 (207/3000), -10 (207/3000)
-16 (207/3000), -20 (190), -24 -20 (172)

Markets and applications:

- Hydraulics and fluid transfer
- On-highway hydraulic wet lines
- Dump and refuse vehicles
- Bulk liquid transfer

Connection types:

Female NPT

Sells against:

Faster FB
Parker 6100
Stucchi W
Dixon W
Safeway S51
Foster FWN

Selling features:

- Tubular valve construction for virtually no fluid loss during disconnection, reducing environmental and worker safety hazards.
- Low air inclusions and connect under pressure capability up to 500psi.
- Excellent vibration resistance and corrosion performance.
- Up to 115% more flow over competing brands
- Commonly found on dump trailer wet lines, a higher flow performance can mean a reduced cycle time and increased productivity

 WARNING: California Proposition 65, see pg. 201.



ST series

Material:
Steel, Brass, 303 SS

Sizes & pressure (bar/psi):

-2 (193/2800), -4 (359/5200), -6 (193/2800), -8 (152/2200),
-12 (117/1700), -16 (90/1300), -20 (117/1700), -24 (97/1400),
-32 (97/1400), -40 (62/900)

Markets and applications:

- Electronics liquid based cooling
- Thermal management systems
- Industrial fluid transfer

Connection types:

Male/Female NPT

Sells against:

Faster TNL
Parker ST
Stucchi SH
Dixon ST
Foster FST
Holmbury PWC

Selling features:

- Smooth bore permits free flow of liquid or gas.
- Wherever minimum pressure drop is required and valving is not needed.
- Excellent corrosion resistance
- Danfoss' ST flow performance means doing more work with less energy required

 **WARNING:** California Proposition 65, see pg. 201.



FD90 series

Standards/Certifications:
Meets/exceeds ISO 15171-1

Material:
Steel

Sizes and pressure (bar/psi):

-4 (483/7000)

Markets and applications:

- Hydraulic fluid transfer
- Agricultural equipment
- Construction equipment
- Dump, snow plow and maintenance vehicles
- In-plant manufacturing

Connection types:

Female/Male NPT
FSAE
SAE ORB
Female/Male ORS

Sells against:

Parker PD
Dixon PD
Faster DF
Holmbury DTP
Foster FST

Selling features:

- Danfoss' diagnostic coupling is designed to connect and disconnect pressure gauges to hydraulic systems eliminating the need for permanent gauges.
- Flush face valving provides minimal fluid loss and low air inclusion.
- Broad range of end configurations for system accessibility.
- Automatic sleeve for one hand push-to-connect operation
- Danfoss' superior corrosion resistance is a key advantage in the applications this coupling is typically found in.

Quick Disconnect couplings

Pneumatic couplings

General purpose pneumatic



Auto-flo socket

Standards/Certifications:
Industrial Interchange/
Tru-Flate/ARO 210

Material:
Brass

Sizes and pressure (bar/psi):
-4 (10/150)

Markets and applications:

- General Pneumatics
- Air Tools
- Construction

Connection types:

Female/Male NPTF
BSPT
BSPP
Barb

Sells against:

Parker UC
Dixon U
Foster U

Selling features:

- Auto-Flo 23 is the first automatic universal quick disconnect coupling designed to operate with Industrial, ARO 210 and Tru-Flate Interchange plugs/males.
- Easy, automatic push-to-connect design provides instantaneous connection and disconnection of lines.
- The universal design makes Auto-Flo an extremely flexible coupling series.

 WARNING: California Proposition 65, see pg. 201.



1000/400/500 series

Standards/Certifications:
Industrial Interchange
Tru-Flate (400 series)

Material:
Steel, Brass

Sizes and pressure (bar/psi):
-4 (138/2000), -6 (69/1000), -8 (35/500)

Markets and applications:

- General Pneumatics
- Construction
- Industrial Plants

Connection types:

Female/Male NPTF
Barb
Hose Clamp

Sells against:

Parker 20/10 (Tru-Flate)
Dixon N
Foster

Selling features:

- Industrial Interchange coupling that is rugged and reliable designed for use with compressed air, gases, and liquids.
- Ball latching mechanism
- Optional sleeve lock prevents accidental disconnection
- All sizes accept US Industrial Interchange.
- 400 series accepts Tru-Flate Interchange.
- Brass body with nickel plated steel offers high corrosion resistance.

 WARNING: California Proposition 65, see pg. 201.

Quick Disconnect couplings

Pneumatic couplings



210/310 series

Standards/Certifications:
ARO210/310

Material:
Brass, Steel

Sizes and pressure(bar/psi):
-4 (17/250), -6 (17/250)

Markets and applications:

- Construction
- Maintenance and Repair
- In-plant/
Industrial
- Pneumatic Tools

Connection types:
Female/Male NPT

Sells against:
Parker 50
Dixon M

Selling features:

- Danfoss' ARO 210/310 interchange offers a pin-lock design with alloy steel locking pins and automatic push-to-connect operation
- Zinc trivalent plated carbon steel offers high durability with superior corrosion performance

 WARNING: California Proposition 65, see pg. 201.

Quick Disconnect couplings

Coupling series

Danfoss Hansen pneumatic couplings selector chart

Coupling Series	Coupling style			Interchange				Body size					Body material				Locking mechanism				Options			
	MANUAL CONNECT	PUSH-TO-CONNECT	SAFETY COUPLING	INDUSTRIAL INTERCHANGE	ARO 210/310	TRU-FLATE	CEJN 320/RECTUS 25	HANSEN UNIQUE DESIGN	1/8 INCH	1/4 INCH	3/8 INCH	1/2 INCH	3/4 INCH	ALUMINUM	BRASS	STEEL (Zinc/chromate Finish)	STAINLESS STEEL	PLASTIC (Acetal)	BALL LOCK	PIN LOCK	RING LOCK	PLASTIC FINGERS	SLEEVE LOCK	SEAL MATERIALS (Various)
1000	●			●					●					●		●		●				●	●	●
400	●			●		●				●				●				●				●	●	●
500	●			●							●			●				●				●	●	
3000		●		●					●					●					●			●	●	●
4000		●		●						●				●					●			●	●	●
5000		●		●							●			●					●			●	●	
6000		●		●								●		●					●			●	●	
Auto-Flo 23		●		●	●	●			●					●				●						
Auto-Flo 24		●					●		●					●				●						
Safeline		●	●	●					●				●		●			●						
180/280	●						●	●						●				●					●	
100	●						●	●	●					●				●					●	●
600	●						●	●						●				●				●		●
2RL		●					●	●							●					●			●	●
3RL		●					●		●						●					●			●	●
Full-Bore		●	●	●					●	●					●			●						
210		●			●				●						●				●					
310		●			●				●						●				●					

▼ Sleeve lock is standard Polymer Sleeves

Other Danfoss Hansen quick disconnect couplings*

Hydraulic/Fluid Transfer	Pneumatic	Specialty
HKFR – Blow Out Preventer (BOP)	1000/400/500 – Industrial Interchange	FD14 – Oil Drain
H5000 – High Pressure, Impulse	3000/4000/5000/6000 – Industrial Interchange	FD17 - SCBA
MLFF – ISO 16028 (Stainless Steel)	Auto-Flo 23/24 – Multiple Interchange	FD69 – 10,000 psi Waterblast
FFCUP – ISO 16028 Connect Under Pressure	Safeline - Push Button Safety	FD83 – Fluid Transfer/Electronics Cooling
FD49 – HTMA NFPA T3.20.15 Interchange	180/280 – Proprietary Interchange	ADB – Flat Face Aluminum Electronic Cooling
MLDB – PED 97/23 EC (Stainless Steel)	100 – Proprietary Interchange	2HKIG/2HKIL – Chemical/Food and Beverage
FD96 – Flat Face Thread Together	600 – Oxyacetylene Service	Flo-Temp™ - Injection Molding
FD85 – Thread Together (Oil and Gas)	2RL/3RL – Ring Lock Proprietary Interchange	Gas-Mate™ - Gas Systems
FD86 – Thread Together 5,000 psi Dry Break	Full-Bore – Pressure Relief	Flex-Air™ - Flexible Industrial Air Tool
W6000 – Thread Together PED 97/23 EC	210/310 – Pin Lock	In-Line Check Valves
HP3 – 10,000 psi Hydraulic Tool	FD17 – High Pressure Rescue Air	FS - Flow Sensor
WA56000 – 10,000 psi Hydraulic Tool		FD15 – Oil Sampling
FD35 – 10,000 psi Hydraulic Tool/Jack		FD90 - Diagnostics
FD48 – AG Interchange		FF14802 Pressure Gauge - Diagnostics
FD72/76 – AG Interchange		5400 – Air Conditioning and Refrigeration

*Found in Quick Disconnect Master Catalog - AF435258198969en

Quick Disconnect couplings

Reference

Reference literature

Data Center Liquid Cooling Brochure

Publication #:

AD426643320679en

Danfoss Hansen QDC Catalog

Publication #:

AF435258198969en

Danfoss Hansen QDC wall chart

Publication #:

AV442154257138en

Technical support:

For further questions and support, please contact Danfoss technical support at 1-888-258-0222 or

fpgproductssupport@Danfoss.com

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California Proposition 65 Warning

Regarding Danfoss brass products.

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains lead and other chemicals which are known to the state of California to cause cancer and birth defects or other reproductive harm.

CAUTION: A Proposition 65 warning may be required for any item removed from the package for sale separately if an item is to be sold or offered for sale in California.

**IT IS ILLEGAL TO USE THIS PRODUCT
FOR DRINKING WATER OR OTHER
POTABLE SERVICES.**

CAUTION: The warning must accompany any item removed from the package for resale.

www.P65/warnings.ca.gov

Reference materials





Index - 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: At 13 U.S. gallons per minute, what is proper hose size within the suggested velocity range for pressure lines?

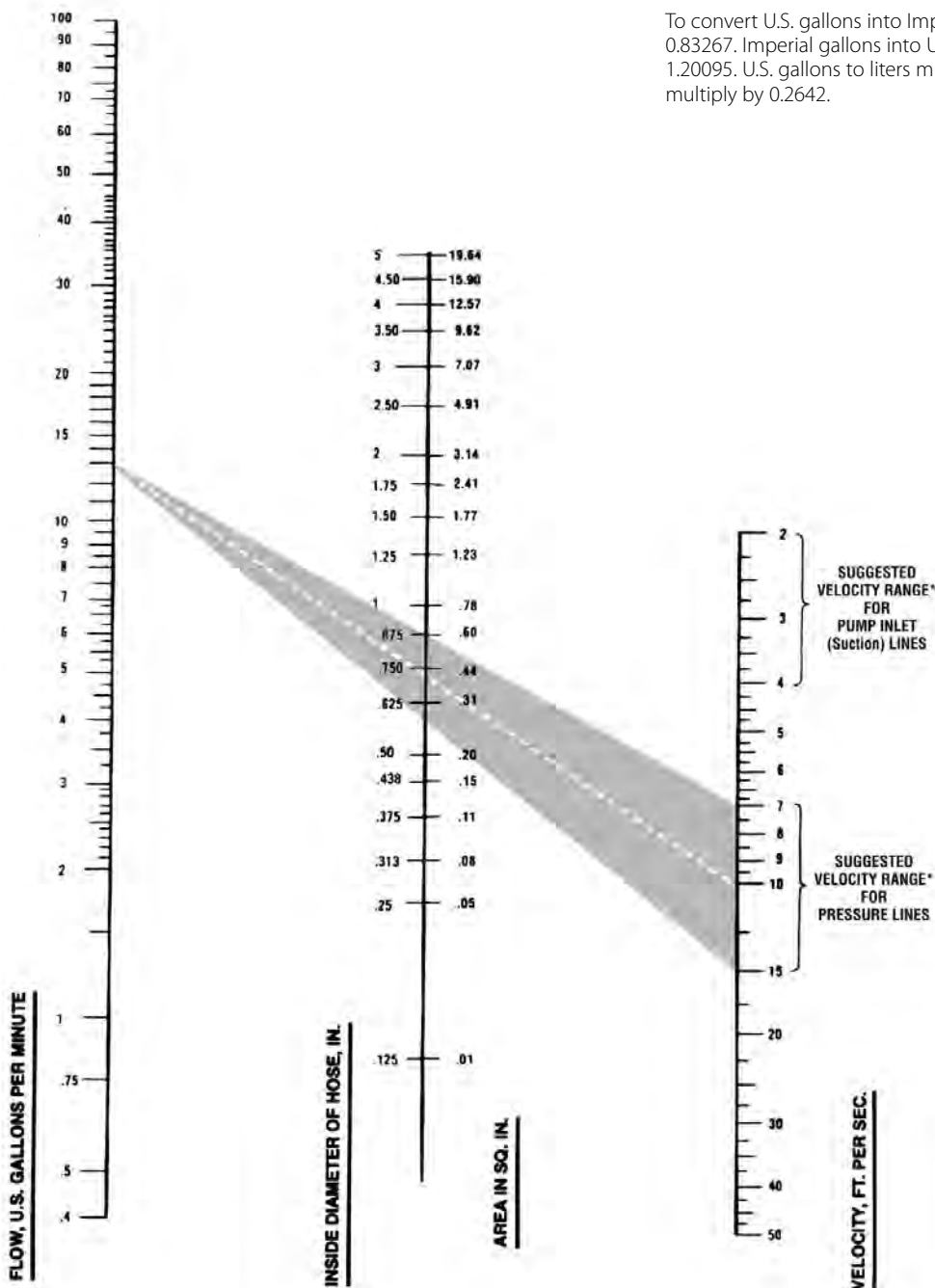
Solution: Locate 13 U.S. gallons per minute in the left hand column and 10 feet per second in the right hand column (the center of the suggested velocity range for pressure lines). Lay a straightedge across the two points. The inside diameter is shown in the center column nearest the straight edge.

For suction hose, follow the same procedure except use suggested velocity range for pump inlet lines in the right hand column.

$$\text{Area (sq. in.)} = \frac{\text{G.P.M.} \times 0.3208}{\text{Velocity (FT./SEC.)}}$$

* Suggestions are for oils having a maximum viscosity of 315 S.S.U. at +100°F (+38°C) and operating at temperatures between +65°F and +155°F (+54°C to +69°C). Under certain conditions, velocities in pressure lines can be increased up to 25 feet per second. Contact Danfoss with specific information on your application.

To convert U.S. gallons into Imperial gallons multiply U.S. gallons by 0.83267. Imperial gallons into U.S. gallons multiply Imperial gallons by 1.20095. U.S. gallons to liters multiply by 3.785. Liters to U.S. gallons, multiply by 0.2642.



Index - Hose selection

Flow capacities pressure drop

Flow capacities pressure drop

Pressure drop in psi (pounds per square inch)/
gpm (gallons per minute) for 10 feet of hose
(smooth bore) without fittings.

Fluid specification:
Specific gravity = 0.85;
Viscosity = ν =
20 centistokes (C.S.),
(20 C.S. = 97 S.S.U.).

Hose pressure drop

Hose dash size	-04		-05		-06		-08		-10		-12		-16		-20		-24		-32		-40	-48
Hose I.D. (inches)	0.19	0.25	0.25	0.31	0.31	0.38	0.41	0.50	0.50	0.63	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.81	2.00	2.38	3.00
0.25	10	3.1	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.50	19	6	6	2.7	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	40	12	12	5.5	5.5	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	95	24	24	10	10	4.8	3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	185	46	46	17	17	7	5	2.2	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	78	78	29	29	12	8	3	3	1.2	1.2	-	-	-	-	-	-	-	-	-	-	-
5	-	120	120	44	44	18	12	4.5	4.5	1.6	1.6	0.72	-	-	-	-	-	-	-	-	-	-
8	-	-	-	95	95	39	26	10	10	3.6	3.6	1.4	0.60	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	59	40	15	15	5.7	5.7	2	1	0.55	-	-	-	-	-	-	-	-
12	-	-	-	-	-	80	52	20	20	7.2	7.2	2.6	1.5	0.75	0.43	-	-	-	-	-	-	-
15	-	-	-	-	-	-	75	30	30	10	10	4.2	2.2	1.2	0.67	0.38	-	-	-	-	-	-
18	-	-	-	-	-	-	107	40	40	15	15	6.3	3	1.5	0.70	0.55	0.35	-	-	-	-	-
20	-	-	-	-	-	-	-	49	49	19	19	8	3.4	2	1.1	0.65	0.43	0.27	-	-	-	-
25	-	-	-	-	-	-	-	72	72	26	26	11	5.5	3	1.6	1	0.64	0.40	0.17	-	-	-
30	-	-	-	-	-	-	-	-	-	34	34	14	7	3.6	2.2	1.3	0.80	0.52	0.22	0.14	-	-
35	-	-	-	-	-	-	-	-	-	47	47	19	9.5	5	2.8	1.7	1.1	0.70	0.27	0.18	-	-
40	-	-	-	-	-	-	-	-	-	-	-	25	12	6.5	3.4	2.2	1.4	0.90	0.38	0.24	-	-
50	-	-	-	-	-	-	-	-	-	-	-	36	17	9	5.3	3.3	2	1.3	0.54	0.35	0.15	-
60	-	-	-	-	-	-	-	-	-	-	-	50	23	12	7.5	4.4	2.8	1.8	0.75	0.45	0.20	-
70	-	-	-	-	-	-	-	-	-	-	-	-	31	17	9.3	6	3.8	2.4	1	0.65	0.30	-
80	-	-	-	-	-	-	-	-	-	-	-	-	38	21	12	7.1	4.6	3	1.2	0.76	0.34	0.11
90	-	-	-	-	-	-	-	-	-	-	-	-	49	27	15	9	5.9	3.8	1.5	1	0.45	0.13
100	-	-	-	-	-	-	-	-	-	-	-	-	-	33	19	12	7	4.7	1.9	1.3	0.55	0.18
150	-	-	-	-	-	-	-	-	-	-	-	-	-	60	36	22	13	8.5	3.4	2.2	1	0.33
200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	23	15	6	3.9	1.7	0.55
250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	33	22	8.5	5.3	2.5	0.75
300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	29	12	7.5	4	1.1
400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	21	14	6.5	2.2
500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	20	10	3
800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	5
1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

* Pressure drop values listed are typical of many petroleum based hydraulic oils at approximately +100°F (+38°C). Differences in fluids, fluid temperature and viscosity can increase or decrease actual pressure drop compared to the values listed.

To convert U.S. gallons into Imperial gallons multiply U.S. gallons by 0.83267. Imperial gallons into U.S. gallons multiply Imperial gallons by 1.20095. U.S. gallons to litres multiply by 3.785. Litres to U.S. gallons, multiply by 0.2642.

New hose selection

Worksheet

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 guide.

When selecting a hose, always use this worksheet in conjunction with this guide. Read all instructions concerning the hose you are selecting.

If any questions arise contact Danfoss technical support at 1-888-258-0222.

- 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 RMA Water Discharge table.

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 and 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? _____

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

5. Pressure and 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

If you have any questions, please contact Danfoss Technical
Support at 1-888-258-0222.

ENGINEERING
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