

## RHHF Quick Reference Guide (RHHF: Rubber Hydraulic Hose & Fittings)

REGION: NORTH AMERICA

### Leading Brands:

#### Weatherhead® Premium

Weatherhead®, founded in the 1920s, has one of the industry's broadest offerings of hydraulic hose, hose ends, assembly equipment, tube fittings, couplings and support accessories. Weatherhead by Danfoss products are widely used in construction, mining, agriculture, truck and bus applications.

#### Winner™ Standard

Winner™ by Danfoss hose lives up to its name, delivering quality and craftsmanship at a standard-performance price. You get it all with the Winner by Danfoss hose line. Great value and system-matched performance — plus consultative engineering expertise and responsive technical support. Winner is the perfect standard tier hose to round out a complete portfolio, so you get the perfect hose for every application.

### Value Beyond Products

#### We are more than our products

Danfoss provides more than quality products for every application; we provide an entire global team dedicated to:

**System matched offerings:** Danfoss hoses, fittings, crimp machines and accessories are all engineered to work together to provide the most reliable hose assembly in the industry.

**Design expertise:** Danfoss offers access to experienced engineers who are ready to help solve specific platform design issues or simply bring fresh engineering ideas.

**Responsive technical support:** Questions on our products? Danfoss tech support is there for you. Call our tech support experts to review your issue step by step.

**Robust supply chain:** Supply chain issues can affect your business. Danfoss has a supply chain with built in redundancy to reduce the impact of supply issues.

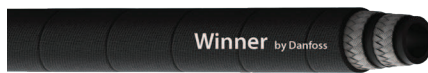
**Competitive pricing:** Danfoss' two-tier strategy provides options. Need a cost competitive hose that meets specs? Review our Winner hose options. Have a more intense application that needs to stand the test of time? Check out options in our Weatherhead premium brands.

### 2-Tier Selling Premium & Standard

Always consider the best product for the application. Understand the application requirements and customer needs. Some platforms will be able to utilize both premium and standard product.



Premium Tier: **Exceed** specifications with increased ratings for pressure, temperature, abrasion (8x) and impulse life, while meeting industry certifications for ISO, ABS, DNV, etc. Includes hoses specified for high temp (up to 302° F), low temp (as low as -70°F) and high abrasion (up to 700x greater than standard hoses).



Standard Tier: **Meet** the standard specifications of SAE/EN for operating pressure, temperature, abrasion resistance and impulse life. They do not exceed the specifications.

Example of 2-wire braided hose tiers

### Hose Types & Construction Braided & Spiral

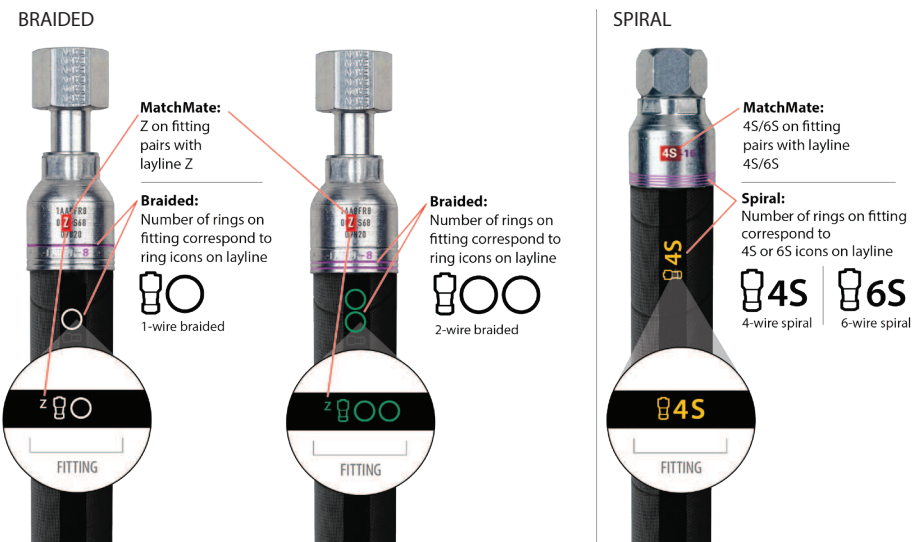


**TUBE: Conveys fluid.** Danfoss has several specialty tubes including Dura-Pulse®, AQP/CPE elastomer tube and Nitrile

**REINFORCEMENT: Gives hose its strength.** Braided hose is flexible and is suited for medium/high pressure applications. Spiral hose is more rigid than braided, but stronger and works well in high pressure applications.

**COVER: Protects the hose.** Weather, oil and abrasion resistance. Danfoss specialty covers include Dura-Tuff™ and Bruiser™.

### RHHF Hose Assemblies (Hose + Fitting = Hose Assembly) Rubber Hydraulic MatchMate™ System



#### BRAIDED

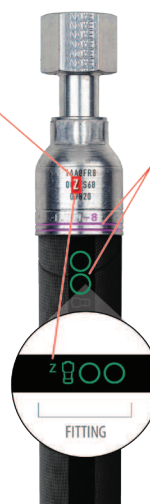


**MatchMate:** Z on fitting pairs with layline Z

**Braided:** Number of rings on fitting correspond to ring icons on layline



1-wire braided

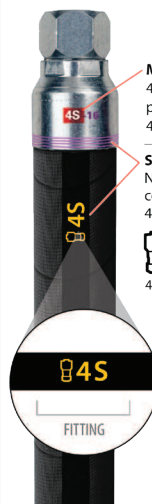


**Braided:** Number of rings on fitting correspond to ring icons on layline



2-wire braided

#### SPIRAL



**MatchMate:** 4S/6S on fitting pairs with layline 4S/6S

**Spiral:** Number of rings on fitting correspond to 4S or 6S icons on layline



4-wire spiral | 6-wire spiral

**Core Two-Tier Hoses** \*NOTE: This chart is a representation of our core hoses, NOT a complete list of our RHHF hose product portfolio.

SPECS	HOSE TYPE	PRESSURE RANGE	STANDARD TIER	Premium Tier			
				Premium	Low Temp	High Temp	Abrasion
			Hose Brands				
			WINNER	WH	WH	WH	WH
SAE 100R1, EN 857 Type 1SC	1B	580 to 3,625 psi	EC115	H180	-	H190H	H145R
SAE 100R2, EN 857 Type 2SC	2B	1,300 to 6,500 psi	EC215	H280	H245L	H290H	-
				H881			
SAE 100R4	2B	60 to 305 psi	WH004	H039	-	-	-
SAE 100R12	4S	2,550 to 6,500 psi	EC415	H430	-	EC525	H430R
SAE 100R13	4S/6S	5,100 psi	EC420	H471	-	-	-
SAE 100R15	4S/6S	6,100 psi	-	EC600	EC810	-	-
SAE 100R17	1B/2B	3,000 psi	EC118	H145	-	-	-

- Hose Type:**  
**1b:** 1 Wire Braid  
**2b:** 2 Wire Braid  
**4s:** 4 Wire Spiral  
**6s:** 6 Wire Spiral
- Hose Brand:**  
**Wh:** Weatherhead
- Hose Class:**
- Standard
  - Premium
  - Low Temp
  - High Temp
  - Abrasion

**Fittings**

**Braided hose fittings**



**Premium**  
Z series\*

- **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



**Premium**  
1R/2R reusable

- **Dura-Kote™** plating technology for up to 1,000 hours of corrosion resistance
- Option to assemble in field without special tooling
- Reduced downtime and quick repair
- Engineered to provide peak performance with Danfoss' core braided hose products



**Standard**  
Two-piece Winner

- 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

**Spiral hose fittings**



**Premium**  
4S/6S spiral series

- **Dura-Kote™** plating technology for up to 1,000 hours of corrosion resistance
- Our patented **Dura-Seal™** technology to eliminate hose assembly cool-down leakage
- Class zero leakage SAE J1176 on approved hose styles

**Machines** \*NOTE: More crimp machines can be found in the Core Crimp & Tooling brochure AI426662111733en-000101

**ET1187**



**VOLUME:** Low  
**TYPE:** Variable  
**BRAIDED:** Up to 1.25"  
**SPIRAL:** Up to 1"  
**APPLICATION:** Portable, job shops, maintenance departments

**ET1000**



**VOLUME:** Low  
**TYPE:** Positive stop  
**BRAIDED:** Up to 1"  
**SPIRAL:** Up to 1"  
**APPLICATION:** Portable, job shops, maintenance departments

**FT1380/FT1380e**



**VOLUME:** Medium  
**TYPE:** Variable  
**BRAIDED:** Up to 1.25"  
**SPIRAL:** Up to 1.25"  
**APPLICATION:** Hose distributors, small assembly shops

**T-420**



**VOLUME:** Medium  
**TYPE:** Positive stop  
**BRAIDED:** Up to 1.25"  
**SPIRAL:** Up to 1.25"  
**APPLICATION:** Hose distributors, small assembly shops, factory, construction, mines

**Literature & Tools**



Weatherhead Master W-HYOV-MC002-E5



Weatherhead Field Guide AD424137965891en-000201



Weatherhead Core Products W-HOOV-BB010-E5



Winner Hose & Fittings E-HOBR-MB002-E7



Core Machines & Tooling AI426662111733en-000101

**Important Links:**

- [danfosspowersource.com](http://danfosspowersource.com)
- [danfoss.com/crimp](http://danfoss.com/crimp)

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**Contacts**

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**Product Technical Support:**

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**Product Training:**

[hydraulicstraining@danfoss.com](mailto:hydraulicstraining@danfoss.com)

**Crimp Machine Information:**

[www.danfosscrimpersupport.com](http://www.danfosscrimpersupport.com)

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