Danfoss FD17 Series Quick Disconnect Coupling Instruction Manual

Contents

Danfoss FD17 Series Quick Disconnect Coupling

Product Information

Specifications:

- Product Name: Danfoss FD17 Series Quick Disconnect Coupling
- Pressure Capacity: Up to 4,500 psi/310 bar
- Application: Breathable air transfilling for SCBA applications

Product Usage Instructions

Connection:

1. Wipe any debris off the male and female couplings and caps.
2. Remove the male Sealing Cap.
3. Remove the female Protective Cap.
4. Align the male and female components and push them together without holding the Release Sleeve.

Disconnection:

1. Unlatch the coupling by pulling back on the Release Sleeve.
2. Pull the female end from the male in an aligned manner, avoiding abrupt or angled disconnection.
3. Avoid releasing the female end to fall to the ground to prevent damage.
4. Install the male Sealing Cap and female Protective Cap to keep inner workings debris-free.

Maintenance:

If debris is found inside the components, do not attempt to clean with alcohol or power washers. Replace the coupling if heavy debris is present to prevent further damage.

FAQ

- **Q: What should I do if I hear a loud pop during connection?**
    - A: If a loud pop occurs during connection, it indicates damage to internal components. Replace the

coupling immediately.

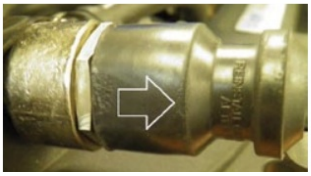
- **Q: Can I clean the coupling with alcohol or a power washer?**
  - A: Do not clean the coupling with alcohol or power washers. Replace the coupling if heavy debris is present.

FD17 Purpose

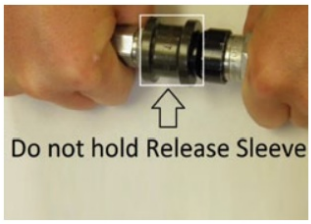
The FD17 is used specifically to support breathable air-transferring applications through its high “balanced pressure” design. The coupling is simple to use by hand under pressures up to 4,500 psi/310 bar. The coupling is most often used for breathable air SCBA applications.

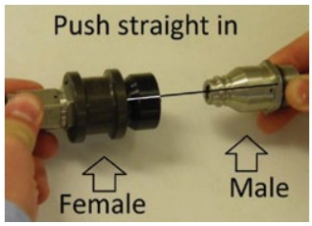
Connection

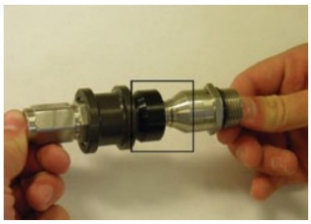
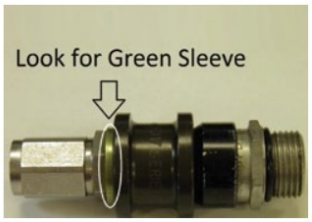
1. Wipe any debris off of the male and female couplings and caps.
2. Remove the male Sealing Cap as shown above left and avove.
3. Remove the female Protective Cap as shown above.
4. Align the male component to the female component and push them together.




   - 4a. Note: When connecting, the Release Sleeve should not be held.
   - 4b. Note: The alignment of the male and female components is crucial in order to connect them properly. They should be directly in line with each other. Connection made at an angle can cause damage to one or both of them.
   - 4c. Note: Connect couplings smoothly. The highlighted area as shown above is the most sensitive when connecting the female and male components. If they are pushed together too abruptly, it could cause damage to the internal components resulting in a loud pop or dificult connection. This would be cause for replacement.
5. Once connected, you will see the Green Sleeve shown in the photo above. This Green Sleeve indicates proper connection and air should flow properly.





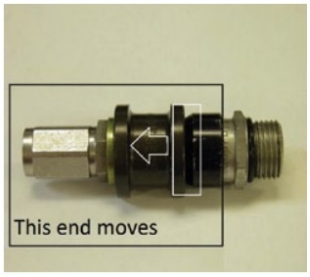



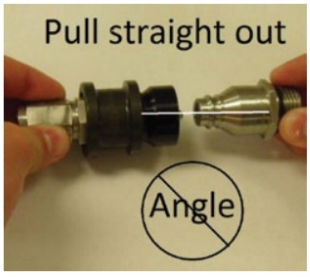
Disconnection

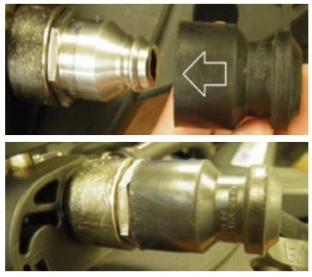
1. Unlatch the coupling by pulling back on the Release Sleeve. Pull away from the male half as shown with the arrow above. You should see a gap as indicated in the second photo above right, and the green sleeve is no longer visible. The highlighted areas in the pictures above indicate what changes when disconnecting to ensure accuracy.
2. Pull the female end (connected to the hose) from the male. Refer to the highlighted sections above for reference. This needs to be an aligned disconnection. Alignment is crucial in order to obtain the maximum life

of the coupling. Do not pull the components apart abruptly or at an angle. This could result in damage within either half. Please note the reference line in the figure.

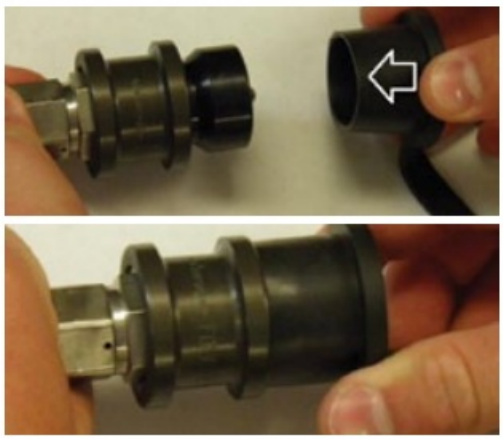
3. When the components are fully disconnected, ensure that the female end (typically connected to the hose) is not released to fall to the ground. The component could hit a surface that may result in damage.
4. Install the male Sealing Cap.
   Note that the Sealing Cap is a key function device for the coupling. It keeps the inner workings debris-free and most importantly provides a secondary sealing cap for the coupling







   - 4a. Note: The internal probe shown in the photo above inside the Sealing Cap is a redundant seal ensuring no leaks in the disconnected state.
5. Install the female Protective Cap. Note that the Protective Cap is a key function device for the coupling. It keeps the inner workings debris-free.

Maintenance

- In order to maintain function, please inspect for the following after use: a broken lanyard, debris inside the components, any dents due to collision with external entities, and any leaks when the coupling is fully assembled.
- A leak can be noted by a hissing sound. Also, if a loud pop occurs while using the coupling, there may be damage to the male component, specifically to the seals. This is referenced in the connection section. If it is damaged, it is recommended to replace the coupling. Damage would result in a leak.
- If debris is found inside the components, do not attempt to clean with any type of alcohol or by use of a power washer. Extensive cleaning of packs should only be performed when caps are properly installed on the male and female components. If heavy debris is inside the coupling, cleaning within may only push debris further inside causing more damage. It is recommended to replace it.
- If any dents are visible, verify they will still connect. Also, check that the female probe is properly aligned. The probe should be parallel to the outer sleeve and easily engage the male half in connection.
- If the coupling is not being used on a regular basis, periodically on a monthly basis, connect and disconnect the components in order to ensure that they are working properly before use. See the connection and

disconnection instruction above for reference.

Key Points

The Sealing Cap and the Protective Cap are key function devices for the coupling. They keep the inner workings debris-free. Also, the probe in the male cap is a redundant seal ensuring no leaks in the disconnected state. Alignment is crucial in order to obtain the maximum life of the coupling. If not properly aligned, the inner workings of the coupling may be damaged. The components should be connected straight in and disconnected straight out. Do not connect or disconnect abruptly. Proper inspection is needed for maximum life. See the Maintenance section for reference.

About

Danfoss Power Solutions

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster. We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components. Danfoss Power Solutions – your strongest partner in mobile hydraulics and mobile electrification.

Products we offer:

- Aeroquip by Danfoss
- Boston by Danfoss
- Danfoss Hansen
- Danfoss Waltech
- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
- Hydrostatic motors
- Hydrostatic pumps
- Orbital motors
- PLUS+1® controllers
- PLUS+1® displays and sensors
- PLUS+1® joysticks and pedals
- PLUS+1® operator interfaces
- PLUS+1® software services, support and training
- PLUS+1® software
- Position controls and sensors
- PVG proportional valves
- SEL by Danfoss
- Steering components and systems

- Synflex by Danfoss
- Telematics
- Weatherhead by Danfoss
- Winner by Danfoss

Go to **www.danfoss.com** for further product information.

Danfoss Power Solutions (US) Company

- 2800 East 13th Street
- Ames, IA 50010, USA
- Phone: +1 515 239 6000

Danfoss Power Solutions GmbH & Co. OHG

- Krokamp 35
- D-24539 Neumünster, Germany
- Phone: +49 4321 871 0

Danfoss Power Solutions ApS

- Nordborgvej 81
- DK-6430 Nordborg, Denmark
- Phone: +45 7488 2222

Danfoss Power Solutions Trading (Shanghai) Co. Ltd.

- Building #22, No. 1000 Jin Hai Rd
- Jin Qiao, Pudong New District
- Shanghai, China 201206
- Phone: +86 21 3418 5200

Documents / Resources

	Danfoss FD17 Series Quick Disconnect Coupling [pdf] Instruction Manual BC512745612591en-000101, FD17 Series Quick Disconnect Coupling, FD17 Series, Quick Disconnect Coupling, Disconnect Coupling, Coupling

References

- Engineering Tomorrow | Danfoss
- User Manual