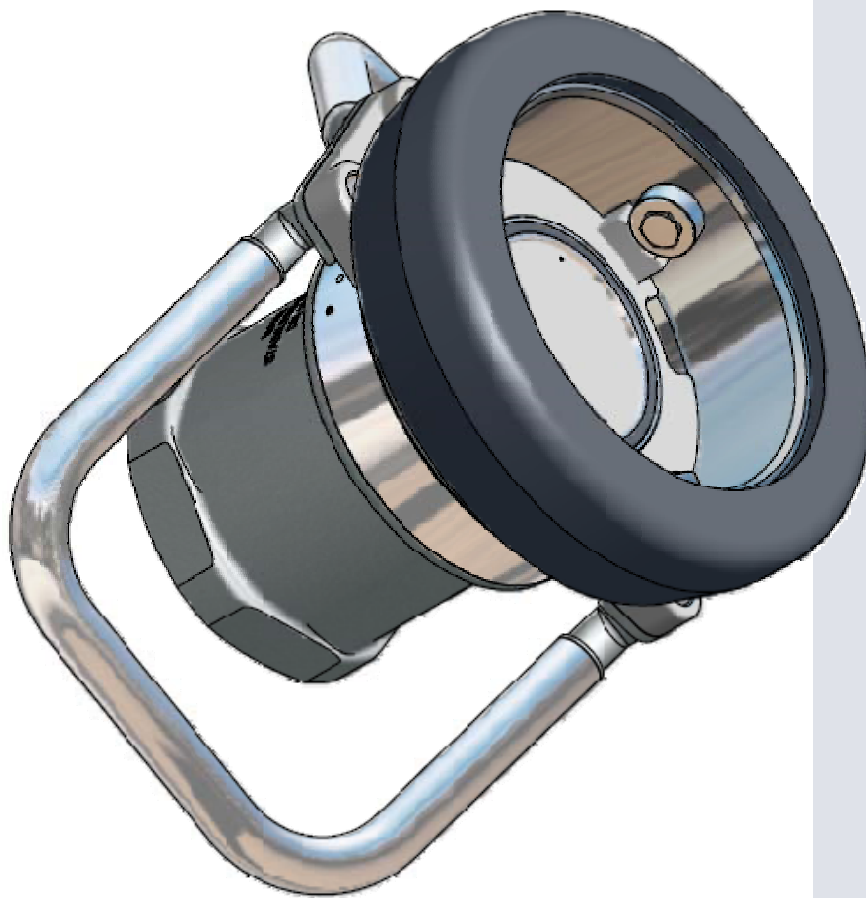




DDCouplings®

Dry Disconnect Couplings



Service Instruction

4" Hose Unit



Quality, Health, Safety and Environment Policy

Our objectives are simple – no accidents, no occupational illness or work related accidents, no negative environmental impact and optimizing and continuously improving customer satisfaction wherever we operate.

Mariestad, February 28 2008

A handwritten signature in blue ink, appearing to read "Tony Mann".
Tony Mann

What does this mean?

In our daily work to develop, sell, deliver and maintain our products this means to act as soon as we recognize a risk for:

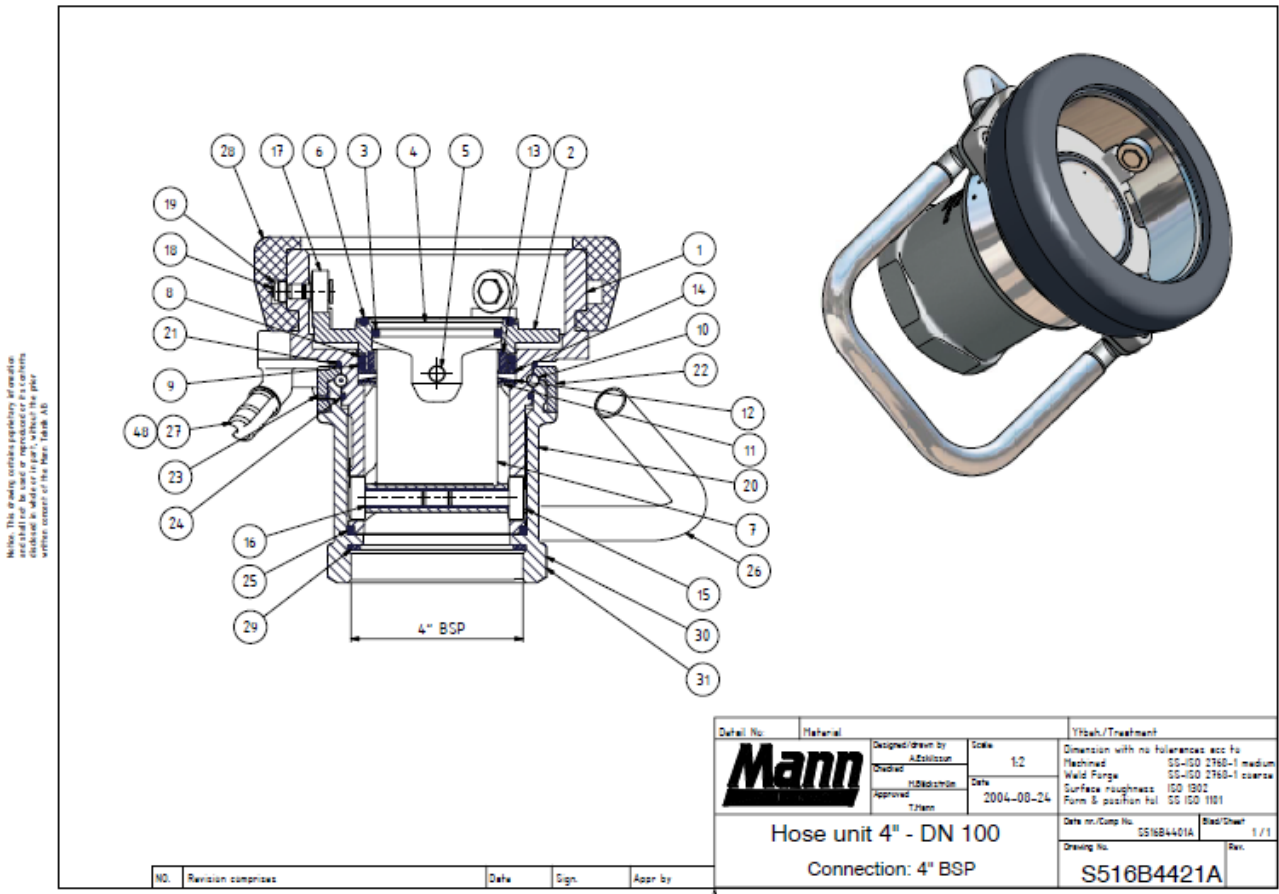
- Delivery of products with insufficient technical quality
- Giving incorrect information
- Not complying with laws and regulations concerning our operation
- Causing negative environmental impact
- Causing occupational illness or accidents
- Not be able to keep promises on delivery terms (product and information)

To act, here means to point out the risk and to make sure we take a balanced decision to prevent what is undesired.

(This policy includes all that is traditionally covered in separate policies for quality, health, safety and environment)

HOSE UNIT 4"

Material: Al, Br, SS



Parts needed for service: Spare part kit and O-ring kit (see page 4)

Perform a service: If leaking
Every year
Change of media



Please note!

Make sure that you are using the right type of O-rings and seals for the media you are using. We are using a standard grease Mann no F1 for standard media, by special media please contact us.

Maintenance and service instruction



Always depressurise the system and rinse off the parts before beginning any maintenance work. Use protective goggles. Do not handle O-ring seals if the material appears charred, gummy or sticky.



Use tweezers and wear neoprene or PVC gloves. Do not touch adjacent parts with unprotected hands. Rinse off the parts once again before starting the “daily inspection”

Daily inspection

1. Inspect the coupling surface for cleanliness and corrosion.
2. Inspect the O-ring in the house unit connection for serviceability and correct seating in the groove.
3. Inspect the hose unit swivel for free rotation.
4. Inspect the tank- and hose unit for faultlessness and external signs of seizure.
5. Take care that swivel sleeve is screwed on completely and lock screw is available and secured

Three-month inspection

1. Exterior cleaning of the coupling halves with a neutral cleanser.
2. Careful “daily inspection” of cleaned units.

Once a year

1. Exchange sealing and washer at least once a year.
2. Refill the hose unit ball bearing grooves with grease
3. Replace worn or damaged components. Repair procedures are straightforward and no special tools are required.

Check the state of the connection surface and verify that it is clean before proceeding with the connection.

Couple the repaired unit to a serviceable hose or tank unit as appropriate and check for correct operation of the valve actuating and bayonet locking mechanism. Couple and uncouple the unit(s) several times.

Use only original Mann Technik spare parts for maintenance.

Spare part kit (S-S5-xx)

O-ring kit (O-S5-yy)

xx and yy means the material key according to the product catalogue. You will find it also as the 6th to 9th sign in the serial number (e.g. S516AxxyyB).



Begin with unscrewing and remove the lock screw from the swivel ring.

Tool: Hexagon wrench No. 2



**Mark the position of swivel sleeve against swivel ring with an Ø8 mm pin.
Unscrew and remove swivel sleeve from swivel ring.**

Tool: Adjustable wrench



Change the Teflon® ring (pos.25) on the top of the coupling body.

Teflon® is a registered trademark of DuPont Dow Elastomers.



Remove the two shafts for piston guide, by applying pressure to the driving plate packet so that it moves down 2 mm. So that the driving plate packet is released from the rollers.



Turn the driving plate to the position where the recess ends up under the rollers under pressure to the driving plate packet.

Remove the driving plate packet from the hose unit body.



Remove the protective ring.

Tool: Screw driver



If necessary change O-ring (pos.21) for dust –protection. Use grease on the new O-ring.

Dismount the handle before you change O-ring.

Tool: Allen key 6 mm



Change the three shafts (pos.18), locking nuts (pos.19) and rollers (pos.17) to new ones.

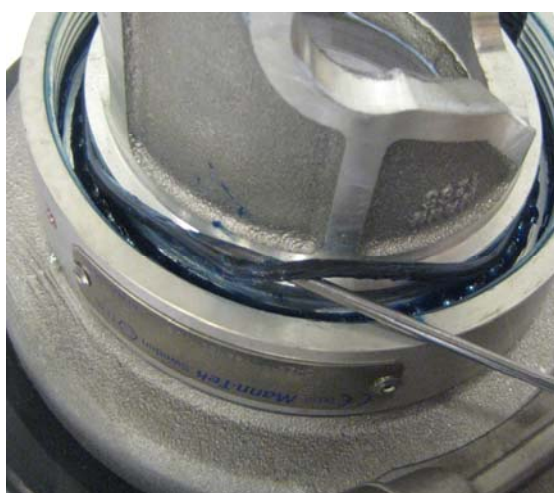
Tool: Standard wrench 13 mm



Check the rollers for easy rotation.



**Mount the protective ring back on again.
To ease the mounting of the protective ring applying grease on the inside of the protective ring is recommended.**



Change the O-ring (pos.24) from the groove in the coupling body. Use grease on the new part. Apply grease on the balls for best possible swivel rotation.

A mounting sleeve is recommended to mount the o-ring. If no sleeve is available a plastic strip can be taped around the body to cover the cam curves.



Change the O-ring (pos.8) and Teflon® ring (pos.9) on the driving plate back side. Use grease on O-ring.

Make sure that the O-ring doesn't get twisted when mounting.



Change the Teflon® bushing (pos.13) to new ones on both sides.



Change the O-ring (pos.6) on the driving plate front side. Use grease on O-ring.

Make sure that the O-ring doesn't get twisted when mounting.



Change the O-ring (pos.3) on the piston. Use grease on the new O-ring. Make sure that the O-ring doesn't get twisted when mounting.

Press down the O-ring with your thumb. Make sure that the O-ring fits into the groove.

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Change the Teflon® bushing (pos.16) to new ones on both sides.



Before the coupling body places on the driving plate packet, make sure that the part where the upper cam curve ends, shall be placed exactly over one roll, and the heel on the driving plate packet should be placed under the hole for the shaft.

Place the coupling body over the driving plate packet. Grab the piston guide and turn the unit upside down.

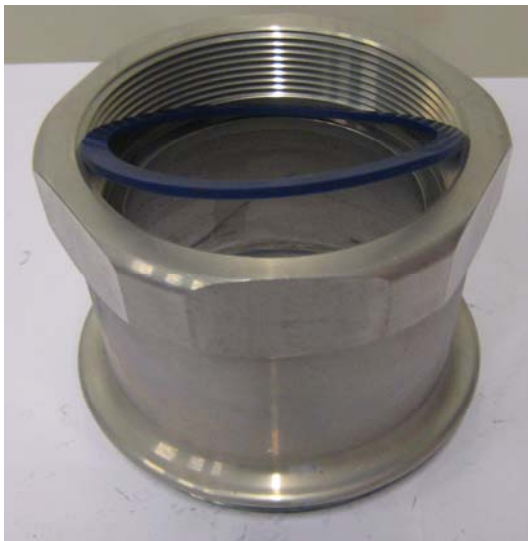


Press down and turn the driving plate to the position where the driving plate heels are placed under the rollers.

Teflon® is a registered trademark of DuPont Dow Elastomers.



Assemble the two shafts for piston guide when applying pressure to the driving plate packet.



Place a new flat seal (pos.29) on the swivel sleeve. (Not needed when NPT-thread).



Place the swivel sleeve over the coupling body and screw in the swivel sleeve.

Take care that the markings you made in the beginning are aligning.

If necessary apply anti seize lube on the threads.



Use Loctite® 243 and screw the lock screw into the swivel ring without any force! Risk to deform the ball bearing!

Apply sealing wax on the top of the lock screw after screwing it in, to prevent misuse.



Finally, make a visual inspection that everything is in its place. Do also a test connection / disconnection with a tank unit that not has any fluid inside. If the coupling works alright you are ready to mount the hose unit on your hose again.

Loctite® is registered trademark of Henkel.

TEST PROCEDURE

Tank- and Hose Unit are tested according to following procedure:

Working pressure PN 16 (16bar/240 psi)

Tank- and Hose Unit disconnected

0.2 bar in min. 30 sec. with air under water – no bubbles

6 bar in min. 30 sec with air under water – no bubbles

25 bar in min. 30 sec with water – no leakage of water

Tank- and Hose Unit connected under bending spraying leak finder round the coupling

0.2 bar in min. 30 sec with air – no sound of leaking air

6 bar in min. 30 sec with air – no sound of leaking air

25 bar in min. 30 sec with water – no leakage of water

Working Pressure PN 25 (25bar/375 psi)

Tank- and Hose Unit disconnected

0.2 bar in min. 30 sec. with air under water – no bubbles

6 bar in min. 30 sec with air under water – no bubbles

40 bar in min. 30 sec with water under water – no bubbles

Tank- and Hose Unit connected under bending spraying leak finder round the coupling

0.2 bar in min. 30 sec with air - no sound of leaking air

6 bar in min. 30 sec with air - no sound of leaking air

40 bar in min. 30 sec with water - no bubbles

Approved coupling stamps on the piston.

Number tested: 100%

Storage

Store coupling in a dry, dust free, dark place, in ambient temperature.

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