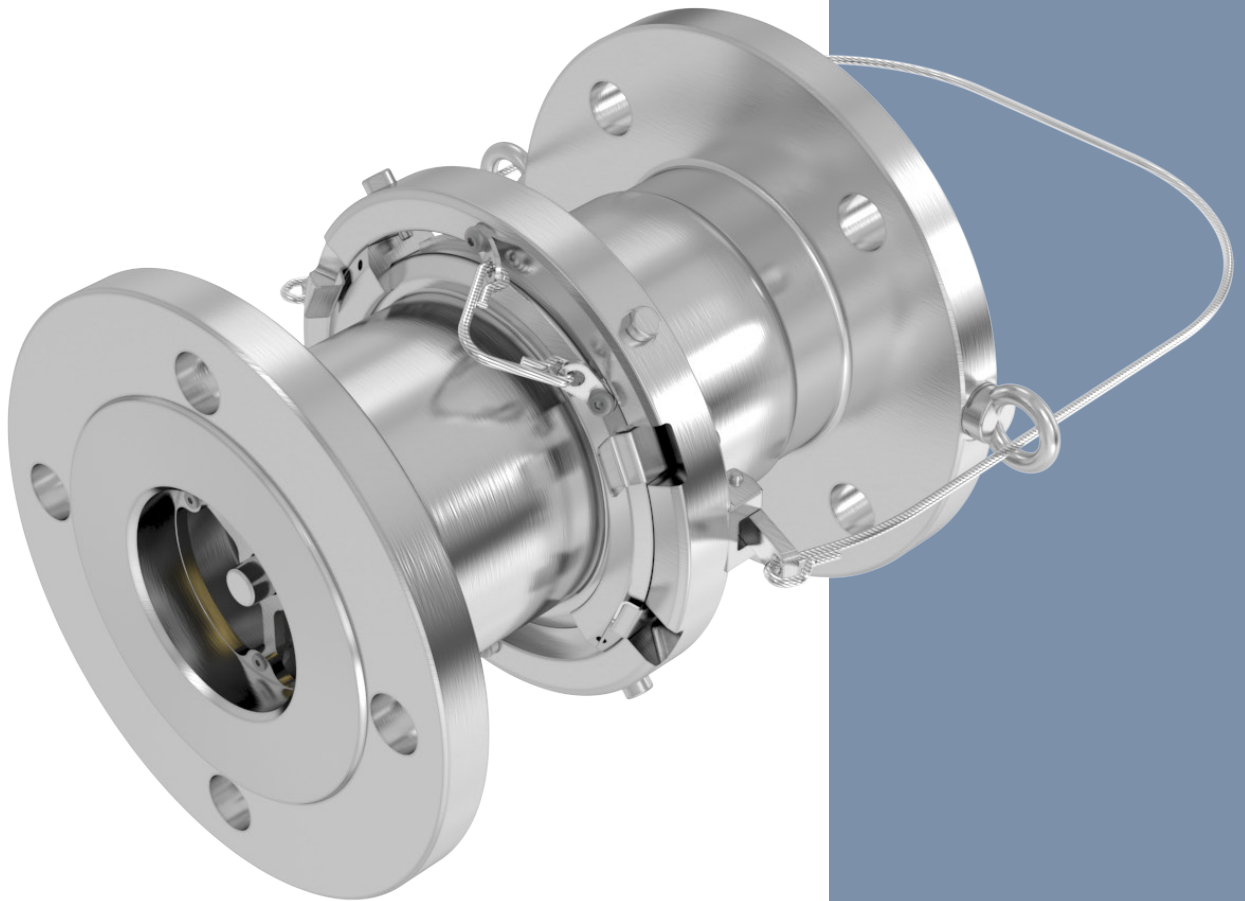


CBC Service instruction

Cable release – 2½"



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, December 14 2016



Markus Bäckström

What does this mean?

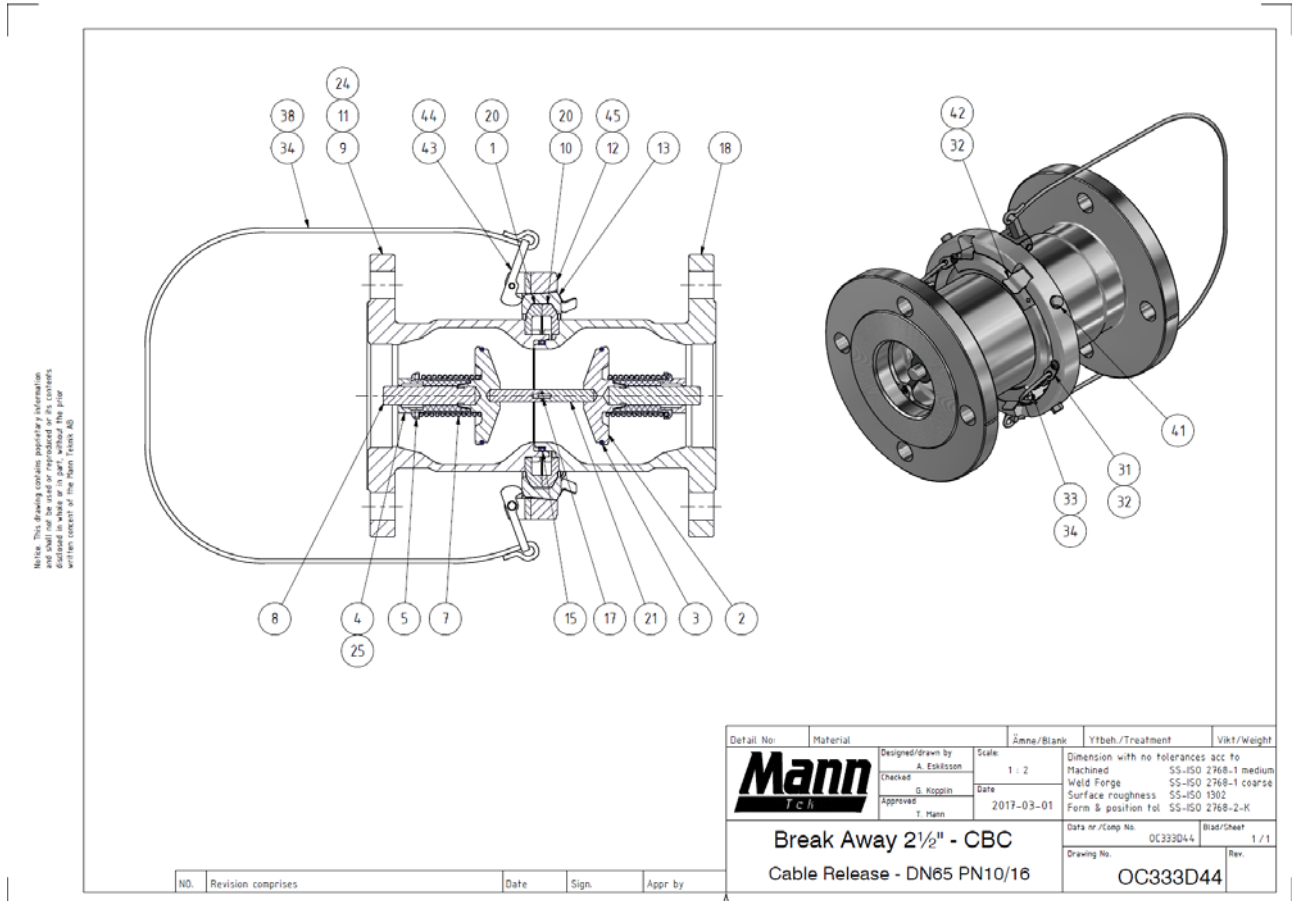
In our daily work to develop, sell, deliver and maintain our products this means to act as soon as we recognize a risk for:

- 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)

MATERIAL: SS



Parts needed for service:
Type of connection:

Spare part kit and Seal kit (see p. 4)
Threaded and Flanged couplings have the
same service instruction.

Perform a service:

If leaking
According to application service plan



PLEASE NOTE!

Make sure that you are using no grease for cryogenic applications.

PICTURES MAY DIFFER FROM ORIGINAL PRODUCT

MannTek

MAINTENANCE AND SERVICE INSTRUCTION



Always depressurise the system and rinse off the parts before beginning any maintenance work. Use protective goggles.



Use tweezers and wear gloves which are sufficient for cryogenic applications. Do not touch adjacent parts with unprotected hands. Rinse off the parts once again before starting the “daily inspection”

DAILY INSPECTION

All couplings should be briefly inspected at the start of each day’s operation. Check for dirt, seal damage and any obvious physical damage (such as impacts, etc.).

REGULAR SERVICE

Regular service interval is very much depending on local regulations and application conditions. If nothing else is specified and it is a new application with unknown parameters we recommend to make a first service after one year and decide then depending on the inspection result about further intervals.

The service procedure shall be as follows:

1. Exchange seals.
2. Replace worn or damaged components.

USE ONLY ORIGINAL MANNTEK SPARE PARTS FOR MAINTENANCE.

SPARE PART KIT

Example for a 2½” coupling (OC3...)

Seal kit (O-OC3-06)

AFTER RELEASE

When the coupling should go into service there is a danger that the fluid will spurt out. Special protective measures such as personal protection equipment must therefore be adopted. Always ensure the system is cleaned in the proper manner. After cleaning, remove any residue from the cleaning agent.



- Wear suitable personal safety equipment.
- Make sure that the coupling is depressurized and empty.
- Clean coupling before disassembly (use cleaning agent suitable for the pumped fluid).



DISASSEMBLE

Unscrew the three screws that lock the spindle steering.



There is a distance pin in the piston protruding from the housing.

For disassembling a support plate with a hole in the middle will avoid any damage of the piston.

Tool: Screwdriver



DISASSEMBLE

Press down the spindle steering and turn it free. Release it carefully



Piston guide is spring loaded. Risk of injury.

Using our special tool makes work easier and therefore increases safety.

Tool: TOOL-020

Repeat the same procedure with the second half.



DETAIL PARTS AFTER DISASSEMBLING

Take out all the parts from the body

- Pos.2 – Piston
- Pos.7 – Spring
- Pos.5 – Spring cap
- Pos.4 – Spindle steering
- Pos.18 – Body



PISTON O-RING

Replace the O-ring (pos.3) on the piston with a new O-ring.



Be careful when removing the O-ring. Do not scratch the sealing surface in the groove.



Make sure that the new seal doesn't get scratched when mounting.

For mounting the new O-ring use MannTek spare parts only.

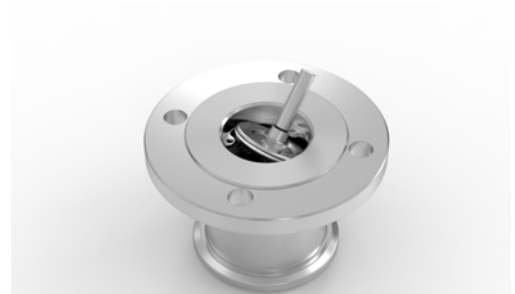


MOUNTING PISTON

The piston is bigger in diameter than the three brackets for the piston guide.

Introduce the piston as shown. Put it into a relaxing position in the valve seat. Take care; the piston is sticking out on the other side.

For assembling a support plate with a hole in the middle will be helpful.



REASSEMBLE COUPLING HALVES

Fit the spring, the spring cap and the spindle steering into the body. Press down the spindle steering and turn, to fix it in its position.



LOCKING THE SPINDLE STEERING

Fit the screws into the given holes in the body and fix the spindle steering by mounting the three locking screws. Use Loctite® 243 for locking the screws.

Repeat the same procedure with the second half.



REASSEMBLE COUPLING

Set both halves onto each other and press them carefully together.



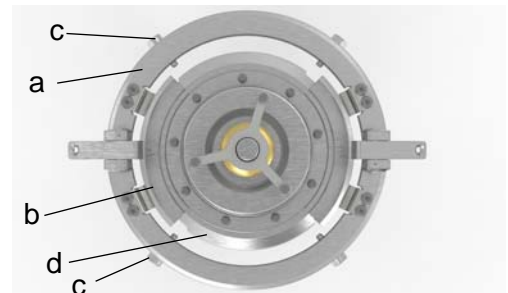
It is important that the bodies align to each other when pressing the halves together. Do it carefully, not to destroy the lip-seal.

Using a press and a fixture makes work easier.



FIX THE CLAMPS AND RING

Place the clamps (b) over the coupling flanges smaller diameter (d) and put the ring (a) over the clamps to hold them in place. Make sure that the bolts (c) are placed on either side of the clamps. After the coupling is completely reassembled provide a pressure test according to test procedure on page 8.



NOTE WHEN INSTALLING



Direction of release



LOCTITE® IS REGISTERED TRADEMARK OF HENKEL.



TEST PROCEDURE

After each service a tightness test of each coupling is mandatory.

The following test parameters are in accordance with EN12266, EN14432 and ISO5208:

Shell tightness test (air/N₂): 6 bar +/- 1bar stop time 60 s.

Instead of dry air / N₂ we recommend making the tightness test with liquid nitrogen or with LNG at minimum working temperature.

Approved couplings get stamped on the piston.

Number tested: 100%

STORAGE

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