SERVICE INSTRUCTION

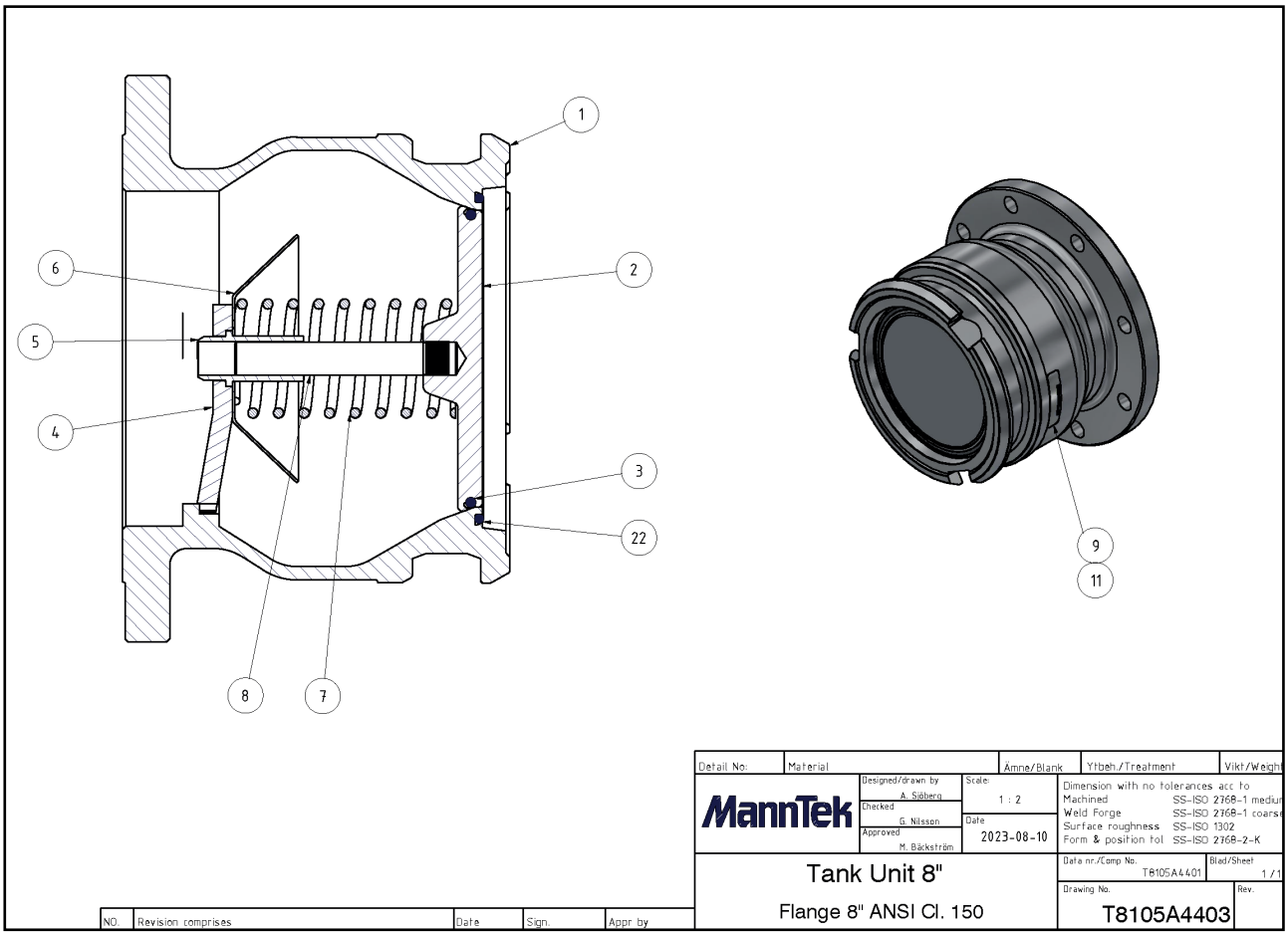
DDC - Tank Unit

8”

VERSION: 230906

ManTek

DDC – TANK UNIT – 8”



MATERIAL:	Aluminium, Stainless Steel
TYPE OF CONNECTION:	Threaded and Flanged couplings have the same service instruction.
PERFORM A SERVICE:	If leaking or change of media. According to application service plan, (see regular service p.4)

PLEASE NOTE

Make sure that you are using the correct material of O-rings and seals for the media you are using. We use a standard silicone based grease which is suitable for most applications, if you are unsure of suitability for your media please contact us.

ITEMS NEEDED FOR SERVICE

PARTS NEEDED FOR SERVICE:	Spare part kit and Sealing kit (for order numbers see the info box at the bottom of this page)
USEFUL TOOLS:	Tool 001 (O-Ring Tools)* Tool 030 (Tool for safely releasing the piston guide)* *Can be ordered from MannTek
SPARE PART KIT INCLUDES:	1 pc. PTFE bushing
OTHERS:	Tool 081 - Flouroflon® grease. (Chemical neutral silicon oil with PTFE. Used for O-rings)* *Can be ordered from MannTek
CLEANING AGENTS:	Strong clean® (Petroleum based degreasing agent) Alcohol (95 % chemical clean ethanol)

PLEASE NOTE

Use only original MannTek spare parts for maintenance

Spare part kit (S-T8-XX)

Sealing kit (O-T8-YY)

yy means the O-ring material key, xx means the coupling material according to the product catalogue. You will find it also as the 6th to 9th sign in the serial number (e.g. T815Axxyy).

MAINTENANCE AND SERVICE

Always de-pressurise the system and rinse off the parts before beginning any maintenance work. Use protective goggles. Do not handle O-ring seals without gloves 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. Visually inspect the coupling for cleanliness, wear, loose parts, damage and signs of corrosion.
2. Visually inspect the front face of the coupling for wear, dirt and damage.
3. Visually inspect the coupling for leaks.

REGULAR SERVICE

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

The service procedure shall be as follows:

1. Replace the tank unit O-rings.
2. Replace worn or damaged components.

Check the state of the connection surface and verify that it is clean before proceeding with the connection. Minor scratches on the sealing surfaces can sometimes be polished out.

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

DISASSEMBLE

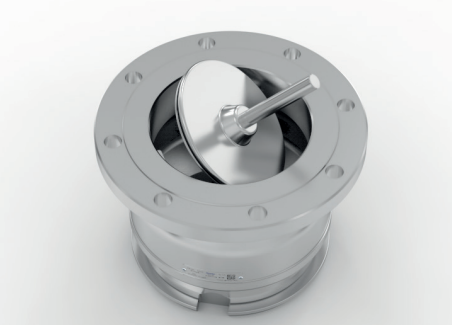
• Press down the spindle steering and turn it free.

Piston guide is spring loaded. Risk of injury.

Use Tool 030

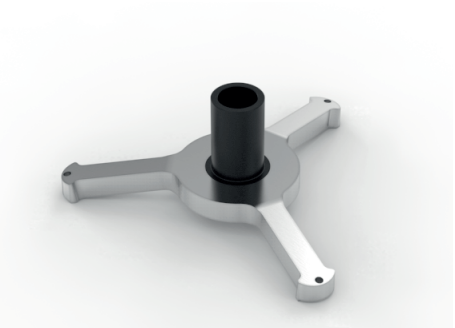
• Take out all the parts from the body; piston guide (pos. 4), spring cap with bushing (pos. 6 & pos. 5) and the spring (pos. 7)

• The piston is bigger in diameter than the three brackets for the piston guide. Remove the piston as shown. Put it into a relaxing position in the valve seat.



CHANGE THE BUSHING

• Change the PTFE bushing (pos. 5) in the piston guide (pos. 4)



CHANGE THE O-RINGS

Make sure you don't scratch any sealing surfaces.

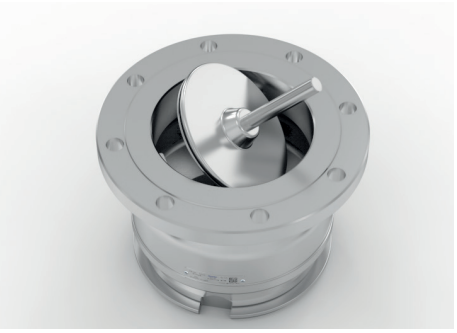
Use the O-ring hook (Tool 001)

- Remove the piston O-ring (pos. 3) by using an O-ring hook. The easiest way to get the O-ring out is to put the hook through the O-ring and pull it out.
- Replace with a new O-ring.

- Remove the O-ring (pos. 22) on the sealing surface by using an O-ring hook. The easiest way to get the O-ring out is to put the hook through the O-ring and pull it out.
- Replace with a new O-ring.

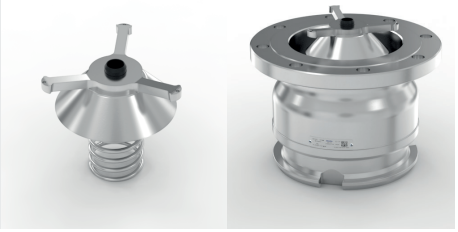
REASSEMBLE THE COUPLING

- 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.

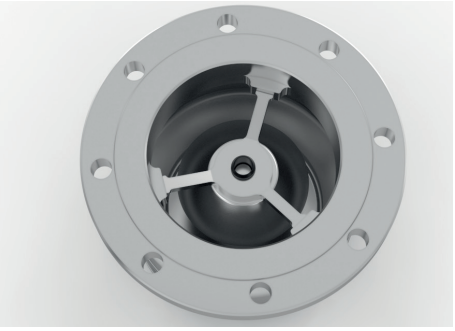


- Fit the spring with spring cap and piston guide with bushing back into the coupling. Press down the piston guide and turn, to fix it in its position.

Use the piston guide tool (Tool 030)



• Make sure that the piston guide is fixed securely under the brackets.



TEST THE COUPLING

• Perform a visual inspection ensuring that everything is in its place. Finally, do a tightness test according to the test procedure described on the next page.

If the coupling functions correctly you are ready to mount the tank unit back in your application again.

TEST PROCEDURE

After each major service a pressure test and a leak test of each coupling is required.

If only the O-Ring kit is replaced a leak test is enough.

If any pressure bearing parts are changed, a pressure test with water must first be made at 1,5 times the working pressure before testing the coupling with air for the leak test.

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

TEST PROCEDURE	TEST PRESSURE	ACCEPTANCE CRITERIA
Leak test (air)	0,3 bar	No visually detectable leakage for the duration of the test*
	6 bar	
Pressure test (water) (if applicable)	1,5x working pressure	

TABLE 1 – TEST PRESSURE

NOMINAL SIZE	MINIMUM TEST DURATION
Up to DN 50	15 s
DN 65 to DN 200	60 s

TABLE 2 – MINIMUM TEST DURATION

TEST PROCEDURE:

- Plug the tank unit with the appropriate end connection and fill it with the test media (e.g. air or water).
- Apply the test pressure specified in Table 1 (please note that for a seal leak test, both a low pressure and a high pressure test are required).
- Maintain the test pressure for the keeping time specified in table 2.
- Make sure that there is no visually detectable leakage.
- Couple the serviced tank unit to a usable hose unit and test for leakage.
- After successful test results dry the coupling before use.

* In order to detect leakage when testing with air, make sure to fully submerge the sealing surface in water. Initial leakage might be due to air trapped behind the seal and is acceptable. Reoccurring bubbles indicate a leak.

STORAGE

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