







# TK CONNECTION

# **FLUSH MOUNTED TC CONNECTION**





Syringe device on TK connection

### **Function:**

Hygienic device features a compact design that allow the installation of typical. Clamp-connections on top, bottom or side wall of a tank. Once installed, the clamp gasket shuts off flush with the inside tank wall with a zero dead leg.

It gives better CIP/SIP (Cleaning In Place/Sterilisation In Place) performance. Fit for clamped valves, sight glasses, sampling devices, manometer, tank bottom valves.

The equipment can be removed and the TK sealed with a standard blind cap.

## Design:

The TK-Connection consist in:

- WELDING FLANGE drainable, in accordance with PED directive available in different thickness and complete with BOLTS
- LOCKING RING split in two parts for easier mounting of the equipments and double safety.
- NUTS in quantity of 4, 6, 8 (size depending)

## Requirement:

The TK-Connection meets the followings:

- ASTM A270 for pipe standard
- SMS 3008 for tube standard
- ISO 1127 serie 1 for tube standard

#### Feature:

- · eliminates dead leg
- no product entrapment
- ensures quality of CIP/SIP procedure
- no air pockets during sterilisation
- flexible, fast and easy to adjust different equipment
- full material traceability
- PED 97/23/CE certified product
- · customized for your needs



sampling valve on TK Connection

Typ. installation







# TK IN-LINE

### **Pressure directive:**

The TK-Connection are designed according to directive PED 97/23/CE for Europe, ASME VIII Div.2 for US and F.E.M. (Finite Element Method) calculated, approved and certified by notified body.



Design Pressure : -1 bar to 7 bar g

(-14,5 psi to 101,5 psi)

**Design Temperature** : -80°C to 200°C

(-112°F to 392°F)

### **Material:**

welding flange ASTM A 479 / ASTM A 182 - 316L ASTM A 479 / ASTM A 182 - 316L locking ring

ASTM A 193 B8 - 304 bolts nut ASTM A 194 8 - 304

### **Surface Finish:**

Product contact surface are finished to Ra<0.5 mm or better

### **Documentation:**

TK-Connection supply include the following documentations:

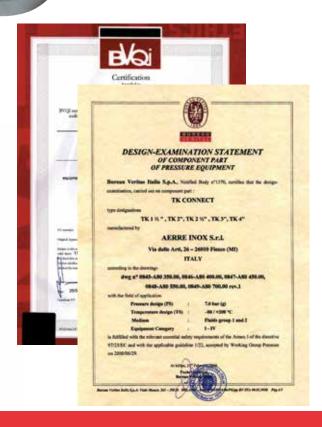
- PED conformity certificate
- welding guideline
- 3.1B certificate on wetted parts

### **Marking:**

Each TK-Connection is market with Heat No.

for full lot traceability









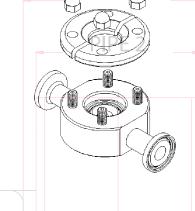




# TK IN-LINE

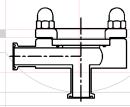
### Fig. 6 TK IN-LINE HOUSING

Available with clamped or butt weld ends for pipe standard according to ASTM A269 /270, ISO 1127or DIN 11851. Special extended tube for orbital welding on request.





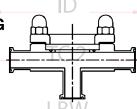
90° Angle in-out. Available with clamped or butt weld ends for pipe standard according to ASTM A269 /270, ISO 1127 or DIN 11851.





### TK IN-LINE THREE WAY HOUSING

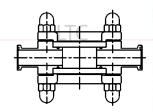
Three way equal (drain reduct available). Available with clamped or butt weld ends for pipe standard according to ASTM A269 /270, ISO 112 or DIN 11851.





## Fig. 9 TK IN-LINE DOUBLEX HOUSING

In-line version completely open on both sides.





# **Ordering information**

To specify the part completely, start with the product description and select the additional options as shown below:

material AISI 316L -1.4404 as standard at stock **Description** AISI 316L -1.4435 can be supplied upon request TK connections for tank **50** 25 TΚ Conn 1.4404 Ra **TK**connections in line TK LINE 1"1/2 3/4" **BW** Ra surface finish norms Ra <0,6 micron as standard Conn BS 4825 for pipe according ASTM A270 other finish can be supplie upon request DIN 32676 for tube according DIN 11850 Reihe 1-3 end connections ISO 2852 for tube according ISO 1127 serie 1 TCclamp ASME-BPE **LINE**TK-in line for pipe according ASTM A270 **BW**butt weld OD

for BS: inches 1/2", 3/4", 1", 1"1/2, 2", 2"1/2, 3", 4" for ISO-DIN: DN8, 10, 15, 20, 25, 32, 40, 50, 65,80,100 for SMS: 12, 18, 25, 38, 51, 64, 76, 102 1"1/2 TK-Connection size

thickness standard, 25 mm, 38 mm, 51 mm other different thickness can be supplied upon request 3/4" in-line pipe size



# TK CONN

# ASEPTIC TANK CONNECTION, WITH BOLTED SPLIT RINGS

### Fig. 1 TK- CONNECTION

Available in size from 3/4" up to 4", DN10 up to DN100 in four different thikness: std, 25 mm, 38 mm, 51 mm According to ASTM A269 /270, ISO 1127or DIN 11851. Material 1.4404 - 1.4435 - Hastelloy C22 - C276 on request. Designed for use of standard clamp gaskets. According to PED 97/23/CE directive and ASME VIII Div.2



For special applications onto tank welding. According to ASTM A269 /270, ISO 1127 or DIN 11851. Material 1.4404 - 1.4435 - Hastelloy C22 - C276 on request. Non-standard product, custom thicknesses, avoids warping.

#### Fig. 3 TK- CONN ANGLED HOUSING

Angle profile cutted TK-Connections customized. For tank welding where orthogonal connections required Special execution High/angle as to be agree. Material 1.4404 – 1.4435 - Hastelloy C22 - C276 on request

#### Fig. 4 TK-CAP

Standard TK-Connections in various size machined directly in a special 8 -10 or 12" clamp tank cover cap for pharma and biotechnology applications, custom made on request Std. material 1.4404, 1.4435 on request

#### Fig. 5 TK- CONN JACKET HOUSING

TK-Connections with special profile dedicated for pharmaceutical reactors with cool/heat jacket or thermal insulation cladding.

