



## Instruction manual

SCANDI BREW® Micro sample port



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## To the owner

### Dear owner,

This Instruction Manual is your instant guide when dealing with your Alfa Laval equipment. Alfa Laval advises you to study it carefully, and to ensure its availability to those who install, maintain and operate the equipment.

Furthermore, it is important that you

- keep this documentation for the life of the equipment.
- incorporate any amendments.
- pass on the documentation to any subsequent holder or user of the equipment.

The equipment described in this manual is only intended for use in nonhazardous applications within food or pharmaceutical industries.

Alfa Laval will not be responsible for any breakdown of the equipment caused by the owner's failure to follow the instructions given in this document. This Instruction Manual describes the authorized way to use the equipment. Alfa Laval will not be responsible for any injury or damage if the equipment is used in any other way.

**The information contained herein is correct at the time of issue but may be subject to change without prior notice.**

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# 1. General description

The SCANDI BREW® Micro sample port is used to take aseptic and microbiological samples in small volumes from tanks and pipework under sterile conditions for physico-chemical or microbiological analysis. This manual deals with micro sample port used for thin slurries.

## 1.1 The Micro sample port

### Construction

The sample port is made in a simple, sanitary design, and consists of a housing made as a socket for direct welding into tank wall or pipework, a rubber plug which is positioned by a press screw and a closing cap.

Welding part	1.4404 (AISI 316L). (with material certificate)
Other metallic parts	1.4307 (AISI 304L)
Rubber plug	Natural rubber or silicone.
O-ring	NBR
Product pressure	Max. 6 bar as standard

**Micro sample port is available in the following executions.**

Socket Type T for direct welding to a tank. (Fig. 2)

Socket Type P, for direct welding on a pipewall. (Fig. 3)

**Contd.**



Fig. 1

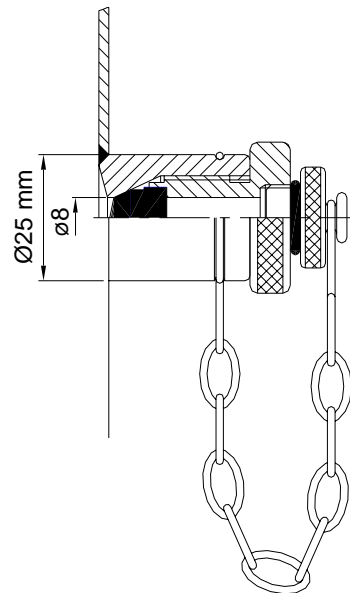


Fig. 2

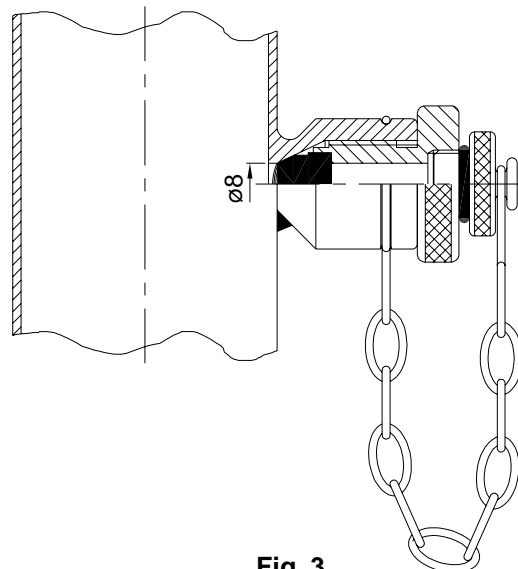


Fig. 3

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**Contd.**

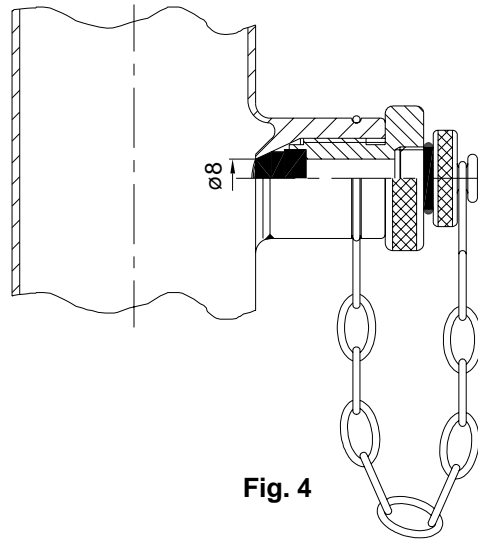
Socket Type PC, for welding to extruded pipe ends.  
(Fig. 4)

*(For mounting details, refer to section 3.3)*

**Special versions**

Micro sample port with a slide that allows replacement of rubber plug under gas pressure to avoid CO<sub>2</sub> loss.

*(For order code refer to chapter 7)*



**Fig. 4**

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## 2. Safety

*Unsafe practices and other important information are emphasized in this manual.*

*Warnings are emphasized by special signs.*

### 2.1 Important information

Always study the manual before using the valve!

**WARNING!** Indicates that special procedures must be followed to avoid severe personal injury.

**CAUTION!** Indicates that special procedures must be followed to avoid damage to the valve

**NOTE!** Indicates important information to be observed.

### 2.2 Warning signs



General warning



Caustic agents

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## 2.3 Safety precautions

### Installation



Always study the technical data thoroughly (see chapter 6).

### Operation



Always study the technical data thoroughly (see chapter 6).



Never touch the valve or the pipelines when processing hot fluids or when sterilizing.

### Maintenance



Always study the technical data thoroughly (see chapter 6).



Never carry out maintenance or repair when the valve is hot, under pressure, or filled with product.



### 3. Installation

Study the instructions carefully and pay special attention to the warnings.

#### 3.1 Unpacking/Delivery

##### CAUTION!

Alfa Laval cannot be held responsible for incorrect unpacking.

Avoid damaging the sample port when unpacking.

##### Check the delivery for

1. Complete valve
2. Delivery note.
3. Instruction manual.

##### NOTE!

Inspect the sample port for visible transport damages.

#### 3.2 General installation

##### CAUTION!

The sample port must be assembled with a required minimum clearance to any obstacle. This is to facilitate easy removal of the closing cap and to take product samples using a hypodermic needle. (Fig. 5)

#### 3.3 Mounting

##### 1. Socket Type T

Socket, type T, is welded to a 25 mm diameter hole in a tank wall. (Fig. 6)

##### NOTE!

Please observe that grinding or polishing of the conical area around the seat should be avoided as it might damage the seat.

Contd.

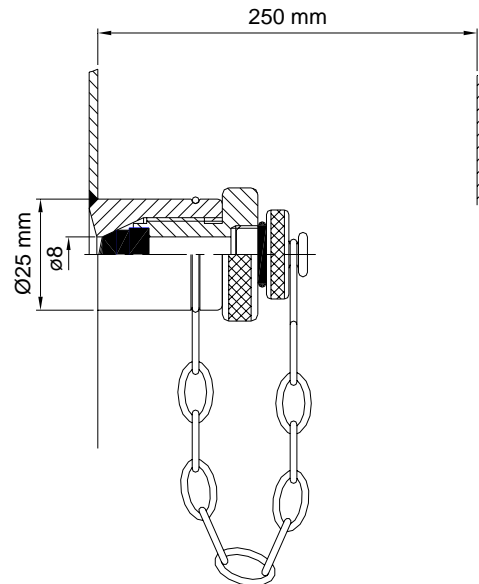


Fig. 5

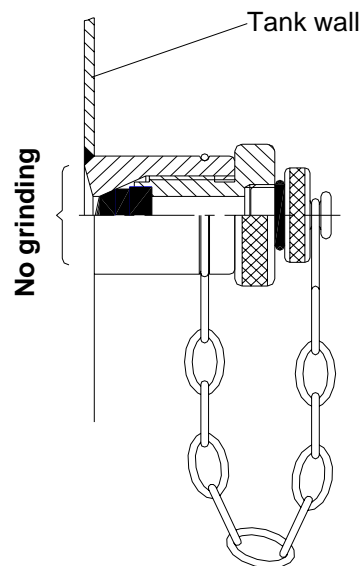


Fig. 6

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## 2. Socket, Type P

Socket, type P, is welded on a pipewall and thereafter a 8 mm hole is drilled. (Fig. 7)

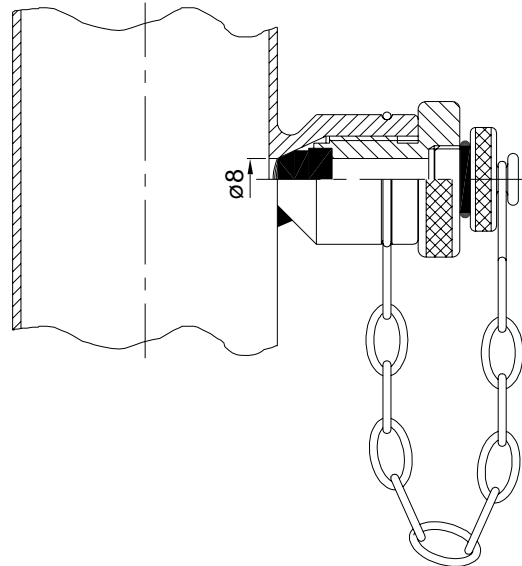


Fig. 7

## 3. Socket, Type PC

Socket, type PC, is available for welding onto extruded pipe ends equal to 1" as well as NW 25. (Fig. 8)

### CAUTION!

Before welding the socket of micro sample port, the sample port must be disassembled such that the rubber plug and the o-ring are not damaged by the from welding heat.

For disassembly and assembly procedures refer to chapter 5.

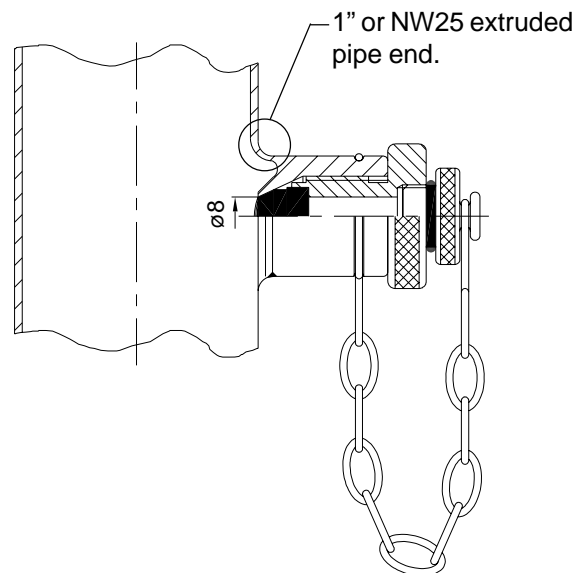


Fig. 8

## 4. Operation

Study the instructions carefully and pay special attention to the warnings!

### 4.1 General operation



- Always study the technical data thoroughly. (see chapter 6)
- Always sterilize the sample port with alcohol before and after sampling.
- Never touch the port body or the tank / pipelines when sampling or sterilizing.

#### CAUTION!

Alfa Laval cannot be held responsible for incorrect operation.

### 4.2 Sampling/sterilization with alcohol

#### Step 1

Unscrew the closing cap. (Fig. 10)

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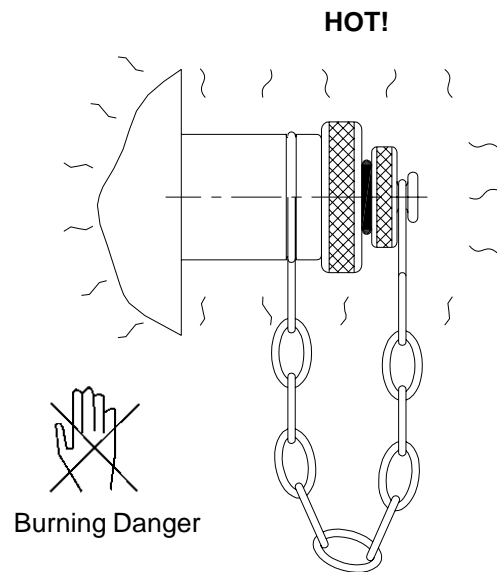
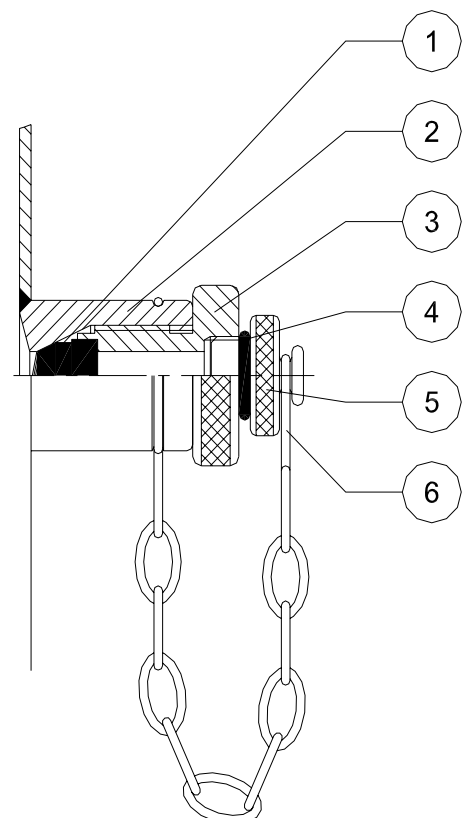


Fig. 9



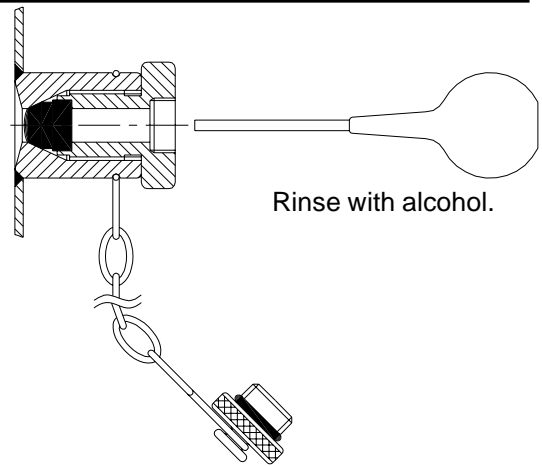
- |        |                |
|--------|----------------|
| Pos. 1 | Rubber plug    |
| Pos. 2 | Welding socket |
| Pos. 3 | Press screw    |
| Pos. 4 | O-ring         |
| Pos. 5 | Closing cap    |
| Pos. 6 | Chain          |

Fig. 10

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**Step 2**

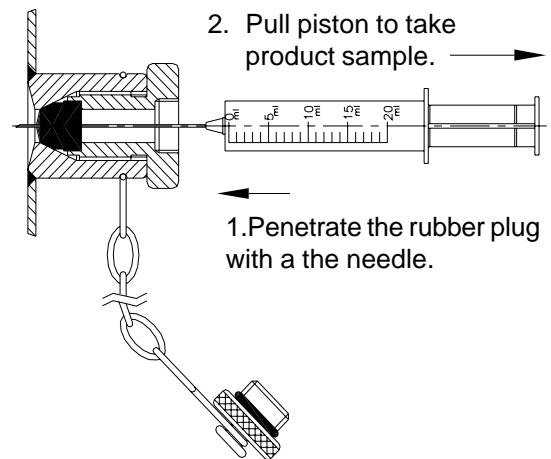
Rinse the sample port with alcohol. (Fig. 11)



**Fig. 11**

**Step 3**

Use a hypodermic needle to penetrate the rubber plug and take the sample. (Fig. 12)

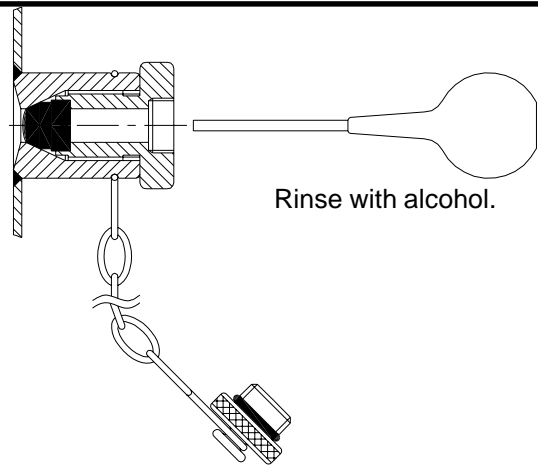


**Fig. 12**

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**Step 4**

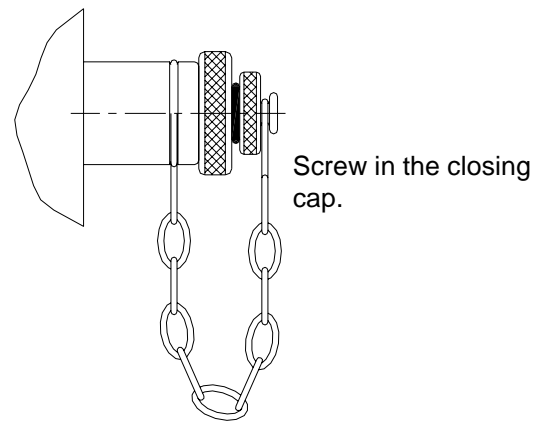
After taking the sample, rinse the sample port with alcohol. (Fig. 13)



**Fig. 13**

**Step 5**

Put back the closing cap and tighten firmly. (Fig. 14)



**Fig. 14**



## 5. Maintenance

Maintain the valve carefully.

Study the instructions carefully and pay special attention to the warnings!

### 5.1 General maintenance



- Always study the technical data thoroughly (see chapter 6).
- Never service the sample port when it is hot.
- Never service the sample port with tank / pipelines under pressure or with product.

#### CAUTION!

All scrap must be stored/discharged in accordance with current rules and directives.

#### Ordering spare parts

Part numbers            See chapter 7  
Contact                    [www.alfalaval.com](http://www.alfalaval.com)

#### Monitoring

Regularly inspect the sample port.

#### Planned maintenance

It is recommended that the rubber plug is replaced after taking 5-10 samples. The O-ring is to be replaced approximately every 3 years.

#### NOTE!

Always keep spare rubber plugs in stock. Minimum order quantity is 100 pcs.

### 5.2 Maintenance

- 1 If the O-ring (pos.4) has to be replaced, unscrew the closing cap (pos.5). Replace the O-ring.
- 2 To replace the rubber plug (pos.1), unscrew the press screw (pos. 3) from the holder and replace the rubber plug. Put back the press screw and tighten firmly. (Fig. 16)

#### NOTE!

Rubber plug replacement is only to be done when the tank is empty and not under pressure.

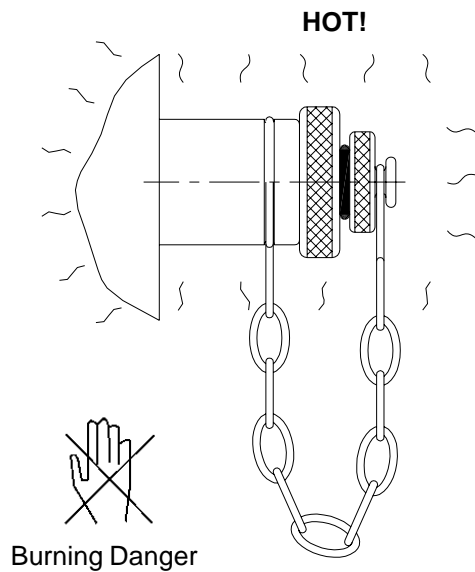


Fig. 15

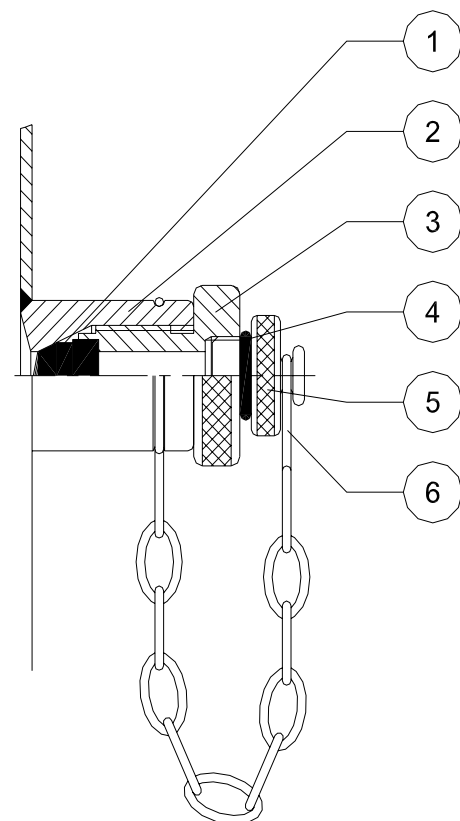


Fig. 16





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## 6. Technical data

*It is important to observe the technical data during installation, operation and maintenance.*

### 6.1 Technical data

Product pressure	Max. 6 bar as standard.
Welding part	1.4404 (AISI 316L) (with material certificate)
Other metallic parts	1.4307 (AISI 304L).
Green plug	Natural rubber -25°C to +80°C
Red plug	Silicone -80°C to +200°C
O-ring	NBR



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## 7. Order codes

For ordering of spare parts, see your contact on  
'[www.alfalaval.com](http://www.alfalaval.com)'

### 7.1 Micro sample port

Description	Order code
Micro sample port T w/green rubber plug	10-0901000S
Micro sample port T w/red silicone plug	10-0901000-02S
Micro sample port P w/green rubber plug	10-0902000S
Micro sample port P w/red silicone plug	10-0902000-02S
Micro sample port PC 1" w/green rubber plug	10-0904000S
Micro sample port PC 1" w/red silicone plug	10-0904000-02S
Micro sample port PC DN 25 w/green rubber plug	20-0904010-01
Micro sample port PC DN 25 w/red silicone plug	20-0904010-02

### 7.2 Spare parts

Description	Order code
Rubber plugs green bag of 100	10-0901996-100
Silicone plugs red bag of 100	10-09019961-100
O-ring 10.3x2.4	71-01030024



**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.