

*Subject to change without prior notice* TUM6410

## IMPORTANT

**Read this instruction carefully before installing the product**



# TEF 9204 STAIR HEATER ENCLOSURE USER MANUAL

## INTRODUCTION

Thank you for purchasing this product!  
For installation, maintenance and assurance of a long life of this product, please follow this manual.

## CONTENT IN BOX

The product is fully assembled, and ready for installation.

## SAFETY PRECAUTIONS

Changes made to the product not confirming to the approvals of this equipment, is a safety violation. The manufacturer is under no circumstances responsible for personal injuries, death or any other damage caused by such activities. For replacement and repairs of the product only Tranberg AS spare parts shall be used. Repairs effecting the explosion protection of the equipment, shall only be carried out by Tranberg AS, or qualified electricians in compliance with the respective national regulations.

## SPECIAL CONDITIONS FOR SAFE USE

Do not disconnect the enclosure heater without disconnecting power supply. Only qualified personnel are allowed to perform installation and maintenance tasks to this product

## PREPARATIONS

Only qualified personnel are allowed to perform installation and maintenance tasks to this product.

The equipment is ready for installation when leaving the production facilities of Tranberg AS. Check the condition of the equipment and the contents when unpacking. Any damage done to the equipment during the transportation is not the responsibility of Stahl Tranberg AS. If the content is not complete, file a claim to the producer immediately.

Please read through the full description before starting the assembly.

The quantity of step heaters connected in series and the length of the cable and number of flexible conduits between each step heater must be determined:

Following cable lengths to be considered for each step heater:

- Heater dim. 161x421mm: approx. 130cm each step
- Heater dim. 161x662mm: approx. 200cm each step
- Heater dim. 161x762mm: approx. 390cm each step
- + 80cm for each individual step)
- + needed length for power JB connection.

Note: 80cm between the stairs is to allow for flexibility during the assembly and installation of the step heaters.

The end of the heater cable should be sealed off properly to avoid water intrusion. It is recommended to use a flexible conduit to protect the heater cable as it runs from stair heater to stair heater. Please see reverse page for more information.

## INSTALLATION

### Step 1:

Prepare the flexible conduits for the same lengths as the cable estimated between each step and install the conduit connectors. (The conduit should be cut to length in an un-compressed or un-stretched state to allow for flexibility both directions), see fig. 1.

Fig. 1



One flexible conduit shall be used between each heater. A series of 3 step heaters requires one conduit length between heater 1 and heater 2 and one between heater 2 and 3.

Fig. 2 shows the assembly when using QTVR-20 with cable directly from drum. The figure shows an example of 4 step heaters in series. Put all the assembled conduits on to the cable:

Fig. 2



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### Step 2:

Prepare the end seal of the cable and align the cable in the first aluminium profile, see fig. 3.

Fig. 3

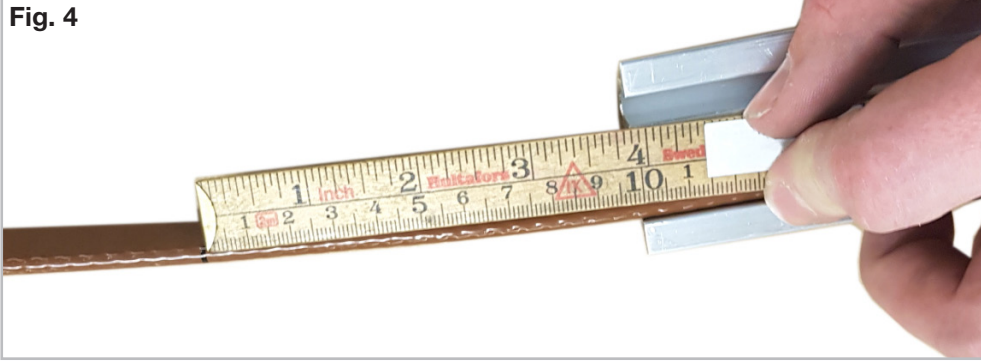


## INSTALLATION

### Step 3:

Mark or measure on the cable 10cm from the aluminium profile and bend the cable to align it in the adjacent slot of the profile; see fig. 4.

Fig. 4



### Step 4:

Repeat the procedure (step 3) for all the aluminium profiles. Each cable turn should have a distance of approx. 5 cm from the edge of the profile, see fig. 5.

Fig. 5



### Step 5:

Flip the assembly and align with the base of the step heater, see fig. 6.

Fig. 6



## INSTALLATION

### **Step 6:**

Install the profile closest to the conduit exit slot first, see fig. 7.

**Fig. 7**



### **Step 7:**

Install the conduit adaptor to the slot and align the aluminium profile to the centre of the base, see fig. 8.

**Fig. 8**



### **Step 8:**

Install the remaining profiles into the base, see fig. 9.

**Fig. 9**



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## INSTALLATION

### Step 9:

Secure the aluminium profiles with the **Stainless spacers** and M6 washer:, see fig. 10.  
(**Note!** The use of brass on aluminium shall never be combined in a harsh environment.)

Fig. 10



### Step 10:

Install the lid, see fig. 11.

Fig. 11



### Step 11:

Install the M6 bolts, see fig. 12.

Fig. 12



## INSTALLATION

### Step 12:

In the second (following) heater make sure you have some extra length between the end of the conduit adaptor and the top aluminium profile, see fig. 13.

Fig. 13



### Step 13:

Repeat step 3-8 and align the profiles in the base, see fig. 14.  
Install the spacers and lid as described in step 9-11, see fig. 15.

Repeat as applicable for additional steps in series.

Fig. 14



Fig. 15



### Step 14:

Measure and prepare the required length between the stair and the power connection box.

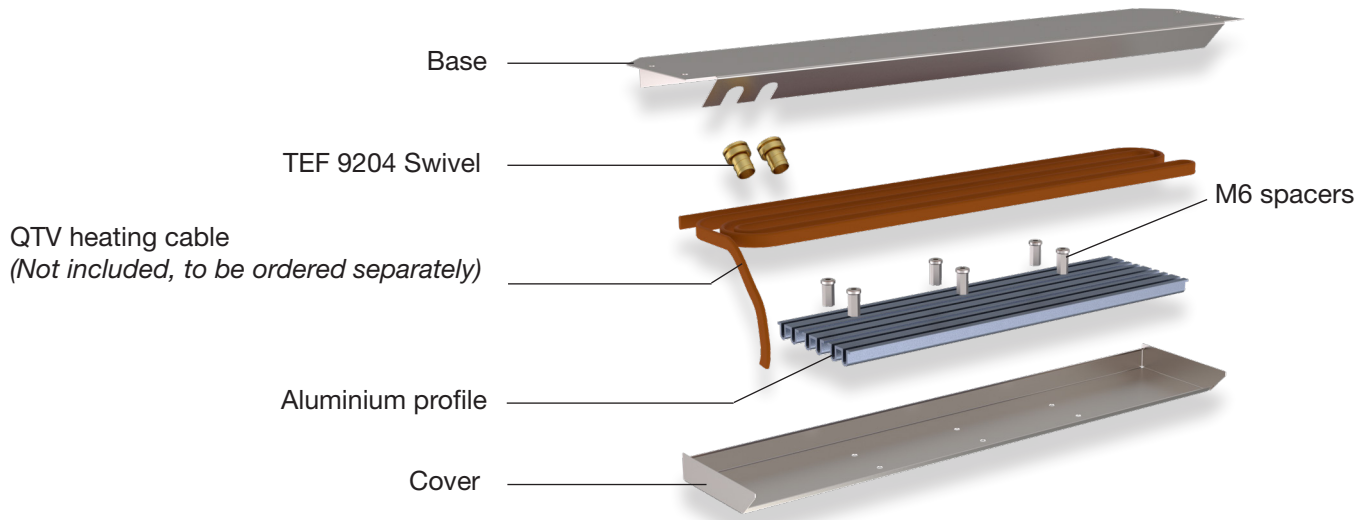
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## TECHNICAL DATA

<b>Material:</b>	AISI 316L acid proof stainless steel
<b>Width:</b>	161 mm
<b>Length:</b>	762 mm
<b>Power (approx. values):</b>	80W, 200W, 230W (respectively to lengths)
<b>Heat cable:</b>	Self-regulating QTVR heating cable (purchased separately)
<b>Other:</b>	All self-regulating heater installations require a 30mA earth fault switch.

## PARTS INCLUDED IN THE TEF 9204 STAIR HEATER

	Part No. 92040400	Part No. 92040650	Part No. 92040750	QTY. in 1 pc heater
Base	7098	7101	7049	1 pc
Cover	7099	7102	7050	1 pc
Aluminium profile	7100	7103	7051	3 pcs
TEF 9204 Swivel	7047	7047	7047	2 pcs
M6 spacers L=25	7052	7052	7052	6 pcs
M6 washers	51612003	51612003	51612003	12 pcs
M6 spring washers	51513001	51513001	51513001	6 pcs
M6x16 hex bolt	51013002	51013002	51013002	6 pcs



## RECOMMENDED INSTALLATION COMPONENTS

	Part No.
QTV heating cable	50291070
Flexible conduit, 2 m length	7000 080
Flexible conduit, 25 m length	7000 081