

# Zeus Trunking - Medical Rail

Medical Supply Units  
Installation Instructions

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Published by Pneumatech Medical Gas Solutions

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### **Important**

Personnel must make themselves familiar with the contents of this manual and the function of the unit before installing, operating or maintaining any trunking system.

Information contained in this manual is correct at the date of publication. The policy of Pneumatech Medical Gas Solutions is one of continuous product improvement. Pneumatech Medical Gas Solutions reserves the right to make changes that may affect instructions in this manual without prior notice.

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## Table of Contents

- 2 Safety, Storage and Handling**
- 2 Environmental Operating Conditions**
- 3 Rail loading**
- 3 Loading examples**
- 3 Installation procedure - Trunking**
- 3 Figure 1 - Cutting infill strip diagram**
- 3 Figure 2 - Assembly of medical rail to trunking**
- 4 Installation procedure - Headwalls**
- 4 Figure 3 - Front elevation Narrow headwall with medical rail fitted**

## Safety, Storage and Handling Data

Operator should have carefully read and become familiar with the contents of this manual before installing the Medical Rail. Operator is expected to use common sense safety precautions, good workmanship practices and follow any related local safety precautions. Component descriptions and parts lists are available on request.

This equipment works in conjunction with other devices. See separate manufacturers documents for instructions.

The following symbols apply to this product and are used in these instructions and on the product in question. The meanings of these symbols are as specified below: -



- Read Instructions  
warning or caution

## Environmental Transport and Storage Conditions

Min ambient temperature - 25 degrees Celsius  
Max ambient temperature 70 degrees Celsius  
Min relative humidity (non-condensing) - 10%  
Max relative humidity (non-condensing) - 75%  
Atmospheric pressure range - 70-110 kPa

## Environmental Operating Conditions

Min ambient temperature - 0 degrees Celsius  
Max ambient temperature - 40 degrees Celsius  
Min relative humidity (non-condensing) - 0%  
Max relative humidity (non-condensing) - 95%  
Atmospheric pressure range - 70-110 kPa

## Environmental Protection

Legal regulations may require special methods for disposal of this equipment. In the interest of the environment and prevention of injuries we recommend that you contact us for guidance when decommissioning this equipment with the intention of discarding it.

## Safety Information

### WARNING!

**Retrofit Medical Rail is suitable for light duty applications only. It is not suitable for mounting most monitors or other heavy equipment. Ensure that the maximum load is not exceeded (see below).**

**Make sure that the maximum load label is fitted to every rail before attachment to the trunking or head-wall system.**

### CAUTION!

**Do not discard these instructions, they must be passed to the Estates/Engineering Department for future reference.**

## Rail Loading

Due to the nature of loads applied to the rail, it is not possible to give only a simple maximum load that the rail can withstand. The weakest point is the supporting the frame which the rail is attached to. The force applied to the rail supports sets up a large turning moment (torque) at the position where the rail is joined to the trunking/headwall. Excess loading on a trunking mounted rail will displace the bottom of the fascia plate from its usual position. To calculate the maximum load, the following formula can be used. Ensure that units of weight of applied load are kilograms and the distance from the front of rail is in millimetres

Ensure that the maximum load of 25kg/m of trunking length is never exceeded no matter what the distance is at which the load is applied. Ensure that the maximum load of 25kg per rail is never exceeded when mounted on a Headwall.

- 1) Calculate the distance from the front surface of the rail, to the centre of gravity of the load. It is dangerous to guess where the centre of gravity is. This should be as accurate as practicable.
- 2) Weigh the load, including the weight of any shelving or other attachment equipment.
- 3) Multiply the load in kilograms by the distance in millimetres. If the resulting figure (this is a close approximation of the torque at the rail front surface) exceeds 3,750 then the load is too high for the rail.

Examples: -

- a) Loads centre of gravity to be mounted at 380mm from the front surface of the rail. The weight of the load is 12kg.

$$12 \times 380 = 4,560 \text{ (this is too high)}$$

- b) Loads centre of gravity to be mounted at 120mm from the front surface of the rail. The weight of the load is 35kg.

Load exceeds 25kg and therefore, cannot be mounted.

- c) Loads centre of gravity to be mounted at 170mm from the front surface of the rail. The weight of the load is 19kg.

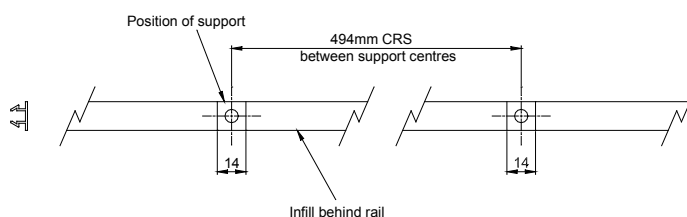
$$19 \times 170 = 3,230 \text{ (load is OK, check figures and recalculate to check)}$$

## Installation Procedure - Trunking Mounted Rail

Please see diagrams below for pictorial guidance. First of all, fit the load label to the rail where it will be visible, and not covered up or hidden by other equipment.

Now, remove one end cap from the trunking system. Use a long screwdriver to prise out the infill strip located just below the bottom of the fascia plate. The following diagram shows how the infill strip is to be cut to allow fitting of the rail supports. The 14mm gap at each end is to be cut off and thrown away.

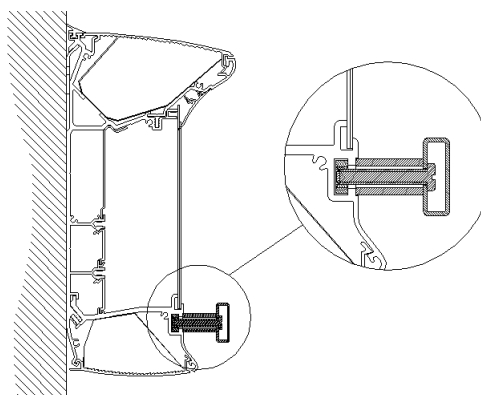
**Figure 1 - Cutting of Infill Strip**



Next, slide the channel nuts into the groove and tighten screws when rail is at desired position. Fit hole plugs supplied to cover screws.

Re-fit the infill strips, not forgetting to fit the one behind the rail. The infill strips are designed to minimise the possible areas in which bacteria may breed. These must be refitted. You will need to cut a 14mm gap in the infill strip to allow for the spacer width.

**Figure 2 - Assembly of Medical Rail to Trunking**



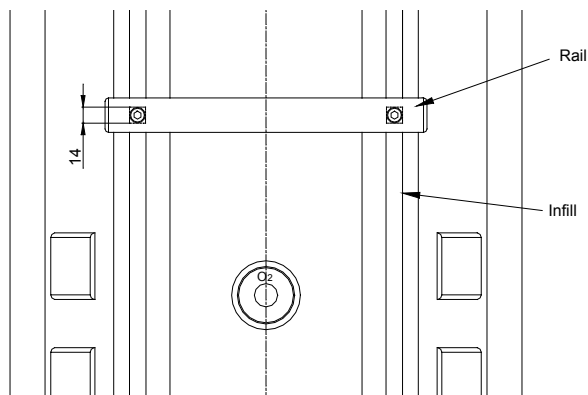
### Installation Procedure - Headwall Mounted Rail

Please see diagrams below for pictorial guidance. First of all, fit the load label to the rail where it will be visible, and not covered up or hidden by other equipment.

Now, remove the bottom end cap of the headwall. Use a long thin screwdriver to prise out the infill strips in the rail mounting grooves. Next, slide the channel nuts into the groove and tighten screws when rail is at desired position. Fit hole plugs supplied to cover screws.

Re-fit the infill strips, not forgetting to fit the one behind the rail. The infill strips are designed to minimise the possible areas in which bacteria may breed. These must be refitted. You will need to cut a 14mm gap in the infill strip to allow for the spacer width.

**Figure 3 - Front Elevation of Narrow headwall with Rail Fitted**



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Document Ref. 8102341085 Ed 1  
 Revision issue date: 11/11/2015

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