

## DISTRIBUTOR MANUAL

# MODEL 1100 STATIC ELIMINATOR BAR



### Description

Our long term future will be determined by the higher technology DC products which we produce – products which build on the success of the 3024 Bars. Please be assured that we are working on the next generation of DC products. However, in the short and medium term we must not neglect the traditional market for AC static eliminators

In response to customers` requests we have developed a compact version of the 1250 Bar called the 1100. There are two versions of the 1100 Bar – the Model 1100 with fixed

mounting studs and the 1100-S which has a slot in which the fixing studs slide.

**Both Bars are very compact – and this is their unique selling point.**

The 1100 is not an alternative to the 1250 Bar – but is a special product aimed at the market where the 1250-S Bar is too big. If a 1250-S Bar fits into the application, then continue to propose it to customers.

## Applications

---

### What is the role for the 1100 Bar?

The 1100 Bar is a support product designed for applications where the standard 1250-S Bar is too large.

The range of applications for the 1100 Bar is similar to the 1250-S Bars, but we generally offer the 1250-S Bar for two reasons:

#### 1. Performance

The 1100 Bar operates with the standard HP Series Power Units on 5.5kV or 6kV. Its performance compared to 1250-S Bars on a charge plate monitor is shown below.

Charge plate monitor – time to reduce 5kV to 500V with plate capacitance of 1020pF instead of the normal 20pF (this gives more accuracy to the comparison). Each reading was made 3 times and the average of (+) and (-) charge readings was taken.

#### Average Decay Time to reduce 1020pF Load from 5kV to 500V

	Fraser 1100 Bar	Fraser 1250-S Bar	Difference
25mm Distance:	0.65 sec	0.51 sec	<b>27%</b>
50mm Distance:	3.52 sec	2.35 sec	<b>50%</b>
100mm Distance:	21.6 sec	14.1 sec	<b>53%</b>

*Time in seconds.*

The above chart shows that the 1250-S Bar should be used wherever possible because it is more powerful. The 1100 Bar should be used only where the 1250-S is too big for the application.

Although the 1100 Bar is not as powerful as the 1250-S Bar, it is better than its main competitors such as the Haug EI-PS Bar or the Simco MEB and MEJ Bars.

#### 2. Mechanical Strength

The small cross section of the 1100 Bar makes it less suitable for applications where long Bars are required. The maximum overall length is 3m.

Similarly, in applications where a more robust Bar is required, the 1100 Bar may not be suitable.

#### Installation:

Generally apply the same installation rules to the 1100 Bars as apply to the 1250 Bars.

Like the 1250 Bars the 1100 Bars are available in two versions – with fixed mounting studs or with mounting studs which slide in a slot at the base of the Bars.

For dimensions of both variants, see drawings on pages 4-5.

## 1100 Bar

---



### Mounting Studs

The 1100 Bar has fixed M4 x 20mm mounting studs at a distance of 20mm from each end. For Bars over 1m there is an extra central stud; for Bars over 2m there are two extra central studs.

If 20mm studs are not suitable, or the positioning is not ideal, please contact the factory to discuss other stud lengths and stud positions.

The fixed studs of the 1100 Bar allow the body to be more compact than the 1100-S body which incorporates a slot for the fixing studs.

### Cable Exit

2m of screened HT Cable with an HP connector are standard. Longer cable lengths can be specified at time of order. If an HP connector is not suitable please discuss with factory.

180° axial cable exit is standard. A 90° radial cable exit is available at extra cost – see pricelist. The 90° cable exit reduces the effective length of the Bar by 20mm – see drawings.

## 1100-S Bar

---

The 1100-S Bar is taller than the 1100 to accommodate the slot for fixings.  
See drawings overleaf.



### Mounting Studs

The fixing studs which slide in the slot are specially made M4 x 20mm studs with a reduced hexagon head thickness. They are stainless steel.

Three studs are supplied for Bars over 1m and four studs for Bars over 2m in length.

### Cable Exit

Same as 1100 Bar. See above.

### Environmental Conditions

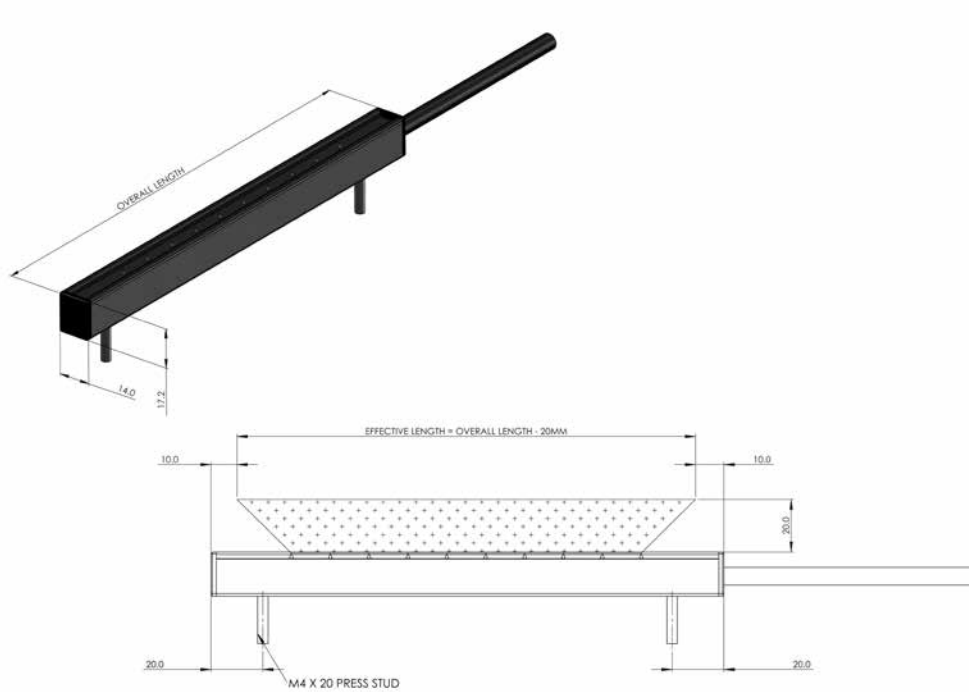
Same as 1250 Bar.

## Accessories and Spare Parts

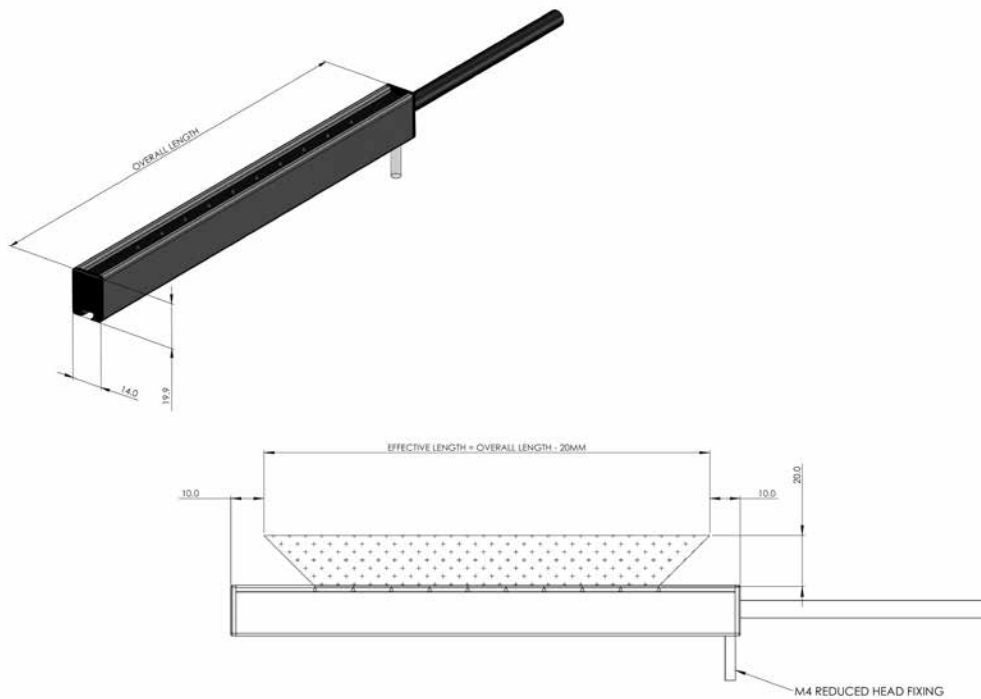
Description	Part Number
Additional Fixing Set for 1100 Bar	11002
Additional Fixing Set for 1100-S Bar	11003

## Drawings and Dimensions

### 1100 Bar



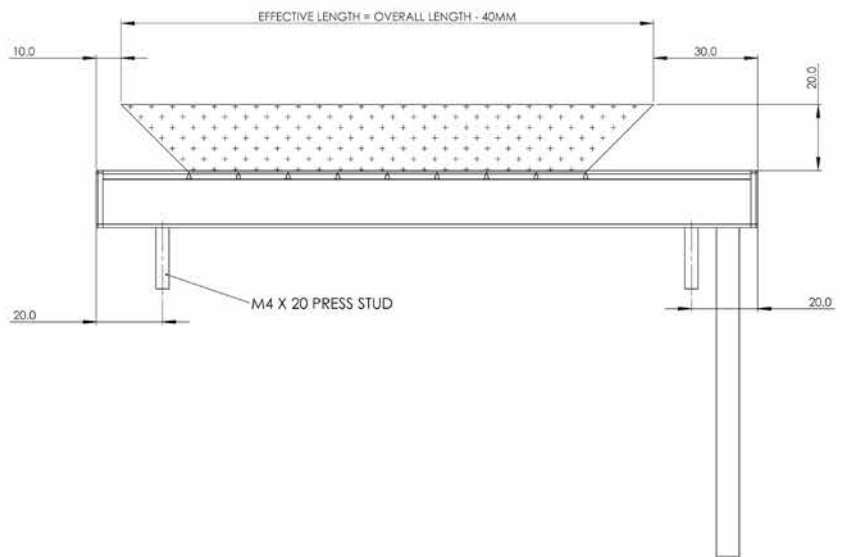
### 1100-S Bar



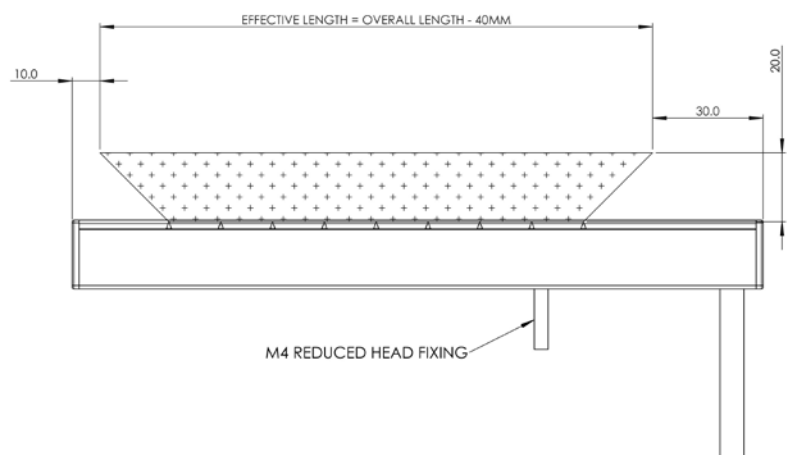
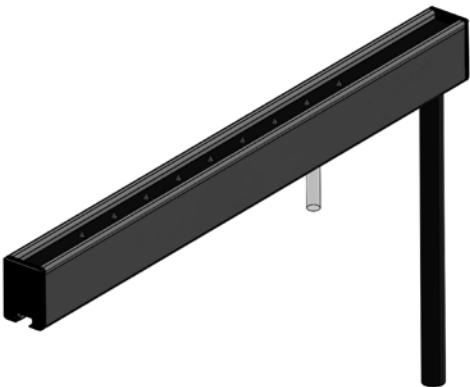
1100\_launch\_iss1.

## Drawings and Dimensions Continued

### 1100 Bar with 90° Cable Exit (also available on 1100-S)



### 1100-S with 90° Cable Exit.



1100\_launch\_iss1.