Silencer Filling (Wire wool and E-glass wool)





E-Glass Wool 150g U4G150A



Stainless Wool 1.0kg U4SSW07



Stainless Wool 7.0kg U4SSW01

HOW MUCH E-GLASS WOOL?

In order to calculate how much E-Glass wool is required to fill a silencer, use the following process alongside the table opposite:

- 1. Calculate the casing end plate area (a) in dm2.
- 2. Calculate the area of the perforated tubing (b) in dm2.
- 3. Subtract (b) from (a) which equals the usable face area of the silencer (c) in dm2.
- 4. Multiply (c) by the length of the silencer (L) which is the volume of the silencer (v).
- 5. Multiply the volume (v) by the number of recommended grams per dm2 (130).
- 6. This weight (w) is then divided by 150 to identify how many bags of E-Glass wool are required.

For Example:

Casing = 140/220mm | L = 350mm | Perforated tube = 63.5mm

Recommended wool density = 130g/dm2

Wool in g = (((Casing area - Tubing area) x L) x 130) / 150

(((2.334-0.317) x 3.5) x 130) / 150

Answer = 918g or 6 bags

Wool Data		
	Area dm²	SS Wool g/mm
Casing 100mm Round	0.724	
Casing 125mm Round	1.188	
Casing 140mm Round	1.474	
Casing 100/165mm Oval	1.274	
Casing 100/240mm Oval	1.915	
Casing 115/185mm Oval	1.609	
Casing 140/220mm Oval	2.334	
Casing 140/270mm Oval	3.102	
Casing 170/240mm Oval	3.388	
42mm Tubing	0.138	0.132
44.5mm Tubing	0.156	0.141
48mm Tubing	0.181	0.151
50.8mm Tubing	0.203	0.160
54mm Tubing	0.230	0.170
57mm Tubing	0.255	0.179
63.5mm Tubing	0.317	0.199
70mm Tubing	0.385	0.220
76mm Tubing	0.453	0.239
89mm Tubing	0.622	0.279

HOW MUCH WIRE WOOL?

Each silencer requires stainless wire wool to wrap around the perforated tubing as a protection against heat damage and to prevent leaking of sound proofing E-glass wool.

In order to calculate how much wire is required to wrap a perforated tube, use the following process:

Recommended coverage; 10g/dm2

Multiply the length of the perforated tubing by the g/mm figure shown in the table above.

Example:

Tubing = 63.5mm

L = 350 mm

 $350 \times 0.199 = 70g$