

## Knitted Wire Mesh Gaskets



Knitted wire mesh gaskets provide a cost effective solution to high shielding performance applications in the magnetic and electrical fields including EMP. Gaskets can be either all metal knitted mesh or knitted metal mesh over an elastomer core to allow for recovery after compression.

There are a choice of wires including: Monel, Tin Plated Copper Clad Steel (TCS) Stainless Steel & Aluminium. The choice of wire mesh material allows for a good galvanic match with mating flanges, thereby limiting the possibility of corrosion between gasket and flange.

Standard gasket profiles are: Round, Round with Fin & Rectangular. 'D' Shapes and custom shapes are available and can be supplied in continuous lengths or fabricated to customer design. An environmental seal can also be bonded to the side of the mesh gasket to provide additional IP sealing

All types of knitted mesh gaskets can be supplied as base products, or can be fabricated to customer designs allowing complete ready to use gaskets to be fitted to equipment. In addition compression stops or collars can also be fitted to the 300 series to prevent over compression.

**Material data & Shielding Performance**

**Typical Shielding Performance**

As achieved by testing to MIL-STD 285 modified.

**H Field**

<u>MHz</u>	<u>0.01</u>	<u>0.1</u>	<u>1.0</u>	<u>10.0</u>
Monel	28	45	64	>104
TCS	47	67	88	>104
S/St	35	43	50	

**E Field**

<u>MHz</u>	<u>0.01</u>	<u>0.1</u>	<u>1.0</u>	<u>10.0</u>
Monel	>118	>136	>123	99
TCS	>118	>136	>126	109
S/St			119	102

**P Field**

<u>MHz</u>	<u>400</u>	<u>1000</u>	<u>10,000</u>
Monel	96	84	46
TCS	98	77	43
S/St	95	80	76



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### **Material Specifications:**

#### **Monel Alloy 400 Wire:**

Wire diameter 0.11mm.

UK Specification to BS3075 NA13

USA Specification to AMS 4730

#### **Tin Plated Copper Clad Steel (TCS):**

Wire diameter 0.11mm

UK Specification BS2316\*, BS4087\*

USA Specification ASTM B277\*, ASTM B452\*, ASTM B520, ASTM B33\*, AISI 1010

\* There is no complete specification for this material. Processes have been derived from parts of the above where applicable.

#### **Stainless Steel:**

UK Specification BS 1554316S19

Wire diameter 0.11mm