

KNITSHIELD | Knitted Mesh with Carrier KM Shielding

KM Shielding gasket strip and frame materials consist of a slotted aluminium extrusion carrier into which a solid or elastomer cored knitted mesh gasket is clamped. These ready-to-fit, semi-rigid gasket profiles help to avoid the problems often encountered when fitting adhesive-backed or plain mesh gaskets.

They can be supplied with dual gaskets, one on either side of the carrier, with one being a mesh gasket and the other an environmental seal. The aluminium extrusion acts as a limit stop, controlling the even compression of the gasket.

Applications:

KM Shielding gaskets can be used on covers, door frames and other apertures where the surrounding metalwork is either insufficiently rigid or is very heavy duty and needs a robust, well anchored gasket which will not be affected by the stresses and shearing action imposed on conventional twinstrip gaskets.

KM mesh is generally supplied as straight lengths (up to 3m), as welded/jointed frames to suit specific apertures or as mitre cut sections ready to mount around cabinets, doors or hatches. The aluminium carrier is usually drilled and countersunk ready for screws or rivets or, in less stringent conditions, frames can be fixed using a high-bond pressure sensitive adhesive. Welding is possible but not recommended as damage to the mesh or elastomer is very difficult to repair.

Specifications:

Monel	- BS3075 – NA13	(0.11mm diameter)
Aluminium 5056	- AMS 4182	(0.13mm diameter)
TCS	- ASTM B520	(0.11mm diameter)
Stainless Steel	- Alloy 304	(0.11mm diameter)
Silicone Sponge	- AMS 3195	
Silicone Solid	- ZZ-R-765	
Neoprene Sponge	- Mil-R-6130	
Neoprene Solid	- Mil-R-6855	
Aluminium carrier	- BS1474 6063 with Alochrom 1000, 1200 or Iridite, a RoHS compliant surface treatment	

Performance: Typical Attenuation dB

FREQUENCY	FIELD	MONEL	ALUMINIUM	TCS	S/STEEL
10KHz	H	45	40	60	40
100KHz	H	49	45	65	44
1MHz	H	60	60	85	58
1MHz	E	125	125	125	125
10MHz	E	120	120	120	120
100MHz	E	100	100	108	100
400MHz	P	98	95	99	94
1GHz	P	85	76	78	76
10GHz	P	80	65	62	60

Tolerances:

- Wire meshes - generally $\pm 0.8\text{mm}$ on diameter, width and height
- Linear measurements on gaskets - up to 300mm $\pm 0.8\text{mm}$, up to 1000mm $\pm 1.5\text{mm}$
- Sponge and solid elastomers - up to 4.5mm $\pm 0.4\text{mm}$, over 4.5mm $\pm 0.8\text{mm}$



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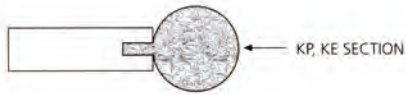
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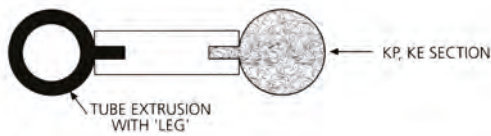
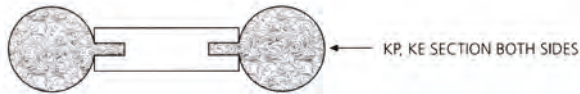
KNITSHIELD | Knitted Mesh with Carrier

KM Shielding

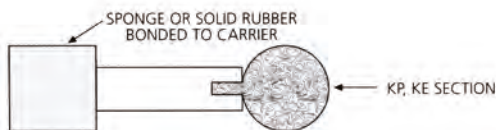
SINGLE SLOT STYLE



TWIN SLOT STYLE



WITH ENVIRONMENTAL SEAL



Please note:

- Avoid mounting any 'dual' or 'twin' gasket material where two materials are bonded together in a position where the normal process of closing a door cover exerts a stress or shearing action which creates pressure on the joint between the two materials. If possible, the pressure exerted on any gasket should be directly downwards onto the exposed face of the gasket.
- KM Shielding gasket forms can be supplied as strip material, pre-formed gasket sections or as ready-to-mount finished gaskets.
- Other sizes are available – please ask!

For details of fixing methods or any technical queries please contact our sales office.

SERIES KM CARRIER SIZES

Shape	Thickness mm	Width mm	Slots
CS1	3.2	9.5	1
CS2	3.2	12.7	1
CS3	3.2	15.9	1
CS4	3.2	19.1	1
CS6	3.2	12.7	2

How to order:

Standard sizes can be specified from the table above. Alternatively, specify:

Series - Carrier - Mesh portion - Elastomer portion (where applicable) - Elastomer Size

Examples:

KM-CS6-M-10-0064-ST-0064-0048 indicates a base material comprising carrier section CS6 with 6.4 mm diameter Monel mesh fixed to one side and a silicone rubber tube 6.4 mm o.d. and 4.8mm i.d. on the opposing side.
KM-CS1-ASS-60-0048 indicates a base carrier section CS1 with an aluminium mesh covered silicone sponge gasket 4.8 mm diameter on one side only.

Notes:

- If second gasket/seal on CS6 is not specified, it defaults to being the same as the first material.
- If a suffix in brackets is shown after the mesh part number this indicates the number of mesh layers. The default is two (2) layers and does not need to be specified.

SERIES	CARRIER	MESH PORTION	ELASTOMER	SIZE / DIMENSIONS OF ELASTOMER
KM	CS1	M=Monel	SS=Silicone Sponge	XXXX-XXXX
	CS2	A=Aluminium	NS=Neoprene Sponge	
	CS3	T=TCS	ST=Silicone Tube*	
	CS4	S=Stainless Steel		
	CS6			

*= with 'leg' for twin slot carriers

For gaskets or strip material not shown, or specific shapes, made up frames and fixing hole positions, please send a drawing and we will allocate a part number with our quotation.



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