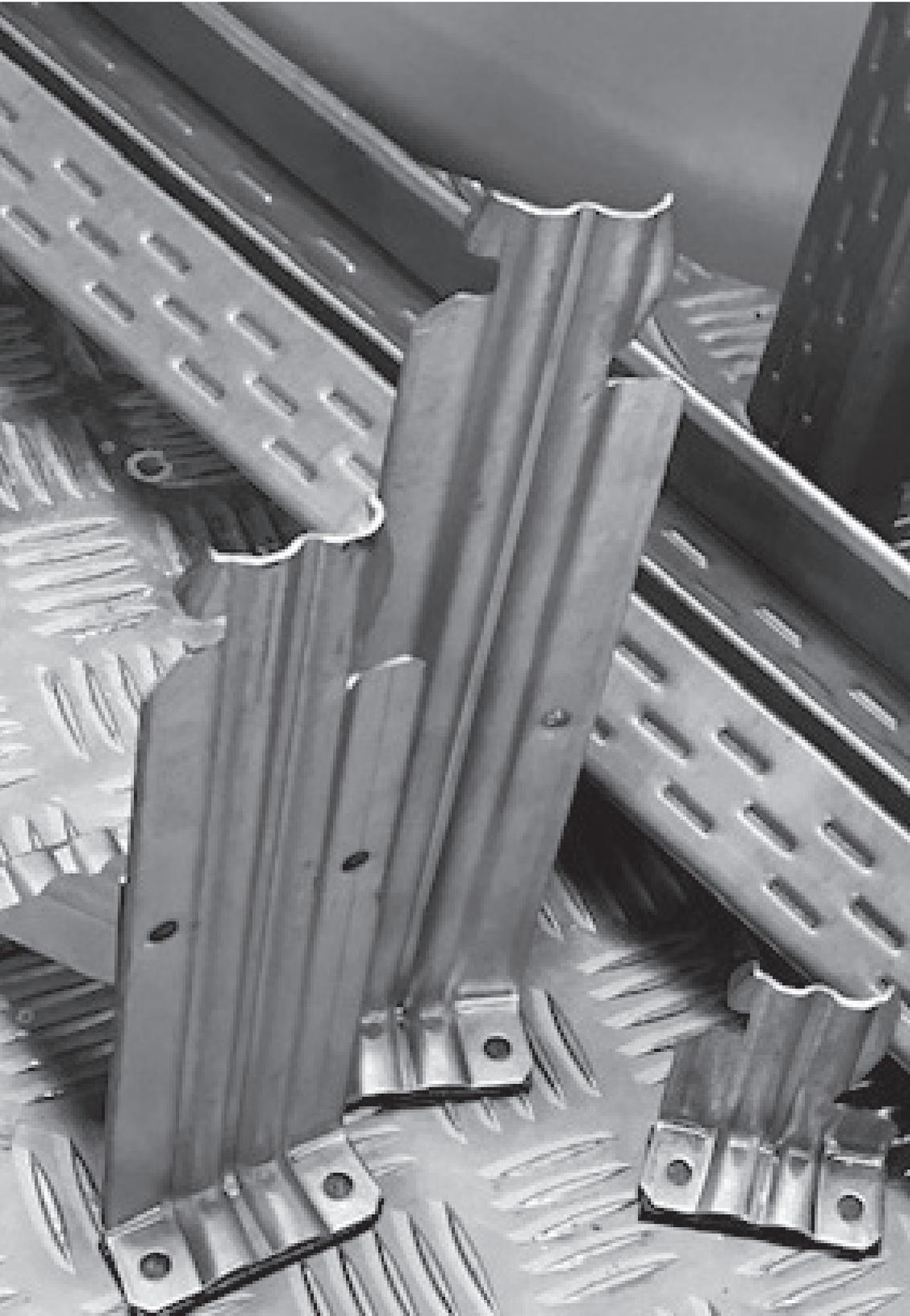


# korogrid<sup>®</sup>

spacer support system



teknorooF



**korogrid is a unique spacer support system which has been designed for use with built up, double skin metal roofing and cladding systems.**

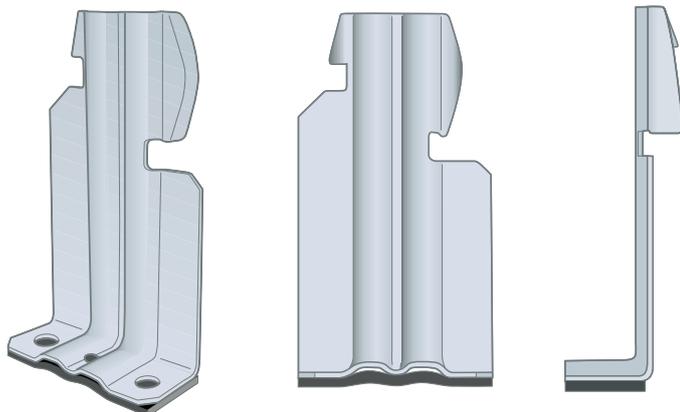
suitable for both newbuild and refurbishment applications, korogrid offers an innovative and cost-effective alternative to the traditional bar and bracket spacer.

the system also provides a more stable method of fixing at greater depths to suit the thickness of insulation specified.

korogrid has the added advantage of the brackets being fixed in place prior to the application of the support bar. this feature makes installation simpler, reduces the potential for human error and is consequently less labour intensive to install.



## **korogrid brackets**



korogrid brackets are manufactured from high-quality 1.5 mm hot-dip galvanised mild steel to bs en 10143 : 1993 (formerly bs 2989 : 1992). the base of the bracket incorporates a neoprene thermal break which minimises thermal bridging and acts as a vapour seal.

brackets are available in a range of heights from 60 mm to 250 mm which is usually determined by the thickness of insulation specified or pitch of roof required.

in refurbishment applications the profile depth of the existing cladding will also determine the height of bracket required.

### **standard bracket height (mm)**

60, 80, 100, 120, 140, 150, 160, 180, 200, 220, 240

other bracket heights are available subject to quantity.

### **support bar**

korogrid support bars are manufactured from high-quality 1.25 mm z35 hot-dip galvanised mild steel to bs en 10143 : 1993. the support bars feature a unique dimpled fixing zone, which ensures fastener security. available in lengths of 1, 2 and 3 metres (effective length) the bars have a spigot end to maintain a continuous level of support.

### bracket spacing requirements

using two fasteners into light gauge purlins, the bracket support and fastener assembly has a proven minimum safe working load of 3kn.

to calculate the maximum centres of the brackets along the support bar the following information is required:

main purlin centres in metres (m) and the design wind uplift loading in kn/m<sup>2</sup> (w).

the following formula is then applied:

$$\text{maximum bracket spacing} = \frac{3}{m \times w}$$

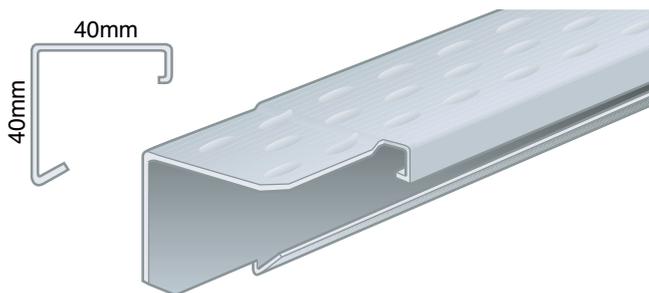
for example purlins at 2 metre centres with a design wind uplift loading of 1.4kn/m<sup>2</sup>,

$$\text{maximum bracket spacing} = \frac{3}{2 \times 1.4} = 1.07 \text{ metres}$$

the brackets should be fixed at convenient centres below the calculated maximum e.g 1m spacings.

### korogrid anti-sway bracket

following amendments to approved document l of the building regulations (england & wales) roof constructions for buildings other than dwellings now have to achieve a u-value of 0.25 w/m<sup>2</sup>k. changes to the u-value calculation method itself has also meant that repeated thermal bridges need to be taken into account.



as a result of these changes the depth of the roof (and the height of the bracket) has more than doubled in twin skin built-up metal roof constructions that incorporate a spacer bar support system. increasing the depth of a built-up roofing system, particularly at higher pitches can make a roof more susceptible to any destabilising influences e.g. wind uplift. to combat this teknoroof have added an anti-sway bracket option to the highly successful korogrid spacer support system.



## **korogrid fixing details**

the profiled metal liner sheet is attached to the purlins or railings in accordance with the manufacturers recommendations prior to the installation of the korogrid spacer support system.

a continuous vapour control layer is then laid over the liner sheet taking care to ensure that all laps are sealed. the brackets are then fixed in place at predetermined centres using standard self-drilling fasteners). for steel purlins up to 3.5 mm thick the use of lcs ss025 self-drill screws are recommended and hcs ss040 fasteners for hot rolled sections. when the brackets are fixed in place, the support bar is simply rotated into a secure position at 90° to the brackets. a bracket should always be positioned within 75 mm from the leading end of a support bar so that the joint is not subject to bending.

the specified type of insulation is then laid over the liner sheet and beneath the support bars followed by a breather membrane if required. the outer sheet is then fixed in place in accordance with the manufacturer's recommendations.



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all information is correct as of the date of this document, created august 2020.