

Viking Technical Series - Safe Design in Membrane Roofing

Viking Roofspec are suppliers of waterproofing membrane systems for roofing, decks and below ground waterproofing. We provide technical support to designers / specifiers for low risk design and best (safe) detailing for our systems.

Viking Roofspec supply our waterproofing systems only via our Viking Approved Applicator Network who Viking have invested in training and assessing for quality of workmanship.

Safe Design = Lower cost of construction, Faster roof close-in, reduce heights.

A/ take watershed to external spouting

External spouting is simple, safe, quick.

B/ do not put outlets into sumps

Sumps collect rubbish blocking outlets and hold water

C/ if roof is within parapets then fall consistently all the way to clamped outlets without use of internal gutters. Example and explanation follows...

What is an internal gutter? Fig 64 E2/AS1 gives minimum dimensions.

Internal gutters are within the building envelope, they fall perpendicular to the main roof fall, generally over a longer distance requiring additional height within a roof design, although they only have minimal fall 1:100.

An Example of a Membrane Roof with Internal Gutter with dimensions of 7.5mts x 10mts.

2° (1:30) over 7.2Lms = 240mm. 300mm wide Internal Gutter 10Lms: 50mm stepdown + 100mm of fall (1:100) 150mm. Total = 390mm.

Same roof dimensions with No Gutter = 250mm 7.5mts Roof fall of 2° (1:30)

How is this done?

Creating falls in 2 directions by creating a parabolic curve. Instead of stopping 300mm away from an outlet (min. width of an internal gutter) continue the 2° (only requires 10mm further fall)

This height determines the ratios of fall in all other directions.

EG: over 7.5mt example this is 250mm. Ratios of fall in other directions?

10Lms / 250mm = 1:40

12.5Lms / 250mm = 1:50 (hypotenuse)

This simple example saves more than 35% of the height to create roof falls. Falls are all Greater than minimal internal gutter falls of 1:100.

Other Messages:

1. Always use proprietary fittings for the correct membrane type
2. Contact the specialist waterproofing supplier for quick and convenient advice to save your time
3. We can provide you available details and accessory details.