

## HOW TO HANG A SLING

The following information is provided as a guide only. correct hanging of a sling is dependent on many factors which include: type of sling, ceiling height, ceiling construction and personal preference.

The basic objective is to secure the sling safely and in a manner which provides greatest comfort to both top and bottom.

## SECURING THE SLING SAFELY

A typical system to hang a sling will consist of three parts:

- fixing points
- chains
- connectors

### Fixing Points

These are the fittings fixed to the structure of the space in which the sling hangs. This is normally the ceiling/roof, but can also be walls and frames. The material into which you secure these fittings must be able to support the sling and its contents with a large margin of safety. The type of fitting used must be appropriate for the material, and of a suitable size. Discuss these factors with your local hardware store - all they need to know is that you wish to hang something from your ceiling weighing, say 250kg.

#### Concrete roofs and walls:

Use M8 (minimum) or M10 (better) rawbolts with an eye (not a hook). Ask your hardware for the size of masonry bit you require. Drilling into a concrete roof is not easy - use a drill and bit that is up to the task - hiring a proper drilling machine is well worth the effort, but remember that Hilti and other manufacturers have a proprietary bit-holding system, so make sure you get the appropriately-sized bit with the machine.

You may hit a steel rebar in concrete ceilings and have to reposition the hole. The swiss cheese effect is not a good look for concrete ceilings. There are reasonably priced devices on the market which will help you locate these before drilling.

#### Timber roofs/beams:

If possible, install the sling parallel to the beams. The weight and back-and-forth motion of the sling will exert a pulling and/or twisting force on the beam which is better counteracted by the length of the timber, than by the width. If the beams are exposed, a good method is to use an eyebolt secured through the centre of the beam. Insert large washers between the nut and the beam. if the beams are above a plastered ceiling, you could try using a large screw-in eye on the underside of the beams. make sure that you insert this in the centre of the beam and that the sling is installed parallel to the beams.

### Chains

Chains remain the best method of suspending the sling. apart from the strength they offer (when correctly sized), they use fittings which allow for easy yet safe adjustment - or complete removal when mum and dad come to visit. the minimum recommended size is 5mm and make sure that the chain is galvanised. a good idea is to slip clear plastic tubing over the chains - this makes them easier to clean, thereby reducing the chance of inadvertant transmission of STDs via greasy hands.

### Connectors

Snaphooks or carabiners remain the best means to connect your chains to the fixing points and sling. they 'snap' easily into place, cannot 'undo' themselves and are relatively easy to adjust (though greasy hands can make this a bit tricky). minimum size recommended is 8mm and they should be galvanised or better, chromed.

## POSITIONING OF FIXING POINTS

Correct positioning of the fixing points will ensure that:

- the sling is stable
- the sling is able to move in a controlled manner

the chains are not in the way of either top or bottom  
the footstraps are able to be positioned comfortably

## Basic Principle

For every centimeter vertically between sling and ceiling, move fixing point by one quarter to one half the number of centimeters outwards from each corner of the sling.

How to do this:

You need the following measurements:

height of sling base - the base is usually the wider end of the sling and should be positioned initially at hip height

length and width (at base) of sling - use the 'body' of the sling ie. do not include the loose straps

the height of the ceiling or fixing point

say for example you are trying to hang a KINX© webbed sling in a room with a ceiling height of 2.7m (standard in most modern homes) and your hip height is 90cm

height of sling base = 90cm

length and width (at base) of sling = 98cm x 42cm

the height of the ceiling = 270cm

therefore:

difference between base and ceiling = 180cm

therefore:

fixing points will move out by 45 to 90cm on all sides

therefore:

fixing points should be placed in a rectangle measuring between 188x132cm and 278cm x 222cm (sling length + difference between base and ceiling)

## Length of chains

A rule of thumb means to determine the length of chain required is to multiply the difference between base and ceiling by 1.5. therefore in the example above we need 4 lengths of chain of 2.7m each. This leaves plenty of chain for adjustment. this can either be left hanging, or you can loop it through the sling d-ring and clip the end back onto the chain. ask your hardware store to cut the chain to this length for you

Good Luck!