Hopkins Cattle Grids

Installation Guide

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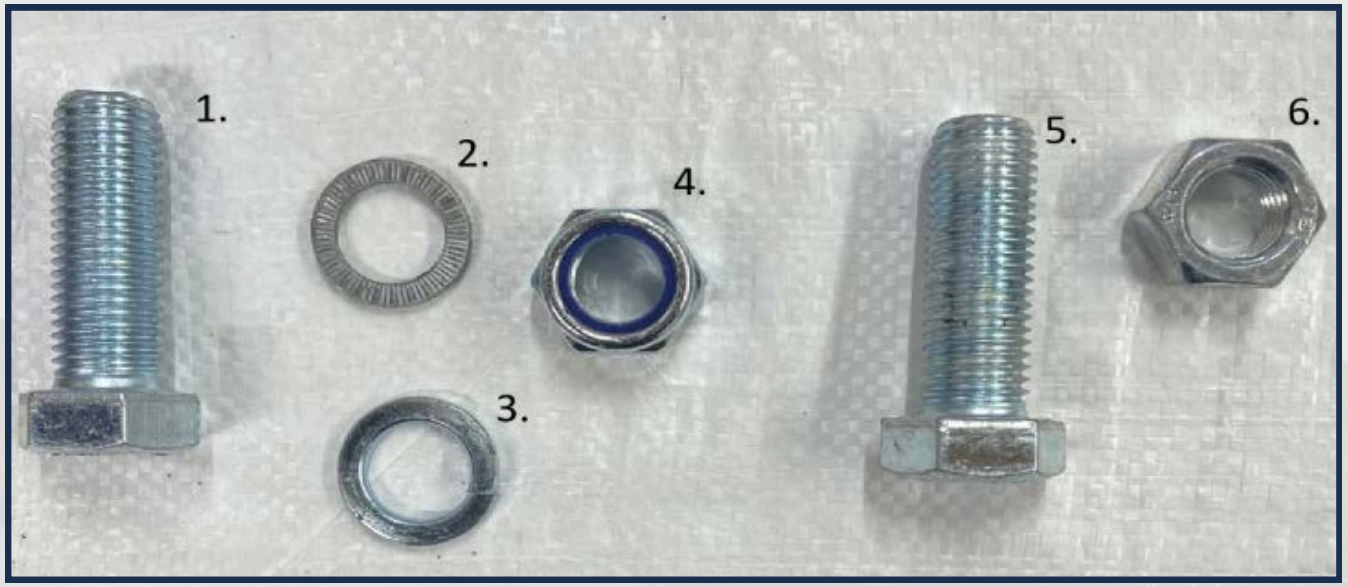
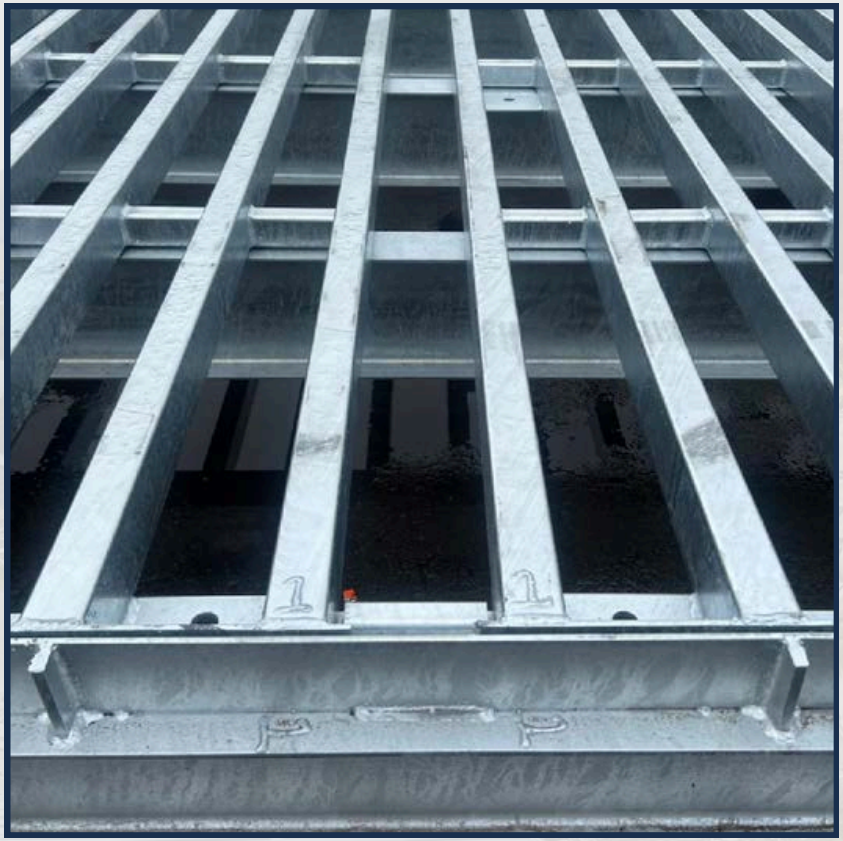
What's in the bag?



1. M20 x 60 bolt
2. Locking Washer (highway unit only)
3. Spring washer
4. Nylon nut
5. M20 x 60 bolts
6. Plain M20 nut (Split base frame only)

Installing the top sections

Ensuring the grid tops are correctly positioned in the base frame is a crucial part of the installation. This is done by matching the numbers on the top section with those on the base frame as per the pictures below.



Securing the bolts

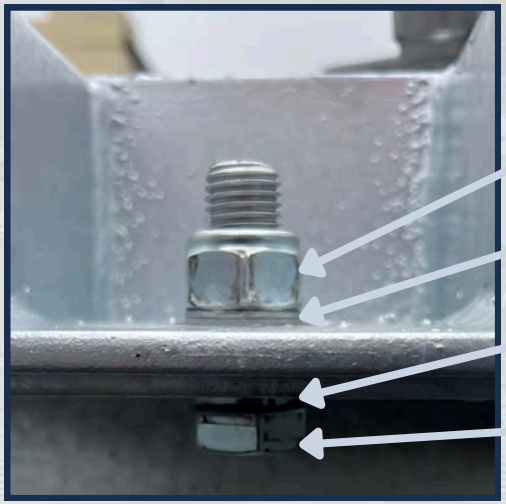
Securing the bolts

Each grid is supplied with a tailored number of M20 bolts, spring loaded washers and nylon nuts (highway units will have special locking washers in addition to spring). Bolts are to be tightened to snug tight condition as defined in BS EN 1090-2.*

*(“Snug-tight” is that achievable by the effort of one man using a normal sized spanner without an extension arm, and can be set as the point at which a percussion wrench starts hammering.)

Standard

Highway/196T



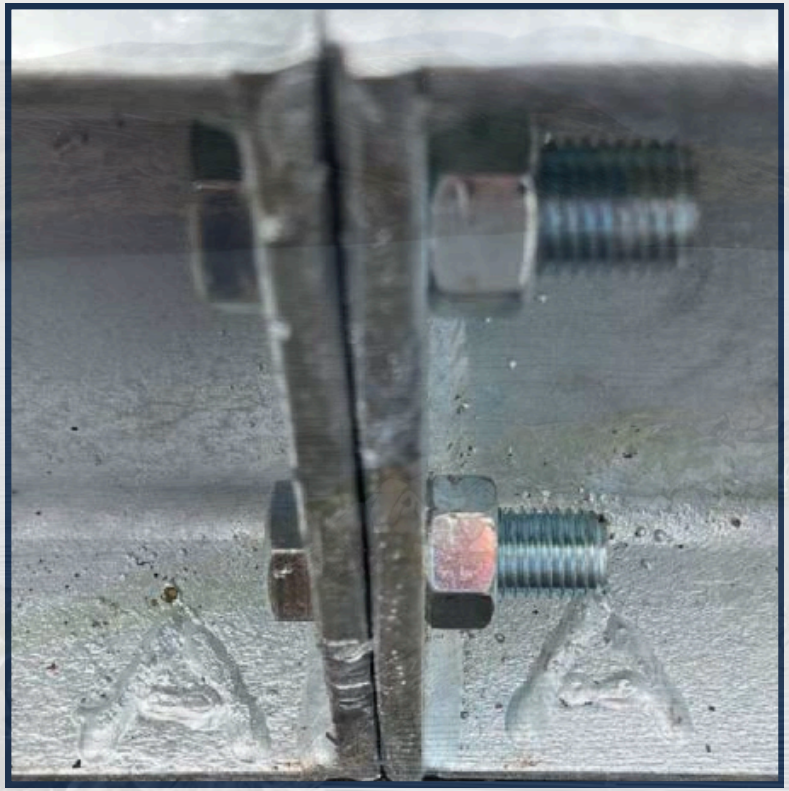
Deer Grid Guide

How do the deer grids arrive on site?

Pictured below is how the grid will arrive on site. The base frame will come in two sections for transport along with 4 top sections that bolt inside. The most practical way to remove this from the lorry is with a forklift, inserting the forks below the bottom beam and lifting the unit in one, please check the lifting weights and lifting capacity of your vehicle before attempting this. If your equipment cannot lift the complete unit it has be removed per section, the unit weights are available by request from our office.

Bolting the Base Together

First, the base frame needs be bolted together to form one complete unit. You are supplied with 8 M20 x 60 Sets and plain nuts for this. Pictured below is the unit complete with the bolts secured in place. It is crucial the base is secured correctly. Match up the letter found on the base like below, for example on this grid it is A + A.



Installing the top sections

Once the base frame has been installed you can now begin lowering the top sections into the frame. These again must be installed correctly and are issued with numbers that correspond with the base, so match these up to ensure the correct fit. For example, this grid has tops 1,2,3 and 4. Please note depending on the production number, these will not always be 1,2,3,4 but the principle remains the same.

Finally, secure these tops into the frame with the correct fixings supplied (see page 5 for details), drop your side rails into the sockets (if ordered) and your Hopkins Quick-fit Deer Grid is ready for immediate use.
Note: Hardcore installation ready for immediate use, if you are installing using concrete, please ensure the concrete has cured before using.

Installation Guide - Cattle Grid

Photos are courtesy of A.C Bufton Landscape Gardening and Groundworks.

The simplicity of the Hopkins Cattle & Deer Grids is unmatched but here is a helpful guide to some very important stages of the installation.

1st Stage

Excavate a pit to take the size of grid. This needs to be a minimum of 30 inches deep and onto natural ground providing minimum 50kPa allowable bearing pressure, i.e. firm clay, or medium sand. Remove excavation to edge of site and level off.

2nd Stage

Supply and lay 100mm perforated drain in pit to discharge any accumulation of water (if required). Supply and lay a minimum of 300mm MOT Type 1 hardcore in base of pit laid in compacted layers of 150mm maximum thickness. There are 150mm outlet holes in the outside of the base to pipe excessive water to a ditch or drain if needed.

<u>Concrete Installation (a requirement for the highway units)</u>

Frame to be bedded on a minimum 150mm thick slab, RC32/40 concrete mix to B58500 with A193 fabric top and bottom. 300mm laps with 50mm cover cast on suitable base of 150mm minimum layer of well compacted MOT Type 1 stone hardcore, onto natural ground providing minimum 50kPA allowable bearing pressure, i.e. firm clay or medium sand.

3rd Stage

The grid frame can now be placed into the pit and the grid sections placed on top of the grid frame. These are retained in position by a steel flat up-stand and secured using the bolts provided. (Page 5)

4th Stage

The wing panels can then be fitted in slots provided, thereafter the area around the grid frame is back filled with hardcore and consolidated.

Perimeter of cattle grid to have min. 450mm wide concrete surround with 1 layer A142 mesh central, 50mm min cover to all sides, to provide restraint to vertical flat plate upstand. Depth equal to upstand height.

5th Stage

Three hours later. The grid is ready for immediate use.