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All Steel 26t / 50t Cattle Grid

1. Preparation

Read this guide before starting. In particular consider the following:

- <u>Installation onto a concrete pad or aggregate base</u> The grid is designed so that it can be installed using either method. We would always recommend any all steel grid is installed onto a concrete pad. We would ask you to consider the following when making your decision location of the grid and it's surrounding area and is it a level or sloping site; how much water / debris will run into the grid and how heavily trafficked the grid will be.
- <u>Guard fences</u> Side fencing is employed to keep livestock away from the grid. Consider the position of the fence posts and their method of fixing. Further excavation may be required, and/or you may wish to set some of the fence posts into the concrete apron surrounding the grid.

2. Excavation / Dig Dimensions

 $\label{lem:lemm} \mbox{Length = 2660mm for rectangular bars + 160mm kerb + 300mm = 3120mm} \\ \mbox{or 2600mm for circular bars + 160mm kerb + 300mm = 3060mm}$

Width* (across the road) = grid width + 60mm kerb + 300mm = 10ft (3000) = 3360mm

12ft (3660) = 4020mm

14ft (4270) = 4630mm

Depth** = 410mm for grid with rectangular bars + 150mm concrete or aggregate base = 560mm Or 390mm for grid with circular bars + 150mm concrete or aggregate base = 540mm *The width dimension across the road will vary from grid to grid.

**The top surface of the installed grid should be flush with the road surface (see below exception). Depth measurements assume an even road surface and an even concrete base.

Installation of a grid onto a road with an existing aggregate road surface, the grid may be installed slightly raised to prevent excess debris falling into the pit.

The above excavation dimensions are indicative only. The length and depth dimensions are based on our standard design, if a special grid is being manufactured then adjustments will need to be made to these dimensions. As will, if a deeper sub-base is preferred/required.

3. Prepare Aggregate Base / Concrete Base

Installation onto an aggregate base only – as existing track or CBR test (eg. 150mm of 0-40mm aggregate) – compacted Installation onto a concrete base – 150mm depth of C40 mix to BS8500, option for this to be reinforced if the grid is to be heavily trafficked Installation onto a dry mix concrete base for rapid installation – 150mm compacted



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4. Installation of the Grid

Once the base is either compacted or cured depending on which installation method is chosen, the grid sections and the kerb frame need to be assembled. These can be assembled in the pit or assembled on the ground and then lowered into the pit ready assembled.

Ensure all bolts are tight and the grid is positioned with the length and width the correct way round and also positioned correctly in the road, ideally in the centre of your hole, centred to the road. Any side fencing which is to be bolted to the side of the grid should be fitted at this point.

Drainage holes are located in each corner. We would recommend the use of drainage pipes, however if the land is self-draining then this may not be required.

5. Securing the Grid

Once the grid is fully assembled and in the pit correctly positioned – the next step depends on how the grid was installed at point 3 above.

- Installation onto an aggregate base. There should be enough room around the perimeter of the grid to backfill and compact aggregate in layers and make good to road surface level.
- Installation onto a concrete pad. Concrete the kerb frame into position and allow to cure before backfilling.
- Installation using a dry mix. Backfill around the perimeter of the grid with dry mix and compact. Further layers of aggregate with compacting and make good to road surface level.

Depending on what the existing road surface material is, allowance will need to be made in the backfilling to enable the road surface to be made good to existing.

Make sure all bolts are tightened and to complete installation, please refer to the maintenance schedule, downloadable from the website.

Please Note: This installation guide is as described, a guide for a typical installation. Please refer to BS4008:2006 for general guidance on siting, by-pass facilities and side fences etc.

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