

# Cardok Installation information



**February 2011**

**Project: Generic for information only.**

## **Excavation**

The excavation dimensions are to be 7160 (length) x 3610 (width) x 3000 (depth). This allows for the unit with the minimum 300mm backfill in all directions. The depth given is to the finished level of the concrete slab, which is required to support and level the unit. The slab should be laser leveled to aid positioning.

## **Delivery**

The Cardok will be travelling by road. The delivery time will be influenced by traffic but the aim will be to have the units on site by 10.00 am. The Cardok will be travelling by lorry and will need to have clear access for off loading. The unit weighs approximately 12 tonnes and is approximately 6.5 metres in length.

## **Off Loading**

A crane will be required to position the Cardok and lower it into the excavation. The provision of the crane is the responsibility of the customer. Typically a 50 Tonne crane needs to be within 13 metres of the excavation to safely handle the weight and positioning of a Cardok. This will require confirmation with the crane hire company. The crane is positioned sufficiently far from the pit edge to avoid the risk of collapse of the sides of the pit excavation. Cardoks are fitted with lifting shackle points.

Any road closures are the responsibility of the customer. The customer, or his installation contractor, is to be responsible for supplying banks men to ensure safety of off loading and manoeuvring.

## **Levelling**

The Cardok is fitted with integral adjusters for fine adjustment to finished level. The Cardok must be fitted level for safe operation. The adjustable feet are < 500mm diameter steel disks and need to be sat on a level concrete base at a specified distance below finished ground level. On the day of delivery the Cardok engineers will be available to make the adjustments to the customer's satisfaction of final level.

## **Back filling**

Once the Cardok has been set level on their feet, the first pour of concrete can take place, this is to be up to a maximum of 100mm up the side of the unit. This should be a water proof concrete with a free flow accelerator additive, and must totally surround the Cardok base. The first pour acts to distribute the weight of the Cardok and to prevent any floatation and great care should be taken to ensure that the unit is not allowed to move /float during the first pour. Once this has set the second pour can follow to a depth of 825 mm. Once this has set the remainder of the back fill can take place.

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A detailed concrete specification can be provided. Please note that this is for guidance only and the project structural engineer should approve this specification.

## Connections

The customer's electrician will need to supply a 6 metre tail of coiled cable through the power inlet in the side of the Cardok. On the second visit to site, this will be connected to the control panel by the Cardok engineer, immediately after which the customer's electrician will be asked to connect the three phase supply to enable the unit to run. The specification of this cable should be 5 core-armoured cable, 63 amps, with "D" dated motor type breakers. The supply should be terminated at an isolator adjacent to the position of the Cardok.

In addition, a control conduit needs to be connected between the Cardok and the remote control box position, which is usually located close to the Cardok and wall mounted. The available area and position of the control box needs to be suitable for fixing the remote control receiver and the master control switches. These units will be supplied and connected by Cardok. A length of 1mm, 7 core YY cable needs to be located within this conduit with a 6 metre tail in the Cardok and a two metre tail in the location of the control box. The Cardok engineer will use this cable to connect the remote control receivers to the Cardok control panel in the plant room. This conduit is to also contain a drawer string for future use.

The four corners of the Cardok have threaded outlets for connection to the surface water drainage system. The collars are British standard 2 inch threaded collars. All 4 corners should be connected, although if a corner is to be omitted for any reason the outlet needs to be sealed. There is one final drainage outlet, through 2 inch threaded collar connecting the emergency sump pump with the surface water drainage.

## Top Surface

The customer is free to fit the final top surface of their choice once all the back filling has been completed. The tray is fitted with an up stand and can safely handle a weight of 2 tonne in addition to the vehicle design load.

Once the surface treatment is completed, the Cardok engineers will make final adjustments to the hydraulic lifting cycle, this to take account of any variation in top tray finished weight.

Please note that these notes are for guidance only and all details should be verified by the project consulting engineer prior to the commencement of works.

These notes superseded any guidance notes previous issued