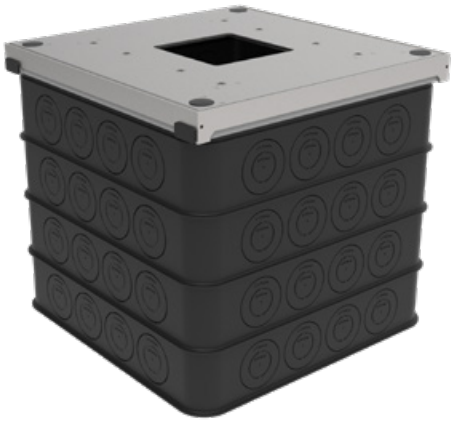
Universal EV Foundations

EV Utility



Overview

EV Utility is a universal EV charger foundation system that makes installations faster, lighter, and easier on-site.

The solution comprises a lightweight chamber system with a bespoke adaptor plate. This simple design supports multiple foundation configurations and OEMs with just one modular approach.

EV Utility makes installations flexible but repeatable across a range of EV infrastructure applications – L1, L2, and L3 alike. With its simple, universal design, the solution allows for a more standardised approach across EV infrastructure projects.

Implementation

- EV Utility combines the lightweight STAKKAbox™ Utility access chamber with a bespoke steel adaptor plate that can be adapted to suit any charging hardware
- STAKKAbox™ Utility chambers are available in either 600x600mm or 450x450mm
- STAKKAbox™ Ultima chambers are available in 800x800mm
- The solution creates a universal frame that can cover three sizes (L1, L2, L3)
- Each size supported can have one of two preferred cover configurations, for either central or offset cable entry
- Capacity to fit cables underneath, allowing for easy cable entry and pulling
- Can be installed at civils stage, prior to the delivery of charger units if required

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Features and benefits

General

- Enables faster, safer, and more cost-effective EV charger installations
- Standardises foundation designs, for simpler specification and on-site delivery
- Offers the flexibility and consistency to suit multiple site layouts and accept charger configurations from all OEMs

Cabling

- Separates civils and cabling works
- Open internal space for easy cable pulling and management
- Compatible with 150mm ducting for efficient cable routing

Cost

- No need for HIAB or additional plant to manoeuvre and install the product
- Reduced system components – resulting in a more efficient supply chain
- Lower overall project costs due to time, machinery, and efficiency gains

Sustainability

- Chamber component uses modern materials achieving up to 100% recycled PP
- Concrete-free solution – supporting reduced installation impact
- Third-party EPD verified, with materials that are recyclable again at end of life

Installation

- Stackable chamber ring sections quickly achieve the desired depth
- Integrated 110m duct knockouts reduce drilling
- Will accept drilled 150mm duct entry points
- Offers rapid, deskilled installations coupled with fast lead times

Safety

- Lightweight, modular construction
- All parts weigh less than 25kg for safe single-person lifts
- Extensively tested and certified for safe EV infrastructure use

Future-proofing

- Allows for simple upgrades as charger units evolve over time
- Chemically resistant below-ground, with a life expectancy in excess of 40 years
- Immediate reinstatements achievable, with no need for concrete surround

Standard sizes		
Size (mm)	**Weight (Kg)**	**Maximum clear opening (mm)**
450[2]	50.41	400 x 300
600[2]	65.75	550 x 450
800[2]	122.68	650 x 650

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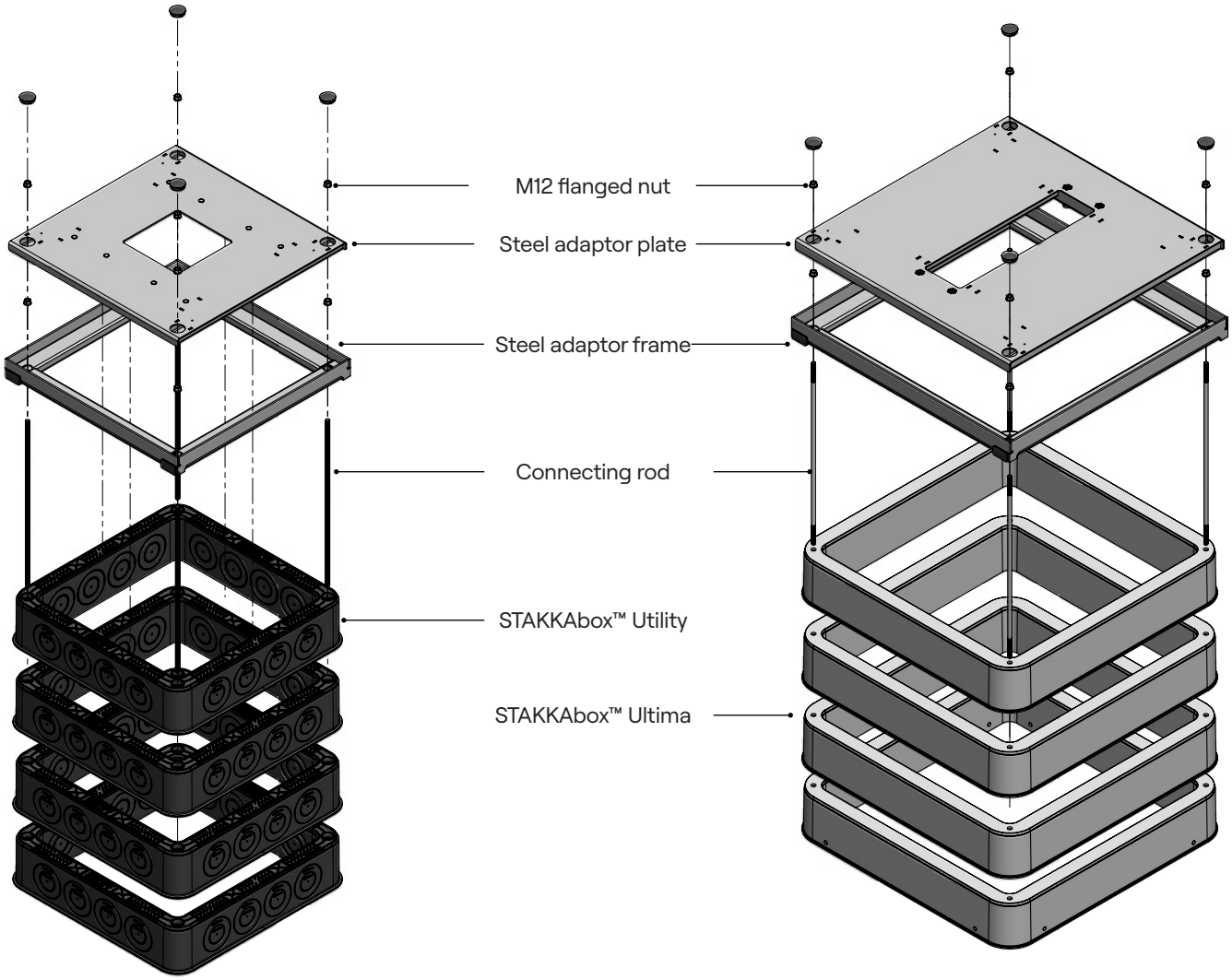
Components

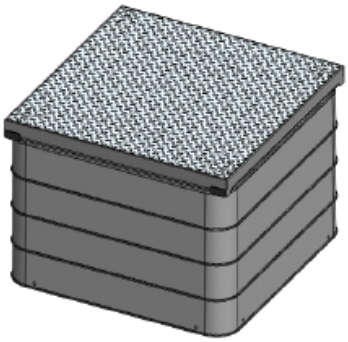


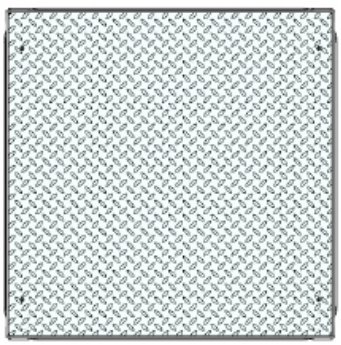
***STAKKAbox™ Utility chambers used for: 450x450mm, 600x600mm**

***STAKKAbox™ Ultima chambers used for: 800x800mm**

Aluminium blanking plate

- Screws to steel adaptor plate when foundation is vacant
- Blanking plate can be secured using self tapping Pozi screws
- Available for all 3 sizes





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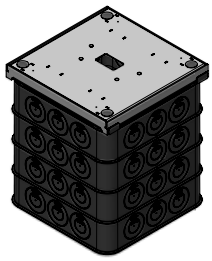
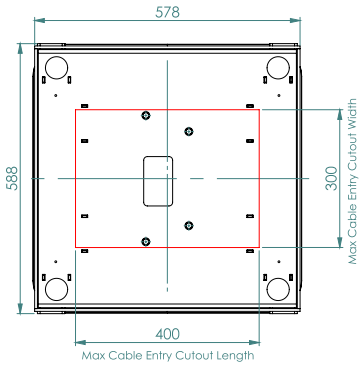
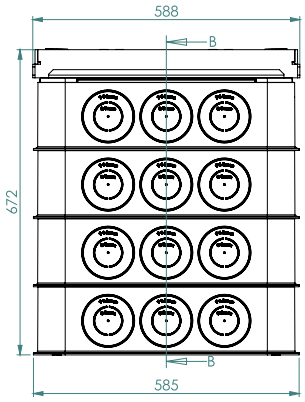
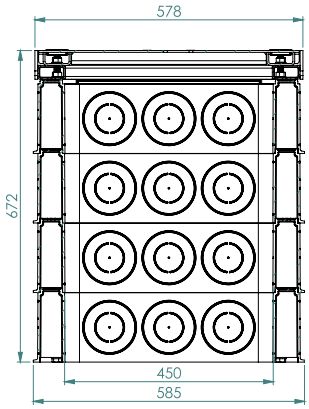
Dimensions

450² (mm)

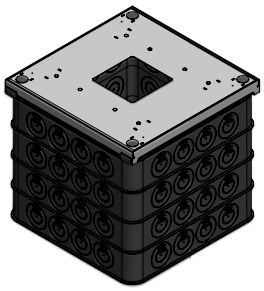


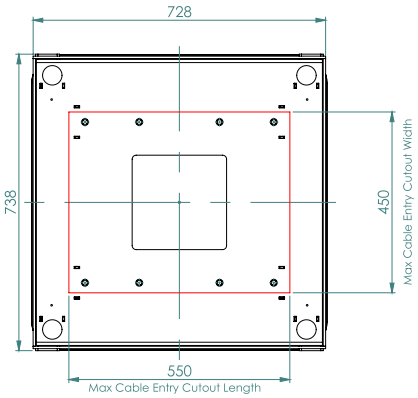


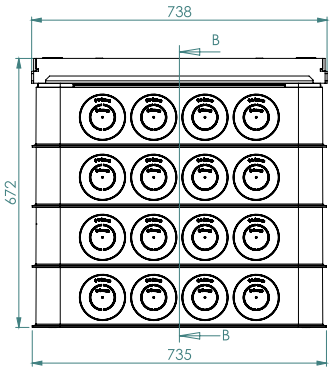


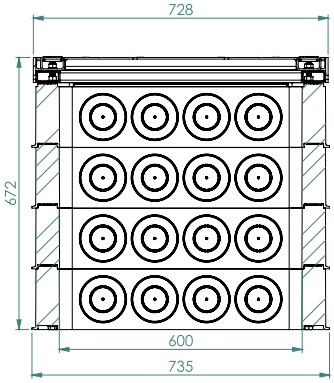


600² (mm)

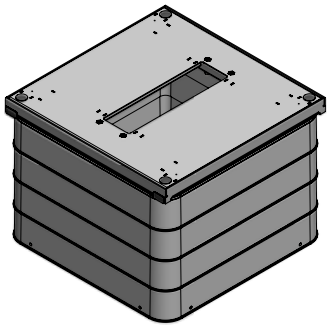


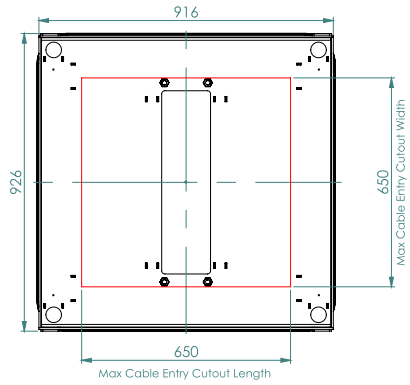


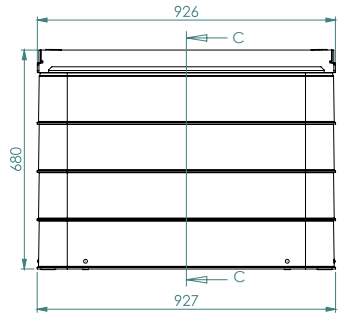


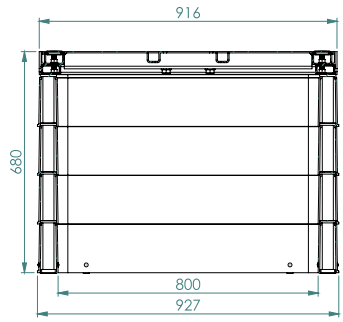


800² (mm)









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Specification

The EV charger foundation will comprise of 150mm deep thermoplastic or thermoset twin wall stackable sections, galvanised steel frame, blanking plate and adaptor plate to suit charger manufacturer.

Access chambers must be tested to withstand a minimum vertical load of 40 tonnes (450mm sq and 600mm sq) and a 90 tonne load (800mm sq) without the use of concrete surround for support.

The EV charger foundation can be installed without a concrete surround for support.

External walls shall be free from moulding voids that will negatively impact the effectiveness of compaction which should be in accordance with the New Roads and Street Works Act (1991).

Access chambers must not be jointed in the corner or require mechanical fixing to achieve strength.

Access chamber sections must have the ability to be adjusted in height during installation. Height must be flexible and can be modified by adding 150mm extensions.

Access chambers must have the ability to allow internal cable management furniture to be retrofitted without the need for any excavation.

The EV charger galvanised steel frame must be secured to the top of the chamber to receive the galvanised steel cover on which the charger unit will be mounted. The steel cover must integrate a cable access point to suit the charger being installed.

The EV charger foundation can be installed without mechanical lifting equipment.

The EV charger foundation will have 4 fully threaded stainless steel rods.

The EV charger foundation will allow 63mm, 110mm and 177mm duct to be installed on all 4 side walls.

The EV foundation can be installed flush to finish ground level ensuring no trip hazards.

The EV charger foundation components must be recyclable at the end of life.

The EV charger foundation must be supplied to the above specification by NAL Ltd or equivalent approved.

T: **+44 (0)1905 427100**
E: **sales@nal.ltd.uk**
W: **www.nal.ltd.uk**

NAL
Weir Lane
Worcester
WR2 4AY