

'Mast-Vault'

Incorporating SA Patents 2012/08045, 2008/06587, 2016/07488 & SA Patent application 2016/04323

protecting transformers / solar panels / pumps / electrical controls

The mast-vault consists of a tall mast supported by a box-like vault (see fig 1).

The vault has a base, four walls with ventilation openings, a sliding door, and a roof-slab with an optional lid - all made from 60MPa densely reinforced concrete. The vault may house an electric pump, cathodic protection equipment, batteries, etc.

At the top of the mast is a transformer, or an array of solar panels. The mast goes through an opening in the vault's roof-slab and slots into a socket in the vault's floor-slab (see figure 3). The vault's roof slab keeps the mast upright, so cable stays are optional, not essential.

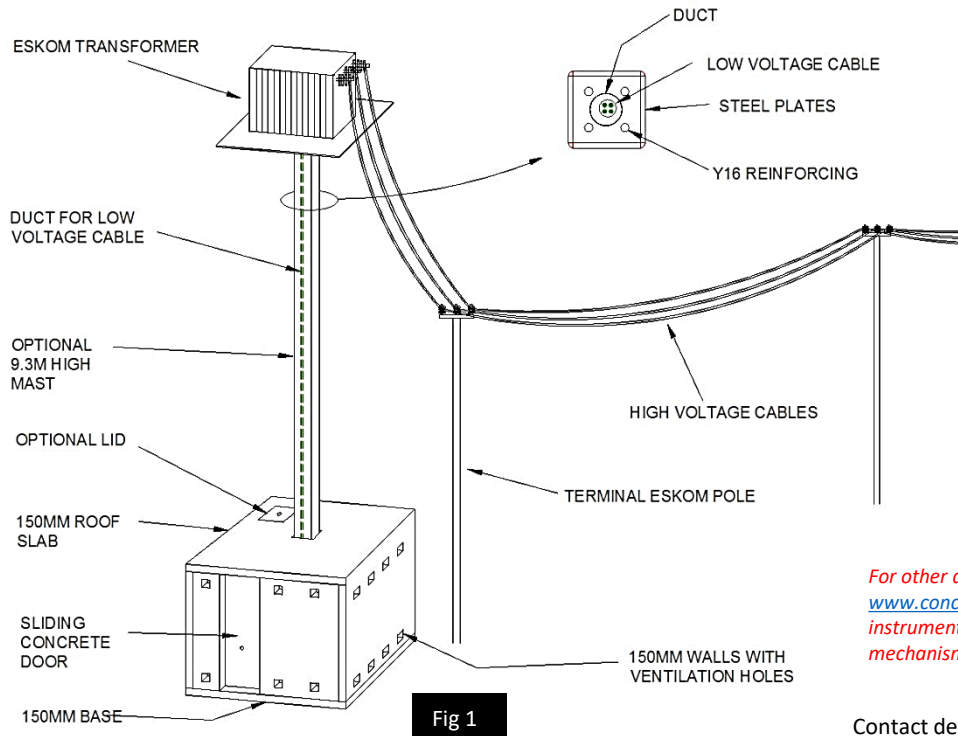


Fig 1

The mast consists of a steel casing filled with 60 MPa concrete and steel reinforcing – see fig 1. The concrete is completely immune to oxy-acetylene attack while the steel casing is immune to chisel attack. The cable from the transformer or solar panel is protected inside a duct in the mast (see fig 1).

The mast is usually 9.6m high, which is sufficiently high to make it 'scary' for vandals. It is thus substantially taller than the extendable ladders available in hardware shops. It can even be made 12m high, which is like looking down from a 5 story high building!

The mast can also be used in an existing pump house - all that is needed is to make a 200mm x 200mm opening in the roof!

In the event that the pump is powered by a diesel engine, no mast is required, and the engine will be sufficiently ventilated by the top and bottom row of air vents in the vault's walls.

For other anti-vandalism/theft products in our range please see www.concretedoorsandvaults.com which variously protect valves, pumps, boreholes, instruments, control panels, pump stations, sub stations etc. All products have robust locking mechanisms, and are made from heavily reinforced 60MPa concrete for extreme protection.

Manufactured and installed by Concrete Doors and Vaults (Pty) Ltd.
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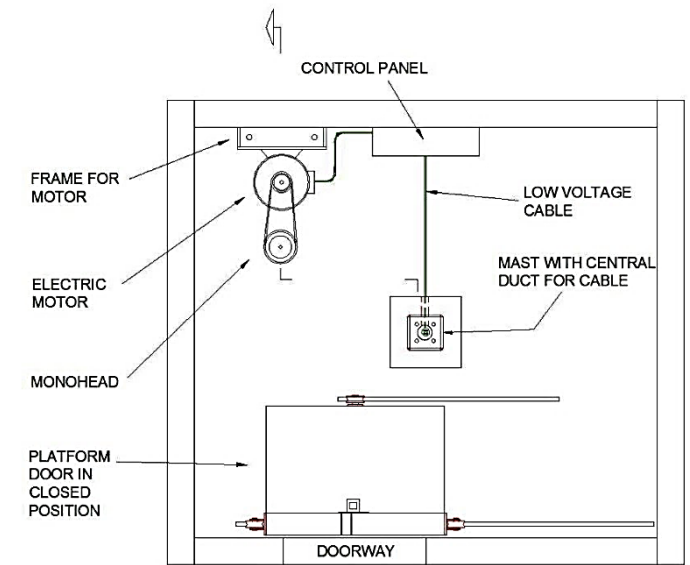


Fig 2 - PLAN

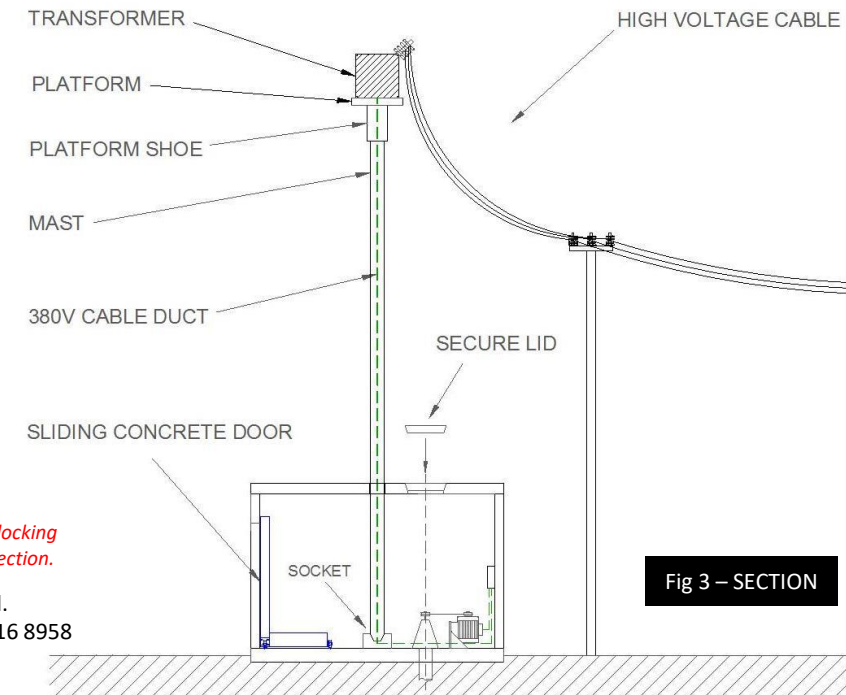


Fig 3 - SECTION