

'Mast Vault'

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

protecting transformers / solar panels

The mast-vault consists of a tall mast supported by a box-like vault.

The mast supports a transformer, or array of solar panels, or could even be a cell phone network tower. 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 is heavy enough to keep the mast upright so there is no need for cable stays.

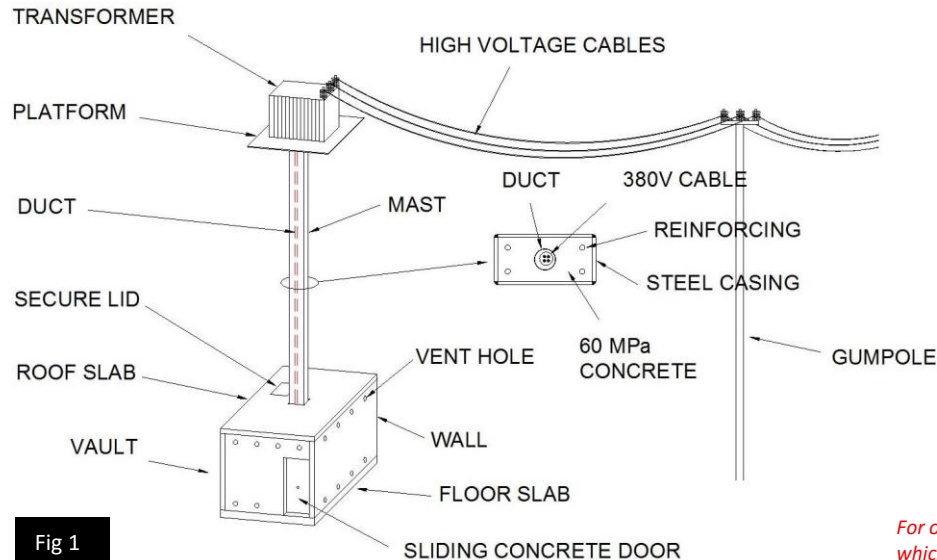


Fig 1

The mast consists of a strong steel casing filled with high strength concrete – see figure 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 figure 1).

The mast can be made 12m high which is substantially taller than the ladders available in hardware shops. This is also sufficiently high to make it 'scary' for vandals. (It's like looking down from a 4 story high building)!

The mast can also be used in an existing pump house - all that is needed is to provide an opening in the centre of the roof for the mast!

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.

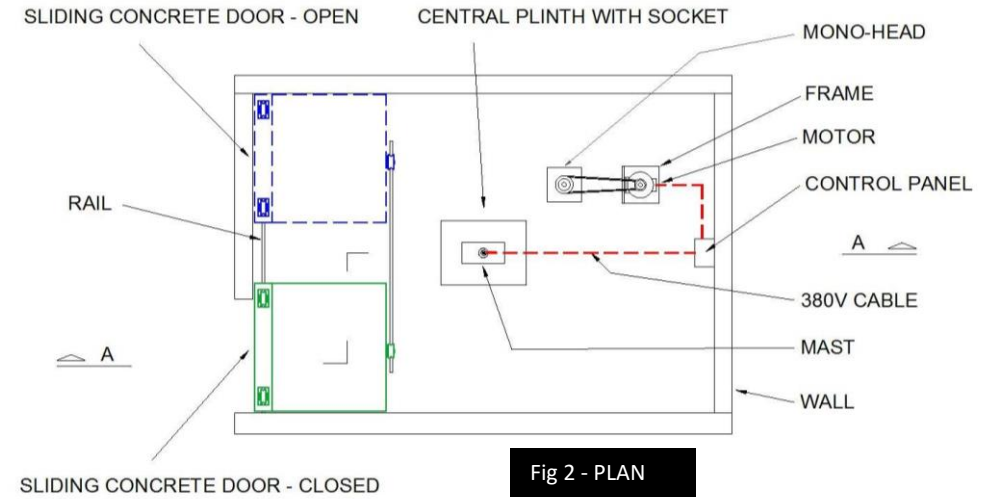


Fig 2 - PLAN

The complete structure can be erected in one day.

The mast-vault has the potential to substantially curb transformer and solar-panel theft throughout South Africa.

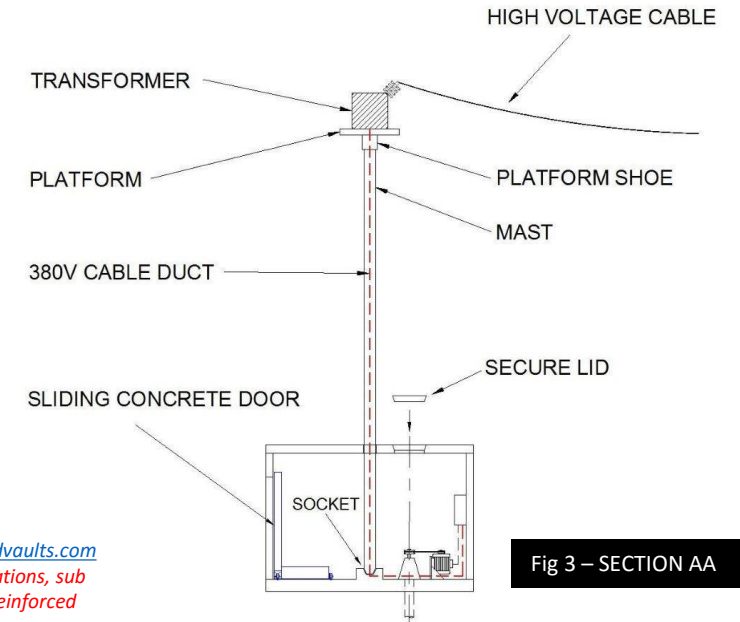


Fig 3 - SECTION AA