

Enclosure Construction

Blakley products are often installed in harsh environments. Our most basic steel enclosures are built for Industrial Installations and we have designed special enclosures for some of the most hostile environments found in the UK and around the world. Although the design of our products depends on many factors, the following is a rough guide to our general mechanical design philosophy.

Materials

Standard enclosures are manufactured from mild steel. Wall mounting brackets, stands, etc., are made from mild steel, square tube, angle and channels to suit the application.

The gauge of steel that we use depends on the overall specification of the assembly but the following is a guide to the typical thicknesses that we utilise.

Internal plates and bracketry	-	1.2 to 3.0mm sheet steel, as required
Smaller enclosures & cabinets, typically <0.3m ³	-	1.5mm sheet steel
Larger enclosures & cabinets, typically >0.3m ³	-	2.0mm sheet steel
Canopies & larger doors, typically >0.6m ²	-	2.5mm sheet steel
Heavy duty cabinets for very arduous environments	-	3.0mm sheet steel
Stands and bases for smaller MDAs, etc	-	Fabricated from 3.0mm sheet steel
Stands and bases for larger MDAs, etc	-	Welded from 40 x 40 or 50 x 50mm angle
Gland plates	-	2.0 to 3.0mm aluminium

We are able to manufacture many enclosures from various grades of stainless steel up to 2.5mm, including 304 for general outdoor applications and 316 for aggressive or marine environments.

Construction

Most of our enclosures are of seam welded construction, with spot and stud welding used where appropriate. Extremely large assemblies can be supplied in sections for ease of transportation and are designed to be bolted together on site, without compromising the IP rating.

Wherever possible, critical lifting points are "bolt-on". Unlike welded-on fixings, the integrity of bolt-on fixings can be verified without destructive testing and they can be maintained in the field. Our TA Site Transformer lifting handle arrangement has been independently Type Tested and we apply a minimum 5:1 safety margin to the certified safe working load. All eyebolts are certified to BS4278.

Gaskets

Gaskets are made from closed cell neoprene. On high integrity enclosures, one piece gaskets are used whenever practical.

Type Testing

Given the wide diversity of assemblies that we manufacture, not all designs are independently Type Tested. However, a wide range of Type Tests have been carried out in such areas as: IP ratings up to IP56; corrosion resistance; short-circuit rating of bus bar systems; mechanical strength; temperature rise.

Finishing and IP Ratings

Please refer to separate Tech Data sheets on Enclosure Finishing and Ingress Protection (IP ratings).

THE POWER PROFESSIONALS

HIGHER POWER **TRANS POWER** **SAFE POWER** **TEM POWER** **PRO POWER** **GREEN POWER**

• **SOUTH** 1 Thomas Road, Optima Park, Crayford, Kent DA1 4GA Tel: 0845 074 0084 Fax: 0845 074 0085

• **NORTH** Unit 55, Monckton Road Ind Estate, Wakefield WF2 7AL Tel: 0845 074 0086 Fax: 0845 074 0087

www.blakley.co.uk • sales@blakley.co.uk

THE COMPANY RESERVES THE RIGHT TO CHANGE PRODUCTS WITHOUT PRIOR NOTICE.



Cert. No. 902091

TDS2 - 05/10