

A/S Logstrup-Steel

Corporate Presentation

Logstrup

History

- 1958 A/S Logstrup-Steel founded by Jørgen Løgstrup.
- 1972 Logstrup Sweden
- 1975 Logstrup UK
- 1982 Logstrup Ireland founded.
Old Draw-out introduced.
- 1991 Per Løgstrup Managing Director.
- 1995 Per Løgstrup bought the shares from Jørgen Løgstrup
- 2002 All Logstrup Departments moved to Kvistgaard.
Omega (new draw-out) project initiated.
- 2004 Omega presented at Hannover Fair.
- 2006 Omega Rear Access introduced.
- 2008 50 years anniversary
- 2012 Salvagnini fully automatic production line installed in Kvistgaard
New Product Design introduced



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Logstrup Group Facts

Key figures:

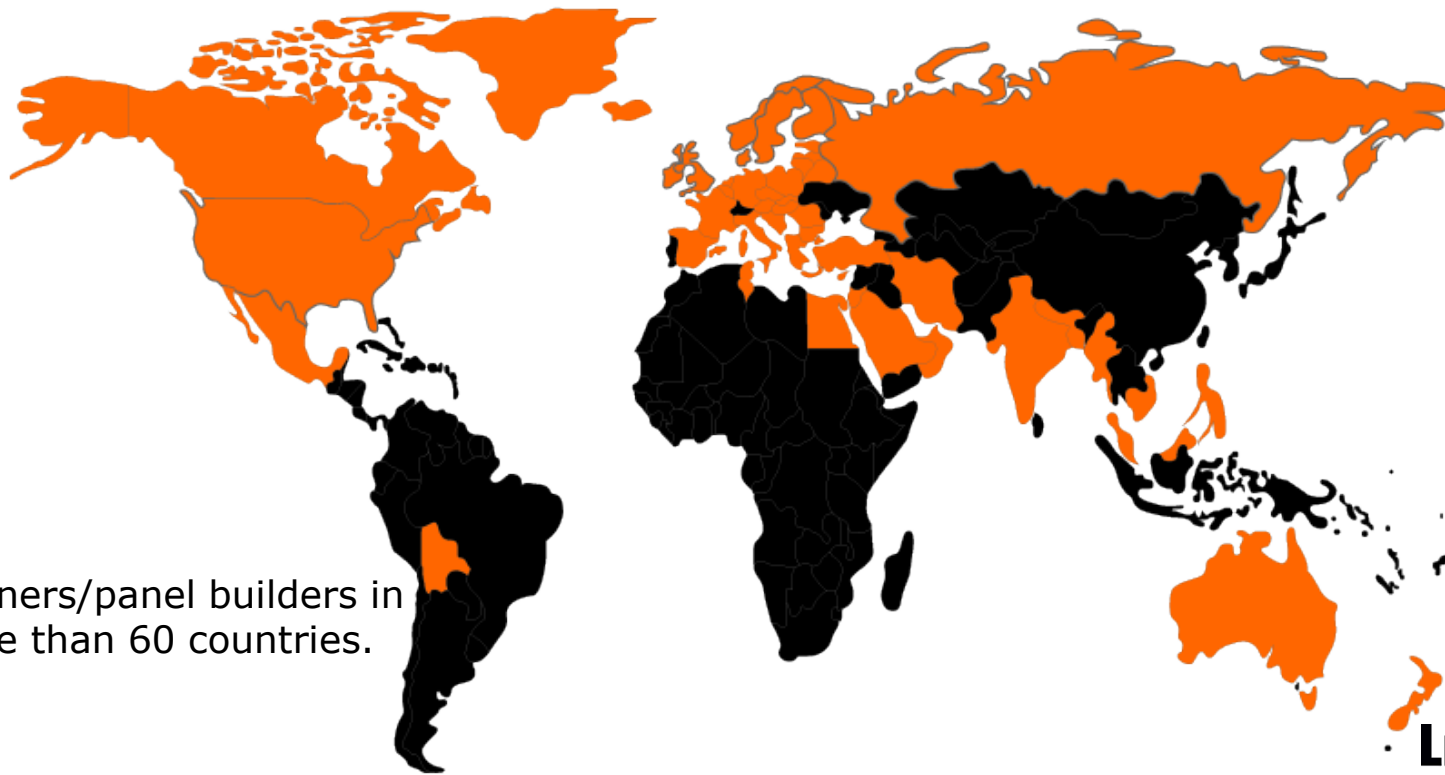
Subsidiaries in Ireland, Sweden and UK

Approx. 300 employees in total.

Approx. 180 employees in Denmark.



Partner Network



Partners/panel builders in more than 60 countries.

Logstrup Denmark

Steel Production Plant

Panel Assembly Shop

Central Warehouse

Administration

R&D of Software

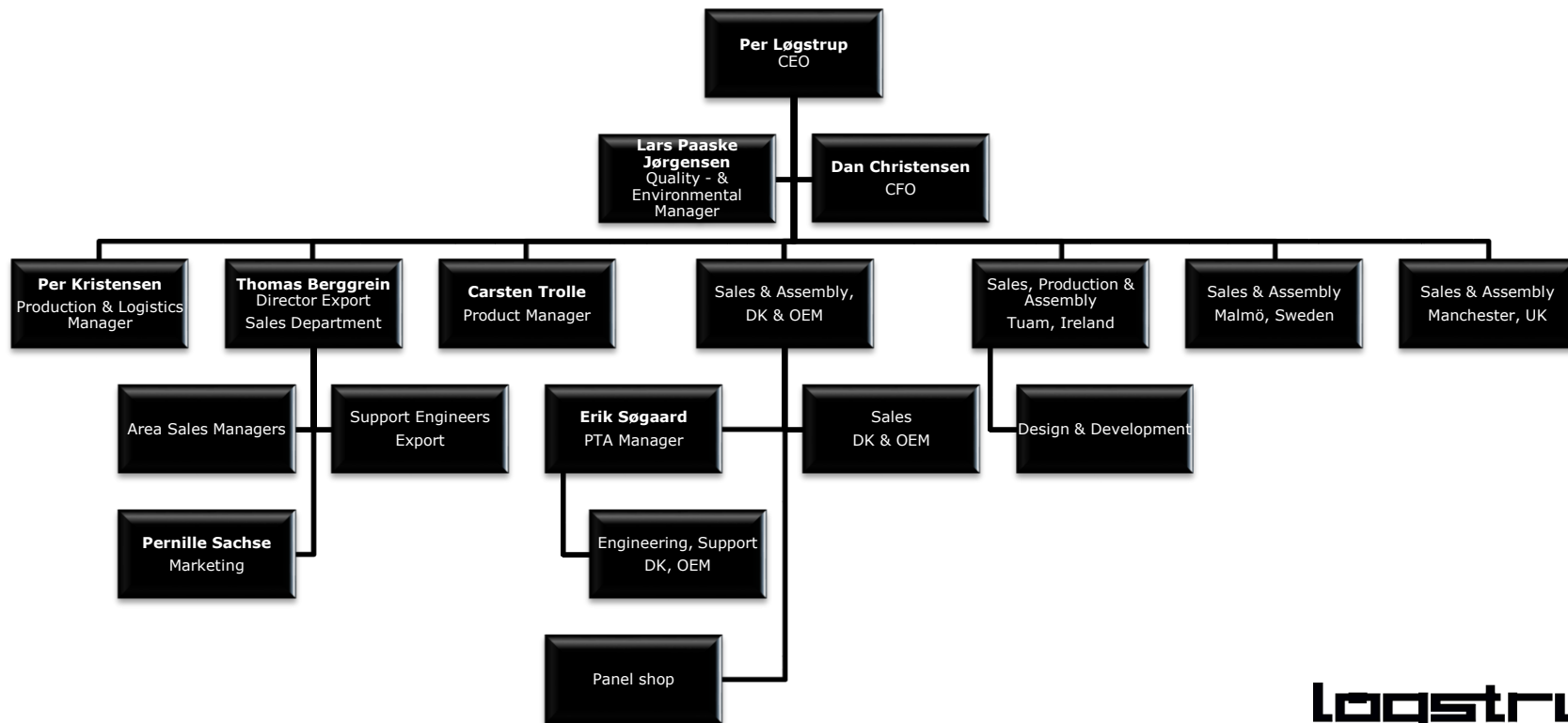
Global Sales

Marketing



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Logstrup Organisation



Logstrup Ireland

Founded: 1980

Location: Tuam, Ireland

Number of Employees: 65

Key Business Areas:

Steel & plastic production plant

Sales Office

Panel Assembly Shop

Local Warehouse

Large production plant produce:

Doors

Panels

Internal parts for our switchboard system

Parts for busbar system

Parts for our draw-out system

Fully-automatic Salvagnini machine

Acquired in 2000 and operates on a 24 hour basis.

CNC Punching & Bending



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Logstrup UK

Founded: 1975

Location: Eccles, Manchester, UK

Number of employees: 22

Key Business Areas:

Sales Office

Panel Assembly Shop

Local Warehouse



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Logstrup Sweden

Founded: 1972

Location: Malmö, Sweden

Number of employees: 40

Key Business Areas:

Sales Office

Panel Assembly Shop

Local Warehouse

Sales Offices in Gothenburg and Stockholm.

20 local licensed panel builders.



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Logstrup Modular System

The Logstrup enclosure system has complete modularity in all 3 axes with a base module of 190mm. This provides the most flexible solution possible. Width, height and depth as well as sizing and placement of any sub-sections are infinitely variable. Many space restrictions can be overcome by making angled or back-to-back arrangements.

The unique corner joint and framework system constructed of 2mm steel profiles, incorporating 5 bends ensures a maximum strength. This makes the system particularly suited for heavy-duty equipment, large busbar systems and demanding operating conditions.

Major benefits include:

- Minimum downtime
- Re-configuration of units while panel is live
- Ability to interchange different unit types
- Fully Type Tested
- Internal Arc Protection



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Structural Parts

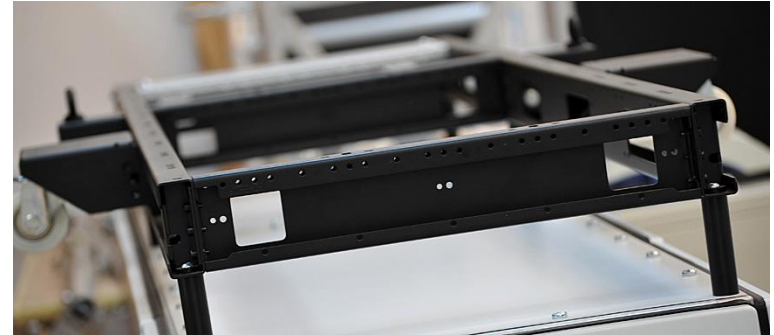
A complete frame bar construction consists of 8 corners (AHC6) and 12 frame bars (AKA).

The framework may be fitted onto baseframes for floor mounting or wall mounting.

The base frame is U-shaped and manufactured from 2.5mm high strength, hot-dip galvanized (zinc-coated) steel sheets, available painted or unpainted depending on required anti-corrosion properties. The profile bend aligns with the framework profiles to ensure maximum stability and support for heavy switchgear.

AKA frame bar structures consist of 2mm steel profiles, each with 5 bending points and coupled together through unique corner joints of aluminium alloy.

This basic construction provides the markets strongest and most reliable structures, which are exceptionally well suited for heavy equipment and demanding environments.



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External Cladding

Panels (APA/ALA/AGP) are used to clad the exterior of the framework.

- Type ALA doors are folded hinged covers made from 1.5 or 2 mm sheet steel coated with 60-80 μ Polyester powder paint.
- Type APA panels are folded fixed covers made from 1.5 or 2 mm sheet steel coated with 60-80 μ Polyester powder paint.
- Type AGP plates are flat covers intended to be fitted on the top or rear of enclosures.
- AGP plates are made of mild steel aluzinc coated (aluminium and zinc) and available as standard with or without powder paint coating depending on client requests.



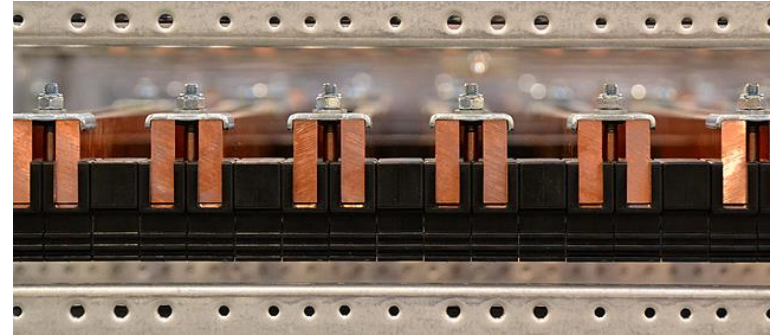
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Logstrup Busbar System

The Logstrup Busbar System consists of modular components, which allows unlimited variations and ratings. Three, four and five wire systems can be designed with ease, and ratings up to 8500A are standard, and tested for both temperature rise and short circuit level.

The Busbar System is based on a two bar per phase system, both horizontal and vertical, eliminating time consuming drilling and bending of copper bars. The Busbar joints are by means of bolts and nuts of 8.8 quality in connection with special spring washers type DIN 6796.

The busbar holder components are manufactured from a high grade polymer which provides a high insulation for the copper bar, good mechanical and thermal strength to meet the stress during a short circuit and ability to withstand variations in temperature during service conditions.



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ISO Certified

Logstrup meets the requirements of ISO 14001:2004 and ISO 9001:2008 Quality Management System

As part of our strategy we continuously look to ways to improve our manufacturing processes to live up to the steep requirements of ISO certification.

ISO 9001

**BUREAU VERITAS
Certification**



ISO 14001

**BUREAU VERITAS
Certification**



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IEC certifications

The Logstrup system is thoroughly type tested according to specifications and requirements in IEC 60439-1-1999-09 for Type Tested Switchgear Assemblies (TTA). It conforms to all the regulations of major markets in Europe, Asia, Australia, and America.

The standard paint finish and internal components can withstand most climatic variations.

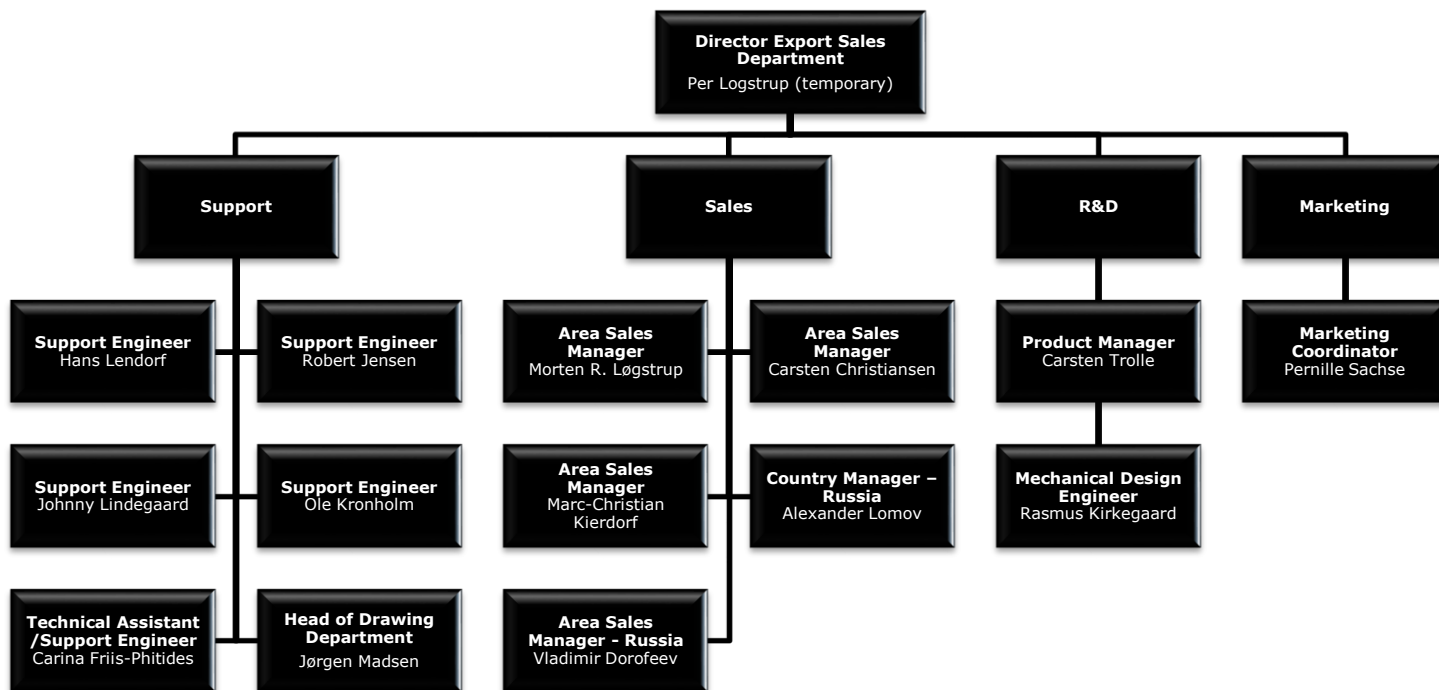
Tests according to the new IEC 61439 is being carried out.

Tests have been conducted in 2012, there are more planned for 2013.

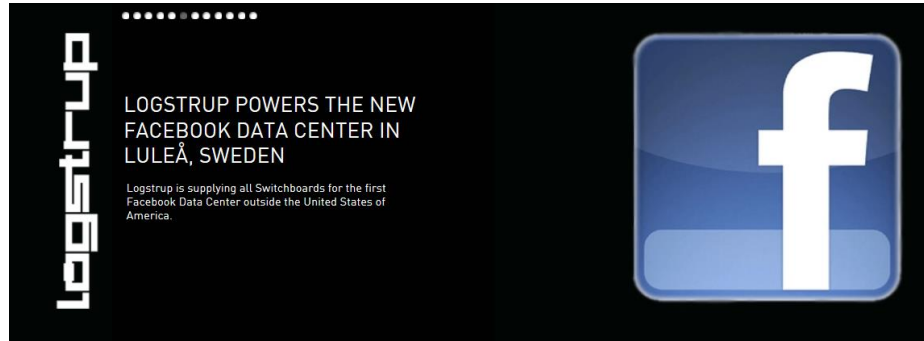


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Export Sales organisation



Logstrup Website



Visit the Logstrup website
and watch our Corporate Presentation movie
(click the images)



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References

Reference – Sleaford Renewable Energy Plant (UK)

Industry: Power Plant
Company name (end user): Sleaford Renewable Energy Plant
Country (end user): Sleaford UK
Country of manufacturer: Denmark
Type: WDU, MDU & FDU
Motor Control Centre: X
Distribution Panel: X
Rating of main bus bar: 4000A
Type of network: Profibus
No. of units: 245 (60 MCCB drawout, 15 ACB drawout, 80 MDU, 5 WDU, 85 FDU)
No. of sections: 30
Year: 2012



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Reference – Vestas

Logstrup supplies the Vestas V-112 enclosure. In 2011 Logstrup has undergone a PPAP process, initiated by Vestas and by December 2011 all PSW were signed off and closed by Vestas.

With the PPAP approach, all critical production processes are mapped, evaluated and changed to meet the highest demand for quality and quantity.

With this PPAP Certification Logstrup is approved by Vestas to deliver the critical enclosures for the V112 turbine, totally assembled by Logstrup.



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Reference – Facebook Luleå Datacenter

Logstrup is supplying all Switchboards for the first stage of the first Facebook Data Center outside the United States of America. The Datacenter is located in Luleå, Sweden



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Reference – FIAT Production plant (Serbia)

Industry: Production plant, car industry

Country: Kragujevac, Serbia

Type: Distribution switchboards, emergency panels, power factor correction panels

Specifics: Form 4b with rear access for distribution boards, Form 3b with rear access for emergency distribution boards and Form 2b for PFC panels

Rating of main busbars: 3750A for distribution boards, 1600A for PFC panels and 800A for Emergency panels

Number of units: 140 devices (60 ACBs, 80 MCCBs)

Number of sections: 65 sections

Weight of assembled switchboards: more than 30 tons

Year: 2011



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Reference – The Great Belt Bridge, Denmark

Switchboards built by Logstrup Denmark for the Great Belt Bridge in Denmark. Approx. 10 km of switchboards was supplied.



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The Marine Industry

Logstrup has been involved in the design and manufacture of Low Voltage Systems for 50 years. During this time the company has been a major supplier to the marine and offshore industries for the following:

- Main Switchboards
- Motorcontrol Centres (Fixed/Withdrawable)
- Control Panels
- Bridge Control Consoles
- Water Cooled Drive Panels

Systems are available as loose part kits or mechanically assembled.

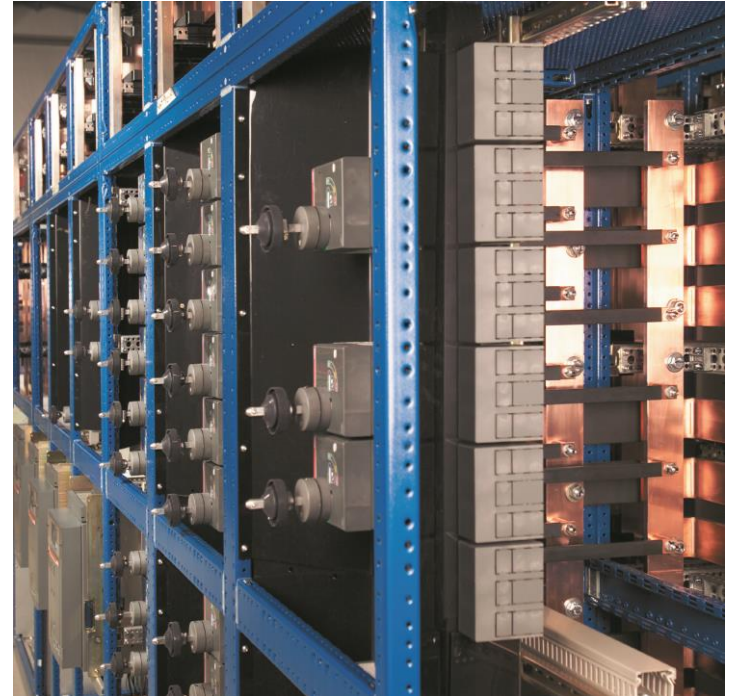


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The Marine Industry

The primary demand in today's society is personal safety.
Logstrup marine and offshore panels achieve the highest safety standards.

- Type Test acc. IEC 60439-1 / 61439-1,2
- Internal Arc Test acc. IEC 61641
- Certified by all major Ship Classifications companies
- Arc Barriers
- Thermographic inspection areas
- Mechanical safety interlocks
- IP20 internal protection

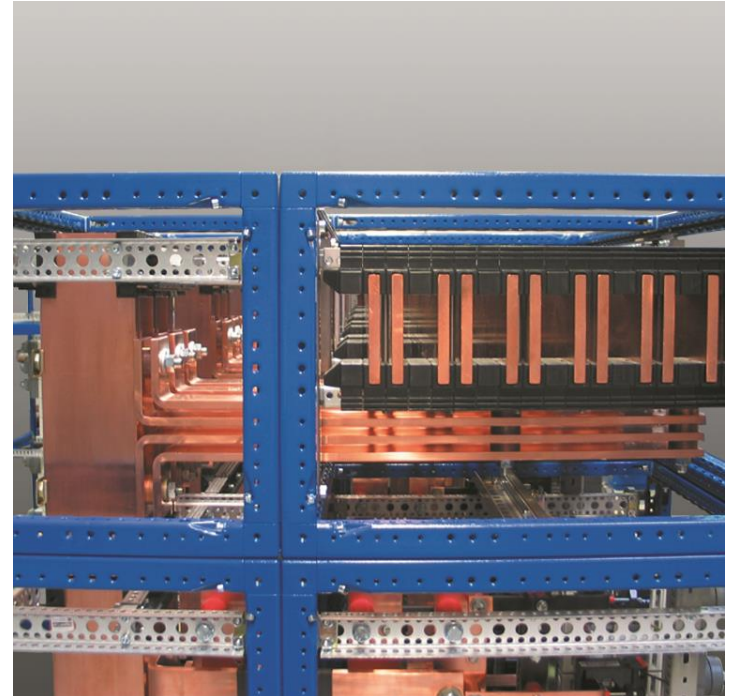


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The Marine Industry

The framework and cladding system provides the most robust flexible system available:

- High strength 5 bend profile
- 2mm Aluzinc material
- Modular in 3 axes
- Doors in 1.5mm or 2.0mm
- IP3X and IP44 standard (IP54 optional)
- Special colours available
- Customised door cut-out's



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