



Saves Your Energy

Enclosure solutions for the transportation industry

We are professionals in providing customer-specific enclosure solutions targeted at demanding environments. We are a reliable partner with technical expertise and an experienced design department. We keep to schedule and offer excellent customer care.

We have created a range of applications for the different modes of transportation, including road, rail, air and water. Deeply familiar with your segment, we are able to offer you technical solutions meeting your needs.

Our offering in brief

Our offering covers enclosure solutions made of thermoplastic, polyester, sheet steel and aluminium. Special material is available on request.

Our solutions typically have a high degree of protection (IP66/67). However, we have also developed solutions meeting IP 69 K.

We have experience of designing solutions passing wind driven rain and extensive fire tests. ATEX and EMC shielded solutions are available on request.

In addition to the enclosing technology we design and manufacture wide range of accessories and electrical terminals used by the world leading OEM's. We also offer subcontracting of injection moulded plastic industrial housings.

Knowledge of wide range of materials

We have sound knowledge of a wide range of materials.

Material selections are always made together with our customers to optimize the

Some reference cases

Rail transportation

- Japan, bullet train
- Taiwan, Taipei railway: Signal junction boxes
- Czech Republic, Prague metro: Control boxes and climatisation units

Road transportation

- Sweden, Södra Länken road tunnel network in Stockholm: Control enclosures at emergency exits

Water transportation

- Norway, Kongsberg Maritime AS: Remote control systems for ships' main engines
- Italy, Fincantieri: Panel board for ship cabins



manufacturability and technical performance.

We also work closely with standardizing and testing bodies, with certifying products according to customer needs.

Our capabilities

We have modern production facilities with the latest robot technology in Estonia and Finland.

We are experts in injection-moulding. The capacity of our injection-moulding ma-

chines ranges from 50 to over 1,000 tn. We use CuboFlex robot cells and CNC units for customising our thermoplastic enclosures.

Fully automatic robotic cells are also used for manufacturing our sheet steel enclosures.

Our bending cells provide flexible dimensioning without tool changes. In addition, the laser cutting technology we use enables freely customised shapes and main dimensions without setup times.

Customer-specific encasing solutions

Customised solutions
based on standard enclosures

Tailor-made solutions
based on customer's product projects

Customising services for thermoplastic enclosures:

- Machining such as cutting, drilling and threading
- Printing e.g. company logos, operating instructions and symbols
- Manufacturing plastic enclosures from coloured plastic raw material
- Assembling enclosures with components such as cable glands, connectors and keypads
- Quick prototyping
- Sourcing of third party components.

Tailor-making services:

- Design and product development by technical experts
- Feasibility studies
- Rapid modelling and prototyping
- 3D modelling and technical documentation
- Injection mould sourcing and mould maintenance
- Manufacture of customer-specific special tools
- Sub-assembly testing and certification
- Quality documentation and coordinating audits.

Our service offering

Our service offering includes the customisation of standard enclosures and the tailor-making of totally new enclosure solutions on the basis of customers' needs. We also offer assembly services as well as the sourcing of third party components.

We are experts in product design and development and offer totally tailor-made solutions, including smooth technical documentation, 3D modelling and quick prototyping.

Standard enclosures

Our standard product offering includes a wide range of polycarbonate, polyester, aluminium and steel enclosures and cabinets. The polycarbonate used is UV resistant, self-extinguishing and halogen free. The material also has the UL Plastic Recognition Yellow Card.

Our thermoplastic enclosures have a modular tooling structure, enabling cost efficient mould modifications of any side of the enclosure. Our steel enclosures in turn, are available with customer-specific dimensioning also in small volumes at competitive prices.

In addition to enclosures, we have a wide range of accessories suitable for applications requiring a high degree of protection.

Read more about our solutions at www.ensto.com.



A steel enclosure solution used as a control unit in a sewage truck in Poland.



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