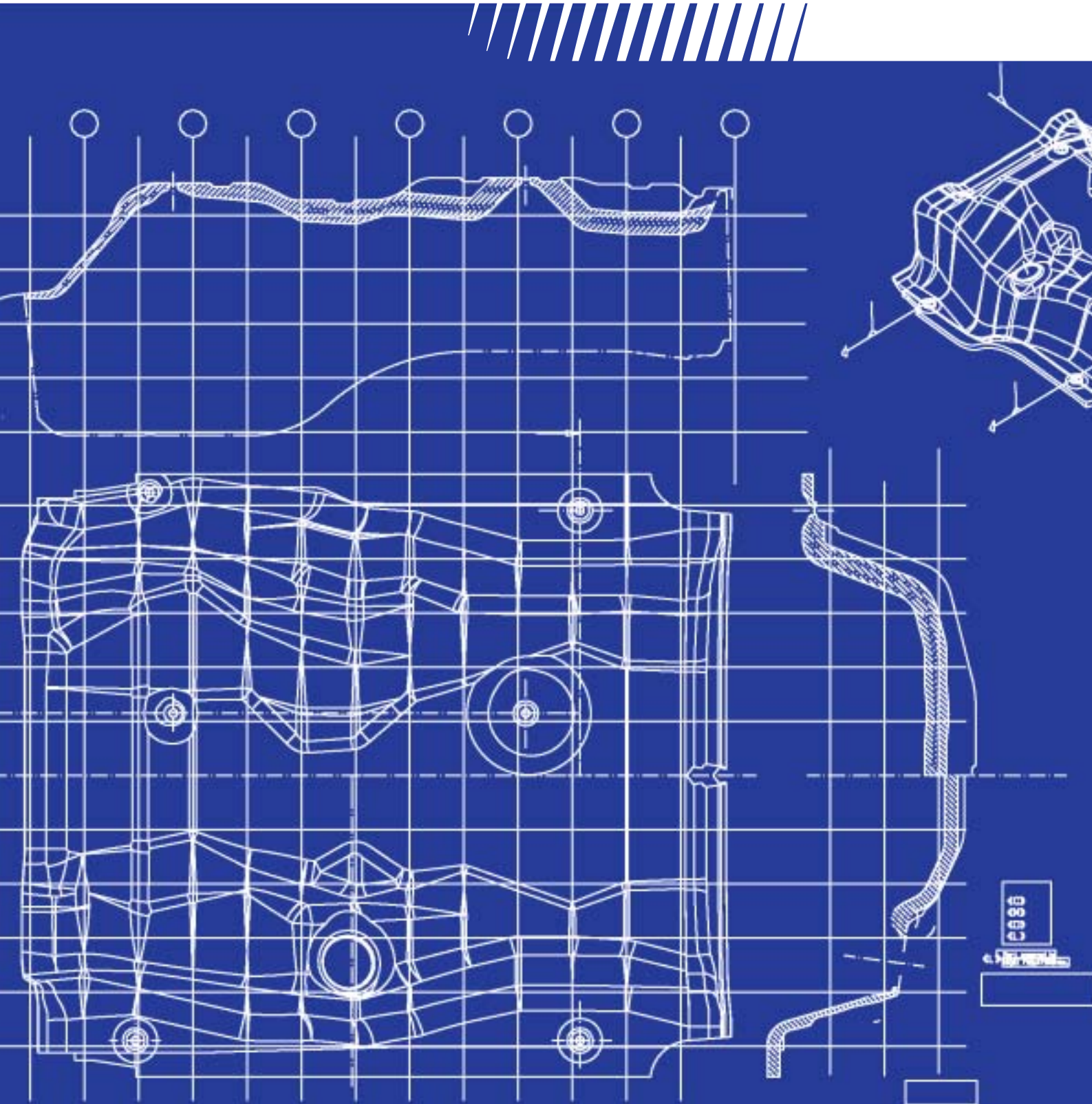


# Compression-moulded components solve the problem of compatibility and function



# From idea to new product

Each compression-moulded product is created as a result of close cooperation between our clients and the personnel here at Isover. Using the clients' ideas and requirements as a starting point, we initiate a process that enables both sides to contribute with suggestions and ideas which together help create an ongoing impetus to the work in hand. And it is from this very cooperation that the finished product will evolve, be it a compression-moulded absorber or an insulation component.

## Who needs compression-moulded products?

The automobile and energy industries are the main markets for these products. There are however, no real limits for their use. Using modern CAD technology and simulators as well as advanced computer programming we produce both digital and actual prototypes that can be tested in the laboratory environment. And in conjunction with the client we modify

and develop the product so that it meets their demands and requirements, whatever its use.

## Why chose compression-moulded components?

Products made from glass wool have a rigid construction, are self-supporting and can be used with products that can be rationally assembled and disassembled. Moreover, a compression-moulded component often serves a number of different functions. They can at one and the same time serve a decorative purpose, as an acoustic absorber and as a heat insulator. The properties of glass wool are such that our products maintain the highest of standards within a huge range of uses.

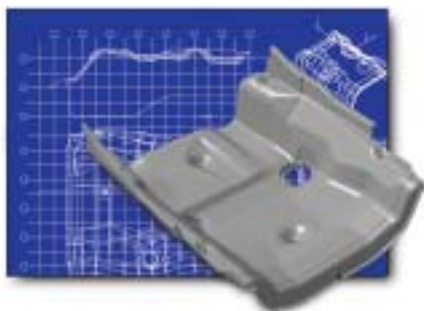
## How do compression-moulded components pay their way?

At our production plant we produce the optimal insulation products according to scientific methods, which guarantees high quality performance with value for money. Compression moulding is best carried out in long series, which enables cost effectiveness. For the production of smaller series, we use figure sawing and robot sawing techniques.

# How we carry out compression-moulding

Glass wool is the perfect material for use in compression-moulding. Whilst in the press, the glass wool at this stage still unformed, is heated and manipulated into the shape, resistance and rigidity desired by the operator's regulation of the amount of pressure used and adhesive applied.

We have been steadily improving and developing our methods over the last 25 years to arrive at the high level of precision and craftsmanship that we believe we exhibit today.



1. The three-dimensional CAD model from CATIA V5 is the first stage in the process. Here, we can form, turn and bend the visualised model, which is then used as a basis for each phase of the product's development. Models can also be acquired from two-dimensional plans or sketches.



2. Visualisation with a digital prototype. At an early stage we can exhibit the finished product without the need of producing it in its physical form. The use of animation and visual images is an excellent basis for the discussion and cooperation involved in bringing forth the optimal insulation solution.



3. Pressing tools are constructed as per 3D – CAD model.

# The advantages of using compression-moulded products.

## Environmentally friendly

In contrast to many other materials used for insulation, glass wool is recyclable. This simplifies the range of responsibilities for those producers that use our products. In the manufacture of glass wool in Billesholm, both recycled glass and recycled glass wool are used. The factory in Billesholm is one of the few plants in the world where compression-moulded glass wool products can be produced and all production there is certified according to ISO14001.

## Heat resistant

Glass wool is a material that is capable of withstanding high temperatures. This makes our products perfect for use in environments that experience high temperature ranges. For example, insulation in motors and engines, in areas surrounding electrical apparatus and generally where safety standards are particularly high.

## Simple assembly

Due to the fact that compression-moulded products are self-supporting, assembly is made all the easier. Holes and cavities are made whilst the product is on the production line, and the product is then ready for adhesion and assembly. To ensure a pleasant working environment for personnel working on their assembly, all products are covered with an outer coating.

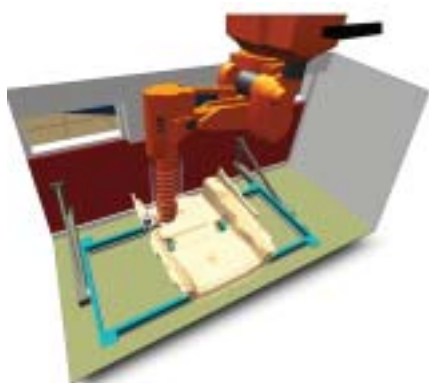
## No acoustic disturbance means a better working environment

Glass wool insulation has impressive sound insulation properties, which makes for a much improved working environment. A shining example of this is to be found in the driving compartments manufactured by the heavy vehicles company to which we deliver our compression-moulded absorbers. Controlled measurements show that these compartments have the lowest levels of acoustic disturbance in the industry.

As regards the insulation of public transport vehicles, a greater acoustic comfort level prevails where our products are used. Likewise, with the glass wool insulation of an engine in a construction vehicle, our products enable decidedly lower acoustic levels and lower heat production.

## Temperature insulation

Due to the low heat conductivity levels of glass wool, compression-moulded components also insulate against excessive heat and the cold. The insulation of machinery used within the manufacturing industry therefore combats undesirable temperature ranges.



4. Automatic machines and fixtures are simulated computer-graphically in order to shorten lead times.



5. The finished product. The likeness to the digital prototype is striking.



6. The compression-moulded absorber is assembled quickly and efficiently in the driving compartment, the driver can now benefit from a much-improved working environment.

# Do you have especially high demands?

Isover's compression-moulded products can be adapted to meet the requirements of the most demanding application and usage.

## Special-purpose outer-coating for especially demanding situations.

The products can be covered with a number of different materials depending on the intended use. Examples of these include non-woven material, glass tissue and aluminium film.

### Bindex products

When an insulation product is positioned in, for example, an engine or machine it may need some extra qualities to guard against the effects of moisture and oil. A black bindex coating is therefore applied which protects against the worst excesses of oil and water. The insulation product serves primarily as acoustic insulation but also has the added quality of ensuring against fire.



This particular sound absorber is applied to the motor of a Volvo construction vehicle.



### Plastic-coated products

Many of our products constructed for the automobile industry are completely plastic coated. This provides for an outer layer that hinders water vapour from permeating the insulation – an important quality in busses and trucks where temperature levels in the driving compartment can vary greatly.

**ISOVER** Enkelt att isolera

Saint-Gobain Isover AB  
Box 501  
260 50 Billesholm  
Tel 042-840 00  
info@isover.se  
www.isover.se