

ISMR SAYS: Polynorm Bunschoten believes that it now has the largest laser-welding and laser-cutting facility in Europe. For more details, contact Polynorm via the website www.polynorm.com



Focus on automotive/automation

Invest for success

Polynorm Bunschoten has made significant investments in laser-welding, laser-cutting and e-coating facilities for automotive activities at its Dutch plant

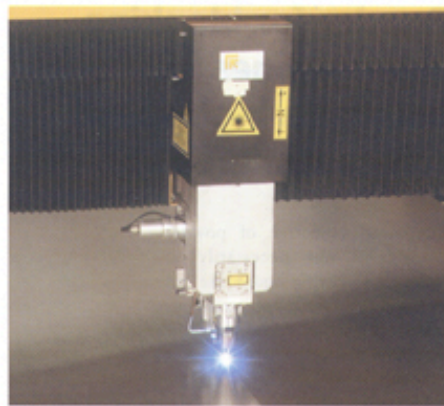
Polynorm N.V. (Netherlands) designs and produces steel, aluminium, plastic and hybrid body parts for car manufacturers worldwide. It is a leading Tier One supplier to the automotive industry, specialising in project management, design, engineering, development and production of pressed class A body panels and components using advanced steel, aluminium and plastic materials. It is also the largest company within the motion division of voestalpine.

A series of recent investments at its Bunschoten plant will, it believes, open up new contract opportunities for the future.

A new laser-welding and laser-cutting facility, installed in January at Polynorm Bunschoten, can handle jobs like laser welding the 3030mm roof for the long-wheelbase Ford Transit. The new equipment is used exclusively for parts which are stamped at the Dutch plant.

The facility's potential output is impressive – it is possible to laser-weld an average of 250 to 300 large panels per shift, and significantly more with smaller panels.

"There's an idle time of 90 seconds per blank for large panels and the 2D laser can weld at up to seven metres



per minute and cut more than 30 metres per minute," the company told ISMR. "This is all controlled by three robots and one human operator. More importantly, the quality is higher and more consistent and the process is faster. The installation can handle panel lengths of up to 3100mm, so the Transit roof has 70mm to spare, and can also produce inner and outer panels, roofs, B-pillars etc."

Hans Vorstenbosch, engineering manager at Polynorm Bunschoten, confirms that the machine was purchased to support Ford, with Polynorm's contract to produce roof panels for the long-and medium-

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wheelbase Transits.

"The facility is also being used to produce series production side panels for the previous Renault Megane range, as well as for service parts," he explained.

The new equipment also opens up the potential of new contracts from other manufacturers of minivans and light commercial vehicles. Such business would, says Polynorm, provide a useful adjunct to the activities of Europlatinen, its sister company within the voestalpine motion division, which provides laser-welded blanks as an end product for OEMs.

"We're discussing that possibility right now with potential clients ...," says Vorstenbosch.

A new electro-coating, or e-coating, facility will arrive at the Bunschoten plant in August 2003, ready for a launch in Spring 2004. It will have a capacity of 600 square metres per hour (on average).

"Compared to the coating facility that it will replace," said Vorstenbosch, "the new installation will guarantee us better quality, especially for closures, and much more flexibility over how we use the line. It's a major investment for Polynorm but we expect it to have a working life of at least 20 years. We'll be able to alter the pre-treatment for each set of parts and can alter quickly and automatically, for example, the coating thickness."

The e-coating line will also enable Polynorm Bunschoten to coat aluminium more easily, which it feels is a growing market, and is particularly suited to improving the quality of coating on closures for the after-market – both key areas of the Dutch plant's business. Vorstenbosch is confident that the new equipment will help to increase the company's share of the European automotive pre-coating market.

ISMR

EDITOR'S NOTE

Polynorm Grau recently extended its Competence Centre by installing a Dieffenbacher hydraulic press line at its location in Schwäbisch Gmünd.

Six hydraulic presses are able to produce a press force of up to 66,000 kN. The centre-piece of the plant is formed by a triple-acting 16,000 kN head press with a 4-point-controlled die cushion and five follow-up presses with a press force of 10,000 kN each. Robots provide the press interface and, in conjunction with advanced production line control, guarantee quick and flexible transfer of the parts.

"The modular design of the press, which allows a high degree of pre-assembly of the main modules before delivery by the supplier, means that the line will be ready for service in September 2003," commented Polynorm.

