Press Release

voestalpine in pole position with automotive innovation phs-directform[®]

Technology and capital goods group voestalpine continues to power ahead with its expansion in the automotive sector. At its site in Schwäbisch Gmünd, Germany, in close proximity to many automotive customers, the company has set another milestone in lightweight automotive construction: with the opening today of the world's first phs-directform[®] facility, it is now possible to produce press-hardened, ultra high-strength, and corrosion-resistant body-in-white parts from galvanized steel strip in a single step (direct process). This technology is the first of its kind in the world, and meets the automotive industry's most sophisticated demands for even lighter, stronger, and therefore safer components, manufactured using a highly efficient process.

As part of its Group Strategy 2020, voestalpine is once again driving its growth in the future market of mobility, and in the automotive, railway, and aerospace industries in particular. During the business year 2015/16 the Group generated EUR 5.3 billion, or 48 percent of Group revenue, in this customer segment. The goal is to increase this figure to 50 percent by 2020. Thirty-two percent of total Group revenue in the mobility industry is generated in the automotive sector. "We strive for permanent innovation in demanding niche segments in order to continually strengthen our global technology and quality leadership. Developing premium-quality lightweight automotive components is a key part of our long-term strategy of continuous growth through working closely with customers in the future market of mobility," says Wolfgang Eder, Chairman of the Management Board of voestalpine AG. The framework conditions are promising: the market for lightweight automotive components is forecast to increase fivefold by 2025, to around EUR 100 billion.

Pioneer in lightweight automotive construction

voestalpine produces pioneering solutions in ultra high-strength steels for lightweight automotive construction. With its phs-ultraform[®] product innovation—hot-dip galvanized steel strip and its processing into press-hardened body-in-white parts—the Group has already set new global standards in the production of lightweight components with increased corrosion resistance and improved crash performance. Premium automobile manufacturers use phs-ultraform[®] components in longitudinal members, A and B pillars, struts in side panels and doors (parts relevant to crash safety), and in sills. To date it has only been possible to manufacture phs components using an indirect process, i.e. with cold-forming and hardening in separate process steps. As the result of years of intensive research and development, voestalpine is now the first provider worldwide to have made the successful technological leap to direct hot-forming of galvanized steel. This makes voestalpine the only manufacturer in the world able to produce press-hardened, galvanized components in both an indirect and a direct process.



A world first—phs-directform[®]

phs-directform[®] is the name of the innovation which means that ultra high-strength body parts are heated, formed, and hardened in a single process step. "This new technology represents the next groundbreaking step in lightweight automotive construction and highlights once again our innovation leadership in this field. For our premium automotive customers in particular, phs-directform[®] is the ideal supplement to the existing process of manufacturing ultra high-strength, corrosion-resistant automotive components," explains Peter Schwab, Member of the Management Board of voestalpine AG and Head of the Metal Forming Division. The starting signal for the new production process was given in the presence of numerous representatives from the automotive industry during the official ceremony at voestalpine Polynorm GmbH & Co. KG, a subsidiary in the Metal Forming Division of the voestalpine Group, in Schwäbisch Gmünd on July 7, 2016.

From steel strip made in Linz to finished body-in-white parts in Schwäbisch Gmünd

All four voestalpine divisions are active in the automotive sector, with development of the phsdirectform[®] innovation being driven by the voestalpine Group's Steel Division and Metal Forming Division. As the global quality leader in top-quality steel strip, the Steel Division supplies the technology's crucial pre-material. The Metal Forming Division, which has recently invested over EUR 100 million in establishing new automotive sites around the world, including the USA, China, and South Africa, is responsible for processing the pre-material at its new facility in Schwäbisch Gmünd. The site at Schwäbisch Gmünd is the home of voestalpine Polynorm GmbH & Co. KG, a 100%-subsidiary in the division. The company is specialized in the production of pressed parts for the automotive industry, with its 600 employees manufacturing exterior body parts, prototypes, and tools. It is also a competence center for hot-forming within the voestalpine Group.

Global demand for phs technologies

A total of eight voestalpine phs-ultraform[®] lines are currently in operation around the world. Six of them are in Germany, another facility was opened at the new automotive plant in Shenyang, China, in fall 2015, and a phs-ultraform[®] line starting up in the USA at the production site at Cartersville near Atlanta in May 2016 was another expansion step. As the phs-directform[®] line in Schwäbisch Gmünd goes into operation, the phs family now has its ninth facility, and the first with direct hot-forming technology. By 2020 at least 16 phs facilities, for both the indirect and direct process, should be in operation around the world. With consistent expansion of the lightweight construction initiative, voestalpine's strategic target is to generate around EUR 400 million in annual revenue in this product sector over the medium term.

Metal Forming Division

The Metal Forming Division of voestalpine AG achieved a total sales volume during 2015/16 of EUR 2.2 billion and an operating result (EBITDA) of EUR 291 million euros. The division employs roughly 10,500 staff members and does business with almost all European car manufacturers. Within the Group, it constitutes the center of competence for highly refined sections, tubes, and precision steel strip products as well as ready-to-install components made of pressed, stamped, and roll-formed parts in steel and in aluminum, with a focus on the automotive industry. Its combination of material expertise and processing competence is unparalleled throughout the industry, and its global presence makes the division the preferred partner to customers who are looking for innovativeness and quality.



The voestalpine Group

In its business segments, voestalpine is a globally leading technology and capital goods group with a unique combination of material and processing expertise. voestalpine, which operates globally, has around 500 Group companies and locations in more than 50 countries on all five continents. It has been listed on the Vienna Stock Exchange since 1995. With its top-quality products and system solutions using steel and other metals, it is one of the leading partners to the automotive and consumer goods industries in Europe and to the oil and gas industries worldwide. The voestalpine Group is also the world market leader in turnout technology, special rails, tool steel, and special sections. In the business year 2015/16, the Group generated revenue of EUR 11.1 billion, with an operating result (EBITDA) of EUR 1.6 billion; it has 48,500 employees worldwide, who are collectively a major shareholder in the company with a stake of 14.5 percent.

Please direct your inquiries to

voestalpine AG Peter Felsbach Head of Group Communications I Spokesman

voestalpine-Strasse 1 4020 Linz, Austria Phone: +43/50304/15-2090 peter.felsbach@voestalpine.com www.voestalpine.com

