

Clean surface technology for automotive industry with up to 65 % cost savings

## Oerlikon Balzers launches next generation of PPD<sup>TM</sup> technology as substitute to chrome-plating

Balzers, Liechtenstein, December 18, 2012 – Oerlikon Balzers has launched its next generation of Pulsed-Plasma Diffusion (PPD<sup>TM</sup>) technology for the surface treatment of large forming tools. This next generation of PPD<sup>TM</sup> sets a new industry standard by offering an environmentally friendly and less expensive alternative to the chrome-plating process used for wear protection treatment in the automotive industry. “This is an important milestone in the substitution of toxic substances used in production processes such as chrome-plating by a cost-efficient and ecologically friendly alternative”, says Oerlikon Balzers CEO Dr. Hans Brändle.

To protect against abrasion and to increase efficiency in industrial production, most forming tools are coated – particularly in the automotive industry. Although using toxic and environmentally critical substances in the production process, chrome-plating is the most widely spread coating technology today. By a combination of hydrogen, nitrogen and electricity to coat tools, Oerlikon Balzers’ PPD<sup>TM</sup> technology uses no hazardous chemicals and therefore offers an environmentally friendly alternative to chrome-plating. The first generation PPD<sup>TM</sup> was presented to the market in 2004 and is widely used by leading car manufacturers.

The current process has been completely redesigned and Oerlikon Balzers now offers the next generation of PPD<sup>TM</sup> which provides substantial benefits:

- The efficiency of the PPD<sup>TM</sup> technology increases by up to 40 % through higher automation, 30 % less energy consumption and adapted design and processes.
- With Oerlikon Balzers PPD<sup>TM</sup> technology tools need only be treated once in their lifetime, which delivers a cost advantage of up to 65 % compared to a chrome-plating solution.
- The surface quality of PPD<sup>TM</sup> treated tools are significantly higher than chrome-plated counterparts which dramatically reduces reworking of formed car body parts.
- Due to PPD<sup>TM</sup> maintenance friendly surface, the customer reduces downtime in the press and productivity by up to 25 %.

The next generation of PPD<sup>TM</sup> technology is a fully automated process which ensures a safe, controlled atmosphere for tools of up to 10x3 meters and 40 tons. The vessels are the largest of their kind in the world and can accommodate all current stamping dies – even the largest in the automotive industry. “With our new generation of PPD<sup>TM</sup> technology we can satisfy the growing demand in the automotive industry for cost effective and environmentally friendly production solutions”, says Phil Read, Head of Sales and Business Development PPD<sup>TM</sup>.

The PPD<sup>TM</sup> technology is currently available at three locations in Europe, Korea and the Americas with further installations in China and Japan planned for 2013. The latest PPD<sup>TM</sup> went in operation in the Balzers Coating Center in Pell City, Alabama (USA).

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### About Oerlikon

Oerlikon (SIX: OERL) is a leading high-tech industrial group specializing in machine and plant engineering. The Company is a provider of innovative industrial solutions and cutting-edge technologies for textile manufacturing, drive, vacuum, coating, and advanced nanotechnology. A Swiss company with a tradition going back over 100 years, Oerlikon is a global player with nearly 17 000 employees at over 150 locations in 38 countries and reported sales of CHF 4.2 billion in 2011. The Company invested in 2011 CHF 213 million (reported) in R&D, with over 1 200 specialists working on future products and services. In most areas, the operative businesses rank either first or second in their respective global markets.

### About Oerlikon Balzers

Oerlikon Balzers is the world's leading supplier of surface technologies, which significantly improve the performance and durability of precision components as well as tools for the metal and plastics processing industries. These coatings, marketed under the BALINIT® brand name, are extremely thin and exceptionally hard. They significantly reduce friction and wear. Oerlikon Balzers also develops processes, manufactures and sells systems and production facilities, and offers contract coating services through a dynamically growing network of nearly 90 coating centers in Europe, the Americas and Asia. Moreover, under the technology brand ePD™, the company develops integrated services and solutions for the metallisation of plastic parts. Oerlikon Balzers is a Business Unit of the Swiss Oerlikon Group.



A look inside the vacuum chamber, the core of PPD™ technology: Large automotive forming tools are repeatedly coated with pulsed plasma. No toxic waste products are generated.



An Oerlikon Balzers employee checks the surface finishing and conducts quality control on coated forming tools.



PPD trademark



With a loading capacity of 10x3 meters and 40 metric tons, PPD™ technology can even coat the automotive industry's largest press tools.