Marc Bosch was appointed Vice-President Novelis PAE on May 1, 2014, replacing Philippe Charlier, who has retired after a successful 40-year career in the metal industry. Marc Bosch, who has over 20 years of leadership experience in manufacturing, joined Novelis PAE in 2001 as General Manager of the Continuous Casting activity. His role in developing this business has been a key contribution to the success of Novelis PAE during this period.

“I am honoured to accept this new role and look forward to leading Novelis PAE on its current successful path. I am confident we have an exciting future ahead of us”, enthused Marc Bosch.

Philippe Charlier has taken retirement after a 40-year career that started in steel, moved on to copper, then finally to aluminium in 1990. He has held various managerial positions in R&D, Quality, Sales, and Plant management, and since 2001 has successfully led Novelis PAE. We wish Philippe all the best in his new life.
A new DC slab casting line in operation at Carcano Antonio SpA

Carcano Antonio SpA, the Italian company based in Mandello del Lario and Delebio, and specializing in high-end top-quality aluminium foil and packaging products, began collaboration with Novelis PAE at the end of 2010 to build a new casthouse. After an engineering phase covering every aspect of the project, such as risk analysis, environmental impact assessment, production cycle, building layout (a challenge due to the limited available space and the surrounding city), review of utilities, energy consumption and, of course, equipment definition, the casting line was delivered and installed mid 2013.

With a capacity of about 60,000 tons of slabs per year, the new casthouse replaces the old casthouse, which produced about 30,000 tons per year. It is thus able to match the plant’s hot rolling, cold rolling and foil rolling capacity.

The equipment supplied by Novelis PAE includes a 5-strand casting machine, an ALPUR® TS55 degasser and a 2x23” ceramic foam filter. The new DC slab casting line incorporates advanced technology developed by Novelis PAE and will enable Carcano to continue meeting the high quality requirements of foil and packaging customers.

Considerable attention has been paid to safety in the design of the casting line. Light barriers around the casting machine and a high level of automation reduce operating risks during production to a minimum.

The first slab was produced on “lucky Friday” 13 September 2013 and the casting line is now fully operational.
Metal treatment

There is an increasing market demand for large lines (furnaces of 75t or more) for volume products such as can-stock, foil stock and extrusion billets. Increased size allows for greater cast ingots (slabs and billets) and greater productivity (7-strand lines with large unit slabs).

Correspondingly, higher metal flow rates are called for, so that equipment now provides for flow rates that range from a few tons/hour (continuous strip casting, rod casting, hard alloy wide billet casting) to 80 tons/hour or more. This is illustrated by the ALPUR® family of equipment with its 6 units of varied sizes.

The TS-90, a recent addition to the ALPUR® family, is an impressive in-line degasser with 4 rotors and 4 heaters, and complies with all the safety and environmental standards of a modern casthouse. It was started recently on the SIG Project now being commissioned at Novelis Nachterstedt, the largest recycling casthouse in the world.

With such comprehensive families of equipment, due attention has been paid to designing common spare parts and consumables (e.g. only two sizes for complete rotor assembly units to cover TS-15 up to TS-90 components) with a view to minimizing on-site inventories and enhancing the reactivity of suppliers in the event of urgent need.

3CM Roll Casting

Two Jumbo 3CM® continuous casters commissioned in Turkey

On 7 March and 11 April 2014, Novelis PAE started two Jumbo 3CM® 960x1800 continuous casters installed in a new ASAS ALUMINIUM rolling plant in Akyazi Adapazari, 150km east of Istanbul.

Operation and maintenance training of ASAS staff was carried out first in the classroom, then in the casthouse for an implementation phase.

Production has now begun on the first two continuous casting lines, launching the hot commissioning period that features soft and hard alloys under high productivity conditions.

ASAS ALUMINIUM is currently the leading Turkish company for the production of aluminium-extruded products (70,000 tons/year production capacity), aluminium composite panels (8,000,000 sq m./year production capacity), aluminium rolling shutters (4,000 tons/year production capacity) and PVC profiles (25,000 tons/year).

Novelis PAE supplied 4 continuous casting lines: two Jumbo 3CM® 960 casters with a maximum casting width of 1800mm and two Jumbo 3CM® 1150x2250mm casters. Each casting line incorporates Novelis PAE’s most advanced technology in continuous casting:
• ALPUR® degasser and CFF/PDBF® filter
• New generation digital capacitive metal-level sensor and actuator
• Travelling X-ray gauge for thickness and profile measurements
• Edge miller
• Updated version of Supervision system and Data Manager for process and quality control.

This first investment is part of a new, green-field rolling plant project dedicated to the production of high-end products, such as thin gauge foil, painted products and composite panels.

The two Jumbo 3CM® 960 casters have now been commissioned and the other two Jumbo 3CM® casters (1150x2250mm) will be commissioned in the coming weeks.
**Product Development**

**Modern solutions for preheating distribution launders and spouts**

Precise preheating of the distribution launder, plugs and spouts is an important factor in the success of the cast, especially in the case of deep (US-type) spouts, which are more prone to metal freezing. It is also important to meet customers’ preferences, which may favour heating devices that are electrical or gas-powered, external or in-situ.

By focusing on such preferences and the various performance requirements, Novelis PAE has perfected a wide choice of solutions, some of which combine technologies. Among the different solutions, the (external) electrical air blower and (in-situ) plug heating are worth mentioning.

This clean and proven preheating technology can be combined with an in-situ plug preheating device (2kW), making it practically 100% efficient in achieving the necessary local preheating temperature in the required time: 400°C in 45 minutes at the bottom of each spout. Heating can also be maintained during the cast, a must at low metal flow rates. In the above drawing, the plug (in red) is a vertically positioned mini-heater, with a Sialon sheath for safe immersion in the liquid metal. The heating section is adapted to the geometry of the spout, an inner thermocouple is used for temperature control and a quick connection is provided. The set of self-heating plugs also keeps the distribution launder warm between casts.

Both devices, global and local, are PLC-controlled and are included in the casting line automation package, with a display of local temperatures on supervision screens. They can be part of the casting recipe and integrated into the casting report.

ALPUR® TS2: an innovative in-line degasser

Widely known for its degassing efficiency and robustness, the famous ALPUR® TS (Totally Sealed) in-line degasser has proven to be one of the most efficient on the market. Since ALPUR® was launched, more than 400 units have been delivered over a period of 33 years, and many improvements have been developed and tested by our experienced engineers.

ALPUR® TS2 has been re-engineered from the TS base, launched in 1996, to meet the increasing demand in the market for quality and to offer the operators a safe and easy degasser, combining user-friendly maintenance and lower costs.

The ALPUR® TS2 vessel now features a reinforced thermal insulation. It offers a wider range of proven solutions to make operation and maintenance easier, such as a gas-powered immersed heater for very fast heating of the melt and a new hydraulic lifting system.

The motorization and rotor shaft have been completely modernized. Thanks to the innovative dynamic seal and screw-less design of the injector, the lifetime of the main consumables has been significantly increased. The rotation speed and the gas injection can now be fully controlled automatically to guarantee the very high degassing efficiency required by our customers.

ALPUR® TS2 has been re-engineered and many improvements have been delivered over a period of 33 years, from the TS base, launched in 1996. Since ALPUR® was launched, more than 400 units have been delivered over a period of 33 years, and many improvements have been developed and tested by our experienced engineers.

ALPUR® TS2 has been re-engineered from the TS base, launched in 1996, to meet the increasing demand in the market for quality and to offer the operators a safe and easy degasser, combining user-friendly maintenance and lower costs.

The ALPUR® TS2 vessel now features a reinforced thermal insulation. It offers a wider range of proven solutions to make operation and maintenance easier, such as a gas-powered immersed heater for very fast heating of the melt and a new hydraulic lifting system.

The motorization and rotor shaft have been completely modernized. Thanks to the innovative dynamic seal and screw-less design of the injector, the lifetime of the main consumables has been significantly increased. The rotation speed and the gas injection can now be fully controlled automatically to guarantee the very high degassing efficiency required by our customers.