AMG finalises consolidation of aluminium businesses

Leading industry supplier of melt additives, AMG Advanced Metallurgical Group N.V., in the USA announces it has now consolidated its global aluminium operations into one core unit, AMG Aluminum. In an exclusive interview, ALUMINIUM discovers the latest details and background from company president Julien Crisnaire.

Mr Crisnaire who spearheaded his company's reorganisation and creation of the new structure was appointed president of AMG Aluminum in June last year. AMG is a global leader in the field of specialist alloy additives for molten metal treatment and modification.

ALUMINIUM: Mr Crisnaire, could you outline the framework and components of the reorganised global structure?

Julien Crisnaire: AMG Advanced Metallurgical Group N.V., headquartered in Wayne, Pennsylvania, has essentially now finalised the consolidation of its global aluminium operations into one centralised unit, AMG Aluminum. This now comprises AMG Aluminum North America, LLC (formerly KB Alloys, LLC), AMG Aluminum U.K. Limited (formerly part of London and Scandinavian Metallurgical Co. Limited), and the aluminium activities of LSM Brasil S.A.

AMG Advanced Metallurgical Group acquired KB Alloys in 2011 from CHS Capital LLC. KBA is the North American market leader in the production of aluminium master alloys and grain refiners.

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Julien Crisnaire

From January 2013 the aluminium business of LSM has been de-merged and now operates as AMG Aluminum UK Limited. Whilst this is a separate legal entity from LSM, the new company remains part of the AMG Advanced Metallurgical Group as a business unit along with LSM.

ALUMINIUM: How will the new structure benefit operations?

Crisnaire: The full integration of AMG Aluminum into one unit will allow us to boost provision of our extensive product line and offer seamless customer service to the global aluminium industry. Assurance of supply is critical within our global customer base. AMG Aluminum is now able to offer a comprehensive product catalogue globally with the unique ability to manufacture and deliver both high quality standardised products together with a wide range of complementary products and custom alloys, all from our network of coordinated plants across the world.

ALUMINIUM: How do you view the current situation in the global aluminium business and your own current position?

Crisnaire: The aluminium industry is clearly a global scale sector and AMG Aluminum is a true global provider of aluminium master alloys and grain refiners. The worldwide consumption of aluminium is expected to grow six to eight percent in 2013 with significant demand and further opportunities, particularly in the automotive and aerospace industries. The new business structure enables AMG Aluminum to be globally coordinated and still regionally focused to serve profitably the entire marketplace, including emerging markets.

ALUMINIUM: How do you see the company as a key supplier of specialist products?

Crisnaire: Throughout its history, AMG's predecessor companies have advanced metallurgical-based technologies and innovative solutions to industrial challenges. We continue that proud tradition with the reorganised company structure and a comprehensive range of dedicated special products.

ALUMINIUM: What are AMG's special products in detail?

Crisnaire: Specifically, AMG Aluminum produces alloys used to improve the quality and consistency of high purity metal. Alloying pure aluminium with selected elements improves mechanical and physical properties essential to the production of high quality finished products. We produce a wide variety of master alloys and other aluminium enhancing products such as TiAl, TiBAl, 8BAl, and strontium-aluminium alloys. These products impart a number of characteristics to elemental aluminium, including improved homogeneity, reduced porosity and enhanced responsiveness to subsequent heat treatment, and machinability in the fabrication process.

The comprehensive AMG Aluminum range of products overall includes grain refiners (titanium, boron, and carbon-based), hardeners (chromium, copper, magnesium, manganese, nickel, vanadium, silicon, zirconium, and others), tablets and compacts (such as chromium, copper, iron, manganese, titanium), strontium modifiers for hypoeutectic and eutectic aluminium-silicon alloys, specialty alloys (including beryllium, boron, gallium, lithium, scandium and strontium), mechanical alloys, and chemicals and fluxes (potassium aluminium fluoride, potassium fluoborate, amongst others).

ALUMINIUM: In fact, a wide range of products. For readers who are not familiar with the importance of alloying aluminium, could you give an example?

Crisnaire: Amongst other end uses, these products are added to molten aluminium to produce high purity aerospace alloy grade components. The success of the aluminium industry is dependent on alloys that, for example, reduce automobile weight, promote forming for various products such as aluminium beverage cans, and increase the performance of electric transmission cables. AMG Aluminum's development of grain refiners and master alloys has helped facilitate these innovations. Our global research and development facilities in the United States, Brazil, and the United Kingdom have been an integral part to our customers' successes.

ALUMINIUM: Do you envisage any specific or strategic partnerships or preferred supplier relationships with major customers?

Crisnaire: We believe it is essential to have the right partnerships with suppliers and customers to be successful in this industry. As we focus on innovation and new product development, establishing strategic partnerships with both downstream players and end-users is a clear component of our forward strategy.

ALUMINIUM: In terms of the AMG Group overall, what are the core activities, strengths, synergies and scope of supply?

Crisnaire: Essentially, AMG as a group creates and applies innovative metallurgical solutions

in the global trend of sustainable development of natural resources and CO_2 reduction. The group produces highly engineered specialty metal products and advanced vacuum furnace systems for the energy, aerospace, infrastructure and specialty metals and chemicals end markets.

The Advanced Materials division develops and produces specialty metals, alloys and high performance materials. Significant products include ferrovanadium, ferronickel-molybdenum, aluminium master

AMG – typical master alloys in ingot form

alloys and additives, chromium metal and ferrotitanium, for energy, aerospace, infrastructure and specialty metal and chemicals applications. Other key products include specialty alloys for titanium and superalloys, coating materials and vanadium chemicals.

The Engineering Systems division designs, engineers and produces advanced vacuum furnace systems and operates vacuum heat treatment facilities, primarily for the aerospace and energy (including solar and nuclear) industries. Furnace systems produced by AMG include vacuum remelting, solar silicon melting and crystallisation, vacuum induction melting, vacuum heat treatment and high pressure gas quenching, turbine blade coating and sintering. AMG also provides vacuum case-hardening heat treatment services on a tolling basis.

AMG Mining AG produces critical materials utilising its secure raw material sources in Africa, Asia, Europe and South America. Products include high purity natural graphite, tantalum, antimony and silicon metal. These materials are of significant importance to the global economy and are available in limited supply. End markets for these materials include electronics, energy efficiency, green energy and infrastructure.

ALUMINIUM: Would you summarise AMG's core competence in some final words?

Crisnaire: With over 400 employees and six ISO 9001 manufacturing plants in the United States, Brazil, England, and China, AMG Aluminum is a premier supplier with fast and reliable delivery of high quality, aluminium master alloys and grain refiners throughout the world. We are a customer-focused, technology-driven organisation dedicated to innovation, ultimate quality, technical expertise, and rapid response to customer needs. For more than 50 years, we have earned a trusted reputation for reliable delivery of consistently dependable aluminium grain refiners and master alloys anywhere in the world.

ALUMINIUM: Mr Crisnaire, many thanks for this discussion. ■