



DRAHTZUG STEIN

combicore

Press release

Nuremberg / Altleiningen, January 16th 2012

Cast piece with combicore inlay tubes awarded Cooling element gains special recognition at international pressure casting contest 2012

During the opening ceremony of Euroguss in Nuremberg on January 16th 2012 this year's prize winner of the International Aluminum Pressure Casting Contest was awarded. The Moneva Foundry received special recognition for a casting incorporating a cooling element used in hybrid technology. The Jury of Research and Science praised the value of the innovation and high requirements within the casting industry.

The cast component will be an important step for hybrid technology to help solve a cooling problem encountered with battery technology. The casting incorporates a cooling tube within the aluminum casting, composed of a different aluminum alloy. This technology allows for the substitution with this casting for the parts previously constructed multiple sheets of material and enabling a considerable cost savings.



The casting contains a 1700 mm long cooling canal within the body of the casting. This is accomplished by utilizing a combicore aluminum tube that is inlayed in the cast. The process requires the aluminum tube to be filled with a stabilizing material in order to prevent the aluminum alloy tube from being deformed and also allowing higher pressure casting process.

After casting, the stabilizing fill material is removed from the inlay tube. The tube remains in the cast piece as a lost core and forms the required canal for the respective medium like a cooling fluid. The canal also provides an isolated route to prevent the fluids from penetrating other pores or cavities within the casting.

The award-winning cooling element has a dimension of 330 x 180 x 43 mm (L x W x H) and weighs 1,1 kg. The use of combicore core allows for a stable light-weight construction and allows for the realization of designs and geometries previously impossible. In 2010 the filled, form stable combicore inlay tubes received the German Material Efficiency Award as brilliant innovation and exceptional performances from the German Department of Commerce.

Frank Heppes, Head of Research & Development at Drahtzug Stein combicore, presented additional benefits and advantages of the filled, innovative inlay tubes during his speech to an audience expert at the 12th International German Pressure Casting Day. The Pressure Casting Day accompanies the three day fair and is organized and operated by the Organization of the German Pressure Casting Foundries (VDD) and the German Federal Association of the German Foundry Industry (BDG).

Moneva uses the aluminum alloy Al Si12Cu for the award-winning cooling element. Additional information about the pressure casting foundry in Winterbach that cooperates closely with the tool maker and pressure cast machine manufacturer Oskar Frech, can be found in the internet at www.moneva.de.

The Aluminum pressure casting contest was organized by the Organization of the Aluminum Recycling Industry (VAR) and the Organization of European Aluminium Refiners and Remelters (OEA) and was supported by the Organization of the German Pressure Casting Foundries (VDD) and the Technical Committee Pressure Casting of the German Federal Association of the German Foundry Industry (BDG). This renowned contest documents the high quality standard of Aluminum pressure casting with conformable constructions.

Further information can be found at www.aluminium-recycling.com and at www.oea-alurecycling.org.

Contact:

Drahtzug Stein combicore GmbH & Co. KG, Talstraße 2, D - 67317 Altleiningen

Dr. Susanne Rupp, susanne.rupp@combicore.com

Tel.: 0 63 56 / 966 - 225 or 0160 / 95 56 82 05