



# AMAG TopPlate® stands for precision in aluminium

**From the end of 2010, the product portfolio is to be extended through the addition of sawn and milled cast plates and milled rolled plates.**

In order to cover the growing demand for precision blanks and to support customers in the best possible manner, AMAG is to further extend its production capacity through the addition of a further plate centre. This will produce finished, milled cast and rolled plates and thus allow AMAG to position itself as a complete supplier for machinery, die and tool production.

Cast ingots in various alloys are to be cut into plates with very close tolerances. These plates will then be subsequently milled and cut to size in order to meet the strictest precision requirements.

Plates manufactured from EMC (Electro Magnetic Casting) cast ingots are characterized by very high material strength values

and homogeneity. Moreover, as the plate centre will also offer a possibility to process rolled plates, AMAG will be able to supply precision plates in high-strength alloys.

All the plates produced, will be matched to AMAG's high production standards. While fully automatic operation and inclusion in the existing quality control and testing system will ensure stable and reproducible quality.

If required, adherence to constantly increasing customer demands will be monitored by laser measurement of the end product (flatness, evenness and plate thickness), or by means of fully automatic ultrasonic checks in the company's own accredited testing facility.

The location of the new plate centre on the AMAG site, which fits into the production flow in ideal fashion, guarantees short transport distances, efficient production and optimized interfaces to the upstream casting and rolling production phases.

## **AMAG is the first port of call for new developments.**

At AMAG, products are developed, improved or modified for special applications in a process that begins with the raw material and ends with the delivered goods. For that purpose the synergies between aluminium processing and the very latest casting and rolling technologies, which are all employed for aerospace, automotive and bright products, are utilized.

## **A closed product cycle on a one-stop shopping basis.**

Due to its ability to process all types of scrap (pieces, swarf, plastic contaminated scrap and dross) and the investment in one of the world's most modern aluminium smelter (Alouette, Canada), AMAG has largely secured the supply of its raw material requirements.

The aluminium material cycle is completed at the integrated location in Ranshofen, as with scrap use of >75 per cent, AMAG numbers among the largest aluminium recyclers in the whole of Europe. Hence the fact that with regard to precision plates, the designation GREEN ALUMINIUM is once again far more than just a mere catchphrase.

## **Big enough to dare – small enough to care**

Through the diversity of its rolled and special products, AMAG demonstrates its innovative strengths and interest in small batches on a daily basis. This policy will also be introduced to the production of precision plates.

### **AMAG TopPlate®**

<b>TopPlate® C</b>	5754 / 5083	Non heat treatable cast-plates – sawn on both sides
<b>TopPlate® CM</b>	5754 / 5083	Non heat treatable cast-plates – milled on both sides
<b>TopPlate® RM</b>	5754 / 5083 / 6082 / 6061 / 7020 / 7075 other alloys on request	Rolled plates – milled on both sides

### **General product data**

<b>Thickness</b>	8 - 210 mm	TopPlate® C -0/+1 mm	TopPlate® CM -0/+0,2 mm TopPlate® RM -0/+0,2 mm
<b>Width</b>	1.000 – 2.150 mm	+/- 2 mm	
<b>Length</b>	2.000 – 6.500 mm	+/- 2 mm	
<b>Flatness</b>	8 - 15 mm >15 mm	TopPlate® C max. 0,8 mm/m TopPlate® C max. 0,5 mm/m	TopPlate® CM / TopPlate® RM max. 0,15 mm/m TopPlate® CM / TopPlate® RM max. 0,15 mm/m
<b>Weight</b>	Max. 4.500 kg		





AluReport recently interviewed Renato Sestak, the head of commercial product sales and Peter Schantl, the head of maintenance and the manager of the new plate centre installation project.

**What has prompted AMAG to enter the precision plate market?**

**Sestak:** In recent years, cast plates have captured a growing market share and have established a solid position with regard to certain applications. Above all, dimensional stability and low internal stress provide advantages even when, as opposed to rolled plates, sacrifices have to be made with regard to strength, porosity and notched impact strength. The fact that AMAG wishes to present itself as a complete supplier for plate customers and that primary material supply (casting technology) and the required know-how are available in-house, meant that entry into the precision cast plate sector was a logical step towards an expansion of the product portfolio. In addition, in future the new milling unit will enable us to manufacture special products such as milled, rolled plates.

**What prerequisites does AMAG possess for this new production phase?**

**Schantl:** As a result of long-term experience with internal, machining production and the mastery of the necessary processing technologies, AMAG possesses all the prerequisites needed for the production of precision plates of the highest quality and



Dipl.-Ing. Renato Sestak, Dipl.-Ing. Peter Schantl

with the closest tolerances. The top technical, quality standard achieved through the production of niche and special products will also flow into the manufacture of AMAG TopPlate®.

**What advantages do you envisage for AMAG customers?**

**Sestak:** AMAG's abilities in the electromagnetic casting (EMC) field means that the primary material consisting of homogenous and pore-free cast ingots with reduced segregation offers considerable advantages over traditional casting methods. For this reason, cast ingots from Ranshofen are already employed in several areas of cast and precision plate production at customers' sites. At its plant location, AMAG has control over the entire process chain and can therefore react flexibly to customer requirements relating to alloy composition and mechanical characteristics. Moreover, this complete production

chain coverage allows us to respond efficiently to new challenges and developments and push on with these at speed.

**The project is already progressing rapidly. What is the schedule?**

**Schantl:** The order for the fully automatic plate centre was allocated in March 2010 and construction work commenced during July. Assembly will begin in late summer and start-up is planned for late autumn. The production run-up phase will be concluded by the end of the year. With an eye to the future, the plant has already been designed for 2,300 mm widths and 6,400 mm lengths.

**What are the main applications for AMAG TopPlate®?**

**Sestak:** The main application areas are in mechanical engineering, mould and jig construction and precision components for all types of design. ■

AMAG plant

