

Asia 2015 6th - 8th of Jul

AUTOMOTIVE LIGHTWEIGHT

PROCUREMENT SYMPOSIUM

Jumeirah Himalayas Hotel in Shanghai, China



SYMPOSIUM FOCUS

- Aluminium
- Carbon Fibre
- Composites
- High Strength Steel
- Magnesium

HIGHLIGHTS

• INTERNATIONAL SPEAKERS

AUDI - MAGNA - DGS - GEELY - NOVELIS - JSC - VOESTALPINE, ...

• LIGHTWEIGHT TECHNOLOGY EXHIBITION

DGS - StrikoWestofen - Kurtz - Novelis – Idra

• SIMULTANEOUS INTERPRETING

Chinese - English / English - Chinese

ATTENDING COMPANIES



MEDIA & ORGANIZATION PARTNERS



Brings together the procurement and supply side of lightweight materials and their advanced processes in accompany with cost balance or reduction....

AluMag® offers the four following services - worldwide:



Market Research

- Aluminium Extrusion Customer Database
- Foundry & Tool Maker Database
- Automotive Application, Material & Process Analyses
- Various Industrial Application Research & Analyses

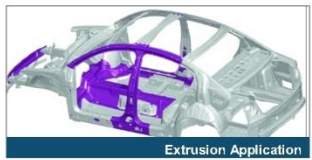
AluMag as your provider of automotive research and forecasting studies, offers you and your business, the market intelligence you need to realize the best strategic decisions



Material - Process - Application Trend Analysis

Large variety of market access, local & global:

- business database with 6,970+ companies and 18.700+ contacts
- 150+ satisfied customers worldwide
- Arranged 20+ roadshows/events since 2008



Extrusion Application

Your Benefits:

- Learn about your [potential] clients and competitors
- Obtain an inside view of the market
- Identify opportunities and threats
- Minimize risk and optimize profits
- Position your company successfully
- Based on data off the shelf, secondary re-search and interviews, AluMag generates validated researches



Market Development

- Analysis & Development of Market Opportunities
- Accelerate Market Penetration
- Manage New Product Launches
- Establish a Sales Force Sales on Demand

AluMag guides and supports your organization globally through the different market development phases until we have successfully launched, implemented or executed your project.



Map of activity - SAMPLES

Manage and integrate each aspect of your organization by initiating, planning, controlling, executing and closing out a new project. AluMag offers liaison management services as an addition to our customer's staff by bringing in the resources that define us.



JATCO Head Quarters Meeting in Japan

Your Benefits

- Analysis and development of Markets
- Realize opportunities
- Accelerate market penetration
- Establish a sales force
- Provide warehousing and distribution services
- Manage new product launches
- Sales on demand



Roadshows / Events

- Organization of Technical & Commercial Roadshows
- Oversea Commercial & Technical Events
- Host In-House Events & Presentation
- Common Technology Booth at Leading Exhibitions

AluMag roadshows, tech-meetings and symposia are the first class events used by exhibitors and guest as a unique benchmark platform.



Daimler Sindelfingen as Roadshow Location

The AluMag think tank events are bringing in decision makers and executives in EUROPE, ASIA and NAFTA.



G M VIP at AluMag Booth SAE in Detroit

Upcoming Events:

- 2015 Jul: Automotive Light-weight Procurement Symposium in Shanghai, China
- 2015 Nov: Automotive Light-weight Procurement Symposium in Detroit, USA
- 2016 April Common tech- booth at the SAE World Congress in Detroit, USA
- 2016 Jul: Automotive Light-weight Procurement Symposium in Shanghai, China



Strategic Localization

- Warehousing & Distribution Service
- Supplier & Tie-up Localization
- Identification & Trade-off of new Technology
- Foreign Market Business Cases and whose Realization

AluMag has the global expertise to search, identify, evaluate and validate potential strategic business opportunities for expansions and partnerships that will assist your business growth plans regionally and globally



On-Site Greenfield Planning Meeting

Services for:

- Search, develop and present potential acquisition candidates for regional and global business expansions
- Localization of new manufacturing / service sites for business expansions
- Identification of new technology supplier development related to products, processes and materials
- Search, develop and present potential business partners / suppliers to support regional and/or global supply programs
- Evaluate potential competitor profiles for new or existing business in non-presence geographies
- Evaluate new emerging technologies and processes for business expansions

Are you:

- looking for specific data, information and outlook about product, material, customer, supplier, technologies, ...
- want to discuss your project, increase sales, access new markets, ...
- interested to participate in one of our roadshows / events or organize your customized showcase ...
- looking to localize, expand into new markets, countries, tie-up targets, ...

please contact your AluMag Team to receive a quote or proposal

CONTACTS & PROJECT TEAM



Mr. Jost GÄRTNER
Managing Partner
AluMag® Automotive GmbH
Kirchplatz 1a
59706 Mendon
GERMANY
Tel.: +49 2373 929492
j.gaertner@alumag.de
German & English



Ms. Ying ZHOU
Project Coordinator
Japan & China
AluMag® Automotive GmbH
Kirchplatz 1a
59706 Mendon
GERMANY
Call: +49 172 6415876
y.zhou@alumag.de
German & English & Chinese & Japanese



Mr. Roberto BOEKER
Managing Partner
AluMag® Automotive LLC
42055 Michigan Avenue
Canton, MI 48105
USA
Call: +1 248 962 5086
r.boeker@alumag.de
English & German & Spanish



Mr. Thomas KATZMARK
New Business Development Manager
AluMag® Automotive LLC
20829 Sunnydale
Farmington Hills, MI 48336
USA
Call: +1 313 410 0965
t.katzmark@alumag.de
English



Mr. Jesper LARSEN
Manager Market Research
AluMag® Scandinavia
Byagorvænget 58
8330 Beder
DENMARK
Call: +45 2573 9790
jlarsen@alumag.de
German & English & Danish



Ms. Jacqueline TEUBER
Senior Roadshow Organizer
AluMag® Automotive GmbH
Kirchplatz 1a
59706 Mendon
GERMANY
Tel.: +49 2373 929496
j.teuber@alumag.de
German & English



Mr. Ricardo SCHOER
Senior Consultant
AluMag® Automotive LLC
Av. San Antonio 189-131
Col. Napoles 03810
MEXICO
Call: +52 55 4002 0501
r.schoer@alumag.de
English & German & Spanish





Asia Automotive Lightweight Procurement Symposium
6th – 8th of July 2015
Jumeirah Himalayas Hotel in Shanghai, China.



AluMag Automotive GmbH
Jost Gaertner
Managing Partner
Tel.: +49 2373 929492
Cell: +49 172 6000569
j.gaertner@alumag.de
www.alumag.de

AluMag®
Europe ■ India ■ Americas ■ Asia
THE MARKET DEVELOPER

Company Speechs by:

<u>Audi AG</u>	<u>10</u>
<u>Magna Steyr Engineering AG & Co KG</u>	<u>16</u>
<u>DGS Druckguss Systeme AG</u>	<u>42</u>
<u>Guangdong Hongtu Technology Co.,Ltd</u>	<u>58</u>
<u>Kurtz GmbH</u>	<u>68</u>
<u>Voestalpine AG</u>	<u>90</u>
<u>JSC Automotive Consulting Co. Ltd.</u>	<u>108</u>
<u>StrikoWestofen GmbH</u>	<u>124</u>
<u>Geely Automobile Research Institute</u>	<u>140</u>
<u>Novelis China</u>	<u>156</u>
<u>Sapa Technology Asia</u>	<u>174</u>
<u>Kobelco (China) Holding Co Ltd.</u>	<u>202</u>
<u>GASGOO Research Institute</u>	<u>224</u>
<u>AluMag Automotive GmbH</u>	<u>225</u>

Agenda

Agenda: (Is Continuously Being Updated)

Monday The 6th Of July – Jumeirah Himalayas Hotel, Shanghai – 6th Floor

06:00pm - 10:00pm

Pre-registration and Welcome Reception

Tuesday The 7th Of July – Jumeirah Himalayas Hotel, Shanghai – 6th Floor

08:30am – 09:15am

Registration & Morning Coffee / Tea

09:15am – 09:30am

Welcome:

Mr. Jost GAERTNER, Managing Partner at ALUMAG Automotive GmbH

09:30am – 10:25am

Opening Keynote:

Mr. Frank VENIER, Strategy and Innovation; Lightweight Design Centre at AUDI AG

Lightweighting SUV - The New Audi Q7 In Multimaterial Car Body Design

10:25am – 11:00am

Break for Refreshments/Coffee/Tea, Snacks, Networking, Tech Exhibition

11:00am – 12:00am

Paper 1 – Part 1:

Mr. Gerhard KRACHLER, Director Advanced Development & Product Strategy at MAGNA STEYR Engineering AG & Co.KG

Paper 1 – Part 2:

Mr. Christian JURICEK, Manager R&D Europe at COSMA MAGNA International

Magna's Global Advanced Lightweight Competences

12:00pm – 01:45pm

Break for Refreshments/Coffee/Tea, Lunch, Networking, Tech Exhibition

01:45pm – 02:25pm

Paper 2:

Mr. Andreas MUELLER, CEO at DGS Druckguss Systeme AG

Localization And Industrialization Of Cast Aluminium Structural Applications

02:30pm – 03:10pm

Paper 3:

Mr. Li WAN, Vice President at Guangdong Hongtu Technology (Holdings) Co Ltd

Aluminum Alloy High Vacuum Die Casting Technology And It's Application On Automotive Structural Parts

03:15pm – 03:45pm

Paper 4:

Mr. Lothar HARTMANN – Managing Director Foundry Machines & Trimming Presses at Kurtz GmbH

Mr. Michael BARTEL – Asia Sales Manager Foundry Machines & Trimming Presses – Kurtz GmbH

Low Pressure Casting

A traditional casting technology helping to step ahead for light weight solutions in engine block manufacturing

03:45pm – 04:15pm

Break for Refreshments/Coffee/Tea, Snacks, Networking, Tech Exhibition

04:15pm – 04:55pm

Paper 5:

Mr. Peter BERNSCHER, Member Of The Board & Director Automotive Body Parts at Voestalpine Metal Forming GmbH

Lightweight Solutions In The Automotive Industry By Voestalpine

05:00pm – 05:55pm

Closing Keynote:

Mr. Jochen SIEBERT, Managing Partner at JSC Automotive Consulting Co. Ltd.

Outlook And Hurdles Of The Chinese Economy And Automotive Industry

05:55pm – 06:00pm

Summary:

Ms. Ying ZHOU, Project Coordinator China – Japan at ALUMAG Automotive GmbH

06:00pm - 10:00pm

Reception Sponsored By StrikoWestofen

Dinner Speech – Part 1:

Mr. Rudolf RIEDEL – Group Managing Director at StrikoWestofen GmbH

Dinner Speech – Part 2:

Mr. Rainer ERDMANN – Managing Director Asia Operations at StrikoWestofen Thermal Equipment Co.Ltd

Profits With Light Metal Castings Start In The Melt Shop

Agenda

Agenda: (Is Continuously Being Updated)

Wednesday The 8th Of July

08:15am – 08:55am

Opening Keynote:

Prof. Fei XIONG Chief Engineer & Director of Auto Lightweight Department at GEELY

Automotive Lightweight Promoting The Application Of Aluminium

09:00am – 09:40am

Paper 1:

Mr. James LIU, Managing Director and Vice President of Asia Auto at NOVELIS China

High Volume Aluminum Solutions For Lightweighting

09:45am – 10:25am

Paper 2:

Dr. Jin HOU – General Manager – Sapa Technology Asia

High Performance Aluminium Alloys For Automotive Light-Weighting

10:25am – 11:00am

Break for Refreshments/Coffee/Tea, Snacks, Networking, Tech Exhibition

11:00am – 11:40am

Paper 3:

Mr. Yoshikazu MUKAI, Executive Vice President & Technical Specialist at Kobelco Automotive Aluminium Rolled Products (China) Co.,Ltd – Shanghai Branch

Kobe's R&D Activities For Automobile Lightweighting

11:45am – 12:25pm

Closing Keynote:

Mr. Martin SHI, Chief Editor at GASGOO International And Senior Analyst at GASGOO Research Institute

The Status And Development Trends Of China Automobile Lightweight

12:30pm – 12:35pm

Summary:

Mr. Jost GAERTNER, Managing Partner at ALUMAG Automotive GmbH

12:45pm – 01:00pm

Walk To The SNIEC
Shanghai New International Expo Centre

01:00pm – 01:40pm

Reception With
Snacks & Finger Food at the SNIEC

01:40pm – 05:30pm

Individual Or Guided Visit At The 2015 "Aluminium China " And "China Diecasting" Exhibitions

Backup Speech

Mr. Jost GAERTNER, Managing Partner at AluMag Automotive GmbH

Top 16 Global Ranking Of Aluminium And Magnesium Foundries By Revenue

EXHIBITOR

DGS Druckguss Systeme AG
CHE 9015 St. Gallen-Winkeln
Tel.: +41 71313 8888
www.dgs-druckguss.com



IDRA CHINA Limited
200122 Pudong
Tel.: +86 21 68751216
www.idrachina.com



Kurtz GmbH
97892 Kreuzwertheim
Tel.: +49 9342 807 0
<http://www.kurtzrsa.de>



Novelis China
CHN 201103 Shanghai
Tel.: +86 21 60355121
www.novelis.com



StrikoWestofen GmbH
GER 51643 Gummersbach
Tel.: +49 2261 709 10
www.strikowestofen.com





Mr. Lothar Hartmann
Managing Director Foundry Machines &
Trimming Presses

Kurtz GmbH
97892 Kreuzwertheim
Tel.: +49 9342 807 0
www.kurtz-metals.de

TITLE

Low Pressure Casting

A traditional casting technology helping to step ahead for light weight solutions in engine block manufacturing

ABSTRACT

Lightweight construction is currently a dominant theme in the automotive industry. The latest emission standards and CO2 fleet requirements of governments are forcing our customers to find new ways to reduce the weight of the vehicle. This ranges from lighter, yet more stable crankcases via weight-optimized chassis parts.

Today new developments in the field of sand core production, casting machines and process technology allow structural parts and crankcases to be produced with the low-pressure casting.



Mr. Michael Bartel
Asia Sales Manager Foundry

Kurtz GmbH
97892 Kreuzwertheim
Tel.: +49 9342 807 0
www.kurtz-metals.de

TITLE

Low Pressure Casting

A traditional casting technology helping to step ahead for light weight solutions in engine block manufacturing

ABSTRACT

Lightweight construction is currently a dominant theme in the automotive industry. The latest emission standards and CO2 fleet requirements of governments are forcing our customers to find new ways to reduce the weight of the vehicle. This ranges from lighter, yet more stable crankcases via weight-optimized chassis parts.

Today new developments in the field of sand core production, casting machines and process technology allow structural parts and crankcases to be produced with the low-pressure casting.

Asia 2015 6th - 8th of Jul

AUTOMOTIVE LIGHTWEIGHT

PROCUREMENT SYMPOSIUM

Jumeirah Himalayas Hotel in Shanghai, China

Low Pressure Casting

A traditional casting technology helping to step ahead for light weight solutions in engine block manufacturing

Agenda

1. **Short introduction – Who is Kurtz?**
2. **General Topics and motivation to use LPDC**
 - Motivation
 - Casting process – Low Pressure Casting
 - Cost pressure
 - Process as a whole
3. **Layouts Casting Lines from experience**
4. **Application regarding light weight construction**
 - Properties cast parts
 - Productivity
 - Sand core technology
 - Type of sand cores
 - Core handling
5. **Summary and prospects**

1. Who is KurtzErsa?

Electronics Production Equipment



Stencil printers



Reflow ovens



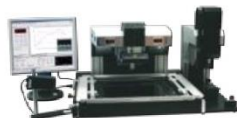
Wave and selective soldering systems



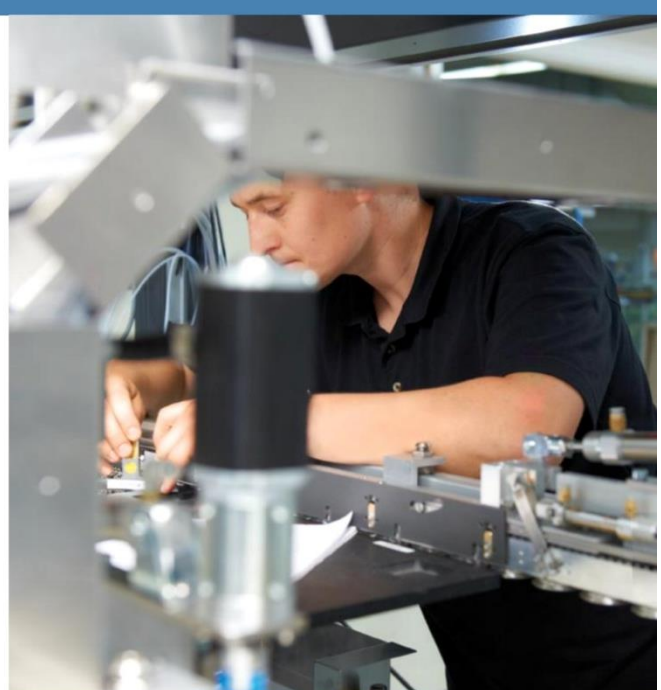
Inspection systems



Hand soldering stations



Rework systems



Metal Components



Permanent mould aluminium castings



Grey/nodular cast-iron



Sheet metal technology



Machining



Moulding Machines



Shape moulding machines



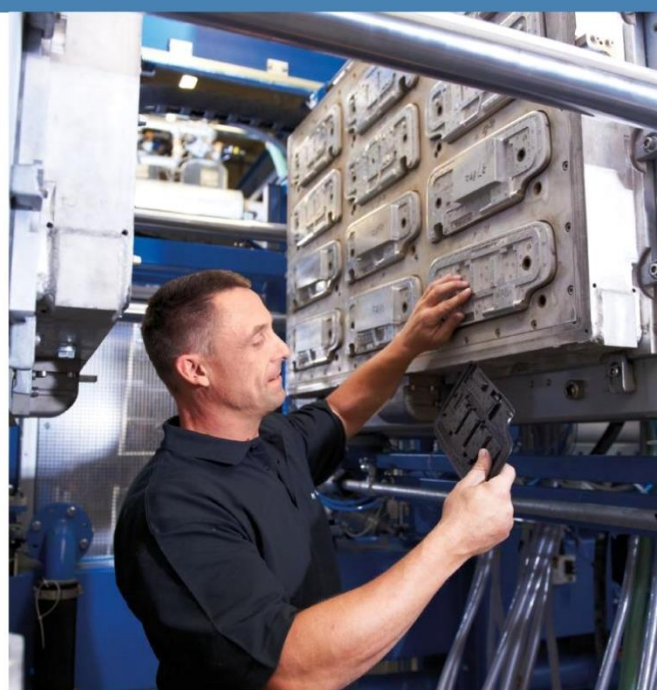
Block moulds



Low-pressure casting machines



Trimming presses



Trimming Presses



KPS 3000 SKT



KPS 1000



KPS 500



KPC 520

Page 8 © by Kurtz GmbH | FM Foundry Machines „lightweight procurement symposium“ | FM.MIB-6.07.15

 **kurtz ersa**

KURTZ Low Pressure Casting Machines



AL 10-7 SC



AL 14-10 SR

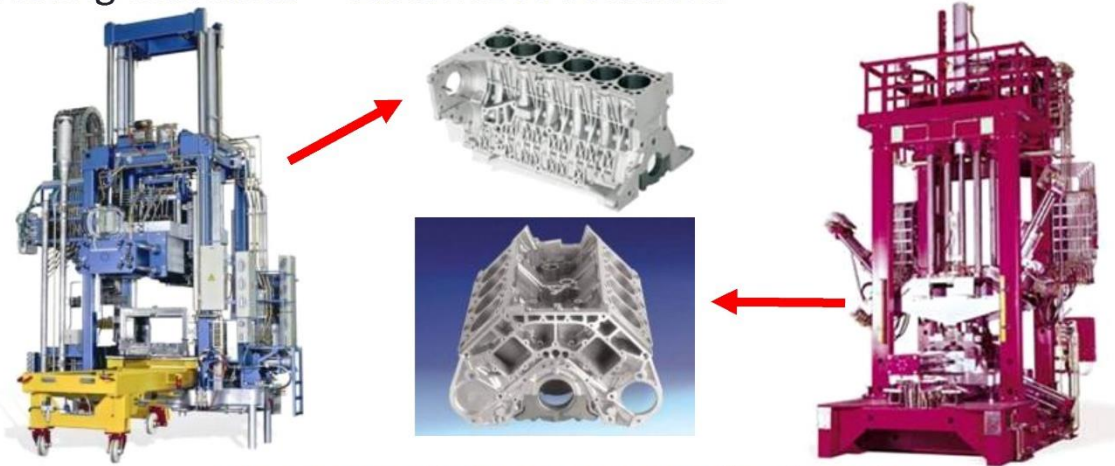


AL 13-13 FSC with furnace shuttle

Page 10 © by Kurtz GmbH | FM Foundry Machines „lightweight procurement symposium“ | FM.MIB-6.07.15

 **kurtz ersa**

LP-Casting Machines – Customized Solutions

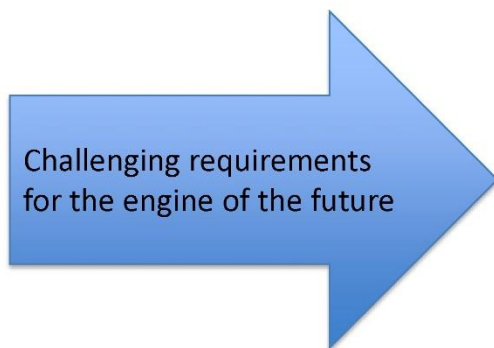


Following engine blocks are cast on KURTZ foundry machines:
BMW F1 – Racing, BMW V8, V10 and V12, Porsche V8 - Sports utility vehicle; Audi V6 and V8,
BMW R6 Diesel, VW R5 and V10 Diesel, Jaguar V8,
Land Rover V8

2. General Topics and motivation to use LPDC in engine block casting

- Motivation
- Casting Process – Low Pressure
- Cost pressure
- Process as a whole

Motivation of our customers



- downsizing
- high power and torque requirements
- Increased thermal requirements
- Increased mechanical requirements
- Emissions behavioral improvement
- Reduced fuel consumption

Motivation

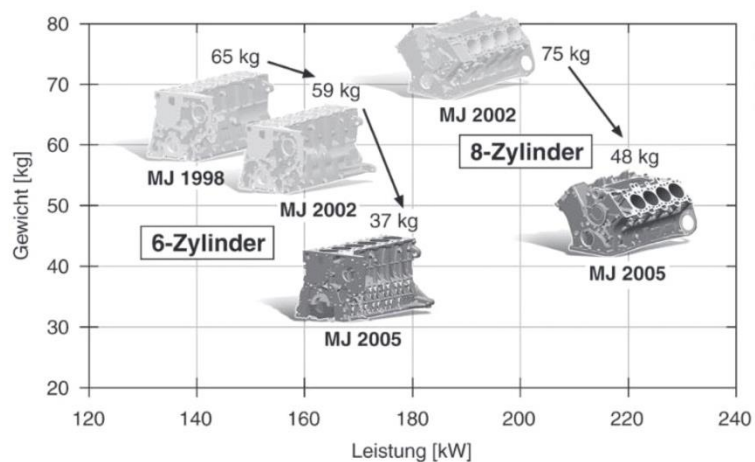


Bild 5: Entwicklung BMW Diesel Kurbelgehäuse-Gewicht und Motorleistung bis 2005 [3].

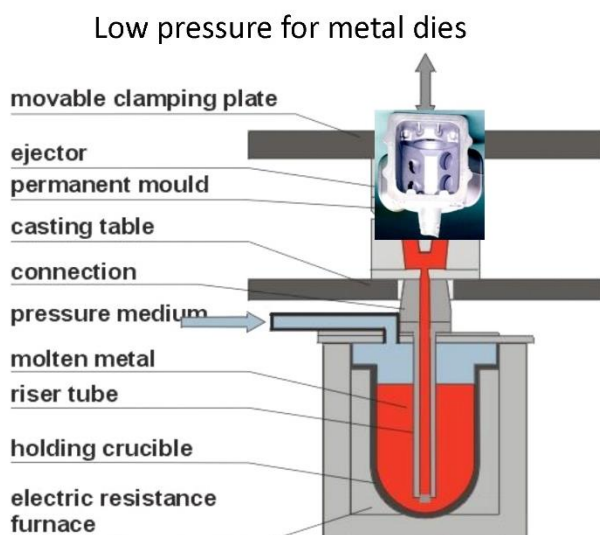


Pictures and graphs are courtesy of BMW

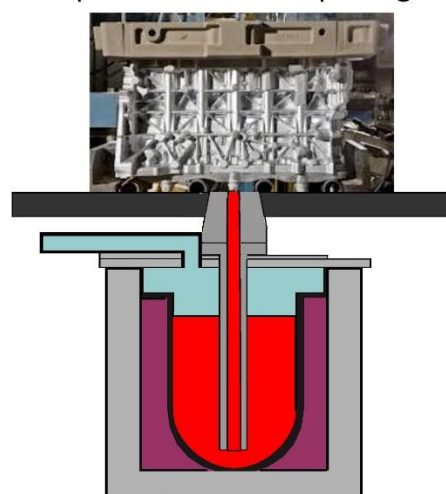
Requirements of machine- and process development

- Developing of inorganic core binder systems
- Developing of a special casting process with the use of low pressure machines – low pressure filling with gravity solidification
- Developing highly efficient LPDC machines and casting lines
- Special casting line concepts for highest Al material cleanliness

Basic Concept of Low Pressure Die Casting



Low pressure for sand packages



Advantages and Benefits of Low Pressure

- ❖ **Controllable filling of the mould**
filling against gravity force
 - no turbulence
 - less oxide films
 - better mechanical properties
- ❖ **Feeding Pressure**
 - better mechanical properties
 - 1bar feeding \triangleq 6m height (Mg)
 - 1bar feeding \triangleq 4m height (Al)
- ❖ **Metal is kept within a closed vessel**
metal bath surface not disturbed or ruptured → cleaner material
- ❖ **Operation under a protected atmosphere** → no respectively low hydrogen content
- ❖ **Controlled solidification with pressurized furnace**
higher yield than with conventional risers → higher yield
- ❖ **Highly automated process** → less human faults

Comparison Gravity Die Casting – Low Pressure Die Casting

Example of yield:
Comparison of gravity die casting and low pressure die casting

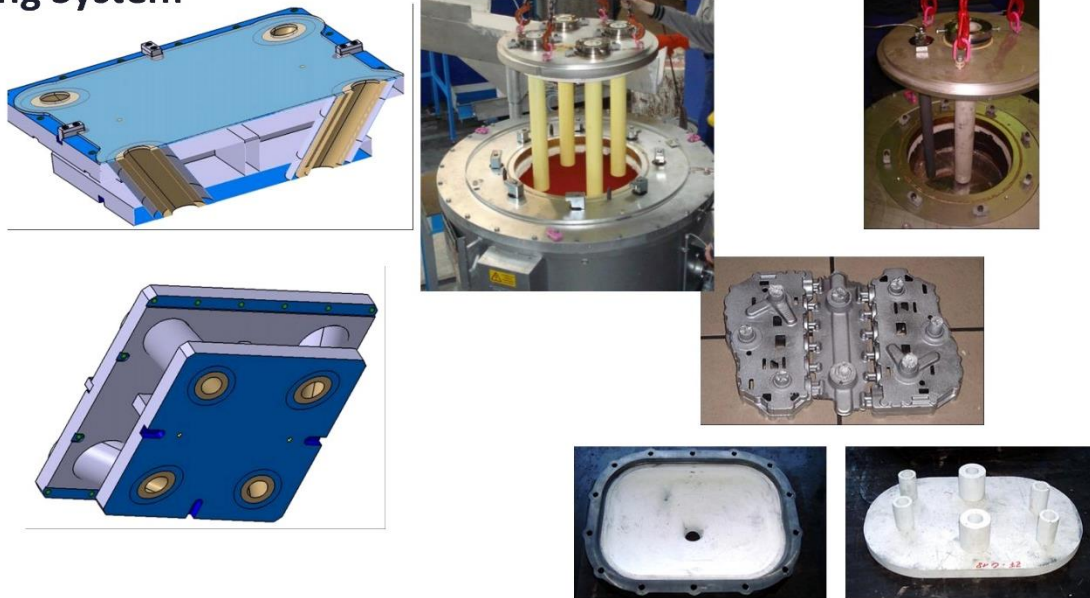


21,3 kg	Casting weight	12,2 kg
54%	Output	92%
7 pcs/h	Productivity	8 pcs/h

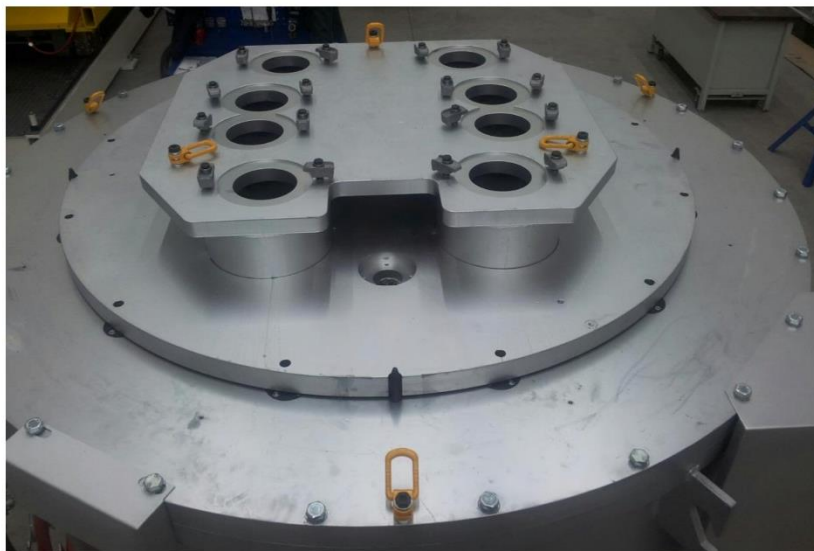
Example

- 50,000 parts / year
- 9 kg / part saving cycle
= 450,000 kg aluminum
- 7% melting loss = 31,500 kg
- Total weight 481,500 kg
- Melting costs per
kg \emptyset 0.50 € x 481,500 kg
= 240,750.00 €

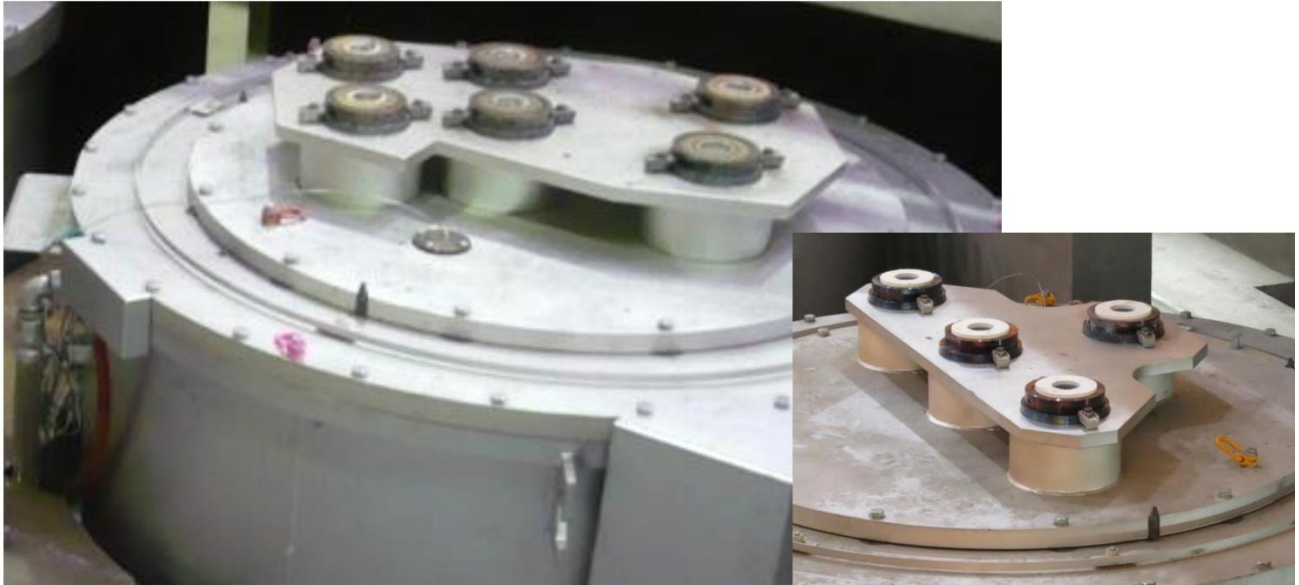
Gating System



Mold gating system



Mold gating System – interface to the casting mold



Page 23 © by Kurtz GmbH | FM Foundry Machines „lightweight procurement symposium“ | FM.MIB-6.07.15

 kurtz ersa

New Machine concepts



Page 24 © by Kurtz GmbH | FM Foundry Machines „lightweight procurement symposium“ | FM.MIB-6.07.15

 kurtz ersa

Furnace change shuttles – 2800 kg Al



Page 26 © by Kurtz GmbH | FM Foundry Machines „lightweight procurement symposium“ | FM.MIB-6.07.15

 kurtz ersa

Comparison Furnace Insulation: Low Pressure - Gravity



Furnace Gravity
 open furnace without furnace cover
 poorly insulated furnace cover
 ➔ Heat loss
 ➔ Energy loss

Costs / Energy saving due to furnace insulation
 Reduction of energy costs by 40 - 50 %
 Savings per year:
 approx. 50.000,- € 300 kg furnace
 6 x 2 furnaces in line

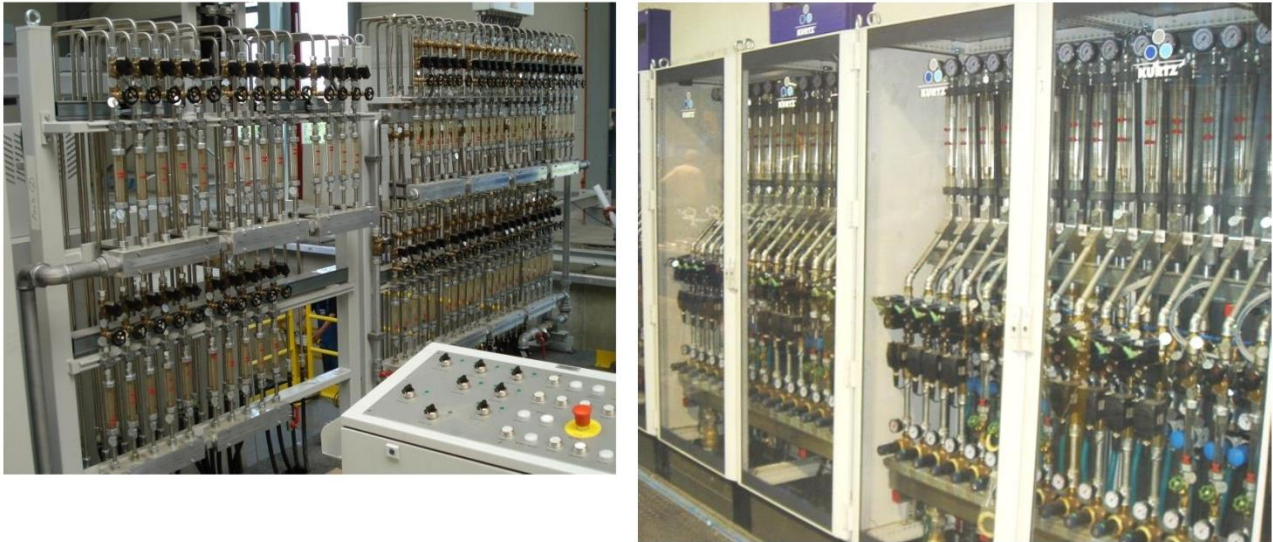


Furnace Low Pressure
 closed furnace mit furnace cover
 furnace insulation
 ➔ no heating loss
 ➔ energy saving

Page 28 © by Kurtz GmbH | FM Foundry Machines „lightweight procurement symposium“ | FM.MIB-6.07.15

 kurtz ersa

Special mold cooling system – for optimized process control

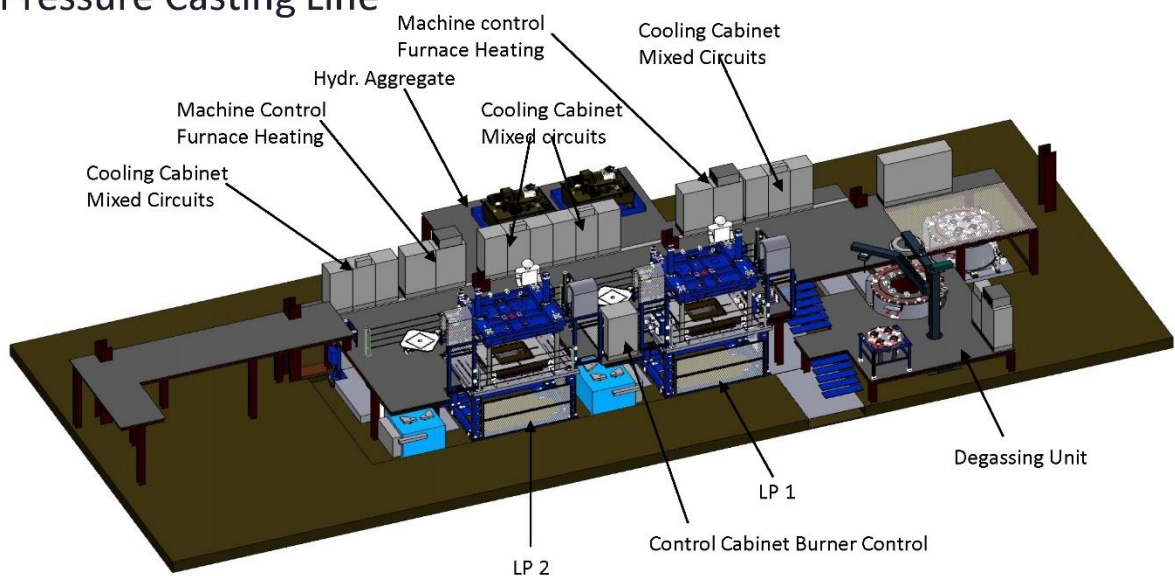


Tool change system – for very quick mold change overs

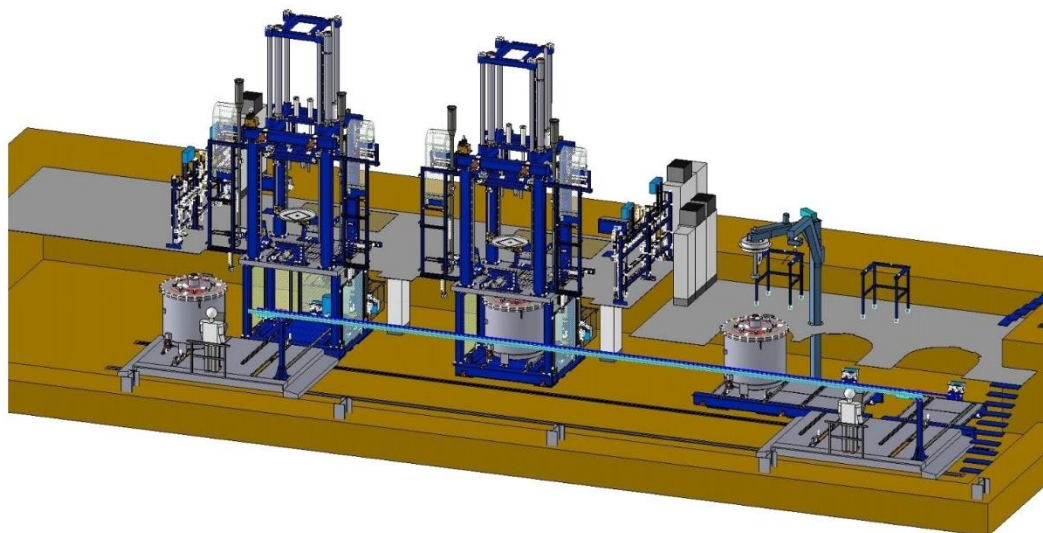


3. Layouts Casting Lines from experience

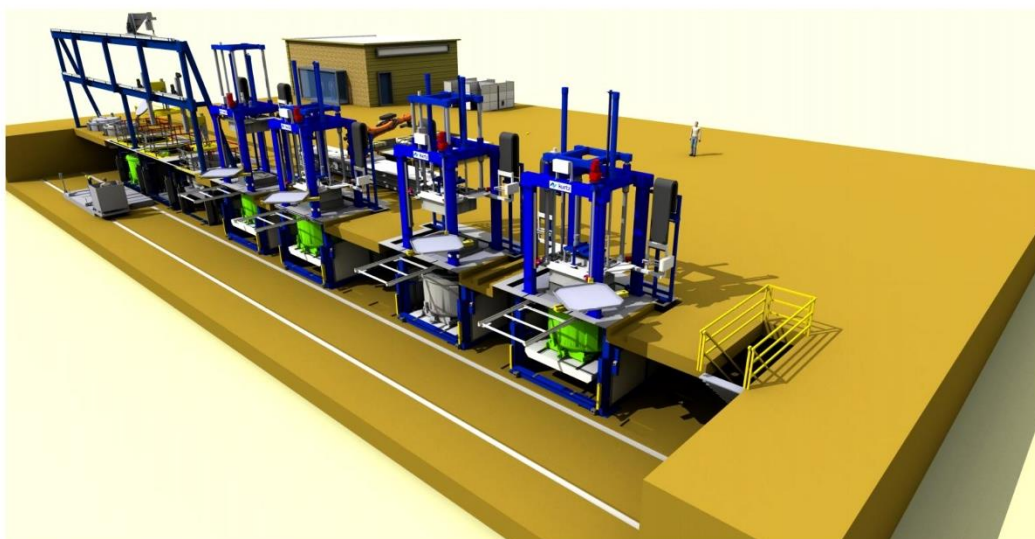
Low Pressure Casting Line



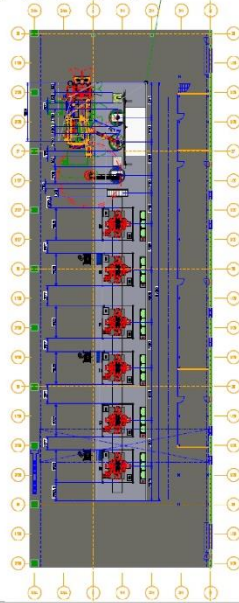
Low Pressure Casting Line



Low Pressure Casting Line



LP-Casting Line for OEM



Automation

Automation Tasks

- Core handling
- Insert sieves
- Casting removal
- Cleaning mould
- Cooling
- Marking with plausibility check
- Peripherals
- Unloading



4. Application regarding light weight construction

- Properties cast parts
- Productivity
- Core technology
 - Type of cores
 - Core handling

Structure Part Side Beam for Al-Car Body

Serial:
Side beam,
complex cast with cores
LP-Die-Casting
AlSi7Mg0,2 T6
Wall thickness $\geq 3,5$ mm

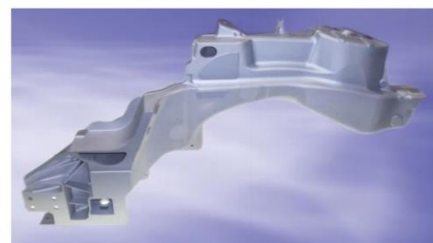
Mechanical Properties
(critical areas):

$R_{p0,2} \geq 160$ N/mm²
 $R_m \geq 240$ N/mm²
 $A_5 \geq 12$ %

Main Characteristics:

- Large dimensions
 - 1200 mm
- Thin walls
 - Actual 4 mm
 - Aim $\geq 2,5$ mm
- High ductility
- High yield strength

1200 x 800 / 20kg



Source: Martinrea Honsel Germany GmbH



Low Pressure WITH Sand Core / Suspension Part

Product: knuckle le/ri
Model: Porsche Panamera
Process: Low pressure die casting, 4 cavities
Scope: Core making, casting, de-coring, trimming, sawing, heat treatment, processing
Alloy: AlSi7Mg; 4,35 kg



Source: Georg Fischer Kokillenguss GmbH, Herzogenburg, Austria



Mechanical Properties Knuckle

Knuckle Porsche Panamera - Sandcore

Yield Strength

Target: 220 MPa Actual: 222-260 MPa

Tensile Strength

Target: 260 Mpa Actual: 288-336 MPa

Elongation

Target: 6 % Actual: 6-12 %



Knuckle Audi B8 – no cores

Target: 220 Mpa

Actual: 239-286 MPa

Target: 280 MPa

Actual: 305-343 MPa

Target: 5 %

Actual: 5-14 %



Source: Georg Fischer Kokillenguss GmbH, Herzogenburg, Austria



Low Pressure / Suspension Part

Product: Querbrücke
Model: Porsche Panamera
Process: Low pressure die casting, 2 cavities
Scope: Casting, trimming, sawing, heat treatment, processing
Alloy: AlSi7Mg; 6,1 kg



Source: Georg Fischer Kokillenguss GmbH,
Herzogenburg, Austria

+GF+

5. Summary and Prospects

Summary

- **Light weight construction / Core casting**
 - One cast part replaces several sheet metal parts which have to be joined together
 - Weight reduction
 - Profitably
- **Part geometry**
 - Dimensions of known suspension parts up to structural parts
 - Larger and more complex
 - Core technology– anorganic cores
- **Plant designs**
 - Casting machines and furnaces become larger
 - Multiple cavity 4- up to 8-cavities
 - Riser tube/ gating concepts more complex
 - More cooling and controlled
 - Melting/ furnace logistics

Reasons for low pressure casting

- **Casting requirements**
 - Mechanical properties
 - Elongation
- **Economical**
 - Cycle material
 - Profit by reduced energy costs – melting down
 - Profit by „Return cycle material – Recycling“
 - Cycle time – multiple cavities
- **All round part concept**
 - Easier way from cast part up to finished part
 - Less post-processing
- **Plant concepts / Investments**
 - The bottom line is economical!
 - Will stand every competition!

Prospects

- Leight weight construction / core casting as promising casting
- Tailor-made universal machines in large format
 - NO CONTRADICTION
 - Cycle time – multiple cavity
- Low pressure as intelligent concept
 - Classic low pressure casting
 - Low pressure casting combined with gravity casting
 - Cycle time by multiple cavity unbeatable
 - MORE than competitive compared to low pressure and high pressure die casting

**Thank you very
much for your
attention!**



We Welcome You To Our Next Event

AluMag®

North America 2015 9th - 11th of Nov
 AUTOMOTIVE LIGHTWEIGHT
PROCUREMENT SYMPOSIUM
 Westin Hotel in Detroit, USA



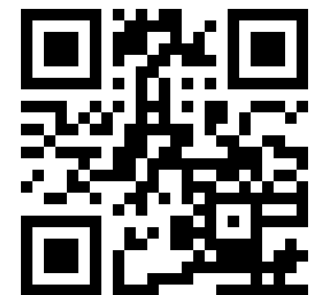
AluMag®

AluMag SAE 2016 12th - 14th April
 Light Weighting - Emission Reduction - Car Comfort
 Technology Center, Booth # 763 - Detroit - Cobo Center, MI USA



AluMag®

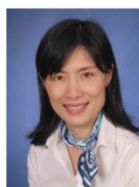
Europe 2016 27th - 29th of Nov
 AUTOMOTIVE LIGHTWEIGHT
PROCUREMENT SYMPOSIUM
 Hilton Hotel in Duesseldorf, Germany



CONTACTS & PROJECT TEAM



Mr. Jost GAERTNER
 Managing Partner
AluMag® Automotive GmbH
 Kirchplatz 1a
 58706 Menden
 GERMANY
 Tel.: +49 2373 929492
 j.gaertner@alumag.de
 German & English



Ms. Ying ZHOU
 Project Coordinator Japan & China
AluMag® Automotive GmbH
 Kirchplatz 1a
 58706 Menden
 GERMANY
 Cell: +49 172 6415876
 y.zhou@alumag.de
 German & English & Chinese & Japanese



Mr. Jesper Ove LARSEN
 Manager Market Research
AluMag® Scandinavia
 Byagervænget 69
 8330 Beder
 DENMARK
 Cell: +45 2573 8790
 j.larsen@alumag.de
 German & English & Danish



Mr. Roberto BOEKER
 Managing Partner
AluMag® Automotive LLC
 42056 Michigan Avenue
 Canton, MI 48188
 USA
 Cell: +1 248 962 5086
 r.boeker@alumag.de
 English & German & Spanish



AluMag®
 Europe ■ India ■ Americas ■ Asia
THE MARKET DEVELOPER



Mr. Ricardo SCHOER
 Senior Consultant
AluMag® Automotive LLC
 Av. San Antonio 189-131
 Col. Napoles 03810
 MEXICO
 Cell: +52 55 4002 0501
 r.schoer@alumag.de
 English & German & Spanish



Ms. Jacqueline TEUBER
 Senior Roadshow Organizer
AluMag® Automotive GmbH
 Kirchplatz 1a
 58706 Menden
 GERMANY
 Tel: +49 2373 929496
 j.teuber@alumag.de
 German & English



Mr. Thomas KATCHMARK
 New Business Development Manager
AluMag® Automotive LLC
 20929 Sunnydale
 Farmington Hills, MI 48336
 USA
 Cell: +1 313 410 0865
 t.katchmark@alumag.de
 English