

## IMA News

July 2014

Issue: 05

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Below are articles and summaries of magnesium related stories. IMA Member companies are asked to distribute the update to their employees and if their employees wish to receive the monthly IMA News issues, please send their email addresses to the IMA World Headquarters. The IMA appreciates all member company press releases and announcements for inclusion in the monthly IMA News issues.

### INDUSTRY CALENDAR

#### IMA Events

**May 17 – 19, 2015**

**IMA 72<sup>nd</sup> Annual World Magnesium Conference  
Vancouver, British Columbia, Canada**

#### Industry Events

August 11 – 12, 2014

[International Conference on Mining, Material and  
Metallurgical Engineering \(MMME '14\)](#)

August 20 – 21, 2014

[Global Automotive Lightweight Materials 2014](#)  
Detroit, Michigan, USA

September 15 – 17, 2014

[China Metals Week](#)  
Beijing, China

September 22 – 24, 2014

[NADCA Die Casting Congress & Tabletop](#)  
Milwaukee, Wisconsin, USA

September 28 – October 1, 2014

[8th International Symposium on Superalloy 718  
and Derivatives](#)  
Marriott City Center  
Pittsburgh, Pennsylvania, USA

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## ASSOCIATION NEWS

**71st Annual World Magnesium Conference in Highlights**

**New IMA News Section: "SPOT LIGHT," Featuring the Members of the International Magnesium Association**

**Welcome New IMA University Member: University of British Columbia**

**IMA Members Only: Conference Discount Available - China Metals Week**

[Articles follow below](#)

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## Mg NEWS AROUND THE INDUSTRY

**IMA Members Only: June Magnesium Review from Metal-Pages**

**Magontec and Qinghai Salt Lake Magnesium Conclude Three Agreements**

**Shiloh Industries Signs Definitive Agreement with Finnvedenbulten AB to Acquire Finnveden Metal Structures AB**

**Magnesium: The Other Bike Frame Metal**

[Articles follow below](#)

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## Mg NEWS AROUND EUROPE

**Mid-sized Segment Forecast to Hit Record Low This Year on Premium Push**

[Articles follow below](#)

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## Mg NEWS AROUND ASIA

**IMA Members Only: June China Magnesium Industry and Market Bulletin**

[Article follows below](#)

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*EDITOR'S NOTE: IMA makes every possible effort to substantiate the articles which appear in the Update. However, as this is not always possible IMA does not warrant the details nor accuracy of any given article. Please keep in mind that materials are attained through press releases, outside articles from numerous sources and publications. Such materials often contain opinions which are not that of the association nor should they be construed as such. We realize that in the case of some materials, the translations might often lead to less than perfect grammar, etc. It is our position however to print as submitted rather than take upon ourselves the editing of such materials which would entail potential changes unwanted by any given author.*

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## ASSOCIATION NEWS

### 71st Annual World Magnesium Conference Highlights

Nearly 300 magnesium industry professionals and their spouses attended the 71<sup>st</sup> Annual World Magnesium Conference in München, Germany in June. The meeting featured 30 presentations focused on the latest information and advances on magnesium processes, applications, technology and research.

Keynote speakers included Alan Clark of CM Group previewing the global magnesium supply and demand, Lydia Liu of Hebi Jianglang Metals Co., Ltd. providing an overview of China's 2013 magnesium development, and Karen McBeth of Platts Metals Group offering a look into the evolving aluminum market and its effects on magnesium.

New magnesium projects and grants were a hot topic of discussion at the meeting in Munich with two presentations on the Qinghai Magnesium Project which will create the world's largest primary magnesium production facility as the center piece of an integrated industrial complex producing magnesium and its alloys, PVC resin and soda ash as its primary products.

Svenn-Ivar Strømhaug of SilMag AS touched on their project of building a world leading large scale combined magnesium and precipitated silica production facility on Herøya. This location would utilize Norway's natural resources to produce an environmentally friendly production process.

Dr. Jöel Fournier of Alliance Magnesium Inc. ended the meeting with his overview on Alliance's recent success in the development of a new magnesium smelting process. It has demonstrated its capability to produce pure magnesium metal with its new process where the electric energy requirement has been significantly reduced and the environmental footprint has been minimized.

In addition, the 2014 IMA Awards of Excellence and Environmental Responsibility Award were awarded at the conference. Please find the full [press release](#) with all the winning award details on the IMA website here: [http://intlmag.org/newsroom/news\\_070114.cfm](http://intlmag.org/newsroom/news_070114.cfm).

Aside from the Awards of Excellence and Environmental Responsibility Award, several IMA volunteers were honored for their work during the conference. The IMA presented an award to Mr. Martin Tauber for outstanding service as the 2014 Program Chair and Ms. Susan Slade received an award for outstanding service as 2014 Awards Chair.

Dr. Karl Kainer was recognized for his years of service to the IMA. For the past two years, as President, Karl provided leadership, counsel and wisdom. He will continue to be part of IMA activities on the Board of Directors in the Immediate Past President role.

During the conference, Ms. Jan Guy was elected President of the IMA Board of Directors. Jan has been a member of the IMA since 1989 serving on various committees, presenting a few papers over the years, chairing IMA conference sessions and serving on the Board of Directors and Executive Committee. Jan was warmly welcomed to the Board as President.

Conference feedback has been excellent with several delegates and exhibitors commenting that this is the best IMA Conference they have ever attended.

## **New IMA News Section: “SPOT LIGHT,” Featuring the Members of the International Magnesium Association**

### **Get to Know our Members**

Welcome to the “Spot Light,” a newly featured section of the IMA Association News. It will feature highlights about IMA Members and their companies. If you and your company would like to be featured, please send a write-up to IMA Headquarters, attention [Jeff Henderson \(jhenderson@tso.net\)](mailto:jhenderson@tso.net).

Our first featured IMA member company is AMACOR which is owned by newly elected IMA President, Jan Guy. Read on about Jan and her personal journey in the magnesium business.

**Company:** **Advanced Magnesium Alloys Corporation (AMACOR)**

**Business Types:** Magnesium Recycling of Class 1 Die Cast Scrap  
Production of ASTM Magnesium Alloys  
High Purity Secondary Alloy Production for Aluminum  
Contract Production of Specialty Magnesium Alloys  
Processing of Magnesium Turnings

**Years in Operation:** Since 2001 (13 years)

**Location:** Anderson, Indiana, USA

**Contact Info:** Tel +1 765-643-5873; Email: [jguy@amacor.us](mailto:jguy@amacor.us)

**IMA Member:** 25 Years

**“Spot Light” Author:** Jan Guy, Owner

**This is the Jan Guy version of the Dr. Seuss book;**

### **“Oh The Places You Will Go” ....**

As some of you may know, I began my career in magnesium with the Magnesium Company of Canada (“Magcan”) in 1988 that was a joint venture between MPLC and Alberta Natural Gas. Magcan was a new, primary producer located outside of Calgary, Alberta, Canada that was implementing a new primary production technology utilizing magnesite in a single step exothermic reaction, coupled with a closed loop chlorination process to produce primary magnesium. The plant began operation in the Spring of 1989.

At that time, I was working as an executive secretary, setting up the business side of company. Within the year, I moved into the marketing and business development with a focus on automotive applications for magnesium. The die casting business for magnesium automotive applications was in its infancy, with about 13,000 MT of magnesium alloys being consumed per annum in North America; the largest part in production then was the BorgWarner transfer case.

In the early 1990’s we saw the Big Three automotive companies (GM, Chrysler and Ford) starting to seriously consider magnesium for a number of large magnesium castings, the big one being the instrument panel (IP). It was an exciting time to be involved with magnesium. The industry was in a growth mode and application development was supported strongly by Dow and Norsk Hydro (who started up the Becancour Plant just months before Magcan).

Unfortunately, the technology at Magcan was considered a failure – as it did not produce at a cost basis as anticipated and had some serious technical challenges. It did, however, make very high purity primary magnesium – just not at predicable production levels or cost levels! Hence, the plant was shuttered in the summer of 1991.

But by then, I had been bitten by the magnesium “Bug”! I loved what magnesium could do – literally change the world by reducing emissions through light weighting vehicles! And I loved being part of an industry that made a difference – and still do. That’s why I love to recycle magnesium!

So that was my start in the industry and it was great! My experience at Magcan led me to start my own business in the summer of 1991, MSI – Magnesium Services (Canada) Inc. - Out of a small, home based office. MSI started out providing a metal brokering service in die cast magnesium alloys and market dynamics and technical specific studies on the Magnesium Industry.

The consulting business grew substantially over the next nine years. In the Industry during this time, magnesium usage continued to climb in automotive applications. The production and casting of magnesium became of high interest on a global basis. Not unlike where we are today – with the difference that automakers must meet higher, **legislated** CAFÉ standards.

In 1994, automakers were starting to ask about the Industries capability of recycling magnesium. As for them to commit to large volumes of magnesium usage, they would require that the magnesium industry recycle *100% magnesium die cast scrap back to virgin quality metal*, as was done in the aluminum industry. At that time, this was not done anywhere in the magnesium industry in a large commercial operation as no technology existed to do so.

Norsk Hydro had set up a recycle center at their Becancour plant but they were blending melted scrap into virgin prime. Magnesium scrap, unlike aluminum, cannot just be thrown back in a furnace and re-melted and chemically adjusted and meet virgin or primary metal quality properties.

From 1995 to 1999, in addition to running MSI, I was developing with a team of process engineers, a proprietary process and plant design for the continuous recycling of Class 1 scrap magnesium while also looking for a strategic partner to build a facility and start such a business. (This is not for the “*faint of heart*” by the way.)

In 2000, I entered into an arrangement with Xstrata AG out of Zug, Switzerland. We purchased a large former GM plant in Anderson, Indiana and began construction of a new magnesium recycling plant and business which was known at the time as Xstrata Magnesium Corporation (XMC).

The plant was started up in October, 2000 after a nine month construction period. It was the first large magnesium production plant to start up utilizing a new technology and plant design without technology issues.

Metal produced six weeks into the operation was certified by both Chrysler and General Motors for use in automotive applications. The metal cleanliness and mechanical testing results were unprecedented in the industry and met or exceeded those of the primary magnesium. The commercial production utilizing the process developed at MSI was stable immediately. Today, 13 years later, we still have some of this metal in our warehouse at the plant and it is still beautiful and clean.

In 2002, Xstrata AG changed executive management and their corporate direction which led to a buyout of Xstrata Magnesium Corporation in April 2003 and a resulting business ownership and name change to AMACOR – Advanced Magnesium Alloys Corporation.

AMACOR has installed capacity to recycle and produce from magnesium die cast scrap, 50,000 MT of ASTM grade magnesium metal on an annual production basis. The AMACOR plant is ISO 9002 certified, automotive (domestic and foreign) certified and is highly automated. The plant and business are managed and operated by a very dedicated and experienced team, the majority of which have been with the company since the start of operations in 2001.

AMACOR serves the magnesium industry with providing tolling services for Class 1 die cast scrap and also produces and sells ASTM B93 ingot. In 2003, AMACOR developed a series of high quality secondary magnesium alloy products that are sold to the aluminum industry.

In 2010, a new company was formed to solve the industry dilemma of environmentally responsible disposal of die cast magnesium turnings. Phoenix Global Enterprises (PGE) developed and commercialized a new process for producing a commercially viable magnesium product from magnesium die cast turnings. This product, Mini-Mags, is sold into the aluminum industry and provides a sound solution to the magnesium die cast industry.

### **Welcome New IMA University Member: The University of British Columbia**

The IMA is happy to introduce you to the newest IMA University member, the University of British Columbia. For those of you who have not met Professor Warran Poole, please help welcome him and his colleagues as the IMA's newest member:

- Contact: Warren Poole, Vancouver, British Columbia, CANADA; University member (May 2014); Email: [warren.poole@ubc.ca](mailto:warren.poole@ubc.ca)
- Website: [www.ubc.ca](http://www.ubc.ca)

### **IMA Members Only: Conference Discount Available – China Metals Week**

#### **China Metals Week**

The IMA has been invited to partner with Metal-Pages for the [China Metals Week](#) conference that takes place from 15 – 17 September, 2014 in Beijing, China.

In addition, Metal-Pages is offering all International Magnesium Association members preferential rates for their inaugural China Metals Week conference. Simply register before the early-bird date of 16 July using priority code 'CMW2014IMA' and save \$400 off the delegate ticket price:

<http://chinametalsweek.com/register-now/>.

China Metals Week is a celebration of the dynamic and diverse specialty and minor metals industries. Held in the epicenter of global trade and in recognition of China's integral role in global supply and demand, China Metals Week will analyse the most pressing issues within the Light Metals, Electronic Metals, Battery Metals and Antimony markets and discuss how advancements in technology and the applications of these metals will affect the markets and their pricing in the years ahead.

Please note that **Zisheng Zhen, Technical Director, Magontec Xian Co., Ltd.** and IMA Member, will be among the presenters at the conference.

The light metals stream of China Metals Week will focus on topics such as:

- In-depth analysis of light metals in the aerospace sector
- New opportunities and applications for magnesium in the Chinese market
- Analysis on the future of imported titanium in China
- Future trends, challenges and risks for high performance alloys in the aerospace and automotive industries
- The Secret of Shaanxi Magnesium's Success

Providing you with crucial networking opportunities on a global scale with top companies such as:

Molycorp Japan, Osram Asia Pacific Management Company, Emeishan Jiamei High Pure Materials Co., Ltd., LS-Nikko Copper Inc. and Retorte GmbH...

...China Metals Week is a vital date for your diary!

For more information, please contact Simon Macson at [conferences@metal-pages.com](mailto:conferences@metal-pages.com) or +44 208 255 8325.

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## Mg NEWS AROUND THE INDUSTRY

### IMA Members Only: June Magnesium Review from Metal-Pages

The Chinese magnesium market has gained more ground recently on tighter supply as producers have cut production in order to carry out summer equipment maintenance from June to August. Industry sources reckon that the uptrend will ease in the third quarter as overseas buyers will be absent for their summer break. The source expects the market to slowdown in July and August, so his company has cut its monthly output from 600 to 500 tonnes.

China's production of magnesium reached 251,300 tonnes in the first four months of 2014, down 2.80% compared with the same period of 2013, according to the China Non-Ferrous Metals Industry Association (CNIA). The main production areas from January to April were Shaanxi province with 104,500 tonnes, down 2.86% yearly, and Shanxi province 79,400 tonnes, down 7.97%. Ningxia province produced 35,600 tonnes, down 8.64%, and Henan province 14,700 tonnes, up 20.28%, Xinjiang province 12,400 tonnes, up 94.68% year-on-year. China produced 68,300 tonnes in April, down 8.4 year-on-year.

Magnesium producers cut production as they suffered losses caused by lower semi-coke sales. Coal prices have increased as small mines closed, while semi-coke prices have dropped. Accumulated semi-coke stocks occupied too much capital, and producers have to tighten money spent on magnesium smelters.

The European magnesium market is expected to trend sideways through the rest of this month, with support coming from the relatively tight stocks in China, the key supplier to Europe, industry sources said. "Buying enquiries are few and far between in Europe, where it is looking stable right now."

European dealers said Chinese exporters have yet to start talks about Q3 and Q4 shipments to Europe, with that move seen happening late in July after the seasonal slowdown, although Chinese sources say there has already been contact.

The export market has been busier in June as buyers in the West have started to negotiate contracts for delivery in the third quarter, according to Chinese exporters, with settlements expected to be reached before July

Magnesium continues to trade sideways in the US spot market as slender stock levels overpower the impact of sluggish demand. Business activity in the spot market remains lackluster as consumers are largely covered under long-term contract agreements. Traders do not expect market conditions to change radically in the near-term as the industry heads into the traditionally slower summer months.

The market is being supported by a nearby supply shortage as US imports from countries like Russia and Kazakhstan have declined over the past couple of years. One trade source reported few enquiries over the past couple of weeks, but noted that material was not freely available for immediate delivery and that overall volumes are robust.

The booming automotive industry has boosted the aluminium alloying sector, which is in turn providing stable underlying demand for magnesium. Volumes into the extrusions industry are improving as the construction market picks up through the warmer months. Latest figures show that US automakers reported higher-than-expected new vehicle sales in May, with General Motors Co reporting a 13% rise in sales last month compared with a year earlier to 284,694 vehicles.

For the latest magnesium news and prices visit [www.metal-pages.com](http://www.metal-pages.com). To subscribe at the special IMA membership rate, email Metal-Pages at [info@metal-pages.com](mailto:info@metal-pages.com).

## **Magontec and Qinghai Salt Lake Magnesium Conclude Three Agreements**

Magontec has concluded three Agreements that provide the economic and operating basis for its future endeavours at Golmud in Qinghai Province, China. The signing ceremony took place on 28 May 2014. These Agreements are the basis upon which Magontec will invest US\$ 11m in the Magnesium Alloy Cast House equipment adjacent to the Qinghai electrolytic magnesium smelter.

The Agreements provide:

Exclusive rights to manufacture magnesium alloy from liquid pure magnesium produced at this facility with these rights having a 10-year duration.

A guaranteed supply of liquid pure magnesium under a pricing formula that would generate a strong profit under current magnesium pricing conditions.

A detailed road map for future cooperation for Magontec and its partner, Qinghai Salt Lake Magnesium Co. Ltd. (QSLM).

The QSLM smelter, when completed, will be the largest electrolytic magnesium facility ever constructed. It will use renewable energy for over 75% of its total requirements.

Nic Andrews, Executive Chairman of Magontec Limited said "This new project in Qinghai is the largest and most important investment by Magontec for many years. It will re-establish Magontec as a leading magnesium alloy manufacturer and recycler and is expected to deliver a significant boost to group profitability when fully operational. These Agreements represent the foundations on which both Magontec and QSLM will work together and build future prosperity for shareholders of both companies".

The magnesium project in Qinghai is currently under construction and the Magnesium Alloy Cast House is expected to be completed and ready for the installation of Magontec's plant and equipment in the fourth quarter of 2014.

*Source for full article: [www.magontec.com](http://www.magontec.com) (28-May-2014)*

## **Shiloh Industries Signs Definitive Agreement with Finnvedenbulten AB to Acquire Finnveden Metal Structures AB**

Shiloh Industries, Inc., a leading supplier of lightweighting, noise and vibration solutions, has signed a definitive agreement with FinnvedenBulten AB to acquire 100 percent of the shares of Finnveden Metal Structures (FMS).

Through this acquisition, Shiloh's capabilities are expanded with the addition of stamping and magnesium die casting, a key growth segment and technology to address the lightweighting needs of automakers. Additionally, Shiloh adds a European foothold and expands its customer base. The acquisition, valued at SEK 372.3 million (approximately USD \$56.6 million), is expected to close at the end of June.

"We are continually evaluating the lightweighting needs of the industry, identifying new technologies that address those needs, and integrating them into Shiloh's lightweighting portfolio," said Ramzi Hermiz, president and chief executive officer, Shiloh Industries. "By adding the magnesium capabilities of FMS, Shiloh now has the broadest portfolio of lightweighting solutions in the industry. Together, we believe our unique ability to provide solutions in steel, steel alloys, aluminum and magnesium through multiple processes will increase our value proposition to the market."

The acquisition of FMS positions Shiloh as a global supplier, with stamping and magnesium die casting facilities strategically located in Poland, and well-positioned stamping operations in Sweden. The new additions are a perfect complement to the company's existing operations throughout the U.S. and Mexico. FMS represents nearly USD \$180 million in annual sales revenue along with adding approximately 800 talented employees and a strong senior leadership team.

As a leader in lightweighting solutions, Shiloh provides design, engineering and manufacturing of engineered welded blanks, complex stampings, modular assemblies and high pressure aluminum die cast and machined components serving the body-in-white, chassis, emission, powertrain, structural and seating needs of OEM and Tier 1 customers.

"Many of our customers are looking for suppliers who can support them globally, and given our current customer base, Europe is a significant market for Shiloh," said Brad Tolley, vice president of strategy and market development, Shiloh Industries. "As we looked to expand into Europe, what we found with FMS was a seasoned management team with strong leadership which is critical for future growth."

"Shiloh's continued success can be attributed to our key tenets of leading with technology and innovation, achieving sustainable, global, profitable growth, and acting with a sense of purpose and speed," added Hermiz.

Source for full article: [www.shiloh.com](http://www.shiloh.com) (22-May-2014)

## **Magnesium: The Other Bike Frame**

In cyclists' quest for the strongest and lightest bike, titanium, carbon fiber and even scandium have all been touted as better frame materials than the more traditional steel and aluminum.

However, magnesium alloys are also worth considering. Though magnesium has fallen in and out of favor with bike makers and enthusiasts over the years, manufacturers like DT Swiss still seem to be betting on its success.

Case in point: last year, DT Swiss introduced one-piece magnesium (OPM) bike forks manufactured using injection-molding technology. At the end of last month, Singletrack posted a review of the upcoming 2015 OPM fork model. Pricing has not been set yet, but the reviewer states that OPM technology makes the new DT Swiss forks lighter, stiffer and cheaper to make than the manufacturer's multi-part torsion box forks. Bulky welding can sometimes be an issue with magnesium bikes, but DT Swiss' website professes that its technology "employs material only where needed," allowing for a sleeker design.

DT Swiss is far from the only magnesium component builder on the market. Zinn Cycles also makes lightweight magnesium alloy bike frames, while Paketa Cycles uses magnesium for racing bikes; SegalBikes manufactures both racing and mountain bikes in the same factory that produces its magnesium alloys.

Made in the 80s

Magnesium bikes have existed since the 1980s, when Frank Kirk first thought of making cast magnesium frames while working at Ford (NYSE:F) in Dagenham, England. Even though the Kirk Precision bike made an appearance in the Tour de France, it was not commercially successful, and problems with manufacturing meant that the bike disappeared less than 10 years after its inception.

As SegalBikes notes, successive producers Merida and Pinarello similarly bowed out due to the difficulty of manipulating and welding magnesium. Even so, their bikes also made it into the Tour, and Oscar Pereiro won the 2006 race on a magnesium cycle.

Today, companies such as DT Swiss, SegalBikes and Paketa have engineered new alloys and manufacturing technologies that allow them to take advantage of the lightness, stiffness and high damping capacity of magnesium. For example, DT Swiss uses an injection-molding process optimized through "Finite Element

Analysis” to make its magnesium bike forks.

Similarly, SegalBikes uses extrusion, die casting and its own “thixomolding®; high speed, semi-solid injection molding process” to create its bikes. The company has also created its own magnesium alloy to improve weldability and corrosion resistance, which are significant problems when manufacturing using magnesium.

Why all the fuss?

According to Paketa’s website, magnesium is significantly lighter than both aluminum and titanium, and its uber-high damping capacity makes for an extra-smooth ride for cyclists. Furthermore, it has a high tensile strength, making it more resistant to dents and buckles.

However, some say that magnesium bike frames are more trouble than they are worth. Paketa admits that it initially did a significant amount of research into optimizing the welding and extruding of magnesium bike tubes, and according to a road.cc article from 2011, SegalBikes keeps its secret magnesium alloy closely guarded. As road.cc notes, magnesium is extremely reactive with oxygen, and despite the clever chemical maneuvering by SegalBikes, magnesium bikes must still be coated with paint to avoid corroding.

The article also notes that the SegalBikes magnesium model from 2011 weighed in at just 1,020 grams, and the author suggests that it was barely heavier and much more reasonably priced than several costly carbon fiber models. However, the idea has been slow to catch on amongst biking enthusiasts, and carbon fiber still reigns supreme.

Still, the lightness, strength and damping capabilities of magnesium frames are worth considering, especially with advancements in technology that have improved upon welding challenges and corrosion. Furthermore, with these manufacturing improvements, producers like DT Swiss have also lowered the production cost of magnesium components.

In any case, there are several companies currently producing magnesium alloy bike frames. With the release of DT Swiss’ new magnesium bike fork slated for next year, it could be interesting to keep an eye on the popularity of magnesium bike frames on the market.

Source for full article: [www.magnesiuminvestingnews.com](http://www.magnesiuminvestingnews.com) (19-May-2014)

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## Mg NEWS AROUND EUROPE

### Mid-sized Segment Forecast to Hit Record Low This Year on Premium Push

Sales in the once-strong volume mid-sized sector are poised to fall this year to their lowest level this decade as pressure from premium alternatives mounts.

Volume automakers are forecast to sell less than 500,000 mid-sized vehicles in western Europe this year, down from more than 800,000 in 2011, according to analysts at IHS Automotive.

The steady decline has forced Toyota to re-think its plans for the segment. "It's very tough to be in the mid-sized segment in Europe," Toyota Europe CEO Didier Leroy told Automotive News Europe.

### The leaders

Europe’s top-selling mid-sized vehicles Jan.-April 2014; % change from Jan.-April 2013

1. VW Passat	50,522	-5
2. Opel/Vauxhall Insignia	32,011	+33
3. Ford Mondeo	17,931	+35
4. Peugeot 508	15,692	-30
5. Skoda Superb	15,453	+6
6. Mazda6	12,401	+20
7. Toyota Avensis	9,777	-28
8. Hyundai i40	9,581	-17
9. Citroen C5	6,703	-33
10. Renault Laguna	7,208	0

Source: JATO Dynamics

When asked about the future of the poor-selling UK-built Avensis, whose European sales were down 28 percent through April, Leroy said there could be changes coming for the automaker's mid-sized model line. "The question is whether we should develop a specific car for Europe or shall we use a much more global product?" Leroy said.

Meanwhile, IHS expects Honda will stop selling the Accord in Europe next year because of falling demand. Sales of the Japanese-built mid-sized sedan and station wagon were down 26 percent to just 1,377 units through April.

A Honda spokeswoman said the automaker would keep selling the Accord in Europe next year but declined to comment about the car's future beyond that.

Said IHS principle analyst Tim Urquhart: "I am sure we'll eventually see some mid-market brands abandon the segment all together in favor of crossovers or other niche/lifestyle vehicle types. The long-term sales trend is down."

He cited the Nissan Primera, withdrawn in 2008, as one model that has already disappeared.

Source for full article: [www.europe.autonews.com.com](http://www.europe.autonews.com.com) (10-Jul-2014)

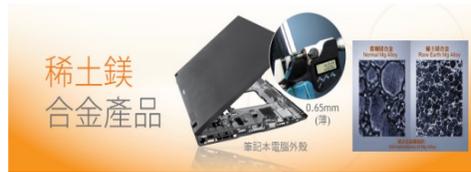
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## Mg NEWS AROUND ASIA

### IMA Members Only: June China Magnesium Industry and Market Bulletin

#### 2014Ka Shui International Holdings Realizes Rapid Growth in Mg-alloy Die Casting Segment

2013 saw Mg-alloy die casting segment hitting 0.797 HKD for Ka Shui International Holdings, up 58.6% y-on-y. As a leader in advanced Mg-alloy die casting for laptop casings, Kashui, through proprietary technology for Mg-alloy die casting and treatment, gains benefit from growth in ultra-thin laptop computer. The future will see more potentiality from this segment for Kashui.



Along with PC casings, other 3C products are also within Kashui's business.

In May 2013, Kashui initiated a JV in Wuhu, Anhui, mainly engaging in the R & D and marketing PC and related communication components. The JV comes on stream in Q1 (2014), for the production of Mg-alloy laptop parts.



Also, the group, Plasma lighting, combining the plasma light technology together with the Mg-alloy material, establishes a new company, Alphalite, responsible for all the design, manufacturing and sales of plasma lighting fixture, that uplift the corporate business to another new arena.

Founded in 1980 in Hongkong, Kashui began its production bases in Shenzhen and Huizhou in 1986. Presently, Kashui leads industry in both Mg-Al die casting and Injection molding products.

#### Changan Body Lightweight Program Passed the Approval of Auto Lightweight Technology Innovation Strategic Alliance of China

On May 5, 2014 car body parameter lightweight R & D and its dedicated application in targeted cars, a key program carried out by both Changan and Jilin University during 12<sup>th</sup> Five Year Plan Period, went through the approval, in Changan Auto Research Institute, from expert team of Auto Lightweight

Technology Innovation Strategic Alliance of China. As a branch program of key lightweight technology development and integrated application in auto, the program received 14.89 mln. yuan of nationally allocated fund, along with 79 mln. yuan of self-collected fund. The expert team, led by chief secretary of the alliance, was relevant experts from the industry.

Mr. Liuyongqing, the chief researcher for the program, delivered a report, along with presentation by the research team, of Al-alloy beam, wrought Al-alloy front cover, Mg-alloy steering support, triangular window plastic material, and C204 car loaded with lightweight technology. The program completed the pan-parameter model for hybrid power C204 white body. Through matching and joining optimizer and solver, setting default and optimizing calculation, and establishing automatic optimizing calculation platform, the research team realized the design and standard for white body lightweight. Finally, the white body drops down to 296.2kg from 330.7kg, down by 10.4%. By integrated lightweight technology, targeted car, C204 model, closes at 1390kg in weight, scored 49.38 points in C-NCAP test by China Automotive Technology & Research Center, and achieves 4 star standard ( $\geq 44$  points).

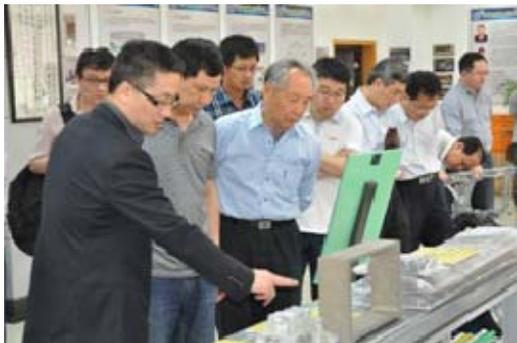
### **National Engineering Research Center for Mg-alloys had Special Mg-alloy Extrusion Forming Technology Passed Approval**

On April 18, 2014, special Mg-alloy extrusion forming technology, carried out by both Chongqing University and National Engineering Research Center for Mg-alloys, passed the approval from expert team in Chongqing.

The program, the 4<sup>th</sup> item subordinate to the R & D on Mg-alloy forming and application key technology supported by Ministry of Science and Technology of PRC during 12<sup>th</sup> Five



Year Plan Period, was led by Chongqing University, cooperated with 11 universities and institutes including Northeastern University, Beijing University of Technology, Zhengzhou University, China Academy of Machinery Science & Technology, Chongqing Academy of Science & Technology, Yinguang Huasheng Magnesium, Shandong Huasheng Magnesium, Tianjin Dongyi Magnesium Article and Eontec. The approval procedure was chaired by China Nonferrous Metal Industry Association.



January, 2011 saw the program come on stage, with research focuses on solving the difficulty in large-section Mg-alloy profile forming, and high treatment cost. The program made achievements in wide-section hollow and thin-wall Mg-alloy profile extrusion, straightening technology and structure modulation and control, giving way to 500mm-plus wide hollow and thin-wall Mg-alloy

profile; short flow for Mg-alloy casting and extrusion integration and profile continuous bending forming technology, and high value-added Mg-alloy profile for internal fixation. The program developed 20-plus Mg-alloy profiles for railway and auto segments, and built 3 lines of Mg-alloy extrusion processes and demonstrative base.

### **Journal of Magnesium and Alloys into Spotlight**

March 2013 see the first quarterly issue of The Journal of Magnesium and Alloys (JMA). Sponsored by both National Engineering Research Center for Mg-alloys (CCMg) and Mg-alloy Branch of China Material Research Society, JMA is the first magazine worldwide dedicated to both magnesium and Mg-alloy. Published and operated by Elsevier, JMA's chief editor is Mr. Shichangxu, a well-known academician in material science, and its chief editor is Prof. Panfusheng from National Engineering Research Center for Mg-alloys, with expert editorial board members from over 10 countries, including USA, Canada, Japan, Russia, Ukraine, South Korea, Britain and China.

About fifty percent of the articles published in JMA, are contributed by foreign authors, and well-known international Mg-alloy institutes. In 2013, JMA published 45 articles related to both magnesium and Mg-alloy, and has an academic influence to great extent worldwide. By Dec. 2013, 45 articles, published in JMA, were downloaded 13341 times, of which 5403 times were from USA, 40.5% of total, ranking No.1

worldwide; and 3774 times from China, 28.29% of total. Also, more references about JMA' articles enter into SCI database.

On April 10, 2014, Prof. Panfusheng, chief editor, and Prof. Pengxiaodong, sub-editor, arrived in Beijing and specially talked with Mr. James Testa, vice president of Emeritus Editorial Development & Publisher Relations, SCI. Mr. Testa gave affirmative and positive attitude to JMA's circulation and influence worldwide, and proposed some important suggestions. He hoped JMA should be applied to SCI for evaluation in 2014, and have its all issues into SCI catalogue.

### **National Engineering Research Center for Mg-alloys Will Kick Off Training Class for Mg-alloy Application and Development in Transport Industry**

Supported by the Ministry of Human Resources and Social Security of PRC, a training class for Mg-alloy application and development in transport industry will be opened by both Chongqing Material Society and National Engineering Research Center for Mg-alloys on July 4-9, 2014 in Chongqing Wansheng Shengmei training base. The class covers:

- The current situation of Mg-alloy material in transport industry
- Mg-alloy R & D in aviation and spaceflight industry
- Mg-alloy R & D in railway industry
- Mg-alloy R & D in auto industry
- Mg-alloy R & D in motor industry
- Mg-alloy R & D in bike industry
- Mg-alloy hub research and application
- Cooperation of Mg-alloy front parts research among China, USA and Canada
- High-strength RE-Mg alloy research in military industry, and
- Visit to National Engineering Research Center for Mg-alloys, Changan Auto and Chongqing Rail Transit.

Instructors are from National Engineering Research Center for Mg-alloys, Chongqing University, General Research Institute for Nonferrous Metals, and Southwest Jiaotong University. Keynote speaker will be Prof. Panfusheng, director of National Engineering Research Center for Mg-alloys, and director of Chongqing Academy of Science and Technology.

The class, supported by Ministry of Human Resources and Social Security of PRC, is free from all training expenses. Registration is under way.

### **Phase I Project of Foxconn' Hebi Science and Technology Park Comes On Stream**

News from Hebi municipality said Foxconn's Hebi project, since it comes on stream from December 2013 to late April 2014, has produced 12.5 mln. pieces of Mg-alloy articles, yielding 0.104 bln. yuan of output value with 1800 employees and ever-growing output. Its main products include Mg-alloy casings for both electronic books and intelligent mobile phones as Xiaomi and Meizu brands. Now light metal treatment workshop is installed with 745 pieces of equipment, in both A02 and A07 buildings officially available for production, cover die casting workshop, machinery workshop, grinding and chemical workshops. A02 and A07 buildings, as planned, will receive all equipment, and will go into production by late Ma, 2014. Eighty pieces of equipment for the workshop of Apple's structural components are under installation, and will soon come on stream.



Sunlight Metal is informed that Foxconn's Hebi Science and Technology Park located in Heqi Industry park, Hebi city, and covers 299,7000 square meters with six production zones(A, B,C,D,E and F). in its first phase project attracted 5 bln. yuan of investment, including 3 production zones(A,B and C). A Zone, with 1.36 bln. yuan of budgetary investment, includes 8 main buildings and 11 auxiliary buildings, mainly dedicated to

producing casings for intelligent phone, notebook PC, panel PC and camera. Its completion will bring 65 mln. pieces of Mg-alloy structural components to Foxconn. A Zone project will employ 8000 workers and staff. The booming construction of phase I project for matching facilities for life attracts 0.45 bln. yuan of investment. The project, initiated late June 2013, covers 0.55 mln. square meters for the accommodation of 43000 employees, at present 5000 employees' residential buildings are under construction. Both B and C zones are under plan, and their construction will begin by late 2014.

#### **Ministry of Industry and Information Technology of PRC (MIIT) Draws Up Benchmark Standard on Average Oil Consumption for Passenger Car: 6.9L Per Hundred Kilometer**

Recently, Ministry of Industry and Information Technology of PRC (MIIT) drafts Strengthening Management on Average Oil Consumption for Passenger Cars, and leaves it to public discussion. According to this policy domestic passenger cars must meet the standard of 6.9L per hundred kilometers by 2015. However, of 79 auto makers announced by MIIT, only 15 of them met above standard in 2013. It means other auto makers must, during year 2014 to 2015, reshuffle their product mixes, or their production will be restricted. Obviously, this trend will bring about more opportunity but also stringent regulations. Industry insiders look forward to auto makers' efforts, meeting this policy, to enlarge the application of Mg-alloy parts and to realize the energy saving target. By 2015, lightweight trend will prevail over auto industry in China.

#### **Output of Primary Magnesium Hit 68.2kt in April, 2014, Up Slightly on M-On-M**

Data from China Magnesium Association indicated output of primary magnesium hit 68.2kt in April, 2014, a little up m-on-m.

#### **Out of Primary Magnesium by Geography in April, 2014. Unit:kt**

Region	March	April	Subtotal	Change subtotal (%)	of
<b>Shaanxi</b>	26.3	26.6	104.5	-2.86	
<b>Shanxi</b>	20.3	21.5	79.4	-7.97	
<b>Ningxia</b>	8.6	11	35.6	-8.64	
<b>Xinjiang</b>	3.6	3.3	12.4	94.68	
<b>Henan</b>	5.6	4.1	14.7	20.28	
<b>Jilin</b>	0.9	0.7	2.3	-13.16	
<b>Sichuan</b>	0.3	/	/	/	
<b>Inner Mongolia</b>	0.5	/	0.8	-34.92	
<b>Qinghai</b>	0.014	0.3	0.3	-64.2	
<b>Liaoning</b>	0.7	0.7	1.4	-44.06	
<b>Total</b>	66.8	68.2	251.3	<b>-2.8</b>	

## Export of Magnesium Products Closed at 38833t in April, 2014. Down 12% M-ON-M

Data from China Customs indicated export of magnesium products in April ended at 38833t, down 12% m-on-m.

Unit:t.

Item	Magnesium unwrought (min.99.8%)	Other Magnesium and Alloy unwrought	Waste and Scrap	Magnesium raspings/turnings/ granules according to size & powders	Magnesium wrought	Magnesium articles	Monthly total
HS Code	81041100	81041900	81042000	81043000	81049010	81049020	
Jan.	21732.0	12595.3	242.4	9304.7	490.1	476.2	44840.7
Feb.	11844.3	5898.5	209.7	3911.0	209.8	393.9	22467.2
Mar.	24607.2	9323.1	447.8	8858.7	512.0	389.5	44138.3
Apr.	20023.50	8624	147.9	9074.5	319.8	643.2	38833
Total	78207.1	36441	1047.8	31149	1531.7	1902.7	150279.2

Source: China Customs

## Magnesium Ingot Price by Sunlight Metal

Unit: yuan:t

	Fugu RMB	Wenxi RMB	Taiyuan RMB	Ningxia RMB	FOB(Tianjin) USD
Jan.4	14950-	15150-	15350-	15150-	2600/2680
Jan. 11	14950-	15150-	15350-	15150-	2600/2680
Jan.18	14950-	15150-	15350-	15150-	2600/2680
Jan.25	14950-	15150-	15350-	15150-	2600/2680
Feb.1	14950-	15150-	15350-	15150-	2600/2680
Feb.8	14950-	15150-	15350-	15150-	2600/2680
Feb.15	14950-	15150-	15350-	15150-	2600/2680
Feb.22	14950-	15150-	15350-	15150-	2600/2680
Mar.1	14800-	15000-	15200-	15000-	2580/2630
Mar.8	14700-	14900-	15100-	14900-	2570/2620
Mar.15	14550-	14750-	14950-	14750-	2560/2610

<b>Mar.22</b>	14350-14450	14550-14650	14650-14850	14550-14750	2500/2600
<b>Mar.29</b>	14300-14400	14500-14600	14600-14800	14500-14700	2500/2600
<b>Apr.5</b>	14350-14450	14650-14850	14550-14650	14550-14750	2500/2600
<b>Apr.12</b>	14600-14700	14900-15000	14800-14900	14800-15000	2500/2600
<b>Apr.19</b>	14650-14700	14950-15000	14850-14900	14850-15000	2530/2600
<b>Apr.26</b>	14900-15000	15200-15300	15100-15200	15100-15300	2530/2600
<b>May 3</b>	14900-15000	15200-15300	15100-15200	15100-15300	2530/2600
<b>May 10</b>	15000-15100	15300-15400	15200-15300	15200-15400	2530/2600
<b>May 17</b>	14900-15000	15200-15300	15100-15200	15100-15300	2530/2600
<b>May 24</b>	14750-14850	15050-15150	14950-15050	14950-15150	2500/2570
<b>May 31</b>	14400-14500	14700-14800	14600-14700	14600-14800	2500/2570
<b>Jun.7</b>	14400-14500	14700-14800	14600-14700	14600-14800	2500/2570

Sunlight Metal collects and publishes daily ingot quotation and FOB price from key magnesium production regions objectively, independently and systematically. Being taken into account the viewpoints from both supplier and consumers, Sunlight Metal price, rationally reflecting the change in market, is the most authoritative in domestic magnesium sector for 5 years running. For more detail and inquiry, please contact us at [info@chinamagnesium.net](mailto:info@chinamagnesium.net).

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