



Although the economy is not as splendid as it was some years ago, we can say that 2003 has been good to GEMCO. 2003 was the year of the GIFA. The event where most everybody in the industry meets with each other, introduces its latest products and technologies, exchanges experiences and shares its success. 2003 is another year in which we have successfully completed our projects scheduled for this year, on time, within budget, without accidents, and in which we may add another unprecedented achievement to our records. We may well be the first company in our industry that delivers turn-key projects with guaranteed performance and quality in the contractual scope of supply.

*(read more on uptime and quality, further in this edition)*



*Bas van Gemert*

2003 is also the year in which we have appointed a new vice-president in our company: Bas van Gemert, with whom many of you already had the opportunity to meet and work. We consider him our investment in the future as he also represents the new generation GEMCO.

Our staff and management is organized, fit and ready to team up with you to enter the New Year and we wish you all a healthy and prosperous one.



*We look forward to seeing you in 2004.*

**Jan van Gemert**  
*President*

**Bas van Gemert**  
*Vice-President*

#### Inside this edition:

**Fairs:** Gifa 2003, FundiExpo 2003

**Mexico:** Camisa

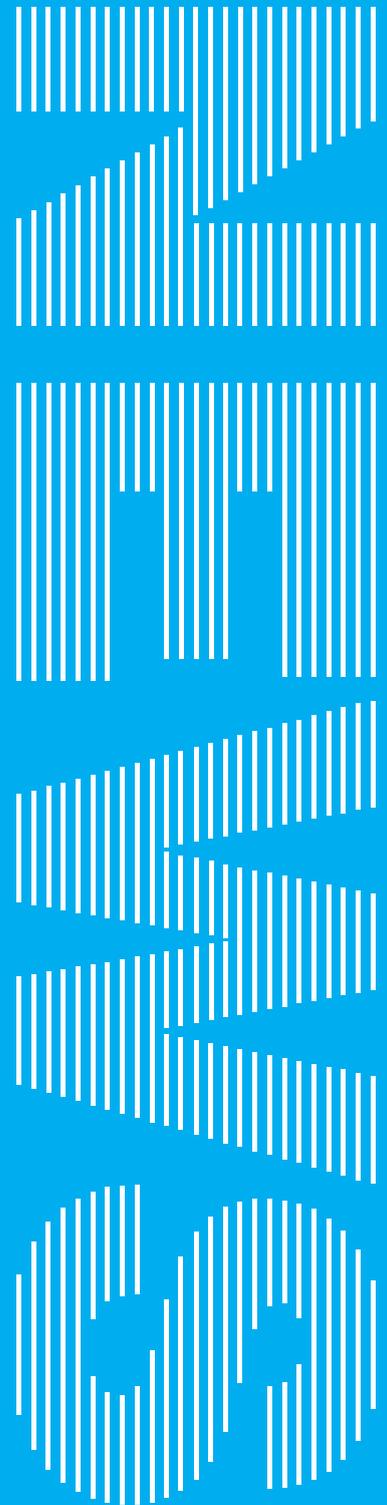
**China:** Solutions & Opportunities

**South Africa:** Murray & Roberts, Productivity Improvement

**Finland/Sweden:** Componenta, Foundry Relocation and Optimization

**France:** BAXI France

**Uptime and Quality, Result Improvement, and more ...**





# GIFA 2003

Once every four years almost the entire foundry industry meets at the most international of all foundry and innovative casting industry fairs. The organizers state that this years **GIFA 2003**, in Düsseldorf, Germany, (together with METEC, THERMPROCESS and NEWCAST, the other international technology fairs held in conjunction) attracted 71,500 visitors of which half arrived from outside Germany.

For GEMCO, always present at the GIFA, important changes have taken place since 1999's edition. During **GIFA 2003**, **GEMCO Cast Metal Technology** for the first time presented its further evolved range of competences and services under one roof. **CONSULTING - ENGINEERING - GENERAL CONTRACTING** bundled and made available worldwide for the foundry and casting industry.

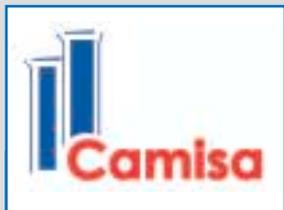
We are proud of the many visitors we received and have made welcome at our booth. To our visitors from all continents, existing business partners and new business relations, both clients and equipment suppliers: Your visit has made our Gifa a success.



**Thank you for visiting us**



## Condumex/Dana award GEMCO with Turn-key contract for new Cylinder Liner Plant



Last year it was announced that **DANA Corporation** would sell its light-duty cylinder liner business to **GRUPO CONDUMEX, SA de CV** and its subsidiary **CAMISA, SA de CV**.

It was decided that liner casting and machining would be continued in a new production facility in the North of Mexico.



*CAMISA, Mexico*



*from right to left:  
Ing. Jaime González Martínez and José Ramón Nevárez Jacques, CAMISA.  
Martin Cortés and Jos Ritzen, GEMCO*



HYDRO Aluminium Motorcast Ltd.,

Target: Process Optimization, Scrap Reduction and Increase Productivity Aluminium Foundry

Timeframe: October 2002 – March 2003

The initial step was to establish Improvement Teams in the Tooling- Core-Shop, Casting- and Melting departments. These teams were under supervision of GEMCO/KW. The teams consisted of operators from the shop floor level, whose primary task was to implement the improvement measures as concluded after a Process Analysis carried out by GEMCO/KW. The teams were supported by the Engineering-, Tooling- and Process/Quality- engineering departments as well as by GEMCO/KW. All through the first phase, overall production was entirely assisted by GEMCO/KW's staff.

This significant first step enabled the company to reach scrap reduction on all parts while simultaneously increase production.

The second step was to ensure that the results obtained would be maintained in time as well as stimulate further improvements in the separate processes within a medium to long-term timeframe. The Improvement teams were re-structured to be able work on overlapping fields. Mixed groups under supervision of Process Engineering from



photograph © Norsk Hydro

both Hydro and GEMCO/KW, could now work on measures guaranteeing a secured process flow. The corresponding and required training of the production operators as well as additional process improvements were carried out in close co-operation between Hydro and GEMCO/KW.

The established teams, together with the implemented measures, were designed to flawlessly integrate with Hydro's Lean Manufacturing Activities (5S, TPM, and other)

**GEMCO** has been awarded the contract for the complete Turn-key execution of the new to be build plant in the Saltillo area. This Greenfield project includes the erection of an entire new building with new melting, holding and pouring facilities. GEMCO designed and engineered out the optimal logistic setup in order to suit and make maximum use of the acquired casting equipment/installation from **DANA USA**.



on location, GEMCO management team for the CAMISA project from left to right: Carlos Condé, Jaap Jansen, Johan van Gerven, Daan van Heerenveld and Martin Cortés (not in picture: Martin van Leeuwen)

Previously **GEMCO** executed the Conceptual Engineering Work for this project and at that moment **CAMISA** Director, **Mr. Manuel Cavazos**, stated that GEMCO out of 5 bidders was awarded this contract for its completeness of offered services and its extensive experience in the Mexican Market.



work in progress, excavation works for grounding system



# CHINA SOLUTIONS



To date, Gemco has a number of projects in China, either completed or in progress, involving:

- ❑ Turnkey projects
- ❑ Project Management
- ❑ Technology Transfer
- ❑ Market Analysis
- ❑ Process Optimisation Analysis
- ❑ Operation Management
- ❑ Site Selection Criteria

**GEMCO Cast Metal Technology** has been active in China since 1992. From offices in Changchun and Shanghai GEMCO offers an exceptional blend of business, operational and technical expertise in China. Our Chinese sales and technical personnel have worked with clients from around the world seeking to penetrate into the Chinese foundry Industry.

**Some people refer** to it as seeing “the big picture”. Others talk of the ability to identify opportunities, to discover new directions, to redefine boundaries. However it is described, it all comes down to vision, and specific, practical plans to bring a vision into reality. At GEMCO, we help foundry senior management teams from both Europe and the Americas to create a clear picture of the Chinese marketplace and competitors and define their strategic direction. As a result driven company, GEMCO’s knowledgeable team of professionals provide clients with the expertise to define key success factors when entering the Chinese foundry marketplace in order to help the client implement and set a course for their future success.

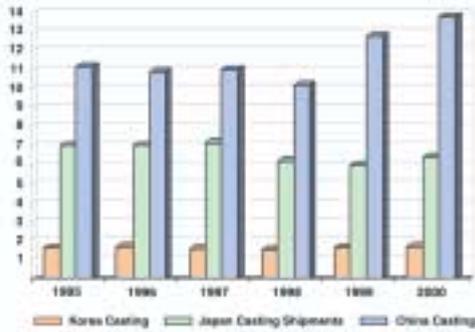
**The globalisation forces** at work in today’s world present the foundry industry with extraordinary and unique opportunities to transform their operations. By leveraging the influence of globalisation and technological innovation, they have the potential to gain unprecedented performance from each link in the value chain within their organisation. GEMCO has long been known as the industry’s leading experts in foundry operations – as people who not only help clients develop their operations strategy, but also support and see it through every phase of engineering and implementation. We believe we are the first to recognise how operations could be fundamentally improved by the advent of technology and to exploit its power on a larger scale. As a result, we offer the ability to help our clients achieve new levels of productivity from their core assets, their business processes and their strategic relations.

The tremendous potential and benefits offered by China and other Asian markets in the next 10-20 years make it one of the hottest spots for companies worldwide. Our clients can benefit from China and can expect to reduce costs by 20% to 40%.



# CHINA OPPORTUNITIES

Asian Casting Shipments (Million of Tonnes)



**GEMCO can draw** on hands on China business experience to assist clients with the development and implementation of strategic business plans for the Chinese market. Including all local, regional and national regulations in order to support our clients in initiating their entrance into the market.

**Define and Set up your activity in China:**

## OUTSOURCING

- Identification and evaluation of supplier
- Quality upgrade
- Logistic support

## ACQUISITION and/or FOREIGN INVESTMENT

- Identification and Evaluation of acquisition targets and joint venture partners (assist in foundry visits in China)
- Negotiation Strategies and assistance for acquisition of properties/buildings, government incentives, sales/purchasing for both wholly foreign owned and joint venture companies.
- Quality Systems
- Efficiency Improvement
- Logistic Support

## NEW FOUNDRY

- Site and Facility screening and selection
- Turnkey Projects including facility and operations start-up implementation with the assistance of a developed network of local equipment suppliers
- Concept Engineering
  - Technology, process
  - Equipment (including local equipment)
  - Cost, planning
- Project Realization
- Commissioning
- Facility and Operations start-up
- Technology Transfer
- Production Assistance

## RELOCATION OF PRODUCTION FACILITIES

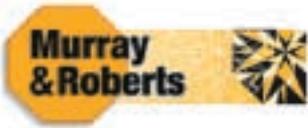
- Site and Facility screening and selection
- Engineering studies with conceptual design and recommendation for project implementation
- Review of raw material supplier's qualifications and shipping procedures
- Project Management including engineering, installation and commissioning.



- Foundry regions
- Car assembly plants/OEM suppliers
- GEMCO offices

For complete and detailed information on China Business Opportunities and our China Services, contact:

Bas van Gemert at, [bas.van.gemert@gemco.nl](mailto:bas.van.gemert@gemco.nl)

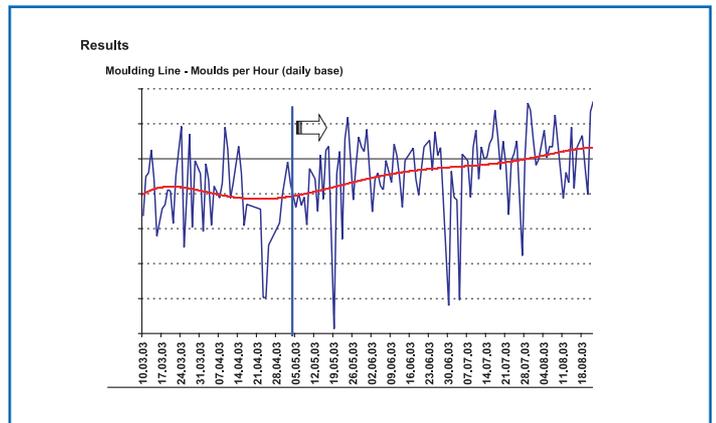
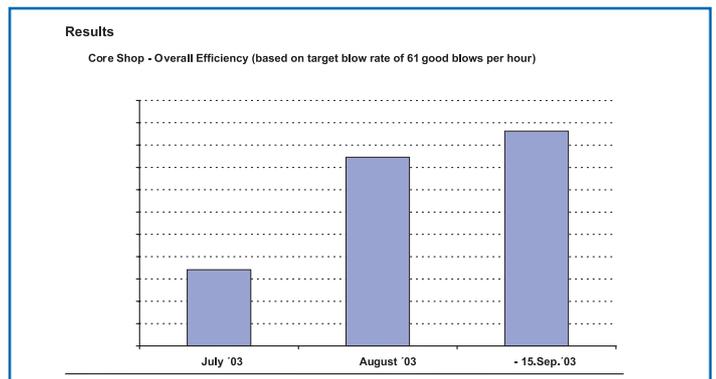


**Murray & Roberts Foundries Group (Pty) Ltd.** is the foundries division of the large Industrial engineering contracting Murray &

Roberts group. The group is based in South Africa and has international operations. The foundries division has among other, plants in Port Elizabeth and Brits. **Murray & Roberts** focuses on the supply of quality aluminium and iron castings to the automotive industry and are key suppliers to OEMs and Tier One systems integrators. Products include aluminium heads (machined and assembled), engine blocks and manifolds, bearing caps, flywheels and exhaust system components. The Foundries group has become part of the global Ford supply chain through the provision of components for the Ford 1.3 and the 1.6 litre Rocam engines, which are produced at the Ford South Africa engine plant. **Murray & Roberts Foundry** operations comprise of an iron division with two foundries and an aluminium division with two aluminium foundries, a machining facility and assembly capabilities. The group contributes significantly to the economic development of the region.

For their Autocast Foundry Plant in Brits, South Africa, **Murray & Roberts Foundries Group (Pty) Ltd.**, asked GEMCO to conduct a Productivity Improvement Audit as well as to establish the required measurements in order to achieve process- and productivity improvements.

Improvement targets concentrated on the Core shop, Melting Plant, Moulding line, Dispatch and Quality. For a systematic approach to the improvement process of the foundry a cross-functional improvement team supported by GEMCO was implemented. As a result of the already imple-



mented and recommended measurements, the melting capacity and the blow rates in the core shop increased to a sufficient level, which lead to a significant raise of the OEE (overall efficiency) within the foundry process. Finally the average moulding line performance was improved by more than 20%. Further development of core shop know-how and improvement of casting quality by a team of foundry consultants was offered to **Murray & Roberts** for follow up on the project.

## Foundry Relocation and Optimization

COMPONENTA

**COMPONENTA** is a metal sector company with international operations and the largest manufacturer of cast components in the Nordic countries. The company has customers throughout the world. Five specialized foundries and six machine shops in Finland and Sweden form **COMPONENTA's** core business. The group produces cast components for customers who operate in heavy trucks, power and transmission, machine building, and off road industries. Their foundries produce both in ductile iron as well as in grey iron.

In order to achieve an overall higher competitiveness, flexibility, productivity and quality, thus enabling **COMPONENTA** to even better serve their customers in Northern Europe, the group planned to merge foundries. The operations in question are located in Alvesta, Sweden and in Karkkila, Finland. It has been decided that the new foundry location would be Karkkila where the machinery, equipment and expertise of the two existing foundries will be brought together.

**COMPONENTA** asked GEMCO to carry out the Pre-engineering in order to provide **COMPONENTA** with a reference document for the realization of this project, generating the following rewards:

- Optimum equipment, process and material flow selection
- Efficient use of investment capital
- Realistic Overview of required investments and time frame to realize the project at the selected location.



# GUARANTEED UPTIME and QUALITY

While guaranteed performances per equipment or part of the installation are current, it is certainly more complex, unprecedented even, to obtain guaranteed performance/output for the overall production process, from raw material to finished product.

GEMCO is unique in offering **GUARANTEED UP-TIME** and **QUALITY** in its -contractual- scope of supply when taking on Turn-key foundry projects. And more important, GEMCO has completed, proven and delivered this performance in real operations in real time, in a recently completed foundry project for Ford Leamington/UK. With Ford focusing on productivity improvements whilst reducing costs, it was agreed to carry out the project on a Turn-key basis, including uptime and quality guarantees. We took care of the demolition of an existing line to replace it with the latest technology and built a new complete foundry line. We built it in an existing and operating foundry without interfering with the running production. As agreed, we built it at fixed costs and in a very short timeframe. Recently the project has been completed with the final guaranteed performance and quality tests. And as agreed, the line achieved the uptime performance and the product quality we guaranteed.

When investing in foundry projects, whether new or for modernizations, many considered cost advantages cannot counter balance the advantages as offered by GEMCO. A cost investment that will be largely recovered by guaranteed performance, -uptime and -product quality.

GEMCO will take into account your every need and target and at all times confer with you on how to reach your goals. Right from the beginning we focus our engineering on productivity, maintainability, uptime, including and carefully studying all interfaces, so that we can manage to identify and avoid possible bottlenecks early in the project. Equally important is the factor people/manpower. Profound and intensive training followed by coaching of both operating and shop floor managing crews can significantly improve uptime.

This complete package results in achieving shorter learning curves, eliminating trouble and accessory preoccupation. So you can concentrate on your core business: running a profitable foundry operation.

## GUARANTEED UPTIME and QUALITY

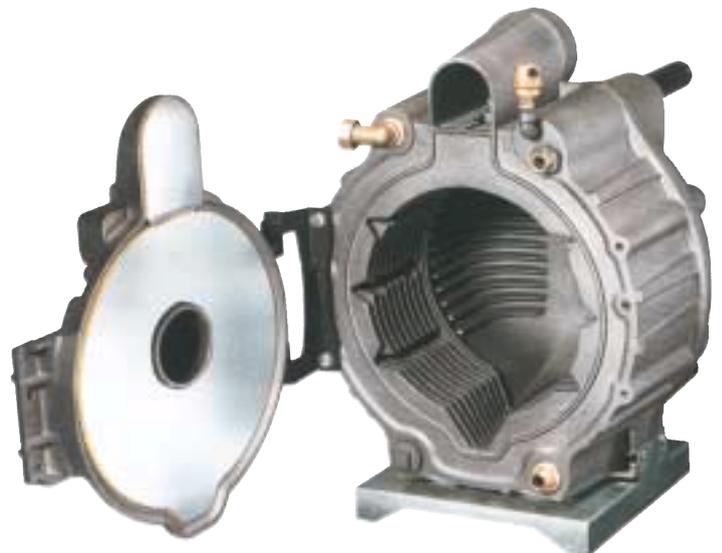
### BAXI France

**BAXI France** is a renowned company owned by **BAXI GROUP Ltd.**, making more than 1 billion EUR in sales. In the field of consumer and industrial heating, boilers and water tanks they are the third heating group in Europe. In France the company is widely and strongly represented with the brand names: Chappée, Ideal Standard and Brötje Chauffage.

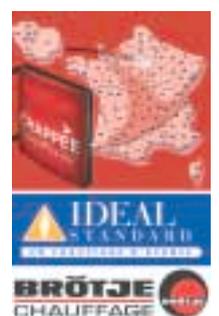
**BAXI France's** industrial organization consists of 4 manufacturing plants structured in 6 business units. The different sites are located in Crouy: Steel boilers and Water tanks (welding, enamelling, foaming), Pessac: Jet burners (assembly), La Chartre: Steel panel radiators (decoiling, welding painting).

The Soissons site includes 3 business units: Iron components (foundry and machining), Casing & Cabling components (press shop, painting, wiring) and Domestic and Commercial boilers (assembly lines). Annual productivity of this site is about 80.000 boilers/yr and 50.000 water tanks/yr, comprising 15.000t cast iron/yr and 4.160t steel/yr.

**BAXI France** asked **GEMCO's** assistance for the concept engineering for extended equipment in the foundry facility in Soissons. The foundry has recently been equipped with a new moulding line and the current project consists of the concept engineering for the installation of a complete in-line finishing system: casting handling, casting de-coring, casting cooling and casting shot-blasting.



The expansion will allow **BAXI France** to utilize their new production facilities more efficiently and serve their customers even better.



# FUNDIEXPO 2003



October 2003 the 15th edition of the International Congress and Expo of the Foundry Industry, **FUNDIEXPO MONTERREY 2003** took place in Monterrey, Mexico. The Mexican Foundry Association organizes the event.

**GEMCO** is a regular exhibitor at this event.

The ever increasing number of American companies, as well as the European/Mexican joint ventures, operating in the automotive industry that invest in Mexico (or outsource in Mexico), generate a growing interest for all foundry related companies to visit the **FUNDIEXPO**.

NAFTA positions Mexico as the United States' number two trade partner. That and the Free Trade Agreement with the European Community have created an economic attractive climate for investors.

The past 6 years have shown an annual growth of 15% in the Mexican foundry industry with 60% of its market being the automotive industry.

**GEMCO** together with its subsidiary **Gemco Foundry Technology de Mexico** already carried out a number of (Turn-key) projects in Mexico and continues activities in Mexico and Latin America. The different projects vary from modernizations to new foundries or re-locations.



*Rassini staff with Jos Ritzen*



## FAW CHINA

On a recent visit to China, GEMCO met with **FAW (First Automobile Works)** automotive foundry group who have asked GEMCO to carry out an assessment study for one of their foundries. **FAW** is the largest casting supplier to the Chinese automotive industry.



*Gemco's staff meets with FAW in China*



*FAW staff on their visit to Gemco in Eindhoven, The Netherlands*



**Gemco Engineers B.V.**  
Engineers & Contractors  
Science Park Eindhoven  
P.O. Box 1713  
5602 BS Eindhoven  
The Netherlands  
Tel. : +31 40 264 36 43  
Fax : +31 40 264 36 40  
e-mail: [eng@gemco.nl](mailto:eng@gemco.nl)

**Knight Wendling Cast Metals GmbH\***  
Consulting & Engineering  
Heinz-Schmöle-Strasse 12  
D-40227 Düsseldorf, Germany  
Tel.: +49 (0)211-77 00 6-0  
Fax: +49 (0)211-77 00 6-77  
e-mail: [info@knightwendling.de](mailto:info@knightwendling.de)

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[www.gemco.nl](http://www.gemco.nl)

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