

## THANK YOU

...to our clients and customers, suppliers and our staff who have contributed to our success and helped make what it is today.

For twenty-five years GEMCO has been active in the cast metal industry, helping our clients achieve their goals and we would like to celebrate this milestone in our company history. Throughout this period we have gained experience, know how and technical skills as a cast metals consulting, engineering and contracting firm.

Focussed and always in close co-operation with our clients and suppliers, we believe that is why GEMCO was able to continuously evolve into the company we are today. At GEMCO we employ a fine melange of experienced foundrymen and project managers complimented with the ambition of young engineers.

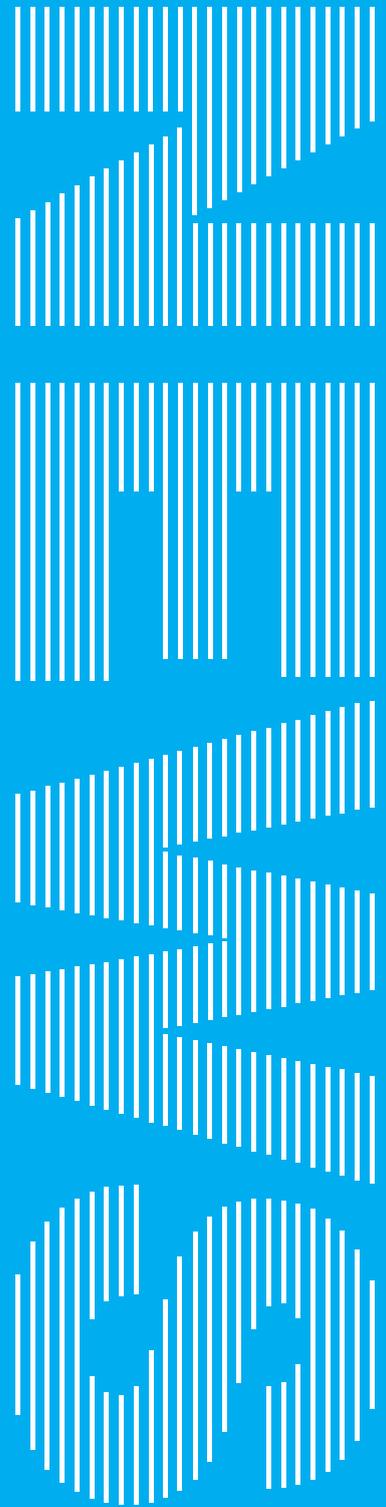
In this newsletter you will find some remarkable milestones in GEMCO's history and for the larger part new ideas and new developments that will help you and us remain successful for another twenty-five years! ...

**Jan van Gemert**  
*President*



### what's more inside

**Brazil:** Aluminium up and coming  
**Hydro - Aluminium:** improving productivity  
**Megers & Acquisitions:** careful planning limits risk  
**MILESTONES**  
**Benchmarking:** why, what and how  
**Russia:** modernisation on the rise  
**China:** new frontiers  
..... and more



**GIFA 2003**  
Hall 15 - Stand C48

**GEMCO®**  
**CAST METAL TECHNOLOGY**

# CAST METAL SYMPOSIUM, BRAZIL



**Sao Paulo**, Brazil, on 5th and 6th May 2003, the first VDI Aluminium Technology Symposium took place. This international symposium was targeted at Aluminium Industry opportunities in Brazil. It is commonly known that the automotive industry sector is rapidly developing in Brazil. Brazil's labour rates and available technically skilled people, raw materials and energy, create an interesting and attractive environment for both investors and entrepreneurs.

Gemco/Knight, represented by Dr. Klaus Schmitz-Cohnen, was invited to give a presentation on the current situation of the aluminium casting industry and technology in Europe.

There are major opportunities for aluminium producers to initiate new operations in Brazil. Our extensive aluminium knowledge and global experience in International Foundry Project Realisation and Project Financing, makes us capable to provide support in all fields.

**Dr. Klaus Schmitz-Cohnen**

*Invited speaker for Gemco/Knight: "the cast metals industry is growing rapidly in Brazil, creating many opportunities for foreign aluminium producers."*

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## GEMCO and HYDRO ALUMINIUM automotive castings



**HYDRO ALUMINIUM** is a world leading company in the production of high quality aluminium cylinder heads and blocks for the automotive industry.

GEMCO and Knight Wendling have helped HYDRO ALUMINIUM to further improve their productivity in their Automotive Castings Plants in Leeds, UK and Dillingen, Germany.

Both jobs have been successfully concluded, with a high "return on investment".

Furthermore, GEMCO and HYDRO intend to co-operate on transfer of knowledge of Hydro Production Technology to interested third parties, on a commercial basis.

Basic processes for these parts are gravity die-casting and precision sand

casting. In both processes, HYDRO has developed a number of patented process steps and a high degree of automation to ensure high product quality and production efficiency. Hydro Aluminium has production plants for automotive castings in Dillingen (Germany), Leeds (UK), Győr (Hungary), Linz (Austria), and a joint-venture operation with CIFUNSA in Mexico.

# MERGERS & ACQUISITIONS

## Careful Planning Limits Risk

### Recent trends

Over the past decade the metal casting industry has been through an unprecedented period of change and restructuring. Some long-established names have disappeared whilst we have seen the emergence of a number of new companies amongst the leading foundry groups.

The new leaders are increasingly specialists focussing on specific areas of product, process or market expertise rather than having a broadly-based approach. The industry has seen a decline in the number of general, jobbing foundries.

This process of change has been in response to strong competitive pressures and, in most cases, the concentration of buying power amongst major customers who themselves have been facing industry consolidation.

It is likely that consolidation will continue. The foundry industry is still fragmented and even the industry leaders are considerably smaller than their customers in most sectors.

### Reasons to acquire

One of the main drivers behind the changes has been a sharp rise in the number of mergers and acquisitions in the foundry sector. By this means companies can rapidly achieve a quantum change in performance profile, for example through:

- Increase in capacity
- Unit cost reduction
- Expansion into new markets
- Access to technology

It is often the case nowadays that existing foundries can be acquired at a fraction of the cost of purchasing new facilities. Clearly there are risks involved in any acquisition but these will be minimised with detailed planning and assessment of synergies. The most critical success factors are having high quality project management and effective post-acquisition integration.

Because foundry line managers are normally fully engaged in their mainstream business activities, it is often a valid risk management technique to employ external specialist engineering consultants to assist during and after the acquisition transaction.

Knight Wendling has worked with a wide range of companies in this process, often on a confidential basis, in roles such as:

- Strategic partner searches (for acquirers and sellers)
- Technical and commercial due diligence
- Post-acquisition rationalisation and performance improvement

Knight Wendling's consultants are experienced in engineering, marketing and corporate functions. Working closely together with the client's management team they help to add value to the acquisition (or disposal).

A significant development in recent years has been the emergence of financial investors, mainly venture capital companies, as controlling shareholders in foundry groups. Knight Wendling's unique depth of industry knowledge has enabled several such investors to maximise their return.

*Ford Motor Company*

## FORD LEAMINGTON, Inauguration new production line

In 2002, Ford Motor Company awarded Gemco a contract to design, build and commission a new production line for their automotive parts production foundry facility in Leamington, UK. On May 16th 2003 the official inauguration of the line took place.



*Left:*  
Mr. Graham Edwards, Plant Manager at Ford Leamington, UK with Jan van Gemert, President of Gemco



*Right:*  
From left to right: Mrs. Linda M. Miller, Ford USA  
Mr. Werner Harbers, Ford, Director of VCAT Europe  
and Peter Withagen from Gemco

# M I L E S

... we have had many in the 25 years of our existence: actually, every project successfully completed is a milestone. From our early projects on in Southeast Asia and the Middle East, from South Africa to South America, the Far East, North America, Europe, altogether in over 80 countries, over 1000 foundry projects have been realized...



'88, **PT PINDAD**, Indonesia, the turn-key realisation of a ductile castings foundry, for the production of railway- and heavy machine tool parts and components



90's, **HICOM**, Malaysia  
Gemco built an automotive product foundry, including machining facilities



**PMS Bandung**  
Foundry Training Institute  
The implementation of a Foundry Training School was a significant contribution to the education of young Indonesian foundry technicians. For several years, Gemco experts trained future Indonesian foundry experts. The project included cupola melting, induction melting, machine and hand moulding, fettling department as well as a laboratory and pattern shop



'85, **NFC**, turn-key foundry project for cast iron and ductile castings for the transportation and oil industry in Saudi Arabia



# T O N E S



'91, the inauguration of the new head-quarters in Eindhoven, The Netherlands



'98, **RASSINI Mexico**, turn-key foundry project for brake discs



'00, supply and installation of a complete production line around two vertical moulding machines



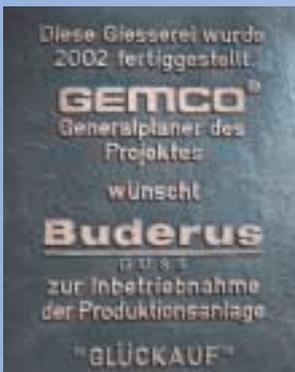
'00-'01, **WESLIN, Hungary** engineering and project management for a new foundry facility with dedicated production line for automotive castings



turn-key sand plant



'02, **LFF3, The Netherlands** conception, development and realisation of a modular lost foam plant with casting line plus sand system



'02, **Buderus Guss GmbH, Germany** world's most productive dedicated foundry facility in output/man-hour  
feasibility study, pre-engineering, engineering and project management for a Greenfield foundry facility, including BlmSchG application



# Frequently Asked Question: “how competitive is our performance?”

One of Gemco/Knight's strategic consulting services is **BENCHMARKING**.

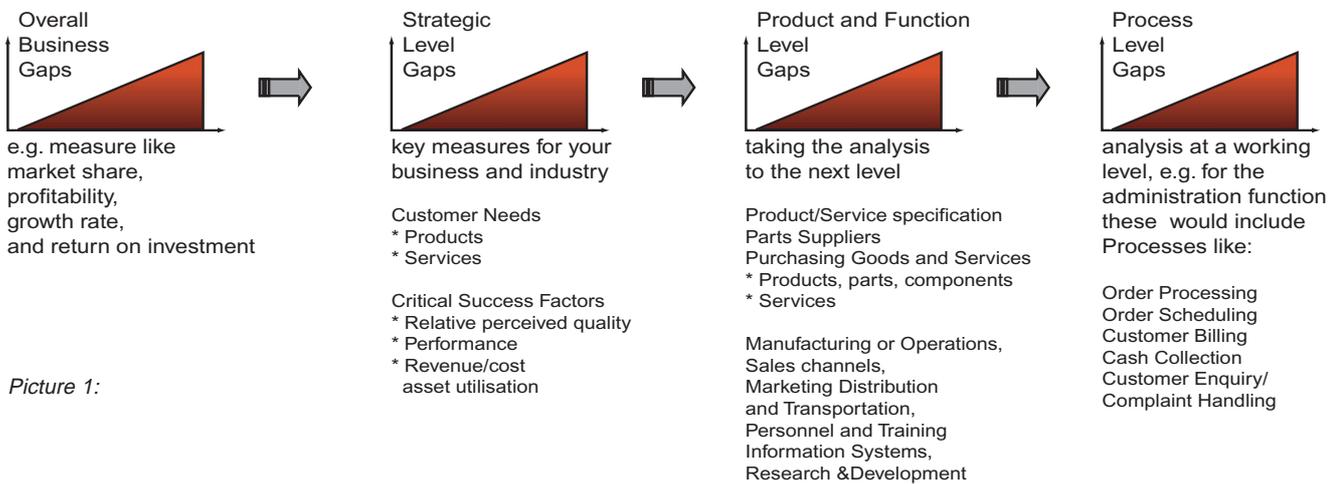
A clear comparison with competitors in a certain region or within a specific market sector is often not possible because the necessary data is not easily accessible, not complete or not available at all.

**Why benchmark?** A number of reasons justify benchmarking's popularity as an important tool for strategic decision taking. The following are typical:

- ❑ It tells companies what standards they need to surpass in order to achieve a competitive advantage.
- ❑ For those businesses looking to compete in world markets, it will provide information about world standards.
- ❑ There seems to be a natural tendency for firms, particularly large ones, to become inward looking.

- ❑ By contrast, benchmarking encourages an outward perspective.
- ❑ It can be especially effective in stimulating change through encouraging process groups, departments or functions to examine their own performance against industry models, helping them to adopt such business techniques as Total Quality Management and Process Redesign.

**The real benefits** from benchmarking arise, not so much from measurement of the “what” but more from the “how”, through understanding how other businesses achieve optimum performance.



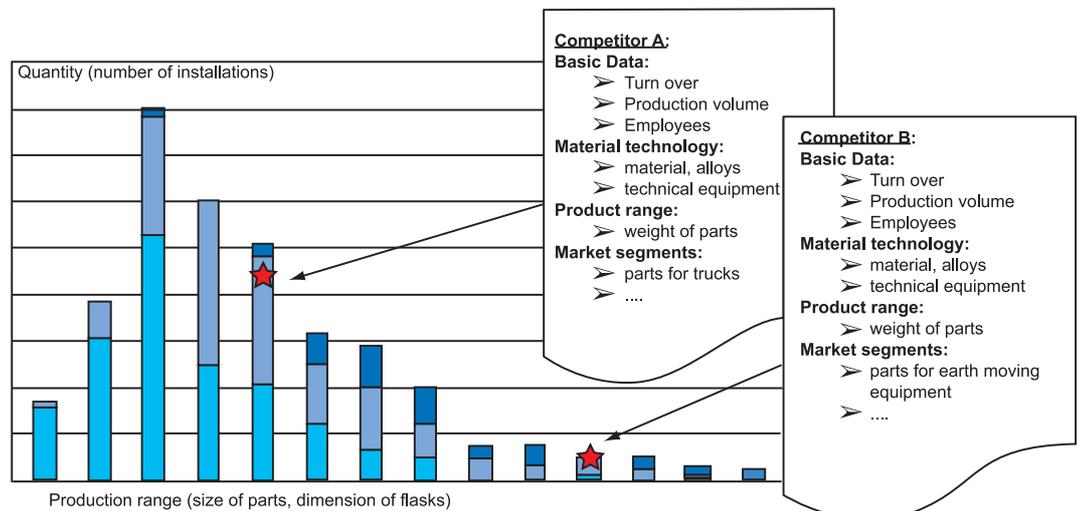
Picture 1:

## What should you benchmark?

It is possible to benchmark almost any aspect of business. Those starting out will need to know where they stand at various levels in the business. The easiest way to approach this is in terms of “gaps” - identifying and mapping the difference between yours and the strongest competing companies. See pictures 1. and 2.

Gemco/Knight's accurate and up-to-date information plus its extensive experience in the cast metal industry enable it to introduce benchmarking to its clients and achieve success through the use of this discipline.

Picture 2:





**Company ZAO KRANEKS** is the leading manufacturer of earthmoving equipment in Russia. The head office and manufacturing facilities of the company are located in Ivanovo (approximately 300 kilometres northeast of Moscow).

In line with the strategy of Kraneks, to invest in state-of-the-art technologies for their complete production cycle, the decision was taken to also modernise the existing foundry facilities. After consultations with Gemco, Kraneks chose to replace their green sand plant with a complete foundry plant based on the No Bake process.



*Kraneks excavator*

In the new No Bake foundry, cast parts will replace welded and machine assemblies. This will obviously improve equipment quality and lower costs.

Gemco designed and built an automated moulding line with sand reclamation plant for this purpose. This was done in close consultation with the technical staff of Kraneks and part of the

equipment installed was manufactured by Kraneks on the basis of engineering and fabrication drawings prepared by Gemco. The moulding line has a designed capacity of 14 moulds per hour. The line is designed to handle different sizes of moulds, up to 1100 x 1000 x 300 mm.

The installation of the No Bake plant is performed by Kraneks employees under the supervision of a Gemco team. Also at this stage there is close interaction between the specialist teams of both companies, which creates an optimum end result.



*Installation of the No Bake Line*

The final commissioning of the plant is scheduled to be finished in August 2003. Thereafter, Kraneks will operate one of Russia's most modern No Bake facilities and will be able to increase product quality and decrease production costs.

After the start up of the plant, Gemco will remain in close contact with Kraneks and render various forms of technological and technical support.

## The IT solution for the foundry industry powered by SAP®

Gemco/Knight can offer an IT solution for the foundry industry by ITEC, member of the vonRoll infratec group.

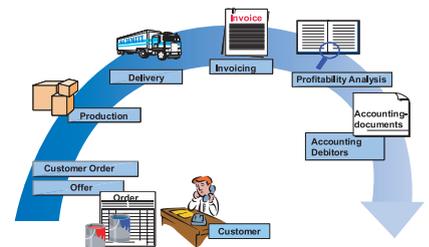
From our experience the foundry industry needs an IT system, in order to optimise the enterprise, to take up new commercial possibilities and to raise efficiency.

The present solution distinguishes itself by having the following characteristics:

- Pre-packed solution based on standardised business processes
- Highly integrated ready to run IT-system

- Flexible application that can grow with your business
- Short and easy implementation at affordable, fixed price
- Established in several foundries and countries

The IT solution was developed by foundry experts for practical applications. This solution offers you the necessary transparency for a successful future in your processes. SAP® is the worldwide leading software developer for industrial applications. With SAP® as a basis you are also very well pre-



pared to position yourself in the Supply Chain.

**For more information contact**  
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# Reclamation of Foundry Sand prepared with Anorganic Binder

Gemco has a history in developing Sand Reclamation Systems. The Sand Cleaner® is one such result of the extensive experience and research effectuated in close cooperation with leading European foundries. The Sand Cleaner® is a green sand reclamation unit. With this system waste foundry sand can be cleaned at a highly efficient rate and be re-used in the foundry. The quality has proven to be excellent for core production (with organic binders like Cold Box) as well as refreshment sand in the moulding sand preparation. The system has been successfully installed in foundries with high usage of core sand such as engine blocks manufacturers.

## Anorganic Binder for Salt Binder Process -SBP-

The last few years, numerous researches have been carried out to develop cost- and environmental friendly binders. As a result new anorganic binders have been developed. The anorganic binders can be found in various salt types and will in the near future replace the classic binders as currently used in core- and mould block manufacturing.

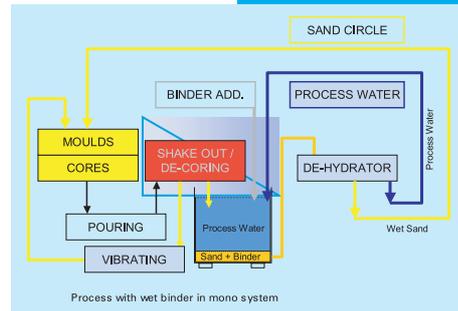


Core in SBP from VW Aluminium Foundry, Hannover

## Sand Reclamation Development

The reclamation of foundry sand in salt binder processes requires a different approach opposed to today's technology.

Gemco is in the process of developing an efficient system, specifically for anorganic-bonded sand reclamation for the Salt Binder Process. The system is applicable for different types of salt binders. Gemco's first development is a reclamation plant for salt-bonded sand of the new Laempe LBB-system, the SBP Cleaner® Find out how we can assist you in the planning, engineering and realisation, an experimental plant will be exposed at the GIFA, Hall 16 Stand C39.



## EXCITING OPPORTUNITIES IN CHINA

CHINA is not entirely foreign to Gemco. In the past, Gemco has already been active in the China Foundry Industry. Concept engineering for several large - engine block - foundries has been carried out. A number of studies and consultancy assignments have also been successfully fulfilled.

Because of the considerable opportunities, labour force, and the potential market China offers, Gemco recently decided to consolidate its presence in China by incorporating Mr. Tao Liang, on a full time base, in it's staff.



Eng. Tao Liang

Mr. Tao Liang is a mechanical engineer who is

based permanently in China and has a thorough knowledge of the Chinese foundry industry. Operating through Mr. Liang gives Gemco a better understanding of Chinese business practices. It also allows Gemco to gain information about the market while maintaining close ties with clients, and give after sales services as well.

The first project with Mr. Liang's involvement will be the realisation of a new foundry project, including relocation of pattern and moulding equipment from Europe to China, scheduled to start up in 2004.

Gemco can offer castings manufacturers a complete scope of services, ranging from finding production facilities, manufacturing quality improvement, management support and technical assistance up to the realisation of foundry projects or relocation of foundry facilities to China.

For more information mail us at [newsletter@gemco.nl](mailto:newsletter@gemco.nl)

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