

TRULY GLOBAL.
TRULY FOCUSED.



This past year has brought exciting changes in the Höganäs organization, many of which you can read about on the following pages.

These changes help us to better achieve the goal we strive for continuously: to provide metal powder users around the world with the best, most cost-effective powder choice for their application.

For over half a century, we've considered ourselves a global player in the metal powder market. Now we are also able to offer a strong physical presence on every continent, thereby improving our response to your needs.

Our changes also take the form of continuous improvement in a multitude of areas – quality, technology, application performance and, not least, organization. Our focus on the continuous improvement of our metal powder range and its optimal application frees you, in turn, to fully exploit its features and characteristics in your production.

New markets. New challenges.

This issue of Powder News spotlights new members of the Höganäs family.

Our organization has undergone a strong global expansion, particularly in North and South America (see articles), but also in Asia and Europe. Full support to this growing organization is vital and at Höganäs, it has been a good year for personnel reinforcements. We have gone to great lengths in order to maintain our position as the world's best independent metal powder alternative.

I hope you enjoy your reading.

Sincerely,
Claes Lindqvist
CEO

Firm commitment to a major market

"The US is a key market for Höganäs.

We've always been active here, both with our products and participation in technical conferences and seminars. Now we



are able to establish a local sales organization, with all the commitment that comes from being 'on the spot'. The natural next step will be to invest in a mixing station – and then integrate backwards."

So says Ulf Holmqvist, President of the newly incorporated company. He continues: "We have long wanted to devote more energy to the North American market, and current circumstances dictated prompt action. Response from customers has been so encouraging that we have been forced to accelerate development plans in order to fulfil the market's expectations."

Expeditious timetable

This is, of course, something which Höganäs is doing gladly. Here is an indication of the pace of developments:

- In March, a warehousing facility at Altoona, Pennsylvania began making fast, secure powder deliveries.
- Effective July, a North American administrative headquarters is operational at Bethlehem, PA – a location close to major domestic and international flight hubs and within easy reach of the majority of North America's metal powder users.
- Also effective July, we began service to the North American thermal surfacing market, with the establishment of a regional office in Indianapolis, close to major aerospace and automotive customers.
- By the end of this year, a technical serv-

ice center at Bethlehem will be providing application support to North American PM customers.

Building a knowledge source

Initially, four senior Höganäs staff members have relocated to the US to establish structures for administration, logistics, marketing and technical support. As we go to press, they are matched by four American staff (see table).

Personnel numbers are expected to double by year-end in order to meet the lab, technical and sales support needs projected in our marketing plan. New staff is being recruited in the US, with emphasis on university-level metallurgical training, commitment and enthusiasm.

Quality and reliability are two of Höganäs' central themes, and our page ►

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Powder People



Ulf Holmqvist
President



Rune Pettersson
Vice President



Dianne Challingsworth
Office Manager



Ralf Carlström,
Marketing Manager,
PM



Doug Dickerson,
Marketing Manager
Coldstream



Owe Mårs
Technical Support
Customer Service
Head of lab



Eric Stump
Sales Coordinator



Ryu Goto
Customer Manager

4 new recruits to lab and technical support

4 new recruits to sales and marketing

► of expansion in North America will be set by our ability to ensure the same high standards which we guarantee in all of our markets. As its interaction with the market grows, the new organization's size and capabilities will be extended successively.

Powder's many uses

Though PM applications occupy 'center-stage' in Höganäs North America's business calculations, they are by no means the only ones the company has set its sights on. Höganäs products suit other markets too and each will be served 'on the spot' as resources are allocated. Soft Magnetic-, welding-, thermal surfacing, chemical and metallurgical applications hold great promise.

In fact, our Carrier Core powders have long served American producers of printer and copier consumables and longstanding Höganäs contacts with Thermal Surfacing customers in the US have already led to a further strengthening of the organization.

Seminar on Surface Engineering of PM Steels

On December 10-11, 1999, Höganäs Chair will hold a PM seminar at Trento University, Italy. The seminar will include some of the following topics; fatigue-, wear-, corrosion- and carburising of PM-steels. For those who are interested in participating in the seminar, please contact your local Höganäs representative or Doctor Dr. Yang Yu, fax:+46-42-338188. For more information check our website: www.hoganas.com



VANCOUVER:

first major showcase for intensified commitment

1999 marks a milestone in our commitment to the North American market. Höganäs has served the Americas since the first half of this century, and we are now happily able to strengthen our position to benefit the market. PM²TEC 99, held June 20-24 in Vancouver, was the first public venue for Höganäs North America Inc.

PM²TEC is an annual international PM conference arranged by MPIF* and APMI*. This year's conference was staged at Vancouver's magnificent conference center, overlooking the harbor where cruise ships muster for tours of the Pacific Northwest and Alaskan coastline.

The conference's 1,500-plus attendees enjoyed a comprehensive program presenting the state of the art in the North American PM market, as well as design ideas for the new millennium. General sessions were complemented by technical sessions on topics ranging from furnace design to new PM applications like magnetics. There were a range of different special interest seminars

and also poster displays of presentations not verbally presented.

As befits our standing in the metal powder industry, Höganäs took an active part in the technical side of the conference. Höganäs CEO Claes Lindquist talked about the PM industry's ongoing consolidation in the popular general session, while Ulf Engström, Caroline Lindberg and Patricia Jansson presented papers on Warm Compaction, Astaloy CrM and Soft Magnetic Composites respectively. Poster presentations covered "Defect Size Effects for Sintered Steels"¹ and "Höganäs Experience with Diffusion-Alloyed Powders (Distalloys)"².

On exhibit

The trade show is an important part of PM²TEC, allowing conference participants to survey the offerings of industry suppliers from around the world. Close to 100 exhibitors were set up at this year's show.

Höganäs chose the theme "Truly global. Truly focused", spotlighting our expansion and underlining our position as the world's leading independent metal powder specialist. Visitors were also able to learn more about the technical support we offer – through HIPIH (Höganäs Iron Powder Information Hub), through our series of PM handbooks and not least, through person-to-person contact.

Our Vancouver exhibit showed that Höganäs not only covers the globe – the show's most popular give-away was our 'global' beach ball, which many participants happily bounced away with.

One important goal of our exhibit was to present the full range of Höganäs products, from well-known Distalloys to our new high-performance powder, Astaloy CrM. When we introduced Astaloy CrM in Granada last October, we did so to the tones of our own rock n' roll classic: "I don't want stone. I ►



Go South, young man!

Close proximity to South America's largest concentration of PM component production. A firm position in a market thirsting for more sophisticated powders and production technologies. Good, expandable production facilities, capable management and a respected name in the South American metal powder market. These were just a few of the factors which attracted Höganäs to Belgo Brasileira S.A., a privately owned producer instrumental in the development of the South American metal powder market.

In its turn, Belgo Brasileira needed a strong strategic partner with the right combination of resources to be able to expand its technology and market.

The right match

Each company's goals came a step closer to fulfillment when Höganäs acquired Belgo Brasileira at the end of June.

The resulting company aims to be a full-service supplier of a comprehensive range of metal powders with local production, mixing, warehousing and strong technical and developmental support to the market.

Höganäs VP Sten-Åke Kvist, who drove



the acquisition process forward, says: "Building a company like Belgo Brasileira takes good management and a commitment to the market. Their customers understand this, and welcome the continued expansion of product sophistication and development support which fusion with Höganäs represents."

Bull market

Headquartered in Sao Paulo, with production facilities in the expanding industrial center of Mogi das Cruzes, Belgo Brasileira is within 2 hours' drive of the lion's share of Brazil's PM component producers. A good thing too, because the company is a primary supplier to the major portion of that industry.

All indicators for the South American market point towards steady long-term development. Demand for metal powders in Brazil alone has expanded at an annual rate of 6% over the past five years, and is expected to increase further. The multinationals are setting up in South America, drawn

by low wages and a largely untapped market. Despite recent turmoil, inflation is under control. Quite simply, growth conditions prevail – and they are likely to do so for years to come.

"Aluminum powder is another interesting aspect of the acquisition", comments Mr. Kvist. "It represents a large share of Belgo Brasileira's production, and provides Höganäs with further incentive to extend its position and product offering globally. It is sure to stimulate a lively exchange of ideas between the Swedish and Brazilian companies, and this can only make us stronger."

Tropical showcase

The next major meeting place, product showcase and technology forum for PM producers will take place on November 10-12, 1999, in the breathtaking surroundings of Foz do Iguaçu, Brazil. Don't miss the 2nd International Latin American Conference on Powder Technology.

Höganäs will naturally be participating 'full force'. In fact, Höganäs is one of the conference's sponsors, and we will be working in many ways to ensure that the event will be a rousing success!



The management team in Brasil

► want Astaloy Chrome". Our 'hit' proved so popular that we recorded an album including it and over a dozen other rock n' roll classics. Next time you speak to a Höganäs representative, ask him or her for a copy!

Höganäs is already booked at the year 2000 conference in New York, which starts on May 30. We've made a long-term commitment to the American market, so you can rest assured that we'll become more and more active in the PM industry's American forums.

If not before, we'll see you in the Big Apple!

PM school in do Madrid – 100% success!

From 5-9 July 1999, for the first time ever, the Höganäs PM school took place in Madrid, with classes conducted entirely in Spanish.

Attendees – all Spanish – came from four PM manufacturers and two universities and lecturers were drawn from Universidad Carlos III de Madrid, Universidad Politécnica de Madrid and Höganäs AB. Thanks to the well-equipped laboratory of the Universidad Carlos III de Madrid, theory was well reinforced by practice.

Reactions from attendees as well as lecturers were uniformly positive, and the

course will be repeated again as soon as demand makes it feasible.



Good teaching resources and enthusiastic participation make for a satisfying PM learning experience

*) APMI – Association of Powder Metallurgical Industries; MPIF – Metal Powder Industries Federation
Authors: 1: Owe Märs and Sven Bengtsson, Höganäs, and Anders Bergmark, Lund Technical Institute Authors: 2: Sigurd Berg, Höganäs

Closing the North American GAP

The time is ripe! Carpe diem!

Last year's turbulence in the US metal powder market left a number of North American metal powder users in short supply, particularly thermal surfacing users of high-alloy metal powders. Fortunately, the Höganäs Coldstream division (formerly the Gas Atomized Powder division) was able to quickly respond to their needs.

Since then, our participation in the market has grown quickly. In July 1998, we recruited Doug Dickerson, whose strong reputation in and deep knowledge of all aspects of thermal surfacing in the North American

market – from powders to applications to equipment – will prove invaluable in our efforts to accurately serve users' needs.

Doug now joins Höganäs North America Inc. as Marketing Manager for high-alloy and thermal coating applications. Thanks in good measure to his efforts, we have already seen a doubling of high-alloy shipment volumes to the US. Continued growth is projected at an annual rate of 20%, from new applications and markets as well as a steady advance in established markets.

Because the lion's share of the US thermal surfacing market is located in Michigan and



Indiana – serving automotive and aerospace applications respectively – Doug will continue to be based in Indianapolis, with full access to the logistical, production and support capabilities now being established for all North American Höganäs customers.



Doug Dickerson

POWDER PEOPLE

Höganäs AB has entered a period of growth, not only abroad but at our Swedish headquarters as well. This means adding 'new blood' to our team, to provide customers with the service they expect and deserve.

The following roster of individuals bolsters our strengths in R&D and customer support, as well as in marketing.



jeanette lewenhagen & martin svensson
Both are members of the 1999 graduating class at the Swedish Royal Institute of Technology, receiving Masters' degrees in Material Science. After graduation, Jeanette and Martin went straight to work at the Höganäs Central Laboratory, where they will serve as metal powder development engineers.



fredrik nilsson
A graduate of the Swedish School of Mining and Metallurgy (M.Sc., 1999, Material Physics), Fredrik, will strengthen our Technical Customer Service team.



charlotta johansson
As Marketing Development Manager, Charlotta is responsible for maintaining order and transparency in Höganäs' extensive communications to its global market. She will also serve as the Höganäs webmaster. Charlotta received her MBA from Växjö University in 1997.



ola andersson
Trained at Uppsala University (M.Sc., 1998, Materials Engineering) with further studies at Stockholm University's Department of Structural Chemistry, Ola will serve customers directly through our Technical Customer Service team.



fredrik eklund
Our new Manager for Chemical and Metallurgical powder applications, Fredrik, joins the Marketing Department after providing technical support to customers at Henkel Surface Technologies. He received his M.Sc. from the Chalmers University of Technology in 1997.



daniel klint
A valuable addition to our metallography team, Daniel will focus on development of metallographic methods for PM. Daniel received his Ph.D. in Inorganic Chemistry from the Technical Faculty at Lund University this June.



alberto poey
A graduate of the Polytechnic University of Kiev (M.Sc., 1992, Powder Metallurgy), Alberto, will add to the Technical Customer Service team's international reach. Alberto is fluent in Spanish and Russian.

Höganäs

the difference is knowledge

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