



Powder Coating Industry: Innovations in Expansion and Modernization Program Become a New Standard

The Initial Steps

Can you remember how you became aware of NEUMAN & ESSER as a supplier for impact classifier mills (ICMs)?

Mr. Larsen: I became aware of NEA when I visited a presentation by your sales manager *Marc Giersemehl* along with some colleagues in Sep. 2002 at our headquarters in Larvik, Norway.

How did NEA become involved in your project? Do you remember the initial meeting? What convinced you that the future supplier was selected?

We had the requirement for several grinding systems in 2004 as a part of an expansion and modernization program. For many years we had been dealing with another supplier for grinding systems, but felt that innovation and technological development had stagnated.

We were invited to implement grinding tests at NEA in Übach-Palenberg, Germany. The results for the grinding tests and the apparent technical capabilities of the NEA team convinced us that NEA was a possible future partner for our expansion plans.

What were the reasons or goals behind the expansion program?

Our factories in UAE, Czech Republic and Turkey were running out of capacity as sales in these markets were increasing quite rapidly. In UAE we were also short on space and were forced to completely change the factory layout in order to accommodate new production lines. NEA contributed with many innovative ideas throughout this demanding project.

Specs & Scope of Supply

What was the scope of supply?

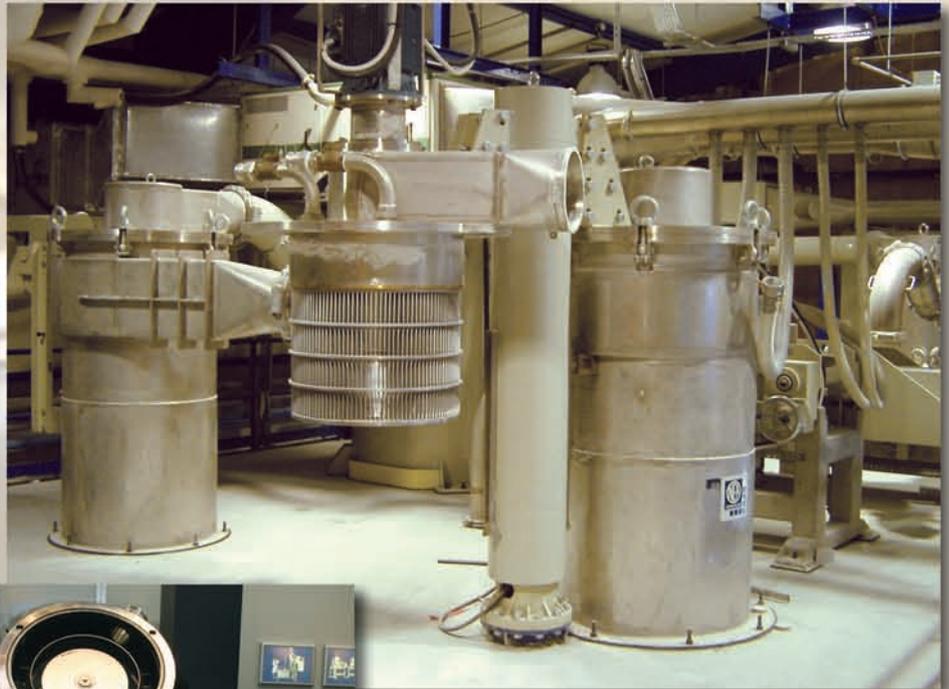
Initially we required four new grinding systems as well as two retrofits for our factories in Czech Republic, UAE and Thailand.

Can you explain the circumstances and/or initial reasons for the retrofits? Did you retrofit additional systems following these?

Retrofit of old grinding systems were essential for the modernization of our UAE factory. We could not have accomplished our objective without extensive modification to those systems. The retrofits in UAE were very successful. At a later date we carried out similar retrofits in Europe, the Middle East and South East Asia. Most retrofits have been implemented out in order to obtain higher throughput, thus eliminating bottle necks, as well as to improve product quality.

Did NEA face a technical challenge with regard to the application, the system or installation?

Yes, we requested a solution for a quick and trouble free shifting from cyclone to cyclone classifier operation. We also had requirements for inline-feeding of chips as well as offline 2-component feeding, i.e. requiring a total of three dosing airlocks for several grinding systems.



Did NEA manage this? Did they even exceed your expectations?

Yes, NEA designed a hydraulically operated lifting & rotating device that allowed us to always perform the packing of the finished product at the same location, which prior to this had not been possible. Cleaning time was significantly reduced due to this improved design.

We had our initial doubts relating to the performance of the two component dosage system, but we soon discovered that NEA had delivered fulfilling their promises.

Both these features have become standard in our grinding system set ups.

Did NEA meet the delivery date?

All grinding systems as a part of this package have been delivered according to the agreed deadline.

Service & Grinding System Performance

What's the performance of the ICMs?

We are particularly satisfied with the mill design, comprising of a large mill chamber, cylindrical multiblade classifier wheel and air-purged classifier gap, which enables us to manufacture powders with a narrow particle size distribution without sacrificing throughput. We are also satisfied with the premium performance offered by the NEA Generation III Cyclone Classifiers.

Which role do NEA's ICMs play within Jotun's process?

The ICM grinding systems supplied are important components for the powder coating manufacturing process,

facilitating production of high quality powder coatings.

How long has the first ICM been running?

The first ICM 60 installed in Dubai, UAE, has now clocked more than 23,000 operating hours.

The installation was carried out by NEA service technicians. Was the installation carried out by professionals?

We have decided to always use technicians from NEA for inspection, commissioning and training whenever purchasing new grinding systems. We find that NEA technicians are be knowledgeable, service-minded and co-operative.

Has any maintenance work been performed since the installation?

Maintenance costs are low; we are particularly pleased with the direct drive executions for the grinding disc and classifier which has dramatically reduced the frequency of bearing changes. To date we have in fact not been required to replace any of the bearing assemblies.

Are there any additional points you'd like to mention with regard to NEA engineering, equipment or services?

We appreciate the initiative, service and contribution from NEA related to modernization or retrofitting of old grinding systems. That has resulted in higher throughputs and improved quality. NEA definitely belongs to Jotun's tier one suppliers. For the time being I can't see any reasons why we should change.

We would like to thank you Mr. Larsen for taking the time for this interview. Looking forward to a continued successful partnership.



Idar Larsen

Divisional Director Manufacturing
Jotun Powder Coatings (UAE) LLC

Interview conducted by
Marc Giersemehl, Sales Manager, and
Martina Frenz, Marketing Manager

**JOTUN POWDER COATINGS
DIVISIONAL HEADQUARTERS**

JOTUN

- Jotun Group, headquartered in Sandefjord, Norway, consists of 71 companies and 40 production facilities
- producer and supplier of paints, coatings and powder coatings
- total sales income in 2008: NOK 11.703 billion
- 7,200 people employed in more than 70 countries
- Jotun Powder Coatings (UAE) LLC, affiliated company of Jotun Group, is headquartered in Dubai, UAE
- JPC is producing and promoting thermosetting powder coatings
- 11 production facilities in Europe, Asia and Middle East
- distribution network covers 75 countries worldwide
- www.jotun.com for more information

Burj Dubai:

The World's Tallest Tower

- groundbreaking: 21 Sep. 2004
- soft opening: 9 Sep. 2009
- height after completion: 818 m (2,684 ft.) with 160 habitable floors and the world's fastest elevators with 18 m/s
- exterior cladding consisting of 142,000 m² of reflecting glazing, and aluminium and textured stainless steel pandrel
- aluminium profiles coated with Corro-Coat PE-F metallic in RAL 9006; film thickness of 60-80 microns
- supplied in UAE by Jotun Powder Coatings (UAE) LLC and in China by Jotun Powder Coatings (Thailand) Ltd.
- 15 years warranty on Corro-Coat PE-F
- powder coatings ground and classified with NEA ICM 60 (1,000 kg/h) and ICM 76/96 (1,500 kg/h)

