

Grinding & Dispersing

Case Study - S & S printing ink

Heatset Ink Plant, Erfurt, Germany.



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NETZSCH Processing and Plant-Engineering Deliver another Turn key Plant.

Having completed an impressive 30,000 Tonnes Gravure Ink Plant in the UK in 2006, the engineering team at NETZSCH had an enviable track record. So when S & S Druckfarben needed a new manufacturing plant – one that would use cutting edge technology and state-of-the-art process controls to deliver a huge 35,000 Tonnes per

annum - they too enlisted our services. This new production facility is the largest project of its kind in Europe since 2006 and S & S needed a company that could design the process and then engineer the new plant from start to finish, and also guarantee its final performance.

Engineering a World Class Plant

When you are making a strategic investment, one that you have to live with for at least the next 10 years, you cannot afford to compromise. S & S needed a partner that:

- Will engineer the process from the best available technology – not just its own.
- Has a wealth of knowledge of wet processing technologies including mixing, pre-dispersion, wet grinding, de-aeration and filtration systems.
- Can handle the complexity of such a large project.
- Can apply best-of-class knowledge gained from other industries.
- Has the laboratory facilities to validate the engineered solution prior to installation, and can guarantee the plant's performance.
- Has the resource to deliver against tight deadlines.



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Making it Happen

After preliminary design studies and engineering works, NETZSCH proposed a solution using all new machinery, and the latest production technology. S & S commissioned NETZSCH in December 2006 to build and commission the new plant. Working from the plant

performance specifications the NETZSCH engineers focused on designing the best possible solutions – utilising both their own patented machinery, like the LME Horizontal Bead Mill and Ψ -Mix[®], as well as best-in class equipment from other vendors.

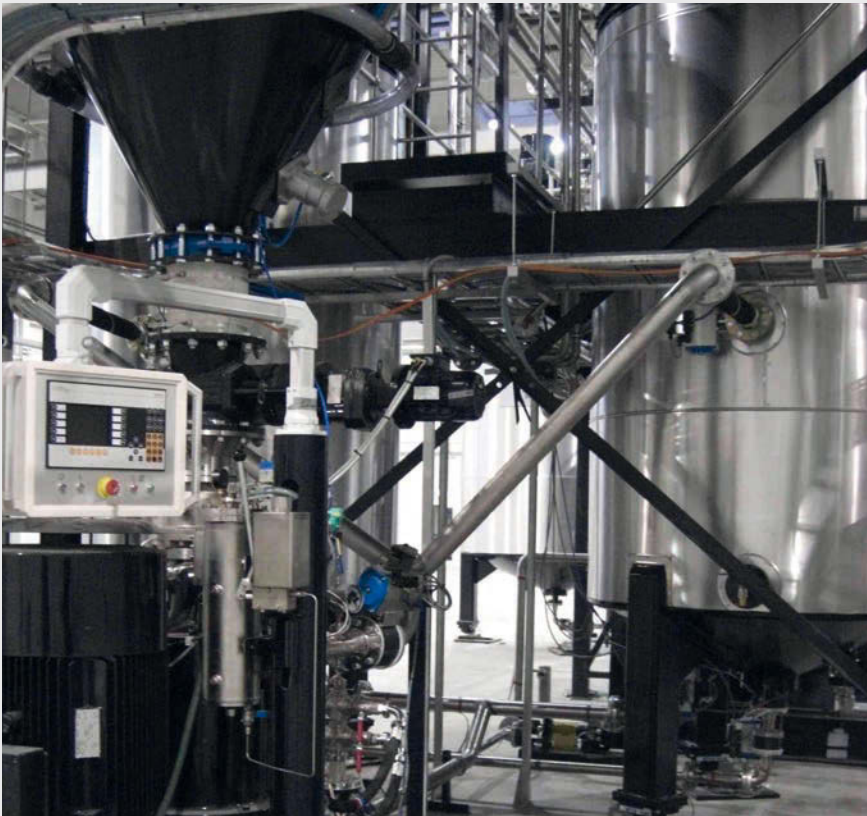


The revolutionary Ψ -Mix[®] used in the plant, with a combination of vacuum dispersing, shearing and pressure wetting resulted in high productivity, with excellent results and total reproducible quality.

From Grams to Tonnes

S & S had to be sure of the plant efficiency, reliability and output prior to installation. Using their labs in Germany, NETZSCH conducted downscale trials of the process design, and the selected equipment and process controls - validating the engineered solution and

optimizing the plant's performance and reliability. With this information, NETZSCH were able to guarantee full-scale plant performance. A guarantee NETZSCH stood behind 100%!



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Pulling it All Together

From site preparation through to commissioning and final plant inspection – This was a real turnkey solution NETZSCH provided. Some of the main elements of the project included, the design and construction of new PMD batch disperser technology, upgraded LME horizontal bead mills and the revolutionary Ψ -Mix[®]. Mezzanine steel-work and bigbag lifting gantries; Hoists and cruciforms, big-bag and small-bag discharge units, process valves instrumentation, process pipe work with lagging, the complex electrical installation, product filters, transfer pumps, dust extraction system, fume extraction system, compressed air system, chilled water and heating system and many hundreds of smaller items.



The LME Horizontal Bead Mills, with patented Dynamic Classifier System (DCC), provide increased throughput rates with virtually no blockage.

The final results are in...

Great Ink, Consistently and Cost Effectively

Product is being delivered to S & S customers all over Europe, with consistent high quality and all the goals of the project were met including quality, throughput, cost and schedule, and reliability.

Completed on schedule, the S & S Erfurt plant was operational in Early January 2007.

NETZSCH Process and Plant Engineering Services

NETZSCH provide engineering services for many companies across a wide range of industries and applications.

- Technical Ceramics
- Pharmaceutical
- Paints
- Sealants and Adhesives
- Hard Metals (Tungsten Carbide, SiC)
- Catalysts and Fuel Cells
- Cosmetics
- General Chemicals
- Agro Chemicals
- Chocolate / Confectionary



The World's Leading Grinding Technology

The Companies of the Business Unit Grinding & Dispersing

NETZSCH-Feinmahltechnik GmbH, Selb, Germany

NETZSCH-CONDUX Mahltechnik GmbH, Hanau, Germany

NETZSCH Premier Technologies, LLC., Exton PA, USA

NETZSCH Indústria e Comércio de Equipamentos de Moagem Ltda., Pomerode, Brazil

NETZSCH (Shanghai) Machinery and Instruments Co., Ltd., Shanghai, China

NETZSCH Mastermix Ltd., Lichfield, Great Britain

NETZSCH España, S.A., Terrassa/Barcelona, Spain

ZAO NETZSCH Tula, Tula, Russia

The Business Unit Grinding & Dispersing is part of the NETZSCH Group.

The NETZSCH Group is a mid-sized, family-owned German company engaging in the manufacture of machinery and instrumentation with worldwide production, sales, and service branches.

The three Business Units – Analyzing & Testing, Grinding & Dispersing and Pumps & Systems – provide tailored solutions for highest-level needs. Over 2 700 employees at 140 sales and production centers in 27 countries across the globe guarantee that expert service is never far from our customers.

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