



OUR PASSION IS POWDER



**microtec**  
POWDER TECHNOLOGY

# MICROTEC FULL SERVICE CONCEPT:

**Our goal is to understand the customer's requirement, to apply the optimal technical solution, and to achieve the final product required.**

Through our many years of manufacturing experience, we have supplied high quality and innovative technology in Grinding and Classifying equipment to the Dry Process Industries worldwide.

We are recognized as a world leader in providing the most advanced technology available, to the industries requiring cryogenic grinding. Using the knowledge learned in many different applications, **microtec** GmbH engineers

will work together with the customer to achieve the best possible solution for their requirement.

The Time-Tested technology of **microtec** GmbH has proven to be the most advanced design, development, and production of various types of equipment for "Fine and Ultrafine Grinding and Classifying".

Over the past 15 years, **microtec** has developed into an internationally recognized leader in supplying the highest quality and most dependable process equipment available.



## We supply:

- Fine Grinding and Classifying Systems for the Chemical, Minerals, and Food industry
- Complete Cryogenic grinding systems for rubber and plastic products
- Simultaneous "Drying and Grinding" systems for chalk
- Fluidized bed Jet-Mills and high efficiency Air Classifiers
- High-Capacity Classifier Mills
- Single and Multi-Wheel Air Classifiers
- Laboratory Mills and Classifiers, including Laboratory-size Air Locks
- System components, including various types of feeding devices, double-flap flow valves, and miscellaneous spare-wear parts

**Total-system-dependability** came about as a result of many years of development of the **microtec** Process Technology, and knowledge gained thru our in-house Custom Processing Center.

Our highly qualified field engineers offer a total-satisfaction-guarantee of understanding the customer's process requirements, and matching it with the best possible **microtec** solution. We use our Fully-equipped "Technology Center" to test grind/ classify the customer's material,

which allows us to select the best possible machine/system to produce the desired product. Our "Customer Processing Center" offers a customer the opportunity to simulate Long-term production runs, for fine tuning the Final Product result, and for improving the already existing customer process.

Using our latest-design process technology, we have the advantage of supplying equipment for a very reasonable price-supply ratio.



# CONSULTING EXECUTION TESTING



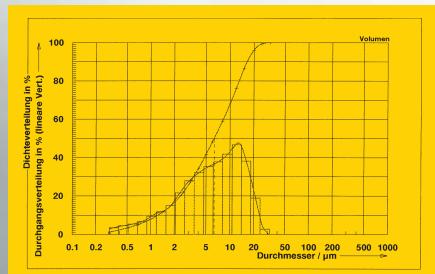
During the entire order process, you can monitor the progress of your order production schedule. Our 30 years of experience in order handling, includes the use of the latest technology available: i.e. CAD Drawing systems, e-mail communications, and web support.

At a very early stage in the order process, all production schedules will be agreed upon with our customer, so that the exact planning of on-site installation can be realized without delays.



We use our Fully-equipped "Technology Center" to test grind/classify the customer's material and to select the best possible machine/system to complete the job. Successful use of the "Technology Center" has consistently confirmed excellent results in the Field.

Experienced personnel are always available during the material testing period, and for eventual field work.



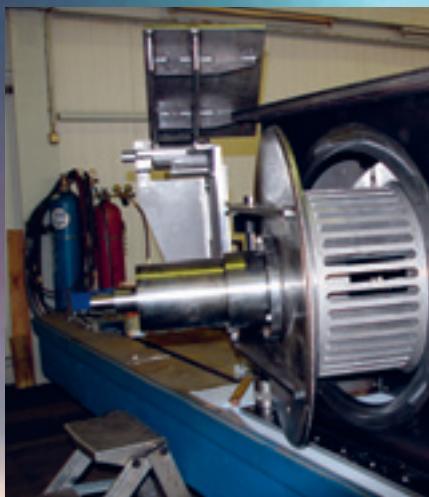
# PRODUCTION

# ASSEMBLY

# SERVICE



Our engineering staff selects proven and long-time reliable sub-suppliers, so we can continue to guarantee our high quality equipment supply. We use only First Class materials, according to applied EN-Norm. Our ultimate goal is to achieve the Customer's Total Satisfaction for both the initial Start-up and for continued reliability into the many years of production to follow.



Once our equipment is completely fabricated and tested, we offer safe and reliable transportation to the customer's facility. If required, our technical service and engineering personnel are available to support the assembly of the entire **microtec** supplied System. Start-up assistance and training of customer's personnel is highly recommended for each installation.

Our after-sales service group is available to ensure continued peak-performance of the **microtec** equipment, and to do a periodic check-up and maintenance on the system.

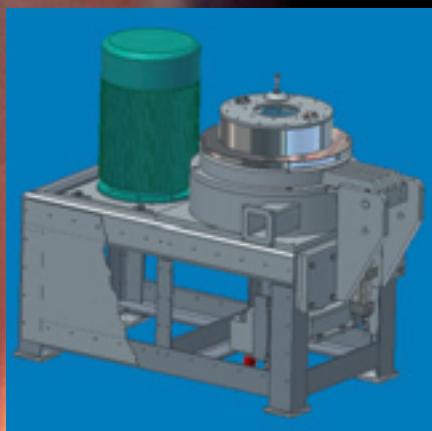


# MECHANICAL MILLS AND AIR CLASSIFIERS

## TURBOMILL UTM

This is a Mechanical Mill with an adjustable grinding gap, and no integrated screen underneath. Based on a high speed particle turbulence created inside, a high percentage of size reduction is done by impact on other particles (Jet-Milling effect), and simultaneously, a high degree of material mixing/blending is also occurring. These mill-design features allow for the most-effective coating of Minerals with stearic acid. By adjusting the gap between the rotor and grinding race, many "different grinding results" can be achieved (coarse to fine), "without" the need for changing grinding elements or adjacent screens.

In the world of cryogenic grinding, the **microtec** Turbo Mill has achieved the highest possible "Fines Yield", for a Mechanical Milling System. Our customer user-friendly design is protected by a European Patent.



## FLUIDIZED BED JET-MILL



Our newly developed Fluidized-Bed Jet-Mill, based on **microtec** advanced technology, allows for the production of 3 to 150 micron size powders. The mill is primarily used in the production of metal-free and contamination-free products like: Abrasives, Tungsten Carbide, Toner and Pigments. The founder of **microtec** GmbH, Mr. Josef Fischer, has developed an economical closed-loop system for producing "Rare Earth Magnet Powder".

## HIGH EFFICIENCY TURBOWHEEL AIRCLASSIFIER

This type of Air-Classifier is usually specified by engineers for Extremely-fine classifying requirements in the 3 to 63 micron range, that must yield a high amount of Fines, and a Clean cut in Coarse size material. This special design is required in the processing of Abrasives and Sticky products. Whether this Air-Classifier is fed by Gravimetric means or fed by an air-stream feed in-line with a grinding mill, this unique Classifier can handle any flow that requires "High-Performance". The integrated secondary classifying section (coarse material dis-integrator) produces a very "clean" coarse material, with minimum crossover contamination. The Primary advantage of the **microtec** Turbo-Wheel Air-Classifier is the "easy access" to all major wearing components. **Microtec** is the "Original Manufacturer" of the "Wheel on Door" design, which has the Classifying wheel mounted directly on a hinged door that can be easily accessed. Downtime for inspecting or maintaining the **microtec** Classifying wheels, is greatly minimized, when compared to the downtime required for competitive models.

Our latest design has incorporated a Multi-Wheel Air-Classifier arrangement, with 2 or more classifying wheels installed in One-Housing. This allows the use of only One "Compact Unit", to produce a High Throughput-rate, and Finer-sized Classified Product.

The "**microtec**" multi-Wheel design (unlike standard multi-wheel designs), has all the special features and advantages of our Single-wheel unit, (i.e. easy access, variety of feed arrangements, etc...), and it is not necessary to add a second classifier to achieve higher production. Truly, the **microtec** Air-Classifier design incorporates the latest and most advanced technology available today.

# CUSTOM PROCESSING

If you need to grind/classify hard, abrasive, elastic materials, or standard chemicals and non-hazardous materials, the "microtec Custom Processing Center" will provide you with the most consistently sized final product desired. Our processing service includes: Jet-Milling, Air-Classifying, Screening, Cryogenic Grinding, Packing, and Repacking. Every Custom Process is performed under the guidelines of the highest possible international standard.



## Our Manufacturing program:

Equipment	Air Flow	Capacity	Power reqd.
Air Classifier	80 – 20.000 m <sup>3</sup> /h	50 – 15.000 kg/h	5,5 – 45 kW
Multi wheel class	240– 35.000 m <sup>3</sup> /h	150 – 20.000 kg/h	5,5 – 180 kW
Turbomills	300 – 20.000 m <sup>3</sup> /h	30 – 20.000 kg/h	11 – 350 kW
Jet-Mills	80 – 7.000 m <sup>3</sup> /h	100 – 4.000 kg/h	5,5 – 90 kW
Lab system	20 – 120 m <sup>3</sup> /h	2 – 10 kg/h	3 – 5 kW
Custom processing	Metal Free, cryogenic grinding/screening/classifying/packing: Korund, Boron Nitride/WC powder, DiCy, Aluminium oxide, Glass, Rubber, Hotmelt plastics, Boron Carbide, Fe, Magnet powder, Cellulose, Wood, Salt, Citric acid, LiC, Bee pollen, Cholesterol reducer, etc.		

### Reliability

Reliability is one of microtec's Greatest Qualities. It is maintained everyday in our Order Processing, Engineering, Manufacturing, Final Assembly, Testing, Prompt Delivery and Service.



### Strength

Our complete "Full Service Concept" of Testing, Design, Manufacturing, Supply, and Service has been recognized by a growing list of satisfied International Customers around the world. You can certainly depend on microtec GmbH Technology to help guarantee your continued success.



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