



# Nano Milling - A Design in Miniature

Innovative particle engineering technologies from Hosokawa Micron Ltd now offer a solution to the small scale batch production of ultra-fine nano-particles using a wet milling process. The development of the lab scale Hosokawa Alpine Horizontal Agitated Ball Mill now offers chemical, ceramic, mineral, pigment, food, pharmaceutical and agro-chemical producers small scale wet milling of particles down to 10 nanometers.

The table top mounted Alpine 90 AHM is designed for small batch production or development tests and is suitable for suspensions with good flow properties where a steep particle size distribution and high end-product fineness are required.

With agitator shafts of different lengths and a range of grinding chamber sizes available it is possible to adapt the mill to production of batches of 250ml, 500ml and 1100ml. Its capability for continuous or batch mode, meets demands for flexibility in the production of powdery substances, whilst maintaining particle size accuracy.

The mill is suspended in pivots on a frame and tilts for easy filling and emptying, The upright position also allows cleaning of the screen without emptying the mill.

A small but robust mill, the Alpine 90 AHM offers variable speed drive, coolable mill housing and exchangeable wear protection elements in stainless steel, tungsten carbide, a variety of engineering ceramics or polyurethane or other plastics making it suited for milling a range of even difficult to mill or abrasive products.

Widely used for research and experimental purposes the same equipment type can be scaled up to production size making validation simpler and production values easily forecast.