



Dual shaft driving of bead mill for nano processing (mass production)

Justnano focus on the manufacturing nano bead mills. Dual shaft driving of bead Mill bead mill which has been designed for the use of micro beads in the extremely wide parameter range for completely different applications in nano processing. It can be operated flexible in use for batch or recirculation mode. Dual shaft structure is employed to enable independent driving. It's suitable for the use of micro beads in a high viscosity of nano dispersion. The true value of this new bead mill could be demonstrated in the nano dispersion with weak particle strength and high viscosity dispersion which was proved difficult in the traditional nano bead mills.



Dual shaft driving of bead mill
(JBM-D1000)

Specifications			
Type	JBM-D500	JBM-D1000	JBM-D2000
Motor power (Kw)	10	15	20
Revolution(rpm)	0~1500		
Volume(L)	5	10	20
Material of ceramic parts	SSiC		
Grinding medium size (μm)	7~1000		

- Innovate patent design with dual shaft driving for rotor and separator
- All mill chamber made ceramic parts with high hardness and high thermal conductivity
- Easy to edit, save and read the recipes and process parameters with a graphical HMI
- The bead mill is ergonomically designed
Save and convenient operation
Easy to clean and maintain
- The range of size for grinding medium is between 7 and 1000 μm
- The range of viscosity for the nano dispersion is up to 1000cps



Justnano focus on the manufacturing functional nano dispersions. Functional nano dispersions can be applied to a transparent of heat insulation, antistatic, index matching, improved hardness & scratch resistance, ultraviolet isolation...etc. Nano dispersions can be adjusted according to customer requirements

Functional nano dispersions

IR Cut			
Powder	Solvent	Thickness(wt.%)	Mean diameter (D50,nm)
WO ₃	Toluene · PMA · EAC IPA · MEK · Water...etc.	Up to 50	<50
ITO			
ATO			
LaB ₆			
Anti-electrostatic			
ITO	Toluene · PMA · EAC IPA · MEK · Water...etc.	Up to 50	<50
ATO		Up to 5	
MWCNT			
High RI			
TiO ₂	PMA · EAC · MEK · Toluene ...etc.	20	<50
ZrO ₂			
High Hardness			
ZrO ₂	Toluene · PMA · EAC IPA · MEK · 2-PEA ...etc.	20	<50
Al ₂ O ₃			
SiO ₂			
UV Cut			
TiO ₂	Toluene · PMA · EAC · IPA Water · MEK · 2-PEA ...etc.	20	<50
ZnO			
CeO ₂			

Features

- High stability

By stability test, there is at least one year storage period

- Nanoscale dispersion

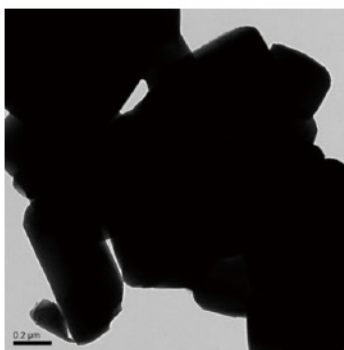
The average particle size are less than 50 nm

- Custom Manufacturing

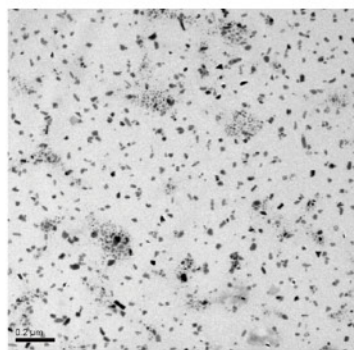
According to customer needs, providing customers with high hardness, low haze, high adhesion, excellent compatibility of functional Nano dispersion material.

Example

Nano grinding & dispersing of CsWO for high performance IR shielding film



BEFORE



AFTER



Appearance of CsWO
Nano dispersion

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