

# Nano Pulverizer NP-500TWIN

Scale-up model of NP-100



Scale-up



## Nano Pulverizer NP-500TWIN

Maximum Liquid Volume

**1 L**  
(500 mL × 2)

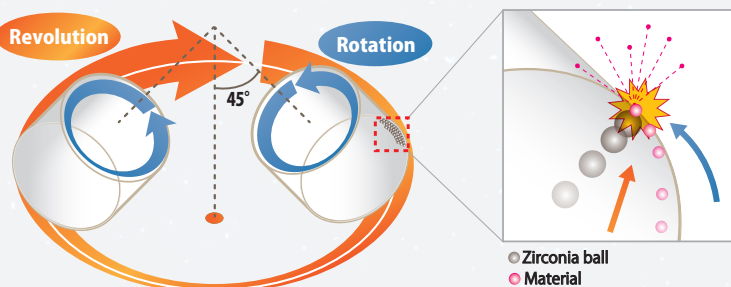
Maximum Material Volume

**200 g**  
(100 g × 2)

### Nano Pulverizer NP-100

Maximum Liquid Volume 50 mL

Maximum Material Volume 10 g

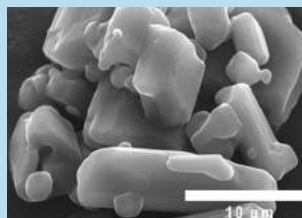
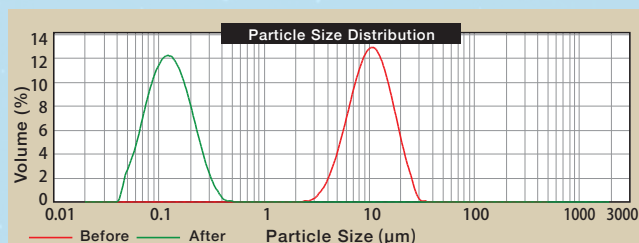


- ✓ A maximum of 1L suspension can be prepared for various safety tests
- ✓ Achieving the same particle size as NP-100 with increased volume
- ✓ Short time pulverization
- ✓ Suppression of temperature rise from pulverization by chiller ( -20 °C maximum)

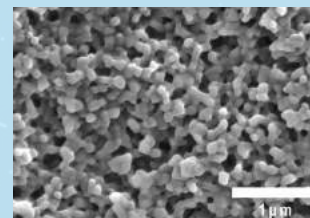
\*NP-100 is widely used for drug discovery

## Pulverization Example (Phenytoin: poorly water-soluble compound)

● Phenytoin (Low solubility compounds)



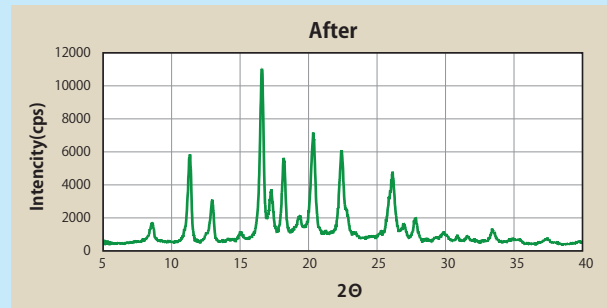
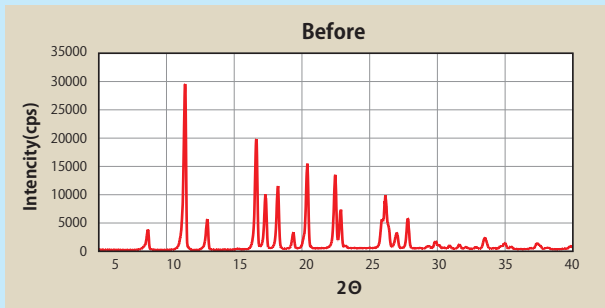
Before



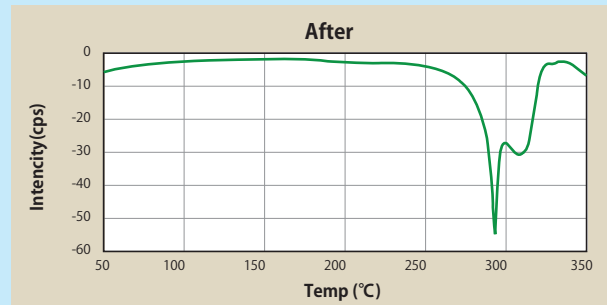
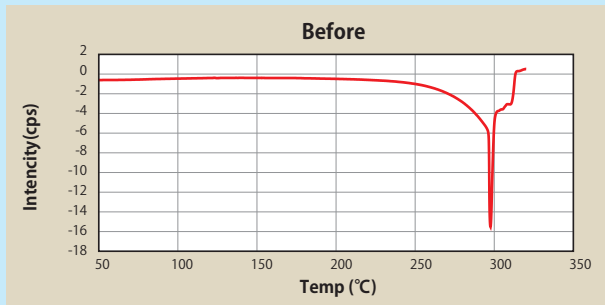
After (SEM image x30 K)

## Crystallinity Evaluation Example: Phenytoin

### XRD



### DSC



## Product Specifications

Product Model		Planetary Centrifugal Nano Pulverizer with Chiller, NP-500TWIN
Method		Planetary, propeller-less pulverizing method with 2 cup holders
Time Setting Range		1 s to 60 min (increment per 1 s)
Timer for Chiller during Standby		1 min to 72 hr (increment per 1 min)
Revolution Speed	MILL/MIX Mode	0 rpm, and 200 rpm to 850 rpm (increment per 10 rpm)
	CLEAN MEDIA Mode	0 rpm, and 200 rpm to 1150 rpm (increment per 10 rpm)
Chamber		Chamber cooling method (Temperature setting: -20 °C to +20 °C)
Operation Setting		10 steps continuous operation Operation time/revolution speed/chamber temperature setting for each step Up to 20 above operating conditions can be registered as recipes
Container	Pulverization Set	Container: zirconia / Adapter: resin
	Separation Set	Resin
Max. Volume (gross weight)*		2.4 kg × 2
Max. Material Volume		100 g × 2
Max. Liquid Volume		500 mL × 2
Max. Media Volume		100 g × 2

\* Maximum volume (gross weight) = material to be pulverized + liquid + media + container + adapter  
 Product specifications are subject to change without prior notice.

## Accessories



● Pulverization Set (Zirconia Container and Adapter)



● Media Separation Set

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