

# Nano DeBEE

**BEE**  **INTERNATIONAL**

*WE TURN PRESSURE INTO POSSIBILITIES*

EMULSIFYING  
CELL RUPTURE  
DISPERSING  
GRINDING



## Ultra-High Pressure Homogenizer Electric Benchtop

- Stable micro / nano emulsions, suspensions, liposomes, encapsulations & dispersions
- Efficient and controllable particle size reduction
- Cell Lysis with the highest yield
- Scalable results from R&D to manufacturing

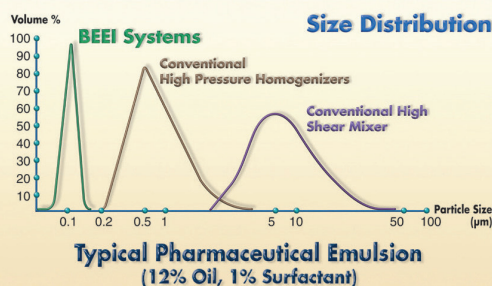
***Unmatched Results in Fewer Passes***





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BEE International is experienced with every nuance of high energy processing. Unlike any homogenizer before, the Nano DeBEE gives you the highest process intensity in the industry and our patented modular Emulsifying Cell allows for unparalleled process customization. You now have independent control over pressure, flow pattern, and process duration as well as shear, cavitation, and impact forces. Adjust the equipment to fit your specific application and get your desired results fast!



We are dedicated to advancing homogenization technology across multiple different industries and applications. Our research and development is ongoing, and you can depend on our precision engineering, quality manufacturing, and worldwide service for the highest reliability.

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# Nano DeBEE

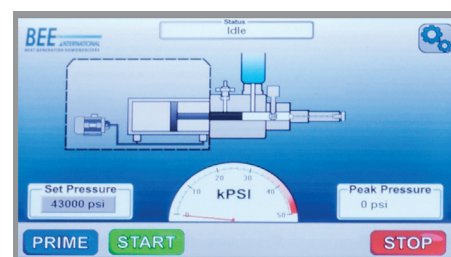
Achieve Better Results,  
with a Tighter Distribution, in Less Time

Considered to be the most versatile benchtop homogenizer on the market, the Nano DeBEE combines a variety of mixing tools into one advanced instrument to create the most efficient and scalable process possible. With several unique setups available, you can select the specific combination of mixing parameters as well as adjust their intensity:

- **Shear:**  
*Force used in High Shear Mixers*
- **Impact:**  
*Force used in Bead Mills*
- **Cavitation:**  
*Force used in Sonication Equipment*
- **Process Duration:**  
*Extend or shorten the Emulsifying Cell for targeted force application*
- **Operating Pressure:**  
*Up to 45,000 psi*
- **Back Pressure:**  
*Between 0 - 2,500psi*

## Features:

- State of the art touchscreen PLC / HMI
  - Intuitive processing interface with the menu driven operating controls
  - Digital "batch mode" - Set controls to operate for specific volume or number of strokes
  - Customizable maintenance tracking
- Automatic pressure control
- Full validation and documentation packages
- Heat exchanger and ice bath options available



- Sanitary design
- 2-year factory warranty
- CE compliant

|  | Pressure                                       | Flow Rate*             |
|--|--|------------------------|
| <b>Nano DeBEE 45-2-Gen II</b><br>110V / 220V | 10,000 - 45,000 PSI<br>690 - 3,100 bar         | Up to 2 L/H (0.53 G/H) |
| <b>Nano DeBEE 45-6-Gen II</b><br>110V / 220V | 10,000 - 45,000 PSI<br>690 - 3,100 bar         | Up to 6 L/H (1.49 G/H) |
| <b>Weight</b>                                | 150 Lbs. (68 kg)                               |                        |
| <b>Dimensions</b>                            | 31.5" x 21.5" x 17.5" H (80 x 54.5 x 44.5cm H) |                        |
| <b>Minimum Volume</b>                        | 20 ml (12 ml with OPT-SV-Nano)                 |                        |
| <b>Sound Level</b>                           | < 70 dB  |                        |

\* Actual flow rate varies depending on operating parameters including operating pressure, nozzle size, and product characteristics

