

The Ultimate Development Tool, Suitable for Production High Pressure Homogenizer

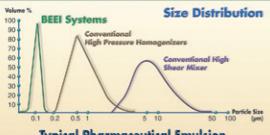
- Up to 45,000 PSI
- Efficient in-line process
- Suitable for clean rooms
- Stable Micro and Nano Emulsions and Dispersions
- High Yield Cell Lysis

Unmatched Results in Fewer Passes



We're experienced with every nuance of high pressure homogenization.

DeBEE pilot systems offer process flexibility and control to achieve better results in fewer passes.



Typical Pharmaceutical Emulsion (12% Oil, 1% Surfactant)

BEE INTERNATIONAL is dedicated to advancing the technology of homogenization. Our research and development is ongoing, and you can depend on our precision engineering, quality manufacturing and worldwide service for the highest reliability.



BEE INTERNATIONAL, INC. 46 Eastman Street South Easton, MA 02375

Phone: 508-238-5558 Fax: 508-238-3860

E-mail: sales@beei.com Web: www.beei.com

DeBEE 2000 Series

R&D Versatility Meets Manufacturing Durability

Since 1994, BEE International has designed and developed pilot plant high pressure homogenizers that bridge the gap between research and development and manufacturing.

DeBEE 2000 systems combine a variety of mixing tools into one advanced instrument. With unique process setups the scientist can experiment with the intensity and force of mixing parameters:

- cGMP, CE, CFR 21 Part 11
- Electronic signatures
- User management
- Audit trail

- Data collection
- SCADA
- Plant integration ready
- Clean in Place

Proven to achieve industry leading results for:

- Micro and nano emulsions and dispersions
- Effective cell disruption
- · Tighter distribution of uniform particle size reduction
- Efficient nano-encapsulation
- · Small and uniform liposomes
- De-agglomeration
- Extended product stability
- Improve Bioavailability

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Model	HP	Maximum Pressure	Flow Rate		
			L/min	L / hr	gal / hr
DeBEE 2000-45-30	10	45,000 PSI	0.5	30	8
DeBEE 2000-45-60	10	45,000 PSI	1	60	16
DeBEE 2000-30-60	10	30,000 PSI	1	60	16
DeBEE 2000-25-100	10	25,000 PSI	1.7	100	26
DeBEE 2000-20-120	10	20,000 PSI	2	120	32

Technology Advantages

- Highest process intensity in the industry
- Modular design enables greater process control
- · Higher shear rates than high shear mixers
- Constant pressure for a tighter distribution of results
- Proven reliability for laboratory and production use

Standard Features

- PLC for easy operation and monitoring
- Sanitary design
- · Slower stroke rate to reduce wear
- Options available to meet application requirements and industry standards
- Guaranteed Scale-up

