



Pion DeBEE 2000 Series

R&D versatility meets manufacturing durability

Pion DeBEE 2000 systems combine a variety of mixing tools into one advanced instrument capable of advanced process customization as well as increased production capacity.

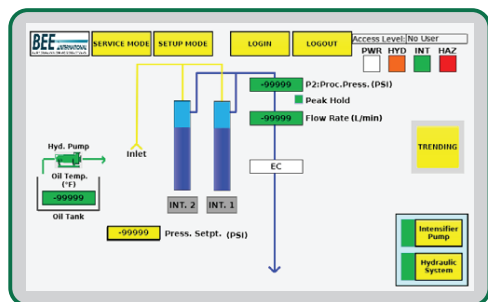
The guaranteed scalability of our equipment allows users to take a proven product with established processing protocols and replicate results to accommodate business growth and development.

Ultra-High Pressure Homogenizer Electric Pilot Scale

- Stable micro / nano emulsions, suspensions, dispersions, liposomes & encapsulations
- Controlled particle size reduction
- Cell Lysis with the highest yield
- Efficient in line continuous processing
- Enhanced cleanability for sanitary applications
- Advanced manufacturing automation
- *Unmatched results in fewer passes*



Pion DeBEE 2000 Series



Standard features

- Intuitive touchscreen PLC for easy operation and monitoring
- Automatic pressure control
- Alarm management
- Custom service schedules
- Wide variety of custom process options
- Process heat exchanger included
- User level security
- Data storage with removeable SD card and FTP transfer
- cGMP, CE, CFR 21 Part 11
- SCADA (Supervisory Control and Data Acquisition)
(Not standard on the DB2000)

Additional Options For Application Requirements

- Doc Packages including: IQ/OQ, COC's, SAT, and FAT
- Electropolished product contact parts
- Clean in place
- Feed pump systems
- Multi-pass automation
- Advanced temperature control
- Inline pre-processing

Technology advantages

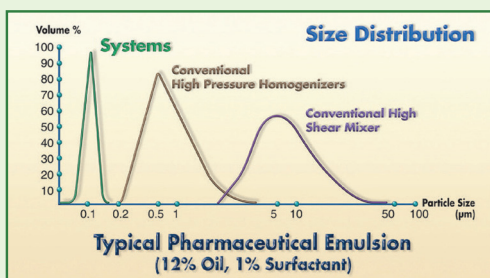
- Highest process intensity in the industry
- Utilizing custom blend of shear, impact, and cavitation forces
- Modular design enables greater process control
- Constant flow and pressure for a tighter distribution of results
- Proven reliability and lower long term ownership cost

Model	HP	Maximum pressure	Capacity*		
			L/Min	L/Hr	Gal/Hr
DeBEE 2000-45-30	10	45,000 PSI	0.5	30	8
DeBEE 2000-45-60	15	45,000 PSI	1	60	16
DeBEE 2000-30-60	15	30,000 PSI	1	60	16
DeBEE 2000-25-100	15	25,000 PSI	1.7	100	26
DeBEE 2000-20-120	15	20,000 PSI	2	120	32

Proven to achieve industry leading results for:

- Stable micro and nano emulsions and dispersions
- Effective cell disruption
- Improved bioavailability
- Uniform particle size reduction with a tighter distribution
- Efficient nanoencapsulation
- Small and uniform Liposomes
- De-agglomeration
- Extended product stability

Emulsifying • Cell Rupture • Dispersing • Grinding



Pion is experienced with every nuance of high energy processing and has engineered equipment to provide solutions at every level of production from R&D to full scale manufacturing. Unlike any other homogenizer on the market, the DeBEE 2000 is a pilot scale machine that incorporates full customizability while delivering enhanced production capacity.

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.



Pion stands behind the science

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Specifications subject to change without notice

Product Sheet 90-40018