MAXIMATOR®
maximum pressure

Jointly developed with

University of Zurich[UZH]

HIGH PRESSURE HOMOGENIZER HPL6

4,200 BAR / 60,000 PSI

For cell lyser applications and particle size homogenization Applications

High Pressure Homogenizer

Type HPL6

HPL6 user benefits

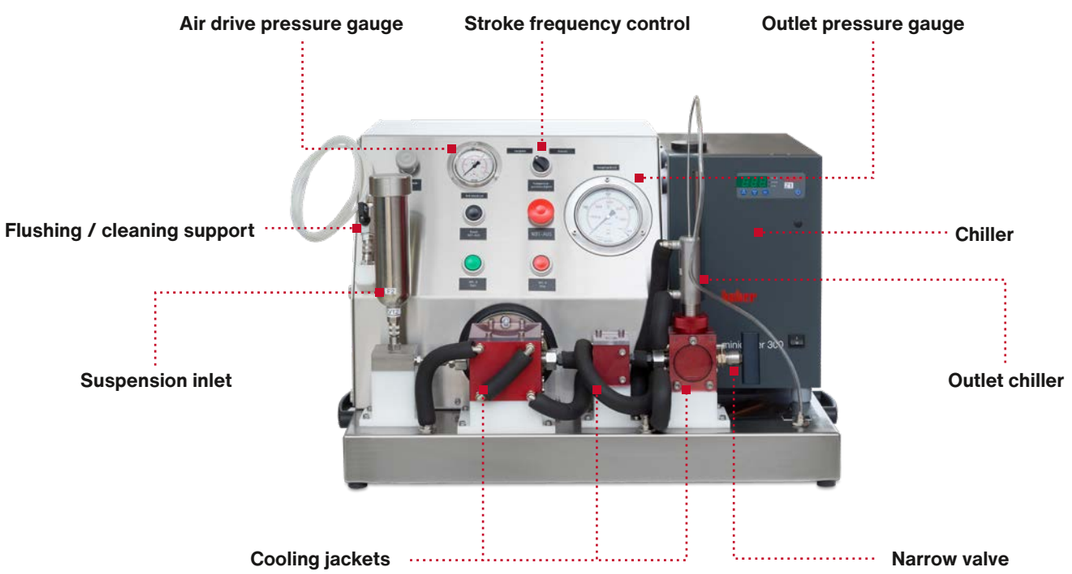
- Excellent flow rates at comparatively very high pressure
- Low temperature throughout entire process
- Simple and safe operation
- Very easy and fast to clean
- Quiet and low-maintenance
- Small dead space volume
- Very fast support-exchange (from sample vessel to flushing swivel)

Application

High pressure homogenizers are used for many applications in the biotechnology, pharmaceutical, cosmetic, food, and environmental industries, where it is necessary to reach particle sizes in a nano range.

The Maximator high pressure homogenizer HPL6 can be used for cell disruption in the biotechnology, for the homogenizing of dairy products, disruption of cellulose in vegetables, and production of gel systems in the pharmaceutical industry – just to name a few.

Overview Components of HPL6



The Maximator high pressure homogenizer HPL6 is designed for energy-efficient, continuous production of superfine emulsions. The HPL6 system achieves the homogenizing effect by means of fully adjustable decompression of the liquid from max. 4,200 bar to an ambient pressure.

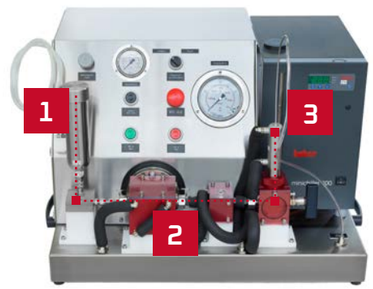
The high pressure homogenizer uses a Maximator air driven high pressure pump to pressurise the suspension / liquid.

The required pressure for the homogenizing process can be easily pre-set by means of adjusting the air drive pressure from 1 to 10 bar.

In order to achieve the best possible homogenizing results, a Maximator high pressure micrometer-needle valve is used as homogenizing valve and allows the user to adjust the gap in an extremely precise manner.

Process description:

1. Intake from sample vessel
2. Pressurisation of suspension
3. Homogenization / Cell disruption



4-zone cooling:

Effective cooling, to maintain temperature specifications (≥2°C) over the entire homogenisation / cell disruption process.

1. Pump head cooling
2. T-piece cooling
3. Narrow valve cooling
4. Outlet cooling

Technical Data	
max. Pressure	4,200 bar (60,000 psi)
Process Temperature	≥ 2°C
Flow capacity E.coli	120-330 ml/min @ 1,400 bar
Flow capacity yeast	80-150 ml/min @ 3,200 bar
Cleaning time	< 1 min
Dead space volume	< 6 ml
Dimension (W x D x H)	705 x 481 x 585 mm
Weight	84 kg
Operating Power	Air (external Air supply required)

Cleaning process:

The Maximator HPL6 high pressure homogenizer is developed from professional users and hence offers one of the fastest cleaning procedure. The clever design allows the cleaning of the system in less than one minute.

After the homogenization process or cell lyses the sample vessel just needs to be removed and the flushing swivel is to be connected to the intake quick coupling in order to flush the complete system with e.g. DI-Water.

At your side, everywhere

With our international partner companies, experienced experts in high-pressure technology are always ready to assist you. We have compiled detailed contact information for our international partners which you can find on our website at:
www.maximator.de/worldwide+distribution

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