

SUPRATOR INLINE HOMOGENISERS FOR EMULSIONS

Suprator inline homogenisers are based on the rotor/stator principle. More than 60 years, they are in use in many different and challenging applications in emulsion technology.

Among others, the Suprator machine is in use for the production of high quality emulsions in the food industry (e. g. tomato soups), in the chemical industry (epoxy/resin-emulsions) and in the bitumen industry (e. g. polymer modified bitumen/water-emulsions). A quality criteria of emulsions is the droplet-size distribution in the disperse phase. The required energy density is deployed very efficiently in the process by Suprator inline homogenisers.

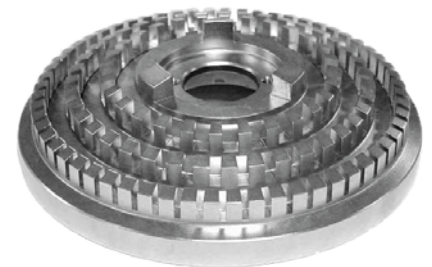
The product passing through the Suprator machine is subject to several physical mechanisms:

- Multistage hydrodynamic high-shear
- High-frequency oscillating forces
- Intensive micro-volume mixing
- Pressure increase up to 11.5 bar
- Shear-rate above 200,000 s⁻¹ at circumferential
- speed of the rotor up to 57 m/s

High performance in a large number of different product applications is considered by deploying a variety of toolsets.



Nozzle tool



Tooth and Chamber tool



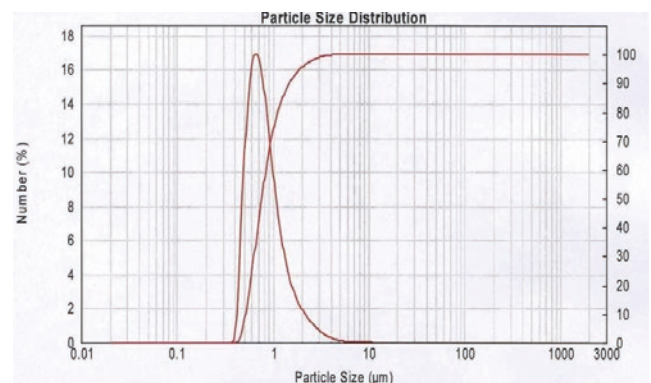
SUPRATON INLINE HOMOGENISERS FOR EMULSIONS

Machine overview			S200	S300	S400	S450
Volume flow*	m ³ /h	Tooth and chamber tool	≤ 10	≤ 24	≤ 35	≤ 55
		Nozzle tool	≤ 12	≤ 25	≤ 50	≤ 70
Flange connection (DIN 2635)		Suction side	DN 40	DN 65	DN 100	DN 125
		Pressure side	DN 32	DN 50	DN 80	DN 100
Rotor speed	rpm		≤ 7,500	≤ 5,400	≤ 3,600	≤ 3,600
Motor through-put rate (DIN 42673)	kW		8–30	15–50	30–160	75–160

*based on water at 0.35 bar feed pressure

As an example for the performance of Supraton inline homogenisers the droplet-size distribution of a resin-emulsion-system is presented.

Additionally we offer the Supraton S100 with tooth and chamber tool, for laboratory and small production. The motor is driven by a frequency converter. The throughput rate covers the range of 50–1,000 l/h.



BUCKAU-WOLF GMBH

Nordstrasse 41 Phone: +49 2181 602-400
 41515 Grevenbroich Fax: +49 2181 602-342
 Germany E-Mail: supraton@buckau-wolf.com

www.buckau-wolf.com



Buckau-Wolf