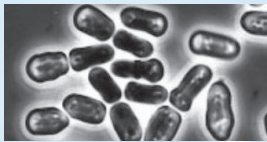
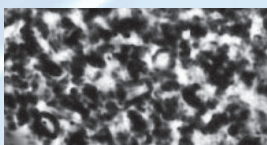


AVESTIN - Världsledande högtryckshomogeniseringsteknik upp till 2 000 bar

Avestin i Ottawa, Kanada utvecklar system för högtryckshomogenisering för olika typer av applikationer som cellkrossning, finfördelning av olika lösningar, liposome forskning och blandning av olika emulsioner. En stor fördel med EmulsiFlex systemen som finns i olika storlekar från 15ml batch upp till 1 000 liter/h, är att det är lätt att gå ifrån lab-scale till produktion. Samma homogeniseringsteknik används i alla systemen. Vi kan anpassa systemen till industri och till läkemedelstillverkning med nödvändiga certifikat för att få GMP-klassning.



A control sample of unruptured *Schizosaccharomyces pombe* yeast.



Schizosaccharomyces pombe after one pass at 28000 psi/193MPa through the EmulsiFlex-C160. Only cell fragments remain.

Process exempel:

Strain:	<i>Schizosaccharomyces pombe</i>		
Machine:	EmulsiFlex-C160		
Pressure:	28000psi/193MPa		

Sample	cfu/ml	% viable	% NOT viable
control	5.1×10^7	~100	~0
1 pass	5.0×10^3	0.01	99.99

Strain:	<i>E. coli</i> (BL21)		
Machine:	EmulsiFlex-C160		
Pressure:	20000psi/138MPa		

Sample	cfu/ml	% viable	% NOT viable
control	4.06×10^9	~100	~0
1 pass	1.77×10^7	0.44	99.56
2 passes	1.70×10^6	0.04	99.96
3 passes	2.4×10^4	5.9×10^{-4}	~100



An unprocessed dispersion with a starting size range of 10-100microns (600X magnification).



Processed sample of uniform, 1micron particles (100X magnification).



Högtryckshomogenisator
EmulsiFlex-C5



Högtryckshomogenisator
EmulsiFlex-C3



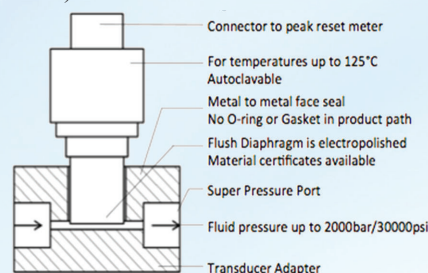
Högtryckshomogenisator
EmulsiFlex-B15

Nyheter:

Flush Diaphragm Pressure Transducer

Pulsating pressures up to 2000 bar / 30 000 psi can now be measured using Avestin's new flush diaphragm pressure transducer. Avestin transducers are suitable for temperatures up to 125°C and are completely autoclavable. These transducers use a metal to metal face seal; there are no O-rings or gaskets in the product path. The flush diaphragm design is suitable for CIP/SIP. The wetted surface is electropolished and full material traceability certificates

are available. Avestin flush diaphragm transducers have the following electrical characteristics: the full scale output is 3mV/V, the internal shunt calibration is 80% FSO, and the recommended excitation is 10VDC (15VDC max.).



Static Homogenizing Valve

Avestin has developed a static valve to be used for high pressure homogenization. These static valves use collision and high shear to generate pressures up to 2000bar/30000psi. An Avestin static valve can be fully disassembled for cleaning, inspection and validation. This technology is ideal for emulsions, and can be used for cell rupture, nanoparticles and liposomes. These static valves may be used as a replacement for the chambers used on several manufacturers' homogenizers.

