I Application

Pharmaceutical



Nano-emulsion
Fat emulsion
Liposome drugs
Inhalation formulations
Nano-suspensions

Fine chemical



Catalyst dispersion
Nano-oxide dispersion
MLCC binder dispersion
Chemical mechanical polishing fluid
Graphene, carbon tubes, carbon black

HPMH VS HPH

Easier access to smaller particle sizes

More uniform particle size distribution

More stable pressure

Fewer cycles

Better emulsification effect

Cosmetics



Nano-encapsulated raw materials
Liposomal cosmetics
Essential oil delivery systems
Liquid crystal system
Collagen dispersion

Food



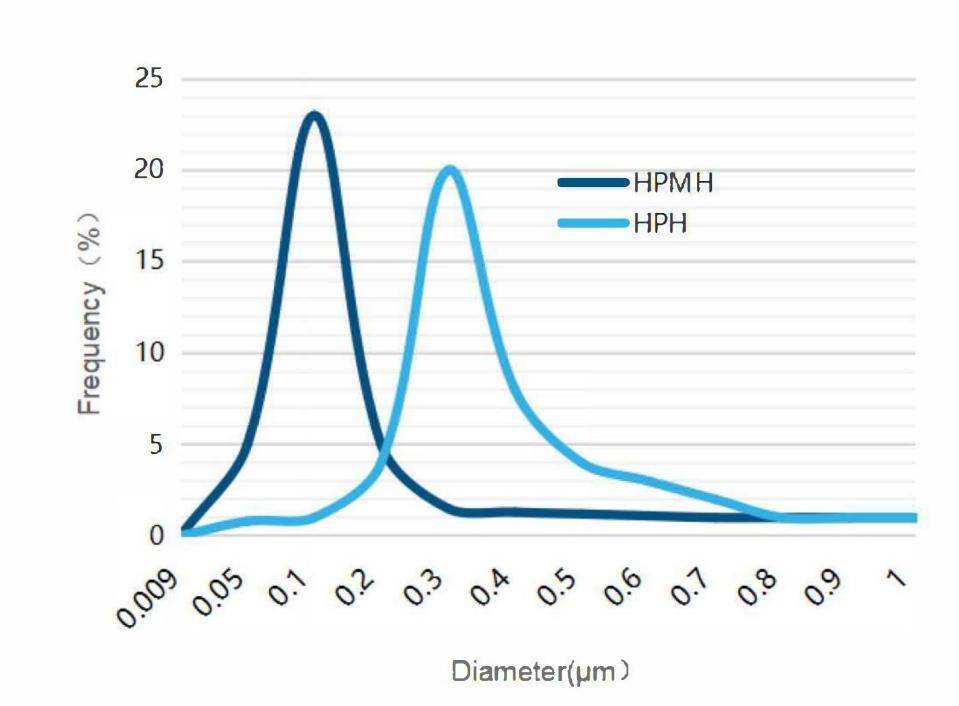
Food nano-emulsion

Macromolecule modification

Active substance lipid encapsulation

Vegetable protein drinks

Suspension and dispersion of solids







High Pressure Microfluidization Homogenizer



Representado y distribuido por: GlobalCare Wellness SPA Santa Magdalena 75, of 810, Providencia, Santia



About Us

YOCELL Biotechnology is your trusted partner in the field of bio-process.

YOCELL has a team of energetic young scientists and engineers. From initial R&D to production, we are committed to providing the most reliable solutions for biotechnology scientists and engineers around the world. Accepting the challenges of continuous innovation in biotechnology and solving problems from multiple perspectives are the most impressive qualities of the team.



System Features

Ultra high pressure

Up to 2000 bar (30,000psi)

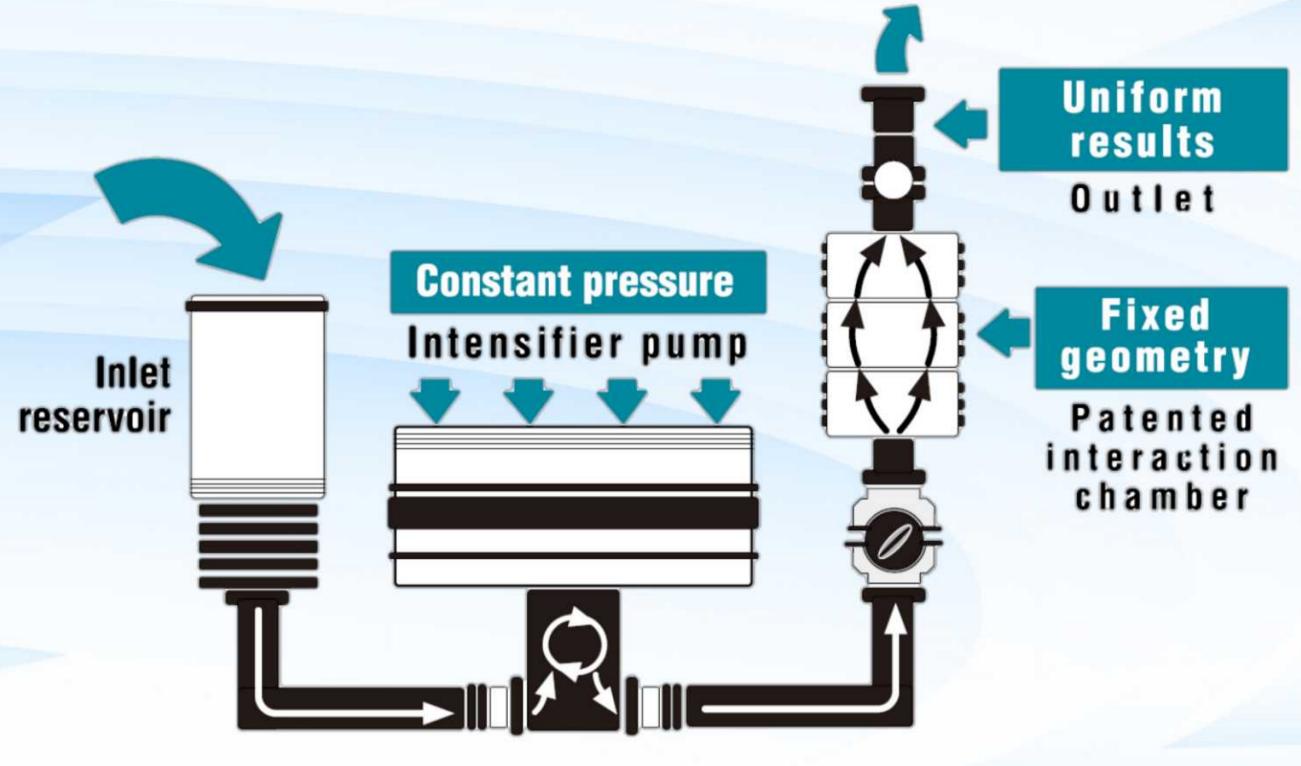
Extremely small orifice

Orifice size selectable according to application direction, min. 75µm.

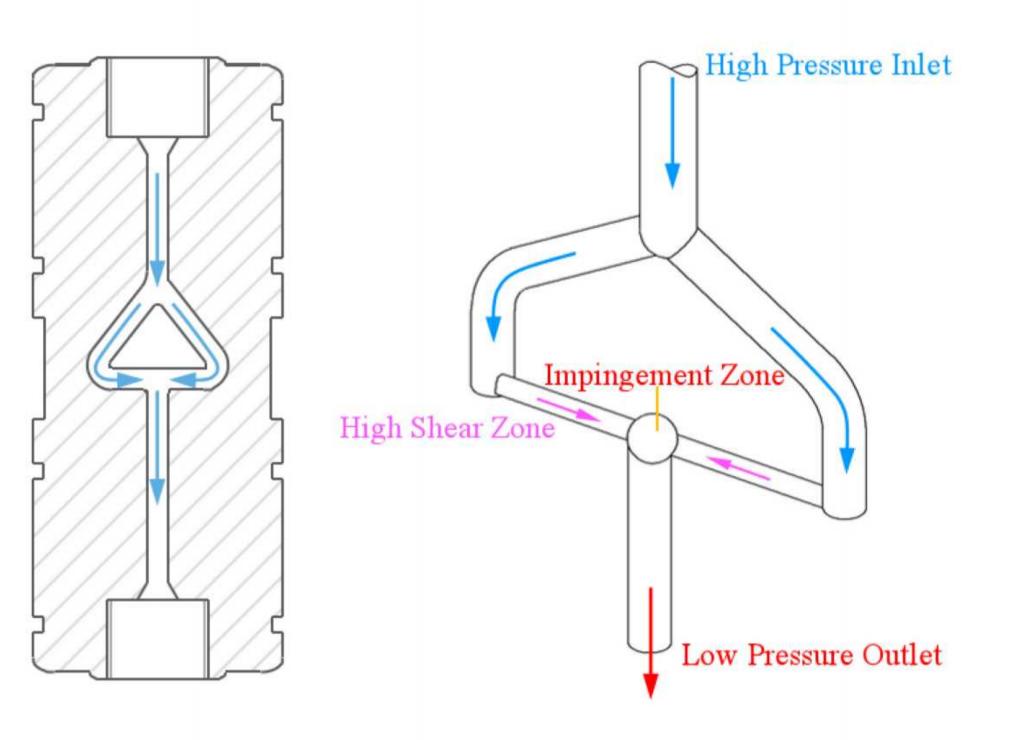
Improvement of material properties

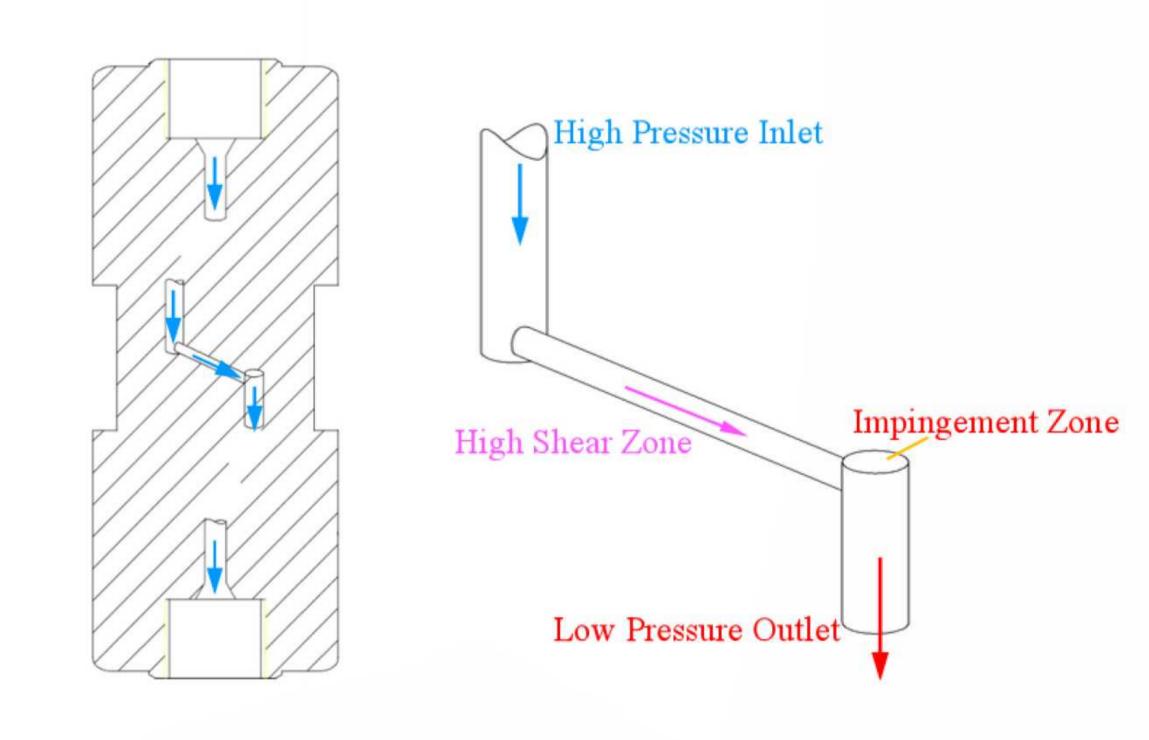
Improve the emulsification, solubility, stability, transparency and other properties of the material. Particle size refinement, narrow distribution.

I Working Principle



High-pressure microfluidization technology is to use hydraulic pressure within 2000bar to pass the material through the special diamond micro-orifices (Y-type and Z-type) in the interactive chamber, to form the strong shear, impact and cavitation of supersonic jet, to emulsify and disperse the particles in the material at nanoscale, and then to improve the product's transparency and aesthetics, stability, encapsulation rate, osmosis and absorption, slow release of the target, to reduce the allergy, to mask the odor, and to improve the taste and so on.



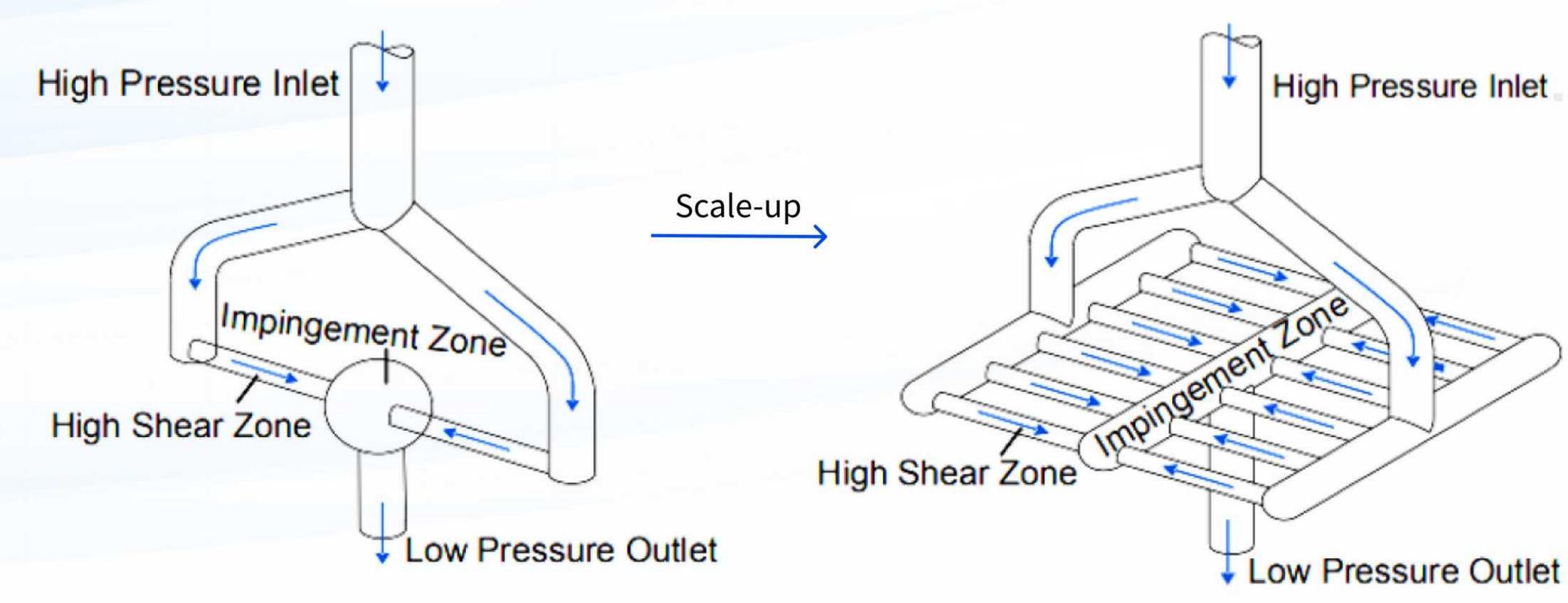


Y type single channel

Z type single channel

Y type chamber has better shearing effect, generally used as emulsification system.

Z type chamber has better pulverizing effect and is generally used as dispersing system.



Micro-Channels, Y TYPE DIXC

Technical Parameter

	Model	YC-MH06	YC-MH24	YC-MH120	YC-MH250	YC-MH500
	Type	Lab	Pilot		Production	
	Maximum operating pressure	1800bar	2000bar	2000bar	2000bar	2000bar
	Flow rate (related to pressure, viscosity)	3-5L/h	≈24 L/h	≈120L/h	≈240L/h	≈480L/h
	Minimum sample volume	20ml	120ml	120ml	120ml	120ml
	Dimensions (W×D×H cm)	71×42×35	80×80×130	180×74×145	180×74×145	180×150×160
	Weight	45kg	245kg	815kg	1000kg	2000kg
	Max. feed temperature	90°C	80°C	80°C	80°C	80°C
	Power	2.17KW, 220V, 50Hz	4kW, 380V/50Hz	18.5kW, 380V/50Hz	37kW, 380V/50Hz	75kW, 380V/50Hz
		single phase electrical	3 phase electrical	3 phase electrical	3 phase electrical	3 phase electrical