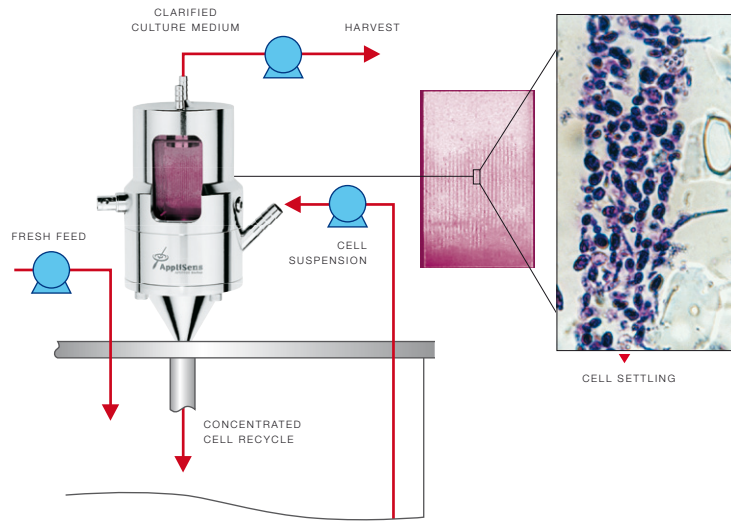


# BioSep, acoustic cell retention system

The Applikon BioSep system is a unique, cell retention device for high-density perfusion processes. Using high frequency resonant ultrasonic waves to separate cells instead of a physical mesh or membrane, it offers all the benefits of traditional devices but without their inherent problems and limitations. The BioSep, based on the technology of acoustic resonance, is a non fouling / non clogging retention system. The BioSep can be applied in both R&D (max. 1 L/day), process development and on production scale (1000 L/day).



Typical configuration of acoustic cell retention system



## Features

- Proven under cGMP conditions
- Easy to install and to operate
- Can be used in combination with any brand of bioreactor
- Long term cultivation possible (> 6 months)
- No fouling or blocking
- No damage to the cells
- High separation efficiency (> 95%)

## Applications

- Cell cultures
- Perfusion cultures.

## Specifications

<b>BioSep system</b>	<b>1L</b>	<b>10L</b>	<b>50L</b>	<b>200L</b>	<b>1000L</b>
Maximum perfusion rate	1 L/day	7 L/day	45 L/day	200 L/day	1000 L/day
Minimum perfusion rate	0.1 L/day	0.7 L/day	4.5 L/day	20 L/day	100 L/day
Separation efficiency	Up to 99% (depending on cell concentration and perfusion flow)				
Minimum cell concentration	2 x 10 <sup>5</sup> cells/ml (depending on cell size)				
Bioreactor connection	6 mm OD tube	12 mm OD tube	Mounted separately	Mounted separately	Mounted separately
Medium inlet	3 mm hosebarb	6 mm hosebarb	10 mm hosebarb	0.5" TC	0.5" TC
Return line to bioreactor	3 mm hosebarb	6 mm OD diptube	0.5" TC	0.5" TC	0.5" TC
Perfusion outlet	3 mm hosebarb	6 mm hosebarb	6 mm hosebarb	0.5" TC	0.5" TC
Weight	0.1 kg	0.5 kg	1.5 kg	13 kg	70 kg
Resonator volume	0.7 ml	7 ml	50 ml	290 ml	1450 ml

<b>BioSep Controller</b>	<b>APS 995</b>	<b>APS 990</b>	<b>APS 990</b>	<b>APS 992</b>	<b>APS 993</b>
BioSep Controller Power	15 Watt	150 Watt	150 Watt	350 Watt	1500 Watt
BioSep Controller Dimensions (DxWxH, mm)	Combined with my-Control	305x130x130	305x130x130	450x400x135	450x300x450
BioSep Controller Weight (kg)	Combined with my-Control	3.5	3.5	17.6	43