

Thalia / Clio SUP's

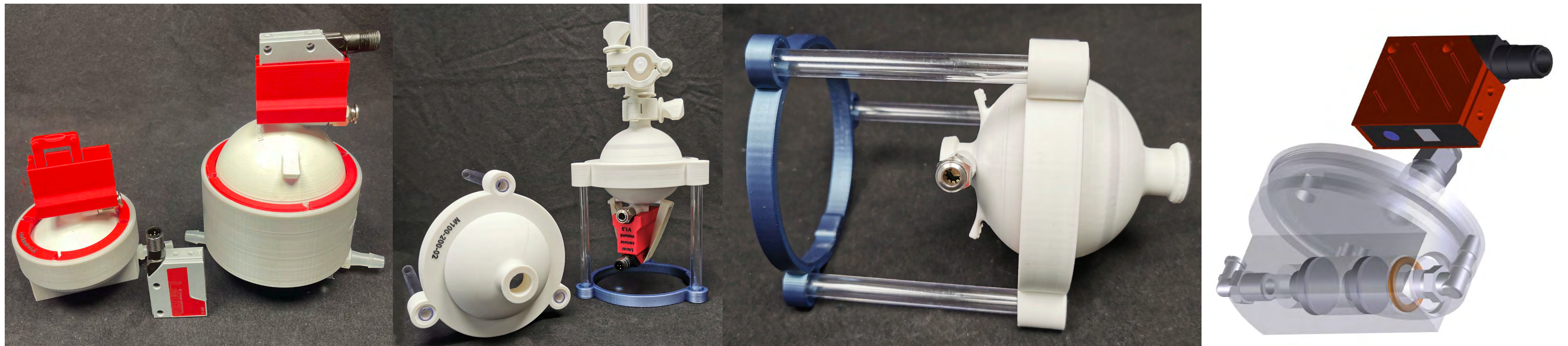
Tight controlled and scalable diaphragm pump's

Keywords: Scalable, programmable, LASER controlled, single-use capability, CerPhragm family

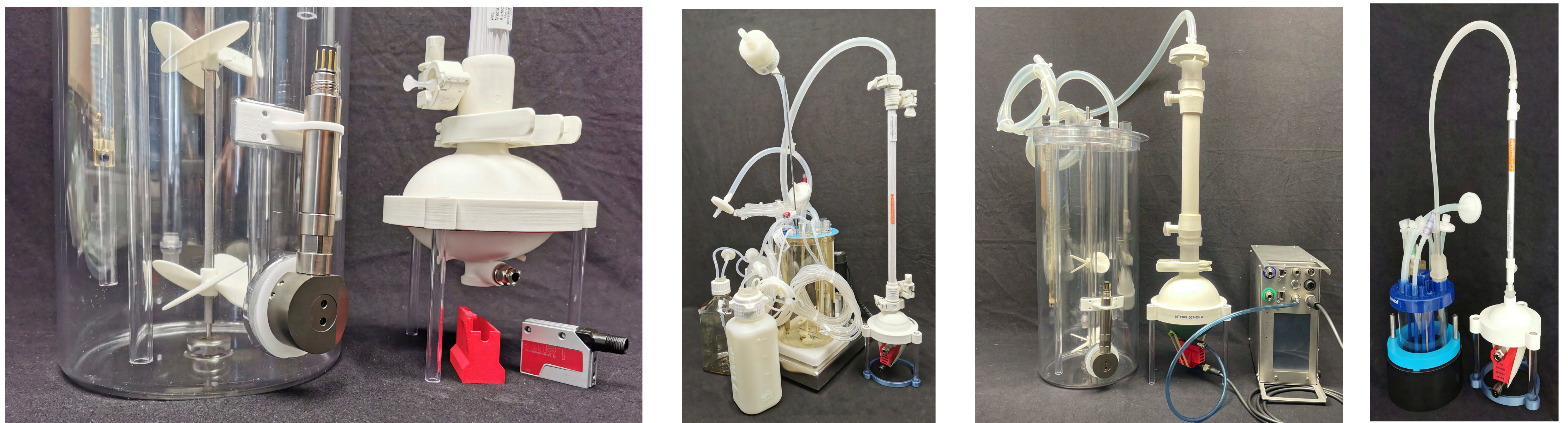
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Collection of fully scalable Thalia and Clio pumps and various sizes Hollow-Fibre-Filters (HFF). The innovative free floating diaphragm combined with the red LASER sensor & support is the key for an outstanding performance. Freedom to choose Beats-per-Minute, stroke volume between 0 - 100 %, velocity from zero to >10 m/s in any sequence and in real-time, repeat accurately, collect data from the Clotho Drive Units and via Lucullus, DeltaV, DasWare. Significant improvement over any existing pump - just whats needed to insure the HFF stays clean all through the process.



First photo show the Clio O-SUPs M80 and M100 separated by a LASER sensor. Second photo Thalia A-SUP M100 on foot and 3/4" HFF mounted on dome and red LASER sensor in support attached to the Clio M100 body. One Clio M100 horizontal arranged. 3rd photo Thalia M100 with visible drive-gas inlet and behind the window for the LASER sensor. 4th photo illustrate Clio O-SUP internal design with two passive silicone valves insuring fluid is concealed in one direction. The red tri-angular LASER sensor above the dome look through a transparent window reading out the diaphragm position in real-time with 0.1 mm accuracy. Allowing Clotho or Lachesis Drive Unit's to control diaphragm movements for accurate Beats-per-Minute, volume, velocity performance.



Various examples of end-user customized Perfusion-SUBs. From left: 13 liter Vessel-Volume (VV) equipped with Hamilton InCyte ARC sensor mounted on the bio-mass pacht. Thalia M140 A-SUP body is mounted with a 1 1/2" HFF on body. Drive gas connection next to LASER window. In front a LASER and its red support. 2nd photo show a CellRetention-3200 mounted on a Magnetic-Stirrer-Table (MST) driven by black servo motor seen behind MST. Advanced assembly with 3 bottles. Thalia M100 and 3/4" HFF. 3rd photo CellRetention-13000 next to Thalia M140 and Clotho drive unit. 4th photo show bioBLU 0.3 converted to CellRetention-300 connected to Thalia M80 body mounted with a Luer-Lock HFF and the red LASER sensor on the dome facing down.