

# Products for Downstream Process Development



## **Downstream Process**

Intracellular products Cell disruption Filtration Purification Purification Finishing Concentration Finishing Finishing Finishing Finishing





### Cell Disruption Systems

Constant Systems Cell Disrupter Systems are simple, quick and easy to use with standard electrical supply required only. The Cell Disruption Systems enable you to work with sample volumes ranging form 0.5 mL up to 24 L/h with a pressure of up to 40.000 psi/2700 bar. This allows you to process solid, frozen tissue, viscous & liquid samples. Instantaneous high pressure - the sample is momentarily trapped in the high pressure cylinder and acting pressures instantly move from ambient to the set pressure. The precise and consistent hydraulic control ensures that consistency is maintained during each and every process giving you certainty in repeatability with 99% of the samples being processed at the set pressure.



### Sensors for Filtration, Dispensing, Metering

With its SciLog®-range of pre-calibrated single-use sensors for pressure, temperature and conductivity Parker is setting the benchmark in this field. These sensors are characterized by high precision measurements even after gamma irradiation, steam sterilization or extensive chemical treatment. Using the associated monitoring systems allows for simultaneous measurement and display of multiple sensors of the same or different type and their respective (differential) values. These sensors are also part of the intelligent and compact SciLog® BioProcess systems which are used to optimize and automate bioprocess solutions in different areas of filtration, dispensing and metering. Due to the scalability of all SciLog® components you can easily ensure consistency from R&D to production.



Quantasep®

### Simplicity and Power in Separation

The Quantasep<sup>®</sup> chromatography systems simplify separation processes while maintaining critical quality attributes and keeping a small lab footprint. The software is fully 21 CFR part 11 compliant and designed to fulfill end user's real-world requirements and being intuitive and elegant, the graphical user interface enables efficient programming of complex time- and event-based methods. With a variety of flow rates and models available, the systems allow for effortless scale up, while consistency is maintained even at the highest flow rates. Routine manual tasks can be easily automated with Quantasep<sup>®</sup>, freeing up time for other important projects. In combination with Superflo<sup>®</sup>, expect to elevate your biochromatography beyond the next level enhancing resolution, robustness and efficiency!



### Radial Flow Chromatography

Sepragen's pioneering radial flow chromatography systems will help you increase separation efficiency while maintaining critical quality and cGMP demands in your production. Due to a unique column design the flow path is consistently reproducible, resulting in sharper peaks throughout the entire process. The special architecture of radial flow overcomes previously known hard limits, enabling the systems to run on high flow rates while maintaining a low back pressure, impossible to other systems. Apart from ground breaking and perfectly for linearly scalable (50 mL up to 500 L) flow columns, precise, reliable and automated control systems (Quantasep® range) are available for complete integration into an efficient chromatography process.



# Overcome your Bottleneck in Protein Purification

The purification of proteins will no longer be a bottleneck in your workflow using a ProteinMaker®! The ProteinMaker® allows the simultaneous purification of up to 24 protein samples using parallel chromatography. Sample volumes from few 100 µL up to the litre range can be processed. Chromatography columns of various sizes of any supplier can be used. Different separation protocols can be applied to individual columns, different groups of columns or all 24 columns on the system. The UV-monitoring of each individual channel (280/254 nm) allows to collect the desired peak and allows to identify the deep-well position with your eluted sample. Using up to 24 identical columns simultaneously can give a "production-run" of several 100 mg up to a few grams of protein. Even more sophisticated multi-column purifications like the purification of antibodies involving consecutive purification on affinity columns followed by desalting using GPC can be performed.



Gator Bio Inc. Gator Systems

# Biolayer interferometry analysis system

Gator<sup>™</sup> systems are label-free analysis instruments based on next-gen biolayer interferometry (BLI) technology. BLI detects biomolecular interactions by immersing biosensing probes in samples. Gator<sup>™</sup> probes are micro glass rods with the distal ends coated with proprietary optical layers and surface chemistries. The ease of use, versatility, flexibility, and throughput of Gator<sup>™</sup> systems have enabled many applications in therapeutic development, manufacturing and life science research.



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