

CURSIV™

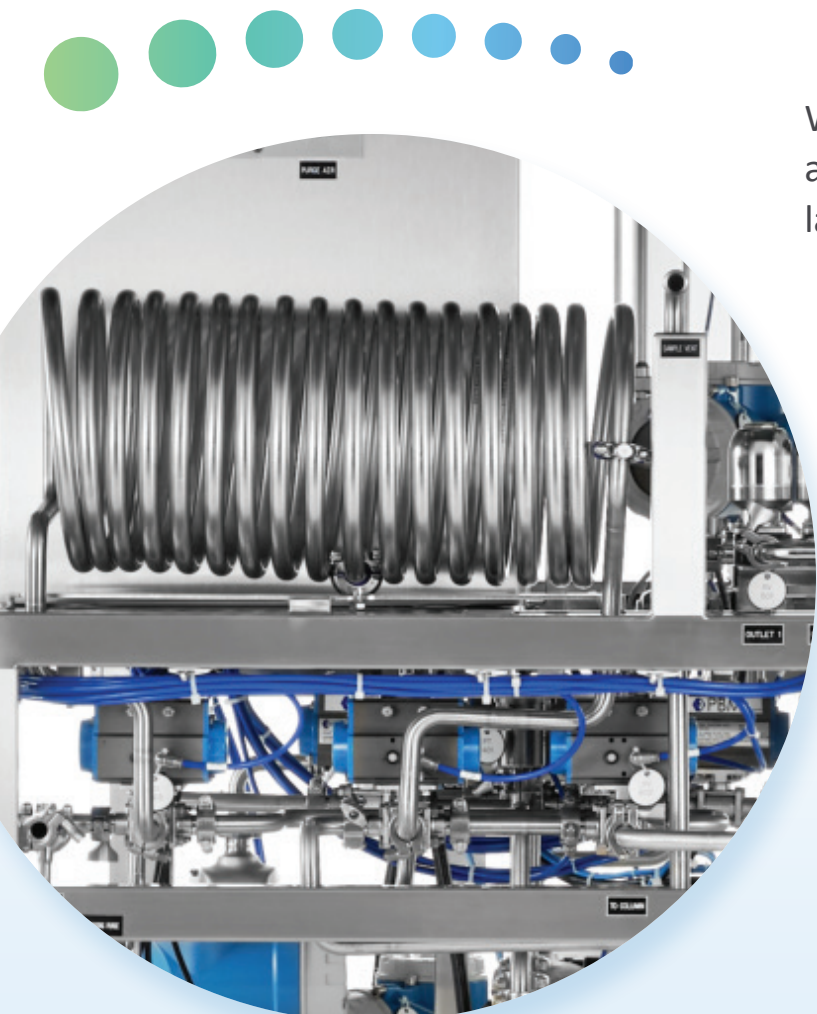
Liquid Chromatography Systems

Reproducible Gradient Formation and Cutting-Edge
Software for Today's Purification



Built For You.

At Asahi Kasei Bioprocess, we strive to deliver equipment that will increase productivity in your purification processes – including a range of Liquid Chromatography (LC) Systems designed to unlock efficiencies in small molecule, peptide, oligonucleotide, and microbial-derived protein purification. Our customizable systems, cutting-edge software, and comprehensive solutions cater to the unique requirements of your purification processes.



We understand that a one-size-fits-all approach does not work in the world of large-scale purification because different molecules and applications demand specific chromatography conditions. That's why we offer a range of LC Systems tailored to your needs. Whether you require a cost-effective flash chromatography system for small molecule purification, a sanitary Medium Pressure Liquid Chromatography (MPLC) System for oligonucleotides, or a High-Performance Liquid Chromatography (HPLC) System for insulin purification, we have the solution to meet your unique requirements.

Streamline Your Purification Process

Preparative- to production-scale LC remains a powerful separation process in pharmaceutical production. Asahi Kasei Bioprocess integrates flexible functionality and advanced automation into our scalable LC Systems to streamline your purification processes, reduce operating costs, and minimize downtime. Our systems are designed to purify microbial-derived proteins, small molecules and peptides, and oligonucleotides efficiently and reliably.

A Family of Systems for Your Unique Application



HPLC

High Performance Liquid Chromatography Systems



UHPLC

Ultra High Performance Liquid Chromatography Systems



MPLC

Medium Pressure Liquid Chromatography Systems

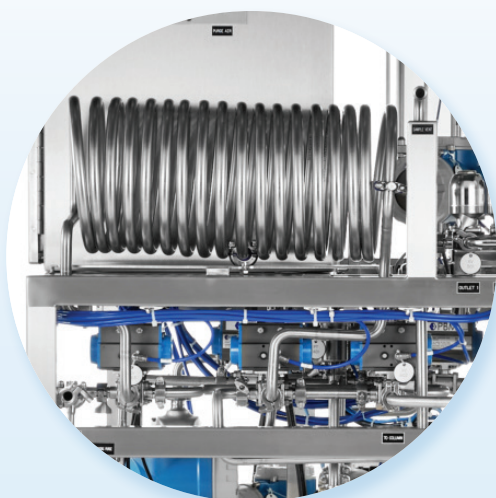


FLASH

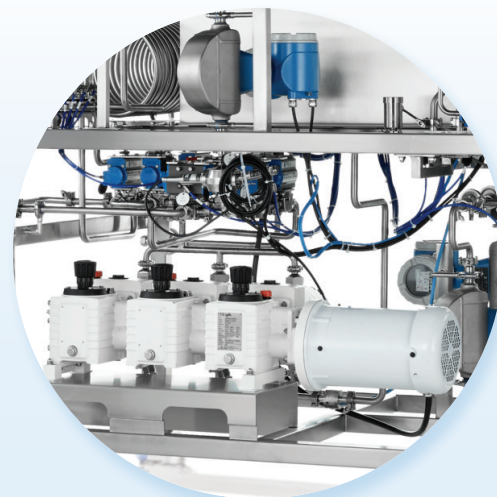
Low Pressure Liquid Chromatography Systems

HPLC Systems

For classic small molecule and small protein purification processes utilizing 10 to 15 μm chromatography media, our HPLC Systems meet the required pressure ratings while offering flexible gradient technology options. Whether it's normal phase, reverse-phase, or chiral chromatography, our HPLC Systems provide the versatility you need. We offer industrial and sanitary configurations to cater to different applications.



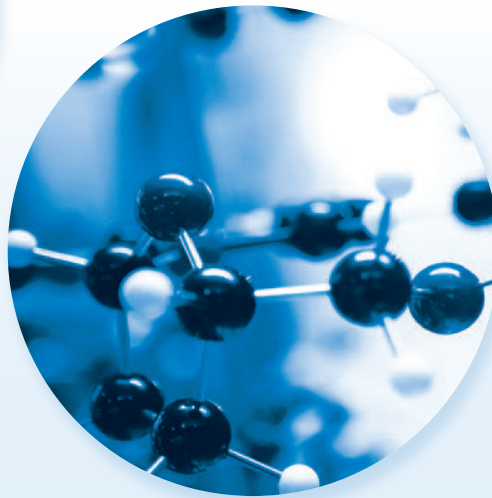
Microbial derived proteins



UHPLC Systems

With the trend towards smaller particle sizes in analytical chromatography, our Ultra High Performance Liquid Chromatography (UHPLC) Systems operate at pressures up to 200 bar.

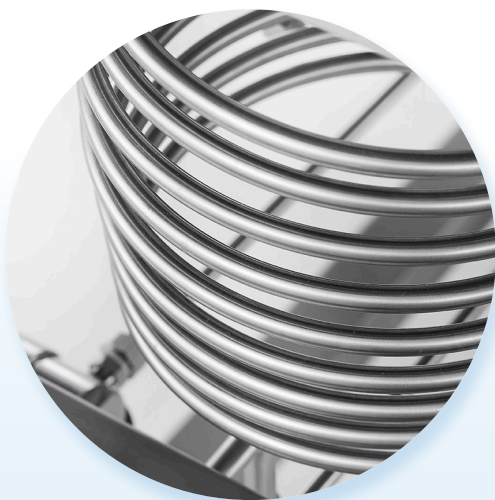
These systems enable consistent linear gradient formation and shorter run times, particularly for challenging peptide separations that necessitate the use of 5 μm reverse-phase silica gel.



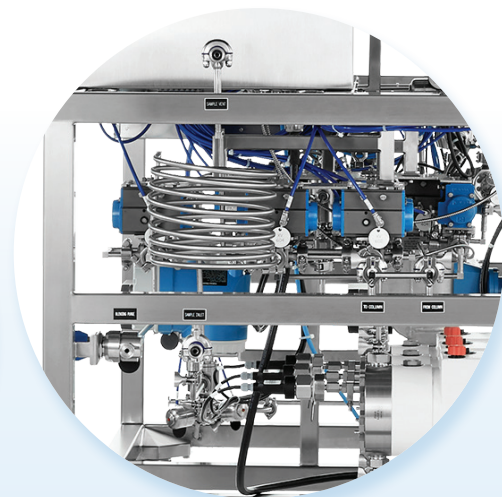
Small molecules and peptides

MPLC Systems

Purification of mid-sized therapeutics, such as microbial-derived proteins and oligonucleotides, is facilitated by our MPLC Systems. These systems accommodate 15 to 40 μm chromatography media, generating higher backpressures than typical systems. With ion exchange and reverse-phase gradient elutions, our MPLC Systems deliver reliable purification for a range of applications.

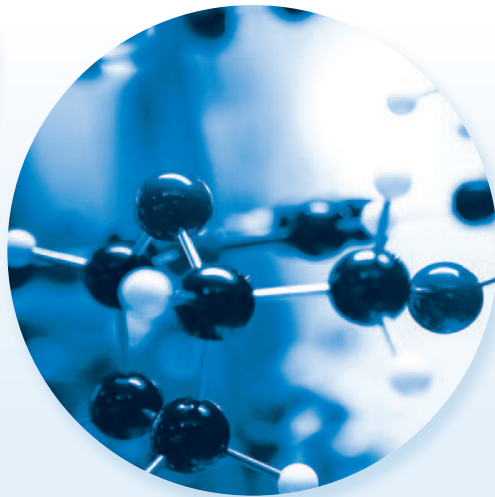


Oligonucleotides

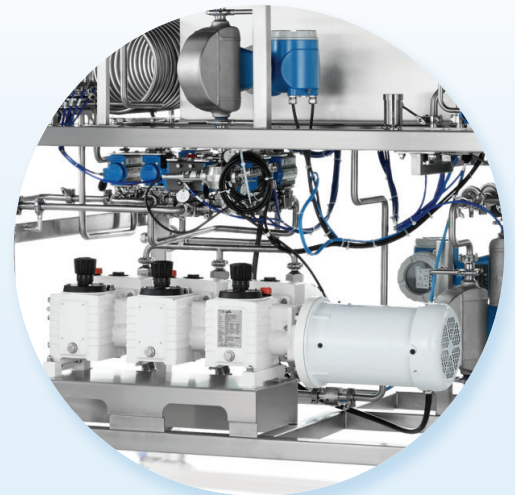


Flash Systems

Our Flash Chromatography Systems are designed for rapid cleanup of small molecules using 40 to 63 μm or larger irregular silica gels. These industrial purification systems, available for normal-phase and reverse-phase applications, operate at pressures up to 10 bar. With optional UV detection and automated fractionation, our Flash Systems maximize yields and reduce costs.



Small molecules and peptides



Recommended LC Systems

End Product	Chromatography Mode	Recommended LC System
Oligonucleotides	Ion exchange Reverse-phase	MPLC HPLC
Peptides	Reverse-phase	HPLC UPLC
Microbial-derived proteins	Ion exchange Reverse-phase	MPLC HPLC
Enantiomers	Normal-phase	HPLC
Small molecules	Normal-phase	HPLC
Small molecules (rapid cleanup)	Normal-phase	Flash

Customize Your Fraction Outlets

CURSIV™ LC Systems are equipped with various standard features that enhance the efficiency of your purification processes. These features include:

- » Broad gradient operating ranges
- » Low pulse flow to the column
- » Dual channel variable wavelength UV detectors
- » Pressure and flow measurement
- » Fractionation by volume, CV, UV, or percentage of peak height
- » Live and historical signal trending
- » Extension of the gradient during a run
- » Blend percentage hold
- » Built-in software phase for system clean-in-place (CIP)
- » Alarms and audit trails

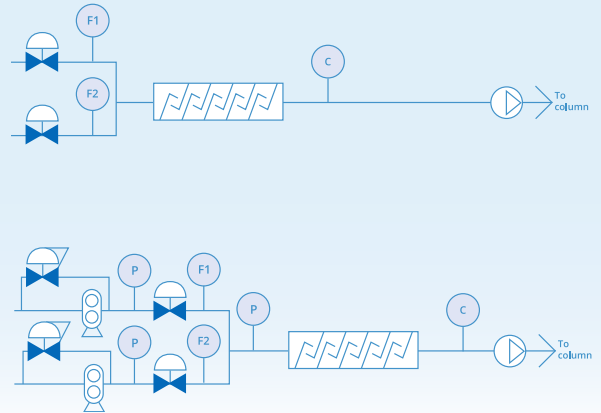


Gradient Mixing Technologies

We offer a range of gradient mixing technologies to meet your specific requirements:

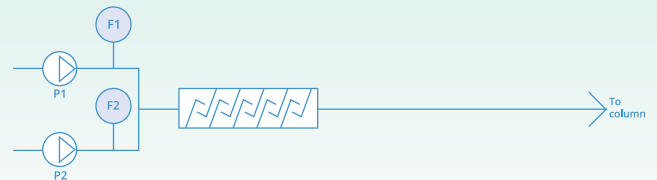
Low Pressure Gradient Mixing:

- » Control valves proportion eluents
- » Mixing is on the low-pressure side of pumps
- » Adaptive PAT control or flow control
- » Available for Flash, MPLC, HPLC, UHPLC



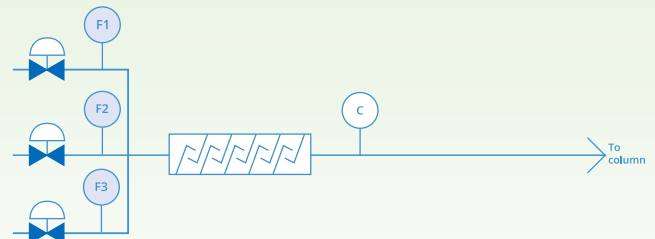
High Pressure Gradient Mixing:

- » Pumps proportion eluents
- » Mixing is on the high-pressure side of pumps
- » Flow control
- » Available for MPLC, HPLC



Ternary Low Pressure Gradient Mixing:

- » Three control valves proportion eluents
- » Mixing is on the low-pressure side of pumps
- » Flow control
- » Ideal for combination aqueous/organic elutions
- » Available for Flash, MPLC, HPLC, UHPLC



Choose from Industrial and Sanitary Flow Paths

We offer two flow path options to cater to different purification needs:



Industrial Flow Path:

Cost-effective solution for small molecule and peptide chromatography processes in organic mobile phases.

Rugged stainless-steel construction with threaded connections and compression fittings for leak-tight connections.



Sanitary Flow Path:

Designed for oligonucleotide or microbial-derived protein purifications utilizing mainly aqueous mobile phases.

Features sanitary eluent pumps, electropolished 316L stainless steel piping, high-purity ball valves, and zero-static diaphragm valve manifolds for fractionation. Minimizes carryover and supports good system cleanability.

Software Designed for You

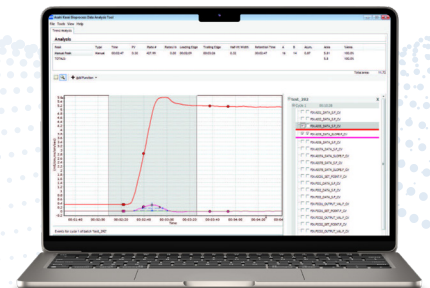
Our OCELOT™ System Control software allows quick and simplified configuration of methods by linking together preset step types such as Equilibration, Sample Loading, Gradient, Fractionation, and CIP. It offers:

- » Multi-step gradient programming in one simple step
- » Sophisticated fractionation options by time, volume, column volume, UV, conductivity, or percentage of peak height
- » End conditions based on time, UV, volume, column volume, conductivity, or other parameters
- » Our Data Analysis Tool (DAT) software automates key analytical chromatography functions such as area under the curve, asymmetry, height equivalent to a theoretical plate (HETP), frontal peak analysis (FPA), and overlay of historical trend data.

Automation Features

Our LC Systems offer various automation features to enhance your purification processes:

- » Manual or automated control options
- » Flexible programming of isocratic, gradient, and sample loading steps
- » Step regulation by time, volume, or column volume
- » Sophisticated fractionation routines for process development and production runs
- » 21 CFR Part 11 capability with electronic signature and audit trail
- » Data export capabilities
- » OPC compatibility
- » Customizable batch reports
- » Optional GAMP-5 lifecycle documentation



Process Control screen



Our Expertise, Your Confidence

The Fluid Management Business Unit of Asahi Kasei Bioprocess is devoted to solving therapeutic product safety, efficiency and purity challenges within the pharmaceutical and bioprocessing industries.

With technology platforms for virus filtration, inline buffer formulation, chromatography, and oligonucleotide synthesis, our bioprocessing systems, columns, and automation solutions advance GMP manufacturing of critical drug substances around the world. Built with pride, built with quality, built to exceed your high expectations. "Built for You."



Technical Support Network

A reliable technical support network is available throughout North and South America, Europe and Asia.

Warranty

We offer an extendable 1-year warranty, service contracts and a personalized level of service for peace of mind and timely support when you need it.



[REQUEST A QUOTE](#)

Technical Client Services

Technical Client Services (TCS), is a customer-centric interface to our product and science experts. Our TCS team will guide your process and engineering needs as your personal liaison for inquiries.

Contact us to learn more about how TCS can support your virus filtration and downstream processing equipment needs.



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