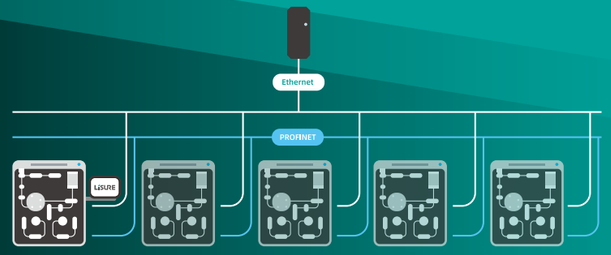
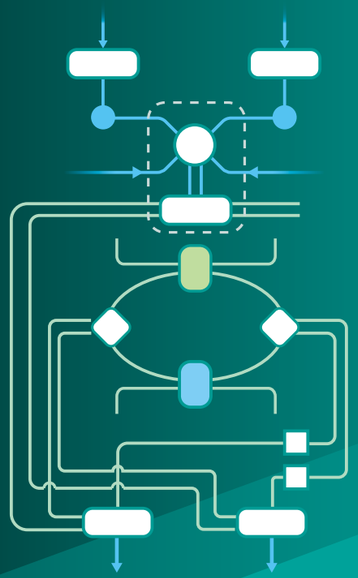
M++: Where R&D and Production Meet





Developing M++ was a journey. M++ is developed to specifically address one of the well recognized challenges in today's drug technology transfer: the lack of communications, the disconnects, and the silos, caused by different methods and platforms in different phases and different organizations throughout the drug development pipeline. It is our intention that M++ will enable PD and MSAT scientists to develop intensified and integrated processes on benchtop and to be able to work with production and engineering to implement their most effective, economical, and innovative processes to manufacturing floors by applying ASME BPE, DCS, S88, industrial data management framework at the earliest possible stage in the pipeline.

At Lisure, we believe innovation thrives through collaboration. Your insights and partnerships are vital in driving transformative advancements in the fast-evolving biopharmaceutical industry.

Connect with us today–Let's Shape the Future of biopharmaceutical industry together!

Lisure Technology Co.

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M++ UltraPilot 2025V1.0.0

LISURE
PURIFICATION MADE SIMPLE.

M++ UltraPilot

Tech Transfer Starting From Benchtop

Introducing M++ UltraPilot

cGMP

Modular

Multi-Functions

DCS / S88

L3 Interfaces

M++ is a cutting-edge innovation in downstream bioprocessing, a pilot-scale modular benchtop system that can run Chromatography, TFF, Depth Filtration (NFF), SSTFF, inline dilution (ID), and various process intensifications (PI) including 4C Continuous chromatography and many cycle-time-reducing integrated processes.

M++features industrial cGMP compliant ASME BPE hygienic flow paths, innovative configurations for inline buffer exchanging and unclarified feed loading for chromatography, and industrial DCS control platforms, all for built-in scalability from benchtop to commercial production. Common data management framework on top of DCS provides much desired support for CMC submission and is aligned with the industrial trend towards digital transformation.

M++ Functions and Features

- 60-750ml/min, 6bar, Tubing ID 3.2mm
- Multi-Functions: CHR/NFF/TFF/SSTFF/RT-F/CinBE/IDC/4C/Holding
- Connected and Continuous Capability (Multi-Units on Same DCS)
- Intensification Strategies Readily Available (Powerful Integration Capability)
- Hygienic/Self-Cleanable/ASME BPE Design for All Flow Paths
- cGMP Compliant DSP System/Perfect for CGT Production
- Scalability From Pilot Scale (M++ Block/DCS/S88 Recipe)
- CMC Data Support From Pilot Scale (Histori-an/Reporting/Analytics)
- Digital Transformation (Digitization/Common Data Frame/L3 Interfaces)

M++: Configuration Language for Process Intensification (PI)

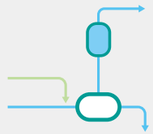
Basic Process Configurations

Standard Chromatography (Gradient)

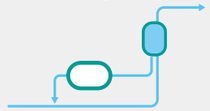
Standard TFF (Tubular/Tankless)

Steady-State Continuous TFF for UF/DF (SSTFF)

Inline Buffer-Exchange For Direct chromatography Loading

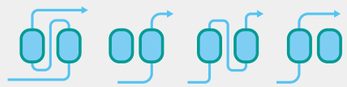


Particle handling for direct chromatography loading (Non-EBA)



Inline Dilution Buffer Prep (4 Way)

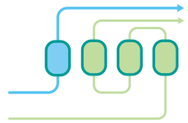
Multi-Column 2C chromatography



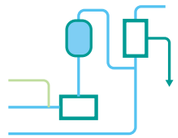
Standard NFF/Depth/Nano Filtration

Intensified Configurations

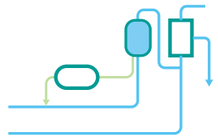
Multi-Column 4C Continuous Chromatography



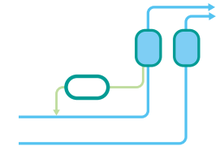
Combining 3 Steps: TFF/CHR/TFF



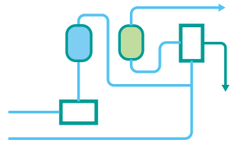
Combining 3 Steps: NFF/CHR/TFF



Combining 2 Steps: Cont. NFF/CHR



Combining 4 Steps: TFF+CHR+TFF+CHR



Combining 6 Steps: 3 x (TFF+CHR)