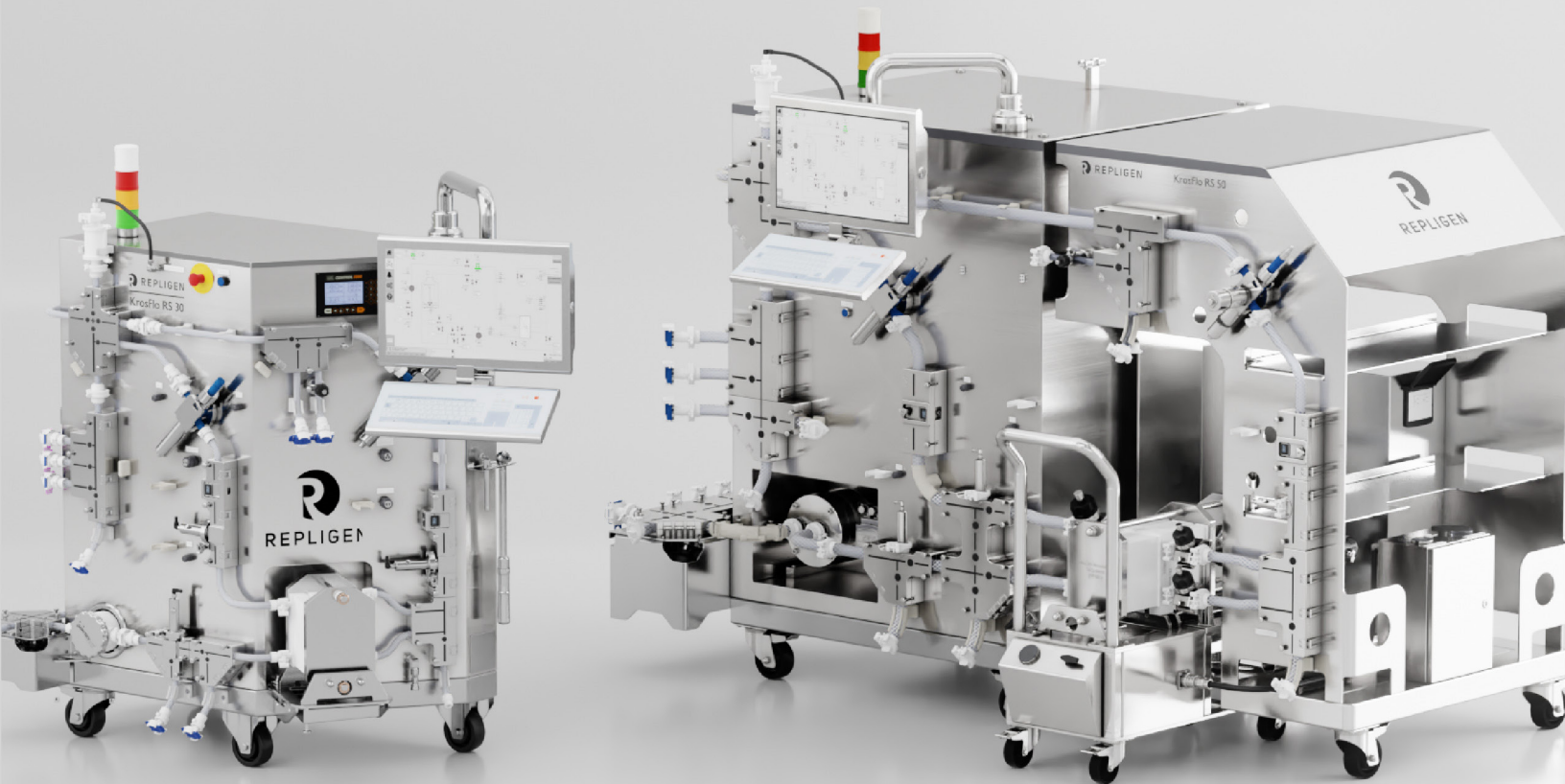


# **REPLIGEN**

 **The world's most advanced TFF systems**



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# TFF reengineered for a world of new modalities

*In an era of new modalities, developers are striving to maximize efficiency.*

*The new KrosFlo® RS TFF systems by Repligen empower users through maximized recovery, full automation and effortless scaling.*



100%

## Full automation from sanitization to recovery

With significantly more controlled valves throughout the flow path and our robust automation platform, users can automate recipes throughout their entire processes from start to finish without intervention.

# Maximize recovery of high value modalities

*Repligen technology combines injection molded tubing, over-molded connections, and valve blocks to decrease total hold-up volume and maximize recovery.*

1

Injection molded tubing

2

Over-molded connections

3

Valve blocks



## Prioritizing the user experience

Repligen TFF experts left no stone unturned when designing these systems. Every pump type, line size, and component has been carefully curated and analyzed to provide users with peak filtration performance.



# Effortless scaling

with a single standardized platform

*The KrosFlo® RS family maintains a series of shared industrial grade components and automation capabilities across all systems.*



With the same software, hardware, controls, process parameters and cGMP compliance built into every system,  
**process change challenges in scale-up are removed**



## Maintaining excellence across industry standards

Dedicated to providing high quality solutions, Repligen ensures industry standards are met across all systems produced.

- Compliant with UL, CE, RoHS, REACH
- CFR21 Part11 Compliant
- Good automated manufacturing practice (GAMP 5, Category 4)
- Single use Manufacturing in ISO 7 Clean Rooms, ISO 9001: 2015; SAL 10-6 claim  
Particulate monitoring claim USP 788, Endotoxin Claim  $0.25 < \text{EU} / \text{ml}$

# Responsive and intelligent mixing for high Concentration factors

Achieve concentration factors of up to 100x with Tulip Tank technology.

This square, self-baffling vessel features a 3-liter sump and dual impeller system.

Tulip Tank available with KrosFlo® RS 30 & RS 50



Control process

Measure Weight

KrosFlo® RS 50 / 5 – 10 m<sup>2</sup>

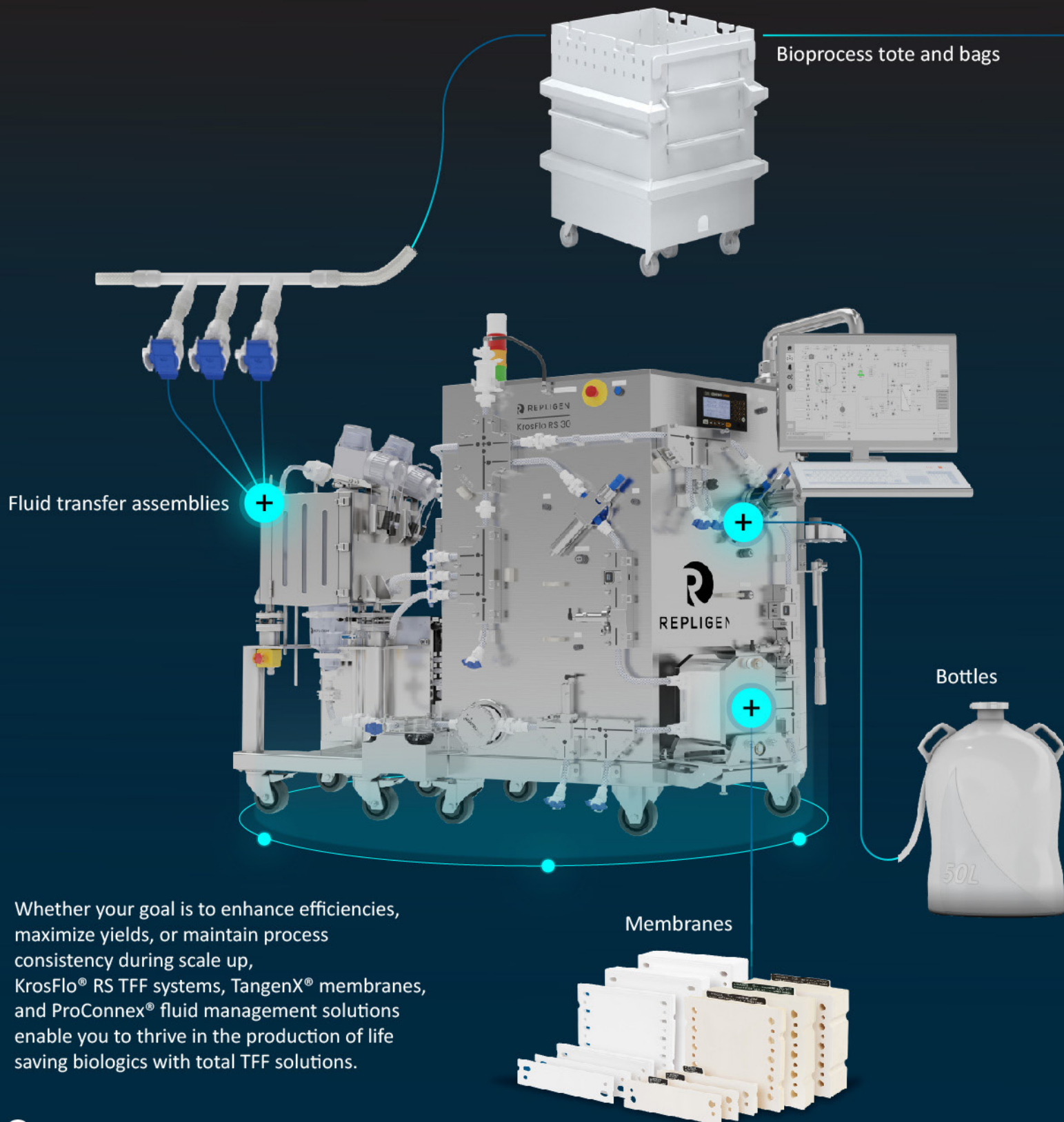


## Deliver working volumes as low as 1.5L with intelligent mixing

As fluid levels drop, the dual impellers independently adjust speed to reduce harmful surface interaction while automated valves adapt retentate flow to avoid damage to product upon entering the tank.

# Total TFF solutions across your unit operation

*Beyond systems, Repligen also offers filters, bottles, totes, and single-use assemblies for a complete solution.*



Bioprocess tote and bags

Fluid transfer assemblies

Bottles

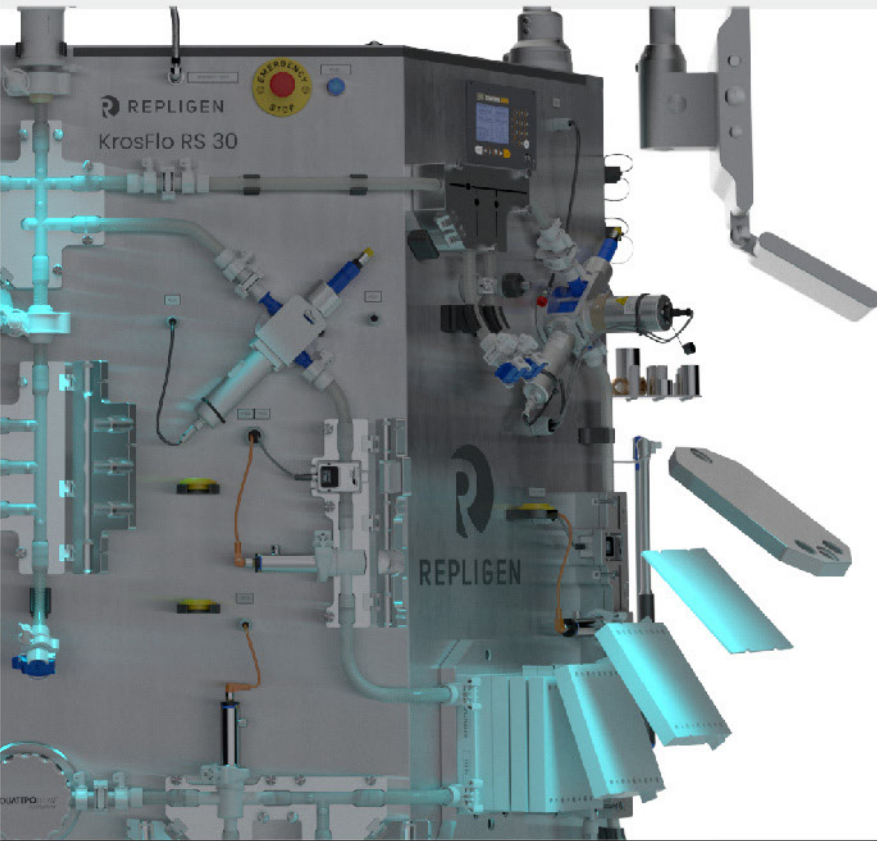
Membranes

Whether your goal is to enhance efficiencies, maximize yields, or maintain process consistency during scale up, KrosFlo® RS TFF systems, TangenX® membranes, and ProConnex® fluid management solutions enable you to thrive in the production of life saving biologics with total TFF solutions.



# Robust membrane solutions for efficient ultrafiltration and diafiltration

Reliable, scalable, and cost-effective filtration solutions.



## Single-use, closed, and reusable TangenX® Cassettes

... and, we make hollow fiber filters too



## Same great membrane, in your format of choice

TangenX® TFF Cassettes offer advanced membranes in the broadest range of formats. Execute process development with reusable or single-use and seamlessly transition to closed devices for single-use manufacturing.



TangenX® SIUS Single-use Cassettes



TangenX® SIUS Gamma Cassettes



TangenX® PRO Reusable TFF Cassettes



# Single-use excellence

through an agnostic supply chain approach

*The single-use solutions you need,  
when you need them.*



Learn more at

[repligen.com/fluid-management](https://repligen.com/fluid-management)

ProConnex<sup>®</sup> single-use fluid management solutions enable you to control, transfer, contain, and connect throughout your entire workflow with nearly limitless customization options built to meet your unique needs. Our open-source approach offers supply chain management of your complete assembly, providing the flexibility and security of supply you need to move your process forward.



From upstream to downstream, between every system, **ProConnex<sup>®</sup>** connects it all.

# Peace of mind through a strong supply chain

*Many of the processes required for building the systems, flow paths, and filters are done in-house. From design and manufacturing to molding and assembly, we do it all with the goal of maintaining a strong supply chain and best-in-class lead times.*



## Support and services that revolve around you

With each instrument, we have a fully-trained Field Service Engineer that will assist and help you every step of the way:

- System set up and verification
- Site Acceptance Test
- Basic user training
- Optimization consultation
- Preventative maintenance
- Extended warranties



*KrosFlo® RS 20 with Hollow Fiber*





## About us

Since 1981, Repligen has been inspiring advances in bioprocessing through the development of flexible, single-use manufacturing solutions. As an innovation leader and driver of disruptive technologies, we have an established track record of providing first-to-market solutions coupled with unparalleled expertise across workflows.