SARTORIUS

Success Story

Simple Orchestration of Multiple Unit Operations in the Resolute® BioSC

Case Profile

Company Type:
Medium | Large Biopharma, CDMO

Related Molecule:
Proteins, mAbs , biosimilars, bioconjugates, vaccines, mRNA (low pressure steps), plasmid

Related Process Steps:
Chromatography capture, polishing, viral inactivation

Biopharmaceutical downstream processes often require multiple unit operations, each with its own equipment, recipes, and manual interventions. This complexity increases footprint, lengthens processing time, and raises the risk of operator error. By adopting Resolute® BioSC, production facilities can consolidate these operations into a single automated system, reducing manual handling, process time, and overall footprint while enhancing consistency and efficiency.

Challenge

- Lengthy process times that limit production capacity
- Large equipment footprint, constraining facility space
- High level of manual operations consume resources and increase risk

Provided Solution

- Resolute® BioSC system to consolidate multiple unit operations—capture, viral inactivation, polishing 1, and polishing 2—into one fully automated platform, reducing footprint and process time
- Expert guidance on system configuration and recipe development to ensure alignment with process requirements
- Dedicated support in using the Resolute® BioSC recipe editor to define recipes for each step and seamlessly link them into a connected process

Before

- Three chromatography skids
- One pumping skid for viral inactivation
- Multiple surge tanks
- Specific recipes for each step

After

- Connected downstream process
- One system and one control software
- Fully automated from capture to polish

10–15×
footprint reduction

30%
process time reduction

Fully automated operations
from capture to polishing

Four systems replaced by one
Resolute® BioSC system