

BatchEM™ Centrifuge Solution

CENTRIFUGE HIDDEN COSTS

The capability of the centrifuge has changed considerably in recent years. Once thought to be a simple unit operation dedicated to a specific product requiring little to no automation has been transformed by the demanding pharmaceutical and biotechnology industry into a highly efficient, extremely flexible, multi-product and multi-functional piece of equipment. This transformation has forced the equipment skid manufacturers and customers alike to apply state of the art software automation control, including recipe management to operate today's centrifuges.



Photo Courtesy of Holland Applied Technology

CENTRIFUGE COSTS

Centrifuge applications lacking or having misapplied automation technology translates into hidden cost to customers by limiting equipment usage, loss production, and unnecessary or numerous equipment cleanings. Moreover, many equipment suppliers provide custom software applications which typically are inflexible per design, so that any sequence changes require an expensive programming specialist. This limits or eliminates creative sequence experimentation, multi-product or multi-pass configurations, and development of product specific cleaning strategies, resulting in overall lower equipment utilization and process inefficiencies.

BATCHEM™ CENTRIFUGE SOLUTION

Cascade Solutions has addressed this industry issue by combining leading edge control design with an innovative recipe management layer, **BatchEM™** allowing users to configure any number of process recipes or cleaning strategies, not re-program them.

CENTRIFUGE SOLUTION

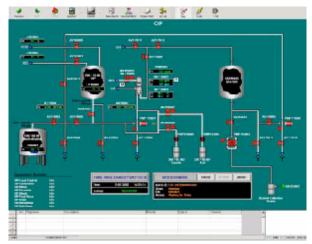
Cascade Solutions' innovative engineering approach disassembles the typical operation of the centrifuge into small, stand alone Equipment Modules such as: Process Feed, Concentrate, Flush, Rinse, CIP, and Shutdown. With **BatchEM**TM, the process modules can be flexibly accessed and independently executed with an easy-to-use interface for single or multi-product configurations and creative cleaning strategies resulting in high equipment utilization.

KEY FEATURES

BatchEM™ Centrifuge Solution offers the operators and engineers a rich and comprehensive environment to design, commission, operate, and validate the Centrifuge Skid. The following describes the solution's key features:

- Run process modules independently or within a recipe
- Point and click recipe changes and process set points

- Drag and drop recipe creation
- Easy to use batch creation wizard
- Batch message window
- Automatically assigns BatchID for batch reporting and racking
- Intuitive operator interface
- Comprehensive data management package for batch reports and audit trails
- Adheres to industry standards 21 CFR Part 11 and ISA S88



Developed by Process Engineers for Process Engineers