Effective removal of product residues is becoming increasingly difficult within the FDA regulated life science, pharmaceutical, and specialty food industries – not only due to complicated facility & equipment designs and complex product formulations, but also due to strict regulatory & validation requirements.

Our CIP Cycle Development program is designed specifically to assist you in evaluating, testing, and determining cleaning process (-es) - using all critical process parameters - to best meet your specific (validation) needs, while considering facility & equipment designs, and regulatory compliance issues.

Typical uses & applications:

**API (Chemical):**
- IBCs
- Drums & bins
- Reactors

**Specialty Foods:**
- Cone & V-blenders
- Drums & IBCs
- Mixing tanks

**Solid (oral) Dosage Form:**
- Fluid Beds
- Coating pans
- High shear mixers
Our CIP Cycle Development program is specifically designed to address, evaluate and resolve critical process and engineering issues as early in the project as possible through our well-proven, step-by-step, systematic approach and method, as illustrated below:

Through these systematic groundwork studies & tests the CIP Cycle Development program ensures that:

A) Engineering and cleaning validation are united;
B) Successful and validatable cleaning method and approach are incorporated into the conceptual and/or preliminary engineering design phases;

Other Cleaning Related Equipment & Services:

- High impact, portable CIP units
- Full TACCT, decentralized, CIP/SIP units
- Static & Dynamic Spray devices
- Self-contained Cleaning Racks
- Cleaning Process Modules
- Detergent dosing units
Proof-of-Concept Testing

A cornerstone in the CIP Cycle Development program is the evaluation test, and determination of critical cleaning parameters (TACCT). McFlusion provides bench scale and full scale testing. Conducted off-site using test equipment and/or on-site on your production equipment.....

**Bench scale testing**
Our program starts with creating a cleaning baseline for the product removal chemistry (chemical type, concentration) that is based on empirical test data through bench scale testing on real product soil (-s) or representative placebo products, using SS coupons or other test equipment.

**Full scale testing – off and/or onsite**
Our program continues with evaluating and determining the remaining TACCT parameters, action (pressure/flow) and (spray) coverage, using our full scale test equipment:

- High impact CIP units
- Static & dynamic spray devices including adapters
- Inline measurement of critical cleaning parameters; temperature, pressure, flow, conductivity.....
- Various vessels w/built-in accessories to mimic your production equipment

McFlusion provides proof-of-concept, thereby securing a successful project implementation.

**Other Cleaning Related Equipment & Services:**

- Cleaning adapters & Accessories
- Formulated detergents
- Spare parts
- Preventive maintenance
- CIP cycle development
- Phone support
The McFlusion Difference

We specialize in providing complete (life-cycle) process solutions for cleaning and sterilization that are performance based & result oriented.......