

CIP – Clean In Place

Dispelling the myths

Ball Valves



- NOT CIP'able, even if 3-A design
- Must be disassembled and cleaned out of place

Final Rinse Tank



- Should have NO foreign material or scale build-up
- Any foreign material means you're rinsing with dirty water!

Heat Exchanger



Figure 3. Example of a heat exchanger opened for inspection after CIP cleaning.

- Commonly missed inspection point
- Look for damage or build-up

Spray Balls



Ensure:

- Correct position
- Shape/type
- Full coverage
- Inspectable
- No foreign material
- No damage

COP



Courtesy of Mike Cramer

Figure 5. Example of COP tank used for small parts.

- Clean out of Place
- Pumps
 - Ball Valves
 - Angled tubing
 - Gaskets
 - Other parts that can't be CIP'd

Dead Zones

- Prime harborage for bacteria
- Consider design to eliminate

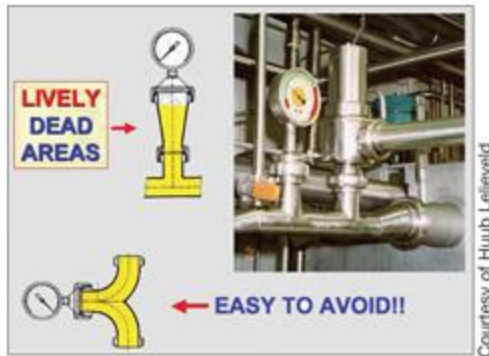


Figure 2. By reengineering the configuration of these pipes through which both product and CIP cleaning fluids or sanitizing steam flow, dead areas in which residues or bacteria can attach are eliminated.

Strainer

- Prevent reintroduction of foreign material after washing
- Install on return of CIP washing solution

Validation

- Time
- Temperature
- Flow Rate
- Pressure
- Conductivity
- Pump/Valve Sequencing
- Chemicals



Questions?

