

Product Application Brief

Facts about cleaning applications using Pertoform cleaning products Production cleaning of aluminium tube components between manufacturing processes and for final cleaning

Cleaning process using Lenium® ES Solvent

- After cutting swaging, drilling and prior to welding, various aluminium tube components used in auto manufacture are cleaned in a 2 sump dip vapour degreaser using Lenium® ES solvent.

Parts are racked to ensure drainage from internal surfaces from internal surfaces and the racks are fed by computer controlled transporter into and through the Kinetic® degreaser, retrofitted with the unique VapourLoc® control system

- The basket of parts is first lowered into the vapour zone above the degreaser's boiling sump to for a predetermined period where Lenium® ES vapours condense on the parts to remove oils and particle matter on the surfaces of the parts.
- Parts are then immersed into the clean rinse ultrasonically agitated sump to remove trapped particulates, swarf and soils
- A final vapour rinse in Lenium® ES vapour ensures that all surfaces are free from soils.

Materials of Construction

Aluminium Tube.

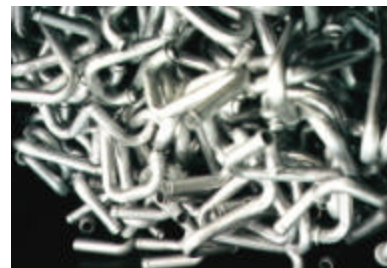
Soils and Contaminants

- Machining oils
- Cutting Fluids
- Aluminium chips and fines
- Manufacturing soils and particulates

Tubes Racked for cleaning



Randomly placed tubes in tote tray



Cleaning is Complex we have Simple Solutions

Previous method of Cleaning

Items were randomly placed in tote trays and baskets prior to being transported through an unmodified CFC cleaner containing HCFC 141b solvent.

Major Disadvantages of previous Method

- Solvent consumption was unacceptably high.
- Vapour containment was ineffective with resulting high concentrations of vapours in work area.
- Degreased components had an oil film adhering to the surface, which inhibited subsequent welding operation.

Major Advantages of Lenium® Cleaning System.

Conversion to Lenium® ES and retrofitting of VapourLoc® system resulted in:

- Faster Cleaning
- Solvent conservation. **Consumption fell 66%**
- Operating Cost Reduction of 21% per annum
- Cleaner parts resulting in:
 - ✓ More efficient welding
 - ✓ Faster welding
 - ✓ Less welding rejects
 - ✓ Lower welding gas consumption
- Low solvent consumption, reclaims and reuses the solvent and vapours.
- Solvent recycling reduces waste and disposal costs.

