



TECHNICAL  
RECONDITIONING

# Technical Reconditioning



Property Damage  
Restoration



Temporary  
Humidity Control



Property Damage  
Prevention



APPLICATION

## Overview

It is often believed that replacement rather than restoration is the simplest, most practical and cost effective route for insurers to take when machines are damaged. In reality, the true cost of replacement will in many cases far outweigh any restoration cost once you take into account the need for original manufacture and its inherent costs on the environment in terms of raw material sourcing, processing, energy consumption and distribution.

Munters maintain that by restoring rather than replacing, the ecological impact is reduced, fulfilling both a corporate social responsibility as well as an ethical one.

Munters technicians can assess the level of damage to items and provide you with a recommendation on whether such items can be successfully restored. A range of technologies can be used to return items to pre-incident condition including:

- Ultrasonic baths
- Ozone treatment rooms
- Document and electronic restoration
- Dry ice blasting.

Munters technicians assess the chemical damage generated by fire or water through such calculations as surface chemical contamination measurements. The electronic Print Circuit Board (PCB) is critical to the future functionality of the item and therefore the cleanliness of the board and its components is critical. The more components held on the PCB and the proximity of the conductive strips, the cleaner the PCB surface must be to guarantee the proper electric surface characteristics. Surface cleanliness values are measured by established technical specifications as JST or Mil Standards.

In the presence of heavy contamination, a chemical procedure can be used. Chemical procedures guarantee the removal of chemical contamination, the removal of corrosion products, passivation of metal surfaces and avoid damaging any protective coatings. In case of slight contamination and powdered parts, dry procedures such as 'brushing and sucking' or carbon dioxide blasting are considered.



Technical reconditioning of a steel forming production line.



# Technical Reconditioning



## PROCEDURE

Munters technicians employ a robust and traceable procedure for electronic reconditioning including:

- Complete dismantling using a labelling method to guarantee traceability of all operations
- Masking or removing of components
- Treatment in sonic bath of all parts
- Application of decontaminant solutions
- Rinsing using deionised water to ensure no conductive impurities are left behind
- Pre-drying using compressed air
- Heating in a thermostatic and ventilated oven using a thermodynamic window
- Final drying in vacuum box
- Final inspection to verify the restoration results
- Reassembling
- Electric isolation measurements (where applicable)
- Power on test.

## RESULTS

Munters have for years, been achieving a restoration rate in excess of 50% and for light and medium damaged machine, a rate of over 96% - not just delivering significant cost savings to everyone concerned but also considerable environmental benefits by reducing disposal volume and the inherent costs associated with the manufacture of replacement goods.



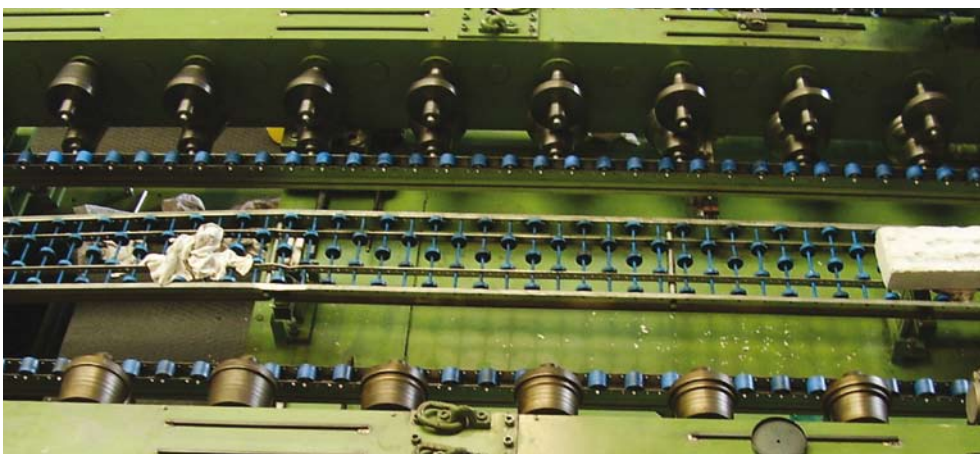
Decontaminated production line.



Awaiting reconditioning following a fire.



Stabilisation of production line.



Detailed decontamination of affected components on production line.

## BENEFITS

Levels of cleanliness comply with industry standards. In fact, the expected reliability of restored PCBs is greater than that of new products.

The timescale for restoration is often much shorter than the replacement time and with the cost of restoration ranging from 5% to 30% of the cost of buying new equipment, there is a significant cost benefit.