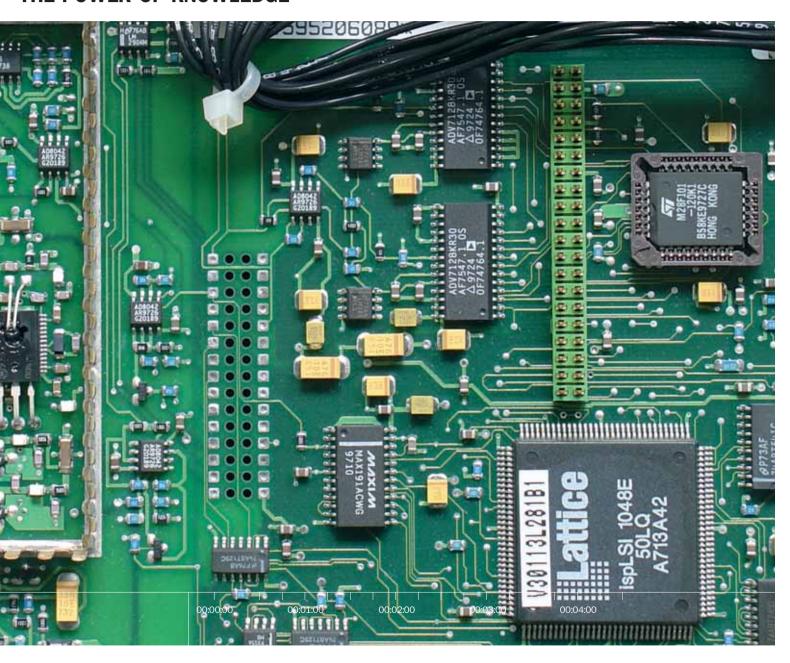
# **ELECTRONICS RESTORATION**

THE POWER OF KNOWLEDGE







above: dismantling electronic equipment

# **SAVING YOU TIME AND MONEY**

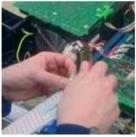
BELFOR's restoration services are typically a fraction of the equipment's replacement costs, but this is only one consideration. Replacing sophisticated electronic machinery often takes between 6 to 18 months. This wreaks havoc with every aspect of your business, and could mean the loss of valuable contracts and clients. In most circumstances, BELFOR's decontamination and restoration work can be completed within weeks, limiting business interruption and subsequent consequential losses.

# BELFOR has successfully restored electronics used in all sectors of the economy including:

- Computers and servers
- Telecommunications equipment
- Medical treatment and research equipment
- Semiconductor industry: front and back-end equipment
- Scientific and laboratory equipment
- Control systems in nuclear and other power stations
- Manufacturing and production control systems
- Aviation and satellite control systems
- Pharmaceutical and food production equipment
- Control electronics in locomotives and ships
- Audio and video equipment







above:

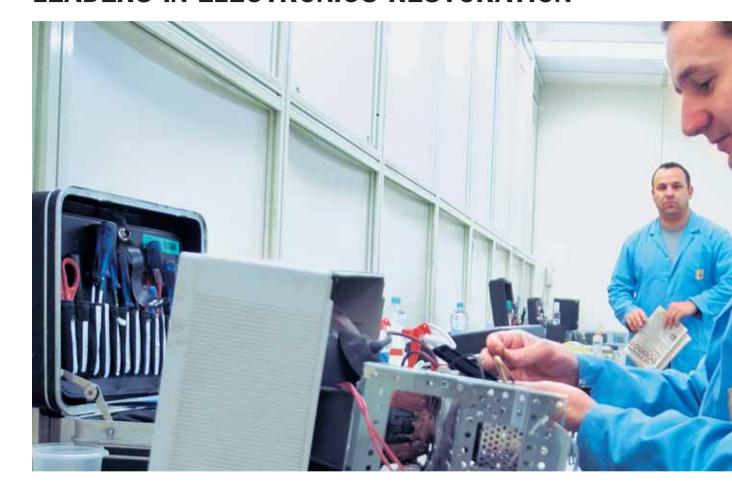
left: high pressure cleaning of contaminated control cabinet middle: cleaning contaminated control cabinet, right: documentation on printed circuit board.



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# **LEADERS IN ELECTRONICS RESTORATION**



As the global leader in disaster recovery services, BELFOR is a pioneer in the field of decontamination and recovery of technical equipment. Based on the work of our own Research and Development division and our experts around the world, we have developed and implemented a wide range of innovative methods for decontaminating and restoring sophisticated electronic equipment. These ongoing developments demonstrate the strength of our experience and expertise.

## **Extensive Knowledge & Resources**

BELFOR has the most comprehensive electronic restoration resources and services in the world. We have successfully restored electronics exposed to

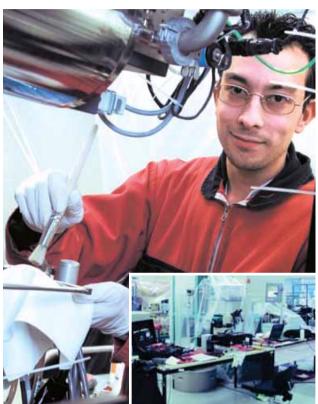
every conceivable type of contamination such as flood water (including total submersion), corrosive soot from fires, dust from explosions, acid vapours, mould, and environmental and toxic contamination.

### **Building Relationships with OEMs**

BELFOR has decontaminated electronics produced by many different OEMs over the years. Through our extensive work with manufacturers BELFOR has gained their respect and developed excellent relationships that make it possible for us to work effectively with them, particularly when short timescales are involved.

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# PUTTING OUR KNOWLEDGE TO WORK







above (large): dry cleaning procedure

Today, electronic technology is at the heart and soul of most businesses. Damage from any source can be crippling, threatening capital investments, and causing lengthy business interruption and the loss of vital clients.

BELFOR has developed the technology, techniques and proprietary solutions to fully restore the most sophisticated electronic technology. Our experts can restore sensitive electronic components affected by a broad range of contaminants to save you time, money and retain clients.

Following a fire, flood, explosion, acid leak or any other catastrophe, your business facilities such as offices, workshops and documentation also require decontamination and restoration. As the global leader in comprehensive disaster recovery services, BELFOR has the expertise, personnel, technology and resources to meet all your needs. This further reduces potential business interruption and provides you with single source accountability.

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# ELECTRONICS RESTORATION TECHNOLOGY



above (large): bath cleaning of printed circuit board above (small): wet clearning procedures Appearances are deceptive. Initially, electrical and electronic equipment may seem surprisingly resistant to contamination and corrosion, but in fact immediate help is needed after an incident. BELFOR has been providing recovery services in this field for nearly 30 years and offers complete solutions for a variety of systems, from desktop PCs to power plant control systems, medical equipment and even semiconductor production.

BELFOR employs the latest restoration methods and, if required, can even develop tailored solutions in its own technology centre. Close co-operation with manufacturers and service providers ensures that maintenance and warranty issues are adressed.

# BELFOR Electronics Restoration Procedures Air circulation drying Cleaning of contacts Condensation heat drying Dry cleaning High Pressure Cleaning Cleaning with water based agents or organic solvents Removal of flux residues Selective water based restoration Sequential bath emersion process Vacuum drying Water-based restoration



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# **RESTORATION IN CLEAN ROOMS**



above (large): final check of a tool in the clean room

Clean rooms are used more and more for safe production of optics, pharmaceuticals, precision machines and fine tooling, and food and semiconductor components. In cases of contamination incidents in such clean room environments, restoration work needs to be carried out with a high level of experience and knowledge about the specifics of equipment and cleanliness. BELFOR have considerable restoration experience in critical clean room environments.

### **Semiconductor expertise**

- Post-disaster consulting
- Process decontamination of front and back-end equipment
- Structures and facilities recovery including clean room facilities and ancillary equipment
- Support including preventive and corrective maintenance
- Post disaster restoration of tools and equipment
- Decommissioning of tools for transportation to other locations and related Project Management
- Disaster recovery and emergency response planning

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Reinstatement

# OVERVIEW OF ELECTRONICS RESTORATION SERVICES

BELFOR performs complete turnkey electronic restoration services that are both comprehensive and focused on limiting business interruption and loss after disaster incidents. One call guarantees you will have access to the most complete and advanced services available worldwide.

**Consulting:** Post-disaster consulting and surveying determines the scope of damage. This results in the presentation of a detailed technical report that outlines the restoration options available to you.

**Emergency Aid:** This involves taking immediate actions to limit damage, prevent secondary damage, consequential losses and business interruption.

**Analysis:** A thorough analysis determines the exact nature of the contamination. By using BELFOR you have access to experts from all over the world.

**Cleaning Solutions:** BELFOR has a wide range of proprietary decontamination solutions developed in our own research facility. We can also develop customised decontamination solutions for specific applications and incidents when required.

**Decontamination:** The success of decontamination is determined by how it is performed. We have designed effective decontamination techniques, procedures and protocols. Our methods meet and exceed both military and international requirements.

**Cleanroom Facilities:** At times it is necessary to remove equipment, or parts to "cleanroom" facilities to accelerate restoration and allow you to resume business operations.

**Turnkey Restoration:** We have the in-house expertise and knowledge to perform total electronic disassembly, decontamination and reassembly without outsourcing, which gives us maximum control over the pace of restoration and gives you single source accountability.

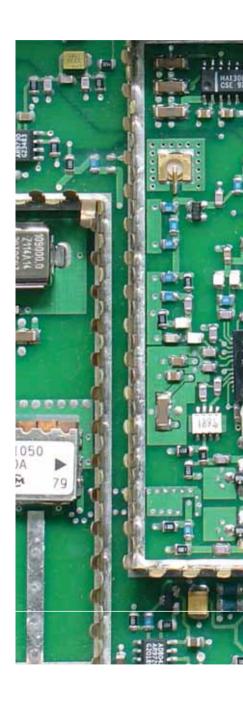
**OEM Cooperation:** The acquisition of replacement parts can be one of the critical elements to ensure a rapid return to business. Through our established relationships with OEMs, we can often accelerate this lengthy process.

**RED ALERT® Programme:** BELFOR offers an immediate disaster recovery service through our priority response programme, RED ALERT®. This guarantees you rapid access to the professional help you will need should a contamination incident occur.



Recovery





# Our services worldwide:

Emergency Aid | Structure and Property Restoration | Structural Dehumidification | Machinery Repair and Restoration | Contents Restoration | Document and Data Recovery | Mould Remediation | Emergency Response Programme: RED ALERT®