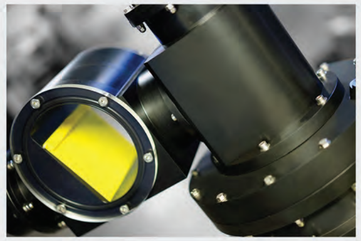
VENTILATION
REGULATION - SAFETY

For nuclear environments, the JACOMEX valves have been for decades the ultimate in terms of protection. The mechanical design makes these safety systems most reliable on nuclear glove boxes and hot cell containment enclosures for daily use and in case of emergency over the years. The very best advantage vs.alternative solutions comes from the reference pressure which is made directly on the glove box, enabling true control, permanent synchronization and instant reaction.

REGULATING VALVES

FOR AIR-OPERATED GLOVE BOXES AND CONTAINMENT ENCLOSURES

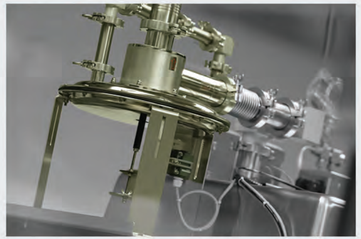
- Ensure automatic negative pressure regulation with immediate reaction when handling with gloves and smooth compensation of filters' clogging.
- Provide an active emergency containment in the event of tightness failure throughout glove rings, bag rings or any accidental opening.
- Available in polymer or stainless steel with safety flows from 50 up to 500m3/h.



SAFETY VALVES

FOR GAS-MANAGED GLOVE BOXES AND CONTAINMENT ENCLOSURES

- Hermetic on-off valves for pure inert atmospheres and glove boxes with own negative pressure regulation.
- Provide an active emergency containment in the event of tightness failure (similar to regulating valves) or can act as complementary devices to regulating valves by increasing the global safety flow.
- Available exclusively in stainless steel with safety flows from 50 up to 500m3/h.



HEPA FILTER HOUSINGS

Housings are essential for nuclear applications to maintain an HEPA filtration on glove boxes with hermetic ventilated gas circuits, vacuum lines or fluid pipings.

The housings are vailable in several designs :
. different dimensions depending on filters' size.
. specific design for systems under vacuum.
. built-in bag ring and bag for safe pollution-free filters replacement.

THEY TRUST US

JACOMEX
pure safety

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JACOMEX
pure safety

- CUSTOM GLOVE BOXES
- PROCESS INTEGRATION
- OPERATOR PROTECTION
- REGULATION - SAFETY
- AIR-GAS MANAGEMENT

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75 YEARS EXPERIENCE IN DESIGN AND FABRICATION

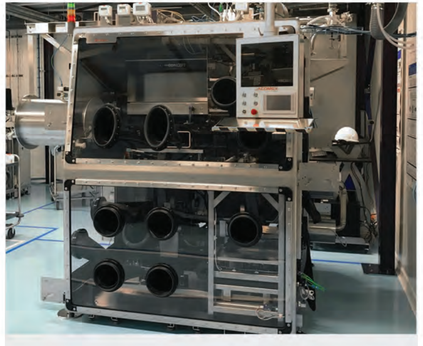
CUSTOM GLOVE BOXES CONTAINMENT ENCLOSURES

SOME OF OUR PROJECTS

INDUSTRIAL PROCESS - R&D

Glove box under controlled atmosphere with integration of a 3D-printer which has allowed the world's 1st production of 3D printed objects in uranium-molybdenum and uranium-silicon in the Research and Innovation Laboratories of Framatome-CERCA.

Lines of glove boxes with specific designs have been supplied in the same facility enabling the integration of complex machines and processes: crushing, grinding, screening, induction furnace, weighing, laser cutting, tensile testing.



EUROPEAN NUCLEAR WORKSITES

Glove box for the European Spallation Source (ESS) Sweden.

Containment facility for component transfer operations from and into a shielded hot cell.

Ergonomic ventilated transfer chamber, hatches and bag rings, handling tools and winch for moving heavy materials.

INTERNATIONAL SAFEGUARDS

Lines of gloveboxes at the new IAEA's Safeguards Analytical Laboratories

Transfer airlocks, RTPs and container flanges.

Alarm management and fire safety.

Particles and acid fumes trapping.

Automatic negative-pressure regulation.

Automatic 200m3/h safety flow rate.

NEGATIVE-PRESSURE HANDLING

PROTECTING THE OPERATOR AND ENVIRONMENT

AIR-OPERATED SYSTEMS

The Industry Standard high-safety glove box operating under filtered AIR.

A system supplied with all essential safety equipment that makes handlings highly secured for any use in contained atmosphere and radiation protection.

Customizable design, equipment and transfer systems.

Operation recommended with our pressure regulating valve to keep an extremely safe containment, even in case of accidental opening or loss of passive containment.

GAS-MANAGED SYSTEMS

Glove box operating under filtered gas and automated control in O2 and/or H2O (%-levels).

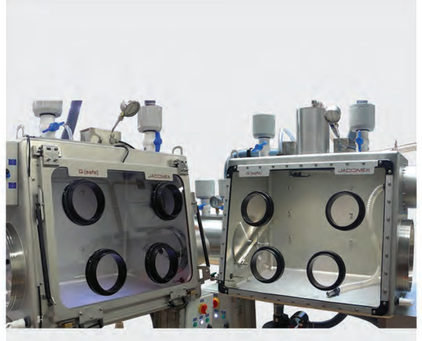
Safe operating and pollution-free transfers to maintain a secured inert atmosphere. Specific safety equipment, PLC-controlled gas management with touch-panel. Fully compatible system with our regulating and safety valves.

Glove box is particularly suitable for single or large scale industrial nuclear processes.

Very pure inert gas glove box operating under HEPA filtration and automated O2 and/or H2O purifier (ppm-levels).

Containment, safety and controlled atmosphere all in one.

Vacuum-operated transfer systems, encapsulated HEPA filtration, safety valve, stand-alone purification unit with large display are part of the equipment to make the installation user-friendly, efficient and safe. Most adapted for R&D experiments with oxydisable and air-sensitive materials.



DECONTAMINATION - DECOMMISSIONING

Potentially light contaminated glove boxes used for the maintenance and decontamination of parts on a radioactive waste storage site.

Regulating control valves operating under air.

Fixed and safety lift-up panels.

Transfer systems and large bag rings.

Filtered closed-loop vacuum cleaner with safe waste management.

Monitoring board and alarms.

NEW GENERATION REACTORS

Glove boxes for experiments and corrosion studies in nuclear environment under purified inert atmosphere.

Sealed hermetic gas circuit fitted with double HEPA filtration. Safety valves operating under nitrogen.

Pollution free transfers with double filtration.

Large capacity H2O and O2 purification unit for processes under 5 ppm in negative pressure.

PROCESSES - MACHINE INTEGRATION

Glove box with built-in Thin Film Deposition system for substrate development in nuclear environment.

Integration of an ultra-high vacuum deposition chamber with crucibles, evaporation sources and control cabinet.

Rely on our expertise and our own engineering department to make any integration possible with the original process characteristics (furnace, evaporator, ICP-MS mass spectrometer, etc...)