

Dismantling tents

The decommissioning of encased facilities requires adequate precautions. The extension of particulate radioactive contamination must be prevented. Before dismantling these installations or parts of them, they are encased completely by a so called "Dismantling tent". To this purpose, a dismantling tent (containment) is being built around the existing facility (glove-box or similar). It may be entered or can be equipped with dry box gloves which are reaching inside enabling operation with appropriate tools. When opening the existing facility, the spread of contamination will be effectively enclosed by the tent's film.



Concept:

The existing components of the installation are – still in enclosed condition – dismantled as far as possible from supply tubes, cables and fittings.

Subsequently, a slightly larger and flexible containment is being assembled around the existing, contaminated installation. This containment is made of an aluminium structure where the tent-film has to be suspended.

Before closing the tent hermetically, the necessary tools for dismantling are locked to the inside of the containment. Only then, the dismantling tent may be closed air-tightly.

Then, the dismantling tent will be connected to the existing exhaust air filter system. The rate of exchanged air and the vacuum inside of the dismantling tent (to 200 Pa, short term up to 400 Pa) will be controlled and regulated.

The dismantled and shredded parts of the glove-box to be decommissioned are locked out into an air-tightly docked barrel.

Materials / fittings:

The dismantling tent is composed of 4 hermetically tightly welded walls, roof and floor, made of reinforced polyester fabric covered by PVC (thickn. 0.55mm, white, flame retardant according to DIN 4102 B1).

Numerous fittings may be integrated into the tent film, e.g.:

- windows
- gloves (firmly welded or exchangeable)
- zippers for entry and exits (airtight welded)
- outlet nozzle for injecting / discharging objects
- panels for fixing fire alarm / extinguisher fittings, electrical connections, supply / exhaust filters, pressure measuring lines, etc.

Through the gloves, the tools located inside the tent, can be operated and the encased facility can be opened and dismantled. The released contamination will be enclosed effectively by the tent's film.

As a result of the negative pressure inside the tent, it has to be suspended to the structure and so kept in a good shape. The structure is made of aluminium to which the tent film is tied by textile straps.

For all the used components, there are available certificates of compliance acc. to DIN 10204.2.1 or inspection certificates acc. to DIN 10204.3.1B. Moreover, for both the film and the structure we dispose of FEA's (Finite-Element-Analyses). The production of the dismantling tents are subject to severe quality standards. Each dismantling tent is assembled for test purpose at the Pedi facility and has to pass a tightness test. For each dismantling tent, an individual documentation (english or german) is provided.

- existing of four walls, roof and bottom, welded hermetically tight (pressure test)
- made of polyester fabric, both sides covered with PVC, flame retardant according to DIN 4102 B1
- suspension of the enclosure in aluminum scaffolding profiles
- dimensions according to customer requirements
- with windows, zippers, tightening flaps
- with gloves (welded or exchangeable)
- with discharge nozzle for feeding in / out of tools and general cargo.
- Prepared for connection to a filtered ventilating system. The inside negative pressure can be up to -200 Pa.



References:

- Refurbishment MOX-Plant Siemens, D – Hanau
- Refurbishment HSK Sogin, I - Saluggia
- Refurbishment MOX-Plant Belgonucléaire, B – Belgium
- Refurbishment HSK Belgoprocess, B – Belgium

The dismantling tents are classified and approved by the TÜV Germany – as “alpha-tight encasement” and released for this purpose.

Equipment and accessories:

For further information see product info: 06499 (search term on website).