PADIRAC System Components

- Cask (RD 15 ou RD 20).
- Universal swing arm (RD 15).
- Swing arm support.
- Protection cover for storage between uses.
- Additional key connected to the supporting table which facilitates the opening of the sliding door (shielded table) of the shielded container.
- Manual rod, manual rod extension with

- position indicator.
- Handling support for deck handling (except RD 20) and for installing the container on the PTS support table.
- Flyweight shielded cell door.
- Motorised support table (PTS) with screw elevator for docking to the cell.
- Transport shell.
- Lifting fork for transport shell
- Hanging set for truck transportation

- Maintenance toolkit.
- Plug and «type B» lower plug.
- A PADIRAC cask tightness control kit.
- Container door support with telescopic rails or mounted on rollers.
- A DPTE[®] 270.
- A container (polyethylene or stainless steel).
- Draining drawer.

LACALHENE







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Getinge La Calhène 1 rue du Comté de Donegal F-41102 Vendôme cedex, France Phone: +33 (0) 254 734 747 marketing-contact.glc@getinge.com www.lacalhene.com Le PADIRAC is also available in the RD15IIS version, with a 105 diameter container.

As the 105 container is smaller than a 190, the soft lead in this version is thicker. This version provides greater biological protection than the RD15IIB.

LaCalhene is an equipment manufacturer specialized in material to protect human beings in a hostile environment, protect a product against the surrounding environment, and protect the environment from hazardous products. Its customer base is half in the nuclear field and half in the pharmaceutical field.

In the nuclear sector LaCalhene supplies 4 product lines: remote manipulators, transfer systems (the DPTE[®] range, standard and special applications), glove box ports, and shielded casks for transfer / transport. LaCalhene supplies to 5 market segments: nuclear fuel manufacture, spent fuel recycling, radiopharmacy, laboratory / universities / units of research, and dismantling / decommissioning / sanitization.

On the basis of its long experience in the nuclear sector, Getinge La Calhène developed a set of solutions and equipment for the pharmaceutical industry, in particular for isolators and sterile transfer systems (DPTE® and DPTE-BetaBag®).

LaCalhene is an active member of:





PADIRAC

A robust, safe transfer and transport solution



A tried and tested system for internal transfer and public road transport



The PADIRAC is designed for a wide variety of transfers between installations which require a very high level of containment. In connection to LaCalhene's leaktight transfer system (DPTE®), the PADIRAC provides complete protection against Alpha, Beta and Gamma risks at all times, maintaining the integrity both of the shield and of the containment. More than 250 units are in operation worldwide.

The system makes it possible to perform transfers to and from installations requiring confinement (highly contaminated) by making only simple mechanical gestures, which are easy to carry out behind shielding.

Design:

The PADIRAC is a tight transfer system comprising a DPTE® cell flange fixed to a hot cell wall and a standard DPTE® container (diameter 270, depth 400 mm useful length) inside a shielded cask.

The PADIRAC is a lead shielded container (7) opening with a shielded door (table shield) (4), which ensures the continuity of the gamma protection. A DPTE® 270 container (3) in either polyethylene (waste) or stainless steel, depending on the work to be done, is placed inside a telescopic support (MTE) or on rollers (MTP). The cask has an approximate mass of 2650 kg (RD 15).





A transfer mechanism and gamma protection, designed to protect both the operator and the environment

Radiation Protection: Alpha, Beta and Gamma

The PADIRAC is available in two standard versions, depending on the activity of material to be moved between hot cells or between installations:

- RD 15 (150 mm thick lead) - RD 20 (200 mm thick lead)
- · The flyweight cell door (PMP) also contributes to the biological system protection during transfers. Its thickness varies according to the intended use (50, 100, 150, 200, 250 and 300 mm of lead).
- The DPTE[®] 270 container has a 20 liter capacity.

Installation Procedure

- · Open the PADIRAC table shield, insert the container (PE or stainless steel) in the PADIRAC, and close the table shield.
- Put the PADIRAC onto the PTS table, dock the PADIRAC to the cell door (PMP).
- · Raise the table shield (electrically or by using a deck). This pushes the PADIRAC shield out and takes its place. The additional table shield has a hole to fit the container.
- Push the container through using the rod then turn 60° to lock the container on the cell flange (BRCL). The DPTE® transfer system inside the cell can now be opened on the hot side.

Transport Packaging

- A tight shockproof and fireproof transport cover made of cast iron is used to transport shielded PADIRAC containers on public roads.
- · A specific lifting beam designed to move the entire assembly, is provided.
- The CC11 shell is designed for shielded containers with 15 cm of lead.
- The assembly can withstand a drop of 9 meters and a fire of 800°C for 30 minutes, in accordance with international regulations.

* A.S.N.: Autorité de Sûreté Nucléaire (Nuclear Security Authority)



Shielded door (PMP)



Support table (PTS)



Universal and fixed lifting fork (BA)



Transport cover (CT)