



Package Type

Designed as a Type B(U) Package to the IAEA SSR-6 2018 Regulations for the Safe Transport of Radioactive Material, primarily for the transport of sources for medical and industrial applications.

Certification

Certified as a Type B(U) package by the UK Competent Authority, with validations in the US and Canada amongst other countries.

Description

The SAFSHIELD® 2773 consists of an Outer Casket (Design No 2773) which carries a lead shielded inner Flask (Design No 2774). The 2773 Outer Casket is a double-shell, welded cylindrical casket manufactured in low carbon steel with a circular bolted closure at the base. The space provided between the fabricated shells is filled with a phenolic resin foam - Thermally Insulating Shock Absorbing Foam (TISAF). Aluminium honeycomb is used within the Outer Casket to provide impact protection to the inner 2774 Flask.

The inner 2774 Flask is a robust welded stainless steel construction incorporating lead shielding. Access to the cavity is gained by removing a bolted flange and lead shielding plug.

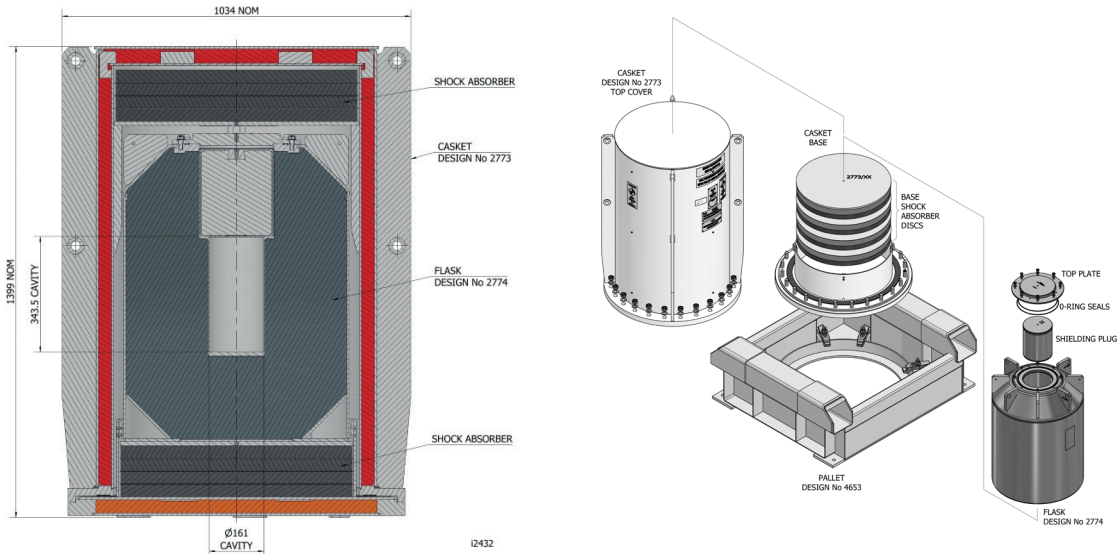
The SAFSHIELD® 2773 is transported within a carbon steel pallet, PN 4653, which enables safe lifting and handling by fork-lift truck.

Containment / Shielding

Shielding and containment is provided by the inner 2774 Flask. The inner Flask has a lead wall thickness of 250 mm and a lid with double O-ring seals. The interspace between the O-ring seals facilitates leakage testing to ensure that the seals achieve the prescribed levels of leak tightness. As the lid is separate from the inner Flask shielded plug, the final closure and subsequent leakage testing can be carried out in a low radiation exposure area.



Section through Package Design No 2773



Approved Contents

- The current approved contents is for Cobalt-60 (Co-60) with an activity of up to 1100 TBq.
- Other contents could be approved and the design has previously been approved with the following maximum permissible activity of:
 - Cobalt-60 (Co-60); 1110 TBq (30 kCi) for both special and non-special form
 - Caesium-137 (Cs-137); 3780 TBq (102 kCi) special form and 1800 TBq (102 kCi) non-special form
 - Iridium-192 (Ir-192); 3000 TBq (81 kCi) special form and 1800 TBq (81 kCi) non-special form

Modes of Transport

By road, rail, sea and air.

Physical Data

Component	Outer Casket Design No 2773	Inner Flask Design No 2774	Pallet PN 4653
Dimensions			
External Diameter (mm)	1036	668	
External Height (mm)	1396	912	
Internal Diameter (mm)	668	161	
Internal Height (mm)	912	342	
Weights			
Tare Weight (kg)	1021	2800	430
Maximum Permitted Contents Weight (kg)		54	
Maximum Weight of Package (including Contents and Pallet) (kg)		4500	