

Sealing Nuclear Drums

<https://www.hepcotion.in/applications/sealing-nuclear-drums/>

INDUSTRY	PRODUCT	PROCESS
Nuclear	GV3 - V Linear Guide System	Welding



The Application

Storing nuclear waste in drums is a necessary part of the nuclear power generating process and sealing the drum is an automated procedure process carried out by a robot fitted with a welding head.

Being a somewhat specialised application, it does present a number of challenges, as manual handling is obviously not possible with radioactive waste. For cleanliness reasons the whole process is also carried out in a special chamber. Traversing the drums into the chamber and then closing the door is an application that can only be made possible by the use of wheel-based technology.

Product Solution

MHD flat track with rollers or V guides from Hepco's HDS2 range are both capable of traversing from one track to another (matching track).

The short lengths of guide that retract to allow the door to close will leave a slight gap between the mating guides on the inside of the chamber. By precision machining the ends of the guides to a specific angle together with tight control of the lengths the rollers can traverse the gap progressively without damage.

With the carriages being rack driven a similar process was required for the rack slides in conjunction with a slight modification of the end rack tooth form.

MHD is particularly beneficial in this application, as the installation is required to run lubrication free.