

Martian atmosphere in Aarhus basement

LM Ståindustri has supplied a technically sophisticated pressure vessel for a research project at Aarhus University. The purpose of the university vessel, P265GH, is to simulate atmospheric conditions on Mars.



It has been designed to create a vacuum and has been fitted on the outside with a series of stainless steel flanges to hold various types of equipment. On the inside, the vessel has been metallised to prevent vapours being extracted from the paint coating by the vacuum force. The vessel consists of four large parts, running on rails in the floor. It functions exactly like a train – with individual parts linked up according to need.



Inside the vessel is a stainless steel tank, also divided into four large sections corresponding to those of the iron vessel. The stainless steel part of the vessel is insulated by a very thin layer of insulating material (approx. 1 mm thick) developed by NASA, with an insulation effect corresponding to 300 mm of ordinary insulation. This enabled the vessel to be made more compact than would otherwise have been the case.



The vessel from LM Ståindustri is used to simulate the atmosphere on Mars and makes it possible for the University to work with temperatures as low as -110°C , while simultaneously allowing scientists to generate sandstorms like those that occur on Mars.

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