

Floors & Compressed Air

In order to guarantee that the air casters function properly, there are just two requirements:

- 1. An adequate air supply
- 2. A suitable floor

Floor

The right kind of floor for air caster movement is characterised as being air tight, smooth and flat. An unsuitable floor can be (temporarily) improved to enable the air caster transport system to float. This can be done with metal or plastic sheets. Less suitable floors cause higher air use, friction and wear.

The ideal floor is mechanically powered trowelled to a smooth, even finish. The surface can be impregnated with a suitable liquid to prevent dust, porosity and to reduce wear. Any joints can be filled using a suitable silicone product.

If the floor is not level and you are handling heavy loads, there is a risk that the object will drift. This can cause a dangerous situation if you don't take the right precautions.

When you have a reasonably level floor you can make use of internal or external power drives to control and brake the load. We would recommend using power drives on loads above 4 tonnes.

You can find an indication of the suitability of different types of floors below. Where 1 is the optimum for air caster transportation.

Glass	1
Epoxy floor	1 - 2
Galvanised steel plate	1 - 2
Hardboard, plastic, lino	1 - 2
Spray painted chipboard	1 - 2
Concrete floor, impregnated	2
Concrete floor, not treated	3 - 4
Concrete floor, manually trowelled	8 - 10
Asphalt	10

Air

The basic principle of air caster transportation is that a thin air film is created between the air caster and the floor. To achieve this, you need to have sufficient air pressure and flow available at all times. The air needs to be dry and clean. Gauges have been mounted on almost all installations in order to control this supply.

Insufficient air supply results in higher friction, more wear and even failure to function.