Floor & Compressed Air

In order to guarantee that the air casters function properly, there are just two requirements: an adequate air supply and a suitable floor.

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

The ideal floor is mechanically power trowelled to a smooth, even finish. The surface can be impregnated with a suitable liquid to prevent dust, porosity and 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 dangerous situations 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 to be safe.

Below you can find an indication of the applicability of different types of floors. Where 1 is the optimum for air caster transportation and 10 is unacceptable.

GLASS	1
EPOXY FLOOR	1-2
GALVANIZED STEEL PLATE	1-2
HARDBOARD, PLASTIC, LINOLEUM	
SPRAY PAINTED CHIPBOARD	1-2
CONCRETE FLOOR, IMPREGNATED	2
CONCRETE FLOOR, NOT TREATED	3-4
CONCRETE, 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.