

Guide to choosing the right castor

Please consider the following points when selecting a castor for a specific application.

1 Determining the load capacity for the castor

Calculating the load capacity

The required load capacity of a castor can be calculated by dividing the total weight of a 4-wheel unit by three; only by three because the unit may sometimes move only on three wheels on an uneven surface.

$$\frac{\text{TOTAL WEIGHT}}{3} = \text{CASTOR LOAD CAPACITY}$$



Calculating the shock load capacity

If the castor is subject to shock load, which can occur, for example, when crossing thresholds or other obstacles, this must be taken into account when determining the load capacity. You can prepare for this by choosing a wheel with a larger diameter and a soft tread. If the castor is subjected to shock load, the total weight of the four-wheel unit is divided by two.

$$\frac{\text{TOTAL WEIGHT}}{2} = \text{CASTOR SHOCK LOAD CAPACITY}$$

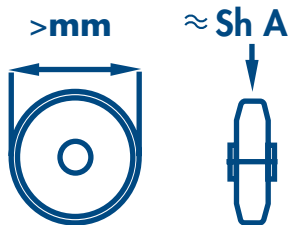


2 Surface and surroundings

The diameter of the wheel, the shape of the tread as well as the material and hardness of the tread have a significant impact on manoeuvrability, rolling resistance and swivel resistance.

Uneven surface = larger wheel and softer tread

The rule of thumb is: the more uneven the surface, the larger the wheel and the softer the tread should be. For a flat surface and good conditions, you can choose the tread more freely.



Castor according to conditions

If the castor is to be used outdoors, in humid environments, at high or low temperatures, or if the castor comes into contact with chemicals, this should be taken into account when selecting the castor. In case of an untreated or absorbent floor material kindly pay attention to the choice of tread material.

3 Bearings

Our range includes castors with plain bearings and ball bearings.

Castors with ball bearings offer lower starting and rolling resistance. There is also less play, which makes the castor and the unit more stable. Manner has focused its manufacturing operations on castors with ball bearings due to the advantages they offer. Most of our wheels and castors are fitted with sealed 2RS ball bearings, which are easy to manoeuvre, maintenance-free and durable. The bearings are located either at the centre of the hub or on both sides of it.



4 Fixing

Choose the most suitable fixing method for the unit in question. A correctly selected and mounted castor also increases operational safety. Our selection includes the following mounting options.



**THREADED
STEM**



EXPANDER



**TOP
PLATE**



**CUSTOMISED
STEM FITTING**

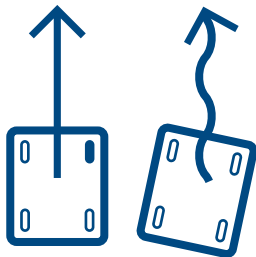
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Do you require brakes or directional locking?



Single action brake locks the wheel to stop it revolving, total-stop brake also prevents it from turning.

If it is important for the unit to stay in place when it is not moving, you should choose a castor with brake. There are two brake options: single action or total-stop brakes.



Directional lock locks the wheel in the direction of travel.

A directional lock is available for some of Manner's product ranges. The directional lock prevents the wheel from turning and locks it in the direction of travel. A directional lock can be chosen when only swivel castors are used in the unit. The directional lock improves the control of the unit when travelling down long corridors, for example.

Once the lock is released, all castors can once again be turned, and the unit is easy to manoeuvre even in confined spaces.

6 Does the castor require special features?

The functionality of a castor can be supplemented with and improved by several different features. Our range includes a variety of castors such as stainless, conductive and non-magnetic castors.



PLEASE NOTE THE FOLLOWING FACTORS

Load capacity values apply to non-mechanical use in normal temperatures. Please note that the capacity may be considerably different if the castor is used in temperatures outside the normal range. If the wheel contains different materials, heat resistance is determined by the lowest temperature. The speeds are 3–4 km/h depending on the castor set. If conditions are exceptionally demanding, contact our distributors or factory for advice. For more information about how to select castors, please visit www.manner.fi