

SELECTING THE RIGHT JBS CASTORS

CONSIDER WHICH TYRE MATERIAL IS BEST SUITED

JBS castors are fitted with tyres made from a range of materials, all of which have different characteristics and are best suited to different operating conditions. The selection of tyre material is critical in obtaining the best possible castor performance. Use the following table to help you select the tyre material best suited to your application.



	Shock Absorbency	Capacity	Push Effort	Floor Protection	Durability	Typical Surfaces	Comments
Polyurethane	✓✓	✓✓✓	✓✓	✓✓	✓✓	All surfaces Irregular	Best all round choice
TP Rubber	✓✓✓	✓✓	✓	✓✓✓	✓✓	Quality flooring Quiet areas Clean areas	Good protection for floor and loads

Excellent ✓✓✓ Good ✓✓ Fair ✓

CONSIDER THE LOAD CAPACITY THAT IS REQUIRED

The load capacity is perhaps the most important consideration when selecting the correct castor or wheel. If the capacity of the selected item is too low, the castor may fail, or worse the unit may fail causing injury.

Total Load = Weight of Trolley + Carrying Capacity of Trolley

TWO WHEEL TROLLEY

This type of construction requires the 2 main wheels or castors to carry almost 100% of the load at all times. The load is normally distributed 50:50 across the two wheels however uneven ground may increase load on one wheel to approximately 65:35.

- Recommended Load Capacity per wheel = 65% of TOTAL LOAD (i.e. if TOTAL LOAD = 100kg, each wheel should have a minimum load capacity of 65kg)

SIX WHEEL TROLLEY

In this design, the trolley is fitted with six wheels that are all in contact with the floor. This design is very good at carrying higher total loads than a standard four wheel trolley on level floors where each castor is only loaded to 17% of the total load. However this design suffers when used over convex or concave floors. Convex floors (hill shape) will force the trolley to 'rock' on just the central pair of castors while a concave floor forces the central pair of castors to lift free of the floor.

- Recommended Load Capacity per wheel (level floors only) = 25% of TOTAL LOAD. (If using concave/convex floors, use Six Wheel Trolley – Rocking below.)

FOUR WHEEL TROLLEY

By far the most common style, four wheel trolleys are inherently stable. In general use, on a level floor and with an evenly distributed load on the trolley tray, each castor is loaded at 25% of the total load. However, when on an uneven floor, one castor may lose contact with the floor and the total load will be carried by only 3 castors.

- Recommended Load Capacity per wheel = 35% of TOTAL LOAD (i.e. if TOTAL LOAD = 100kg, each wheel should have a minimum load capacity of 35kg)

SIX WHEEL TROLLEY – ROCKING

This special design has castors mounted at different heights. Usually the center pair of castors or wheels are 12mm to 25mm 'higher' than the corner castors. This causes the trolley to 'rock' or sit in a non level position. Very good for manoeuvrability but requires higher capacity castors to other designs.

- Recommended Load Capacity per wheel (centre) = 50% of TOTAL LOAD. Recommended Load Capacity per wheel (corners) = 35% of TOTAL LOAD.