

AGV CASTERS

Our AGV Casters are designed to **save battery life and reduce motor torque.**

They also allow for more precise movements with little vehicle sway to reduce torque so AGVs can move heavier loads without needing larger drive systems.



AGV Casters like the **97 and 97HD Series** feature a

SMOOTH SWIVEL

action combined with an extended lead.

This design helps lower ergonomic forces, providing better rollability for AGV carts.

Most continuous use applications involve



To mitigate downtime, use Caster Concept's **maintenance free casters.**



Featuring neoprene-sealed precision ball bearings and hardened raceways for smoother rotation and longer caster life.



Polyurethane wheels are a popular choice in many drive wheel applications.

They have good dynamic properties, good wear properties, and provide a high coefficient of friction. Considerations when choosing a poly wheel include:

1

Load and Torque -

Wheel size depends on how much load the drive wheel will carry as well as how much torque will be applied to the wheel.



2

Speed and Duty Cycle -

The faster the wheel is traveling, the lower the overall load rating of the polyurethane wheels will be. In addition, the longer a wheel is used, the more heat build up and the increased chance for failure.



4 Coefficient of Friction -

Determining coefficient of friction is critical to understanding how much force can be transmitted to the polyurethane's surface.

When the coefficient of friction is multiplied by the normal load on the wheel, the amount of driving force is calculated.

$$fr = Fr/N$$

Coefficient of Friction (fr) = Resistive Force of Friction (Fr) ÷ Perpendicular Force (N)

Environment -

The type of environment is important to choosing a polyurethane. Certain urethanes perform better in wet environments while others are better for exposure to chemicals and solvents.



So the higher the coefficient of friction, the smaller the wheel load needs to be to obtain the same driving force as polyurethane with lower coefficient of friction.

To increase your knowledge of our casters, please view our resources on our website for additional information.
www.casterconcepts.com



CASTER CONCEPTS

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