

How to make all the right moves when selecting your casters

Healthcare and institutional environments demand superior mobility solutions. The casters you choose must withstand not only the rigors of excessive activity – they must also satisfy the specifications of each individual application. The applications shown in this catalog are typical examples only – contact Jilson to discuss your specific needs. To select the right casters for your application, please be prepared to answer these questions:

- What is the total weight that will be transported?
- What type of environment will the equipment be used in? For instance, will the equipment move along carpeting or smooth tile flooring? Will it be subject to excessive shock or abuse?
- Will the equipment be moved long or short distances? Does it need to swivel for easy maneuverability or does it need to be rigid for straight tracking down long hallways? Does it require even greater control over each individual casters' braking or swivel-locking mechanism?
- What other unique conditions will the equipment be exposed to? Extreme heat or cold... excessive moisture or soiling...acidic substances...will help to determine the appropriate fork and wheel materials.
- Does the caster need to blend in with the design of the unit, either in style or color?

Learn the lingo...

Does it seem like some other caster companies are speaking a foreign language? Can't tell a wheel brake from a swivel lock? Here's a handy reference guide of "caster-speak" – so you can be sure that what you want, is what you get!

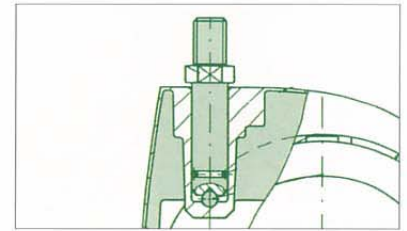
Swivel and Rigid Casters

Swivel Casters: The swivel casters in this catalog come equipped with many different types of swivel bearings. From the simplest plain bearing found in the OEA series, to sealed precision ball bearings found in others, each is designed for the greatest mobility and control.

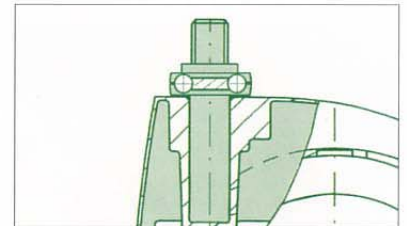
Swivel Bearing Types

- **Plain Bearing:** The stem of the caster pivots in the caster body. In some plain bearing swivels, there's a ball at the base of the stem allowing the swivel to pivot more easily and smoothly.
- **Full Complement:** A design which has one row of balls at the stem base providing easier swiveling than the plain bearing swivel.
- **Standard Double-Row Ball:** This swivel has two rows of balls – an upper and a lower row – which are precisely staked together allowing for easy swiveling and flutter-free performance.
- **Protected Double-Row Ball:** In this design, two rows of balls are protected by a metal or plastic shield, allowing for great swiveling ease while helping to keep the environment out.
- **Sealed Precision Ball Bearing:** One sealed precision radial ball bearing incorporated into the swivel head, providing the greatest ease of swiveling and very smooth operation. This design is ideal for heavy or expensive equipment.
- **Kingpinless Swivel:** This double-row ball bearing swivel does not have a kingpin and is the strongest type of swivel bearing available. It should be selected for equipment that is very heavy or needs to endure rough handling.

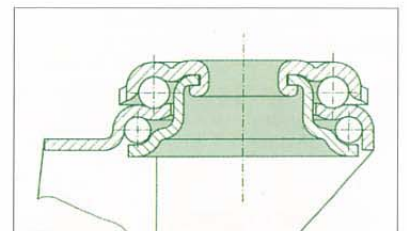
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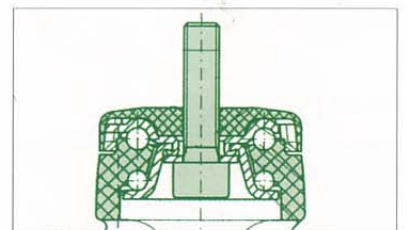
Plain Bearing



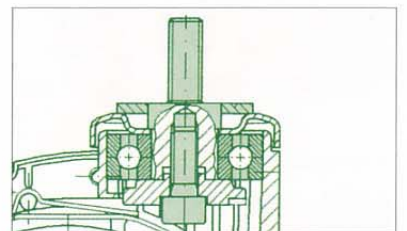
Full Complement



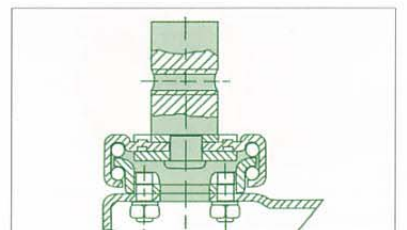
Standard Double-Row Ball



Protected Double-Row Ball



Sealed Precision Ball Bearing



Kingpinless Swivel



Rigid Caster

Rigid Casters

Rigid casters do not swivel. They allow greater control of the equipment when pushed long distances, allowing the equipment to track and steer more easily.

Wheel: The wheel is the rolling element within the caster.



Wheel Brake

Brake Types

Many casters shown in this catalog are available with brakes and swivel locks to provide for greater safety and control of your equipment.

Wheel Brake: This locks the wheel only, prohibiting the equipment from moving.

Maxi-Lok™: The most positive type of brake available! Simultaneously lock the wheel and swivel in any position – instantly and positively immobilizing your equipment. With a toe tap, this mechanism allows no movement of the wheel or swivel, offering greater safety and stability than even the most effective wheel brake. Another toe tap releases the brake for exceptional mobility.



Maxi-Lok

Track-Lok™: A steering lock caster which makes it easier to push equipment long distances. Just step on the pedal and a swivel caster becomes rigid for straight line tracking.

Series 2NM casters are available with an "automatic" Track-Lok that engages when the caster is pushed in a straight-ahead direction. With just a little force, the automatic Track-Lok releases for increased mobility in tight spaces.

Dual-Function Brake: This pedal-activated mechanism combines the Maxi-Lok and Track-Lok features in one caster for maximum control and stability.



Track-Lok

CentraLok™: The CentraLok system allows the user to lock and release all caster brakes from one convenient central location on the equipment. A touch of the pedal gives you instant, positive control, shifting the CentraLok casters from...

- **Free Wheeling:** all swivel and wheel locks are released for maximum maneuverability in tight spaces...to...

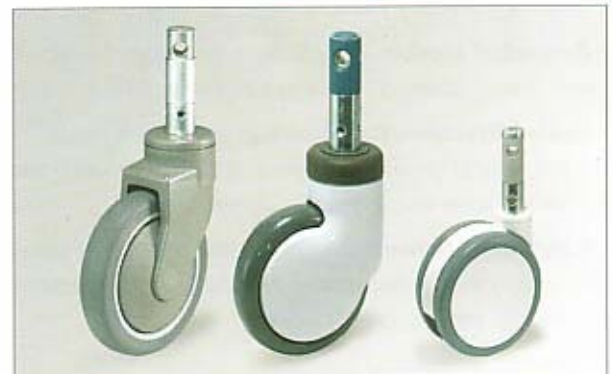
- **Steering Lock (optional):** the swivel is locked with a caster in a straight-ahead position for improved tracking and steering ease...to...

- **Total Lock:** all swivel and wheel locks are applied instantly to positively immobilize the equipment in place for maximum stability and safety.

CentraLok casters can be used in a variety of combinations. Put Jilson's experience to work for you – let us help you design the right CentraLok system for your equipment. (See page 13 for more on the CentraLok system.)



Dual-Function Brake



CentraLok Casters are available in single- and dual-wheel designs

Finishes

Casters in this catalog are available in a wide selection of finishes and materials. They are...

Nylon: Injected nylon offers great strength, shock absorption and resistance to corrosion. Nylon casters don't scratch or rust and their appearance doesn't deteriorate with age.

Bright Zinc Plating: A blue zinc-chromate plating on steel casters offers a long lasting, bright and attractive finish.

Yellow Zinc Plating: Yellow zinc plating is an additional bath over the standard blue zinc-chromate. It offers additional resistance to corrosion, without adding significantly to the expense.

Powder Coating: Many casters in this catalog can be powder coated, allowing the caster to be color matched to your specifications. Powder coating is an inert, strong protective finish that resists scratching and corrosion.

Chrome Plating: Chrome plated steel casters offer increased resistance to corrosion over the zinc plating...with a much shinier finish.

Stainless Steel: Stainless steel offers the greatest resistance to corrosion of all the metals used to produce casters. All stainless casters in this catalog are made of Type 304 polished-stainless steel, giving a very attractive appearance. Many stainless steel casters in this catalog are non-magnetic and ideal for use in magnetic resonance imaging (MRI) applications.



Finishes shown left to right:
Nylon, Bright Zinc, Yellow Zinc, Powder Coating, Chrome Plated and Stainless Steel

Options

Thread Guards: Thread guards are discs between the wheel and caster fork that prevent thread, string, hair and other debris from entering and clogging the wheel bearing. Thread guards enable the wheel to revolve freely while prolonging the life of the tire tread and wheel bearings. Thread guards are standard on many casters shown in this catalog, and can be special ordered on other casters.



Thread Guards

Cushion Rubber: Cushion rubber wheels are available in black or non-marking grey. Rubber tires are quiet and offer good floor protection. Most cushion rubber tires have a hardness of $80^{\circ} \pm 5^{\circ}$ on the Shore "A" scale.

Hard Rubber: Black, hard rubber tires can be supplied in many of the casters in this catalog. These tires are good on carpeted floors, but do not offer the shock absorption or noise reduction of cushion rubber.

Antistatic Rubber: Black, antistatic, cushion rubber tires are available for applications where equipment must be grounded to prevent static electricity from developing. NOTE: antistatic tires must be kept clean for effective performance!

Antistatic tires can also be supplied in nylon, thermoplastic rubber and polyurethane materials.

Thermoplastic Rubber: These tires are non-marking, wear better than rubber, yet offer good floor protection and noise reduction. Thermoplastic rubber tires also roll more easily than cushion rubber tires. These tires are available in a variety of tread hardnesses.

Polyurethane: Polyurethane is a resilient material that is non-marking and offers good floor protection, yet still rolls very easily. It is an ideal material for use on carpeted floors or for carrying heavy loads. Polyurethane tires are typically harder than cushion tires, about 95° on the Shore "A" scale, and last at least three times longer than rubber tires.

SuperSoft™: SuperSoft, a shock absorbing material, is a unique soft tire which absorbs more shock than standard cushion tires, offering greater equipment and floor protection. They roll more easily into elevators, over thresholds and other obstacles with significant reduction in shock. SuperSoft tires behave like pneumatic tires, but cannot go flat, making them ideal for diagnostic and sensitive electronic equipment.

Tire Performance Guide

TIRE/WHEEL MATERIAL	LOAD CAPACITY	QUIET RIDE	FLOOR PROTECTION	SHOCK ABSORPTION	ROLLABILITY	MOISTURE RESISTANCE	WEAR
Nylon	1	4	4	4	1	1	1
Polyolefin	2	4	4	4	2	2	2
Phenolic	1	5	4	5	2	4	3
Cushion Rubber	4	2	2	2	4	4	3
Hard Rubber	2	4	4	4	3	4	3
Thermoplastic Rubber	4	2	2	3	3	3	2
Polyurethane	1	3	2	3	2	2	2
SuperSoft	3	1	1	1	3	3	3

Legend: 1= Excellent 2= Superior 3= Very Good 4= Good 5= Fair

Note: this chart is intended for reference only; Please consult JIson for specific recommendations.

Mounting Systems

Jlison can accommodate almost any mounting requirement you have. Some of the most popular mounting types are...

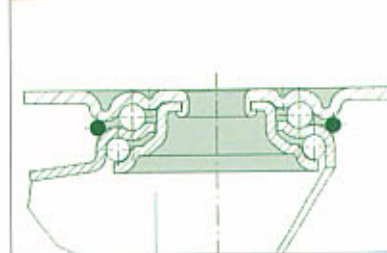
Top Plate: A square or rectangular flat plate, which normally attaches to your equipment with four fasteners. This is the strongest and most secure way of attaching a caster to your equipment.

Stem: A metal pin protrudes from the top of the caster into your equipment. Pin stems can be supplied with grip-rings, cross-holes, as threaded bolts or in a wide variety of other designs. Many pin stems are designed to work with sockets used to adapt the caster into round or square tubing, or into wood.

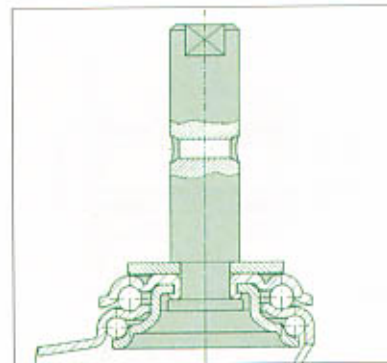
Expanding Stem: Nylon expanders are available in a wide variety of sizes to install casters into round or square tubing. Expanding stems are available for tubes with inside dimensions from 0.708" to 1.250".

Hollow Kingpin: This is the least expensive and easiest method of attaching casters to your equipment. With this mount, a bolt is installed through a hole in the swivel bearing. Some casters are also available with a threaded hollow kingpin. In either case, Jlison can provide the hardware needed to attach the caster to your equipment, based on your specifications.

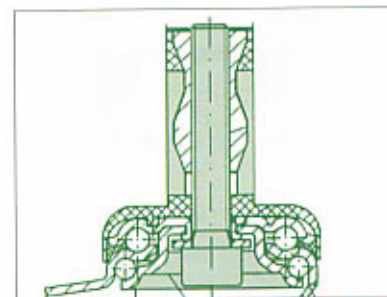
Special Mounting Systems: Let the Jlison experts design the best possible mounting system for your application – just give us a call at 800-969-5400.



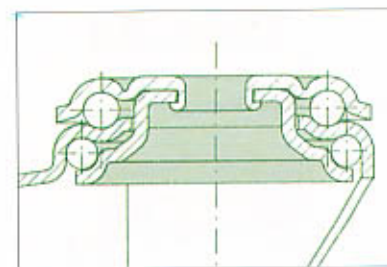
Top Plate



Stem



Expanding Stem



Hollow Kingpin

Axle Types

The caster axle holds the wheel, or wheels, into the caster fork. There are three basic types of axles...

Snap On: The snap on axle is typically used on lightweight twin-wheel casters and is recommended for only light-duty applications. With this axle type, the wheels are pressed onto the axle.

Riveted: In a twin-wheel caster, a riveted axle provides a stronger, more secure way to hold the wheels onto the axle.

In a single wheel caster, this is the least expensive way to hold the wheel in the caster. In this case, the wheel cannot be removed for service or cleaning.

Nut & Bolt: A threaded bolt and locking nut hold the wheel into the caster fork, which allows the wheel to be easily removed for service or replacement. For lubrication, some nut & bolt axles are supplied with a grease fitting for use with sleeve or roller bearing wheels. Ball bearing wheels cannot be lubricated through a grease fitting, so no grease fitting is provided.

Load Capacity

To determine the load capacity of the caster you require, divide the total loaded weight to be supported by the number of casters on your equipment. Building in a safety factor of at least 25% is recommended for most applications, however; more severe applications may require a higher safety factor. Please contact Jlison for additional help in determining your needs.

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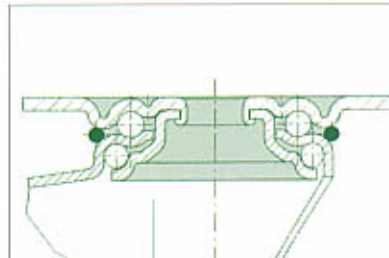
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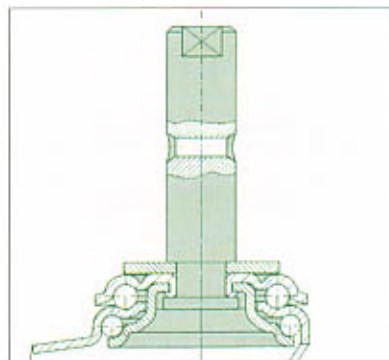
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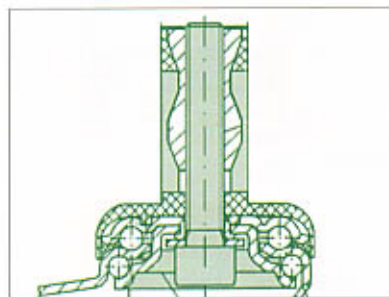
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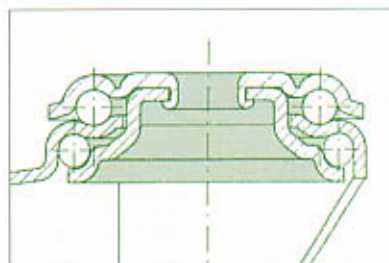
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The **Jilson** Group
INCORPORATED
Caster Products Division

We go to extremes to make things move.™