SOURCE 4 INDUSTRIES

PROVIDING PROFESSIONAL SOLUTIONS SINCE 1972

- Pallet Rack
- Mezzanine
- Material Handling
- Work Benches
- Installations
- Casters
- Industrial Shelving
- Power Transmission
- Industrial Products
- Modular Office Systems

Nevada Licensed Contractor #39091

Dear Source 4 Industries Customer:

We at Source 4 Industries have this crazy idea that if we are easy to do business with, provide customers with a product that lasts, and one that gets the job done safely — the customer might come back and buy other products from us. We have been operating this way, providing quality products and services, since 1972. It must be working because we keep doing it year after year.

Of all the products we provide, casters are one of our anchor products. Yes, we know casters! We have the largest selection of casters in southern Nevada. We have over 1,500 components available giving us the ability to provide everything from general application casters and wheels to special needs casters to withstand extreme environmental conditions with maximum dynamic loads.

We realize that all this inventory and knowledge does not amount to a hill of beans to someone unfamiliar with caster terminology. To help us establish a common understanding with our customers, we have reprinted three catalog pages from one of our quality caster suppliers, Jarvis® Caster Company. These three pages offer an informative look at:

- Caster Termonology
- Caster and Wheel Selection
- Safety & Maintenance Information

To request a FREE color copy of the 100 page Jarvis catalog, go to our website, click on "Contact Us", and complete the form. Enter "Free Jarvis Catalog" in the comment area. We will get a catalog right out to you.

Are you a touchy-feely person? Great news! Source 4 Industries has two convenient locations in the Las Vegas valley. We invite you to stop in to either location to touch and feel quality casters and wheels to your hearts content. Our caster specialists will help you find the right solution for your specific application. We invite you to stop by and see all of our quality products.

TWO CONVENIENT LOCATIONS

North Las Vegas Location	South Las Vegas Location
4436 Lawrence St., Ste. A	4090 W. Hacienda Ave., Ste. 110,
North Las Vegas, NV 89081	Las Vegas, NV 89118
(Craig and Losee)	(Valley View and Hacienda)

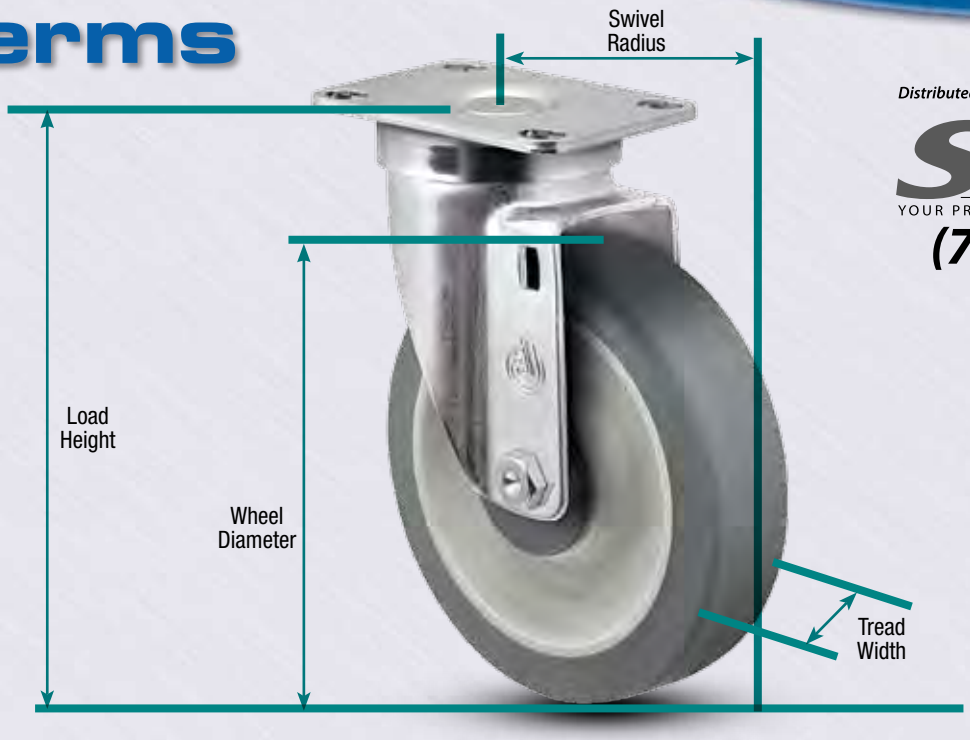
Hours: Monday through Friday, 7:00 am to 4:30 pm, closed weekends and holidays.

Need even more convenience? Shop our online catalog at www.source4industries.com or call our office at (702) 734-8848 or send a fax to (702) 734-8939. Feel free to contact us with any of your caster needs or concerns.

We look forward to hearing from you soon.

Source 4 Industries

Caster Terms



Helpful Terms

Bolt Hole Spacing: The distance between top plate bolt holes.

Capacity: Maximum load per caster based on expected operation (expected maximum load divided by number of casters).

Caster Size: Same as wheel diameter.

Dynamic or Rolling Load: Load on a caster or wheel while in motion.

Fork Assembly (Rig or Yoke): The caster assembly without wheel and axle.

Load Height: Vertical distance from top surface of top plate to the bottom of the wheel.

Mounting (Top) Plate: The plate at the top of the caster which is bolted or welded to the equipment.

Offset: Horizontal distance between the centerline of the swivel kingpin and the centerline of the axle. Shorter offsets are stronger while longer offsets improve maneuverability.

Raceway: Surface on which ball bearings roll.

Rollability: Force required to begin or maintain motion.

Spanner Bushing: The fixed sleeve in which the axle runs.

Static Load: Load on a caster or wheel while at rest.

Swivel Radius: Horizontal distance between the centerline of the swivel kingpin and the outside edge of the wheel.

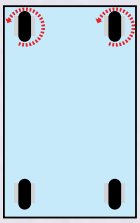
Thrust Washer: The washer between the wheel hub and the inside of the caster leg.

TPR: Thermoplastic Rubber

Tread Width (Face): Width of the wheel tread.

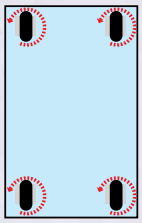
Caster Installation Tips

Shown below are several typical caster mounting arrangements often used on carts, trucks and other mobile equipment. Each arrangement offers its own advantages and performance qualities.



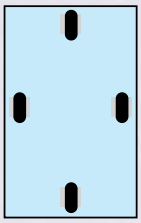
Two Swivel, Two Rigid Pattern

A common design which allows for swiveling ease yet allows cart to track in a straight line for long distances.



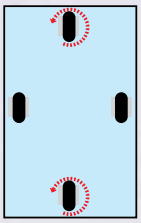
Four Swivel Pattern

A versatile arrangement which allows for maximum maneuverability and the ability to move the cart sideways. Not recommended for long straight line tracking.



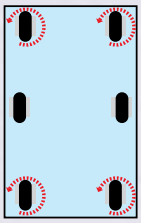
Four Rigid Tilt Mounting

Center wheels 1/8" taller than front/rear wheels. Economical, but not recommended for ramps or heavy duty loads.



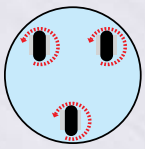
Two Swivel, Two Rigid Diamond Pattern

A very maneuverable design that allows cart to turn in its own length.



Four Swivel, Two Rigid Pattern

Recommended for heavy loads and long carts or equipment. The two rigid casters help support the load and reduce the weights on the swivel casters. This allows for greater swiveling ease and maneuverability.



Three Swivel Pattern

Recommended for barrel dollies and small equipment. Excellent swiveling and maneuvering ease in all directions.

Jarvis

How to Select the Correct Caster & Wheel

HOW TO SELECT

Important Notice

Selecting the correct caster for your application is very important. If you do not select the correct caster, you or the users of your equipment could be injured. If you are not absolutely certain which caster is the correct one for your use, contact a safety or engineering consultant who knows your equipment and its intended use to assist you.

Introduction

Casters and wheels are offered in a wide variety of sizes and types. Although there is no simple formula to follow in choosing the proper caster or wheel, the information shown below and on the following pages is intended as a guide to assist you in specifying, operating and maintaining casters for safety and maximum life. Please read this information carefully.

Load Weight & Wheel Size

The first consideration for caster selection is to determine the combined weight of the equipment and maximum load on this equipment. Generally, the greater the weight, the larger the wheel required for the caster. Larger wheels distribute weight and roll more easily over floor obstructions.

To determine the load capacity for each caster, divide the combined weight of the equipment and maximum load by the number of casters to be used. This is the load that each caster and wheel must support. Always select a caster and wheel that are rated for a capacity *greater* than the calculated load per caster. This allows for unusual conditions that could change the performance of the caster. All Jarvis capacity ratings shown in this catalog are rated at their maximum *dynamic* or rolling load.

Wheel Choices

As a general rule, hard tread wheels perform better on soft or smooth floors and soft tread wheels roll better on hard or rough floors including outdoor surfaces. When choosing a wheel type, take into consideration all special floor conditions – tracks, gutters, grates, sills, elevator thresholds, seams and dock plates. The larger and softer the wheel, the greater the ability to roll over rails and similar obstacles.

To protect floors from damage, choose softer cushion tread wheels. Solid Cushion Rubber, Advantage ™ TPR (thermoplastic rubber), High Modulus Rubber and Pneumatic Rubber wheels will provide quiet operation and maximum floor protection. Steel and Cast Iron wheels are not recommended for floor protection, but they are well suited for industrial applications.

Polyurethane wheels like Jarvis PolyLoc™, Welded Disc Polyurethane and Moldon Polyurethane wheels are frequently an effective compromise giving moderate floor protection with greater load capacity.

Wheel Bearings

Jarvis wheels are available with various types of bearings each best suited for various applications and uses. Below is basic information about each of these wheel bearings:

Sintered Iron Bearing
An economical, oil-impregnated bearing suited for light loads or heavier loads that are stationary most of the time.

Plain Bearing
Wheel bearing bore riding directly on the spanner bushing and/or axle.

Ball Bearing
Recommended for loads where maximum rolling ease is required. They require less effort to start rolling and keep rolling than other bearing types.

Roller Bearing
This bearing carries greater loads than same size ball bearing. Well suited for heavier, industrial uses.

Delrin® Bearing
An economical bearing well suited to conditions of frequent exposure to water, steam cleaning, salts, brine and corrosive conditions.

Unusual / Special Operating Conditions

Often unusual operating conditions require selection of casters and wheels with special features. Listed below are several guidelines for selecting casters for special conditions:

- The presence of acids, oils or corrosive chemicals require wheels made of polyurethane, phenolic, polyolefin or steel.
- Extreme temperatures require special bearing lubricants or plain bore bearings.
- Never use rubber tread wheels in corrosive environments.
- In hospitals, bakeries and food processing plants where cart washings are required, select nickel-plated casters with raceway grease seals and zerk grease fittings.
- For very frequent wash down applications or wet environments, specify Jarvis stainless steel casters.
- In textile plants and laundries, specify casters with thread guards to reduce the collection of thread, string and general floor debris.
- For office machines such as copiers which require a low load height, choose Jarvis business machine casters.

Safety & Maintenance Information

Important Notice

If you are using Jarvis casters as a component part on equipment for resale, you must advise and pass along this information to those who purchase this equipment. You should place the proper instructions on your product to relay this information to the user.

General Safety / Maintenance Information:

Users are responsible for the proper operation and maintenance of the equipment they use. Some equipment will quickly become damaged and unsafe if abused or subjected to improper demands. If equipment is regularly maintained and not abused, you will get the maximum safety and service performance from your casters.

- Do not overload equipment
- Do not drop heavy loads on carts or trucks
- Do not use at high speeds

These uses create severe impact and shock loads that may lead to caster, wheel and equipment failure.

Check Equipment Frames & Fasteners

Periodically turn equipment on its end or side and check the following:

- Look for broken welds or deck boards.
- Tighten loose nuts and bolts.
- Look for equipment frame distortion caused by overloads and impact loads. Distorted frames can lead to wheel failure by placing disproportionate loads on one or two casters.
- If casters are stem types, make sure that the legs of the equipment are not bent and that mounting bolts are securely fastened.
- Always use locknuts or lock washers to mount casters to equipment.
- Make certain casters with expanding adapter stems are held firmly in place in tubular equipment.

Caster & Wheel Lubrication

Caster and wheel lubrication is essential. The lubrication schedule depends on your specific application. Normal conditions may warrant lubrication every six months. However, for wet or corrosive applications, monthly lubrication may be necessary.

Lubrication may also be required after each cart washing. Special high temperature, water resistant lubricants must be used for these applications. Jarvis can provide stainless steel casters that require less maintenance in frequent cart washing applications.

Standard Jarvis grease temperature range: -45°F to +260°F.

Caster Maintenance & Inspection

Check the swivel assembly for excessive play due to wear. If the swivel assembly is loose, it is advisable to replace the fork or the entire caster. If the caster has a king bolt and nut, make sure it is fastened securely. If the swivel does not turn freely, check for corrosion or dirt binding the raceways. Again, it may be necessary to replace the swivel assembly or the entire caster.

If the equipment has rigid casters at one end, make sure that the caster fork legs are not bent or distorted.

Wheel Maintenance & Inspection

Check wheels for visible tread wear. Flat spots may indicate accumulation of floor debris such as string or thread which can cause the wheel to bind. Remove the wheel axle bolt and nut. Clean out foreign material and check wheel bearings for wear or failure. Re-assemble if parts are not damaged. Wheel thread guards may be installed to reduce buildup if string and thread wrapping is a continuing problem.

After wheels have been inspected and repaired or replaced, be sure the axle nut is properly tightened. Use lock washers or lock nuts on all axles.

Brake Maintenance & Inspection

Check brakes for proper operation. It is recommended that scaffold caster brakes be tested daily or before each use of the equipment. Apply brakes one at a time and attempt to move the equipment to make sure that each brake is not slipping or loose.

If brakes slip due to worn or damaged wheels, replace the wheels immediately and retest the brakes. If the brake mechanism itself is not operating properly, repair or replace it. Before returning the equipment to use, always retest brakes.

Power Towed Operation

Power drawn equipment such as in a tow line or mechanically moved by conveyor will require casters, wheels and bearings specifically designed for this use. **Please consult factory for caster recommendation for each specific towing or power drawn equipment application.**

SAFETY / MAINTENANCE

Jarvis