



SELECTING THE PROPER WHEEL OR CASTER INSURES MAXIMUM PRODUCTIVITY, MINIMIZES LONG TERM COSTS, AND PROVIDES THE GREATEST RETURN ON YOUR INVESTMENT. RELY ON DURABLE SUPERIOR CASTERS® KNOWLEDGEABLE DISTRIBUTORS AND EXPERIENCED INTERNAL STAFF TO ASSIST YOUR MAINTENANCE, ENGINEERING AND PURCHASING DEPARTMENTS.

FACTORS TO CONSIDER ...

LOAD CAPACITY:

The first question usually asked pertains to what the total weight to be moved is (includes the weight of the cart or equipment & the load it will be carrying) and on how many casters. The simple formula is; divide the total load weight by the number of casters or wheels you will use; that will tell you the load capacity you will need for each caster or wheel.

$$\text{Total Load} \div \text{Casters or Wheels on Cart} \\ = \text{Minimum Load Capacity Per Caster or Wheel}$$

Be aware that the best combination of wheel, bearings, and caster frame requires more knowledge than just the load capacity rating. Our load capacity ratings are based on a speed of up to 2.5 mph intermittent usage over smooth floors in ideal operating conditions. Your application is seldom ideal. Did you know that heat generated from a heavy load being moved at a higher speed can cause the bonding agent which holds the tire on the wheel center to break down? The result can be tire separation and wheel failure. Avoid problems by consulting with your local Durable Superior Casters® distributor or Durable factory representative for suggestions.

FLOOR PROTECTION:

In order to determine the proper wheel for your application, you need to consider the type and condition of the floors they will be rolling on. Wheels with soft non-marking rubber treads (tires) provide the best floor protection on hardwood floors, such as in your home or in a school gymnasium. Some of our other wheels, such as the Roadie®, Champion™, and Dura Cushion™ are known for providing floor protection as well. Wheels with Polyurethane treads provide floor protection when soft rubber wheels lack the needed capacity. There are also countless applications where only a hard non-metal or metal wheel will do the job. Remember that repetitive travel over the same path with wheels having a hard surface will eventually wear the surface of even concrete floors. Each of our wheels have numerous applications for which they are best suited. Please consult your local Durable Superior Caster's® distributor or Durable factory representative for suggestions.

OPERATING CONDITIONS:

Other factors to consider when selecting a caster or wheel are: is abuse, impact or shock loads likely; is noise a factor; what speed will it be rolling; will the equipment be moved manually or by mechanically powered equipment; will they be used in temperature extremes hot/cold; will they come in contact with water, chemicals, oil/grease;

will they be rolling over debris, cords, floor joints, etc; what is the condition and types of the floor surfaces (smooth, rough, uneven, broken concrete, coated concrete, asphalt, gravel, grass, carpet, hardwood, linoleum, tile, etc). Each of our wheels have unique physical properties; their features and benefits appear on each wheel page. For example: Brimstone® glass filled nylon wheels are best in a moist high temperature environment, while High Temperature Phenolic wheels are best suited for a dry heat environment. Rodie® wheels are popular on road (travel) cases, Duralastomer® wheels are popular for equipment going through a rack washer, our SteROLLizer™ wheels are the wheels of choice in autoclaves, our RokHard™ wheel has high impact strength and is resistant to chemicals. Each wheel type can be used in many different applications, and there are countless applications. We urge you to read the pages describing each of our wheels and casters. If you still have questions or wish to confirm your choice, please contact your local Durable Superior Caster® distributor or factory representative.

ERGONOMICS AND SAFETY:

A human being has to push or pull castered equipment; with that in mind, here are a few helpful facts: the larger the wheel diameter, the easier it will roll; wheels with anti-friction bearings (tapered, ball, or roller) roll easier than wheels with a plain bore or delrin bearings. Try to select the largest practical wheel diameter and anti-friction bearings if the application will permit. Using these tips, helps insure that you will maximize efficiency and productivity, and reduce work related injuries. Numerous factors need to be considered.

EXTREME CLIMATE:

We offer a broad selection of wheels capable of withstanding a wide range of temperatures from -50° F, to 1,300° F. Temperature ranges are listed in the "Wheel Characteristics Comparison Chart" on pages 7-8. Please be aware that standard bearing grease will begin to harden at 20° F preventing bearings from optimum functionality. Both high temperature and low temperature grease is available, please inquire.

COST EFFICIENCY ANALYSIS:

Initial cost is an important factor in a purchase decision; however the fact is that choosing the least expensive casters that meet your requirements can save money up front; but may actually cost you more in the long term; including the cost for maintenance, down time, and replacement. Selecting stronger casters with a higher weight capacity, larger wheels, and better bearings insures maximum productivity and longer caster life.