



## Sleeve Bearings or Ball Bearings?

Bearing selection is the key to improved conveyor roller performance and the elimination of downtime. Bearing performance depends not only on the use of an engineered bearing material, but also on the material selected for the mating surface.

### Sleeve Bearing Types

#### Nolu-S Plastic Sleeve Bearings

Nolu-S is a proprietary alloy of food grade lubricants combined with UHMW. This creates a material which retains most of the properties of UHMW while significantly reducing friction. Nolu-S advantages include protection of expensive mating surfaces, lower noise and acceptance for food contact as specified by the FDA and USDA. These bearings are used in the highest performance units produced by Solus Industrial Innovations.

#### Nyla-Ride™ Bearing Inserts

Nyla-Ride™ is a new lubricated nylon material that combines the strength properties of nylon with a lower coefficient of friction. Color coding easily identifies the bore size.

#### UHMW Plastic Sleeve Bearings

The most abrasion resistant plastic ever developed. At slow speeds these bearings provide wear resistance where there is a high concentration of abrasive particles. However, as the conveyor speed increases, Nolu-S bearings must be used to reduce friction and wear.

#### Arguto-K Impregnated Wood Sleeve Bearings

Made from hardwood maple, impregnated with fluid lubricants. These bearings are the most stable under heavy loads and can be used in high speed conveyors. Like Nolu-S bearings, they generate an oil film on demand through frictional heat. This results in reduced friction and wear. The oil film also protects any metal mating surface from rusting, which can cause additional wear.

#### Nolu Acetal Plastic Bearing

Inexpensive, injection molded conveyor roll bearings designed for light duty applications. However, with a 7/16" hex shaft, a low cost, higher performance roller can be produced by combining the Acetal bearing with a Nolu-S Hex Adapter. These Acetal bearings are available with various bore sizes and fit our most popular PVC tubing sizes.

### Ball Bearing Types

#### Nolu Plastic Ball Bearings

Designed for use with the Nolu PVC tubing. Standard bearings use high performance Acetal Races and 420 stainless alloy balls. The same bearings are available with Polypropylene races and 316 stainless steel balls for use in highly corrosive environments such as battery manufacturing plants. However, custom made bearings can be designed to meet your needs.

#### LSB Ball Bearing

Designed for use with 1.9 diameter, 16 gauge tubing. This revolutionary three piece housing design makes it increasingly difficult for abrasives and contaminants to reach the bearing insert. A variety of 6000 Series inserts can be provided.

#### HPR-220 Nolu High Performance Ball Bearings

A special high performance ball bearing assembly designed to be used in many demanding applications. This bearing assembly consists of a high performance 6000 Series shielded ball bearing encased in a reinforced Polypropylene housing. This configuration provides the lowest coefficient of friction, excellent load capacity, and high speed capabilities. It is available to fit our most popular PVC size and comes standard with a 7/16" hex bore.

### Roller Tubes

#### High Impact PVC Tube

Available in nine standard diameters ranging from 13/16" to 2-7/8" dia. The recommended load capacity at room temperature is shown in chart #1, the service temperature range being between -10°F and +140°F.

#### Steel Reinforcing Tube

Used to increase the stiffness of the above PVC tubing by a factor of 10. This tube is made of carbon steel and therefore must be encapsulated by using blind hole bearings if corrosion is anticipated. The recommended capacity of our standard PVC rollers should never be exceeded (max. 200lbs./roller).

### Roller Components

#### ABS Plastic End Plug

Used to fill the ends of the larger PVC tube sizes so that a small inexpensive flanged bearing can be used. Parts are available for five standard PVC conveyor roller sizes from 1.90" to 2-7/8" dia.

#### Steel Hex Adapters

Used to slip over hex shafting so that the outside diameter of the adapter becomes a journal surface on which the bearing in the roller can rotate. Parts are available for 5/16" hex, 7/16" hex and 11/16" hex assemblies in both carbon and 316 stainless steel.

#### Nolu-S Plastic Hex Adapters

Also used to slip over 7/16" hex shafting. They are primarily designed for use with Nolu Acetal plastic bearings. In use, an oil film is generated at the bearing surface which reduces friction and wear. The service temperature range is normally between -10°F and +140° F. Steel hex adapters should be used where there is a high concentration of abrasive particles.

#### Stainless Steel Roller Stub Shafts

Available for use in blind hole bearings. Our standard parts are Ø1/2" and are available in two lengths, 3/4" and 1-1/2". A 7/16" hex section is provided on the outside portion so that a "C" wrench may be used to tighten the pin against the conveyor frame using a 5/16" UNC bolt.

#### ABS Plastic Shaft Caps

Used on the ends of 7/16" hex or round shafts. They provide a simple method of retaining the shaft in the roller assembly. Primarily they are designed to offer a means of mounting the roller in the side frames in a way that metal to metal contact can be avoided. With an 11/16" wide, open ended slot in the side frame, noise and frame wear can be eliminated.

#### UHMW Sprockets

Available to custom fit our standard rollers to a driven system. These UHMW sprockets are problem solvers in dirty or corrosive environments. They extend the life of the chain and are much quieter.