

Variable Speed Drives

Overview

Variable Speed Pulley Product Preview

Lovejoy offers the most complete line of non-enclosed variable speed belt drives from fractional through 30 horsepower. Each component is made with the quality and reliability that Lovejoy builds into all of its power transmission products.

Features

- Very economical and reliable method of speed change
- Allows the user to find the ideal speed without changing sheaves and belts. This is especially important on applications where final driven speed is critical and difficult to attain with two fixed-diameter sheaves. Speed range within the ratio is infinite, and speed change is accomplished quickly, while the drive is running
- Can be used as a highly efficient belt tensioner, with no adjustment necessary
- Offers a form of "soft start," eliminating belt slip and premature wear on belt drives with inherent high torque start-up requirements

Econoline Series

The Econoline Pulley series provides reliable variable speed service with a proven design at an economical cost. Consisting of a wide selection of models, the Econoline series is ideal for both adjustable and fixed center drives using classic "A" and "B" (or 4L and 5L) section drive belts. This series also offers: driven speed ratios from 1.6 to 1 up to 2.7 to 1 and horsepower ranges from fractional through 5 HP @ 1,750 RPM motor speed.

The flanges are constructed of durable cast iron. Typical applications of this maintenance-free pulley include: conveyors, mixers, small machine tools, mower traction drives, printing equipment, packaging machines, and belt tensioners.

Aluminoline Series

Aluminoline variable speed pulleys offer the best possible belt alignment with the least amount of overhung load. Used with "A" and "B" drive belts, these pulleys not only have anodized aluminum flanges which provide quiet operation with minimum vibration, but are rated for 1/3 through 1-1/2 HP motors. These two-side moveable pulleys offer greater speed ratios (up to 2.75 to 1).

Due to the corrosion-resistant properties of these pulleys, they are ideal for use on agricultural machinery, food packaging and bottling equipment, baseball pitching machines, and a variety of other products.



Econoline Series



Aluminoline Series

VSD

Lovejoy

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WB Series

Pulleys in the WB series use wide variable speed belts for the most efficient transmission of torque through the widest possible speed range. This two-side moveable pulley series offers the best possible belt alignment when used with a grooved companion sheave. WB pulleys provide maximum service when lubricated through a convenient grease fitting and offer sizes ranging from 6 to 13 inches in diameter, with the largest model capable of 15 HP. All models greater than 1 HP feature durable cast iron flanges (Models 245 and 260 are made with lightweight, corrosion-resistant anodized aluminum flanges).

These pulleys can be used on both adjustable and fixed center drives. Typical applications include: conveyors, printing presses, mixers, packaging and bottle-filling machines, machine tools, and agricultural equipment.

Hi-Ratio Series

Hi-Ratio drives provide the unique combination of broader driven speed ranges and lowest possible minimum driven speed. Three drive packages are available, with horsepower ranges from 1/2 to 5, with a 1,750 RPM motor, and speed ratios up to 11.5 to 1. They are ideal for use on machine tools and mixing machinery.

Hexadrive Series

Hexadrive pulleys are the most durable variable speed pulleys available. The hexagon-shaped center shaft efficiently transmits torque through the six hex flats for top performance and long life. The surface of the shaft is covered with a resilient elastomer, which means there is no metal-to-metal contact on any sliding surface and lubrication is not necessary.

These pulleys are available in adjustable or fixed center drives and come in two styles: one-side moveable for V-Flat drives, and two-side moveable for V-V drives. Flanges are made of cast iron to provide a long-wearing belt contact area. These pulleys provide size ranges from 6 inches up to 12.5 inches in diameter, and a maximum rating of 30 HP @ 1,750 RPM.

Some typical applications include: agricultural equipment, food packaging machines, air handling systems, textile spinning frames, mixers, pumps, machine tools, and foundry snag grinders.

Adjusta-Sheave Series

The Lovejoy Adjusta-Sheave can be a cost-saving alternative to a springloaded pulley when speed change is infrequent. To change speeds, the drive must be shut down (unlike other variable speed pulleys). All models use wide variable speed belts.

The Adjusta-Sheave design eliminates the need for internal drive keys, thus providing more efficient transfer of power and longer life. The two cast iron flanges are moveable, allowing perfect belt alignment at all times. Four models are available with ranges from 5 through 30 HP and speed ratios up to 2.5 to 1. Typical applications include: textile spinning frames, heating and air conditioning equipment, pumps, etc.



WB Series



HI-Ratio Series



Hexadrive Series



Adjusta-Sheave Series