

APPLICATION BULLETIN

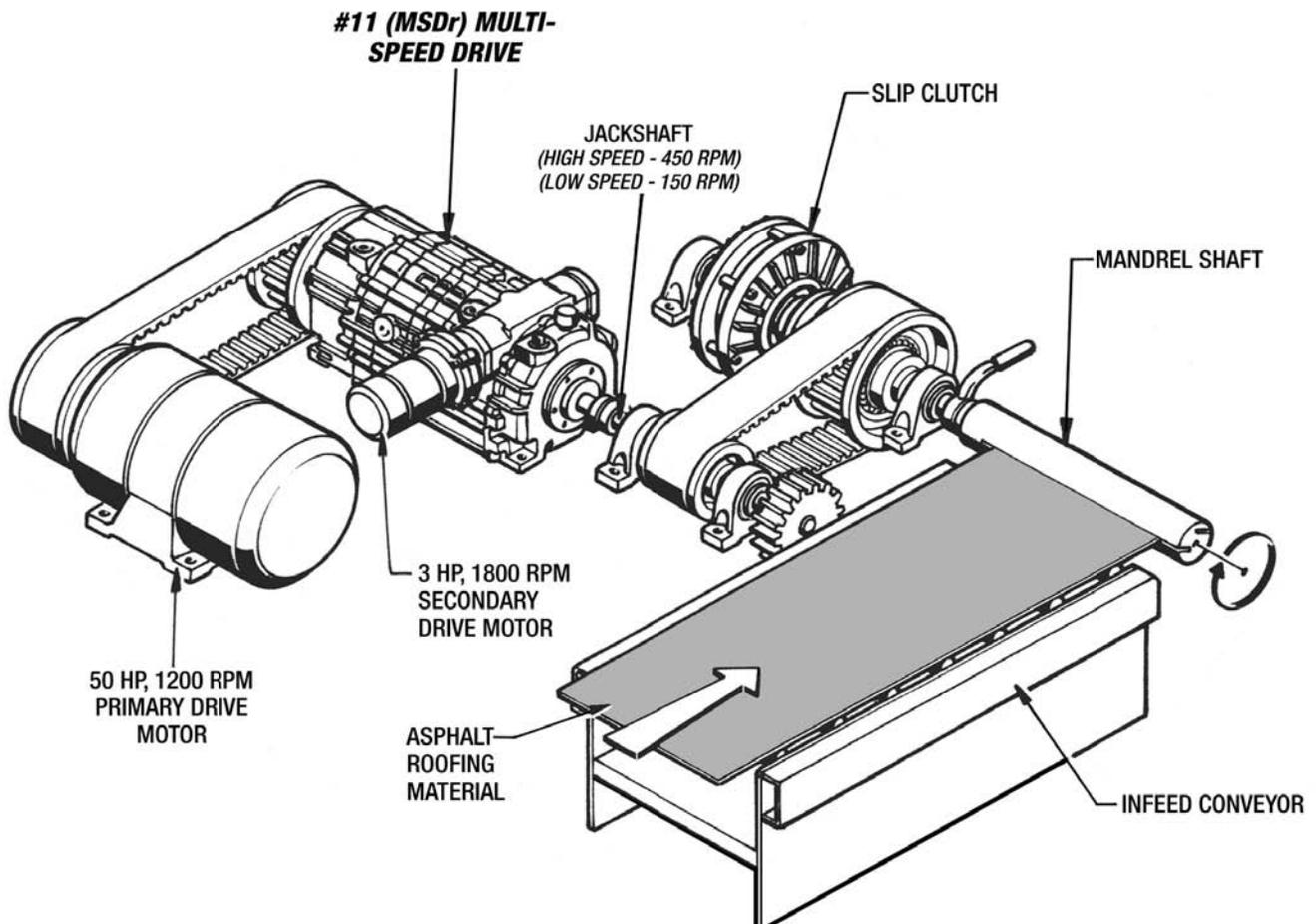


APPLICATION: Roll Winder Drive Package

INDUSTRY: Asphalt Roofing Shingle Plants

PRODUCT: Oil Shear *Posidyne* Clutch/Brake

ROLL WINDER DRIVE PACKAGE



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WHERE THEY ARE USED: The main drive on a roll goods winder in a shingle plant serves several purposes. It must position the roofing material into the mandrel and accelerate at low speed to begin the wind assuring a proper start. Then it must accelerate into high speed to quickly wind the roll. At the end of the wind the drive must again slow down and finally stop at the proper position.

HOW THEY WORK: Currently the main drive on a mechanical winder consists of a 40 or 50 HP motor, main clutch (usually air actuated), a main brake (large electro-magnetic or air actuated disk brakes have been used), and a slow speed inch drive consisting of a motor, smaller air or electric clutch/brake, gear reducer, over-running clutch, and chain drive.

PROBLEM SOLVED: This group of drive components can be replaced with the **# 11 MSDr Posidyne Multi-Speed Drive**. This unit is a high speed clutch, low speed clutch, worm gear reducer, and brake all in one compact package. The main 50 HP motor can be on the **Posidyne** Clutch/Brake or simply belt driven from along side the unit. A small 3 HP inch motor is C-faced directly to the **Multi-Speed Drive**.

Installation is easy. First remove the main clutches and brakes and the inch or slow speed drive package. The main shaft which holds the clutches and brakes needs to be shortened and a pillow block bearing mounted with approximately 6" of shaft extending beyond the bearing. The shortened jack shaft now contains the pulley driving to the slip clutch on the mandrel shaft and the gear driving the pinch rolls and knife.

The **Posidyne # 11 MSDr** is controlled via a valve package included with drive. Outputs from the PLC will control the high speed clutch, low speed clutch, and stop. An air supply is already existing from the original air clutch.

The **# 11 MSDr** is direct coupled to the new modified main shaft with a flexible gear coupling. The 50 HP motor can be mounted on the existing motor base which has been moved to allow the belt drive to align with the **# 11 MSDr** input shaft.

IMPORTANT FEATURES:

- Complete drive package included in one compact, totally enclosed, lubricated package. Maintenance on various chain drive, open brakes and clutches are eliminated.
- The **Oil Shear** clutches and brake in the **# 11 MSDr** do not require adjustment during the life of the unit thereby eliminating frequent scheduled or non-scheduled maintenance.
- The **Oil Shear**, multiple disc clutches and brake are extremely consistent for excellent positioning while allowing to run at full speed longer. This could lead to more rolls per hour.
- Reduced inertia by eliminating the large main clutch and brakes reduces required horsepower to start and stop. This can relate to higher cycle rates.
- Integral low speed drive with C-face motor reduce maintenance of dry clutch/brake, over-running clutch, reducer and chain drive.
- Easy installation with a minimum of major machine changes allows installation during short down periods, or while running other products.
- Proven reliability of the **Posidyne Oil Shear** Clutch/Brakes in the roofing industry reduce risk of retrofit.



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