

## POWERMATIC PF-31 and PF-33, 3-Wheel Powered Stock Feeder

The POWERMATIC PF-31 is a rugged stock feeder that has been designed to provide positive, consistent feeding with all types of materials in a busy shop environment. A fully adjustable support column and arm equipped with multiple universal joints, each with tool-free locking mechanisms make it easy to use this feeder in horizontal, vertical, or angle feed configurations. The liberal use of precision machined cast iron and steel makes the POWERMATIC PF-31 Stock Feeder smooth running and dependable over the long run.



This Powermatic PF-33 Stock Feeder is designed to handle a busy shop with minimal downtime and maintenance costs.

### Motor and Drive



The PF-31 motor (left) is pure heavy-duty, starting with the cast iron case with integral cooling fins. The switch (lower right) on the feeder body selects the high and low speed ranges.

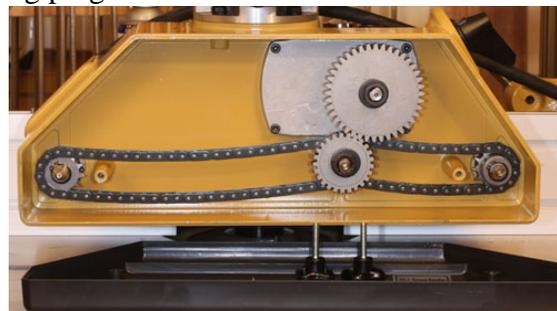


The POWERMATIC PF-31 Stock Feeder (#1790807K) is equipped with a heavy-duty 1 HP, 115 V (only), 1 Ph motor. The PF-33 is available with 230V (#1790800K) and 460V (#1790810K) 3 Ph motors.

Powermatic motors are rated using a continuous duty cycle, rather than a “peak” or “max developed” figure. The hefty cast iron motor case with its integral cooling fins keeps operating temperatures low through extended periods of use.

The motor is controlled with an industrial style rotating switch. The switch has three positions: Off, Forward and Reverse. Another lever-actuated switch on the feeder body shifts the feeder between high, off and low feed rates. The motor and switch on the 115V models come pre-wired with a 9-ft-long cord fitted with a three-prong grounding plug. The 230V and 460V versions do not have a cord or plug so you can wire it properly for your shop.

A sealed, oil-filled gearbox transmits the motor power to the wheel drive. This oil bath gearbox keeps the gears running cool and well



The switch on the motor (left) controls forward or reverse feed directions. The gears can be reversed to produce a second high/low feed rate.

lubricated. A screw-on cap makes checking or refilling the oil simple.

Power from the gearbox is delivered to the drive wheels with a roller chain and sprocket system that insures positive feeding of the work material. A set of gears is pre-installed in the drive section but their positions can be reversed for another two speed range within the 13, 36, and 43, 108 FPM. (feet per minute) capability. With the large gear on top 36 and 108 FPM speeds are available. With the large gear on the bottom you get 13 and 43 FPM. A diagram in the instruction manual and inside the gear cover shows the gear placements and related speeds. Two finger-operated knobs on the drive section cover provide quick access.



### Roller Wheels

The non-marring rubber used on the drive wheels has been formulated to provide excellent gripping characteristics, wear resistance and resilience for years of service. The roller wheels are 4-3/4"-diameter by 2-1/4"-wide. The roller wheels are designed to be changed

Each of the wheels (left) is mounted on its own suspension arm to help keep it in firm contact with the material. Each wheel is easily replaced individually and has its own grease fitting at its center, (right)

easily and quickly. To help contain costs, the wheels can be changed individually as needed rather than in full sets. For specialty operations such as curved workpieces, the center wheel can be removed for greater separation. Each wheel has a grease fitting at its center to keep the POWERMATIC PF-31 Stock Feeder running smoothly. The chain and gear shafts also have grease fittings. We even include a hand-operated grease gun so you can keep the POWERMATIC PF-31 Stock Feeder running smoothly.

Each roller wheel is independently suspended to insure full contact even when the work piece is not exactly flat. Each wheel has approximately 14mm of vertical suspension travel. This range of motion allows using 1/8" to 3/16" of preload to keep the work piece firmly on the table or fence during the operation.

### Support Column

The steel and cast iron support column is both rigid and rugged. The steel column and arm are 2.28"-diameter and precision-ground from heavy-walled steel tubing. The column comes with a heavy cast iron base and an easy to use bolt pattern template that makes installation easy. The base



The support column (left) and arm (right) are made from heavy-walled steel tubing. Both have easy to use adjustments that make setting the PF-33 up for use simple.

fits the pre-drilled and tapped mounting holes in the rear corners of the POWERMATIC PM2700 shaper. The M12 X P1.75 mounting bolts are included. The joints are also made from heavy iron castings and equipped with tool free locking levers that make securing the POWERMATIC PF-31 Stock Feeder in whatever position is needed fast and easy.



The mounting base (left) fits the twin mounting hole sets on the rear corners of the Powermatic PM2700 shaper but we include an easy to use bolt pattern template for mounting the PF-33 on other tools. The tool-free universal joints (right) make putting the PF-33 exactly where needed an easy task.

The column assembly gives the POWERMATIC PF-31 Stock Feeder 9-3/4" of vertical movement, controlled by a top-mounted crank that drives a lead screw. There is a full 18" of horizontal

movement, driven by a large handwheel that operates a gear drive. This column/arm system provides a maximum distance from the rollers (rollers parallel to surface) to the table surface of 8-1/2". The column can be swung 360-degrees giving the POWERMATIC PF-31 Stock Feeder maximum versatility on router tables, shapers and table saws. This also makes it easy to swing the POWERMATIC PF-31 Stock Feeder out of the way when not in use. The roller wheels can also be positioned on the horizontal plane (to the table surface) for operations such as feeding stock on edge along a shaper fence for face cuts.

The POWERMATIC PF-31 Stock Feeder is designed and built to handle the demands of a busy shop with the dependability you expect from POWERMATIC. Whether you use the POWERMATIC PF-31 Stock Feeder on a jointer, router table, shaper or table saw it will help increase productivity and enhance safety.