



## 10M14 Mechanical Shear







Roper Whitney mechanical shears utilize a simple low maintenance design, coupled with an array of standard features for an attractive combination of high value and solid performance.

The 10M14 capacity is 14-gauge mild steel, 18-gauge stainless up to 121.25 inches in cutting length. The electro-mechanical design of the 10M14 provides quiet operation with low power consumption. The shear is initiated by a moveable footswitch. An oversized shield and toe kick plate are incorporated into the footswitch for added operator safety. The 10M14 is capable of 35 cutting strokes per minute. For increased speeds please consult factory.

The 10M14 Series shears are standard with an two edge interchangeable top and bottom, high carbon, high chrome top and bottom blades, independent, self-leveling hold down with neoprene insert, single, continuous and jog stroke cycles, motor reverse switch, precision-machined table, with dual inch/metric inlaid bed scales and non-metallic gibs.

Non-metallic self-lubricating ram gibs ensure long life for the 10M14. Maintenance free self-lubricating bearings are standard.

Benefits of the 10M14 power shear are:

- Low power consumption
- Quiet operation
- Superior quality of cut
- Fast power back gauge

Roper Whitney 10M14 series shears are available in a "Pro Package" configuration. The Pro Package includes: a Four Foot Left-Hand Squaring Arm with Right-Hand also available, slide out Front Support, and Air Operated Sheet Support System. Pro "F" system is for front return. Pro "FC" features a movable front return Material Cart.



## **Powered Back Gauge**

The power back gauge consists of a mechanical stop, twin drive screws, gear motor, digital readout, and rotary encoder.

Twin drive screws support the mechanical back gauge stop.

The system is chain driven by the gear motor, and is
monitored by a rotary encoder.

Motion for the back gauge is initiated at the control panel by depressing the appropriate push-button for forward or reverse. Final adjustments to the back gauge position are made using the hand wheel, attached at the front of the gear motor.

The position of the back gauge is displayed on the digital readout, located on the electrical enclosure.

The system is protected by over travel limit switches located at the front and rear of the back gauge travel.





10M14 shears come standard with a full length front sheet support bar for even handling of varying material thicknesses.

The sheet support system is coated with graphite paint to insure easy movement of the material.

## **ALUMINUM SHEARING APPLICATIONS**

The 10M14 is capable of shearing a wide variety of aluminum. The machine has been tested with 5052-H32 aluminum at a thickness of 1/8". Medium and high grade aluminums with similar brittleness characteristics (such as 5052-H32 and 6061-T6) will fracture in a like manner during the cut: the machine only shears the first 1/4 of the thickness, with the balance of the thickness fracturing independent of the shearing action.

Soft grades of aluminum (such as 3003-O) require complete cutting by the shear blades, and undergo a large amount of compression during cutting. The 10M14 shear has reduced capacity in this material, with the softest grades of aluminum restricted to .075 inch thickness.

All aluminums leave a residue on the blades during the cutting action. This residue must be removed before a significant buildup can occur. Failure to remove them can result in poor quality cuts and damage to the machine. There are a variety of methods to accomplish this, including spray chemicals. Damage caused by aluminum buildup on the shear blades is not covered by the manufacturer's warranty.

M Series	10M14
Maximum Shearing Capacity (Mild Steel) Mild Steel Rated Materials at 80,000 Tensile / 44,000 Yield	14ga / 2,0mm
Maximum Shearing Capacity (Stainless) Stainless Rated Materials at 90,000 Tensile / 55,000 Yield	18ga / 1,25mm
Maximum Cutting Length	121.25 in / 3080mm
Back gauge Range	24 in / 610mm
Strokes per Minute	35
Hold down System	Solid bar with non-marring urethane Insert
Motor-230/460v, 3-phase, 60Hz	5 hp
Back gauge Motor-230/460v, 3-phase, 60Hz	1⁄4 hp
Working Height of Shear Table	31-3/4 in
Floor Space, Gauges in Position	145 x 70 x 52 in
Shipping Weight	5,500 lbs.

## N SERIES 1014

