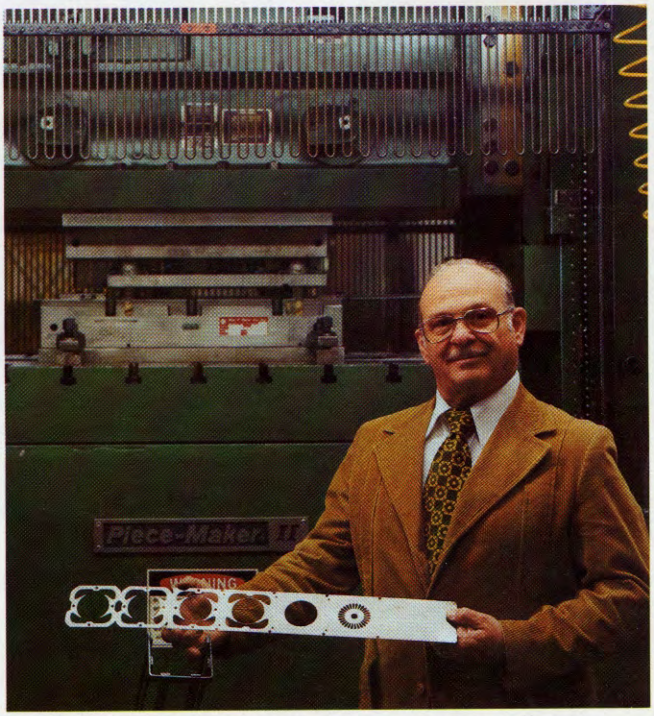
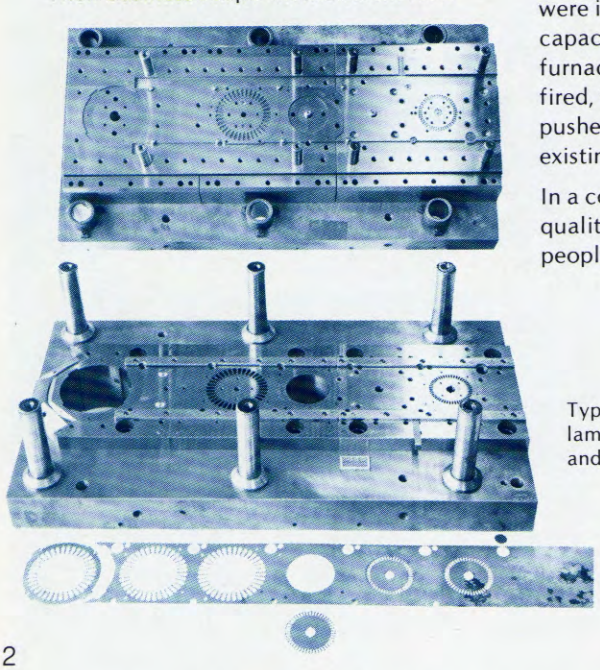
High speed, dynamically-balanced *Piece-Maker®II* presses give W.P. Stein Company exceptional accuracy and die life



Mr. Ed Chafel, Plant Manager, shows rotor and stator lamination strip run in the Minster PM2-200.

One of the nation's oldest lamination houses is utilizing new stamping technology from Minster to get higher productivity and quality stampings. W. P. Stein Company, Rochester, New York, is using two Minster Piece-Maker II dynamically-balanced presses to produce precision electric motor laminations. The 30-employee firm started building dies in 1903, went into high volume parts production in 1968. Its top four people combine over 155 years experience in making lamination dies and stampings. Their business scope extends from New England to the Rockies ... from Wisconsin to the Southern States. They design, build, maintain and service tungsten-carbide progressive dies.



Typical tungsten-carbide lamination die designed and built by Stein.

When they expanded into long run motor lamination production, W. P. Stein Company started with a Minster 60 ton Piece-Maker press because they knew that so many of their customers thought so much of Minster.

As business volume increased so did the need for expanded production capability. Two Minster 100 ton Piece-Maker presses were installed. To enlarge annealing capacity (they operated a batch-type furnace) Stein purchased a 43' long gas-fired, vertical radiant tube, roller rail pusher annealing furnace to add to the existing furnace's capability.

In a continuing effort to increase part quality and production efficiency, the people at Stein constantly seek out the latest stamping technology. Minster's line of Piece-Maker II presses promised to enhance their ability to "deliver the goods" to customers at competitive rates.

In May 1978, a 200 ton PM2 went into operation with 1-1/2" stroke at 500 spm. Later a 125 ton press was installed. It produces rotors and stators for fan-applicated motors and holds concentricity between I.D. and O.D. to within .0005" T.I.R. This press is temporarily limited to running at 400 spm due to the free hanging stock loop. However, a Minster Coiled Material Handling System, soon to be delivered, will enable it to reach its design speed of 600 spm with 1-1/4" stroke.

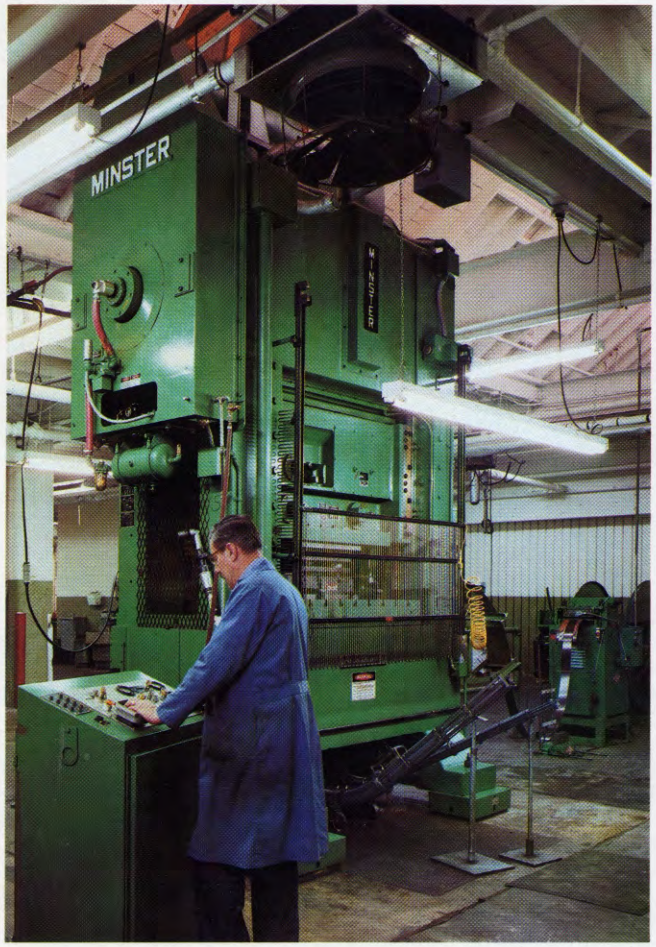
Mr. Ed Chapel, Plant Manager said "We are quite confidant that these presses will give us the desired quality laminations as well as long and efficient runs with greater die life."

Mr. Chafel expressed the opinion that "Service to a lamination stamping plant is a most important criteria. And, Minster service excels in every way.

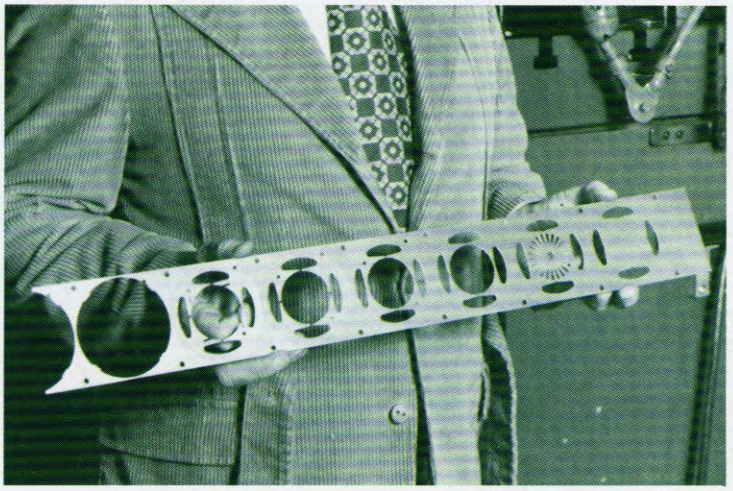
We are anticipating the purchase of at least two more dynamically-balanced Minster presses in 1979."

PM2 Press Features Assure Exceptional Accuracy

The Minster Series PM2 press line ranges from 60 to 400 tons. It incorporates many



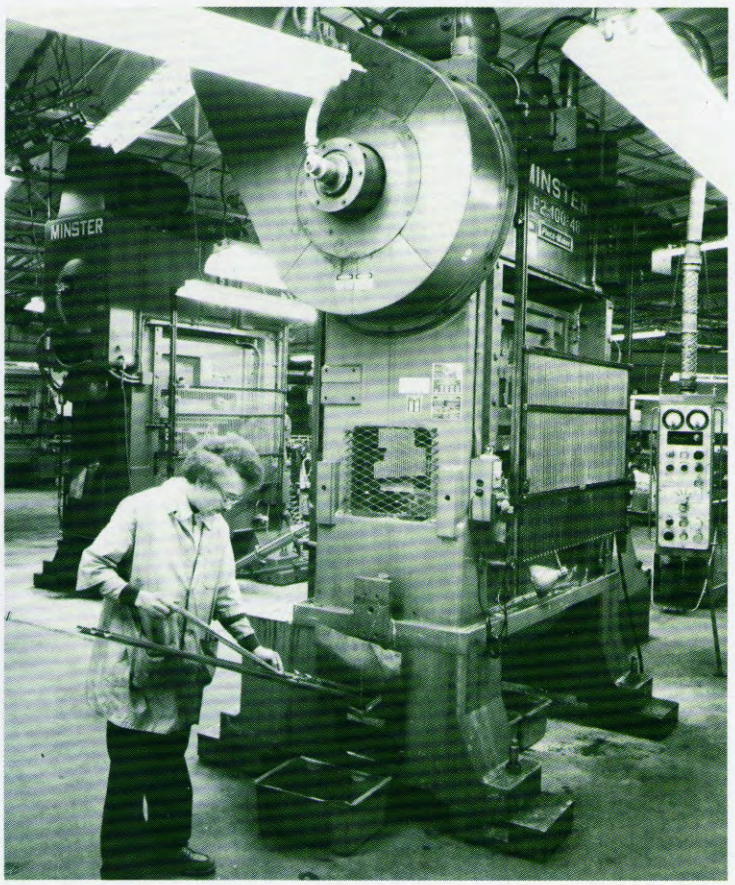
125 ton Piece-Maker II, latest to be installed, will soon be equipped with a Minster Coiled Material Handling System. It now operates at 400 spm on the rotor-stator parts shown in the close-up strip photo.



features that insure the precision of the press is enhanced and maintained through years of day-in, day-out high speed production.

Standard PM2 features include:

1. 100% dynamic balancing for a wide range of upper die weights.
2. Thermal stability at all speeds, between crown, bed, slide and uprights.
3. 16-point hydrostatic gibs with absolute minimum clearances.
4. One-piece, low-deflection bed and legs with integral oil sump.
5. "No-clearance" lock-up arrangement on slide adjustment screws to remove clearances between adjustment parts and reduce snap-thru shock.
6. Heavy, oversize wrist pins, slide adjustment screws, main bearing diameters, connection and main bearing cap bolting to handle high snap-thru load in addition to normal die tonnage.



One of two P2-100's at W. P. Stein Co. Both 100 ton Piece-Maker's produce rotors and stators for automotive accessory motors using 5-out dies. Typical daily production is over 2 million parts per day.