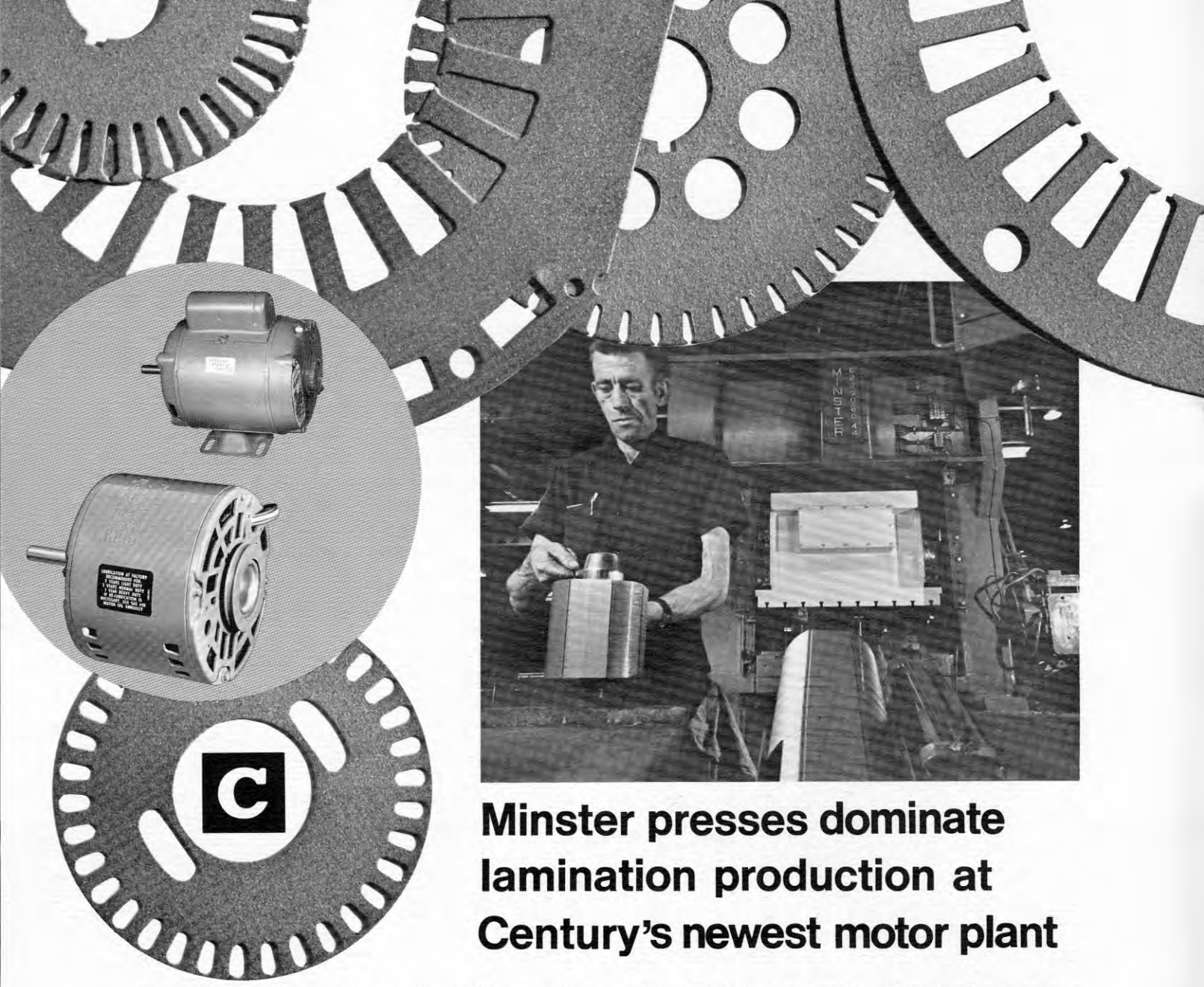


Minster presses dominate lamination production at Century's newest motor plant

One of the newest, most modern plants in the electric motor industry was put into operation in late 1968 by Century Electric Company at Corinth, Mississippi. The primary function of the plant is production of the company's 48-Frame permanent split capacitor and capacitor-start fractional horsepower motors. Over 7,000 varieties of these motors are made to customer specification with computer-controlled production scheduling. Major markets for Century 48-Frame motors are air-conditioning, heating, cooling, water pumps, business machines, etc. In 1970, more than 750,000 units were produced at this new facility which currently employs 550 people.

LAMINATIONS FOR ALL MOTOR PLANTS

In addition to complete motor production, the Corinth plant supplies laminations up through the 210-Frame size for Century's other motor plants located in St. Louis, Mo., McMinnville, Tenn., Humboldt, Tenn. and Lexington, Tenn. Over 2,000 tons of cold-rolled steel, most of it .0225 "thick", is punched into laminations every month. Century does its own slitting both straight and on a scroll line utilizing a Minster 100 ton Piece-Maker® press. With few exceptions, all laminations are made with carbide dies.

MINSTER PRESSES PREFERRED

Mr. I. J. Schumaier, Plant Manager and designer of the Corinth motor plant has a heavier investment in dies than he does in presses and feels that the dies must be protected by using only the best press equipment. He says, "We never have trouble with Minster presses and we get longer die runs. We just don't buy any other kind of presses for lamination work".

The main press line at Corinth consists of a 200 ton Minster Piece-Maker and four 250 ton capacity E2 HeviStamper® lamination presses in a row. Across the aisle are two more 250 ton E2s and a P1-75.

PRESSES DESIGNED FOR LAMINATION WORK

The type of E2 press used by Century was designed specifically for high precision production of laminations. It has closer clearances at the slide and gibs than standard E2 presses. This gives the machine outstanding parallelism and accuracy. The crown and base are welded steel and the legs are extended for added stability.

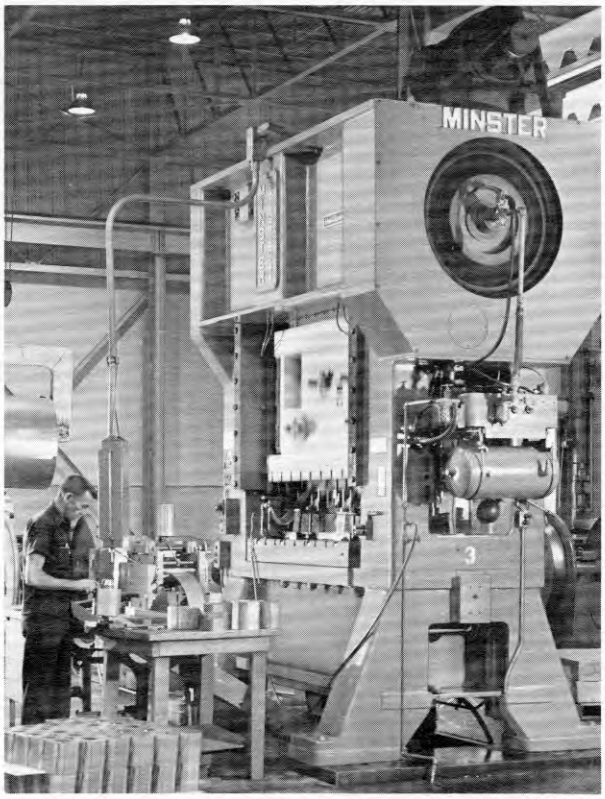
The bolster plate is 6½″ thick (1½″ more than standard for extra strength). Stroke of slide is 1½″ and the speed range is from 115 to 225 spm, with production speed at Century ranging from 190 to 225 spm on most jobs.

These flywheel type presses are equipped with roller cam drive feeds for fixed feed length accuracy of ±.002″ at 1200″ per minute and ±.003″ at 1500″ per minute.

E2 presses are protected by Minster's patented MonitorFlow® lubrication system which provides a continuous flow to all main and connection bearings and counter-balance cylinders. The oil flow is electronically monitored so any lube fault is detected and the press automatically stopped until the fault is corrected.

Century's newest plant has many interesting features including a 125′ long lamination annealing furnace which runs 24 hours a day. Typical of the careful planning which went into this facility is the huge concrete "beam" beneath the main press line. The presses run at high speed and to dampen vibration they are mounted on a solid concrete (13,000 tons of it) steel I-beam re-inforced footing which is 20′ wide and 100′ long.

The Corinth plant is a widely automated, highly productive operation and Minster is very pleased to play a vital role in its operation.



Close-up of exceptionally stable and precise HeviStamper® press producing laminations.

Main press line features Minster E2 lamination presses.