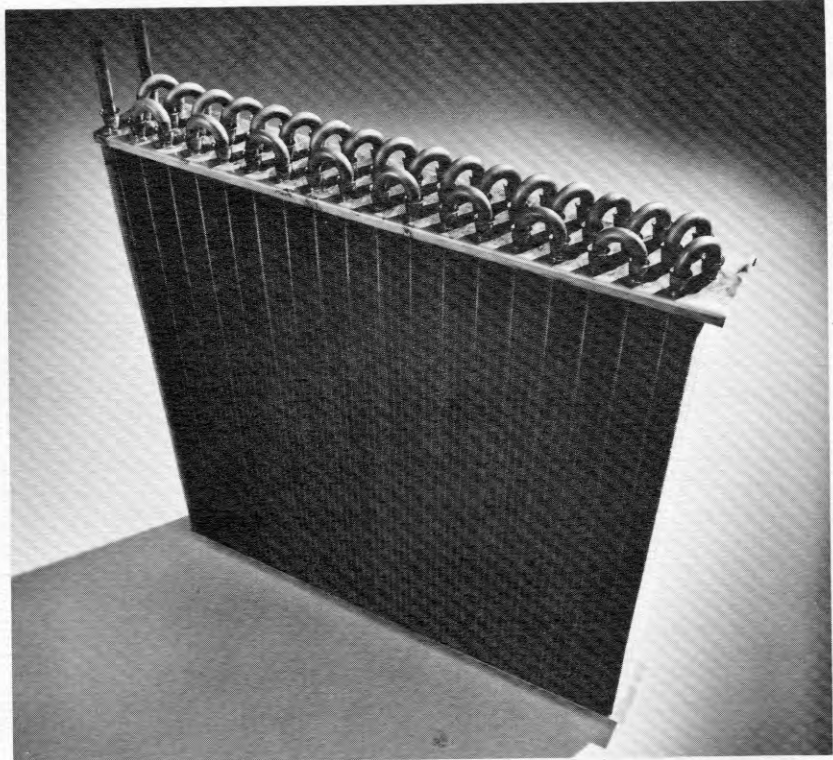


NEW ALCOA 450 PROCESS* FEATURES MINSTER "FIN-MAKER" PRESS



Finished fin pack

A new process for producing air-conditioning heat exchanger fins three to four times stronger than conventional fins has been developed by Aluminum Company of America.

A Minster F2 "Fin-Maker" press is an essential component of the fin production line which was built for Alcoa by Weldun Tool & Engineering Company.* Designed specifically for making heat transfer fins used in air-conditioning, cooling, heating and refrigeration applications, the "Fin-Maker" is an extremely rigid and accurate machine with several unusual design features. Sustained high speed fin production requires special die capacity, and close tolerance parallelism due to off-center loading conditions encountered.

In designing the Fin-Maker press for this operation Minster provided an extra wide die area for front to back feeding. The slide has been equipped with extra long gibs which are spaced as wide as possible. Slide connections are also spaced as wide as possible within the slide. Thus, the "Fin-Maker" provides the highest degree of parallelism to cope with the off-center loading conditions found in fin-per-stroke applications.

QUICK-ACCESS SLIDE ARRANGEMENT

A quick opening, motorized slide adjustment device permits an immediate (10 seconds) 4" lift of the slide for die inspection or die changing. This lift permits total access to upper and lower die sections. A flip of a switch returns the slide to exactly the same original shutheight.

*PATENT APPLIED FOR

This is a mechanical arrangement which permits very accurate repositioning and allows metal to metal contact throughout the drive of the machine for a better finished product and longer die life.

WEDGE-TYPE BOLSTER DIE SPACE ADJUSTMENT

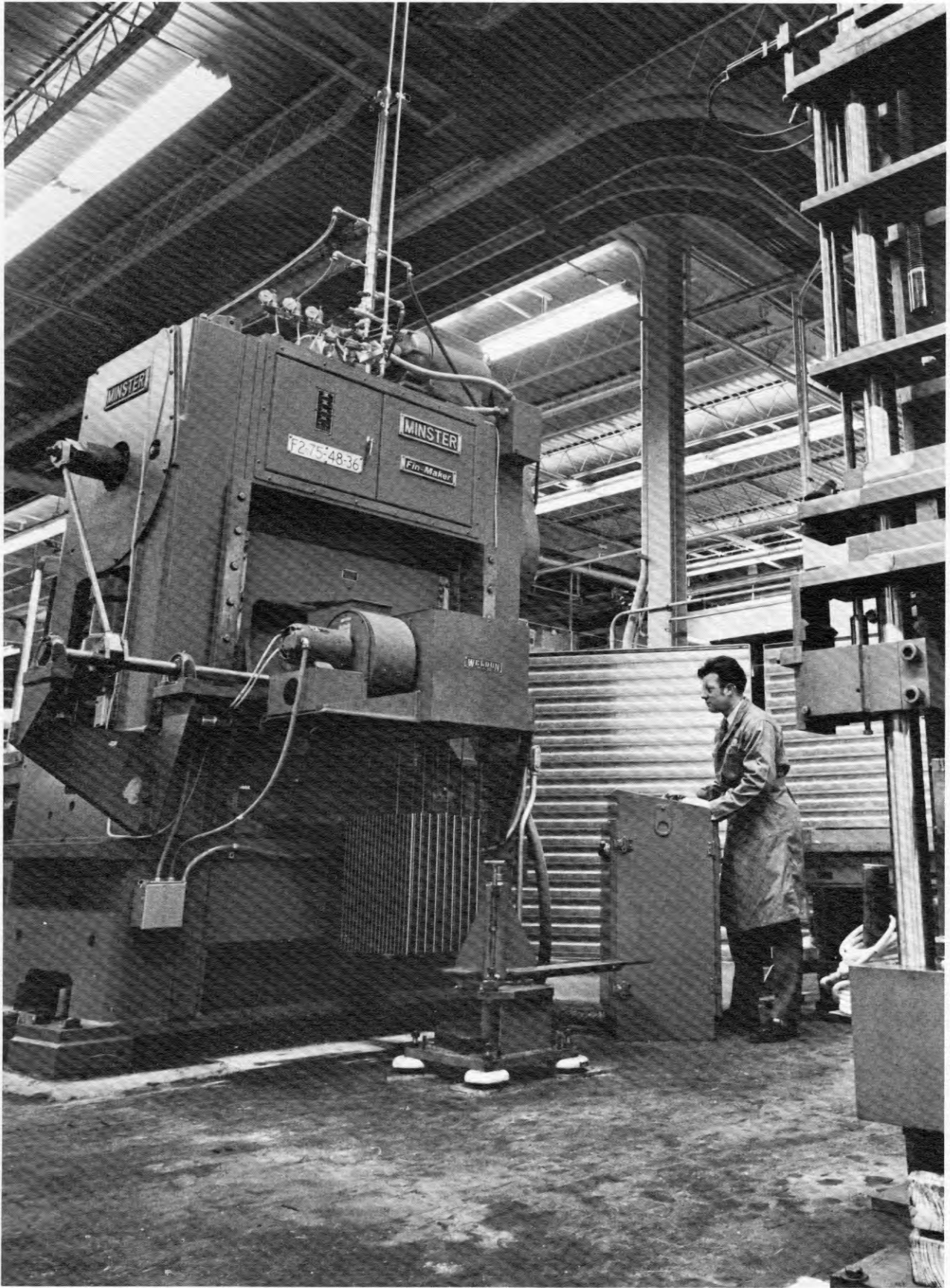
The F2 press is equipped with a wedge-type bolster die space adjustment with a direct reading five digit shutheight indicator accurate to .001". The bolster provides 1/2" of die space adjustment through a ball screw arrangement. A positive locking device locks the bolster after adjustment.

The "Fin-Maker" press has a speed range of 170 to 500 strokes per minute. The press will handle the full range of present and future fin dies and the high speed will accommodate the better fin die technology of the future.

The Alcoa 450 Process uses H19 temper aluminum fin stock which has a high strength-to-weight ratio. Fins can be made of from 15 to 20% thinner gauge metal with obvious cost savings. Additional advantages of the Alcoa process include reduced in-plant and job site damage to fin packs, fewer operations required to produce fin collars of satisfactory height, production of flat fins for ease of assembly with hairpins and 15% to 20% higher rate of production.

The Minster F2 Fin-Maker is described in detail in Bulletin 48.

**Weldun and Minster have developed a complete packaged system with Weldun taking undivided responsibility. For details, contact Minster.



MINSTER "FIN-MAKER" PRESS IS VITAL COG IN PRODUCTION LINE