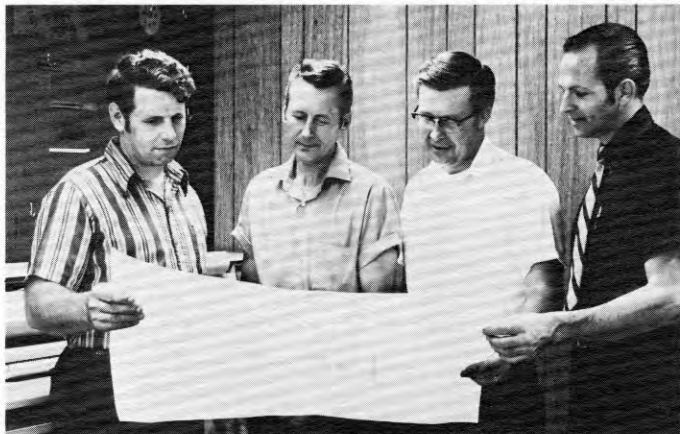
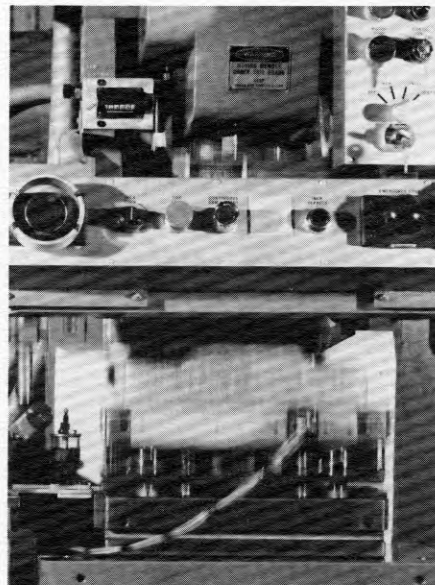




Penn United Technology makes high precision electronic parts at 800 spm with Minster B1 Press



Management of Penn United Technology, Inc., left to right, are Carl E. Jones, president; Bob Becker, vice-president; Charles Barton, Jr., Sec. and Treas.; and Jack Campbell, Sales Manager.



Close-up of Minster press running at 800 spm.

A small company is "mushrooming" in the mushroom country surrounding the town of Saxonburg in western Pennsylvania. Penn United Technology, Inc., was started in May 1971 by three veterans of the die and stamping business. Within a year they grew to a staff of twelve highly experienced men and are supplying precision carbide dies and stampings to the electrical, electronic and communications industries on a national scale.

Located on the farm of Carl E. Jones, president, Penn United Technology doubled in size in the first 9 months but has 12 acres for future plant expansion at another site. They expect to use it all in the ensuing years. Their plant today includes a complete die design and building facility and a press room which, at present, is equipped with one Minster B1-32 high speed press of the latest design. The press is used both for trying out the carbide dies built by the firm and for contract stamping of close tolerance parts such as copper terminals and thin lead frames for integrated circuit packaging. Let's take a look at one job Jones and his associates are running at 800 strokes per minute.

Part: Lead frame for integrated circuits

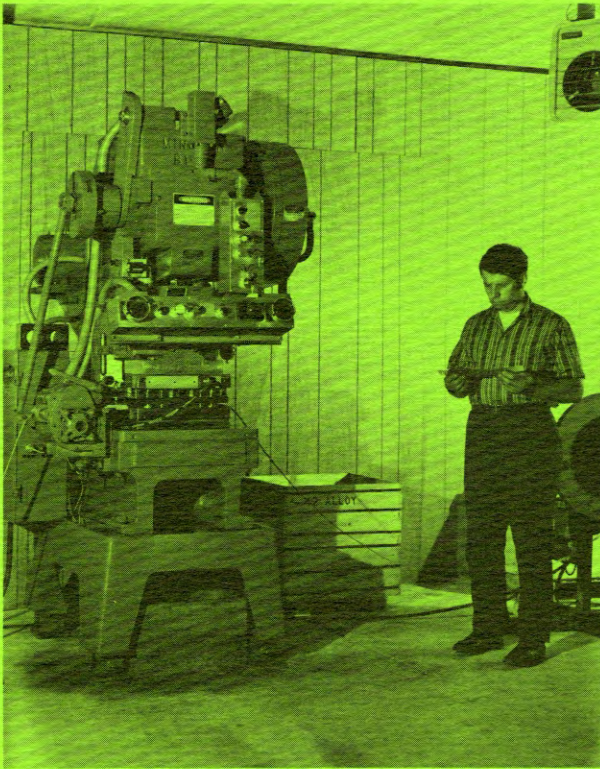
Press: Minster B1-32, $\frac{3}{4}$ " stroke, with latest controls that meet Minster's interpretation of ANSI B11.1-71 standard. The press is mounted on $\frac{1}{2}$ " rubber shims and spring-loaded pads

Feed: Single roll type—feed length .7505"

Die: Carbide progressive with micro-switch protection device, built by Penn United Technology

Material: 42 alloy (42% nickel - 58% iron) .010" thick x 1" wide

The material coil is unwound from a centering reel, run through a straightener, fed into the press and stamped. Scrap drops through the die with the aid of an air blow-off. Finished lead frames are rewound into coils on a special recoiler designed by Penn United for this type of production. Finished parts are interleaved with a strip of paper as they are wound onto the coil. Human hands never touch them except for routine inspection. It takes about 1½ hours to run off a coil and at 800 spm that's a production rate of 72,000 lead frames.



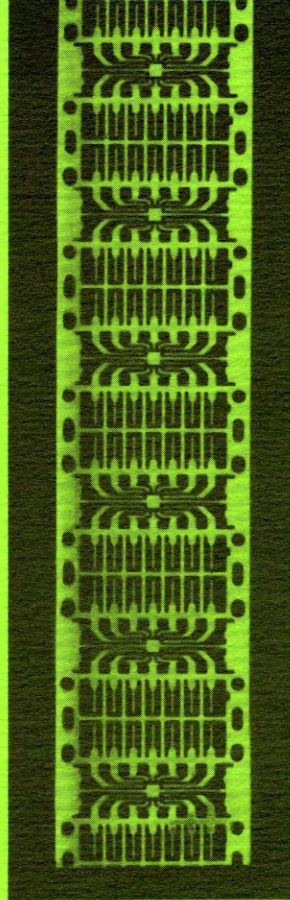
Carl Jones, president, checks sample of lead frames being made on Minster B1-32 high speed press. Note special re-coiler behind him.

MINSTER PRESS CHOSEN OVER COMPETITIVE BRAND

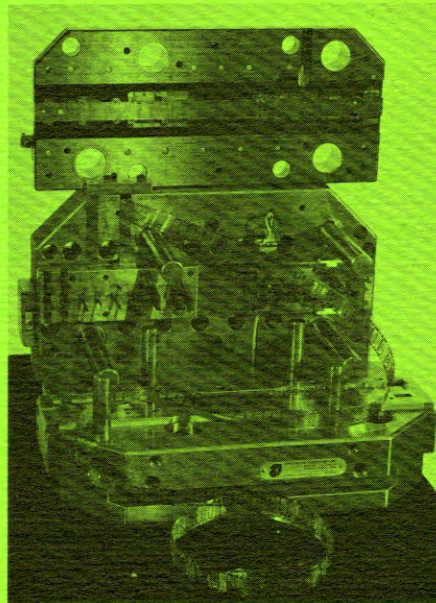
Carl Jones has had experience with several brands of high speed precision presses. When asked why he selected Minster he said, "We were very careful in selecting our first press. It had to be the best, most precise, most productive machine available. We bought a Minster B1 because it has a heavier crank and bearings. The bed area is larger and more accessible. We can slide a die in from the front quickly and easily. The Minster has greater flexibility of use for us because we can get longer progressive die length and thus run more dies without going to a larger machine. The Minster is faster stopping and has better controls."

"Of course", he continued, "availability of spare or repair parts is a big factor. We can get them overnight if necessary. I know from experience that Minster has an excellent Service Department. We'll be buying more Minsters."

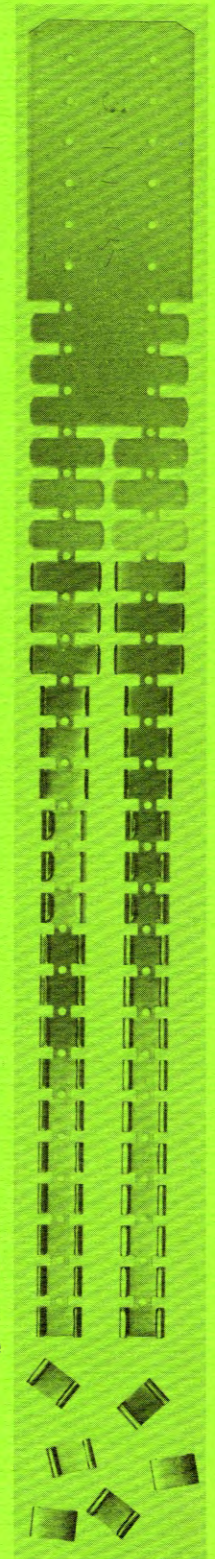
With their wealth of die design and building knowledge, vitality, enthusiasm and stamping experience, this fledgling firm has a great future.



Intricate lead frames for integrated circuits.



Typical high-precision carbide progressive die—specialty of Penn United.



Electrical terminals from .007" thick, 1" wide phosphor bronze strip are produced at 800 spm with carbide progressive die and Minster B1-32 press. Normal operation for this die is 6,750,000 strokes or 13,500,000 parts between die grinds.