

Augat Finds the Winning Combination . . . High Speed and High Accuracy with Minster Pulsars.

Augat Inc., Attleboro, Massachusetts, is a world leader in the manufacture of integrated circuit sockets and packaging panels. The company was founded in 1931 as a jewelry manufacturer, but over time the company has been transformed and has grown to become a leader in the interconnection business.



Pictured (L-R): Raymond Fernandes, Press Room Foreman; Roland Alix, Manager - Stamping Group; Hans Poethke, Tool Room Manager.

Augat attributes its success to good product development, market positioning, vertical integration, a strong distributor network . . . and production equipment innovation. It is that same innovative drive that led to the installation of a 20-ton and a 30-ton Minster Pulsar.

Augat received their Pulsar 30 in August of last year. They were producing parts in less than three days and were running at full speed within a week. Says Press Room Foreman, Raymond Fernandes, "The operators, the tool room people and I are all very happy with the Pulsars. When that happens, you know it's been a good, solid experience."

The Pulsars are producing Augat's popular "200 Series" socket contact. With requirements in the billions per year, Augat thought that more dies might be needed to handle the load, but with the steady production levels realized with the Pulsars, existing tooling was adequate. (The Pulsar 30 has recorded up to 537,000 strokes during a single shift.)

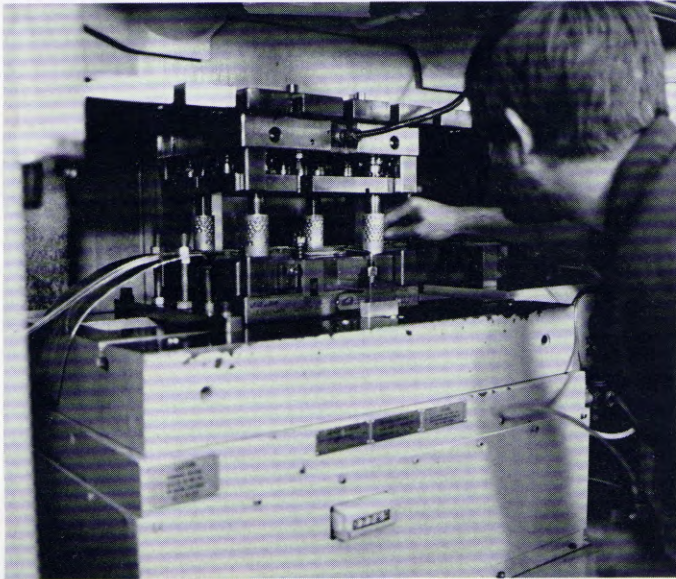
The Pulsar 30 produces parts at 1500+ strokes per minute, while the 20-ton machine runs at up to 1800.



Augat's "200 Series" sockets are produced at the rate of billions per year.

At these high speeds, close tolerances must be held. Roland Alix, Manager - Stamping Group, explains, "A burr of .001" on a part is unacceptable, and the tolerance of the forming is very close . . . $\pm .0005$ ". The Pulsars meet that requirement, with a very low scrap rate. You don't do that well without good dies and good presses. This increase in speed and decrease in scrap result in a reduced capital investment outlay on our part."

The benefits of the dynamic balancing system and the low reciprocating weight in relation to the total mass of the machine are evident. Says Roland Alix, "Even at these very high speeds we find no harmonics problem with the Pulsar. In the other presses we have used, we had unacceptable vibration levels when we approached 1200 strokes per minute."



The Pulsar's retractable bolster simplifies die inspection and cleaning.

Precise shutheight control results not only from the Pulsar's balanced thermal expansion characteristics but also from its ability to start and stop quickly. Hans Poethke, Augat's Tool Room Manager, finds this capability especially helpful. "One of the things I like best about the Pulsars is that I have the ability to look at a strip from a die that's running in one of them, and know that the last hit was the same as all the others before it. That is a great help in debugging a die to know that each station got a consistent hit."



The Pulsar 30 was running production at full speed a week after it arrived at Augat.

Easy access to the die is another plus for the Pulsar. Augat's Alix relates, "It's more economical for us to run pre-processed materials, but doing so necessitates periodic inspection and cleaning of the dies. We used to have to remove the tool at the end of each shift to clean it, but with the Pulsar's retractable bolster, we can service the die right in the press. That feature also makes it possible to visually inspect a die while it's in the press. It drops away quickly and returns to position accurately."



The 20-ton Pulsar with 1800 SPM capability.

At Augat the Minster Pulsar has proven that the combination of speed and accuracy in a machine designed with the customer in mind is a winner. We'll close with the words of Roland Alix . . . "The Pulsar is our choice for solid day-in, day-out production. It allows us to maximize our efficiency. It's a beautiful machine."

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