

CASE STUDY BROMILEY MACHINE CO. INC. – »SMILE 400/PILOT 3.0«

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Spot On: Tool presetter helps boost accuracy, productivity and savings

The timing of the IMTS in Chicago last September couldn't have been better for Jason Bromiley. As vice president of John R. Bromiley Machine Co. Inc., a job shop in Chalfont, Pa., Bromiley plays a lead role in company plans to expand into aerospace manufacturing.

Early last fall, the firm already was working on attaining the requisite certification (AS 9100B and ISO 9001:2008). And, as IMTS rolled around, Bromiley was in the market for equipment that would both streamline his shop's current workload and handle the added rigors of aerospace machining—specifically, tool presetters.

"I wanted something to help with the setups," said Bromiley. "Being a job shop, our biggest time-consuming factor is multiple setups. We try to adhere to our customers' requirements and demands; they'll call us one day and expect us to change setups to get them another hot job that they may not have foreseen, so to try and accommodate them we usually do more setups than anticipated. [Also,] a lot of the

documentation requirements for our AS certificate are preventive, or corrective, actions. And I consider using [a tool presetter] a preventive action, so that we don't lose customers by not being able to provide their parts on time."

In addition to minimizing setup time, presetters ensure consistent, accurate tool measurements. The potential time and cost savings are numerous—from extended tool life to increased productivity and reduced machine downtime.

High-end choice

The Bromiley shop includes 25 CNC machines, ranging from the smallest Swiss-style lathe to models with 11-axis capabilities. It also has five vertical and four horizontal milling centers. Aside from its pursuit of aerospace contracts, the company primarily serves the hydraulic, military, petrochemical and instrumentation industries.

At IMTS, Bromiley surveyed the presetters on display, eventually deciding on a ZOLLER »smile 400/pilot 3.0« from ZOLLER Inc., Ann Arbor,

Mich. "I purposely bought a higher-end unit to be able to maximize what we could [add to it]. I can always add a camera, for example. So I don't have to sit here and worry about buying a new machine in 3 years because of outdated technology."

Incorporating the technology, which took place over the winter, was seamless, Bromiley said. ZOLLER provided 2 days of training, "and by the end of the first day my toolcrib attendant had already set up 10 tools, which to me was pretty surprising, considering how un-computer savvy he claimed to be," said Bromiley.



With the ZOLLER »smile 400/pilot 3.0« presetter in the background, Jason Bromiley (left), vice president John R. Bromiley Machine Co. Inc., and Steve Atlee, toolroom attendant, discuss tooling.

According to Alexander Zoller, vice president of ZOLLER, the biggest hurdle shops often

face when adding a presetter is the need to adjust their mindset.

"Basically, it's that an external machine is now taking care of the measurements workers previously took," he said. "They find it difficult to believe that they only have to load the tools, hit a button and run good parts"



The ZOLLER »smile/pilot 3.0«

Bromiley said adding a presetter already has resulted in significant cost savings and error-free, quality machining. While it's currently used only on the company's 9 HMCs and VMCs (expanded applications are planned), he figures it's saving 18 hours in setup time per week (two hours per machine), which translates to a weekly savings of about \$990.

"So my return on investment will be well under a year," Bromiley said. "You don't buy too many assets that pay themselves off in that short amount of time." Also, Bromiley's milling supervisors endorsed the tool presetter's

working capability. "They both told me that when they punch in the number my toolcrib attendant provides on the tool, it's dead nuts every time. There's no guessing as to where the tool sits; it eliminates a lot of possible error, either on the part of the setup guy or the operator."

And, importantly, the presetter has helped position the company—which earned its AS and ISO certification this past March—to attract more aerospace contracts. "I'm hoping," said Bromiley, "that [the certification and presetter] will take us to a whole different level—competing to do business with Lockheed Martin, Boeing, General Dynamics, and Sikorsky."

Daniel McCann, CTE, in cooperation with ZOLLER Inc. and Bromiley Machine Co. July 2009