

# PALADIN INDUSTRIES

COMMITMENT TO EXCELLENCE THROUGH TECHNOLOGY

## Component manufacturer staves off imports with investments in technology from the WMIA



Since its inception in 1985, Paladin Industries has relied on automation and technology and built a reputation for high-quality CNC programming and machining capabilities to stand out from its competitors.

In the competitive world of manufacturing custom components and machined parts for OEMs and subcontractors, Paladin Industries is constantly looking to maintain an edge against its competition. Since its inception in 1985, the Kentwood, Mich.-based company has used its expertise in CNC programming and machining to distinguish itself from the crowd. With the hallmarks of consistency and part quality, it is willing to make necessary investments in the latest woodworking technology – the majority of which it sources from WMIA member companies – to achieve the results customers have come to expect.

“The way we approach our machinery investments is to take a look at where they are going to take us in the near future and where we need to be to have a profitable company,” says Larry Bell, CEO. “We keep a close eye on where we need to be in the next few years and what technology is going to keep us in the ballgame.”

In 2007, Paladin was faced with a challenge in its sanding department where employees were hand-sanding wooden gearshift knobs for an OEM contract.

“It took a while to train someone to sand the knobs correctly and efficiently,” says Craig Bell, president. “It was a tedious job and not everyone was suited for it. We weeded through a few people to find someone who was willing to do it and was good at it. Then if they called in sick, suddenly we’d be behind in production.”

Paladin turned to a WMIA member company to install a six-axis robot into its sanding work cell and incorporate new software to run the machine. Instead of hand sanding, the company

now uses the robot to move the knobs, two at a time, against a series of flap sanders, closely following the path of the knob’s contoured shape. The investment yielded consistent sanding quality, a 50-percent labor savings and substantially lower sandpaper costs since the robot was able to sand the knobs across the total width of the flap sander rather than just the middle. But the savings and earning potential of Paladin’s investment extended far beyond its intended benefits.

“One of the things we can’t really assign a cost savings to is the impression the robot investment made on our customer, a Tier 1 automotive supplier,” says Larry Bell. “When they walked in and saw this robot, they were impressed to say the least. With the investment we made to achieve absolute consistency, I think we became a better vendor in their eyes.”

Paladin’s investment – strengthened by the expertise and support supplied by its WMIA member partner – was so impressive to the automotive supplier that it awarded the company with a new contract for shift knob production.

“We were in heavy competition with a company from Japan to win the new contract,” says Jeff Bouwens, project manager. “All summer long we went back and forth with our customer about our efficiencies here compared to the Japanese company that would be able to provide the same shift knob. The impression the robot made on our customer helped us secure their business for another four years.”

### Answering the call again

This year, Paladin is putting the wraps on a two-year project that includes a \$2 million investment in WMIA machinery



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The company’s goals are to eliminate as much material handling as possible, increase throughput production flexibility and lower labor costs.



*Paladin turned to a WMIA member company to install a six-axis robot into its sanding work cell. In addition to consistent sanding quality, a 50-percent labor savings and substantially lower sandpaper costs, the investment also paid off by helping Paladin earn its customer's business for another four years.*

Shift knob blanks are machined four at a time on a CNC machining center prior to sanding.



for a one-piece-flow solution in its membrane press work cell to contend with offshore competitors in office system components and store fixture markets. The company's goals are to eliminate as much material handling as possible, increase throughput production flexibility and lower labor and raw material costs.

"What we found was the markets we served had the opportunities to source parts overseas," says Alan Applegate, vice president of new business development. "The business they were taking overseas was large-volume runs of certain colors. We were finding that the orders coming in were smaller runs of multiple colors and multiple sizes on a skid. Rather than batch-processing similar sizes and colors on particular days of the week, we found our customers requiring their parts every day which requires the need for a one-piece-flow philosophy."

As part of the investment, Paladin purchased two CNC machining centers, a large membrane press with a high-capacity surface material carousel, a panel cleaner and buffing machine, as well as automated conveyors to move parts through production without requiring additional labor. The setup provides the flexibility to produce different size panels and press different surface materials one after the other.

### WMIA provides solutions

As Paladin continues to strengthen its business and develop new markets, company leaders recognize the importance of having access to the latest in woodworking machinery technology to remain competitive.

"One of the important things [WMIA members] do is bring technology to us," says Larry Bell. "We look for them to offer up solutions to our problems. Whether

we partake of it or not, at least we see it and are made aware of it. They are bringing technology and new ideas in machinery to the market."

Also important to Paladin is the level of service, support and education its WMIA suppliers are able to provide as it incorporates new technology into its production.

"What we get is a coordinated effort not only sourcing our equipment but in the training and education," says Applegate. "If we have a question on additional features or how to program the machinery and software, they are always available. We get the advantage of a combined package of technology and support."

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