

Logosol PH 260 Planer/ Moulder

A fast, flexible, and reliable addition to any operation.

by Dave Boyt

Every sawmill operator has a wish list. It doesn't matter how large or small the operation is, there is always something that would make things run more smoothly, speed production, or add value to the lumber. For many, a planer is on the short list. For those with planers, a planer/moulder may be next in line. After all, who wouldn't want a machine that converts rough lumber to surfaced lumber, moulding, tongue and groove, or even dowels – all in a single pass? For Wiley Jones, and the staff of Pilot Knob Cedar Works, the question was what to get after the planer/moulder. The obvious answer – another planer/moulder. The Logosol PH 260 has a number of features that made it a good investment for their operation.

I had read the advertisements for this machine with great interest, so when I heard about this unit being used daily in an industrial woodworking environment, I had to check it out.

Pilot Knob Cedar Works is located in Melbourne, Arkansas, in the rugged foothills of the Ozarks. The woods contain a mixture of pine and hardwood trees. Logging and lum-



ber trucks make up much of the traffic on the winding roads. While they respectfully stay on their side of the dividing line, meeting one on a blind curve can give a person a jolt that makes a triple espresso look like a cup of herbal tea. I followed one of these trucks, loaded with Eastern red cedar logs, to Pilot Knob Cedar Works.

Most landowners look at cedar with the enthusiasm of a suburbanite regarding dandelions in a well-manicured lawn. But despite their low status, dandelions can be made

into salads, and even wine – and Eastern red cedar is prized for its insect repelling qualities, aroma, and resistance to decay. Although it is not the easiest species to work with, Jones has built up a business manufacturing a variety of cedar products, much of which passes through a planer/moulder.

I arrived at lunchtime, so we had time to chat before looking at the planer/molder. Dottie Bourassa, daughter of Jones, filled me in on the background of the company. "Dad started out in 1995 in his back

yard with a little sawmill that he built himself," she told me. Pilot Knob Cedar Works now employs 20 people, and the equipment includes a computer-controlled circle saw, four-head band resaw, and a full complement of smaller woodworking machines. "Dad has built or modified just about every piece of equipment out here," she continued. Dottie is justifiably proud of her company's performance. "We have had 100% on-time delivery for the past five years," she explained. "We make closet lining, paneling, siding, gazebos – just about anything someone comes up with, we can build."

15-minute profile change

Pilot Knob started out cutting cedar for log houses. They soon added a planer/moulder to cut siding. "It took hours to change the knives on our old moulder," Dottie told me. They needed a machine that would work with wood too small for siding. "What's left over is where your profit is, a lot of times," said Jones. When the decision was made to add a machine to work with smaller stock, Jones knew exactly what he needed. The moulder/planer needed to be flexible. "With this one, we can change the profile of the sides in about fifteen minutes. It'll probably go faster as we get better at it,"



Top: The end product in one pass. Above left: The view under the hood. The cover has clear plastic windows which allow the operator to view the process. All parts are easily accessible for replacement or adjustment. Above right: Wayne shows the tongue and groove side cutters for the Logosol planer/moulder. He generally keeps sets of knives in the cutterheads for quick changes.



Two of the feed rollers and bottom cutterhead. This is the first cut of the four-step process as the board passes through the machine. Jones added the copper tube to blow chips off the table.

Logosol Planer/Moulder PH260

4-SIDED PLANING/MOULDING

Width: 0-10-1/4 inches (0 - 260 mm)
Depth: 1/2 inch - 4 inches (13 - 100 mm)

2-SIDED PLANING/MOULDING

Planing: width 11-3/4 inches (300 mm)
Depth: 1/2 inch-9 inches (10 - 230 mm)

PLANING

Planing width: 13 inches (330 mm)
Depth: 1/2-9" (10 - 230 mm)

UPPER CUTTER HEAD

Diameter: 2-7/8 inches (72 mm)
Width: 16 inches (410 mm)
Effect: 3 KW (4hp)
7000 rpm

Planer depth: max. 5/16 inch (8 mm)
Moulding depth: max. 3/8 in. (10 mm)

BOTTOM CUTTER HEAD

Diameter: 2-7/8 inches (72mm)
Width: 12 inches (300 mm)
Effect: 3 KW (4hp)
7000 rpm
Planing depth: 0-5/32 inch (0-4 mm)
Planing width: 11-3/4 inches

SIDE SPINDLES

Spindle axle: diameter 30 mm
Cutting height: max. 4 inches (100 mm)
Diameter: max. 5-1/2 inches (140 mm)
Effect: 3 KW (4hp)
7000 rpm
Cutting depth: max. 1-3/16 inches (30mm)
Clamps / Gibs

STANDARD CUTTER HEADS

Type: TB90
Diameter: body 3-1/2 inches (90mm)
Height: body 1-9/16 inches (40mm)
Planer knives: HSS
Knives: width 2 inches (50 mm)

FEEDING

Effect: 0.37 KW (0.5hp)
Feeding speed: 11-52 ft/min

ELECTRIC SYSTEM

Moisture Class: IP54
Total effect: 12.4 KW (16.5hp)
Supply: 3-phase, 220 V, 30 A

SIZE

Length and width: 43 in. by 35 in. (1100 x 900 mm)
Height: 38 inches (970 mm)
Weight: 370 kg (820 lbs.)

ACCESSORIES

Rubber Feeders
Rubber Casters
In and Out Feeding Tables
Chip extractor
Rotary Phase Converter

MANUFACTURER'S COMMENT:

The Logosol PH260 4-Head Planer/Moulder is a revolution in four sided planers. Tried and proven in Europe for over seven years, Logosol now presents with full confidence the most versatile planer on the market today. Logosol engineers recognized the need for a smaller, lighter planer; one with full capabilities and ready for hard industrial work. This planer does not take up a lot of space in your workshop, and can even be mounted on wheels. The PH260 does the job of commercial planers many times its size, weight, and price. Whether you are a commercial business with big planers already in use and need the added capability and versatility of the new PH260, or an independent sawmill operation that wants to increase the value of the lumber you produce and provide new services to your customers, the Logosol PH260 is the planer for you.

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explained Dottie. The moulder/planer also had to be reasonably priced and reliable.

"Our business here has been built up strictly on quality and dependability – quality first, then dependability," Jones explained. "When we make a commitment for a delivery, we'll work 24/7, if we have to. In this business, if you can't deliver, you're out. Our customers built their business on what we've been able to supply. They know if we say we can do it, we'll do it." The Logosol planer/moulder fits their needs perfectly.

Never content with a machine as

it comes from the box, Jones built an infeed table extension, using a turnbuckle to adjust the table height. This is necessary, since the height of the infeed determines the thickness of the board (Logosol does offer an infeed table extension that raises and lowers with the infeed). With a consistent thickness of lumber, and one-pass planing and moulding, however, the infeed height is only changed when the thickness of the final product needs to change. Employee Wayne Geiger ran a rough cedar board through the machine. In less than 20 seconds, the Logosol converted the 6-foot-



Pilot Knob has added a four-head band resaw system to their mill to saw cants into boards for cedar products, as well as oak flooring. Like the sawmill, it uses electric motors to drive the bandwheels.

long by 6-inch-wide board to 1/2-inch thick tongue and groove paneling. Even though there were several knots, the board felt perfectly smooth. Noticing me examining the end of the board, Wayne explained that snipe generally is no problem, if the infeed and outfeed tables are set up properly. As for sharpening the blades, Wayne said that they would stand up to three weeks of hard use on cedar. The ones on the machine had last been sharpened two weeks ago.

Of course no inspection of a machine is complete without looking under the hood. Raising the cover revealed the four cutters and feed rollers. Each cutter has its own motor. The top and bottom cutters surface boards up to 12-inches wide. Entering the machine, the feed rollers grip the board and move it over the first cutter, which surfaces the bottom. The amount of wood removed is adjusted by shims. Adding shims raises the board for a light cut. If the board is bowed or has a rough cut, removing shims allows the bottom blade to remove more wood. The next cutter is the right edge moulder. Although it is fixed in place, the vertical alignment of the cutters can be adjusted

by shims. The machine in this case was set up for this to be a 3/16-inch groove cut. The third cut is the moulding edge on the left. In addition to vertical adjustment with shims, it moves in and out with a crank to accommodate different widths of boards. Finally, the board passes under the top cutter. It, too, is adjustable with a crank to set the desired final thickness.

More than adequate power

The machine is powered by five three-phase motors (single phase is also available). A 4-hp motor spins each of the four cutterheads at 7,000 rpm. A variable speed 1/5-hp motor drives the five feed rollers, connected by a drive chain. Each motor has its own switch. Depending on the type of cut, the operator may use any combination of cutters. If planing wood, for example, the operator may wish to only use the top, bottom, and feed motors. Starting each motor independently also avoids a heavy current draw on start-up. Wayne and Dottie have found the power to be more than adequate. The motors have never stalled even in heavy cuts, though Dottie said she expects the feed would need to be slowed for denser woods. As a

planer/moulder, the machine can handle wood up to 10-inches by 4-inches, but as a straight planer can take wood up to 13-inches x 9-inches.

In order to keep changeover time minimal, Wayne has extra heads with the cutters already installed in them. That way, he just replaces one cutterhead with another, and is ready to cut a different profile. One of the most impressive demonstrations of the machine was cutting 3/4-inch diameter cedar dowels, using a pair of half round cutters on the sides. "We feed in 1-inch square cedar stock, and the machine cuts the dowels. Once everything is adjusted, there is no seam in the dowel," Wayne told me. He was right. Although there were a few rejects, most of the pieces appeared perfectly round.

Perfect tongue and groove

While the hood was up, Wayne pointed out a few of the other modifications to the machine. A copper tube attached to a blower removed sawdust that tended to build up inside the machine. A second modification was to carefully grind away part of the table to allow thinner boards. The stock machine has a 5/8-inch minimum thickness, but with the modifications, this unit can



Pilot Knob Cedar Works recently replaced their bandmill with a computer controlled circular sawmill. They use the mill to cut cants, which are then sent through a resaw. They use the increased sawing capacity to cut oak flooring.



Dottie Bourassa's many duties include setting up and operating the Logosol moulder/planer (she normally wears coveralls when working in the shop).



Feeding a cedar blank. It only takes one pass to convert this rough board into planed, tongue and groove closet lining. The feed rate is limited by how fast he can handle the boards.

cut as thin as 5/16-inch – and tongue and groove it! The tongues and grooves were perfectly parallel to the edge of the board. "Even if the board has a little bow to it, the pressure rollers hold it flat as it passes through," Wayne explained. What about other profiles? Logosol has a catalog of more than 100 top, bottom and side cutters that cut just about everything from dowels to crown mouldings. And, of course, custom profiles can be ordered.

Any mill considering a planer would do well to consider spending a little more for a double-sided planer that could also serve as a moulder. Like Pilot Knob Cedar Works, you may find a good market for small stock that would otherwise go to the scrap pile. According to Rob Bjourkund of Logosol, it is common for several small Swedish sawmills to pool their resources and share a Logosol planer/moulder. Just don't expect to use Pilot Knob's machine.

They manage to keep it pretty busy running their own lumber through it. I asked Wayne whether Pilot Knob would likely buy a second Logosol planer/moulder. He just shook his head. The one they have is fast enough, flexible, and so reliable, that he doubts they will need another one. ■

Based in Neosho, Missouri, Dave Boyt is a contributing editor to Sawmill & Woodlot magazine.