# W 220 Fi Mills Road Surface 46 cm Deep

In Illinois, USA, a W 220 Fi large milling machine is being used to remove an entire road surface in just two passes. Thanks to the Mill Assist machine control system, the milling operations are being carried out particularly cost-effectively. In the process, the Wirtgen Performance Tracker is responsible for the job’s precise documentation.

Mill Assist Plays Vital Role

To rehabilitate the on-ramp and off-ramp to Interstate 55 in Bolingbrook, Illinois, the contractors opted for a W 220 Fi with 812 PS because the demanding milling job required a machine that offers both maximum productivity and efficiency. In order to allocate the large milling machine’s tremendous power reserves to the various machine components as required, Mill Assist dynamically controls the machine’s operating point. This means that it automatically adjusts the speed of the diesel engine and milling drum, the travel drive, the machine’s advance rate, and its water consumption to match changing job site conditions.

A Wide Range of Applications

Mill Assist also automatically controls the two-speed Dual Shift powershift transmission. In combination with the diesel engine, this enables the milling drum speeds to be increased and decreased. Thanks to the significantly increased range of possible milling drum speeds, the large milling machines in the new F series can be used for a wide range of applications. For Mark Lindbloom, head of operations at K-Five Construction, the W 220 Fi’s drive concept also had an impact on the company’s purchase decision. “The two-speed powershift transmission was very appealing to us. It puts the horsepower to the pavement on long sections of road [and at smaller milling depths] as well as when working at larger milling depths.” As a result, lower milling drum speeds can be used, which reduces both fuel consumption and pick wear. At higher speeds, it’s possible to achieve a high-quality milling pattern while still covering large areas.

The Right Operating Strategy Pays Off

For the complete two-layer removal of the entire road surface in Illinois, the W 220 Fi was equipped with a standard 2.5 m milling drum fitted with 196 picks. The job needed to be carried out in a cost-effective manner. As a result, the W 220 Fi milled in ECO mode, one of three operating strategies that machine operators can select from on the new large milling machines from Wirtgen. In ECO mode, Mill Assist always seeks the machine operating point with the most favorable fuel and pick consumption per cubic meter of milled material. At the same time, it also reduces CO2 and noise emissions .

As such, foreman Ed Mesko summed up the milling work near Interstate 55 in a positive light: “The W 220 Fi has numerous features that make life easy for machine operators and the ground crew. It is packed full of technology and performance.”

**Wirtgen Performance Tracker**

Speaking of performance, the large milling machine was also delivered with a Wirtgen Performance Tracker (WPT), which precisely determines the machine’s surface milling performance, milling volume, and consumption rates. All of the key performance and consumption data are shown to the milling machine operator in the operator's cabin in real time. Immediately after completing a milling job, the data is also e-mailed to the machine owner in an automatically generated report. “When we purchase a machine, we expect reliability, versatility, value, and performance. The W 220 Fi offers all of these qualities and, thanks to the WPT, a significant technological upgrade. It allows us to measure our performance extremely accurately,” explains Lindbloom. “We’ve used telematics systems before, but never at this level. We’re confident that the technology will help us increase our efficiency.”

Photos:

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|  | W\_photo\_W220Fi\_00014 / **W\_photo\_W220Fi\_00017\_PR**  With a working width of 2.5 meters, the Wirtgen W 220 Fi milled off the 46 cm thick road surface in two passes. |

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|  | W\_photo\_W220Fi\_00012\_PR In addition to the standard Mill Assist machine control system, the machine was also equipped with the Wirtgen Performance Tracker. It precisely and reliably documents the actual milling work performed. |

*Note: These photographs are only intended as a preview. For printing in publications, please use the photographs in 300 dpi resolution that are available for download from the Wirtgen GmbH/Wirtgen Group websites.*

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