# A dynamic duo: Two Wirtgen W 250i machines rehabilitate a runway in Nevada

Contractors, Las Vegas Paving Corporation, placed their trust in the performance of two Wirtgen large milling machines W 250i, for the wide-scale, complete removal of one of the runways at McCarren International Airport in Las Vegas.

McCarren International Airport in Las Vegas is the eighth largest airport in the USA and the gateway for tourists to the gambling metropolis in the Nevada desert. After some 15 years in service, this longest runway at the airport had to be completely rehabilitated. The area to be milled was over 4,420 m in length and 45 m wide. The two cold milling machines used were in operation non-stop. The RAP removed was not loaded onto trucks but placed in windrows alongside the milled area.

W 250i: A synonym for power, performance and efficiency

The wide-scale construction of complete roadway structures is the key skill of the Wirtgen W 250i. With a maximum capacity of 753 kW/1,024 PS, the high-performance milling machine is capable of removing up to 1,200 t/hour. Thanks to its phenomenal engine power, the W 250i is notable not only for its high advance speed but also for its maximum milling output. Above all, it is the intelligent machine management system, WIDRIVE, that is key. WIDRIVE links the most important machine features: The diesel engine, travel drive, milling drum drive, conveyor drive, water system, 4-fold full floating height adjustment system and the LEVEL PRO levelling system are centrally controlled. As a result, some 50% of the manual operator interventions that were previously necessary to control the machine and coordinate the individual work steps during milling are generally no longer required.

The intelligent speed control system, ISC, ensures the maximum traction of the crawler tracks. ISC stands for Intelligent Speed Control and demonstrates its strength above all in complex milling jobs such as the one at McCarren Airport. Like traction control systems in cars, it prevents crawler track slip and ensures perfect traction of all crawler units for maximum milling performance. This, in turn, reduces track pad wear. The automatic adjustment of the advance rate to match the diesel engine load always ensures maximum performance yet quiet machine operation.

**Ideal milling performance for every application**

There is a choice of six different milling drum units for the Wirtgen W 250i, ranging from 2.20 m to 4.40 m in width. Each of the two machines used in this project was fitted with a 3.80 m-wide milling drum unit. A “giant unit” like this achieves the best results when milling layers up to 10 cm in depth. The most efficient method for complete removal is therefore milling course by course. “We worked an area of between 83,600 m² and 100,300 m² with the two milling machines each day – operating six days a week, 10 hours a day,” says Bill Magee, Site Manager at Las Vegas Paving Corporation.

On the W 250i, the operator can choose between three milling drum speeds. This not only optimizes diesel consumption and milling performance but also increases overall efficiency. For standard milling jobs such as milling off a surface course, the W 250i is operated at medium speed. A high speed is selected for large-scale milling jobs on thin pavements at a high advance speed. In order to achieve the maximum milling output at the lowest cost, the low speed is the correct setting: it ensures reduced fuel consumption and a low level of cutter wear. The variable milling drum speed ensures perfect milling performance in strongly varying conditions. This was the case on the taxiway at McCarren International Airport where the existing asphalt pavement was built on a very unstable substrate. At 48 cm thick, it consisted of a 5 cm-thick surface course and a 43 cm-thick base course. Magee explains their approach: “We removed the asphalt in a number of passes. The condition of the substrate varied considerably. For example, at one location there was an old road beneath the asphalt pavement, which we also removed”. The aim was of course to remove the entire asphalt course and to prepare the underlying rock layer so that it could continue to be used without a problem. Once the milling works were finished, a 50 cm-thick concrete layer was then built on the now level substrate.

**User-friendly thanks to intelligent technology and optimum ergonomics**

The intuitive operating concept – a feature which makes the operator's job a great deal easier – also came into play in Nevada. The multifunctional control display is the information hub of the machine. Together with the LEVEL PRO control panel, it can be swung to the left or to the right towards the operator and provides clear information on operational parameters and maintenance details. Another handy function is job-data logging: For example, at the end of the day, the log will show how many trucks were loaded and the overall tonnage loaded. When the milling work was finished, milling machine operator, Michael Koja, was full of praise: “I love this machine, it runs like a Cadillac. The W 250i is easy to operate and you have a great view from the operator's platform – you can see everything that you need to see”.

Photos:

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| P:\CC_Bilder\Bilder und Texte America Tom Cds\Spring-Summer 2015 Forum\00 IMAGES\04 LAS TWIN W 250i\JPGS\_DSC9366.jpg | W250i\_00151 The operating and control concept of the Wirtgen W 250i enables the operator to concentrate fully on his work. The many automated functions, in particular, make his life a great deal easier. The optional monitoring system with up to six cameras provides perfect views of the rear of the machine, the end of the loading conveyor, the scraper and the front of the machine chassis. |

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| P:\CC_Bilder\Bilder und Texte America Tom Cds\Spring-Summer 2015 Forum\00 IMAGES\04 LAS TWIN W 250i\JPGS\_DSC9376.JPG | W250i\_00147 The Wirtgen Vacuum Cutting System (VCS) helps to reduce the amount of air-borne particles that are generated during the milling process. The benefits for the machine operator are a clear view of the edge being milled and more pleasant working conditions. |

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|  | W250i\_00153 The Wirtgen large milling machine W 250i is notable for its top milling performance and economical operation. Thanks to its considerable loading conveyor capacity, this high-performance milling machine has no problem clearing up the job site while operating at a high advance speed. |

*Bitte nicht übersetzen:*

*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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