



Automatic for the People

New solution for excavators provides truly automatic operation.



When Regehr Contracting wanted to take its John Deere 345G to the next level in machine control, giving the operator an option to let the machine do the model-based excavation itself, it turned to the Topcon X-53x Automatic Excavator system.

Company

Regehr Contracting, Ltd.
Abbotsford, B.C, Canada

Project

Great Northern Industrial Complex
Abbotsford, British Columbia, Canada

Topcon Products

X-53x Automatic Excavator

Topcon Dealer

Brandt Positioning Group
Surrey, B.C., Canada

“Our interest in the Automatic Excavator system was based on the promise of what we felt it could do for us,” said James Cucheron, one of Regehr’s supervisors. “The fact that it could reduce the size of our trenching crews was attractive, as was the accuracy it could deliver — both in direction and depth. When placed in ‘Auto’ mode, the system is designed to automatically excavate down to the grade that is loaded into the model — no more, no less. My operator can cut his subgrade and be consistently within 1 to 2 centimeters without anyone needing to check it with GPS or a laser behind him. So, between that and the streamlined layout function, we can now use that rod man and one surveyor elsewhere on site.”

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Minimizing material overages was a benefit Regehr had not foreseen, but such has already proven to be the case. According to Cucheran, that, too, stems from the system's ability to get material to grade quickly and accurately.

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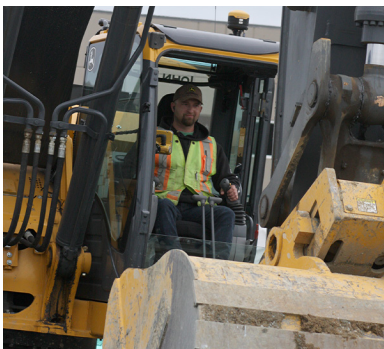
“Being able to set grade in aggregate for our pipe has been a huge difference,” he said. “In Auto mode, my operator can get a perfect grade every time, so the gravel savings is substantial. We've found that we can save about 10 tons of material on a 100-meter stretch. At today's prices for aggregate, those savings can be substantial.”

Prior to getting the new system on his machine, Regehr's operator Derek Molnar said he had no real GPS machine experience. “I'd only used a data collector,” he said. “But it was easy to learn and, despite being a little leery about the newness of it all, I got to love it very quickly. The fact that I don't have to wait for anyone else is a huge plus for me. Most mornings I'm in the machine and working while the other guys are still getting tools. I'm probably 30 percent more productive with the new solution.”

Molnar's use of the automated excavator system was made simpler through the addition of customizable joysticks, which place complete functionality of the system literally at the operator's fingertips.

“The joysticks make it much easier to operate because all the buttons for automatic operation are on top,” said Brandt Positioning's Cory Luck. “They can get the bucket into a certain position and lock it and it will stay at that angle, or they can set it to follow the design, match grade, and so on.”

Since going all-in with the new system, Regehr has dedicated an in-house person to build their digital models, they are considering a second GNSS excavator system and they see the automatic system playing a key role in other projects as they move forward.



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“Obviously, we know it excels in utility work like this,” said Cuchern. “But we can see it performing well in other areas such as bulk excavating, site preparation, fine grading for asphalt in front of the grader, curb prep — the possibilities are endless. We’re not the biggest player in the Vancouver area, but this will allow us to bid projects more competitively than ever before, which bodes well for future work.”



A [full-length version](#) of this story is on the Topcon website.



Visit the [Topcon YouTube channel](#) to watch videos on the Automatic Excavator technology featured in this TAW.

