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GOMACO WORLD®

The New GP4 Featured Inside!

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Vol. 46, No.1

GOMACO WORLD

Mastering the Concrete Way...
Expressway, Taxiway, Runway and More!

Photo by Kelly Krueger HW-121719 D4

The new GP4 is capable of paving widths up to 40 feet (12.2 m) wide and is the ideal paver for airport work when exacting smoothness and edge slump requirements must be met using difficult concrete mix designs.

RGG United Contractors, Inc., first started business as a small residential contractor specializing in curb and gutter and sidewalk on residential projects in Arizona. Two friends, Martin Rangel and Roger Garcia, each brought their preference for GOMACO equipment into their new company. They added barrier work to their resume, too. In 2008, they brought John Kliethermes, a licensed structural engineer, into their company, and for the last 10 years RGG United has transitioned from residential projects into large federal and municipal projects, including slipform paving, taxiways, runways, and freeways. As RGG United has grown, so has the size of their slipform paving equipment.

GOMACO has always been the preferred brand with RGG United first owning used GT-3600s for their curb and gutter work. From there, they purchased a GOMACO four-track Commander III before graduating into the big pavers, a GOMACO GP-4000 with the capability to slipform projects up to 50 feet (15.2 m) wide in a single pass. A 9500 placer and T/C-600 texture/cure machine were also added.

"We started there with one paver, one cure machine, and a 9500," Kliethermes said. "It's been a good stretch for us and now we're almost solely revenue-based involved in airport and freeway work, probably 60/40 airport to not, and we're the sole paving contractor for Phoenix Sky Harbor International Airport since 2009.

"As we grow, we need to have our equipment grow. Our two owners, Martin and Roger, have always taken a lot of pride in the equipment, keeping it updated, and keeping up with technology. If we have a successful year, their first inclination is to upgrade our tools. From my standpoint, it's always fun to have new toys."

Introducing the GP4 Slipform Paver

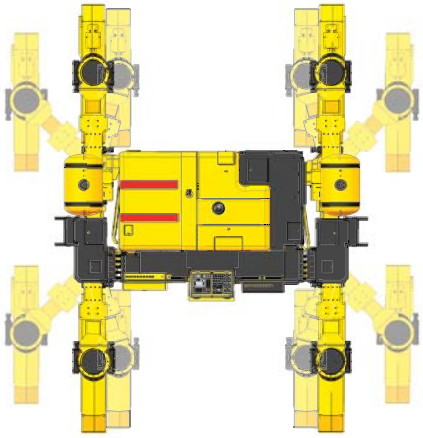
Last year, one of the pieces of equipment RGG United looked to upgrade was their GP-4000 slipform paver. Since the company is always looking for the newest technology, they were intrigued by GOMACO's GP4 slipform paver. The GP4 is the second paver in GOMACO's new family of slipform concrete pavers featuring the next generation technology. It's the next step up in size from the GP3 and features the same revolutionary technology, but has the ability to pave up to 40 feet (12.2 m) wide.

The GP4 paver is equipped with Smart Pivot Arms for leg positioning with rotary-sensored slew drives, as well as Smart Track Steering technology. The Smart Pivots on the legs provide the G+ control system with information on the angle of rotation and work together with the track rotation sensors to maintain the tracks in the straight-ahead steering line. Slew drives are also located on each of the paver's four tracks for the ultimate in Smart Steering technology and extreme steering with the tracks having the ability to steer farther than ever before. The Extreme Steering capabilities also work together with the paver's G+® control system, so the G+ system knows each track's location and position.

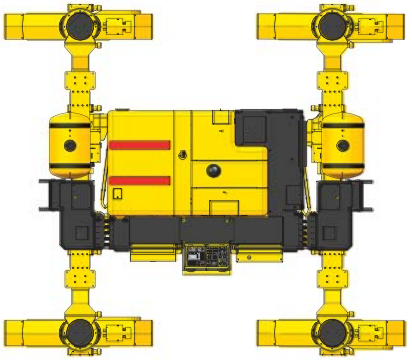
It has a dual-telescoping roller frame with Smart Cylinders and Smart Telescoping for accurate frame widening and automatic width reference for easy and accurate steering setup. The modular roller frame telescopes up to seven feet (2.1 m) on each side for a total of 14 feet (4.3 m) of telescoping ability.

Another big financial advantage of the GP4, attachments and sensors from their GP-4000 can be used on the new paver. With the G+ control system, it's simply plug and play technology on the GP4.

After all of the advantages of the GP4 paver were presented, RGG United knew they wanted one in their fleet. The order was placed and their GP4 was one of the featured pavers in GOMACO's booth at CONEXPO-CON/AGG 2017 in Las Vegas, Nevada. From CONEXPO, the GP4 was shipped to its new home in Glendale, Arizona.



Sensored steer feedback with sensored leg pivots provide continuous reference for the straight-ahead track positioning.



Full-steer tracks are turned perpendicular to the straight-ahead line. The G+ control system recognizes the track positioning and provides automatic steering control in the transverse mode.

Photo by Kelly Krueger HW-121710 D2

RGG United was able to utilize their existing attachments and sensors from their GOMACO GP-4000 paver on their new GP4 with G+ control system.

Photo by Kelly Krueger HW-121715 D15

Wider-width airport paving is just one of the applications the GP4 was designed to pave. At the Phoenix-Mesa Gateway Airport, the GP4 was slipforming 37.5 feet (11.4 m) wide and 16.5 inches (419 mm) thick.

Photo by Travis Wilkerson HW-041835 D15

A GOMACO RTP-500 and 9500 concrete placer work in front of the GP4 paving 22 feet (6.7 m) wide on the I-40 Devil Dog project replacing five miles (8 km) of the interstate's eastbound lanes.

Photo by Kelly Krueger HW-121720 D9

Photo by Steve Corbin HW-101709 D12

The GP4 was equipped with G+ Ground Control, a remote operator's screen. Ground Control lets the ground crew see the same screen that the operator does at the operator's station. It also allows them to fine tune and make adjustments to the GP4's settings. It can be mounted anywhere on the paver for easy viewing access.

I-40 Devil Dog – Full Smoothness Bonus

The first major project for the GP4 was on the I-40 Devil Dog project in northern Arizona. Work included removing and replacing five miles (8 km) of the eastbound lanes between mileposts 156 and 161. The Arizona Department of Transportation decided to fast track the project due to a large number of fatalities along the strategic corridor. RGG United was hired by the prime contractor to do the concrete slipform paving.

"I know when people think GP4, they think wider width paving, but it shrunk down nicely to what we needed," Kliethermes said. "We did a lane path, 24 feet (7.3 m) wide and it performed nicely. This stretch had grades up to 12 percent incline and decline so it was a unique project climbing up and going down. The GP4 handled it well going up hill and pushing the concrete."

The Arizona Department of Transportation uses the profile index (prl) with a 0.1 inch (2.5 mm) blanking band to measure smoothness on their roadways. Incentive bonuses are offered for smooth pavement.

"The Department of Transportation does offer payment up to $1 per square yard (0.8 m^2) for that smoothness spec and we achieved the full $1 on everything we paved with the GP4," Kliethermes added. "The first major project for this machine and we achieved full bonus, approximately a $70,000 smoothness bonus. That's real money in hands for us."

Photo by Kelly Krueger HW-121711 D12

The control tower for the Phoenix-Mesa Gateway Airport can be seen behind the GP4 paver as it slipforms the new 3500 foot (1067 m) long, 75 feet (22.9 m) wide curbside-rated aircraft taxiway.

Phoenix-Mesa Gateway Airport

Freeway success. Next up, airport paving and a new concrete taxiway for the Phoenix-Mesa Gateway Airport in Mesa, Arizona, a 190 mile (306 km) transport for the GP4. The GP4 was engineered to be easy to transport. The operator simply puts the paver into Transport Mode by driving the legs around to the transport position with the GP4's full-steer tracks and slew drives on the pivot arms. G+ travel is switched to "Transport" for complete control once the legs are in transport position. The GP4 also has a retractable, sliding operator's console to reduce the shipping width of the machine.

"The slew drives and the telescoping frame make the paver so easy to transport and we're able to transport it internally rather than having to hire it out," Kliethermes said.

Phoenix-Mesa Gateway is a commercial airport that is also heavily used for shipping and military needs. The airport's 12,000 foot (3658 m) long runway is able to accommodate some of the world's largest aircraft including the Antonov A380. Another incentive for the airport to expand is the Apache Strike helicopter manufacturing plant is located nearby making Phoenix-Mesa Gateway the preferred airport for shipping.

This would be RGG United's sixth project at the airport and included replacing the existing taxiway with a new 3500 foot (1067 m) long, 75 feet (22.9 m) wide curbside-rated aircraft taxiway. The GP4 completed the taxiway in two passes, each 37.5 feet (11.4 m) wide and 16.5 inches (419 mm) thick.

"Airports always need as much real estate as they can get for their operations and they don't give us a lot of room to work in," Kliethermes said. "Plus, they lock us into paving in just one direction. A nice thing about the GP4 with slew drives is we just extend the frame out far enough so the tracks can be turned 90 degrees and we can walk completely sideways. Then, we just have to back the paver up to the starting point for the next day's pour. Its ability to move laterally forward, its travel speed and the simplicity of doing it were key purchasing factors for the GP4 and working inside an airport."

> ***"One of the hardest things to do is stand up the edges when you're 16 inches (406 mm) tall. We had not one single edge slump deficiency on the entire project. I actually walked across the project with the FAA and they were very surprised and impressed with the surface finish and how the edges held."***

The operator can put the GP4 in transport mode to walk the paver sideways or load for transport in minutes without assistance. It also features a fast job-site tracking speed for moving across the project. The GP4 has an impressive travel speed of up to 66 feet per minute (20.1 m/m).

RGG United had their own concrete batch plant close to the airport to supply the concrete for the airport project. The concrete mix is their own in-house design built for the flexural strength required on today's airfields.

"Airfield mixes are evaluated on their flexural strength rather than a typical compressive strength in concrete," Kliethermes explained. "It's a very high aggregate content, very rocky mix with a low slump preferred placement of less than two inches (51 mm). It is not finish friendly but the GP4 finished it out very nicely."

Impressively Meeting Strict Specifications

Federal Aviation Administration (FAA) and Army Corp of Engineer guidelines for airport paving requires finishing work to be kept to a minimum. They don't even allow a bull float to be used on the newly paved concrete. Paver setup and performance is crucial for a smooth slab and sharp edges.

"Airport projects are not contractor friendly and with good reason because you have multi-million dollar aircraft landing and taxiing there," Kliethermes said. "They want the best of the best and we give that to them every time, but we have to have the tools to be able to do that. GOMACO really did their research and put together a quality piece of equipment. When the GP4 paves, it holds the line better than any other piece of equipment.

"One of the hardest things to do is stand up the edges when you're 16 inches (406 mm) tall. We had not one single edge slump deficiency on the entire project. I actually walked across the project with the FAA and they were very surprised and impressed with the surface finish and how the edges held."

A GOMACO T/C-600 texture/cure machine followed the GP4 paver and applied the final texture finish to the surface of the new runway.

According to Kliethermes, the airport classifies must-grinds and smoothness ratings. The FAA uses a profile index allowing a certain amount of variation per mile. RGG United had zero smoothness grinds earning full payment, plus a six percent pavement bonus.

Paving on the airport was completed in six days and the new taxiway was open to aircraft in just three weeks. Since then, the GP4 continues to travel around Arizona successfully completing quality projects. From the Phoenix-Mesa Gateway Airport, it went to Sky Harbor International Airport in Phoenix for a couple of pours. Then the GP4 was transported to Holloman Air Force Base in New Mexico to slipform a 75 foot (22.9 m) wide taxiway.

"Everyone that has used the GP4 has enjoyed everything from the interface all the way down to how easy it is to access the hoses and service the piece of equipment," Kliethermes said. "The paver handles beautifully and the ride comes out good. GOMACO has made a paver that is easy to move weight wise and versatility wise while also still providing the power and the strength to pave that thick of concrete, that wide."

Mega Project Loop 202 Near Phoenix, Arizona

One unique project that RGG United is also currently involved with is a Federal Highway Administration mega project on the Loop 202 (South Mountain Freeway). According to the project's website, it's the largest project in the state's history to design, build, and maintain (DBM) the freeway for 30 years. The DBM approach requires the developer to be responsible for maintaining the freeway and giving the traveling public a safe roadway for 30 years.

RGG United will be slipforming approximately 76 miles (122 km) of barrier wall on the project. They'll also be returning to their own curb and gutter company roots with the project's 57 miles (92 km) of slipform curb and gutter. They currently use a GOMACO 4400 for their barrier work and will be adding another new 4400, as well as the new Xtreme three-track Commander IIIx for their curb and gutter work.

"For the majority of work we do now, airfield paving and slipform barrier, there probably isn't a specification tighter than when it comes to these two items," Kliethermes said. "We have found that with GOMACO and their ability to stay on track with upgrading technology, it has allowed us to be able to put these in with less risk to us. GOMACO's technology is just unmatched and they're doing some innovative things with these pieces of equipment."

GRD

GOMACO Remote Diagnostics (GRD) is just one of the innovations on their GP4. GRD is more than telematics, it gives RGG United the ability to see how, when, and where their equipment is being used. It's a powerful extension to GOMACO's existing service capabilities. It allows technicians a diagnostic review of a GOMACO machine from corporate headquarters in Ida Grove, Iowa, at the RGG United's shop, or on the job site. GRD will transmit G+ settings, configuration and fault history for an immediate and complete diagnosis. GRD also allows software updates, fleet management, service indicators and so much more.

Photo by Kelly Krueger HW-121705 D18

Paving the airport's new taxiway was completed in six days without any edge slump deficiencies and zero smoothness grinds. RGG United earned full payment for their paving on the project, as well as a six percent pavement bonus from the Federal Aviation Administration (FAA).

GOMACO personnel can use GRD to send software updates directly to the GP4's G+ control system. This remote capability from GOMACO headquarters also allows software updates to the G+ for specific applications or unique job-site logistics, such as new radius technology, support for new sensors, new code for 3D machine guidance technology, or additional updates for new product introductions.

GRD can be used for fleet management and to keep track of GOMACO paving equipment throughout the season. Alerts for service indicators can be created to help develop a machine maintenance schedule, because machines that are properly maintained and serviced are less likely to develop mechanical problems. Alerts can be set for oil changes, filter changes, low fluids, or for a specific detail parameter of the machine, such as RPM is above idle.

"I love the tracking ability on the paver's maintenance needs," Kliethermes said. "That's really a great feature and helps us maintain our equipment. It's also great, if you're in the middle of a pour, the last thing you have time to do is start explaining to someone on the phone what's going wrong. With GRD we call Ida Grove, they look up the machine and they tell us what's happening with the paver."

GOMACO pavers can be equipped with the GSI® (GOMACO Smoothness Indicator) to measure the smoothness of the newly paved concrete slab, on-the-go, right behind the paver. The current status of the paver's smoothness performance can be accessed on a mobile phone or computer using GRD. GOMACO personnel in Ida Grove can also monitor the real-time analysis of ride quality on the project as it is happening.

"We hold GOMACO in some pretty high regards," Kliethermes added. "RGG United has had the opportunity to work on some of the most high-profile projects around and as a little guy it's really nice to know we're such an integral and important part. GOMACO has the ability to listen to us smaller contractors and allows us to use our knowledge and brain child ideas and help us incorporate them into making them a possibility."

GOMACO's partnership with RGG United has been beneficial for both companies. RGG United isn't afraid of taking on challenges, from slipforming barrier wall eight feet (2.4 m) tall to meeting exacting specifications on concrete airport projects. Every day they master the concrete way and choose to pave with pride. **GW**

Photo by Kelly Krueger HW-121710 D19

Photos by Kelly Krueger CG-111601 D14

Wicks Construction and their GT-3600 are slipforming 20,000 feet (6096 m) of median barrier and single-face barrier on the Highway 100 new bypass around the west side of Cedar Rapids, Iowa.

Set Up Is Crucial for Barrier Wall Success

Wicks Construction Company in Decorah, Iowa, are paving specialists. Their slipform concrete applications range from city streets to barrier wall to curb and gutter and everything in between. They are long-term GOMACO users and have several GOMACO machines. Wicks Construction added a GT-3600 curb and gutter machine to their extensive fleet.

They spent that winter preparing for their new equipment and sent personnel to GOMACO University in Ida Grove, Iowa, to learn about the G+ control system in both the classroom environment and hands-on learning in the University's shop.

"We attended GOMACO University last winter and were able to get a feel for the controls and everything else," Gavin Wicks, Project Manager for Wicks Construction, explained. "Classes there allow you to get on the equipment and work things out so we were pretty comfortable starting up this year."

The GT-3600 gives them a tight radius curb and gutter machine with the versatility to slipform barrier wall when contracts became available. Wicks Construction won their first high-volume barrier project on Highway 100, a new bypass around the west side of Cedar Rapids, Iowa. The project required approximately 20,000 feet (6096 m) of two different types of barrier wall, along with 14,000 feet (4267 m) of curb and gutter. All of it was slipformed with their new GT-3600.

The curb and gutter on the project was a 30 inch (762 mm) wide, 10 inch (254 mm) gutter with a six inch (152 mm) curb section on top. The profile also includes a four percent catch. The concrete for the curb and gutter is a standard Iowa Department of Transportation C4 mix design.

With the curb and gutter portion of the project complete, Wicks could focus on the barrier wall. It would be the first time they slipformed barrier with a GT-3600.

"A lot of time goes into the set up and getting everything right," Wicks explained. "We wanted to make sure all the settings were correct as far as where the sensors were, where our stringline was set in accordance to our tracks, the steel, and everything else. Set up is crucial to make sure your rail is going to stand up and everything is going to go right."

The GT-3600 is slipforming two different types of barrier wall on the project, including 11,500 feet (3505 m) of 44 inch (1118 mm) tall median barrier, and 8500 feet (2591 m) of 34 inch (864 mm) tall single-face barrier. The concrete is an Iowa DOT BR mix with slump averaging 0.5 inch (13 mm).

"We have Croell Ready-Mix supplying the mix on site and they've dedicated five brand new trucks to us," Wicks said. It's pretty key because we're pouring it so dry, but we still need to get it out of the trucks fast enough to maintain production.

They've been really consistent with the concrete and that's what will make us or break us is if we have consistent, on-time ready mix.

"Production wise, we try to keep the paver moving at a steady pace and shoot for four feet per minute (1.2 m) and hope to get close to that 2000 foot (610 m) per day mark. It's not really about how many feet you can get in a day though, it's keeping the finishers happy behind the machine."

And the finishers are happy. The GT-3600 is putting out a good product and the finishers only have to apply a broom finish and dyed spray cure.

"The machine is doing a good job and the guys aren't having to work too hard," Wicks added. "We've had a really good product and we're just having to broom to finish the wall. It looks best when it comes out of the mold so if we keep our hands off it, it looks great."

The cure for the wall is a clear cure that Wicks Construction dyes a reddish-pink color. The dye is required by the DOT so inspectors can see the total coverage of cure on the new wall. As the cure dries, the dye dissipates and turns white.

Joints in the new wall are required to match the median pavement which are every 15 feet (4.6 m). Each joint is saw cut one inch (25 mm) deep and 0.125 inch (3 mm) wide.

Wicks Construction Company's first barrier project has been successful and their GT-3600 performed as well as they had expected. They plan on using it for several of their paving projects and getting the most out of the GT-3600's versatility.

"We chose the GT-3600 to do tight radius work and we see it being utilized in our parking lot work and also in radius work on city streets," Wicks said. "I like its versatility for our company. That was the main thing that drew us to it... more production, less handwork. It puts out great looking curb.

"It's been a good purchase for us and we'll continue to keep utilizing it. If more of these barrier wall projects come up, we're going to keep bidding on them. The GT-3600 is handling 44 inch (1118 mm) wall with no problems and it's doing a good job. If everything goes well it's kind of boring, but it's only boring if your set up is correct and you have a machine as dependable as a GOMACO." **GW**

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CG-111609 D5

The GT-3600 is equipped with an auger. Wicks Construction feels the auger does a good job handling the dry, low slump concrete required for barrier wall projects.

CG-111605 D16

The GT-3600 is slipforming 11,500 feet (3505 m) of 44 inch (1118 mm) tall median barrier, and 8500 feet (2591 m) of 34 inch (864 mm) tall single-face outside barrier.

Explosive Production at a Former Munitions Factory

The property now known as the Cranbury Brick Yard, in Cranbury, New Jersey, has been transformed over the last few years. Its transformation includes over 60,000 feet (18,288 m) of new concrete curb, along with dolly pads for setting semi-trailer landing gear on. It's all part of the new Cranbury Logistics Center with three large warehouses and a major storage hub for shipments arriving into the port of Newark, New Jersey.

The project has been built by Diamond Materials, based out of Wilmington, Delaware. The company specializes in both warehouse construction and airport paving projects. This project tested their mettle from the very beginning. The Diamond Materials' crew is experienced pouring concrete, but not slipforming concrete with a curb and gutter machine. They chose the new GOMACO 3300 multi-application slipform paver for their curb and gutter and other concrete paving projects.

The Brick Yard has had a long and sometimes violent history. From 1930 to 1954 the property was a manufacturing facility for signal flares, fireworks, and insect repellent. During and after World War II, it was under control of the U.S. Army and Navy as a military munitions factory producing grenade fuses and six pound (2.7 kg) napalm bombs. Tragedy struck the plant on July 21, 1954, when an accidental explosion killed two workers, injured others, and sent live munitions flying across the entire site. Less then 10 days later, the New Jersey Department of Labor shut down the site.

It remained closed for over 50 years

Photos by Kelly Krueger CG-111629 D15

until its geographical location was just too valuable for the property to remain empty. It sits along State Highway 130 and the New Jersey Turnpike, Exit 8, and is only a 30 minute drive from the port of Newark in northern New Jersey. Exit 8A of the New Jersey Turnpike, only five miles (8 km) away, is one of the most strategic locations in the United States for companies to locate storage hubs for their supply network.

The Cranbury Brick Yard would transform from an overgrown swamp full of trees and unexploded munitions into a 2,800,000 square foot (260,120 m^2) warehouse distribution park. It includes three large warehouses on the property. Building #1 is 1,400,000 square feet (130,060 m^2), Building #2 is 950,000 square feet (88,255 m^2), and Building #3 is the smallest at 200,000 square feet (18,580 m^2). The project also includes 63,000 feet (19,202 m) of two different types of stand-up curb, as well as seven to 10 foot (2.1 to 3 m) wide dolly pads.

"We do a lot of curb and gutter, but we also do a lot of dolly pad paving in parking lot areas," Richard Pierson, Jr., President of Diamond Materials, said. "The 3300 was the most economical for us changing from a curb machine to a slipform paving machine. It saves us time having the hydraulic functions the machine is equipped with to be able to put that paving packing underneath the 3300.

"The other things that attracted us to the paver were the slew drives for steering, how all the tracks turn simultaneously, and the smart cylinder technology."

The slew drives on the tracks and GOMACO's proprietary G+® control system allows the 3300's Extreme Steering to be accomplished. The 3300's two front legs are mounted on parallelogram-style pivot arms and the rear leg has power slide for positioning. Their smart leg positioning is accomplished with smart cylinders, along with Smart Track Rotation to provide the G+ control system with the exact location and position of the tracks and reference to their straight ahead line.

Another unique feature on the 3300 is the Smart Telescoping Mold mounting system with reference to G+ for repeatable mold offset. It has the GOMACO Hook-and-Go mold mounting system to quickly and efficiently change from one mold profile to the next. The trimmerhead and mold sideshift and vertically-adjust to clear

CG-111609 DS

Diamond Materials is using Topcon mmGPS for 3D machine guidance. The 3D machine control eliminates stringline and opens up the job-site allowing them to pave anywhere they need to be on the project at any time with the GOMACO 3300.

CG-111630 DI9

The operator has the perfect view of this gorgeous large radius just slipformed by the 3300. He had only been operating the paver for less than two weeks when this photo was taken.

CG-111627 D14

obstacles which allows the 3300 to pave right up to them.

Diamond Materials and their 3300 were slipforming two different heights of stand-up curb along the side of the new roadways running throughout the Brick Yard and the parking areas for the semi-trucks and trailers. The largest of the two curbs is 24 inches (610 mm) tall, with a 14 inch (356) wide base and 12 inch (305 mm) top cap. The other profile stands 18 inches (457 mm) tall, with a seven inch (178 mm) wide base and six inch wide (152 mm) top cap.

"We'll have a six inch (152 mm) face on the 18 inch (457 mm) curb for all of the truck and vehicular traffic coming in and out of the parking lots and routes throughout the industrial park," Pierson explained. "The 24 inch (610 mm) curb is sizable, and more like a barrier curb than anything else. It has a 12 inch (305 mm) face and that goes in where the trailer parking areas are located."

The 3300 features the GOMACO-exclusive G+ control system in a control console that slides from side-to-side of the operator's console. Mounted above the console is the Topcon mmGPS touch screen control box.

CG-111618 D15

The 3300 is equipped with a Topcon mmGPS system eliminating the need for stringline and opening up the 180 acre (72.8 ha) project to other construction vehicles on site. It also allows Diamond Materials to pave wherever they need to pave on any given day. The 3300 features a fast 131 feet per minute (40 mpm) auxiliary variable track speed for moving across the large job site.

"It moves well and on this job we have 180 acres (72.8 ha) here, so on any given day we might be on one end or the other," Pierson said. "The maneuverability is amazing, especially with the slew drives and turning these tight radii. The tightest radius we've poured so far has been four feet (1.2 m). It's amazing how the 3300 will flow around the radius and do what it does."

Curb production with the 3300 is impressive compared to Diamond Materials' handforming numbers.

"It would take three crews and 18 laborers to get the production we're getting now with that machine," Pierson said. "We're cutting the crew down to six laborers and getting the production done that much faster, which allows us to get in, fine grade, pave, and maintain a tighter schedule. The 3300 allows us to control our own destiny and control our own schedule, which is very important to the clients, the owners, and the demands we're held against to get these projects done on time."

The 3300 has also opened up other slipforming opportunities. Diamond

Diamond Materials' 3300 is equipped with 15 foot (4.6 m) charging auger. The safety guard on the auger is available with a manually-activated vibrator to clear the concrete.

Materials has used the slipform paver on a variety of different projects, including dolly pads and ramp paving. One of their first major paving projects was a turnpike on-ramp by Middletown, Delaware. The on-ramp was part of the Biddle's Corner Toll Plaza on Highway 1. They are paving a 1.8 mile (2.9 km) segment as their portion of the nearly 14 mile (22.5 km) long project. That segment includes an eight foot (2.4 m) wide and 12 inch (305 mm) thick on-ramp.

The 3300 paver was equipped with a mold mounting kit to undermount the sectional mold. The paver was turned into the transverse position with the G+ control system set to pave in the transverse left configuration. Concrete was placed directly onto grade in front of the 3300 as paving took place. Behind the paver very little finishing work was required, only a burlap drag along with a bull float finish.

"We're very impressed with the machine," Pierson said. "It's a great product and it helps us do our job easier and faster." **GW**

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Photo by Tom Farr CG-081710 D15

Diamond Materials slipformed ramp at the Biddle's Corner Toll Plaza on Highway 1 near Middletown, Delaware. The 3300 with Topcon 3D machine guidance was paving in the transverse left configuration and the new ramp was eight feet (2.4 m) wide and 12 inches (305 mm) thick.

Photo by Tom Farr CG-081712 D3


3300

3300 Versatility at Work in Arkansas

Photos by Kelly Krueger CG-081721 D5

Curb Time Solutions were attracted to the GOMACO 3300's versatility and ability to slipform multiple applications from either the right-side or the left-side.

Curb Time Solutions in Russellville, Arkansas, is a family company. Hannah Bowden is the owner of the company and her father Jim, and brother James, each play crucial roles. Jim has worked behind concrete slipform machines most of his life and knows the intricacies of concrete very well. When it was time to order a new concrete slipform paver for Curb Time Solutions, which specializes in commercial concrete and heavy highway work, the company purchased a new GOMACO 3300 and Hannah's dream of running her own slipform paving company began.

Jim had the opportunity to visit Diamond Materials' job site in Cranbury, New Jersey, and watch their new 3300 at work pouring 18 inch (457 mm) tall stand-up curb. That visit was followed up with more discussions at World of Concrete in Las Vegas, Nevada, and it was there the decision was made for Curb Time Solutions to purchase the new paver, complete with both curb and gutter and sidewalk molds.

"The reason we went with the 3300 is because of its ability to pour multiple things," Hannah explained. "Not only can we trim and pour curb and gutter with it, we can also do sidewalk, barrier wall, and bridge parapet."

Curb and gutter and sidewalk were Hannah's first concern. The new 3300 was put to work on a project in Clarksville, Arkansas, with 15,600 feet (4755 m) of

two different types of curb and gutter, as well as 8200 feet (2499 m) of 10 foot (3 m) wide sidewalk.

Hannah, as the operator, her chute person, and her father Jim all wear headsets on site. The headsets allow for easy and instant communication between the key people while pouring. Another piece of technology incorporated into their projects is a drone with video camera. Her brother, James, is the drone pilot and he flies the drone around all of their projects recording site conditions before work begins. Then, if questions arise later, they have video proof showing the beginning condition of the job site. The drone is also a handy tool for tracking progress on their projects. (A video James produced on Hannah's first 3300 pour can be watched at https://www.youtube.com/watch?v=UiG53SYI0Ak).

It would be Hannah's first time operating the new 3300 and putting concrete through the paver. In preparation for the first pour, Jim had created a practice course at home and evenings were spent teaching Hannah the fundamentals of operating the 3300 with its G+® control system. Hannah was provided additional support from the GOMACO's service representative who was on-site during the first week of paving.

> ***"We like pouring from the right side because you're going with the flow of traffic instead of against it," Jim said. "We can line up our concrete trucks right in front of the paver instead of trying to block traffic each time we need to get a truck in or out."***

Summers are extremely hot and humid in Arkansas. To compensate for the heat index, Curb Time Solution's crew would sometimes start their day's pour at 4 a.m.

"Our summer days will reach over 100 degrees (37.8° C) with 97 to 100 percent humidity," Jim explained. "The mud can get hot by the second truck if we don't start early. We'll run chilled water and three percent retarder in the concrete mix to help out."

The 3300 with its symmetrical configuration has been designed to be a right-side and left-side pour capable paver. It has a U-shaped operator's platform for complete visibility of the paving process. They immediately put the 3300's right-side pour capabilities to the test on the first day's pour.

"My first day with the machine, I poured close to 2600 feet (792 m) of curb and gutter," Hannah said. "Trying to watch the hopper, trying to watch the vibrators, and trying to make sure the concrete comes out right... the concrete was either too wet or too dry. The crew didn't want to listen to me, even with the headset on. They'd just be doing their own thing. Finally Dad had to step up and say okay, you better start listening to her because she's the one operating."

The profiles on the project are Arkansas State Highway and Transportation Department (AHTD) standard designs. The curb and gutter is 18 inches (457 mm) wide with a six inch (152 mm) tall curb. The roll over curb and gutter profile is 24 inches (610 mm) wide with a 4.75 inch (121 mm) tall rolled curb.

Her 3300 is equipped with the 20 foot (6.1 m) long folding conveyor. The 3300's conveyor features four-way hydraulic positioning, for loading the hopper on

CG-081722 D13

Hannah equipped her 3300 with a 20 foot (6.1 m) long folding conveyor. The conveyor features hydraulic slide, tilt and pivoting adjustments to allow ready-mix truck positioning on either side of the paver.

CG-081732 D10

The tracks of the 3300 are equipped with rotary-sensored slew drives for Extreme Steering capabilities and Sensored Radial Steering for automatic directional control.

either side of the paver.

"We like pouring from the right side because you're going with the flow of traffic instead of against it," Jim said. "We can line up our concrete trucks right in front of the paver instead of trying to block traffic each time we need to get a truck in or out. We like the conveyor, too. With a conveyor you can see the mud better, you can know what the slump is, and you move the concrete faster."

With Hannah comfortable on the fundamentals of slipforming curb and gutter, it was time to master 10 foot (3 m) wide sidewalk. The curb and gutter mold, along with the hopper and trimmerhead, were removed. The 3300 was put into the transverse position so the mold could be centermounted underneath the paver. Grade and steering was referenced off the new curb and gutter. The G+ control system was set to pave in the transverse right configuration.

The sidewalk mold is sectional and built to be open front or closed front depending on job-site requirements. The mold has adjustable sideplates with up to eight inches (203 mm) of adjustment on either side. Ready-mix trucks dump directly onto the 3300's conveyor which moves the concrete into the hopper of the mold. A cross auger inside the sidewalk mold moves the concrete across the 10 foot (3 m) width.

The city of Clarksville is putting in approximately 10 miles (16 km) of new multi-use trails for walkers and bikers. The trail is slipformed with a cross slope and joints are every 10 feet (3 m). Expansion joints are saw cut in the next day at 50 foot (15.2 m) intervals.

"It's a lot of fun as long as it's going like it's supposed to," Hannah said. "You don't see female operators and owners very often, but here I am."

Hannah learned the fundamentals of the 3300 and slipform paving in her first season as an operator, while also owning her own slipform paving company.

"When you talk to GOMACO, you ask a question and you get an answer. If you need a part, they get you the part," Hannah said. "Without that, you can't run. GOMACO is all about finding an easier way for us."

Finding an easier way included a trip to GOMACO University this winter for a week-long course in Ida Grove, Iowa. Hannah, Jim, and her company mechanic were all in attendance learning the finer details of the G+ control system and the 3300 in the classroom, in the hands-on shop time, and from fellow University students. **GW**

Photo by Darin Lansink CG-0817740 D7

The 3300 is referencing grade and steering off the new curb and gutter with the G+ control system set to slipform in the transverse right configuration with the undermounted sidewalk mold.

Curb Time Solutions centermounted a sidewalk mold under their GP3 to slipform 10 foot (3 m) wide multi-use trail for bike riders and walkers.

Photo by Darin Lansink CG-0817739 D15

GOMACO at Work on the M-11 Connecting Moscow and St. Petersburg, Russia

This Article Courtesy of LonMADI-KwintMADI, GOMACO's Russian Distributor

The Project:

M-11 Moscow-Saint Petersburg Highway. Total length: 669 kilometers (416 mi). The highway is being constructed to ease traffic between Moscow and Saint Petersburg. The route bypasses all the major cities and towns.

The Construction Company:

Transstroymekhanizatsiya (TSM) is one of the largest construction market players. Since 2006, TSM has been engaged in complex construction, renovation and repair of motor roads, airports, industrial and hydro-technical facilities. TSM is working on key road and airport construction projects.

The company has such projects as M-4 "Don", M-9 "Baltia" highways and Saint Petersburg Ring Road, airports in major Russian cities (Sheremetevo, Ufa, Khabarovsk, Gelenzhik, Sochi, Vladivostok) and many others in its portfolio. The company specializes in the construction of unique projects using innovative technologies.

Meet Pavel Ulesov, TSM deputy director for airport construction. Pavel manages the company's projects related to concrete construction.

TSM is at work on the M-11 highway connecting Moscow to Saint Petersburg, Russia, using a variety of GOMACO pavers for the project's barrier wall.

Pavel, it isn't the first time we have had a conversation about the projects carried out by the TSM company with the use of GOMACO machines. What was your first encounter with GOMACO?

This happened thanks to the late Vladimir Arutjunov, ex-general director of Centrdorstroy. He had been earnestly promoting the idea of concrete road construction since the nineties. That is why Centrdorstroy is one of the first road construction companies in the country that mastered new paving technology for concrete roads and airports. Some of their projects were the construction of the Moscow Ring Road, airport runways at the Domodedovo Moscow Airport, and other projects. However, the time came for a better method, one that provided higher quality and construction speed to replace outdated practices and manual labor in the sphere of concrete paving.

I came across a GOMACO machine for the first time when I was acquiring a profession of electrical engineer in the institute of light industry. My father worked as a mechanical engineer in a concrete works company, where I started my career as a mechanic and followed in my father's footsteps.

When the purchase of new machines and concrete paving technologies became an issue, we had a choice from a few concrete paving machine suppliers. Having compared the benefits of the different models offered, we decided on GOMACO machines.

What were the criteria of concrete paving machines choice? Why did you choose GOMACO?

There were several factors. First, it has an enhanced mobility. The machines are more multi-functional from the point of view of paving widths and applications.

For example, the Commander III is paving New Jersey barrier today, and the next day there is a need to slipform a curb or a flat slab. It takes us a couple of hours to mount another slipform mold as opposed to two to three days for a competitive machine. Furthermore, they sometimes need a different machine for certain applications.

Secondly, among the wide range of models, we can choose the machine that exactly meets our needs. Such machines are easier to maintain in Russia's conditions. High quality of service was also a must in making the final decision.

We started using GOMACO machines on the M-4 Highway road paving project and then we paved aprons at the Domodedovo airport. We also paved there the first airport runway capable of accommodating large aircrafts such as the Airbus A380. TSM has a very large fleet of 41 units.

TSM is a general contractor at the Moscow-St. Petersburg high-speed road construction project. What applications are they using their GOMACO machines for?

The company is working across the entire length of the highway, thus our sites are situated throughout it. All the sites are interconnected. We are slipforming New Jersey barrier, curb and gutter, and a toll plaza. This is the first project for monolithic New Jersey construction in Russia. It is a time saving and cost effective technology.

Will you tell us more about the technology?

The highway has always been a high-level danger area. Road accidents frequently happen because vehicles drive into the oncoming lane or off the driveway. The reasons are multiple: mechanical failures, glazed frost, decreased driver's attention, and negligence in driving.

Initially the project implied iron separators. However, TSM suggested New Jersey barrier as a better solution for two reasons: safety and cost. We carried out design works, crash tests, and concrete monolithic barrier was proven to be a more advantageous solution from the point of view of safety and cost.

How are New Jersey barriers constructed?

There is a specific technology that takes into account the following requirements: one-sided or double-sided product (for utilities, mostly for illumination), retention, reinforcement, total height, operational height. TSM is using three multipurpose GOMACO paver models, GT-3600, Commander III, and 4400 to pave the monolithic concrete barriers along the entire length of the project.

How do you ensure a high quality of works performed?

First of all, we always abide by technological documentation. The works are implemented at positive temperatures. The concrete has a water base, thus it's impossible to work with it during the winter.

Furthermore, we have multipurpose GOMACO machines that we have been using for about four years. The GOMACO machinery boasts a high level of accuracy (up to several millimeters) of works performed. We maintain the machines mostly on our own. We work during the daylight and set up lighting towers at night if there is a need. The TSM laboratory personnel and Rostest representatives control the constructed barrier quality.

We also pay close attention to the qualifications of the specialists. I personally monitor the technical condition of the machines and the training of our employees. It is very important for me to make sure that all the operators clearly understand what they are doing in the workplace. I consult operators personally by phone and email. We arrange trainings, if necessary, and sometimes consult with our American colleagues.

Alexey Ponomarev, who has joined GOMACO International Ltd. as a Sales Consultant, also added the following comments to the article.

What is the function of safety barriers? The fact is that the majority of bad traffic accidents occurs as a result of the collision of vehicles moving in the wrong direction (head-on collision). Based on the experience of European and North American countries, the percentage of traffic accidents declines drastically, including casualties.

The advantage of concrete monolithic barrier is its robustness. It is much higher than that of the metal counterpart due to several kilometers of one-piece construction. Moreover, we optimize our costs, because there is no need to repair the barrier.

The next aspect is safety. What happens if a vehicle crashes into a concrete barrier? The main purpose of the barrier is to prevent driving into the oncoming lane in order to avoid the gravest consequences. Concrete barriers perform this task completely: it is impossible to break or damage it. Only a black impact print remains on the barrier.

According to the results of numerous crash tests, monolithic concrete barrier of a certain form and size (GOMACO machines allow the construction of barriers of different forms and configuration) also helps to prevent an upturning of a vehicle. Rate of vehicle damage and casualty count are minimal and incomparable to the situations when collisions with steel barrier occurs.

Why do we recommend using GOMACO machines for monolithic concrete barrier construction? First, the company provides a full line of machines for this application, including the GT-3600, Commander III, 3300, and 4400. Secondly, GOMACO offers supporting machines, concrete placers like the RTP-500 and 9500 to place the material. This is a second to none decision. Another benefit is GOMACO's proven experience gained over the years slipforming New Jersey barrier.

TSM chose GOMACO as their pavers of choice because of their versatility in slipforming a variety of applications and the ease in switching the pavers over from one application to another.

GP3 and GP4 for Contractors Who Prefer Two-Track Pavers

Photo courtesy of Brian Lingobardo HW-031805 D1

A two-track GP4 with 5400 series mold and Topcon ZPS 3D machine guidance is at work on the Seymour Johnson Air Force Base in Goldsboro, North Carolina.

The all new GOMACO GP3 and GP4 slipform pavers have been a success on projects around the world since their introduction. The GP3 has the ability to slipform widths up to 30 feet (9.1 m) and the GP4 is for wider widths, up to 40 feet (12.2 m). These pavers are now available for contractors who prefer a two-track paver.

The dual-telescoping GP3 and GP4 are part of GOMACO's new family of pavers with next generation technology. Both the two-track and four-track versions of the slipform pavers feature Smart Frame Widening to accommodate multiple width changes.

They feature a telescoping frame to easily accommodate multiple width changes. The frame has dual telescoping capabilities of up to seven feet (2.13 m) on each side of the paver, for a total of 14 feet (4.26 m) of automatic frame widening on the GP3 and GP4. Smart cylinders in the frame allow Smart Telescoping with accurate frame widening and automatic width reference for steering setup. The T-beam mounting rail is incorporated into the telescoping frame.

The pavers have been designed to be easy to operate with the G+® control system, as well as comfortable for the operator while offering a complete view of the paving operation. Vibrator modules are positioned across the front of the operator's platform for easy accessibility and operation visibility. G+ allows quiet running technology and also load-sensed hydraulics for maximum paving performance and optimized fuel efficiency.

A two-track GP3 is ready for another paving season in Iowa. It was used around the state last year to slipform several different street and highway paving projects.

Photo by Steve Corbin HW-051725 D11

The pavers have an isolated operator's platform for operator comfort during a long day of slipform paving. The platform is easy to access with multi-positioning, pivoting ladders that allow variable degrees of angle for safety and ease in climbing. The ladders can also be vertically positioned tight against the paver for minimum-clearance paving conditions.

G+ Connect™ allows all the smart accessories and guidance system for the GOMACO paver to be easily interfaced. Simply "connect" a 3D stringless guidance system, IDBI, tie bar inserter (TBI), power transition adjuster (PTA), GOMACO Smoothness Indicator (GSI®) and more to a GP3 or GP4 slipform paver. They can also feature the latest in telematics and remote diagnostics. **GW**

Photos courtesy of Dean Bengford CG-011802 D3

The GOMACO two-track Commander II is back and better then ever! New features include the G+ digital control system and a pivoting operator's console for ultimate operator visibility.

The Deuce is Back!

The Commander II, GOMACO's two-track curb and gutter machine, is back and better than ever. The new Commander II introduction was announced at World of Concrete 2018. It features the simplicity of a two-track paver with GOMACO's exclusive and operator-friendly G+® digital control system. There are GOMACO owners who prefer the Commander II over any other paver. It's now back and features the new G+ technology.

The first new Commander II was recently put to work by William D. Adeimy Inc. on a curb and gutter project at the Banyan Cay Resort & Golf in West Palm Beach, Florida.

On its first day, the Commander II was slipforming over 40 feet (12.2 mpm) per minute, as logged by the GOMACO Remote Diagnostics (GRD) system.

"The Commander II took off right out of the box," Tom Phillips, the GOMACO service representative who was on site to commission the paver, said. "I had to chase that thing all day! The contractor was unloading eight cubic yard (6.1 m^3) trucks through the machine in nine minutes."

Quality wasn't compromised slipforming at that speed either. The Commander II was putting such a nice finish on the new 24 inch (610 mm) wide, 7.5 inch (191 mm) tall valley gutter, that only one finisher was required behind the machine.

Operator comfort and visibility has been designed into the new Commander II. The operator's platform is now isolated to eliminate vibration. A new pivoting operator's control console allows the operator to have hands-on control and ultimate visibility no matter what application is being slipformed. G+ control allows independent track drive for the ultimate paver control experience.

Concrete is fed into the hopper by a 20 inch (508 mm) wide, six foot (1.8 m) long conveyor belt. It features a belt speed of 350 feet per minute (106.7 mpm) to quickly move the concrete into the hopper.

"This is everything you've ever wanted in a Commander II," Kevin Klein, GOMACO's Vice President of Engineering/Research and Development, said. "We've added the pivoting operator's console similar to the Commander III. The Commander II can be shipped on a truck at 8.4 feet (2.6 m) wide. It has the smooth G+ two-speed travel. In fact, its G+ control software was derived from our extensive two-track paver experience to make the Commander II easier, faster and better than ever before."

The Commander II is powered by a 102 horsepower (76 kW), Tier IV Kohler engine. It features a travel speed of up to 82 feet per minute (25 mpm) to quickly traverse any job site. It is equipped with a 60 inch (1524 mm) wide sectional direct drive trimmerhead for exacting grade preparation.

"The deuce is back," Vinnie Miller, GOMACO District Manager for the Southeast United States, said. "We have Commander II owners who only want a GOMACO Commander II. Now we have that for them, with so much more than what they had before."

The Commander II will slipform a variety of applications and is designed to simultaneously trim and pour for maximum concrete utilization. It can easily convert from project to project with applications such as curb and gutter, safety barrier, irrigation canal, recreational path, shoulders and more. **GW**

"I had to chase that thing all day! The contractor was unloading eight cubic yard (6.1 m³) trucks through the machine in nine minutes," Tom Phillips, GOMACO's Service Representative said.

CG-011802 D5

The quality of the curb and gutter produced by the Commander II was so good, only one worker applying a broom finish was needed to work behind the new curb and gutter machine.

Goodbye to an Innovator and Friend

CS-108503-22

Robert's concrete placing machine, the GOMACO 9500, at work in October 1985, was featured in GOMACO World 14.1.

Robert Millsap, a long-time friend of GOMACO and an employee at L.H. Lacy Company in Dallas, Texas, passed away on March 31, 2018. He was 73 years old. His innovative spirit and the want of a better concrete placing machine resulted in the development of the 9500.

"Robert was equipment supervisor for Mike Lacy when they approached us about building them a high-volume placer for end dump operations," said Ken Kelly, retired GOMACO District Manager for the Southwest United States. "The L.H. Lacy Company and Robert, specifically, were forward thinking people. Lacy was the first company in the area to place site-mixed concrete in front of a slipform concrete paver. This process revolutionized the slipform concrete paving, especially in subdivision paving in the area.

"We became good friends through all the trials and tribulations of building this first machine of its size and capabilities. I know the 9500 was always one of my favorite machines to sell because, like Robert Millsap, you knew it would always be counted on to perform, no matter what the situation."

This first 9500 and L.H. Lacy were featured in *GOMACO World* 14.1 in 1986. You can read the story by visiting www.gomaco.com/downloads/lh_lacy_world14_1.pdf.

In the article, Millsap liked working with GOMACO and the "open mindedness of GOMACO to meet our needs." The article ends with a quote from Millsap.

"We run the machine every day that it is not raining or we are moving from one job to another," he concluded. "It has met our expectations 100 percent, and the CP-9500 (now called the 9500) is the only way to go for central mix paving."

GOMACO shares our deepest sympathies with the Millsap family. Robert will always be remembered and applauded for his creative spirit and can-do attitude.

The GOMACO GP3 is the Paver of Choice Around the World

HW-021706 D4

A GOMACO RTP-500 places concrete over the median barrier as the GP3 slipforms half-width pavement over continuous steel reinforcing on the Interstate 35 East project in Waxahachie, Texas.

HW-071709 D4

A GOMACO GP3 is equipped with a sidemounted variable barrier mold to slipform barrier on a project in Milton, Ontario, Canada. A conveyor for loading the mold is mounted to the paver's endcar.

HW-051613 D3

In Switzerland, a GP3 paved its first project in the town of Rothrist before being moved to a project at the Zurich Airport.

HW-109160I D9

The first GP3 manufactured by GOMACO slipforms 24 feet (7.3 m) wide while paving a five percent uphill grade.

HW-111705 D12

A GP3 with a spreader plow slipforms a new ramp on Interstate 94 in Alexandria, Minnesota.

HW-101712 D1

A new shoulder with integral curb is slipformed with a sidemounted paving mold on a GP3 in Storm Lake, Iowa.

HW-111728 D3

HW-111728 D4

A two-track GP3 with a front-mounted conveyor is slipforming 28 feet (8.5 m) wide on a new development project in Dalhart, Texas.

HW-041706 D1

An RTP-500 places concrete in front of a GP3 with a 12 foot (3.7 m) sidemounted paving mold slipforming a new on ramp for Interstate 80 in Council Bluffs, Iowa.

HW-071702 D1

A new roundabout is slipformed on Kirkwood Boulevard in Cedar Rapids, Iowa. The GP3 slipformed the first lane 21 foot (6.4 m) wide around a 49.3 foot (15 m) radius. During the second paving pass with the GP3, a 12 foot (3.7 m) wide truck apron with integral curb was slipformed around a 37.3 foot (11.4 m) radius.

CG-071714 D2

In Windsor, Ontario, Canada, a 3300 slipforms curb and gutter using 3D machine guidance.

HW-061703 D1

The expansion project continues at Suvarnabhumi Airport in Bangkok, Thailand. A two-track GOMACO GP-2600 slipforms a new 500 millimeter (19.7 in) thick apron at the airport as part of the expansion.

HW-041842 D13

A two-track GP-4000 is at work mainline paving near the city of Acayucan in Veracruz, Mexico. The paver features two front-mounted bar inserters, an IDBI, and 3D machine guidance.

CG-101725 D1

The new Xtreme Commander IIIx was put to work slipforming curb and gutter in a new housing development in Surrey, British Columbia, Canada.

HW-101723 D14

Work is ongoing at the Minsk National Airport in Belarus, where a GOMACO GHP-2800 with a paver-mounted GSI® is slipforming 7.5 meters (24.6 ft) wide and 475 millimeters (18.7 in) thick.

CG-061708 D8

A four-track Commander III slipforms a low profile barrier wall along Highway 1, the Gyeonbu Expressway, near the Geoncheon Service Area in South Korea.

CL-051704 D12

A GOMACO C-650-S with a center-mounted PTA (power transition adjuster) finishes 11 meters (36 ft) wide on a project by San Nicolas de los Arroyos, Argentina.

CG-111635 D2

A GOMACO 3300 slipforms new curb and gutter on a narrow street in Westrozebeke, Belgium.

CG-041703 D6

A GOMACO GT-3200 slipforms curb and gutter and V-drain on a project in Australia.

Hands-On Machine Control with the G+® Remote Control

GOMACO's proprietary and exclusive G+ control system is known in the industry for its operator-friendly software and controls, its diagnostic capabilities, and its versatility. As the control system continues to evolve, new features have become available to GOMACO contractors. The latest innovation is the new G+ remote control for hands-on machine control at all times.

The new G+ remote control features a 4.3 inch (109 mm) graphic display screen that shows the run functions of the machine, the same information that is normally viewed at the operator's console on top of the paver. Most paver functions are included on the remote and are controlled with easy to operate and durable dials or switches. It also gives the operator individual control of each leg of the paver with automatic/manual adjustments for elevation and steering.

The lightweight remote control allows the operator to comfortably work from the operator's platform or from the ground, giving them ultimate freedom to move around the machine for the best view of the paving operation. The exclusive G+ remote control allows hands-on safety at all times. It has an emergency stop button and an alert horn on the remote that are always within reach for quick access.

The remote control is equipped with two lithium-ion batteries and a 12-volt charger. An optional AC adapter is also available for purchase. **GW**

Photo by Ed Lampe CG-051624 D18

The new G+ remote control shows the run functions of the GOMACO machine and the same information the operator sees at the paver's operator console.

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Commander IIIx Show Machine Stays in Vegas to be a Star

In a city known for hosting the United States' largest concrete trade shows, a new GOMACO Commander IIIx, a featured machine in the GOMACO booth at World of Concrete 2018, has found a new home. It was purchased by Stewart & Sundell and had a short transport from the Las Vegas Convention Center close to the famous Las Vegas Strip, to its new home in North Las Vegas, Nevada.

The family-owned company has always favored GOMACO and the Commander III for their barrier and curb and gutter work. When the new Xtreme Commander IIIx was introduced featuring rotary-sensored slew drives with extreme track steering, they knew they had to have one for their company. The timing of their purchase worked well for it to be a GOMACO trade show machine and Kris Sundell, and his sons Bryan and Peter, visited their new machine the last day of the show, January 16, 2018.

Stewart & Sundell didn't waste any time putting their Commander IIIx to work after World of Concrete. Within a week of the show, they were slipforming curb and gutter on a project in Las Vegas. They are able to use their existing Commander III molds, steering sensors and other accessories on their new machine without modifications. It's a money-saving feature when you have over 30 years of existing curb and gutter and barrier molds in your inventory.

Stewart & Sundell slipforms curb and gutter on a project in Las Vegas, Nevada, with their new Xtreme Commander IIIx.

The Sundells visited their new Commander IIIx in the GOMACO booth at World of Concrete 2018. They are, from left, Bryan, Peter, and Kris Sundell.