# CONSTRUCTION PROFILES WORLD OF CONCRETE / CONEXPO 2020

### **DEAR CUSTOMERS AND FRIENDS:**

As we reflect on the past year, we are very proud of what the G&Z team accomplished considering the very strong domestic and international market, while keeping our commitments to our customers.

Like all other manufacturers of off-road construction equipment, in the last 3 years, G&Z had to update their entire product line with diesel engines that meet the US EPA Tier 4f / EU Stage IV or V emissions standards. For foreign markets, where ultra-low sulfur diesel fuel is not available, we continue to supply Tier 3 diesel engines. Because these new Tier 4f engines and after-treatment modules are significantly taller than the Tier 3 engines, redesign was not just limited to the power unit base and enclosure, but in some cases, the tractor center module and the bolsters. In all cases, changes were required in the hydraulic setup, hoses lengths, and routing, wiring harnesses, and control software. This redesign effort was a huge investment which also slowed production.

Change can also be good. These power unit redesigns have given us an opportunity to improve serviceability on our products including better access, better filtration, and enhanced troubleshooting capability. CAT Tier 4f / EU Stage V engines have been selected across our entire product range because of their fast and responsive, worldwide dealer network, as well as, the CAT engines reliability, long life, longer service intervals, better fuel economy, quiet performance, and wide horsepower range for each engine model.

After a lot of frustrating delays on the new S600 power unit redesign project, in September, we delivered our first S600 Paver with new Tier 4f power unit, which you will read about in this magazine. We wanted to thank our customers for being patient and working with us. We are very excited about how the new S600 power unit package and other improvements turned out and look forward to showing it to you at the Guntert Paving School, the World of Concrete, and CONEXPO after the first of the year.

Power units redesigned in 2019 included the S600, MP550, and an update on the S850 Tier 4f power unit to accommodate the new CAT C9.3B engine with a very broad horsepower range. This same power unit will be used on our S1500 Paver. The S600 power unit with a CAT C7.1 engine will be used on our PS1200 Placer Spreader. In 2019, we also introduced our updated Eagle ET4500 wheel trencher with a new CAT C3.4 Tier 4f engine, new direct wheel drive with high torque / low speed motor, telematics, and new operator

control layout. The redesign of the S400 power unit package to accommodate the Tier 4f engine, will start shortly. This is the last of the power unit redesign projects.

With most of these redesign projects behind us, our focus in 2020 will be to increase production and reduce lead times for our most popular models.

We look forward to seeing you in 2020!



ROLF C. GUNTERT VICE PRESIDENT

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JAN SCHOLL

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**Receiving Hopper** 

**Propulsion System** 

**Elevation Control** 

Machine Weight<sup>2</sup>

**Engine Power** 

US and International Patents Pending

<sup>2</sup>Dry Weight

 $^1$  The transfer and swing belts increase the on-board holding capacity by approx. 3.75 yd  $^3$  (2.86 m  $^3)$ 

**Hopper Auger** 

**Conveyors** 

# MP550 Material Placer

- Standard Hopper approx 2 yd<sup>3</sup> (1.5 m<sup>3</sup>) capacity. 33" (838 mm) high front lip<sup>1</sup>
- Optional High Production Hopper approx. 5 yd<sup>3</sup> (3.8 m<sup>3</sup>) capacity. 22" (558 mm) high front lip with hydraulic hinge up flop gate with shuttle plate (patented).

Powerful variable speed 14" (355 mm) dia. auger

 Swing Conveyor:
 36" (914 mm) Wide x 35' (10.66 m) Long- 170° Swing Arc

 Transfer Conveyor:
 36" (914 mm) Wide x 23' (7 m) Long

 Variable Speed:
 0 - 600 fpm (0 - 183 mpm)

4 Wheel Drive - High Flotation Rubber Tires, both front & rear wheel steer Working Speed: variable approx. 0 - 120 fpm (0 - 36.5 mpm) Walking Speed: variable approx. 0 - 7 mph (0 - 11.2 km/h)

Standard: 14" (355 mm) Hydraulic Hopper Height Adjustment Optional: 4 Jacking Columns with 27" (685 mm) Hydraulic Height Adjustment

Standard: Approx. 45,000 lbs (20,547 kg) Optional: Approx. 55,000 lbs (25,113 kg) with optional jacking columns and HP hopper

275 HP (205 kW) 6 Cycle Tier 4f Diesel Engine



### VERSATILE



All Wheel Drive Propulsion System Independent Front and Rear Wheel Steering



Wireless Belly Pack Controls



Hinging Swing Conveyor. 35' (10.66 m) Long 170 Degree Swing Arc

### **HIGH PRODUCTION**



High Production Hopper Available



High Capacity Conveyors and Auger

### **EASY MAINTENANCE / LOW OPERATING EXPENSE**



Hinge Up Flop Gate with Shuttle Plate (patent pending)



Quick Release Hopper



Swing Open Side Panels for Cleaning Access



Easy To Change Endless Belts



CAT Tier 4f Engine



ECO-Mode



Jacking Columns and Hydraulic Lowering of Transfer Belt



## **INTERSTATE HIGHWAY CONSTRUCTION** A COMPANY WITH QUALITY AT ITS CORE

Interstate Highway Construction (IHC), based in Centennial, Colorado takes their quality commitment seriously. In their corporate commitment statement, quality workmanship, excellence, and delivering projects on time are prominent. Even their corporate email address ends with @ihcquality.com. Those who deal with IHC either as customers, competitors, or suppliers know "quality" is not a shallow aspiration but accurately defines IHC's commitment to planning, investment in its employees, and the pride they take in their work. This is evidenced by the numerous local, regional and national quality award plaques that IHC has earned over their 70 year history that are prominently displayed on the walls of their office.

There are times in every organization's history where it may lose focus or fails to maintain the discipline it takes to meet its commitment to excellence. It is never intentional; it just shows up at inopportune times leaving everyone questioning who is at fault and how did this happen. Normally it is not any one individual's fault. You win by working together as a team and you fail the same way. What happened is generally a combination of things: Important practices become so routine that it doesn't take much for their importance to be forgotten and skipped. Key individuals in an organization retire or their duties expand to the point that the functions they attended to so effortlessly before, go uncovered or are overlooked. Important tasks get delegated but because the person these tasks are delegated to "doesn't understand the reason why" that person decides to skip a step or practice. "They don't know what they don't know." Important practices get lost among a myriad of competing priorities...and the list goes on. As a result the process control breaks down.

In 2018, it became very apparent to IHC that they were not meeting their expectations of achieving the best possible pavement smoothness. This was based upon past experience and results they knew they were capable of achieving. IHC was incurring exorbitant costs in the form of grinding and rework. Their reputation is of paramount importance to them and they consider pavement smoothness a critical component to enhancing IHC's reputation. Starting in the fall of 2018, IHC formed an internal team that focused and looked at all aspects of the paving operation. This included focusing on analysis of mix designs, material selection, uniformity and consistency of concrete production, paver maintenance, pre-paving check list procedures, and real time paving process management. This was all followed up with hands on education and training



and establishing accountability from the top down.

The results of these efforts immediately showed in 2019! While there are many examples of IHC's success in turning things around in the 2019 paving season, one project stands out.

IHC has been concrete paving in Southwestern Nebraska consistently since 2014. IHC's projects along I-80 were featured in G&Z's Construction Profiles Magazine Fall 2016 issue. Paving at 40' (12.2 m) wide with at least one profile

and at times two profile breaks is the common paving width in Nebraska. All the mainline paving on IHC's projects in Nebraska has been done with IHC's G&Z S1500 Paver with DBI.

There is a potential for IHC to earn incentive payments as well as incurring disincentives for the smoothness results they achieve.

IHC can earn incentive pay of up to 106% of the contract pay item price on the two 12' (3.6 m) wide travel lanes if the



ride measures up to contract specifications. Smoothness is measured using the International Roughness Index (IRI) scale, and IHC stands to receive bonus if smoothness readings are less than an IRI of 68. In order to earn the maximum incentive, the IRI would have to be less than 43 on any individual 1/10th mile segment. If the IRI is between 43 to 56 there is a 104% incentive, between 56 and 68 there is 102% incentive. In 2018 on the I-80 Nebraska project located near Bushnell and Kimball, the smoothness results IHC achieved were in the range the 60's and as high as the 80's and results were inconsistent and erratic.

After revisiting their concrete paving process control procedures in the fall of 2018 and spring of 2019 and the team re-committing themselves to quality, IHC's renewed focus and discipline paid dividends. On the first phase of their 9.6 mile long project near Chappell, Nebraska that started in August 2019, the ride numbers improved dramatically. The project consisted of several hills with anywhere from .50 to 1.87 % main fall slopes as well as a long sweeping horizontal curve on the last 2 miles at the west end of the project. The G&Z S1500 Paver with DBI was set at 40' (12.2 m) with two profile breaks, one between the two 12' (3.66 m) wide travel lanes and one at the 10' (3.05 m) shoulder. The pavement depth was 12" (305 mm). The pavement trye was plain pavement with doweled transverse contraction joints on 15' (4.57 m) centers, with dowels on 12" (305 mm) centers present only in the two 12' (3.66 m) travel lanes. The average production for the first phase of this project was more than 5,000 yd<sup>3</sup> (3,822 m<sup>3</sup>) per day and the average IRI was 51, with some 1/10th segments in the 30's and several 1/10th segments in

the 40's. There was one full day of production in which the average IRI was 43. In addition, out of 24 mainline headers only 3 required grinding.

IHC attributes their improvement in the 2019 paving season to several factors:

- The entire paving team's re-focus on quality throughout their entire paving operation.
- Improvements in IHC's G&Z S1500 Paver and DBI including:
  - 1. Increasing the length spreader plow blade so it knocks down a wider swath of concrete in each pass.
  - 2. Beefing up the rear kicker tubes that stabilize the G&Z DBI Oscillating Correcting Beam (OCB) to ensure the OCB is kept at its preset plane.
  - 3. Making sure the set-up procedures on the S1500 Paver and DBI were carefully followed.
  - 4. Optimizing the sensitivities of the G&Z S1500 paver computer and Leica computer.
  - 5. Implementing a pre-paving maintenance check list process to ensure that the paver is performing at its optimum capabilities.
- Optimizing the concrete mix.
- The production of consistent, uniform concrete being produced by the batch plant.





"There are so many variables when it comes to concrete paving it is mind blowing. To achieve the rides we have this year everyone and every piece of equipment had to be working at near perfection, because I believe that is what it takes to pave 40' wide with a DBI, 2 grade breaks, and consistently pave under a 50 IRI." - Adam Hall - West Division Surveyor

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#### **CONCRETE MIX**

Everyone in the concrete paving industry has come to realize the importance of optimized concrete mixtures to build quality concrete pavement. IHC is no exception. IHC has been optimizing their mixes, when possible, dating back to 1999 and realizes well graded mix designs, with aggregates held within a tight gradation tolerance at each sieve size, good stockpile management, accurately weighing and thorough mixing are essential to achieve a smooth, low noise and durable concrete pavement.

Besides running their proposed mix designs through the Shilstone software and plotting the gradations on the coarseness factor chart then optimizing by reproportioning the aggregates or adding a third or fourth aggregate, IHC uses a second step to optimize the mix. IHC, like a few other contractors in the industry, are also plotting the mix retained gradation data on a Tarantula Curve. Of course, what is also important is the following:

- Working with your aggregate supplier to ensure that the retained gradation tolerances at each sieve size are held within a narrow band (typically +5% down to the #8 sieve then progressively tighter down to the minus 200).
- Making sure the aggregates are clean, uniform, and free of lenses of rock dust or organic material that can change the water demand of the mix.
- Good stockpile management to ensure uniform moisture, to minimize segregation and degradation of aggregates, and to minimize rehandling
- Good aggregate particle shape for both the coarse and fine aggregate to reduce water demand and improve workability.

Obviously, the quality concrete mix that IHC is using as evidenced by the extremely low smoothness numbers and consistent uniformity of the concrete is going to provide the State of Nebraska with a smooth, quiet, and durable pavement that will last for decades.



## MAKING HISTORY IN AUSTRALIA SEYMOUR WHYTE PAVES LARGEST CONCRETE PAVING JOB

Seymour Whyte is a company that was founded in Australia in 1987 by John Seymour and Garry Whyte. Throughout their company history, Seymour Whyte excelled in public sector projects. They started as a small road building and excavating company, but organically grew into a microtunneling, sewerage, mining, and major infrastructure builders. In 2014, Seymour Whyte acquired the Rob Carr Pty Ltd which allowed them to expand into the utilities sector. In 2017, Seymour Whyte was purchase by Vinci, a French company that has been in business for over 120 years with their origins dating back to 1899 when two French engineers founded Societe Generale D'Entreprises. Vinci is headquartered in Rueil-Malmaison, in the western suburbs of Paris, France. They are known in France for their twocore businesses, concessions and contracting. Vinci's main objectives were: they wanted to continue their international expansion in strong growth markets, which is why the acquisition of Seymour Whyte was important. They wanted to get a foothold in the Australian infrastructure market. One of the key decisions proposed to the senior management on this high-profile project was to own the critical path on most

activities and deliver using a self-perform model.

In late June 2018, Seymour Whyte signed the single largest highway paving contract ever let in Australia on a 28.2 mile (47 km) north and southbound section of the Pacific Highway called the Woolgoolga to Ballina Section 3 and 4. The concrete paving on this contract, which was worth over AU\$ 150 million (US\$ 103 million), started in October 8, 2018 and finished on time on December 20, 2019 despite 27% of the available working days lost because of hot weather and either rain or threatening rain.

The New South Wales (NSW) pavement section design in this rural part of Australia includes a 6" (150 mm) thick layer of lean concrete "subbase" and a 9.8" (250 mm) thick layer of plain jointed pavement or "base". The plain jointed pavement has 1:6 skewed transverse contraction joints sawn on 13' (4 m) centers. A wax based curing compound and a bitumen and aggregate seal are used between the base and the subbase as a bond breaker. To ensure they delivered quality concrete pavement and they stayed on



schedule (liquidated damages were AU\$ 65,000 per day (US\$ 45,000 per day), <u>every step of the concrete paving</u> process had to be studied, optimized and scheduled, and of course, a first class paving team had to be assembled from scratch to self-perform.

The project required an unrelenting schedule to meet the completion deadlines. Seymour Whyte needed to maintain an aggressive daily production for mainline subbase and base of 1,112 yd<sup>3</sup> (850 m<sup>3</sup>) and 1,001 yd<sup>3</sup> (765 m<sup>3</sup>) average respectively per day based on 6 days per week. Due to the tight schedule, Seymour Whyte purchased two sets of machines which both included a G&Z S1500 Concrete

Slipform Paver, as well as, a TC1500 Texture Cure Machine to complete the mainline work. They also utilized four wet mix plants with 784 yd<sup>3</sup>/h (600 m<sup>3</sup>/h) concrete production capacity to provide redundancy and concrete production capacity. To run the equipment, seven experienced paving supervisors and 38 key paver operators, fitters, and finishers were needed and were engaged in the project. With their proper planning and commitment to meet the deadlines, Seymour Whyte set an Australian record for most concrete placed in one shift for one paver. On September 19, 2019, they placed 3,963 yd<sup>3</sup> (3,030 m<sup>3</sup>) of concrete over 11 hours utilizing 45 trucks to deliver the concrete and a 14-person concrete paving team to place the concrete!



### **PROJECT CHALLENGES**

Besides schedule, Seymour Whyte faced other challenges:

- Hot Weather The PCP concrete had a limit of 89.6° F (32° C) ambient temperature.
- Inclement Weather 27% of the available working days lost because of hot weather, rain or impending rain. The plastic on the poly roller of the G&Z TC1500 worked well because of all the rainfall encountered.
- Fine Aggregate Consistency of the grading.
- Structures There were 26 bridge locations on the project.
- Paving Resources The quantity of machines was limited. All mainline paving work was done with two paving spreads to undertake both the subbase and PCP



/ base layers.

### PAVING EQUIPMENT SELECTION

Critical to the paving scheme and schedule was the selection and specification of the right equipment to avoid losing valuable paving days to width change, bridge crossings, loading and unloading, as well as other non-productive paving activities. The subbase concrete was slipformed first. Once it reached sufficient strength, the PCP (base) concrete was placed on top by the same paving spread consisting of a G&Z S1500 Paver and TC1500 texture cure machine. The 6.2' (1.9 m) wide PCP shoulder paving was done by a separate shoulder paver because depending which way the pavement was sloping, a gutter was required. Seymour Whyte always paved with traffic.

According to Jason Moran, Paving Manager, "G&Z's S1500



Paver was chosen for the versatile main frame width adjustment so that we could quickly alternate between widths of 33' (10.1 m) and 26' (8.1 m), the swing leg rotation to provide the fastest process to traverse structures by pushing the legs inboard position and the front tie bar insertion system". Tony Nixon, Paving Supervisor also added "Making adjustments to each leg and using the TeleEnds for pan width changes on the S1500 is superior to any other machine on the market." The paving team reported that it took four men approx. 8 hours to change the paving spread between subbase 33' (10.1 m) and base 26' (8.1 m) width utilizing the G&Z TeleEndXXL paving kit end section which telescopes 6.5' (2 m). To walk across the bridge and start paving again, it took three hours if all four legs were brought in.

Heath Werner, Paving Supervisor, added that "G&Z S1500 and TC 1500 machines are robust and built to a high quality resulting in reliability of the machines. The machine performed better than expected for rideability using the stringless system." Tony Nixon, Paving Supervisor agreed

> "The G&Z machines are well made, fast to change width, maneuverable in confined areas, good tie bar inserter system and the red is a great color!" Jason Moran - Paving Manager

that the compatibility of the Leica stringless machine control system on the S1500 was flawless. What also lead to the selection of G&Z equipment was "The reliability of the equipment is very good and technical support from G&Z to solve issues is quick and accurate allowing us to minimize downtime" according to Aaron Lawson, Paving Superintendent.

The average RI for the project has been 76 in/mi (1.2 m/km) measured in 109 yd (100 m) lots inclduing the bridge decks with some sections as good as 42.5 in/mi (0.67 m/km) on the IRI. The RMS contracts provide for a 3% of contract value maximum incentive for a ride quality of less than 57 in/

# 2019 AT A GLANCE...

THANK YOU TO THE G&Z FAITHFUL





# THE LEADING "HYBRID" SIZE, MULTI-PURPOSE PAVER IN THE INDUSTRY JUST GOT BETTER

G&Z is happy to announce that their industry leading S600 Paver, first introduced in 2010, is now available with a new Tier 4f engine and enhanced width capability. The new S600 Power Unit was completely redesigned in 2019 and features:

- A new quiet, fuel-efficient and reliable Cat C7.1 302 HP (225 kW) US EPA and CARB Tier 4f / EU Stage V, 6-cylinder diesel engine which gives you low operating cost and years of productive life. Minimum 5,000-hour diesel particulate filter service interval and 500-hour oil change interval enable low cost operation supported by a world-class product support offered through global Cat dealer network.
- An easy to access, noise insulated and removable steel enclosure. Access doors and bolt-in enclosure panels are easily removed to give you all the access you need. The diesel engine / pump group is vibration isolated from the power unit base and the power unit is vibration isolated from tractor center module to increase component life, operator comfort and reduced noise.

- Each hydraulic circuit has an enhanced electronic pressure sensing, along with an improved, sensed hydraulic circuit filtration system. This includes a motor case flow filtration system prior to the oil returning to the hydraulic tank. All enhancements tie into the S600 EGON Telematic system.
- Access to pumps, motors and filters inside and underneath the power unit module has been dramatically improved for better serviceability.
- All power unit electronics and electrical are CAN based and are centrally located in an easy to access, lockable compartment located on the end of the power unit.
- The diesel fuel tank has been relocated to the end of the power unit for improving access to the pumps and filters. The outside of the diesel fuel tank includes a compartment for the DEF tank for ease of access.
- Like all G&Z paver power units, visibility was maintained under the paver operator's feet so he has full view of,



and access to, the concrete liquification hopper and the front tie bar inserter.

One other enhancement to the S600 patented "VariWidth" Tractor Frame is extended width capability out to 34' (10.36 m). This was made possible with new, heavier duty male telescopic extension tubes and new bolt-in, fixed frame and hose extensions for the tractor frame.

• The "VariWidth", double telescopic, tractor frame allows width change from 8' to 22' (2.4 to 6.9 m) in a matter of few minutes with the help of the patented camber adjusting, support rollers and hydraulic "clamping puck" system. The hydraulic clamps securely lock the male telescopic tubes in a fixed position relative to the tractor center module. This is critical for accurate steering.



 G&Z's unique and patented "tunnel in the bolster" design (where male telescopic tubes can pass) offers the widest telescopic range in the industry. This patented design eliminates the need for two stage, telescopic extensions per side that sag undesirably at wider widths which adversely impact steering and grade control.



• To change the tractor frame width, the paver operator flips a switch to release the hydraulic clamping pucks on one side of the machine. Then using the crawler tracks in the 90° steering mode, walks the tractor frame out to the desired width, supported by the rollers. There is no need to support the tractor frame center module prior to telescoping.  In addition to the tractor frame quickly telescoping 7' (2.13 m) per side, the hoses and cables from the center module to the bolsters are mounted on a hose hinge and telescope in the same range along with the access walkway with handrailing is optionally available 7' (2.13 m) of telescopic ability.



- The S600 is now available with two types of bolt-in, tractor frame extensions options.
  - With the original, 2.5' (0.75 m) tractor frame extensions, bolted in on both sides of the tractor, the tractor frame can telescope from 13' [12' (3.5m) is possible] to 27' (3.9 to 8.4 m) and by moving the paving kit mounts to the outside of the bolster out to 31' (9.5 m) without the DBI.
  - With the new, heavy duty 5' (1.5 m) tractor frame extensions, bolted in on both sides of the tractor, the tractor frame can telescope from 18' to 32' (5.5 to 9.75 m) [16' (5 m) is possible] and by moving the paving kit mounts to the outside of the bolster out to 34' (10.4 m) without the DBI.

Of course, the other patented productivity features that have been available on the S600 since 2010 that make it so unique, are still available and highly recommended to allow you to place more concrete in one day:

- TeleEnd (Telescopic End Section)
- SmartLeg and AccuSteer:
  - Crawler tracks can to be moved in and out on the fly by the groundman or operator while the crawler track automatically stays straight ahead so the paver crawler track can be quickly and easily moved around and by obstacles. From any swing bolster angle, the S600 crawler tracks equipped with "AccuSteer" slew drives can be turned 90° to the direction of paving and walk and steering in this position. This feature saves time and space maneuvering on the jobsite.







- 2. The S600 Paver equipped with "SmartLeg" can be transformed into the transport mode in a matter of a few minutes with stands under the bolster with the crawler track lifted off the ground or without stands by using the 90° steering mode and walk each crawler track in an arch, to a pre-programmed, outboard position.
- 3. This updated design still maintains the S600 as the narrowest profile paver in its class! The distance from edge of pavement to widest point on the paver is 2'-0" (610 mm).

Come see the new S600 at World of Concrete and CONEXPO...you will not be disappointed.







# PARTS & SERVICE DEPARTMENT YEARS OF EXPERIENCE



Guntert & Zimmerman's Parts Department is one of the company's many assets. The Parts Department is available **24/7** reducing downtime and giving our customers the peace of mind that we're always available no matter where you are in the world. The G&Z Inside Sales Team has decades of parts experience with G&Z machines. Their expertise allows our customers to receive the right parts the first time.

We pride ourselves in our customer service. That is why we stock parts at our facility to ensure availability when a customer needs them. If we don't have it, we'll find it for you quickly. With G&Z it's not necessary to talk to an under stocked distributor who doesn't know the equipment. Customers speak directly to the G&Z factory in Ripon, CA which is located just 1.5 hrs from four major airports with international service. If you don't know the part number, G&Z's staff can promptly locate the correct part for your machine and in many instances have it shipped the same day.



G&Z's staff has a simple unwavering instruction...when a customer calls, drop what you are doing and take care of the customer's needs, NOW! Our dedicated staff is knowledgeable about the various construction disciplines where our equipment is used. If there is a question a staff member cannot answer for you, they will quickly put you in touch with someone who can.

G&Z service techs not only have intimate knowledge of G&Z equipment, but also concrete paving, trenching and canal construction. The service department can be reached **24/7** by phone and e-mail. We assist not only in commissioning, training and teaching the best maintenance practices of G&Z equipment, but also consult in the areas of concrete mix design analysis and construction techniques and applications. Our goal is to see your equipment perform above and beyond any specifications or expectations.

**PARTS DEPARTMENT:** +1.209.924.1236

**SERVICE DEPARTMENT:** +1.209.599.5604



# AVAILABLE UPGRADES

S600 SYSTEM UPGRADE WITH BELLY PACK	S600/S850/S1500/PS1200 PRESSURE FILTER UPGRADE FOR OPEN LOOP CIRCUITS
S850 EGON CONTROL SYSTEM UPGRADE	S400/S600/S850/MP550 SPARE BELLY PACK CONSOLE
S850 COOLING/QUIET ENGINE PACKAGE	• S400/S600/S850/S1500 LEICA/TRIMBLE PRISM MOUNT POSTS WITH ELECTRIC WINCH, SET OF 2
S850 SPREADER PLOW UPGRADE	TC1500 EGON CONTROL SYSTEM UPGRADE
S850 COLD START BYPASS KIT	DBI EGON CONTROL SYSTEM UPGRADE
S850 SLEW - DRIVE UPGRADE	DBI TELESCOPIC TRAILING HEADER UPGRADE
S400/S600/S850 EGON TELEMATICS UPGRADE SERVICE	DBI RAPID / BULLET FEEDER UPGRADE
• S400/S600/S850/S1500 EGON CORNER OPERATIONS PENDANT (COP) BOX UPGRADE	• DBI OCB LONGER PANS UPGRADE (INC. PANS AND LEADING EDGE)
S400/S600/S850/S1500 HYDRAULIC CLAMPING PUCKS UPGRADE	Esta Contractor

### CONTACT G&Z PARTS DEPARTMENT FOR MORE INFORMATION



### TECHNOLOGY AVAILABLE ONLY THROUGH G&Z

G&Z is dedicated to designing machines that **Maximize Available Paving Time and Minimize Everything Else**. G&Z's Exclusive industry proven and requested options include: AccuSteer, SmartLeg, TeleEnd, VariWidth and more. These optional systems work together to reduce paving kit and tractor width change time, ease maneuvering onsite, and dramatically reduce the time required to transform the machine into the transport configuration.

G&Z is committed to making its customers more productive. G&Z offers a wide range of technologies to help contractors work as many paving days as possible during the season. Listening to contractors' needs and engineering patented solutions makes G&Z equipment: **Contractor Inspired. Guntert Engineered.** 

### MAXIMIZE AVAILABLE PAVING TIME WITH FASTER WIDTH CHANGES

Changing widths quickly without affecting pavement smoothness is a significant challenge. With the combination of the TeleEnd and VariWidth systems, changing both the paving kit and tractor widths has never been quicker or easier. With TeleEnd, no need to drop the kit to change width. TeleEnd uses hydraulic cylinders to open and close

### VARIWIDTH (PATENTED) TRACTOR WIDTH CHANGES



The VariWidth system features adjustable cam rollers and hydraulic clamping pucks to easily extend and retract tractor extension tubes. This can be accomodated without supports or a "two-stage" telescopic tube, which can cause the frame to sag and Jacking Columns to tilt in, which adversely impacts steering and smoothness. VariWidth can reduce tractor width change times from hours to minutes. the end section to add or remove spacer sections of the kit. VariWidth is designed to eliminate the need to support the tractor or unbolt extension tube clamping pucks. VariWidth uses adjustable cam rollers and hydraulic clamping pucks to accomplish quick and easy tractor width changes with the flip of a switch!

### **TELEEND** (PATENTED) TELESCOPIC END SECTION



The TeleEnd: Telescopic Paving Kit End Section offers 3' (1 m) of quick change kit per side. A 6' (2 m) width change can be accomplished by one or two people in as little as an hour. TeleEndXL's are available allowing up to 4' (1.25 m) per side. TeleEndXXL's are also offered for up to 7' (2.13 m) per side.

### MAXIMIZE AVAILABLE PAVING TIME WITH SUPERIOR MANEUVERABILITY

AccuSteer and SmartLeg systems take paver productivity to the next level. The two systems work in tandem to adjust the swing leg angle on-the-fly while the crawler track automatically steers straight ahead. These two systems rapidly and semiautomatically reconfigure the machine into the transport configuration.

### ACCUSTEER (PATENTED) SLEW DRIVE TRACK CONTROL



The AccuSteer system offers unparalleled maneuverability and steering accuracy while allowing steering in 90 degree and counter-rotation mode in every swing leg position.

What's the use of great features and options without easy to operate controls? G&Z's Equipment Guidance and Operation Network (EGON) makes operating a piece of G&Z equipment easy and intuitive. Also, EGON boasts great addons like Telematics, NoLine: stringless integration, and remote

### **SMARTLEG** (*PATENTED*) SWING LEG SYSTEM



Working in conjunction with AccuSteer, the SmartLeg system allows contractors to adjust the swing leg angle on-the-fly to maneuver around an obstacle without stopping production.

operability. As new technologies become available, integration and operation should not be difficult or time consuming. EGON's simple and intuitive "plug and play" integration makes the latest advancements available to all customers.



EGON is a Next Generation Operator Control System that incorporates user friendly features, a modular state of the art network of controllers, extensive onboard and remote monitoring options, and diagnostic capability to allow superior ease of use and troubleshooting. It has never been easier to operate, reconfigure, diagnose, and manage a piece of concrete paving equipment. EGON Telematics is a powerful remote diagnostics/monitoring system. The G&Z software engineering team has designed a web based remote user interface to allow maximum connectivity for the contractor anywhere in the world, as well as solving challenges together with the G&Z service team.

# **CANAL** EQUIPMENT



Guntert & Zimmerman pioneered the use of mechanized and automated canal construction machinery starting in 1947. Through the years, G&Z's canal equipment has proven itself to be highly durable and reliable. Some G&Z canal equipment built and sold in 1975 is still being used today. These tools have maintained their value and have kept their owners in a competitive bidding position throughout the long life of the equipment. The machine design is intended to allow the machine to be reconfigured for a wide variety of canal sections. In regions of the world that rely heavily on irrigation, such as the western United States, Spain and South Africa, G&Z equipment has been used to construct **more than 80%** of the existing concrete lined canals.

# **EAGLE** TRENCHERS

Guntert & Zimmerman is committed to manufacturing high quality wheel trenchers to increase your productivity, lower your operating costs, and insure ease of operation. Eagle Trenchers are an excellent choice for a wide variety of high production trenching applications, such as foundations, utilities, irrigation, and fiber optic installations. Eagle Trenchers are built rugged enough for your toughest jobs.



# CONVERTIBLE HIGHWAY AND AIRPORT EQUIPMENT



As an alternative to a custom built solution, G&Z's Highway and Airport Concrete Paving Equipment models can be converted into canal and reservoir liners with minimal modification, such as the S1500 paver shown. The G&Z TC1500 can also be converted to a cure jumbo for canals and reservoirs.



# **G&Z CONCRETE** SLIPFORM PAVING EQUIPMENT

Guntert & Zimmerman's (G&Z's) Slipform Paving Equipment are the most trusted machines in the business. In 1956, G&Z pioneered and introduced the first concrete highway and airport slipform paver mounted on crawler tracks with automatic line and grade control. Today, G&Z offers a full range of concrete slipform paver models along with other support equipment, such as mechanical Dowel Bar Inserters, Placer Spreaders, Material Placers, and Texture Cure Machines to suit your present and future needs.

G&Z equipment designs are based on over 75 years of experience. G&Z equipment is built to last under the rigors of job site use, transport, and configuration changes. Unique productivity features are incorporated in the machine design to reduce the time required to transport, maneuver, and change paving widths without sacrificing the performance advantages contractors have come to expect from a G&Z.

## CONCRETE SLIPFORM PAVERS



12' - 41' (3.5 - 12.5 m)

CONCRETE SLIPFORM PAVING SUPPORT EQUIPMENT

8' - 34' (2.5 - 10 m)



6.5' - 24.5' (2 - 7.5 m)

18' - 52.5' (5.5 - 16 m)



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