



CUSTOM HYDRAULICS

*Simple Solutions.
Seamless Integration.*

YOUR TRUSTED RESOURCE

GS Global Resources is trusted by OEMs who demand a competitive advantage for every solution. From system and component design to production and market support, we help OEMs interpret, adapt, and adopt technology. Solving OEM challenges at the intersection of fluid power and electronic control, our customers profit from our continuous technology and innovation transfer.

PERFORMANCE

Access to the foremost machine performance resource trusted by OEMs ensuring a competitive advantage from every solution.

PROFITABILITY

Continuous technology and innovation transfer through a single point of accountability provides OEMs unmatched value.

PRAGMATIC

Problem solvers, renowned by our customers, we relentlessly pursue and develop fresh ideas to benefit OEMs.

TALENT

Rare technical talent, scalability, and flexibility, coupled with incomparable ability to understand and overcome OEM challenges.

CONFIDENCE

Support to help OEMs best integrate and utilize technology from system and component design to production and market support.

VALUE

An exceptional combination of speed to market, improved safety, higher productivity, greater predictability and unbeatable efficiency.

COMMITMENT

A comprehensive resource where the complex simplifies. Where peace of mind and mutual respect grow relationships. Where competitive advantage and machine performance improve—every time.

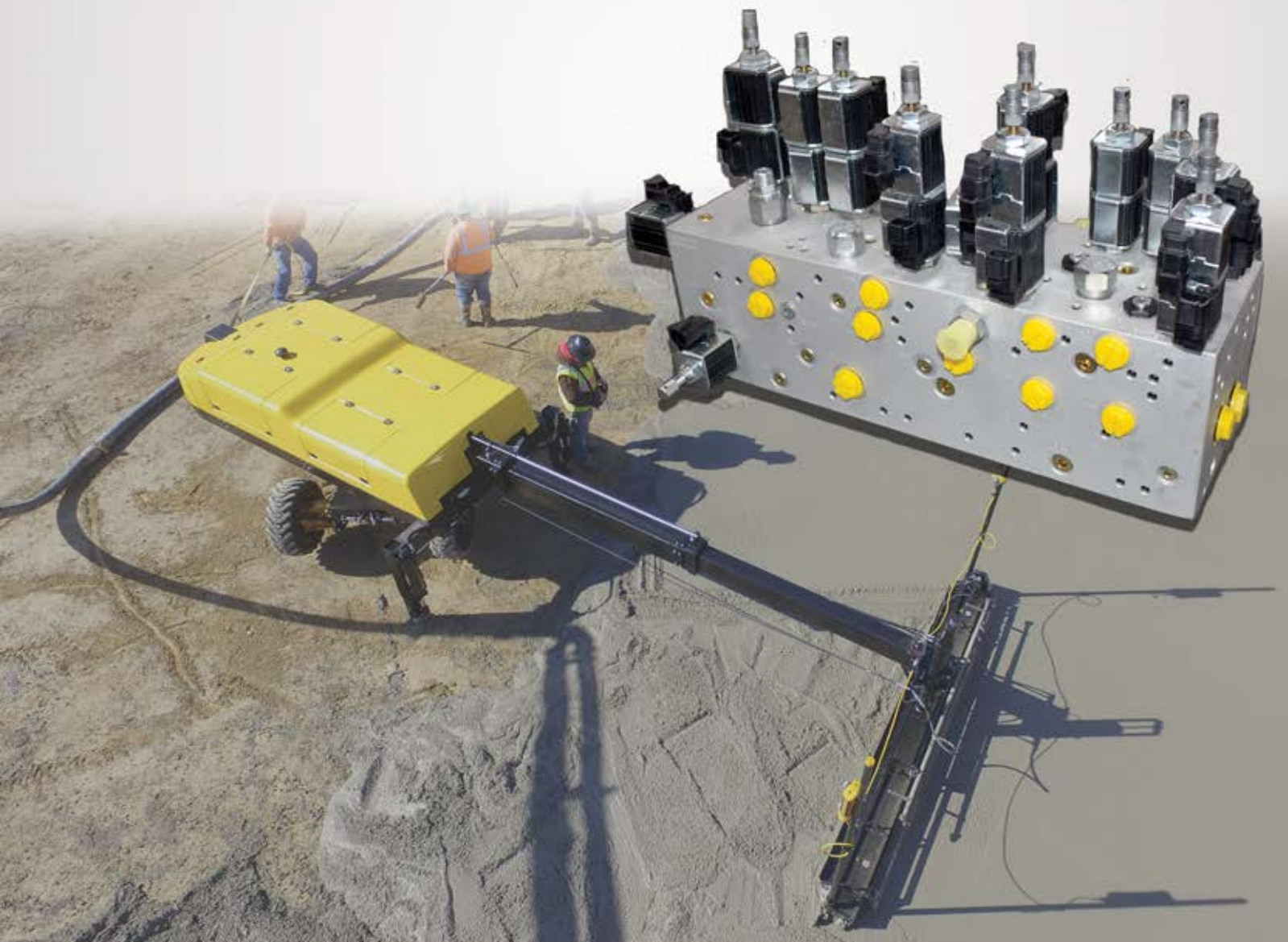


A SOLID HYDRAULIC FOUNDATION

The foundation of GS Global Resources is hydraulics. Our specialized engineers do an in-depth analysis of your machine in order to avoid machine failures and optimize safety. Our system allows our solutions to achieve consistent results over time, giving you a reliable product for the long haul.

Our status as an established vendor of industry leading hydraulics means that we have access to the components you want for your machine, and our diverse team of experienced engineers has the knowledge and understanding to customize them for your application and environment.

Hydraulics are the heart of your machine and we're dedicated to designing reliable custom solutions that increase efficiency, scalability and serviceability. Furthermore, we empower OEMs to control their machine's hydraulic data and utilize predictive maintenance, increasing uptime and decreasing maintenance costs.



SCALABLE HYDRAULICS FOR ANY APPLICATION

Valve Assemblies

Custom hydraulics for concise control and fuel efficiency, without the wait.

You tell us what you need from your hydraulic system, and we can design a custom valve solution that can get it done. Utilizing an established base unit, we can build numerous versions of a valve assembly, specifically designed for different machines. Thanks to our engineering resources, our OEMs have speed to market otherwise not available for custom assemblies.

Hydraulic Power Units

Flexible solutions designed for diverse applications.

Not only do our fluid power solutions perform for the life of your machine, but we are able to be incredibly flexible in their design. Our knowledgeable engineering staff can meet your needs, whether your machine requires an extended operating range with wide flow capabilities within a single unit, or if you need rapid turn around of a variety of unit sizes. We can respond to any requirement for your power unit and get you a custom solution faster.

Filtration Systems

Keep your system running efficiently without considerable downtime.

We know that keeping your machine up and running is of the utmost importance. A high quality, regularly maintained filtration system is key to a hydraulic system's efficiency. That's why we design custom scalable filtration systems for your machine and application, incorporating duplex systems so elements can be replaced or cleaned without losing job time.

Manifolds

Creating a solid foundation, easily customized for different machines.

We understand that you need more than a one-and-done hydraulic solution. That's why we create scalable manifolds that can be easily customized with stackable valves, supporting different operating features for different machines. Furthermore, we can combine multiple manifolds into a single valve bank giving you total machine control.

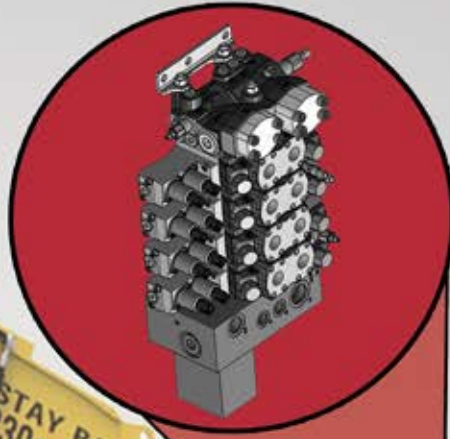
Air Coolers

For your smallest and largest machines, as well as everything in between.

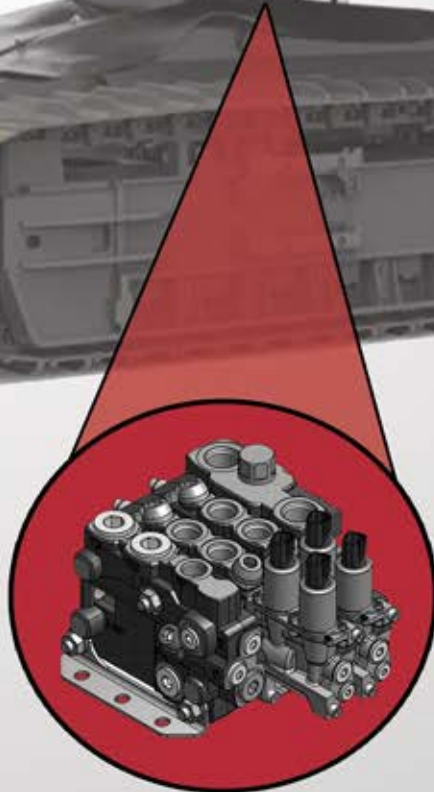
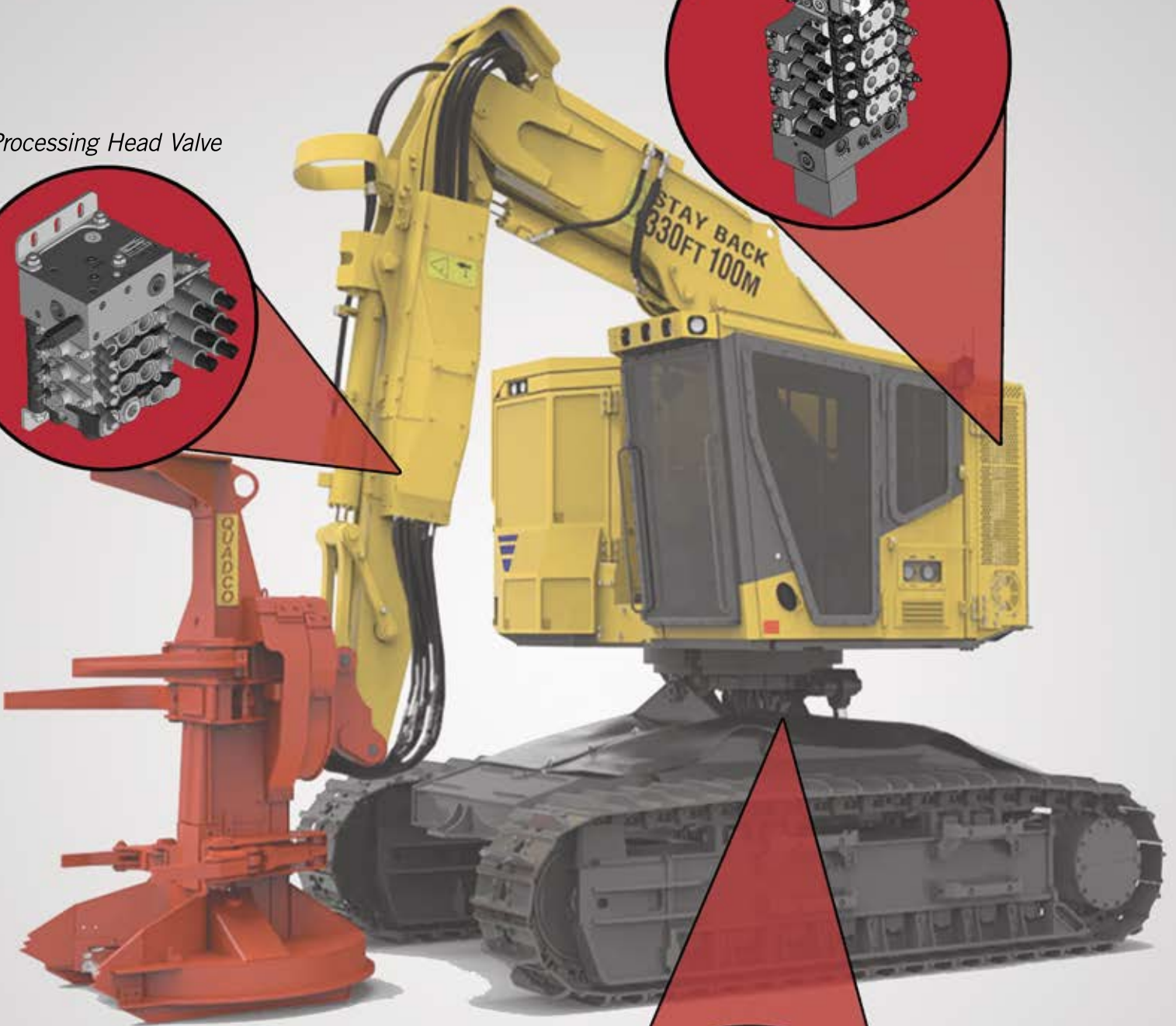
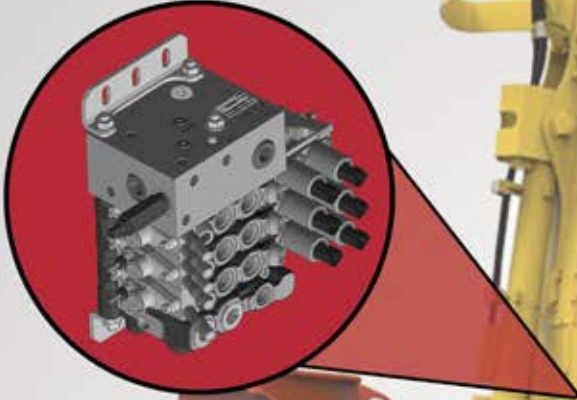
Advancements in hydraulic technology have allowed for cleaner, more compact, multi-function cooling systems. Fans can be programmed to run a reverse cycle at specific intervals, cleaning out debris. Rather than a traditional "all or nothing" cooling method for diesel machines, operators can specify the volume of air used, considering environmental and seasonal factors, utilizing a fraction of the horsepower of traditional systems.



* Primary Machine Function Valve



* Processing Head Valve



* Cab Leveling Valve

SOLUTIONS THAT ARE: SERVICEABLE

Creating an efficient hydraulic foundation for your machine.

A house is only as good as its foundation. The same is true of a machine's hydraulic system. A lot can be done to optimize different aspects of a machine, but you can never compensate for a machine's flawed hydraulic design. Making just a few key changes in your machine's hydraulic system can have a considerable ripple effect in its efficiency, serviceability, and overall production cost.

Take a look at your primary valve bank. Traditionally, that central unit controls the majority of your machine's hydraulic functions. However, by placing individual valve assemblies adjacent to their specific function, like the machine pictured here, you can eliminate a significant amount of hosing and simplify component connections. This step can also greatly increase the machine's serviceability. Rather than keeping all function valving together, maintaining separate assemblies allows a technician to perform maintenance or repairs on one area without affecting the other. Furthermore, it allows OEMs to offer specific machine features as options rather than automatically including everything. So customers can get the exact machine they want without additional work from the OEM.

And in today's data-driven world, the ability to track and utilize your machine's hydraulic data is essential. Whether that is through a third-party provider or through an OEM's own telematics software should be easily adjusted based on their preference. Our experienced engineering team has the ability to integrate your machine's control system with the diagnostics tool of your choosing, giving you full access to and control of your data.

SOLUTIONS THAT ARE: PRAGMATIC

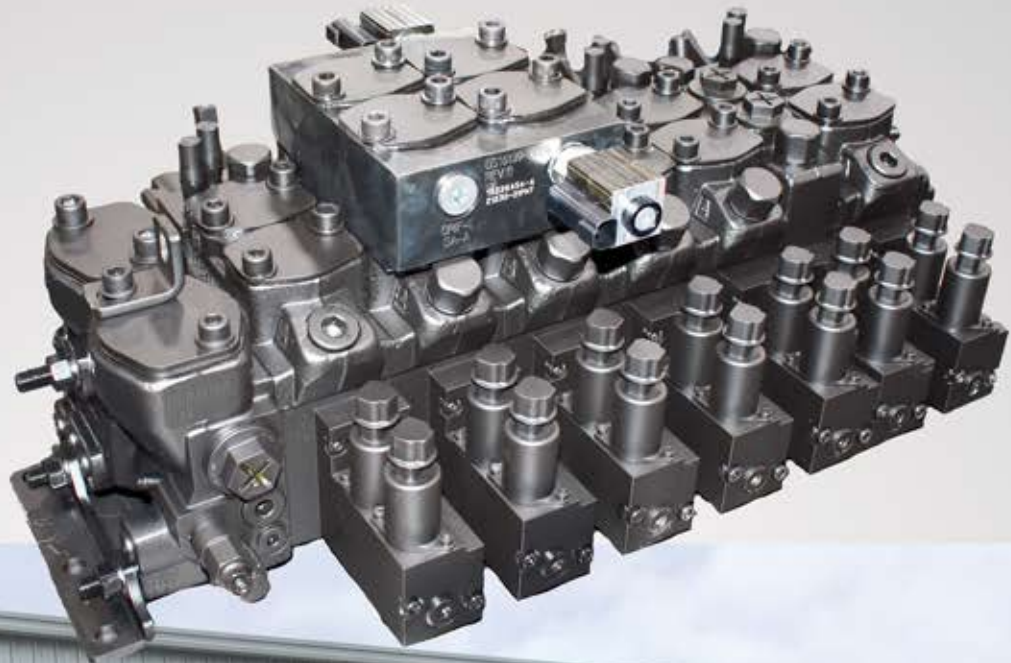
Both in Machine Design & Day-to-Day Operation

Time has never been a more vital resource for OEMs and finding efficiencies in every aspect of production is essential to maintaining ROI. That starts in the machine design process. Designing entirely different hydraulic or electronic solutions for separate machines can considerably increase manufacturing time. In order to maximize machine production and simplify the assembly process, GS Global Resources works with OEMs to create flexible systems that require only a few modifications from machine to machine.

In the case of one crane manufacturer, we created one base manifold assembly that supports cranes as heavy as 8,000 lbs. However, we can use that same manifold for larger cranes simply by adding another valve, changing the flow from 8 gallons per minute to 15 gallons per minute.

This sort of pragmatic approach applies to every phase of machine life and our experienced engineering staff looks for every opportunity to optimize a machine's usability. For example, proper filtration can add years to a machine's life. Integrating a filtration system directly into a manifold ensures that your hydraulics will be using the correct system, reducing maintenance and decreasing the likelihood of issues. Operators or technicians can also easily replace the internal filter element on the manifold itself. Alerts can even be incorporated through a built-in electronic sensor, further ensuring the hydraulic system will be properly maintained.





SOLUTIONS THAT ARE: RUGGED

Heavy Duty Components With Modern Solutions

Keeping your machine current doesn't need to mean a complete redesign. If an OEM prefers a more rugged, hydraulically based control set, that system can still be optimized through innovative hydraulic and electronic motion control system integration.

Modernizing a machine with hydraulics can be particularly appealing for a certain customer base. Whether your primary demographic is rental fleets, or if the machine's application environment is especially harsh, a high priority for some OEMs is that their machine components be durable with both simple maintenance procedures and common sense functional operations.

Take the case of hydraulic joysticks, which have historically been appreciated for their simplicity and physical feedback. These can still be integrated into a full custom seat and cab assembly with numerous electronics. Once you have a firm understanding of the hydraulic requirements, those preferred electronics can be integrated into the machine to better control those features, including ramping, control safety locks, and priority flow.

Compartmentalizing a machine's hydraulic components can also allow operators to much more cost effectively run the machine. To better manage flow in a crane application, use a smaller pump for functions such as boom extension and load lift, and another for base machine operation. This ensure that flow is not wasted on unused functions in a larger, all-encompassing pump.

And while hydraulics can be more susceptible to certain issues, certain elements can be put in place to protect your machine from dangerous situations. For example a simple pilot operated hydraulic joystick has fewer built in safeguards than one that is electronically controlled. That can be remediated by a solution like a blocking or dump valve. That system will stop a function to keep the machine from getting into an unstable condition.

ABOUT GS GLOBAL RESOURCES

GS Global Resources is the foremost machine performance resource. We are trusted by the world's most recognizable OEMs who demand a competitive advantage from every solution. Our integrated application solutions perform for the life of the machine, and for the lives of the people who touch it.

From system and component design to production and market support, GS Global Resources helps OEMs interpret, adapt, and adopt technology.

Our leading engineering minds in hydraulic, electronic, mechanical and software applications simplify the complex. We use innovative & reliable technologies to speed solutions to market. Whether reacting to market forces or changing markets altogether, GS Global Resources is essential to achieving total machine performance.



CONTACT

Please visit GSGlobalResources.com or contact us directly for more information. Our dedicated team of long-term, invested employees look forward to working with you.

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