





Solutions



### **Core Values**

Accountability Balance in Work and Life Collaboration Commitment Community Employee Empowerment Integrity Respect

# **Meet Morrell Group**

Driven by a passion for innovative technology and conquering challenges, we develop solutions that keep our customers moving toward the future. From concept to completion, we provide exceptional customer service deeply rooted in our Commitment to Excellence. Our goal is to continue to grow our business with our customers and trusted vendor partners with the same quality and integrity we have had since 1976. *We keep things moving.* 

- Solutions Based Engineering
- S Design Engineering for Hydraulics, Pneumatics, Lubrication & Mechanical Solutions
- S Machine Control Design Experience
- G Hardware & Software Design
- S Concept & Process Engineering
- System Integration Solutions
- S Subsystem Efficiency Solutions
- S Modification of Machines to U.S. Standards & Specifications
- Quality Assurance According to ISO9001:2008
  & AS9100:2016
- S Designs & Capabilities According to U.S. & European Standards NFPA, UL, CE

### Engineering Partner

Morrell Group functions as your partner, an extension of your engineering team. Rather than forcing you to adopt our business practices, we adopt to yours—seamlessly.

- Factory Trained Service Technicians
- Dedicated Product Management
- Maximum Stocking Levels
- Integrated Systems
- Application Engineering
- Custom Products & Solutions
- 3D Modeling & FEA Analysis
- Advanced Product Training
- Product & Machine Expertise
- Research & Development
- Product Launch Support
- Safety Reviews
- Prototyping

# Systems Integrator

The innovative solutions we engineer support both new and old systems. Employing cutting edge technology, we optimize your machines, fine-tuning them for efficiency, reliability, and longevity.

- Service Technicians
- Application Assistance
- Committed Inventory Program
- Configured Assemblies
- Product Sizing & Selection
- Integrated Products
- Concept Engineering
- Training



More than a mere supplier, Morrell Group provides attractive solutions built on a foundation of quality components and competitive pricing.

- •24/7 Support
- Customer Service
- Inventory
- Product Kitting
- Product Support



# Our Elements of Success



TEST

000



**INTEGRATE** 

000

N







LEARN



# **Meet Morrell Group**

Morrell Inc. began as a trusted resource for premier components, and over the last four decades evolved into the Morrell Group, an Engineering Partner, Systems Integrator and Value-Added Distributor (ESV).

As the world's first ESV, we provide our customers with highly engineered solutions for motion control tasks. By leveraging our group members' diverse industry experience and product knowledge, we engineer technically superior solutions with sustainable value.

# Where Intelligence Drives Innovation

### morrell

A trusted resource for the design, build, installation, and maintenance of electrical, hydraulic, pneumatic and lubrication systems built solidly on these components.

- Priority access to industry leading components
- Unparalleled experience in component application
- Industry leading system and subsystem development





A world-class provider of solutions for electrical and motion control systems – from simple panel builds to the full integration of complex, turnkey systems.

- Tremendous experience in more than 80 critical capabilities
- Complete life-cycle support niche to total solutions



A focused business unit to handle the automation of tools used in the manufacturing and assembly of commercial and military aircraft, rockets and satellites.

- Simplify flexible automated tooling
- Value-added concept engineering processes



A focused business unit structured to provide the breadth and depth of Morrell Group's design, engineering, prototyping, manufacturing, sourcing and procurement capabilities on military vehicles.

- System integration solutions
- Subsystem efficiency solutions
- Space and weight reduction
- COTS Technical Readiness for Military Levels 1-5 and 6-10

# Innovation that Keeps You Moving



End users and machine manufacturers increasingly demand mobile working machines that are more productive, safe, flexible, and energy efficient. Morrell Group is equipped to support those machines throughout and beyond the Industry 4.0 revolution.

### NOW

- Diesel Vehicles
- Require Skilled Drivers
- Entirely Manual Processes

### NEXT

- Diesel Vehicles
- Semi-Manual Processes
- Controlled On-Site

### BEYOND

- Electric Vehicles
- Autonomous Vehicles
- Controlled via Cloud
  Computing

N

# **Propulsion Solutions**

For your propulsion needs, Morrell Group calculates gradeability, traction control, speed, and torque performance to design optimized systems – always with full engineering performance design and safety in mind. All of our system solutions undergo stringent safety protocols to ensure your machines move safely.

- **G** Bent Axis Motors
- **G** Foot Pedals
- **G** Gear Boxes
- **G** Joysticks
- **G** Fixed Displacement Motors
  - Axial
  - Gear
  - Piston
- **G** Variable Displacement Motors
  - Axial
  - Gear
  - Piston







## **Propulsion Solutions**

Our propulsion solutions support 2- and 4-wheel drive coordination and anti-slip traction control in any condition, which help us meet end-user demands for reproducible and smooth driving behavior with and without load. We can also accomplish horsepower limiting and support off-road cruise control with our reliable components and turnkey solutions.

- **G** Priority Flow Control Valves
- **G** Fixed Displacement Pumps
  - Axial
  - Gear
  - Piston
- **G** Variable Displacement Pumps
  - Axial
  - Gear
  - Piston
- **G** Steering Orbitals

# **Actuation Solutions**

Actuation solutions from Morrell Group help you meet the challenges of today's markets as you gain access and control over the power, safety, and efficiency of your mobile machines. Rely on our tools for configuring custom, standard, and combination valve packages and achieving accurate repeatability of automatic and control functions.

- **G** Control Valves
  - Integrated Cartridge Valves
  - On/Off Valves
  - Proportional Valves
  - Sectional Control Valves
  - Stacked Valves
- **S** Manifold Assemblies
  - Bankable
  - Custom
- **G** Pneumatic Valves
  - Electric
  - Fieldbus
  - Manual







ACTUATION

**Mobile Drilling** 







## **Actuation Solutions**

Let Morrell Group's advanced technology and cutting-edge engineering solutions improve the efficiency, versatility, and performance of your next-generation machines. By coordinating components to meet optimum standards, our systems improve handling and increase precision in daily operations.

- G Compact Power Units
- **G** Cylinders
  - Electric
  - Hydraulic
  - Pneumatic
- G Motors
  - Fixed Displacement
  - Low Speed High Torque
  - Variable Displacement
- **G** Slew Drives
- Swing Drives
- **G** Winch Drives

# **Optimization Solutions**

Save time and money as our optimized solutions help to increase your system's longevity, prevent damage, and reduce downtime. Morrell Group adjusts to ever-changing industry standards and provides optimal solutions no matter your need – driving or working, hydraulic, hybrid or fully electric – including Tier IV and Tier V emission regulations.

- **G** Accumulators
- **G** Cooling Systems
- **G** Diesel Fuel Filtration
- S Engine Flywheel Couplings
- S Fan Drive Packages
- S Filtration
- **G** Fluid Care
- **G** Lubrication
- **G** Mounting Accessories
- G Reservoir Optimization







# **Electrification Solutions**

Our electric, electronic, and digitally networked solutions offer innovative and comprehensive monitoring, service, and control concepts to help satisfy your constant and growing demands for operational availability, reduction in downtime, and detailed load and service management. Morrell Group can help you create your next generation of mobile machines with performances that give you access to increased power, safety, efficiency and intelligence.

- **G** Controllers
- **G** Diagnostics
- S Displays
- **G** Electric Cylinders
- G Electric Drive Packages
- S Foot Pedals
- **G** Joysticks
- **G** Sensors
- **G** Telematics
- **G** Vision Systems





### **Propulsion**

**Bent Axis Motors Foot Pedals** Gear Boxes Joysticks **Fixed Displacement Motors** Axial Gear Piston Variable Displacement Motors Axial Gear Piston **Priority Flow Control Valves Fixed Displacement Pumps** Axial Gear Piston Variable Displacement Pumps Axial Gear Piston **Steering Orbitals** 

### Actuation

**Compact Power Units** 

### **Control Valves**

I/O Expansion Modules Integrated Cartridge Valves On/Off Valves Proportional Valves Sectional Control Valves Stacked Valves

### Cylinders

Electric Hydraulic Pneumatic

### Manifold Assemblies Bankable

Custom Motors

### Fixed Displacement Variable Displacement Low Speed High Torque

Pneumatic Valves Canbus Electric Manual Slew Drives Swing Drives Winch Drives

### **Optimization**

Accumulators Diaphragm Piston

**Cooler Systems** Engine Combi Coolers Heat Exchangers Hydraulic

Diesel Fuel Filtration Engine Flywheel Couplings Fan Drive Packages Electric Engine Driven Hydraulic

### Filtration

Breather Inline Pressure Return Line Suction Tank Mounted

### Fluid Care

Lubrication Automatic Manual Mounting Accessories

Reservoir Optimization

### **Electrification**

Controllers HMIs Diagnostics Displays **Electric Cylinders Electric Drive Packages Foot Pedals** Joysticks Electronic Hydraulic Sensors Angle Distance Flow Position Pressure Proximity Safety Speed Temperature Telematics Fleet Management Vision Systems ЗD **Collision Avoidance** 



#### Disclaimer

Product information contained in this document, including but not limited to specifications, availability and pricing, is provided to Morrell Group by our vendors. Morrell Group is not the source of this information and therefore does not warrant the accuracy or sufficiency thereof.