



# Product Line Card

FLUID POWER & MOTION CONTROL EXPERTS



# Fluid Power & Motion Control Experts

Dedicated to quality and success, JEM Technical has aligned with many of the world's foremost hydraulic and electronics manufacturers.

These product lines were strategically selected to ensure seamless system integration. With a comprehensive range of hydraulic valves, pumps, motors, filtration, accumulators, hoses, clamps electronic controls, operator interfaces, sensors, and connectivity, we are positioned to deliver innovative solutions tailored to your motion control needs.



Joining forces with



# Expert Design Capabilities

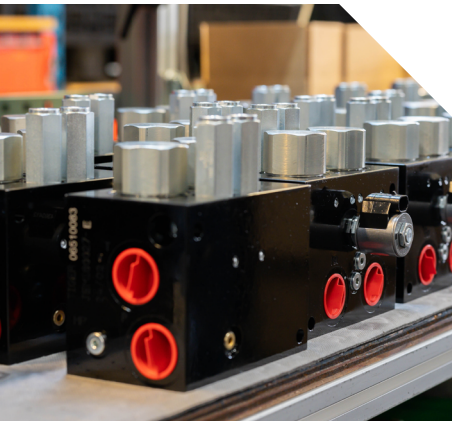
At JEM Technical, we offer a comprehensive range of engineering, testing, machining, and manufacturing services. Our skilled engineers work closely with OEM customers, transforming challenges into innovative, cost-effective solutions. From conception to production, our engineering teams, in collaboration with our advanced shop and assembly facilities, ensure high-quality, tailored results that meet the unique needs of our clients.



## Engineering

Our team of experienced engineers provides comprehensive hydraulic and electronic control system design solutions. With a focus on innovation and customer satisfaction, we deliver tailored solutions to meet our customers' unique application needs.

- In-house hydraulic & electronic control system design
- Innovative design attitude to solve customer applications with unique solutions
- Expert team of manifold designers, application specialists, controls, manufacturing, & quality engineers



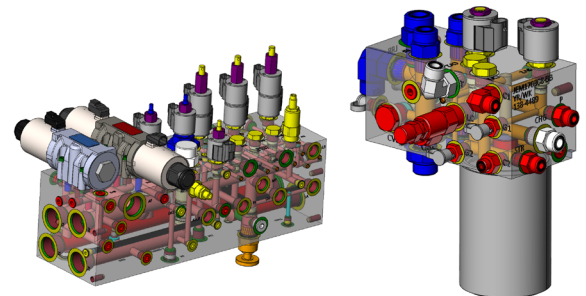
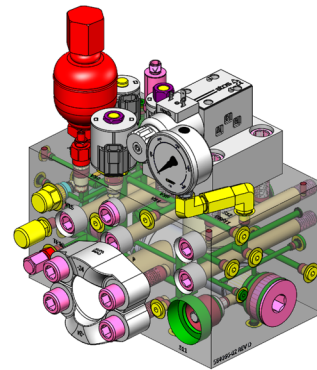
## Hydraulic System & Manifold Design

We partner with our customers to understand their unique motion control and power management needs. Our experienced engineers leverage deep industry knowledge to design innovative solutions that drive core machine technologies.



## 3D Model Design & Automation Studio Simulation

Our engineering department utilizes SolidWorks 3D CAD software. With its solid modeling features, we provide design integrity while optimizing efficiency and manufacturability. Additionally, our ability to conduct hydraulic circuit simulation, along with thorough analysis of materials and component parts, ensures that customers' specifications are met with precision.







## Component & Control System Design

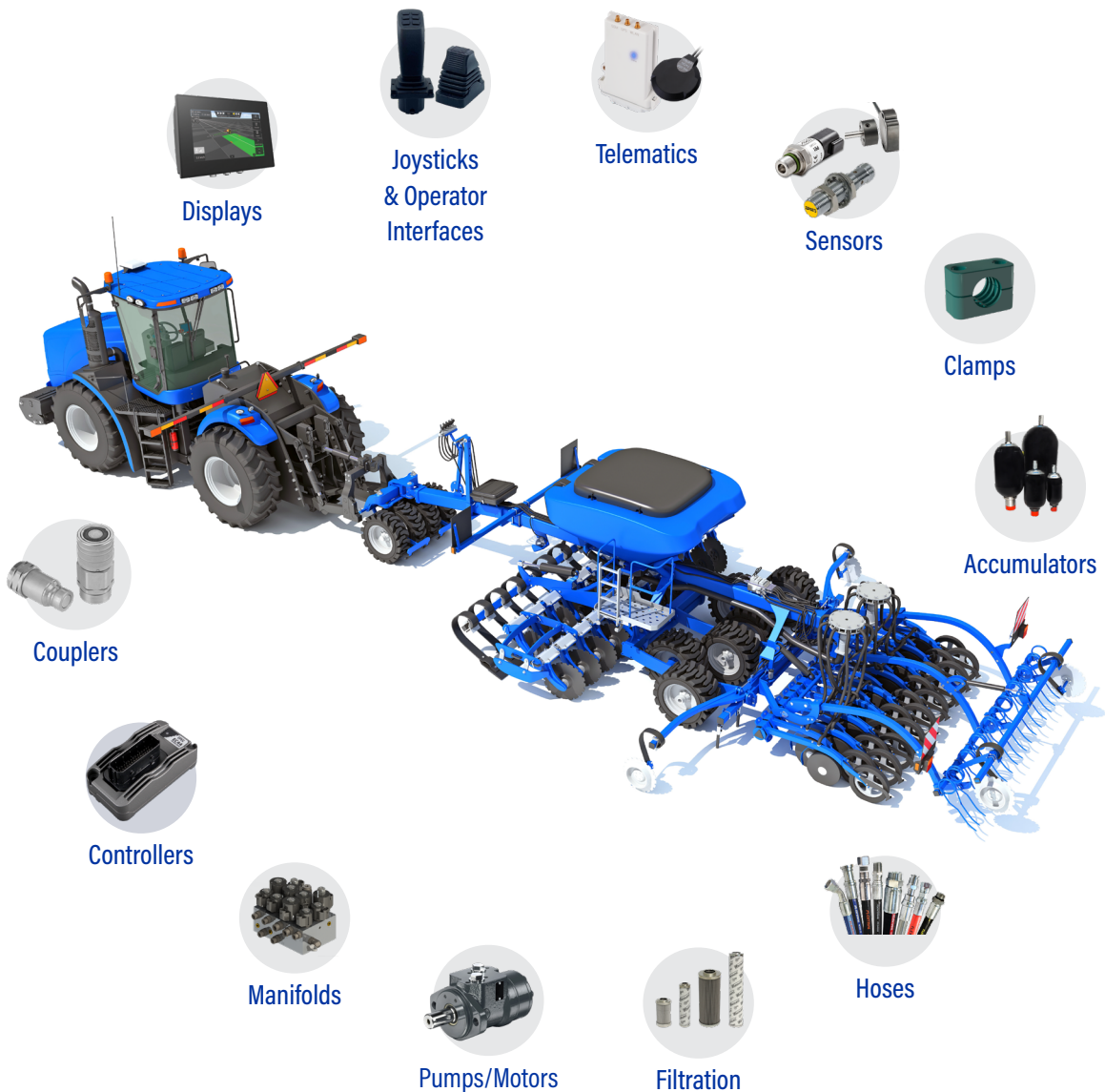
Our controls engineering department provides innovative electronic component selection, software development and custom wiring harness design.

### Component & Electrical System Design

- Control system architecture development
- Automotive wire harness design
- Custom control panel design
- Discrete wire assemblies
- Heavy wire/battery cable assemblies
- Over molded cable assemblies
- J1939 & CANopen CAN BUS networking
- ISObus implementation

### Advanced Programming Capabilities

- Intuitive operator interfaces with custom graphics
- Visual diagnostics with advanced troubleshooting capabilities
- Proportional valve and hydrostatic pump control
- Closed loop control - position, speed, and pressure control
- Electric drive and battery management
- CODESYS and C++ programming
- IoT off-highway solutions





# Custom Hydraulic Manifolds

JEM Technical offers custom valve assemblies and manifolds tailored to your specific needs. Our in-house expertise and state-of-the-art equipment allow us to deliver innovative solutions that enhance your hydraulic systems.



## Custom Manifolds

- Diverse block material options
- World-class valve components
- Endless configuration possibilities

## Valve Solutions

- Versatile and flexible solutions
- Industry-leading brands
- In-stock availability

## In-House Capabilities

- Full machining operations
- On-site assembly and testing
- ISO certified quality control

# Operational Excellence

Our manufacturing department specializes in high-quality hydraulic products, leveraging advanced technology and flexible systems to meet evolving customer needs. With a focus on fluid power manifolds, we utilize robotic automation, precision work holding, and electronic monitoring for fast, accurate, and cost-effective production.



## Manufacturing

- ISO 9001 Certified since 2003
- Controlled electronic documentation for consistent machining, deburring, assembly, test and final inspection processes
- ISIR, Measurement System Analysis, FMEAs, Capability Studies, PPAP, Corrective Actions, 8D methodology



We use our ISO 9001 Quality Systems to drive continuous improvement throughout the organization.





## Machining

Our flexible manufacturing systems are engineered for speed and precision. Featuring robotic automation, advanced work holding, large tool capacity, and electronic monitoring systems, they enable 24-hour production and “lights out” manufacturing. Automated thermal deburring ensures consistent, burr-free, and contamination-free components. Manifolds are thoroughly inspected using calibrated precision tools and an advanced automated CMM inspection system to guarantee precise quality control.



### Machine Lineup

- 3 Mazak HCN5000s with 32 pallet rail system
- 2 Mazak PFH-4800 with 16 pallet rail system
- 2 Mazak FH-4800 with 16 pallet rail system
- 2 Makino A61 & 1 Makino NX with 32 pallet rail system
- 2 Mazak HCN5000's with Fanuc Robot
- 1 Haas VF4-SS vertical mill & 1 Haas tool room mill
- Extrude Hone T450 automated thermal deburring



## Assembly

Our products are assembled to the highest level of quality and flexibility, keeping costs competitive. Limited quantity builds and highly visual assembly processes ensure that all products, from one order to the next, maintain consistent levels of quality and performance.

- Assembly and testing processes documented per ISO 9001 standards
- Automated test stands deployed on each assembly line for final test and validation
- Final inspection and custom packaging
- Certified precision tools
- Kitting & Sub-Assembly Management
  - Sheet metal, wire harness & hose install
- On-site contamination lab & services
- Hydraulic life cycle testing available upon request
- Value-add Services
  - Gauge, sensor, filter, and accumulator installation
  - Fitting installation +/- 3 degrees
  - Laser engraving
  - Electronic device programming & calibration





# Hydraulic Partners

We design, assemble, and supply a variety of custom valve manifolds, valves, pumps & motors, cylinders, filtration systems, and accessories. Each vendor is selected for their ability to provide reliable components that help JEM design, configure, and deliver a system that helps our customers' equipment operate at maximum efficiency.



## Accumulators

Fox Accumulators  
GPM Controls  
SFP Hydraulics



## Clamps

Stauff



## Couplings

DNP  
Parker  
SafeWay  
Stauff



## Custom Spools & Accessories

JEM Technical



## Diagnostics

Argo-Hytos  
Stauff



## Directional Control Valves

Anfield  
BLB  
Bucher  
Rexroth  
Technord



## Filtration

Argo-Hytos  
Stauff



## Gauges

Lenz  
Stauff  
Wika



## Gear Pumps

Anfield  
Bucher  
Concentric  
Marzocchi



## Hose, Fittings & Accessories

Brennen  
Flextral  
Parker  
Suburban



## Heat Exchangers

Thermal Transfer Products



## Manifolds

Fastline  
HydraForce  
JEM Technical



## Motors

Anfield  
Bucher Hydraulics  
Concentric  
Impro Fluidtek



## Power Units

Argo-Hytos  
Bucher Hydraulics  
Concentric  
Hydro-tek  
Rexroth  
MTE Hydraulics



## Pumps

Anfield  
Atos  
Bucher Hydraulics  
Marzocchi



## Reservoirs & Tank Accessories

Argo Hytos  
Lenz  
Stauff



## Rotary Flow Dividers

Concentric  
Delta Power Company  
MTE Hydraulics



## Sensors

Anfield  
Argo-Hytos  
Gefran  
STW Technic  
Turck



## Switches

Anfield  
Argo Hytos  
STW



## Test Equipment

Argo Hytos  
Stauff  
Wika



## Test Points

Parker  
Stauff



## Thermometers

Wika



## Valves

Argo-Hytos  
Atos  
Bucher Hydraulics  
Delta Power Company  
Deltrol  
Doering  
Hydac  
HydraForce  
JEM Technical  
Northman  
Parker Skinner  
Sun Hydraulics  
Technord  
Valvole America  
Vis  
Vonberg



# Electronic Partners

JEM Controls designs, programs and distributes custom electronic control systems for the fluid power and motion control industry. We provide customer support with innovative electronic component selection, software development and custom wiring harness design.



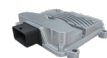
## Batteries

Vanguard



## Cable Accessories

JEM Technical  
Suburban  
Turck



## CAN Bus Controllers

HydraForce  
EPEC  
STW Technic



## Can Bus Keypads

Blink Marine  
Grayhill



## Coil & Valve Drivers

Atos  
Axiomatic  
HydraForce



## Communication Devices

Axiomatic  
CrossControl



## Connectivity Devices

Axiomatic  
JEM Technical  
STW Technic  
Turck



## Displays

CrossControl  
Grayhill  
Maximatecc  
STW Technic  
Topcon Electronics



## Fieldbus Solutions

STW Technic  
Turck



## Electronic Analog Gauges

Cross Control  
Maximatecc



## Instrument Clusters

Cross Control  
Maximatecc



## I/O Modules

Axiomatic  
STW Technic



## Joysticks

Caldaro  
Elobau  
Grayhill  
OEM Controls, Inc.



## Level Measurement

Cross Control  
Maximatecc



## Mounting Hardware

Ram Mounts



## Sensors

Anfield  
Elobau  
Gefran  
HydraForce  
Novotechnik  
Pressure Pro  
STW Technic  
Turck



## Telematics

Elevat  
EPEC  
STW Technic



## Transmitters & Receivers

Axiomatic  
Cervis  
Scanreco



## Wire Harnesses

JEM Technical  
Park Manufacturing Corp  
Turck

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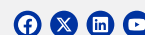
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