HPME SOLUTIONS
HIGH TECH ENGINEERED SOLUTIONS

WELCOME TO HPME SOLUTIONS

HYDRAULICS **P**NEUMATICS **M**ECHANICAL **E**LECTRICAL

We Provide Full Hydraulic/Pneumatic Control Systems and Mechanical Design from Project Definiton to Production Using Latest Engineering Technologies and Tools

Full Hydraulics and Pneumatics System Design

- Open loop circuit design
- Closed loop circuit design
- Component design, sizing and selecting:

- Valves
- Manifolds
- Pumps
- Gear reducers
- Mechanical design
- Motors
- Cylinders
- Reservoirs
- Plumbing
- (hoses and tubing)
- Filters
- Power units

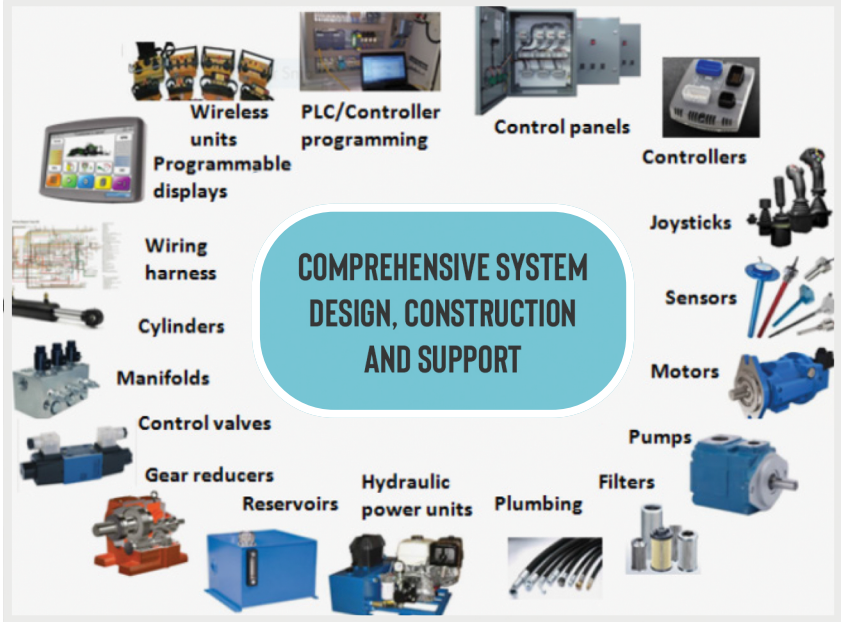
FULL PROGRAMMABLE CONTROLS DESIGN

- Electrical hardware design and selection:

- Control panels
- Sensors
- Displays
- Wiring harness
- Joysticks
- Wireless units

- Automation and Programming:

- PLC
- Controllers
- Embedded Software



MECHANICAL DESIGN

- CAD/CAE Modeling
- Industrial Design
- Concept Design
- Product Design
- Tooling & Mold Design
- Machinery Design
- Design Optimization

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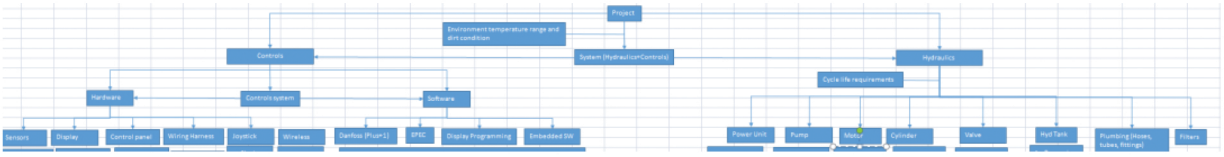
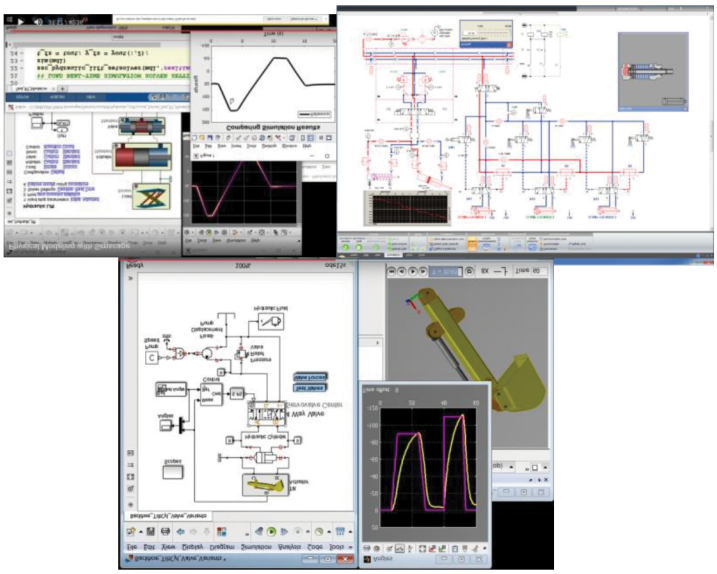
Electro Hydraulics/Pneumatics and Mechanical Systems Design and Integration

Our core expertise is in designing, testing, and integrating full electro hydraulics/pneumatics and mechanical systems starting from system specifications, circuits design, components specification/sizing/selection, CAD design, to electrical Software development and full integration.



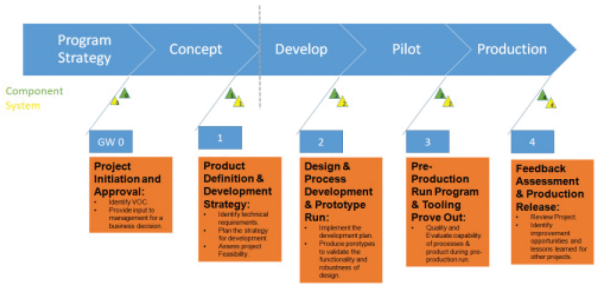
1 **System specifications:** We work closely with customers right from the start and specify all system requirements including overall requirements for fluid power, electrical and controls, required fluid power functions, required controls and a electrical interface, and required components specification and selection.

2 **Hydraulics/Pneumatics and controls circuit design (including hardware and required controls programming):** We use Software tools like Automation Studio and Matlab Simulink for initial circuit design and simulation and component sizing and selection. Simulink State/ Flow logic is used for the controls design and interaction with mechanical system and fluid power. The control Software is de veloped using embedded, PLC, logic ladder, etc. depends on needs and application. The control code is tested on test control unit in real time to insure functionalities of all outputs versus inputs.



3 **Testing and validation on actual machine:** Install fluid power system and insure functionality of system and all components. Software is tested for performance validation under normal operating conditions including debugging, tuning and full performance validation under required conditions.

4 **Continuous customer support:** Our commitment to our customer with unmatched customer support and provide continuous product improvement and support, using lean six sigma methodologies and comprehensive quality management system (QMS).



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PARTNERS

We use only high quality components and Software tools from top leader suppliers in the market

FLUID POWER

American Mobile Power · Donaldson Filtration Solutions · Danfoss · Parker · Bucher hydraulics · Auburn Gear · HYDAC · Schroeder Industries · Casappa · Prince · Eaton · HydraForce · Poclain Hydraulics · Stauff · Emmegi · Yuken · Rexroth Bosch Group · Proemion

ELECTRONICS

Danfoss · EPEC · Cervis Inc. · Chicago Electric · crosscontrol · Flores Automation · Eaton · Magnetek · LDI Industries · ifm · SW 30 Years · HTM Sensors · TPE · Proemion · OEM Controls

SIMULATION

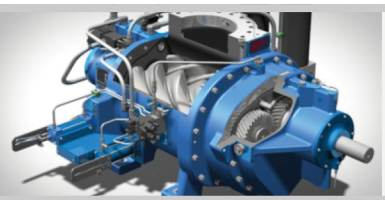
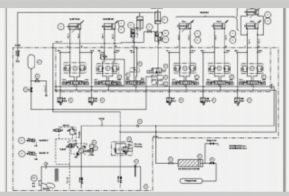
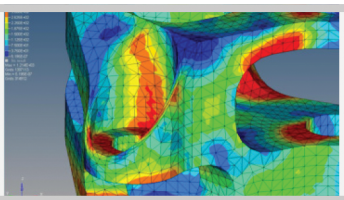
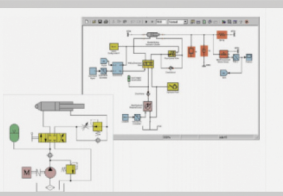
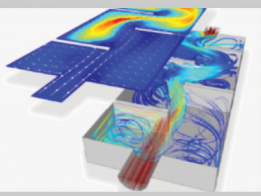
creo · SolidWorks · AutoCAD · Maxwell · ANSYS · ABAQUS · MATLAB Simulink · ANSYS Fluent · Automation Studio

CONTROLS PROGRMMING

PLC · Ladder Logic · CODESYS · PLUS+1

WE LOOK FORWARD TO WORKING WITH YOU

- Top notch engineers with long experience in the fluid power industry supported by strong engineering educational background
- Unlimited access to engineering resources with wide connection to research institutes and industries
- Supported by comprehensive suppliers network and we use best components in industry
- Lean Six Sigma methodologies for project management, APQP, and full Quality Management System (QMS)
- Comprehensive engineering service including CAD, circuit design and simulation, in addition to structural and fluid flow simulation

If you need help with designing a component or a system, automating existing system, modifying/improving existing design, or any simulation needs we are the right firm for you. We will help you to take your project from concept to completion with unmatched high level of engineering quality using latest technologies and tools.

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MOBILE SOLUTION

- Agriculture
- Construction
- Mining
- Railway
- Marine
- Concrete
- Highway
- Off Highway

INDUSTRIAL SOLUTION

- Food & beverage
- Machine tools
- Packaging
- Oil & gas
- Energy
- Medical
- Test Stands
- Paper mills
- Plastics
- Die casting

OUR MISSION

Customers: Our success is helping our customers and serving their needs.

Company: Superior results and be leader in providing a comprehensive system solution, and most responsive organization in the industry.

Strategic goals: Superior results, market leader, and best team.

Operating principles: Customer focused, valued products and services, supplier collaboration, production System, unmatched comprehensive customer support, deep expertise, accountable for results, competitive cost.

Values in action: Integrity, excellence, team work and commitment.

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