



Valve Division



WE BUILD MANIFOLDS

SO YOU CAN FOCUS ON BUILDING MACHINES.

FORCE America Valve Division proudly designs, manufactures and machines the highest quality of integrated hydraulic circuits and manifolds. Our customized solutions, superior product performance and first-in-class execution makes us an industry leader.



We know the work you do is unique and so is your equipment.

That's why at FORCE America we work with you to engineer, design and machine solutions for your complex integrated hydraulic needs. From initial concept to final implementation, we strive to deliver solutions that make your job easier and your equipment more efficient. Our knowledge of engineering and manufacturing coupled with our experience and capabilities allow us to serve you on-time and on-budget.



Certified to
ISO 9001:2015



Proudly ISO 9001:2015 Certified

Our FORCE America Valve Manufacturing, LLC division located in Alexandria, Minnesota has undergone assessment by TÜV Rheinland of North America, Inc. and has been certified as meeting the requirements of ISO 9001:2015. Certification includes the design, manufacturing, machining, and supply chain of integrated hydraulic circuits.

We own it. Controlled process from design to product delivery.

FORCE America proudly engineers and manufacturers the highest quality products and offers the most responsive customer support available. Our Valve Division processes include rigorous testing to ensure quality performance and are ISO 9001:2015 certified.

Our knowledgeable valve team shares over 200 years of combined industry experience. These dedicated engineering, technical support, sales, and production associates work hard so you don't have to. Our first-in-class processes deliver quick turnarounds on quotes, drawings, prototypes and final products. At FORCE America, we value providing responsive support and communication throughout the process. We're invested in your success and partner as part of your team.



Controlled Processes:

- Document Control & Training
- Management Reviews
- Material Traceability
- Control of Measurement Devices
- Control of Nonconforming Product
- Internal Audit
- Corrective Action

Inspection Equipment:

- Programmable Coordinate Measure Machine for in-depth automated inspection of components
- Hardness tester for heat-treated surfaces
- Surface amplifiers for manifold mount applications
- Air amplifiers for measurement of high tolerance bores and spools
- Instrument certification to NIST standards



QUALITY

Designed to make your job easier and your equipment more efficient.

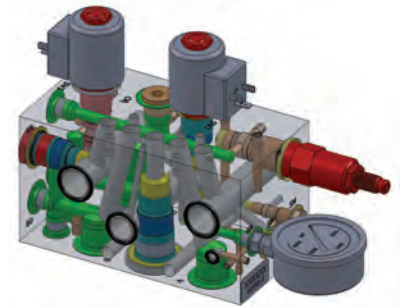
FORCE America employs the most experienced team of engineers and empowers them with leading-edge technologies, advanced machining and proven design tools. Together, our engineers and technologies allow us to serve you with an unmatched level of accuracy - helping to meet your needs quickly and effectively. Our team has the skills to deliver solutions that make your job easier and your equipment more efficient.

Design technologies include:

- SolidWorks® 3D Modeling
- Hydraulic Schematic Design
- 2D Customer Prints
- Custom Valve Solutions
- 3D Exploded Views
- Engineering/Product Testing
- Diagnostic Testing

Industries served:

- Agriculture
- Construction
- Forestry
- Fork Lift
- On & Off Highway Work Trucks
- Railroad Equipment
- Refuse Vehicles
- Turf Equipment
- Utility Trucks



We build manifolds so you can focus on building machines.

Our innovative designs are brought to life with our expansive manufacturing capabilities. Our 64,000 square foot production facility houses many powerful machines and professionals to produce a wide variety of manifold assemblies per year. Our dedicated mills and universal tooling allow us the flexibility to meet your unique needs, on-time and at a competitive price.



11 Horizontal Machining Centers:

- 3 Mazak FH-480 with 12 Pool Pallettech System
- 2 Mazak FH-5800 with 24 Station Pallettech System
- 2 Mazak FH-5800 with 28 Station Pallettech System
- 4 Mazak FH-5800 with 64 Station Pallettech System



Mill Specifications:

- 30 Horsepower per mill
- 12,000-15,000 RPM Spindle Speeds
- Resident tooling includes 120-330 tools per machine
- High pressure, through-the-tool coolant

2 Vertical Mills:

- Haas & Hardinge for honing custom bores

Custom designs require individual care and attention.

After production, products are assembled in-house and 100% tested to ensure quality and performance. Our custom designed assembly work cells allow for quick change over and customization to assemble a variety of valve systems. Our comprehensive testing throughout the assembly process combined with data logging and end-of-line inspections ensures only the highest level of quality products leave our facility.

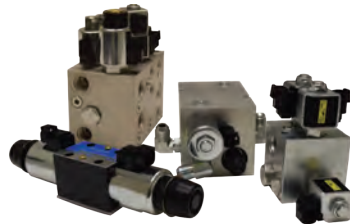
Assembly process includes:

- Custom work cells and fixturing for efficient assembly.
- Assembly print instructions for consistency and accuracy.
- Serialized assemblies.
- Automated torquing system for consistency and accuracy.
- End-of-Line quality inspections.



Testing process includes:

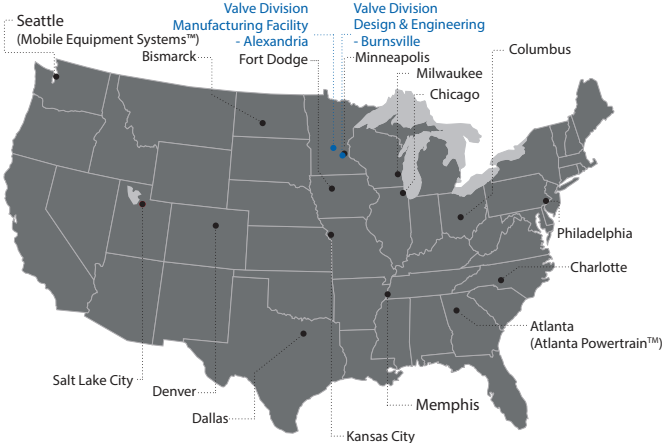
- Comprehensive testing at each assembly for function, flow and pressure.
- Custom fixturing for efficient test times, repeatability and quality.
- Written test instructions for consistency and accuracy.
- Digital logging and archival of test data for each component provide maximum traceability.



More than a manufacturer. A partner you can depend on.

At FORCE America, we partner with you to move from an idea to a finished product. We understand you have unique needs, tight timelines and need to be budget conscience. We maintain strong relationships with an extensive group of quality cartridge valve suppliers, allowing us access to the most comprehensive product range to best meet your needs. Our experience and capabilities allow us to serve you on-time and on-budget.

We are interested in hearing about your unique needs and putting our knowledge to work for you. Our team is available to guide you through design, engineering, installation, and application questions.



Contact us for more information at valvesales@forceamerica.com or call 844-825-8399.



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