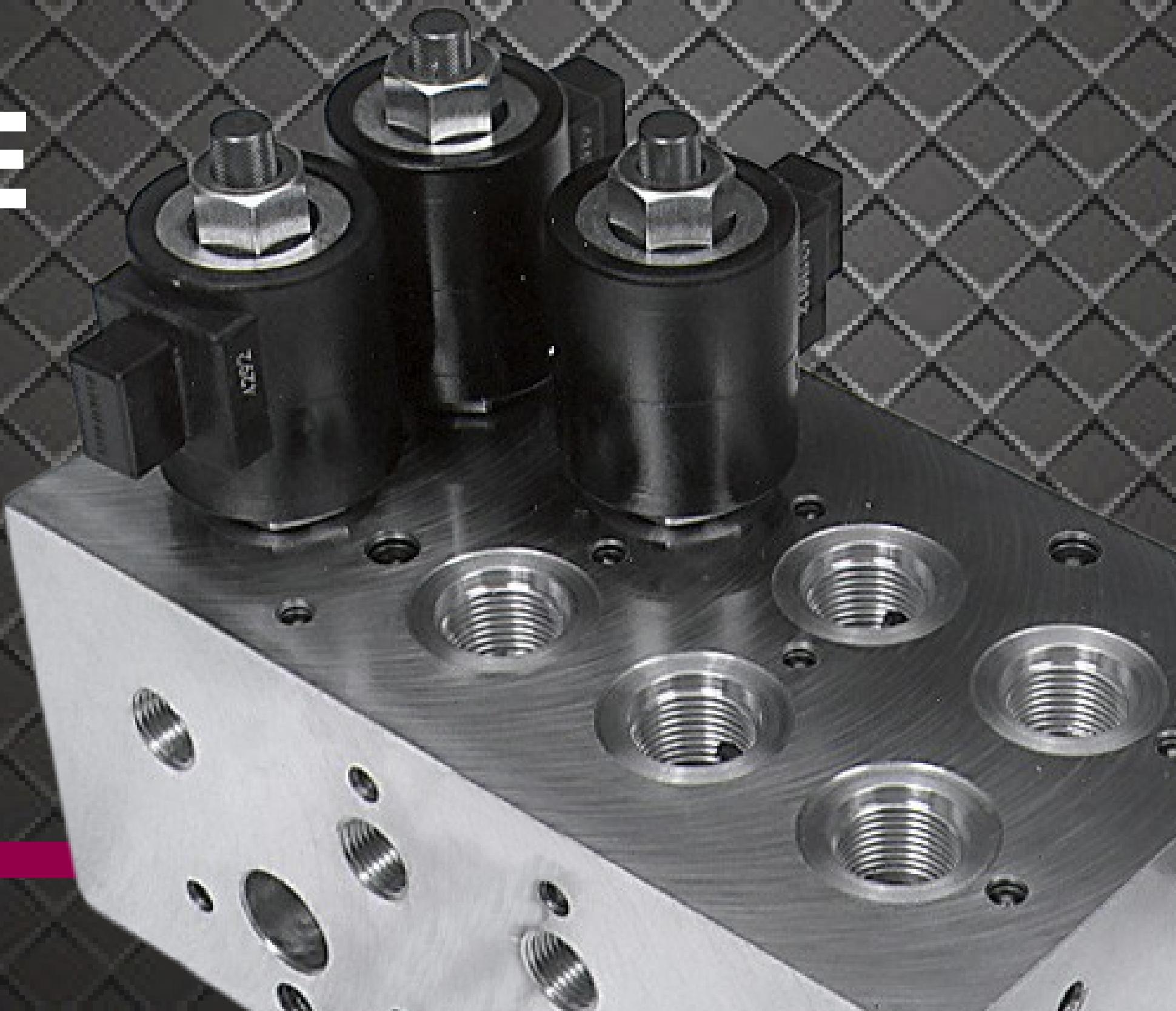


# DRIVING EXCEPTIONAL PERFORMANCE

Standard and Custom  
Precision Hydraulic Manifolds  
and Related Products

**Dáman®**



# **DEMAND DAMAN**

EXPERIENCE THE DIFFERENCE  
**THE DAMAN WAY**

Most manufacturers today have the latest tools and technology, but few combine today's tooling and technology advancements with creativity, expertise, ethics and integrity.

At Daman, we look at things through the lens of our customers' viewpoints. It's a unique perspective that helps us find creative and innovative solutions that help our customers win work and succeed.

Whether we're planning or building, ordering or delivering, testing or improving, we want to do what's right for our customers.

# DAMAN'S MANUFACTURING ACCURACY RATING IS 99.67%

## CUSTOM MANIFOLDS SINCE 1976

Daman Products is capable of designing and manufacturing any manifold you might need—one piece prototypes or high-volume production. No manifold is too simple or too complex.

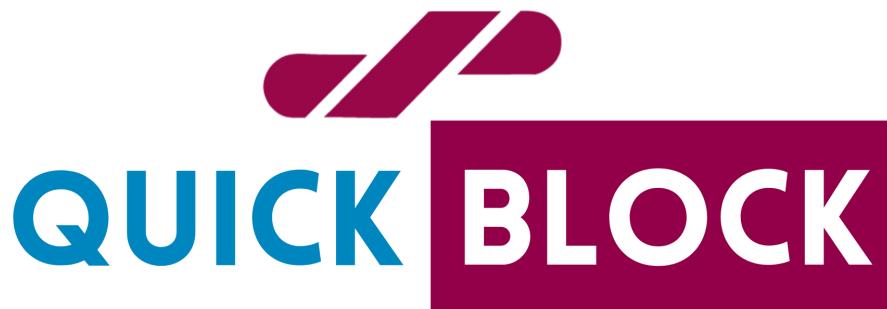
- 2 regional account managers
- 4 full-time custom manifold quotation specialists
- 11 full-time experienced designers with over 300 years combined experience
- 70% of production consists of custom manifold design & manufacturing services
- 14,000 man hours of custom manifold design time annually
- 75,000 sq. ft. facility (50,000 sq. ft. dedicated to manufacturing)
- State-of-the-art design capabilities using manifold-specific software
- Manufacture manifolds up to 20,000 lbs
- 99.67% manufacturing accuracy rating
- 99.18% design accuracy rating
- 96.56% on-time delivery rating
- 16 CNC machining centers
- Over 750 cartridge cavity tools for all major valve manufacturers
- World-class cellular manufacturing utilizing Lean processes and principles
- 24-hour delivery and expedited services available
- Ultrasonic washing of all manifolds
- Thermal deburring capabilities

# CUSTOM MANIFOLD PRODUCTS

## CUSTOM MANIFOLDS

Whether you have a freehand schematic, a fully engineered design, or even a physical block—from start to finish, we will take care of all of your custom design needs.

- 70% of our capacity is devoted to custom manifolds
- Specialty manifold designs can include surface treatments, alternative materials, 6000 psi options, and large manifolds up to 6000 lbs.
- Quotations are processed within 48 hours for most projects
- Fast turnaround custom manifold design and manufacturing is available for an additional fee
- Next-day shipping is available for custom manifolds with Daman's Trigger fulfillment system



## QUICK BLOCK CUSTOM PRODUCT CONFIGURATOR

Quick Block is an enhanced technology solution that allows Daman distributors to configure their own header and junction manifolds for quick quotes, 3D models and quick delivery. Expedite service available with an additional fee.

- On-screen 3D visibility while you configure
- Seven standard port styles available
- On-screen rough estimate of prototype cost
- Three-hour or less formal quote during business hours
- 3D model delivered with formal quote
- Quick delivery. Expedite available with additional charge.

# STANDARD MANIFOLD PRODUCTS

## STANDARD MANIFOLDS

Daman Products offers a complete line of manifolds, subplates, adapters and cover plates that meet all ISO and NFPA standards. Our Standard Manifold Products Catalog contains more than 2 million parts that facilitate the assembly of parallel or series circuit systems, ranging from ISO 02 valve patterns through ISO 10.

- Bar manifolds
- Subplates
- Cover plates
- Tapping plates
- Valve adaptors
- Thread cavity bodies
- DIN bodies
- Header & junction blocks
- Custom-engineered manifolds



## DAMANWORKS STANDARD MANIFOLD PRODUCT PORTAL

DamanWorks is a searchable database for Daman product part information including live inventory status, CAD drawings (including 3D models), product specs and images, and list prices. Search by full or partial part number, or by description. Filter by part attributes within each category, including material, valve pattern, circuit, and port style.

The DamanWorks database is constantly being updated, including a twice-a-day inventory update, so check back often!

### DamanWorks features:

- Live inventory
- CAD downloads
- Pricing
- Product description
- Download catalog pages

### Search by:

- Full or partial part number
- Product description
- Availability
- Popularity
- Material
- Price

# MACHINE CAPABILITIES

## **HCN 5000 (1 machine)**

160 tool capacity, X 28.7 Y 28.7 Z 29.1\*\*1,500 lbs\*\*500mm (19.69 square)\*\*18,000 RPM\*\*probing capabilities\*\*2 pallet

## **HCN 6800 (5 machines)**

160-240 tool capacity, X 41.3 Y 35.4 Z 38.6\*\*3,200 lbs\*\*630mm (24.8 square)\*\*10,000 RPM\*\*probing capabilities\*\*2 pallet

## **HCN 6800 (2 machines)**

160 tool capacity, X 41.3 Y 35.4 Z 38.6\*\*3,200 lbs\*\*630mm (24.8 square)\*\*10,000 RPM & 6,000 RPM dual drive hi torque spindle\*\*probing capabilities\*\*14 pallet pallatech system

- Fifth Axis Position Machining: Two KME 630mm fifth axis tombstone with four platters each, gives one of our HCN 6800s eight independent machining stations for CNC controlled 5th axis position machining for small parts (up to 5"x5"x5")

## **FH 500 (1 machine)**

120 tool capacity, X 27.9 Y 20.8 Z 20.8\*\*1,500 lbs\*\*500mm (19.69 square)\*\*10,000 RPM\*\*probing capabilities\*\*2 pallet

## **FH 580 (1 machine)**

60 tool capacity, X 27.9 Y 24 Z 25.9\*\*1,500 lbs\*\*500mm (19.69 square)\*\*12,000 RPM\*\*probing capabilities\*\*2 pallet

## **FH 680 (2 machines)**

160 tool capacity, X 41.3 Y 31.5 Z 32.4\*\*3,200 lbs\*\*630mm (24.8 square)\*\*10,000 RPM\*\*probing capabilities\*\*2 pallet

## **FH 6800 (1 machine)**

160 tool capacity, X 41.3 Y 35.4 Z 38.6\*\*3,200 lbs\*\*630mm (24.8 square)\*\*10,000 RPM\*\*probing capabilities\*\*2 pallet

## **FH 10800 (1 machine)**

160 tool capacity, X 66.9 Y 55.1 Z 55.1\*\*6,600 lbs\*\*1000mm (39.37 square)\*\*10,000 RPM\*\*probing capabilities\*\*2 pallet

## **AJV 25/404n (2 machines)**

60 tool capacity, X 39.37 Y 20.8 Z 18.1\*\*6,000 RPM\*\*probing capabilities

# PRODUCT CAPABILITIES

## MATERIAL TYPES

- Aluminum
- Ductile iron
- Stainless steel
- Carbon steel
- High-strength steel alloys
- Brass

## SURFACE TREATMENTS

- Anodize (aluminum)
- Electroless nickel (aluminum or ductile iron)
- Fine zinc phosphate with pen dip super (ductile iron)
- Alodine (aluminum)
- Hardcoat anodize (aluminum)
- Micro crystal manganese phosphate (ductile iron)
- Black oxide (ductile iron)
- Passivation (stainless steel)

## BLOCK SIZES & TYPES

Daman offers large manifold solutions up to 6,000 lbs. in-house and up to 20,000 lbs. out-sourced. Solutions include designs with alternative materials to meet the requirements for various customer applications.

## VALVES

Daman is an onsite integrator for the following valve manufacturers:

- Atos
- Sun Hydraulics
- Deltrol Fluid Products
- Hawe Hydraulik
- Hydrotechnik
- Wandfluh
- Hengli
- Kepner Products Company
- Winner Hydraulics

## FILTER CARTRIDGE TOOLING

We can add tooling for any manufacturer and currently offer the following in-house options:

- Hydac: DF 30, DF 60-140, DF 160-280, DF 330-1320, DF 1500, HF2P, HF3P, HF4P, MFM, MFX
- Schroeder: RMF60, NMF30, 14-CRZX10, 20-CRZX10
- Stauff: SF/SFA-014/30, SF/SFA-045/70, SF/SFA-090-300
- Eaton: HT 601-1351

# IN-HOUSE CARTRIDGE VALVE CAVITY TOOLS

Our design and operations teams have partnered with all of the following major valve manufacturers to inventory in-house over 750 cartridge cavity tools. We have the following primary manufacturers and legacy cavity tooling options, as well as some obsolete cavity tooling.

- Argo Hytos
- Atos Electro Hydraulics
- Bosch Rexroth
  - Oil Controls
  - Denison Hydraulics
  - Racine Bosch
- Bieri
- Brevini
- Bucher Hydraulics
  - Command Controls
- Danfoss
  - Compact Controls
  - Comatrol
  - Fluid Controls Inc
  - Sauer Danfoss

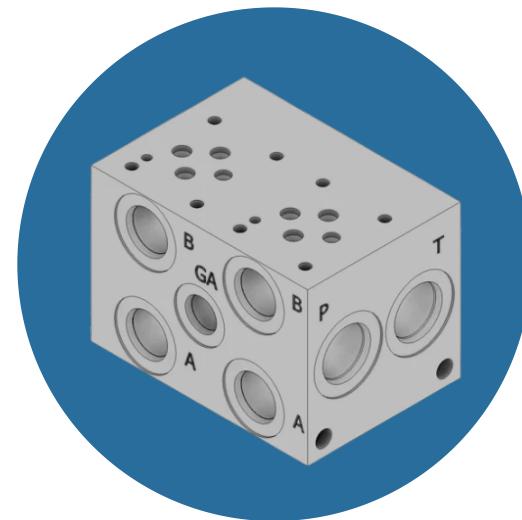
- Delta Power Hydraulics
- Deltrol Fluid Products
- Eaton Hydraulics
  - Integrated Hydraulics
  - Modular Controls-Vickers
- Hawe Hydraulics
- Hydac
  - Flutec
  - Hycon
- Hydraforce
- Inserta Hydraulics
- ISO 7789
- Kepner Products
- Moog Controls
- Oilgear
- Pal Filter

- Parker Hydraulics
  - Gresen
  - Nichols
  - Pulsar
  - Snap Tite
  - Sterling Hydraulics
  - Waterman
- Schroeder Industries
- Star Hydraulics
- Stauff Filtration
- Sun Hydraulics
- Thomas Magnete
- Vonberg Valve
- Wandfluh Hydraulics
- Winner Hydraulics
- Zinga Industries



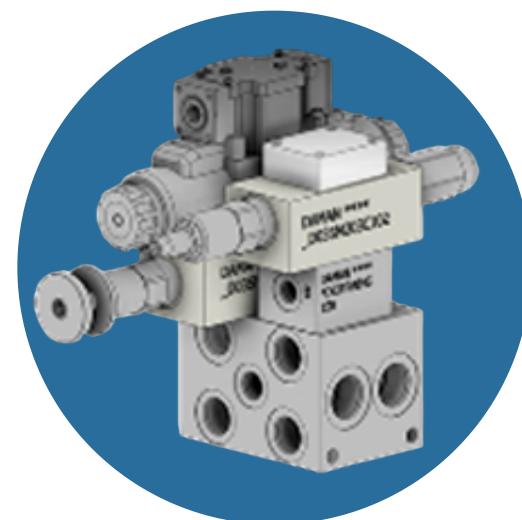
# THE DAMAN EVOLUTION TO AMVP

Daman Is Evolving Standard Manifolds to Assembled Manifold Valve Products



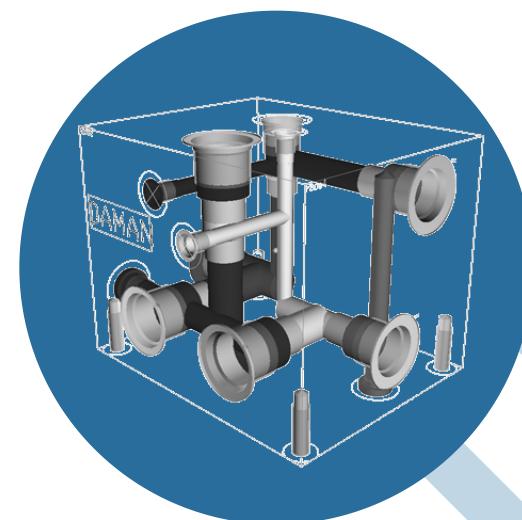
## Daman Standard Products

*Replacing separately plumbed, octopus components with clean standard solutions*



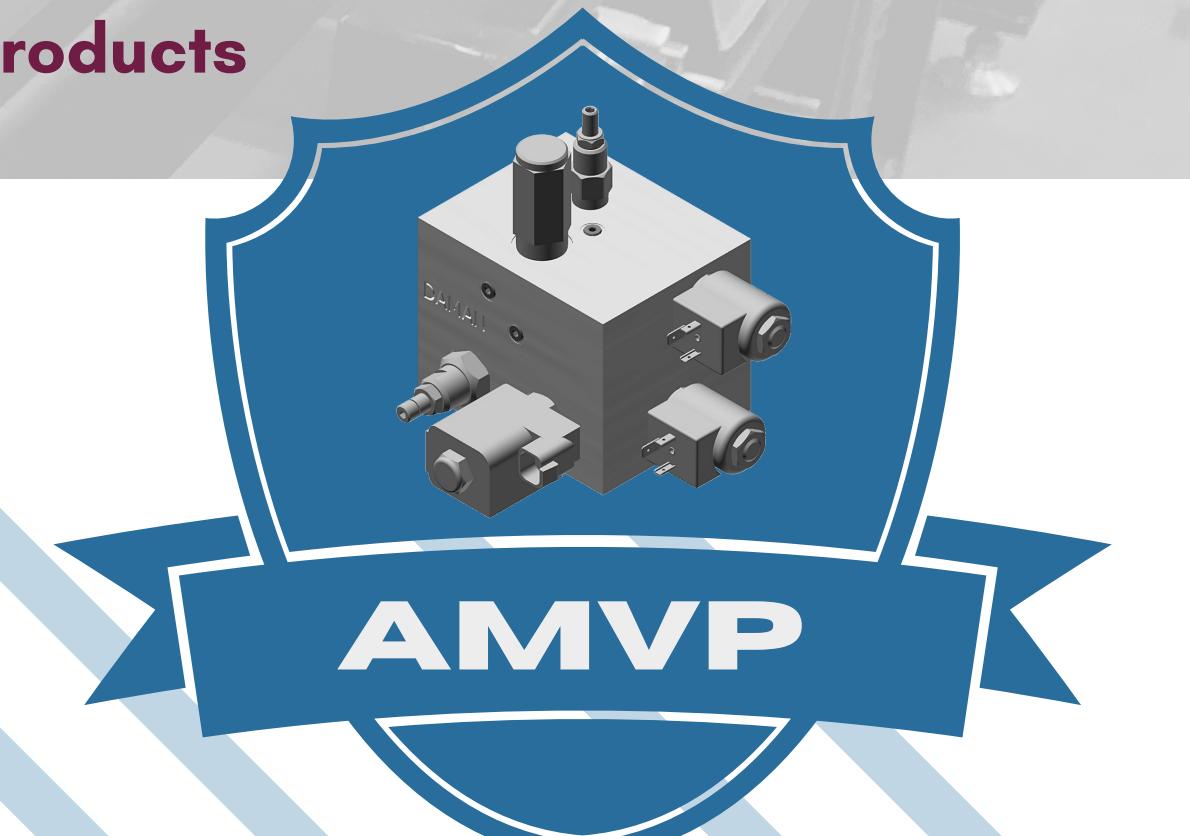
## Standard Manifolds with Sandwich Modules

*Stacking standard manifolds with modules for added circuit functions*



## Custom Manifold Products

*Streamlining custom-engineered solutions by removing stacked modules to eliminate leaks and reduce labor*



## AMVP Assembled Manifold Valve Products

*Improving speed to market with assembled and tested fully integrated manifold and valve solutions*

# AMVP SOLUTIONS

## ASSEMBLED MANIFOLD VALVE PRODUCT

We have evolved our services to include the sourcing, assembly, testing and drop shipping of custom manifold assemblies. Daman offers these integrated solutions with valves and filter cartridges, and in a variety of different materials – ductile, aluminum, stainless steel, and carbon steel.

### VALVE ASSEMBLY

We partner with our distributors to reduce supply chain delays by performing the following:

- sourcing valves directly from the manufacturers
- completing the valve and manifold assembly at our factory in Mishawaka
- testing the assemblies in-house for optimized performance

### VALVE TESTING

We can perform the following on tests in-house:

- leak testing (external) and static pressure testing (internal) on manifolds that are between 200 psi to 5000 psi with up to 12.4 gpm flow
- valve setting for both relief and pressure reducing valves

### INTEGRATED FILTER CARTRIDGE SOLUTIONS

With Daman's Integrated Filter Cartridge solution, we are now able to:

- reduce assembly time with fewer components
- reduce leak points
- offer a more compact design
- improve field maintenance serviceability
- reduce costs
- decrease our hydraulic component footprint
- eliminate long lead times

### LOGIC VALVE CAVITIES

- tooling for eight different valve sizes
- two-way and three-way cavity body sizes
- custom designs available upon request

# 24-HOUR DELIVERY SERVICES

## STANDARD MANIFOLDS NEXT-DAY DELIVERY

Our extensive in-stock inventory of standard manifolds is constantly and automatically being replenished per industry buying trends so that we can ship stocked products within 24 hours while eliminating the need for complex forecasting and stringent minimum inventory commitments.

- With an on-time delivery rating of nearly 100%, standard manifold products are always available when you need them.
- Our catalog includes more than two million parts.

## THE DAMAN TRIGGER SYSTEM FOR CUSTOM MANIFOLDS

With the Daman Trigger System, when you maintain a consistent level of activity with any particular custom product, you can order parts as you need them and we will ship them from your bin within 24 hours.

- With Trigger, inventories are maintained based on actual usage rather than forecasts and schedules.
- Conversations are reduced to understanding your average and maximum usage trends. There is no need to worry about tracking your inventory or submitting purchase orders in advance once a product is set up in the Trigger System.
- The number of bins and the quantity per bin are always less than would be required with a blanket order mentality.
- You do not need to carry inventories, and your products will ship in 24 hours without you needing to supervise the process.

