



CUSTOM VALVEPAKS

Compact Hydraulic Solutions

Utilizing creative and innovative manifold designs, and cartridges with our **unique floating style construction**, Sun Custom Valvepaks offer significant advantages over others:

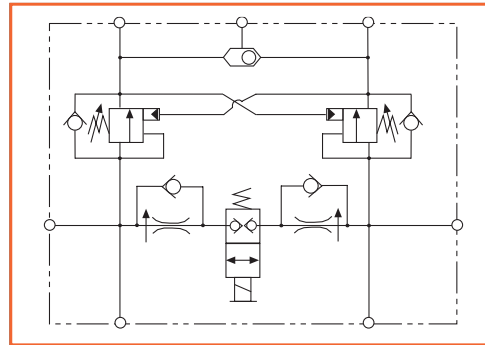
- **Compound angle drilling for extremely compact designs.**
- **Construction plugs are eliminated or dramatically reduced.**
- **Larger and more efficient flow paths.**
- **Higher installation torque levels for better cartridge retention.**

Order Custom Valvepaks in any arrangement, or standard manifolds in a variety of mounting configurations. **Sun's worldwide manufacturing operations are dedicated to on-time delivery, to an international network of distributors.**



Compare the look and features of two methods of installing the same hydraulic circuit and components.

Custom manifold assemblies, or “valvepaks”, are comprised of standard screw-in valves housed in a specially-designed manifold body. Compared to more conventional systems using line-mount or sandwich-mount components, Sun’s custom manifolds offer many benefits to customers.



Traditional Line-mount Components:

- Incorporate hose assemblies and/or tubing, which require special installation tools and expertise.
- Require extensive assembly labor.
- Numerous potential leak points at each connection.
- Take up space and add weight.
- Many individual parts and components to order.

Custom Manifold Assembly:

- Dramatically reduced labor costs.
- Space savings.
- Fewer hoses, fittings, and potential leak points.
- Improved appearance.
- Easier maintenance.
- Designed to meet exact customer requirements.
- Simplified ordering.



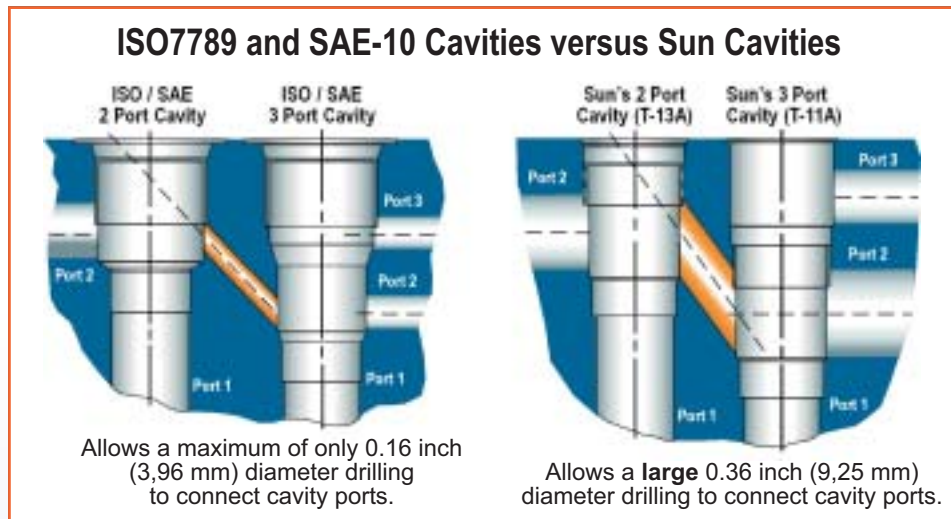
Sun Custom Valvepaks offer even more advantages:

- Extremely compact design.
- Construction plugs are eliminated or reduced.
- Large flow paths, minimizing pressure drop.
- Economical, even in small production quantities.

Sun offers distinct advantages in cavity and manifold design.

Superior cavity design and unique floating style cartridge construction offer the manifold designer a number of benefits:

- Generous cavity porting areas, allowing much larger drill diameters within the manifold body.
- Free-floating cartridge subassembly is forgiving of cavity manufacturing variances, and significantly reduces torque sensitivity for better cartridge retention.
- Porting consistency, for maximum design flexibility and minimized tooling requirements.



Sun has 5-axis, compound angle drilling capability. This gives the designer numerous advantages:

- The manifold body is physically much smaller and more compact and therefore more economical.
- Construction drillings and plugs are eliminated or minimized, offering fewer potential leak points.
- There are more direct flow paths which, along with the large diameter drillings allowed by the Sun cartridge cavity, provide extremely low pressure drops within the assembly.

Comparison of two manifolds with identical circuitry:

	3-axis Straight Hole Drilling	5-axis Compound Angle Drilling
Smaller Size:	125 cubic inches (5 x 5 x 5 inches)	64 cubic inches (4 x 4 x 4 inches)
Fewer Potential Leakage Points: <small>(plugged ports shown in blue)</small>	17 plugs	0 plugs
Lower Cost:	\$260.00	\$150.00

Sun's Custom Valvepaks are available in any configuration, limited only by the designer's imagination. Valvepaks reduce size and cost of hydraulic systems, take up less space, use fewer components, and have less potential leakage.

Additionally, Sun manufactures a broad variety of standard manifold mounting configurations. View the complete range of body styles at our website:

www.sunhydraulics.com



All Sun cartridges are rated to 5000 psi/350 bar operating pressure.

Manifold Bodies: Grade 6061-T6 Aluminum 3000 psi/210 bar material pressure rating
 Grade 65-45-12 Ductile Iron 5000 psi/350 bar material pressure rating

Worldwide manufacturing operations for on-time delivery!



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The quality of Sun Hydraulics' manufacturing plants has been Registered to the International Organization for Standardization ISO 9001 Series Standards for quality.