



## Rotary Manifolds

Multiple Rotation Integrated Circuits

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



ENGINEERING YOUR SUCCESS.

# Rotary Manifold Technology

## 360° Rotational Manifolds

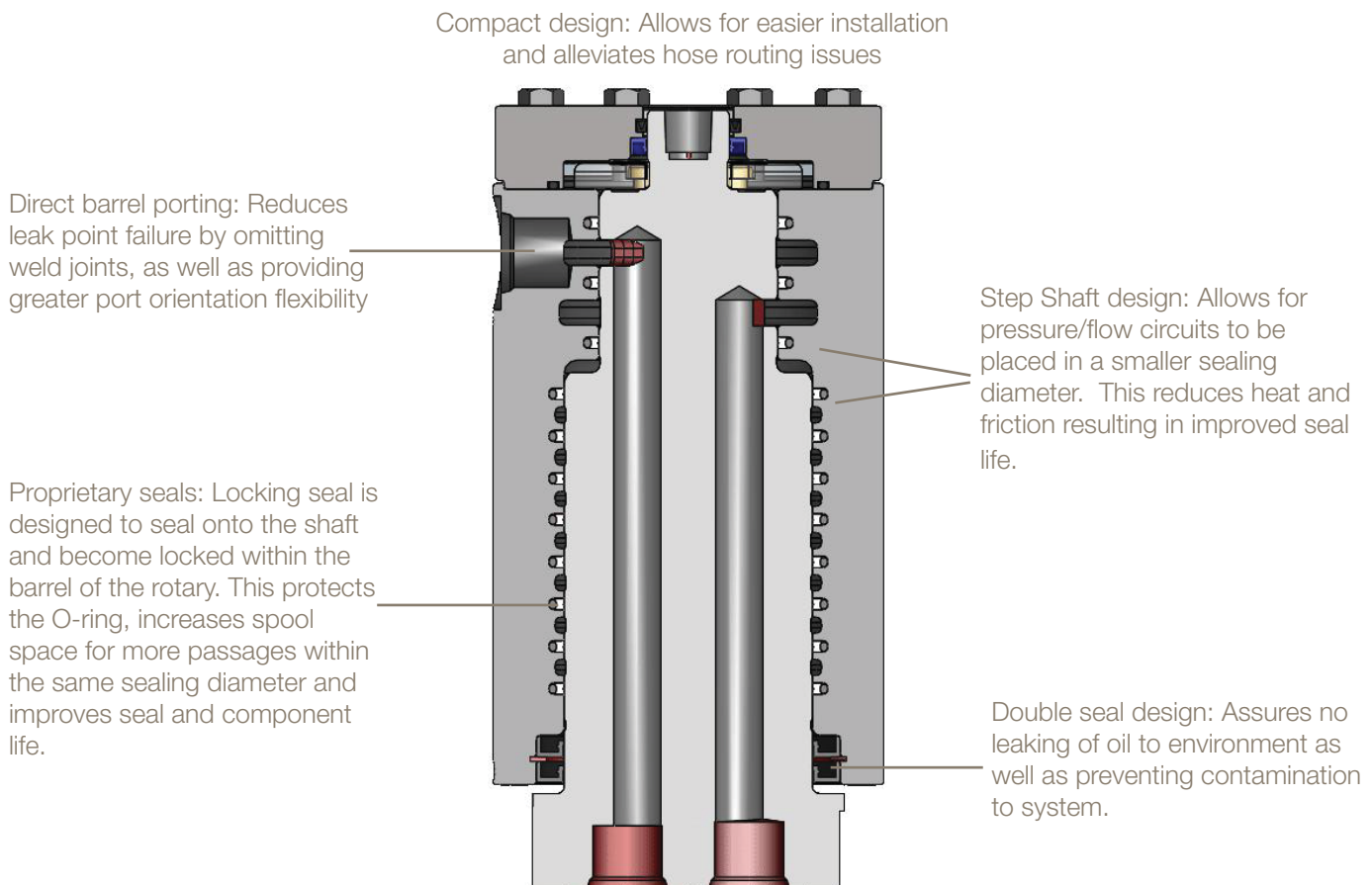
**Parker Hannifin Hydraulic Cartridge Systems** introduces a new offering to its already extensive product line - the Rotary Manifold.

Parker Rotary Manifolds are used in applications where multiple rotations of a mechanical structure are required. A hydraulic rotary manifold's primary function is to allow oil, water, gases and electronics to pass through it while allowing a 360 degree continuous rotation. Depending on the application, these manifolds are manufactured in various configurations and sizes containing up to 20 stations and can operate at pressures as high as 7,500 psi.

Higher quality guarantees a higher lifecycle - saving your business money.

Parker's Rotary Manifolds are designed to provide leak-free performance in the most rigorous applications. Parker's unique step shaft design, proprietary seal design and non-welded barrel ensure the user of extensive service life while providing a compact and easy to fit solution. Parker's Application Engineers work with our customers to provide proper function and fit as well as optimally designed mounting and hydraulic fittings.

Parker collaborates closely with the customer to design the rotary manifold to meet the specific requirements of each application. In addition, Parker's Application Engineering team will also supply design support for application mounting and bracketry to ensure the proper installation of your custom designed manifold. This elevated level of customization guarantees the quality performance you expect from a Parker product.

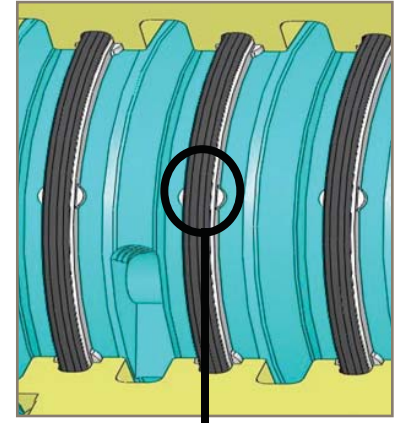


# Superior Sealing

Innovative sealing method gives Parker the competitive advantage.

All rotary manifolds operate using the dual sealing system. There is an energizer seal (o-ring) and a main rotary seal. Hydraulic forces energize the O-ring causing it to exert force upon the main rotary seal. The seal is responsible for sealing off the fluid from one chamber of the rotary to the other sections. The sealing action separates the hydraulic functions within the rotary.

With the Parker Rotary Manifold, the use of proprietary sealing technology employs locking tabs to secure itself into the barrel. This locking design assures that the sealing o-ring will not “go dynamic” when energized. This means a significantly longer life for the manifold’s sealing system.



Locking tab

## Considerations when applying a Rotary Manifold:

- How many passes/stages/circuits are needed to incorporate all necessary elements within application?
- What are the functions of each circuit? i.e. Steering, track drive, cooling system, etc...
- What is the pressure within each circuit?
- What are the flow requirements?
- What fluid will be used within the application? (i.e. Hydraulic oil, gas, diesel, etc...)
- What application is the rotary manifold needed for and/or what is the intended function?
- What is the mounting configuration?
- Are there size constraints?
- What is the port orientation and configuration?
- What are the port connections (i.e. SAE, BSPP, ISO, etc...)
- What is the RPM of the rotary?

Parker HCS provides a Rotary Manifold Design Specification Sheet to assist in gathering the necessary data. You can find it at [Parker.com](http://Parker.com) - Bul. HY15-3510 RM Spec.



# Parker Hannifin - Hydraulic Cartridge Systems

The Hydraulic Cartridge Systems Division is a leader in the cartridge valve and custom manifold industry, serving both the mobile and industrial machine markets.

Our team of application engineers and manufacturers consistently challenge valve standards to achieve the most efficient and flexible designs. They work hard to provide the highest level of customer satisfaction and support. Discover how Parker HCS can be the ONE source for all your hydraulic cartridge and manifold needs.

Have questions? Contact us at [HCSInfo@parker.com](mailto:HCSInfo@parker.com).

Parker Hannifin Corporation  
**Hydraulic Cartridge Systems**  
595 Schelter Road  
Lincolnshire, IL 60069  
USA  
phone 847 955 5000  
fax 847 383 8905  
[www.parker.com/hcs](http://www.parker.com/hcs)

Parker Hannifin Ltd.  
**Hydraulic Cartridge Systems Europe**  
Blacknell Lane  
Crewkerne, Somerset  
TA18 8LL, UK  
phone +44 (0) 1460 271800  
fax +44 (0) 1460 271801

Parker Hannifin Corporation  
**Corporate Headquarters**  
6035 Parkland Blvd  
Cleveland, OH 44124  
USA  
Tel: 216-896-3000  
Fax: 216-896-4000

For information, please contact Parker toll free at 1-800-C-PARKER (1-800-272-7537). Outside of North America contact us via Freephone at 00800 27 27 5374.

