

# Hydraulic & Pneumatic Sealing Solutions

built for pressure, performance & durability



O-Rings



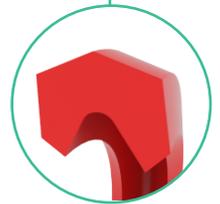
Piston Seals



Back-up Rings



Wiper Seals



Bespoke Machined  
Seals



Wear Rings /  
Guide Rings



U-Rings



Rod Seals



Machined  
Pneumatic Seals



M-Turn®

Precision seals built for pressure, performance and durability, improving efficiency, extending equipment life and minimising costly downtime.

In the hydraulics and pneumatics industry, where systems operate under extreme pressures and variable temperatures, high-performance sealing solutions are essential. We specialise in delivering precision-engineered seals that ensure efficiency, reliability and longevity for a wide range of applications, from construction machinery, agricultural vehicles and aircraft to machine tools and production assembly lines.



## HIGH-GRADE MATERIALS

### Nitrile (NBR)

Excellent resistance to oils, fuels, and hydraulic fluids. Common for general-purpose applications.

### Fluorocarbon (FKM/Viton®)

Superior chemical and temperature resistance for aggressive environments.

### Polyurethane (PU)

Outstanding abrasion resistance and elasticity.

### PTFE (Teflon®)

Low friction, high chemical resistance, and minimal stick-slip.

### EPDM

Excellent resistance to weathering, ozone, and some hydraulic fluids (esp. phosphate esters).

### HNBR

Higher temperature and mechanical performance than standard nitrile.

## HYDRAULIC CYLINDER APPLICATIONS

- Hydraulic cylinders and actuators
- Pneumatic tools and valves
- Heavy machinery and construction equipment
- Agricultural and forestry machinery
- Industrial automation systems
- Material handling and lifting equipment

## CASE STUDY: INCREASING PRODUCTION

Hydraulic presses, with cylinders working reliably, but the customer wanted faster ram retraction to improve efficiency. Although the single-acting seals were not leaking, refurbished cylinders were taking longer to retract until the seals had bedded in. A time and motion study showed that reducing retraction time would increase production, but redesigning the cylinders was too costly and impractical across multiple sites.

M Seals was asked to provide a retrofit sealing solution using existing housings. After a site visit, an application engineer proposed replacing the three-piece chevron seal with a single-acting U-seal made from a self-lubricating material and supported by an acetal header. Testing showed immediate performance improvement, leading to wider adoption across UK sites and increased production for the end customer.

## QUALITY YOU CAN TRUST

Our quality department, which includes our test laboratory, is responsible for maintaining high standards of product quality and compliance, and validating our products to meet industry standards.

We are proud to be certified in several areas for quality, health and safety and environmental management.

