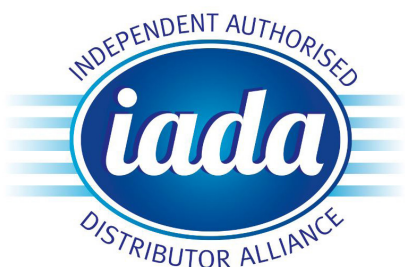
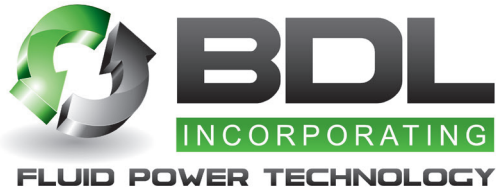


# The Engineer's Tool Kit



**BDL**  
INCORPORATING

**FLUID POWER TECHNOLOGY**



Established in 1996, Bearings and Drives has grown to be a leader in the supply and distribution of MRO products from the world's leading manufacturers including: Bearings, Power Transmission, Industrial Gearboxes, Motors, Tools & Consumables. Drawing on our experience of customer requirements products and services have been developed for all types of industry including Food, Paper, Recycling, Distribution, Quarrying and Plastics.

Due to the unpredictable nature of MRO spares demand, we offer single source supply which includes MANAGED INVENTORY SERVICES, which would, by streamlining your ordering process, REDUCE DOWNTIME and IMPROVE PRODUCTION EFFICIENCY therefore creating considerable COST SAVINGS.

Our REPAIR SERVICES cover Motors, Gearboxes & Pumps. Available 24/7 our team of highly skillful engineers is on hand to deliver advise and engineering solutions. We also offer a free collection and delivery service.

#### FLUID POWER

In 2009, and with many industries relying on Fluid Power in their manufacturing processes, our sister company FLUID POWER TECHNOLOGY was established and it has grown to not only carry large stocks of, FRL's, Solenoid Valves, Mechanical Valves, Metal & Plastic Fittings but also, due to the indepth knowledge and expertise of our staff, we are able to offer Product Interchange, System Advice and Bespoke Solutions to specific requirements, these being our Unique Selling Points, set us apart from the competition.

However large or small the requirement, however simple or complex the problem, both BEARINGS & DRIVES and FLUID POWER TECHNOLOGY prides themselves on meeting your requirement with on time, on budget solution and supply.



**Emergency Call Out**  
**Service 24 hours a**  
**day 7 days a week**  
**365 days a year**



M Seals specialises in seals for industrial use, from the finest precision seals to the largest heavy duty shaft seals and packings. Our products address the needs of customers that wish to have a broad range of products and solutions at hand.

The company was founded in 1963 and now has offices in 6 countries. M Seals entered the UK market in 2014 and through its 3 distribution centres, supplies high quality sealing products to many industries including oil and gas, aerospace and defence.

At M Seals, we have developed extensive knowledge of seals and their applications, including their composition, lifetime and suitability for a specific job. The right choice of seal minimizes the risk of unexpected breakdowns, and our experienced team are able to advise and provide solutions to our customers. Our dedication and desire for exceptional customer service is paramount.

M Seals UK Ltd is certified to ISO 9001:2015 and ISO 9120:2018, so you can be assured of our quality standards in all areas.

## LEICESTER

Central Distribution Hub

M Seals UK Ltd  
Quartz Close  
Enderby  
Leicester  
LE19 4SG.

## NEWCASTLE

Inspection Centre with AS/EN9120:2018 Accreditation

M Seal NCL Ltd  
Unit E, Aquarius, Kingsway North  
Team Valley Trading Estate  
Gateshead, Tyne and Wear  
NE11 0JH.

## PRODUCTS OVERVIEW

### O-RINGS



M Seals' products are quality assured and we keep over £1.5m of stock ready for next-day delivery. We respond to customers quickly and provide reliable delivery of quality o-rings and sealing products. We stock o-rings in a wide range of materials, including Nitrile, Viton®, EPDM, Neoprene®, Kalrez®, Silicone & PTFE.

Ranges of o-rings include British Imperial (BSI 806), British Metric (BS4518), European Metric (ISO/DIN 3601), including German (DIN 3771), Swedish (SMS 1586/1588) and French (NFT 47 501). American (SAE AS568A, MS 29 513) and Japanese Metric (JISB 2401).

Many of our o-rings are available with various approvals including Norsok M710, FDA, WRC, WRAS, UL, DVGW, KTW, BGVV, KIWA, USP, NSF/ANSI, EN549, EN681-1 and EN682. All approvals can be provided with full certification at request.

### OIL SEALS & V-RINGS



Oil seals or rotary shaft seals are made from synthetic elastomers bonded to case, which is usually metal. They are used in a wide range of applications under very varied conditions.

Oil seals provide an economical means of sealing against rotating shafts. They prevent system lubricants from leaking and also external contamination from entering.

V-rings are unique all-rubber seals for rotary shafts. They are made entirely of rubber material and comprise a body and a conical shaped sealing lip, which is joined to the body by means of a resilient hinge.

V-ring seals are available in a large variety of designs and sizes to fit the requirements of most applications. V-rings are normally made of nitrile rubber. For applications where higher temperatures occur or where aggressive media are present, V-rings made of fluorocarbon rubber should be used.

### CIRCLIPS | FASTENERS



Circlips are a cost saving alternative to fastening. Used in such applications as machined collars on shafts, or washer and pin assemblies, circlips still offer the same benefits of a single fastening mechanism by reducing material waste and the number of components.

M Seals UK can supply the full range of circlips in imperial and metric sizes, please refer to our website [www.m-seals.co.uk](http://www.m-seals.co.uk) for ranges and size charts.

## PRODUCTS OVERVIEW

### CUSTOM MOULDED PARTS



Our success in working with rubber seals leads to our second main field; the supply of moulded parts to our customers design, in all types of rubber, to all kinds of industries.

These items are produced by our partners around the world. They are selected with the aim of supplying the best quality at the right time, at the right price. Fine tolerances, special compounds, conformity to foodstuff norms and ASTM specifications are part of the capabilities of M Seals moulded parts.

PTFE custom parts are another of our special fields, where we have considerable knowledge in-house and work in close cooperation with our highly specialised manufacturers.

### SANITARY GASKETS FOR PIPE COUPLINGS



Specifically for use in pipe systems in the food, pharmaceutical and chemical process industries, we stock a range of gaskets for most types of couplings like DS, DIN 11851, SMS 1149, ISO2853 as well as clamp-types like ISO2852, BS4825/3, ISO 1127, DIN32676 and others.

Most of them can be supplied in NBR, EPDM, FPM, PTFE and silicone, all meeting the requirements of FDA for use with foodstuff. All standard materials are furthermore tested and certified against USP Class VI. All sanitary gaskets that are intended for use in contact with foodstuffs are supplied in accordance with EU 1935:2004.

### BACK-UP RINGS



Back-up rings are installed to prevent the extrusion of an elastomeric O-ring in its housing groove under certain operating conditions.

Solid/Solid Split and Spiral Back-up Rings are usually manufactured in virgin PTFE. Other filled PTFE and plastics are also available depending on the application. They are also available in NBR and Viton 90 in the Contoured Rubber/Par Back range.

## ADDITIONAL PRODUCTS

### BONDED SEALS



Bonded seals available from stock in mild and stainless steel with NBR or FKM rubber. Ranges available include BSP, JIC, German Metric, French Metric and Cetop.

### QUAD RINGS



Quad rings / X-rings can be used in a wide variety of static and dynamic sealing applications. With 2 sealing areas per side for more effective sealing, quad rings have the same dimensions as the BS 1806 O-ring sizes.

Quad rings are available in NBR 70 & 90 shore and FKM 90 shore.

### O-RING CORD



Extruded O-ring cord is available by the metre in many materials and in a range of diameters from 1mm to 30mm.

Materials from stock available include NBR, FKM, red and white silicone, EPDM and PTFE. Special shore hardnesses and colours available upon request.

### WASHERS & GASKETS



Washers and gaskets available in various materials to either drawing or standard sizing.



## OUR SERVICES

M Seals UK puts a range of services in place to ensure customers are happy with the products and services that we supply. We have a dedicated service and aftersales team who provide a fast response, using their technical knowledge and experience to assist you. All products are quality assured and we keep over £1.5m of stock ready for next-day delivery.



### SERVICE & AFTERSALES

Dedicated team with knowledge in each business sector to offer support



### TECHNICAL EXPERIENCE

Over 200 years of experience



### STOCK

Hold volume stocks in the core MRO products and continue to invest in new product lines to ensure availability from sites is there.



### DELIVERY

Next day delivery available up until 17:00 every day

### M SEALS INSPECTION PROCESS



100% inspection guarantee for o-rings' use in critical applications such as Pharmaceutical, Food Processing & Aerospace, all carried out at our on-site testing facility in Gateshead.



## Design | Manufacture | Reassure

DMR Seals Ltd is a UK manufacturer of engineered sealing solutions, offering a wide range of products including high performance O-Rings, Spring Energised Seals, Guide Rings, Rotary Shaft Seals, Wiper Seals, Rod Seals, Piston Seals, Back-up Rings, PTFE Seals and other high-performance seal parts.

At our site in Sheffield we design, manufacture and supply over 253 different seal profiles in Elastomer, Polyurethane, PTFE, Thermoplastic and Fluoropolymer materials as standard, which places us in a strong position to meet any seal application, no matter how demanding.

Whether you need hydraulic seals or PTFE lip seals, rotary lip seals or high-pressure seals, we are confident we will have a seal application solution that is either available off the shelf, or through using our comprehensive seal design service to provide a truly customised sealing solution.

We have over 200 years' collective experience, with many of our senior staff members having worked in the sealing industry for over 25 years. Our industry recognised seals are used across a broad range of industries including Oil & Gas, Chemical Processing, Food, Pharmaceutical, Hydraulics and Pneumatics.

Our seals set the industry standard thanks to strong working relationships with our clients where we spend time building up an understanding of their application needs and the challenges they face. With this information, our expert team of seal designers can provide custom sealing solutions that not only meet the demands placed on them but exceed them too.

DMR seals Ltd is certified to ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007, so you can be assured of our quality standards in all areas.

**DMR Seals Ltd**  
Units 22-26  
Julian Road  
Roman Ridge Industrial Estate  
Sheffield  
S9 1FZ

DIPLOMA PLC





## PRODUCTS OVERVIEW

### SPRING ENERGISED SEALS



Spring energised seals, often referred to as lip seals or SE-Seals, were originally developed to replace elastomeric O-rings for service in high pressure applications, particularly when low friction and wide chemical compatibility are needed.

SE-Seals can be used in all types of sealing applications from static to dynamic, both rotary and reciprocating. They are effective from vacuum up to pressures of more than 8,700 psig (600 barg), increasing to beyond 18,850psig (1,300 barg) if anti-extrusion backup rings are also fitted. SE-Seal designs are available for seals to operate at temperatures as low -196°C and as high as 260°C.

### PTFE SEALS



The unique properties of PTFE mean seals can be offered with lower frictional properties and increased chemical and thermal resistance, while working at higher speeds and pressures than ever before.

DMR Seals manufactures a vast selection of standard PTFE Seals such as spring energised seals, O-ring energised composite seals, rotary seals and scraper seals to suit most applications, and can provide bespoke engineered solutions for special situations.

### HIGH PRESSURE SEALS



We regularly provide Original Equipment Manufacturers all around the world with reliable high-pressure solutions for their fluid sealing applications working up to 2000 Bar (29,000 Psi) and sometimes higher.

DMR Seals has a wide range of high-pressure sealing profiles for piston, rod, rotary and static face seal use, where materials can also be modified for use in high or low temperatures and aggressive media and chemicals.



## PRODUCTS OVERVIEW

### GUIDE RINGS



DMR offers an expansive range of guide rings to the design engineer and repairer where the prevention of metal-to-metal contact and low frictional loss in hydraulic fluid power and pneumatic sealing systems is critical.

DMR manufactures high quality precise tolerance guide rings from a variety of high performance materials such as Lubricated Polyester fabric Laminate (often referred to as Phenolic), Polyacetal, Lubricated Nylons, PEEK, Various PTFEs and Polyimide.

SEALS

### SYMMETRICAL SEALS



Symmetrical seals are parts that are balanced in shape and can be interchanged for both piston and rod use which makes them useful for emergency retrofit situations where there is a lack of information about the application and an urgent seal is required.

Other than for chevron packing sets and emergency situations, we would always recommend that you utilise one of our asymmetrical rod or piston seals as these have certain design attributes that provide increased stability, sealing performance and a reduction in friction.

### ROTARY SEALS



In most applications, rotary seals or shaft seals are required to retain bearing lubrication and prevent leakage. Special rotary seal types can help improve efficiency by reducing the chance of premature failure. Improvements can be made through the prevention of dust or dirt ingress from the outside environment, reducing the chance of moisture entering the system or by cutting the frictional load on the rotating shaft or bore to help to reduce operating temperatures.

There are many different types of rotary, shaft and swivel seals available from DMR that seal in applications such as:

- Machine tools
- Rolling mills
- Pumps and motors
- Robotic arms
- Drilling equipment
- Mixers
- Rotary swivels and unions

DIPLOMA PLC



## DESIGN

DMR Seals offers an extensive design and engineering support service to meet your specific sealing applications.

We are sealing solutions experts and have over 200 years' combined applications engineering experience, solving problems for our customers.

We generally ask customers to supply us with the following STAMPS information to allow our technical team and application engineers to choose the most suitable seal profile and material.



SPEED



TEMPERATURE



APPLICATION



MEDIA



PRESSURE



SURFACE

## MANUFACTURE

DMR Seals is at the forefront of fluid seal manufacturing and has an exceptional reputation for delivering quality sealing solutions FAST. We operate our own in-house designed CAD/CAM production software and continuously design and add new fluid seal designs to our portfolio.

Since our establishment in 2003 we have continuously invested in the latest CNC manufacturing technology and sealing materials to ensure we always continue to deliver the best quality and service to our clients.

## REASSURE

### Material Testing / Quality / Certification

Quality is at the forefront of all internal operations and totally embedded within our culture.

We have continuously invested in the latest digital measurement, inspection technology and material testing equipment to ensure our products always stand up to the expectations of both our clients and the applications they will operate within.

Our test equipment can provide assurance that the actual production material your parts will be manufactured from meet the standard required. We offer comprehensive certification and inspection levels to suit your requirements. (2.1 / 2.2 / 3.1)

DMR Seals holds the following certification:

- ISO 9001:2015
- ISO 14001:2015
- OHSAS 18001:2007

