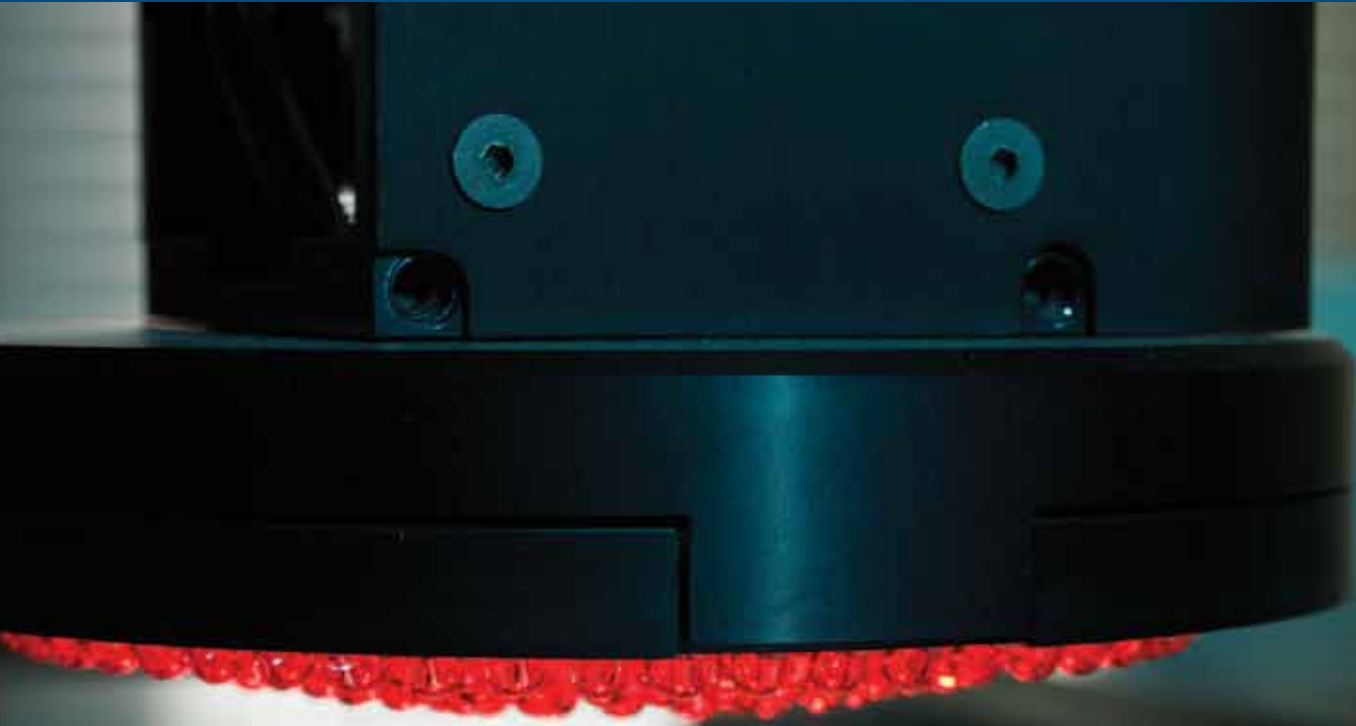


SEALING SYSTEMS AND MOULDED PARTS





The safe choice for standard seal solutions as well as custom-made specific solutions in hydraulics, precision engineering and pharmaceutical and food processing industries.

History and concept

In M Seals we specialize in seals for industrial use. We cover the whole spectrum 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 as Mogens Christensen, Ingeniør- & Handelsfirma A/S. We are undergoing a rapid period of development and we now have 4,100 m² of offices, lab, production and warehouses at our disposal. Our branch in Halmstad, Sweden, has grown significantly and our local sales office in China, has given us an entry point into this for M Seals already large market.

In 2007 M Seals became a part of the Diploma PLC group. This has opened new possibilities for our company, e.g. the cooperation with the American Hercules Sealing Products.

At M Seals we are specialized in sealing solutions for all kinds of industries. Individual custom parts in rubber and PTFE also are an important part of our business. We have developed our own automated production of M-FLEX™ spring-loaded PTFE lip seals in large series, making this product affordable for many new applications.

Knowledge

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 seals minimizes the risk of unexpected breakdowns. Our range of seals is wide allowing us to provide multiple solutions. M Seals range alone covers about 50,000 items, of which a large proportion is stocked. We often cooperate with customers in the design of special solutions. We have close relationship with many of the world's leading manufacturers of sealing systems and, in cooperation with us, they provide their knowledge and experience to our customers.





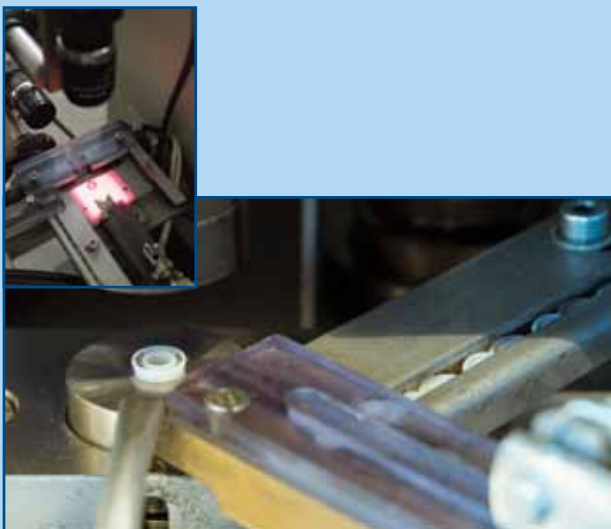
Quality and inspection – a keystone

Today M Seals has at its disposal advanced equipment for testing all parameters that are important for the function of our rubber and PTFE parts, such as hardness, spec. gravity and compression set. For dimensional checking, we have a Micro-Vu high precision 3-D measuring machine working on the non-touch principle, which is superior for softer materials. Often we agree special inspection schemes, incoming or outgoing, with our customers. Our lab is equipped to carry out different tests for our customers, like volume swell in different liquids.

Since 1996, we have worked according to a certified ISO9001 quality assurance system, and our own production is documented according to the principles of TS16949. Furthermore, a number of our suppliers are certified to TS16949.

Logistics and key accounts

At M Seals, we consider it to be of the utmost importance to offer the best logistic solutions, based on mutual agreements regarding deliveries at scheduled dates and proper quantities. Under such agreements smooth deliveries are ensured. Furthermore, your company will become a key account customer and benefit from extra monitoring and follow-up service on agreed frame orders. A dedicated person, with knowledge of your requirements, will be responsible for the service.



Static seals

- O-rings
- O-rings in Kalrez®
- X-rings
- Sanitary gaskets/TC gaskets
- Bonded seals
- Expanded PTFE
- Expanded graphite

Shaft seals

- Radial shaft seals
- Heavy duty shaft seals
- V-rings
- Mechanical seals
- Braided packing

PTFE sealing systems

- M-FLEX™
- M-GLIDE™
- M-STEP™
- M-TURN™
- M-WIPE™
- M-CAP™
- M-GUIDE™

Hydraulic seals

- Rod and piston seals
- Guide rings
- Wipers
- Repair kits for earth moving equipment

Custom moulded parts

- Rubber bonded
- Rubber/metal bonded

Accessories

- Back-up rings
- Circlips
- Speedi Sleeves
- O-ring assortments
- End covers





O-rings

O-rings are stocked in more than 7,000 different dimensions and materials. Different specifications like food grades, e.g. FDA, 3A, BGA, KTW, WRC and NSF, as well as O-rings approved by DVGW against various gas norms can be fulfilled.

M Seals supply different rubber materials tested and certified according to the medical standard USP Class VI, e.g. our grey EPDM 75 standard compound.

We also supply the Kalrez[®] O-rings from DuPont Performance Elastomers, which offer nearly universal chemical resistance and a working temperature up to 327° C. These can also be supplied in special compounds for specific sectors like the pharmaceutical, the paint and lacquer and semiconductor industries.

Radial shaft seals and V-rings

Shaft seals are stocked in both metric and inch sizes in many types, e.g. according to DIN3760 and with PTFE lip in stainless steel housing. We have developed considerable experience with large diameter heavy duty shaft seals that are typically used in wind turbines, steel and paper mills, hydropower etc.

V-rings are simple and economical dust and splash seals. These are stocked in all the common sizes and configurations.



Sanitary gaskets for pipe couplings

Specifically for the use in pipe systems in the food, pharma and chemical process industries, we stock a range of gaskets for most types of couplings like DS, DIN11851, SMS1149, ISO2853 as well as clamp-types like ISO2852, BS4825/3, ISO1127, DIN32676 and others. Most of them can be supplied in NBR, EPDM, FPM, PTFE, Silicone and Kalrez[®], all meeting the requirements of FDA for use with foodstuff. All standard materials are furthermore tested and certified against USP Class VI.



Mechanical seals

For the use in pumps and mixers, M Seals stocks the simple but robust single spring seal in many of the common types, as well as the more advanced cartridge seals. These can be supplied both in single or double, springs or bellows, in split execution, for high temperatures (430° C) and as gas seals for dry running. Especially for pumps used in the food and chemical process industry, a range of special seals are stocked.



Braided packing

In pump glands where mechanical seals are not suitable and around valve spindles, the sealing is often carried out with braided packing. They are available in a choice of materials like aramide, PTFE and graphite. The selection of the right material is very important for this type of packing. M Seals will be happy to assist in this choice together with our suppliers, who are among the leaders in the field.



Repair kits for mobile hydraulics

M Seals now stocks repair kits for mobile hydraulics. These are brand-specific kits containing exactly the necessary seals of high quality for the overhaul of lift-, bucket-, or boom cylinders etc. On our website www.m-seals.com, you will find an electronic index which makes it easy to find the kit you need by selecting the manufacturer's name, type, and part description of the unit that is going to be serviced. We supply kits for JCB, CATERPILLAR, KOMATSU, VOLVO, TAKEUCHI and BOBCAT machines, along with many others.



Hydraulic seals

For hydraulic seals there are multiple solutions to a sealing problem.

At M Seals, we always try to guide the customer in the best possible way, and we have a great variety of types from stock, or with short delivery, at our disposal. It can be the compact rod seal, the double compact piston seal, U-packings in many configurations and all the types of wipers and guide rings. These are available in the most common materials like NBR, Polyurethane and POM.

We would like to mention our large program in PTFE seals, the O-ring activated, as well as the M-FLEX™ spring activated, which are particularly suitable for low friction and long lifetime demands. The many types of seals and advanced PTFE compounds ensure that nearly any sealing task can be undertaken.





All the rest!

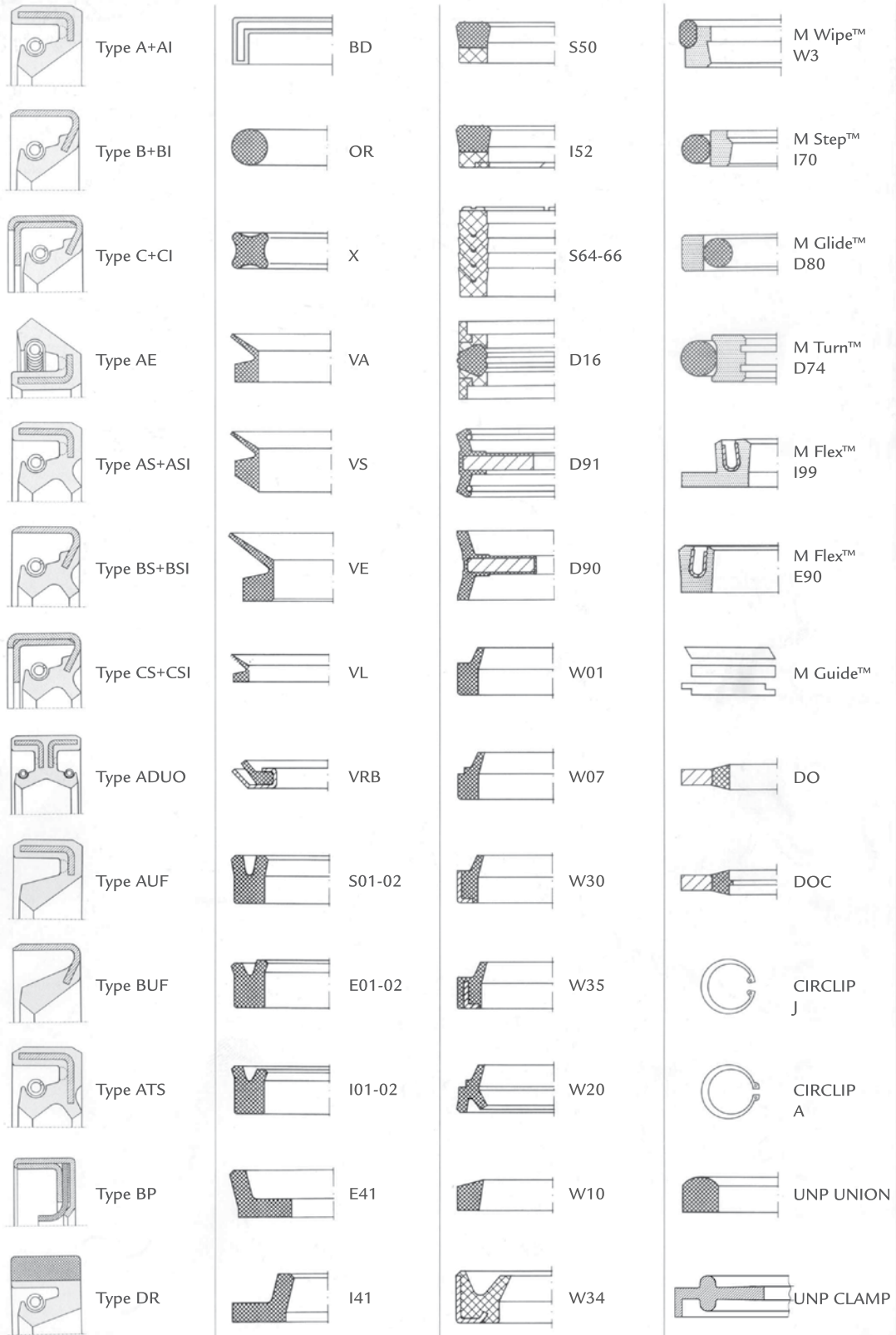
Naturally, at M Seals we strive to cover our customers' total need for seals and accessories. Here, we can mention self-centralizing bonded seals in several materials including stainless steel, and copper washers for sealing screw connections. Also back-up rings in PTFE for use with O-rings and circlips according to DIN471 and 472.



Custom parts

At M Seals, our success in working with rubber seals leads to our second main field; that is supply of moulded parts of 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 highly specialized producers.





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