

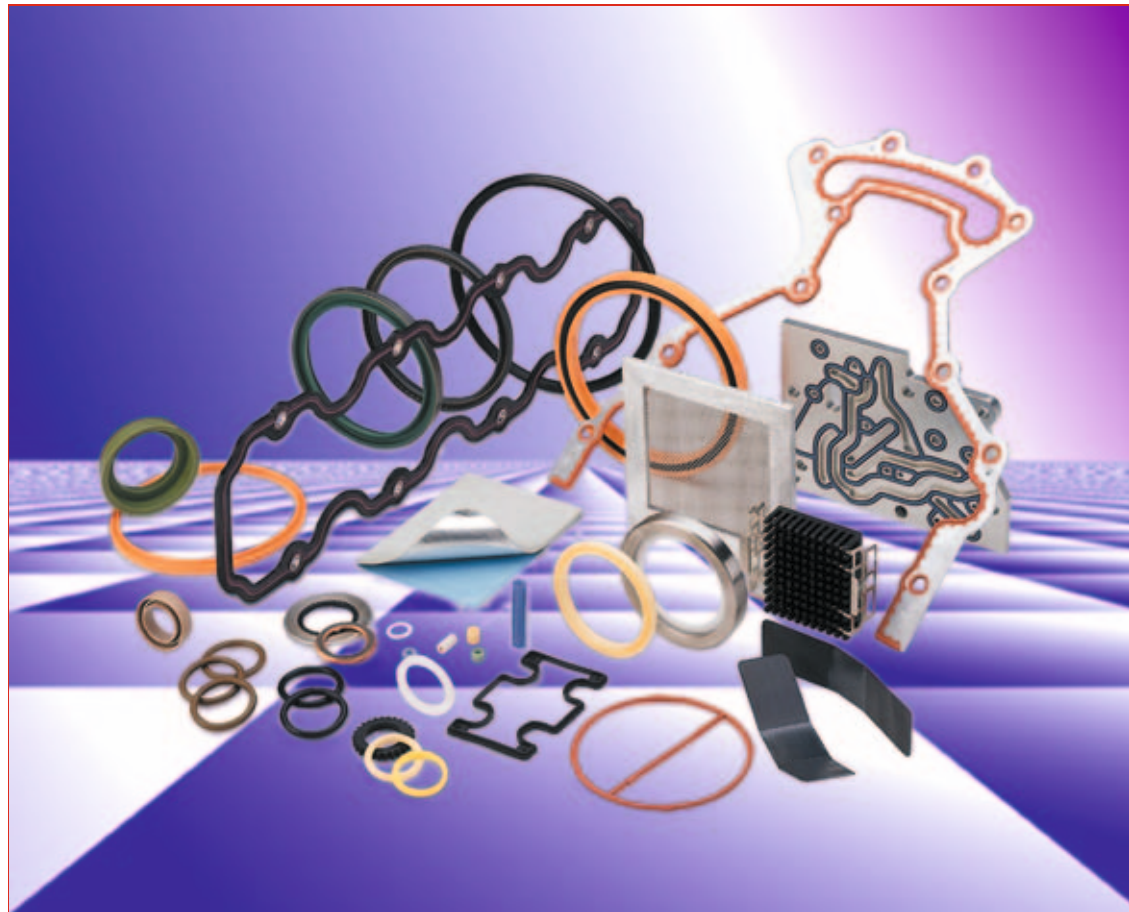


# **Sealing Systems**

## **Vibration Control**

## **EMI Shielding**

## **Thermal Management**



# Parker: Global partner for



## Manufacture near to the customer

The Parker Hannifin Corporation Seal Group is a worldwide leader in the development, manufacture and sales of seals, vibration control, systems for shielding against electromagnetic interference as well as thermal management materials. The Group manufactures in more than 40 facilities, seven of which are in Europe.

**Certification in accordance with ISO/TS 16949, ISO 9001 resp. ISO 9002 (according to location) ensures that the manufacturing sites are reliable partners for the automobile and other areas of industry with exacting quality requirements.**

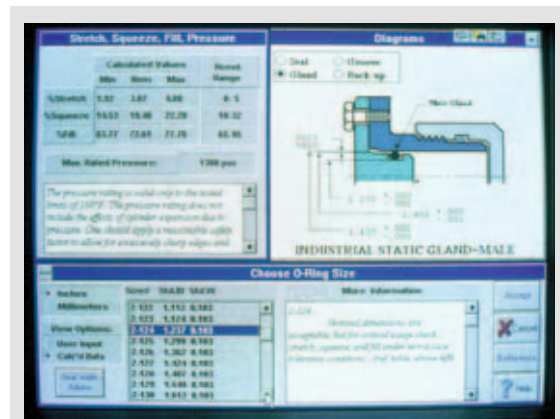


## Fast service for supply of samples

The Pleidelsheim facility produces a select range of O-ring samples within 24 hours. The service embraces 20 materials in various hardnesses and sizes according to AS 568 A / DIN 3771, also special sizes from 2 to 100 mm internal diameter.

The Bietigheim facility is equipped for the rapid supply of samples in thermoplastic elastomers. Computer-controlled lathes produce seals, wipers, guiding elements and special profiles within a few days.

The facility in Marlow, United Kingdom offers a 24 hour service for standard samples.



## PC software for users

With the "inPHorm" computer programs it is easy to find the seal most suitable for a specific application. The PC software comprehensively and transparently shows the way for calculation and selection of the technically correct product.

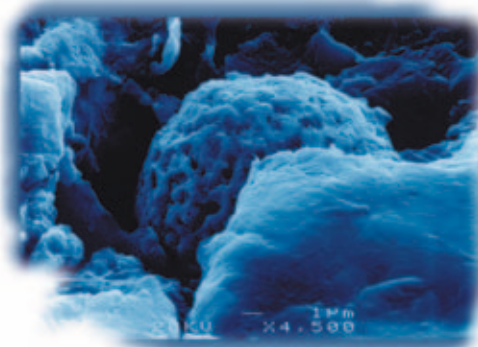
"inPHorm" programs for the O-Ring, Packing (hydraulic and pneumatic seals) and Chomerics (EMI shielding and thermal management materials) Divisions are available to the designer on CD's in the English and German languages.



# seals and vibration control

## Research and development

Parker Seals work together with customers from nearly all branches of industry to ensure that up to date information is already available in the product development stage.



## Compounds

Parker produces rubber mixtures and polymerizes the moplastics in its own works. The Bietigheim and Pleidelsheim facilities alone process more than 300 compounds per year. Temperature ranges extend from -60 °C (Silicone) to +310 °C

(perfluor rubber). PTFE and perfluor rubber are resistant to nearly all chemicals, whilst polyurethane is especially suitable for exacting requirements regarding ultimate tensile strength as well as resistance to extrusion and attrition.



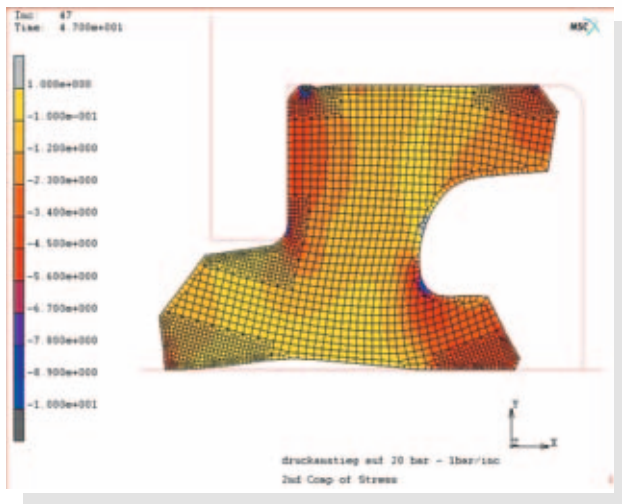
## Test departments

Parker develops sealing systems and materials of the future in its own experimental plants. Test rigs in Bietigheim are used to test sealing systems simulating realistic working conditions.



## Chemical laboratories

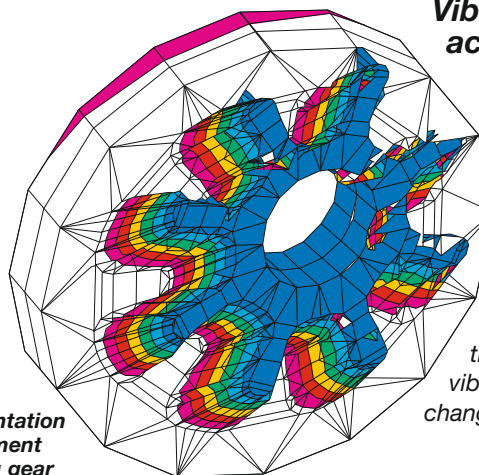
Instruments for thermo-gravimetric analysis (TGA), infrared spectography (IR) differential scanning calorimetry (DSC) and thermomechanical analysis (TMA) are used for the inspection of goods inwards and the acquisition of characteristic material data.



## Computer simulation

Finite element analysis (FEA) can be used for prediction of the service life of elastomer components. The functions of the material properties are determined in relationship to time, temperature and load.

Complex mathematical models also serve for the geometrical configuration and calculation of the performance of sealing systems.



**FEM representation  
of a development  
for a steering gear**

## Vibration control and acoustics

Models for the pseudoactual precalculation of components assist in the best possible matching of attenuation elements to the objective prescribed by the customer. Close cooperation often enables achievement of substantial improvements in the generation of noise and vibrations by means of only slight changes in design.

## Packing Division

The Parker Packing Division is a leading manufacturer of sealing systems for hydraulics, pneumatics, automotive, mining, chemical industry, foodstuffs processing and many other areas of industry.

### Products:

- Rod and piston seals
- Rotary seals
- Flange seals
- Cushioning seals for pneumatics
- Polon®: PTFE seals
- Flexiseals®:
  - Spring-assisted PTFE seals
- Ultrathane®:
  - Polyurethane seals/O-rings
- Sealing systems for high pressure water pumps
- Guide elements
- Wiper rings
- Diaphragms
- Special profiles, precision moulded parts



The Packing Division also specialises in the manufacture of rubber bonded components. The most important markets are automobile manufacture, aerospace and electrical engineering industries as well as machinery and plant manufacture.

### Products:

- Standard program:
  - Rubber-metal buffers for vibration damping
  - Bolt head seals
- Bonded rubber-metal seals
- Vibration damping systems
- Decoupling elements
- Machine bearings
- Bearing bushes
- Butterfly systems for air admission modules

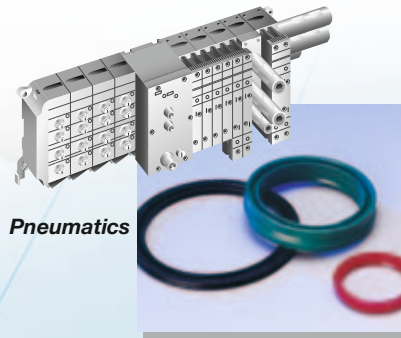


Facilities in Germany, The Czech Republic, Denmark, USA, Brazil and Argentina.

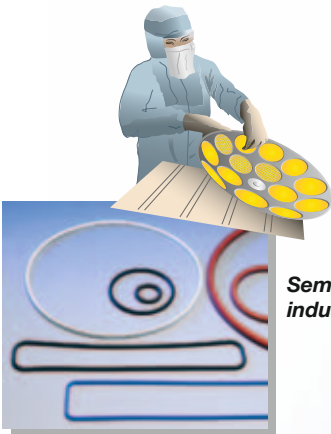




**Hydraulics**



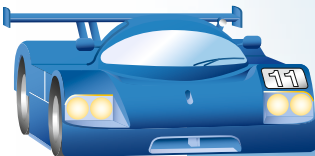
**Pneumatics**



**Semiconductor industry**



**Medical equipment**



**Automobile manufacture**



## Our markets - our markets



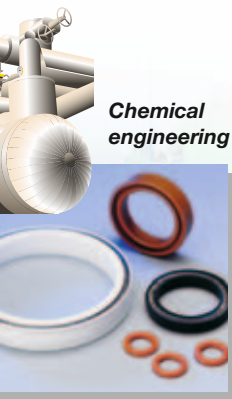
**Pleidelsheim (D)  
O-Ring Division**  
- O-rings, back-up rings  
- Precision moulded parts



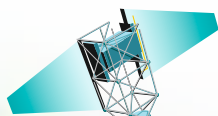
**Bietigheim-Bissingen (D)  
Packing Division**  
- Sealing systems for fluid power applications  
- Special profiles  
- Bonded rubber metal and rubber plastic components



**Marlow (UK)  
Chomerics Division**  
- EMI shielding materials  
- Thermal management materials



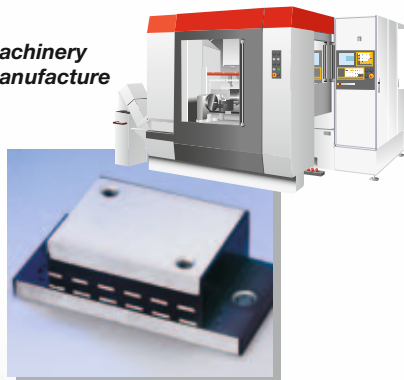
**Chemical engineering**



**Aerospace**



**Machinery manufacture**



**Electrical industry**



**Information technology**



**Telecommunications**



# Manufacturing plants



**Adro (I)  
O-Ring Division**  
- O-rings  
- Precision moulded parts



**Espergaerde (DK)  
Packing Division**  
- PTFE seals and precision  
moulded parts



**Sadska (CZ)  
Packing Division  
O-Ring Division**



## O-Ring Division

Parker manufactures O-rings and special moulded parts in more than 300 compounds for use in automobile manufacture, chemical and biochemical engineering, fluid engineering, refrigeration and air conditioning, mineral oil, aerospace and semiconductor industries as well as many other branches of industry.

### Products:

- Precision O-rings
- Col-O-Ring® programme
- Parbak® back-up rings
- Hifluor seals in highly fluorized fluor carbon rubber (FPM)
- Parofluor® seals in perfluor rubber
- Silicone seals and diaphragms
- JBL precision extruded components
- O-ring kits
- Assembly greases and lubricants
- Precision moulded parts

Facilities in Germany, Italy, The Czech Republic, USA, Brazil, Argentina, Mexico and China



## Chomerics Division

Chomerics is the worldwide leader in electromagnetic interference (EMI) shielding and thermal management technology and manufacturing.

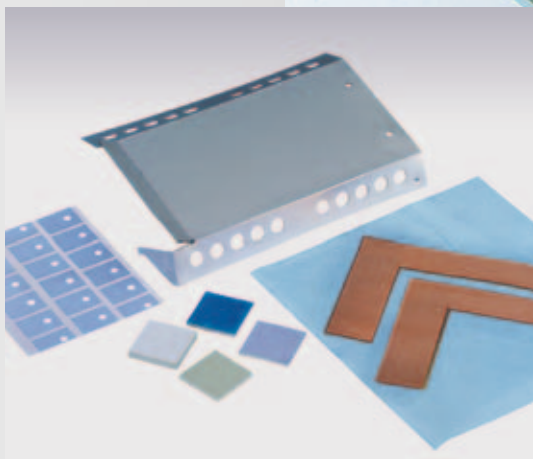
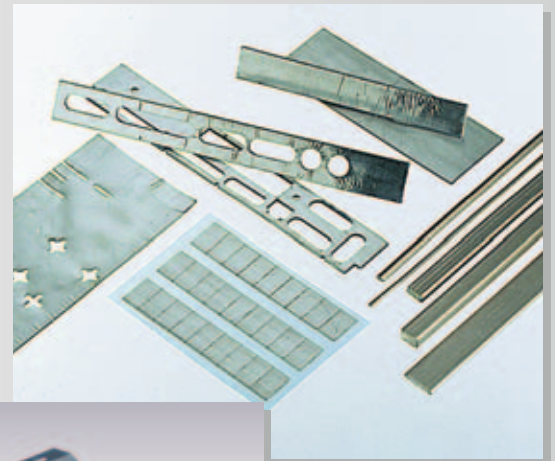
### Products:

#### EMI shielding materials:

- Conductive elastomer gaskets
- Robotically dispensed form-in-place gaskets
- Electrically conductive compounds
- Low closure force foam gaskets
- Metal EMI gaskets
- Fingerstock
- Engineered foil / film laminates
- Shielding vents
- Shielded windows
- Ferrite absorbers

#### Thermal management materials:

- Phase change thermal interface materials
- Thermal conductive adhesive tapes
- Thermal conductive insulators
- Thermally conductive gap fillers
- Flexible heat spreaders



Plants in USA, England, Spain, Brazil, China and Mexico.

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Fax: (0045) 49 12 17 01+++**Finland** Tel: (00358) 20 76 51 70. Fax: (00358) 2 07 65 29 06+++  
**France** Tel: (0033) 4 50 87 80 80. Fax: (0033) 4 50 87 80 76+++**Great Britain and Ireland**  
Tel: (0044) 16 28 40 40 88. Fax: (0044) 16 28 40 40 89+++**Hungary** Tel: (0036) 12 52 81 37.  
Fax: (0036) 12 52 81 29+++**Italy** Tel: (0039) 02 45 19 21. Fax: (0039) 0 24 47 93 40+++**The Netherlands**  
Tel: (0031) 5 41 58 50 00. Fax: (0031) 5 41 58 54 59 +++**Norway** Tel: (0047) 63 89 08 00.  
Fax (0047) 63 89 08 99+++**Poland** Tel: (0048) 2 25 73 24 00. Fax: (0048) 2 25 73 24 03+++**Portugal**  
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