

# *Seals for Pump Motor & Gear Boxes*





## Seals & Sealing elements for Pump, Motor & Gear Boxes in various industries

Spareage, is India's leading seal manufacturer providing standard & customized sealing solutions to clients across industries. Having more than five decades of experience and expertise in serving the industrial clients, Spareage established its products range in OEM & Replacement market.

Thus serving in various industries, our seals are widely use in pumps, motors & gearboxes. Spareage is involved with many OEM manufacturer of this segment for process industries.

While selecting seals and elastomers many factors to be accounted such as ,

- High Speed
- High Pressure
- Temperature resistance
- Media resistance
- Operating reliability
- Economy and long life
- Customised solutions

Spareage thus understand these needs which comes across during selecting appropriate seals & elastomers for OEM and also in field at end users. Spareage, full fledged R & D team is involved developing seals starts from rubber compound, design & upto endurance testing, which is conducted in-house.




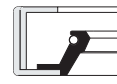






Hence you can place your trust on Spareage for any kind of seals required for pump, motor & gearbox. Our team is ready to cater your needs on time.





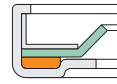
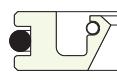
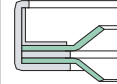
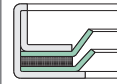




# Product Line

## Spareage Product Line for Pump, Motor & Gear Boxes -











### Rotary Seals

									
AIA	AIB	ACA	ACB	ACD	AID	ACG	ACC	AIE	ACH








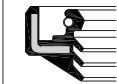


### High Speed Oil Seals

									
AIQ	AIP	ATA	ATC	ATB	ATK	AIK	AIN	ATF	ATE

### High Pressure Oil Seals

									
AHD	AHA	AHB	AHC	AHE	AHF	AHG	AHI	AHJ	AFJ

### Special Seals

									
ACQ	AFQ	AZX	AYM	AYL	AZS	AZR	AYN	AIT	AZI

### Different types of Motors -

- Standard Motors
- Textile Motors
- Torque Motors
- Brake Motors
- Vibratory Motors
- Crane Duty Motors
- Dual Voltage / Dual frequency Motors
- Multi Speed Motors – Single winding / Separate Winding
- High Torque Motors
- High Slip Motors
- Low Vibration Motors
- Motor for Corrosive Atmospheres
- Flange Mounting Motors

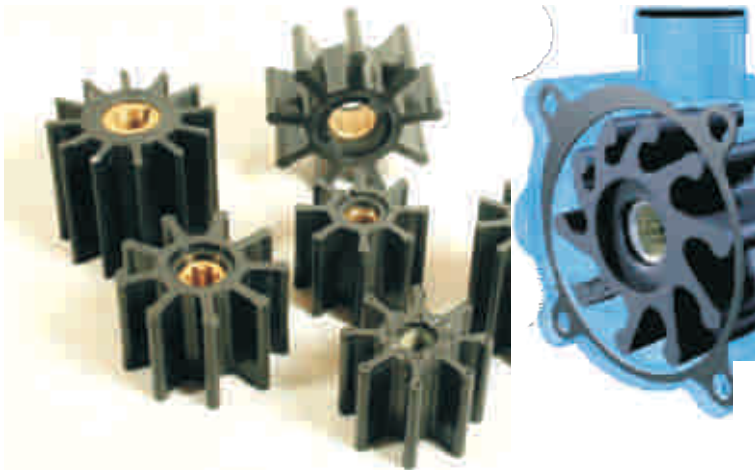
### Different types of Gear Boxes -

- Helical & Bevel Helical Gear Boxes
- Extruder Gear Boxes
- Cooling Tower Gear Boxes
- Marine Gear Boxes
- High Speed Gear Boxes
- Slew Drive Gear Boxes
- Planetary Gear Boxes
- Sugar Mill Drive
- Bucket Wheel Drive
- Tube Mill Worm Reduction Gear Boxes

# Pumps

Pumps are used for a wide range applications to move fluids such as liquids, gases, slurries etc. These are different types of pumps such as water pump, hydraulic pump, vacuum pump and many other pump for high pressure, quiet operation, long life and many more features whenever the customer encounters with their critical operating conditions. Spareage with its experience and expertise in sealing technology are able to offer appropriate recommendations and sealing solutions.

Spareage also provides customised dimensions and designs in various materials such as NBR, Viton, Silicon, EPDM, HNBR, PTFE etc. for different temperature, applications media, pressure, speed, etc.



## Impellers for Displacement Pumps -

Spareage had developed impellers with the design of friction optimised fins and a special elastomers compound offers a longer service life of impeller in the pump.



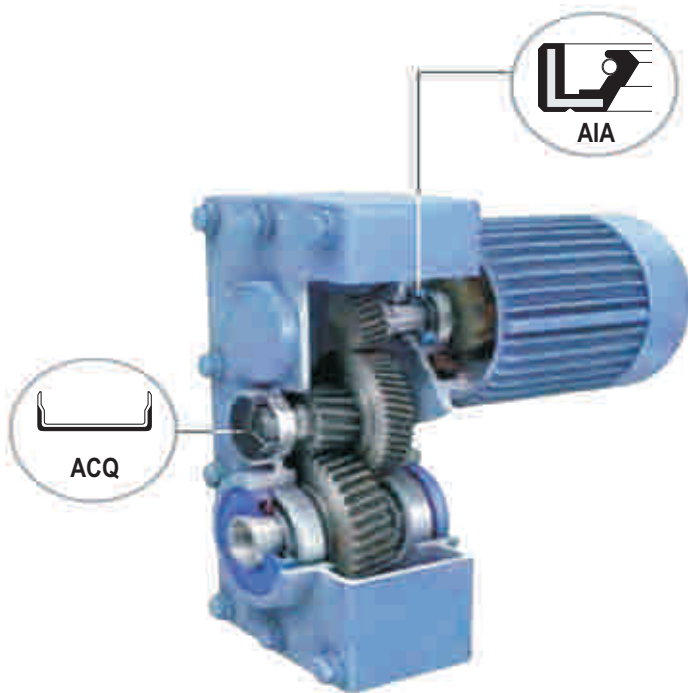
## Submersible Pumps -

Spareage supply various seals to Submersible pumps & are associates with many OEM of this industries, providing standard Rotary Seal & also special items like, Neck Ring, Split Bush, O Rings in different elastomer compound.

# Motors & Gearbox

Spareage sealing solutions for industrial gearboxes includes rotary seal, end caps and other sealing rubber elements.

A general gearbox application are with two rotary seals i.e. input seal and output seal usually input seals are subjected to high speeds. Single lip and dual lip are common designs used for this application.



Other applications like high speed, high pressure, low speed, dry run, abrassive conditions are catered by offering special elastomeric compounds and PTFE material.

Sparage had developed special elastomeric compound with PTFE fillers which offers optimum service life in dry running conditions and having high wearing resistance.

Spareage have more than decades of experience working with OEM customers in this segment. We provide seals for various gearboxes used in many areas like power, transmission, transportation, construction, material handling, process industries and many more.

## Motors:

Spareage is working with many OEM of motors use in various industries. Typical rotary seals use in motors. Motors should not generate high torque which results to the energy loss. To make motors more energy efficient seals play an vital role in designing the seal interference & tolerance. Many of the customers are widely uses Spareage seals in different motors.





## Research & Development

Spareage offers many customised sealing solutions which are developed in-house with help of its State-of-Art Laboratory and advanced technologies to meet the international standards.

Spareage had a dedicated R & D team that offers support to technical consultation which helps to give the assurance to the customers about the offered sealing solutions.

Spareage conducts in-house testing on the rotary seals to confirm theoretical analysis for operating conditions, decrease the failure rates during trial runs and improve the efficiency on new seal developments. The conclusion of these testings strongly support us to recommend the seal design and material for the required end use application.



### Rotary Seal Gyration Testing Machine -

Specifications:

	Low Pressure	High Pressure
Testing Range	5 - 100 dia.	5 - 80 dia.
Speed	200 - 6000 RPM	200 - 6000 RPM
Temperature	RT - 120°C	TR - 120°C
Pressure	0 - 3 kg/cm <sup>2</sup>	5 - 30 kg/cm <sup>2</sup>

This machine is for Rotary Seal pressure conditions & abrasion testing.



### Automated Optical Inspection Machine -

Specifications:

- Repeatability less than 0.01m
- Capacity 1 - 2 nos. / sec.
- The machine measures the inner and outer diameter of oil seal roundness.
- Measuring the cross section, inner/outer flash and concentricity of the Seal.

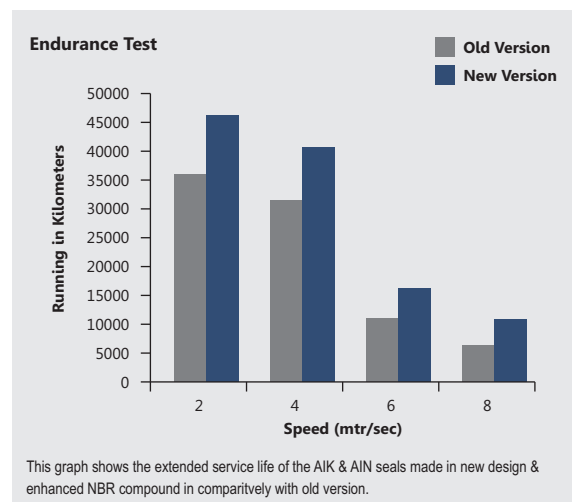
### Sealing Material:

Spareage thus offers seals in wide range of elastomers & thermoplastics. Thanks to its state-of-art laboratory where new compound are developed and tested according to the international standards & parameters.

Rubbers like HNBR with PTFE fillers compound developed especially for working condition like dry run, high speed, low friction and high abrasion resistance.

Spareage, style AIK & AIN rotary seals with enhanced NBR compounds offers extended service life compared to the general purpose rotary seal.

In-house test result of Rotary Seal - AIK & AIN



#### Endurance Test Specimen:

Seal Size - 50 x 70 x 8

Temperature - 60° C ± 2°

Material - NT-57 (High Performance NBR Compound)

# Win with Spareage ...

# SPAREAGE® Seals Limited

## CORE BUSINESS



### HYDRAULIC SEALS

- More than 6000 std. sizes.
- Wide range of seal profiles.
- Medium & heavy duty application.
- Mould available up to 2 mtr. Dia.
- Extended information..



### ROTARY SEALS

- More than 7000 std. sizes.
- Wide range of seal profiles.
- Mould available up to 2 mtr. Dia.
- Extended information.



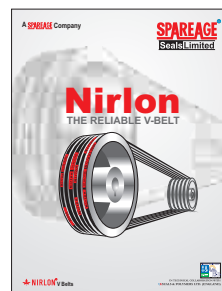
### PNEUMATIC SEALS

- More than 4000 std. sizes.
- Wide range of seal profiles.
- Extended information.



### O-RINGS

- Listed more than 7000 B.S sizes.
- JIS standard also available.
- Orings available in NBR & FPM matl.



### V - BELTS

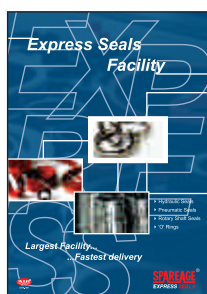
- Classic V-belts.
- Wedge V-belts & Narrow V-belts.
- Hexagonal V-belts.
- Profile Top V-belts.
- Harvester Combine & Flat belts.
- Fractional Horse Power belts.
- Automotive Wrapped belts.



### SPIDER RANGE

- All std. sizes available with 6 different profiles.
- Mechanical Flexibility.
- Available in NBR and PU matl.
- Metal coupling available.
- Protection against overloads.

## COMPANY FACILITIES



### EXPRESS DIVISION

- Delivering 30,000 types of standard seal profiles in 1 hour.
- More than 100 specific seal profiles in sizes of upto 300 mm dia. within 8 hours.
- Express seals helpline.
- Metal Seals upto 200 mm in 24 hrs.



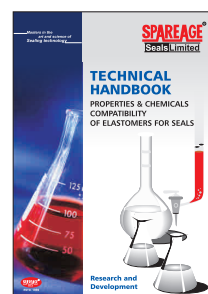
### OEM DIVISION

- Injection Moulding Machines.
- PPAP
- SCADA
- Line Production Facilities.
- SAP Systems.



### LARGE DIA SEALS

- Mfg.seals upto 4000 mm. in various elastomer compounds.
- Services to MRO & OEM Mfg.
- Large size dia making on VTL.
- High tonnage presses.
- Large size metal & rubber moulding.



### R & D CENTRE

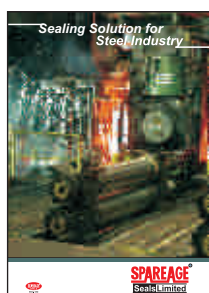
- Reverse Engineering.
- Indigenization & Import substitution.
- Endurance testing.
- Polymer & Compound testing.



### TESTING LABORATORY

- 7000 sq. ft. state-of-the-art laboratory.
- Advanced testing equipment and tools.
- Testing of seals from raw material to finished stage.
- In-house testing of physical & chemical properties

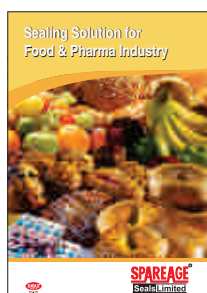
## PROVIDING SEALING SOLUTIONS TO BELOW INDUSTRIES -



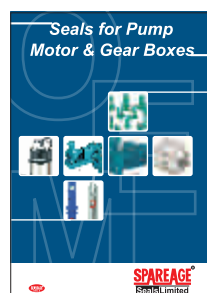
### Steel Mill



### Oil & Gas



### Food & Pharma



### Pump & Motor



### Presses



### Cement



### Wind Mill



### SPM & Engineering

## Segments -

- Automobile Industry
- Aluminum Industry
- Cement Industry
- Chemical & Fertilizer
- Earth Moving Equipment
- Engineering & Fabrication
- Food & Pharmaceutical
- Forging Presses
- Hydraulic Cylinder Manufacturing
- Oil & Gas
- Pulp & Paper Mill
- Pharmaceutical
- Pneumatic Cylinder Mfg.
- Power Plant
- Press
- Pump & Motor
- SPM & Engineering
- Steel Mill
- Sugar
- Textile
- Tyre
- Valve Manufacturing
- Wind Mill

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IN TECHNICAL COLLABORATION WITH  
UKSEALS & POLYMERS LTD. (ENGLAND)