

GENERAL SEAL

ADVANCED MECHANICAL SEALING SYSTEMS



TYPE 707/808 Mechanical seals

ISO
9001:2000
CERTIFIED COMPANY

 **GENERAL SEAL**
COMPANY PVT LTD

Excellence In Engineered Sealing Systems
...Since 1980

Advanced Mechanical Sealing Systems

DIRECT SLIP-ON TYPE HYDRAULICALLY BALANCED SEAL DESIGN

REVOLUTIONARY CONCEPTS IN DESIGN ENGINEERING.

NEAR-UNIVERSAL APPLICABILITY - INTERCHANGEABILITY WITH NEARLY ALL CONVENTIONAL SEALS AND GLAND PACKINGS WITHOUT PUMP OR GLAND MODIFICATION.

NO SEAL-INDUCED SHAFT DAMAGES - SAVES HIDDEN MAINTENANCE COSTS FOR SHAFT/SLEEVE REPAIR/RENEWAL.

LOWER PRICES THAN CONVENTIONAL SEALS - BECAUSE OF HIGH DEGREE OF STANDARDISATION.

UNIFORM INSTALLATION DIMENSION FOR ALL SIZES RESULTS IN EASE OF HANDLING.

CONTINUOUS RE-USE THROUGH OUR RECONDITIONING PROGRAMME RESULTS IN LOWER SEAL INVENTORIES AND LOWER COST.



707 SEALS

Material	- AISI- 316 Body parts; - Stellite Hard face Alloy No.1 or High Energy Plasma- Sprayed Ceramics or TC or
SiC	- 60 RC Carbon - Viton O-Rings
Size Range	- 25mm to 100mm
Operating Limits	- 205 C temperature - 35 kg/sq.cm.

808 SEALS

Material	- AISI- 316 Body parts; - Stellite Hard face Alloy No.1 or High Energy Plasma- Sprayed Ceramics or TC or
SiC	- 60 RC Carbon - Viton O-Rings
Size Range	- 108mm to 150mm
Operating Limits	- 205 C temperature - 35 kg/sq.cm.

For more rigorous applications, consult GENERAL SEAL.

POSITIVE ATTACHMENT SCREWS

Enables correct location of seal along shaft. Withstands stuffing box pressures up to 35 kg/sq. cm.

PERMANENT SEAL BODY

Permits repeated seal reconditioning. Direct slip-on seal with hydraulic balance needs no shaft steps or sleeves.

DYNAMIC ELASTOMER O-RING

Seals off the annular space between the upper and lower sleeves. Located far from the rubbing faces and so is unaffected by heat generated in running.

STATIONARY HARD FACE SEAL RING

Held by the gland plate. Can be spring-loaded to make it self aligning in cases where high shaft misalignment cannot be avoided. Can be tailor-made to fit existing gland covers.

STATIC ELASTOMER O-RING

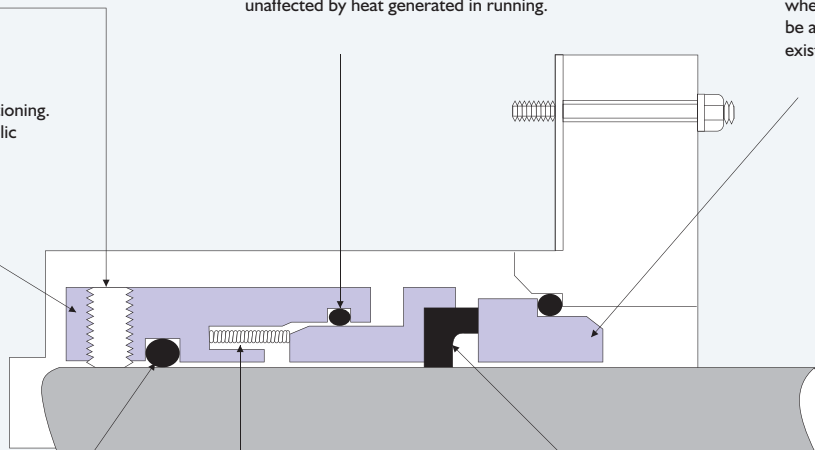
Cannot damage the shaft. Does not need smooth surface finish on shaft.

MULTIPLE SPRINGS

Provide even axial pressure. Independent of direction of shaft rotation. Springs are isolated from the pumped fluid to prevent clogging and corrosion.

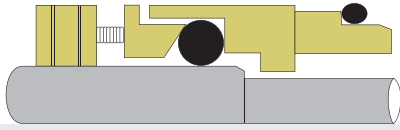
ROTARY CARBON SEAL RING

Firmly held in metal back-up sleeve to ensure greater mechanical strength. Hydraulically Balanced to reduce seal face pressure without resorting the use of stepped shafting or sleeve for such balancing. Reduced face pressure means less frictional wear and less frictional heat.

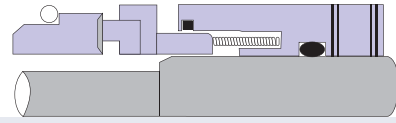


Conventional Seal Problems

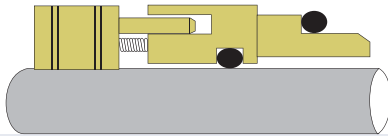
GENERAL SEAL'S 707/808 Seal Answers



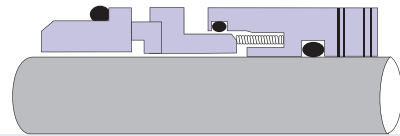
Hydraulic Balancing is done by use of stepped shafting or expensive sleeves. This results in use of larger diameter seals than strictly necessary, thereby incurring higher cost.



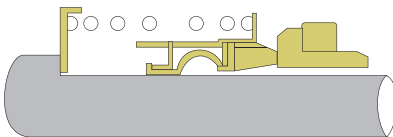
Direct application on existing shaft - No shaft modifications/no sleeves. Even shafts using gland packing or other unbalanced seals can now switch over to using balanced seals with this design.



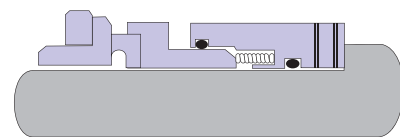
The dynamic elastomer in contact with shaft demands high degree of shaft surface finish, necessitating an expensive grinding process for the shaft/ sleeve.



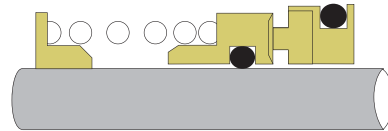
Ordinary lathe turned finish is adequate for shaft or sleeve.



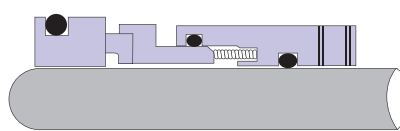
Wear parts, such as Rotary seal, Stationary Seal, Springs, etc. constitute about 90% of seal parts and seal reconditioning is not economical compared to the cost of a complete new seal unit.



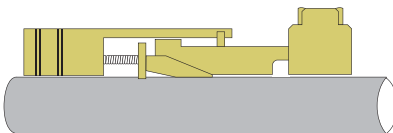
Seal wear parts are only a small fraction of total seal body and can be renewed at a fraction of the cost of a new seal. Such reconditioning results in a seal having a service life equal to a brand new seal.



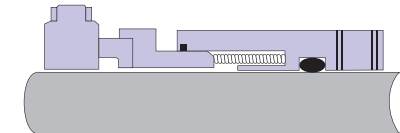
Seal Elastomer is generally very close to the rubbing faces of rotary & stationary, and are affected by the frictional heat generated, and fail by premature "Compression Set"



Elastomers are located far away from source of frictional heat and retain their elastic properties far longer, resulting in greatly increased seal life.



Seal springs are located in the fluid medium and are therefore subject to clogging, sticking and corrosive failure. In cases of single helical spring, the helix direction must be matched to shaft direction of rotation (RH & LH seals), causing confusion in operator's mind.



Multiple springs are carefully isolated from the fluid pumped and are open to atmosphere. Direction of shaft rotation is unimportant in multi spring seals.



Shaft or sleeve is damaged by gland packing and by fretting or grooving by the to-and-fro movement of seal elastomer (V-ring, O-ring, U-cup, wedge ring, etc.) over the shaft. Such seal-induced damage results in expensive repair costs of recurring nature.



The elastomer (O ring) in contact with shaft/sleeve is STATIC relative to the shaft. This unique design feature means that the seal just cannot damage the shaft/sleeve.

All GENERAL SEAL products are manufactured from the finest raw material obtained from the best sources world-wide. Each component is manufactured on some of the highest technology machinery and equipment in the world. All components and complete seal units undergo rigorous quality inspection procedures as laid down under ISO-9001:2000

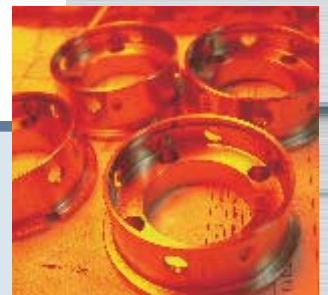


ADVANCED CARTRIDGE MECHANICAL SEALING SYSTEMS

For pumps, compressors & mixing vessels handling regular, dangerous or costly fluids.



To meet the diverse requirements of our customers, GENERAL SEAL also manufacture a complete range of custom-made seals, designated ERS, ERS-C, ERS-P, ERS-W, ERS-E, ERS-F, ERS-N, etc. and APS & RC seals.



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