AST 80M

DUAL CARTRIDGE SEAL FOR MIXERS

Field Rebuildable

No more waiting for seal repairs, and no more worries about installing exchange seals that might have previously held hazardous materials, because the AST 80M is easy to rebuild on site using standard tools.

Instantaneous Leakage Control

The barrier fluid between the two seals of the AST 80M eliminates startup failures caused by lack of lubrication at the seal faces, and by contamination from the sealed fluid.

Built-in Environmental Control

Use the barrier fluid to cool hot products, to heat thick and crystallizing products, and to keep air away from sensitive products.

Easy replacement on split case and vertical pumps

No pump teardown required. Just slide the seal over the end of the shaft.

The AST 80M Seal is a rugged dual seal built for use in mixers, agitators, double-ended pumps, and other rotating equipment in demanding service. With its large internal clearances, the AST 80M tolerates shaft runout and end play that would make another seal fail.

The hydraulic double balance of the AST 80M means it can be used in three ways:

Double Seal: With barrier fluid pressure higher than product pressure, the AST 80M prevents leakage of hazardous fluids into the environment. The barrier fluid provides lubrication for the seal in top-entry mixers.

Tandem Seal: By using a buffer fluid with pressure lower than process, the AST 80M can reduce the pressure differential across each set of seal faces.

Spare Seal: With unpressurized buffer fluid, the outboard seal runs "at idle" as a standby seal. If the inboard seal fails, the outboard seal provides primary protection, eliminating unscheduled shutdown of batch processes.

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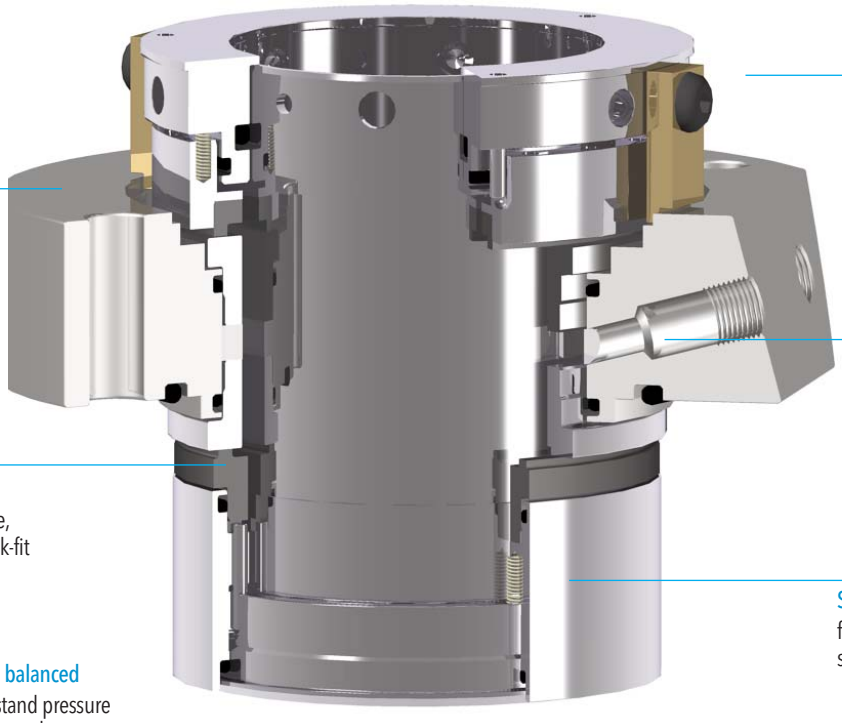

Custom machined gland
is designed to fit your equipment without modification.

Metal centering blocks
set radial and axial position of seal without measurements.

Tangential barrier fluid ports
induce shear flow pumping for optimal cooling.

Floating seal rings
are field replaceable, and eliminate shrink-fit distortion.

Springs are isolated
from process fluid reducing stress corrosion and clogging.

Double balanced
to withstand pressure reversals and surges.

ENGINEERED...

AST 80M seals are built to tolerate the radial motion, end play, and vibration in mixers, agitators, slurry pumps and other harsh services, and are available for shaft sizes from 3.000 to 6.000 inch.

...or OFF THE SHELF

For most ANSI pumps, including enlarged bore pumps, AST 80 seals are available off-the-shelf.

MATERIALS OF CONSTRUCTION

Metal components:	316 Stainless Steel standard; Alloy 20, Titanium, and Hastelloy C-276[1] available
Inboard rotating seal ring:	Carbon-Graphite or Graphite-Loaded Sintered Silicon Carbide
Outboard rotating seal ring:	Carbon-Graphite
Stationary seal rings:	Tungsten Carbide or Sintered Silicon Carbide
Springs:	Hastelloy C-276
O-rings:	Fluoroelastomer, EPDM, Aflas[2], or Isolast[3] perfluoroelastomer

OPERATING LIMITS

Pressure:	400 PSIG (28 bar) maximum to 28 in (710 mm) Hg vacuum, depending on shaft size and speed.
Temperature:	To 500°F (260°C), depending on O-ring elastomer limits in fluid sealed

Notes: [1]Trademark of Haynes International Inc., [2]Trademark of Asahi Glass Co. Ltd., [3]Trademark of Busak+Shamban

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