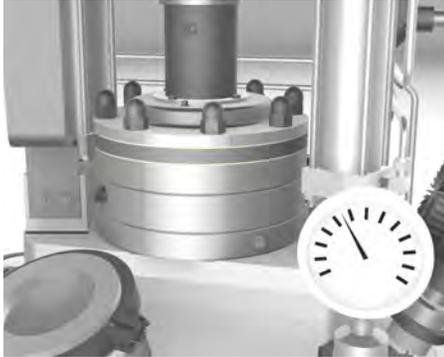


Steri Technologies offers two types of upper seals. For the pharmaceutical and sterile applications we offer a variety of mechanical seals and for less stringent applications numerous lip seal and stuffing box designs.

Mechanical Seals



John Crane Type 7700

Frequently used mechanical seals:

- John Crane
- FlowServe
- Durametalllic

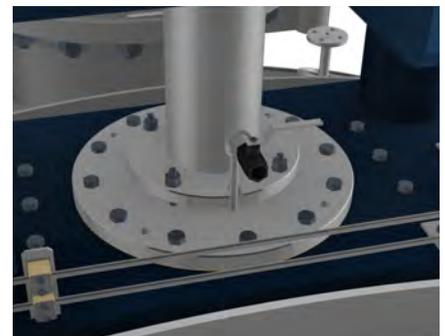
Mechanical seals offer near zero leakage at high operating pressures and temperatures.

Upper seal designs that include a mechanical seal have two primary sealing interfaces to seal the agitator shaft for both rotation and vertical linear travel. There is a bearing sleeve that fits over the shaft. The bearing sleeve seals the vertical travel of the shaft with several sets of o-rings and wipers. The bearing sleeve is keyed to the shaft so that it rotates along with the shaft. The rotation of the bearing sleeve is sealed by the mechanical seal. The bearing sleeve is connected to the mechanical seal and does not travel vertically. Additional sealing can be achieved by installing a bellows that fits over the bearing sleeve and the agitator shaft. The bottom of the bellows is welded to the agitator shaft just above the blade. The top of the bellows is sealed and mechanically fastened to the bearing sleeve just inside of the vessel head.

Stuffing Box Seals

Stuffing box seals are suitable for moderate pressures and temperatures where non-hazardous materials are used. They offer reduced cost and are easily maintained.

The central feature of the stuffing box seal is the packing. The packing Steri most often supplies is a PTFE material that is square in profile. 4 layers of packing are placed in a circular well in the head of the filter. The shaft contacts the inside surface of the packing which completely encircles the shaft. A stepped collar fits over the shaft and is bolted to the top of the filter vessel. As the bolts are tightened, the collar applies pressure on the packing squeezing it against the shaft creating a seal. Lip seals of various materials are available to prevent contamination from reaching the packing. A flushing ring option allows flushing of the packing.



Stuffing Box with Flushing