

On the Type R filter, the lower bearing and lower seal are mounted onto the lower end of the filter shaft. When installing the filter nest the lower bearing on the filter shaft slips over the spigot which is rigidly mounted to the inside of the filter. The lower bearing bushing and the upper and lower lip seals are PTFE.

Standard Lower Bearing



With PTFE Sleeve

The most commonly installed lower bearing consists of a bearing housing that is mounted onto the bottom end of the filter nest shaft, a PTFE sleeve that carries the radial loads of the bottom end of the filter shaft during rotation, and two lip seals that are installed in the bearing housing. Alternately the lower bearing can be configured with an additional bearing bushing, a large centering coin, or a PTFE sock for additional sealing at the spigot. Both of these styles have proven to be excellent performers over a wide range of applications.



Centering Coin

Bellows Seal

Bellows seals are offered to add an extra layer of protection against leaks. In this type of seal a double wall metal bellows is welded to a support that is mounted to the spigot. During filtration the bellows is pressurized, thus expanding it to seal against a feature on the filter shaft. When filtration is complete and the vessel is drained, the bellows are retracted with the application of a vacuum, leaving the shaft free to rotate during cake discharge. This design is especially well suited for high temperature applications.



Bellows Seal

Stand-Still Seal

Unlike typical R filters, the spigot is mounted at the bottom of the filter shaft when the stand-still seal is selected. A seal housing with retractable o-rings is mounted on a support welded inside the vessel. During filtration the pressure is applied to the o-rings creating a seal against the spigot. When the filter vessel has been drained and is ready for cake discharge, vacuum is applied and the o-rings are retracted to allow free rotation of the filter nest. A bearing bushing using a PTFE sleeve or Lubri-flon bands carries the radial loads during rotation. This design is excellent for high temperature applications.



Stand-Still Seal