



Packing Leakage

Piston rod packing is designed to seal against cylinder pressure, but are dynamic seals and will have some leakage. This leakage will increase over time due to wear of the non-metallic sealing rings. The packing case is made up of several seal sets, each seal breaking down the pressure further than the last. In the new and broken in condition packing rings will leak some gas. The leakage rate will depend upon the condition of the packing and to some extent the use of a purge gas (see [purge packing](#)).

Packing in the new and broken in condition will leak 5-10 SCFH through the vent with 2-3 SCFH entering the distance piece. Prior to break in leakage will be higher.

When purged packings are employed the packing will leak 8-13 SCFH through the vent due to the addition of the purge gas and 3-5 SCFH of purge gas entering the distance piece. The purge gas demand will be roughly 5 SCFH.

As the packing wears out vent leakage will increase to as high as 120-180 SCFH (2-3 SCFM) and purge gas may increase up to 30 SCFH to maintain a positive pressure over the vent pressure. Likewise, distance piece flows will increase respectively.

Upon shutdown of the compressor packing leakage will continue, and increase, unless cylinder pressures are relieved.

Refer to the [Packager Standards Section 8 Packing and Distance Piece Vent Systems](#) for further information on vent systems.