

Potential Mechanical Seal problems	CIRCOFLEX	Conventional Seals
Seal Face Lubrication	No Need	Supplied by medium being pumped (or barrier fluid)
Debris in fluid being pumped	No damage	Catastrophic
Pump and/or Seal Face runs dry	No damage*	Catastrophic* (see note)
TIR spec's?	Twice that of normal seals.	0.005" Maximum - typical @ 1750 RPM
Shaft destruction from Teflon or graphite or o-rings?	No dynamic elastomers used.	Yes
Axial growth limits?	Yes depending on seal size	Yes depending on seal size
Seals hydraulically balanced?	No	Yes, Depending on type of seal
Any Fugitive emissions?	None	Yes
Cavitation problems?	Outperforms	Yes
Is seal face load adjustable?	No - Factory pre-set	Varies
Face speed limits?	8000 fpm	Varies
Temperature limits?	Up to 700 deg.F (601 design)	Yes
Hot products such as "Hot Oil".	Outperforms (No quench required)	Quench required
High pressure	Outperforms	
Hard vacuum	Outperforms	
Excessive motion	Outperforms	
Excessive vibration	Outperforms	
Cryogenic fluids	Outperforms	
Seal faces open** (see note)	N/A	Catastrophic
Face Loading?	Proprietary	
Stuffing box Pressure Limits?	250 PSI up to 1.500" 125 PSI 1.750" up	
Pressure/Velocity Limits?	exceeds 400,000	
**It should be noted that seal face opening accounts for the largest majority of mechanical seal failures.		
When a seal face opens it allows solids to penetrate between the lapped surfaces.		
The solids imbed themselves into the softer carbon/graphite face causing it to act like a grinding wheel.		
This grinding action will cause severe wear in the hard face.		
*Some seals require a separate quench connection and supply if pump runs dry.		
CircoFlex seal uses lipseal and 8 to 10 oz. fluid internal to seal for heat dissipation.		

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