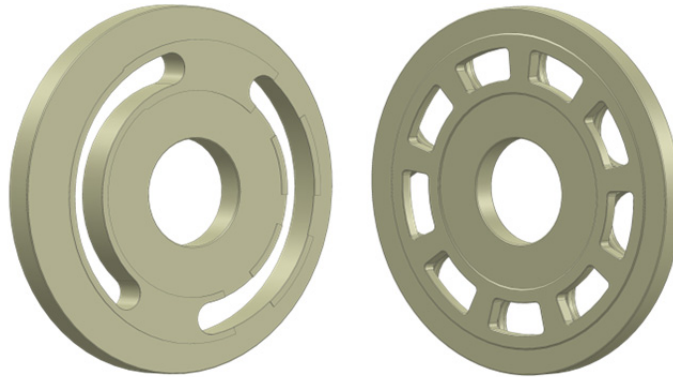


Ultra-Durable Ceramic Valve-Port Plate Set

Water lubricated axial piston pumps (APP) have become more popular because of their high efficiency, smooth operation and predictable maintenance cycles. However, standard APP's employ plastic-stainless steel bearings, which wear out and are susceptible to premature failure from particulates in reverse osmosis feed water. Even with the best quality feed water, these bearing systems require regular replacement and can cost more than 10% of the original pump price. Small upsets in filtration and feed water quality can result in immediate damage and premature failure. Furthermore, wear acts to open the precision clearances required for sealing, the result is an irreversible loss in pump efficiency and flow, which equals increased production costs and lost revenue. **Replacing standard parts with ceramic extends the service intervals for APP's and increases their reliability in a variety of feed water environments.**

Ocean Pacific Technologies manufactures ceramic replacement parts for standard APP's and in particular ceramic valve-port plate sets. Ceramic is an extremely hard material with proven wear and erosion resistant properties, and a natural lubricity for water lubrication.



Ceramic Valve-Port Plate

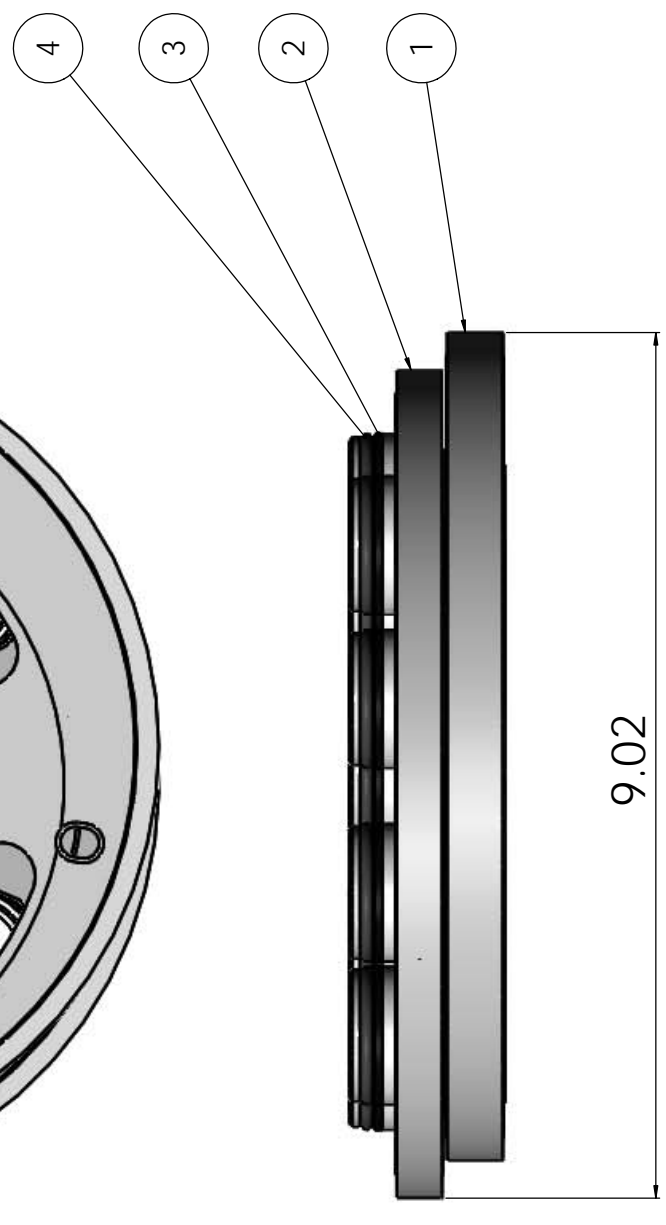
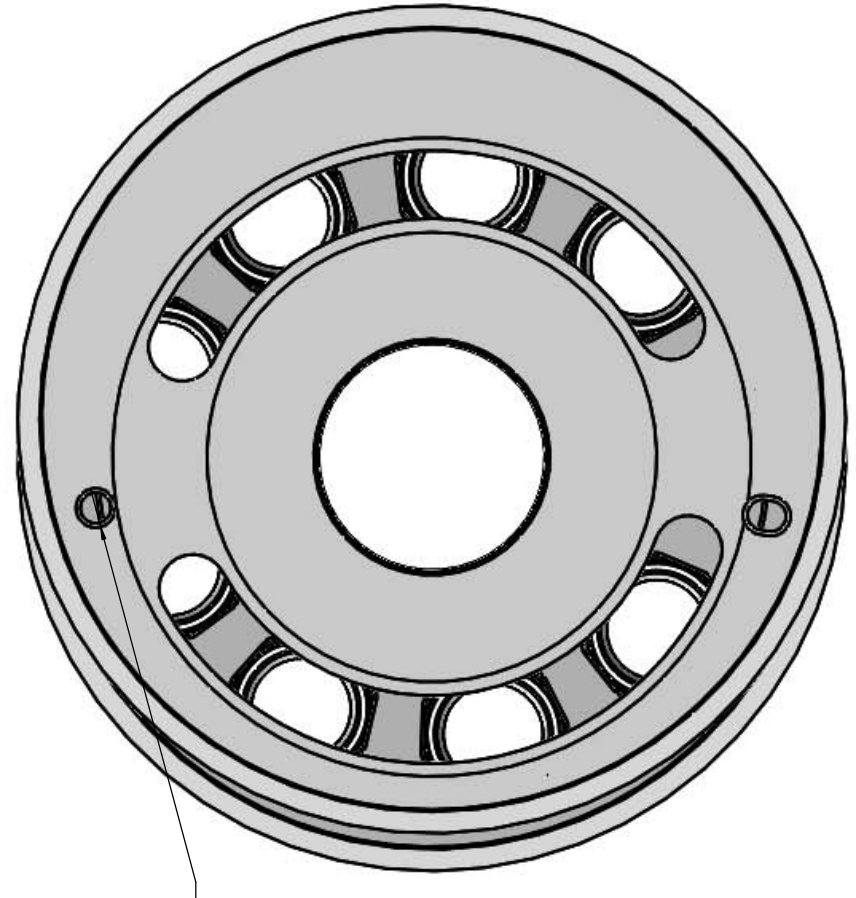
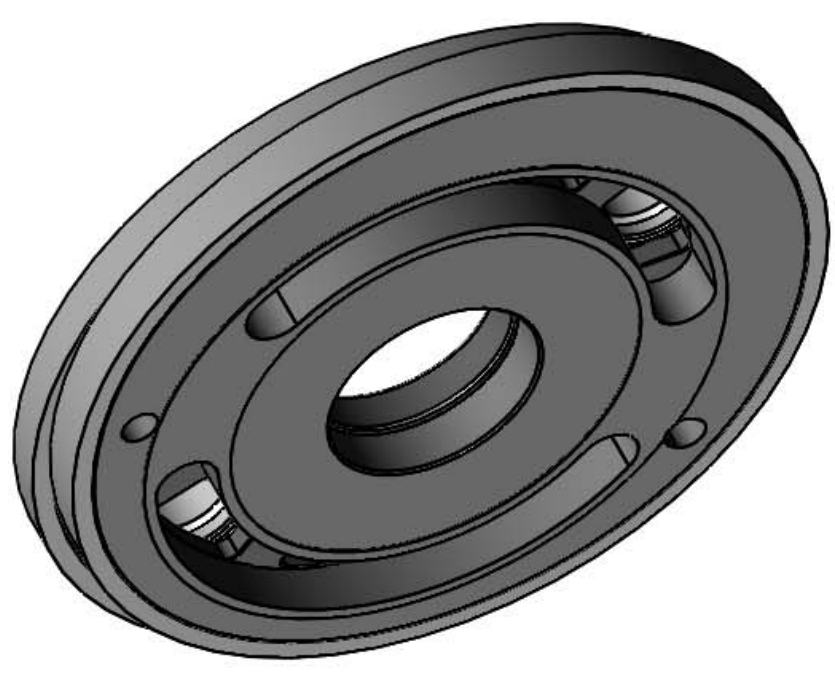
The end result is that ceramic parts maintain their micron tolerances over time, **lasting as much as 10X longer** than plastic-stainless steel parts and are even **resistant to particulates and upsets in the pre-filtration system.**

Some benefits include:

- **Maintain higher efficiencies:** Ceramic's dimensional stability and resistance to wear maintains the exceptionally flat running surfaces and micron tolerances required for sealing.
- **Longer service intervals:** Ceramic's superior wear and erosion resistance extends service life by more than 10X.
- **Lower life cycle costs:** Higher efficiencies and longer service intervals compound to lower life cycle costs.
- **Improved reliability:** Ceramic's wear resistance and durability reduce maintenance and downtime.
- **Insured against upsets in feed water quality:** As ceramic is harder than most particulates, it can be used in a broad variety of feed water conditions.

E-mail sales@ocean-pacific-tec.com for a quote.

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	60-5437	Port Plate Assembly	CERAMIC/DUPLEX	1
2	60-5164	Valve Plate Assembly	CERAMIC/DUPLEX/PEEK	1
3	30-4685	O-Ring	BUNA	9
4	30-5053	Backing Ring	PTFE	9



INTERCHANGABLE WITH APP 21-38

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UNLESS OTHERWISE SPECIFIED		NAME	DATE	Ocean Pacific Technologies	
DIMENSIONS ARE IN INCHES	FRAC TIONS	ITM	02/20/14	TITLE:	
DECIMALS	1/16	DRWNS		PORT & VALVE	
FRACTIONAL	1/32	CHECKED		PLATE KIT	
TWO PLACE DECIMAL	1/64	ENG APPR		PART NO. 70-8567	
THREE PLACE DECIMAL	1/128	MFG APPR		SIZE	DWG. NO.
FOUR PLACE DECIMAL	1/256	C.A.		D	
INTERPRETING GEOMETRIC TOLERANCES		COMMENTS		REV	1
MATERIAL				SCALE: 1:1	WEIGHT:
FINISH					SHEET 1 OF 1
NEW ASSY	USED ON	APPLICATION			