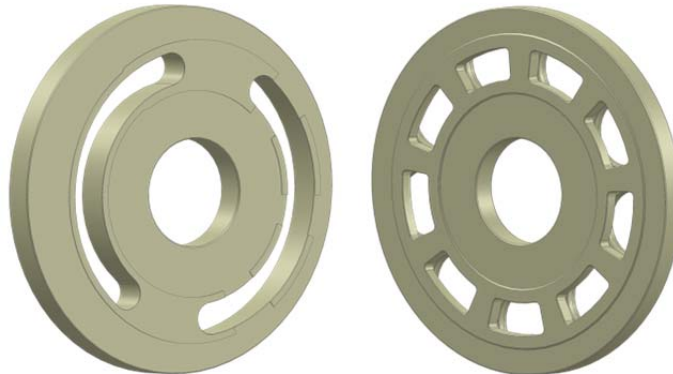


## Ultra-Durable Ceramic Valve-Port Plate Set

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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 wear and require regular replacement, which can cost more than 10% of the original pump price. Wear acts to open up the precision clearances required for sealing, resulting in an irreversible loss in pump efficiency and flow that equals increased production costs and lost revenue. And even small upsets in feed water quality can result in a more rapid loss in flow and premature failure. **Replacing standard parts with ceramic extends their service intervals and increases overall 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

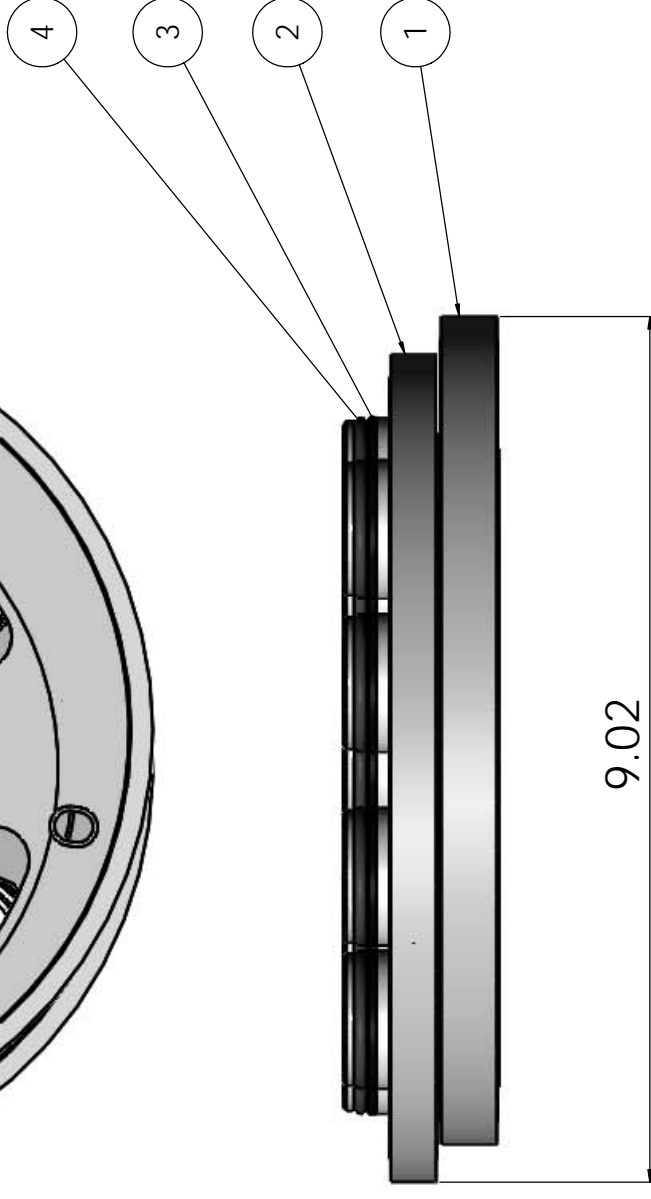
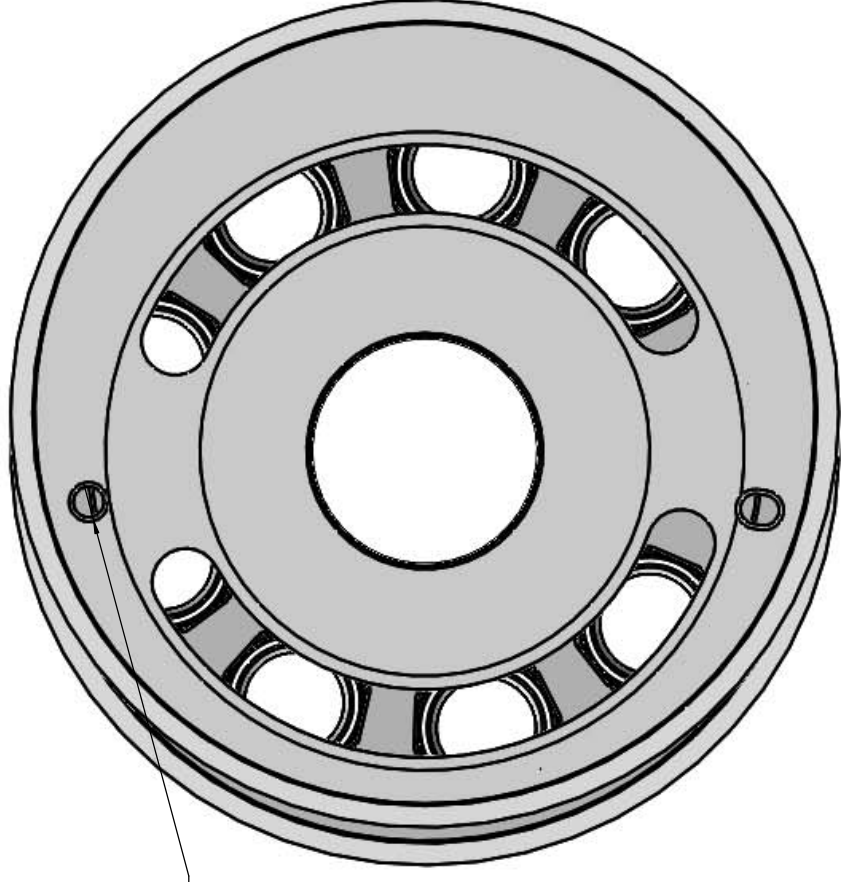
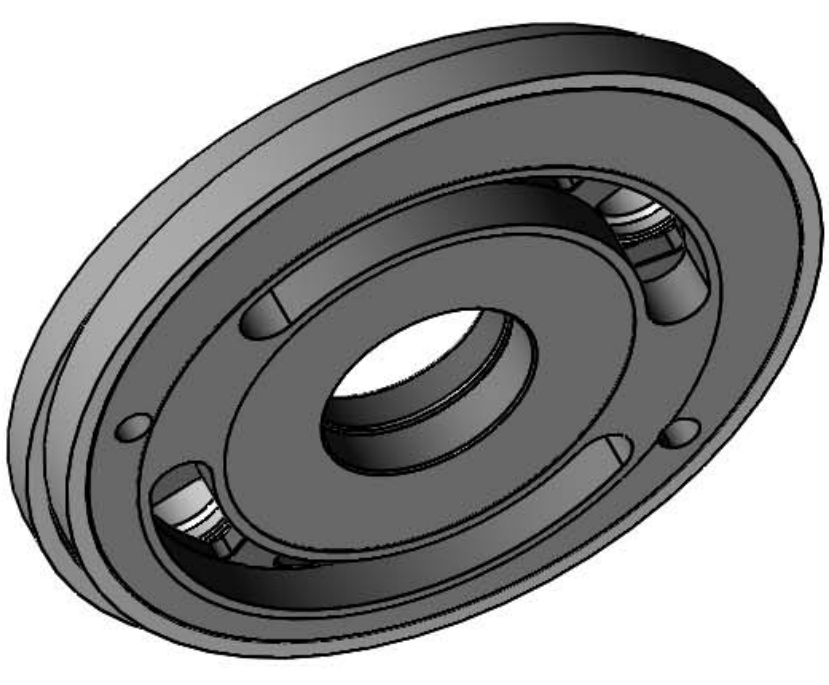
The end result is that ceramic parts maintain their micron tolerances over time, **lasting many times longer than other bearing materials** and are even **resistant to particulates and upsets in the pre-filtration system.**

### 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 significantly extends service life.
- **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](mailto: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 ARE IN INCHES   | ITM      | 02/20/14 | TITLE:                          |  |
| DECIMALS TO 3 PLACES   | FRACTIONAL TO 1/16   | DRWNS    |          | PORT & VALVE                    |  |
| TWO PLACE DECIMAL  | TWO PLACE DECIMAL  | CHECKED  |          | PLATE KIT                       |  |
| THREE PLACE DECIMAL  | THREE PLACE DECIMAL  | ENG APPR |          | PART NO. 70-8567                |  |
| FOUR PLACE DECIMAL   | FOUR PLACE DECIMAL   | MFG APPR |          | SIZE DWG. NO.                   |  |
| FIVE PLACE DECIMAL   | FIVE PLACE DECIMAL   | C.A.     |          | D                               |  |
| INTERPRET DIMENSIONS TO NEAREST TENTH UNLESS OTHERWISE SPECIFIED | INTERPRET DIMENSIONS TO NEAREST TENTH UNLESS OTHERWISE SPECIFIED | COMMENTS |          | REV                             |  |
| MATERIAL   | MATERIAL   |          |          | 1                               |  |
| FINISH   | FINISH   |          |          | SCALE: 1:1 WEIGHT: SHEET 1 OF 1 |  |
| NEW ASSY   | USED ON  |          |          |                                 |  |
| APPLICATION  | APPLICATION  |          |          |                                 |  |