ENGINEERED COMPOSITES FOR YOUR WORLD

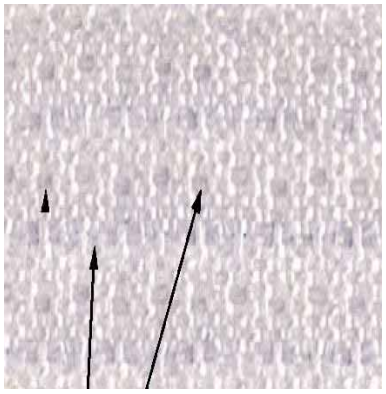
POLYGON® COMPANY

Q: "When Do Flanged Bearings Make Sense?"

A:

There are only a few instances when PolyLube flange bearings benefit from having a secondary flange. The first is when a space between oscillating parts is required. The flange can act as a spacer in this instance, but should only be used when the thrust loads are small and intermittent. It should be noted that the flange will have a tendency to wear into the opposing part over a long period of time. The amount of this wear will be only a couple thousandths depending on the thrust load, speed, and life of the machine. Although this will not significantly damage the opposing part, it will wear any surface coating away, such as paint. This will allow the environment to act on the bare metal surface and begin the process of oxidation. This rusting could lead to bearing contamination and premature failure.

The second instant where a flange can make sense is when a need exists to help prevent contamination via oxidation. If this flange is not used as a spacer, and will experience no thrust loading, it can help prevent contamination from the housing in which it is pressed. If the housing is untreated or unpainted, the flange can act as a lip to keep the surface rust or the rust from the surface of the housing bore out of the bearing. It should be understood that the contamination cannot be prevented completely. Exposure to the elements such as rain or melting snow and ice, can help the particles migrate to the shaft and ultimately the bearing surface.



Polygon does have the ability to adhere PolyLube thrust washers onto the flange. This allows the flange to absorb a thrust load. Most applications using this thrust washer / bearing combination should not exceed 3,000 psi of thrust loading.

Most applications in the field today are specifying a flanged bearing unnecessarily. This type of bearing is more costly due to the amount of machining necessary to produce the part. Most customers could recognize a significant cost savings if they evaluate the placement and benefit of using a flanged type bearing versus other design options.

Are Your Bearings Designed to Handle Contamination? PolyLube journal bearing liners employ a proprietary liner architecture that have engineered "pockets" that allow for the ingestion of contamination—regardless of the type of contamination in question. This is a unique feature to the PolyLube Fiber and MRP bearing families.

P.O. BOX 176 103 INDUSTRIAL PARK DR. WAL

P 800.918.9261 P 574.586.3145 F 574.586.7336 WWW.POLYGONCOMPANY.COM