



c. Sets of properly preloaded, back-to-back mounted 15° or 29° angular contact bearings are acceptable for pumps with double-flow impellers located between two bearing housings.

d. In each case, the need for and extent of preload shall be determined by the vendor to suit the application and meet the bearing life requirements of 2.9.1.1.

---

*The author is a consulting engineer in Montgomery, Texas. He advises HPI and other process plants on reliability improvement and maintenance cost reduction issues.*

---