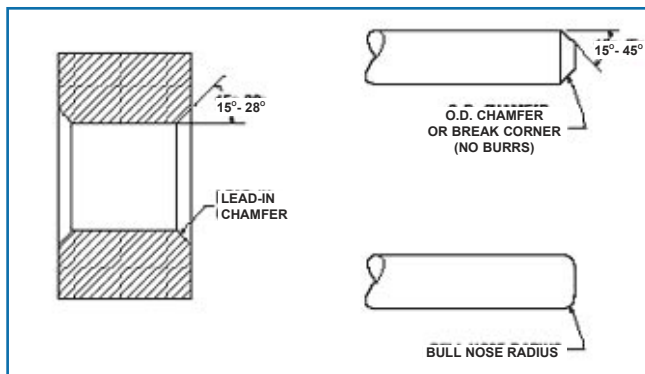


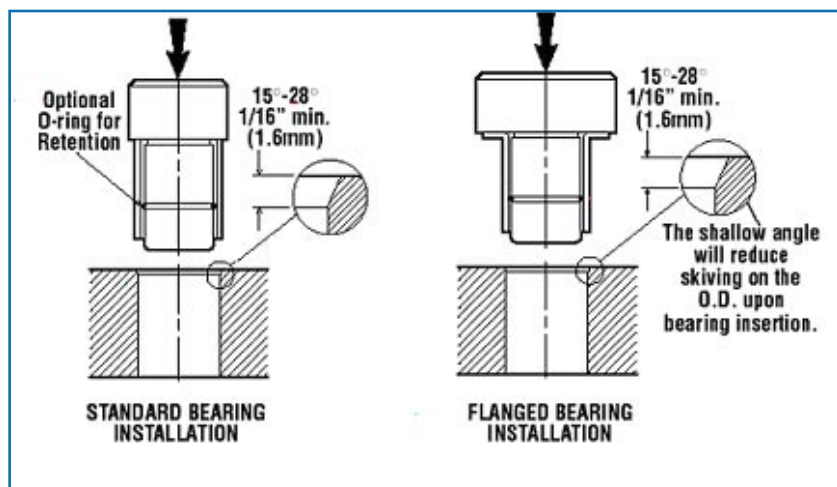
## Assembly

When a Fiber-Lube™ bearing is press fit into a housing, it expands into the housing and creates a highly loaded press fit condition. This is possible because of the elastic properties of the bearing's backing material. Press fits on wall thicknesses up to 1/8" have demonstrated that the close-in ratio is one-to-one (0.001 press yields a 0.001 close in). However, press fits should be minimized, even though the tube will readily take presses of 0.004" to 0.005". The use of a standard H7 housing bore is also recommended.



Due to thermal lag, the bearing wear surface may be hotter than the adjacent housing, when heat is generated from running friction. As a result, the installed bearing may expand inward, reducing the shaft clearance. For optimum performance, Daemar recommends a smooth, hardened steel shaft with a 16 micro finish. However, Fiber-Lube's rugged bearing surface will permit use of a rougher finished shaft, such as a standard drill rod, if the bearing to shaft clearance is increased. (See Part # listings for recommended shaft clearances).

Shaft clearances should be increased for dry running applications with high rubbing velocities. Fluid cooling and lubricants will reduce the operating temperatures, permitting tighter shaft clearances. Heat transfer through the bearing wall is inversely proportional to the wall thickness. The thinner the wall, the greater the transfer of heat. Thermal conductivity, for example, is 1.8 to 2.3 Btu • in/(hr • ft<sup>2</sup> • °F).



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