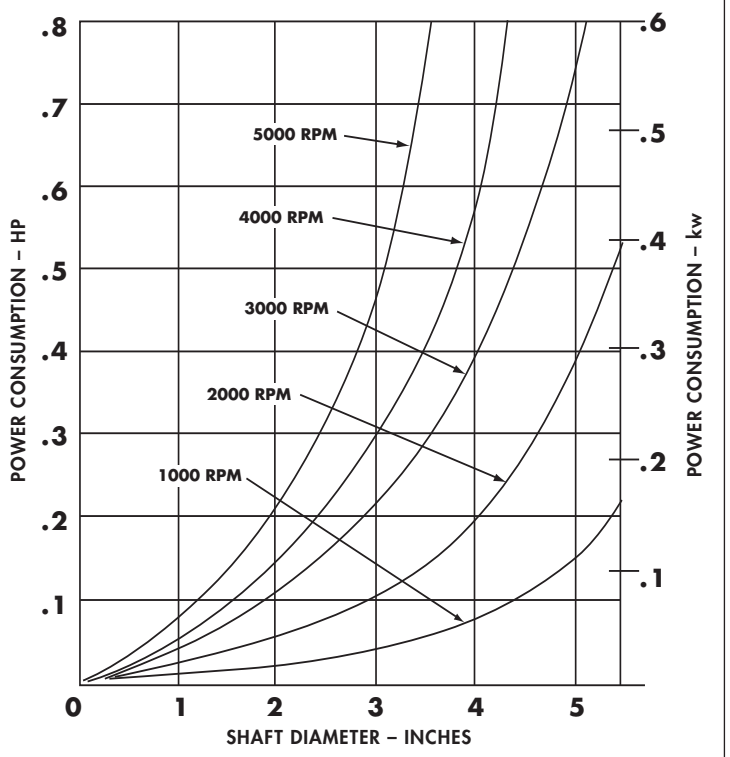
SEAL DRAG vs. SEAL EFFECIENCY

Oil seals are designed for positive sealing while creating minimal drag on the rotating shaft. The figure at right shows typical effects of seal drag at various shaft diameters and RPM. In applications where seal drag is a prime concern to the designer, a balance must be struck between seal efficiency and the friction resulting from radial lip load. deVries International's oil seals can be custom designed to meet seal efficiency and drag requirements by adjusting spring force, lip length, lip interference and flex thickness.

POWER CONSUMPTION vs. SHAFT DIA. AT VARIOUS SHAFT SPEEDS



APPLICATIONS REQUIRING GARTER SPRINGS

Garter springs are required for applications handling either low-viscosity fluids, shafts rotating at high RPM or high shaft eccentricity. As the figure below illustrates, the garter spring is made of a wire coiled helically, then joined at the ends. The figure below right shows how the two ends are joined; one end wound into a nib, then screwed into the opposite end.

Because the garter spring produces maximum force with minimum deflection, it is very effective providing a constant radial tension between the primary lip and the shaft. This tension, combined with that of the lip's elastomeric force, enables the seal to con-

GARTER SPRING