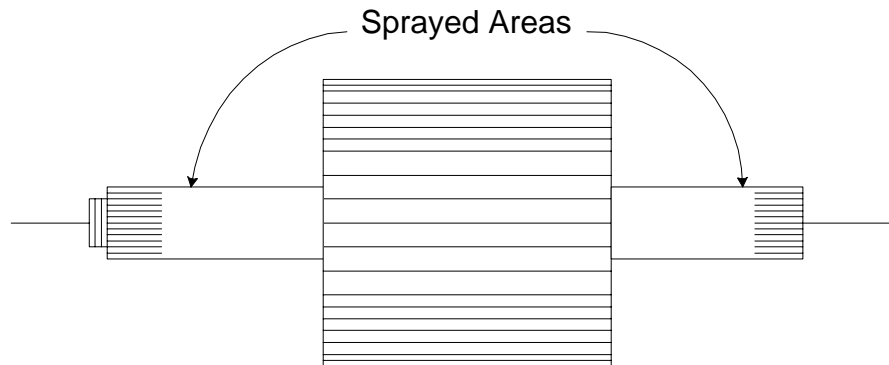


## ENGINEERING DATA SHEET

<i>Hardened Journals</i>		
Date	Supersedes	No.
03/26/99	01/19/71	26E



Hardened journals are manufactured by undercutting the journal area of the shaft or shaft sleeve, plasma spraying or metallizing this area with an extremely hard material then grinding the surface of the hardened material to the finished diameter of the shaft or shaft sleeve. This produces a hard, corrosion resistant surface that increases the life of the journal. Hardened journals must be used when hardened bearings are installed in the pump. Other applications where hardened journals are used are when pumping abrasive liquids or other operating conditions which will affect the life of the bearings and journals.

The type of hardened journal to be used depends on the specific application. All have similar wear-resistance characteristics, but different corrosion-resistance characteristics. The type of hardened bearings offered are:

- M-2 Tungsten Carbide
- M-3 Chrome Oxide
- NCB Nickel-Chrome-Boron
- SIC-A Silicon Carbide (NC Series only)

M-2 and M-3 journals are applied using a plasma spray procedure, NCB is applied by metallizing the journal area.

Hardened journals are available on all Chempump models. Refer to the data book modification sheets for pricing.