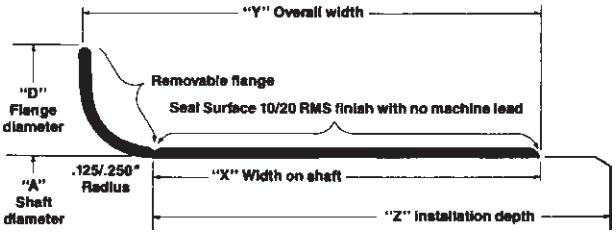
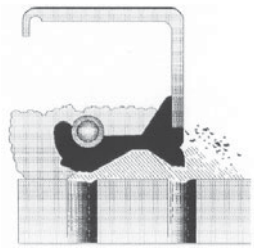


CR Speedi-Sleeves

When a new seal cannot compensate for excessive damage in small diameter shafts, select a CR Speedi-Sleeve. This ultra-thin wear sleeve provides a snug, leak-proof fit on shafts up to 8" (203 mm) in diameter.

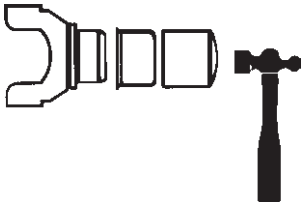


Excessive water, dirt, heat, lack of lubrication or high shaft speed can all cause a sealing lip to groove the shaft and ultimately create a leak. Speedi-Sleeve is the cost-effective alternative to resizing, metalizing or replacing the severely damaged surface. It installs easily, without excessive machine downtime.

Unlike conventional wear sleeves which add bulk to the shaft and require a change in seal size, Speedi-Sleeves fit snugly with only .022" (.6 mm) added to shaft diameter. The result is a leak-proof, corrosion-free sealing surface that will not require a change in seal size.

Speedi-Sleeve® Gold

Speedi-Sleeve Gold is an enhanced version of the popular Speedi-Sleeve, which offers improved resistance to abrasive wear. Designed to be used in applications where extended seal system life is needed, Speedi-Sleeve Gold bridges the performance gap between the regular Speedi-Sleeve and expensive custom shaft treatments. A thin metallic film applied to the base stainless steel imparts a gold color and significantly increases durability and surface hardness (to 2300 Vickers or approximately 80-85 HRc). The Gold version is particularly effective in high dust and grit environments. Yet installation is as easy as the original Speedi-Sleeve and the same seal size can still be used. Speedi-Gold is available from stock for dozens of shaft sizes or run from production in small quantities. The Gold sleeves are noted by a ★ in the size listing sections of this catalog. Also see publication #457027 for additional information.



Construction

Speedi-Sleeve is a highly engineered, precision part of SAE 304 stainless steel. Its surface is factory finished to 10-20 micro-inches (.25 - .50 Micrometers) Ra (Arithmetic Average) with a machine lead angle of zero ±0.05°. Speedi-Sleeve requires no expensive shaft preparation or machining before installation. Once in place, it provides a sealing surface (Approximately Rockwell B95) that is superior to most original shaft finishes and materials.

Selection

Correct size selection requires that three measurements be taken and averaged. Measure the shaft diameter just ahead of the wear path (not in the track worn by the seal) at three positions: 12-6 o'clock, 2-8 o'clock and 4-10 o'clock. The average of these readings will compensate for an out-of-round shaft.

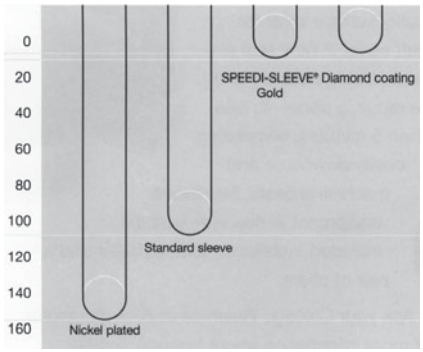
Compare your average diameter with the size ranges in the Speedi-Sleeve Selection Charts. When this diameter falls within a range, there is sufficient press-fit built into the sleeve to keep it properly positioned. Cement, such as a powered metal epoxy filler is necessary only to fill deep grooves or scratches.

If shaft grooves do not require filling, apply a light layer of non-hardening sealant to the inner surface of the sleeve.

Shaft diameters a few thousandths under the minimum may be sleeved if the Speedi-Sleeve is cemented into place. Diameters larger than the maximum can be sleeved if the shaft is first machined to a size within the cataloged range, with a finish of 125 micro-inches Ra, or smoother.

ABRASION RESISTANCE

Comparison of various SPEEDI-SLEEVE® coatings



Testing in highly abrasive conditions demonstrates how the hardened surface of Speedi-Sleeve® Gold resists wear.

Size list starts page 217. See CR 457027 Brochure for additional information.