Installation Instructions

New shrink discs are supplied ready for installation. Prior to tightening the locking screws, remove the spacers (used to protect the inner ring during shipment) from between the outer collars. Figure 1 shows a cutaway drawing of a typical shrink disc.

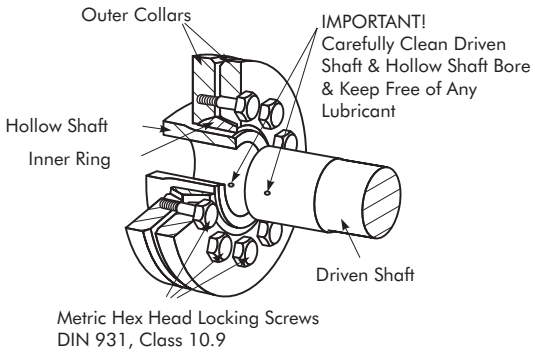

Figure 1– TYPICAL SHRINK DISC

IMPORTANT: Never tighten the shrink disc locking screws unless the driven shaft is inserted into the gear drive hollow shaft with full engagement under the shrink disc. Without the driven shaft in place, plastic deformation of the hollow shaft and shrink disc inner ring can occur. Install using the following procedure:

1. Clean hollow shaft OD and shrink disc inner ring bore. Lightly lubricate hollow shaft OD with light mineral oil. Slide shrink disc onto shaft to its proper position (Figure 2, Page 2). Be certain that inner edge of shrink disc inner ring is not hung up on a shaft radius. Hand tighten three or four locking screws equally spaced around flange while maintaining outer collars parallel. Hand tighten remaining fasteners.
2. Carefully clean hollow shaft bore under shrink disc and driven shaft OD of all lubricants with solvent before assembly of gear drive to driven shaft (Figure 1). Any traces of lubricant left on the driven shaft or hollow shaft bore under the shrink disc will significantly reduce the torque transmission capacity of the shrink disc.
3. Suspend and slide the gear drive into its proper position on the driven shaft (Figure 3, Page 2).
4. With shrink disc in its proper position on the gear drive hollow shaft, use a torque wrench and tighten all locking screws ¼ turn at a time, progressing around the flange in either direction until the specified torque is achieved on all locking screws. Maximum outer collar gap variation is listed in Table 1. Locking screw tightening torques are listed in Table 2.

Removal

Remove the drive from the shaft using the following procedure:

1. Loosen locking screws ½ turn at a time progressing around the flange in either direction until the shrink disc is loose on the hollow shaft. Do not completely remove the locking screws.
2. Suspend gear drive assembly. Disconnect tie rod and slide gear drive off of driven shaft. Clean hollow shaft OD outside of shrink disc and slide shrink disc off of hollow shaft.

Reinstallation

In clean operating conditions, shrink discs can be reused without cleaning and relubricating the inner ring, outer ring tapers and locking screws.

Shrink discs that require cleaning should be thoroughly cleaned. The tapers of the inner ring, tapers of the outer collars and the locking screw threads and head washer faces should be lubricated with molybdenum disulfide grease before reinstallation.

Damaged O-rings should be replaced.

TABLE 1 — Permissible Outer Collar Gap Variation

SHRINK DISC SIZE	Maximum Collar Gap Variation	
	Inch	mm
24-100	.015	.38
100-260	.032	.81
280-500	.062	1.57

TABLE 2 — Shrink Disc Locking Screw Tightening Torques, –0%+5%

Screw Size	M5	M6	M8	M10	M12	M16	M20	M24	M27
Head Size (mm)	8	10	13	17	19	24	30	36	41
Torque Lb-Ft	3.6	8.7	22	44	74	185	360	620	920
Nm	5	12	30	59	100	250	490	840	1250

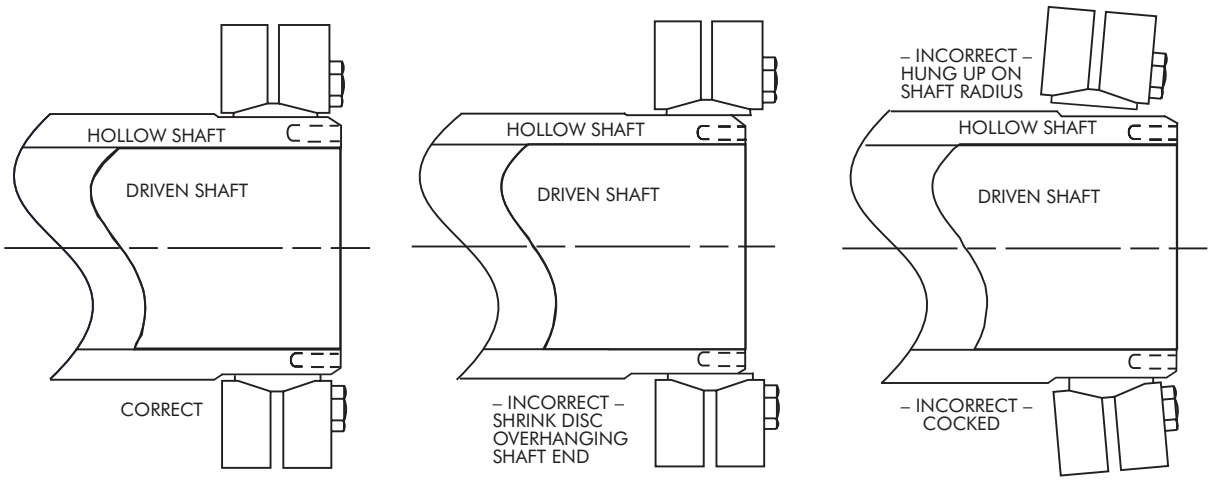

Figure 2 – SHRINK DISC LOCATION

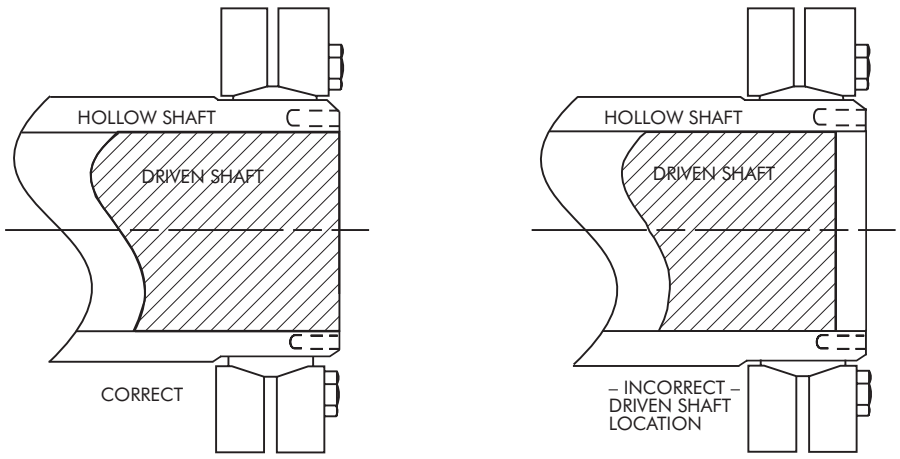

Figure 3 – DRIVEN SHAFT LOCATION

Rexnord Industries, LLC, Gear Group
3001 W. Canal St., Milwaukee, WI 53208-4200 USA Telephone: 414-342-3131
Fax: 414-937-4359 e-mail: info@rexnord.com web: www.rexnord.com