Quantis Q-loc Installation Instructions

These instructions must be read thoroughly before installing or operating this product. This instruction manual was accurate at the time of printing. Please see www.baldor.com for updated instruction manuals.

WARNING: All products over 25 kg (55 lbs) are noted on the shipping package. Proper lifing procedures are required for those products.

WARNING: Follow appropriate lock-out / tag-out procedures to immobilize the drive motor and driven equipment

WARNING: Only qualified, trained, maintenance personnel should install the shrink disk and reducer onto the driven equipment

WARNING: Provide a proper support for the reducer while mounting it on the driven shaft

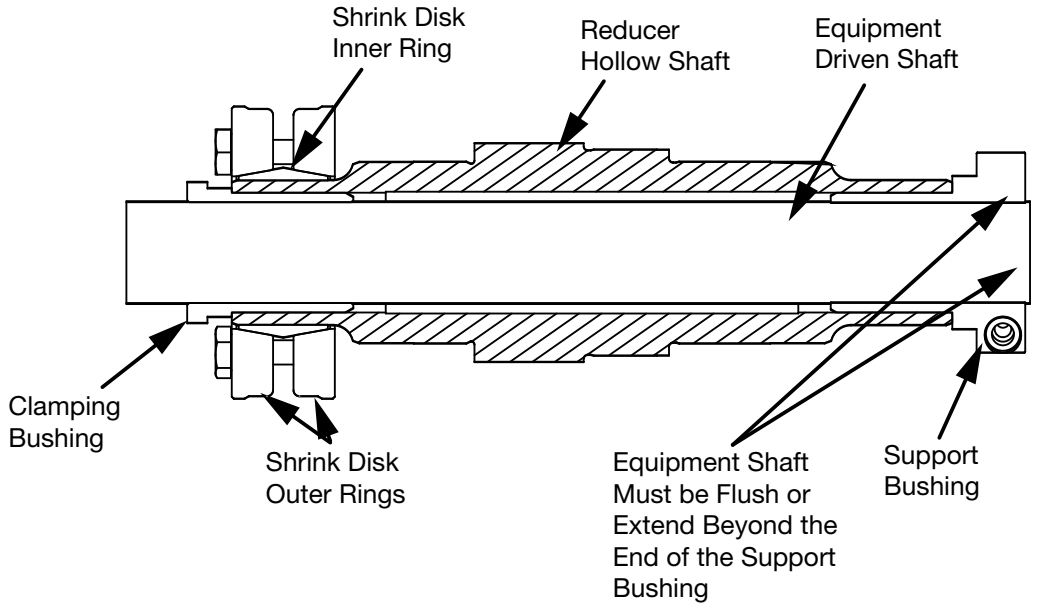

Figure 1 - Quantis Q-Loc

WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed: Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by Baldor Electric Company nor are the responsibility of Baldor Electric Company. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

INSTALLATION:

1. Review and verify the requirements for minimum shaft diameter and surface finish listed on page 3 are met.
2. Determine which side of the reducer the shrink disk will be located. The recommended location is to locate the shrink disk on the side of the reducer where the driven shaft extends to the equipment.
3. Clean the driven shaft with a oil-free solvent to completely remove all traces of dirt, grease, oil and other contaminants. Only the length where the shrink disk and clamping bushing will be located need to be cleaned.
4. Clean the portion of the inside diameter of the shrink disk that mates with the reducer hollow shaft with an oil-free solvent to completely remove all traces of dirt, grease, oil and other contaminants. Do NOT remove any lubricants between the inner and outer rings of the shrink disk.
5. Clean the inside and outside diameters of the clamping bushing where it will contact the customer shaft and reducer hollow shaft with an oil-free solvent to completely remove all traces of dirt, grease, oil and other contaminants.

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6. Clean the inside diameter of the reducer hollow shaft in the area where the clamping bushing will be located with an oil-free solvent to completely remove all traces of dirt, grease, oil and other contaminants.
7. Slide the support bushing onto the equipment driven shaft to ensure the support bushing screw has not been tightened and the bushing easily slides onto the shaft.
8. Remove the support bushing from the driven shaft and apply a light oil to the inside diameter of the support bushing where it will contact the customer shaft. Apply anti-seize compound to the outside diameter of the support bushing where it will contact the reducer hollow shaft.
9. Insert the support bushing on the side of the reducer opposite of where the shrink disk will be located. Do not tighten the support bushing at this time.
10. Loosen all of the screws on the shrink disk and slide the shrink disk onto the reducer hollow shaft.
11. Slide the clamping bushing into the reducer hollow shaft on the side where the shrink disk is located.
12. Slide the reducer onto the equipment driven shaft. If the shaft does not have a locating shoulder, a clamping ring (not provided) may be added to make it easier to locate the reducer on the driven shaft.
13. Once the reducer is located in the desired location, make sure the support bushing is up against the end of the reducer hollow shaft.
14. Tighten the support bushing screw.
15. Make sure the clamping bushing is up against the end of the hollow shaft. Position the shrink disk so that the outboard outer ring is flush with the end of the reducer hollow shaft.
16. Tighten the screws on the shrink disk in the order shown below. The shrink disk screws are metric so metric sockets will need to be used. Do NOT use a cross pattern to tighten the screws. Tighten the screws in 3 steps to the values shown in Table 1. The use of a torque wrench is mandatory to tighten the shrink disk screws. Failure to use a torque wrench could result in shaft slippage.

    NOTE: The number of screws in the shrink disks vary and may not match the diagram below.

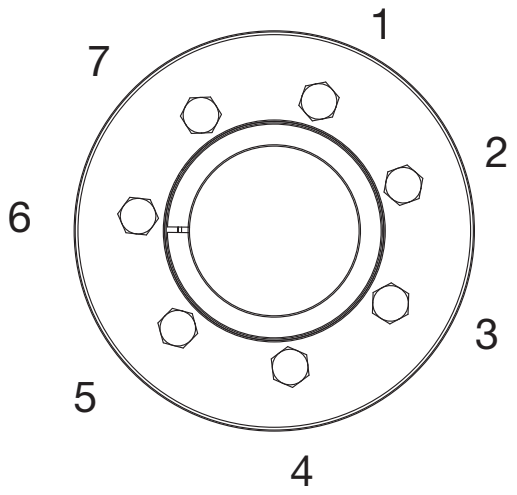
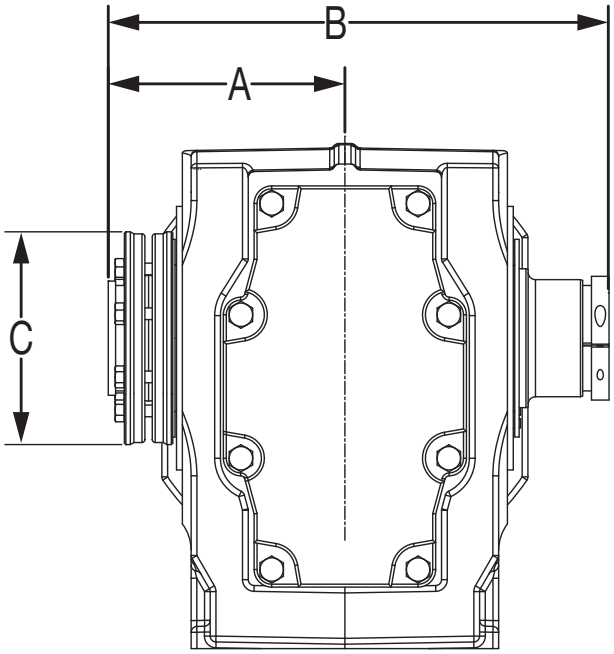


Figure 2 - Tightening Torque Pattern

Table 1 - Tightening Torque

Reducer Size	Tightening Torque (in-lbs)	Tightening Torque (N•M)
38	106	12
48	106	12
68	106	12
88	106	12
108	265	30

Keyless Bushing Parts



Reducer Size	Bore	Busing Kit Part Number	A	B	C	Minimum Customer Shaft Diameter Allowed
38	1.000	095383	4.0	8.2	2.9	0.995
48	1.000	095398	4.7	9.6	3.6	0.995
	1.125	095399				1.120
	1.250	095400				1.244
	1.375	095401				1.369
	1.4375	095402				1.431
68	1.250	095428	5.3	11.0	4.4	1.244
	1.375	095429				1.369
	1.4375	095430				1.431
	1.625	095431				1.619
	1.6875	095432				1.681
88	1.4375	095473	6.0	12.2	4.6	1.432
	1.625	095474				1.619
	1.6875	095475				1.681
	1.9375	095476				1.931
	2.000	095477				1.993
108	1.9375	095503	6.6	13.4	5.8	1.932
	2.000	095504				1.993
	2.1875	095505				2.180
	2.4375	095506				2.430

NOTES:

- The recommended location of the shrink disk is on the same side of the reducer as the driven shaft
- The shrink disk may be located on either side of the reducer. The hollow shaft is symmetrical about the centerline of the reducer but the bushings are different length. If the shrink disk is moved to the opposite side, the “A” dimension moves with the shrink disk.
- The customer shaft must extend the entire length identified as “B” in the diagram above
- Contact Engineering regarding the use of a B5 output flange
- Cold drawn steel customer shafts are recommended – surface finish should not exceed 125 Ra / 400 Rz if the shaft is machined. Lower Ra and Rz values will result in improved performance.

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