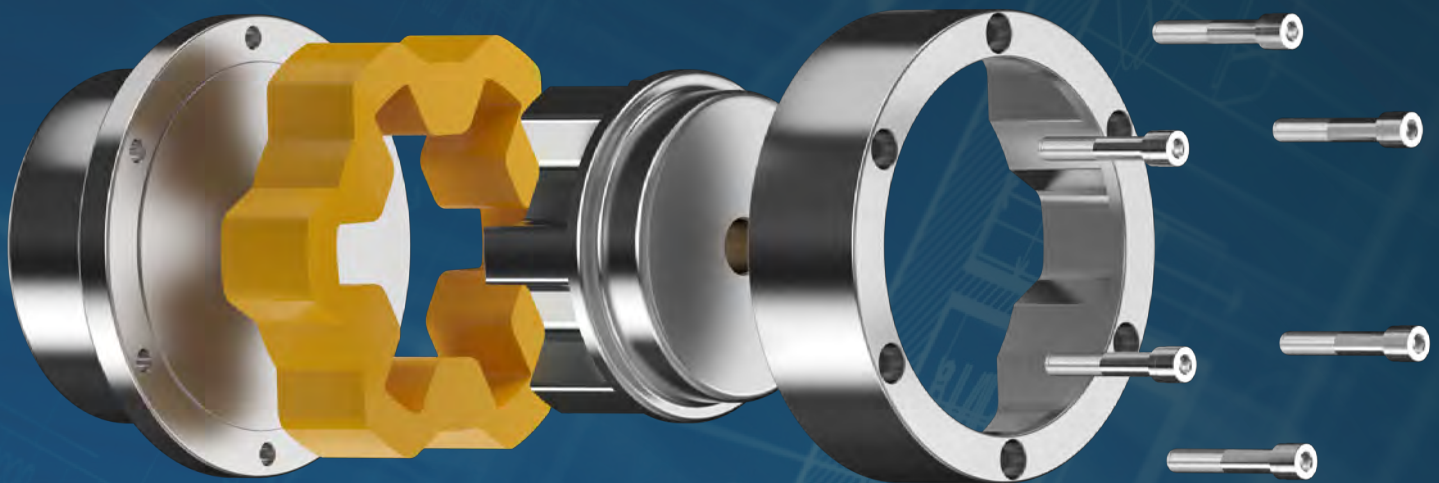


# Installation & Maintenance Instructions

## ATRA-FLEX® T-FLEX® (T-Series)



Tools Required: Standard mechanics tools, straight edge and feeler gauge, dial indicator or laser alignment tool (whichever is preferred).

For technical support, please contact ATR Sales at  
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# ATRA-FLEX FLEXIBLE COUPLINGS

## T-Flex→ Installation

### 1. Preparation for Mounting Hubs:

- Shaft and bore surfaces must be clean of burrs, nicks and dirt.
- Shaft and bore dimensions should be checked for required fit.

### 2. Mounting the Ring Hub and Flex Hub:

- Mount the Ring Hub and Flex Hub as illustrated, flush to the shaft ends if possible. If overhang is required, maintain a minimum of 1:1 shaft contact for slip fits, or .6:1 for interference fits of .0005 per inch or greater. Tighten setscrews.

### 3. Coupling Alignment:

- Before moving the equipment in place for alignment, the Drive Ring must be placed behind the winged section of the Flex Hub (lobe side of Drive Ring facing Ring Hub) to rest on small diameter of Flex Hub or shaft. If laser alignment is not an option, use a dial indicator to check the parallel and angular offsets. Attach the dial indicator to the ring hub with the probe contacting the outside diameter of the Flex Hub. The probe should be perpendicular to shaft centerline for the parallel offset alignment check. Rotate the Ring Hub 360° while checking the measurements of the probe at each of the 6 wings. The total indicated run out should not exceed (TIR). To check the angular offset, adjust the indicator probe to contact the face of the Flex Hub as near to the outside diameter as possible, and rotate the Ring Hub 360°, checking the readings at a minimum of three wings 120° apart. The difference from min gap and max gap measured @ 12:00, 4:00 and 8:00 should not exceed (A"). The (E) gap can then be set with the indicator or by using a feeler gauge between the narrowest points, ensuring (E) minimum. Note: the (E-) axial tolerance should be reserved for thermal growth under operation.
- Note: Increase (E) to a max of (E+) as needed if anticipated thermal growth exceeds axial tolerance (E-).

- **Spacer Type Coupling-** (E) will be measured from the face of the spacer body. The Actual Spacer Body length is shortened from DBSE given to allow gap (E) by factory.

- **Floating Shaft Coupling-** (TIR) = DBSE x (A) Note:  $1^\circ \text{ @ } 1.00" = .0175$

### 4. Installing the Insert:

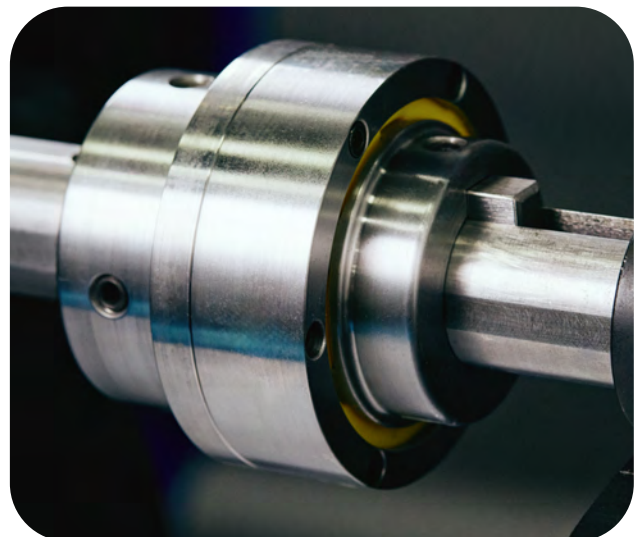
Note: The insert may be 1, 2, Or 3 piece depending on size and type. Once the alignment is complete, the insert can either be wrapped into, or placed inside the pockets of the Flex Hub.

### 5. Installing the Drive Ring:

- Slide the Drive Ring over the Flex Hub, placing the ring lobes over the insert lobes until you make contact with the Ring Hub. Insert 1 or 2 cap screws with lock washers through the Drive Ring and line up the cap screws with the threaded holes of the Ring Hub. Make sure the Drive Ring is fitted completely over the locator of the Ring Hub. Hand-tighten a few to get it started, then tighten down all 6 cap screws to the recommended torque (TT).

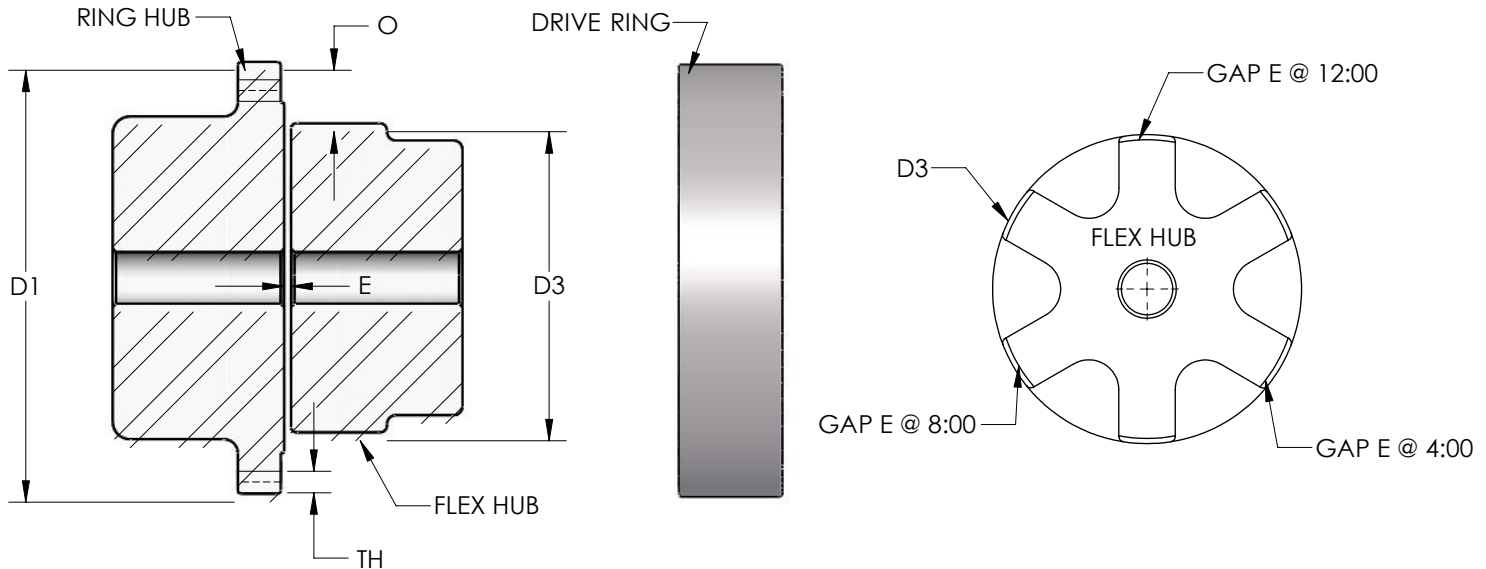
### 6. Replace Coupling Guard:

**Per OSHA, all rotation on equipment must be enclosed with a guard.**



## ALIGNMENT TOLERANCES

SIZE>	T-0	T-1	T-2	T-3	T-4	T-5	T-6	T-7	T-8	T-9	T-10	T-11	T-12
GAP E	.100	.100	.100	.100	.180	.180	.180	.200	.200	.200	.200	.250	.275
E +	.100	.125	.125	.175	.175	.225	.225	.250	.250	.250	.350	.350	.350
TIR	.040	.060	.060	.060	.080	.080	.080	.080	.080	.090	.100	.150	.150
E -	.020	.030	.030	.040	.040	.050	.050	.070	.070	.070	.070	.070	.100
PARALLEL O	.450	.570	.650	.895	1.075	1.207	1.692	1.767	2.095	2.120	2.120	2.687	3.756
O +/-	.020	.030	.030	.030	.040	.040	.040	.040	.040	.045	.050	.075	.075
ANGULAR A °	2	2	2	2	1	1	1	1	1	1	1	1	1
D1	2.950	3.960	4.800	6.290	7.800	9.765	11.900	13.600	14.625	18.020	19.950	23.250	28.500
D3	2.050	2.820	3.500	4.500	5.650	7.350	8.515	10.065	10.435	13.780	15.710	17.875	20.988
TH-UNF	6-32	10-32	1/4	5/16	1/2	1/2	5/8	5/8	3/4	7/8	1	1 1/8	1 1/2
TT IN-LBS	31	85	210	415	1900	1900	3500	3500	6200	8500	12300	18000	46500



### WARNING:

ACCIDENTS INVOLVING ROTATING EQUIPMENT MAY RESULT IN LOSS OF LIFE, SERIOUS BODILY INJURY OR PROPERTY DAMAGE. THE PURCHASER OF THIS EQUIPMENT MUST ASSURE THAT THE EQUIPMENT IS PROPERLY ASSEMBLED, INSTALLED, SHIELDED, OPERATED AND MAINTAINED. THIS EQUIPMENT MUST NOT BE OPERATED AT CONDITIONS THAT EXCEED MANUFACTURER'S SPECIFICATIONS. PURCHASER MUST FOLLOW ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS COVERING THE SAFE OPERATION AND MAINTENANCE OF THE EQUIPMENT, WITHOUT LIMITATION, THE USDOL-OSHA "LOCKOUT/TAGOUT" PROCEDURE SET FORTH IN 29 CFR 1910.147. IT IS THE PURCHASERS RESPONSIBILITY TO IMPLEMENT AND FOLLOW ITS OWN SAFETY, MAINTENANCE, AND EMPLOYEE TRAINING PROGRAM REGARDING THE SAFE AND PROPER OPERATION AND MAINTENANCE OF THE EQUIPMENT.

### T-Flex → Maintenance

ALL COUPLINGS SHOULD BE INSPECTED AT ROUTINE SHUT DOWNS OR EVERY SIX TO TWELVE MONTHS (OR 4500 TO 9000 HOURS) DEPENDING ON THE DUTY OF THE APPLICATION. REMOVE THE RING AND UNWRAP THE INSERT. INSPECT THE INSERT FOR WEAR. MINOR CRACKING OR TEARING OF THE BELT PORTION OF THE INSERT WILL NOT AFFECT THE FUNCTION OF THE COUPLING. IF THERE ARE ANY CRACKS OR TEARS IN THE LOBES OF THE INSERT IT SHOULD BE REPLACED. NORMAL WEAR WOULD BE SLIGHT INDENTS IN THE LOBES OF THE INSERTS WHERE THE WINGS OF THE HUBS MAKE CONTACT. **IF THE INDENTS EXCEED APPROXIMATELY .050 X'S THE SIZE COUPLING, THE INSERT SHOULD BE REPLACED.**

EXAMPLE:

$$T5 = 5 \times .05 = .250$$

**UP TO ¼" DEEP INDENTS WOULD BE PERMITTED BEFORE INSERT REPLACEMENT IS NEEDED ON A T-5 COUPLING**

THE ALIGNMENT AND GAP (E DIMENSION) OF THE TWO COUPLING HALVES SHOULD BE RECHECKED, AND ADJUSTED IF NEEDED. THE INSERT & RING CAN THEN BE INSTALLED.





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