

F-5 & F-6

F SERIES EXPANDABLE SHAFT COUPLINGS

F-5 & F-6 INFORMATION & INSTALLATION NOTES

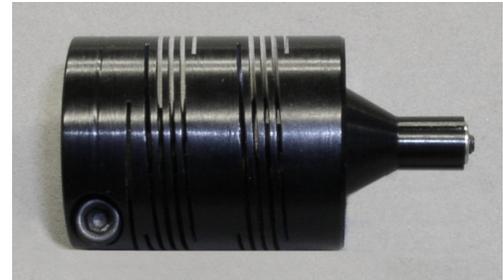
FSI's F-5 and F-6 couplings are utilized to couple an encoder to a large diameter shaft. The F Series design provides both extremely high accuracy and long life. The F-5 coupling has a 1/4" expandable hub and the F-6 coupling has a 3/8" expandable hub. Both the F-5 and F-6 have inserts to accommodate encoders with shaft diameters of 1/4", 5/16", or 3/8". A bore that is the same size as the coupling's hub and at least .50" deep is drilled into the large shaft. The hub inserts into the hole in the center of the large shaft and is tightened by the screw inside of the coupling to expand the hub. This locks the coupling to the shaft. Tightening the collar locking screw on the coupling clamps the encoder shaft.

DESCRIPTION:

The "F Series" - one piece multi-overlapping curved beam flexible coupling is the patented result of years of testing. Tests were made on combinations from one long beam up to two sets of six beams. The results showed that two sets of three beams with three point suspension delivered superior performance under all misaligned conditions at high and low speeds with minimum windup, rotary oscillation and no hysteresis.

The beams are cut with precision jeweler's saws to form six double tapered compound curved beams having sufficient column strength to resist buckling when in compression and avoid elongation while in extension. The space between the beams is calculated and cut to allow the beams to flex without restraint.

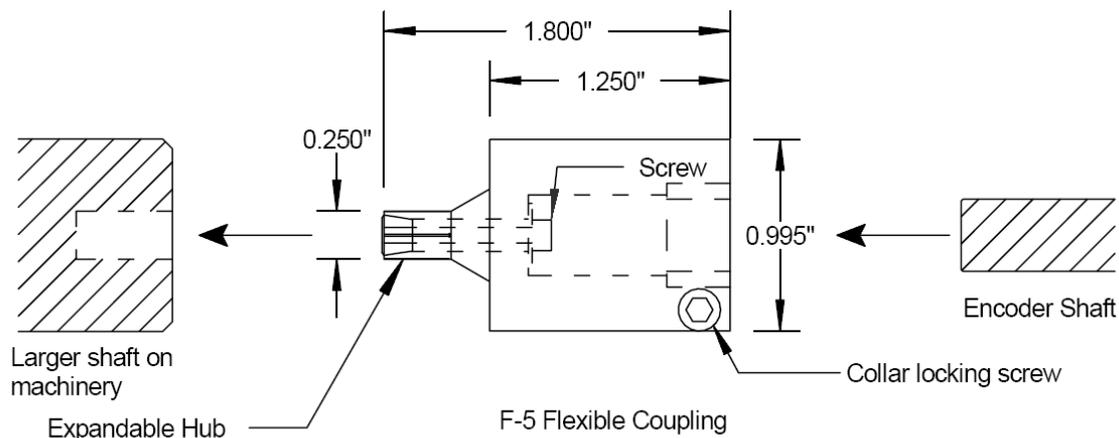
The design is continually self compensating, with the torque being continually averaged between each of the three beams, velocity remaining constant and with windup and rotary frequency held to a minimum regardless of misalignment.



F-5 Coupling



F-6 Coupling



FSI Technologies Inc.

668 Western Avenue • Lombard, IL 60148-2097

(630) 932-9380 • FAX: (630) 932-0016

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www.fsinet.com