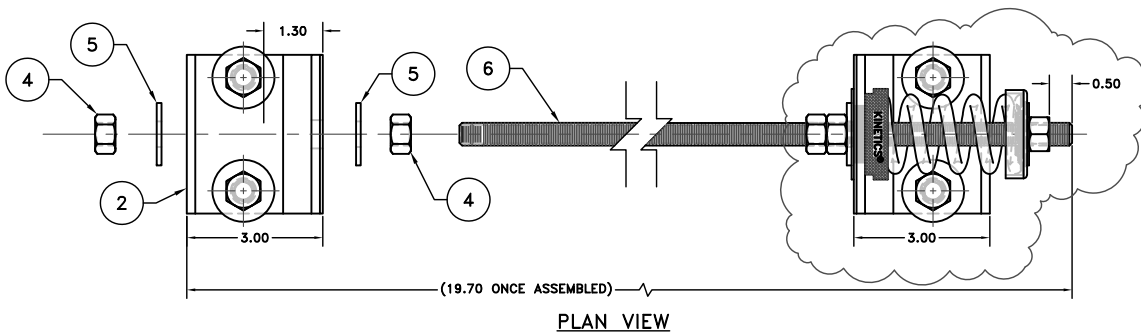
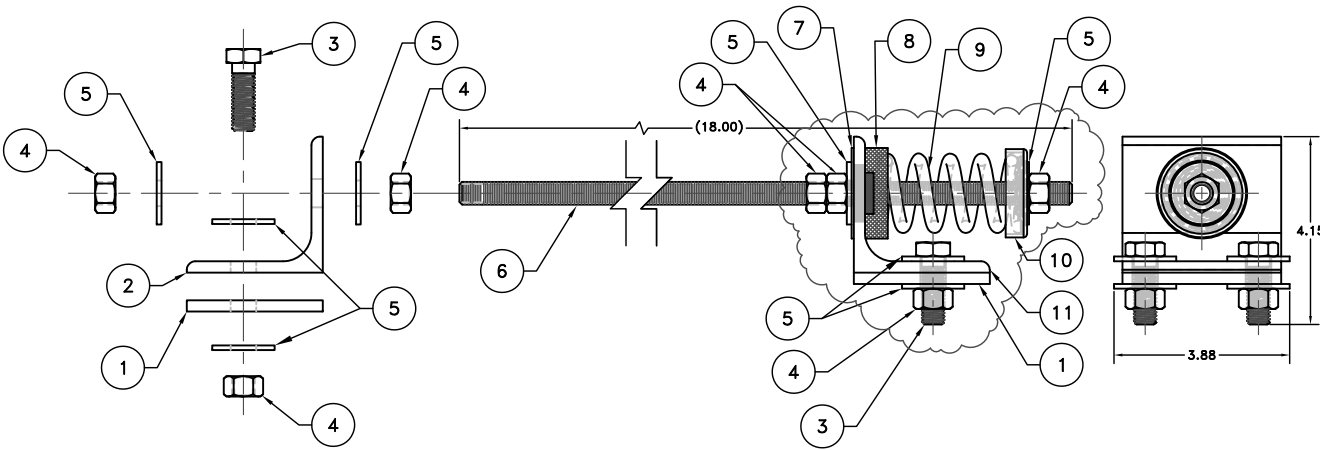


INSTALLATION INSTRUCTIONS
MODEL HSR THRUST RESTRAINTS



PLAN VIEW



TO BE ASSEMBLED BY CUSTOMER/INSTALLER

SPRING SIDE OF HSR COMES PRE-ASSEMBLED

A. Install vibration isolation system (hangers, floor mounts, or base with isolators) per manufacturer's instruction. Level equipment prior to installation of thrust restraints.

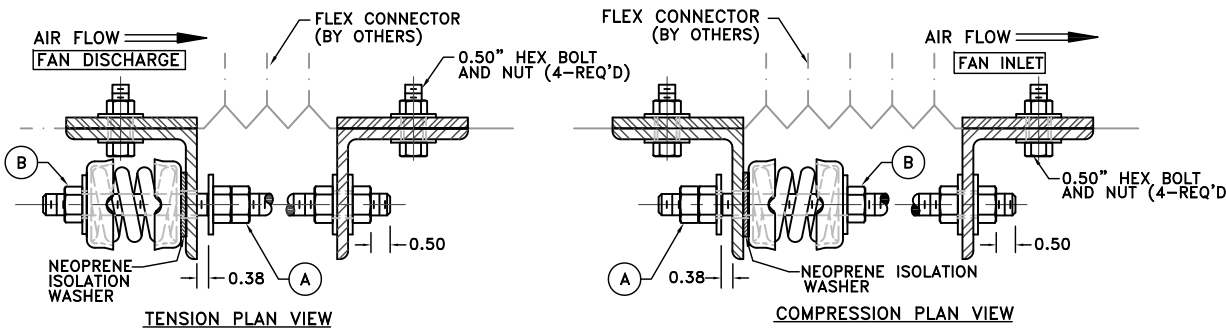
B. Install one set of thrust restraint brackets, springs and hardware on each side of the unit at the discharge outlet (for thrust in tension) or at the inlet (for thrust in compression). Note that thrust restraints must be located along centerlines of discharge or inlet. Maintain correct orientation with respect to direction of airflow.

C. The bracket opposite the fan must be attached to a structural component that will withstand the fan thrust

D. Before startup of fan, adjust nuts for 3/8" (10 mm) clearance by preloading the spring. The 3/8" (10 mm) gap between nut "A" and the bracket will prevent excessive movement of the fan during start-up.

E. The preloading of the spring is designed to provide a counteractive force opposite in direction to the fan thrust but slightly less in magnitude. After start-up the fan thrust being greater than the restraining force will cause the fan to move in the direction opposite that of the airflow.

F. After start-up and after the entire air distribution system has been balanced, a final adjustment should be made to nut "B" so that the gap from nut "A" to the bracket is 3/8" (10 mm) as shown.



TENSION PLAN VIEW

COMPRESSION PLAN VIEW

MK#	QTY.	DESCRIPTION
1	2	BACK-UP PLATE 0.25" (6) x 3.00" (76) LONG
2	2	ANGLE BRACKET W/ HOLES 3.00" (76) LONG
3	8	HEX HEAD CAP SCREW/BOLT SIZE=0.50" (13) x 1.50" (38) LONG
4	18	STANDARD HEX NUT SIZE=0.50" (13) N.C.
5	24	STEEL FLAT WASHER, STANDARD, ID=0.56" (14), OD=1.38" (38)
6	2	FULLY THREADED, STUD SIZE=0.50" (13) N.C. x 18.00" (457) LONG
7	2	STEEL FLAT WASHER, FENDER, ID=0.53", OD=2.00" (51)
8	2	NEOPRENE BOTTOM "A" SPRING CUP
9	2	SPRING COIL
10	2	"A" STEPPED SPRING CAP W/ .065" DIA. CTR. HOLE, ZINC PLATED
11	2	ANGLE BRACKET W/ HOLES 3.00" (76) LONG W/ 1.25" (32) CTR. HOLE



TITLE HSR THRUST RESTRAINT
INSTALLATION INSTRUCTIONS

LAST DATE
REVISED
9/1/22

REVISED BY
CL

DRAWING NO.
INS-01.21-1A

INS-01