

AMF/VEKTEK GmbH

LINDEN, GERMANY  
ADDITIONAL OFFICES IN  
FELLBACH, GERMANY, AND  
EMPERIA, KANSAS, U.S.A.

# INSTALLATION INSTRUCTIONS

ISM-1506  
REV. A ECN 488  
PAGE 1 OF 3  
DRAWN/DATE JACOB  
091701

ASSEMBLIES AFFECTED ALL METRIC SWING  
CLAMP MODELS EXCEPT LOW PROFILE

APP/DATE RAH 9-20-01

TITLE: CARE AND OPERATING INSTRUCTIONS FOR INSTALLATION OF RESTRICTOR.

## INSTALLATION OF RESTRICTOR INTO VEKTEK SWING CLAMP

1. READ AND UNDERSTAND THIS DOCUMENT IN IT'S ENTIRETY.  
(PAGE 1, 2, & 3)
2. LOOSEN RETAINER. (COUNTER CLOCKWISE)

**SINGLE ACTION UNIT- CAUTION ! DEVICE HAS STRONG SPRINGS WITHIN, AND CAN CAUSE INJURY IF NOT PROPERLY CONTAINED.**

3. APPLY DOWNWARD PRESSURE WITH THE PALM OF YOUR HAND. REMOVE RETAINER, GASKET, AND SET ASIDE.
4. TAP THE EXTERNAL END OF PLUNGER WITH THE PALM OF YOUR HAND, OR SMALL WOODEN Mallet TO REMOVE PLUNGER FROM BODY. CARE SHOULD BE TAKEN NOT TO LOSE SMALL PARTS SUCH AS CAM TRACK BALL, (PIVOT DISK AND BALL ON SINGLE ACTION UNITS).
5. PLACE RESTRICTOR INTO BODY WITH CHAMFERED ID TOWARD RETAINER END. REINSTALL CAM TRACK BALL INTO BODY POCKET.
6. REINSTALL PLUNGER INTO BODY, USING EXTREME CARE TO WALK PLUNGER INTO AND THRU ROD SEAL. THIS STEP IS CRITICAL AS NOT TO INVERT LIP OF SEAL, OR DAMAGE THE SEALING SURFACE OF SEAL.
7. REINSTALL ALL OTHER COMPONENTS IN REVERSE ORDER AS REMOVED. A NEW GASKET MAY BE REQUIRED AS IN SOME CASES IT MAY BE DAMAGED.
8. RETORQUE RETAINER TO SPECIFIED TORQUE AS STATED ON PARTS LIST.

NEW DRAWING RELEASE I.A.W. ECN 488

REV.: A  
DATE: 091701  
BY: JACOB

REV.:  
DATE:  
BY:

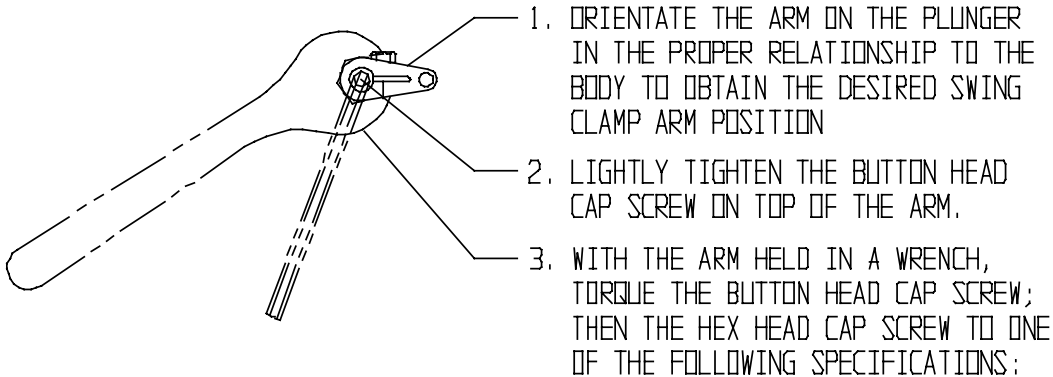
TITLE: CARE AND OPERATING INSTRUCTIONS FOR INSTALLATION OF RESTRICTOR.

APP/DATE RAH 9-20-01

READ COMPLETE INSTRUCTIONS BEFORE WORKING ON SWING CLAMP.

MOUNTING OR POSITIONING OF CLAMP ARM

NOTE: IF THE ARM IS ALREADY BOLTED ONTO THE PLUNGER; THEN HOLD THE ARM IN A WRENCH AND LOOSEN BOTH CAPSCREWS. (SEE NOTE BELOW)



NOTE: NEVER APPLY TORQUE THROUGH THE PLUNGER. THIS COULD DAMAGE THE PLUNGER ROTATING MECHANISM. ALWAYS RESTRAIN PLUNGER ROTATION WHEN TIGHTENING OR LOOSENING ARM BOLTS.

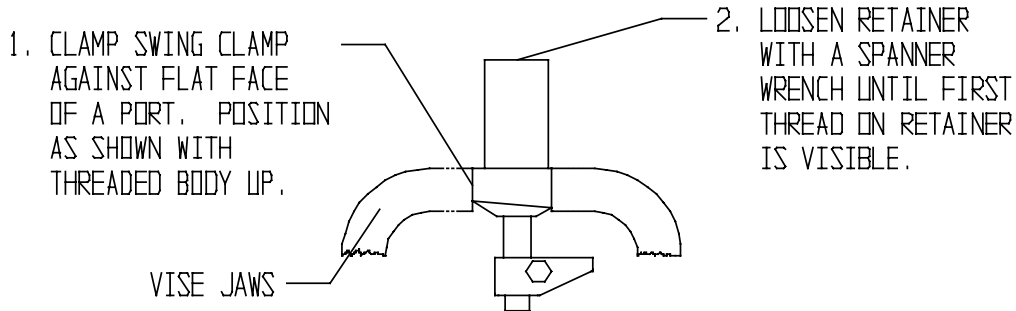
6951X-02-XX SERIES	6951X-05-XX SERIES	6951X-11-XX SERIES	6951X-22-XX SERIES
CROSS BOLT 12-15 Nm TOP SCREW 12-15 Nm	CROSS BOLT 20-26 Nm TOP SCREW 38-43 Nm	CROSS BOLT 54-68 Nm TOP SCREW 54-68 Nm	CROSS BOLT 149-163 Nm TOP SCREW 54-68 Nm

NEW DRAWING RELEASE I.A.W. ECN 488.

REV.: A  
DATE: 091701  
BY: JACOB

READ COMPLETE INSTRUCTIONS BEFORE WORKING ON SWING CLAMP.

SWING DIRECTION CHANGE-OVER PROCEDURE



(THIS PROCEDURE MAY ALSO BE DONE WITH THE SWING CLAMP IN YOUR FIXTURE IF THE RETAINER CAN BE REACHED AND LOOSENED WITH A SPANNER WRENCH.)

REV.:  
DATE:  
BY:

AMF/VEKTEK GmbH

LINDEN, GERMANY  
ADDITIONAL OFFICES IN  
FELLBACH, GERMANY, AND  
EMPORIA, KANSAS, U.S.A.

INSTALLATION INSTRUCTIONS

ISM-1506  
REV. A ECN488  
PAGE 3 OF 3

ASSEMBLIES AFFECTED ALL METRIC SWING  
CLAMP MODELS EXCEPT LOW PROFILE

DRAWN/DATE JACOB  
091701

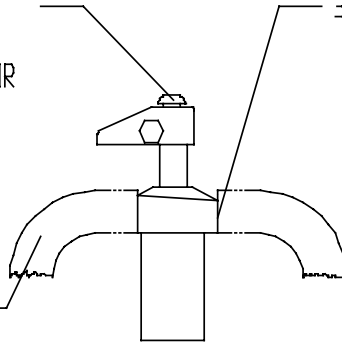
APP/DATE RAH 9-20-01

TITLE: OPERATING INSTRUCTIONS: SWING CLAMPS

CAUTION: SPRING RETURN UNITS (6951X-XX-1X) CONTAIN SPRINGS WHICH EXERT A CONSIDERABLE AMOUNT OF FORCE AGAINST THIS RETAINER. LOOSENING THE RETAINER MUCH BEYOND THE FIRST FULL THREAD MAY CAUSE THE RETAINER TO BE EJECTED UPWARD CAUSING HAZARD IF NOT CONSTRAINED.

4. PUSH DOWNWARD ON ARM AND PLUNGER WHILE APPLYING A CLOCKWISE OR COUNTERWISE MOTION, ALLOWING PLUNGER TO FOLLOW THE CAM MOTION UNTIL PLUNGER REACHES BOTTOM OF STROKE.

VICE JAWS



3. RECLAMP UNIT ACROSS FLAT OF PORT AS SHOWN WITH ARM INSTALLED FOR EASE OF MOVING THE PLUNGER.

NOTE: SPRING RETURN UNITS WILL EXERT A CONSIDERABLE AMOUNT OF FORCE NEAR BOTTOM OF STROKE. IT MAY BE HELPFUL TO USE A SMALL HAND ARBOR PRESS TO EXERT THE FORCE NEEDED. IF THIS METHOD IS USED, MAKE SURE THE PLUNGER CAN FREELY ROTATE AND A SOLID GRIP IS MAINTAINED ON THE BODY.

5. WHILE HOLDING THE PLUNGER IN ITS "BOTTOMED" POSITION, CONTINUE TO ROTATE THE ARM. IF YOU ARE CHANGING A DOUBLE-ACTION MODEL, PULL UP ON THE ARM AS YOU ARE ROTATING IT UNTIL IT "FINDS" THE OTHER CAM TRACK. SPRING-RETURN MODELS WILL EXERT THIS UPWARD FORCE NATURALLY; CONSEQUENTLY, A RESTRICTIVE DOWNWARD FORCE SHOULD BE EXERTED TO SLOW THE RAPID UPWARD TRAVEL WHEN THE REQUIRED CAM TRACK IS "FOUND". AS THE PLUNGER EXTENDS UPWARD IT WILL ROTATE WHILE FINISHING ITS EXTENSION. (IF THE ARM ROTATION IS NOT AS REQUIRED, THEN REPEAT STEPS 4 AND 5 UNTIL THE REQUIRED CAM GROOVE IS LOCATED.)

6. RECLAMP THE UNIT AS SHOWN IN STEP 1. TIGHTEN THE RETAINER AND TORQUE TO ONE OF THE FOLLOWING SPECIFICATIONS:

6951X-02-XX  
SERIES  
7 - 15 Nm

6951X-05-XX  
SERIES  
15 - 20 Nm

6951X-11-XX  
SERIES  
20 - 30 Nm

6951X-22-XX  
SERIES  
30 - 35 Nm

READ COMPLETE INSTRUCTIONS BEFORE OPERATING SWING CLAMP.

WARNING! NEVER ALLOW SWING ARM TO CONTACT WORKPIECE OR FIXTURE DURING ARM ROTATION. (AT OPR. PRES., CONTACT OF ARM DURING SWING MAY CAUSE CAM DAMAGE.) TO CHECK POSITION, RUN SWING CLAMPS AT LOW PRESSURE FOR FIRST FEW CYCLES. MINIMUM CLAMP TIME: SHORT ARM--.5 SEC. or LONG ARM--1 SEC.

FAILURE TO HEED WARNING MAY VOID WARRANTY.

NEW DRAWING RELEASE I.A.W. ECN 488

REV.: A  
DATE: 091701  
BY: JACOB

REV.:  
DATE:  
BY: