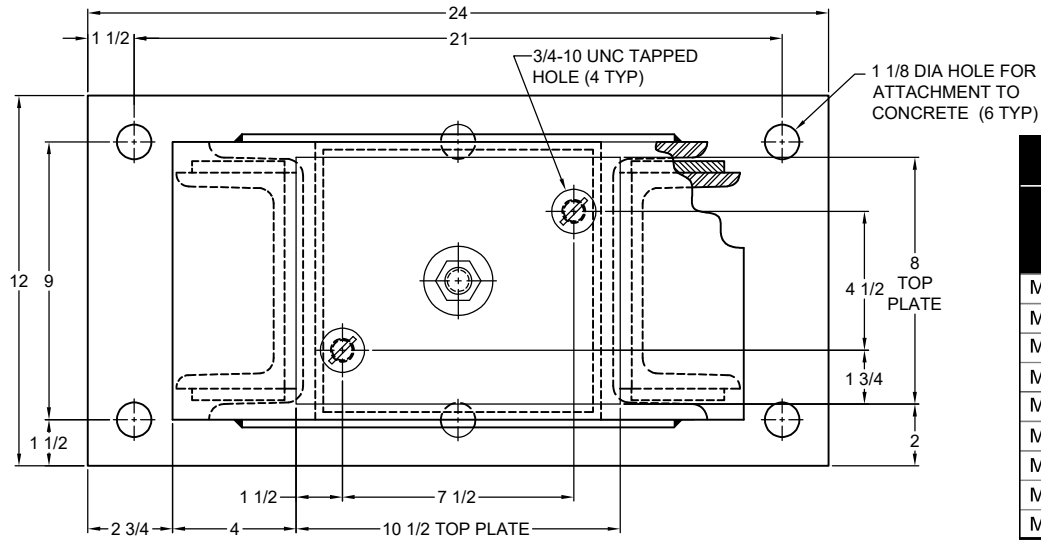
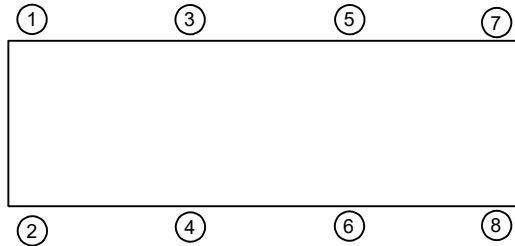
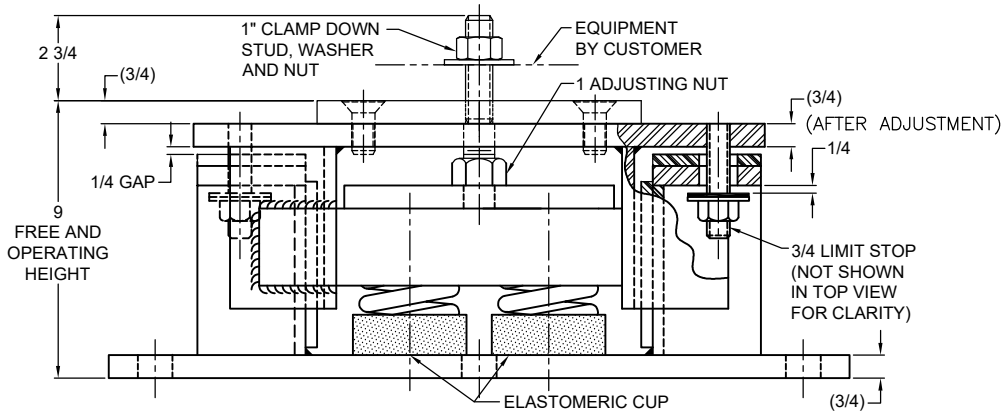


REV.	DESCRIPTION	DATE	BY



MODEL M4SSH-1E 4-SPRING SEISMIC ISOLATORS FOR NOMINAL 1" DEFLECTION				
MODEL	RATED LOAD (LBS)	RATED DEFLECTION (IN)	SPRING RATE (LB/IN)	SPRING COLOR CODE
M4SSH-1E-4000	4000	1.00	4000	TAN
M4SSH-1E-4800N ¹	4800	1.04	4616	TAN/ DK BLUE
M4SSH-1E-5600	5600	1.00	5600	PINK
M4SSH-1E-6800N ¹	6800	1.10	6180	PINK/ DK BLUE
M4SSH-1E-8000	8000	1.11	7208	WHITE
M4SSH-1E-9320N ¹	9320	1.11	8400	WHITE/ RED
M4SSH-1E-10300N ¹	10300	1.11	9280	WHITE/DK PURPLE
M4SSH-1E-11960N ¹	11960	1.11	10776	WHITE/DK GREEN
M4SSH-1E-13000N ¹	13000	1.04	12500	WHITE/GRAY

NOTES:
 1. TWO NESTED SPRINGS YIELD THIS LOAD. THE COLOR CODE IS FOR OUTER SPRING/ INNER SPRING.



- NOTES:
- STANDARD ISOLATOR FINISH: CASTING AND WELDMENTS- ONE COAT BLACK PAINT, SPRINGS- POWDER COATED, HARDWARE- ZINC ELECTROPLATE.
 - EST. UNIT WEIGHT: 190 LBS.
 - STATIC LOAD RATINGS ON SHEET 2 OF 2 ARE FOR GUIDANCE ONLY. VALUES ARE BASED ON TESTS OR CALCULATIONS WITH BASE PLATES BOLTED TO STEEL. FOR ATTACHMENT TO CONCRETE, CONSULT FACTORY.
 - RATED DEFLECTIONS ARE WITHIN 25% OF NOMINAL. HIGHER DEFLECTIONS ARE ALLOWED IF THEY MEET SPECIFICATIONS.

ISOLATOR SELECTIONS	
LOC 1:	LOC 2:
LOC 3:	LOC 4:
LOC 5:	LOC 6:
LOC 7:	LOC 8:
CUSTOMER EQPT. TAG:	

NOTE: MATERIAL SHOWN IS FOR (1) SET.

OTHER MATERIALS, COMPOUNDS, OR FINISHES WITH EQUAL OR SUPERIOR PROPERTIES MAY BE SUBSTITUTED AS THEY BECOME AVAILABLE.



CERTIFIED FOR:

JOB NAME: _____
 CUSTOMER : _____
 CUSTOMER P.O.: _____
 SALES ORDER: _____

**MODEL M4SSH-1E 4000-13000 LBS.
 VIBRATION ISOLATOR WITH SINGLE
 BOLT ATTACHMENT SEISMIC
 RESTRAINT 1 INCH DEFLECTION**



SCALE:	NONE	
SHEET:	1 OF 2	
DRAWING NO.:		REVISION

REV.	DESCRIPTION	DATE	BY

INSTALLATION AND ADJUSTMENT INSTRUCTIONS

- ISOLATORS ARE SHIPPED FULLY ASSEMBLED AND ARE TO BE SPACED AND LOCATED IN ACCORDANCE WITH INSTALLATION DRAWINGS OR AS OTHERWISE RECOMMENDED.
- LOCATE ISOLATORS ON A LEVEL FLOOR OR SUB-BASE, ENSURING THAT ALL ISOLATOR CENTERLINES MATCH THE EQUIPMENT MOUNTING HOLES. SHIM OR GROUT AS REQUIRED TO LEVEL ALL ISOLATOR BASE PLATES. A 1/4" MAXIMUM DIFFERENCE IN ELEVATION CAN BE TOLERATED.
- ANCHOR ALL ISOLATORS TO THE FLOOR OR SUB-BASE AS RECOMMENDED.
- GENTLY PLACE MACHINE OR EQUIPMENT ONTO TOP PLATE OF ISOLATOR BOLT EQUIPMENT OR SUB BASE SECURELY TO ISOLATOR USING MINIMUM ASTM A325 (SAE GR. 5) HIGH STRENGTH BOLTS. BOLTS SHOULD NOT PROTRUDE MORE THAN 1/8" BELOW THE TOP PLATE.
- THE EQUIPMENT WEIGHT WILL CAUSE THE SPRING AND THUS THE TOP PLATE TO DESCEND AND REST ON THE UPPER BUMPER PADS.
- BACK-OFF ON THE TWO (2) SIDE LIMIT STOP LOCKNUTS, SO THAT THEY DO NOT HAMPER THE ADJUSTMENT PROCESS.
- ADJUST EACH AND EVERY ISOLATOR IN SEQUENCE, ONE FULL CLOCKWISE TURN AT A TIME. REPEAT THIS PROCEDURE UNTIL THE 1/4" OPERATING CLEARANCE IS OBTAINED. NOTE: BE SURE LIMIT STOP NUTS CONTINUE TO SHOW CLEARANCE.
- CHECK EQUIPMENT LEVEL AND FINE ADJUST ISOLATORS AS NECESSARY TO OBTAIN EQUIPMENT LEVEL.
- ADJUST ALL LIMIT STOP NUTS TO OBTAIN A 1/4" MAXIMUM CLEARANCE.
- ADJUSTMENT IS COMPLETE.

RATED LOAD CURVES

- TO USE THE RATED LOAD CURVES:
 - CALCULATE VERTICAL AND HORIZONTAL FORCES ACTING ON MOUNTINGS, INCLUDING TRANSLATIONS AND OVERTURNING MOMENTS.
 - THE INTERSECTION OF THE HORIZONTAL LOAD AND VERTICAL LOAD MUST FALL WITHIN THE CURVE FOR THE SPECIFIED PART.
- THE RATED LOAD CURVES ASSUME ONE OF THE FOLLOWING METHODS OF TIE-DOWN AT EACH BOLT LOCATION:
 - FOUR (4) 3/4" DIA. HILTI "KWIK-BOLT II" WEDGE ANCHORS, WITH MINIMUM 4 3/4" EMBEDMENT INTO 3000 PSI CONCRETE. MINIMUM EDGE DISTANCE IS 9 3/4". (NOTE: OTHER BRANDS OF ANCHOR BOLTS MAY BE USED, PROVIDED THEY ARE OF EQUAL STRENGTH AND HAVE A CURRENT ICBO REPORT).
TO ACHIEVE RATED LOAD, "SPECIAL INSPECTION" IS REQUIRED ON ALL CONCRETE ANCHOR INSTALLATIONS, AS DESCRIBED BELOW:
 - 50% OR ALTERNATE BOLTS IN A GROUP SHALL BE TENSION TESTED TO 6200 LBS TENSION.
 - TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF ANCHORS.
 - IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
 - FOUR (4) 3/4" DIA. BOLTS PER ASTM A307 OR BETTER.
- THE SUPPORT STRUCTURE (BY OTHERS) IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD AND SHALL BE DESIGNED TO ADEQUATELY SUPPORT THE WEIGHTS AND FORCES SHOWN.

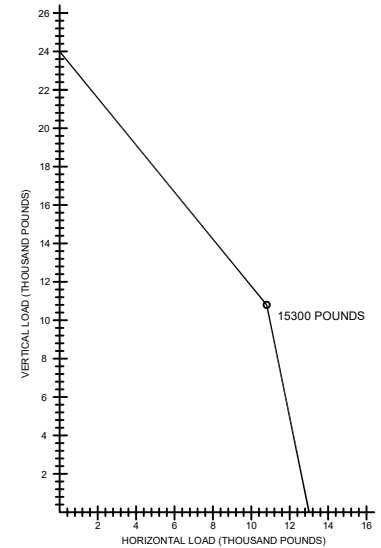


FIGURE 1
SEISMIC RATINGS
(ATTACHMENT TO CONCRETE)

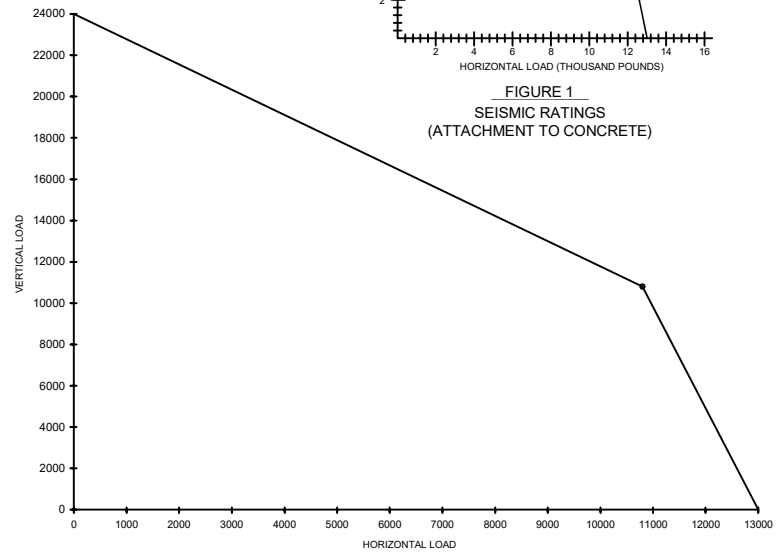


FIGURE 2
SEISMIC RATINGS
(ATTACHMENT TO STEEL)

OTHER MATERIALS, COMPOUNDS, OR FINISHES WITH EQUAL OR SUPERIOR PROPERTIES MAY BE SUBSTITUTED AS THEY BECOME AVAILABLE.



CERTIFIED FOR:

JOB NAME: _____
 CUSTOMER: _____
 CUSTOMER P.O.: _____
 SALES ORDER: _____

**MODEL M4SSH-1E 4000-13000 LBS.
 VIBRATION ISOLATOR WITH SINGLE
 BOLT ATTACHMENT SEISMIC
 RESTRAINT 1 INCH DEFLECTION**



SCALE: NONE
 SHEET: 2 OF 2
 DRAWING NO.:



REVISION