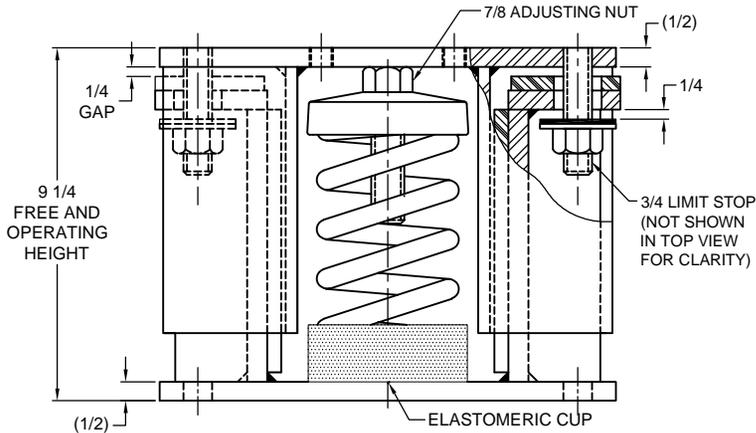
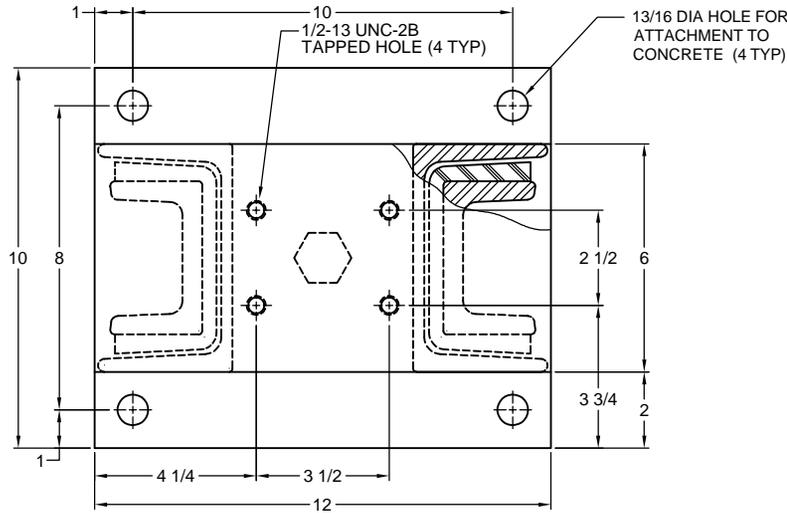


REV.	DESCRIPTION	DATE	BY

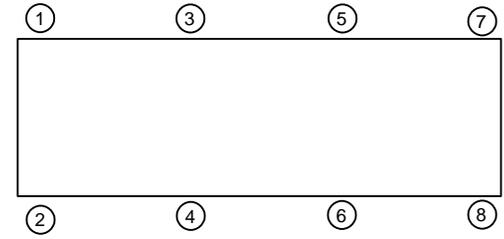


NOTES:

- STANDARD ISOLATOR FINISH: CASTING AND WELDMENTS- ONE COAT BLACK PAINT, SPRINGS- POWDER COAT, HARDWARE- ZINC ELECTROPLATE.
- EST. UNIT WEIGHT: 75 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.

MODEL MSH-2F SEISMIC ISOLATORS FOR NOMINAL 2" DEFLECTION				
MODEL	RATED LOAD (LBS)	RATED DEFLECTION (IN)	SPRING RATE (LB/IN)	SPRING COLOR CODE
MSH-2F-150	150	2.00	75	BLUE
MSH-2F-275	275	2.00	138	BLACK
MSH-2F-425N <sup>1</sup>	425	2.00	213	BLACK/BLUE
MSH-2F-500	500	2.00	250	RED
MSH-2F-650N <sup>1</sup>	650	2.00	325	RED/BLUE
MSH-2F-775N <sup>1</sup>	775	2.00	388	RED/BLACK
MSH-2F-1000	1000	2.00	500	GREEN
MSH-2F-1150	1150	2.00	575	GREEN/BLUE
MSH-2F-1275N <sup>1</sup>	1275	2.00	638	GREEN/BLACK
MSH-2F-1400	1400	2.00	700	GRAY
MSH-2F-1500N	1500	2.00	750	GREEN/RED
MSH-2F-1675N <sup>1</sup>	1675	2.00	838	GRAY/BLACK
MSH-2F-1900N <sup>1</sup>	1900	2.00	950	GRAY/RED
MSH-2F-2200N <sup>1</sup>	2200	2.00	1100	GRAY/GREEN

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



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 MSH-2F 150-2200 LBS.  
 VIBRATION ISOLATORS  
 SEISMIC RESTRAINT  
 2 INCH DEFLECTION



**VMC GROUP**  
 THE POWER OF TOGETHER™  
 Bloomingdale, NJ 07403  
 Houston, TX 77041

SCALE: NONE  
 SHEET: 1 OF 2



DRAWING NO.: \_\_\_\_\_ REVISION: \_\_\_\_\_

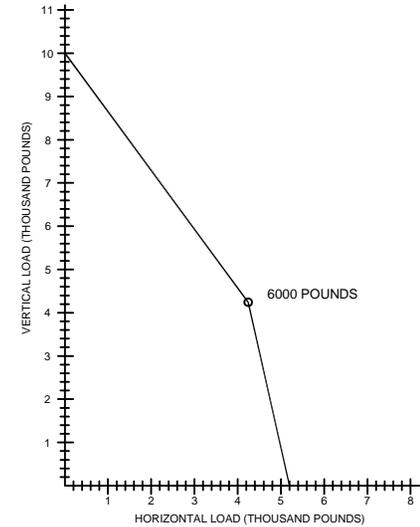
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**INSTALLATION AND ADJUSTMENT INSTRUCTIONS**

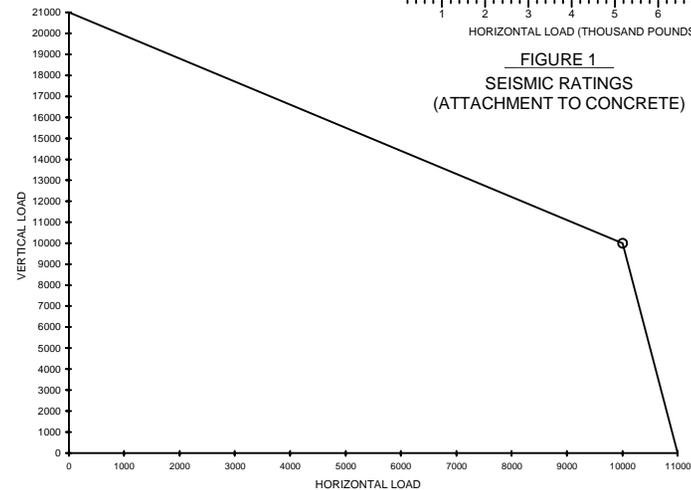
- ISOLATORS ARE SHIPPED FULLY ASSEMBLED AND ARE TO BE SPACED AND LOCATED IN ACCORDANCE WITH INSTALLATION DRAWINGS OR AS OTHERWISE RECOMMENDED.
- LOCATE ISOLATORS ON A LEVEL FLOOR OR SUB-BASE, ENSURING THAT ALL ISOLATOR CENTERLINES MATCH THE EQUIPMENT MOUNTING HOLES. SHIM OR GROUT AS REQUIRED TO LEVEL 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 MSH-2F 150-2200 LBS.  
 VIBRATION ISOLATORS  
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SCALE:

NONE

SHEET:

2 OF 2



DRAWING NO.:

REVISION