172R-103142 REV.:6 2/21/23 DESCRIPTION DATE 1 DIA HOLE FOR ATTACHMENT TO CONCRETE (4 TYP) MODEL MSS-4D SEISMICALLY RESTRAINED VIBRATION ISOLATOR FOR 4" DEFLECTION MAX LOAD DEFLECTION **SPRING RATE SPRING** MODEL (LBS) (IN) (LB/IN) **COLOR CODE** 3.97 **BLACK** MSS-4D-1765 1765 444 (21/2)(BASE PLATE) 13/16 DIA HOLE FOR 2340 ATTACHMENT TO MSS-4D-2340 3.51 666 DK. BLUE STEEL (4 TYP) (VIEW CUT AWAY FOR CLARITY) 2995 3.33 899 BLACK/BLACK

MSS-4D-2995N

MSS-4D-3730N¹

3730

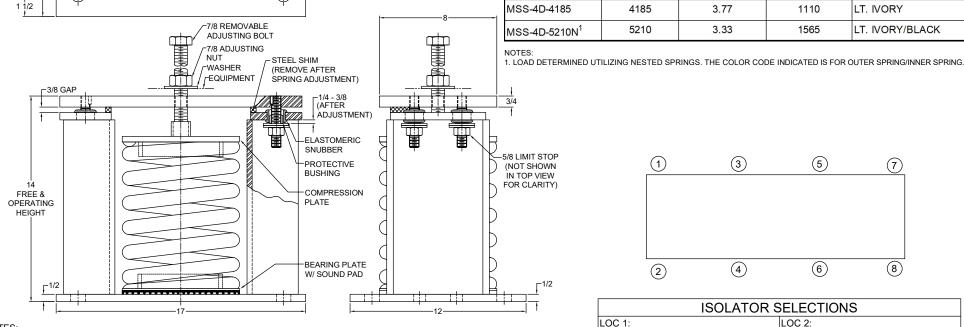
4185

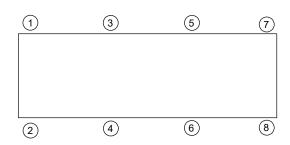
5210

3.33

3.77

3.33





1120

1110

1565

DK. BLUE/BLACK

LT. IVORY/BLACK

LT. IVORY

ISOLATOR SELECTIONS LOC 1: LOC 2: LOC 3: LOC 4: LOC 5: LOC 6: LOC 7: LOC 8: CUSTOMER EQP'T. 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.

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES, INTERPRET PER ANSI Y14.
- 2. STANDARD FINISH: HOUSING POWDER COAT OR PAINTED (COLOR:BLACK), SPRING POWDER COAT OR PAINTED (FOR COLOR: SEE TABLE), HARDWARE - ELECTRO-ZINC PLATED.
- 3. EQUIPMENT MUST BE BOLTED OR WELDED TO THE TOP PLATE TO MEET ALLOWABLE SEISMIC RATINGS AS REQUIRED.
- 4. ALL SPRINGS ARE DESIGNED WITH 50% OVERLOAD CAPACITY.

CERTIFIED FOR:

5. REFER TO SHEET 2 OF 2 FOR INSTALLATION INSTRUCTIONS.

JOB NAME:

CUSTOMER:

CUSTOMER P.O.

SALES ORDER:

6. RATED DEFLECTIONS ARE WITHIN 25% OF NOMINAL. HIGHER DEFLECTIONS ARE ALLOWED IF THEY MEET SPECIFICATIONS.



MODEL MSS-4D 1765-5210 LBS. VIBRATION ISOLATOR WITH INTEGRAL SEISMIC RESTRAINT AND EXTERNAL ADJUSTMENT 4 INCH DEFLECTION



Houston, TX 77041

THE POWER OF TOGETHER Bloomingdale, NJ 07403

SCALE :	
NONE	Membe,
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1 OF 2	

REVISION DRAWING NO .

172R-103142 REV.:6 2/21/23 REV.:6 2/21/23 REV. DESCRIPTION DATE BY

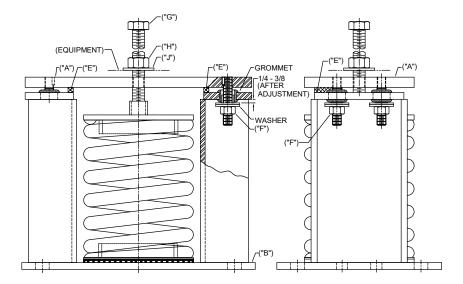
1. READ INSTRUCTIONS IN THEIR ENTIRETY BEFORE BEGINNING INSTALLATION.

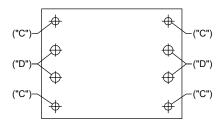
- 2. ISOLATORS ARE SHIPPED FULLY ASSEMBLED AND ARE TO BE POSITIONED IN ACCORDANCE WITH THE SUBMITTAL DRAWINGS OR AS OTHERWISE RECOMMENDED.
- 3. SET ISOLATORS ON FLOOR, HOUSEKEEPING PAD, OR SUB-BASE, ENSURING THAT ALL ISOLATOR CENTERLINES MATCH THE EQUIPMENT MOUNTING HOLES. THE VMC GROUP RECOMMENDS THAT THE ISOLATOR BASE PLATES ("B") BE INSTALLED ON A LEVEL SURFACE. SHIM OR GROUT AS REQUIRED, LEVELING ALL ISOLATOR BASE PLATES AT THE SAME ELEVATION (1/4-INCH MAXIMUM DIFFERENCE CAN BE TOLERATED).
- 4. MARK ANCHOR HOLE LOCATIONS AS INDICATED ON BASE PLATE FOOTPRINT AND SET ISOLATOR ASIDE PRIOR TO DRILLING.
- 5. ANCHOR ALL ISOLATORS TO THE FLOOR, HOUSEKEEPING PAD, OR SUB-BASE USING MARKED HOLE LOCATIONS ("C") FOR CONCRETE OR ("D") FOR STEEL AS REQUIRED. USE ANCHORS MEETING THE DESIGN REQUIREMENTS SPECIFIED ON SHEET 1 OF 2. WELDING TO STEEL IS PERMITTED PROVIDING THE WELD ACHIEVES THE STRENGTH THAT IS REQUIRED TO SECURE MOUNT PER APPLIED LOADS.
- 6. ISOLATORS ARE SHIPPED TO THE JOBSITE WITH REMOVABLE SPACER SHIMS ("E") BETWEEN THE TOP PLATE AND THE BOTTOM HOUSING. THESE SHIMS MUST BE IN PLACE WHEN THE EQUIPMENT IS POSITIONED ON TOP OF THE ISOLATORS.
- 7. WITH ALL SHIMS ("E") IN PLACE, REMOVE ADJUSTING BOLT ("G"), NUT ("H"), AND WASHER ("J"), AND SET ASIDE. KEEP THE NUT ("H") SCREWED ONTO THE ADJUSTING BOLT ("G"). PLACE THE MACHINE OR EQUIPMENT ONTO TOP PLATE ("A") AND POSITION SO THAT THE EQUIPMENT MOUNTING HOLE ALIGNS WITH THE MOUNTING HOLE IN THE ISOLATOR TOP PLATE ("A").

- 8. PLACE WASHER ("J") ONTO SHANK OF ADJUSTING BOLT ("G") AND INSERT ADJUSTING BOLT THROUGH EQUIPMENT MOUNTING HOLE AND INTO TAPPED MOUNTING HOLE IN TOP PLATE ("A") OF ISOLATOR. TURN THE ADJUSTING BOLT ("G") UNTIL THE TIP OF THE ADJUSTING BOLT COMES INTO CONTACT WITH THE CENTERING SLEEVE ATOP THE THE SPRING AND POSITION SLEEVE SO THAT ADJUSTMENT BOLT ("G") IS CENTERED WITHIN THIS SLEEVE. CONTINUE TO TIGHTEN THE ADJUSTING BOLT ("G") UNTIL IT JUST STARTS TO COMPRESS THE ISOLATOR SPRING.
- 9. TURN THE NUT ("H") UNTIL IT IS LOCATED AT THE TOP OF THE ADJUSTING BOLT ("G").

10. THE ADJUSTMENT PROCESS CAN ONLY BEGIN AFTER THE EQUIPMENT OR MACHINE IS AT ITS FULL OPERATING WEIGHT.

- 11. BACK OFF EACH OF THE (2) OR (4) LIMIT STOP LOCKNUTS ("F") PER ISOLATOR 1/4- TO 3/8-INCH.
- 12. ADJUST EACH ISOLATOR IN SEQUENCE BY TURNING ADJUSTING BOLT(S) "G" ONE FULL CLOCKWISE TURN AT A TIME. REPEAT THIS PROCEDURE ON ALL ISOLATORS, ONE AT A TIME. CHECK THE LIMIT STOP LOCKNUTS ("F") PERIODICALLY TO ENSURE THAT CLEARANCE BETWEEN THE WASHER AND RUBBER GROMMET IS MAINTAINED. STOP ADJUSTMENT OF AN ISOLATOR ONLY WHEN THE TOP PLATE ("A") HAS RISEN JUST ABOVE THE SHIM ("E").
- 13. REMOVE ALL SPACER SHIMS ("E").
- 14. FINE ADJUST ISOLATORS TO LEVEL EQUIPMENT.
- 15. ADJUST ALL LIMIT STOP LOCKNUTS ("F") PER ISOLATOR TO OBTAIN 3/8-INCH GAP. THE LIMIT STOP NUTS MUST BE KEPT AT THIS 3/8-INCH GAP TO ENSURE UNIFORM BOLT LOADING DURING UPLIFT (AS IN THE CASE WHEN A COOLING TOWER IS DRAINED).
- 16. TIGHTEN NUT ("H") BACK DOWN ADJUSTING BOLT ("G") TO SECURELY FASTEN EQUIPMENT TO ISOLATOR.
- 17. INSTALLATION IS COMPLETE.





BASE PLATE HOLE LOCATION DIAGRAM

NOTE: ISOLATOR BASE PLATE IS TO BE USED FOR HOLE LOCATION MARKING ONLY AND NOT AS A DRILLING GUIDE.

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 MSS-4D 1765-5210 LBS.
VIBRATION ISOLATOR
WITH INTEGRAL SEISMIC RESTRAINT
AND EXTERNAL ADJUSTMENT
4 INCH DEFLECTION



VMC GROUP

THE POWER OF TOGETHER

Bloomingdale, NJ 07403 Houston, TX 77041

BE SUBSTITUTED AS THEY BECOME AVAILABLE.	
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