Isolator Selection and Application Guide

1. Select Isolators using Table 1 for General Machine Tools, Presses, Die Cast Machines and Plastic Injection Molders or Table 2 for non-impact machines like Coordinate Measuring Machines, Surface Plates, Jig Grinders and other machinery that does not generate a high amount of horizontal force.
   Note: Table 1 selects isolators based on the total weight of the machine, whereas Tables 2 selects the isolators based on the Isolator's Maximum Load.
2. For Table 1 applications, use either Column 1 or 2, depending on machine type. Follow the appropriate column downward until the machine's total weight is found.
3. Follow that row across horizontally until it intersects with the appropriate column in either the Machine Tool or Punch Press Section. Select the Isolator Model.
5. For Table 2 applications, determine the maximum load on the Isolator using Table 3. Select the Isolator.
6. Using the Leveling Screw Selection Table, select the Leveling Screw Model based on the machine's mounting hole diameter, foot thickness and maximum load on the isolator.
7. For Table 1 applications, the maximum load on the isolator must be calculated using Table 3 to select the leveling screw . This calculated load is only used for leveling screw - not isolator selection.
8. Configure the Isolator Model using the Isolator Model Number Key as an example.

ISOLATOR SELECTION - TABLE 1

Machine Type		Machine Tools					Punch Presses (four points of support)		
General Machine Tools & Presses	Injection Molding & Die Cast Machines	Number of Mounting Locations					Max. Press Speed (SPM)		
Machine Weight (lbs.)		12	10	8	6	4	100	150	200
250	125	2L4	2L10	2L20	2L20				
500	250	2L10	2L20						6L17
1,000	500				6L17 or 6iL17			6L17	
1,500	750						6L17		6L40
2,000	1,000								
2,500	1,250			6L17 or 6iL17					
3,000	1,500							6L40	
3,500	1,750						6L40		6K75
4,000	2,000		6L17 or 6iL17						
4,500	2,250								
5,000	2,500							6K75	8L150
6,000	3,000	6L17 or 6iL17			6L40 or 6iL40		6K75		
7,000	3,500								
8,000	4,000			6L40 or 6iL40		6K75			8L220
9,000	4,500		6L40			or		8L150	
10,000	5,000		or		6K75	6iK75			
12,000	6,000		6iL40	6K75	or		8L150		
14,000	7,000			or	6iK75			8L220	8K80
16,000	8,000	6L40	6K75	6iK75	8L150 or 8iL150				
18,000	9,000	or	or				8L220	8K80	
20,000	10,000	6iL40	6iK75	8L150 or 8iL150			8K80		
25,000	12,500				8L220	8L220/			
30,000	15,000	6K75	8L150 or 8iL150		or	8iL220			
35,000	17,500	or			8iL220	8K80			
40,000	20,000	6iK75		8L220/	8K80 /				
45,000	22,500			8iL220	8iK80				
50,000	25,000		8L220	8K80 /					
55,000	27,500		or	8iK80					
60,000	30,000	8L150	8iL220						
65,000	32,500	or	8K80 /						
70,000	35,000	8iL220	8iK80						
80,000	40,000								
85,000	42,500								
90,000	45,000								
95,000	47,500	8L220							
100,000	50,000	8iL220							

Note: All Selection Tables have built-in safety factors to guard against isolator overloading during the installation and leveling process.

ISOLATOR SELECTION - TABLE 2

Non-Impact, Low Inertia Machinery
(i.e. CMM, surface plates, jig grinders, etc.)

Isolator Series	Maximum Load per Isolator (lbs.)
6M4 & 6iM4	800
6M7 & 6iM7	1000
6M10 & 6iM10	1200
6M15 & 6iM15	1750
6M22 & 6iM22	2500
8M32 & 8iM32	3800
8M55 & 8iM55	4900
8M85 & 8iM85	6300

Table 3 - Load on Isolator

Number of Mounting Points	Maximum Load = Machine Weight x Factor
4	30%
6	25%
8	20%
10	15%
12	12%

Example: - Machine Weight = 50,000 lbs.
- Six Mounting Points

Maximum Load on Isolator =
50,000 x 25% = 12,500 lbs.

LEVELING SCREW SELECTION TABLE

Leveling Screw Model	Maximum Load (lbs.)		Foot Thickness Up To (in.):		
	Presses	Machine Tools	Isolator Series		
			2	6	8
.25C1	100	100	0.38		
.25C2			1.38		
.375C4	850	1275		2.4	
.375C6				4.4	
.5M3	2200	3300		1.3	
.5M5				3.3	
.5M8				6.3	
.625M4	3500	5250		2.2	1.5
.625M5				3.2	2.5
.625M6				4.2	3.5
.625M8				6.2	5.5
.75M4	5300	7950			1.5
.75M6					3.5
.75M8					5.5
1M4	11000	16,500			1.4
1M5					2.4
1M6					3.5
1M8					5.4

Isolator Series	Price (US $)
2L	$22.00
6L	$68.00
6iL	$64.00
6K	$74.00
6iK	$68.00
6M, 6iM	$104.00
8L, 8iL	$132.00
8K, 8iK	$142.00
8M, 8iM	$190.00

ISOLATOR MODEL NUMBER KEY

6K75 - .625M6

- 6K75 — Isolator Series / Isolator Type
- .625M6 — Diameter (inches)
- M — "M" (milled head) "C" (cap head)
- 6 — Thread Length (in.)

Preparation

1.The concrete surface under the isolator must be clean, flat, and trowel finished. There should not be any holes, cracks, or lumps directly under the isolators. Patch all holes and broken concrete.

2. Clean and inspect the machine feet and legs. Repair any cracks or damage. The bottom of the machine feet must be clean and flat where it contacts the top of the isolator. Clean any debris from the mounting holes.

Installation

3. Lift the machines and position each isolator under the machine foot so there is uniform clearance between the threaded hole in the isolator and the inside surface of the mounting hole (see Figure 1). Any contact between the leveling screw and the inside surface of the mounting hole as it is turned into the isolator housing can cause the leveling screw to jam.

4.Thread the leveling screw into the isolator by hand or with a small wrench. The leveling screw should turn easily into the isolator housing until it contacts the internal bearing plate.

5.When the leveling screw contacts the bearing plate, turn the leveling screw one additional turn.

6.Carefully lower the machine onto the isolator.

Leveling

7. Refer to the machine manual for the machine's leveling locations and tolerances.

8. Using a precision machinists' level, electronic level, or laser, determine the machine's low side in the left-to-right direction. Raise all of the isolators on the low side an *equal* amount until the machine is level in that direction.

9. Repeat procedure in the front-to-back direction.

10. Repeat Steps 8 and 9 until the machine is level.

11. Isolators should not be over-adjusted to compensate for extreme out-of-level floor or foundation conditions. If a severe out-of-level condition exists, a spacer plate should be inserted between the isolator and the machine foot.

Tighten Locknuts

12. Place washer over Leveling Screw and thread on Lock Nut.

13. Tighten Locknut while using a wrench to hold the head of the leveling screw.

Additional Considerations

There should not be any solid connections between the machine and the foundation or building structure. Flexible connections are recommended for all plumbing and electrical conduit. Floor plates, walkways, railings, feeds, rolling bolster rails, etc. should *not* be attached to *both* the machine and the floor, foundation or building. Hard connections will “short-circuit” isolation effectiveness.

Caution: Vibro/Dynamics Isolators do not bolt to the floor and should not be used to mount machines that depend on anchor bolts to keep them from tipping or collapsing.

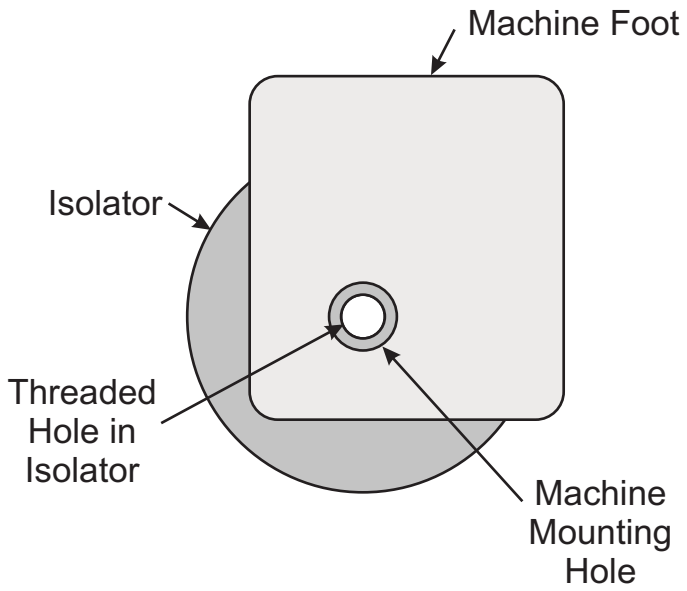

FIGURE 1

LEVELING SCREW INFORMATION (in.)		
Model No.	Head Height	Distance Across Flats
.25C_	5/32	7/16
.375C_	7/32	9/16
.5M_	3/8	3/8
.625M_	3/8	7/16
.75M_	3/8	1/2
1M_	1/2	3/4

LOCK NUT INFORMATION (in.)			
Diameter/ Pitch	Height	Distance Across	
		Flats	Corners
0.25-20 UNC	0.22	7/16	0.51
0.375-16 UNC	0.33	9/16	0.65
0.5-13 UNC	0.44	3/4	0.87
0.625-11 UNC	0.55	15/16	1.08
0.75-10 UNC	0.42	1 1/8	1.30
1-14 UNS	0.55	1 1/2	1.73

VIBRO/*DYNAMICS* Corporation • 2443 Braga Drive • Broadview, IL 60155-3941 USA • Tel. 708-345-2050 • Fax: 708-345-2225