

## Isomount Isolators

### SUITABLE FOR MARINE APPLICATIONS

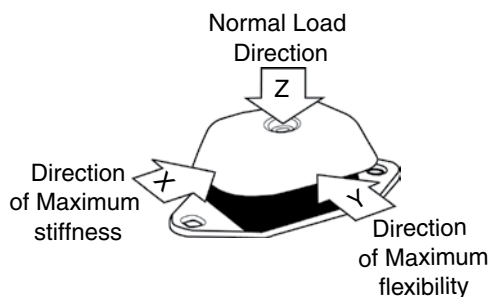
Isomounts are general purpose vibration isolators suitable for mobile and static equipment installations.

Available in three different sizes Isomounts have a mechanically galvanized base and come with a choice of rubber hardnesses, they can also be supplied with two types of specialist height adjusters and a mechanically galvanised base.



Load Range.

Isomount isolators are suitable for operation under all types of engines. They offer 3-way control of engine movement with excellent isolation efficiency. Maximum use of this 3-way control when the isomount isolators are used as engine supports can be obtained by arranging the isolator with their maximum flexibility (Y) at right angles to the engine crankshaft and maximum stiffness (X) in line with the crankshaft. Using the isolators in this manner also has the advantage in marine applications of providing isolation against propeller thrust. The Isomount range also features bump and rebound control which prevents excessive movement under shock loads.



### NOMINAL STIFFNESS RATIOS

X = 2.5  
Y = 0.75  
Z = 1.0

The static load figures shown in FIG 1. are offered as a reference to the maximum load acceptable for each rubber mix.

Fig 1 Load Range

Part No			Maximum Load Without Thrust Kg	Maximum Load With Thrust Kg	Deflection mm	Duro
TYPE 1	TYPE 2	TYPE 3				
M200045	M200145	M200245	50	35	4	45
M200055	M200155	M200255	70	55	4	55
M200065	M200165	M200265	100	80	4	65
M220045	M220145	M220245	135	85	5	45
M220055	M220155	M220255	200	135	5	55
M220065	M220165	M220265	300	210	5	65
M220075	M220175	M220275	450	315	5	75
M240045	M240145	M240245	355	250	5	45
M240055	M240155	M240255	530	370	5	55
M240065	M240165	M240265	800	560	5	65
M240075	M240175	M240275	1000	700	5	75

**Note :** When used in marine engine applications with thrust forces, the maximum load capacity is substantially reduced. See table above

### Height Adjusters

Two styles of height adjusters are available for each Isomount Isolator.

**Type '1'**  
is supplied minus height adjuster.

**Type '2'**  
Is a general purpose adjuster suitable for static applications.

**Type '3'**  
Is available for mobile applications, where thrust is an issue.

**Height adjusters are recommended where precise alignment is required and care should be taken when height adjusters are used not to allow excessive bending forces to be imposed on the centre spindle.**

All properties nominal, contact Mackay for Technical advice All Dimensions in Millimetres

In the past fitment of inappropriate height adjusters has resulted in premature failure of the isolator by damage to the centre spindle.

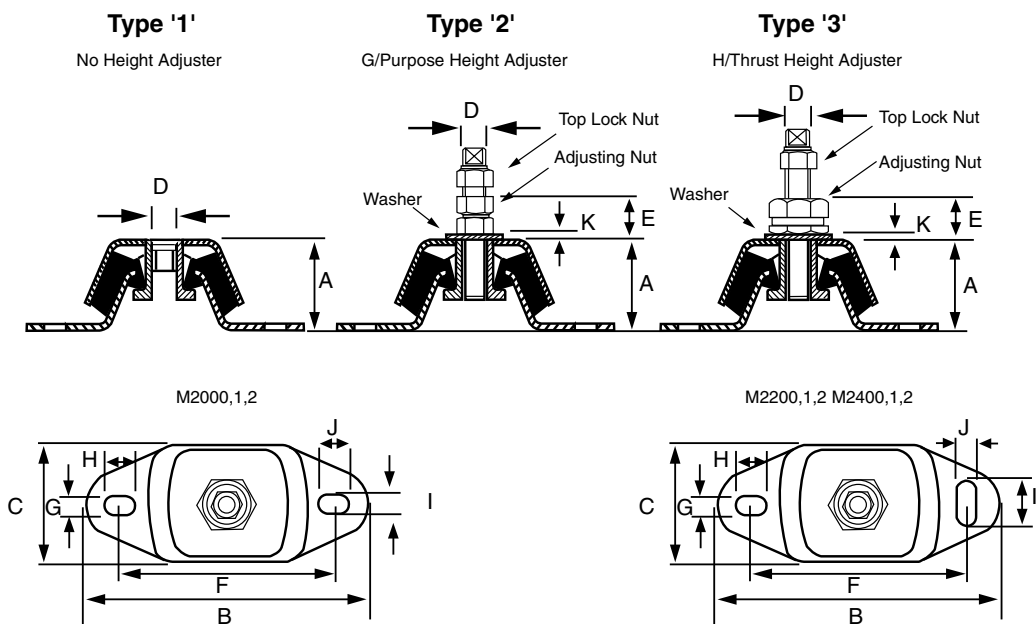
Both types of height adjusters are available separately for each size Isomount, under the part numbers shown in Fig2.



**Fig2**

ISOMOUNT PART No	HEIGHT ADJUSTER PART No			
	G/Purpose	Weight Kg	H/Thrust	Weight Kg
M2000	M2000A	0.13	M2000B	0.3
M2200	M2200A	0.3	M2200B	0.5
M2400	M2400A	0.5	M2400B	0.7

**Fig3**



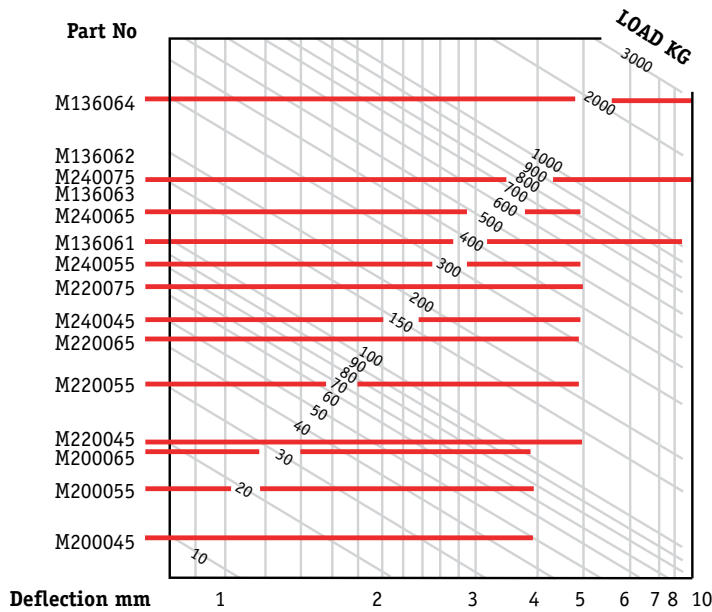
Part No	Type	A	B	C	D	E		F	G	H	I	J	K	Weight kgs
						Max	Min							
M2000	1	38.5	120	60	M12	-	-	100	14	11	14	11	-	0.4
M2001	2	38.5	120	60	M12	32	22	100	14	11	14	11	3	0.5
M2002	3	38.5	120	60	M12	40	30	100	14	11	14	11	3	0.6
M2200	1	50.0	183	75	M16	-	-	140	13	20	30	13	-	0.9
M2201	2	50.0	183	75	M16	38	28	140	13	20	30	13	4	1.2
M2202	3	50.0	183	75	M16	41	31	140	13	20	30	13	4	1.4
M2400	1	68.0	228	112	M20	-	-	182	18	26	34	18	-	2.2
M2401	2	68.0	228	112	M20	44	34	182	18	26	34	18	4	2.8
M2402	3	68.0	228	112	M20	41	31	182	18	26	34	18	4	2.9

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All Dimensions in Millimetres

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\* Isomount isolators do not have a Duro colour coding, the Duro rating is stamped on the base plate.

### INSTALLATION INSTRUCTIONS

It is important that isolators of the correct size (weight carrying capacity) and rubber hardness are selected to suit the application. Details on load range and static deflections are shown in figure 1

### INSTALLATION WITHOUT HEIGHT ADJUSTER

Ensure tightening torque values for the centre bolt fixing are followed as shown in figure 4.

Check that after tightening of the centre bolt fixing that there is not excessive distortion, misalignment and rotation of the top cap relative to the base.

Where alignment of the equipment is required packing pieces or shims should be employed either below the mounting base plate or above the isolator top cap. Alignment should be rechecked after centre fixing bolts have been tightened.

Fig 4

Part No	Type	RECOMMENDED CENTRE BOLT/NUT TIGHTENING TORQUE Nm
M2000	1	45-50
M2001	2	45-50
M2002	3	45-50
M2200	1	100-110
M2201	2	100-110
M2202	3	100-110
M2400	1	150-170
M2401	2	150-170
M2402	3	150-170

### INSTALLATION WITH HEIGHT ADJUSTER

When accurate alignment of equipment is required one of two types of adjusters (Type '2' or '3') should be employed. Ensure that excessive bending forces are not imposed on the centre spindle.

When using height adjusters, ensure that the recommended washer is placed hard against the top cap and the height adjusting spindle is fully located into the isolator.

If height adjusters are insufficient to achieve desired height adjustment shims or packing pieces should be employed under the mounting base.

The isolators with the height adjusters in the mean position (dimension Fig3) should be fitted to the equipment which should then be lowered onto the support. Vertical and horizontal alignment should now be effected using the height adjuster and slotted holes in the mounting base. After tightening centre fixings to the values shown in fig 4 recheck alignment. If necessary coupling and shaft alignment should be undertaken in accordance with the coupling manufactures recommendations. Where possible coupling alignment procedures should be carried out after the power unit has settled on the mountings (preferably 2 days after installation). Should this action not be possible the power unit should be raised approximately 1mm after completion of the alignment procedure.

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