

Air Mount Type AM

1.1Hz to 1.7Hz Natural Frequency

DESCRIPTION

Air mounts are comprised of an air-inflated elastomeric bellows sandwiched between two metal plates. Provision for air supply and attachment to equipment and foundation is incorporated.

APPLICATION

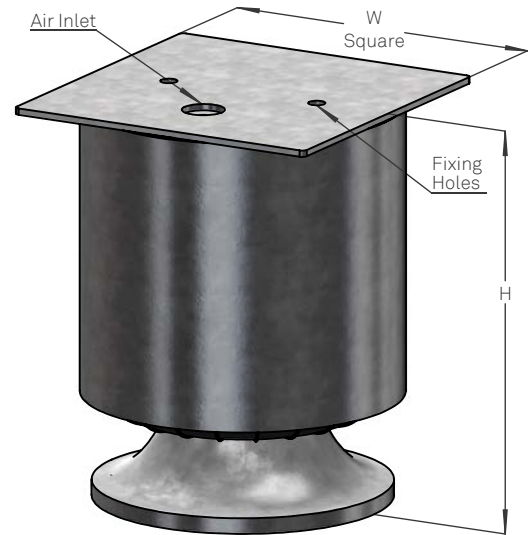
Where a low natural frequency mount is required for high isolation of equipment with shaft speeds down to 300RPM, or where a significant number of higher harmonic frequencies exist such as with diesel generator sets and high speed chillers.

FEATURES

- Heavy duty, low air permeability elastomeric multi-ply bellows
- Steel end plates zinc chromate plated
- Zinc plated steel shroud for lateral stabilisation
- Standard air inlet ¼" NPT in the top of the mount

OPTIONS

- Outrigger brackets to specific design
- Internal bump stops to prevent total collapse on loss of air pressure
- External reservoirs to lower natural frequency to under 1Hz
- Restraint Snubbers for control of vertical/lateral position



AM PRODUCT GUIDE

Type	Max Load kg	Vertical Natural Frequency Hz	W mm	Height H (Design) mm
AM1	1,250	1.4 - 1.5	210	285
AM2	1,250	1.1 - 1.2	210	360
AM3	2,250	1.2 - 1.3	260	336
AM4	2,900	1.6 - 1.7	310	222
AM6	3,000	1.2 - 1.3	310	350

DESIGN

Stabilised rolling lobe style for axial loads up to 3,000kg with vertical natural frequencies 1.1Hz to 1.7Hz. Lateral to vertical stiffness ratio typically 1.5 to 2.0. Can be used without additional lateral stabilisation.

OPERATIONAL LIMITATIONS

The recommended minimum operating pressure for any air mount is 275kPa. The load supported is nominally proportional to the pressure at the given design height. Temperature operating range: -35°C to +57°C.

LEVELING SYSTEMS

All air mount systems lose air pressure with time and therefore must have provisions for the supply of air to the bellows.

This can be via a hand operated pump using a Schrader valve connection to each air mount, a constant regulated air supply to each of three groups of air mounts or an automatically leveled system, again dividing the air mounts into three groups. See picture for graphical illustration.

HEIGHT ADJUSTMENT

Air mounts operate most effectively at the design heights quoted in the table, however some raising or lowering by the air pressure adjustment for leveling purposes is permitted. A height variation of +0, -25mm is acceptable.

STABILITY

For stability in operation, it is recommended that the minimum distance apart of the air mounts is not less than 2x height of the equipment centre of gravity above the vertical centre of the air mount. Where this cannot be maintained, please contact Embelton for advice.

To aid in stabilisation, outrigger brackets should be used to lower the centre of gravity and increase the distance apart.

TECHNICAL ASSISTANCE

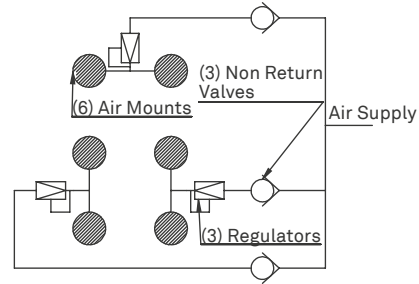
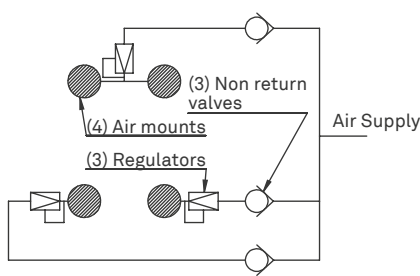
All Embelton offices can provide detailed technical assistance on the use of this product in specific applications.

CONDITIONS OF SALE

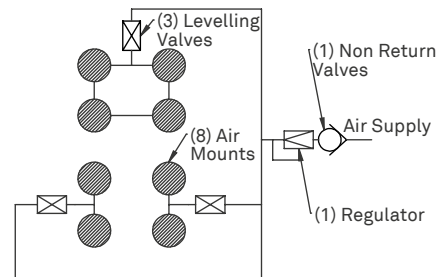
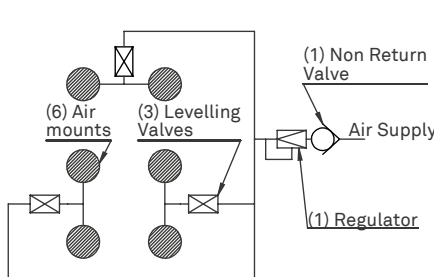
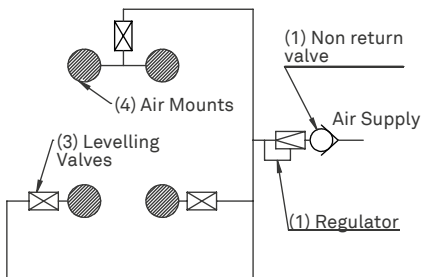
These products are sold subject to the published Embelton General Conditions of Sale, copies of which can be made available on request.

SPECIFICATION

Air mounts shall be manufactured from low air permeability rubber compounds with weather-proofed steel and retaining plates. The system vertical natural frequencies shall be (specify Hz). A full application design including method of leveling shall be carried out by the supplier. They shall be type AM air mounts as supplied by Embelton.



THREE POINT REGULATED SYSTEMS



THREE POINT LEVELED SYSTEMS