Dynemech VIBRATION TECHNOLOGY



ISOLATE IT ! NO VIBRATIONS FROM COMPRESSORS & GENSETS



n industrial machinery, vibration can be caused by a variety of conditions including bent shafts, unbalance in rotating parts, worn or bent gears, damaged bearings, misaligned couplings or bearings, electromagnetic forces, etc.In compressors, however, the most common causes of vibration are unbalance in rotating/ reciprocating parts and abnormal aerodynamic forces. Vibration is a form of wasted energy that reduces the efficiency of the compressor and leads to greater vibration emissions. Compressors are most commonly used applications in refrigeration systems, air conditioning units and compressed air filling systems. Vibrations are the leading cause

units, leading to **higher repair costs**, **increased down time** and giving rise to **structure-borne noise** and vibration.

In compressors, generators, pumps, and blowers low frequency vibration caused by flow instabilities create excitations in the supporting structures. This leads to **damage to near by industrial applications** and buildings. Moreover, high residual frequency vibrations caused by various rotating equipments running at varied natural frequencies may result in **resonance in compressor body**. Avoiding this becomes imperative for successful running of compressor units at any profitable efficiency parameters.

DYNEMECH anti vibration pads and mounts relieve stresses on the equipments thereby reducing maintenance costs. Also, it improves ambient environment contributing to a more comfortable and productive workspace. Attention to a relatively small, inexpensive vibration isolator during initial installation of compressors could prevent much more costly trouble later.

Elastomeric Mounts, Series DLK are versatile, compact and inexpensive effective vibration dampers for machines with respective holes in the base. These mounts offer both low frequency attenuation and stable machine leveling. Resistant to water, coolants, fuels etc.



Dynemech Air Springs SERIES DRAS make very low natural frequencies possible, from 0.5 to 6.0 Hz depending on the type. With loads ranging from 25Kg to more than 6500 Kg, Dynemech air isolators provide effective mounts for all kinds of compressors. Ideally, suited for compressors installed on weak suspended floor or first floor. Furthermore where it is critical to to dampen vibration levels to almost zero, like where there is a laboratory below the floor or guest rooms in a hotel, Series DRAS has been hugely successful.





DYNEMECH Spring Isolators, isolate high dynamic vibrations generated by floor-mounted industrial equipments such as compressors, blowers, generators which are prone to frequent start up and shut down, and equipment that is slow to reach operating speed. A spring isolator gives desired natural frequency to obtain phase difference in the frequencies for a rotating machine.

In many cases viscous damping is required to limit excessive movement which could occur as a machine operates at a speed near to, or coinciding with the resonant frequencies of the system. They provide vibration isolation of 80-95%.



Spring Isolators and Viscous Dampers



HVAC ON DYNEMECH SPRING ISLATORS



Compressor on Dynemech Single Spring Isolator





COMPRESSOR INSTALLED ON SINGLE SPRING ISOLATORS



Genset on Dynemech Spring Isolators





SCREW SUPPORT MOUNTS, Series DLC

mounts help to tackle the problem of resonance and vibration by increasing the natural vibration period of the flexibly mounted machinery system in impact generating machines and creating a phase difference of vibration frequency in rotating machines.





The MAC LEVEL Mounting, SERIES DML is an adjustable mounting foot comprising of a circular disc bonded to a protected elastomer base. An adjustment screw is fitted into the assembly. The elastomer base has anti-slip ridges.



Dynemch Anti Vibration Plates made from high grade synthetic composite material are tuned to different natural frequencies to suit various industrial applications. Each sheet has defined stress value and can be placed directly under the machine as per the weight of the machine and no. of mounting positions.

COMPRESSOR INSTALLED ON DYNEMECH SCREW SUPPORT MOUNTS



Dynemech Flexifoot Mountings Series DGF are highly appreciated due to their sturdy construction, precise dimensions, robust design and excellent performance. They provide vibration damping in both compression and shear. A special synthetic anti skid plate is provided in the base of the mount to prevent machine walking. These mounts can also be anchored to the floor through the holes provided in the base for compressors producing high unbalance forces.



COMPRESSOR INSTALLED ON DYNEMECH INSULATION PLATES



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