## INDUSTRIAL

## INTRODUCTION TO CIRCULAR MOUNTS



## **Introduction to Circular Mounts**

These mounts are part of a range of circular rubber mounts that represent one of the most versatile of all vibration isolators and application. A wide range of sizes coupled with alternative rubber hardness and shapes provides solutions to numerous standard applications.

They are supplied in natural rubber of 55 to 60 shore hardness and which has a superior resistance against ozone and sunlight. They come with zinc plated or passivated metal plates and, where applicable, studs.

These mounts are also referred to as Bobbins and are inexpensive. They are extensively used where maximum resilience and isolation is the key selection factor and oil or solvent resistance is not an issue.

The Foot Mounts are supplied in what we call the parallel , whilst the Buffer Mounts are of the conical type.

The parallel type is a free standing mount when bolting down is not required. The narrow waist type has a shape that has a higher ratio of metal bonded area to rubber cross-section at the waist than the parallel type. This results in less stress at the bond, more deflection under load, and better isolation. However size for size, the parallel type carries more load and is stiffer in the horizontal direction.

The conical type has a parabolic shape which provides soft absorption at light impact. These are normally not used as foot mounts but as Buffers in a horizontal position. At higher impact the change of shape increases the stiffness as the deflection increases. Occasional impact loads can be 3 to 4 times the static load, much less for frequent impacts.

The Circular Mounts comprises the narrow waist type and parallel sides – Type A, B, and C. The same as for the foot mounts, the circular mounts are also inexpensive and easy to install.

The parallel and narrow waist type mounts are used in compression, shear or a combination of compression and shear. The later combination provides an optimum for stability and isolation efficiency.

The parallel sides type circular mounts are used in compression or shear, but are not recommended for tension. They are not fail-safe so they should never be overloaded. Load in shear should not exceed about 25% to 30% of the rated load in compression. They are therefore generally not suitable for V-belt drives.

The narrow waist type circular mounts' shape gives a higher ratio of metal-bonded area to rubber cross-section at the "waist" and is therefore safer for loading in shear or tension than circular mounts with parallel sides. Softness in shear direction is effective when vibration is at right angles to the axis. Good for protecting instruments and delicate drives

All are manufactured and supplied locally by ARNOT Vibration Solutions.



A: Narrow Waist (Foot Mount) B: Parallel (Foot Mount) C: Parallel Sides Type A



D: Conical (Buffer) E: Parallel Sides Type C



