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Product Name: Sting Balance

Product Code: LBNY-0005-16200013



Description:

Balances can be divided into two main groups: internal and external. The group names are derived from their location relative to the test model and wind tunnel test section internal balances reside inside a test model, while external balances reside outside the test section. During the early years of wind tunnel testing, Forces and Moments were literally measured through pan-type balances. Internal Force/Moment balances are almost universally used for measurements in supersonic and transonic tunnels. However, they are also becoming popular in subsonic tunnels. Although technology has advanced dramatically since those early days, the term balance is still applied to the devices used for Force and Moment measurements today.

Technical Specification:

Sting Balance are normally designed with cylindrical ends one end is clamped into the model positioning system, and the other fits into a reamed hole in the model.

This one-piece design is superior to earlier designs in strength, accuracy and in providing lower interactions between components because no screws, pins or welds are used. Using modern machining processes such as Wire-EDM (Electrical Discharge Machining), strain gauge Sting Balance are made from a single piece of precipitation-hardened stainless steel.

Test models are secured to the sting with a set screw. To avoid problematic burrs on the sting, recessed flats or grooves are provided. Tapered ends provide a convenient mounting method for nose-mounted test models such as missiles. In some cases, balance ends are tapered.

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