MSNST LOAD CELL MOUNTING FACTORS

Measurement Specialists Inc., dba National Scale Technology, manufactures mounting assemblies designed around single-ended beam, double-ended beam, and low-profile shear-web and diaphragm-style load cells. Developing and installing load cell weighing module systems requires a series of important considerations to prevent equipment damage and personal injury. Install only load cell mounting hardware and assemblies that have been specifically designed for use in hanging scale, hopper, tank, and vessel scale applications.

Gross Load

To select the correct load cell or load cell hardware for your application, it is necessary to know the total weight on the scale — including the net weight of product, the tare weight of the vessel, and the weight of the platform, tank or hopper, as appropriate.

Load Distribution

In multiple-load-cell applications, the weight must be evenly distributed between all cells.

Attachment Points

The attachment points of a load cell hardware assembly must be aligned properly and the assembly needs to be more or less vertical, dependent on the application.

Threaded Connections

Check that all threads of a threaded connection are in engagement. For example, an eye bolt screwed into an S-Type load cell should protrude slightly on the opposite side.

Steel Rods

Weight-bearing rods must have a minimum tensile strength is at least four times the total weight carried by that component. Note that threaded rod is generally made from a low tensile-strength mild steel which should be checked for tensile strength before use in any suspended vessel scale.

Jam Nuts

All threaded connections must be locked with jam nuts against inadvertent disassembly. If a load is suspended from a single load cell, it is critical that the load cannot rotate as this may loosen the jam nut.

Safety Backup

If failure of one or more load cell hardware assemblies could cause injury or damage, a safety backup (safety chains, safety rods, etc.) must be used. The assemblies should be inspected routinely for damage, excessive wear or corrosion and replaced if necessary.

Swaying

If there is excessive swaying in a suspended vessel scale, apply horizontal checking to reduce the amplitude.

160 West Park Loop Northwest, Huntsville, Alabama 35806-1744

Toll-Free: (800) 264-9990
sales@msnst.com

MEASUREMENT SPECIALISTS
NATIONAL SCALE TECHNOLOGY

NAICS
334513 • 541330 • 811210