

Unique, patented and cost effective solution for process weighing applications.

Technical Specification

DESCRIPTION

The LeverMount® load cell helps to make Process Weighing installations easier, safer and more cost effective with its simple, innovative design.

LeverMount® is the next generation of load cell weighing assemblies, purpose designed to offer a completely fresh approach to process weighing solutions utilising the established Avery Weigh-Tronix range of shear beam load cells.

LeverMount® retains the advantages of existing mounts, whilst providing improved mechanical stability before and during installation. LeverMount® can be raised or lowered under load without specialised tools; additionally, the load cell can be removed or replaced without the need for jacking or dummies.

The base casting itself provides a stable loadbearing platform prior to installation of the load cell. Once the vessel is in position and the two transit bolts are removed, the load cell is then used as a lever to raise the top plate of the mount into the working position, whether the vessel is empty or full.

Available in 300kg, 500kg, 1000kg, 2000kg, 3000kg and 5000kg.

FEATURES AND BENEFITS

- » Purpose-designed stainless steel load cell and mount arrangement ideal for process weighing applications that require an accurate, safe and cost effective solution.
- » Load cell can be removed in situ without the need for jacking, significantly reducing downtime.
- » Three point fixing eliminates rocking and twisting in the mount.
- » Easily configurable for radial or tangential mounting and easily aligned to the radial axis of the vessel.
- » Load cell acts as the lever to raise and lower the top plate of the vessel.
- » LeverMount can be raised or lowered under load without the need for jacking.
- » Straightforward, low cost installation without the need for specialist tooling.
- » Substantial lift off prevention increases safety.
- » Tolerant of steel work misalignment, allowing the vessel to breathe and avoid mechanically induced errors.
- » A nominal distance between the working height and the installed height reduces the need to adjust for pipework without flexible connections.
- » Two designs cover the range from 300kg to 5000kg, covering the majority of process weighing applications.
- » Stainless steel OIML C3 approved load cell, fully welded and sealed to IP68 suitable for harsh industrial environments.
- » Available in ATEX approved versions for hazardous area applications.

UNIQUENESS AND SIMPLICITY

Many existing mounting assemblies provide a jacking feature which allows a vessel to be supported by the mounts prior to the installation of the load cells. Typically, the mounts will initially be fitted in a fully jacked condition; this avoids the risk of damage to the load cell, either as a result of physical abuse, or as a consequence of arc welding or other mechanical activity.

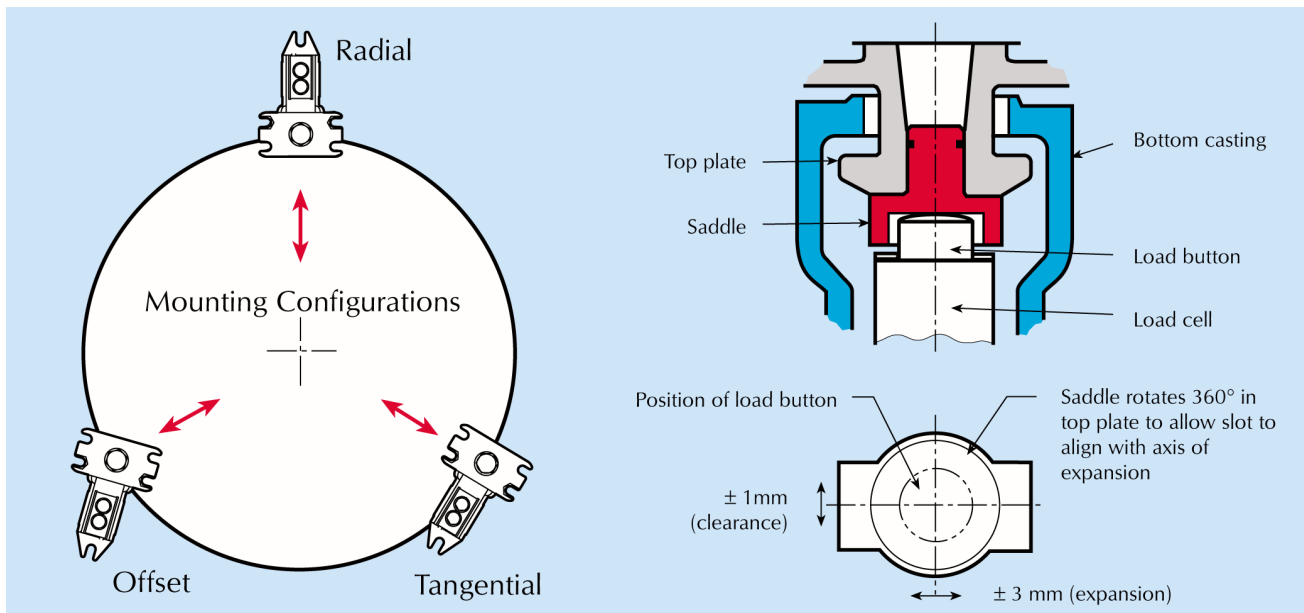
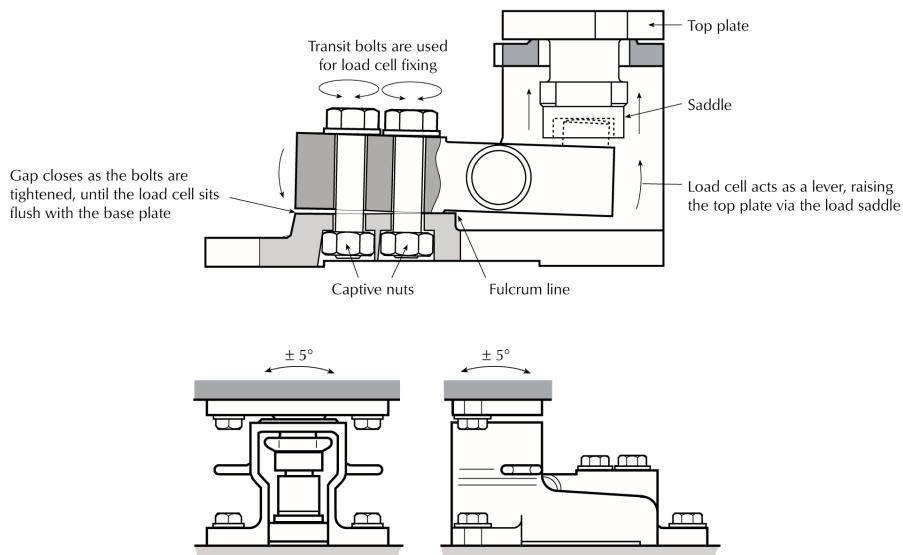
Once the vessel is secured in position, the load cell is installed, and the top plate of the mount is then jacked down onto the load button, making the system live.

The tried and tested method of jacking amount is by means of one or more threaded support pillars which engage with the top plate of the mount. This arrangement works to best advantage when the load applied to the mount is small – often when the vessel is empty.

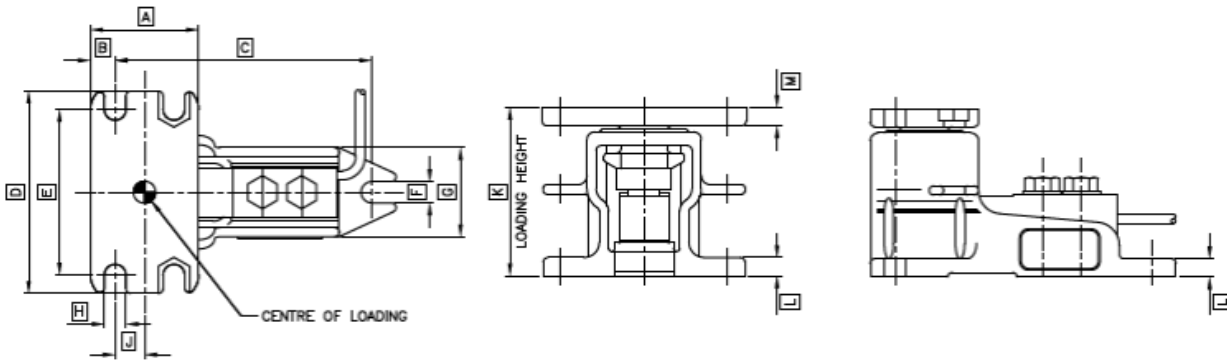
Under other load conditions, an external jack is usually employed to raise and lower the vessel in order to avoid overloading the support pillars.

LeverMount's® unique design is such that no separate support arrangements are necessary to raise and lower the vessel. The base casting itself provides a stable loadbearing platform prior to installation of the load cell. Once the vessel is in position and the two transit bolts are removed, the load cell is then used as a lever to raise the top plate of the mount into the working position, whether the vessel is empty or full.

Removal of a load cell at any time is accomplished by reversing the procedure, and requires no specialist tools. Installation, operation and maintenance of the vessel weighing system is consequently made safer, easier, swifter and less costly.



SPECIFICATIONS

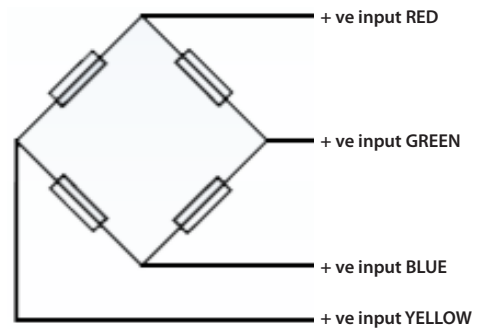


Capacity	A	B	C	D	E	F	G	H	J	K	L	M
20, 50, 100, 200	70	16	147	100	80	9	55	9	19	80	7	8
300, 500, 1000, 2000	70	16	168	132	108	14	60	14	19	110	12	12
3000, 5000	100	25	225	190	150	22	80	22	25	164	15	20

All dimensions in mm

	Load Cell Specification		Units
	LeverMount Lite	LeverMount	
Load Cell Approval	3000 divisions (C3) OIML R60 Class C	3000 divisions (C3) OIML R60 Class C	
Load Ranges	10, 20, 50, 100, 150, 200	300, 500, 1000, 2000, 3000, 5000	kg
Rated Output	2+/- 0.1%	2 ± 0.15%	mV/V
Combined Error	< ± 0.017	< ± 0.017	%*
Non-repeatability	< ± 0.015	< ± 0.015	%*
Creep (30 minutes)	< ± 0.016	< ± 0.016	%*
Temp Effect on Zero Balance	< ± 0.002	< ± 0.002	%*/°C
Temp Effect on Span	< ± 0.0012	< ± 0.0012	%*/°C
Compensated Temp Range	-10 to +40	-10 to +40	°C
Operating Temp Range	-20 to +70	-20 to +70	°C
Safe Overload	150	150	%*
Ultimate Overload	300	300	%*
Zero Balance	< ± 1	< ± 2	%*
Input Resistance	400	400	Ω ± 20
Output Resistance	350	350	Ω ± 3
Insulation Resistance	>5000	>5000	M Ω @ 100v.dc
Recommended Supply Voltage	10	10	V
Maximum Supply Voltage	15	15	V
Cable Length	3	5	m
Cable Material	Polyurethane	Polyurethane	
Protection Class	IP68 / IP69K	IP68 / IP69K	

*With respect to rated output



Electrical Connections:
Via 4 core, 5.7mm diameter, screened polyurethane cable. Screen not connected electronically to load cell.

Shipping Weights (kg):
10, 20, 50, 100, 150, 200 = 1.2kg
300, 500, 1000, 2000 = 4kg
3000, 5000 = 9kg

Construction:
Mount manufactured from cast 316 stainless steel. Load cell manufactured from high strength 17-4PH stainless steel.

UK Patent No. 2 339 026
US Patent No. 6 320 142

