CANSTAR
Instruments Inc.

CANSTAR LOAD POINT LEVELING ASSEMBLIES
LPLA

vs 140424

Making it easy to level load point assemblies on the floor and in/on structures with vertical adjustment and auto correcting for co-planar misalignment

CANSTAR Instruments has 20+ years experience with scale systems, used in processes, from weighing tanks, to sample scales, ladles on rail road cars, weighing bread crumbs, and from belt weighing system to belt tension measurement systems.

We have sold and commissioned scale capacities from a few 100 grams (4oz) full scale to 400 ton, and everything in between.

In order to meet a need in the industry Canstar developed the Load Point Leveling Assembly, the LPLA, allowing for proper installation of Load Points: A load point consists of a load sensor with it's mounting hardware.

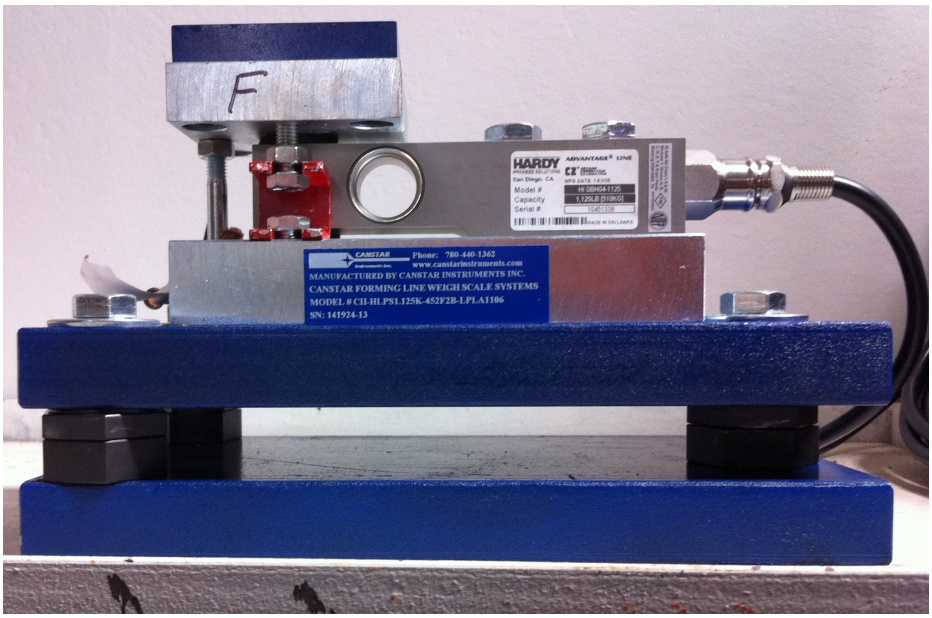
+ Level the sensor

+ Sensors in the same plane

+ Eliminate soft foot

+ Robust leveling system

+ Re-useable



From mining, to oil, pipeline, OSB, MDF, aggregate, food, and to agricultural industries, we all have the same challenges with weighing/force measurement systems:

unstable scale systems, uneven loading, improper load introduction
not achieving the desired resolution
mechanical interference
plant and process vibration
commissioning problems and frustration
scale height adjustment problems for inline and weighing in motion
speed of scale measurements

The LPLA allows the load points to be installed perfectly level and when the application requires it, co-planar in respect to each other.
In addition the LPLA will facilitate total scale height adjustment to leading and trailing platforms in processes and motion scale systems in processes.

First the 'bottom weld plate' is welded (pic 2) to a structure, or if ordered for floor mounting, it will come with extra holes for threaded rod.

The RC-HX Adjustable Mounting Chocks, c/w washers for auto soft foot correcting, are positioned to receive the load point mounting plate.

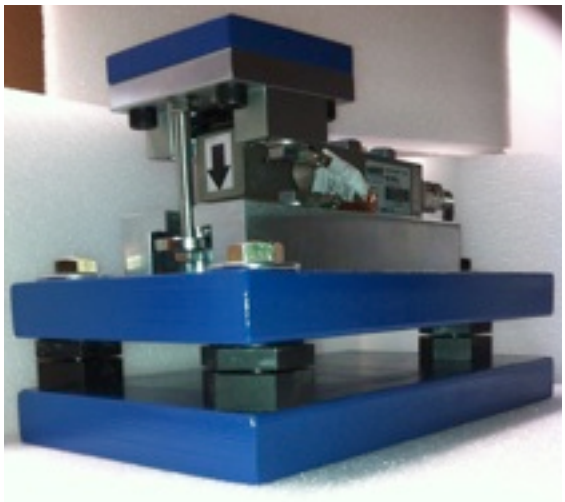
Pic 2 Bottom weld plate

The load point mounting plate is leveled as well as they are leveled in respect of each other.

Pic 3 Load point mounting plate

After the Load Point is installed,
the top blue plate (small) is to be installed/welded to the bottom of the structure that is to be weighed.

Pic 4 LPLA Load Point Leveling Assembly



Canstar can design and supply the LPLA for any capacity load sensor, complete with RC-HX Adjustable Mounting Chocks

Precisely

Application achievement: Panel board weighing system

Panel board "weighing-in-motion" application.
Retrofit of a scale system.
The scale is a relatively large, approximately 35ft long by approximately 12ft wide scale system, positioned on four tall concrete piers, about 10 ft high.

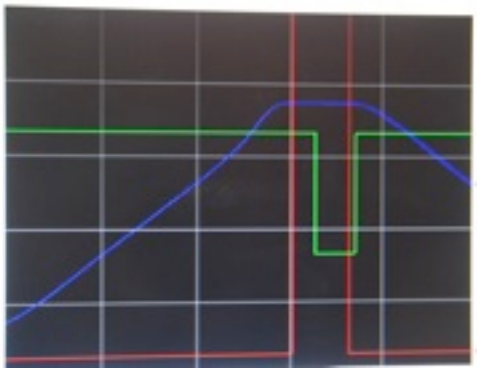
Pic 5 scale top view

Pic 6 scale partial bottom view

The panels are driven across a four belt scale. The weighing window is approximately 1.5 seconds. The dead weight of the scale, complete with drive and gearbox, is approximately 3,760 kg (8,300 lbs)
Panels weigh, depending on the product being produced, up to to 330kg (730lbs) each. The line speed varies but currently is at maximum of 125m/min (410ft/min)
There are four 4,500lbs capacity load points installed for a total capacity of 18,000 lbs, (8180kg).
With similar equipment a resolution of 10,000 counts is expected: 0.82 kg (1.8lbs)
With Hardy 4050 Process Weighing equipment, a typical count of resolution is 30,000 counts on a proper scale system: 0.275 kg (0.6 lbs)

As Hardy instruments and load point assemblies are un-matched for the weighing industry, we utilize electronically balanced Hardy Advantage Load Point Assemblies and Instrumentation, featuring the WaverSaver+. This combination of equipment allows a stable weight measurement of 0.1kg (0.225lbs), which is 80,000+ counts of resolution, for a weighing-in-motion type application

The blue line represents the gross weight and shows clearly the flat top (Pic 7) of the panel board during this short 1.5 seconds measurement window. The green line is the Motion detection bit in the Hardy, verifying a stable flat top, allowing the PLC to collect only valid board weights.



Pic 7 trends

Please contact Jacob Wiebenga for more information
jacob@canstarinstruments.com, tel 780-440-1362