



### H407 standard duty platform scale

*Technical Specification*

## DESCRIPTION

### General

- The H407 has been designed to withstand the rigours of everyday wear and tear when loading and unloading with fork trucks, pallet trucks and wheeled bins.
- It is ideal for use in a wide range of industrial weighing applications from goods receiving to the warehouse and dispatch.
- The minimal height of 90mm makes the H407 ideal for surface mounting. Fitting optional low-gradient ramps to a combination of side positions makes entry and exit as easy as possible.
- Fitted with four 1000kg nickel plated, matched, OIML approved shear beam loadcells. These loadcells provide accuracy, strength and the overload protection required to survive most medium duty industrial applications.
- For easy serviceability, the matched loadcell cables are terminated inside a water-resistant ABS junction box.
- A 5 meter or 10 meter long interconnection cable can be fitted to the H407 for easy connection to a wide variety of Avery Weigh-Tronix or third-party indicators. Minimum indicator specification: 5 V excitation, 2  $\mu$ V verification per scale interval.

### Design

- Built to last, the H407 is fabricated in the UK from tough, hard-wearing, anti-slip, 6mm thick deck structure. This gives the end user the full confidence and reliability needed when continually loading and unloading the scale close to its maximum capacity.
- Each loadcell is fitted with a robust adjustable stainless steel swivel foot which provides reasonable height adjustment and ensures high accuracy even on uneven floors.

#### A Loadcells

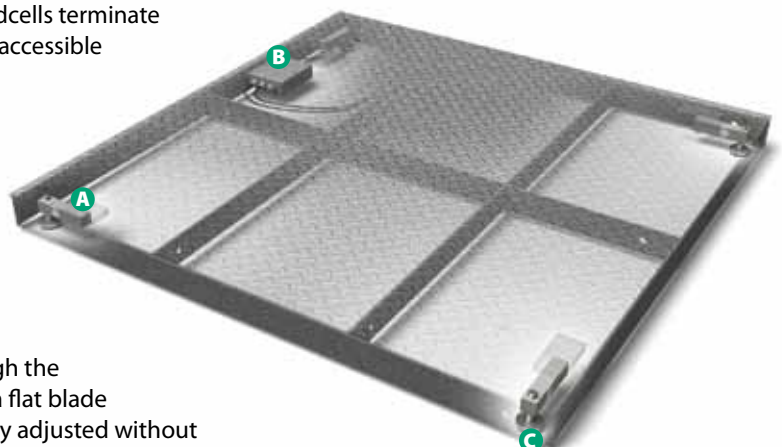
The H407 is fitted with four 3000d nickel plated IP67 R60 approved OIML matched shear beam loadcells. The loadcells terminate through in an IP65 ABS junction box which is accessible from underneath the platform.

#### B Bottom-access junction box

The junction box is mounted close to the side support rib to aid servicing whilst also providing extra protection to the junction box.

#### C Levelling feet

The floor scale can be quickly levelled through the four top-access feet adjustment holes. With a flat blade screwdriver, the feet can be quickly and safely adjusted without needing to lift the deck.





# SPECIFICATIONS

## Capacities & Strengths

**Capacity** – The H407 can be calibrated up to 3000kg x 1kg OIML approved.

**Maximum Strengths** – The maximum strength signifies that the H407 has been designed to fully withstand UDL loading (uniformly distributed loads) up to 3000kg (6600 lb).

Designed to withstand 1500kg (3300 lb) axle loading with a point loading of 750kg (1650 lb) over a small area of 75mm x 100mm and at an even pressure of 10 bar (150 psi).

## Floor Scale Strength

Model	H407	H407
Deck size (mm)	1250 x 1250 x 90	1500 x 1500 x 90
Net Weight	111kg	153kg
Scale max Capacity	3000kg	3000kg
Loadcell Capacity	1000kg	1000kg
Max UDL loading	3000kg	3000kg
Axle loading	1500kg	1500kg
Wheel loading	750kg	750kg
Contact area	7.5cm x 10cm	7.5cm x 10cm
Foot print pressure	10 Bar (150 PSI)	10 Bar (150 PSI)

## Sizes, Capacities & Division Size

(when used in conjunction with an Avery Weigh-Tronix E1005 /E1010 indicator)

Dimensions mm	Capacity
1250mm x 1250mm x 90mm	3000 kg x 1 kg 1500kg x 0.5 kg 600kg x 0.2 kg
1500mm x 1500mm x 90mm	3000 kg x 1 kg 1500kg x 0.5 kg 600kg x 0.2 kg

## Ramp Size –

1250 mm x 1000 mm (67 kg weight)

1500 mm x 1000 mm (81 kg weight)

Ramp height: 90 mm; Gradient: 8.9%; Angle: 4.8°

**Finish** – Hard-wearing antique silver powder coating gives extra protection to the floor scale when in use.

**Lifting & Repositioning** – Two M16 threaded top-access eye bolt holes ensure safety when lifting and installing.

## Shipping dimensions and weights –

1275mm x 1275mm x 210mm 113kg

1525mm x 1525mm x 210mm 155kg

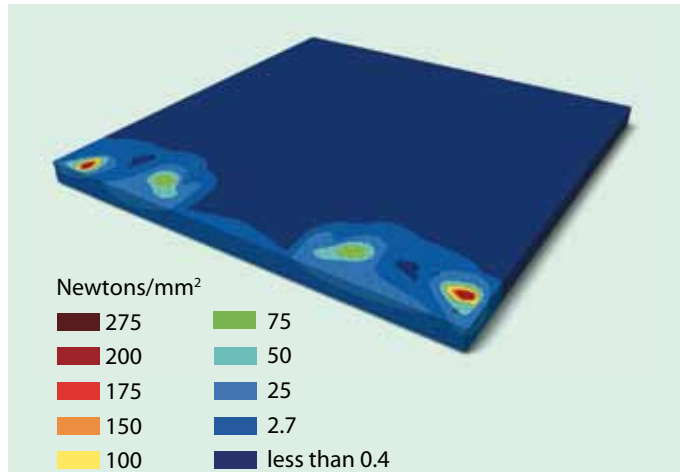
**Weight sensors** – OIML R60 approved, matched shear beam loadcells

**Loadcell output** – 3mv/v

**Overload protection** – 150%

**Temperature** – -10 to 40°C (14 to 104°F)

**Accuracy** – 3000 d, OIML approved



## Finite Element Analysis (FEA)

The diagram above shows the results of a computer Finite Element Analysis (FEA) – a stress analysis tool. The different shadings indicate levels of stress within the H407 when loaded with a two-wheel pallet truck. This is equivalent to 100% of the maximum load over 2 axles. As you would expect, most of the stress is concentrated in the areas directly underneath the wheels and on the weighing devices. However, the amount of stress in these critical areas is still well within the safe working limits of the steel used on the scale, registering 100 Newtons/mm<sup>2</sup> under the tyres and 200 Newtons/mm<sup>2</sup> at the loadcell mounting areas. (The yield strength of the structural steel is 275 Newtons/mm<sup>2</sup>.)

This means that the H407 can withstand the day-to-day point loadings that you would expect from steel bins, fully laden pallet trucks and other industrial applications.

## Optional ramps

The H407 can be supplied with low-gradient ramps which can be placed in the most efficient traffic patterns to speed up workflow from any direction. (Optional ramps are available at additional cost.)



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