

Over 85 Years of Innovation

IN MOTION

**AIRCRAFT
WEIGHING
& BALANCING**



RUN **WEIGHT**

FOR A SAFE TAKE-OFF & LANDING

*‘Aviations first patented tolling safe guard solution
to cross checking any aircrafts total weight,
whilst in-motion, prior to take off...’*



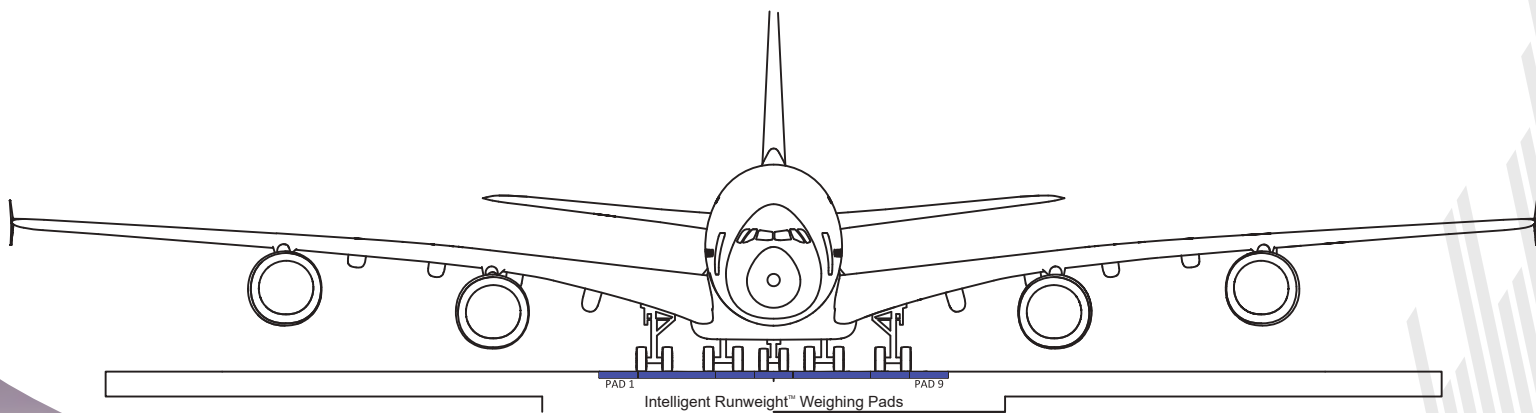
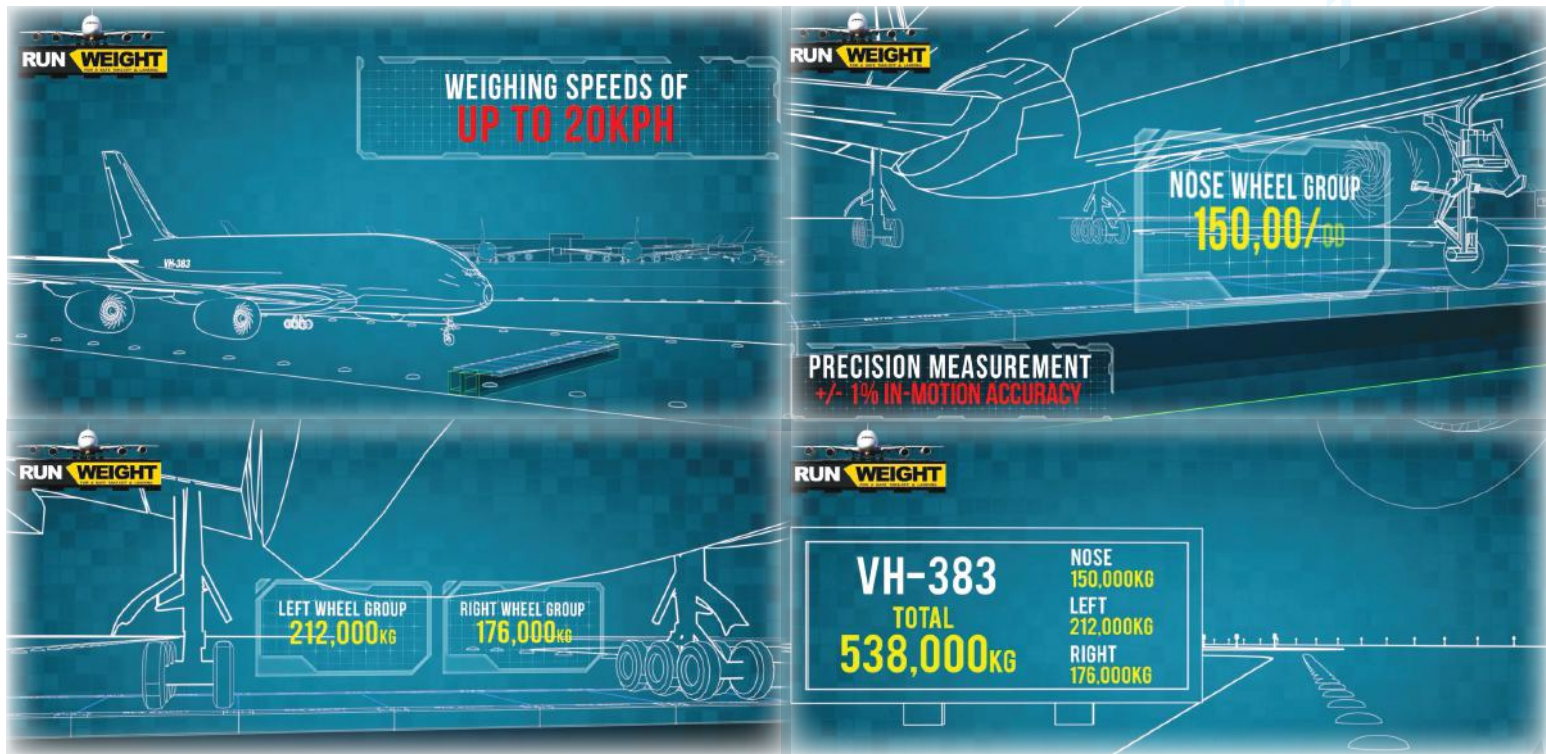
TRAK  **BLAZE**

WHAT IS RUNWEIGHT™

Runweight™ is an intelligent Weights and Balances System that is integrated seamlessly into an existing departure runway of an airport or airline maintenance facility. The Runweight™ system provides flight crew with highly accurate live cross-checking weights and balances data, prior to take-off.

For the first time in aviation history, Runweight™ offers airlines and flight crew a safety net solution to validate and cross-check any aircraft's total weight and balances, whilst in motion and prior to take off and landing.

The need for the Runweight™ system becomes a viable solution to aid the global airline industries safety record. It provides a secondary safety net and solution to assist in reducing human error and at least question and or verify the data a pilot or engineer inputs prior to take off.



Typical design of the Runweight™ system installed for all types of planes up to and including Airbus A380

WHY IS **RUNWEIGHT™** REQUIRED IN MODERN AVIATION?

In 2014 the Transport Safety Bureau tabled its independent investigation into the occurrence of aviation take-off incidents both in Australia and Internationally that occurred between 1989 and 2009. The report identified RISK CONTROL relative to human error involving incorrect take-off performance parameter calculations methods used as a contributing factor behind take-off incidents / accidents. The report identified that a single solution for minimising or eliminating these errors was missing and made recommendations, including the need for a procedural SYSTEM CROSS-CHECK - *'Where more than one system is available for calculating take-off performance parameters, system manufacturers and airlines should consider provisions for cross-checking the data between both sources.'*

The Transport Safety Bureau further identified that as technology evolves, machines become more complex, which in turn affects the way in which humans and machines interrelate. This interaction has created a new set of error modes and one such error that continues to surface is the calculation or data entry of erroneous take-off performance parameters, relative to - Zero Fuel Weight (ZFW), Take-off Reference Speeds (V speeds) and importantly Total Overall Weight (TOW).

In 2016 there is still NO safety cross-checking system available to the Australian or International Aviation Industry, Pilots and/or Engineers, relative to one of the most critical factors in determining 'take-off performance parameters' - Total Overall Weight (TOW).

Incorrect take-off Weight.
October 14, 2004, MK Airlines Flight 1602

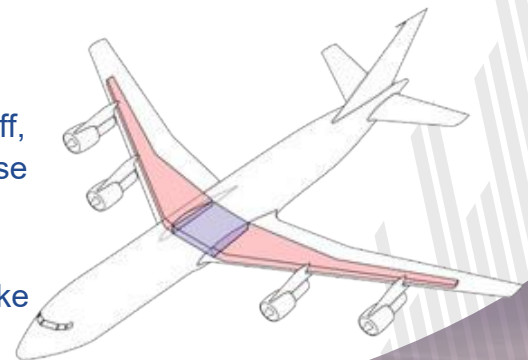


China Airlines Flight 611 - Tail Strike



Runweight™ provides modern aviation with an accurate weigh in motion solution to measuring not only the aircraft's TOW prior to take off, but also additional important information including the weight of the Nose Gear, LH Wheel Group and RH Wheel Group.

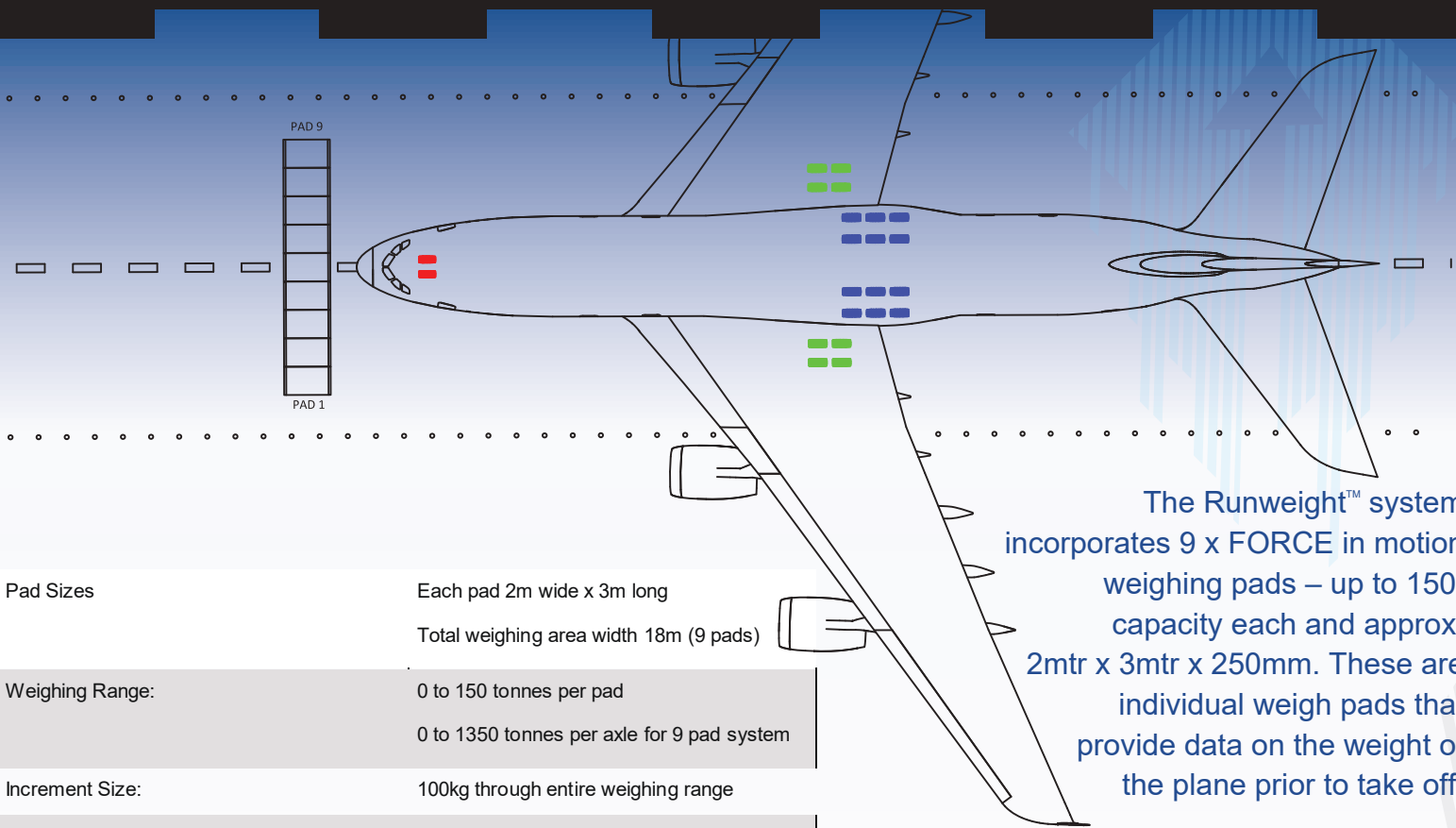
For the first time, flight crews can now visually ascertain the stability of their aircraft through critical weights and balances prior to take off and systematically use the information provided by Runweight™ to cross-check their data entry's. It is without doubt, the use of the Runweight™ system coupled with procedural cross-checking will prevent multiple tail strikes, near misses and fatal crashes from occurring...Runweight™ - will save lives!



TECHNICAL DATA



RUN **WEIGHT**



The Runweight™ system incorporates 9 x FORCE in motion weighing pads – up to 150t capacity each and approx. 2mtr x 3mtr x 250mm. These are individual weigh pads that provide data on the weight of the plane prior to take off.

Runweight™ for a safe take off & landing

Pad Sizes	Each pad 2m wide x 3m long Total weighing area width 18m (9 pads)
Weighing Range:	0 to 150 tonnes per pad 0 to 1350 tonnes per axle for 9 pad system
Increment Size:	100kg through entire weighing range
Load - Totaling:	In dynamic mode 6 landing gear groupings
Precision –	
Dynamic Mode:	1% or better up to 20km/h
Static Mode:	0.05% per pad
Operating Temperature Range:	Digital Controller -5°C to +50°C Load Cells -20°C to +60°C
Digital Controller Powered by:	110V or 220V +/- 10% AC 50/60hz +/- 2%
Platform Structure:	Painted mild steel plate, welded box structure
Individual Load Cell Capacity:	100t
Degree of Load Cell Protection:	IP68
Number of Load Cells Per Pad	.6



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