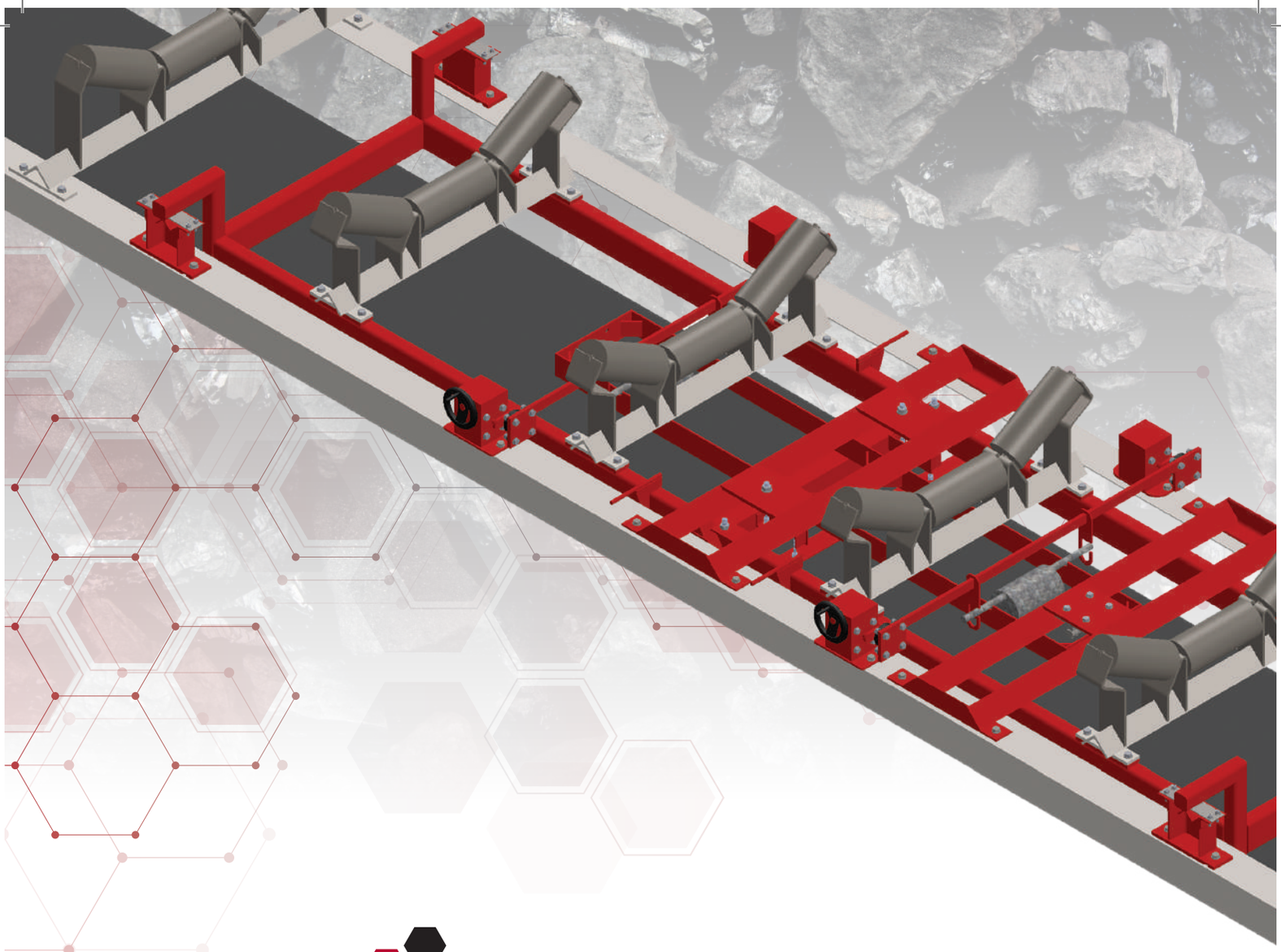


WEIGHSCAN

Weighing in where no one else can

RTI manufactures a range of high accuracy conveyor belt scales to suit a broad spectrum of industry applications, which means we can **weigh material where nobody else can.**

Using the advanced **WeighScan** microprocessor-based weighing transmitter to compute rate (T/H) and totalised tons along with instantaneous belt load (kg/m) and speed (m/sec) indications. The descriptive and user-friendly graphical touch screen interface allows for easy operation without referring to the manual.

RTi
MAXIMUM YIELD. REAL-TIME RESULTS.

WEIGHSCAN

PROWEIGH

Accuracy and maintenance

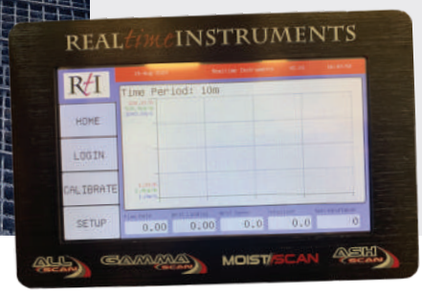
The ProWeigh range of scales continue to perform with impressive results in the harshest mining environments. Requiring little or no maintenance while maintaining accuracy over extended periods of time.

ProWeigh scales are the first choice at mine sites the world over where reduced maintenance and re-calibration is a requirement.

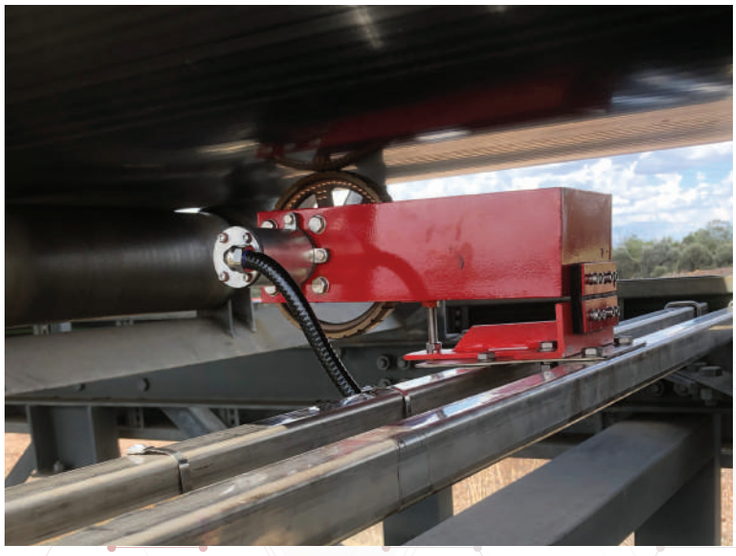
Calibration

Each weigh frame is supplied with an ***on-board test weight*** to facilitate calibration checks. Operated by one person the calibration check is repeatable, accurate and safe.

The **WeighScan** transmitter's user-friendly calibration menu provides As-Found error and correction tracking.



WeighScan Integrator



APPLICATIONS

- R.O.M. Run of Mine
- Custody transfer
- Ore accounting
- Inventory control
- Up to 2400mm belt widths
- Heavy duty applications
- Varying belt load applications
- Low bulk density materials e.g. coal, wood chips, bagasse and the like.

BELT SPEED SENSOR

Since the belt speed measurement is just as important as the mass, we offer a high-resolution digital encoder. The rugged design ensures reliable operation in heavy duty applications. The IP65 aluminium enclosure seals the electronics from the harsh environment.

A high wear resistant wheel is in contact with the underside of the feed belt for true material velocity measurement. The drive unit is also equipped with a self aligning hinge to follow belt direction, belt lift and sag.

RT2000 - high accuracy belt speed sensor. Rugged design for extended life under harsh mining conditions.

RTi

WEIGHSCAN

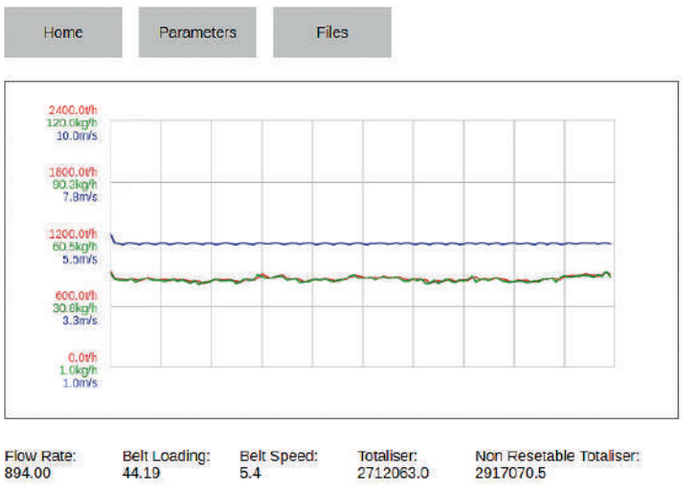
HMI (Human Machine Interface)

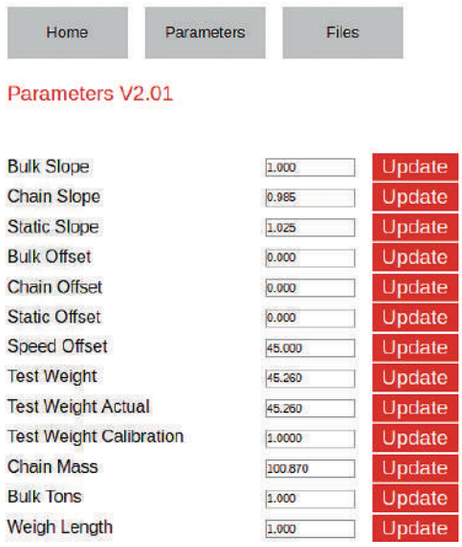
Purposely designed for ease of use the RTI **WeighScan®** weighing transmitter incorporates an industrial graphical touch screen with intuitive menu's allowing engineers full and unimpeded access to powerful features with little or no training.

The **WeighScan®** are supplied as standard with all RTI ProWeigh® weigh frames and also allows an easy upgrade path for legacy systems, regardless of its configuration. Single or multiple loadcells are monitored individually by the **WeighScan®** via its independent loadcell input channels. This feature facilitates health monitoring of individual loadcells via historic trends. In addition, a damaged loadcell can be ignored by the measurement system eliminating erroneous load calculations resulting from a single damaged cell. The **WeighScan®** will continue to report belt load and feed rates from the remaining loadcells until the damaged cell can be replaced, e.g. during a shutdown.

Remote monitoring and diagnostics as well as remote factory support may be provided via the built in 3G/4G modem.

The **WeighScan®** also features a logging function, recording operational data and alarm conditions for periods of up to 3 months, which may be used for diagnostic purposes. The data can also be downloaded in CSV format for archiving and reporting purposes.





RTi

WEIGHSCAN

SPECIFICATIONS

ProWeigh Weighbridge

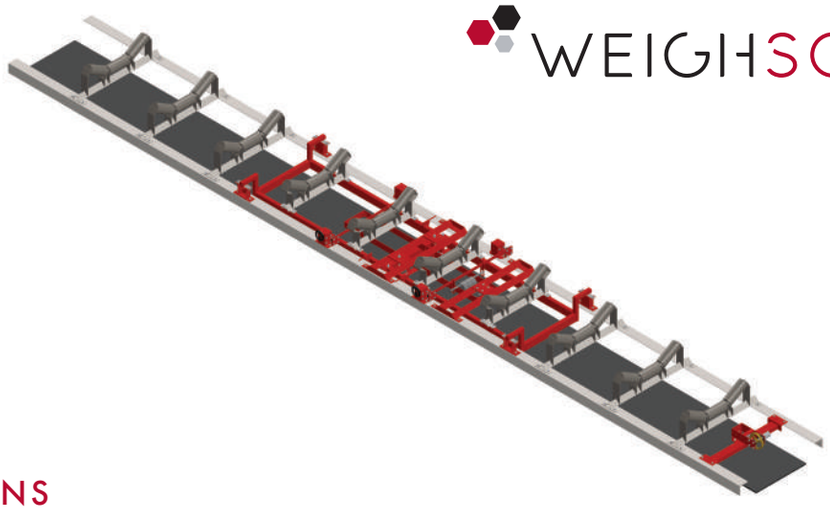
Construction	Two, four and six weigh idler, counterbalanced, approach, retreat weigh frames of welded mild steel with maintenance-free pivots.[1]
Mounting	Stringer mounted, low profile, mounts in place of standard conveyor idlers. Belt widths from 450mm to 2400mm.[2]
Idlers	For best accuracy weigh class idlers are recommended on the weigh bridge as well as two or three before and after the weigh area.
Accuracy	< +/-0,25% on approved installations.

WeighScan Weighing Transmitter

Mounting	Field/wall mount in single or double door enclosure.
Construction	Powder coated mild steel enclosure.[1]
Protection	IP65 weatherproof enclosure.[3]
Power Supply	• 90 to 250Vac (auto-switch mode) • 50/60Hz • 50VA
Outputs	• 4 x analogue outputs - 4 - 20 mA (1kΩ max.). Programmable to flow rate, belt speed and belt loading. Bulk material density and volumetric flow rates available when used in conjunction with a profile scanner. Programmable for either rate (T/H) or Control. • 1 x Volt free relay contact. Rating 1 A at max. 30 Vdc[4]. Programmable for either remote totalisation or sampler control. • 1 x RS232 and RS485 Modbus comms output.
Inputs	• 2 x analog inputs. Programmable for allow for use with a moisture analyser or profile scanner for calculation of "dry tons" or bulk density and volumetric flow rates.
Serial Communications options	• Ethernet (Ethernet/IP and Modbus TCP/IP) • ProfiBus DP/PA • ModBus RTU • DeviceNet • Allen Bradley Remote I/O

1. Other materials e.g. Stainless steel upon request.
2. Special mounting on request.
3. Other e.g. IP66 or higher on request.
4. Higher voltage or current ratings available on request.

WEIGHSCAN



SPECIFICATIONS

Load Sensor

Mounting	Mounted under tension, providing immunity to load shifts. Built in protected against overload and shock.
Quantity and type	Single, stainless steel precision beam type load cell.
Protection	IP68 hermetically sealed.
Excitation	5Vdc +5% (from **WeighScan**).
Output	2mV/V +0.1%.
Overload	Safe 150%, Ultimate 300%.

Speed Sensor

Construction	Aluminium housing with high wear-resistant drive wheel.
Type	High accuracy digital encoder (2,000 pulses/Rev).
Mounting	Non-driven pulley stub shaft or via drive wheel in contact with belt.
Protection	IP65.
Excitation	12-30Vdc (from **WeighScan**).
Low Speed range	0.1 to 25m/min (0.0016 to 0.417m/sec).
Standard Speed range	25 to 600m/min (0.417 to 10m/sec).

LOCATIONS

AMERICAS | ASIA | EUROPE | OCEANIA | AFRICA | MIDDLE EAST

GLOBAL HEADQUARTERS

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