



# Procon Engineering



**LOAD CELL**

**BELTWEIGHERS**

***.....robust industrial precision***

## Our Pedigree

**Procon Engineering** is a leading manufacturer and supplier of turnkey solutions for Process Control and Weighing Systems. The company incorporates the well-established names of **Defiant, Negretti, Inflo Belt Weighers** and **Lintvalve Boiler Leak Detection Systems**.

We have experience across a broad spectrum of industries, especially in mining, quarrying, nuclear, power generation, food and beverage, pharmaceutical, chemical, general engineering and building materials.

**Our skill set includes:**

- System Feasibility Studies and Design
- Project Management
- Process Evaluation and System Optimisation
- Mechanical and Electrical Engineering
- Service and System Maintenance
- Panel Building
- Digital and Analogue Electronics
- Application and System Software
- Hazardous Area Systems

We are an ISO9001:2008 accredited company, and have Quality and Health and Safety approvals from institutions including **Lloyds Register, National Measurement Office & National Britannia**, together with industry relevant Passport Schemes.

## EP52 Load Cell Beltweigher Controller

The **EP52 Proweigher** is the latest in a long line of dedicated controllers from Procon; designed for demanding beltweighing applications in the harshest of environments. This powerful controller, which is housed in a compact enclosure with an IP65 front panel, ensures high performance combined with long-term repeatability.

When supplied with the **Procon Load Cell Beltweigher**, depending on the requirements and conveyor design, accuracies of  $\pm 0.5$ , 1 and 2% can be achieved. Retransmission of live net weight, flow rate and totalised values can be by either serial communications or analogue outputs. The EP50 is also field bus compatible.



- Load cell input
- 5 digit LED and 2 x 20 character LCD displays
- Integrates with PLCs and SCADA
- 2 optional analogue outputs
- IP65 front panel
- Belt speed control and batch control

## Software Solutions



**Procon Engineering** provides both application and system software. Our engineers have, over many years, built an extensive in-house modular software library. Consequently, when we design customised software solutions for overall plant control, we can incorporate existing tried and tested software modules. This approach greatly increases conformity and reliability thus reducing final test and commissioning timescales for our final software.

## Panel Building

Electrical, electronic and pneumatic control panels, including MCC and multibay units, are built in-house specifically for each project using standard components. Panels are functionally tested and fully documented prior to installation and commissioning.



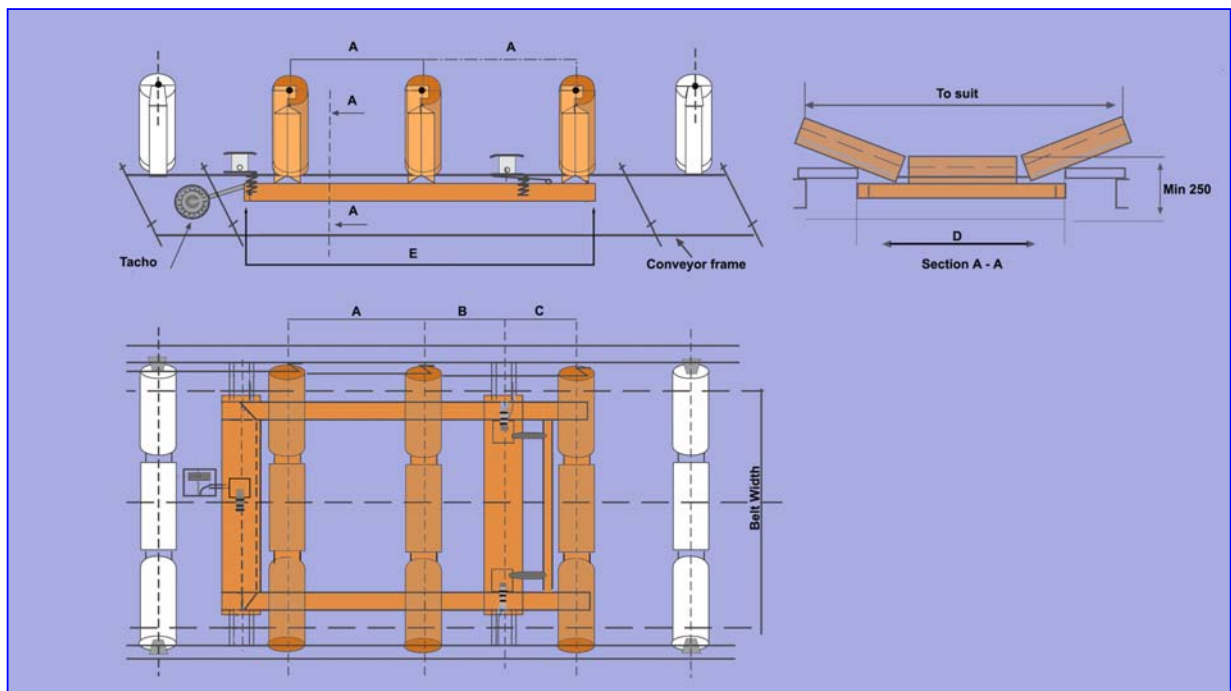
## In-Process Load Cell Beltweighers

The **Procon Load Cell Beltweigher** can either be single or multi-idler and the weigh frame design ensures easy mounting in the conveyor. Depending on the conveyor design and required accuracy, the weighbridge can consist of 1, 2 or 3 machined mild steel coated idlers. Each system comes complete with an adjustable idler before and after the weighbridge. The load cell signals processed by the EP50 controller are combined with the belt travel speed (measured by the tail drum mounted tachometer) to provide an accurate weight reading per unit time and totalised values.

- Conveyor widths: 600 – 1400 mm (up to 2000 mm on request)
- Flow rates: 0.5 – 5000 tonnes/hour
- Load cells: 1, 2 or 3 stainless steel IP68 load cells depending on required accuracy
- Repeatability duration: typically 6 months depending on application

Belt width	Idler	A	B	C	D x E	Approx wt kg
500	Ø89 x 200	1000	600	400	600 x 2220	100
650	Ø89 x 250	1000	600	400	600 x 2220	106
800	Ø108 x 315	1000	600	400	800 x 2220	126
1000	Ø108 x 380	1000	600	400	800 x 2220	134
1200	Ø133 x 465	1000	700	500	1000 x 2620	192
1400	Ø133 x 530	1000	700	500	1000 x 2620	200

All measurements in mm unless otherwise stated



## Simple Calibration

Periodic calibration checks can be carried out simply and expediently by utilising the roll-over calibration weights. These dead weights are normally 'parked' across the conveyor stringers and then lowered by the cam mechanism to carry out calibration.

**Note:** For higher accuracy and Weights & Measures approved beltweighing applications, Procon offer an alternative technology in the form of a vibrating wire beltweigher system. Please refer to the **Procon Info Beltweigher** brochure.

## Project Management

We understand how important it is to work closely with our clients from the outset of any project and as a result, **Procon Engineering** is organised specifically to provide highly effective project management. As part of this process we establish the functional design specification with our customers and provide detailed project plans, milestones and reviews - all under the umbrella of our **ISO 9001:2008** accreditation. We take full responsibility for your system providing you with one point of contact. In many applications we work in conjunction with clients' engineering departments to ensure smooth implementation within required time frames.



## Service and Support

**Procon Engineering** places great emphasis on after-sales service and support. We operate a comprehensive service, support, installation and commissioning facility throughout the **UK and the Rest of the World - 24 hours a day, 7 days per week**. Our contract maintenance schemes ensure your plant performance is maintained at peak potential. We support and cover our own and most other manufacturers' products and systems.



- 7-day, 24 hour Service and Support
- Service Contract Agreements
- Cost-effective Calibration Techniques
- Installation and Commissioning
- Repair, Refurbishment and Upgrades
- Remote Modem Diagnostic Support



We also offer comprehensive training, both in-house and on site, so that you can get the best from your belt weighing system and process.

Procon Belt Weighers are in use throughout the world and our customers include:  
**VOEST ALPINE, EMO, KAZZINC, HONG KONG ELECTRIC, POWERGEN, EON, SSAB Sweden, LKAB Sweden, BRITISH SUGAR, ALCAN, BAOSHAN PRC, TEXAS UTILITIES, ESKOM South Africa, LA FARGE, CORUS, SCOTTISH POWER, UK COAL and TATE & LYLE.**

*Other brochures are available on request pertaining to our capabilities in:*

*Process Control, Process Weighing, Hazardous Area Weighing, High-performance Beltweighing and Service & Support*

**ATEX**



**Procon Engineering**

**A Division of National Oilwell Varco UK Limited**

**Trading Address:  
Vestry Estate  
Sevenoaks  
Kent TN14 5EL, UK**

**Tel: 01732 781300  
Fax: 01732 781311**

website: [www.proconeng.com](http://www.proconeng.com)

Registered in England  
No. 873028

Issue 2. November 2014