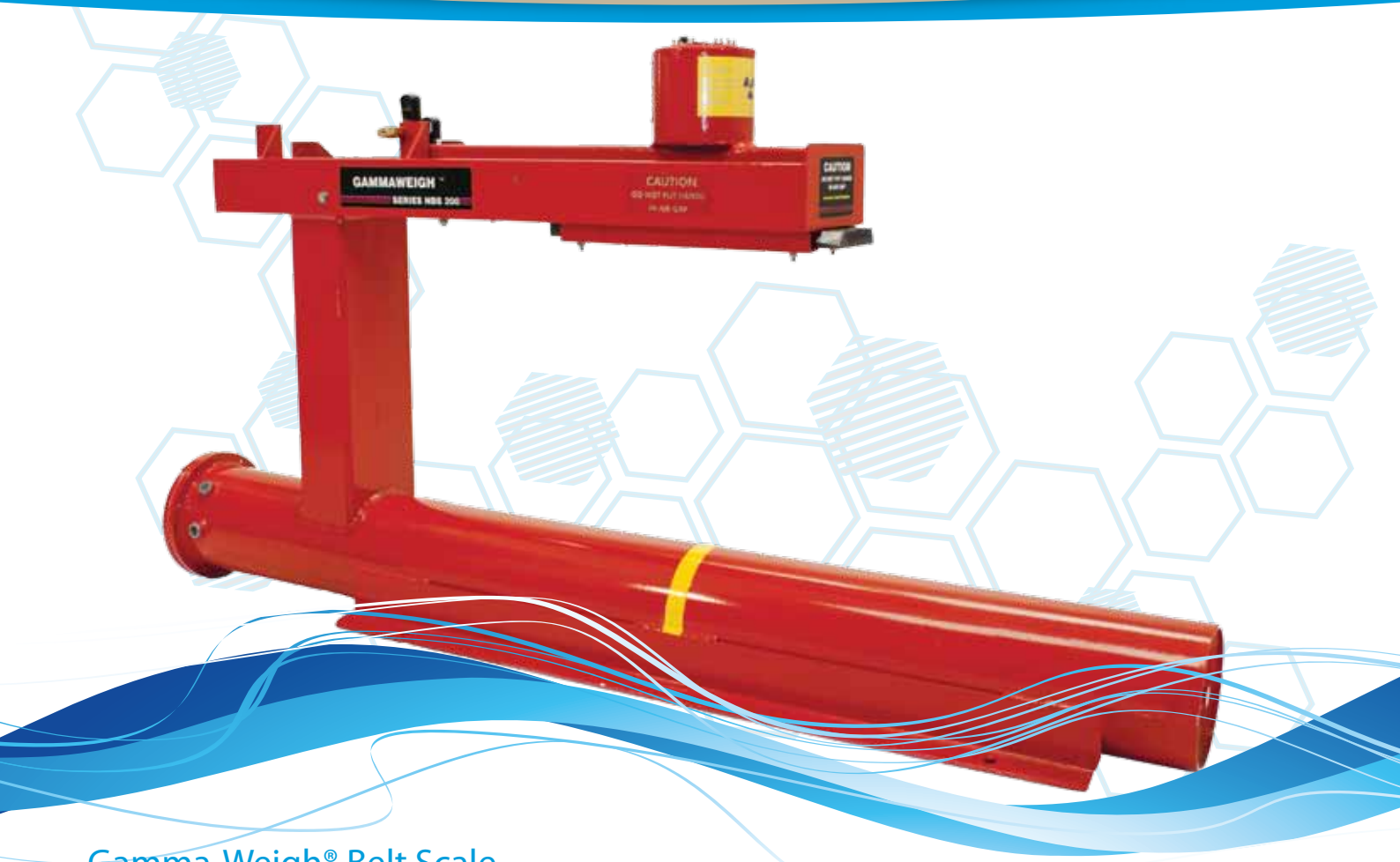
PROCESS AUTOMATION
Industrial Process Measuring & Control Equipment

Conveyor Scale Weigh Frame
Gamma Scale



Gamma-Weigh® Belt Scale

The Gamma-weigh® scale provides non-contacting measurement of material on a conveyor, operating on the principle of gamma ray absorption.

Gammas are emitted from a radio-nuclide (source) housed in a lead filled container (source holder) and sensed on arrival by the strip detector.

The source and detector are assembled into a C-Frame arrangement.

Any material between the source and detector will absorb some of the emitted gammas. The greater the mass (weight) of material between the source and detector, the more absorption will occur.

The effects of non-linear absorption and decay of the radio isotope are fully compensated for in the weighing transmitter (UNIPRO®).

The C-Frame slides easily into the conveyor assembly, for simple bolting into position.

The Gamma belt scale is ideal for applications requiring low maintenance, plant control or where available space for installation is limited.

Being non-contacting, these scales are unaffected by wind, belt tension, vibration, idler condition, conveyor structure rigidity, conveyor length etc.

Installation of these scales is extremely simple, requiring very little space and consequently cost of installation is low.

On approved installation in-accuracies in the order of 1% to 2% of Calibrated Range are possible for extended periods of time with little or no maintenance.

Quality Management ISO 9001:2008

CERTIFIED IQNet MANAGEMENT SYSTEM

Reg. No. 324369 QM08

Process Automation manufactures a variety of belt scales in acknowledgement of our customers (applications) varied requirements. The Scale Models differ primarily in the weigh bridge designs. These weigh bridges vary, not only in their length (number of weighing idlers), but also on their technology (principle of operation).

Weight (Mass) Sensor

Isotope Used	^{137}Cs (Standard)
Half Life	30 years
Activity	(185 - 740 MBq) - Subject to belt width
Detector	High sensistivity scintillation type
Temperature Range	Storage: -20°C to +50°C Operating: -10°C to +40°C
C-Frame Construction	Painted mild steel (Others optional)
Belt Widths	450 mm through 2400 mm
Weight	Approx. 110 - 200 Kg - Subject to belt width
Calibration Reference	Built-in Reference Absorber