

AUSTRALIAN

# BULK

**HANDLING**

REVIEW

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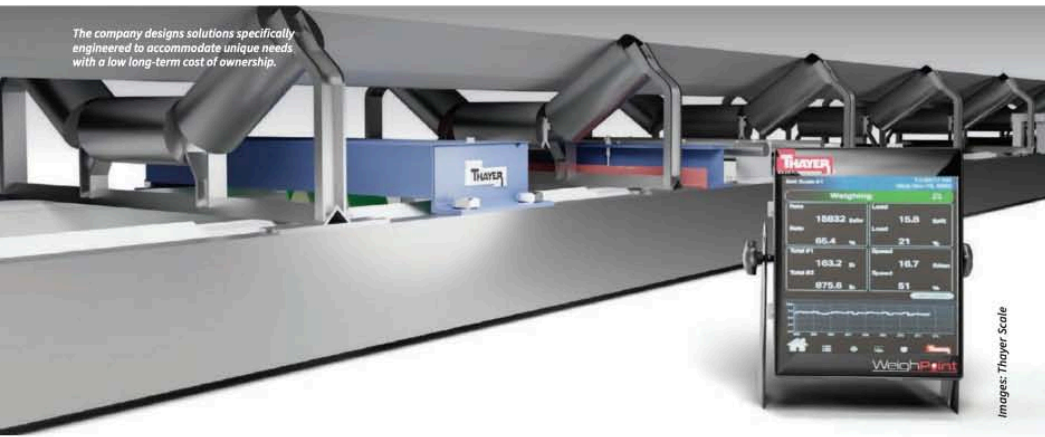
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**DHHI**

The company designs solutions specifically engineered to accommodate unique needs with a low long-term cost of ownership.



Images: Thayer Scale

## Non-stop measurement

Thayer Scale has developed highly accurate technology that allows producers in a wide range of bulk handling industries to accurately measure their material flow.

### THE MINING INDUSTRY RARELY

stops – 24-7 operations are common as every bit of ore is processed in the most efficient way possible.

Mines can't afford to rely solely on equipment like truck scales to measure the flow of ore; they need a continuous solution.

Allen McIntosh, Business Segment Manager for Thayer Scale, told *ABHR* that the mining industry is looking for solutions that can maintain measurement performance despite shock, impact, and ongoing dust build-up without pauses.

"Some of the advantages of a continuous weighing process solution are accuracy, reduced equipment footprint, and fewer material transfer points which reduces material degradation," he said.

"It also allows a site to accurately measure the flow of material entering and leaving your facility. For example, a power plant might be combining different grades of material into its burners, such as biomass and coal. The site needs to control the flow of each material to carefully manage the combustion, and it can only do that if it has an accurate rate of flow for each.

"Using gravimetric flow control instead of volumetric flow control helps

eliminate errors that may be introduced by variations in a material bulk density and particle shape. When coupled with an advanced flow control system, the resulting increase in accuracy can literally save customers millions of dollars per year."

Thayer Scale has more than 75 years of continuous operation, working with clients around the globe to find ways of accurately measuring their material.

Founded in 1949, it provides engineered solutions for the food, energy, cement, chemical and mining industries. The company has a specialised focus on conveyor belt scales and gravimetric feeders.

Thayer Scale's clients often have unique manufacturing challenges that require more than a "one size fits all" approach.

The company designs material handling and control solutions specifically engineered to accommodate unique needs with a low long-term cost of ownership.

The company's project engineering team collaborates with customers throughout the design, manufacturing, and testing phases to ensure operational and cost objectives are met.

For the bulk handling industry, two of its products are particularly popular – its belt scales and weigh belt feeders.

McIntosh said the company's belt scales are popular in the mining industry, where they are installed as part of a site's conveyor system.

"Thayer Scale provides the entire belt scale system, including the support assembly. This allows clients to accurately measure the weight and flow rate in their process," he said.

"We make many different types of belt scales, with weigh sections consisting of between one and eight idlers. The greater the number of idlers, the more accurate the system is.

"In the United States, these scales are certified for trade."

Attaining a National Type Evaluation Program (NTEP) certification allows the company to sell certified scales in the United States.

"Certified" in the US indicates that the device meets a given tolerance, sometimes as low as + 0.1 to 0.125%, and has passed testing to verify its conformance.

The international equivalent is the International Organisation of Legal Metrology (OIML), which Australia uses.

NTEP certification means clients can sell directly from the scale with confidence in the accuracy.

Andy Forrester, vice president of sales and marketing at Thayer Scale, said extreme accuracy is one of the key things that sets the company apart.

"The heavy industrial markets are looking for durable, robust equipment that can withstand the shock load of thousands of tonnes an hour. They need to be rugged, durable and built to survive," he said.

"Specific requirements differ from segment to segment, but the one thing that they are all looking for is accuracy.

"Our proprietary force measurement suspension system (FMSS) functions as a force vector filter. It discriminates between net load measurement forces and all other undesirable extraneous forces. In standard weighing systems, load cells often interpret vibration as weight variation. FMSS technology makes load cells virtually immune to the detrimental effects of vibration."

The FMSS technology makes Thayer Scale's equipment exceptionally durable, immune to shock loads, dust and dirt.

On top of that, the scales are low-maintenance devices that can last for decades.

In fact, there are several Thayer Scale products that were installed in 1974 and are still in operation today.

Forrester said Thayer Scale's instrumentation also includes several features that ensure calibrations don't interrupt business as usual.

"We can remotely perform calibrations without needing access to the scale itself. The devices can also be fully automated to go through a zero sequence," he said.

"They're designed to integrate with programmable logic controllers, allowing sites to readily exchange information back and forth. There's also the ability to access the information from a web browser, and if a site gives us access, we can drill down into the diagnostics from anywhere in the world."



Thayer Scale's clients often have unique manufacturing challenges that require more than a "one size fits all" approach.

Thayer Scale has established a regional manager based in Malaysia who covers Southeast Asia and the Australian region. The company is actively working with local organisations and is in discussions with potential partners to expand locally.

"We get a lot of repeat business from our customers," Forrester said. "They have been using our equipment for decades and form lifelong relationships with our team. We're excited to continue growing and supporting these products in Australia" **B**



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