CASE STUDY

Client's Background: The client is a global leader in the design, development and manufacture of aerosol dispensing solutions that meet a wide range of market needs and different applications. These solutions utilise plastics and other polymers that are needed in the manufacturing process. The client needed to measure the quantity of plastic in their silos.

Project Requirements:

- The client already had measuring devices on their silos, but they were disappointed with the inaccuracy of those devices.
- They wanted to find a technology that could deliver greater accuracy. The material stored in the silos was polymer granules, which were pneumatically conveyed from the silos to the injection moulding machines in the factory.
- The client also wanted local support, installation and calibration services from a Brazilian company.

Fig. 1 - Skirted silos of Theodosio Randon used for storing polymer granules

Fig. 2 - Pneumatic conveying discharge system

The factory manager contacted Theodosio Randon about silos. Theodosio Randon made a presentation about high-accuracy weighing systems offered by Thames Side's agent in Brasil (NVcon Soluções Corporativas). The factory manager already knew that NVcon Soluções Corporativas can offer fast local support, local installation and calibration services.

The Solution:

- Thames Side Sensors' Brazilian agent, NVcon Soluções Corporativas, recommended using the benchmark VC3500 (15 tonnes capacity) load cells together with their patented MasterMount® mounting accessory for repeatable and accurate weighing performance.

- The MasterMount® is very popular worldwide because of its fast, simple and safe installation. The load cell can be installed and removed (if necessary) without the use of specialised tools, such as a hydraulic jack, or other equipment.
- The unique MasterMount® design also eliminates any requirement for dummy load cells for installation, or while any welding work is being done on the vessel/silo.
- The installation of the load cell under each leg of the silo takes only a few minutes to complete, resulting in significant time and cost savings on site.
- To create a complete weighing system for each silo, a junction box and Thames Side's popular XT1000 high-speed weight transmitter were used; this provides continuous transmission of the weight signal to the factory's control system.
- The installation, commissioning and calibration of each weighing system were completed very quickly by the experienced team at NVcon Soluções Corporativas.

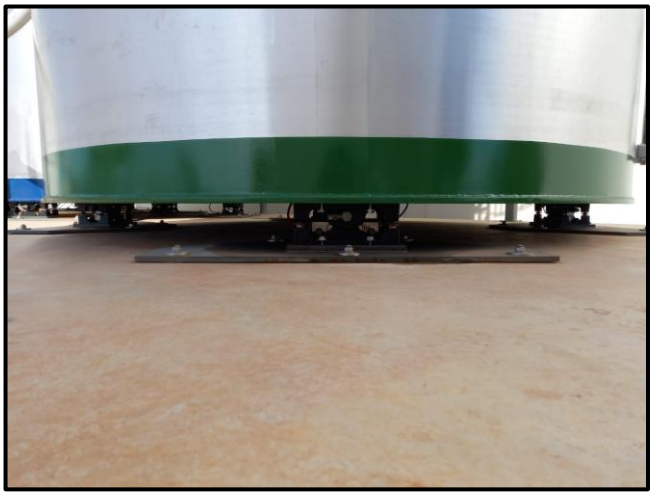

Fig. 3 - Overview of VC3500 with MasterMount®

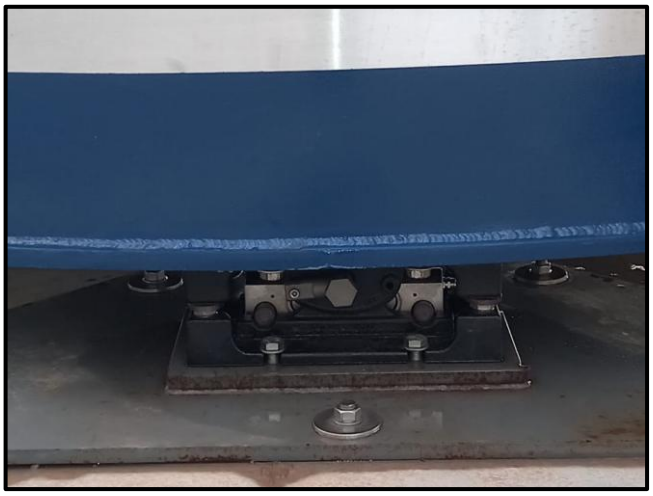

Fig. 4 – VC3500 load cell inside MasterMount®

The Client's Testimonial:

"After the installation and calibration, the Thames Side MasterMount® solution presented a sensational performance, in addition to its ease of maintenance."

E.B., Engineering Manager