PROJATE

Industrial Weighing Solutions

PROJATE FZE
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ABOUT US

Projate FZE, an ISO 9001:2015 certified company specializes in the supply and commissioning of Industrial Weighing Products, Supply of Valves, and MEP Supplies. We have tied up with internationally reputed manufacturers to serve across different industrial requirements.

At Projate, we have an expertise Engineering team and the capacity to provide technical support for our customer needs. Our Engineering and support staffs are highly trained with years of hands-on experience and provide their comprehensive scientific and technical knowledge in the related industry. We always focus on providing customers with superior quality products that add value to their business together with excellent product and customer services.

OUR VISION

To create a more approachable platform for trading while aiming to reach this position by anticipating and meeting requirements and keeping pace with technological advances and confirming to high quality standards

OUR MISSION

PROJATE endeavors to become the leading distributor of products excelling in customized solutions and guaranteeing prompt deliveries. We aim to succeed in this position by anticipating the market needs, keeping up with technological advancements and keeping up with impeccable quality standards.

INDUSTRIES WE SERVE

- Cement
- Steel
- Fertilizer
- Chemicals
- Mining
- Quarry
- Marine
- Metal Recycling
- Gypsum

OUR PRODUCTS

- Load cell
- Indicators & controllers
- Weigh feeder
- Loss in weigh feeder
- Screw feeder
- Solid flow meter
- Batching system
- Belt weigher
- Crane scale
- Throughput weigher
- Hopper/silo weighing system
- Bagging system
- Laddle weighing system
- Crane weighing system
- Crane overload protection
- Signal conditionerspg
- Truck weigh bridge
- Axle weghing pads

Load Cell

Binocular

Double 'S' Load Cell

Rope Tension Load Cell

Button Type Load Cell

Binocular Load Cell

Shear Pin Load Cell

Double Shear Load Cell

Single Shear Load Cell

A large basket of standard loadcells are available off the shelf from IPA. We even build loadcells for custom applications meeting customer requirements.

- Available from 1kg to a 1000tonnes
- Temperature compensated upto 120°C
- Loadcells available for all kinds of applications
- Ultimate overload upto 300%

Indicators and Controllers

Bagging Controller DS16AA3

Bagging Controller DS107A3

Bel Scale Indicator DS16AA3

Bagging Controller BCW-DS

Weigh Feeder Controller GWS-S

Bagging Machine Controller SQ Series

DS Series Indicators

Loss-in Weight feeder Controller

Weigh Feeder

A weigh feeder is a type of industrial control equipment that measures the flow rate and total weight of a material being conveyed on a conveyor belt. Weigh feeders feed material at a controlled rate into a process.

It is widely used in cement, steel, food processing, mining, fertilizer and chemical industries. It basically consists of a belt conveyor with a variable speed drive. The weighing system incorporated in the system would measure the flow and control the speed of the belt to get the required rate of flow. Weigh feeders are designed according to the application and are available in capacities ranging from 2TPH to about 4000TPH.

The Weigh Feeder being a custom engineered equipment that finds application in continuous bulk proportioning of solids. This gravimetric feeder is operated by a closed loop control system enabling feeding at a controlled rate and exercises precise control over rate of flow based on a micro controller.

Loss in Weight Feeder

A loss-in-weight feeder is a type of industrial feeder that is used to accurately measure and control the flow rate of materials being fed into a process. In the Loss-in-weight feeder system the weight of the material in the hopper is continuously monitored and the feed rate is adjusted to maintain a constant weight.Loss-in-weight feeders are commonly used in a wide variety of industries, including food processing, pharmaceuticals, and chemical manufacturing.

The material from the storage hopper is fed to the weigh hopper, which is controlled by a gate. A small screw feeder is mounted below this weigh hopper. The weigh hopper and screw feeder are mounted on high precision Loadcells and the output of the Loadcells are summed in a junction box and fed as an analog input to the controller. The controller calculates the rate, compares with the set rate and feeds the corresponding 4-20mA signal to the VVVF drive to control the speed of the motor of the screw, thereby controlling the rate of discharge.

Screw Feeder

A screw feeder is a device that controls the flow rate of material by moving it along a helical screw blade. It is commonly used to measure and control the flow of powders, granules, and other bulk materials in industrial environment.In the case of conveying of bulk materials which has material characteristics like free flowing by nature, which packs under pressure, which are very light and fluffy i.e., may be windswept and materials with very high temperature, in such cases belt feeders are not suitable only Screw Feeder are recommended. The Gravimetric Screw Feeder is custom engineered compact, enclosed and eco-friendly equipment that finds applications in continuous bulk proportioning of solids. This gravimetric feeder operated by a closed loop control system enables feeding at a controlled rate and exercises precise control over rate of flow.

Solid Flow Meter

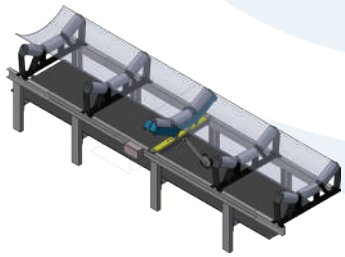
Solid Flow meters are used to measure the flow rate of materials whose particle sizes are very small. They are typically used for fly ash, cement and other very fine materials. It is also used in food industry to calculate the flow rate of flour, wheat, rice etc and gives the totalized quantity. It can be used with a variable position gate to control the flow rate. Since it is totally enclosed, the area is free from dust. Available in capacities from 2TPH to1000TPH. Typically used in power plants, cement industries, wheat processing industryetc. The electronics has the flexibility to communicate with various makes of PLCs and controllers.

Batching System

Batching in material flow refers to the process of measuring and combining a specific quantity or batch of materials for further processing or use. This can be done automated systems such as weigh batching systems, which use weigh scales and controllers to accurately measure and mix materials according to pre-determined recipes.

Batching is commonly used in industries such as manufacturing, food processing, chemical production,pharmaceuticals, food, chemicals etc would need to do batch production in certain processes. This would be due to processes like mixing, reactions and checmical properties of materials. It is then so desired that certain quantities of different ingredients are put together as a batch and the recepie is critical for the process. The system should ensure that only the right quantity of the ingredient is discharged to make the batch. The system would comprise of loadcells, gates, control desk which houses a PLC and the SCADA software. The sequence of operation can be customized for the process. Batching systems ensure that there is efficient process control in terms of the quality of final product, reduction of physical labor and the error arising due to the same, improved productivity and a cleaner factory.

Belt Weigher



A belt weigher, also known as a belt scale or conveyor belt scale, is a device that is used to measure the weight of material as it is transported on a conveyor belt. It typically consists of a weighing sensor, such as a load cell, that is integrated into the conveyor belt system, and a control unit that processes the weight data and displays it for the operator. Belt weighers are commonly used in industrial settings, such as in mining, manufacturing, and bulk material handling, to accurately measure and control the flow of materials.

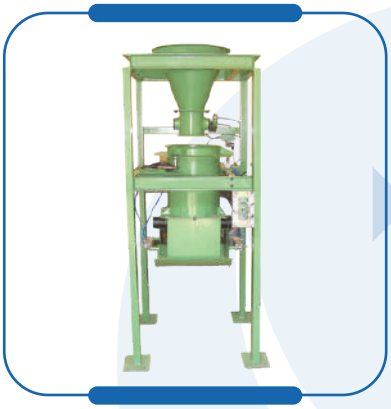
With the advent of this fast mode of transportation, accounting for the quantity of material transferred assumes great importance. Since weight remains as the most reliable index of material accounting and can be measured directly and precisely, we offer weighing systems designed to maintain higher accuracy and better accountability in the process.

Crane Scale

A crane scale is a type of scale that is typically used to weigh large and heavy objects, such as cargo containers or construction equipment. It typically consists of a load cell, a display unit, and a hook or other mechanism for attaching the scale to the object being weighed. The load cell measures the weight of the object, and the display unit shows the weight in real-time. Crane scales are commonly used in industrial and construction settings, as well as in shipping and logistics.

IPA offers a wide range of weighing solutions among which Crane Scale stands out as one of the rugged, accurate indigenous product- for which we had a patent. Starting from a capacity of 500Kg hook on crane scales finds its applications in ship building, material handling, manufacturing, etc., where material has to be weighed on the go.
IPA Guardian-3 series is a robust Crane Scale with advanced features making it compatible in harsh industrial conditions. The scale has high bright, day light LED display, visible in direct sunlight enabled remote control makes the operations on the scale handy, and added feature is an Android application to track the weight on the scale.

Through Put Weigher



The system finds extensive use in process industries where monitoring the quantity of materials coming out after completion of a process, especially where materials like powder, granules etc. are used, which comes out at a very low rate, say in the order of under 5T per day or lesser. It is extensively used in the tea industry. The system consists of a buffer hopper and a weigh hopper both provided with gates. The weigh hopper is mounted on Loadcell. These loadcells are connected to an indicator where the set value can be entered. As soon as the weight in the weigh hopper achieves the set value, the buffer hopper gate closes and the weigh hopper gate opens to discharge the weighed quantity of material on to a downstream process line. The electronic indicator registers the exact quantity of material. As soon as the weigh hopper becomes empty, the gate closes and the buffer hopper gate opens and the process continues.

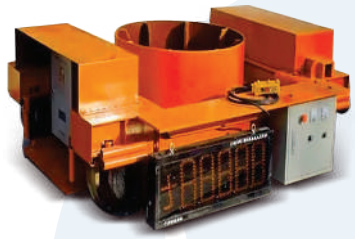
Hopper/Silo Weighing System

Hopper / Tank / Silo / Bin Weighing Systems offer simple, rugged, accurate and reliable weighing. It ranges from 5 KGs to any Tonne capacity depending upon single loadcell arrangement or multiple loadcells. Single load cell conversion is best suited for Liquid Weighing and in the case where only level indication is required. For Hopper and Silo Weighing System, generally, three loadcell mounting arrangement is ideal. But, for horizontal tank, four loadcell based systems are recommended and for outdoor application, hermetically sealed loadcells are preferred. The Indication for Hopper / Tank and Silo Weighing System can be Level / Weight, which is available either as Wall Mounting Type or Panel Mounting Type..

Bagging System

Material Bagging System refers to a system for bagging or packaging materials into bags for storage, transportation, or sale. This can refer to a range of applications, including the packaging of bulk materials like animal feed, fertilizer, seeds, and powders, or the bagging of smaller items like produce or consumer goods. We make both the net weight bagging system which is called the pre-weigh & dump machine and also the direct bagging machine. For the higher capacities we have the jumbo bagging machine. These machines are fully electronic and the sensing of weight is by high precision loadcells which are manufactured in house. The high speed electronics is totally designed by us and has features like dynamic inflight correction, coarse, fine and dribble feed ,etc.The feed of material from the storage hopper is controlled either by gates, vibrofeeders or conveyors depending on the material being handled. Bagging speeds of upto to 6 bags per minute is achieved for 50 kg on a single head. These machines are integrated with a slat conveyor to carry the bag after filling and a stitching/ sealing machine to complete the process.

Ladle Weighing System



A Ladle Weighing System is a type of industrial process control equipment used in steelmaking and other metal processing industries. It is used to measure the weight of molten metal in a ladle as it is being transferred from one location to another. The system typically consists of a load cell, which is placed under the ladle and used to measure the weight of the molten metal, and a controller that displays the weight readings and communicates with other process control equipment. IPA has successfully developed the loadcell and electronics for ladle transfer cars. The highlights of these systems are that they have to operate under very high temperatures and in harsh environments. The load cells are temperature compensated upto 120 Deg C and have inbuilt temperature sensors.

Crane Weighing System

A Crane Weighing System is a system that is used to measure the weight of an object as it is being lifted by a crane. It typically includes a load cell, a display unit, and a mechanism for attaching the scale to the crane's hook or other lifting device. The load cell measures the weight of the object and sends this information to the display unit, which shows the weight in real-time. This allows the operator of the crane to know the weight of the load and take necessary precautions to avoid overloading or other safety hazards. Crane Weighing Systems can be used in a variety of industries such as construction, manufacturing, shipping and logistics and many more.

Overhead Crane Overload Protection

Crane Overload protection for cranes is a safety mechanism that prevents the crane from lifting loads that exceed its maximum capacity. This is achieved by using load sensors, limit switches, and control systems that constantly monitor the weight of the load and stop the crane from lifting if it exceeds the specified limit. Overload protection is crucial for preventing equipment damage, operator injury, and other safety hazards.

Over loading of the crane is a common occurrence. To prevent the same, IPA has the "Trip safe" which would ensure that over loading of the crane/hoist is prevented. In this crane over load protection system, the trip safe module is used in conjunction with a suitable loadcell. The advantage of this system over the conventional system is the speed at which the module responds. Also, as this is the direct measurement of the load, the action taken for tripping is appropriate and quick. The "Trip Safe" will ensure that both overload and under load is prevented. Underload occurs when the hook is further released after it touches the ground, which can cause the rope to slip out of the pulley. This low-cost solution is ideally suited for all crane and hoist manufacturers.

Signal Conditioners

Signal Conditioners are wall-mounting/din rail-mounting instruments compatible with strain gauge-based transducers. They are used to convert mV analog signal to highly linear analog output voltage / current for interface with other industrial instruments
Our range of signal conditioners find application in interfacing loadcells, pressure transducers and any other analog transducers. Outputs are available as

- 4-20mA
- 0-10V
- Modbus
- Profibus etc

Truck Weigh Bridge

A weigh bridge, also known as a truck scale, is a large scale used to weigh vehicles and their loads. They are typically found at commercial truck stops, landfills, quarries, and mines. The weigh bridge consists of a platform or roadway that vehicles drive onto, and sensors or load cells that measure the weight of the vehicle and its cargo. This information is then displayed on a screen or printed out for the driver or operator to record. Weigh bridges are used for a variety of purposes, including tracking freight and cargo, enforcing weight limits on roads, and billing for goods and services.

We can customize and fabricate according any capacity and size according to client requirments

Vibration Meter

Vibration meter type VM301A0 is a portable instrument, which is used in conjunction with Piezo-electric accelerometers to measure mechanical vibrations in terms of acceleration, velocity & displacement. It is suitable for both laboratory and field conditions. This instrument can be used to monitor vibration levels in production machines on a periodic basis, so that action can be taken before a complete machine failure. Its operation is simple and quite suitable for use by non-scientific personnel not conversant with electronic instrumentation. In combination with IPA Piezo electric accelerometers the unit provides direct read out of vibration parameters on a 3½ digit LCD display. The unit is powered by an 18V battery, which is built-in. Provision is also made for using an external power supply of 18V.

Analog to Digital Convertor (DLTR)

DLTR helps you do this- by being the perfect intermediatory converting your mV signal to very highly precise digital data. This module is DIN rail mounted and 24V operated and fully programmable via MODBUS giving seamless connectivity between the transducer and the PLC. It is easy to configure and a fit and forget solution.DLTR has built in multipoint calibration and comes with a PC tool that is able to diagonise and trouble shoot all site problems very easily.

- Load cell converter to communicate with PLC or other MODBUS RTU MASTERS
- Wide supply voltage: 12V to 36V DC
- Standard MODBUS RTU protocol
- 10 point calibration either with known weights or lookup table method

Modbus TCP Gateway

The LG550T gateway provides a seamless way to provide MODBUS TCP connectivity to MODBUS RTU devices.The gateway translates between MODBUS TCP and RTU protocols in a completely transparent manner enabling usage without having to make changes to existing RTU

- Industry standard 24V DC power supply
- 2.5KV Isolated RS485 port with baud rates up to 115.2 kilobaud
- RS485 port supporting up to 32 devices
- 10/100 Mbit Ethernet port
- DHCP for automatic IP configuration
- Dedicated UDP and TCP ports for discovery and configuration
- Configuration tool for management of devices either via the ethernet or RS485 port

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