Company Profile

Prayas Engineering Ltd is engaged in Design, Manufacturing and Supply of Material Handling Equipments since more than last three decades.

The Company offers Belt Weighers, Automatic Weighing and Bagging Machines, Hopper Weighing Systems, Solid Flow Meters, Conveyors, Hoist, Bucket Elevators, Weigh Feeders, Mobile Bagging Unit, Metal Detectors, Permanent Magnets, Magnetic Separators, Truck loaders, Wagon Loader, Belt Feeders etc.

The Company has grown over the years to be known as a pioneer in the field of mechanized Material Handling Equipment in India.

Prayas Engineering Ltd has covered majority of the core sector through its supplies of highly sophisticated equipment bearing ample testimony of the symbolic mark of PEL’s unbeaten technology. Prayas Engineering Ltd thus made his presence in core sectors like Fertilizer, Cement, Steel Plant, Sugar, Chemical Plant etc...

Moreover Prayas Engineering Ltd regularly updates its Workshop facilities to keep abreast with latest development. Performing in tandem with the superior technology is dedicated team working in various departments.

Belt Weigher

PEL manufactures microprocessor based electronic belt weighers incorporating the latest state-of-the-art technology for continuous weighing applications in cement, steel, chemical, petrochemical industries and coal handling plants.

PEL Belt Weighers consist of three major elements:

1. The weigh bridge assembly with precise strain gauge load cell/bending beam load
2. The belt speed sensor assembly, and the electronic cabinet often referred as the totaliser or the integrator
3. The weigh bridge assembly with precise strain gauge load cell/bending beam load
4. Each serves a distinct function in the process of accurately weighing material moving on the belt. Different models of scale carriage are available depending upon the application, scale capacity and belt speed.
   1. Capacities from a fraction of tonne to 10,000 TPH.
   2. Simple rugged and unitized scale assembly for easy installation.
   3. Super precision stainless steel strain gauge load cell applied in tension for highly accurate load measurement.
   4. Special trunion bushes to absorb normal shocks and transverse forces.
   5. Weigh idler deflection less than 0.025 mm at full load.
   7. Fully digital with microprocessor and battery back-up memory.
   8. Fully automatic tare and span calibration.
   10. Special electronic calibration facility for frequent calibration checks without handling standard weights.

Salient features:
- Proven conveyor scale software for microprocessor based integrator.
- Micromate is a true digital device with digital readout, digital processing, bi-directional integration and totalisation and drift free operation.
- No internal adjustments by potentiometers.
- Automatic calibration of zero span and selectable auto zero tracking available (in zero track mode, tare is updated automatically whenever the belt runs empty.)
#### Salient Features:
- Fully automatic zero and span calibration.
- Highly reliable 32 bit microprocessor based controller with precise temperature compensated load cell for drift-free operation and control.
- Highly precise vibrating wire load cell with resolution of 1:1,000,000. No calibration ever required for the load cell as also temperature compensated for life.
- No field calibration of load cell required in case of digital load cell. In case of analog load cell simple calibration with static loads or by electronic calibration.
- Can be operated from any location viz: local panel, main panel or control room.
- Precision machined rollers used in weigh zone of achieving high accuracy.
- Rubber lagged crowned pulley is used to avoid belt slip.
- Digital speed sensor mounted on non drive pulley shaft to sense the actual belt speed.
- Choice of shaft mounted heli worm, or worm gear reduction provides trouble-free power at required speed if space is not a constraint.
- Suitable pre-feeders can be provided depending upon flow characteristics.
- Rigid heavy duty construction.

#### Accuracy:
- 0.25% to 0.5% through out the control range of 1:10 and 1:20.
Automatic Weighing & Bagging Machine

PEL manufactures electromechanical as well as electronic microprocessor based weighing and bagging machines for high speed automatic weighing and bagging of variety of materials such as fertilizers, food grains, sugar, cattle feed, PVC granules, cereals, coal, coke, chemical powder, flour, flakes, soda ash, etc.

Machines are designed and manufactured adopting the latest technological developments in the field of accurate weighing. The weighing and bagging machines are available in different models like gravity/belt/screw feeder or vibrating feeder tray. These machines are available as a net or gross model, in mild steel or stainless steel construction.

Electronic type microprocessor based automatic weighing & bagging machines incorporating highly accurate strain gauge load cells and latest state-of-the-art fully digital microprocessor controller are available for capacity upto 900 bags/hour with an accuracy of ± 50 gms or better over a range of 25 kgs to 100 kgs as well as jumbo bags of 1 tonne.

**Salient features:**
- Powerful 16 bit processor is used for electronic bagging machines.
- Different models available depending upon the flow characteristic of the material.
- Fully digital calibration and parameter set up per interactive dialogues for different weighing
- RS485 serial channel for printer, data output, serial communication.
- Parallel I/O interface with inputs and outputs, which can drive the magnetic valves directly.
- Operation and display terminal suitable for panel mounting or table top.
- Material flows after flow compensation for coarse and fine cut off. Thus the filling accuracy is independent of material density.
- Auto check stop feature available to check and remove the bags which are out of tolerance.

**Accuracy:**
- Accuracy ranges from ± 20 grams to 100 grams depending upon material flow characteristics and bagging speed.

Wagon & Truck Loader

To solve the ever increasing problem with handling of bags in process plants, PEL has join hands with M/s. BOUBIELA of France to manufacture Wagon and Truck Loaders. Boubiela have got to their credit, thousands of satisfied customers all over the world manufacturing/dealing in Fertilizer/Sugar/Chemicals/Cattle Feed Plants/Food Corporations etc.

Different models of truck loaders up to a maximum capacity of handling 3000 bags per hour each of 50 Kgs. can be supplied for loading, stacking and lining up bags onto trucks. Wagon Loaders in different models upto 3000 bags per hour are also available. The loading jib is telescopic with 180° rotation and can be lifted by a mechanical or hydraulic jack.

Simultaneous loading of number of trucks as well as wagons on parallel track can be achieved with PEL-BOUBIELA make Wagon and Truck Loaders.
Overband Self Cleaning Type Electro Magnetic Separators

A must for separation of tramp iron pieces and for avoiding interruption and damage to major equipment in the process plants like Coal handling Plants of Thermal Power Stations, Cement and Sugar Industry, Foundries, Fertilizers & Chemicals Industries, Food and Plastic Industries etc.

PEL magnets are available in copper/aluminium coil winding with F/H Class insulation and suitable for belt width ranging from 400 mm to 2000 mm, operating heights upto 700 mm with lifting capacity of steel ball of diameter 25 mm and above with maximum weight of 50 Kgs depending upon shape and size of tramp iron pieces.

Metal Detectors

PEL manufactures metal detectors as per Boekels’ design with latest technology incorporation integrating circuits, styroflex capacitors, metal film resistors, temperature compensated pot core transformers, active filters etc. These are widely used in:

- Mining and material handling/processing industries to prevent damage to crushers, mills, elevators, feeding devices.
- Chemical Industry to prevent damage to grinding mills and processing glass lined vessels and to avoid metallic contamination.
- Wood and timber industries to prevent damage to saws, chippers, particle board presses etc.
- Plastic and moulding Industries to prevent damage to press and moulds.
- Food, Tobacco, Tea & Pharmaceutical industries to protect kneading machines and presses etc. and also to inspect final product for metallic contamination.
- Clay and brick industries to protect moulds.

PEL Metal Detector consists of search coil unit and electronic control unit. These are available in various Models depending upon width of conveyor belt and burden height. Sand bag marker for spot locating the detected metal contamination and auto testing device for periodic checking of sensitivity are provided as optional accessories.

Shiftable Conveyors

PEL undertakes design and manufacture of conveyors from 600 mm to 2000 mm belt width. The conveyors can be supplied as horizontal conveyors, inclined conveyors, reversible and non-reversible shuttle conveyors, tripper cars and tripper conveyors. Special mobile conveyors can be designed for material stacking and de-staking application as also for barge loading.
Electric Hoist

PEL electric hoists are designed in accordance with international standards and also as per “Rules for design of serial lifting equipment” issued by Federation of European Hoist Manufactures (FEM). Present manufacturing range includes hoist up to 16 tons lifting capacity.

PEL hoists incorporate fan cooled crane duty brake motor with class ‘F’ insulation, specially designed rope guide manufactured from polyethylene and hoist barrel with machine-cut grooves made from seamless tubes with high tensile strength. Gearbox or motor can be removed independently. PBL Hoists suitable for monorail and trolley drive – either for straight beam or curved beam - and double girder.

Belt Feeder

Features:
- Heavy duty construction. Designed for rugged use.
- Can be Fixed or movable
- Power transmission through electric motor and planetary gearbox, shaft mounted on the pulley with torque on the structure.
- Primary cleaner and plow
- Drive Shaft and return pulley guards

Benefits:
- Ease of maintenance due to rugged design and features
- Easy to install
- Flexible due to fixed or mobile
- Long, Extended life
- Designed for maximum efficiency
- Economical

Bucket Elevators

One of the most efficient way to elevate bulk materials vertically is with a bucket elevator.

A Bucket Elevator consists of a series of buckets attached to a belt or chain with pulleys or sprockets located at the top and bottom of the unit. The buckets are located in a casing or housing to contain the material. Bulk materials are loaded into each bucket as the bucket moves past an inlet point. PEL manufactures and designs wide variety of bucket elevators based on characteristics of the bulk material and process requirements.

Advantages of using Bucket Elevators:
- Designed to handle a wide variety of bulk materials—from average to very free flowing
- Completely Enclosed for Dust and weather Tight Operation.
- Easy to Install and Operate.
- Low maintenance
- Inlet Section Can be Control Fed Or Flood Loaded with Bulk material.
- High reliability
Duplex Weighing and Bagging Machine

Our Microprocessor based load cell type Electronic Weighing and Bagging Machine Model NEM 50/II Twin Known for Faster Bagging rate and Accuracy.

It Consists of Two Separate Hopper and two separate Weighing Receptacle with Single Sack grip.

The Whole weighing receptacle assembly is hanged in such a way that the total load of receptacle is passed on to the four Loadcells. In turn the load cell generates an electrical systems equal to weight. This signal is fed to Microprocessor Controller that process this signals and accordingly control all function of weighing process .Due to Introduction of Loadcells, the System accuracy is improved and with the help of microprocessor the whole System becomes a closed loop System making it more precise compare to open loop system.

The Above System has additional Facilities of having display of each and every weight, error signals display on fault occurrence, a self diagnostic feature and an optional online printing facility in case if it is required.

Accuracy:
Accuracy ranges from ± 20 grams to 100 grams depending upon material flow characteristics and bagging speed.
FEW OF OUR VALUABLE CUSTOMERS….

GSFC | GNFC | IFFCO | KIRIBHCO | RILANCE | BHEL | NTPC | NMDC | NALCO | L & T | ESSAR MATIX
FERMENTIZER | ACC CEMENT | ADITYA BIRLA GROUP | HINDALCO | SHREE CEMENT
TATA CHEMICAL | ADANI | J K CEMENT | BIRLA CEMENT | WONDER CEMENT | SANGHI CEMENT
VASAVDUTTA CEMENT | ISGEC | JINDAL | SAIL | MCNALLY BHARAT

Prayas Engineering Ltd.

HEAD OFFICE
Prayas Engineering Ltd.
Anand Sojitra Road, Vallabh Vidhyanagar
388120, Gujarat India. Phone: 02692-227563
Website: www.prayasengineering.com

CONTACT
Mr. Chetan K Shah
Manager Sales & Marketing
M: 9909907823 Ph: 028692-227918
Email: c_shah@pel.elecon.com

WORKS
Prayas Engineering Ltd.
Plot No.24/B Savli Industrial Estate
Village - Manjusar, Dist Vadodara 391775, Gujarat India.
Mob: +91 9727798242

Mr. Enosh Fazal Masih
Manager Sales & Marketing
M: 9879107618 Ph: 02692-227563
Email: efmasih@pel.elecon.com

DELHI BRANCH
EMTICI Engineering Ltd
418, 4th Floor, World Trade Centre
Babar Lane, New Delhi-110001
Contact Person
Vikas Malik: Mo. +91 9999466603

KOLKATA BRANCH
EMTICI Engineering Ltd
68, Sarat Bose Road, 1st Floor Kolkata-700025
Contact Person
Sanjay Adak: Mo. +91 9874029834

BILASPUR BRANCH
EMTICI Engineering Ltd
Plot No.113 Zone-1, Vypar Vihar
Ring Road No.2, Bilaspur-495001
Chhattisgarh
Contact Person
D K Sharma: Mo. +919425531584

CHENNAI BRANCH
EMTICI Engineering Ltd
No.553 3rd floor, East Coast Centre
Post Box 1497, Teynampet, Chennai-600018
Contact Person
Ramakrishnan: Mo. +91 9440801632

HYDERABAD BRANCH
EMTICI Engineering Ltd
5TH Floor, Door no 8-2-293/82/A/808
Road No.36, Jubilee hills, Hyderabad-500033
Contact Person
Ramakrishnan: Mo. +91 9440801632

MUMBAI BRANCH
EMTICI Engineering Ltd
1ST Floor, 3 Apeejay House
M Dinshaw Vanchha Road, Churchgate
Mumbai-400020
Contact Person
A.Mathre: Mo. +91 9920757674

BANGLORE BRANCH
EMTICI Engineering Ltd
No 850/1 “ELECON HOUSE”
Opp. Metro Pillar No.50,100 Feet Road,
Indiranagar, Bangalore-560038
Contact Person
Mo. +91 8025250219

NAGPUR BRANCH
EMTICI Engineering Ltd
S K Tower, 301/3rd Floor Nelson Square
Chindarwara Road, Nagpur-440013
Contact Person
Sameer Dudadhe: Mo. +91 8551845222