www.tiatechnology.in



think innovate & Apply

systems for

WEIGHING

FILLING

PACKAGING

**POWDER HANDLING** 

AUTOMATION



think innovate & Apply

### vision

To grow TIA Technology as a dominant player globally in the field of weighing & industrial automation.

## mission

TIA Technology while playing a major role in the field of Weighing and Industrial Automation, be a part of the "Make in India" movement, involve in skill development, provide employment and generate revenue for the Nation through our committed workforce.

Industries.

With a clear focus on providing solutions in Weighing, Filling, Packaging, Batching & Process Automation, we have grown and have developed a reputation for quality, cost effectiveness and on time deliveries. TIA Technology complies with various National and International Standards apart from possessing capability to develop customised solutions to meet specific requirements of our clients.

We are a conscientious company and adhere to legal and statutory requirements in terms of safety and environment.

Our dedicated team of well-qualified, competent and trained professionals go the extra mile in every department including Marketing, Design, Production, Installation and after sales service making it a delightful experience for our clients.

With our exposure and experience in dealing with International clients, we have been able to rapidly expand our operations both In India and overseas.

We offer our clients, • Customized Systems & Solutions Assured Accuracy • HSE compliance • Updation to Latest Technologies Excellent Post Sales Service

- Training

TIA considers products as its pride and ommitted personnel as its asset. "



TIA Technology is an established player providing customized solutions in Weighing and Industrial Automation. Set up in 2002 by a young and dynamic team with a firm commitment to its vision, the company has worked on multifarious projects with reputed companies in the process

## our esteemed **partners**



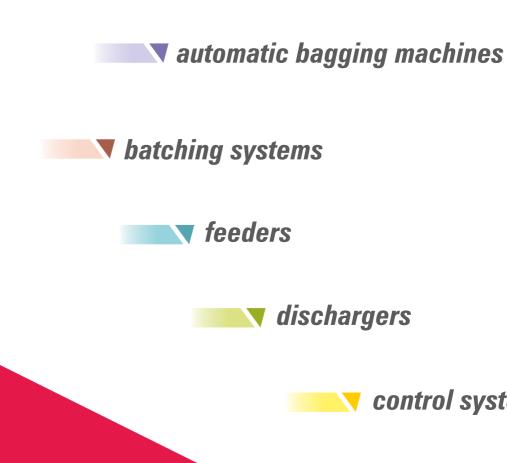
- Hindustan Unilever Ltd.
- Gujarat Ambuja Exports Ltd.
- Tata Coffee Ltd.
- Unibic Biscuits India Pvt. Ltd.
- Nitta Gelatin India Ltd.
- Schreiber Dynamix Dairies Ltd.
- Satara Roller Flour Mills Ltd.
- Riddhi Siddhi Gluco Biols Ltd.
- SA Rawther Spices Ltd.
- PAN Foods Ltd.
- Shri Ambe Food Products Pvt. Ltd.
- Meenakshi Agro & Flour Mills Pvt Ltd.
- Jain Irrigation Ltd.
- Manokamna Food Products (P) Ltd.
- Griffith Laboratories Pvt. Ltd.
- Everton Tea, Italy Ltd.
- Novozymes India Ltd.
- Helvoet Pharma India Operations Pvt. Ltd.
- Fosroc Chemicals (I) Pvt. Ltd.
- Gujarat Alkalies & Chemicals Ltd.
- Saint Gobain Webber India Ltd.
- Exide Industries Ltd.
- Tata Refractories Ltd.
- OCL India Ltd.
- Coromandel Fertilizers Ltd.
- Nagarjuna Fertilizers & Chemicals Ltd.
- Godavari Fertilisers and Chemicals Ltd.
- Sibelco India Minerals Pvt. Ltd.
- Imerys Ceramics India Ltd.
- Trimex Sands Pvt. Ltd.
- Beach Minerals Company India Ltd.
- Laviosa Trimex Ltd.



- UHDE India Ltd.
- L&T Ltd.
- NETZSCH Technologies India Private Ltd.
- Andritz Technologies Pvt. Ltd.



- USA
- Africa
- Thailand
- Saudi Arabia
- Oman
- Bangladesh



consultants



#### **T** filling • Gravimetric Feeder

- Twin Screw Feeder
- Big Bag Filling Machines
- Valve Bag Fillers

**control** systems

### **gravimetric feeder** HIGH SPEED & ACCURATE

For Free Flowing Granular Products including Rice, Sugar, Pulses, Wheat, Fertilizer, Plastic Granules and Chemicals



Weighing Range	5-50Kgs
Speed	300-1800 Bags/Hour
Accuracy	+/-0.05-0.1% of the pack size





Feeder



Weigh Hopper



Bag Clamp

#### Features

- Precise dosing controls by Pneumatic Actuators/Servo Motor
- Balanced Coniguration with 3 Load Cells
- Automatic Weighing Sequence with Auto In-Flight
- Ease of Change over to diferent pack size
- Pneumatic bag clamping
- Ease of operation and maintenance
- Product contact parts in Carbon Steel, SS-304/ 316/ 316L

#### **Control System**

- State of the art controller with LCD/ Touch Screen display & self diagnostic features
- Records Bag Count, Totalizer, Hours of Operation
- Easy to conigure & trouble shoot
- Communication RS232/485, Ethernet, SMS messaging of reports
- International Standards Certiication





Twin Screw Feeding for Powdered Products including Flour, Minerals Chemicals, Milk Powder, Starch and Spices



Weighing Range	5-50Kgs
Speed	120-500 Bags/Hour
Accuracy	+/-0.05-0.1% of the pack size





Dust tight Bag Clamping

Twin Screw Feeder with Weigh Hopper



#### Features

- Twin screw feeder for main & dribble feed to achieve speed & accuracy in filling
- Consolidation mechanism for fluffy products
- Designed for ease of cleaning
- Dust tight clamping mechanism
- Balanced configuration with 3 Load Cells
- Stainless Steel load cells with IP68 protection
- Product contact parts in Carbon Steel, Stainless Steel-304, 316, 316L
- Belt & Vibratory feeders offered based on product characteristics

#### **Control System**

- State of the art controller with LCD/ Touch Screen display & self diagnostic features
- Records Bag Count, Totalizer, Hours of Operation
- Easy to configure & trouble shoot
- Communication RS232/485, Ethernet, SMS messaging of reports
- International Standards Certification
- CE Certified controllers



SMS messaging of reports-Bag Count, Totalizer, Hours of Operation

## automatic bagging **machines**





#### Small to Medium Size Bags

Automatically places small to medium open mouth bags onto a sack clamp fitted to an existing or new weighing / volumetric filler.

Вад Туре	Open Mouth	
Bag Weight	10 to 50 Kg	
Empty Bag Magazine	50 to 200 Bags	
Throughput	Up to 12bpm	
Bag material	Paper, Plastic, Laminated Woven, Polypropylene	

Options	
---------	--

• Single Pile Bag Tray (C20)	• Full Stainless Steel
• Multi-Pile Bag Magazine (C21)	Left or Right Handed
Bag Tail Separator (C22)	Mobile Base Frame



Manufactured by TIA under the license from Pacepacker Services Ltd, UK

## valve bag fillers

Twin Screw Feeding for Powdered Products including Flour, Minerals Chemicals, Milk Powder, Starch and Spices



Auger - For Powdered Products Twin spout for powdered products

Weighing Range	20-50Kgs
Speed	120-300 Bags/Hour
Accuracy	+/-0.2% of the pack size

## direct bag filler **powder**

For Powdered Products such as Flour, Minerals, Chemicals, Milk Powder, Starch and Spices.



#### Features

- Balanced configuration with 3 load cells
- Pneumatic Bag Clamping
- Steel316, 316L

#### **Specifications**

Weighing Range	10-50Kgs
Speed	120-240 B
Accuracy	+/- 0.05 -

Accessories: Conveyor and Bag Closer / Stitching Machine available.





Fast Bagger for powders & granules

#### Features

- For the fastest dry solid packer, the PVPE Air Packer gives you reliable & fast bagging.
- The PVPE Air Packer works by using air fluidisation and different pressures between the product chamber and the bag where the product is to be filled.
- Differences in the air pressure results in the product flowing quickly into valve bags.
- Designed To Bag Free Flowing, Non Clumping Powders and Granules.



For free flowing granular products including rice, sugar, pulses, wheat, fertiliser, plastic granules and chemicals

• Twin Screw feed to achieve speed & accuracy in filling

• Agitator to ease the flow of the product

• Ease of change over to different pack size

• Product contact parts in Carbon Steel and in Stainless

0-240 Bags/Hour (Powders)



- 0.05 - 0.1% of the pack size

## stretch wrapping machine

#### Features

- Eliminates the need for labour and inefficient manual hand wrapping.
- Variable speeds for turntable
- Adjustable wrap count
- Variable speed carriage to apply more or less stretch film
- Easy to use control panel.
- Rugged construction for long-term reliability
- Home position alignment stops the turntable in the same position for each cycle.

EC102

## *robotic palletiser*

#### Features

- Reliable system for production lines.
- High level performance with low maintenance.
- Expandable from a single line to a double line palletising.
- Suitable for palletising sacks of heavy materials, bags, boxes and pallets.
- Customized palletiser according to customer specifications and requirements.
- Safety system to ensure protection to system operators and other personnel.

## *big bag filling machines*

Big Bag Filling Machines for Powdered Products including Flour, Minerals, Clay, Sillimanite Powder, Iron Oxide Powder





Weighing Range300-20Speed5-30 BAccuracy+/-0.0

300-2000Kgs 5-30 Bags/Hour +/-0.05-0.1% of the pack size



Pneumatic Bag Hanging Arm



Inlation & Diverter Mechanism





Vibro Motors for Consolidation





#### Features

- Pneumatic Bag Hanging Arm
- Integrated Dust Extraction Unit
- Inflation & Diverter Mechanism
- Weighing Frame with 3/ 4 Load Cell coniguration
- Vibro Motors for Consolidation
- Consolidation & Auto Eject Mechanism
- Product contact parts in Carbon Steel, Stainless Steel-304, 316, 316L



Consolidation & Eject Mechanism

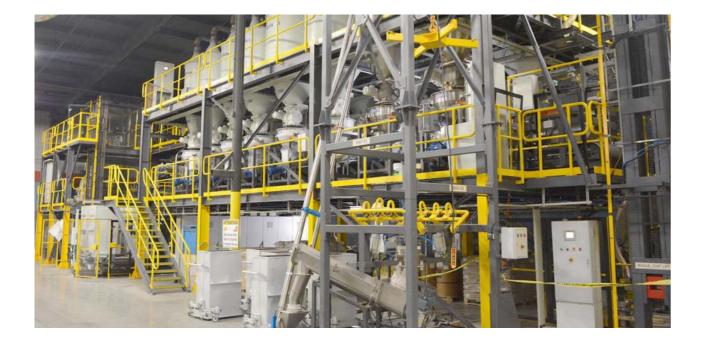


Weighing Frame



Out Feed Conveyor

# batching system



#### **Highlights of Batching**

- Multi product ingredient handling
- Raw material handling through Aero Mechanical, Pneumatic or Belt Conveyors.
- Mixers Plough Shear & Blender.
- Report creation for monitoring raw material consumption and batch quantity.
- Batching of Solids / Solids & Liquids / Liquids only.
- Recipe and formulation creation through SCADA.
- All contact parts in SS 304/316/316L depending on the product.
- Dust free operation in the case of solids.
- Raw material handling systems can be combined with Jumbo - Bag Discharge Systems/Bag Rip & Tip Systems.
- Bar code based product monitoring system.



# batching system components

Mixer



Ploughshare mixer, to mix / blend different powdered, granule, fibre and paste products with possible addition of liquids, optimising the blend mix obtained, ensuring process control and consistency of the result. In addition the holding tank maintains the homogeneity / fluidity of the mix avoiding demixing;



Floveyor is designed to convey a wide variety of bulk materials through aero mechanical displacement. Generally described as a tubular conveyor in which all the elements operate within the material being conveyed. Floveyor and its totally enclosed design renders it ideal for handling powders and light materials.









Small Multi Ingredient batching system with loss in weight feeder to dose ingredients in desired quantities.

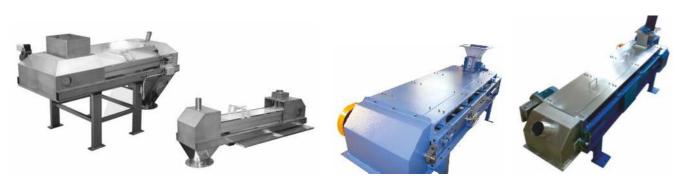


*Loss in Weight Feeders* – *Capacity starting from 0.5 Kg/Hr* 





Weigh Feeders – Capacity from 0.5 – 50 TPH



Batch Weigher – Capacity from 0.1 to 60 TPH





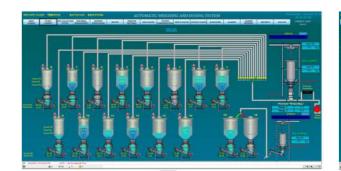






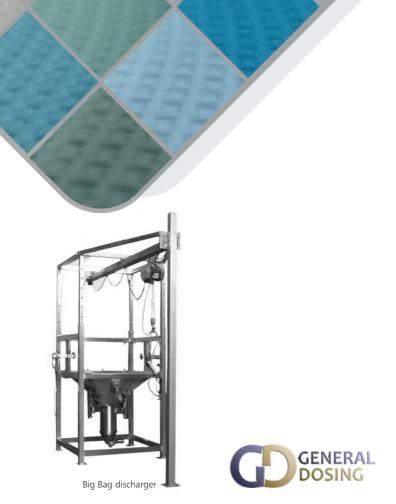
# **control systems**

SCADA systems











- PLC based control systems
- PLCs from Allen Bradley, Siemens, B&R Automation, Omron
- Panel building

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