

# People Oriented System Integration Solutions



Powder Handling • Packaging & Robotic Pelletizer • Controls & Automation



A large industrial facility, possibly a power plant or refinery, featuring a complex network of large, insulated pipes and machinery. The scene is dominated by a large green industrial vessel on the right, with numerous pipes of various diameters and materials (insulated, bare metal) connecting it to other parts of the system. Yellow safety railings and ladders are visible throughout the structure. The ceiling is high with a corrugated metal roof and industrial lighting. A semi-transparent red box containing text is overlaid on the upper right portion of the image.

## Our Mission

To offer well-designed, human-centered and innovative systems/products at prices that are affordable even to small and medium sized company.

## Our Solutions, Your Competitive Edge!

Threepac design and build complete and customised installations for various types of powderhandling applications. Based on our extensive experience, proven technologies, high quality components and competent project management capabilities, we offer innovative, reliable and efficient systems and machines.

Our focus is to increase our customer's competitive edge by providing innovative engineering and creative cost effective solutions.

### Our expertise includes



Material storage



Pneumatic conveying  
systems



Batching systems



Mixing



Packaging & Robotic  
palletizing



Dust pollution control



Control & automation  
systems

### Key Strength

With over 25 years of experience working across various Industries, we understand your exact needs and challenges. What sets us apart from the competition is the high level of customer service and responsiveness in providing a truly effective solution.

### 3D Design Technology

Using of Innovative intelligent 3D design software enabled us to produce system solutions or components parts with significantly better accuracy and improved designs quality. Engineers are now able to visualise and analyse various options in a relatively inexpensive way before those parts are put into production. Thus, the high cost of fixing design mistakes and problems on job site during installation can be virtually eliminated, saving time and money.

### Design & Build Machine

We have invested significant R & D into designing and fabricating our own proprietary machine with the experience that we have accumulated from various job applications. Most of the equipment and systems that we design and manufacture have been developed in the context of trying to meet our clients' specific application demands and challenges for reliability, simplicity and performance. Our customised solutions improve performance, optimise costs and ensure safety throughout the lifecycle of your plant operation.

### Quality Assurance

We demand that our staff think differently. By harnessing the power of the latest technology in design thinking, product aesthetic, human user friendliness concept, sustainable production or simply paying attention to small details to formulate an optimal solution for the customer needs. The systems or machine must not only be well engineered and accurately fabricated but should also look good, easy to use and safe to the operator and environment. Whether the project is a component, a turn-key system, or site services, we strive for complete customer satisfaction.



# Powder Handling Solutions

Well designed systems need not be expensive

Depending on the type of applications, some factors that influence the selection of suitable mode of handling includes, characteristic of material, distance, accuracy of conveying, limitation of space, hygiene requirement, integrity of material after conveying, power consumption etc., has a very strong impact on production and productivity.



## Pneumatic Conveying System

Well-engineered and proven pneumatic conveying technology

We offer various types of pneumatic conveying systems, both positive pressure and vacuum system. Each conveying system is selected after carefully evaluating various factors such as your product characteristics, plant layout, conveying capacity, product residual limitation, cleanliness, easy maintenance access, cost, cycle time and any other special requirement. Whether it is a single “point to point” conveying or “multi- point to multi-destinations”, we have the experience to custom engineer and integrate seamlessly with other equipment.



## Batching System

Faster production with consistent quality, in an ever-changing environment

The Smart features of our batching control system controls and adjust the required quantity of each batch ingredient, in real-time during the batch execution. Working in synchronizations with the raw material feeders for fast, slow and dribble feed, the batch mix is automatically fine-tuned during the process for precise accuracy and repeatability. All parameters such as local material properties, density, rate of discharge are tied in together with high precision weighing load cell and smart electronic controls to smart-batch your mixes. The end result is consistent quality every time. Mix designers retain full control of the recipe and security with multi-level password.



Shaftless Screw Conveyor For Dewatered Sludge



Ploughshare Mixer For Dry Mortar Premix



Silo Top Dust Collector

# Packaging Solutions

**We handle your product with tender loving care**

Our diverse line of bag filling machine, conveyors, bag palletizers, check weigher and metal detector can handle a wide variety of materials including powder minerals, sand, cement, pre-mix mortar, food ingredients, animal feed and fertilizer granules etc. Whether you are looking to diversify and expand into automatic bagging or upgrade your existing bagging line, we are your one-stop supplier for a total bagging solution.

## Preformed Bag Doypack Filler

**Low cost and high productivity for packaging snack food**

This preformed bag doypack filler machine is the most efficient, low cost- high productivity packaging machine for snack food, coffee powder, beans, small components and even paste or liquid. It can be incorporated with various optional feeders such as multi-head weigher, Auger fillers, liquid pump, linear vibrating feeders etc. to handle a wide variety of products. 3 in 1 operation, weighing, filling and sealing and with many options like date code print, vibration table for compacting light material. Fully stainless steel frame design, No hole or gap to ensure hygiene and easy clean.



## Robotic Palletiser

**Reliable, flexible and adaptable to mixed products**

The Fuji Model EC-201 Robotic Palletizer is the most popular robot in the Fuji family and is the product of thousands of hours of design time. With a payload capacity of 200kg and capacities exceeding 20 cycles per minute, this robot delivers high speed and reliability.

Our robots come standard-equipped with highly advanced robotic palletizing software to provide precise control of the robot's every movement. Complete with detailed graphics and easy navigation tools, the software provides quick access to various product patterns that can be easily selected without specialist training.



**Airpacker For  
Dry Mortar Valve Bag**



**Impeller Packer For  
Powder Premix**



**Open Mouth Bag Weigher  
For Fertiliser**



# Control & Automation Solutions

Right concept is the key to success

Where the automation of the plant and the processes are synchronized and optimized to produce the final product with the best efficiency in material usage, labour cost, machine operation and achieving the highest quality possible. To design and develop the right control and automation concept is the key to success. Our control systems are built on solid foundations to ensure robust reliability, highly scalability and technological competence.



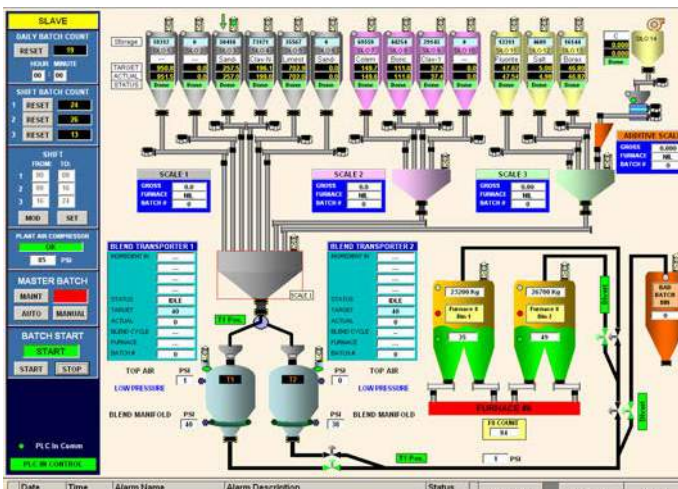
## Batching Controls Software, HMI-SCADA

Improve your business efficiency with the help of user-friendly, reliable, stable and scalable software.

- Process control and automation to maximize plant output
- Consistent product quality in a changing environment;
- Efficient resource utilization
- Performance optimization.

*What are your benefits:*

- Reduce operational costs;
- Increase productivity;
- Improve product quality and customer service



## Control Panel

We have expertise in every aspect of control system design, including in house programming PLCs (Programmable Logic Controllers) and VFDs (Variable Frequency Drives), set up communication between devices using a variety of protocols, and verify the proper operation and performance of the system. Every panel that we make is tested to the fullest possible extent by qualified technician.



Customised Control Panel



Weighing And Batching Controls



Testing And Troubleshooting

Designed for people,  
built for performance.

## Threepac Solutions Pte Ltd

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