



The Right Technology, to Keep a Step Ahead...  
Always



**SUPRAK TECHNOLOGIES**

Suprak is an engineering company, incorporated in Year 2018

We insight to lead in Automobile, Aerospace, Steel, Pharma, Consumer Goods, Engineering Goods and Energy sectors for Automation, SPM, Robotic Solutions and Services.

## Project Execution Process Table

PROJECT PATH	CUSTOMER INVOLVEMENT
QUOTE & ORDER ACCEPTANCE	Kick-of Agreement on Scope, Requirements & Timing
CONCEPT	Concept Approval Agreement on initial Concept
DEVELOPMENT	Design Approval Agreement on Final Design
BUILD AND SHIP	Factory Acceptance Testing (FAT) Equipment Demo And Approval Suprak Technologies
INSTALL AND CLOSE	Site Acceptance Testing (SAI) Equipment Demo And Approval Customer Location

Engineering is our passion. From "CONCEPT to COMMISSIONING" phase, we follow Systematic approach for all kind industries



### Consultation

Group discussion, Strategy & RFQ preparation.

### Concepts

Feasibility & Conceptualization, Optimization.

### Simulation

Detailing & verification through simulation using digital manufacturing software's.

### Design

Jig, Fixture, Conveyors, SPMs, Robotic cells, Press Tools, PLC controlled systems.

### Production & Manufacturing

Raw material, Production Process, Product delivery, Customer utilization.

### Installation & Service

Execution, Man Power, Configuration , Test Run, Production Auto power on



## Our Services

01

Design  
of automated  
systems

02

Robotics  
cells  
Design

03

Mechanical  
Systems  
Design

04

Business  
Process  
Streamlining  
and Optimization

05

Project  
Management

06

Preliminary &  
Detailed  
Engineering

07

Programming  
&  
Implementation

08

Systems  
& Equipment  
Programming &  
Configuration

# Robotic System Capabilities

## Robotic system capabilities.

On site robot programmers

Fanuc, ABB, KUKA, Kawasaki,

Motoman, Universal

Robotic spot/Mig Welding

Robotic Insert Loading Robotic

Sealant/gluing Robotic Welding

## INTEGRATION

High Capacity Loading & Unloading  
from Conveyor Layout preparation  
Equipment selection;

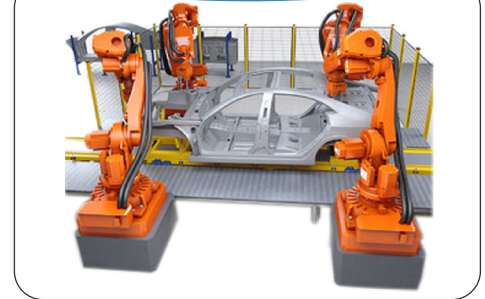
Fixture and peripheral equipment  
design

Verification through simulations  
Manufacturing of tools and  
equipment's Safety system  
design PLC system design and  
control design

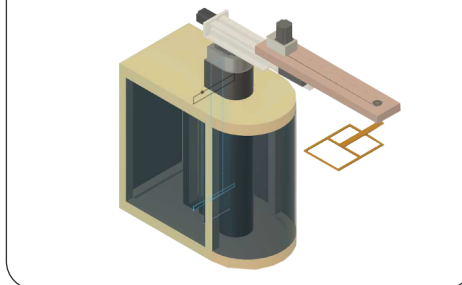
### Material Handling



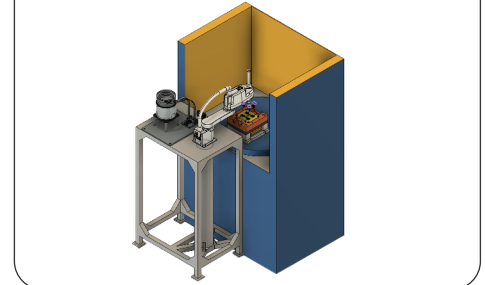
### Spot Welding



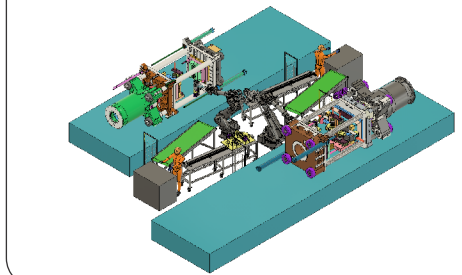
### Press Machine Loading Unloading



### SCARA Robot Assembling



### High Capacity Loading & Unloading from Conveyour



### Robot for Palletizing & Packaging





# Gantry Robot

## Gantry Robot



## 5 Axis Servo Manipulator For IMM



## Pneumatic Swing Arm Robot For IMM



## 3 Axis Servo Manipulator For IMM



- ✓ Guided Vehicle Robotics
- ✓ Robotic Assembly
- ✓ Robotic Cell Simulations
- ✓ Robotic Mold Tending
- ✓ Robotic Palletizing
- ✓ Vision Guided Robotics
- ✓ Palletizing & De-palletizing
- ✓ Insert Molding Assembly
- ✓ Robotic Mold Tending
- ✓ Trimming
- ✓ MIG Welding
- ✓ Resistance Welding

# Special Purpose Machine

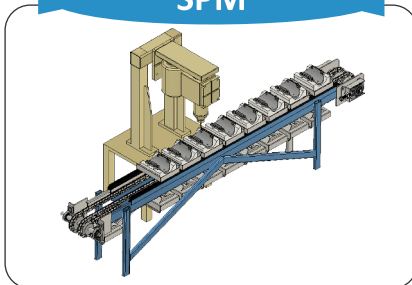
**Assembling  
SPM**



**Defect  
Detection SPM**



**Automatic Drilling  
SPM**



**Auto  
Winding Machine**



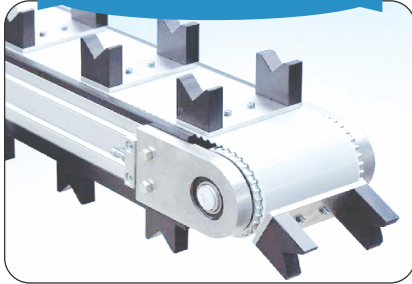
**Single Arm Transfer**



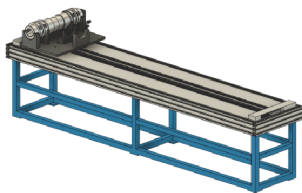
- ✓ Adhesive & Sealant Dispensing
- ✓ Bowl Feeding
- ✓ Case Packing
- ✓ Clinch Riveting
- ✓ Clip Driving Fastening
- ✓ Force & Distance Monitoring
- ✓ Impact Riveting
- ✓ Induction Heating
- ✓ Insert Assembly
- ✓ Joining
- ✓ MIG Welding
- ✓ Part Feeding
- ✓ Pick & Place
- ✓ Press Tending
- ✓ Pressing
- ✓ Riveting
- ✓ Robotic Assembly
- ✓ Robotic Palletizing
- ✓ Screwdriving
- ✓ Snap Pressing
- ✓ Ultrasonic Welding
- ✓ Vision Guided Robotics
- ✓ Vision Inspection & Verification Systems
- ✓ In line Transfer System
- ✓ Single Line Transfer Robot for Press M/C
- ✓ Auto Winding Machine

# Conveyors

## Pallet Conveyor



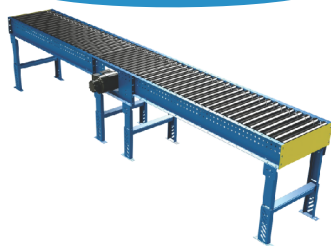
## Pallet Slider



## Belt Conveyor



## Roller Conveyor



Pallet handling conveyors are not a one-size-fits-all solution for manufacturing facilities, warehouses and distribution centers. Our Solutions integrate first-class technology that fits the unique requirements of your project to get operations running smoothly and efficiently. Our pallet handling equipment is trusted to increase throughput and flexibility while lowering overall costs of operations.

### Pallet Conveyors

Typically pallet conveyors are fitted with fixtures which hold the part, product or assembly in place while it moves down the line. We offers a full line of timing belt conveyors ready for part fixture attachments. Chain conveyors are ideal for pallet in harsh environments, and our line of stainless steel Clean Move conveyors are ideal for food and pharmaceutical manufacturing.

For applications requiring the highest accuracy in product movement, we offer wide timing belt conveyor; is the way to go.

Stepper and servo motors are popular conveyor motor options as well as indexing controls featuring product sensors, encoders and product metering devices.

We offer pallet chain conveyor This conveyor is ideal for use in metal working, robotics and the automotive industry. The versatility offered by conveying the product on a pallet allows for consistent conveying of even the most challenging product shapes.

A belt conveyor system can be implemented with a very economical cost per foot of the conveyor for many warehouse and industrial applications. Because it includes just one motor and a simple belt system, they are quite simple. Hence, they're often one of the first productivity improvement purchases that a growing company will make. Although there are many belt conveyor types, the simplest style is known as a slider bed style. When linked together with sensors and other automation equipment, a conveyor belt system can greatly enhance productivity.

### DIFFERENT TYPES OF BELT MATERIAL CHOICES

General Purpose Belting Material

**Rough Top Belt** :- for extra grip on inclines, declines and products that might slide

**Higher Chemical Resistance** :- for best protection from chemicals

**Cut Resistant Conveyor Belt Material** :- for rough or sharp items like sheet metal or bricks. The extreme heavy duty belts are very strong High temperature conveyor belt. For parts coming out of hot presses, we have belt materials available. In some cases, belt conveyors can run through lower temperature ovens.

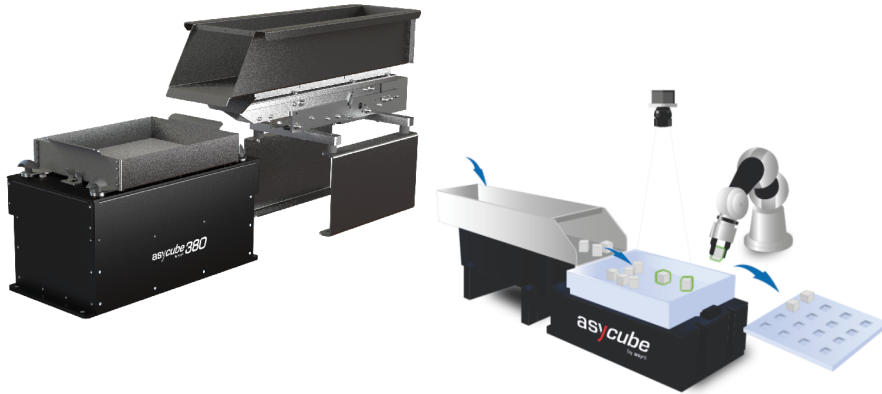
### Common Industries and Applications :

1. Automotive
2. Food and Beverages
3. Industrial Pallet Handling
4. Batteries
5. Appliances

# Flex Feeding System

## Technical Collaboration with Asyrl SA Flex Feeders, Switzerland

Flexible feeding systems for parts and components from 0.1 up to 150 mm in size. Unique patented 3-axis vibration technology and intelligent vision system are easy to integrate and allow for optimized speed, accuracy and flexibility.



## Non Contact handling of Medical device, 3 Way Stopcock (Application)



**A flexible feeding system designed by Assatec.**

### The Challenge

- ✓ Additional unnecessary handling of medical grade components increases the risk of contamination and foreign bodies.
- ✓ Assembly and handling of components without human contact.

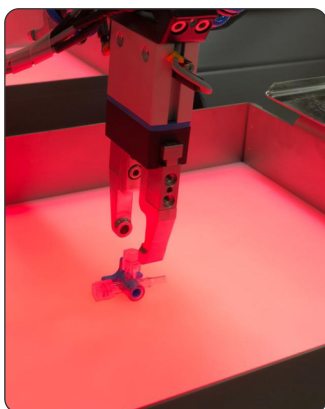
### The Solution

- ✓ **Two Asycube 380's** are used for feeding up to four part types within a six second cycle time for final part assembly.
- ✓ **A six-axis Fanuc robot** and **a camera** to identify picking points complete the application.

The initial application has since evolved requiring an additional three pairs of product. This highlights the main advantage of a flexible feeding system, the system can be easily adapted as the product or production process changes.

### Advantages

- ✓ Parts always available to pick
- ✓ Robot Plugin for seamless integration
- ✓ Easy to set-up and teach recipes
- ✓ Adapts for changing customer requirements



# Packaging Solution

## Carton Sealing Machine



We are regarded as the leading brand offering **Carton Sealing Machine**, Autobag Sealing Machine, Powder Filling Machine & Sealing Machine. We manufacture this machine as per the ever-evolving needs of our clients. Our offered machines are a contemporary example of engineering innovation and are widely cherished among our clients. Packed with cutting-edge features, these machines are firmly accepted in the national and international market.

**Specification:** Worktable Height: 620-820 mm

Capacity: 1000 Boxes/Hour

Tape Type: BOPP, PVC

Tape Width: 2 , 3 Inch

## Autobag Sealing Machine



Field-proven, easy-to-use mailbag systems from simple tabletop models to modular and fully-customizable automated solutions Every system we make is geared with our customers in mind. Our SUPRAK automated fulfilment machines feature small footprints that easily fit into existing shipping environments. With next-bag-out printing, there is no need for a separate shipping label. Simply scan the items and drop them into the waiting pre-opened mailbag. Automatic sealing completes the cycle, and the next pre-labelled bag is presented for loading. With bags up to 22" wide and consistent bag opening up to 11" x 11" square, our systems can easily accommodate hand or robotic filling.

**Other Features Include:**

- Order verification and sorting for accuracy in single or multiple line orders
- Collating and inserting ■ Built-in conveying ■ Simple operator interface
- Enterprise database integration ■ Customizable options

## Powder Filling Machine



Powder filling machine is majorly used for filling free flowing powders and non free flowing powders.

Powder filling machine also known as auger filler and powder dozing machine which is suitable to fill 1gm to 5000gm of any powder in bottles, cans, jars, tubs.

Powder filling is automatic filling machine runs of volumetric filling principle.

Powder filling equipments are widely used to deposit accurate powder in bottle filling, pouch filling, container filling.

Powder filler is also available in servo motor filling for accurate filling of powder.

Desired speed can be achieved by powder filling machine by adding filling heads. Major auger fillers are available in single or double heads.

Powder Filling machine can produce 30-50 bottles per minute by adding multiple heads to filler head.

## Sealing Machine



Continuous Pouch Sealing Machine are suitable for sealing individual pouches/bags automatically. The machine has a variable temperature controller and speed control , to suit different grades of plastic materials Three types of models are available Horizontal type, Vertical type with foot stand type. Other special models include Nitrogen filling attachment, vaccum option, Printing attachment, and for heavy bags sealing.



# Vision System

Nowadays, practically everyone wants to benefit from the flexibility and versatility of image-based product inspections. However, in cases where PC-based image processing programs are too complex and expensive and the performance of optical sensors is too weak, vision sensors offer the ideal solution.

They operate, particularly efficiently in applications in which several characteristics must be tested simultaneously or in which the position of the inspected objects is constantly changing. Vision sensors are also the ideal components when different batches are tested on a production line and the acquired data is to be forwarded for evaluation.

## Benefits -

The solution for diverse inspection tasks

- Up to 23 high-performance feature checks
  - Up to 32 feature checks combinable per job
  - Up to 255 jobs can be stored on the vision sensor
- 
- ✓ The fully integrated flash controller simplifies the system design, lowers costs, and saves integration time
  - ✓ Reliable contour-based image processing in real time
  - ✓ Exact image evaluation and dimensional checks even if the vision sensors are mounted at an angle
  - ✓ Set up color inspections fast and intuitively
  - ✓ Reliable 360° part recognition without mechanical object alignment
  - ✓ Simple and fast configuration within a few minutes without programming languages
  - ✓ Storage of defect images for evaluation at any time
  - ✓ Communication in real time
  - ✓ Secure communication and encrypted connection



# PLC & Controls Capabilities

We have expertise in use of PLC to read digital and analog inputs from various field devices, execute a user defined logic program, and write the resulting digital and analog output values to various output elements. Also we developed the system for interaction of the shop floor devices with the top floor for monitoring as well as controlling

## Controls Parameter

- Electrical.
- Instrumentation.
- Flow meter.
- Temperature.
- Pressure.
- Level.
- Robotic parameters
- Statistical data
- job dimensions

## Networking and Communication

- ControlNet
- DeviceNet
- EtherNet/IP
- Ethercat
- DH-485
- Modbus
- Profibus
- Remote I/O
- DHPlus
- CanBus

## Operators interfaces

- GraphicTerminals
- MessageDisplays
- HMI
- SCADA
- iPC's

## Peripherals

- Contactors &relays
- Emergency stop devices
- 2d/3D Vision systems
- Hazardous location
- Pneumatic switches
- Isolation systems
- Interlock switches
- Load switches
- Operator interfaces
- Presence sensing

**Disclaimer:** The information provided in this catalog is a general description of performance. The information is checked & verified, however SUPRAK TECHNOLOGIES does not hold any liability for any errors or omissions that might exist.



**Head Office**

**Pune**

No-C901, Shiva Heights,  
Shivar Chowk, Rahtani, Pune-411017  
Email: [sales@supraktechnologies.com](mailto:sales@supraktechnologies.com)  
Website: [www.supraktechnologies.com](http://www.supraktechnologies.com)  
Contact : +91 2066301188, +91 9370252525

■ **Factory-**

Plot No 7, Ganesh Nagar, Telco Road, Near Quality  
Circle, MIDC, Bhosari, Pune-411026  
Email: [sales@supraktechnologies.com](mailto:sales@supraktechnologies.com)  
Website: [www.supraktechnologies.com](http://www.supraktechnologies.com)  
Contact : +91 2066301188, +91 9370252525