

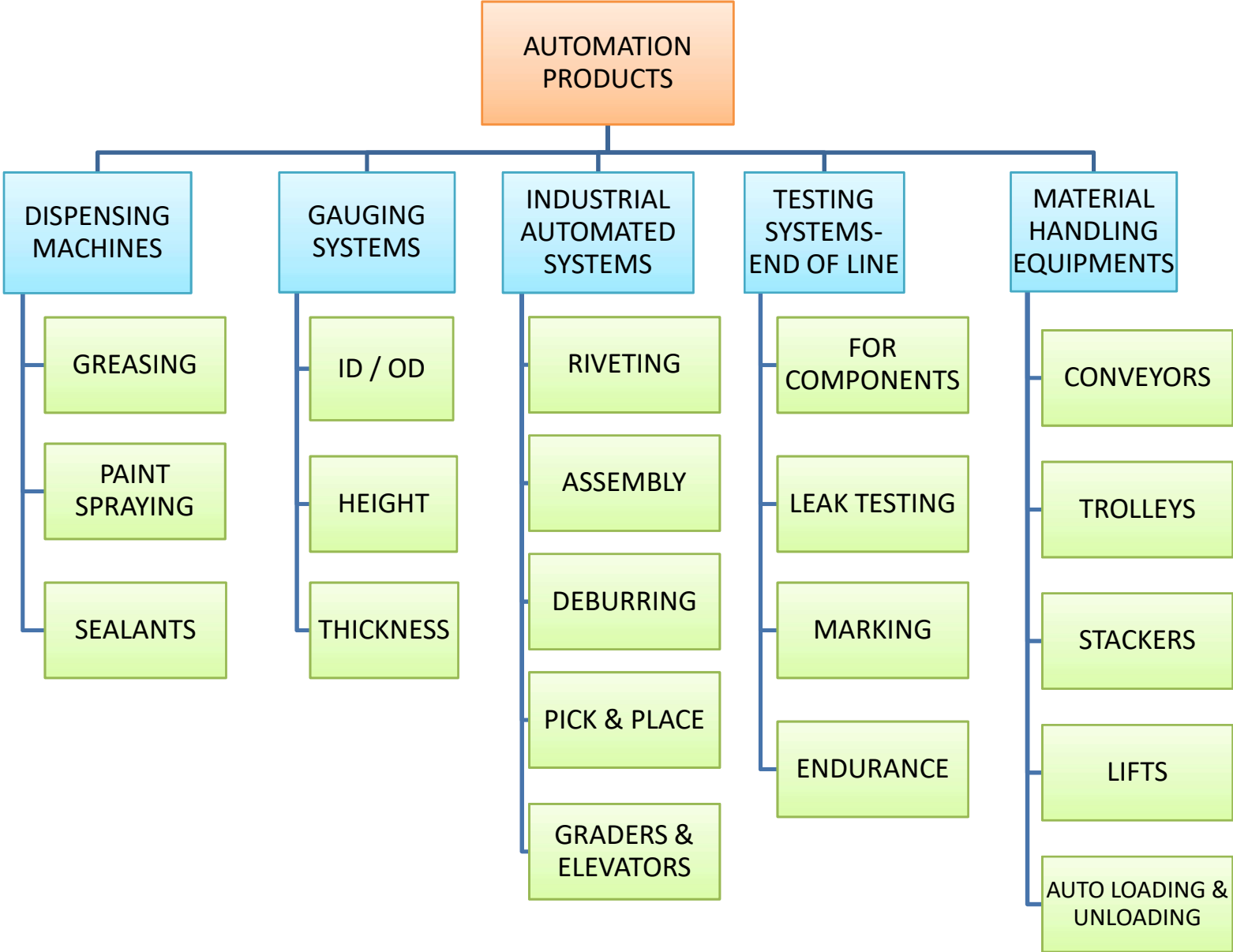


Products & Services

Our Expertise :

- **Dispensing SPM's** : Custom Built and Robotic Based
For Epoxy Based resins, Polyurethane , Silicon & Adhesives, Lacquer coating / spraying, Varnish trickling & Gel coating applications
- **CNC Systems** : 2- Axis , 3- Axis
- **Gantry Systems** :— X – axis, Y-Axis, Z- Axis
- **Robotics Systems**: 6 Axis & SCARA based applications
- **Automation** : Assembly Line, Conveyor based, Indexer Based
- **Linear slides systems** : Servo, stepper & Pneumatic Driven
- Tilters & Turn Tables, Hydraulic Lifts,
- **Auto Feeding Systems**: Bowl feeders, linear feeder, stock feeders, singling devices, magazines etc
- **Gauging** : Auto Gauging Fixtures, Auto gauging special purpose machines

OUR PRODUCT SEGMENTS

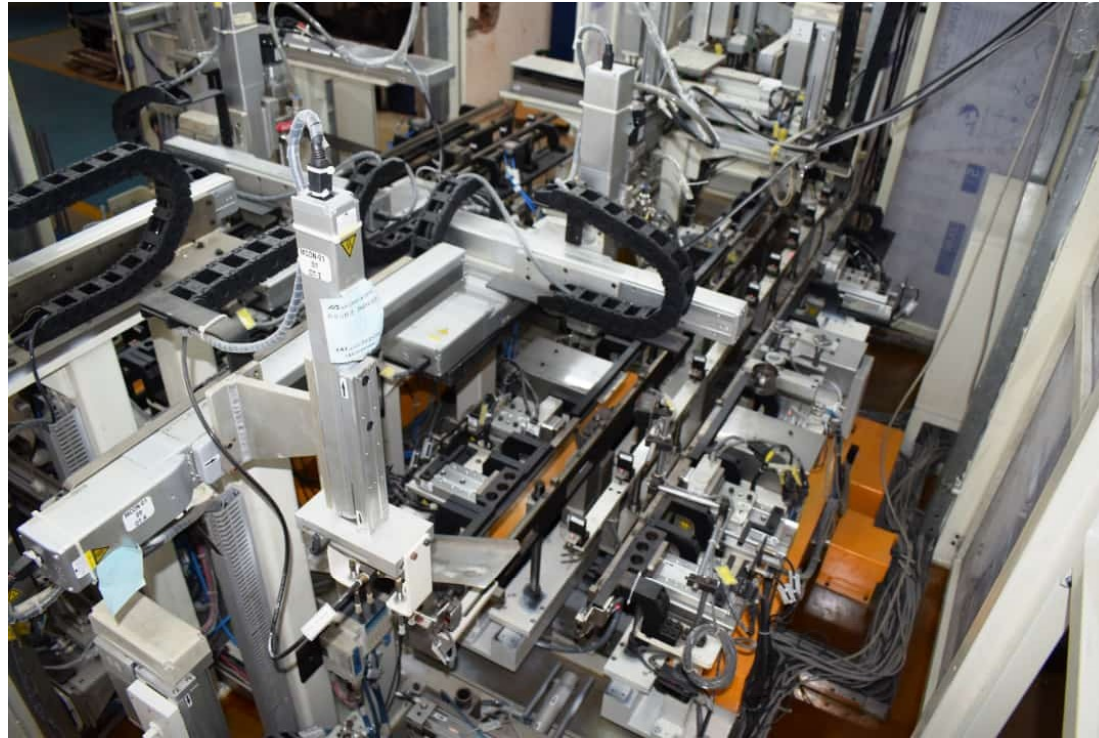


NICKEL PASTE DESPENSING & AUTOMATIC EGR ASSEMBLY

This machine is developed to perform Nickel paste application on tube and assemble it automatically, after tube assembly completed start the tank assembly with stack of seven tubes on separate station and Auto movement of tank tube assembly.



NICKEL PASTE DESPENSING & AUTOMATIC EGR ASSEMBLY



A) Features :-

- Robots along with teaching pendant and software
- Auto Select Program Provision.
- Meet Industrial Requirements.
- Custom controls, software, and multiple output PLCs available.
- Safety door switch and curtains provided as per ISO 13855
- Hourly job monitoring at end of line
- NG chute provided for wrong part and less tube

B) Specification :-

- Working pressure 0.97 MPA
- Max cycle time for job 49 sec.
- Paste dispensing on tubes within +/- 1.5 gm.
- Safety as per IS-11016, IS-10481
- Power supply 220 VAC/ 50 HZ
- DC power- 24 VDC
- Air pressure- 5 Bar

PUMP ASSEMBLY LINE

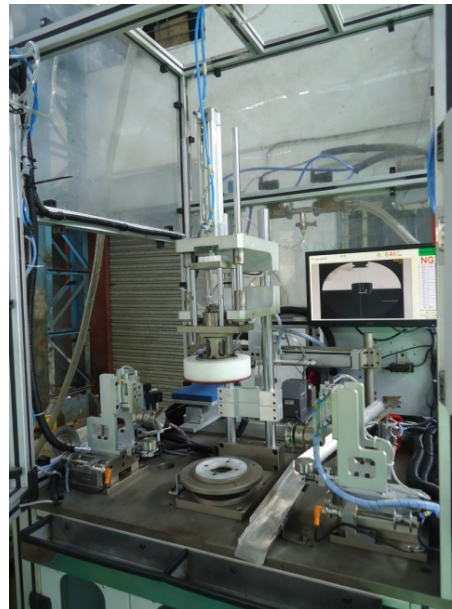


Special features : Complete child part traceability with Data log-in system.

No of Assembly Stations: 11 NOS.

Cycle Time : 30 sec/ pump

BOOSTER ASSEMBLY LINE



Special features : Complete child part checking & traceability with Data log-in system.

No of Assembly Stations: 05 NOS.

Cycle Time : 60 sec/ Comp

APPLIED AND UNAPPLIED LEAK TESTING

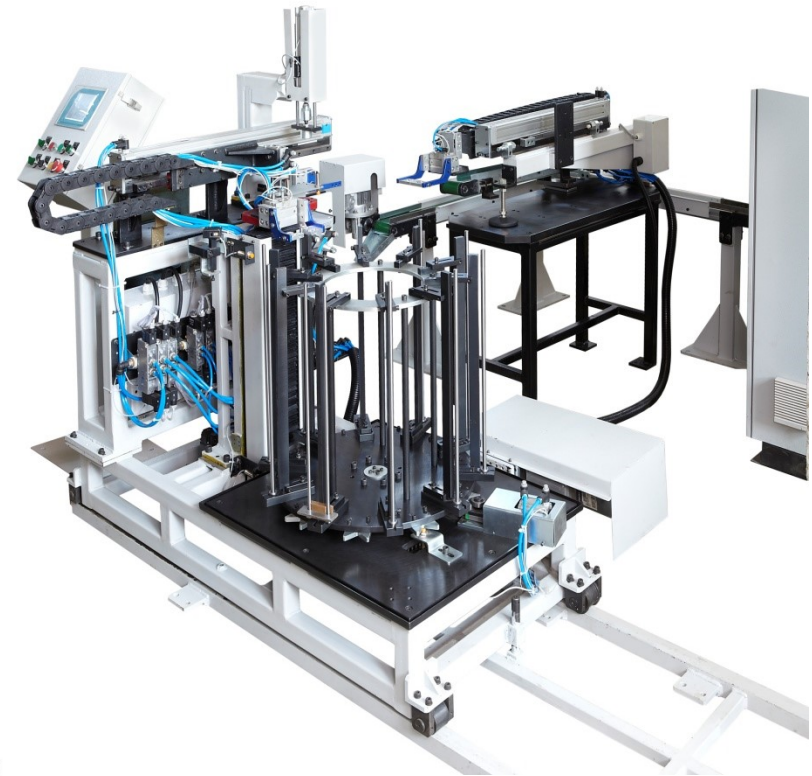
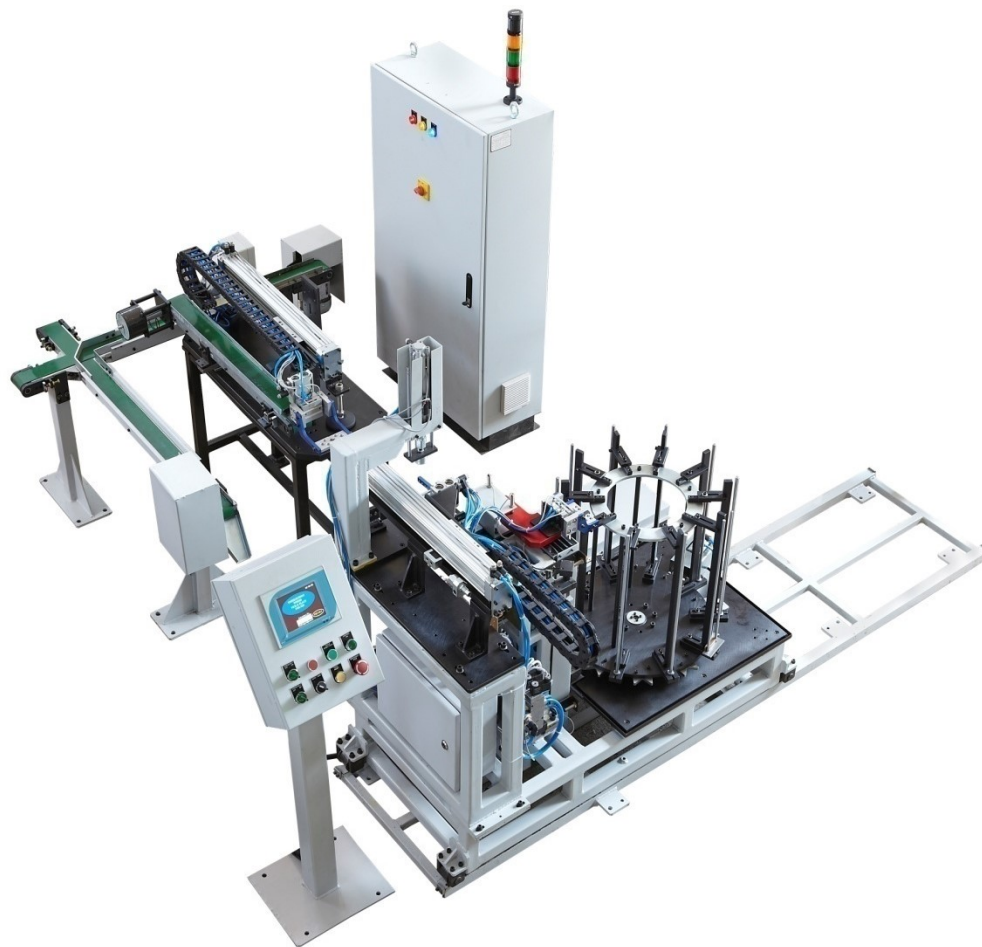
TECHNICAL SPECIFICATIONS:

This machine is developed for controlling level of tightness in the booster with the purpose of checking if the assembly processes has been carried out correctly. The performance test station is composed of:

- Upper tool
- Booster support
- Lower drive system
- Vacuum system
- Leak control system



AUTOLOADING SYSTEM FOR SIZING PRESS



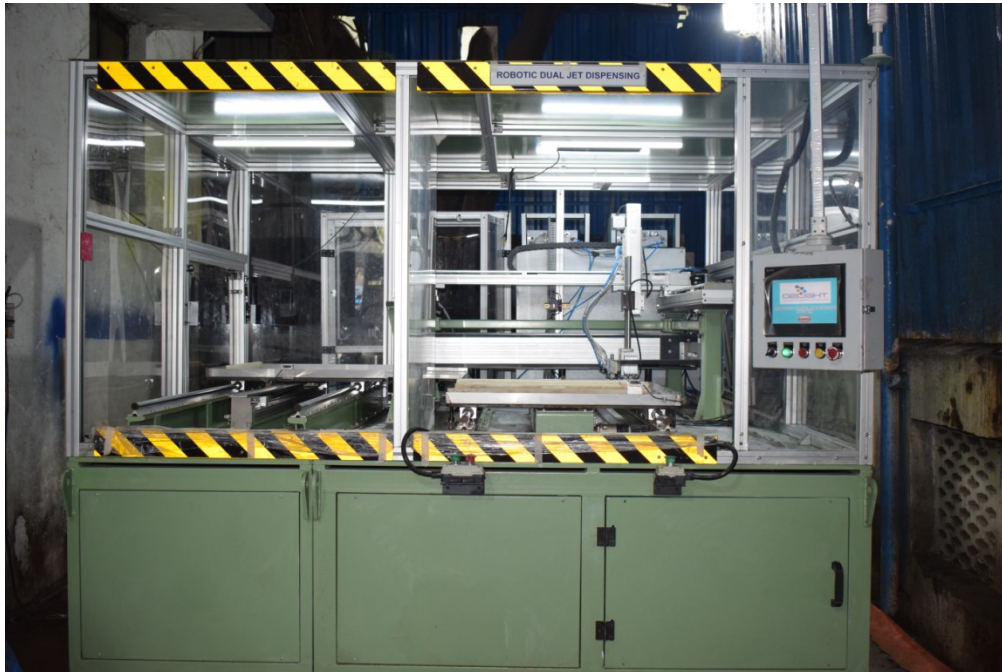
Application:-Sinter product autoloading

Design Elements:- indexer, fixtures, checking unit, loading slides, grippers, ejection unit & sorting mechanism

Component :- 15 variety of component.

Cycle Time:- 3 Sec/ Component.

ROBOTIC DUAL JET DISPENSER MACHINE



A) Features :-

- Robot for dispensing.
- Fast dispensing by dual jet.
- Auto Select Program Provision.
- Custom controls, software, and multiple output PLCs available.
- Safety curtain sensor, door switch is provided .

B) Specification :-

- X-Axis speed- 300 mm/s .
- Y-Axis speed- 300 mm/s .
- Offset pitch- 10-15 mm.
- Needle height-from core 15-20 mm.
- Core area dispenser angle -20°-25 °
- Header area dispenser angle- 40°-45°

REAR AXLE RTV DISPENSING & BOLT TORQUING MACHINE

Features:-

- Controlled automatic dispenser 3/6 axis robot.
- Bolting of mounting bolts done by DC nut runner.
- Designed with ergonomics and aesthetic considerations.
- Safety PLC for cycle start, emergency stop, door interlock



Specifications:-

- Cycle time for operation is less than 120 Secs including loading and unloading
- Setup changeover time - Less than 10 Mins
- Sealant dispensing as per profile of part.
- Cycle time for bolting 2-3 mins.

LIQUID GASKETING MACHINE



Application : Robotic RTV Application and Oil Seal pressing

Design Elements : Machine Frame structure, Component loading fixture, seal pressing arrangement, pneumatic sliding, Programming

Component : Banjo Beam axle

Cycle time : 50 secs/component

Two component Gluing for Sleeve & Muff assembly

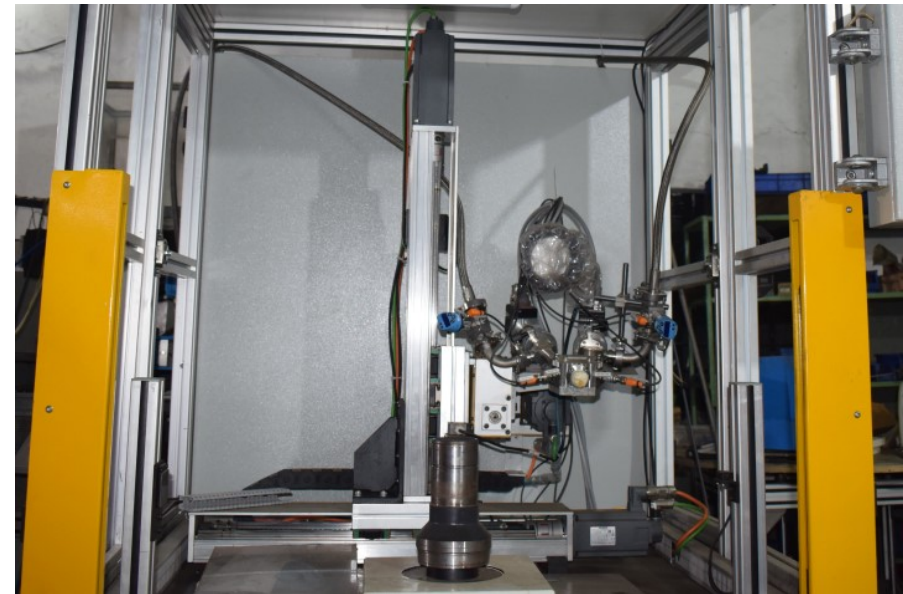


A) Features :-

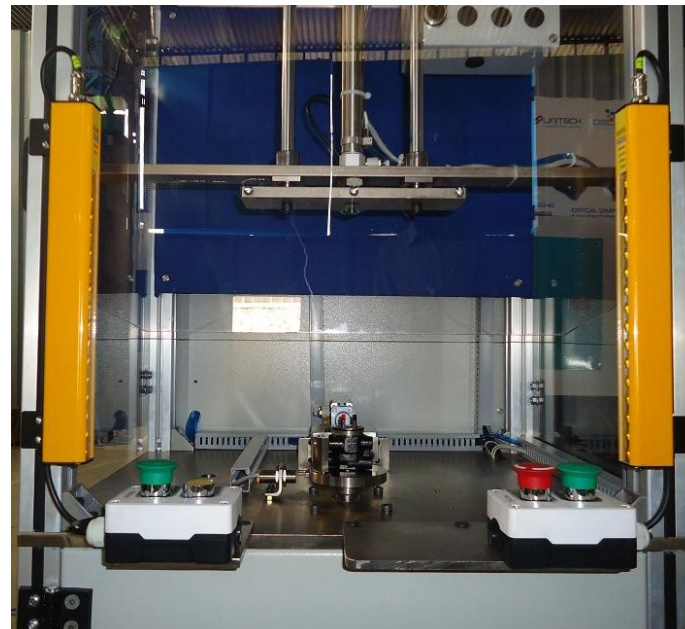
- Mixing head and drum press is used for dispensing
- Vision camera use for bid, bearing and flange identification .
- XYZ servo slide provided with servo motor.
- Custom controls, software, and multiple output PLCs available.

B) Specification :-

- Dispensing quantity 2-3gm in 3-6 sec.
- Total load-1.5 KVA
- Supply- 3 phase 415 VAC
- AC Voltage 220 VAC
- DC Voltage- 24 VDC.



OD GREASING – FOR BRAKE SYSTEM BODY



Application : OD GREASING

Design Elements : Grease dispensing unit,
Component fixture,
Shutter for m/c using
cylinder

Component : Brake system body

Cycle time : 6 secs/component

END OF LINE- LEAK AND PERFORMANCE TESTING



Application : EOT – Leak and Performance testing for Brake system pump

Design Elements : Component fixture, Sliding arrangement, leak tester, component holding,

Component : Brake system pump

Cycle time : 2 mins/component

PUMP CASTING LEAK TESTING MACHINE

- **Features :-**
 - PLC based operation sequence
 - Reliability
 - Sensitivity
 - Versatility
 - Data Integration & Data Transfer

- **Application:-** Leak and performance testing for cast housing and similar product

- **Cycle time:-** 60 Seconds/component

- **Leak Rate-** As Per Customer Product Specifications

- **Test pressure -** As Per Customer Product Specifications



BAMBARDING AND LEAK TESTING MACHINE



Main purpose of this machine is to perform leak test.

This machine is highly efficient with the aid of modern tools and advance technology.

Features:-

- Accuracy- +/- 1% of reading Pressure.
- Gas Inlet: φ 6 mm polyurethane pipe.
- Pressure Inlet: 6 bar and booster pressure 10 bar.
- Hydraulic power pack pressure- 100 bar.
- Oil capacity 100 liters.
- Power: 3 phase 415V 50 HZ

SYNCHRO HUB AUTOMATIC DEBURRING MACHINE



Application : Automatic Synchrohub
Deburring machine

Loading Indexers : 14 stations with stack
bars

Cycle Time : 13 secs/component

MAZAK CNC AUTOMATIC LOADING & UNLOADING SYSTEM



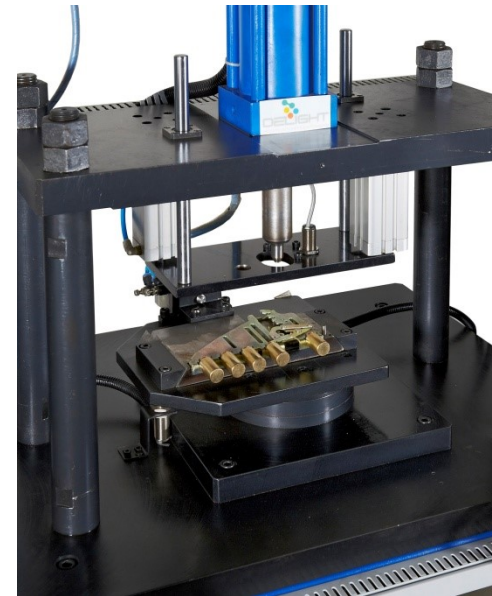
Loading Indexer : 9 stations linear indexer
with stack bars

Gantry : X-axis and Z-axis Servo Driven

Unloading Rotary Feeder : Driven by
Motor and Gearbox

Cycle Time : 12.5 sec

SLIDER RIVETING MACHINE



Application : Slider mechanism
riveting spm

Design Elements : HydroPneumatic
Press, Panel, Fixture

Component : Safety Lock Slider
mechanism

DRILLING MILLING REAMING SPM



DRILLING

MILLING

REAMING



Application – Conventional Auto Drilling, Milling , Reaming Machine

Design Elements : Support L – Structure, Walking beam with servoslide, Pick and Place for the component, programming

Component – Bearing Cap

Cycle Time – 19.5 sec/component

NUT PRESSING INTO BRACKET AND RE-TAPING



Application – Nut & Bracket Assembly

Design Elements : Press structure,
Pressing dolly, component fixture, etc,
Re-taping head & auto – unloading
system

Component - Nut & Bracket

Cycle Time – 6 sec/component

Pressing Force – 4 Ton

RIVET AUTO – LOADING & PRESSING INTO BRACKET



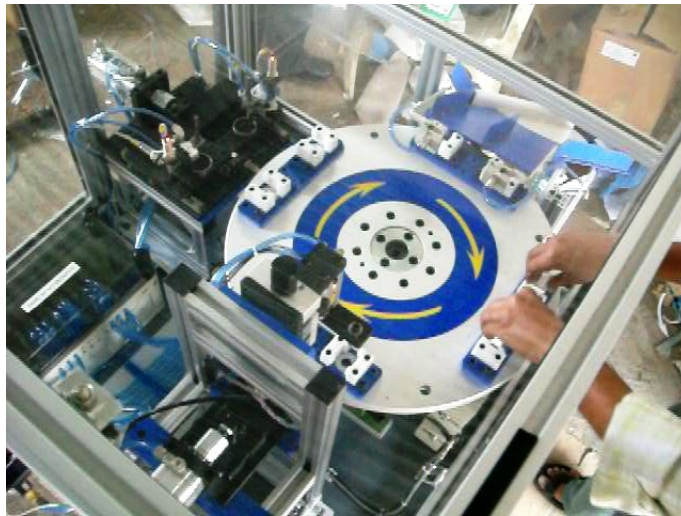
Application – Rivet Loading & riveting in to bracket

Design Elements – Press structure, Pressing Dolly, component fixture etc, hydraulic system & auto – unloading system

Component – rivet, shoe & bracket

Pressing force – 8 Ton

SWITCH TESTING & MARKING SYSTEMS



Application:-Refrigerator door switches continuity testing & ok-not ok marking .

Design Elements:- indexer, fixtures, continuity checking unit , ink marking system, ejection unit & sorting mechanism

Component :- variety of door switches & contact block.

Cycle Time:- 4 Sec/ Component.

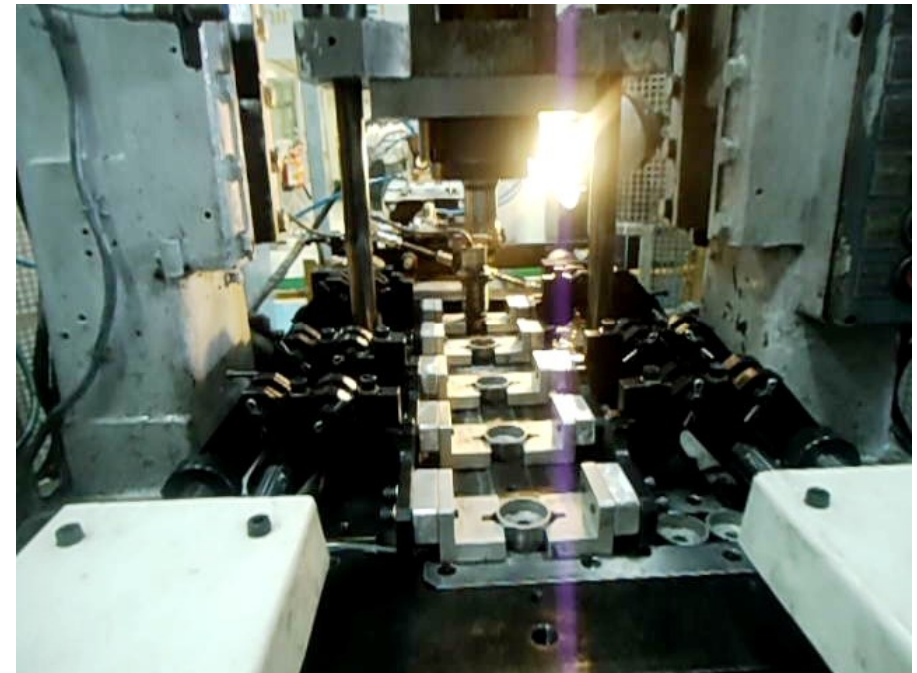


PRESS AUTOMATION FOR SINTERED PRODUCT

Application:-Auto feeding automation

For coining press of sintered product

Design Elements:- bowl feeder, transfer conveyor, gripper arm mechanism



Component :- conrod & other products.

Cycle Time:- 2.5 Sec/ Component.

Thank You...

- **Delight Process Designers & Automation**

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