



## Products & Services

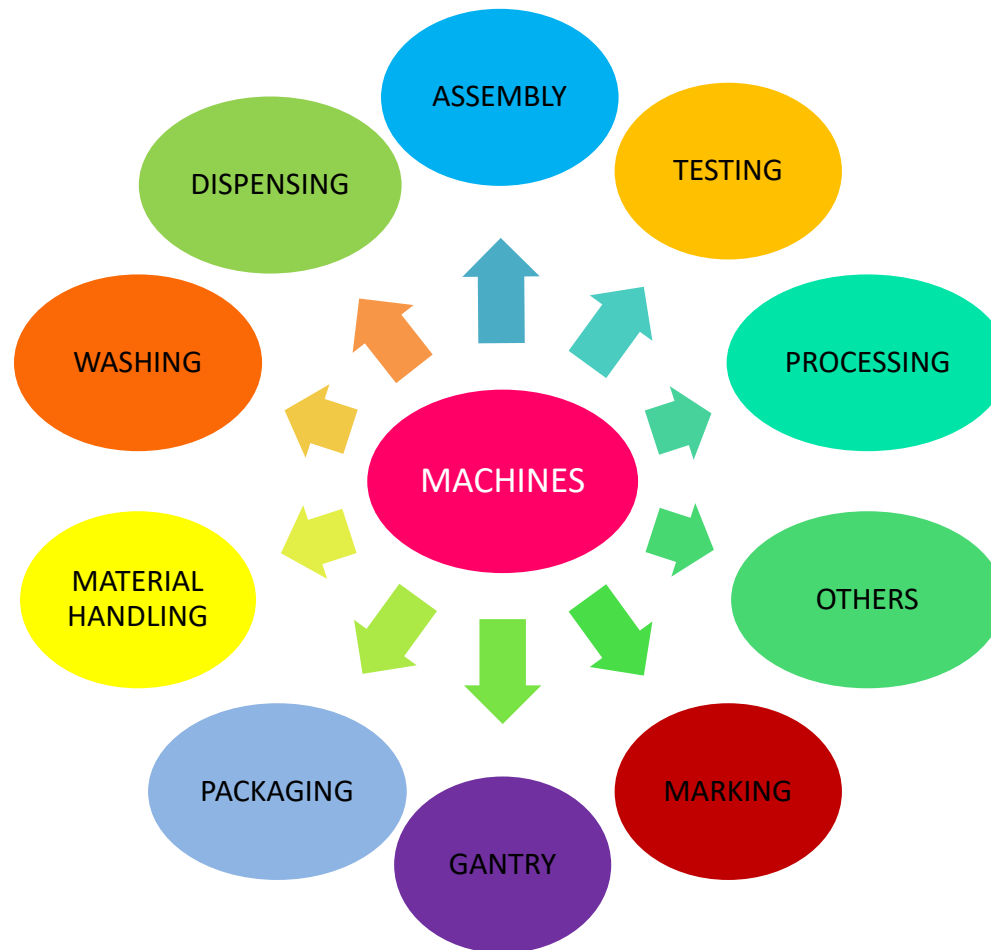
## About our Company:

- **Delight Process Designers & Automation** was incorporated in the year 2006
- We have our company based in BHOSARI, MIDC, Pune
- **We provide solutions in;**
  - Assembly lines
  - Special Purpose machines
  - End of Line testing
  - Industrial Automation
  - Dispensing Machines
  - Gauging Machines
  - Provide Turnkey Solutions
  - We have our design centre, manufacturing facilities and in house assembly facility

# Director's Credentials:

- **MR.OM LANJEWAR -Director**  
**D.M.E, B.E.-Mechanical Engineering,**  
**Experience:-** Overall **24 Years** in Machine design for Industrial Automation, Robotics & Special Purpose Machine.
  
- **MR. A. S. PALEGAR- Director**  
**Experience:-** Overall **27 Years** in Manufacturing of Machined components, Assembly & tool room service for Industrial Automation & special purpose Machines.

## Our Core expertise:



## Our Clients :

- ADITYA BIRLA NUVO LTD.
- BOSCH CHASIS SYSTEMS PVT.LTD
- DOVER INDIA PVT.LTD
- GODREJ SEQRITY SOLUTIONS
- GKN SINTER METALS PVT.LTD.
- PORITE INDIA PVT LTD
- DANA ANAND INDIA PVT. LTD.
- TBK INDIA PVT. LTD.
- TATA TOYO RADIATOR LTD.



**BOSCH**  
Invented for life



**SPICER**<sup>®</sup>  
Off-Highway Systems

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SECURITY SOLUTIONS



**TATA** AUTOCOMP SYSTEMS LIMITED

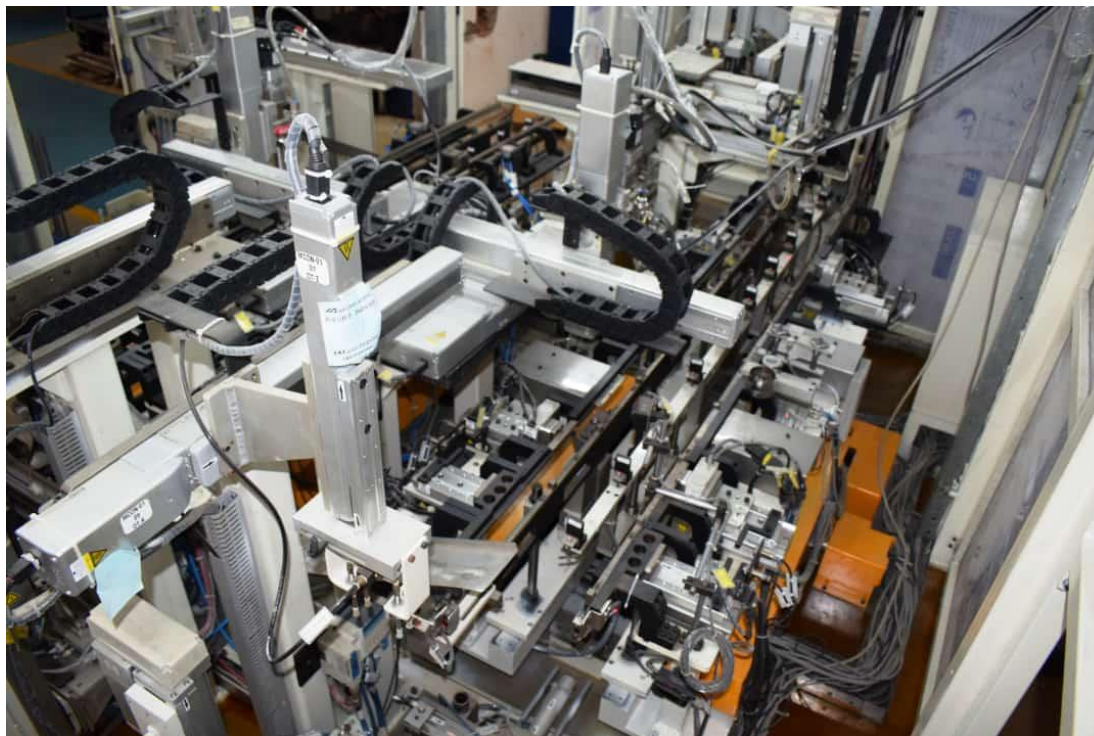
## NICKEL PASTE DESPENSING & AUTOMATIC EGR ASSEMBLY

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



# BREAK 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

## TECHNICAL SPECIFICATIONS:

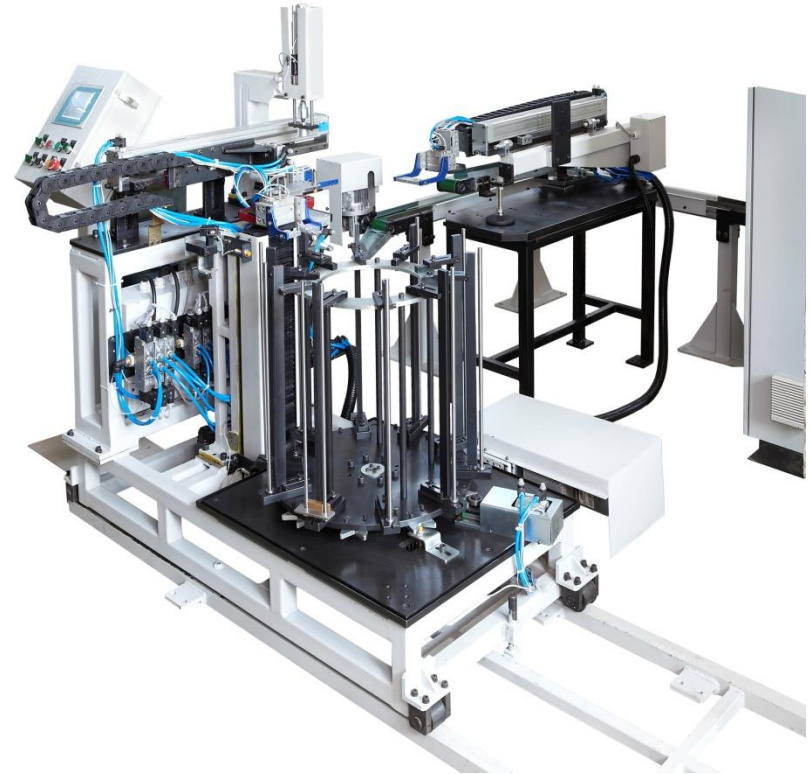
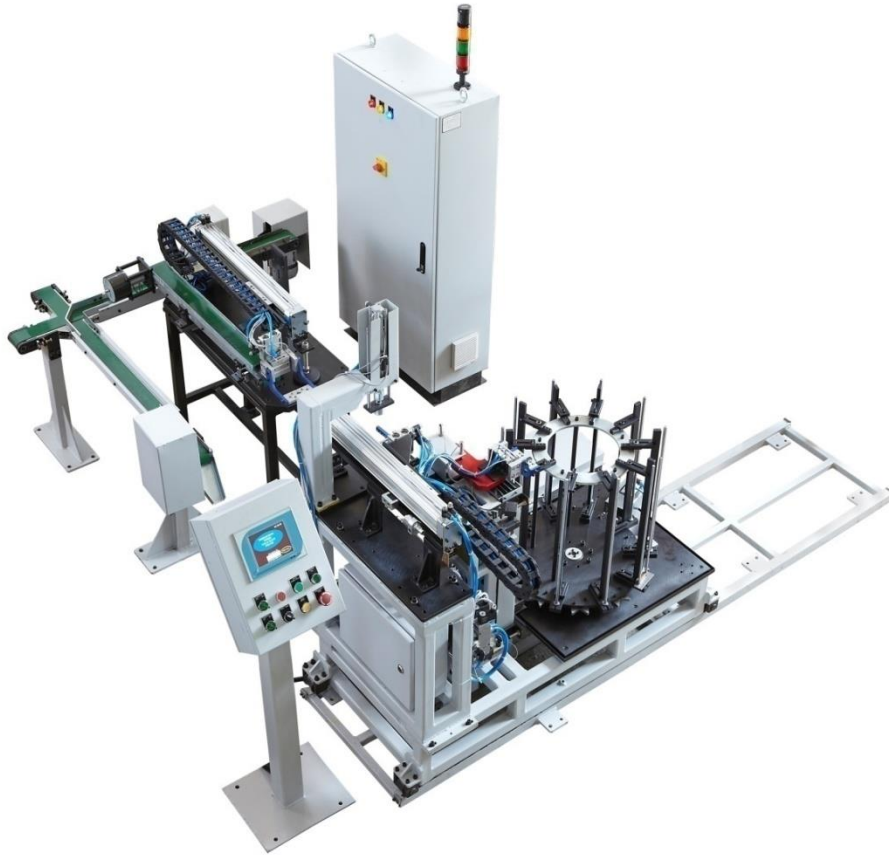
This machine is developed for controlling level of tightness in the booster with the purpose of checking if the assembly processes has been carried out correctly. The performance test station is composed of:

- 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 DESPENSER 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

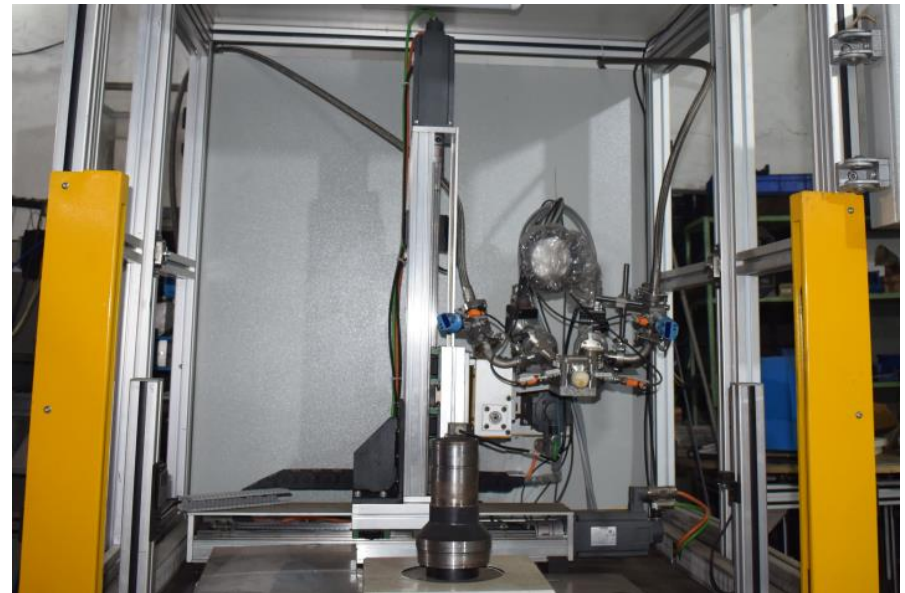


## A) Features :-

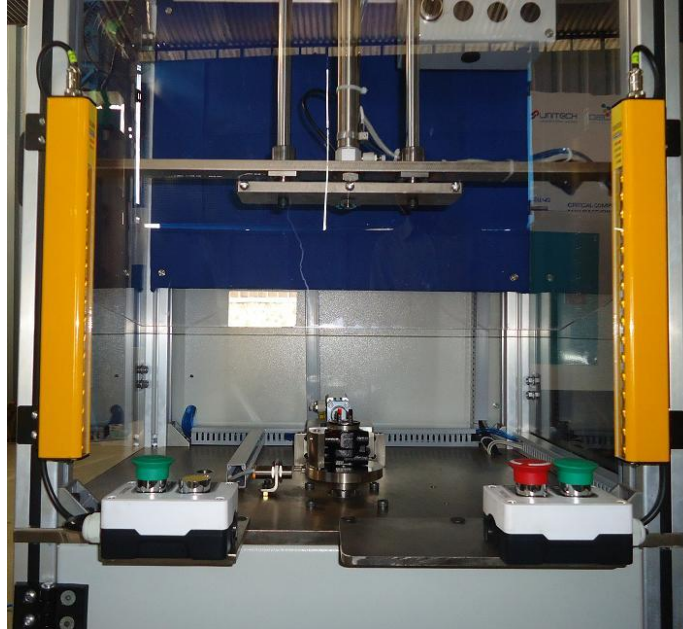
- Mixing head and drum press is used for dispensing
- Vision camera use for bid, bearing and flange identification .
- XYZ servo slide provided with servo motor.
- Custom controls, software, and multiple output PLCs available.

## 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:  $\phi$  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

**Entry :** 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



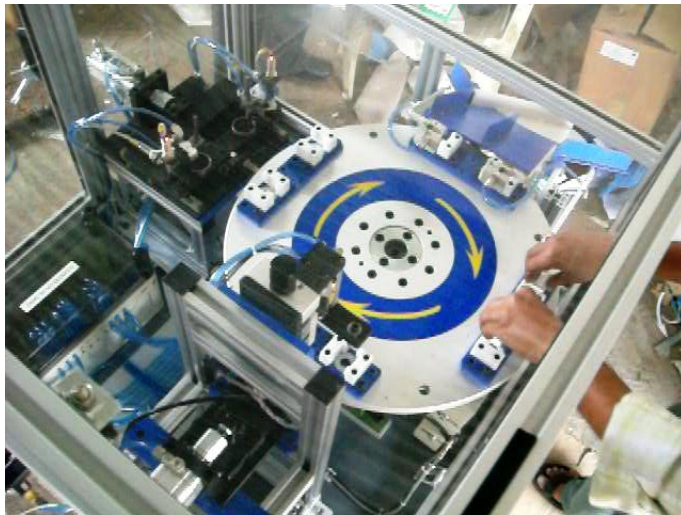
**Application** – Rivet Loading & riveting in to bracket

**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.



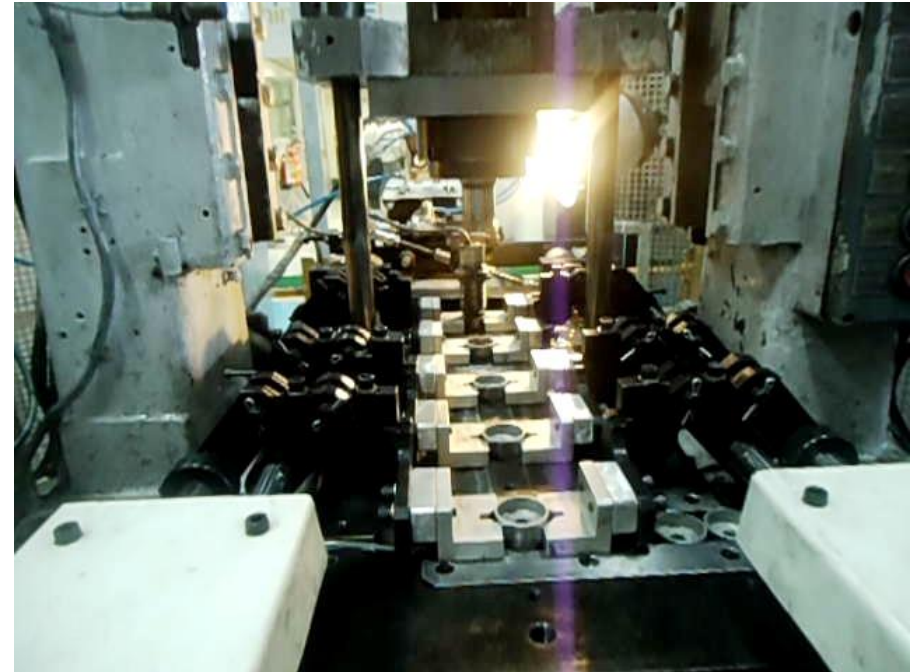


## PRESS AUTOMATION FOR SINTERED PRODUCT

**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**

Plot No. J-394/1

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