Welcome
to a
Presentation
of
A-MAT
A-MAT works on
Supplying Equipments required for Manufacturing Automation, Assembly Automation, Robotic Welding & Handling, Special Purpose Machines, Jigs & Fixtures to Clients.
A-MAT started its operations in the year 2005 with an Objective to
Provide Turnkey Engineering & Project Management Services & Solutions to Manufacturing Automation needs of Clients.
The company partnered with many reputed Machine Tool & Automation Equipment Industries in Bangalore and worked with the key responsibilities & as front face to all its client till 2010
**A-MAT** set up its own facility in the year 2010-11 & continued to provide Turnkey Solution including Manufacturing & Supply in its Domain Expertise.

**A-MAT** has since then been Achieving Consistently High Business Growth & Recognition & Accumulating even Higher Competency Level
To be one among the top 5 preferred equipment's supplier in the field of Manufacturing & Assembly Automation, Robotics & Special Purpose Machines in India within 5 years and to accomplish global recognition in the related field.

To be one among the top 10 preferred capital equipment’s supplier in the field of manufacturing automation globally within 10 years & to sustain & consolidate the position forever.
A-MAT is committed to provide the best possible innovative concepts & solutions with best possible returns on the investments, ahead of the time schedule with optimum cost & excellent services to its clients by adopting innovative concepts.
A-MAT
will Always & Forever Provide
High Quality Goods & Services to its Customer to
Satisfy our Aspiration
for
Delightful Customers
A-MAT core competence is in design and manufacturing of:

- Special Purpose Machines for Metal Cutting.
- Robot Welding Cell & Handling Cells.
- Assembly Line Automation
- Material Handling Automation including Robot Gantry, Overhead/ Floor Mounted Servo Gantries etc.
- CNC Machine Fixtures – Hydraulic/ Pneumatic/ Manual for small to heavy components.
- Special Fixtures like Receiver Gauges, Expansion Mandrels, Special Turing Mandrels.
- Special Purpose Grippers, Conveyors etc.
OUR ESTEEMED CUSTOMERS

- Moog Controls India Pvt Ltd.
- Moog – China.
- Wipro Infrastructure Engineering - Bangalore, Chennai & Hindupur.
- Wipro Infrastructure Engineering - China.
- Fanuc India Pvt Ltd.
- JCB Ltd.
- Aeromech Technologies.
- Tractor & Farm Equipment's Ltd.
- Stanzen Toyotetsu India Pvt Ltd.
- Supram Industries.
- Tata Motors Ltd.
List Of Customers (Previous)

- Kennametal Widia India Limited.
- Ace Manufacturing Systems limited.
- MICO-Bosch.
- Wipro Technologies.
- Quest Global.
- L & T E- Services.
- Baker Gauges.
- Bajaj Auto Ltd.
- Makino Asia Pacific.
- Greaves Cotton Ltd.
- Tool Grinding Technologies Inc.
• Mitutoyo India Pvt. Ltd.
• ABB Limited – Robot Division.
• Deccan Hydraulics.
• New Holland Tractors.
• Munjal Showa Ltd.
• Concentric Pumps.
• Ashok Iron Works.
• International Auto Ltd.
• L & T Limited.
• HBL Nife Ltd.
• JMT Auto.
• GE – BEL.
• Vigel Manufacturing Technologies.
PROJECTS

Robot Welding / Material handling cells
- Robot welding cell for hydraulic cylinder tube, cap-end cover & pipe/port & stiffener's welding.
- Robot welding cell for cabinet welding.
- Robot welding station for dampener tube.
- Robot welding cell for chassis welding.
- Robot welding cell for rotary shaft.
- Robot welding station for cab heater tube.
- Robot material handling cell.

Special Purpose Machines (SPM)
- Rotor-Stator Integration SPM – Horizontal.
- Metal Deposition SPM.
- Tube Peripheral Drilling SPM.
- Port-Hole Drilling SPM.
- Rod De-burring SPM.
- Rod Chamfering SPM.
**Pressing Machines**
- Rotor insertion press - vertical.
- Hydraulic bush press.
- Fuel injection pump press.

**Inspection Fixtures**
- Receiver gauges for piston rod.
- Gear box inspection fixture.
- Run-out check gauge.
- Axial float checking fixture.
- Pinion straightening fixture.
Jigs & Fixtures

- Robot welding fixture for hydraulic cylinder pipe welding.
- Rock drilling bit welding fixture.
- Robot welding fixture for car under body.
- Gear box assembly fixture.
- Manual averaging fixture.
- Cam shaft – gear assembly fixture.
- HMC – Hydraulic fixture for Dumper cylinder.
- Robot gripper for tank welding – Seam.
- Oil cooler & rocker cover assembly fixture.
- Investment casting gripper.

Contd....
Automated / Material handling Equipments

- Motorized bin exchanger.
- Idle & Motorized conveyors for rod handling.
- Automated rod bundling equipment.
- Automated indexer for flight-bar.
- Manual loading (flight-bar) unit for conveyors.
- Auto feeding station for crates.

...& lot more
ROBOT WELDING CELL FOR HYDRAULIC CYLINDER TUBE, CAP-END COVER & PIPE/PORT & STIFFNER’S WELDING

- Turnkey Solution
- Innovative design
- Multiple components welding with Quick Change concept
- High pressure leak proof with high structural strength joint welding for off road vehicles Hydraulic cylinders.
- Capable of welding multiple sizes of cylinders with quick change type fixtures for holding child parts with tack & full welding in single cycle of operation with high repeatability.
- Quick setup change-over time with servo tailstock & pneumatic child parts clamping.
- All child parts loading in single manual loading sequence.
- Loading & unloading time masked with Index table.
- Welding is the final operation after tube burnishing.
ROBOT WELDING CELL FOR CABINET WELDING

SALIENT FEATURES:
- Fully automated robot welding cell for different sizes of cabinet.
- High Speed welding cycle with 2 Robots & 4 Servo positioners with synchronous drives.
- Programmable setting for different size of cabinets by using advanced controllers with servo slides for part location.
- Loading & Unloading times masked with Twin station configuration.
ROBOT WELDING STATION FOR DAMPENER TUBE

Turnkey solution
Innovative design
Multiple component welding with quick change-over concept
SALIENT FEATURES

- Fully automated robot welding cell for different sizes of rod with manual loading & unloading.
- Multiple setup & multiple components with quick change type fixtures for holding child parts with tack & full welding in single cycle of operation with high repeatability.
- Quick change type fixtures with auto pneumatic connection for faster setup change over type with high repeatability.
- Loading & unloading times, masked with four station configuration around the welding station with multiple setup fixtures in each stations.
ROBOT WELDING CELL FOR CHASSIS WELDING

SALIENT FEATURES:
It’s a complete welding station capable of welding 2 different variants of chassis.
ROBOT WELDING CELL FOR ROTARY SHAFT
Fully automated robot welding cell for different sizes of rod with manual loading & unloading.

Multiple setup & multiple components with quick change type fixtures for holding child parts with tack & full welding in single cycle of operation with high repeatability.

Quick change type fixtures with auto pneumatic connection for faster setup change over type with high repeatability.

Loading & unloading times, masked with four station configuration around the welding station with multiple setup fixtures in each stations.
MACHINE TENDING ROBOT CELL
WITH BIN EXCHANGER

- Turnkey solution
- Innovative design
- Complete automation line
The objective is to achieve the complete automation line including loading and unloading of the components using the conveyors.

The automation line also includes the integration of loading & unloading the components into machines like CNC turning centre, cutting machines etc.,
Objective of stator and rotor assembly station is to assemble different sized servo rotor and stator with less change over time and effort to achieve maximum productivity.
The objective of this SPM is to ensure good penetration and consistent deposition of bearing material in base material by welding process and to minimize human interaction in hazardous welding environment.
The objective of this SPM is to ensure quality and ease of operation, increase productivity and to ensure less human interaction.
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This press is used for integration of rotor assembly into motor housing without causing damage for housing or rotor packets due to the drifting caused by the magnetic force between the rotor packets & housing and press bearing into housing bore. It is also useful in safely removing already assembled motor for rectification or maintain purpose.
Objective of Hydraulic Press is to Re-strike the Knuckle Bracket from Top and Bottom with an effort to maintain required height and achieve maximum productivity.
Objective of Hydraulic Press is to press the bush into the Head end cover with an effort to achieve maximum productivity.
The objective is to press the gear onto the fuel injection pump stem.
Objective of Hydraulic Press is to press appropriate bush into the Eye-hole with an effort to achieve maximum productivity.
PHOTO GALLERY OF OUR FIXTURES

Robot welding fixture for hydraulic pipe welding

Rock drilling bit welding fixture
Crown pinion bend
Testing fixture

Gearbox assembly fixture
Robot welding fixture for Car under body

Manual averaging fixture
HMC Hydraulic fixture

Manual tack welding fixture with receiver gauge
Cam shaft gear assembly fixture

Robot welding station for cab heater tube
Robot gripper for tank welding

Oil cooler & rocker cover assembly fixture
Skiing & Roller Burnishing machine for hydraulic cylinder tubes

Robot welding fixture for cabinet frame
Hydraulic fixture for gearbox
Finish machining

Hydraulic fixture for Banjo beam
with auto indexing & locking
HMC fixture for crank case
With internal piping

VMC fixture for Banjo beam
Turning centre fixture for Pump housing

End of arm tooling for Machine tending robot
Web milling SPM – 6 Cylinder Engine block

Twin spindle SPM for notch milling of Connecting rod & End cap
Gear box assembly jig  

Hydraulic clamping fixture
Manual tack welding fixture for Locomotive battery box frame welding

Capacitor insulation Wrapping machine
Semi automatic gear box assembly equipment

Assembly conveyor with fixtures
Index & lock type for 6 Speed Gear box
Investment casting gripper

Automated rod bundling unit
Automated indexer for flight bar

Heavy vehicle – gearbox assembly fixture
Auto feeding station for crates

Motorized conveyor for rod handling
Motorized bin exchanger

Idle platform for bin exchanger
Special gripper for material handling robot

Multiple tackle for rod handling
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Thank You
&
We Look Forward for a Fruitful Association with YOU

From team A-MAT