A.G. Industries Private Limited
(Total Solution Provider in Plastics Engineering and Processing)

Website www.agindus.com
Our Visionary

Late Dr. Brij Mohan Lal Munjal

Our leader, visionary and mentor, who guided & helped us in creating AG into a Group. We pledge to take his vision forward and make AG a world leader in the industry by following his guidelines and moral values.
AG Group Started by entrepreneurial vision Ms. Geeta Anand in April, 1993.

Nine state of the art manufacturing facilities with PU painting shops imported from Germany (HAYDEN & WURSTER), Malaysia (COMBAT) and Korea (JINTECH).

Group revenue INR 1200 crores in FY 15-16.

Biggest plastic molder in North India.

Installed more than 180 injection molding machines with fully robotics (YUDO) ranging from 110 tons to 1300 tons.

In house facilities like Mold manufacturing, Inj. Molding, PU/PP Molding, Painting, Sub Assemblies etc.

Company has received TPM award in 2016.

ICRA Rating AA
D&B Rating 5A2

Ms. Geeta Anand has been awarded with Bhartiya Udhyog Ratan Award by IEDRA(2006), Bharat Vibhushan Samman Puraskaar (2009) organized by Indian Organization for Commerce and Industry, International Gold Star Award (2010) at Bangkok (Thailand), Best Performing Female Entrepreneur award by Plast India foundation in 2018 and many others.
Company History

- 1993- Commissioning of Gurgaon Plant
- 2002- Commissioning of Manesar Plant
- 2006- Binola Plant setup
- 2008- Haridwar Plant inauguration
- 2009- 1st plant setup in Bawal
- 2011- Started Tool Room activities in Manesar
- 2013- 2nd unit in Bawal
- 2013- Started Commercial Tool Room in Bawal
- 2015- Taken over Premium Steering Dharuhera and Chennai plant
- 2016- JV with Novo Plastics Canada for under Bonnet engine parts
- 2016- TA with JUKOU Taiwan & IKEGAMI on Tool designing and manufacturing
- 2016- Set up new Plant in Halol
Group - Sale Growth

CAGR 12.5%

<table>
<thead>
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<th>Year</th>
<th>Value</th>
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<td>2009-10</td>
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<td>2014-15</td>
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<td>2015-16</td>
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A.G. – Major Manufacturing sites

Manesar Plant
Manufacturing:
Molding, Painting & Sub Assemblies

Gurgaon
Manufacturing:
Molding, Painting & Sub Assemblies

Bawal Plant I
Manufacturing:
Molding, Painting & Sub Assemblies

Haridwar Plant
Manufacturing:
Molding, Painting & Sub Assemblies

Halol Plant
Manufacturing:
Molding, Painting & Sub Assemblies

Bawal Plant II
1. Molding Division- Molding, Painting & Sub Assemblies.
2. Tooling Division- Mould manufacturing
A.G. Premium Steerings - Manufacturing sites

A.G. PSMPH- Dharuhera

A.G. PSMPH- Chennai

Manufacturing:

Armatures:
- Steel Welded
- Alum + Steel Hybrid

S/Wheels:
- Polypropylene
- PU (Water Blown)
- Leather (synthetic)
- Leather (genuine)
- Cubic Printed Outsourced

Horn Assy Switches:
- Sheet Metal Assy
- GF Nylon Horn witches
- Cruise & Volume Switch
Group Core Strength

- **Product design and simulation**
- **Tool design & manufacturing**
- **Plastics, Painted & Assy parts**
- **Steering Wheels (PP/PVC/PU)**
- **Special parts**
  - Resonator, Fuel tank, Pressure Bottle & Air Cleaner Assy etc.
- **Interior Parts**
  - Door Trim, DAB Cover, Floor Console & Back Shell etc.
- **Exterior Parts**
  - Front Grille, Panel Ornament & Rear Bumper etc.
2W Products

- FRONT VISOR ASSY
- SIDE COVER ASSY
- INNER COVER ASSY
- REAR FENDER ASSY
- AIR CLEARNER ASSY
- CHAIN COVER
- FRONT FACIA COVER
- FRONT FENDER ASSY
- WIND SCREEN
- GRIP REAR
LCV/HCV Products

- Steering Wheel
- Door Trim R/L Assy
- Front Grille Radiator
- Front Ornament
- Jacket Assy
- Front Ornament
Tractor Products

- HOOD FRONT PLASTIC
- CONSOLE LH RH
- CONSOLE LOWER RH
- COVER SPEAKER
- CONSOLE UPPER HYDRAULIC LEVER
- STEERING WHEEL
- Bezel LR
- Front Grill
- STRIP GRILL
- ASSY. RADIATOR
- SIDE GUARD RH /LH
- Bezel Head Lamp
- Low & High Beam
- PRE CLEANER TUBE
- LAMP COVER LH-RH
- FORK GEAR SHIFTER

A.G. Industries Private Limited
Solution Provider
Electric Vehicle Products

STEERING WHEEL

INSTRUMENT PANEL ASSY
Tooling Division – Mold Developed

Two Wheeler Molds

Four Wheeler Molds
Customer Portfolio

A.G. Industries

A.G. Steerings Division

A.G. Tooling Division
Engineering, Design & Development

- Project Management
- Product Design
- Tool Design
- Tool Development
- Product Validation

A.G. Industries Private Limited
Solution Provider
CAD tools : CATIA V5 for product Design

FEA software : ANSYS Mechanical for performing analysis like Head Impact, Modal Analysis, mechanical strength.

CFD Tools : Fluent & CFX for Computational Fluid Dynamics.

Mold flow simulations for injection molded parts
Tool Design & Development

CAD CAM Capability

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<tr>
<th>SOFTWARE</th>
<th>VERSION</th>
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<td>POWER SHAPE</td>
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<td>POWER MILL</td>
<td>PRO.2013</td>
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<td>AUTOCAD</td>
<td>VER: 2013</td>
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Creating molds with value addition
Design & Development Process

- Customer
  - Vehicle Spec. data
  - Packaging
- Product feasibility study & calculation
- Product Costing (Estimation)
  - Critical & Significant Characteristics Analysis
  - Fit & Function Analysis
  - Determine Endurance as per Customer Specifications
- Engineering the product to Customer Specifications, with complete CAD Model
- Tool / Line Layout for Determining the Optimum Tool / Line Design
- Lead Time: 6 Months
Manufacturing Facility

MANUFACTURING SETUP

Injection Molding
PU Painting
PU Molding
Welding
Assembly
State of Art - Manufacturing Process

- Silo
- Paint Shop
- Raw Material Transfer & Heating system
- Injection Molding & Conveyor
- Assembly Line
## Testing & Validation Facilities

A well-equipped laboratory for raw material testing includes a variety of test rigs and equipment. The latest technology test-rigs are designed to simulate real-life conditions, ensuring that materials can perform as expected under various stressors. Below are some of the testing methods and equipment used:

- **Thermal Shock**
- **Heat Resistance**
- **Sweat Wear Resistance**
- **Static Torsion**
- **30deg Static Load**
- **Tester (Analogue)**
- **Flexion Fatigue**
- **Torsion Fatigue**
- **Drop Weight Test**
- **Welding Strength**
- **Horn Durability**
- **Shore D Hardness**
- **Thermo hygrometer**
- **Combustion Test**
- **Natural Frequency**
- **Inertia Moment**
- **Put on and Ta**
- **Muffle Furnace**
- **Humidity Chamber**
- **MFI Tester with Stabilizer**
- **Moisture Analyzer**
- **Chemical Balance**
- **Specific Gravity Balance**
- **Hardened Steel Gauges for Liner RT-3708**
- **Digital Melting Point**
- **Rockwell Hardness Tester**
- **Magnifying glass**
- **Digital UTM**
- **A.C High Voltage Unit (Dielectric Strength)**
- **KEN OFF LOAD**

The laboratory is equipped with a variety of instruments to ensure comprehensive testing and validation of materials.
Best Practices

✓ IMS

✓ 5S.

✓ ACMA ACT for supplier up gradation.

✓ Haridwar unit won TPM excellence award. TPM journey in 4 plants.

✓ SMED

✓ Kaizen

✓ Quality circle.

✓ DOJO room/TTC.

✓ Active member of GVDP
CSR Activities

- Solar Street Lights
- School Improvement
- Solar E Hub Centre
- Stitching Centre

Gender Empowerment
Stitching Center opened for entrepreneurship for women

Skills Development
Skills Development of Rural youth done by starting a Computer Centre

Environment Protection
- Bio-Toilets
- Bio-Water Filters
- Dustbins
- Tree Plantation

Infrastructure To School
- Class room furniture
- Black Boards
- Over Head Water Tanks
- Play Grounds Prepared
Group Future Prospects

➢ **Product diversification**
  1. Air Cleaner & Filter (Product Designing, Development & Mfg. JV with Sentec Taiwan)

➢ **Establishment of center of excellence for**
  1. Prototyping
  2. Testing & validation

➢ **New Technology**
  1. Vapor Molding.
  2. Magnesium steering wheel molding
  3. Robotic painting

➢ **New projects**
  1. Setting up tool manufacturing at Chennai
Thank you!

CORPORATE OFFICE

Unit No. 402-409, 4th Floor, Square One, Saket District Centre, Saket, New Delhi – 110 017
Email: rajesh.sharma@agindus.com & Pankaj.Panwar@agindus.com
Website: www.agindus.com