

2001 - 2021

20 Years of Advanced Engineering Solutions

Visit us at the following Trade Show:





INTRODUCTION

AES MOLDS is an ENGINEERING and MOLDMAKING organization with extensive know-how and capabilities in the PRODUCT DESIGN Support, ENGINEERING, MANAGMENT and PRODUCTION of tooling projects for HIGH-END MARKETS and products, FROM CONCEPT TO PRODUCTION.

The combination of the exceptional TECHNICAL BACKGROUND of our ENGINEERING TEAM combined with STATE-OF-THE-ART TECHNOLOGY, ensures that the REQUIREMENTS from our customers are fully ACCOMPLISHED. With most of our customers we have PARTNERSHIPS FOR LIFE ...!

- Foundation year: 2001
- Offices: Portugal and USA
- Manufacturing area: Portugal (approx. 6,000 sq/m)
- Internal Team: 55 professionals avg in 2021
- Sales in 2020: AES Group: 6,9 M€

- Member of CEFAMOL Portuguese Tooling Association
- Member of CENTIMFE Portuguese Tooling Technology Center
- Member of AFIA Portuguese Manufacturers Association for the Automotive Industry
- ISO 9001:2015 certified by TÜV RHEINLAND
- AES DUNS NR. 33-709-8482



Management System ISO 9001:2015

www.tuv.com



GLOBAL PRESENCE

OUR MOLDS ARE RUNNING IN:

Europe:

- Germany
- Portugal
- UK
- France
- Switzerland
- Spain
- Czech Republic
- Poland
- Sweden

America:

- USA
- Canada
- Mexico
- Brazil
- Argentina

Asia:

- China
- Singapore
- Malasia

Others:

- Egypt
- Tunisia
- Angola
- South Africa







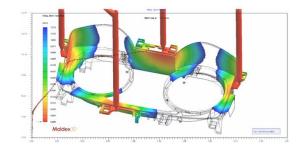
OUR SERVICES





















OUR OPERATIONS

CUSTOMER

ENGINEERING - Design Engineering; Tool Engineering; Project Management

MOLD PRODUCTION

AES MOLDES

MOLD VALIDATION – Mold sampling, Injection Process development, Metrology

PRE SERIES PRODUCTION RUNS

CUSTOMER





MOLD TECHNOLOGIES

- 2K MOLDS (TWO SHOT)
- IMD/IML/IMF (In-Mold Decoration)
- STACK MOLDS
- INJECTION COMPRESSION
- MULTI CAVITY MOLDS
- MOLDS FOR MULTIPLE PART VERSIONS
- INSERT MOLDS
- MOLDS FOR SPECIAL RESINS
- AUTOMATIC UNSCREWING MOLDS
- 3 PLATE MOLDS





MARKET SECTORS



AUTOMOTIVE

Instrument Clusters, Fuel Tanks, Glove Boxes, IP Bezels, Beltline parts, Armrest, Central Consoles, Motor Area Parts and others



CONSUMER

Water Filters, Air Filters and others



PACKAGING

Packaging Caps and Closures Printer Toner Packaging and others



ELECTRONIC

Cellphones, Automotive Sensor Parts and others



HEALTH CARE

Diagnostic Equipment Apnea Treatment and others





INDUSTRIAL

Pipings and Fittings and others



SOME OF OUR PARTNERS IN TECHNOLOGY











































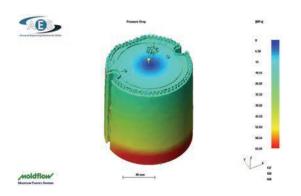


OUR TECHNOLOGIES – RHEOLOGY STUDIES



Autodesk Simulation Moldflow Adviser Ultimate 2019

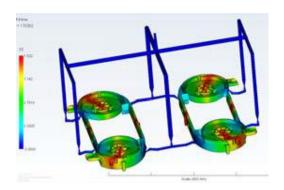
- Mold Advisor
- Performance Advisor
- Cooling Circuit Advisor





Moldex Professional (BLM Technology)

- Fill Packing
- Cooling
- Warp
- Multiple Component Molding (MCM) Fiber orientation





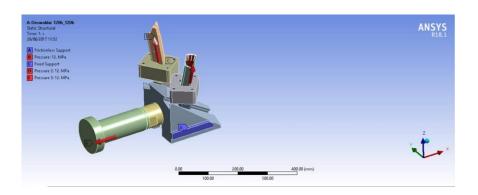


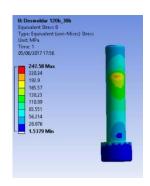
OUR TECHNOLOGIES – FEA STUDIES



Ansys Mechanical Pro 18.1

ANSYS Mechanical Pro is a finite element analysis (FEA) solution that provides robust general-purpose stress and fatigue simulations to solve complex structural engineering problems and make better and faster design decisions. This technology allows us to study and predict stress and efforts our molds are subjected to during their production life.









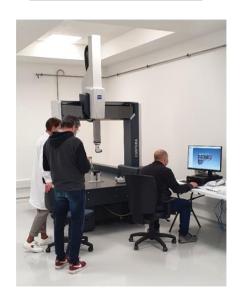
OUR TECHNOLOGIES – METROLOGY

Measurement Services:

- FAI / ISIR Inspections
- Studies Process Validation
- CPK Studies
- Gage R&R Studies
- Fixtures and Gauges Validation
- 3D Scanning
- Reverse Engineering

CMM – Coordinate Measuring Machines

ZEISS CONTURA G2







ZEISS SPECTRUM





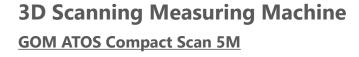






OUR TECHNOLOGIES – METROLOGY

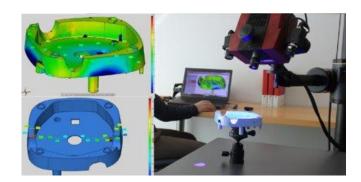
Multi-Sensor Video Metrology System OGP Sprint MVP 300















OUR TECHNOLOGIES – SCIENTIFIC PROCESS DEVELOPMENT

Injection Processing Monitor System from



and



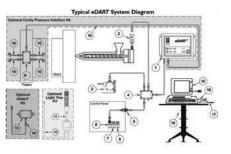
We want our molds to be shipped to our customers "production ready".

Our know-how in design engineering, tool manufacturing, injection processing combined with the pressure and temperature technologies, guarantees that this objective is accomplished.

We work with most of the pressure sensors suppliers in the market. Internally we have the monitoring system from KISTLER -> COMO and RJG -> eDART $^{\text{TM}}$.

Once the process is developed and the "pressure curve", determined, the mold is "GROOMED" to that fixed injection process.

Once you receive the mold at your facilities, dial in the "process curve" and your parts should be ready to start production.







OUR TECHNOLOGIES – INJECTION MOLDING

Capabilities:

- Mold Samples
- Limited Production Runs
- End of Arm Development
- Automation Development
- Product Assembly
- End Product Storage

ENGEL – Electric Machines



Product Storage - FIFO



Storage - Raw Material





INDUSTRY PORTFOLIO - CONSUMER



AIR AND WATER FILTRATION

Front and Rear Bezels









APPLIANCES AND PACKAGINGRefrigerated Drawers, Shelves, Bins





PARTS PORTFOLIO - HUD















PARTS PORTFOLIO – CENTER CONSOLES













PARTS PORTFOLIO – IP BEZELS



www.aesmolds.com







PARTS PORTFOLIO - INSTRUMENT CLUSTERS



















PARTS PORTFOLIO - SEATING























PARTS PORTFOLIO – STEERING COLUMN







PARTS PORTFOLIO – FUEL SYSTEMS











PARTS PORTFOLIO – FLUID SYSTEMS















TECHNOLOGY PORTFOLIO - IML















TECHNOLOGY PORTFOLIO - OVERMOLDED





















TECHNOLOGY PORTFOLIO – MULTI-MATERIAL























TECHNOLOGY PORTFOLIO – GAS INJECTION











- FACTORY IN PORTUGAL AND OFFICES IN THE USA FOR COMMERCIAL AND TECHNICAL SUPPORT
- NO LANGUAGE / COMMUNICATION BREAKDOWN
- EXTENSIVE **EXPERIENCE** WITH THE **US TOOLING REQUIREMENTS** (over 30 years)
- EXTENSIVE TECHNICAL KNOW-HOW AND STATE-OF-THE-ART TECHNOLOGY, BOTH IN ENGINEERING AND IN MANUFACTURING
- SCIENTIFIC INJECTION PROCESS DEVELOPMENT
- CULTURE OF QUALITY, PROFESSIONALISM AND TRANSPARENCY
- A PARTNER FOR MANY YEARS
- FEEL FREE TO ASK US FOR REFERENCES.

Visit our website www.youtube.com/watch?v=iDTQhq6 A8k

Thank you ...!

AES MOLDES, LDA

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