



- Aktis offers comprehensive manufacturing and tooling services to Global Customers specializing in high quality, low/high volume products.
- Aktis Manufacturing Framework has extensive network of specialist partners with state of the art manufacturing facilities.
- Aktis produces quality parts, 30% cheaper than USA and European Suppliers

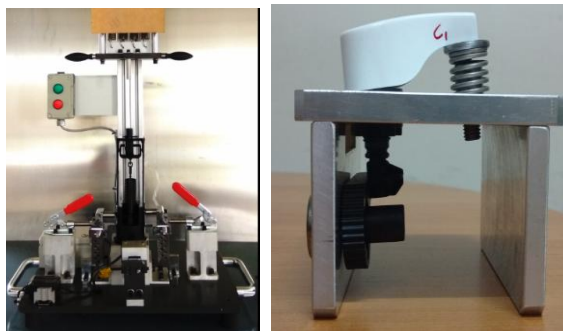
Prototyping	SLA, SLS, Soft Tooling, Rubber Molds
Molding	Part Design, Tooling, Mold Flow Analysis, Molding
Machining	CNC Turning, Precision Machining, Stamping
Casting	Sand Casting, Die Casting
Jigs and Fixtures	Assembly Jigs, Automated Testing Fixtures
Steel, Aluminum, Brass	

Quality, Reliability, Quick Turn
Around, Optimum Cost



Well Proven
Manufacturing
Framework

- Multi-axis machining centers
- Metal stamping press
- CNC Turning machines
- 5 and 3 axis milling machines
- CMM machine
- Optical comparator
- Finishing operations - plating, polishing, Anodizing, etc.



- High precision micro-scopes
- CMM
- Optical measuring equipment
- Blue Ray Scanner
- Traditional measurement equipment's
- Hardness tester

- Molding machines - 500 Ton
- Core / Cavity design, Feed system, Ejection systems, Lifters & side cores
- Wire cutting & Die sparking
- Machining (Grinding, Lathe, etc.)
- Welding unit with special welding machines

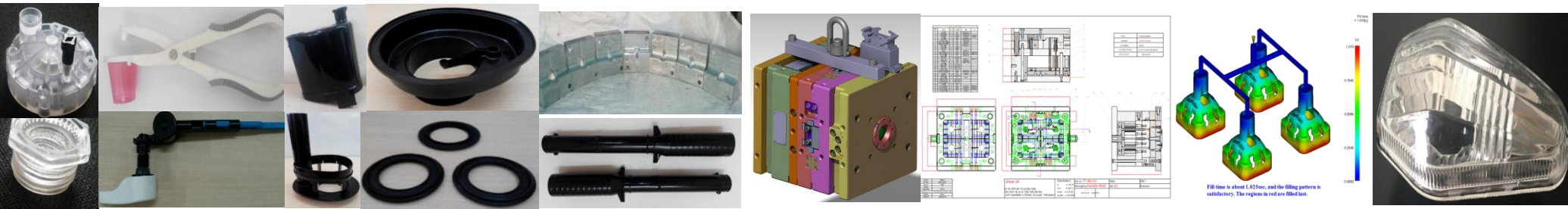


30+ Customers Globally & Serving 5+ Industries



Mold Standards	Jigs & Fixtures	Press Tools
DME	BAE	ANSI
HASCO	GM	JC Global
Strak Norma	SME	
Meusburger		
PCS		
Progressive NA		

- Cost effective and complete prototyping solutions
- Solutions as per product functionality/ requirements for design validation which are cost effective,
- High Quality and with lower lead times using.
- Comprehensive testing facilities for product validation
- Access to a network of specialist testing labs making available for state-of-the-art equipment for testing.



50+ Prototype components , 10+ testing benches & 10+ Finishing & Quality Fixtures.....IN ONE YEAR

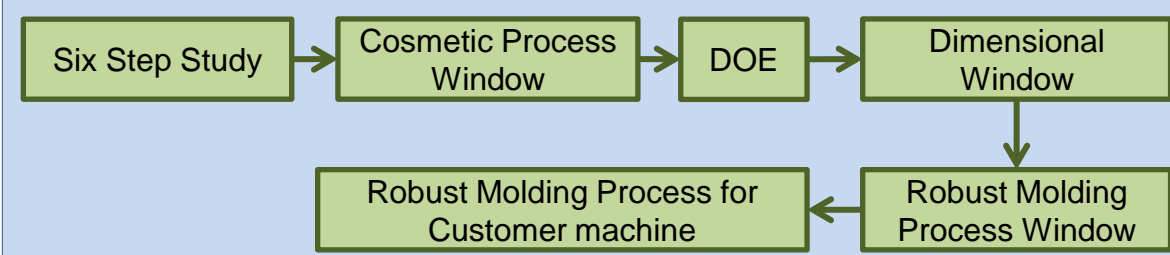
- SLA, SLS, FDM, Vacuum Casting
 - Soft Tooling
 - Over-Mold using additive manufacturing
-
- Optical comparator
 - Smart Scope
 - Blue LED Scanner



- Independent quality control
- Statistical techniques with APQP (FAI, CPk, etc.), FMEA, PPAP
- Design Validation Testing Fixtures
- Charpy, Izod & drop impact testing machines
- Spring endurance & Torque testing equipment

Aktis has expertise in the design and manufacturing of high precision, Low/Medium/High high volume, multi-cavity production moulds built to international standards.

- Robust Moulding Process
- Consistent quality parts off the tools
- Up to 500 Ton Capacity



Aktis Advantages

- Expertise in tool design & mold flow analysis
- Superior quality
- Lower lead time
- Expertise in Scientific molding
- Cost effective
- Tie up with Material manufacturers/suppliers
- In house molding facility



In-mould decoration, Chrome Finish, Brass, Finish, Hydrographic Printing

CNC machines

- 5 axis and 3 axis milling machines
- CNC turning machines
- Swiss Type Sliding Head Automats – ideal for parts between 0.5mm and 32mm diameters

Measuring Equipment's

- CMM machine
- Optical comparator
- Smart Scope
- Blue LED Scanner



Aktis Advantage:

- Machining of parts as per customer drawings
- Machining to high degree of accuracy (10 microns both dimension & position)
- Critical features done in specialized machine
- Matching material requirement of customer
- Heat treatment
- Surface finishing/ Plating



Injection Molding & Production:

Activities Involved:

- Mold design and tooling for the universal flush lever assembly
- Sprues, gates, no of cavities, cooling channel & other parameters selection
- Development of molds for all the components

Challenges:

- Matching material requirement of customer
- Developing multi cavity tool for all the components

Key Highlights:

- Followed scientific molding technique to validate the tool
- All required tolerances achieved for the parts

Value Addition:

- Quick turn around time from RFQ to T1 and part delivery
- Multiple finish options provided to customer to choose from



Study: Semi/ Fully Automated Fixture:

Activities Involved:

- Fabrication and assembly of automated finishing fixture for automotive HVAC
- Electrical wiring, pneumatic tubing, development of PLC & HMI program
- Assembly and testing of the fixture

Challenges:

- Setting up sub-assemblies for HVAC components within allowable tolerances
- Care taken during PLC programming to avoid clash of moving sub assemblies

Key Highlights:

- Electrical wires & pneumatic tubes wired and routed neatly with proper labeling
- Flow control of cylinders adjusted to achieve desired cycle time

Value Addition:

- 12hour dry run test conducted to validate and ensure reliability
- Complete assembly shipped to customer location for plug and use



Precision Machining:

Activities Involved:

- Machining of parts as per customer drawings
- Heat treatment
- Surface finishing/ Plating

Challenges:

- Matching material requirement of customer
- Machining to high degree of accuracy (<10 microns both dimension & position)
- Heat treatment only to specified/ selective portion

Key Highlights:

- Critical features done in specialized machine
- All required tolerances achieved for the parts

Value Addition:

- Suggested/ implemented profile change to supplier for better function
- Suggested/ implemented process change to reduce cost considerably



Die Casting:

Activities Involved:

- Developing casting module
- Design and Manufacturing casting die
- Machining critical features

Challenges:

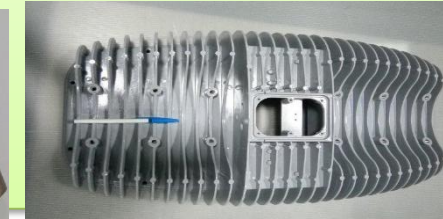
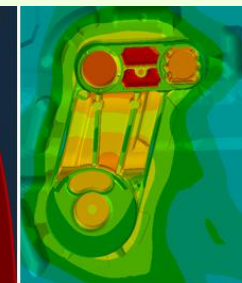
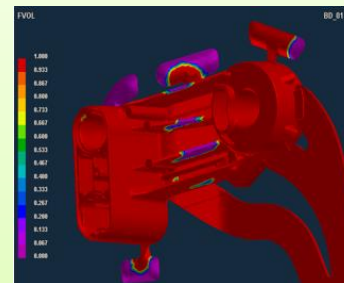
- Forming thin features on the part
- Producing non porous, required strength parts

Key Highlights:

- Capability to form thin walled components

Value Addition:

- In-build finishing and machining facilities



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Thank You

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