

Pricol Offers Tooling Solutions



Pricol's entire tooling requirement of 800 moulds and dies per annum is met by its captive Tool Room and it is now in a position to offer tooling services to external customers. 30% of its total capacity has been set aside for this.

It has highly qualified, experienced designers and manufacturing technicians with state-of-the-art machines to make plastic moulds and press tools as per customer specifications.

Solutions offered:

- ◆ Mould & Press Tool Design
- ◆ Mould & Tools Manufacture
- ◆ Mould Testing
- ◆ FAI Report and Documentation

Value addition:

- ◆ Early Vendor Involvement (EVI)
- ◆ PFMEA
- ◆ Window Study

PRICOL's TOOLING CAPABILITY

Build Capability : 800 Moulds & Dies per annum

I. Plastic Injection Moulds : Upto 1000 ton M/c

Max. Mould size : 1000 x 750 x 600mm

Min. Mould size : 130 x 100 x 110mm

Engg. Plastics : ABS, PC, PMMA, POM, PBT, Polyester, Nylon, PP, PPS, etc.

Moulds with:

- Hot runner and hot sprue
- Unwinding mechanism for threaded parts
- Cavity pressure monitoring sensor
- Mould opening & closing sensor

Our specilization:

- Aesthetics, clear transparent parts & peripherals
- Insert moulding: Electronic Integrated Circuits (ICs) with terminals, Printed Circuit Boards (PCBs) with cable and plastic with plastic
- Gears and Worms

II. Press Tools : Upto 350 ton M/c

Sheet thickness : 0.1mm to 4.5mm

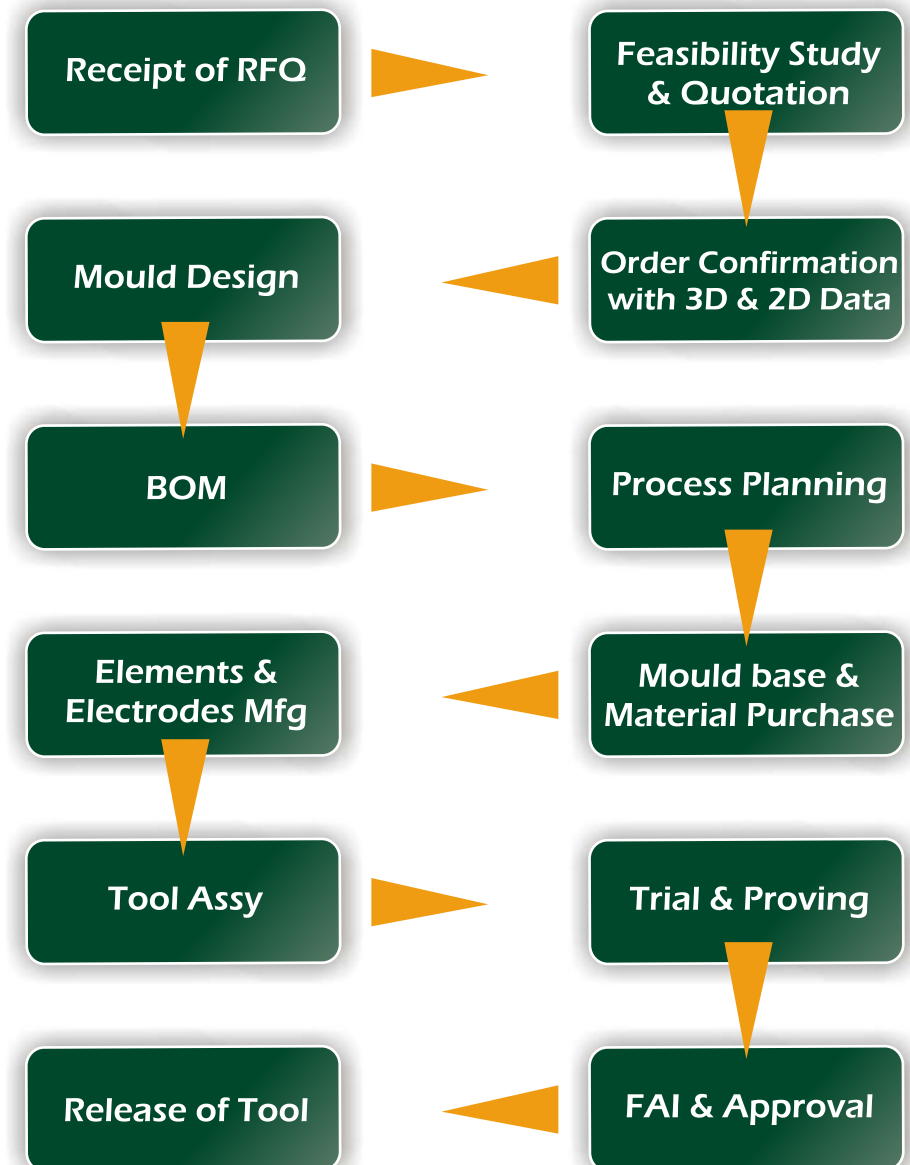
Sheet Metal Materials : CRCA, Stainless Steel, Brass Phosphor Bronze, Aluminium, Electrolytic Copper, etc.

Our specialization:

- Progressive Tools
- Combination Tools
- Compound Tools
- Draw Tools

Project Process Flow

1. Single Point Contact through Vice President
2. Cross functional and engineering involvement during initial product development



Tool Design



Pricol Tool Designers have extensive experience in designing of injection moulds and press tools.

Pricol believes final product quality begins with design.



SOFTWARE USED IN TOOL DESIGN & CAM

S.No.	Software	Version	No. of Seats
1	Auto CAD	2005	14
2	ProE-2007	Wild Fire 3	13
3	Mold Flow Advisor	R8.0	1
4	Cimatron	E7.0	4
5	Delcam	7	3
6	Unigraphics	NX4	1
7	Peps	6	1
8	Espirit	2003	1

HUMAN RESOURCES

DESIGN & MANUFACTURING CAPABILITY

S.No.	Description	Qualification	No. of Persons
1	Manufacturing Engineers	BE / ME / AMIE	9
2	Tool Design	DTDM / PDTD	20
3	Tooling Process and Assembly	DTDM	61
4	CAM Programmers & CNC Machinists	BE / DME	34
5	Conventional Machinists	ITI	29

DTDM - Diploma in Tool & Die Making

PDTD - Post Diploma in Tool Design

DME - Diploma in Mechanical Engineering

ITI - Industrial Training Institute (Government)

Tool Room Facilities



CNC Milling Machines



High Speed HSM600 Mikron
Travel Size : X=600, Y=600, Z=450



DMU60T Deckel Maho
Travel Size : X=630, Y=560, Z=560



VF3 HASS
Travel Size : X=1000, Y=500, Z=620



5 Axis UM710 Mikron
Travel Size : X=710, Y=630, Z=500



WF3 1D1 Mikron
Travel Size : X=450, Y=400, Z=400

Tool Room Facilities



CNC EDM



Roboform20 Charmilles - 2 Nos.
Travel Size : X=300, Y=250, Z=250



Gamma Tec Charmilles
Travel Size : X=350, Y=250, Z=300



Roboform30 Charmilles
Travel Size : X=350, Y=250, Z=300

NC EDM - 3 Nos.



2LC Charmilles
Travel Size : X=300, Y=200, Z=200

4LC Charmilles
Travel Size : X=600, Y=400, Z=400

440NCL Charmilles
Travel Size : X=365, Y=250, Z=200

Tool Room Facilities



CNC WIRE EDM



Robofil 440CC

Travel Size : X=550, Y=350, Z=400



Robofil 290 Charmilles

Travel Size : X=400, Y=250, Z=200



Robofil 310 Charmilles

Travel Size : X=400, Y=250, Z=400



Robofil 190 Charmilles

Travel Size : X=200, Y=150, Z=150

EDM Drilling



CM H30A CHMFR

Jig Boring – 2 Nos.



Travel Size :

WMW: X=400, Y=250, Z=420,

Hauser: X=400, Y=400, Z=250

Tool Room Facilities



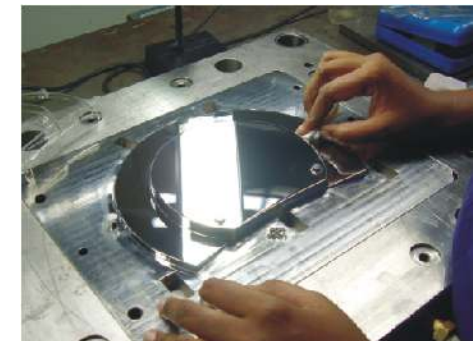
Conventional Machines



Tool Assembly



Polishing



S.No.	MACHINE NAME	MODEL	TRAVEL SIZE
1	Surface Grinder - 6 nos.	OKAMOTO	600 x 500 mm
		OKAMOTO	600 x 250 mm
		CRAFTSMAN AUTOMATION	600 x 300 mm
		PROTH - 2 Nos	600 x 300 mm
		PRAGA TOOLS LTD	600 x 250 mm
2	Lathe - 2 nos.	HMT LTD	250 OD x 200 ID
3	Radial Drilling	LMW LTD	500 mm Length
4	Cylindrical Grinder	HMT LTD	200 x 500 mm
		PARISHUDH	200 x 300 mm
		MICROMATIC	260 x 500 mm
5	Tool & Cutter Grinder	PRAGA TOOLS LTD	12 x 100 mm
6	Milling - 3 nos.	HMT LTD	X=400, Y=400, Z=250
		BHARAT FRITZ	
		WERNER - 2 nos	600 x 400 mm

Quality Assurance Resources Instruments

S.No.	INSTRUMENT NAME	MANUFACTURER / RANGE	MODEL / QTY
1	Height Gauge	TRIMOS, SWISS	VERTICAL 3
2	Height Gauge	TRIMOS, SWISS (2 nos.)	V-3004, V-3243
3	Profile Projector	NIKON	DP / 851
4	3D Co-ordinate Measuring Machine	MITUTOYO	BHN / 305

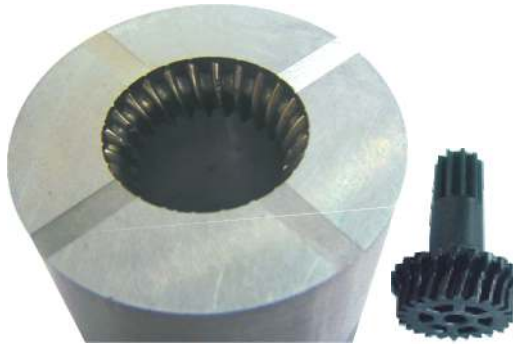
Capability of Machining



Ability of GammaTec - EDM



High surface finish with high accurate geometry



Helical gear cavity insert



Worm gear cavity



Used electrode shows the very low electrode wear

MIKRON - HSM 600



A specimen with fine details, geometry control and accuracy

WIRE EDM



Capable of producing profile to microns

CNC EDM



Logo electrode

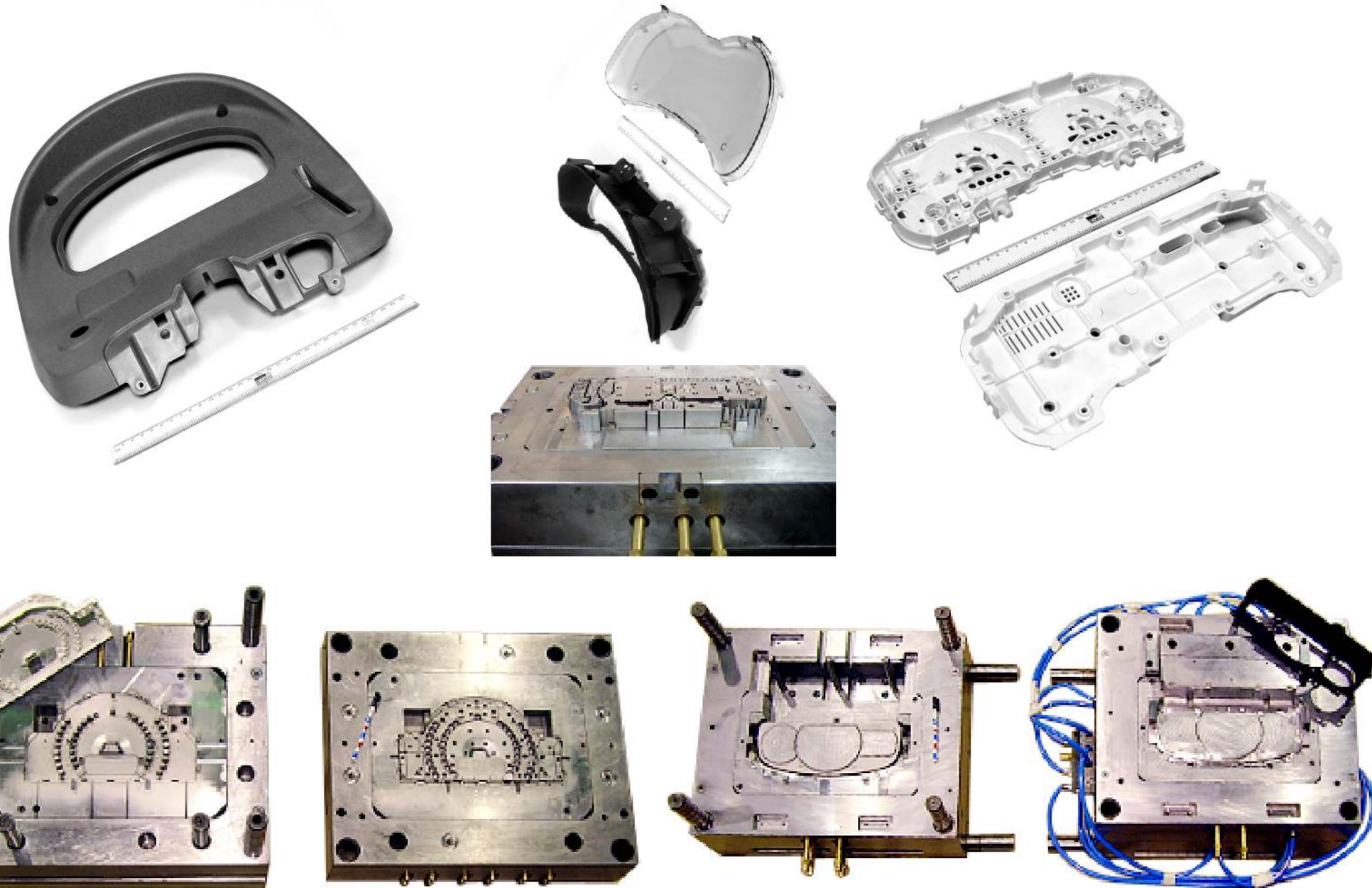


Cavity Insert with high finish

Sample Parts and Tools



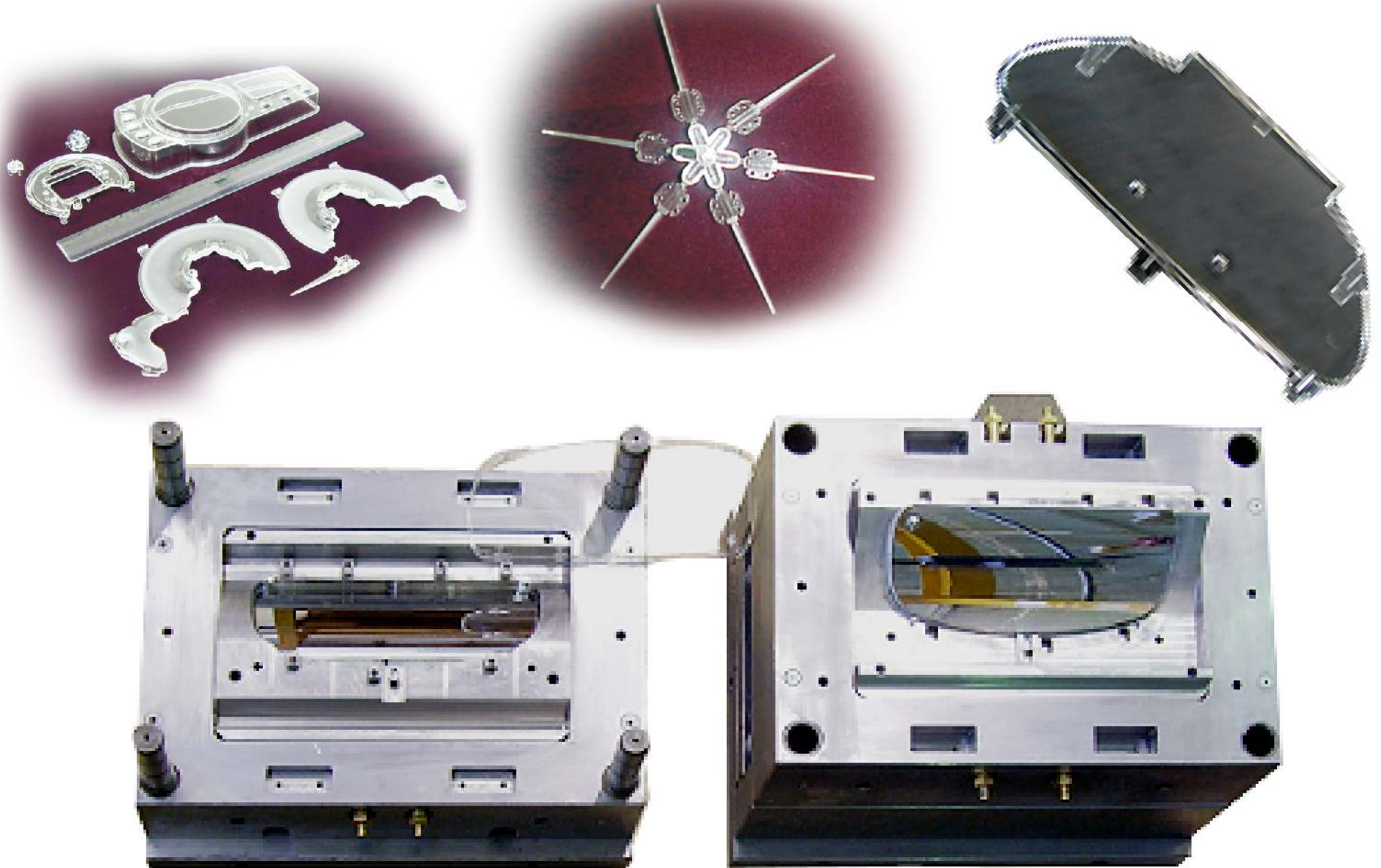
Aesthetic parts with texture finish, logo and intricately featured peripherals

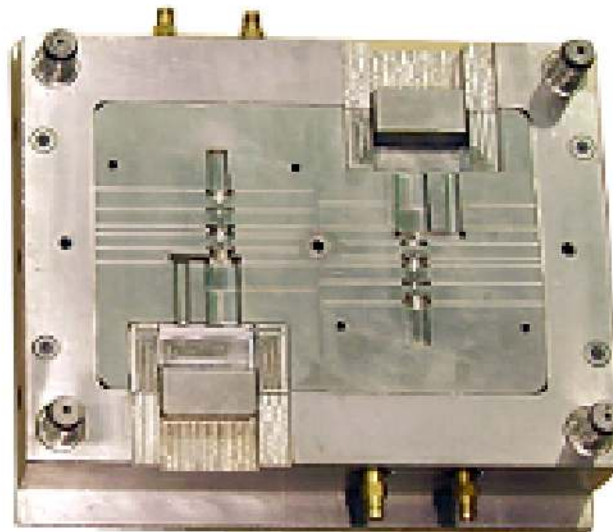
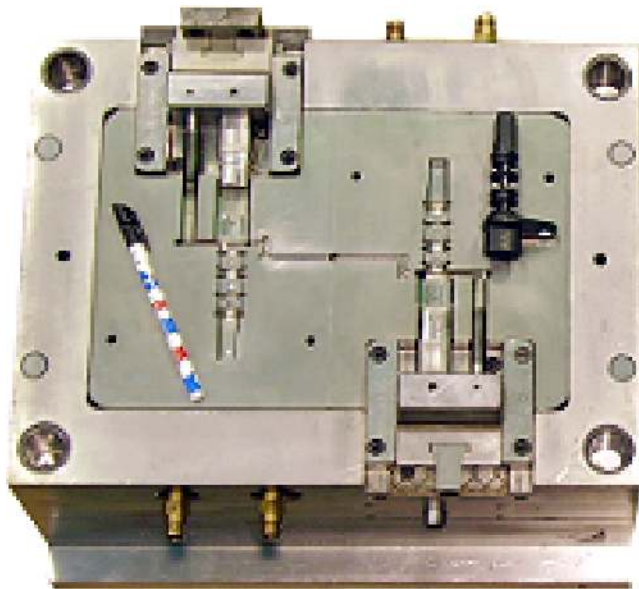


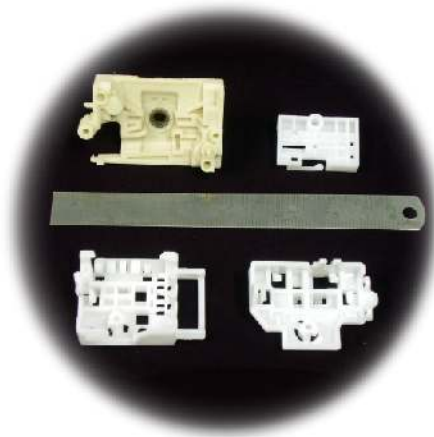
Sample Parts and Tools



Clear transparent parts and moulds with mirror- finish inserts



[illegible]



A collection of various mechanical gears and components. The image shows several black gears of different sizes, a blue gear, a green gear, and a white gear. There are also some smaller components like a small motor assembly, a ruler, and some small white and blue parts. The gears are arranged on a white background, and a ruler is placed horizontally across the middle of the image for scale.

Sample Parts of Press Tools



**Progressive Tool Strips upto 30 stages, Parts from Draw Tools upto 45 mm height,
Parts from Combination and Compound Tools upto 4.5 mm thickness**



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