

CAM TOOLS
The *Digital* ToolRoom

***ONE STOP SHOP FOR
PRECISION MOLDS &
MOLDING***

- *“Full-Service” supplier of precision molds & tooling for plastic and aluminum die-casting dies.*
- *Professional support for design and construction of high-grade precision tools at “Best cost” and in “Short lead-time”*
- *Integrated capabilities in mold design, mold making, mold-trials/molding and part-assembly.*

AGSI CERTIFICATION PRIVATE LIMITED

Certificate of Registration

This is to certify that the Quality Management System of:

CAM TOOLS INDUSTRIES PVT. LTD.

M-3, MEHARA INDUSTRIAL ESTATE, UNIT NO. 2, OPP. ORKAY-MILL, ANDHERI-KURLA ROAD,
SAKINAKA, ANDHERI (EAST), MUMBAI - 400072,
MAHARASHTRA, INDIA .

has been assessed and
approved to the requirements
of standard :

ISO 9001 : 2008

The Quality Management System applies to:

DESIGN, MANUFACTURE & SUPPLY OF
DIES, MOULDS AND MOULDED COMPONENTS,
MACHINING OF PRECISION ENGINEERING COMPONENTS

Certificate no.: 2339

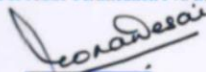
Valid upto: 13-05-2016 *

Client File no.: AGSI/Q/2140

Date recertified: 14-05-2013

Dt. originally certified: 14-05-2010

For AGSI Certification Pvt. Ltd.



(Mona Desai)

Director

14-05-2013



Registered office: 208, Kartik Complex, Opposite Laxmi Industrial Estate,
New Link Road, Andheri (West), Mumbai - 400 053, India.
Email: agsicert@gmail.com, Web site: www.agsicertification.com

The document remains the property of AGSI-CPL. This approval is subject to the organization maintaining its system to the requirements of the standard as monitored by AGSI-CPL.

*Subject to yearly re-approval by AGSI-CPL on surveillance assessments. Due date for re-approval: 06-05-2014

We, at **CAM TOOLS**, are committed to customer satisfaction by delivering Quality Tools and services conforming to customers need and expectations at all time.

We commit ourselves as organization and as an individual to.

DO IT RIGHT THE FIRST TIME, EVERY TIME

To achieve this,

We exercise **Continual Improvement** in our activities aiming at **Higher Customer Satisfaction** & Provide Required **Training** to our employees relevant to our activities & quality objectives.

MILE STONES

- 1997 – Started operations by offering CAD CAM Solutions to Various renowned Tool Rooms,
- 2002 – Started Mold Manufacturing Services
- 2009 – In-house Trial Facility developed by adding 80T Molding Machine
- 2010 – Incorporation of 5 Axis CNC Machine
- 2011 – Expanded In-house Trial Capacity till 550T

EXPANSION PLAN for 2016 – 2018

- Enhancing Mold Manufacturing Capacity till 1300T
- Adding Double Column 3 Axis CNC Machine of 2mx1.6m
- Adding 3 Axis CNC EDM Machine 2.2mx1.8m
- Adding Die Spotting Press of 200T

ROAD MAP FOR INJECTION MOULDING PLANT

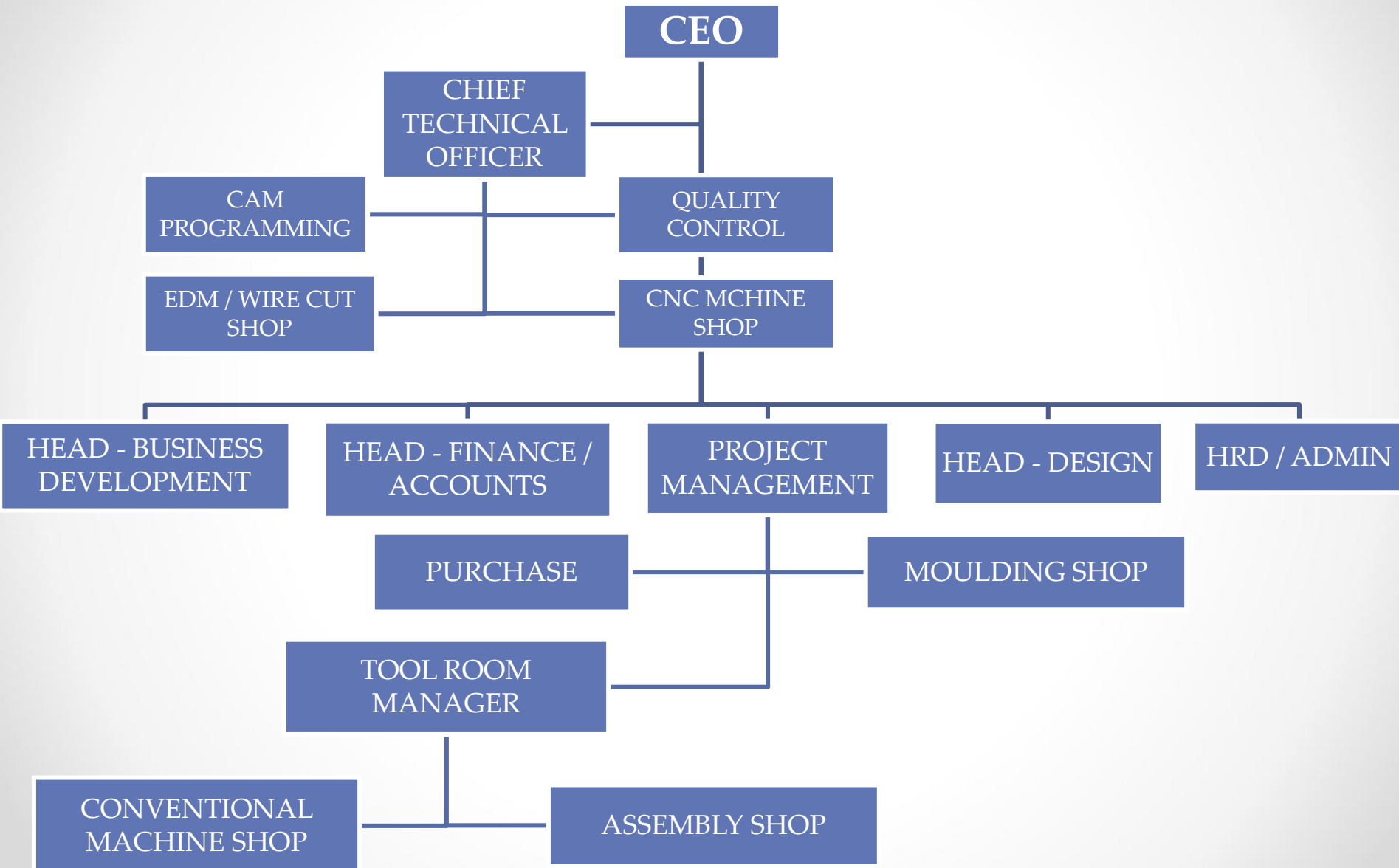
ACTIVITY	START	COMPLETION
Receipt of Land Allocation Letter from MIDC		Received
Ordering of New Machines		January 2016
Leasing of New Plot for Moulding		April 2016
Land Levelling & Boundary Work	Jan 2016	March 2016
Foundation & Concrete Work	April 2016	July 2016
Plant Building	Aug 2016	October 2016
Machine Shifting / Set Up		November 2016

SERVICES RENDERED

- Product Design,
- Prototyping,
- Precision Production Mold Manufacturing,
- Injection Molding

STRENGTHS

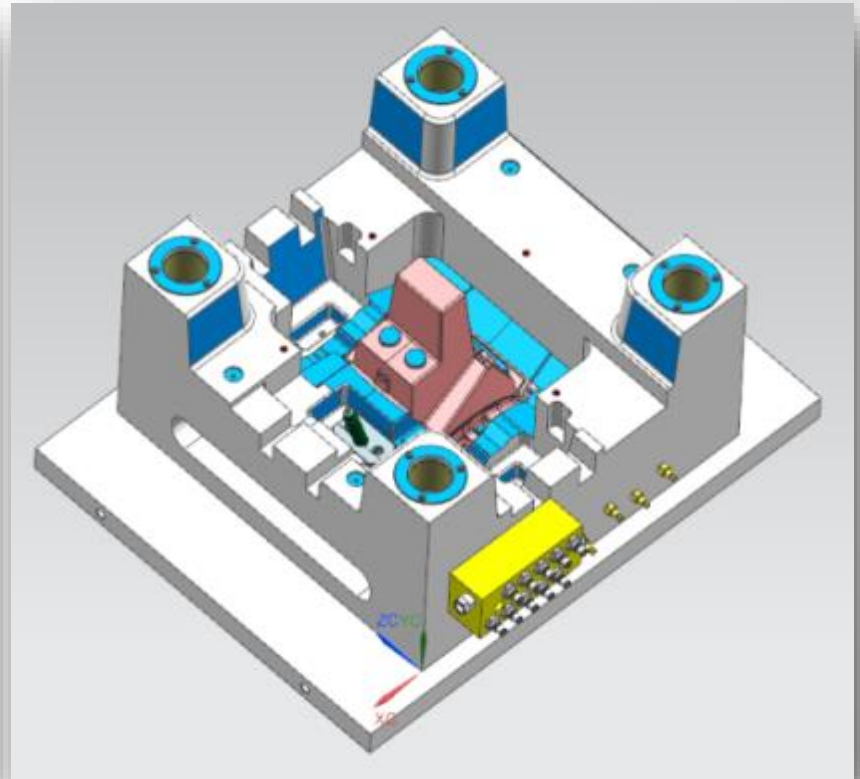
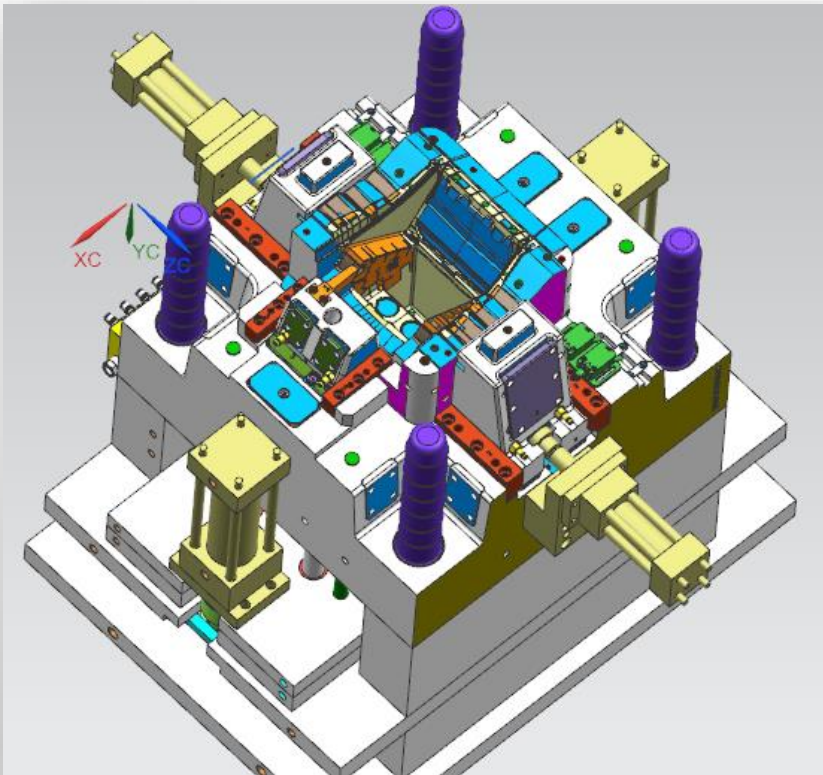
- ISO 9001:2008 Certified Company
- No. of Employees – 40
- Total Factory Area – 7800Sq. Ft.
- Design Team having average experience of 10 Plus Years
- 4 CNC Machines including a 5 Axis Machine
- 4 EDM Machines including 2 Machines with 3 Axis CNC Operated
- Manufacturing Molds ranging from 50T to 850T
- No. of Molds Manufactured Per Annum between 80 to 120
- Catering to Various Industries Such As Automotive, FMCG, White Goods, Electrical & Electronics, Medical Equipment & Pharmaceutical



CAM **TOOLS**

The *Digital* ToolRoom

Complete Precision Mold Making
Solutions...



Automotive



Industries we Serve

Electrical



Medical

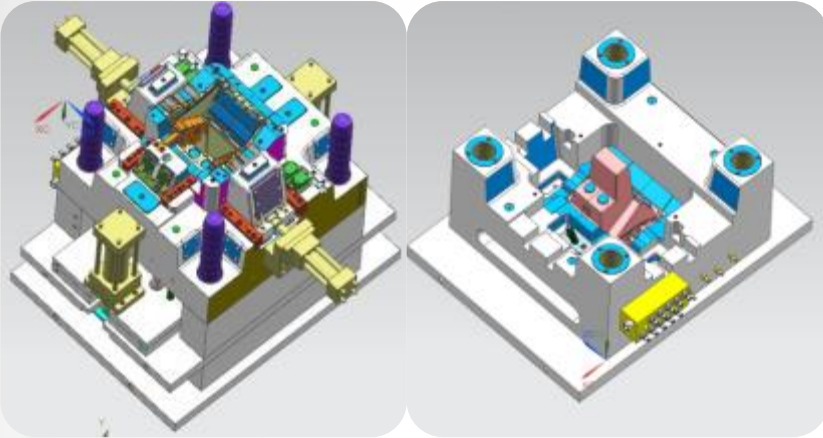


Aerospace



Services Offered

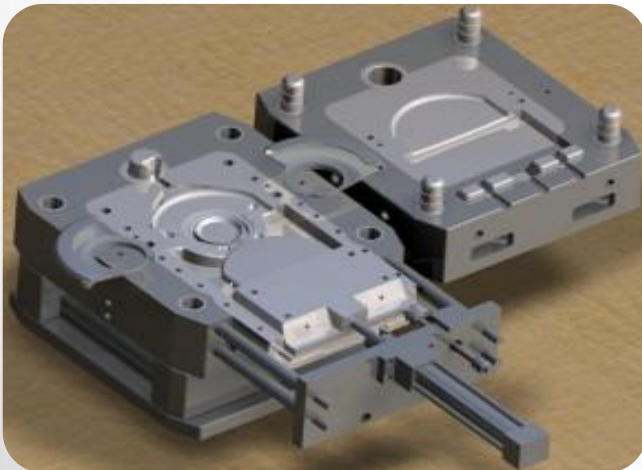
Precision Mould Manufacturing



Injection Moulding



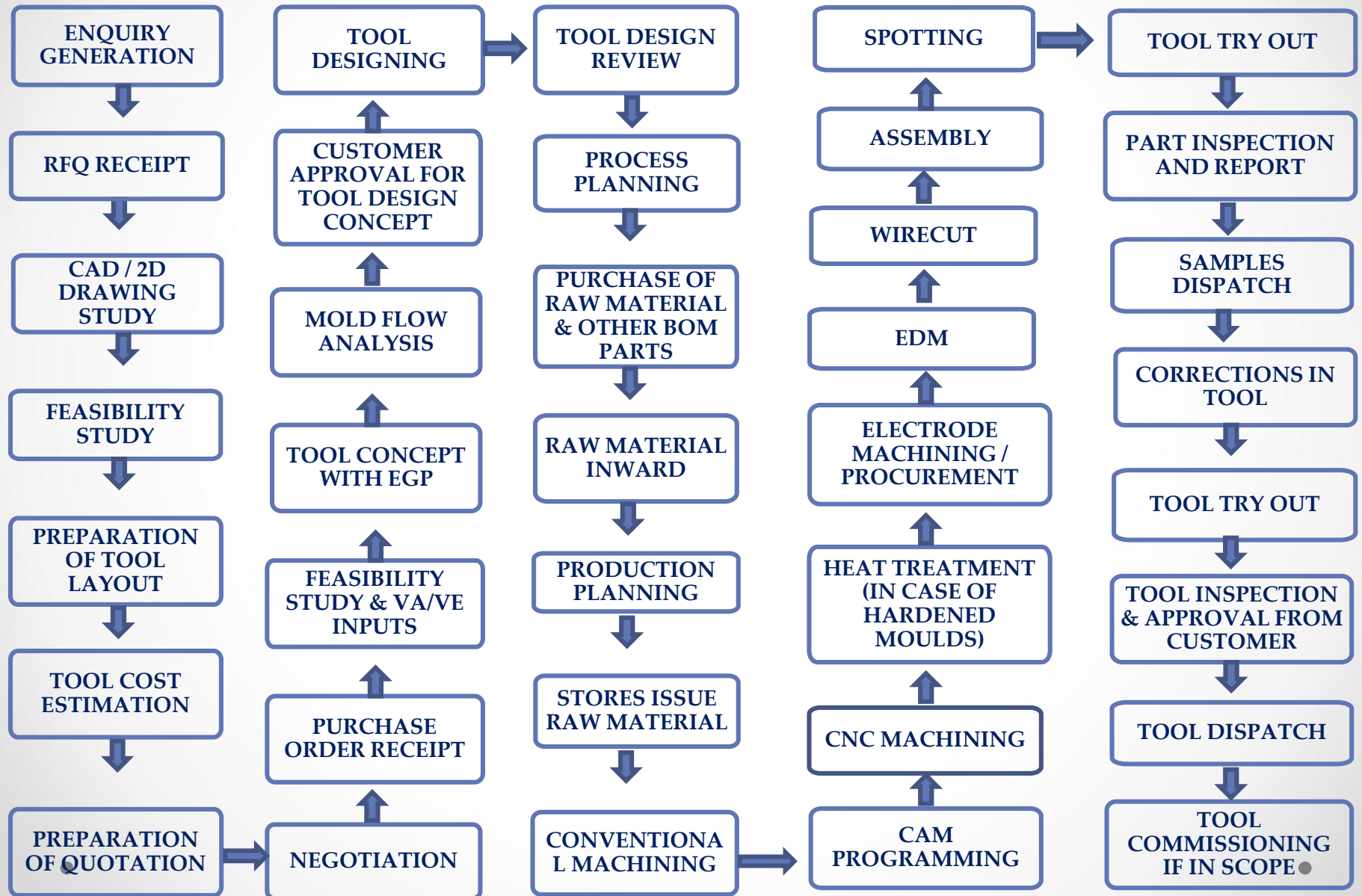
Pressure Die Casting Dies



Precision Component Machining

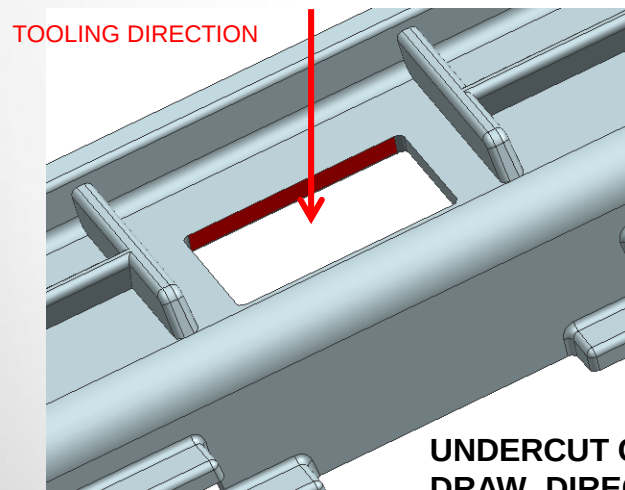
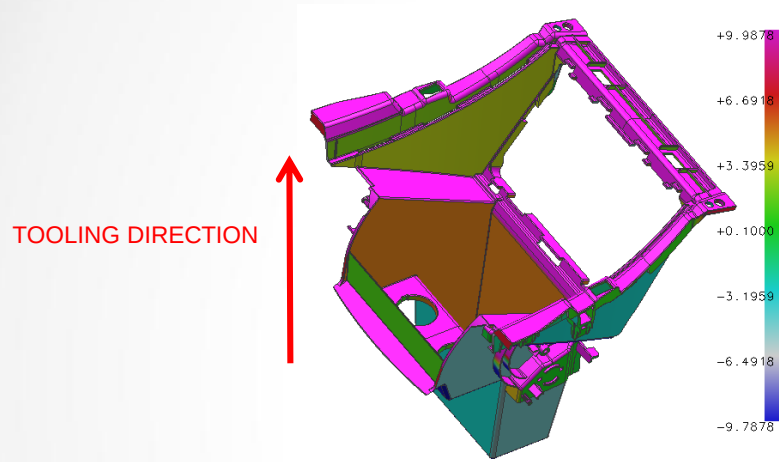


WORK FLOW PROCESS

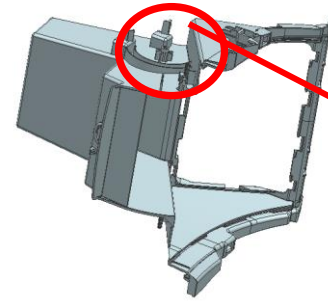


CAD / CAM SOFTWARE DETAILS	USER DETAILS
PS Exchange 2014 - CAD Translation Software and Viewer - 2 Licenses	1 - CAD Engineer with 10 years of Experience in handling different CAD Format
Siemens NX 8.5 2 Licenses	2 - Mould Designers with at least 4-5 Years of Expertise in Complex Moulds for Auto / Electrical / Medical Industries
Power SHAPE - CAD Design and Modeling Software With ToolMaker & Electrode Module - 7 Licenses	5 - Mould Designers with at least 8-10 Years of Expertise in Complex Moulds for Auto / Electrical / Medical Industries
Power MILL With 5 Axis Machining- Total Manufacturing Solution - 5 Licenses	3 - CNC Programmers with hand on experience of CNC Machining / 2 - Programmers for 5 Axis Trained at Delcam - U.K
Copy CAD - Reverse Engineering Software -1 Licenses	1 - CAD Engineer with 10 years of Experience in Reverse Engineering / White Light Scanning expertise - Steinbichler's COMET 5
Power INSPECT Inspection Software - 1 Licenses	1 - Inspection Engineer / White Light Scanning expertise - Steinbichler's COMET 5

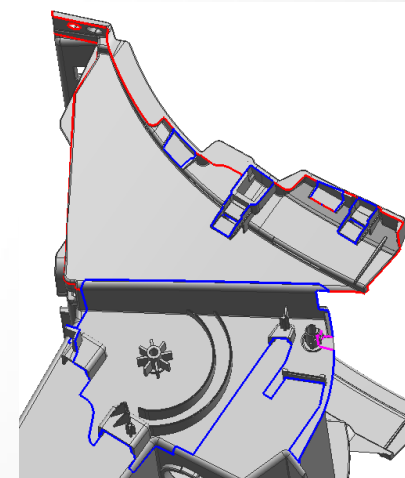
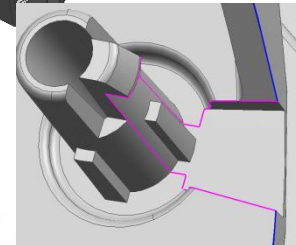
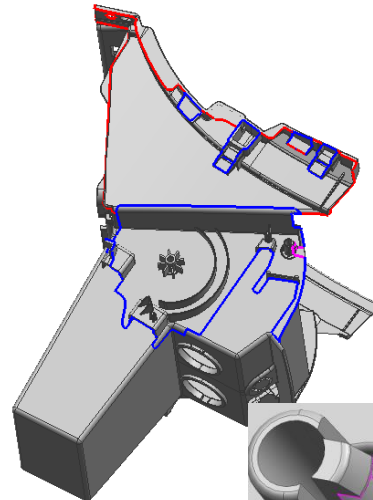
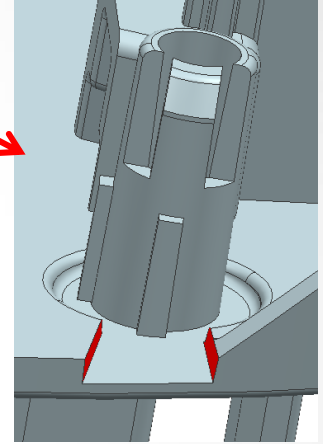
PART FEASIBILITY STUDY



UNDERCUT CREATE IN TOOL
DRAW DIRECTION

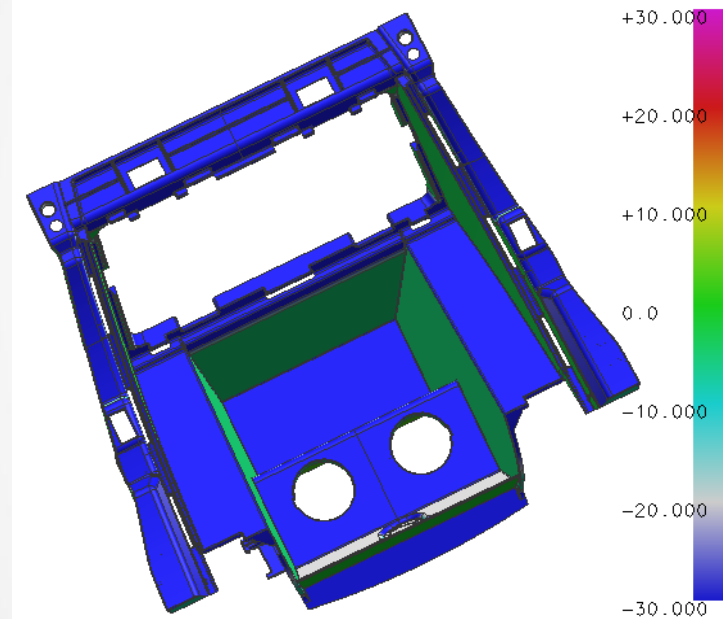


UNDERCUT CREATE IN SLIDER
DRAW DIRECTION

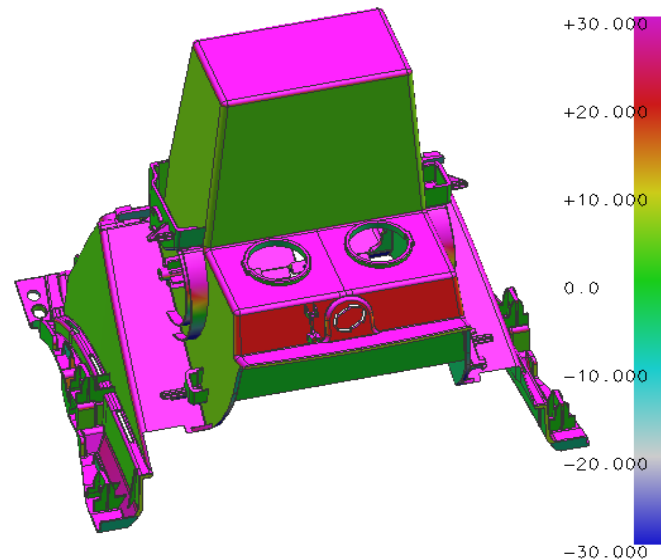


PARTING LINES

DRAFT ANALYSIS



FIX HALF

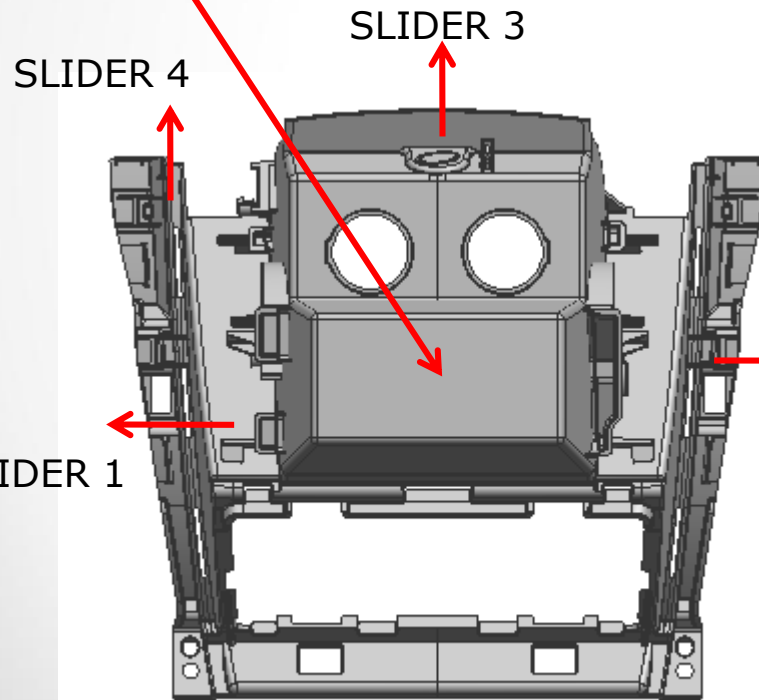


MOVING HALF

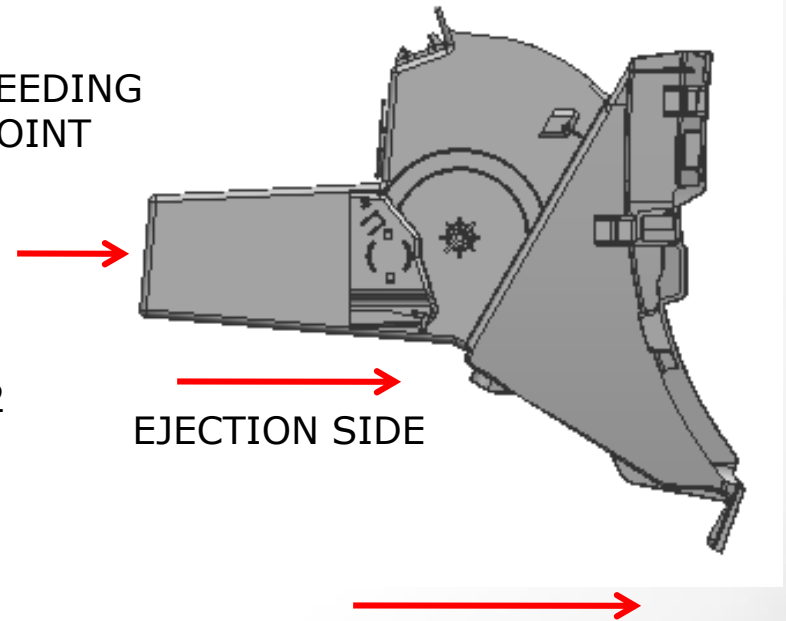
MOULD CONCEPT DETAILS

MOLD TOP

GATE LOCATION (PIN POINT GATE THROUGH HRS)



FEEDING
POINT

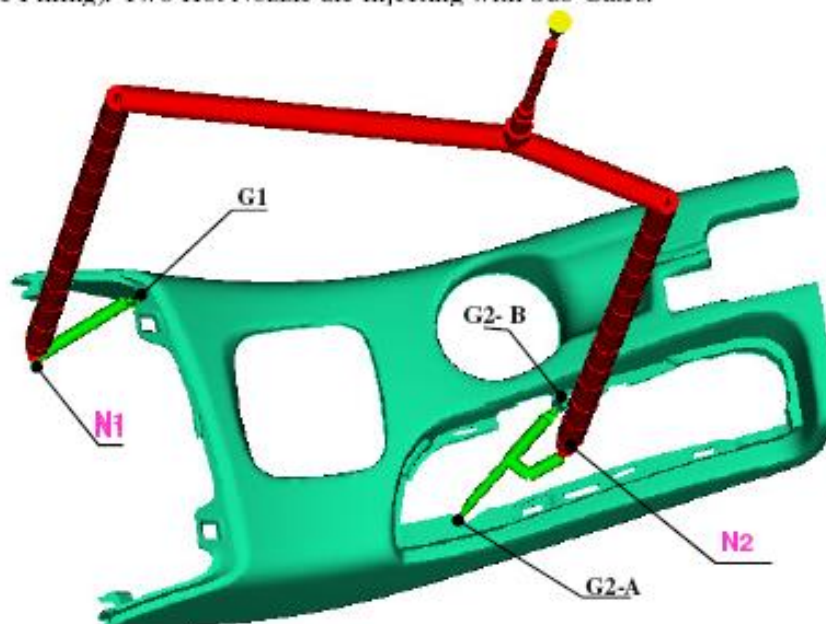


MOLD BOTTOM

III - Runner System

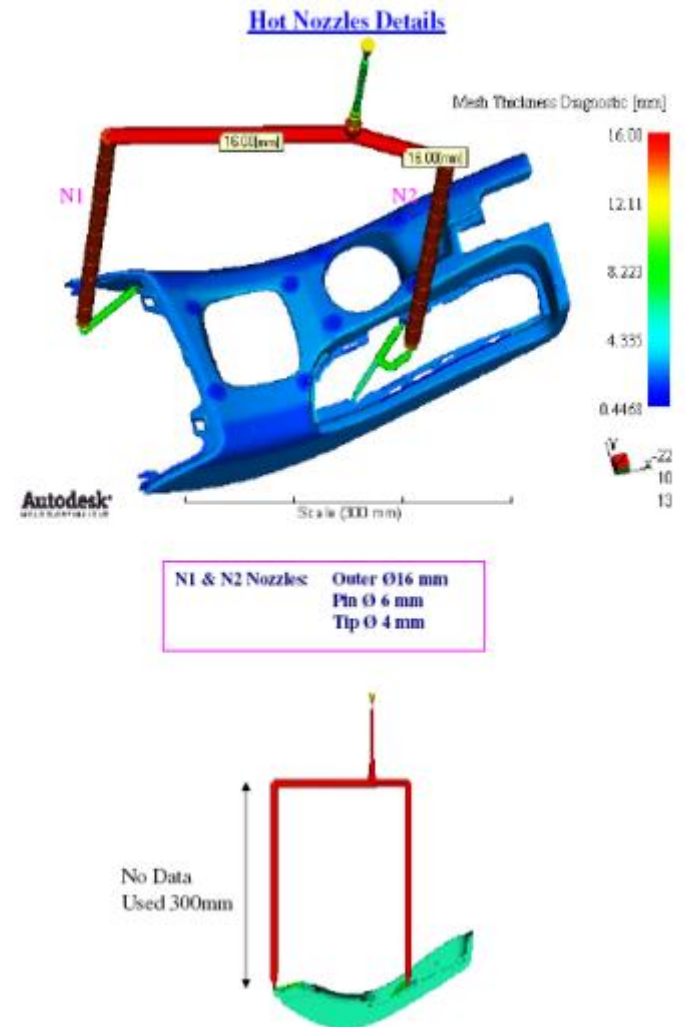
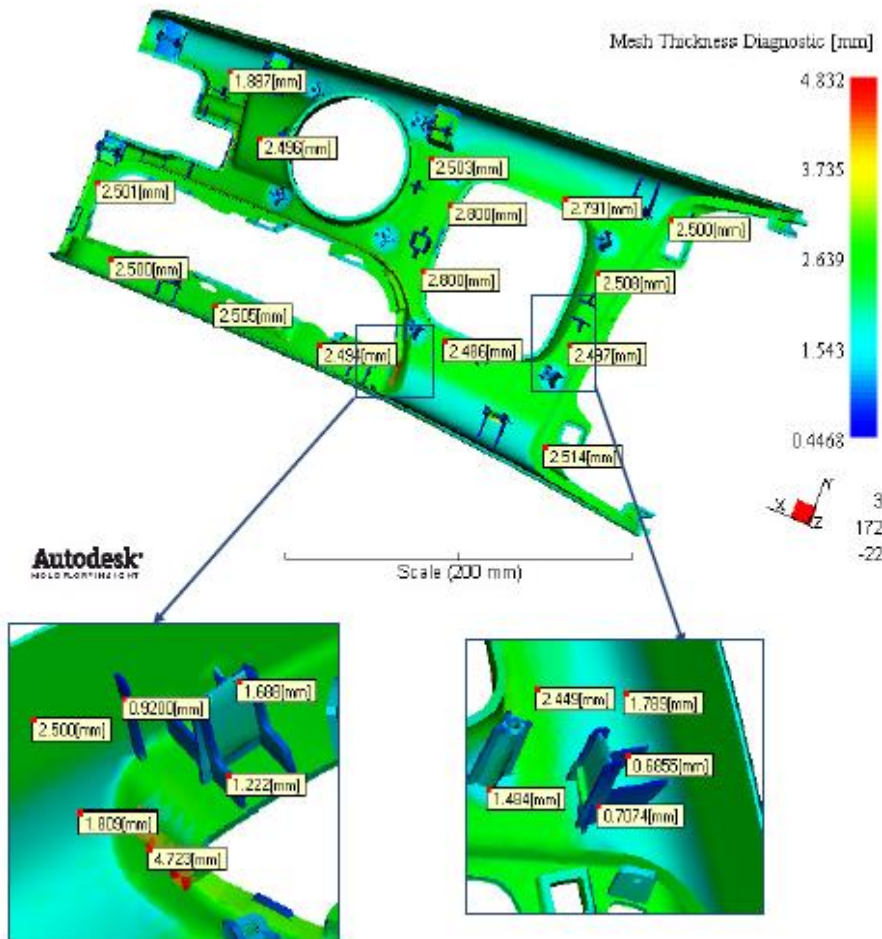
Principle

We suggest filling with Normal Mold considering 2 Hot Valve Gate Nozzles. (Cascade Filling). Two Hot Nozzle are injecting with Sub Gates.



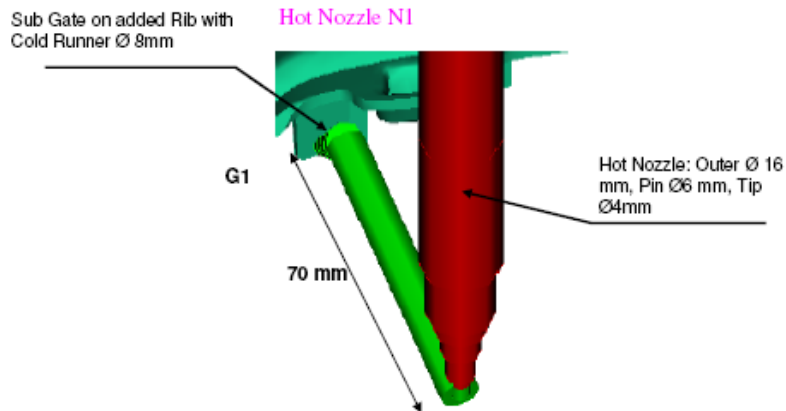
GATE POINT COORDINATES

Points	Xv	Yv	Zv
N1	816	51	468
G1	880	77	465
N2	1103	-44	459
G2 - A	1042	-63	420
G2 - B	1105	-16	459

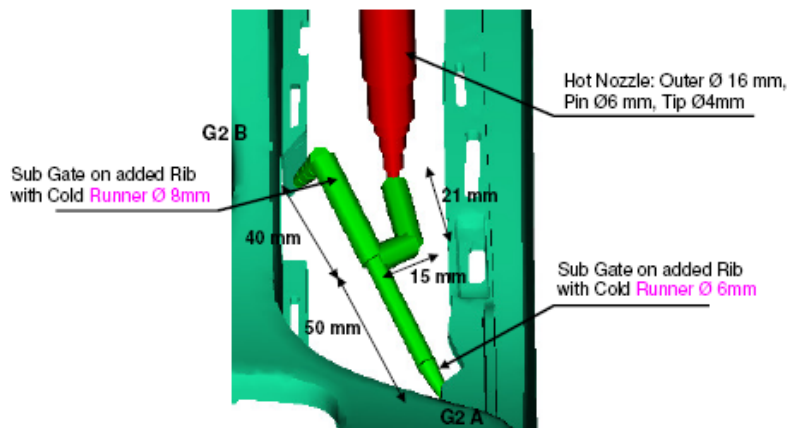


Hot Nozzles Details

Hot Nozzle N1: Hot Nozzle injects with Sub Gate with Cold Runner.

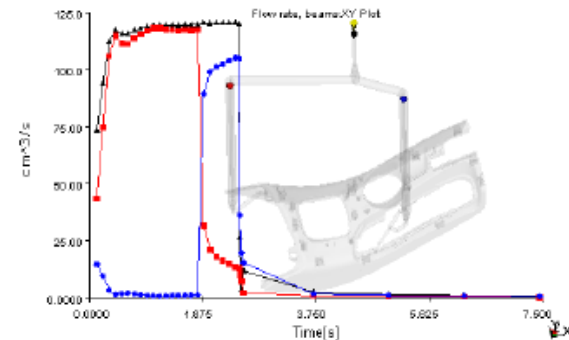


Hot Nozzle N2: Hot Nozzle injects with Sub Gate & Cold Runner.



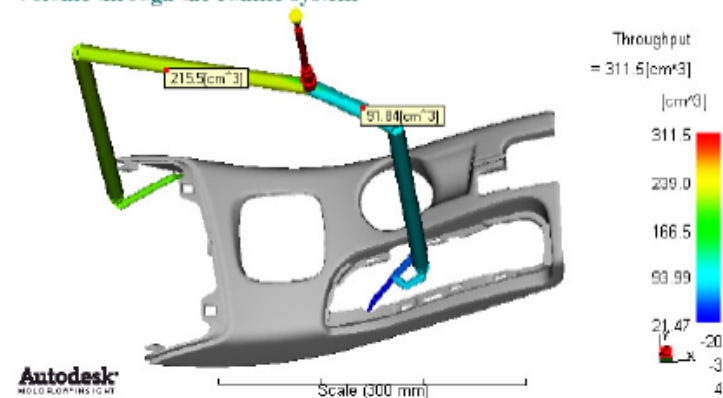
Flow Rate in the runner system

Injection with flow rate 120 cm³/s



This plot shows the flow rate during the filling and packing. We check the flow through each runner and its efficiency.

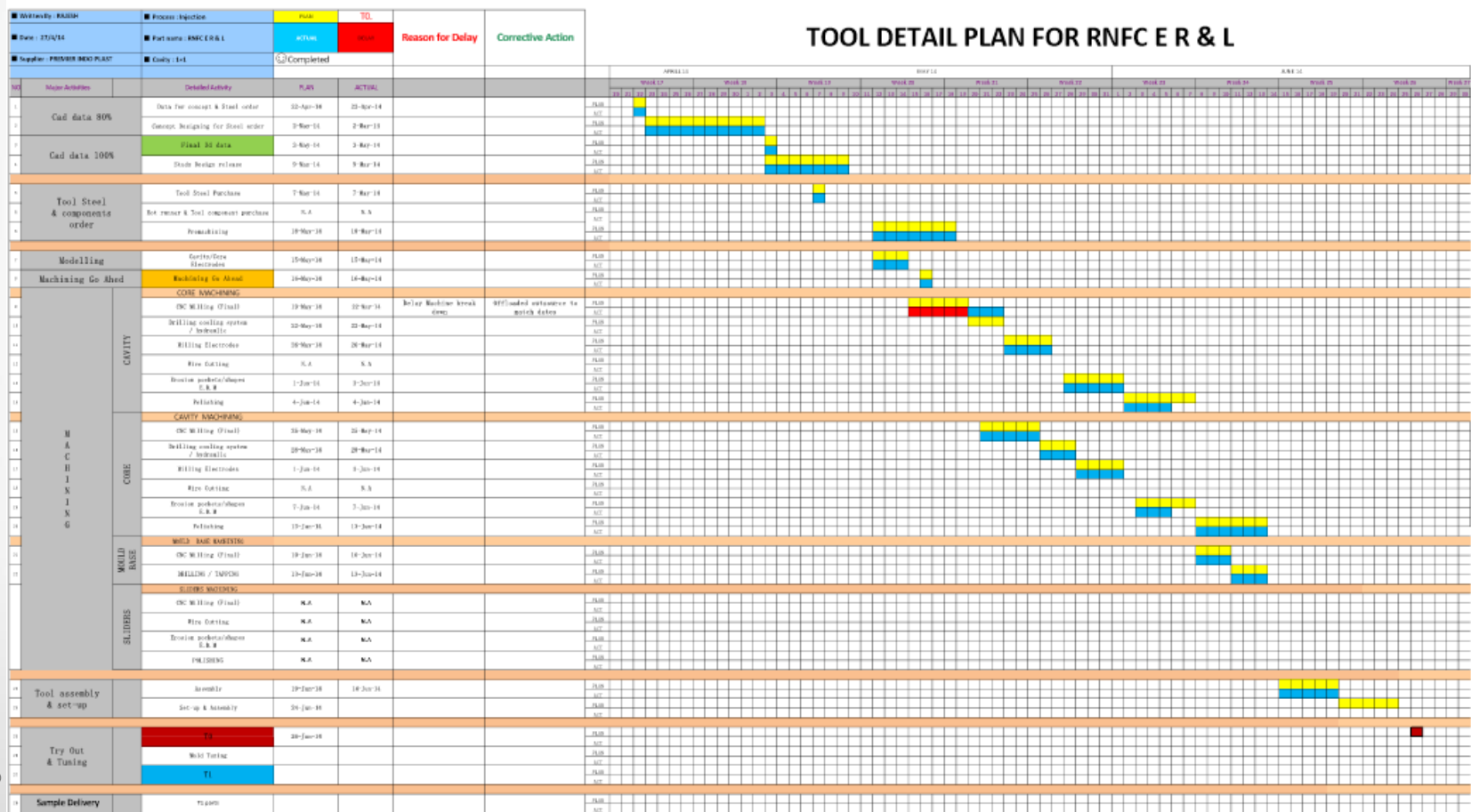
Volume through the runner system



This plot show the throughput for each runner and we can know its efficiency.

- Cold Volume Part	: 242 cm ³
- Cold Runner Volume	: 9 cm ³
- Hot Runner Volume	: 210 cm ³
- Injected Volume	: 311 cm ³

To efficiently manage the projects and achieve the required lead time, Proper project planning is used to monitor the progress of manufacture. Process charts are issued every week via email including digital photographs of the work in progress, creating a real time tooling process assessment



TOOL UPDATES IMAGES		WEEK	DATE
		20	12-May-14
		21	20-May-14
		22	28-May-14
		23	4-Jun-14
		24	11-Jun-14
		24	11-Jun-14
		26	26-Jun-14

DATE	STATUS	WEEK END	ELECTRONICS	TOOL PARTS
PREPARATION of wood	PREPARATION planned	PREPARATION PLANNED		
				
ONE MACHINING TO BE DONE BY	ONE PLANNED	PREPARATION PLANNED		
				
ONE MACHINING DONE	ONE MACHINING TO BE DONE BY	PREPARATION PLANNED		
				
ONE	STATUS	WEEK END	ELECTRONICS	TOOL PARTS
PREPARING TO GETTING IN	PREPARING TO GETTING IN	ready for CNC		
				
ONE	STATUS	WEEK END	ELECTRONICS	TOOL PARTS
SHIPPING TO BE DONE BY	SHIPPING TO BE DONE BY			
				
ONE	STATUS	WEEK END	ELECTRONICS	TOOL PARTS
PREPARING TO GETTING IN	PREPARING TO GETTING IN			
				
ONE	STATUS	WEEK END	ELECTRONICS	TOOL PARTS
				

Description	Make	Travel Size	QTY	Location
CNC MACHINE	DECKEL DMG 60 T - 5 AXIS	630 X 500 X 500	1 NO	CAM TOOLS
	BFW BMV 45 With MITSUBISHI M720 4TH Axis Attachment	630 X 500 X 450	1 NO	CAM TOOLS
	BFW BMV 60 With MITSUBISHI M720	1050 X 610 X 500	1 NO	CAM TOOLS
	BFW BMV 60 With MITSUBISHI M720	1500 X 700 X 650	1 NO	CAM TOOLS
	DMG-MORI-DMC-ECOLINE V 1035–3 AXIS (SPINDLE SPEED-1200 R.P.M.)	1035 X 560 X 510	1 NO	CAM TOOLS
Graphite Machining Centre	Makino	600 X 500 X 400	2 NOS	VENDOR



NEW ARRIVAL OF DMC-1035 ECOLINE V WITH 12000 RPM

TABLE SIZE	TRAVEL	SPINDLE SPEED	CONTROLLER	MOULD WEIGHT
1200X560	1035X560X510	12000 RPM	SIEMENS-840 SL	1000 KG





Description	Make	Tank Size	QTY	Location
CNC - EDM	CHEMER	900 X 650X 400	1 NO	CAM TOOLS
CNC - EDM	JOEMARS	1500 X 1100 X 400	1 NOS	CAM TOOLS
ZNC - EDM	JOEMARS	1100 X 650 X 400	2 NOS	CAM TOOLS



Infrastructure – EDM/Wire EDM



Description	Make	Travel Size	QTY	Location
Conventional Milling Machine With 3 Axis D.R.O	RAMBAUDI RAM TYPE	1500 X 590 X 590	1 NO	CAM TOOLS
Universal Milling Machine With 3 Axis D.R.O	HURON	1200 X 400 X 400	1 NO	CAM TOOLS
TOOL ROOM LATHE	COLCHESTER	Dia 300 X 450	1 NO	CAM TOOLS
SURFACE GRINDING MACHINE	CHURCHILL	860 X 360 X 350	1 NO	CAM TOOLS
SURFACE GRINDING MACHINE	ELLIOT	600 X 250 X 250	1 NO	CAM TOOLS
HEAVY DUTY RADIAL DRILLING	ASQUITH - U.K	1300 X 750 X 550	1 NO	CAM TOOLS
RADIAL ARM DRILLING MACHINE.	Machine Tools	600 X 400 X 500	1 NO	CAM TOOLS



MOULD ASSEMBLY

Description

Location

4 - Mould Makers with at least 12 – 15
Years of Expertise in Complex Moulds for
Auto / Electrical / Medical Industries

CAM TOOLS



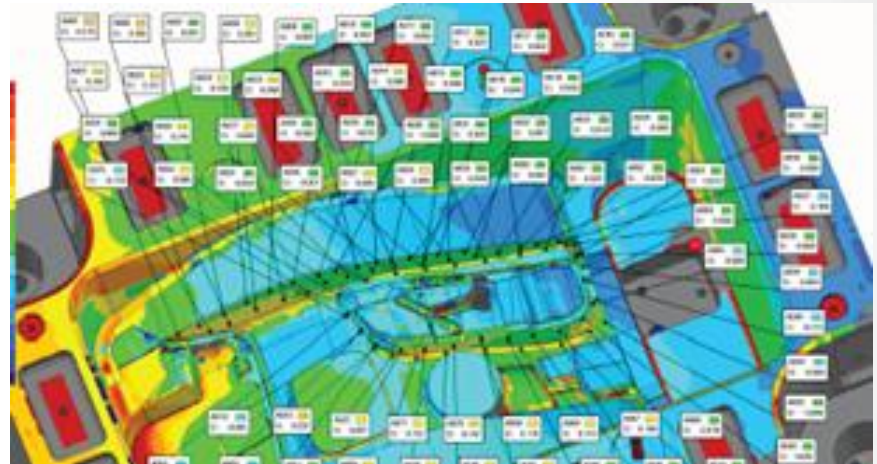
Description	Make	Travel Size	QTY	Location
CNC CMM MACHINE	CARL ZEISS - VISTA	600 X 400 X 400	1 NO	CAM TOOLS
SHADOW GRAPH	NIKON	DIA 250 WITH 20X & 50X RANGE	1 NO	CAM TOOLS
ROMER ABSOLUTE ARM	HEXAGON	1200MM	1 NO	CAM TOOLS
White Light Scanner	Steinbichler's COMET 5	Camera Resolution 1360 x 1024	1 NO	VENDOR

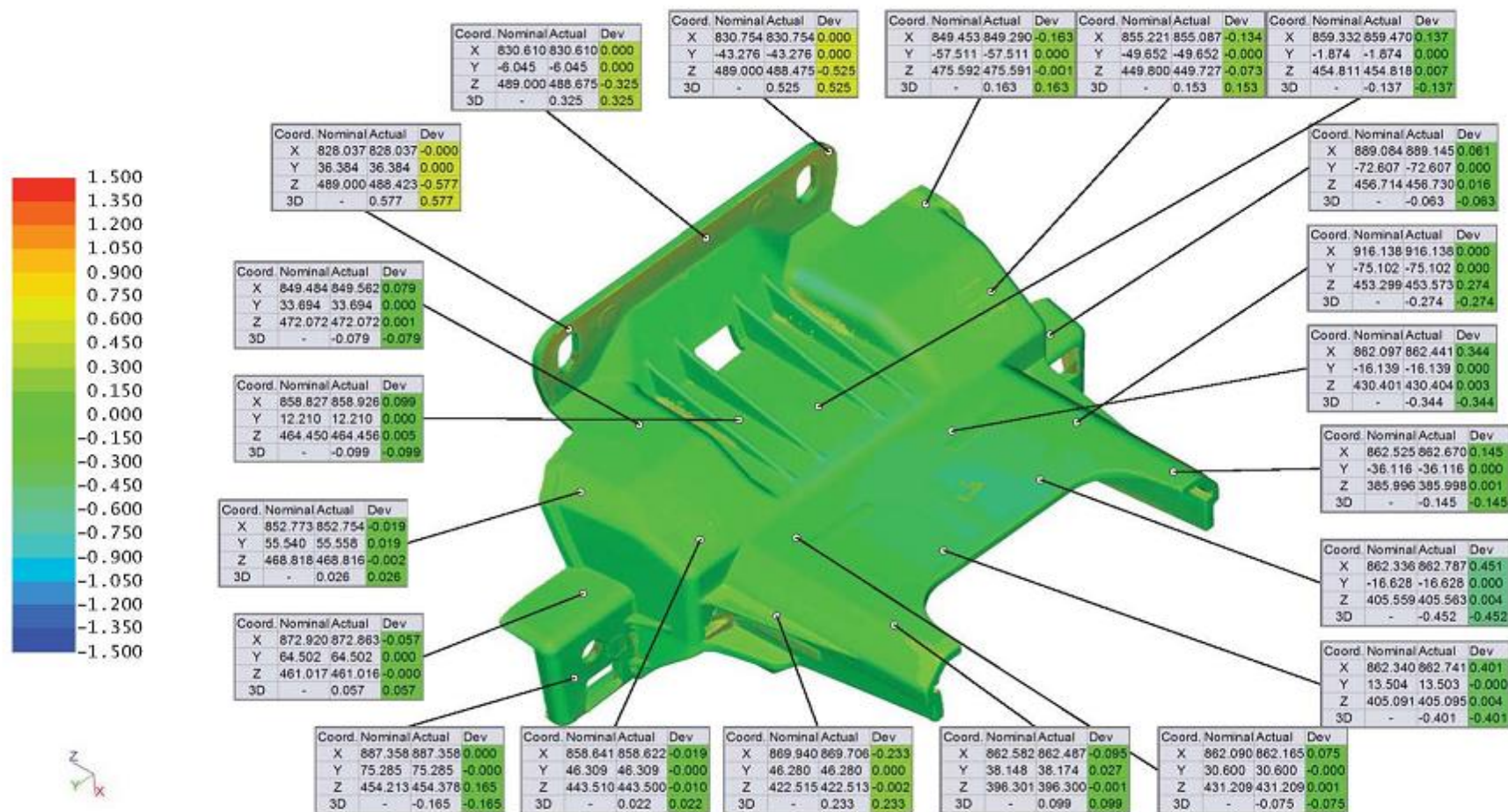


Description	Make	Locking Tonnage	QTY	Location
INJECTION MOULDING MACHINE	KAWAGAUCHI MADE IN JAPAN	550 TONES	1 NO	CAM TOOLS
INJECTION MOULDING MACHINE	ENGEL-220	225 TONES	1 NO	CAM TOOLS
INJECTION MOULDING MACHINE	SUPER MASTER - 150	150 TONES	1 NO	CAM TOOLS
INJECTION MOULDING MACHINE	SUPER MASTER - 80	80 TONES	1 NO	CAM TOOLS



Quality is one of the biggest drivers in the industry today. Our Quality Assurance Department use latest white/blue light scanning technology for inspection of Core / Cavity and Parts.

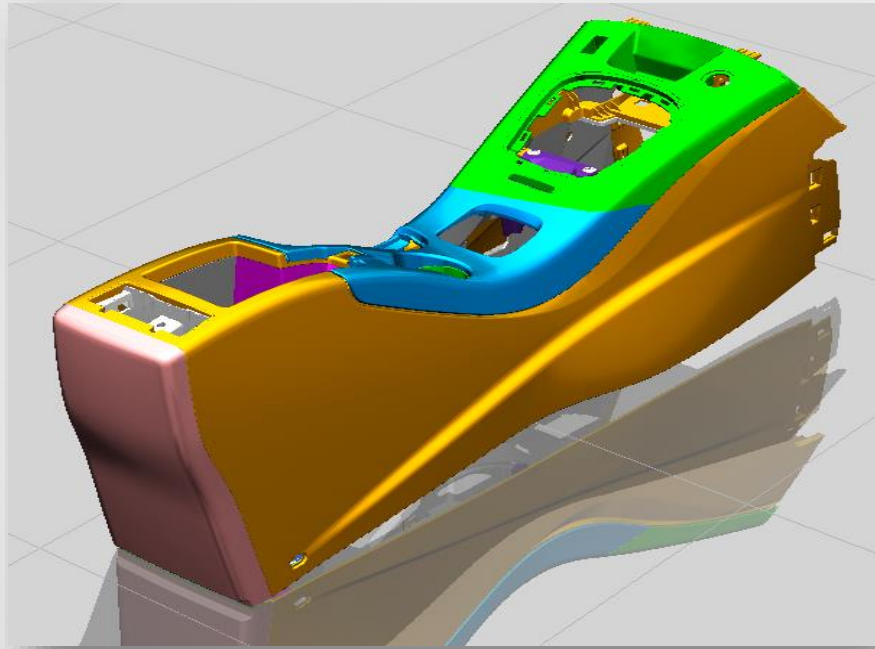




COLOUR DEVIATION

INSPECTION REPORT	Part-Nr.: SADDLE.STL	Date: 22-06-12
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		Upper Tolerance:
		Lower Tolerance:
		Page 5 of 13 Pages

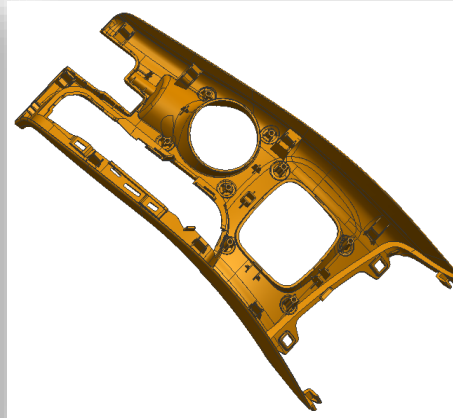
INTERIOR PARTS



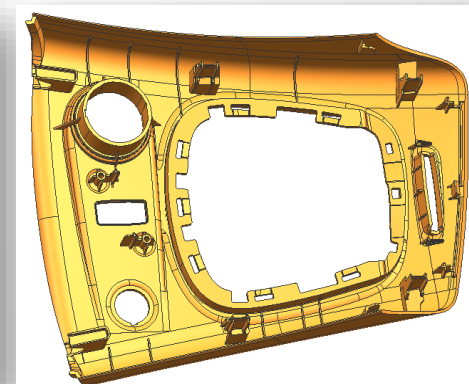
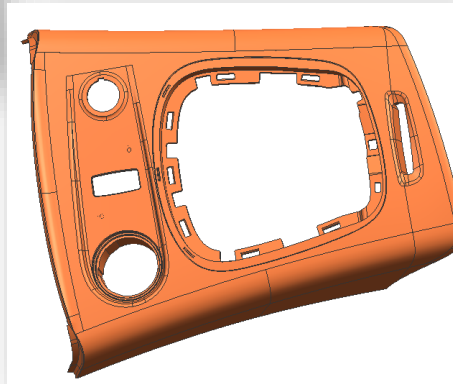
Box Floor Console Assembly

Project – J95
OEM – Renault (Europe)
Tier-1 – Faurecia Interiors (Meru-France)

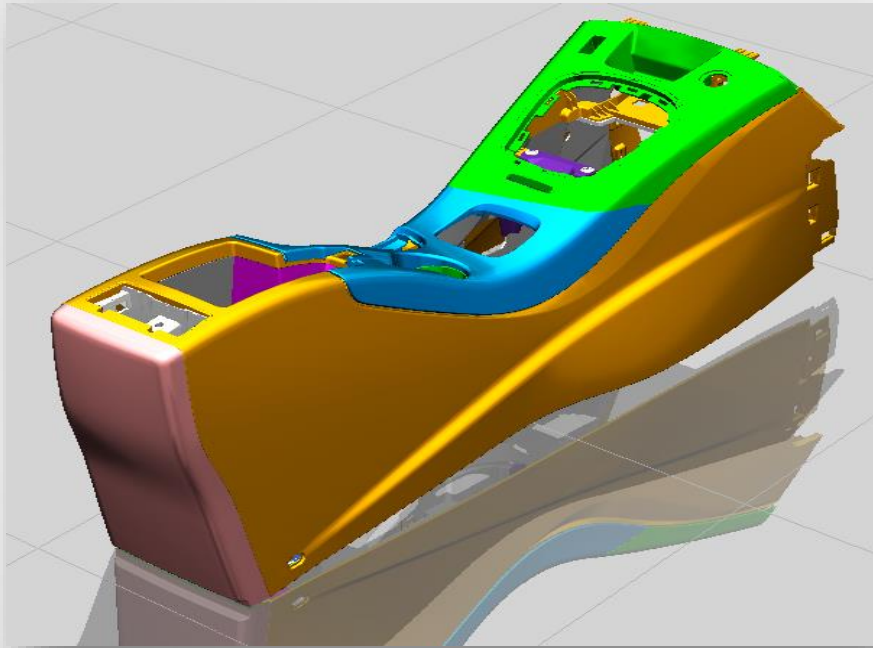
Console Fascia Upper



Upper Fascia



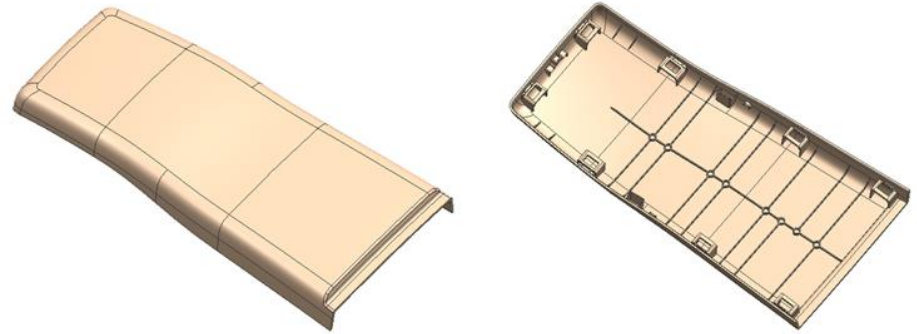
INTERIOR PARTS



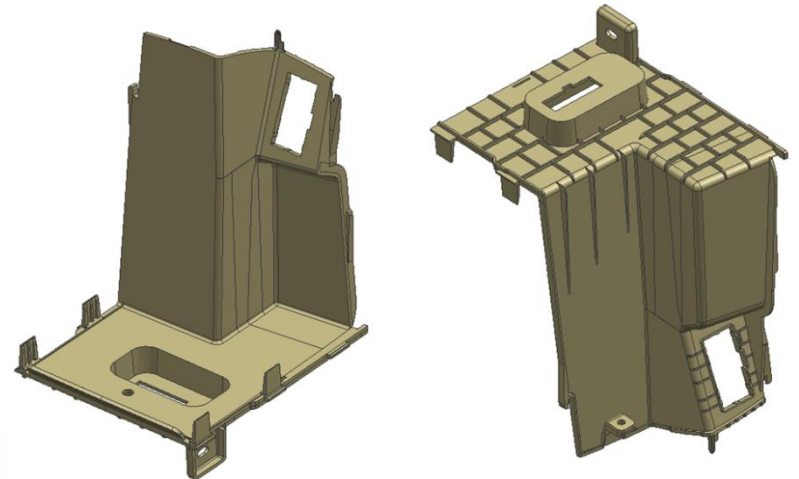
Box Floor Console Assembly

Project – J95
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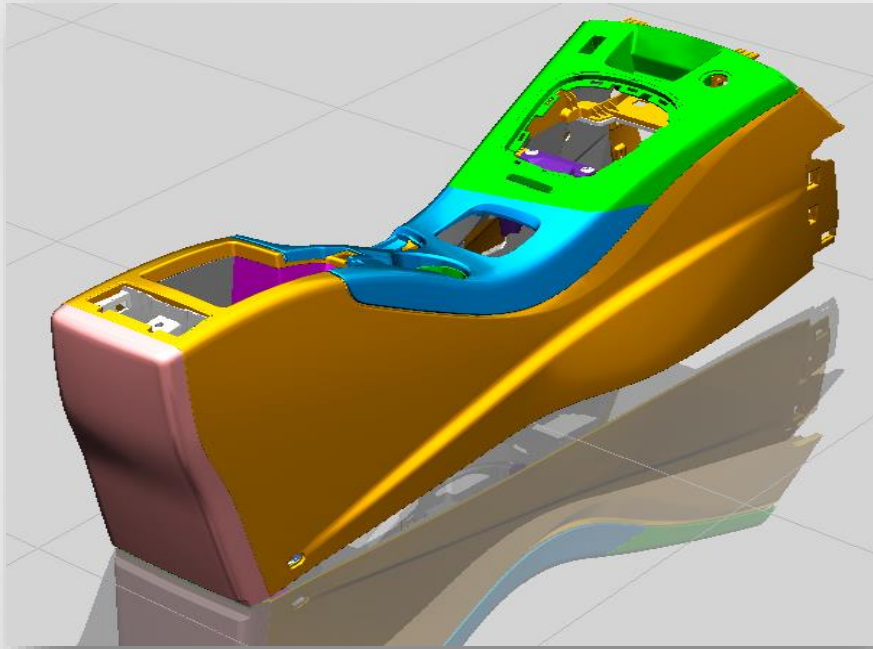
Rear Fascia



Console Box



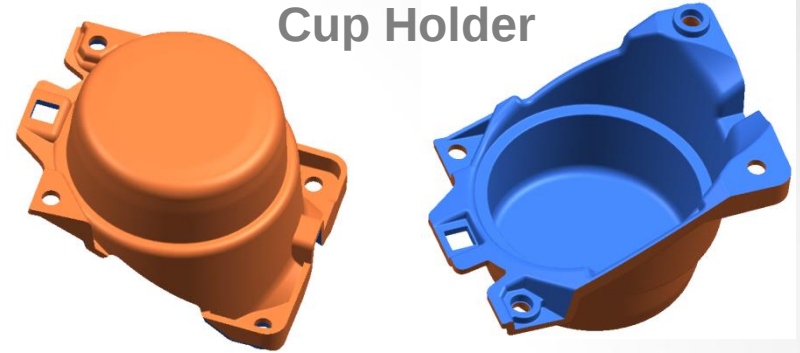
INTERIOR PARTS



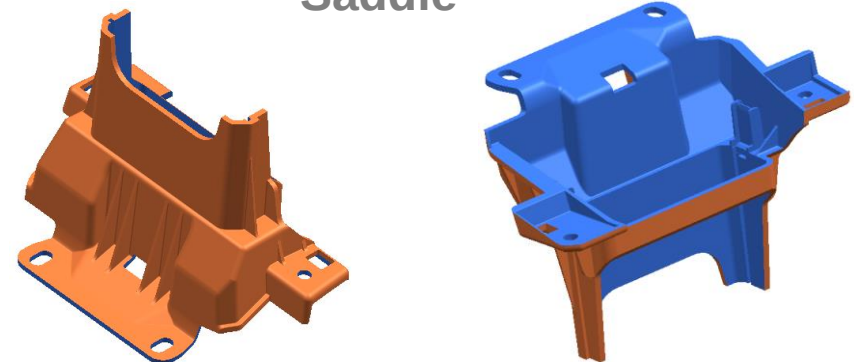
Box Floor Console Assembly

Project – J95
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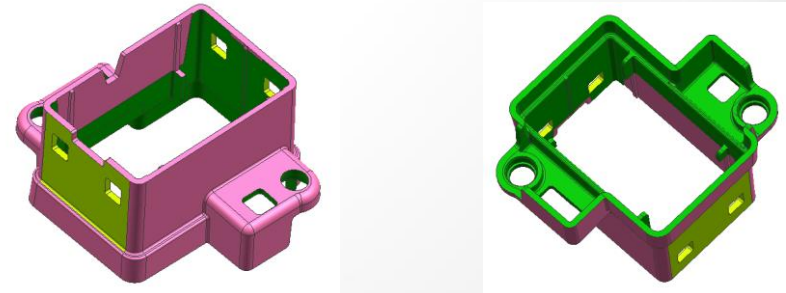
Cup Holder



Saddle

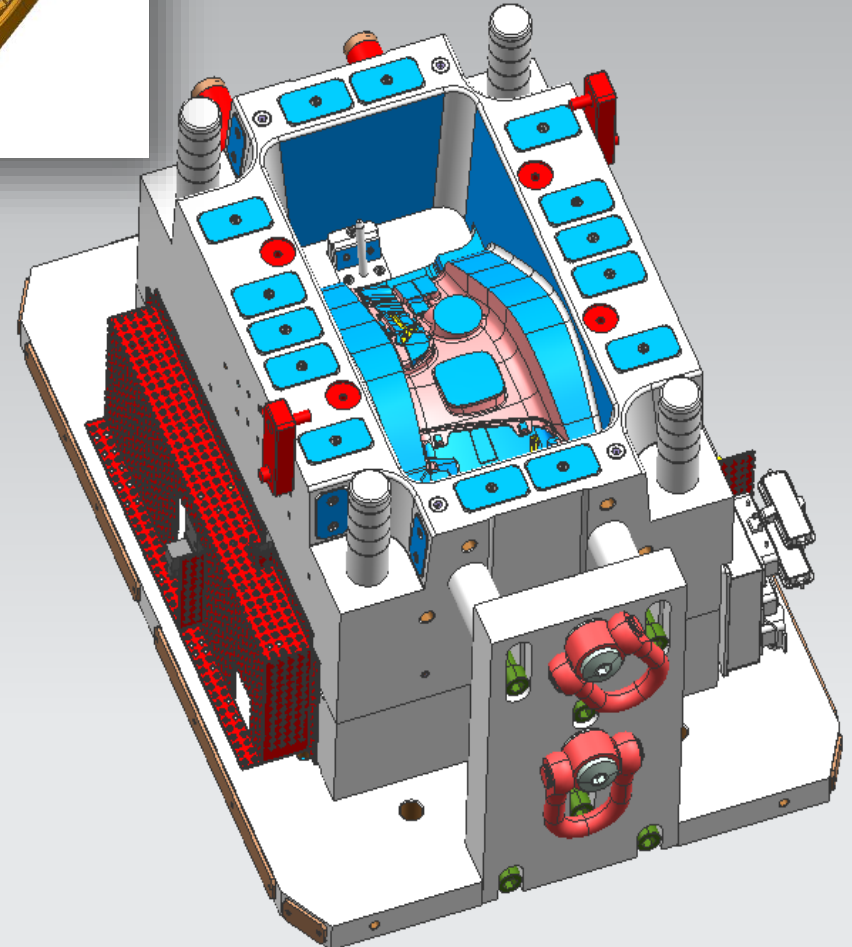
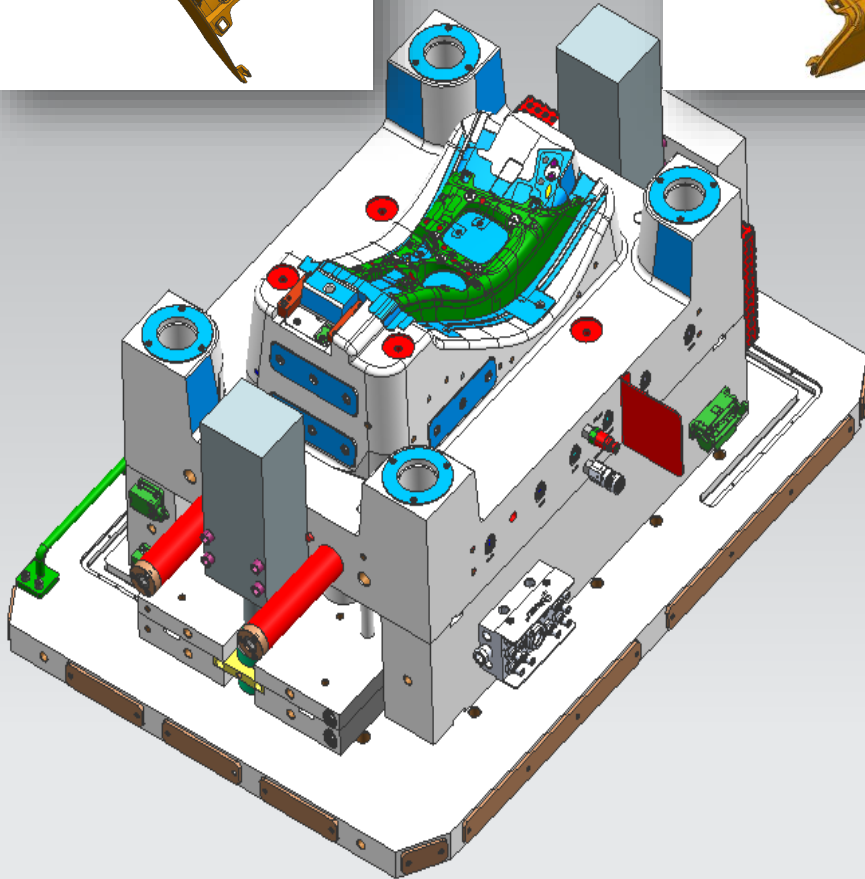


Switch Housing

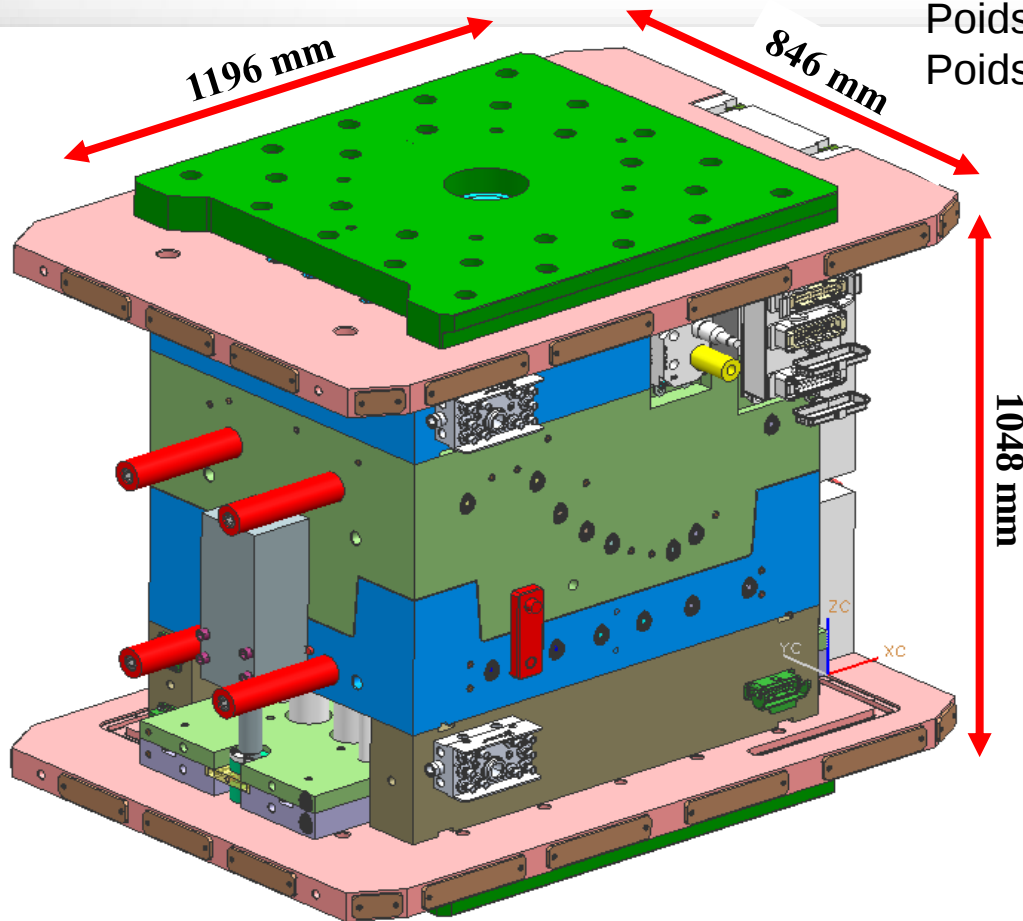




Console Fascia Upper



DIMENSIONS / VIEWS / WEIGHT OF TOOL



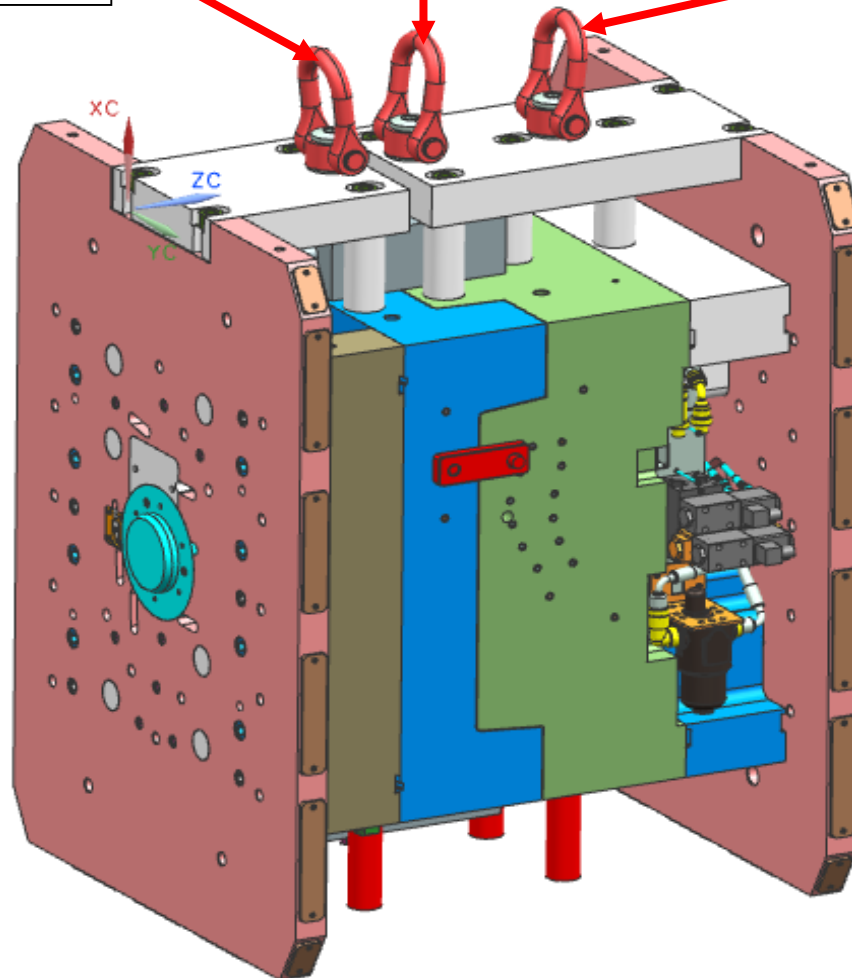
Epaisseur moule (CRO includes) :	1048 mm
Poids total moule (CRO includes) :	4.14 Tons
Poids total moule (sans CRO) :	3.65 Tons
Poids partie fixe :	1.96 Tons
Poids partie mobile :	1.69 Tons

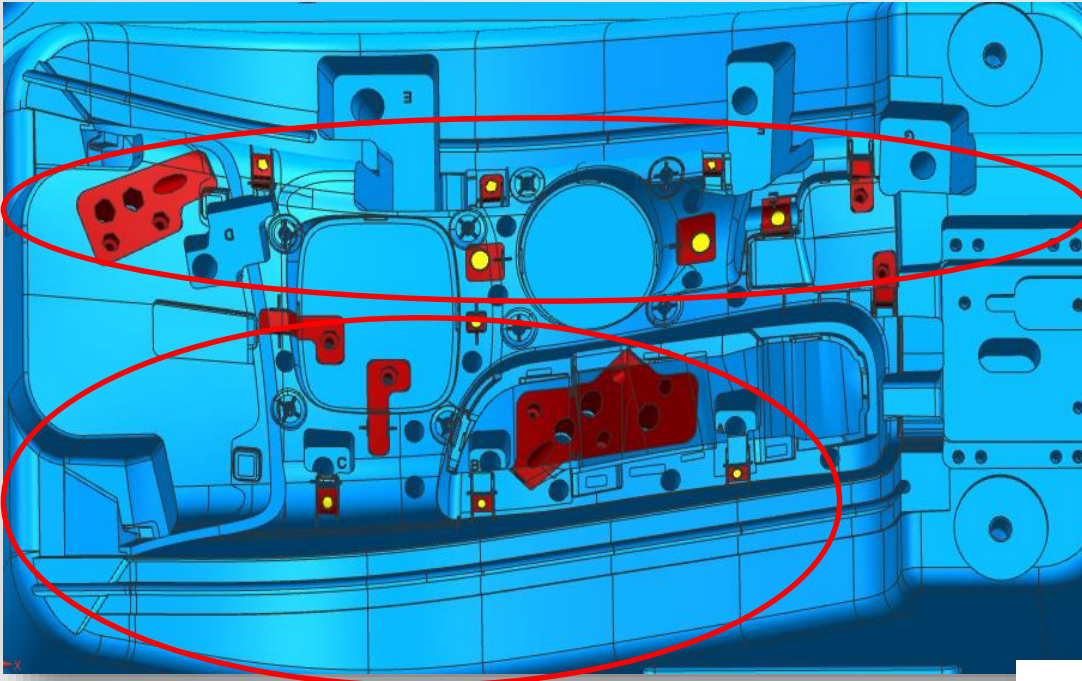
MOULDS EXPORTED TO EUROPE

M36 pour levage
Single moving half

M36 pour levage
moule complet

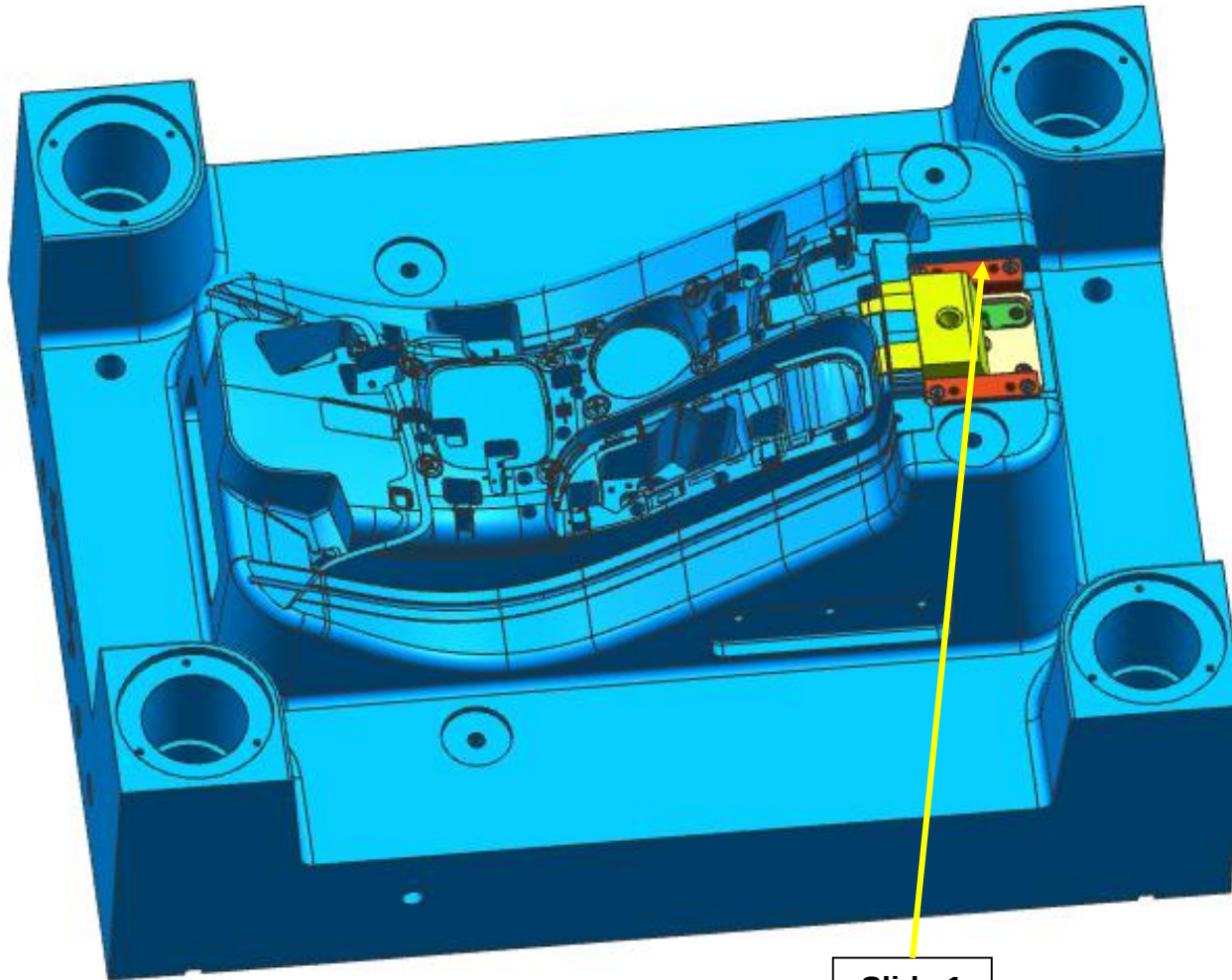
M36 pour levage
Single fixed half





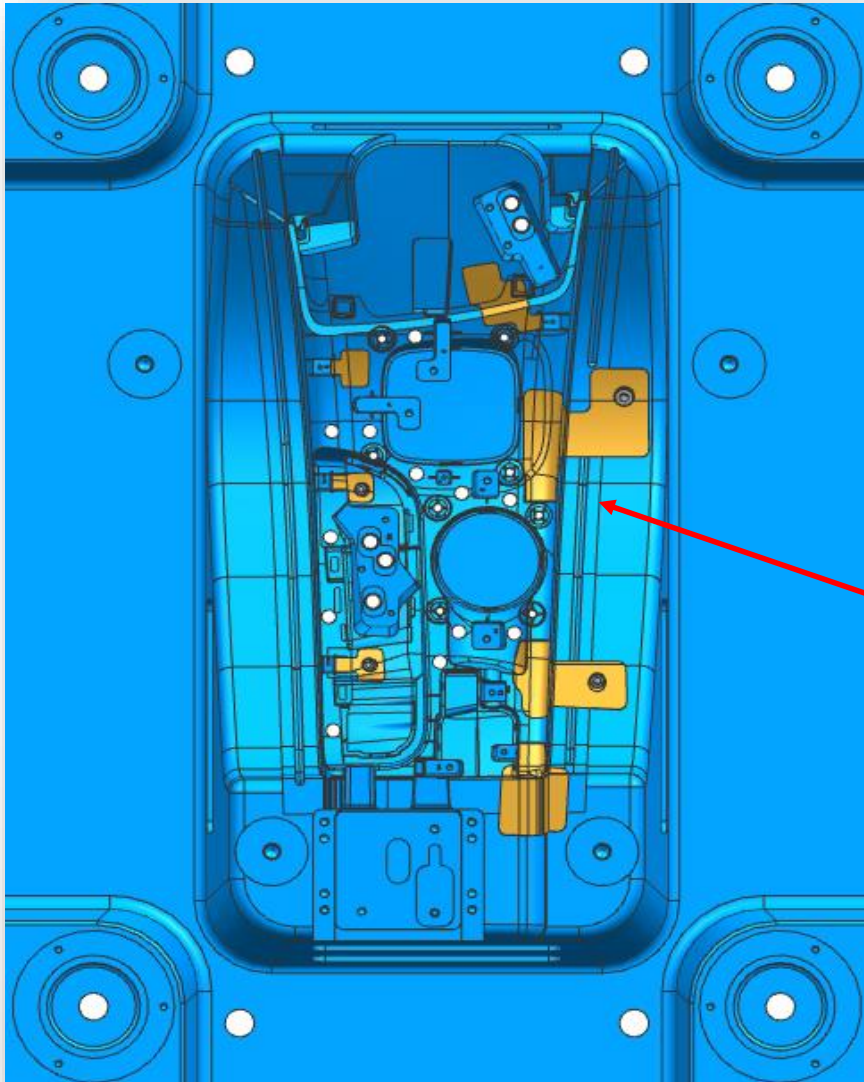
INSERTS MATRIX



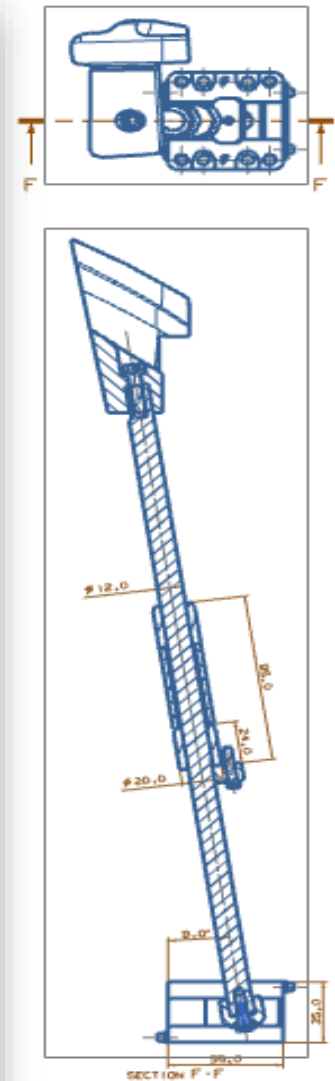
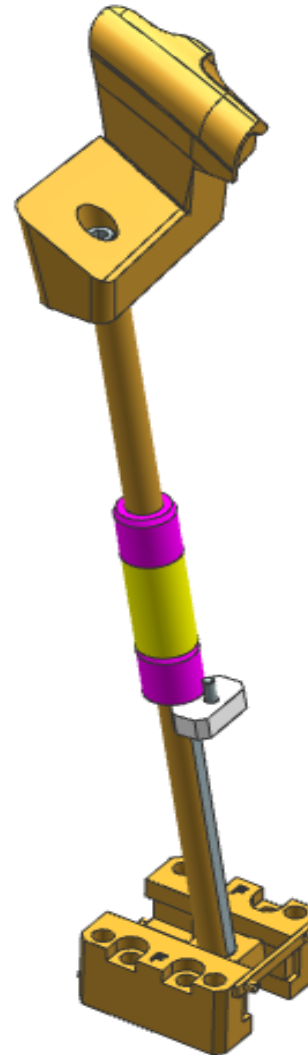
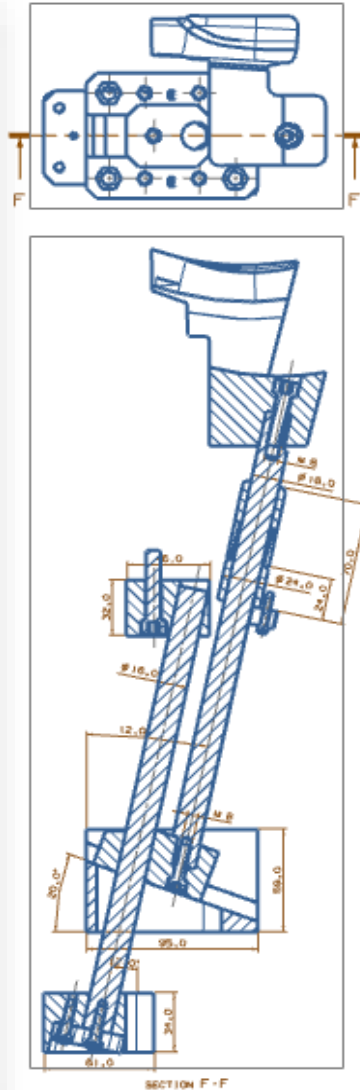
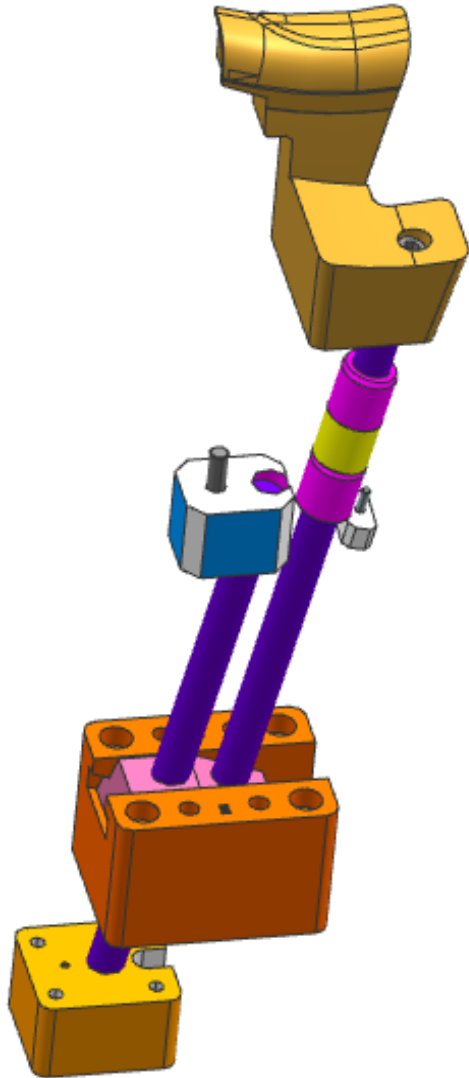


Slide 1

VUES CALES DROITES

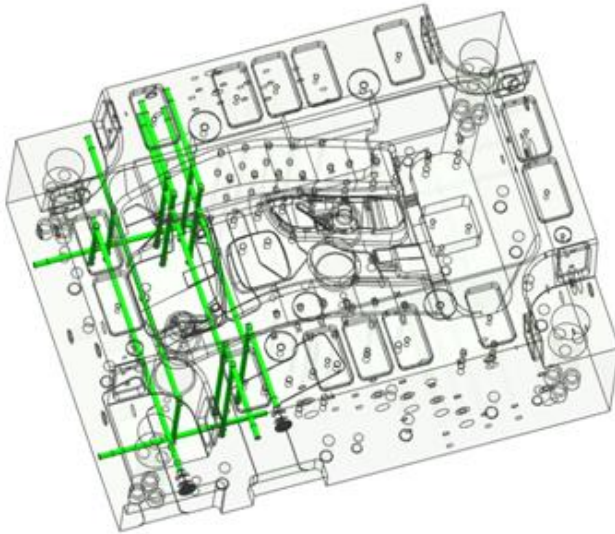


7 Angle Lifters

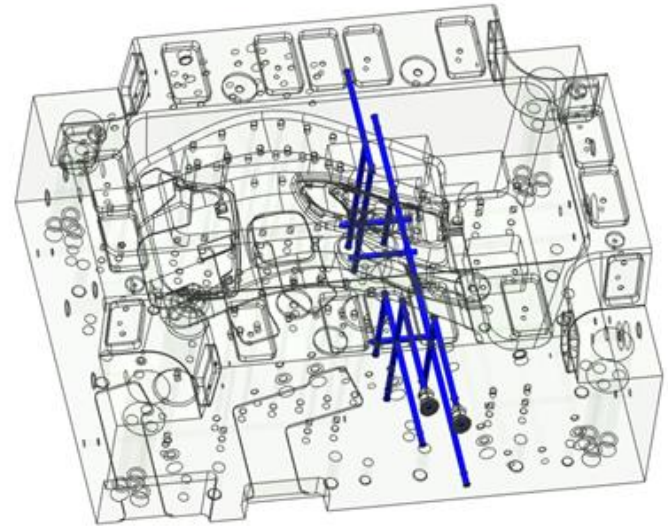


Angle Lifter - E

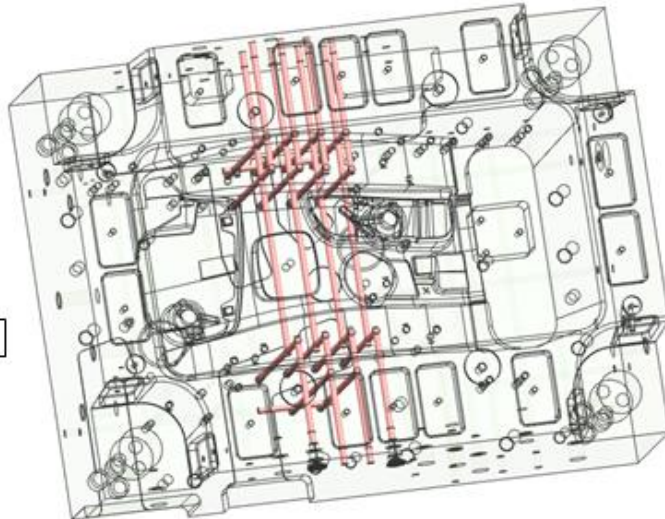
CIRCUIT 1



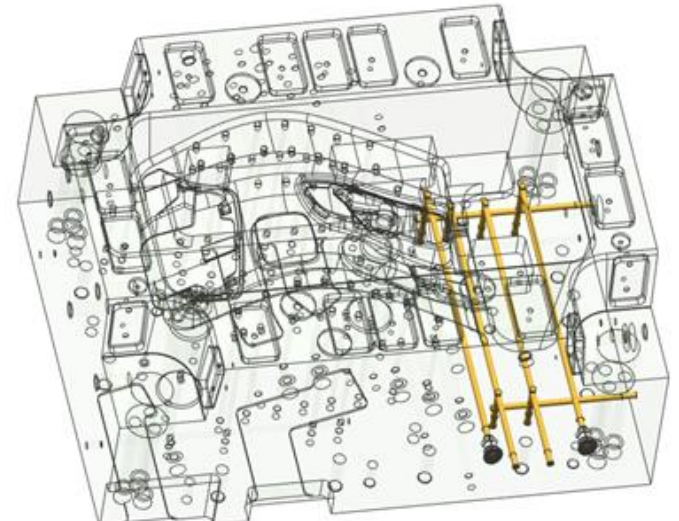
CIRCUIT 3



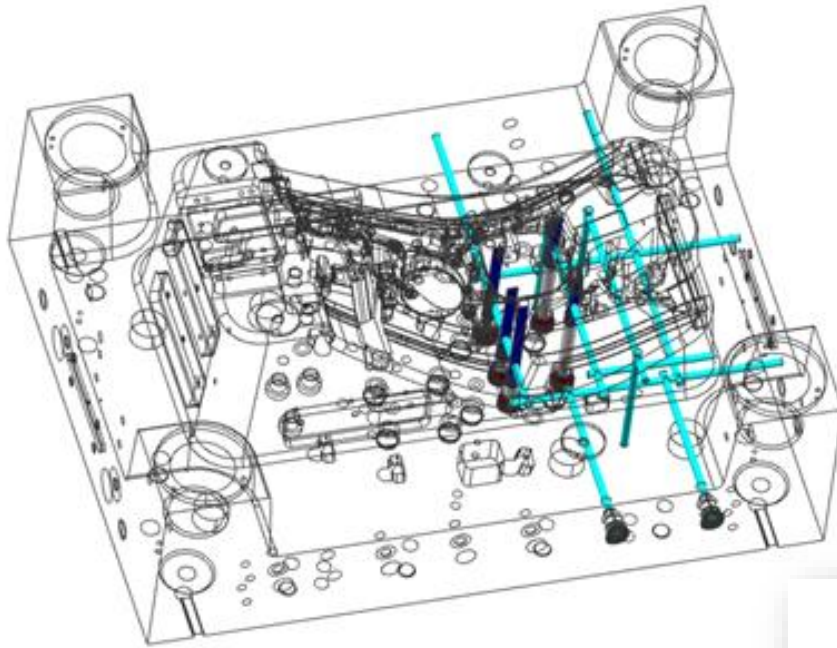
CIRCUIT 2



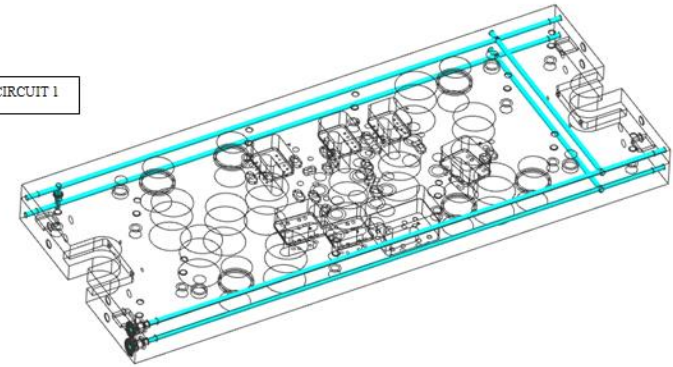
CIRCUIT 4



CIRCUIT 3

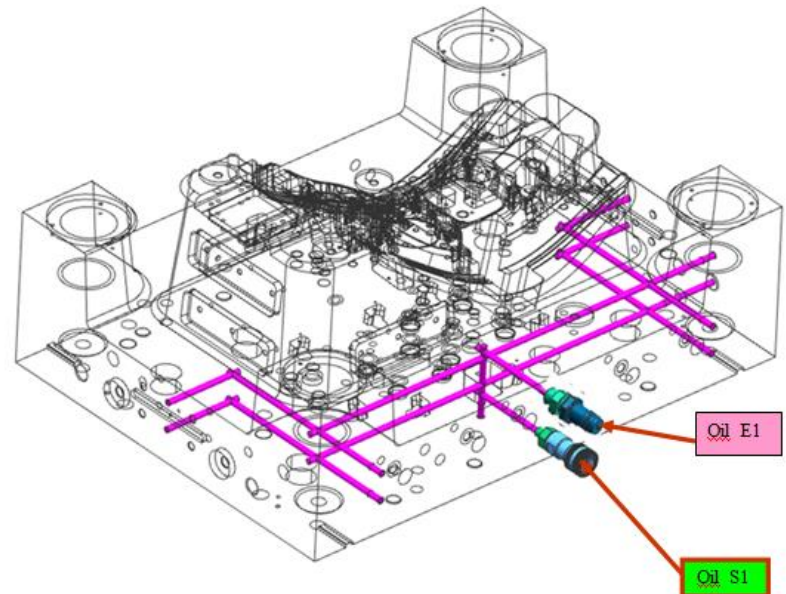


CIRCUIT 1

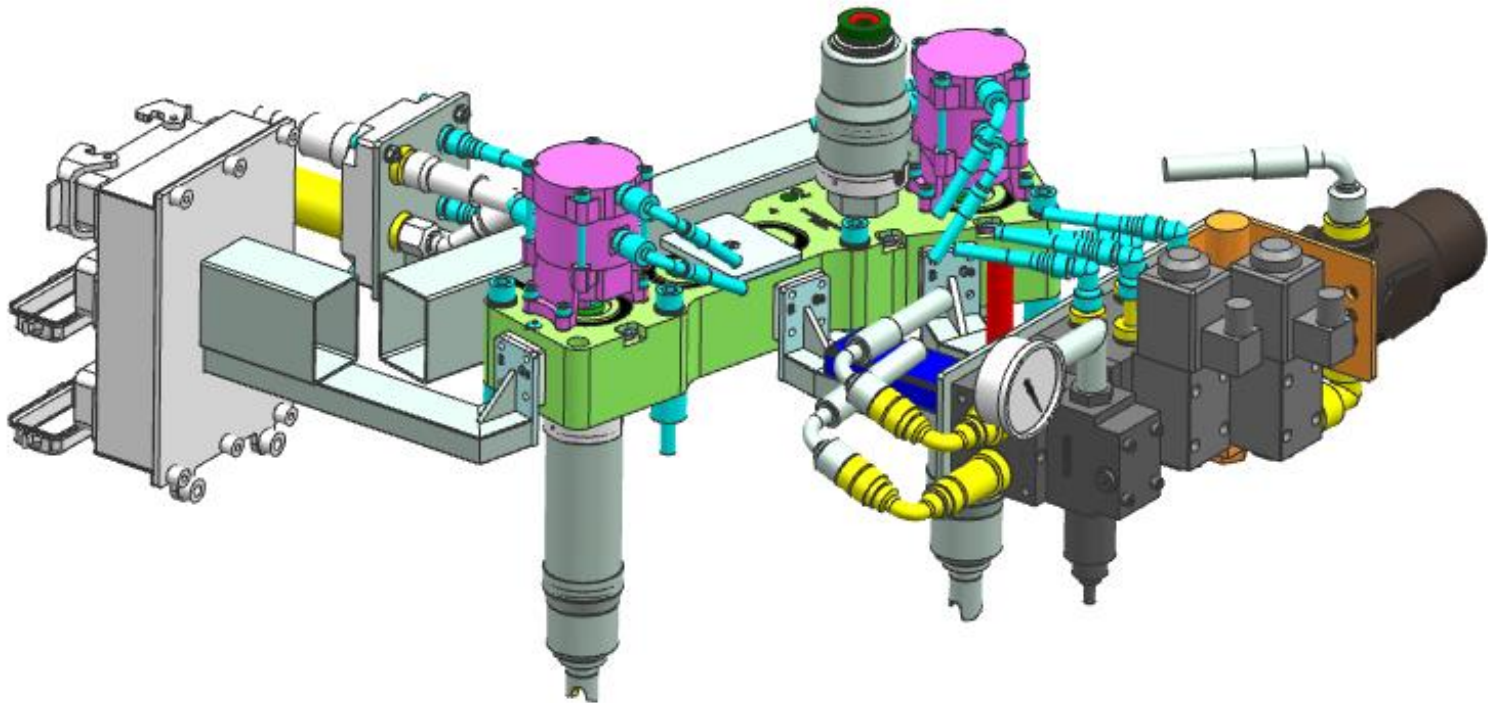


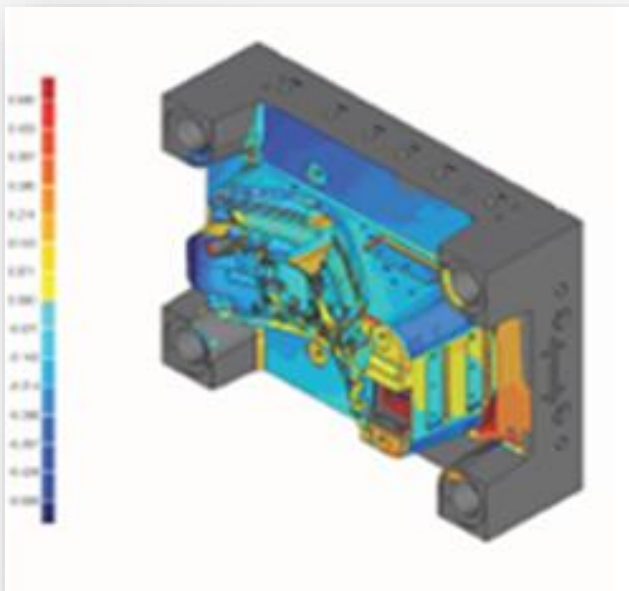
VUES POINCON CIRCUIT 3

VIEW HYDRAULIC SYSTEM MATRIX

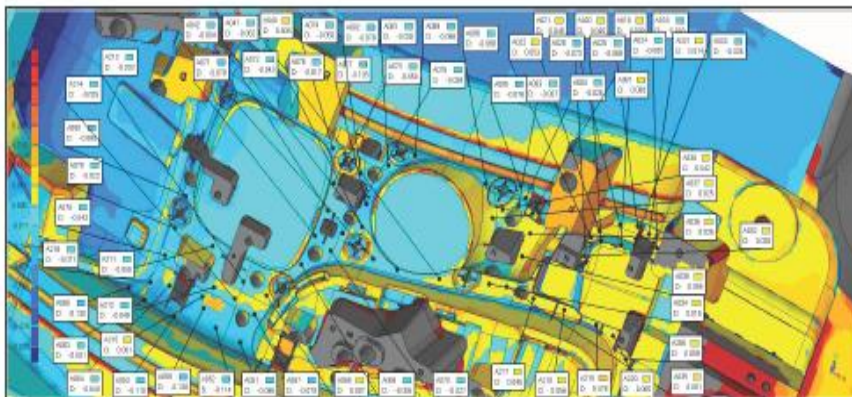


HOT RUNNER SYSTEM





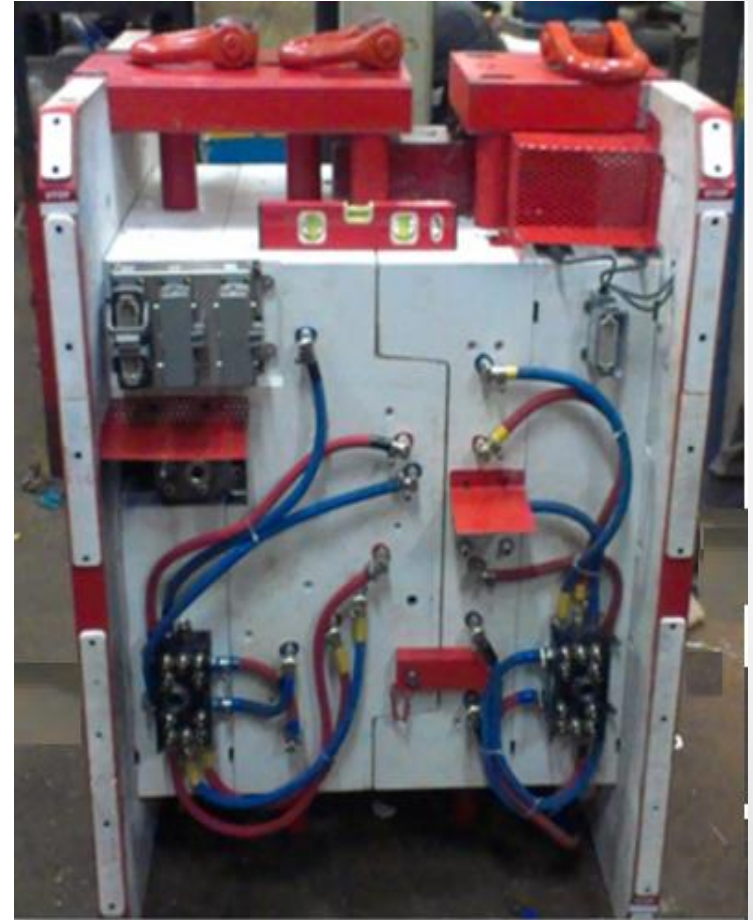
CONTROLE 3D CORE



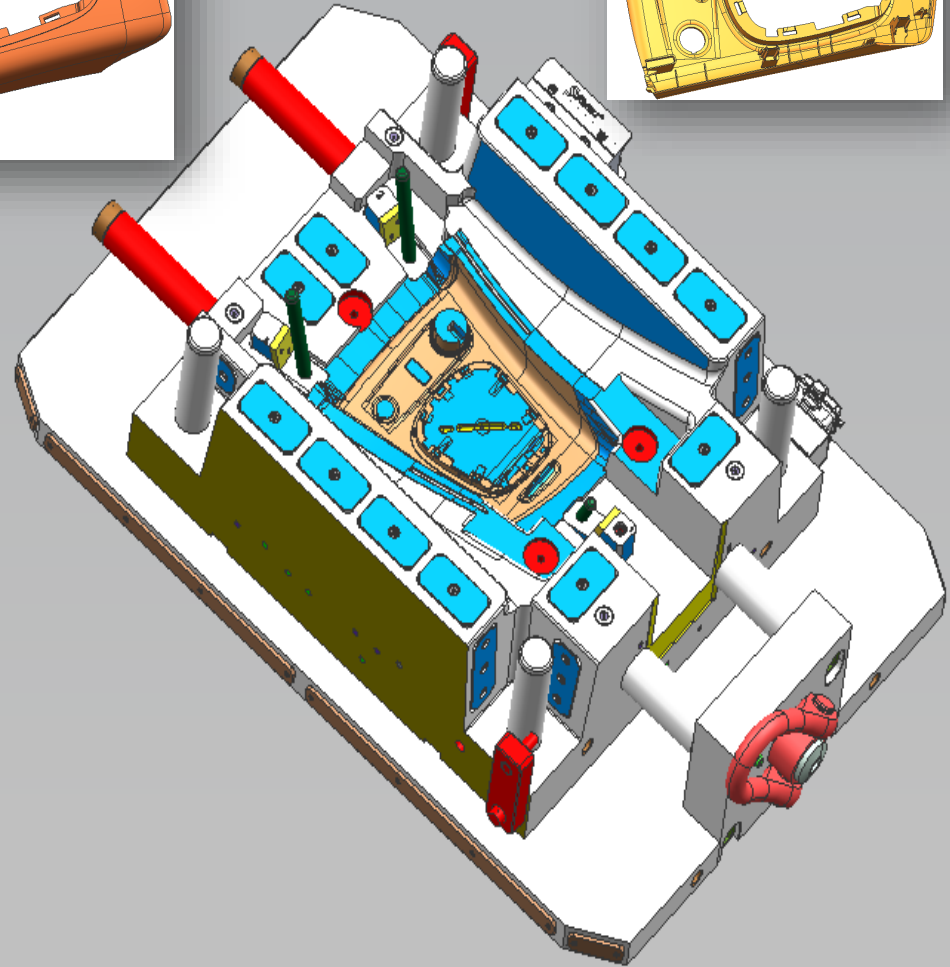
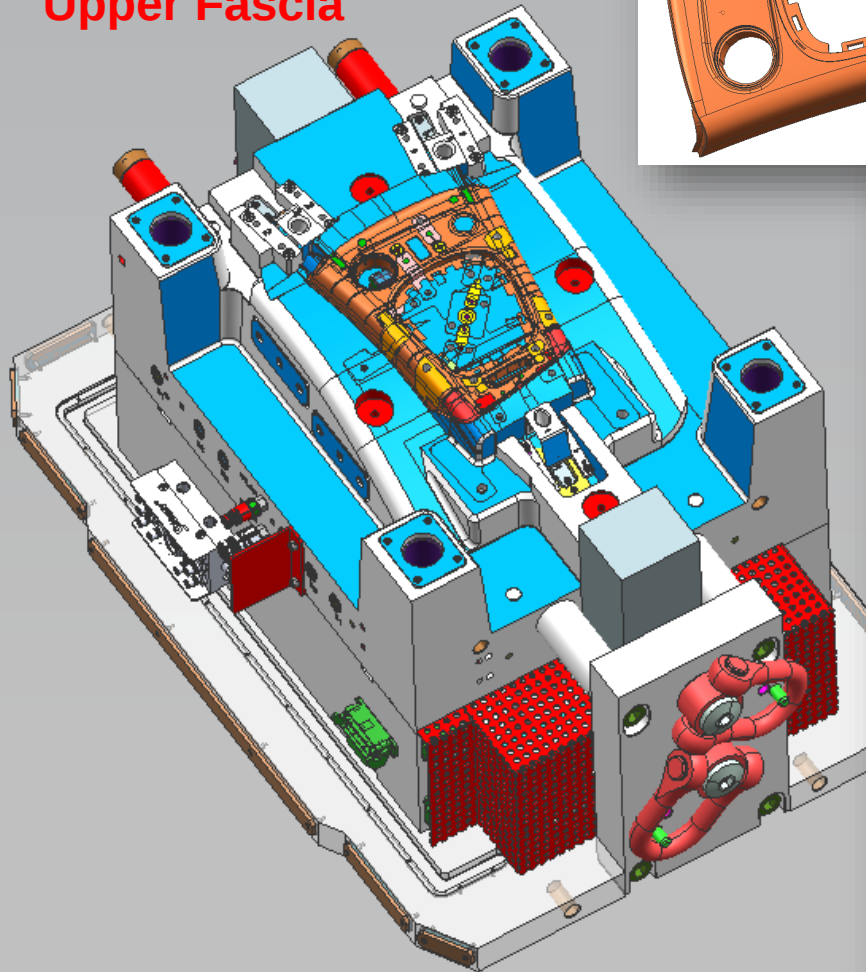
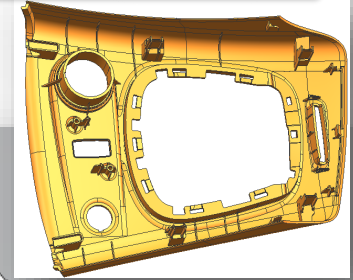
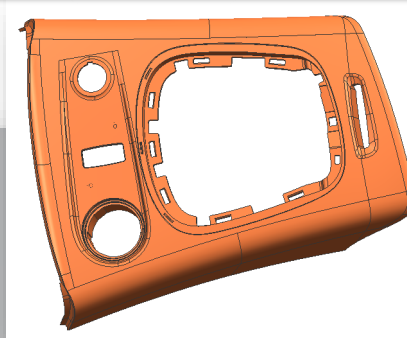
Units: mm

CSYS: World CSYS

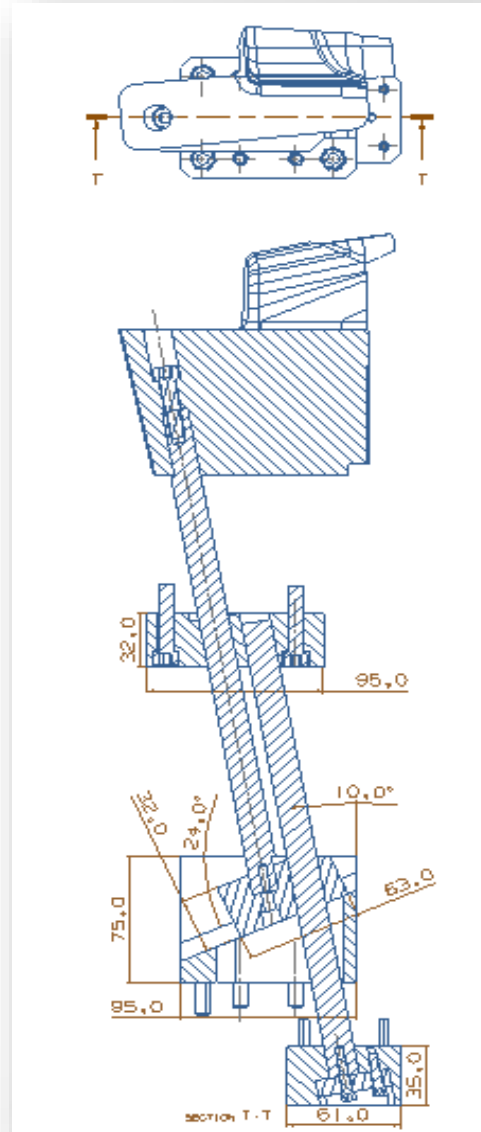
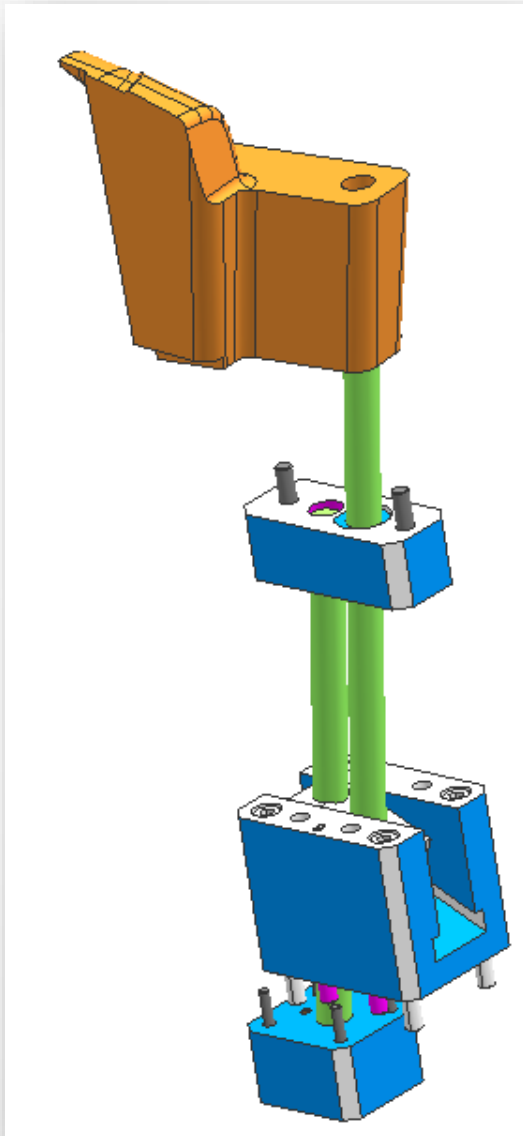
Name	Dev	Upper Tol.	Lower Tol.	Ref X	Ref Y	Ref Z	Dev Radius	Dev X	Dev Y	Dev Z	Test X	Test Y	Test Z	Normal X	Normal Y	Normal Z
A018	-0.016	0.100	-0.100	1235.219	63.657	546.135	1.400	-0.002	-0.003	-0.015	1235.217	63.654	546.130	0.105	0.165	0.981
A019	0.039	0.100	-0.100	1217.435	68.967	549.342	1.400	-0.014	0.006	0.035	1217.421	68.976	549.377	-0.361	0.237	0.902
A020	0.045	0.100	-0.100	1205.661	66.050	545.076	1.400	-0.018	0.006	0.040	1205.663	66.058	545.116	-0.404	0.174	0.896
A021	0.046	0.100	-0.100	1193.965	57.610	540.556	1.400	-0.020	0.003	0.041	1193.945	57.613	540.597	-0.438	0.064	0.897
A022	0.063	0.100	-0.100	1190.539	51.276	539.556	1.400	-0.023	0.007	0.047	1190.515	51.282	539.604	-0.440	0.123	0.890
A024	-0.065	0.100	-0.100	1211.660	56.026	540.451	1.400	0.005	0.064	-0.036	1211.685	56.032	540.443	-0.073	-0.960	0.124
A025	-0.068	0.100	-0.100	1197.677	53.740	537.170	1.400	-0.043	0.051	-0.012	1197.634	53.791	537.156	0.631	-0.754	0.180
A026	-0.073	0.100	-0.100	1193.156	38.257	533.680	1.400	-0.073	-0.050	-0.050	1193.064	38.254	533.671	0.962	0.040	0.124
A031	0.014	0.100	-0.100	1226.959	69.513	544.892	1.400	0.001	0.003	0.014	1226.965	69.515	544.906	0.086	0.179	0.980
A032	0.035	0.100	-0.100	1190.540	39.993	535.815	1.000	-0.016	-0.007	0.031	1190.524	39.986	535.846	-0.462	-0.194	0.871



Upper Fascia

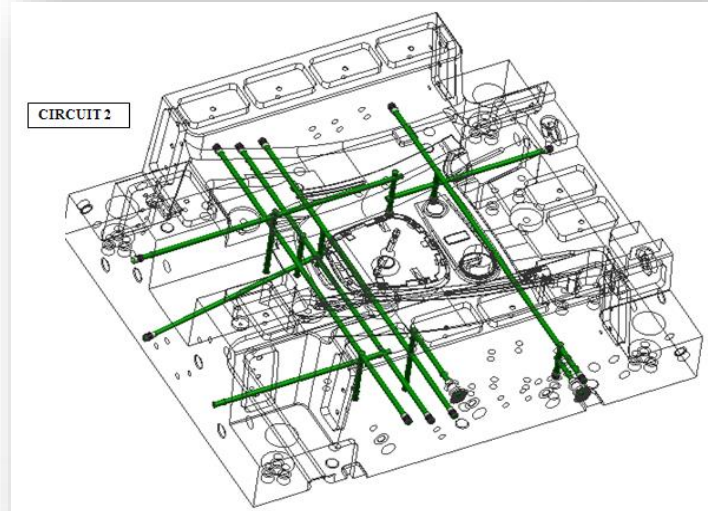
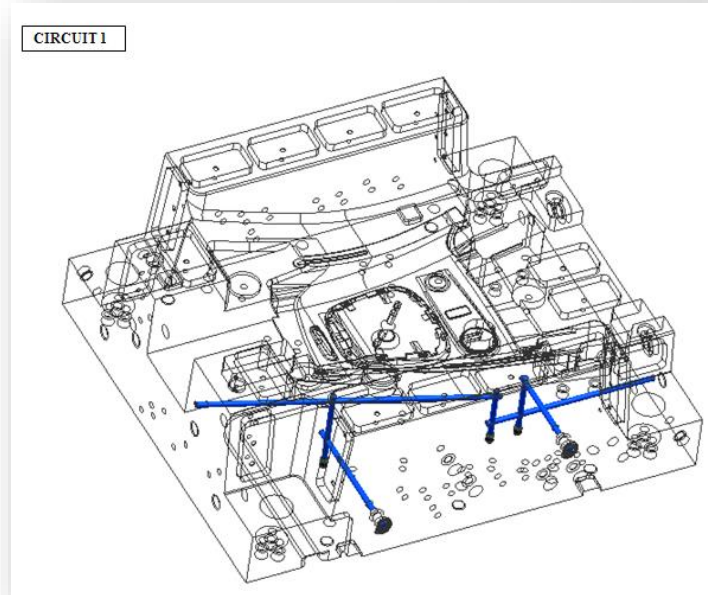
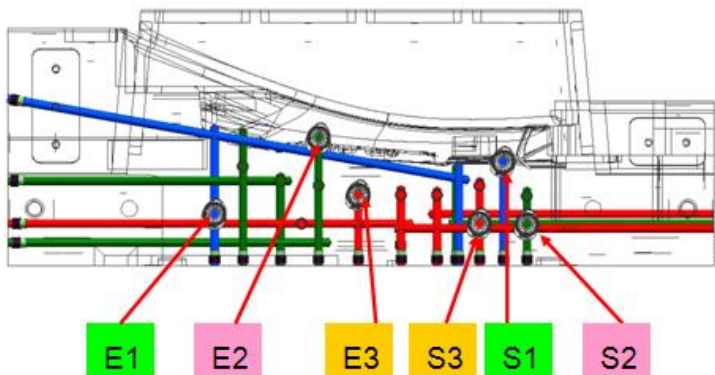
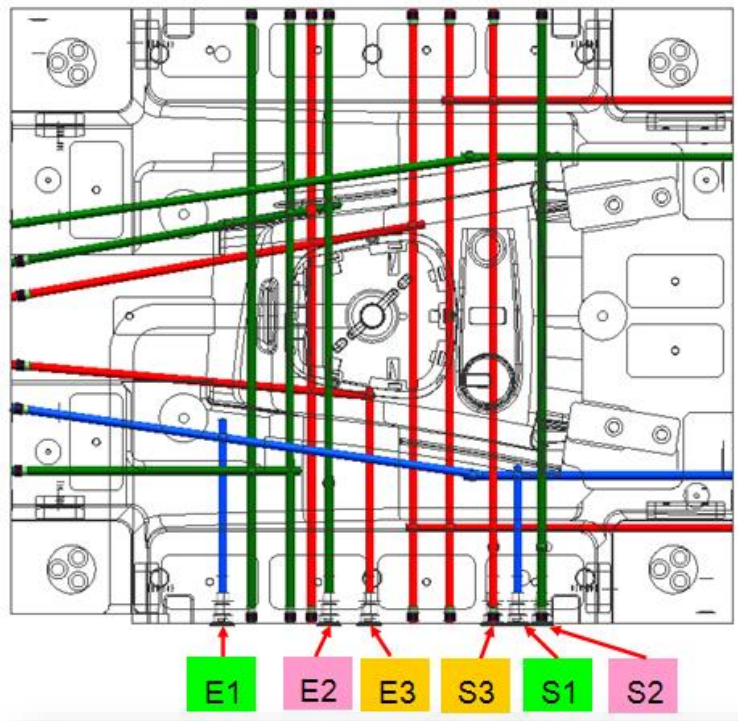


VUES CALES MONTANTES

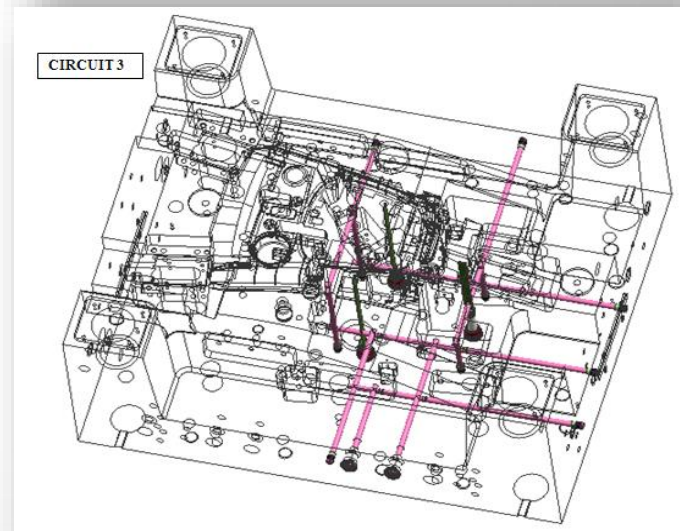
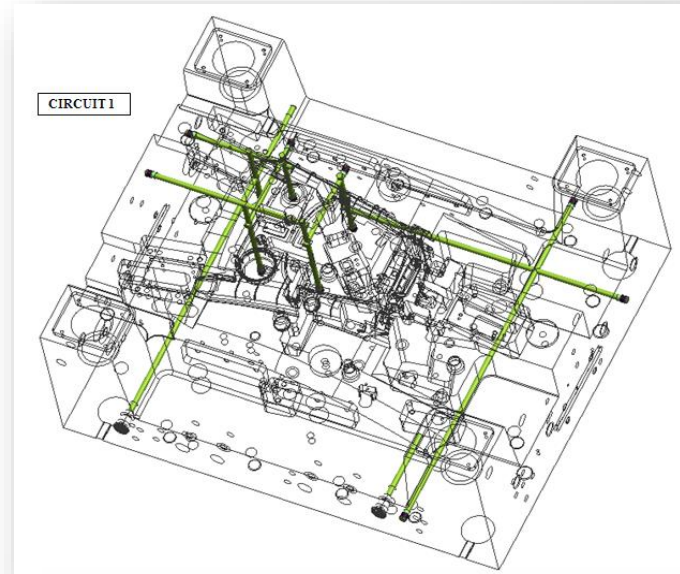
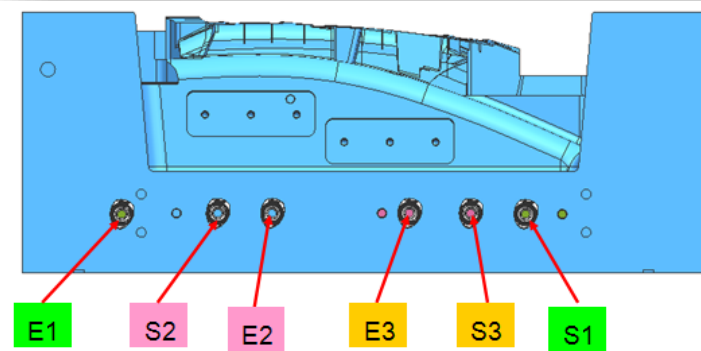
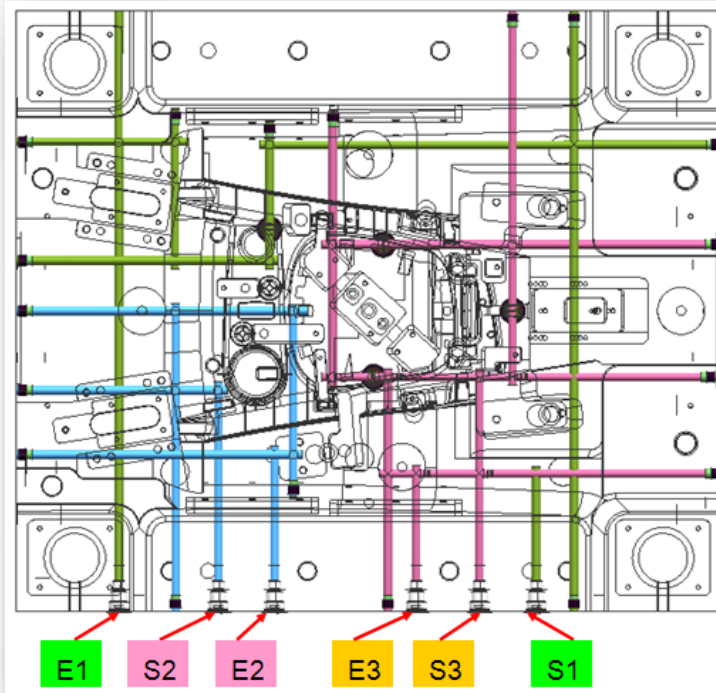


Angle Lifter - 8

OVERVIEW COOLING SYSTEM MATRIX

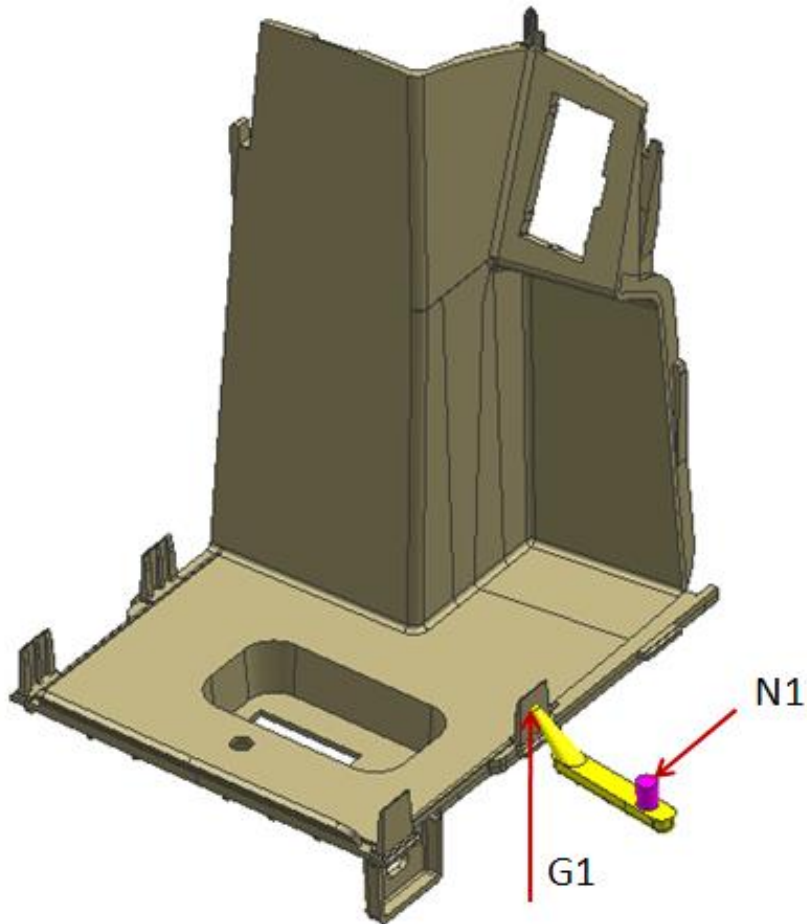


OVERVIEW COOLING SYSTEM PUNCH





CINEMATIC INJECTION



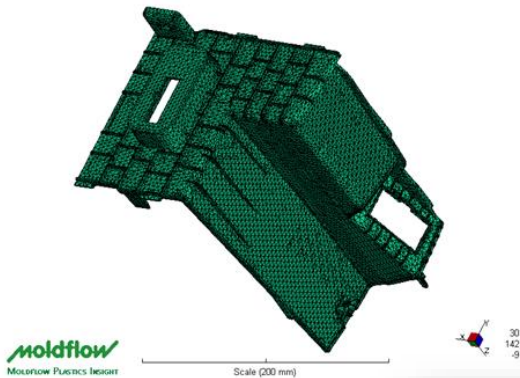
Gate coordinates in car frame

Point	X	Y	Z
N1	1309.91	79.87	338.25
G1	1315.90	134.96	324.83

MESHING.

FUSION MESH WAS DONE.

- Global edge length - 5.5 mm
- Cord Height - 1 mm

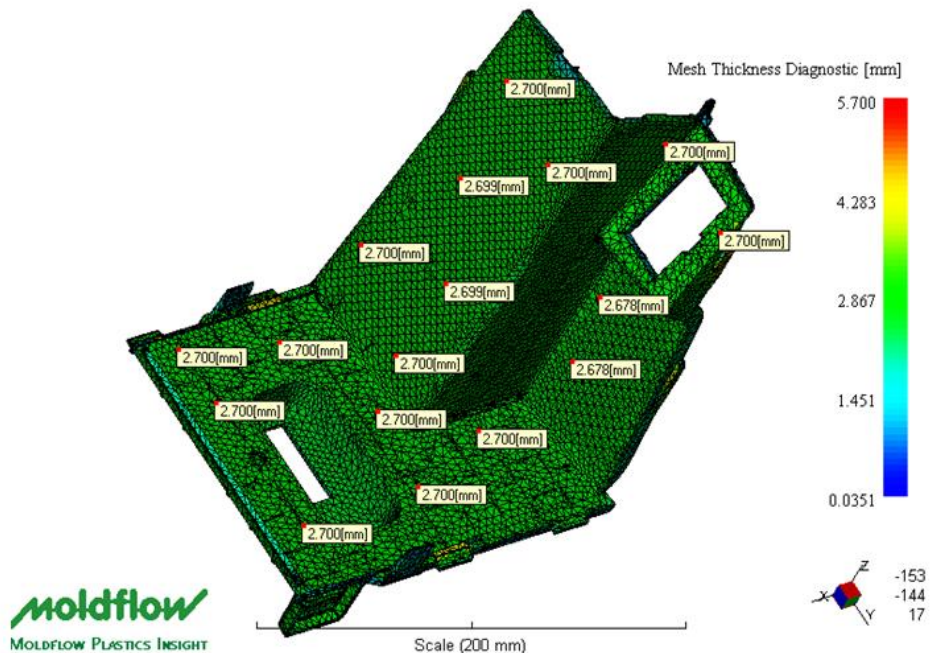


Volume of component – 203.00 cm³

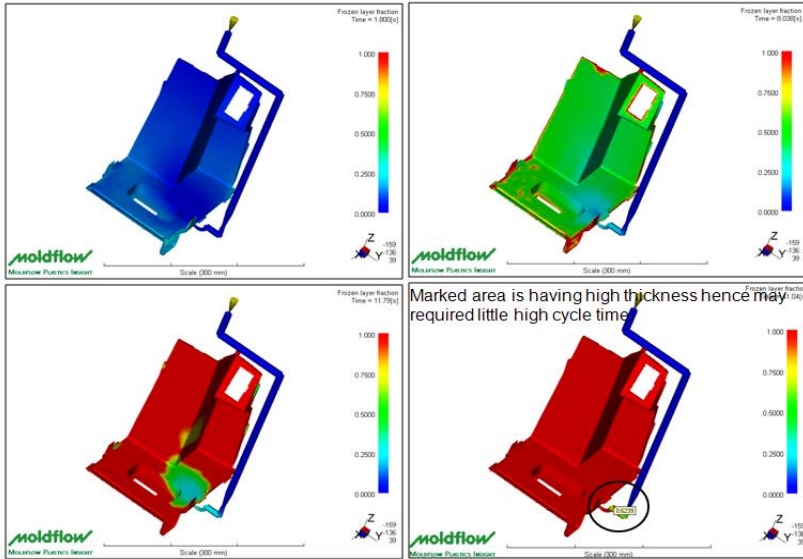
Projected area of component – 286.51 cm²

MOLD FLOW

THICKNESS DIAGNOSTICS

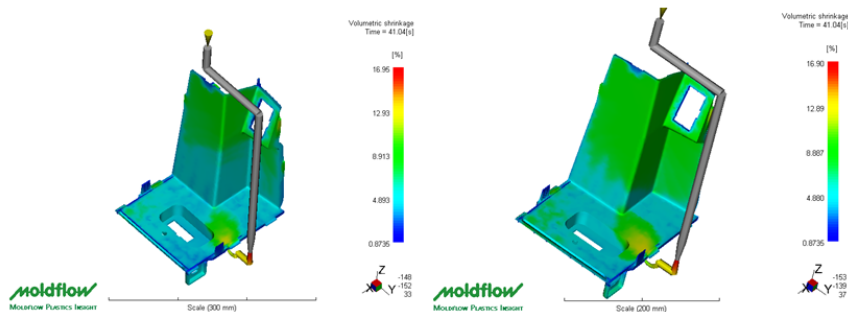


FROZEN LAYER FRACTION.



VOLUMETRIC SHRINKAGE.

- Note this values should not be used for mold cutting .Please refer Material data sheet for material shrinkage. Volumetric shrinkage should be uniform across the part. To reduce warpage it should be less then recommended maximum value for the material Volumetric shrinkage for isotropic 3D Chunky part 3 times linear shrinkage for transversely isotropic material in chunky part volumetric shrinkage =Parallel shrinkage + 2 times perpendicular shrinkage. Higher value represents expansion rather then shrinkage generally due to over packing Higher volumetric shrinkage can result in internal voids when parts get cooled.

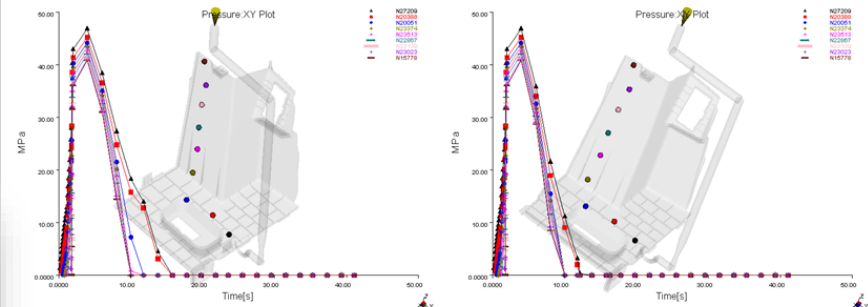


Decay Profile.

Decay to knee profile.

MOLD FLOW

PRESSURE XY PLOT.

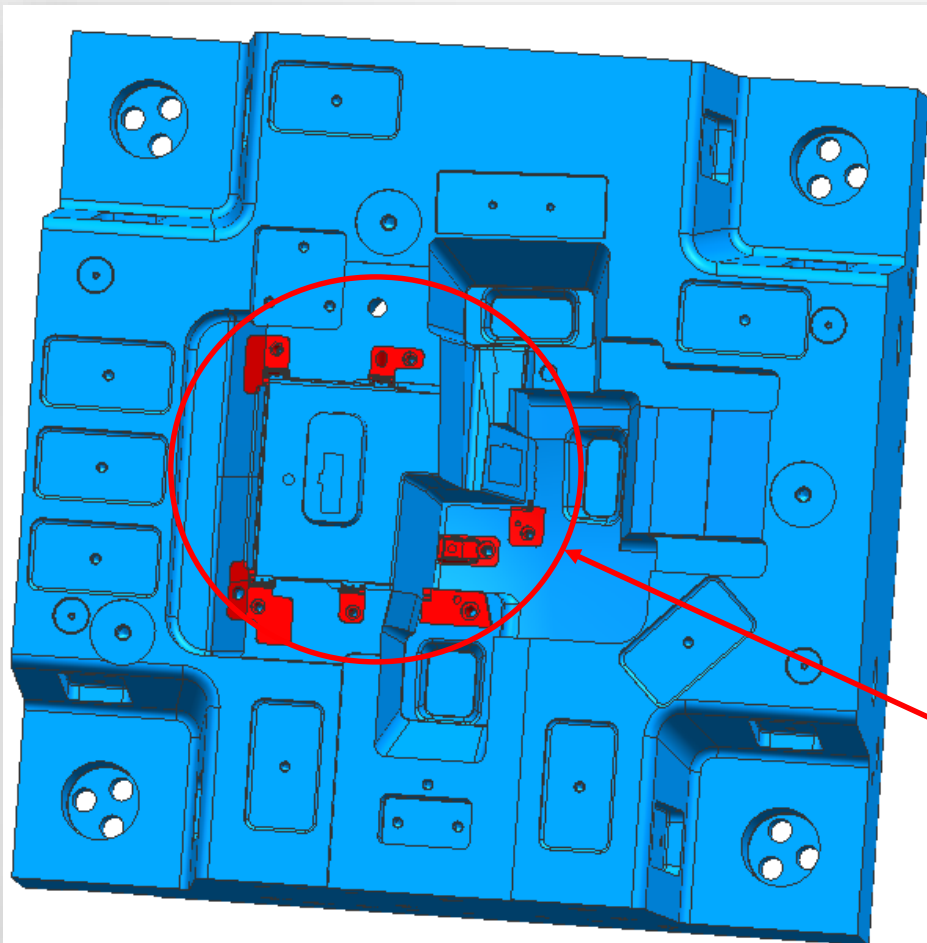


Decay Profile.

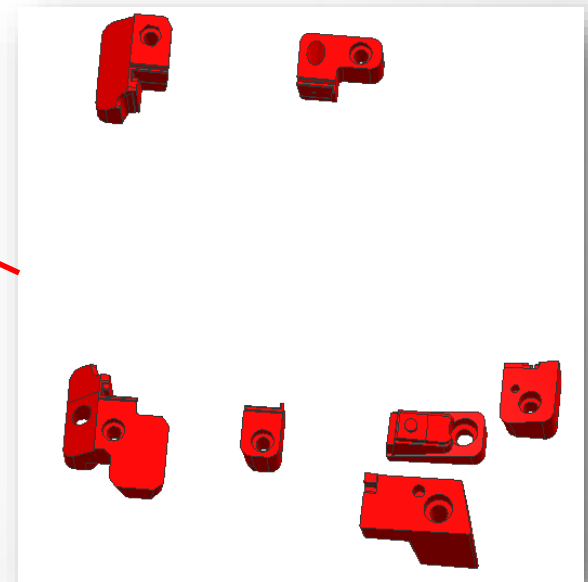
Decay to knee profile.

This plot shows how pressure across the article varies by varying packing profile this result can also be used to determine the area where the article is over packed

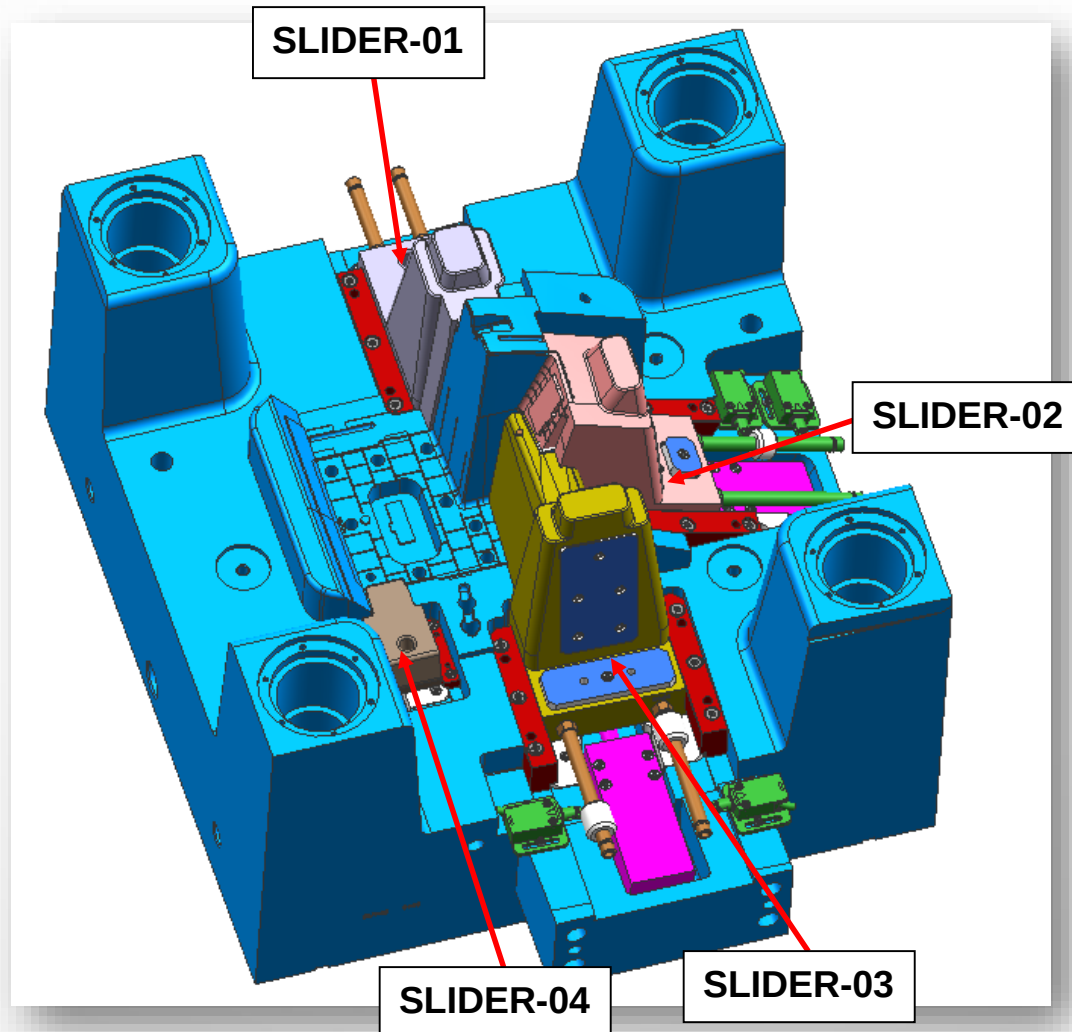
INSERTS MATRIX

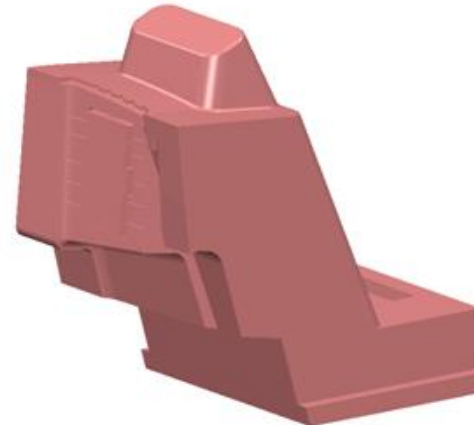
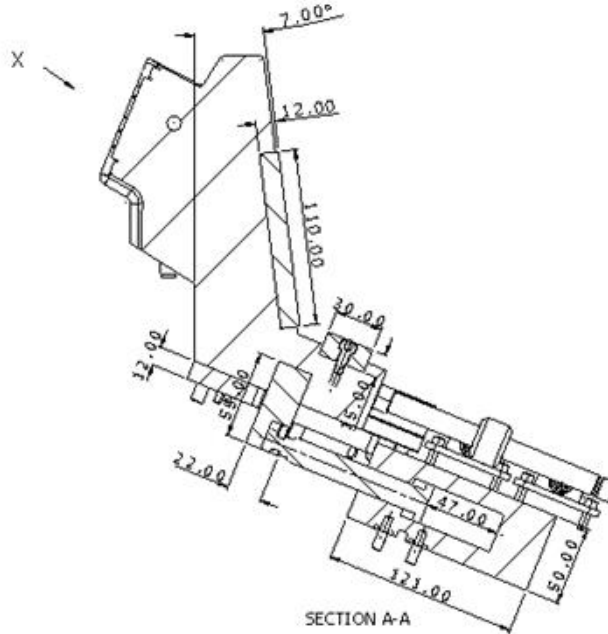
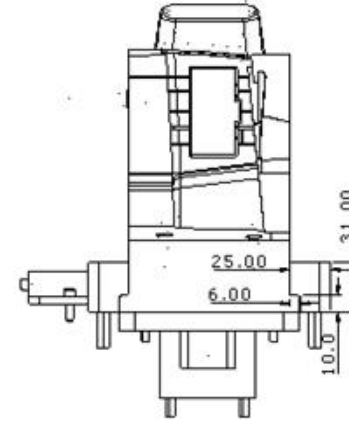
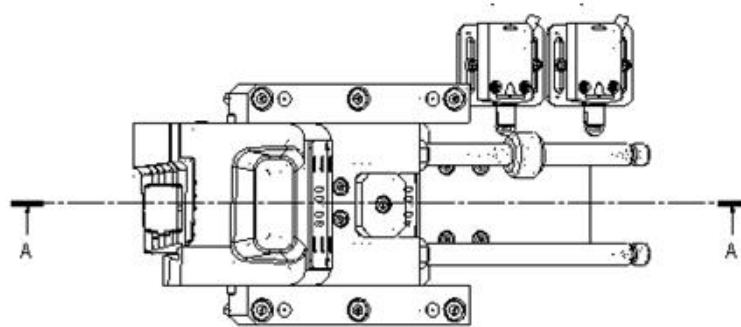


7 inserts like to show

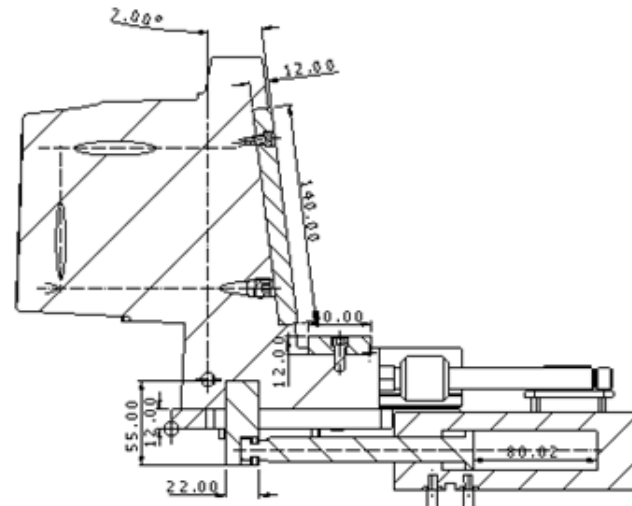
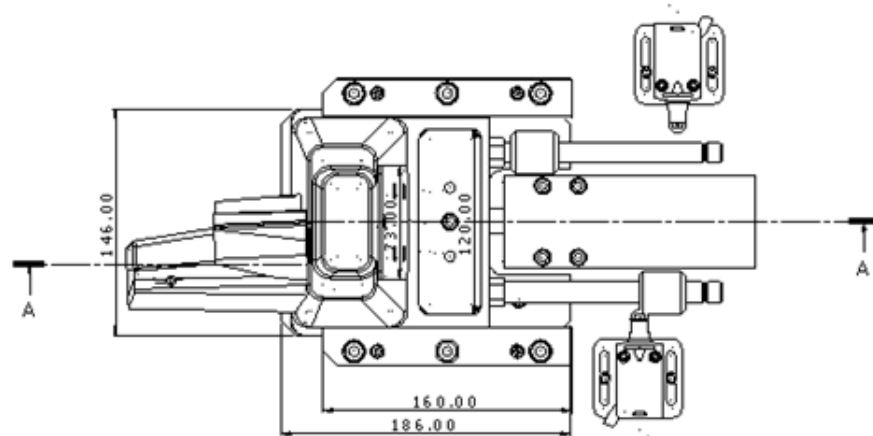
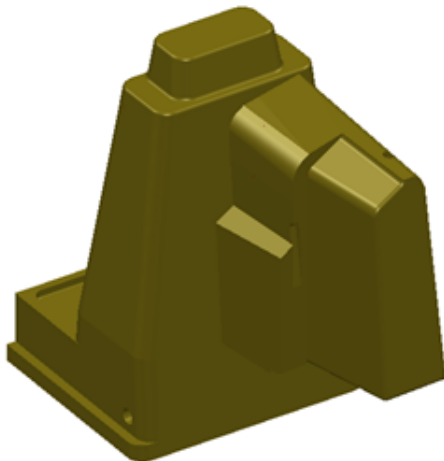
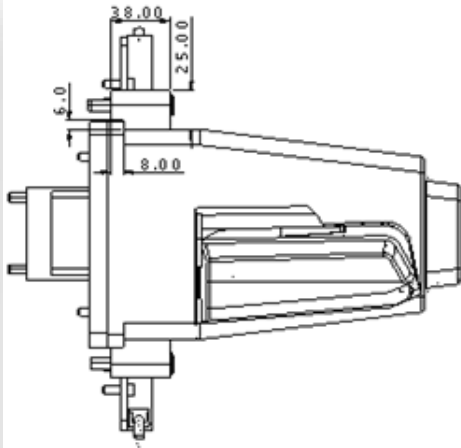


VIEW MOVEMENT KERNELS

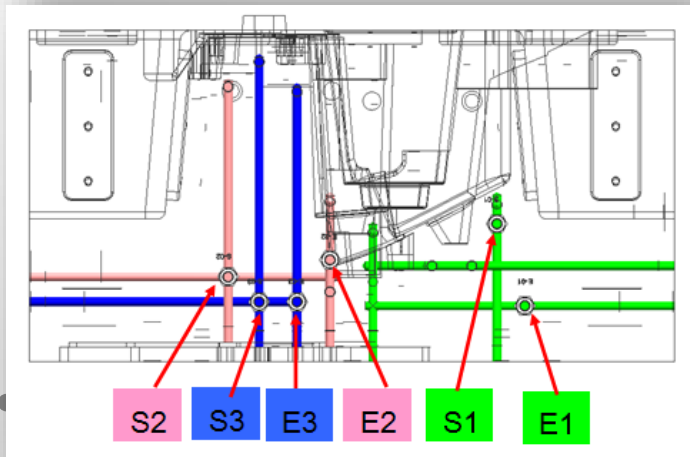
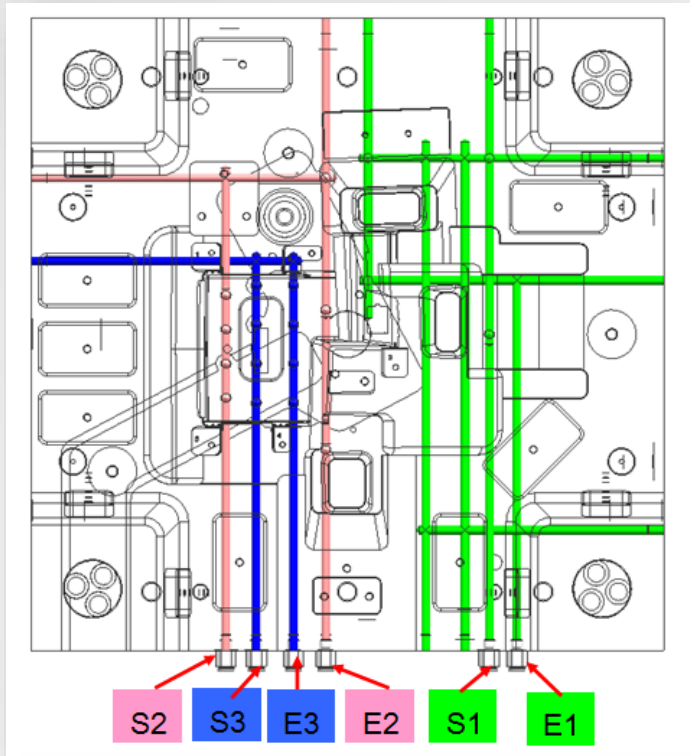




SLIDE 3

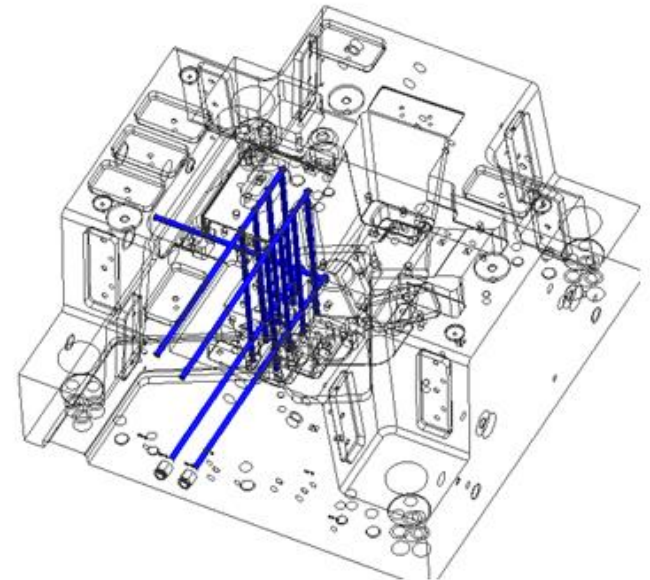


SECTION A-A



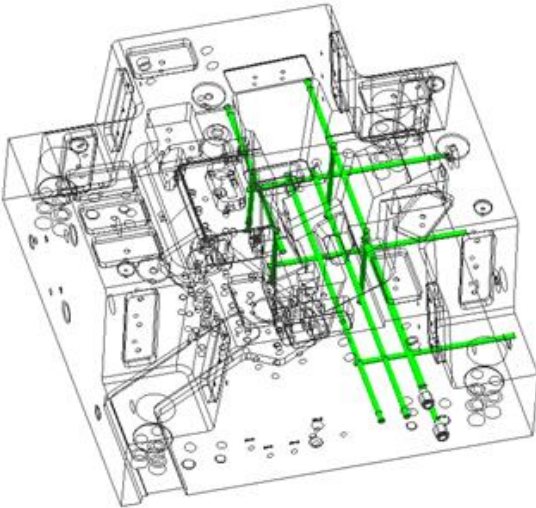
OVERVIEW COOLING SYSTEM MATRIX

CIRCUIT 3

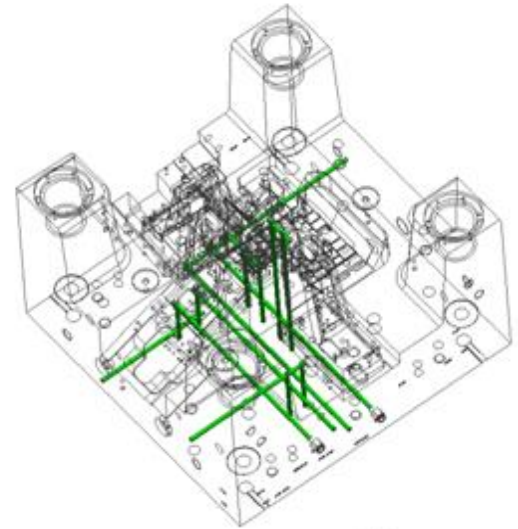


VUES MATRICE CIRCUIT 1 ET 2

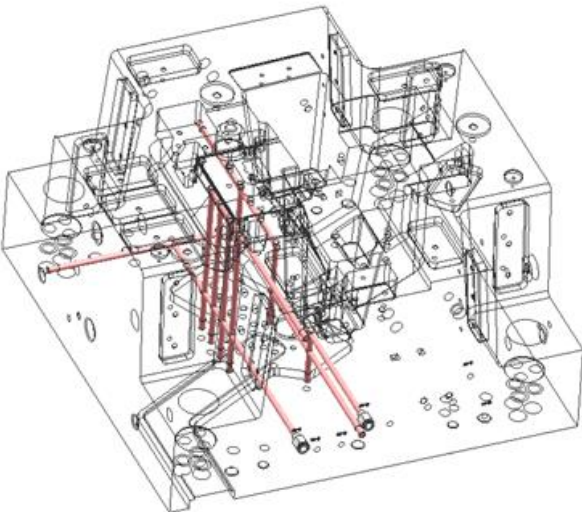
CIRCUIT 1



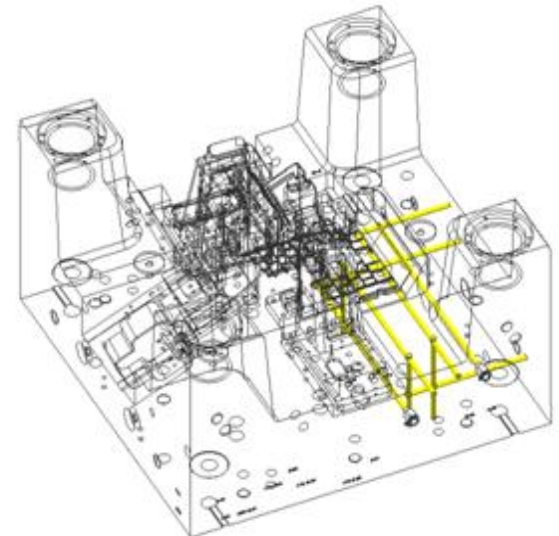
CIRCUIT 1



CIRCUIT 2

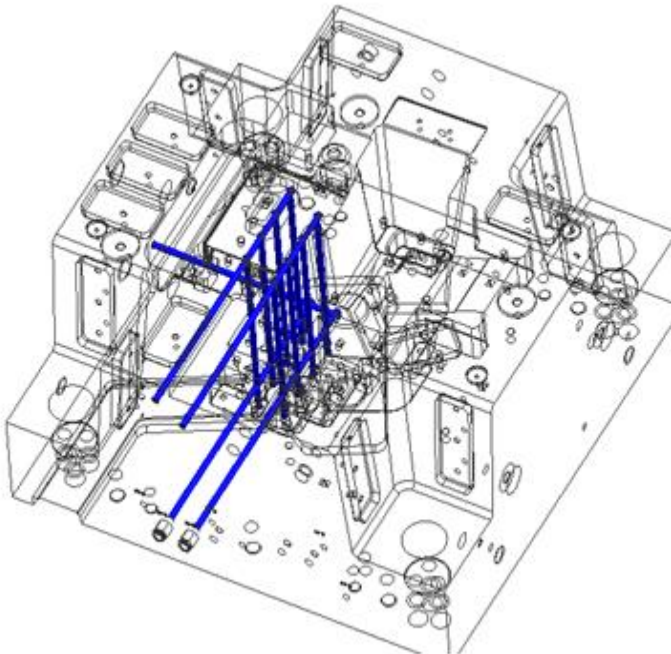


CIRCUIT 2

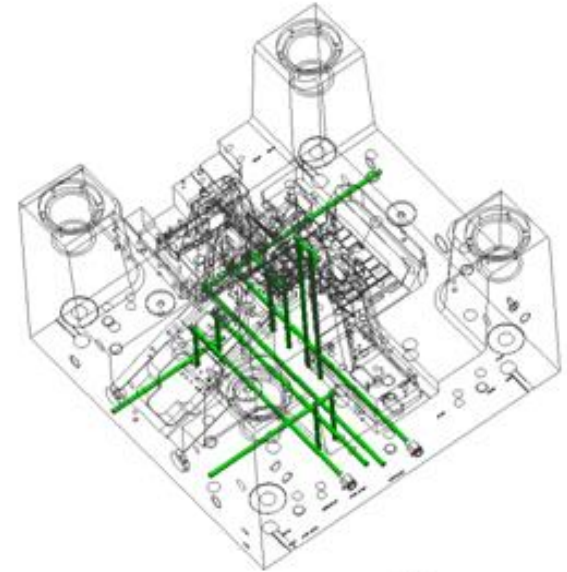


VUES MATRICE CIRCUIT 3

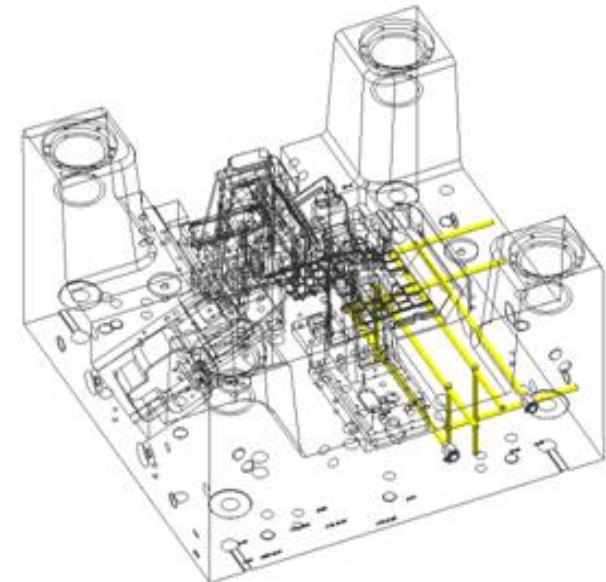
CIRCUIT 3



CIRCUIT 1



CIRCUIT 2



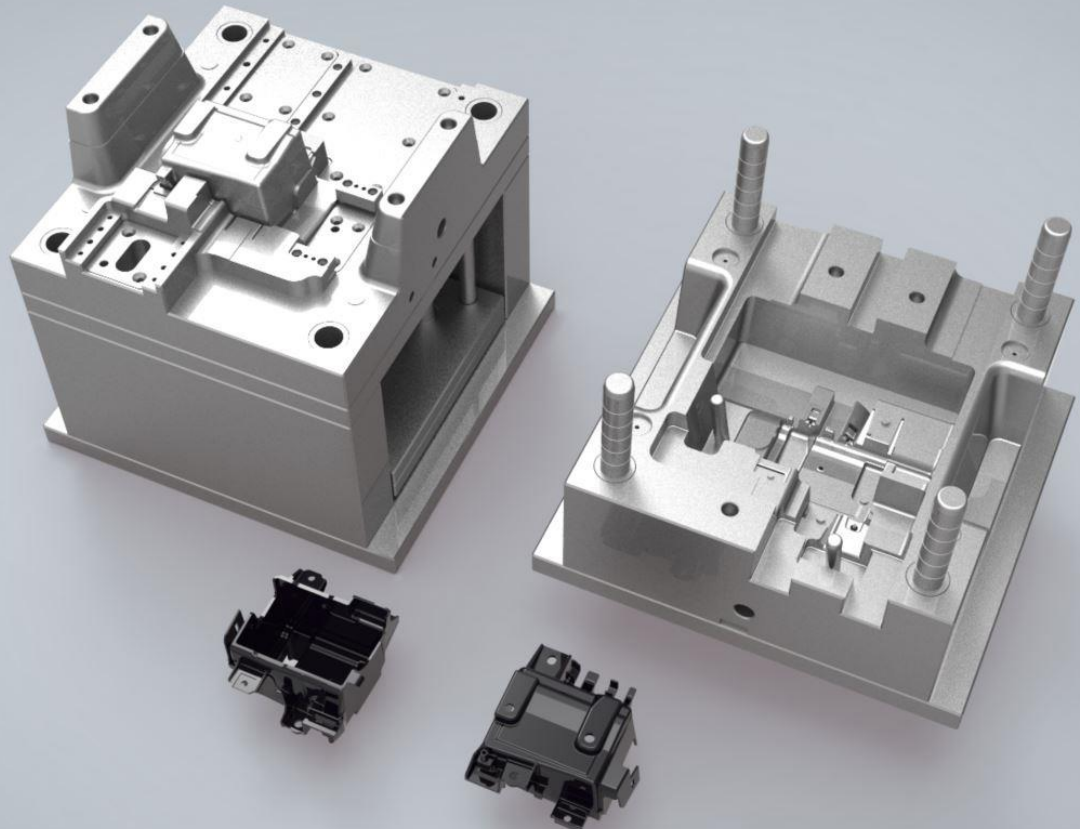
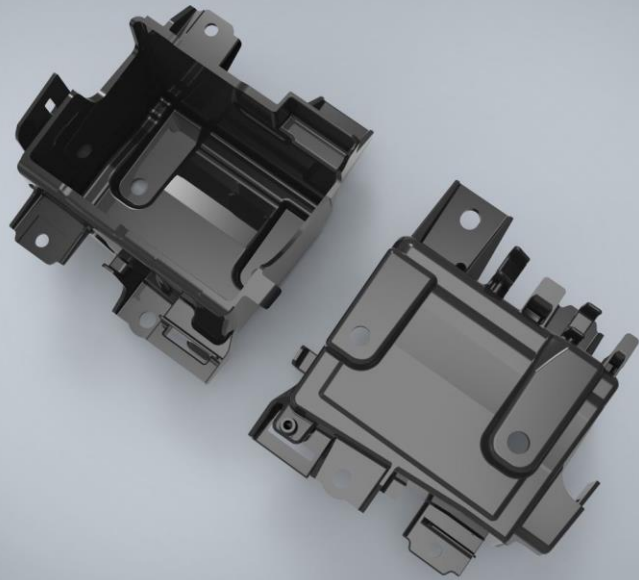
Project – KTEL

OEM – HONDA MOTORCYCLE & SCOOTERS INDIA

Tier-1 – Premier Indoplast

Part : BOX BATTERY
Plastic Material : PPCP

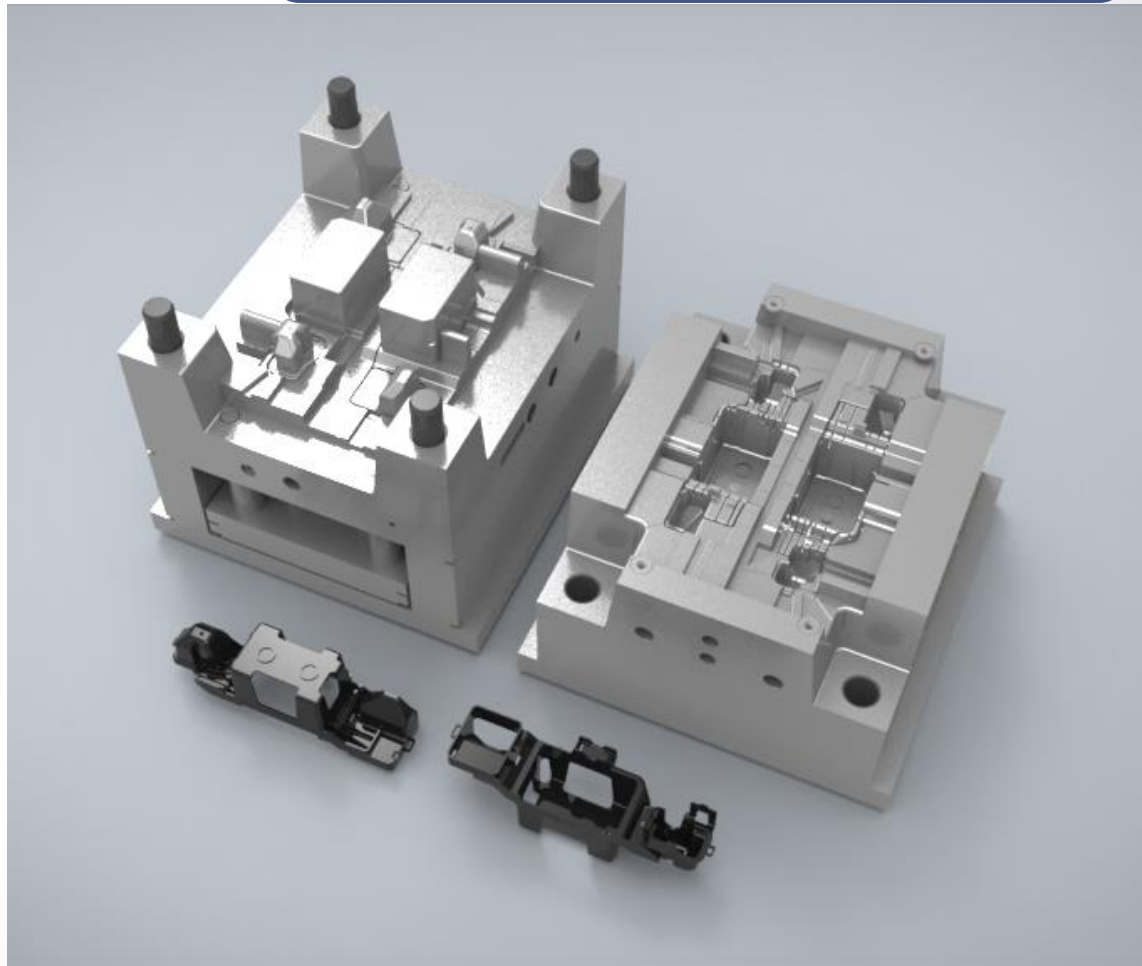
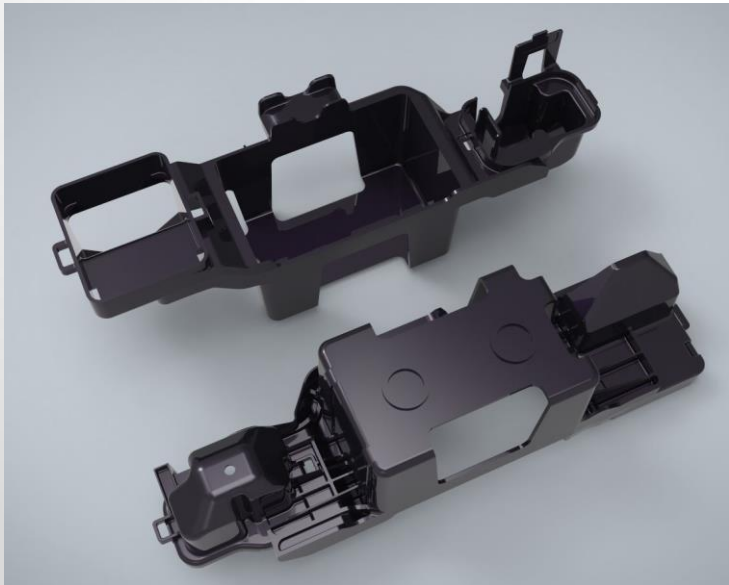
MOULD SIZE : 450 X 450 X 400
MOULDING M/C : 105 T



Project – N/A
OEM – HMSI
Tier-1 – Premier Indoplast

Part : CASE BATTERY
Plastic Material : PPCP

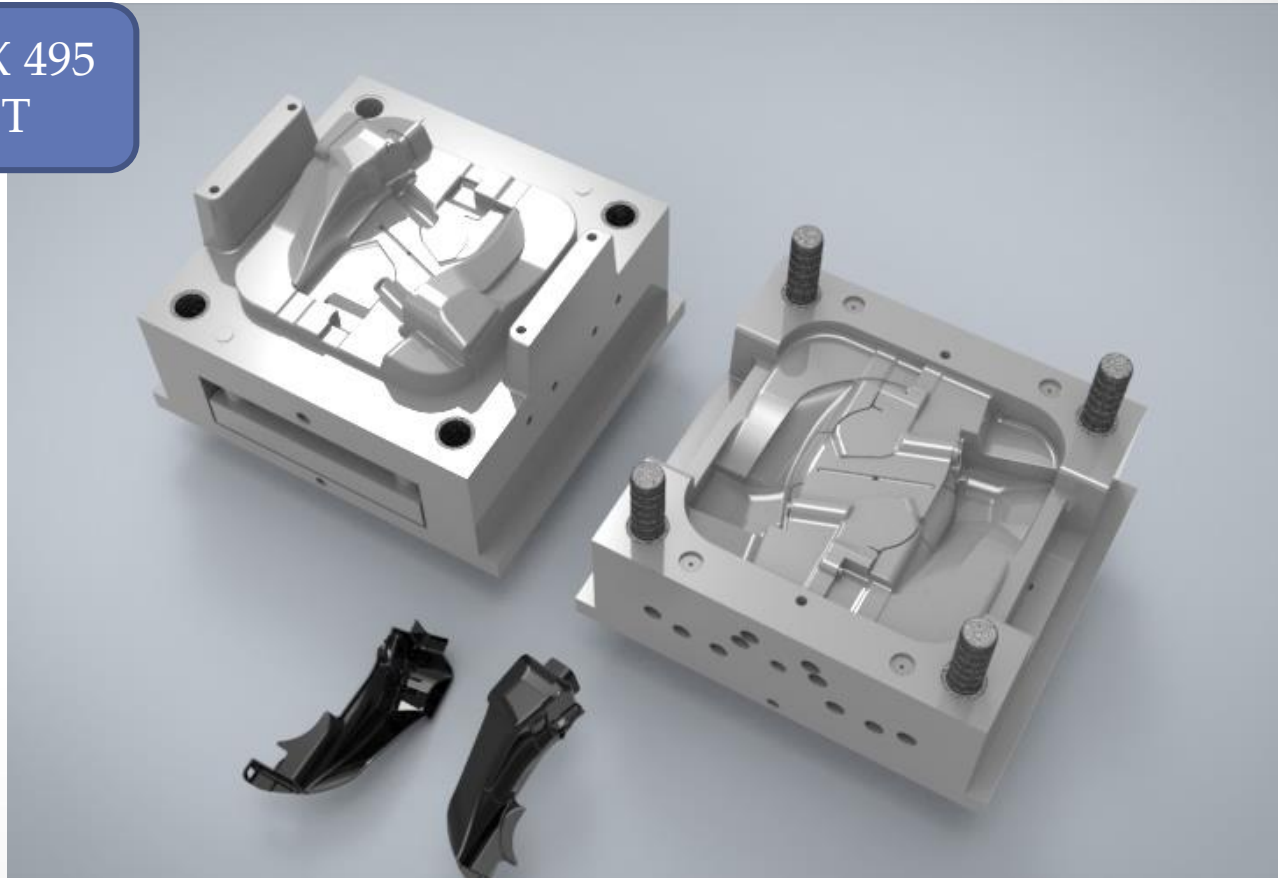
MOULD SIZE : 650 X 550 X 650
MOULDING M/C : 180 T



Project – NA
OEM – HMSI
Tier-1 – Premier Indoplast

Part : COVER SEAT LOCK CABLE
Plastic Material : PPCP

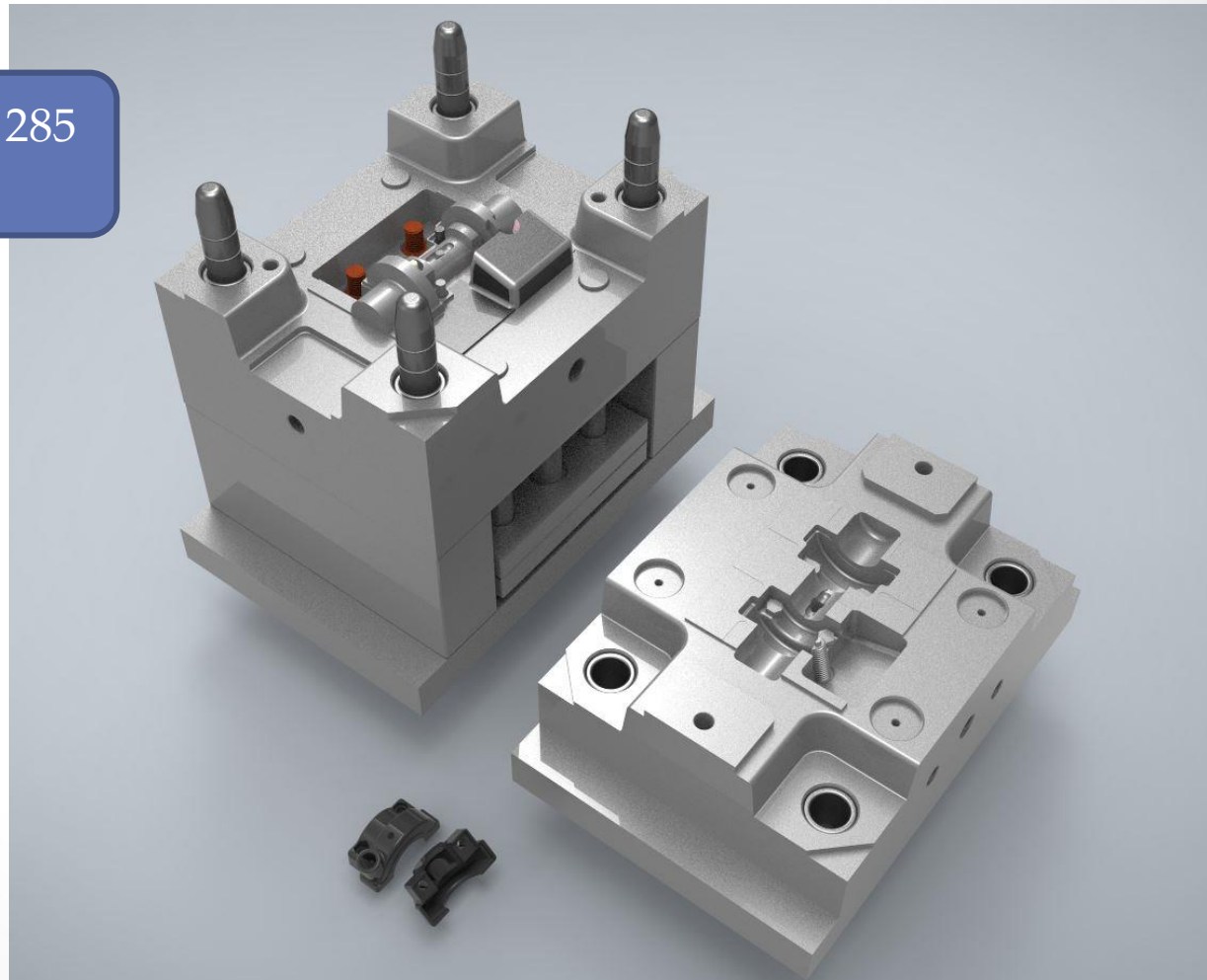
MOULD SIZE : 500 X 450 X 495
MOULDING M/C : 180 T



Project – NA
OEM – HMSI
Tier-1 – Premier Indoplast

Part : E HOUSING
Plastic Material : PPCP

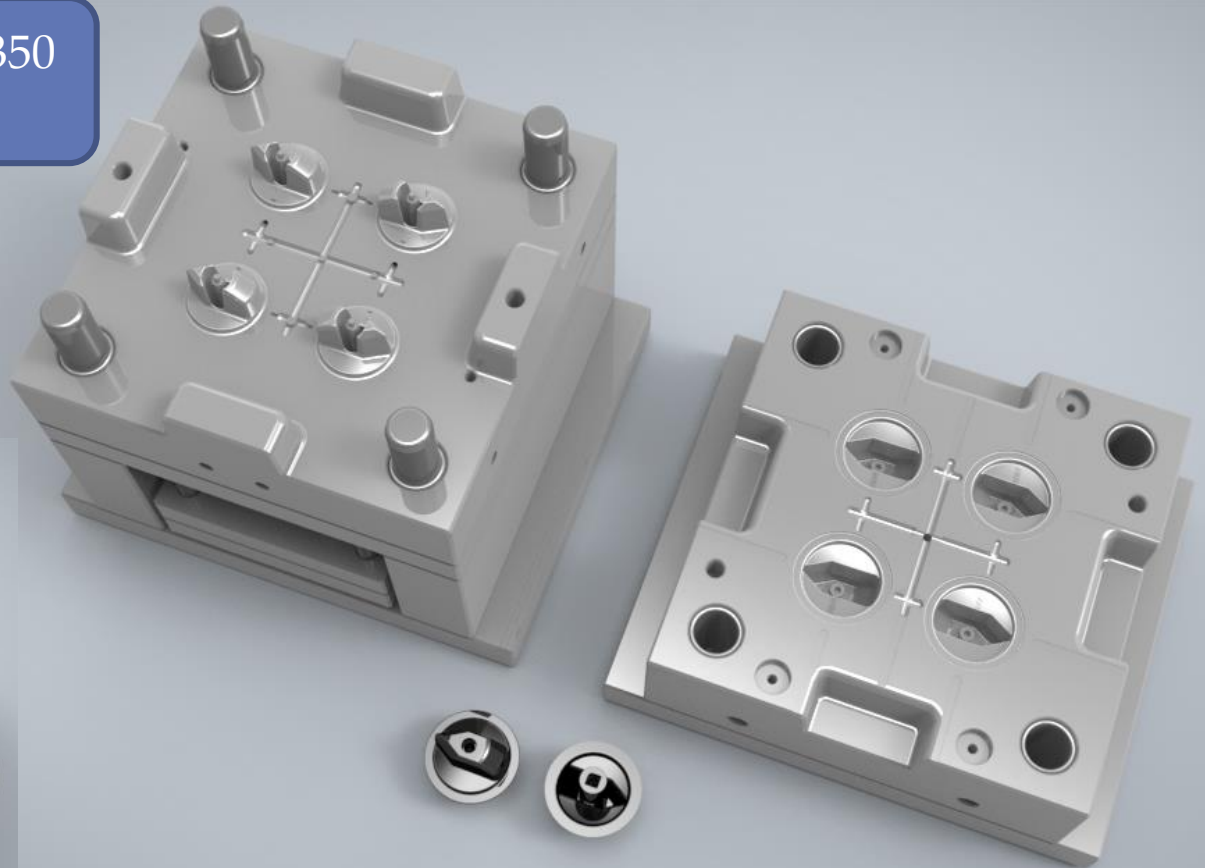
MOULD SIZE : 346 X 246 X 285
MOULDING M/C : 80T



Project – NA
OEM – HMSI
Tier-1 – Premier Indoplast

Part : FUEL COCK
Plastic Material : PPCP

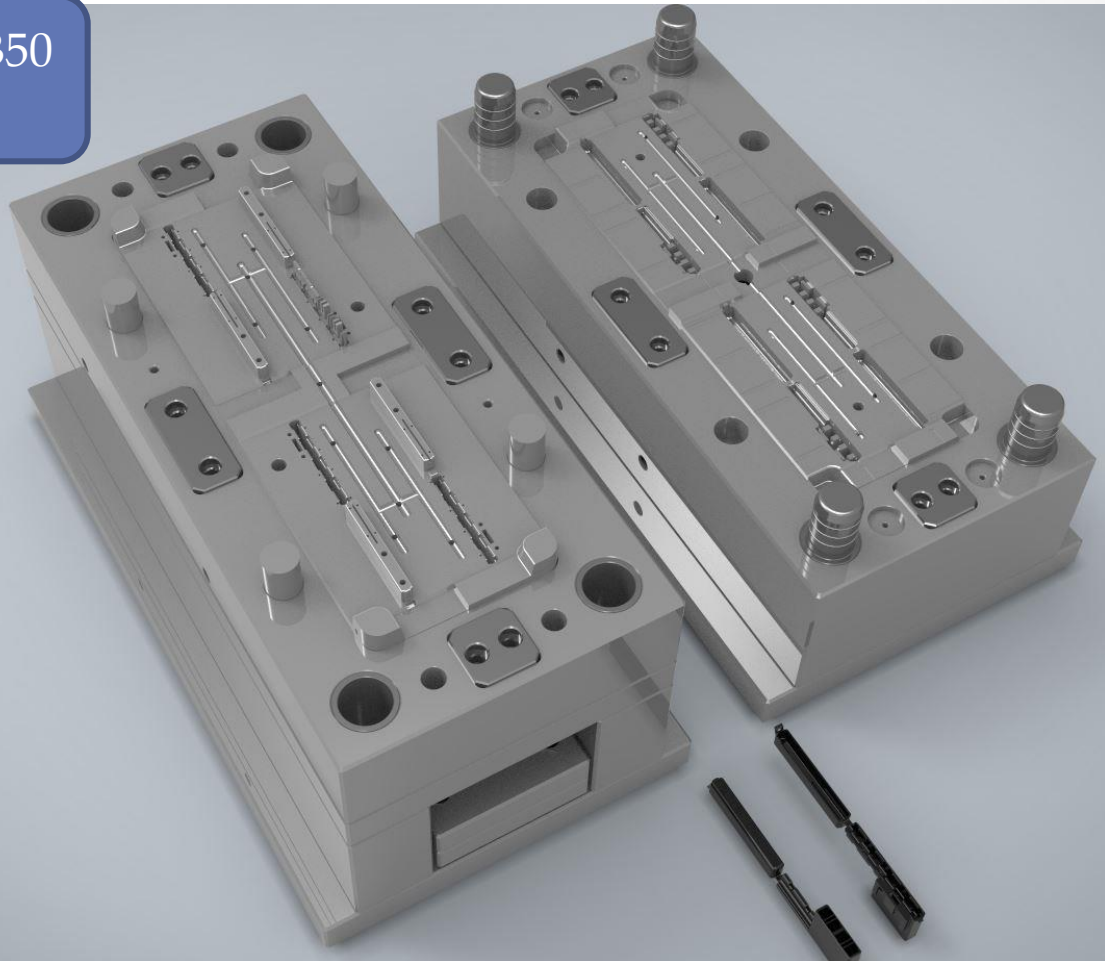
MOULD SIZE : 296 X 246 X 350
MOULDING M/C : 100 T



Project – NA
OEM – HMSI
Tier-1 – Premier Indoplast

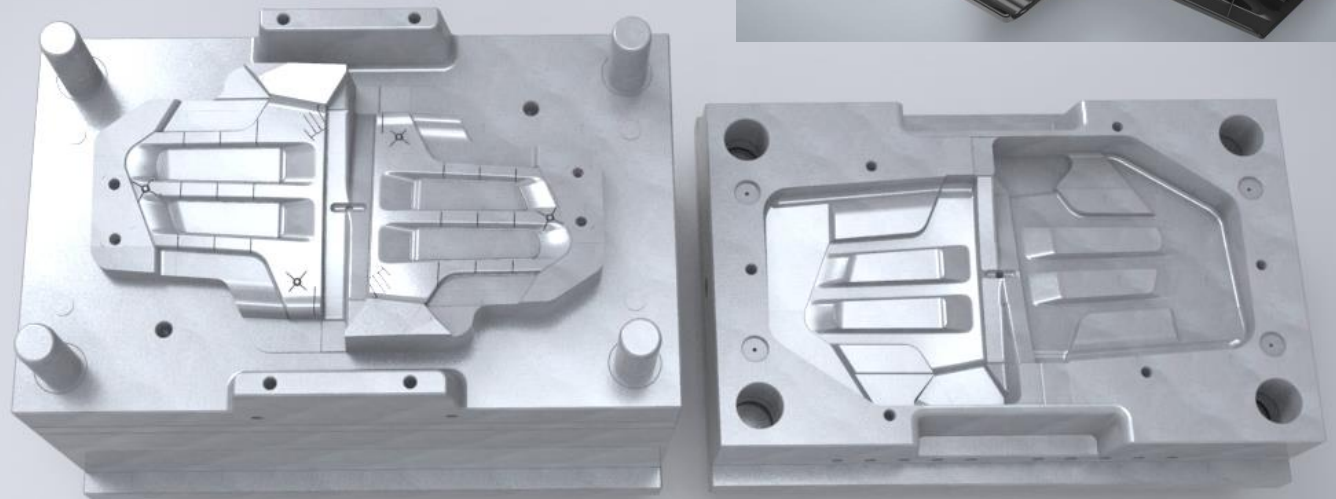
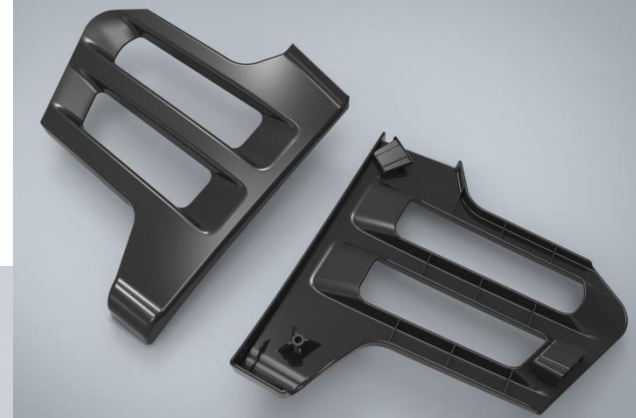
Part : FUSE BOX
Plastic Material : PPCP

MOULD SIZE : 296 X 246 X 350
MOULDING M/C : 180 T



Project – KTEL
OEM – HMSI
Tier-1 – Premier Indoplast

Part : GUARD B SAREE
Plastic Material : PPCP



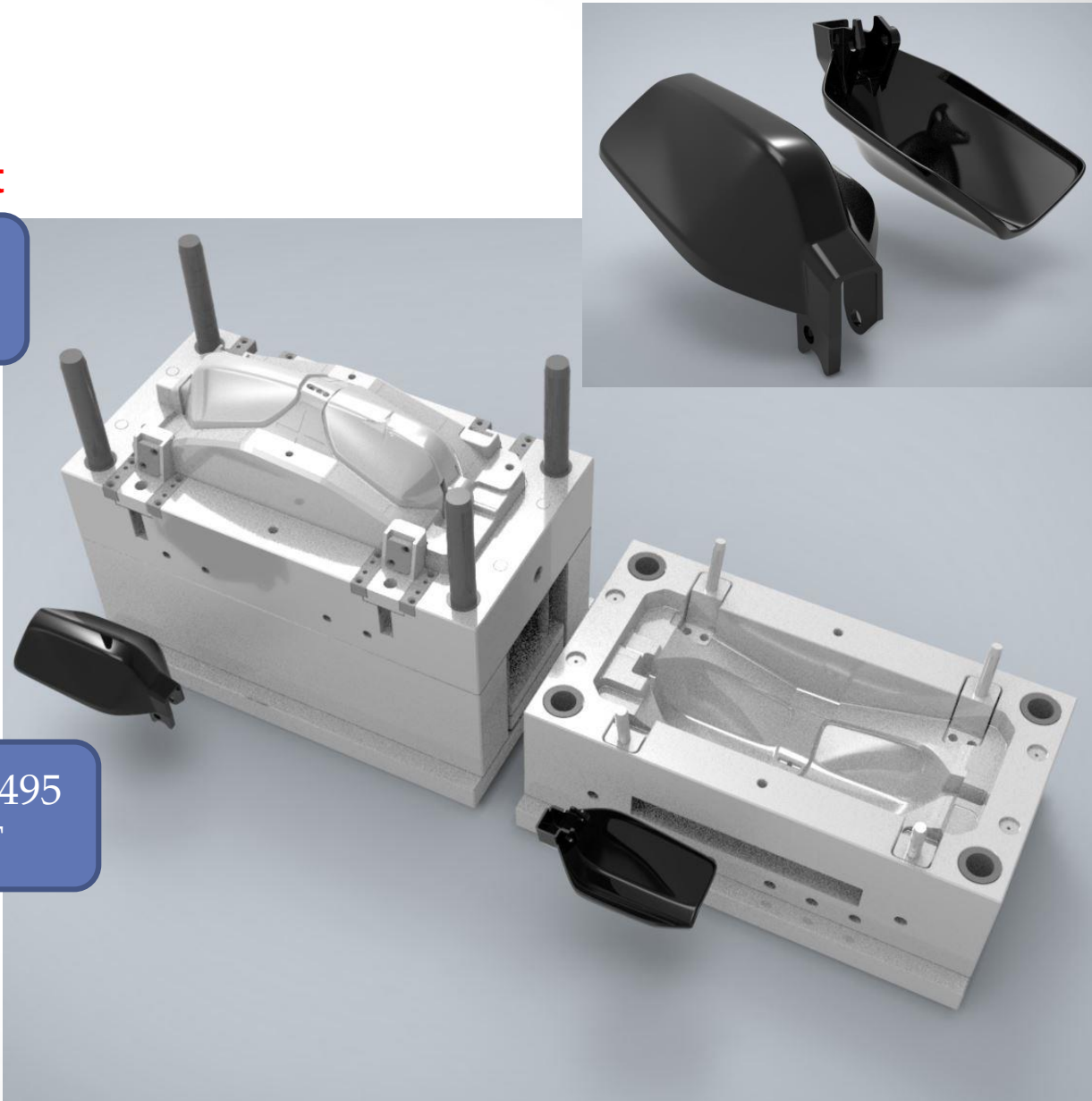
MOULD SIZE : 546 X 446 X 450
MOULDING M/C : 180 T



Project – NA
OEM – HMSI
Tier-1 – Premier Indoplast

Part : KNUCKLE GUARD
Plastic Material : PPCP

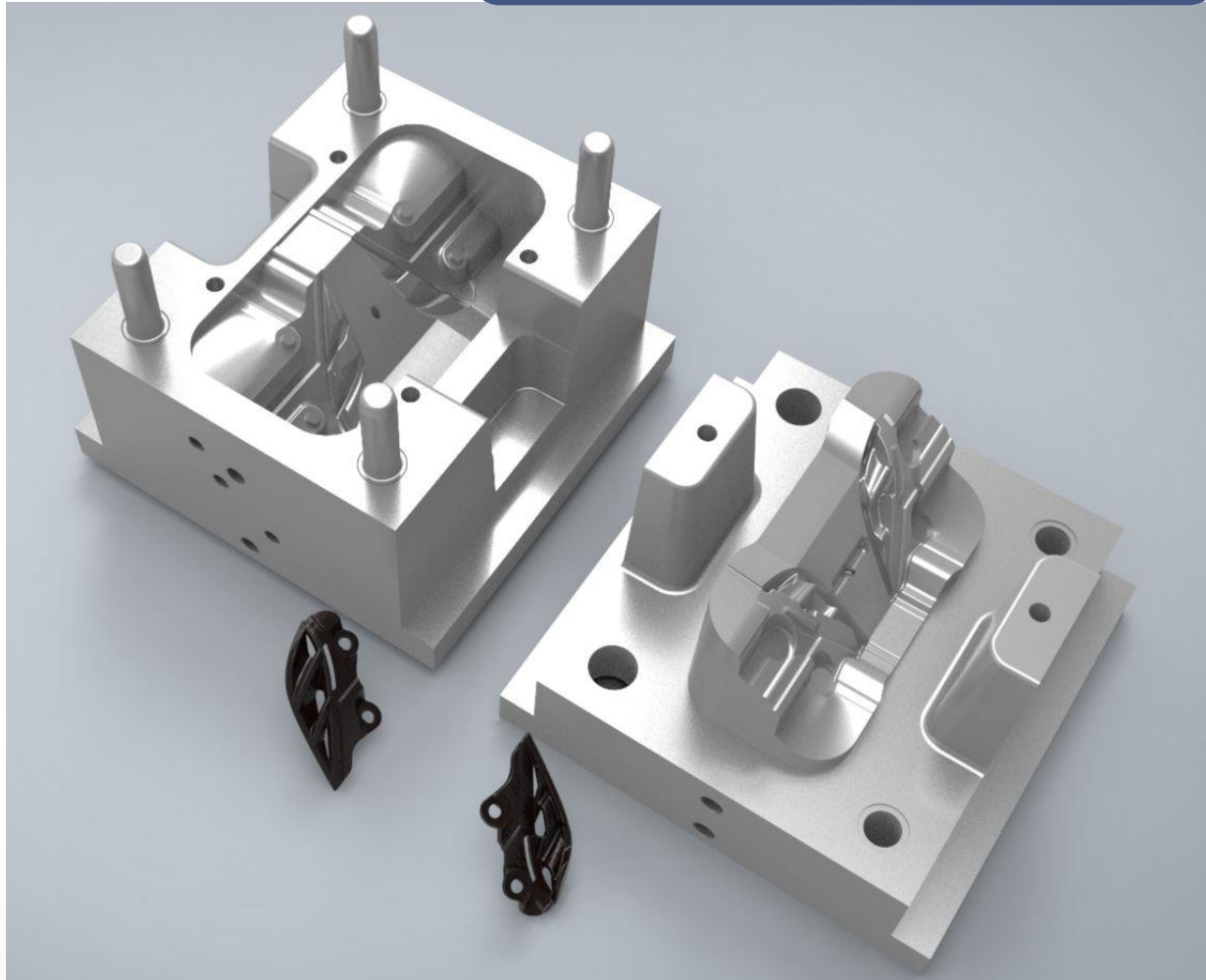
MOULD SIZE : 650 X 550 X 495
MOULDING M/C : 200 T



Project – KWPJ
OEM – HMSI
Tier-1 – Premier Indoplast

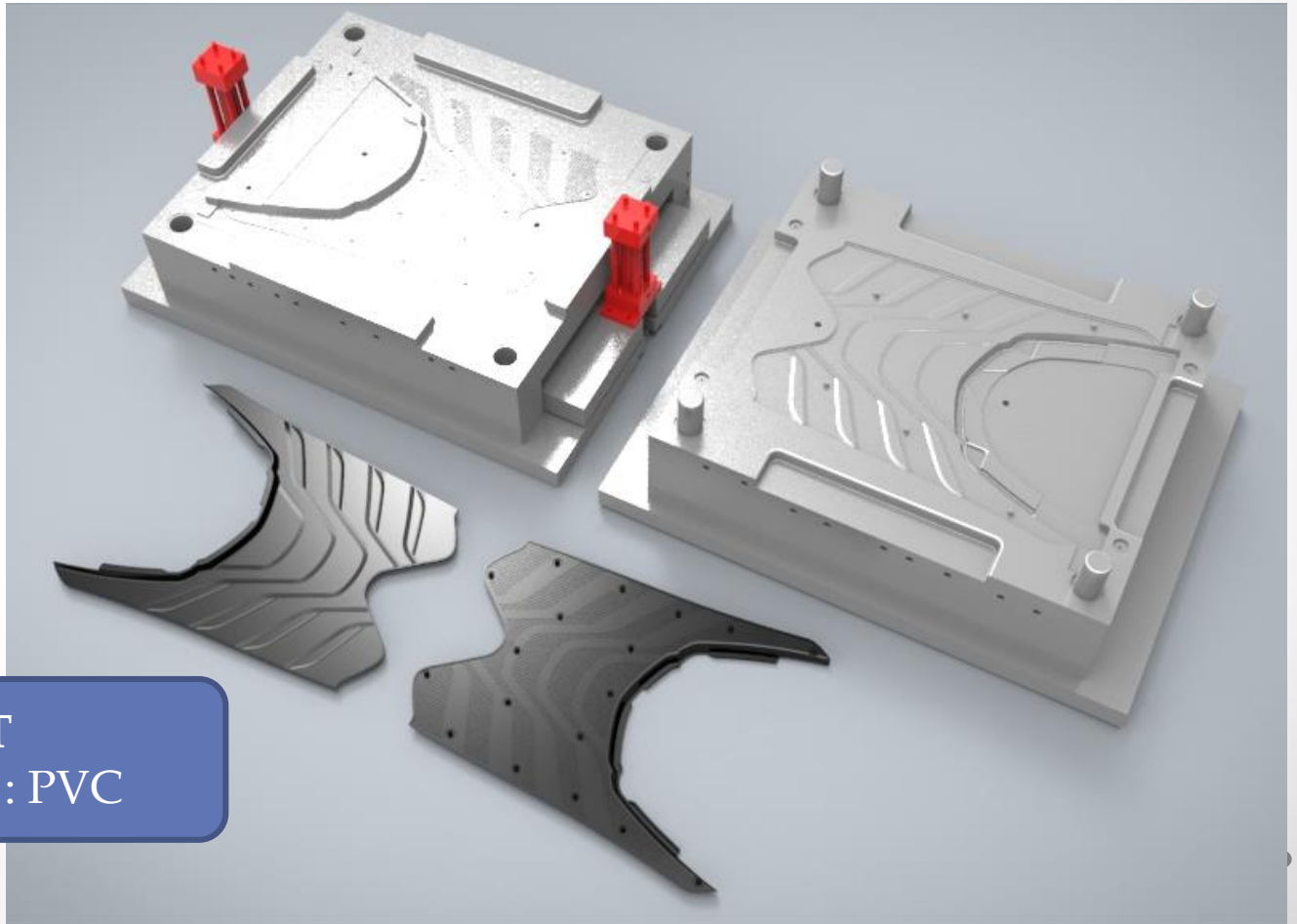
MOULD SIZE : 296 X 246 X 246
MOULDING M/C : 100 T

Part : LOUVER
Plastic Material : PPCP



Project – KWPJ
OEM – HMSI
Tier-1 – Premier Indoplast

MOULD SIZE : 996 X 746 X 600
MOULDING M/C : 450 T

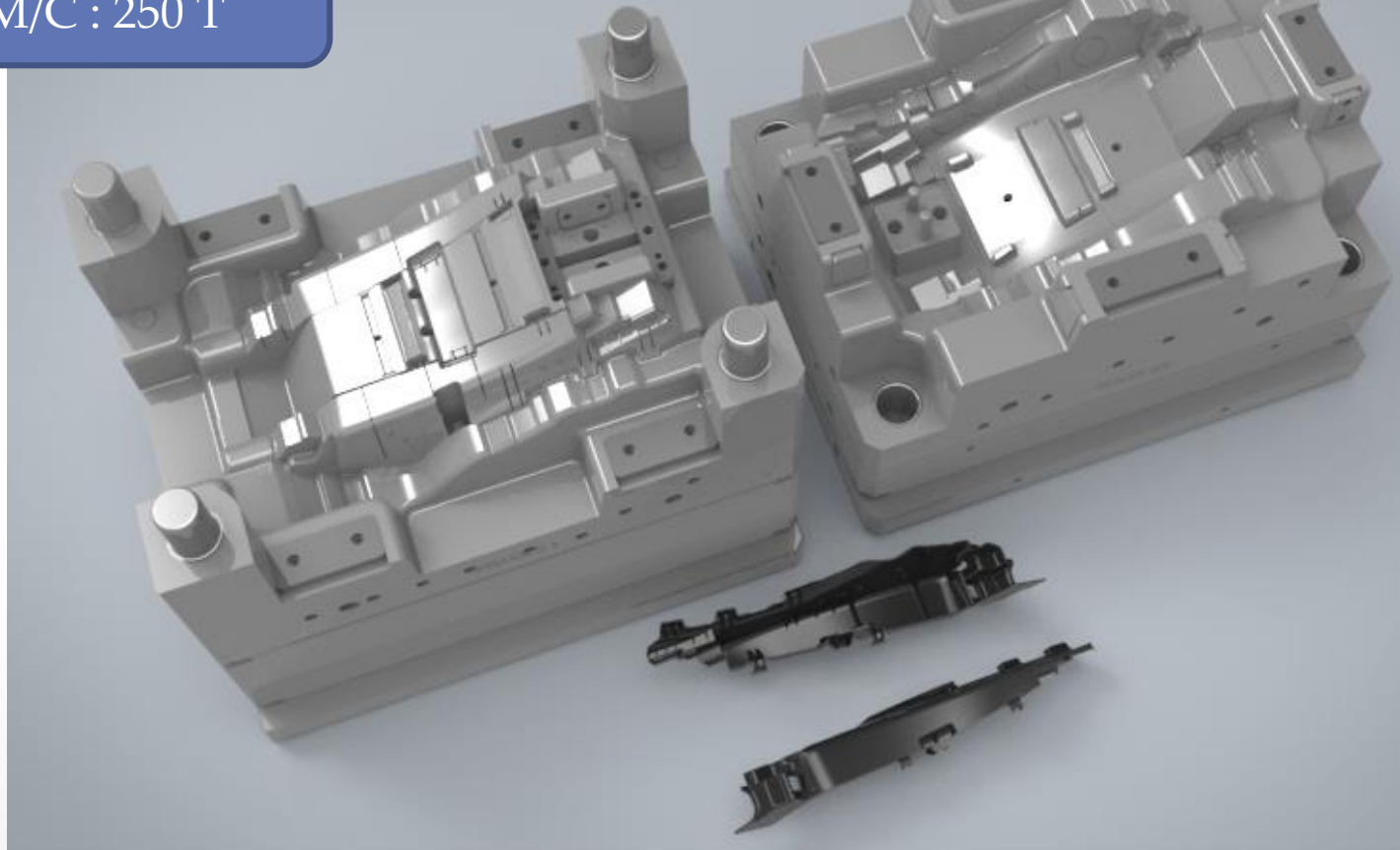
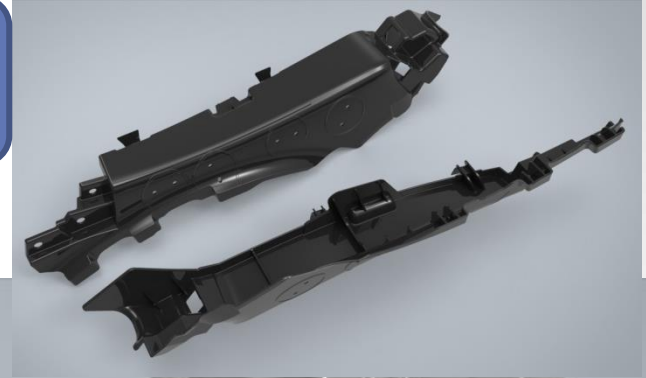


Part : MAT
Plastic Material : PVC

Project – NA
OEM – HSCI
Tier-1 – Premier Indoplast

Part : RENFCE A
Plastic Material : PPCP

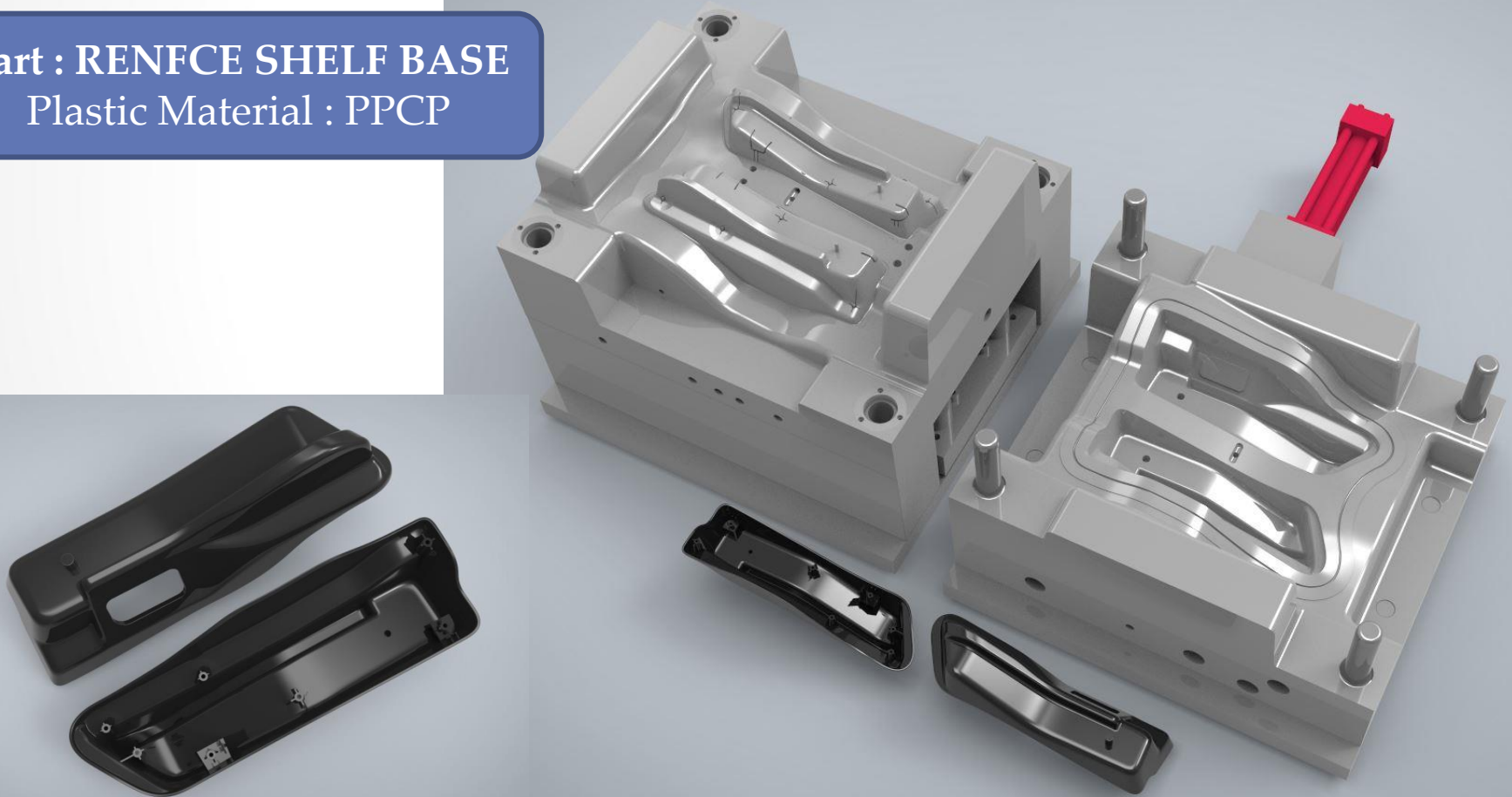
MOULD SIZE : 700 X 560 X 550
MOULDING M/C : 250 T



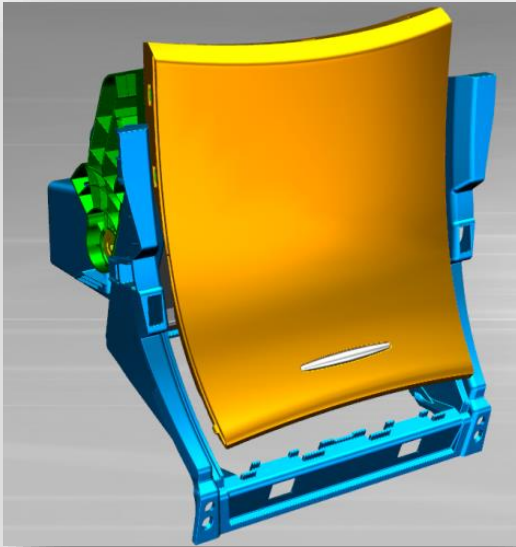
Project – NA
OEM – HSCI
Tier-1 – Premier Indoplast

MOULD SIZE : 575 X 560 X 450
MOULDING M/C : 250 T

Part : RENFCE SHELF BASE
Plastic Material : PPCP

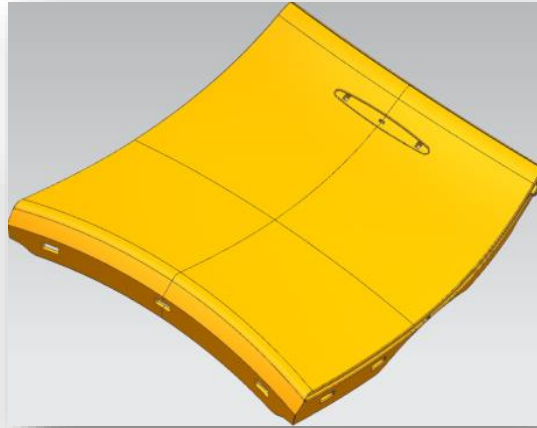


INTERIOR PARTS

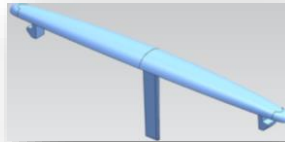
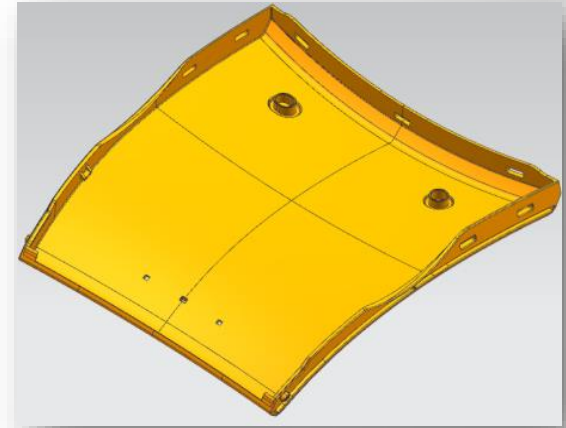


Storage Bin Assembly

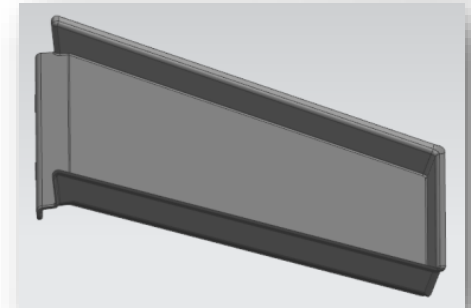
Project – YL1 (CIAZ)
OEM – Maruti Suzuki India
Tier-1 – IAC



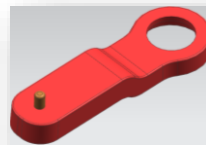
Outer Lid



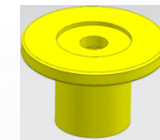
Ornament



Rubber Mat

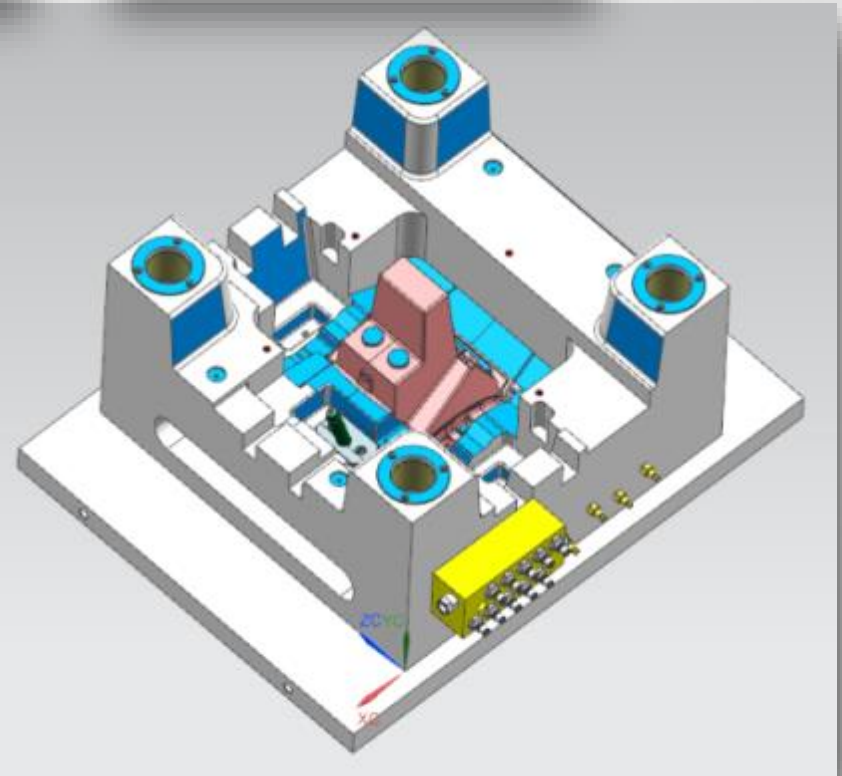
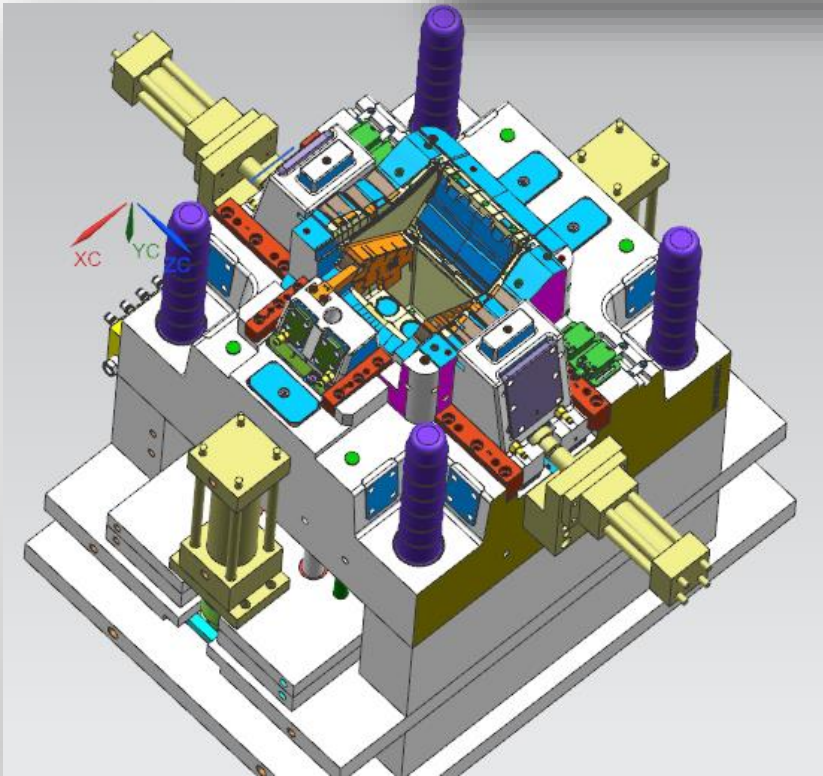
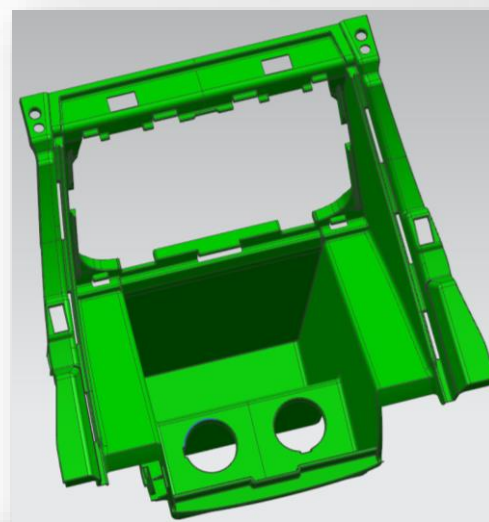
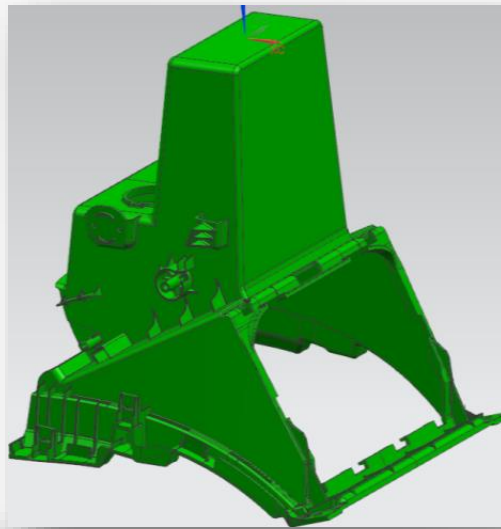


Pointer

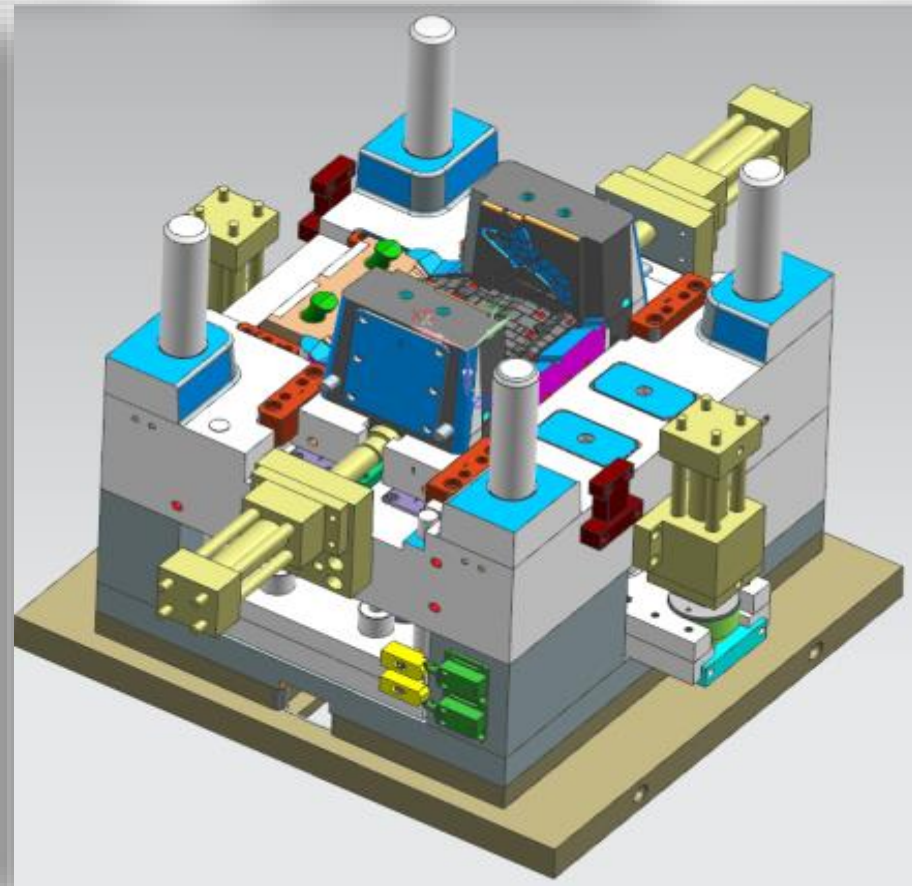
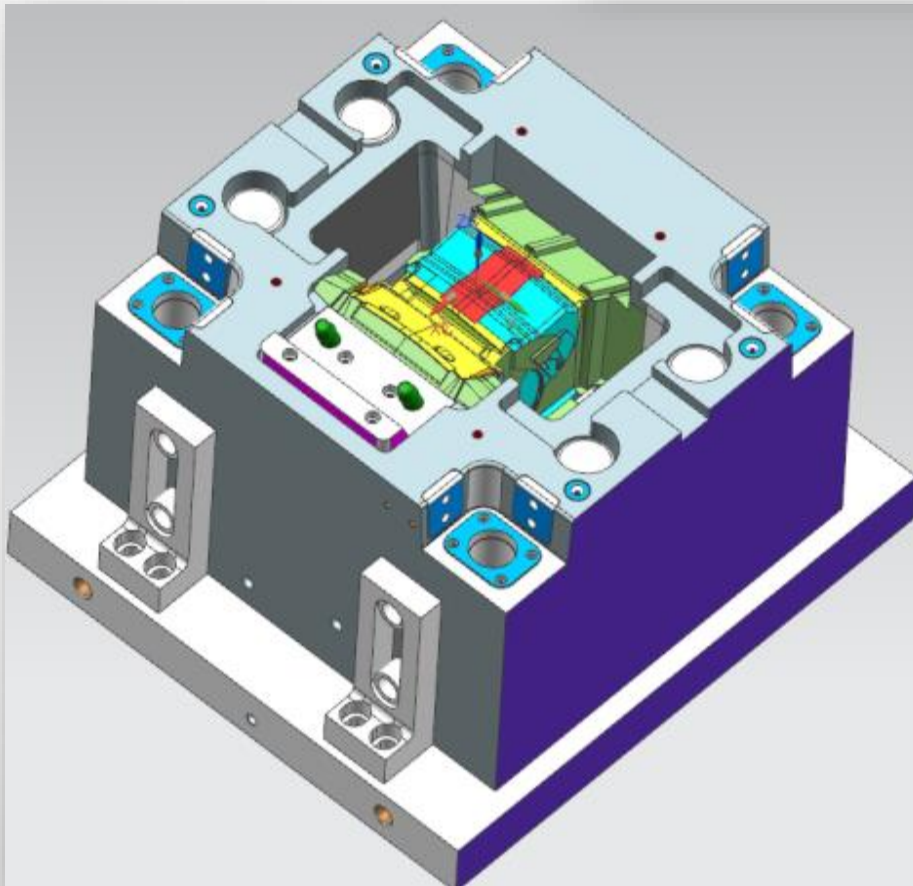
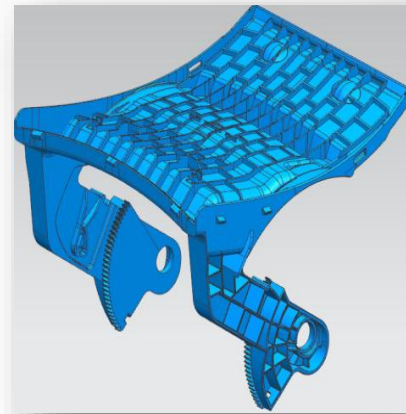
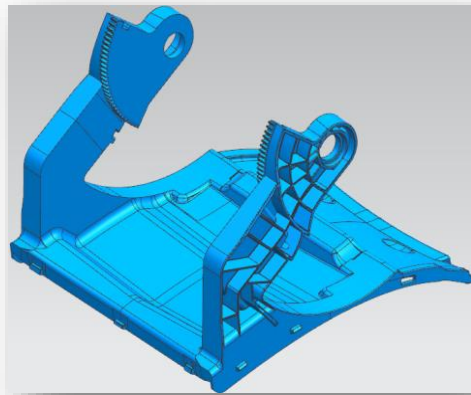


Bush

Storage Bin



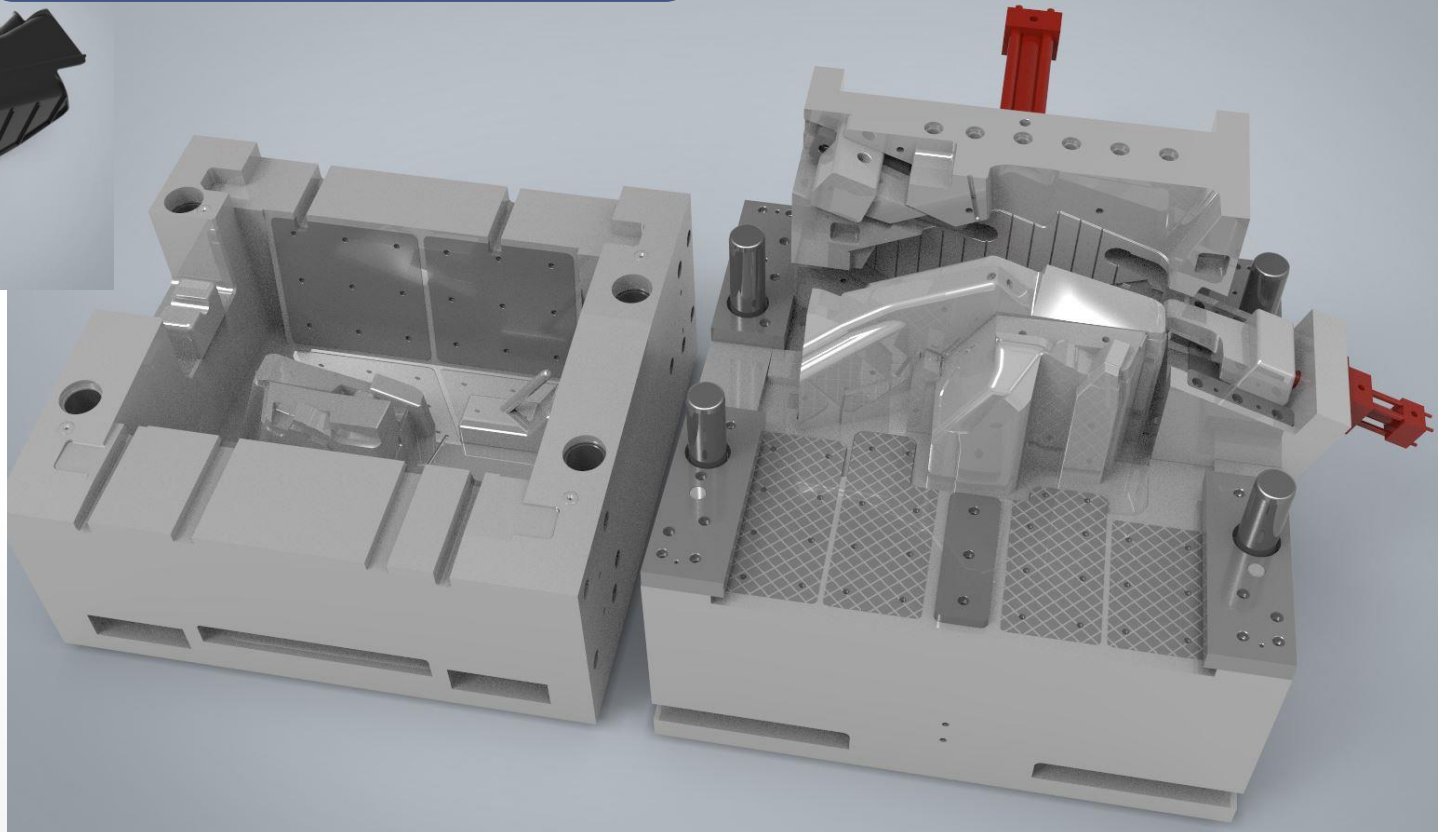
Lid Inner



Project – NA
OEM – HONDA SIEL CARS INDIA
Tier-1 – Premier Indoplast

Part : GI COOLER
Plastic Material : PPCP

MOULD SIZE : 946 X 860 X 850
MOULDING M/C : 650 T

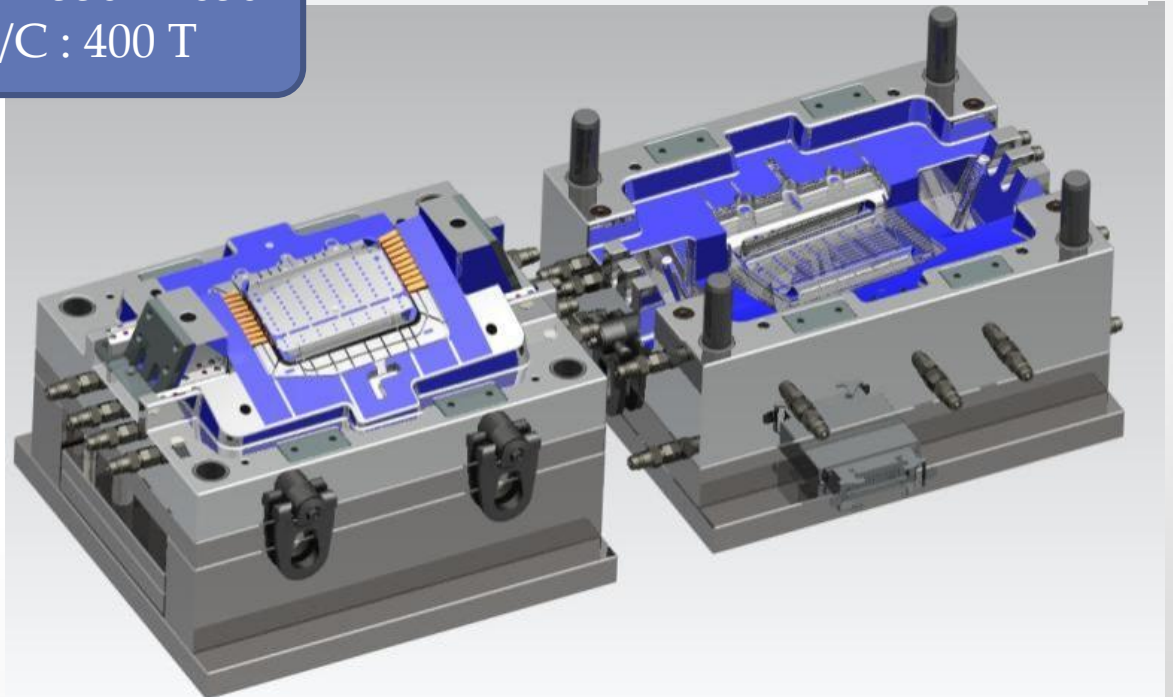
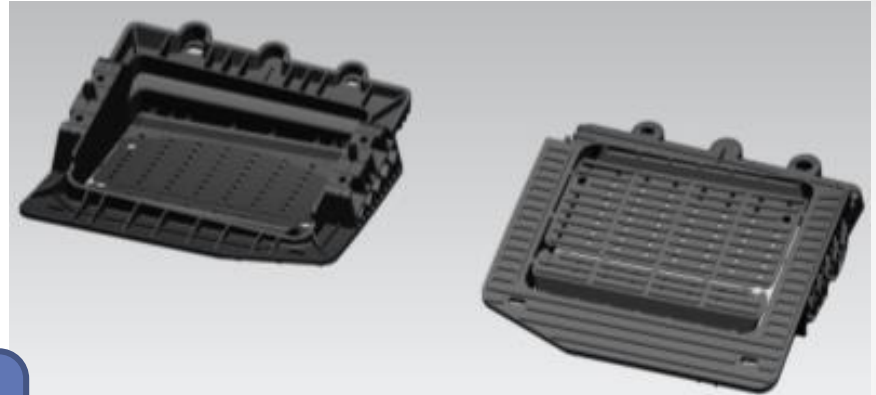


INTERIOR PARTS

Project – X1 (Vista)
OEM – Tata Motors Ltd.
Tier-1 – TACO-IPD

Dual Flap Chute Channel LHD

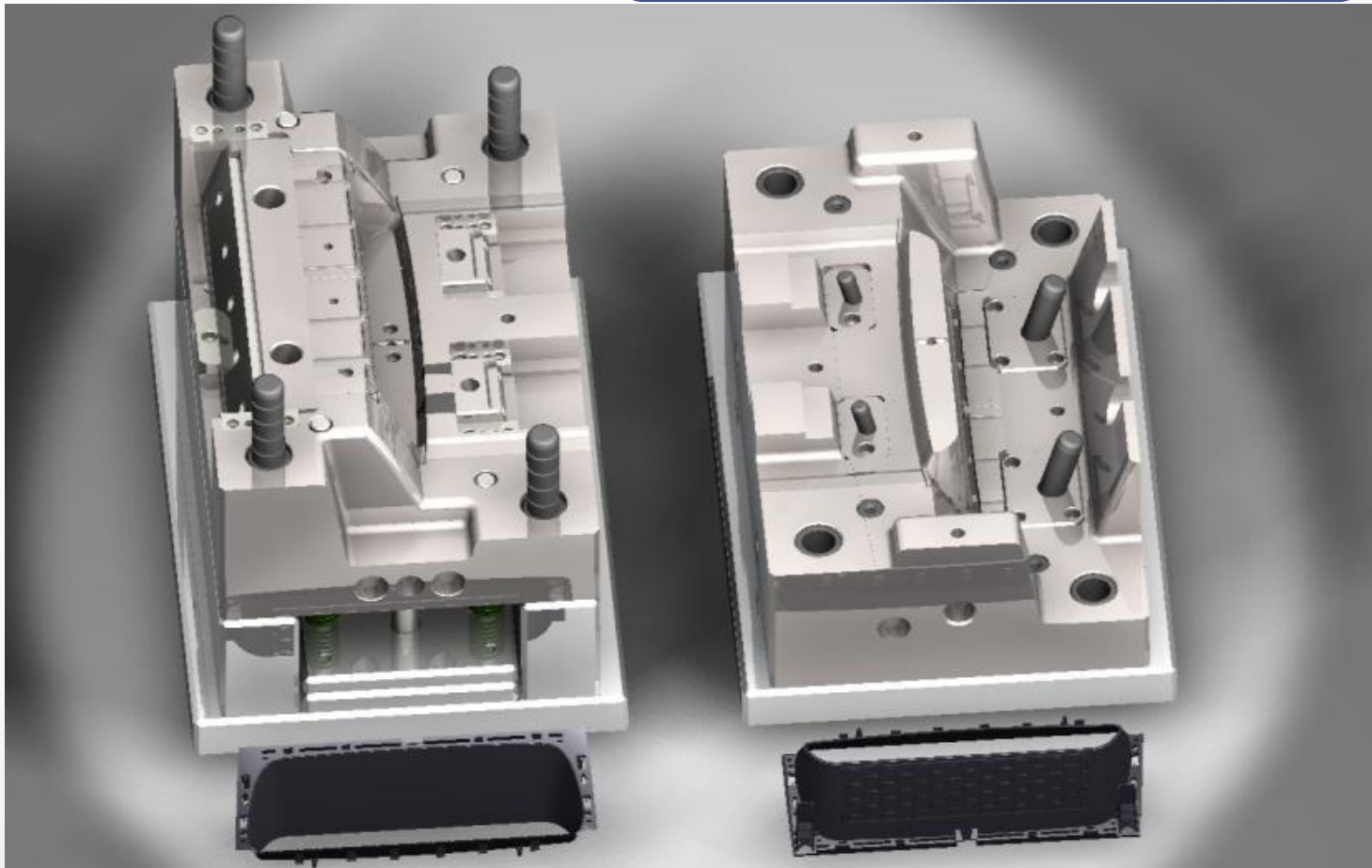
MOULD SIZE : 650 X 550 X 650
MOULDING M/C : 400 T



Project – X1 Sedan (Vista)
OEM – Tata Motors Ltd.
Tier-1 – TACO-IPD

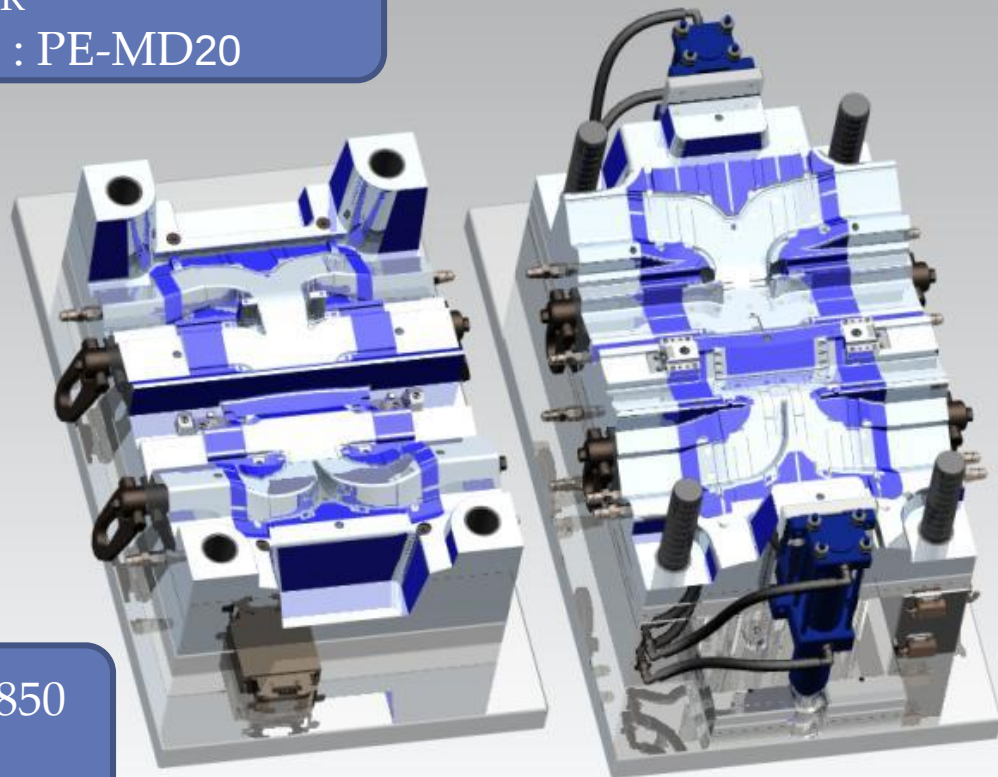
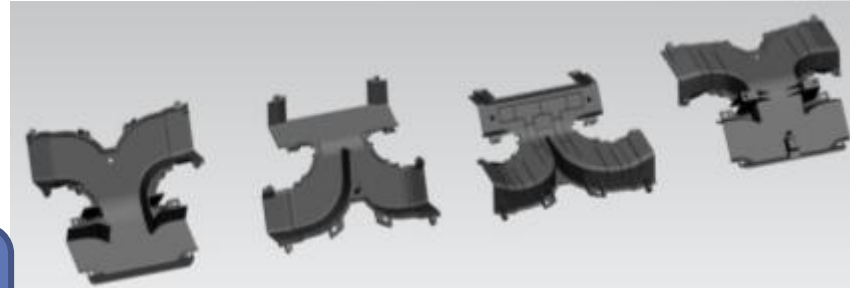
Dis Base – PC-ABS

MOULD SIZE : 650 X 550 X 650
MOULDING M/C : 225 T



Project – X2 Cross Over
OEM – Tata Motors Ltd.
Tier-1 – TACO-IPD

Part : DISTRIBUTION_BOX_UPPER &
LOWER
Plastic Material : PE-MD20

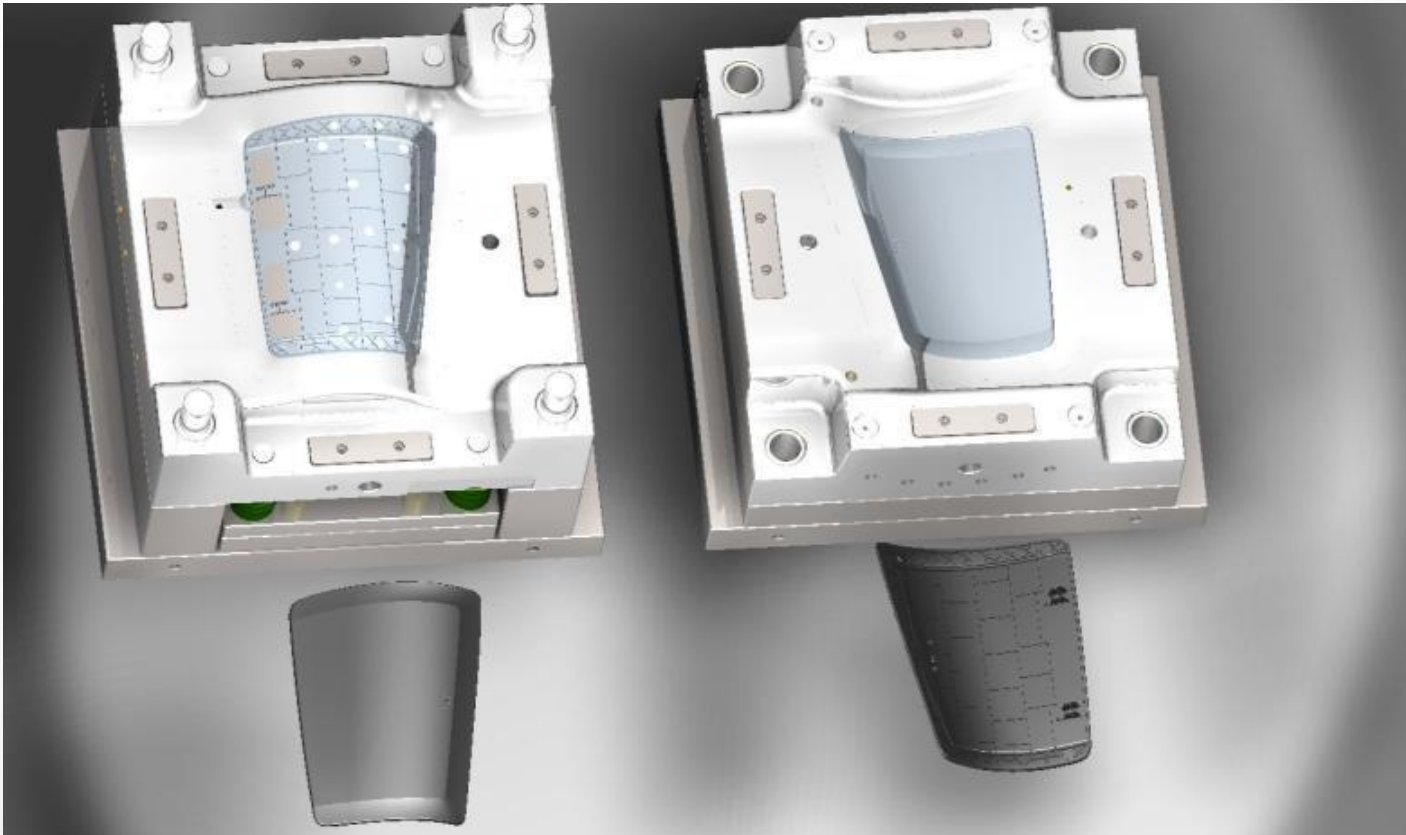


MOULD SIZE : 1350 X 750 X 850
MOULDING M/C : 600 T

Project – MICRO BUS
OEM – Tata Motors Ltd.
Tier-1 – TACO-IPD

Part : UTILITY LID COVER RHD
Plastic Material :PC+ABS

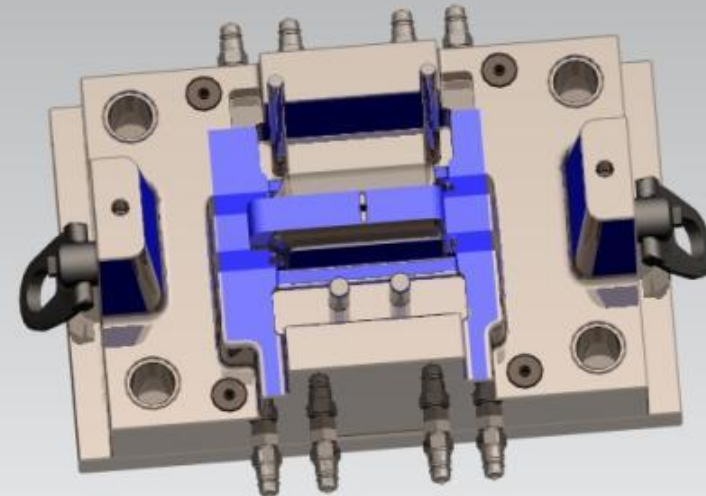
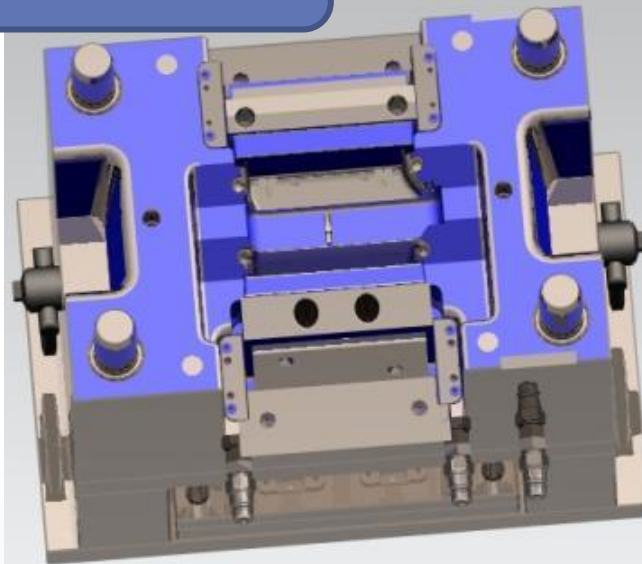
MOULD SIZE : 650 X 550 X 550
MOULDING M/C : 250 T



Project – X2 Cross Over
OEM – Tata Motors Ltd.
Tier-1 – TACO-IPD

Part : VENTILATION ADAPTOR
Plastic Material : PE-MD20

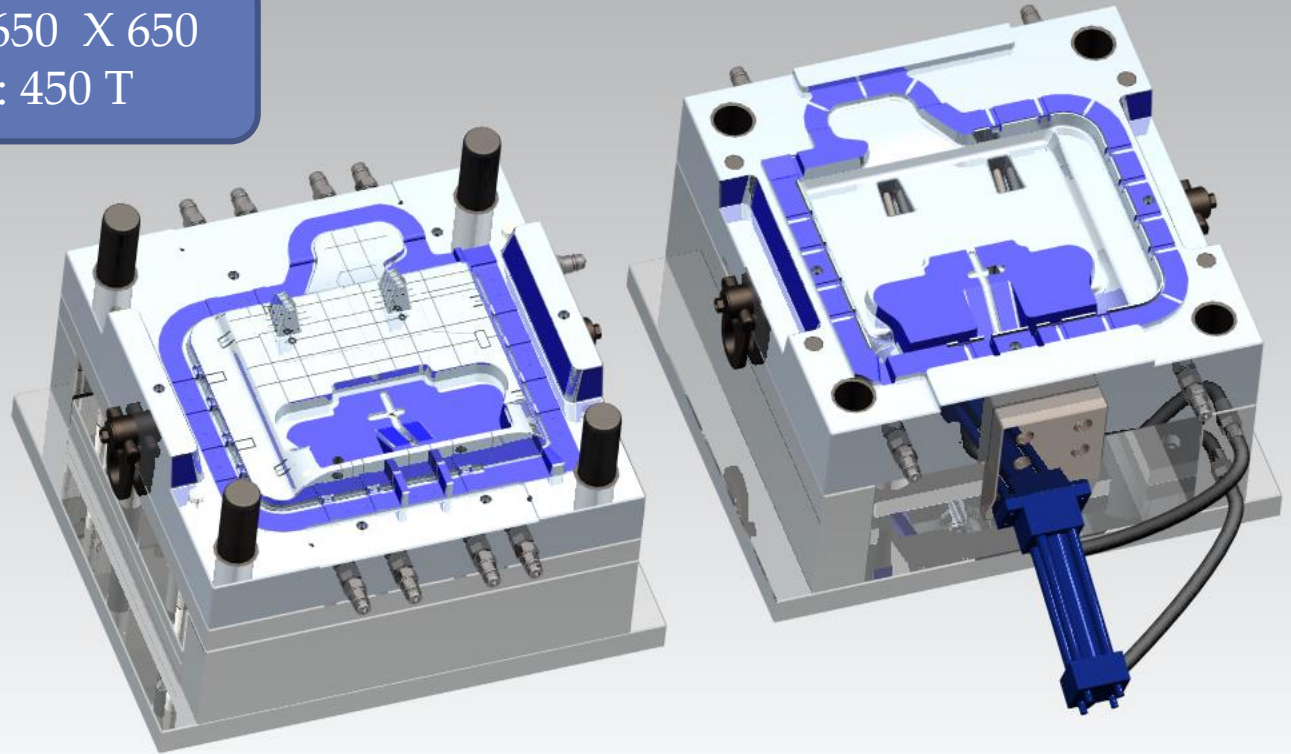
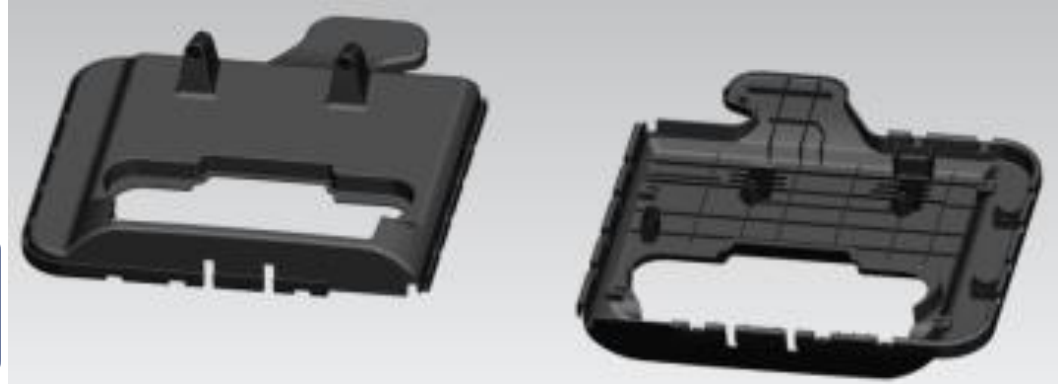
MOULD SIZE : 600 X 450 X 550
MOULDING M/C : 300 T



Project – Safari 18M
OEM – Tata Motors Ltd.
Tier-1 – Tata Johnson Control

Part : CUSHION_B_SIDE_COVER_LH
Plastic Material : PP

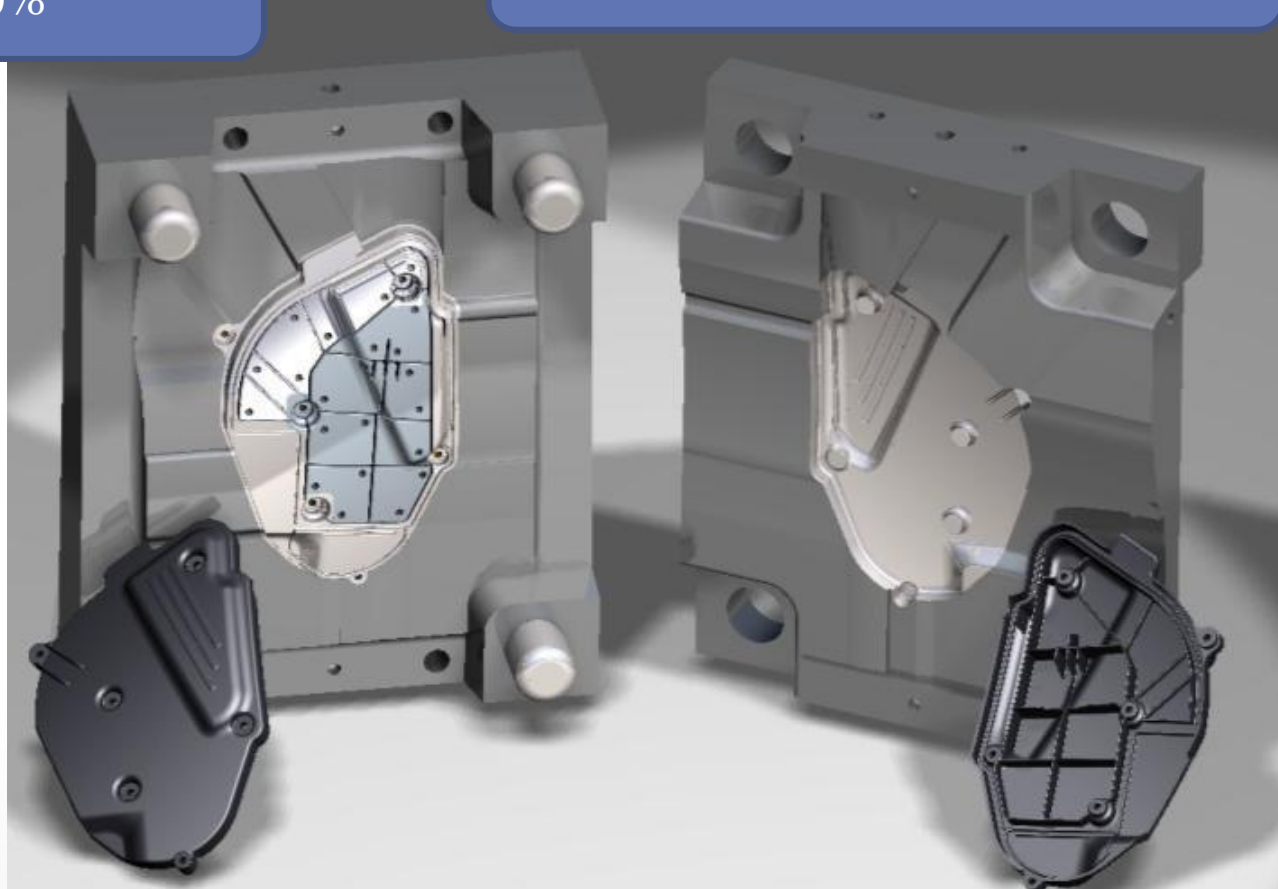
MOULD SIZE : 650 X 650 X 650
MOULDING M/C : 450 T



Project – NA
OEM – Bajaj Auto
Tier-1 – Varroc Engg.

Part :CS_CAP
Plastic Material : PPTF 20%

MOULD SIZE : 500 X 550 X 550
MOULDING M/C : 225 T



Project – NA

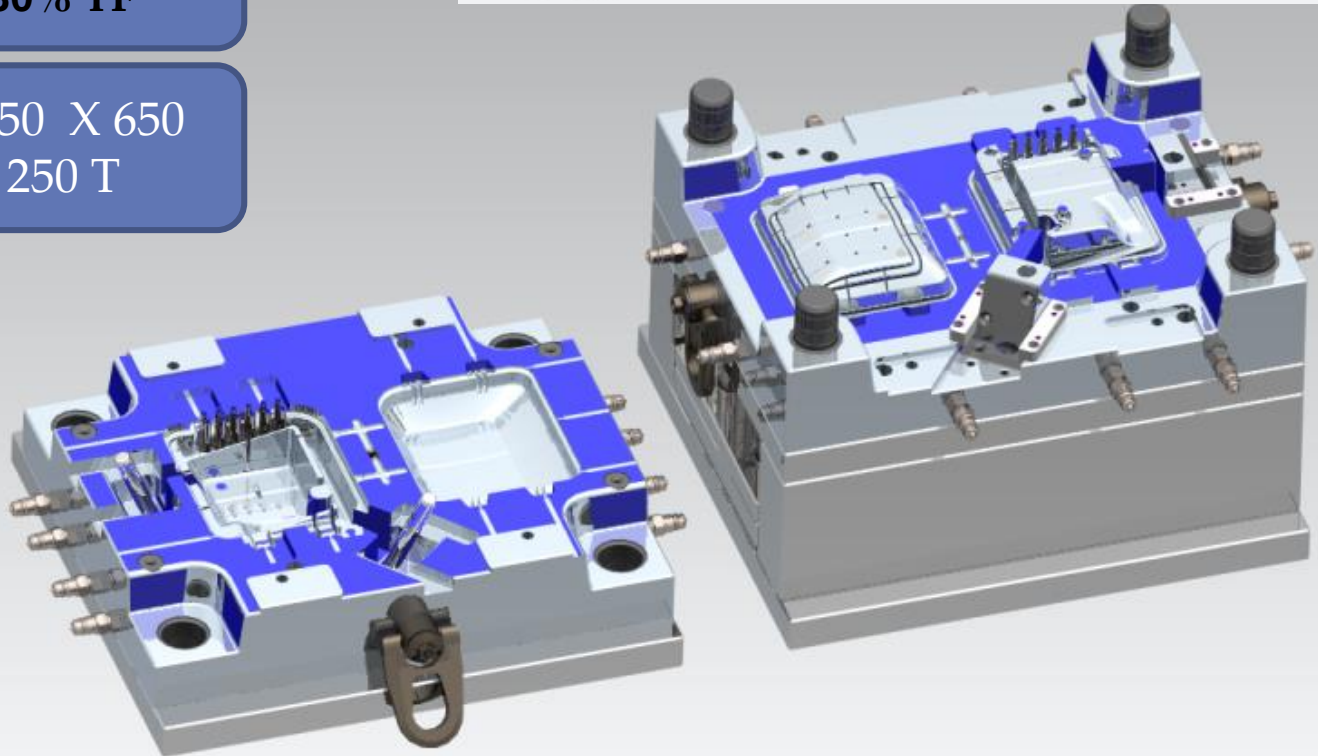
OEM – Honda Genset

Tier-1 – Premier Indoplast



Part : COVER,AIR_CLEANER
Plastic Material : PP 30% TF

MOULD SIZE : 650 X 550 X 650
MOULDING M/C : 250 T



Project – NA

OEM – Volvo

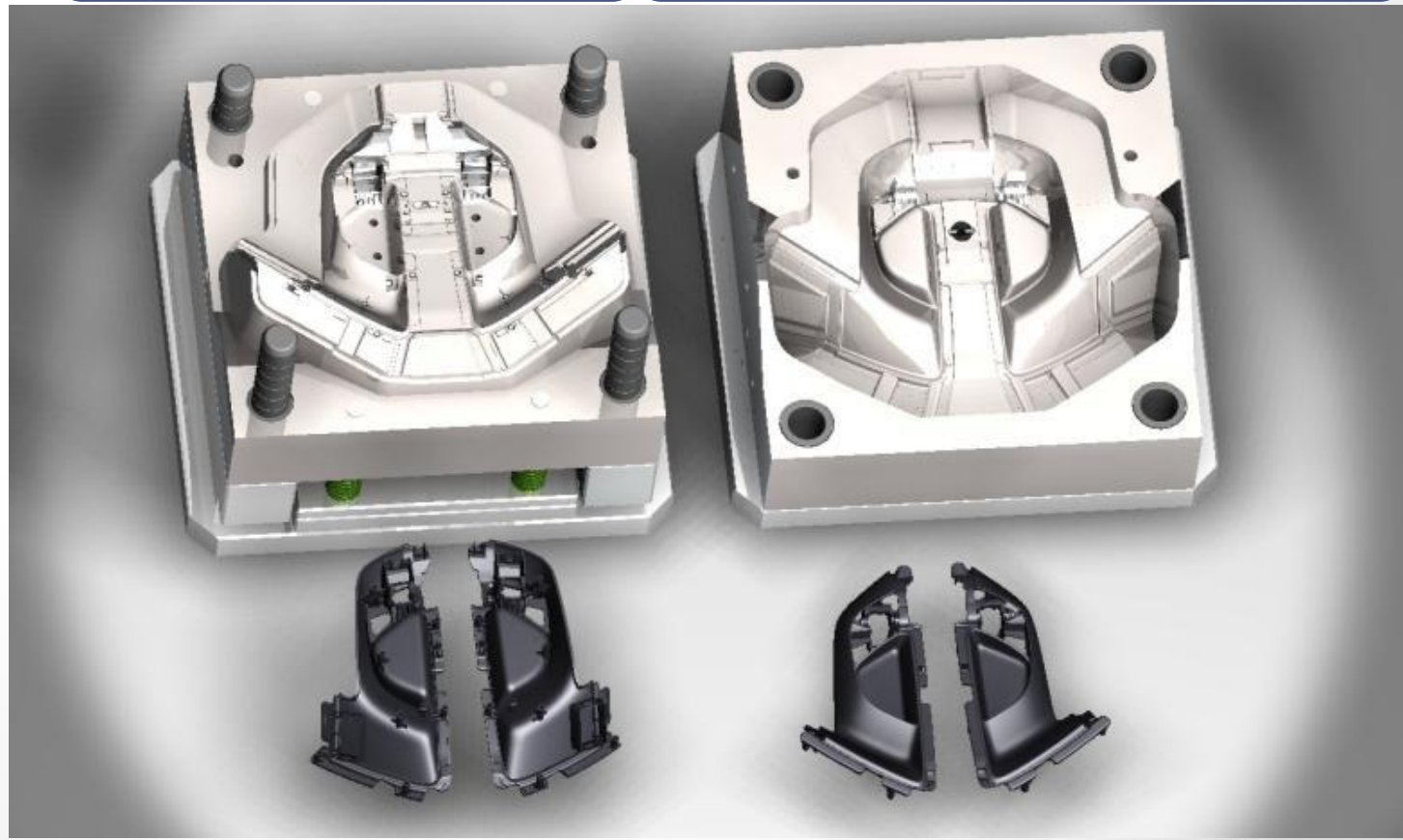
Tier-1 – Faurecia Inneraum Systeme GMBH

Part : REAR RDO

Plastic Material :PC+ABS

MOULD SIZE : 500 X 550 X 550

MOULDING M/C : 225 T



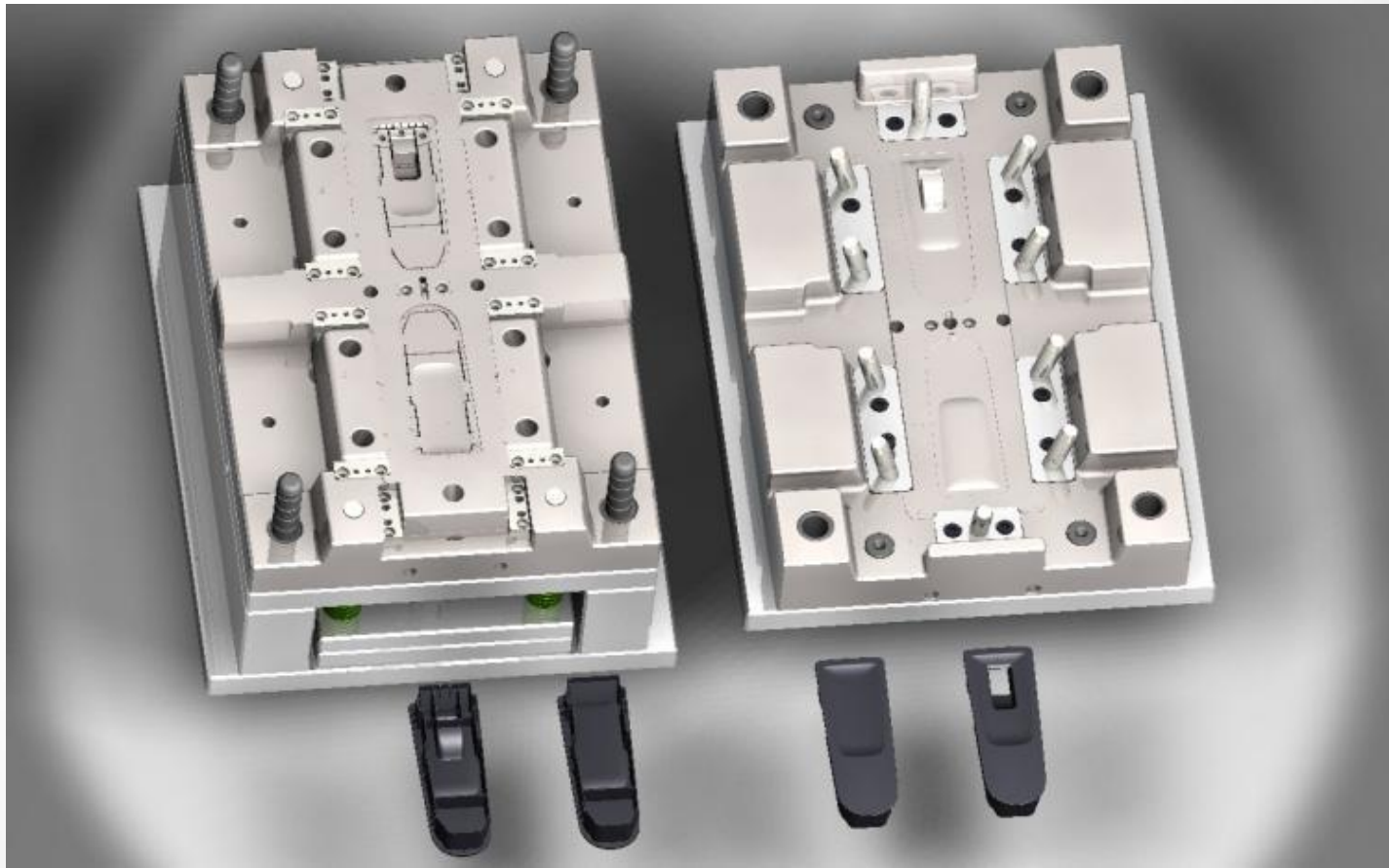
Project – NA

OEM – VW

Tier-1 – Faurecia Inneraum Systeme GMBH

Part : BEZEL 1FH & BLIND
Plastic Material : ABS

MOULD SIZE : 650 X 450 X 550
MOULDING M/C : 250 T



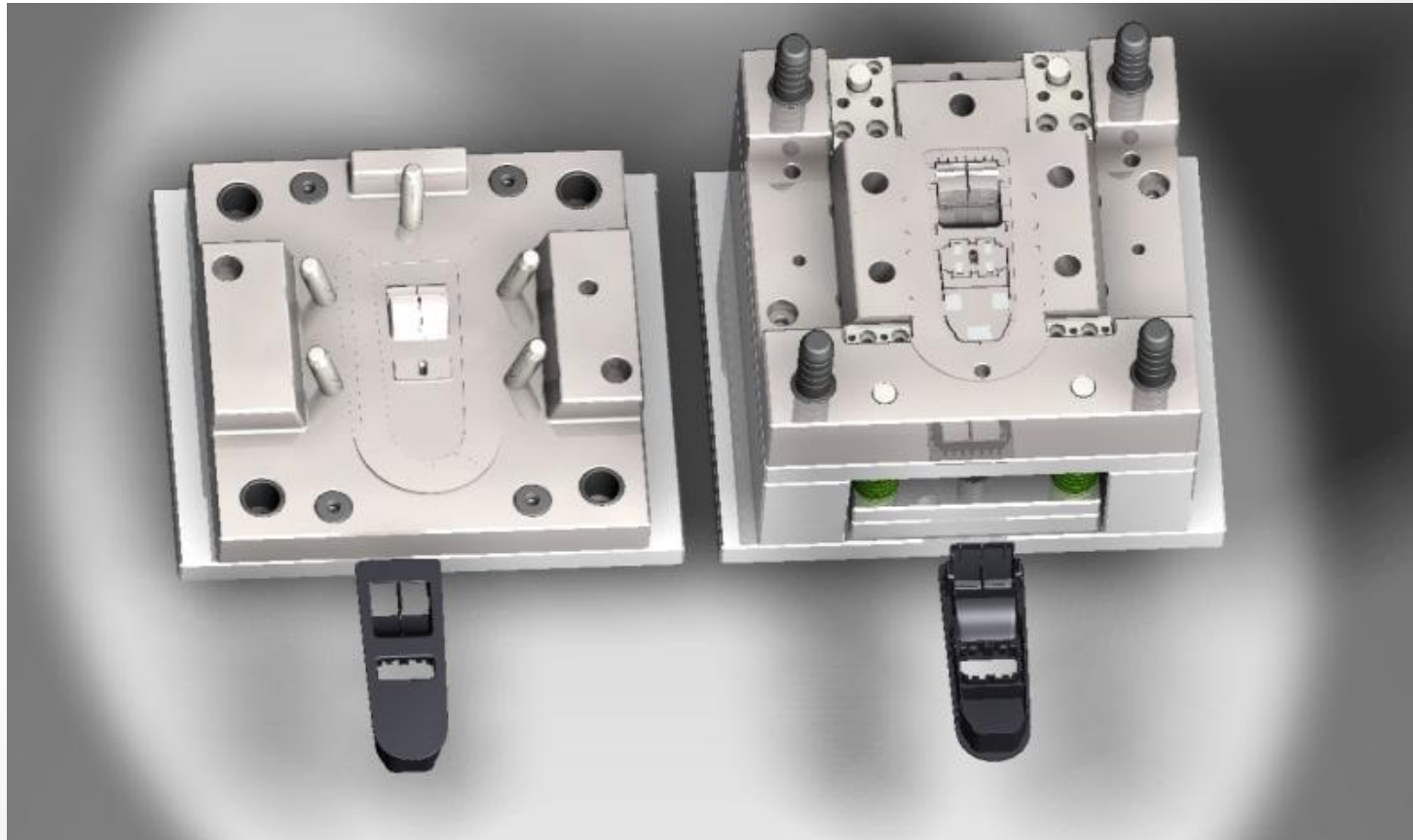
Project – NA

OEM – VW

Tier-1 – Faurecia Inneraum Systeme GMBH

Part : BEZEL 2 FH
Plastic Material :ABS

MOULD SIZE : 450 X 350 X 450
MOULDING M/C : 150 T



Project – NA

OEM – VW

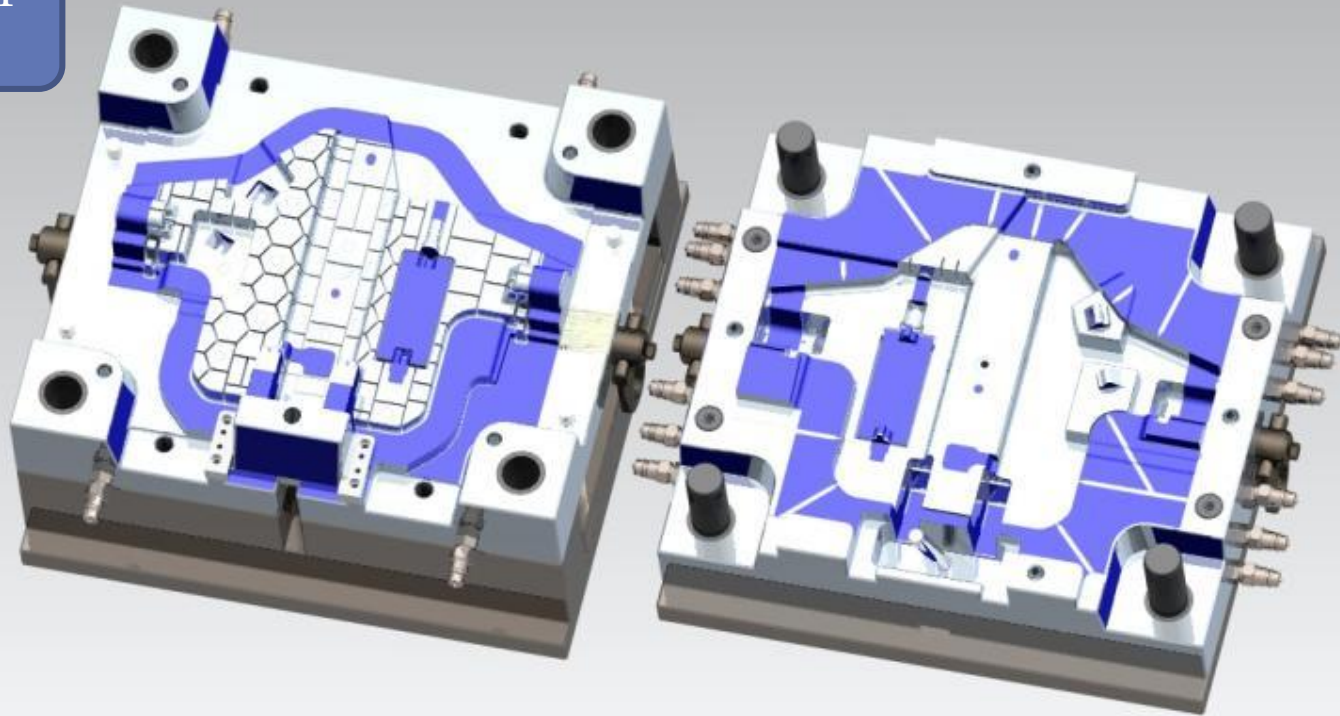
Tier-1 – Faurecia Inneraum Systeme GMBH

MOULD SIZE : 650 X 550 X 450

MOULDING M/C : 220 T

Part : TRACK SUPPORT

Plastic Material :ABS

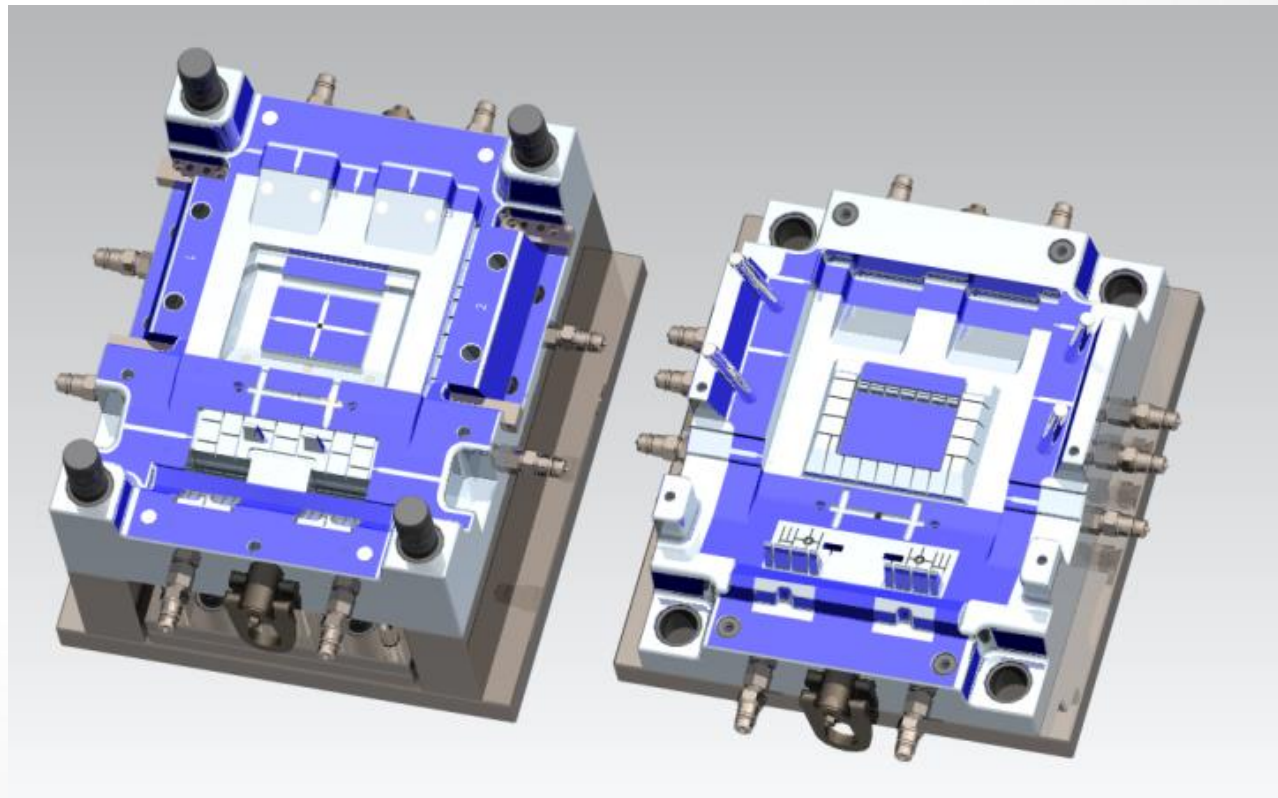
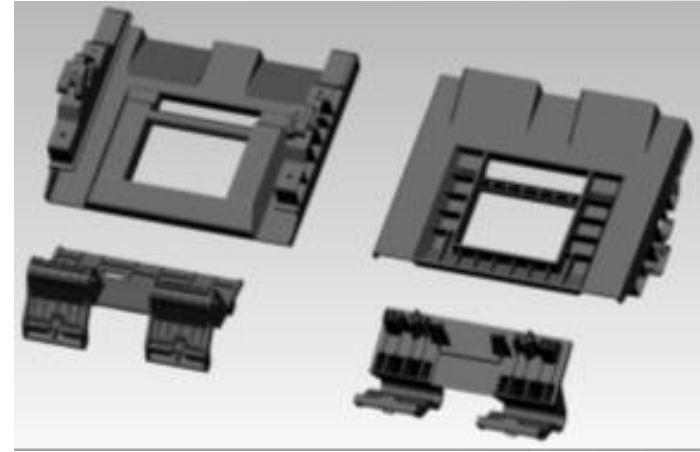


Project – NA

OEM – VW

Tier-1 – Faurecia Inneraum Systeme GMBH

Part : CARRIER + PAN HINGE
Plastic Material :ABS/ PC



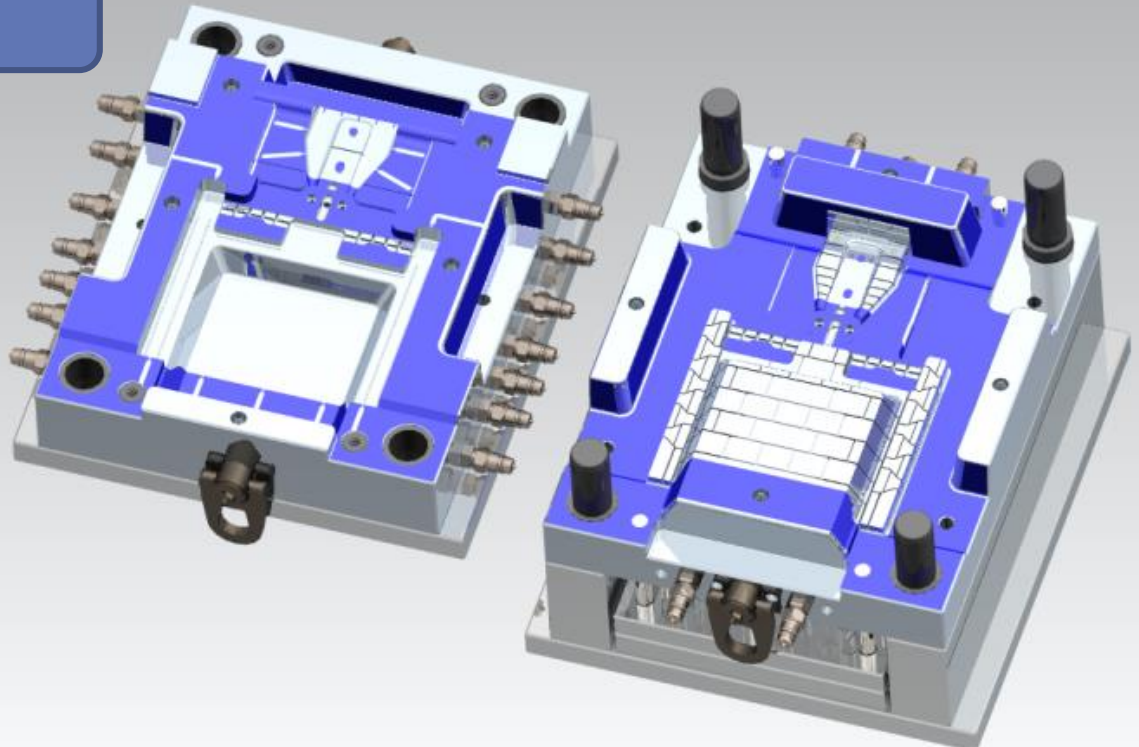
Project – B78

OEM – FORD

Tier-1 – Faurecia Inneraum Systeme GMBH

Part : SLIDER + TRACK CONNECTOR
Plastic Material : PA6 & POM

MOULD SIZE : 650 X 550 X 450
MOULDING M/C : 220 T



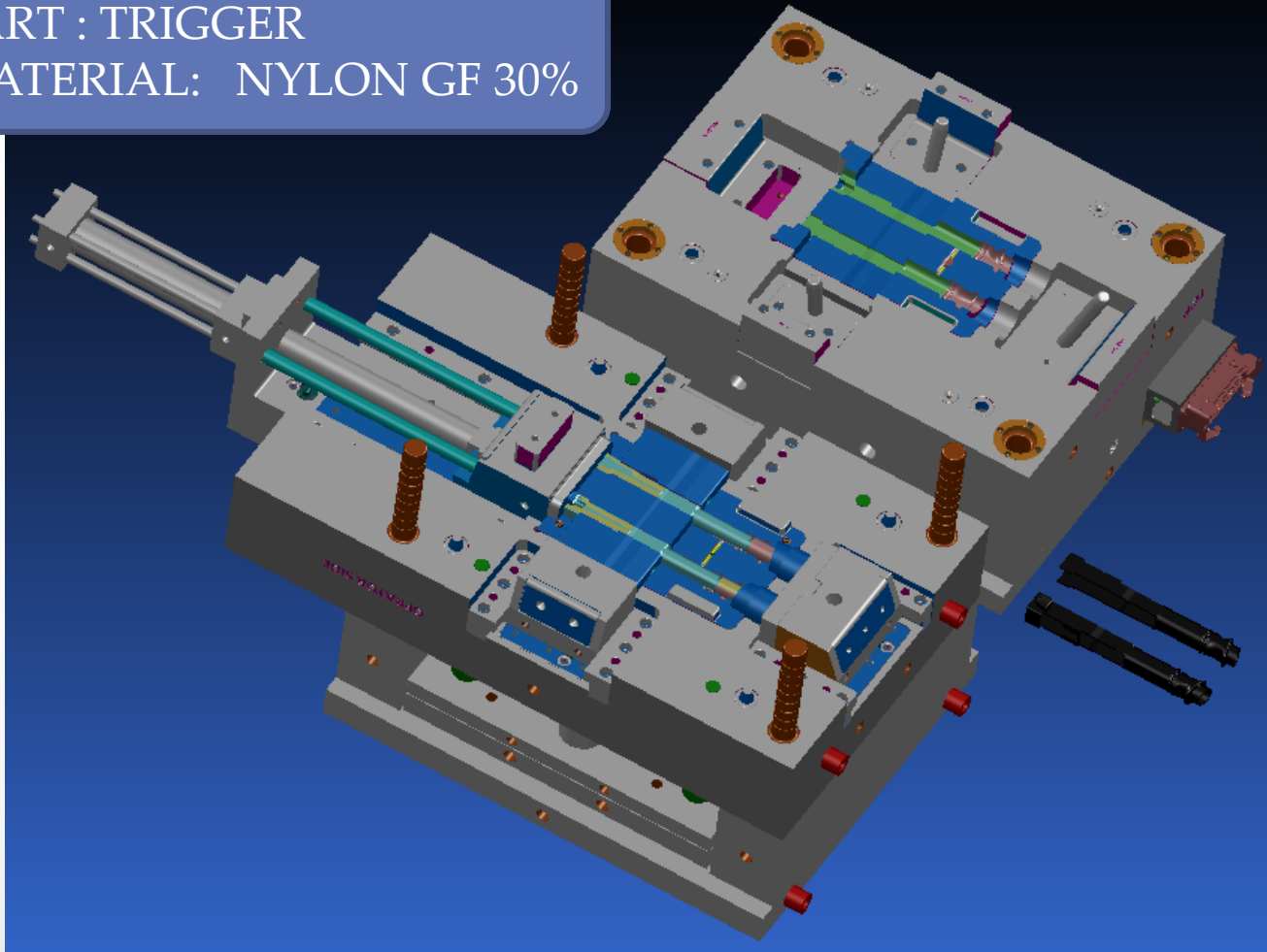
Project – NA

OEM – NISSAN

Tier-1 – DURA AUTOMOTIVE

MOULD SIZE : 850 X 750 X 600
MOULDING M/C : 225 T

PART : TRIGGER
MATERIAL: NYLON GF 30%



Project – NA

OEM – NISSAN

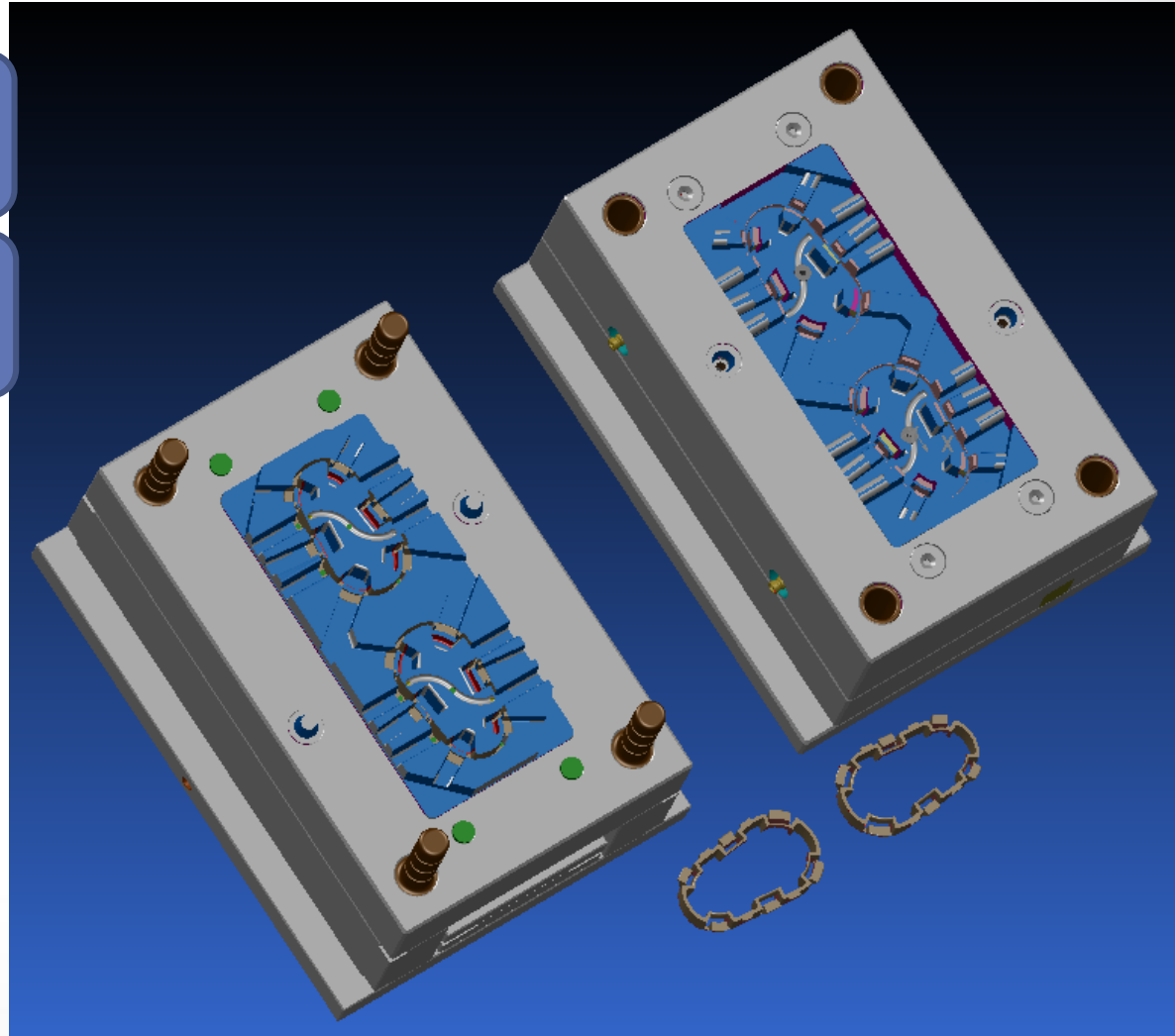
Tier-1 – DURA AUTOMOTIVE

PART : GROMAT

MATERIAL: NYLON GF 30%

MOULD SIZE : 550 X 350 X 400

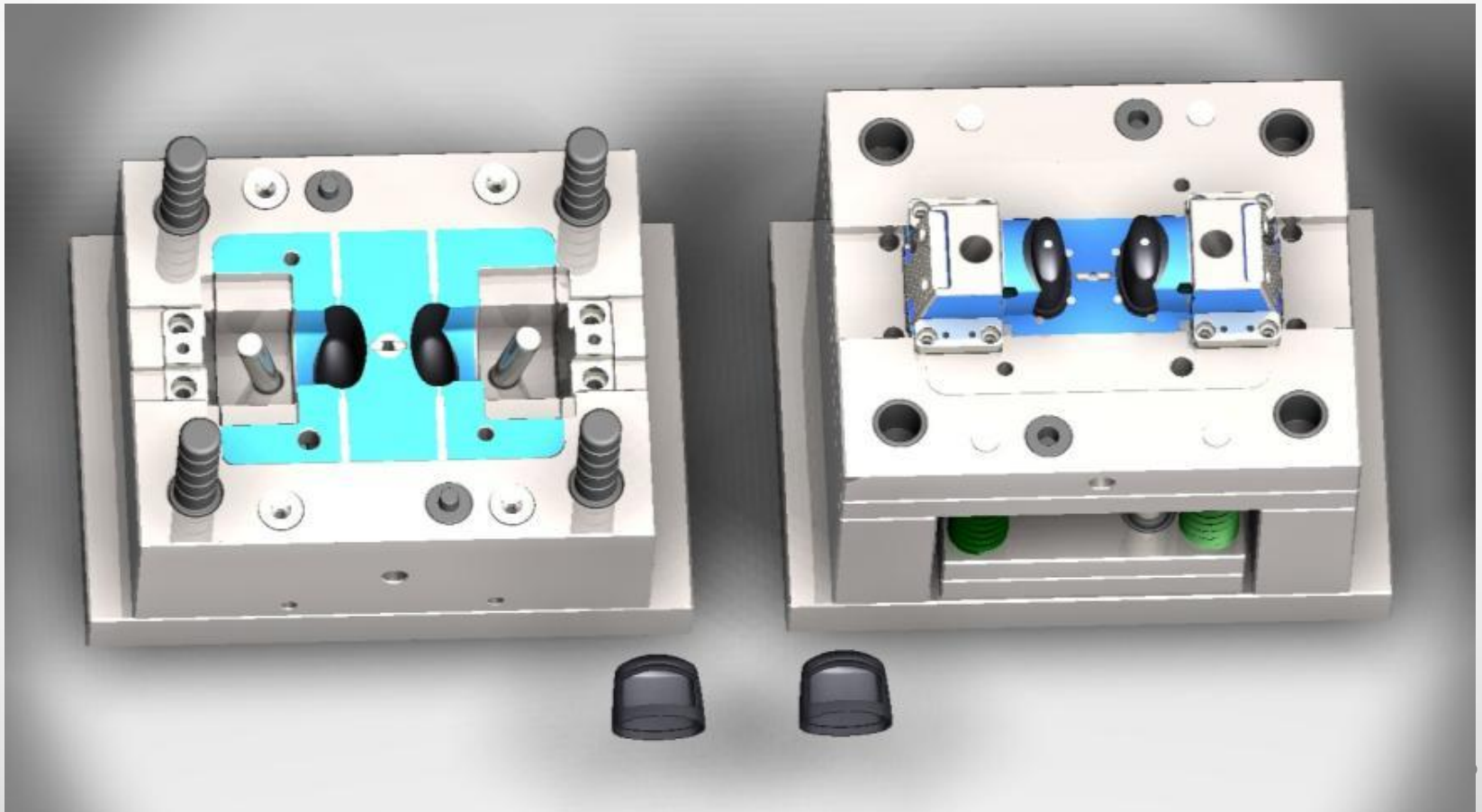
MOULDING M/C : 150 T



Project Name : J.D. NUMBER PLATE
Customer : Varroc Engineering Pvt. Ltd.

Part : HOUSING
Plastic Material :PC

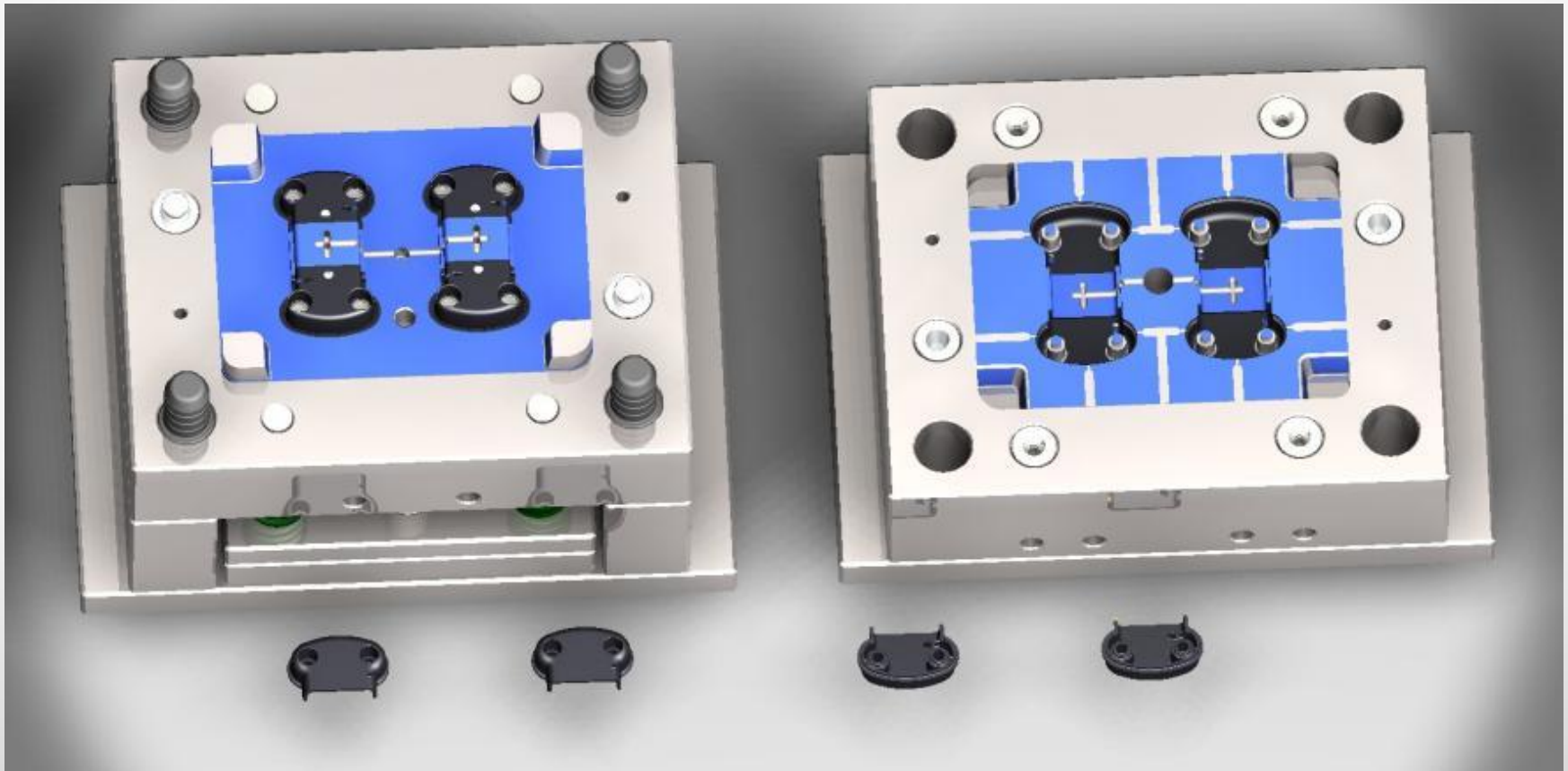
MOULD SIZE : 300 X 350 X 350
MOULDING M/C : 150 T



Project Name : J.D. NUMBER PLATE
Customer : Varroc Engineering Pvt. Ltd.

Part : COVER
Plastic Material :ABS

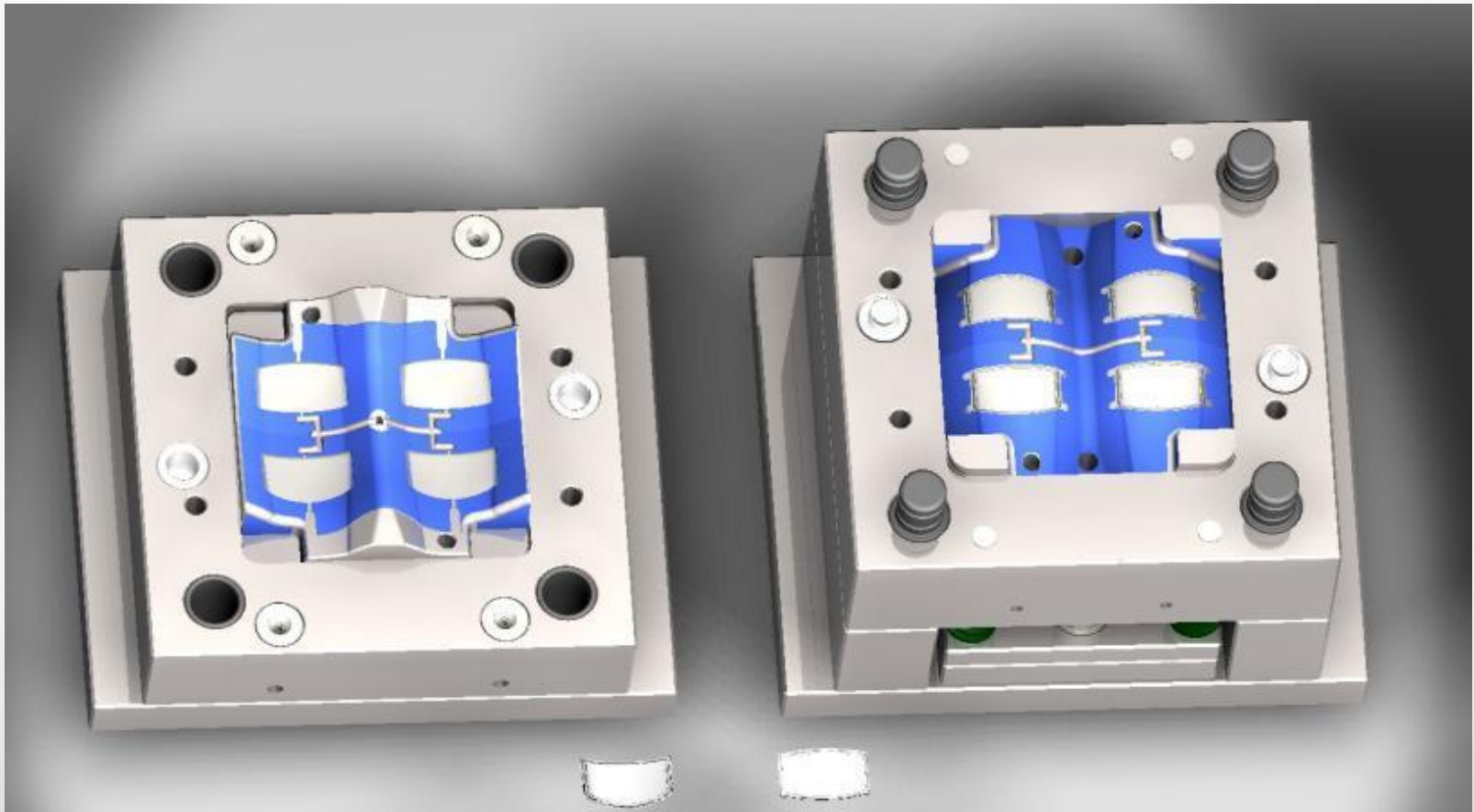
MOULD SIZE : 400 X 350 X 450
MOULDING M/C : 150 T



Project Name : J.D. NUMBER PLATE
Customer : Varroc Engineering Pvt. Ltd.

Part : LENS
Plastic Material :PC (CLEAR)

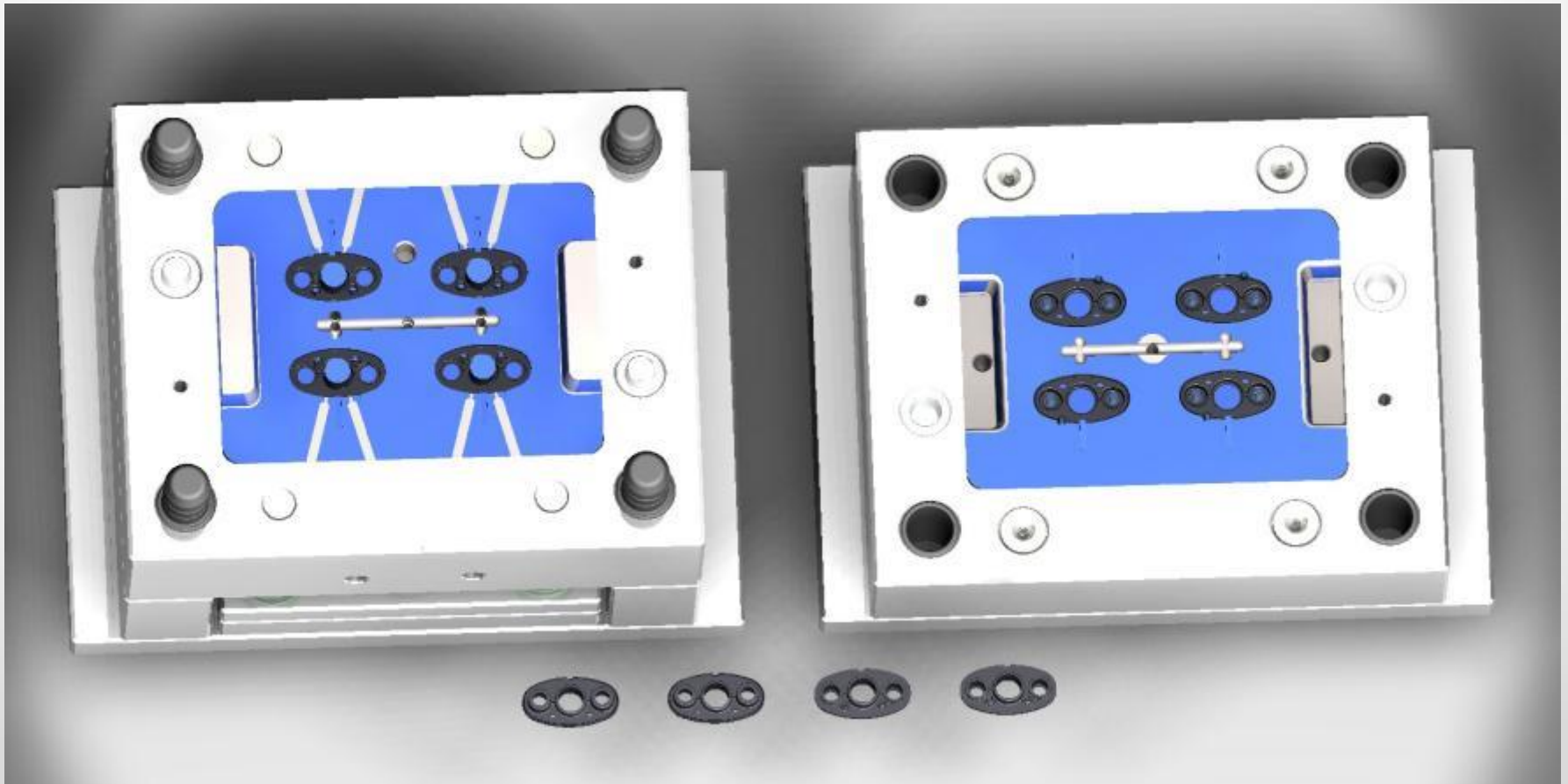
MOULD SIZE : 400 X 350 X 300
MOULDING M/C : 150 T



Project Name : J.D. NUMBER PLATE
Customer : Varroc Engineering Pvt. Ltd.

Part : BASE
Plastic Material : PC

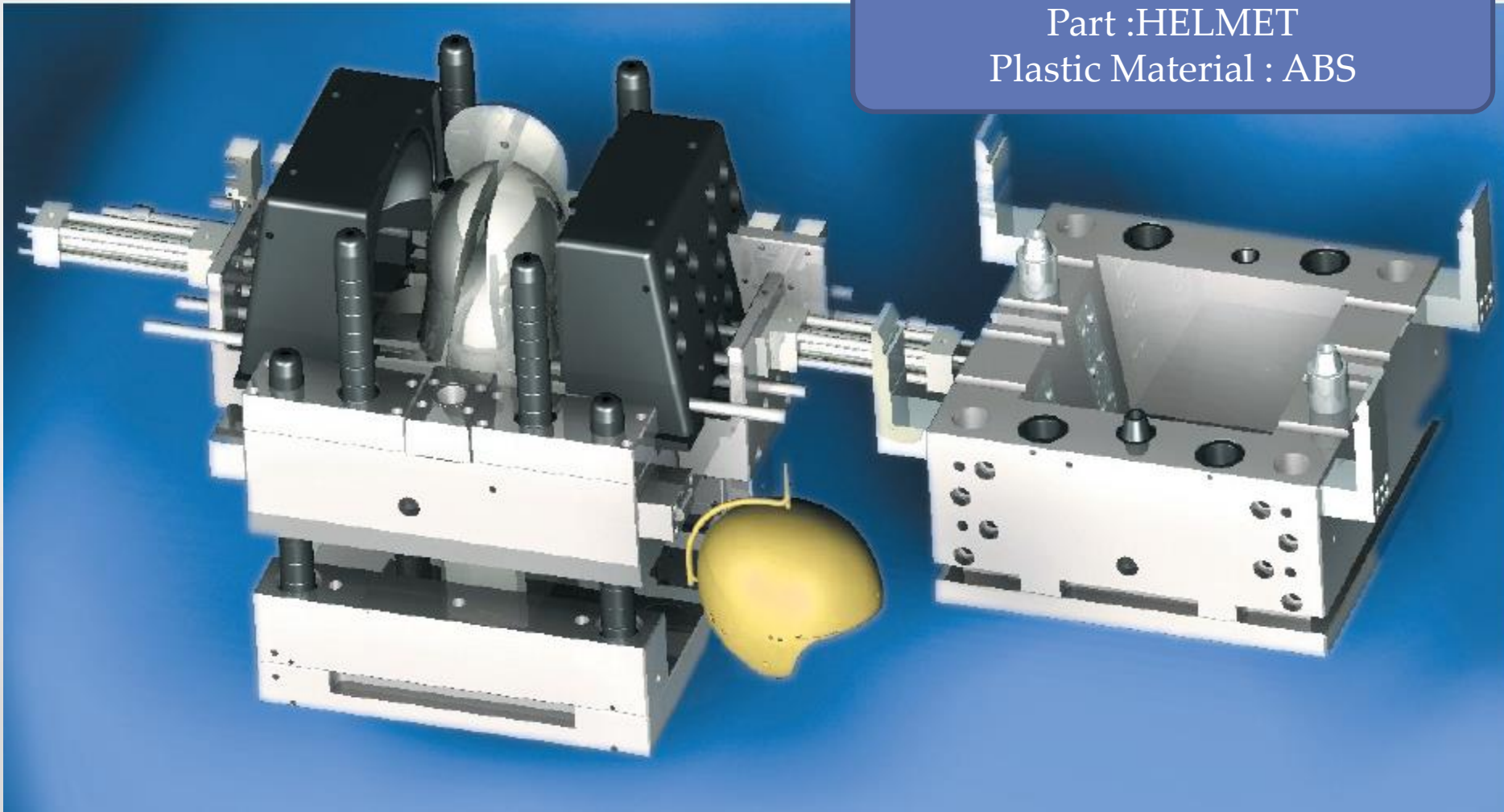
MOULD SIZE : 400 X 350 X 300
MOULDING M/C : 150 T



Project Name : MOTOR CYCLE HELMET
Customer : FORMA SPORTS Pvt. Ltd.

MOULD SIZE : 650 X 650 X 700
MOULDING M/C : 450 T

Part : HELMET
Plastic Material : ABS



Project – B78

OEM – FORD

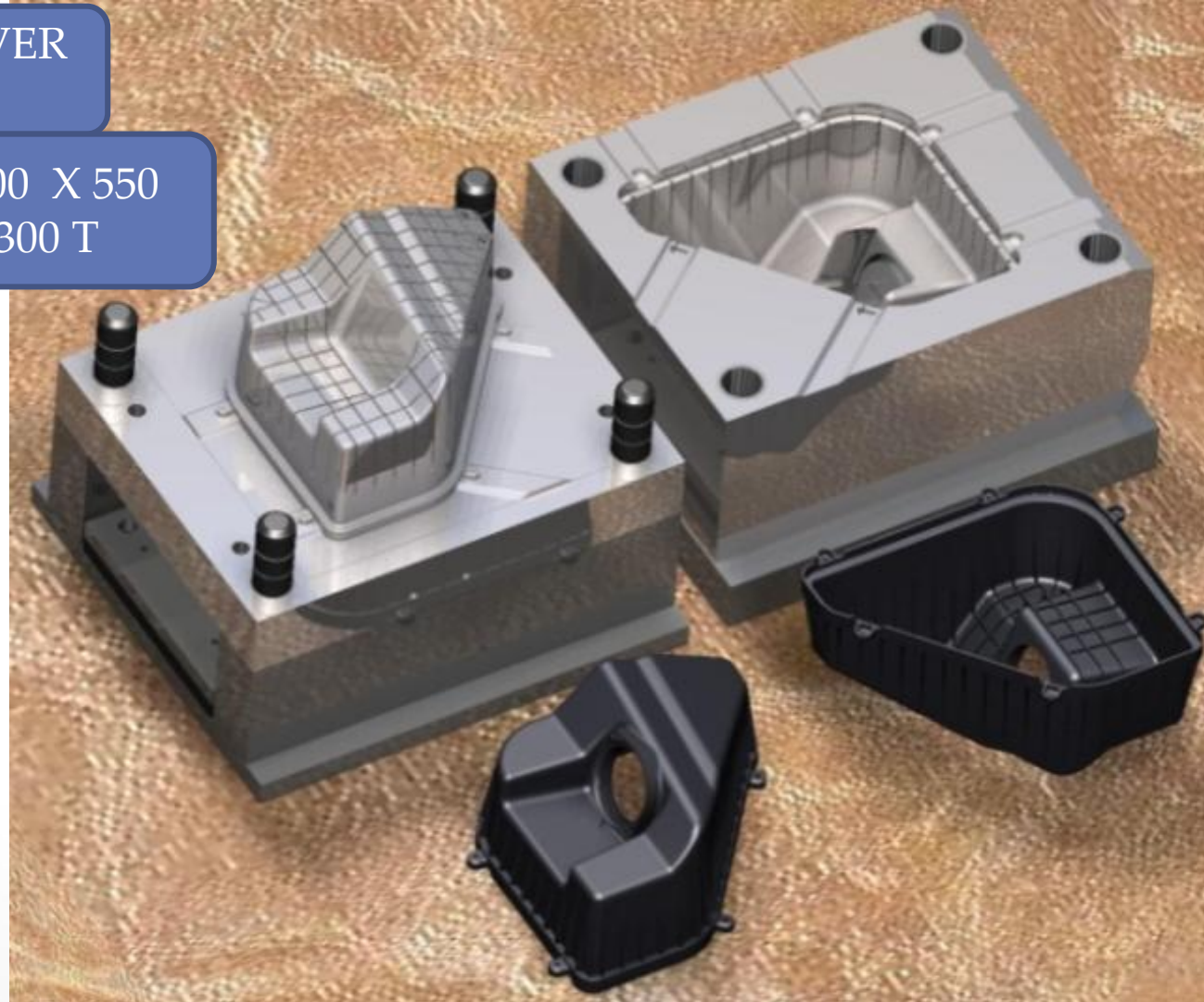
Tier-1 – Faurecia Inneraum Systeme GMBH

PART : AIR FILTER COVER

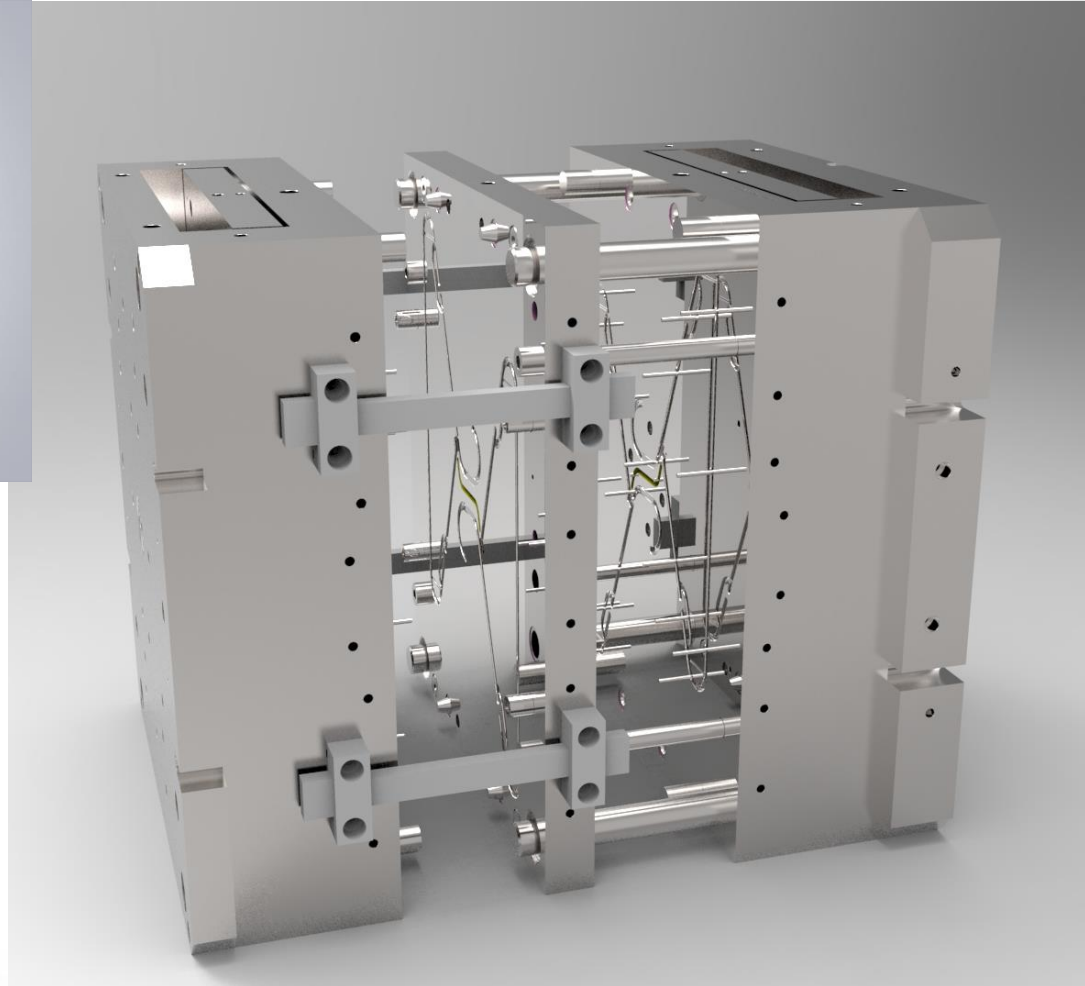
MATERIAL: ABS

MOULD SIZE : 650 X 600 X 550

MOULDING M/C : 300 T

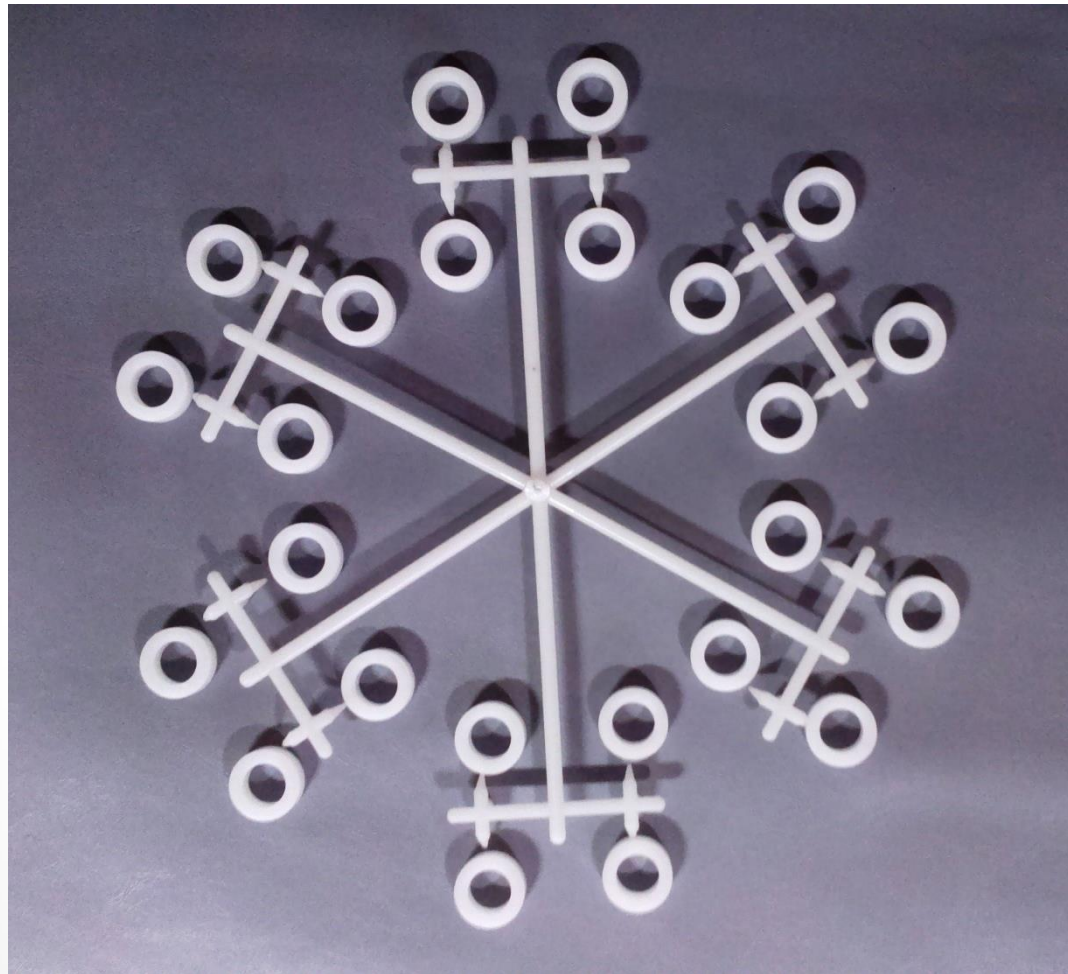


Project Name : HANGER
Customer : All Time Plastics Pvt. Ltd.



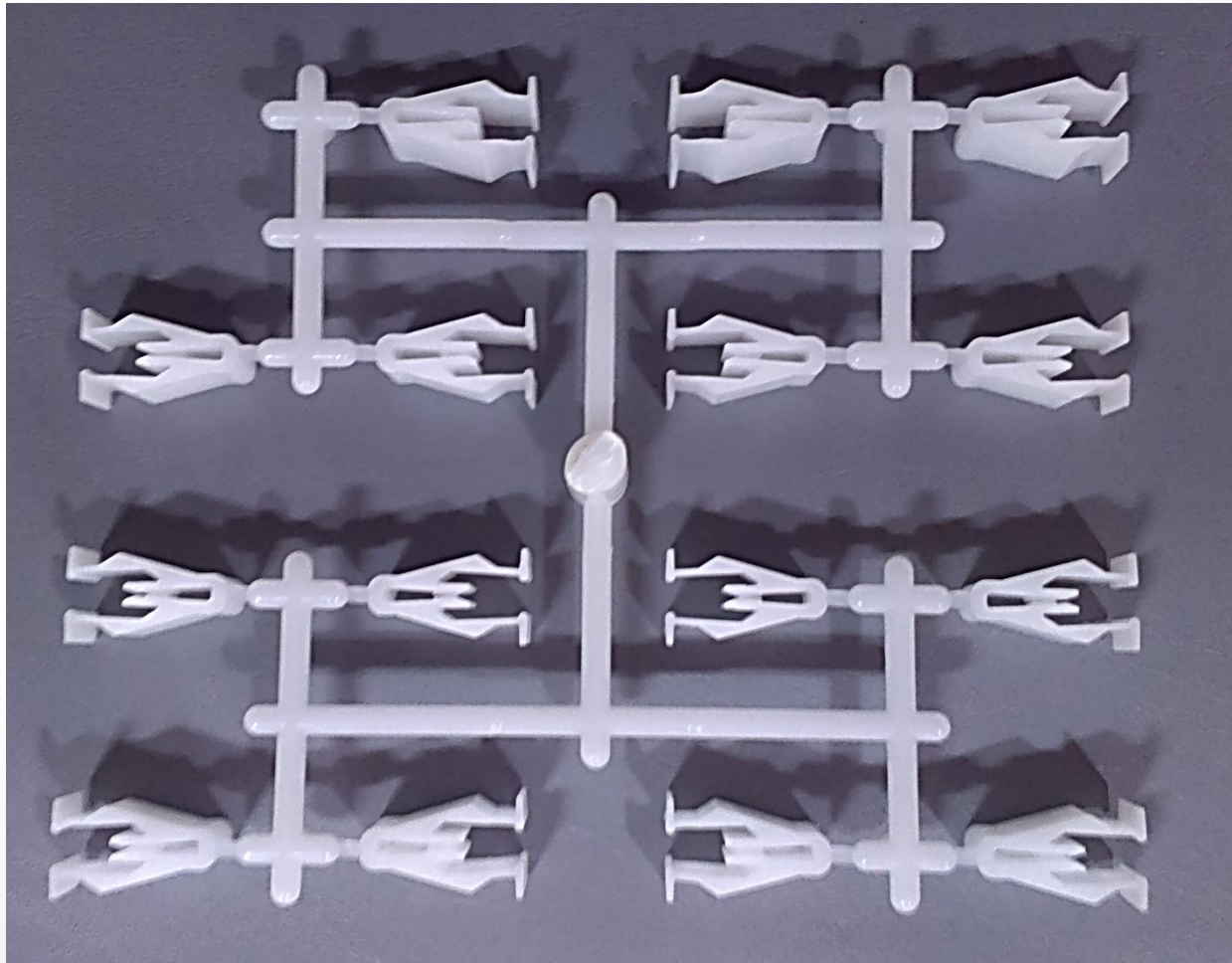
EXPERIENCE IN HARDENED & MULTI CAVITY MOULDS

Project Name : 24 Cavity Bush Guide Mould
Customer : HERO MOTOCORP



EXPERIENCE IN HARDENED & MULTI CAVITY MOULDS

Project Name : 16 Cavity Snap Mould
OEM : Honda Motorcycle & Scooter India
Customer : Premier Indoplast

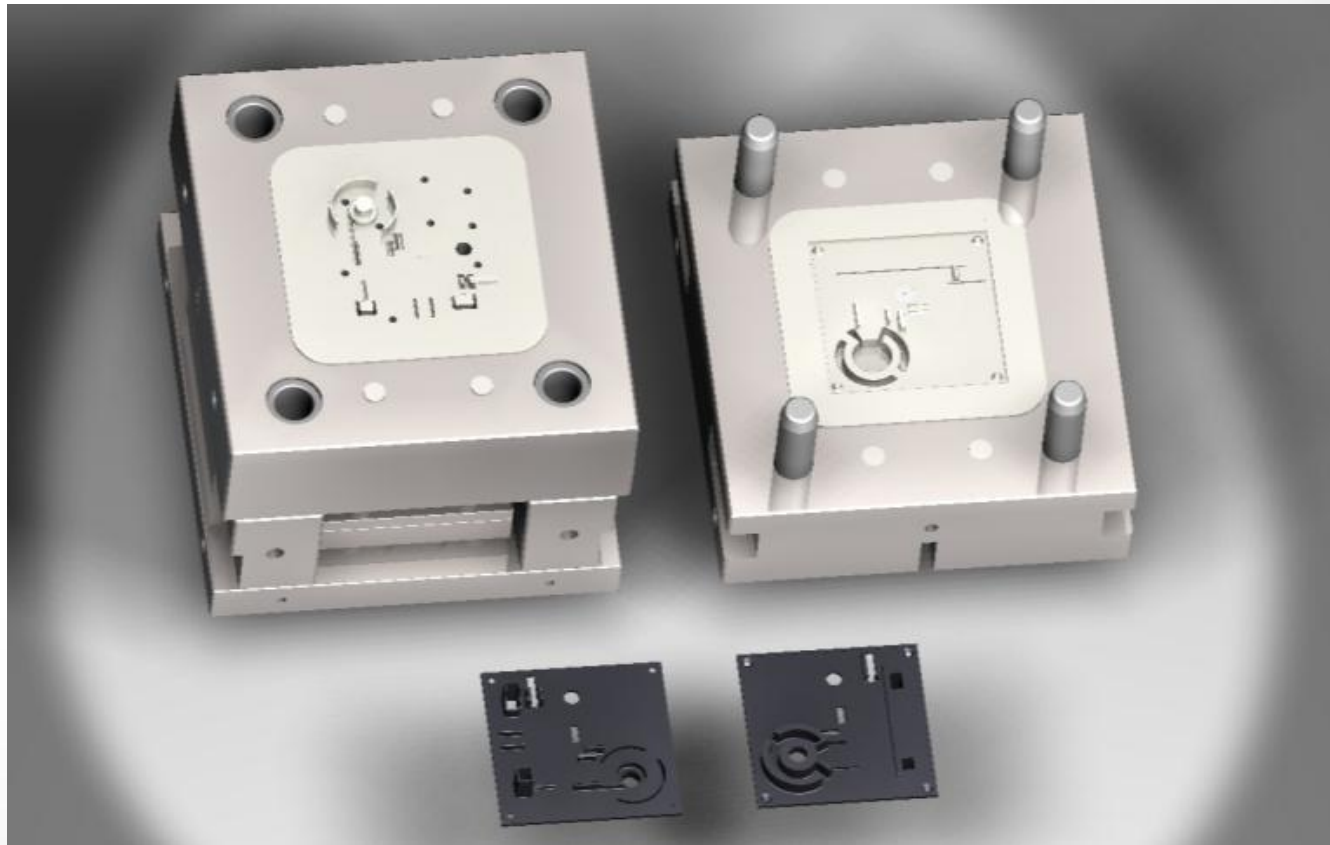


EXPERIENCE IN ELECTRICAL/ELECTRONICS

Project Name : SWITCH COVER
Customer : LARSEN & TUBRO

Part : FACIA 280 MODULE
Plastic Material : Nylon 6 - 30% glass filled.

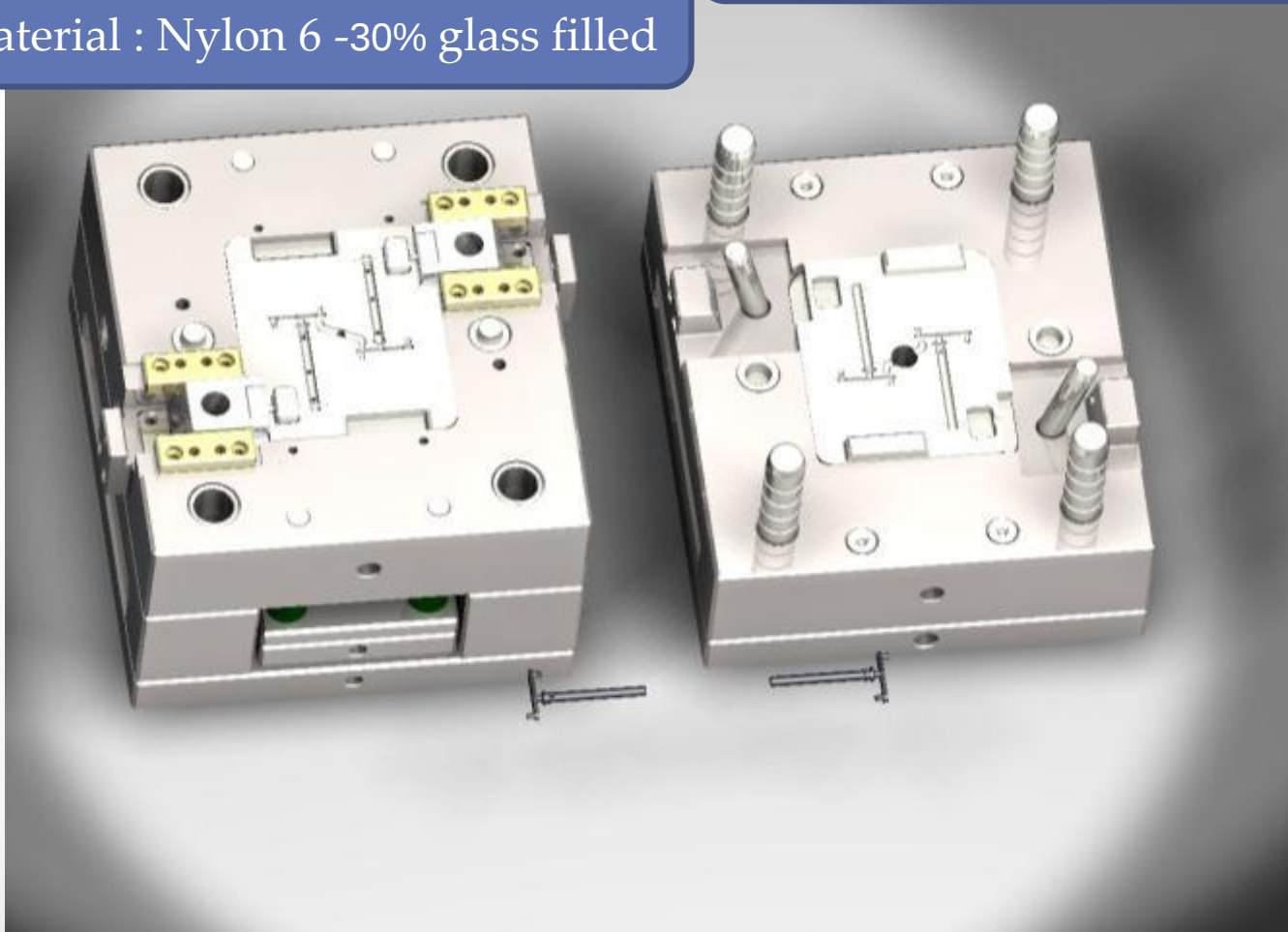
MOULD SIZE : 400 X 350 X 450
MOULDING M/C : 150 T

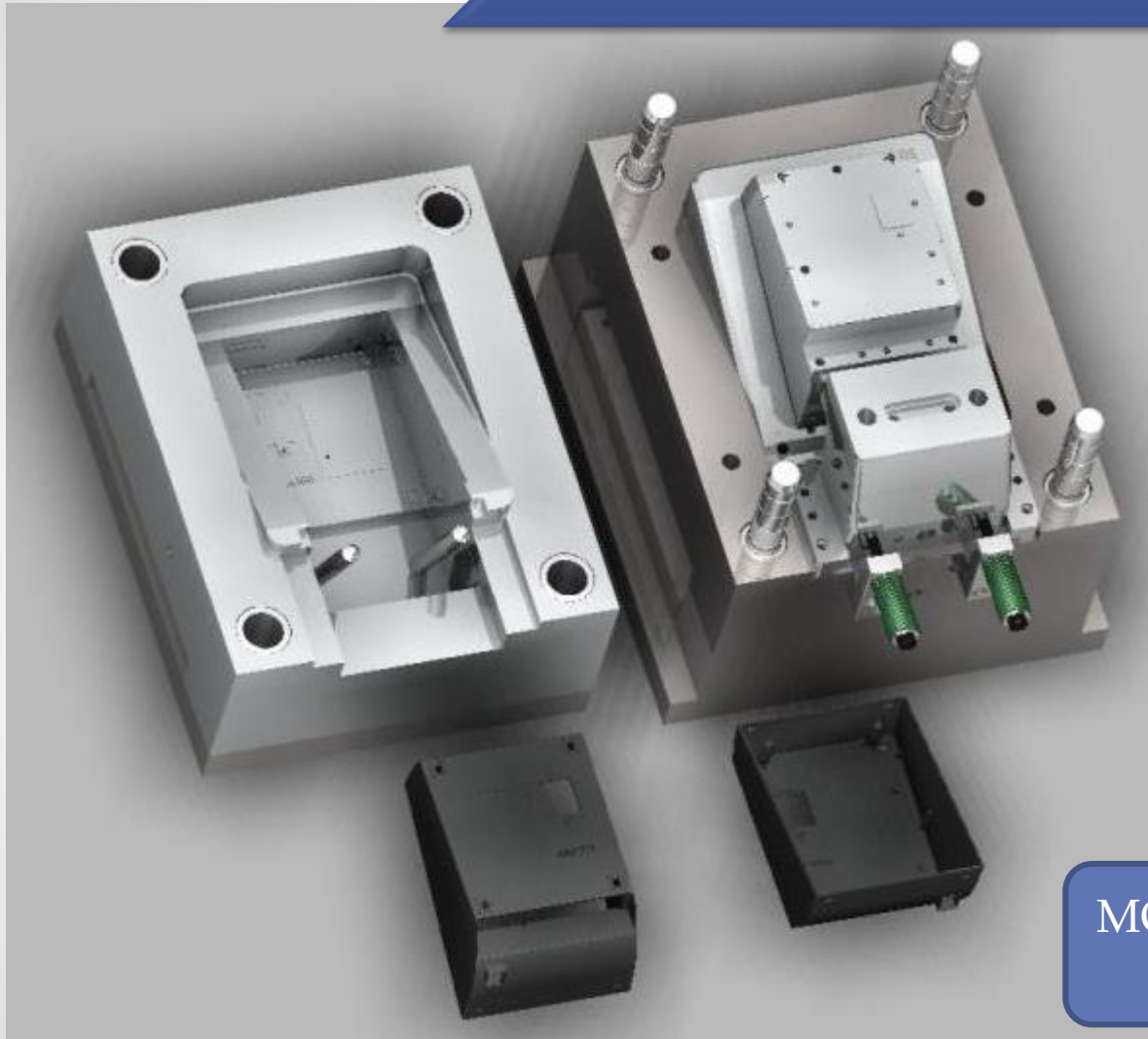


Project Name : SWITCH COVER
Customer : LARSEN & TUBRO

MOULD SIZE : 300 X 300 X 350
MOULDING M/C : 150 T

Part : Thunder
Plastic Material : Nylon 6 -30% glass filled

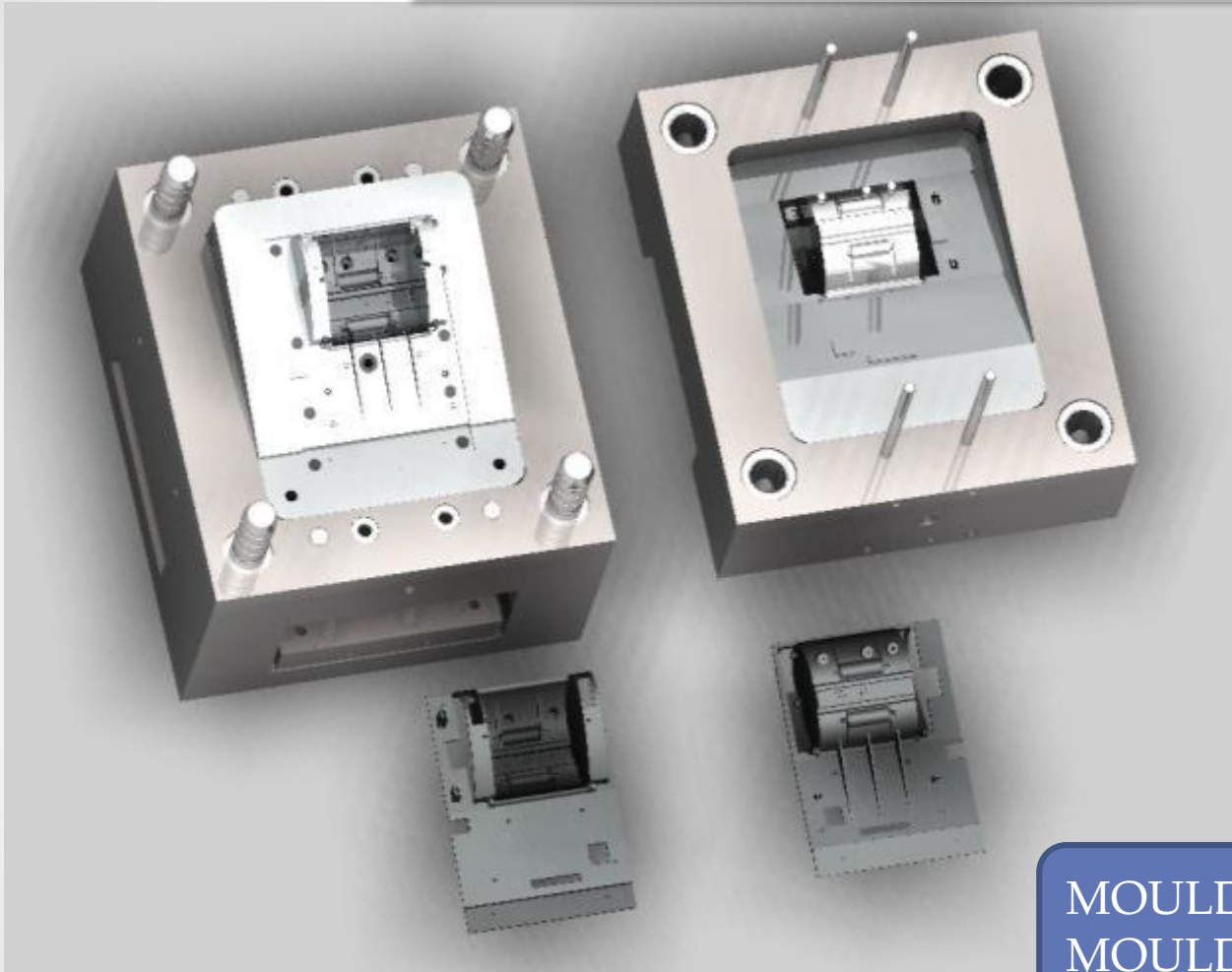




MOULD SIZE : 400 X 350 X 300
MOULDING M/C : 150 T

Project Name : THERMAL PRINTER
Customer : LIPY DATA SYSTEM Pvt. Ltd.

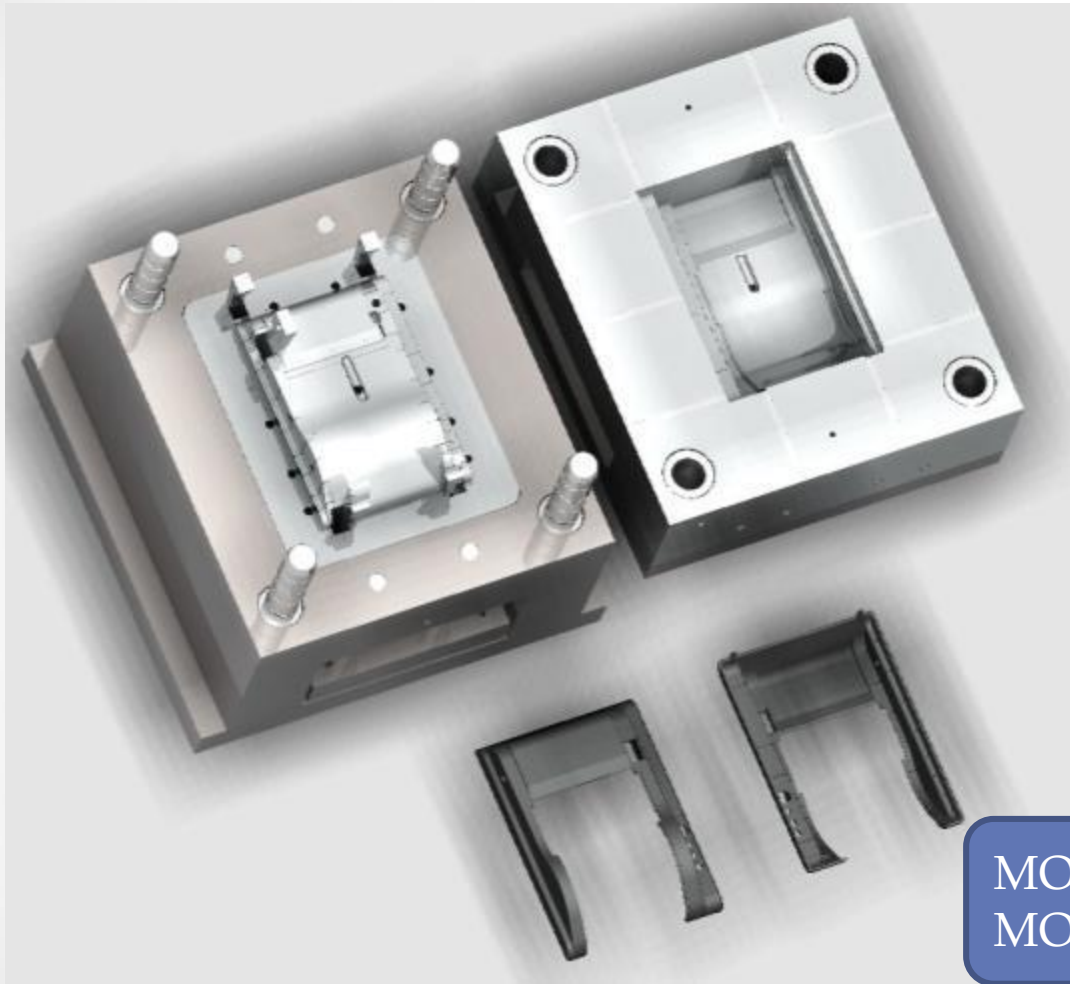
Part : BASE OF PRINTER
Plastic Material : ABS



MOULD SIZE : 400 X 350 X 300
MOULDING M/C : 150 T

Project Name : THERMAL PRINTER
Customer : LIPY DATA SYSTEM Pvt. Ltd.

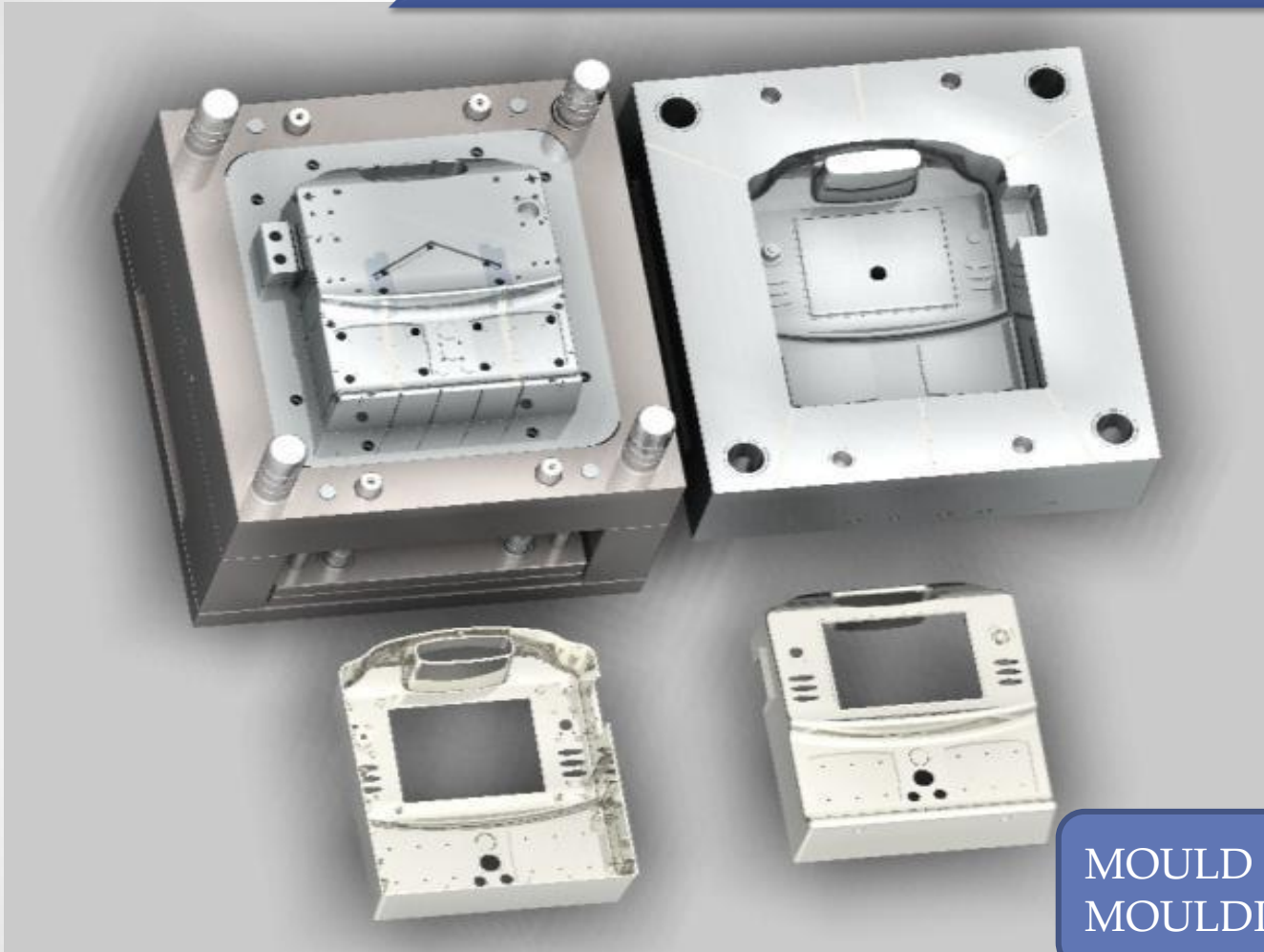
Part : CENTRAL
Plastic Material :ABS



MOULD SIZE : 400 X 350 X 300
MOULDING M/C : 150 T

Project Name : THERMAL PRINTER
Customer : LIPY DATA SYSTEM Pvt. Ltd.

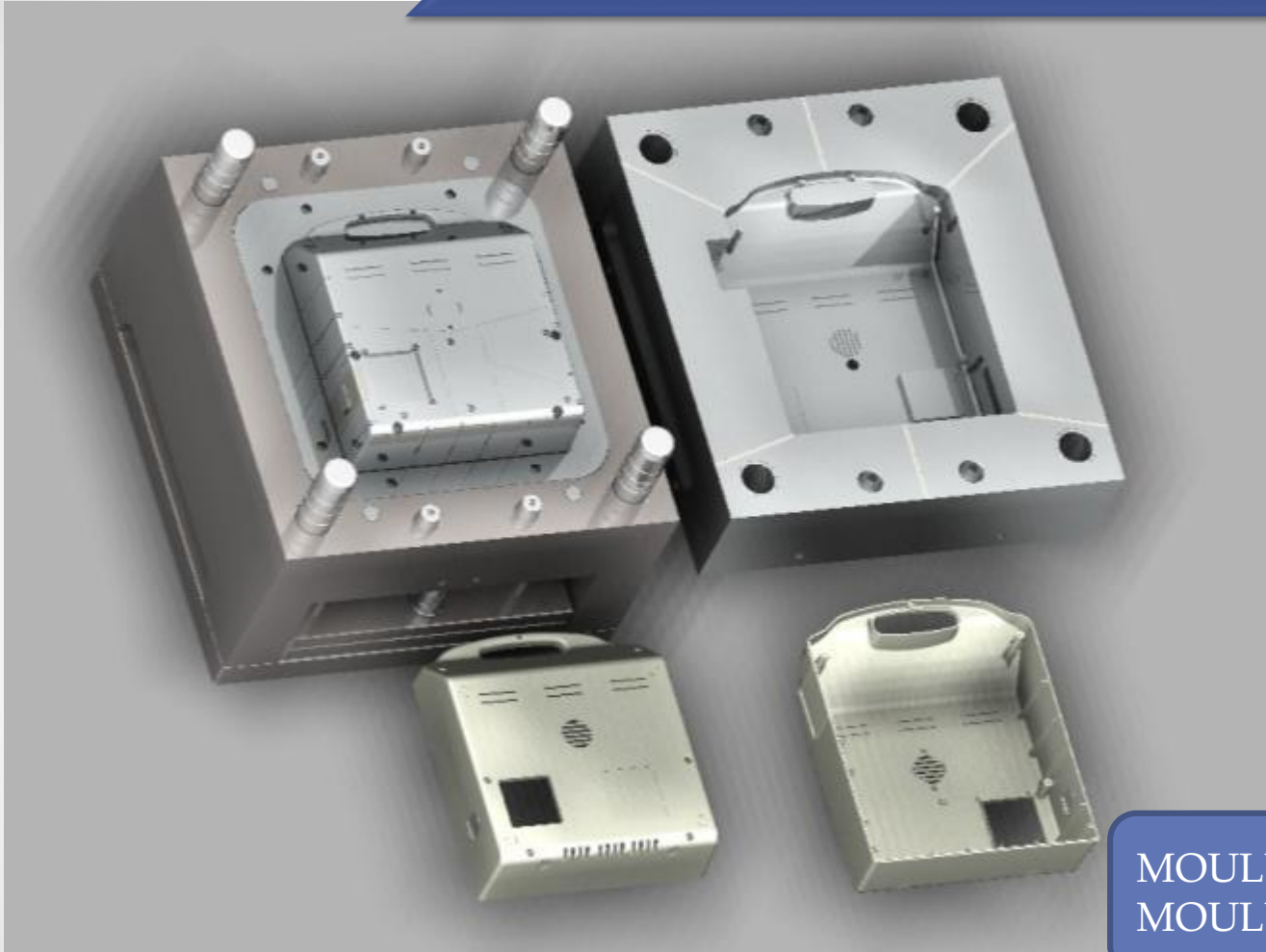
Part : TOP FIX COVER FOR PRINTER
Plastic Material :ABS



MOULD SIZE : 650 X 600 X 500
MOULDING M/C : 400 T

Project Name : DEFIGUARD ASSEMBLY.
Customer : SCHILLER HEALTHCARE INDIA PVT LTD.

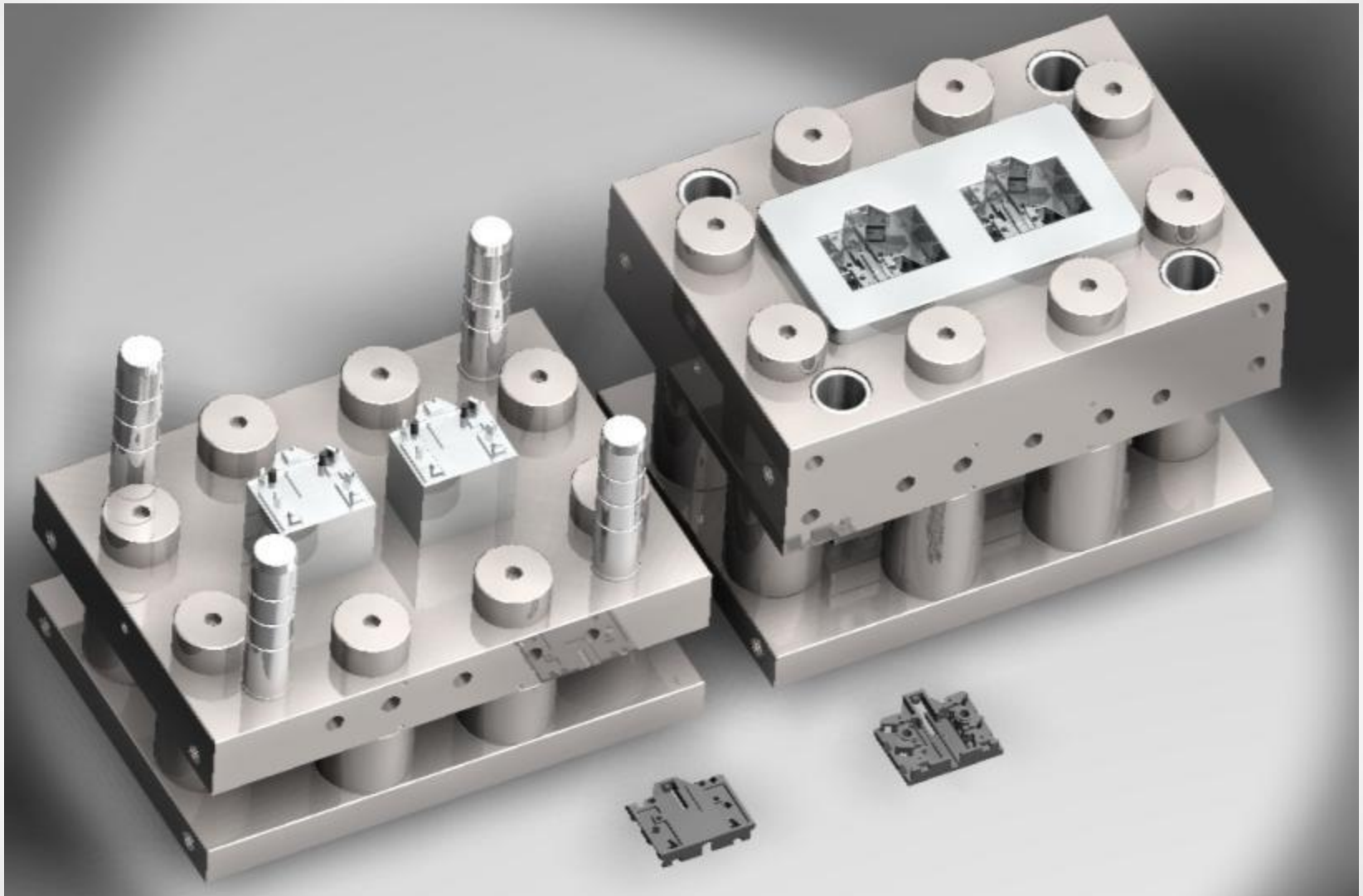
Part : ENCLOSURE FRONT
Plastic Material :ABS



MOULD SIZE : 650 X 600 X 500
MOULDING M/C : 400 T

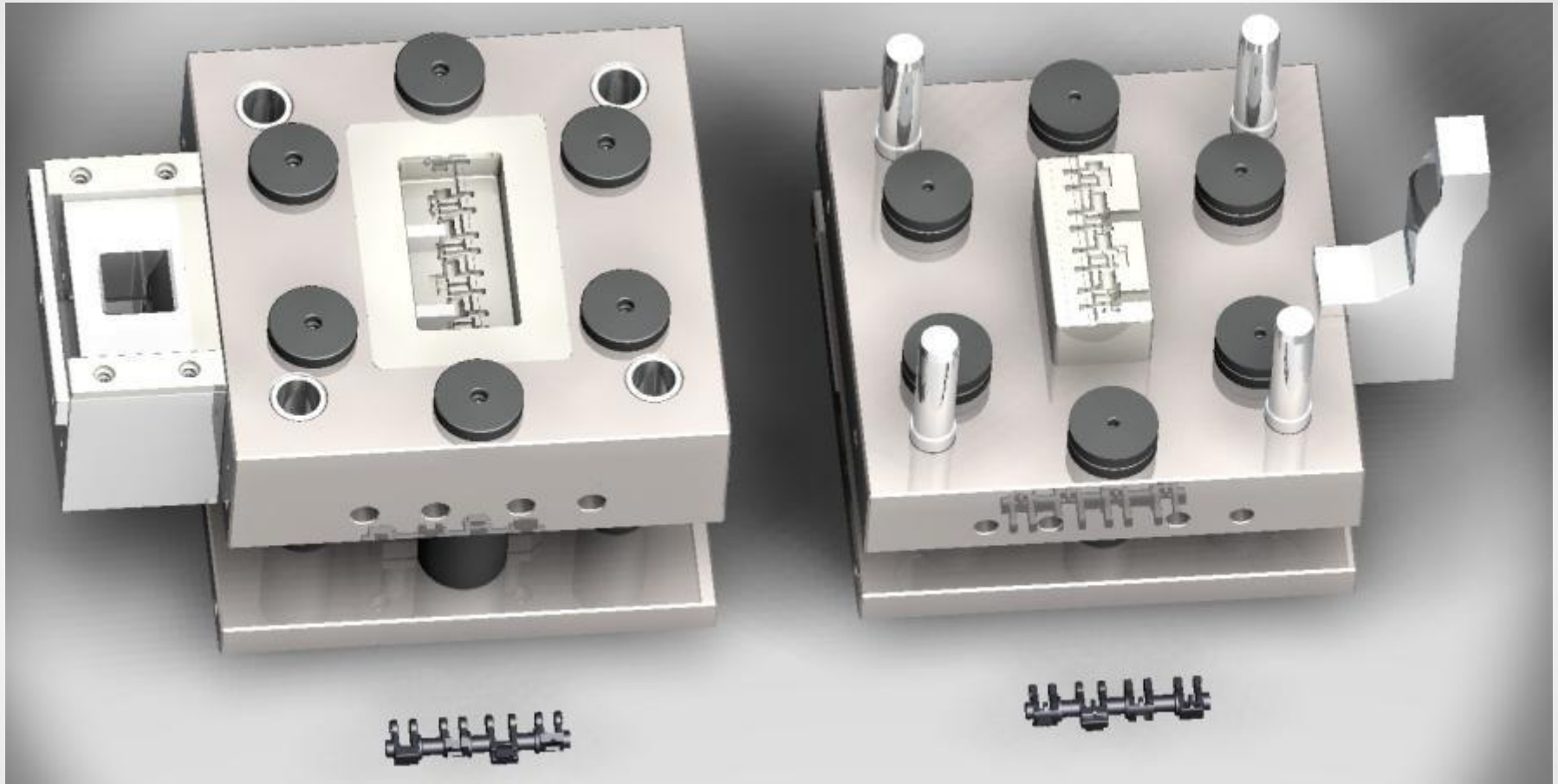
Project Name : DEFIGUARD ASSEMBLY.
Customer : SCHILLER HEALTHCARE INDIA PVT LTD.

Part : ENCLOSURE REAR
Plastic Material :ABS



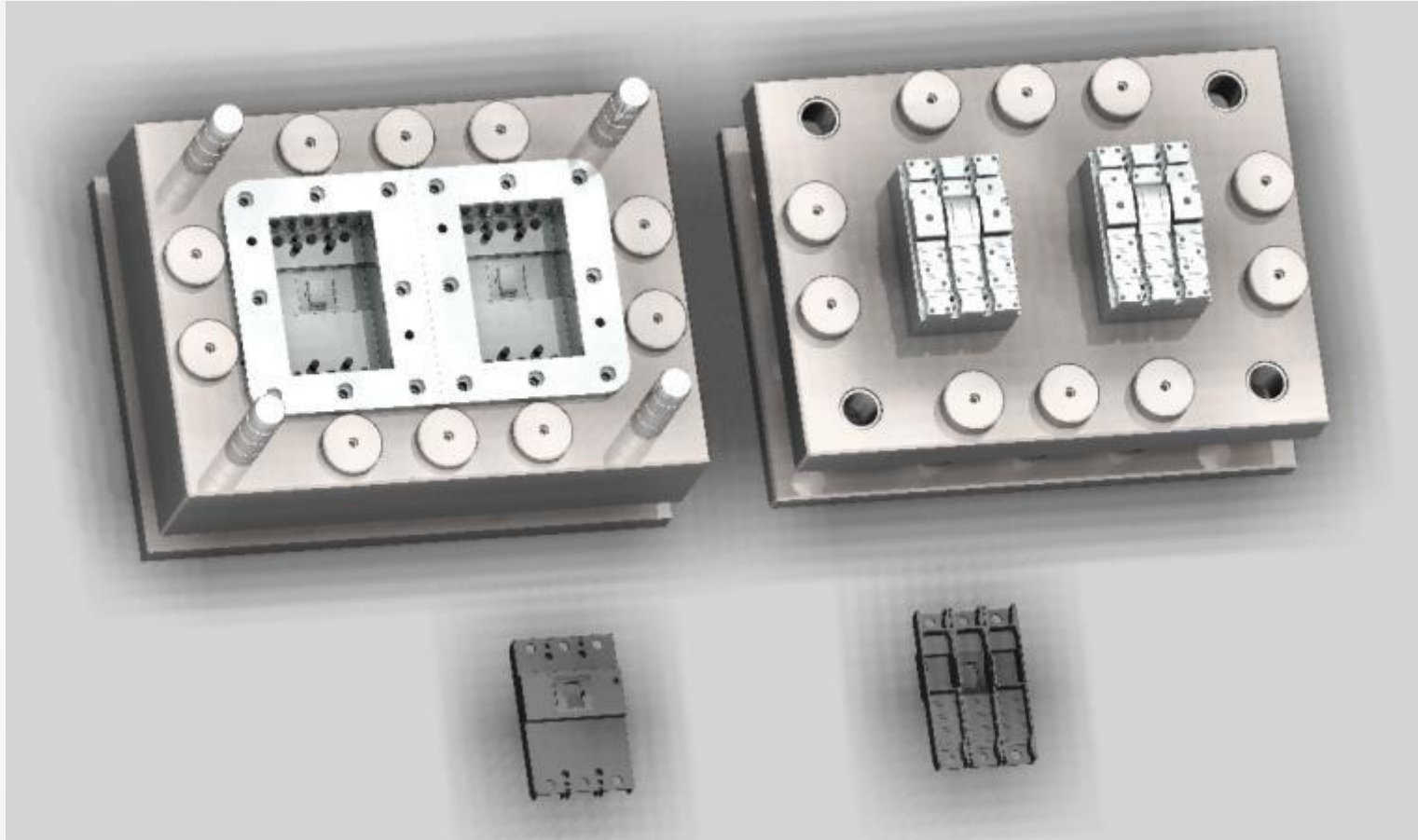
Insert Material : Orvar Supreme
Inset hardness : Rc 52-54

Part : HOUSING
Plastic Material : SHEET MOULDING COMPOUND



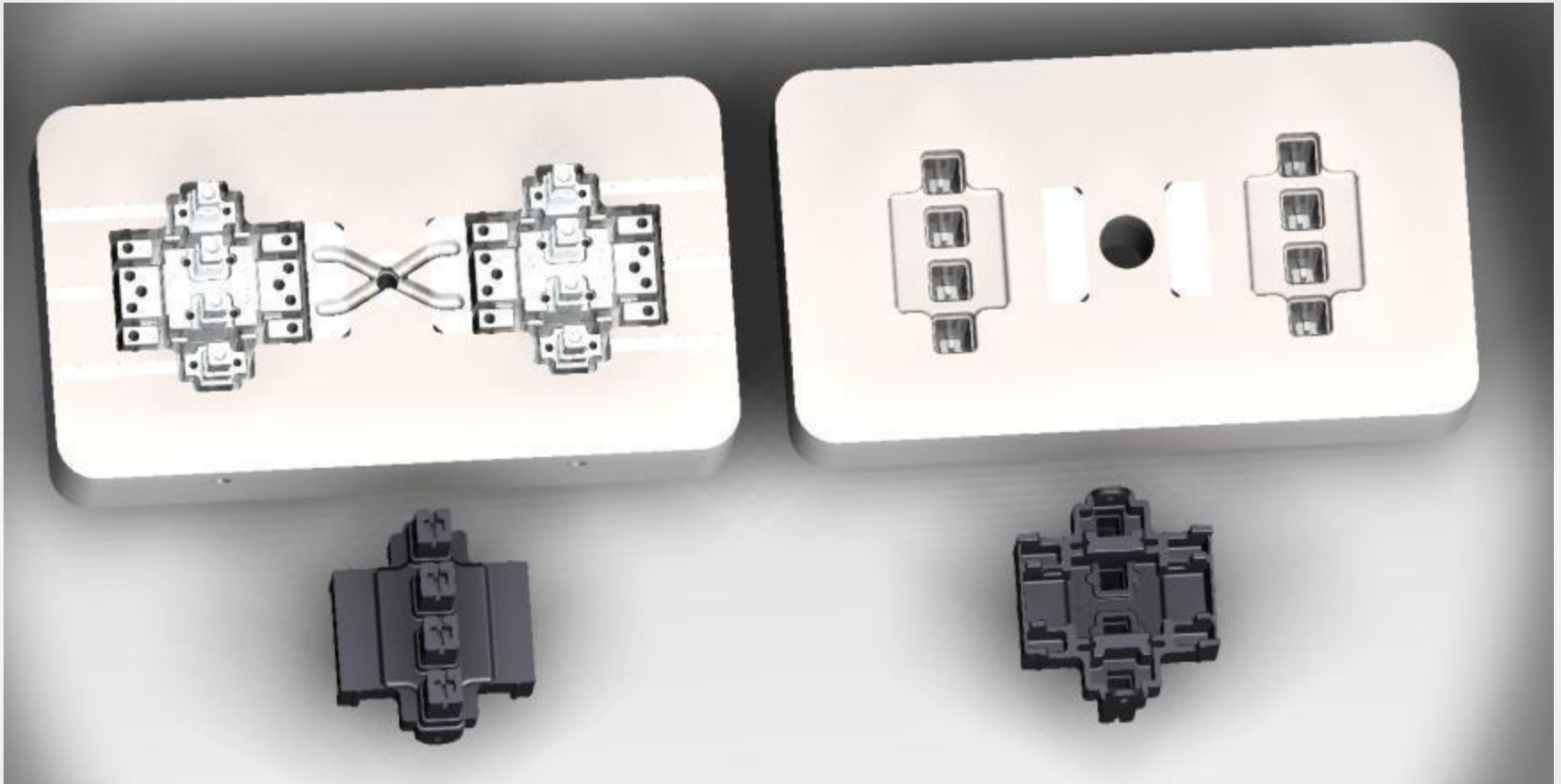
Insert material :Orvar Supreme
Inset hardness : Rc 52-54

Part : DRIVE SHAFT
Plastic Material : SHEET MOULDING COMPOUND



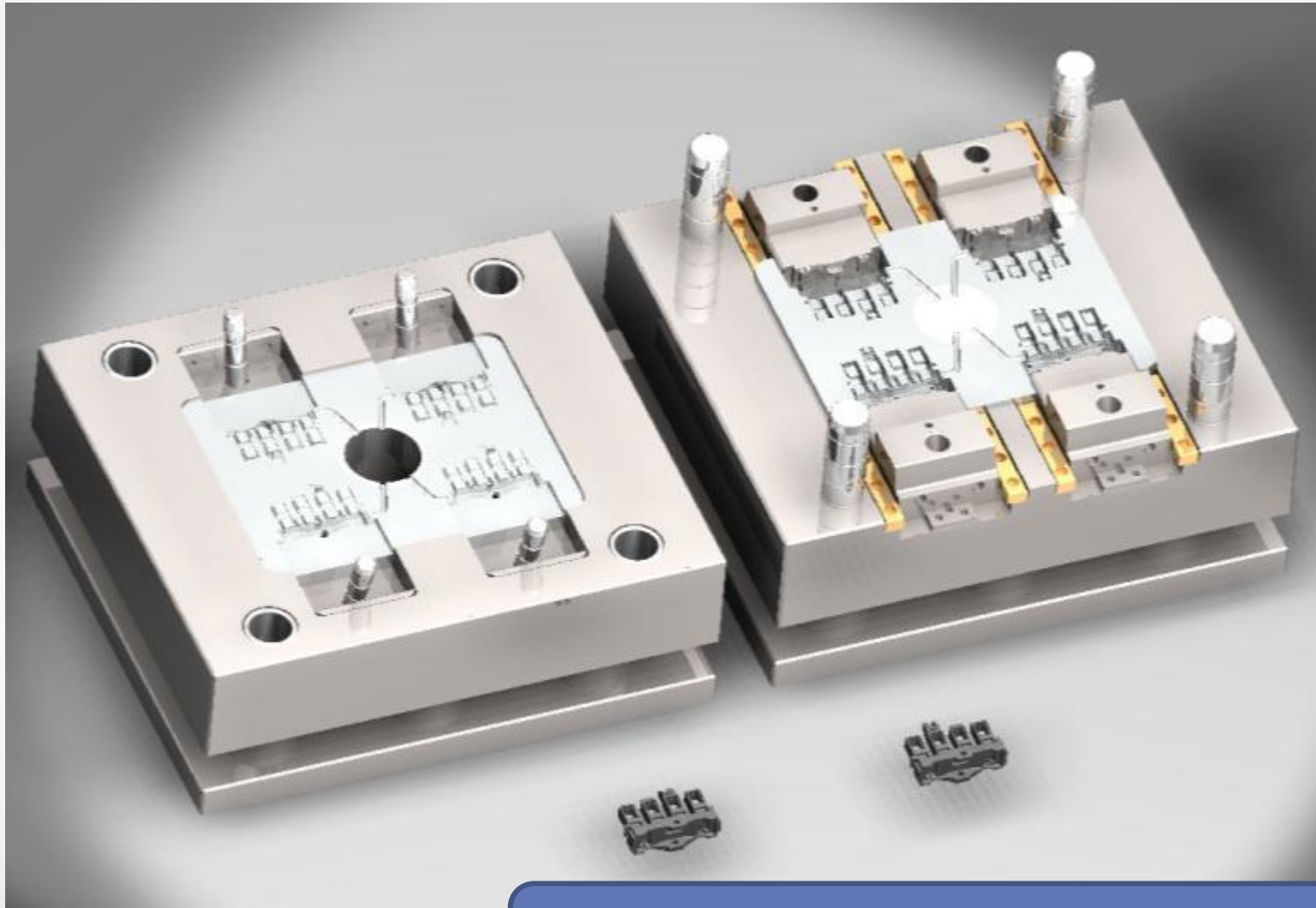
Insert material :Orvar Supreme
Inset hardness : Rc 52-54

Part : ALFANAR COVER
Plastic Material :SHEET MOLDING COMPOUND



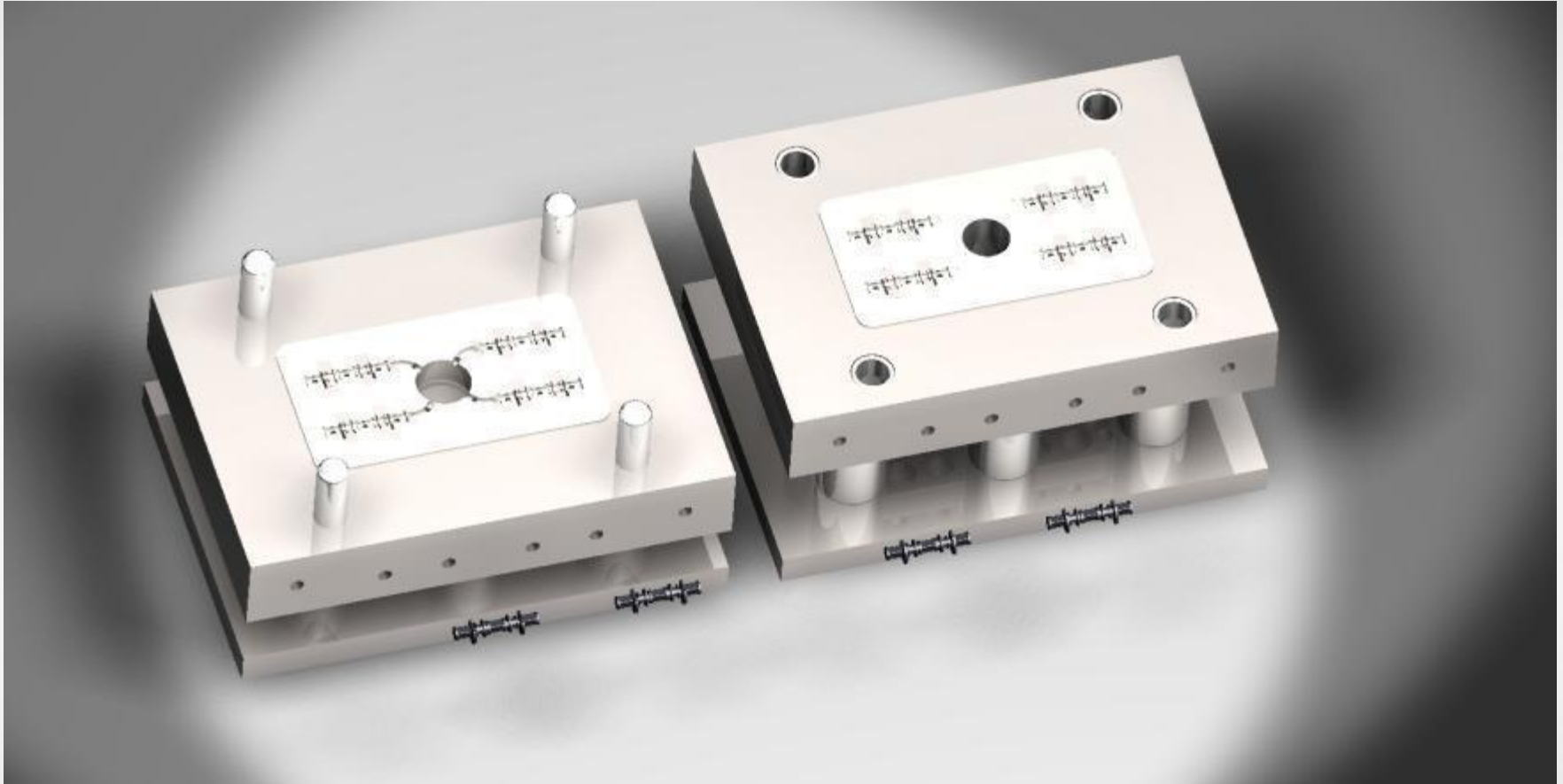
Insert material :Orvar Supreme
Inset hardness : Rc 52-54

Plastic Material : SHEET MOULDING
COMPOUND



Part : BRIDGE MCX

Plastic Material : PHENOL FORMAL DEHYDE



Insert material : Orvar Supreme
Inset hardness : Rc 52-54

Part : DOME SHAFT.
Plastic Material : SHEET MOULDING
COMPOUND





NATIONAL POLYPLAST (INDIA) LTD.



ACT PLAST PAINTS PVT. LTD.



THANK YOU

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