



*Factory Entrance*



*Office and Engineering Center*

JinWei Industry Co.,Limited (Simply : JW Mold) is located in DongGuan city , GuangDong Province, the south of China. 12 years experienced in plastic mold Making ,molding production ,worldwide delivery and after sale Services. Serving industries include automotive, home appliance, Electronics and industrial products.

JW team can Provide customer full support from free Estimation and analysis, fabrication to project complete. Reply emails in 24 hours Maximum. JW Mold is Capable to build over 110 tools a year from small Electronic product tool to big complex Automotive part , Currently building mold within 80- 7500KG. there will more machines available in the year 2020

Jimmy Tang is the owner of this company, before create JW mold ,he had been working for 3 of Top 10 famous mold makers in south of China more than 12 years totally, most of the time worked in sales dept as Marketing or project Manager . Therefore Jimmy and his team have deep understanding in USA and European tool standards , as well as their concerns on Quality , leadtime ,price and Service .

## ■ End Customers



Full customer oriented, 12 Years No Change

### America



**SL Corporation**

Purchase Order  
**AFX MOLDING, L.L.C.**

### Asia

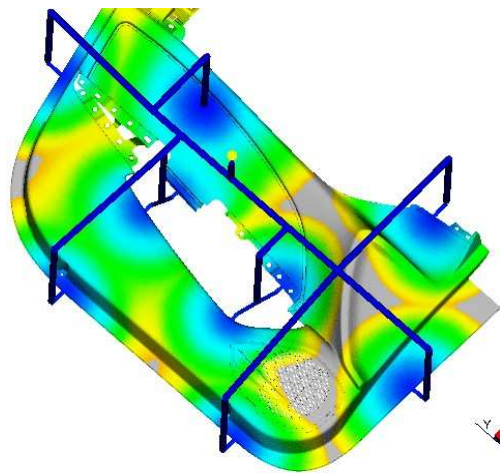


### Europe



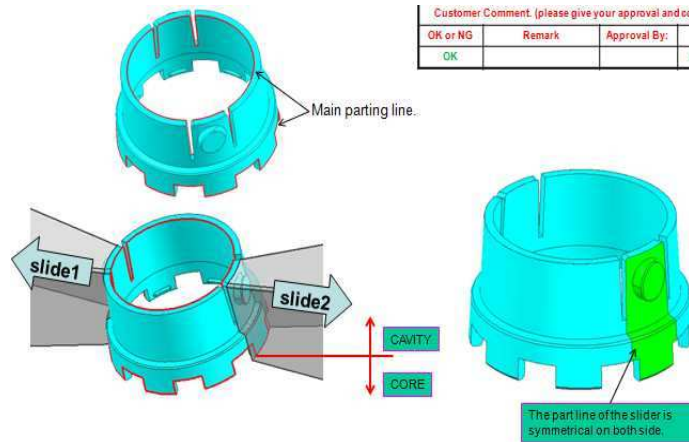
**SANHUA AWECO**

# CAD/CAM/ CAE Capability



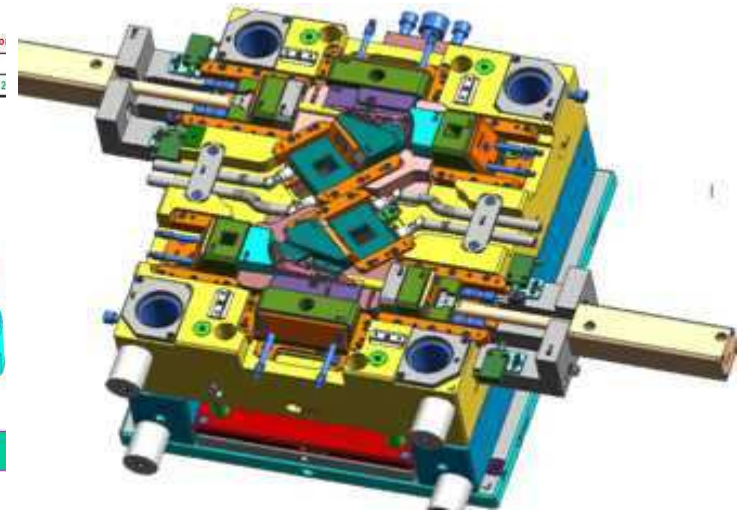
Mold Flow Analysis

Always within 1-2 days



DFM Report

Complete in 1-2 days



Mold Design

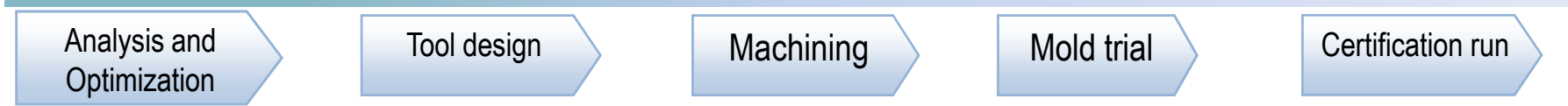
Finish in 0.5-1.5 weeks depends on complexity

Using UG NX7- NX10 for tool design and CNC programming. Autocad for create 2D drawings. Autodesk 2013 for mold flow simulation. The Customer,s data format can be in step, Catia, Pro-E,X-T, Igs ,Solidworks, No problem for JW to convert the file.

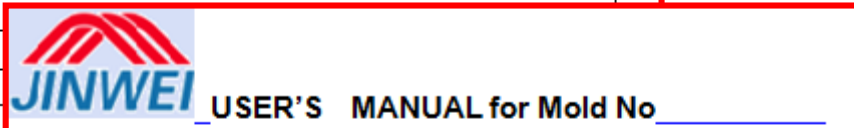
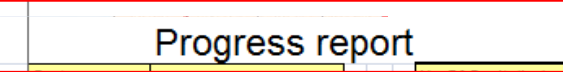
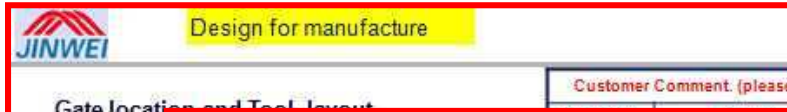
The Product Design and feasibility study will be performed by experienced designers, submit the report in PPT document With issues and proposals. Also provide modified 3D model with DFM together for approval. Afterwards the tool design will be complete in 3D format . The 2D assembly drawings is follow up after 3D design finalized



# Project Management



- Analysis and Optimization**
  - <DFM Report>
  - <Mold flow Report>
- Tool design**
  - <Design audit list>
- Machining**
  - <Weekly progress report>
- Mold trial**
  - <Process data sheet>
  - <Tool issue Report>
  - <measurement report>
- Certification run**
  - Before tool shipment.
  - <Mold check list>



模号	产品名	尺
N190 64	插头 Fixierungs nagel, 1001045_a	约 20 23 1.8
N190 62	高筒 Patronengeh. Bajonett L202, 1001040_b	约 48 20 29

Year 2019	
Description ( Green grids are sundays or China public holidays)	Pr
Mold Design and customer approval	Pr
Hot runner system Purchase	Pr
Mold Base & Steel	Pr
Place order & Delivery for Moldbase	Pr
Place order & Delivery for Steel	Pr
Machining process	Pr
Drill Waterline , thread hole	Pr
Rough CNC Cut	Pr

试模起始时间:	
第几次试模 Trail No:	
Part Name 零件名称	
Part No. 零件编号	
Resin 塑胶原料	
Color 颜色	
Cavity Number 模穴数	
温度公差 ±15°C	
Zone 1 前段 °C	
Zone 2 二段 °C	
Zone 3 三段 °C	
Zone 4 四段 °C	
Zone 5 五段 °C	

模具资料 MOLD INFORMATION .....	3
模具使用说明 THE OPERATION OF MOLD .....	4
模具维护保养 Operation and Maintenance .....	11
附件/备用清单 Accessories and Spare parts list .....	14
模具检验单 Final Inspection report .....	15
用户意见反馈书 Comment and Suggestion .....	17




<Out put check report>

- <Process data sheet>
- <Packing instruction>
- <Quality instruction>
- <In process Check record>



# Measurement and Quality Control

 <b>Sample Measurement report</b>										
Part Name	FM Gehae	Part No:	70.004.812	2018-10-08	Cavities:					
Customer		Mold NO.	N18016	T4	Material	PA-GF40 Grivory				
Item	Design Spec	Upper Tol	Lower Tol	Actual Dimension					Result	tool
				Cav1	Cav1	Cav2	Cav2	Cav2		
1	Ø9.9+0.1/-0.05	Ø10	Ø9.85	Ø9.91		Ø9.88			OK	CMM
2	Ø7.3+/-0.05	Ø7.35	Ø7.25	Ø7.33		Ø7.35			OK	CMM
3	Ø13.2+/-0.05	Ø13.25	Ø13.15	Ø13.18		Ø13.18			OK	CMM
4	Ø9.9+0.1/-0.05	Ø10	Ø9.85	Ø9.88		Ø9.89			OK	CMM
5	12.5+/-0.1	12.6	12.4	12.48		12.47			OK	HG
6	11.5+/-0.1	11.6	11.4	11.45		11.46			OK	HG
7	4.95+/-0.05	5	4.9	4.950		4.960			OK	CMM
8	10.3+/-0.05	10.35	10.25	10.28		10.290			OK	HG
9	10.03+/-0.03	10.06	10	10.03		10.04			OK	CMM
10	13.6+/-0.1	13.7	13.5	13.59		13.58			OK	CMM
11	78+/-0.5	78.5	77.5	77.76		77.75			OK	CMM



Hexagon Croma CMM machine . Measure range 1000\*800\*600mm

- Thorough understanding customer quality requirement.
- Strict quality control system and procedures.
- Equipped high precision CMM, projector, and other measurement equipments. the measure deviation is less than 0.003 mm.

Proceed with the following measurement reports for each mold:

- 1) Steel hardness
- 2) Electrodes dims
- 3) Steel dims
- 4) Sample measurement report after mold trial



VMS Projector, measure capacity 400\*300\*200

## CNC machines



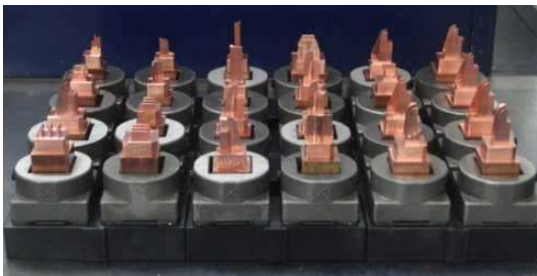
*Till Aug 2020, JW Mold has 4 sets CNC machines in house, 2 of them are high speed machine with 24000 RPM, machining tolerance +/- 0.01mm, Cut area 600\*500\*300 and 710\*460\*570 mm respectively*

*the biggest one is "Hartford 1270" with 1270x650\*630mm cut stroke. Machining tolerance within 0.025mm. Another big CNC machine with cut area 1000\*600\*600mm, tolerance +/- 0.015mm*

*More CNC machines will be equipped in year 2021. planning add one more big size CNC machining center with stroke 1500\*1000 mm*



## EDM machines



1. All operations according to standard operation instructions.
2. Full dimensions measure on electrodes before Process EDM.

*Currently there are 4 sets EDM machines inhouse, one of them is a high precision CNC machine from Swiss company "Charmilles" with machining tolerance 0.005 mm, can process Mirror level finish and VDI 3400 series finish*

*the bigger ones have 800mmx600\*500mm stroke and tolerance within 0.025mm*

*More EDM machines will be equipped in year 2021. planning buy one big size double head CNC machine wth stroke 1300\*800\*600mm for Process the "Auto Grille " molds and "washing machine tub" molds*



## Wire cut and gun drilling machines



Above is Japan Sodick precision EDW machine with tolerance  $\pm 0.005\text{mm}$ .  
another 2 sets precision EDW machines  
Are from Taiwan with tolerance  $\pm 0.01\text{mm}$



The Deep hole drillings are outsourced From a gun drill shop nearby ,within 300 meters or 0.3KM from our tool shop. That shop has 4 sets big machines with Max drill depth 1.6m per side. So from both sides can drill the 3 meter long steel plate . The holes diameter can be range 3mm to 80mm



## Work shop and other machines ,devices



Milling and drill machines



In total 5 sets cranes in JW tool shop . 2 sets 1T, 2 sets with 3T ,and 1 set can lift 7.5T(7500KGS) . that means 80% of big automotive or appliances tools can build in our here



Grinding



The Meeting room Has high definition projector and phone devices Can call to Foreign clients for discuss project details

The Differences with other tool shops:

- 1) Owner directly managed So could provide most aggressive but achievable prices and leadtime
- 2) Separate mold building by several teams for best management of cost / leadtime.
- 3) Finish all molding surface through machining, hand grinding is not permitted except those prototype tools.
- 4) The employee turnover as low as 5-10% each year .this is very important for experience accumulation and keep quality stable

## Tool testing and Molding production

JW Molding shop is 600 meters far from JW tool shop, has 100-250T machines in house for both tool testing and production purposes

For Some kind of parts which still need 2<sup>nd</sup> process after molding for example painting ,silk screen,pad painting ,assembly so on. We can provide these services by cooperate with the nearby factories , all within 3 Kms so control the leadtime are convenient . The paint color are normally base on Pantone or RAL standards or customer requirement . JW will responsible for the Quality, no excuse.



Whatever test inside or outside of JW ,JW will Follow customer,s tool trial prodedures and standards.  
Use scientific mold trial method, check feed balancing by 50% and 80% percent with consecutive 5 shots  
put printed cooling diagram and temp. sensors beside the machine ,connect cooling lines separately without mix up.  
Send info to customer just after the trial finish . Record the issues and solve one by one after tool off the machine .

For big tool trials ,we do it outside in a professional tool test company which is 1200 meters far from JW tool shop. They have 15 sets standard machines range 80-1000T , 1 set 250T two color machine ,with core side rotatable and 2 parallel inject units.



700T

1000T



1600T

Also more bigger machines for example 1300-2000T are available in another professional tool test company with 20 KM distance . Some parts has heavy thickness or much glass fiber filled will require big machines for easier get full shot .

## Automotive Molds ( For end customer : Lear / BMW )



Part name: HANDLE\_RELEASE Latch

Mold Size: 650X600X633mm / 1850 KGS, Resin: PA6-30GF

Total 4 cavs. Mastip hot runner system to cold gates

2 sliders per cavity. Pilot by AHP Merkle Hydraulic cylinders

1.2344 full hardened steel for cavity inserts for able to Apply BMW texture

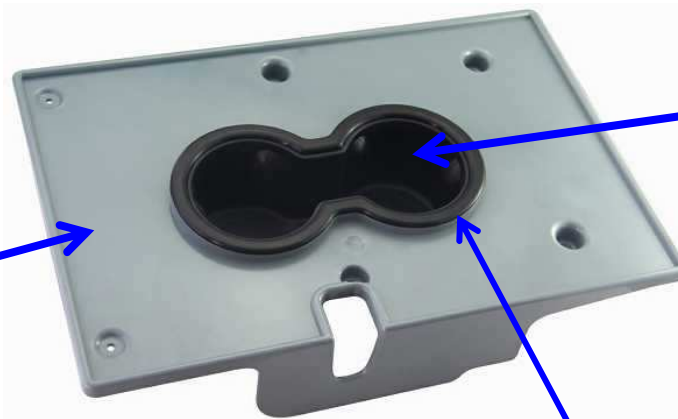
1.2083 full hardened steel for inserts of all other molding surface

Built the 1<sup>st</sup> tool in 2016 ,finished by 3 times of mold trial

For 2<sup>nd</sup> similar tool built in 2018, only performed 2 times trial before shipment



## Automotive Molds ( For end customer : Lear )



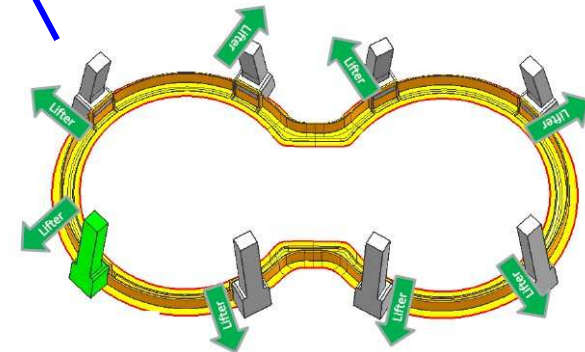
L0756589, soft TPV , 6 sliders

Project name : Jeep Compass , in total 10 tools launched together . Took 12 weeks from Order placement to ship all the tools to Europe. These pictures showing assembled 3 parts belong to this project.

The grey colored part " SEAT ARMREST" ,Dim 410\*270\*100mm ,Material PC/ABS.Mold Size: 650X800X620mm /1700 KGS, Only 1 cav with YUDO hot Valve gate . Many sliders ,lifters ,shut off inserts



Mold Picture



L0756598 decorating ring  
8 lifters for release the hooks  
Material is PA/ABS

## Automotive Molds ( For end customer : Lear )



These 2 holes formed by hyd driving sliders

Part name: Seat storage upper , L0756789. Part Size:  
650X600X633mm / 1850 KGS, Resin: PA6-35GF

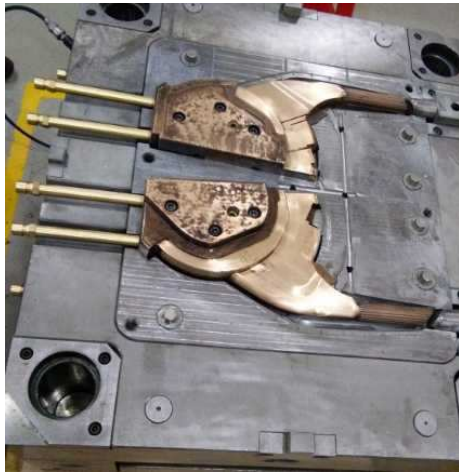
Mold Size: 780X880X770mm / 3150 KGS, YUDO 2 Valve gates.  
1.2344 full hardened steel for cavity block for Apply texture by  
customer in Europe. with 1.2083 full hardened steel for inserts  
of all other molding surface.

Even this is a internal part that will be covered by leather, but  
Customer required the parts have smooth and shining  
surfaces . well achieved by polish and molding settings

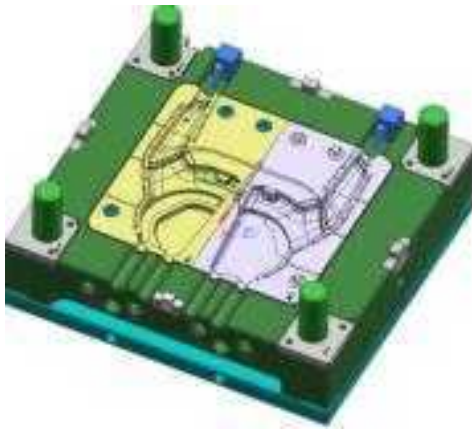




## Automotive Molds ( For end customer : GM , FORD)



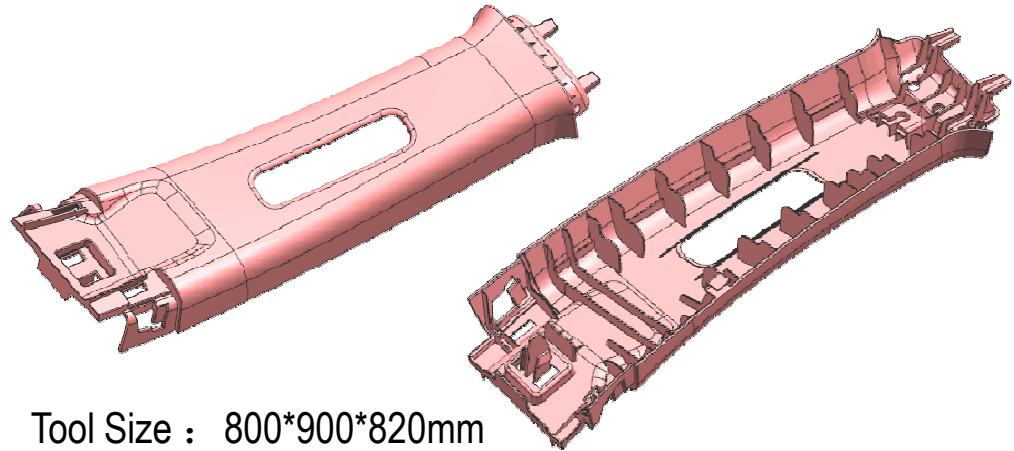
Textured the handle area by Customer appointed Japanese Company in China



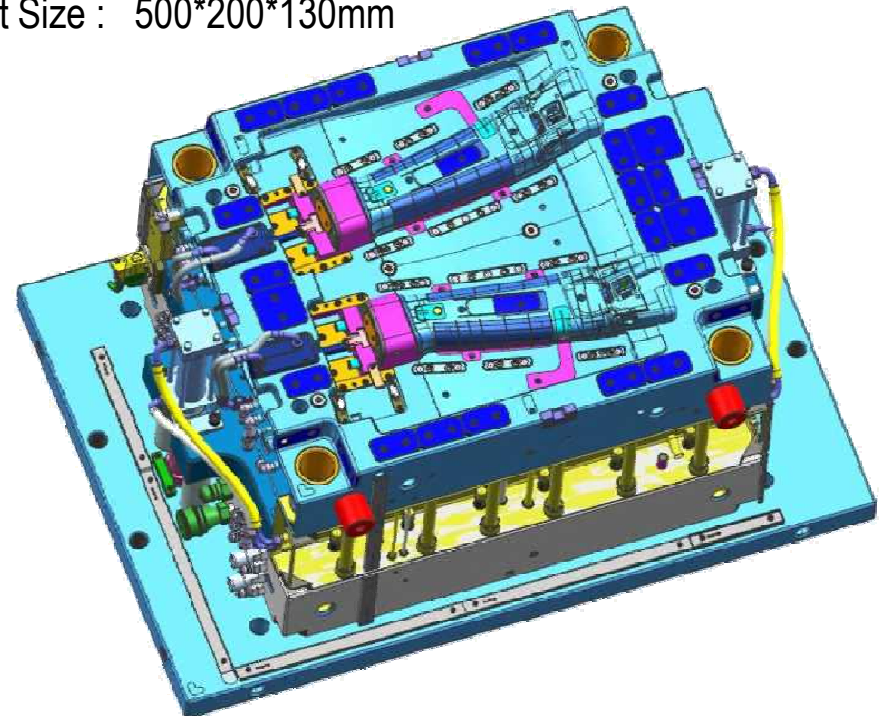
Hand brake cover

Part size about 350\*180\*50mm. 2cavs . The "floating" Core blocks made by Becu material for quick heat release because the Max thickness of the part close to 10mm.

Tool of Car component "B Pillar Cover"

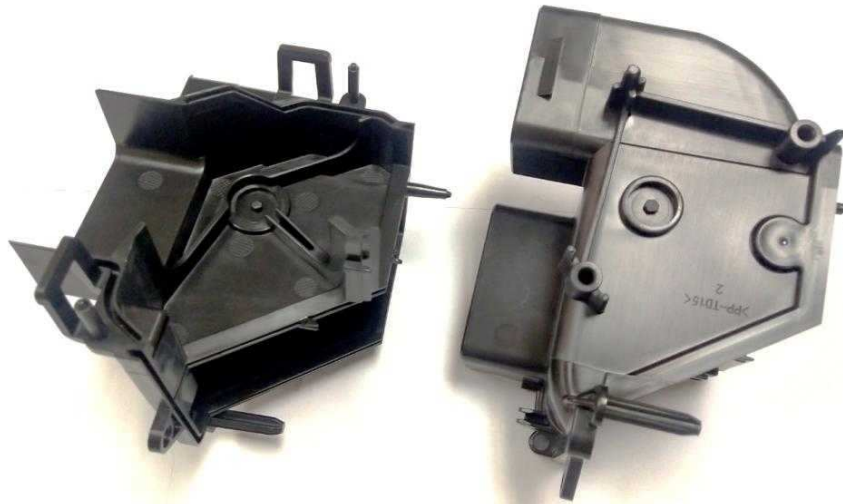


Tool Size : 800\*900\*820mm  
Part Size : 500\*200\*130mm

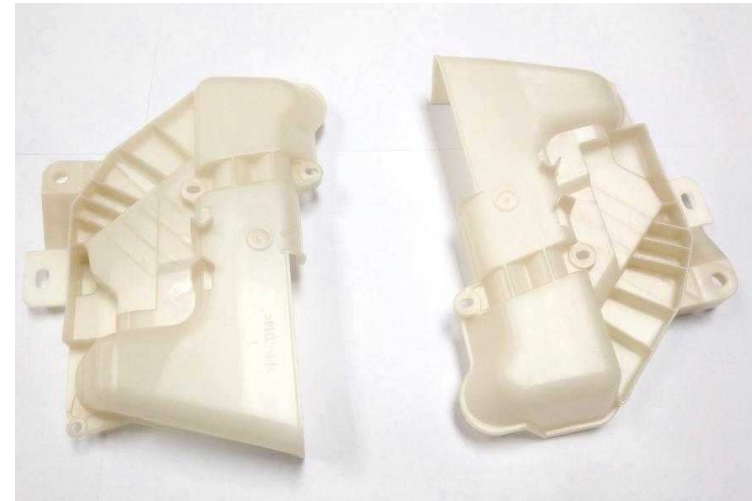




**Automotive Molds For end customer : Marelli ( previously CKNA)**



120\*115\*153mm, 2+2cav , T1 in 7 weeks



246\*184\*73mm, 2+2cav , T1 in 6 weeks



All about 129\*139\*190mm, 1+1+1+1 cav , sliders from all directions led to mold length more than 1 Meter. Very complex tool structure but good samples obtained just after 1 time trial



PA6 GF30  
Surrounded by sliders  
About 300\*180\*120  
T1 in 6 weeks  
Then samples OK ,could  
ship the tool to Europe



Brass insert molding,  
Becu core for deep ribs  
inside of the part



Float B plate  
Of moldbase



Thickness 6-  
9mm.the center  
cores made by Becu  
material for quick  
heat release

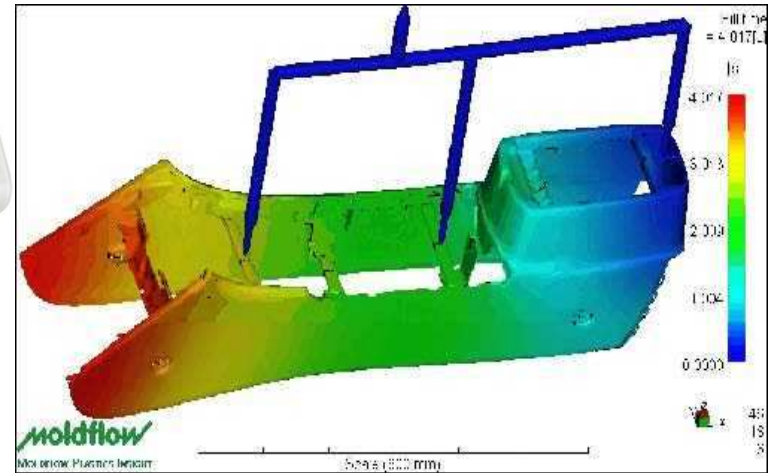


Lifters  
inside ,  
Slider  
outside



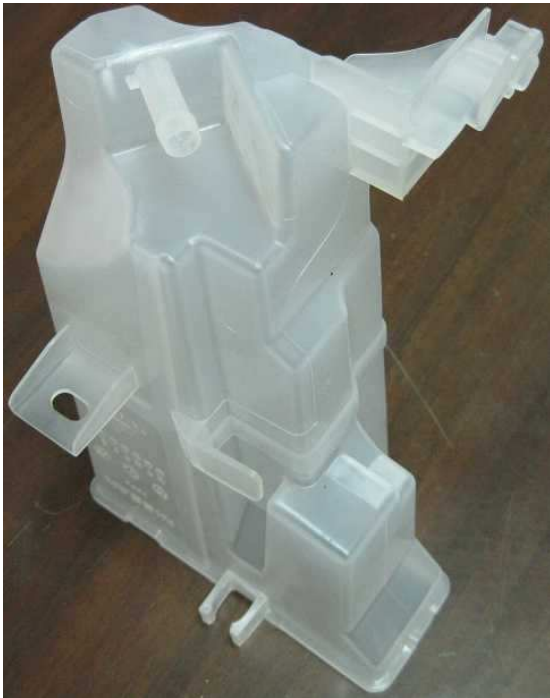
Material PA,  
Made 2  
similar  
molds

Other Automotive samples from the tools made in JW



We have built various automotive molds including center console, handset, knob insert and overmold, manifold, mirror, housing, Cup holder, Pedal and so on



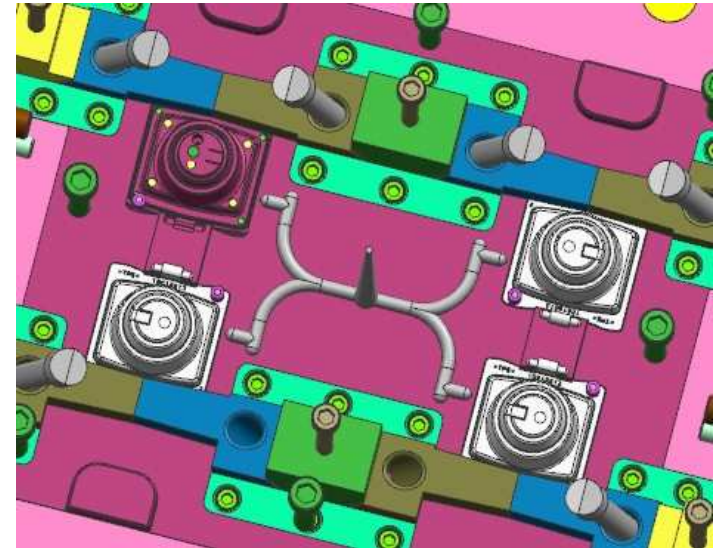


## Soft & Flexible Part



TPE , Shore A 70.

4 cavs with 2 sliders each  
The main wall of the part is only 0.7mm ,evenly put the  
Eject pins and blades are  
Very important.  
Need cut the edge gate by  
hand ,so European client leave  
Both Tool making and molding  
production in JW



L0756589, Cup holder  
TPV A85, 6 sliders per  
cav, Hot Valve gate.  
Venting is important



8 cavs. Dia 20\*30  
mm,TPU 60 A,  
ejection by force.



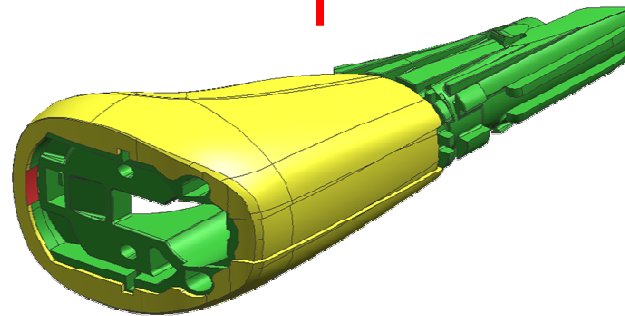
## 2K & Overmold projects



1<sup>st</sup> shot: PA66

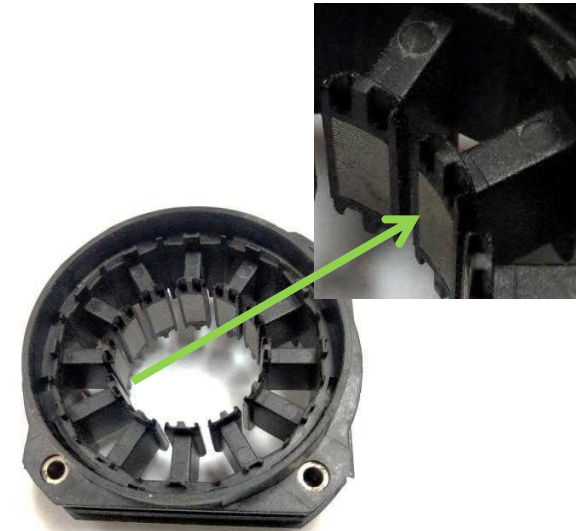
2<sup>nd</sup> shot: TPE

Need best mold fitting to prevent flashes from happen



1<sup>st</sup> shot: PA66 2<sup>nd</sup> shot: PC/ABS

Must precisely control the slides as they do not move out at same moment . one small slide in inside is contained and driven by beside big slide. also to keep PA part no shake on 2<sup>nd</sup> shot is very challenging because of the part shape.

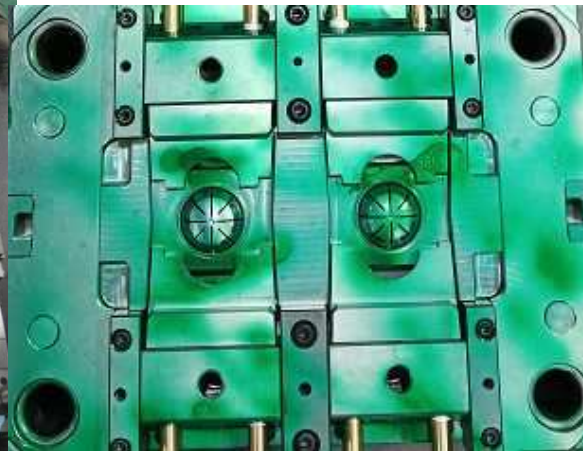
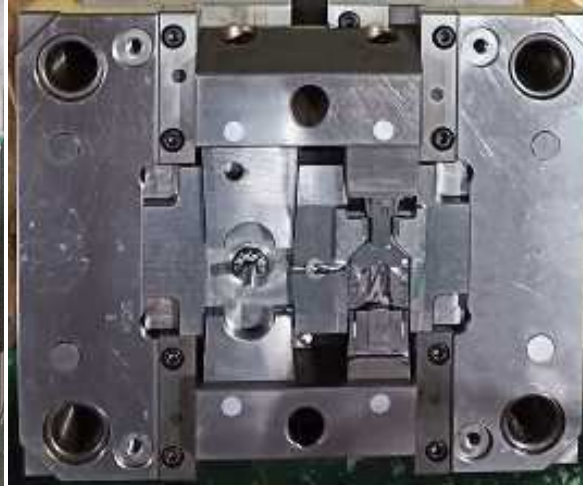
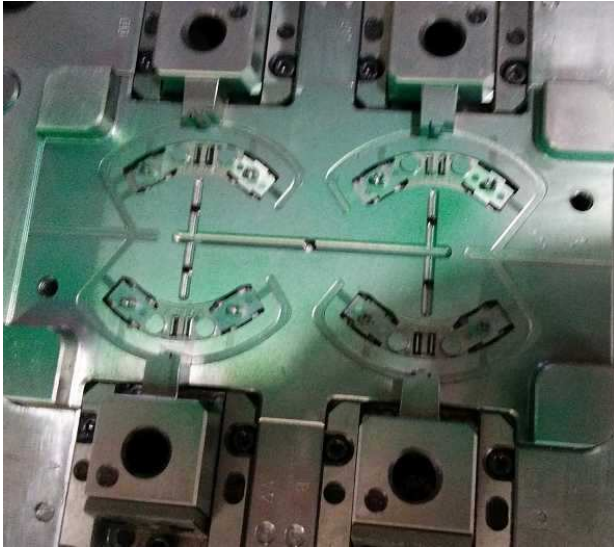


Part size: 85\*80\*46mm, Plastic material : PA6 GF30, about 40g

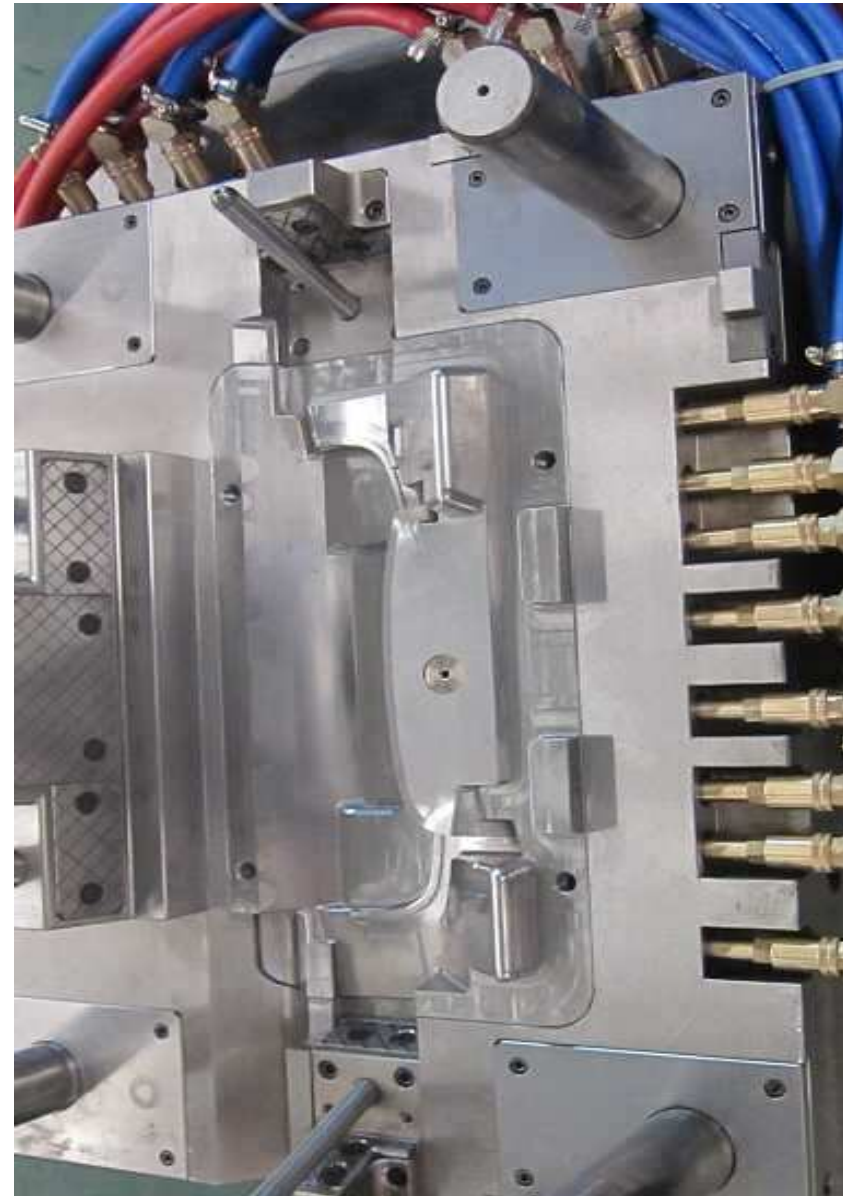
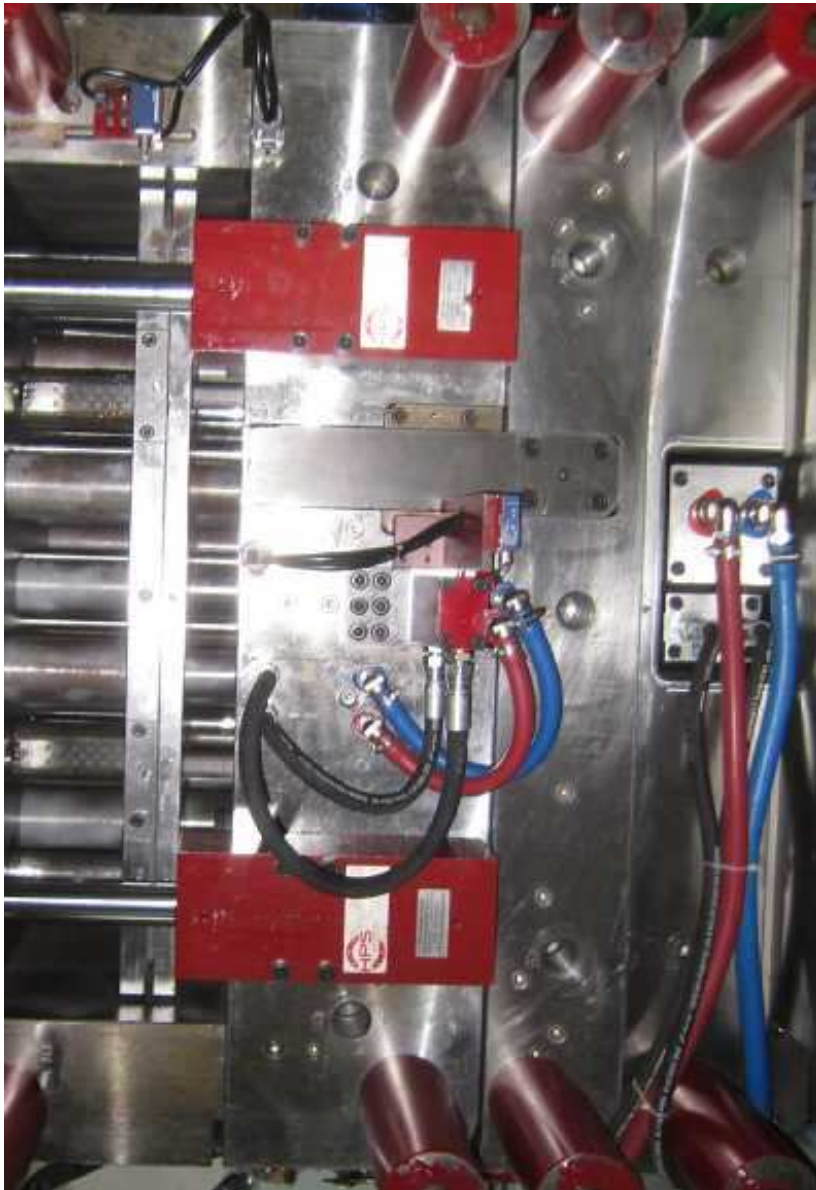
. Insert a 150g wire metal block in the middle for overmolding .2Cavs with 4 side sliders, more than 5 dims required +/-0.02



*Other Plastic molds Made in JW (Small ones, 80KGS -1500KGS)*



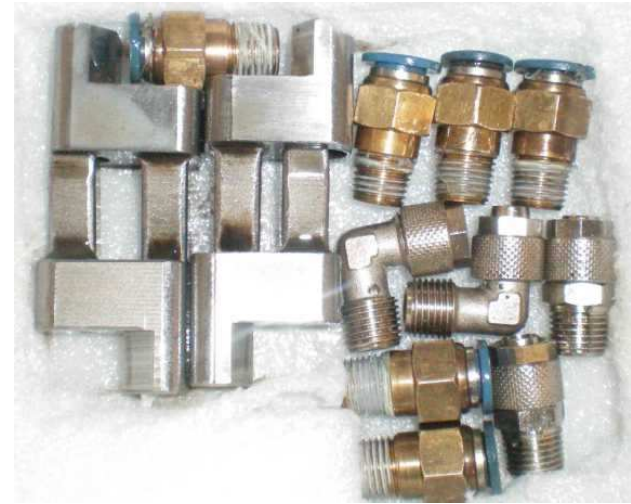
*Other Plastic molds Made in JW (bigger ones, 1500-7500 Kgs)*





## Mold inserts and Components

Once the mold running in customer,s factory got damaged ,then need replace the related inserts or components for able to continue the production. Sometimes even not damaged ,but change some local inserts can get mold life much longer .We can support at anytime to make mold inserts or spare parts urgently and then send out by air express. Also based our complete supply chain , the purchased parts for instance the components for Hydraulic cylinders or hot runner system is also easy to obtained in our here and send obroad quickly than anywhere else







## Worldwide Delivery



*JW Mold has established more than 5 years of cooperation with several professional logistics companies who can deliver our goods to customers all over the world in a timely and accurate manner, whatever by sea, air or mixed transport method. For those Goods to Europe can also be transported by train, which takes only two to three weeks and is cheaper than air freight .*

*We are also familiar with all kinds of customs declaration and clearance documents, including packing list, commercial invoice, telex release, certificate of origin, etc*



## Global Services

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*Customers sometimes concerning about the maintenance of molds after delivery to their country. On first JW will fully consider the easy ways of maintenance and replacement during the design stage ,later make the quality of the mold reliable , provide maintenance Guidance , and some spare components at the time of delivery or send by air express for those easily damaged parts .*

*about hot runner system, the suppliers such as YUDO ,Mastip etc already set service network worldwide . if any issues , can be directly reach them by call the number on the sign plate of the mold.*

*We are currently working on the development of Europe and North America local mould maintenance partner, after fixed will inform you. JW mold also can send the mold technicians to do such work overseas*



■ The end

<http://www.jwindustry.com>



# Thank You !

*Any concerns pls feel free send email to the  
Owner of JW Mold at:*

*[jimmy@jwindustry.com](mailto:jimmy@jwindustry.com)*