



**N&H Technology GmbH**

# Mould & Plastic Parts





# Production Plant

## 1. Plant Area

- Total: 20,000 Square Meters

## 2. No. of Employees

- Around 800 in total

## 3. Service Range (one-stop services)

- New product development
- Plastic injection mould design & Structure design
- Mould Manufacture
- Plastic part injection (clean room injection molding)
- Secondary processing (clean room auto painting, electroplating, laser engraving, silkscreen, ultrasonic welding)
- Assembly



# Production Plant

## 4. Product Range:

- **Automotive:** auto parts for BMW, Audi, VW, Toyota, Ford, Peugeot, Citroen, etc
- **Camera:** camera parts for Olympus, Canon, Nikon, Sony, Casio, etc
- **Medical:** medical fittings, pistons, disposable syringes, etc.
- **Consumer electronics:** audio and video systems, CD cases for Phillips, Warner Brother, etc.
- **Others:** computer peripheral equipments, industrial parts, office equipments, telecommunication, household appliances, plastic toys, cosmetic parts, etc.

## 5. Our Product Achievements:

- Types of mold we can make: prototype mold, plastic injection mold, die casting mold.
- Precision we can guaranteed for mould: 0.001mm
- Precision we can guaranteed for parts: 0.01mm
- The largest mould we ever made: 20 tons
- The largest part we produced: 200\*150\*120mm
- Annual output of molds: 2000 sets, 90% of moulds are exported to North and South America and European countries.



# We supply following leading brand names

**PHILIPS**  
sense and simplicity



**OLYMPUS**  
奥林巴斯



**CASIO.**

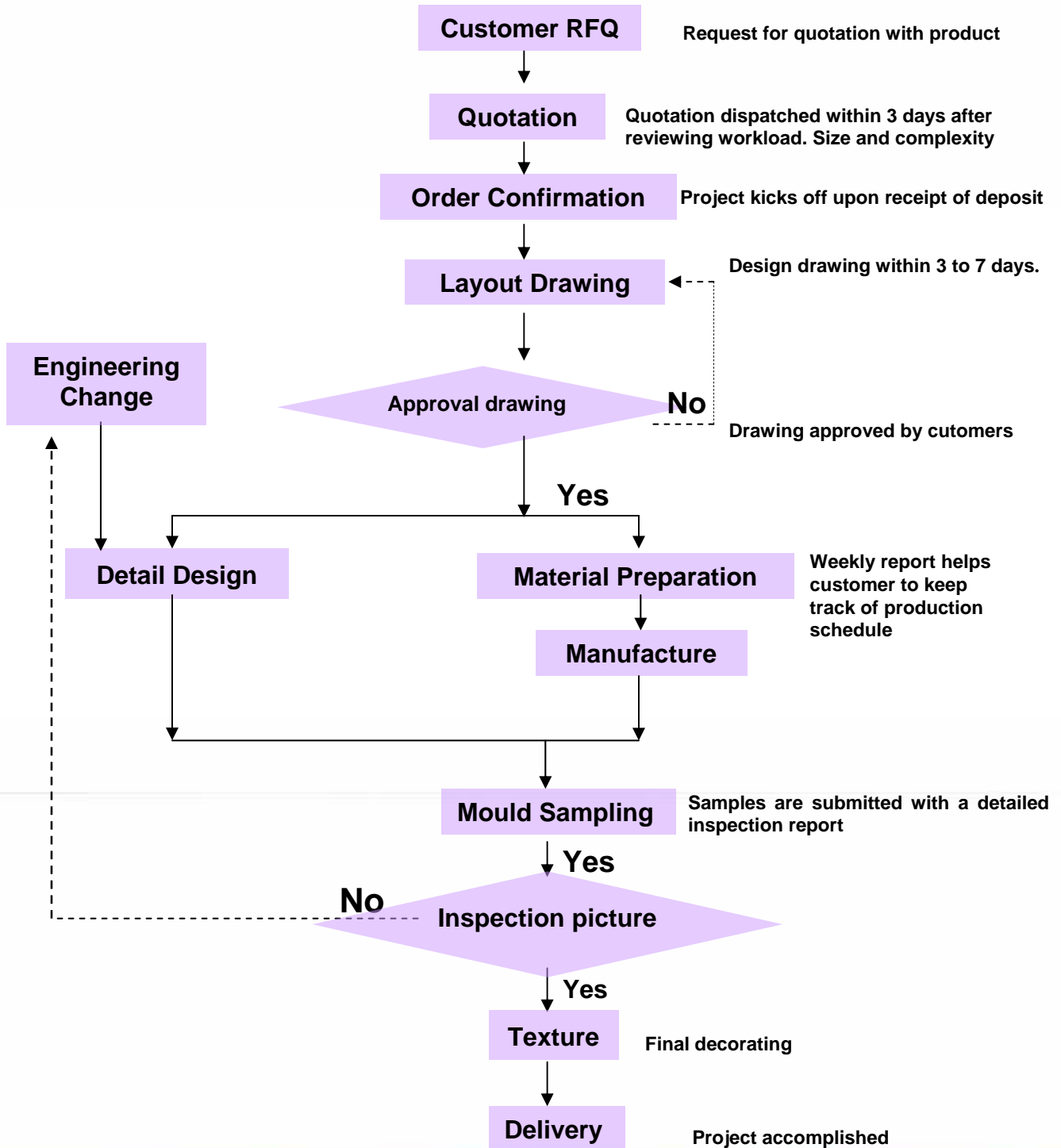


**SONY**



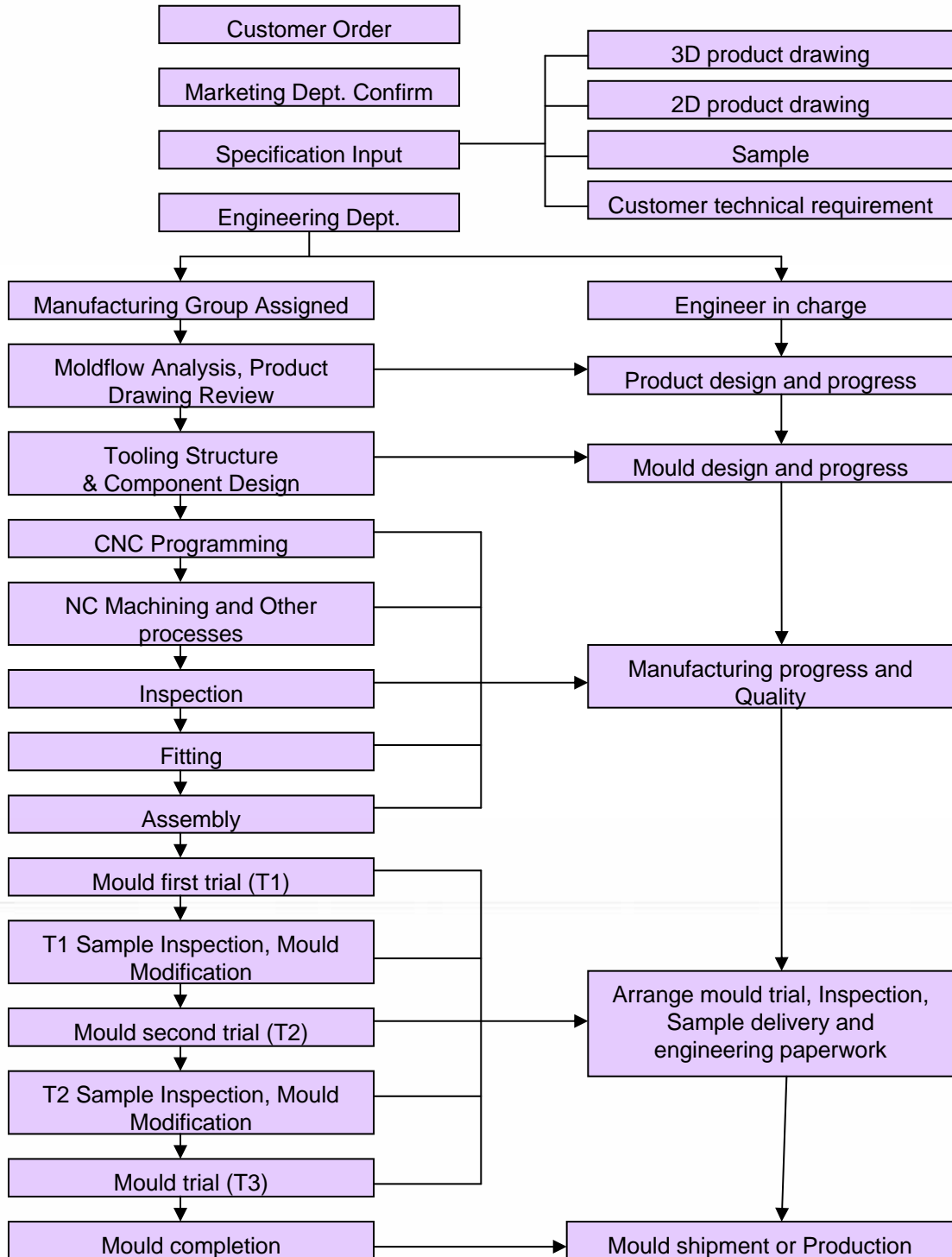
# Project Management

We have 10 project engineers to keep every project running successfully.  
Each engineers has at least 8 years experience in project management.





# Project Management Procedure





# Mould Design

- ✓ 30 design engineers with over 8 years experience in product / mould design.
- ✓ Copyrighted design software: UG 6.0, Auto CAD 2008, Solid works 2009, ProE6, etc..
- ✓ Each mould has its 3D mould flow analysis.



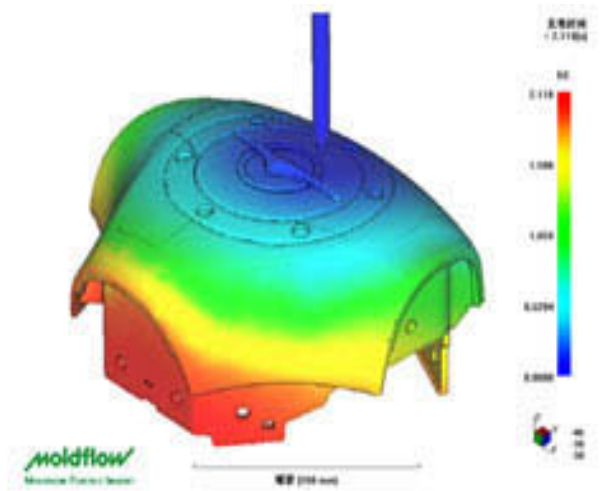
Engineering Dept .



Design Dept.



Mould Flow analysis



Mould Flow analysis



# Mould Construction

- ✓ 20 mold engineers with more than 8 years experience in mould construction.
- ✓ Over 160 sets of updated and advanced equipment imported from Switzerland, U.S.A, U.K, Italy and Japan.



**CNC Department**



**5 Axis CNC**



**EDM Department**



**Wire cutting Department**



# EQUIPMENT LIST (mold) 1/2

Item	Description	Brand	Country	Type	T.NO
<b>CNC Center (22 sets)</b>					
1	5-axis Machine.Center	MORI SEIKI	Japan	SUPER TILT 500	2
		MORI SEIKI	Japan	NMV500DCG	1
2	High-speed Machine Center	FIDIA	Italy	D165/HS644	3
		ROKU-ROKU	Japan	HC-658	2
		MORI SEIKI	Japan	VS5000B/40T	2
		HITACHI SEIKI	Japan	VS-50/VS-60	4
3	CNC Machine Center	HARTFORD/LEAD WELL	Taiwan	HV-45/MCV-1300P	8
<b>Wire Cutting (12 sets)</b>					
4	CNC Wire Cutting machine	AGIE	Switzerland	AGIE Classic/2S	1
		SEIBU	Japan	450K1/C5S2/M750S/M500S/M350S	8
		BROTHER	Japan	HS-3600	1
5	Fast Wire Cutting Machine	SODICK	China	DK7725E	2
<b>EDM (29 Sets)</b>					
6	Electric Discharge Machine	AGIE	U.S.A.	AGIE AGIETRON ADVANCE	1
		MAKINO	Singapore	EDNC65S/EDGE3	2
		MAKINO MGH	Singapore	EDNC43/EDNC65/EDGE3	7
		BAODIAN	Taiwan	LS350/LS450/LS650	19
<b>Grinding (22 Sets)</b>					
7	Precision Grinding Machine	TOYODA	Japan	SELECT G-100 II	1
		KARODA	Japan	GS-BM3L	1
		MITSUI	Japan	200MSH	2
		MITSUI	Japan	250MHD	1
8	Grinding Machine	PSGS	Taiwan	2550	14
		PSGS	Taiwan	4080	3



# EQUIPMENT LIST (mold) 2/2

Item	Description	Brand	Country	Type	T.NO
<b>Auxiliary</b>					
9	Die Spotting Press	SANKI	Japan	SDP-1310-100TP	2
		World Wide Industrial	HK	DFM2015-200	1
10	CNC Cutting Machine	LEAD WELL	Taiwan	LTC20BM / T-6	2
11	Cutting Machine	BADA	China	C320	3
12	Deep Hole Drilling Machine	GUNDRILL	Korea	KEG-1000-CNC	1
13	Laser Welding Machine	VISION	Germany	120 WATT 80 JOULE	1
14	Milling Machine	TOPWELL	Taiwan	3K	49
		TONGWEI	Taiwan	TW-400IF	7
15	Rocker Arm Drilling Machine	H 5	China	H5Z3050X16	1
16	Fine Hole Drilling Machine	BAODIAN	Taiwan	DS-30	1
17	Supersonic Polishing Machine	LUSTER	Japan	LS-100	3
18	3 Coordinates Measuring Instrument	LK	U.K	G-90C / 654	2
19	Optical Measuring Instrument	WERTH	Germany	SC400	1
20	Image Measuring Instrument	WANHAO	China	VMS-2515A	3
21	Optical Comparator	WANHAO	China	CPJ-3025	1
22	Multifunctional Measuring Machine	WERTH	Germany	SCOPE CHECK 400*200*200/ z	1
23	Dualistic Height Gauge	MITUTOYO	Switzerland	0-300mm	1
24	Rockwell Hardness Tester	DECHUAN	China	HR-150A	1
25	Leeb Hardness Tester	THL-300	China	HLD	1



# Injection Moulding

- ✓ 20 PE engineers with over 5 years experience in injection moulding.
- ✓ 4 injection workshops, including one clean room injection workshop.  
52 sets of injection machines in total.



**Injection molding workshop**



**Clean room injection workshop**



**1600 tons injection moulding machine**



# Secondary Operations



**Silkscreen printing**



**Clean room auto painting**



**Auto painting**



**Laser engraving**



**Assembly line**



# EQUIPMENT LIST (molding) 1/2

## Injection & Processing Equipment

Item		Brand	Country	Type	.NO
<b>Injection</b>					
1	Injection Machine	TOSHIBA	Japan	EC40C-1A	1
		TOSHIBA	Japan	EC75C-2A	2
		TOSHIBA	Japan	EC160C-4A	3
		TOSHIBA	Japan	EC220-6A	2
		TOSHIBA	Japan	EC350C-17A	1
		TOSHIBA	Japan	EC100C-2A	5
		ELITE	China	80TON / 4A	7
		ELITE	China	120TON / 8A	6
		ELITE	China	140TON / 11A	3
		ELITE	China	160TON / 13A	5
		ELITE	China	180TON / 15A	1
		ELITE	China	210TON / 20A	2
		ELITE	China	300TON / 30A	1
		ELITE	China	330TON / 36A	1
		ELITE	China	400TON / 47A	1
		ELITE	China	450TON / 60A	3
		ELITE	China	EH1600B	1
		CHENHSONG	China	JM468TON / 47A	2
		KAWAGUCHI	Japan	K660TON / 120A	1
		2	Auto Pickup Machine	ALFA ROBOT	Taiwan
KDM	China			KDA-950WDM / KDA-750WD / KDP-549W	12
MOTOSTAR	China			FQ-750WD	1
HARLY	China			80TON/4A / 140TON/11A	2



# EQUIPMENT LIST (molding) 2/2

## Injection & Processing Equipment

Item		Brand	Country	Type	.NO
Production Lines					
3	Auto Painting Line	JINGXINCHENG	China	50603	1
4	Spray Painting Line	KELILONG	China	/	2
5	Silkscreen Printing Line	THREE LINK	China	/	2
6	Assembly Line	YAOLEE TECHNOLOGY	China	/	2
7	Pad Printing Machine	BAILITAI	China	P8	16
8	Laser Etching Machine	TAIDE	China	DPY-M50	1
9	Stamp Printing Machine	HENGHUI / YINGHUI	China	TH-195 / HM-225	2
10	Heat Melting Machine	DELI	China	HA-1600A	4
Testing					
11	Image Measuring Ins.	WANHAO	China	300mm x 400mm	1
12	Abrasion Tester	KAMLUNG	Taiwan	5600	1
13	Color Reader	KONIC MINOLTA	Japan	CR-10	1
14	Color Assessment Cabinet	JIABIAO LIGHT SOURCE	China	CAC-600	1



# Quality Assurance

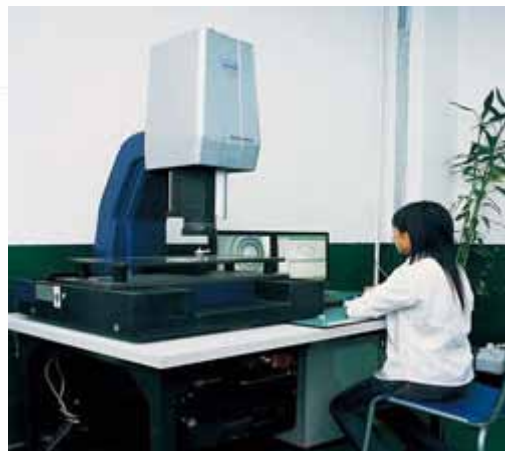
- Large QC department of 60 members in total, including mold QC, IQC, IPQC, OQC. All production processes are monitored.
- Quality system we're strictly complying with: ISO 9001:2000, ISO14001, TS16949 certified, compliance with RoHS and 5S system.
- Advanced high precision test equipments: 3Coordinates Measuring Ins, Digital Measure Images Ins, Image Ins, 3D Data Capture Device, Rockwell Hardness Tester, Height Gauge, Rubbing Tester, Standard Lamp-House Color Assessment Cabinet, etc..



**3 Coordinating Measuring Instrument**



**Digital Measure Image Instrument**



**Optical measuring Instrument**

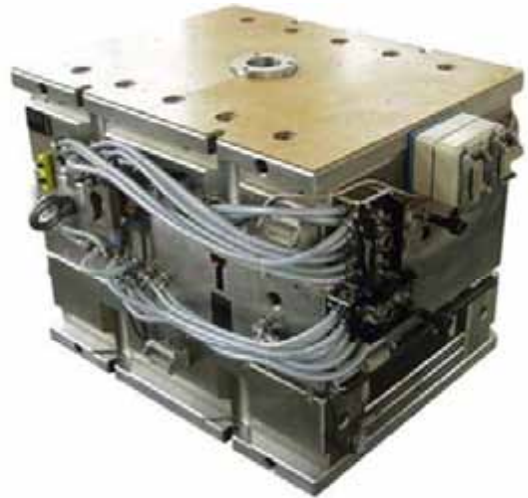




# Hot Runner Molds

We use these brands of hot runner systems:

- Mold-master
- Incoe
- Yudo
- Hasco
- D.M.E
- Synventive





# Mould Pictures



Complex automotive mold



Class 101 mold



# Automotive Parts 1/2



**Toyota Front Bumper**



**Peugeot Instrument panels**



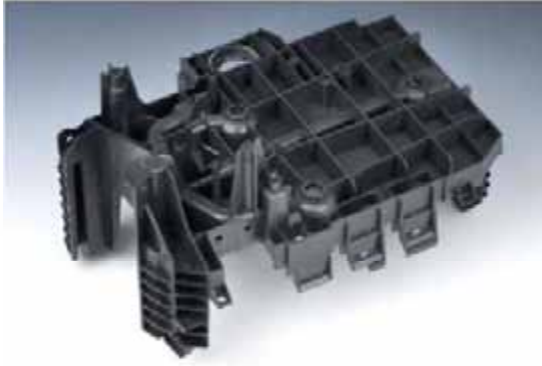
**Audi head parts**



**Audi lamp holder parts**



## Automotive Parts 2/2



**Peugeot internal function part**



**Windshield wiper parts**



**Air exchange fan parts**



**Citroen water case function part**



**BMW exhaust pipe part**



**Citroen water case part**



# Medical Parts



**Precision Medical fittings**



**Precision Medical fittings**



**Precision Medical fittings**



**Precision Syringe**



**Precision Syringe**



**Precision Medical part**



# Electronic Parts



**Audio system part**



**MP3 / MP4 player parts**



**Precision digital camera parts**



**Cell phone parts**



**Portable computer parts**



**CD player parts**



# Other Applications



**Precision telecommunication parts**



**Telephone Parts**



**Tape recorder parts**



**Precision gears**



**Cosmetic parts**



**Duplicator and Printer parts**



# Over moulding & Die casting



Over moulding part



Over moulding part



Over moulding part



Over moulding part



Die casting part

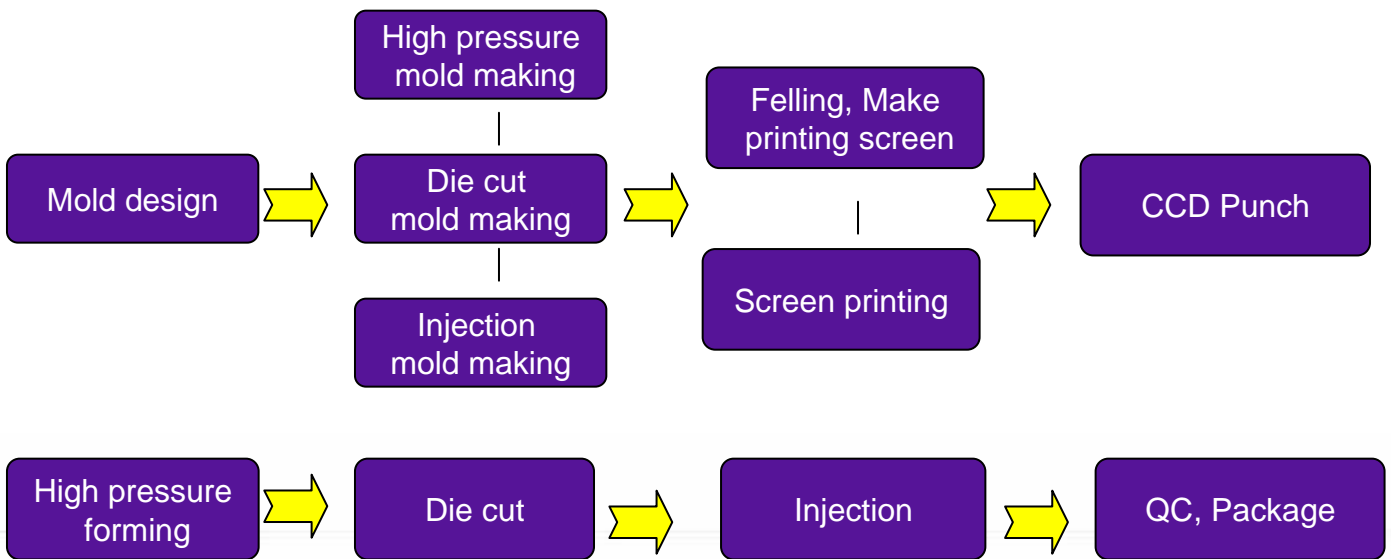


Die casting part



# In Mould Decoration

## IMD Process flow chart





# In Mould Decoration

## IMD Equipment pictures



**Screen printer**



**High pressure forming machine**



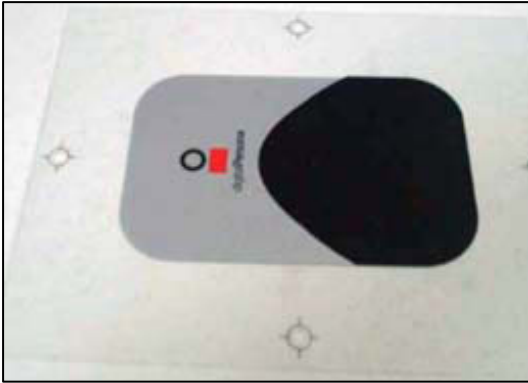
**Die cut machine**



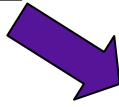
**Injection Machine**



# IMD process



1. Film Printing



2. High pressure forming



3. Die Cut



4. Injection and stick protective film



## IMD Special Features

- durable, scratch resistance
- multi-colors free artwork
- precision placement of graphics
- 3D shape availability
- elimination of post-molding printing processes
- elimination of adhesive to assembly with units



## IMD Special Decorative Features

- metallic
- chrome
- multi-color graphics
- photographic artworks
- paint design graphics
- fine textured surface
- raised text / logos



# IMD Products





# IMD Products



3D



Carbon Fibre



Landscape



Multicolour



Metallic



Leather



# IMD Products





# Double-shot products



Plastic & Rubber





# Double-shot products



Plastic & Rubber





# Contact



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