

Location of Zhuhai Gree Daikin Precision Mold (GDM) Co., Ltd.



How to go to GDM?

Hongkong to GDM:

By ferry from Hongkong Ferry Terminal or Hongkong International Airport to Zhuhai Jiuzhou Port (about 50~70 minutes), By taxi from Zhuhai Jiuzhou Port to GDM (about 30 minutes).

Macau to GDM:

Get through the customs of Macau to Zhuhai Gongbei Port (about 60 minutes), by taxi from Gongbei Port to GDM (about 20 minutes).

Guangzhou to GDM:

By bus from Guangzhou Baiyun airport to Zhuhai Gongbei (about 180 minutes), by taxi from Gongbei to GDM (about 20 minutes).



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Instagram



Contact us



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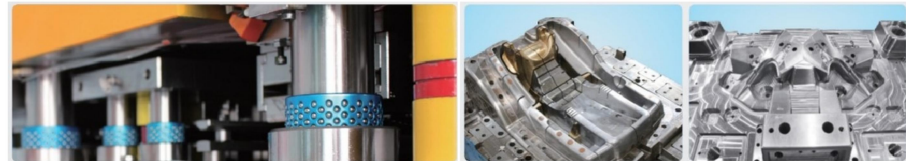
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ZHUHAI GREE DAI KAIN PRECISION MOLD CO., LTD.





As a large joint venture(Chinese-Japanese)professional precision mold company,Zhuhai Gree Daikin Precision Mold Co.,LTD("GDM")was founded by Zhuhai Gree Electric Appliances Co.,LTD and Japan Daikin Industries Co.,LTD in March of 2009.The company is engaged in manufacturing precision mold,developing and producing moulded board and providing sales and

after-sales services. Covering a land area of 40,000 m²,GDM is conveniently located in the riverside of Qianshan Mountain in Zhuhai.It has US\$57,958,700 registered capital (about RMB 395 million),in which Gree Electric Appliances takes 51%and Daikin Industries takes 49%of the shares respectively.



Gree Electric Appliance,Inc.of Zhuhai



Daikin Industrial,Ltd.

Global Customer Reach



Parts

Sheet Metal Die

We can make sheet metal die with size of 2,000mm (L) X 1,500 mm (W) X 500 mm (H) and weight of 25 tons , including Single die ,Single hydraulic die (400 Ton) , Auto - Feeding die (400 Ton) and Progressive die (200 Ton) and other various types of die.



■ Left side-plate

- GDM has experienced in this kind of product requiring good appearance and size and result of the die is free of burring, imprint and lacking zinc.



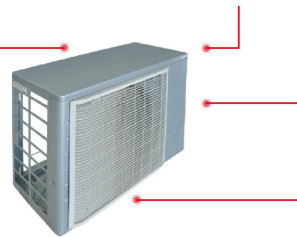
■ Partition plate

- CAE analysis technology has been successfully resolved the problem of products forming and easily wrinkling. GDM can realize the whole process automated production of mold manipulator and make the part be non-wrinkling and beautiful in accordance with customer requirements.



■ Mouting plate

- Assembly part for air conditioner with many molding features, needs to be completed with 5-7 processes by single die. GDM uses progressive die which not only complete the part within one die but also improve the productivity and reduce the cost of production.



■ Panel

- It is complex for forming and hard for appearance and size, yet GDM can achieve single trial production thanks to its experience in making this kind of die.

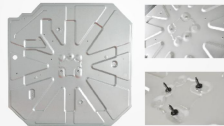


■ Bottom frame

- Though it is complex for Product forming, GDM can make die producing part free of scratch, imprint and dent, etc.



■ Top Panel



【Die Weight】 : 3.023KG
 【Die Size】 : 1,275*1,050*480 (mm)
 【Part Size】 : 832* 832 *24 (mm)
 【Part Character】 : Appearance part for Cassette type, no zinc scraping or wrinkling is allowed. The die made by GDM is with clean and tide appearance, without defaults such as zinc scraping or collapse. Combined with non-hole riveting technique and air cylinder auto-pick-up, realizing auto high active produce.



■ Valve Support

【Die Weight】 : 2.537KG
 【Die Size】 : 2170*720*460 (mm)
 【Part Size】 : 106.8*269*64 (mm)
 【Part Character】 : Assembled part for air conditioner, small part with complicated surface. GDM uses progressive die which achieve stable producing and production rate of 50 parts/min.

Parts

Mold for Home Appliances

We can also make plastic mold with size of 2,500 mm (L) X 800 mm (W) X 1,200(H) mm and weight of 25 tons , including cold runner , hot runner , composite molding , embedded type and other types of mold.



Precise Element

GDM imports advanced machining equipments including Japan WAIDA Projection Grinder, Okamoto Inner & External Cylindrical Grinding Machine, Mitsui High Precise Surface Grinding Machine, CNC Grinder, and Kuroda Surface Grinder, which can reach 0.002mm machining tolerance.



■ Flaring Punch

1. Dimension accuracy is 0.002mm.
2. The head for bevel + circular surface requires shape accuracy of 0.02mm.
3. Heteroideous coaxial degree is within 0.005mm.



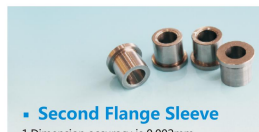
■ Sencondary flanging punch

1. Dimension accuracy is 0.002mm.
2. Roundness is 0.001mm.
3. Coaxial degree is 0.002mm.



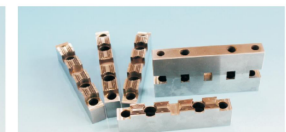
■ Insert

1. Mirror finish.
2. Flatness 0.001mm.
3. Roughness should be within R0.001.



■ Second Flange Sleeve

1. Dimension accuracy is 0.002mm.
2. Coaxial degree of inside and outside roundness is 0.002mm.
3. Inner fillet roughness can reach Ra0.05.
4. Back chipping of inner step is within R0.1, step accuracy is within 0.01.

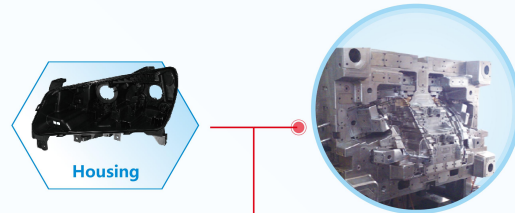


■ Shutters

1. Dimension accuracy is 0.002mm.
2. Vertical degree of shape is 0.001mm.

Parts

Automobile Mold Parts



Housing



Reflector



Main Bezel



Rear Lamp Lens



High brake light housing



Mini Lens

1. Automobile Lighting Part

【Part Material】 : PBT-ASA-GF20 · PC · PP+TD40 · ATX200

【Part Size】 : MAX-388*397*275 (mm)

【Mold Size】 : MAX-1,600*1,050*1,112 (mm)

【Mold Weight】 : MAX-11,000KG

【Part Character】 :

- (1) The left part and right part share common mold, required big steps and high difficulty of machining with 5 axes CNC and double end electro spark erosion.
- (2) Deep cavity with complicated structure, needs to control deformation strictly.
- (3) Appearance requires 3 mic. diamond polishing, should avoid appearance defaults such as air lines, welding lines and silvers.

4. Automobile Interior Decoration Part

【Part Material】 : ASA · ABS · PC

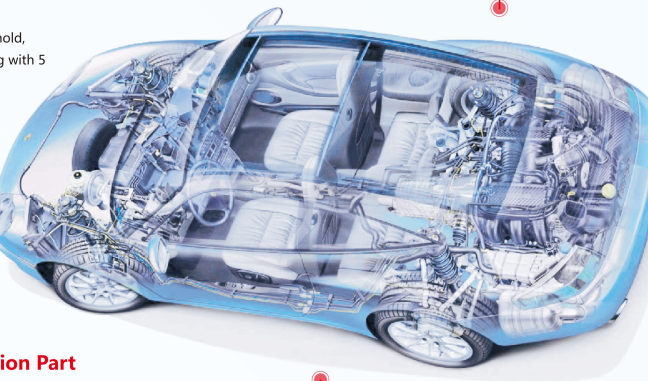
【Part Size】 : MAX-881*204*77.5 (mm)

【Mold Size】 : MAX-1,265*800*616 (mm)

【Mold Weight】 : MAX-4,000KG

【Part Character】 :

- (1) Complicated structure with high



- requirements on machining equipment.
- (2) Assembly dimension accuracy requires to be within 0.05mm.
- (3)Electroplating on the surface with 0.05mm PL step.



Divider Wall



Centrifuge Blade



Bearing Cogwheel
Bi Lever Flap
Vent Door Lever



Motor Cover



Defrost Micromotor Support

2. Automobile AC Interior Decoration Part

【Part Material】 : PP-TD20 · POM

【Part Size】 : MAX-197*17*274 (mm)

【Mold Size】 : MAX-500*450*367 (mm)

【Mold Weight】 : MAX-650KG

【Part Character】 :

- (1) Automobile AC part, assembly dimension accuracy requires to be within 0.05mm.
- (2) Modify the 3D drawing according to the part 2D drawing provided by customer before designing the mold to avoid dimension NG.

3. Automobile Exterior Decoration Part

【Part Material】 : ABS · TP0

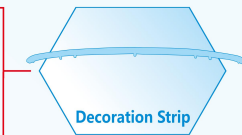
【Part Size】 : MAX-1,232*332*180 (mm)

【Mold Size】 : MAX-2,140*1,500*945 (mm)

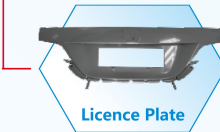
【Mold Weight】 : MAX-25,000KG

【Part Character】 :

- (1) Complicated structure with high requirements on machining equipment.
- (2) Assembly dimension accuracy requires to be within 0.05mm.
- (3) Appearance defaults such as welding line, shrinkage, etc. are not allowed on the surface.



Decoration Strip



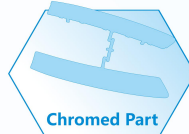
Licence Plate



Shock Absorber Spring Case



Door Decoration Strip(L&R)



Chromed Part



Estructural Part



Windshiled Wiper Box

Parts

Mold For Bassinet Parts

Baby Carriage

【Mold Weight】 : MAX-2800KG
 【Mold Size】 : MAX-950*750*592 (mm)
 【Part Size】 : MAX-625*137*74 (mm)
 【Part Character】 :
 (1) .These parts are for a baby carriage with well-

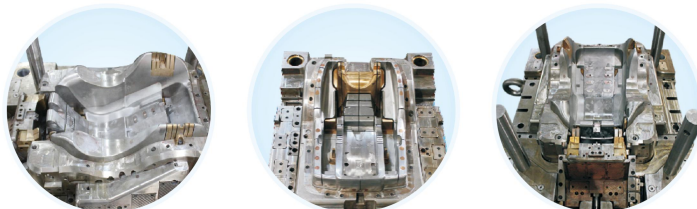
functioned assembly, and high capacity of safety test. Bearing a high requirement and strict collision test.
 (2) . No burr or step allowed to prevent hurting the babies ; the process of precision is highly required.



Automobile SafetySeat for Children

【Mold Weight】 : MAX-7400KG
 【Mold Size】 : MAX-1,000*900*1,100 (mm)
 【Part Size】 : MAX-745*519*464 (mm)
 【Part Character】 :
 (1) .These parts are for high-grade car seat for children

with complicated structure and high requirements on security.
 (2) .Mold has 1*1 cavities with channel sliders core-pull on both sides.
 (3) .With partial functional strengthened ribs, mold uses beryllium copper and special cooling.



Mold For OA Parts

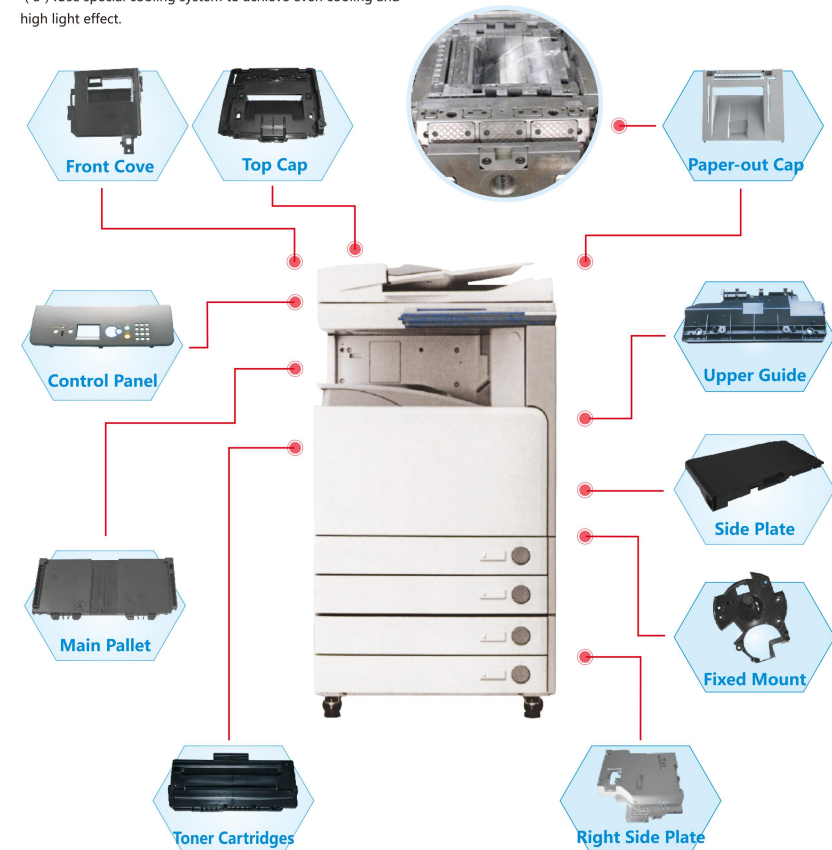
Parts

Printer Exterior Part

【Part Material】 : PC+ABS, PC+SAN, PP+10MD, NAK80
 【Part Size】 : MAX-500*460*162 (mm)
 【Mold Size】 : MAX-1,270*1,155*1,122 (mm)
 【Mold Weight】 : MAX-9,400KG
 【Part Character】 :
 (1) .Complicated structure with high requirements on machining equipment.
 (2) .Use non-flow-mark high light skill to achieve no welding line, no burrs and sink marks.
 (3) .Use special cooling system to achieve even cooling and high light effect.

Printer Interior Part

【Part Material】 : PC+ABS, PC+SAN, POM, PPE+PS, ABS, NAK80
 【Part Size】 : MAX-353*68*75 (mm)
 【Mold Size】 : MAX-550*390*412 (mm)\
 【Mold Weight】 : MAX-640KG
 【Part Character】 :
 (1) .Strict dimension requirement with accuracy of 0.03mm.
 (2) .With many ribs; splitting line requires 0.05mm.

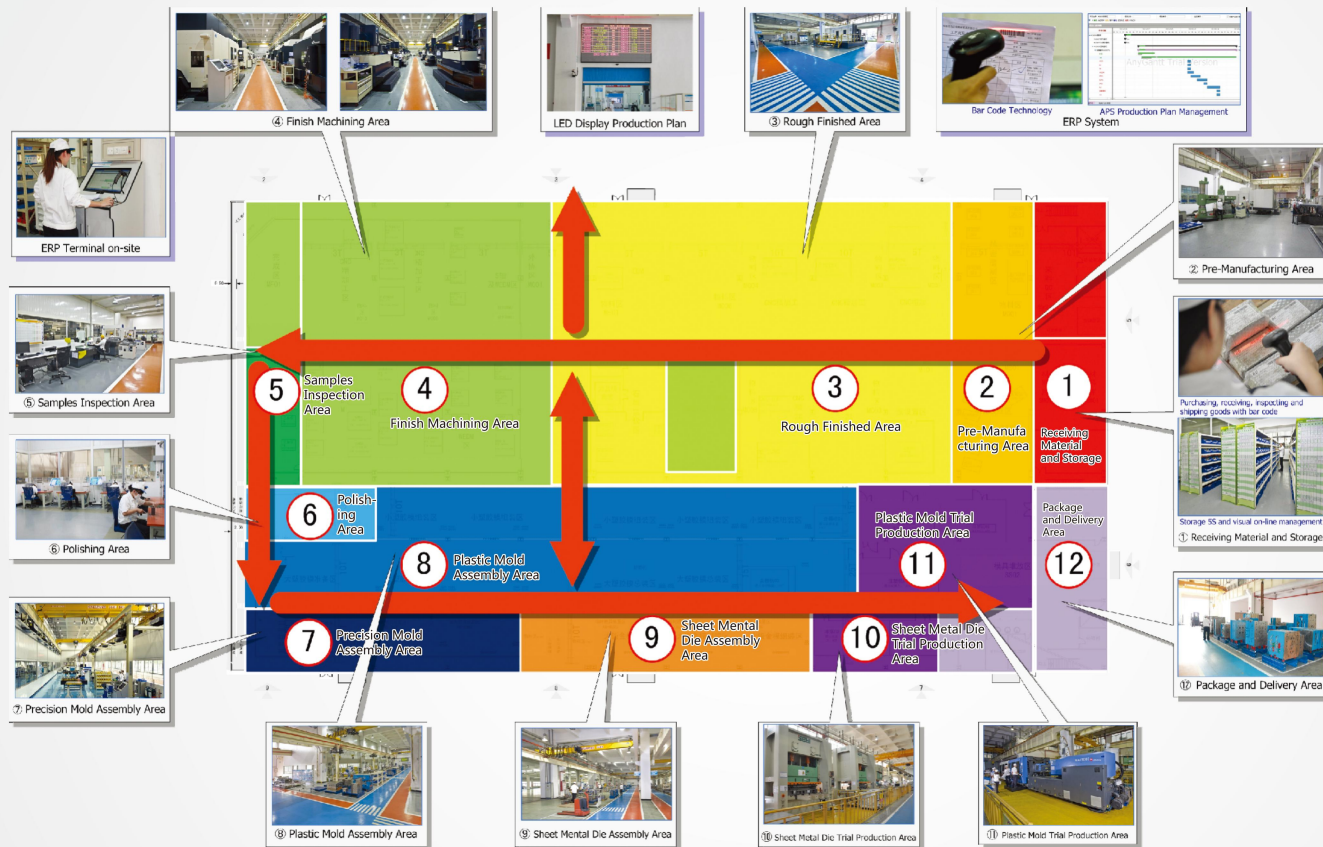


Logistics

GDM operates U-shaped layout plant integrating the concept production line into discrete production process of mold, therefore, reduces waste of process flow, and creates a convenient and efficient logistics environment to realize standardized logistics management.

Information Flow

Implementing standardized information management, GDM utilizes ERP information management system to trace every single parts and process under the bar code system, and monitors current production progress and resource load situation through interactive feedback on workshop-around ERP terminals and then achieve the right and effective production goals in time by proper use of staffs and resources (materials, equipments etc.).



Technology

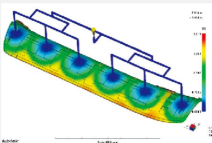
Now GDM has 500 employees, with 30% are technical personnel and more than 50% of them owning college degree or above. Laying emphasis on the protection of intellectual property and using legal copy software, GDM is a high and new technology establishment with national certification.



Type	Software Name
CAE	Autodesk Moldflow Insight 2015
	AutoForm R3
CAD	UG NX8.0
	Pro/E WildFire5.0 + EMX6.0
CAM	AutoCAD 2011/2012
	CNC
	PowerMill 2013
	WEDM
	CamMagic 2D/3D
	EDM
	EDCAM

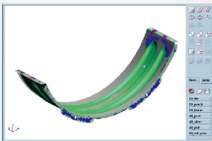
CAE

With leading CAE experience and technology, GDM always adheres to help optimize product structure, works out best forming solution and most economical mode of production for customers:



Plastic product:

- Help customer adjust product wall thickness reasonably, and discover the best balance point of product quality and production costs.
- Predict appearance defects of product including welding mark, gas traces and air trapping, etc., foresee and control them on the mold.
- Predict product deformation, help customers improve product assembly structure; make design to prevent mold deformation.
- Arrange plastic material feeding and cooling systems reasonably to achieve optimum process effect and minimum input.
- Provide optimum process parameters of production; help customers solve manufacturing problems concerning mold injection.

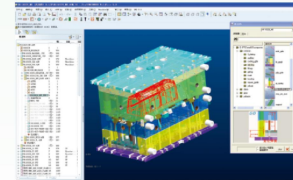


Sheet metal product:

- Help customers optimize product structure and improve process, discover the optimal combination of product quality and production costs.
- Predict and resolve defects of wrinkle, crack and so on.
- Predict rebound and make reasonable repair for it.

Experienced GDM engineers have participated in trade exchanges widely, and won the second prize by project *Flaw Research on HIPS Air Conditioner product—Successfully Application of Moldflow on Air conditioner Industry* in the Moldflow master race held by Autodesk Company.

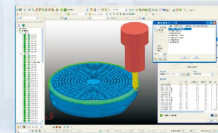
CAD



GDM has established a comprehensive design standard system and integrated libraries including design features, standard parts, factory standard parts and modules components through customizing CAD database, etc.; CAD software has been made customized development by VC++ so as to call 90% 3D parts fast and flexibly and realize modularization, standardization and parallelization of the mold design and significantly shorten the design cycle more than 50%, meanwhile, brings fast and intelligent design experience for CAD software engineers.

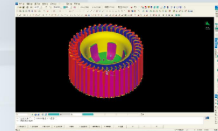
CAM

What guarantees demands of clients' high quality and high efficiency is the cutting edge CAM technology and the standardized and informationized CAM management process. CAM fully implements the CAM technology by application of various CAM operating modules maturely including CNC-CAM, WEDM-CAM, EDMCAD, EDMCAM and CMM-CAM. Standardization of processing parameters and processing process and CAM job program management based on ERP system achieves standardized operations and information management for CAM engineers.



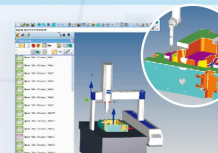
CNC-CAM

GDM applies the POWERMILL programming software and establishes "one-button programming" module and "electrode automatically processing" module through secondary development of VB software. Integrating standard processing parameters, database tool, fixture database and standard process template, GDM makes standardized and automated CNC-CAM operations come true.



WEDM-CAM

GDM applies CamMagic offline programming software in form of 3D+2D model and realizes 3D WEDM processing programming based on standardized processing parameters library and process template.



CMM-CAM

GDM applies CALYPSO offline programming software and establishes measuring module of electrode and steel to automatically generate measurement procedures and realize automation applications of measurement process by customizing standard template.

Equipment

Standard equipment management
Flexible production organization

GDM mainly adopts world-leading equipment brand, such as "Makino" and "Mitsubishi".

Advanced equipments and precision control with micron level for providing the best products.



Established quality management system conformed to international standards, GDM staff fully abide by quality self-checking management, that is, "no receiving rejected product, no manufacturing rejected product, no outputting rejected product. Quality Management Dept. makes use of high-precision testing facilities combined with automated testing method and standardized control processes on incoming quality control (IQC), Input Process Quality Control (IPQC), forming quality control (FQC) and output quality control (OQC) so as to assure the high quality requirement of the customers.

CMM



GDM owns 4 sets of German Zeiss CMM featured by maximum stroke 1000mm X 2100mm X 600mm and Measurement accuracy less than 0.003mm/2000mm. Processing parts and products samples adopt off-line programming and automatic detection method.

Trial equipment



GDM owns 5 injection molding machines with the highest tonnage of 1300 tons and the others including 250 tons, 380 tons, 530 tons and 700 tons.



GDM owns 5 press machines with the highest tonnage of 500 tons and the others including 60 tons, 200 tons and 300 tons.

Precision Grinding Machine



GDM owns 16 grinders including CNC Profile Grinder (Waid), Surface Grinder (Mitsui), CNC Surface Grinder (Mitsui), and CNC Precision Internal/External Cylindrical Grinding (Okamoto), which adopt off-line programmed processing mode and 3R fixture rapid switching system and are equipped with on-line automatic detection module with machining accuracy less than 0.002mm.

CNC



5 MAKINO Heavy Horizontal CNC (MCD1816/MCC2013/A100e/A66e) with maximum machining accuracy of 0.02mm and the maximum machining size of 2000mm X 1600mm, apply 3R fast change system and unit automatic machining.



A TOSHIBA High Speed Five-axis Gantry CNC with maximum machining dimension of 3000mm X 2600mm and maximum bearing of 15Tons.



GDM owns 22 sets of Makino high-speed and graphite CNC featured by the highest switch of 30000RPM and machining accuracy less than 0.01mm, which apply ATC application and tool life management.



GDM owns 4 sets of Makino high-speed graphite CNC featured by the highest switch of 30000RPM and machining accuracy less than 0.01mm, which apply EROWA standardized fixture system.

WEDM



GDM owns 26 Mitsubishi Precision wire cutting machines featured by machining accuracy less than 0.005mm, which apply a self-developed "automatic correction of processing benchmark" module.

EDM



GDM owns 18 Makino precision EDM machines featured by processing accuracy less than 0.02mm, equipped with a 3 + 1 axis and ATC electrode Library, which apply EROWA standardized fixture system and EDMCAM off-line EDM programming to realize EDM automatic processing.

Accomplishment

Topping products originates in first-class factory and first-rate staff.

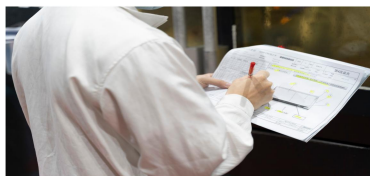
Employee orientation and standard observation

The employees of production line are all offered vocational education in the form of training on time, on site and on matter to achieve management of "Employee orientation and standard observation", which eliminates quality and efficiency waste due to employee differences.



Details attention standard operation procedure management

Adhering to 5S management, all staff stick to "said what I done, do what I said". Based on "responsible for my job and my error", GDM devotes itself to achieve the best quality of overall staff.



Full participation, continuous improvement

GDM carries out long-term activities of "full participation, continuous improvement". Through collecting power in dribs and drabs, each employee gives full play to individual abilities, personality and enthusiasm to enhance overall strength.



Corporate Culture

With 28-year-old average age of employees, the company initiates enterprise spirit of "cheerful, harmonious, and efficient" and adheres to human atmosphere of "people-oriented and staff cared".



Annual Basketball game



Participating singing competition held by Gree



Monthly birthday party



Arrange clean-up activities around factory weekly



10th Anniversary of GDM's Establishment



Annual football game



Arrange compassion activities for the home for the aged



Annual evening party



Endowment drives for GDM Staff



GDM Implements strict garbage classification management

Encouraging employees to participate in community activities and build a green plant, GDM staff actively fulfill their social responsibilities to make company and society grow and develop together.

