

OEM Aluminum Die Casting Moulding for Camshaft End Cover



ABIS Mold was found in 1996 in Shezhen, adjacent to HK, China. and we moved to Long gang District in 2010. With the advanced facilities from Germany, Switzerland and Japan, and a highly experienced design and engineering team. Our molding press machine ranges from 40T to 650T, 300+ molds capacity each year, and 70 % are exported to Europe and North America.

In addition to our plastic mold and molding specialties, we also can provide you the services such as die casting, stamping /punching, blowing mold, as well as the secondary process.

Product Description

| | |
|-------------------------------|---|
| <i>Part Name</i> | <i>OEM Aluminum Die Casting Moulding for Camshaft End Cover</i> |
| <i>Description</i> | <i>Plastic Injection Mould /Plastic Auto Mould</i> |
| <i>Country of Original</i> | <i>China (ShenZhen)</i> |
| <i>Current Export Markets</i> | <i>North America</i> |
| <i>Lead Time</i> | <i>30 Days</i> |

Key Specification

- 1. Plastic Injection Over Mould*
- 2. Cold Runner Mould*
- 3. Plastic Injection Connector Mould*
- 4. 1*4 Cavity , Ultramid A3K PA66 Material*
- 5. H13 Steel*
- 6. Two - Plate Mould*

7. DME Standard Accessories

8. Cycle Time 45s

9. Press 350 Tons

General Information

| Item# | Item | Description |
|-------|----------------------|---|
| 1 | Mold standard | DME or HASCO |
| 2 | Mold Base | LKM,DME, HASCO, FUTABA |
| 3 | Cavity/Core Steel | H13,S-7,S136,SS420,NAK80,P20 |
| 4 | Hot Runner: | MOULD MASTER, MASTER TIP, HUSKY, HASCO, DME, YUD INCOE, THERMOPLAY, SYNVENTIVE . |
| 5 | Hydraulic Cylinder | PARKER, TAIYO, STAUBLI, JUFAN |
| 6 | Mold Components | DME, Progressive, PCS, Punch, Royal, etc |
| 7 | Steel Treatment | Heat Treatment, Nitriding, Chrome Plating |
| 8 | Surface Finish: | SPI standard, VDI EDM, Texture, etc |
| 9 | Texture: | Mold-tech, Yick Sang, Ni Hong ,Tanazawa etc |
| 10 | Plastic Material | PP, PC, ABS, PE, HDPE, PET, POM, PMMA, PA(GF), PBT(GF) PVC, PPS, PEI, PEEK, LCP, PSU |
| 11 | Design Software: | CAD,UG, Pro E, Solidworks |
| 12 | Value-added Service: | Dust-free Spraying, Silk-screen Printing, Ultrasonic Welding, Thermal Bonding, Assembling, Prototype |
| 13 | Export Country: | Europe, USA, Canada, Mexico, Brazil, Australia ,Middle-east , India etc |
| 14 | Our Capability: | Auto, Aerospace, Household, Electrical, Industrial, Medial, Toys Office, Cosmetic, Outdoor, OA Equipment etc |


Processing Equipment

| NAME OF MACHINE | BRAND | Q' TY | PLACE OF ORIGIN |
|-----------------|-------|-------|-----------------|
|-----------------|-------|-------|-----------------|

| | | | |
|--------------------------------------|------------------------|----|----------|
| CNC | DMG | 1 | Germany |
| CNC | YCM-FP66A | 2 | Taiwan |
| EDM AQ35L | SODICK | 3 | Japan |
| Wire EDM AQ327L | SODICK | 2 | Japan |
| EDM | CHARMILLES-35P | 2 | Swiss |
| EDM | TAIWAN NUMERIC CONTROL | 6 | Taiwan |
| Wire cutting machine | QIGNYUAN | 4 | Shanghai |
| digital display milling machine | YINGSHUN | 8 | Taiwan |
| digital display grinding machine | SUHRE | 8 | Taiwan |
| Injection molding machine | HAITIAN | 11 | China |
| 3 Dimension Coordinate | DABAO | 1 | Taiwan |
| digital display projection apparatus | | 1 | China |

Dimension Report and Sampling Parameter

Dimension Inspection Report

| | | | | | | | |
|--------------|--------------------------|-------------|--------------|-----------------|------------|---------|---|
| Customer | SMR | Mold Trial# | T1 | Unit | Metric | Picture |  |
| Project # | Phase 2 | Trial date | 2014.12.29 | Inspection date | 2015.01.08 | | |
| Part Name | B876_SCALP without TS_RH | Mold number | ABIS 2014128 | Inspector | Mr. Li | | |
| Part / Draw# | 60063006D #2 | Material | ABS MP D160R | Manager | / | | |

Inspection Tools: Block gauge (BG), Caliper (CP), Coordinate Measuring Machine (CMM), Height gauge (HG), Mikrometer (MM), Projector (PJ), Pingauge (PG), Radi (RG), Thickness gauge (TG)

| Dimension spec | | | | Shot 1 | | Shot 2 | | Shot 3 | | Shot 4 | | Judgment | |
|----------------|-------------|-----------|-----------------|--------|---------|--------|------------|--------|----------|--------|------------|----------|---------|
| Dim # | Dimension | Tolerance | Inspection Tool | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | OK / NG | Remarks |
| 1-1 | 1.20 | + | 0.20 | CP | 1.19 | 1.23 | 1.22 | 1.24 | 1.22 | 1.23 | 1.20 | 1.21 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 1-2 | 1.20 | + | 0.20 | CP | 1.21 | 1.22 | 1.20 | 1.20 | 1.21 | 1.23 | 1.22 | 1.20 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 2-7 | 1.50 | + | 0.20 | CP | 1.51 | 1.52 | 1.52 | 1.53 | 1.51 | 1.50 | 1.49 | 1.52 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 2-8 | 1.50 | + | 0.20 | CP | 1.52 | 1.52 | 1.52 | 1.52 | 1.51 | 1.53 | 1.49 | 1.51 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 2-9 | 1.50 | + | 0.20 | CP | 1.51 | 1.52 | 1.52 | 1.52 | 1.51 | 1.50 | 1.49 | 1.50 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 3-1 | 1.70 | + | 0.20 | PJ | 1.72 | 1.69 | 1.70 | 1.69 | 1.70 | 1.71 | 1.73 | 1.70 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 3-2 | 1.70 | + | 0.20 | PJ | 1.71 | 1.72 | 1.69 | 1.70 | 1.71 | 1.72 | 1.71 | 1.72 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 3-3 | 1.70 | + | 0.20 | PJ | 1.71 | 1.72 | 1.71 | 1.70 | 1.69 | 1.70 | 1.69 | 1.71 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 3-4 | 1.70 | + | 0.20 | PJ | 1.69 | 1.70 | 1.70 | 1.71 | 1.72 | 1.71 | 1.73 | 1.71 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 3-5 | 1.70 | + | 0.20 | PJ | 1.71 | 1.71 | 1.72 | 1.73 | 1.71 | 1.71 | 1.72 | 1.73 | OK |
| | | - | 0.20 | | | | | | | | | | |
| 3-6 | 1.70 | + | 0.20 | PJ | 1.71 | 1.72 | 1.73 | 1.71 | 1.72 | 1.71 | 1.71 | 1.72 | #REF! |
| Prepared | Mr. Lillian | | | | Checked | | Mr. Li | | Approved | | Mr. Zhang | | |
| Date | 2015.01.10 | | | | Date | | 2015.01.08 | | Date | | 2015.01.08 | | |

To be completed by customer:

Signature: _____

| | | | |
|---------|--|-------------------------------|---|
| Result: | <input checked="" type="checkbox"/> Pass | <input type="checkbox"/> Fail | <input type="checkbox"/> Special Acceptance |
|---------|--|-------------------------------|---|

ABIS MOLD INJECTION PARAMETER REPORT

| | | | | | |
|--|------------------------|---|--------------------------|---|--|
| > 类型 Shot Type: <input checked="" type="checkbox"/> 单色 One shot mold | | <input type="checkbox"/> 双色第一次 1st shot of 2-shot | | <input type="checkbox"/> 双色第二次 2nd shot of 2-shot | |
| 模具编号 Tool No. | 产品名称 Part Name | 模具规格(mm) Tool L*W*H | 试模次数 Test times | | |
| 模腔数量 N Cavity | 塑胶原料 Raw Material | 颜色 Color | 项目负责人 Project Manager | | |
| 产品总重量 Gross Wt(g) | 机台型号 Press Type | 试模数量(啤数) Shot Qty | 设计工程师 Design Engineer | | |
| 试模日期 Test Date | 上机时间 Beginning Time | 完成时间 Finish Time | 审核 Reviewed | 日期 Date | |

***试模前的准备:** 试模单、产品图纸、物料表、卡尺、模温计、油温机、温枪枪、电子天平、照相机、打磨机(用于调整浇口直径)等工具

备注 Comments:

> 成型参数表 Molding Parameter Sheet:

| | | | | | | |
|------------------------------------|-----------------------------|--------------------------|---|---------------------------|----------------------|--|
| 时间 Time(s) | 周期时间 Cycle Time | | 温度设定 Temp(°C) Setup | 射嘴温度 Nozzle Temp °C | | |
| | 填充时间 Filling Time | | | 一段温度 Zone 1 Temp °C | | |
| | 保压时间 Holding Time | | | 二段温度 Zone 2 Temp °C | | |
| | 冷却时间 Cooling Time | | | 三段温度 Zone 3 Temp °C | | |
| 压力 Pressure (1Mpa=10Bar=145Psi) | 射胶压力 Injection Pressure | 一段 1st Stage | | 四段温度 Zone 4 Temp °C | | |
| | | 二段 2nd Stage | | 热流道温度 Hot Runner Temp °C | | |
| | | 三段 3rd Stage | | 前模设定温度 Cavity Temp. Setup | | |
| | | 四段 4th Stage | | 后模设定温度 Core Temp. Setup | | |
| | 保压压力 Holding Pressure | 一段 1st Stage | | 行位设定温度 Side Temp. Setup | | |
| | | 二段 2nd Stage | | 射胶速率一段 Injection Speed 1 | | |
| 储料压力 Charge Pressure | 三段 3rd Stage | 射胶速率二段 Injection Speed 2 | | | | |
| 背压 Back Pressure | | 射胶速率三段 Injection Speed 3 | | | | |
| 位置 Position(mm) | 射胶位置 1st Inj. End Position | | 速度或速率 Percent of Speed(mm/s) or Flow Rate(g/s) | 射胶速率四段 Injection Speed 4 | | |
| | 射胶位置 2nd Inj. End Position | | | 保压速率一 1st Holding Speed | | |
| | 射胶位置 3rd Inj. End Position | | | 保压速率二 2nd Holding Speed | | |
| | 射胶终止位置 Inj. End Position | | | 保压转换 Turn Hold(time/pos.) | | |
| | 熔胶终止位置 Melt End Position | | | 熔胶速率 Charge Speed | | |
| | 射退位置 Suck Back End Position | | | 原料干燥 Raw Material | 干燥温度 Drying Temp(°C) | |
| 模具 Tool | 锁模压力 Clamp Pressure | | 实际模温 Actual Temperature (°C) | 前模表面 Cavity Surface | 机水 Normal Water | |
| | 开模压力 Opening Pressure | | | | 热油 Hot Oil | |
| | 顶出行程 Ejection Stroke | | | | 凉水 Cool Water | |
| | 顶出次数 Count of Ejection | | | 后模表面 Core Surface | 机水 Normal Water | |
| | 抽胶机构 Side Action(道Unit) | | | | 热油 Hot Oil | |
| 顶出 Ejection (%) | 托模进 Forward | 压力 Pressure | | 凉水 Cool Water | | |
| | | 速度 Speed | | 行位表面 Slide Surface | 机水 Normal Water | |
| | 托模退 Backward | 压力 Pressure | | | 热油 Hot Oil | |
| | | 速度 Speed | | 凉水 Cool Water | | |

> 产品外观问题/Product Appearance Faults:

| | | | | |
|---|--|---|--|--|
| <input type="checkbox"/> 粘前模 Sticking in Cav | <input type="checkbox"/> 抛光不良 Poor Polishing | <input type="checkbox"/> 披锋 Flash | <input type="checkbox"/> 裂痕 Stress Crack | <input type="checkbox"/> 熔合线 Weld L |
| <input type="checkbox"/> 粘后模 Sticking in Core | <input type="checkbox"/> 顶出不顺 Uneven Eject. | <input type="checkbox"/> 顶台 Ejector Marks | <input type="checkbox"/> 喷射痕 Jetting | <input type="checkbox"/> 黑点 Dark Spot |
| <input type="checkbox"/> 水纹 Water Wave Marks | <input type="checkbox"/> 拖花 Scratch Marks | <input type="checkbox"/> 变形 Deformation | <input type="checkbox"/> 缺胶 Short Filing | <input type="checkbox"/> 烧焦 Burn Mar |
| <input type="checkbox"/> 冷料流痕 Cold Slug Marks | <input type="checkbox"/> 困气 Gas Trap Effect | <input type="checkbox"/> 缩水 Sink Marks | <input type="checkbox"/> 胶卷 Cap | <input type="checkbox"/> 气泡 Air Bubble |

> 试模过程检查/Tryout Process Check:

| | | |
|----------|------------|-----------------------|
| 开合模动作检查 | 模具送水检查 | 流动平衡检查, 填充30%、60%、90% |
| 模具顶出动作检查 | 低速填充检查模具排气 | 填充99%检查毛边、缩水与变形 |

> 试模问题点描述及建议/Comments:

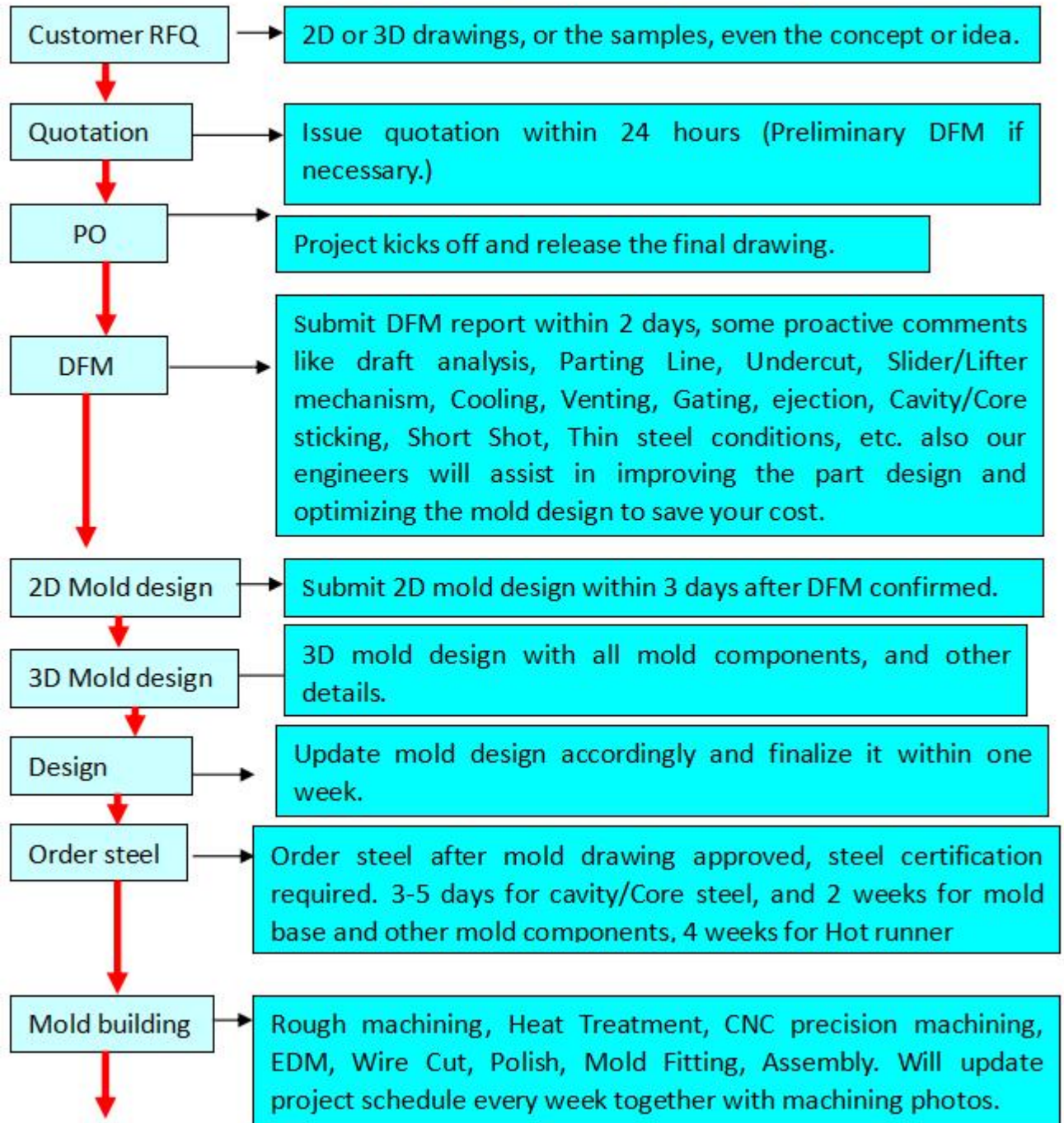
问题: 产品毛边/玻纤纹

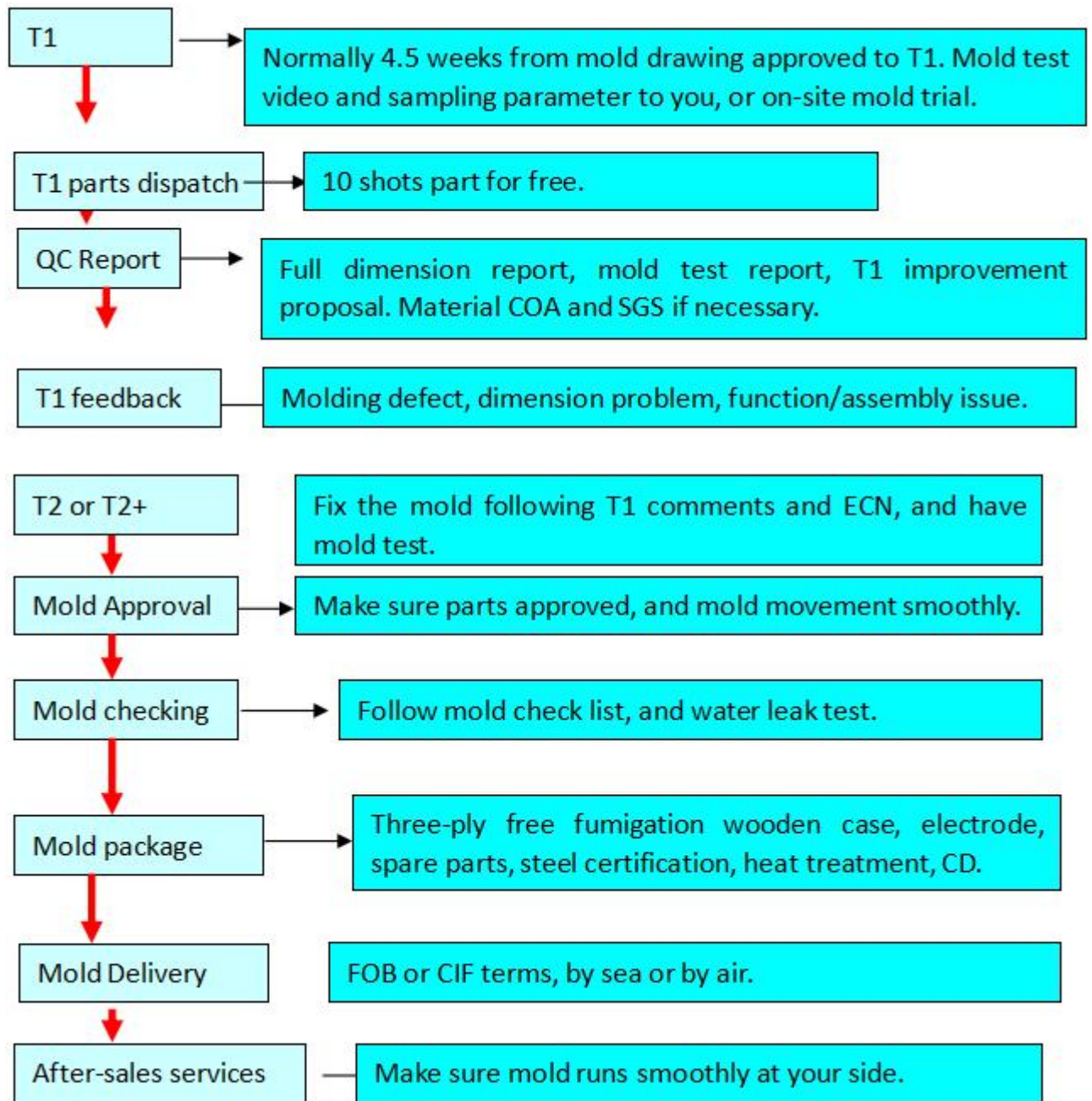
对策: 飞模/流道加大/进胶口加大/冷料井加大

| | | | |
|-----------|---------|-------------|---------|
| 记录 Record | 日期 Date | 审核 Reviewed | 日期 Date |
|-----------|---------|-------------|---------|

Project Procedure

ABIS --Project Procedure





Payment Terms

1. T/T: 40% Deposit, 30% upon T1 Sample, 30% Balance before shipment
2. L/C: irrevocable 100% L/C at sight.

Workshop



BEIJING HANGXIE CERTIFICATION CENTER CO., LTD.
QUALITY MANAGEMENT SYSTEM CERTIFICATION
ABIS MOLD TECHNOLOGY(HK)CO., LTD.
 Organization Code: 55388449-1
 No.102, Building B, Ying Keli Industry Area, Longgang District, Shenzhen, China. P.C. 518102

is in conformity with
GB/T19001-2008 (ISO9001:2008)
This certificate is covering the following product scope
Plastic Mold Development and Manufacturing; Plastic Products
(Not Include the Products With Administrative Licenses)
 Registration No. Q3415Q20263R0M
 The Duration of Validity: Feb . 10, 2015 — Feb . 09, 2018



MANAGEMENT SYSTEM
 CNAS CB34-Q



MEMBER OF IAF
 RECOGNITION

General Manager: *[Signature]*

BEIJING HANGXIE
 CERTIFICATION CENTER CO., LTD.

After this certificate is issued, there should be at least 2 surveillance audits within the 3 year period of validity of the certificate can be checked on www.hbxcc.com.cn. The certificate information is available on the official website of the National Certification and Accreditation Administration (www.cnca.gov.cn). It is also available by scanning the two-dimensional code at the bottom right corner.

Address : NO.7 Jingshun Road, Chaoyang District, Beijing, China.



Certificate

Certificate No.: 1141

This is to certify that the Occupational Health and Safety Management System of
SHENZHEN ABIS PRECISION HARDWARE PLASTIC CO., LTD.
 Unified Social Credit Code: 91440300553884491N
 Registered/Production/Office Address: Yingkelu Industrial District B Building No.102, Shuanglang Community, Longgang Street, Longgang District, Shenzhen, Guangdong Province, China
 Sales Address: Yingkelu Industrial District C Building J/F, Shaoceli Village, Longgang Center Street, Longgang District, Shenzhen, Guangdong Province, China

Has been audited to conform to the following Occupational Health and Safety Management System standard
GB/T 28001-2011 idt OHSAS 18001:
 This Occupational Health and Safety Management System is valid for the development and production of plastic mould; sale of plastic parts and related Occupational health and safety management activities of involved sites

Initial issued date: May, 16, 2017
 Date of issue: May, 15, 2017
 Date of expiry: May, 15, 2020

Issued by: *Wu Fengmei*



Beijing East Allreach Certification Center




The certificate will remain valid only if the certified organization accepts surveillance audits at regular intervals and is notified to be qualified. Please paste the surveillance audit conforming mark in the designated position of the certificate. The logo number of this certificate is available at EACC website (www.eacc.com.cn) and CNCA website (www.cnca.gov.cn).

EACC address: 4/F, Fuxi, No. 121 building, No. 17 Jingshun Road, Chaoyang District, Beijing, China

| | |
|--|--|
| The 1 st Surveillance Conforming Mark | The 2 nd Surveillance Conforming Mark |
|--|--|

Tooling Shop

QC Control

Mold Making QC main steps

Mould Design Control : Design review checklist before submitting to the customer. We will not start the steel purchasing work until get your written approval on our mold drawing.

Incoming quality control: all steel material and outsourcing standard components will be checked to ensure that they are in accordance with the BOM(QTY and material/components name specified).

In process quality control: all the machining and assembling process is under control, we have QC team to check and supervise the tolerance and processed surface to satisfy the requirements. (Mould Steel Hardness Inspection, Mould Electrodes Inspection, Mould Core and Cavity Steel Dimension Inspection , Mould Pre-Assembly Inspection)

Final quality control: within 3 days the completion of the plastic mold, we will have a thorough check for the main size of the molded plastic sample and mold to ensure that the critical or full dimension (if required) are within tolerance.

Mould Pre-Shipment Final Inspection : Free-fumigation three-plywood case packing; make sure the mold is conformity to the approved mold drawing. The spare components and easily broken components and the electrode (if required) are packaged, as well as the mold drawing and some certificated.

Plastic Molding QC main steps

Vernier caliper measurement is performed by trained operators when the first product is produced. After our machine, we check the contour dimension and assembly status (if exist) to identify if any

The molded parts are then inspected again by experienced QA department for the full dimension, especially the critical dimensions set by customer. If quality result was recorded at the same time. Result will be to our QC Supervisor directly. If unqualified dimensions (if exist) are caused by uncontrolled factors or our mistakes and the related actions to improve it.

We will trustily report the T1 result to customer. We will send T1 samples to customers for checking. Sometimes T1 samples need improvement. If T1 samples are required by customer at first, we will take actions to improve the mold to make sure the parts have 0 defects. No shrinkage, warpage, flash, streak, air bubble, step line, ejector mark, and dimension within tolerance.

Package inspection: make sure QTY/color and weight are correct.

Packaging & Delivery

Packaging Details: Free-Fumigation Three-Plywood case

Delivery Detail: 25-35 days by sea, 3-7 days by air



Our ABIS Family



ABIS MOLD TECHNOLOGY CO., LTD



We will give our best service,quality, price and delivery time!

If you have any question just call me or send E-mail to me please!

ABIS MOLD TECHNOLOGY CO.,LTD

Daisy Wang (Overseas sales)

Web: www.abismold.com

Cell: +86-15016526799

Skype: daisymold@outlook.com

Email: Daisy@abismold.com

*Add: Building B#,YingKeli Industrial Part, LongDong Community,
LongGang District, Shenzhen, China 518116*

FAQ

Q: Can you do post production?

A:Some customers in addition to plastic injection require post processing, assembly of their products and packaging.

Q:

Is it possible to know how are my products going on without visiting your company?

A:We will offer a detailed production schedule and send weekly reports with digital pictures and videos which show the machining progress.

Q: If you make poor quality goods, will you refund our fund?

A: As a matter of fact, we won't take a chance to do poor quality products. Meanwhile, we manufacture goods quality products until your satisfaction.

Q: What is the software you will use to check the drawing? And what is format of drawing you can check?

A: Our designers and engineers all use VISI and UG to check 2D and 3D drawings.

We can check the drawing with PDF .AI, DWG ,STP or IGS formats.

Q: How can you confirm the plastic injection mold you produce is the one we need?

A: we can provide professional mold analysis reports before mold making.

Q: What can we do if we don't have the mold drawing ?

A: you will only provide the actual sample to us then we can help you to make the design injection mold drawings for your confirmation.