FINEHOPE
FREE
DMF/ A report
3D Design
Mould
Product Inspection Standard Setting
Free Product Inspection Standard Setting: In addition to the usual quantification of product physical properties and appearance standards, we will add REACH, RoHS, FDA, CA-65, or CFC Free to the standards according to customer needs.
Free Mould Opening: Large order quantity with mould cost free.
Free 3D Design: Finehope help customer design the desired product or modify the design for free.
Free DFM/A Report: Finehope will show details and solutions of manufacturability and assemblability through PPT to help customers reduce trouble.

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- □□□□671 * 546 * 66mm
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- □□□100-800kg / m3
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**Finehope□2003□□□□□□□ISO9001□□□□□□□□□□□**

**IATF16949□□□**
□□□□□□PU□□□□□□□□□ Finehope□□2021□□IATF16949□□□□□□□□□□□□□□□□□□□□□□□50□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
Finehope□Caterpillar□2007□□□□□□Finehope□□Caterpillar□□□□□□□□□□□□□□□□□□□□□SPC□MSA□FMEA□APQP□PPAP□5□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
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**PU**原料の研究開発能力

2002年以来、FinehopeはPU成形フォーム製品の設計と製造に取り組んできました。配合材料の独自の研究開発と安定した生産能力が品質保証の基礎です。

Finehopeは、硬度、弾力性、サポート、感触、密度、色、その他の物理的および化学的特性の要件など、顧客のパーソナライズされた製品のカスタマイズされたニーズに応じていつでも製品の処方を調整でき、準拠した処方要件を作成できますもちろん、優れた処方では最高のコストパフォーマンスも考慮する必要があります。新しいプロジェクトでは、PU製剤を開発できることが、製品開発の品質、納期、コストを確保するための重要な条件です。

自動化装置の設計および製造能力

Finehopeの自動化装置の設計および製造能力は、業界ではまれです。新しいPU射出混合装置の設計および生産ラインの自動化変換に参加することにより、中国の人口ボーナスを確実に削減します。人件費は上昇し続け、生産効率も向上し、人件費と材料費を削減できます。さらに、フィクスチャ、特殊機器、自動金型などの主要機器の継続的な設計および製造能力も、Finehopeがあらゆる面で主導的な地位にある理由です。Finehopeは、継続的にコストを削減し、製品を革新する能力により、顧客がより大きな価値をもたらすのに役立ちます。したがって、Finehopeは、多くのFortune500企業および業界をリードする企業の信頼できる長期的なパートナーです。

科学的管理能力

Finehopeは、管理効率を最適化するためのトヨタ生産方式と企業コーチングモデルの重要性を強調しています。継続的な改善すべての従業員、管理および生産担当者の効率と品質が効果的かつ継続的に改善され、管理および生産コストが継続的に削減されましたが、
効率とコストは、企業の持続可能な開発の中核であるため、継続的な改善による従業員の成長の育成です。

中国カスタマイズスタンディングデスクマットファクトリー Finehopeの改良により、人間のプロセスシステムの過失が減り、専門的な経験を継続的に蓄積できるため、お客様のトラブルが減り、すべての新しいプロジェクトを最短時間で完了することができます。

## よくある質問

### 1.なぜFinehopeを選ぶのですか?

中国の耐疲労ポリウレタンマットメーカー Finehopeは中国で最も専門的なPUメーカーであり、専門的なR&Dチーム、高度なPU生産設備、専門的な試験設備、完璧な品質管理システムを備えています。 CAT、FIAT、TVH、STIGA、その他の有名企業との12年間の協力経験があります。カスタマイズのニーズを満たすために、研究開発から生産までのワンステップサービスを提供します。

## 2. Finehopeを選択する利点は何ですか?

1）製品の品質保証、納品保証、優れたアフターサービス。
2）費用効果が高く、開発効率が速く、完全性を備えた専門的な運用。
3）Finehopeは、すべてのテスト分析を実施してから、テスト標準を作成して、間の品質標準の論争を減らします。
顧客とメーカー。
4）リーン生産管理モード。
5）顧客が新製品を開発および設計するのを支援します。
6）PU製品の設計と加工に豊富な経験があります。
7）Finehopeは中国のハイテク企業であり、国内にあり、国際的な発明特許技術と知的財産を持っています
財産。

## 3. Finehopeと国内の同業者の違いは何ですか?

1）品質保証：先行品質計画（APQP）。
2）Finehopeは、国際的な大企業にサービスを提供した豊富な経験があります。
3）ポリウレタン材料の専門的な科学研究チームがあります。
4）生産設備と金型の独立した設計、製造、革新能力を持っています。
5）品質保証システムと品質管理を担当するエンジニアチームがいます。

## 4. Finehopeとヨーロッパおよび米国の同業者の違いは何ですか?

1）完璧で成熟したサポートサプライチェーンを持っています。
2）金型コストを削減します。
3）開発および設計能力の高い効率と短いプロセス時間。
4）コスト優位性と優れたサービス態度。

## 5. PU製品の用途は何ですか?

自動車、エンジニアリング機器、スポーツフィットネス機器、医療機器、日用品など。

# About us

OUR
SAMPLE
ROOM

# Our Certification

厦門成長志向の中小企業

Finehopeは、2019年以来、「厦門成長志向の中小企業」として評価されています。
これは、Finehopeのさまざまな包括的な指標、成長モデル、業界でのブランド力、および企業の評判に基づいたXiamen Municipal Governmentのスコアリング結果であり、この証明書を発行します。 Finehopeが市内の中小企業の何千もの中で際立っていることの証拠です。

厦門専門、精製、差別化、革新的な中小企業

Finehopeは、2020年以来、「厦門専門、精製、差別化、革新的中小企業」と評価されています。主に新世代の情報技術、ハイエンド機器製造、新エネルギー、新素材、生物医学およびその他の中小企業に集中しています。政府はファインホープの「専門化、特別な革新」を強調し、認識しています。イノベーションを奨励し、専門化、改革、専門化を実現します。

厦門科学技術リトルジャイアントリーディングエンタープライズ

2019年以来、Finehopeは厦門科学技術リトルジャイアントのリーディングカンパニーに選ばれました。この証明書は、Xiamen市政府の5つの部門によって共同で発行されました。選択基準は、新世代の情報技術、ハイエンド機器、新素材、新エネルギー、生物学と新医学、省エネと環境保護、海洋ハイテクなどの戦略的新興産業に焦点を当てています。この栄誉を勝ち取ったことは、Finehopeが新しい情報技術と新しい材料で業界の最前線にいることを示しています。

食品医薬品局の認証

情報化と工業化管理システム証明書の統合

労働安全標準化証明書

Finehope[illegible]
2018.[illegible]Finehope[illegible]CFG[illegible]

[illegible]Xiamen Municipal Government[illegible]Shanghai Academy of QualityManagementScience[illegible]Finehope[illegible]Finehope[illegible]

[illegible]Finehope[illegible]TigerSide[illegible]

## [illegible]

[illegible]

[illegible]

## [illegible]-TUV[illegible]

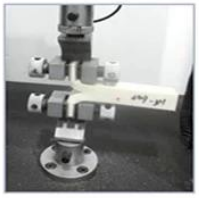
2007[illegible]Finehope[illegible]TUV[illegible]Alibaba[illegible]

[illegible]Alibaba[illegible]

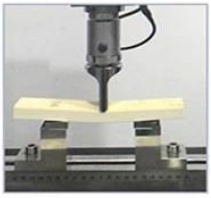
# Quality Assurance

## UNIVERSAL TESTING MACHINE(UTM)

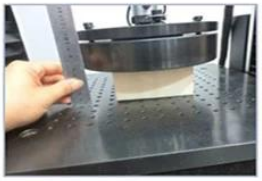
Tensile Test

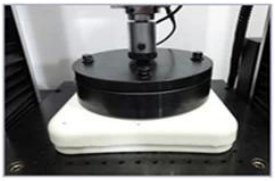


Tear Resistance Test



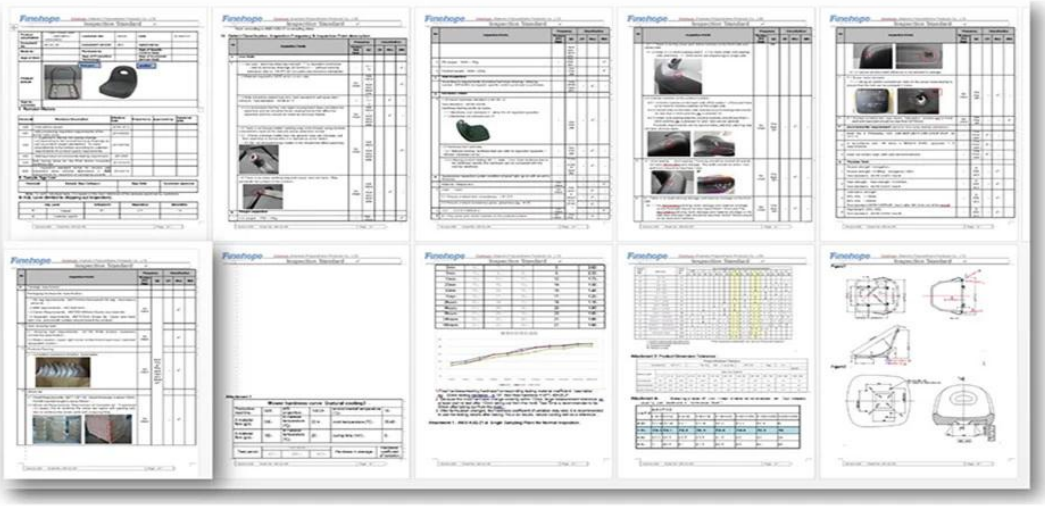
Compressive Strength



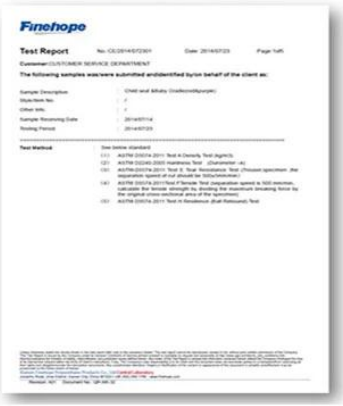


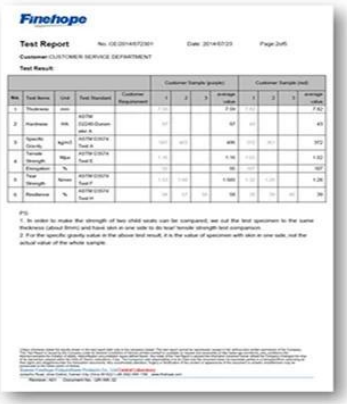
Indentation Force Deflection

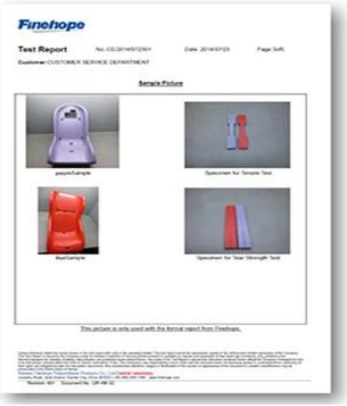
## INSPECTION STANDARD



## MATERIAL PERFORMANCE TEST REPORT







# Advanced Product Quality Planning

Date: 01-Oct-17

| | |
|---|---|
| Customer | [redacted] |
| Location | New Zealand |
| Customer Code | G1019 |
| Risk Assessment | |
| New: Site ☐ Technology ☐ Process ☐ | |
| Other Risks: ☐ | |

| | |
|---|---|
| Project | [redacted] |
| Finehope Contact | Wendy Yang |
| Part No. | [redacted] |
| Part Name | G1019Y04 |
| Change Level/Date | |
| User Plant(s) | Finehope |

| Core Team Members | Company/Title | Phone/Fax/E-Mail |
|---|---|---|
| Tiger Xu | G.M. | [redacted] |
| Yibin Lim | Vice G.M. | [redacted] |
| Cindy Wu | Sales Manager | cindy@finehope.com |
| Liangquan Wan | Project Manager | |
| Wendy Yang | Sales | wendy@finehope.com |
| | | |

| Build Level | Material Required Date | Quantity | No. Concurred SRCs | No. Concurred Majors | | |
|---|---|---|---|---|---|---|
| Product Design and Develop | 21-Jun-21 | 10 | | | | |
| Product and Process Validat | 25-Jun-21 | 15 | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| APQP Deliverable | Finehope APQP Reference Only | G / Y / R | Project Need Date | Supplier Timing Date | Actual Closure Date | Supplier Lead Resp Initials | Finehope Acceptance Complete | Remarks or Assistance Required |
|---|---|---|---|---|---|---|---|---|
| **AIAG APQP Phase 2 - Product Design and Development** | | | | | | | | |
| 1. Project Timeline (Synchronized w/Production Time Plan | 2030 | G | 20-Jun-21 | 21-Jun-21 | 21-Jun-21 | 22-Jun-21 | 23-Jun-21 | / |
| 2. Customer Inputs / Requirements | 2030 | G | 23-Jun-21 | 24-Jun-21 | 24-Jun-21 | 25-Jun-21 | 26-Jun-21 | / |
| 3. Warranty & Quality Mitigation Plan | 2030 | G | 24-Jun-21 | 25-Jun-21 | 25-Jun-21 | 26-Jun-21 | 27-Jun-21 | / |
| 4. Customer Specific Requirements | 2050 | G | 25-Jun-21 | 26-Jun-21 | 26-Jun-21 | 27-Jun-21 | 28-Jun-21 | / |
| 5. Design FMEA | 2080 | G | 26-Jun-21 | 27-Jun-21 | 27-Jun-21 | 28-Jun-21 | 29-Jun-21 | / |
| 6. Preliminary Bill of Materials (BOM) | 2090 | G | 27-Jun-21 | 28-Jun-21 | 28-Jun-21 | 29-Jun-21 | 30-Jun-21 | / |
| 7. Prototype Control Plans | 2110 | G | 28-Jun-21 | 29-Jun-21 | 29-Jun-21 | 30-Jun-21 | 1-Jul-21 | / |
| 8. Prototype Builds | 2110 | G | 29-Jun-21 | 30-Jun-21 | 30-Jun-21 | 1-Jul-21 | 2-Jul-21 | / |
| 9. Design Verification Plan & Report (DVP&R) | 2120 | G | 30-Jun-21 | 1-Jul-21 | 1-Jul-21 | 2-Jul-21 | 3-Jul-21 | / |
| 10. Design / Process Review | 2130 | G | 1-Jul-21 | 2-Jul-21 | 2-Jul-21 | 3-Jul-21 | 4-Jul-21 | / |
| 11. Team Feasibility Commitment | 2130 | G | 2-Jul-21 | 3-Jul-21 | 3-Jul-21 | 4-Jul-21 | 5-Jul-21 | / |
| 12. APQP Status Sub-Supplier | 2130 | G | 3-Jul-21 | 4-Jul-21 | 4-Jul-21 | 5-Jul-21 | 6-Jul-21 | / |
| 13. Production Drawing & Specifications | 2220 | G | 4-Jul-21 | 5-Jul-21 | 5-Jul-21 | 6-Jul-21 | 7-Jul-21 | / |
| 14. Subcontractor Purchase Orders (Customer Tooling | 2250 | G | 5-Jul-21 | 6-Jul-21 | 6-Jul-21 | 7-Jul-21 | 8-Jul-21 | / |
| 15. Facilities, Equipment, Tools and Gages | 2260 | G | 6-Jul-21 | 7-Jul-21 | 7-Jul-21 | 8-Jul-21 | 9-Jul-21 | / |
| **AIAG APQP Phase 3 - Process Design and Development** | | | | | | | | |
| 16. Product/Process and Quality System Review | 3030 | G | 9-Jul-21 | 10-Jul-21 | 10-Jul-21 | 10-Jul-21 | 11-Jul-21 | / |
| 17. Manufacturing Process Flow Chart | 3040 | G | 11-Jul-21 | 12-Jul-21 | 12-Jul-21 | 12-Jul-21 | 13-Jul-21 | / |
| 18. Process FMEA | 3100 | G | 13-Jul-21 | 14-Jul-21 | 14-Jul-21 | 14-Jul-21 | 15-Jul-21 | / |
| 19. Pre-Launch Control Plan | 3110 | G | 15-Jul-21 | 16-Jul-21 | 16-Jul-21 | 16-Jul-21 | 17-Jul-21 | / |
| 20. Process Work Instructions | 3120 | G | 17-Jul-21 | 18-Jul-21 | 18-Jul-21 | 18-Jul-21 | 19-Jul-21 | / |
| 21. Measurement Systems Evaluation | 3130 | G | 19-Jul-21 | 20-Jul-21 | 20-Jul-21 | 20-Jul-21 | 21-Jul-21 | / |
| 22. Packaging Specifications & Approvals | 3160 | G | 21-Jul-21 | 22-Jul-21 | 22-Jul-21 | 22-Jul-21 | 23-Jul-21 | / |
| 23. Manufacturing Team Training | 3170 | G | 23-Jul-21 | 24-Jul-21 | 24-Jul-21 | 24-Jul-21 | 25-Jul-21 | / |
| **AIAG APQP Phase 4 - Product and Process Validation** | | | | | | | | |
| 24. Subcontractor PPAP Approval | 4005 | G | 9-Jul-21 | 10-Jul-21 | 10-Jul-21 | 10-Jul-21 | 11-Jul-21 | / |
| 25. Production Control Plan | 4008 | G | 11-Jul-21 | 12-Jul-21 | 12-Jul-21 | 12-Jul-21 | 13-Jul-21 | / |
| 26. Production Reasness Review (PRR) | 4009 | G | 13-Jul-21 | 14-Jul-21 | 14-Jul-21 | 14-Jul-21 | 15-Jul-21 | / |
| 27. Production Trial Run (PTR) | 4010 | G | 15-Jul-21 | 16-Jul-21 | 16-Jul-21 | 16-Jul-21 | 17-Jul-21 | / |
| 28. Process Capability Studies | 4030 | G | 17-Jul-21 | 18-Jul-21 | 18-Jul-21 | 18-Jul-21 | 19-Jul-21 | / |
| 29. Production Validation Plan & Report (PVP&R) | 4090 | G | 19-Jul-21 | 20-Jul-21 | 20-Jul-21 | 20-Jul-21 | 21-Jul-21 | / |
| 30. Production Part Approval (PPAP) | 4110 | G | 21-Jul-21 | 22-Jul-21 | 22-Jul-21 | 22-Jul-21 | 23-Jul-21 | / |
| **AIAG APQP Phase 5 - Feedback, Assessment and Corrective Action** | | | | | | | | |
| 31. Initial Production Shipment | 5005 | G | 28-Jul-21 | 30-Jul-21 | 30-Jul-21 | 30-Jul-21 | 31-Jul-21 | / |
| 32. Production Ramp-up Plan | 5005 | G | 31-Jul-21 | 2-Aug-21 | 2-Aug-21 | 2-Aug-21 | 3-Aug-21 | / |
| 33. Full Production Date | 5005 | G | 5-Aug-21 | 7-Aug-21 | 7-Aug-21 | 7-Aug-21 | 8-Aug-21 | / |
| 34. Conduct Lessons Learned | 5005 | G | 8-Aug-21 | 10-Aug-21 | 10-Aug-21 | 10-Aug-21 | 11-Aug-21 | / |

# Design Failure Mode and Effects Analysis

## (Design FMEA)

FMEA No.: DFMEA-001

Page: page 1, totally 3 pages

PΘject Name: Injection moulding | Procedure responsible dept: Production Dept | Made: Xiaodong Qiu

Model year/vehicle types: CRV | Soybean Milk Maker | Important date: Nov.10th.2015 | FMEA Date: Nov.10th.2015

People participated: Develop dept:Gaolin Wei | Sales:Haiyan Wu | PC:Jiannan Yan | Technology Dept:Jianyu Zhou | Purchaser:Yuanyuan Gou | Production dept:Shuwen Dong | QC:Bingxiang Zheng

| procedure function requirements | Potential failure mode | Potential effects analysis | severity (S) | grade | potential causes/mechanisms of failure | frequency (O) | Current prevention process control | Current detection process control | detectivity (D) | RPN | recommended measures | Responsibility and target completion date | action results | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Action Taken | severity (S) | frequency (O) | difficult to check (D) | RPN |
| scyphus | size changes of handle | handle cover fall off | 6 | A | PP size change | 6 | By adjusting the product of the injection molding process, and measure or test the clasp of product size | measure and test product size | 3 | 108 | Add the number of button bit in handle design, in order to keep the connection strength | Xiaodong Qiu 2015/08/25 | By adjusting the product of the injection molding process, and measure or test product size | 6 | 1 | 1 | 6 |
| scyphus | warpage of scyphus handle | Poor appearance break | 4 | C | high handle wall | 6 | Add the stiffener to handle wall to prevent deformation | measure and test product size | 2 | 48 | If this problem appears, make improvement by Adding the stiffener | Xiaodong Qiu 2015/09/30 | Add the stiffener to handle wall to prevent deformation | 4 | 2 | 1 | 8 |
| scyphus | Deformation of cup-mouth | Micro switch without power | 8 | A | PP material deformation. Resulting in a perpendicular direction to connect the cup and handle inward deformation. So that both sides of the tilt, the micro switch column opposite sink, and | 3 | Adjust the injection molding process, to prevent extrusion | measure and test cup-mouth size | 3 | 72 | in the cup packing control the direction of the lateral dimension of no force, stipulate the way of packing | Xiaodong Qiu 2015/09/10 | stipulate the cup use egg cell methods to put the packing which do not squeeze each other | 8 | 1 | 3 | 24 |

H-R-P-001-1

# Process Failure Mode and Effects Analysis

## (PFMEA)

## 潜在失效模式和后果分析

FMEA No.FMEA20150325-01

Page 3

Item:Welding improvement | Process Responsibilities: Production welding group | Maker:Wenrong-Huang

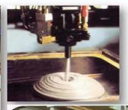
Model year/project | Key Dates | FMEA Date (Original):2015.03.25

| Item / Request | Potential failure mode | Potential consequences of failure modes | Severity | Grade | Potential causes of failure | Occurrence degree | Current process control and Prevention | Current process control detection | Detection rate | RPN | Suggest measures | Responsibility and target completion date | Measure results | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Measures and effective date | Severity | Incidence rate | Detection degree | RPN |
| Clamping (clamping required is in place, no missing or wrong loaded) | Clamping is not in place | SizeNG | 6 | B | ●Staff negligence ●Fixture for bad | 4 | ●Make the operation standard book ●Make maintenance standards, regular maintenance | ●Visual inspection ●Finished 100% full inspection | 6 | 144 | ●Pre-service training of staff ●Regular maintenance | | | 6 | 3 | 4 | 72 |
| | | Welding error, leak welding, welding deviation, affect the assembly or use function | 8 | A | ●Staff negligence 人员作业疏忽 ●Fixture for bad 夹具作动不良 ●Fixture inaccurate 夹具定位不准确 | 4 | ●Make the operation standard book ●Make maintenance standards, regular maintenance ●Regular checking of fixture | Visual inspection | 6 | 192 | ●Pre-service training of staff ●Regular maintenance ●Make inspection checklist for fixture | | | 8 | 3 | 4 | 96 |
| | Attachments missing | Affect product strength or influence the assembly | 8 | A | Staff negligence | 3 | Make the operation standard book | Visual inspection | 4 | 96 | Final inspection personnel do 100% full inspection for each bead with mark | | | 8 | 2 | 2 | 32 |
| | Attachment error | Influence assembly | 7 | A | No mistake proofing fixture | 3 | Make the operation standard book | Visual inspection | 6 | 126 | ●Increase the mistake proofing devices ●Inspection for final inspection tools | | | 7 | 2 | 4 | 56 |
| | False welding | Lack of strength, affect the use of function | 9 | A | Current, voltage, welding angle, speed setting is not reasonable | 4 | ●Welding process guidance making ●Condition confirmation check ●Confirm the failure test on a regular basis. | Destructive testing | 8 | 288 | After the procedure is set up to confirm the processing conditions, the execution and marking of the failure test is performed. | | | 9 | 3 | 4 | 108 |

# Production Device

**KRAUSS MAFFEI**

Finehope has successively introduced many of the world's most advanced German KraussMaffei high-pressure injection machines since 2010.



Reaction Injection Molding (RIM)
High Pressure Machine
KRAUSS MAFFEI
Made in Germany!

**Self-invented fully automatic production line**

Finehope has independently developed a number of fully automatic PU injection production lines since 2010. These production lines reduce production costs and meet customer delivery requirements.

**Welding Robots**

Since 2016, Finehope has continued to purchase welding robots and automatic fixture turntables for welding metal parts. The independent processing of accessories saves the waiting time and procurement cost of outsourcing processing.

**CNC Machine**

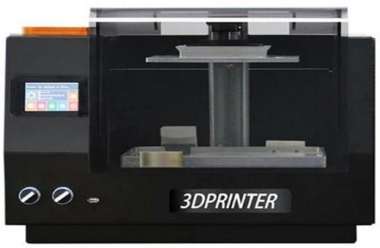
Finehope has continued to purchase CNC equipment since 2016. CNC (Computer Numerically Controlled) machining is a manufacturing process in which preprogrammed computer software dictates the movement of factory tools and machinery. Using this type of machine versus manual machining can result in improved accuracy, increased production speeds, enhanced safety, increased efficiency and most importantly, help customers save costs and improve product quality.

**Mould Release Agent Painting Robot**

Since 2019, Finehope has purchased robots for spraying water-based release agents to improve the working environment, improve spraying quality and material utilization, and reduce labor costs.

**3D printer**

Finehope started to purchase 3D printers in 2015. 3D printing can realize rapid proofing of new product prototypes and templates for resin molds, and can also be used for faster and cheaper small batch production.



# Social Responsibility

- **Audited by Sedex**

( Supplier business ethics information exchange )

Labor standard · health and safety · Environmental protection · Business ethics practice

- **Public-spirited**

Voluntary tree planting after Super Typhoon Meranti in 2016

# A VALUE-BASED COMPANY