

**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.



**La fabbrica della Cina personalizza il parafrango in poliuretano delle parti del rullo in schiuma dell'unità di elaborazione del veicolo di ingegneria**

Categoria: parti dell'unità di elaborazione del rullo del veicolo di ingegneria

Materiale: schiuma di poliuretano PU

Densità: 800-1150 kg/m<sup>3</sup>

Forma: in base alle esigenze del cliente per la progettazione del prodotto e lo stampo personalizzato

Colore: giallo e altri colori possono essere personalizzati su richiesta.

Confezione: scatola di cartone

Termini di pagamento: acconto del 30%, pagamento e consegna.

MOQ: 100 pezzi

Luogo di spedizione: Cina • Fujian • Xiamen

Soddisfa la certificazione: RoSH, REACH, EN71-3, ftalico 6P

Altro: fabbriche cinesi OEM e di trasformazione, specializzate nella produzione di prodotti PU, inclusi accessori (ferro, legno, plastica, ecc.).



**Finehope ha ottenuto la certificazione ISO 9001 ininterrottamente dal 2003.**

**Certificazione IATF16949:**

Finehope ha superato la certificazione dei sistemi di gestione della qualità automobilistica IATF16949 nel 2021. Più di 50 documenti garantiscono l'avanzamento dello sviluppo di nuovi prodotti, la qualità, i tempi di consegna e il costo dei prodotti di prova e di produzione di massa.

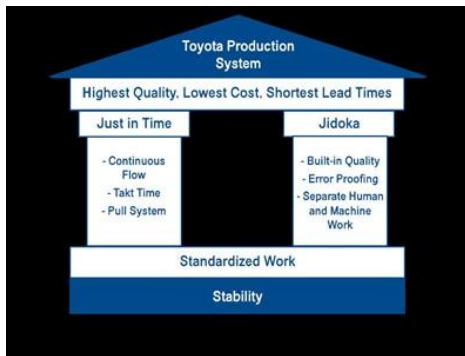
Fin dalla collaborazione tra Finehope e Caterpillar nel 2007, Finehope ha utilizzato il sistema di gestione della qualità automobilistica per l'introduzione di nuovi prodotti, utilizzando i cinque strumenti di SPC, MSA, FMEA, APQP e PPAP, che hanno ricevuto elogi dai dirigenti Caterpillar e stabilito una lunga partnership a lungo termine finora.

## Our Advandages



### Capacità di ricerca e sviluppo delle materie prime PU

Dal 2002, Finehope si è impegnata nella progettazione e produzione di prodotti in schiuma stampata in PU. La ricerca e lo sviluppo indipendenti di materiali formula e una capacità produttiva stabile sono la base per la garanzia della qualità. Finehope può adattare la formula del prodotto in qualsiasi momento in base alle esigenze personalizzate dei prodotti personalizzati dei clienti, come i requisiti di durezza, elasticità, supporto, tatto, densità, colore e altre proprietà fisiche e chimiche, e può soddisfare i requisiti di formulazione con le leggi e i regolamenti dei vari paesi. Naturalmente, una buona formula deve anche considerare il miglior rapporto costo/prestazioni. Per i nuovi progetti, la capacità di sviluppare formulazioni PU è una condizione chiave per garantire la qualità dello sviluppo del prodotto, i tempi di consegna e il costo.



### Capacità di gestione scientifica

Finehope sottolinea l'importanza del Toyota Production System e del Corporate Coaching Model per ottimizzare l'efficienza gestionale. Miglioramento continuo l'efficienza e la qualità di tutti i dipendenti, della direzione e del personale di produzione sono state migliorate in modo efficace e continuo, i costi di gestione e di produzione sono stati continuamente ridotti, ma più importante dell'efficienza e dei costi è la coltivazione della crescita dei dipendenti attraverso il miglioramento continuo, perché questo è il fulcro dello sviluppo sostenibile aziendale.

### Capacità di progettazione e produzione di apparecchiature di automazione

La capacità di Finehope di progettare e produrre apparecchiature di automazione è rara nel settore. Partecipando alla progettazione di nuove apparecchiature di miscelazione per iniezione PU e alla trasformazione dell'automazione della linea di produzione, per garantire che sotto la concorrenza del dividendo demografico cinese sia ridotto e il costo del lavoro continua ad aumentare, anche l'efficienza produttiva può essere migliorata, i costi del lavoro e dei materiali possono essere ridotti. Inoltre, le continue capacità di progettazione e produzione di attrezzature chiave come infissi, attrezzature speciali e stampi automatici sono anche le ragioni per cui Finehope è in una posizione di leadership in tutti gli aspetti. La capacità di Finehope di ridurre continuamente i costi e innovare i prodotti può aiutare i clienti a portare maggiore valore. Pertanto, è un partner affidabile a lungo termine di molte aziende Fortune 500 e aziende leader del settore.



La raffinatezza di Finehope riduce i problemi per i clienti, perché riduce la negligenza sul sistema di processo umano e la capacità di accumulare continuamente esperienza professionale, che può garantire che tutti i nuovi progetti siano completati nel minor tempo possibile.

## Famous customer

### Cooperation experience

Engineering Vehicle

BOYD CORPORATION

TVH

AIXAM

Honeywell | STIGA | CAT

Medical Equipment

Hill-Rom

INVACARE  
Yes, you can.

MAQUET  
GETINGE GROUP

Dr Posture | Ki Mobility

Fitness Equipment

STAR TRAC  
expect different.

BOWFLEX

H&B  
BUILDING PRODUCTS

ergoDRIVEN  
ergonomic driven

NUVA

Other

PANDORA  
UNFORGETTABLE MOMENTS

CubeFit

Knoll

Baby Supplies

Bumbo Nuby

bugaboo

chicco

Hatch Baby

GRACO

# FAQ

## **1. Perché hai scelto Finehope?**

Finehope è il produttore di PU più professionale in Cina, che dispone di un team di ricerca e sviluppo professionale, apparecchiature di produzione di PU avanzate, apparecchiature di collaudo professionali e un perfetto sistema di gestione della qualità. Abbiamo 12 anni di esperienza di cooperazione con CAT, FIAT, TVH, STIGA e altre imprese famose. Forniamo loro un servizio in un unico passaggio dalla ricerca e sviluppo alla produzione per soddisfare le loro esigenze di personalizzazione.

## **2. Quali sono i vantaggi di scegliere Finehope?**

- 1) Garanzia della qualità del prodotto, garanzia di consegna, buon servizio post-vendita.
- 2) Efficienza di sviluppo economica e veloce, funzionamento professionale con integrità.
- 3) Finehope condurrà tutte le analisi dei test e quindi elaborerà gli standard di test per ridurre le controversie sugli standard di qualità tra clienti e produttori.
- 4) Modalità di gestione della produzione snella.
- 5) Aiutare i clienti a sviluppare e progettare nuovi prodotti.
- 6) Ha una ricca esperienza nella progettazione e lavorazione di prodotti PU.
- 7) Finehope è un'impresa high-tech in Cina con brevetti nazionali e internazionali di invenzione tecnologica e intellettuale proprietà.

## **3. Qual è la differenza tra Finehope e colleghi domestici?**

- 1) Assicurazione della qualità: pianificazione avanzata della qualità (APQP).
- 2) Finehope ha una ricca esperienza nel servire le grandi imprese internazionali.
- 3) Ha un gruppo di ricerca scientifica professionale di materiale poliuretano.
- 4) Ha capacità di progettazione, produzione e innovazione indipendenti di attrezzature e stampi di produzione.
- 5) Ha un team di ingegneri che è responsabile del sistema di garanzia della qualità e del controllo di qualità.

## **4. Quali sono le differenze tra Finehope e i colleghi europei e statunitensi?**

- 1) Ha una catena di approvvigionamento di supporto perfetta e matura.
- 2) Minori costi di stampaggio.
- 3) Elevata efficienza di sviluppo e capacità di progettazione e tempi di processo brevi.
- 4) Vantaggio di costo e buona attitudine al servizio.

## **5. Quali sono le applicazioni dei prodotti PU?**

Auto, macchinari di ingegneria, attrezzature per il fitness sportivo, macchinari medici e articoli per la casa quotidiani e così via.







## About us











Our Certification





### Alibaba Verified Supplier Certificate

Since 2007, Finehope has continuously passed TUV certification and has become an Alibaba Verified Supplier. Verified Supplier is a high-quality supplier verified by the authoritative strength of Alibaba platform. Through online and offline on-site audits, the merchants' corporate qualifications, product qualifications, corporate capabilities, and other comprehensive strengths are reviewed and verification.



### Integration of Informationization and Industrialization Management System Certificate

The certificate is assessed by the Xiamen Municipal Government and issued by the Shanghai Academy of Quality Management Science. This certificate reflects the level of Finehope's in-depth integration of informatization and industrialization. Finehope will continue to take a new path of industrialization; use information technology as the support to transform and upgrade traditional kinetic energy, cultivate new kinetic energy, and pursue a sustainable development model.



### Xiamen Growth-oriented Micro, Small & Medium Enterprises

Finehope has been rated as "Xiamen Growth-oriented Micro, Small & Medium Enterprises" since 2019. It is the scoring result of the Xiamen Municipal Government based on Finehope's various comprehensive indicators, growth models, brand strength in the industry, and good corporate reputation, then issue this certificate. It is a proof that Finehope stands out among thousands of small and medium-sized enterprises in the city.



### Work Safety Standardization Certificate

Manufacturing safety is important to prevent or lessen the risk of workplace injury, illness, and death. Finehope General Manager Tiger Side: "Only those manufacturing facilities which continue to emphasize safety as a top-level issue will remain highly productive and competitive in today's marketplace." Finehope must be proactive about employee safety. Without a focus on safety, can place their employees at risk, cause fire and face expensive property damage and affect delivery.



### Xiamen Science And Technology Little Giant Leading Enterprise

Since 2019, Finehope has been selected as the leading company of Xiamen Science and Technology Little Giant. This certificate was jointly issued by five departments of the Xiamen Municipal Government. The selection criteria focus on strategic emerging industries such as new generation information technology, high-end equipment, new materials, new energy, biology and new medicine, energy saving and environmental protection, and marine high-tech. Winning this honor shows that Finehope is at the forefront of the industry in new information technology and new materials.





### Fujian Province Pollution Discharge Permit

Pollution discharge permits are the "identity cards" of all entities involved in the discharge of pollutants and are issued by the Xiamen Municipal Environmental Protection Bureau. General Secretary Xi Jinping emphasized that "the ecological environment should be protected like the eyes, and the ecological environment should be treated like life." Premier Li Keqiang said: "Environmental pollution is a hazard to the people's livelihood and the pain of the people's hearts. It must be dealt with an iron fist." The Chinese government's determination to improve the environmental quality of the atmosphere, water bodies, and soil cannot be ignored. Pollution permits are an important factor that must be considered in international procurement. Otherwise, the factory has hidden dangers and will be ordered to stop production, which will affect the delivery date. It can be seen that Finehope is a manufacturer with long-term cooperation and stable delivery.



### Xiamen Specialized, Refining, Differentiate, Innovative SMEs

Finehope has been rated as "Xiamen Specialized, Refining, Differentiate, Innovative SMEs" since 20-20. "Specialized, Refining, Differentiate, Innovative" refers to SMEs with outstanding main business, strong professional capabilities, strong R&D and innovation capabilities, and development potential. Mainly concentrated in the new generation of information technology, high-end equipment manufacturing, new energy, new materials, biomedicine and other mid-to-high-end industries. Leading in the same industry in terms of market, quality, efficiency or development, with advanced and exemplary. Through this certificate, the government emphasizes and recognizes finehope's "specialization, special innovation" is to encourage innovation and achieve specialization, reform, and specialization. Finehope should continue to take "specialization, special innovation" as the direction, focus on their main business, practice hard work, strengthening innovation, and build the company into a "single champion" or "supporting expert" with unique skills.



### FDA certification

Food and Drug Administration (FDA) established in 1906 is a government agency under the passage of the Federal Food and Drugs Act. The FDA Certification is mandatory for placing the products in the USA. This major responsibility of FDA is protecting and managing public health and related authorities by assuring the safety and security of human and biologically generated product. The FDA regulates products including biological products, medical services, cosmetics, prescription drugs and non-prescription drugs, veterinary drugs, tobacco and other radiation emitting products. Finehope has passed FDA certification every year since 2018. FDA approval means that the products produced by Finehope have obtained foreign government certificates (CFG) and can enter the global market smoothly.

# Quality Assurance



UNIVERSAL TESTING MACHINE(UTM)



Tensile Test



Tear Resistance Test

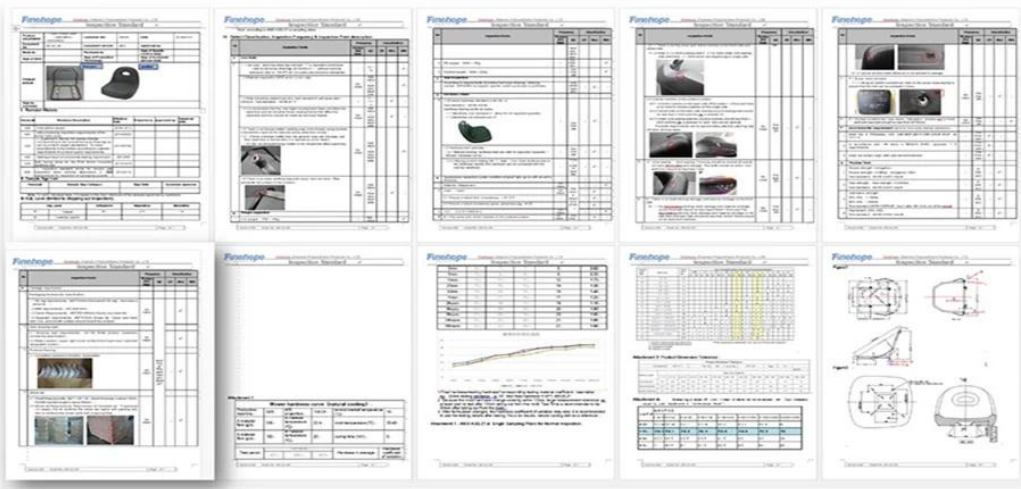


Compressive Strength



Indentation Force Deflection

## INSPECTION STANDARD



## MATERIAL PERFORMANCE TEST REPORT

**Finehope**  
**Test Report** No. 00201457201 Date: 20140723 Page 1/4  
 Customer: CUSTOMER SERVICE DEPARTMENT

The following samples were submitted and identified by/on behalf of the client as:

Sample Description: UHMW and MHD (underdevelopment)  
 Material No.: 1  
 Other info.: 1  
 Sample Processing Date: 20140714  
 Working Process: 20140723

**Test Method**

- 001 ASTM D2034-2011 Test of Density, Test Agency
- 002 ASTM D2034-2011 Test of Density, Test Agency
- 003 ASTM D2034-2011 Test of Density, Test Agency
- 004 ASTM D2034-2011 Test of Density, Test Agency
- 005 ASTM D2034-2011 Test of Density, Test Agency
- 006 ASTM D2034-2011 Test of Density, Test Agency
- 007 ASTM D2034-2011 Test of Density, Test Agency
- 008 ASTM D2034-2011 Test of Density, Test Agency
- 009 ASTM D2034-2011 Test of Density, Test Agency
- 010 ASTM D2034-2011 Test of Density, Test Agency
- 011 ASTM D2034-2011 Test of Density, Test Agency
- 012 ASTM D2034-2011 Test of Density, Test Agency
- 013 ASTM D2034-2011 Test of Density, Test Agency
- 014 ASTM D2034-2011 Test of Density, Test Agency
- 015 ASTM D2034-2011 Test of Density, Test Agency
- 016 ASTM D2034-2011 Test of Density, Test Agency
- 017 ASTM D2034-2011 Test of Density, Test Agency
- 018 ASTM D2034-2011 Test of Density, Test Agency
- 019 ASTM D2034-2011 Test of Density, Test Agency
- 020 ASTM D2034-2011 Test of Density, Test Agency

**Finehope**  
**Test Report** No. 00201457201 Date: 20140723 Page 2/4  
 Customer: CUSTOMER SERVICE DEPARTMENT

**Test Result**

| No. | Test Item  | Unit              | Test Standard | Customer Requirement | Customer Sample (unit) | Customer Sample (unit) |
|-----|------------|-------------------|---------------|----------------------|------------------------|------------------------|
| 1   | 2          | 3                 | 4             | 5                    | 6                      | 7                      |
| 1   | Density    | g/cm <sup>3</sup> | ASTM D2034    | 0.93                 | 0.93                   | 0.93                   |
| 2   | Hardness   | HR                | ASTM D2034    | 50                   | 50                     | 50                     |
| 3   | Strength   | MPa               | ASTM D2034    | 10                   | 10                     | 10                     |
| 4   | Impact     | J/m <sup>2</sup>  | ASTM D2034    | 10                   | 10                     | 10                     |
| 5   | Modulus    | GPa               | ASTM D2034    | 1.0                  | 1.0                    | 1.0                    |
| 6   | Creep      | %                 | ASTM D2034    | 1.0                  | 1.0                    | 1.0                    |
| 7   | Resilience | %                 | ASTM D2034    | 1.0                  | 1.0                    | 1.0                    |

FIG. 1. In order to make the strength of two child seats can be compared, see the test specimen in the same background color. Every seat has one side in one side to do the tear strength test comparison.  
 2. For the specific grade value in the above test result, it is the value of specimen with side in one side, and the actual value of the whole sample.

**Finehope**  
**Test Report** No. 00201457201 Date: 20140723 Page 3/4  
 Customer: CUSTOMER SERVICE DEPARTMENT

**Sketch Picture**

FIG. 1. In order to make the strength of two child seats can be compared, see the test specimen in the same background color. Every seat has one side in one side to do the tear strength test comparison.  
 2. For the specific grade value in the above test result, it is the value of specimen with side in one side, and the actual value of the whole sample.



|                        |  |
|------------------------|--|
| <b>Customer</b>        |  |
| <b>Location</b>        | New Zealand  |
| <b>Customer Code</b>   | G1019  |
| <b>Risk Assessment</b> |  |
| <b>New:</b>            | Site <input type="checkbox"/> Technology <input type="checkbox"/> Process <input type="checkbox"/> |
| <b>Other Risks</b>     | <input type="checkbox"/>   |

|                          |            |
|--------------------------|------------|
| <b>Project</b>           |            |
| <b>Finehope Contact</b>  | Wendy Yang |
| <b>Part No.</b>          |            |
| <b>Part Name</b>         | G1019Y04   |
| <b>Change Level/Date</b> |            |
| <b>User Plant(s)</b>     | Finehope   |

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

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

| APQP Deliverable   | Finehope APQP Reference Only | G<br>Y<br>R | Project Need Date | Supplier Timing Date | Actual Closure Date | Supplier Lead Resp Inits | Finehope Acceptance Complete | Remarks or Assistance Required |
|--|------------------------------|-------------|-------------------|----------------------|---------------------|--------------------------|------------------------------|--------------------------------|
|  |                              |             |                   |                      |                     |                          |                              |                                |
| 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                              | 2030                         | 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)                         | 2030                         | 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)           | 2220                         | 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 Readiness 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 (PV&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           | 20-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  
Made: Xiaodong Qiu

Product Name: Injection moulding

Procedure responsible dept: Production Dept

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 | detection (D) | RPN | recommended measures  | Responsibility and target completion date | action results  |               |                        |     |    |
|---------------------------------|---------------------------|----------------------------|--------------|-------|--|---------------|--|-----------------------------------|---------------|-----|---|---|---|---------------|------------------------|-----|----|
|                                 |                           |                            |              |       |  |               |  |                                   |               |     |   |   | 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<br>2015/08/25                | By adjusting the product of the injection molding process, and measure or test product size | 6             | 1                      | 1   | 6  |
| scyphus                         | warping 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<br>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 球, 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<br>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

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Maint:Wenhong-Huang

FMEA Date (Original):2015.03.25

Item:Welding Improvement

Process Responsibilities: Production welding group

Model year/project

Key Dates

| Item<br>项目   | Potential failure mode<br>潜在失效模式                                 | Potential consequences of failure modes<br>失效后果/模式潜在后果  | Severity<br>严重度 | Grade<br>等级 | Potential causes of failure<br>失效的潜在原因  | Occurrence degree<br>发生度 | Current process control and prevention<br>现行过程控制/预防   | Current process control detection<br>现行过程控制/检测                             | Detection rate<br>检测率 | RPN | Suggest measures<br>建议措施   | Responsibility and target completion date<br>负责人及目标完成日期 | Measure results/测量结果                   |                 |                       |                          |
|--|--|---|-----------------|-------------|---|--------------------------|---|--|-----------------------|-----|--|---|--|-----------------|-----------------------|--------------------------|
|  |  |   |                 |             |   |                          |   |  |                       |     |  |   | Measures and effective date<br>措施及有效日期 | Severity<br>严重度 | Incidence rate<br>发生率 | Detection degree<br>可检测度 |
| Request<br>项目  | Clamping is not in place<br>夹具不在位                                | Welding error, leak, welding deviation, affect the assembly or use function<br>焊接错误、漏焊、焊接偏差、影响装配或使用功能 | 6               | B           | ● Staff negligence<br>人员疏忽<br>● Failure for bad<br>夹具不到位                                    | 4                        | ● Make the operation standard book<br>制定作业标准书<br>● Make maintenance standards, regular maintenance<br>制定保养标准、定期保养、维护<br>● Make the operation standard book<br>制定作业标准书 | ● Visual inspection<br>目视检测<br>● Finished 100% full inspection<br>完成100%全检 | 6                     | 144 | ● Pre-service training of staff<br>岗前培训<br>● Regular maintenance<br>定期维护   |   | 6                                      | 3               | 4                     | 72                       |
| Clamping (clamping required is in place, no missing or wrong loaded)<br>夹具不在位、无漏装、错装 | Clamping is not in place<br>夹具不在位                                | Welding error, leak, welding deviation, affect the assembly or use function<br>焊接错误、漏焊、焊接偏差、影响装配或使用功能 | 8               | A           | ● Staff negligence<br>人员疏忽<br>● Failure for bad<br>夹具不到位<br>● Failure inaccurate<br>夹具定位不准确 | 4                        | ● Make the operation standard book<br>制定作业标准书<br>● Make maintenance standards, regular maintenance<br>制定保养标准、定期保养、维护<br>● Regular checking of fixture<br>夹具定期检查       | Visual inspection<br>目视检测  | 6                     | 192 | ● Pre-service training of staff<br>岗前培训<br>● Regular maintenance<br>定期维护<br>● Make inspection checklist for fixture<br>制定夹具检查清单                  |   | 8                                      | 3               | 4                     | 96                       |
| Attachments missing<br>附件缺失  | Affect product strength or influence the assembly<br>影响产品强度或影响装配 |   | 8               | A           | Staff negligence<br>作业人员疏忽  | 3                        | Make the operation standard book<br>制定作业标准书   | Visual inspection<br>目视检测  | 4                     | 96  | Final inspection personnel do 100% full inspection for each bead with man<br>终检人员100%全检、抽检   |   | 8                                      | 2               | 2                     | 32                       |
| Attachment error<br>附件错误   | Influence assembly<br>影响装配                                       |   | 7               | A           | No mistake proofing fixture<br>夹具无防错  | 3                        | Make the operation standard book<br>制定作业标准书   | Visual inspection<br>目视检测  | 6                     | 126 | ● Increase the mistake proofing devices<br>增加防错装置<br>● Inspection for final inspection tools<br>终检工具检查   |   | 7                                      | 2               | 4                     | 56                       |
| False welding<br>假焊  | Lack of strength, affect the use of function<br>强度不足、影响使用功能      |   | 9               | A           | Current, voltage, welding angle, speed setting is not reasonable<br>电流、电压、焊接角度、速度设置不合理      | 4                        | ● Welding process guidance making<br>制定焊接工艺指导书<br>● Condition confirmation check<br>加工条件确认书<br>● Confirm the failure test on a regular basis<br>定期确认失效试验              | Destructive testing<br>破坏性试验   | 8                     | 288 | After the procedure is set up to confirm the processing conditions, the execution and marking of the failure test is performed.<br>工序设置完成后确认加工条件 |   | 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 P-U 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 pre-programmed 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



CUSTOMER FIRST

TEAMWORK

EMBRACE CHANGES

PASSION

INTEGRITY

COMMITMENT

**I prodotti in schiuma di poliuretano necessario, benvenuto contattaci.**

Amanda



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