

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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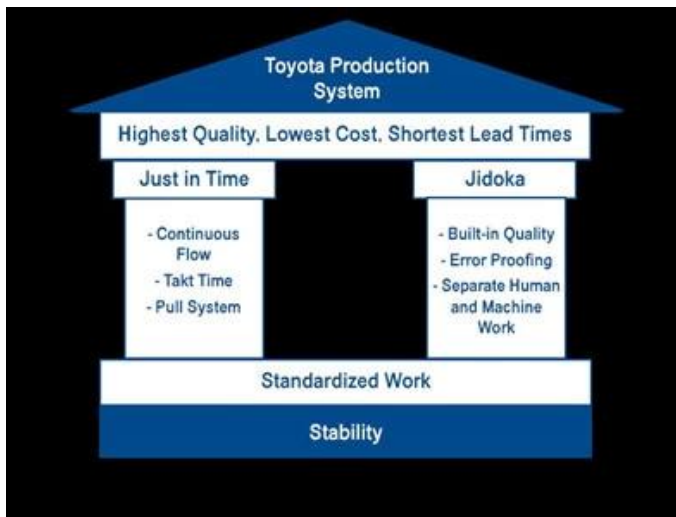
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2002 年，日本汽车工业在经历了 20 年的高速增长后，开始进入一个调整期。日本汽车工业在 20 世纪 80 年代和 90 年代，通过不断的技术创新和质量管理，建立了强大的竞争优势。然而，进入 21 世纪后，全球汽车市场竞争日益激烈，日本汽车工业面临着来自欧美和新兴市场的挑战。为了保持竞争力，日本汽车工业开始实施精益生产（Lean Production）和智能制造（Smart Manufacturing）等战略。精益生产强调减少浪费、提高效率和质量，而智能制造则利用先进的信息技术和自动化设备，实现生产过程的智能化和柔性化。这些战略的实施，使得日本汽车工业在 21 世纪初重新焕发了活力，并在全球市场上保持了领先地位。

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精益生产（Lean Production）是一种旨在减少浪费、提高效率和质量的生产管理方法。它起源于日本汽车工业，特别是丰田汽车公司。精益生产的核心原则包括：减少库存、缩短交货周期、提高产品质量和降低生产成本。通过实施精益生产，企业可以实现资源的优化配置，提高生产效率和竞争力。精益生产不仅适用于制造业，还可以应用于服务业和其他行业。

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Famous customer

Cooperation experience

Engineering
Vehicle

BOYD
CORPORATION

TVH



Honeywell | STIGA CAT

Medical
Equipment

Hill-Rom

INVACARE
Yes, you can.

MAQUET
GETINGE GROUP

DrPosture

Ki Mobility

Baby
Supplies

Bumbo Nuby

bugaboo

chicco

Hatch
Baby

GRACO

Fitness
Equipment

STAR TRAC
expect different.

BOWFLEX

H&B
BUILDING PRODUCTS

ergoDRIVEN
All your environmental needs are met

NUVA

Other

PANDORA
UNFORGETTABLE MOMENTS

CubeFit

Knoll

Customer list

1. What are the main products of the company?

The company is a leading manufacturer of automotive components, specializing in the production of engine parts, transmission parts, and other mechanical components. The company has a long history of cooperation with major automotive manufacturers, including CAT, FIAT, TVH, STIGA, and others. The company's products are used in a wide range of vehicles, from small cars to large trucks and buses.

2. What are the main markets of the company?

- 1) The company's main markets are in Europe, North America, and Asia.
- 2) The company's products are sold in a wide range of countries, including Germany, France, Italy, Spain, and the United States.
- 3) The company's products are used in a wide range of vehicles, from small cars to large trucks and buses.
- 4) The company's products are used in a wide range of industries, including automotive, construction, and agriculture.
- 5) The company's products are used in a wide range of applications, including engine parts, transmission parts, and other mechanical components.
- 6) The company's products are used in a wide range of environments, from urban to rural and from cold to hot climates.
- 7) The company's products are used in a wide range of applications, including engine parts, transmission parts, and other mechanical components.

3. What are the main products of the company?

- 1) The company's main products are engine parts, transmission parts, and other mechanical components.
- 2) The company's products are sold in a wide range of countries, including Germany, France, Italy, Spain, and the United States.
- 3) The company's products are used in a wide range of vehicles, from small cars to large trucks and buses.
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»»» About us







Our Certification



公司荣获 2019-2020 年度 厦门市成长型中小微企业

公司于 2019 年 12 月 11 日荣获 2019-2020 年度 厦门市成长型中小微企业 称号。该称号由厦门市工业和信息化局、厦门市中小企业发展促进会联合颁发。该称号旨在表彰在厦门市注册、具有独立法人资格、营业收入在 1000 万元以下、资产总额在 2000 万元以下的中小微企业。该称号有效期为一年，自 2019 年 12 月 11 日起至 2020 年 12 月 10 日止。

公司荣获 2020-2022 年度 厦门市专精特新中小企业

公司于 2020 年 12 月 11 日荣获 2020-2022 年度 厦门市专精特新中小企业 称号。该称号由厦门市工业和信息化局、厦门市中小企业发展促进会联合颁发。该称号旨在表彰在厦门市注册、具有独立法人资格、营业收入在 1000 万元以下、资产总额在 2000 万元以下的专精特新中小企业。该称号有效期为三年，自 2020 年 12 月 11 日起至 2022 年 12 月 10 日止。

公司荣获 2019-2021 年度 厦门市科技小巨人领军企业

公司于 2019 年 12 月 11 日荣获 2019-2021 年度 厦门市科技小巨人领军企业 称号。该称号由厦门市科学技术局、厦门市中小企业发展促进会联合颁发。该称号旨在表彰在厦门市注册、具有独立法人资格、营业收入在 1000 万元以下、资产总额在 2000 万元以下的科技小巨人领军企业。该称号有效期为三年，自 2019 年 12 月 11 日起至 2021 年 12 月 10 日止。

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Quality Assurance



UNIVERSAL TESTING MACHINE(UTM)



Tensile Test



Tear Resistance Test



Compressive Strength



Indentation Force Deflection

INSPECTION STANDARD



MATERIAL PERFORMANCE TEST REPORT



Customer			
Location	New Zealand		
Customer Code	G1019		
Risk Assessment	New: Site ☐ Technology ☐ Process ☐ Other Risks ☐		

Project			
Finehope Contact	Wendy Yang		
Part No.			
Part Name	G1019Y04		
Change Level/Date			
User Plant(s)	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 Development	21-Jun-21	10		
Product and Process Validation	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	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	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

Made: Xiaodong Qiu

FMEA Date: Nov.10th.2015

Product Name: Injection moulding

Procedure responsible dept: Production Dept

Model year/vehicle types: CRV

Soybean Milk Maker

Important 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/mechanism of failure	frequency (O)	Current prevention process control	Current detection process control	detection (D)	RPN	recommended measures	Responsibility and target completion date	Action Taken	severity (S)	frequency (O)	difficult to check (D)	RPN
scaphus	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
scaphus	warping of scaphus 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
scaphus	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 bit, 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 packing control the direction of the lateral dimension of no force, stipulate the way of packing	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

Maker:Wenhong-Huang

FMEA Date (Original):2015.03.25

Item:Welding Improvement

Process Responsibilities: Production welding group

Model year/project

Key Dates

Item	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	Severity	Incidence rate	Detection degree	RPN
Request	Size/NG	Size/NG	6	B	● Staff negligence ● Failure for bad ● Failure for bad	4	● Make the operation standard book ● Make maintenance standards, regular maintenance ● Make the operation standard book	● Visual inspection ● Finished 100% full inspection ● Visual inspection	6	144	● Pre-service training of staff ● Regular maintenance ● Make inspection checklist for future			6	3	4	72
Clamping is not in place	Welding error, leak welding, affect the assembly or use function	Welding error, leak welding, affect the assembly or use function	8	A	● Staff negligence ● Failure for bad ● Failure inaccurate ● Failure inaccurate	4	● Make the operation standard book ● Make maintenance standards, regular maintenance ● Regular checking of future	Visual inspection	6	192	● Pre-service training of staff ● Regular maintenance ● Make inspection checklist for future			8	3	4	96
Attachmate missing	Affect product strength or influence the assembly	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 man			8	2	2	32
Attachmate error	Influence assembly	Influence assembly	7	A	No mistake proofing future	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	Lack of strength, affect the use of function	9	A	Current, voltage, welding angle, speed setting is not reasonable	4	● Welding process guidance ● 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 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

