

**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.



此 產品 係 由 中國 廣東 省 東莞 市 鳳崗 鎮 廣 興 隆 實 業 有 限 公 司 設 計 及 生 產

產品名稱: 黑色 辦公 椅

產品型號: 廣興隆 辦公 椅

尺寸 (長 x 寬 x 高): 431x429x238 mm

顏色: 黑色, 灰色, 米色 等 顏色 均 可 訂 做

包裝規格: 每 個 包裝 在 一個 紙 箱 內

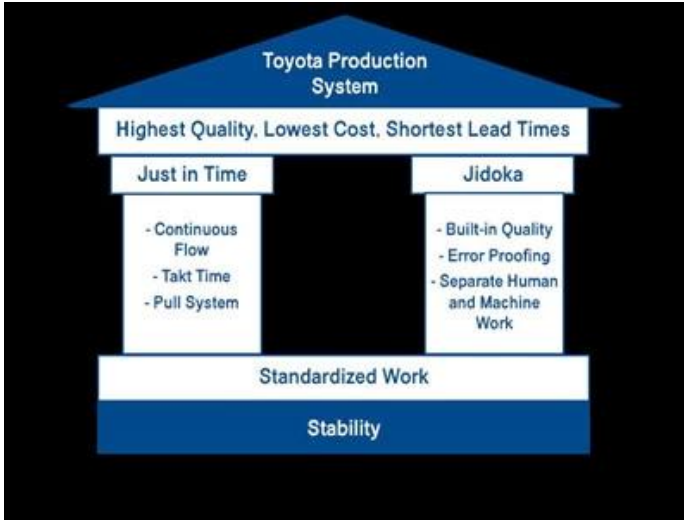
數量: 150-200 個 包裝 / 箱 3

重量: 100 kg

產地: 中國 廣東 省 東莞 市 鳳崗 鎮

認證規格: RoHS, CE, EN71-3, CA65





Toyota Production System (TPS) is a manufacturing system that aims to achieve the highest quality, lowest cost, and shortest lead times. It is based on three main principles: Just in Time (JIT), Jidoka, and Standardized Work. JIT focuses on continuous flow, takt time, and a pull system. Jidoka focuses on built-in quality, error proofing, and separating human and machine work. Standardized Work is the foundation of the system, and Stability is the result of implementing these principles.

The S.M.A.R.T. goal formula is a framework for setting effective goals. It consists of five criteria: Specific, Measurable, Attainable, Relevant, and Time-bound. Each criterion provides a clear guideline for how to define a goal, ensuring that it is realistic and achievable within a specific time frame.

## Famous customer

Cooperation experience

|                                                                                                                                  |                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Engineering Vehicle</p> <p><b>BOYD CORPORATION</b> <b>TVH</b> <b>AIXAM</b></p> <p><b>Honeywell</b> <b>TIGA</b> <b>CAT</b></p> | <p>Medical Equipment</p> <p><b>Hill-Rom</b> <b>INVACARE</b> <b>MAQUET GETINGE GROUP</b></p> <p><b>DrPosture</b> <b>Ki Mobility</b></p>                                                                |
| <p>Baby Supplies</p> <p><b>Bumbo</b> <b>Nuby</b></p> <p><b>bugaboo</b> <b>chicco</b></p> <p><b>Hatch Baby</b> <b>GRACO</b></p>   | <p>Fitness Equipment</p> <p><b>STAR TRAC</b> <b>BOWFLEX</b></p> <p><b>IB&amp;G BUILDING PRODUCTS</b> <b>ergoDRIVEN</b> <b>NUVA</b></p> <p>Other</p> <p><b>PANDORA</b> <b>CubeFit</b> <b>Knoll</b></p> |

Cooperation experience

### 1. What are the main goals of the project?

The main goals of the project are to improve the quality of the product, reduce the cost, and shorten the lead time. These goals are achieved through the implementation of the Toyota Production System (TPS) and the S.M.A.R.T. goal formula.

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5. 如何選擇合適的數據類型？

\_\_\_\_\_





## 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 15 日荣获 2019-2020 年度 厦门市成长型中小微企业 称号。该称号是厦门市工业和信息化局根据《厦门市成长型中小微企业认定办法》的规定，对公司进行认定后颁发的。公司自成立以来，始终坚持以技术创新为核心，不断提升产品质量和服务水平，取得了显著的成绩。此次荣获该称号，是对公司实力和发展的肯定，也是对公司未来发展的鼓励。公司将继续秉承创新、务实、诚信的经营理念，不断提升核心竞争力，为股东创造更大的价值。

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 15 日荣获 2020-2022 年度 厦门市专精特新中小企业 称号。该称号是厦门市工业和信息化局根据《厦门市专精特新中小企业认定办法》的规定，对公司进行认定后颁发的。公司自成立以来，始终坚持以技术创新为核心，不断提升产品质量和服务水平，取得了显著的成绩。此次荣获该称号，是对公司实力和发展的肯定，也是对公司未来发展的鼓励。公司将继续秉承创新、务实、诚信的经营理念，不断提升核心竞争力，为股东创造更大的价值。

公司荣获 2019-2022 年度 厦门市科技小巨人领军企业

2019 年 12 月 15 日，公司荣获 2019-2022 年度 厦门市科技小巨人领军企业 称号。该称号是厦门市科学技术局根据《厦门市科技小巨人领军企业认定办法》的规定，对公司进行认定后颁发的。公司自成立以来，始终坚持以技术创新为核心，不断提升产品质量和服务水平，取得了显著的成绩。此次荣获该称号，是对公司实力和发展的肯定，也是对公司未来发展的鼓励。公司将继续秉承创新、务实、诚信的经营理念，不断提升核心竞争力，为股东创造更大的价值。



本公司 2019 年度 成长型中小微企业

2018 年度 专精特新中小企业

2020-2022 年度 专精特新中小企业

2019-2020 年度 成长型中小微企业

2019-2020 年度 成长型中小微企业

2019-2020 年度 成长型中小微企业



2019-2020 年度 成长型中小微企业

2019-2020 年度 成长型中小微企业

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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



|                        |                               |                                     |                                  |
|------------------------|-------------------------------|-------------------------------------|----------------------------------|
| <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 Development | 21-Jun-21              | 10       |                |        |
| Product and Process Validation | 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 Initials | Finehope Acceptance Complete | Remarks or Assistance Required |
|-----------------------------------------------------------------------|------------------------------|-------------|-------------------|----------------------|---------------------|-----------------------------|------------------------------|--------------------------------|
| <b>AIAG APQP Phase 2 - Product Design and Development</b>             |                              |             |                   |                      |                     |                             |                              |                                |
| 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                     |                                |
| <b>AIAG APQP Phase 3 - Process Design and Development</b>             |                              |             |                   |                      |                     |                             |                              |                                |
| 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                    |                                |
| <b>AIAG APQP Phase 4 - Product and Process Validation</b>             |                              |             |                   |                      |                     |                             |                              |                                |
| 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                    |                                |
| <b>AIAG APQP Phase 5 - Feedback, Assessment and Corrective Action</b> |                              |             |                   |                      |                     |                             |                              |                                |
| 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                                                     | Request                                                     | Request                                                                     | Request  | Request | Request                                                          | Request           | Request                                                                                                                 | Request                                                | Request        | Request | Request                                                                                                                        | Request                                   | Request         | Request  | Request        | Request          | Request |
| Clamping is not in place                                    | Clamping is not in place                                    | Welding error, leak, welding deviation, affect the assembly or use function | 8        | A       | ● Staff negligence<br>● Future for bad                           | 4                 | ● Make the operation standard book<br>● Make maintenance standards, regular maintenance                                 | ● Visual inspection<br>● Finished 100% full inspection | 6              | 144     | ● Pre-service training of staff<br>● Regular maintenance                                                                       |                                           |                 | 6        | 3              | 4                | 72      |
| Clamping required is in place, no missing or welding loaded | Clamping required is in place, no missing or welding loaded | Affect product strength or influence the assembly                           | 8        | A       | ● Staff negligence<br>● Future for bad<br>● Future inaccurate    | 4                 | ● Make the operation standard book<br>● Make maintenance standards, regular maintenance<br>● Regular checking of future | Visual inspection                                      | 6              | 192     | ● Pre-service training of staff<br>● Regular maintenance<br>● Make inspection checklist for future                             |                                           |                 | 8        | 3              | 4                | 96      |
| Attachme nt missing                                         | Attachme nt 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 man                                                      |                                           |                 | 8        | 2              | 2                | 32      |
| Attachme nt error                                           | Attachme nt error                                           | Influence assembly                                                          | 7        | A       | No mistake proofing future                                       | 3                 | Make the operation standard book                                                                                        | Visual inspection                                      | 6              | 126     | ● Increase the mistake proofing devices<br>● Inspection for final inspection tools                                             |                                           |                 | 7        | 2              | 4                | 56      |
| False welding                                               | 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<br>● Condition confirmation check<br>● 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