



COMPANY QUALIFICATION

DOOR AND WINDOW ACCESSORIES
SYSTEM EXPERT

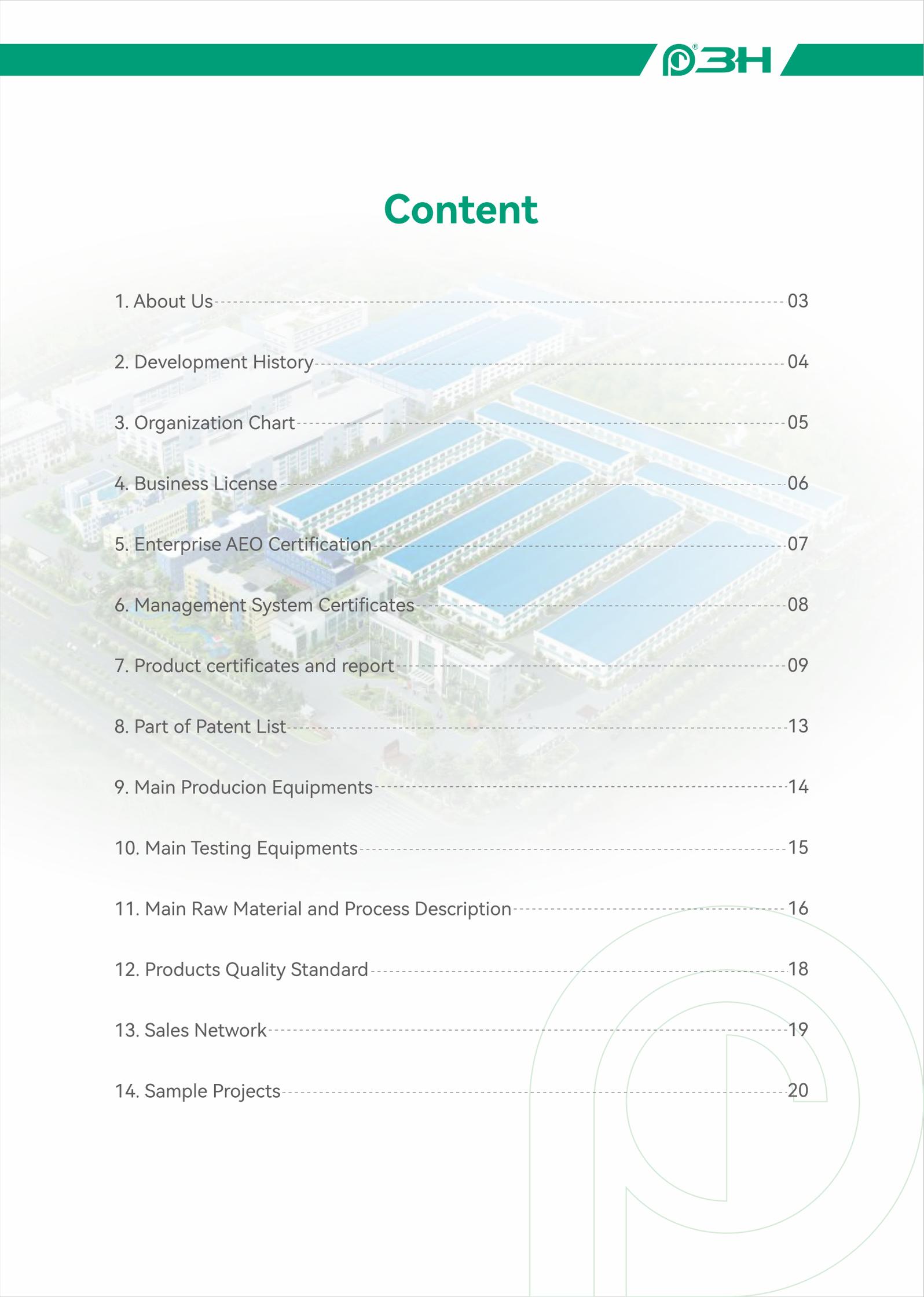
Since 1981

www.hehexin.com

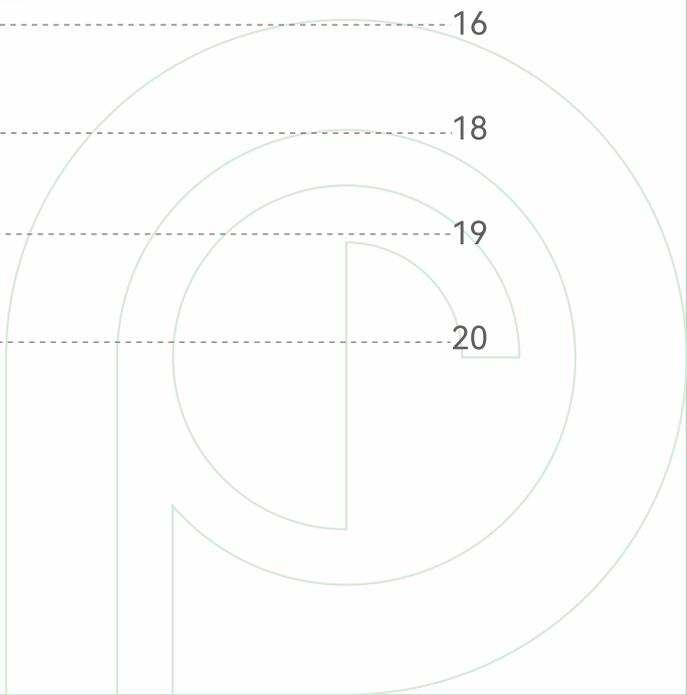
www.3hhardware.com



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1. About Us

3H Inc., founded in 1981, is one of the large private enterprises growing steadily under the background of China's reform and opening up. The door and window sealing strip as a forerunner, one-stop solution as service, aluminum upvc and glass doors and Windows hardware as the core, with strong production capacity as the guarantee, the distribution agency as the channel, After more than 40 years of steady development, a sound industrial chain has been formed, and the enterprise has basically formed a group operation and governance structure. We was identified as the "leading enterprise in the subdivided manufacturing industry" in year 2018.

Our company's production base in Foshan covers a total floor area of 300,000 square meters with net assets of over 100 million RMB. The company has more than 2000 employees, 32 sets imported 45T-200T automatic punching machines, 26 sets imported die-casting machine equipments, 4 robot polishing equipments, Jinma spraying line, 500 sets types of riveting equipments and other advanced production equipment, supplemented by modern scientific management, provides a solid foundation for strong production capacity and quality assurance.

The company has been deeply ploughing in the door and window industry for more than 40 years, and has accumulated rich experience in the industry. The company has all kinds of professional registration personnel more than 150 personnel, more than 80 R & D engineer and about 48 technical support, to provide our customers with professional system accessories solutions. Our products cover aluminum doors and Windows hardware, UPVC, Glass and wood doors and Windows hardware, curtain wall door control hardware, home luxury hardware, door and window sealing strips, automotive seals, rubber molding products, anchorage system, silicone sealant, etc.

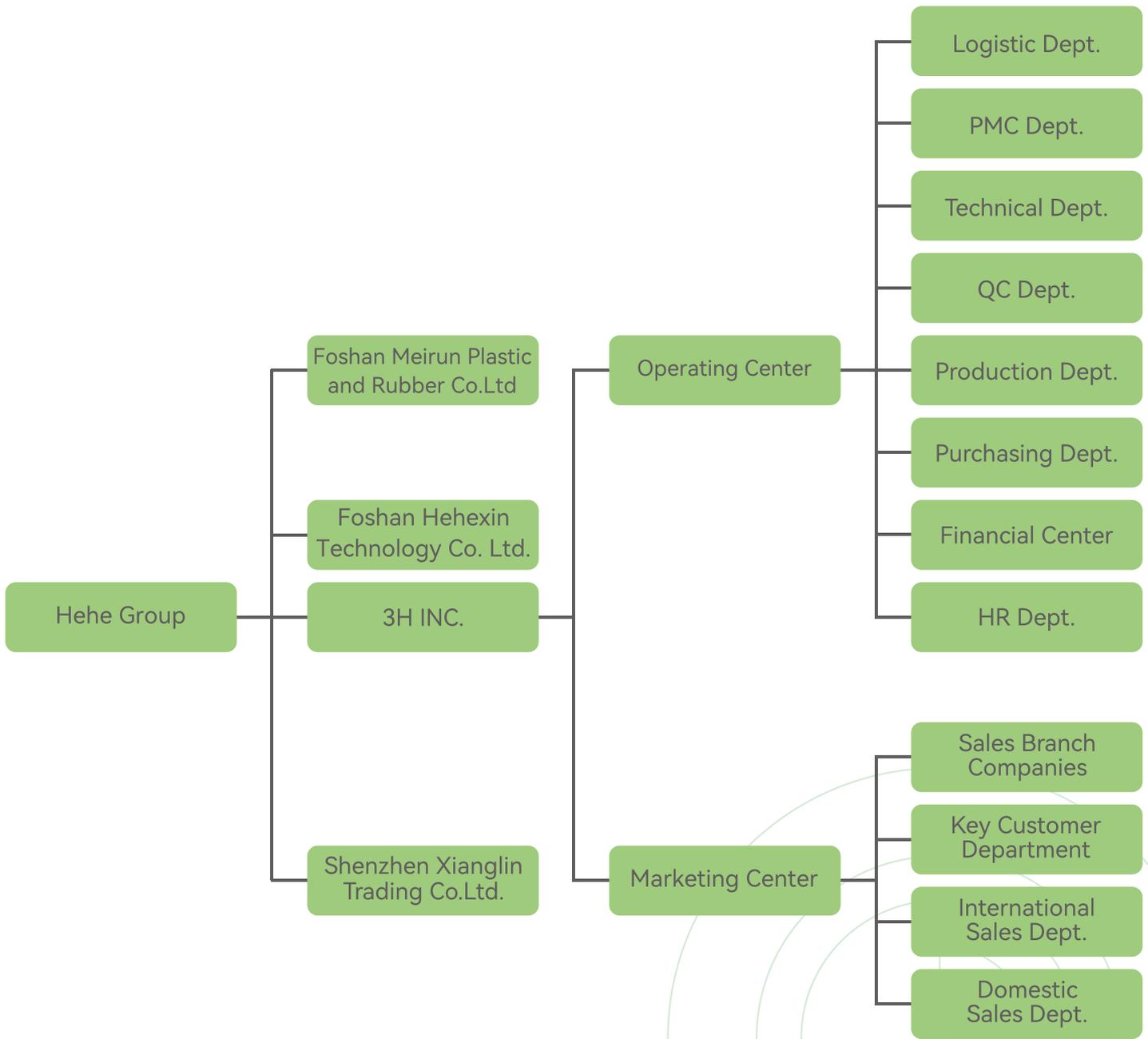
As the vice chairman of the industry association, the company participated in drafting and formulating 3 national standards and 13 industrial standards. The company has obtained more than 200 patents. It is an enterprise with national intellectual property advantage. Standardization of the industry, promote the improvement of product quality of the industry has made outstanding contributions. The company has direct sales branches in Beijing, Shanghai, Shenzhen and Guangzhou, and nearly 100 distribution agencies in 30 provinces across the country. Its products are exported to more than 60 countries and regions in Southeast Asia, South Asia, Africa, South America, Europe and Oceania. At present, we have signed partnership with excellent teams from Vietnam, Philippines, Indonesia, Thailand, Sri Lanka, Kuwait, South Africa and other countries.

Committed to being an outstanding industry leader, We 3H always adheres to the business philosophy of "win-win cooperation and harmonious development".

2. Development History

- ★ **1981** Established Hehe plastic factory produce molded rubber products
- ★ **1986** Establish HEHE brand, start produce construction sealing strip rubber products
- ★ **1994** Start hardware accessories assembly business
- ★ **1999** Registered "Foshan Nanhai Hehexing Industrial Co., Ltd."
- ★ **2002** Passed ISO9001 quality management system certification for the first time
- ★ **2003** Won the "Recommended Product and Most Potential Brand Enterprise in Guangdong Province"
- ★ **2004** Awarded "China's Excellent Quality Service Decentralized Credit Brand"
- ★ **2005** Registered as "Foshan City Hehe Construction Hardware Products Co., Ltd.", build a 300,000 sqm production base in Sanshui, Foshan City
- ★ **2007** Become a vice-member unit of China Construction Association
- ★ **2008** Won the "Famous Trademark of Guangdong Province"
- ★ **2010** "Foshan Hehe Construction Hardware Products Co., Ltd." was renamed "3H INC."
- ★ **2011** Won the famous brand product of Guangdong Province
- ★ **2015** Approved by the Eastern Province's Technology Research Center, Testing Center approved by CNAS
- ★ **2017** Passed the identification of the provincial-level enterprise technology center in Guangdong Province.
- ★ **2018** Recognized as "the leading enterprise in manufacturing segmentation" Obtained the title of "Intelligent Manufacturing Intrinsic Safety" as a model enterprise
- ★ **2019** Won the "National Intellectual Property Advantage Enterprise"
- ★ **2020** Won the "Foshan City Benchmark High-tech Enterprise"
- ★ **2021** Won AEO certificate issued by custom

3. Organization Chart



4. Business License



Business License in English (Duplicate) (Duplicate no. 1-1)

Social unified credit code 9144060777920783XT

The Enterprise Name 3H INC.

The Enterprise Sort Company Limited (The natural person investment or holdings)

Enterprise location (F5-F9) (F11-F13) No.1 Yongye road, Yundonghai street, Sanshui District, Foshan, Guangdong, China

Person In Charge Xie Shaoyan

Registered Capital RMB ONE HUNDRED THIRTY THREE MILLION THREE HUNDRED AND NINETY NINE THOUSAND YUAN ONLY

Date of Register August 8, 2005

Business Valid period From August 8, 2005 till August 8, 2055

Scope of Business Manufacturing, Processing, selling, maintaining: construction hardware, accessories for doors and Windows, metal die-casting, punching parts, plastic products , rubber seals; Operate and agency for all kinds of merchandise and technology import and export business, except there are otherwise provisions in laws and regulations.

Registration office Foshan Sanshui Administration for Industry and Commerce Oct. 21, 2020

5. Enterprise AEO Certification

证书编号 Certificate No.	77920783X001	QG08
		
认证企业证书 AEO CERTIFICATE		
认证企业名称 AEO Name	广东合和建筑五金制品有限公司	
认证企业编号 AEO Code	AEOCN4406967160	
认证企业类型 AEO Type	高级认证企业	
认证日期 Date of Authorization	2021年09月17日	
发证机关 Issuing Authority	人民海关	
发证日期 Date of Issue	2021年09月17日	

6. Management System Certificates



7.2. Product Test Reports

7.2.1 The test report of handle



INSPECTION REPORT

No.: BH-202007410

Sample Name: Handles for escamotelette gears

Specification Model: C2070

Applicant: Quality Department

Test Category: Entrusted inspection

3H INC. Testing Center

3H INC. Testing Center

Inspection Report

No.: BH-202007410 P: 4 of 8

Applicant	Quality Department	Test Category	Entrusted inspection
Inspected Entry	3H INC.	Production Date	2020.03.09
Manufacturer	3H INC.	Accept Date	2020.03.09
Engineering Name		Serial NO.	
Address	No.1 Yongyue Hill, Yundonghai Street, Sanzha District, Foshan, Guangdong China	Trade Mark	
Sample Name	Handles for escamotelette gears	Sample Quantity	2 sets
Specification Model	C2070	Sample State	Unchanged
Ref Documents	GB/T 124-2017 Building hardware for windows and doors-Handles for escamotelette gears.		
Test Items	Appearance, Coating thickness and adhesive force (pulling torque), Durability and Treatment strength, Tensile strength		
Test Conclusion	The samples were tested according to GB/T 124-2017 standard. All the test items meet the requirements of the standard.		
Results	1. The test result is responsible for the donee's own products.		

Approved by: Issued by: Checked by:

Authorized Signature

3H INC. Testing Center

Inspection Report

No.: BH-202007410 P: 2 of 4

No.	Test Items	Requirements	Test result	Criterion
1	Appearance	The surface of product shall not have defects such as obvious flaw, rust, stain, pits, burrs and front edge. The joints shall be firm, round, smooth without crack.	There is no obvious defect on the surface. The joints are firm, round, smooth and without crack.	Pass
		The coating color shall be uniform, without bubble, flaking, sloughing, embossed lacquer and sponge peel and so on.	The coating color is uniform, without bubble, flaking, sloughing, embossed lacquer and sponge peel and so on.	Pass
2	Coating thickness and adhesive force	Coating thickness: Minimum local thickness on representative surface ≥ 40 μm	76 μm	Pass
		Adhesive force: Dry-type adhesive force shall reach grade 0	Grade 0	Pass
3	Operating torque	On handles with click mechanism, operating torque of click position shall have a maximum value of 3.76 N·m, operating torque of non-click position shall have a maximum value of 0.8 N·m, the differential value of the torque between the click position and the non-click position shall have a minimum value of 0.4 N·m.	The operating torque of click position is 1.20N·m, the operating torque of non-click position is 0.54N·m. The differential value of the torque between the click position and the non-click position is 0.62N·m.	Pass



7.2.2 The Test Report of Friction Stay



INSPECTION REPORT

No: HJ-202105411

Sample Name: Friction hinge

Specification Model: HFKALP

Applicant: Quality Center

Test Category: Extruded aluminium

3H INC. Testing Center

3H INC. Testing Center

Inspection Report

No: HJ-202105411 P 1 of 4

Applicant:	Quality Center	Test Category:	Extruded Aluminium
Inspected Entity:	3H INC.	Production Date:	May 20, 2021
Manufacturer:	3H INC.	Accept Date:	May 28, 2021
Address:	No. 1 Yinyue Rd, Yuyonghai Street, Ganzhou District, Fuzhou, Guangdong China	Trade Mark:	
Sample Name:	Friction hinge	Sample Quantity:	2 lots
Specification Model:	HFKALP	Sample State:	Undamaged
Ref Documents:	JG/T 127-2017 Building hardware for windows and doors-Accessories		
Test Items:	Appearance, Opening force Gap, Rigidity, Durability test (both cycle resistance).		
Test Conclusion:	The samples were tested according to JG/T 127-2017 standard and the test items meet the requirements of the standard.		
Remarks:	1. During the test, the extrusion is 48kg. The test result is responsible for the customer's company only.		

Approved by: Inspected by: Compiled by:

Authorized Secretary

3H INC. Testing Center

Inspection Report

No: HJ-202105411 P 2 of 4

No.	Test Items	Requirements	Test result	Criterion
1	Appearance	The surface of product should not have defects such as obviously flow, rick, stains, pits, burrs and front edge. The joints shall be firm, round, smooth and without crack.	There is no obvious defect on the surface. The joints are firm, round, smooth and without crack.	Pass
2	Opening force	The friction hinge used in the external level opening window, the operating force shall less than 60N.	45N	Pass
3	Gap	With the action of force, on the corner of closed window install friction hinge, the variation of sealing gap between the sash and frame shall less than 0.5mm.	0.68mm	Pass
4	Rigidity	After withstand 300N force when the window closed, it shall still meet the operating force and gap.	Operating force: 40N Gap: 0.10mm	Pass
		After withstand 300N force when the window opened, it shall still meet the operating force and gap.	Operating force: 46N Gap: 0.11mm	Pass
5	Durability test	During the test, all bars can function normally. After 20000 cycles, all parts shall not fall off angle and slide rail shall not have cracks. The operating force shall be meet the requirement, the variation of sealing gap between the sash and frame shall less than 1.5mm.	After 20000 cycles, all bars can function normally and not fallen off angle and slide rail not have cracks. Operating force: 36N. Gap: 0.10mm.	Pass

3H INC. Testing Center

Inspection Report

No: HJ-202105411 P 4 of 4

Sample photo



End of Report

8. Part of Patent List

NO.	Patent type	Patent NO.	Patent Title
1	patent for an invention	2012100391487	Vertical sliding door window lock
2	patent for an invention	2013104535650	A sliding door and window lock device with high anti-theft performance
3	patent for an invention	2014108420913	A transmission wheel device for doors and windows
4	patent for an invention	2014108423305	A sliding door and window pulley mechanism
5	patent for an invention	201410842525X	A transmission device for casement sliding door and window
6	patent for an invention	2016100806661	A airtight door device with best sealing performance
7	patent for an invention	2016100815849	A connecting rod assembly riveting device
8	patent for an invention	2016100815980	A slideway production device used in a corner device
9	patent for an invention	2016111842125	A continuous automatic stamping die
10	patent for an invention	201611184213X	An automatic feeding device
11	patent for utility models	2014208562568	A window limiter stay
12	patent for utility models	2014208570954	A 3D adjustable hinge
13	patent for utility models	2014208574917	A rod device for windows
14	patent for utility models	2014208575479	A two-way plug
15	patent for utility models	2014208575483	A telescopic limiter stay
16	patent for utility models	2014208579427	A hinge
17	patent for utility models	2014208579569	A folding door and window hinge

9. Main Production Equipments

NO.	Equipment	Quantity	Function	Remark
1	Switzerland Kinmen and Matsu Automatic Painting Line	1	Spraying	Switzerland imported
2	Electrostatic Painting Line	3	Spraying	
3	Ultrasonic Automatic Cleaning Line	2	Surface Treatment	
4	Cold Cave Die Casting Machine	13	Aluminum Alloy Die Casting	
5	Hot Cave Die Casting Machine	13	Zinc Alloy Die Casting	
6	Full Automatic Tapping Machine	29	Semi-finished Products Processing	
7	Polishing Robots	4	Semi-finished Products Processing	ABB Robots
8	Types of Punching Machine	500	Punching or Riveting	
9	Automatic Polishing Robots	4	Rough Products Polishing	
10	Stainless Steel Friction Stay Producing Line	12	Friction Stay Producing	
11	Full Automatic Handle Assembling Machine	4	Product Assembling	
12	CNC Center	3	Mould Molding	
13	Full Automatic Accessories Assembling Machine	10	Product Assembling	
14	25T-200T Automatic Punching Machine	32	Punching or Riveting	Taiwan Jinfeng
15	Rubber Extrusion Production Line	20	Rubber Extrusion	
16	Digital Control Cutting Machine	12	Mould or Product Cutting	
17	Milling Machine	30	Milling Processing	
18	Automatic Injection Machine	28	Types of Plastic Producing	

10. Main Testing Equipments

NO.	Equipment	Quantity	Remark
1	Fingerprint Lock Test Machine	1	Detect the performance of repeated opening and closing of fingerprint password locks
2	Comprehensive Service Life Testing Machine for Bidirectional Handle and Locks	3	Detect the performance of strength and repeated opening and closing of bidirectional handle and types of machanic locks
3	Floor Spring Testing Machine	5	Detect the performance of strength and repeated opening and closing of floor spring
4	Tilt and Turn window Hardware System Testing Machine	1	Detect the performance of strength and repeated opening and closing of tilt and turn window hardware system
5	Friction Stay Testing Machine	12	Detect the performance of strength and repeated opening and closing of friction stay
6	Sliding Roller Durablity Testing Machine	11	Detect the performance of strength and repeated opening and closing of sliding lock
7	Hinge Testing Machine	8	Detect the performance of strength and repeated opening and closing of hinge
8	Salt Spraying Testing Machine	3	Detect the performance of corrosion resistance
9	Electronic Universal Testing Machine	2	Detect the performance of anti-dislocation and anti-pressure
10	Digital Torque Wrench	2	Detect the performance of machanical property
11	Image Measuring Instrument	1	Detect the sizes of products
12	Xenon Arc Lamp Testing Machine	1	Detect the performance of climate resistance of rubber
13	Oxygen Aging Testing Machine	1	Detect the performance of oxygen-resistance and aging-resistance of rubber
14	High and Low Temperature Constant Temperature and Humidity Testing Machine	1	Detect the product performance under the high/low temperature or humid and warm environment.
15	Electric Blast Drying Machine	1	Dry the sample and provide the sample with the temperature environment required for the experiment

11. Main Raw Material and Process Description

11.1 Main Raw Material

NO.	Key material	Supplier	Place of Origin	Cooperation period	Purchasing period
1	3#Zinc alloy	Yanye, Zhuye, Jinyi Alloy	Guangdong	Long-term	Long-term
2	A360 aluminum alloy	Galuminum Group. Luen Thai metal, Baoye Metal	Guangdong	Long-term	Long-term
3	304SS	Baosteel	Guangdong	Long-term	Long-term
4	Q235 steel plate	MA steel	Anhui	Long-term	Long-term
5	PVC	Daun Polymer Materials	Shandong	Long-term	Long-term
6	EPDM	Sinochem International	America	Long-term	Long-term

1). Die-casting aluminum alloy selection: ADC12, domestic grade YLD113 (ZLD113), JIS H5302-2000 "Aluminum Alloy Die Casting",

Executive Standard: GB15115 "Die Casting Aluminum Alloy"

2). Die-casting zinc alloy selection: ZZnAl4Cu1Y ZZnAlD4A, Zhuye 3# Australia 3#,

Executive standard: GB/T13818 "die-cast zinc alloy"

3). Stainless steel parts material selection: 304,

Executive Standard: GB/T3280 "stainless steel cold rolled steel plate"

4). Carbon steel parts material selection: Q235

Executive standard: GB/T 11253 "Carbon structural steel and low alloy structural steel cold rolled sheet and steel strip".

11.2 Product surface treatment

All products of our company have been treated with anti-corrosion treatment: chrome passivation treatment, surface plating and powder coating treatment. The corrosion resistance reaches 128 hours and 8 grades, and the adhesion of the sprayed products reaches 4 grades, mainly using Akzo coatings.

11.3. Product reference standards

All products produced by the company meet or exceed national and industry standards.

11.4. Product process characteristics

The mold is made of advanced design software and imported materials to ensure the precision and stability of the product. After the advanced force type cold chamber or hot chamber die casting machine, it is digitally controlled during the whole process, and adopts advanced local pressure technology and oxygenation technology, ultra-high-speed injection and real-time control to die cast the product, which can ensure the high quality, high density and no porosity of casting products.

The blank products are processed by the German chrome-free pre-treatment process prepared by Henkel Company, and then processed by the imported Swiss “Golden Horse” CNC electrostatic spraying production line. It can be highly ensured that the product is coated with uniform color and high corrosion resistance.

11.5. Product production process description

1). Process flow chart of die-casting hardware

Mold production → (quality inspection) → die casting process → (quality inspection) → polishing process → (quality inspection) → machining → (quality inspection) → surface without chromium passivation treatment → (quality inspection) → electrostatic powder coating → (quality inspection) → Assembly → (General inspection) → Storage

2). Stamping hardware production process flow chart

Mold production → (quality inspection) → stainless steel cutting → (quality inspection) → material stamping → (quality inspection) → single piece material secondary molding → (quality inspection) → grinding (deburring) → (quality inspection) → assembly → (General inspection) → Storage

11.6. About the selection of hardware accessories

1).The living room and bedroom outer casement window

The window type is the outer casement window, and the using frequency of opening is highest. Considering the influence of the high-rise wind pressure on the window and the occupancy of the window space by the residents, the window type is the most reasonable configuration, that is, the transmission handle. Using the CZH30 or CZH26A handle with U-slot, the load-bearing hardware is made of HHK**A single-point friction stay and HHKS double-point friction stay which are made of 304 stainless steel with good corrosion resistance. At the same time, there are many typhoons in the open windows and on the coastal side. For safety reasons, we recommend not using hinges. At the aspect of sealing, installing the sliding windows is better than the mounting hinges.

2).the door lock

The multi-point lock produced by our company is far safer and firmer than the door locks of other similar brands. Only the neutral salt spray test for surface treatment of exposed parts has a corrosion resistance of 240 hours and above.

12. Products Quality Standard

All products produced by our company are controlled and inspected in accordance with national or industrial standards, and the current national and industrial standards for some main products are attached:

NO.	Standard	Detailed
1	GB/T24498-2009	Sealing Strips for Construction Doors, Windows and Curtain Walls
2	GB/T24601-2009	Construction Doors and Windows Tilt and Turn Window Hardware System
3	GB/T32223-2015	Construction Doors and Windows
4	GB/T8478-2008	Aluminium Alloy Doors and Windows
5	JG/T124-2017	Construction Doors and Windows Accessories Transmission Device Handle
6	JG/T125-2017	Construction Doors and Windows Accessories Hinge
7	JG/T126-2017	Construction Doors and Windows Accessories Transmission Lock Device
8	JG/T127-2017	Construction Doors and Windows Accessories Friction Stay
9	JG/T128-2017	Construction Doors and Windows Accessories Limiter Stay
10	JG/T129-2017	Construction Doors and Windows Accessories Roller
11	JG/T130-2017	Construction Doors and Windows Accessories Single Point Lock Device
12	JG/T213-2017	Construction Doors and Windows Accessories Camlock Handle
13	JG/T215-2017	Construction Doors and Windows Accessories Multi-Point Lock Device
14	JG/T386-2012	Construction Doors and Windows Accessories Compound Sealing Strip

13. Sales Network

13.1. Domestic Sales Network

3H has direct sales branches in Beijing, Shanghai, Shenzhen and Guangzhou, and nearly 100 distribution agencies in 30 provinces across the country.



13.2. International Sales Network

Our products are exported to more than 60 countries and regions all over the world. At present, we have signed partnership with excellent teams from Vietnam, Philippines, Indonesia, Thailand, Sri Lanka, Kuwait, South Africa and other countries.



14. Sample Projects

14.1. Domestic Sample Projects



Hong Kong-Zhuhai-Macao Bridge Artificial Island
Comprehensive Declaration Hall



Canton Tower - Guangzhou



Sanya Beautiful Crown Atlantis Sanya



Zhuhai Opera



Sanya Phoenix Airport Nanning Rail Metro
Transit Line 1



Wuhan Guanggu Finance

14.1. Domestic Sample Projects



Hebei Chongli Prince City Town



Henan Zhoukou Central Hospital New District Hospital



Shenzhen Dapeng Central District Talent Housing Project



Sanya CBD Joy City



Shandong Binzhou Bohai Advanced Technology Research Institute



Sun-Yet-Sen University Shenzhen Campus

14.2. International Sample Projects—Asia



QMS Tower - Vietnam



Bitexco - Vietnam



AVIDA NEW MANILA - Philippines



TRION TOWER - Philippines



STIRLING RESIDENCE - Singapore



Vista - Singapore

14.2. International Sample Projects—Asia



PRINCE INTL PLAZA - Cambodia



DBS TOWER - Indonesia



SUVASTU SURAIYA TRADE CENTER
SSTC - Bangladesh



Forest city - Malaysia



SKY TOWER - Israel



SIAMSCOPE - Thailand

14.3. International Sample Projects—Africa



CBE New Headquarters Building Ethiopia



Vision City - Rwanda



Egypt CBD - Egypt



SIAMSCAPE - GRAND VILLA Evaco - Mauritius



One & Only hotel - South Africa

14.4. International Sample Projects—America / Oceania



Brisbane one - Australia



Inacap Maipu - Chile



Sunroom - Netherland



Utopia - Australia



Destination Gold Coast - Australia



LaGuardia Airport - United States