

BASIC MATERIAL PROVIDER

FOR HIGH-END INTELLIGENT EQUIPMENT

MARTIN QIN 2022.06.10



**Shenzhen Furui Lianhua Technology Co., Ltd.**

Shenzhen Headquarters Address: 2nd. Floor, building 17, #16 Wunipeng Rd., 3rd. Industrial Park, Wanfeng Community, Xinqiao Street, Bao'an Dist., Shenzhen 518104

Huizhou Factory Address: Hechuangli (Shangnan) Industrial Park, Yuanzhou Town, Boluo County, Huizhou City



## FRH PROFILE:

The founder Mr. Zhou started the granite businesses as an engineer in an office 20 years ago, and founded Shenzhen Furui Lianhua Technology Co., Ltd. in October 2013 in Shezhen.

The company has been moved to a 4,000 square meter facility right here in Huizhou city in 2017, which is the biggest mechanical granite production and processing facility in the southern China.

We have been specialized in the research, design, production and sales of the granite-related products. We can manufacture advanced custom ultra-high precision components according to customers' drawings, including granite mechanical components, granite measuring instruments, mineral casting, epoxy granite machine base.

We are especially proud of our ability to manufacture custom precision mineral casting (also known as artificial granite, resin concrete, resin granite components, etc.) according to customer's requirements.

Our granite machinery parts are supported by ISO 9001 certification, make your precision machine more advanced.

FRH is a benchmark in the precision manufacturing industry, it is synonymous with the most advanced ultra-high precision manufacturing.

# WHY US



## OUR BUSINESS IS BUILT ON RELATIONSHIPS

At FRH, we have a long and storied history of innovation, one where we continuously seek to improve the quality of our machines' construction, the breadth of our offerings, and the strength of our technology. However, we didn't become the global leader in ONE SOLUTION™ just through the products we offer. Much of our success comes from a steadfast belief in offering an exceptional customer experience, which is reinforced by our mission to passionately pursue a customer for life.

Whether you're a small shop looking to expand with your first FRH or an established manufacturer about to purchase your 20th, we understand that buying one of our machines represents a significant investment. That's why each machine is backed by a full FRH Machine and Control Warranty. Sure, every FRH machine is built to stand the test of time. But with our philosophy, the goal is for our relationship with you, the customer, to last even longer.

1. Professionalism/Expertise (20 years experience, dedicated teamwork)
2. Top quality
3. Fast lead time
4. Excellent services
5. Cooperate with top-listed customers, such as Foxconn, BYD, HAN's LASER, CATL, CRRC, CSR, CASIC, JT Holding, Goertekc etc.

# CULTURE



Corporate Culture

Value

Creative, Innovative, Integrity, Responsibility

Vision

Become a world-class trustworthy high-end intelligent equipment basic material solution provider for global ultra-high precision equipment customer

Mission

Market, technology, quality and service orientation to achieve sustainable development

Philosophy

Strive for perfection with sincerity

Customer policy

Customer's satisfaction is the first priority.

Quality policy

Sincere, respectful, win-win

# ADVANTAGES



All our technical staff is from national state-owned enterprise directly controlled by the Ministry of Aerospace of China, have advanced production and processing equipments with 20 years industry experience.  
We have reliable granite source.

## Complicated Granite Assembly:

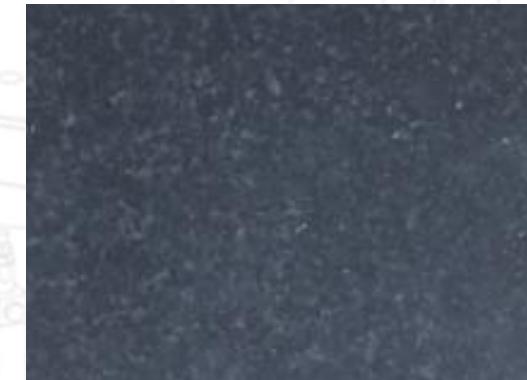
- ① 4m\*3m granite mechanical component of rail detection equipment for CRRC Corporation Limited (CRRC)
- ② 8m\*2.5m granite mechanical component of The Institute of High Energy Physics of the Chinese Academy of Sciences
- ③ BOE Technology Group Co., Ltd. (BOE) Lighting Equipment 2750\*3140\*670
- ④ Chang'e 4 Moon Simulation Vehicle 10000\*5000\*450

# INDIA BLACK GRANITE FEATURES & ADVANTAGES



India Black Granite is a kind of black granite quarried in India.

- ① High decorative quality with perceived variation
- ② Good durability and highly weather-resistant
- ③ Intense hardness and high abrasive resistance
- ④ Good acid and erosion resistance and erosion resistance
- ⑤ Poor fire resistance due to crystalline transition



# GRANITE SURFACE PLATE



## Flatness Measuring

### Features:

- ① Granite flat plates have dense organizational structure, smooth and wear-resistant surface, and low roughness values;
- ② Granite undergoes long-term natural aging, and the internal stress completely disappears. The material is stable and will not deform;
- ③ Acid, alkali, corrosion, and magnetic resistance;
- ④ Will not rust due to moisture, easy to use and maintain;
- ⑤ Low coefficient of linear expansion, less affected by temperature;
- ⑥ After the working surface is collided or scratched, only pits will be generated, without protrusions or burrs, which has no impact on the measurement accuracy.



# GRANITE SURFACE PLATE



SPECS:

## Specification

Specification	Weight	000 Level	00 Level	0 Level	1 Level
L*W*T (mm)	KG	µm	µm	µm	µm
<b>300x300x50</b>	14	1.50	3.00	5.70	11.40
<b>400x600x100</b>	72	1.80	3.44	7.77	15.54
<b>500x800x100</b>	120	2.00	3.89	7.78	15.56
<b>600x900x100</b>	162	2.10	4.20	8.40	16.80
<b>1000x750x150</b>	338	2.30	4.60	9.20	18.40
<b>1000x1000x150</b>	450	2.45	4.90	9.80	19.60
<b>1200x800x150</b>	432	2.48	4.96	9.92	19.84
<b>1200x900x150</b>	786	2.53	5.06	10.12	20.24
<b>1200x1000x150</b>	540	2.56	5.12	10.24	20.48
<b>1500x1000x150</b>	675	2.85	5.70	11.40	22.80
<b>1500x1000x200</b>	900	2.85	5.70	11.40	22.80
<b>1600x1000x200</b>	960	3.00	6.00	12.00	24.00
<b>2000x1000x200</b>	1200	3.25	6.50	13.00	26.00
<b>2000x1000x250</b>	1500	3.25	6.50	13.00	26.00
<b>2000x1500x250</b>	2250	3.5	7.00	14.00	28.00
<b>3000x1500x300</b>	4050	/	7.00	14.00	28.00
<b>3000x2000x300</b>	5400	/	9.30	18.60	37.20
<b>4000x1000x300</b>	3600	/	10.30	20.60	41.20

# GRANITE MECHANICAL COMPONENT



## Technic:

Granite is punched and slotted on the basis of the original granite platform according to the actual needs of customer drawings. The overall technical requirements of grinding parallelism, flatness and verticality are much stricter than those of ordinary granite plate. the production process is the same as that of granite plate, which is machined and ground by hand, but the process of granite mechanical components is much more complicated. Granite mechanical components are mostly used in the internal bed of mechanical line, mainly to facilitate the installation of mechanical guideway, and not to be deformed by temperature difference for a long time, and to resist small vibration.

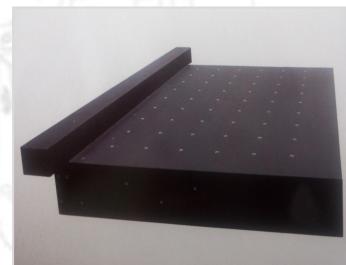
The granite mechanical components are widely used such as precision carving machine bed, engraving and milling machine, PCB drilling machine, AOI testing machine, glass cutting machine, LED solid crystal machine, precision point glue machine, laser etching machine, as well as testing equipment, two-dimensional, three-coordinate and so on.

## Features:

- 1, anti-abrasion, high temperature resistance, convenient maintenance, convenient mechanical guideway, screw rod disassembly.
2. Physical stability, high density, shedding of grains under impact, no rough edges on the surface, and does not affect its plane accuracy. Granite mechanical components use high-quality "Jinan green" stone warp machine.
- 3, black luster, precise structure, uniform texture, good stability, high strength, high hardness, can maintain high precision under heavy load and general temperature, and has the advantages of no rust, acid and alkali resistance, wear resistance, non-magnetization, constant type
4. The working surface of granite mechanical components has the advantages of simple maintenance, stable material, long-term non-deformation, small linear expansion coefficient, high mechanical precision, anti-rust, anti-magnetic and insulation.  
No deformation, high hardness, strong wear resistance.

## Varieties:

1. CMM granite surface plate
2. Custom mechanical component
3. Custom component assembly



CMM granite surface plate



Custom mechanical component



Custom component assembly

# GRANITE MEASURING INSTRUMENTS

Features: —high precision、stable performance、wearable

1. The structure is dense, the surface is smooth and wear-resistant, and the roughness is small.
2. After long-term natural aging, the internal stress of granite disappears completely, the material is stable and will not be deformed.
3. Acid resistance, alkali resistance, corrosion resistance and magnetism resistance.
4. it will not rust by damp, and it is easy to use and maintain.
5. The linear expansion coefficient is small, and it is not affected by temperature.
6. After the working face is collided or scratched, it will only produce pits, no convex lines and burrs, and has no effect on the measurement accuracy.

## Varieties:

1. surface plate
2. parallels
3. master square
4. Tri-square
5. riser block
6. V-block
7. measuring base
8. stand



surface plate



V block



parallels



riser block



master square



measuring base



Tri-square



stand

# GRANITE MATERIAL COMPARISON

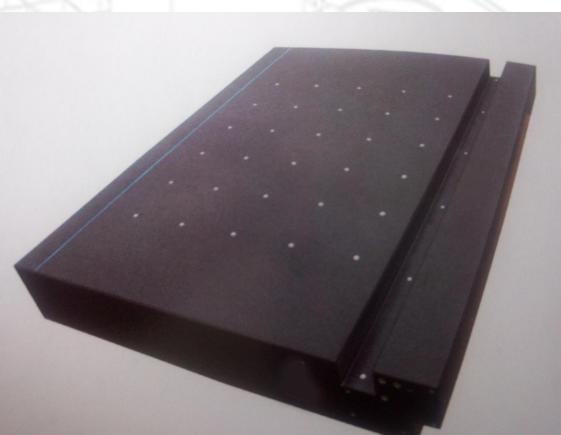
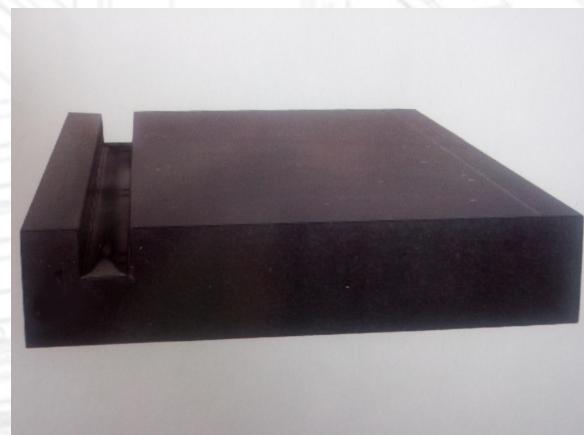
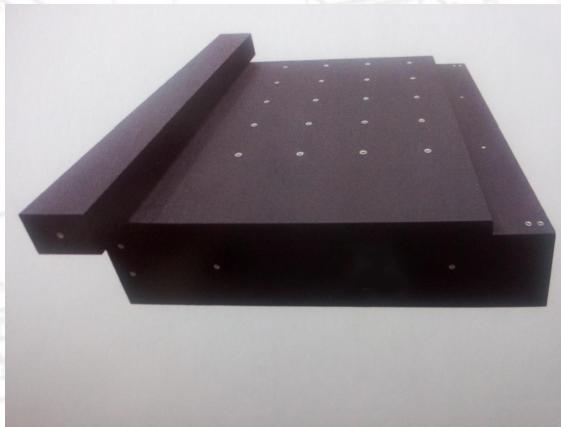
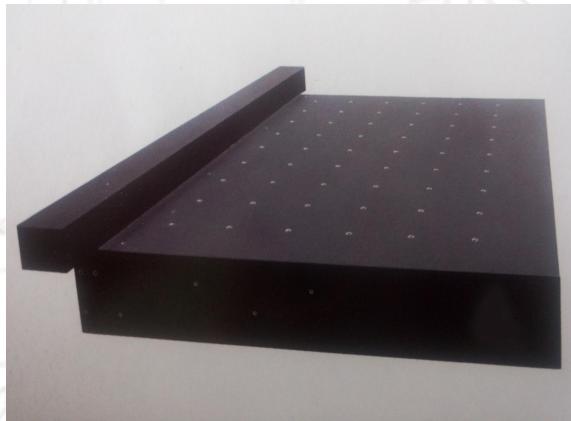


Item	Jinan Green	India Black	Black 654
Propotion	3100-3300kg/m <sup>3</sup>	3200-3300kg/m <sup>3</sup>	2900-3000 kg/m <sup>3</sup>
Compressive Strength	249.5N/mm <sup>2</sup>	249.5N/mm <sup>2</sup>	246 N/mm <sup>2</sup>
Elastice Modulus	$1.27 \times 10^5$ N/mm <sup>2</sup>	$1.29 \times 10^5$ N/mm <sup>2</sup>	$1.27 \times 10^5$ N/mm <sup>2</sup>
Coefficient of lenear expansion	$4.61 \times 10^{-6}$ / °C	$4.61 \times 10^{-6}$ / °C	$4.61 \times 10^{-6}$ / °C
Coefficient of thermal expansion	0.18‰/°C	0.18‰/°C	0.2‰/°C
coefficient of water absorption	<0.013%	<0.011%	<0.013%
HRC	> 70.9	> 70.9	> 70.9
radiation	0.38μSv/h	0.35μSv/h	0.38μSv/h
dry compressive strength	220.1MPa	221.1MPa	218.3MPa
appearance	Evenly distributed, white and thin like snowflakes. Point (look transparent), after maintenance, outside. Look clean and shining	Evenly distributed, white and thin like snowflakes. Point, raw material color is black and bright, after maintenance, outside. Look clean and shining	There are evenly distributed white dots (opaque). The design and color is bigger than Jinan green, after maintenance. The appearance is clean and darker than the brightness of Jinan green.
Precision	Less than 5um	Less than 5um	5-10um

# PRODUCT DISPLAY: GRANITE MECHANICAL COMPONENTS



CMM granite surfance plate



## Custom mechanical component



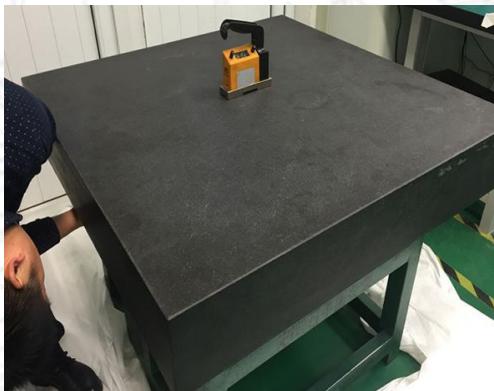
## Custom component assembly



# MAINTENANCE AND REPAIR CASES:



AUTOMATION MACHINE



GRIDING

A senior engineer with 15 years of maintenance experience provides door-to-door maintenance for customers.

## Marble plate grinding standard:

1. Fine grinding standard: reach the standard of grade 00, that is, under the condition of constant temperature from 20 °C to 25 °C, the error is within the range of  $5u * (1D)$  ( $d$  is the length of diagonal).
2. Rough grinding standard: the rough surface can reach  $0.8u \text{ Cm}^2 \sim 3u/\text{cm}^2$ .



FOXCONN



ROUGH GRIDING

# STANDARD PRODUCTION MANAGEMENT:



workshop & equipments



gantry crane (30 tons)



Polishing machine



Drilling machine



cutting machine



temperature-constant room



calibration machine

# STANDARD PRODUCTION MANAGEMENT:



products display



granite mechanical component



granite mechanical component



granite mechanical component



granite mechanical component



granite mechanical component

深圳市富瑞联华科技有限公司

高端智能装配基础材料解决商



granite mechanical component

服务热线：0755-2330 1799

# ADVANCED PRODUCTION EQUIPMENTS & UNIQUE TECHNIC



production equipments	Machine Name	Brand	Precision	Qty	Application time	Travel
	Infrared cutting machine	烟台万华WANHUA	0.1	3	2017.10	10m
	Fine griding machine	富瑞华FRH	0.01	5	2017.10	10m
	rough griding machine	富瑞华FRH	0.01	5	2017.10	10m
	polishing machine	烟台万华WANHUA	0.1	4	2017.10	不限
	drilling machine	富瑞华FRH	0.015	4	2017.10	10m
	Arm driller	沈阳中捷ZHONGJIE	0.015	2	2017.10	/
	Gantry crane	鹏飞PENGFEI	30 tons/15 tons/3 tons	3	2017.10	/
	Forks	三力SANLI	7 tons	3	2017.10	/
inspection equipments	Name	Brand	Qty	Application time	Precision	
	Electronic level meter	如兰RULAN	6	2017.10	0.001	
	CCD inspection meter	富瑞华FRH	5	2017.10	0.001	
	Surface Roughness Tester	三丰Mitutoyo	5	2017.10	0.001	
	Dial indicator	三丰Mitutoyo	30	2017.10	0.001	

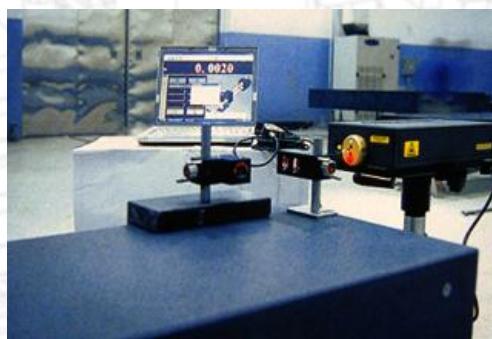
# QUALITY CONTROL:



1. Set up a special project team for this project, see schedule 1 of the tender, project management organization structure 2, production and implementation of ISO9001 standards.
3. The inspection standard is in accordance with JJJG117-2013 "Plate Identification rules".



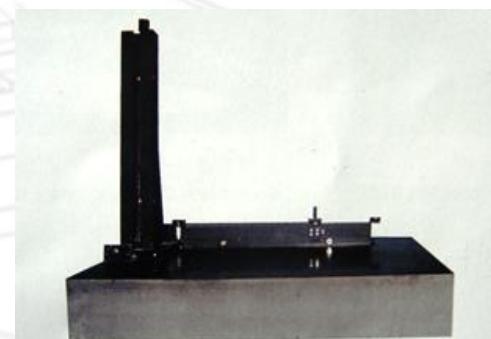
## Inspection equipments



Dual frequency laser interferometer



RULAZIX electronic  
level meter

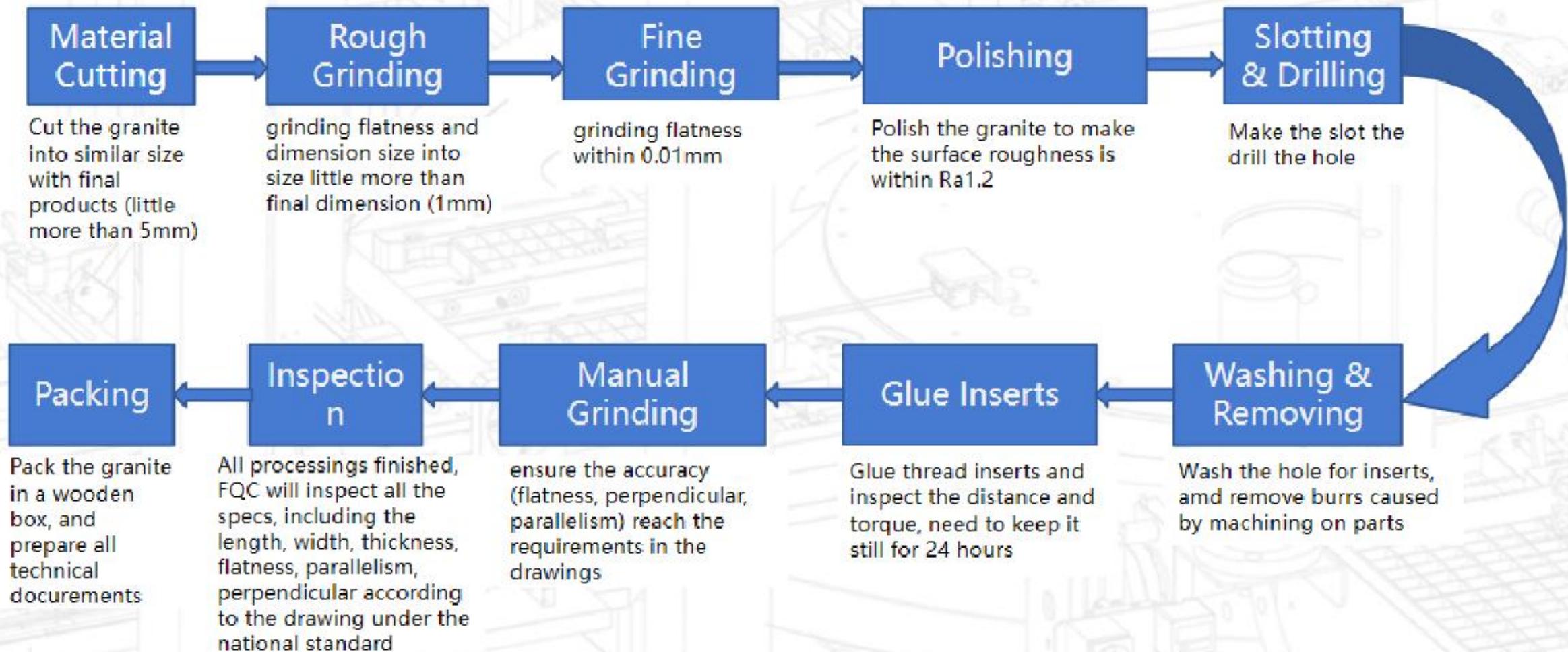


Perpendicularity &  
Flatness meter



surface roughness  
tester

# PRECISION GRANITE MANUFACTURING PROCESS



# CASES

cooperate with state-owned enterprises and university:



4m\*3m granite mechanical component of rail detection equipment for CRRC Corporation Limited (CRRC)

8m\*2.5m granite mechanical component of The Institute of High Energy Physics of the Chinese Academy of Sciences



BOE Technology Group Co., Ltd. (BOE) Lighting Equipment 2750\*3140\*670



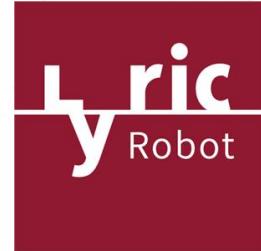
Chang'e 4 Moon Simulation Vehicle 10000\*5000\*450

# OUR PARTNERS



FOXCONN®

HAN'S LASER



中国南车



CRRC

CATI

DEDECMS.COM



中国航天科工集团有限公司  
CHINA AEROSPACE SCIENCE AND INDUSTRY CORPORATION LIMITED

JT 劲拓股份



浩能  
HAONENG



领益智造  
LY iTECH

Goertek



- Basic material provider for High-end Intelligent equipment
- Contact person: Martin Qin (Overseas Sales Manager)
- Phone: +86-755 2330 1799
- Fax: +86-755 2372 1985
- Cell / WhatsApp / WeChat / Skype: +86-189 2835 3328
- Email: martin@furuihua.net
- Website: [www.furuihua.net](http://www.furuihua.net)
- Shenzhen Headquarters Address: 2nd. Floor, building 17, #16 Wunipeng Rd., 3rd. Industrial Park, Wanfeng Community, Xinqiao Street, Bao'an Dist., Shenzhen 518104
- Huizhou Factory Address: Hechuangli (Shangnan) Industrial Park, Yuanzhou Town, Boluo County, Huizhou City



MarTin-Granite  
Specialist



Scan the QR code to add me as friend

THANK YOU FOR  
ATTENTION