

COMPANY
INTRODUCTION



力智成机械（四川）有限公司

Dynatech Precision Company, Ltd.

► INTRODUCTION



MISSION STATEMENT

“Our mission is to win the trust and loyalty of our customers with products and services of unrivaled quality and value.”

--- Roger Tu, Founder & President





GLOBAL OPERATIONS

Tuson USA

- 4500m²/9300m²
- 30 employees/
- 50 employees
- 销售服务/仓库/组装测试
复杂的多轴数控加工
- Sales/Warehouse/
Assembly/Testing
Complex Multi-Axis

Dynatech SiChuan

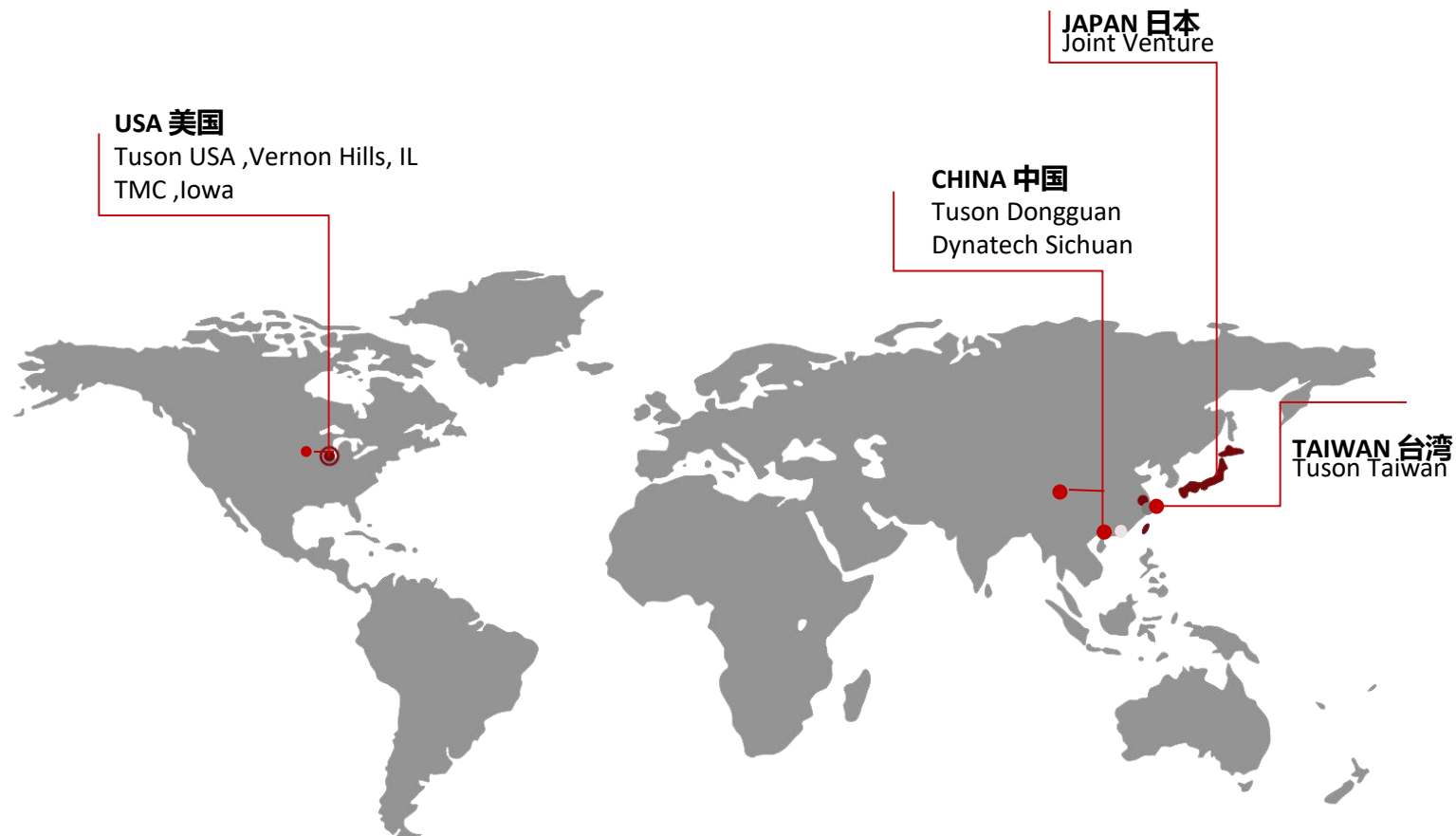
- 20149m²
- 200 employees
- 各类泵轴、液压阀及
精密零部件、加工制造
- Pump Shaft/
Hydraulic Valve s/
Precision
Components

Tuson Dongguan

- 10000m²
- 80 employees
- 各类泵轴、液压阀及精
密零部件、加工制造
- Pump Shaft/
Hydraulic Valves/
Precision
Components

Tuson Taiwan

- 4650m²
- 20 employees
- 设备维修 / 销售服务
生产制造/组装测试
- Equipment
Maintenance/ Sales
/Manufacturing/
Assembly and Test



► INTRODUCTION

(COMPANY TIMELINE)
(公司时间表)



1987

TUSON ESTABLISHED
SACRAMENTO, CA



1990

TUSON TAIWAN ESTABLISHED
HSINCHU, TAIWAN

Tuson Taiwan was established to sell & repair all kinds of chillers at the beginning, then developed its own supply chain network with Taiwanese vendors.



► INTRODUCTION

1996

RELOCATION VERNON HILLS, IL

In 1996, Tuson USA moved to Vernon Hills, Illinois. With the new facility and much larger warehouse, it has always been the headquarter of the company for nearly 30 years.



2001

GOING OVERSEAS DONGGUAN, CHINA

Dongguan factory was the first manufacturing facility operated by Tuson. It focused on producing all kinds of custom-made hydraulic and pneumatic valves and components.



► INTRODUCTION

2020



NEW MANUFACTURING FACILITY BEGINS HSINCHU, TAIWAN (R.O.C.)

Inspired by continuous business growth, TUSON established a new 4,650 m² manufacturing and office building in TW.



► INTRODUCTION

2021

ESTABLISHING NEW FACILITIES SICHUAN, CHINA

In 2021, we established Dynatech Precision Company, Ltd in Sichuan. At the same time, we also established Dynatech brand, which is the continuation and upgrade of TUSON. The new factory has added a heat treatment workshop, which is the most complete manufacturing process and the strongest manufacturing capacity among the TUSON groups .



► INTRODUCTION

2022

○ TUSON ACQUIRES 100% OF THE ASSETS OF ISPT, LLC IOWA, USA

- ISO 9001:2015 Certified – Also MBE Certified
- 9,300 m2- Fully Climate-Controlled Facility
- 50 Total Employees on Multiple Shifts
- Core Competencies Include:
 - ▶ Complex Multi-Axis CNC Machining
 - ▶ Custom Work-Holding and Fixtures – Design / Build
 - ▶ Integrated Robotic Automation
 - ▶ Precision Lapping, Grinding, Diamond Honing, and Part Cleaning
 - ▶ Assembly and Test
 - ▶ An experienced Team of Engineering and Manufacturing for new Product and Process Developments



38 YEAR ANNIVERSARY
WORLDWIDE



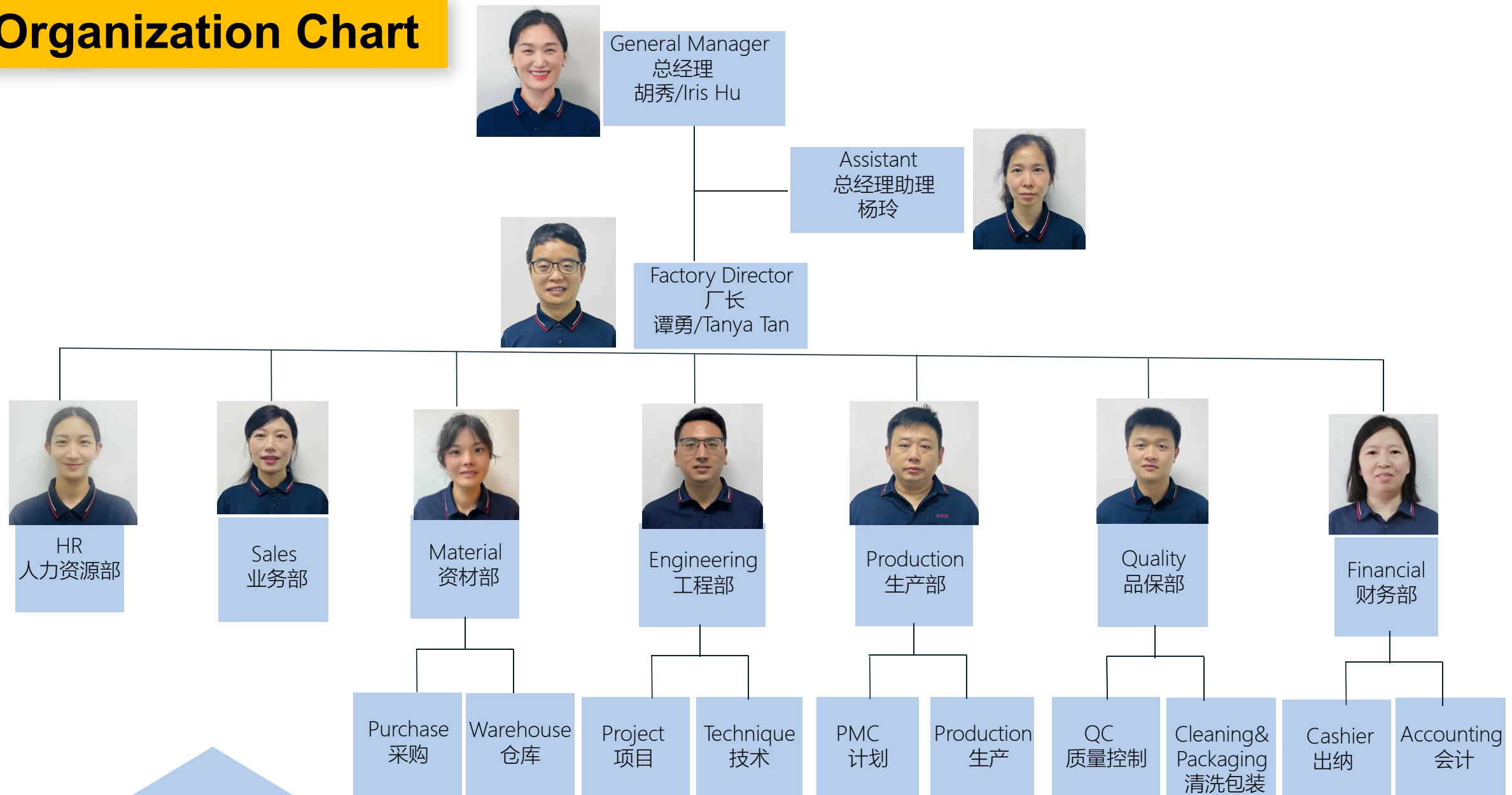
► INTRODUCTION



TUSON DG / 东莞杜商

- 10000 m²
- 80 Employees
- Established in 2001
- IATF 16949:2016 Certified
- Pump Shafts, Hydraulic Valves, Automotive Components, etc

Organization Chart



EQUIPMENT LIST

Processing equipment

NO.	TYPE	BRAND	QTY	CAPACITIES
1	Horizontal Lathe	TAKISAWA	11	Φ 260*530 (mm)
2		HARDING	1	Φ 284*406 (mm)
3		YANGMU	3	Φ 230*300 (mm)
4		STAR	4	Φ 2-32 (mm)
5		TSUGAMI	2	Φ 8-32 (mm)
6	Vertical Machining Center	Hass	4	1270*508*400 (mm)
7		Brother	1	600*350*350 (mm)
8		绮发	1	800*400*400 (mm)
9		YCM	2	800*500*400 (mm)
10		大丸	2	600*500*400 (mm)
11		Mazak	1	600*500*400 (mm)
12	Cylindrical Grinder	PARAGON	1	Φ 320*600 (mm)
13		哈特曼	1	Φ 270*600 (mm)
14		豪特曼	1	Φ 270*600 (mm)
15		SHIGIYA	2	Φ 300*750 (mm)
16	Centerless Grinder	Ohmiya	1	Φ3-60*315 (mm)
17		Ohmiya	1	Φ 1-40*200 (mm)
18		PARAGON	5	Φ 1-50*250 (mm)
19	Internal Grinder	PARAGON	1	Φ 6-150*150 (mm)
20	Honing	SUNNEN	1	Φ 3. 9-50*155 (mm)
21		TOYO	1	Φ 3-30*120 (mm)
22	Gun Drilling	ZONJET	1	Φ 3-30*450 (mm)
23	Hobbing	宁江	1	M3*360 (mm)
24	Polisher	SPRING	1	Φ 0. 3-30*450 (mm)

Inspection equipment

3	Profilometer	Mitutoyo	1	X: ± (0.8+0.01L) um Z: ± (1.2+ 2H /100) um
4	Roundness	Mitutoyo	2	(0.02+4H/10000) um
5	Image measuring apparatus	Keyence	1	± (1.4 + 0.04D) μm ^{*6}
6	Image measuring apparatus	万濠	2	(3+0.02L) um
7	Metalloscope	Olympus	1	50X~2000X
8	Surface roughness meter	Mitutoyo	3	±0.03 um
9	Hardness testing machine	Mitutoyo/BRV	3	±1°
10	Height indicator	Swiss	3	2.5+L/400um
11	Coating thickness tester	Fischr	1	±0.5um
12	Deflection instrument	成量	3	2um
13	Concentricity tester	Mitutoyo	2	2um
14	Air gauge	Elayred	1	0.2um
15	Air gauge	淮和	6	1um
16	Inside micrometer	Mitutoyo	5	1um
17	Micrometer gauge	Mitutoyo	4	1um
18	Micrometer gauge	Mahr	2	0.5um
19	Laser scan micrometer	Mitutoyo	1	0.5um
20	Gear measuring center	中自精合	1	1um

CERTIFICATE
IATF16949

CERTIFICATE
CERTIFICADO
СЕРТИФИКАТ
認證證書



Management Service

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH
certifies that

Tuson (Dongguan) Corporation
No.79, Jinsong Road, Miaobian, Liaobu Town
Dongguan City, Guangdong Province, P.R. China
Post Code: 523400

has established and applies
a Quality Management System for

**Manufacture of
Metal Mechanical Parts**
(without Product Design as per Chapter 8.3).

An audit was performed and has furnished proof
that the requirements according to

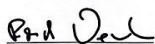
IATF 16949
First Edition 2016-10-01

are fulfilled.

Issue date: 2022-02-14
Expiry date: 2025-02-13

Certificate Registration No.: 12 111 63526 TMS
IATF Certificate No.: 0443423

Part of the certificate is an appendix.


Head of Certification Body
Munich, 2022-02-14

CERTIFICATE
CERTIFICADO
СЕРТИФИКАТ
認證證書



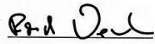
Management Service

Appendix of Certificate Registration No.:
12 111 63526 TMS
IATF Certificate No.: 0443423

Tuson (Dongguan) Corporation
No.79, Jinsong Road, Miaobian, Liaobu Town
Dongguan City, Guangdong Province, P.R. China
Post Code: 523400

The site is supported by the following remote locations:

Address	Supporting functions
Tuson Corporation 475 Bunker Court Vernon Hills, IL, 60061 USA	Customer service, Sales


Head of Certification Body
Munich, 2022-02-14

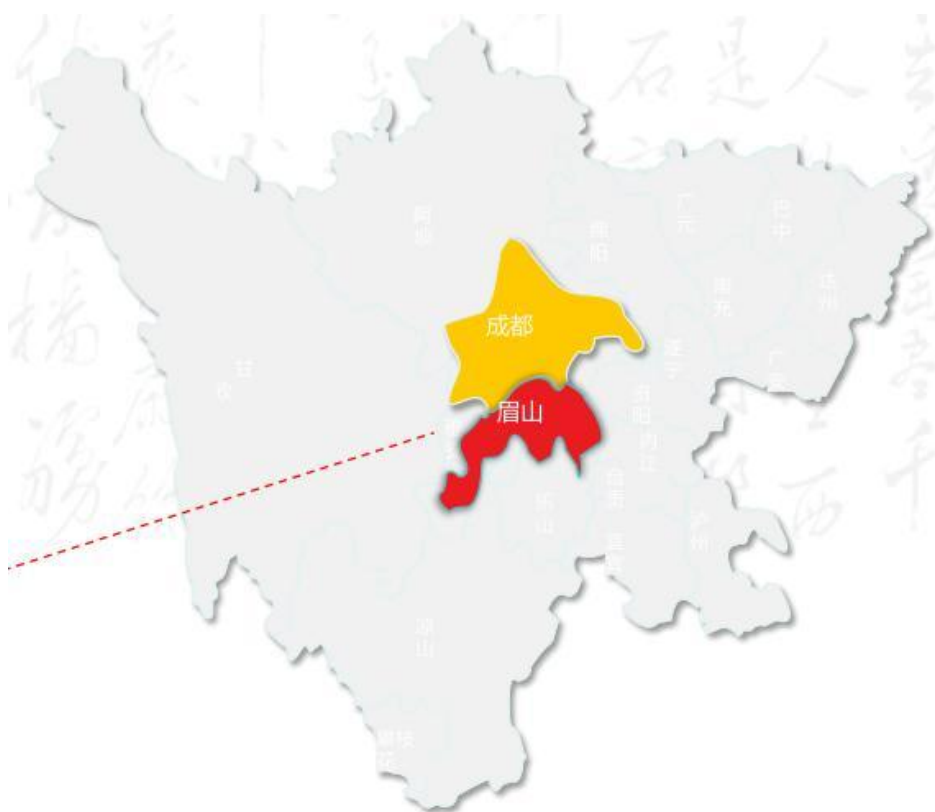
NEW FACTORY PLAN



- ▶ 置地30亩/4.94 Acres, 厂房面积20149m².
- ▶ 投资1500万美金 Invest \$15 million.
- ▶ 热处理车间 Heat treatment workshop
- ▶ 齿轮轴生产线 Gear shaft production line
- ▶ 200名员工, 其中管理人员15人, 工程师30人, 技术人员30人.
200 employees, including 15 managers, 30 engineers, 30 technicians.
- ▶ 预计年产值3.5亿人民币
The estimated annual output value is 350 million RMB



NEW FACTORY LOCATION

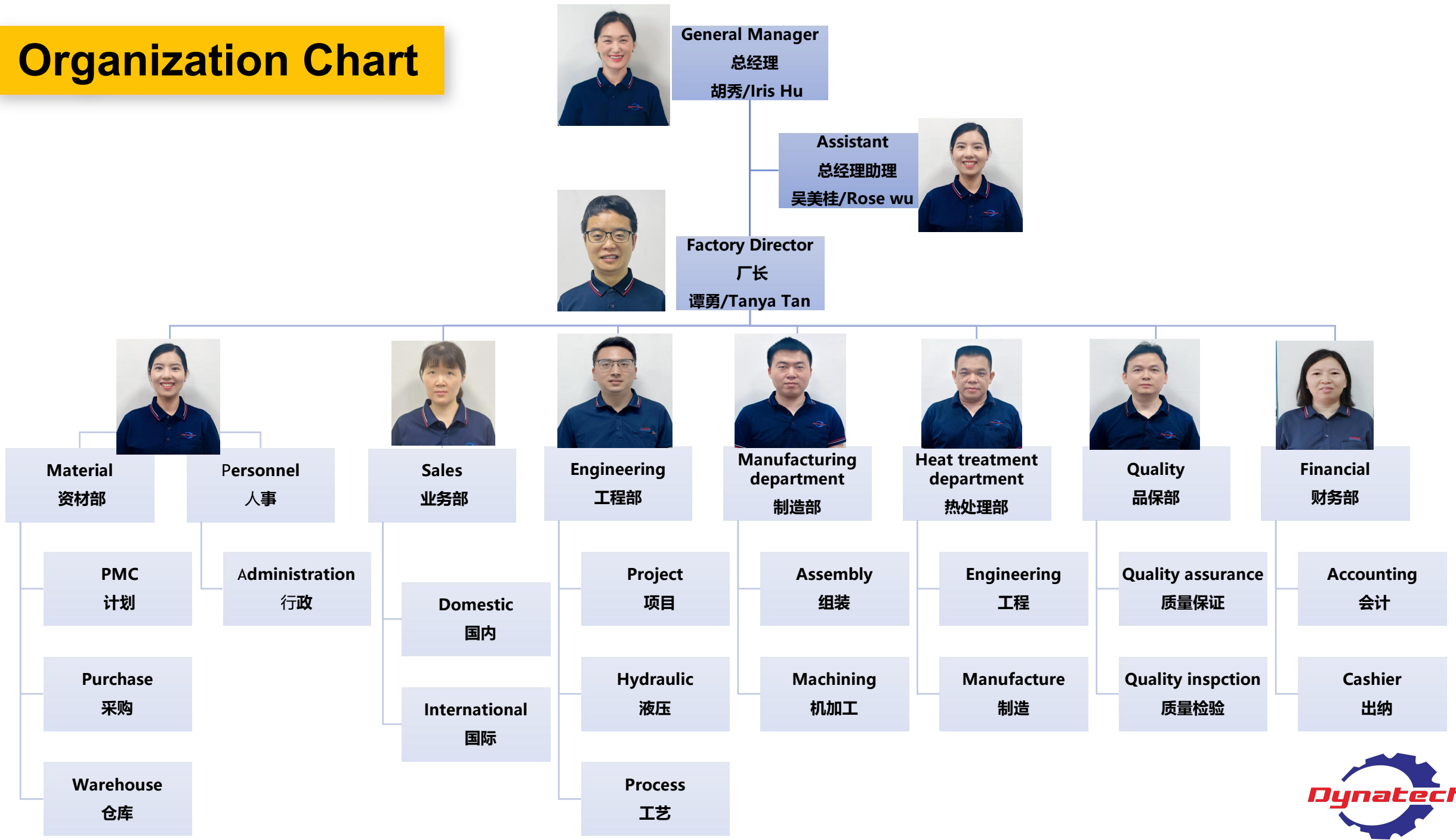


眉山距离天府国际机场和双流国际机场仅需60分钟; 乘坐高铁到成都市区及双流国际机场仅需20分钟,属成都平原经济圈, 成渝经济核心圈范围.

Meishan is only 60 minutes far from Tianfu International Airport and Shuangliu International Airport by car, and only 20 minutes far from Chengdu and Shuangliu International Airport by high-speed railway. It belongs to chengdu Plain economic circle and chengdu-Chongqing economic core circle.



Organization Chart



TALENT DEVELOPMENT



TALENT DEVELOPMENT



PROCESS EXAMPLE

Production Process: 加工工序

- ▶ Material in-coming QC 进料检验
- ▶ Rough Machining 粗加工
- ▶ Heat Treatment / Surface finish 热处理/表面处理
- ▶ Grinding Finishing 精磨
- ▶ Cleaning 清洗
- ▶ Cleanliness Test 清洁度测试
- ▶ Rust Prevention 防锈
- ▶ Quality Inspection 品质检验
- ▶ Packaging 包装
- ▶ Shipping 出货



VALVES & ASSEMBLIES

All types of cartridge valves
各类型的插装阀

- Directional 直动型
- Check 单向型
- Pressure control 压力控制型
- Solenoid 电磁阀
- Pilot Valve 先导阀
- Machined components, sub-assemblies or complete assemblies. 所有的零件加工, 半组装, 组装品
- 100% leakage and functionality testing
100% leakage (.05 cc/min or less) and function testing



VALVES & ASSEMBLIES

All types of cartridge valves
各类型的液压阀

assemblies. 所有的零件加工，
半组装，组装机
100%泄露和功能性测试
100% leakage (.05 cc/min or
less) and function testing



负载敏感阀

Load Sensing Valve

- ◆ 压力(Pressure): 25Mpa
- ◆ 流量(Flow): 60LPM



A4V 恒功率阀

A4V Constant Power Valve

- ◆ 压力(Pressure): 35Mpa
- ◆ 流量(Flow): 4LPM



A10 泵控阀

A10 Pump Control Valve

- ◆ 压力(Pressure): 25Mpa
- ◆ 流量(Flow): 4LPM



Parker 叠加阀

Parker Sandwich Valve

- ◆ 压力(Pressure): 35Mpa
- ◆ 流量(Flow): 53LPM



Danfoss PVX 泵控阀

Danfoss PVX Pump Control Valve

- ◆ 压力(Pressure): 35Mpa
- ◆ 流量(Flow): 4LPM



VALVES & ASSEMBLIES

All types of cartridge valves
各类型的液压阀

- ▶ Machined components, sub-assemblies or complete assemblies. 所有的零件加工, 半组装, 组装品
- 100%泄露和功能性测试
- 100% leakage (.05 cc/min or less) and function testing



Parker 溢流阀

Parker Relief Valve

- ◆ 压力(Pressure): 35Mpa
- ◆ 流量(Flow): 100LPM



溢流阀

Valve GP-Relief

- ◆ 压力(Pressure): 31.5Mpa
- ◆ 流量(Flow): 150LPM



溢流阀

Valve GP-Relief

- ◆ 压力(Pressure): 31.5Mpa
- ◆ 流量(Flow): 4LPM



Parker V10 溢流阀

Parker V 10 Relief Valve

- ◆ 压力(Pressure): 25Mpa
- ◆ 流量(Flow): 110LPM



Parker Rp51 溢流阀

Parker Rp51 Relief Valve

- ◆ 压力(Pressure): 34Mpa
- ◆ 流量(Flow): 200LPM



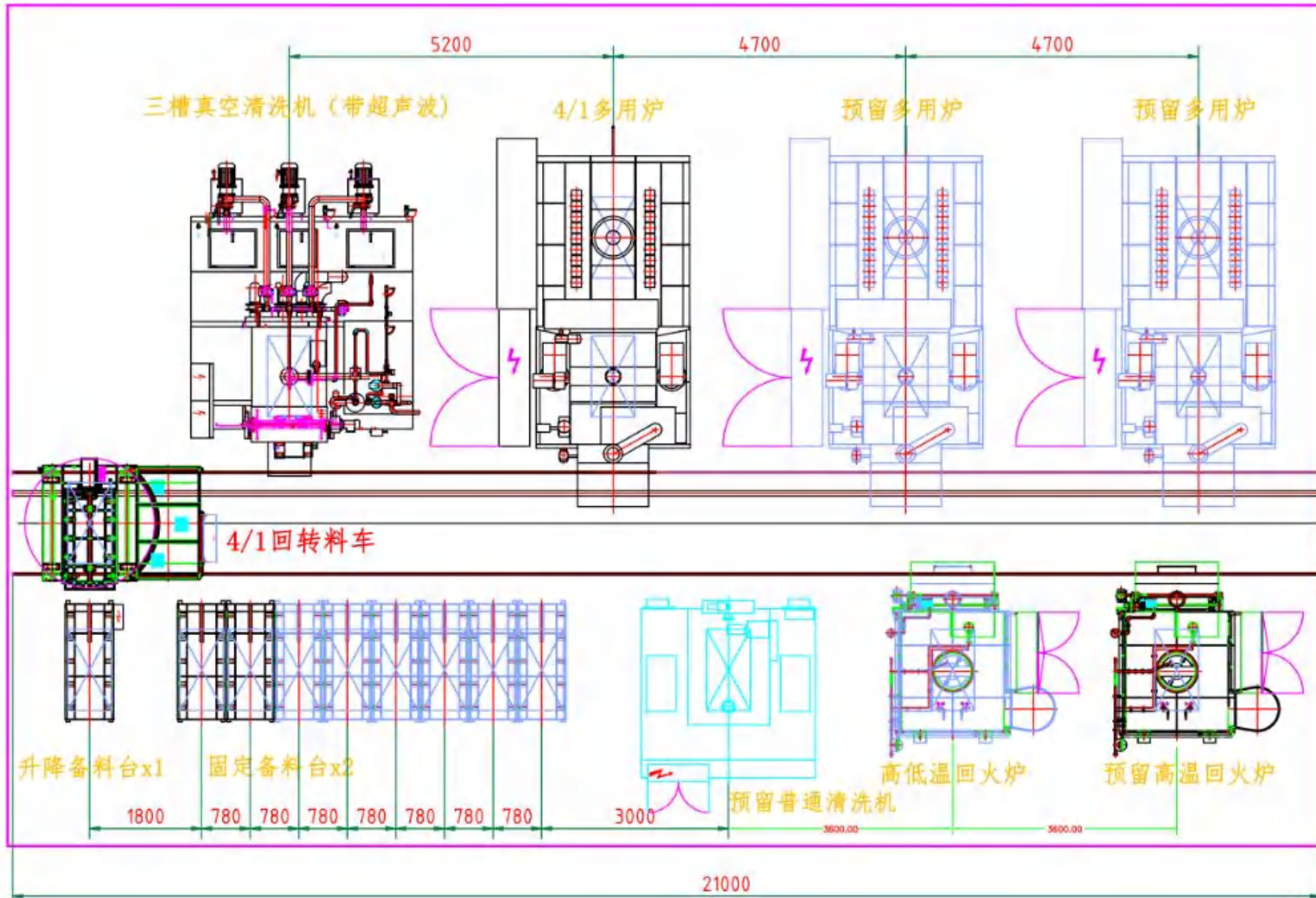
Parker 双向液压锁

Parker P.O.Check Valve

- ◆ 压力(Pressure): 25Mpa
- ◆ 流量(Flow): 4LPM



EQUIPMENT INVESTMENT



The heat treatment production line is composed of pre-oxidation furnace, sealed box type multi-purpose furnace, vacuum cleaning machine or ordinary double tank double liquid cleaning machine, (high/low temperature) tempering, loading and unloading trolley, lifting platform and preparation platform, endothermic gas generator, control system and other equipment.

热处理生产线由预氧化炉、密封箱式多用炉、真空清洗机或普通双槽双液清洗机、（高/低温）回火、装卸料小车、升降台及备料台、吸热式气体发生器、控制系统等设备共同组成。

EQUIPMENT INVESTMENT



AICHELI Multi-purpose furnace with controlled atmosphere, The main applicable processes are carburizing, carbonitriding, annealing, normalizing, quenching, tempering and so on.

爱协林可控气氛箱式多用炉，主要适用工艺有渗碳、碳氮共渗、退火、正火、淬火、回火、调质等。



EQUIPMENT INVESTMENT



Heat Treatment Process

热处理工艺Heat Treatment Process:

- 装炉 Loading into Furnace
- 前清洗Pre-Washing
- 预氧化Pre-Oxidation
- 渗碳Carburizing
- 后清洗 Post-Washing
- 品质检测（硬度/渗碳层深度/金相分析） Quality Inspection (Hardness / Case Depth / Metallographic Analysis)
- 回火Tempering
- 品质检验（硬度/渗碳层深度/金相分析） Quality Inspection (Hardness / Case Depth / Metallographic Analysis)
- 喷砂Sand Blasting
- 校直Straightening
- 防锈装箱Rust Prevention Packaging



CUSTOMER AUDIT



China Materials Technology
No. 5 Xin Qing Rd. South
Wuxi, 214028, P.R. China

Jan 14, 2025

Mr. Tan
Operation Director
Tuson Lizhicheng Machinery (Sichuan) Co., Ltd.
No. 12, Tanxiang Road, East District, Meishan Economic Development Zone, Sichuan Province

Mr. Tan,

Thank you for hosting Caterpillar's visit to your facility on Jan 14, 2025. I appreciate the time, dedication, and candor by everyone in your facility during my visit. This assessment and associated recommendations apply primarily to your 1E2318, 1E2204&1E2225 carburizing process using multipurpose furnace. We note the following corrective actions that need to be implemented.

Working through the corrective actions below will allow us to categorize you as "Temporary Approval", Tuson Lizhicheng was rated in "C (Carburizing)" category, the score will rise from the current 92.6 to at least 95 with completion of all corrective actions. 95 corresponds to achieving at least a 5 rating in all categories.

2025年1月14日,CAT来访评估审核多用炉
1E2318、1E2204&1E2225渗碳工艺。

On January 14, 2025, CAT visited to
evaluate and audit the carburizing process
of 1E2318, 1E2204&1E2225 multi-purpose
furnaces.

92.6, Approved



EQUIPMENT INVESTMENT



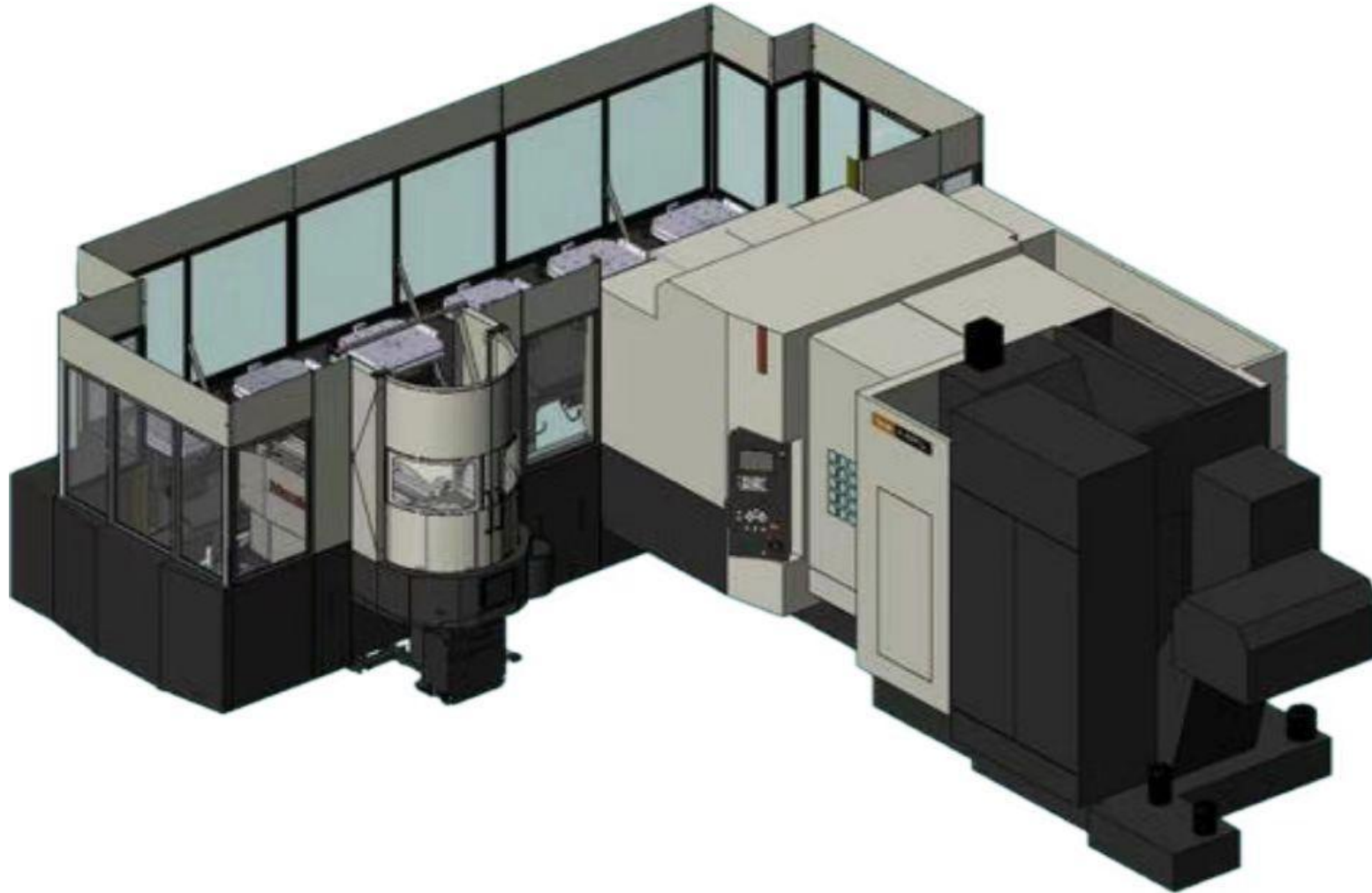
shot blasting machine
抛丸机



Shaft Alignment Machine
校直机



EQUIPMENT INVESTMENT



FMS flexible production line, can flexibly cope with large quantities, medium batches, multi-variety small amount, variable variety variable production system.

FMS柔性生产线，可灵活应对大批量、中批量，多品种少量，变品种变量的生产系统。

EQUIPMENT INVESTMENT



▶ Mazak high-precision machining center
马扎克高精度立式加工中心



▶ Mazak high-precision machining center
马扎克高精度卧式加工中心



EQUIPMENT INVESTMENT



▶ *TSUGAMI high-precision 9 axes automatic lathe*
津上高精度9轴自动车床



▶ *STAR high-precision 5 axes automatic lathe*
斯大高精度5轴自动车床

EQUIPMENT INVESTMENT



▶ TAKISAWA high efficiency lathe
龙泽高精度高效率车床



▶ TSUGAMI high precision lathe
津上高精度排刀车床

EQUIPMENT INVESTMENT

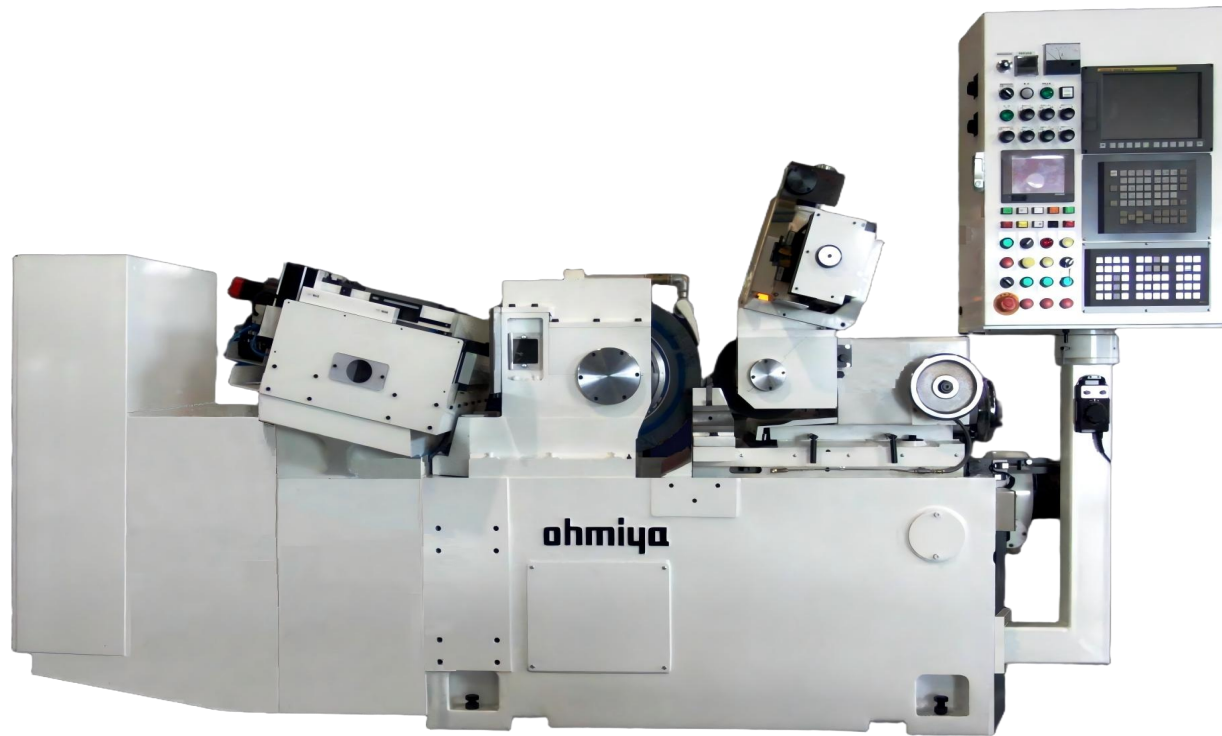


▶ *HOTMAN high-precision centerless grinder*
豪特曼高精度无芯磨



▶ *HOTMAN high-precision cylindrical grinder*
豪特曼高精度外圆磨

EQUIPMENT INVESTMENT



▶ Ohmiya high-precision 5 axes centerless grinding machine
大宮高精度5轴无芯磨床



▶ SHIGIYA high-precision cylindrical grinder
喜基雅高精度外圆磨



EQUIPMENT INVESTMENT



▶ *SUNNEN 6 station rotary honing machine*
善能立式6工位较珩机



▶ *Spring abrasive flow machine*
流体抛光去毛刺机

EQUIPMENT INVESTMENT



Vacuum carbon nitrogen ultrasonic 4 tank automatic cleaning machine.

真空碳氢超声波4槽全自动清洗机。

No.1-3 Tank: Vacuum ultra cleaning

真空超声波浸泡清洗

No.4 Tank: Vapor cleaning + Vacuum drying

蒸汽洗净+真空干燥



EQUIPMENT INVESTMENT



CMM
三坐标



Roundness tester
圆度仪



Profilometer
轮廓仪



EQUIPMENT INVESTMENT



SPECTRO Analytical Instruments
光谱仪



Carbon and Sulfur Analyzer
碳硫分析仪



EQUIPMENT INVESTMENT



Optical Scanner
光学扫描仪



Projector
投影仪

EQUIPMENT INVESTMENT



Mounting & Inspection Section
镶埋检验区

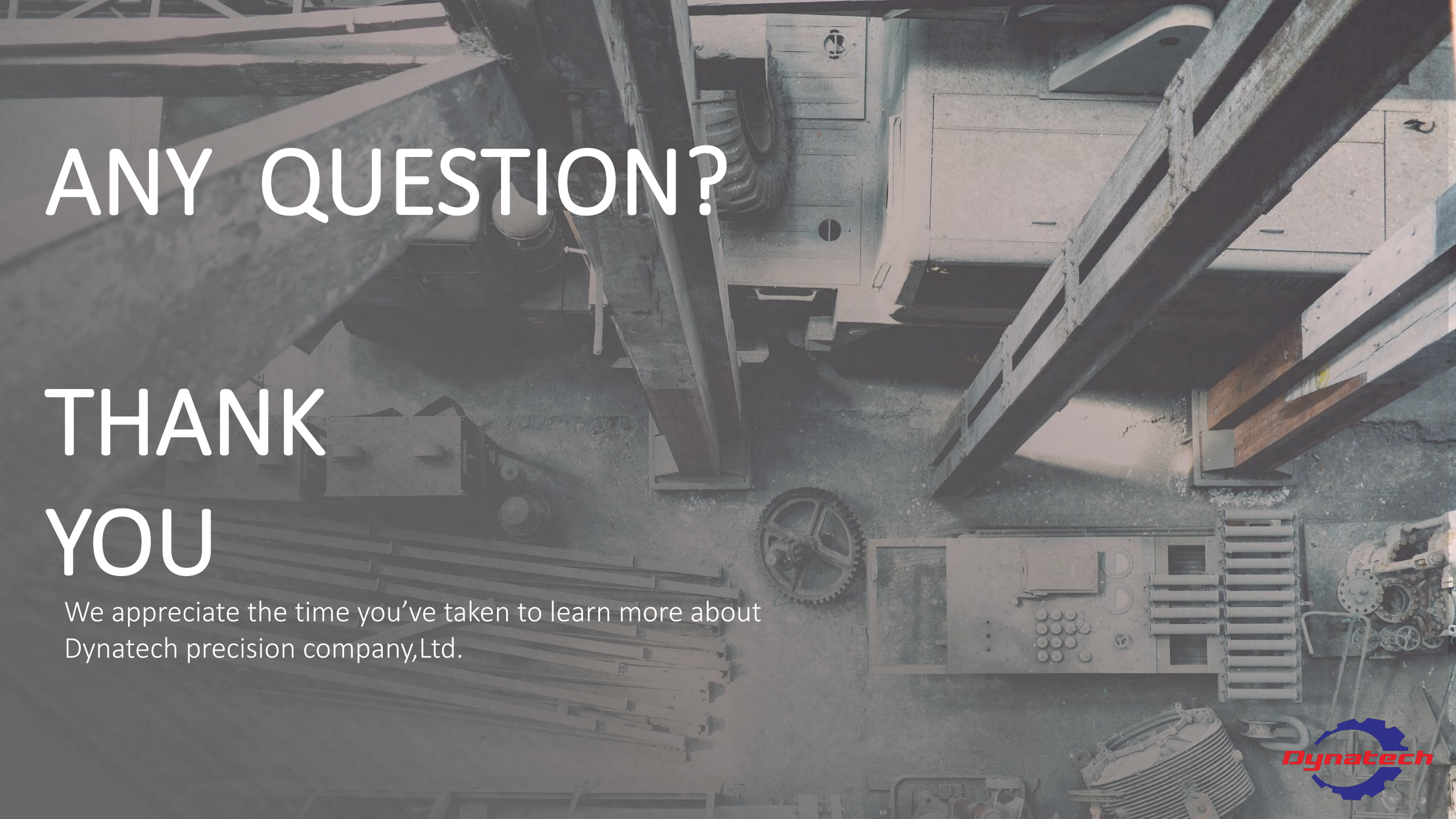
EQUIPMENT LIST

Dynatech Equipment List						
NO.	TYPE	BRAND	CAPACITIES	ACCURACY	EXISTING (QTY)	PLAN (QTY)
1	Horizontal Lath	Takisawa	φ450*765(mm)	0.01mm	4	4
2		Star	φ5-32(mm)	0.01mm	1	10
3		Tsugami	φ8-32(mm)	0.01mm	2	6
4	Vertical Machining Center	Mazak	600*500*400(mm)	0.01mm	4	2
5	Horizontal Machining Center	Mazak	730*730*800(mm)	0.01mm	1	3
6	Cylindrical Grinder	Hotman	φ270*600(mm)	0.001mm	1	1
7		Shigiyi	φ300*750(mm)	0.001mm	1	1
8	Centerless Grinder	Hotman	φ1-60*250(mm)	0.001mm	1	1
9		Ohmiya	φ1-50*250(mm)	0.001mm	1	1
10	Vertical Honing with 6 axes	Sunnen	φ3.9-50*155(mm)	0.001mm	1	2
11	Horizontal Honing		φ3.0-60*160(mm)	0.001mm	1	1
12	Heat Treatment Production LiNE	Aichelin			1	1
16	Hydrocarbon Cleaning Machine	ActFive			1	
18	Ultrasonic Cleaning Machine	Skymen			1	2
20	Hydraulic Testing	/			2	3
21	Saw ing Machine	Chenglong			1	1
22	Laser Engraving Machine	/			1	1
23	Straightening Machine	Sanco			1	
24	demagnetizing machine	Nankexin			1	
Remark: This is the equipment qty for the next 2 years, we'll adjust it according to the project requirements						

 Dynatech Testing Instruments					
NO.	TYPE	BRAND	ACCURACY	EXISTING (QTY)	PLAN (QTY)
1	CMM	Mitutoyo	<1.7+4L/1000> um	1	1
3	Profilometer	Mitutoyo	X: ± <0.8+0.01L> um Z: ± <1.2+ 2H /100> um	1	2
4	Roundness	Mitutoyo	<0.02+4H/10000> um	1	1
5	Image measuring apparatus	Keyence	± <1.4 + 0.04D> μm*6		2
6	Image measuring apparatus	Marposs	<3+0.02L> um	1	
7	Metalloscope	Mitutoyo	50X~2000X	1	
8	Surface roughness meter	Mitutoyo	±0.03 um	1	2
9	Hardness testing machine	Mitutoyo	±1°	2	
10	Height indicator	Mitutoyo	2.5+L/400um	1	1
11	Coating thickness tester	Fischer	±0.5um	1	
12	Deflection instrument	Chengliang	2um	1	1
13	Concentricity tester	Mitutoyo	2um		1
16	Inside micrometer	Mitutoyo	1um	3	
17	Micrometer gauge	Mitutoyo	1um	10	
18	Micrometer gauge	Mahr	0.5um		1
19	Laser scan micrometer	Mitutoyo	0.5um		1
20	Gear measuring center	Zhongzijinghe	1um		1
21	Optical spectrometer	Spectro	Fe,Cu,Al	1	
22	Optical Scanner	Marposs	0 <1.0+D/200> μm L <2.6+L/200> μm	1	
Remark: This is the testing instrument qty for the next 2 years, we'll adjust it according to the project requirements.					

OUR CUSTOMERS 我们的客户



A high-angle, top-down view of an industrial workshop or factory floor. The scene is filled with various mechanical components, metal beams, and machinery. In the upper right, there's a large metal structure with a ladder-like frame. Below it, a large gear is visible. To the left, there are stacks of metal rods or pipes. The floor is concrete and shows signs of wear. The overall lighting is somewhat dim, with a few bright spots from overhead lights.

ANY QUESTION?

THANK YOU

We appreciate the time you've taken to learn more about
Dynatech precision company,Ltd.

