



伟成金属制品有限公司

WAYSCAN METAL PRODUCTS CO.,LTD





ABOUT US

Wayscan Metal Products Co., Ltd. has always adhered to the path of quality since its establishment in 1991. The registered capital of the company is 50 million RMB, with a modern production base of 46000 square meters and a total of over 500 employees, including more than 20 senior engineering and technical personnel.

As a leader in the precision casting industry, we focus on the production of composite process and silica sol precision casting. We can produce high-quality castings of various materials such as stainless steel, carbon steel, alloy steel, etc. At the same time, we are equipped with advanced machining workshops and inspection equipments to ensure that every product can meet the customer's requirements.

Wayscan not only pursues economic benefits, but also committed to promoting the green and sustainable development of the industry. We invested in the production of composite process precision casting to replace the original water glass process precision casting in 2020. This not only improves production efficiency, but also reduces the impact on the environment.



Exquisite craftsmanship, the way to achieve quality





ABOUT US

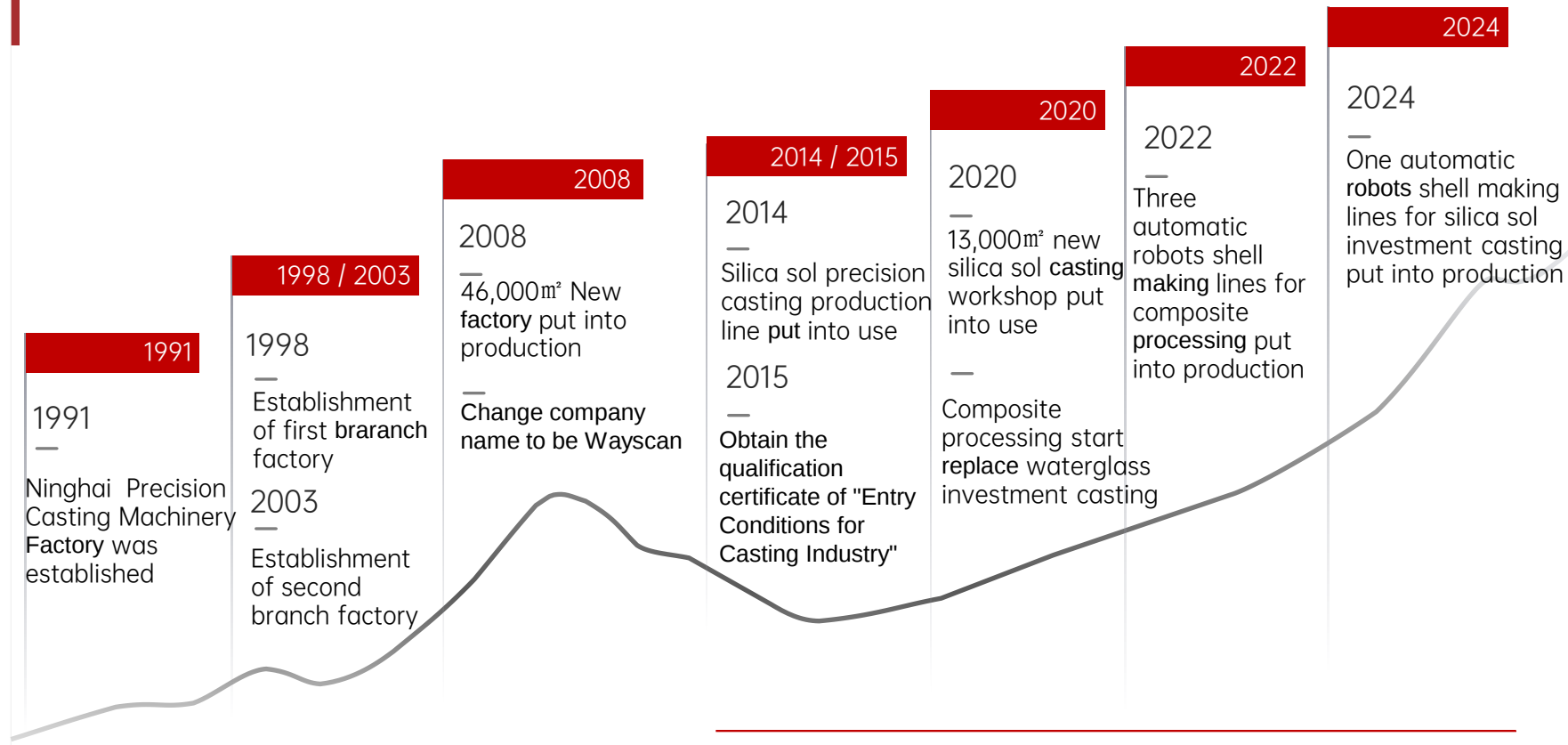
With excellent quality, we gained recognition and affirmation from a large number of customers. From 2012 to 2024, we have been rated as one of the top 50 industrial enterprises and top 50 taxpayers in Ninghai County. In 2014, 2018, and 2022, we were awarded the honor of "Leading Enterprise in China's Foundry Industry" by the China Foundry Association for three consecutive years. We have long served as the vice president unit of the Ningbo Foundry Association and a director unit of the Zhejiang Foundry Association. In 2015, the company was appointed as a director unit of the China Foundry Association. In 2023, we were awarded as a waste-free factory, a four-star green factory, a water-saving benchmark enterprise, and Ninghai County Charity.



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Development History



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Vision and Values



Organization Mission

Continuously optimizing production processes and management, providing high-quality and reasonably priced component products that exceed customer needs.



Organization Vision

To become a leading one-stop manufacturing supplier for metal forming components.



Organizational Core Values

Virtue builds foundation, sincerity builds trust, quality builds character, diligence builds business.



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Certifications



IATF 16949



PED

HONOR

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Certifications

FOR



ISO14001



ISO9001



ISO45001

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Direct Customer

300+

Customers

10000+

Developed
products



FORVIA

JOST



JOHN DEERE



Bobcat®

Kubota

KOMATSU



CROWN



TIMKEN

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Final Customer

300+

Customers

10000+

Developed
products

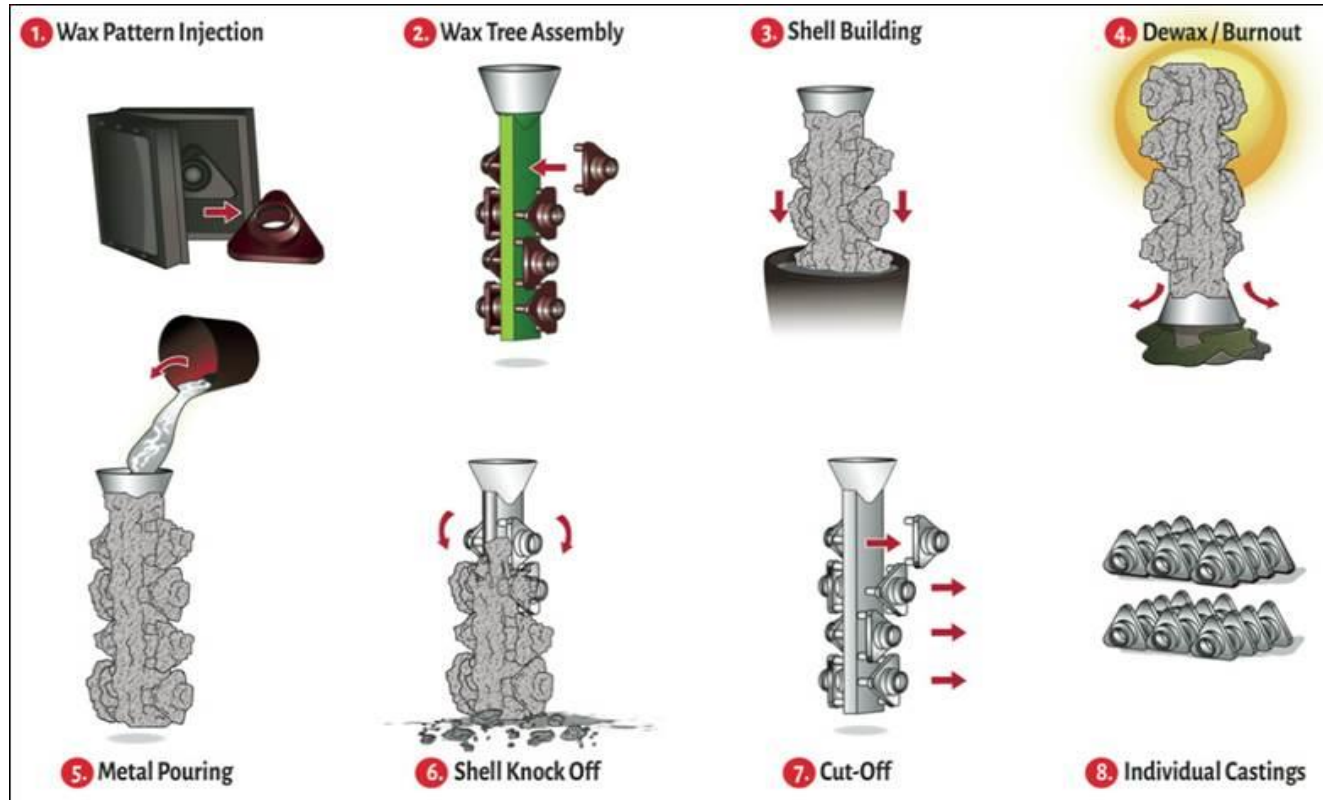


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Investment Casting Process



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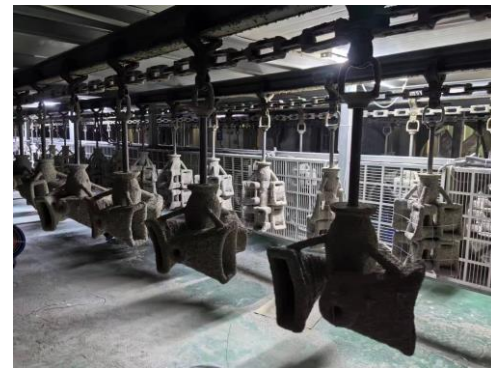


About Composite Casting Process

The composite process differs from the water glass process only in the shell-making and dewaxing production processes. The composite process uses silica sol as the adhesive for the slurry, combined with the same sand and powder used in the original water glass process.

Since no acid is used during the production, the equipment is less susceptible to corrosion, enabling the application of automated robotic shell-making, which significantly reduces manual labor and improves the stability of shell quality.

The drying and hardening of the mold shells are performed on an automatic chain, in a constant temperature and humidity environment, with the addition of gentle or forced air drying, ensuring more stable and consistent hardening and drying. However, since drying and hardening require 5-6 hours per layer, it also increases time, space, and energy costs.



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Composite VS Silica Sol Process

Specification	Composite Process	Silica Sol Process
Tolerance	CT8-9	CT6-7
Surface Roughness	Ra 12.5	Ra 6.3
Material	Steel	SS, Steel
Part Size	1-100kg	10g – 100kg
Price	USD 2-3/kg	About 2 times against composite process for same material

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Fast Sample Develop

By printing plastic models instead of wax molds, the size can reach 250 * 250 * 250mm, with an accuracy of $\pm 0.1\text{mm}$. It can be directly used for casting production, avoiding the need for mold making and greatly saving the sample development cycle. The fastest sample can be produced in 7 days.



3D printing



Architectural hardware sample



Truck parts sample



Non magnetic intelligent water meter measuring tube



Automotive exhaust components

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Products Display

Composite + silica sol process:

Auto Parts: 40%

Forklift Parts: 20%

Mining Machinery Parts: 15%

Agriculture Machinery Parts: 5%

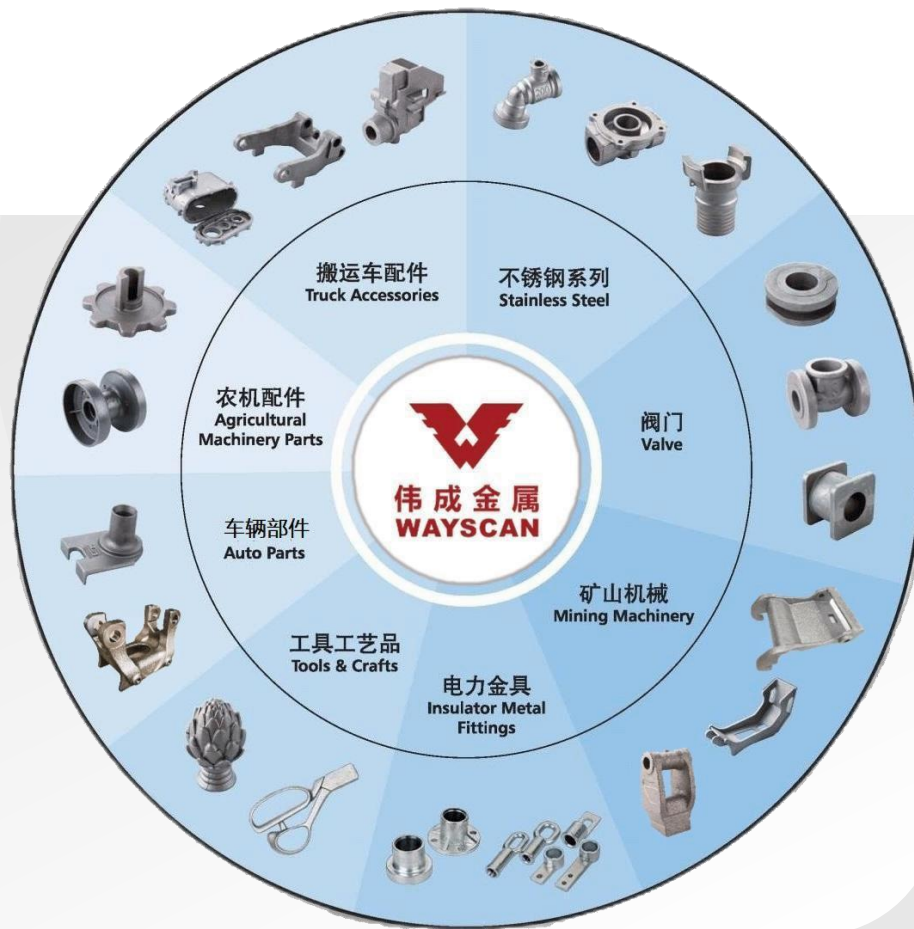
Construction Parts: 10%

Vale and Hydraulic Parts: 5%

Other: 5%

Composite : Silica sol 6 : 4

Auto Parts of Silica sol: 50%

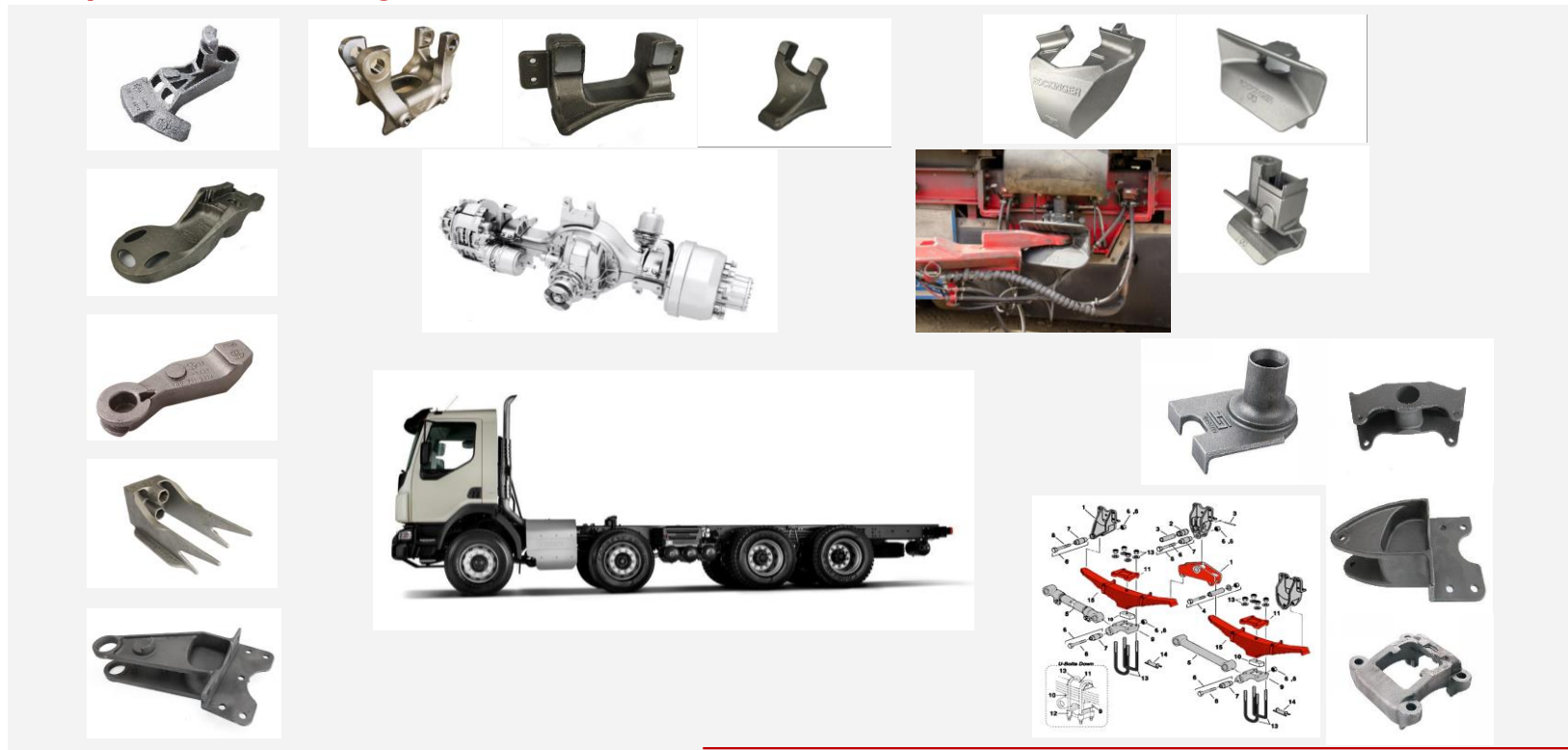


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Parts Display

Composite Processing → Truck Parts



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Parts Display

Composite Processing → ATV Parts



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Parts Display

Composite Processing → Mining Machinery Parts



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Parts Display

Composite Processing → Valve Bodies



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Parts Display

Composite Processing → Forklift Parts



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Parts Display

Composite Processing → Agriculture Machinery Parts



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Parts Display

Composite Processing → Other Parts(Electrical, Tool, Art Work)



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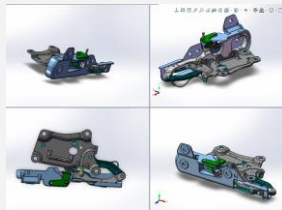


Parts Display

Silica Sol Processing → Passenger Vehicle Parts



ZEEKR MIX Door Hinge



Cadillac Celestiq Door Hinge



Three way catalytic
connection flange



Engine exhaust system
accessories



Engine bracket
accessories

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Parts Display

Silica Sol Processing



Hydrogen energy filter housing



Motorcycle power bracket



Data center liquid cooled pump shell



Agricultural machinery accessories



Medical device accessories



Medical device accessories

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Parts Display

Silica Sol Processing



Hinge



Hinge



Art Work: Small Stove



Beer Bottle Opener



Art Work



Art Work

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Informatization

MES System Core Value

1. **Auxiliary decision-making:** Production big data can help us grasp the production costs, inventory backlog, income and expenditure accounts, production capacity structure, order progress, and scrap rate of enterprises at any time
2. **Standard process:** Customer quotation, contract review, process filing, order scheduling, production dispatch, fixed work value, quality inspection, equipment maintenance, safety management implementation
3. **Paperless office:** Various graphic and textual materials such as customer contract quotations, product process drawings, production technical data, mold documents, inspection reports, quality feedback, etc. can be completed within the system
4. **Improve efficiency:** Sales, production, technology, equipment, outsourcing, procurement, quality inspection, finance, and human resources do not require multiple system switches



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Informatization

MES System Functional Architecture



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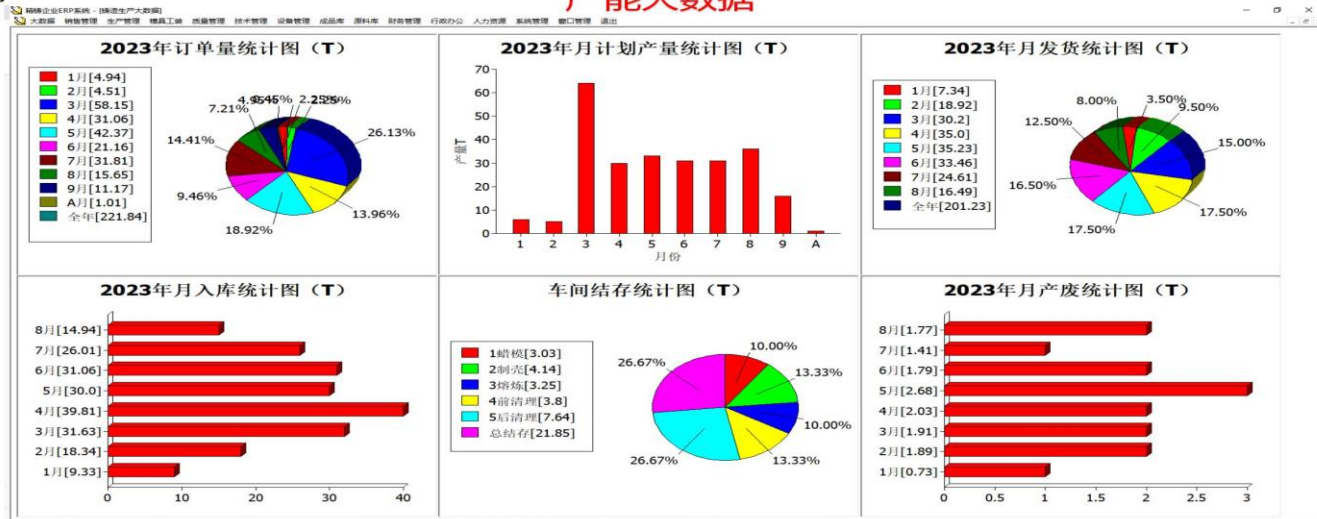
Capacity Data

Capacity data can intuitively and accurately provide enterprises with monthly order volume, planned output, actual inventory quantity, shipment quantity, inventory and scrap quantity of each workshop section



功能亮点

产能大数据



产能大数据能为企业决策者直观准确的提供出企业每月的订单量、计划产量、实际入库量、发货量、各车间工段的结存量和产废量。

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Informmatization

Order Progress

Through the order progress function, the production progress of customer orders can be quickly queried at any time.



订单进度



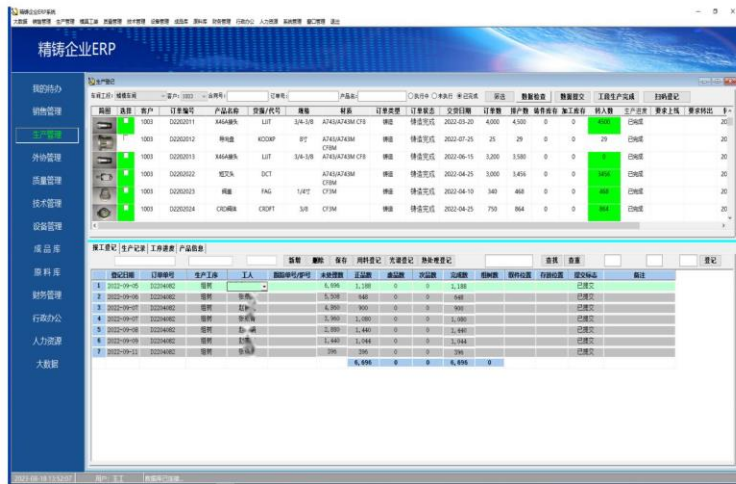
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Informatization

Scan Code To Report Work

Workshop team leaders can register workers' daily production reports on the job reporting level page, and workers can also upload their own job reporting records by scanning the code.



扫码数据上报



车间班组长或统计员可在报工登记页面对工人的报工小票或生产日报表进行数据登记，工人亦可通过扫码登记方式各自上传各自的报工记录。

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Informatization

Process Card



工艺卡

伟成金属制品有限公司
射蜡工艺 (工艺模板)

产品名称: 3558238 编号: C108-001 规格: 3558238 材质: 4828 (D1W 8W-10095) 蜡件重Kg: 模具号:

射蜡参数

射蜡温度: $55 \pm 5^{\circ}\text{C}$
保压时间: 4 ± 2
I. 压射蜡时间: 17 ± 1
I. 压射蜡压力: 30 ± 10
(2) II. 压射蜡时间: 17 ± 1
(2) II. 压射蜡压力: 30 ± 10
射蜡速度:
射蜡效率(件/班):
离针: ☐ 自动 ☐ 未开启
抽芯: ☐ 自动 ☐ 未开启
☐ 保芯芯 ☐ 水溶蜡 ☐ 陶瓷芯 ☐ 聚美芯

产品图片

1 2 3 4 5

蜡件冷却工艺

蜡件冷却要求: 液平面上空冷5-6分钟后装箱
冷却方式: 空冷 冷却水温:

蜡件摆放及定型图:

射蜡工艺说明:
注意: 表面不允许有气泡、凹陷、开裂等缺陷

版本: A0 编制/日期: 叶哲宇/24-10-21 审核/日期: 李新明/24-10-24 批准/日期: 张春祥/24-10-24

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组树工艺

货品编号	C50-001	工艺	硅溶胶	产品重量 Kg	0.316
产品名称	陶瓷滤芯	材质	304L (ASTM A269)	产品重量/串 Kg	5.056
规格型号	KC301854	蜡类型	中温蜡	产品重量 Kg	8.801
版本号	A0	件数/串	16	蜡模重量 Kg	1.15

图1 图2 图3 图4

组树工艺控制要点	特性标记	控制项目	规范	测量技术	检验百量	备注
1		蜡棒号	85号棒	目测	100%	自检, 不记录
2		组棒方向	如图	目测	100%	自检, 不记录
3		组棒数量	16根	目测	100%	自检, 不记录
4		组棒缝隙	无虚焊	目测	100%	自检, 不记录
5		外观	无蜡滴	目测	100%	自检, 不记录

工艺说明

变更履历

日期	变更内容	变更后版本	变更后版本
00-00-00			
00-00-00			
00-00-00			

1. 组树车: 挂车
2. 组树方式: 抽接

编制/日期: 叶哲宇/24-10-17 生产审核/日期: 潘宇晨/24-10-17 品质审核/日期: 批准/日期:

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Informatization Quality Feedback



质量反馈

西盛反馈															
客户编号:		产品名称:		来源:		☐ 处理中 ☒ 已完成		查询	导出	打印	质量反馈登记	信息修改	删除反馈记录	附件管理	
产品质量反馈记录表															
登记日期	订单号	产品代号	产品规格	产品材质	发货数量	投诉损失	严重等级	投诉问题					业务员	状态	页
2023-02-28	D2301021	CRDLFT	3/4	1743/A743M CF8M			重要不紧急	铸件缩孔较多	共检: 142件	缩孔: 65件	占: 45.7%		刘立峰	完成	9
2023-03-05	2021.12.2			EN10213 1.4308 3080			重要且紧急	179002产品抽检32件外观脏污6件, 6.3±0.05尺寸有通规不转4件。					赵卓	完成	1
2023-03-05	D2211009	POG	723	304	2808		重要且紧急	TE1006723_图抵 31 -0.10/+0.25 4实测 31.6 mm 椭圆非常严重, 影响焊接。					管理员	完成	1
2023-03-06	XYLKJ2105	62426	62426	1.4301			重要不紧急	铸件凹槽内漏亮 鼓包严重	352件	漏亮鼓包: 190件	占54%	车号: 171	管理员	完成	9
2023-03-06	D2110135			EN10213 1.4308				铸件尖角处漏亮较多	共检: 562件	漏亮: 37件	占: 6.6%	车号: 214	管理员	完成	9
2023-03-06	D2202009	DZUO	1.5寸	1743/A743M CF8M				铸件研磨缺口磨低较多	共磨伤: 188件				管理员	完成	9
2023-03-06	DD2103210	SPJ	088	ASTMA276-316				铸件筋部和2个小凸台冷隔较多	共检: 2045件	104件	占: 5.1%	炉号: 4434 4397 4398	0122	完成	9
2023-03-06	D2201078	POG	857	304			重要且紧急	铸件冷隔漏亮较多	共检: 201件	冷隔漏: 17件	占: 8.5%		管理员	完成	9
2023-03-09	D2208036		5寸	EN10213 1.4308			重要不紧急	铸件尖角处漏亮较多	共检: 1615件	漏亮: 142件	占8.8%	车号: 196 199 210 215	管理员	完成	9
2023-03-17	D2302004	RAFJT	3/8寸	A743/A743M CF8			重要不紧急	铸件中孔漏亮严重	共检: 990件	漏亮: 295件	占: 29.7%	车号: 280件	管理员	完成	9
2023-03-21	DD0706214	YLPJ	558	ALSI 420			重要且紧急	铸件小孔漏亮严重	共检: 920件	漏亮: 327件	占: 35.5%	车号: 322	赵卓	完成	9
2023-03-31	D2205064	STZJ01	01	1743/A743M CF8M				铸件小孔漏亮严重	共检: 278件	漏亮: 116件	占: 43%	车号: 4871	管理员	完成	9
2023-04-04	DD0814113	STQF	1/2	CF8M				铸件内腔漏亮严重	共检: 164件	漏亮: 76件	占: 46.3%		赵卓	完成	9
2023-04-08	TC 21-82	CRLFS	1/2寸	1743/A743M CF8M			重要不紧急	铸件内腔漏亮严重	共检: 1776件	漏亮: 276件	占: 15.5%	车号: 518 557	赵卓	完成	9
2023-04-11	D2205046			EN10213 1.4308				铸件中孔漏亮严重	共检: 1162件	漏亮: 457件	占: 39.3%		管理员	完成	9
2023-04-17	D2204001	STQFB	1/2	CF8				内腔漏亮严重	共检: 270件	漏亮: 59件	漏亮度占: 21.8%	车号: 640	管理员	完成	9
2023-05-10	D2304039	GK	8寸-2#	1027Bz-304			重要且紧急	铸件表面缩孔严重, 缩孔位置在两端的凹槽内和中间缺口附近。	共检: 127件	缩孔: 90件	占: 70.8%	炉号:	管理员	完成	9
2023-05-17	ZJ02	COM-02		ASTMA743 CF8M			重要不紧急	铸件小孔漏亮严重	共检: 240件	漏亮: 209件	占: 87%		刘立峰	完成	9
2023-05-20	WG0629184	126563	126563	1005-BZ304				铸件台阶处缩孔较多	共检: 144件	缩孔: 30件	占: 27.78%		刘立峰	完成	9
2023-05-25	D2305001	ZFT	DN125	ASTM/A351 CF8M				铸件圆盘下方浇口内侧缩孔严重	共检: 12件	缩孔: 12件			管理员	完成	9
2023-05-26	D2209023		900	EN10213 1.4308			重要且紧急	内部反馈: 铸件6.3通规尺寸全部不合格					管理员	完成	9
2023-05-27	D2304057	GK	4寸-1#	1027Bz-304			重要不紧急	铸件内腔凸起严重表面冒状严重					管理员	完成	9
2023-06-02	POG	272	ALSI 304	10		0	重要不紧急	新产品样件: 客户说内腔的分模线必须要清理干净, 不可以有明显分模线。问题具体见附件					管理员	完成	9
2023-06-04	WG0905090	XCZ	144	1.4408				铸件尖角处锈斑较多	共检: 2000件	锈斑: 762件	占: 38.1%		刘立峰	完成	9
2023-06-04	DD0903113	STFT	3/8寸	1743/A743M CF8M			重要不紧急	铸件中孔漏亮严重	共检: 1000件	漏亮: 53件	占: 5.3%		0122	完成	9
2023-06-06	SPJ	09K	ASTMA276-316					006客户反馈: SPJ 09K 产品穿棉芯的孔17.1+0.2尺寸偏大, 之前产品尺寸为17.1, 现在检测为17.7					管理员	完成	9
2023-06-09	D2205047	SHOT	409	ASTMA276-316			重要且紧急	SHOT 409 注蜡口未修理平, 客户加工时容易打刀。见后附照片。					管理员	完成	1

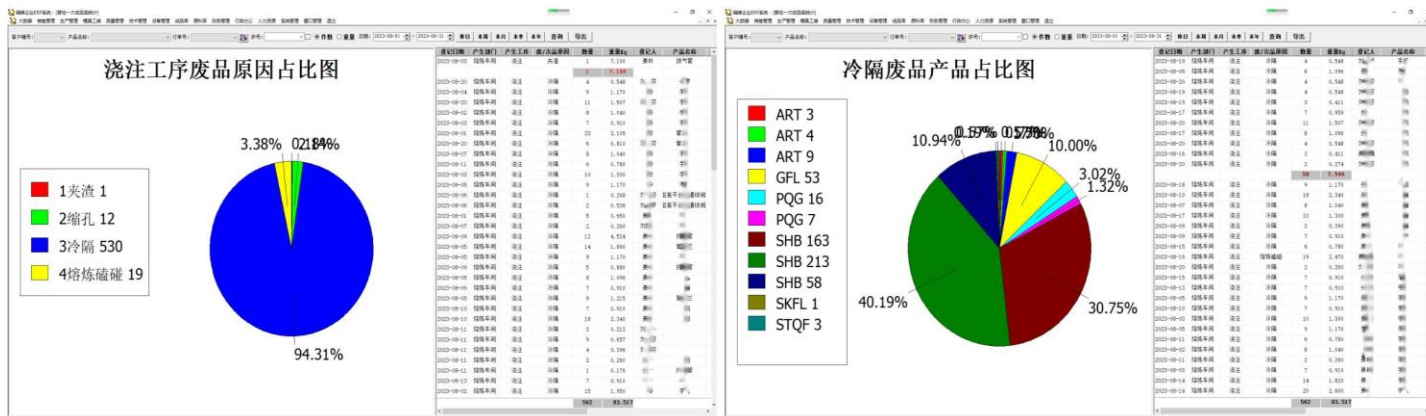
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Informatization Quality Analysis



质量分析



点击饼图车间占比区域，可再进一步分析出车间产废工序的废品占比，列表列出车间各工序的产废明细。

点击饼图工序占比区域，可更进一步分析出产废原因的各产品数量占比，列表列出同一废因下各产品的产废明细。

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Mold Management



模具管理

模具管理														
模具信息列表														
日期: 2019-01-01 ~ 2022-08-23 客户编号: 产品名称: 模具状态: 查询 保存														
日期	客户编号	产品名称	材料	产品规格	模具编号	模具规格	型腔数	模具状态	使用寿命	已使用次数	保养次数	存放位置	应用日期	归属
														开模厂家
	1006	把手	A578A270-516	209	BAS	209	2	在用	150000	773	773	模具C-4	2022-06-27	客户 州贝瑞机械有限公司
	1003	底座	A743/A743B CP8	CDSP-7	CDSP-7		1	在用	100000	636	260	模具	2022-01-01	客户
	1004	模具支架	1.7221	1160	CGIJ-1160	1160	4	在用	1000000	18137	0	模具	2021-04-01	客户 贝瑞
	1004	模具支架	1.7221	1162	CGIJ-1162	1162	4	在用	1000000	18169	0	模具	2021-04-02	客户 贝瑞
	1004	模具支架	1.7221	1163	CGIJ-1163	1163	4	在用	1000000	18029	0	模具	2021-04-02	客户 贝瑞
	1004	模具支架	1.7221	1198	CGIJ-1198	1198	4	在用	1000000	7182	0	模具	2021-04-02	客户 贝瑞
	1004	模具支架	1.7221	1199	CGIJ-1199	1199	4	在用	1000000	7191	0	模具	2021-04-02	客户 贝瑞
	1004	模具支架	1.7221	1200	CGIJ-1200	1200	4	在用	1000000	7747	0	模具	2021-04-02	客户 贝瑞
	1004	模具支架	1.7221	1201	CGIJ-1201	1201	4	在用	1000000	7223	0	模具	2021-04-02	客户 贝瑞
	1004	模具支架	1.7221	1329	CGIJ-1329	1329	4	在用	1000000	29287	1191	模具	2022-01-01	客户 贝瑞
	1004	模具支架	1.7221	1331	CGIJ-1331	1331	4	在用	1000000	29150	1491	模具	2022-01-01	客户 贝瑞
	1004	模具支架	1.7221	1371	CGIJ-1371	1371	4	在用	1000000	29627	2957	模具	2022-01-01	客户 贝瑞
	1004	模具支架	1.7221	1372	CGIJ-1372	1372	4	在用	1000000	29470	1483	模具	2022-01-01	客户 贝瑞
	1004	模具支架	1.7221	1461	CGIJ-1461		4	在用	1000000	17900	0	模具	2021-04-02	客户 贝瑞
	1003	CDL底座	A743/A743B CP8	1/2寸	CDLPS-1/2"	1/2"	2	在用	100000	19499	0	模具	2021-04-12	客户

模具信息登记卡													
客户编号	1004	产品名称	法兰	启用日期	2022-01-01	1	2	3	4				
模具编号	FAL-273	模具规格	273	型腔数	2								
制作费	0.00	客户报价	0.00	产线归属	客户								
存放位置	模具	模具状态	应用	使用工序	射蜡								
使用寿命	1000000 次	保养周期	10000 次	保养次数	2548 次								
开模厂家	贝瑞	返回日期:											
备注													

模具日常保养检测表											
模具编号	FOPL-1556	模具规格	1556	适用产品	排气法兰	客户编号	1004	保存			
保养日期	2023-08-22	使用次数	202	保养部门		保养人					
保养内容	擦拭 ☐ 涂油 ☐ 分型面、型腔、装配性能 ☐ 芯轴 ☐ 其他:										
检验结果	模具符合使用要求 ☐ 模具不符合使用要求 ☐ 未符合合格 ☐ 其他:										
检验日期	0000-00-00	检验人									
备注											

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Informatization

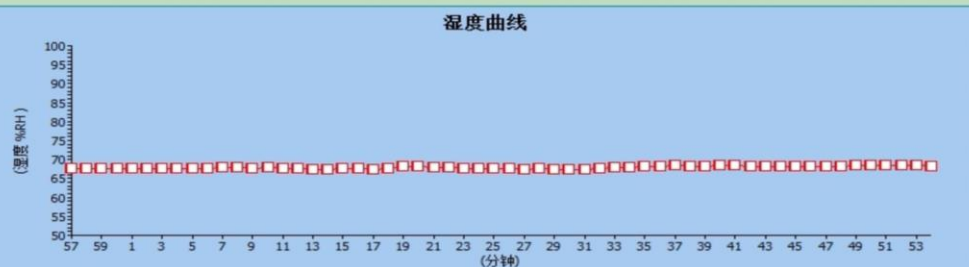
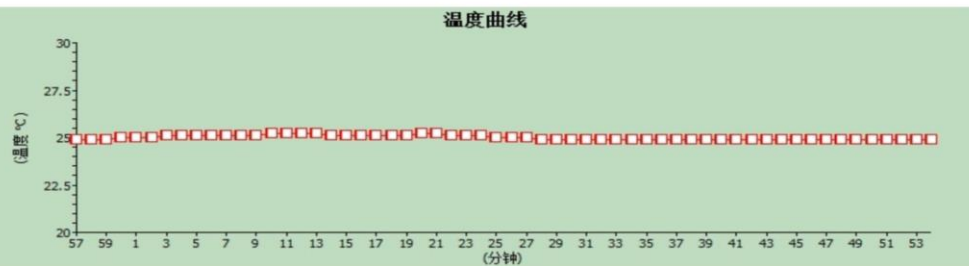
Equipment Data Collection



设备数采集

车间温湿度曲线图

名称/部位	温度℃	湿度%	设备状态
蜡模-北	24.500	67.400	在线
蜡模-中	24.400	68.100	在线
蜡模-南	24.300	68.900	在线
制壳	24.000	70.500	在线
制壳面层西	23.000	79.400	在线
制壳面层东	23.100	81.000	在线
制壳二层西	24.200	64.500	在线
制壳二层东	24.400	64.100	在线



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Production Equipments

Mid-Temperature Wax Injection Machine

Used for silica sol processing



9 sets

Low Temperature Wax Injection Machine

Used for composite processing



21 sets

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Production Equipments

Composite Process Auto-Shell Coating Line

Composite process mechanical arm used for shell making of medium and large size products, solving the problem of shell making for heavy parts



Silica Sol Process Auto-Shell Coating Line

Silica sol process mechanical arm used to improve shell making efficiency and quality stability.



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Production Equipments

Dewaxing Kettle

Silica sol and composite process dewaxing



Natural Gas Baking Furnace

Silica sol mold shell baking



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Production Equipments

Wax Treating System

Removal water and ash from wax, avoid wax aging and reduce settling time.



Induction Furnace

7 sets 500kg, for composite process
3 sets 200kg, for silica sol process



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Heat Treatment Equipments

Quenching & Tempering Furnace

One quenching line and three well furnaces



Normalizing Furnace



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Machning Equipments

Vertical Machining Center

39 sets four-axis machining center
8 sets three-axis machining center



Horizontal Machining Center

800X800mm double workbench



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Machning Equipments

CNC Lathe

Among them, there is one vertical CNC lathe
maximum turning diameter 650mm



Normal lathe

Maximum turning diameter 800mm



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Machning Equipments

Tapping center

4 sets four-axis, 6 sets three-axis



Milling machine

9 sets vertical milling machines
4 sets horizontal milling machines



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Inspection Equipments



Desktop MT tester



Portable MT tester



Salt spray testing machine



Hardness tester



Low temperature impact tester



Tensile testing machine

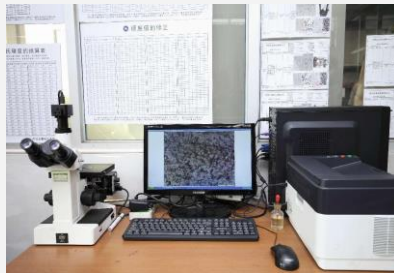
Exquisite craftsmanship, the way to achieve quality



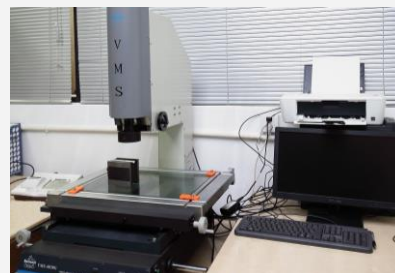
Inspection Equipments



Spectral analyzer 3 sets



Metallurgical microscope



Projector



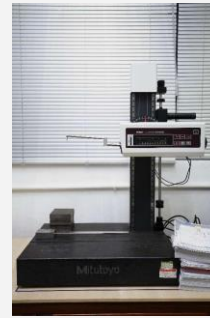
CMM 2 sets



Roundness tester



Roughness tester



Contour tester

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Inspection Equipments



X-ray



Ultrasonic testing machine



3D scanner

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Workshop Display

Composite Process



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Workshop Display

Silica Sol Process



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Workshop Display

We purchased a new factory with 85000 square meters of land and 60000 square meters of factory buildings in september 2024 to seek greater development.



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