

# WEIJING TILTING POURING MACHINE INTRODUCTION

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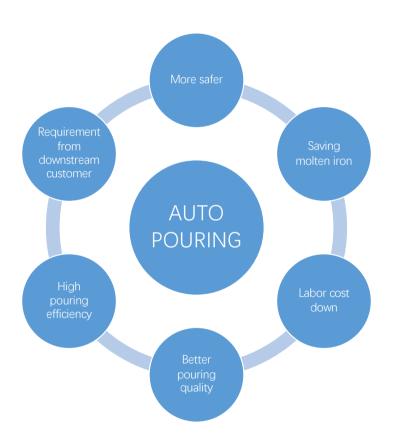
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**Suzhou Weijing Automation Co., Ltd** 

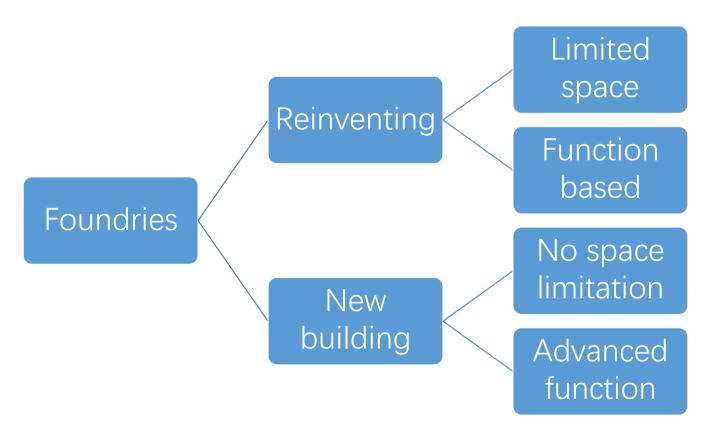


## WHY SWITCH MANUAL TO AUTO POURING



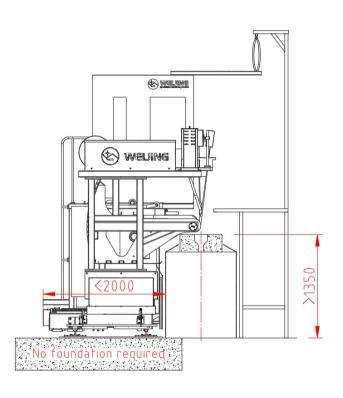


## WHICH SCENARIOS YOU ARE



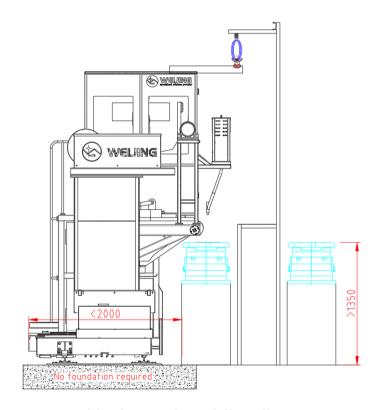


## **UNIQUE FEATURES & VALUES**



Vertical molding line

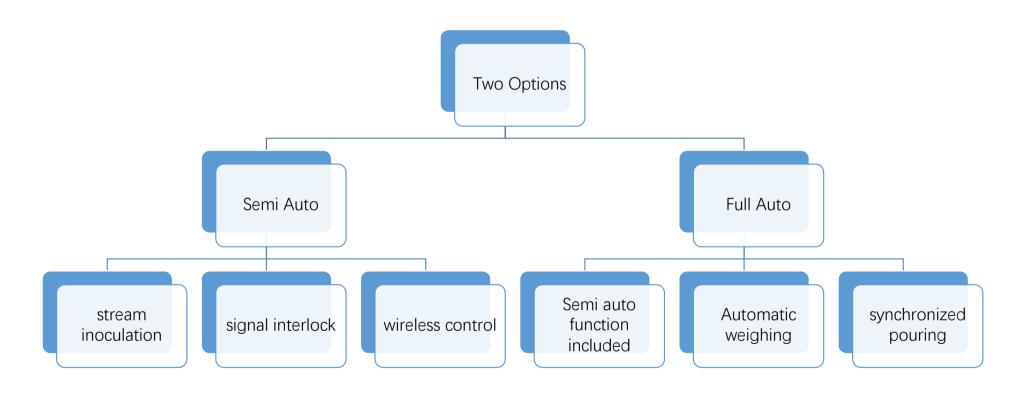
- 1. Only 2 m width and 1350 mm height required.
- 2. No foundation digging required.
- 3. Semi-auto and full auto are available to select.
- 4. Suitable for horizontal lines and vertical molding lines. (flask line:40-120 molds/hour, boxless line:50-200 molds/hour, vertical line: 120-300 molds/hour)



Horizontal molding line



## WHICH FUNCTIONS YOU WANT



Auto exchange station of ladle (optional)



## WIRELESS CONTROL POURING FOR AMF LINE

More close to check

More precise could be ensured

More molten iron saved



Less invesetment required

Less time to return

Less labor required

The best pouring solution for molding rate < 80 molds per hour



## SYNCHRONIZED POURING FOR FBO LINE



Mold pushing speed: 120-160 mm/sec

Pushing force of molds should be stable and no return

Pouring cup: ≥110 mm

Up to 20% probabilities, synchronized pouring can help you



## **AUTOMATIC WEIGHING**

Pouring weight visualized

Pouring quality guaranteed



Flow rate determines casting precision

Pouring accuracy could be up to  $\pm 0$ . 7 5 kg



## **AUTO LADLE EXCHANGE STATION**



Once ladle refilling can save 45 seconds at least

Only for molding rate up to 120 molds/hour



## **POURING FOR DISA VERTICAL LINE**

Mobility empowers WEIJING machine to "jump" over unready molds to the next ready mold

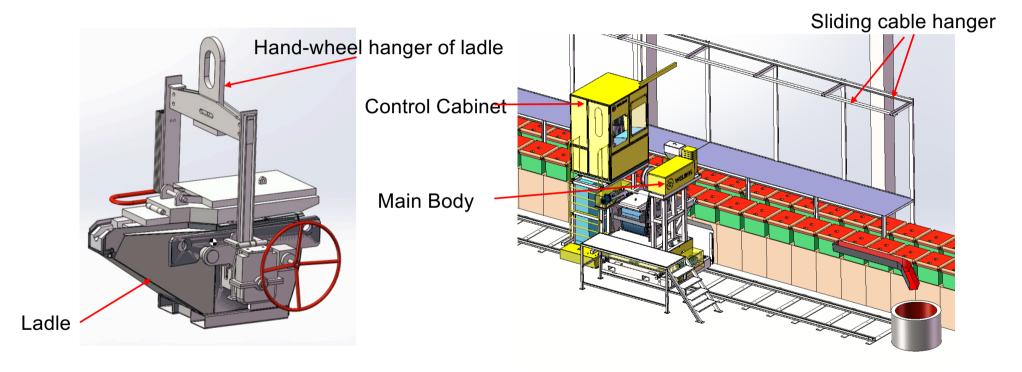


Save time Save molten metal Save money for foundries

Can suit molding rate up to 300 molds per hour



#### WHICH WEIJING PROVIDES



#### **WEIJING** will provide below items:

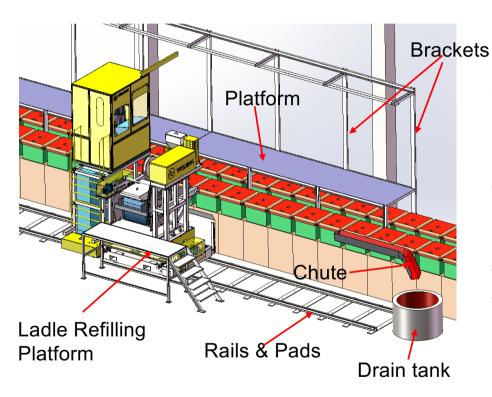
Pouring Machine: 1 set (including Control Cabinet) Ladle: 2 units

Hand-wheel hanger of ladle: 1 unit

Sliding cable hanger: 1 set (including cables, C rails, excluding cable hanger brackets)



#### WHICH FOUNDRY SHOULD PREPARE



#### The foundry needs prepare below items:

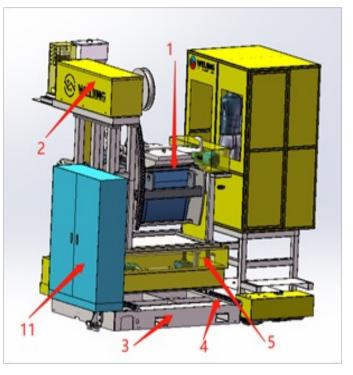
- 1. Rails & pads
- 2. Brackets for sliding cable and rails
- 3. Platform for temperature measurement
- 4. Ladle refilling platform
- 5. Drain tank and Chute

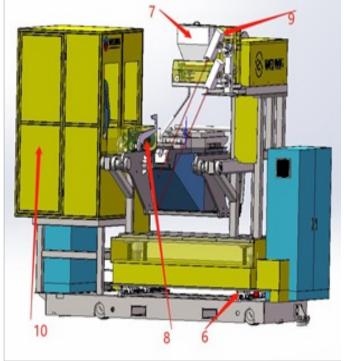
WEIJING will provide the related drawings to the foundry, the foundry can make it according the drawings before the pouring machine arrival.



### MAIN PARTS OF WEIJING POURING MACHINE

- 1, Ladle
- 2, Ladle tilting device
- 3, Horizontal moving
- 4, Longitudinal moving
- 5, Lifting device
- 11, Electric cabinet





6, Auto weighing
7, Stream
inoculation
8, Ladle lid opening
& closing 9,
Tapping detection
10, Control room

**Semi auto solution has:** synchronized stream inoculation, signal interlock, wireless manual control. It suits molding rate from 50 molds - 80 molds/hour.

**Full auto solution includes** all functions of Semi auto solution, and auto weighing, synchronized pouring. It suits molding rate from 80 molds - 300 molds/hour.



#### **DETAILS YOU MAY CARE**

- 1. Ladle: capacity normally up to 1200 kg, big capacity could be customized
- 2. Ladle tilting: servo drive, 1/200° precision, tilting speed: up to 6°/s, tilted angle: up to +42°, pouring speed: up to 20 kg/s.
- 3. Machine horizontal movement: inverter motor drive, velocity up to 0.7 m/s, encoder location,±1 mm location precision, the moving distance up to 17 meters.
- 4. Machine longitudinal movement: variable frequency drive, distance up to 450mm, velocity up to 200 mm/s.
- 5. Ladle longitudinal moving speed: 100-200 mm/s
- 6. Ladle lifting device: raise or descend the ladle, distance: 0-280 mm, speed: 0-20 mm/s. (for horizontal molding lines)
- 7. Auto weighing: equipped with 4 American TRANCELL dynamic sensors, pouring accuracy up to  $\pm 0.75$  kg
- 8. Synchronized stream inoculant: speed is 2-7 g/sec, precision is  $\pm 1$ g per mold, 3 speeds to choose, adjustable input angle, touch screen to set parameters, capacity is 25 kg.
- 9. Ladle lid opening & closing device: inverter motor drive, speed is 20-30°C/s. (The lid of ladle for quick setup station is fixed)
- 10. Pouring location detection: precisely detected by infrared ray, avoid any misjudgment.
- 11. Tapping detection: precisely detected by infrared ray, timely feed back the current tilting angle, guarantee right tilting angle.
- 12. Control system
  - Components: MITSUBISH QPLC, PROFACE Touch screen, MITSUBISH Servomotor, MOELLER Time Breaker and Air Switch.
  - HMI: operating status and trouble shooting visualized, pouring data recording, formula saving, input pouring data.
- 13. Optional: auto ladle exchange station. Moving speed:100-200 mm/s. Normally takes 45 s. Once ladle refilling can save 45 seconds at least.



## **COMMISSIONING PROCESS**

First Pouring

- Set the pouring data based on theoretical data.
- Use infrared ray to detect pouring cup precisely.
- Manually adjust the pouring volume to right level.

Data Getting

- Save the pouring data of first mold as reference for future auto pouring comparing automatically.
- Communicate with molding line for synchronized pouring.

Pouring Next

- Move to next mold automatically.
- Find out pouring cup automatically and pour to the right level.





#### WEIJING YOUTUBE CHANNEL

https://youtu.be/huMujDmAGGU 3 Weijing tilting pouring machines perfect running at DAEHAN Metal Foundry in South Korea

https://youtu.be/Td7yKzPZG3s 2 Weijing tilting pouring machines running at Anyang Railway Equipment Foundry

https://youtu.be/KsWivcOolfM
 Weijing tilting pouring machine works with SINTO FBO molding line perfectly

https://youtu.be/PKr06NNOPD4
 Weijing tilting pouring machine works with Chinese Zhuxin horizontal line

<a href="https://youtu.be/X2u1lc5aT5Y">https://youtu.be/X2u1lc5aT5Y</a>
 Weijing tilting pouring machine works with Chinese Huapei horizontal line

https://youtu.be/H-9XeeIn3Cg
 Weijing tilting pouring machine works with DISA vertical molding line seamlessly

https://youtu.be/T245Ur438y4
 Weijing auto titling pouring machine works with SINTO FBO molding line perfectly

<a href="https://youtu.be/k70KgfX76Nk">https://youtu.be/k70KgfX76Nk</a>
 Weijing tilting pouring machine works with TOKYU AMF 307 line perfectly

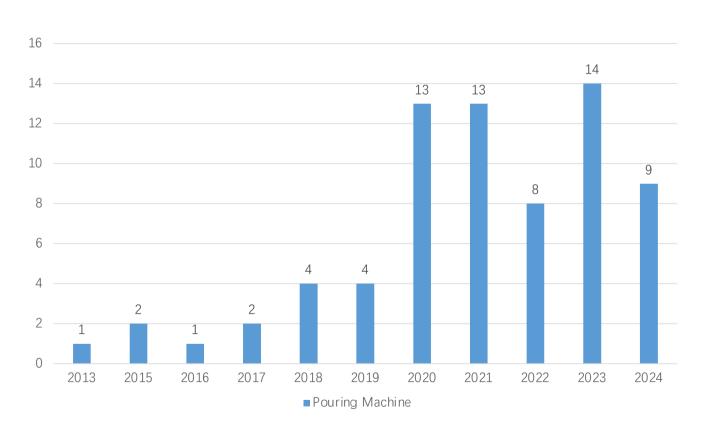
https://youtu.be/LTX139yL9H0
 Weijing tilting pouring machine works with DISA vertical molding line seamlessly

WEIJING Youtube Channel: https://youtube.com/@SuzhouWeijingAutomationCoLtd

WEIJING Linkedin Account: https://www.linkedin.com/company/suzhou-weijing-automation-co-ltd/



## **SALES PERFORMANCE**



- 71 pouring machines sold
- Covers: China, Korea, Mexico
- Suits: SINTO, TOKYU, DISA molding lines.
- By Sep 1st, 2024.





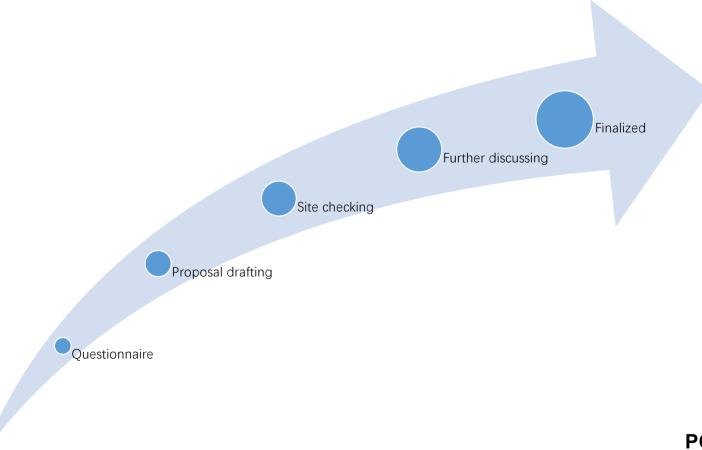
#### WEIJING TILTING POURING MACHINE REFERENCE

Date	Foundry Name	Moulding machine	Pouring machine	Location	Qty
2013/12/1	Wuhu Chengtuo Automotive Parts Co., Ltd	TOKYU horizontal line	Manual control pouring with 600 kg ladle capacity	Anhui,China	1
2015/4/1	Hubei Yunxi Jingcheng Auto Parts Co., Ltd	TOKYU horizontal line	Manual control pouring with 600 kg ladle capacity	Hubei, China	1
2015/12/1	Suzhou Huachuan Casting Co., Ltd	SINTO horizontal moulding line	Manual control pouring with 400 kg ladle capacity	Jiangsu,China	1
2016/3/1	Dayi Auto Parts (Zhangjiagang) Co.,Ltd	TOKYU horizontal line	Manual control pouring with 600 kg ladle capacity	Jiangsu,China	1
2017/2/1	Jiangsu Jinyang Machinery CO.LTD	DISA vertical moulding line	Auto pouring with 600 kg ladle capacity	Jiangsu,China	1
2017/9/1	Shenggu (Jiangsu) Machinery Co., Ltd.	Shell moulding line	Manual control pouring with 1000 kg ladle capacity	Jiangsu,China	1
2018/2/2	Jiangsu Taifeng Precision Machinery Co.,Ltd	SINTO horizontal line	Manual control pouring with 600 kg ladle capacity	Jiangsu,China	1
2018/3/1	Anhui Line Electric Pump Co., Ltd.	Chinese horizontal line	Manual control pouring with 600 kg ladle capacity	Anhui,China	1
2018/10/1	Zhejiang Kalide Machinery Co., Ltd	Chinese horizontal line	Manual control pouring with 500 kg ladle capacity	Zhejiang,China	i .
2018/11/5	Zhejiang Kalide Machinery Co., Ltd	Chinese horizontal line	Manual control pouring with 500 kg ladle capacity	Zhejiang,China	i
2019/6/29	Wuyi Hengda Casting Co., Ltd	Chinese horizontal line	Manual control pouring with 600 kg ladle capacity	Zhejiang,China	1
2019/9/1	Shanxi Hantong Xinyu Technology Co., Ltd	Chinese horizontal line	Auto pouring with 600 kg ladle capacity	Shanxi, China	;
2019/9/8	Xuancheng Chuangxi Casting Co., Ltd	Chinese horizontal line	Manual control pouring with 600 kg ladle capacity	Anhui,China	2
2020/3/2	Jiangsu Yong'an Power Machinery Co., Ltd.	Chinese horizontal line	Auto pouring with 800 kg ladle capacity	Jiangsu,China	2
2020/3/2	Jingzhou Hengfeng Brake System Co., Ltd.	Chinese horizontal line	Manual control pouring with 1000 kg ladle capacity	Fujian,China	1
					1
2020/5/19	Sichuang Southern Honghao Casting Co., Ltd	Chinese horizontal line Chinese horizontal line	Auto pouring with 600 kg ladle capacity	Sichuan,China	
2020/7/11	Shuyang Kimberly Machinery Co., Ltd.		Manual control pouring with 800 kg ladle capacity	Jiangsu,China	1
2020/7/23	Hubei Sanfeng Auto Parts Co., Ltd	Chinese horizontal line	Manual control pouring with 800 kg ladle capacity	Hubei,China	1
2020/7/29	Yangzhou Jinhai Casting Co., Ltd	Chinese horizontal line	Manual control pouring with 800 kg ladle capacity	Jiangsu,China	!
2020/10/16	Shaoxing Heqiu Casting Co., Ltd.	SINTO horizontal line	Auto pouring with 800 kg ladle capacity	Zhejiang,China	1
2020/11/27	Jiangling Tongchuang Machinery Co., Ltd	Chinese horizontal line	Manual control pouring with 800 kg ladle capacity	Hubei, China	1
2020/12/10	Liyang Xinming Machinery Parts Manufacturing Co., Ltd	SINTO horizontal line	Manual control pouring with 800 kg ladle capacity	Jiangsu,China	1
2020/12/14	Zhejiang Kalide Machinery Co., Ltd (3rd time purchasing)	Chinese horizontal line	Manual control pouring with 500 kg ladle capacity	Zhejiang,China	1
2020/12/24	Jiahe Nanhong Casting Co., Ltd	Chinese horizontal line	Manual control pouring with 1000 kg ladle capacity	Zhejiang,China	2
2021/1/5	Jiangxi Richer Machinery Manufacturing Co., Ltd	TOKYU horizontal line	Auto pouring with 500 kg ladle capacity	Jiangxi,China	1
2021/3/8	Anyang Railway Equipment Co., Ltd.	Chinese vertical line	Auto pouring with 600 kg ladle capacity	Henan,China	2
2021/4/7	DAEHAN METAL MFG. Co.,Ltd	Chinese vertical line	Auto pouring with 600 kg ladle capacity	South Korea	2
2021/4/7	DAEHAN METAL MFG. Co.,Ltd (2nd time purchasing)	Chinese horizontal line	Auto pouring with 600 kg ladle capacity	South Korea	1
2021/4/16	Hebei Jinghangyu Valve Manufacturing Co., Ltd	Chinese horizontal line	Manual control pouring with 800 kg ladle capacity	Hebei, China	1
2021/6/17	Hubei Hongshen Auto Parts Co., Ltd.	Chinese horizontal line	Manual control pouring with 600 kg ladle capacity	Hubei,China	1
2021/7/26	Sanming Xiangfeng Electromechanical Co., Ltd	Chinese horizontal line	Manual control pouring with 600 kg ladle capacity	Fujian,China	1
2021/11/13	Jiangsu Shengrong High-end Equipment Manufacturing Industry Co., Ltd	Chinese horizontal line	Manual control pouring with 600 kg ladle capacity	Jiangsu,China	1
2021/11/13	Jiangsu Shengrong High-end Equipment Manufacturing Industry Co., Ltd	Chinese horizontal line	Manual control pouring with 700 kg ladle capacity	Jiangsu,China	1
2021/12/8	Liyang Xinli Machinery Foundry Co., Ltd	TOKYU horizontal line	Auto pouring with 600 kg ladle capacity	Jiangsu,China	1
2021/12/15	Suqian Yatong Container Parts Co., Ltd	Steel casting line	Manual control pouring with 800 kg ladle capacity	Jiangsu,China	1
2022/1/25	Sichuan Haigong Technology Co., Ltd	Chinese horizontal line	Manual control pouring with 700 kg ladle capacity	Sichuan, China	1
2022/3/26	Sichuan Rongcheng Machinery Co., Ltd	Shell moulding line	Manual control pouring with 800 kg ladle capacity	Sichuan, China	1
2022/5/12	Sichuan Dianyao Auto Parts Co., Ltd	DISA vertical line	Auto pouring with 1000 kg ladle capacity	Sichuan, China	1
2022/8/8	Jinhu Haihua Machinery Manufacturing Co., Ltd		Metal flow incubation and addition machine		1
2022/9/24	Jiangxi Zhangshu Fuling Auto Part Co., Ltd	SINTO FBO horizontal Line	Manual control pouring with 600 kg ladle capacity	Jiangxi,China	1
2022/11/16	Longkou Tiangong Mechanical Part Co., Ltd	Chinese horizonal line	Auto pouring with 1000 kg ladle capacity	Shandong,China	2
2022/11/16	Himile Mechanical Science And Technology (Shandong) Co., Ltd	Aluminum casting	Auto pouring with 500 kg ladle capacity	Mexico	1
2023/3/4	Fujian Shenyue Casting Co., Ltd.	DISA vertical line	Auto pouring with 1000 kg ladle capacity	Fujian,China	1
2023/3/29	Anhui Anfa Machinery Co., Ltd	FCMX Chinese horizonal line	Auto pouring with 600 kg ladle capacity	Anhui,China	1
2023/4/12	Hubei Chengtao Machinery Co., Ltd.	Chinese horizonal line	Manual control pouring with 600 kg ladle capacity	Hubei,China	1
2023/4/21	Guangdong Panshi Metal Industrial Co., Ltd.	DISA vertical line	Auto pouring with 600 kg ladle capacity	Guangdong, China	2
2023/7/7	Jiangsu Jinyang Machinery CO.LTD (2nd time purchasing)	DISA vertical line	Auto pouring with 1000 kg ladle capacity	Jiangsu,China	1
2023/8/4	Himile Mechanical Science And Technology (Shandong) Co., Ltd	Aluminum casting	Manual control pouring with 500 kg ladle capacity	Shandong,China	1
2023/9/5	Jiangsu Minglong Power Technology Co., Ltd	DISA vertical line	Auto pouring with 1000 kg ladle capacity	Jiangsu,China	1
2023/9/5	Jiangsu Minglong Power Technology Co., Ltd (2nd time purchasing)	Chinese horizonal line	Auto pouring with 700 kg ladle capacity	Jiangsu,China	i .
2023/10/11	Shaoxing Hongtong Machinery Co., Ltd	FBO horizontal Line	Auto pouring with 700 kg ladle capacity	Zhejiang,China	;
2023/10/25	Himile Mechanical Science And Technology (Shandong) Co., Ltd(3th time purchasing)	Aluminum casting	Manual control pouring with 500 kg ladle capacity	Shandong,China	1
2023/10/23	Longkou Yinuo Auto Parts Co., Ltd	Chinese horizonal line	Auto pouring with 1100 kg ladle capacity	Shandong,China	1
2023/11/13	Jiangsu Shengrong High-end Equipment Manufacturing Industry Co., Ltd(3rd time purchasing)	Chinese horizontal line	Manual control pouring with 1200 kg ladle capacity	Jiangsu, China	1
2023/12/29	Wenling Gongda Machinery Co., Ltd	FBO horizontal Line	Auto pouring with 600 kg ladle capacity	Zhejiang,China	;
2024/1/20	Fujian Zhejie Precision Machinery Co., Ltd	Chinese horizontal line	Manual pouring with 1000 kg ladle capacity	Fujian,China	1
2024/1/29	Anqiao (Anhui) Machinery Co., Ltd	Shell moulding line	Auto pouring with 800 kg ladle capacity	Anhui,China	1
2024/2/27	Zhejiang Shengbang Precision Industry Co., Ltd	Shell moulding line	Auto pouring with 700 kg ladle capacity	Zhejiang,China	1
2024/2/27	Himile Mechanical Science And Technology (Shandong) Co., Ltd(4th time purchasing)	Aluminum casting	Auto pouring with 500 kg ladle capacity	Shandong,China	1
2024/2/28	Samchang Cast Iron	AMF horizontal line	Auto pouring with 800 kg ladle capacity	South Korea	1
2024/5/21	Zhejiang Taifu Pump Industry Co., Ltd	FBO horizontal Line	Auto pouring with 500 kg ladle capacity	Zhejiang,China	1
2024/6/17	Himile Mechanical Science And Technology (Shandong) Co., Ltd(5th time purchasing)	Aluminum casting	Auto pouring with 500 kg ladle capacity	Shandong,China	1
2024/7/17	Jinjiang Yuyi Machinery Valve Industry Co., Ltd	FBO horizontal Line	Auto pouring with 600 kg ladle capacity	Fujian,China	2

Total sets



## RIGHT PROCESS FOR RIGHT SOLUTION







#### WEIJING

- Established in 2008, has two plants.
- Weijing premises: up to 9000 SQM in total.
- What Weijing can make:
  - Casting Degating Machine: Wedge Breaker, Runner Cutter, Sleeve Breaker, Degating Hammer.
  - Auto Grinding Machine: from 2 axis to 5 axis, capacity from 8 kg to 150 kg.
  - Auto Pouring Machine: tilting pouring machine with ladle capacity up to 1500 kg.
- Mission: providing the matchable machines to foundries worldwide with premium quality and excellent experience.
- Culture: positive action, honest communicating, transparent collaboration, is Weijing's Conduct Code.
- **Performance:** By Sep 1st, 2024, 1066 wedges, 58 cutters, 217 hammers, 236 auto grinders, 71 auto pouring and 17 auto transporter have been ordered by foundries worldwide and covers 26 countries.



## **TWO FACTORIES**



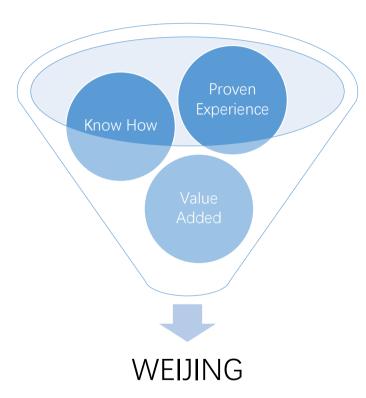
Suzhou premises



Yanzhou premises



## **WHY WEIJING**



As we firmly believe from the heart that the matchable is the best



## WEIJING FOUNDRY MACHINE, YOUR WISE CHOICE