THINK TECH FORWARD

Stock code: 300415

Designed by YIZUMI, September 2025

YIZUMI

MGII·Plus 400T-10000T

Thixomolding Machine

Evoluted Mg for Lightweight Future

Yizumi International Business Co., Ltd.

Address: No.22-2 Ke Yuan 3rd Road, Shunde, Foshan, Guangdong 528300, China

TEL: 400-802-6888(China) 86-757-2921 9001(Overseas)

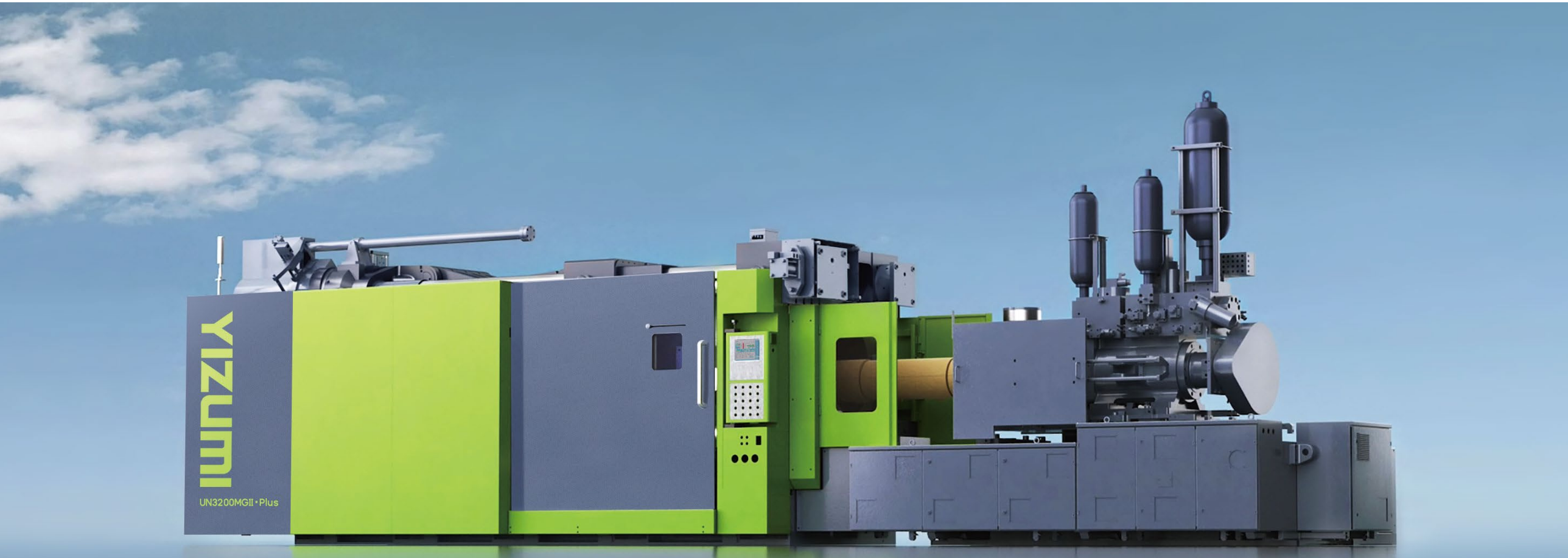
Email: dcsolutions@yizumi.com www.yizumi.com

YouTube YIZUMI_Official YIZUMI_Official

Suitable for Large, Thin-Wall, and Thick-Wall Magnesium Alloy Components

MGII·Plus

Specializing in the efficient mass production of large, thin-wall, and thick-wall magnesium alloy parts, we offer one-stop lightweighting solutions for the automotive, 3C electronics, sports equipment and tools, low-altitude economy, and humanoid robotics. Our goal is to drive large-scale application and industrial upgrading of magnesium alloy.

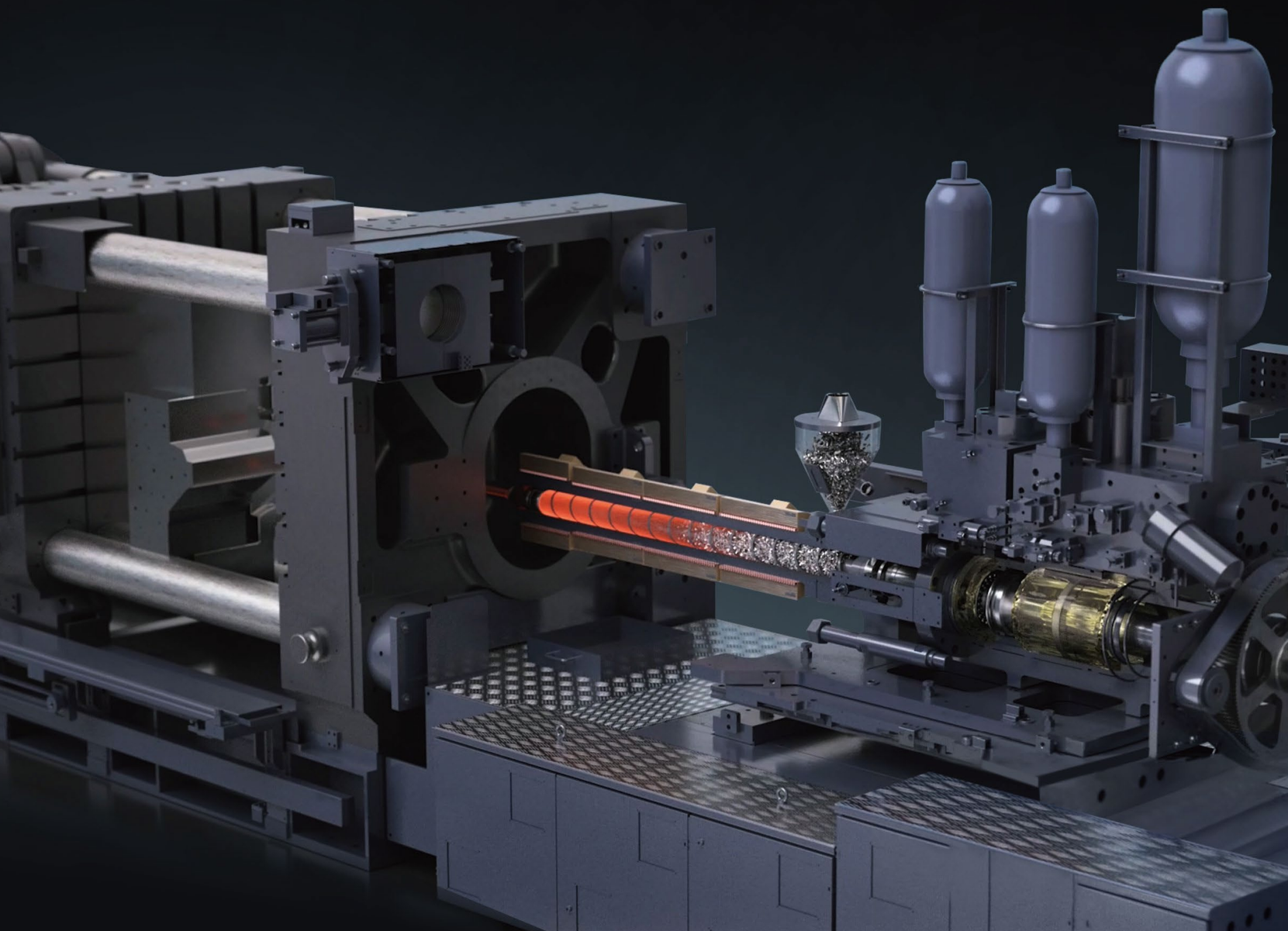


MGII·Plus Series

Committed to becoming
the global leader
in Thixomolding

THINK TECH FORWARD

- Increase max. effective shot weight
- Lower the cost per shot
- Enhance injection pressure and clamping force
- Lower the overall machine energy consumption
- Improve equipment productivity



Technology Leadership

Breaking: From 0 to 1 in China
Rebuilding: Rise of Chinese Standards
Leading: Global New Benchmark for Thixomolding Technology

2009 — YIZUMI launched **China's first Thixomolding machine** and was granted the invention patent titled "Servo-Controlled High-Speed Thixomolding Machine" (Patent No. ZL200910131017.X), marking a significant breakthrough in domestic technology and filling a national gap.

2011 — YIZUMI also successfully acquired the century-old U.S. company HPM. As early as 1991, HPM was among the first to receive authorized patents and developed the first-generation Thixomolding machine.

2014 — YIZUMI conducted the formulation of **"Thixomolding Machine Industry Standard"**.

2017 — YIZUMI's "Servo-Controlled High-Speed Thixomolding machine" won **the 19th China Excellent Patent Award** and the Guangdong Science and Technology Progress Award.

2019 — A breakthrough was achieved in Thixomolding hot runner technology, and the UN1250MGII entered German and American enterprises — marking YIZUMI's first entry into the high-end European and U.S. markets, validating its international competitiveness.

2024 — YIZUMI was also granted a utility model patent for the "High-Tension Nozzle Head for Thixomolding Machine" (Patent No. ZL2024 2 0171853.0).

Tonnage Evolution

650T → 1250T → 3200T → 6600T → 10000T

2015 — The new-generation UN650MGII has been successfully developed.

2018 — The UN1250MGII has also been successfully launched.

2023 — The UN3200MGII Thixomolding machine has been officially released.

2024 — The UN6000MGII Thixomolding machine has been unveiled.

2025 — The UN6600MGII Thixomolding machine has been successfully delivered marking a new era for ultra-large Thixomolding applications.

» **16 Years** of Globalized R&D

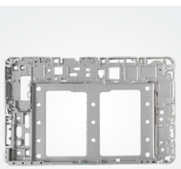
» **10 Years** of Mass Production Validation

» **5 Million** Molding Cycles Proven by Global Cases

Mass-Production Validation Period

3C Electronic Components
2009-2014

3C electronic components



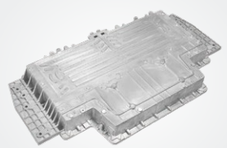
3C electronic components

EV Key Components
2015-2023

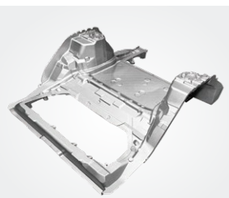
Automotive thin-wall parts

Automotive thick-wall parts

Automotive Integrated Structural Components
2024 - Now



Integrated structural components



Integrated structural components

The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

Evoluted Mg for Lightweight Future

YIZUMI's thixomolding machine integrates stability, safety, agility, and intelligence to enable the efficient, safe, and precise molding of complex magnesium alloy components. Combining high strength with lightweight characteristics, it empowers lightweight transformation across a wide range of industries, including automotive, 3C electronics, sports equipment and tools, low-altitude economy, and humanoid robotics.

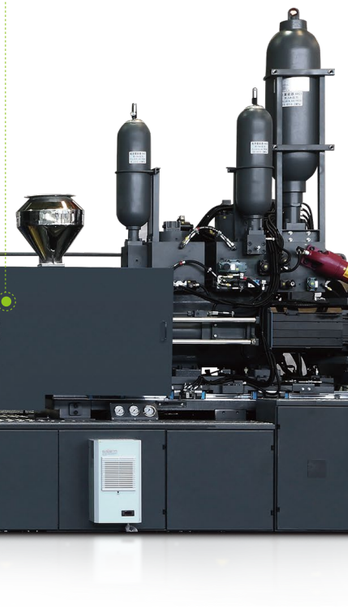
MGII·Plus

Stability

The screw and barrel unit is made of European-standard special steel, offering excellent high-temperature and wear resistance. It is equipped with an infrared heating system and an intelligent temperature control system with a precision of ±1 °C, capable of withstanding temperatures up to 630 °C. The servo-driven screw is equipped with internationally renowned hydraulic components, ensuring smooth motion, wide mold adaptability, and durability that exceeds industry standards.

Agility

With a high-speed servo valve and large-diameter accumulator, the system delivers ultra-fast response. The optimized hydraulic system, combined with a multi-directional moving injection unit, enables the equipment to be "big and agile", significantly enhancing production efficiency and dynamic performance.



Safety

The magnesium melt sealing system features a newly designed structure that eliminates the need for retraction during mass production and prevents leakage. It incorporates multiple monitoring and a closed-loop temperature control system to significantly enhance operational safety.

Intelligence

A high-performance industrial control controller enables precise, synchronized multi-zone control. Equipped with an intelligent monitoring system, it displays real-time injection curves and regulates temperature, meeting the demands of digitalized and intelligent manufacturing.

Four Key Technologies

YIZUMI's Thixomolding machine achieves world-class performance in four key areas: clamping force, injection capability, melt supply capacity, and precision control. It is equipped with four core technologies — the Turbo high-speed injection system, Eco energy-efficient melting technology, Multi-Hot Runner system, and the Thixo-Core intelligent control center — enabling it to meet the demanding Thixomolding casting requirements of large structural, thin-wall, and thick-wall magnesium alloy components.

This solution supports automotive lightweighting, delivering high-precision and high-efficiency production, and accelerating the large-scale application of magnesium alloy.

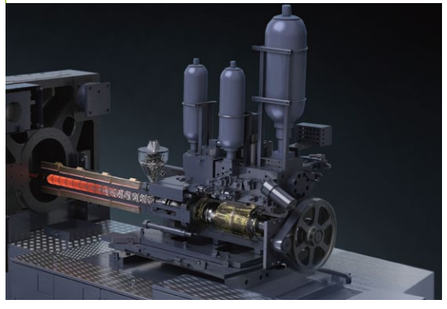
MGII·Plus Series

Thixomolding Machine

Turbo

Turbo High-Speed Injection System

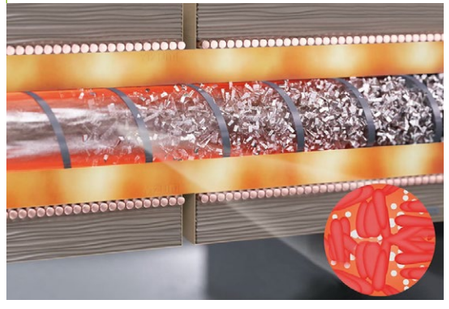
The large-diameter high-speed servo valve controls the oil inlet valve opening with a 12 ms rapid response time. The injection piston acceleration can reach up to 20G, paired with an ultra-large capacity accumulator, delivering powerful and efficient injection performance.



Eco

Eco Energy-Efficient Melting Technology

Utilizing European-standard special steel (resistant up to 630 °C) combined with infrared heating technology and high-torque servo drive, this technology achieves highly efficient and energy-saving melting with an extended service life.

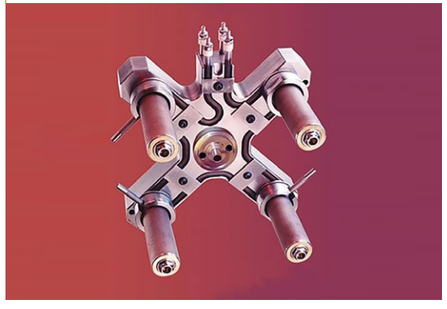


Multi-Hot Runner

Multi-Hot Runner Technology

Enables precise and multiple melt deliveries, uniform temperature and pressure distribution within the mold cavities, reducing casting waste by 30% and eliminating part deformation.

*This technology is patented as a multi-gating system **(Patent No.: 2025050100300960).**



Thixo-Core

Intelligent Control Technology

Equipped with a high-performance controller, the system achieves ±0.1 mm precision control and real-time process monitoring. Its modular design and intelligent connectivity enable a fully digital solution for the entire YIZUMI Thixomolding process.

One-Stop Rapid Implementation Service
for Magnesium Alloy Product Development

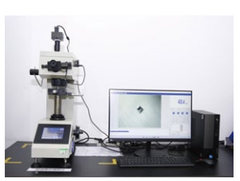
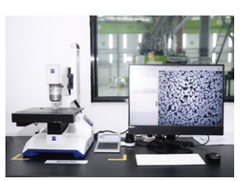
From Concept to Delivery

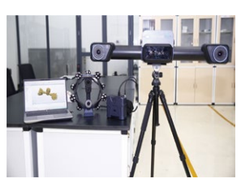
YIZUMI provides a one-stop rapid implementation service for magnesium alloy product development. The service covers the entire process—from Thixomolding sample preparation, material property testing and data validation, product modeling and 3D optimization, mechanical and process simulation, mold design and manufacturing, to trial casting and sample parts delivery.

By offering an integrated solution that combines equipment with material, design, and manufacturing expertise, YIZUMI helps reduce development risks and ensures the rapid and high-quality production of magnesium alloy structural components.

Digitalization of magnesium alloy new material performance → Mechanical and product dimension adjustment by replacing aluminum with magnesium → Runner design and mold flow simulation → Mold design and manufacturing → Mass production energy consumption estimation → Delivery of magnesium alloy sample parts

The material laboratory operates in accordance with CNAS standards, establishing a quality management system that meets international standards, providing scientific and accurate test results, and offering testing services for equipment and component research & development as well as customer product development.



Yi+ "Thixomolding On-Site Steward Service"

Full Lifecycle Safeguard for Thixomolding Mass Production

YIZUMI's original "Thixomolding On-Site Steward Service" provides comprehensive, hands-on support throughout the entire process. Acting as a technical steward, it accompanies the project from start to finish, ensuring customers achieve "zero-barrier" rapid mass production.


Exclusive Steward Service Package

1. On-site hands-on support

Technical support from trial casting and machine setup to process optimization.

2. Practical training system

Hands-on teaching of equipment operation and key process know-how.

3. Remote expert support

Real-time connection with YIZUMI experts for instant technical issue resolution.

4. Standardized delivery kit

A comprehensive package featuring trial casting reports, parameter libraries, and process white papers — enabling a standardized, scalable mass production model.

UN400MGII • Plus-D60/D68

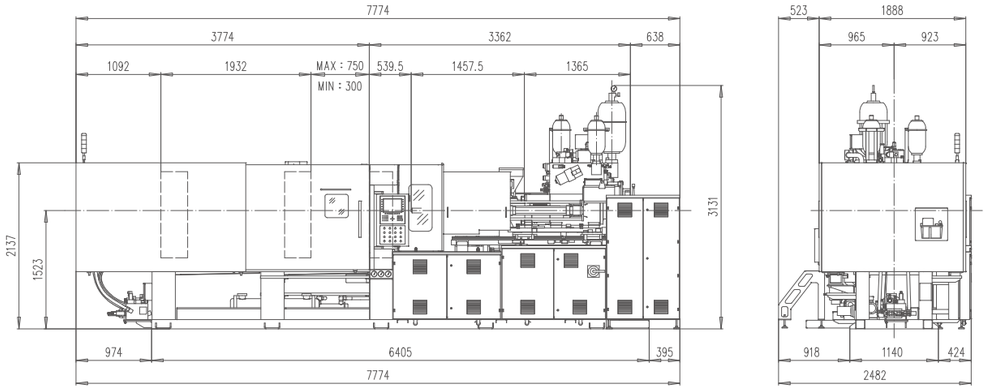
Thixomolding Machine

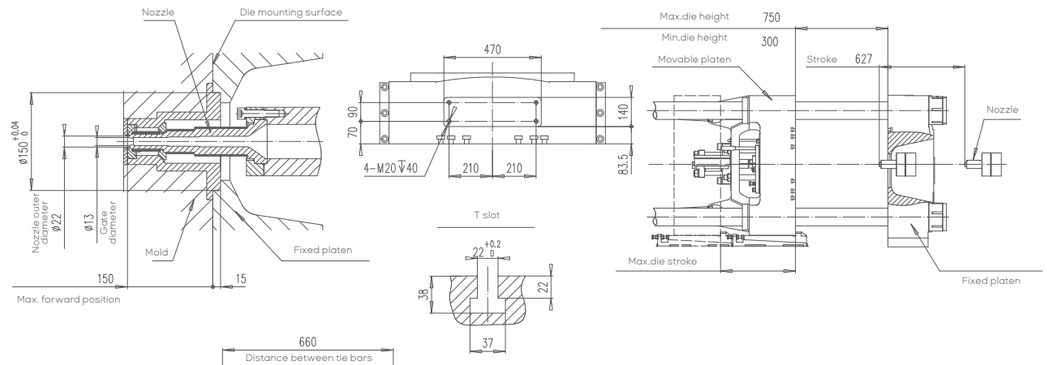
Specifications

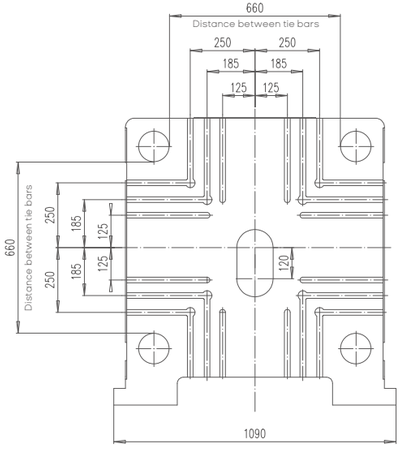
Description	UNIT	UN400MGII • Plus	
Screw diameter	mm	60	68
Injection pressure	Mpa	117.7	91.6
Theoretical injection volume	cm^3	424	544
Theoretical max. shot weight	g	763.2	979.2
Available max. shot weight	g	500	650
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	14133(5m/s)	18149(5m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-250	
Nozzle size	mm	Φ13	
Injection stroke	mm	150	
Nozzle protrusion	mm	0-150	
Injection position	mm	0 ,-100 ,-120	
Clamping force	KN	4000	
Opening stroke	mm	550	
Mold height	mm	300-750	
Distance between tie bars (H×V)	mm	660×660	
Platen size (H×V)	mm	1000×1000	
Locating ring size	mm	Φ150	
Mold assembly method		T slot	
Ejector force	KN	167	
Ejector stroke	mm	80	
Pump motor	KW	55.7	
Barrel heater	KW	30.4	
Servo motor	KW	22	
Total power capacity	KW	108.1	

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

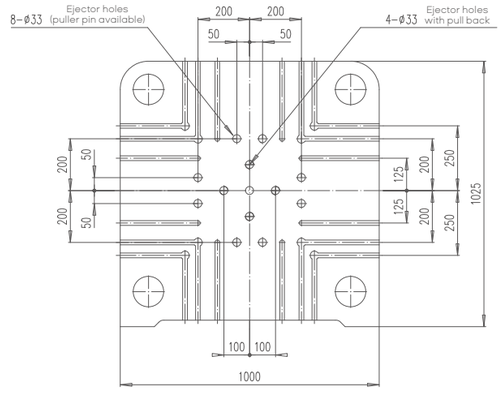
Machine & Platen Dimensions







Fixed platen die mounting surface



Movable platen die mounting surface

UN750MGII • Plus-D92

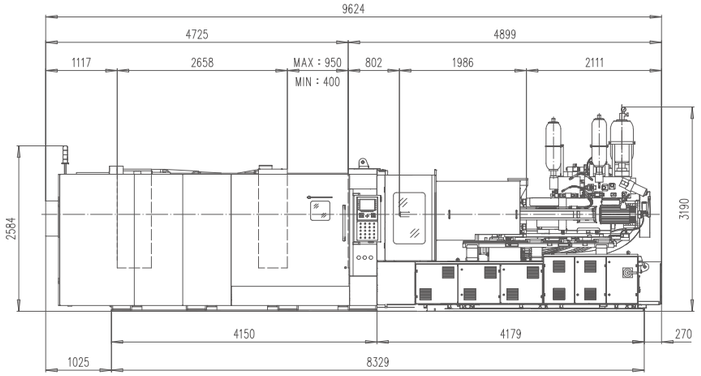
Thixomolding Machine

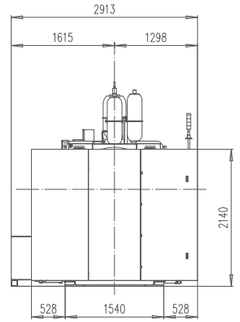
Specifications

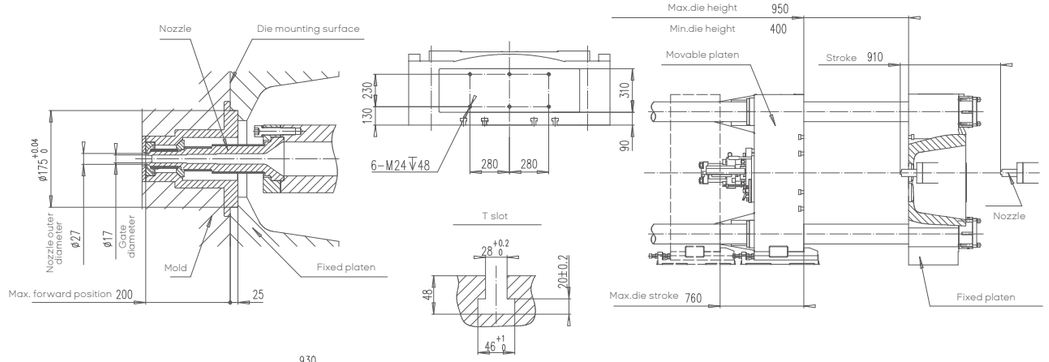
Description	UNIT	UN750MGII • Plus
Screw diameter	mm	92
Injection pressure	Mpa	79
Theoretical injection volume	cm^3	1662
Theoretical max. shot weight	g	2991.4
Available max. shot weight	g	1600
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	33251(5m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-300
Nozzle size	mm	Φ17
Injection stroke	mm	250
Nozzle protrusion	mm	0-200
Injection position	mm	0,-175
Clamping force	KN	7500
Opening stroke	mm	760
Mold height	mm	400-950
Distance between tie bars (H×V)	mm	930×930
Platen size (H×V)	mm	1430×1430
Locating ring size	mm	Φ175
Mold assembly method		T slot
Ejector force	KN	212
Ejector stroke	mm	125
Pump motor	KW	75
Barrel heater	KW	58.4
Servo motor	KW	42.4
Total power capacity	KW	175.8

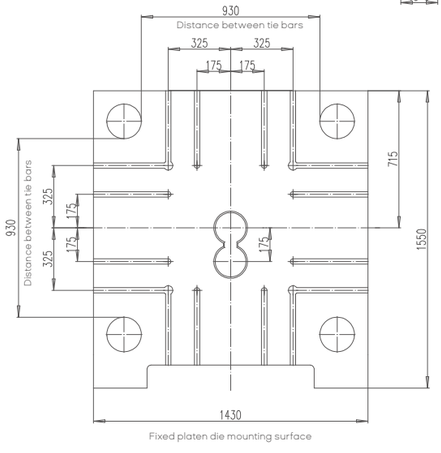
* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

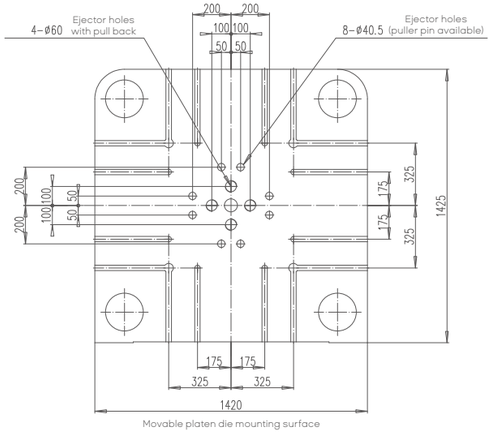
Machine & Platen Dimensions











UN850MGII · Plus-D100

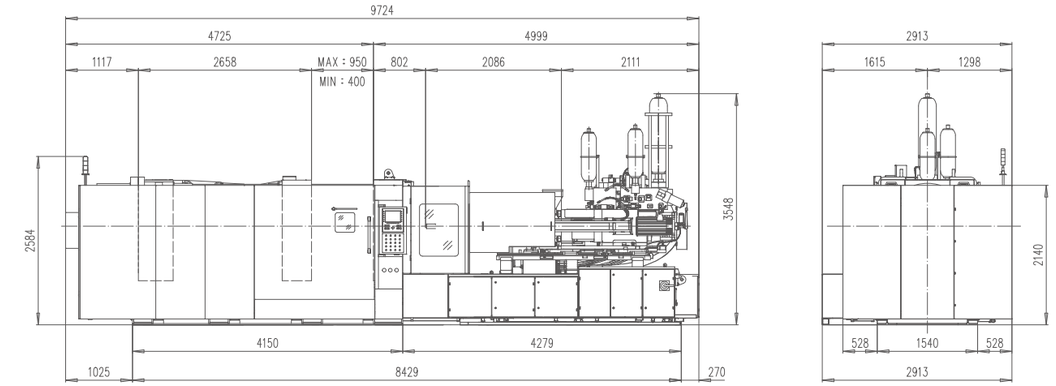
Thixomolding Machine

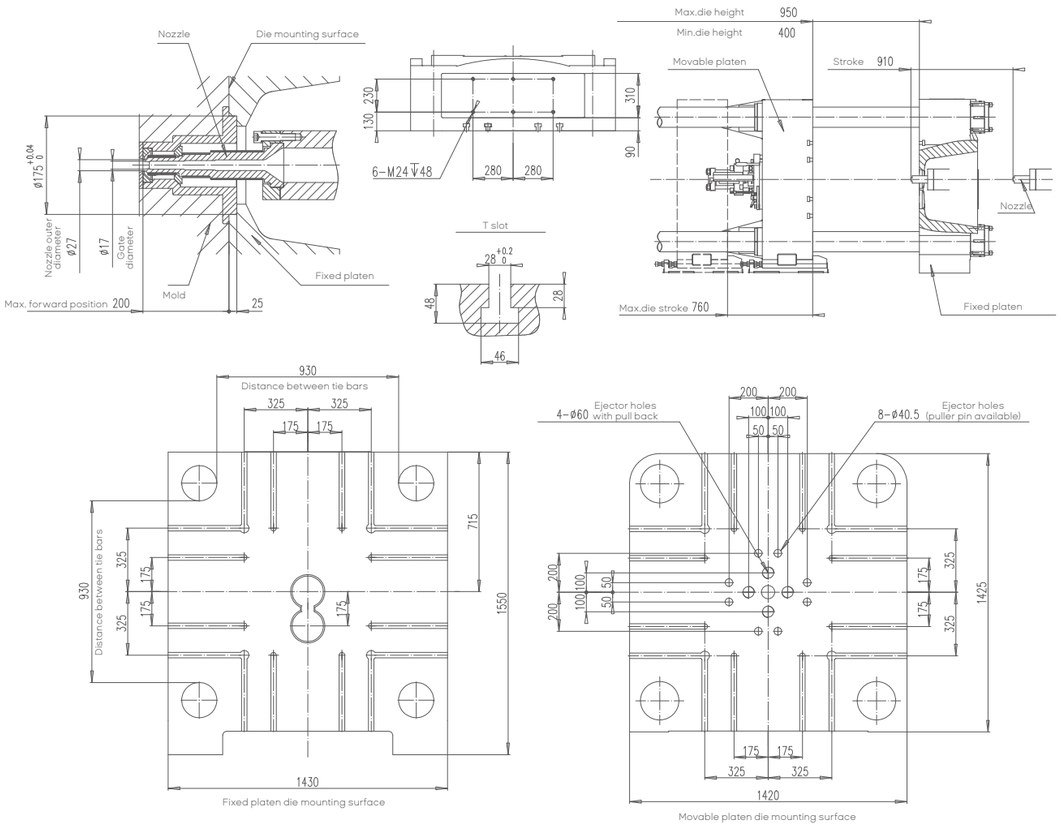
Specifications

Description	UNIT	UN850MGII · Plus
Screw diameter	mm	100
Injection pressure	Mpa	75
Theoretical injection volume	cm^3	1962
Theoretical max. shot weight	g	3534.3
Available max. shot weight	g	2000
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	35325(5m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-300
Nozzle size	mm	Φ20
Injection stroke	mm	250
Nozzle protrusion	mm	0-200
Injection position	mm	0, -175
Clamping force	KN	8500
Opening stroke	mm	760
Mold height	mm	400-950
Distance between tie bars (H×V)	mm	930×930
Platen size (H×V)	mm	1430×1430
Locating ring size	mm	Φ175
Mold assembly method		T slot
Ejector force	KN	212
Ejector stroke	mm	125
Pump motor	KW	75
Barrel heater	KW	58.4
Servo motor	KW	42.4
Total power capacity	KW	175.8

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

Machine & Platen Dimensions





UN950MGII • Plus-D110

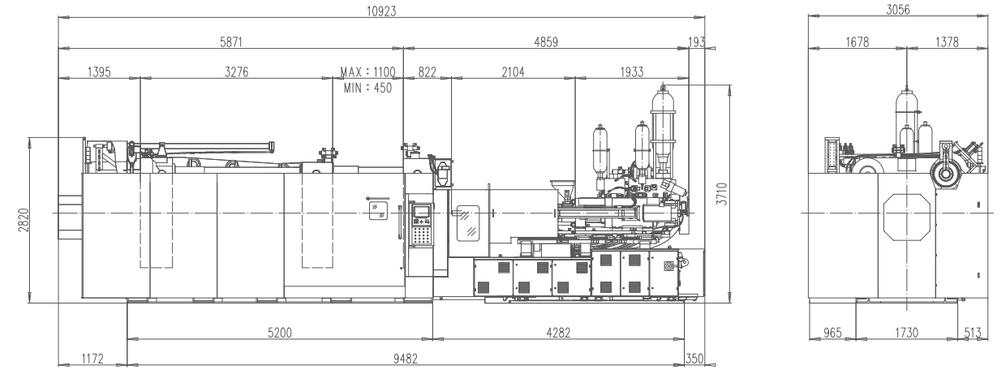
Thixomolding Machine

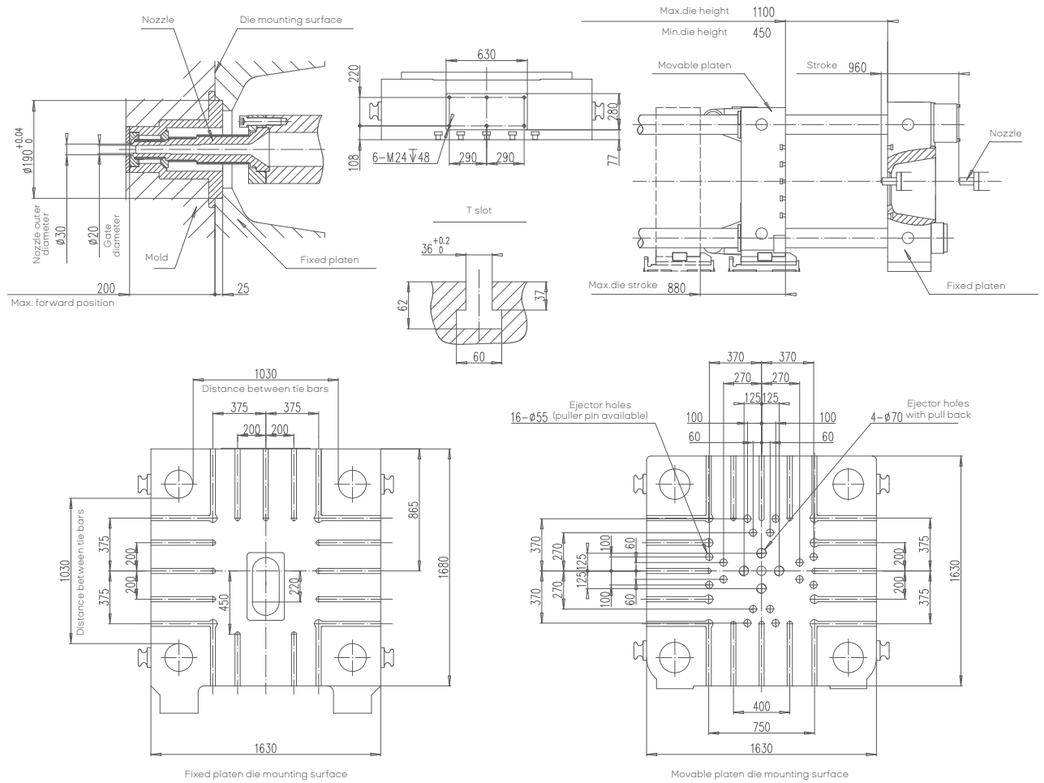
Specifications

Description	UNIT	UN950MGII • Plus
Screw diameter	mm	110
Injection pressure	Mpa	74
Theoretical injection volume	cm^3	2851
Theoretical max. shot weight	g	5131.8
Available max. shot weight	g	3000
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	42750(5m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-166
Nozzle size	mm	Φ20
Injection stroke	mm	300
Nozzle protrusion	mm	0-200
Injection position	mm	0,-220
Clamping force	KN	9500
Opening stroke	mm	880
Mold height	mm	450-1100
Distance between tie bars (H×V)	mm	1030×1030
Platen size (H×V)	mm	1680×1630
Locating ring size	mm	Φ190
Mold assembly method		T slot
Ejector force	KN	500
Ejector stroke	mm	200
Pump motor	KW	75
Barrel heater	KW	72.3
Servo motor	KW	31.4
Total power capacity	KW	178.7

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

Machine & Platen Dimensions





UN1350MGII • Plus-D120

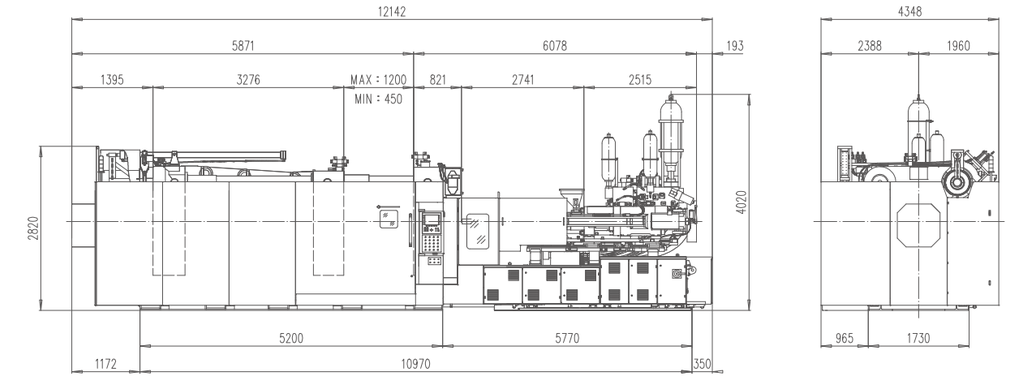
Thixomolding Machine

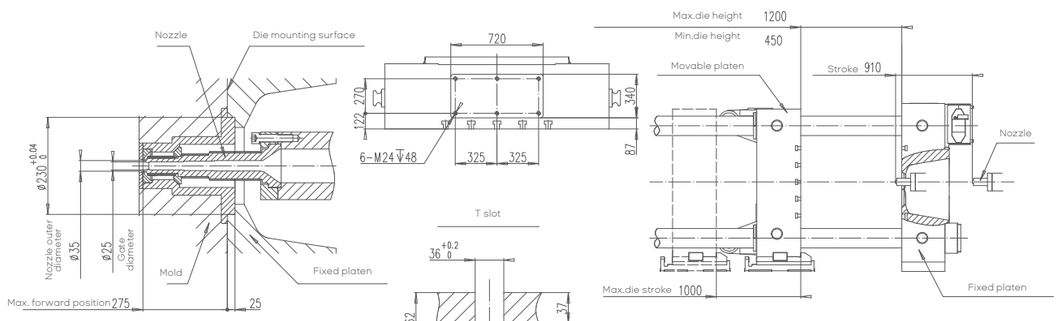
Specifications

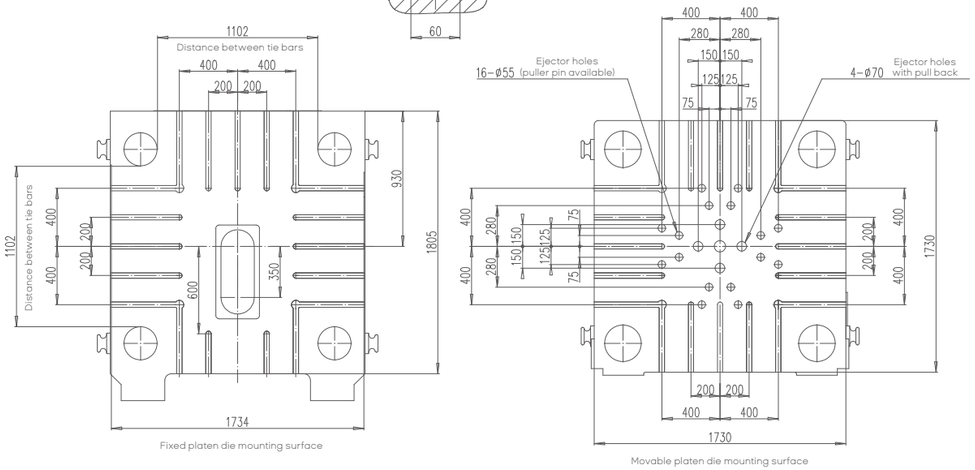
Description	UNIT	UN1350MGII • Plus
Screw diameter	mm	120
Injection pressure	Mpa	76
Theoretical injection volume	cm^3	3958
Theoretical max. shot weight	g	7125
Available max. shot weight	g	3900
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	56556(5m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-166
Nozzle size	mm	Φ25
Injection stroke	mm	350
Nozzle protrusion	mm	0-275
Injection position	mm	0,-350
Clamping force	KN	13500
Opening stroke	mm	1000
Mold height	mm	450-1200
Distance between tie bars (H×V)	mm	1100×1100
Platen size (H×V)	mm	1730×1730
Locating ring size	mm	Φ230
Mold assembly method		T slot
Ejector force	KN	565
Ejector stroke	mm	200
Pump motor	KW	85
Barrel heater	KW	84.4
Servo motor	KW	42.4
Total power capacity	KW	211.8

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

Machine & Platen Dimensions







UN1650MGII • Plus-D130

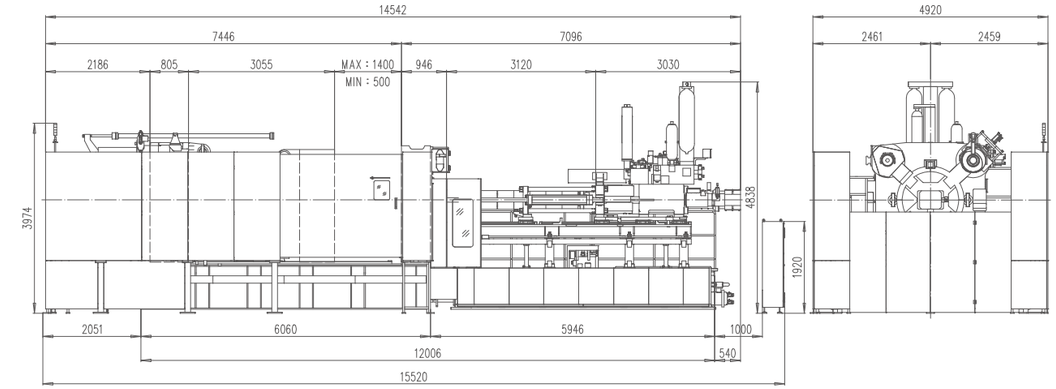
Thixomolding Machine

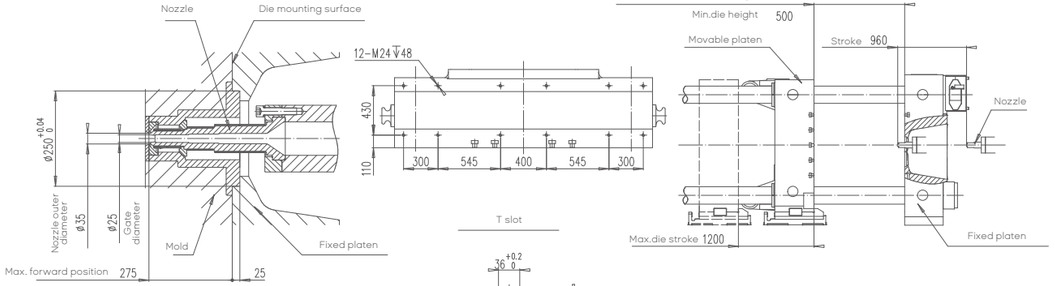
Specifications

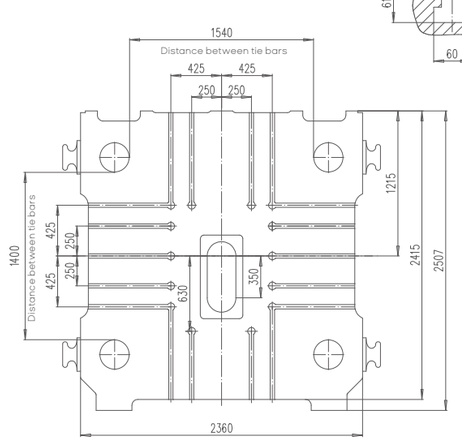
Description	UNIT	UN1650MGII • Plus
Screw diameter	mm	130
Injection pressure	Mpa	100
Theoretical injection volume	cm^3	5309
Theoretical max. shot weight	g	9556.7
Available max. shot weight	g	5500
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	53093(4m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-166
Nozzle size	mm	Φ30
Injection stroke	mm	400
Nozzle protrusion	mm	0-275
Injection position	mm	0,-350
Clamping force	KN	17000
Opening stroke	mm	1200
Mold height	mm	500-1400
Distance between tie bars (H×V)	mm	1540×1400
Platen size (H×V)	mm	2340×2040
Locating ring size	mm	Φ250
Mold assembly method		T slot
Ejector force	KN	650
Ejector stroke	mm	250
Pump motor	KW	177.3
Barrel heater	KW	127
Servo motor	KW	42.4
Total power capacity	KW	346.7

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

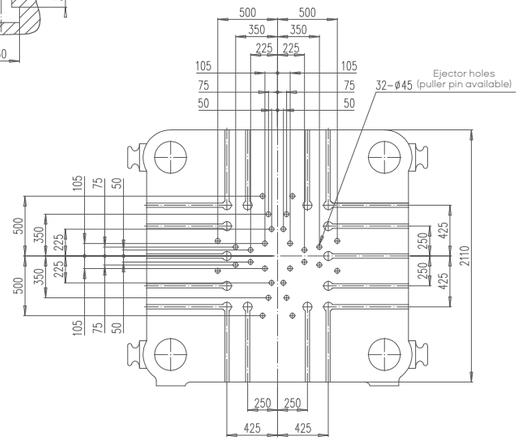
Machine & Platen Dimensions







Fixed platen die mounting surface



Movable platen die mounting surface

UN2200MGII • Plus-D130

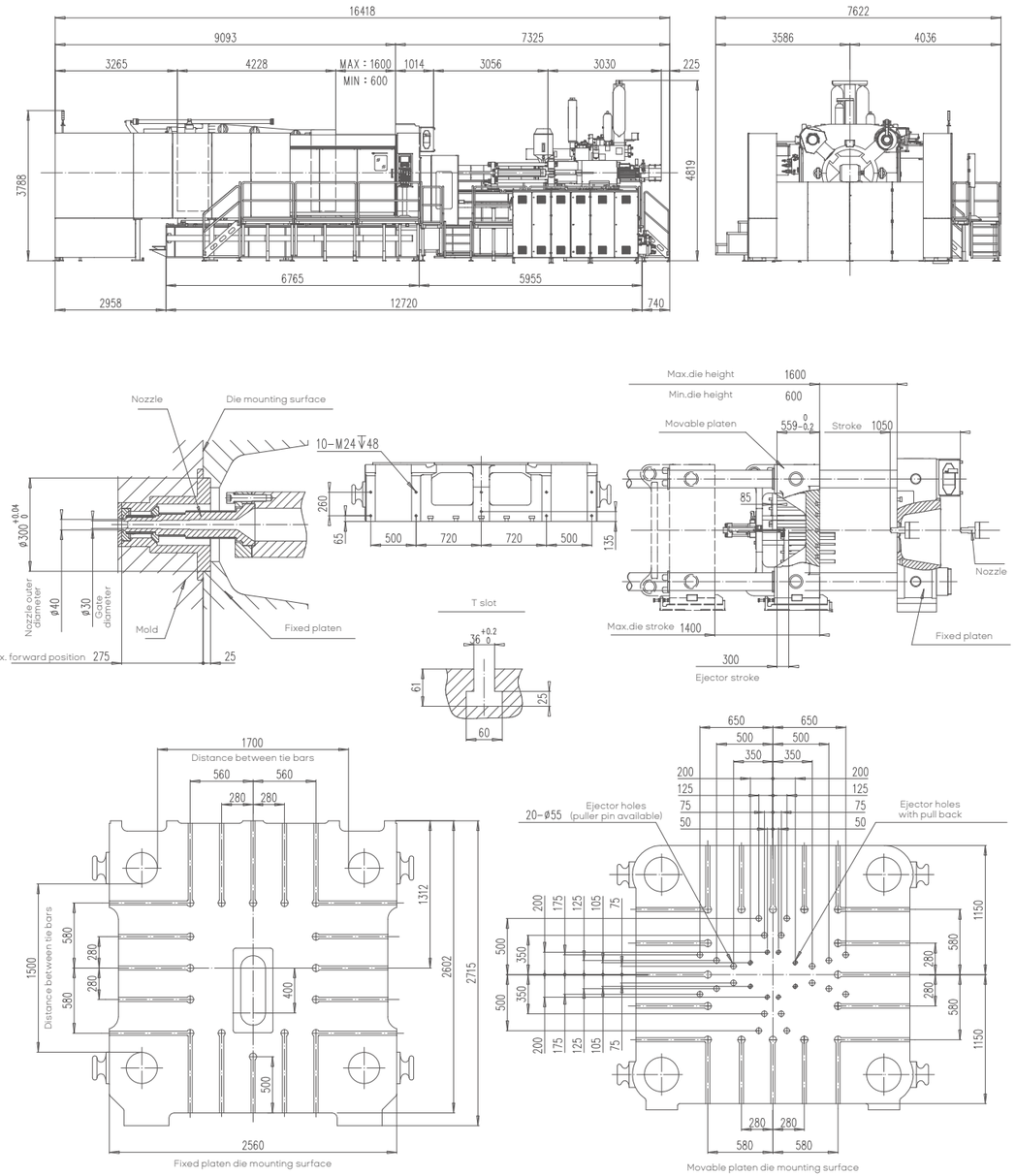
Thixomolding Machine

Specifications

Description	UNIT	UN2200MGII • Plus
Screw diameter	mm	130
Injection pressure	Mpa	100
Theoretical injection volume	cm^3	5309
Theoretical max. shot weight	g	9556.7
Available max. shot weight	g	5500
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	53093(4m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-166
Nozzle size	mm	Φ30
Injection stroke	mm	400
Nozzle protrusion	mm	0-275
Injection position	mm	0,-400
Clamping force	KN	22000
Opening stroke	mm	1400
Mold height	mm	600-1600
Distance between tie bars (H×V)	mm	1700×1500
Platen size (H×V)	mm	2540×2340
Locating ring size	mm	Φ300
Mold assembly method		T slot
Ejector force	KN	650
Ejector stroke	mm	300
Pump motor	KW	177.3
Barrel heater	KW	127
Servo motor	KW	42.4
Total power capacity	KW	346.7

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

Machine & Platen Dimensions



UN3200MGII • Plus-D180

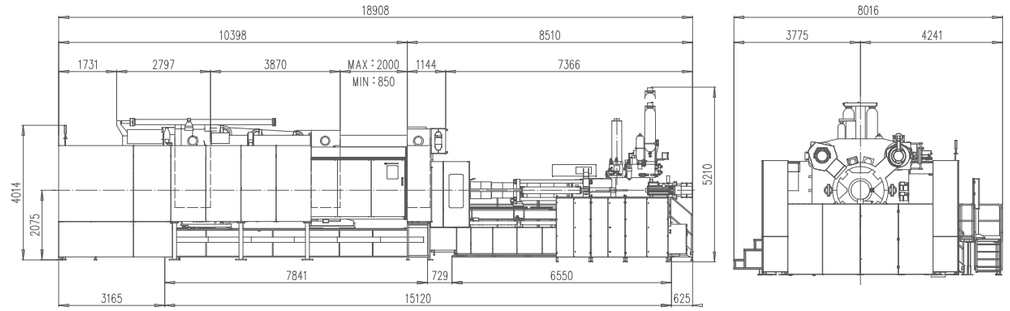
Thixomolding Machine

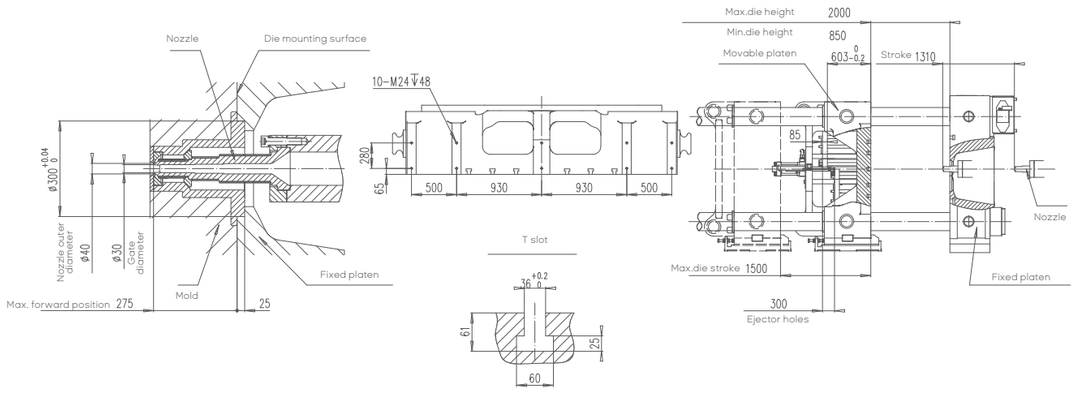
Specifications

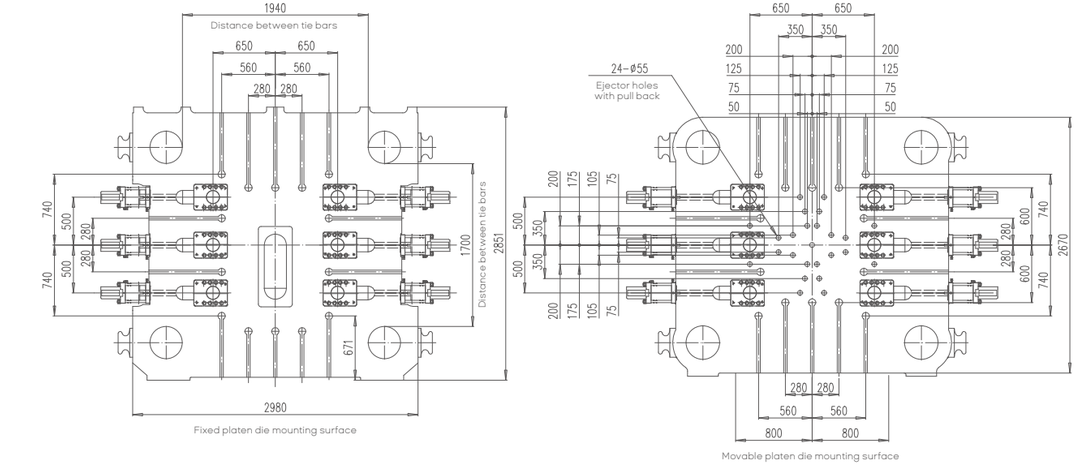
Description	UNIT	UN3200MGII • Plus
Screw diameter	mm	180
Injection pressure	Mpa	85
Theoretical injection volume	cm^3	11451
Theoretical max. shot weight	g	20611.8
Available max. shot weight	g	15000
Theoretical max. injection rate	$cm^3 \cdot s^{-1}$	101788(4m/s)
Screw rotation speed	$r \cdot min^{-1}$	10-120
Nozzle size	mm	Φ40
Injection stroke	mm	450
Nozzle protrusion	mm	0-275
Injection position	mm	0，-450
Clamping force	KN	32000
Opening stroke	mm	1500
Mold height	mm	850-2000
Distance between tie bars (H×V)	mm	1940×1700
Platen size (H×V)	mm	2980×2860
Locating ring size	mm	Φ300
Mold assembly method		T slot
Ejector force	KN	900
Ejector stroke	mm	300
Pump motor	KW	232.8
Barrel heater	KW	211.6
Servo motor	KW	80.1
Total power capacity	KW	524.5

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

Machine & Platen Dimensions







UN5000MGII • Plus-D200

Thixomolding Machine

Specifications

Description	UNIT	UN5000MGII • Plus
Screw diameter	mm	200
Theoretical injection volume	cm^3	15708
Theoretical max. shot weight	g	28274.4
Available max. shot weight	g	18000
Clamping force	KN	50000
Opening stroke	mm	1900
Mold height	mm	1100-2200
Distance between tie bars (H×V)	mm	2200×2000

UN6600MGII • Plus-2×D200

Thixomolding Machine

Specifications

Description	UNIT	UN6600MGII • Plus
Screw diameter	mm	200×2
Theoretical injection volume	cm^3	15708×2
Theoretical max. shot weight	g	28274.4×2
Available max. shot weight	g	18000×2
Clamping force	KN	66000
Opening stroke	mm	2300
Mold height	mm	1200-2400
Distance between tie bars (H×V)	mm	2500×2300

UN8000MGII • Plus-2×D220

Thixomolding Machine

Specifications

Description	UNIT	UN8000MGII • Plus
Screw diameter	mm	220×2
Theoretical injection volume	cm^3	20907×2
Theoretical max. shot weight	g	37633.2×2
Available max. shot weight	g	24000×2
Clamping force	KN	80000
Opening stroke	mm	2600
Mold height	mm	1400-2500
Distance between tie bars (H×V)	mm	2600×2600

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

UN10000MGII • Plus-2×D220

Thixomolding Machine

Specifications

Description	UNIT	UN10000MGII • Plus
Screw diameter	mm	220×2
Theoretical injection volume	cm^3	20907×2
Theoretical max. shot weight	g	37633.2×2
Available max. shot weight	g	24000×2
Clamping force	KN	100000
Opening stroke	mm	2600
Mold height	mm	1600-2600
Distance between tie bars (H×V)	mm	2700×2700

* The data above were acquired by testing in YIZUMI, only for your reference.
YIZUMI reserves the right of final interpretation upon disputes and ambiguities.