THINK TECH FORWARD

Designed by YIZUMI, May 2025

YIZUMI

PS5

280T-560T

PS5 SERIES HIGH-SPEED
INJECTION MOLDING MACHINE

Performance Forward

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【1】YIZUMI reserves the right to modify the product description in the catalogue. Specification might be changed without prior notice.
【2】The picture in the catalogue is for reference only. The real object should be considered as final.
【3】The data in the catalogue is obtained from internal testing in YIZUMI laboratory.
Please refer to the actual machine for the final data. YIZUMI reserves the right of final interpretation upon disputes and ambiguities.

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THINK TECH FORWARD

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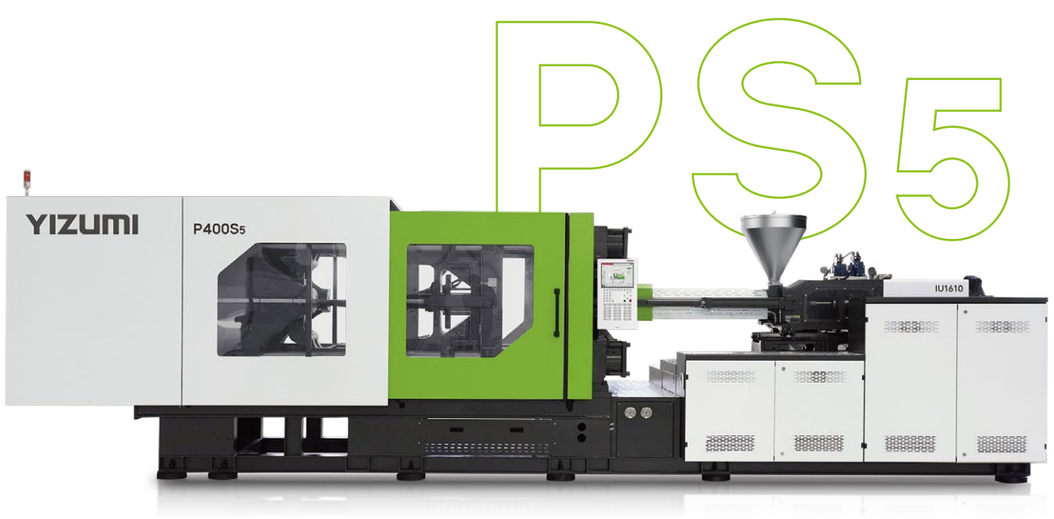
YIZUMI Fifth-Generation
High-Speed Injection Molding Machine

All-New Upgrades

Performance Forward

1 Efficient　2 Energy-saving　3 Reliable　4 Durable

PS5



Application

Food Packaging

Cover a wide range of packaging for various food, beverages, cheese, disposable take-out food containers, plastic cutlery, IML packaging. Provide a variety of equipment and mold options. Offer production line turn-key delivery in collaboration with high-quality solution providers.

Disposable Medical Consumables

Provide stable and high-speed system solutions for various disposable medical consumables.

Bottle Caps

Can make all kinds of bottle caps including beverage caps, pull-ring caps, flip top caps, dustproof caps, etc. With the special machine kit for bottle cap to meet the requirements of precision bottle cap production.

Daily Chemical Packaging

We provide specialized system solutions for daily chemical packaging products, including laundry detergent capsule containers, silicone catridges, pump dispensers, dust-proof caps, and more.

Our Partners

Performance Forward

High-Strength Toggles

The overall optimized design of toggle strength and rigidity greatly improves the stability of the clamping and effectively extends the service life of the machine.

Unique Large Beveled Toggles Design

Large beveled structure can better transfer force from the tail toggle hole to the center of the platen to minimize the platen deformation, ensure the uniformity of force applied on the platens and mold, extend the service life, and make certain the quality of products.

Optimized Control Program

Selecting the high-quality hydraulic components to reduce response time, oil circuit impact, and overall machine noise. Machine will go through a number of tests and optimizing adjustments to meet the high quality requirements.

Single-Cylinder Injection Unit

The compact single-cylinder injection structure renders features such as low inertia, short acceleration time, and high injection repeatability. It can be adapted to a variety of injection units according to different product processing requirements.

Optimized Cylinder Sealing Structure

Based on many years of manufacturing experience and the characteristics of oil circuit in high-speed single cylinder devices, the cylinder sealing structure is further optimized to ensure the durability of the injection unit.

High-Rigidity Machine Frame

The Steel I-Beam type machine frame provides sufficient rigidity to ensure a smooth and vibration-free operation at high speed.

High-Rigidity and Low-Deformation Platens

To address the characteristics of thin-wall packaging products, a reinforced platen design is adopted. The perfect balance of strength and rigidity reduces mold deformation while ensuring smooth and flexible operation.

Horizontal Dual-Carriage Design

The adoption of horizontal dual-carriage cylinder design effectively eliminates the turning torque of the injection unit and ensures a stable and reliable injection.

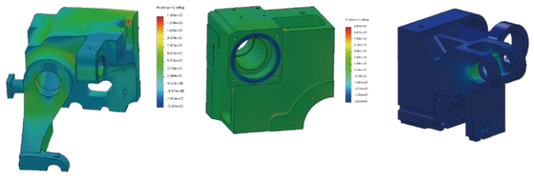
Efficient Power Output

Optimized power output enables injection speeds of up to 1000mm/s.

Clamping & Injection Unit

New high-rigidity clamping unit

The reinforced platen, designed for thin-wall precision product molding, has been optimized through finite element analysis to improve the overall mechanical structure, reduce stress, and enhance platen rigidity.



Toggle pins

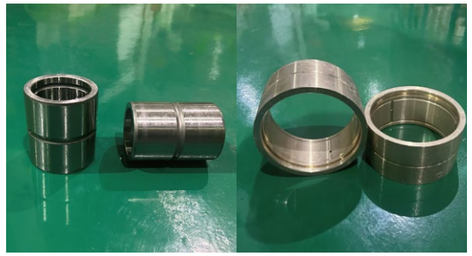
Nitrided toggle pins with increased dimensions significantly reduces contact stress.

Tie bars

The tie bars are designed with alloy steel to reduce stress concentration and extend service life.

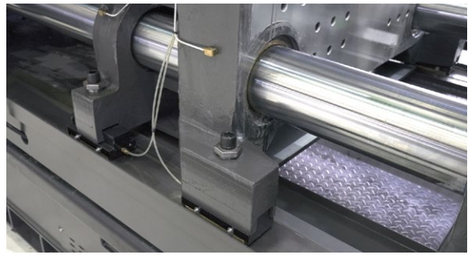
Steel and copper bushings

Both the steel and copper bushings feature a specialized design that reduces lubricant consumption while ensuring optimal lubrication for toggle pins and tie bars during high-speed operation.



Anti-tilt movable platen design

The entire series features a new anti-tilt platen support design, which improves platen parallelism, prevents tilting during heavy mold operation, and ensures stability and durability under high-speed, long-term operating conditions.



Optimized clamping efficiency

Newly optimized hydraulic oil circuit and control design further enhance dry cycle time by 5%-10%, effectively reducing production cycle.

High-speed injection

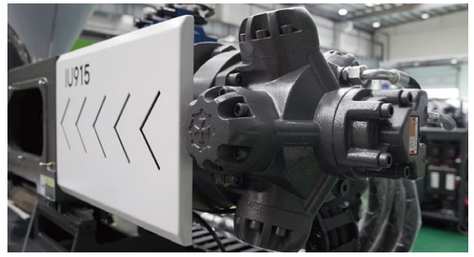
The introduction of low-pressure, high-speed injection molding and multi-action compound operation design enhances the molding efficiency of thin-wall products.

Max. injection speed

550mm/s

Plasticizing motor

High-speed, high-pressure motors extends the service life of the equipment and enhances the quality and efficiency of plasticizing.



Dual linear guide design for carriage

The injection unit features an integrated cast iron support combined with a dual linear guide design, reducing resistance, minimizing friction during operation, and shortening injection acceleration time.

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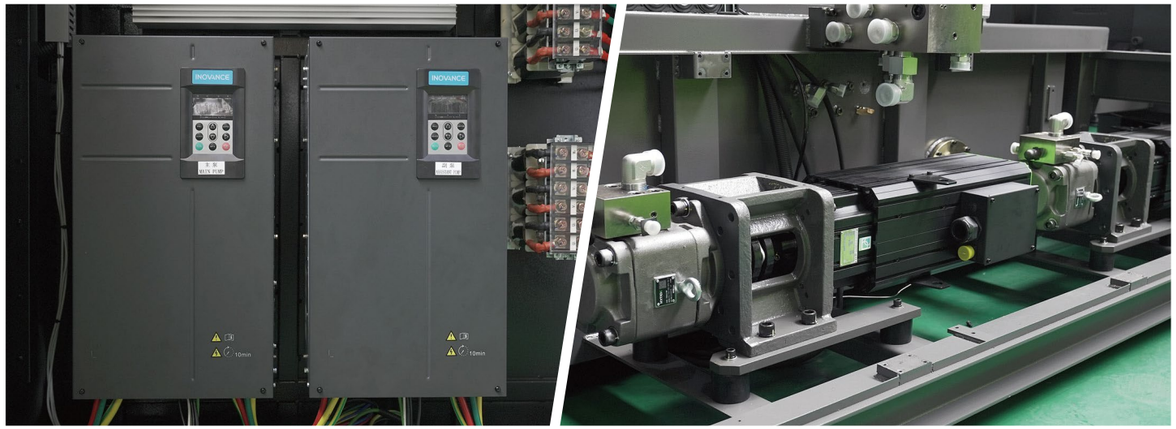
Hydraulic & Control System



New hydraulic oil circuit system

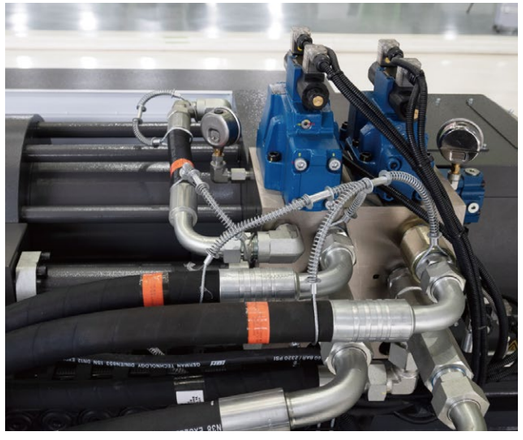
The optimized hydraulic oil circuit design reduces pressure loss in hydraulic oil, for greater energy efficiency.

Mold opening synchronized with plasticizing function

With a multi-pump hydraulic circuit design, PS5 is standard with mold opening synchronized with plasticizing function. If mold opening synchronized with ejection is needed, a reliable solution is available as an optional feature.

Safey design

PS5 series is standard with safety chain for HP hydraulic hose, enhancing the safety of equipment operation.

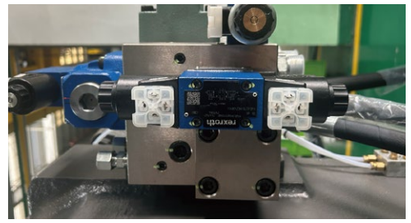


Control system

KEBA control system utilizes digital communication technology to achieve more accurate data transmission and faster response.

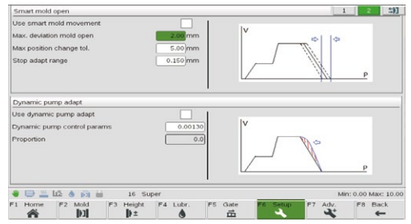
Imported hydraulic and electrical components

Major hydraulic and electrical components in all PS5 models are from leading international brands, ensuring superior stability and performance.



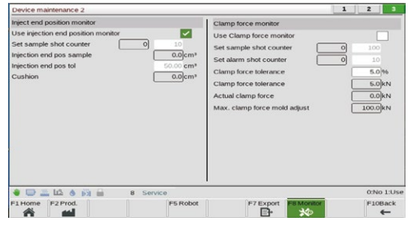
Intelligent mold opening

- Mold opening parameter setting is simplified, requiring only two settings: the start and end points.
- Automatic generation and optimization of parameters for mold-opening process, smoother operation.



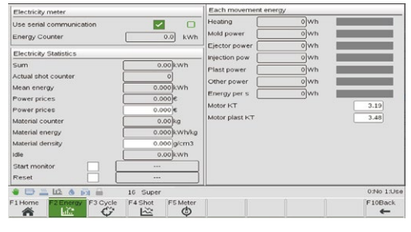
Intelligent clamping force management system

This system proactively identifies and sets optimal clamping force, monitors and intelligently optimizes clamping force parameters, enabling users to efficiently and conveniently operate the injection molding machine while improving the stability of product quality.



Intelligent energy consumption management system (intelligent electricity meter for option)

Digitized and visualized energy consumption data.



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Specifications

Description	UNIT	P280S5	
International specifications		480/2800	
Injection Unit			
Theoretical shot volume	cm^3	220	278
Shot weight (PS)	g	202	256
	oz	7.1	9.0
Screw diameter	mm	40	45
Injection pressure	MPa	228	180
Screw L:D ratio		24 : 1	
Max. injection speed	mm/s	410	
Screw stroke	mm	175	
Screw speed	r/min	0-300	
Clamping Unit			
Clamping force	kN	2800	
Opening stroke	mm	585	
Space between tie bars (WxH)	mmxmm	580*580	
Max. daylight	mm	1185	
Mold thickness (min.-max.)	mm	220-600	
Ejector stroke	mm	150	
Ejector number		5	
Ejector force	kN	77	
Power Unit			
Max. system pressure	MPa	20	
Pump motor power	kW	51	
Heating power	kW	12	14
Number of temp. control zones		5	
General			
Dry cycle time	s	2.2	
Oil tank capacity	l	430	
Machine dimensions (L×W×H)	mxmxm	6.6×1.8×2.3	
Machine weight	Ton	11.8	

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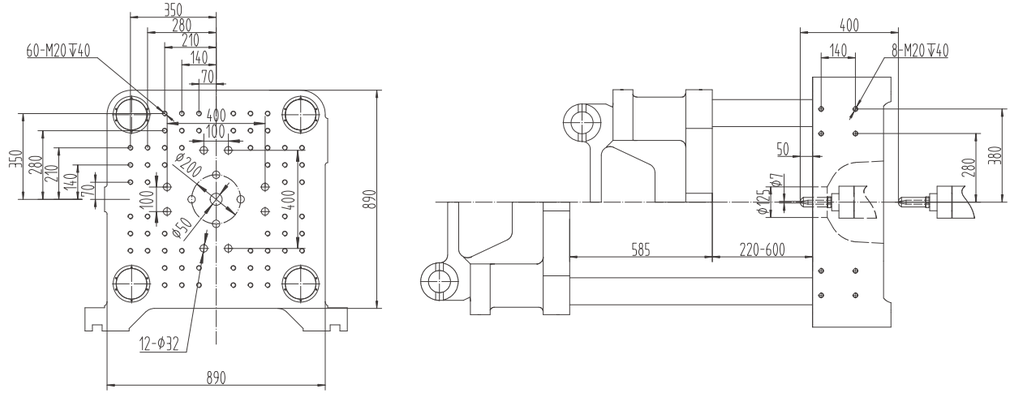
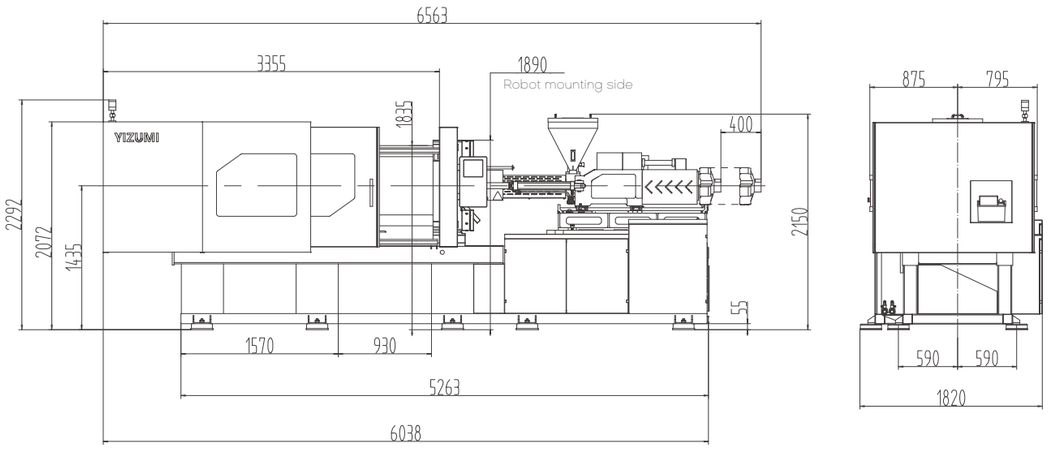
Platen Dimensions



Machine Dimensions



Specifications

Description	UNIT	P380S5		
International specifications		915/3800		
Injection Unit				
Theoretical shot volume	cm^3	442	535	636
Shot weight (PS)	g	406	492	585
	oz	14.3	17.3	20.6
Screw diameter	mm	50	55	60
Injection pressure	MPa	218	180	151
Screw L:D ratio		24 : 1		
Max. injection speed	mm/s	430		
Screw stroke	mm	225		
Screw speed	r/min	0-300		
Clamping Unit				
Clamping force	kN	3800		
Opening stroke	mm	640		
Space between tie bars (WxH)	mmxmm	650*650		
Max. daylight	mm	1290		
Mold thickness (min.-max.)	mm	250-650		
Ejector stroke	mm	150		
Ejector number		5		
Ejector force	kN	77		
Power Unit				
Max. system pressure	MPa	20		
Pump motor power	kW	40+40		
Heating power	kW	20	24	27
Number of temp. control zones		5		
General				
Dry cycle time	s	2.4		
Oil tank capacity	l	600		
Machine dimensions (L×W×H)	mxmxm	7.2×2.0×2.3		
Machine weight	Ton	16		

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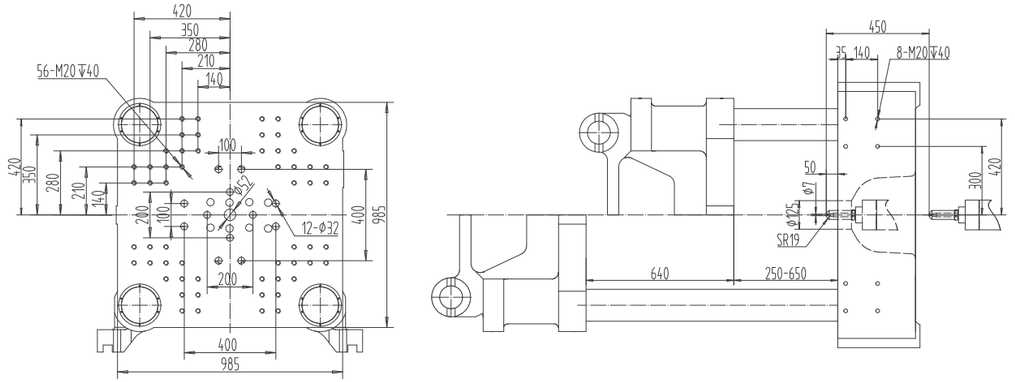
Platen Dimensions



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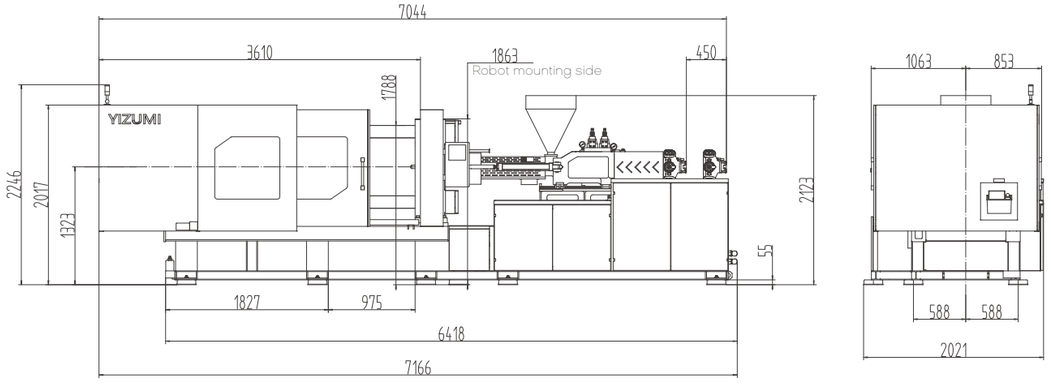

Specifications

Description	UNIT	P400S5		
International specifications		1610/4000		
Injection Unit				
Theoretical shot volume	cm^3	763	896	1039
Shot weight (PS)	g	702	824	956
	oz	24.8	29.1	33.7
Screw diameter	mm	60	65	70
Injection pressure	MPa	222	189	163
Screw L:D ratio		24 : 1		
Max. injection speed	mm/s	370		
Screw stroke	mm	270		
Screw speed	r/min	0-300		
Clamping Unit				
Clamping force	kN	4000		
Opening stroke	mm	730		
Space between tie bars (WxH)	mmxmm	720*720		
Max. daylight	mm	1420		
Mold thickness (min.-max.)	mm	280-700		
Ejector stroke	mm	150		
Ejector number		5		
Ejector force	kN	77		
Power Unit				
Max. system pressure	MPa	20		
Pump motor power	kW	51+51		
Heating power	kW	24	26.5	30
Number of temp. control zones		5		
General				
Dry cycle time	s	2.5		
Oil tank capacity	l	650		
Machine dimensions (L×W×H)	mxmxm	8.1×2.1×2.3		
Machine weight	Ton	18.3		

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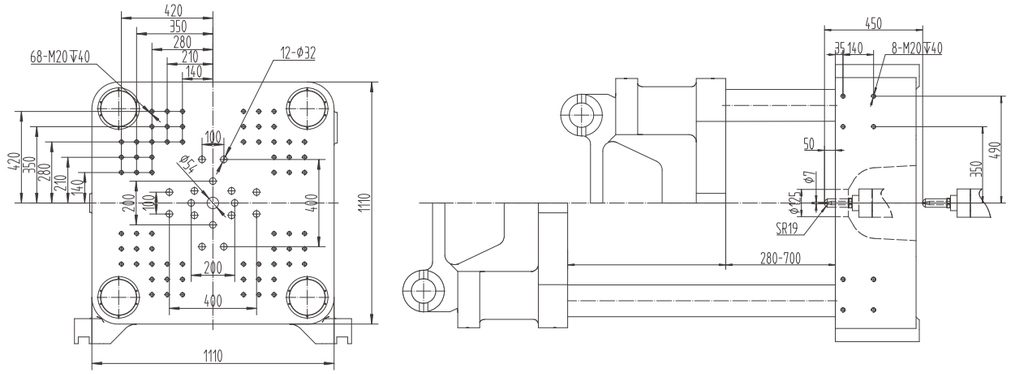
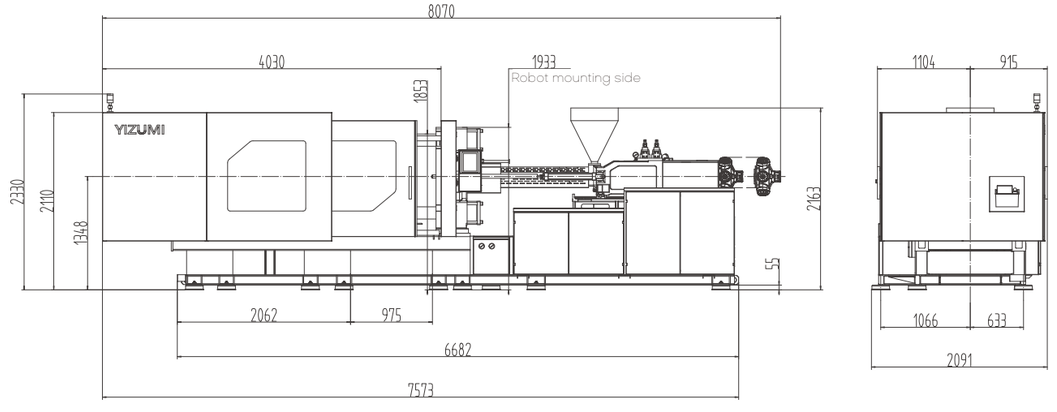
Platen Dimensions



Machine Dimensions



Specifications

Description	UNIT	P420S5		
International specifications		915/4200		
Injection Unit				
Theoretical shot volume	cm^3	442	535	636
Shot weight (PS)	g	406	492	585
	oz	14.3	17.3	20.6
Screw diameter	mm	50	55	60
Injection pressure	MPa	218	180	151
Screw L:D ratio		24 : 1		
Max. injection speed	mm/s	550		
Screw stroke	mm	225		
Screw speed	r/min	0-300		
Clamping Unit				
Clamping force	kN	4200		
Opening stroke	mm	660		
Space between tie bars (WxH)	mmxmm	730*670		
Max. daylight	mm	1360		
Mold thickness (min.-max.)	mm	300-700		
Ejector stroke	mm	150		
Ejector number		5		
Ejector force	kN	77		
Power Unit				
Max. system pressure	MPa	20		
Pump motor power	kW	51+51		
Heating power	kW	20	24	27
Number of temp. control zones		5		
General				
Dry cycle time	s	2.7		
Oil tank capacity	l	650		
Machine dimensions (L×W×H)	mxmxm	7.5×2.1×2.3		
Machine weight	Ton	20.3		

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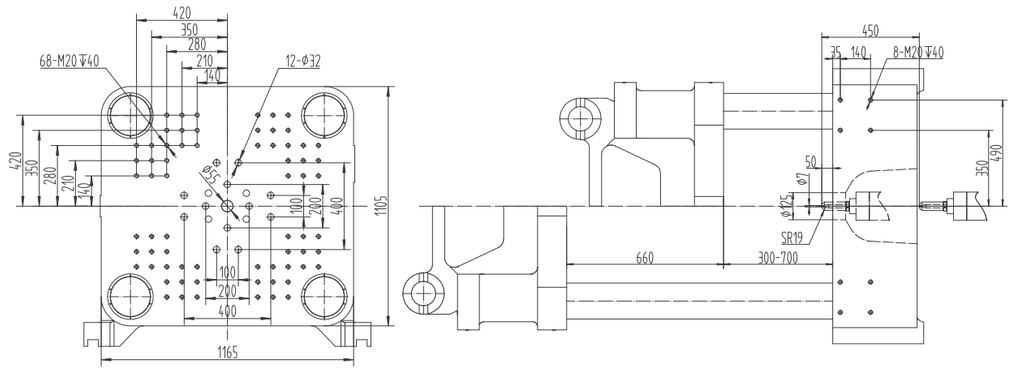
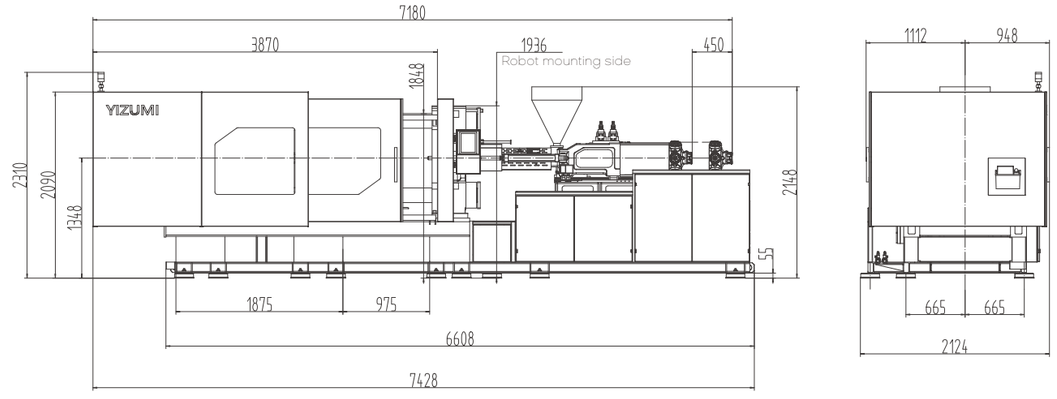
Platen Dimensions



Machine Dimensions



Specifications

Description	UNIT	P480S5		
International specifications		915/4800		
Injection Unit				
Theoretical shot volume	cm^3	442	535	636
Shot weight (PS)	g	406	492	585
	oz	14.3	17.3	20.6
Screw diameter	mm	50	55	60
Injection pressure	MPa	218	180	151
Screw L:D ratio		24 : 1		
Max. injection speed	mm/s	550		
Screw stroke	mm	225		
Screw speed	r/min	0-300		
Clamping Unit				
Clamping force	kN	4800		
Opening stroke	mm	730		
Space between tie bars (WxH)	mmxmm	770*720		
Max. daylight	mm	1480		
Mold thickness (min.-max.)	mm	330-750		
Ejector stroke	mm	150		
Ejector number		5		
Ejector force	kN	77		
Power Unit				
Max. system pressure	MPa	20		
Pump motor power	kW	51+51		
Heating power	kW	20	24	27
Number of temp. control zones		5		
General				
Dry cycle time	s	2.8		
Oil tank capacity	l	650		
Machine dimensions (L×W×H)	mxmxm	7.9×2.2×2.3		
Machine weight	Ton	22.5		

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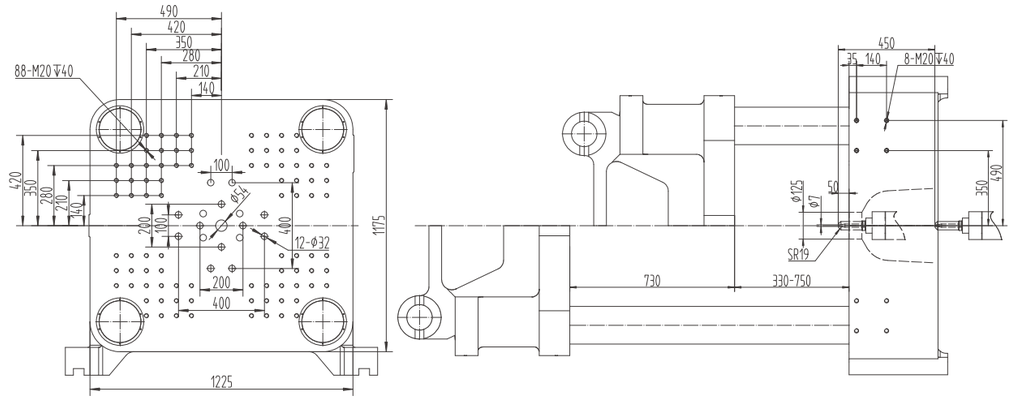
Platen Dimensions



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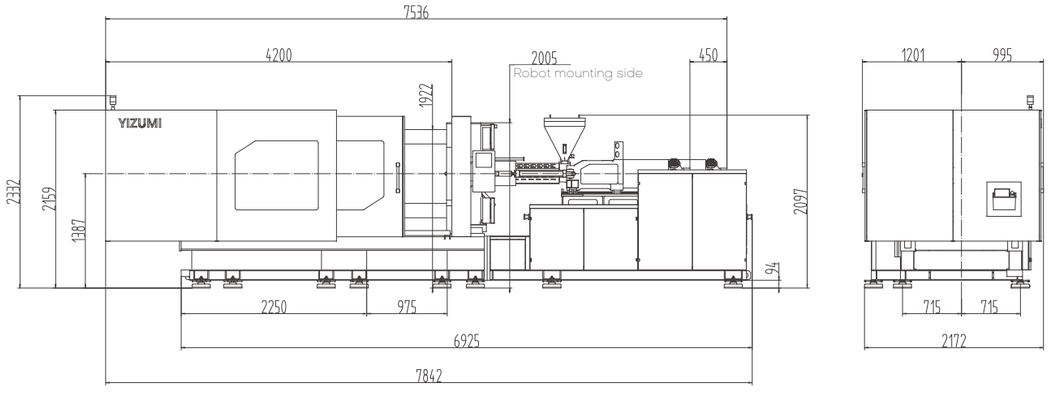

Specifications

Description	UNIT	P560S5		
International specifications		1610/5600		
Injection Unit				
Theoretical shot volume	cm^3	763	896	1039
Shot weight (PS)	g	702	824	956
	oz	24.8	29.1	33.7
Screw diameter	mm	60	65	70
Injection pressure	MPa	222	189	163
Screw L:D ratio		24 : 1		
Max. injection speed	mm/s	490		
Screw stroke	mm	270		
Screw speed	r/min	0-300		
Clamping Unit				
Clamping force	kN	5600		
Opening stroke	mm	780		
Space between tie bars (WxH)	mmxmm	820*770		
Max. daylight	mm	1580		
Mold thickness (min.-max.)	mm	350-800		
Ejector stroke	mm	160		
Ejector number		5		
Ejector force	kN	111		
Power Unit				
Max. system pressure	MPa	20		
Pump motor power	kW	51+51+34		
Heating power	kW	24	26.5	30
Number of temp. control zones		5		
General				
Dry cycle time	s	3.5		
Oil tank capacity	l	1000		
Machine dimensions (L×W×H)	mxmxm	8.8×2.3×2.5		
Machine weight	Ton	26.7		

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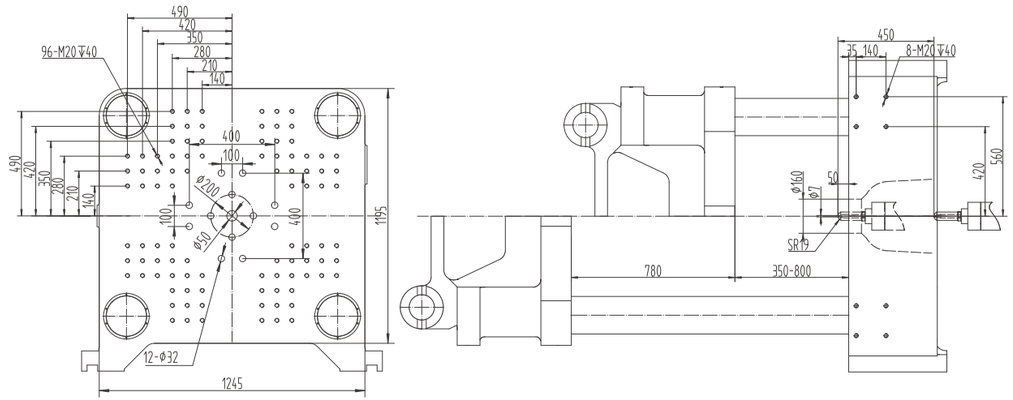
Platen Dimensions



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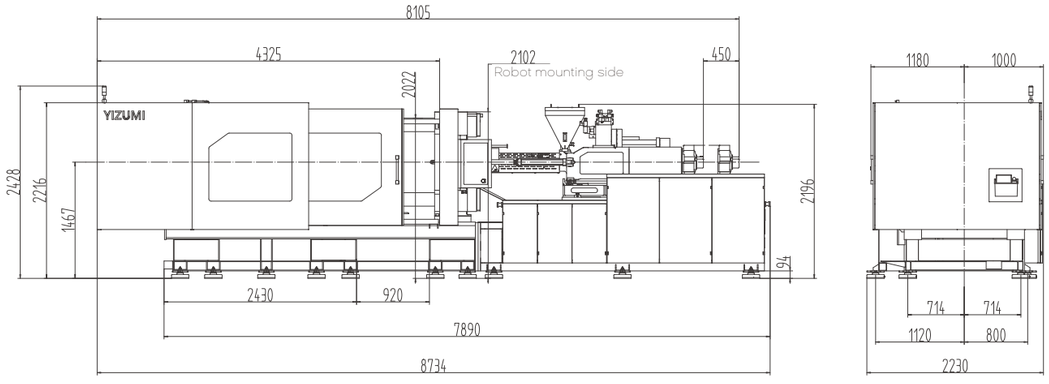

Standard and Optional Features

	Standard	Optional
Injection/Plasticizing Unit		
Nozzle purge guard (with electrical detection)	●	
Nitrided high-plasticizing screw & barrel	●	
Single-injection device	●	
Double-carriage cylinder	●	
Multi-stage injection speed / pressure /position control	●	
Multi-stage holding pressure speed / pressure / time control	●	
Multi-stage plasticizing speed / pressure / position control	●	
Optional suck-back before or after plasticizing	●	
Pre-injection delay function	●	
Pre-molding delay function	●	
Cold start protection	●	
Automatic purging	●	
Thermal insulation function	●	
Automatic detection of injection and plasticizing fault	●	
Precise transducer for injection / plasticizing stroke control	●	
Screw speed detection	●	
Integrated injection unit with linear guides	●	
Hard chrome-plated screw component		○
Bi-metallic screw component		○
Ceramic heater band		○
Extended nozzle		○
Dedicated screw & barrel component		○
Spring shut-off nozzle		○
Stainless steel hopper		○
Energy-saving barrel heat-retaining guard		○
Blowing device of barrel		○
Increased carriage stroke		○
Clamping Unit		
Wear-resistant guides for movable platen	●	
High-rigidity platen	●	
Clamping platens / toggles made of highly-rigid ductile iron QT500-7A	●	
Precision transducer for clamping / ejector stroke control	●	
Mold opening and closing, ejector curve functions	●	
Low-pressure mold protection	●	
Hydraulic mold height adjustment device	●	
Opening and closing slope control (high, medium, and low modes)	●	
Ejector progressive function	●	
Ejector return action delay monitoring function	●	
Ejector return signal confirmation function	●	
Multiple ejector function settings	●	
Ejector action delay function	●	
Safety edges for machine gates	●	
Emergency stop function (operation side and non-operation side)	●	

	Standard	Optional
Centralized lubrication system	●	
Multiple sets of air blow	●	
Differential fast mold closing device	●	
Various positioning rings		○
Pneumatic ejection device		○
Pneumatic neutron device		○
Increased mold thickness		○
Mold thermal insulation plate		○
Increased ejector stroke		○
Movable platen with linear guide rail		○
Special mold mounting hole		○
Hydraulic System		
Servo power system	●	
Automatic system pressure and flow adjustment	●	
High-performance hydraulic valve	●	
Low-noise hydraulic cooling device	●	
Hydraulic oil temperature monitoring with high/low temperature alarm	●	
Multiple sets of water distributors	●	
High-precision real time bypass oil filter	●	
Hydraulic oil cooling device	●	
Unscrewing device		○
Multiple sets of core pulling		○
High-response servo injection system with accumulator		○
Ejecting during mold opening		○
Enlarged oil cooler		○
Control System		
Input and output inspection interface	●	
Automatic heat retaining and automatic heating setting	●	
Time / position / pressure controlled switchover from injection to holding	●	
Separate adjustment of motion slope	●	
Robot interface	●	
Process parameter locking	●	
Automatic clamping force adjustment	●	
LCD display screen	●	
Operating languages (CN&EN)	●	
1 single-phase and 2 Three-Phase Power Sockets (16A)/(32A+16A)	●	
Alarm record	●	
Alarm buzzer	●	
8 sets of blowing with valve devices (5 sets for P280S5)	●	
Parallel plasticizing (standard for P380S5 and above models)	●	
Electrical interface for EU67 robot	●	
Additional single-phase power socket /3-phase power socket		○
Special power supply voltage		○
Electrical interface for EU12 robot		○
Air blow device		○

	Standard	Optional
Multiple operating languages		○
Additional mold cooling water circuit		○
Heater break detection		○
External transformer		○
Electrical interface for cavity pressure detection		○
Display and control of mold temperature		○
Energy consumption display		○
Electric parallel plasticizing		○
Infrared / ceramic heater band		○
General		
Operation manual	●	
Adjustable leveling pad	●	
A tool kit	●	
Mold clamp	●	
Hopper	●	
Filter element	●	
Hopper transition slider (with roller)		○
Mold temperature controller		○
Auto loader		○
Dehumidifier		○
Glass-tube water flowmeter		○

● Standard ○ Optional

THINK
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