THINK TECH FORWARD

Designed by YIZUMI, February 2025

YIZUMI

P

150T-550T

P SERIES THIN-WALL
INJECTION MOLDING MACHINE

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Overview Design of P Series Machine

Robust 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 Crosshead 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

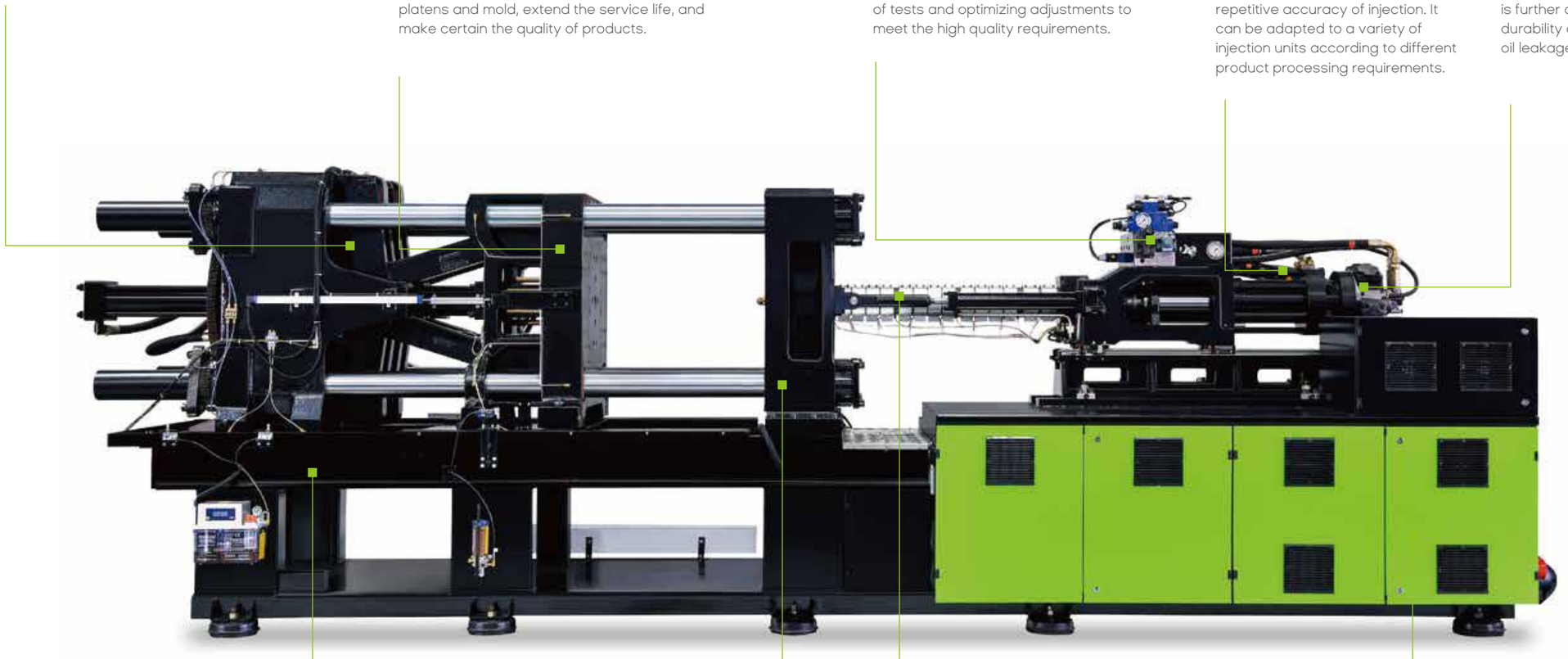
Selecting the high-quality hydraulic components to reduce response time, oil circuit impact, and overall machine noise. Machine will go through a number of tests and optimizing adjustments to meet the high quality requirements.

Single Cylinder Injection Unit

The compact single cylinder injection structure renders features such as small movement inertia, short acceleration time, and high repetitive accuracy of injection. 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 and avoid oil leakage.



High-rigid Machine Frame

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

High-rigid and Low Deformation Platens

The adoption of reinforced platen design according to the characteristics of thin-wall packaging products. With perfect combination of strength and rigidity, while minimize the platen deformation, it maintains a flexible and smooth movement.

Horizontal Dual-carriage Design

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

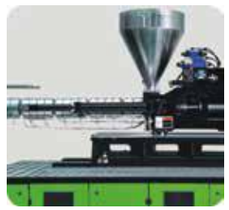
Efficient Power Output

Power output is optimized to realize the step distribution of 150-800mm/s injection speed.

Optional Features

Ejector-on-Fly

Ejetor while mold opening to shorten the production cycle time.



Use of Appropriate Screw and Barrels

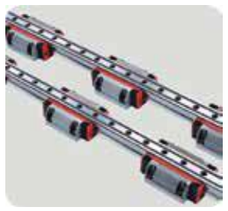
Select from a variety of professional screw and barrels according to the characteristics of different raw materials and production processes to ensure the plasticizing quality.

High-speed Mold Opening /Closing Proportional Valve

Further reduce the reaction time. Double the repetitive accuracy of mold opening ends and increase the operating speed of mold opening/closing by 15%-20%, suitable for the production of various precision thin-walled products.

Infrared Heater Band

The infrared heater band reduces the heat loss by 30%-68%.



Linear Guide Rails

Reduce the friction from movable platen to further lower energy consumption, improve operating speed and shorten the production cycle time.

Servo Injection with Accumulator

Increase the injection speed up to 800mm/s and double the repetitive accuracy of injection. It is capable to produce thinner and more sophisticated products while shortening the injection time and improving the production efficiency.

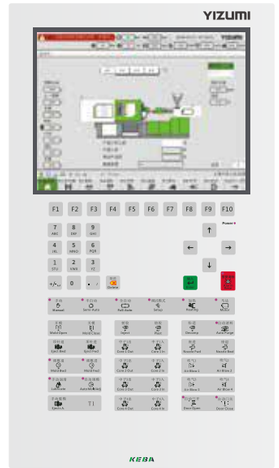
Electric Dozing Motor

Reduce production cycle time through parallel operation. Driven by servo motor, the dozing motor has higher energy conversion efficiency and saves more energy.

Shut-off Nozzle

Choose the long-lasting precision shut-off nozzle. Effectively avoid nozzle drooling.

Customized Control System



KEBA industrial controller

Electrical System

- Faster processing speed, optimized control rate, and outstanding repetitive accuracy help to achieve more stable product quality.
- Bright, full color 12-inch touch screen input and easy-to-use operation page.
- Multi-stage injection and plasticizing function pages are easy to use and improve processes accordingly.
- The production management and production monitoring functions can communicate with the peripheral equipment barrier-free.
- Online quality monitoring function and injection molding industry 4.0.

Thin-wall mold

We can offer customized mold for thin wall injection molding according to customer specific requirements, to better meet diversified demand.

Applications

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 Supplies

Injector, pipet tips, petri dish, and other products. Provide clean, efficient, and stable system solutions.

Various Types of Bottle Caps

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

Various Types of Thin-Walled Plastic Products

Such as 5L-20L industrial sealed barrels, all types of logistics cable ties, and multi-cavity silicon sealant barrels. For plastic products with high flow length ratio and light gram weight, it can effectively improve the productivity and product quality.

P Series serves at

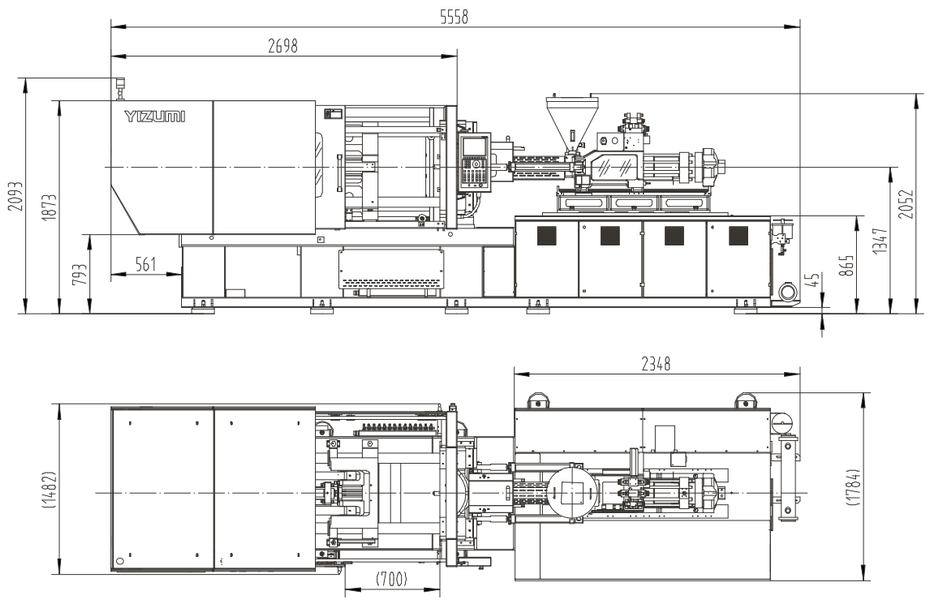
伊利 · 蒙牛 · 雀巢 Nestlé · 统一企业 · 东鹏饮料 · BIGGY · Life Story · DSI PLASTICS · tritec

P150 High-speed Injection Molding Machine

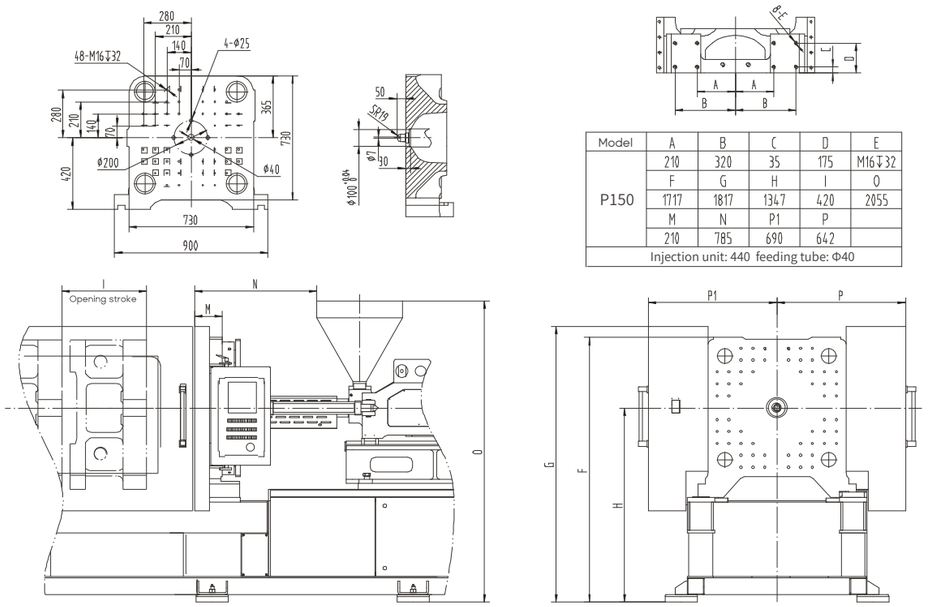
DESCRIPTION	UNIT	P150			
International specification		440/1500		640/1500	
INJECTION UNIT					
Shot volume	cm^3	221	280	334	412
Shot weight (PS)	g	203	258	307	379
	oz	7.2	9.1	10.8	13.4
Screw diameter	mm	40	45	45	50
Injection pressure	MPa	199	158	194	158
Screw L:D ratio		22:1			
Max.injection speed ①	mm/s	150/230/290		120/190/235	
Max.injection speed with accumulator	mm/s	500		500	
Nozzle stroke	mm	400			
Screw stroke	mm	176		210	
Screw speed (stepless)	r/min	0-300			
CLAMPING UNIT					
Clamping force	kN	1500			
Opening stroke	mm	420			
Space between bars (WxH)	mmxmm	455x455			
Max. daylight	mm	870			
Mold thickness (Min.-Max.)	mm	150-450			
Hydraulic ejection stroke	mm	140			
Ejector number		5			
Hydraulic ejection force	kN	77			
POWER UNIT					
Hydraulic system pressure	Mpa	17.5			
Pump motor	kW	23/45.2/55			
Pump motor with accumulator	kW	45.2+11		45.2+22	
electric screw drive	kW	16.4			
Heating capacity	kW	11		11	16.5
Number of temp control zones		5			
GENERAL UNIT					
Dry cycle time	s	1.8			
Oil tank capacity	l	370			
Machine dimensions(LxWxH)	mxmxm	5.6x1.8x2.1			
Machine weight	Ton	7.8			

① : Servo/Standard Servo/Amplified Servo

P150 Layout Drawings



P150 Platen Dimension Drawings



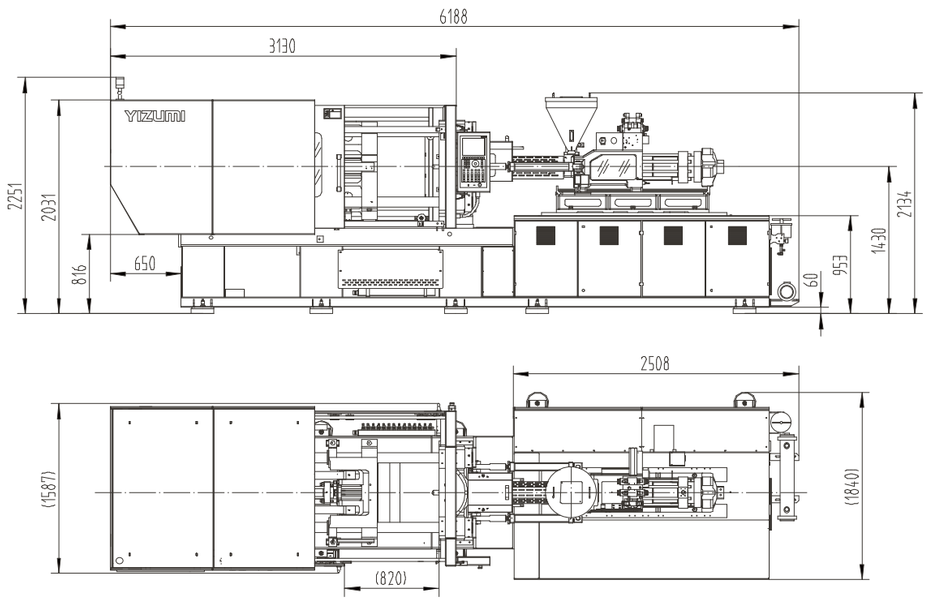
Model	A	B	C	D	E
P150	210	320	35	175	M16↧32
	F	G	H	I	O
	1717	1817	1347	420	2055
	M	N	P1	P	
	210	785	690	642	
Injection unit: 440 feeding tube: Φ40					

P200 High-speed Injection Molding Machine

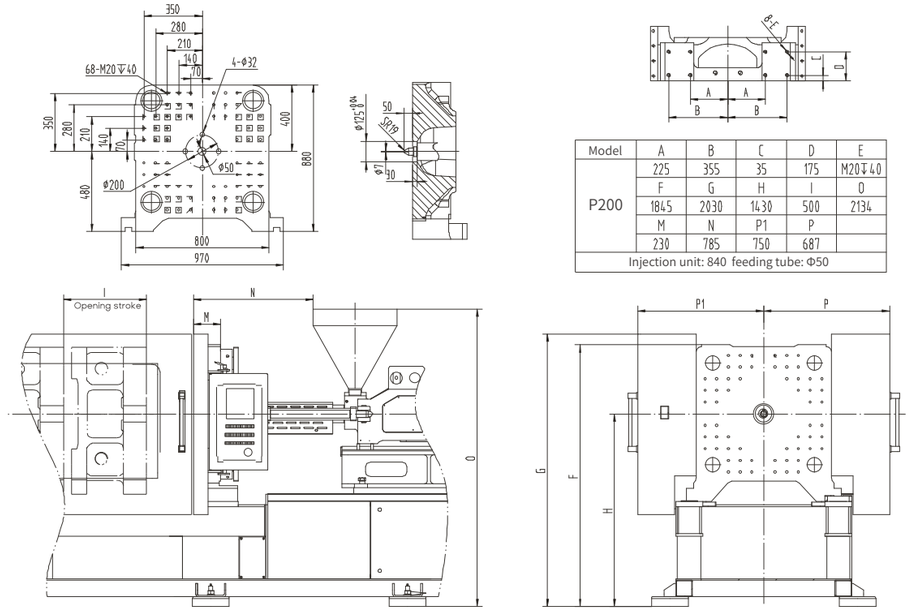
DESCRIPTION	UNIT	P200			
International specification		440/2000		640/2000	
INJECTION UNIT					
Shot volume	cm^3	221	280	334	412
Shot weight (PS)	g	203	258	307	379
	oz	7.2	9.1	10.8	13.4
Screw diameter	mm	40	45	45	50
Injection pressure	MPa	199	158	194	158
Screw L:D ratio		22:1			
Max.injection speed ①	mm/s	185/230/290		150/190/235	
Max.injection speed with accumulator	mm/s	500		500	
Nozzle stroke	mm	400			
Screw stroke	mm	176		210	
Screw speed (stepless)	r/min	0-300			
CLAMPING UNIT					
Clamping force	kN	2000			
Opening stroke	mm	500			
Space between bars (WxH)	mmxmm	520x520			
Max. daylight	mm	1050			
Mold thickness (Min.-Max.)	mm	200-550			
Hydraulic ejection stroke	mm	150			
Ejector number		5			
Hydraulic ejection force	kN	77			
POWER UNIT					
Hydraulic system pressure	Mpa	17.5			
Pump motor	kW	33.9/45.2/55			
Pump motor with accumulator	kW	45.2+11		45.2+22	
electric screw drive	kW	16.4			
Heating capacity	kW	11		11	16.5
Number of temp control zones		5			
GENERAL UNIT					
Dry cycle time	s	2			
Oil tank capacity	l	460			
Machine dimensions(LxWxH)	mxmxm	6.2x1.85x2.25			
Machine weight	Ton	9.3			

① : Servo/Standard Servo/Amplified Servo

P200 Layout Drawings



P200 Platen Dimension Drawings



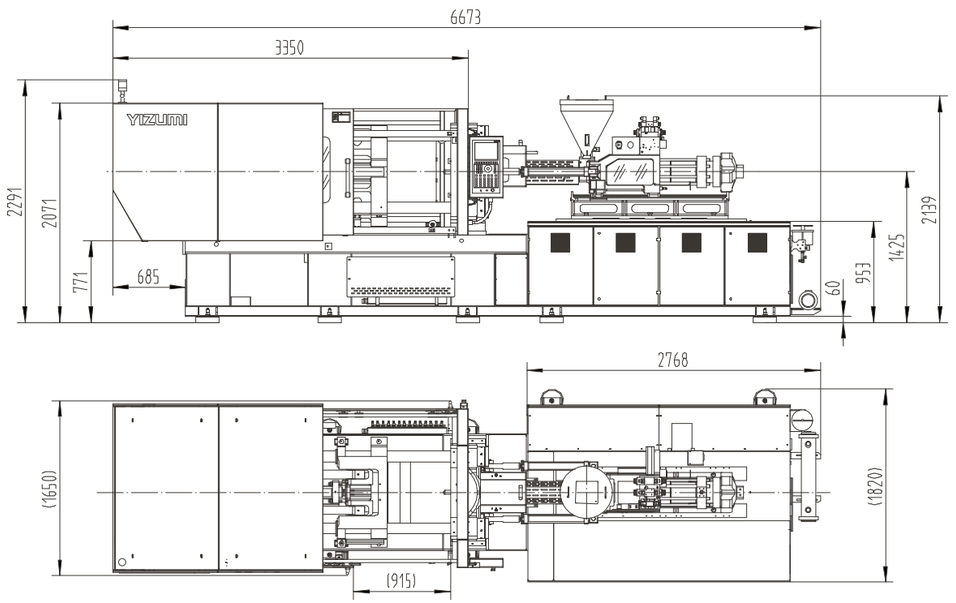
Model	A	B	C	D	E
P200	225	355	35	175	M20▽40
	F	G	H	I	O
	1845	2030	1430	500	2134
	M	N	P1	P	
	230	785	750	687	
Injection unit: 840 feeding tube: Φ50					

P250 High-speed Injection Molding Machine

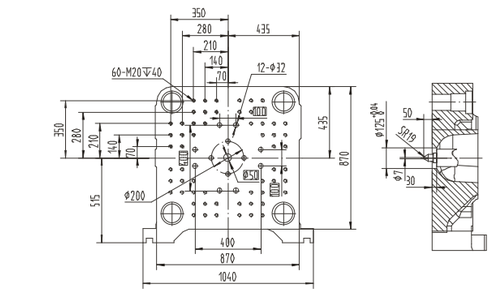
DESCRIPTION	UNIT	P250						
International specification		440/2500		640/2500		840/2500		
INJECTION UNIT								
Shot volume	cm^3	221	280	334	412	442	535	636
Shot weight (PS)	g	203	258	307	379	406	492	585
	oz	7.2	9.1	10.8	13.4	14.3	17.3	20.6
Screw diameter	mm	40	45	45	50	50	55	60
Injection pressure	MPa	199	158	194	158	191	158	132
Screw L:D ratio		22:1						
Max.injection speed ①	mm/s	185/290		150/235		125/195		
Max.injection speed with accumulator	mm/s	500		500		500		
Nozzle stroke	mm	400				450		
Screw stroke	mm	176		210		225		
Screw speed (stepless)	r/min	0-300						
CLAMPING UNIT								
Clamping force	kN	2500						
Opening stroke	mm	560						
Space between bars (WxH)	mmxmm	580x580						
Max. daylight	mm	1160						
Mold thickness (Min.-Max.)	mm	220-600						
Hydraulic ejection stroke	mm	180						
Ejector number		13						
Hydraulic ejection force	kN	137						
POWER UNIT								
Hydraulic system pressure	Mpa	17.5						
Pump motor	kW	33.9/55						
Pump motor with accumulator	kW	45.2+11		45.2+22		45.2+22		
electric screw drive	kW	16.4				20		
Heating capacity	kW	11		11	16.5	16.5	22	24.8
Number of temp control zones		5						
GENERAL UNIT								
Dry cycle time	s	2.2						
Oil tank capacity	l	480						
Machine dimensions(LxWxH)	mxmxm	6.7x1.82x2.3						
Machine weight	Ton	10.5						

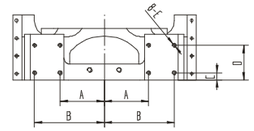
① : Servo/Standard Servo

P250 Layout Drawings

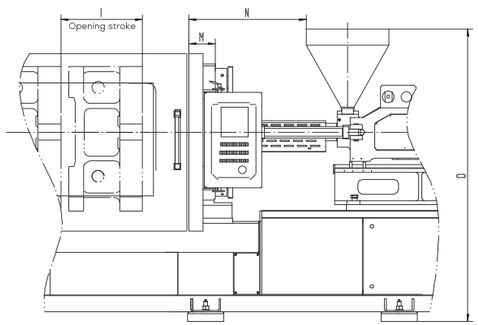


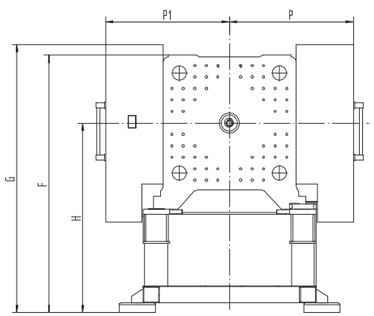
P250 Platen Dimension Drawings





Model	A	B	C	D	E
P250	280	380	35	175	M20↧40
	F	G	H	I	O
	1890	2030	1425	560	2235
	M	N	P1	P	
	280	955	790	710	
Injection unit: 840 feeding tube: Φ50					



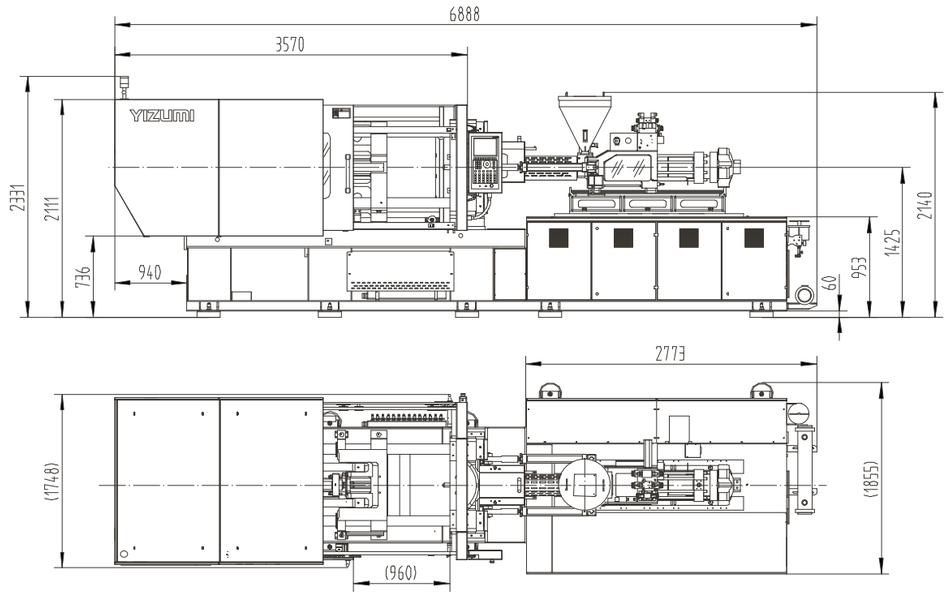


P300 High-speed Injection Molding Machine

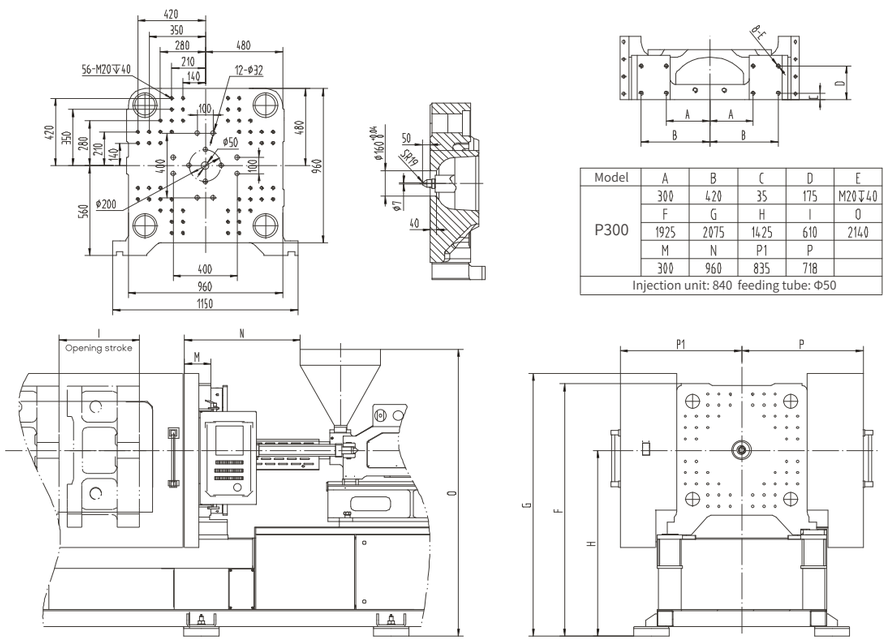
DESCRIPTION	UNIT	P300								
International specification		840/3000			1080/3000			1480/3000		
INJECTION UNIT										
Shot volume	cm^3	442	535	636	491	594	707	763	896	1039
Shot weight (PS)	g	406	492	585	452	546	650	702	824	956
	oz	14.3	17.3	20.6	15.9	19.3	22.9	24.8	29.1	33.7
Screw diameter	mm	50	55	60	50	55	60	60	65	70
Injection pressure	MPa	191	158	132	227	187	158	194	166	143
Screw L:D ratio		22:1								
Max.injection speed ①	mm/s	195/280/350			165/235/295			130/190/240		
Max.injection speed with accumulator	mm/s	500			500			500		
Nozzle stroke	mm	450								
Screw stroke	mm	225			250			270		
Screw speed (stepless)	r/min	0-300								
CLAMPING UNIT										
Clamping force	kN	3000								
Opening stroke	mm	610								
Space between bars (WxH)	mmxmm	635x635								
Max. daylight	mm	1260								
Mold thickness (Min.-Max.)	mm	250-650								
Hydraulic ejection stroke	mm	180								
Ejector number		13								
Hydraulic ejection force	kN	137								
POWER UNIT										
Hydraulic system pressure	Mpa	17.5								
Pump motor	kW	55/45.2+33.9/55+45.2								
Pump motor with accumulator	kW	55+22			55+22					
electric screw drive	kW	20			29			29		
Heating capacity	kW	16.5	22	24.8	16.5	22	24.8	22.6	24	27
Number of temp control zones		5								
GENERAL UNIT										
Dry cycle time	s	2.3								
Oil tank capacity	l	600								
Machine dimensions(LxWxH)	mxmxm	6.9x1.86x2.35								
Machine weight	Ton	12.5								

① : Servo/Standard Servo/Amplified Servo

P300 Layout Drawings



P300 Platen Dimension Drawings



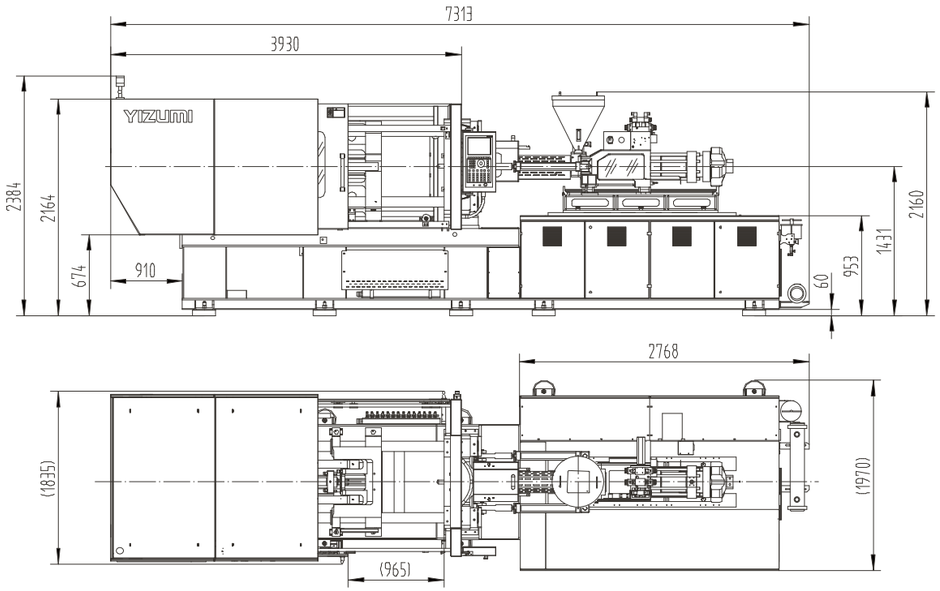
Model	A	B	C	D	E
P300	300	420	35	175	M20↧40
	F	G	H	I	O
	1925	2075	1425	610	2140
	M	N	P1	P	
	300	960	835	718	
Injection unit: 840 feeding tube: Φ50					

P350 High-speed Injection Molding Machine

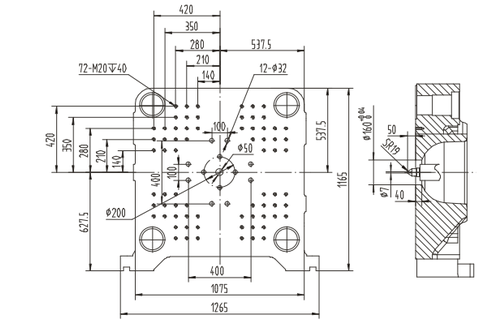
DESCRIPTION	UNIT	P350								
International specification		1080/3500			1480/3500			2180/3500		
INJECTION UNIT										
Shot volume	cm^3	491	594	707	763	896	1039	891	1212	1583
Shot weight (PS)	g	452	546	650	702	824	956	819	1115	1457
	oz	15.9	19.3	22.9	24.8	29.1	33.7	28.9	39.3	51.4
Screw diameter	mm	50	55	60	60	65	70	60	70	80
Injection pressure	MPa	227	187	158	194	166	143	246	181	138
Screw L:D ratio		22:1								
Max.injection speed ①	mm/s	160/270/325			130/220/265			105/170/210		
Max.injection speed with accumulator	mm/s	500			500			500		
Nozzle stroke	mm	450								
Screw stroke	mm	250			270			315		
Screw speed (stepless)	r/min	0-300						0-250		
CLAMPING UNIT										
Clamping force	kN	3500								
Opening stroke	mm	700								
Space between bars (WxH)	mmxmm	730x730								
Max. daylight	mm	1450								
Mold thickness (Min.-Max.)	mm	300-750								
Hydraulic ejection stroke	mm	200								
Ejector number		13								
Hydraulic ejection force	kN	137								
POWER UNIT										
Hydraulic system pressure	Mpa	17.5								
Pump motor	kW	55/55+33.9/55+55								
Pump motor with accumulator	kW	55+22						55+30		
electric screw drive	kW	29			29			42		
Heating capacity	kW	16.5	22	24.8	22.6	24	27	30	32	35
Number of temp control zones		5								
GENERAL UNIT										
Dry cycle time	s	2.6								
Oil tank capacity	l	700								
Machine dimensions(LxWxH)	mxmxm	7.35x1.97x2.4								
Machine weight	Ton	15								

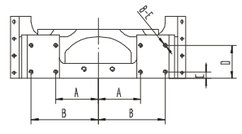
① : Servo/Standard Servo/Amplified Servo

P350 Layout Drawings

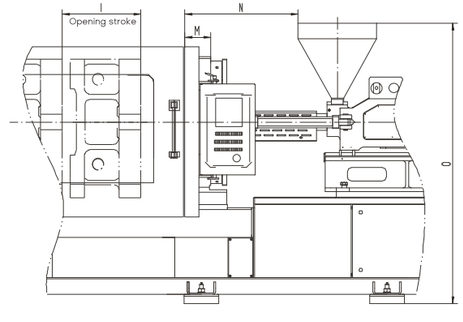


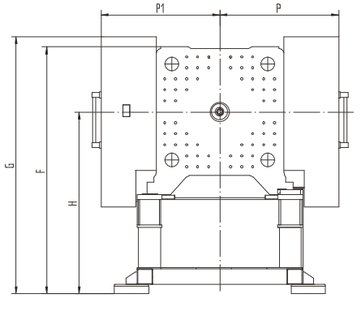
P350 Platen Dimension Drawings





Model	A	B	C	D	E
P350	350	490	35	175	M20↧40
	F	G	H	I	O
	1995	2115	1431	700	2160
	M	N	P1	P	
	330	1180	877	826	
Injection unit: 1480 feeding tube: Φ60					



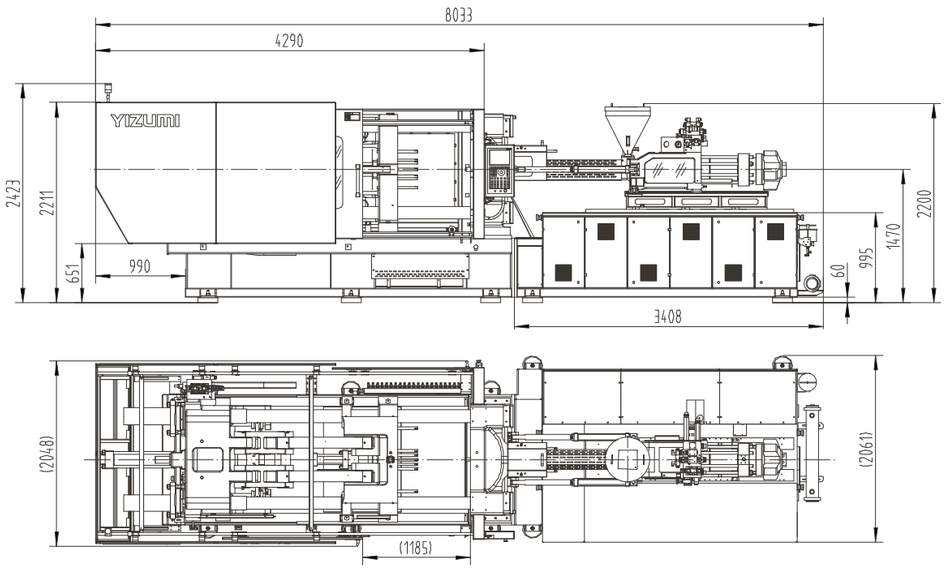


P450 High-speed Injection Molding Machine

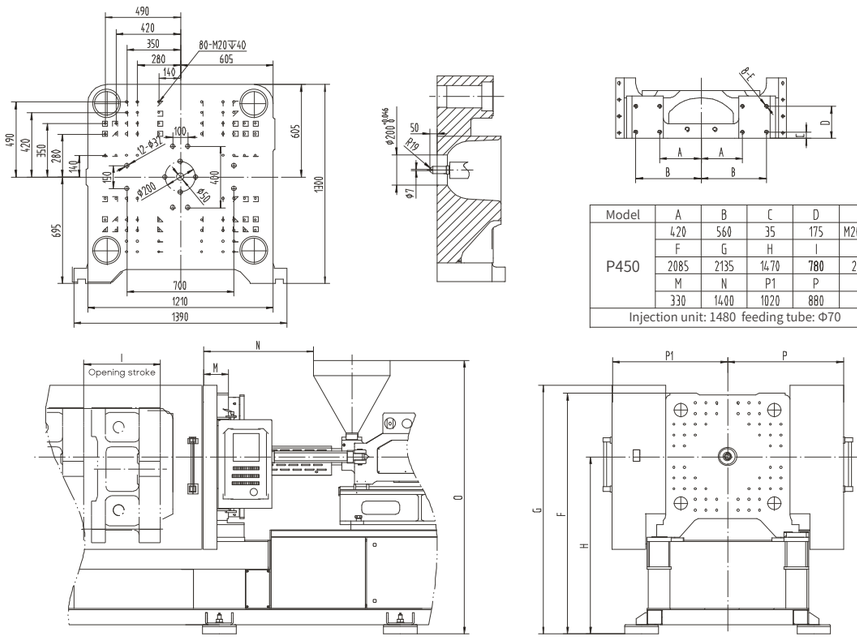
DESCRIPTION	UNIT	P450								
International specification		1080/4500			1480/4500			2180/4500		
INJECTION UNIT										
Shot volume	cm^3	491	594	707	763	896	1039	891	1212	1583
Shot weight (PS)	g	452	546	650	702	824	956	819	1115	1457
	oz	15.9	19.3	22.9	24.8	29.1	33.7	28.9	39.3	51.4
Screw diameter	mm	50	55	60	60	65	70	60	70	80
Injection pressure	MPa	227	187	158	194	166	143	246	181	138
Screw L:D ratio		22:1								
Max.injection speed ①	mm/s	160/330/370			130/265/300			105/210/240		
Max.injection speed with accumulator	mm/s	500			500			500		
Nozzle stroke	mm	450								
Screw stroke	mm	250			270			315		
Screw speed (stepless)	r/min	0-300						0-250		
CLAMPING UNIT										
Clamping force	kN	4500								
Opening stroke	mm	780								
Space between bars (WxH)	mmxmm	820x820								
Max. daylight	mm	1580								
Mold thickness (Min.-Max.)	mm	300-800								
Hydraulic ejection stroke	mm	220								
Ejector number		13								
Hydraulic ejection force	kN	137								
POWER UNIT										
Hydraulic system pressure	Mpa	17.5								
Pump motor	kW	55/55+55/55+63								
Pump motor with accumulator	kW	55+22						55+30		
electric screw drive	kW	29			29			42		
Heating capacity	kW	16.5	22	24.8	22.6	24	27	30	32	35
Number of temp control zones		5								
GENERAL UNIT										
Dry cycle time	s	3.5								
Oil tank capacity	l	750								
Machine dimensions(LxWxH)	mxmxm	8.1x2.1x2.45								
Machine weight	Ton	22								

① : Servo/Standard Servo/Amplified Servo

P450 Layout Drawings



P450 Platen Dimension Drawings



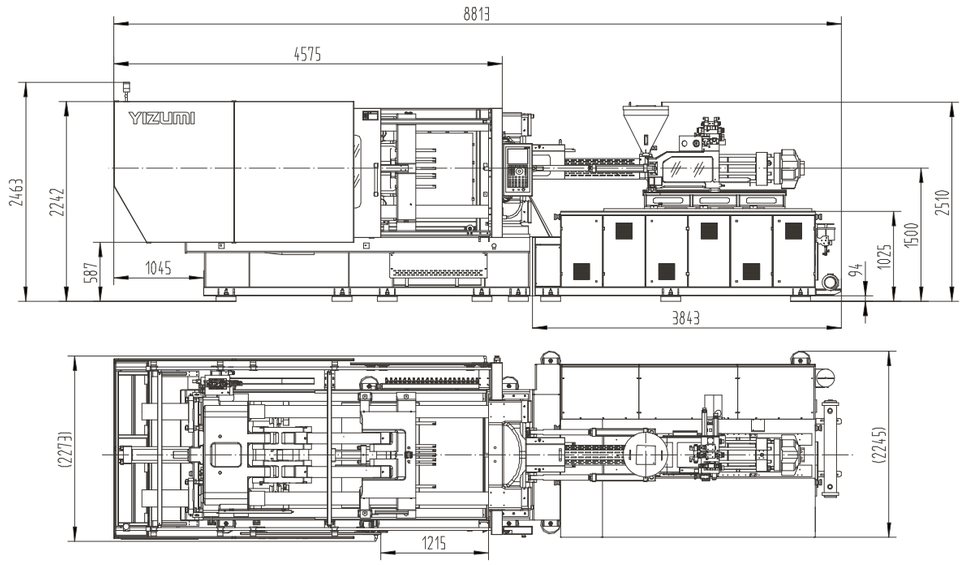
Model	A	B	C	D	E
P450	420	560	35	175	M20↧40
	F	G	H	I	O
	2085	2135	1470	780	2200
	M	N	P1	P	
	330	1400	1020	880	
Injection unit: 1480 feeding tube: Φ70					

P550 High-speed Injection Molding Machine

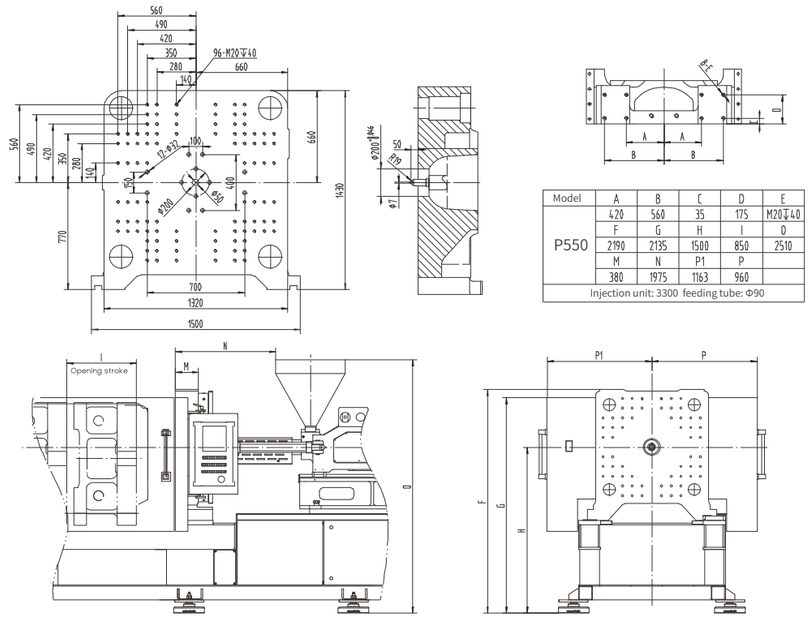
DESCRIPTION	UNIT	P550								
International specification		1480/5500			2180/5500			3300/5500		
INJECTION UNIT										
Shot volume	cm^3	763	896	1039	891	1212	1583	1366	1784	2258
Shot weight (PS)	g	702	824	956	819	1115	1457	1257	1642	2078
	oz	24.8	29.1	33.7	28.9	39.3	51.4	44.3	57.9	73.3
Screw diameter	mm	60	65	70	60	70	80	70	80	90
Injection pressure	MPa	194	166	143	246	181	138	241	185	146
Screw L:D ratio		22:1								
Max.injection speed ①	mm/s	170/340			130/270			100/200		
Max.injection speed with accumulator	mm/s	500			500			500		
Nozzle stroke	mm	450								
Screw stroke	mm	270			315			355		
Screw speed (stepless)	r/min	0-300			0-250			0-220		
CLAMPING UNIT										
Clamping force	kN	5500								
Opening stroke	mm	850								
Space between bars (WxH)	mmxmm	920x920								
Max. daylight	mm	1700								
Mold thickness (Min.-Max.)	mm	350-850								
Hydraulic ejection stroke	mm	220								
Ejector number		13								
Hydraulic ejection force	kN	137								
POWER UNIT										
Hydraulic system pressure	Mpa	17.5								
Pump motor	kW	63/63+63								
Pump motor with accumulator	kW	63+22			63+30			63+30		
electric screw drive	kW	29			42			60		
Heating capacity	kW	22.6	24	27	30	32	35	30	32	35
Number of temp control zones		5								
GENERAL UNIT										
Dry cycle time	s	4								
Oil tank capacity	l	900								
Machine dimensions(LxWxH)	mxmxm	8.9x2.25x2.46								
Machine weight	Ton	25.5								

① : Servo/Standard Servo

P550 Layout Drawings



P550 Platen Dimension Drawings



Model	A	B	C	D	E
P550	420	560	35	175	M20▽40
	F	G	H	I	O
	2190	2135	1500	850	2510
	M	N	P1	P	
	380	1975	1163	960	
Injection unit: 3300 feeding tube: Φ90					

Standard and Optional Features

Injection Unit	Standard	Optional
Nitrided alloy-steel screw and barrel	●	
Nozzle PID temperature control	●	
Balanced double-carriage cylinder	●	
Automatic material cleaning function	●	
Selectable suck-back before or after plasticizing	●	
Multi-stage barrel PID temperature control	●	
Purge guard (with safety switch)	●	
Precise transducer for injection / plasticizing stroke control	●	
Multi-stage injection speed / pressure /position control	●	
Multi-stage holding pressure speed / pressure / time control	●	
Multi-stage plasticizing speed / pressure / position control	●	
Extended nozzle		○
Hard chrome plated screw component		○
Bi-metallic screw & barrel		○
Special screw set		○
Proportional back pressure control		○
Blowing device of barrel		○
Pneumatic/Hydraulic shut-off nozzle		○
Increased injection stroke		○

Hydraulic System	Standard	Optional
High-performance servo pump system	●	
Back pressure adjustment device of plasticizing	●	
High-precision by-pass oil filter	●	
Automatic system pressure and flow adjustment	●	
Imported hydraulic valve	●	
Imported hydraulic seal	●	
System pressure sensor	●	
Oil temperature detection and alarm	●	
Low-noise hydraulic system	●	
Hydraulic cooling device	●	
Hydraulic core pulling/ unscrewing device		○
Independent oil temperature control system		○
High-response servo injection system		○
High-response servo mold opening and closing system		○
Ejection during mold opening		○
Larger oil cooler		○
Larger oil pump and motor		○
Accumulator injection		○
Multiple sets of core puller		○
Proportional control for plasticizing back pressure		○

Clamping Unit	Standard	Optional
Precise transducer for clamping / ejector stroke control	●	
Clamping platens / toggles made of highly-rigid ductile iron	●	
Two-stage ejector forward or back control	●	
Low-pressure mold protection	●	
Multiple ejector function settings	●	
Hydraulic gear-type mold height adjustment device	●	
Hydraulic/electrical safety devices	●	
Wear-resistant supporting tracks for movable platen	●	
Automatic centralized lubrication system	●	
Boost mold closing function	●	
Increased mold thickness	●	
Increased ejector stroke		○
Mechanical position limit device of mold-open		○
Heat insulating plate for mold		○
Special mold mounting hole		○
Movable platen with linear guide rail		○

Electrical Control System	Standard	Optional
Input/output inspection	●	
Automatic heat retaining and automatic heating setting	●	
Time / position / pressure controlled switchover from injection to holding	●	
Independent adjustment of slope	●	
Robot interface	●	
Molding data locking function	●	
Automatic clamping force adjustment	●	
LCD display screen	●	
Large memory for process parameters storage	●	
Multiple operating languages	●	
5 sets (8 sets) of independent air blowing with valve	●	
Working light/ single or multi color alarm light		○
Single-phase / three-phase power socket		○
Air blow device		○
Interface for electric unscrewing device		○
Special power supply voltage		○
Electrial unscrewing unit		○
Hot runner interface		○
Machine overall energy consumption display		○
Electrial dozing motor		○
Infrared / ceramic heater band		○
Plasticizing during mold opening		○

Other	Standard	Optional
Operation manual	●	
Adjustable leveling pad	●	
A tool kit	●	
Filter element	●	
Standard hopper	●	
Mold temperature controller		○
Auto loader		○
Dehumidifier		○
Glass-tube water flowmeter		○
Dryer		○