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SOUND 申达



Universe Series

(1350T-6000T)

The 3rd Generation Large High-Efficiency
Precision Injection Molding Machine

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ENTERPRISE INTRODUCTION

Enterprise Introduction and Equipments

Founded in 1955, ZHEJIANG SOUND MACHINERY MANUFACTURE CO., LTD is one of the earliest professional manufacturers of injection molding machine in China, which is affiliated to ZHEJIANG ARTIKING GROUP CO., LTD . SOUND is the pioneer of China's plastic machinery industry, the first batch of national high-tech enterprises in the industry, the key enterprise of "a Group of Five" in Zhejiang province. SOUND has won the only National Silver Award in domestic plastic machinery industry, the second prize of National Science and Technology Progress Award, the first prize of Zhejiang Science and Technology Progress Award, etc. SOUND has scientific research institutions such as academician expert workstation, national post-doctoral scientific research workstation, provincial enterprise research institute, provincial enterprise technology center and provincial engineering research center. SOUND has obtained more than 180 patents and 16 invention patents.

In 2020, DEQING SOUND manufacturing base, with a total investment of RMB700 million and a covering area of 133,000M², had been completed and put into production. The base is equipped with more than 70 sets first-class processing equipments and testing equipments, including Czech SKODA floor-type boring and milling machining center, Japanese NIIGATA FMS flexible machining system, Japanese KURAKI planer table-type boring and milling machining center, Japanese Mitsubishi Gantry pentahedron machining center, Japanese OKUMA CNC lathe, Italian HEXAGON CMM three-coordinate measuring machine. It can achieve an annual production capacity of more than 6,000 sets injection molding machines.

SOUND successfully launched the 3rd generation high-efficiency precision universe series (UN), dual-plate series (DP), full electric series (FE), electric mixed hydraulic series (EMH), extrusion-injection integrated series for large volume (FJ), multi-component series and nearly 100 special models machine. The clamping force of machines is from 1,000KN to 60,000KN, and shot weight is from 100g to 550,000g. SOUND had exported the injection molding machines to more than 60 countries and regions such as Japan, France, Saudi Arabia, India, Indonesia, Russia and USA.

Facing the future, SOUND insists on customer-oriented, employee-oriented, innovation as the source, constantly surpassing itself and creating value, focusing on the one-stop overall solution for the future injection molding factory, and making SOUND a benchmark enterprise for intelligent manufacturing in the plastic injection machinery industry.



Mold Opening and closing position repetition accuracy ± 1 mm

Injection weight repetition accuracy 0.7% -- 0.3%

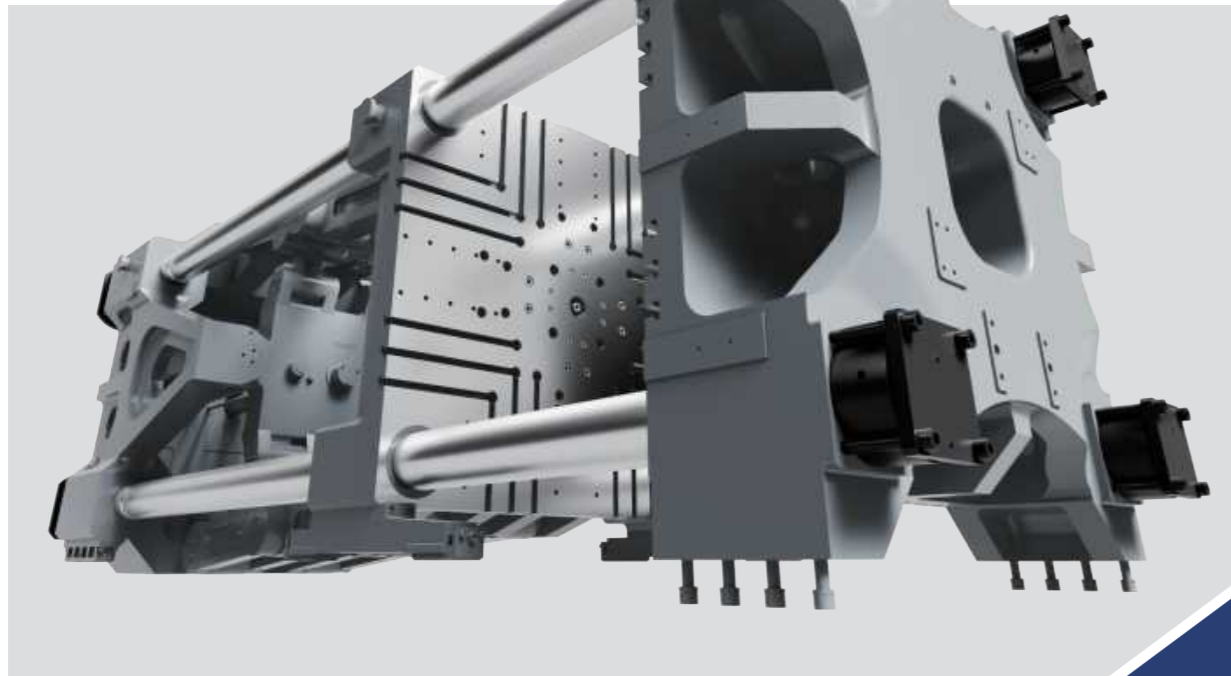


Universe Series

The 3rd Large High-Efficiency Precision Injection Molding Machine

Stable, efficient and accurate production is the core demand of the customers for the large injection molding machine. Aiming at the core demand of customers, SOUND creates the 3rd generation large high-efficiency precision injection molding machine of Bi-Power series with originality, turning customer demands into reality and creating unlimited value for customers!

Stable and reliable mold clamping unit

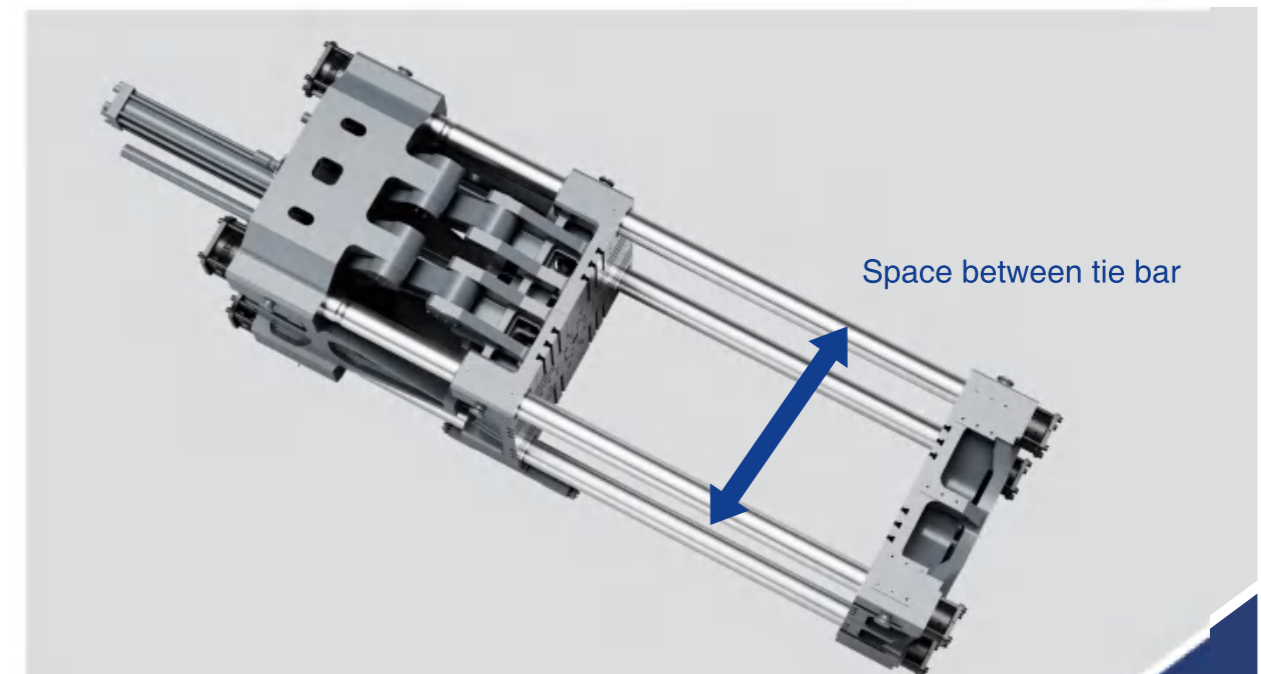
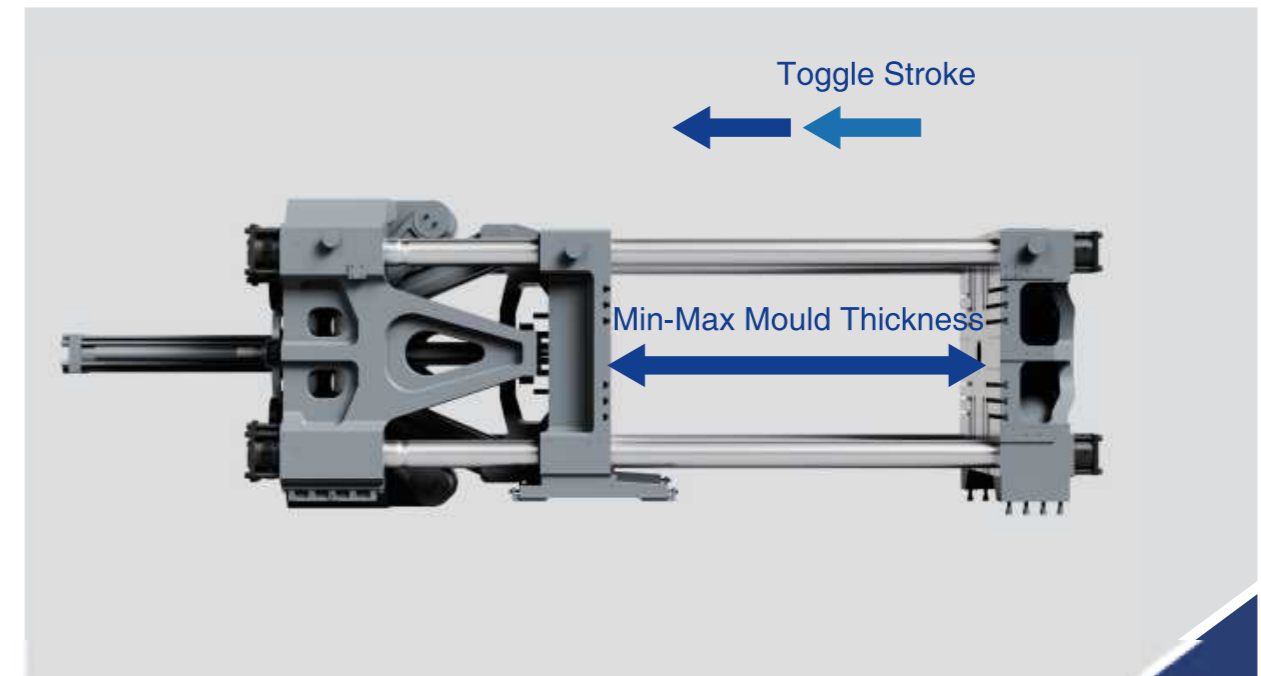


- Dual toggle mold clamping structure, It's so solid, stable, reliable, durable and suitable for 24 hours uninterrupted work.
- The whole series has equipped with T slot and thread hole mold plate, the mold replacement is more convenient and fast, effectively solve the problem of thread hole damage easily;
- The design of center strengthening in the moving plate and the head plate, can Concentrated transfer the force to the mold. The mold has Concentrated force and small deformation. It prolongs the service life of the mold;
- The clamping unit adopts differential technology to realize fast mold opening and closing and ensure the production cycle;
- European-style portable ejection structure design, easy to disassemble and maintain the eject pin;
- Quantitative centralized lubrication device reduces the amount of lubricating oil and makes maintenance more convenient;
- The lengthened and widened mold clamping sliding foot guide ensures high parallelism of the mold plate and repeat positioning accuracy, mold opening and closing are more stable and fast, and the whole machine running more stable and efficient operation;
- Self-lubricating steel ring and copper ring are used to reduce lubrication requirements, reduce lubricating oil consumption, reduce wear and tear, and prolong the service life of the whole machine;

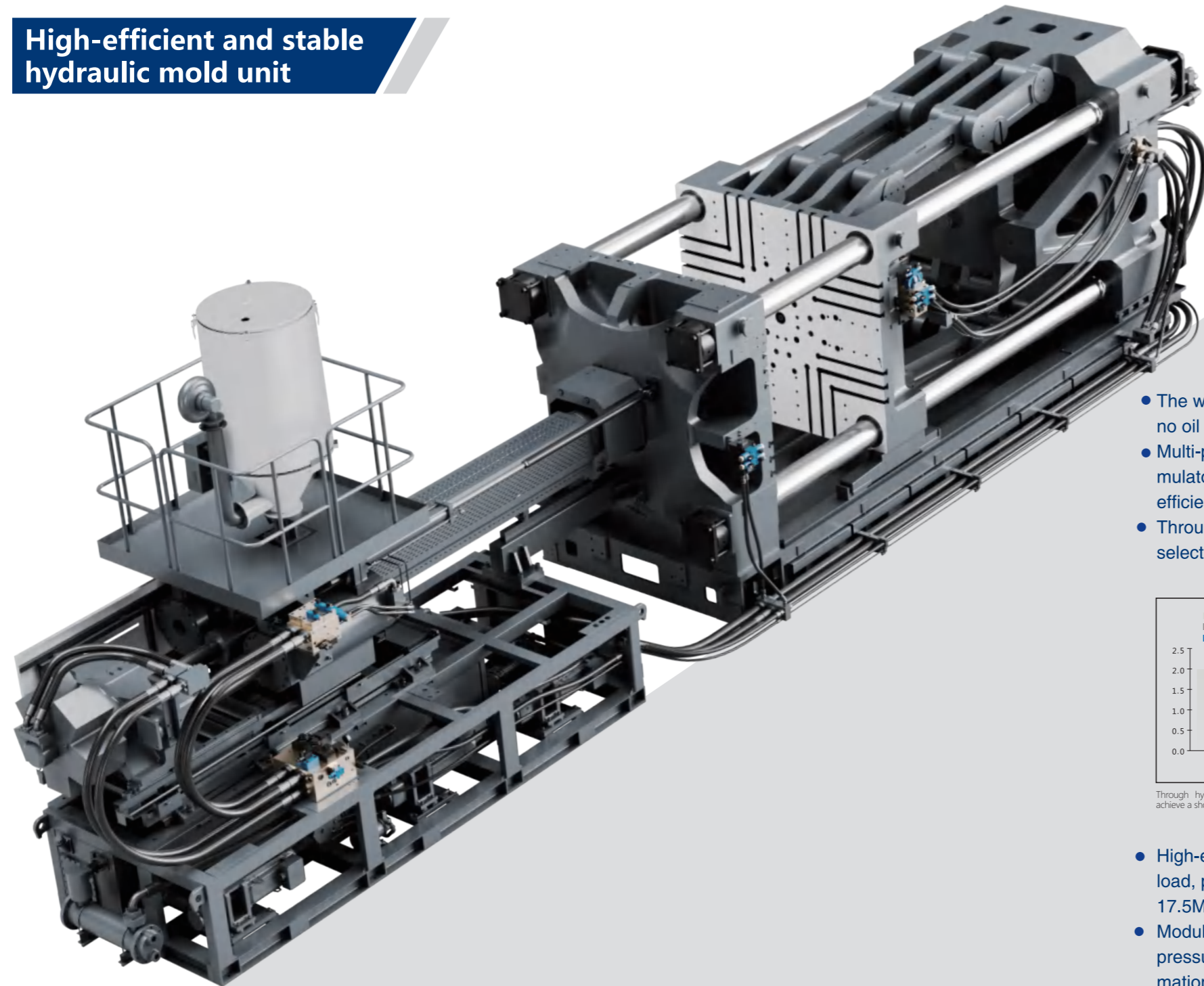
Large mold opening stroke:For equipment with the same tonnage, the mold opening stroke is larger than that of the peers, which is convenient for installing larger molds;

Large space between tie rods:Suitable for the large and small molds, and wide applicability for different molds;

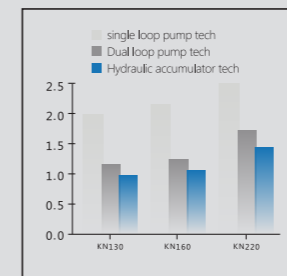
Large mold zone size:Suitable for larger molds;



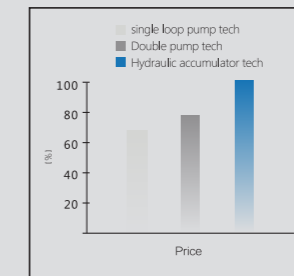
High-efficient and stable hydraulic mold unit



- The whole machine adopts high-performance hose + DIN standard hydraulic joint, no welding, no oil leakage and no pollution;
- Multi-pump combination technology, servo electric injection technology, and hydraulic accumulator technology realize the independent movement of each movement axis, making high efficient production so simple;
- Through the hydraulic expansion combination, a shorter cycle period is realized; strong selectivity and high cost performance to meet the requirements of different customers;



Through hydraulic expansion combination to achieve a shorter cycle time.



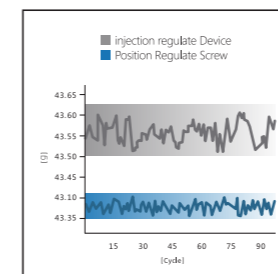
High performance-price ratio satisfy the requirements of different customers.

- High-efficiency servo system + internal gear pump, output energy consumption varies with load, pressure and speed closed-loop control, faster response (30-50ms); system pressure 17.5Mpa, injection pressure and speed greatly increased;
- Modular design of hydraulic valve board + scientific hydraulic layout can effectively reduce pressure loss, improve response speed, and make function upgrade and oil circuit transformation easy;
- No overflow, No heating servo pump control system + high-efficiency built-in cooler, which greatly reduces water consumption and greatly saves energy; The nearby hydraulic control system ensures quick response of injection;

precise and adaptable injection unit



- Double-layer injection structure, combined with precision mechanical structure injection cylinder, high-efficiency hydraulic motor, multi-stage proportional back pressure control and injection closed-loop pump control, greatly improves injection accuracy and melt stability;
- The whole series adopts high-rigidity injection base and high-precision linear slide rail, the injection response is faster, more precise and more stable;
- The injection unit movement adopts a high rigid slider structure + double injection cylinder structure to avoid plastic material leakage during high-speed, high-pressure injection and high back pressure charging;
- PRS position adjustment screw technology to achieve more accurate shot weight and ensure shot weight repetition accuracy 0.5%-0.1%



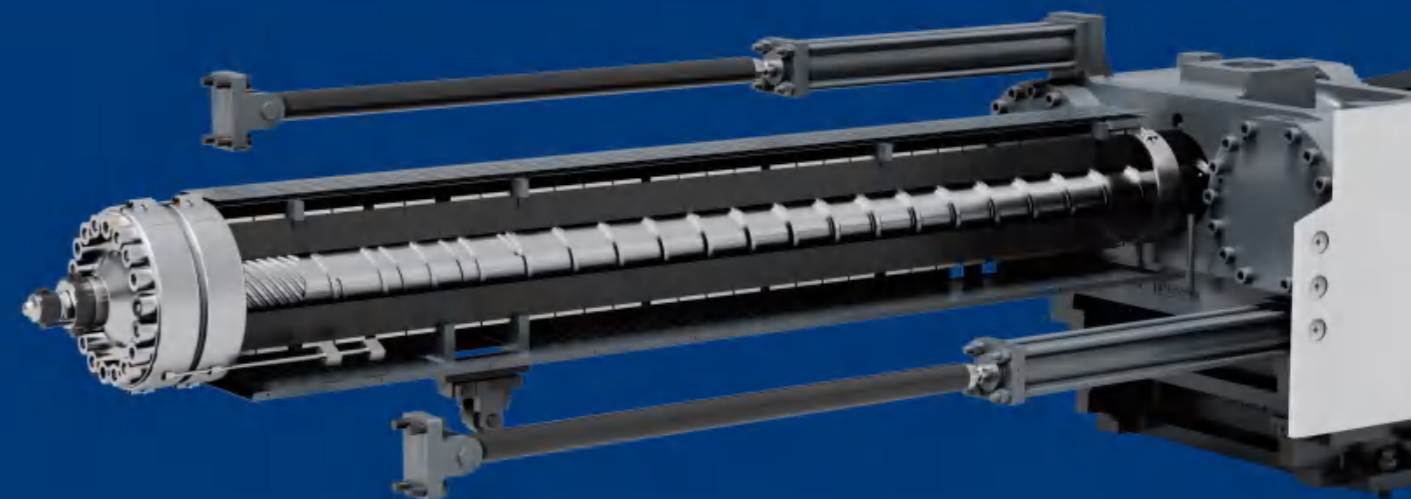
repetition precision: achieve accurate shot weight through PRS function

- **SSR barrel temperature control system:**

- With non-contact control, once the raw material enters the feeding mouth, it has been included in the temperature closed-loop control unit, which effectively improves the precision and efficiency of the injection unit, and at the same time avoids the phenomenon of low injection accuracy caused by raw material agglomeration and unsmooth feeding. ;
- Humanized feeding plate, convenient for customers to change materials;

- **High adaptability plasticizing system:**

- High-performance screws with different screw diameters, wear-resistant grades, geometric shapes and special mixing requirements to meet the individual needs of customers;
- Various complex process requirements and special plasticizing systems for various application requirements can be customized;
- Freely selectable injection units such as electric charging and accumulator injection can improve the quality of products;
- Adopt large-torque and high-rotate speed hydraulic motor realize the fast response and energy-saving; (If you need better energy-saving effect, you can choose electric pre-molding)
- Japan's precision, Germany's rigor and localized manufacturing are combined. The standard injection speed meets the requirements of the European standard. The speed is fast and the position is accurate;



Precise intelligent control system

The whole series have equipped with a large-screen controller as standard, and a friendly UI interface to better convey information;

Equipped with SPC quality control management system as standard to help realize the continuous stability and predictability of the manufacturing process, improve production capacity, product quality and reduce costs;

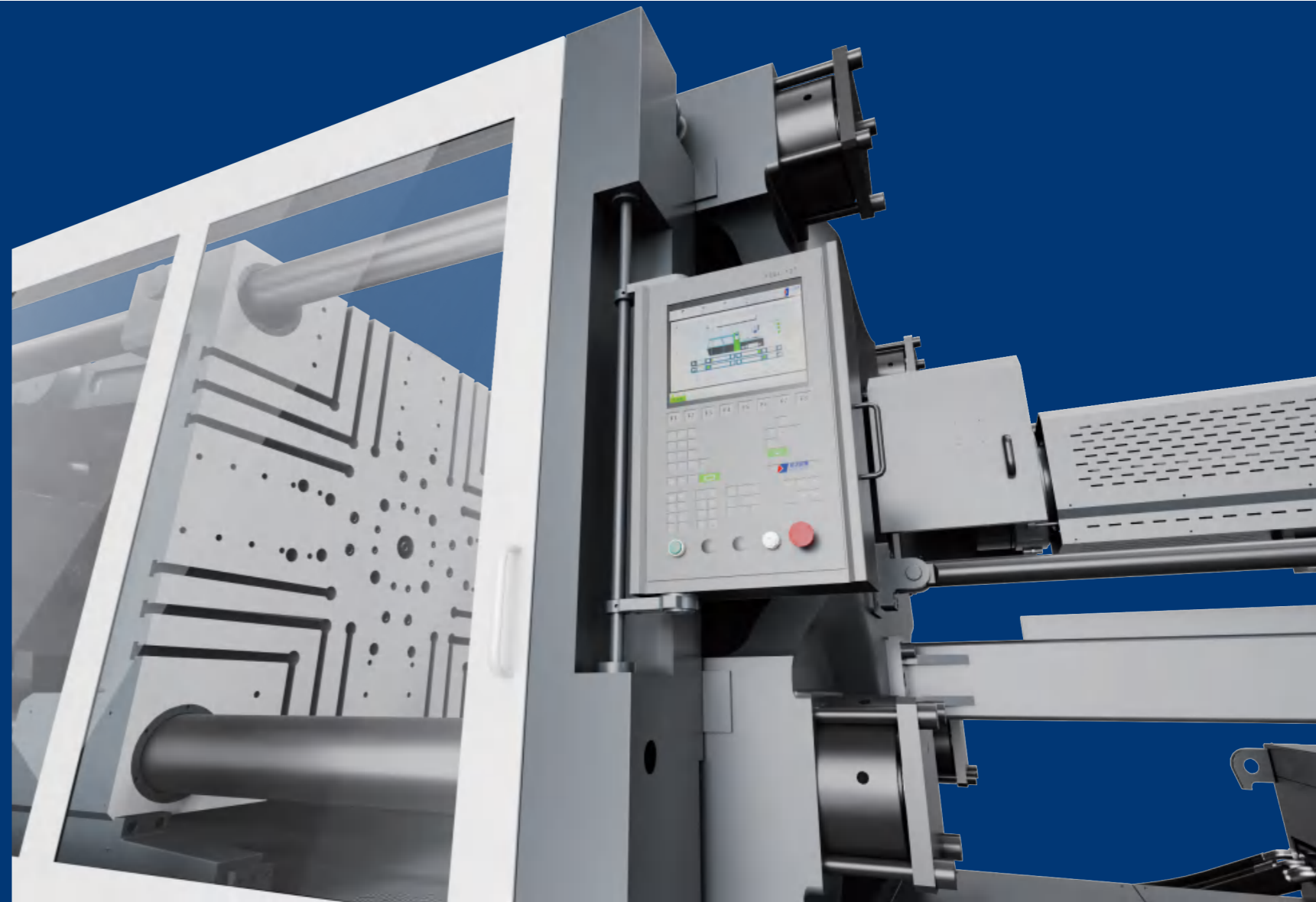
- SVP servo pump, precise control, fast response, convenient system maintenance and energy saving
- The powerful software control function makes the complex injection molding process simple and easy to operate;
- The main electrical components are all from the imported brands such as Schneider, ABB, Fuji, Eaton, etc., which greatly improves the service life and stability;

Human-computer interaction

Open industrial 4.0 expansion interface, (U77, OPC, etc., MES requires additional fees) to open a new era of smart factories

Automated, intelligent, and modern computers are conducive to central data collection, analysis, and backup, and at the same time realize data interaction and full-line automation with auxiliary equipment such as robot, mold temperature controllers, and chiller, forming an exclusive customer Internet of Things management solution for injection molding machines Program;

Friendly and simple operating software, so that users can grasp the production status of the machine at any time and anywhere, respond quickly and timely, and ensure efficient production process and high-quality output;



技术参数表

DESCRIPTION	UNIT	UN1350-EPIII				UN1600-EPIII				UN1850-EPIII			
International Size Rating		12200				15900				19000			
INJECTION UNIT													
screw specification	mm	110	120	130	140	120	130	140	150	130	140	150	160
Screw L:D ratio		22.9	21.0	21.5	20.0	22.8	21.0	21.4	20.0	24.5	23.0	23.5	22.0
Shot volume	cm ³	5987	7125	8362	9698	7691	9026	10468	12017	9557	11084	12723	14476
Shot weight(PS)	g	5448	6484	7610	8825	6998	8213	9526	10935	8697	10086	11578	13174
	oz	192.2	228.7	268.4	311.3	246.9	289.7	336.0	385.7	306.8	355.8	408.4	464.7
Injection pressure	Bar	2050	1723	1468	1266	2078	1771	1527	1330	1988	1714	1493	1313
Injection rate	cm ³ /s	916	1090	1279	1483	1042	1223	1418	1628	1307	1516	1740	1980
Plasticizing capacity	g/s	121.9	146.3	172.6	215.7	140.3	165.4	206.8	242.7	169.8	212.2	249.1	267.6
Max.screw speed	r/min	132				127				130			

CLAMPING UNIT

Clamping force	KN	13500				16000				18500			
Space between tie bars(H×V)	mm	1380X1280				1570×1430				1680×1530			
MIN.mold dimension(H×V)	mm	1000X1000				1150×1150				1250×1250			
Opening stroke	mm	1400				1700				1800			
Min.mold height	mm	550				700				800			
Max.mold height	mm	1300				1500				1600			
Distance between platens(daylight)	mm	2700				3200				3400			
Ejector stroke	mm	350				400				450			
Ejector force	KN	260				320				450			
Number of ejector	Pcs	25				25				25			

POWER UNIT

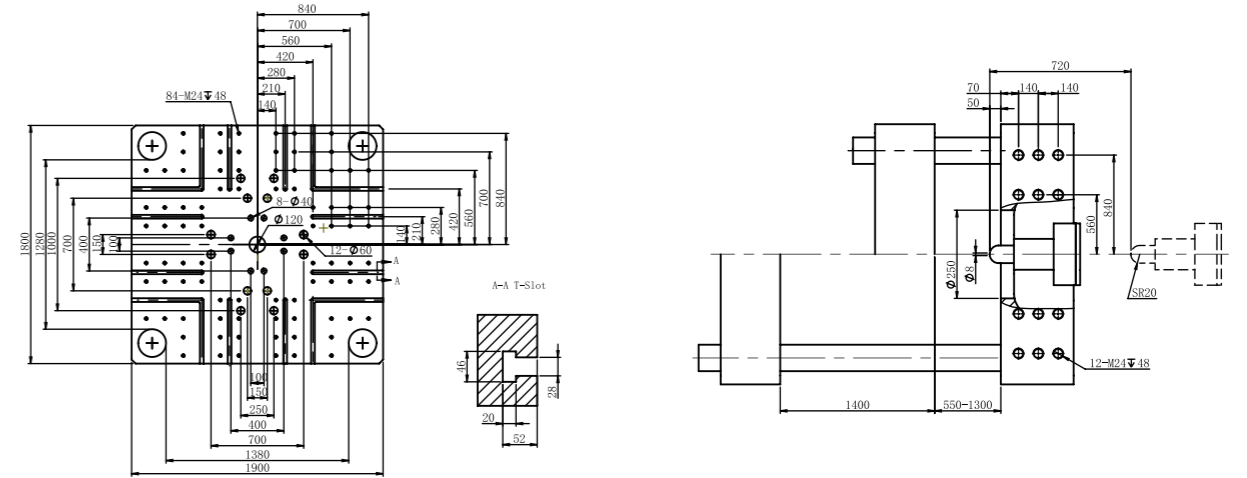
System pressure	Bar	175				175				175			
Pump motor	kW	126.5				172.5				207.5			
Heating capacity	kW	85/93				95/110				120/130			

GENERAL

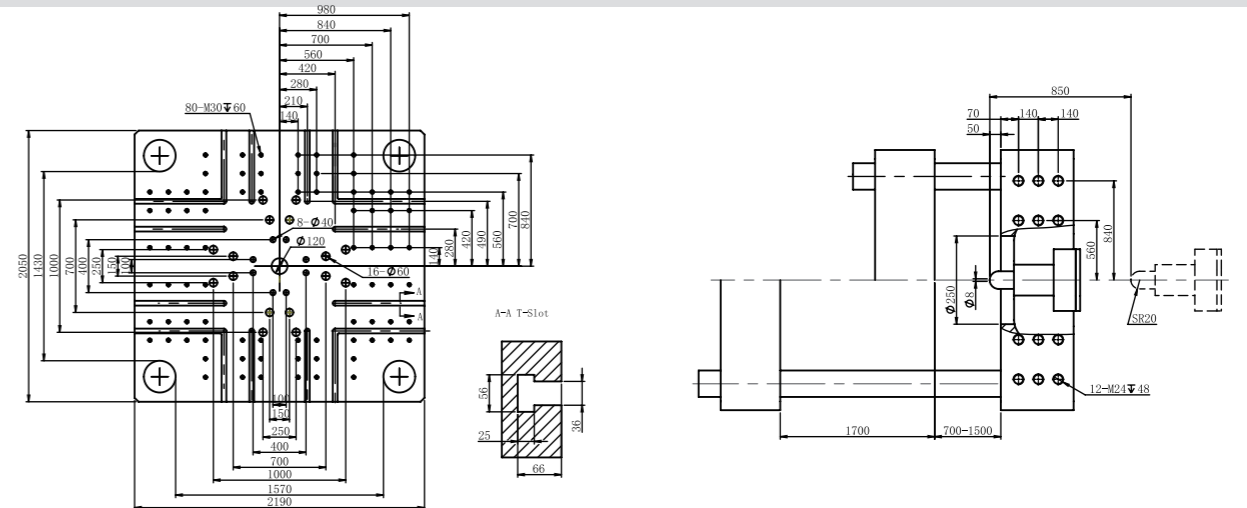
Oil tank capacity	L	1350				1700				1850			
Machine dimension(L×W×H)	m×m×m	12.1x2.95x4.15				14.5x3.6x4.3				14.9x3.5x4.2			
Machine weight	t	62.5				87				120			
Hopper capacity	kg	200				400				400			

模板尺寸图

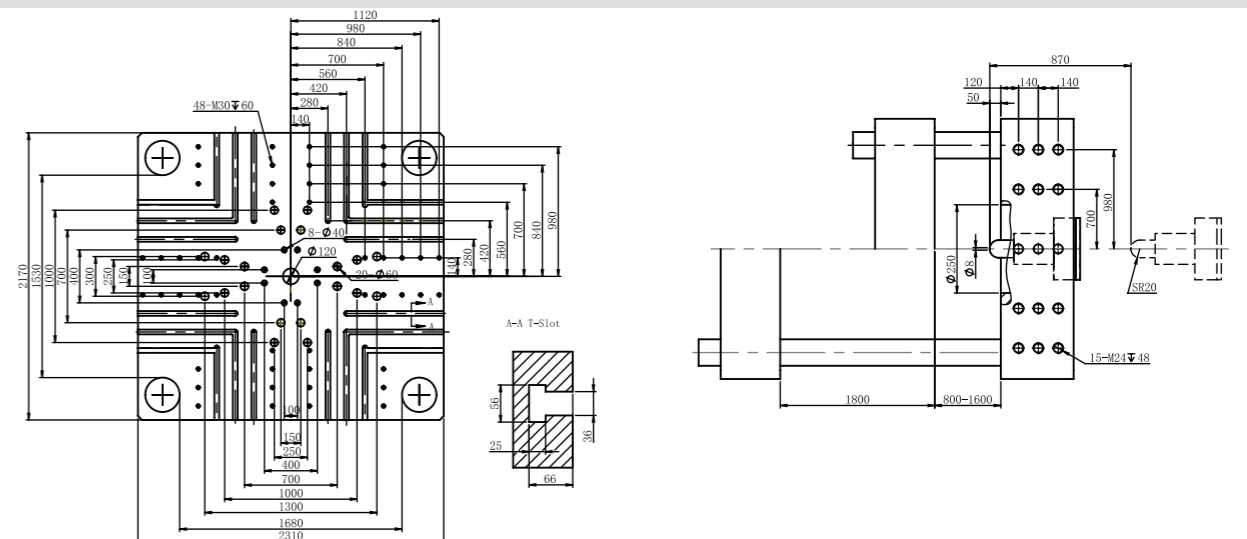
UN1350-EPIII



UN1600-EPIII



UN1850-EPIII



Specification

DESCRIPTION	UNIT	UN2200-EPIII/23700				UN2500-EPIII/40600				UN2900-EPIII/50500			
International Size Rating		24700				40600				51200			
INJECTION UNIT													
screw specification	mm	140	150	160	170	170	180	190	200	180	190	200	220
Screw L:D ratio		24.6	23.0	23.4	22.0	24.4	23.0	23.2	22.0	24.3	23.0	24.2	22.0
Shot volume	cm ³	12931	14844	16889	19066	23833	26719	29771	32987	27483	30621	33929	41054
Shot weight(PS)	g	11767	13508	15369	17350	21688	24315	27091	30018	25009	27865	30876	37359
	oz	415.1	476.5	542.1	612.0	765.0	857.7	955.6	1058.8	882.2	982.9	1089.1	1317.8
Injection pressure	Bar	1913	1666	1464	1297	1706	1522	1366	1233	1896	1702	1536	1269
Injection rate	cm ³ /s	1434	1647	1873	2115	1692	1897	2114	2343	1904	2121	2350	2844
Plasticizing capacity	g/s	207.6	185.1	198.8	212.5	165.9	192.7	256.9	272.9	240.8	284.2	302.0	378.9
Max.screw speed	r/min	127				76				94			

CLAMPING UNIT

Clamping force	KN	22000				25000				29000			
Space between tie bars(H×V)	mm	1800×1600				1950×1700				2100×1800			
MIN.mold dimension(H×V)	mm	1350×1350				1450×1450				1550×1550			
Opening stroke	mm	1900				2000				2150			
Min.mold height	mm	800				800				850			
Max.mold height	mm	1700				1800				1900			
Distance between platens(daylight)	mm	3600				3800				4050			
Ejector stroke	mm	450				500				500			
Ejector force	KN	450				500				500			
Number of ejector	Pcs	25				25				25			

POWER UNIT

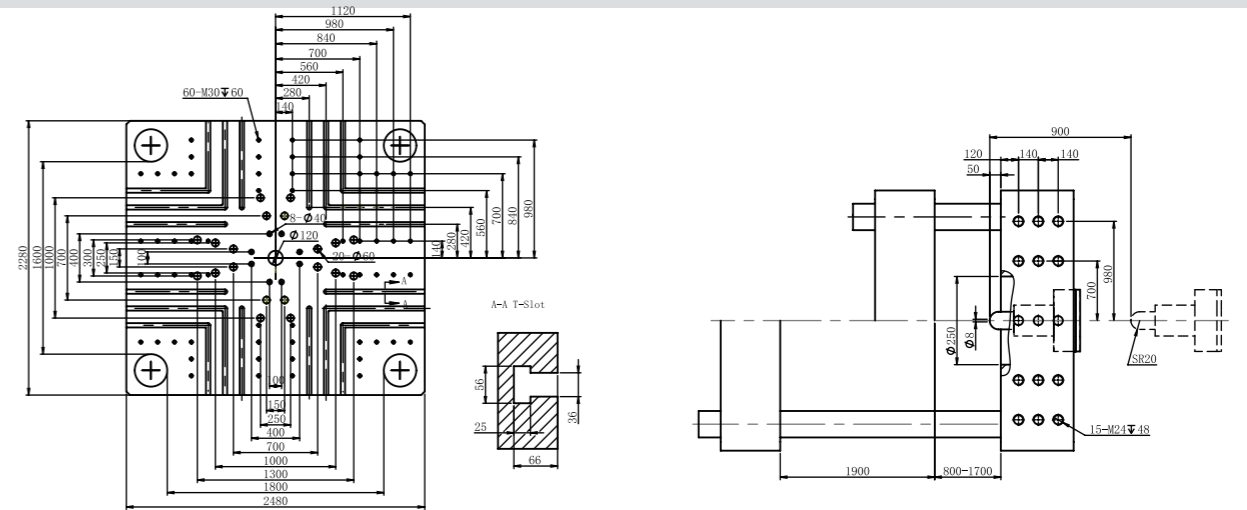
System pressure	Bar	175				175				175			
Pump motor	kW	217.5				227.5				282.5			
Heating capacity	kW	135/145				185/195				210/245			

GENERAL

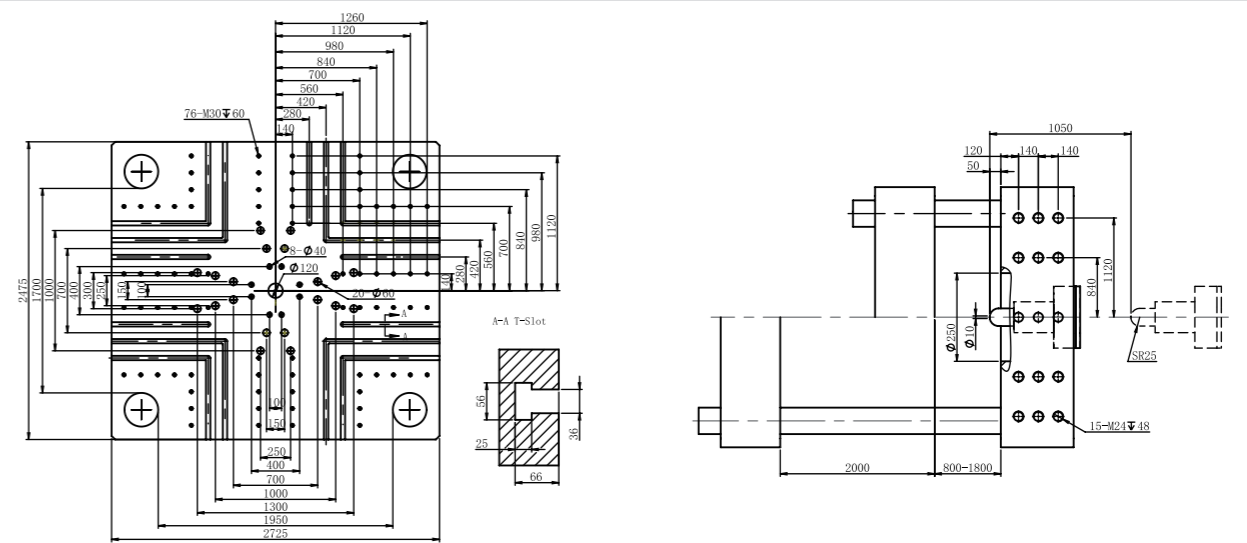
Oil tank capacity	L	2500				3000				3500			
Machine dimension(L×W×H)	m×m×m	16x3.75x4.3				18.5x4.15x4.5				20×4.6×5.1			
Machine weight	t	135				165				200			
Hopper capacity	kg	400				400				400			

Mold Platen Drawing

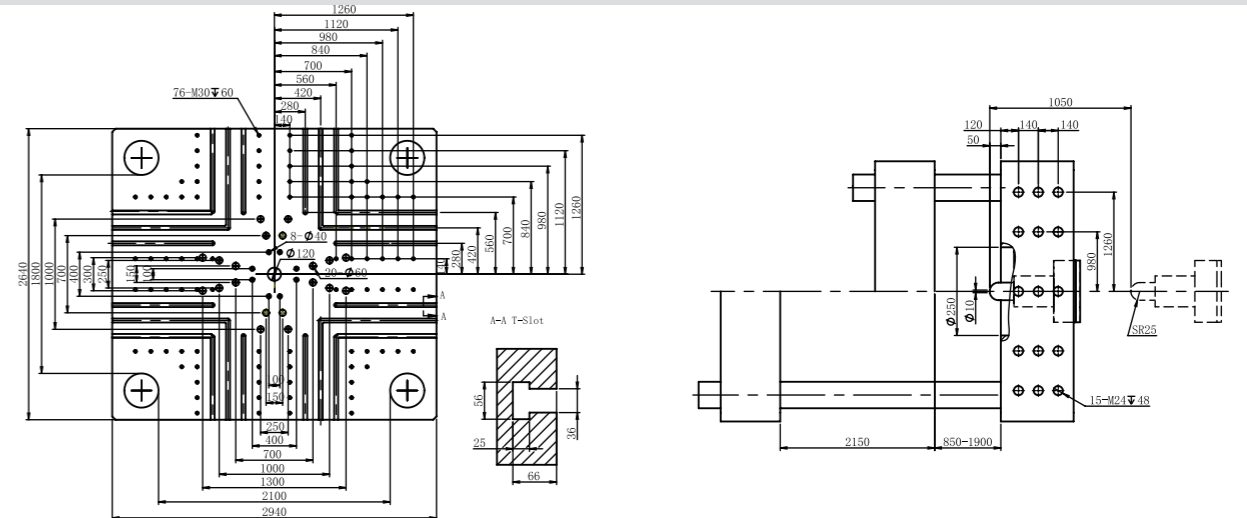
UN2200-EPIII/23700



UN2500-EPIII/40600



UN2900-EPIII/50500



Specification

DESCRIPTION	UNIT	UN3300-EPIII/69200				UN4200-EPIII/107500				UN6000-EPIII/107500			
International Size Rating		69200				107500				107500			

INJECTION UNIT

screw specification	mm	200				220				230				240				230				240				250				260																			
		25.3				23.0				23.0				22.0				24.0				23.0				22.9				22.0				24.0				23.0				22.9				22.0			
Shot volume	cm ³	37699				45616				49857				54287				63152				68763				74613				80701				63152				68763				74613				80701			
Shot weight(PS)	g	34306				41510				45370				49401				57469				62574				67898				73438				57469				62574				67898				73438			
	oz	1210.1				1464.2				1600.4				1742.5				2027.1				2207.2				2395.0				2590.4				2027.1				2207.2				2395.0				2590.4			
Injection pressure	Bar	1838				1519				1389				1276				1702				1563				1441				1332				1702				1563				1441				1332			
Injection rate	cm ³ /s	2357				2852				3117				3394				2544				2770				3006				3251				2544				2770				3006				3251			
Plasticizing capacity	g/s	259.2				325.2				358.8				386.2				230.3				252.3				275.6				295.5				270.9				291.7				318.5				341.6			
Max.screw speed	r/min	72																46																46															

CLAMPING UNIT

Clamping force	KN	33000				42000				60000			
Space between tie bars(H×V)	mm	2270×1900				2450×2050				2750×2450			
MIN.mold dimension(H×V)	mm	1600×1600				1800×1800				2000×2000			
Opening stroke	mm	2200				2350				2750			
Min.mold height	mm	1000				1100				1300			
Max.mold height	mm	2000				2100				2500			
Distance between platens(daylight)	mm	4200				4450				5250			
Ejector stroke	mm	550				550				700			
Ejector force	KN	550				550				700			
Number of ejector	Pcs	25				25				25			

POWER UNIT

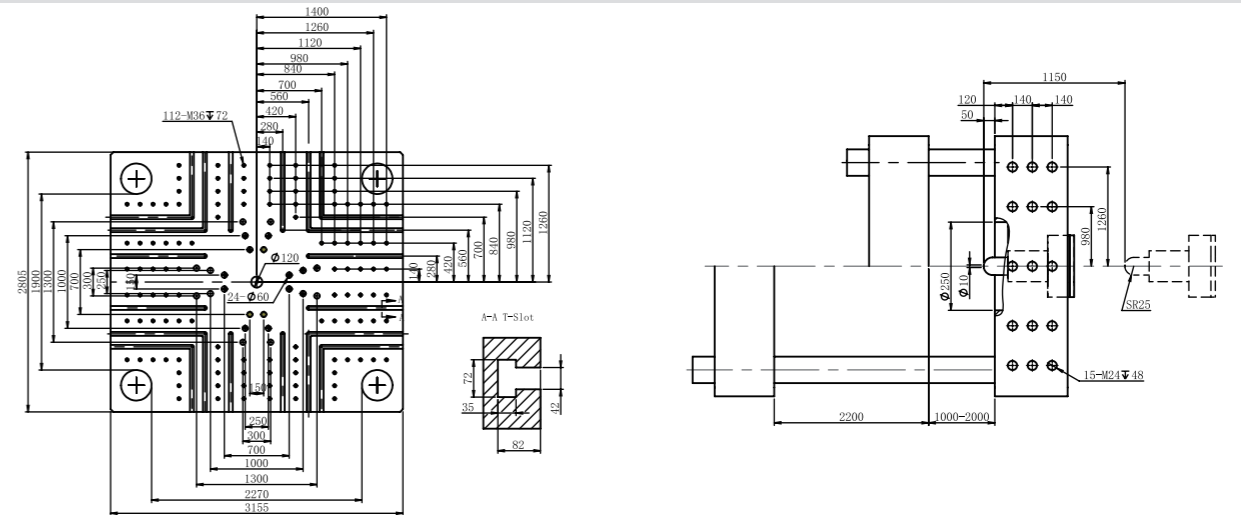
System pressure	Bar	175				175				175			
Pump motor	kW	337.5				337.5				337.5			
Heating capacity	kW	240/265				265/285				265/285			

GENERAL

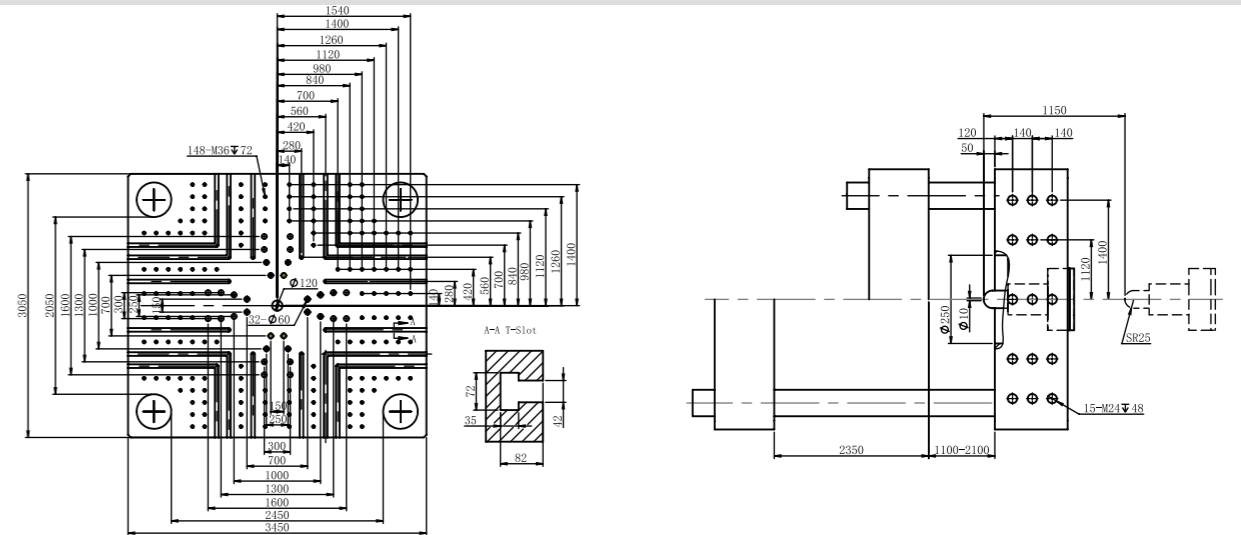
Oil tank capacity	L	4000				4000				7000			
Machine dimension(L×W×H)	m×m×m	21×4.6×5.6				21×4.6×6				27×6.1×5.8			
Machine weight	t	240				315				530			
Hopper capacity	kg	400				400				600			

Mold Platen Drawing

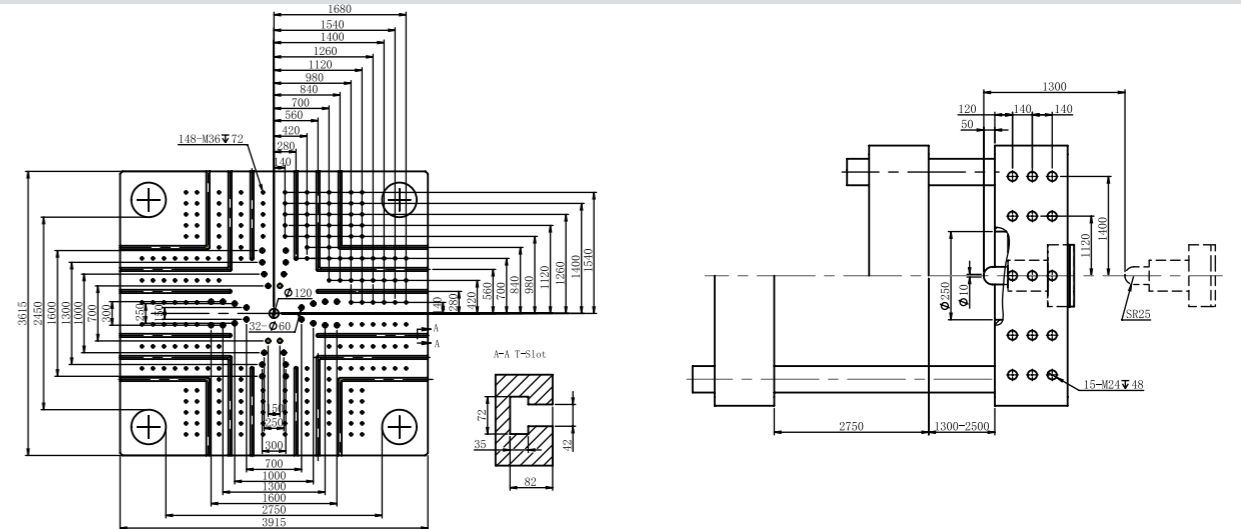
UN3300-EPIII/69200



UN4200-EPIII/107500



UN6000-EPIII/107500



Feature Description	Models			
Injection Part	UN1350-1600EPIII	UN1850-2200EPIII	UN2500-3300EPIII	UN4200-6000EPIII
BI-metal Screw: B, C, D screw + nitriding barrel	●	○	○	○
Chrome plated screw: A screw + nitriding barrel	●	○	○	○
Nitrided Screw&Barrel	○	●	●	●
BI-metal Screw&barrel	○	○	○	○
High wear resistance and corrosion resistant screw, barrel	○	○	○	○
Needle shur-off nozzle	○	○	○	○
Hydraulic/air shut-off nozzle	○	○	○	○
Balanced dual cylinder injection unit	●	●	●	●
Balanced dual cylinder carriage unit	●	●	●	●
High rigid double layer injection system	●	●	●	●
Injection unit increase&decrease	○	○	○	○
Hydraulic motor increase	○	○	○	○
Electric charging	○	○	○	○
Accumulator injection	○	○	○	○
Injection transducer	●	●	●	●
Nozzle transducer	○	○	○	○
Screw speed display	●	●	●	●
Feeding mould temp. auto controlled	○	○	○	○
Ceramic heater	●	●	●	●
Infrared heating	○	○	○	○
Fan cooler	○	○	○	○
Auto material cleaning	●	●	●	●
Cold start protection	●	●	●	●
Nozzle cover	●	●	●	●
Centralized Lubrication device in injection unit	●	●	●	●
Proportion back pressure	●	●	●	●
Servo valve device	○	○	○	○

Clamping Unit				
T-slot mold plate	●	●	●	●
Magnet mold plate	○	○	○	○
Mold thickness increase (Min-mold thickness equal increased)	○	○	○	○
Mold thickness reduce (Max-mold thickness equal increased)	○	○	○	○
Mechanical&electrical safety device	●	●	●	●
Clamping, eject transducer	●	●	●	●
Mold adjustment limited switch	●	●	●	●

Remarks: "●" standard, "○" option, "—" No

Feature Description	Models			
Clamping Unit	UN1350-1600EPIII	UN1850-2200EPIII	UN2500-3300EPIII	UN4200-6000EPIII
Auto mold adjustment	●	●	●	●
Clamping force display	○	○	○	○
Clamping force control close-loop	○	○	○	○
Widen safety door	○	○	○	○
Auto safety door	●	●	●	●
Safety step board in mold zone	●	●	●	●
Safety light curtain in mold zone	○	○	○	○
Separated type machine body	●	●	●	●
Quantitative centralized lubrication device	●	●	●	●
Glass tube cooling Flowmeter	○	○	○	○
Quick plug distributor	●	●	●	●
Air valve (2 unit)	●	●	●	●
Core pulling (1350:2 unit; others: 4 unit)	●	●	●	●
synchronization action (Eject, core pulling)	●	●	●	●
Electric or Hydraulic Unscrew device	○	○	○	○
Unscrewing counter sensor	○	○	○	○
Mold open&closed proportional valve	○	○	○	○
Valve control in proper order	○	○	○	○
Thermal baffle	○	○	○	○

Hydraulic Unit				
Servo Motor/pump control system	●	●	●	●
Self-sealing magnetic oil sucking filter	●	●	●	●
Pump/motor power increase	○	○	○	○
Cooler increase	○	○	○	○
Oil temperature display	●	●	●	●
Oil temp auto control	○	○	○	○
Oil level alarm	○	○	○	○
Oil temp. pre-heating function	○	○	○	○
Oil tank magnet	●	●	●	●
High pressure on-line filter	○	○	○	○
Low presure return filter	○	○	○	○
Passby oil filter	○	○	○	○

Remarks: "●" standard, "○" option, "—" No
Mold cooling: 16 channels (UN1350-UN1600), 20 channels (UN1850-UN2200), 24 channels (UN2500 and up)

Feature Description		Models			
Electric Unit	UN1350-1600EPIII	UN1850-2200EPIII	UN2500-3300EPIII	UN4200-6000EPIII	
Techmation 8" color screen	○	○	○	○	
KEBA 12" color screen	●	●	●	●	
Action monitoring function	●	●	●	●	
Producing monitoring function	●	●	●	●	
Error alarm display	●	●	●	●	
Hardware input output function	●	●	●	●	
Euromap 12 robot interface	○	○	○	○	
Euromap 67 robot interface	○	○	○	○	
3 color alarm light	●	●	●	●	
Rear safety door emergency button	●	●	●	●	
SSR for heating	●	●	●	●	
3phase-5line socket(16A)	●	●	●	●	
3phase-5line socket(32A)	●	●	●	●	
Single phase socket (10A)	●	●	●	●	
European 3phase-5line socket(16A)	○	○	○	○	
European 3phase-5line socket(32A)	○	○	○	○	
European single phase socket (10A)	○	○	○	○	
Hot runner control system and interface	○	○	○	○	
Internet manage system	○	○	○	○	
Other	Other				
Nomal hopper	○	○	○	○	
Toolbox/damageable spare parts/operation manual	●	●	●	●	
Feeding plate	●	●	●	●	
Level pad	●	●	●	●	
Mold clamping board	●	●	●	●	
Products taking plate	○	○	○	○	
Hopper dryer	○	○	○	○	
Hopper magnet	○	○	○	○	
Special color	○	○	○	○	
Robot	○	○	○	○	
Water chiller	○	○	○	○	
Mold temperature controller	○	○	○	○	
Dehumidifier	○	○	○	○	
Autoloader	○	○	○	○	

注：“●”为标配，“○”为选配，“—”表示没有。

Partner



Meet the sun, moon and stars on the top of the mountain, create an infinite future together!