

# D1S

## 550T-4000T

D1S SERIES  
TWO-PLATEN INJECTION MOLDING MACHINE



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THINK TECH FORWARD

# D1S

## PRODUCT DETAILS

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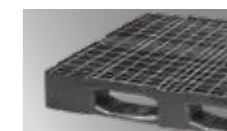
Based on importation and absorption of advanced German technology and years of experience in product application, we continue to move on and undertake the historic project of large-tonnage two-platen injection molding machine, striving to become a pioneer to fulfill such an innovative mission.



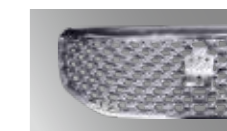
Deep-cavity parts



Household appliances



Logistics materials



Auto parts



Auto bumper



Auto sunroof



Interior trim



Car light

## THINK TECH FORWARD

### More effective

Quick response hydraulic cylinders, synchronized lock nut mechanism, differential fast mold opening, precision movable platen supports, low-resistance hydraulic circuit design and high-response servo system enable the machine to operate more efficiently and response faster.

### More energy-saving

The moveable platen has zero contact with the tie bars, also the clamping cylinder is assembled on the fixed platen, thus there is little load for moveable platen and less resistance could be caused during mold opening and closing, more energy saving. What's more, new-generation oil cooling servo system and PID temperature control are equipped to make machine more energy-efficient.

### Smaller footprint

Compact design, automatic tie-bar extraction device for option to ensure machine is not limited by the height of workshop.

### More functions in control system

D1S series adopts Austria's KEBA control system, with double CPUs, enabling fast response and various functions. New processes like MuCell, ICM (injection compression molding), IMC (In-Mold-Coatings) can be integrated.

### Shorter dry cycle

Quick response hydraulic cylinders, synchronized lock nut mechanism, fast and stable mold opening.

### More stable injection precision

The full closed-loop function for injection control and PID temperature control ensure repeatability of part weight < 0.3%.

### More stable

High-rigidity clamping unit, uniform stress distribution on tie bar threads, high-response dual proportional valve, smart closed-loop control, precision filter and efficient cooling system enable the machine to be more precise and stable for injection molding.

### Sensitive mold protection

With the low-resistance hydraulic circuit and pressure sensor, even three pieces of A4 paper can be sensed. Low-pressure mold protection is more reliable and sensitive.

### More balanced force of tie bar

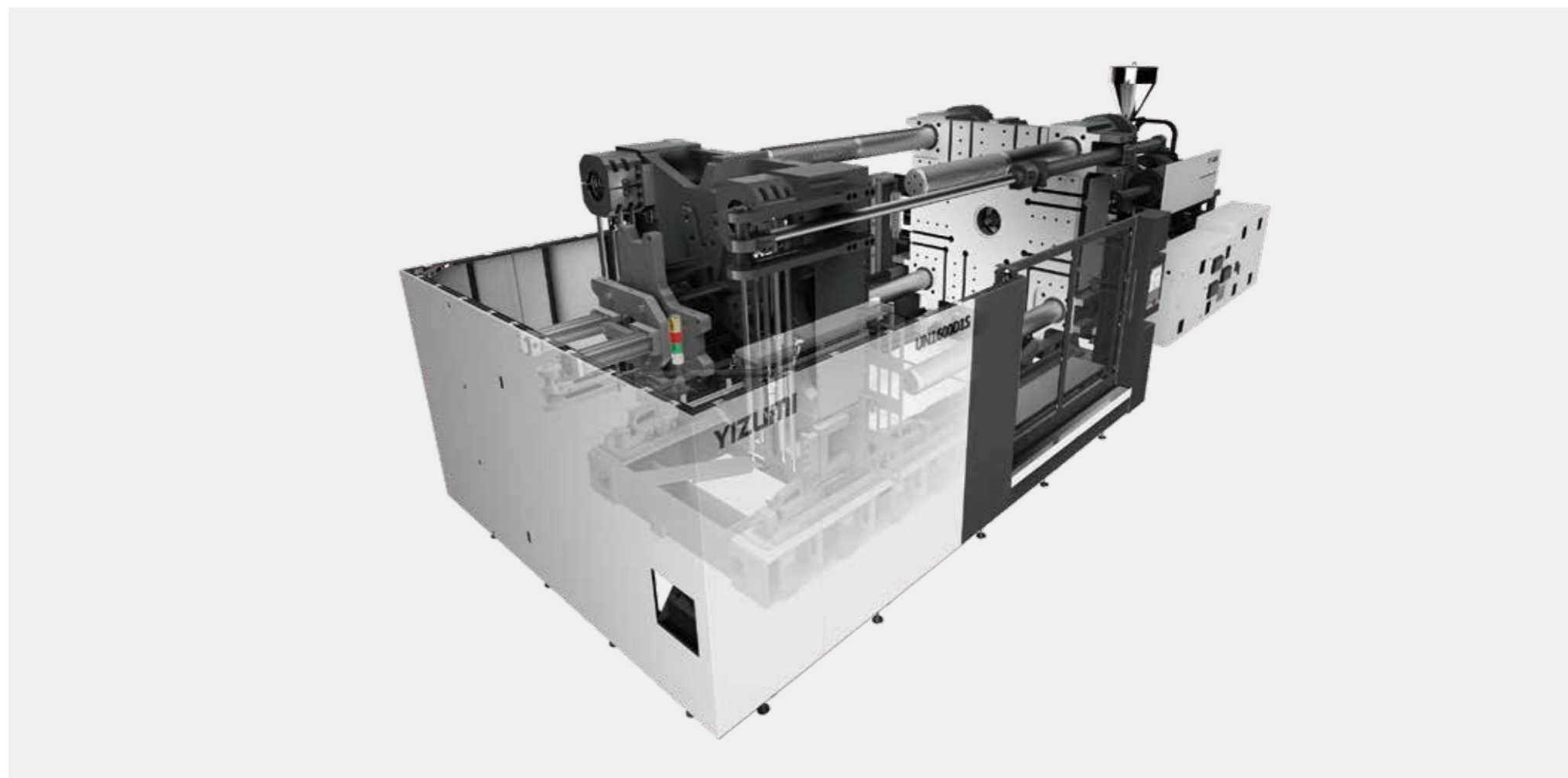
The tie bars adopt the uniform stress technology thus each thread is evenly stressed without unbalanced loading, durable and reliable. And it needs no lubrication, be cleaner.

### Higher repeatability of mold-open end position

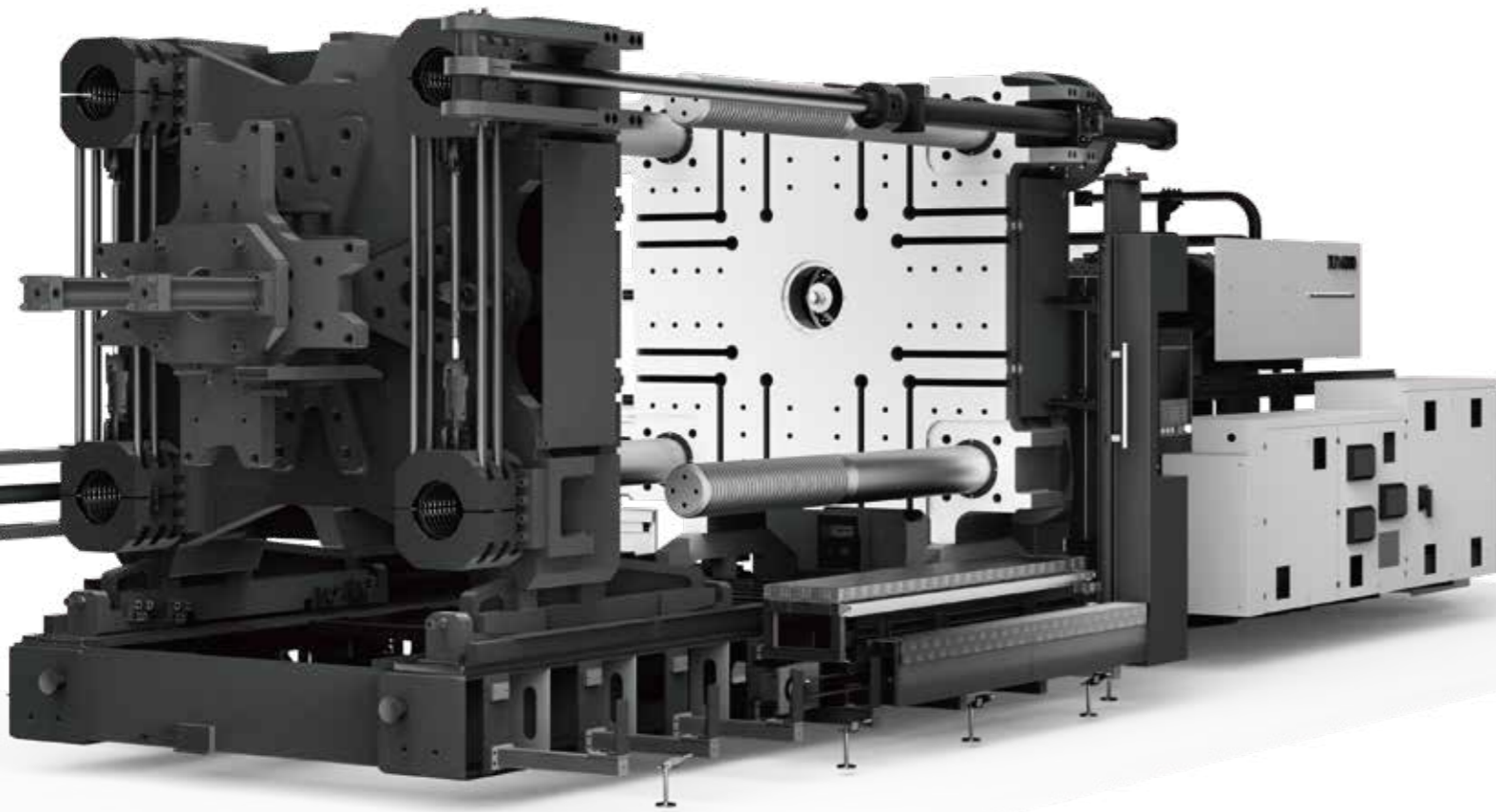
Fast response and high repeatability thanks to the high-response dual proportional valve control technology, which can meet strict requirement from automatic picking.

### More energy-saving servo system

New-generation oil cooling servo system is stable, reliable and durable and characterized by high efficiency, energy saving, low noise, strong power and fast response.



## CLAMPING UNIT



### Short dry cycle, reliable and stable

D1S series two-platen injection molding machine, based on high-rigidity clamping unit, precision guide device, synchronized lock nut mechanism, quick response hydraulic cylinders, fast control system and controlled by high-response dual proportional valve, delivers higher movement efficiency and control stability.

### Impact-proof synchronized lock nut mechanism

Impact-cushioning synchronized lock nut closing is fast and more reliable with low noise.



### Independent high-pressure cylinder

Mold opening under high pressure for standard. Large opening force can solve molding problems of deep-cavity products or car lights which are strongly coated on mold or have difficulty in mold opening.



### Highly-rigid accurate guide device

Long movable platen supports and L-shape guide rails on machine frame facilitate high load-bearing, guide capacity, and anti-roll adjustment.



### Tie bars with uniform stress distribution

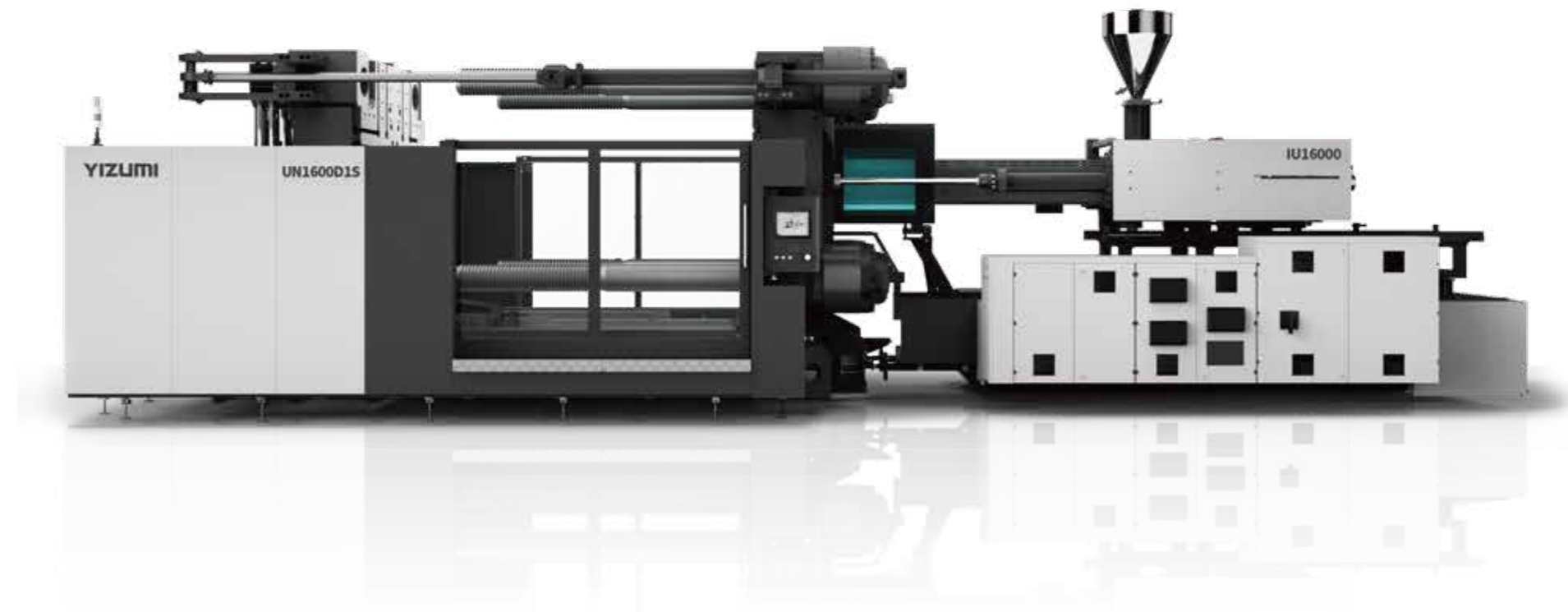
Tie bars are highly-rigid and resistant to wear and corrosion. Uniformity of stress distributed on tie bar threads is over 99% without unbalanced force, bringing durability



# INJECTION UNIT

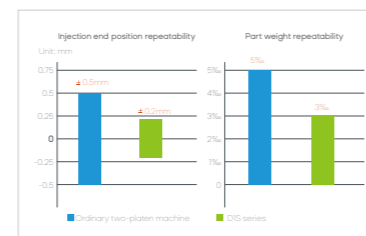
## Stable injection end position High repeatability of part weight

Linear guide rails, with the benefits of low resistance and quick acceleration, are a standard feature of DIS series two-platen injection molding machine. Incorporating other features, such as ultrasonic displacement sensor for monitoring and full closed-loop injection, DIS series has achieved accurate position control and high repeatability of part weight.



### Excellent injection repeatability

Repeatability of injection end position up to  $\pm 0.2\text{mm}$  or less and repeatability of part weight  $\leq 0.3\%$ .



### Integral linear guide rails for injection

Linear guide rails are a standard feature of DIS series, bringing benefits of low resistance, quick acceleration and stable injection.



### Non-contacted ultrasonic displacement sensor

Ultrasonic displacement sensor for position measurement is characterized by absolute value, little signal interference, long service life and high accuracy of measurement.



### Adaptive PID temperature control

With the use of durable ceramic heater bands and adaptive PID control performed by the Austrian controller, temperature control accuracy is up to  $\pm 0.5^\circ\text{C}$ .



# HYDRAULIC SYSTEM

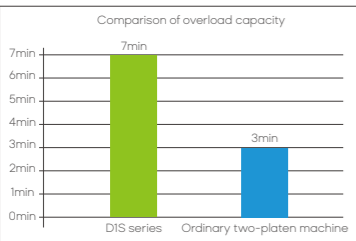


## Fast response, strong overloading, stability, energy conservation

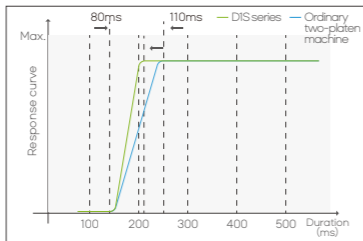
DIS series is based on a hydraulic system with stability and fast response at the core, which enables hydraulic circuit to be in optimal operating conditions. The hydraulic system is characterized by fast response, strong overload capacity and low energy consumption that meets China energy efficiency grade 1.

### New-generation servo system driven by fully oil-cooled motor

The fully oil-cooled two-headed motor-driven servo system is the quintessence of highly-integrated servo pump system. It eliminates the influence of instability in machine operation due to the work environment and further reduces energy consumption of hydraulic circuit. Synchronized drive technology makes hydraulic circuit response faster and movements more efficient.



Strong overload capacity



Rapid acceleration



Durable and reliable

### Precise filtration and independent cooling system

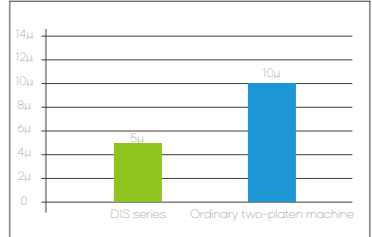
With independent hydraulic circuit filtration system, filter fineness is up to 5μm and cooling effect is optimized, which ensure long service life of seals. Machine becomes more stable.



Good cooling effect



High filter fineness



Comparison of filter fineness

### Motor protected with L-shape plates

L-shape plates are easy to install and can be opened directly so that there is open space for more efficient maintenance of the drive system.



## CONTROL SYSTEM

### Accurate control, various functions, reliable and stable

D1S series adopts Austria's KEBA control system dedicated to two-platen injection molding machine. This powerful system can accurately control the position, pressure, speed, temperature and other parameters. The whole control system is engineered based on reliability, stability, safety and user-friendly operation for better user experience.



### Stable, fast and accurate control

- ▶ D1S series injection molding machine adopts Austria's KEBA control system, with double CPUs, 1ms of response time and high reliability.
- ▶ Fast mold opening and closing and high repeatability thanks to the high-response dual proportional valve control technology.
- ▶ Servo injection (closed-loop control of injection, plasticizing, holding pressure and back pressure)
- ▶ Self-tuning of temperature parameters of barrel and hot runner makes temperature control more accurate.

### Various functions

- ▶ Memory of alarm and process parameter change, USB expansion without limit
- ▶ Programming with no restrictions, record of process parameter change curve is available
- ▶ Production process data control (PDP) and statistical process control (SPC)
- ▶ Multi-level user access to protect system and data
- ▶ Multiple protections of equipment and people through software and hardware
- ▶ New processes like MuCell, ICM, IMC can be integrated

### Humanized design, easy to operate

- ▶ Real-time remote control and maintenance
- ▶ Online conversion of languages and units
- ▶ Quick input by means of graph and virtual keyboard
- ▶ Quick settings page for easy and convenient process parameter setting



#### IP54 electrical enclosure

The electrical enclosure is designed with IP54 rating, resistance to water and dust and good cooling effect, so that the electrical system is more stable in operation.



#### Separate connector module for auxiliary equipment

External separate power control without opening the electrical cabinet makes operation safer and more convenient.



#### Euromap-based robot interface

Euromap 12 robot interface is a standard feature, meeting customer's need for safer connection.

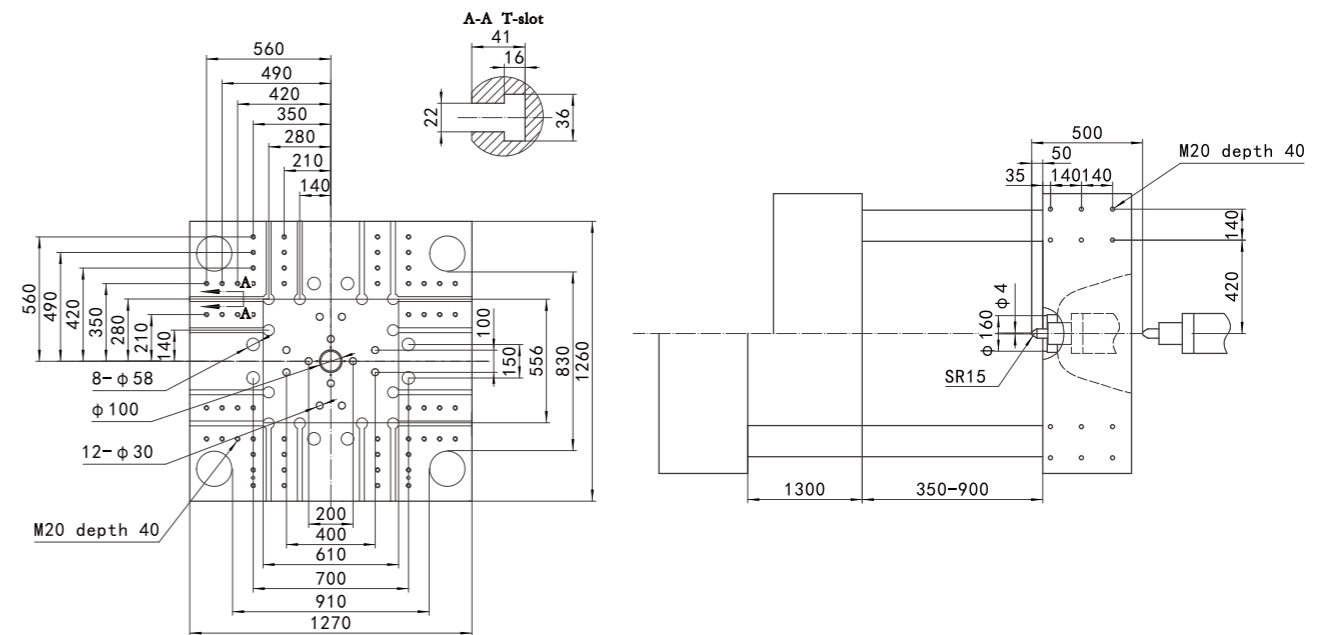


# SPECIFICATIONS

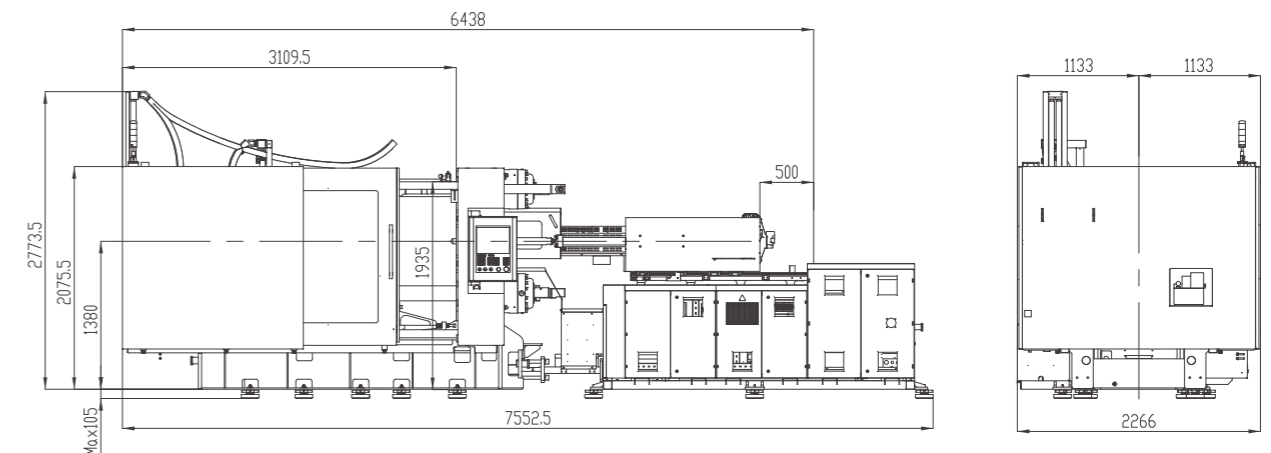
Model		UN550D1S											
INJECTION UNIT													
		IU2695			IU3500			IU4800					
Screw diameter	mm	68	76	84	76	84	92	84	92	100	108		
Theoretical shot volume	cm <sup>3</sup>	1198	1497	1829	1678	2050	2460	2217	2659	3142	3664		
Shot weight	g	1103	1377	1682	1544	1886	2263	2039	2446	2890	3371		
Injection pressure	MPa	225	180	147	209	170	143	218	181	154	134		
L/D ratio	L/D	22.3	20	20	22.1	20	20	21.9	20	21.6	20		
Injection rate	cm <sup>3</sup> /s	407	508	621	463	565	678	560	671	793	925		
Max. injection speed	mm/s	112			102			101					
Screw stroke	mm	330			370			400					
Max. screw speed	r/min	197			157			166					
Barrel heating zone	PCS	6			6			6					
CLAMPING UNIT													
Clamping force	kN	5500											
Opening force	kN	390											
Platen size	mm	1270×1260											
Space between tie bars	mm	910×830											
Max. mold thickness	mm	900											
Min. mold thickness	mm	350											
Opening stroke	mm	1300/750											
Max. daylight	mm	1650											
Ejector force	kN	110											
Ejector stroke	mm	250											
Ejector number	PCS	21											
POWER UNIT													
System pressure	MPa	17.5/30			17.5/30			17.5/30					
Pump motor	kW	60+5.5			60+5.5			66+5.5					
Total power	kW	91.9	91.9	96.4	98.6	98.6	101.7	108.6	108.6	118.5	118.5		
Heater power	kW	26.4	26.4	30.9	33.1	33.1	36.2	37.14	37.14	47	47		
GENERAL													
Oil tank capacity	L	640			640			820					
Machine dimensions	m	7.5×2.3×2.8			7.5×2.3×2.8			8.2×2.4×2.8					
Max. mold weight	Ton	8			8			8					

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure (MPa)/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions



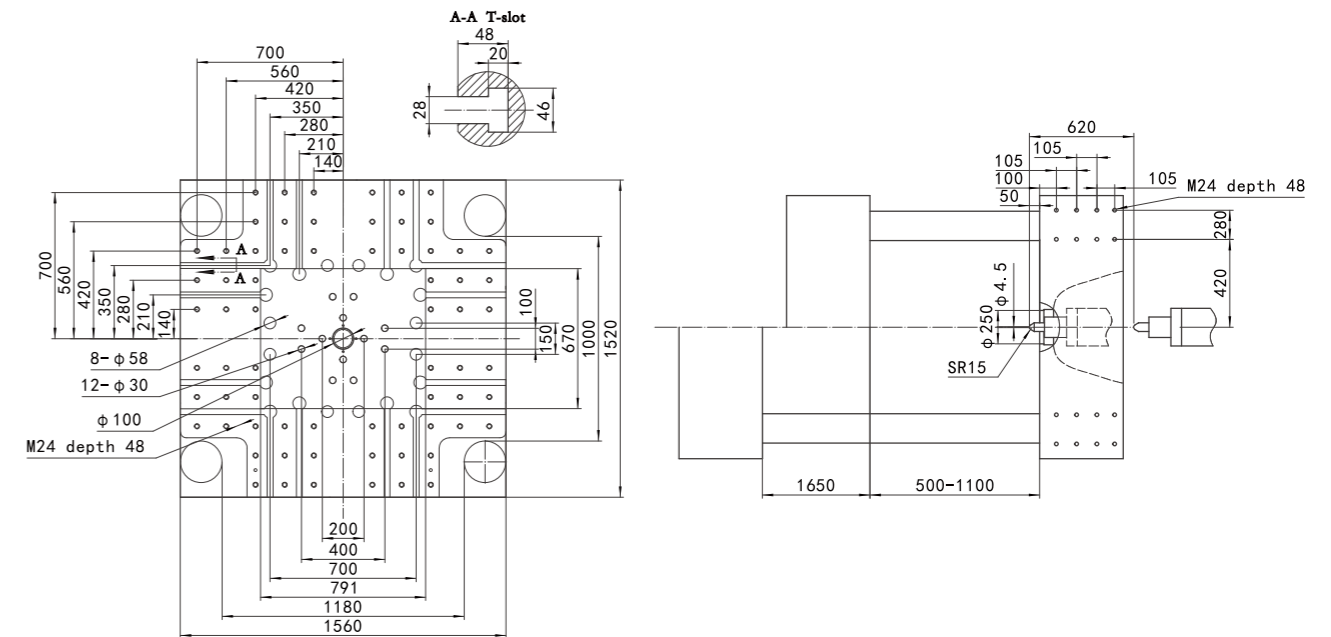


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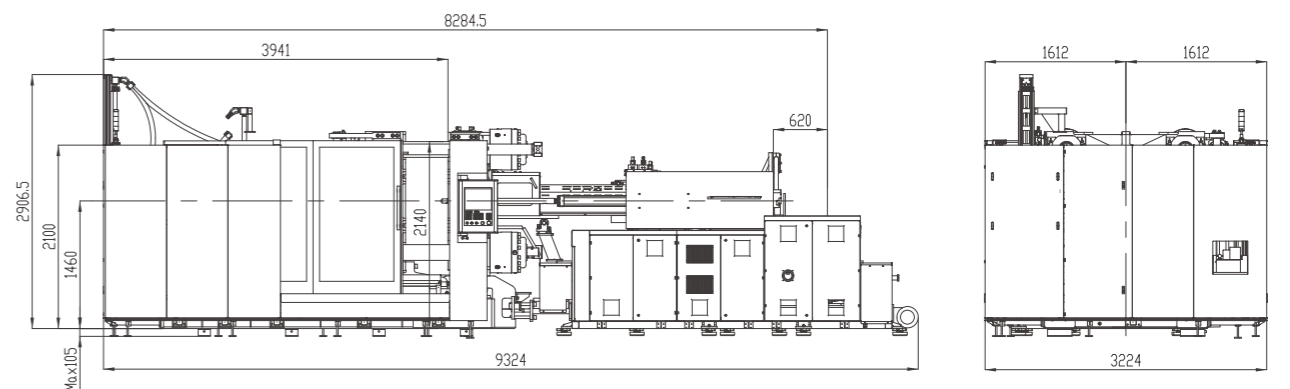
Model		UN900D1S											
INJECTION UNIT													
		IU4800				IU6800				IU9300			
Screw diameter	mm	84	92	100	108	92	100	108	116	100	108	116	125
Theoretical shot volume	cm <sup>3</sup>	2217	2659	3142	3664	3191	3770	4397	5073	4320	5038	5813	6750
Shot weight	g	2039	2446	2890	3371	2936	3468	4045	4667	3974	4635	5348	6210
Injection pressure	MPa	218	181	154	134	213	180	154	134	215	184	160	138
L/D ratio	L/D	21.9	20	21.6	20	21.7	22	21.5	20	21.6	20	21.6	20
Injection rate	cm <sup>3</sup> /s	560	671	793	925	665	785	916	1057	801	934	1078	1252
Max. injection speed	mm/s	101				100				102			
Screw stroke	mm	400				480				550			
Max. screw speed	r/min	166				156				128			
Barrel heating zone	PCS	6				7				7			
CLAMPING UNIT													
Clamping force	kN	9000											
Opening force	kN	640											
Platen size	mm	1560×1520											
Space between tie bars	mm	1180×1000											
Max. mold thickness	mm	1100											
Min. mold thickness	mm	500											
Opening stroke	mm	1650/1050											
Max. daylight	mm	2150											
Ejector force	kN	220											
Ejector stroke	mm	320											
Ejector number	PCS	21											
POWER UNIT													
System pressure	MPa	17.5/30				17.5/30				17.5/30			
Pump motor	kW	66+5.5				89+7.5				110+7.5			
Total power	kW	108.6	108.6	118.5	118.5	143.5	143.5	153.1	153.1	169.3	169.3	178.4	178.4
Heater power	kW	37.14	37.14	47	47	47	47	56.6	56.6	51.76	51.76	60.9	60.9
GENERAL													
Oil tank capacity	L	820				970				1150			
Machine dimensions	m	9.1×3.3×2.9				9.3×3.3×2.9				9.5×3.3×2.9			
Max. mold weight	Ton	13				13				13			

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- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions

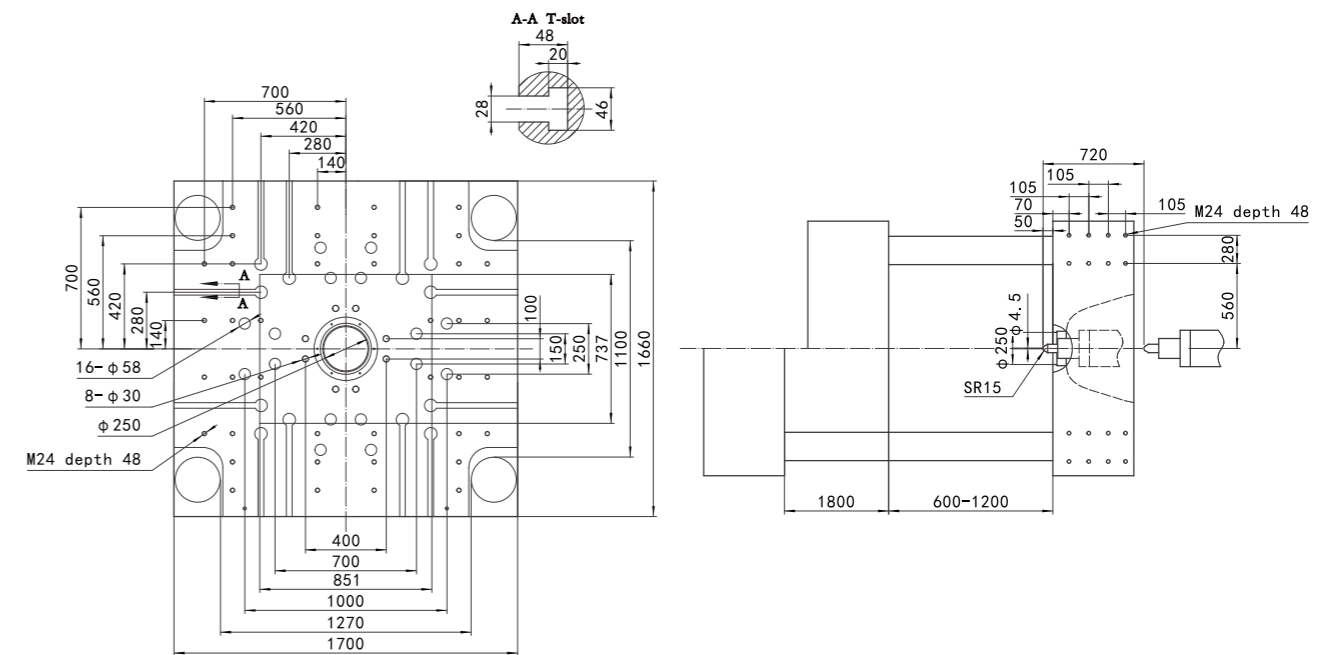


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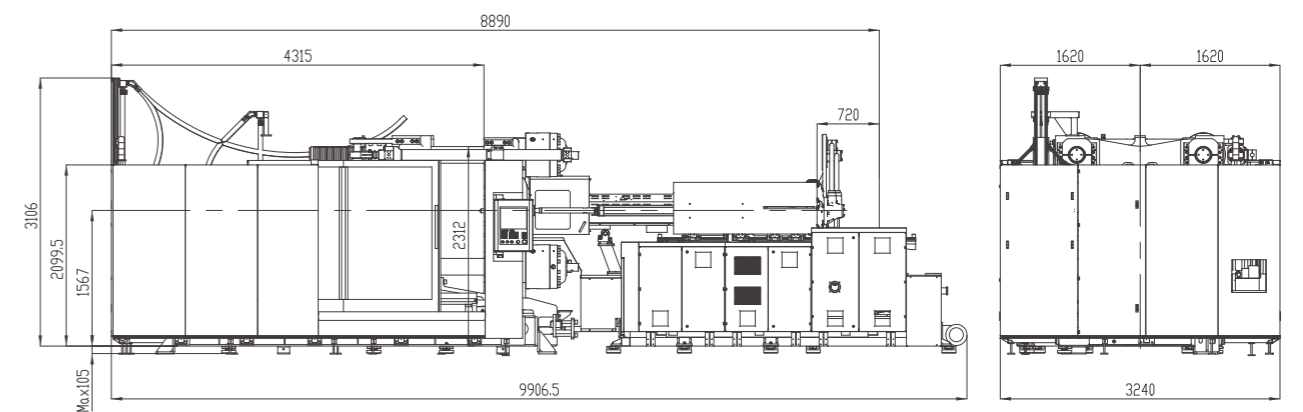
Model		UN1100D1S											
INJECTION UNIT													
		IU6800				IU9300				IU11300			
Screw diameter	mm	92	100	108	116	100	108	116	125	108	116	125	135
Theoretical shot volume	cm <sup>3</sup>	3191	3770	4397	5073	4320	5038	5813	6750	5222	6024	6995	8159
Shot weight	g	2936	3468	4045	4667	3974	4635	5348	6210	4804	5542	6435	7506
Injection pressure	MPa	213	180	154	134	215	184	160	138	216	187	162	139
L/D ratio	L/D	21.7	22	21.5	20	21.6	20	21.6	20	22	22	21.6	20
Injection rate	cm <sup>3</sup> /s	665	785	916	1057	801	934	1078	1252	864	997	1157	1350
Max. injection speed	mm/s	100				102				94.3			
Screw stroke	mm	480				550				570			
Max. screw speed	r/min	156				128				112			
Barrel heating zone	PCS	7				7				8			
CLAMPING UNIT													
Clamping force	kN	11000											
Opening force	kN	760											
Platen size	mm	1700×1660											
Space between tie bars	mm	1270×1100											
Max. mold thickness	mm	1200											
Min. mold thickness	mm	600											
Opening stroke	mm	1800/1200											
Max. daylight	mm	2400											
Ejector force	kN	274											
Ejector stroke	mm	360											
Ejector number	PCS	25											
POWER UNIT													
System pressure	MPa	17.5/30				17.5/30				17.5/30			
Pump motor	kW	89+7.5				110+7.5				89+37+7.5			
Total power	kW	143.5	143.5	153.1	153.1	169.3	169.3	178.4	178.4	199.9	199.9	204.1	204.1
Heater power	kW	47	47	56.6	56.6	51.76	51.76	60.9	60.9	66.37	66.37	70.63	70.63
GENERAL													
Oil tank capacity	L	970				1150				1270			
Machine dimensions	m	9.8×3.3×3.1				9.9×3.3×3.1				10.5×3.3×3.1			
Max. mold weight	Ton	16				16				16			

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- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
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## Platen Dimensions



## Machine Dimensions

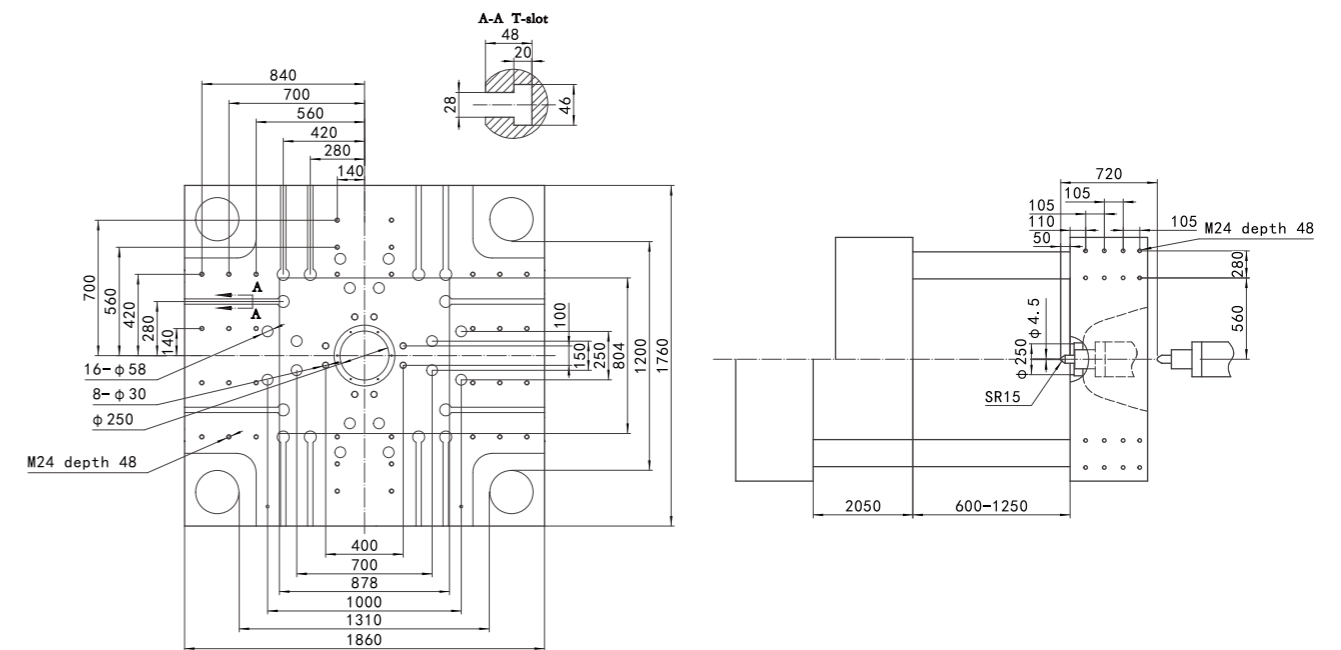


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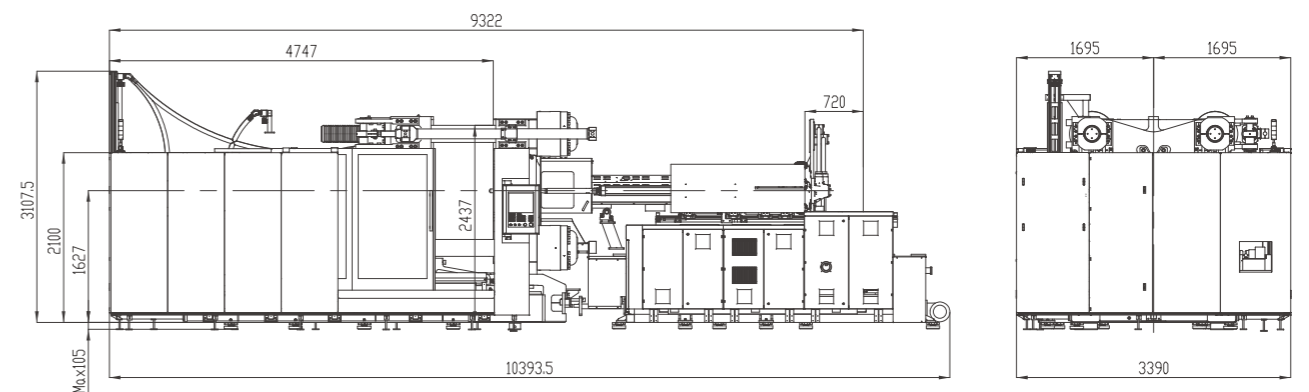
Model		UN1200D1S											
INJECTION UNIT													
		IU6800				IU9300				IU11300			
Screw diameter	mm	92	100	108	116	100	108	116	125	108	116	125	135
Theoretical shot volume	cm <sup>3</sup>	3191	3770	4397	5073	4320	5038	5813	6750	5222	6024	6995	8159
Shot weight	g	2936	3468	4045	4667	3974	4635	5348	6210	4804	5542	6435	7506
Injection pressure	MPa	213	180	154	134	215	184	160	138	216	187	162	139
L/D ratio	L/D	21.7	22	21.5	20	21.6	20	21.6	20	22	22	21.6	20
Injection rate	cm <sup>3</sup> /s	665	785	916	1057	801	934	1078	1252	864	997	1157	1350
Max. injection speed	mm/s	100				102				94.3			
Screw stroke	mm	480				550				570			
Max. screw speed	r/min	156				128				112			
Barrel heating zone	PCS	7				7				8			
CLAMPING UNIT													
Clamping force	kN	12000											
Opening force	kN	875											
Platen size	mm	1860×1760											
Space between tie bars	mm	1310×1200											
Max. mold thickness	mm	1250											
Min. mold thickness	mm	600											
Opening stroke	mm	2050/1400											
Max. daylight	mm	2650											
Ejector force	kN	274											
Ejector stroke	mm	360											
Ejector number	PCS	25											
POWER UNIT													
System pressure	MPa	17.5/30				17.5/30				17.5/30			
Pump motor	kW	89+7.5				110+7.5				89+37+7.5			
Total power	kW	143.5	143.5	153.1	153.1	169.3	169.3	178.4	178.4	199.9	199.9	204.1	204.1
Heater power	kW	47	47	56.6	56.6	51.76	51.76	60.9	60.9	66.37	66.37	70.63	70.63
GENERAL													
Oil tank capacity	L	970				1150				1270			
Machine dimensions	m	10.3×3.4×3.1				10.4×3.4×3.1				11×3.4×3.1			
Max. mold weight	Ton	20				20				20			

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- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
- The green figures are standard specifications of clamping unit and injection unit.
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## Platen Dimensions



## Machine Dimensions

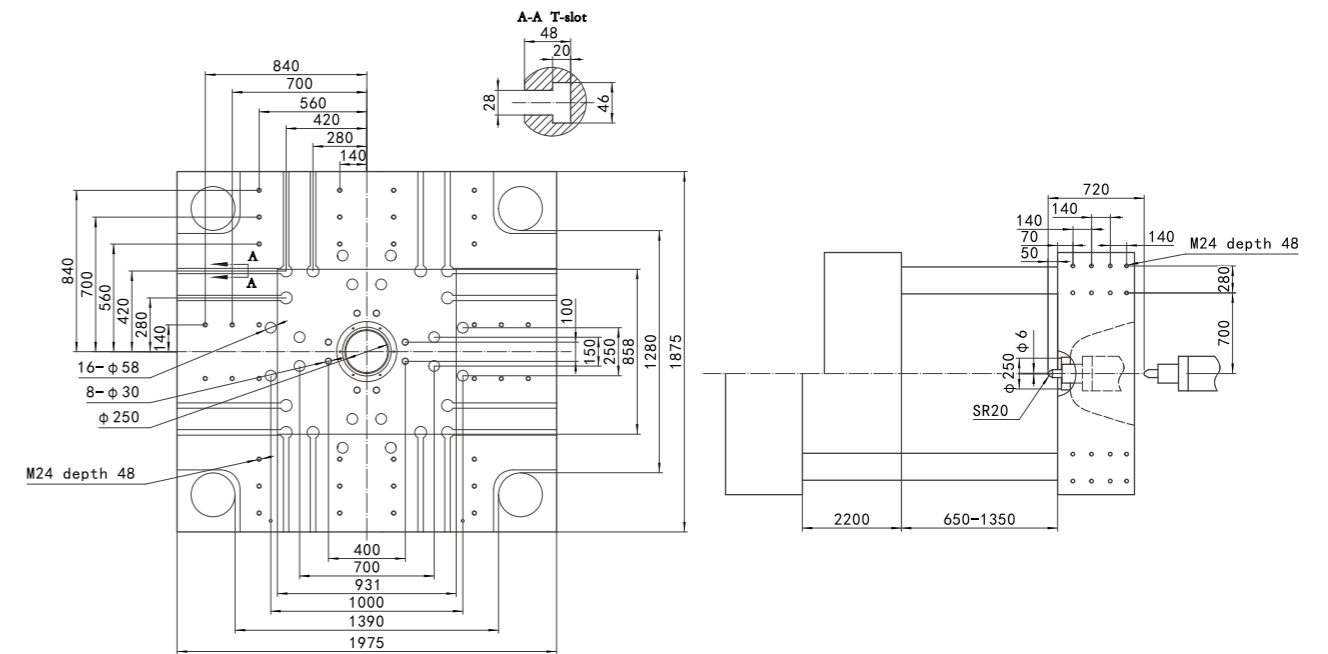


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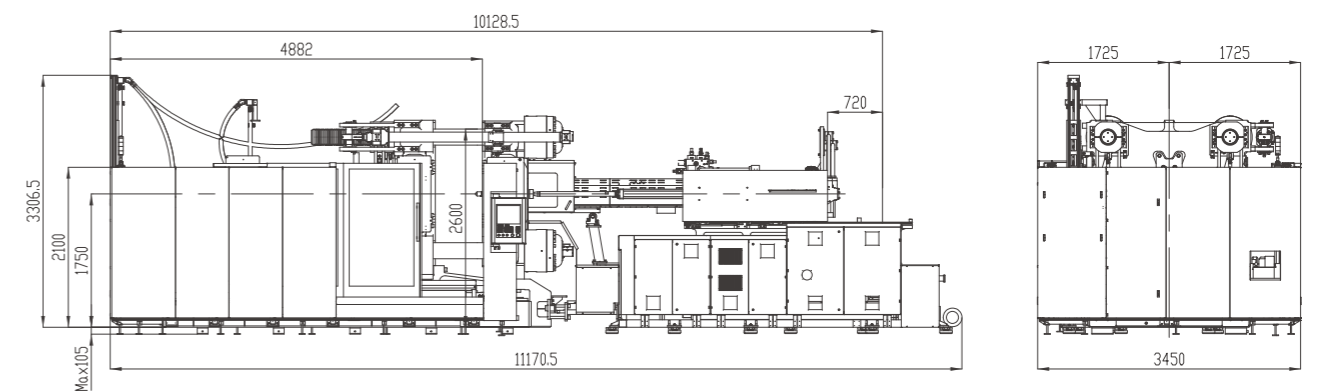
Model		UN1300D1S											
INJECTION UNIT													
		IU9300				IU11300				IU16000			
Screw diameter	mm	100	108	116	125	108	116	125	135	125	135	145	
Theoretical shot volume	cm <sup>3</sup>	4320	5038	5813	6750	5222	6024	6995	8159	7977	9304	10733	
Shot weight	g	3974	4635	5348	6210	4804	5542	6435	7506	7339	8560	9875	
Injection pressure	MPa	215	184	160	138	216	187	162	139	199	172	149	
L/D ratio	L/D	21.6	20	21.6	20	22	22	21.6	20	23.6	22	20	
Injection rate	cm <sup>3</sup> /s	801	934	1078	1252	864	997	1157	1350	1313	1532	1767	
Max. injection speed	mm/s	102				94.3				107			
Screw stroke	mm	550				570				650			
Max. screw speed	r/min	128				112				120			
Barrel heating zone	PCS	7				7				8			
CLAMPING UNIT													
Clamping force	kN	13000											
Opening force	kN	875											
Platen size	mm	1975×1875											
Space between tie bars	mm	1390×1280											
Max. mold thickness	mm	1350											
Min. mold thickness	mm	650											
Opening stroke	mm	2200/1500											
Max. daylight	mm	2850											
Ejector force	kN	274											
Ejector stroke	mm	360											
Ejector number	PCS	25											
POWER UNIT													
System pressure	MPa	17.5/30				17.5/30				17.5/30			
Pump motor	kW	110+7.5				89+37+7.5				89+66+11			
Total power	kW	169.3	169.3	178.4	178.4	199.9	199.9	204.1	204.1	253.7			
Heater power	kW	51.76	51.76	60.9	60.9	66.37	66.37	70.63	70.63	87.7			
GENERAL													
Oil tank capacity	L	1150				1270				1600			
Machine dimensions	m	10.5×3.5×3.3				11.2×3.5×3.3				11.7×3.5×3.3			
Max. mold weight	Ton	23				23				23			

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure (MPa)/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions

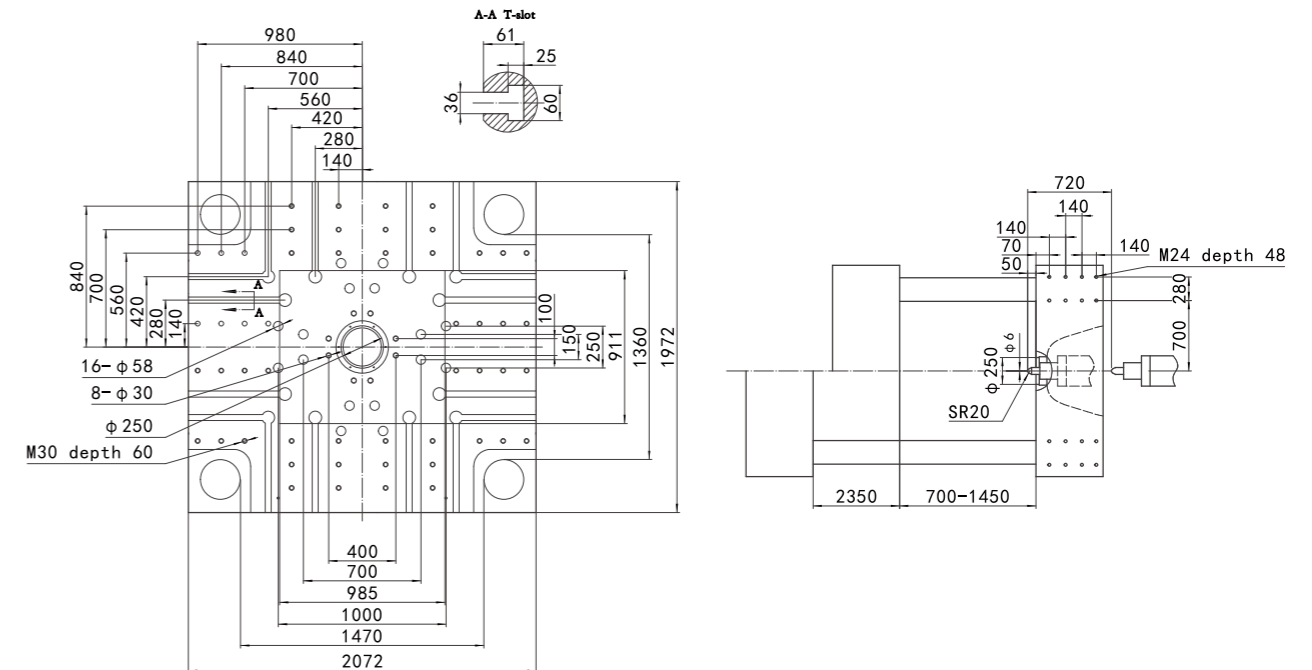


# SPECIFICATIONS

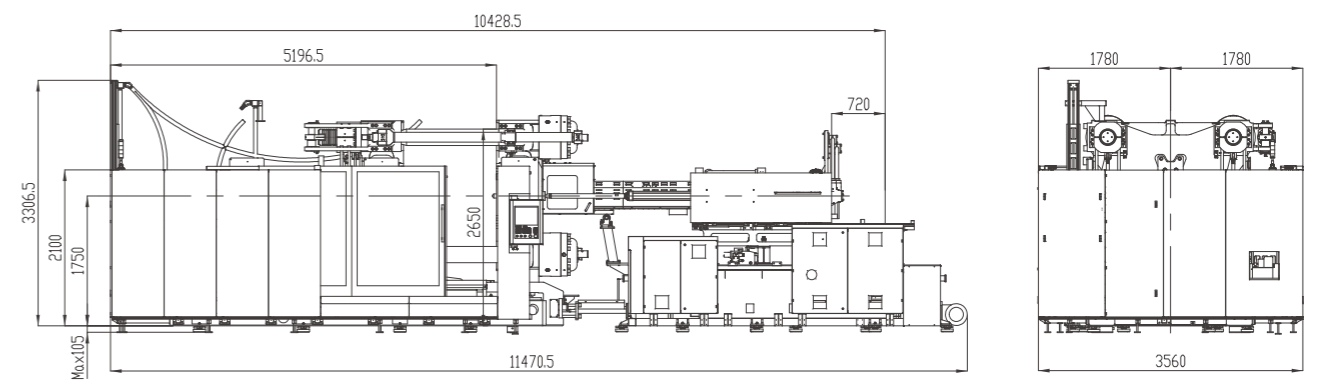
Model		UN1400D1S													
		INJECTION UNIT													
		IU9300				IU11300				IU16000					
Screw diameter	mm	100	108	116	125	108	116	125	135	125	135	145			
Theoretical shot volume	cm <sup>3</sup>	4320	5038	5813	6750	5222	6024	6995	8159	7977	9304	10733			
Shot weight	g	3974	4635	5348	6210	4804	5542	6435	7506	7339	8560	9875			
Injection pressure	MPa	215	184	160	138	216	187	162	139	199	172	149			
L/D ratio	L/D	21.6	20	21.6	20	22	22	21.6	20	23.6	22	20			
Injection rate	cm <sup>3</sup> /s	801	934	1078	1252	864	997	1157	1350	1313	1532	1767			
Max. injection speed	mm/s	102				94.3				107					
Screw stroke	mm	550				570				650					
Max. screw speed	r/min	128				112				120					
Barrel heating zone	PCS	7				8				8					
		CLAMPING UNIT													
Clamping force	kN	14000													
Opening force	kN	950													
Platen size	mm	2072×1972													
Space between tie bars	mm	1470×1360													
Max. mold thickness	mm	1450													
Min. mold thickness	mm	700													
Opening stroke	mm	2350/1600													
Max. daylight	mm	3050													
Ejector force	kN	300													
Ejector stroke	mm	400													
Ejector number	PCS	25													
		POWER UNIT													
System pressure	MPa	17.5/30				17.5/30				17.5/30					
Pump motor	kW	110+7.5				89+37+7.5				89+66+11					
Total power	kW	169.3	169.3	178.4	178.4	199.9	199.9	204.1	204.1	253.7					
Heater power	kW	51.76	51.76	60.9	60.9	66.37	66.37	70.63	70.63	87.7					
		GENERAL													
Oil tank capacity	L	1150				1270				1600					
Machine dimensions	m	10.8×3.6×3.3				11.5×3.6×3.3				12×3.6×3.3					
Max. mold weight	Ton	27				27				27					

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions





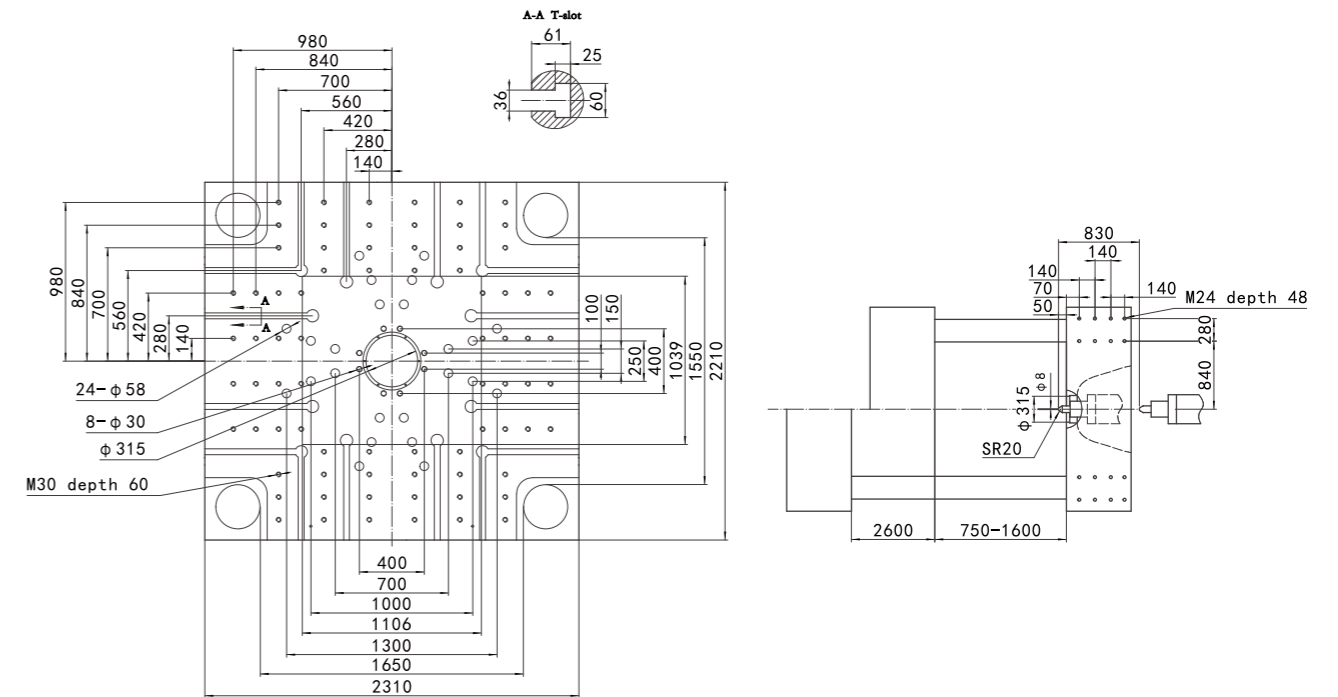


# SPECIFICATIONS

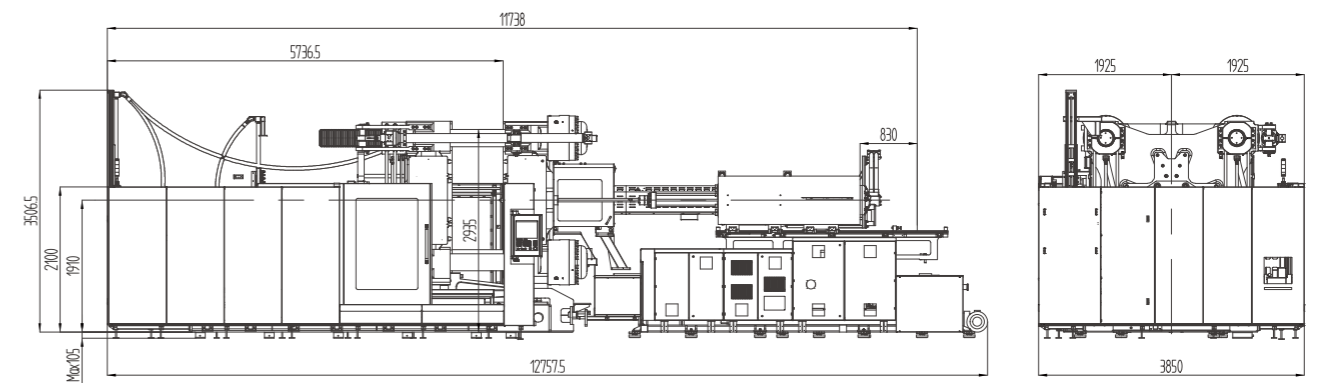
Model		UN1850D1S											
		INJECTION UNIT											
		IU11300				IU16000				IU20000			
Screw diameter	mm	108	116	125	135	125	135	145	135	145	155	165	
Theoretical shot volume	cm <sup>3</sup>	5222	6024	6995	8159	7977	9304	10733	10020	11559	13208	14968	
Shot weight	g	4804	5542	6435	7506	7339	8560	9875	9218	10634	12152	13770	
Injection pressure	MPa	216	187	162	139	199	172	149	199	173	151	133	
L/D ratio	L/D	22	22	21.6	20	23.6	22	20	23.6	22	22	20	
Injection rate	cm <sup>3</sup> /s	864	997	1157	1350	1313	1532	1767	1368	1579	1804	2044	
Max. injection speed	mm/s	94.3				107				95.6			
Screw stroke	mm	570				650				700			
Max. screw speed	r/min	112				120				120			
Barrel heating zone	PCS	8				8				8			
		CLAMPING UNIT											
Clamping force	kN	18500											
Opening force	kN	1230											
Platen size	mm	2310×2210											
Space between tie bars	mm	1650×1550											
Max. mold thickness	mm	1600											
Min. mold thickness	mm	750											
Opening stroke	mm	2600/1750											
Max. daylight	mm	3350											
Ejector force	kN	460											
Ejector stroke	mm	430											
Ejector number	PCS	33											
		POWER UNIT											
System pressure	MPa	17.5/30				17.5/30				17.5/30			
Pump motor	kW	89+37+7.5				89+66+11				89+66+11			
Total power	kW	199.9	199.9	204.1	204.1	253.7				263.8			
Heater power	kW	66.37	66.37	70.63	70.63	87.7				97.8			
		GENERAL											
Oil tank capacity	L	1270				1600				1600			
Machine dimensions	m	12.1×3.9×3.5				12.8×3.9×3.5				12.8×3.9×3.5			
Max. mold weight	Ton	42				42				42			

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure (MPa)/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions

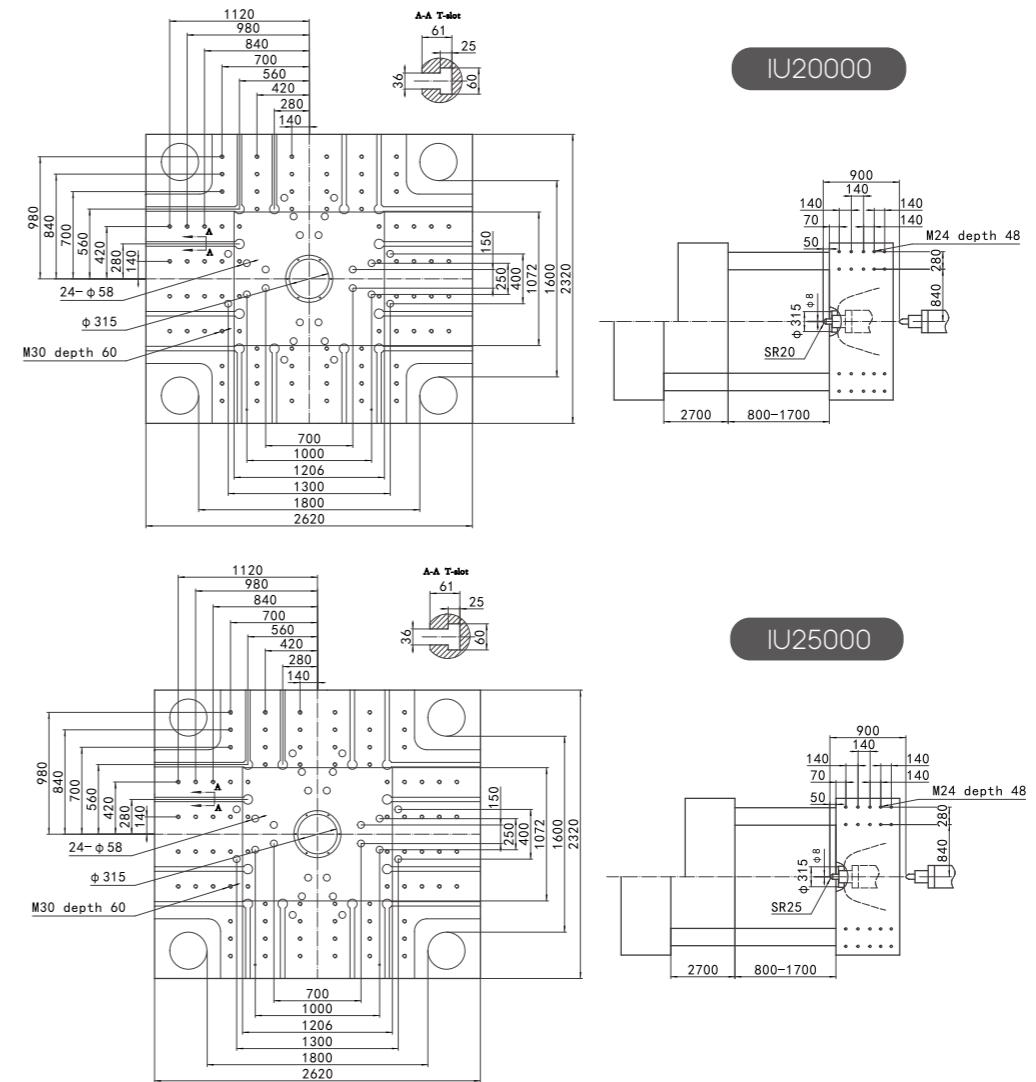


# SPECIFICATIONS

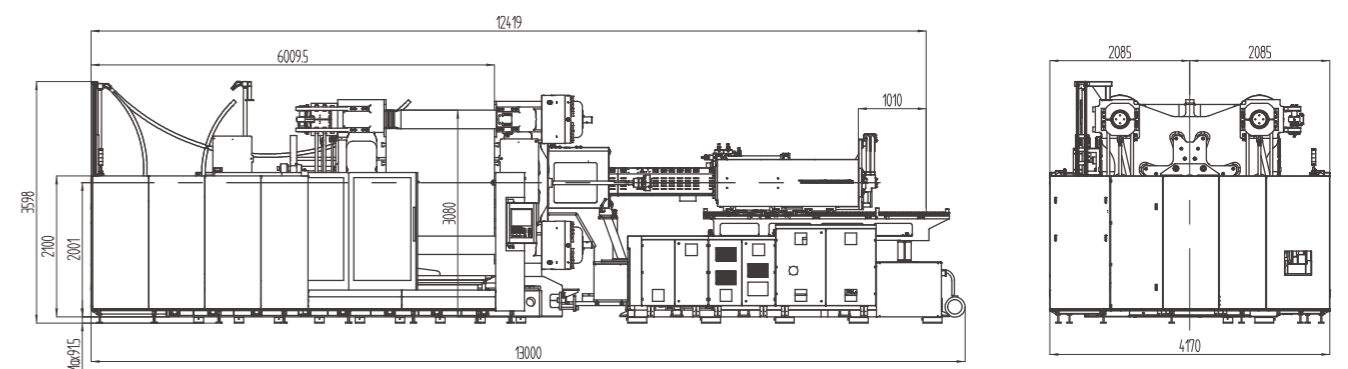
Model		UN2100D1S									
		INJECTION UNIT									
		IU16000			IU20000				IU25000		
Screw diameter	mm	125	135	145	135	145	155	165	155	165	
Theoretical shot volume	cm <sup>3</sup>	7977	9304	10733	10020	11559	13208	14968	14152	16037	
Shot weight	g	7339	8560	9875	9218	10634	12152	13770	13020	14754	
Injection pressure	MPa	199	172	149	199	173	151	133	175	154	
L/D ratio	L/D	23.6	22	20	23.6	22	22	20	22	20.1	
Injection rate	cm <sup>3</sup> /s	1313	1532	1767	1368	1579	1804	2044	1472	1668	
Max. injection speed	mm/s	107			95.6				78		
Screw stroke	mm	650			700				750		
Max. screw speed	r/min	120			120				114		
Barrel heating zone	PCS	8			8				10		
		CLAMPING UNIT									
Clamping force	kN	21000									
Opening force	kN	1380									
Platen size	mm	2620×2320									
Space between tie bars	mm	1800×1600									
Max. mold thickness	mm	1700									
Min. mold thickness	mm	800									
Opening stroke	mm	2700/1800									
Max. daylight	mm	3500									
Ejector force	kN	460									
Ejector stroke	mm	430									
Ejector number	PCS	25									
		POWER UNIT									
System pressure	MPa	17.5/30			17.5/30				17.5/30		
Pump motor	kW	89+66+11			89+66+11				89+66+11		
Total power	kW	253.7			263.8				278.4		
Heater power	kW	87.7			97.8				112.4		
		GENERAL									
Oil tank capacity	L	1600			1600				1600		
Machine dimensions	m	13×4.2×3.5			13×4.2×3.5				13×4.2×3.5		
Max. mold weight	Ton	50			50				50		

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions

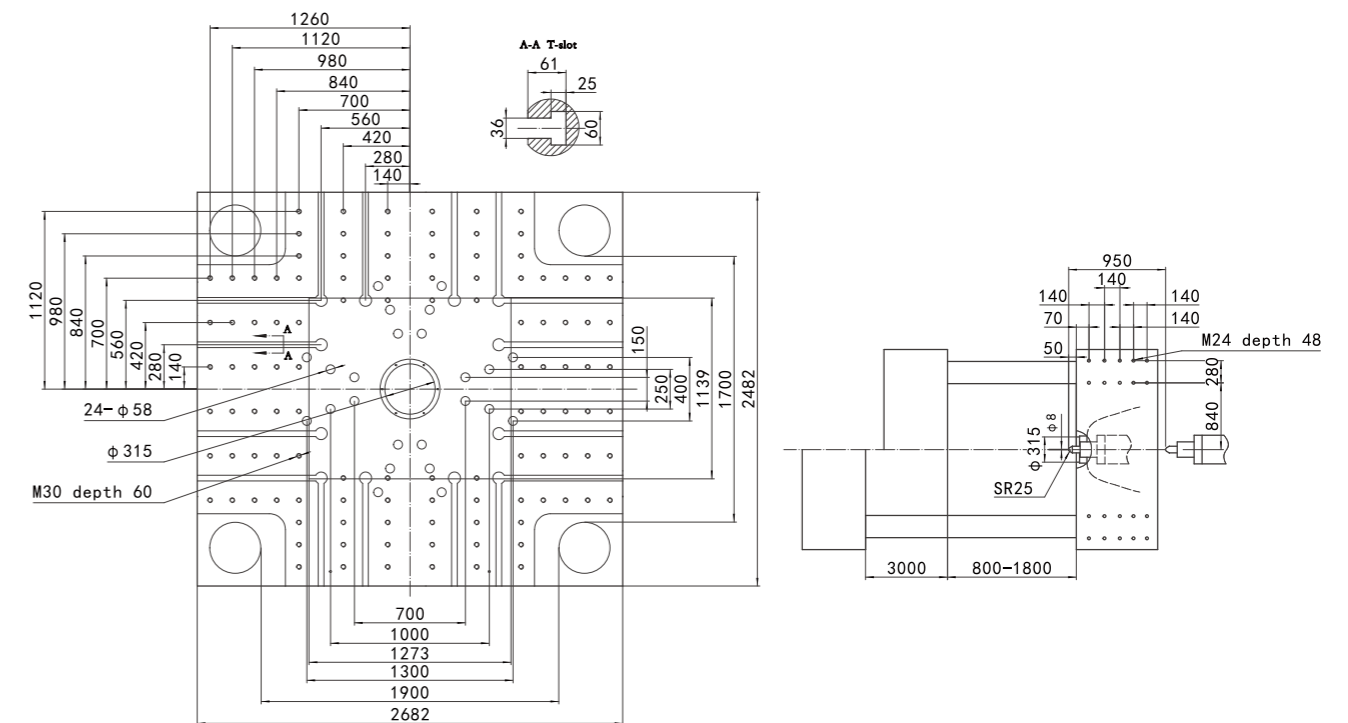


# SPECIFICATIONS

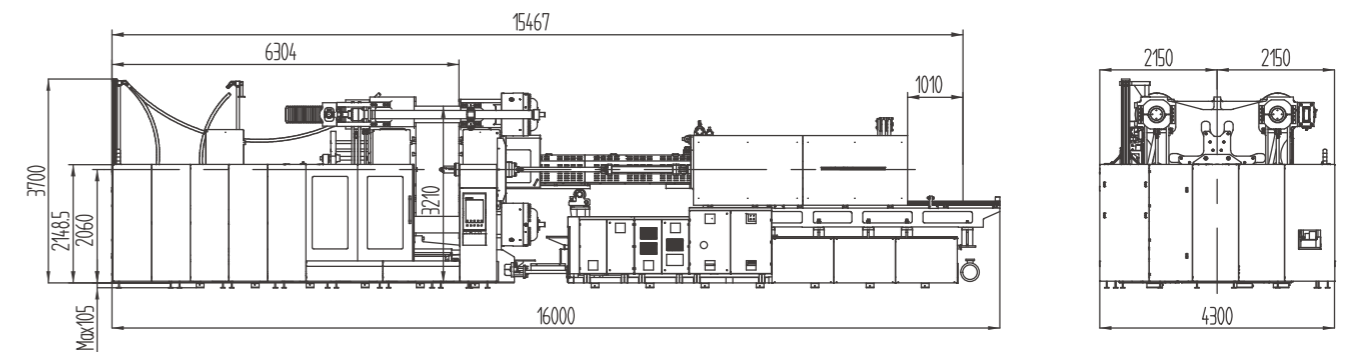
Model		UN2400D1S				
INJECTION UNIT						
		IU25000		IU40000		IU55600
Screw diameter	mm	155	165	165	185	200
Theoretical shot volume	cm <sup>3</sup>	14152	16037	20955	26343	35186
Shot weight	g	13020	14754	19278	24235	32371
Injection pressure	MPa	175	154	190	151	158
L/D ratio	L/D	22	20.1	24	22	22
Injection rate	cm <sup>3</sup> /s	1472	1668	1614	2029	2482
Max. injection speed	mm/s	78		75.5		79
Screw stroke	mm	750		980		1120
Max. screw speed	r/min	114		80		85
Barrel heating zone	PCS	10		11		9
CLAMPING UNIT						
Clamping force	kN	24000				
Opening force	kN	1640				
Platen size	mm	2682×2482				
Space between tie bars	mm	1900×1700				
Max. mold thickness	mm	1800				
Min. mold thickness	mm	800				
Opening stroke	mm	3000/2000				
Max. daylight	mm	3800				
Ejector force	kN	460				
Ejector stroke	mm	430				
Ejector number	PCS	25				
POWER UNIT						
System pressure	MPa	17.5/30		17.5/30		17.5/30
Pump motor	kW	89+66+11		110+89+11		110+89+55.6+11
Total power	kW	278.4		357.5		458.6
Heater power	kW	112.4		147.5		193
GENERAL						
Oil tank capacity	L	1600		2100		3200
Machine dimensions	m	13.3×4.3×3.7		16×4.3×3.7		16.5×4.3×3.7
Max. mold weight	Ton	59		59		59

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions

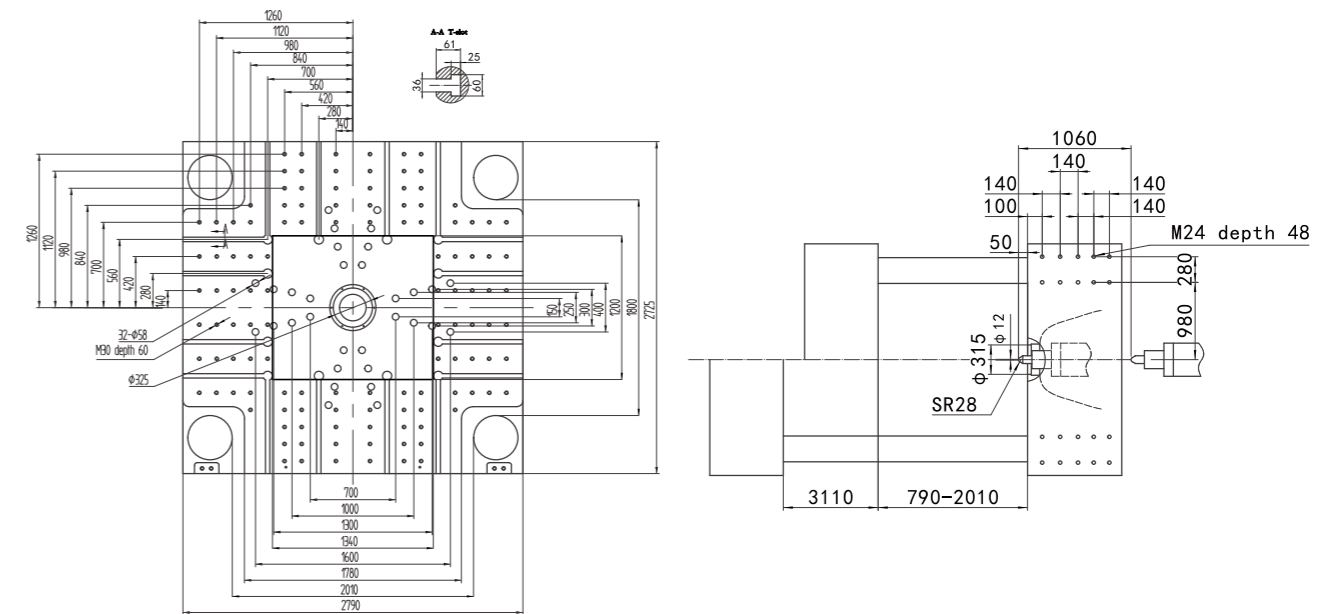


# SPECIFICATIONS

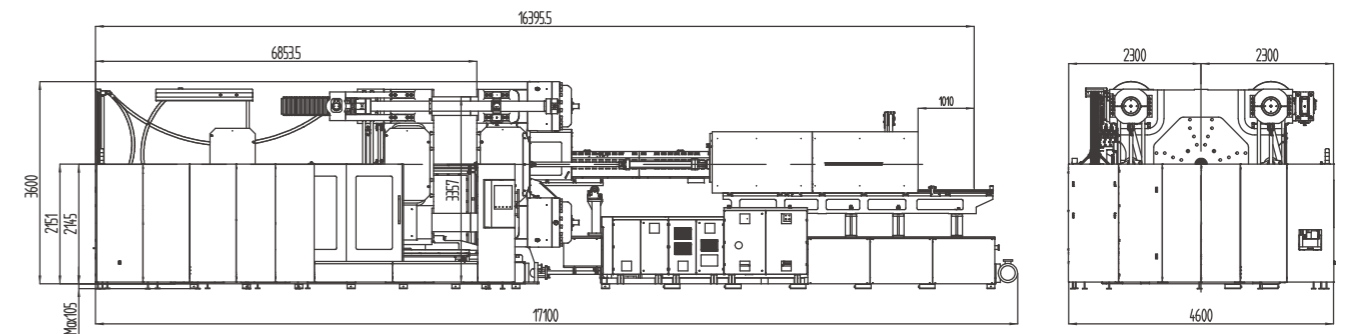
Model		UN2850D1S				
INJECTION UNIT						
		IU25000		IU40000		IU55600
Screw diameter	mm	155	165	165	185	200
Theoretical shot volume	cm <sup>3</sup>	14152	16037	20955	26343	35186
Shot weight	g	13020	14754	19278	24235	32371
Injection pressure	MPa	175	154	190	151	158
L/D ratio	L/D	22	20.1	24	22	22
Injection rate	cm <sup>3</sup> /s	1472	1668	1614	2029	2482
Max. injection speed	mm/s	78		75.5		79
Screw stroke	mm	750		980		1120
Max. screw speed	r/min	114		80		85
Barrel heating zone	PCS	10		11		9
CLAMPING UNIT						
Clamping force	kN	28500				
Opening force	kN	2200				
Platen size	mm	2790×2725				
Space between tie bars	mm	2010×1800				
Max. mold thickness	mm	2010				
Min. mold thickness	mm	790				
Opening stroke	mm	3110/1890				
Max. daylight	mm	3900				
Ejector force	kN	460				
Ejector stroke	mm	500				
Ejector number	PCS	33				
POWER UNIT						
System pressure	MPa	17.5/30		17.5/30		17.5/30
Pump motor	kW	89+66+11		110+89+11		110+89+55.6+11
Total power	kW	278.4		357.5		458.6
Heater power	kW	112.4		147.5		193
GENERAL						
Oil tank capacity	L	1600		2100		3200
Machine dimensions	m	13.9×4.6×3.6		16.6×4.6×3.6		17.1×4.6×3.6
Max. mold weight	Ton	75		75		75

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure [MPa]/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions



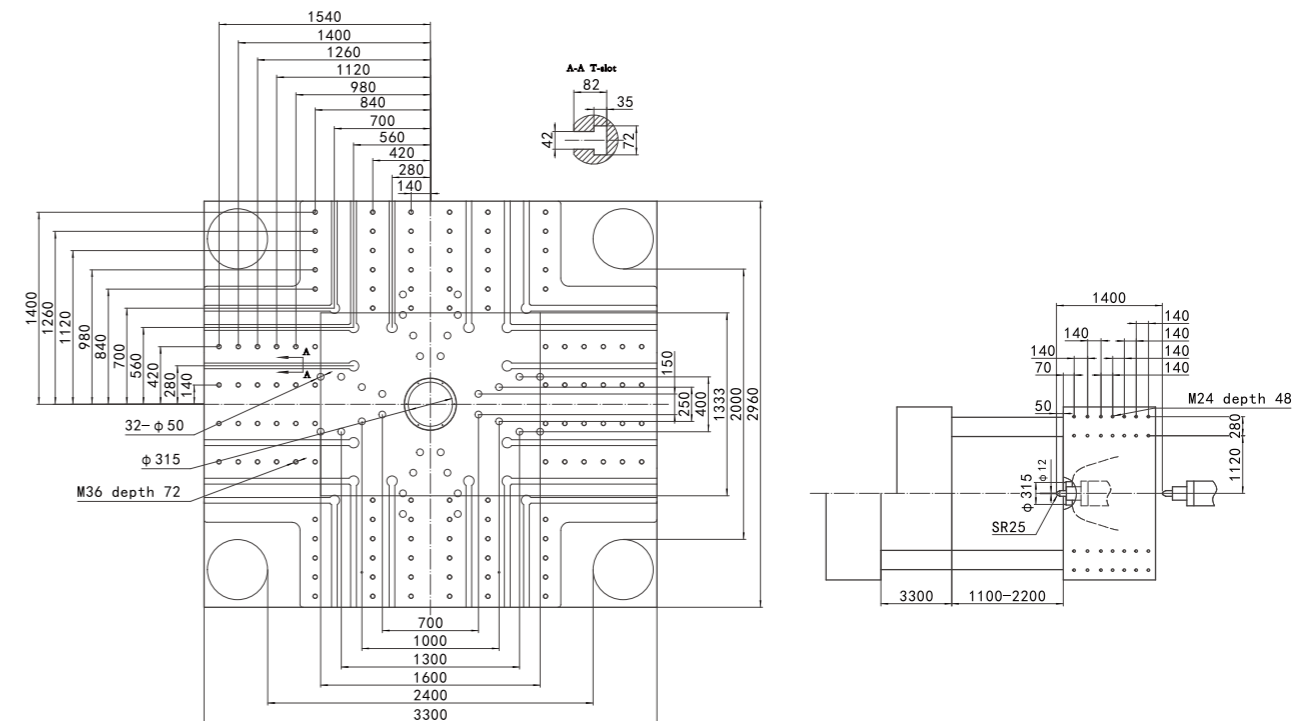


# SPECIFICATIONS

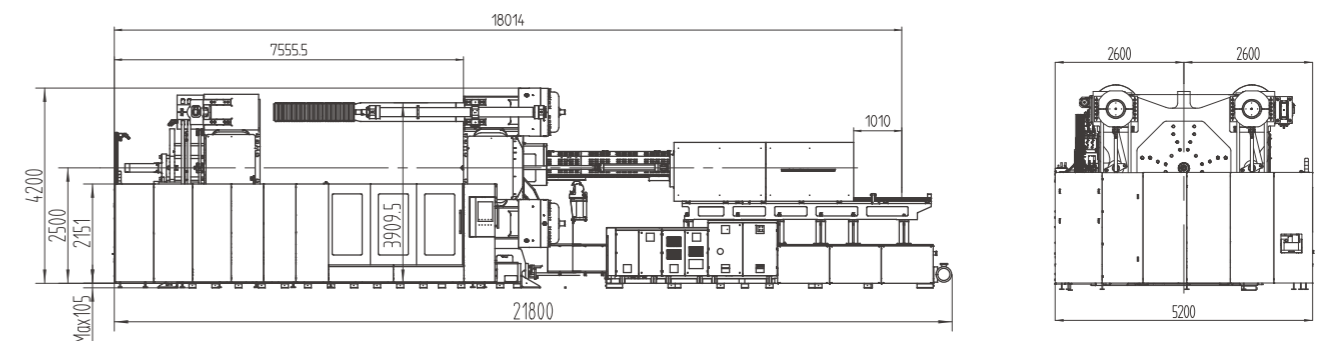
Model		UN4000D1S		
INJECTION UNIT				
		IU55600	IU68000	IU95000
Screw diameter	mm	200	215	245
Theoretical shot volume	cm <sup>3</sup>	35186	43566	53272
Shot weight	g	32371	40081	49010
Injection pressure	MPa	158	156	178
L/D ratio	L/D	22	22	22
Injection rate	cm <sup>3</sup> /s	2482	2541	3111
Max. injection speed	mm/s	79	70	66
Screw stroke	mm	1120	1200	1130
Max. screw speed	r/min	85	52	52
Barrel heating zone	PCS	9	9	11
CLAMPING UNIT				
Clamping force	kN		4000	
Opening force	kN		3170	
Platen size	mm		3300×2960	
Space between tie bars	mm		2400×2000	
Max. mold thickness	mm		2200	
Min. mold thickness	mm		1100	
Opening stroke	mm		3300/2200	
Max. daylight	mm		4400	
Ejector force	kN		460	
Ejector stroke	mm		500	
Ejector number	PCS		33	
POWER UNIT				
System pressure	MPa	17.5/30	17.5/30	17.5/30
Pump motor	kW	110+89+55.6+11	110+89+55.6+11	89*4+11
Total power	kW	458.6	477.6	648
Heater power	kW	193	212	281
GENERAL				
Oil tank capacity	L	3200	3200	5300
Machine dimensions	m	18.1×5.2×4.2	19.2×5.2×4.2	21.8×5.2×4.2
Max. mold weight	Ton	86	86	86

- Opening force refers to mold opening force generated during high-pressure mold open.
- In the case of opening stroke, data before the slash refer to mold opening stroke with minimum mold height and opening stroke with maximum mold height.
- Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
- The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
- The medium screw diameter is standard on the machine.
- The injection unit data are in international units and calculated as follows: theoretical shot volume [cm<sup>3</sup>] × injection pressure (MPa)/100
- The green figures are standard specifications of clamping unit and injection unit.
- Because of constant technical improvement, the machine specifications are subject to change without notice.

## Platen Dimensions



## Machine Dimensions



## Standard and Optional Features

● Standard ○ Optional

CLAMPING UNIT		
Clamping mechanism with tie bars independent of moving platen	●	
Quantitative volumetric automatic lubrication	●	
High-response proportional control of pressure and flow for mold open & mold close	●	
Hydraulically-driven ejection device	●	
Low-pressure mold protection	●	
Clamping force adjustment as needed	●	
Forced reset function	●	
Ejector return protection	●	
Robot mounting hole (Euromap 18)	●	
Electric door (optional for 550T-1400T machine)	●	
T-slot platen	●	
Four clamp platens made of high-rigidity ductile iron	●	
Hydraulic and electrical safety devices	●	
Safety foot plate in mold area (optional for 550 or 750T machine)	●	
High-accuracy magnetostrictive displacement sensor for mold open/close control	●	
Mold spring	●	
Safety foot plate in front & rear door areas		○
Synchronous ejection and core pulling		○
Secondary mold closing		○
Quick mold change system platform		○
Hydraulic mold clamp		○
Magnetic platen		○
Increased mold thickness		○
Increased ejector stroke		○
Mold lifting device		○
Heat insulating plate of mold		○
Special mold mounting hole		○
Increased mold opening stroke		○
Larger ejection force		○
ELECTRIC CONTROL SYSTEM		
Closed-loop PID barrel temperature control	●	
Manual, semi-auto and fully-auto operating mode	●	
Input and output inspection interface	●	
Automatic display of alarm messages and acousto-optic alarm system	●	
Built-in software with the oscilloscope function	●	
Unlimited technical parameter storage	●	
Automatic mold height adjustment	●	
Chinese and English operating system	●	
Safety gate emergency stop function	●	
Online cycle monitoring	●	
12" TFT color touch screen	●	
Visualized graphic programming	●	
PDP interface	●	
Injection monitoring protection	●	
Mold-close monitoring protection	●	
Statistical process control (SPC) interface	●	
Electrical enclosure rated IP54	●	
Screw speed detecting device	●	
Time/ position/ time + position control modes for switchover to holding phase	●	
Protective plate in mold area	●	
3 sets of 380V 32A socket (2 sets standard for UN550-900D1S machine)	●	
1 set of 380V 16A socket (2 sets standard for UN750-900D1S machine)	●	
16-level password security	●	
Reserved robot interfaces based on SPI, EUROMAP 12	●	
Automatic heat preserving, automatic heating settings	●	
Servo injection		○
Electric unscrewing device		○
Hot runner interface		○
Auxiliary emergency stop button		○
Air blast in mold		○
Power supply change		○

● Standard ○ Optional

Central (networked) monitoring system		○
Protective light grid of safety gates		○
Opto-electronic safety switch of front and rear safety gates		○
Protective light grid of central safety foot plate		○
INJECTION UNIT		
Double parallel cylinder injection unit with low-speed high-torque hydraulic motor	●	
Nitride alloy steel screw & barrel	●	
Purge guard (with electrical protection)	●	
Selectable suck-back before or after plasticizing	●	
10-stage injection speed/ pressure/ position control	●	
10-stage holding speed/ pressure/ position/ time control	●	
5-stage plasticizing speed/ pressure/ position control	●	
Linear guides for injection unit	●	
Double-carriage cylinder	●	
Cold start protection	●	
Manual central lubrication system of injection unit	●	
Suck back function	●	
Automatic purging	●	
Screw rotation measuring device	●	
Injection carriage transducer		○
Mixing screw		○
Bi-metallic screw barrel		○
Swivelling injection unit		○
Extended nozzle (50/100/150/200mm longer)		○
Special screw components		○
Energy-saving barrel heat retaining device (silicone cover)		○
Spring shut-off nozzle		○
Increased injection stroke		○
HYDRAULIC SYSTEM		
Low-noise energy-saving hydraulic circuit	●	
Proportional back pressure control for plasticizing	●	
Oil pre-heating system	●	
2 sets of core pull (standard: 1 set for UN550D1S, 4 sets for UN2100/2400D1S, 6 sets for UN2850/3400/4000D1S)	●	
Differential mold-open circuit	●	
Injection and mold-close pressure protection	●	
High-pressure mold opening	●	
Automatic pressure and flow calibration	●	
Oil temperature and oil level alarm	●	
High-performance servo pump system	●	
Multiple sets of sequence (injection) valve interface		○
Variable displacement pump system		○
Closed-loop proportional variable displacement pump system		○
High-response accumulating servo injection system		○
Enlarged oil cooler		○
Multi-capacity larger pump motor		○
Multi-capacity larger plasticizing motor		○
Servo injection (closed-loop control of injection, plasticizing, holding pressure and back pressure)		○
Plasticizing during mold opening		○
Multiple sets of core pull or unscrewing devices with electrical interfaces		○
OTHER		
User manual	●	
Adjustable leveling pad	●	
8-in 8-out water manifold on platen (with general, quick connectors)	●	
Nozzle spanner	●	
Mold clamp	●	
Hopper		○
Hydraulic oil (standard for UN550-1400D1S)		○
Loading platform		○
Mold temperature controller		○
Automatic loader		○
Dehumidification dryer		○

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THINK  
TECH FORWARD