THINK TECH FORWARD

Designed by YIZUMI, April 2023

YIZUMI

D1S

500T-4000T

D1S SERIES
TWO-PLATEN INJECTION MOLDING MACHINE

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THINK TECH FORWARD

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D1S

PRODUCT DETAILS

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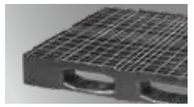
Based on importation and absorption of advanced German technology and years of experience in product application, we continue to move on and undertake the historic project of large-tonnage two-platen injection molding machine, striving to become a pioneer to fulfill such an innovative mission.


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.

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.

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%.

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

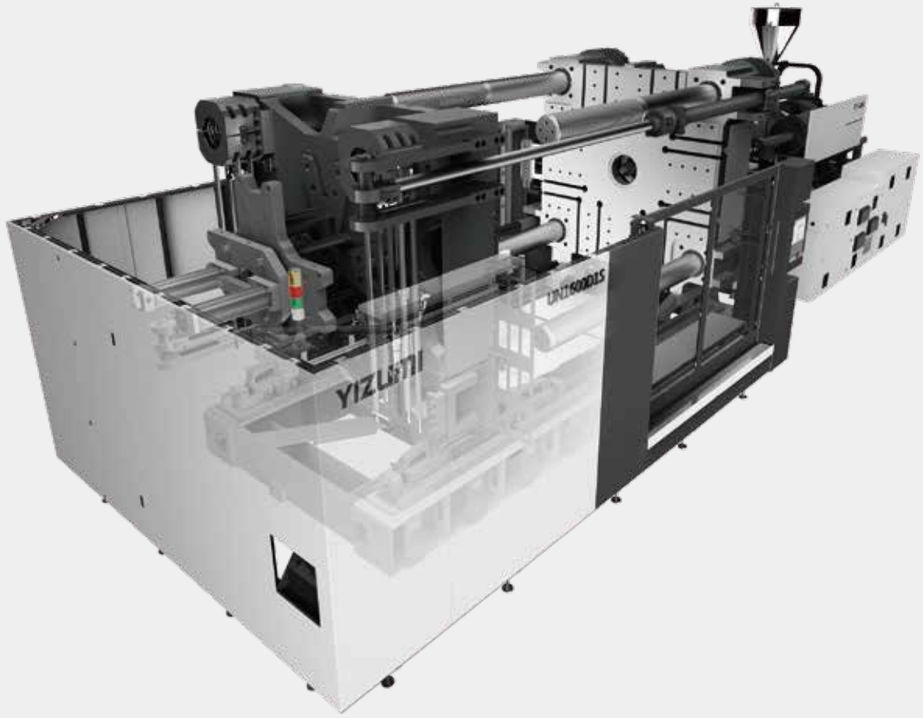
The tie bars adopt the uniform stress technology thus each thread is evenly stressed without unbalanced loading, durable and reliable. And it needs no lubrication, be cleaner.

Higher repeatability of mold-open end position

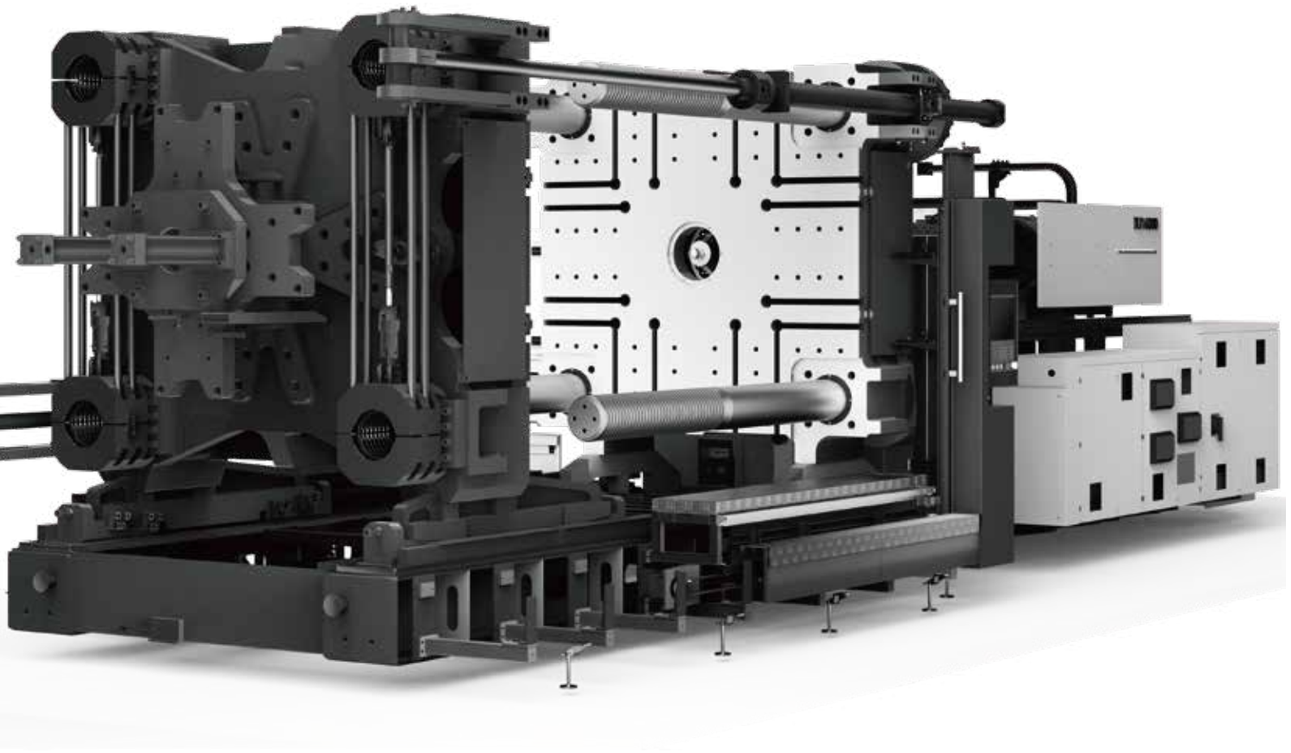
Fast response and high repeatability thanks to the high-response dual proportional valve control technology, which can meet strict requirement from automatic picking.

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 synchro-nized lock nut mechanism

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

Independent high-pressure cylinder

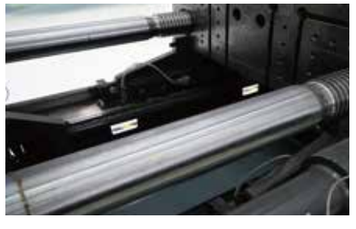
Mold opening under high pressure for standard. Large opening force can solve molding problems of deep-cavity products or car lights which are strongly coated on mold or have difficulty in mold opening.

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



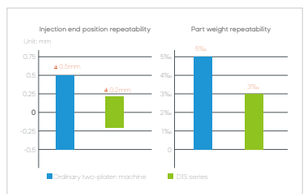
INJECTION UNIT

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 D1S series two-platen injection molding machine. Incorporating other features, such as ultrasonic displacement sensor for monitoring and full closed-loop injection, D1S series has achieved accurate position control and high repeatability of part weight.

Excellent injection repeatability

Repeatability of injection end position up to ±0.2mm or less and repeatability of part weight ≤0.3%.



Integral linear guide rails for injection

Linear guide rails are a standard feature of D1S 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 ±0.5°C.

HYDRAULIC SYSTEM

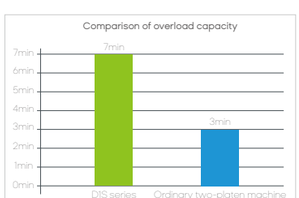
HYDRAULIC SYSTEM

Fast response, strong overloading, stability, energy conservation

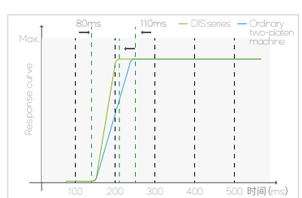
D1S series is based on a hydraulic system with stability and fast response at the core, which enables hydraulic circuit to be in optimal operating conditions. The hydraulic system is characterized by fast response, strong overload capacity and low energy consumption that meets China energy efficiency 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

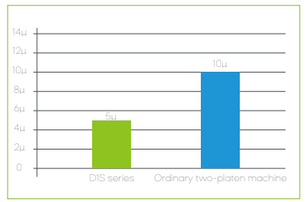
Durable and reliable

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, U disk 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 connecter module for auxiliary equipment

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

Euromap-based robot interface

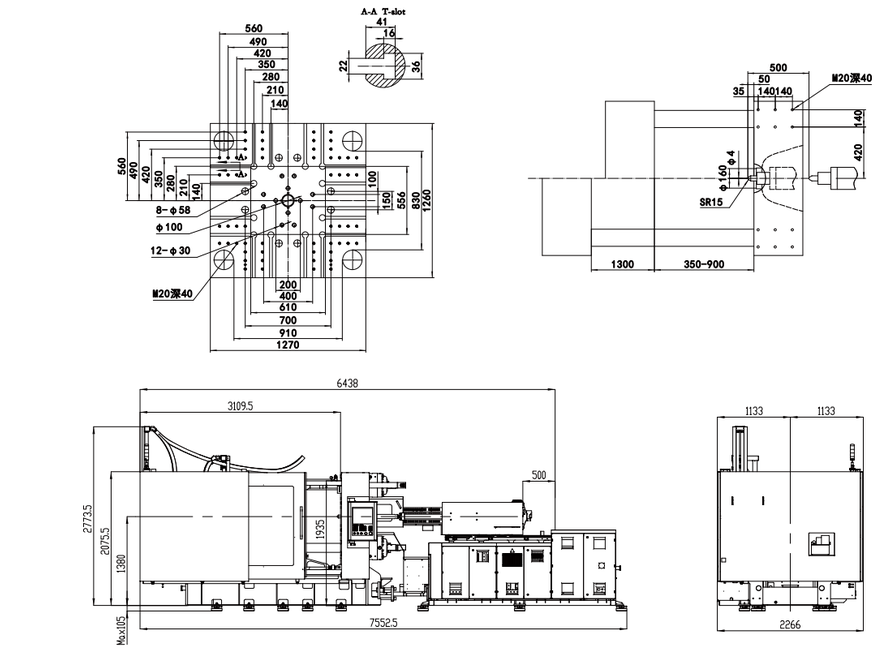
Euromap 12 robot interface is a standard feature, meeting customer's need for safer connection.

SPECIFICATIONS

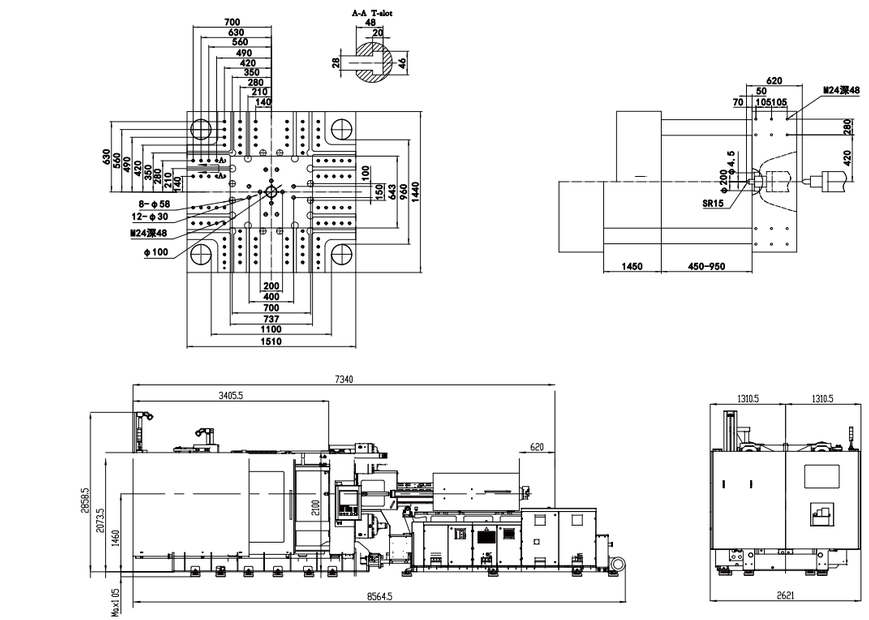
Model		UN550D1S			UN750D1S			
INJECTION UNIT								
		IU2695			IU4800			
Screw diameter	mm	68	76	84	84	92	100	108
Shot volume	cm^3	1198	1497	1829	2217	2659	3142	3664
Shot weight	g	1103	1377	1682	2039	2446	2890	3371
Injection pressure	MPa	225	180	147	218	181	154	134
L/D ratio	L/D	22.3	20	20	21.9	20	21.6	20
Injection rate	cm^3/s	407	508	621	560	671	793	925
Max.injection speed	mm/s	112			101			
Screw stroke	mm	330			400			
Max.screw speed	r/min	197			166			
Barrel heating zone	PCS	6			6			
CLAMPING UNIT								
Clamping force	kN	5500			7500			
Opening force	kN	390			500			
Platen size	mm	1270×1260			1510×1440			
Space between tie bars	mm	910×830			1100×960			
Max. mold thickness	mm	900			950			
Min. mold thickness	mm	350			450			
Opening stroke	mm	1300/750			1450/950			
Max. daylight	mm	1650			1900			
Ejector force	kN	110			110			
Ejector stroke	mm	250			250			
Ejector number	PCS	21			21			
POWER UNIT								
System pressure	MPa	17.5/30			17.5/30			
Pump motor	kW	60+5.5			66+7.5			
Total power	kW	91.9	91.9	96.4	108.6	108.6	118.5	118.5
Heater power	kW	26.4	26.4	30.9	37.14	37.14	47	47
GENERAL								
Oil tank capacity	L	640			820			
Machine dimensions	m	7.5×2.3×2.8			8.6×2.6×2.9			
Max. mold weight	Ton	8			11			

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm3] × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN550D1S



UN750D1S

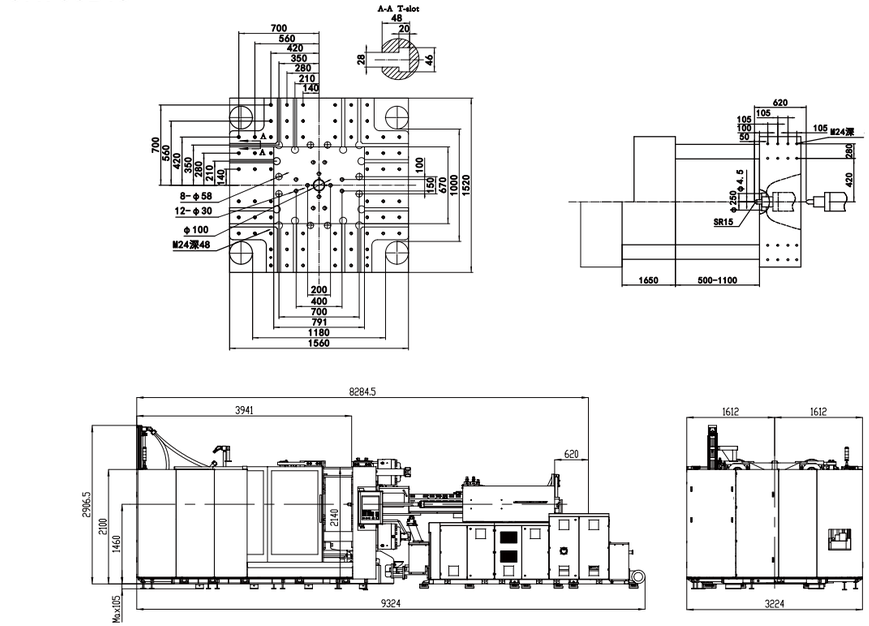


SPECIFICATIONS

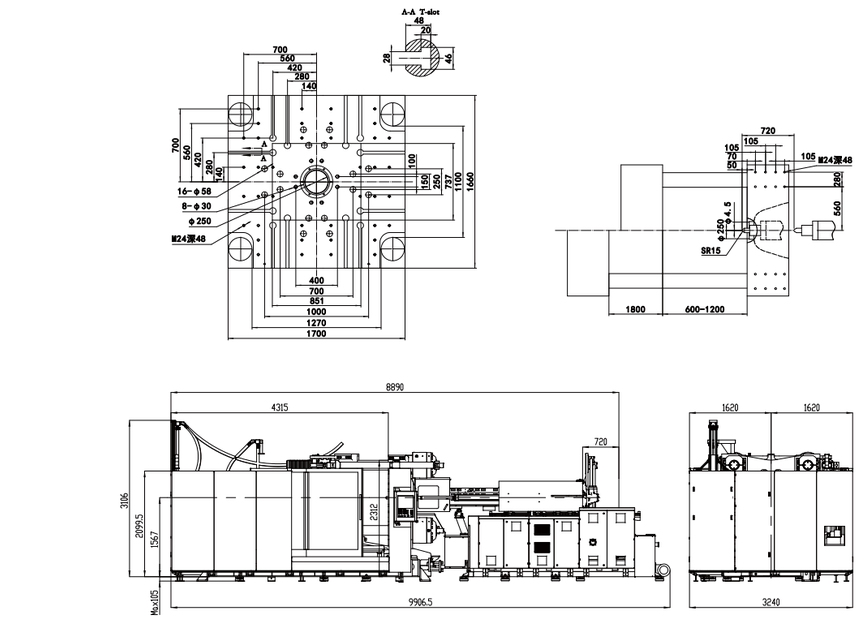
Model		UN900D1S				UN1100D1S			
INJECTION UNIT									
		IU6800				IU9300			
Screw diameter	mm	92	100	108	116	100	108	116	125
Shot volume	cm^3	3191	3770	4397	5073	4320	5038	5813	6750
Shot weight	g	2936	3468	4045	4667	3974	4635	5348	6210
Injection pressure	MPa	213	180	154	134	215	184	160	138
L/D ratio	L/D	21.7	22	21.5	20	21.6	20	21.6	20
Injection rate	cm^3/s	665	785	916	1057	801	934	1078	1252
Max.injection speed	mm/s	100				102			
Screw stroke	mm	480				550			
Max.screw speed	r/min	156				128			
Barrel heating zone	PCS	7				7			
CLAMPING UNIT									
Clamping force	kN	9000				11000			
Opening force	kN	640				760			
Platen size	mm	1560×1520				1700×1660			
Space between tie bars	mm	1180×1000				1270×1100			
Max. mold thickness	mm	1100				1200			
Min. mold thickness	mm	500				600			
Opening stroke	mm	1650/1050				1800/1200			
Max. daylight	mm	2150				2400			
Ejector force	kN	220				274			
Ejector stroke	mm	320				360			
Ejector number	PCS	21				25			
POWER UNIT									
System pressure	MPa	17.5/30				17.5/30			
Pump motor	kW	89＋7.5				110＋7.5			
Total power	kW	143.5	143.5	153.1	153.1	169.3	169.3	178.4	178.4
Heater power	kW	47	47	56.6	56.6	51.76	51.76	60.9	60.9
GENERAL									
Oil tank capacity	L	970				1150			
Machine dimensions	m	9.3×3.3×2.9				9.9×3.3×3.1			
Max. mold weight	Ton	13				16			

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm3] × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN900D1S



UN1100D1S

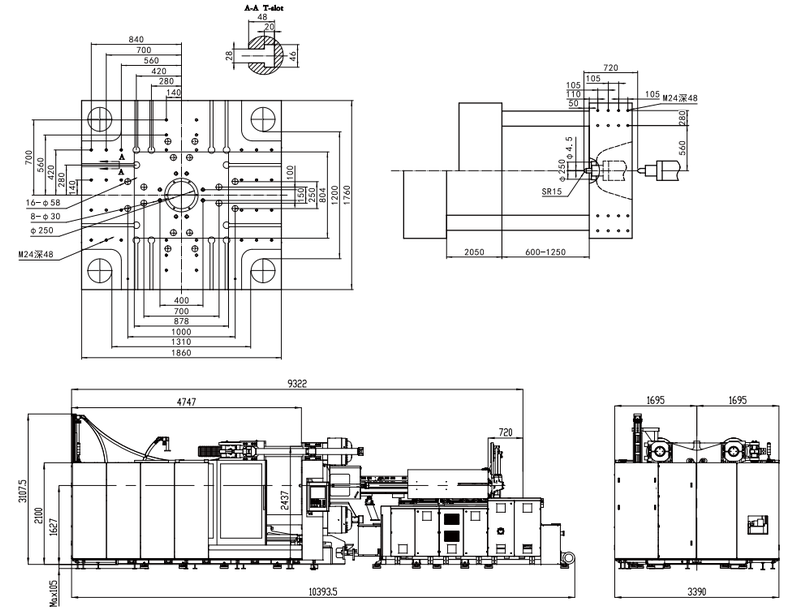


SPECIFICATIONS

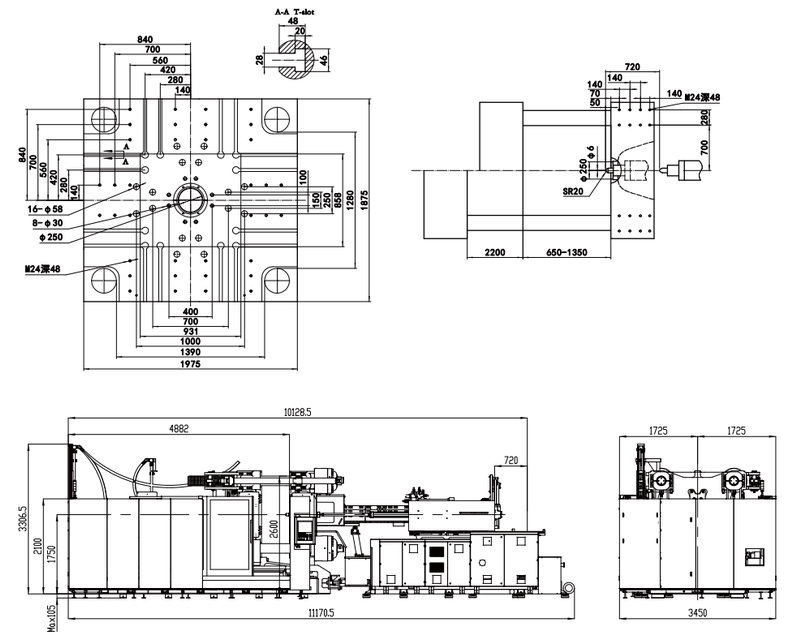
Model		UN1200D1S				UN1300D1S			
INJECTION UNIT									
		IU9300				IU11300			
Screw diameter	mm	100	108	116	125	108	116	125	135
Shot volume	cm^3	4320	5038	5813	6750	5222	6024	6995	8159
Shot weight	g	3974	4635	5348	6210	4804	5542	6435	7506
Injection pressure	MPa	215	184	160	138	216	187	162	139
L/D ratio	L/D	21.6	20	21.6	20	23.7	22	21.6	20
Injection rate	cm^3/s	801	934	1078	1252	864	997	1157	1350
Max.injection speed	mm/s	102				94.3			
Screw stroke	mm	550				570			
Max.screw speed	r/min	128				112			
Barrel heating zone	PCS	7				8			
CLAMPING UNIT									
Clamping force	kN	12000				13000			
Opening force	kN	875				875			
Platen size	mm	1860×1760				1975×1875			
Space between tie bars	mm	1310×1200				1390×1280			
Max. mold thickness	mm	1250				1350			
Min. mold thickness	mm	600				650			
Opening stroke	mm	2050/1400				2200/1500			
Max. daylight	mm	2650				2850			
Ejector force	kN	274				274			
Ejector stroke	mm	360				360			
Ejector number	PCS	25				25			
POWER UNIT									
System pressure	MPa	17.5/30				17.5/30			
Pump motor	kW	110＋7.5				89＋37＋7.5			
Total power	kW	169.3	169.3	178.4	178.4	199.9	199.9	204.1	204.1
Heater power	kW	51.76	51.76	60.9	60.9	66.37	66.37	70.63	70.63
GENERAL									
Oil tank capacity	L	1150				1270			
Machine dimensions	m	10.4×3.4×3.1				11.2×3.5×3.3			
Max. mold weight	Ton	20				23			

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm3] × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN1200D1S



UN1300D1S

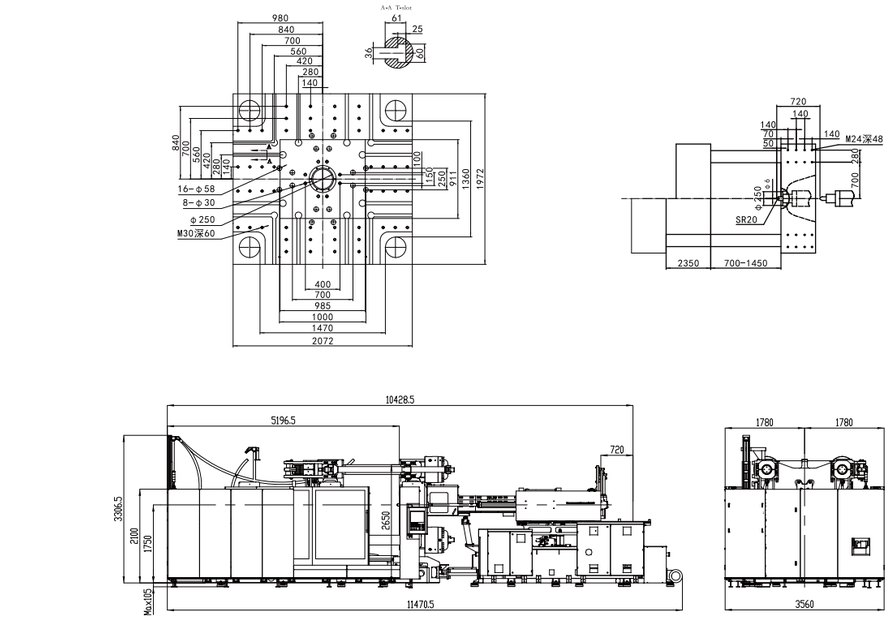


SPECIFICATIONS

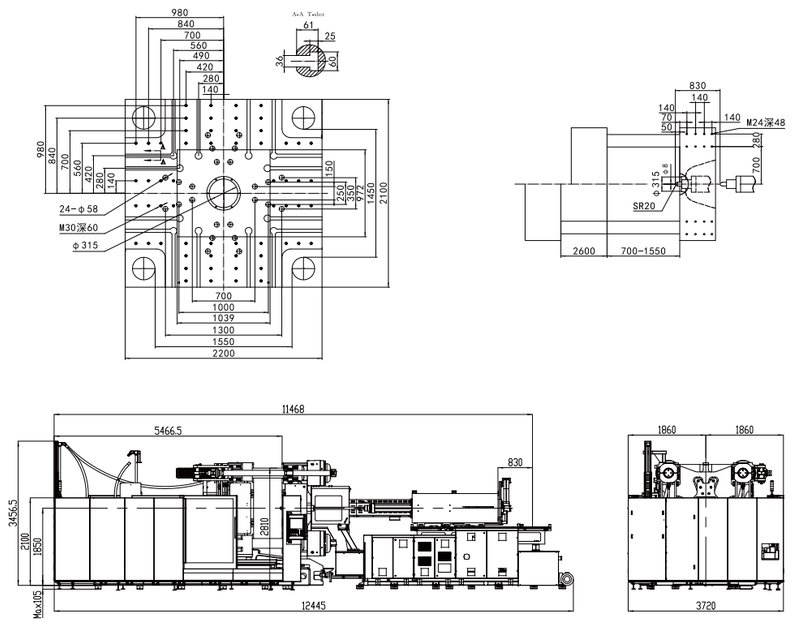
Model		UN1400D1S				UN1600D1S		
INJECTION UNIT								
		IU11300				IU16000		
Screw diameter	mm	108	116	125	135	125	135	145
Shot volume	cm^3	5222	6024	6995	8159	7977	9304	10733
Shot weight	g	4804	5542	6435	7506	7339	8560	9875
Injection pressure	MPa	216	187	162	139	199	172	149
L/D ratio	L/D	23.7	22	21.6	20	23.6	22	20
Injection rate	cm^3/s	864	997	1157	1350	1313	1532	1767
Max.injection speed	mm/s	94.3				107		
Screw stroke	mm	570				650		
Max.screw speed	r/min	112				120		
Barrel heating zone	PCS	8				8		
CLAMPING UNIT								
Clamping force	kN	14000				16000		
Opening force	kN	950				1100		
Platen size	mm	2072×1972				2200×2100		
Space between tie bars	mm	1470×1360				1550×1450		
Max. mold thickness	mm	1450				1550		
Min. mold thickness	mm	700				700		
Opening stroke	mm	2350/1600				2600/1750		
Max. daylight	mm	3050				3300		
Ejector force	kN	300				300		
Ejector stroke	mm	400				400		
Ejector number	PCS	25				25		
POWER UNIT								
System pressure	MPa	17.5/30				17.5/30		
Pump motor	kW	89＋37＋7.5				89＋66＋11		
Total power	kW	199.9	199.9	204.1	204.1	253.7		
Heater power	kW	66.37	66.37	70.63	70.63	87.7		
GENERAL								
Oil tank capacity	L	1270				1600		
Machine dimensions	m	11.5×3.6×3.3				12.5×3.7×3.5		
Max. mold weight	Ton	27				34		

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm3] × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN1400D1S



UN1600D1S

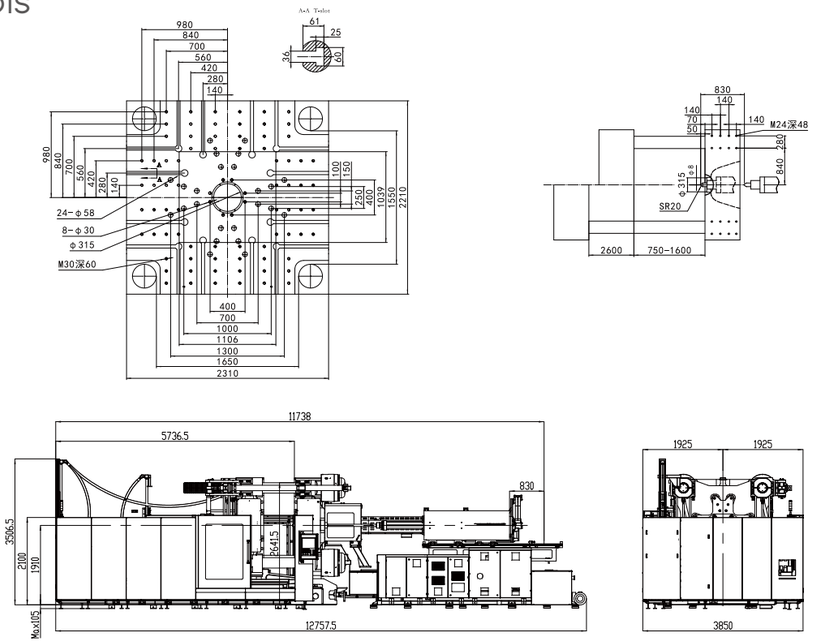


SPECIFICATIONS

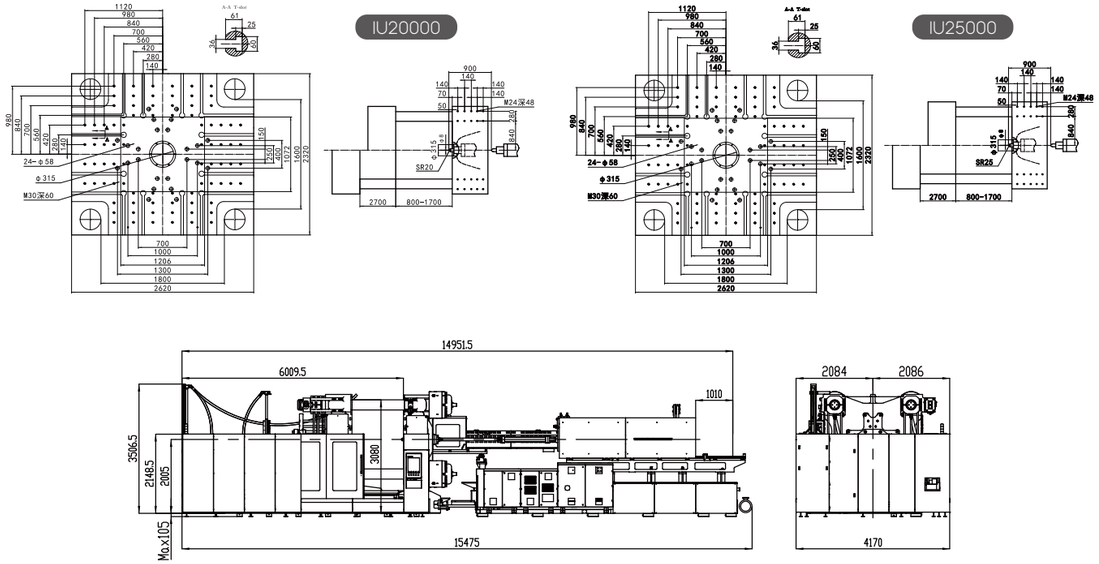
Model		UN1850D1S			UN2100D1S					
INJECTION UNIT										
		IU16000			IU20000				IU25000	
Screw diameter	mm	125	135	145	135	145	155	165	155	165
Shot volume	cm^3	7977	9304	10733	10020	11559	13208	14968	14152	16037
Shot weight	g	7339	8560	9875	9218	10634	12152	13770	13020	14754
Injection pressure	MPa	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^3/s	1313	1532	1767	1368	1579	1804	2044	1472	1668
Max.injection speed	mm/s	107			95.6				78.0	
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	18500			21000					
Opening force	kN	1230			1380					
Platen size	mm	2310×2210			2620×2320					
Space between tie bars	mm	1650×1550			1800×1600					
Max. mold thickness	mm	1600			1700					
Min. mold thickness	mm	750			800					
Opening stroke	mm	2600/1750			2700/1800					
Max. daylight	mm	3350			3500					
Ejector force	kN	460			460					
Ejector stroke	mm	430			430					
Ejector number	PCS	33			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	12.8×3.9×3.5			15.5×4.2×3.5				15.5×4.2×3.5	
Max. mold weight	Ton	42			50				50	

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume [cm3] × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN1850D1S



UN2100D1S

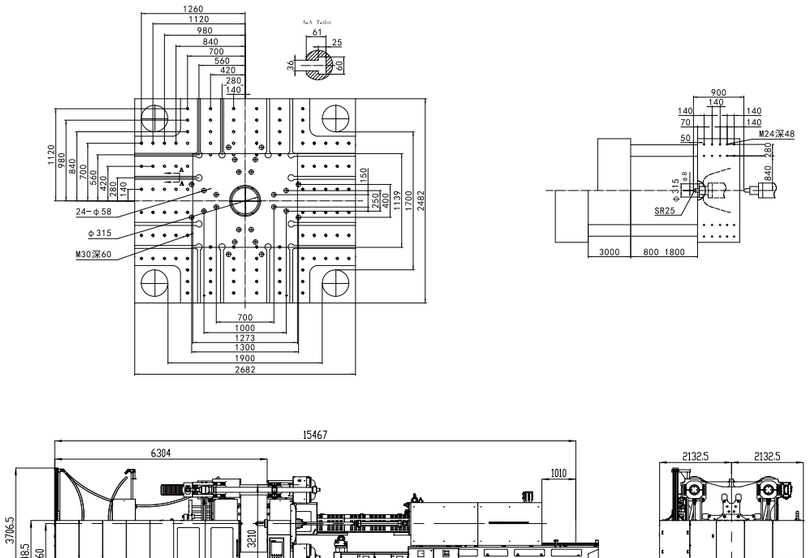


SPECIFICATIONS

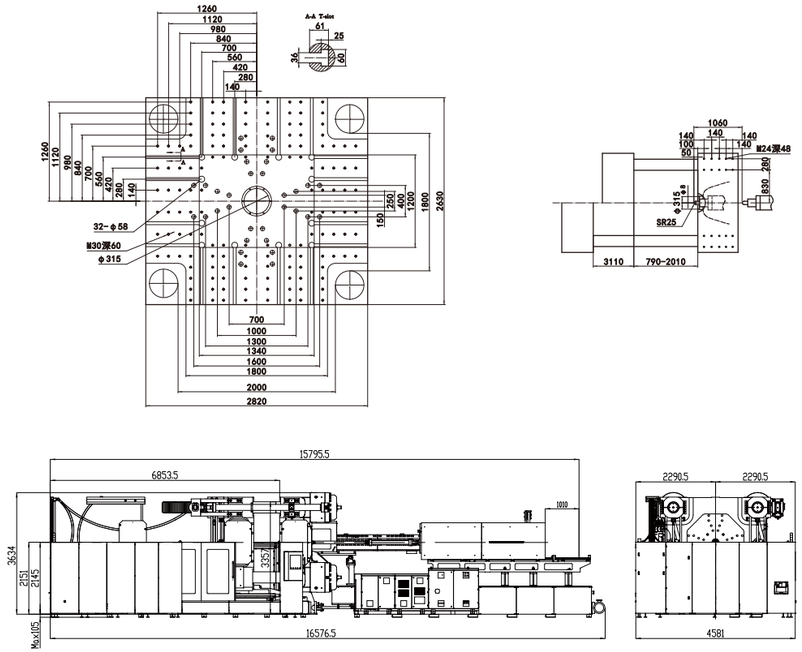
Model		UN2400D1S		UN2850D1S
INJECTION UNIT				
		IU40000		IU55600
Screw diameter	mm	165	185	200
Shot volume	cm^3	20955	26343	35186
Shot weight	g	19278	24235	32371
Injection pressure	MPa	190	151	158
L/D ratio	L/D	24	22	22
Injection rate	cm^3/s	1614	2029	2482
Max.injection speed	mm/s	75.5		79
Screw stroke	mm	980		1120
Max.screw speed	r/min	80		85
Barrel heating zone	PCS	11		9
CLAMPING UNIT				
Clamping force	kN	24000		28500
Opening force	kN	1640		2200
Platen size	mm	2682×2482		2820×2630
Space between tie bars	mm	1900×1700		2000×1800
Max. mold thickness	mm	1800		2010
Min. mold thickness	mm	800		790
Opening stroke	mm	3000/2000		3110/1890
Max. daylight	mm	3800		3900
Ejector force	kN	460		460
Ejector stroke	mm	430		500
Ejector number	PCS	25		33
POWER UNIT				
System pressure	MPa	17.5/30		17.5/30
Pump motor	kW	110＋89＋11		110＋89＋55.6＋11
Total power	kW	357.5		403
Heater power	kW	147.5		193
GENERAL				
Oil tank capacity	L	2100		2700
Machine dimensions	m	16.1×4.3×3.7		16.6×4.6×3.6
Max. mold weight	Ton	59		70

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume (cm3) × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN2400D1S



UN2850D1S

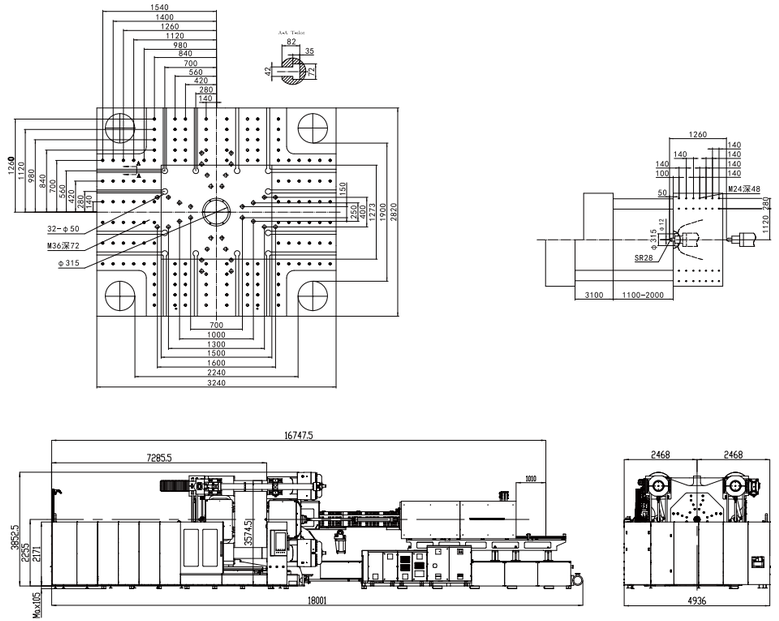


SPECIFICATIONS

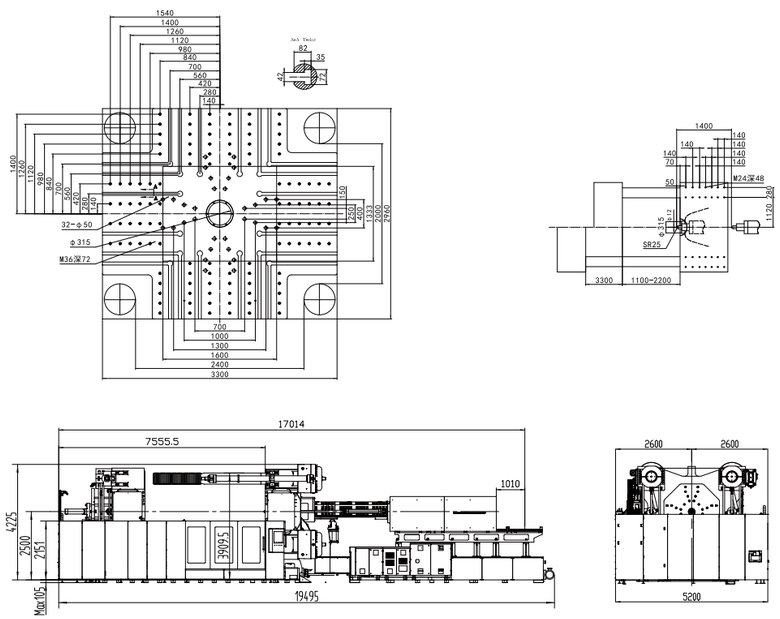
Model		UN3400D1S	UN4000D1S
INJECTION UNIT			
		IU68000	IU95000
Screw diameter	mm	215	245
Shot volume	cm^3	43566	53272
Shot weight	g	40081	49010
Injection pressure	MPa	156	178
L/D ratio	L/D	22	22
Injection rate	cm^3/s	2541	3111
Max.injection speed	mm/s	70.0	66.0
Screw stroke	mm	1200	1130
Max.screw speed	r/min	52	52
Barrel heating zone	PCS	9	11
CLAMPING UNIT			
Clamping force	kN	34000	40000
Opening force	kN	2550	3170
Platen size	mm	3220×2810	3300×2960
Space between tie bars	mm	2240×1900	2400×2000
Max. mold thickness	mm	2000	2200
Min. mold thickness	mm	1100	1100
Opening stroke	mm	3100/2200	3300/2200
Max. daylight	mm	4200	4400
Ejector force	kN	460	460
Ejector stroke	mm	500	500
Ejector number	PCS	33	33
POWER UNIT			
System pressure	MPa	17.5/30	17.5/30
Pump motor	kW	110＋89＋55.6＋11	89×4＋11
Total power	kW	477.6	648
Heater power	kW	212	281
GENERAL			
Oil tank capacity	L	2700	3800
Machine dimensions	m	18×4.9×3.9	19.5×5.2×4.2
Max. mold weight	Ton	81	86

1. Opening force refers to mold opening force generated during high-pressure mold open.
2. 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.
3. Mold-bearing capacity of the movable platen is 2/3 of total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The medium screw diameter is standard on the machine.
6. The injection unit data are in international units and calculated as follows: theoretical shot volume (cm3) × injection pressure (MPa)/100
7. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN3400D1S



UN4000D1S



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		○