

DP

500T-4000T

DP SERIES TWO-PLATEN
INJECTION MOLDING MACHINE

Innovative Practice of
Large-tonnage Two-platen Machine



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[2] The picture in the catalogue is for reference only. The real object should be considered as final.
[3] The data in the catalogue is obtained from internal testing in YIZUMI laboratory.
Please refer to the actual machine for the final data. YIZUMI reserves the right of final interpretation upon disputes and ambiguities.



THINK TECH FORWARD

PRODUCT DETAILS

PRODUCT DETAILS

YIZUMI's cost-effective two-platen injection molding machine not only brings high productivity for injection molding production, but also higher return on use value to customers through stable performance and high product quality. DP series is your trustworthy better choice in the long term.

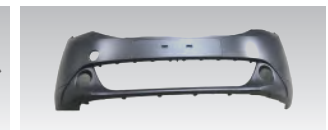
Application Examples



Car grille



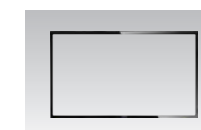
Car light



Bumper



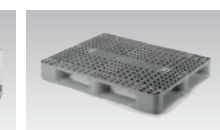
Washing machine tub



TV frame



Air conditioner panel



Plastic pallet



Rubbish bin

Core Value Propositions

Precision & Stability

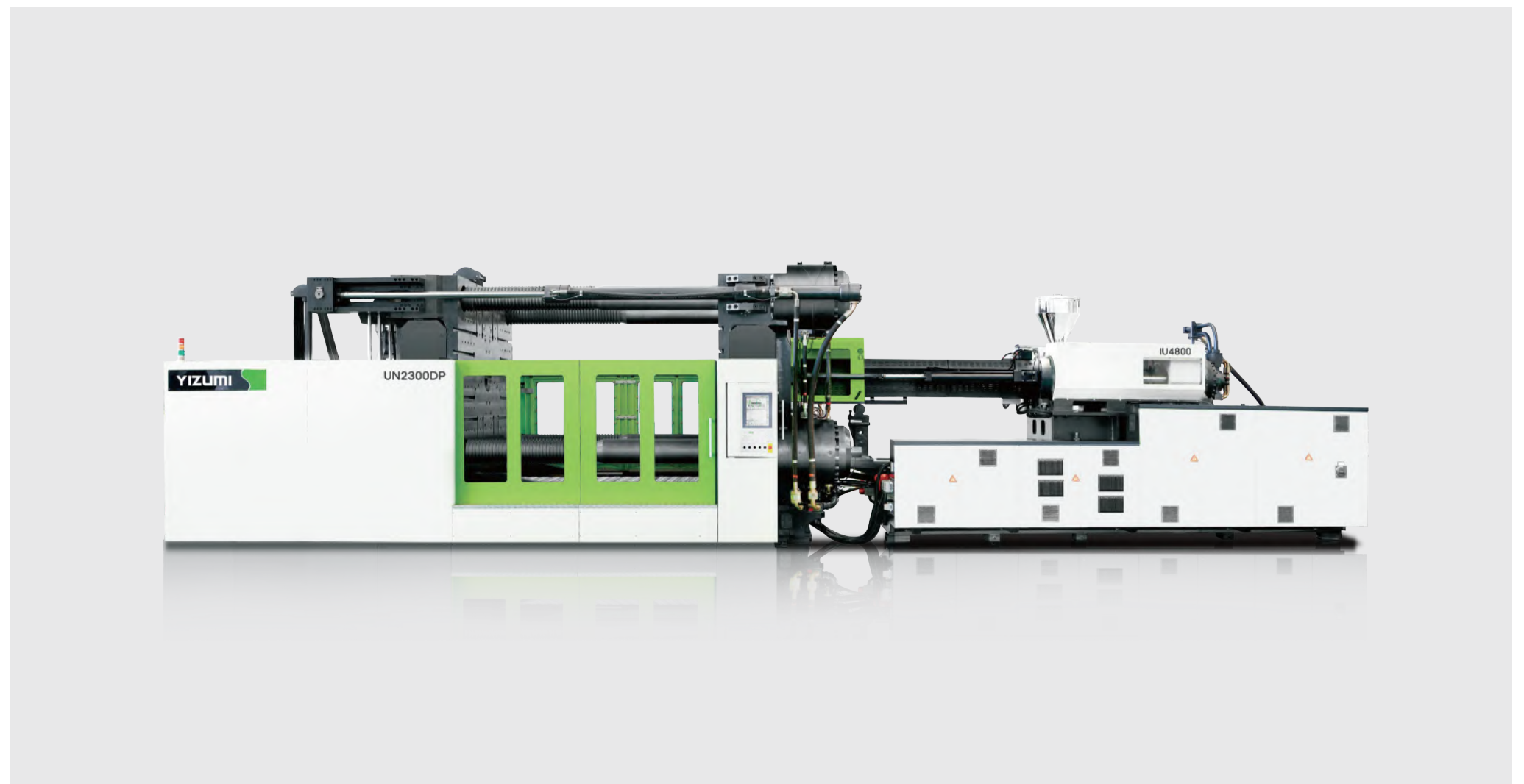
- High-response servo valve control technology and ultra-sonic displacement sensor are applied to mold closing and opening, with accurate position control and mold-open repeatability up to $\pm 0.1\text{mm}$.
- Fully-closed-loop control of the injection and hold (pressure and velocity) stages, numerically-controlled proportional back pressure and part repeatability $\leq 3\%$.

High Efficiency & Energy Saving

- Clamping unit is highly rigid. There is no contact and frictional resistance between the movable platen and tie bars so that motion becomes faster. With the diagonally-positioned high-speed cylinders, four short-stroke high-pressure cylinders and synchronous locking nut mechanism, mold closing and closing and generation of clamping force happen in less time and dry cycle becomes very short, reducing cycle time and improving productive efficiency by 22%.
- The high-performance Ecoservo drive and piston variable pump system can provide pressure and flow as needed and has merits of strong power and fast response, consuming 56% less energy than traditional drive systems.

Special Processes

Based on Germany modular design and excellent equipment structure, a variety of special processes solutions, such as injection compression molding (ICM) technology, FoamPro microcellular foam technology, precision mold-open technology, secondary mold-close technology, carbon fiber-based lightweighting technology, long glass fiber (LGF) injection molding technology and multi-material micro injection molding technology are available.



Modular Design

Precise, Efficient, Energy-saving

High-rigidity platen and precise mold opening

Box-shape platen is designed for high rigidity and high parallelism. Mold closing and opening are controlled by high-response servo valve with mold-open repeatability up to $\pm 0.1\text{mm}$.

Higher efficiency

With further optimized clamping unit, mold closing and opening and generation of clamping force happen in shorter time and dry cycle time (EUROMAP 6, dry cycle time of UN1000DP up to 4.1sec) is reduced, with productive efficiency up by 22%.

More reliable and stable clamping unit

The high-pressure clamping cylinder, parallel locking nut mechanism and tie bars are made of high-quality materials and subject to special technical processing so that they are durable and reliable. Tie bars are designed with uniform stress distribution, which ensures the clamping unit works reliably and stably.

Better injection precision

Double parallel cylinders and patented dual proportional closed-loop control technology are applied to injection, with high injection repeatability and repeatability of part weight $\leq 3\%$.

Steadier mold support

The movable platen is supported by extended rigid sliding shoes with the function of tilt adjustment and L-shape guide design, providing steady support and precise guidance for the mold.

Professional control system

Austria's KEBA controller works faster and it is powerful enough to offer a variety of control software solutions for special processes.

More accurate position control

Measurement of stroke is performed by the ultrasonic displacement sensor which is resistant to interference and durable, with accuracy up to $0.001\%/F.S.$

Lower energy consumption

High-performance Ecoservo drive technology, a standard feature for the DP series, is integrated with the piston variable pump system to offer strong power and fast response, resulting in 56% less energy consumption.

※ The Data above were acquired by testing in the factory, only for your reference.

Offer You Multiple Solutions

INJECTION UNIT								INJECTION UNIT							
Model	1885	2695	3330	4800	6150	6800	9000	12050	18500	23750	31750	44500	54500	75500	100000
UN500DP	60,68,76	68,76,84	76,84,92	84,92,100,108											
UN700DP		68,76,84	76,84,92	84,92,100,108		92,100,108,116									
UN800DP				84,92,100	92,100,108		100,108,116	116,125,135							
UN900DP				84,92,100	92,100,108		100,108,116	116,125,135							
UN1000DP					92,100,108		100,108,116	116,125,135	135,145,155						
UN1100DP					92,100,108		100,108,116	116,125,135	135,145,155						
UN1300DP							100,108,116	116,125,135	135,145,155	145,155,165					
UN1500DP							100,108,116	116,125,135	135,145,155	145,155,165					
UN1700DP							100,108,116	116,125,135	135,145,155	145,155,165	155,165,180				
UN1850DP							100,108,116	116,125,135	135,145,155	145,155,165	155,165,180				
UN2000DP								116,125,135	135,145,155	145,155,165	155,165,180	180,190,200			
UN2300DP								116,125,135	135,145,155	145,155,165	155,165,180	180,190,200			
UN2700DP									135,145,155	145,155,165	155,165,180	180,190,200	190,200,215	215,230,245	230,245,260
UN2850DP									135,145,155	145,155,165	155,165,180	180,190,200	190,200,215	215,230,245	230,245,260
UN3200DP									135,145,155	145,155,165	155,165,180	180,190,200	190,200,215	215,230,245	230,245,260
UN3400DP									135,145,155	145,155,165	155,165,180	180,190,200	190,200,215	215,230,245	230,245,260
UN4000DP									135,145,155	145,155,165	155,165,180	180,190,200	190,200,215	215,230,245	230,245,260

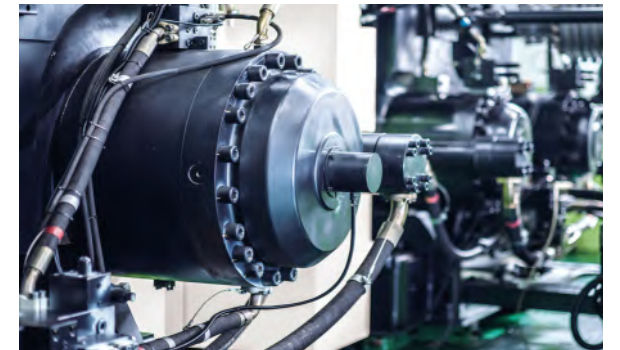
*Calculation of injection unit model based on international standards: shot volume [cm] × max. injection pressure [bar]/1000
*Larger platens are optional (see specifications).

Clamping Unit



- High-rigidity platens are designed as box structures with high degree of parallelism, large space between tie bars, large mold thickness and long mold-open stroke.
- Mold closing and opening are controlled by high-response and high-speed proportional valves, with mold opening repeatability up to $\pm 0.1\text{mm}$.
- Diagonally-positioned high-speed cylinders enable mold closing and opening to be faster and effectively shorten dry cycle.
- Clamping force is quickly generated thanks to the synchronous locking nut mechanism and four short-stroke high-pressure cylinders.
- Compact two-platen clamp unit saves space by 20%.

①	②
	③
	④
	⑤
	⑥
	⑦



① No contact between tie bars and movable platen

No frictional resistance, faster mold opening and closing, no need of tie bar lubrication and clean mold area without oil stain.

② High-pressure mold opening

High-pressure cylinders offer large mold opening force, which solves the problem of difficult mold opening in the production of deep-cavity parts.

③ Synchronous locking nut mechanism

The fast, reliable and durable synchronous locking nut mechanism is driven by patented impact-cushioning cylinders and performs movements accurately.

④ Highly-rigid extended platen supports

The movable platen is supported by exceptionally long, rigid sliding shoes with the function of tilt adjustment and L-shape guide design, providing steady support and precise guidance for large molds.

⑤ Safety foot plates

Large areas of safety foot plates that harbor no oil or water are mounted in the areas of front and rear safety gates and mold. Separate safety switches are connected to the controller for safety, completely conforming to GB22530-2008 national safety standard.

⑥ Open ejector mechanism

The open double-cylinder ejector mechanism is easy to install and maintain. Ejection synchronized with mold opening and forced ejector-backward are available.

⑦ Automatic tie bar retraction

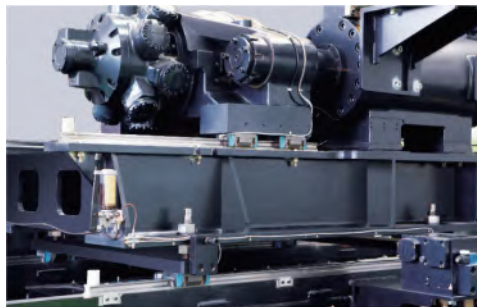
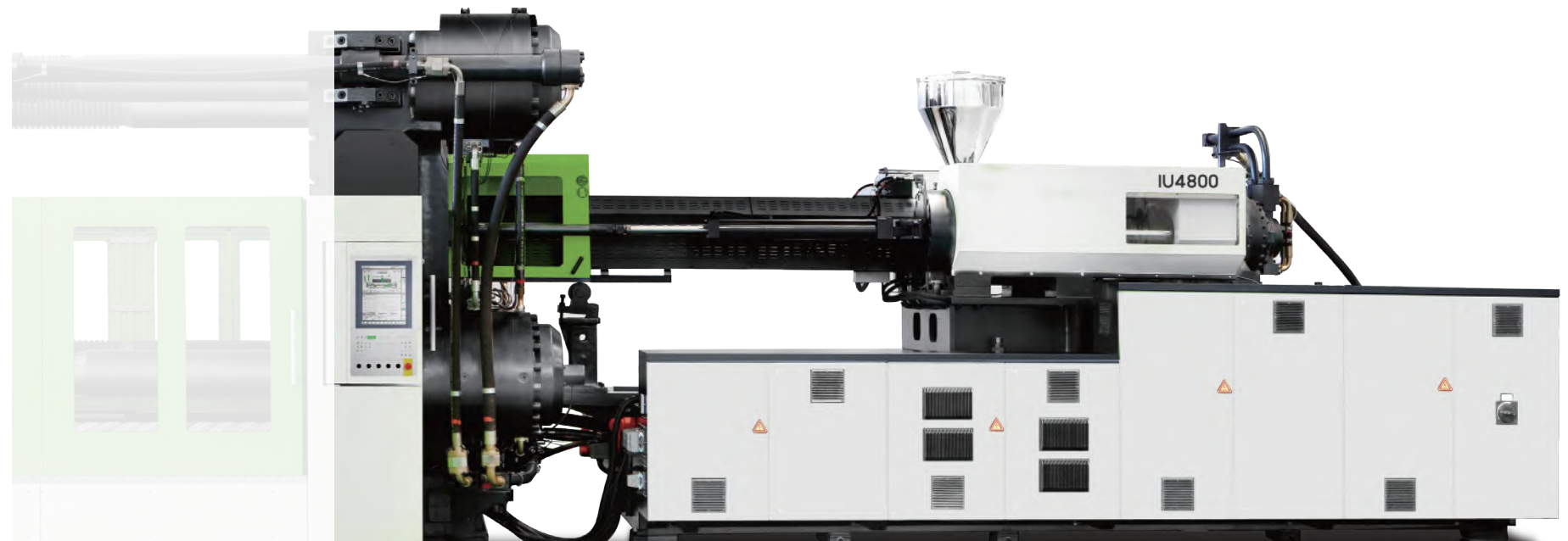
The automatic tie bar retraction function is optional and designed with stability and reliability. It can remove the restriction of factory ceiling height.



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Injection Unit

- ▶ Thanks to modular design, each clamping unit can be combined with different injection units to meet diversified needs of injection molding applications.
- ▶ Combination of advanced drive technology and further optimized plasticizing unit brings better plasticizing effect, so that molding of precision parts is no longer difficult.
- ▶ Double-parallel-cylinder injection, fully-closed-loop control of the injection and hold (pressure and velocity) stages, numerically-controlled proportional back pressure and stable injection end position ensure part repeatability is less than or equal to 3%.
- ▶ Ceramic heater bands are used for barrel heating and it is under self-tuning PID temperature control performed by Austria's KEBA controller, with control accuracy up to $\pm 0.5^\circ\text{C}$. The heater bands have long service life and low energy consumption.
- ▶ Specialized bi-metallic barrel assembly resistant to wear and corrosion is optional to meet requirements of different materials.



Carriage supports and linear guide rails

High-rigidity carriage supports and double-deck guide rails are designed with low resistance and ensure high injection precision.

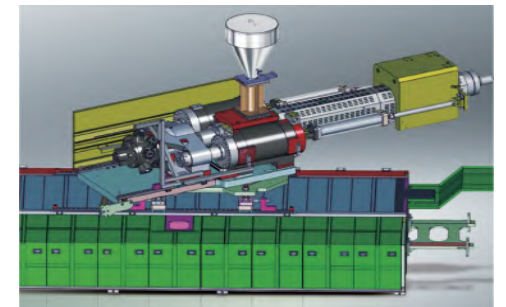


Ultrasonic digital displacement sensor

Injection and injection carriages are equipped with ultrasonic displacement sensors which are resistant to interference and durable, with measurement accuracy up to 0.001%/F.S.

Quick barrel change mechanism

Barrel is mounted with a press plate. The injection unit and barrel assembly are detachable as a whole, which greatly shortens the barrel unit replacement time.



Injection carriage cylinder

Two injection carriages are parallel located. The universal coupling used for connection ensures stable nozzle contact and no plastic leak.



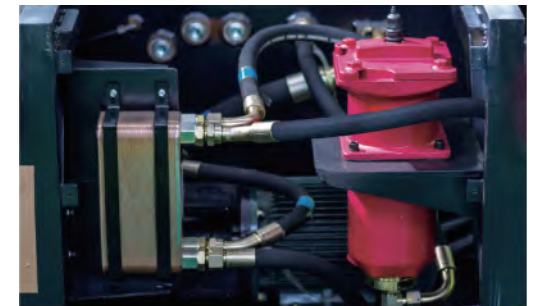
Hydraulic System



- The excellent performance of DP series benefits from the high-performance Ecoservo drive technology and the piston variable pump, which has strong power, fast response, little internal leak and significant energy savings.
- The drive system and injection unit will be matched in the form of modules so as to customize the power for machine and minimize energy loss.
- Mold opening during plasticizing, ejection or core pulling is a standard feature that reduces cycle time.

Precision filtration and cooling system

The hydraulic system includes Germany's HYDAC low-pressure oil filter and cooling system, with separate filtration and cooling. Filter fineness up to 5 μ m ensures clean hydraulic circuit, stable oil temperature and reliable, durable hydraulic components.



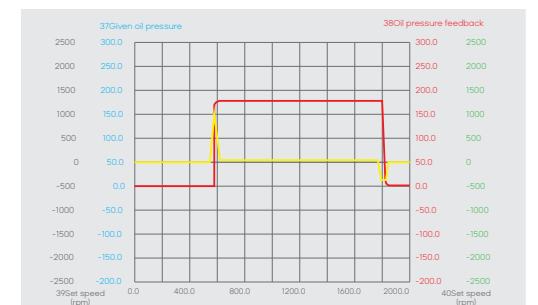
Humanized design

The cabinet of the drive unit is designed with L-shape covers available to be opened, which is maintenance-friendly.



Fast response

With the use of advanced Ecoservo drive technology, the system response time is only 50ms.



Strong power

The power system employs Italy's branded servo motor and imported piston variable pump, with fast response, high overload capacity, double energy savings and energy consumption reduction up to 56%.



Control System

- ▶ DP series employs Austria's KEB control system with user-friendly interface and higher processing speed. It is also powerful and capable of providing multiple control software solutions for special processes.
- ▶ 15" TFT color touch screen, visualized graphic parameter setting, actual parameter values recorded and displayed with curves, more accurate online process analysis.
- ▶ Free programming is available to meet the needs of special molds and processes. The sequence of machine movements also can be freely edited.
- ▶ Extensible I/O modules can integrate with more functions, including temperature control and sequence valve as needed.
- ▶ Communication ports for printer, auxiliary equipment and automation.

Professional control system Powerful and accurate in control

Quick process parameters setting
and easy operation



Stable, fast and accurate control

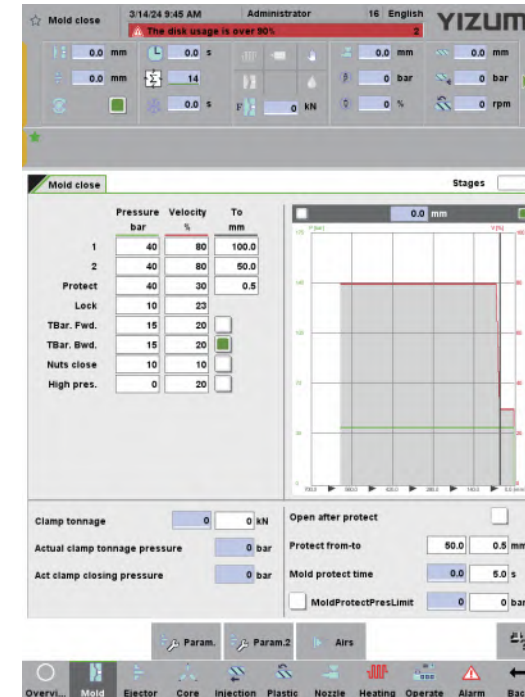
- ▶ Double-CPU control, 1ms of scan cycle, faster response and high reliability
- ▶ Real-time accurate control of mold closing and opening and injection by the intelligent high-response closed-loop controller

Easy to operate

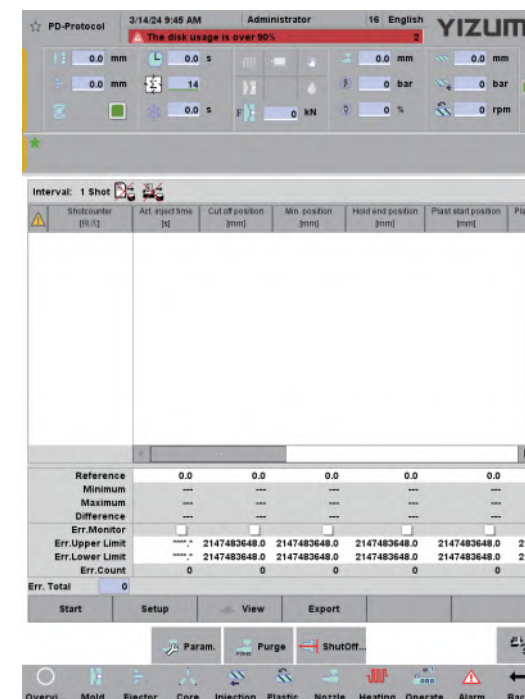
- ▶ Networked remote control
- ▶ Online conversion of multiple languages and units
- ▶ Multiple means of quick input, such as graph and virtual keyboard
- ▶ Easy and convenient process parameter setting

Data and safety

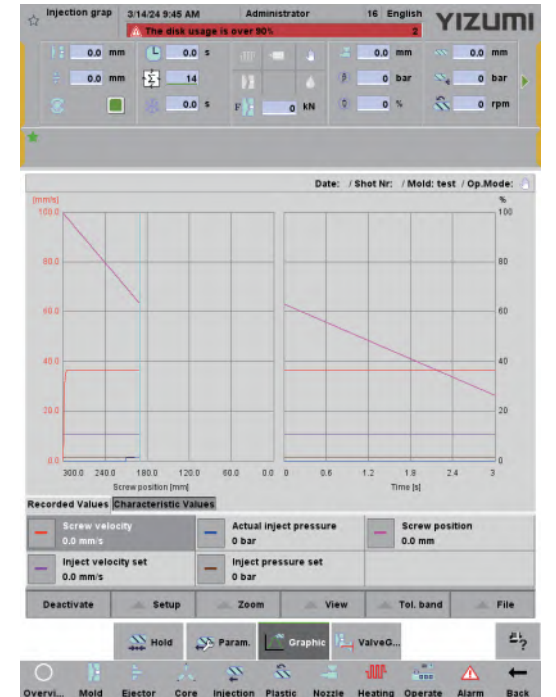
- ▶ Storage of process data without limit
- ▶ Memory of alarm and process parameter change
- ▶ Process quality control (PDP), statistical process control (SPC) and data export
- ▶ Multi-level user access ensuring data safety, multiple protections of equipment and operator through software and hardware



Mold closing settings



Production process data control



Injection curve



Sequence of machine movements

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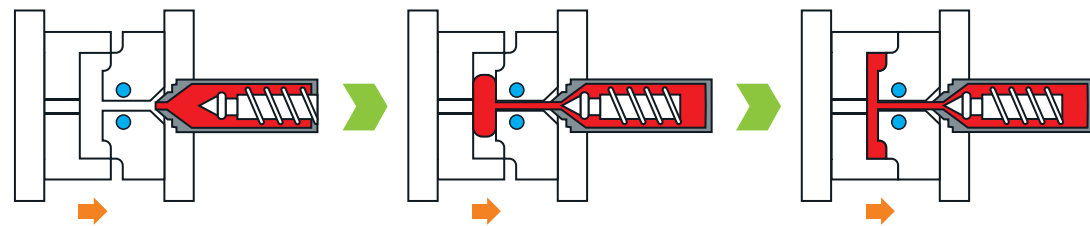
DP Series Two-platen Injection Molding Machine

Special Processes

With the use of rigorous and innovative Germany processes, DP series gives every material distinctive properties and provides new ideas of application and efficient, intelligent material combinations.

Yizumi is committed to becoming a leader in China's injection molding machine industry and provide you with cost-saving injection molding solutions and the best investment return.

Low-pressure injection molding technology



Technical points

Injection compression molding (ICM) function;

SmartClamp technology realizes automatic calibration of platen parallelism, with response accuracy up to $\pm 0.015\text{mm}/2\text{ms}$.

FoamPro microcellular foam technology



Technical points

- ▶ SmartClamp technology
- ▶ Aircraft aluminum mold technology
- ▶ Alternative temperature technology (ATT)
- ▶ FLEXflow servo-driven hot runner system

※Data above are reference criteria for factory test.

High-pressure mold opening

Mold opening driven by high-pressure cylinders with large opening force
Solution to difficult mold-open in the manufacture of deep-cavity parts

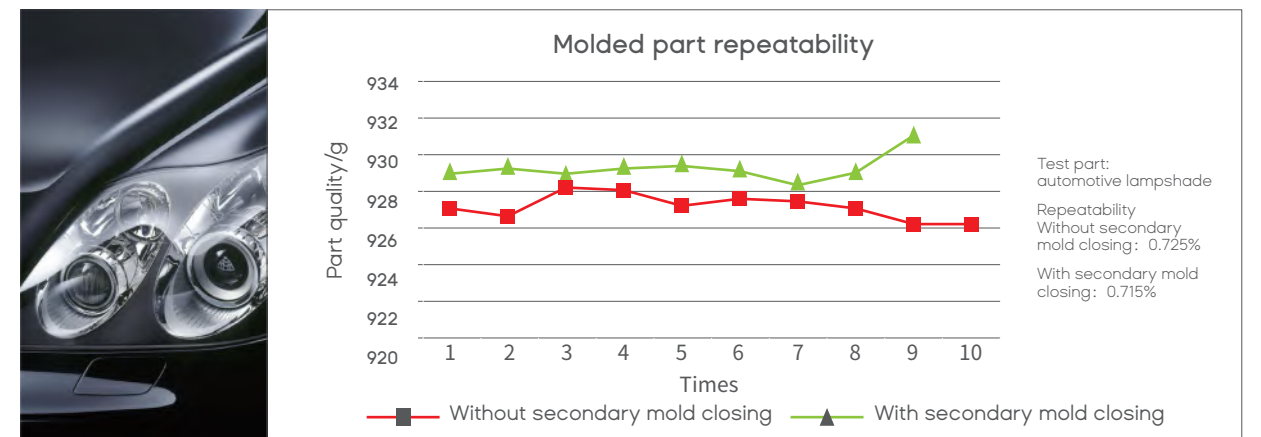
Applied to production of deep-cavity parts, including washing machine drum, rubbish bin and storage box.



Secondary mold closing

Mold closing for the second time with larger pressure
Effectively prevent possible internal stress in molded parts and air trap
Improve the accuracy and appearance quality of molded parts for higher QC passing rate

For automotive applications, such as car lights and applications in household appliances industry



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Carbon fiber molding

Carbon fiber has been widely used in passenger cars. The greatest advantage of carbon fiber as an automotive material is light and strong, which will facilitate breakthroughs in automotive lightweighting and bring a social benefit: energy saving. In the future, "high carbon fiber" will become increasingly popular.



Reaction technology

- ▶ HP-RTM (high-pressure resin transfer molding), completed with the use of preform, steel mold, vacuum-aided exhaust, high-pressure injection and high pressure, thermoset composites impregnation and solidification technologies
- ▶ Insitu polymerization technology

Injection molding technology

- ▶ Carbon fiber composite preform
- ▶ Processes such as heating, press forming, back injection and trimming of preform



Technology of multi-material micro injection molding via second injection unit

- ▶ Higher added value of molded part
- ▶ Enhanced mechanical property of molded part
- ▶ Better appearance of molded part
- ▶ Improved productive efficiency
- ▶ Less investment cost

Technical points:

- ▶ Accurate horizontal rotator positioning and control technology
- ▶ Spray painted part surface replaced by high-gloss appearance

Standard and Optional Features

● Standard feature ○ Optional feature

	Standard	Optional
CLAMPING UNIT		
Clamping mechanism with tie bars independent of movable platen	●	
High-rigidity clamping frame	●	
Quantitative volumetric automatic lubrication system	●	
High-response servo control of pressure and flow for mold opening and closing	●	
Open ejection mechanism hydraulically-driven by double parallel cylinders	●	
High-accuracy ultrasonic displacemAent sensor measuring stroke of tie bars, mold opening and closing and ejection	●	
High-rigidity box-shape platen	●	
Low-pressure mold protection	●	
Electrically-protected safety foot plates of mold area and safety gates	●	
One-button automatic mold adjustment	●	
Clamping force adjustment as needed	●	
Ejection/ tie bar reset/ plasticizing/ core pulling during mold opening	●	
Robot mounting hole as per EUROMAP 18	●	
Fixed platen with solid sliding bearing	●	
Platen with T-slot and mold mounting hole	●	
Sliding support with steel-base copper alloy lubricating bearing	●	
Hardened spring steel strips and guide rails	●	
Four platens made of high-rigidity ductile iron	●	
Hydraulic and electrical safety devices	●	
Secondary mold closing	●	
Low-pressure injection molding	●	
Forced return of main ejector pin	●	
Electrical door (standard for 800-4000DP; optional for 500/700DP)	●	
Quick mold change system		○
Hydraulic mold clamp		○
Magnetic platen		○
Heat insulating plate of mold		○
Special mold mounting hole		○
Special-sized mold locating ring		○
Increased mold opening stroke		○
Increased mold thickness		○
Increased ejector stroke		○
Larger ejection force		○
Mold-open cylinders exchange		○
Automatic tie bar retraction (upper tie bars optional)		○
Ejector-backward protection switch		○
Ladder for maintenance of fixed platen		○
Central water pan		○
Stainless steel material receiving pan		○
ELECTRICAL CONTROL SYSTEM		
PID closed-loop control of barrel and nozzle temperature	●	
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	●	
Chinese and English operating system	●	
Safety gate emergency stop function	●	
Online cycle monitoring	●	
15" TFT color touch screen	●	
Visualized graphic programming	●	
PDP interface	●	
Auto-protection of injection monitoring	●	
Statistical process control (SPC) interface	●	
Auto-protection of mold closing monitoring	●	
Electrical enclosure rated IP54	●	
Screw speed detecting device	●	
Time/ position/ time + position control modesfor switchover to holding pressure	●	
Safety pedals in mold area (optional for 500/700DP)	●	
3 sets of (800-4000DP) / 2 sets of (500-700DP) 380V 32A socket	●	
1 set of (800-4000DP) / 2 sets of (500-700DP) 380V 16A socket	●	
1 set of multi-function 220V socket	●	
16-level password security	●	
EUROMAP 12 robot interfaces	●	
Automatic heat preserving, automatic heating and group heating settings	●	
Phase sequence protection	●	
Warning or motor switch-off due to stepping on safety foot plate	●	
Electric unscrewing device	●	
Hot runner control system		○
Auxiliary emergency stop		○
Air blast		○
Change power supply voltage		○
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		○
Safety switch for front safety door edge		○
Robot interfaces based on SPI, EUROMAP 67 and customization		○
KEBA 8000 control system		○
INJECTION UNIT		
Double cylinder injection unit	●	
With low speed large torque hydraulic motor	●	
Nitride alloy Steel screw and barrel	●	
Heat preservation cover for barrel and safety nozzle cover (with electrical protection)	●	
High-accuracy ultrasonic displacement sensor measuring stroke of injection, plasticizing and carriage	●	
10-stage injection speed/ pressure/ position control	●	
10-stage holding pressure speed/ pressure/position/ time control	●	

Standard and Optional Features

● Standard feature ○ Optional feature

	Standard	Optional
5-stage plasticizing speed/ pressure/ position control	●	
Selectable suck-back before or after plasticizing	●	
Linear guides for injection carriage	●	
Linear guides for injection	●	
Double-deck injection unit	●	
Double carriage cylinders	●	
Protective cover of injection unit	●	
Screw cold start protection	●	
Suck back function	●	
Automatic material cleaning	●	
Manual central lubrication system of injection unit	●	
Ceramic heater band	●	
Screw rotation measuring device	●	
Lifting and change of the whole barrel assembly	●	
Mounting interface for hopper loading platform	●	
Carriage transducer (optional for 500/700DP)	●	
Mixing screw		○
Bi-metallic screw barrel		○
Swivel injection unit		○
Extended nozzle (50/100/150/200mm longer)		○
Special screw components		○
Barrel heat-retaining energy-saving device (silicone cover)		○
Spring shut-off nozzle		○
Increased injection stroke		○
Servo injection system		○
Nitrogen injection system		○
Special low-pressure injection molding system		○
MuCell system		○
System dedicated to UPVC pipe fitting		○
Accumulator system for large shot volume production		○
Hopper loading platform		○
Auxiliary ladder		○
Hopper sliding device		○
Enlarged plasticizing motor		○
Second injection unit for micro injection molding		○
HYDRAULIC SYSTEM		
High-performance servo pump system	●	
Real-time display of the pressure of power unit via pressure sensor	●	
High-precision low-pressure oil filter	●	
Imported-brand hydraulic valve	●	
Low-noise energy-saving hydraulic circuit	●	
Proportional back pressure control for plasticizing	●	
Proportional pressure control of injection	●	
Reliable hydraulic piping	●	
Modular combination of power	●	
Oil pre-heating system	●	
Oil level monitoring and alarm	●	
Openable protective cover of pump motor	●	
500 - 700 DP: 2 sets of hydraulic core pull. 1 set each on the fixed platen and movable platen. 800 - 2300 DP: 4 sets of hydraulic core pull. 2 sets each on the fixed platen and movable platen. 2700 - 3400 DP: 6 sets of hydraulic core pull. 3 sets each on the fixed platen and movable platen. 4000DP: 6 sets of hydraulic core pull. 2 sets on the fixed platen and 4 sets on movable platen.	●	
Differential mold opening circuit	●	
Injection and mold-close pressure protection	●	
High-pressure mold opening	●	
Precision independent filtration and cooling systems	●	
Automatic pressure and flow calibration	●	
Imported branded seal	●	
Automatic oil temperature inspection and alarm	●	
Panel cooler and automatic cooling pump	●	
6 sets of sequence (injection) valve interface	●	
Closed-loop proportional variable displacement pump system		○
Variable displacement pump system		○
High-response accumulating servo injection system		○
Enlarged oil cooler		○
Enlarged multi-capacity pump motor		○
Closed loop servo control of injection, plasticizing, holding pressure and back pressure		○
Plasticizing during mold opening (quick plasticizing)		○
Multiple sets of electrical connectors of core puller or unscrewing devices (optional, increasable)		○
Core puller pressure relief		○
Gate pressure relief		○
Quick connector for core puller and hydraulic gate		○
Independent hydraulic gate control system		○
OTHER		
Operation Manual	●	
Adjustable leveling pad	●	
10-in-10-out (800 - 4000 DP) / 8-in-8-out (500 - 700 DP) water regulator with fast connector in movable and fixed platen.	●	
Special nozzle wrench	●	
Stainless steel hopper	●	
Glass-tube cooling water flowmeter	●	
Mold clamp	●	
Mold temperature controller		○
Automatic loader		○
Dehumidification dryer		○
Other auxiliary equipment		○

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Technical Specifications of UN500DP

UN500DP														
DESCRIPTION		UNIT		INJECTION UNIT										
Model		1885			2695			3330			4800			
Screw diameter	mm	60	68	76	68	76	84	76	84	92	84	92	100	108
Theoretical shot volume	cm³	834	1071	1338	1198	1497	1829	1678	2050	2460	2217	2659	3142	3664
Shot weight	g	767	986	1231	1103	1377	1683	1544	1886	2263	2039	2446	2890	3371
Injection pressure	MPa	226	176	141	225	180	147	199	162	136	218	181	154	131
Screw L:D ratio	L/D	22.6	20	20	22.3	20	20	22.1	20	20	21.9	20	21.6	20
Injection rate	cm³/s	322	414	517	383	478	584	430	526	632	516	619	730	853
Max. injection speed	mm/s	114			105			95			93.9			
Screw stroke	mm	295			330			370			400			
Max. screw speed	r/min	250			184			147			154			
Screw torque	N.m	2787			4459			5573			6967			
Heating capacity	kW	22.2	22.2	24.6	26.4	26.4	30.9	33.1	33.1	36.2	37.82	37.82	47	47
Barrel heating zone number	PCS	5			6			6			6			
Nozzle contact force	kN	131.9			131.9			131.9			247.3			
CLAMPING UNIT														
Clamping force	kN	5000												
Opening force	kN	390												
Platen size	mm	1270×1260												
Space between tie bars	mm	910×830												
Mold thickness	mm	350-900												
Max. opening stroke	mm	1300												
Max. daylight	mm	1650												
Ejector force	kN	110												
Ejector stroke	mm	250												
Ejector number	PCS	21												
ELECTRICAL&HYDRAULIC UNIT														
System pressure	MPa	17.5, 30			17.5, 30			17.5, 30			17.5, 30			
Motor	kW	39.4+16.4+5.5			39.4+28.7+5.5			39.4+28.7+5.5			55.6+28.7+5.5			
Total power	kW	85.5	85.5	87.9	102	102	106.5	108.7	108.7	111.8	129.6	129.6	138.8	138.8
GENERAL														
Oil tank capacity	L	650			750			750			1000			
Dry cycle	s/mm	5/637			4.4/637			4.4/637			4.2/637			
Max. mold weight	T	8			8			8			8			
Machine weight (clamping +injection units, no oilz)	T	12+4			12+5			12+5.5			12+7.8			

Note:

1. The green figures are standard specifications of UN500DP.

2. Dry cycle time accords with EUROMAP 6.

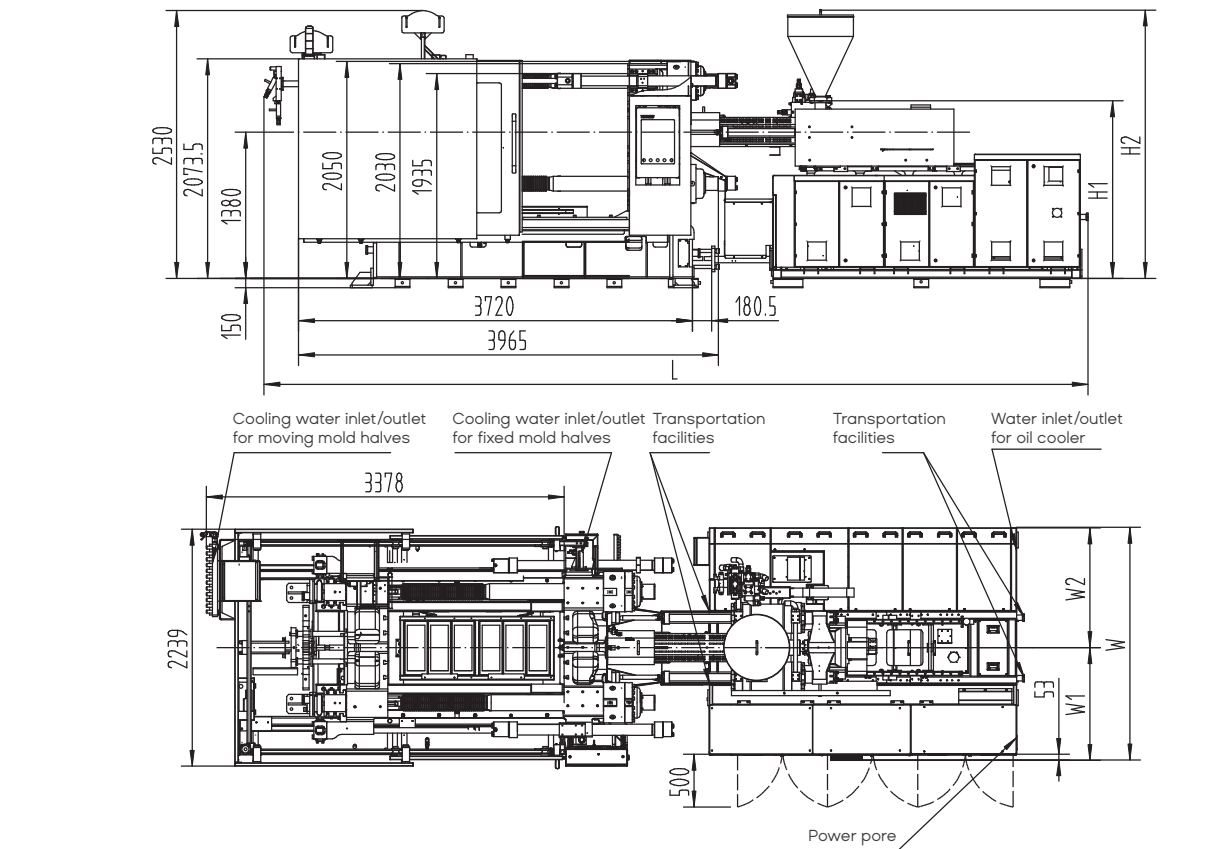
3. The load-bearing capacity of the movable platen is 2/3 of the total mold weight.

4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.

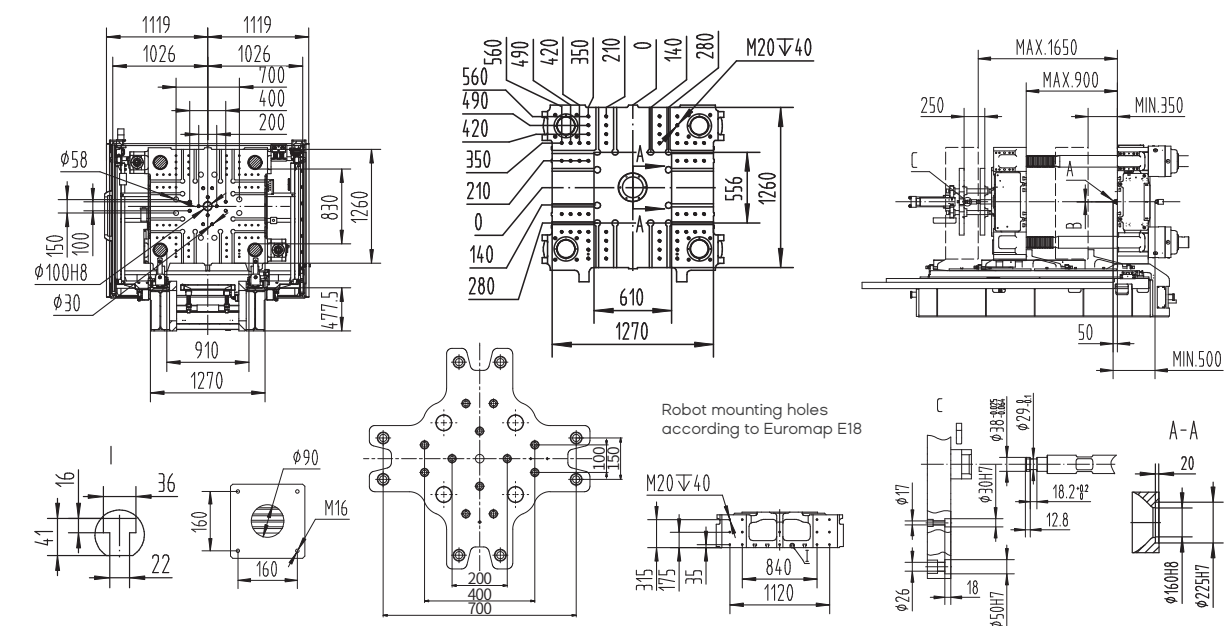
5. The injection unit data are in international units and calculated as follows: theoretical shot volume[m]×injection pressure [Mpa]/100

6. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN500DP Machine Dimensions



UN500DP Platen Dimensions

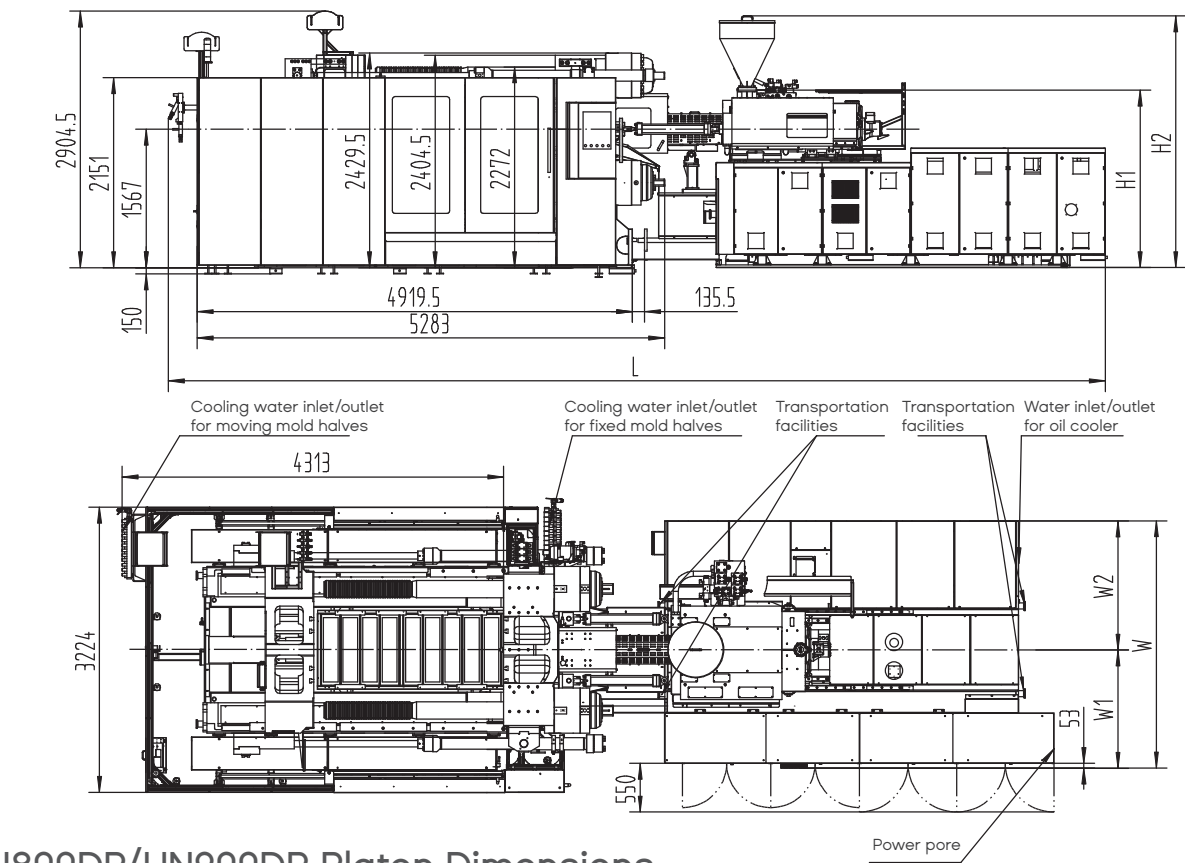


Model	A	B	L	H1	H2	W	W1	W2	Sectional area of main power cord	Full-load current	Bearing capacity of foundation	Number of cooling water line port	Cooling water flow (mold excluded)	Cooling water pressure	Compressed air pressure
	mm	mm	mm	mm	mm	mm	mm	mm	mm²	A	t/m2	n×L/min	L/min	bar	bar
UN500DP-IU1885	SR10	ø3.5	7781	1617	2360	2198	1063	1135	70	160.5	7.5	(8+8)×11	160	3~4	5~6
UN500DP-IU2695	SR15	ø4	7781	1677	2542	2198	1063	1135	70	191.5					
UN500DP-IU3330	SR15	ø4	7781	1555	2420	2198	1063	1135	70	201.8					
UN500DP-IU4800	SR15	ø4.5	8681	1565	2430	2333	1113	1220	70	239.9					

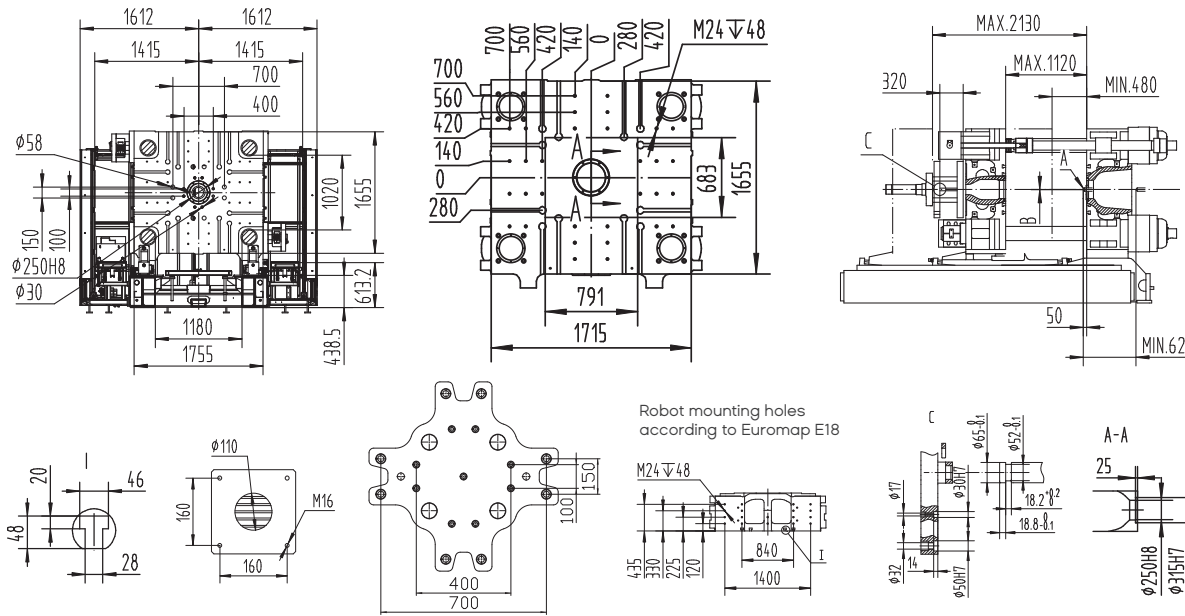
Note:

1. UN800DP is standard with 4800 injection unit, and UN900DP is standard with 6150 injection unit.
2. Dry cycle time accords with EUROMAP 6.
3. The load-bearing capacity of the movable platen is 2/3 of the total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The injection unit data are in international units and calculated as follows: theoretical shot volume [mm³]×injection pressure [Mpa]/100
6. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN800DP/UN900DP Machine Dimensions



UN800DP/UN900DP Platen Dimensions



Model	A	B	L	H1	H2	W	W1	W2	Sectional area of main power cord	Full-load current	Bearing capacity of foundation	Number of cooling water line port	Cooling water flow (mold excluded)	Cooling water pressure	Compressed air pressure
	mm	mm	mm	mm	mm	mm	mm	mm	mm ²	A	t/m2	n×L/min	L/min	bar	bar
UN800DP,900DP-IU4800	SR15	ø4.5	10591	2006	2849	2798	1339	1459	70	230.2	8	(10+10)×11	160	3~4	5~6
UN800DP,900DP-IU6150	SR15	ø4.5	10591	2026	2869	2798	1339	1459	95	281.4					
UN800DP,900DP-IU9000	SR15	ø4.5	10666	2026	2869	2842	1356	1486	95	305.1					
UN800DP,900DP-IU12050	Sr2	ø6	10666	2181	3024	2842	1356	1486	120	347.3					

Technical Specifications of UN1300DP/UN1500DP

UN1300DP/UN1500DP														
DESCRIPTION		UNIT		INJECTION UNIT										
Model		9000			12050			18500			23750			
Screw diameter	mm	100	108	116	116	125	135	135	145	155	145	155	165	
Theoretical shot volume	cm³	4320	5039	5812	6341	7363	8588	10020	11559	13208	12385	14152	16037	
Shot weight	g	3974	4636	5347	5833	6774	7901	9218	10634	12152	11394	13020	14756	
Injection pressure	MPa	209	179	155	190	164	140	184	160	140	192	168	148	
Screw L:D ratio	L/D	21.6	20	20	22.1	20	20	23.6	22	20	23.5	22	20.1	
Injection rate	cm³/s	766	894	1031	913	1060	1237	1251	1444	1650	1505	1715	1950	
Max. injection speed	mm/s	97.6			86.4			87.4			91.1			
Screw stroke	mm	550			600			700			750			
Max. screw speed	r/min	128			113			118			114			
Screw torque	N.m	11982			14769			18949			24522			
Heating capacity	kW	46.52	46.52	51.32	66.39	66.39	70.65	98.9			112.39			
Barrel heating zone number	PCS	7			8			8			10			
Nozzle contact force	kN	178.6			178.6			296.7			296.7			
CLAMPING UNIT														
Clamping force	kN	13000/15000												
Opening force	kN	1230												
Platen size	mm	2340× 2040												
Space between tie bars	mm	1540× 1280												
Mold thickness	mm	690-1460												
Max. opening stroke	mm	2410												
Max. daylight	mm	3100												
Ejector force	kN	300												
Ejector stroke	mm	400												
Ejector number	PCS	25												
ELECTRICAL&HYDRAULIC UNIT														
System pressure	MPa	17.5 , 25			17.5 , 25			17.5 , 25			17.5 , 25			
Motor	kW	55.6+31+39.4			55.6×2+39.4			60×3			60×3+55.6			
Total power	kW	172.5	172.5	177.3	217	217	221.2	278.9			348			
GENERAL														
Oil tank capacity	L	1500			1500			2400			2600			
Dry cycle	s/mm	7.2/1078			6.8/1078			6.7/1078			6.4/1078			
Max. mold weight	T	30			30			30			30			
Machine weight (clamping +injection units, no oilz)	T	57+12			57+14			57+22			57+23			
Machine dimensions	m	11.9×3.8×3.5			11.9×3.8×3.5			12.9×3.8×3.5			13.5×3.8×3.6			

Note:

1. UN1300DP is standard with 12050 injection unit, and UN1500DP is standard with 18500 injection unit.

2. Dry cycle time accords with EUROMAP 6.

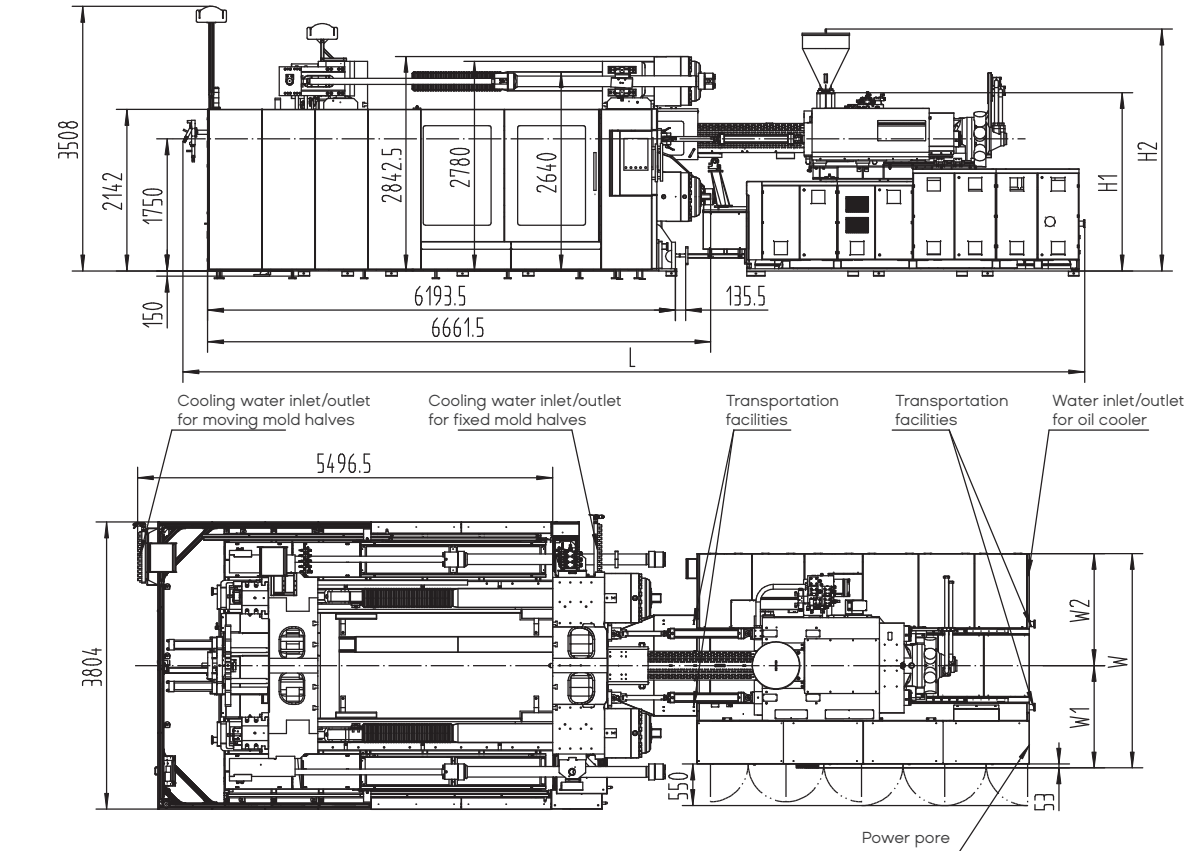
3. The load-bearing capacity of the movable platen is 2/3 of the total mold weight.

4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.

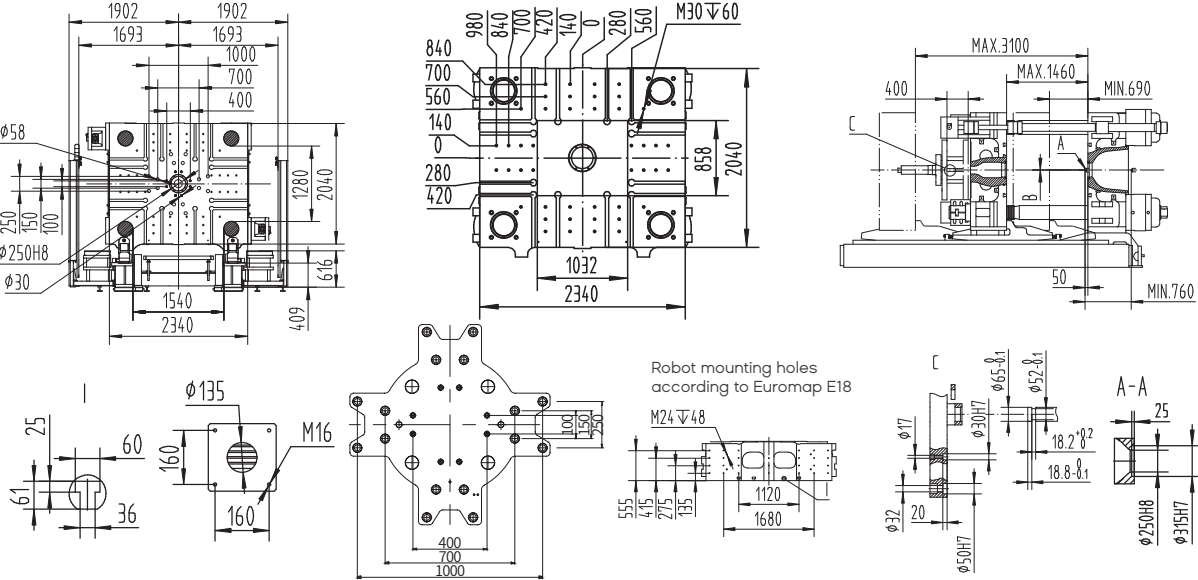
5. The injection unit data are in international units and calculated as follows: theoretical shot volume[m]×injection pressure [Mpa]/100

6. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN1300DP/UN1500DP Machine Dimensions



UN1300DP/UN1500DP Platen Dimensions



Model	A	B	L	H1	H2	W	W1	W2	Sectional area of main power cord	Full-load current	Bearing capacity of foundation	Number of cooling water line port	Cooling water flow (mold excluded)	Cooling water pressure	Compressed air pressure
UN1300DP,1500DP-IU9000	SR15	ø4.5	11940	2209	3051	2842	1356	1486	95	305.1	10.5	(10+10)×11	160	3~4	5~6
UN1300DP,1500DP-IU12050	SR20	ø6	11940	2364	3206	2842	1356	1486	120	347.3					
UN1300DP,1500DP-IU18500	SR20	ø8	12940	2514	3501	3599	1675	1924	150	517.6					
UN1300DP,1500DP-IU23750	SR25	ø8	13540	2534	3540	3434	1618	1816	150	627.3					

Technical Specifications of UN1700DP/UN1850DP

UN1700DP/UN1850DP																	
DESCRIPTION		UNIT		INJECTION UNIT													
Model		9000			12050			18500			23750			31750			
Screw diameter		mm	100	108	116	116	125	135	135	145	155	145	155	165	155	165	180
Theoretical shot volume		cm³	4320	5039	5812	6341	7363	8588	10020	11559	13208	12385	14152	16037	15661	17747	21121
Shot weight		g	3974	4636	5347	5833	6774	7901	9218	10634	12152	11394	13020	14756	14409	16328	19431
Injection pressure		MPa	209	179	155	190	164	140	184	160	140	192	168	148	215	190	159
Screw L:D ratio		L/D	21.6	20	20	22.1	20	20	23.6	22	20	23.5	22	20.1	20.8	22	22
Injection rate		cm³/s	766	894	1031	913	1060	1237	1251	1444	1650	1505	1715	1950	1670	1892	2252
Max. injection speed		mm/s	97.6			86.4			87.4			91.1			88.5		
Screw stroke		mm	550			600			700			750			830		
Max. screw speed		r/min	128			113			118			114			98		
Screw torque		N.m	11982			14769			18949			24522			34833		
Heating capacity		kW	46.52	46.52	51.32	66.39	66.39	70.65	98.9			112.39			144.63		
Barrel heating zone number		PCS	7			8			8			10			9		
Nozzle contact force		kN	178.6			178.6			296.7			296.7			296.7		
CLAMPING UNIT																	
Clamping force		kN	17000/18500														
Opening force		kN	1380														
Platen size		mm	2660× 2240														
Space between tie bars		mm	1870× 1425														
Mold thickness		mm	750-1650														
Max. opening stroke		mm	2700														
Max. daylight		mm	3450														
Ejector force		kN	300														
Ejector stroke		mm	400														
Ejector number		PCS	33														
ELECTRICAL&HYDRAULIC UNIT																	
System pressure		MPa	17.5 , 25			17.5 , 25			17.5 , 25			17.5 , 25			17.5 , 25		
Motor		kW	55.6+31+39.4			55.6×2+39.4			60×3			60×3+55.6			60×4+55.6		
Total power		kW	172.5	172.5	177.3	217	217	221.2	278.9			348			440.2		
GENERAL																	
Oil tank capacity		L	1500			1500			2400			2600			3400		
Dry cycle		s/mm	8.2/1309			7.8/1309			7.7/1309			7.4/1309			7.4/1309		
Max. mold weight		T	45			45			45			45			45		
Machine weight (clamping +injection units, no oilz)		T	73+12			73+14			73+22			73+23			73+37		
Machine dimensions		m	12.5×4.2×3.6			12.5×4.2×3.6			13.5×4.2×3.6			14.1×4.2×3.6			14.6×4.2×3.7		

Note:

1. The green figures are standard specifications of UN1700DP/1850DP.

2. Dry cycle time accords with EUROMAP 6.

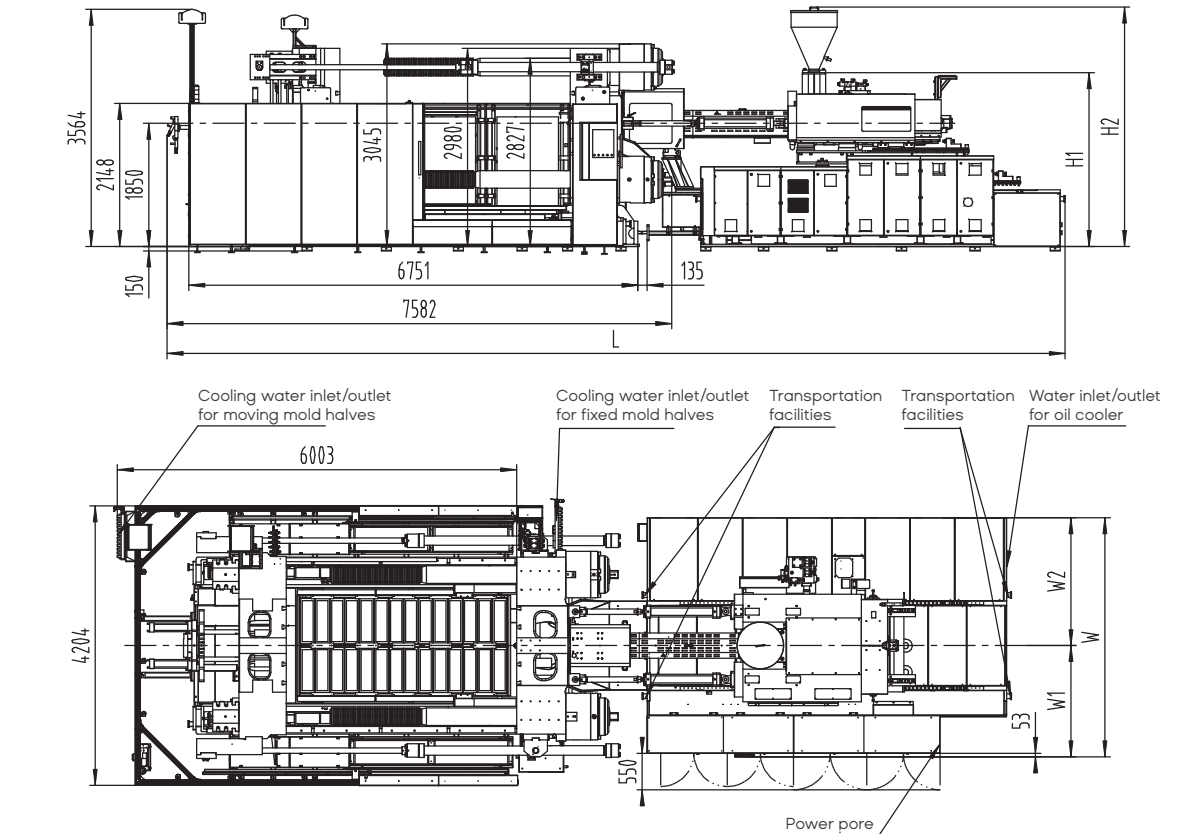
3. The load-bearing capacity of the movable platen is 2/3 of the total mold weight.

4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.

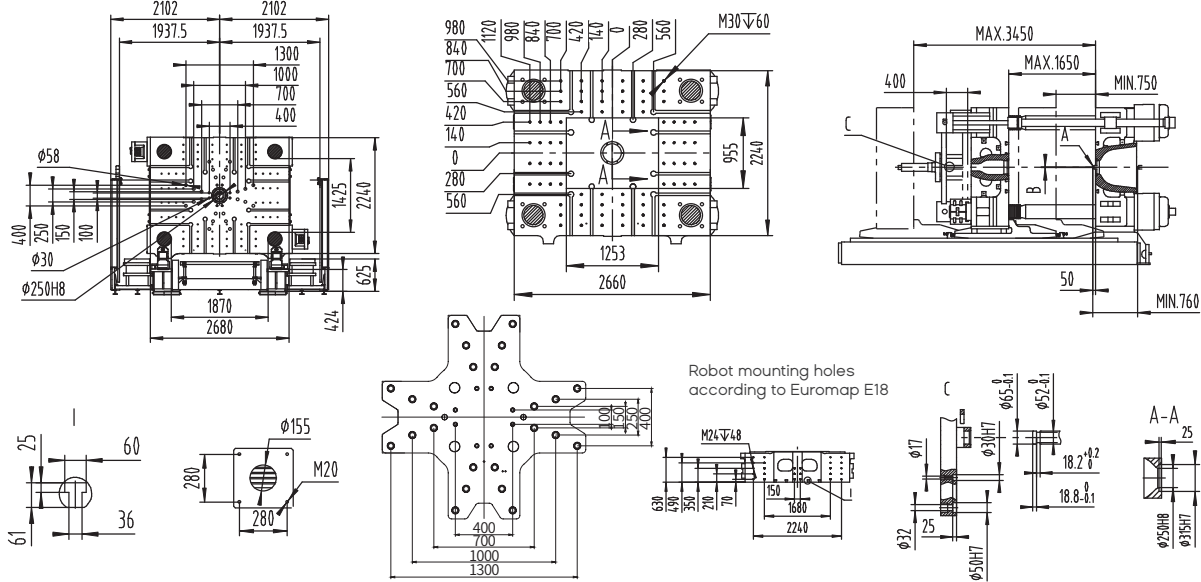
5. The injection unit data are in international units and calculated as follows: theoretical shot volume[m]×injection pressure [Mpa]/100

6. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN1700DP/UN1850DP Machine Dimensions



UN1700DP/UN1850DP Platen Dimensions



Model	A	B	L	H1	H2	W	Sectional area of main power cord	Full-load current	Bearing capacity of foundation	Number of cooling water line port	Cooling water flow (mold excluded)	Cooling water pressure	Compressed air pressure
UN1700DP,1850DP-IU9000	SR15	ø4.5	12497	2309	3151	2842	95	305.1	10.5	(10+10)×11	160	3~4	5~6
UN1700DP,1850DP-IU12050	SR20	ø6	12497	2464	3306	2842	120	347.3					
UN1700DP,1850DP-IU18500	SR20	ø8	13497	2614	3601	3595	150	517.6					
UN1700DP,1850DP-IU23750	SR25	ø8	14097	2634	3640	3434	150	627.3					
UN1700DP,1850DP-IU31750	SR25	ø8	14597	2670	3676	3702	185	780.9					

Technical Specifications of UN2000DP/UN2300DP

UN2000DP/UN2300DP																
DESCRIPTION		UNIT		INJECTION UNIT												
Model		12050			18500			23750			31750			44500		
Screw diameter	mm	116	125	135	135	145	155	145	155	165	155	165	180	180	190	200
Theoretical shot volume	cm³	6341	7363	8588	10020	11559	13208	12385	14152	16037	15661	17747	21121	23666	26368	29217
Shot weight	g	5833	6774	7901	9218	10634	12152	11394	13020	14756	14409	16328	19431	21772	24259	26879
Injection pressure	MPa	190	164	140	184	160	140	192	168	148	215	190	159	195	175	158
Screw L:D ratio	L/D	22.1	20	20	23.6	22	20	23.5	22	20.1	20.8	22	22	23.4	22.1	20
Injection rate	cm³/s	913	1060	1237	1251	1444	1650	1505	1715	1950	1670	1892	2252	2200	2451	2716
Max. injection speed	mm/s	86.4			87.4			91.1			88.5			86.5		
Screw stroke	mm	600			700			750			830			930		
Max. screw speed	r/min	113			118			114			98			75		
Screw torque	N.m	14769			18949			24522			34833			41778		
Heating capacity	kW	66.39	66.39	70.65	98.9			112.39			144.63			170	183	189
Barrel heating zone number	PCS	8			8			10			9			9		
Nozzle contact force	kN	178.6			296.7			296.7			296.7			296.7		
CLAMPING UNIT																
Clamping force	kN	20000/23000														
Opening force	kN	1880														
Platen size	mm	2900×2440														
Space between tie bars	mm	2020×1620														
Mold thickness	mm	750-1810														
Max. opening stroke	mm	3060														
Max. daylight	mm	3810														
Ejector force	kN	460														
Ejector stroke	mm	430														
Ejector number	PCS	25														
ELECTRICAL&HYDRAULIC UNIT																
System pressure	MPa	17.5 , 25			17.5 , 25			17.5 , 25			17.5 , 25			17.5 , 25		
Motor	kW	55.6×2+39.4			60×3			60×3+55.6			60×4+55.6			110×2+66		
Total power	kW	217	217	221.2	278.9			348			440.2			456	469	475
GENERAL																
Oil tank capacity	L	1500			2400			2600			3400			4000		
Dry cycle	s/mm	12.5/1414			11.5/1414			10.5/1414			10/1414			10/1414		
Max. mold weight	T	60			60			60			60			60		
Machine weight (clamping +injection units, no oilz)	T	94+14			94+22			94+23			94+37			94+37		
Machine dimensions	m	13.0×4.4×3.8			14.0×4.4×3.8			14.7×4.4×3.8			15.2×4.4×3.8			15.2×4.4×3.9		

Note:

1.The green figures are standard specifications of UN2000DP/2300DP.

2. Dry cycle time accords with EUROMAP 6.

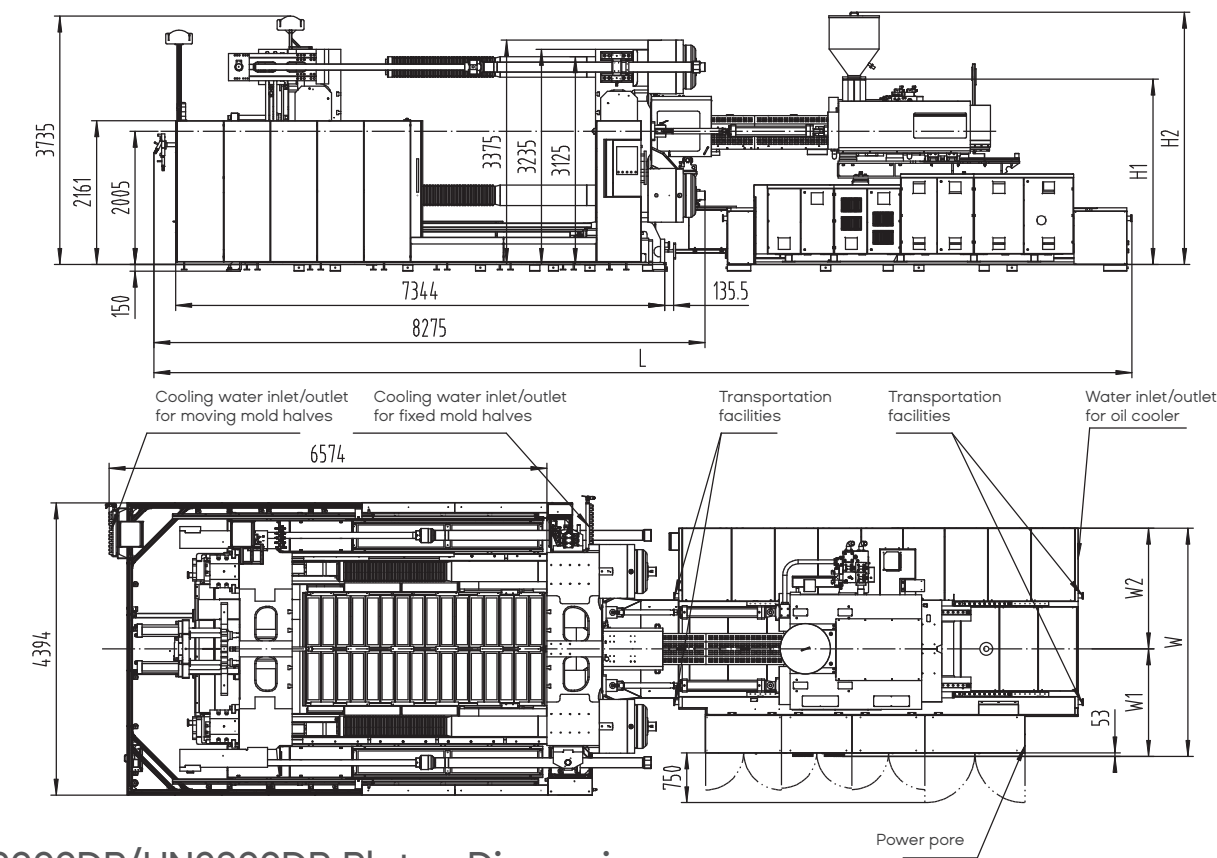
3. The load-bearing capacity of the movable platen is 2/3 of the total mold weight.

4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.

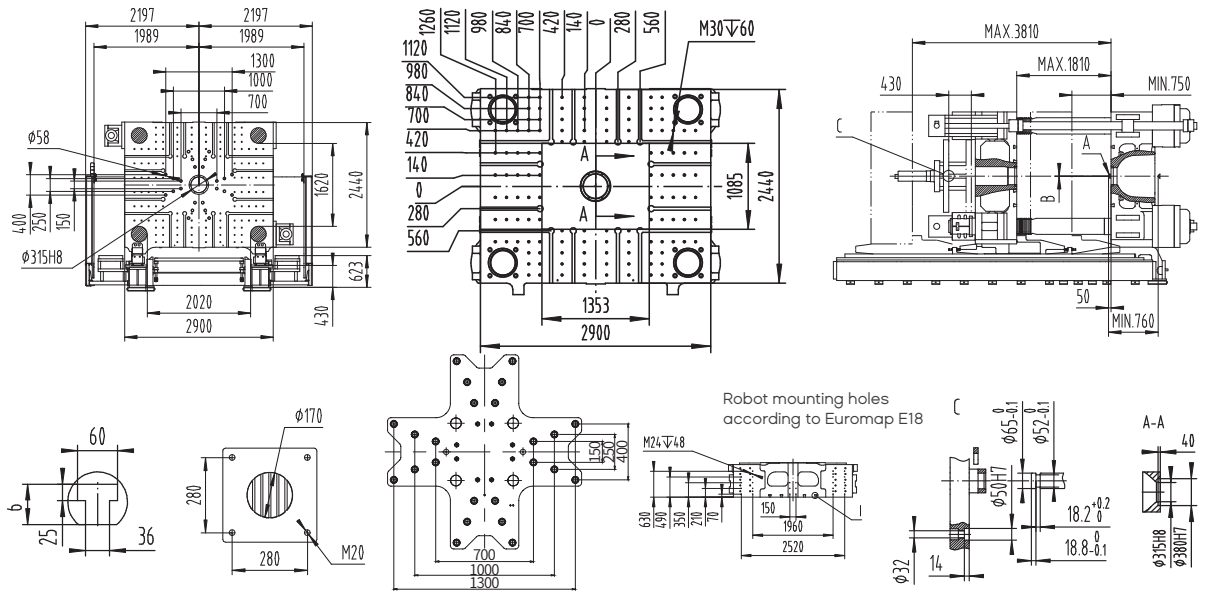
5. The injection unit data are in international units and calculated as follows: theoretical shot volume[m]×injection pressure [Mpa]/100

6. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN2000DP/UN2300DP Machine Dimensions



UN2000DP/UN2300DP Platen Dimensions

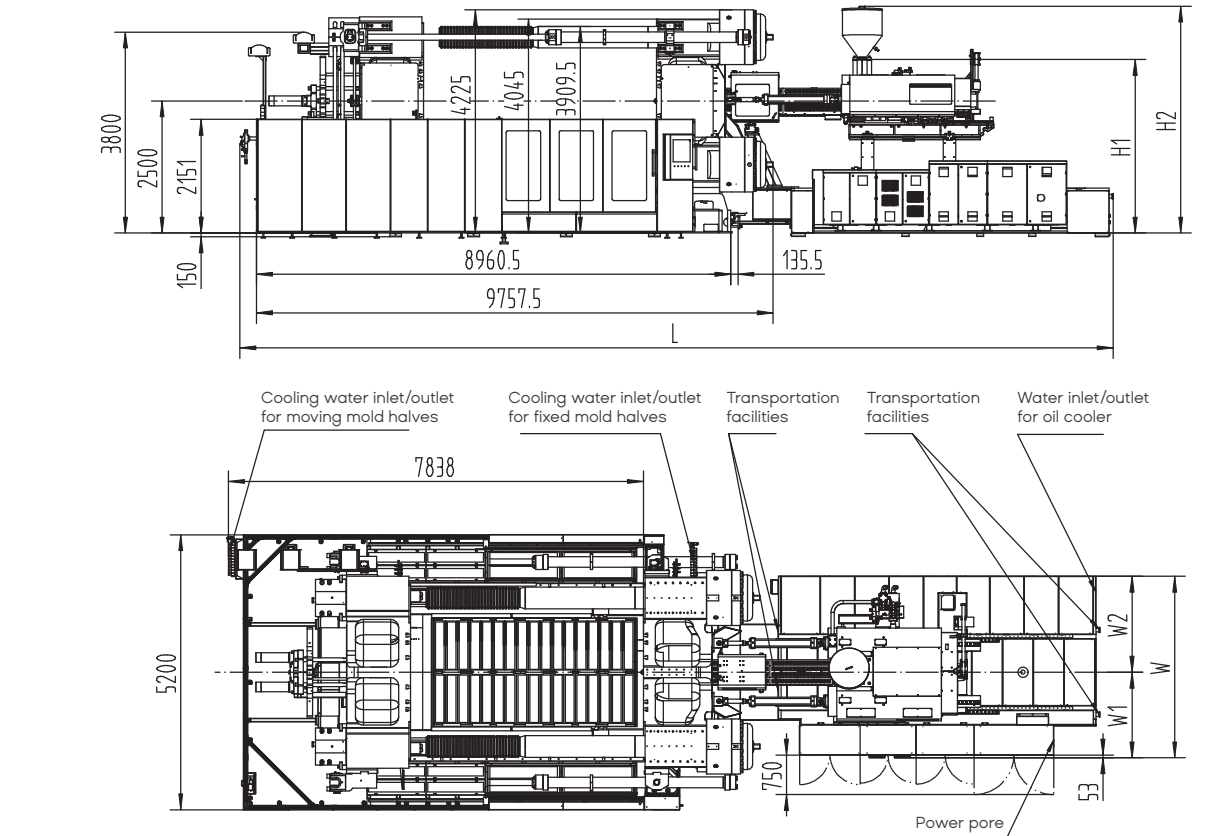


Model	A	B	L	H1	H2	W	W1	W2	Sectional area of main power cord	Full-load current	Bearing capacity of foundation	Number of cooling water line port	Cooling water flow (mold excluded)	Cooling water pressure	Compressed air pressure
UN2000DP,2300DP-IU12050	SR20	ø6	13090	2619	3461	2842	1356	1486	120	347.3					
UN2000DP,2300DP-IU18500	SR20	ø8	14090	2769	3756	3599	1675	1924	150	517.6					
UN2000DP,2300DP-IU23750	SR25	ø8	14690	2789	3795	3434	1618	1816	150	627.3					
UN2000DP,2300DP-IU31750	SR25	ø8	15187	2825	3831	3702	1816	1886	185	780.9					
UN2000DP,2300DP-IU44500	SR25	ø8	15187	2840	3846	3702	1816	1886	185	991.1					

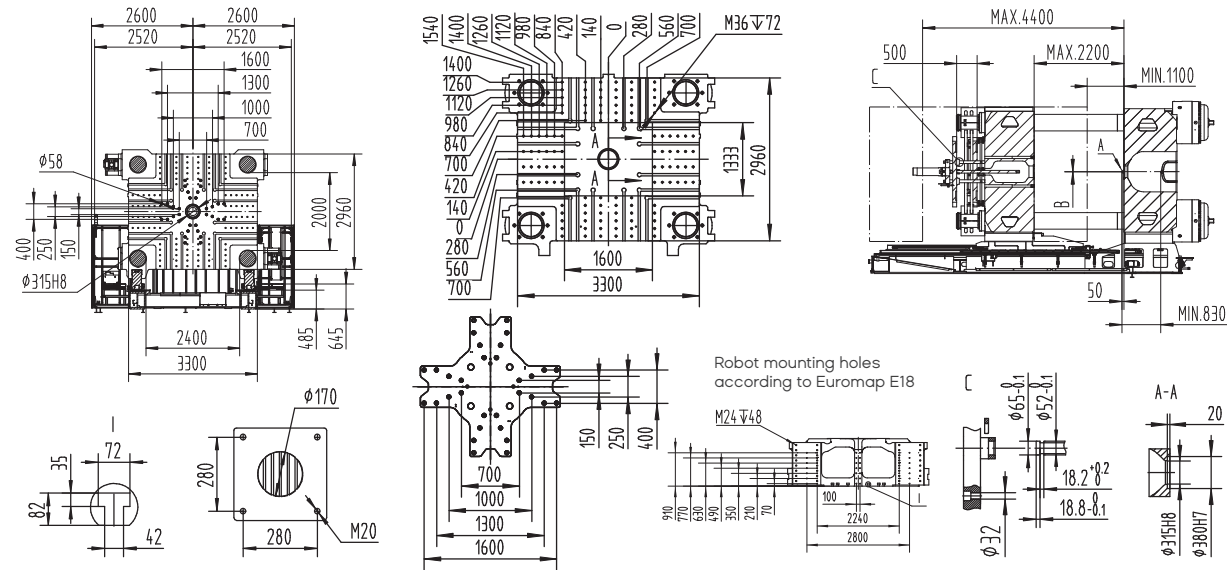
Note:

1. The green figures are standard specifications of UN4000DP.
2. Dry cycle time accords with EUROMAP 6.
3. The load-bearing capacity of the movable platen is 2/3 of the total mold weight.
4. The shot weight is calculated by GPPS and it is 0.92 times of the theoretical shot volume.
5. The injection unit data are in international units and calculated as follows: theoretical shot volume[cm] \times injection pressure [Mpa]/100.
6. Because of constant technical improvement, the machine specifications are subject to change without notice.

UN4000DP Machine Dimensions



UN4000DP Platen Dimensions



Model	A	B	L	H1	H2	W	W1	W2	Sectional area of main power cord	Full-load current	Bearing capacity of foundation	Number of cooling water line port	Cooling water flow (mold excluded)	Cooling water pressure	Compressed air pressure
	mm	mm	mm	mm	mm	mm	mm	mm	mm²	A	t/m2	n×L/min	L/min	bar	bar
UN4000DP-IU18500	SR20	ø8	16495	3264	4251	3599	1675	1924	150	517.6	14.5	(10+10)×11	200	3~4	5~6
UN4000DP-IU23750	SR25	ø8	16495	3284	4290	3434	1618	1816	150	627.3					
UN4000DP-IU31750	SR25	ø8	16995	3320	4326	3702	1816	1886	185	780.9					
UN4000DP-IU44500	SR25	ø8	17495	3335	4340	3702	1816	1886	185	991.1					
UN4000DP-IU54500	SR25	ø8	19495	3385	4390	4328	2066	2262	240	1124.2					
UN4000DP-IU75500	SR25	ø8	19495	3435	4440	4328	2066	2262	300	1387.6					
UN4000DP-IU100000	SR25	ø8	19495	3435	4440	4328	2066	2262	400	1401.3					

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