

WE WALK ALONGSIDE THE WORLD

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YIZUMI 伊之密

PET

Better Match of Industrial Segments

(120T-650T)

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2. The product photos are for reference only, which are subject to the actual products.
3. The data are obtained from Yizumi's laboratory test, and the final interpretation right belongs to Yizumi.



Main Features of PET Preform Molding Machines

Following the successful introduction of the first generation PET, Yizumi launches the second generation PET series SKII-V-PET by using the IPD model built with the full understanding of customers' pain point and needs.

The series is upgraded based on the concept of "Faster, more professional, and more efficient." It is in the leading position in China in terms of plasticizing efficiency, market segmentation (colour preform, water preform, and oil preform, etc.), shot weight, and other technical performance aspects and definitely the top choice among PET preform injection molding machines.

Four Core Value Propositions:

- 1 More efficient
- 2 More professional
- 3 Customized design
- 4 Overall upgrade of customer experience

More Efficient

Use high-performance plasticizing system and special enlarged plasticizing motor to improve the service life of motor and stability of products. It offers high speed with the high-plasticizing screw and short dry cycle through high-rigid clamping unit, resulting in a superior overall operating efficiency of the machine. The standard horizontal T-slot allows a more convenient and efficient mold change.

More Professional

The use of special PET plasticizing components reduces the plasticizing temperature and AA value, effectively improving the shrinkage and transparency of the preform. For different needs of customers, it offers various types of dedicated PET special high-performance including color mixing screws for colour preform and high-speed screw for water and oil preforms.

Customized Design

Depending on the needs of current and future products and the suitable types of products and molds for each model, the machine can be configured with different injection unit combinations to meet requirements on product weight.

Overall Upgrade Of Customer Experience

In addition to fulfilling the core propositions of "Faster, more professional, and more efficient", we place a strong focus on the optimization of the customer experiences in actual applications such as industrial design, human-machine interaction, and environmental protection.



Main Configuration

Customized Pet Plasticizing Components

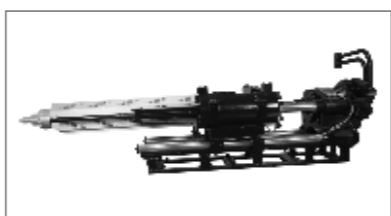
The use of PET plasticizing components customized for different industries reduce the plasticizing temperature and AA value, effectively improving the shrinkage and transparency of the preform.

- **Preforms for cosmetic products:** Bearing in mind the characteristics of the cosmetics industry, we have developed the special high-performance color mixing screw for PET colour preforms with a L/D ratio of 24:1. For PET materials such as iridescent and opalescent powders, it effectively improves the quality of color mixing and stability of products and ensures the surface color uniformity after blow molding.
- **Water and oil preforms:** A special PET high-speed screw for water and oil preforms designed according to the characteristics of ordinary water bottle and oil bottle industries provides a L/D ratio of 24:1 and achieves a high-speed and high-quality plasticizing under low shear conditions. It increases the plasticizing efficiency by nearly 100% compared with standard injection molding machines and boosts the original PET capacity by more than 30%.



Optimized Injection Unit

The series uses a double carriage design and one-piece carriage support for models with multi-cavity molds. The optimized injection mechanism applies force on the injection unit evenly and provides improved injection rigidity to ensure that the force in the direction of the unit movement is concentric with the force applied on injection to reduce friction and increase injection stability and accuracy.



Customized Shot Weight

Depending on the needs of current and future products and the suitable types of products and molds for each model, the machine can be customized with different injection weight options to meet requirements on product weight.



Customized Infrared Heating Ring

Infrared heating ring is 10% energy saving than ordinary type.



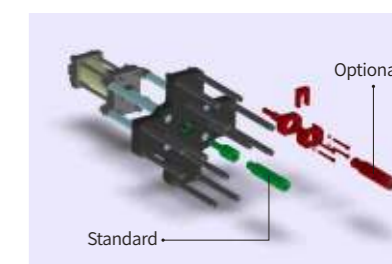
High-performance Plasticizing System

- Custom made enlarged plasticizing motor with enhanced motor displacement to ensure the service life of motor and stability of products.
- ★ The synchronous plasticizing (electrical plasticizing) is available among other options. Compared to the standard PET injection molding machines, the production efficiency can be increased by more than 10%.



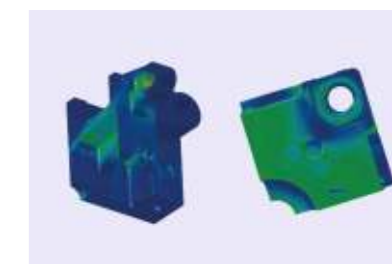
Optimized Ejection Mechanism

In addition to providing the forced ejector reset as standard, the ejector stroke and ejector force are also increased to meet the needs of different customers.



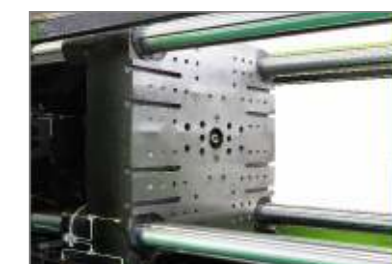
Double Center Press Platen

Both fixed and movable platens adopt a Double Center Press Platen (DCPP) design to ensure a minimum platen deformation and balanced pressure distribution in platen's mold area during high-pressure clamping. It can effectively decrease flash, short shot, and other defects due to the deformation of the platens, reduce clamping force, and extend the service life of molds.



Platen With T-slot + Mold Clamp Hole Combination

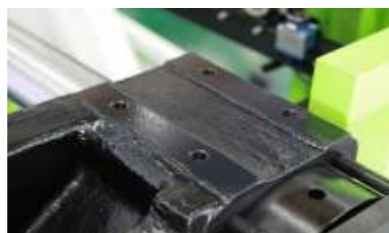
The platen uses T-slot + mold clamp hole combination in the horizontal direction and mold clamp holes in the vertical direction to facilitate the mold loading and unloading and enhance the overall rigidity of the platen.



Main Configuration

User Friendly Design

Standard robot mounting holes to facilitate an easy and fast installation. Mold needle valve control function is available as options to effectively reduce the internal stress of product and improve the production yield.



Optimized Cooling Water Transmitting Device

Enlarged cooling water transmitting device to ensure the transparency of PET products.



Enlarged Motor and Pump

By increasing the power of motor and pump, achieve higher productivity with a speed 20% faster than conventional machines.



Optimized Cooling Effect

Larger cooler and oil tank capacity effectively lower the oil temperature and improve the cooling effect.



Yizumi's PET Molds

Offer a full range of PET preform production processes and equipment including: injection molding machines, bottle blow molding machines, molds, and other related equipment.



16 cavities

32 cavities

48cavities



72 cavities



Mold Parts

Injection molding machine for packaging products (e.g. wide-mouth bottles , spice bottles)

Applicable products: Shot weight within 360g-1400g

- Features:
- Use special high-speed mixing screw for PET packaging products
 - Low temperature barrel design for a more constant barrel temperature



Specifications

DESCRIPTION	UNIT	UN120SKII-V-PET	UN160SKII-V-PET	UN200SKII-V-PET		UN260SKII-V-PET	
International specification		391/1200	604/1600	895/2000	1085/2000	1269/2600	1269/2600
INJECTION UNIT							
Shot volume	cm ³	307.6	452.3	664	1035	962.4	1202.2
Shot weight (PET)	g	359.8	529.2	776.8	1211	1126	1406.5
	oz	12.6	18.6	27.4	42.7	39.7	49.6
Screw diameter	mm	48	53	60	68	68	76
Injection pressure	MPa	136.7	133.6	134.8	104.9	131.8	105.5
Screw L:D ratio		24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1
Max. injection speed	mm/s	96	101	100		89	
Plasticizing Capacity (PET)	g/s	37	38	65	65	74	70
Screw stroke	mm	170	205	235	285	265	
Screw speed(stepless)	r/min	0-181	0-145	0-163	0-130	0-146	0-91
CLAMPING UNIT							
Clamping force	kN	1200	1600	2000		2600	
Opening stroke	mm	360	410	460		530	
Space between tie bars	mmxmm	410x370	455x435	510x510		570x570	
Max. Daylight	mm	760	870	980		1140	
Mold thickness(Min.Max)	mm	145-400	160-460	180-520		195-610	
Hydraulic ejection stroke	mm	120	140	150		180	
Ejector number		5	5	5		13	
Hydraulic ejection force	kN	42	42	77		124	
POWER UNIT							
Hydraulic system pressure	Mpa	17.5	17.5	17.5		17.5	
Pump motor	kW	15	18.5	22		30	
Heating capacity	kW	11.2	13.7	18.5	23.2	21.7	31.2
Number of temp. control zones		5	5	6		6	
GENERAL UNIT							
	s	2.1	2.4	3.1		3.1	
Oil tank capacity	L	195	245	305		360	
Machine dimensions(LxWxH)	mxmxm	4.95x1.23x1.62	5.48x1.25x1.73	6.29x1.32x1.82		6.66x1.59x1.96	
Machine weight	kg	3600	5000	6000	6100	8100	8400

Note:1. Theoretical shot volume= barrel sectional area * injection stroke . 2. Shot weight=shot volume * 1.17 (for PET). 3. Specifications are subject to change without prior notice.

Injection molding machine for cosmetic packaging

Applicable products: Shot weight within 530g-2560g

- Features:
- The use of PET high-performance mixing screw for cosmetics packaging made of iridescent, opalescent powder, and other materials.
 - Low temperature barrel design for a more constant barrel temperature
 - Large ejector force



Specifications

DESCRIPTION	UNIT	UN160SKII-V-PET	UN200SKII-V-PET		UN260SKII-V-PET		UN320SKII-V-PET	
International specification		604/1600	895/2000	1085/2000	1269/2600	1269/2600	1885/3200	2526/3200
INJECTION UNIT								
Shot volume	cm ³	452.3	664	1035	962.4	1202.2	1338.2	2189
Shot weight (PET)	g	529.2	776.8	1211	1126	1406.5	1565.6	2561.1
	oz	18.6	27.4	42.7	39.7	49.6	55.2	90.3
Screw diameter	mm	53	60	68	68	76	76	84
Injection pressure	MPa	133.6	134.8	104.9	131.8	105.5	141	115.4
Screw L:D ratio		24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1
Max. injection speed	mm/s	101	100		89		97	
Plasticizing Capacity (PET)	g/s	38	65	65	74	70	95	102
Screw stroke	mm	205	235	285	265		295	395
Screw speed(stepless)	r/min	0-145	0-163	0-130	0-146	0-91	0-132	0-99
CLAMPING UNIT								
Clamping force	kN	1600	2000		2600		3200	
Opening stroke	mm	410	460		530		580	
Space between tie bars	mmxmm	455x435	510x510		570x570		670x670	
Max. Daylight	mm	870	980		1140		1240	
Mold thickness(Min.Max)	mm	160-460	180-520		195-610		220-660	
Hydraulic ejection stroke	mm	140	150		180		190	
Ejector number		5	5		13		13	
Hydraulic ejection force	kN	42	77		124		137	
POWER UNIT								
Hydraulic system pressure	Mpa	17.5	17.5		17.5		17.5	
Pump motor	kW	18.5	22		30		37	
Heating capacity	kW	13.7	18.5	23.2	21.7	31.2	30.4	34.8
Number of temp. control zones		5	6		6		6	
GENERAL UNIT								
	s	2.4	3.1		3.1		3.8	
Oil tank capacity	L	245	305		360		555	
Machine dimensions(LxWxH)	mxmxm	5.48x1.25x1.73	6.29x1.32x1.82		6.66x1.59x1.96		7.14x1.73x2.03	7.72x1.73x2.03
Machine weight	kg	5000	6000	6100	8100	8400	10700	11100

Note:1. Theoretical shot volume= barrel sectional area * injection stroke . 2. Shot weight=shot volume * 1.17 (for PET). 3. Specifications are subject to change without prior notice.

Injection molding machine for beverage packaging (e.g. water preform)



Applicable products: Shot weight within 530g-2880g

Features:

- The use of special PET plasticizing components reduces the plasticizing temperature and AA value.
- Dedicated screw, low plasticizing back pressure settings, and fast plasticizing speed to meet the requirement of water preform for short cycle.
- Low temperature barrel design for a more constant barrel temperature.
- Large ejector force
- Synchronous plasticizing series injection molding machines are also available (electrical plasticizing)

Specifications

DESCRIPTION	UNIT	UN160SKII-V-PET	UN200SKII-V-PET	UN260SKII-V-PET	UN320SKII-V-PET	UN400SKII-V-PET	UN480SKII-V-PET
International specification		604/1600	895/2000	1269/2600	1885/3200	2693/4000	3330/4800
INJECTION UNIT							
Shot volume	cm ³	452.3	664	962.4	1338.2	1828.8	2459.6
Shot weight (PET)	g	529.2	776.8	1126	1565.6	2139.7	2877.7
	oz	18.6	27.4	39.7	55.2	75.5	101.5
Screw diameter	mm	53	60	68	76	84	92
Injection pressure	MPa	133.6	134.8	131.8	141	147.3	135.5
Screw L:D ratio		24: 1	24: 1	24: 1	24: 1	24: 1	24: 1
Max. injection speed	mm/s	101	100	89	97	94	93
Plasticizing Capacity (PET)	g/s	59	94	106	143	166	260
Screw stroke	mm	205	235	265	295	330	370
Mlet motor	kW	—	—	—	—	—	—
Screw speed(stepless)	r/min	0-145	0-163	0-146	0-132	0-122	0-120
CLAMPING UNIT							
Clamping force	kN	1600	2000	2600	3200	4000	4800
Opening stroke	mm	410	460	530	580	660	760
Space between tie bars	mmxmm	455x435	510x510	570x570	670x670	710x710	810x810
Max. Daylight	mm	870	980	1140	1240	1390	1570
Mold thickness(Min.Max)	mm	160-460	180-520	195-610	220-660	240-730	260-810
Hydraulic ejection stroke	mm	140	150	180	190	210	220
Ejector number		5	5	13	13	13	13
Hydraulic ejection force	kN	42	77	124	137	182	182
POWER UNIT							
Hydraulic system pressure	Mpa	17.5	17.5	17.5	17.5	17.5	17.5
Pump motor	kW	18.5	22	30	37	45	55
Heating capacity	kW	13.7	18.5	21.7	30.4	35.9	43.2
Number of temp. control zones		5	6	6	6	6	6
GENERAL UNIT							
	S	2.4	3.1	3.1	3.8	4.0	4.2
Oil tank capacity	L	245	305	360	555	720	865
Machine dimensions(LxWxH)	mxmxm	5.48x1.25x1.73	6.29x1.32x1.82	6.66x1.59x1.96	7.14x1.73x2.03	8.1x2.12x2.03	9.01x2.2x2.1
Machine weight	kg	5000	6000	8100	10700	14900	19500

Beverage packaging series (synchronous electrical plasticizing)

Synchronized electrical plasticizing to achieve a shorter production cycle

Specifications

UN320SKII-V-PET	UN400SKII-V-PET	UN480SKII-V-PET
1885/3200	2693/4000	3330/4800
1338.2	1828.8	2459.6
1565.6	2139.7	2877.7
55.2	75.5	101.5
76	84	92
141	147.3	135.5
24: 1	24: 1	24: 1
97	94	93
143	169	240
295	330	370
39.4	48.1	59.6
0-133	0-125	0-115
3200	4000	4800
580	660	760
670x670	710x710	810x810
1240	1390	1570
220-660	240-730	260-810
190	210	220
13	13	13
137	182	182
17.5	17.5	17.5
37	45	55
30.4	35.9	43.2
6	6	6
3.8	4.0	4.2
555	720	865
7.14x1.73x2.03	8.1x2.12x2.03	9.01x2.2x2.1
10700	14900	19500

11 Note:1. Theoretical shot volume= barrel sectional area • injection stroke . 2. Shot weight=shot volume • 1.17 (for PET). 3. Specifications are subject to change without prior notice.

Injection molding machine for salad oil packaging



Applicable products: Shot weight within 2560g-5040g

Features:

- Large injection volume to meet the injection requirement of salad oil bottle preforms;
- Dedicated screw, low plasticizing back pressure settings, fast plasticizing speed, and outstanding plasticizing quality;
- Low temperature barrel design for a more constant barrel temperature;
- Large ejector force;
- Synchronous plasticizing series injection molding machines are also available (electrical plasticizing);

Salad oil packaging series (synchronous electrical plasticizing)

Synchronized electrical plasticizing to achieve a shorter production cycle

Specifications

DESCRIPTION	UNIT	UN320SKII-V-PET		UN400SKII-V-PET		UN480SKII-V-PET	
International specification		2526/3200	2626/3200	3510/4000	3509/4000	3330/4800	4232/4800
INJECTION UNIT							
Shot volume	cm ³	2189	2625.8	2858.5	3377.2	2459.6	4305.6
Shot weight (PET)	g	2561.1	3072.2	3344.4	3951.3	2877.7	5037.6
	oz	90.3	108.4	118	139.4	101.5	177.7
Screw diameter	mm	84	92	92	100	92	108
Injection pressure	MPa	115.4	96.2	122.8	103.9	135.5	98.3
Screw L:D ratio		24:1	24:1	24:1	24:1	24:1	24:1
Max. injection speed	mm/s	97		94		93	
Plasticizing Capacity (PET)	g/s	146	210	253	215	260	237
Screw stroke	mm	395		430		370	470
Mlet motor	kW	—		—		—	
Screw speed(stepless)	r/min	0-99	0-93	0-114	0-96	0-120	0-88
CLAMPING UNIT							
Clamping force	kN	3200		4000		4800	
Opening stroke	mm	580		660		760	
Space between tie bars	mmxmm	670x670		710x710		810x810	
Max. Daylight	mm	1240		1390		1570	
Mold thickness(Min.Max)	mm	220-660		240-730		260-810	
Hydraulic ejection stroke	mm	190		210		220	
Ejector number		13		13		13	
Hydraulic ejection force	kN	137		182		182	
POWER UNIT							
Hydraulic system pressure	Mpa	17.5		17.5		17.5	
Pump motor	kW	37		45		55	
Heating capacity	kW	34.8	39	38.9	45.6	43.2	54.7
Number of temp. control zones		6	6	6	7	6	7
GENERAL UNIT							
	S	3.8		4.0		4.2	
Oil tank capacity	L	555		720		865	
Machine dimensions(LxWxH)	mxmxm	7.72x1.73x2.03	7.91x1.73x2.03	8.89x2.12x2.03		9.01x2.2x2.1	9.59x2.12x2.03
Machine weight	kg	11100	11200	15100	15300	19500	19900

Specifications

		UN320SKII-V-PET		UN400SKII-V-PET		UN480SKII-V-PET	
		2526/3200	2626/3200	3510/4000	3509/4000	3330/4800	4232/4800
INJECTION UNIT							
Shot volume	cm ³	2189	2625.8	2858.5	3377.2	2459.6	4305.6
Shot weight (PET)	g	2561.1	3072.2	3344.4	3951.3	2877.7	5037.6
	oz	90.3	108.4	118	139.4	101.5	177.7
Screw diameter	mm	84	92	92	100	92	108
Injection pressure	MPa	115.4	96.2	122.8	103.9	135.5	98.3
Screw L:D ratio		24:1	24:1	24:1	24:1	24:1	24:1
Max. injection speed	mm/s	97		94		93	
Plasticizing Capacity (PET)	g/s	169	240	240	240	240	266
Screw stroke	mm	395		430		370	470
Mlet motor	kW	48.1	59.6	59.6	68.5	59.6	68.5
Screw speed(stepless)	r/min	0-125	0-115	0-115	0-100	0-115	0-100
CLAMPING UNIT							
Clamping force	kN	3200		4000		4800	
Opening stroke	mm	580		660		760	
Space between tie bars	mmxmm	670x670		710x710		810x810	
Max. Daylight	mm	1240		1390		1570	
Mold thickness(Min.Max)	mm	220-660		240-730		260-810	
Hydraulic ejection stroke	mm	190		210		220	
Ejector number		13		13		13	
Hydraulic ejection force	kN	137		182		182	
POWER UNIT							
Hydraulic system pressure	Mpa	17.5		17.5		17.5	
Pump motor	kW	37		45		55	
Heating capacity	kW	34.8	39	38.9	45.6	43.2	54.7
Number of temp. control zones		6	6	6	7	6	7
GENERAL UNIT							
	S	3.8		4.0		4.2	
Oil tank capacity	L	555		720		865	
Machine dimensions(LxWxH)	mxmxm	7.72x1.73x2.03	7.91x1.73x2.03	8.89x2.12x2.03		9.01x2.2x2.1	9.59x2.12x2.03
Machine weight	kg	11100	11200	15100	15300	19500	19900

UN120-480SKII-PET (servo pump)

Features: Excellent performance in energy saving

Specifications

DESCRIPTION	UNIT	UN120SKII-PET	UN160SKII-PET	UN200SKII-PET	UN260SKII-PET	UN320SKII-PET	UN400SKII-PET	UN480SKII-PET							
International specification		391/1200	604/1600	895/2000	1085/2000	1269/2600	1269/2600	1885/3200	2526/3200	2626/3200	2693/4000	3510/4000	3509/4000	3330/4800	4232/4800
INJECTION UNIT															
Shot volume	cm ³	307.6	452.3	664	1035	962.4	1202.2	1338.2	2189	2625.8	1828.8	2858.5	3377.2	2459.6	4305.6
Shot weight (PET)	g	359.8	529.2	776.8	1211	1126	1406.5	1565.6	2561.1	3072.2	2139.7	3344.4	3951.3	2877.7	5037.6
	oz	12.6	18.6	27.4	42.7	39.7	49.6	55.2	90.3	108.4	75.5	118	139.4	101.5	177.7
Screw diameter	mm	48	53	60	68	68	76	76	84	92	84	92	100	92	108
Injection pressure	MPa	136.7	133.6	134.8	104.9	131.8	105.5	141	115.4	96.2	147.3	122.8	103.9	135.5	98.3
Screw L:D ratio		24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1
Max. injection speed	mm/s	94	101	100	97	114	100	117							
Plasticizing Capacity (PET)	g/s	53	59	94	94	116	110	168	172	240	178	272	233	310	290
Screw stroke	mm	170	205	235	285	265	295	395	330	430	370	470			
Screw speed(stepless)	r/min	0-177	0-145	0-163	0-130	0-160	0-100	0-156	0-117	0-110	0-131	0-123	0-104	0-151	0-108
CLAMPING UNIT															
Clamping force	kN	1200	1600	2000	2600	3200	4000	4800							
Opening stroke	mm	360	410	460	530	580	660	760							
Space between tie bars	mmxmm	410x370	455x435	510x510	570x570	670x670	710x710	810x810							
Max. Daylight	mm	760	870	980	1140	1240	1390	1570							
Mold thickness(Min.Max)	mm	145-400	160-460	180-520	195-610	220-660	240-730	260-810							
Hydraulic ejection stroke	mm	120	140	150	180	190	210	220							
Ejector number		5	5	5	13	13	13	13							
Hydraulic ejection force	kN	42	42	77	124	137	182	182							
POWER UNIT															
Hydraulic system pressure	Mpa	17.5	17.5	17.5	17.5	17.5	17.5	17.5							
Pump motor	kW	16	19.6	24	34.7	59.6	60.5	48.1+34.7							
Heating capacity	kW	11.2	13.7	18.5	23.2	21.7	31.2	30.4	34.8	39	35.9	38.9	45.6	43.2	54.7
Number of temp. control zones		5	5	6	6	6	6	6	6	6	6	7	6	6	7
GENERAL UNIT															
	s	2.1	2.4	3.1	3.1	3.8	4.0	4.2							
Oil tank capacity	L	195	245	305	360	555	720	865							
Machine dimensions(LxWxH)	mxmxm	4.95x1.23x1.62	5.48x1.25x1.73	6.29x1.32x1.82	6.66x1.59x1.96	7.14x1.73x2.03	7.72x1.73x2.03	7.91x1.73x2.03	8.1x2.12x2.03	8.89x2.12x2.03	9.01x2.2x2.1	9.59x2.12x2.03			
Machine weight	kg	3600	5000	6000	6100	8100	8400	10700	11100	11200	14900	15100	15300	19500	19900

Note:1. Theoretical shot volume= barrel sectional area * injection stroke . 2. Shot weight=shot volume * 1.17 (for PET). 3. Specifications are subject to change without prior notice.

UN320-480SKII-PET (electrical plasticizing / servo pump)

Electrical plasticizing

Synchronous plasticizing is available for customers who have the need. Compared to the standard PET injection molding machines, it improves the production efficiency by more than 10%.



Specifications

DESCRIPTION	UNIT	UN320SKII-PET			UN400SKII-PET			UN480SKII-PET	
International specification		1885/3200	2526/3200	2626/3200	2693/4000	3510/4000	3509/4000	3330/4800	4232/4800
INJECTION UNIT									
Shot volume	cm ³	1338.2	2189	2625.8	1828.8	2858.5	3377.2	2459.6	4305.6
Shot weight (PET)	g	1565.6	2561.1	3072.2	2139.7	3344.4	3951.3	2877.7	5037.6
	oz	55.2	90.3	108.4	75.5	118	139.4	101.5	177.7
Screw diameter	mm	76	84	92	84	92	100	92	108
Injection pressure	MPa	141	115.4	96.2	147.3	122.8	103.9	135.5	98.3
Screw L:D ratio		24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1
Max. injection speed	mm/s	114			100			117	
Plasticizing Capacity (PET)	g/s	143	169	240	169	240	240	240	266
Screw stroke	mm	295	395		330	430		370	470
Mlet motor	kW	39.4	48.1	59.6	48.1	59.6	68.5	59.6	68.5
Screw speed(stepless)	r/min	0-133	0-125	0-115	0-125	0-115	0-100	0-115	0-100
CLAMPING UNIT									
Clamping force	kN	3200			4000			4800	
Opening stroke	mm	580			660			760	
Space between tie bars	mmxmm	670x670			710x710			810x810	
Max. Daylight	mm	1240			1390			1570	
Mold thickness(Min.Max)	mm	220-660			240-730			260-810	
Hydraulic ejection stroke	mm	190			210			220	
Ejector number		13			13			13	
Hydraulic ejection force	kN	137			182			182	
POWER UNIT									
Hydraulic system pressure	Mpa	17.5			17.5			17.5	
Pump motor	kW	59.6			60.5			48.1+34.7	
Heating capacity	kW	30.4	34.8	39	35.9	38.9	45.6	43.2	54.7
Number of temp. control zones		6	6	6	6	6	7	6	7
GENERAL UNIT									
	S	3.8			4.0			4.2	
Oil tank capacity	L	555			720			865	
Machine dimensions(LxWxH)	mxmxm	7.14x1.73x2.03	7.72x1.73x2.03	7.91x1.73x2.03	8.1x2.12x2.03	8.89x2.12x2.03		9.01x2.2x2.1	9.59x2.12x2.03
Machine weight	kg	10700	11100	11200	14900	15100	15300	19500	19900

UN120-650A5-PET (servo pump)

Specifications

DESCRIPTION	UNIT	UN120A5-PET	UN160A5-PET	UN200A5-PET	UN260A5-PET	UN320A5-PET	UN400A5-PET	UN480A5-PET	UN560A5-PET	UN650A5-PET								
International specification		391/1200	604/1600	895/2000	1085/2000	1269/2600	1269/2600	1885/3200	2526/3200	2626/3200	2693/4000	3510/4000	3509/4000	3330/4800	4232/4800	5170/5600	6888/6500	8094/6500
INJECTION UNIT																		
Shot volume	cm ³	307.6	452.3	664	1035	962.4	1202.2	1338.2	2189	2625.8	1828.8	2858.5	3377.2	2459.6	4305.6	5704.0	6020.9	8218.0
Shot weight (PET)	g	359.8	529.2	776.8	1211	1126	1406.5	1565.6	2561.1	3072.2	2139.7	3344.4	3951.3	2877.7	5037.6	6673.7	7044.4	9615.0
	oz	12.6	18.6	27.4	42.7	39.7	49.6	55.2	90.3	108.4	75.5	118	139.4	101.5	177.7	235.8	248.9	339.8
Screw diameter	mm	48	53	60	68	68	76	76	84	92	84	92	100	92	108	116	116	125
Injection pressure	MPa	136.7	133.6	134.8	104.9	131.8	105.5	141	115.4	96.2	147.3	122.8	103.9	135.5	98.3	90.7	114.4	98.5
Screw L:D ratio		24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	24: 1	25: 1	25: 1
Max. injection speed	mm/s	117.5	129	126.9	121	114	100	117	109.8	108.8								
Plasticizing Capacity (PET)	g/s	62	70	113	113	141	134	168	172	240	178	272	233	310	290	285	300	310
Screw stroke	mm	170	205	235	285	265	295	395	330	430	370	470	540	570	670			
Screw speed(stepless)	r/min	0-220	0-186	0-206	0-165	0-200	0-125	0-156	0-117	0-110	0-131	0-123	0-104	0-151	0-108	0-90	0-104	0-83
CLAMPING UNIT																		
Clamping force	kN	1200	1600	2000	2600	3200	4000	4800	5600	6500								
Opening stroke	mm	360	420	490	530	640	700	780	850	900								
Space between tie bars	mmxmm	410*410	460*460	530*530	610*570	710*670	760*710	830*810	850x810	930x930								
Max. Daylight	mm	810	940	1040	1140	1300	1430	1590	1700	1800								
Mold thickness(Min.Max)	mm	145-450	160-520	180-550	195-610	220-660	240-730	260-810	330-850	350-900								
Hydraulic ejection stroke	mm	120	140	150	160	170	210	220	220	280/250								
Ejector number		5	5	5	13	13	13	17	17	21								
Hydraulic ejection force	kN	42	42	77	124	137	182	182	182	182/232								
POWER UNIT																		
Hydraulic system pressure	Mpa	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5								
Pump motor	kW	25	30	34	51	60	70	34+51	34+51	51+60								
Heating capacity	kW	11.2	13.7	18.5	23.2	21.7	31.2	30.4	34.8	39	35.9	38.9	45.6	43.2	54.7	68	68	75
Number of temp. control zones		5	5	6	6	6	6	6	6	6	6	7	6	7	8	8	8	8
GENERAL UNIT																		
	s	2.1	2.4	3.1	3.1	3.8	4.0	4.2	5.5	6.5								
Oil tank capacity	L	195	245	305	360	555	720	865	865	1000								
Machine dimensions(LxWxH)	mxmxxm	4.95x1.23x1.62	5.48x1.25x1.73	6.29x1.32x1.82	6.66x1.59x1.96	7.14x1.73x2.03	7.72x1.73x2.03	7.91x1.73x2.03	8.1x2.12x2.03	8.89x2.12x2.03	9.01x2.2x2.1	9.59x2.12x2.03	10x2.12x2.37	10.2x2.24x2.57				
Machine weight	kg	3600	5000	6000	6100	8100	8400	10700	11100	11200	14900	15100	15300	19500	19900	22000	/	/

Note:1. Theoretical shot volume= barrel sectional area * injection stroke . 2. Shot weight=shot volume * 1.17 (for PET). 3. Specifications are subject to change without prior notice.

UN320-650A5-PET (electrical plasticizing / servo pump)

Electrical plasticizing

Synchronous plasticizing is available for customers who have the need. Compared to the standard PET injection molding machines, it improves the production efficiency by more than 10%.



Specifications

DESCRIPTION	UNIT	UN320A5-PET			UN400A5-PET			UN480A5-PET		UN560A5-PET	UN650A5-PET	
International specification		1885/3200	2526/3200	2626/3200	2693/4000	3510/4000	3509/4000	3330/4800	4232/4800	5170/5600	6888/6500	8094/6500
INJECTION UNIT												
Shot volume	cm ³	1338.2	2189	2625.8	1828.8	2858.5	3377.2	2459.6	4305.6	5704.0	6020.9	8218.0
Shot weight (PET)	g	1565.6	2561.1	3072.2	2139.7	3344.4	3951.3	2877.7	5037.6	6673.7	7044.4	9615.0
	oz	55.2	90.3	108.4	75.5	118	139.4	101.5	177.7	235.8	248.9	339.8
Screw diameter	mm	76	84	92	84	92	100	92	108	116	116	125
Injection pressure	MPa	141	115.4	96.2	147.3	122.8	103.9	135.5	98.3	90.7	114.4	98.5
Screw L:D ratio		24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24 : 1	24:1	25:1	25:1
Max. injection speed	mm/s	114			100			117		109.8	108.8	
Plasticizing Capacity (PET)	g/s	143	169	240	169	240	240	240	266	285	300	310
Screw stroke	mm	295	395		330	430		370	470	540	570	670
Mlet motor	kW	39.4	48.1	59.6	48.1	59.6	68.5	59.6	68.5	90.8	90.8	106.8
Screw speed(stepless)	r/min	0-133	0-125	0-115	0-125	0-115	0-100	0-115	0-100	0-100	0-100	0-100
CLAMPING UNIT												
Clamping force	kN	3200			4000			4800		5600	6500	
Opening stroke	mm	640			700			780		850	900	
Space between tie bars	mmxmm	710*670			760*710			830*810		850x810	930x930	
Max. Daylight	mm	1300			1430			1590		1700	1800	
Mold thickness(Min.Max)	mm	220-660			240-730			260-810		330-850	350-900	
Hydraulic ejection stroke	mm	170			210			220		220	280/250	
Ejector number		13			13			17		17	21	
Hydraulic ejection force	kN	137			182			182		182	182/232	
POWER UNIT												
Hydraulic system pressure	Mpa	17.5			17.5			17.5		17.5	17.5	
Pump motor	kW	60			70			34+51		34+51	51+60	
Heating capacity	kW	30.4	34.8	39	35.9	38.9	45.6	43.2	54.7	68	68	75
Number of temp. control zones		6	6	6	6	6	7	6	7	8	8	8
GENERAL UNIT												
	S	3.8			4.0			4.2		5.5	6.5	
Oil tank capacity	L	555			720			865		865	1000	
Machine dimensions(LxWxH)	mxmxm	7.14x1.73x2.03	7.72x1.73x2.03	7.91x1.73x2.03	8.1x2.12x2.03	8.89x2.12x2.03	9.01x2.2x2.1	9.59x2.12x2.03	10x2.12x2.37	10.2x2.24x2.57		
Machine weight	kg	10700	11100	11200	14900	15100	15300	19500	19900	22000	/	

Application

Cosmetics Packaging (Iridescent or Opalescent Materials)

Model: UN200SKII-V-PET
 Hot runner mold: 8-cavity
 Material: PET
 Product weight (single unit): 28g
 Molding temperature: 285-290°C
 Cycle time: 30s
 Power consumption IMM only: 25 kwh/Hour
 Note: Use of special high-performance PET mixing screw and barrel assembly



Water Preforms

Model: UN320SKII-V-PET
 Hot runner mold: 48-cavity
 Material: SINOPEC SBG80
 Product weight (single unit): 15.5g
 Molding temperature: 285-290°C
 Cycle time: 15s
 Power consumption IMM only: 20 kwh/Hour
 Cooler: 40 horsepower
 Cooling water temperature: 15°C



Oil Preforms

Model: UN400SKII-V-PET (Synchronous plasticizing)
 Hot runner mold: 32-cavity
 Raw material: PET
 Product weight (single unit): 107g
 Molding temperature: 295°C
 Cycle time: 45s
 Power consumption IMM only: 20 kwh/Hour
 Cooler: 40 horsepower
 Cooling water temperature: 15°C



Features (120-480SKII-V-PET)

	Standard	Optional
Injection/Plasticizing unit		
Nitrided alloy steel screw and barrel	●	
Parallel double cylinder injection system	●	
Low-speed high-torque enhanced hydraulic motor	●	
Double carriage cylinder	●	
Energy-saving groove design of barrel (patented design)	●	
Nozzle and multi-stage PID barrel temperature control (4-8 zones)	●	
Double carriage cylinder	●	
Fully-closed heat retaining cover/purge guard (without electrical protection)	●	
Cold start protection	●	
Automatic purging	●	
Selectable suck-back before or after plasticizing	●	
Screw speed detection	●	
6-Stage injection speed/pressure/position control	●	
5-Stage holding pressure speed/pressure/time control	●	
Multi-Stage plasticizing speed/pressure/time control	●	
Special barrel assembly (electroplating) for colour PET preform		○
Purge guard (with electrical protection)		○
Spring shut-off nozzle		○
Ceramic heater band		○
Barrel heat-retaining energy-saving device (Silicone heat preservation, IR heating)		○
Electric motor driven plasticizing		○
Numerically controlled proportional back pressure		○
Extended nozzle		○
Hopper dryer		○
Clamping unit		
Precision transducer for clamping/ejector stroke control	●	
Clamping platens/toggles made of high-rigid ductile iron QT500-7A	●	
EUROMAP-based robot positioning holes	●	
Hydraulic mold height adjustment device	●	
Multiple ejector function settings	●	
Mechanical/Electrical dual-protection safety devices	●	
Increased ejector force and ejector stroke (200T-480T)	●	
Automatic centralized lubrication system	●	
Computer controlled two-stage ejection forward/backward	●	
Low-pressure mold protection	●	
Platen with T-slot and screw holes	●	
Special mold mounting holes		○
Mold thermal insulation plate		○
Increased mold thickness		○
Mold lifting device		○
Automatic safety door		○
Hydraulic unit		
Variable displacement pump system	●	
Plasticizing back pressure adjustment device	●	
Precision by-pass oil filter	●	
Automatic correction of system pressure and flow	●	
High performance hydraulic control valve	●	
Imported branded hydraulic seal	●	

	Standard	Optional
Hydraulic oil cooling device	●	
High-pressure oil cooling device	●	
Low-noise hydraulic system	●	
Enlarged oil cooler	●	
Enlarged motor and pump	●	
Hydraulic oil temperature detection and alarm		○
Hydraulic core pulling/unscrewing device		○
Hydraulic safety protection		○
Independent oil temperature control		○
High-response servo injection system with accumulator		○
High-response servo mold opening and closing system		○
Synchronized ejection device		○
Nitrogen injection device		○
Third generation servo system		○
Control unit		
Input/output inspection	●	
Automatic heat retaining and automatic heating setting	●	
Time/position/time + position controlled switchover from injection to holding	●	
Independent motion slope adjustment	●	
One set of core-pulling/unscrewing electrical interface (260T-480T)	●	
Automatic clamping force adjustment	●	
8" color LCD display	●	
Memory for 120-set process parameters storage	●	
Multiple operating languages	●	
Single/3-phase power socket	●	
Infrared heating ring		○
Hot runner interface		○
Air-assisted injection device		○
Working light/one or three-color alarm light		○
Air blow device		○
Electric rotary mold release interface		○
Changing power supply voltage		○
Mold needle valve control		○
Other configurations		
Instructions	●	
Adjustable leveling pad	●	
Tool kit and one tool set	●	
Filter cartridge	●	
Mold retaining plate	●	
Stainless steel hopper		○
Moving or rolling hopper		○
Mold temperature controller		○
Auto loader		○
Glass tube water flow meter		○
Dryer		○
Dehumidifier		○

● Standard ○ Optional

Features (120-480SKII-PET)

	Standard	Optional
Injection/Plasticizing unit		
Alloy steel screw and barrel (electroplated)	●	
Parallel double cylinder injection system	●	
Low-speed high-torque enhanced hydraulic motor	●	
Double carriage cylinder	●	
Energy-saving groove design of barrel (patented design)	●	
Nozzle and multi-stage PID barrel temperature control (4-8 zones)	●	
Double carriage cylinder	●	
Fully-closed heat retaining cover/purge guard (without electrical protection)	●	
Cold start protection	●	
Automatic purging	●	
Selectable suck-back before or after plasticizing	●	
Screw speed detection	●	
6-Stage injection speed/pressure/position control	●	
5-Stage holding pressure speed/pressure/time control	●	
Multi-Stage plasticizing speed/pressure/time control	●	
Special barrel assembly (electroplating) for PET preform with dyes		○
Purge guard (with electrical protection)		○
Spring shut-off nozzle		○
Ceramic heater band		○
Barrel heat-retaining energy-saving device (Silicone heat preservation, IR heating)		○
Electric motor driven plasticizing		○
Numerically controlled proportional back pressure		○
Extended nozzle		○
Hopper dryer		○
Clamping unit		
Precision transducer for clamping/ejector stroke control	●	
Clamping platens/toggles made of high-rigid ductile iron QT500-7A	●	
EUROMAP-based robot positioning holes	●	
Hydraulic mold height adjustment device	●	
Multiple ejector function settings	●	
Mechanical/Electrical dual-protection safety devices	●	
Increased ejector force and ejector stroke (200T-480T)	●	
Automatic centralized lubrication system	●	
Computer controlled two-stage ejection forward/backward	●	
Low-pressure mold protection	●	
Platen with T-slot and screw holes	●	
Special mold mounting holes		○
Mold thermal insulation plate		○
Increased mold thickness		○
Mold lifting device		○
Automatic safety door		○
Hydraulic unit		
Third generation servo system	●	
Plasticizing back pressure adjustment device	●	
Precision by-pass oil filter	●	
Automatic correction of system pressure and flow	●	
High performance hydraulic control valve	●	
Imported branded hydraulic seal	●	

	Standard	Optional
Hydraulic oil cooling device	●	
Low-noise hydraulic system	●	
Enlarged oil cooler	●	
Enlarged motor and pump	●	
Hydraulic oil temperature detection and alarm		○
Hydraulic core pulling/unscrewing device		○
Hydraulic safety protection		○
Independent oil temperature control		○
High-response servo injection system with accumulator		○
High-response servo mold opening and closing system		○
Synchronized ejection device		○
Nitrogen injection device		○
Variable displacement pump system		○
Control unit		
Input/output inspection	●	
Automatic heat retaining and automatic heating setting	●	
Time/position/time + position controlled switchover from injection to holding	●	
Independent motion slope adjustment	●	
One set of core-pulling/unscrewing electrical interface (260T-480T)	●	
Automatic clamping force adjustment	●	
8" color LCD display	●	
Memory for 120-set process parameters storage	●	
Multiple operating languages	●	
Single/3-phase power socket	●	
Hot runner interface		○
Air-assisted injection device		○
Working light/one or three-color alarm light		○
Air blow device		○
Electric rotary mold release interface		○
Changing power supply voltage		○
Mold needle valve control		○
Other configurations		
Instructions	●	
Adjustable leveling pad	●	
Tool kit and one tool set	●	
Filter cartridge	●	
Mold retaining plate	●	
Stainless steel hopper		○
Moving or rolling hopper		○
Mold temperature controller		○
Auto loader		○
Glass tube water flow meter		○
Dryer		○
Dehumidifier		○

● Standard ○ Optional

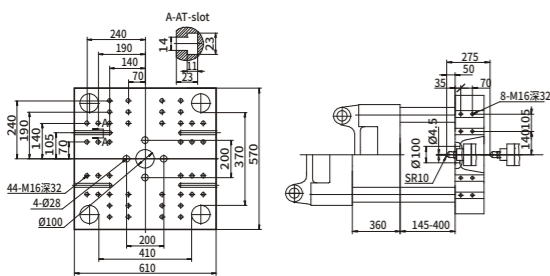
Features (120-480A5-PET)

	Standard	Optional
Features (120-480A5-PET)		
One-piece injection unit support with linear guide rail	●	
Nitrided alloy steel screw and barrel	●	
Parallel double cylinder injection system	●	
Low-speed high-torque enhanced hydraulic motor	●	
Double carriage cylinder	●	
Energy-saving groove design of barrel (patented design)	●	
Nozzle and multi-stage PID barrel temperature control (4-8 zones)	●	
Double carriage cylinder	●	
Fully-closed heat retaining cover/purge guard (without electrical protection)	●	
Cold start protection	●	
Automatic purging	●	
Selectable suck-back before or after plasticizing	●	
Screw speed detection	●	
6-Stage injection speed/pressure/position control	●	
5-Stage holding pressure speed/pressure/time control	●	
4-Stage plasticizing speed/pressure/time control	●	
Numerically controlled proportional back pressure	●	
Special barrel assembly (electroplating) for colour PET preform		○
Purge guard (with electrical protection)		○
Spring shut-off nozzle		○
Ceramic heater band		○
Barrel heat-retaining energy-saving device (Silicone heat preservation, IR heating)		○
Electric motor driven plasticizing		○
Extended nozzle		○
Hopper dryer		○
Clamping unit		
Precision transducer for clamping/ejector stroke control	●	
Clamping platens/toggles made of high-rigid ductile iron QT500-7A	●	
EUROMAP-based robot positioning holes	●	
Hydraulic mold height adjustment device	●	
Mechanical/Electrical dual-protection safety devices	●	
Adjustment free mechanical safety lock rod	●	
Wear-resistant manganese steel guide rail for movable platen	●	
Automatic centralized lubrication system	●	
Multiple ejector function settings	●	
Low-pressure mold protection	●	
Platen with T-slot and screw holes	●	
One-button automatic mold height adjustment	●	
Compulsory ejector-back function	●	
Safety edges for machine gates	●	
Increased ejector force and ejector stroke (200T-480T)	●	
Special mold mounting holes		○
Mold thermal insulation plate		○
Increased mold thickness		○
Mold lifting device		○
Automatic safety door		○
Hydraulic unit		
Third generation servo system	●	
High-precision real-time bypass oil filter	●	
Low noise energy-saving hydraulic circuit	●	
Imported branded hydraulic control valve	●	
Imported branded hydraulic seal	●	
Differential fast mold closing device	●	
Enlarged oil cooler	●	

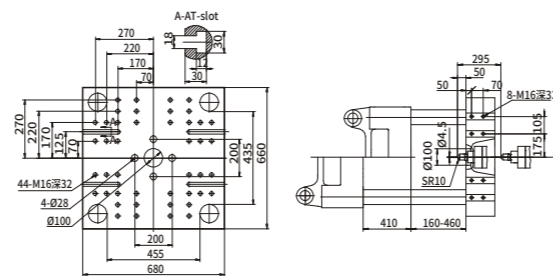
	Standard	Optional
Hydraulic circuit design of mold-opening deceleration	●	
Oil temperature detection and alarm	●	
Safety retention device for exposed high-pressure hydraulic hose	●	
Multi-channel cooling water devices with fast connectors	●	
Enlarged motor and pump	●	
Variable pump system		○
Larger multi-stage oil pump and motor		○
Larger multi-stage plasticizing motor		○
Synchronized ejection, core-pulling and plasticizing system		○
High-response servo injection system with accumulator		○
Multiple sets of core puller		○
Hydraulic unscrewing device		○
Other configurations		
Compulsory barrel heating protection	●	
Input/output inspection	●	
Automatic heat retaining and automatic heating setting	●	
Time/position/time + position controlled switchover from injection to holding	●	
10.4" TFT true color LCD display	●	
240 groups of large capacity memory for process parameter storage with USB port	●	
Multiple operating languages	●	
Two-color alarm light	●	
All transducers, weak-current switches, and reversing solenoid valves enclosed by water-proof and rat-proof corrugated pipes	●	
Multi-level password security and key-locked operation panel	●	
Emergency stop buttons for front and rear safety doors	●	
PDP interface	●	
Statistical process control (SPC) interface	●	
Reserved interfaces for air blowing, core pulling, ejector back protection devices, etc.	●	
Three sets of 3-phase power socket (32A+2x16A)	●	
Synchronous injection valve open signal	●	
Automatic clamping force adjustment	●	
Infrared heating ring		○
Hot runner interface		○
Pneumatic sequential valve		○
Interface for electric unscrewing device		○
Blowing device with valve		○
Air-assisted injection device		○
Central (networked) monitoring system		○
Protective light grid of safety gates		○
Display of overall energy consumption		○
Changing power supply voltage		○
Mold needle valve control		○
Other configurations		
Instructions	●	
Adjustable leveling pad	●	
Tool kit and one tool set	●	
Filter cartridge	●	
Mold retaining plate	●	
Stainless steel hopper		○
Moving or rolling hopper		○
Mold temperature controller		○
Auto loader		○
Glass tube water flow meter		○
Dryer		○
Dehumidifier		○

● Standard ○ Optional 26

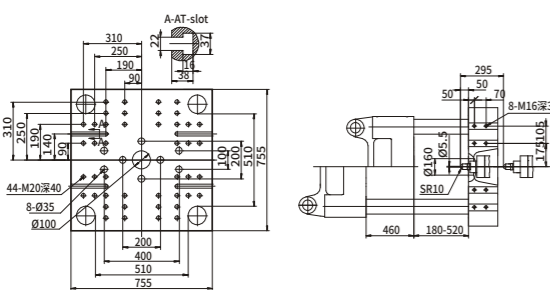
Platen sizes



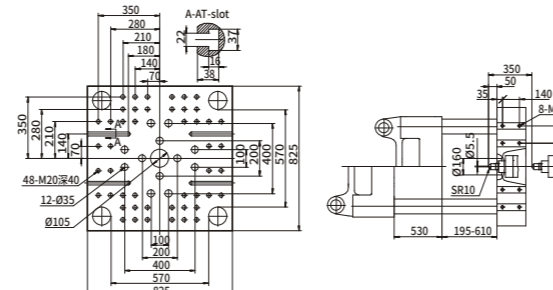
UN120SKII-V-PET / UN120SKII-PET



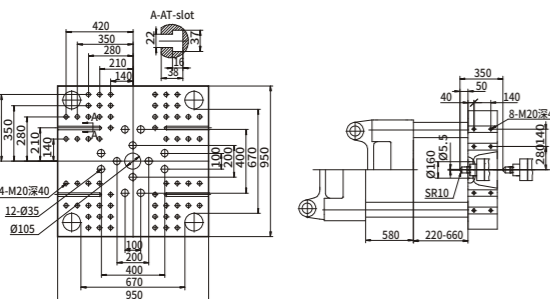
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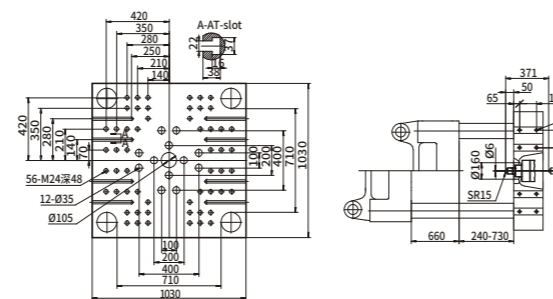
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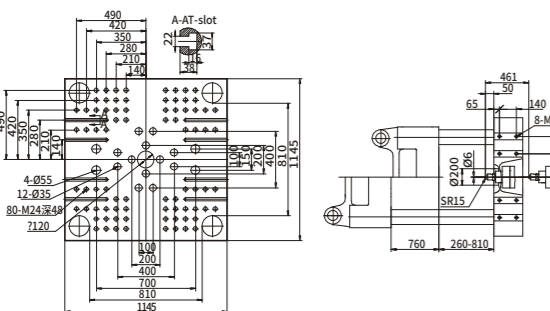
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UN320SKII-V-PET / UN320SKII-PET

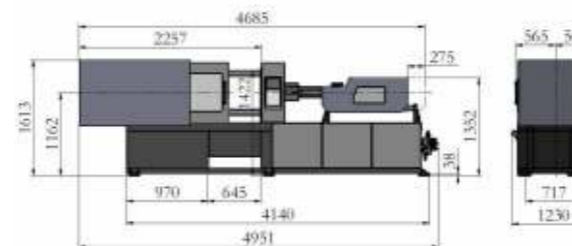


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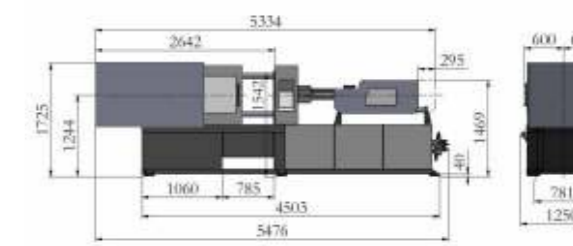


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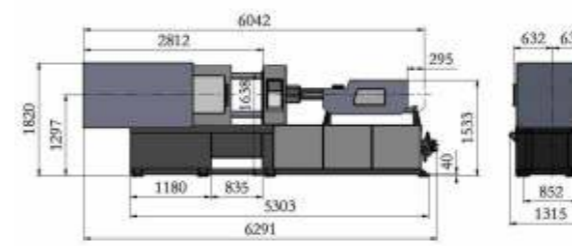
Machine dimensions



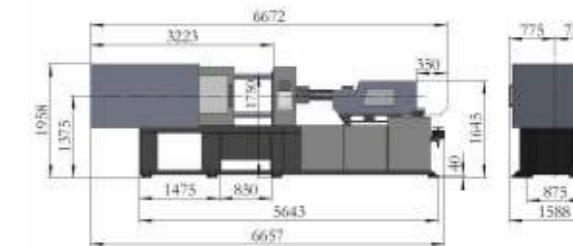
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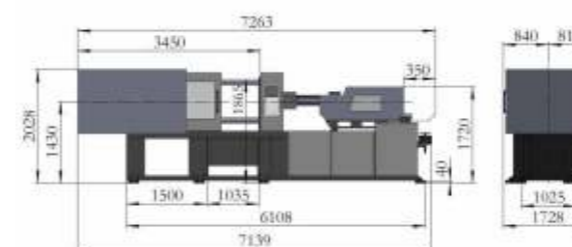
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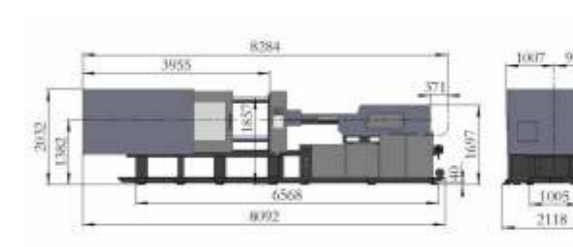
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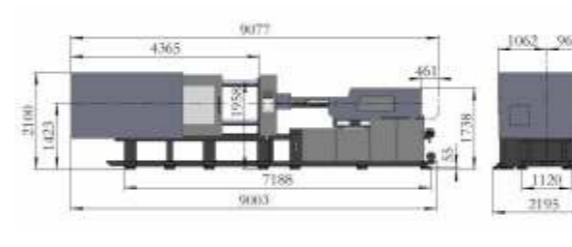
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UN320SKII-V-PET / UN320SKII-PET



UN400SKII-V-PET / UN400SKII-PET



UN480SKII-V-PET / UN480SKII-PET

YFO: 6 Premium Services



YIZUMI e-service



Global Operation



China Gaoli Headquarter and Factory



China Wusha Factory 1



China Wusha Factory 2



China Wusha Factory 2



China Wujiang Factory



U.S. Ohio Factory & Technical Center



Brazil Joinville Technical Center



Germany Aachen R&D Center and Technical Center



Germany Nuremberg Technical Center



India Gujarat Factory



New India Gujarat Factory



Vietnam Hanoi Technical Center



Thailand Technical Center



Innovation center