THINK TECH FORWARD

Designed by YIZUMI, October 2023

YIZUMI

CG-P

160T-800T

HIGH-END MULTI-COMPONENT
INJECTION MOLDING MACHINE

Stability and Customization

Yizumi Precision Molding Technology Co., Ltd.

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THINK TECH FORWARD

PRODUCT DETAILS

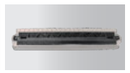
YIZUMI CG-P series multi-component injection molding machine is created to meet the increasing demand for higher quality of life and customization. Based on advanced technology introduced from European R&D center and expected to provide the core value-stability and customization-to customers, the C series is committed to making our life more colorful.

Widely used in different industries:

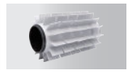

3C products


Auto parts


Auto parts


Auto parts


Daily necessities


Household appliance accessories


Protective layers of tools


Packaging


Medical products


Laptop accessories


Application of Special Process

Value Propositions

Stability

With the use of balanced force clamping (BFC) technology, magnetically levitated turntable (MLT) technology, digital closed-loop positioning control (DCPC) technology, super long sliding shoes and smart mold-open deceleration technology, movements of the clamping unit and rotary unit are stable and reliable. The mold-open position repeatability is up to ±0.3mm.

Customization

Standardized and modular design is applied to the whole machine, including the injection unit, power unit and plasticizing unit. The integration with the free programming function in software makes customization more mature.

More user-friendly interface

The foolproof and Simple Style (SS) design with the user habits fully considered makes the control system more easy to use.

More advanced turntable control technology

With the digital closed-loop positioning technology, turntable positioning is more accurate.

More durable anti-wear turntable design

The combination of double-row needle bearings that have high load capacity and magnetically levitated turntable technology makes the turntable more durable and reliable.

±0.3

Higher mold-open stability

Optimal hydraulic circuit design and smart deceleration technology enable the mold-open position repeatability to reach ±0.3mm.

More scientific custom design

Modular combinations of different injection units and power units according to different processes requirements and the free programming function enable customization to become increasingly mature.

More excellent injection stability

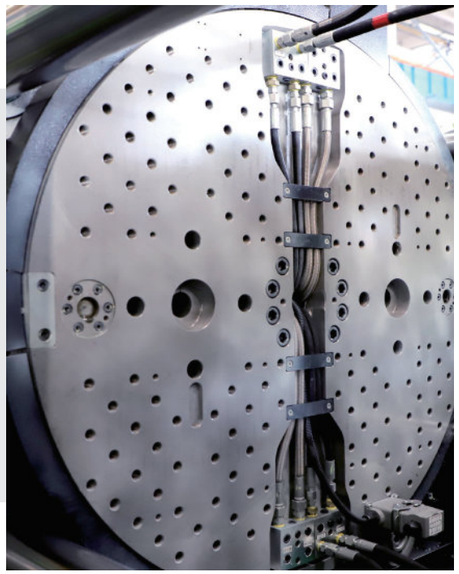
The injection accuracy is further enhanced thanks to the low-inertia moving part design, accurate temperature control and non-stick plasticiz-

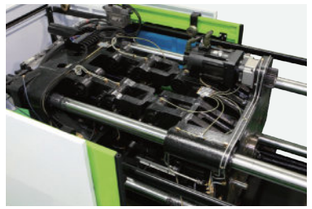
※Data above come from YIZUMI lab, available for reference.
Pictures and descriptions of this catalogue takes UN260C-BTP as an example, technology specification is applicable for C-P series machines of all tonnage.

CLAMPING UNIT

Reliable and stable, accurate turntable positioning

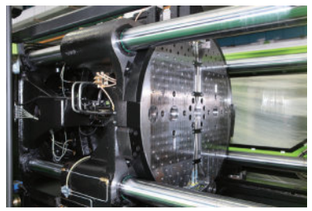
Based on European platen design concept, platens are designed with higher rigidity and more accurate force analysis. The BFC (balanced force clamping) technology can adjust the clamping force transmission direction so that the force is applied to the mold more evenly and injection molding is more stable. The MLT (magnetically levitated turntable) technology enhances the durability of turntable. The DCPC (digital closed-loop positioning control) technology ensures the accuracy and high repeatability of turntable positioning.





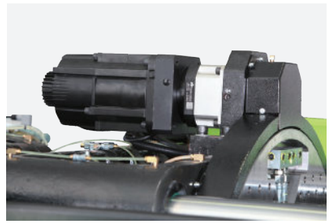
Balanced force clamping technology

The BFC technology delivers high platen rigidity, long mold life. Easily-adjustable processes and minimized possible flashes and better ensures molding accuracy and stability.



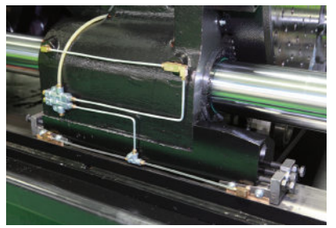
Magnetically levitated turntable technology

The turntable is designed with magnetic levitation (for 160T/260T) to reduce frictional loss, increase the movement reliability and prolong the life of turntable.



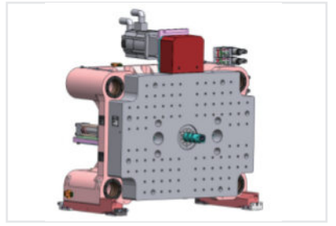
Digital closed-loop positioning control technology

The DCPC technology enables the turntable to rotate smoothly without impact and position accurately.



Tilt proof sliding feet design

The sliding feet of movable platen, which are designed based on the needs of guiding and supporting the centre of gravity, can effectively increase the movement steadiness and prolong the mold life.

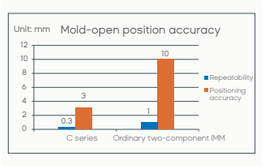


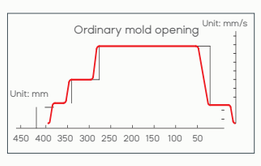
Optional rotary shaft module or integrated turntable rotary shaft module

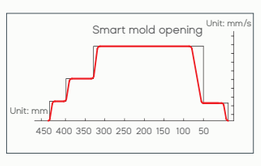
Based on BTP series, movable platen can be equipped with optional rotary shaft to meet the process requirement for mold core rotation of dual-color products.

Smart mold-open deceleration technology

The mold-open end position repeatability is ±0.3mm and the positioning accuracy is further enhanced, which meet the needs of accurate part removal and inserting by robot.







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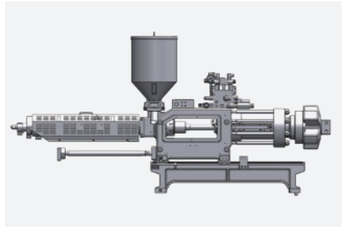
INJECTION UNIT

High injection repeatability

Based on European single-cylinder injection technology, the injection unit has low inertia and the injection cylinder is highly leak-proof. The anti-sticking mixing screw and accurate temperature control also add to the injection stability. The part weight repeatability is up to 3‰.

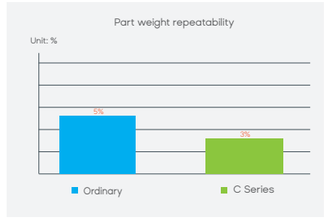


High-rigidity low-inertia injection unit

With the adoption of low-inertia moving parts, the injection movement response is quick and the injection accuracy is further improved.

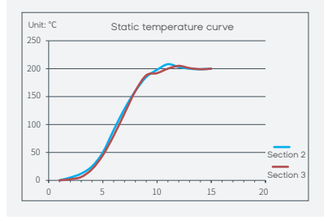
High-mixing non-stick plasticizing screw design

By adopting optimized mixing parameters design, high efficiency of plasticizing and better mixing effect can be ensured. Also, problems of sticking, yellowing and blackening can be solved.



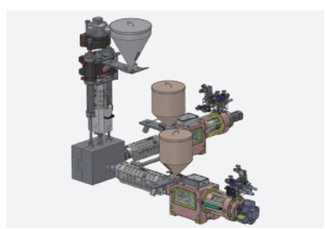
Excellent injection accuracy

Part weight repeatability is up to 3‰.



New-generation PID temperature control

With the self-adaptive PID temperature control, the static temperature control accuracy is up to ±0.4 degrees centigrade.



Modular injection unit combination

Customization is available through the flexible combination of injection units according to different processes requirements and flexible software functions.

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Control system

Powerful, responsive, user-friendly HMI

The powerful and responsive industrial controller for multi-component injection molding machine can accurately and synchronously control several injection units, and exchange data with turntable by synchronous communication in real time to achieve turntable accurate positioning. Humanization design of user interface and button upgrades the comfort and convenience of operation.

◀ Standard MIRLE industrial controller, optional KEBA. (for 160T-550T IMM)
Standard KEBA industrial controller. (for 750T-1900T IMM; except for 800T IMM)
Standard MIRLE industrial controller, optional KEBA. (for 800T)

Responsive

- Synchronous control by double CPUs and separate subroutines make program execution more efficient and ensure the computing time of every movement of the injection unit is limited to 1ms.

Accurate

- The turntable positioning is more accurate with the use of synchronous communication technology and servo closed-loop positioning technology.
- Static temperature control accuracy is up to ±0.4 degrees centigrade with the adoption of new PID control technology.

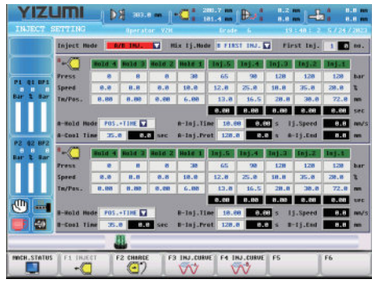
Power functions

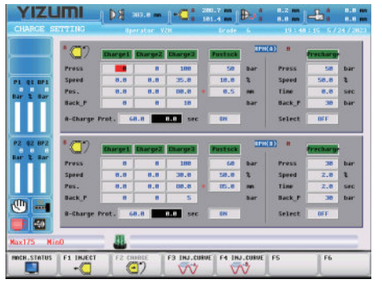
- Remote on-line monitoring of production
- Unlimited parameter storage through USB
- Statistical process control (SPC) for multiple injection units
- Multi-level user access and data protection
- Setup and tracking of key movement curves
- Early deceleration and positioning control of movements
- Up to 128-zone built-in hot runner control extension
- Integrated control of auxiliary equipment

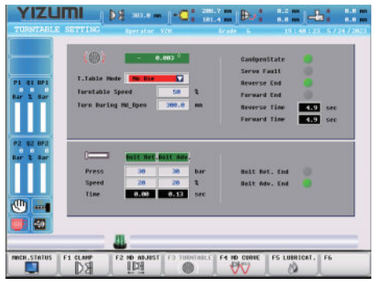
User-friendly design

The ergonomic rotary controller cabinet, fool proof design and clear, simple operating inter face make the operation of system more com fortable and convenient.

① Ergonomic rotary controller cabinet ▶
② Convenient power socket for auxiliary equipment ▶





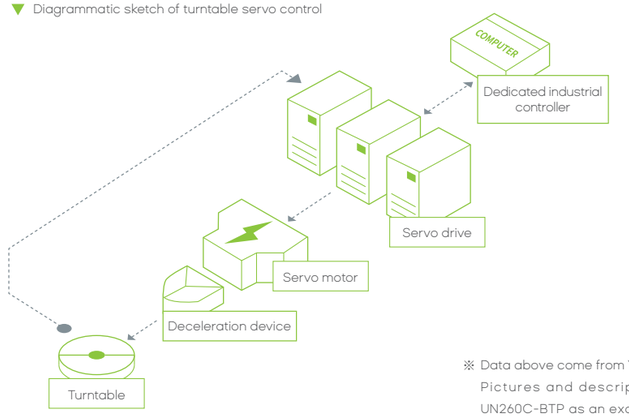


Interface of dedicated industrial controller ▲

Turntable servo control principle

The electric turntable servo control system consists of the industrial controller for multi-component injection molding machine, servo drive, servo motor, deceleration device, high-resolution accuracy inspection device and turntable. The controller offers the control plan to the servo drive which then performs closed-loop positioning control. The turntable has smooth movements and accurate positioning.

▼ Diagrammatic sketch of turntable servo control



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L/V Independent Injection Unit

Flexible combination for wider range of applications

Meet the combination needs of injection molding machines of different tonnages and different brands through modular design. Quickly build a dual-component injection molding machine.

Independent V injection unit

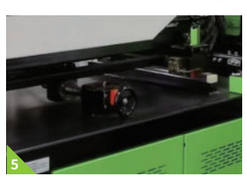
Independent V-type injection unit adopts independent modular design to meet the combination needs of injection molding machines of different tonnages. With YIZUMI's optimization design, the removal of the injection unit provides more mold height for convenient installation and disassembly of molds

Independent L injection unit

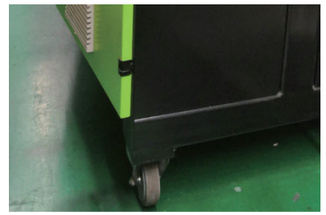
Independent L-type injection unit adopts independent modular design to meet the combination needs of injection molding machines of different tonnages and different brands. Flexible injection unit is convenient for using, providing series functions including core pulling, sequential valve, hot runner and synchronous action.

User-friendly design for ease of use

The controller operating platform uses a detachable design that allow customer to determine the operating position flexibly according to user habits. Adjust the application range of the independent injection unit using the hand wheel to accommodate molds of different sizes.

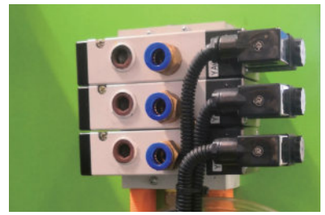


① Hydraulic V injection unit
② Electric V injection unit
③ Hydraulic L injection unit
④ Independent controller
⑤ Adjustable handwheel of independent injection unit
⑥ Electric L injection unit



Compact design for easy storage

The independent injection unit can be equipped with the optional roller for easy migration and storage of the injection unit.



Optional needle valve control

The independent injection unit can render needle valve control to either the primary injection element or the secondary injection unit to compensate inadequate configuration of the main unit.

Optional hydraulic pulling function (for hydraulic injection unit)

The pulling and control effect for mold control driven by the independent injection unit is the same as the control effect provided by a main unit that comes with core-pull.

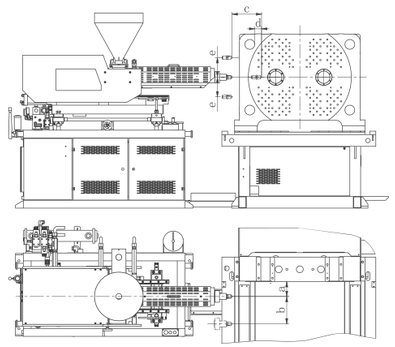
Optional hot runner

The independent injection unit is equipped with a computer that can help to achieve extended control over 6-32 sets of hot runners to meet the molding needs of multiple hot runners.

L/V Independent Injection Unit

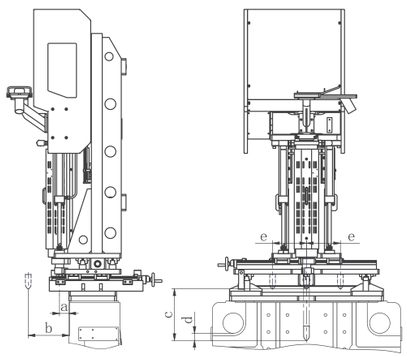
L-type injection unit configuration

Specifications	a/mm	b/mm	c/mm	d/mm	e/mm
IU190L	70	Standard 100 Optional 300 Note: when the mold thickness is too small, close to the minimum mold thickness of the corresponding tonnage, b will make adjustments according to customer needs.	260-750 C-BTP: 500	260C-BTP:70 360C-BTP:70 550C-BTP:80 750C-BTP:80	±5
IU295L	80				
IU420L	80				
IU604L	80				
IU895L	110				
IU1269L	110				
IU1885L	120				



V-type injection unit configuration

Specifications	a/mm	b/mm	c/mm	d/mm	e/mm
IU190V	70	220 Note: when the mold thickness is too small, close to the minimum mold thickness of the corresponding tonnage, b will make adjustments according to customer needs to avoid collision between nozzle and movable platen.	260-750 C-BTP:350	260-750 C-BTP	±5
IU295V	80				
IU420V	80				
IU604V	80				
IU895V	95				



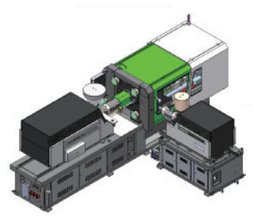
* 1. All data on this page are provided by YIZUMI factories. Actual numbers for custom machines may vary.
2. The product images and text content displayed in the pages above are for illustration only. The actual product (including but not limited to its appearance, color, and dimensions) may vary slightly.

Independent Injection Unit

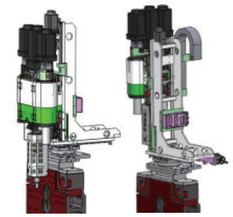
Independent modular design

Due to modular design, electrical injection unit can combining with hydraulic machine to build hybrid gasoline-electric dual-color machine, or with all-electric machine to all-electric dual-color machine. By flexible combination method, L-type/V-type electrical injection unit are also available.

Note: The specific structure is subject to the actual design, base rotation is optional.



▲ Independent L injection unit



▲ Independent V injection unit

Compact design for easy storage

Injection, plasticizing and carriage are under all-electric control. With compact design, electrical injection unit is easy for storage.

Optional base rotation

To provide more space for mold replacement and maintenance through base rotation, and meet the process requirement for across molding by rotating 180°.

All servo-motor driven

High injection repeatability accuracy, rapid response and stable molding

Clean and environmentally friendly

All-electric control is cleaner and low consuming of energy than hydraulic control, especially suitable for the highly required production environment.

Flexible combination

Used as L-type or V-type injection unit to meet different mold production.

Strong compatibility

Meet dual and multi-color molding combination of injection molding machines of different tonnages and different brands with low cost in operation.

Specifications of the independent V injection unit

DESCRIPTION	UNIT	EIU2-50			EIU3-140				EIU4-350				EIU2-50HS			EIU3-140HS				EIU4-350HS			
International specifications		50			140				350				50			140				350			
INJECTION UNIT																							
Screw diameter	mm	19	22	26	22	26	30	35	30	35	40	48	19	22	26	22	26	30	35	30	35	40	48
Screw L/D ratio	L/D	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Theoretical shot volume	cm^3	21.3	28.5	39.8	38.0	53.1	70.7	96.2	99.0	134.7	175.9	253.3	21.3	28.5	39.8	38.0	53.1	70.7	96.2	99.0	134.7	175.9	253.3
Shot weight (PS)	gram	20	26	37	35	49	65	89	91	124	162	233	20	26	37	35	49	65	89	91	124	162	233
Injection pressure	MPa	250	186	134	250	266	200	147	250	260	200	139	250	186	134	372	266	200	147	250	260	200	139
Max. injection speed	mm/s	150			120				120				250			240				200			
Injection rate	cm^3/s	43	57	80	46	64	85	115	85	115	151	217	71	95	133	91	127	170	231	141	192	251	362
Screw stroke	r/min	0~400			0~400				0~300				0~500			0~400				0~300			
Screw stroke	mm	75			100				140				75			100				140			
Nozzle contact force	kN	20			30				35				20			30				35			
POWER UNIT																							
Injection servo motor	kW	3×2			4×2				5.5×2				4×2			5.5×2				7.5×2			
Plasticizing servo motor	kW	5.5			7.5				7.5				5.5			7.5				7.5			
Carriage deceleration motor	kW	0.75			0.75				0.75				0.75			0.75				0.75			
Heating capacity	kW	3.5	4.5	5.5	4.5	5.5	6	7	6	7	8	10	3.5	4.5	5.5	4.5	5.5	6	7	6	7	8	10
Number of temperature control zones		4			4				4				4			4				4			

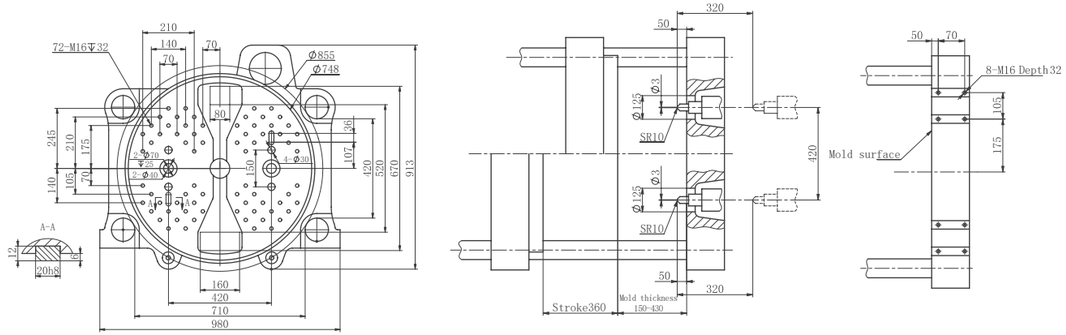
Note: As to the specification of L independent injection unit, please refer to FF series.

Specifications of UN160CG-BTP

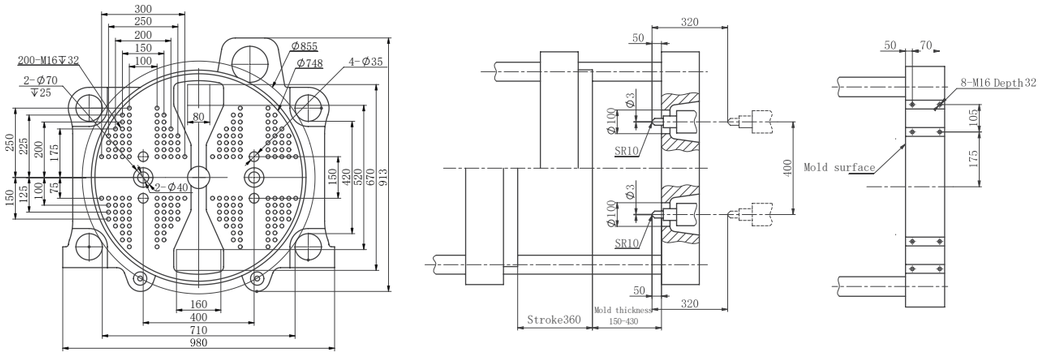
DESCRIPTION		UN160CG-BTP									
INJECTION UNIT											
The injection units mentioned above can be combined randomly.											
International specifications	UNIT	300			190			110		70	
		A	B	C	A	B	C	A	B	A	B
Screw diameter	mm	30	35	40	26	30	35	22	26	19	22
Screw L/D ratio	L/D	24	20	20	24	22	20	20	20	20	20
Theoretical shot volume	cm^3	117	159	207	72	95	130	42	58	27	36
Shot weight(PS)	gram	107	146	191	66	88	119	38	54	25	33
Injection pressure	MPa	257	189	145	259	194	143	261	187	273	203
Max. injection speed (standard/optional)	mm/s	112/140			116/148			160/205		206/264	
Injection rate (standard)	g/s	73	99	129	57	75	103	56	78	54	72
Screw speed (standard)	rpm	219			171			204		204	
Screw stroke	mm	165			135			110		95	
CLAMPING UNIT											
Clamping force	kN	1600									
Opening stroke	mm	360									
Mold thickness	mm	150-430/480 (optional)									
Max. turning diameter	mm	855									
Turntable bearing capacity	t	0.7									
Distance between centers of mold locating holes	mm	420 (optional400)									
Space between tie bars	mm	710x420									
Ejector stroke	mm	100									
Ejector force	kN	28x2									
GENERAL											
Max. system pressure	MPa	17.5									
Motor power (standard/optional)	kW	11/16			9.5/11			9.5/11		9.5/11	
Heating power	kW	6.9/7.8			5.5/6.9			4.8/5.5		4.6/4.8	
Machine dimensions (L×W×H)	m	5.55x1.75x2.04									
Machine weight	t	7.05									
Hopper capacity	kg	25									
Oil Tank capacity	L	280									

Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN160CG-BTP. The length of the ejector extension shall not exceed 70mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

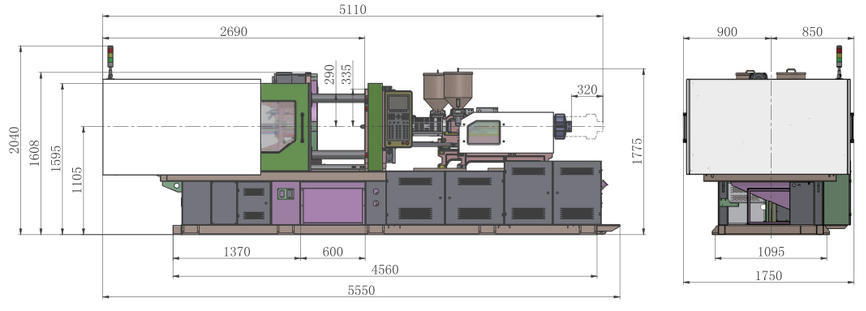
Platen Dimensions



Platen Dimensions (Optional)



Machine Dimensions

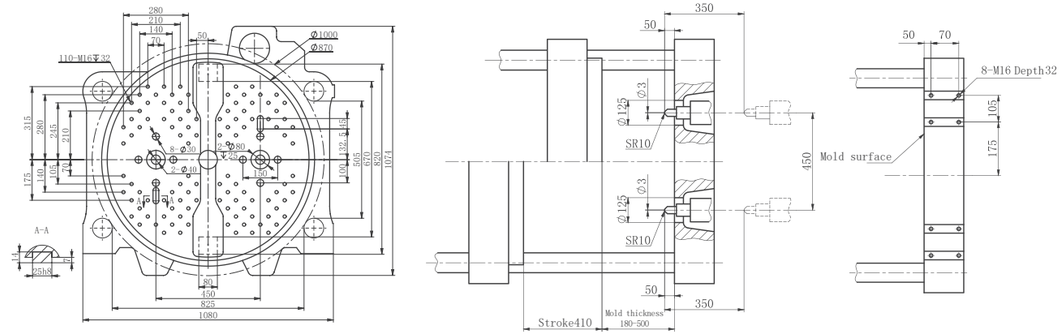


Specifications of UN200CG-BTP

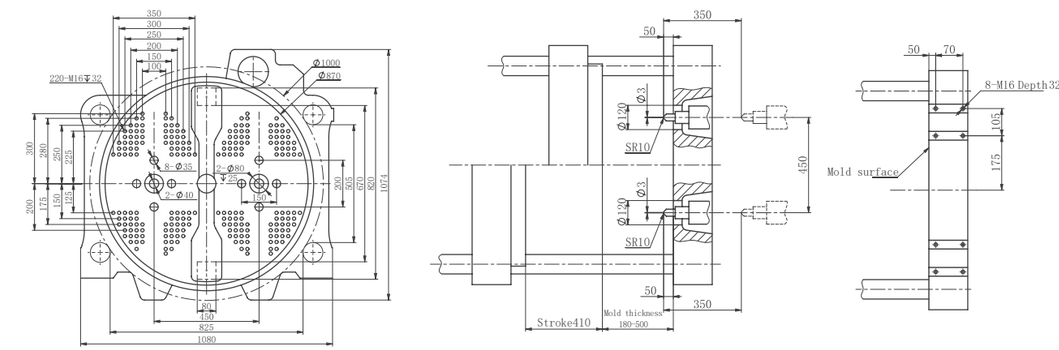
DESCRIPTION		UN200CG-BTP							
INJECTION UNIT									
The injection units mentioned above can be combined randomly.									
International specifications	UNIT	300			190			110	
		A	B	C	A	B	C	A	B
Screw diameter	mm	30	35	40	26	30	35	22	26
Screw L/D ratio	L/D	24	20	20	24	22	20	20	20
Theoretical shot volume	cm³	117	159	207	72	95	130	42	58
Shot weight(PS)	gram	107	146	191	66	88	119	38	54
Injection pressure	MPa	257	189	145	259	194	143	261	187
Max. injection speed (standard/optional)	mm/s	140/175			116/148			160/205	
Injection rate (standard)	g/s	91	124	162	57	75	103	56	78
Screw speed (standard)	rpm	274			171			204	
Screw stroke	mm	165			135			110	
CLAMPING UNIT									
Clamping force	kN	2000							
Opening stroke	mm	410							
Mold thickness	mm	180-500/550 (optional)							
Max. turning diameter	mm	1000							
Turntable bearing capacity	t	1							
Distance between centers of mold locating holes	mm	450							
Space between tie bars	mm	825x505							
Ejector stroke	mm	110							
Ejector force	kN	34x2							
GENERAL									
Max. system pressure	MPa	17.5							
Motor power (standard/optional)	kW	16/19.6			9.5/11			9.5/11	
Heating power	kW	6.9/7.8			5.5/6.9			4.8/5.5	
Machine dimensions (L×W×H)	m	5.76x2x2.16							
Machine weight	t	9.5							
Hopper capacity	kg	25							
Oil Tank capacity	L	360							

Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN200CG-BTP. The length of the ejector extension shall not exceed 75mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

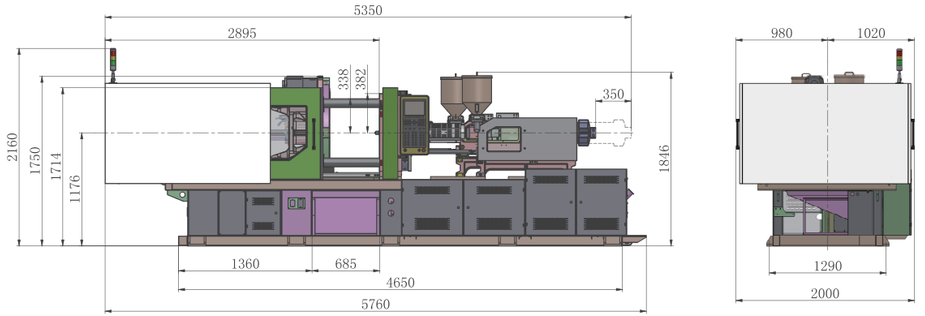
Platen Dimensions



Platen Dimensions (Optional)



Machine Dimensions

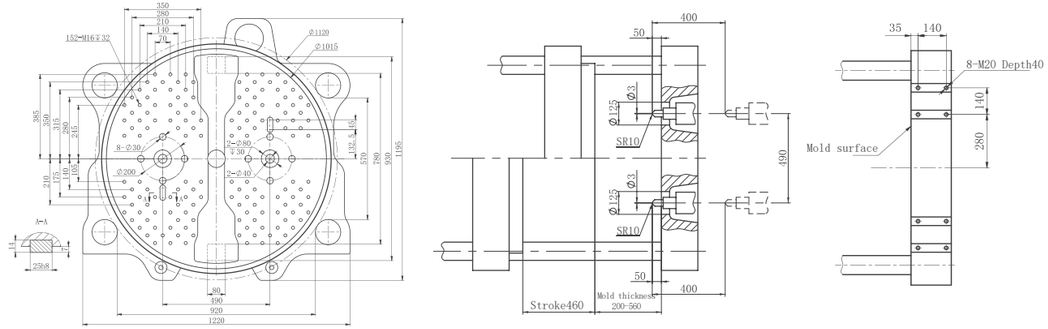


Specifications of UN260CG-BTP

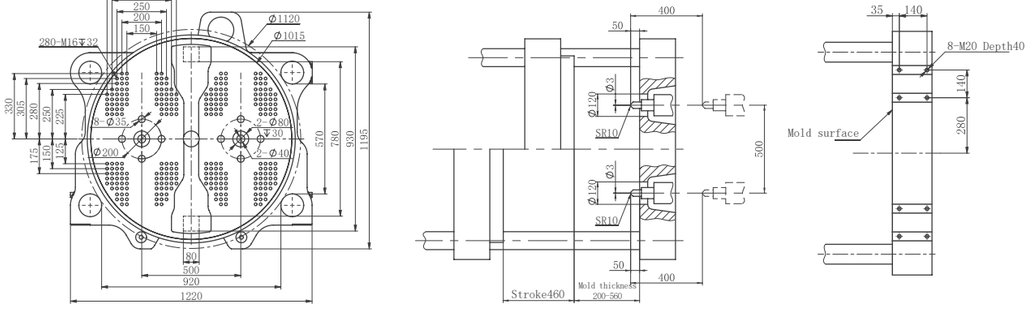
DESCRIPTION		UN260CG-BTP														
INJECTION UNIT																
The injection units mentioned above can be combined randomly.																
International specifications	UNIT	630			420			300			190			110		
		A	B	C	A	B	C	A	B	C	A	B	C	A		B
Screw diameter	mm	43	48	53	35	43	48	30	35	40	26	30	35	22		26
Screw L/D ratio	L/D	22.3	20	20	24	20	20	24	20	20	24	22	20	20		20
Theoretical shot volume	cm³	298	371	452	163	247	307	117	159	207	72	95	130	42		58
Shot weight(PS)	gram	274	341	416	150	227	283	107	146	191	66	88	119	38		54
Injection pressure	MPa	213	171	140	260	172	138	257	189	145	259	194	143	261		187
Max. injection speed (standard/optional)	mm/s	103/130			102/128			112/140/175			148/186			205/256		
Injection rate (standard)	g/s	138	171	209	90	136	170	73	99	129	72	96	131	72		100
Screw speed (standard)	rpm	271			236			219			219			261		
Screw stroke	mm	205			170			165			135			110		
CLAMPING UNIT																
Clamping force	kN	2600 (optional2800)														
Opening stroke	mm	460														
Mold thickness	mm	200-560/660 (optional)														
Max. turning diameter	mm	1120														
Turntable bearing capacity	t	1.5														
Distance between centers of mold locating holes	mm	490 (optional500)														
Space between tie bars	mm	920x570														
Ejector stroke	mm	110														
Ejector force	kN	34x2														
GENERAL																
Max. system pressure	MPa	17.5														
Motor power (standard/optional)	kW	19.6/24			16/19.6			11/16/19.6			11/16			11/16		
Heating power	kW	10.9/12.1			9/10.1			6.9/7.8			5.5/6.9			4.8/5.5		
Machine dimensions (L×W×H)	m	6.15x2.05x2.25														
Machine weight	t	11.8														
Hopper capacity	kg	25														
Oil Tank capacity	L	380														

Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN260CG-BTP. The length of the ejector extension shall not exceed 75mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

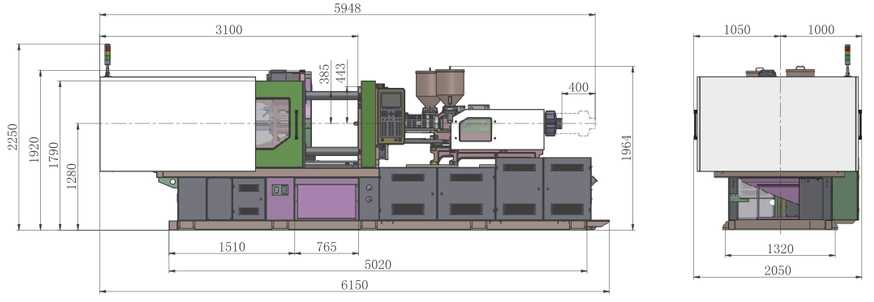
Platen Dimensions



Platen Dimensions (Optional)



Machine Dimensions

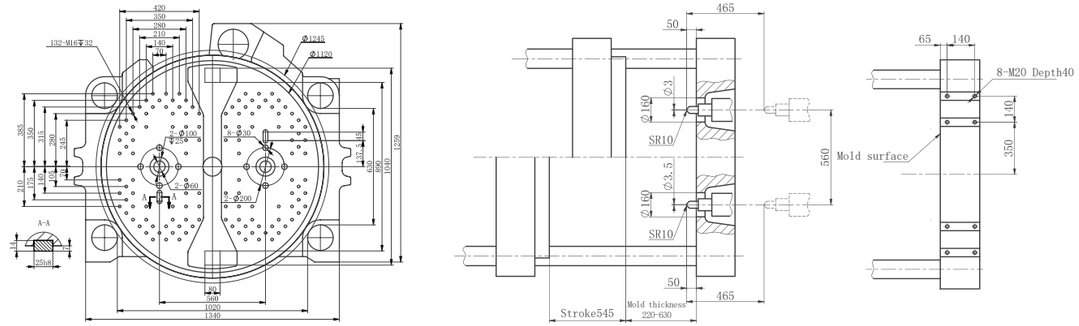


Specifications of UN360CG-BTP

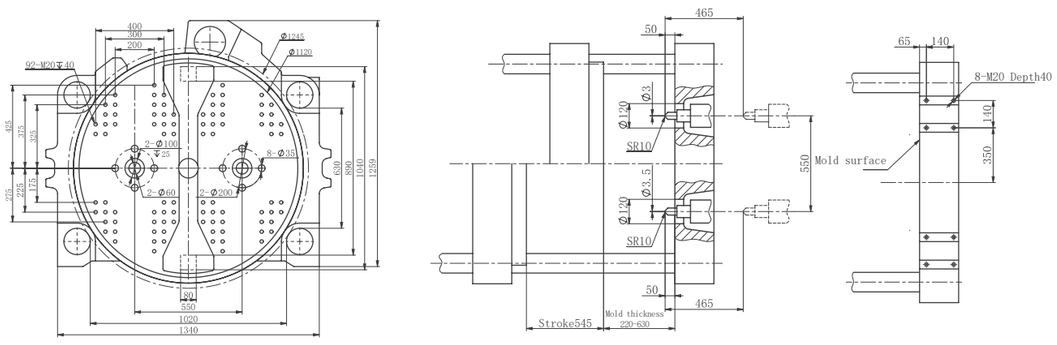
DESCRIPTION		UN360CG-BTP															
INJECTION UNIT																	
The injection units mentioned above can be combined randomly.																	
International specifications	UNIT	930			630			420			300			190			
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
Screw diameter	mm	48	53	60	43	48	53	35	43	48	30	35	40	26	30	35	
Screw L/D ratio	L/D	22	20	20	22.3	20	20	24	20	20	24	20	20	24	22	20	
Theoretical shot volume	cm³	425	518	664	298	371	452	163	247	307	117	159	207	72	95	130	
Shot weight(PS)	gram	391	477	611	274	341	416	150	227	283	107	146	191	66	88	119	
Injection pressure	MPa	220	180	140	213	171	140	260	172	138	257	189	145	259	194	143	
Max. injection speed (standard/optional)	mm/s	101/118			130/151			161/187			112/140/175			148/186			
Injection rate (standard)	g/s	168	205	263	174	216	264	142	215	268	73	99	129	72	96	131	
Screw speed (standard)	rpm	231			300			300			219			219			
Screw stroke	mm	235			205			170			165			135			
CLAMPING UNIT																	
Clamping force	kN	3600 (optional3800)															
Opening stroke	mm	545															
Mold thickness	mm	220-630/730 (optional)															
Max. turning diameter	mm	1240															
Turntable bearing capacity	t	2.3															
Distance between centers of mold locating holes	mm	560 (optional550)															
Space between tie bars	mm	1020x630															
Ejector stroke	mm	130															
Ejector force	kN	67x2															
GENERAL																	
Max. system pressure	MPa	17.5															
Motor power (standard/optional)	kW	24/34.7			24/34.7			24/34.7			11/16/19.6			11/16			
Heating power	kW	14.4/16.8			10.9/12.1			9/10.1			6.9/7.8			5.5/6.9			
Machine dimensions (L×W×H)	m	6.97x2.2x2.4															
Machine weight	t	15.5															
Hopper capacity	kg	50			25			25			25			25			
Oil Tank capacity	L	415															

Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN360CG-BTP. The length of the ejector extension shall not exceed 90mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

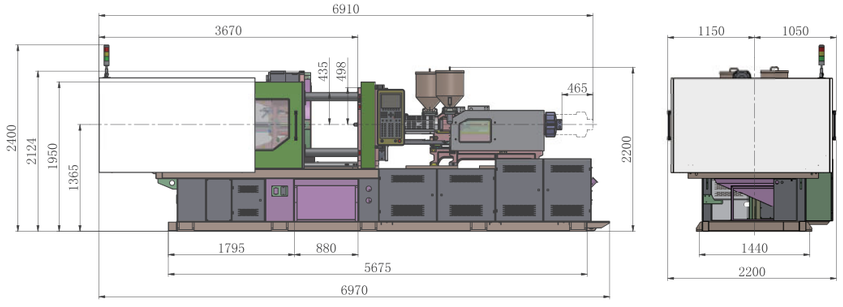
Platen Dimensions



Platen Dimensions (Optional)



Machine Dimensions

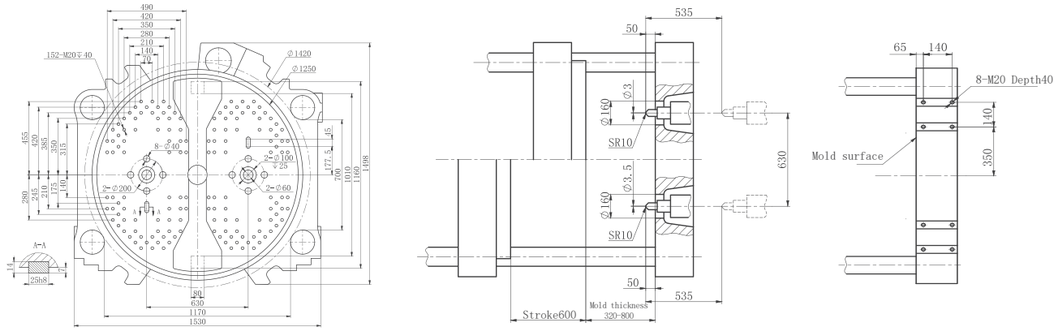


Specifications of UN550CG-BTP

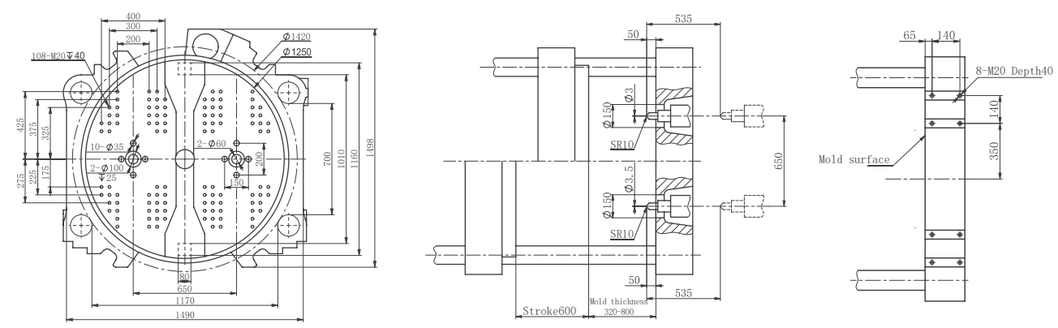
DESCRIPTION		UN550CG-BTP																		
INJECTION UNIT																				
The injection units mentioned above can be combined randomly.																				
International specifications	UNIT	1870			1310			930			630			420			300			
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
Screw diameter	mm	60	68	76	53	60	68	48	53	60	43	48	53	35	43	48	30	35	40	
Screw L/D ratio	L/D	22.6	20	20	22.6	20	20	22	20	20	22.3	20	20	24	20	20	24	20	20	
Theoretical shot volume	cm^3	834	1071	1338	584	749	962	425	518	664	298	371	452	163	247	307	117	159	207	
Shot weight(PS)	gram	767	985	1231	538	689	885	391	477	611	274	341	416	150	227	283	107	146	191	
Injection pressure	MPa	225	175	140	237	185	144	220	180	140	213	171	140	260	172	138	257	189	145	
Max. injection speed (standard/optional)	mm/s	92			111			118/147			103/130/151			102/128/161			140/175			
Injection rate (standard)	g/s	239	307	384	225	289	371	196	239	307	138	171	209	90	136	170	91	124	162	
Screw speed (standard)	rpm	204			255			269			271			236			274			
Screw stroke	mm	295			265			235			205			170			165			
CLAMPING UNIT																				
Clamping force	kN	5500																		
Opening stroke	mm	600																		
Mold thickness	mm	320-800/900 (optional)																		
Max. turning diameter	mm	1420																		
Turntable bearing capacity	t	3.5																		
Distance between centers of mold locating holes	mm	630 (550 or 650 optional)																		
Space between tie bars	mm	1170x700																		
Ejector stroke	mm	150																		
Ejector force	kN	110x2																		
GENERAL																				
Max. system pressure	MPa	17.5																		
Motor power (standard/optional)	kW	48.1			48.1			34.7/48.1			19.6/24/34.7			16/19.6/24			16/19.6			
Heating power	kW	22.2/24.6			16.6/19			14.4/16.8			10.9/12.1			9/10.1			6.9/7.8			
Machine dimensions (L×W×H)	m	8.48x2.45x2.35																		
Machine weight	t	29.3																		
Hopper capacity	kg	50			50			50			25			25			25			
Oil Tank capacity	L	660																		

Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN550CG-BTP. The length of the ejector extension shall not exceed 90mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

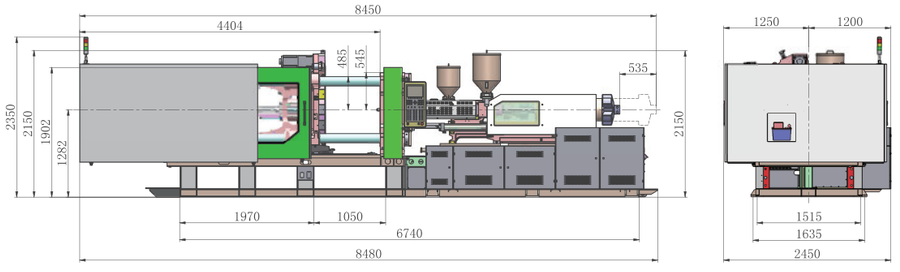
Platen Dimensions



Platen Dimensions (Optional)



Machine Dimensions

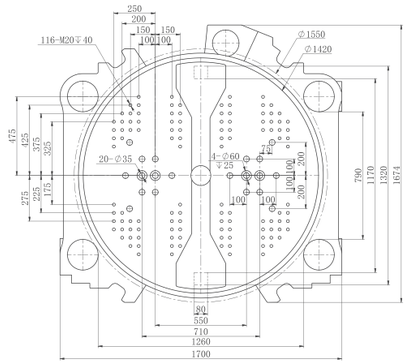


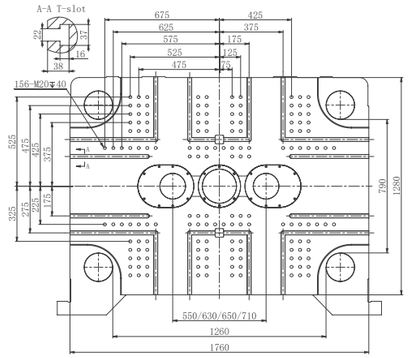
Specifications of UN750CG-BTP

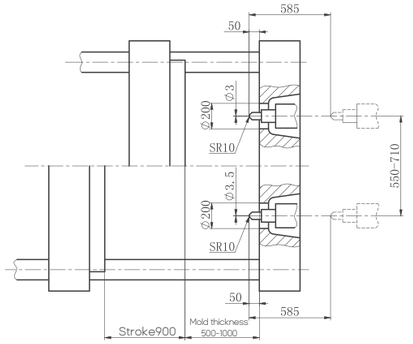
DESCRIPTION		UN750CG-BTP															
INJECTION UNIT																	
The injection units mentioned above can be combined randomly.																	
International specifications	UNIT	1870			1310			930			630			420			
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
Screw diameter	mm	60	68	76	53	60	68	48	53	60	43	48	53	35	43	48	
Screw L/D ratio	L/D	22.6	20	20	22.6	20	20	22	20	20	22.3	20	20	24	20	20	
Theoretical shot volume	cm^3	834	1071	1338	584	749	962	425	518	664	298	371	452	163	247	307	
Shot weight(PS)	gram	767	985	1231	538	689	885	391	477	611	274	341	416	150	227	283	
Injection pressure	MPa	225	175	140	237	185	144	220	180	140	213	171	140	260	172	138	
Max. injection speed (standard/optional)	mm/s	92			111			118/147			103/130/151			128/161/187			
Injection rate (standard)	g/s	239	307	384	225	289	371	196	239	307	138	171	209	113	171	213	
Screw speed (standard)	rpm	204			255			269			271			295			
Screw stroke	mm	295			265			235			205			170			
CLAMPING UNIT																	
Clamping force	kN	7500															
Opening stroke	mm	900															
Mold thickness	mm	500-1000/1100 (optional)															
Max. turning diameter	mm	1550															
Turntable bearing capacity	t	5															
Distance between centers of mold locating holes	mm	550/630/650/710															
Space between tie bars	mm	1260×790															
Ejector stroke	mm	150															
Ejector force	kN	110×2															
GENERAL																	
Max. system pressure	MPa	17.5															
Motor power (standard/optional)	kW	48.1			48.1			34.7/48.1			19.6/24/34.7			19.6/24/34.7			
Heating power	kW	22.2/24.6			16.6/19			14.4/16.8			10.9/12.1			9/10.1			
Machine dimensions (L×W×H)	m	10.05×2.8×2.67															
Machine weight	t	34.5 (The weights of different injection unit combinations may vary)															
Hopper capacity	kg	50			50			25			25			25			
Oil Tank capacity	L	780															

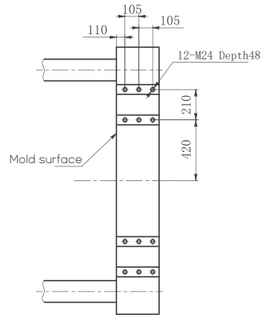
Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN750CG-BTP. The length of the ejector extension shall not exceed 100mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

Platen Dimensions

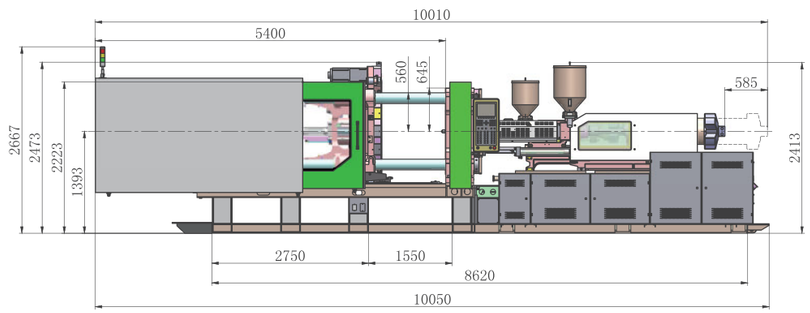


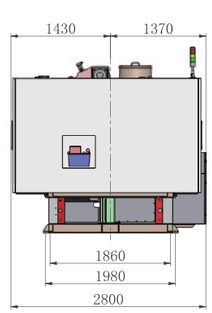






Machine Dimensions





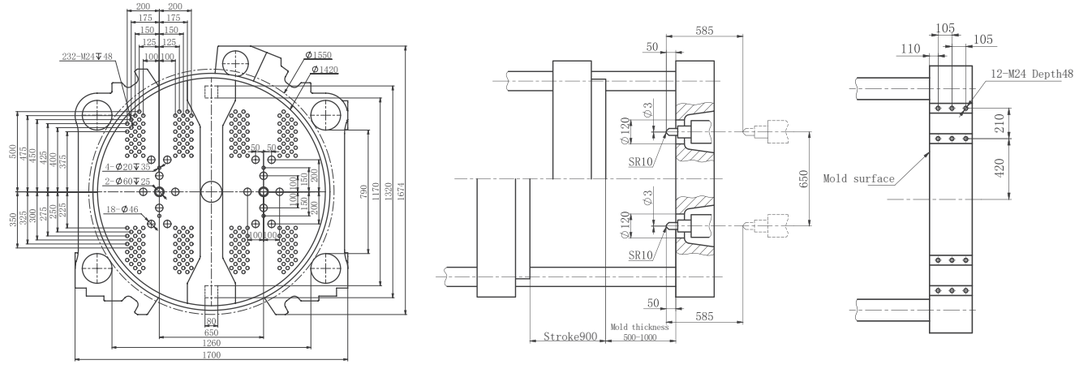
Specifications of UN800CG-BTP

※This model is specially designed for the laptop computer industry.

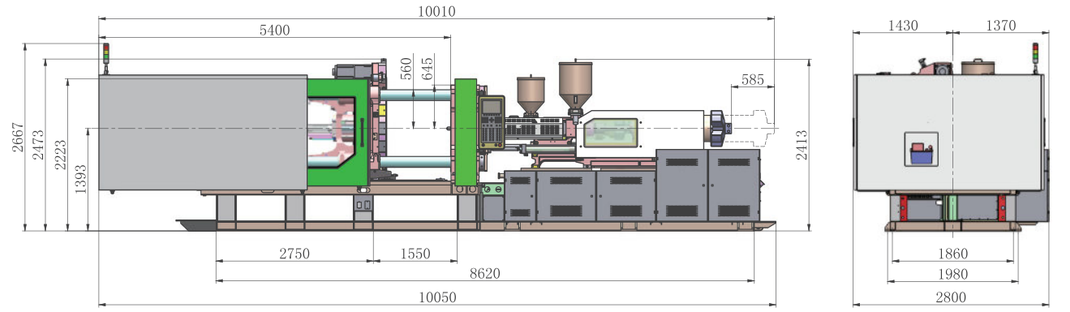
DESCRIPTION		UN800CG-BTP					
INJECTION UNIT							
		Combination 1					
International specifications	UNIT		630			420	
		A	B	C	A	B	C
Screw diameter	mm	43	48	53	35	43	48
Screw L/D ratio	L/D	22.3	20	20	24	20	20
Theoretical shot volume	cm^3	298	371	452	163	247	307
Shot weight(PS)	gram	274	341	416	150	227	283
Injection pressure	MPa	213	171	140	260	172	138
Max. injection speed (standard/optional)	mm/s		236			234	
Injection rate (standard)	g/s	315	393	479	207	312	389
Screw speed (standard)	rpm		300			300	
Screw stroke	mm		205			170	
CLAMPING UNIT							
Clamping force	kN	8000					
Opening stroke	mm	900					
Mold thickness	mm	500-1000					
Max. turning diameter	mm	1550					
Turntable bearing capacity	t	5					
Distance between centers of mold locating holes	mm	650					
Space between tie bars	mm	1260×790					
Ejector stroke	mm	150					
Ejector force	kN	110×2					
GENERAL							
Max. system pressure	MPa	17.5					
Motor power (standard/optional)	kW	59.6			48.1		
Heating power	kW	10.9/12.1			9/10.1		
Machine dimensions (L×W×H)	m	10.05×2.8×2.67					
Machine weight	t	34.5 (The weights of different injection unit combinations may vary)					
Hopper capacity	kg	50			25		
Oil Tank capacity	L	900					

Note: The ejector stroke in the parameters is the limited distance of the machine's standard ejector pin protruding out of the mold surface of the turntable. The customer can install an ejector extension (UN800CG-BTP. The length of the ejector extension shall not exceed 100mm) on the ejection plate of the mold, corresponding to the location of the ejector hole to increase the actual ejector stroke.

Platen Dimensions

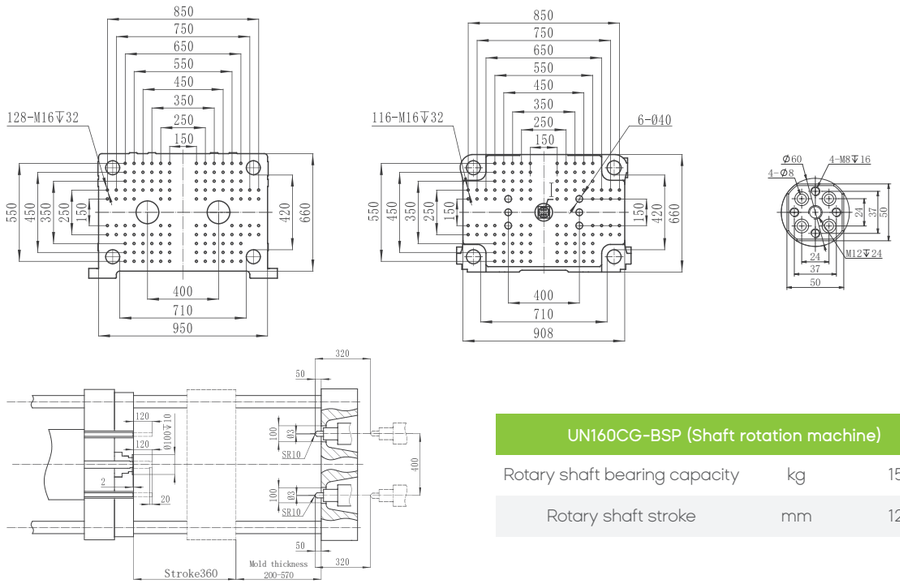


Machine Dimensions



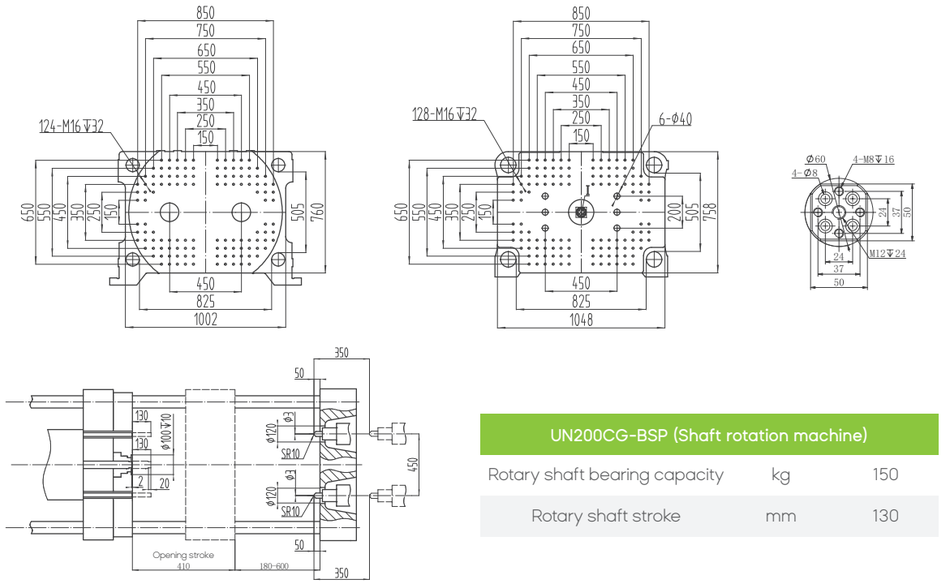
Wide platen shaft rotation machine/ turntable rotary shaft platen dimensions

UN160CG-BSP (Shaft rotation machine)



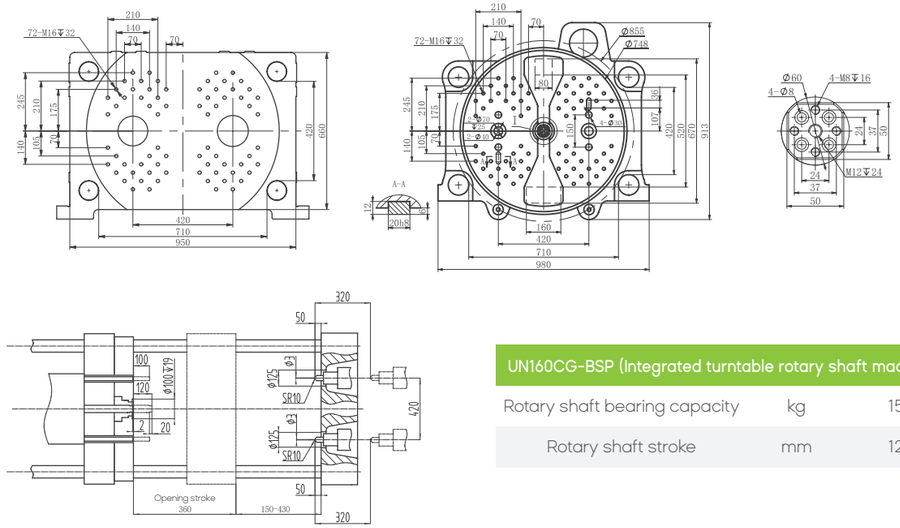
UN160CG-BSP (Shaft rotation machine)		
Rotary shaft bearing capacity	kg	150
Rotary shaft stroke	mm	120

UN200CG-BSP (Shaft rotation machine)



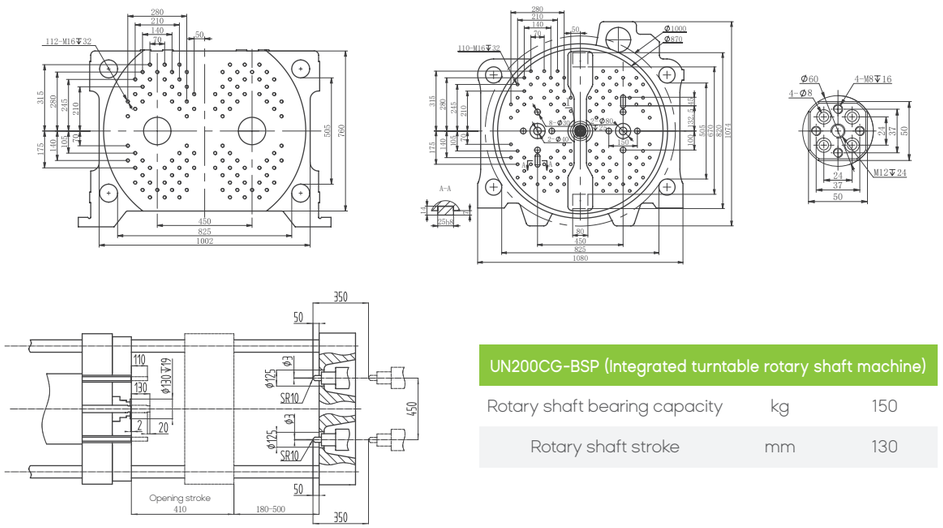
UN200CG-BSP (Shaft rotation machine)		
Rotary shaft bearing capacity	kg	150
Rotary shaft stroke	mm	130

UN160CG-BSP (Integrated turntable rotary shaft machine)



UN160CG-BSP (Integrated turntable rotary shaft machine)		
Rotary shaft bearing capacity	kg	150
Rotary shaft stroke	mm	120

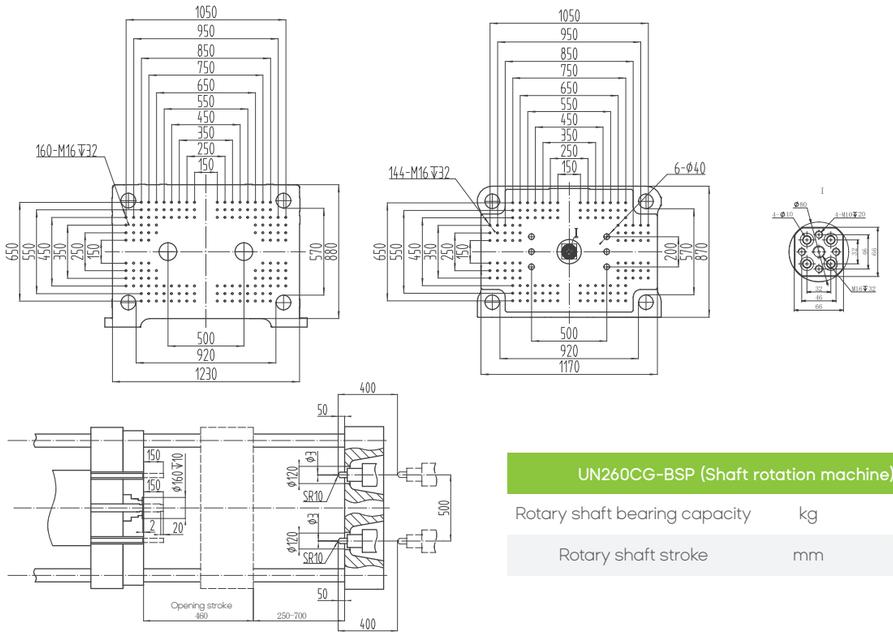
UN200CG-BSP (Integrated turntable rotary shaft machine)



UN200CG-BSP (Integrated turntable rotary shaft machine)		
Rotary shaft bearing capacity	kg	150
Rotary shaft stroke	mm	130

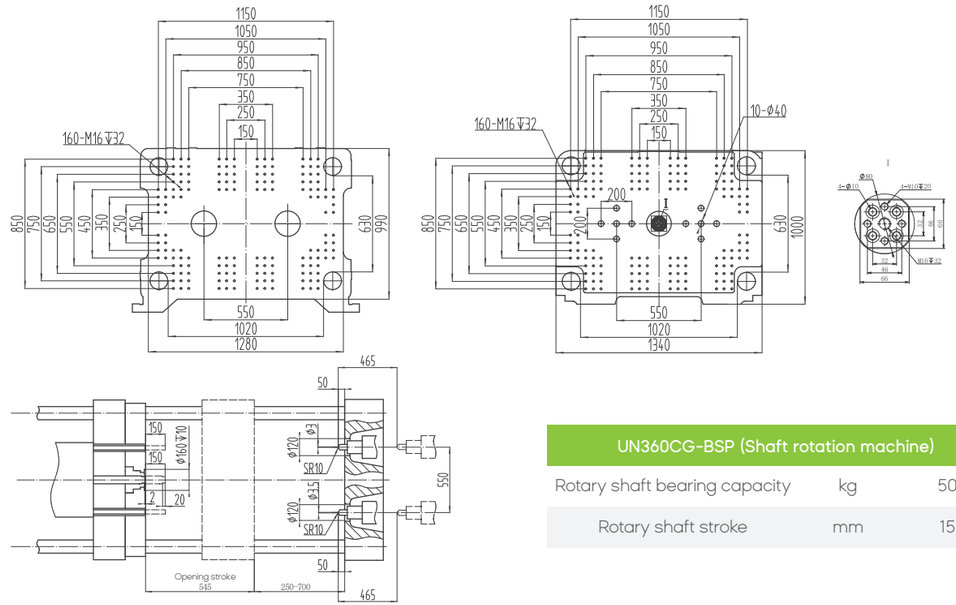
※ Note: Other BSP specifications (except the following specifications), please refer to BTP specifications.

UN260CG-BSP (Shaft rotation machine)



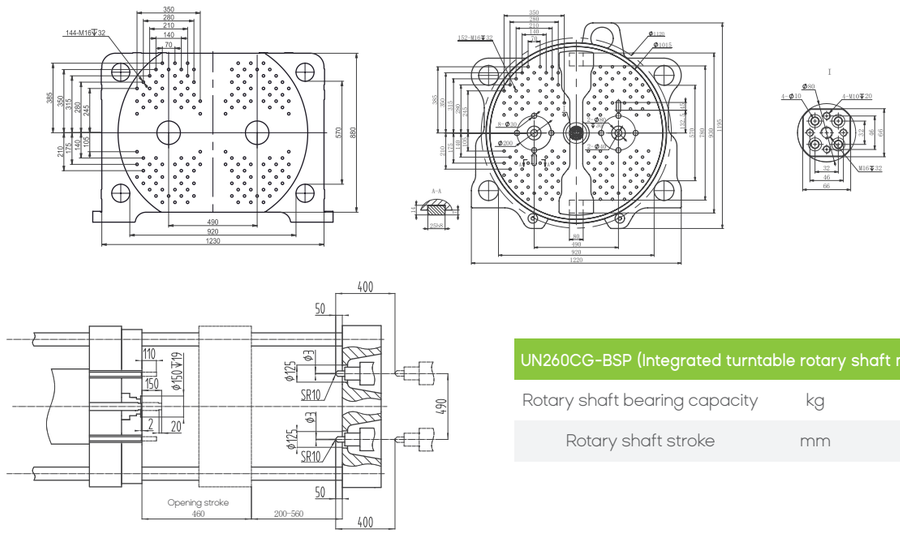
UN260CG-BSP (Shaft rotation machine)		
Rotary shaft bearing capacity	kg	300
Rotary shaft stroke	mm	150

UN360CG-BSP (Shaft rotation machine)



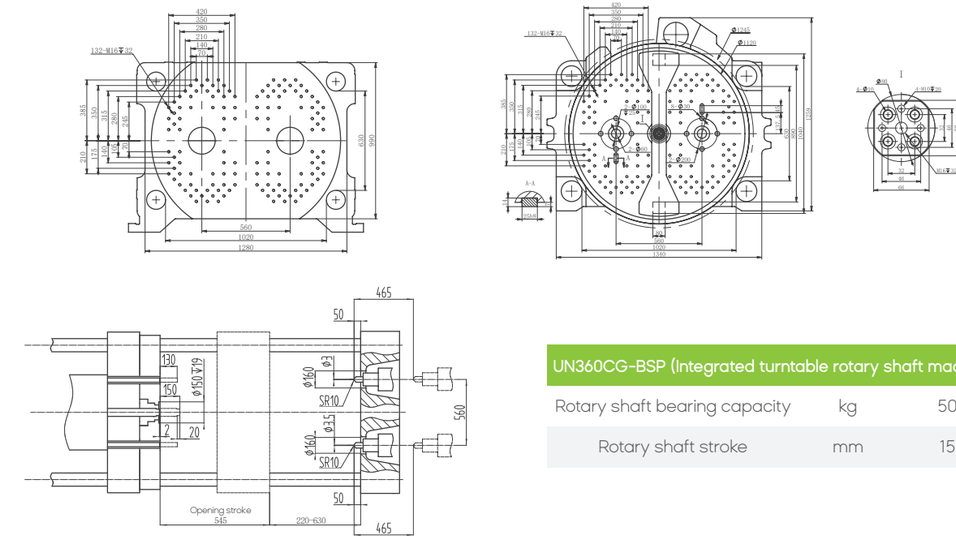
UN360CG-BSP (Shaft rotation machine)		
Rotary shaft bearing capacity	kg	500
Rotary shaft stroke	mm	150

UN260CG-BSP (Integrated turntable rotary shaft machine)



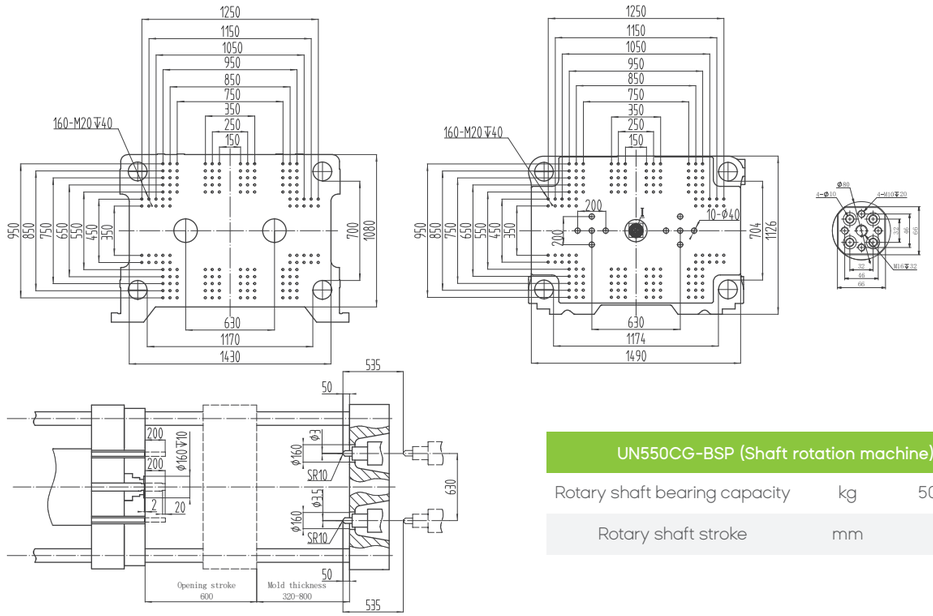
UN260CG-BSP (Integrated turntable rotary shaft machine)		
Rotary shaft bearing capacity	kg	300
Rotary shaft stroke	mm	150

UN360CG-BSP (Integrated turntable rotary shaft machine)



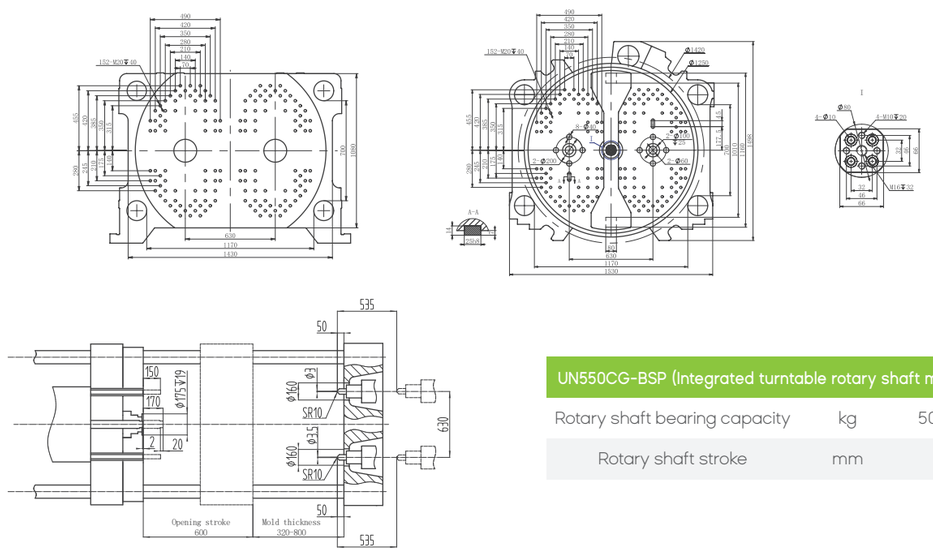
UN360CG-BSP (Integrated turntable rotary shaft machine)		
Rotary shaft bearing capacity	kg	500
Rotary shaft stroke	mm	150

UN550CG-BSP (Shaft rotation machine)



UN550CG-BSP (Shaft rotation machine)		
Rotary shaft bearing capacity	kg	500/700
Rotary shaft stroke	mm	200

UN550CG-BSP (Integrated turntable rotary shaft machine)



UN550CG-BSP (Integrated turntable rotary shaft machine)		
Rotary shaft bearing capacity	kg	500/700
Rotary shaft stroke	mm	170

Hybrid machine CG-BTP-E

※Note: An electrical injection unit is available for the CG-BTP platform as an option.

Highlights of hybrid machines:

Equipped with hydraulically controlled mold clamping and electrically controlled injection units (including injection and plasticizing), the hybrid machine delivers high injection speed and high injection pressure, effectively reducing energy consumption while achieving precision injection. Considering the overall investment cost and optimized performance, this machine is your best choice in the field of precision molding.

Electric injection unit configuration

Parallel injection unit	INJECTION UNIT								
Specifications	UNIT	80	170	200	320	430	670	930	1350
Screw diameter	mm	19/22/26	22/26/30	26/30/35	30/35/40	35/40/43	40/48/53	48/53/60	53/60/68
UN160CG-BTP-E	iA	■	■	■					
	iB	■	■	■					
UN200CG-BTP-E	iA	■	■	■					
	iB	■	■	■					
UN260CG-BTP-E	iA		■	■	■	■	■		
	iB		■	■	■	■	■		
UN360CG-BTP-E	iA		■	■	■	■	■	■	
	iB		■	■	■	■	■	■	
UN550CG-BTP-E	iA				■	■	■	■	■
	iB				■	■	■	■	■
UN750CG-BTP-E	iA					■	■	■	■
	iB					■	■	■	■
UN800CG-BTP-E	iA					■	■	■	■
	iB					■	■	■	■

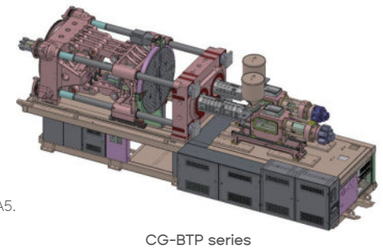
Note: (1) In the table above, the boxes in green represent the injection units available for each machine model. The range of selection for injection unit A and B is the same.
(2) Injection unit not available as an option can be specially engineered according to actual needs.
(3) Other CG-P platforms can select parallel electric injection units to fulfill the actual needs of products
(4) As to the specification of L independent injection unit, please refer to FF series.

Diversified combinations of modular injection units

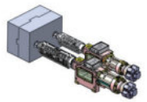
P series

IMM: CG-BTP series
Combinations: BTP/V、BTP/L、BTP/V/V、BTP/L/V

※ Note: As to the specification of L/V independent injection unit, please refer to A5.

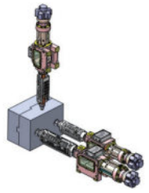


CG-BTP series



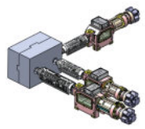
P

Two parallel injection units



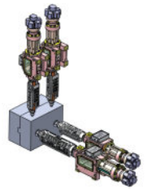
P/V

Two parallel injection units + V-type injection unit at the top of fixed platen



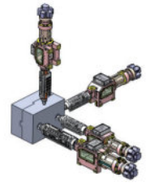
P/L

Two parallel injection unit + L-type injection unit at back door side



P/V/V

Two parallel injection units + two V-type injection units at the top of fixed platen



P/L/V

Two parallel injection units +V-type injection unit at the top of fixed platen + L-type injection unit at back door side

Electric injection unit configuration

Parallel injection unit		INJECTION UNIT										
Specifications	UNIT	70	110	190	300	420	630	930	1310	1870	3100	3500
Screw diameter	mm	19/22/26	22/26/30	26/30/35	30/35/40	35/40/43	40/48/53	48/53/60	53/60/68	60/68/76	68/76/84	76/84/92
UN160CG-BTP	iA	■	■	■	■							
	iB	■	■	■	■							
UN200CG-BTP	iA		■	■	■							
	iB		■	■	■							
UN280CG-BTP	iA		■	■	■	■	■					
	iB		■	■	■	■	■					
UN360CG-BTP	iA			■	■	■	■	■				
	iB			■	■	■	■	■				
UN550CG-BTP	iA				■	■	■	■	■	■		
	iB				■	■	■	■	■	■		
UN750CG-BTP	iA					■	■	■	■	■		
	iB					■	■	■	■	■		
UN800CG-BTP	iA					■	■	■	■	■	■	
	iB					■	■	■	■	■	■	

Note: (1) In the table above, the boxes in green represent the injection units available for each machine model. The range of selection for injection unit A and B is the same.
(2) Injection unit not available as an option can be specially engineered according to actual needs.

Standard and Optional Features

Note: "●": standard "○": optional

DESCRIPTION	Standard	Optional
CLAMPING UNIT		
High-rigidity platen with balanced force (BFC technology)	●	
Electrical servo turntable	●	
Magnetically levitated turntable (MLT technology, 160T/260T)	●	
Turntable water manifold (160T/200T: 1 set; 260-550T: 2 sets; 750T/800T: 4 sets with 2 in each set)	●	
Euromap 18 robot mounting hole (on the top of fixed platen)	●	
Mechanical / electrical safety devices	●	
Adjustment free mechanical safety lock	●	
Automatic centralized lubrication system	●	
Low-pressure mold protection	●	
One-button automatic mold height adjustment	●	
Platen parallelism adjustment	●	
Safety edges for machine gates	●	
Wear-resistant manganese steel supporting tracks for movable platen	●	
Safety foot plate (for 750T machine and larger models)	●	
Electric safety door		○
Hydraulic circuit control of double ejectors		○
Hydraulic servo turntable		○
Hydraulic non-servo turntable		○
10-pin electrical connector for turntable		○
Multiple sets of air blow		○
Euromap 2 mold mounting hole		○
Magnetic platen		○
Mold thermal insulation		○
INJECTION UNIT		
Low-inertia injection drive mechanism	●	
Combination of multiple modular injection units	●	
Energy-saving groove design of barrel (patented design)	●	
Nozzle and multi-stage PID temperature control	●	
Screw cold start prevention	●	
Automatic purging	●	
Movable or rolling hopper device	●	
Screw speed detection	●	
Insulation barrel blanket	●	
Nozzle purge guard	●	
Linear guide rail for carriage	●	
Manual centralized lubrication for injection unit	●	
High-mixing non-stick screw		○
Three-component and multi-component injection molding		○
Barrel unit for TPE		○
Barrel unit for TPU		○
Barrel unit for PC		○
Special or adjustable mold locating hole center distance		○
Feed port temperature detection		○
Ceramic heater band		○
Infrared heater band		○
Nano thermal insulation function		○
Injection unit for silicone		○
Electrical injection unit		○
Gas assisted injection		○
Transducer for carriage position measurement		○
Spring nozzle		○
Extended nozzle		○
HYDRAULIC SYSTEM		
Servo pump system	●	
Low noise energy-saving hydraulic circuit	●	
High-precision real-time bypass oil filter	●	
Imported branded hydraulic valve	●	
Imported branded hydraulic seal	●	
Differential fast mold closing device (160T/200T)	●	

DESCRIPTION	Standard	Optional
Safety retention device for exposed HP hydraulic hose	●	
CNC plasticizing back pressure	●	
Hydraulic oil temperature detection	●	
Mold opening with proportional valve control (260T-800T)	●	
Injection with proportional valve control		○
High-response servo injection system with accumulator		○
Larger plasticizing motor		○
Independent hydraulic sequential valve		○
Pneumatic sequential valve		○
Hydraulic core-pull on movable platen (or fixed platen)		○
Hydraulic oil level detection		○
Oil preheating		○
Self-sealing suction filter		○
Synchronous control (mold opening parallel to plasticizing/ejection/ core pull)		○
Stronger power		○
CONTROL SYSTEM		
Turntable digital closed-loop positioning control(DCPC technology)	●	
Turntable protection against power outage	●	
Non-return-to-zero turntable	●	
Smart mold-open deceleration	●	
Logic control of multiple injection units	●	
Compulsory barrel heating protection	●	
Automatic heat preservation and heating presetting	●	
Data upload and download via USB	●	
Rat-proof electric wire	●	
Multi-level software password authentication for data protection	●	
Interlock for turntable and safety door	●	
Protection against over-high oil temperature	●	
Emergency stop of front and rear safety doors	●	
Electrical protection of nozzle purge guard	●	
Statistical process control (SPC)	●	
Selectable suck-back before or after plasticizing	●	
Switchover from injection to holding controlled by time, position, time + position or pressure	●	
Process parameter modification history	●	
Synchronous injection signal	●	
Multiple operating languages	●	
10.4" TFT true color LED HD display	●	
Triple-color alarm light	●	
Power socket for auxiliary equipment (3 sets of 380V AC sockets, 1 set of 220V AC socket)	●	
Electrical protection of nozzle purge guard		○
Euromap 12 plug for robot		○
Euromap 67 plug for robot		○
Core pull and ejector setting in controller		○
Integrated hot runner control		○
Air-assisted injection device		○
Display of machine energy consumption statistics		○
Central (networking) monitoring system		○
Protective light grid of safety gates		○
Changing power supply voltage		○
15"/22" HD display		○
GENERAL		
Operation manual	●	
Leveling pad	●	
A tool kit and a precise filter element	●	
Mold mounting screw	●	
Stainless steel hopper		○
Mold clamp		○
Auto loader		○
Glass tube flowmeter		○
Dryer		○

THINK
TECH FORWARD