

Optional features



- Three sets or more of core pulls on the moving platen.



- Machine frame and product-drop area are risen and widened to ensure conveyor is properly aligned to connect the centralised product conveying and collection automated lines.



- PVC (380T and above) equipped with hopper slider.



- Adjustable guard door according to the factory layout and floor space.



- Screw driven by gear box in high tonnage PVC machine is to ensure sufficient torque for plasticising.
- Oil cooling circuits run through the screw center for better control resin temperature to achieve the best plasticising.

WELLTEC

Specialist in PVC solutions



PVC Injection Moulding Machine
PVC-SEIII
PVC-KII
(60-1800Ton)

WELLTEC

WELLTEC MACHINERY LTD.

10/F, Billion Plaza 2, No.10 Cheung Yue Street,
Kowloon, Hong Kong
Tel: +852 2431 2198
Fax: +852 2433 7060
Website: www.welltec.com.hk
E-mail: info@welltec.com.hk

Version: PVC-202202W



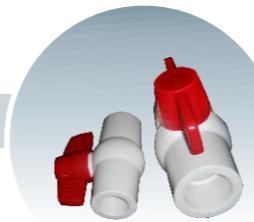
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Specialist in PVC solutions

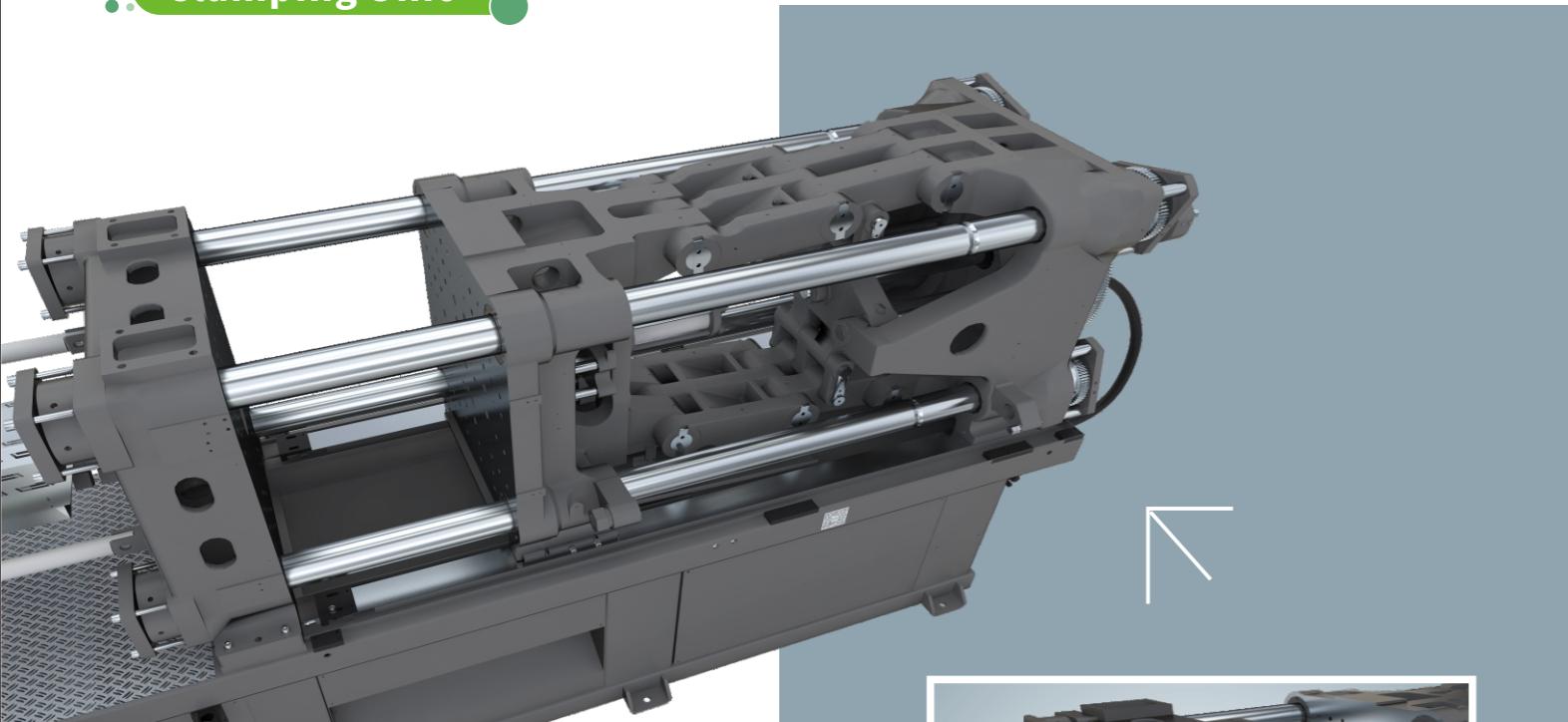


Features

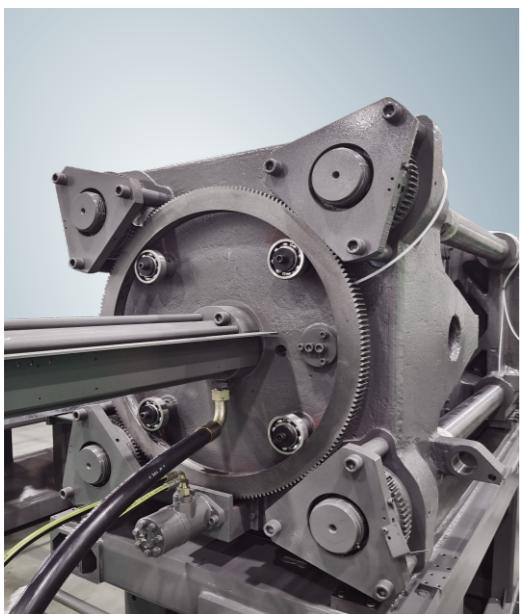
- At least 30% more energy saving than the traditional variable pump system.
- AC servo motor to achieve smooth motion even under low- speed.
- Higher products repeatability with the use of double- closed loop control of flow and pressure.
- Exceptional and stable performance under low pressure and low flow attained by the servo-driven hydraulic pumps.
- Ultra- strong corrosion resistance thanks to the special PVC screw that also enables excellent plasticising.
- Widened guarding between moulding area and movable door with two sets of core pulls to better suit a range of PVC products.



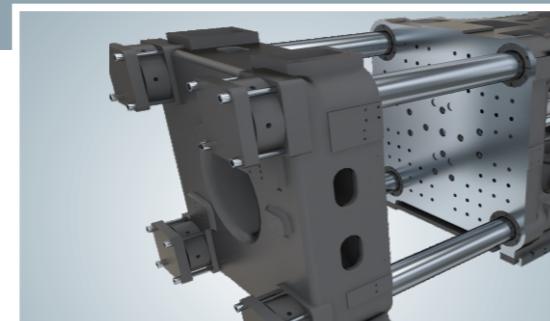
Clamping Unit



- Extra durability achieved through optimised clamping structure. High -rigidity machine frame minimises vibrations and supports smooth movements that satisfies heavy-duties production needs.



- High precision of mould height adjustment by gear to better protect the mould and improve production efficiency.

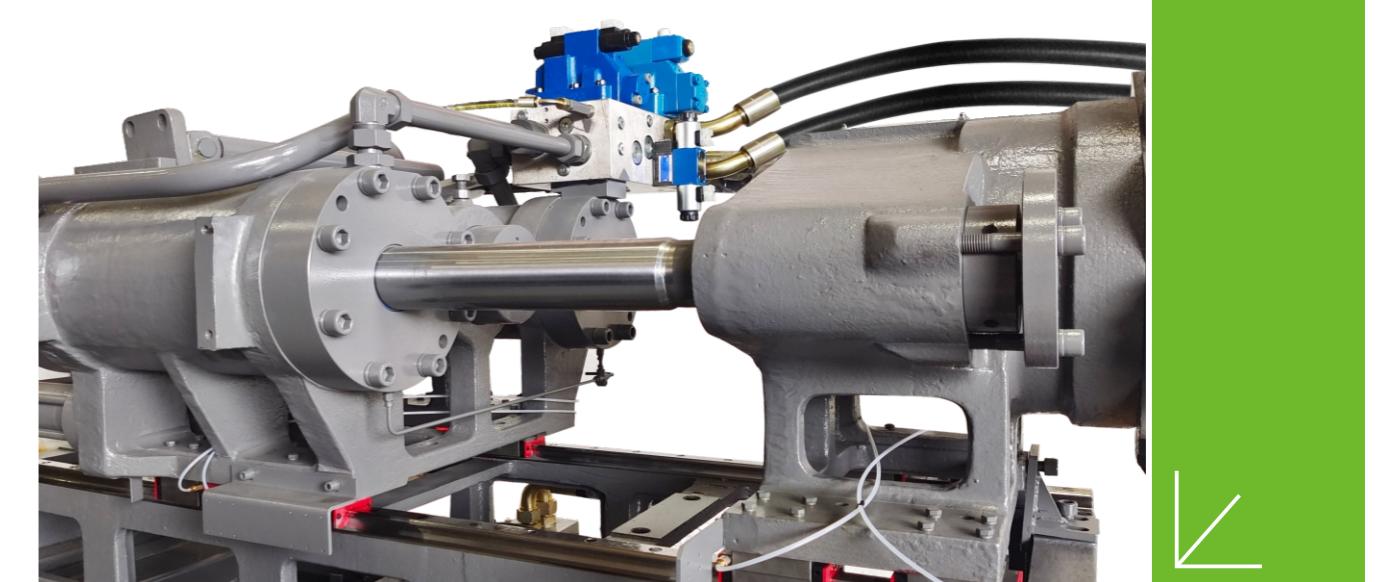


- Optimised platen designs to disperse stress and enhance product repeatability.



- Optimised toggle designs to ensure smooth platen movements and accurate stopping position.

Injection Unit



- High rigidity injection unit reduces deformation of carriage and cylinder rods. Spacing between screw and barrel is well maintained to avoid unilateral scratches and over shear-heating.
- Uniform plasticising and injection reduce products burns, oil seals damages and oil tank leaks.



- Injection cylinders are diagonally positioned to effectively disperse stress.

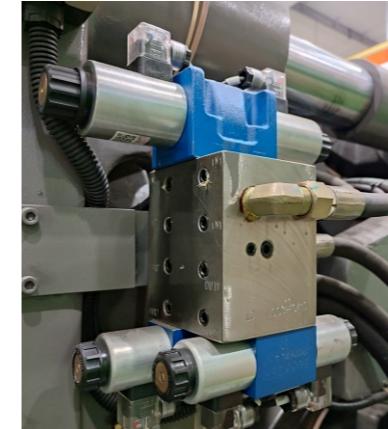


- Linear guide rail realised high precision and low friction carriage movements which effectively lowered mechanical back pressure and overall energy consumption.



- High precision linear transducer ensures stable injection.

Features of PVC Special



Two sets of core pulls on the moving platen

- Standard two sets of core pulls to work with moulds for fittings.

Abundant injection pressure

- Thickened injection cylinder and strengthened cylinder rod to ensure injection pressure is same high as in small diameter screw to enable PVC being injected by high pressure and low speed hydraulics.
- Wide range of injection parameter settings are to better protect the servo driver, motor and hydraulic pump and extend the lifespan of screw tip set.

Optimised air cooling and temperature control device

- Multiple PID controlled barrel fans to ensure accurate and stable temperature control. Speed-adjustable fans to balance the barrel temperature.
- Optimised barrel thickness is to ensure high heat retention. Thermocouples are properly positioned and probed based on the resin properties to maximise measurement accuracy. High power heater bands are to ensure adequate heating.



Screw and tip set specialised for PVC

- Adopting chrome-plated screw and nozzle enables higher wear resistance. Special screw material and heat treatment process enables smooth material feeding.
- Screw designs (L/D ratio/compression ratio/three-section ratio) for different users and products to ensure excellent plasticising and smooth products surface.

Optimal arrangement of high efficiency plasticising motor

- Enlarged plasticising motor is to supply high torque for PVC being high viscosity and low mobility, to ensure stable plasticising.
- Further enlarged plasticising motor is available as an option to cope with CPVC resin being even more viscous and less mobile.

Robust power pack

- Servo driver coupled gear pump to drive stronger system pressure. Excellent handlings for low pressure and low flow rate hydraulics.



Stainless steel hopper

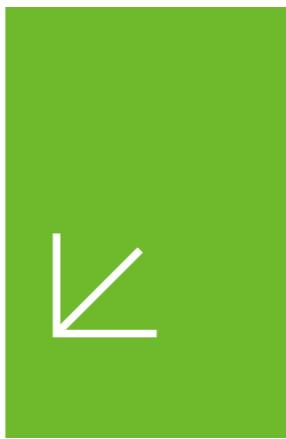
- Convenient replacement of raw materials attained by movable hopper (for specific tonnage).
- Powder-collection tray is located below the hopper mounting for easy cleaning.



Proportional back pressure

- Back pressure is accurately controlled by digital proportional valve to cope with PVC resin which is highly sensitive to shearing heat.

SEIII control system



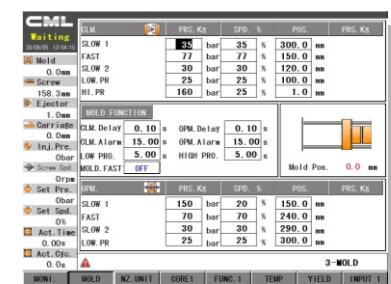
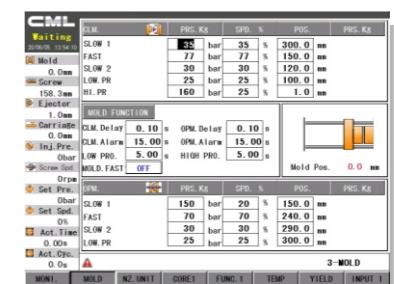
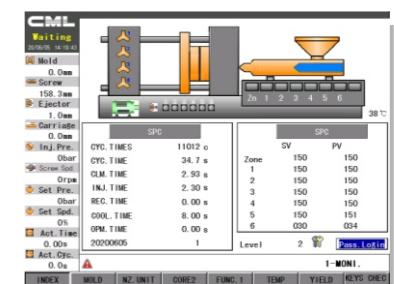
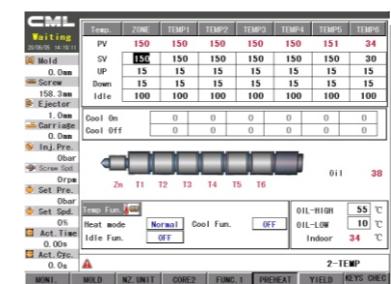
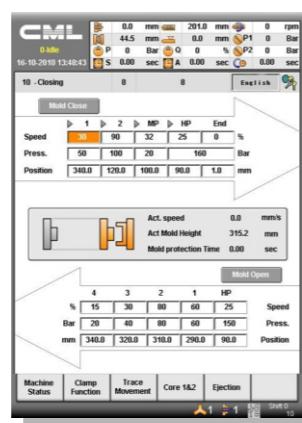
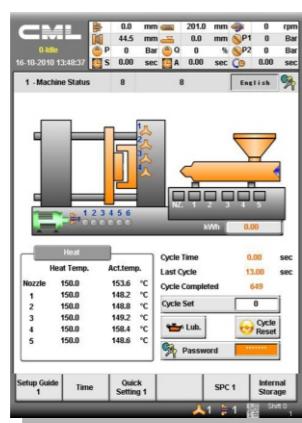
KII control system



Software & Functions

- High performance European B&R control system
- 10.4" TFT colour LCD display
- Users can identify the changes of parameter and source of changes
- Parameter data statistics for quality control
- Automatic control of temperature parameter by PID
- Mould parameter can be stored in USB devices and used in another injection moulding machine
- Remote monitoring of parameter and operation sequence by Modem or Ethernet
- Multi-language selection

- 8" TFT colour display
- User-friendly interface
- 4-stage injection. 4-stage holding pressure. 3-stage plasticising
- Pressure flow curve display
- Screw RPM display
- Barrel preheating function
- 100 sets of mould data



Facilitates real-time monitoring, remote diagnosis and smart factory management (optional)

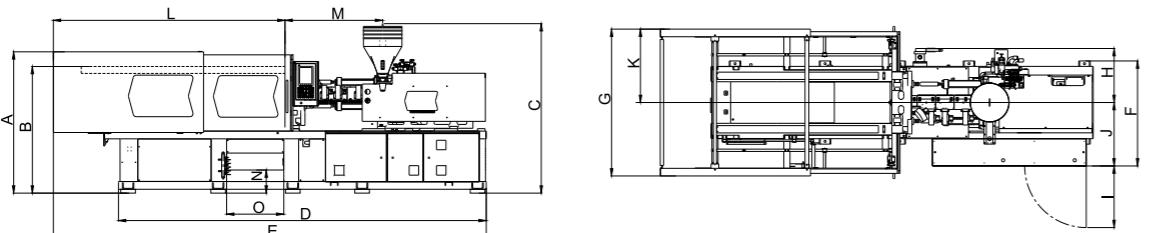
PVC servo pump parameters

Item	Unit	70PVC-SeIII	100PVC-SeIII	140PVC-SeIII	170PVC-SeIII	210PVC-SeIII	270PVC-SeIII	330PVC-SeIII	420PVC-SeIII	480PVC-SeIII	520PVC-SeIII	560PVC-SeIII	660PVC-SeIII	
		700-312	1000-433	1400-630	1700-870	2100-1055	2700-1510	3300-1930	4200-2868	4800-3950	5200-3950	5600-5878	6600-5878	
Injection Unit														
Screw diameter	mm	30	35	35	40	40	45	45	50	50	55	55	60	60
Theoretical shot volume	cc	124	168	192	251	283	358	398	491	491	594	713	848	919
Shot weight (PVC)	g	148	202	231	302	339	429	477	589	589	713	855	1018	1103
Shot weight (PVC)	oz	5.2	7.1	8.2	10.7	12.0	15.2	16.9	20.8	20.8	25.2	30.2	36.0	39.0
Injection pressure	MPa	254	186	225	172	223	176	219	177	215	178	211	178	210
Injection rate	cm³/sec	70	95	79	103	94	119	126	156	152	184	200	238	244
Injection stroke	mm	175		200		225		250		250		300		325
Max. screw speed	rpm	0~173		0~160		0~121		0~126		0~115		0~117		0~135
Injection unit force	Ton	5.7		5.7		5.7		9.1		9.1		9.1		9.1
Carriage stroke	mm	230		300		320		350		350		400		400
Clamping Unit														
Clamping force	Ton	70		100		140		170		210		270		330
Max. daylight	mm	740		740		880		1000		1090		1210		1400
Clamping stroke	mm	360		360		430		480		540		600		700
Distance between tie bars	mm	360x360		360x360		410x410		470x470		535x535		580x580		680x680
Min. mould dimension	mm	250x250		250x250		280x280		320x320		370x370		400x400		470x470
Mould thickness range	mm	120~380		120~380		145~450		150~520		175~550		195~610		250~700
Ejector force	Ton	4.1		4.1		4.1		7.7		9.9		11.1		11.1
Ejector stroke	mm	100		100		120		160		170		195		200
No. of ejector pins	unit	5		5		5		5		9		13		13
Power Unit														
Max. motor power	kW	11.8		11.8		13.4		16.4		16.4		20.5		26.7
System pressure	MPa	17.5		17.5		17.5		17.5		17.5		17.5		17.5
Hydraulic pump capacity	L/min	61		61		72		95		112.5		145		176
No. of heating zones	unit	3+1		3+1		4+1		4+1		4+1		5+1		5+1
Heating power	kW	7.2		9		10.81		14.03		16		18.7		22
Total power	kW	20		21.8		25.21		31.43		33.4		40.2		49.7
Total current	A	27.3		29.8		34.5		43.0		45.7		55.0		68.0
General														
Machine net weight	Ton	3.27		3.6		4.5		6		7.1		8.55		11.52
Oil filling capacity	L	200		200		200		320		360		480		550

We are always working on improvement and reserve the rights to change design and specifications without prior notice

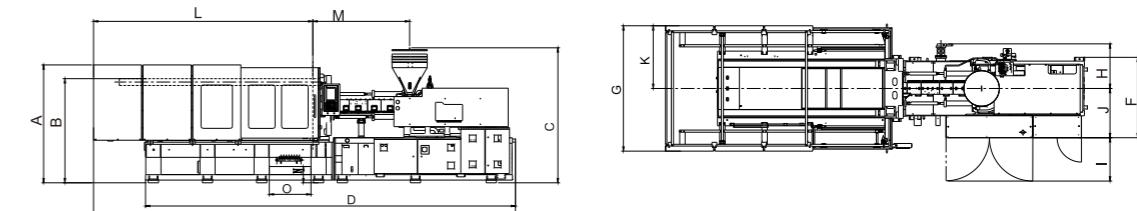
Machine Dimensions

70~330PVC-SeIII



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
70PVC-SeIII	1619	1400	2062	3560	4220	1054	1542	587	800	634	771	2177	852	330	580
100PVC-SeIII	1619	1400	2062	3560	4220	1054	1542	587	800	634	771	2177	980	330	580
140PVC-SeIII	1673	1486	2098	3878	4764	1291	1638	623	800	668	819	2468	1042	300	613
170PVC-SeIII	1762	1567	2161	4513	5252	1284	1737	658	800	789	869	2729	1487	300	680
210PVC-SeIII	1835	1645	2200	4778	5625	1364	1907	702	800	824	954	3009	1269	300	743
270PVC-SeIII	1961	1757	2398	5125	6048	1414	2002	781	800	849	1001	3248	1370	300	848
330PVC-SeIII	2078	1884	2284	5575	6531	1514	2137	805	800	899	1069	3649	1494	320	910

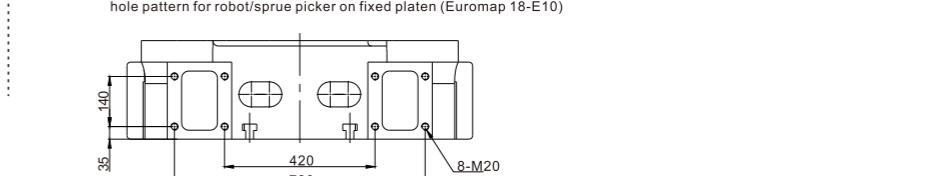
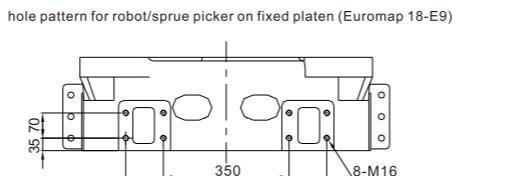
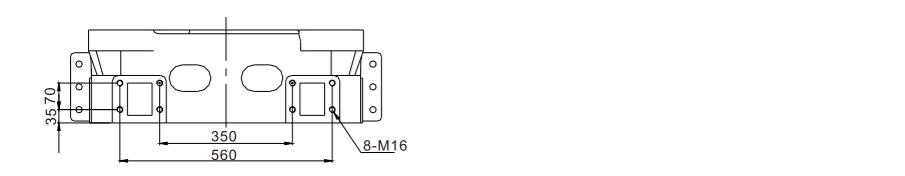
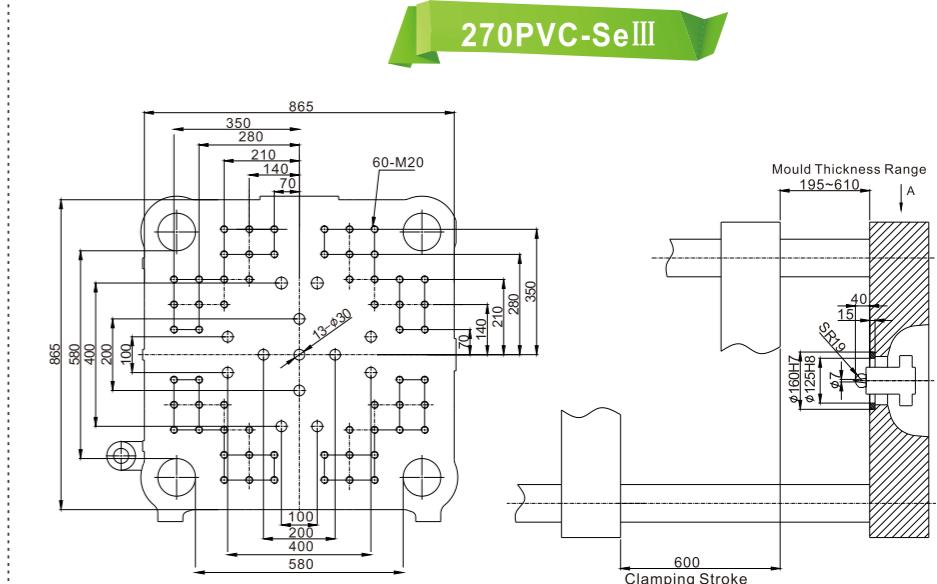
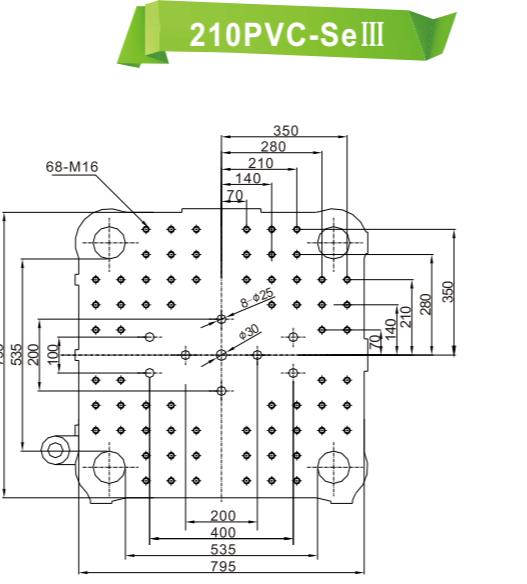
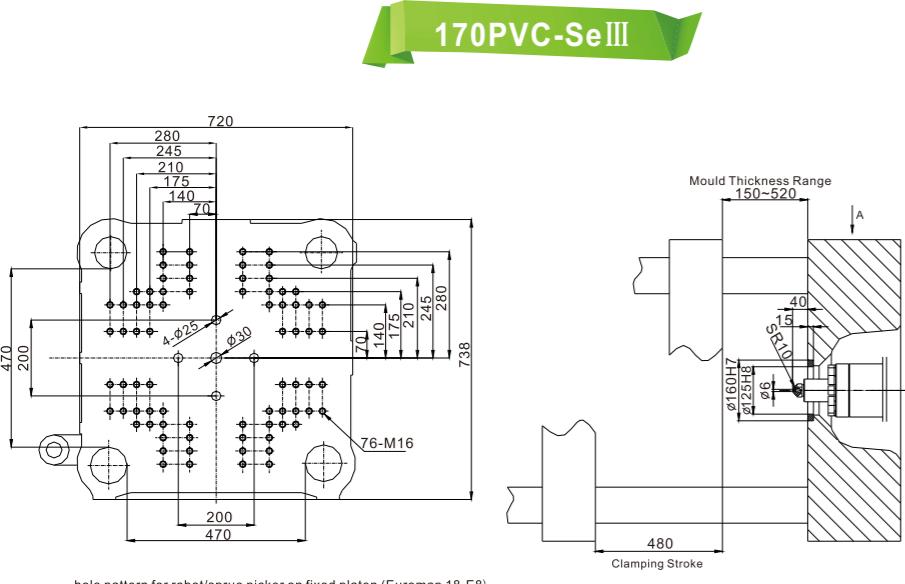
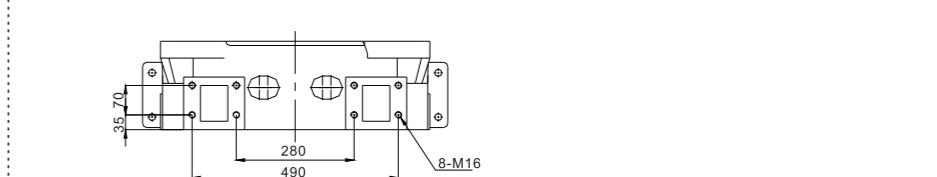
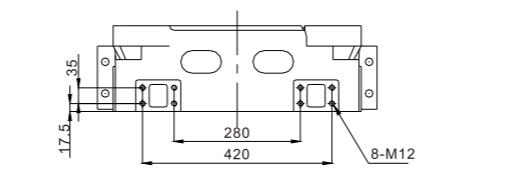
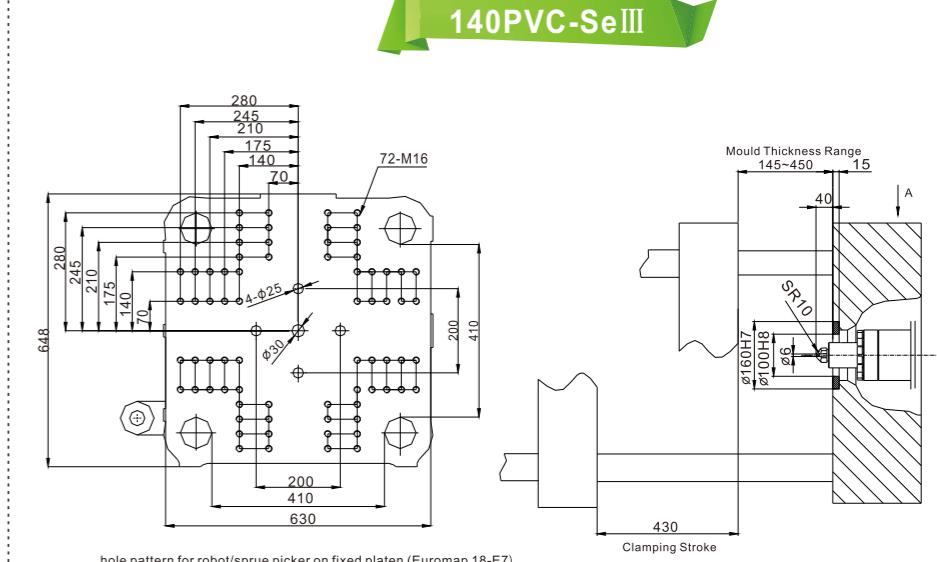
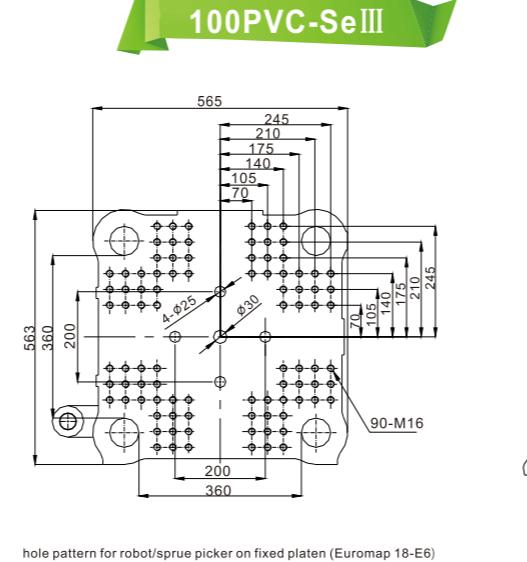
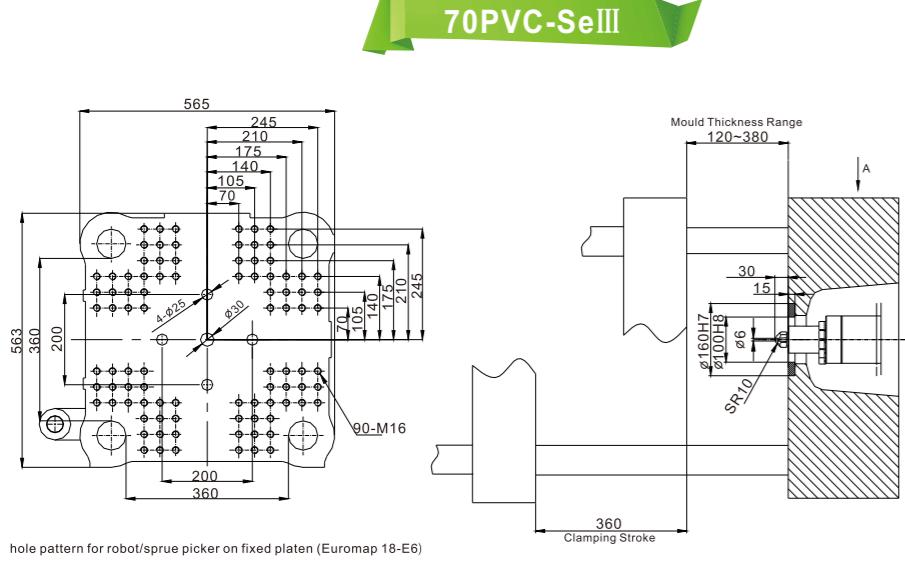
420~660PVC-SeIII



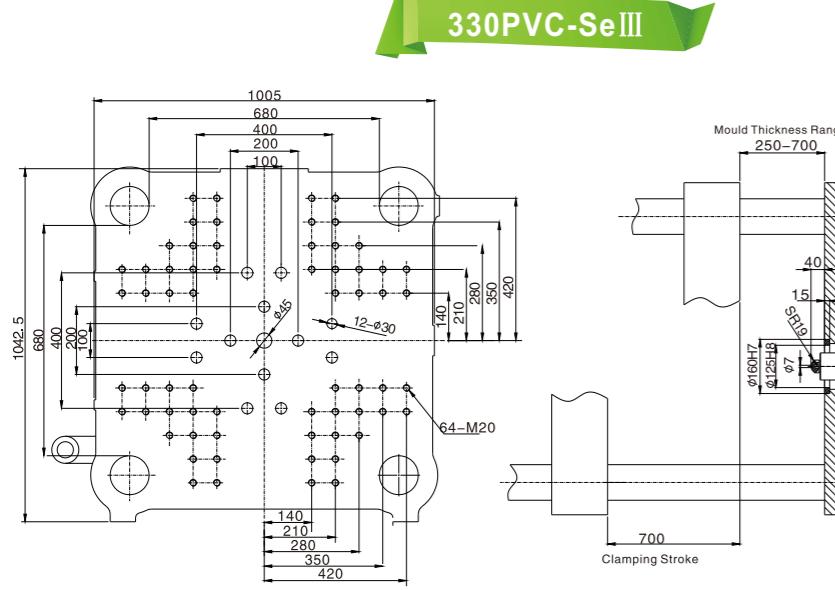
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
420PVC-SeIII	2176	1923	2417	6480	7556	1499	2314	840	800	915	1157	4050	1730	(300)	865
480PVC-SeIII	2246	1987	2526	7061	8025	1549	2428	856	800	942	1214	4249	2012	(300)	825
520PVC-SeIII	2244	2005	2526	7196	8250	1549	2450	856	800	942	1225	4474	2012	(300)	890
560PVC-SeIII	2223	2085	2537	7589	8849	2194	2491	1234	850	960	1245	4405	2094	(300)	690
660PVC-SeIII	2402	2125	2537	7729	9103	2194	2644	1234	850	960	1322	4690	2094	(300)	700

Remark: C-hopper height for reference only

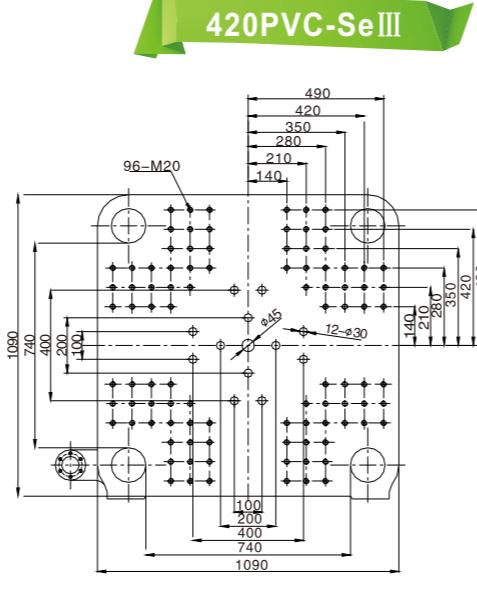
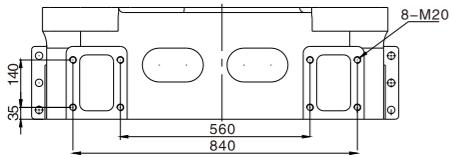
Platen/Nozzle Dimensions



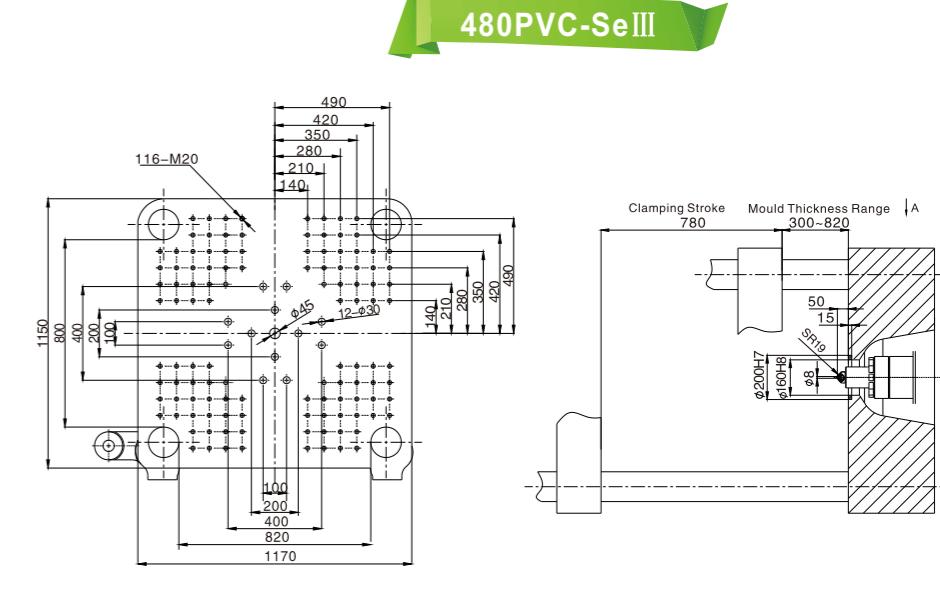
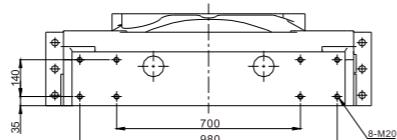
Platen/Nozzle Dimensions



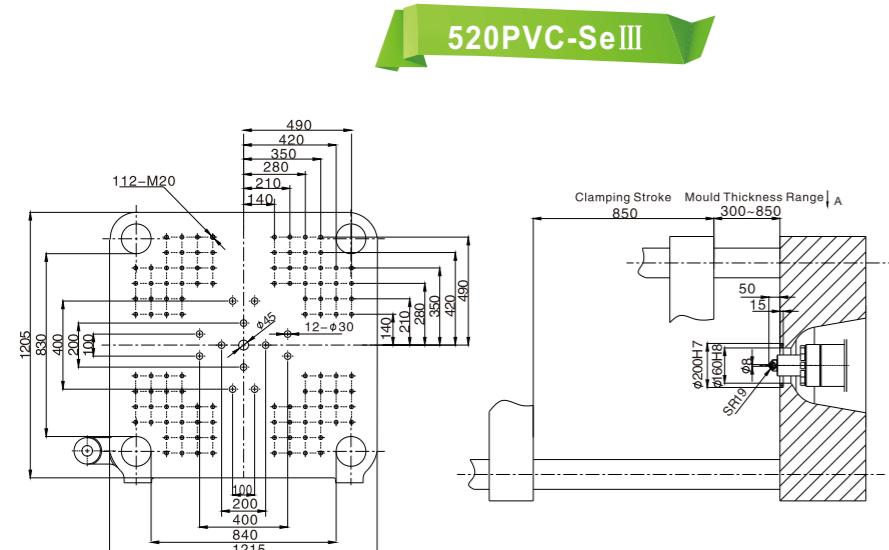
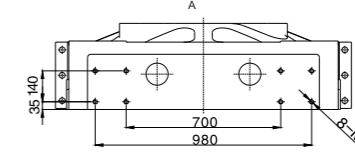
hole pattern for robot/sprue picker on fixed platen (Euromap 18-E11)



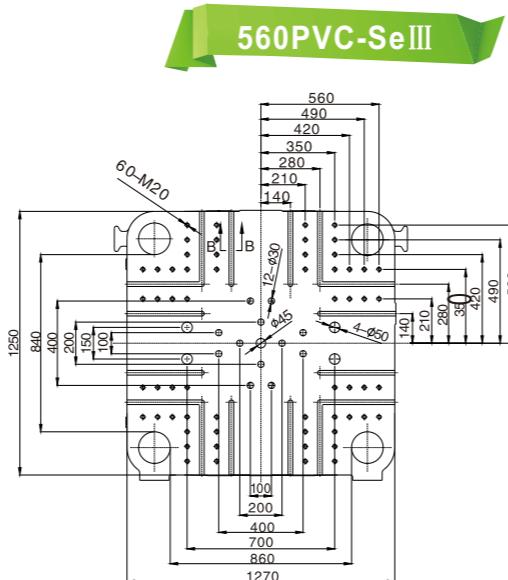
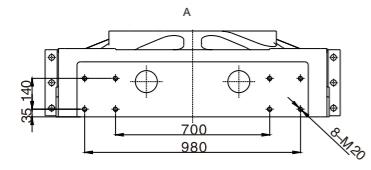
hole pattern for robot/sprue picker on fixed platen (Euromap 18-E12)



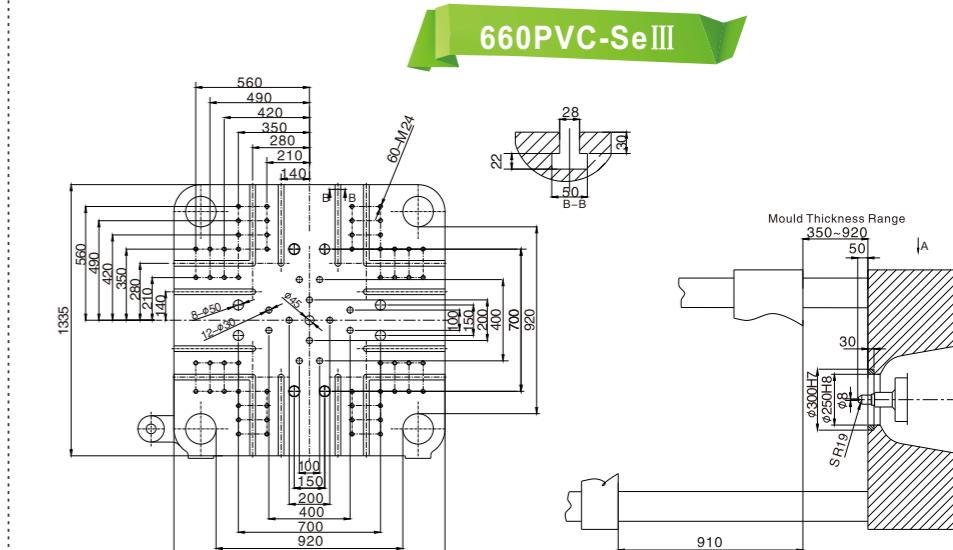
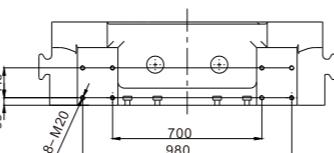
hole pattern for robot/sprue picker on fixed platen (Euromap 18-E13)



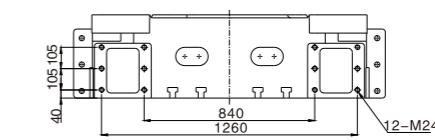
hole pattern for robot/sprue picker on fixed platen (Euromap 18-E13)



hole pattern for robot/sprue picker on fixed platen (Euromap 18-E13)



hole pattern for robot/sprue picker on fixed platen (Euromap 18-E15)



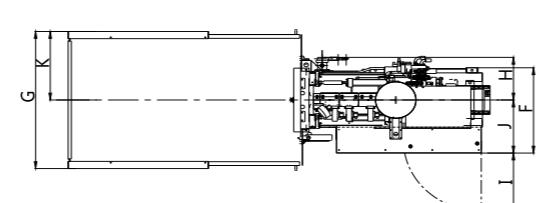
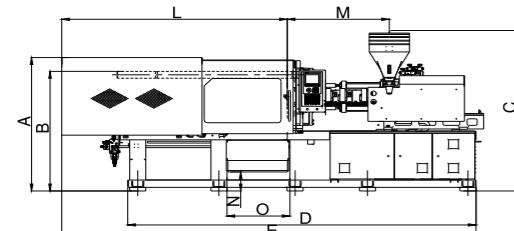
PVC servo pump parameters

Item	Unit	60PVC-KII		90PVC-KII		130PVC-KII		160PVC-KII		190PVC-KII		260PVC-KII		320PVC-KII		400PVC-KII		480PVC-KII		560PVC-KII		660PVC-KII	
		600-312		900-433		1300-630		1600-870		1900-1055		2600-1510		3200-1930		4000-2868		4800-3950		5600-5878		6600-5878	
Injection Unit																							
Screw diameter	mm	30	35	35	40	40	45	45	50	50	55	55	60	60	65	70	75	80	85	90	95	90	95
Theoretical shot volume	cc	124	168	192	251	283	358	398	491	491	594	713	848	919	1078	1443	1657	2011	2270	2799	3119	2799	3119
Shot weight (PVC)	g	148	202	231	302	339	429	477	589	589	713	855	1018	1103	1294	1732	1988	2413	2724	3359	3743	3359	3743
Shot weight (PVC)	oz	5.2	7.1	8.2	10.7	12.0	15.2	16.9	20.8	20.8	25.2	30.2	36.0	39.0	45.7	61.2	70.2	85.3	96.2	118.7	132.2	118.7	132.2
Injection pressure	MPa	254	186	225	172	223	176	219	177	215	178	211	178	210	179	199	173	197	174	210	188	210	188
Injection rate	cm ³ /sec	70	95	79	103	94	119	126	156	152	184	191	228	244	287	323	371	407	460	489	545	489	545
Injection stroke	mm	175		200		225		250		250		300		325		375		400		440		440	
Max. screw speed	rpm	0~173		0~160		0~121		0~126		0~115		0~112		0~135		0~108		0~108		0~99		0~99	
Injection unit force	Ton	5.7		5.7		5.7		9.1		9.1		9.1		9.1		12		12		20.4		20.4	
Carriage stroke	mm	230		300		320		350		350		400		400		435		480		600		600	
Clamping Unit																							
Clamping force	Ton	60		90		130		160		190		260		320		400		480		560		660	
Max. daylight	mm	680		680		820		906		1000		1130		1275		1530		1600		1730		1830	
Clamping stroke	mm	320		320		410		446		490		550		615		780		780		880		910	
Distance between tie bars	mm	360x360		360x360		410x410		460x460		510x510		580x580		660x660		740x740		820x800		860x840		920x920	
Min. mould dimension	mm	250x250		250x250		280x280		320x320		350x350		400x400		460x460		520x520		570X560		600x590		645x645	
Mould thickness range	mm	150~360		150~360		150~410		150~460		175~510		200~580		250~660		250~750		300~820		350~850		350~920	
Ejector force	Ton	4		4		4.2		4.9		4.9		6.7		6.7		16.6		16.6		16.6		16.6	
Ejector stroke	mm	85		85		100		130		140		160		180		210		240		240		290	
No. of ejector pins	unit	5		5		5		5		5		9		13		13		17		17		21	
Power Unit																							
Max. motor power	kW	11.8		11.8		15.7		17.3		23		31.4		32		46.1		56.5		73.3		73.3	
System pressure	MPa	17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5		17.5	
Hydraulic pump capacity	L/min	61		61		72		95		112.5		139		176		220		275		352		352	
No. of heating zones	unit	3+1		3+1		4+1		4+1		4+1		5+1		5+1		5+1		5+1		5+1		5+1	
Heating power	kW	7.2		9		10.81		14.03		16		18.7		22		28.95		35.85		39.7		39.7	
Total power	kW	20		21.8		27.51		32.33		40		51.1		55		76.05		93.35		114.0		114.0	
Total current	A	27.3		29.8		37.6		44.2		54.7		69.9		75.2		104.0		127.7		155.9		155.9	
General																							
Machine net weight	Ton	3.25		3.25		4.2		5.2		6.1		7.64		10.5		14.68		17		23		26	
Oil filling capacity	L	140		140		160		220		260		350		470		700		700		1000		1000	

We are always working on improvement and reserve the rights to change design and specifications without prior notice.

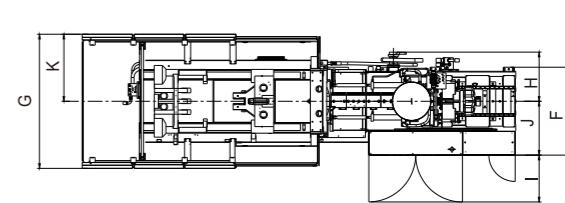
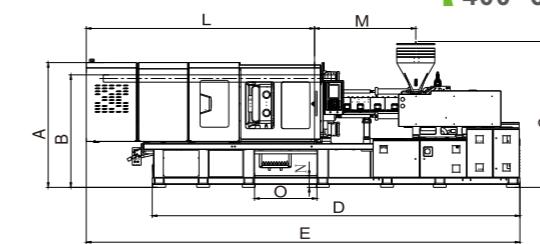
Machine Dimensions

【60~320PVC-KII】



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
60PVC-KII	1574	1410	2070	3340	3870	842	1375	505	800	557	695	2015	846	380	613
90PVC-KII	1574	1410	2070	3340	3870	842	1375	506	800	557	695	2015	972	380	613
130PVC-KII	1670	1502	2123	3665	4383	1146	1460	544	800	602	725	2375	1043	321	635
160PVC-KII	1777	1596	2195	4015	4772	1271	1726	564	800	707	863	2585	1187	297	694
190PVC-KII	1840	1650	2214	4332	5152	1177	1892	589	800	732	946	2805	1269	261	783
260PVC-KII	1914	1722	2248	4855	5764	674	1828	674	800	792	914	3009	1369	221	905
320PVC-KII	2051	1917	2360	5211	5212	751	2160	751	800	871	1080	3315	1494	259	1105

【400~660PVC-KII】

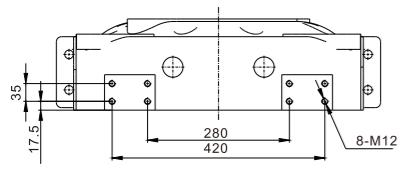
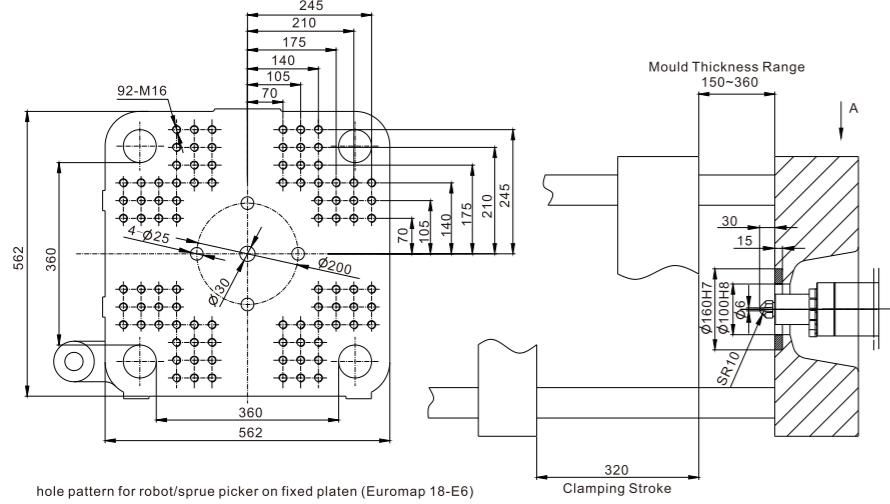


Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
400PVC-KII	2176	1923	2417	6480	7556	1499	2314	840	800	915	1157	4050	1730	(300)	865
480PVC-KII	2246	1987	2526	7061	8025	1549	2428	856	800	942	1214	4249	2012	(300)	860
560PVC-KII	2223	2085	2537	7589	8849	2194	2491	1234	850	960	1245	4405	2094	(300)	690
660PVC-KII	2402	2125	2537	7729	9103	2194	2644	1234	850	960	1322	4690	2094	(300)	700

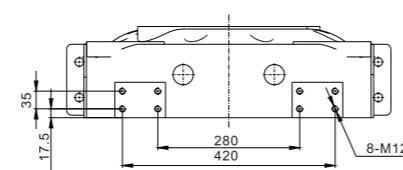
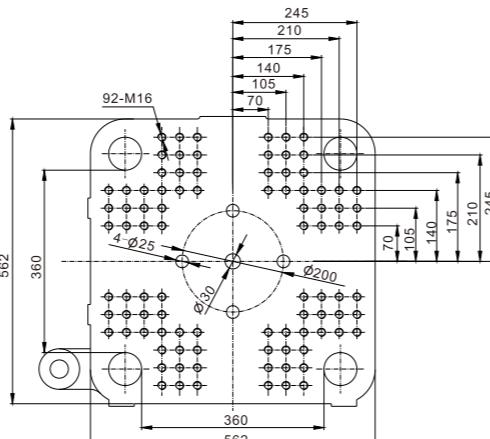
Remark: C-hopper height for reference only

Platen/Nozzle Dimensions

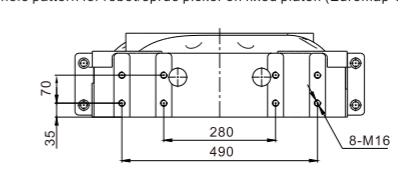
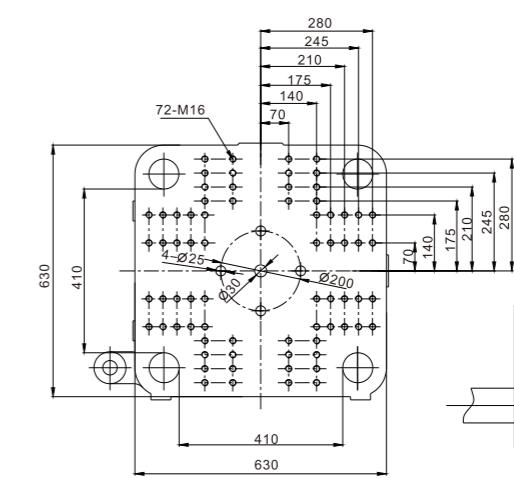
60PVC-KII



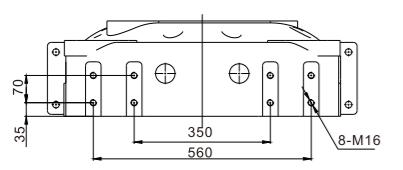
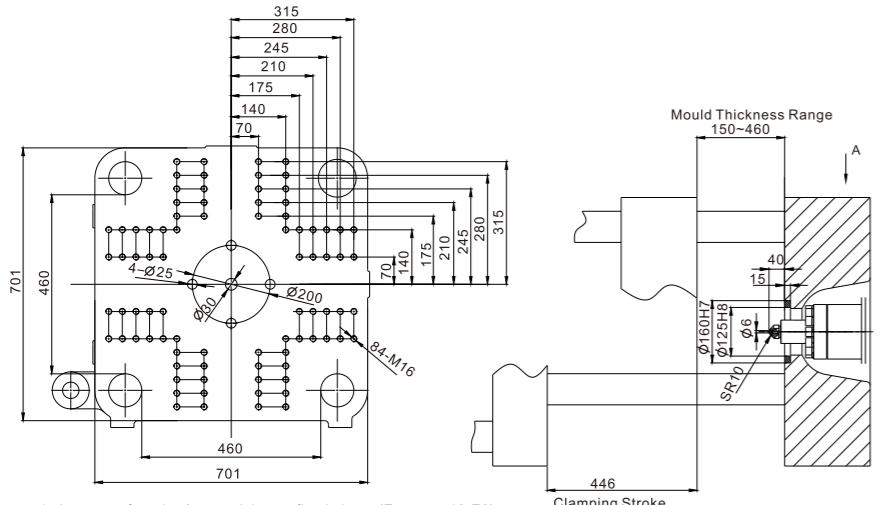
90PVC-KI



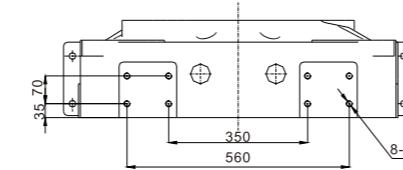
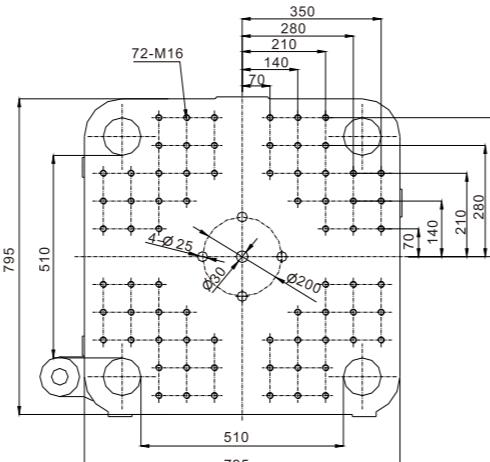
130PVC-KII



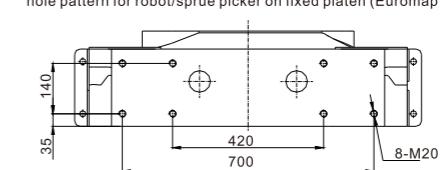
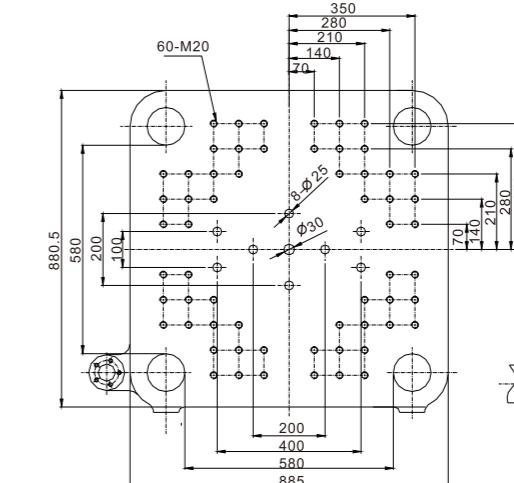
160PVC-KII



190PVC-KI

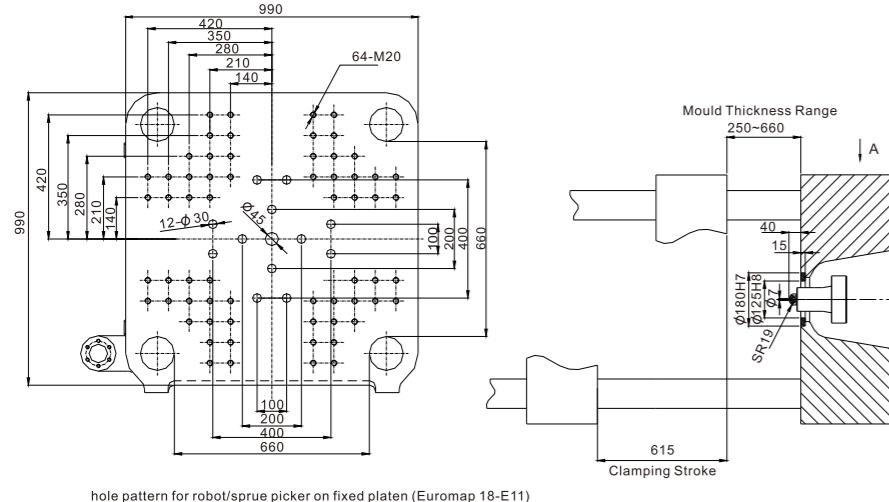


260PVC-KII

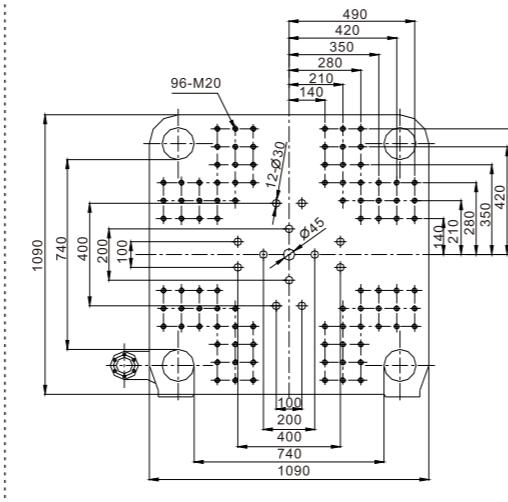


Platen/Nozzle Dimensions

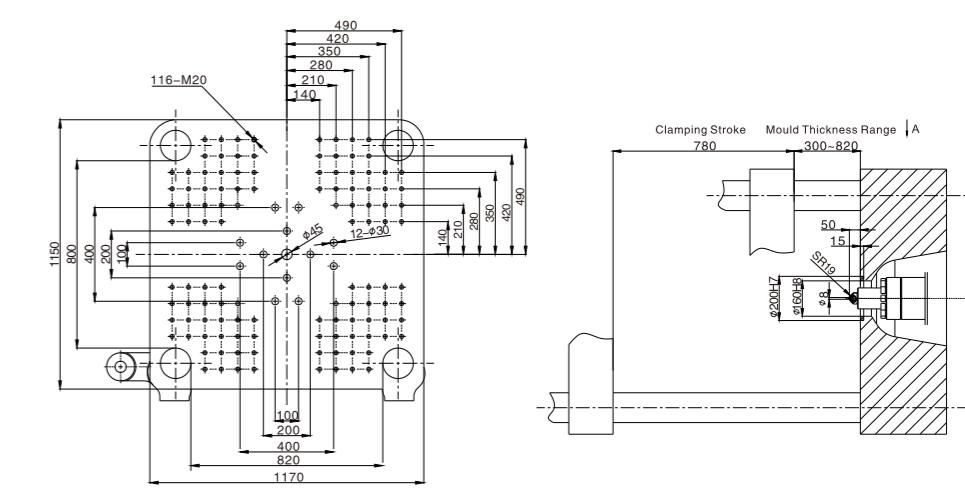
320PVC-KII



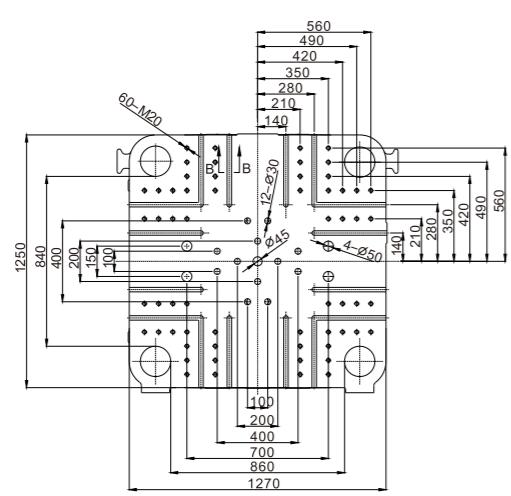
400PVC-KII



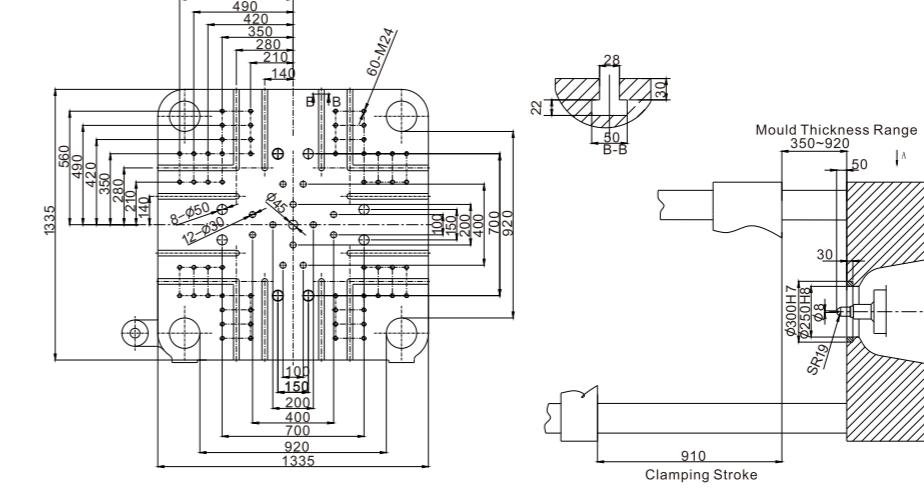
480PVC-KII



560PVC-KII



660PVC-KII



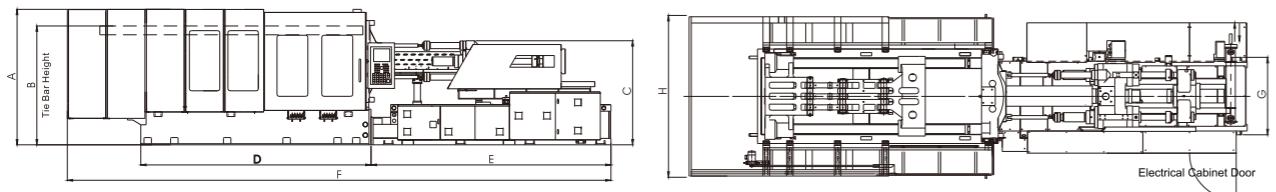
Large-sized PVC servo pump parameters

Item	Unit	750 PVC-SeIII	850 PVC-SeIII	1000 PVC-SeIII	1250 PVC-SeIII	1500 PVC-SeIII	1800 PVC-SeIII
Injection Unit							
Screw diameter	mm	100	100	110	125	135	145
Theoretical shot volume	cc	3691	3691	4657	6835	9232	10651
Shot weight (PVC)	g	4430	4430	5588	8203	11079	12781
Shot weight (PVC)	oz	157	157	197	290	391	452
Injection pressure	MPa	171	171	173	180	187	162
Injection rate	cm ³ /sec	706	706	787	839	810	1215
Injection stroke	mm	470	470	490	557	645	645
Max. screw speed	rpm	0~81	0~81	0~71	0~60	0~46	0~47
Injection unit force	Ton	19.8	19.8	19.8	19.8	28.8	28.8
Carriage stroke	mm	600	600	650	800	800	850
Clamping Unit							
Clamping force	Ton	750	850	1000	1250	1500	1800
Max. daylight	mm	2050	2200	2300	2600	2900	3000
Clamping stroke	mm	1025	1100	1150	1300	1500	1500
Distance between tie bars	mm	1000x1000	1060x1060	1100x1100	1250x1250	1400x1400	1600x1400
Min. mould dimension	mm	700x700	740x740	780x780	875x875	980x980	1100x980
Mould thickness range	mm	350~1025	450~1100	450~1150	500~1300	600~1400	700~1500
Ejector force	Ton	25	25	25	25	33	33
Ejector stroke	mm	350	350	350	350	350	380
No. of ejector pins	unit	21	21	21	21	33	33
Power Unit							
Max. motor power	kW	67.6	67.6	77.4	91.6	91.6	104.1
System pressure	Mpa	17	17	17	17	17	17
Hydraulic pump capacity	L/min	440	440	495	550	550	715
No. of heating zones	unit	5+1	5+1	5+1	5+1	5+1	5+1
Heating power	kW	48	48	56	72	90	90
Total power	kW	116.6	116.6	134.4	164.6	182.6	195.1
Total current	A	141.7	141.7	163.4	200.1	222.0	237.1
General							
Machine net weight	Ton	40.0	44.0	53.0	71.0	103.0	130.0
Oil filling capacity	L	1500	1500	1600	1600	2000	2000
Item							
Max. motor power	kW	83.8	83.8	94.2	112	112	131.9
Total power	kW	132.8	132.8	151.2	185	203	222.9
Total current	A	161.4	161.4	183.8	224.9	246.7	270.9

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Machine Dimensions

750PVC-SeIII/PVC-KII ~1800PVC-SeIII/PVC-KII



Model	A	B	C	D	E	F	G	H
750PVC-SeIII/PVC-KII	2539	2227	2635	4318	4497	10192	1410	2946
850PVC-SeIII/PVC-KII	2420	2300	2635	4668	4497	10514	1410	3100
1000PVC-SeIII/PVC-KII	2687	2370	2717	4904	4900	11090	1482	3380
1250PVC-SeIII/PVC-KII	2867	2530	2853	5485	5060	12149	1482	3620
1500PVC-SeIII/PVC-KII	2808	2700	3200	6158	5360	13290	1340	4000
1800PVC-SeIII/PVC-KII	2808	2720	3200	6340	5360	13439	1340	4240

Remark: C-hopper height for reference only

Platen/Nozzle Dimensions

