

Our offices and agents



Specialist in PVC solutions



PVC Injection Moulding Machine

PVC-SeIII
(170-1800Ton)

Welltec Machinery Ltd

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Version: PVC-202505W



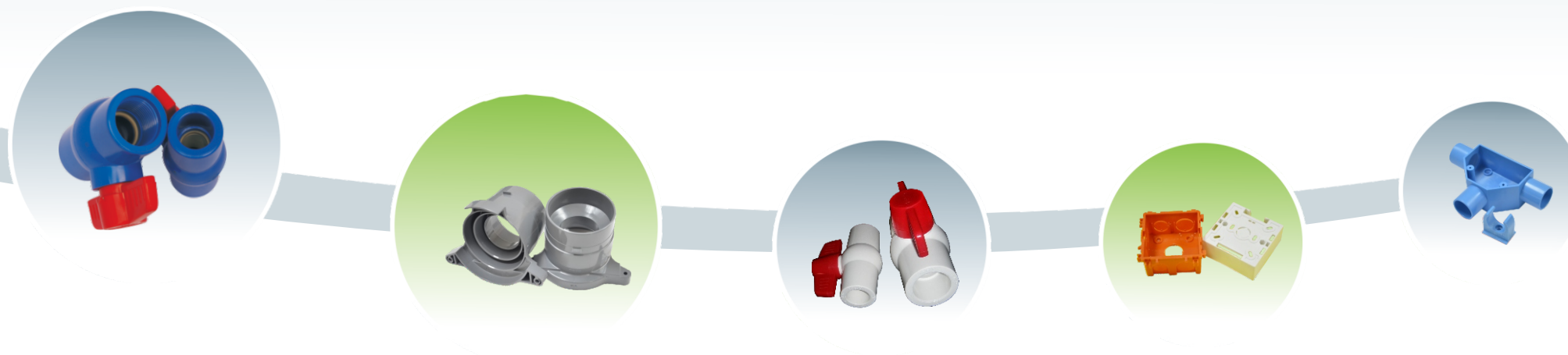
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Specialist in PVC solutions

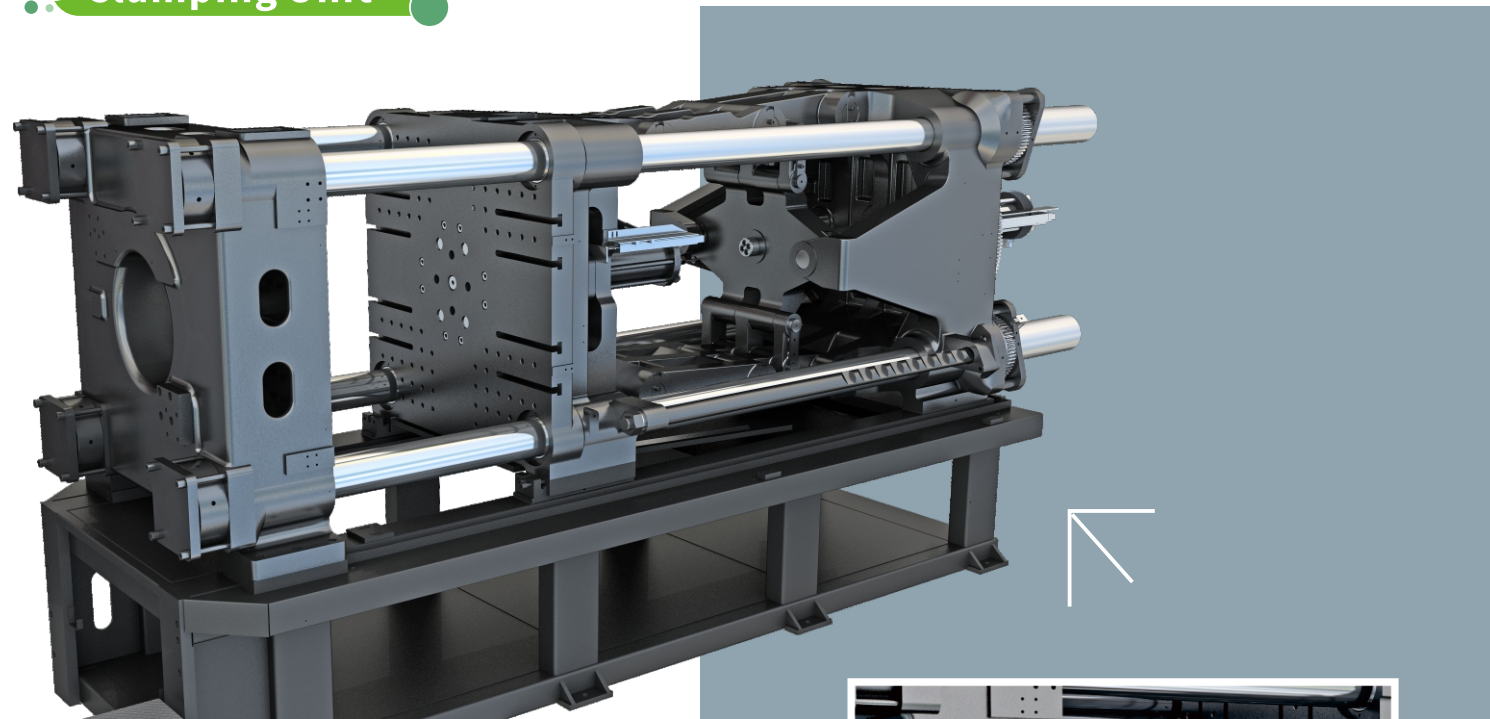


Features

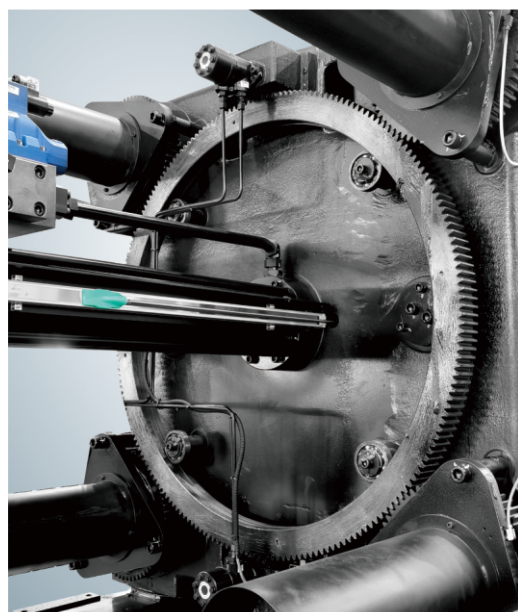
- At least 30% more energy saving than the traditional variable pump system .
- AC servo motor to achieve smooth motion even under low- speed.
- Higher products repeatability with the use of double- closed loop control of flow and pressure.
- Exceptional and stable performance under low pressure and 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.



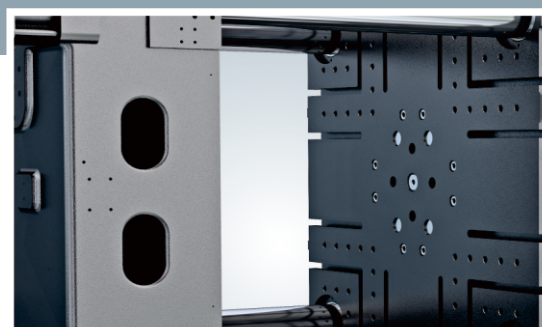
Clamping Unit



- 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.

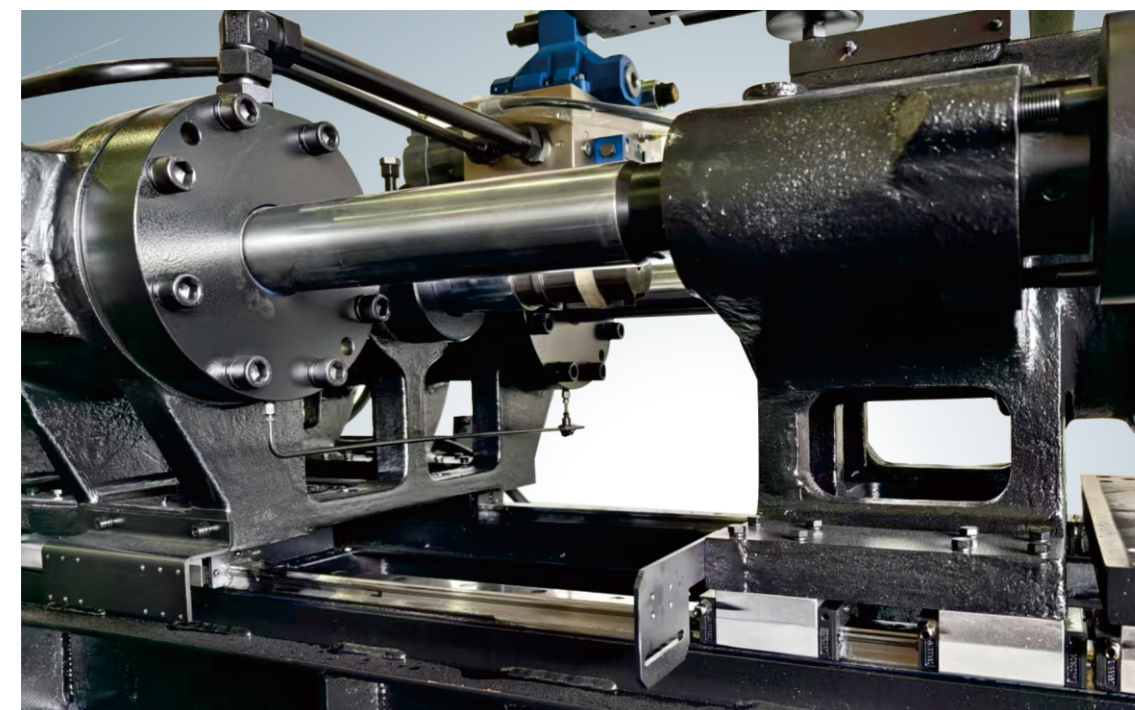


- Optimised platen designs to disperse stress and enhance product repeatability.

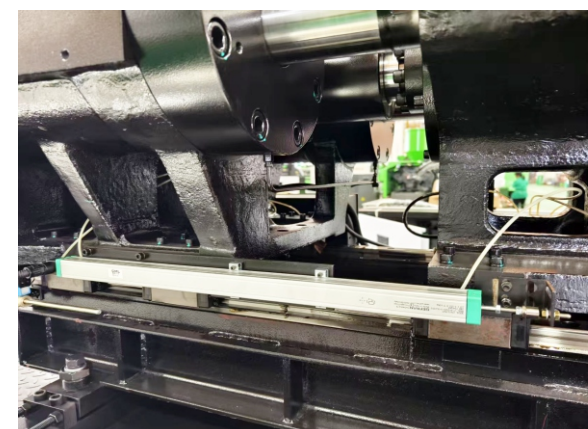


- Optimised toggle designs to ensure smooth platen movements and accurate stopping position.

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.



- High precision linear transducer ensures stable injection.
- Linear guide rail realised high precision and low friction carriage movements which effectively lowered mechanical back pressure and overall energy consumption.



- Injection cylinders are diagonally positioned to effectively disperse stress.

Features of PVC Special



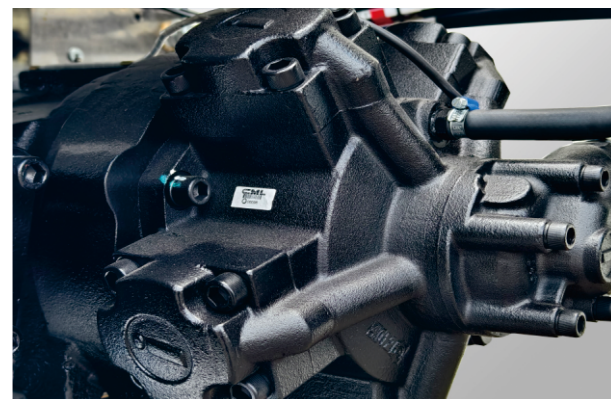
Optimised air cooling and temperature control device

- 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.



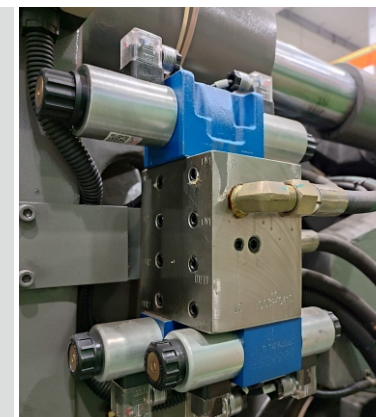
Screw and tip set specialised for PVC

- 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.



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.



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.



Widened guard door

- Widened guard doors at the clamping unit to accommodate extra-long core pulls for fitting moulds.



Proportional back pressure

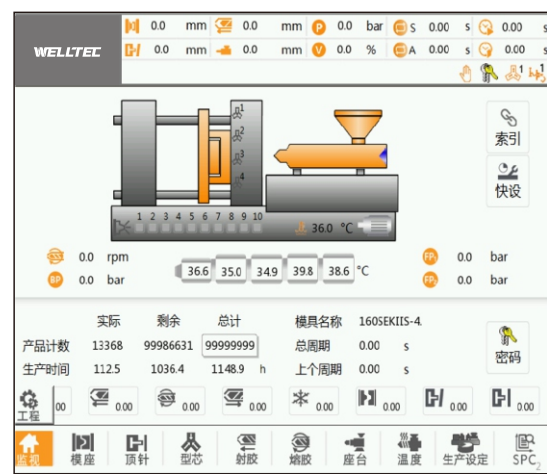
- Back pressure is accurately controlled by digital proportional valve to cope with PVC resin which is highly sensitive to shearing heat.

PVC-SeIII

AS10 control system

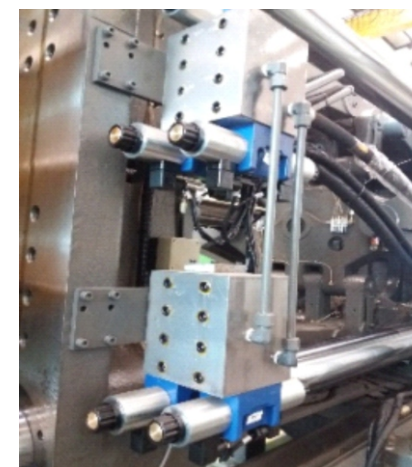


- 8" or 10" (optional) TFT color touchscreen display
- Closed-loop control for mold open/close, injection, plasticizing and ejector
- 6-stage injection, 5-stage pressure holding, 5-stage plasticizing coupled with pressure - flow curve display
- Screw RPM display and barrel preheating function
- 500 sets of mold data and 2,000 sets of SPC record. Data export to EXCEL for analysis
- Quick system response with high precision control
- Non battery reliance for permanent system data storage
- iSee 4.0 cloud- based machine monitoring, remote technical diagnosis and supports (optional)



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

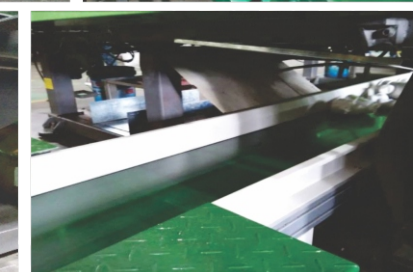
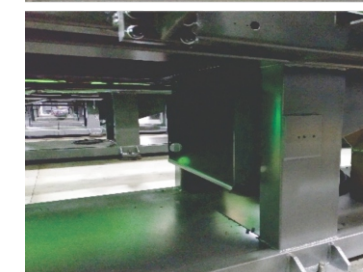
Optional features



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



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



- 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.



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



For large-sized PVC machine

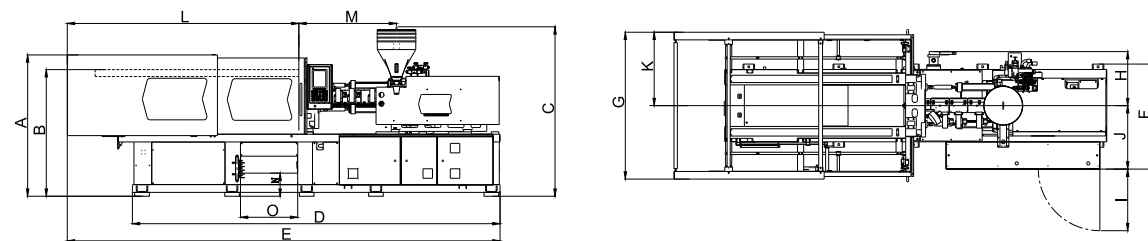
- Screw driven by gear box in high tonnage PVC machine is to ensure sufficient torque for plasticising.
- Oil cooling circuits run through the screw center for better control of resin temperature to achieve the best plasticising.

PVC servo pump parameters

Item	Unit	330PVC-SeIII		420PVC-SeIII		480PVC-SeIII	
		3300-1930		4200-2868		4800-3958	
Injection Unit							
Screw diameter	mm	60	65	70	75	80	85
Theoretical shot volume	cc	919	1078	1443	1657	2011	2270
Shot weight (PVC)	g	1103	1294	1732	1988	2413	2724
Shot weight (PVC)	oz	39.0	45.7	61.2	70.2	85.3	96.2
Injection pressure	MPa	210	179	199	173	197	174
Injection rate	cm³/sec	244	287	323	371	407	460
Injection stroke	mm	325		375		400	
Max. screw speed	rpm	135		108		102	
Injection unit force	Ton	9.1		12		12	
Carriage stroke	mm	400		435		480	
Clamping Unit							
Clamping force	Ton	330		420		480	
Max. daylight	mm	1400		1530		1600	
Clamping stroke	mm	700		780		780	
Distance btwn. tie bars	mm	680x680		740x740		820x800	
Min. mould dimension	mm	470x470		520x520		570X560	
Mould thickness range	mm	250-700		250-750		300-820	
Ejector force	Ton	11.1		16.6		16.6	
Ejector stroke	mm	195		210		240	
No. of ejector pins	unit	13		13		13	
Power Unit							
Max. motor power	kW	29.3		47.7		51.3	
System pressure	MPa	17.5		17.5		17.5	
Hydraulic pump capacity	L/min	176		220		275	
No. of heating zones	unit	5+1		5+1		5+1	
Heating power	kW	22		28.95		35.85	
Total power	kW	52.3		77.65		88.15	
Total current	A	71.5		106.2		120.5	
General							
Machine weight	Ton	11.52		14.68		17	
Oil filling capacity	L	540		700		720	
Machine dimensions(L*W*H)	mm	7000*2137*2078		8035*2314*2176		8555*2428*2246	

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

Machine Dimensions

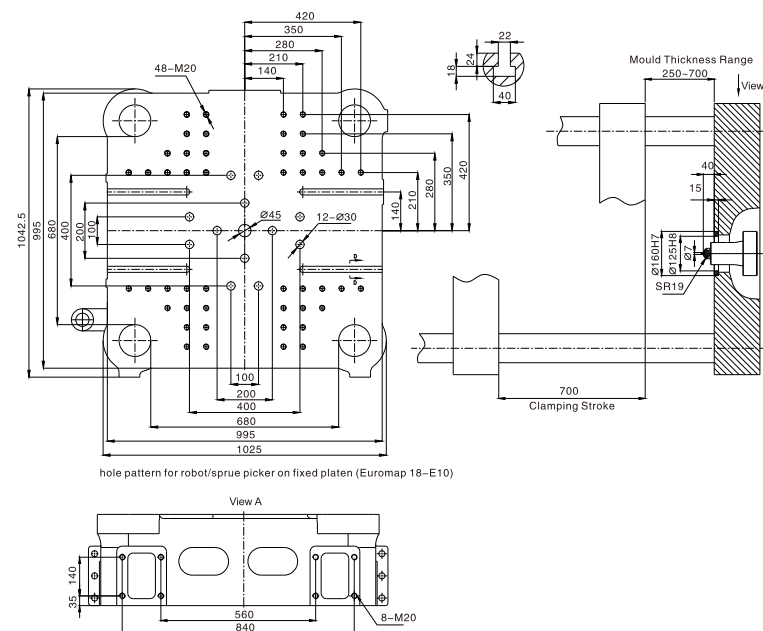


Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
330PVC-SeⅢ	2078	1884	2284	5575	6531	1514	2137	805	800	899	1069	3649	1494	320	910
420PVC-SeⅢ	2176	1923	2417	6480	7556	1499	2314	840	800	915	1157	4050	1730	(300)	865
480PVC-SeⅢ	2246	1987	2526	7061	8025	1549	2428	856	800	942	1214	4249	2012	(300)	825

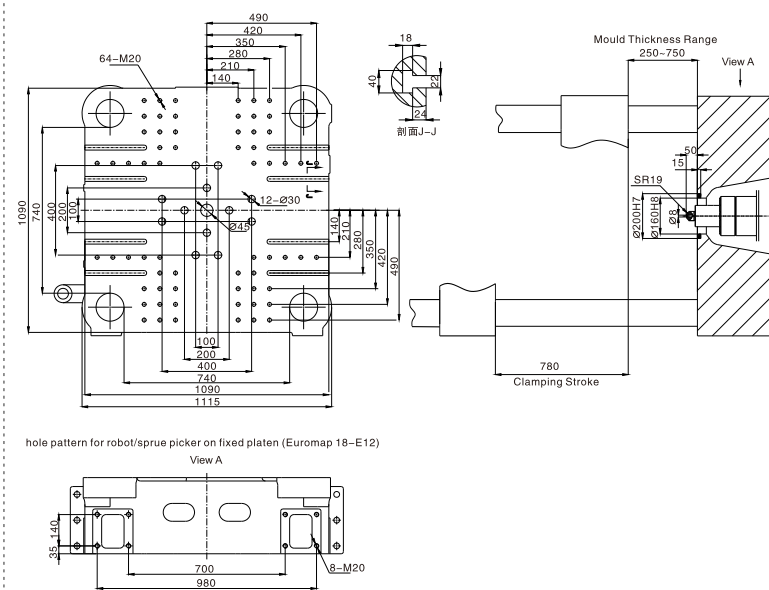
Remark: C-hopper height for reference only

Platen/Nozzle Dimensions

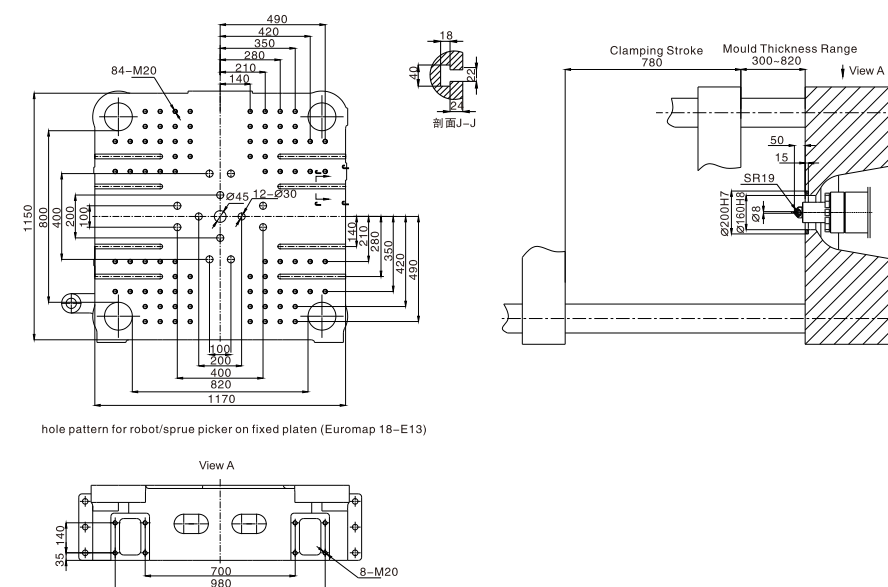
330PVC-SeIII



420PVC-SeIII

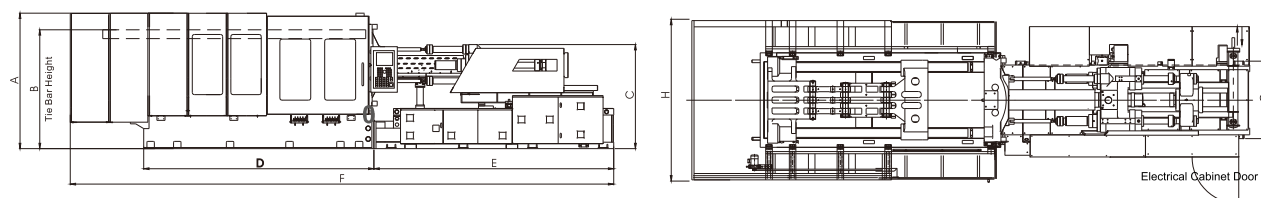


480PVC-Se III



Item	Unit	530PVC-SeⅢ		660PVC-SeⅢ	
		5300-5875		6600-5875	
Injection Unit					
Screw diameter	mm	90	95	90	95
Theoretical shot volume	cc	2799	3119	2799	3119
Shot weight (PVC)	g	3359	3743	3359	3743
Shot weight (PVC)	oz	118.7	132.2	118.7	132.2
Injection pressure	MPa	210	188	210	188
Injection rate	cm³/sec	489	545	489	545
Injection stroke	mm	440		440	
Max. screw speed	rpm	102		102	
Injection unit force	Ton	20.4		20.4	
Carriage stroke	mm	600		600	
Clamping Unit					
Clamping force	Ton	530		660	
Max. daylight	mm	1700		1830	
Clamping stroke	mm	850		910	
Distance btwn. tie bars	mm	840x830		920x920	
Min. mould dimension	mm	580X580		645x645	
Mould thickness range	mm	300-850		350~920	
Ejector force	Ton	16.6		16.6	
Ejector stroke	mm	240		290	
No. of ejector pins	unit	13		21	
Power Unit					
Max. motor power	kW	74		74	
System pressure	MPa	17.5		17.5	
Hydraulic pump capacity	L/min	352		352	
No. of heating zones	unit	5+1		5+1	
Heating power	kW	39.7		39.7	
Total power	kW	114.7		114.7	
Total current	A	156.8		139.4	
General					
Machine weight	Ton	23		26	
Oil filling capacity	L	775		800	
Machine dimensions(L*W*H)	mm	9318*2454*2244		9157*2644*2280	

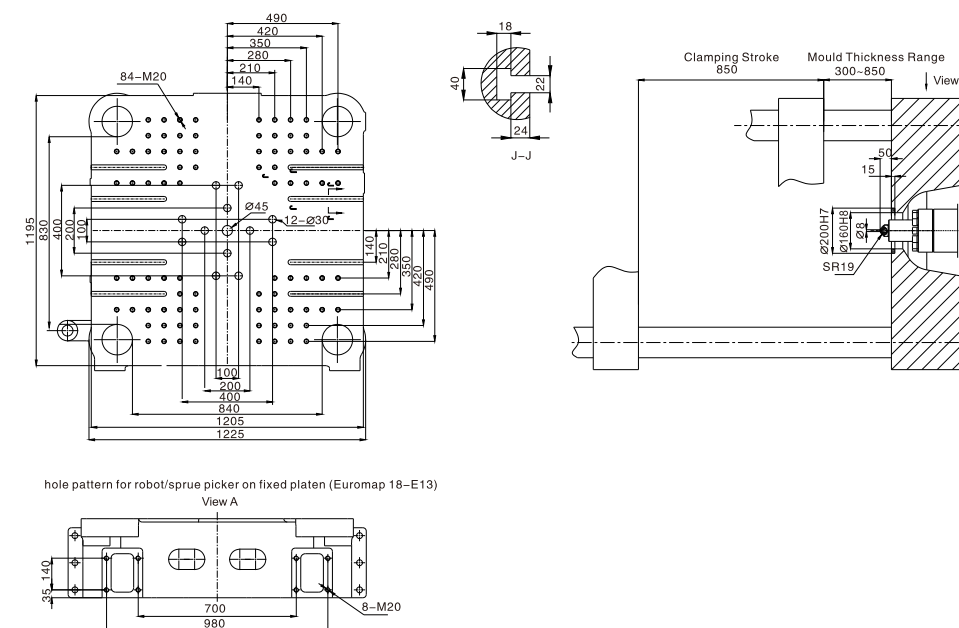
【 530~660 PVC-SeIII 】



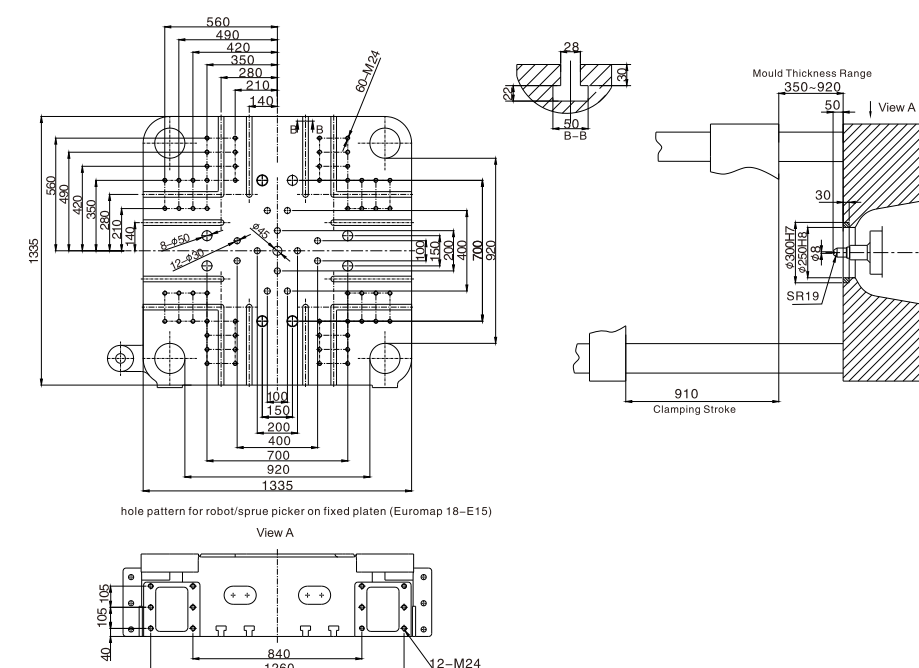
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
530PVC-SeⅢ	2244	2005	2495	7846	8955	1809	2450	865	800	945	1225	4474	2094	(300)	915
660PVC-SeⅢ	2402	2125	2537	7729	9103	2194	2644	1234	850	960	1322	4690	2094	(300)	700

Remark: C-hopper height for reference only

530PVC-SeIII



660PVC-SeIII

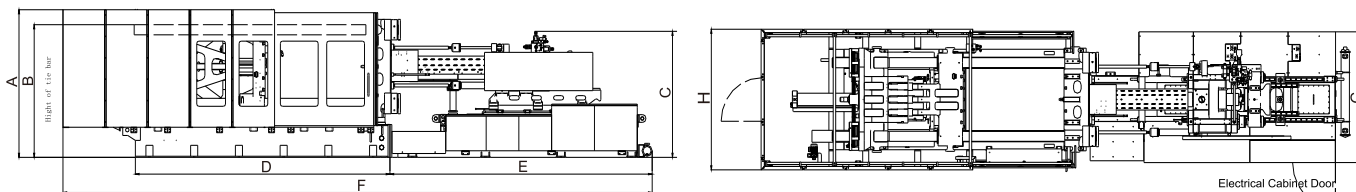


PVC servo pump parameters

Item	Unit	750 PVC-SeIII	850 PVC-SeIII	1000 PVC-SeIII
Injection Unit				
Screw diameter	mm	100	100	110
Theoretical shot volume	cc	3691	3691	5037
Shot weight (PVC)	g	4430	4430	6044
Shot weight (PVC)	oz	157	157	214
Injection pressure	MPa	176	176	178
Injection rate	cm ³ /sec	715	715	787
Injection stroke	mm	470	470	530
Max. screw speed	rpm	0~81	0~81	0~71
Injection unit force	Ton	20.4	20.4	20.4
Carriage stroke	mm	600	600	700
Clamping Unit				
Clamping force	Ton	750	850	1000
Max. daylight	mm	2050	2200	2380
Clamping stroke	mm	1025	1100	1220
Distance btwn. tie bars	mm	1000x1000	1060x1060	1160x1160
Min. mould dimension	mm	700x700	740x740	780x780
Mould thickness range	mm	350~1025	450~1100	450~1160
Ejector force	Ton	25	25	25
Ejector stroke	mm	350	350	320
No. of ejector pins	unit	21	21	21
Power Unit				
Max. motor power	kW	83.8	83.8	99
System pressure	MPa	17.5	17.5	17.5
Hydraulic pump capacity	L/min	446	446	495
No. of heating zones	unit	5+1	5+1	5+1
Heating power	kW	48	48	67
Total power	kW	132.8	132.8	167
Total current	A	161.4	161.4	203.0
General				
Machine weight	Ton	40.0	44.0	53.0
Oil filling capacity	L	1400	1400	1600
Machine dimensions(L*W*H)	mm	10.19X2.3X2.54	10.52X2.34X2.42	11.70X2.57X2.70

Machine Dimensions

【 750~1000 PVC-SeIII 】

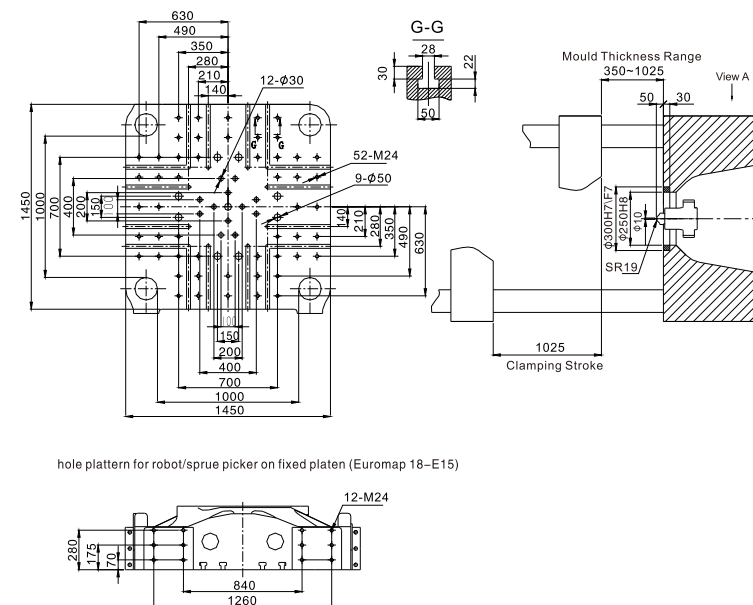


Model	A	B	C	D	E	F	G	H
750PVC-SeIII	2539	2227	2635	4318	4497	10192	1410	2946
850PVC-SeIII	2420	2300	2635	4668	4497	10514	1410	3100
1000PVC-SeIII	2697	2424	2303	5054	5206	11697	2569	3380

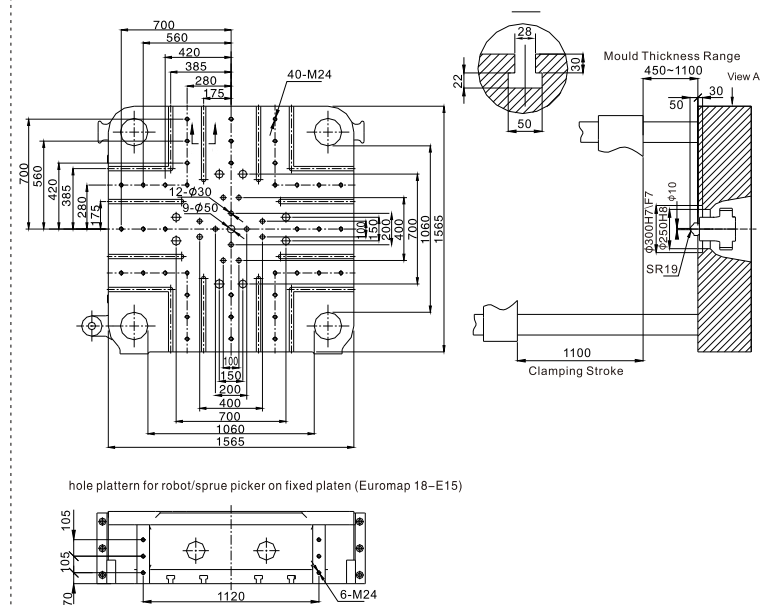
Remark: C-hopper height for reference only

Platen/Nozzle Dimensions

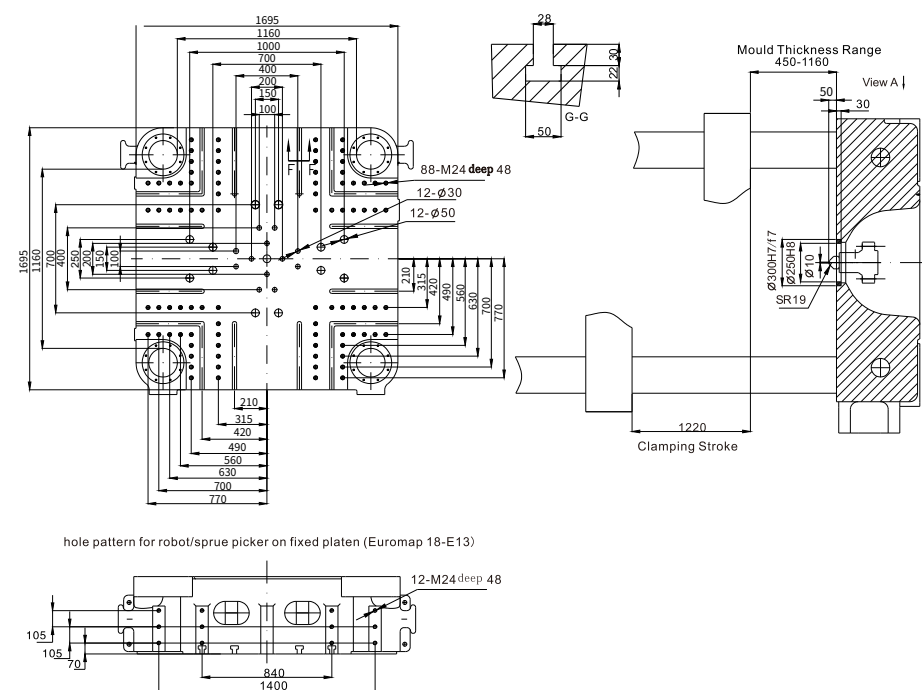
750PVC-SeIII



850PVC-SeIII



1000PVC-SeIII

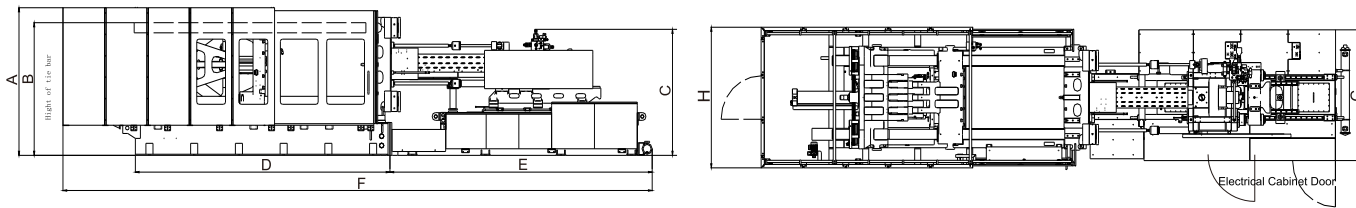


PVC servo pump parameters

Item	Unit	1200PVC-SeIII	1400PVC-SeIII	1800 PVC-SeIII
Injection Unit				
Screw diameter	mm	110	120	145
Theoretical shot volume	cc	5037	6447	10651
Shot weight (PVC)	g	6044	7736	12781
Shot weight (PVC)	oz	214	273	452
Injection pressure	MPa	178	171	166
Injection rate	cm ³ /sec	875	908	1215
Injection stroke	mm	530	570	645
Max. screw speed	rpm	0~71	0~46	0~47
Injection unit force	Ton	20.4	29.7	29.7
Carriage stroke	mm	700	800	850
Clamping Unit				
Clamping force	Ton	1200	1400	1800
Max. daylight	mm	2550	2900	3000
Clamping stroke	mm	1300	1500	1500
Distance btwn. tie bars	mm	1250x1250	1450x1350	1600x1400
Min. mould dimension	mm	875x875	980x980	1100x980
Mould thickness range	mm	500~1250	600~1400	700~1500
Ejector force	Ton	25	33	33
Ejector stroke	mm	320	350	380
No. of ejector pins	unit	21	25	33
Power Unit				
Max. motor power	kW	99	99	146.7
System pressure	MPa	17.5	17.5	17.5
Hydraulic pump capacity	L/min	550	550	715
No. of heating zones	unit	5+1	5+1	5+1
Heating power	kW	67	90	90
Total power	kW	167	190	237.7
Total current	A	203.0	230.9	288.9
General				
Machine weight	Ton	71.0	103.0	130.0
Oil filling capacity	L	1600	2000	2000
Machine dimensions(L*W*H)	mm	12.06X2.74X2.87	13.57X3.04X3.06	13.44X3.21X2.81

Machine Dimensions

【 1200~1800 PVC-SeIII 】

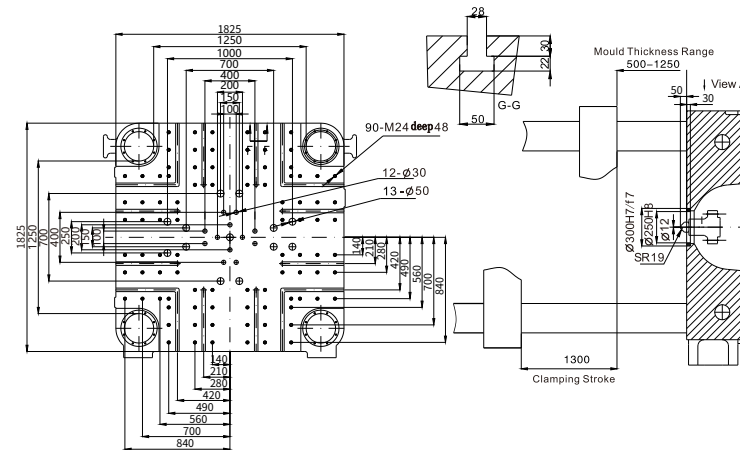


Model	A	B	C	D	E	F	G	H
1200PVC-SeIII	2865	2528	2342	5338	5206	12058	2746	3620
1400PVC-SeIII	3064	2698	2457	6088	5666	13570	3036	4000
1800PVC-SeIII	2808	2720	3200	6340	5360	13439	1340	4240

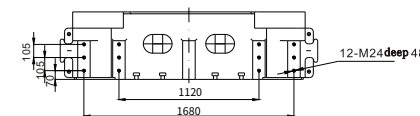
Remark: C-hopper height for reference only

Platen/Nozzle Dimensions

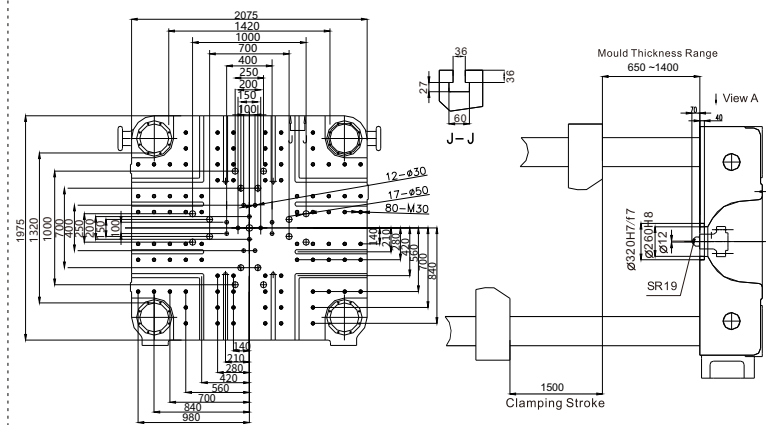
1200PVC-SeIII



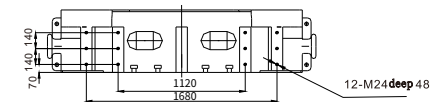
hole pattern for robot/sprue picker on fixed platen (Euromap 18-E13)



1400PVC-SeIII



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



1800 PVC-SeIII

