



L.K. MACHINERY INTERNATIONAL LIMITED



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CAT. NO.: E20-07-14



Potenza-II series

Energy Saving and High Precision Servo
Injection Molding Machine

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Potenza-II series

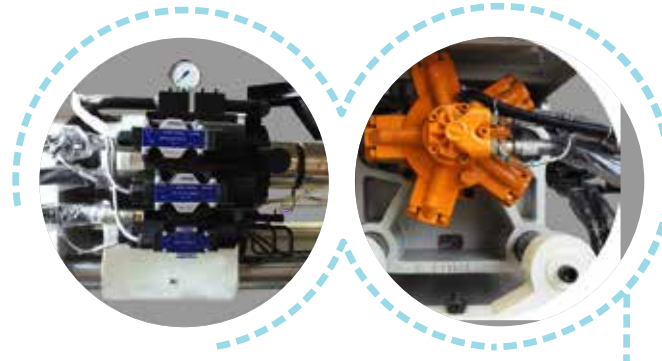
LK Potenza-II energy saving servo injection molding machine adopts the most advanced energy-saving control technology, which equips this injection molding machine series with numerous advantages such as ultra-low energy consumption, quick response, high accuracy and stability. The world-class technology plays an important role in promoting industrial upgrading and transformation.



- Lightweight and small size precision oil filter driven by mechanical power, equipped with special flow regulator which ensures stability and precision. It has the advantage of easy installation, operation and maintenance.



- The compact injection unit is driven by the hydraulic system which is user-friendly and easy to maintain.



- Imported hydraulic valves and hydraulic motor from Europe and Japan are applied to the hydraulic unit with advanced seals to reduce piping and prevent leakage.



- Gear type mold height adjustment mechanism motor imported from Europe and USA.



- European linear transducer control for mold-clamping, injection and ejector action; stroke control capable of achieving up to 0.1mm accuracy.



- The centralized automotive toggle lubrication system ensures fixed amount of lubricant to be delivered to each moving joint with adjustable cycle time, which increases the lifetime and reduces maintenance.



- Equipped with advanced computer system and user-friendly interface, which enhances the mold data memory system and capable of showing SPC production parameters. Closed loop control can be chosen which integrates high performance and easy operation features.



- Servo system with closed-loop control, which adjusts the torque output depending on load requirements. The system is capable of running at low pressure with high torque, faster acceleration/deceleration time, stable speed control and designated stop function.

Specifications

Item	Unit	PT80			PT130			PT160			PT200			PT250		
Injection Unit																
Injection Weight(PS)	g	103	140	183	175	228	289	236	299	369	318	393	475	468	566	673
	oz	3.6	4.9	6.5	6.2	8.1	10.2	8.3	10.6	13	11.2	13.9	16.8	16.5	20	23.8
Screw Diameter	mm	30	35	40	35	40	45	40	45	50	45	50	55	50	55	60
Injection Volume	cc	113	154	201	192	251	318	260	329	406	350	432	522	514	622	740
Injection Pressure	MPa	236	174	133	228	174	138	228	180	146	230	186	154	219	181	152
Injection Rate	cc/s	79	107	141	103	134	169	128	162	200	163	201	243	214	258	307
Screw L/D Ratio		23	20	18	25	22	20	25	22	20	25	22	20	22	20	18
Screw Stroke	mm	160			200			207			220			262		
Screw Speed	rpm	227			249			227			194			178		
Plasticizing Capacity (PS)	kg/h	30	45	66	50	71	94	64	86	112	73	95	124	88	115	145
Nozzle Stroke	mm	230			280			300			320			360		
Hopper Capacity	L	45			50			50			60			60		
Clamping Unit																
Clamping Force	kN	800			1300			1600			2000			2500		
Mold Thickness (min.-max.)	mm	150-350			175-400			200-450			200-520			200-550		
Max. Daylight Between Platen	mm	630			750			850			980			1060		
Opening Stroke	mm	280			350			400			460			510		
Space Between Tie Bars (H×V)	mm	357×357			409×409			459×459			510×510			570×570		
Platen Size (H×V)	mm	530×533			614×614			672×672			746×746			860×860		
Ejector Stroke	mm	85			100			100			120			120		
Ejector Force	kN	34			42			42			67			77		
Others																
Pump Motor Power	kW	11.6			14			16.4			22			31		
System Pressure	MPa	17.5			17.5			17.5			17.5			17.5		
Oil Tank Capacity	L	130			160			200			240			330		
Heating Capacity	kW	5.2			7.6			8.3			11.8			13		
Temp. Control Zones		3+N			3+N			3+N			3+N			4+N		
Machine Dimension (LxWxH)	mm	3900×970×1760			4500×1050×1800			4820×1120×1900			5400×1220×2200			5540×1400×2240		
Approx. Lifting Weight	kg	2700			3800			4300			5500			7500		

☐ Standard ☒ Option

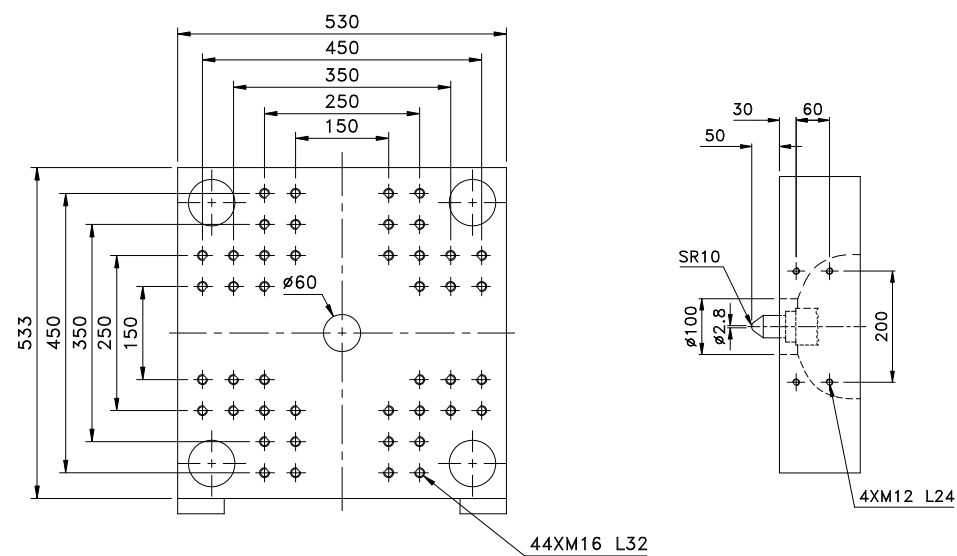
Please contact us if you got any special requirements for injection molding products with the engineering material: PVC, PC, ABS (fireproof), PMMA, POM or others.

Remarks: Actual plasticizing capacity = 80% of plasticizing capacity
We reserve the right to make any technical improvements without further notice.

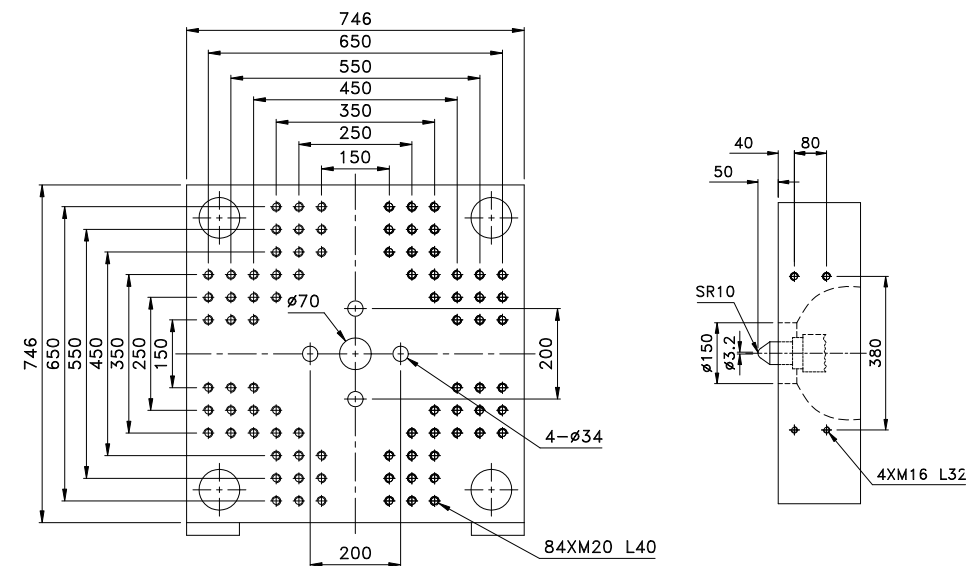
PT320				PT400				PT480				PT560				PT650				PT850				PT1000			
849	996	1155	1326	1086		1447	1646	1436	1648	1874	2372	1708	2194	2459	3036	2057		3214	3889	2748	3393	4106	4886	3929	4754	5657	6639
30	35	41	47	38	44	51	58	51	58	66	84	60	78	87	107	73	92	114	137	97	120	145	173	139	168	200	234
60	65	70	75	65	70	75	80	70	75	80	90	75	85	90	100	80	90	100	110	90	100	110	120	100	110	120	130
932	1094	1269	1457	1194	1385	1590	1809	1576	1810	2059	2607	1877	2410	2702	3336	2261	2861	3532	4274	3020	3729	4512	5369	4317	5224	6217	7296
210	179	154	134	213	184	160	141	229	200	176	139	209	163	145	118	225	178	144	119	218	176	146	122	214	177	149	127
336	394	457	525	342	397	456	518	396	454	517	654	527	677	759	938	531	672	830	1004	670	827	1001	1191	899	1087	1294	1519
22	20	19	18	22	20	19	18	22	20	19	17	22	20	19	17	23	21	19	18	23	21	19	18	23	21	19	18
330				360				410				425				450				475				550			
182				157				157				187				163				168				143			
150	179	208	248	154	180	215	243	180	214	244	348	255	350	413	540	254	361	471	600	372	485	618	810	410	523	684	877
100				100				100				120				120				150				210			
3200				4000				4800				5600				6500				8500				10000			
220-680				250-750				300-820				350-850				350-920				400-1100				450-1210			
1320				1450				1620				1700				1820				2205				2410			
640				700				800				850				900				1105				1200			
664×660				725×720				820×820				861×860				911×911				1080×1020				1121×1121			
964×960				1035×1030				1150×1150				1180×1180				1260×1260				1540×1480				1641×1641			
180				180				200				240				270				300				300			
110				110				110				166				215				270				270			
49				49				22+33				22+49				33+49				49× 2				49× 2+33			
17.5				17.5				17.5				17.5				17.5				17.5				17.5			
360				400				680				900				900				1100				1500			
20				23.2				25				32				34				40				50			
4+N				4+N				5+N				5+N				5+N				5+N				6+N			
6570×1720×2140				7100×1800×2140				7940×1900×2200				8920×2200×2200				9400×2360×2240				10740×2500×2400				11900×2570×2660			
10500				12500				15000				22000				25000				33000				41000			

Platen Dimensions

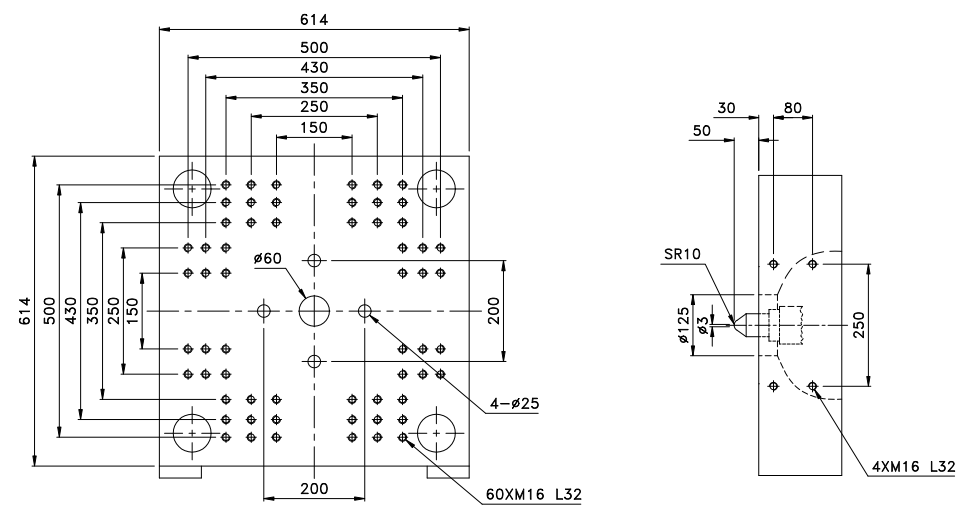
PT80



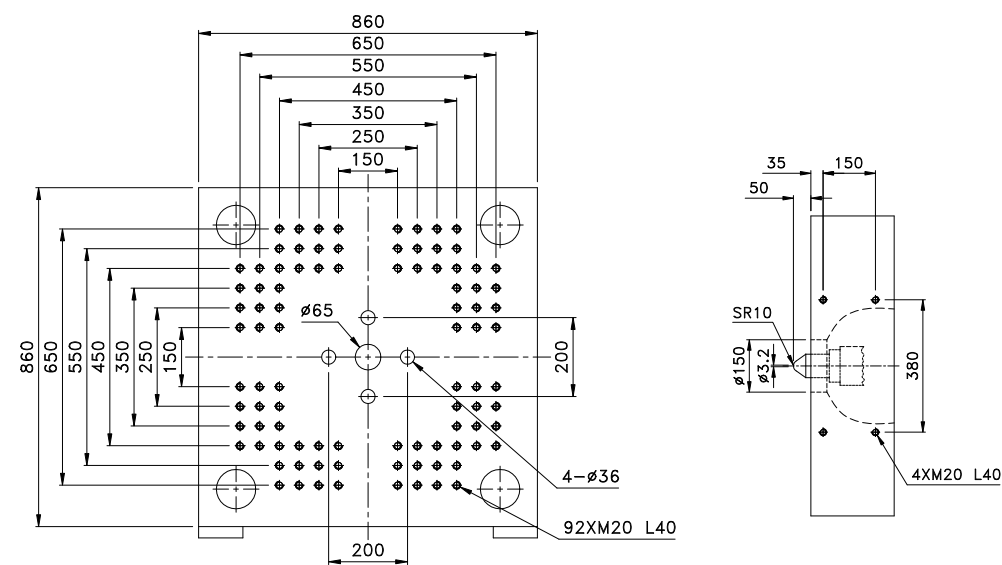
PT200



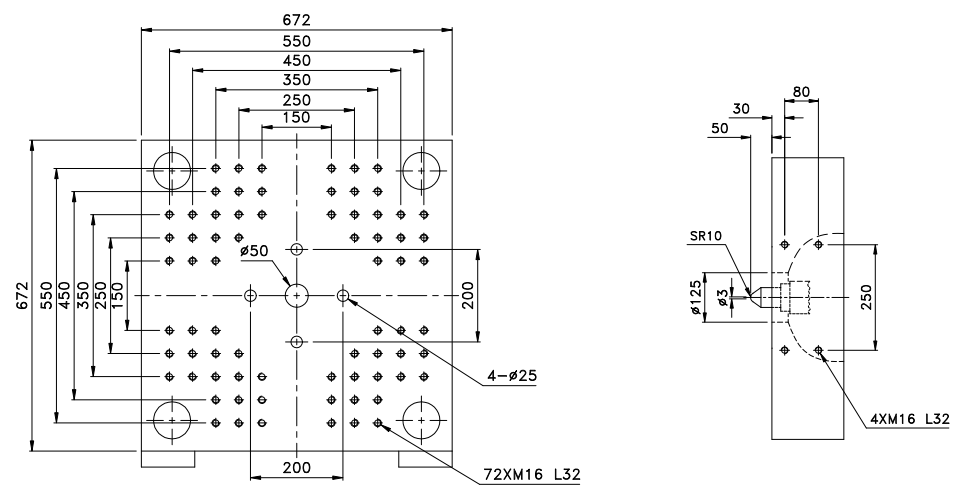
PT130



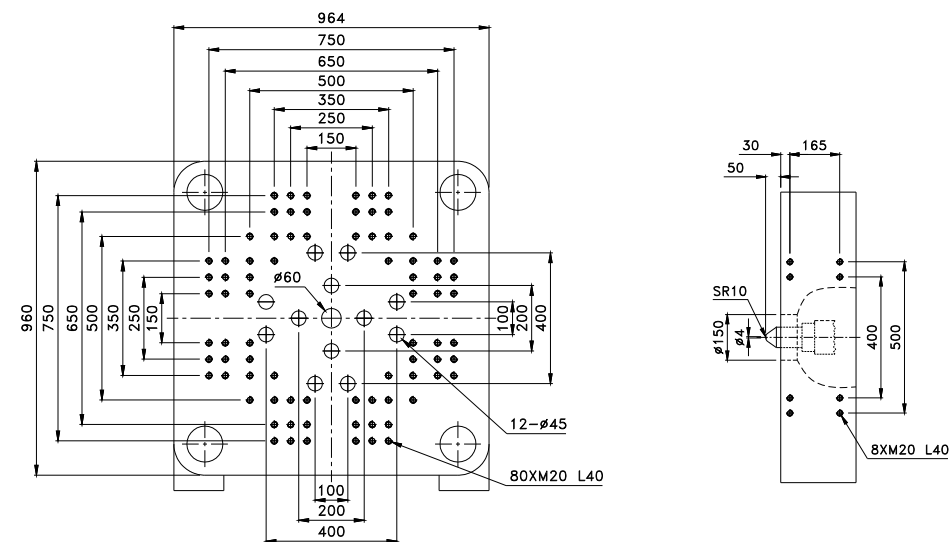
PT250



PT160

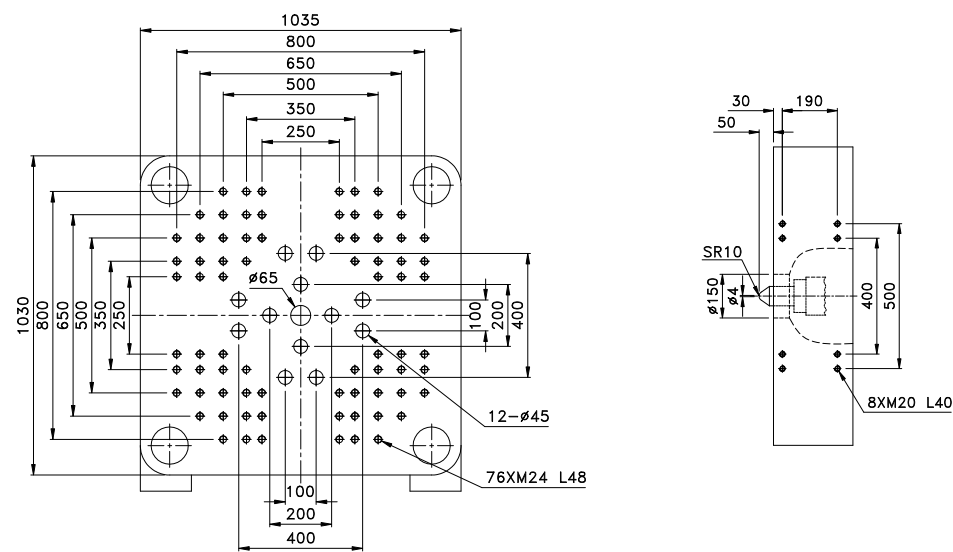


PT320

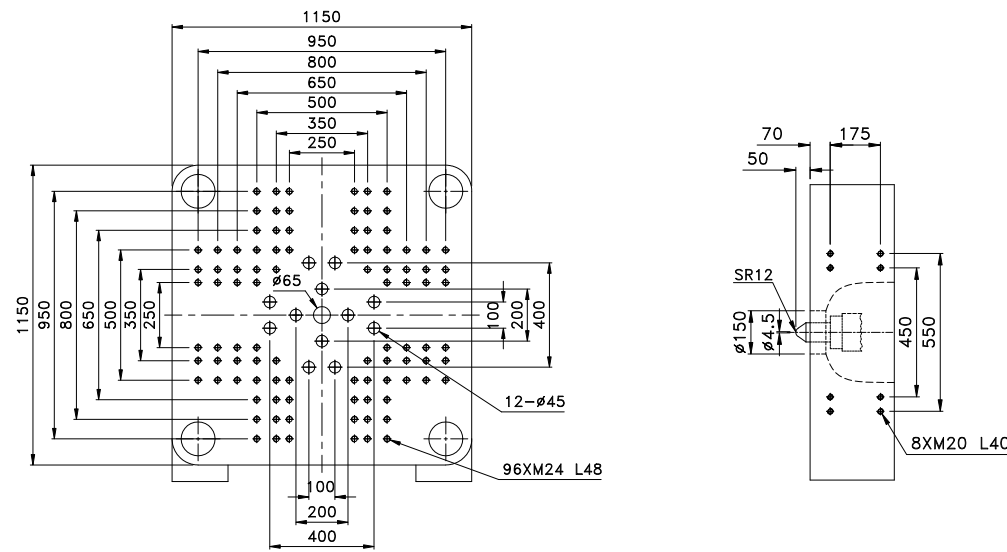


Platen Dimensions

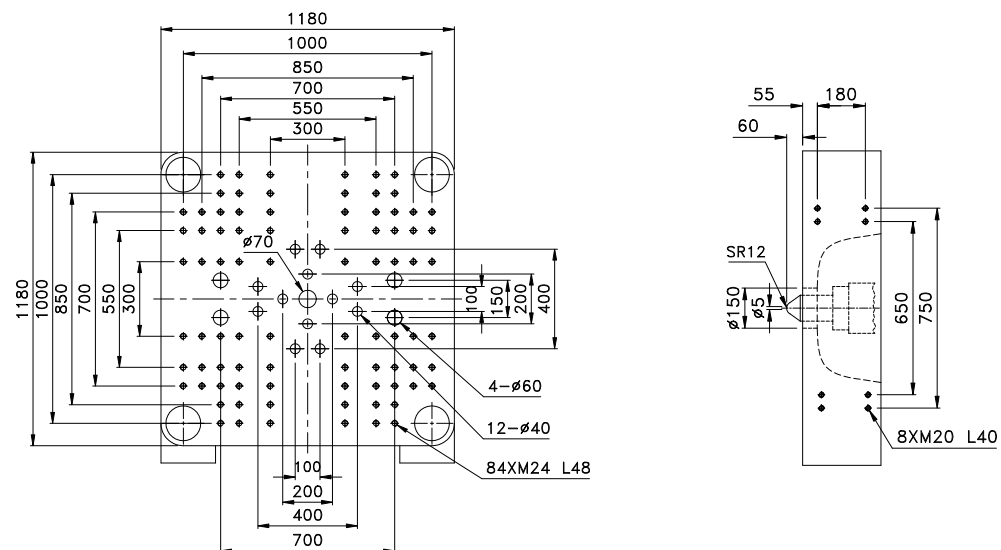
PT400



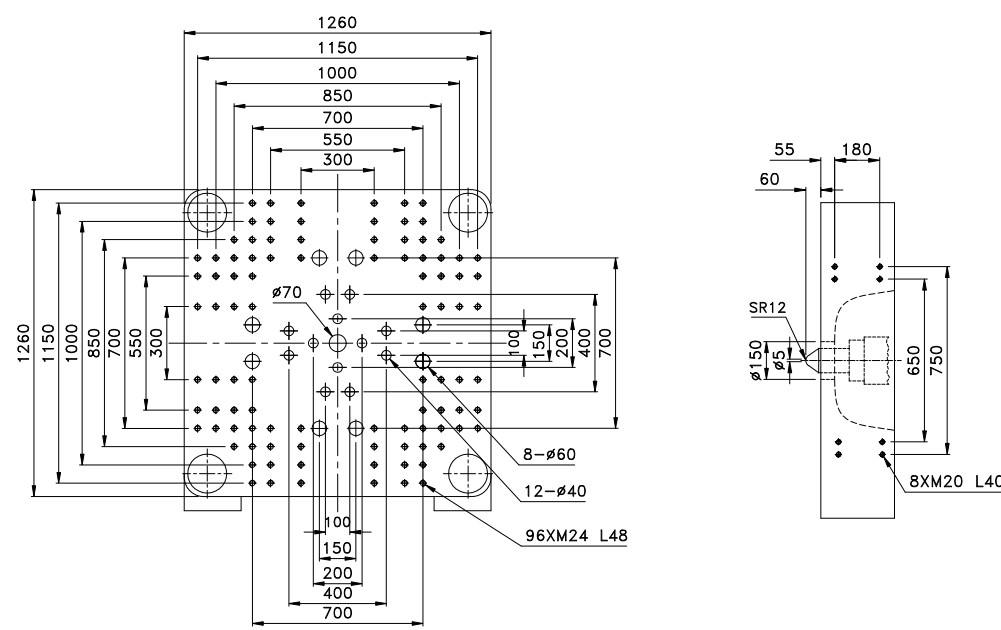
PT480



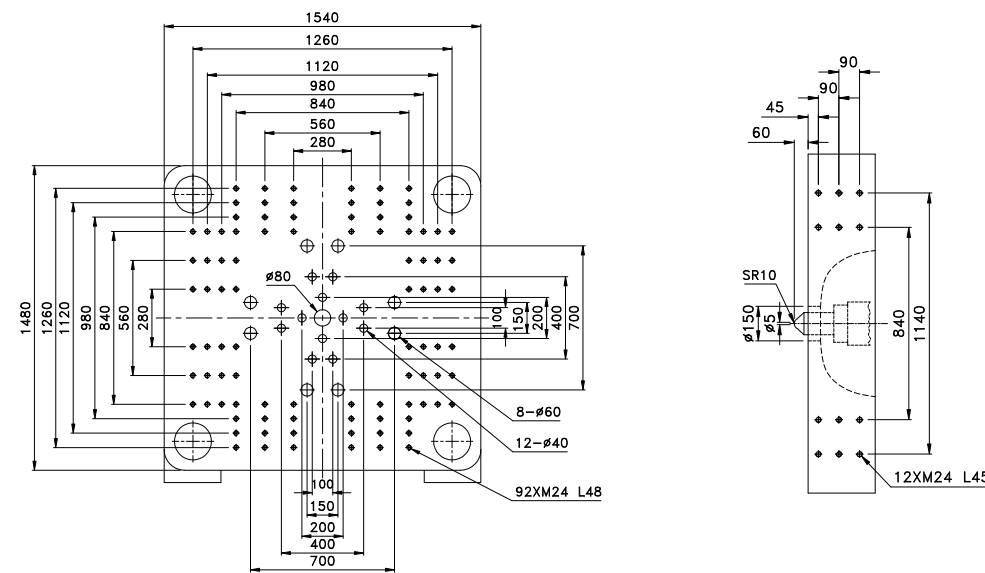
PT560



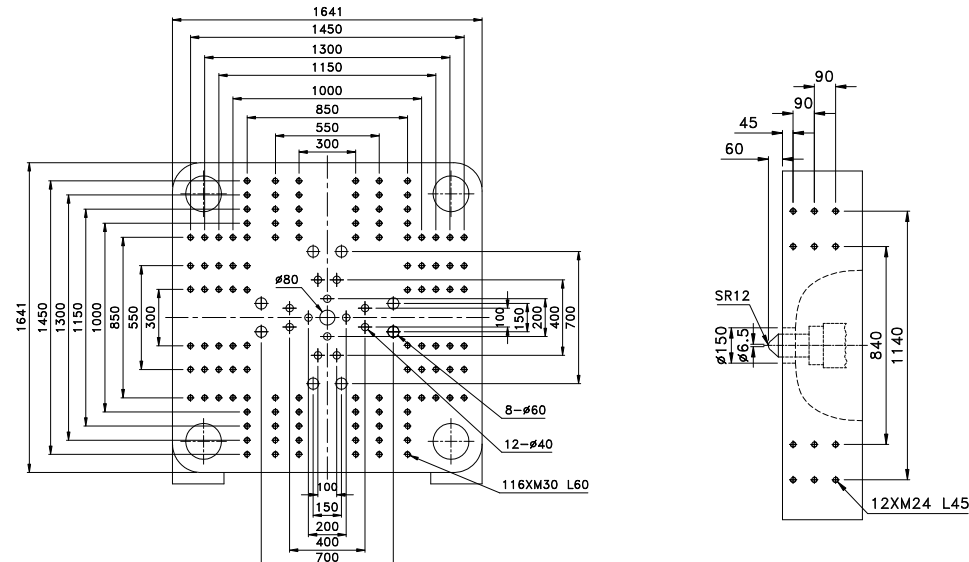
PT650



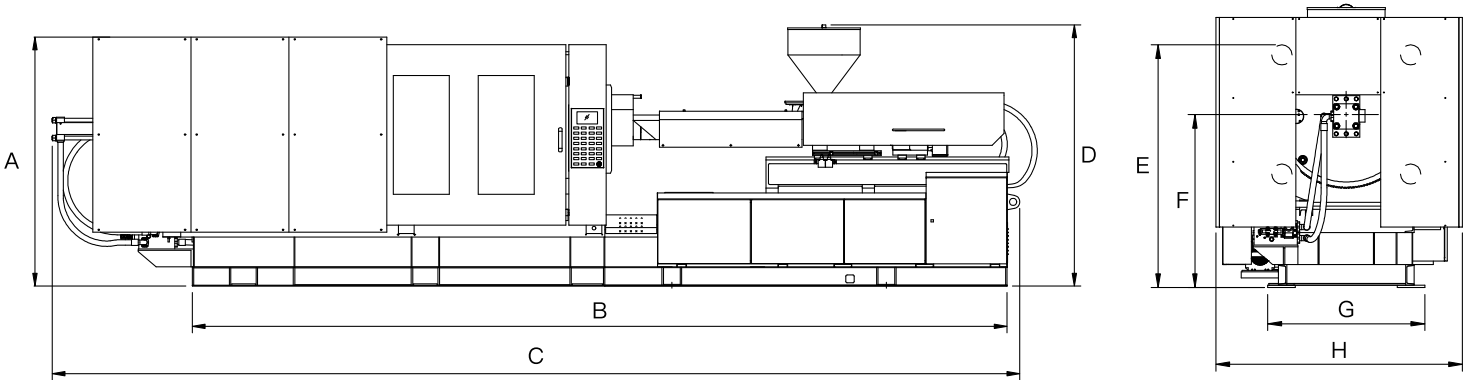
PT850



PT1000



Machine Dimensions



Model	A	B	C	D	E	F	G	H
PT80	1545	3294	3815	1715	1327	1084	680	1022
PT130	1674	3789	4522	1846	1450	1170	790	1110
PT160	1704	4180	4824	1846	1480	1170	865	1170
PT200	1794	4480	5405	1973	1570	1224	905	1218
PT250	1894	4905	5844	2048	1674	1288	1050	1344
PT320	1823	5401	6570	2137	1705	1265	870	1717
PT400	1858	5861	7257	2140	1745	1265	940	1905
PT480	1954	6774	7933	2171	1845	1305	1050	1940
PT560	1982	8350	8920	2200	1834	1264	1256	2200
PT650	2135	8814	9388	2236	1945	1329	1286	2363
PT850	2215	9993	10741	2382	2063	1373	1466	2494
PT1000	2389	11393	11858	2683	2225	1474	1531	2570

Features

Standard features

Injection unit

- 1 Nitride treatment screw assembly
- 2 Injection unit equipped with linear transducer of 0.1mm accuracy
- 3 Double hydraulic injection cylinders for space saving
- 4 Sliding hopper base (PT80-850 only)
- 5 Double carriage cylinder (PT320-1000 only)
- 6 Injection pressure sensor (PT320-1000 only)
- 7 Digital back pressure control for melting (PT320-1000 only)
- 8 Adjustable back pressure control for melting (PT80-250 only)
- 9 Nozzle safety cover
- 10 Material measuring device (PT320-1000 only)

Clamping unit

- 1 Toggle clamping structure
- 2 Mold height adjustment driven by strong and stable gear system
- 3 Linear transducer for clamping/ ejector stroke control with 0.1mm accuracy
- 4 Computer controlled central lubrication system
- 5 Ejector speed and pressure control with digital setting
- 6 Screw thread mounting hole platen
- 7 Electrical and hydraulic safety interlock
- 8 Grease lubrication system (PT560-1000 only)
- 9 Hydraulic safety lock
- 10 Mold open with back pressure control (PT200-1000 only)

Control unit

- 1 Voltage and frequency: 380V/50HZ
- 2 Mushroom emergency stop button
- 3 PID temperature control
- 4 Maintenance alarm
- 5 Europe and Japan imported electric components
- 6 Mold protect function
- 7 Suck back function
- 8 Auto-purge function
- 9 Cold starting protection to prevent injection screw from damage
- 10 Injection molding parameter checking and memorizing function
- 11 Statistics manage function
- 12 Production monitor function
- 13 Working schedule display function
- 14 Single color alarm lamp (PT80-480 only)
- 15 Two-color alarm lamp (PT560-1000 only)
- 16 Waterproof power socket (220V or 380V)
- 17 Injection pressure monitoring function (PT320-1000 only)
- 18 Computer screen capture function

Hydraulic unit

- 1 Automatic hydraulic oil cleaning system
- 2 Hydraulic oil cooled by water cooler
- 3 Oil temperature and oil level indicator
- 4 High speed clamping function
- 5 Hydraulic pump station allocation function (PT480-1000 only)
- 6 Core pulling device (PT320-1000 only)
- 7 High reaction closed loop control

Others

- 1 Pneumatic safety door (PT560-1000 only)
- 2 Tool with tool box
- 3 Mold mounting clamp

Optional features

Injection unit

- 1 Barrel thermal cover
- 2 Extended nozzle
- 3 Dismountable nozzle
- 4 Bi-metallic screw and barrel
- 5 Material measuring device (PT80-250 only)
- 6 Enlarge hydraulic motor
- 7 Protective cover for injection unit (PT80-250 only)
- 8 Digital back pressure control for melting (PT80-250 only)
- 9 Injection pressure sensor (PT80-250 only)
- 10 Ceramic heater band (PT80-250 only)
- 11 Electromagnetic heating system

Clamping unit

- 1 Air blast device
- 2 Special mold flange (position ring)
- 3 Unscrewing device
- 4 Extra core pulling
- 5 Mold cooling water distributor
- 6 T-slot platen design
- 7 Special mounting holes dimension on stationary platen
- 8 Extended mold thickness
- 9 Mold open with back pressure control (PT80-160 only)
- 10 Junction plate for robot mounting
- 11 Mechanical safety lock

Control unit

- 1 Voltage stabilizer
- 2 LK net
- 3 Printer port
- 4 Extra waterproof power socket
- 5 2-color alarm lamp (PT80-480 only)
- 6 3-color alarm lamp
- 7 Injection pressure monitoring (PT80-250 only)
- 8 KEBA PLC
- 9 DIZHOU PLC

Others

- 1 Customer assigned machine color
- 2 Separated spare plug socket for auxiliary equipment
- 3 Hopper magnet
- 4 Hopper dryer
- 5 Air cool water chiller
- 6 Color mixture machine
- 7 Conveyor
- 8 Pneumatic safety door (PT320-480 only)
- 9 Material loading platform (PT480-1000 only)
- 10 Material loading machine
- 11 Material crusher
- 12 Mold hoisting frame (PT80-200 only)
- 13 Mold temperature controller

Hydraulic unit

- 1 Oil level protection
- 2 Enlarge oil cooler (PT80-480 only)
- 3 Oil temperature over-heat alarm
- 4 Enlarge hydraulic motor & oil pump (PT80-200 only)
- 5 Ejector or core pull on the fly (PT480-1000 only)