DKM600-4000T Two Platen Injection Molding Machine



DKM TP series two platen injection machine is developed by our technical team from Europe. The machine is designed for large size parts like industrial dust-bins, auto parts, logistic container and large pallets. Two platen machine has the advantage of bigger mould opening stroke capacity and space for robot, 30% less floor space. DKM Two platen machines were designed with higher molding speed and more precision injection.



HIGH STABILITY

- Enhanced strength and rigidity of mechanical parts, with the help of finite element analysis.
- H type clamping plate for high precision.
- Double sliding structure for moving and fixed plate to make the parallelism even for large size mould.
- Moving plate guide by machine bottom and slide to eliminate any titling torque and increase mould bearing capacity.

HIGH FLEXIBILITY

Inversion type ejection system, the ejection stroke could be set up as per particular production requirement.

HIGH PRECISION

- Fully closed hydraulic system for less leakage was adopted for less leakage and better pressure holding.
- Operation with locknut for rapid and accurate reaction.
- Four hydraulic cylinders installed on moving platen to create clamping force fast with balanced pressure.
- Pressure sensor used to monitor the clamping force.

HIGH SAFETY

- European brand servo system for low energy consumption
- European CE standard for safe operation

HIGH MOULD THICKNESS CAPACITY

- More than 50% opening stroke, mould thickness capacity etc.
- The operation, installation and production are full of humanization.

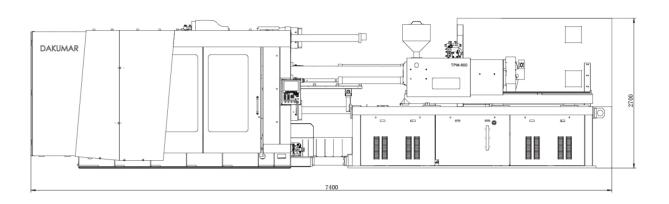
HIGH ENERGY SAVING

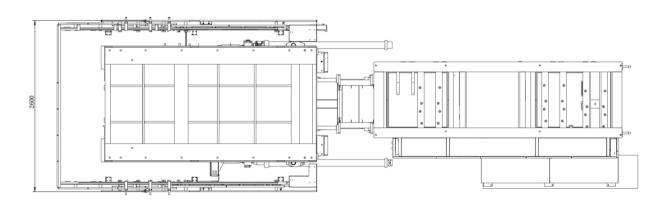
- World Famous brand servo system for low energy consumption.
- Machine size is 30% smaller than three plate machine.

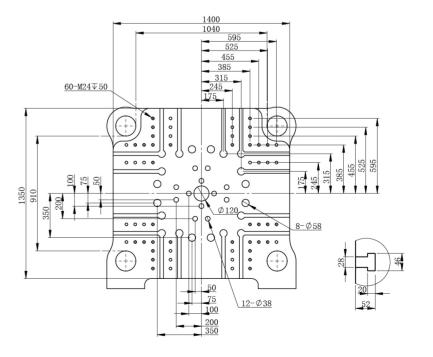
HIGH RELIABILITY

- Tie bars are fixed to the stationary plate for convenient installation for large size mold.
- Tie bar nut and clamping piston are suspension structure to fully protect tie bar in band-type brake unit, this greatly increase machine life with high reliability and good performance.

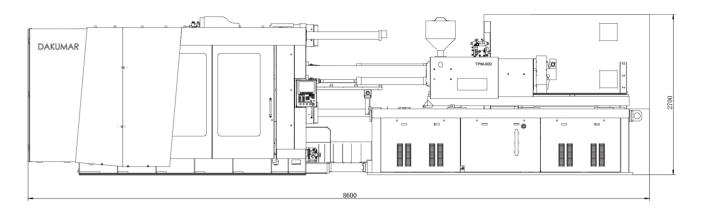
TWO PLATEN INJECTION MOLDING	G MACHINE	DKM-600TP			
SCREW TYPE		A B C			D
INJECTION UNIT					
Screw Diameter	mm	85	90	95	100
Screw L/D Ratio	L/D	22.7	21.4	20.3	19.3
Theoretical Shot Volume	cm³	2439	2734	3046	3375
Injection Weight (PS)	gram	1907	2138	2382	2640
Injection Pressure	Мра	232	207	186	168
Screw Speed	rpm		14	45	
Screw Stroke	mm		43	30	
CLAMPING UNIT					
Clamp Force	kN		60	000	
Mold opening stroke	mm		1350)-800	
Distance Between Tie bars	mm		1040	×910	
Max. Mold Height	mm	950			
Min. Mold Height	mm	400			
Max.daylight	mm	1750			
Max. mold weight	t	9			
Ejector Stroke	mm		25	50	
Ejector Force	kN		1	10	
OTHERS					
Max. Pump Pressure	Мра		2	2	
Pump Motor Power	kW	69			
Heater Power	kW	43	43	43	43
Machine Dimension (LxWxH)	mm		7400×26	600×2700	
Machine Weight	tons		2	27	
Oil Tank Capacity	liter	770			

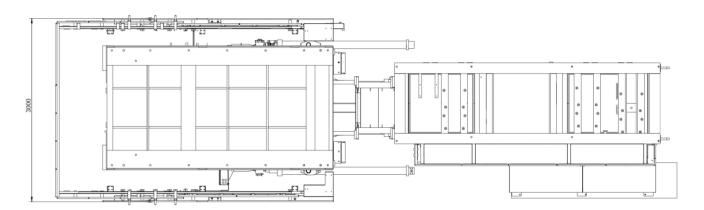


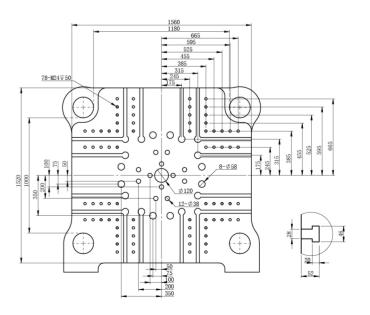




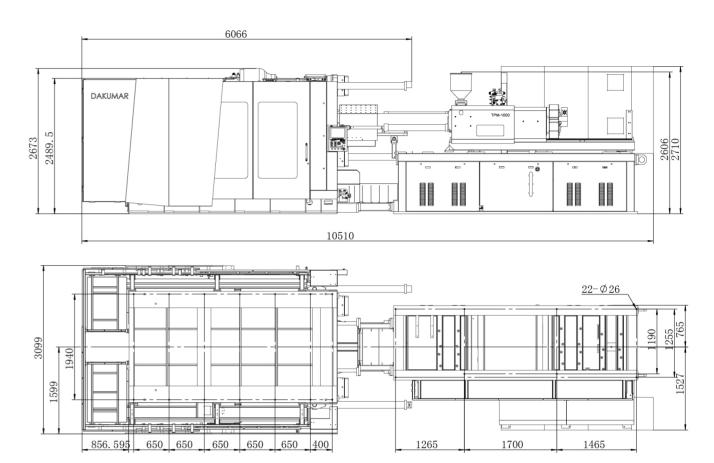
TWO PLATEN INJECTION MOLDING	G MACHINE	DKM-800TP			
SCREW TYPE		A B C			D
INJECTION UNIT					
Screw Diameter	mm	90	95	100	110
Screw L/D Ratio	L/D	23.5	22	20.8	18.7
Theoretical Shot Volume	cm³	2975	3315	3673	4445
Injection Weight (PS)	gram	2327	2592	2873	3476
Injection Pressure	Мра	207	186	168	139
Screw Speed	rpm		12	25	
Screw Stroke	mm		46	38	
CLAMPING UNIT					
Clamp Force	kN		80	00	
Mold opening stroke	mm		1400)-900	
Distance Between Tie bars	mm	1180×1000			
Max. Mold Height	mm	950			
Min. Mold Height	mm	450			
Max.daylight	mm	1850			
Max. mold weight	t	11			
Ejector Stroke	mm		30	00	
Ejector Force	kN		19	95	
OTHERS					
Max. Pump Pressure	Мра	22			
Pump Motor Power	kW	75			
Heater Power	kW	50	50	50	50
Machine Dimension (LxWxH)	mm		8600×30	00×2700	
Machine Weight	tons		3	0	
Oil Tank Capacity	liter	850			

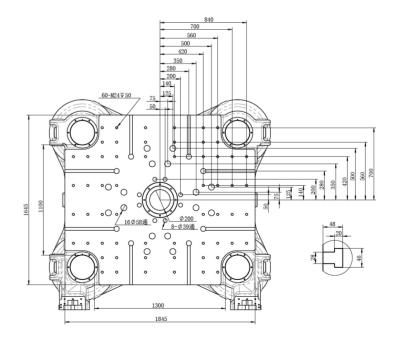




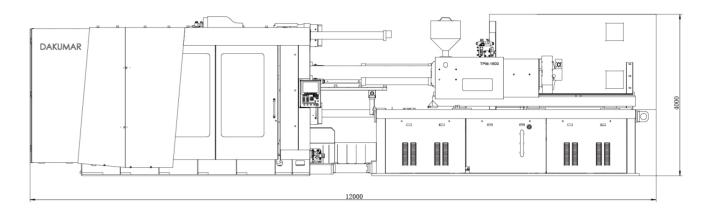


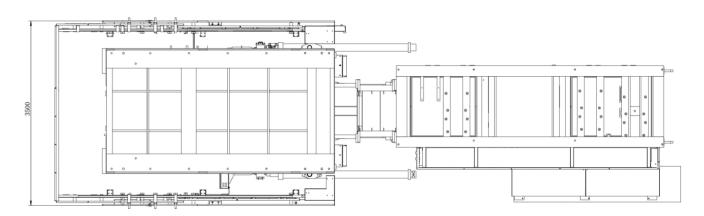
TWO PLATEN INJECTION MOLDING	G MACHINE	DKM-1000TP		
SCREW TYPE		A B C		
INJECTION UNIT				
Screw Diameter	mm	100	120	135
Screw L/D Ratio	L/D	25.3	21.1	18.7
Theoretical Shot Volume	cm³	5102	7347	9299
Injection Weight (PS)	gram	3990	5745	7272
Injection Pressure	Мра	270	188	148
Screw Speed	rpm		125	
Screw Stroke	mm		650	
CLAMPING UNIT				
Clamp Force	kN	10000		
Mold opening stroke	mm		1920-1180	
Distance Between Tie bars	mm	1300×1100		
Max. Mold Height	mm	1240		
Min. Mold Height	mm	500		
Max.daylight	mm	2420		
Max. mold weight	t	16		
Ejector Stroke	mm		300	
Ejector Force	kN		210	
OTHERS				
Max. Pump Pressure	Мра	22		
Pump Motor Power	kW	115		
Heater Power	kW	55	55	85
Machine Dimension (LxWxH)	mm	1	0000×3100×280	0
Machine Weight	tons		65	
Oil Tank Capacity	liter	900		

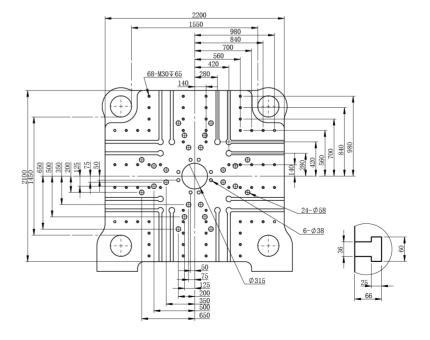




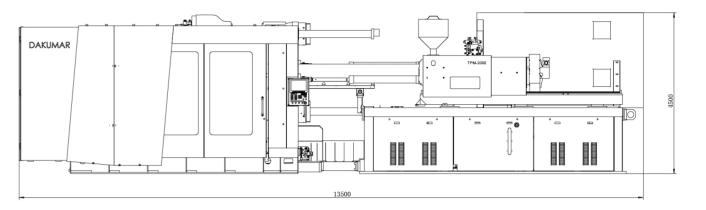
TWO PLATEN INJECTION MOLDING	G MACHINE	DKM-1600TP			
SCREW TYPE		A B C D			D
INJECTION UNIT					
Screw Diameter	mm	120	130	140	150
Screw L/D Ratio	L/D	24.3	22.3	20.6	19
Theoretical Shot Volume	cm³	7912	9286	10770	12363
Injection Weight (PS)	gram	6187	7262	8422	9668
Injection Pressure	Мра	192	164	141	123
Screw Speed	rpm		9	5	
Screw Stroke	mm		70	00	
CLAMPING UNIT					
Clamp Force	kN		160	000	
Mold opening stroke	mm		2550	-1700	
Distance Between Tie bars	mm	1550×1450			
Max. Mold Height	mm	1550			
Min. Mold Height	mm	700			
Max.daylight	mm	3250			
Max. mold weight	t	33			
Ejector Stroke	mm		40	00	
Ejector Force	kN		33	30	
OTHERS					
Max. Pump Pressure	Мра	22			
Pump Motor Power	kW	158			
Heater Power	kW	102	102	102	102
Machine Dimension (LxWxH)	mm	12000×3500×4000			
Machine Weight	tons		8	8	
Oil Tank Capacity	liter	2000			

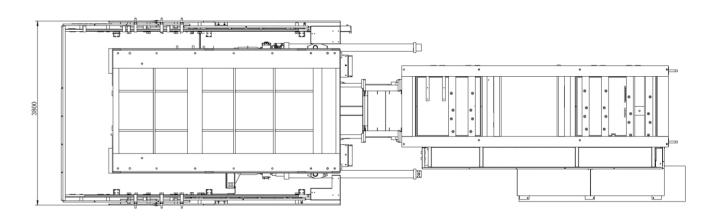


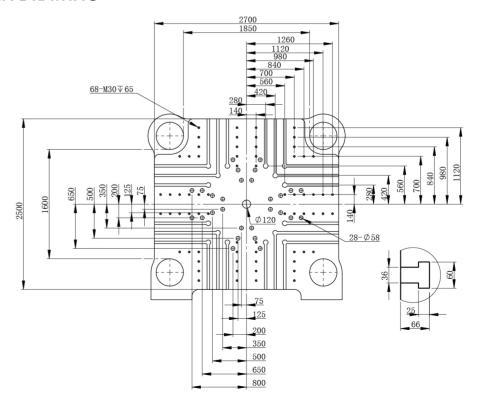




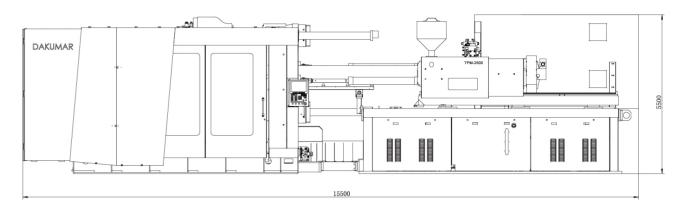
TWO PLATEN INJECTION MOLDING	G MACHINE	DKM-2000TP			
SCREW TYPE		A B C I			D
INJECTION UNIT					
Screw Diameter	mm	120	130	140	150
Screw L/D Ratio	L/D	24.3	22.3	20.6	19
Theoretical Shot Volume	cm³	7912	9286	10770	12363
Injection Weight (PS)	gram	6187	7262	8422	9668
Injection Pressure	Мра	192	164	141	123
Screw Speed	rpm		9	5	
Screw Stroke	mm		70	00	
CLAMPING UNIT					
Clamp Force	kN		200	000	
Mold opening stroke	mm		2700	-1800	
Distance Between Tie bars	mm	1850×1600			
Max. Mold Height	mm	1700			
Min. Mold Height	mm	800			
Max.daylight	mm	3500			
Max. mold weight	t	50			
Ejector Stroke	mm	450			
Ejector Force	kN	360			
OTHERS					
Max. Pump Pressure	Мра	22			
Pump Motor Power	kW	160			
Heater Power	kW	90			
Machine Dimension (LxWxH)	mm	13500×3800×4500			
Machine Weight	tons	100			
Oil Tank Capacity	liter	3000			

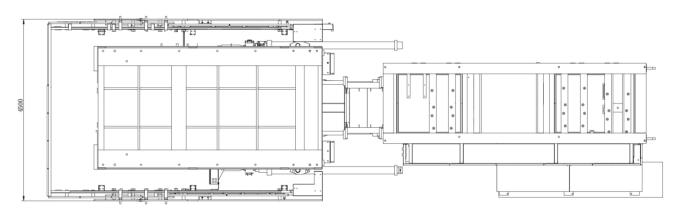


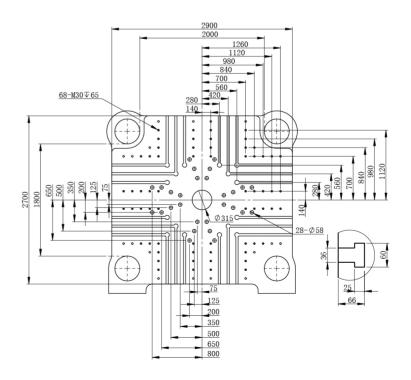




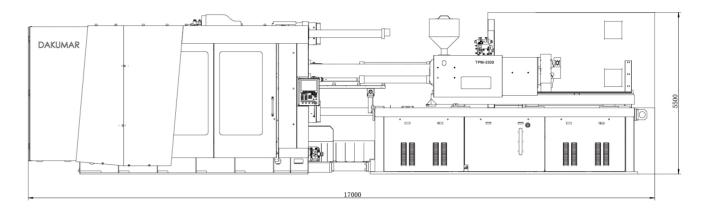
TWO PLATEN INJECTION MOLDING	G MACHINE	DKM-2600TP			
SCREW TYPE		А	В	С	
INJECTION UNIT					
Screw Diameter	mm	160	180	200	
Screw L/D Ratio	L/D	23	20.4	18.4	
Theoretical Shot Volume	cm ³	15281	19340	23876	
Injection Weight (PS)	gram	13753	17406	21488	
Injection Pressure	Мра	208	165	188	
Screw Speed	rpm		60		
Screw Stroke	mm		760		
CLAMPING UNIT					
Clamp Force	kN		26000		
Mold opening stroke	mm	2900-1900			
Distance Between Tie bars	mm	2000×1800			
Max. Mold Height	mm	1900			
Min. Mold Height	mm	900			
Max.daylight	mm	3800			
Max. mold weight	t	66			
Ejector Stroke	mm		500		
Ejector Force	kN	450			
OTHERS					
Max. Pump Pressure	Мра		22		
Pump Motor Power	kW	228			
Heater Power	kW		172		
Machine Dimension (LxWxH)	mm	15500×4500×5500			
Machine Weight	tons	165			
Oil Tank Capacity	liter	3600			

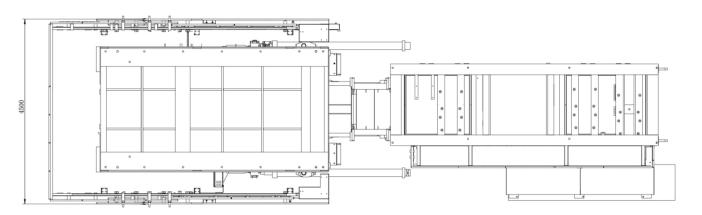


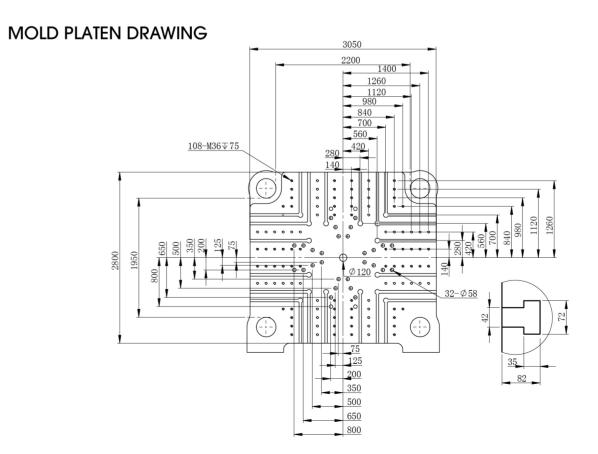




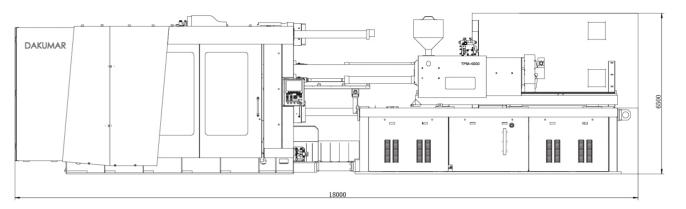
TWO PLATEN INJECTION MOLDING	G MACHINE	■ DKM-3300TP		
SCREW TYPE		A B C		
INJECTION UNIT				
Screw Diameter	mm	180	200	220
Screw L/D Ratio	L/D	24.4	22	20
Theoretical Shot Volume	cm³	27977	34540	41793
Injection Weight (PS)	gram	25180	31086	37614
Injection Pressure	Мра	194	157	130
Screw Speed	rpm		55	
Screw Stroke	mm		1100	
CLAMPING UNIT				
Clamp Force	kN		33000	
Mold opening stroke	mm	3160-2160		
Distance Between Tie bars	mm		2200×1950	
Max. Mold Height	mm	2000		
Min. Mold Height	mm	1000		
Max.daylight	mm		4160	
Max. mold weight	t	75		
Ejector Stroke	mm		600	
Ejector Force	kN	620		
OTHERS				
Max. Pump Pressure	Мра	19.5		
Pump Motor Power	kW	237		
Heater Power	kW		200	
Machine Dimension (LxWxH)	mm	1	17000×4500×550	0
Machine Weight	tons	230		
Oil Tank Capacity	liter	5000		

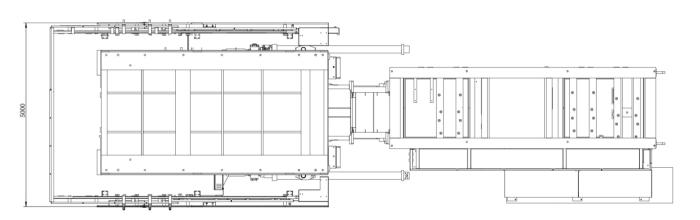


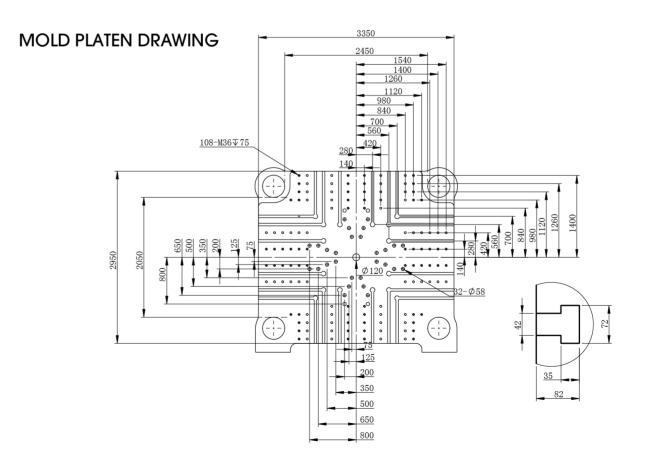




TWO PLATEN INJECTION MOLDING	DKM-4	Ю00ТР		
SCREW TYPE		А	В	
INJECTION UNIT				
Screw Diameter	mm	240	260	
Screw L/D Ratio	L/D	23.8	22	
Theoretical Shot Volume	cm ³	58781	68986	
Injection Weight (PS)	gram	52903	62087	
Injection Pressure	Мра	160	136	
Screw Speed	rpm	4	0	
Screw Stroke	mm	13	00	
CLAMPING UNIT				
Clamp Force	kN	400	000	
Mold opening stroke	mm	3460-	-2360	
Distance Between Tie bars	mm	2450×2050		
Max. Mold Height	mm	2100		
Min. Mold Height	mm	1000		
Max.daylight	mm	4460		
Max. mold weight	t	85		
Ejector Stroke	mm	60	00	
Ejector Force	kN	62	20	
OTHERS				
Max. Pump Pressure	Мра	19).5	
Pump Motor Power	kW	385		
Heater Power	kW	240		
Machine Dimension (LxWxH)	mm	18000×50	000×6500	
Machine Weight	tons	29	90	
Oil Tank Capacity	liter	6000		







STANDARD FEATURES

CLAMPING UNIT

- 1 Compact two-platen clamping unit with high rigidity and minimal deflection
- 2 Moving platen mounted 'hydroblock' tie bar locking system and clamping pistons
- 3 Chrome plated tie bars
- 4 Euromap platen configuration
- Moving platen with extended support shoes
- 6 Moving platen linear and lateral guidance system
- 7 Automatic mould thickness control
- 8 Automatic central lubrication system by means of electric pump
- 9 Three stage mould closing speed profile
- 10 Three stage mould opening speed profile
- 11 Moving platen pre feed
- Mould closing and opening stages governed through closed loop with proportional control valve
- 13 Digital reading of moving platen position displayed on operator interface
- 14 Mould thickness and clamping force self adjustment
- 15 Digital reading of clamping force displayed on operator interface
- 16 Two stage ejection speed profile
- 17 Ejection force control
- 18 Ejector proportional speed control, with overlapped movement at opening
- 19 Repeated ejection with stroke and speed control
- 20 Ejector return signal

INJECTION UNIT

- 1 Twin cylinder injection unit
- 2 Hydraulic motor for screw controlled
- 3 Injection unit sliding on linear bearings
- Swiveling injection unit for easy plasticising screw removal and cleaning (Pivot cylinder)
- 5 Quick barrel change system
- 6 Bimetallic barrel
- 7 General purpose screw profile, suitable for most types of thermoplastic materials, special screw
- 8 profiles on demand
- 9 Injection unit driven by two cylinders to assure perfect nozzle centering
- 10 Ceramic heater bands
- 11 Alarm threshold for set temperature range
- 12 Injection speed and pressure profiles
- 13 Switch to holding pressure triggered by screw position, hydraulic pressure or time
- 14 Digital reading of screw position displayed on operator interface
- 15 Adjustable screw rotation speed profile
- 16 Screw rotation delay
- 17 Adjustable back pressure profile
- 18 Digital reading of back pressure displayed on operator interface
- 19 Decompression before and after screw recovery
- 20 Auto purge program
- 21 Stainless steel hopper

CONTROLLER

- Integrated industrial PC complete with a CANBUS port using CanOpen protocol, a port that can be assigned to RS-485-A or RS-232-C, an EtherCAT port, and two USB port.
- 2 Colour touch monitor
- 3 Overvoltage category: II Equipment class: III according to EN 61131-2 IP code: IP20
- 4 Euromap 12, Euromap 67
- 5 Automatic Calibration Procedures for transducer, rotation rate and pump pressure and velocity
- 6 Integral keyboard
- 7 Multilingual language
- 8 Multiple User Level Permissions and Data Locks
- 9 Perpetual clock
- 10 Display area for process parameters
- 11 Four-stage mold closing with pressure, velocity and position adjustment
- 12 Five-stage mold opening with pressure, velocity and position adjustment
- 13 Two-stage high pressure with pressure and velocity adjustment
- Mold overview Interface (Lock nuts state, Tiebars position and actual high pressure)
- 15 Auto safety gate open mode set up(after inject, after plasticize, during mold open, after mold open, after cycle)
- 16 Three-stage ejector forward and backward with pressure, velocity and position adjustment
- 17 Three ejector modes(Hold, Continuous, Shake), and ejector counter set up
- 18 Additional ejection stroke and ejection zero position setting in Mechanical stroke
- 19 Lubrication cycles
- Air valve mode(after plasticize, after mold open ,after ejector,during mold open, before plasticize, after inject, before plasticize , after inject , during mold close) ,delay and time set up
- 21 Core in and out mode, in and out priority set up
- 22 Multi-group valve gates control
- 23 10 stages inject with pressure ,velocity and position set up ,selectable number of stages
- 24 cut off mode(position ,time and inject pressure) set up

CO	NTROLLER
25	10 stages hold with pressure ,velocity and position set up ,selectable number of stages
26	Decompression before plasticize and decompression after plasticize with pressure, velocity and position adjustment
27	Five-stages backpressure, rotation rate and position adjustment
28	Injection Curve Graphics
29	Cooling timer
30	Control nozzle with pressure 、 velocity and position adjustment
31	Auto purge
32	Weekly automatic heating start time setting
33	Heating nozzle PID control, function of optimize nozzle heating
34	Keep warm and group heating function
35	Overview Interface of Production Status
36	Production counter
37	Machine Action Sequence Interface
38	IO Monitor Interface
39	Scope
40	History of parameter modification
41	Alarm history and button of Confirm alarm
42	IO exchange
43	Notepad
44	Can capture a screenshot and save in PNG or PDF files.
45	Mold data and machine data save
46	Cycle Time Contrast Interface
47	SPC Statistical Analysis Interface
48	production data (PD)graphic
49	Production data(PD) histogram

HYDRAULIC SYSTEM 1 Variable delivery pump with closed loop proportional flow and pressure control 2 Digital reading of hydraulic circuit pressure displayed on operator interface 3 Proportional control valve for moving platen movement 4 Monitoring of oil level, temperature and oil filter efficiency 5 Oil temperature control system 6 Automatic cooling water shut-off valve 7 Oil preheating program 8 Off-line circuit for oil filtering and cooling 9 Oil cooling with platen heat exchanger 10 Tank window to ease cleaning

ELECTRICAL SYSTEM

- 1 Enclosure for electric components with IP55 protection
- 2 Electric motors with thermal protection

11 Optical and electrical oil level gauge

- 3 Interlocked main switch to prevent electrical cabinet from being opened when press is energised
- 4 Overload cutouts for motor pump units and dosing motor
- 5 Fuses and static relays for control of plasticising cylinder temperatures
- 6 Vectorial inverter for servo moter screw rotation
- 7 Fan for air circulation in electrical cabinet
- 8 LED indicators on solenoid valves
- 9 Fully labelled electrical circuits
- 10 Conforms to Euromap or UL standards

OPTIONAL FEATURES

Hydraulic Mold Clamps

Rotary Table

OP'	TIONS
1	Core Pull MP/FP
2	Air Blast MP/FP
3	EU67 Robot Interface
4	Integrated Robot Interface
5	Special Screw (Wear Resistant, Corrosion Resistant, Mixing, Barrier, Low Compression, etc.)
6	Special Barrel (Corrosion Resistant, High Wear Resistant)
7	Barrel Liner
8	Special Tip Design
9	Extended Nozzle Body
10	Additional Nozzle Zone
11	Mold Valve Gate Hydraulic
12	Mold Valve Gate Pneumatic
13	Hydraulic Shut-Off Nozzle – Bolt
14	Integrated Hot Runner
15	Mold Pressure Transducer Interface
16	Special Paint
17	Additional Flowmeters
18	Feed Throat Cooling
19	Magnetic Platens

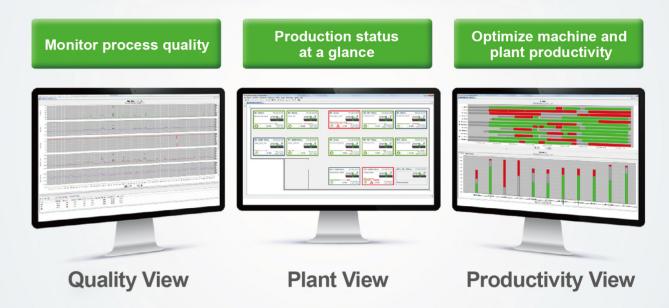
KePlast EasyNet



1 Monitor production with PC, Tablet and Smart Phone



Easy Data anaylisis for quality and productivity



3 Easy access to machine data at any time by Tablet and Smart Phone

