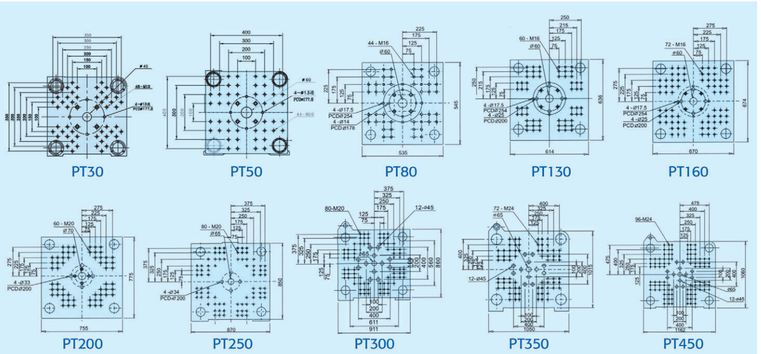
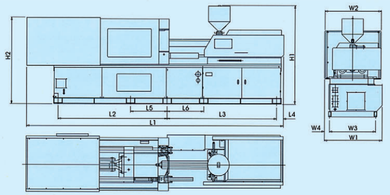
EFFECTA PLATEN SIZE



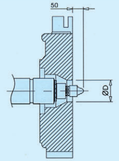
DIMENSION



(Unit-mm)

Effecta	L1	L2	L3	L4	L5	L6	W1	W2	W3	W4	H1	H2
PT30	3080	1150	1480	90	-	-	896	916	692	104	1763	1508
PT50	3377	1350	1480	90	-	-	922	942	722	103	1857	1568
PT80	4170	1620	1770	244	-	-	1100	1000	792	105	1840	1505
PT130	4710	1798	1798	124	-	-	1100	1050	842	134	1920	1650
PT160	5200	2105	2105	306	-	-	1160	1110	907	102	1890	1665
PT200	5630	2240	2240	140	-	-	1280	1160	947	107	2080	1797
PT250	6080	2475	2475	110	825	825	1350	1270	1027	120	2150	1920
PT300	6300	2730	2940	-	-	525	1400	1350	960;735	-	2100	1850
PT350	7740	3200	3150	63	1600	735	1640	1520	1145;875	188	2160	2050
PT450	8100	3570	3496	-	1785	778	1800	1655	1240;970;990	-	2260	2080

NOZZLE POSITION



EFFECTA	PT30	PT50	PT80	PT130	PT160	PT200	PT250	PT300	PT350	PT450
ØD	60	60	100	125	125	150	150	150	150	150

(Unit-mm)

EFFECTA SPECIFICATION

MACHINE MODEL	UNIT	PT30		PT50		PT80		PT130		PT160		PT200		PT250		PT300		PT350		PT450	
Shot Weight (P.S.)	g	38	53	63	84	103	140	229	290	357	432	476	566	572	681	798	936	1011	1241	1370	1693
	oz	1.35	1.87	2.2	3	3.6	4.9	8.1	10.2	12.6	155.3	16.8	20	20	24	28	33	36	44	48	60
Screw Diameter	mm	22	26	26	30	30	35	40	45	50	55	55	60	55	60	60	65	65	72	72	80
Shot Volume	c.c.	42	58	69	92	133	154	252	318	393	475	522.6	622	630	749	877	1029	1111	1363	1506	1860
Injection Pressure	MPa	220	157.6	222	166.75	248.1	182.3	210	166	218.8	180.9	214.4	180	214.4	180	210.7	179.5	208.5	170	195	157.9
Injection Rate	c.c./sec	47	66	71	94	64	88	91	115	138	168	198	236	181	216	262	307	288	353	381	471
Screw L/D Ratio		23.6	20	22	19	22	20	22	20	22	20	20	18	22	20	22	20	22	20	22	20
Screw Stroke	mm	110		130		160		200		200		220		265		310		335		370	
Injection Speed	r.p.m	260		260		230		280		173		182		169		168		154		130	
Plasticizing Capacity	kg/hr	14.5	20	20	33	40	54	77	112	108	128	135	168	134	157	178.5	241	204	279	233	322
Nozzle Retract Stroke	mm	140		160		230		280		300		350		360		360		420		460	
Hopper Capacity	L	20		30		45		45		50		60		60		100		100		150	
Camping Force	KN	300		500		800		1300		1600		2000		2500		3000		3500		4500	
Mold Thinkness (min-max)	mm	100 - 320		120 - 350		150 - 350		175 - 400		200 - 450		200 - 500		200 - 550		250 - 600		250 - 720		300 - 840	
Max. Daylight	mm	500		600		630		750		830		960		1060		1160		1420		1590	
Opening Stroke	mm	180		250		280		350		380		460		510		560		700		750	
Space Between Tie Bar	mm	271x271		310x310		357x357		409x409		459x459		510x510		570x570		610x560		720x680		822x720	
Platen Size (H x V)	mm	407x393		456x456		535x545		614x636		670x674		755x775		870x850		910x860		1050x1015		1162x1060	
Ejector Stroke	mm	50		70		85		100		100		120		120		130		150		180	
Ejector Force	KN	20		25		27		49		49		77		77		82		99		150	
Pump Motor	KW	7.5		11		11		11		15		18.5		22		30		37		45	
System Pressure	MPa	14.5		14.5		14		17.5		17.5		17.5		17.5		17.5		17.5		17.5	
Oil Tank Capacity	Litre	120		120		230		300		320		420		420		500		500		700	
Heating Capacity	KW	3.07		3.9		5.23		6.83		11.74		12.44		13.74		16.5		17.4		26	
Heating Zones		3+N		3+N		3+N		4+N		3+N		3+N		4+N		4+N		4+N		5+N	
Machine Dimension (L x W x H)	mm	3165 x 980 x 1785		3600 x 1000 x 1900		4170 x 1100 x 1840		4710 x 1110 x 1920		5200 x 1160 x 1890		5630 x 1280 x 2080		6080 x 1350 x 2150		6300 x 1400 x 2100		7740 x 1640 x 2160		8100 x 1800 x 2260	
Machine Weight	Kg	2300		2700		3100		4200		5300		6700		8800		11600		17000		20000	
Dry Cycle Time	s	1.1		1.1		1.4		1.7		1.8		2.1		2.9		3		3.7		4.5	

option

*Data are based on theoretical calculation under 50 Hz operation
*We reseve the right to make any technical improvement without futher notice.

ISO 9001:2000
FM 37608

CAT. NO. E06/May/V01

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EFFECTA

INJECTION MOLDING MACHINE

L.K. MACHINERY CO. LTD.
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EFFECTA INJECTION MOLDING MACHINE
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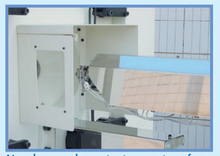
INJECTION MOLDING MACHINE

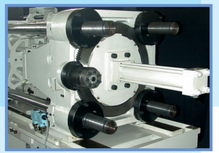
EFFECTA

User friendly Easy-9000 microprocessor system. Enhanced mold data memory system and S.P.C. system display and assure molding quality and to analyze mold data.

High quality hydraulic hose are imported from USA (Parker).



Nozzle guards protect operators from hazardous areas.

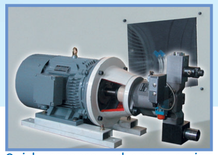


Fast and reliable gear type mold height adjust mechanism.

Optimized toggle design featuring maximum locking force and stroke with the minimum energy input. Centralized automatic lubrication system reduce wearing and ensures long service life.

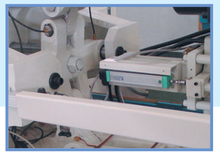
A simple and reliable precise encoding device for mold height and locking force adjustment.

Italian Hydraulic motor.



Quick response and energy saving variable-displacement pump provides stable performance and high repeatability. Pressure tolerance within 0.5%.

Centralized hydraulic manifold design with European / Japanese hydraulic valves, together with high quality oil seals eliminate leakage.



European Linear transducers control for injection, ejection and mold-clamping action. (Position accuracy of 0.1mm)

EFFECTA	STANDARD FEATURES	OPTIONAL FEATURES
CLAMPING UNIT	• Linear transducer with ISO9001 quality system for clamping stroke up to 0.1mm accuracy. • High tensile steel tie bars with wear resistance chromium plated. • Multiple-stage speed and pressure control for mold closing and opening. • Quick Clamping capability (with high-speed mold close). • Initial and final stage of mold clamping action can be programmed to reduce speed. • Maximum and minimum mold thickness detection. • Effective central lubrication system is computer controlled. • Mold clamping action can be easily display on the LCD display. • Ejector speed and pressure control with digital setting. • Adjustable high-speed multiple-shaking ejector function. • Ejector with timer control. • Variable ejector's forward and backward stroke is controlled with transducer. • Safety door with double electric interlock and mechanical drop-bar protection. • Mold height adjustment driven by strong and stable gear system. • Automatically gear-type mold adjustment device provides durable, fast and simple operation. • Mold cooling water distributor or regulator with flow indicator attached.	• Toggle system with automatic recycling and filtering oil-lubrication system. • Product chute at discharge area with detective photoelectric sensor. • Special requirement of holes tapped for robot's installation. • Ejector stroke non-return device. • Automatic mold height adjustment system driven by gear and high-speed hydraulic motor. • Special mold flange design of mounting holes dimension of stationary platen. • Non- returnable ejector stroke device. • Programmable core-pull device. (Hydraulic or air) • Programmable unscrewing device. (Hydraulic or electric motor) • Programmable air-blow device. • Gear rotation device for mold releasing • Manual trolley hoisting framework. • Sensitive low-pressure mold protection device.
CONTROL UNIT	• Advanced EASY-9000 is a user-friendly, multiple-functional computer with LCD display and selectable language. • All Temperature control and operating data is shown and programmable on the LCD screen. • Max.6 zones of P.I.D. control for barrel temperature and 1 channel for hydraulic oil temperature detection. • Shot counters for injection and production control. • Production control and injection shot counters. • Self-diagnostic and error history display. • Main control-boards equipped with LED indicators. • Machine Status display function, such as input or output signal. • The system has 4 stage injection(speed), 3 stage of holding pressure and 2 stage metering. • Internal memory storage up to 50 sets of mold data. • Data lock and two level passwords to prevent improper adjustment. • Build in robot supporting interface. • Automatic oil lubrication timing control. • Multi-page controller interface built-in with help menu for training and learning time remarkably. • Hydraulic fluid temperature detector with alarm for immediately diagnostic. • 2 sets of single phase 16-32A separated spare plug or auxiliary equipment. • Pressure and speed of each machine movement are amended automatically by close-loop control. Repeatability and stability are guaranteed. • S.P.C. statistical function provides control unit that processes the variables of each cycle to assure molding quantity and displays the results on the screen	• Automatic mold height adjustment program with locking pressure and locking position monitoring function. • Programmable core-pull sequence (Max. 2 sets) • Programmable unscrewing sequence. • Programmable air-blow sequence. • Special robot interface. • Hydraulic oil temperature over-heat alarm. • Screw tachometer with actual speed shown on LCD panel. • Selective warning lamp and alarm buzzer. • Emergency stop button at non-operation side. • Hydraulic pump and electronic motor stop immediately as rear safety door opened. • Other voltage and safety standard. • Digital control for the "Back-pressure"with proportional pressure. • Power supply stabilizer to prevent power jumping.
INJECTION UNIT	• Injection screw with large L/D ratio as 20:1. • Double hydraulic injection cylinder for space saving and power concentrated. • Manual barrel swivel device makes injection screw repairing simple. • Each injection stage has a ramp or delay for advance or retracts adjustment. • Injection unit equipped with linear transducer of 0.1mm accuracy. • Melt decompression device. • Italian high-torque hydraulic motor with variable speed control. • Adjustable "Back-pressure" control with pressure gauge. • Cold starting protection prevent injection screw damage. • Adjustable speed, position and pressure for injection and metering motion are set on the LCD display. Automatic purging circuit (device for quick material change). • Nozzle backward with timing adjustment control. • Melt decompression and melting start under computer's timer control. • Injection and pressure holding control are monitored in several stages to ensures a precise and consistent pressure holding switching function. • Effect of holding pressure under timing or position limitation. • Programmable and multiple-choice melt decomposition control. (Start at pre-metering or after metering finished.) • Programmable nozzle backward control. (start at pre-metering or after metering finished.) • European and Japanese made hydraulic seals for a longer life and reliable service of cylinders. • Injection time monitoring and alarm signal. • Metering time monitoring and alarm signal. • Automatic purging circuit (device for quick material change). • Adjustable nozzle centering device of the injection unit, suitable for different mold design.	• Extended nozzle. • Spring loaded shut-off nozzle. • Tachometer device of injection screw rotary speed. • Nozzle safety shield with interlock. • Barrel temperature keeping device for energy saving. • Dust prevention device for guide rod. • Injection unit with safety guards and interlock system. • Injection barrel & components (for engineering plastic material). • Injection barrel temperature control stabilizing device.
HYDRAULIC UNIT	• Close loop controlled variable-displacement pump (for PT Effecta- 250 Ton or below) • High efficiency and quick response variable displacement pump (for PT Effecta-300 or above) • High efficiency and power saving energy pump up to 45% when compared with ordinary machine. • High efficient variable displacement pump with built-in semi-close-loop control of pressure and flow. • Precision oil filter, standard equipment in PT Effecta series, brings along extra-cleanliness to oil and stability of the hydraulic system. • Hydraulic components are imported from Germany, Italy and Japan for a longer life and reliable service of cylinders. • The latest proportional valves and circuit provides low energy consumption and excellent repeatability. • Low-noise electric motor and hydraulic pump are standard. • All valves are operated with 24DC solenoids to prevent burning out or overheat.	• Special suction strainer or return line filter. • Hydraulic fluid temperature detector with alarm. • Automatic water regulating valves to stabilizer water temperature for cooling. • Hydraulic safety interlock. (Local standard or CE standard)

EFFECTA INJECTION MOLDING MACHINE
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