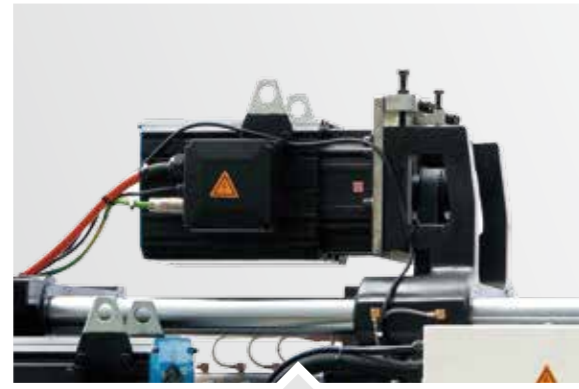


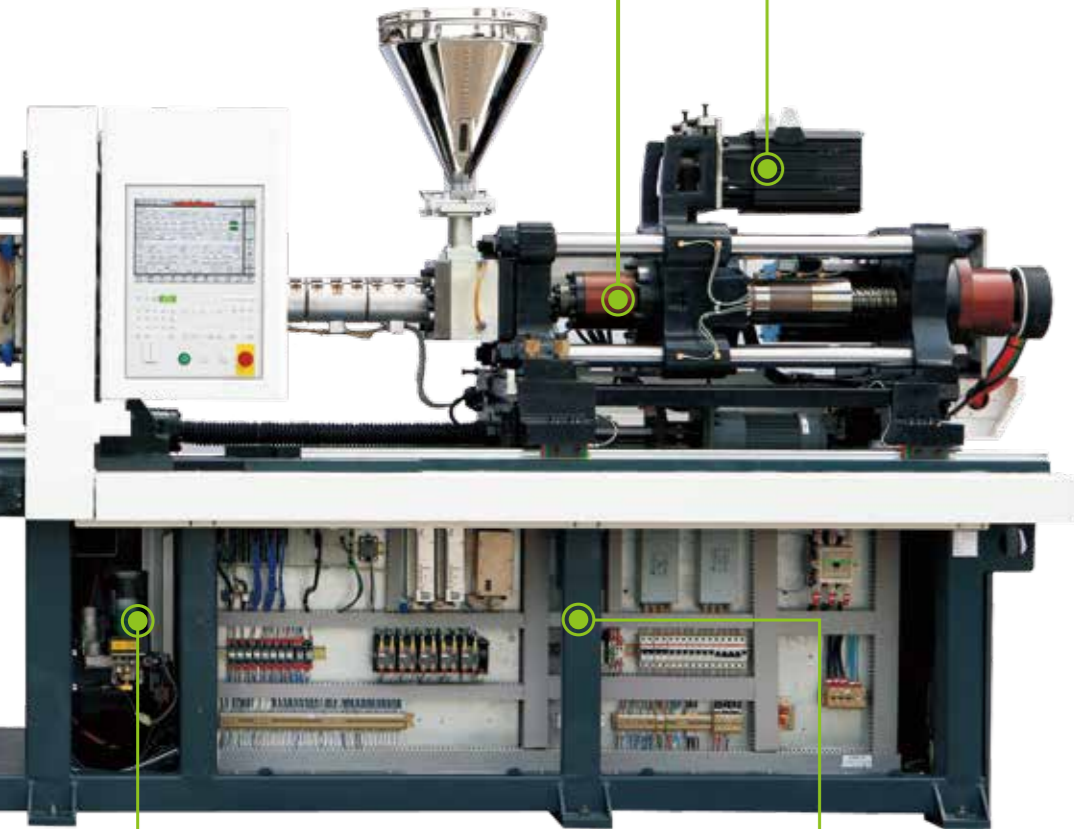
**Optimized injection unit structure**

- Optimum injection unit with low friction increases the control accuracy of injection pressure.
- Precise measurement of injection pressure ensures the correctness of pressure control.



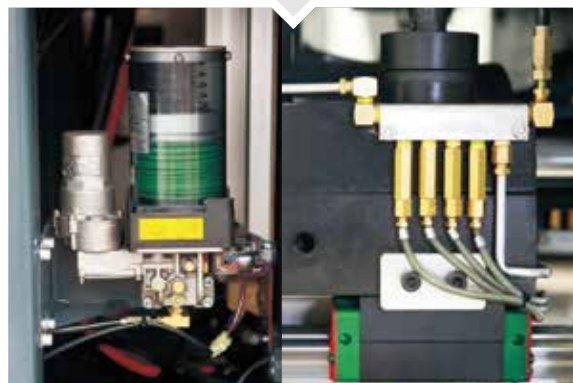
**Servo motor customization**

- Custom servo motor with larger torque and less current.
- More accurate control of speed and position is achieved by high-accuracy encoders.



**Optimum lubrication system**

- Automatic lubrication failure alarm ensures the safety of machine.
- Automatic centralized metered lubrication reduces the risk of manual maintenance.



**High-rigidity machine frame**

- Robust machine frame is formed by rigid welded square steel with aging treatment.
- Mounting surface is processed by one-time gantry machining center.



### Standard & Optional Features

	Standard	Optional
<b>Control &amp; Monitoring Unit</b>		
Highly-sensitive 12-inch color touch screen	●	
Memory of molding conditions	●	
Alarm record	●	
Operation modification record	●	
A set of USB interface in the operator panel	●	
Real-time display of injection and plasticizing curves	●	
Electrical control circuit for robot	●	
Multiple languages (Chinese and English)	●	
Metric and English unit conversions	●	
I/O check displaying function	●	
Printer interface (USB17)	●	
Cycle time monitoring	●	
Production management function	●	
Real-time display of injection molding data (200 items displayed, 5000 items saved)	●	
PDP data and charts	●	
Injection quality inspection	●	
Product quality monitoring	●	
Cycle counter	●	
Parameter settings overview	●	
Low-pressure mold protection curve checking	●	
Molding temperature monitoring	●	
Three-color alarm light	●	
Alarm buzzer	●	
Injection pressure protection	●	
EUROMAP 12/67 electrical interface for manipulator		○
Other system languages		○
<b>Clamping Unit</b>		
5-stage mold opening and closing control	●	
Low-pressure mold protection (AI highly-sensitive mold protection)	●	
Low-speed, low pressure mold open/close in mold adjustment mode	●	
Injection compression (clamping synchronized with injection)	●	
Ejector movement during mold closing	●	
(Mechanical and electrical) mold opening and closing safety devices	●	
Movable platen adjustment device	●	
Automatic mold height adjustment	●	
Options of ejector backward mode (four modes)	●	
3-stage control of ejector movement	●	
Ejector movement delay	●	
Ejector time monitoring	●	
Change of ejector backward zero point	●	
Mold opening during ejector movement	●	
Ejector backward in place confirmation	●	
Mold cooling water distributor (4 sets for 60 T and 90 T machines, 8 sets for other machines)	●	
Embedded double-size locating ring design (fixed platen)	●	
Emergency stop function (on operator side and non-operator side)	●	
Robot mounting hole	●	
Central lubrication system	●	
Slope control for mold open/close (high, medium and low modes)	●	
Curves of mold opening and closing and ejector backward	●	
Function of core unscrewing (2 sets, controlled by time, position or counter)	●	
Functions of needle valve/gate (4 sets)	●	
Air blast (4 sets)	●	
Core unscrewing device		○
Needle valve/gate device		○
Air blast device		○
Locating ring		○
Hopper		○
Heat insulating plate of mold		○

	Standard	Optional
<b>Plasticizing &amp; Injection Unit</b>		
Wear-resistant screw component (open nozzle)	●	
Injection safety device (detector switch)	●	
5-stage injection control	●	
3-stage holding control	●	
3-stage plasticizing control	●	
3-stage back pressure control (accuracy of 0.1MPa)	●	
Suck-back before or after plasticizing	●	
Injection and plasticizing delay (time control)	●	
Six modes for switchover to holding phase	●	
Injection speed response setting	●	
Multi-stage injection pressure control	●	
Multi-stage holding pressure control	●	
Multi-stage speed setting for holding phase	●	
Multi-stage time setting for holding (0.01s as the minimum)	●	
Multi-stage screw position setting (accuracy of 0.01mm)	●	
Multi-stage plasticizing speed setting	●	
Mold opening during plasticizing	●	
Closed-loop control of molding temperature	●	
Temperature holding	●	
Temperature optimization	●	
Synchronized temperature rise	●	
Appointed temperature rise	●	
Synchronous temperature rise	●	
Remaining resin prevention	●	
Screw cold start prevention	●	
Automatic material purge	●	
Calibration of injection pressure zero point	●	
Real-time display of plasticizing speed	●	
Real-time display of plasticizing back pressure	●	
Swiveling injection unit	●	
Energy-saving barrel heat-retaining device		○
Dedicated barrel and screw assembly		○
Spring shut-off nozzle		○
Extended nozzle		○
Ceramic heater band		○
<b>General</b>		
Color of FE series all-electric IMM	●	
Closed safety door	●	
Adjustable vibration-damping wedge mount	●	
A 220V socket	●	
Two 32A 380V sockets, one 16A 380V socket	●	
Hopper (max. load of 50kg)	●	
Hopper sliding device	●	
Tool kit	●	
Auxiliary electrical cabinet		○
Mold lifting device		○
Vacuum air extractor		○
Glass-tube cooling water flowmeter		○
Hydraulic core puller (2 sets)		○

### YIZUMI PRECISION MACHINERY (INDIA) PVT. LTD.

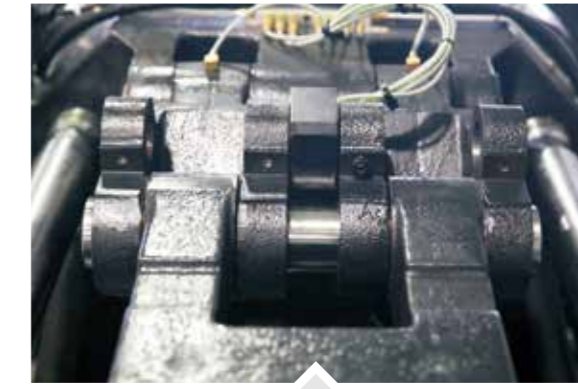
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Designed by Yizumi in January 2019

## FE Series All-electric Injection Molding Machine

For electronics, 3C products, medical, automotive and optical applications



**Optimized clamping unit design**

- Negative caster angle structure of the clamping unit makes the clamping motion smoother.



**Non-contact tie bar design**

- There is no contact between tie bars and movable platen, which reduces the friction in mold closing and eliminates the grease stains on the tie bars.

FE series all-electric injection molding machine can deliver the following values to you:

**Precision / Stability  
High Efficiency / Energy Saving**  
 To fulfill that commitment, we make these efforts

### Energy-saving measures

For the purpose of energy efficiency, fully servo control is applied to clamping, ejection, plasticizing and injection. Mold height adjustment and injection carriage are subject to vector variable frequency control to get more accurate torque output and lower energy consumption at the same time.

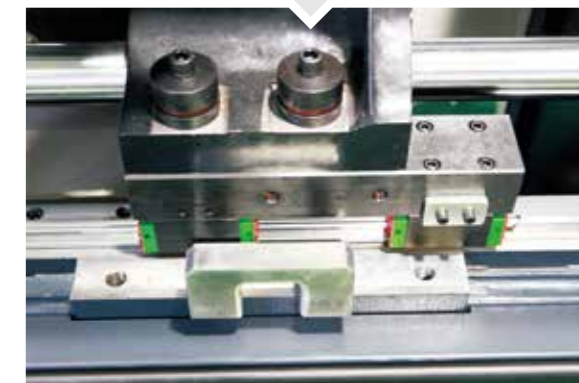
### Linear guides of movable platen

- Low-friction linear guides that support the movable platen ensure the clamping unit works smoothly.



### Innovative movable platen design

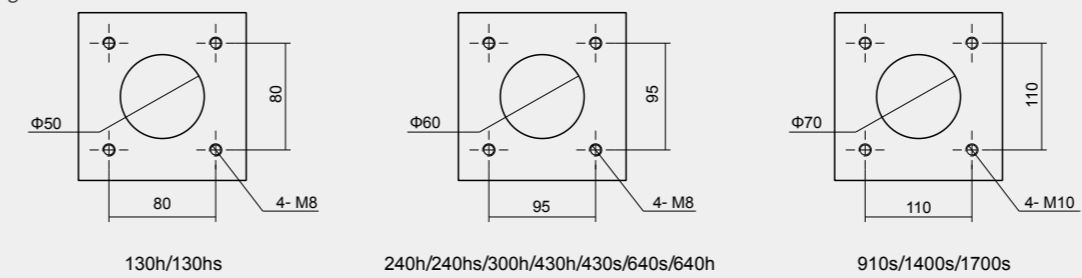
- Flexible structure of the movable platen helps to calibrate the unparallel molds and protect the molds.



Clamping Unit					
		FE60	FE120	FE180	FE260
Clamping force	KN	600	1200	1800	2600
Opening stroke	mm	250	375	450	600
Space between tie bars	mm	360×320 (W×H)		510×460 (W×H)	
Platen size	mm	500×470 (W×H)		720×670 (W×H)	
Mold thickness	mm	150-365	150-460	200-600	250-750
Locating ring	mm	100	100	120	120
Ejector stroke	mm	65	100	120	150
Ejector force	KN	20	32	45	58
Vertical distance between tie bar top and ground (excluding height of vibration damping mounts)	mm	1409	1666	1805	1812
Type of ejector drive		Electric (5-point)		Electric (9-point)	Electric (13-point)
Machine dimensions					
Platen dimensions (front view)					
Platen dimensions (side view)					
Robot base mounting dimensions					

Machine Dimensions & Weight								
Model	Specification	A	B	C	D	E	F	Machine weight/t
FE60	130h	3700	713	1132	315	1759	2044	3.4
	130hs	4362	713	1794	315	1759	2043	3.3
FE120	130h	4478	670	1132	374	1926	2171	6.5
	130hs	5145	670	1794	374	1926	2171	6.3
	240h	5011	840	1460	416	1914	2085	7.0
	240hs	5650	690	2282	600	1914	2275	7.1
	300h	5650	840	1729	790	1914	2085	7.0
	430h, 430s	5650	920	1749	688	1914	2085	7.1
	640h, 640s	5734	1144	1865	455	1933	2085	7.2
FE180	240h	5719	847	1487	420	1988	2194	9.2
	240hs	7141	756	2282	540	1988	2194	9.3
	300h	6082	849	1749	519	1988	2199	9.3
	430h, 430s	6244	971	1749	560	1995	2199	9.3
	640h, 640s	6368	1154	1865	385	2007	2199	9.4
FE260	430h, 430s	6467	900	1749	330	1945	2117	13.3
	640h, 640s	7032	1126	1865	577	1964	2117	13.4
	910s	7070	1164	1865	543	1964	2117	13.4
	1400s	8026	1452	2315	783	2084	2143	15.4
	1700s	8026	1493	2315	783	2084	2143	15.5

▶ Hopper mounting dimensions:



▶ Note:

- Shot volume = barrel sectional area x injection stroke
- Shot weight = shot volume x 0.92 (calculated by GPPS)
- Specifications are subject to change without prior notice.
- Please inform us when you have other special requirements.
- The maximum capacity of hopper should be matched up with the specification of injection unit as follows:  
 130h/130hs **25L**  
 240h/240hs/300h/430h/430s/640h/640s/910s **50L**  
 1400s/1700s **100L**

Injection Unit (Standard)											
Specification	Screw diameter	Shot volume	Shot weight	Screw speed	Plasticizing capacity	Injection speed	Injection rate	Injection pressure	Holding pressure	Nozzle contact force	
	mm	cm <sup>3</sup>	g	rpm	g/s	mm/s	cm <sup>3</sup> /s	MPa	kgf/cm <sup>2</sup>	kN	
130h	20	25	23	400	4.8	350	110	354	3612	283	2887
	25	47	43		8.5		172	274	2795	219	2234
	28	59	54		13.9		216	218	2224	174	1775
240h	25	47	43	400	8.5	350	172	376	3835	300	3060
	28	78	71		13.9		216	300	3060	240	2448
	32	101	92		16.7		281	230	2346	184	1877
	36	128	117		23.8		356	181	1846	145	1479
	28	78	71		13.9		216	330	3366	264	2693
300h	32	117	106	400	16.7	350	281	253	2581	202	2060
	36	148	134		23.8		356	200	2040	160	1632
	40	188	172		31.6		440	162	1652	129	1316
	32	103	94		14.0		241	313	3064	250	2451
430h	36	163	148	300	17.9	300	305	247	2519	197	2009
	40	214	194		23.7		377	200	2040	160	1632
	45	278	253		35.2		477	158	1612	126	1285
	36	147	133		16.0		254	312	3061	250	2449
640h	40	226	206	300	23.7	250	314	253	2581	202	2060
	45	318	289		35.2		398	200	2040	160	1632
	50	393	357		41.5		491	162	1652	129	1316
	32	103	94		14.0		241	313	3064	250	2451

Injection Unit (Low Speed)											
Specification	Screw diameter	Shot volume	Shot weight	Screw speed	Plasticizing capacity	Injection speed	Injection rate	Injection pressure	Holding pressure	Nozzle contact force	
	mm	cm <sup>3</sup>	g	rpm	g/s	mm/s	cm <sup>3</sup> /s	MPa	kgf/cm <sup>2</sup>	kN	
430s	32	103	94	300	14	150	121	313	3064	250	2451
	36	163	148		17.9		153	247	2519	197	2009
	40	214	194		23.7		188	200	2040	160	1632
	45	278	253		35.2		239	158	1612	126	1285
640s	36	147	133	300	16	150	152	312	3061	250	2009
	40	226	206		23.7		188	253	2581	202	2060
	45	318	289		35.2		239	200	2040	160	1632
	50	393	357		41.5		295	162	1652	129	1316
910s	45	321	292	300	35.2	150	239	247	2519	197	2009
	50	403	366		41.5		295	200	2040	160	1632
	55	546	497		54.1		356	165	1683	132	1346
1400s	55	558	508	300	54.1	150	356	214	2183	171	1744
	60	735	669		68.9		424	180	1836	144	1469
	65	863	785		86.3		498	153	1561	122	1244
1700s	60	763	695	250	57.5	150	424	211	2152	168	1714
	65	929	846		71.9		498	180	1836	144	1469
	70	1078	981		85.9		577	155	1581	124	1265

Injection Unit (High Speed)											
Specification	Screw diameter	Shot volume	Shot weight	Screw speed	Plasticizing capacity	Injection speed	Injection rate	Injection pressure	Holding pressure	Nozzle contact force	
	mm	cm <sup>3</sup>	g	rpm	g/s	mm/s	cm <sup>3</sup> /s	MPa	kgf/cm <sup>2</sup>	kN	
130hs	20	25	23	400	4.8	500	157	354	3611	283	2887
	25	47	43		8.5		245	274	2795	219	2234
	28	59	54		13.9		308	218	2224	174	1775
240hs	25	47	43	400	8.5	500	245	376	3835	300	3060
	28	78	71		13.9		308	300	3060	240	2448
	32	101	92		16.7		402	230	2346	184	1877
	36	128	117		23.8		509	181	1846	145	1479