Two Color / Dissimilar Material Electric Machine

Developed two color electric machine in Korea Equal performance & quality with Japanese and European two color/dissimilar injection molding machine

LGE 150C / LGE 250C

LGE-C Series

Structure & Feature

- Developed first Two color/Dissimilar material electric machine in KOREA.
- Adopting AC Servo motor realizes faster mold rotating time & more precise position control
  - Improving high speed mold rotating time within 0.9sec in 150ton machine.
  - Improving high speed mold rotating time within 1.2sec in 250ton machine.
- Enable High speed injection(300mm/sec) comparing to Hydraulic two color/dissimilar material machine.
- Applying high intensity clamping unit by optimized design through CAE analysis. Applying Center press type for precise molding
- Enable using variable size mold by longest tie bar distance and longest adjusting distance of mold in Korea.
  - Index UNIT size Ø805 (150ton)
  - Index UNIT size Ø1100 (250ton)

Index unit

Applying Servo motor

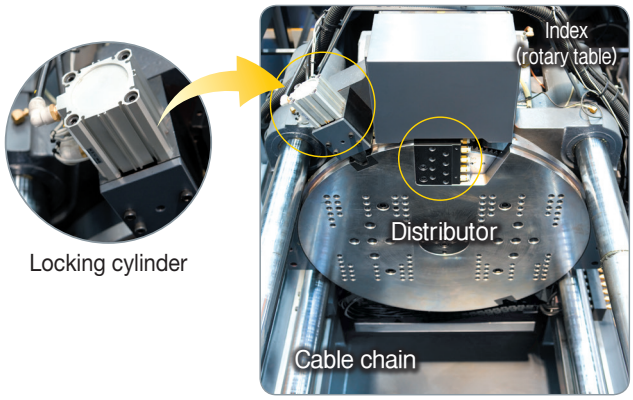
- Reduce rotation time by half comparing with hydraulic type(0.86 sec)
- Improving position control & precise molding

External distributor

- Easy replacement of distributor → additional installation of cooling port
- Removing internal cooling line in rotating plate → easy for main tenance due to prevention of oil & water leakage, heat loss

Easy replacement of Stopper

- In the case of wear and breakage, users can easily replace cap and stopper head → reduce maintenance cost
- Tapper type → Easy to revise correct position



Locking cylinder

Injection unit

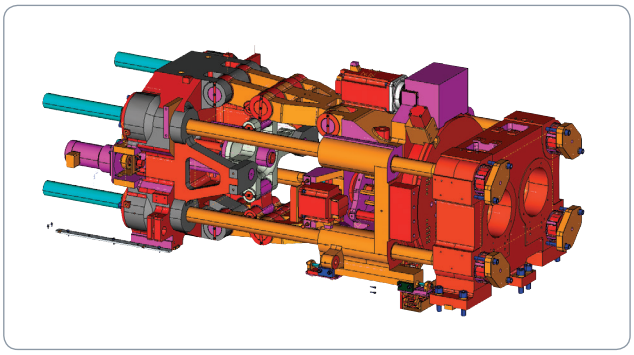
- High speed injection mechanism equipped high response & high torque servo motor

Appearance

- All cover box type design for better safety and appearance

Clamping unit

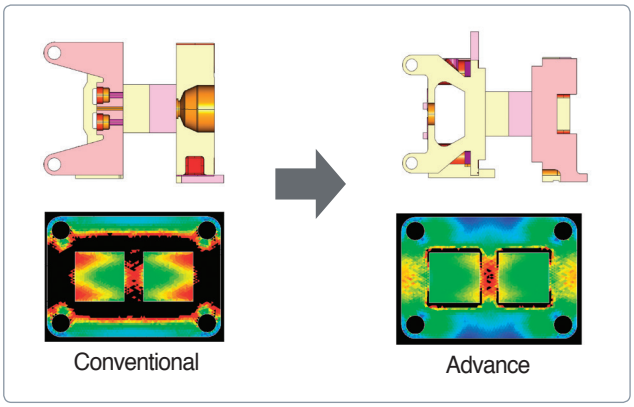
- Wide platen 700mm x 410mm
- Adopting stress diversification type in moving platen for mold protection
- Stabilizing in clamping unit via installation of Rear platen
- Reducing cycle time by high speed of clamping unit
- Improvement on wiring through equipping cable chain in servo motor



Clamping unit

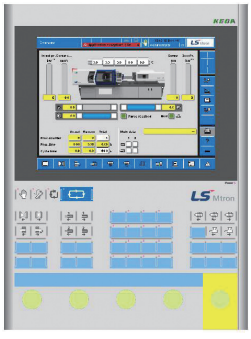
Analyzing mold platen

- High rigid, low distortion clamping unit (center press type)



Conventional Advance

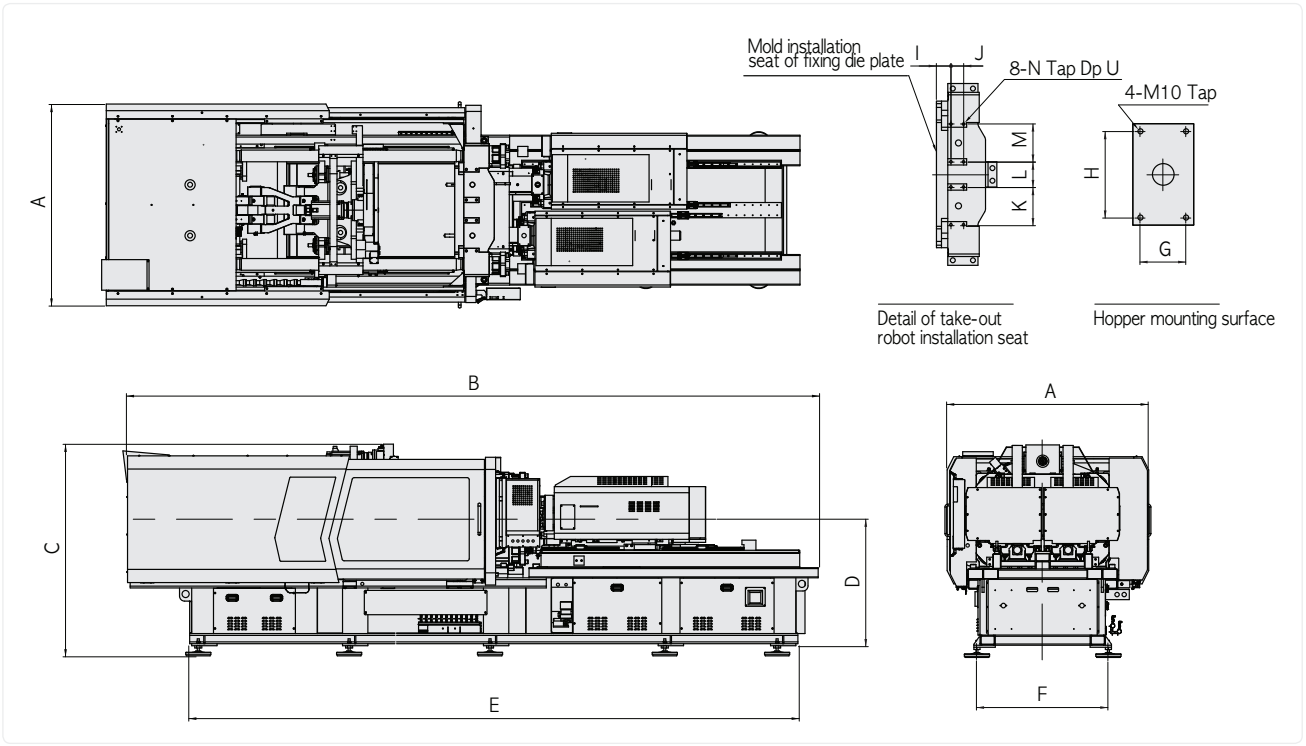
Stable control system with convenient handling



- TFT clear screen and quicker response time provide easy operation
- Real time data setting and operation
- User-friendly UI
- Manual operation button
- USB port, Key switch(Option)

HICOM-γ

External Form Drawing
LGE 150C - LGE 250C

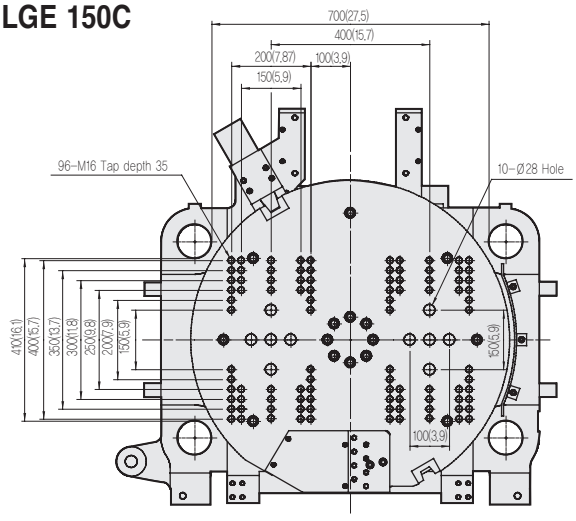


(Unit : inch)

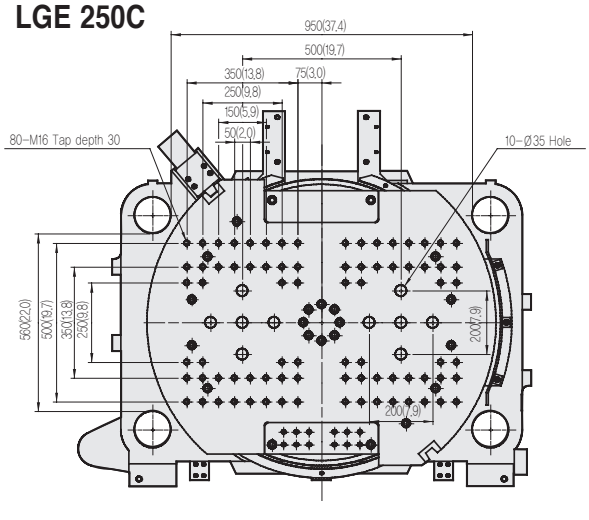
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
LGE 150C	66.9	224.4	78.7	49.2	200.8	41.3	3.5	6.7	2.4	3.9	7.9	7.9	7.9	M0.6	1.2
LGE 250C	78.0	267.7	82.7	49.2	236.2	50.9	3.5	6.7	4.5	3.9	11.8	7.9	11.8	M0.8	1.6

Moving Platen Drawing
LGE 150C - LGE 250C

LGE 150C



LGE 250C



Major Specification

Model			LGE 150C						LGE 250C					
INJECTION UNIT														
			1st Injection Unit (80T)			2nd Injection Unit (80T)			1st Injection Unit (150T)			2nd Injection Unit (150T)		
Screw Code			0.15			0.15			0.28			0.28		
Screw Diameter		in	1.0	1.1	1.3	1.0	1.1	1.3	1.3	1.4	1.6	1.3	1.4	1.6
		mm	25	28	32	25	28	32	32	36	40	32	36	40
Injection Capacity Calculated		in^3	3.6	4.5	5.9	3.6	4.5	5.9	7.9	9.9	12.3	7.9	9.9	12.3
Injection Capacity	PS	oz	1.9	2.4	3.1	1.9	2.4	3.1	4.2	5.3	6.5	4.2	5.3	6.5
	PE	oz	1.5	1.9	2.5	1.5	1.9	2.5	3.3	4.2	5.2	3.3	4.2	5.2
Standard	Max. Injection Pressure	Mpa	246	196	150	246	196	150	242	191	155	242	191	155
		Psi	35,701	28,447	21,762	35,701	28,447	21,762	35,132	27,736	22,473	35,132	27,736	22,473
	Max. Holding Pressure	Mpa	222	177	135	222	177	135	218	172	139	218	172	139
		Psi	32,131	25,602	19,586	32,131	25,602	19,586	31,619	24,962	20,226	31,619	24,962	20,226
	Injection Rate	in^3/sec	0.4	0.5	0.6	0.4	0.5	0.6	0.5	0.6	0.7	0.5	0.6	0.7
	Injection Speed	in/sec	0.3			0.3			0.2			0.2		
High Speed (Option)	Max. Injection Pressure	Mpa	246	196	150	246	196	150	242	191	155	242	191	155
		Psi	35,701	28,447	21,762	35,701	28,447	21,762	35,132	27,736	22,473	35,132	27,736	22,473
	Max. Holding Pressure	Mpa	222	177	135	222	177	135	218	172	140	218	172	140
		Psi	32,131	25,602	19,586	32,131	25,602	19,586	31,619	24,962	20,226	31,619	24,962	20,226
	Injection Rate	in^3/sec	9.0	11.3	14.7	9.0	11.3	14.7	9.8	12.4	15.3	9.8	12.4	15.3
	Injection Speed	in/sec	11.8			11.8			12.2			12.2		
Charging	Plasticizing Capacity(PS)	lbs/h	79.4	103.6	130.1	79.4	103.6	130.1	114.6	163.1	218.3	114.6	163.1	218.3
	Screw Speed	rpm	~ 400			~ 400			~ 350			~ 350		
CLAMPING UNIT														
Clamping Force		Uston	165.3						275.6					
Tie Bar Distance : H x V		in	27.6 x 16.1						37.4 x 22.0					
Clamping Stroke		in	15.7						21.7					
Daylight		in	41.3						51.2					
Mold Thickness		in	5.9 ~ 25.6						7.9 ~ 29.5					
Ejector Force		USton	2.8						5.0					
Ejector Stroke		in	7.9						5.9					
Ejector Rod Protrusion		in	3.9						3.9					
Rotary Table Positioning			180°, Servomotor Drive						180°, Servomotor Drive					
Max. Mold Size		in	(9.4 x 3.9)2EA						(17.7 x 21.7)2EA					
Max. Mold Weight on Moving Platen		kg	250 x 2EA						500 x 2EA					
GENERAL														
Heater		kW	8.4	10.1	12.8	8.4	10.1	12.8	12.8	14.6	14.3	12.8	14.6	14.3
Machine Dimension : L x W x H		ft	18.7 x 5.6 x 6.6						22.3 x 6.5 x 6.9					
Machine Weight		lbs	23,148.5						33,069.3					

Note
1. Injection capacity calculated : Screw Area x Screw Stroke.
2. Actual injection capacity output may vary from calculated injection capacity
3. Clamping system is double 5-point toggle structures.
4. The maximum injection and holding pressures are maximum pressure that can be set on the machine.
   Actual setting pressure will be restricted by molding condition and cycle time.
5. The maximum injection rate and speed are calculated values.
   Actual injection rate and speed will be restricted by an injection pressure.
6. The mold size should be bigger than 60% of the Tie-bar distance. (HxV)
7. Due to continuous improvements, specifications are subject to change without notice.