

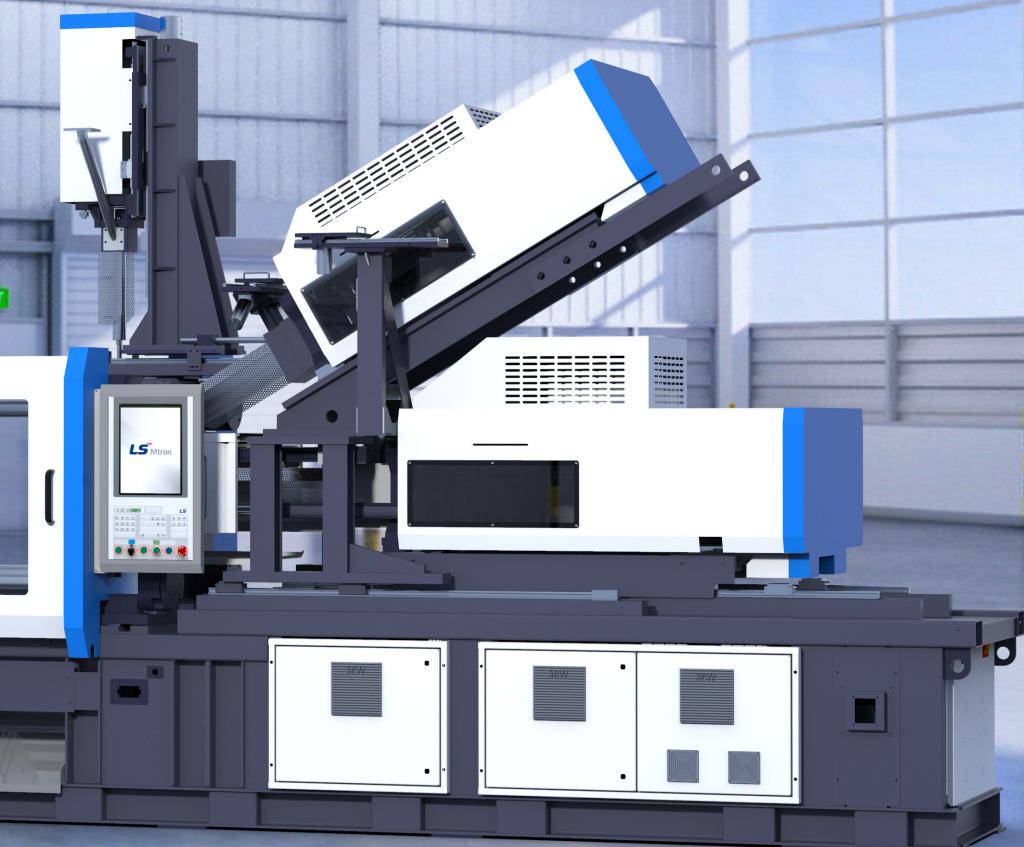


Mtron

Multi-component



- WIZ-EC
- WIZ-ED
- WIZ-EV
- WIZ-ERP
- WIZ-EL



WIZ-EC1 Series



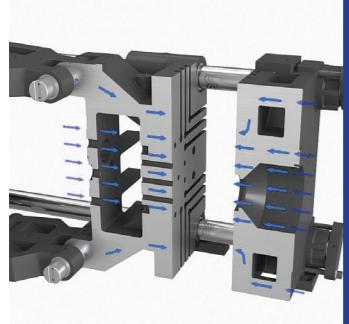
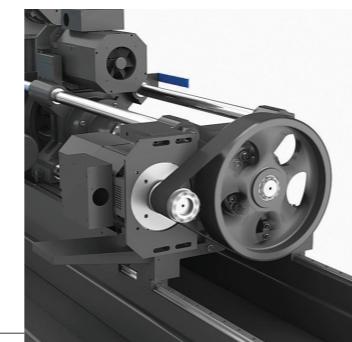
Applying Servo motor

Realizing faster mold rotating time & more precise position control



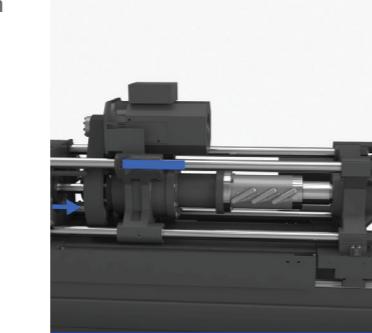
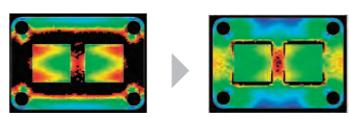
KEBA Controller

User Sequence changed: easy maintenance & flexible for user demand



High stiffness center press type moving platen

Minimizing platen deflection

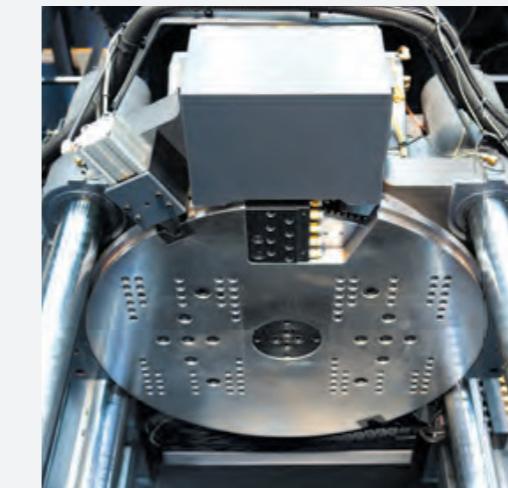


Increased injection volume

13~27% increase compared to previous model

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 1.20sec in 250ton machine.
 - Improving high speed mold rotating time within 1.80sec in 400ton machine.
- Enable High speed injection(300mm/sec) compared 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 size ø1320(400ton)



Pneumatic Stopper

- Easy replacement of stopper
- Taper type(Easy to revise correct position)

External distributor

- Easy replacement of distributor and additional installation of cooling port
- Simple rotating plate(Removing internal cooling line in rotating plate)

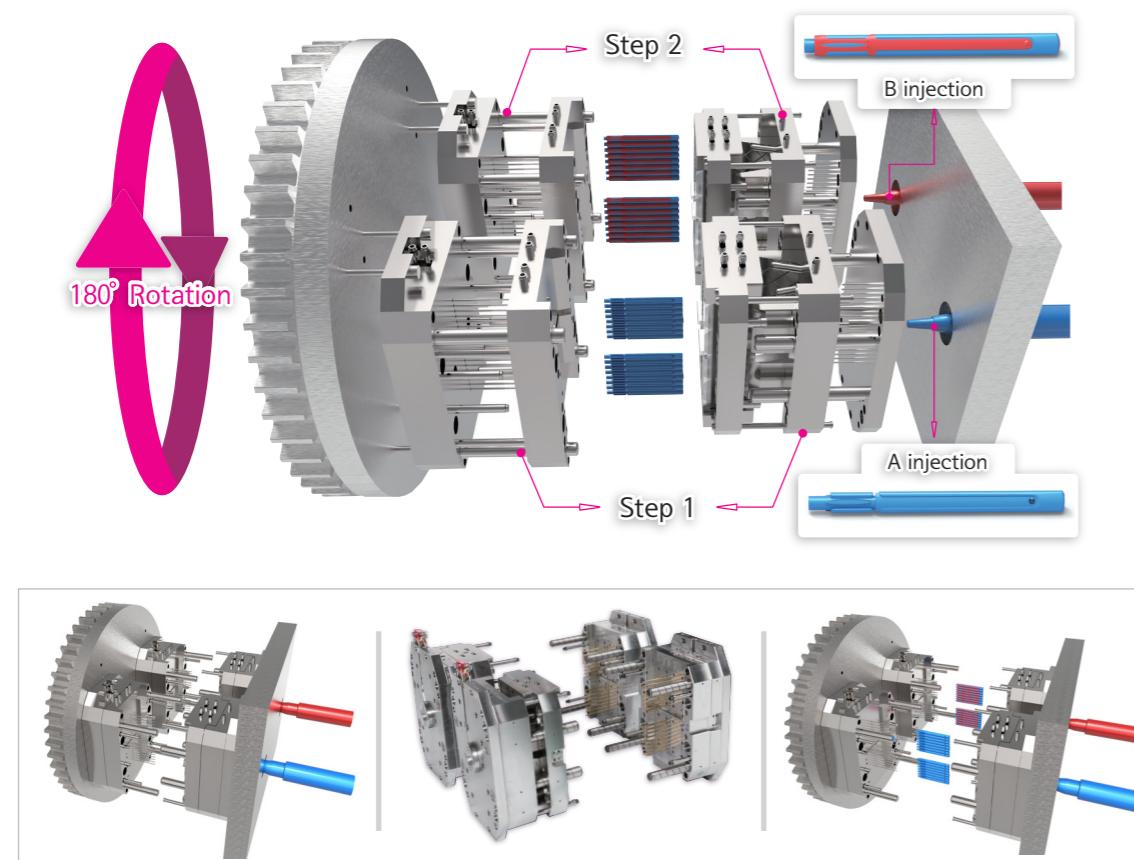
Platen size

- Largest Rotating plate dimension in same range (ø805, ø1100, ø1320)
- Possible to install the one-piece mold and two separated molds by applying an external distributor

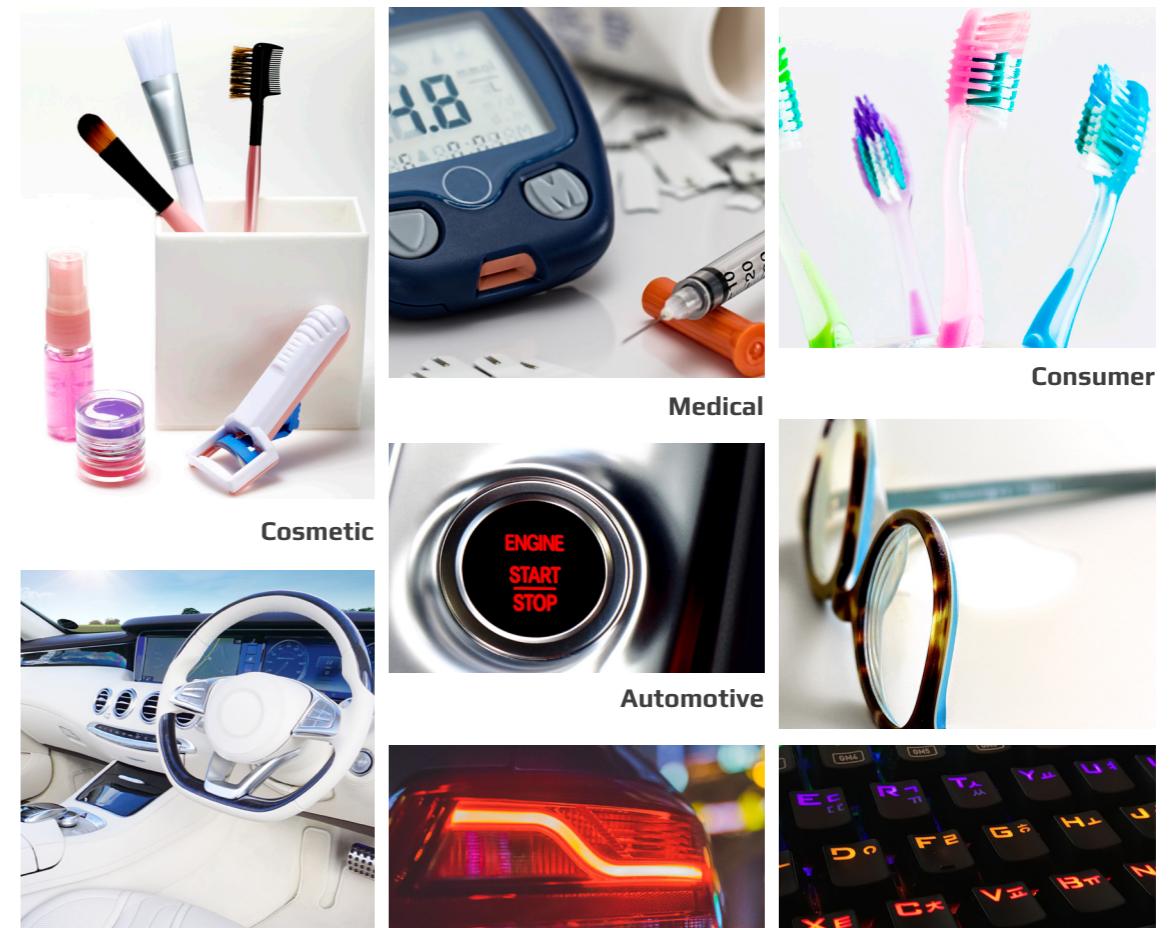
Hydraulic and Electric Comparison

	Hydraulic		Electric
Classification	General Hydraulic	Hybrid	Electric
Driving Method classification	Driving Source	Induction motor + Hydraulic pump	Servo motor
	Driving Method	Central supply(Hydraulic)	Multi-axis
	Drive-line	Oil(Hydraulic)	Timing belt + Pulley
	Driving part	Hydraulic Cylinder	Ball Screw
	Pressure Sensor type	Hydraulic	Load cell
Performance	Injection Speed	50~150mm/s	0~500mm/s
	Position Control	0.5mm	0.01mm
	Simultaneous Motion	No	Standard
	Noise	90dB	70dB
	Power consumption	100%	70~80%
	Product	Wide use	
			Wide use ~ High-Cycle, High-Precision

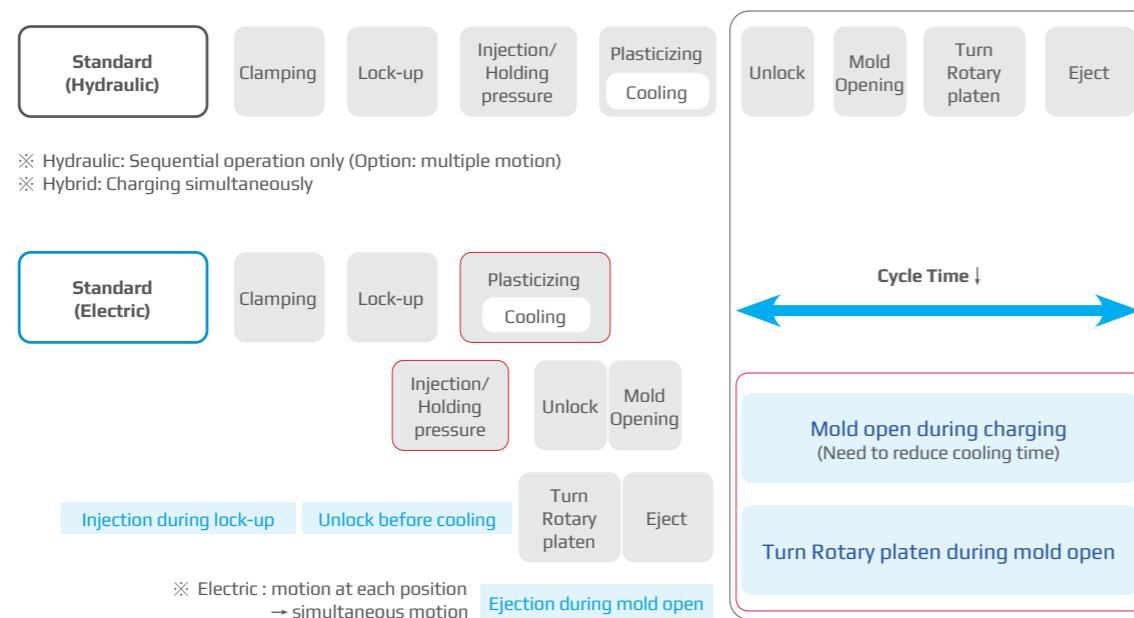
Process



Injection molded parts



Reduction of cycle time



Clamping and Injection unit matrix

A wide range of injection specifications can be selected according to injection

Injection unit	Injection speed (mm/s)	Screw diameter (mm)
WIZ150EC	i0.6 (30 Ton)	300/500
	i1.2 (50 Ton)	200/300/500
	i1.7 (80 Ton)	200/300/500
WIZ250EC	i2.4 (110 Ton)	200/300/500
	i3.6 (170 Ton)	150/200/500
WIZ400EC	i5.8 (220 Ton)	150/200/300
	i8.6 (280 Ton)	150/200/300
	i6.7 (350 Ton)	150/300

Major Specification



INJECTION UNIT

Model			WIZ 150EC						WIZ 250EC						WIZ 400EC						
Injection Unit Code			1st Injection Unit (80T)			2nd Injection Unit (80T)			1st Injection Unit (150T)			2nd Injection Unit (150T)			1st Injection Unit (280T)			2nd Injection Unit (280T)			
Screw Type			Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	Y	A	B	
Screw Diameter			mm	25	28	32	25	28	32	32	36	40	32	36	40	40	45	50	40	45	50
Injection Capacity Calculated			cm ³	59	74	97	59	74	97	129	163	201	129	163	201	302	382	471	302	382	471
Injection Capacity	PS	g	54	68	89	54	68	89	119	150	185	119	150	185	277	351	434	277	351	434	
	PE	g	43	54	71	43	54	71	94	119	147	94	119	147	220	279	344	220	279	344	
Standard	Max. Injection Pressure	Mpa	246	196	150	246	196	150	242	191	155	242	191	155	275	221	181	275	221	181	
		kgf/cm ²	2,510	2,000	1,530	2,510	2,000	1,530	2,470	1,950	1,580	2,470	1,950	1,580	2,800	2,250	1,850	2,800	2,250	1,850	
	Max. Holding Pressure	Mpa	222	177	135	222	177	135	218	172	139	218	172	139	247	199	163	247	199	163	
		kgf/cm ²	2,259	1,800	1,377	2,259	1,800	1,377	2,223	1,755	1,422	2,223	1,755	1,422	2,520	2,025	1,665	2,520	2,025	1,665	
	Injection Rate	cm ³ /S	98	123	161	98	123	161	121	153	188	121	153	188	188	239	295	188	239	295	
High Speed (Option)	Injection Speed	mm/sec	200			200			150			150			150			150			
	Max. Injection Pressure	Mpa	246	196	150	246	196	150	242	191	155	242	191	155	275	221	181	275	221	181	
		kgf/cm ²	2,510	2,000	1,530	2,510	2,000	1,530	2,470	1,950	1,580	2,470	1,950	1,580	2,800	2,250	1,850	2,800	2,250	1,850	
	Max. Holding Pressure	Mpa	222	177	135	222	177	135	218	172	140	218	172	140	247	199	163	247	199	163	
		kgf/cm ²	2,259	1,800	1,377	2,259	1,800	1,377	2,223	1,755	1,422	2,223	1,755	1,422	2,520	2,025	1,665	2,520	2,025	1,665	
	Injection Rate	cm ³ /S	147	185	241	147	185	241	161	204	251	161	204	251	251	318	393	251	318	393	
Charging	Injection Speed	mm/sec	300			300			200			200			200			200			
	Plasticizing Capacity(PS)	kg/h	36	47	59	36	47	59	52	74	99	52	74	99	71	93	135	71	93	135	
	Screw Speed	rpm	~400			~400			~350			~350			~250			~250			

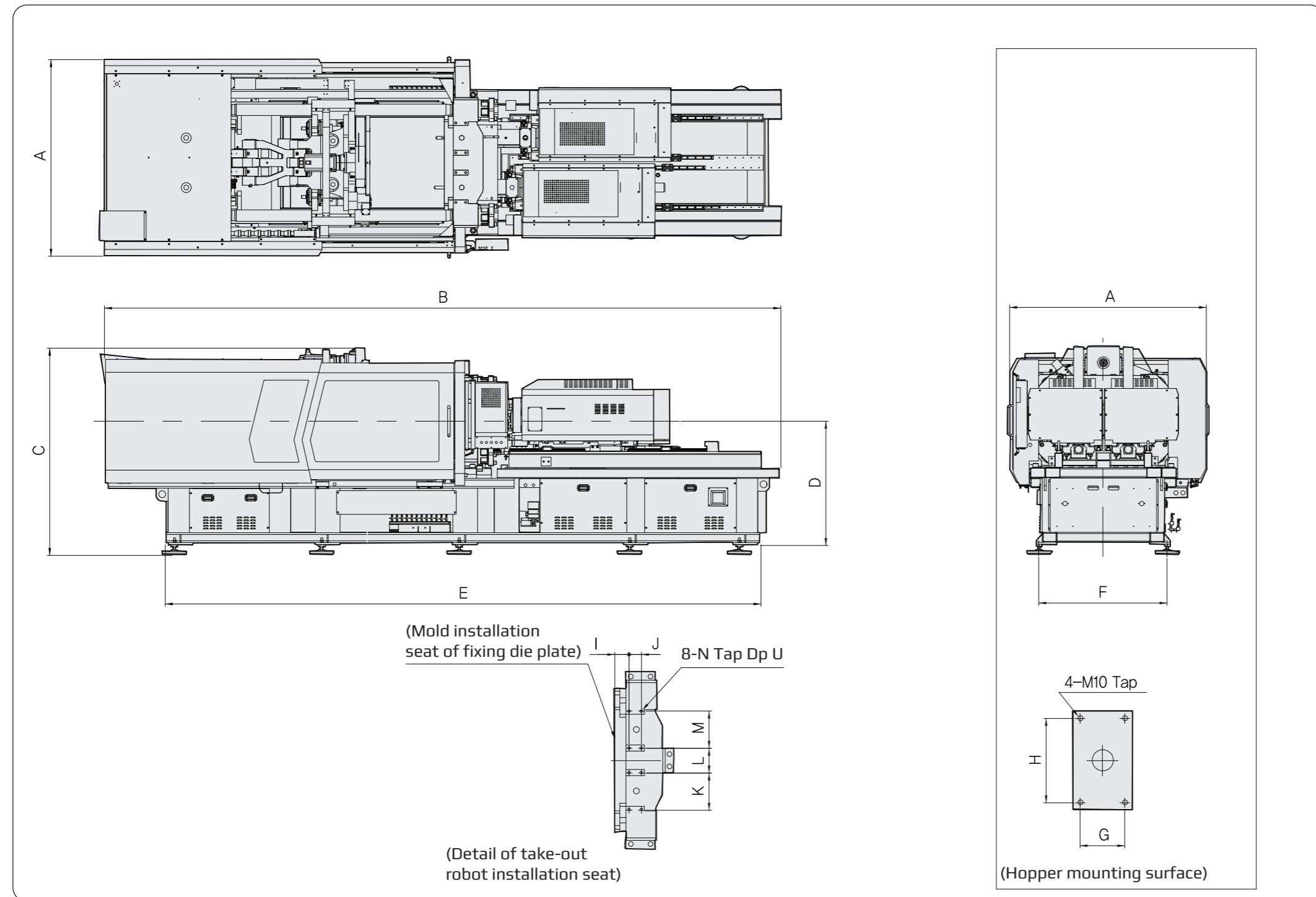
CLAMPING UNIT

Clamping Force	ton(KN)	150						250						400												
Tie Bar Distance : H x V	mm	700 x 410												950 x 560						1,110 x 670						
Clamping Stroke	mm	400												550						620						
Daylight	mm	950												1,200						1,320						
Mold Thickness	mm	150 ~ 550												200 ~ 650						300 ~ 700						
Ejector Force	ton	2.5												4.5						4.6						
Ejector Stroke	mm	200												150						150						
Ejector Rod Protrusion	mm	100												100						100						
Rotary Table Diameter	mm	805												1,100						1,320						
Rotary Table Positioning		0 °, 180 ° (2-station)												0 °, 180 ° (2-station)						0 °, 180 ° (2-station)						
Max. Mold Size	mm	(250x450) 2EA												(400x630) 2EA						(500x700) 2EA						
Max. Mold Weight on Moving Platen	kg	250 x 2EA												500 x 2EA						800 x 2EA						

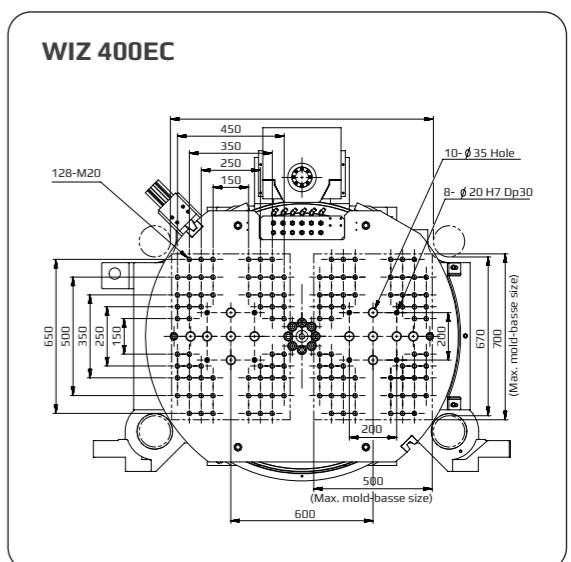
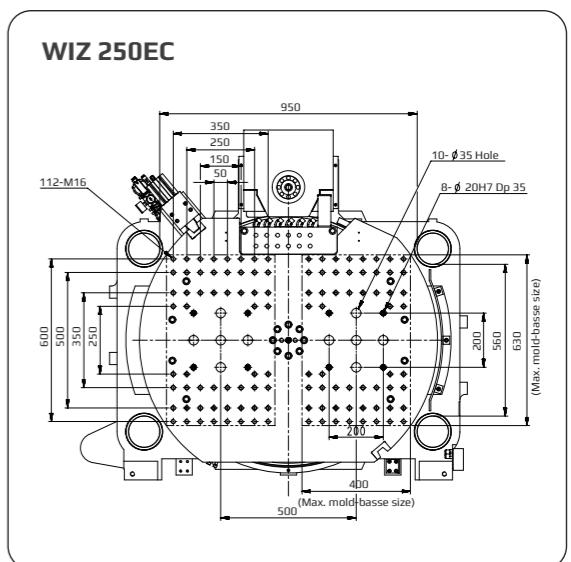
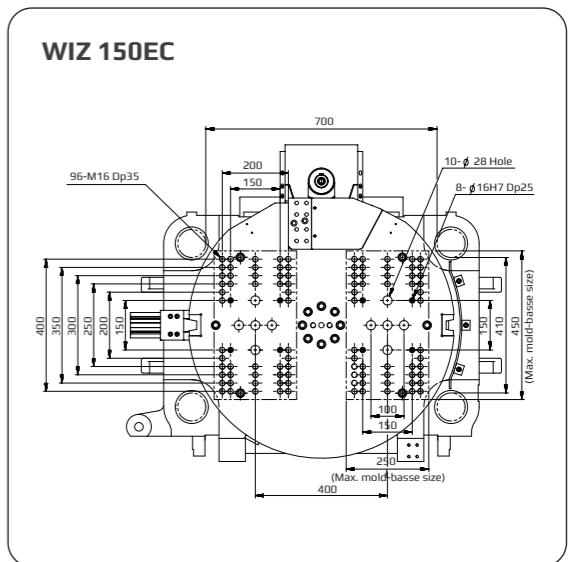
GENERAL

Heater	kw	8.4	10.1	12.8	8.4	1

External Form Drawing



Moving Platen Drawing



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	U
WIZ 150EC	1700	5700	2000	1250	5100	1050	90	170	60	100	200	200	200	M16	30
WIZ 250EC	1980	6800	2100	1250	6000	1292	90	170	115	100	300	200	300	M20	40
WIZ 400EC	2350	7400	2457	1425	6810	1790	90	170	35	140	270	80	270	M20	40

Mixing various resins as I want?

MULTI-COMPONENT

A customized solution for customers who require special-purpose injection by precisely controlling two or more resins at the same time.

A solution that reduces cost, production time, and even lowers the defect rate by integrating free injection expression and post processing



Various multi shot series

Application

1. Multi-shot Simultaneous or sequential injection of two or more resins
2. Electric technology Application of LS drive and motors that can more precisely control different injection amounts and speeds through digital control
3. Rotation technology Conveyance in axial or vertical rotation using rotational technology on machines or molds
4. Various combinations Standard electric injection molding machines can be modified and combined according to customer needs, providing customized solutions to customers who require special purpose injection molding.

Features

1. Customized molding Various types of injection are possible depending on the shape of the customer's product
2. Electric technology Application of LS drive and motors that can more precisely control different injection amounts and speeds through digital control
3. High-quality molded products Reduction of defects in loading/unloading and transportation by shortening post
4. Reduce assembly process Compared to the previous process, additional manpower and facilities are reduced.
5. Reduce production time Maximize efficiency by reducing incidental production time through one-stop production

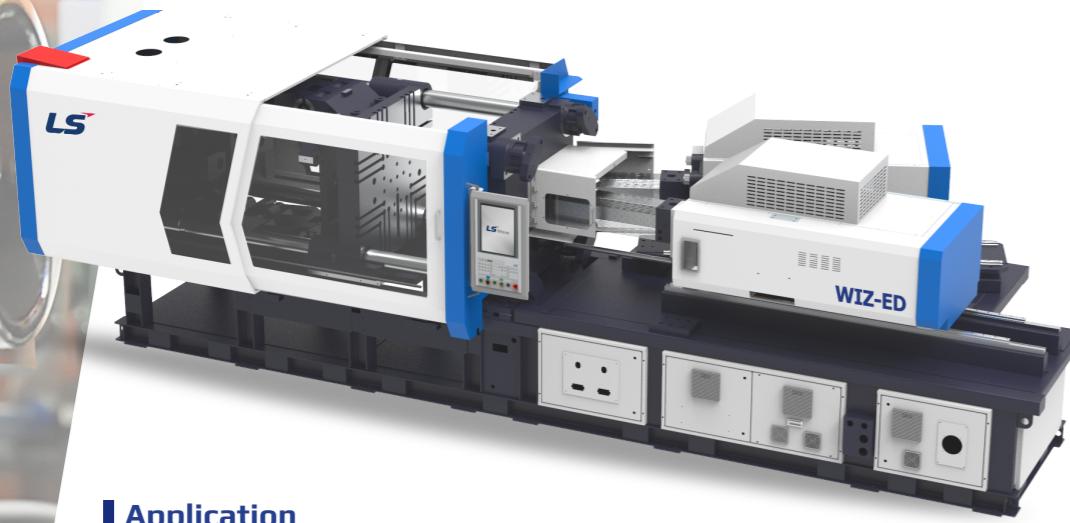
분류	position	P	W(side)	W(upper)	V	L
Minimize foot print	○	○	◎	◎	-	-
Minimum installation height	○	○	△	-	○	-
Ease of mold design	◎	○	○	○	○	○
Factory automation	○	○	○	-	-	○
Switch to single material injection	△	○	○	○	○	○
Core Tum	-	○	○	○	○	○
Application model	WIZ-EC	WIZ-ED	WIZ-EPR	WIZ-EV	WIZ-EL	

P : Parallel, W : piggyback(45°), V: Vertical, L: 90°

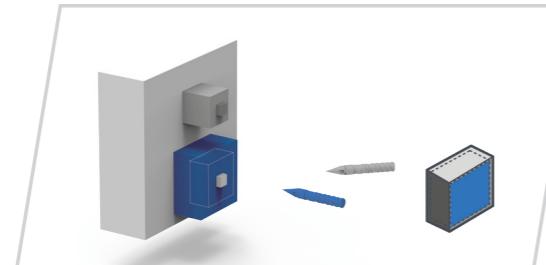
분류	DIV	Clamping force(ton)													
		80	110	170	220	280	350	400	450	550	650	850	900	1400	1600
WIZ-EC	Electric			◎		◎		◎							
WIZ-ED	Electric	○	○	○	○	○	○	○	○	○	○	○	○	○	○
WIZ-EPR	Electric	○	○	○	○	○	○	○	○	○	○	○	○	○	○
WIZ-EV	Electric	○	○	○	○	○	○	○	○	○	○	○	○	○	○
WIZ-EL	Electric+ Hydraulic	○	◎	○	○	○	○	○	○	○	○	○	○	○	○
WIZ-ETC**	Electric			○		○		○							
WIZ-DC	Hydraulic									○	○	○	○	○	○

* Model options other than those indicated above can be negotiated separately with LS

WIZ-ED2



Application



Injection for LENS

- Possible to mount a large specification screw on the 1st and 2nd injection unit
- Application of screw design for exclusive use of transparent resin
- Molding thick products requiring long holding pressure by applying servo motors (holding time of more than 300 seconds)
- Low injection speed precise control
- Cycle time reduction effect (double layered molding)
- Application of high rigidity center press platen

Features

- Possible to install 2nd injection device without restriction on injection amount
- Easy conversion to general injection (single material)
- Relatively efficient use of foot print

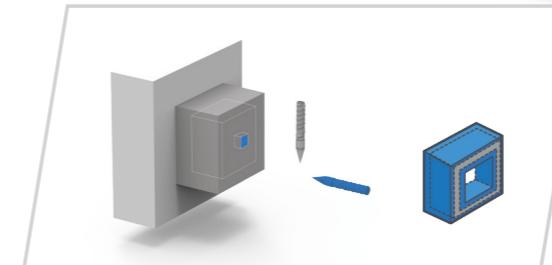
Industries



WIZ-EV3



Application



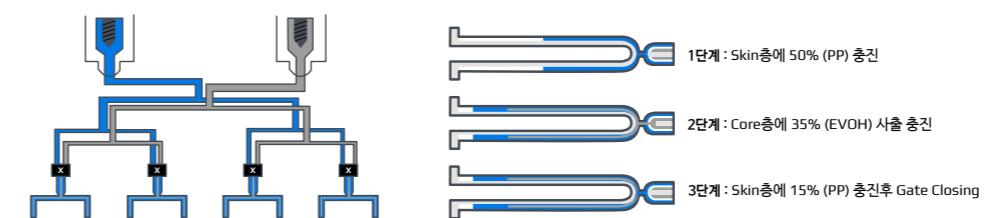
2component injection device vertical structure

Injection unit is mounted vertically on top of the fixed platen and occupies the same space as a standard machine

- Application of high cycle clamping unit for high speed
- Application of highly plasticized screws exclusively for packaging

Multi layer technology

Technology to improve vacuum by forming a barrier layer (EVOH) on the product surface through multi stage injection



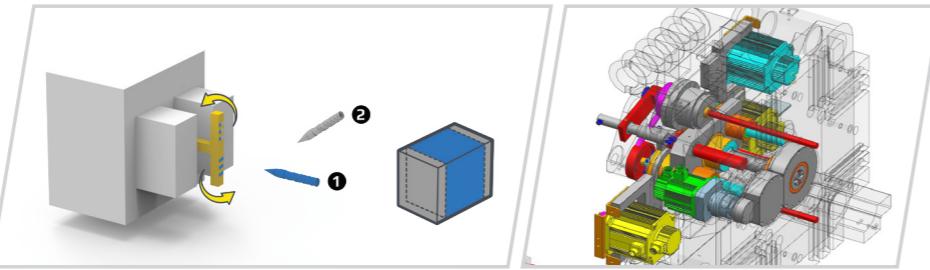
Industries



WIZ-EPR²4



Application



Molding features

- As the distance between the two nozzles becomes narrower, the space between the four tie bars can be fully utilized, minimizing the mold size.
- Improved molding precision by individually controlling the two injection units
- European style double injection mold or standard mold can also be applied

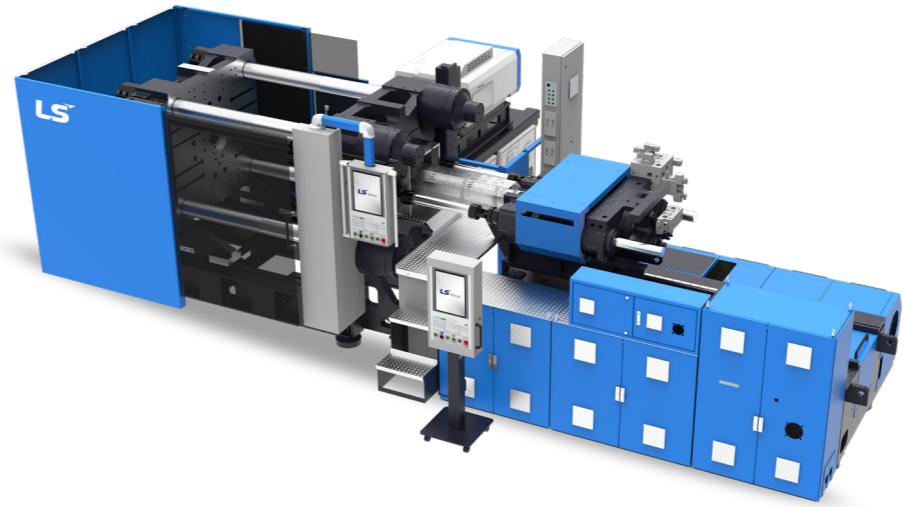
CoreTurn

- Injection molding machine applying core turn (index core)
- Individual/simultaneous operation by installing 4 servo motors on the moving platen side
- Simplify mold design and improve productivity
- Fast and accurate core rotation with servo precision control

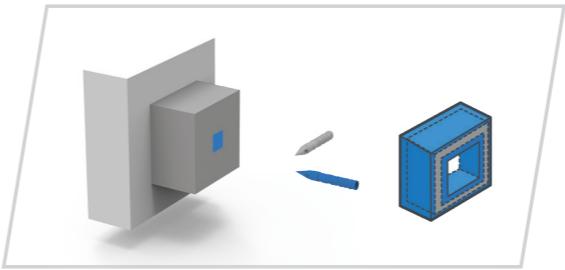
Industries



WIZ-EL5²5



Application



Machine Structure

- Additional injection device is located on the counter operating side (position can be changed depending on the mold structure)
- A structure in which two gates form a right angle in the mold (2 types)
- Injection unit : 1st hydraulic type + 2 nd electric type

CoreTurn

- The Easiest to install the 2nd injection unit
- Applicable to existing injection molding machines or other brand machine
- Possible to install up to 5 additional injection units

Industries





Overseas Sales Head Office

7F, LS Mtron Hi-Tech Center, 39, LS-ro 116beon-gil, Dongan-gu,
Anyang-si, Gyeonggi-do, 14118, Korea

USA Sales Head Office

2150 BOOGS ROAD, NW SUITE #400, DULUTH, GA 30096, USA
Tel : +1 470 347 3862 **US service** : +1 800 843 1672

LS Machinery CHINA

LS Industrial Park, Lexing Road, National High-tech Industrial
development Zone, Wuxi, Jiangsu, 214028 CN
Tel : +86-510-8299-3877



PT. LS Mtron Machinery INDONESIA

Jl. Samsung 2 Blok D3A Jababeka UKM Center Segitiga Emas,
Cikarang Utara, Bekasi 17550
Tel : +62-813-8631-8446

LS Mtron BRASIL

Rua Maria Candida, 2097, Vila Guilherme – São /
Paulo – SP, Brazil
Tel : +55-11-5052-1052



+82 080 400 8247

LS injection molding machine

LS Mtron Poland

LS Mtron Ltd (Sp. z o.o.) Oddział w Polsce Aleja
Kalifornijska 27, 55-020 Rzeplin
Tel : +48-71-349-77-58

LS Mtron Vietnam

Charmvit Tower 10F, #17, 117 Tran Duy Hung, Cau
Giay District, Hanoi, Vietnam
Tel : +84 90 149 7855