2017-02

Be the ONE*

Outstanding People, Best-in-Class Product, Winning Partnership

LS ELECTRIC
INJECTION MOLDING MACHINE
WIZ-E Series

18 ~ 850 Ton

LS Mtron

www.lsinjection.com

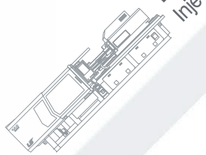
Be the ONE*
Outstanding People, Best-in-Class Product, Winning Partnership

INNOVATIVE TECHNOLOGY PARTNER

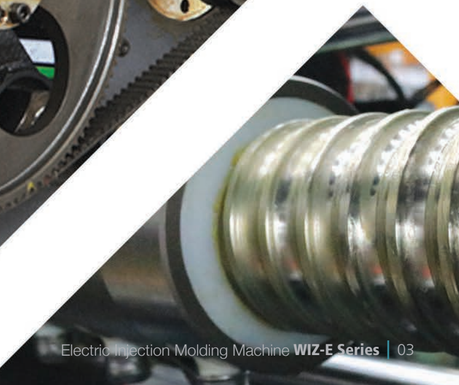
Customer Focused Corporation

The goal of LS injection molding machines is to meet and exceed the technology and quality requirements of all customers in the global market. We (in partnership with our customers) will expand entry into advanced markets with continuous technology and quality innovation that consistently creates value for our customers. This will lead to high and consistent earnings growth by anticipating and understanding market needs in advance and leveraging this knowledge and insight as an indicator to drive technology, leadership and innovation within the global market without ceasing.

Beginning with the development of Korea's first direct compression injection molding machines, LS has always put the customer first. From customer focused and dedicated injection molding machine technology such as two-platen injection molding machines for molders of light guide plates and mobile phones to multi-color injection molding and ultimately to all-electric injection molding machines which are the fruit of the most advanced technology.



Electric
Injection Molding Machine



About LS Mtron

Management Philosophy

LSpartnership is about achieving exceptional performance based on mutual respect, care and trust by the people of LS who value integrity and who have a sense of ownership resulting in creating a greater value together, both internally as well as externally with our customers, through cooperation and having open minds.
LSpartnership pursues true partnerships based on action.
Together with its global partners around the world, all those at LS will seek greater value for the next generation through collaborative relationships.

Vision

LS Mtron has announced its vision to begin the second act of its new growth story.

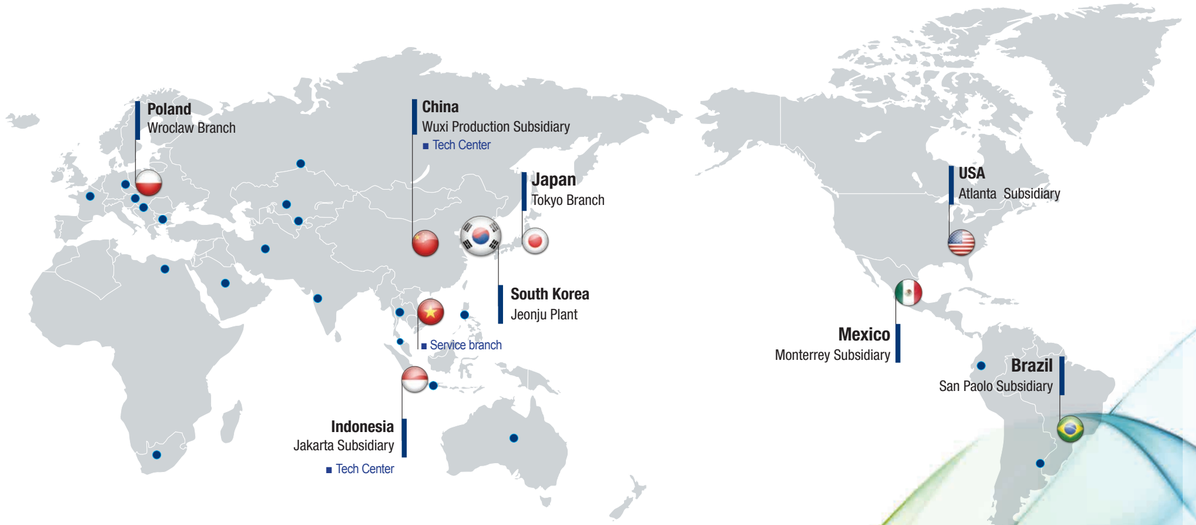
Be the ONE*
Outstanding People, Best-in-Class Product, Winning Partnership

LS Mtron's vision is to "Be the ONE* Outstanding People, Best-in-Class Product, Winning Partnerships".
In "Be the ONE*", "Be" indicates the determination to "accomplish at all costs!", while "ONE*" declares our future state to be the "Top No. 1 and first." "Be the ONE*" signifies LS Mtron's goal in which outstanding people join forces to create best-in-class products that impress customers and drive prosperity for all stakeholders. In addition,"Ownership, New-thinking and Excellence" are the driving forces behind "Be the ONE*" and these core values shall become the basis by which the behaviors of LS Mtron staff are evaluated.

Vision Structure

	Outstanding People	Best-in-Class product	Winning Partnership
Vision	The person with the world-class competences in the area of his or her role and task.	Products and services with excellent quality and value giving satisfaction to customers beyond expectations.	Sharing growth with employees, subcontractors. customers and society.
Core Values	**Ownership** Threw themselves heart and soul into the tasks as if the company and businesses are their own.	**New-thinking** Pursuit of positive changes with enlighten and flexible thinking	**Excellence** Create customer value with its expertise and insights.

Global Networks




Head Quater


LS Mtron Ltd.


Jeonju Plant


US branch


Brazil branch

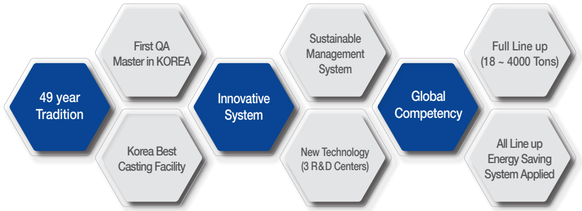

Indonesia branch


China Plant

LS IMM History

Difference in technology is a keyword for success!

LS Mtron is offering various model from 18tons to 4,000tons in Automotive, Home appliances, Medical, Packaging, etc



1947 ~ 1970's

The opening chapter of a great story in the Korean plastic industry with LS

1947 • Established as Lucky Chemical Industrial Corporation (Manufacturing of cosmetics begun)
1951 • Produced Korea's first injection-molded synthetic resin products
1969 • Gold Star started IMM business with Toshiba as T/A at Chang-won plant (Currently LG Electric)
1978 • Gold Star developed own model-vertical IMM 10 ton, horizonal IMM 80 ton.

1990's

Premiere on the export market to worldwide

1985 • Developed LG's own model, ID-EN Series
1987 • Started to export to USA & Southeast Asia
1992 • Developed 1800 ton(1st machine in Korea)
1995 • Developed 3000 ton IMM(1st machine in Korea)

2000's

Opening of a plant in Jeonju in Korea and Wuxi in China, Reinforce the product line up and strong our business

2002 • Developed 8 models of All-Electric machine LGE II-Series (30~300 Ton)
2004 • LG Electric IMM was awarded JYS by Science and Technology Administration
2005 • Developed 4000 ton IMM(4500 Injection unit)
• Established LS Machinery(LSMW) LTD. In CHINA.
2007 • Developed all-electric injection molding machine (450, 550 ton)
2008 • Developed brand-new premium LGH-S Series, 1300, 2000 Ton
• Changed name to LS Mtron from LS Cable
2009 • Developed two color electric molding machine (LGH EC150, 250)
• Developed brand new premium LGH-S Series, 3000 Ton
• Developed the new type of electric molding machine : LGE 180III
• Developed the large & electric injection molding machine, 2000 Ton

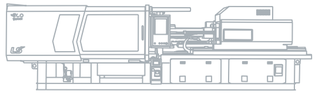
2010's

Continuous development of customized injection molding machine will be recognized as a global leader in plastic industry

2010 • Developed super high speed (& hydraulic) injection molding machine : LGH 150 ton
• Developed LGH-S Series : 2500 Ton
• Developed the new type of electri molding machine : LGE 220III, 280III, 330III, 350III, 400III
2011 • Developed all-electric injection molding machine
• Oem toggle injection machine
2012 • Developed IML electric injection molding machine : LGE 280II
• Developed ultra-high speed electric injection molding machine for mold frame
2013 • Completed the construction of the High Tech Center of LS Mtron
• Developed direct high speed injection molding machine (injection speed 1,000mm/s)
• Developed electric injection molding machine for mobile phone (150 ton ~ 650ton)
• Developed Large size electric injection molding machine (LGE 1300HB)
• Developed servo system injection molding machine (150 ton~650ton) : WIZ 500, 600, 700, 900, 1100
2014 • Developed brand-new premium energy-saving WIZ-X Series (1300, 1800, 2000, 2500, 3000ton)
• Developed 8 models of hybrid IMM, LTE model
• Develoled electric injection molding machine for super compact connector
2015 • Developed vertical hybrid IMM (110, 150ton)
• Developed electric IMM for automobile precision parts (650, 850ton)
• Developed all-electric model for Injection Blow : IBM-170Ton
• Developed new model for the plastic palette : 700 ~ 4000Ton
2016 • Developed new model for the cosmetic packaging : CPM - 170, 220, 280, 350Ton
2017 • Developed Premium Hybrid ' the ONE Series ' : 500 ~ 3,300Ton
• Developed small size hybrid IMM 'WIZ-T' : 90 ~ 400Ton

1947 1951 1969 1978 1985 1987 1992 1995

2004 2005 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017



“LS injection molding machine provides innovated performance and advanced technology!”

Currently all of the accumulated know-how working is for you, the customer, who is the object of all the technology efforts of LS Mtron.
The smallest of defects do not go unattended to as LS is constantly pursuing research and experiments to meet the future expectations of our customers as we move forward together.

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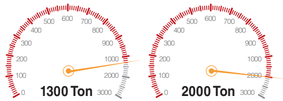
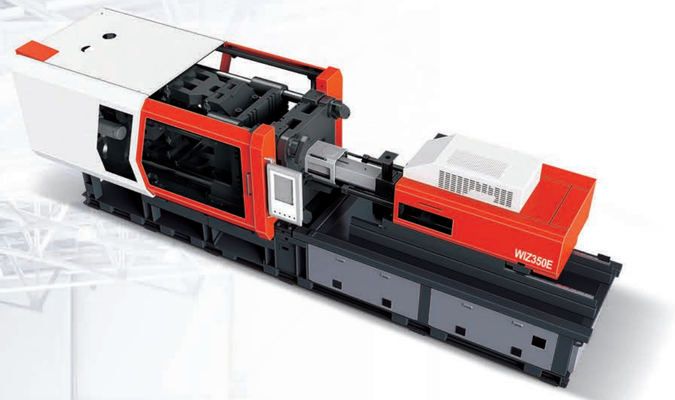
* LS Electric Injection Molding Machine Line-up

WIZ-E Series (STD, Precision, High precision)		
LGE-HB Series (Large tonnage)		
Two Color Series (Two color, Dissimilar)		
IBM Series (Injection Blow)		
CPM Series (Cosmetic)		

Electric Injection Molding Machine (18 ~ 850 Ton)

The **WIZ-E Series** is the result of years of research and experience in the development and manufacture of injection molding machines. These exceptional machines combine the benefits of servo electric technology, an injection speed/pressure control algorithm, conformance to safety standards, a 5-point toggle clamping system designed by FEA analysis, and a high speed injection molding mechanism.



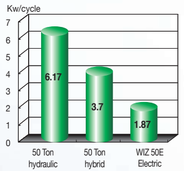
All Electric IMM

Energy saving, Less noise & clean molding

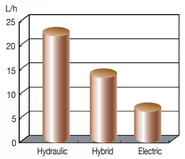
- Less than 70dB sound-level
- No oil usage

Save 50% of electricity charge compare to hydrid hydraulic IMM

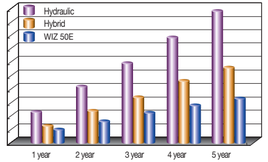
■ Comparison of power consumption



■ Comparison of cooling water



■ Comparison of annual electricity cost



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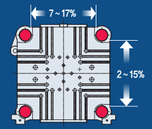
WIZ-E Series
18 ~ 850 Ton

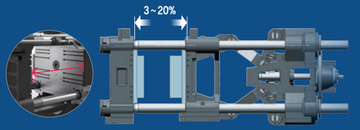
1 Largest platen within same tonnage



- New centerpessed rigid platen
- Extend tie bar distance (80~ 400 Ton)
  - Horizontal 7% ~ 17% UP x Vertical 2% ~ 15% UP compare to previous model

2 Extended daylight (80 ~ 400 Ton)

- 3% ~ 20% up compare to previous model



3 Increased injection volume (18 ~ 350 Ton)

- 13% ~ 27% up compare to previous model

4 High speed injection 500mm/s 18 ~ 400 Ton (Optional)

5 Major optional fuction applied as standard

- Air blow off unit, product chute
- Ejector retreat confirmation circuit
- Valve gate circuit

6 Dual nozzle touch cylinde (Zero moment)

7 Quick response load cell (NMB)

Safety first design

- Developed according to the guidelines of the safety regulations board to conform to safety standards in Korea, Europe & USA.

Economic Feasibility Comparison of 350 Ton IMM

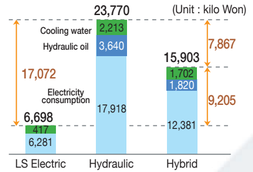
- Electric IMM can save US17,000/1Year compare to standard hydraulic IMM

Data comparison

Item	LS Electric	Hydraulic	Hybrid
Power consumption	10.34	25.85	18.1
Hydraulic oil	0	1000	500
Quantity of cooling water	12.3	65	50

* Cooling water for the mold has been excluded in calculation

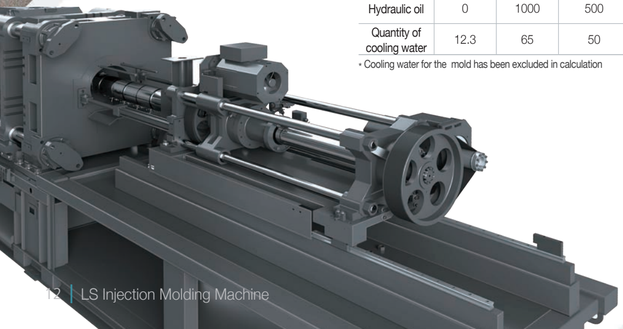
Comparison 1 year



* The result may vary according to products and operating conditions

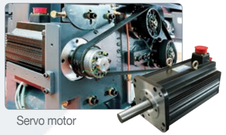
Annual comparison

Applied Std.
- Annual operating hours : 7200h/1year (24h/day *25day/month *12month/year)
- Cooling water price : 394 won/ton
- Oil price : 1,820 won/ℓ(Oil changed twice in the first year and once a year afterward.)



Applying strong & quick response AC servo motor to realize high injection speed

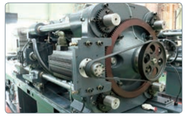
- Injection speed up to 800mm/s and multi-step injection speed control produced by a high-output and high-response servo motor.


Servo motor


Servo drive

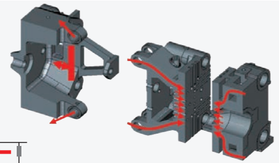
5-point toggle high speed clamping system and highly rigid injection mechanism

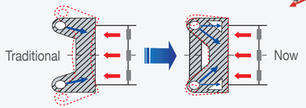
- 5-point toggle high speed clamping unit and high intensity injection mechanism
- High speed injection mechanism by adopting a high-response high-torque servo motor



Center press moving

- Improve productivity multi cavity
- Unity the Euromap ejector (Enhanced modulation)





Structure & Feature

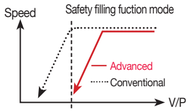
Servo motor controls individually and simultaneously

- Platen open during plasticizing / Ejection durong opening planten /Injection during increasing pressure
- Reduce cycle time (productivity improvement)

High stiffness clamping unit, injection structure (Stable molding)

Safety Filling Function Mode

- Control the peak pressure during Injection by Screw position
- Prevent over-filling by the incorrect setting during High speed injection

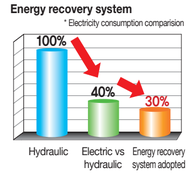


Center press typed moving platen for precision molding

- Center Press type prevents bad molding & provides long mold life cycle.

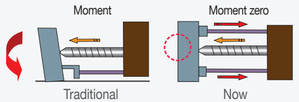
Energy recuperation system, Energy saving

- Recovery the Electricity for Injection by 10% during injection speed reduction



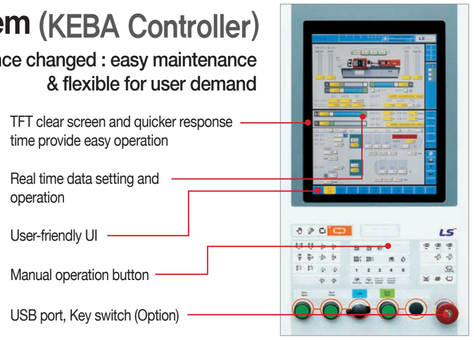
Double shaft nozzle touch structure

- Prevent platen failling : Platen parallelism improvement & prevent resin leacking
- Nozzle forward and backword speed increased
- Increased user convenience : Simplified barrel



Control System (KEBA Controller)

User Sequence changed : easy maintenance & flexible for user demand

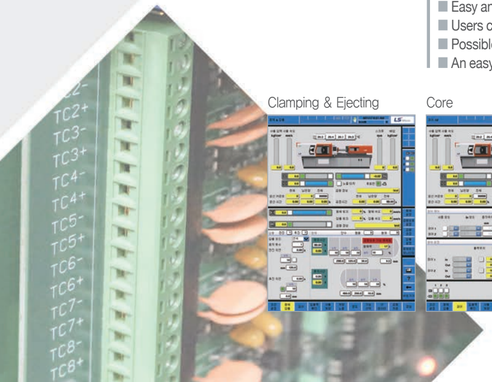


15-inch

Applies KEBA Controllers

Quick response and user interface reinforcement

- Easy to convert units
- Function to search data on molds
- Easy and various graphic functions
- Users can change the sequence of cycles
- Possible to communicate with peripheral devices and monitor them
- An easy-to-analyze cycle monitoring screen
- Possible to monitor I/O and turn On/Off the forced output on the touch screen
- Provides operation convenience for users by increasing the screen size
- Adds a memo function – possible to make an independent memo and associate with mold information

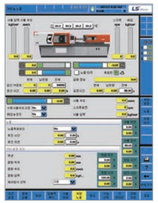


Clamping & Ejecting

Core

Injection & Charging

Charging & Nozzle

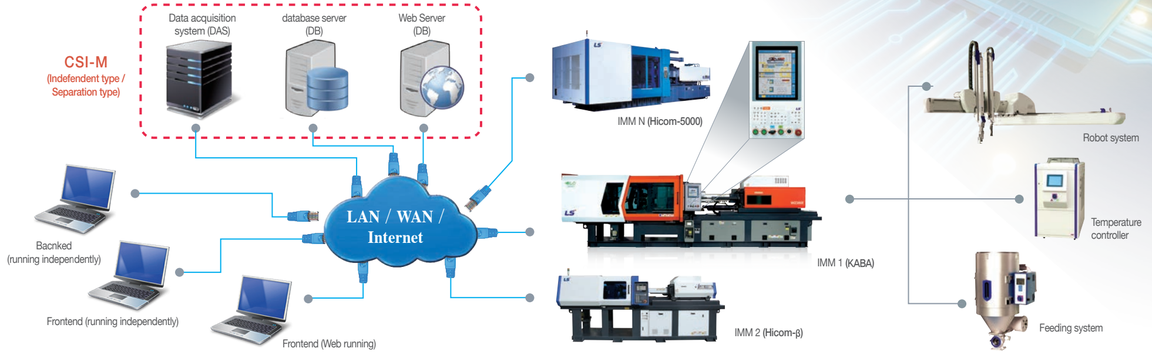


Select Function

Setting IO

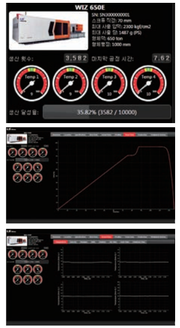
LS CSI Solution (CSI-M / CSI-C)

CSI-M & CSI-C system linked LS injection machine and auxiliary equipment to realize smart factory



Production and process monitoring of Injection molding machine system (CSI-M)

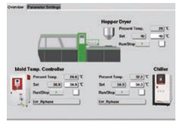
Injection system data linkage function for the MES and powerful monitoring solution



- Mobile device system monitoring
- Provide multiple connections to LS Mtron machines
- Status monitoring and controlling function of every linked device
  - Injection machine information, status and et up function
  - Exception: Machine structure and related system data
  - ⇨ Screw size & maximum stroke remote setting is not provided
- Interlocked with customer MES
  - Injection production information loading function depend on production plan
  - ⇨ Prior consultatioin needed with customer SI team before applying MES interlock system
- Manager Functioin: MBO & production plan comparison monritoring
  - Information output based on database analysis
  - Production ratio mornitoring (OEE, time / date / monthly)
  - Production information analysis by mode (automatic / preparation / alam / OFF)

Auxiliary equipment control system (CSI-C)

Injection molding machine centered controlling solution system realize convenience and production improvement



- Injection molding machine operation panel controlling
  - Equipment parameter setting : major parameter variable and setting function
  - Controlling 64 units maximum
- Equipment production condition up/down loading system prevent input condition by user
  - Mold bar code scanner linkage to provide injection machine and auxiliary condition loading
- Alarm checking and alarm logging through operation panel

Electric Injection Molding Machine

WIZ-E Series

Major Specification

			WIZ 18E		WIZ 30E			WIZ 50E						WIZ 80E						WIZ 110E								
INJECTION UNIT																											
Injection Unit Code			i0.33 (18t)		i0.33 (18t)		i0.6 (30t)			i1.2 (50t)			i1.7 (80t)			i1.7 (80t)			i1.2 (110t)	i1.9 (110t)	i2.4 (110t)			i3.6 (170t)			
Screw Type			*A	B	*A	B	Y	*A	B	Y	*A	B	Y	*A	B	Y	*A	B	YYY	YY	Y	*A	B	Y	*A	B	
Screw Diameter		mm	16	18	16	18	18	20	22	22	25	28	25	28	32	25	28	32	22	25	28	32	36	32	36	40	
Screw Stroke		mm	60	60	60	60	85	85	85	110	120	120	140	140	140	140	140	140	110	140	140	160	160	160	180	180	
Injection Capacity Calculated		cm^3	12	15	12	15	22	27	32	42	59	74	69	86	113	69	86	113	42	69	86	129	163	129	183	226	
Injection Capacity	PS	g	11	14	11	14	20	25	30	38	54	68	63	79	104	63	79	104	38	63	79	118	150	118	169	208	
	PE	g	9	11	9	11	16	19	24	31	43	54	50	63	82	50	63	82	31	50	63	94	119	94	134	165	
Standard	Max. Injection Pressure	Mpa	265	209	265	209				253	196	187	246	196	150	246	196	150	294	275	236	181	143	242	191	155	
		kgf/cm^2	2700	2133	2700	2133				2580	2000	1910	2510	2000	1530	2510	2000	1530	3000	2800	2410	1850	1460	2470	1950	1580	
	Max. Holding Pressure	Mpa	238	188	238	188				228	177	169	222	177	135	222	177	135	265	247	213	163	129	218	172	139	
		kgf/cm^2	2430	1920	2430	1920				2322	1800	1719	2259	1800	1377	2259	1800	1377	2700	2520	2169	1665	1314	2223	1755	1422	
	Injection Rate	cm^3/s	60	76	60	76				76	98	123	98	123	161	98	123	161	76	98	123	161	204	121	153	188	
	Injection Speed	mm/sec	300		300						200			200			200				200				150		
High Speed	Max. Injection Pressure	Mpa	265	209	265	209	242	196	162	253	196	187	246	196	150	246	196	150	294	275	236	181	143	242	191	155	
		kgf/cm^2	2700	2133	2700	2133	2470	2000	1650	2580	2000	1910	2510	2000	1530	2510	2000	1530	3000	2800	2410	1850	1460	2470	1950	1580	
	Max. Holding Pressure	Mpa	238	188	238	188	218	177	146	228	177	169	222	177	135	222	177	135	265	247	213	163	129	218	172	139	
		kgf/cm^2	2430	1920	2430	1920	2223	1800	1485	2322	1800	1719	2259	1800	1377	2259	1800	1377	2700	2520	2169	1665	1314	2223	1755	1422	
	Injection Rate	cm^3/s	101	127	101	127	76	94	114	114	147	185	147	185	241	147	185	241	114	147	185	241	305	161	204	251	
	Injection Speed	mm/sec	500		500			300			300			300			300				300				200		
High Speed (Option)	Max. Injection Pressure	Mpa					242	196	162	253	196	187	246	196	150	246	196	150	294	275	236	181	143	242	191	155	
		kgf/cm^2					2470	2000	1650	2580	2000	1910	2510	2000	1530	2510	2000	1530	3000	2800	2410	1850	1460	2470	1950	1580	
	Max. Holding Pressure	Mpa					218	177	146	228	177	169	222	177	135	222	177	135	265	247	213	163	129	218	172	139	
		kgf/cm^2					2223	1800	1485	2322	1800	1719	2259	1800	1377	2259	1800	1377	2700	2520	2169	1665	1314	2223	1755	1422	
	Injection Rate	cm^3/s					127	157	190	190	245	308	245	308	402	245	308	402	190	245	308	402	509	402	509	628	
	Injection Speed	mm/sec						500			500			500			500				500				500		
Charging	Plasticizing Capacity(PS)	kg/h	13	17	13	17	17	23	33	33	45	59	36	47	59	36	47	59	26	36	47	59	85	52	74	99	
	Screw Speed	rpm	~ 500		~ 500			~ 500			~ 500			~ 400			~ 400				~ 400				~ 350		
CLAMPING UNIT																											
Clamping Force		ton(kN)	18 (177)		30 (294)					50 (490)						80 (784)			110 (1,080)								
Tie Bar Distance		mm	260 x 260		260 x 260					335 x 335						420 x 370			470 x 420								
Clamping Stroke		mm	200		230					270						320			350								
Daylight		mm	450		480					590						670			760								
Die Plate Dimension		mm	380 x 400		380 x 400					470 x 480						615 x 555			680 x 630								
Mold Thickness		mm	120 ~ 250		120 ~ 250					150 ~ 320						150 ~ 350			200 ~ 410								
Ejector Force		ton	0.8		0.8					2						2			2.5								
Ejector Stroke		mm	60		60					70						70			120								
GENERAL																											
Electric Heater Capacity		kW	2.3	2.3	2.3	2.3	4.6	5.1	5.6	5.6	8.3	9.7	8.3	9.7	12.3	8.3	9.7	12.3	5.6	8.3	9.7	12.5	14.5	12.5	14.5	14.2	
Machine Dimension : L x W x H		m	2.95 x 0.94 x 1.37		3.25 x 0.94 x 1.37					3.67 x 1.06 x 1.46			3.90 x 1.06 x 1.46			4.17 x 1.20 x 1.67			4.57 x 1.20 x 1.67		4.92 x 1.31 x 1.68			5.12 x 1.31 x 1.68			
Machine Weight		ton	2.0		2.2					2.8			3.0			4.0			4.2		5.5			5.7			

Note
1. Injection capacity calculated : Screw Area x Screw Stroke.
2. Clamping system is double 5-point toggle structures.
3. 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.
4. The maximum injection rate and speed are calculated values. Actual injection rate and speed will be restricted by an injection pressure.
5. The mold size should be bigger than 60% of the Tie-bar distance. (HxV)
6. Due to continuous improvements, specifications are subject to change without notice.

WIZ-E Series

Major Specification

			WIZ 170E								WIZ 220E						
INJECTION UNIT																	
Injection Unit Code			i2.4 (170t)	i3.6 (170t)			i4.7 (170t)	i5.8 (220t)			i3.8 (220t)	i5.8 (220t)			i8.6 (280t)		
Screw Type			YY	Y	*A	B	C	Y	*A	B	YY	Y	*A	B	Y	*A	B
Screw Diameter		mm	28	32	36	40	45	36	40	45	32	36	40	45	40	45	50
Screw Stroke		mm	160	160	180	180	180	180	220	220	160	180	220	220	240	240	240
Injection Capacity Calculated		cm^3	99	129	183	226	286	183	276	350	129	183	276	350	302	382	471
Injection Capacity	PS	g	91	118	169	208	263	169	254	322	118	169	254	322	277	351	434
	PE	g	72	94	134	165	209	134	202	255	94	134	202	255	220	279	344
Standard	Max. Injection Pressure	Mpa	242	242	191	155	163	254	206	163	294	254	206	163	275	221	181
		kgf/cm^2	2470	2470	1950	1580	1660	2590	2100	1660	3000	2590	2100	1660	2800	2250	1850
	Max. Holding Pressure	Mpa	218	218	172	139	147	229	185	147	265	229	185	147	247	199	163
		kgf/cm^2	2223	2223	1755	1422	1494	2331	1890	1494	2700	2331	1890	1494	2520	2025	1665
	Injection Rate	cm^3/s	92	121	153	188	239	153	188	239	121	153	188	239	188	239	295
	Injection Speed	mm/sec			150				150			150				150	
High Speed	Max. Injection Pressure	Mpa	242	242	191	155		270	221	177	294	270	221	177	275	221	181
		kgf/cm^2	2470	2470	1950	1580		2750	2250	1800	3000	2750	2250	1800	2800	2250	1850
	Max. Holding Pressure	Mpa	218	218	172	139		243	199	159	265	243	199	159	247	199	163
		kgf/cm^2	2223	2223	1755	1422		2475	2025	1620	2700	2475	2025	1620	2520	2025	1665
	Injection Rate	cm^3/s	123	161	204	251		204	251	318	241	204	251	318	251	318	393
	Injection Speed	mm/sec		200					200		300		200			200	
High Speed (Option)	Max. Injection Pressure	Mpa	242	242	191	155	147	240	191	152	294	240	191	152	275	221	181
		kgf/cm^2	2470	2470	1950	1580	1500	2450	1950	1550	3000	2450	1950	1550	2800	2250	1850
	Max. Holding Pressure	Mpa	218	218	172	139	132	216	172	137	265	216	172	137	247	199	163
		kgf/cm^2	2223	2223	1755	1422	1350	2205	1755	1395	2700	2205	1755	1395	2520	2025	1665
	Injection Rate	cm^3/s	308	402	509	628	795	509	628	795	402	509	628	795	628	795	982
	Injection Speed	mm/sec			500				500			500				500	
Charging	Plasticizing Capacity(PS)	kg/h	41	52	74	99	130	64	85	111	44	64	85	111	71	93	135
	Screw Speed	rpm			~ 350				~ 300				~ 300			~ 250	
CLAMPING UNIT																	
Clamping Force		ton(kN)	170 (1,666)								220 (2,156)						
Tie Bar Distance		mm	570 x 520								620 x 620						
Clamping Stroke		mm	460								560						
Daylight		mm	960								1,110						
Die Plate Dimension		mm	840 x 790								920 x 920						
Mold Thickness		mm	250 ~ 500								270 ~ 550						
Ejector Force		ton	3.5								4.6						
Ejector Stroke		mm	120								130						
GENERAL																	
Electric Heater Capacity		kW	9.7	12.5	14.5	14.2	11.7	14.5	14.0	16.1	12.5	14.5	14.0	16.1	14.2	16.1	17.4
Machine Dimension : L x W x H		m	5.42 x 1.50 x 1.85					5.82 x 1.50 x 1.85			6.28 x 1.74 x 1.94				6.58 x 1.74 x 1.94		
Machine Weight		ton	7.5					8.0			10.5				10.8		

Note
1. Injection capacity calculated : Screw Area x Screw Stroke.
2. Clamping system is double 5-point toggle structures.
3. 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.
4. The maximum injection rate and speed are calculated values. Actual injection rate and speed will be restricted by an injection pressure.
5. The mold size should be bigger than 60% of the Tie-bar distance. (HxV)
6. Due to continuous improvements, specifications are subject to change without notice.

			WIZ 220E			WIZ 280E											
INJECTION UNIT																	
Injection Unit Code			i14 (350t)			i3.6 (170t)			i5.8 (220t)			i8.6 (280t)			i9.4 (280t)	i14 (350t)		
Screw Type			Y	*A	B	Y	*A	B	Y	*A	B	Y	*A	B	C	Y	*A	B
Screw Diameter		mm	50	55	60	32	36	40	36	40	45	40	45	50	55	50	55	60
Screw Stroke		mm	280	280	280	160	180	180	180	220	220	240	240	240	240	280	280	280
Injection Capacity Calculated		cm^3	550	665	792	129	183	226	183	276	350	302	382	471	570	550	665	792
Injection Capacity	PS	g	506	612	728	118	169	208	169	254	322	277	351	434	525	506	612	728
	PE	g	401	486	578	94	134	165	134	202	255	220	279	344	416	401	486	578
Standard	Max. Injection Pressure	Mpa	245	206	172	242	191	155	254	206	163	275	221	181	162	245	206	172
		kgf/cm^2	2500	2100	1750	2470	1950	1580	2590	2100	1660	2800	2250	1850	1650	2500	2100	1750
	Max. Holding Pressure	Mpa	221	185	154	218	172	139	229	185	147	247	199	163	146	221	185	154
		kgf/cm^2	2250	1890	1575	2223	1755	1422	2331	1890	1494	2520	2025	1665	1485	2250	1890	1575
	Injection Rate	cm^3/s	295	356	424	121	153	188	153	188	239	188	239	295	356	295	356	424
	Injection Speed	mm/sec		150			150			150			150				150	
High Speed	Max. Injection Pressure	Mpa	245	206	172	242	191	155	270	221	177	275	221	181	162	245	206	172
		kgf/cm^2	2500	2100	1750	2470	1950	1580	2750	2250	1800	2800	2250	1850	1650	2500	2100	1750
	Max. Holding Pressure	Mpa	221	185	154	218	172	139	243	199	159	247	199	163	146	221	185	154
		kgf/cm^2	2250	1890	1575	2223	1755	1422	2475	2025	1620	2520	2025	1665	1485	2250	1890	1575
	Injection Rate	cm^3/s	393	475	565	161	204	251	204	251	318	251	318	393	475	393	475	565
	Injection Speed	mm/sec		200			200			200			200				200	
High Speed (Option)	Max. Injection Pressure	Mpa	245	206	172	242	191	155	240	191	152	275	221	181	162	245	206	172
		kgf/cm^2	2500	2100	1750	2470	1950	1580	2450	1950	1550	2800	2250	1850	1650	2500	2100	1750
	Max. Holding Pressure	Mpa	221	185	154	218	172	139	216	172	137	247	199	163	146	221	185	154
		kgf/cm^2	2250	1890	1575	2223	1755	1422	2205	1755	1395	2520	2025	1665	1485	2250	1890	1575
	Injection Rate	cm^3/s	982	1188	1414	402	509	628	509	628	795	628	795	982	1188	982	1188	1414
	Injection Speed	mm/sec		500			500			500			500				500	
Charging	Plasticizing Capacity(PS)	kg/h	135	173	218	52	74	99	64	85	111	71	93	135	173	135	173	218
	Screw Speed	rpm		~ 250			~ 350			~ 300			~ 250				~ 250	
CLAMPING UNIT																	
Clamping Force		ton(kN)	220 (2,156)			280 (2,744)											
Tie Bar Distance		mm	620 x 620			720 x 720											
Clamping Stroke		mm	560			620											
Daylight		mm	1,110			1,250											
Die Plate Dimension		mm	920 x 920			1,040 x 1,040											
Mold Thickness		mm	270 ~ 550			300 ~ 630											
Ejector Force		ton	4.6			4.6											
Ejector Stroke		mm	130			140											
GENERAL																	
Electric Heater Capacity		kW	17.4	20.2	21.4	12.5	14.5	14.2	14.5	14.0	16.1	14.2	16.1	17.4	20.2	17.4	20.2	21.4
Machine Dimension : L x W x H		m	6.88 x 1.74 x 1.94			6.88 x 1.86 x 2.05										7.18 x 1.86 x 2.05		
Machine Weight		ton	11.0			14.0			14.3			14.5				14.8		

WIZ-E Series

Major Specification

Note
1. Injection capacity calculated : Screw Area x Screw Stroke.
2. Clamping system is double 5-point toggle structures.
3. 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.
4. The maximum injection rate and speed are calculated values. Actual injection rate and speed will be restricted by an injection pressure.
5. The mold size should be bigger than 60% of the Tie-bar distance. (HxV)
6. Due to continuous improvements, specifications are subject to change without notice.

			WIZ350E							WIZ400E					
INJECTION UNIT															
Injection Unit Code			i14 (350t)			i16.7 (400t)			i15.6 (400t)	i14 (350t)			i16.7 (400t)		
Screw Type			Y	*A	B	Y	*A	B	C	Y	*A	B	Y	*A	B
Screw Diameter		mm	50	55	60	55	60	65	70	50	55	60	55	60	65
Screw Stroke		mm	280	280	280	270	270	270	270	280	280	280	270	270	270
Injection Capacity Calculated		cm^3	550	665	792	641	763	896	1039	550	665	792	641	763	896
Injection Capacity	PS	g	506	612	728	590	702	824	956	506	612	728	590	702	824
	PE	g	401	486	578	468	557	654	759	401	486	578	468	557	654
Standard	Max. Injection Pressure	Mpa	245	206	172	255	216	181	147	245	206	172	255	216	181
		kgf/cm^2	2500	2100	1750	2600	2200	1850	1500	2500	2100	1750	2600	2200	1850
	Max. Holding Pressure	Mpa	221	185	154	229	194	163	132	221	185	154	229	194	163
		kgf/cm^2	2250	1890	1575	2340	1980	1665	1350	2250	1890	1575	2340	1980	1665
	Injection Rate	cm^3/s	295	356	424	404	481	564	654	295	356	424	404	481	564
	Injection Speed	mm/sec		150			170				150			170	
High Speed	Max. Injection Pressure	Mpa	245	206	172	255	216	181		245	206	172	255	216	181
		kgf/cm^2	2500	2100	1750	2600	2200	1850		2500	2100	1750	2600	2200	1850
	Max. Holding Pressure	Mpa	221	185	154	229	194	163		221	185	154	229	194	163
		kgf/cm^2	2250	1890	1575	2340	1980	1665		2250	1890	1575	2340	1980	1665
	Injection Rate	cm^3/s	393	475	565	475	565	664		393	475	565	475	565	664
	Injection Speed	mm/sec		200			200				200			200	
High Speed (Option)	Max. Injection Pressure	Mpa	245	206	172	255	216	181		245	206	172	255	216	181
		kgf/cm^2	2500	2100	1750	2600	2200	1850		2500	2100	1750	2600	2200	1850
	Max. Holding Pressure	Mpa	221	185	154	229	194	163		221	185	154	229	194	163
		kgf/cm^2	2250	1890	1575	2340	1980	1665		2250	1890	1575	2340	1980	1665
	Injection Rate	cm^3/s	982	1188	1414	950	1131	1327		982	1188	1414	950	1131	1327
	Injection Speed	mm/sec		500			400				500			400	
Charging	Plasticizing Capacity(PS)	kg/h	135	173	218	152	192	237	243	135	173	218	152	192	237
	Screw Speed	rpm		~ 250			~ 220				~ 250			~ 220	
CLAMPING UNIT															
Clamping Force		ton(kN)	350 (3,430)							400 (3,927)					
Tie Bar Distance		mm	820 x 820							820 x 820					
Clamping Stroke		mm	720							770					
Daylight		mm	1,420							1,520					
Die Plate Dimension		mm	1,150 x 1,150							1,150 x 1,150					
Mold Thickness		mm	350 ~ 700							350 ~ 750					
Ejector Force		ton	6.2							8					
Ejector Stroke		mm	150							150					
GENERAL															
Electric Heater Capacity		kW	17.4	20.2	21.4	24.1			28.8	17.4	20.2	21.4	24.1		
Machine Dimension : L x W x H		m	7.54 x 1.98 x 2.25			7.84 x 1.98 x 2.25			8.17 x 1.98 x 2.25	7.88 x 1.98 x 2.25					
Machine Weight		ton	17.5			17.8				17.7			18.0		

			WIZ400E	WIZ450E									
INJECTION UNIT													
Injection Unit Code			i15.6 (400t)	i16.7 (400t)			i15.6 (400t)	i24.8 (450t)			i37 (550t)			i45 (550t)
Screw Type			C	Y	*A	B	C	Y	*A	B	Y	*A	B	C
Screw Diameter		mm	70	55	60	65	70	65	70	75	70	75	85	90
Screw Stroke		mm	270	270	270	270	270	345	345	345	420	420	420	420
Injection Capacity Calculated		cm^3	1039	641	763	896	1039	1145	1328	1524	1616	1856	2383	2672
Injection Capacity	PS	g	956	590	702	824	956	1053	1221	1402	1487	1707	2193	2458
	PE	g	759	468	557	654	759	836	969	1113	1180	1355	1740	1951
Standard	Max. Injection Pressure	Mpa	147	255	216	181	147	226	196	172	226	196	157	167
		kgf/cm^2	1500	2600	2200	1850	1500	2300	2000	1750	2300	2000	1600	1700
	Max. Holding Pressure	Mpa	132	229	194	163	132	203	177	154	203	177	141	150
		kgf/cm^2	1350	2340	1980	1665	1350	2070	1800	1575	2070	1800	1440	1530
	Injection Rate	cm^3/s	654	404	481	564	654	531	616	707	616	707	908	1018
	Injection Speed	mm/sec			170				160			160		
High Speed	Max. Injection Pressure	Mpa		255	216	181		226	196	172	226	196	157	
		kgf/cm^2		2600	2200	1850		2300	2000	1750	2300	2000	1600	
	Max. Holding Pressure	Mpa		229	194	163		203	177	154	203	177	141	
		kgf/cm^2		2340	1980	1665		2070	1800	1575	2070	1800	1440	
	Injection Rate	cm^3/s		475	565	664		664	770	884	770	884	1135	
	Injection Speed	mm/sec			200				200			200		
High Speed (Option)	Max. Injection Pressure	Mpa		255	216	181		201	172	152	226	196	157	
		kgf/cm^2		2600	2200	1850		2050	1750	1550	2300	2000	1600	
	Max. Holding Pressure	Mpa		229	194	163		181	154	137	203	177	141	
		kgf/cm^2		2340	1980	1665		1845	1575	1395	2070	1800	1440	
	Injection Rate	cm^3/s		950	1131	1327		830	962	1104	962	1104	1419	
	Injection Speed	mm/sec			400				250			250		
Charging	Plasticizing Capacity(PS)	kg/h	243	152	192	237	243	215	256	309	256	309	415	487
	Screw Speed	rpm	~ 220		~ 220				~ 200			~ 200		
CLAMPING UNIT														
Clamping Force		ton(kN)	400 (3,927)	450 (4,420)										
Tie Bar Distance		mm	820 x 820	830 x 830										
Clamping Stroke		mm	770	800										
Daylight		mm	1,520	1,550										
Die Plate Dimension		mm	1,150 x 1,150	1,200 x 1,200										
Mold Thickness		mm	350 ~ 750	350 ~ 750										
Ejector Force		ton	8	10										
Ejector Stroke		mm	150	180										
GENERAL														
Electric Heater Capacity		kW	28.8	24.1			28.8	23.3			26.6			38.2
Machine Dimension : L x W x H		m	8.28 x 1.98 x 2.25	9.31 x 2.19 x 2.17			9.70 x 2.19 x 2.17	9.78 x 2.19 x 2.17						
Machine Weight		ton	18.0	27.0				28.0			28.5			28.8

WIZ-E Series

Major Specification

			WIZ550E										WIZ650E			
INJECTION UNIT																
Injection Unit Code			i24.8 (450t)			i37 (550t)			i45 (550t)	i63.6 (650t)			i37 (550t)			i45 (550t)
Screw Type			Y	'A	B	Y	'A	B	C	Y	'A	B	Y	'A	B	C
Screw Diameter		mm	65	70	75	70	75	85	90	85	90	100	70	75	85	90
Screw Stroke		mm	345	345	345	420	420	420	420	500	500	500	420	420	420	420
Injection Capacity Calculated		cm^3	1145	1328	1524	1616	1856	2383	2672	2837	3181	3927	1616	1856	2383	2672
Injection Capacity	PS	g	1053	1221	1402	1487	1707	2193	2458	2610	2926	3613	1487	1707	2193	2458
	PE	g	836	969	1113	1180	1355	1740	1951	2071	2322	2867	1180	1355	1740	1951
Standard	Max. Injection Pressure	Mpa	226	196	172	226	196	157	167	226	196	157	226	196	157	167
		kgf/cm^2	2300	2000	1750	2300	2000	1600	1700	2300	2000	1600	2300	2000	1600	1700
	Max. Holding Pressure	Mpa	203	177	154	203	177	141	150	203	177	141	203	177	141	150
		kgf/cm^2	2070	1800	1575	2070	1800	1440	1530	2070	1800	1440	2070	1800	1440	1530
	Injection Rate	cm^3/s	531	616	707	616	707	908	1018	908	1018	1257	616	707	908	1018
	Injection Speed	mm/sec		160			160				160			160		
High Speed	Max. Injection Pressure	Mpa	226	196	172	226	196	157		226	196	157	226	196	157	
		kgf/cm^2	2300	2000	1750	2300	2000	1600		2300	2000	1600	2300	2000	1600	
	Max. Holding Pressure	Mpa	203	177	154	203	177	141		203	177	141	203	177	141	
		kgf/cm^2	2070	1800	1575	2070	1800	1440		2070	1800	1440	2070	1800	1440	
	Injection Rate	cm^3/s	664	770	884	770	884	1135		1135	1272	1571	770	884	1135	
	Injection Speed	mm/sec		200			200				200			200		
High Speed (Option)	Max. Injection Pressure	Mpa	201	172	152	226	196	157					226	196	157	
		kgf/cm^2	2050	1750	1550	2300	2000	1600					2300	2000	1600	
	Max. Holding Pressure	Mpa	181	154	137	203	177	141					203	177	141	
		kgf/cm^2	1845	1575	1395	2070	1800	1440					2070	1800	1440	
	Injection Rate	cm^3/s	830	962	1104	962	1104	1419					962	1104	1419	
	Injection Speed	mm/sec		250			250							250		
Charging	Plasticizing Capacity(PS)	kg/h	215	256	309	256	309	415	487	311	365	490	256	309	415	487
	Screw Speed	rpm		~ 200			~ 200				~ 150			~ 200		
CLAMPING UNIT																
Clamping Force		ton(kN)	550 (5,390)										650 (6,374)			
Tie Bar Distance		mm	900 x 900										1,060 x 960			
Clamping Stroke		mm	900										1,000			
Daylight		mm	1,700										2,100			
Die Plate Dimension		mm	1,335 x 1,335										1,500 x 1,400			
Mold Thickness		mm	400 ~ 800										450 ~ 1,100			
Ejector Force		ton	13										18			
Ejector Stroke		mm	200										220			
GENERAL																
Electric Heater Capacity		kW	23.3			26.6			38.2	47.4			26.6			38.2
Machine Dimension : L x W x H		m	10.01 x 2.38 x 2.17							10.31 x 2.38 x 2.17			10.69 x 2.48 x 2.19			
Machine Weight		ton	31.0			31.5			31.8	33.0			40.0			40.3

Note
1. Injection capacity calculated : Screw Area x Screw Stroke.
2. Clamping system is double 5-point toggle structures.
3. 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.
4. The maximum injection rate and speed are calculated values. Actual injection rate and speed will be restricted by an injection pressure.
5. The mold size should be bigger than 60% of the Tie-bar distance. (HxV)
6. Due to continuous improvements, specifications are subject to change without notice.

			WIZ650E						WIZ850E								
INJECTION UNIT																	
Injection Unit Code			i63.6 (650t)			i82.6 (850t)			i37 (550t)			i45 (550t)	i63.6 (650t)			i82.6 (850t)		
Screw Type			Y	'A	B	Y	'A	B	Y	'A	B	C	Y	'A	B	Y	'A	B
Screw Diameter		mm	85	90	100	100	105	115	70	75	85	90	85	90	100	100	105	115
Screw Stroke		mm	500	500	500	530	530	530	420	420	420	420	500	500	500	530	530	530
Injection Capacity Calculated		cm^3	2837	3181	3927	4163	4589	5505	1616	1856	2383	2672	2837	3181	3927	4163	4589	5505
Injection Capacity	PS	g	2610	2926	3613	3830	4222	5065	1487	1707	2193	2458	2610	2926	3613	3830	4222	5065
	PE	g	2071	2322	2867	3039	3350	4019	1180	1355	1740	1951	2071	2322	2867	3039	3350	4019
Standard	Max. Injection Pressure	Mpa	226	196	157	196	177	147	226	196	157	167	226	196	157	196	177	147
		kgf/cm^2	2300	2000	1600	2000	1800	1500	2300	2000	1600	1700	2300	2000	1600	2000	1800	1500
	Max. Holding Pressure	Mpa	203	177	141	177	159	132	203	177	141	150	203	177	141	177	159	132
		kgf/cm^2	2070	1800	1440	1800	1620	1350	2070	1800	1440	1530	2070	1800	1440	1800	1620	1350
	Injection Rate	cm^3/s	908	1018	1257	1257	1385	1662	616	707	908	1018	908	1018	1257	1257	1385	1662
	Injection Speed	mm/sec		160			160			160				160			160	
High Speed	Max. Injection Pressure	Mpa	226	196	157	196	177	147	226	196	157		226	196	157	196	177	147
		kgf/cm^2	2300	2000	1600	2000	1800	1500	2300	2000	1600		2300	2000	1600	2000	1800	1500
	Max. Holding Pressure	Mpa	203	177	141	177	159	132	203	177	141		203	177	141	177	159	132
		kgf/cm^2	2070	1800	1440	1800	1620	1350	2070	1800	1440		2070	1800	1440	1800	1620	1350
	Injection Rate	cm^3/s	1135	1272	1571	1571	1732	2077	770	884	1135		1135	1272	1571	1571	1732	2077
	Injection Speed	mm/sec		200			200			200				200			200	
High Speed (Option)	Max. Injection Pressure	Mpa							226	196	157							
		kgf/cm^2							2300	2000	1600							
	Max. Holding Pressure	Mpa							203	177	141							
		kgf/cm^2							2070	1800	1440							
	Injection Rate	cm^3/s							962	1104	1419							
	Injection Speed	mm/sec								250								
Charging	Plasticizing Capacity(PS)	kg/h	311	365	490	490	551	687	256	309	415	487	311	365	490	490	551	687
	Screw Speed	rpm		~ 150			~ 150			~ 200				~ 150			~ 150	
CLAMPING UNIT																		
Clamping Force		ton(kN)	650 (6,374)						850 (8,336)									
Tie Bar Distance		mm	1,060 x 960						1,320 x 1,120									
Clamping Stroke		mm	1,000						1,200									
Daylight		mm	2,100						2,500									
Die Plate Dimension		mm	1,500 x 1,400						1,870 x 1,670									
Mold Thickness		mm	450 ~ 1,100						500 ~ 1,300									
Ejector Force		ton	18						24									
Ejector Stroke		mm	220						240									
GENERAL																		
Electric Heater Capacity		kW	47.4			65.3			26.6			38.2	47.4			65.3		
Machine Dimension : L x W x H		m	10.69 x 2.48 x 2.19						11.21 x 2.94 x 2.42									
Machine Weight		ton	41.5			41.8			58.0			58.3	59.5			59.8		

Electric Injection Molding Machine

WIZ-E Series

Standard Equipment

Clamping Unit
- ▶ Auto Lubrication Device
- ▶ Tab Hole For Robot Installation
- ▶ Hydraulic Ejector(A-Circuit)
- ▶ Hydraulic Ejector(B-Circuit)
- ▶ Ejector Preserve Circuit
- ▶ Reducing Speed & Pressure for Mold Set-up
- ▶ Trying to Close the Mold Again with Mold Protection
- ▶ Automatic Mold Set-up Advice
- ▶ Support for Moving Platen
- ▶ Multi-ejection & Vibrating Ejection
- ▶ Mold Clamp(Manual)
- ▶ Product Receiver
- ▶ Air Blow off Unit
- ▶ T-slot Platen

Injection Unit
- ▶ Wear Resistant Bimetallic Barrel
- ▶ Screw for General Purpose
- ▶ Cable Heater for Nozzle Zone
- ▶ Heater Cover
- ▶ Pre-Heating Temperature Control
- ▶ Injection Ram Advance and Retract Device
- ▶ Injection Unit Swiveling Device
- ▶ Nozzle-Open Type
- ▶ Nozzle Retract Timing Selector
- ▶ Screw Back Pressure Regulator
- ▶ Screw Cold start Prevention Device
- ▶ Screw Suck Back
- ▶ Screw Tip (for General Resins, Non-return Valve)
- ▶ Nozzle Safety Cover With Interlock
- ▶ Back Pressure Relieving Circuit

General
- ▶ Instruction Manual
- ▶ Standard Machine Color
- ▶ Level Pad

Electric System
- ▶ Abnormal Operation Warning Device (Buzzer)
- ▶ Abnormal Operation Indicating Device
- ▶ Emergency Stop Push Button
- ▶ Automatic Barrel Heat-up Control Device
- ▶ Safety Gates With Interlocks
- ▶ Shot Counter and Count up Detection for Target Production
- ▶ Nozzle Temperature Control by SSR
- ▶ Alarm Light
- ▶ Automatic Purge Circuit
- ▶ Ethernet Port for Remote Monitoring System
- ▶ Heater Band Failure Indicator
- ▶ Automatic Power Shut-Down Circuit
- ▶ Safety Door Open Interlock Circuit
- ▶ Valve Gate Circuit
- ▶ Eject Retract Circuit
- ▶ Robot Interlock Circuit

Control Unit
- ▶ Injection Control
  - • 9 Stage Speed & 9 Stage Pressure Control
  - • Closed Loop
  - • Automatic Reducing Back Pressure Control
  - • Injection Pressure Restriction Control
  - • Screw RPM Control
  - • Screw Back Pressure Control
  - • Auxiliary Pressure Response Control
- ▶ Heater Control
  - • Heater Band Failure Indicator
- ▶ Clamping Unit High Speed 4 Stages Control
- ▶ Ejector Control
- ▶ Monitoring
  - • Quality Monitoring / Alarm
  - - Cycle Time / Ejecting Time / ChargingTime / Plasticizing Time / Injection Start Position / Holding Pressure Shifting Position / Cushion Position / Max. Injection Position
  - • Process Warning
  - - Overrunning Abnormal / Charging Time Abnormal / Plasticizing Time Abnormal
  - • Digital Indicates
  - - Screw Position / Rpm / Back Pressure / Injection Pressure / Clamping Open & Close Position / Ejector Position / Nozzle Barrel Temperature
- ▶ Data Management
  - • Save Mold Data Up to 100 Molds
  - • Mold Card Interface / Inner Memory Editing
- ▶ Digital Setting
  - • Injection Speed / Pressure / Position, Screw Back Pressure / rpm / Nozzle, Barrel Temperature / Open & Closing Time / Position / Clamping Force / Ejector Forward / Back Speed / Position / Ejector Force

Optional Equipment

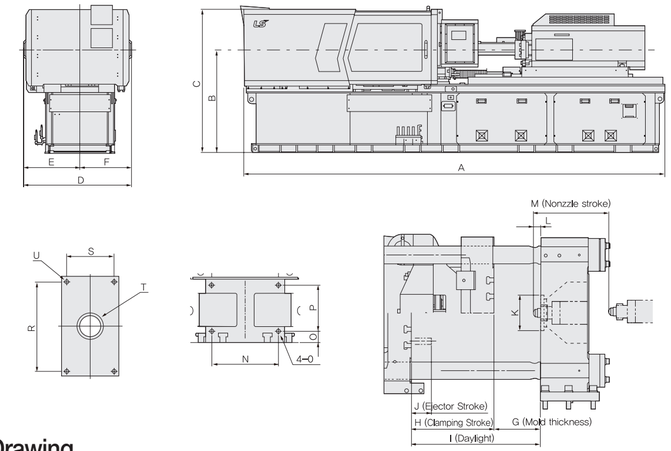
Clamping Unit
- ▶ Tab Hole Platen
- ▶ Automatic Mold Clamp
- ▶ Single Hydraulic Core Puller
- ▶ Dual Hydraulic Core Puller
- ▶ Screw Ejector
- ▶ Pneumatic safety door open
- ▶ T-slot Platen
- ▶ Gate Cut Circuit
- ▶ Injection Compression Device

Injection Unit
- ▶ Anti-Wear & Corrosion Barrel and Screw
- ▶ Extension Nozzle (50, 100mm)
- ▶ Temperature Controller for Extension Nozzle Heat
- ▶ Fan Blower
- ▶ Shut Off Nozzle
- ▶ Specialized Screw for Each Resin

General
- ▶ Chiller
- ▶ Crusher
- ▶ General Hopper
- ▶ Hopper Dryer
- ▶ Hopper Loader
- ▶ Hopper Ladder
- ▶ Mixer
- ▶ Conveyer
- ▶ Hot Runner Controller
- ▶ Take- Out Robot
- ▶ Maintenance Tools
- ▶ Spare Parts

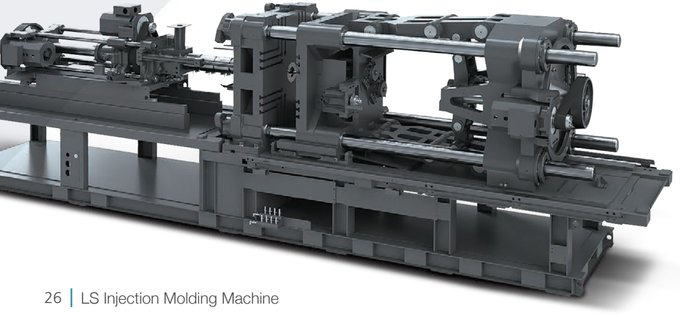
Electric System
- ▶ Automatic Voltage Regulator(AVR)
- ▶ Air Conditioning Unit on Control Cabinet
- ▶ Auxiliary Consent
- ▶ Gas Injection Interlock Circuit
- ▶ Gate Cut Circuit
- ▶ Centralized Network System
- ▶ UPS

Control Unit
- ▶ Injection Control
  - • Auxiliary Pressure Response Control
  - - Position, Resin Pressure, Mold internal Signal
- ▶ Mold Temperature Control
- ▶ Analog Output of Injection Position, Speed and Pressure
- ▶ Product Completed Signal
- ▶ USB
- ▶ Printer
- ▶ PC Interface
- ▶ Hopper Block Temperature Control



External Form Drawing

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
WIZ18E	2900	1100	1365	976	523	453	120 ~ 250	200	450	60	Ø100	50	230	100	45	40	M10	170	90	Ø41.6	M10
WIZ30E	3250	1100	1365	943	506	437	120 ~ 250	230	480	60	Ø100	50	230	100	45	40	M10	170	90	Ø41.6	M10
WIZ50E	3670	1137	1465	1057	571.5	485.5	150 ~ 320	270	590	70	Ø100	50	250	100	55	40	M10	170	90	Ø41.6	M10
WIZ80E	4173	1200	1670	1199	627	572	150 ~ 350	320	670	70	Ø100	50	350	280	35	70	M16	170	90	Ø41.6	M10
WIZ110E	4918	1203	1681	1313	684	629	200 ~ 410	350	760	120	Ø100	50	400	280	35	70	M16	170	90	Ø53.5	M10
WIZ170E	5422	1277	1853	1499	802	697	250 ~ 500	460	960	120	Ø100	50	450	420	35	140	M20	170	90	Ø53.5	M10
WIZ220E	6280	1324	1935	1745	955	790	270 ~ 550	560	1100	130	Ø100	50	480	560	35	140	M20	170	90	Ø62.3	M10
WIZ280E	6875	1386	2045	1864	1007	857	300 ~ 630	620	1250	150	Ø100	50	600	700	35	140	M20	170	90	Ø62.3	M10
WIZ350E	7545	1445	2252	1980	1067	913	350 ~ 700	720	1420	150	Ø100	50	600	700	35	140	M20	170	90	Ø62.3	M10
WIZ400E	7875	1445	2253	1980	1067	913	350 ~ 750	770	1520	150	Ø100	50	600	700	35	140	M20	170	90	Ø62.3	M10
WIZ450E	9697	1360	1995	2150	1121	1029	350 ~ 750	800	1550	180	Ø100	50	850	400	70	250	M20	280	190	Ø69	M16
WIZ550E	10007	1360	2171	2337	1234	1143	400 ~ 800	900	1700	200	Ø100	50	850	400	75	250	M20	280	190	Ø73	M16
WIZ650E	10687	1360	2189	2483	1241.5	1241.5	450 ~ 1100	1000	2100	220	Ø120	50	830	1120	70	105/105	M24	280	190	Ø73	M16
WIZ850E	11213	1480	2416	2943	1471.5	1471.5	500 ~ 1300	1200	2500	240	Ø120	50	830	1120	70	105/105	M24	280	190	Ø73	M16

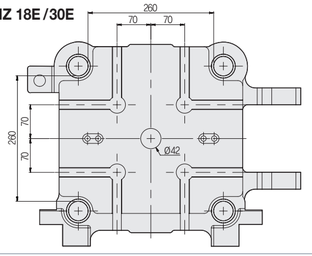


Electric Injection Molding Machine

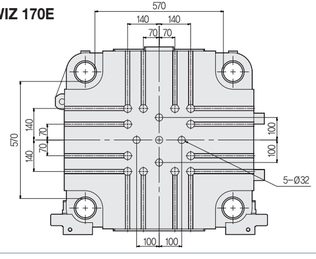
WIZ-E Series

Moving Platen Drawing

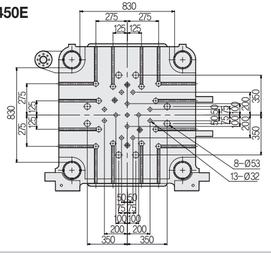
WIZ 18E /30E



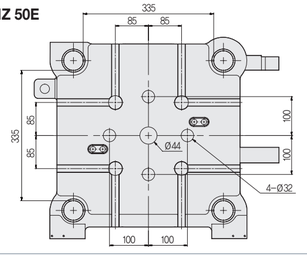
WIZ 170E



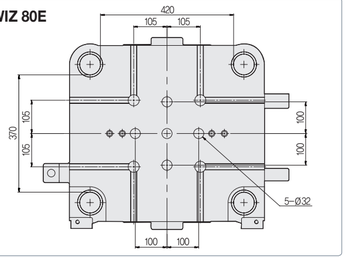
WIZ 450E



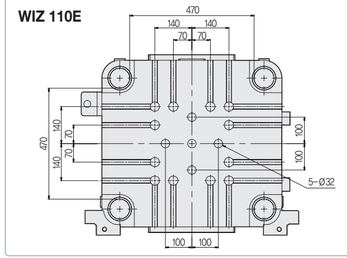
WIZ 50E



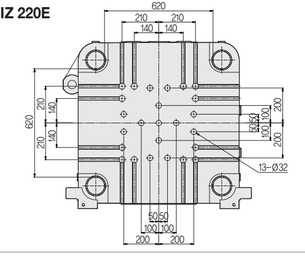
WIZ 80E



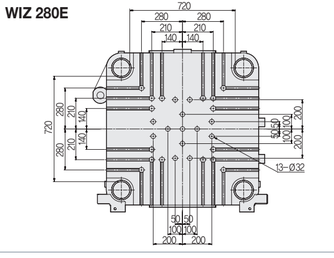
WIZ 110E



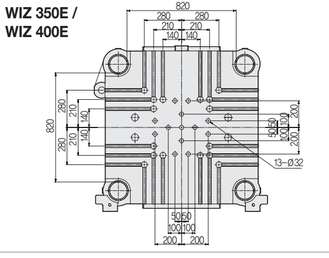
WIZ 220E



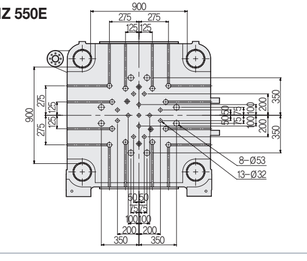
WIZ 280E



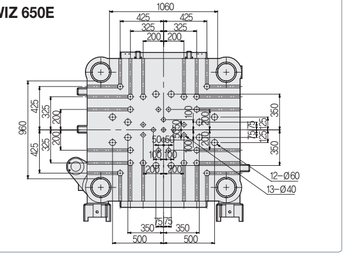
WIZ 350E / WIZ 400E



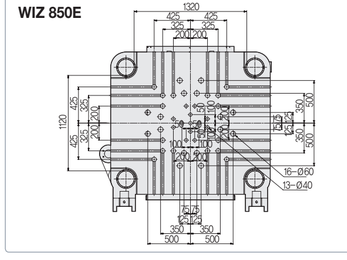
WIZ 550E



WIZ 650E



WIZ 850E



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

WIZ 150EC / WIZ 250EC / WIZ 400EC

WIZ-EC 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 150 Ton machine.
  - Improving high speed mold rotating time within 1.2sec in 250 Ton 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 (150 Ton)
  - Index UNIT size Ø1100 (250 Ton)

Index unit

Applying Servo motor

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

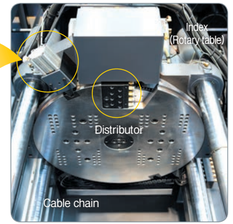
External distributor

- Easy replacement of distributor → additional installation of cooling port
- Removing internal cooling line in rotating plate → easy for maintenance 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

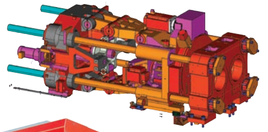
- High speed injection mechanism equipped high response & high torque servo motor

Appearance

- All cover box type design for better safety and appearance

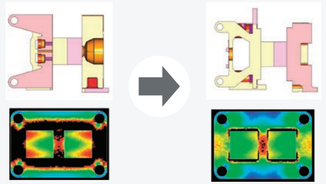
Clamping unit

- 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



Analyzing mold platen

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



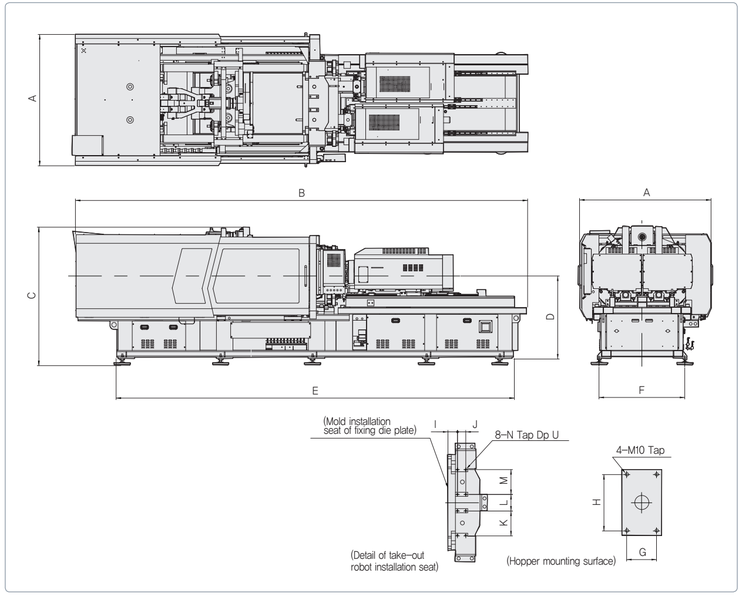
Control System

KEBA Controller

User Sequence changed : easy maintenance & flexible for user demand

- 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)

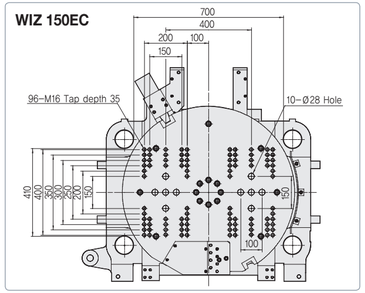
External Form Drawing



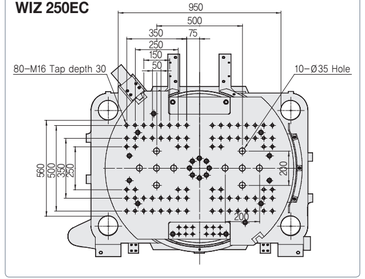
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
WIZ150EC	1,700	5,700	2,000	1,250	5,100	1,050	90	170	60	100	200	200	200	M16	30
WIZ 250EC	1,980	6,800	2,100	1,250	6,000	1,292	90	170	115	100	300	200	300	M20	40

Moving Platen Drawing

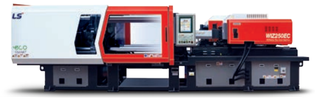
WIZ 150EC



WIZ 250EC



Major Specification



			WIZ150EC						WIZ250EC						WIZ400EC					
INJECTION UNIT																				
Injection Unit Code			1st Injection Unit (80T)			2nd Injection Unit (80T)			1st Injection Unit (150T)			2nd Injection Unit (150T)			1st Injection Unit (180T)			2nd Injection Unit (280T)		
Screw Type			0.15			0.15			0.28			0.28								
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	2250	1850	2800	2250	1850
	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	2520	2025	1665	2520	2025	1665
	Injection Rate	cm^3/s	98	123	161	98	123	161	121	153	188	121	153	188	188	239	295	188	239	295
	Injection Speed	mm/sec		200			200			150			150			150			150	
High Speed (Option)	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	2800	2250	1850	2800	2250	1850
	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	2520	2025	1665	2520	2025	1665
	Injection Rate	cm^3/s	147	185	241	147	185	241	161	204	251	161	204	251	251	318	393	251	318	393
	Injection Speed	mm/sec		300			300			200			200			200			200	
Charging	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						1110 x 670					
Clamping Stroke		mm	400						550						660					
Daylight		mm	1,050						1,300						1470					
Mold Thickness		mm	150 ~ 550						200 ~ 650						250 ~ 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			180°, Servomotor Drive						180°, Servomotor Drive						180°, Servomotor Drive					
Max. Mold Size		mm	(240 x 490) 2EA						(450 x 550) 2EA						(500 x 680) 2EA					
Max. Mold Weight on Moving Platen		kg	250 x 2EA						500 x 2EA						1000 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	14.3	16.2	17.5	14.3	16.2	17.5
Machine Dimension : L x W x H		m	5.71 x 1.7 x 2.0						6.8 x 1.98 x 2.1						7.8 x 2.3 x 2.5					
Machine Weight		ton	10.5						15						21					

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.

International Quality, Environment, Safety, Health Certification

KCS Mark CE ISO9001: 2008 ISO14001 OHSAS18001

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■ Overseas Sales Head Office
7F, LS Mtron Hi-Tech Center, 39, LS-ro 116beon-gil, Dongan-gu, Anyang-Si, Gyeonggi-Do, 14118, Korea
Tel: 82-31-8045-9758

■ USA Sales Head Office
6670 Jones Mill Ct, Suite:G Norcross ,GA 30092
Tel : 678-395-4389 , 770-674-7446
Fax : 770-696-5361

■ 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: 62-812-1812-4819 Email: ls.indonesia@lsmtron.com

■ LS Mtron BRASIL
Rua Doutor Melo Nogueira, 105 - Sala 715, Vila Baruel-São Paulo-SP-Brazil, 02510-040
Tel: 55-11-5052-1052

■ LS Mtron POLAND
ul, Legnicka 17/7, 53-671 Wrcolaw Poland
Tel: 48-71-349-77-58

PLASTICS INDUSTRY ASSOCIATION MEMBER