USA

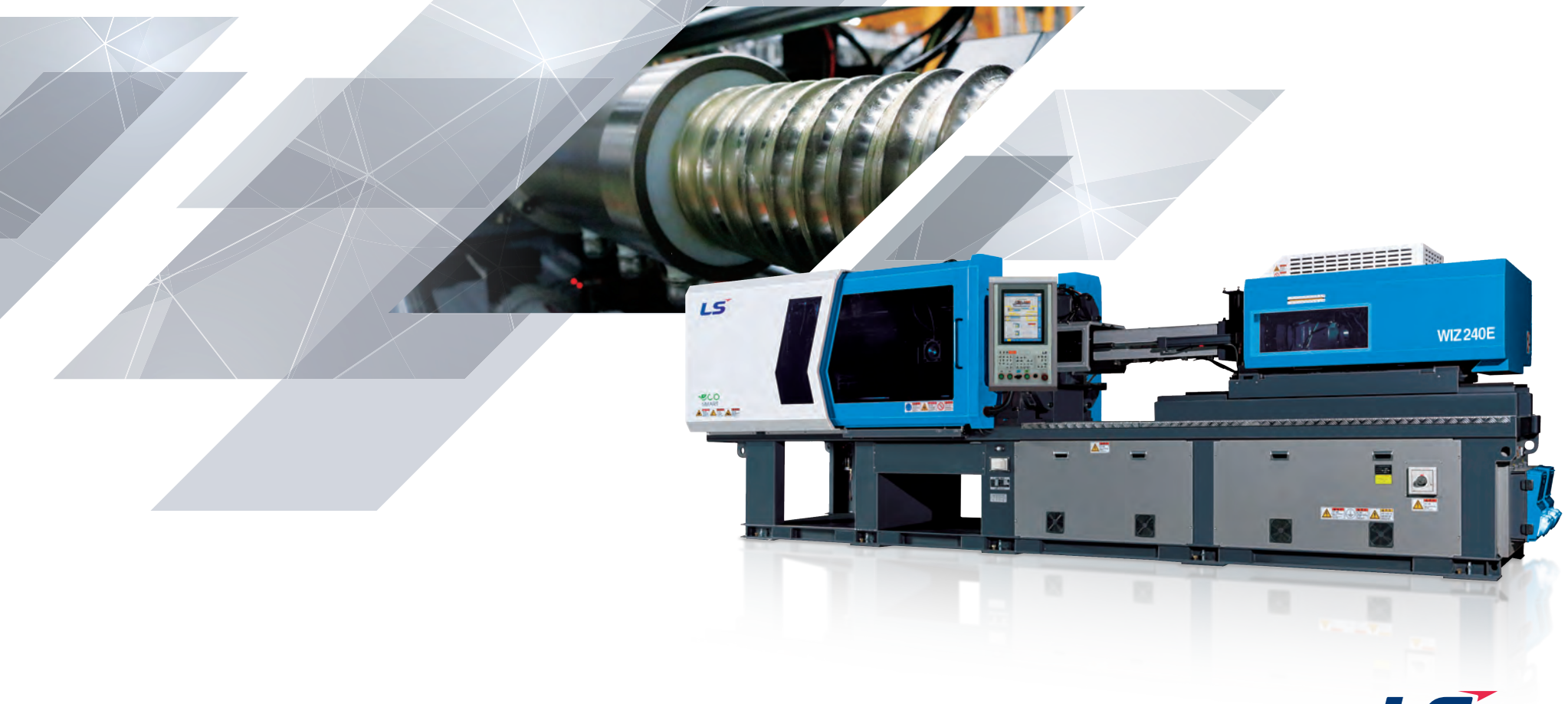
Be the ONE*

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

LS ELECTRIC
INJECTION MOLDING MACHINE

WIZ-E Series

20 ~ 950 USton



LS Mtron

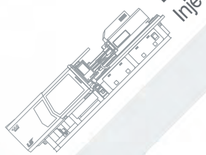
www.lsinjection.com

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

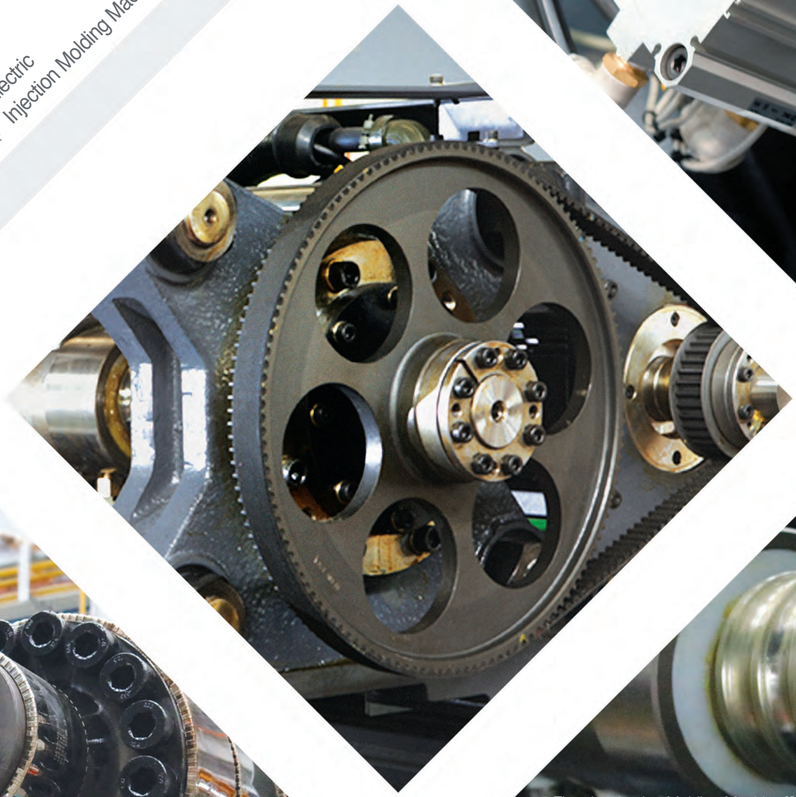
INNOVATIVE TECHNOLOGY PARTNER

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

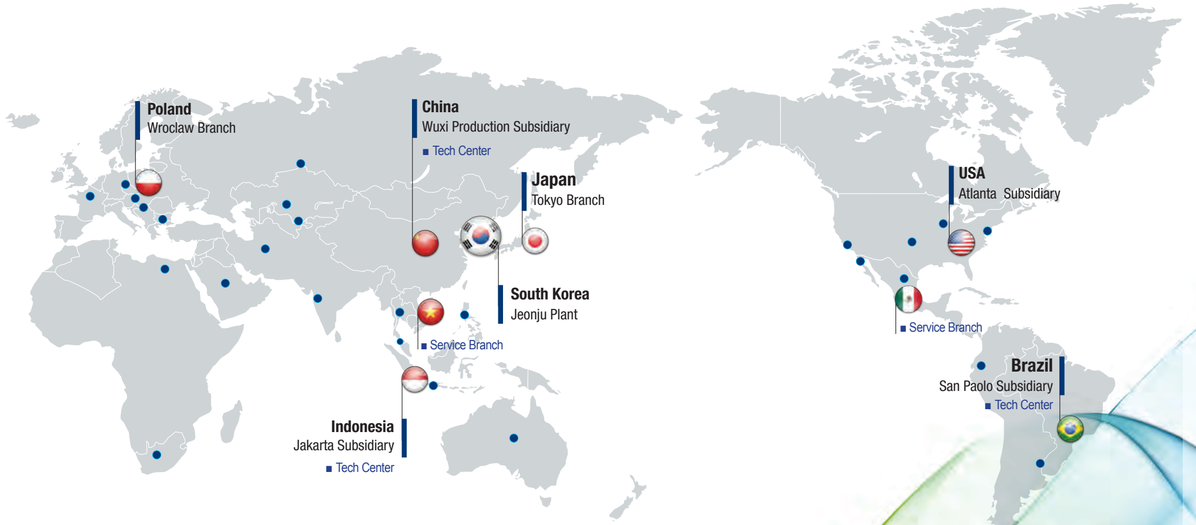
LS Mtron's vision is to "Be the ONE* Outstanding People, Best-in-Class Product, Winning Partnerships".

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

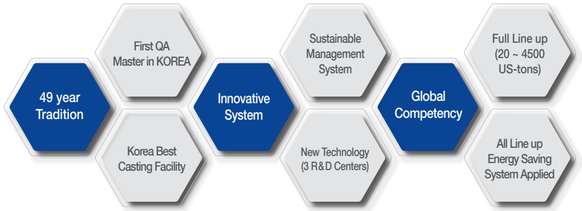

Indonesia Branch


China Plant

LS IMM History

Difference in technology is a keyword for success!

LS Mtron is offering various model from 20US-tons to 4,500US-tons 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 10Ton, horizonal IMM 80Ton.

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 1800Ton (1st machine in Korea)
1995 • Developed 3000Ton 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

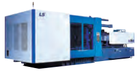
2002 • Developed 8 models of All-Electric machine LGE II-Series (30 ~ 300Ton)
2004 • LG Electric IMM was awarded JYS by Science and Technology Administration
2005 • Developed 4000Ton IMM(4500 Injection unit)
• Established LS Machinery(LSMW) LTD. In CHINA.
2007 • Developed all-electric injection molding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

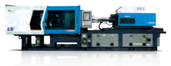
2010's

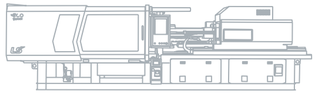
Continuous development of customized injection molding machine will be recognized as a global leader in plastic industry

2010 • Developed super high speed (& hydraulic) injection molding machine : LGH 150Ton
• Developed LGH-S Series : 2500Ton
• 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 (150Ton ~ 650Ton)
• Developed Large size electric injection molding machine (LGE 1300HB)
• Developed servo system injection molding machine (150Ton ~ 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 ' : 550 ~ 3,600Ton
• 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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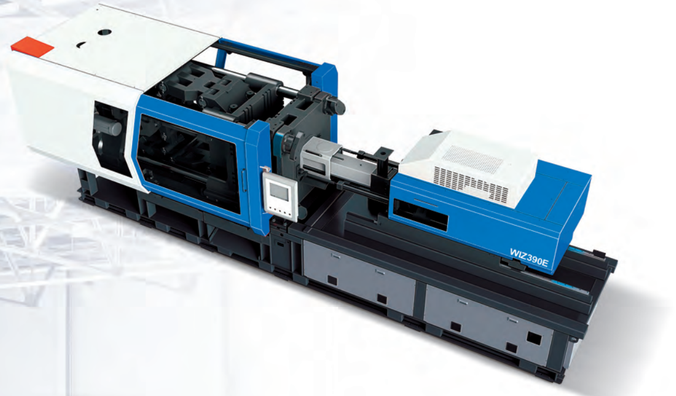
* LS Electric Injection Molding Machine Line-up

WIZ-E Series (STD, Precision, High precision)		20 US ton ~ 950 US ton
LGE-HB Series (Large tonnage)		1400 US ton ~ 2200 US ton
Two Color Series (Two color, Dissimilar)		170 US ton ~ 280 US ton
IBM Series (Injection Blow)		170 US ton ~ 390 US ton
CPM Series (Cosmetic)		190 US ton ~ 390 US ton

Electric Injection Molding Machine (20 ~ 950 UStON)

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.



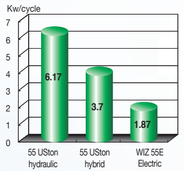
All Electric IMM

Energy saving, Less noise & clean molding

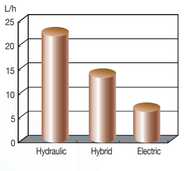
- Less than 70dB sound-level
- No oil usage

Save 50% of electricity charge compare to hydrid hydraulic IMM

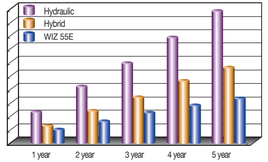
■ Comparison of power consumption



■ Comparison of cooling water



■ Comparison of annual electricity cost



Be the ONE
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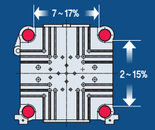
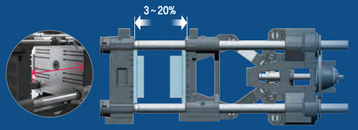
WIZ-E Series
20 ~ 950 UStON

1 Largest platen within same tonnage
- New centerpessed rigid platen
- Extend tie bar distance (90~ 440 UStON)
  - Horizontal 7% ~ 17% UP x Vertical 2% ~ 15% UP compare to previous model



2 Extended daylight (90 ~ 440 UStON)
- 3% ~ 20% up compare to previous model



3 Increased injection volume (20 ~ 390 UStON)
- 13% ~ 27% up compare to previous model

4 High speed injection 500mm/s 20 ~ 440 UStON (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 390 USton 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

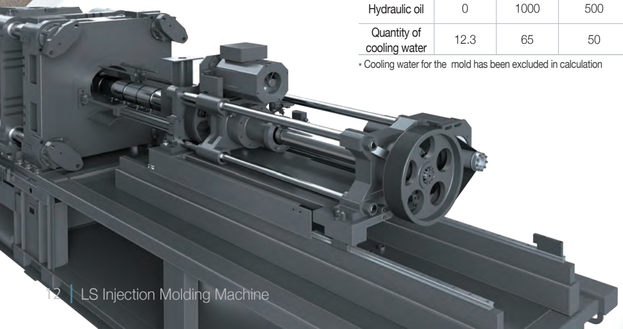
* Cooling water for the mold has been excluded in calculation

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.)



Structure & Feature

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

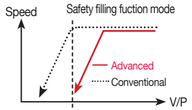
Servo motor controls individually and simultaneously

- 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

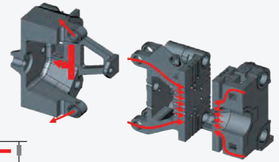


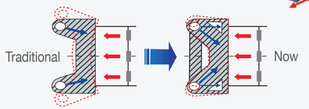
Center press typed moving platen for precision molding

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

Center press moving

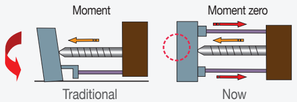
- Improve productivity multi cavity
- Unity the Euromap ejector (Enhanced modulation)





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

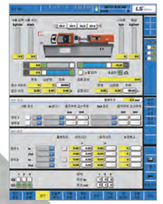
Applies KEBA Controllers

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

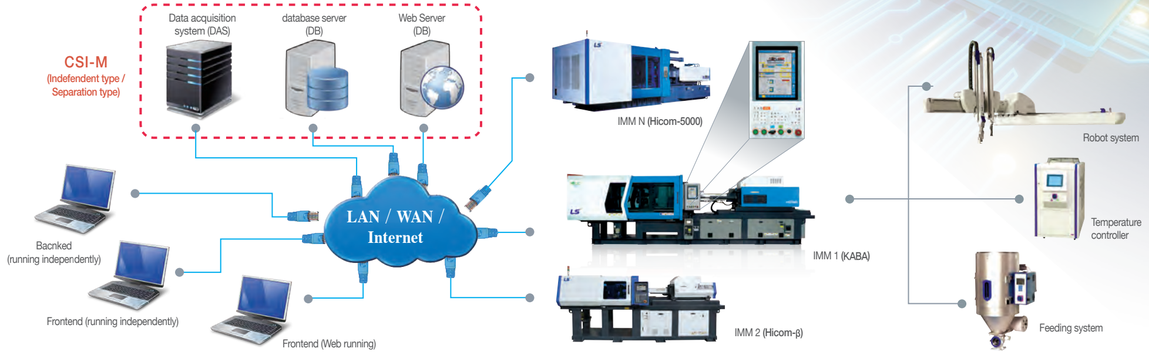
Charging & Nozzle

Select Function

Setting IO

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

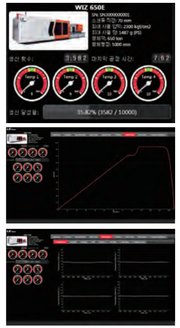
CSI-M & CSI-C system linked LS injection machine and auxiliary equipment to realize smart factory



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 mornitoring
  - 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)

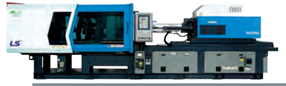
Injection molding machine centered controlling solution system realize convenience and production improvement

- 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

WIZ-E Series

Major Specification

			WIZ 20E	WIZ 35E		WIZ 55E		
INJECTION UNIT								
Injection Unit Code			i0.33 (20t)	i0.33 (20t)	i0.6 (35t)	i1.2 (55t)		i1.7 (90t)
Screw Type			˙A	B	˙A	B	Y	˙A	B	Y	˙A	B	Y	˙A	B
Screw Diameter		mm	16	18	16	18	18	20	22	22	25	28	25	28	32
Screw Stroke		in	2.4	2.4	2.4	2.4	3.3	3.3	3.3	4.3	4.7	4.7	5.5	5.5	5.5
Injection Capacity Calculated		in³	0.7	0.9	0.7	0.9	1.3	1.6	2.0	2.6	3.6	4.5	4.2	5.3	6.9
Injection Capacity	PS	oz	0.4	0.5	0.4	0.5	0.7	0.9	1.1	1.3	1.9	2.4	2.2	2.8	3.7
	PE	oz	0.3	0.4	0.3	0.4	0.6	0.7	0.9	1.1	1.5	1.9	1.8	2.2	2.9
Standard	Max. Injection Pressure	Mpa	265	209	265	209	242	196	162	253	196	187	246	196	150
		psi	38,400	30,300	38,400	30,300	35,100	28,400	23,500	36,700	28,400	27,100	35,700	28,400	21,800
	Max. Holding Pressure	Mpa	238	188	238	188	218	177	146	228	177	169	222	177	135
		psi	34,600	27,300	34,600	27,300	31,600	25,600	21,100	33,000	25,600	24,500	32,100	25,600	19,600
	Injection Rate	in³/sec	3.7	4.7	3.7	4.7	4.7	5.8	7.0	7.0	9.0	11.3	9.0	11.3	14.7
	Injection Speed	in/sec	300		300		300			300			300		
High Speed	Max. Injection Pressure	Mpa	265	209	265	209	242	196	162	253	196	187	246	196	150
		psi	38,400	30,300	38,400	30,300	35,100	28,400	23,500	36,700	28,400	27,200	35,700	28,400	21,800
	Max. Holding Pressure	Mpa	238	188	238	188	218	177	146	228	177	169	222	177	135
		psi	34,600	27,300	34,600	27,300	31,600	25,600	21,100	33,000	25,600	24,500	32,100	25,600	19,600
	Injection Rate	in³/sec	6.1	7.8	6.1	7.8	7.8	9.6	11.6	11.6	15.0	18.8	15.0	18.8	24.5
	Injection Speed	in/sec	500		500		500			500			500		
Charging	Plasticizing Capacity(PS)	lbs/h	28.7	37.5	28.7	37.5	37.5	50.7	72.8	72.8	99.2	130.1	79.4	103.6	130.1
	Screw Speed	rpm	~ 500		~ 500		~ 500			~ 500			~ 400		
CLAMPING UNIT															
Clamping Force		Us ton	20		35					55					
Tie Bar Distance		in	10.2 x 10.2		10.2 x 10.2					13.2 x 13.2					
Clamping Stroke		in	7.9		9.1					10.6					
Daylight		in	17.7		18.9					23.2					
Die Plate Dimension		in	15.0 x 15.7		15.0 x 15.7					18.5 x 18.9					
Mold Thickness		in	4.7 ~ 9.8		4.7 ~ 9.8					5.9 ~ 12.6					
Ejector Force		Us ton	0.9		0.9					2.2					
Ejector Stroke		in	2.4		2.4					2.8					
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
Machine Dimension : L x W x H		ft	9.7 x 3.1 x 4.5		10.7 x 3.8 x 4.5					12.0 x 3.5 x 4.8			12.8 x 3.5 x 4.8		
Machine Weight		lbs	3,748		4,189					5,512			5,952		
		ton	1.7		1.9					2.5			2.7		



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 90E						WIZ 120E								
INJECTION UNIT																	
Injection Unit Code			i1.7 (90t)			i2.4 (120t)			i1.2 (120t)	i1.9 (120t)	i2.4 (120t)			i3.6 (190t)			
Screw Type			Y	˙A	B	Y	˙A	B	YYY	YY	Y	˙A	B	Y	˙A	B	
Screw Diameter		mm	25	28	32	28	32	36	22	25	28	32	36	32	36	40	
Screw Stroke		in	5.5	5.5	5.5	5.5	6.3	6.3	4.3	5.5	5.5	6.3	6.3	6.3	7.1	7.1	
Injection Capacity Calculated		in³	4.2	5.3	6.9	5.3	7.9	9.9	2.6	4.2	5.3	7.9	9.9	7.9	11.2	13.8	
Injection Capacity	PS	oz	2.2	2.8	3.7	2.8	4.2	5.3	1.3	2.2	2.8	4.2	5.3	4.2	6.0	7.3	
	PE	oz	1.8	2.2	2.9	2.2	3.3	4.2	1.1	1.8	2.2	3.3	4.2	3.3	4.7	5.8	
Standard	Max. Injection Pressure	Mpa	246	196	150	236	181	143	294	275	236	181	143	242	191	155	
		psi	35,700	28,400	21,800	34,300	26,300	20,800	42,700	39,800	34,300	26,300	20,800	35,100	27,800	22,500	
	Max. Holding Pressure	Mpa	222	177	135	213	163	129	265	247	213	163	129	218	172	139	
		psi	32,100	25,600	19,600	30,900	23,700	18,700	38,400	35,800	30,900	23,700	18,700	31,600	25,000	20,200	
	Injection Rate	in³/sec	9.0	11.3	14.7	11.3	14.7	18.6	7.0	9.0	11.3	14.7	18.6	14.7	18.6	23	
	Injection Speed	in/sec	300			300			300					300			
High Speed	Max. Injection Pressure	Mpa	246	196	150	236	181	143	294	275	236	181	143	242	191	155	
		psi	35,700	28,400	21,800	34,300	26,300	20,800	42,700	39,800	34,300	26,300	20,800	35,100	27,700	22,500	
	Max. Holding Pressure	Mpa	222	177	135	213	163	129	265	247	213	163	129	218	172	139	
		psi	32,100	25,600	19,600	30,900	23,700	18,700	38,400	35,800	30,900	23,700	18,700	31,600	25,000	20,200	
	Injection Rate	in³/sec	15.0	18.8	24.5	18.8	24.5	31.1	11.6	15.0	18.8	24.5	31.1	24.5	31.1	38.3	
	Injection Speed	in/sec	500			500			500					500			
Charging	Plasticizing Capacity(PS)	lbs/h	79.4	103.6	130.1	103.6	130.1	187.4	57.3	79.4	103.6	130.1	187.4	114.6	163.1	218.3	
	Screw Speed	rpm	~ 400			~ 400			~ 400					~ 350			
CLAMPING UNIT																	
Clamping Force		Us ton	90						120								
Tie Bar Distance		in	16.4 x 14.6						18.5 x 16.5								
Clamping Stroke		in	12.6						13.8								
Daylight		in	26.4						29.9								
Die Plate Dimension		in	24.2 x 21.9						26.8 x 24.8								
Mold Thickness		in	5.9 ~ 13.8						7.9 ~ 16.1								
Ejector Force		Us ton	2.2						2.8								
Ejector Stroke		in	2.8						4.7								
GENERAL																	
Electric Heater Capacity		kW	8.3	9.7	12.3	9.7	12.5	14.5	5.6	8.3	9.7	12.5	14.5	12.5	14.5	14.2	
Machine Dimension : L x W x H		ft	13.7 x 3.9 x 5.5			15.0 x 3.9 x 5.5			16.1 x 4.3 x 5.5					16.8 x 4.3 x 5.5			
Machine Weight		lbs	7,716			8,157			11,244					11,684			
		ton	3.5			3.7			5.1					5.3			

WIZ-E Series

Major Specification

			WIZ 190E								WIZ 240E						
INJECTION UNIT																	
Injection Unit Code			i2.4 (190t)	i3.6 (190t)			i4.7 (190t)	i5.8 (240t)			i3.8 (240t)	i5.8 (240t)			i8.6 (310t)		
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		in	6.3	6.3	7.1	7.1	7.1	7.1	8.7	8.7	6.3	7.1	8.7	8.7	9.4	9.4	9.4
Injection Capacity Calculated		in^3	6.0	7.9	11.2	13.8	17.5	11.2	16.9	21.4	7.9	11.2	16.9	21.4	18.4	23.3	28.8
Injection Capacity	PS	oz	3.2	4.2	6.0	7.3	9.3	6.0	9.0	11.4	4.2	6.0	9.0	11.4	9.8	12.4	15.3
	PE	oz	2.5	3.3	4.7	5.8	7.4	4.7	7.1	9.0	3.3	4.7	7.1	9.0	7.8	9.8	12.1
Standard	Max. Injection Pressure	Mpa	242	242	191	155		270	221	177	294	270	221	177	275	221	181
		psi	35,100	35,100	27,700	22,500		39,000	32,000	25,600	42,700	39,100	32,000	25,600	39,800	32,000	26,300
	Max. Holding Pressure	Mpa	218	218	172	139		243	199	159	265	243	199	159	247	199	163
		psi	31,600	31,600	25,000	20,200		35,000	28,800	23,000	38,400	35,200	28,800	23,000	35,800	28,800	23,700
	Injection Rate	in^3/sec	11.3	14.7	18.6	23		18.6	23	29.1	14.7	18.6	23	29.1	23	29.1	35.9
	Injection Speed	in/sec			300				300				300			300	
High Speed	Max. Injection Pressure	Mpa	242	242	191	155	147	240	191	152	294	240	191	152	275	221	181
		psi	35,100	35,100	27,700	22,500	21,300	34,800	27,700	22,000	42,700	34,800	27,700	22,000	39,800	32,000	26,300
	Max. Holding Pressure	Mpa	218	218	172	139	132	216	172	137	265	216	172	137	247	199	163
		psi	31,600	31,600	25,000	20,200	19,200	31,400	25,000	19,800	38,400	31,400	25,000	19,800	35,800	28,800	23,700
	Injection Rate	in^3/sec	18.8	24.5	31.1	38.3	48.5	31.1	38.3	48.5	24.5	31.1	38.3	48.5	38.3	48.5	59.9
	Injection Speed	in/sec			500				500				500			500	
Charging	Plasticizing Capacity(PS)	lbs/h	90.4	114.6	163.1	218.3	286.6	141.1	187.4	244.7	97.0	141.1	187.4	244.7	156.5	205.0	297.6
	Screw Speed	rpm			~ 350				~ 300				~ 300			~ 250	
CLAMPING UNIT																	
Clamping Force		Us ton	190								240						
Tie Bar Distance		in	22.4 x 20.5								24.4 x 24.4						
Clamping Stroke		in	18.1								22.0						
Daylight		in	37.8								43.7						
Die Plate Dimension		in	33.1 x 31.1								36.2 x 36.2						
Mold Thickness		in	9.8 ~ 19.7								10.6 ~ 21.7						
Ejector Force		Us ton	3.9								5.1						
Ejector Stroke		in	4.7								5.1						
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		ft	17.8 x 4.9 x 6.1					19.1 x 4.9 x 6.1			20.6 x 5.41 x 6.4				21.6 x 5.4 x 6.4		
Machine Weight		lbs	14,330					15,432			21,605				22,267		
		ton	6.5					7.0			9.8				10.1		

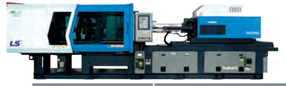
Note 1. Injection capacity calculated : Screw Area x Screw Stroke, 2. Clamping system is double 5-point toggle structures.
3. The maximum injection and holding pressures are maximum pressure that can be set on the machine. Actual setting pressure will be restricted by molding condition and cycle time.
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 240E			WIZ 310E											
INJECTION UNIT																	
Injection Unit Code			i14 (390t)			i3.6 (190t)			i5.8 (240t)			i8.6 (310t)			i9.4 (310t)	i14 (390t)		
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		in	11.0	11.0	11.0	6.3	7.1	7.1	7.1	8.7	8.7	9.4	9.4	9.4	9.4	11.0	11.0	11.0
Injection Capacity Calculated		in^3	33.5	40.6	48.3	7.9	11.2	13.8	11.2	16.9	21.4	18.4	23.3	28.8	34.8	33.5	40.6	48.3
Injection Capacity	PS	oz	17.8	21.6	25.7	4.2	6.0	7.3	6.0	9.0	11.4	9.8	12.4	15.3	18.5	17.8	21.6	25.7
	PE	oz	14.1	17.1	20.4	3.3	4.7	5.8	4.7	7.1	9.0	7.8	9.8	12.1	14.7	14.1	17.1	20.4
Standard	Max. Injection Pressure	Mpa	245	206	172	242	191	155	270	221	177	275	221	181	162	245	206	172
		psi	35,600	29,900	24,900	35,100	27,700	22,500	39,100	32,000	25,600	39,800	32,000	26,300	23,500	35,600	29,900	24,900
	Max. Holding Pressure	Mpa	221	185	154	218	172	139	243	199	159	247	199	163	146	221	185	154
		psi	32,000	26,900	22,400	31,600	25,000	20,200	35,200	28,800	23,000	35,800	28,800	23,700	21,000	32,000	26,900	22,400
	Injection Rate	in^3/sec	35.9	43.5	51.8	14.7	18.6	23	18.6	23	29.1	23	29.1	35.9	43.5	35.9	43.5	51.8
	Injection Speed	in/sec		300			300			300			300				300	
High Speed	Max. Injection Pressure	Mpa	245	206	172	242	191	155	240	191	152	275	221	181	162	245	206	172
		psi	35,600	29,900	24,900	35,100	27,700	22,500	34,800	27,700	22,000	39,800	32,000	26,300	23,500	35,600	29,900	24,900
	Max. Holding Pressure	Mpa	221	185	154	218	172	139	216	172	137	247	199	163	146	221	185	154
		psi	32,000	26,900	22,400	31,600	25,000	20,200	31,400	25,000	19,800	35,800	28,800	23,700	21,100	32,000	26,900	22,400
	Injection Rate	in^3/sec	59.9	72.5	86.3	24.5	31.1	38.3	31.1	38.3	48.5	38.3	48.5	59.9	72.5	59.9	72.5	86.3
	Injection Speed	in/sec		500			500			500			500				500	
Charging	Plasticizing Capacity(PS)	lbs/h	297.6	381.4	480.6	114.6	163.1	218.3	141.1	187.4	244.7	156.5	205.0	297.6	381.4	297.6	381.4	480.6
	Screw Speed	rpm		~ 250			~ 350			~ 300			~ 250				~ 250	
CLAMPING UNIT																	
Clamping Force		Us ton	240			310											
Tie Bar Distance		in	24.4 x 24.4			28.3 x 28.3											
Clamping Stroke		in	22.0			24.4											
Daylight		in	43.7			49.2											
Die Plate Dimension		in	36.2 x 36.2			40.9 x 40.9											
Mold Thickness		in	10.6 ~ 21.7			11.8 ~ 24.8											
Ejector Force		Us ton	5.1			5.1											
Ejector Stroke		in	5.1			5.9											
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		ft	22.6 x 5.4 x 6.4			22.6 x 5.9 x 6.7										23.6 x 5.9 x 6.7		
Machine Weight		lbs	22,708			25,353			26,015			26,455				27,117		
		ton	10.3			11.5			11.8			12.0				12.3		

Electric Injection Molding Machine

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.

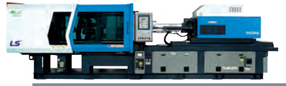
			WIZ 390E							WIZ 440E					
INJECTION UNIT															
Injection Unit Code			i14 (390t)			i16.7 (440t)			i15.6 (440t)	i14 (390t)			i16.7 (440t)		
Screw Type			Y	`A	B	Y	`A	B	C	Y	`A	B	Y	`A	B
Screw Diameter		mm	50	55	60	55	60	65	70	50	55	60	55	60	65
Screw Stroke		in	11.0	11.0	11.0	10.6	10.6	10.6	10.6	11.0	11.0	11.0	10.6	10.6	10.6
Injection Capacity Calculated		in³	33.5	40.6	48.3	39.1	46.6	54.7	63.4	33.5	40.6	48.3	39.1	46.6	54.7
Injection Capacity	PS	oz	17.8	21.6	25.7	20.8	24.8	29.1	33.7	17.8	21.6	25.7	20.8	24.8	29.1
	PE	oz	14.1	17.1	20.4	16.5	19.6	23.1	26.8	14.1	17.1	20.4	16.5	19.6	23.1
Standard	Max. Injection Pressure	Mpa	245	206	172	255	216	181		245	206	172	255	216	181
		psi	35,600	29,900	24,900	37,000	31,300	26,300		35,600	29,900	24,900	37,000	31,300	26,300
	Max. Holding Pressure	Mpa	221	185	154	229	194	163		221	185	154	229	194	163
		psi	32,000	26,900	22,400	33,300	28,200	23,700		32,000	26,900	22,400	33,300	28,200	23,700
	Injection Rate	in³/sec	35.9	43.5	51.8	36.2	43.1	50.6		35.9	43.5	51.8	36.2	43.1	50.6
	Injection Speed	in/sec		300			250				300			250	
High Speed	Max. Injection Pressure	Mpa	245	206	172	255	216	181		245	206	172	255	216	181
		psi	35,600	29,900	24,900	37,000	31,300	26,300		35,600	29,900	24,900	37,000	31,300	26,300
	Max. Holding Pressure	Mpa	221	185	154	229	194	163		221	185	154	229	194	163
		psi	32,000	26,900	22,400	33,300	28,200	23,700		32,000	26,900	22,400	33,300	28,200	23,700
	Injection Rate	in³/sec	59.9	72.5	86.3	58	69	81		59.9	72.5	86.3	58	69	81
	Injection Speed	in/sec		500			400				500			400	
Charging	Plasticizing Capacity(PS)	lbs/h	297.6	381.4	480.6	335.1	423.3	522.5	535.7	297.6	381.4	480.6	335.1	423.3	522.5
	Screw Speed	rpm		~ 250			~ 220				~ 250			~ 220	
CLAMPING UNIT															
Clamping Force		Us ton	390							440					
Tie Bar Distance		in	32.3 x 32.3							32.3 x 32.3					
Clamping Stroke		in	28.3							30.3					
Daylight		in	55.9							59.8					
Die Plate Dimension		in	45.3 x 45.3							45.3 x 45.3					
Mold Thickness		in	13.8 ~ 27.6							13.8 ~ 29.5					
Ejector Force		Us ton	6.8							8.8					
Ejector Stroke		in	5.9							5.9					
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		ft	24.5 x 6.4 x 7.3			25.5 x 6.4 x 7.3			26.8 x 6.4 x 7.3	25.9 x 6.9 x 7.5					
Machine Weight		lbs	34,613			35,274				41,447			44,313		
		ton	15.7			16.0				18.8			20.1		

			WIZ 440E	WIZ 500E									
INJECTION UNIT													
Injection Unit Code			i15.6 (440t)	i16.7 (440t)			i15.6 (440t)	i24.8 (500t)			i37 (610t)		i45 (610t)
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		in	10.6	10.6	10.6	10.6	10.6	13.6	13.6	13.6	16.5	16.5	16.5	16.5
Injection Capacity Calculated		in³	63.4	39.1	46.6	54.7	63.4	69.9	81.0	93.0	98.6	113.2	145.4	163.1
Injection Capacity	PS	oz	33.7	20.8	24.8	29.1	33.7	37.1	43.1	49.5	52.5	60.2	77.4	87.7
	PE	oz	26.8	16.5	19.6	23.1	26.8	29.5	34.2	39.3	41.6	47.8	61.4	68.8
Standard	Max. Injection Pressure	Mpa		255	216	181		226	196	172	226	196	157	
		psi		37,000	31,300	26,300		32,700	28,400	24,900	32,700	28,400	22,800	
	Max. Holding Pressure	Mpa		229	194	163		203	177	154	203	177	141	
		psi		33,300	28,200	23,700		29,400	25,600	22,400	29,400	25,600	20,500	
	Injection Rate	in³/sec		36.2	43.1	50.6		40.5	47.0	53.9	47.0	53.9	69.3	
	Injection Speed	in/sec			250				200			200		
High Speed	Max. Injection Pressure	Mpa		255	216	181		201	172	152	226	196	157	
		psi		37,000	31,300	26,300		29,200	24,900	22,000	32,700	28,400	22,800	
	Max. Holding Pressure	Mpa		229	194	163		181	154	137	203	177	141	
		psi		33,300	28,200	23,700		26,200	22,400	19,800	29,400	25,600	20,500	
	Injection Rate	in³/sec		58	69	81		50.6	58.7	67.4	58.7	67.4	86.6	
	Injection Speed	in/sec			400				250			250		
Charging	Plasticizing Capacity(PS)	lbs/h	535.7	335.1	423.3	522.5	535.7	474.0	564.4	681.2	564.4	681.2	914.9	1,073.7
	Screw Speed	rpm	~ 220		~ 220				~ 200			~ 200		
CLAMPING UNIT														
Clamping Force		Us ton	440	500										
Tie Bar Distance		in	32.3 x 32.3	32.7 x 32.7										
Clamping Stroke		in	30.3	31.5										
Daylight		in	59.8	61.0										
Die Plate Dimension		in	45.3 x 45.3	47.2 x 47.2										
Mold Thickness		in	13.8 ~ 29.5	13.8 ~ 29.5										
Ejector Force		Us ton	8.8	11.0										
Ejector Stroke		in	5.9	7.1										
GENERAL														
Electric Heater Capacity		kW	28.8	24.1			28.8	23.3			26.6			38.2
Machine Dimension : L x W x H		ft	27.2 x 6.9 x 7.5	30.5 x 7.2 x 7.1			31.8 x 7.2 x 7.1	32.1 x 7.2 x 7.1						
Machine Weight		lbs	44,313	59,525				61,729			62,832			63,493
		ton	20.1	27.0				28.0			28.5			28.8

Electric Injection Molding Machine

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.

			WIZ 610E									WIZ 720E			
INJECTION UNIT															
Injection Unit Code			i24.8 (500t)			i37 (610t)			i45 (610t)	i63.6 (720t)			i37 (610t)			i45 (610t)
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		in	13.6	13.6	13.6	16.5	16.5	16.5	16.5	19.7	19.7	19.7	16.5	16.5	16.5	16.5
Injection Capacity Calculated		in^3	69.9	81.0	93.0	98.6	113.2	145.4	163.1	173.1	194.1	239.6	98.6	113.2	145.4	163.1
Injection Capacity	PS	oz	37.1	43.1	49.5	52.5	60.2	77.4	87.7	92.1	103.2	127.4	52.5	60.2	77.4	87.7
	PE	oz	29.5	34.2	39.3	41.6	47.8	61.4	68.8	73.1	81.9	101.1	41.6	47.8	61.4	68.8
Standard	Max. Injection Pressure	Mpa	226	196	172	226	196	157		226	196	157	226	196	157	
		psi	32,700	28,400	24,900	32,700	28,400	22,800		32,700	28,400	22,800	32,700	28,400	22,800	
	Max. Holding Pressure	Mpa	203	177	154	203	177	141		203	177	141	203	177	141	
		psi	29,400	25,600	22,400	29,400	25,600	20,500		29,400	25,600	20,500	29,400	25,600	20,500	
	Injection Rate	in^3/sec	40.5	47.0	53.9	47.0	53.9	69.3		55.4	62.1	76.7	47.0	53.9	69.3	
	Injection Speed	in/sec		200			200				160			200		
High Speed	Max. Injection Pressure	Mpa	201	172	152	226	196	157		226	196	157	226	196	157	
		psi	29,200	24,900	22,100	32,700	28,400	22,800		32,700	28,400	22,800	32,700	28,400	22,800	
	Max. Holding Pressure	Mpa	181	154	137	203	177	141		203	177	141	203	177	141	
		psi	26,200	22,400	19,800	29,400	25,600	20,500		29,400	25,600	20,500	29,400	25,600	20,500	
	Injection Rate	in^3/sec	50.6	58.7	67.4	58.7	67.4	86.6		69.3	77.6	95.9	58.7	67.4	86.6	
	Injection Speed	in/sec		250			250				200			250		
Charging	Plasticizing Capacity(PS)	lbs/h	474.0	564.4	681.2	564.4	681.2	914.9	1,073.7	685.6	804.7	1,080.3	564.4	681.2	914.9	1,073.7
	Screw Speed	rpm		~ 200			~ 200				~ 150			~ 200		
CLAMPING UNIT																
Clamping Force		Us ton	610										720			
Tie Bar Distance		in	35.4 x 35.4										41.7 x 37.8			
Clamping Stroke		in	35.4										39.4			
Daylight		in	67.0										82.7			
Die Plate Dimension		in	52.6 x 52.6										59.1 x 55.1			
Mold Thickness		in	15.7 ~ 31.5										17.7 ~ 43.3			
Ejector Force		Us ton	14.3										19.8			
Ejector Stroke		in	7.9										8.7			
GENERAL																
Electric Heater Capacity		kW	23.3			26.6			38.2	47.4			26.6			38.2
Machine Dimension : L x W x H		ft	32.8 x 7.8 x 7.1							33.8 x 7.8 x 7.1			35.1 x 8.1 x 7.2			
Machine Weight		lbs	68,343			69,446			70,107	72,753			88,185			88,846
		ton	31.0			31.5			31.8	33.0			40.0			40.3

			WIZ 720E						WIZ 950E								
INJECTION UNIT																	
Injection Unit Code			i63.6 (720t)			i82.6 (950t)			i37 (610t)			i45 (610t)	i63.6 (720t)			i82.6 (950t)		
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	10 5	115
Screw Stroke		in	19.7	19.7	19.7	20.9	20.9	20.9	16.5	16.5	16.5	16.5	19.7	19.7	19.7	20.9	20.9	20.9
Injection Capacity Calculated		in^3	173.1	194.1	239.6	254.0	280.1	335.9	98.6	113.2	145.4	163.1	173.1	194.1	239.6	254.0	280.1	335.9
Injection Capacity	PS	oz	92.1	103.2	127.4	135.1	148.9	178.7	52.5	60.2	77.4	87.7	92.1	103.2	127.4	135.1	148.9	178.7
	PE	oz	73.1	81.9	101.1	107.2	118.2	141.8	41.6	47.8	61.4	68.8	73.1	81.9	101.1	107.2	118.2	141.8
Standard	Max. Injection Pressure	Mpa	226	196	157	196	177	147	226	196	157		226	196	157	196	177	147
		psi	32,700	28,400	22,800	28,400	25,600	21,300	32,700	28,400	22,800		32,700	28,400	22,800	28,400	25,600	21,300
	Max. Holding Pressure	Mpa	203	177	141	177	159	132	203	177	141		203	177	141	177	159	132
		psi	29,400	25,600	20,500	25,600	23,000	19,200	29,400	25,600	20,500		29,400	25,600	20,500	25,600	23,000	19,200
	Injection Rate	in^3/sec	55.4	62.1	76.7	76.7	84.5	101.4	47.0	53.9	69.3		55.4	62.1	76.7	76.7	84.5	101.4
	Injection Speed	in/sec		160			160			200				160			160	
High Speed	Max. Injection Pressure	Mpa	226	196	157	196	177	147	226	196	157		226	196	157	196	177	147
		psi	32,700	28,400	22,800	28,400	25,600	21,300	32,700	28,400	22,800		32,700	28,400	22,800	28,400	25,600	21,300
	Max. Holding Pressure	Mpa	203	177	141	177	159	132	203	177	141		203	177	141	177	159	132
		psi	29,400	25,600	20,500	25,600	23,000	19,200	29,400	25,600	20,500		29,400	25,600	20,500	25,600	23,000	19,200
	Injection Rate	in^3/sec	69.3	77.6	95.9	95.9	105.7	126.8	58.7	67.4	86.6		69.3	77.6	95.9	95.9	105.7	126.8
	Injection Speed	in/sec		200			200			250				200			200	
Charging	Plasticizing Capacity(PS)	lbs/h	685.6	804.7	1,080.3	1,080.3	1,214.7	1,514.6	564.4	681.2	914.9	1,073.7	685.6	804.7	1,080.3	1,080.3	1,214.7	1,514.6
	Screw Speed	rpm		~ 150			~ 150			~ 200				~ 150			~ 150	
CLAMPING UNIT																		
Clamping Force		Us ton	720						950									
Tie Bar Distance		in	41.7 x 37.8						52.0 x 44.1									
Clamping Stroke		in	39.4						47.2									
Daylight		in	82.7						98.4									
Die Plate Dimension		in	59.1 x 55.1						73.6 x 65.7									
Mold Thickness		in	17.7 ~ 43.3						19.7 ~ 51.2									
Ejector Force		Us ton	19.8						26.5									
Ejector Stroke		in	8.7						9.4									
GENERAL																		
Electric Heater Capacity		kW	47.4			65.3			26.6			38.2	47.4			65.3		
Machine Dimension : L x W x H		ft	35.1 x 8.1 x 7.2										36.8 x 9.6 x 7.9					
Machine Weight		lbs	91,492			92,153			127,868			128,529	131,175			131,836		
		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

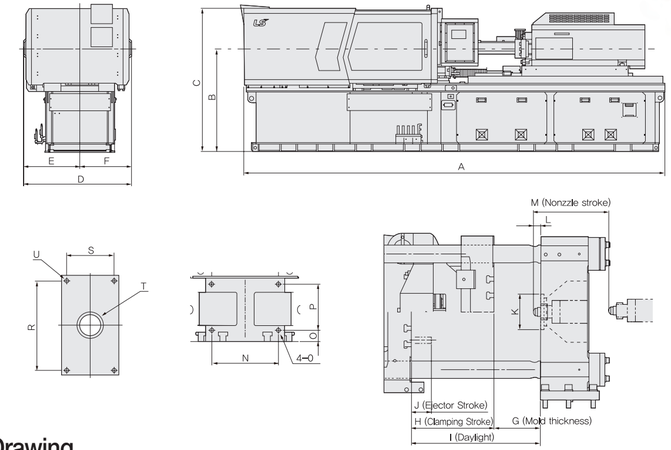
Clamping Unit
- ▶ Tab Hole Platen
- ▶ Automatic Mold Clamp
- ▶ Single Hydraulic Core Puller
- ▶ Dual Hydraulic Core Puller
- ▶ Screw Ejector
- ▶ Pneumatic safety door open
- ▶ T-slot Platen
- ▶ Gate Cut Circuit
- ▶ Injection Compression Device

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

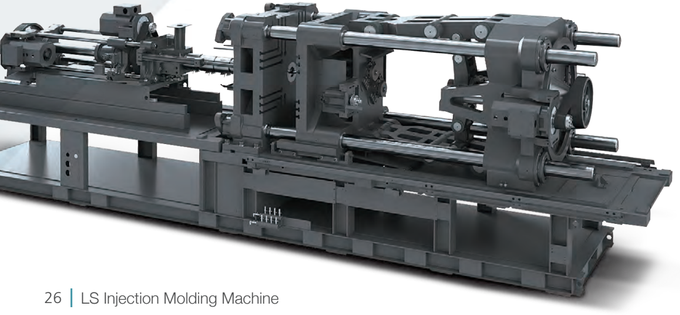
Electric System
- ▶ PID Temperature Control
- ▶ Automatic Voltage Regulator(AVR)
- ▶ Air Conditioning Unit on Control Cabinet
- ▶ Auxiliary Consent
- ▶ Gas Injection Interlock Circuit
- ▶ Gate Cut Circuit
- ▶ Centralized Network System
- ▶ UPS

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
WIZ 20E	114.2	43.3	53.7	38.4	20.6	17.8	4.7 ~ 9.8	7.9	17.7	2.4	Ø4	2.0	9.1	3.9	1.8	1.6	M10	6.7	3.5	Ø1.6	M10
WIZ 35E	128.0	43.3	53.7	37.1	19.9	17.2	4.7 ~ 9.8	9.1	18.9	2.4	Ø4	2.0	9.1	3.9	1.8	1.6	M10	6.7	3.5	Ø1.6	M10
WIZ 55E	145.5	44.8	57.6	40.4	22.1	18.3	5.9 ~ 12.6	10.6	23.2	2.8	Ø4	2.0	9.8	3.9	2.2	1.6	M10	6.7	3.5	Ø1.6	M10
WIZ 90E	164.3	47.2	65.7	43.6	22.9	20.7	5.9 ~ 13.8	11.8	25.6	2.8	Ø4	2.0	13.8	3.9	2.6	1.6	M10	6.7	3.5	Ø1.6	M10
WIZ 120E	193.6	47.4	66.2	48.5	25.3	23.1	7.9 ~ 16.1	13.8	29.9	3.1	Ø4	2.0	15.7	8.3	1.4	5.7	M12	6.7	3.5	Ø2.1	M10
WIZ 190E	213.5	50.3	73.5	55.4	29.8	25.6	9.8 ~ 19.7	15.7	35.4	3.9	Ø4	2.0	17.7	8.3	0.6	2.2	M16	6.7	3.5	Ø2.1	M10
WIZ 240E	247.2	51.3	74.6	68.7	37.6	31.1	10.6 ~ 21.7	19.7	41.3	4.7	Ø4	2.0	19.7	13.8	2.4	3.1	M16	6.7	3.5	Ø2.5	M10
WIZ 310E	270.7	54.6	77.4	73.9	39.6	31.5	11.8 ~ 24.8	21.7	46.5	5.5	Ø4	2.0	23.6	17.7	2.4	3.1	M20	6.7	3.5	Ø2.5	M10
WIZ 390E	297	56.7	88.7	78	42	35.9	13.8 ~ 27.6	23.6	51.2	5.9	Ø4	2.0	23.6	20.9	2.4	3.1	M20	6.7	3.5	Ø2.5	M10
WIZ 440E	306.7	56.9	88.7	98	42	35.9	13.8 ~ 29.5	27.6	57.1	5.9	Ø4	2.0	23.6	22.0	6.7	3.1	M20	6.7	3.5	Ø2.5	M10
WIZ 500E	381.8	53.5	78.5	84.6	44.1	40.5	13.8 ~ 29.5	31.5	61.0	7.1	Ø4	2.0	35.4	15.7	2.8	9.8	M20	11.0	7.5	Ø2.5	M16
WIZ 610E	394.0	53.5	80.2	92.0	47.8	44.2	15.7 ~ 31.5	35.4	66.9	7.9	Ø4	2.0	35.4	15.7	3.0	9.8	M20	11.0	7.5	Ø2.7	M16
WIZ 720E	420.2	53.5	86.1	97.8	48.3	48.2	17.7 ~ 43.3	39.4	78.7	7.9	Ø5	2.0	31.5	44.1	2.8	6.9	M24	11.0	7.5	Ø2.9	M16
WIZ 950E	441.3	58.3	95.1	115.9	57.9	57.9	19.7 ~ 51.2	47.2	98.4	9.4	Ø5	2.0	31.5	44.1	2.8	8.3	M24	11.0	7.5	Ø2.9	M16

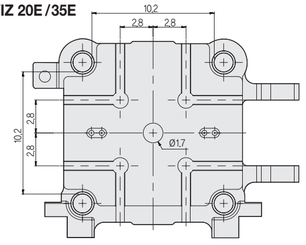


Electric Injection Molding Machine

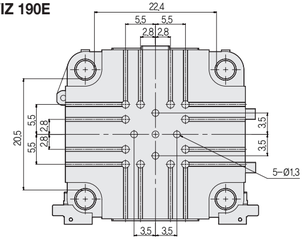
WIZ-E Series

Moving Platen Drawing

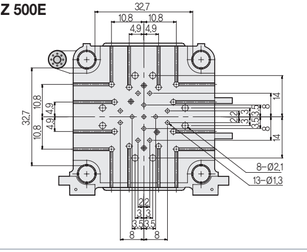
WIZ 20E /35E



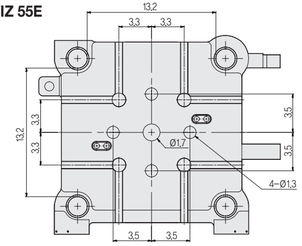
WIZ 190E



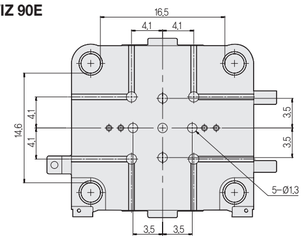
WIZ 500E



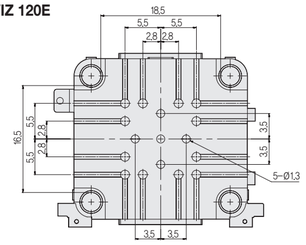
WIZ 55E



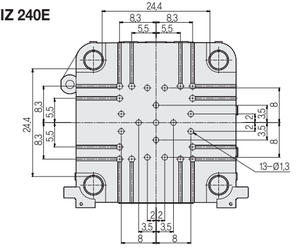
WIZ 90E



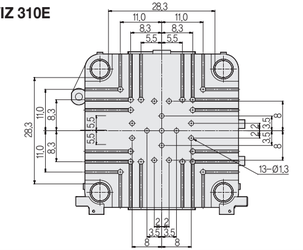
WIZ 120E



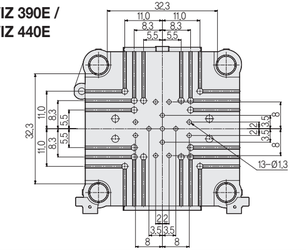
WIZ 240E



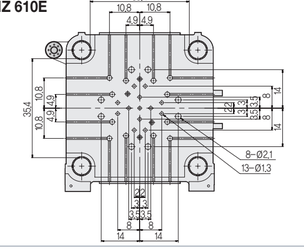
WIZ 310E



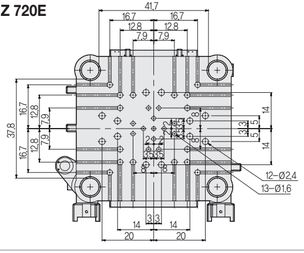
WIZ 390E / WIZ 440E



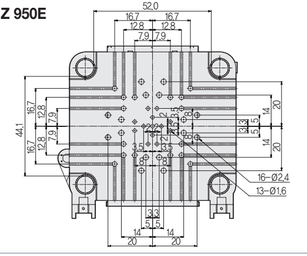
WIZ 610E



WIZ 720E



WIZ 950E



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 170EC / WIZ 280EC

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 170 USton machine.
  - Improving high speed mold rotating time within 1.2sec in 280 USton 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 (170 USton)
  - Index UNIT size Ø1100 (280 USton)

Index unit

Applying Servo motor

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

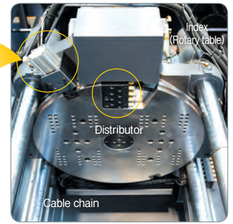
External distributor

- 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

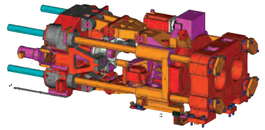
- High speed injection mechanism equipped high response & high torque servo motor

Appearance

- All cover box type design for better safety and appearance

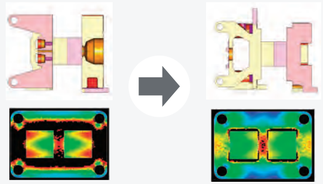
Clamping unit

- 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)



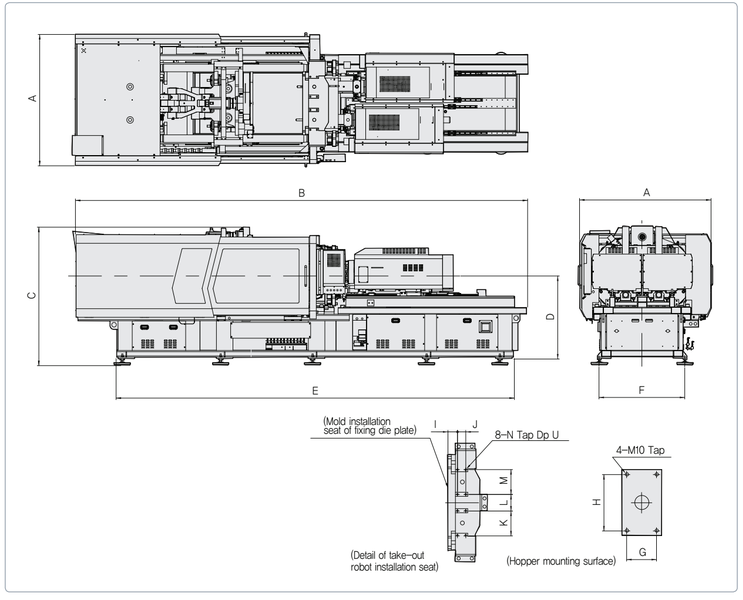
Control System

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)

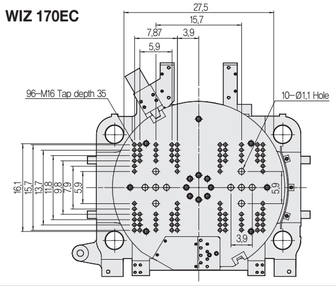
External Form Drawing



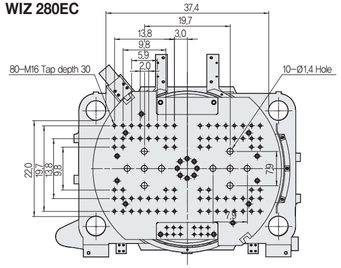
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
WIZ 170EC	66.9	224.4	78.7	49.2	200.8	41.3	3.5	6.7	2.4	3.9	7.9	7.9	7.9	M0.6	1.2
WIZ 280EC	78.0	267.7	82.7	49.2	236.2	50.9	3.5	6.7	4.5	3.9	11.8	7.9	11.8	M0.8	1.6

Moving Platen Drawing

WIZ 170EC



WIZ 280EC



Major Specification

			WIZ 170EC						WIZ 280EC					
INJECTION UNIT														
Injection Unit Code			1st Injection Unit (80T)			2nd Injection Unit (80T)			1st Injection Unit (150T)			2nd Injection Unit (150T)		
Screw Type			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		in³	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	in³/s	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	in³/s	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 Diameter		in	31.7						43.3					
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.

International Quality, Environment, Safety, Health Certification

KCS Mark CE ISO9001: 2008 ISO14001 OHSAS18001

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