



WIZ-VR II SERIES

NEW LINE UP

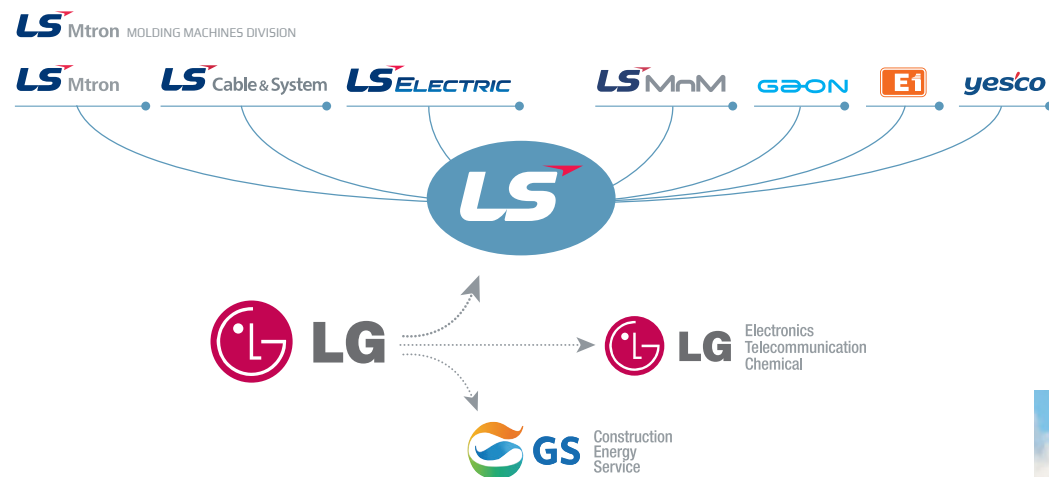
WIZ-VR II Series



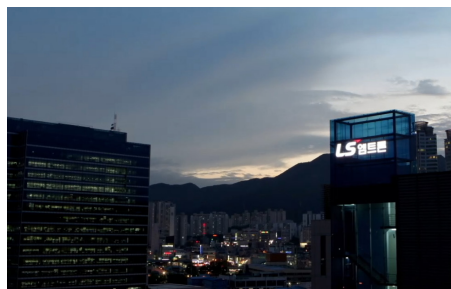
LS Mtron

About LSMtron

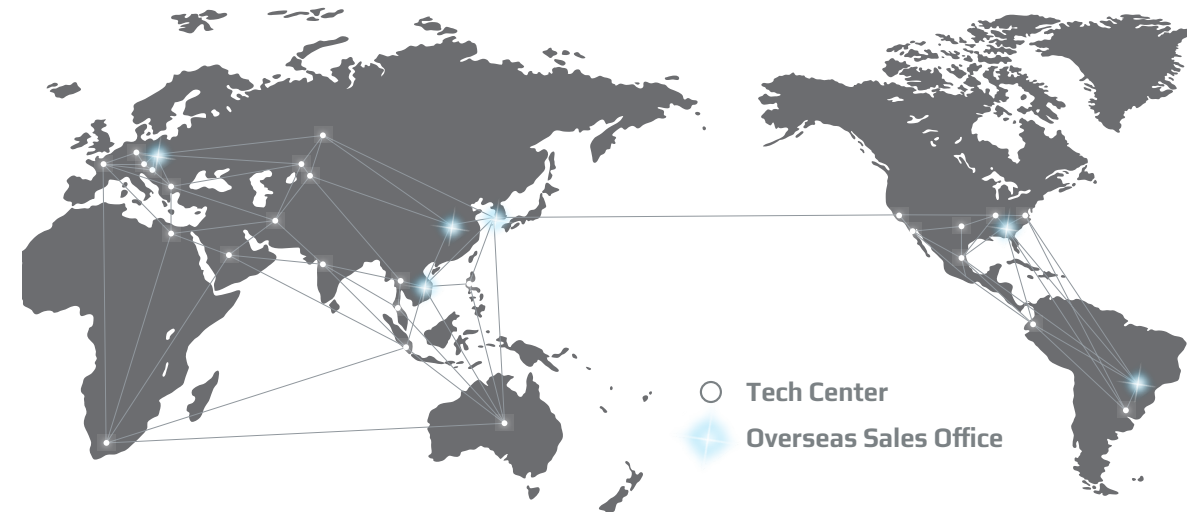
LS Mtron's injection molding machine was first launched in 1969 by the Machinery Division of Goldstar (currently LG Group), and has been expanding its scope not only domestically but also globally through continuous technology development and quality innovation over the past half-century. Growing together with Korean major customers during the period of high growth called the Miracle on the Han River, taking the needs of our customers, which have now become global standards, as an indicator of our core technology, and steadily leading the next half-century with ceaseless development. LS Mtron injection molding machines started with the development of Korea's first direct pressure injection molding machine, followed by the launch of the Two-Platen injection molding machine, and the first electric injection molding machine in Korea, leading the standard of injection molding machines in Korea. In addition, we have developed special machines (IBM, IML, CPM, Two color, etc.), high-spec, ultra-high-speed injection molding machines the ONE* and the ONE*-E to meet the diversified manufacturing environment of our customers, and strive for continuous product development. In line with the era of Industry 4.0, we are pioneering a new chapter of innovation in injection molding machines by developing smart injection molding machines and smart digital molding solutions.



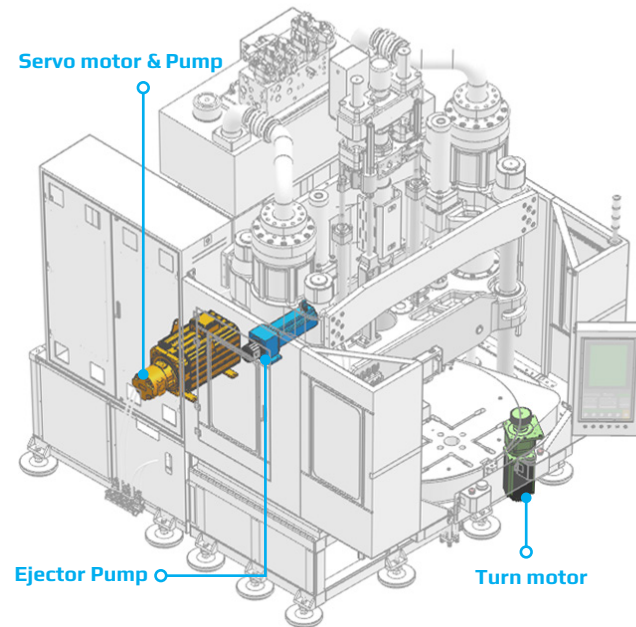
INNOVATIVE TECHNOLOGY PARTNER



Integrated **ONE Solution** **Smart Machine for Industry 4.0** **Delivering Value**

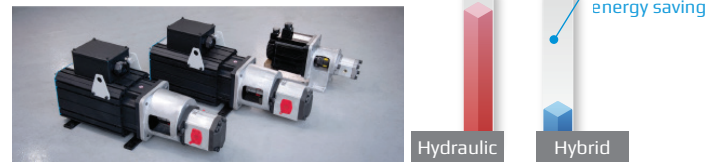


Super precision, energy saving sys. Improved production



Energy saving system

By the Servo Pump system, energy can be greatly saved (65~75%)



	Electric	Hydraulic	Hybrid
Feedback	○	△	○
Energy saving	○	△	○
Maintenance cost	Normal	Good	Good
Machine cost	High	Low	Middle

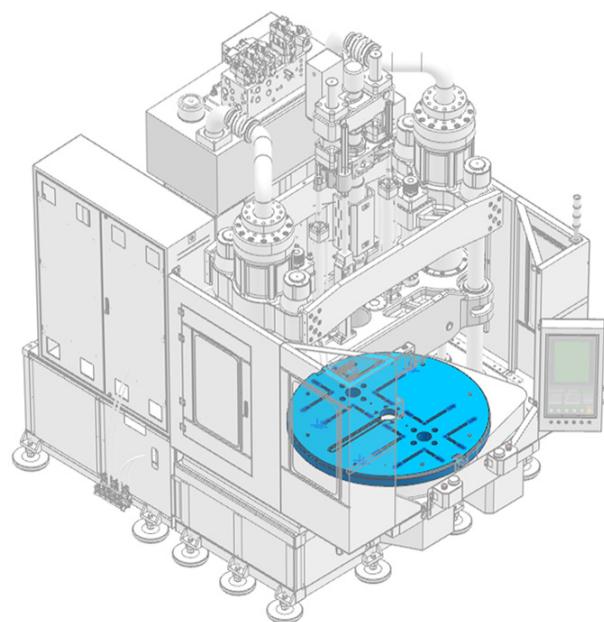
Improved Quality with High-precision

- Apply to the Closed-loop of Servo Pump system by AC Servo Motor, the reproducibility of the Feed-back controlled system is excellent (within the deviation error of 0.1%)
- High responsiveness by the hydraulic driving of an AC Servo Motor driven Hydraulic pump : 70ms
- The low noise and precision is realized By the precise AC Servo Motor

Productivity increases

- With the adoption of the system for controlling the number of revolution in an AC Servo motor and the high-power electric Servo motor-driven method, the processing time is reduced (high-power servo motor option) by the compound motion (simultaneous motion) in which the process of inserting the inserts as well as the process of blowing off the products among the mold-closing and injection processes.

Easy installation, customer selectable options



Compacted machine size

Unit : mm

DIV	250 TON		
	LS MTRON	Comptitor 1	Comptitor 2
Width	2290	2500	2660
Length	3000	4200	3620
Height	4240	4440	4290
weight	16	21	21

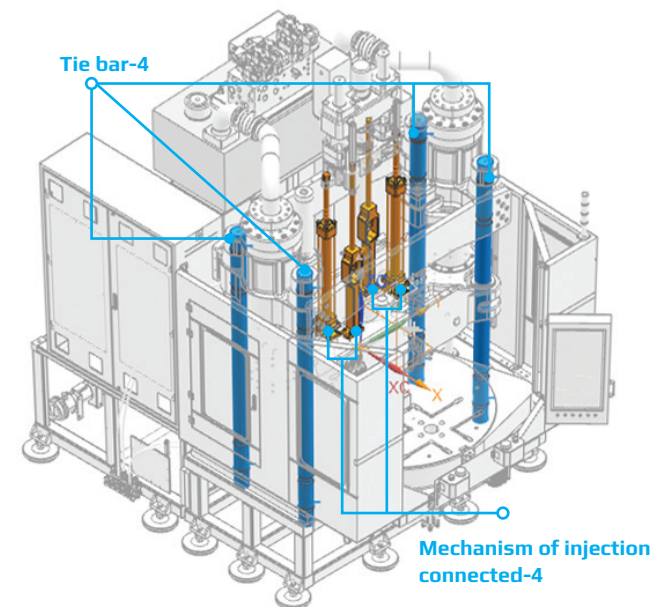
Rotary Table Option

Unit : mm

DIV	250 TON			
	Standard	Option	Comptitor 1	Comptitor 2
Table size	Φ1600	Φ1800	Φ1600	Φ1800

- Installation space can be minimized by compacted machine size
- it can be improved production by space utilization

Durability, Stable Quality



Mechanism of Tie bar

Durability and Quality are realized stably by four tie bar mechanism (Competitors have two or three tie bar mechanism)

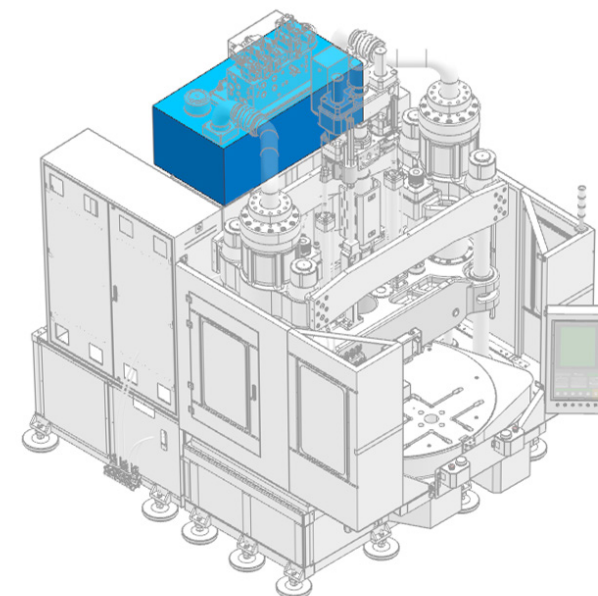
4 points guide post for injection unit

Durability and Quality are realized stably by four guided bar mechanism

High speed, precision injection unit

It shows the excellent performance in the precise molding of resin that are extremely difficult to be dealt with.

Easy maintenance, Low operating cost



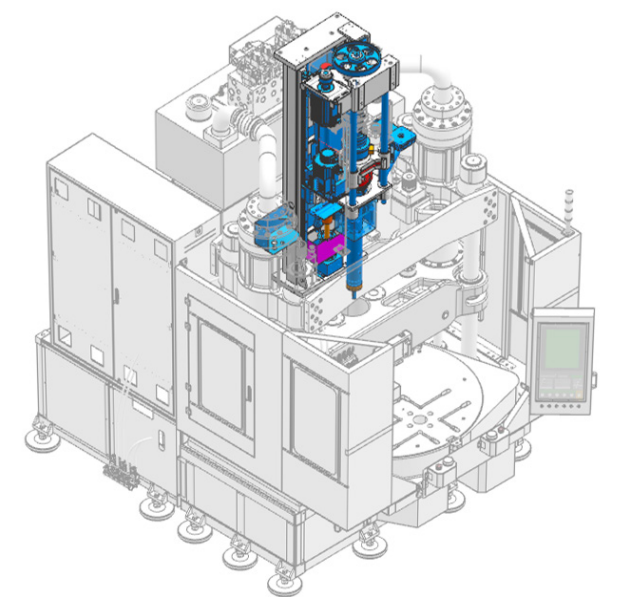
Hyd.oil tank

Unit : ℓ

DIV	250 TON		
	LS MTRON	Comptitor 1	Comptitor 2
Operating Oil	350	660	680

Cost can be reduced by minimization of cooling water, size of tank and oil lines

Electric injection unit Option



- It can be minimized defect rate by electric injection unit with high precision performance

The adoption of various kinds of machine, it can meet the various requirements and needs of customers

Customers can choose one of best machine with proper product and space utilization

Vertical injection type



WIZ VT (Single type)



WIZ VS (Shuttle type)

Horizontal injection type



WIZ VTH (Single type)



WIZ VSH (Shuttle type)



WIZ VRH (Rotary type)

Control System (KEBA CONTROLLER)

User programming Sequence : Easy maintenance & Flexible for user demand



- Provides operational convenience for users by increasing the screen size
- Convenient operation with High-response color panel



- Easy and various graphic functions
- Real-time data adjustment and operation
- Function to search data on molds



- Easy to analyze cycles with monitoring screen
- Easy to convert unit
- Adds a memo function : possible to make an independent memo and associate with mold information



- Possible to monitor and communicate with peripheral devices.
- Possible to monitor I/O and turn ON/OFF the forced output on the touch screen



- User-friendly UI
- User can change the sequence of cycles
- Mix and match units (psi,inch,mm,bar, etc.)
- Multi language selection
- Multi-level, customizable password control for each user.

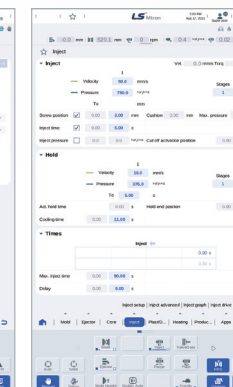
Clamping Page



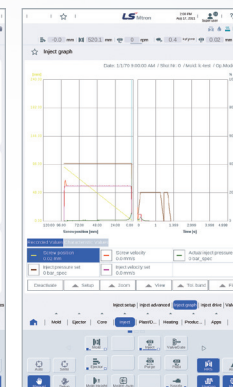
Core Page



Injection Page



Graph Page



Heater Page



Customer's Benefits

- Easy to analyze and monitor an injection molding process with the improved user interface
- Easy to maintain and change the User's sequence
- Responding flexibly to customer's demand

Connected and Smart Injection 4.0

Connected and Smart Injection 4.0 option

LS-Mtron's CSI 4.0 is a solution that can help customers quickly respond to the 4th industrial revolution and digital transformation.

The solution is the initial stage of data collection, the stage of making it meaningful information, and furthermore, big data processing technology and it consists of the stages of intelligence application of AI.

* Connected and Smart Injection

AI

INJECTION
SYSTEM



AI Injection System

AI Molding Assistant
AI Weight Control
Smart Injection Molding Machine

SAMRT SERVICE

SMART REMOTE
SERVICE

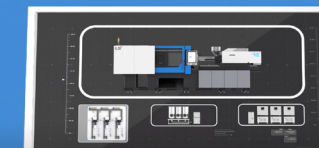
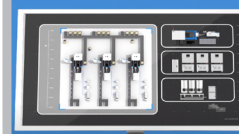


SMART REMOTE SERVICE

Remotely monitor
Access and repair products in use at
customer sites

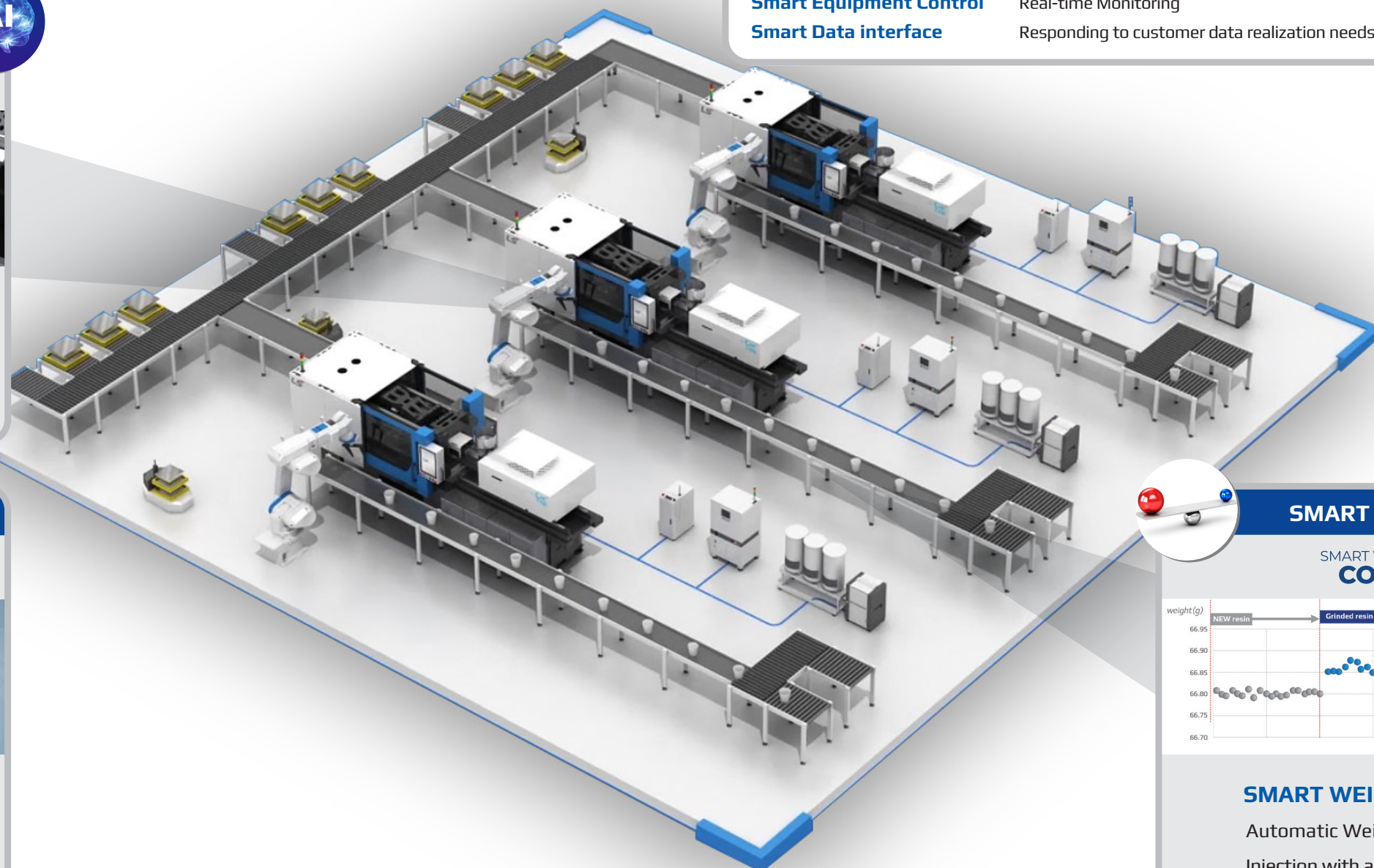
SMART PRODUCTION

SMART
PRODUCTION



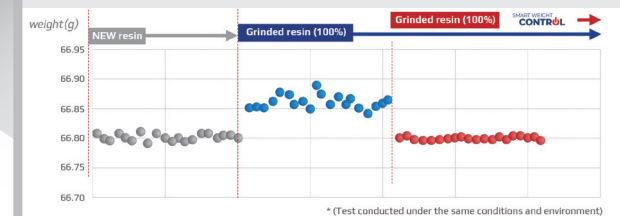
Smart Monitoring
Smart Production Control
Smart Mold Reognition
Smart Equipment Control
Smart Data interface

Anywhere, 24/7 access by mobile
Real-time Monitoring Control
RFID check and immediate application of molding data via QR code
Real-time Monitoring
Responding to customer data realization needs



SMART MACHINE

SMART WEIGHT
CONTROL



SMART WEIGT CONTROL

Automatic Weight Adjustment
Injection with a constant weight
even when mixing recycled resin

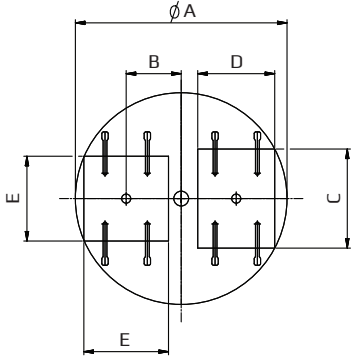
WIZ-VR II (Metric)

MODEL			WIZ 35VR II			WIZ55 VR II			WIZ85 VR II			WIZ100 VR II			WIZ120 VR II		
			i0.5	i0.9		i0.9	i1.3		i1.3	i2.8		i2.8	i3.6		i2.8	i4.9	
Injection	Screw type		O	A	B	O	A	B	O	A	B	O	A	B	O	A	B
	Screw Code	mm	18	20	22	22	25	28	28	32	35	32	35	40	35	40	45
	Injection pressure	kg/cm ²	2,592	2,100	2,328	2,328	2,116	1,687	1,687	2,187	1,828	2,187	1,828	1,785	1,828	1,990	1,572
	Injection Capacity	g	18	22	35	35	57	72	72	115	138	115	138	180	138	220	278
	Injection Capacity Calculated	cm ³	20	25	39	39	63	80	80	128	153	128	153	201	153	244	309
	Injection Rate	cm ³ /sec	72	92	80	80	88	110	172	133	159	133	159	163	159	146	185
	Plasticization Capacity	kg/hr	8	9	10	10	20	25	25	30	39	30	39	44	39	44	65
	Injection stroke	mm	80	80	105	105	130	130	130	160	160	160	160	195	160	195	195
	Nozzle stroke	mm	200	200	200	260	260	260	280	300	300	300	300	300	280	350	400
	Max Screw Speed	rpm	0~220			0~220			0~220			0~220			0~200		
Mold	Clamping Force	ton	35			55			85			100			120		
	Turn table size	mm	700			850			1,000			1,000			1,220		
	Clamping stroke	mm	220			250			285			285			350		
	Min. mold thickness	mm	180			200			210			240			310		
	Max. clamping stroke	mm	400			450			495			525			660		
	Ejector force	ton	1.7			2.7			2.7			2.7			2.7		
General	Ejector stroke	mm	70			70			70			70			100		
	Total electric power	kW	22.7			23.6			31.2			31.6			40.6		
	Servo motor(Max)	kW	12			12			18			18			22		
	Servo motor(Min)	kW	3.5			3.5			3.5			3.5			3.5		
	Table servo motor	kW	3.5			3.5			3.5			3.5			5.8		
	heater	kW	3.7			4.6			6.2			6.6			9.3		
	Oil capacity	ℓ	180			180			220			220			300		
	Machine size (L*W*H)	m	2.26 x 1.33 x 2.88			2.59 x 1.33 x 3.24			2.56 x 1.53 x 3.64			2.56 x 1.53 x 3.78			2.87 x 1.75 x 4.44		
	Machine weight	ton	3.2			3.9			5.2			5.5			7		

* This specification is subject to change whitout notice to improve product quality.

Moving Platen Drawing

() = Option

Moving Platen Drawing		WIZ 35VR II WIZ 55VR II WIZ 85VR II WIZ 100VR II WIZ 120VR II					
		A	700	850	1000	1000	1220
		B	200	245	260	260	325
		C	300	350	480	480	600
		D	220	280	350	350	400
		E	250 x 2	300 x 2	400 x 2	400 x 2	470 x 2

External Form Drawing

() = Option

size

Top view technical drawing of the machine. It shows a central processing unit with a hopper on top and a control panel on the right. Dimensions are indicated: A is the width of the base, B is the width of the main body, C (MAX) and C (MIN) are the height of the main body, D is the height of the base, E is the height of the control panel, and F is the depth of the base.

Side view technical drawing of the machine. It shows the machine from the side, highlighting the hopper and control panel. Dimensions are indicated: A is the width of the base, B is the width of the main body, C (MAX) and C (MIN) are the height of the main body, D is the height of the base, E is the height of the control panel, and F is the depth of the base.

	WIZ 35VR II	WIZ 55VR II	WIZ 85VR II	WIZ 100VR II	WIZ 120VR II
A	1,330	1,330	1,530	1,530	1,750
B	2,260	2,590	2,560	2,560	2,870
C MAX	2,880	3,240	3,640	3,780	4,440
C MIN	2,230	2,620	2,900	3,040	3,550
D	1,040	1,160	1,250	1,250	1,505
E	400	450	490	520	660
F	280	300	260	260	260

MODEL			WIZ120 VR II L			WIZ150 VR II L			WIZ 200 VR II L			WIZ250 VR II L			WIZ 300 VR II L			WIZ 350 VR II L			WIZ 400 VR II L			WIZ 500 VR II L			WIZ 600 VR II L				
			i2.8	i4.9		i4.9	i5.4	i6.8	i4.9	i5.4	i6.8	i5.4	i6.8		i5.4	i6.8		i6.8		i8.1	i6.8	i8.1	i10	i10	i18.7	i23.8	i23.8	i38.1			
Injection	Screw type		O	A	B	O	A	B	O	A	B	O	A	B	O	A	B	O	A	B	O	A	B	O	A	B	O	A	B		
	Screw Code	mm	35	40	45	40	45	50	40	45	50	45	50	55	45	50	55	50	55	60	55	60	65	65	70	75	75	80	85		
	Injection pressure	kg/cm ²	1,828	1,990	1,572	1,990	1,742	1,646	1,990	1,742	1,646	1,742	1,646	1,360	1,742	1,646	1,360	1,646	1,360	1,368	1,360	1,368	1,371	1,371	1,872	1,631	1,631	1,998	1,770		
	Injection Capacity	g	138	220	278	220	278	371	220	278	371	278	371	448	278	371	448	371	448	534	448	534	656	656	900	1,311	1,311	1,718	1,939		
	Injection Capacity Calculated	cm ³	153	244	309	244	309	412	244	309	412	309	412	498	309	412	498	412	498	593	498	593	729	729	1,000	1,457	1,457	1,909	2,155		
	Injection Rate	cm ³ /sec	159	146	185	187	214	227	187	261	276	326	311	377	326	311	377	311	377	375	377	375	374	374	311	357	357	513	580		
	Plasticization Capacity	kg/hr	39	44	65	44	65	80	44	65	80	65	80	97	65	80	97	80	97	115	97	115	123	123	134	142	142	160	181		
	Injection stroke	mm	160	195	195	195	195	210	195	195	210	195	210	210	195	210	210	210	210	210	210	210	220	220	260	330	330	380	380		
	Nozzle stroke	mm	280	280	280	360	360	360	360	360	360	320	320	320	320	320	320	320	320	330	330	330	450	450	500	500	500	500	500		
	Max Screw Speed	rpm	0~200			0~180			0~180			0~180			0~180			0~180			0~180			0~180			0~180			0~180	
Mold	Clamping Force	ton	120			150			200			250			300			350			400			500			600				
	Turn table size	mm	1,200			1,350			1,500			1,600(1,800)			1,600(1,800)			1,800(2,000)			1,800(2,000)			2,000(2,500)			2,500(2,700)				
	Clamping stroke	mm	350			400			420			500			500			500			500			550			550				
	Min. mold thickness	mm	310			320			340			350			400			450			450			450			450				
	Max. clamping stroke	mm	660			720			760			850			900			950			950			1000			1000				
	Ejector force	ton	2.7			4.3			4.3			4.3			4.3			4.3/7			7			7			7				
	Ejector stroke	mm	70			100			100			100			100			100/130			100/130			130			130				
General	Total electric power	kW	40.6			41.8			49.8			62.6 / 64.1			67.1 / 68.6			68.6			68.6			83.6			124.8				
	Servo motor(Max)	kW	22			22			28			36			36			36			36			36 + 7.3			36 + 36				
	Servo motor(Min)	kW	3.5			3.5			3.5			5.8			5.8			5.8			5.8			5.8			5.8				
	Table servo motor	kW	5.8			5.8			5.8			5.8 / 7.3			5.8 / 7.3			7.3			7.3			7.5			12				
	heater	kW	9.3			10.5			12.5			15			19.5			19.5			19.5			27			35				
	Oil capacity	ℓ	220			250			280			320			320			320			360			500			500				
	Machine size (L*W*H)	m	2.68 x 1.74 x 3.67			2.7 x 1.92 x 4.0			2.95 x 2.12 x 4.0			3.0 x 2.3 x 4.24 3.15 x 2.5 x 4.24			3.0 x 2.3 x 4.24 3.15 x 2.5 x 4.24			3.15 x 2.5 x 4.24 3.54 x 2.9 x 5.3			3.15 x 2.5 x 4.24 3.54 x 2.9 x 5.3			3.54 x 2.9 x 5.3 3.95 x 3.4 x 5.43			3.95 x 3.4 x 5.58 4.15 x 3.68 x 5.58				
	Machine weight	ton	8.5			10.5			12.5			14 / 16			14 / 17			17 / 20			17 / 20			27 / 37			37/43				

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Moving Platen Drawing

() = Option

Moving
Platen
Drawing

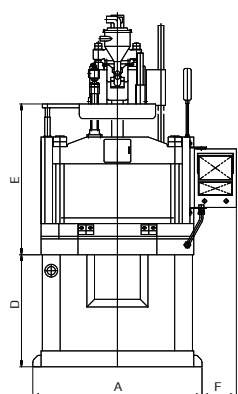
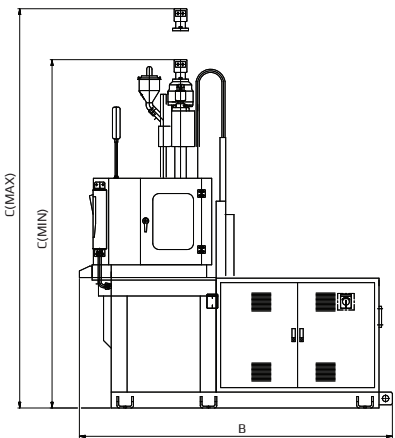
The diagram illustrates the dimensions of a moving platen. It features a central circular area with two vertical rectangular sections on either side. The overall width is labeled as ϕA . The distance between the centers of the two vertical sections is labeled as B . The distance from the center of the circular area to the center of one of the vertical sections is labeled as D . The total width of the platen is labeled as C . The height of the platen is labeled as E . The diagram also shows two vertical sections with internal details, including a central vertical line and two horizontal lines on each side.

	WIZ 120VRIL	WIZ 150VRIL	WIZ 200VRIL	WIZ 250VRIL	WIZ 300VRIL	WIZ 350VRIL	WIZ 400VRIL	WIZ 500VRIL	WIZ 600VRIL
A	1200	1350	1500	1,600(1,800)	1,600(1,800)	1,800(2,000)	1,800(2,000)	2,000(2,500)	2,500(2,700)
B	325	350	380	400(450)	400(450)	450(505)	450(505)	505(600)	600(650)
C	600	630	740	770(820)	770(820)	820(950)	820(950)	950(1,200)	1,200(1,400)
D	400	480	550	600(700)	600(700)	700(750)	700(750)	750(960)	960(1,000)
E	450 x 2	530 x 2	610 x 2	650(700) x 2	650(700) x 2	740(820) x 2	740(820) x 2	820(1,050) x 2	1,050(1,140) x 2

External Form Drawing

() = Option

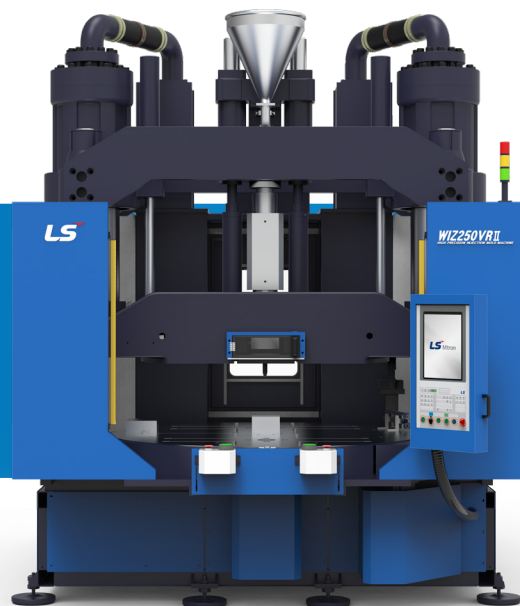
size

	WIZ 120VRIL	WIZ 150VRIL	WIZ 200VRIL	WIZ 250VRIL	WIZ 300VRIL	WIZ 350VRIL	WIZ 400VRIL	WIZ 500VRIL	WIZ 600VRIL
A	1,740	1,940	2,120	2,290(2,490)	2,290(2,490)	2,490(2,900)	2,490(2,900)	2,900(3,390)	3,390(3,680)
B	1,680	2,700	2,950	3,000(3,150)	3,000(3,150)	3,150(3,540)	3,220(3,540)	3,540(3,950)	3,950(4,150)
C MAX	3,670	4,000	4,000	4,240	4,290(4,240)	4,240(5,290)	4,630(5,290)	5,290(5,430)	5,580
C MIN	2,860	3,030	3,010	3,200	3,250(3,200)	3,200(3,890)	3,160(3,890)	3,890(4,170)	4,320
D	865	865	870	815(820)	815(820)	820(905)	900(905)	905(1,045)	1,045
E	660	720	760	850	900(850)	850(950)	950	950	1,100
F	95	35	125	110	110				

Technical Specification

	Standard	Options
Injection Units	- 2 numbers of Injection cylinder - 2 numbers of Nozzle cylinder - Guide bar slide type for Injection part - Auto purging circuit - Wear Resistance Screw Cylinder - OPEN nozzle - Screw RPM display - Ceramic heater, Coil heater	- High speed injection function servo valve system - Special design screw - Screw with mixing head - Wear & Corrosion Resistance Screw Cylinder - hut-off nozzle / Niddle nozzle / Long nozzle
Clamping Units	- Mold protection function & alarm system - Mold low-speed function - Rotating turn table by servo motor - 180° Turn table - Turn table with T groove - Double clamping safety device (Electric double) - Electric mold close position - Multi-stage hydraulic ejector - basic ejector operation	- 90° / 180° Turn table - Air ejector - Rotation core (Electric) - Hydraulic core - Extension of Tie bar - Ejector down system - Composite ejector operation
Hydraulic Units	- Energy saving AC Servo motor control system (Hybrid type) - Proportional - Back pressure monotor control - Electrical, hydraulic & mechanical safety device for fall prevention - Pressure indication gauge curcuit configuration	- Injection servo valve - Two motors with independent function - High speed circuit added - ACC circuit added
Controller	- Keba Controller - Closed loop-control system - Abnormal operation warning device - Abnormal operation indicating device - Intrusion circuit - Automatic barrel heat-up control device - Safety gate with interlocks - Shot counter and count up detection for target production - PID temperature control - Nozzle temperature control - Automatic purge circuit - Valve gate circuit device - Automatic power shut down circuit - Ejector retraction circuit - Heater band failure indicator - Robot interlock circuit	- Air conditioning unit in control cabinet - Auxiliary socket box (4pins or 5 pins) - Valve gate circuit - Hot runner circuit inside - Centralized network system - 3 phase auxiliary socket box (4pins or 5 pins) - 1 phase auxiliary socket box (4pins or 5 pins) - Hyd.oil warming up device
Generals	- Mold manual clamp - Level pad - Basic spare part - Hot - cold water distributor circuit - Operator manual - Sub Step - Warning light	- Robot circuit & attachment slot - Auto clamp device - Mold insulation plate - Guide rail and Die lifter for installation of large mold



+82 080 400 8247

LS injection molding machine

Overseas Sales Head Office

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