

# eV-LINE Electric Injection Molding Machine

# **MS50**

Based on high accuracy and stable molding by V-LINE<sup>®</sup>,

Developed "eV - LINE" compatible electric motor and a new mold clamping mechanism,

Improvement of productivity and energy saving by high cycle

### Electric V-LINE®

The injection and plasticizing apparatus using the V-LINE® system, with characteristics that ensure precise reproducibility, is now powered by a servomotor. Measurements and positioning data for the injection locations are controlled in a closed loop to improve the precision of positioning, achieving remarkably stable repetitions of the plasticizing, measuring, and injection cycle. The line of injection units with plungers of 22 mm and 28 mm in diameters include models that emphasize speed and models that emphasize pressure, allowing you to choose the unit that best suits the molded product type.

## Electric clamping action

With the servo motor drive and adoption of the mold clamping device by the original toggle link mechanism shortened the mold opening and closing cycle. The movable platen is supported by a linear guide to improve the stability of the mold orientation. The power design for these products significantly reduces power usage while contributing to quieter operation.

### Operation panel focused on intuition

Offering selector type switches, the control panel has been developed especially for the MS100. The ability to move the switches in the same direction in which you want each unit to move results in a more intuitive operating experience and helps simplify molding operations.











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#### ■ Spec.

Clamping Unit		
Maximum clamping force	kN	490
Tie bar distance (W x L)	mm	360 × 360
Open daylight	mm	600
Min./Max. mold thickness	mm	150 / 350

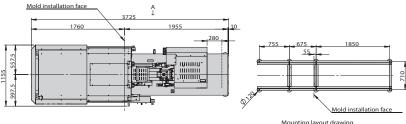
Plasticization & Injection Unit						
Screw diameter	mm	22 25 28			28	
Plunger diameter	mm	22			28	
Theoretical injection volume	cm <sup>3</sup>	53.2			98.5	
Max. injection speed	mm/s	450 350		350	250	
Max. injection pressure*1,*2	MPa	220		285	175	235
Max. holding pressure*1, *2	MPa	176 228			140	188
Machine dimensions / Weight						
Machine dimensions (L x W x H) mm	mm	3725 × 1155 × 1647				
Machine weight	kg	2900 3000			00	

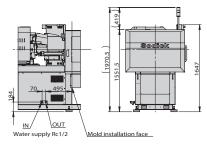
- \*1: Maximum injection pressure and maximum holding pressure are calculated output values for injection units.

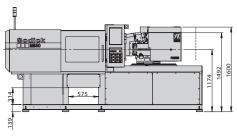
  Actual resin pressure does not necessarily reflect these values.

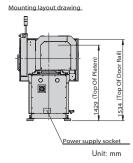
  \*2: Due to injection motor duly cycles, the maximum injection pressure and maximum holding pressure may not be achievable when repeated in rapid succession.

### ■ Machine Dimensions & **Installation Drawing**









Unit: mm

### ■ Mold Installation **Dimensions Drawing**

Ejector Start Polition  B A Unit Stroke  Fixed platen  Fixed platen  Fixed platen	Dameter of   Dam		Main spec o	f nozzle (P22	2)	nesin reed, rap size for hopper	
## 20 60 10 ## 300 60 60 10 ## 300 60 60 10 ## 300 60 60 60 60 60 60 60 60 60 60 60 60 6	## 20 60 10 @30.4  @3.0 60 10 @30.4  ## 20 60 10 @3		Extension	Sphere R	Outside diameter of cover		hole for take off robot
## Solid A Solid First Position   B A Solid Fixed Position   B A Fixed Platen	## Diameter of Extension Sphere R Oviside diameter norzing gate   ## Diameter of Extension Sphere R Oviside diameter   ## Oviside di					6 M16T	on Donath 32
## 10	## 10					. <u>9-M19-1</u>	ap Depth 32
Dismeter of   Dismeter of   Extension   Sphere R   Oxidise diameter   Oxidise   Oxid	Diameter of						<del></del>
Diameter of   Incompanies   Extension   Sphere R   Oxiside diameter of corcover   Incompanies   In	Diameter of nozice gate   Estension   Sphere R   Oxistice diameter of nozice gate   15   66   10   934.4   120	φ3.0	60	10	φ30.4		
Diameter of   Incompanies   Extension   Sphere R   Oxiside diameter of corcover   Incompanies   In	Diameter of nozice gate   Estension   Sphere R   Oxistice diameter of nozice gate   15   66   10   934.4   120		Main spec o	f nozzle (P28	8)		
Note   State	Note   State					1 P	
## 15	## 15		Extension	Sphere R		. "	
### ### ### ### #### #################	### 120 120 120 120 120 120 120 120 120 120	φ1.5	60	10	φ34.4		Mold installation surface
### 25.5	### 23.5						120 120
Figetor Rod Eind Tap  Modd Open Stroke  Modd Thickness  Modd T	Ejector Rod End Tap   Mold Open Stroke   Mold Thickness   300   4410 Tap	φ2.5	60	10	φ34.4		
Firetor Start Road Attachment Tap  Firetor Start Road Attachment Tap	Signature   Sign	φ3.0	60	10	φ34.4		
		295		320 200 550 8-B	509.4	Ejector Strate Position  B A Unit Stroke  80  Ad Attachment Tap  Thu	250 Desth 40 - Desth 15 - Desth 1

Resin feed. Tap size for hopper

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