

## 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<sup>®</sup>

The injection and plasticizing apparatus using the V-LINE<sup>®</sup> 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.



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

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 <sup>*1, *2</sup>	MPa	220	285		175	235
Max. holding pressure <sup>*1, *2</sup>	MPa	176	228		140	188
Machine dimensions / Weight						
Machine dimensions (L x VV x H) mm	mm	3725 x 1155 x 1647				
Machine weight	kg	2900			3000	

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

## Dimensions & on Drawing

The technical drawings provide the following dimensions (in mm):

- Front View (Top):**
  - Total width: 3725
  - Distance from mold installation face to center: 1760
  - Distance from center to right edge: 1955
  - Right side offset: 280
  - Right side flange width: 10
  - Total height: 1155
  - Upper section height: 557.5
  - Lower section height: 597.5
- Side View (Left):**
  - Water supply inlet (IN) offset: 70
  - Water supply outlet (OUT) offset: 495
  - Water supply connection: Rc1/2
  - Height from base to top of main body: 1551.5
  - Height from base to top of control panel: 1419
  - Height from base to top of door: 1647
- Side View (Right):**
  - Height from base to bottom of main body: 139
  - Height from base to top of main body: 314
  - Distance from left edge to center: 575
  - Height from base to top of control panel: 1174
  - Height from base to top of door: 1492
  - Total height: 1600
- Mounting Layout Drawing:**
  - Distance between mounting holes: 755
  - Distance from mounting hole to center: 675
  - Center offset: 55
  - Total width: 1850
  - Height from base to mounting holes: 710
  - Mounting hole diameter:  $\varnothing 120$
  - Label: "Mold installation face"

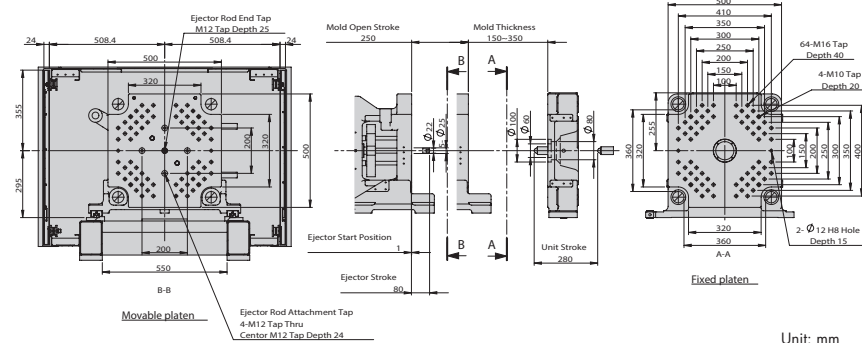
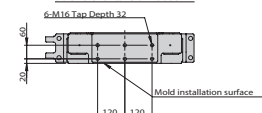
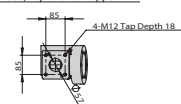
Unit: mm

## ■ Mold Installation Dimensions Drawing

Main spec of nozzle (P22)			
Diameter of nozzle gate	Extension	Sphere R	Outside diameter of cover
φ1.5	60	10	φ30.4
φ2.0	60	10	φ30.4
φ2.5	60	10	φ30.4
φ3.0	60	10	φ30.4

Main spec of nozzle (P28)			
Diameter of nozzle gate	Extension	Sphere R	Outside diameter of cover
φ1.5	60	10	φ34.4
φ2.0	60	10	φ34.4
φ2.5	60	10	φ34.4



Unit: mm

**Sodick Co.,Ltd.**

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