




eV-LINE MS Series Specifications

Model	MS50							MS100						MS200		
Product																
Clamping Unit																
Mold open / close system	AC servo motor control							AC servo motor control						Electric servo ball clamping method		
Clamping system	Double toggle							Double toggle						Double toggle		
Max. clamping force	kN	490					980					1,960				
Tie bar distance	mm	360 × 360					460 × 420					560 × 560				
Platen dimension	mm	500 × 500					640 × 610					720 × 720				
Open daylight (Min. mold thickness + Max. stroke)	mm	600					800					1,000				
Min./Max. mold thickness	mm	150 / 350					200 / 450					250 / 550				
Ejecting system	AC servo motor control							AC servo motor control						AC servo motor control		
Ejecting force / Ejection retention force	kN	20 / 9.3					20 / 9.3					37.0 / 18.5				
Ejector stroke	mm	80					80					120				
Plasticization unit																
Plasticization & injection system	Screw Pre-plasticizing						Screw Pre-plasticizing						Screw Pre-plasticizing			
Screw diameter	mm	22	25	28				28	32	40				40	50	
Plasticizing capacity GP-PS	kg/h	16	9	23	13	42	24	42	24	53	30	96	62	96	62	100
Rated screw torque ^{*1}	N·m	100	130	100	130	150	210	150	210	150	210	221	315	221	315	700
Max. screw revolution ^{*1}	rpm	400	200	400	200	400	200	400	200	400	200	400	200	400	200	200
Injection unit																
Plunger diameter	mm	22			28			28			40			40		50
Max. injection speed	mm/s	450	350	350	250	400	300	270	200	300	200	200	200	200	200	200
Max. injection pressure ^{*2&3}	MPa	220	285	175	235	215	285	160	215	200	275	200	275	200	275	200
Max. holding pressure ^{*2&3}	MPa	176	228	140	188	172	228	128	172	160	220	160	220	160	220	160
Injection rate	cm ³ /s	171	133	216	154	246	185	339	251	377	251	377	251	377	251	393
Theoretical injection volume	cm ³	53.2			98.5			98.5			251.3			251.3		392.7
Plunger stroke	mm	140			160			160			200			200		200
Number of temperature control zone		6			7			7			7			7		7
Heater capacity	kW	6.2	6.2	7.1	9.1	8.5	9.1	11.5	14.2	17.1	18.0	20.0	17.1	18.0	20.0	20.0
Nozzle pressing force	kN	6.8			15.7			15.7			19.6			19.6		25.4
Unit traveling stroke	mm	280					320					365				
Machine dimensions / Weight																
Machine dimensions (L x W x H) ^{*4}	mm	3725×1155×1647					4240×1215 ×1688		4240×1215 ×1748	4474×1215 ×1765		5353×1445×1918			5428×1445 ×1918	
Machine weight	kg	2900			3000		4000		4100	4300		8000		8200		8400

*1 The screw torque and maximum screw rotational speed are the output calculated values of the plasticization unit. The actual value may change depending on the resin and temperature.

*2 The maximum injection pressure and maximum holding pressure are theoretical values (calculated values) of the unit, and are not the actual pressure of the resin.

*3 The maximum injection pressure and maximum holding pressure may not be generated repeatedly depending on the duty of the injection motor.

*4 These machine dimensions exclude the projecting portions and the signal light.

* The above specification may change without prior notice.

■ Main Standard Accessories

Plasticization & Injection Unit
Wear and Corrosion Resistance (type-N)
High temperature heater (plasticization, injection), nozzle temperature control heater (60 to 420 °C)
Purge Cover (with Interlock)
Synchronous Heater TEMP Increase Function & Faulty Heater TEMP Increase (Heater Disconnection) Alarm Package
Under-hopper Independent Temperature Control Unit
Injection Setting Unit Selection Package (% or SI)
Pressure Retention Unit Selection Package (0.1s, 0.01s or 0.001s)
Injection Ejection Synchronized Multiple Tasks Package (gate cut system)
Injection Response Change (Injection 5, pressure retention 4)
PDT Setting (Pressure Drop Time)
IPPUK Molding
Measurement and Mold Open Synchronous Multi-function (When valve gate used)
Plunger Retention Function after Measurement
Check Valve for Holding Nozzle Touch Pressure
Load cell for injection pressure detection
Injection specifications (pressure/speed) selection
Plasticization specifications (torque/rotation) selection
Mold Clamping Ejection Unit
Vibration-isolating Level Pads
Ejector Ejecting synchronized Function While the Mold is Open
CR Setting Function (mold clamping depressurization after pressure retention)
Automatic Lubrication Unit
Control Units and Others
Ground-fault Interrupter (200mA)
Carbide Generation Prevention Function (alarm & automatic heat retention switching)
Traverse Pick-up Unit Connection Circuit
Wave Log
Forced Purge Function
Condition Change Disable Password
Case Counter (Signal Output is Optional)
Resin Stagnation Alarm (Compulsive Purge Operation Function)
Options
Plasticization & Injection Unit
Injection Unit Forward/Backward Speed Variable Specification
Cylinder Heat Retention Cover
ZJ Heater and ZH Heater Temperature Control Unit
450 °C heater (injection & plasticization units)
Mold Clamping Ejection Unit
Insulating Plate Thickness Options (5 or 10 mm)
Heat Resistance Options (200 or 400 °C)
Mold Ejector Plate Return Confirmation Connection Circuit & Metal Connector *1
Mold Slide Return Confirmation Connection Circuit & Metal Connector *1
Falling Sensor & Camera Monitoring System Connection Circuit (Terminal Block)
Platen Adaptor (Movable Platen) / 40mm Extendable Ejector Rod
Pickup During Mold Opening (During Mold Opening, Mold Opening Limit Signal Output)
Vacuum Draw Connection Circuit, Vacuum Draw Drive Unit, Vacuum Draw System
Specification with Motor Brake for Mold Open/Close
Hydraulic Core Tractor Drive Unit for Mold Open Drive (Select from 2/4 Channels)
Locating Ring Adapter
Increased mold open/close motor capacity for high cycle
Mold clamping tie-bar sensor

Control Units and Others
Tricolor Signal Light
External Receptacles *2A 200V30A①/200V20A③/100V10A②
External Receptacles *2ES (-B*3) 200V30A①/200V20A④
External Receptacles *2EL (-B*3) 200V30A①/200V20A④
External Receptacles N 100V10A①
Power Strip Type Receptacle (3m) 200V 30A (2) /200V 20A (2) Note: Connect to 30A receptacle
Ground-fault Interrupter for External Receptacles (30mA)
Case Counter Package (case changing signal & production complete signal terminals)
Automatic Alarm & Counter ON Package
Stop Timer Unit dedicated for Hydraulic Motor after Error Stop
Color (overall/for safety door only) Selection
Auxiliary Units 1.2.3 Abnormal tri-input stop signal
Water Unavailable, Air Unavailable Alarms
ETDL4-SMDL (USB Flight Recorder)
Logic I/O
Mold Internal Pressure Control Function (8 Channels)
Auxiliary Units
Mold Cooling Water Manifold (Select from 4/8 Channels)
Reverse Chute Connection Circuit
Reverse Chute Unit (Connection circuit, with main body)
Conveyor Start Position Contact Signal Connection Circuit (forward and reverse rotation commands)
Product Falling Chute
Core Rotation Signal Terminal Block
Core Rotation Power Unit
Pick-up Unit Base
Mold Heater Temperature Control Connection Circuit (2/4 kW x 2/3/4 circuit) Selection with Current Detection and Disconnection Alarm
Mold (Hot Runner) Temperature Monitoring Thermocouple Connection Circuit
Hot Runner Temperature Control Connection Circuit (2 kW/2 circuits)
Mold Thermocouple (non-grounded type) Select from $\phi 2.3/4.8 \times 2,000/3,000$ mm
Mold Thermocouple Holder (Select from $\phi 2.3/\phi 4.8$)
Hot Runner Valve Gate Signal (1 Contact Output)
Air Ejector Connection Circuit (Select from 1/2 Channels) (Terminal Block)
Hydraulic Core Tractor Connection Circuit & Drive Unit (Solenoid Valve) (Select from 1/2 Channels)
Pneumatic Core Tractor Connection Circuit & Drive Unit (Solenoid Valve) (Select from 1/2 Channels)
Machine Body Height Increase (100mm)
RJG Interface
Special Support
High Wear and Corrosion Resistance (type-S)
Optical Lens Specifications (Type 5)
Specification for Safety Standards of All Countries*4 (GB (China) / KCS (Korea) / USA)
Procurement Items from Other Venders
Mold Clamp (8 pieces/set)
Hopper (select from 7/20/40ℓ) (rotary)
Extendible ejector rod (1)
Cable for data logging
Grease cartridge LHL-X100-7 (700 cc)

*1: Terminal block is selectable *2: Receptacles made by American Denki Co., Ltd. are selectable

*3: (-B) (interlocking/non-interlocking batch switching type) *4: Standardly equipped for JIMS (Japan) specification