

Product images are for reference only and subject to change without notice.

Injection Unit	Unit	EM80-V	EM120-V	EM150-V	EM180-V	EM220-V	EM260-V	EM320-V	EM400-V	EM480-V	EM560-V
Swept Volume	cm ³	121 163 221	163 221 265	277 332 425	382 488 650	390 499 664	584 777 969	904 1128 1413	1216 1524 1866	1767 2164 2544	1767 2164 2544
Shot Weight (PS)	g	113 150 203	150 203 244	255 305 391	351 449 598	359 459 611	537 715 892	832 1038 1300	1119 1402 1717	1625 1990 2340	1625 1990 2340
	oz	4.0 5.3 7.2	5.3 7.2 8.6	9.0 10.8 13.8	12.4 15.8 21.1	12.7 16.2 21.6	18.9 25.2 31.4	29.3 36.6 45.9	39.5 49.5 60.6	57.3 70.2 82.5	57.3 70.2 82.5
Screw Diameter	mm	31 36 42	36 42 46	42 46 52	46 52 60	46 52 60	52 60 67	60 67 75	67 75 83	75 83 90	75 83 90
Injection Pressure (max.)	Kgf/cm ²	2101 1561 1142	1887 1387 1153	1938 1622 1265	2122 1663 1255	2337 1827 1367	2295 1724 1387	2224 1785 1428	2203 1765 1438	2132 1734 1479	2132 1734 1479
Screw L/D Ratio		22.7 19.6 16.9	23.3 20 18.2	21.9 20 17.7	22.6 20 17.3	22.6 20 17.3	24.2 21 18.8	23.5 21 18.8	23.8 21 19.2	23.2 21 19.4	23.2 21 19.4
Plasticizing Rate	g/s	6.6 10.8 15.9	12.7 17.3 22.3	20.1 24.1 33.0	18.7 23.9 31.8	18.7 23.9 31.8	31.7 43.2 59.1	39.6 54.2 71.7	49.3 68.6 84.0	71.7 92.4 119.6	71.7 92.4 119.6
Injection Rate	g/s	57 77 105	95 130 156	115 138 177	133 169 225	120 154 205	175 233 290	222 277 347	264 330 405	342 419 492	342 419 492
Injection Stroke	mm	160	160	200	230	235	275	320	345	400	400
Screw Rotation Speed (max.)	rpm	170	185	200	145	171	180	165	150	165	165
Clamping Unit											
Clamping Force (max.)	t	80	120	150	180	220	260	320	400	480	560
Opening Stroke	mm	320	340	410	460	490	530	600	670	770	835
Space Between Tie Bars (HxV)	mm x mm	355 x 300	410 x 360	455 x 425	505 x 500	560 x 560	580 x 580	660 x 660	730 x 730	810 x 810	855 x 855
Maximum Daylight	mm	640	720	860	960	1090	1130	1260	1420	1590	1685
Mould Thickness (Min-Max)	mm	130 - 320	145 - 380	160 - 450	180 - 500	195 - 600	195 - 600	220 - 660	250 - 750	275 - 820	330 - 850
Ejector Stroke	mm	80	100	100	130	130	180	180	215	250	250
Ejector Force (max.)	t	2.3	4.2	4.2	4.9	7.7	7.7	7.7	11.1	11.1	11.1
Power / Heating Unit											
System Pressure	Kgf/cm ²	148	178	178	178	178	178	178	178	178	178
Pump Motor	kW	7.5	11	15	18.5	18.5	30	30	37	45	45
Electrical Heating Power	kW	6.5	8.8	9.7	9.8	13.9	18.3	20	21.6	30	30
Temperature Control Zones		3 + Nozzle	3 + Nozzle	3 + Nozzle	4 + Nozzle	4 + Nozzle	5 + Nozzle	5 + Nozzle	5 + Nozzle	5 + Nozzle	5 + Nozzle
Others											
Dry Cycle Time	s	1.6	2.1	2.4	2.5	2.6	2.8	3.2	3.5	3.8	4.0
Oil Tank Capacity	liter	200	200	250	250	360	430	525	680	800	800
Machine Dimensions (LxWxH)	m x m x m	3.9 x 1.1 x 1.7	4.0 x 1.2 x 1.7	4.7 x 1.2 x 1.9	5.2 x 1.3 x 1.9	5.3 x 1.5 x 2.1	6.3 x 1.5 x 2.2	6.7 x 1.6 x 2.3	7.6 x 1.7 x 2.3	8.5 x 1.9 x 2.3	8.7 x 2.0 x 2.3
Machine Weight (approx.)	t	2.8	3.0	4.2	5.3	6.0	7.8	10.3	13.9	17.5	19.5

* The technical parameters above are for reference only and discrepancies may arise in different circumstances. The company keeps upgrading the products and reserves the right to change the product specifications and parameters without prior notice. The final interpretation to the specifications and parameters belongs to the company.

EASYMASTER V Series

Injection Moulding Machines from 80 tons to 560 tons

Your Precision Energy Saver



Hong Kong : (852) 2665 3222 Shenzhen : (86-755) 8413 9999 Shunde : (86-757) 2233 8666 Ningbo : (86-574) 8683 2888 Taiwan : (886-3) 452 2288
 website : www.chensong.com e-mail : marketing@chensong.com



201304



Hand in Hand with You for 50 Years

EASYMASTER V Series

The EASYMASTER V series injection moulding machine is one of the flagship products from the Chen Hsong Group. It combines half a century of expertise in machine design with industry-leading VDP energy saving technology into a highly efficient, energy-saving, high speed, high precision and rock-solid reliable package. The high-powered injection unit enables high injection speed for a wide range of applications. With special high speed screw design, it yields substantially better product quality while shortening the cycle time significantly. It provides easy solution for production efficiency and effectiveness.

1 Clamping Unit

- Tie bars are made of imported Japanese high tensile steel with a specially-hardened, chrome-plated surface; Diameter is lengthened to minimize wear-out and maximize durability
- Robust in-house manufactured ductile iron-casted platens guarantee durability and minimize platen deformation
- Multi-stage clamping speed and pressure control
- Automatic setting for high pressure clamping position
- Central electric fixed-dosage lubrication system
- Ejector speed and pressure adjustable and does not need to fully retract during vibration which shortens cycle time

2 Ai-02 Intelligent Networkable Computer Controller

With temperature and pressure transducer (optional), intelligent diagnostics and online assistant features, this high performance intelligent controller enables extremely precise and efficient process control.

3 Injection Unit

- Injection speed, pressure and holding in five levels
- PID barrel temperature control with auto-tuning and $\pm 1^{\circ}\text{C}$ accuracy
- High torque and high precision hydraulic motor with 99-step speed control for optimal melt environment
- Cold-prevention starting device with low temperature alarm to prevent damage of the injection unit caused by low temperature
- Decompression device to prevent nozzle from drooling

4 Cleanliness

- Equipped with a high-performance oil-filter, hydraulic oil is repeatedly filtered and cleaned during normal machine operation. It reaches NAS8 (USA) standard, which means the oil can be cleaner than new oil. This greatly enhances the useable life of hydraulic system.
- Noise is also minimized during operation

5 Exclusive Circular Platen (Patent)

- Even distribution of pressure improves production stability and quality
- Effectively release stress concentration on mould, which lengthens mould life



Product images are for reference only and subject to change without notice.

Energy-saving Device

The optimal hydraulics employs a load-sensitive VDP (Variable Displacement Pump) with lightning-fast response to deliver appropriate amount of power according to the actual requirements of the process, while guaranteeing superb repeatability. Compared with ordinary fixed-pump system, VDP technology has no energy loss due to the draining of excess hydraulic fluid, which results in electricity saving of 30-50%*.



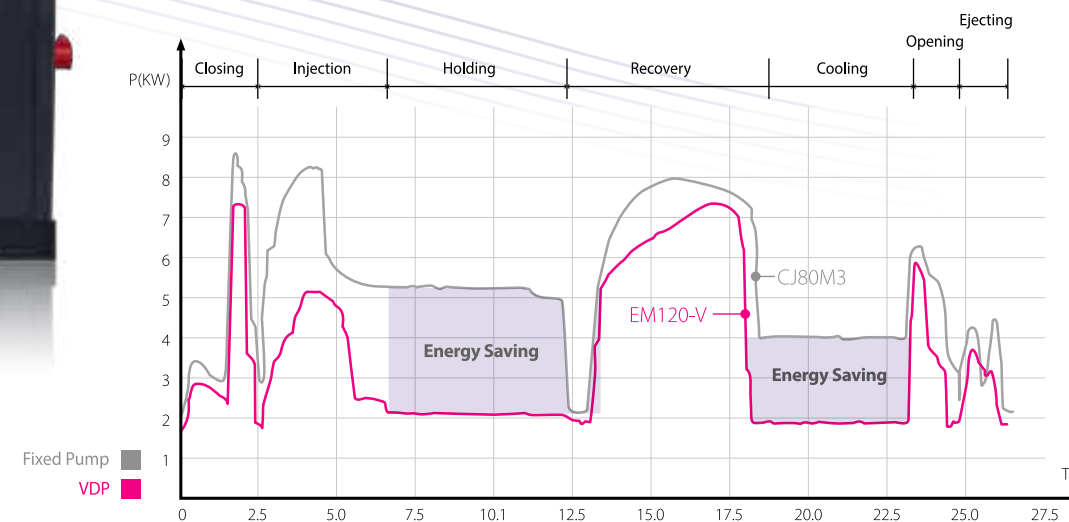
As the heat generated in the hydraulic system is minimized while keeping stable temperature control, cooling water can also be reduced by 33% or more*. Thus, the EM-V series can achieve cost savings in more ways than one.

Energy-Saving test

Resin : PC

Model	Pump	Cycle Time (s)	Injection Holding Time (s)	Time for Test (h)	Electricity Consumption (kWh)	Consumption %	Energy Saving %
CJ80M3	Fixed Pump	26s	10s	7.2	73.22	100%	-
EM120-V	VDP	26s	10s	7.2	40.67	55.5%	44.5%

* Subject to different product applications and cycle times.



Ai-02 Intelligent Networkable Computer Controller

The Ai-02 is a high-performance intelligent controller designed and developed by Japan and fully passed the JIS standards. Supported by the latest SMT technology, it maintains greatly stability and reliability. Data can be retained over five years without external power supply. Multi-lingual interface for free switch, easy for study and operation.



Hot-runner Temperature Control (mould temperature control - optional)

Integrated control of up to 40 high precision ($\pm 1^{\circ}\text{C}$) auxiliary temperature control modules, with alarm and automatic stop when unusual moulding temperature detected thus guarantees product quality

Online Monitoring PLC Steps

Chen Hsong is the pioneer in adapting open programming platforms for all its computer controllers. All PLC programming can be monitored online in real-time. This feature is crucial for maintenance and trouble-shooting that greatly shortens machine down time

Intelligent Maintenance Reminder

The controller records the last machine maintenance schedule. Reminder will be given for next maintenance checkup to ensure each machine is being maintained in optimal condition

