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Stock Code: 300415

Designed by Yizumi, September 2022

YIZUMI伊之密

HM

High-performance Hot Chamber
Die Casting Machine
HM Series / HM-M Series

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1. YIZUMI reserves the right to modify the product description in the catalogue. Specification might be changed without prior notice.
2. The picture in the catalogue is for reference only. The real object should be considered as final.
3. The data in the catalogue is obtained from internal testing in YIZUMI laboratory.
Please refer to the actual machine for the final data. YIZUMI reserves the right of final interpretation upon disputes and ambiguities.



HM Series Hot Chamber Die Casting Machine (For Zinc Alloy)

HM series hot chamber die casting machine focuses on high-quality production, which has become the most efficient machine in YIZUMI hot chamber series. It has been widely applied in 3C, bathroom, clothes, hardware and house furnishing fields.

Three Most Valuable Advantages

Outstanding performance

1/Better Performance

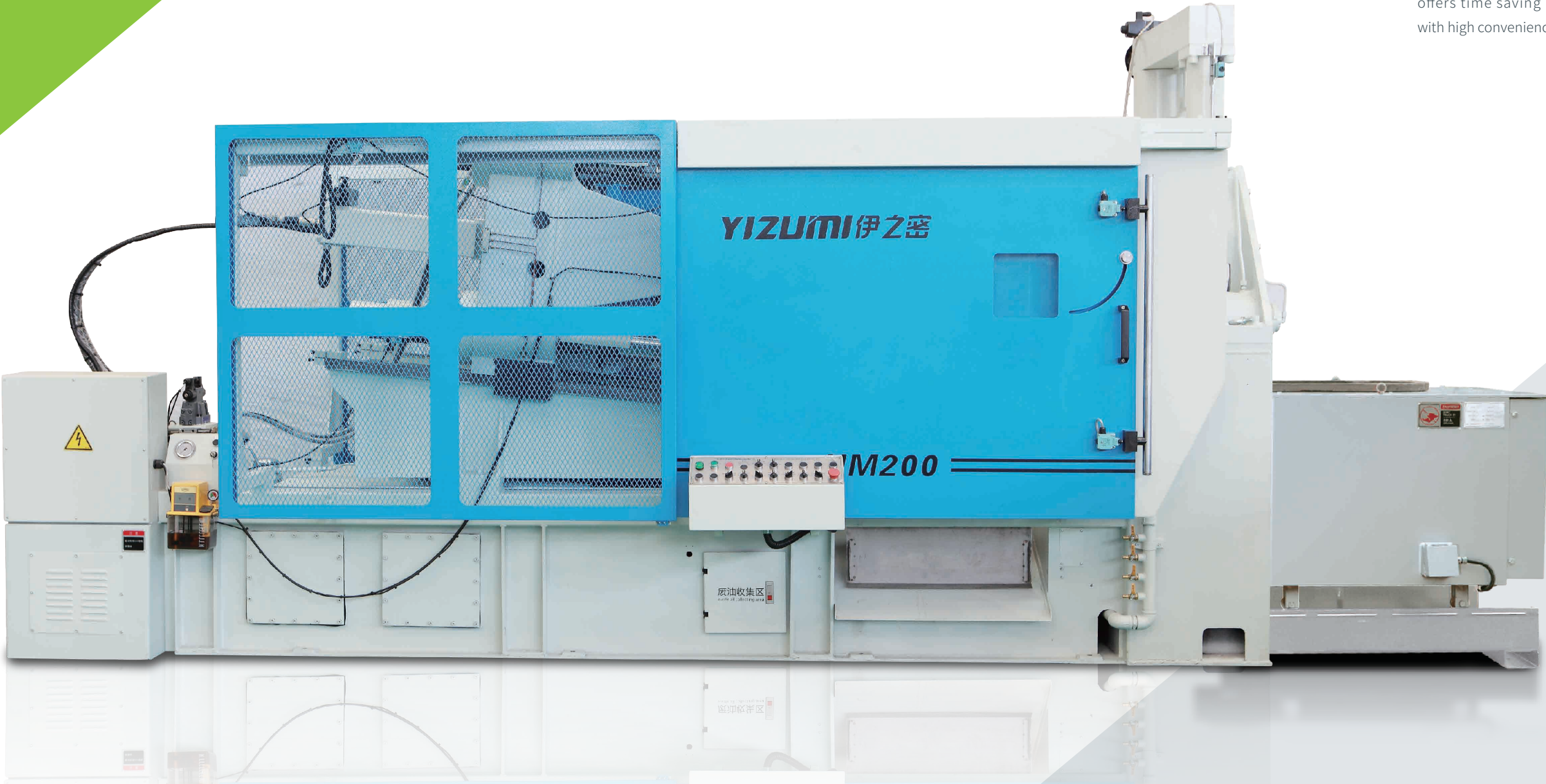
100% focus on high quality production. An optimized injection system ensures an accurate and stable injection process.

2/More Efficient

The YIZUMI high speed toggle system provides highest manufacturing productivity with shortest cycle times.

3/Easier Operation

Siemens PLC control system with the high-end human-machine-interface offers time saving process setting with high convenience and flexibility.



Better Performance

Ensuring a highly efficient, accurate and stable injection process.



High Efficiency

► Fast Sensitive Control

Dry injection speed $\geq 5\text{m/s}$, pressure and flow are controlled by a proportional valve and parameters can be set on the screen to save time in process setting.

► Automatic Sprayer

Reliable and durable automatic sprayer ensures fast and stable production.

High Precision

► Highly Precise Injection

The optimized injection system with two stage injection control is suitable for high-quality productions.

► Highly Precise Clamping

High precision imported stroke transducer allows for precise and repeatable opening and closing.

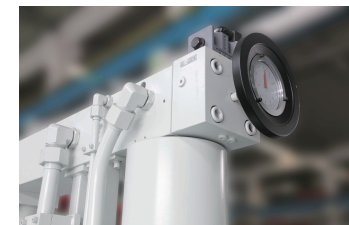
Stable Performance

► Advanced Electronic Heating System

Equipped with advanced nozzle/gooseneck heating control system.

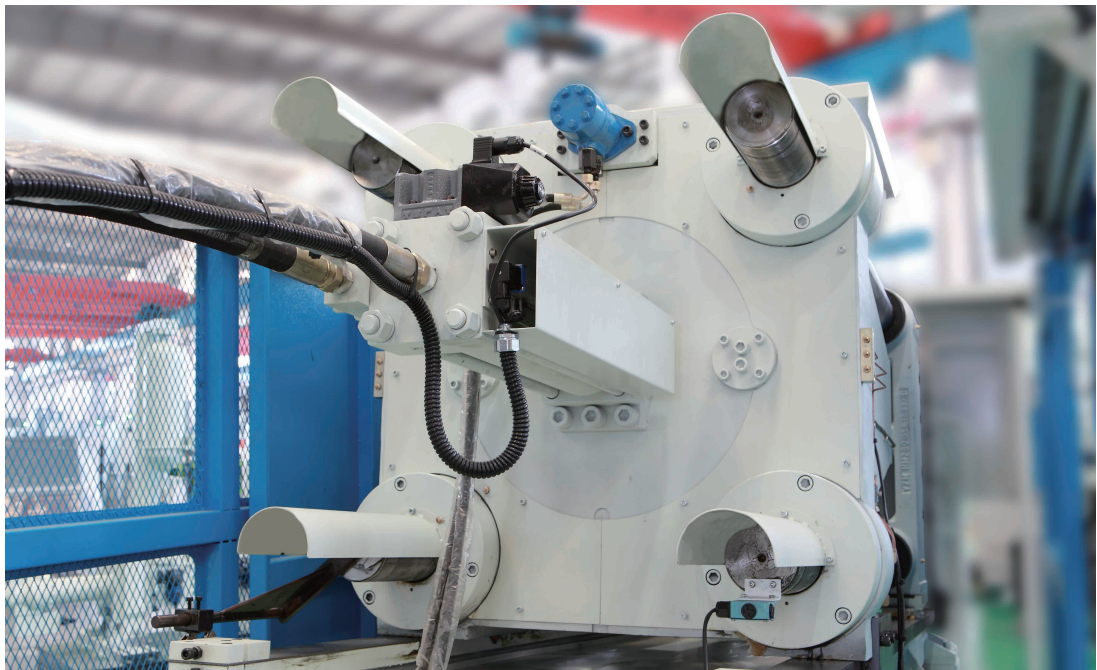
► Burner

Energy-saving system with smart controller and world-class burner, offers stable heating and easy adjustment functions.



Higher Efficiency

Stable high-speed clamping offers higher production efficiency.



► Vickers' hydraulic components ensure stable and productive operation.



► High-speed Clamping

Optional high-speed clamping system shortens cycle times to reach a higher OEE in the casting production.



► Stable Clamping

Enhanced ductile cast iron platen with highest rigidity protects the die casting die and reduces flash.
Chromium plated high strength steel tie bars with extended service life.

Easier to operate

Easy to understand operator panel.



► Powerful automatic alarm system provides quick trouble-shooting support.

The control screen is equipped with a safety interlock. Further features include functions such as fault diagnostics and display and production management, and data storage increasing operational efficiency.



► Visual setting and operation interface

Smart PLC control system with intelligent human - machine interface offers fast and time saving process setting. Convenient "on-screen" programming of a large variety of functions further enhances operation.

Specifications— HM Series

Item		Unit	HM90			HM160			HM200			HM280			HM400		
Clamping Force		kN	900			1600			2000			2800			4000		
Clamping Stroke		mm	280			350			400			460			550		
Space Between Tie Bars		mm	357×357			459×459			510.6×510.6			560×560			650×650		
Ejection Force		kN	50			108			108			158			180		
Ejection Stroke		mm	60			85			100			100			120		
Mold Height (Min.- Max.)		mm	150-360			205-505			250-550			250-650			300-750		
Platen Size (H×V)		mm	535x545			672x667			740x740			860x860			960x960		
Injection Position		mm	0			0,-80			0,-100			0,-125			0,-125		
Injection Force		kN	65			108			130			158			182		
Injection Stroke		mm	130			150			175			200			230		
Disengage Stroke		mm	190			200			200			200			340		
Injection Plunger Diameter		mm	45	50	55	60	65	70	60	65	70	70	80	70	80	90	
Shot Weight		kg(Zn)	1	1.26	1.53	2.1	2.5	2.86	2.5	2.9	3.3	3.8	5	4.4	5.7	7.2	
Injecting Pressure		Mpa	40.8	33.1	27.3	38.2	32.5	28	46	39.1	33.7	41	31.4	47.3	36.2	28.6	
System Working Pressure		Mpa	10.5			14			14			14			14		
Crucible Capacity		dm3 (kg/zn)	50(330)			55(360)			110(720)			110(720)			200(1350)		
Motor Capacity		KW	11			15			15			18.5			22		
Furnace	Fuel	Kg/H	4.8			4.8			6.3			6.3			11.2		
	Electricity	KW	30			42			65			65			90		
Oil Tank Capacity		L	250			300			400			500			800		
Nozzle Heating Power		KW	2			2.5			4			5			5		
Dry Cycle Time		S	≤5.0			≤6.0			≤7.0			≤7.0			≤8.0		
Referential Machine Weight For Uplifting		kg	4000			6150			7900			11000			17800		
Machine Dimension (L×W×H)		mm (LXEXH)	4370x1620 x2120			5550x1630 x2580			5950x1750 x2600			6500x1850 x2650			7500x2250 x2950		

Option Remark:The Data above were acquired by testing in the factory, only for your reference. The specific data please accord to the actual equipment.

Standard & Optional Features — HM Series

ITEMS	HM90	HM160	HM200	HM280	HM400
Cooling water on fixed platen	●	●	●	●	●
Auto spray nozzle 1 set	●	○	○	○	○
Knocking cylinder	●	○	○	○	○
Core 1 set	●	●	●	●	●
Extra core pulling device	○	○	○	○	○
Core limit switch 2 sets	●	●	●	●	●
“0” Injection position	●	●	●	●	●
Special injection position	○	○	○	○	○
Hydraulic lifter (shot position)	○	●	●	●	●
Electrical safety door (front)	○	○	●	●	●
Electrical safety door (back)	○	○	○	○	○
Diesel Burner	●	●	●	●	●
Gas Burner	○	○	○	○	○
Electric melting furnace	○	○	○	○	○
Clamping force display	○	○	○	○	○
Automatic die change device	○	○	○	○	○
Shot curve display and monitor	○	○	○	○	○

“●” Standard; “○” Optional

HM-M Series Hot Chamber Die Casting Machine (For Magnesium)

HM200M - HM400M

High efficiency production solution for precision thin-wall magnesium alloy parts.

For many years now YIZUMI provides the casting industry with highly productive Mg-Hot-Chamber-Casting solutions.

- An enhanced hydraulic control system ensures stable production with minimum reject.
- With the use of a well proven electronic control system we ensure highest operational reliability
- An optimized HMI ensures easy and time saving programming for the operators.
- Enhancements on the toggle geometry as well as the sprue-break-cylinder increased productivity & cycle time.

► Application Fields

HM-M Series Hot Chamber Magnesium Alloy Die Casting Machine is suitable for the production processes of precise and complex magnesium alloy die cast parts.
Its main application lies in extra thin-wall magnesium alloy parts (wall thickness < 1mm), such as mobile phone cases, tablet computers and other 3C product applications



HM-M Series offers international technology solutions for competitive Magnesium Alloy Die Casting



► **Higher Efficiency**
A clamping system up to 10% faster than comparable machines offers productivity benefits to our customers.



► **Accurate Control**
A high-quality and low-noise hydraulic pump, offers increased machine performance while reducing energy consumption. Pressure and flow are controlled by a proportional valve; the parameters can be set on the screen which improves accuracy.



► **Higher Stability**
Enhanced ductile cast iron platen with highest rigidity protects the die casting die and reduces flash



► **Unique Design of Accumulate System**
A highly stable high- capacity accumulator system with wide cross sections ensures a highly stable and repeatable injection performance.



► **High Configuration**
Equipped with automatic safety gate which is fast, accurate and stable.



► **Optimized human-machine integration**
Our well structured and easy to understand operator panel eases operation of the HM machine and enhances overall productivity.

Specifications — HM-M Series

ITEMS	UNIT	HM200M		HM280M		HM400M	
Locking Force	kN	2000		2800		4000	
Locking Stroke	mm	400		460		550	
Space Between Tie Bars	mm	510×510		560×560		650.6×650.6	
Ejection Force	kN	108		158		180	
Ejection Stroke	mm	100		100		120	
Mold Height (Min. – Max.)	mm	250-550		250-650		300-750	
Platen Size (H×V)	mm	740×740		860×860		1000×1000	
Injection Force	kN	130		158		185	
Injection Stroke	mm	175		230		230	
Injection Plunger Diameter	mm	70	80	70	80	80	90
Injection Weight (Mg)	dm³	437	571	575	751	756	950
Casting Pressure	Mpa	33.7	25.8	41	31.4	36.8	29
Casting Area	cm³	473	618	545	712	868	1103
Injection Position	mm	0, –100		0, -125		0, -125	
Disengagement Stroke	mm	275		340		340	
Motor Capacity	kW	15		18.5		22	
System Working Pressure	Mpa	14		14		14	
Oil Tank Capacity	L	400		500		800	
Dry Cycle Time	s	≤7.0		≤7.0		≤8.0	
Referential Machine Weight For Uplifting	kg	7800		11000		17800	
Machine Dimension (L×W×H)	mm	5550×1630×2580		6500×1850×2650		7500×2250×2950	

Remark: magnesium alloy furnace parts, hot wearing parts (sleeve, nozzle body) and heating system etc. are not standard components of magnesium alloy hot chamber die casting machine. User will need to purchase these parts when needed.

Option

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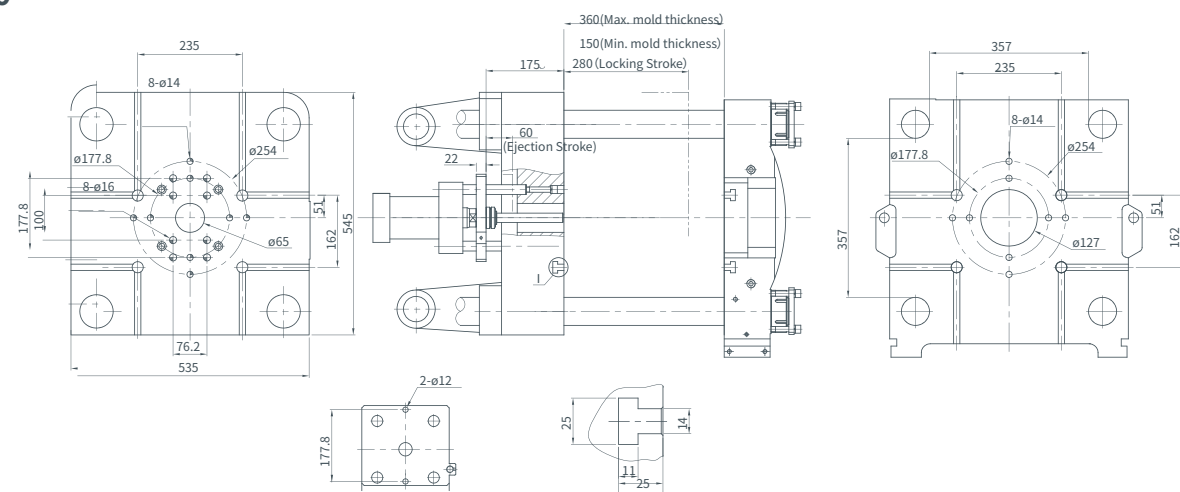
Standard & Optional Features — HM-M Series

ITEMS	HM200M	HM280M	HM400M
Multi-stage pressure and speed die close control	●	●	●
Low-pressure die close protection function	●	●	●
Central electric lubrication device	●	●	●
Gear Hydraulic Die Height	●	●	●
PLC and Touch Screen	●	●	●
Independent Electric Cabinet	●	●	●
Movable control console	●	●	●
Electric Safety Door (front)	●	●	●
Hydraulic Disengagement	●	●	●
Hydraulic Lifter (Two injection positions)	●	●	●
Hydraulic Ejector	●	●	●
Hydraulic Core Pulling 1 Set	●	●	●
Clamping force display	○	○	○
Automatic die change device	○	○	○
Injection monitoring and curve display	○	○	○

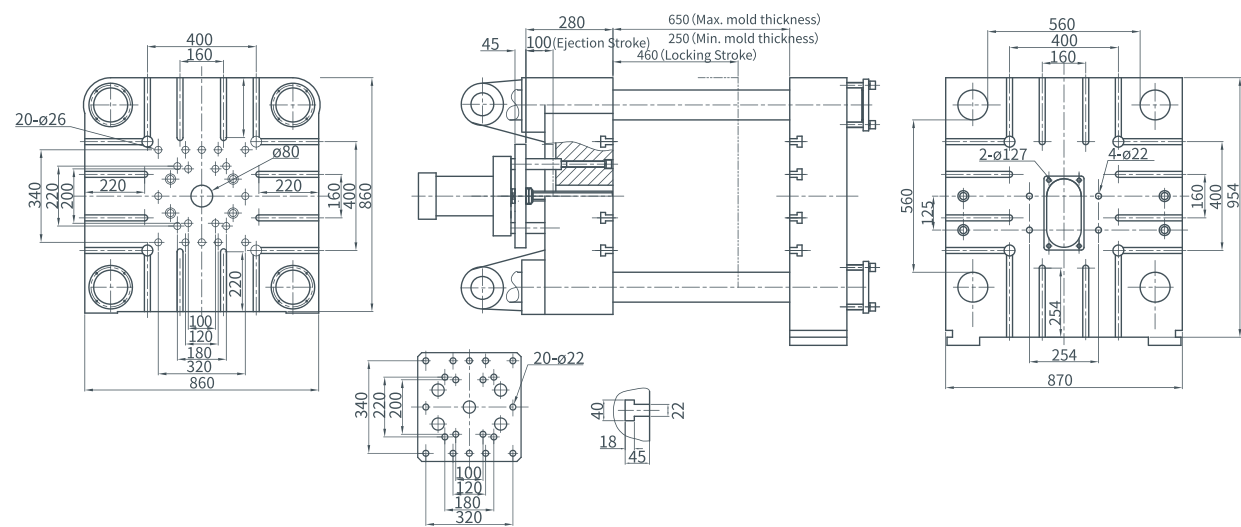
“●” Standard; “○” Optional

Platen Dimensions & Layout — HM(M) Series

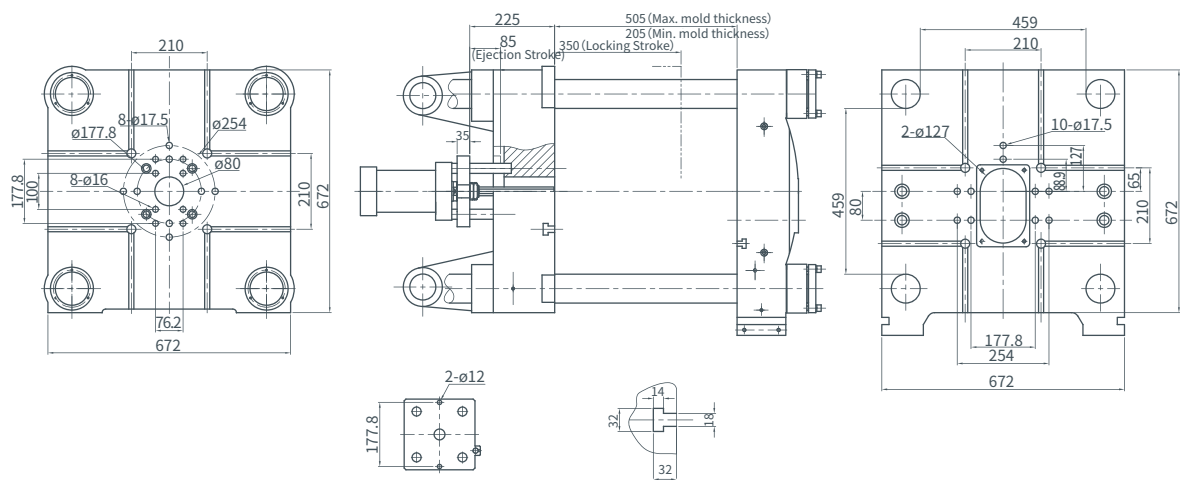
HM90



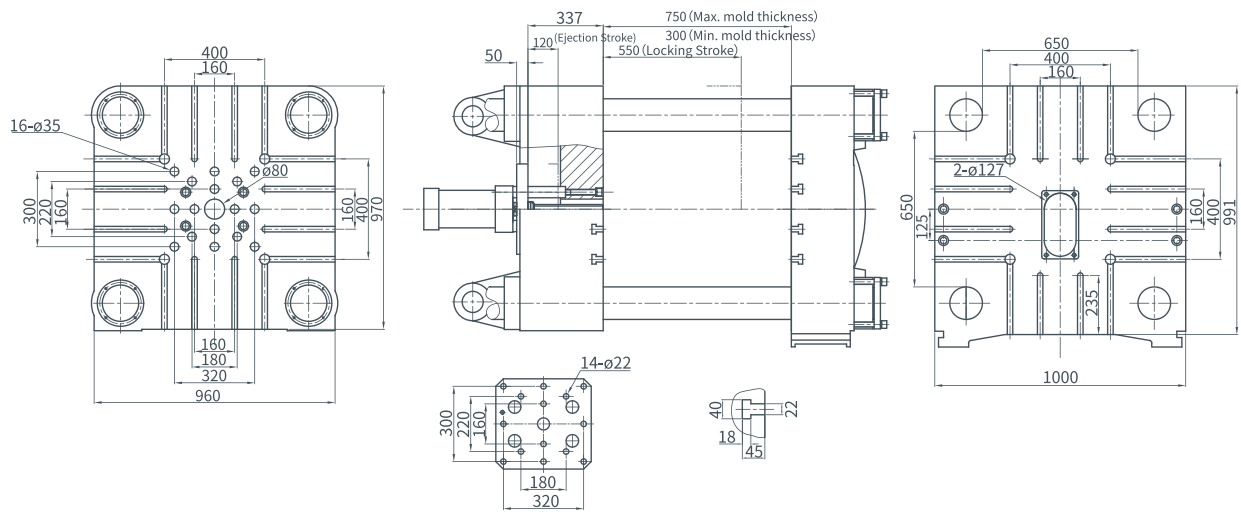
HM280(M)



HM160



HM400(M)



HM200(M)

