

**HISHINUMA**  
DIE CASTING MACHINE

**Zinc**  
**Parting Injection**  
**Hot Chamber Type**  
**Die Casting Machine**

# U Series

**U2/W/PLUS**  
**U4**  
**U20**  
**U30**

*U Series HOT CHAMBER DIE CASTING MACHINE*



# U2



# U20

**U Series**

[ Parting Injection Hot chamber Type Diecasting Machine <sup>ZINC</sup> : U Series ]

## SPRUELESS PARTING INJECTION HOT CHAMBER TYPE DIE CASTING MACHINE

High cycle and super precision Die Casting Machine U2 has renewed the image of old small type Zn Die Casting Machine. It has unique die locking layout and injection system resulting in realized high Productivity. This small type hydraulic die casting machine is most suitable to casting for the super precision parts and electric parts. The die open/die close times have been reduced due to the shorter stroke required with the Sprueless system. Directinjection of metal at the parting line reduced areas for air entrapment resulting in small injection amount per shot. By small size designed machine, possible to install the machine in half space currently in use.

Die installation has become easier due to small die and it needs only small amount of Water of spray and cooling.

**【U2 System Composition.】**

**■INJECTION**

By equipped Injection logic valve and exclusive accumulator on the same manifold, it makes improve and stability for Injection performance.  
It made possible easily adjustment injection speed/injection pressure.  
Standard equipped pressure gauge and safety valve.

**■DIE LOCKING**

Compact type die locking system is manufactured precisely and quenching with tie bar and bushing. Possible to operate by minimum stroke for the production by die locking stroke control system. Standard equipped electric centralized lubrication device.

**■NOZZLE TOUCH**

By Nozzle Touch Hydraulic Clamp system, movement of DIE LOCKING UNIT has become easier and it makes machine more productivity and easy maintenance

**■MELTING SYSTEM**

By Electric heater system with Melting furnace and nozzle heating, it makes clean working environment.

**■ELECTRIC CONTRO**

Standard equipped Sequencer Control system and Liquid Crystal color display touch panel.



**U20【U-Twenty】**

The latest Model U20 Die Casting Machine has the capacity to hold dies up to 200×215mm  
In size, allowing for the production of High Precision "Optical Base" components and mobile Phone parts, which were not possible on the smaller U2 Die Casting Machine. By incorporating the Double Toggle System, die changes and ejector rod connecting has become easier.

**Comparison of current type Die Casting Machine and Parting Injection type Die Casting Machine**



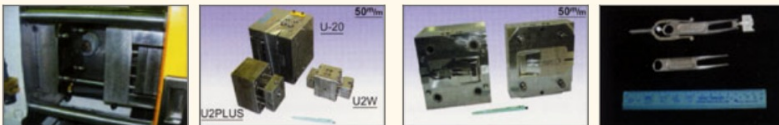
**DIE CASTING MACHINE(25t)**  
1cavity/shot : 13sec/shot  
Casting weight : 24.20g  
Scrap weight : 60.87g



**Parting Injection (U20)**  
1cavity/shot : 5sec/shot 260% UP  
Casting weight : 24.263g 0.03% UP  
Scrap weight : 20.8g 65.8% Reduce

**【U20 system Composition.】**

- Direct injection of metal at the parting line reduces areas for air entrapment resulting in better metal flow to the cavities.
- The die open/die close times have been reduced due to the shorter stroke required with the Sprueless System.
- With the Parting Line Injection system, less metal is required due to the lack of a sprue, which in turn lowers re-melt costs.
- With the shorter cycle times required by the U20 machine, this machine is capable of running twice as fast as a conventional 25ton machine.

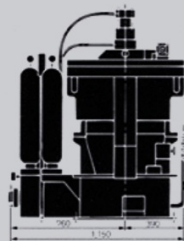
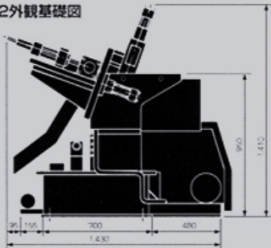


# ●Technical Data

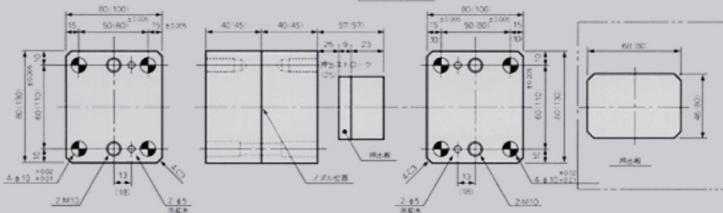
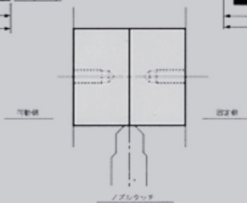
Specification.	Unit	U2W	U2 PLUS
Locking force	kN	40	50
Die Stroke	mm	25~75 (possible to adjust it)	
Dry Cycle	Sec.	1.5	
Injection Force	kg	950	1170
Plunger Stroke	mm	60	
Injection Plunger Diameter	mm	Φ20	Φ25
Specific Injection Pressure	kg/cm <sup>2</sup>	303	235
Melting Pot Capacity	kg	90	
Ejector Force	kg	480	750
Ejector Stroke	mm	15	25
Clamp Force	kg	1035	
Die Clamp Stroke	mm	150	
Normal Pressure	kg/cm <sup>2</sup>	60	
Hydraulic Oil Capacity	l	90	
Electric Power		3Ph 200V 26KVA	
Motor Capacity		3Ph 200V 3.7kw/6P	
Electric Furnace		3Ph 200V 10kw	
Nozzle Heater		1Ph 200V 750W	
Control Box	mm	W700×L500×H1100	
Weight of Machine	ton	1.7	

# U2

## ●U2外觀基礎圖

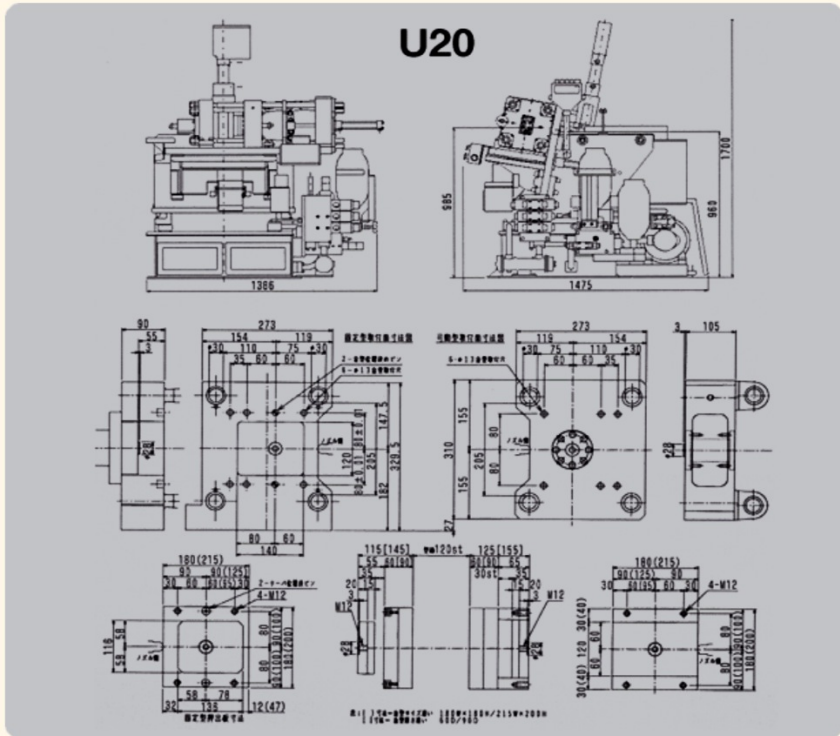


## ●U2W(U2 PLUS)金型



●Technical Data

Specification.	Unit	U20
Locking force	kN	200
Size of mold	mm	180×180 200×215
Space between tie bars	mm	205×185
Die stroke	mm	120
Die height (Fixed die thick:90mm)	mm	120~215mm (Max.245)
Ejector force	kN	13.8
Ejector Stroke	mm	30
Core puller cylinder force	kN	13.8
Core puller cylinder stroke	mm	20
Nozzle touch force	kN	5.6×2
Nozzle Touch Stroke	mm	150
Injection force	kN	17.5
Injection Stroke	mm	60
Injection plunger diameter	mm	Φ25/Φ30
Casting pressure	MPa	37/25.7
Casting area (Casting Efficiency100%)	cm <sup>2</sup>	41/59.1
Maximum shot weight (Casting Efficiency75%)	g	148/213
weight of Machine	ton	2.5



**HISHINUMA**  
DIE CASTING MACHINE

**MAGNESIUM**  
PARTING  
INJECTION  
HOT CHAMBER  
DIE CASTING  
MACHINE

# UMG 30

Magnesium HOT CHAMBER DIE CASTING MACHINE



## UMG 30 MAGNESIUM PARTING INJECTION HOT CHAMBER DIE CASTING MACHINE

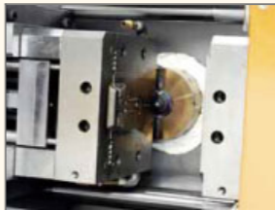
The latest Model **UMG30** Magnesium die casting machine has the capability of holding dies up to 290mm×245mm in size. Moreover, this machine also incorporates the newly developed parting line injection system which helps cast better quality parts while decreasing cycle times.

### 【Machine equipment.】



#### ■ Heating efficiency injection

Provides straight flow of metal into the Die. Electrical heating system improves heat and casting efficiency.



#### ■ Parting line injection

Direct injection of metal at the parting line provides high quality sprueless castings while reducing production cost.



#### ■ Furnace/Airproof lid

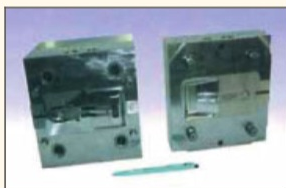
High performance airproof lid for the melting pot - SF6 gas alternative is also available.





### ■Toggle system

A shorter die-open stroke and a high efficiency toggle system allows for high speed cycles for higher volume of parts.



### ■Dies

Dies up to 290mm and 245mm can be mounted, furthermore, slide function is available. The Ejection Coupling Unit can be worked on or replaced very easily.



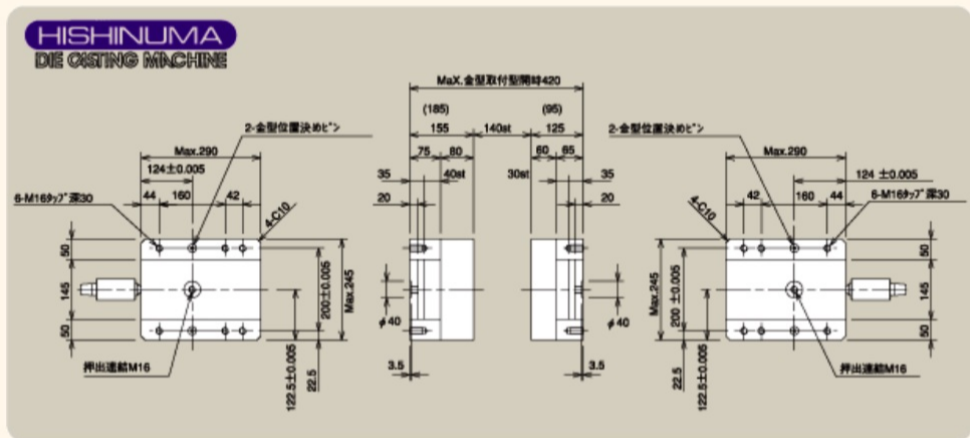
### ■Extracting device (Option)

Accurate detecting and handling of the casting reduces possible damage to both the die and casting.

### ●Technical Data

Locking force	350kN
Size of mold	290×245mm
Space between tie bars	250×250mm
Die stroke	140mm
Die height (Fixed die thick:155mm)	180~265mm
Fixed die ejector force	22kN
Fixed die ejector stroke	40mm
(Moved die ejector force) :Option	(19kN)
(Moved die ejector stroke) :Option	(30mm)
Nozzle touch force	5.7kN×2

Nozzle touch stroke	150mm
Injection force	21.8~28.6kN
Injection stroke	60mm
Injection plunger diameter	30mm
Casting pressure	30.8~40.5MPa
Casting area (Casting Efficiency100%)	113.6~86.5cm <sup>2</sup>
Maximum shot weight (Casting Efficiency65%)	50g
Adjust hydraulic pressure (Injection side)	8.0~10.5MPa
Machine size	W1800×L2000×H2000
Weight of machine	3.0ton



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