

UBE GLOBAL NETWORK

With Japan as our headquarters, we contribute to our customers' globalization with a four-forked system covering Asia, North America and Europe.



Large Size die casting machine Lineup



Hydraulic die casting machine : UB-iV Series
(1250, 1650, 2250, 2500, 2800, 3050, 3550, 4000, 4500)



Two platen hybrid die casting machine : UH Series
(1250, 1650, 2250, 2500)

UB-iS3 Series

Energy Saving Die Casting Machine

UB530iS3
UB670iS3
UB850iS3
UB1100iS3
UB1300iS3

High Performance Machine with Servo Pump "UB-iS3" achieve tremendous Energy Saving

Premium New Model UB-iS3



New
Technologies



Control & Monitoring
New HMI
Cast Navi 3G
15 inch touch screen



Clamp Unit
Highly Rigid
Die Clamping Unit
New Center Press Platen



Energy Savings

Servo Motor for the main pump with idling stop & Rotation Speed Control



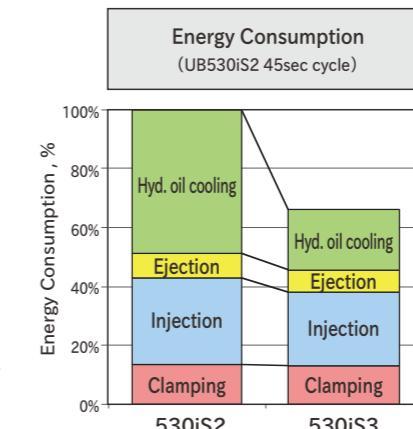
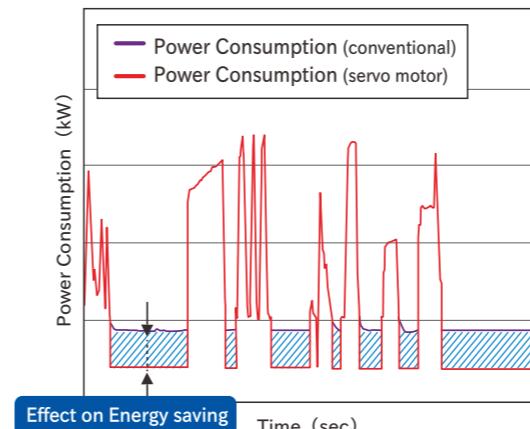
Shot Control
High Performance
Shot Control
(S-DDV II)



CAE Support
Linkage function with CAE
CastTrend → ADSTEFAN

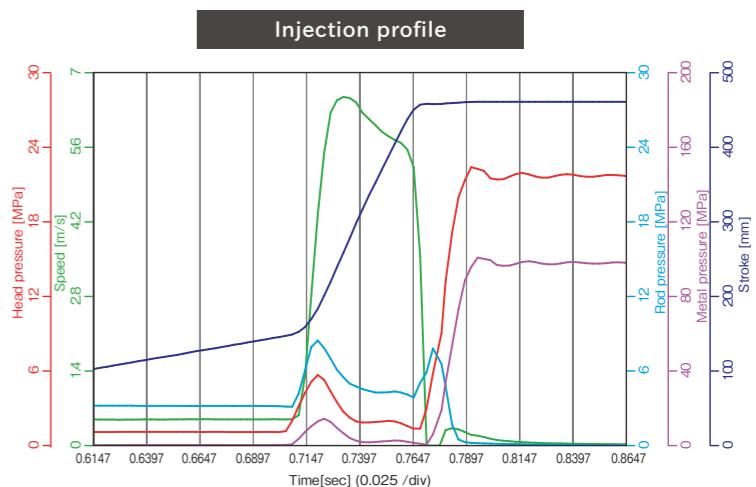
High Performance Machine with Servo Pump as standard feature

- Servo motor for the main pump with " Idling Stop" & " Rotational Speed Control" is equipped as standard and it achieves tremendous energy saving.
- Contribute to production cost reduction by stopping motor during machine idling.



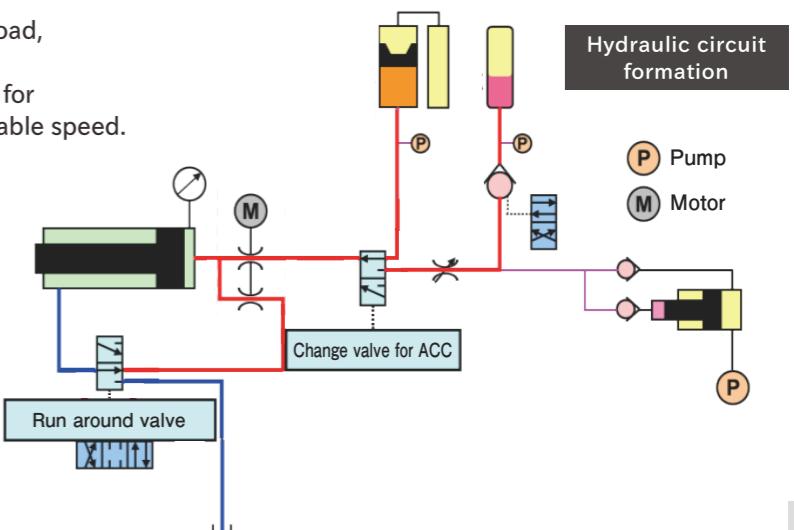
High Performance Injection Unit

- UBE's specialized shot circuit realizes fast shot speed of 8m/sec as standard. (Dry shot 0.02m/s ~ 8m/s)
- Improvement of tracking, acceleration & braking capabilities for shot speed.
- Intensification time: 10msec.
- Setting for the change position for intensification is at any point, or it enables to set automatic by monitoring pressure.



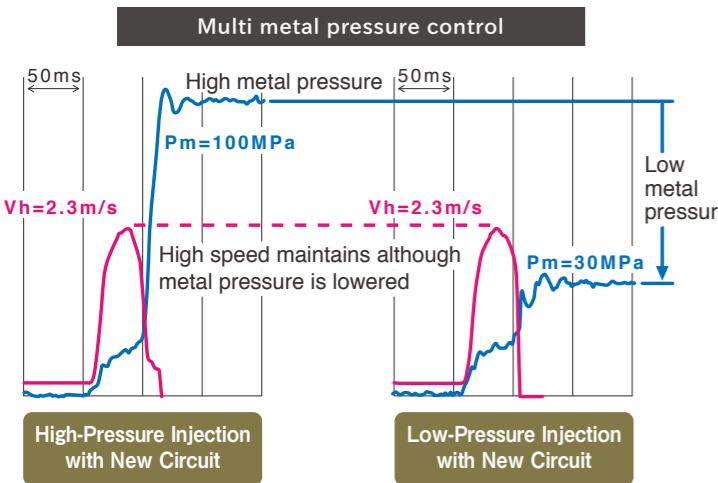
Meter in - Meter out Circuit

- Metre in, which provides pressure equipment to the load, and meter-out, which is effective at stabilizing speed, are both incorporated in a meter-in/meter-out circuit for using the advantages of each mechanism to obtain stable speed.
- Shockless start is also realized to prevent air intake of the molten metal.



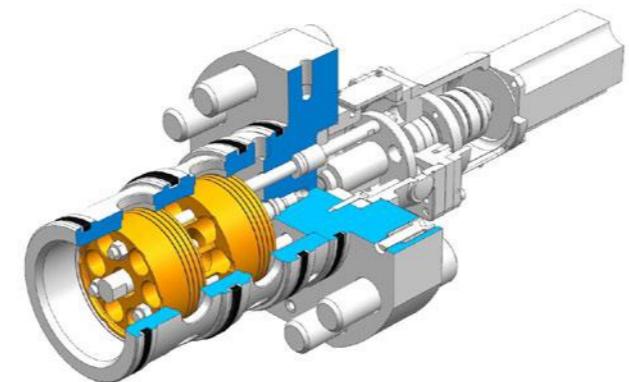
Multi Metal Pressure Control

- UBE developed its own exclusive runaround circuit and double accumulator system(built-in dedicated pressurizing accumulator) for maintaining stable and high-speed injection performance while achieving casting pressure control over the wide range from 30% to full gas discharge or re-charge.
- Low metal pressure injection enables casting in larger sizes.
- The reduced metal pressure promotes longer die life.



Electric Servo Valve (S-DDV II)

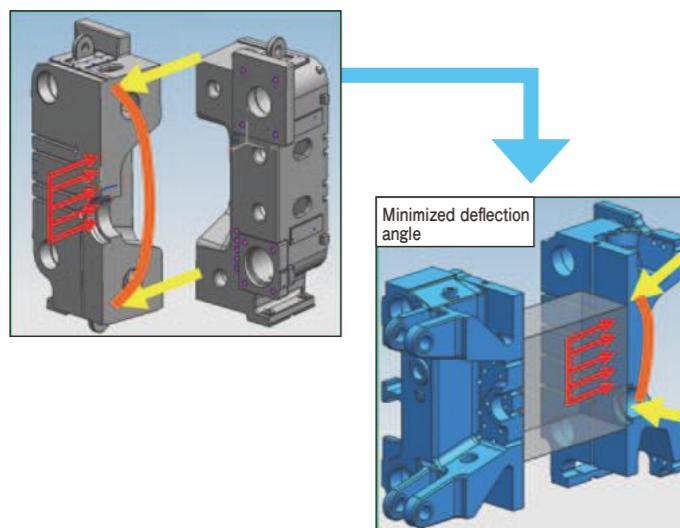
- New servo-controlled direct-drive valve(S-DDV II) enables to control multi shot speed(10 points parameter setting).
- Real time feed back control enables to obtain accurate shot-speed repeatability and shot stability.



Highly Rigid Clamping Unit

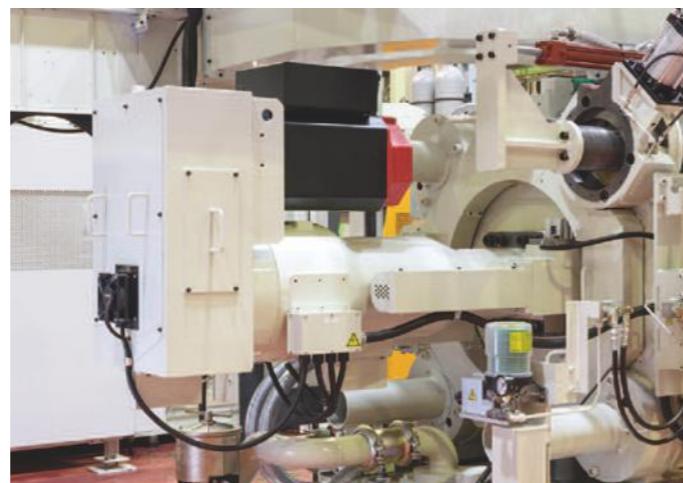
- High level CAE analysis and optimum shape design reduce the unnecessary body and achieve high rigidity.
- With new center press technology, an equal clamping force is distributed through out the die, and it reduces flash, exert an effect on low pressure casting & reducing clamping force.

NEO MUSCLE Design Platen Structure



Electric Die Clamp Cylinder (Option)

- Electric die clamp cylinder achieves shorten cycle time.
- Improvement of accuracy for die open- close.
- Enable to set die open limit position and open- close speed at any point.
- Contribution to reduce spray time and spray liquid consumption.
- Enables to overlap actions during die open- close.



New HMI "CastNavi 3G"

Shot parameter setting screen



- Enables multi speed control with 10-points parameter setting function.
- Enables to indicate actual value displaying setting value.

Machine monitor display



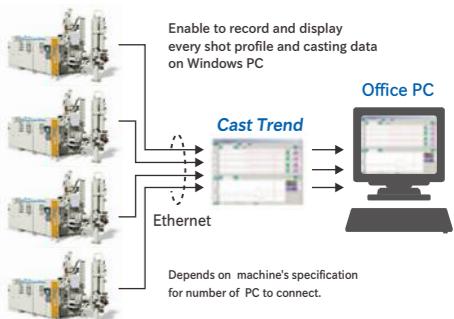
- Displays machine status with graphics and enables to recognize the condition at a glance.

Large casting data storage



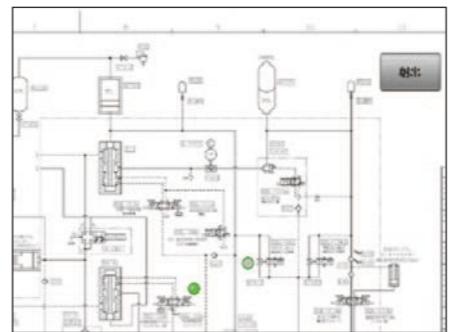
- Increased casting data memory capacity from 100 shots to 15,000 shots. Saving on USB memory and keeping on PC.

Centralized Monitoring System (Option)



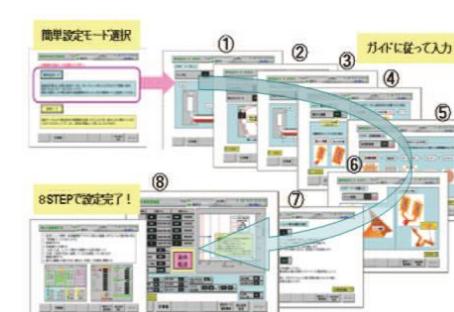
- Monitoring operation on one PC, networking to multiple Die casting machines.
- Enable to manage from any location through customers internal LAN, server.

Built in hydraulic circuit drawing & instruction manual



- Hydraulic drawings for injection & clamping and instruction manual are built in the touch monitor.

Support function for casting condition



- Equipped with 2 selective modes for standard and easy setting for casting. designed for beginner to set with interactive screen.

Casting Solution Service

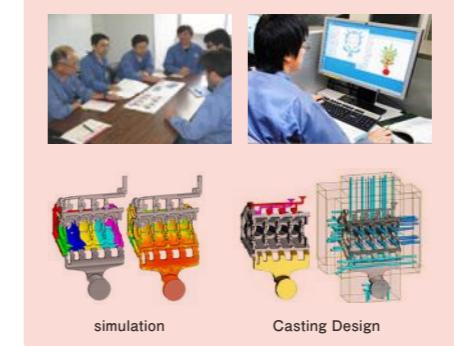
Casting Support / School

UBE performs operation training and instructs optimal shot parameter setting towards production. Also, operation of die casting machine and casting technology are deeply learned through the school.



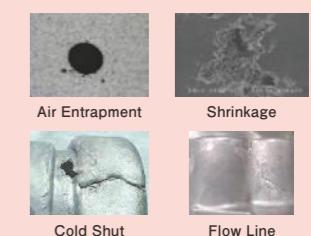
Study of Casting Design and Shot Parameter

UBE propose optimal gating system, shot parameter utilizing CAE.



Investigation of Casting defects

Casting solution service specifies the casting defects by various analysis and offers best solution.



● appearance ● X-ray ● Density
● Gas content ● Composition ● Micro-Structure
● SEM ● Hardness ● Mechanical

Peripheral Equipment

UBE's proud Peripheral equipment with long-time performance at field.

High Reliability supports stable production and high cycle.



Automatic Ladler

Automatic Ladler

Adopting inverter control with arm and ladle drive enables smooth movement.
Improves accuracy of ladling by refined control method.

No.	Items	USL-03	USL-04	USL-05	USL-05L	USL-06
1	Applicable die casting machine	US530iS3	UB670iS3	UB850iS3	UB1100iS3	UB1300iS3
2	Maximum pouring weight	4.0kg	5.6kg	8.0kg (Option 10kg-12kg)	15kg	20kg
3	Accuracy ladling	$\pm 1.5\%$ (with the Max. ladling weight)				
4	Power drive	•Arm driving motor : 0.75kw AC motor (Inverter control) •Ladle driving motor : 0.2kw AC motor (Inverter control)	•Arm driving motor : 1.5kw AC motor (Inverter control) •Ladle driving motor : 0.4kw AC motor (Inverter control)	•Arm driving motor:3.7kw AC motor (Inverter control) •Ladle driving motor:0.4kw AC motor (Inverter control)		



Automatic Sprayer

Automatic Sprayer

Standard feature for forward movement of spray cassette in the dies, which is effective for casting for deeper shaped product. Descent position of spray cassette and forward stroke in the die can be set on the screen in each die.

No.	Items	Model USP-31	Model USP-51	Model USP-61
1	Applicable die casting machine	US530iS3 / UB670iS3	UB850iS3	UB1100iS3
2	Number of air blow nozzle (Standard)	20pcs	20pcs	30pcs
3	Number of spray nozzle (Standard)	Fixed platen side : 26pcs Moving platen side : 26pcs	Fixed platen side : 31pcs Moving platen side : 31pcs	Fixed platen side : 40pcs Moving platen side : 40pcs
4	Air pressure	0.5MPa~0.7MPa		
5	Liquid supply port diameter	Rc 1/2 B	Rc 3/4 B	
6	Power drive	Y-axis up and down : Air cylinder, X-axis slide : AC motor (Inverter control)		

※Enable to supply Dual axis servo driven link type spray device (SAV-S model)



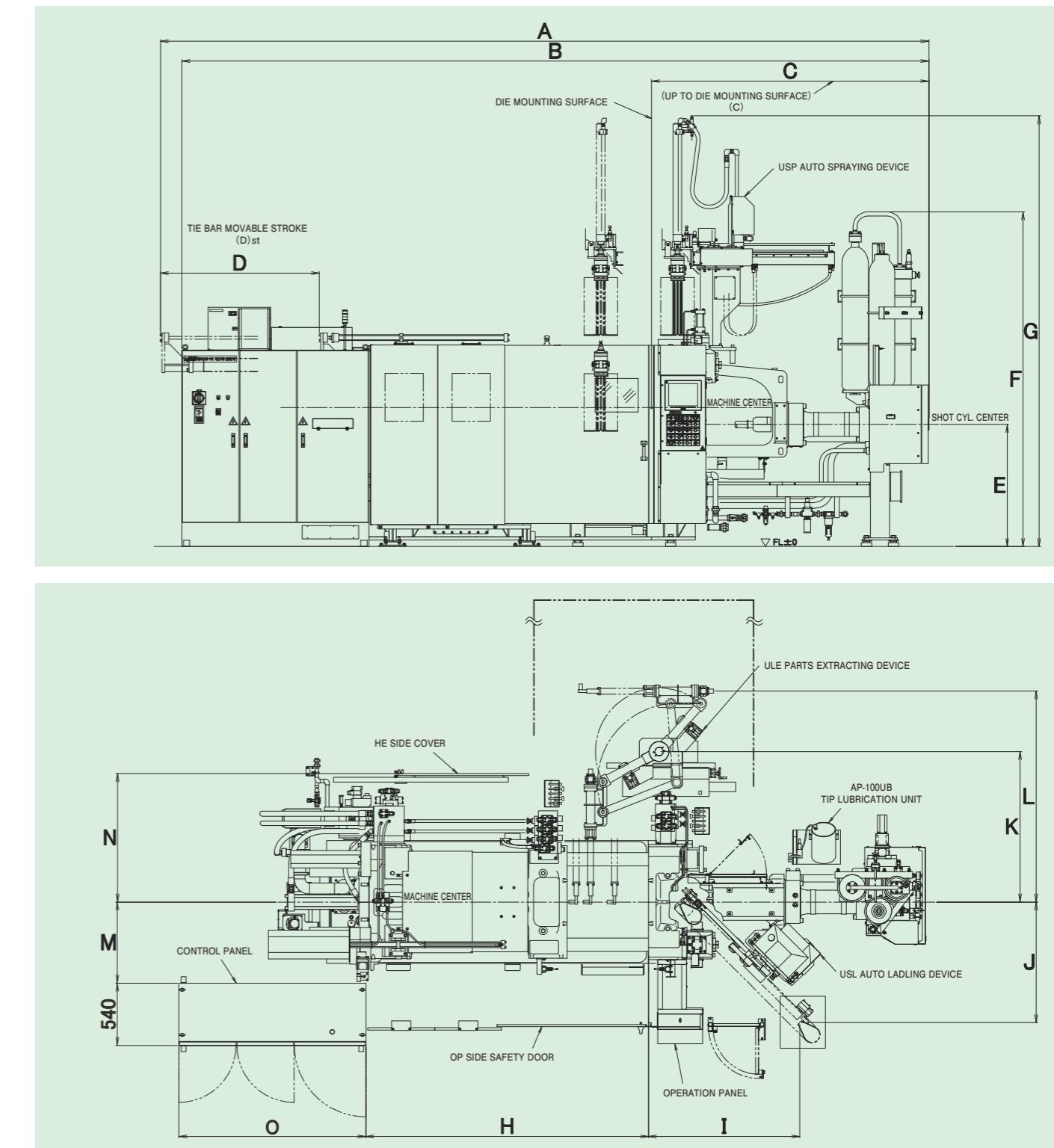
Automatic Extractor

Automatic Extractor

Adopting inverter control with arm drive enables smooth movement.

No.	Items	Model ULE-04	Model ULE-05	Model ULE-05L		
1	Applicable die casting machine	US530iS3 / UB670iS3	UB850iS3	UB1100iS3		
2	Location of installation	Standing on floor at machine helper side				
3	Chuck type	Biscuit chuck type				
4	Number of product sensors	2pcs (Photoelectric sensor)				
5	Die thickness adjustment stroke	150mm	220mm			
6	Travelling stroke	2200mm	2525mm			
7	Removal stroke	250mm	250mm			
8	Chuck rotaing angle	90°				
9	Power drive	Taking out : AC motor (Inverter control), Others : Air actuator				
10	Air supply port diameter	Rc 1/2 B				

Dimensional Diagram



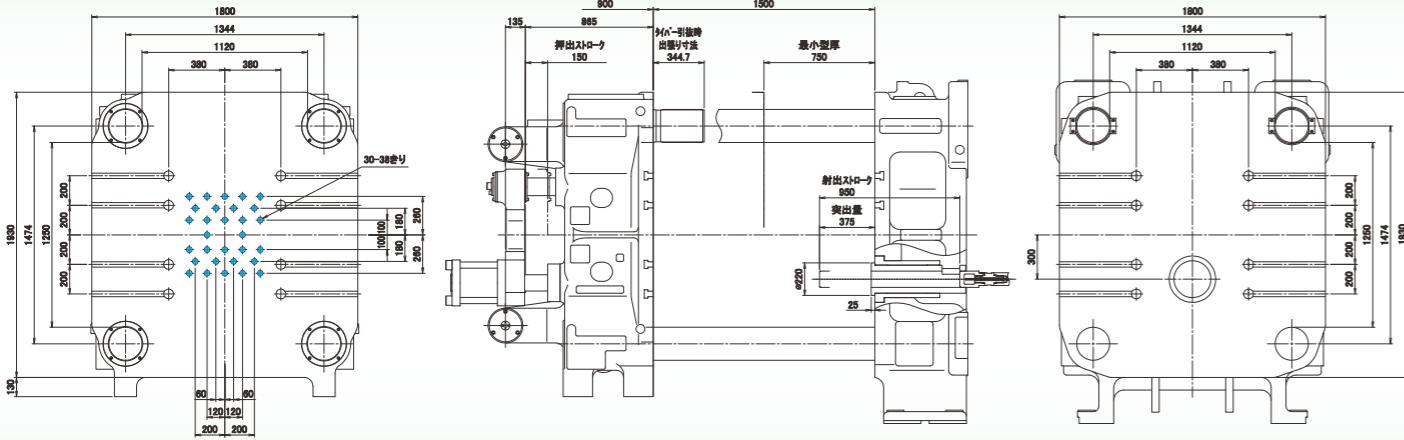
Dimension Table (mm)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
UB530iS3	8017	7794	2894	1657	1275	3493	4495	2950	1610	1255	1570	2201	846	1340	1950
UB670iS3	8915	8427	3192	1869	1365	3638	4650	3284	1645	1295	1570	2201	910	1440	1950
UB850iS3	9597	8991	3394	2078	1400	3944	5120	3647	1780	1410	1800	2528	1020	1490	1950
UB1100iS3	11382	10476	4006	2490	1540	3950	5678	4120	2060	1655	1800	2553	1190	1714	2350
UB1300iS3	13135	11401	4451	2950	1737	4270	—	4600	2824	2075	—	—	1197	1745	2350

Die Mounting Dimensional Diagram

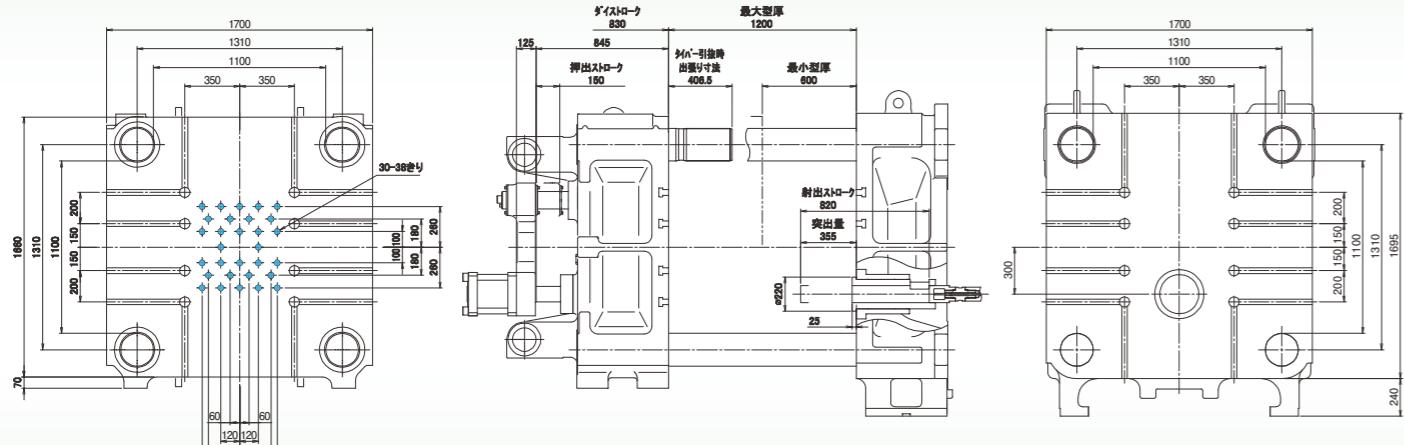
1300 t · 1100 t

UB1300iS3



1.Blue Holes are for ejection rods directly linked to the ejection plate. (30 locations)
2.Minimum size of dies : 840mmx773mm

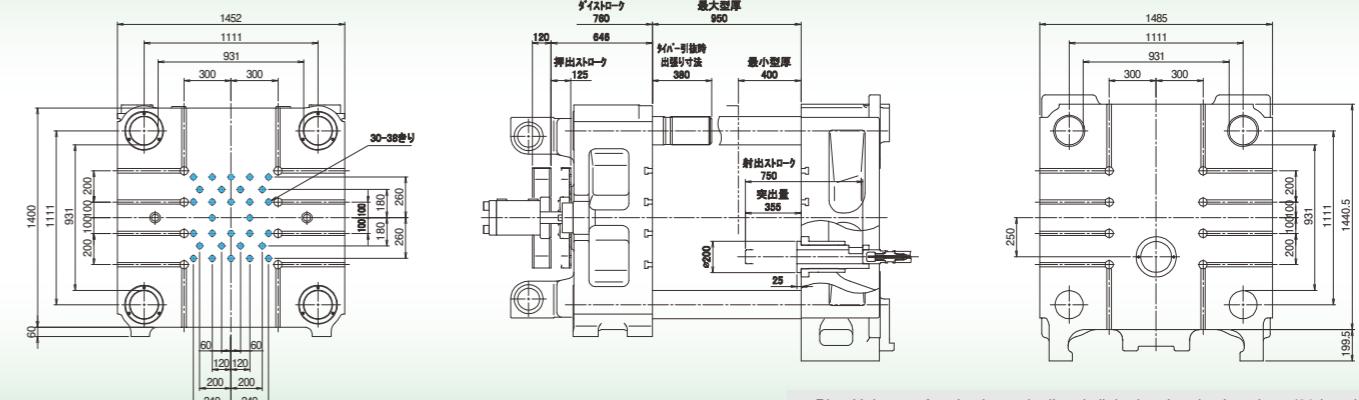
UB1100iS3



1.Blue Holes are for ejection rods directly linked to the ejection plate. (30 locations)
2.Minimum size of dies : 733mmx733mm

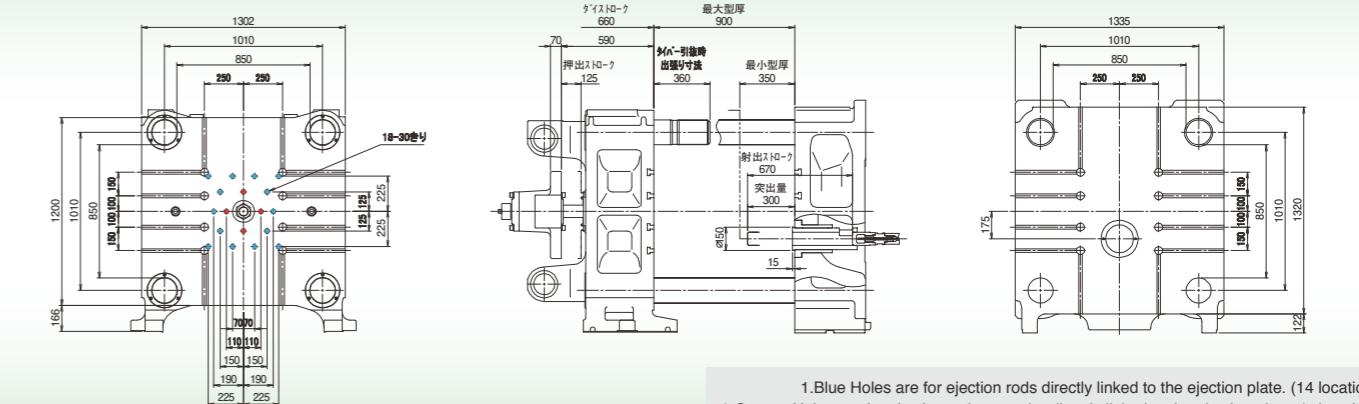
850 t · 670 t · 530 t

UB850iS3



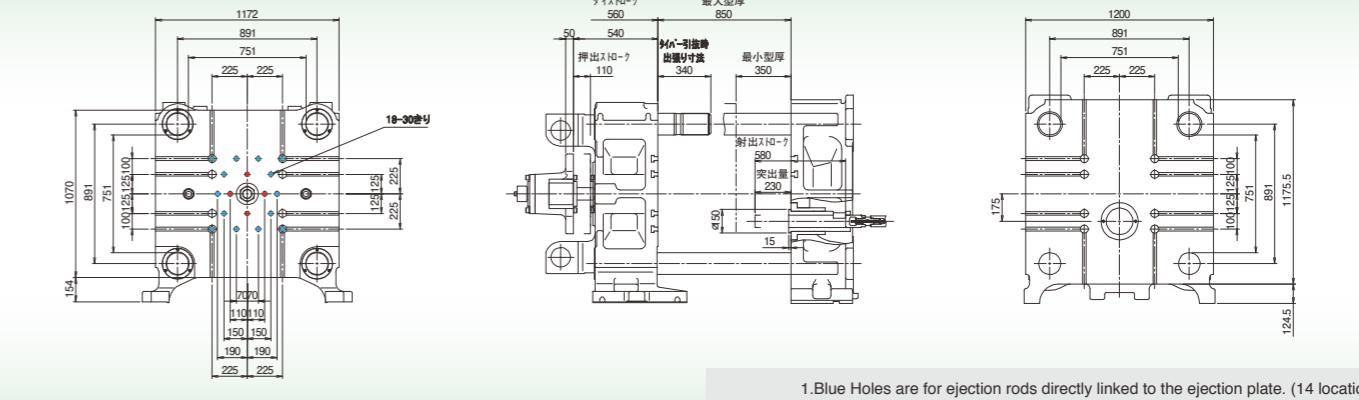
1.Blue Holes are for ejection rods directly linked to the ejection plate. (30 locations)
2.Minimum size of dies : 620mmx620mm

UB670iS3



1.Blue Holes are for ejection rods directly linked to the ejection plate. (14 locations)
2.Orange Holes are for ejection rods not to be directly linked to the ejection plate. (4 locations)
3.Minimum size of dies : 567mmx567mm (Center arrangement)

UB530iS3



1.Blue Holes are for ejection rods directly linked to the ejection plate. (14 locations)
2.Orange Holes are for ejection rods not to be directly linked to the ejection plate. (4 locations)
3.Minimum size of dies : 500mmx500mm (Center arrangement)