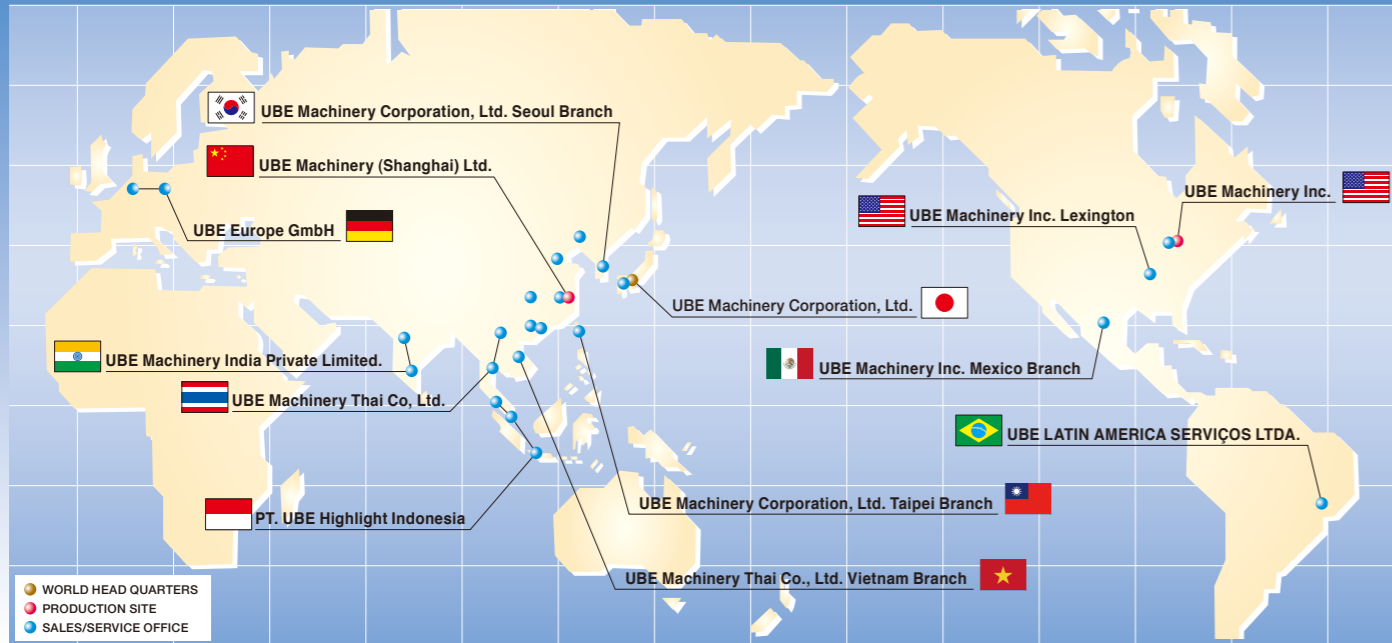


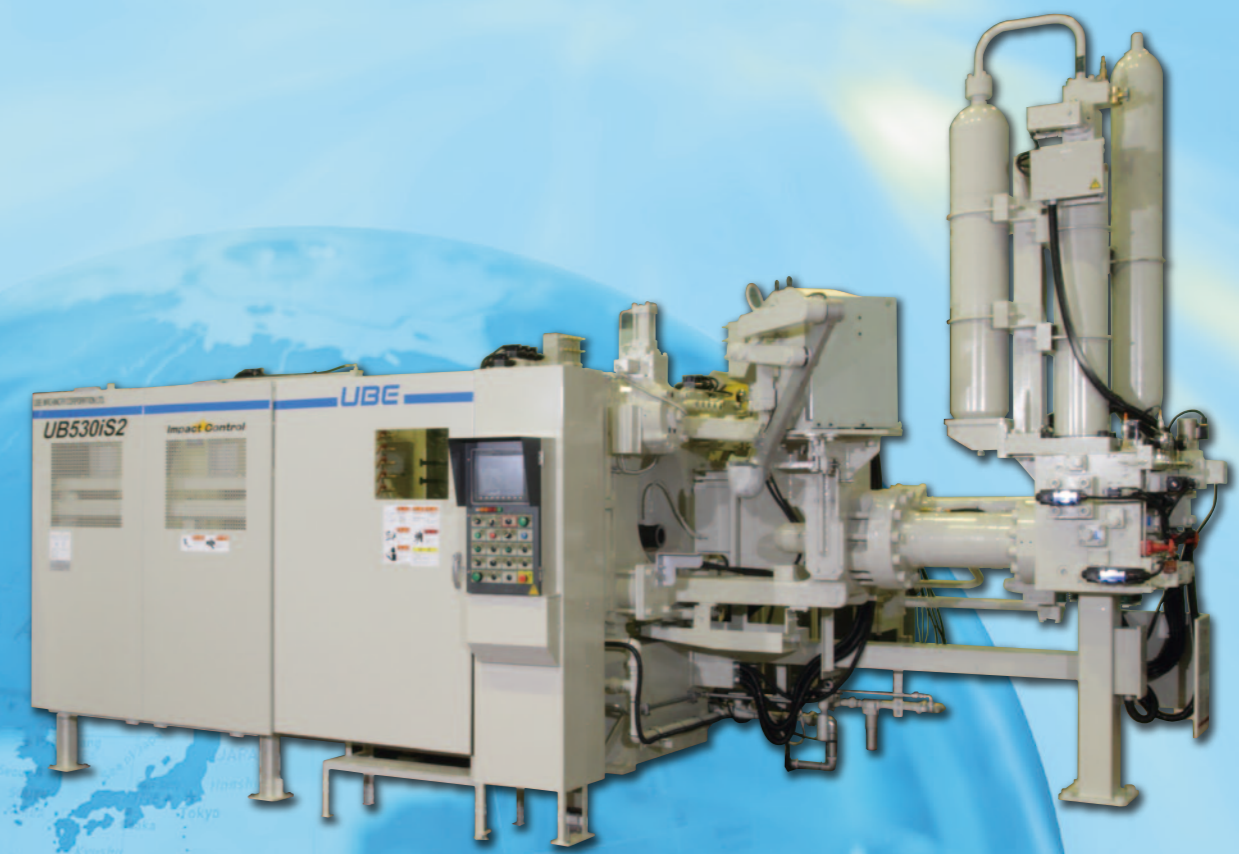
UBE GLOBAL NETWORK

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

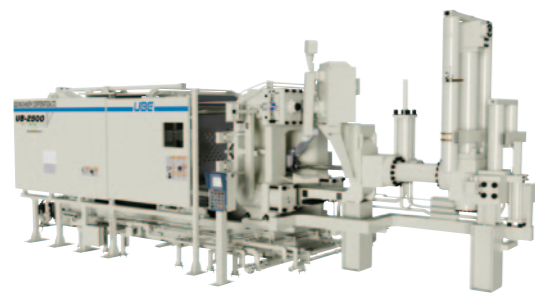


Medium Size Die Casting Machine

UB-iS2 Series



Large Size die casting machine Lineup



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



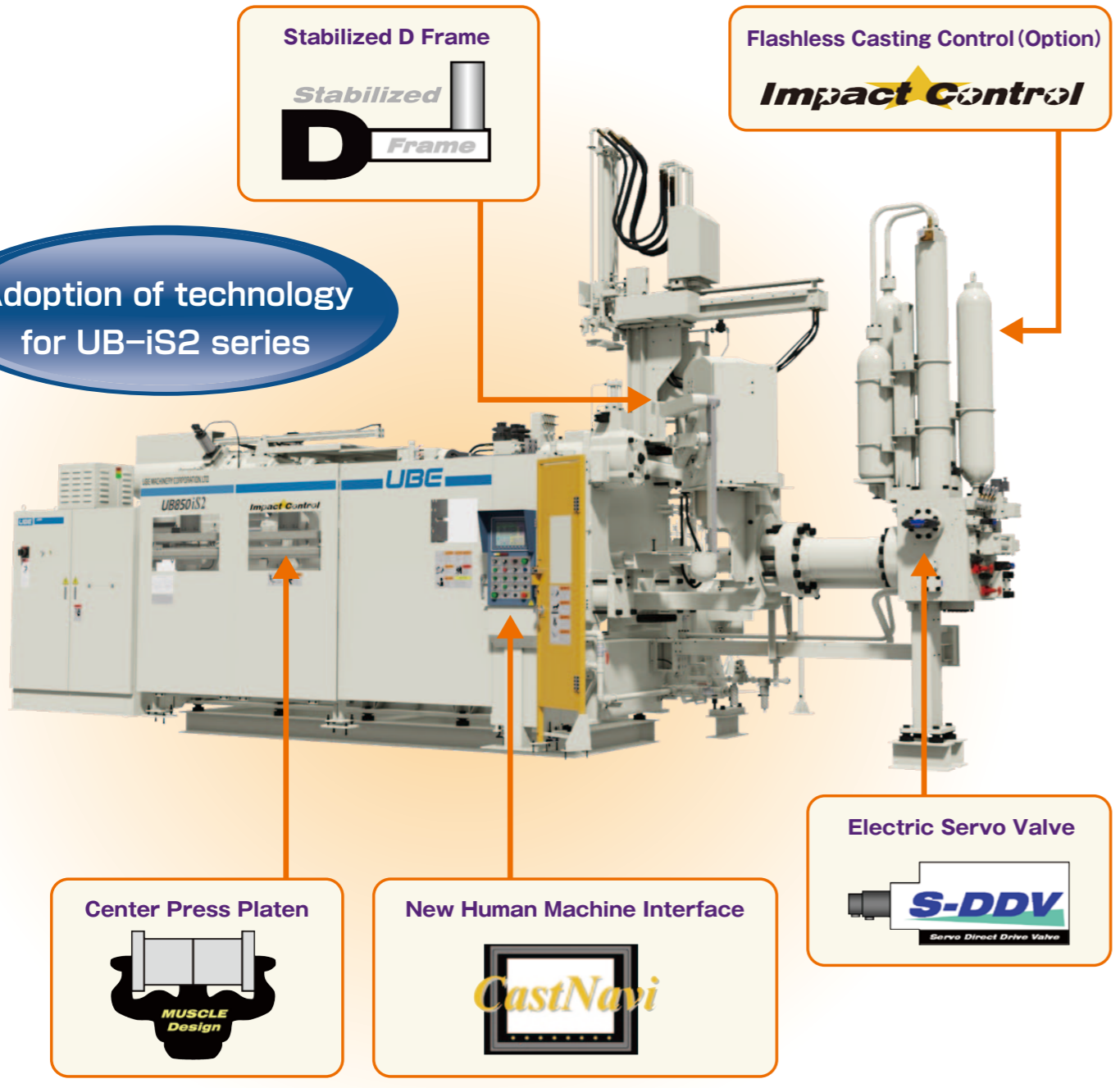
Two platen hybrid die casting machine : UH Series
(1250, 1650, 2250, 2500)

Evolving New Standard

UB-iS2 Series

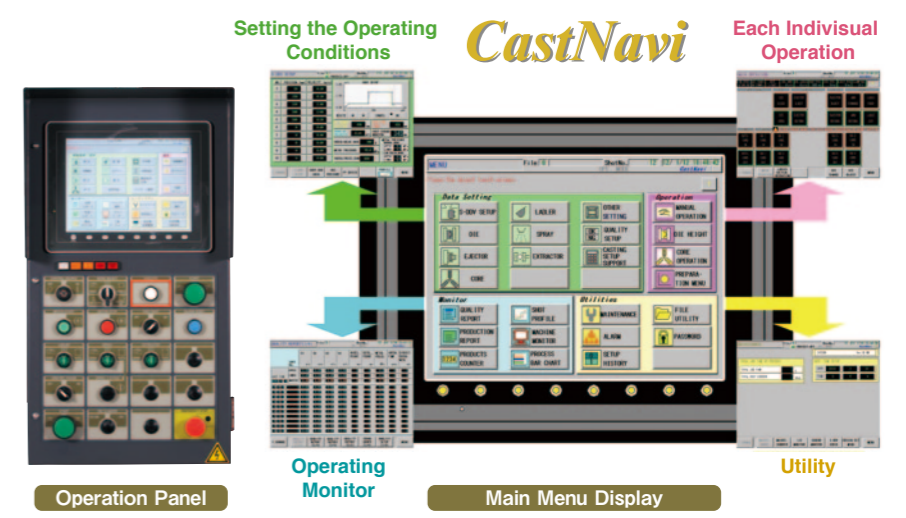
Introducing UB-iS2 series succeeds the long selling UB-iS series

Adoption of technology for UB-iS2 series



New Human Machine Interface CastNavi

- Adoption of large 12.1 inch color touch panel on operation panel of human machine interface.
- Simplified operation panel reducing hard switches which are shifted to screen panel.
- Achieved visibility and operability by using graphic symbols, being independent from language.
- Identifiable background color by category. Friendly and memorable design of screen.
- History memory feature for operation setting. Easy daily maintenance! Equipped "detection system for gas pressure" for intensification Accumulator.

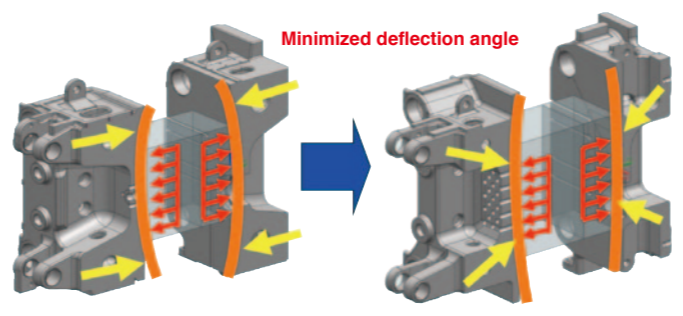


Center Press Platen

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



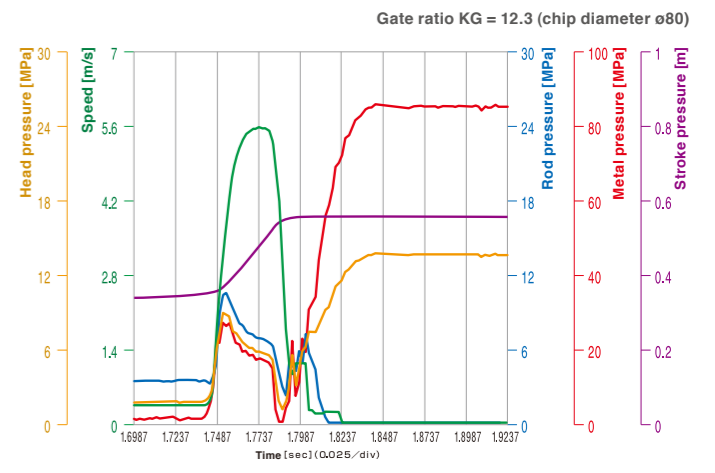
MUSCLE Design platen structure



Electric Servo Valve S-DDV Servo Direct Drive Valve

- A servo-controlled direct-drive valve (S-DDV) with servomotor is applied to enable multi speed control (10 point parameter setting). Real time feed back control enables to obtaining accurate shot-speed repeatability and shot stability.

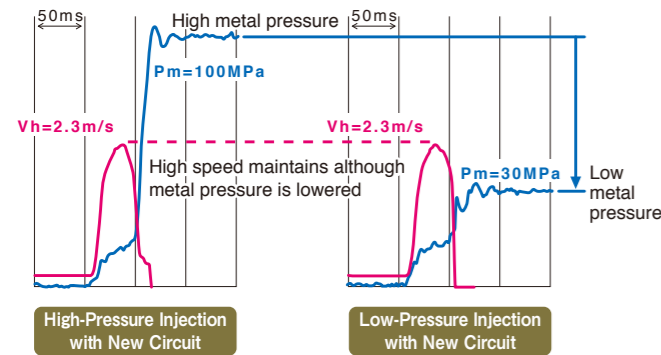
Characteristic by actual shot data (UB670iS2)



Multi 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 without gas discharge or re-charge.
- Low metal pressure injection enables casting in larger sizes, and the reduced metal pressure improves promotes longer die life.

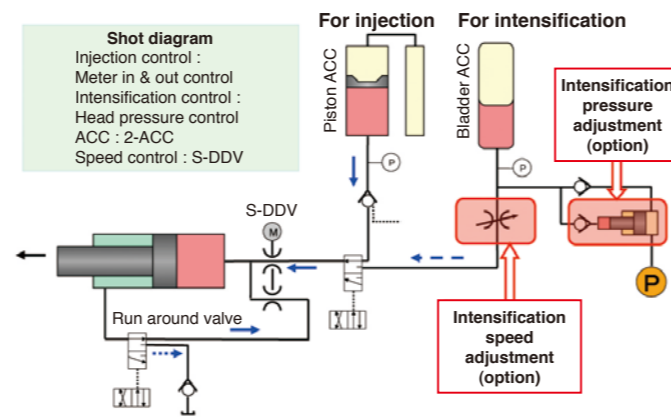
Multi Pressure Control



Meter in - Meter out Circuit

- Meter-in, which provides pressure equivalent 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.

Hydraulic circuit formation

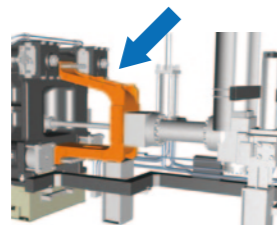
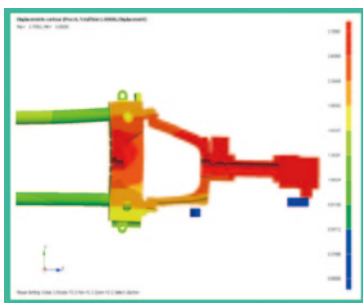


Stabilized D Frame



- Modeling clamp unit and shot unit. Through high level CAE (ADVC), movement of shot unit is quantitatively-analyzed. Optimally-designed injection D shape frame brings longer life of tip & sleeve.

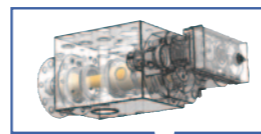
Sample picture by high level analysis



Stabilized D Frame

Flashless Casting Control (Option) Impact Control

- The first in its class! Flashless casting technology as an option.
- It enables to maintain flashless and good quality by controlling impact pressure without changing speed.
- It controls gas pressure by changing degree of opening of valve which is newly set between accumulator and gas bottle and is remote controlled.
- To achieve further flashless casting incorporated with Center Press Platen.

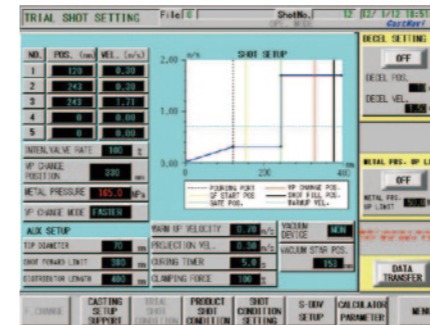


Impact Control Valve

CastNavi

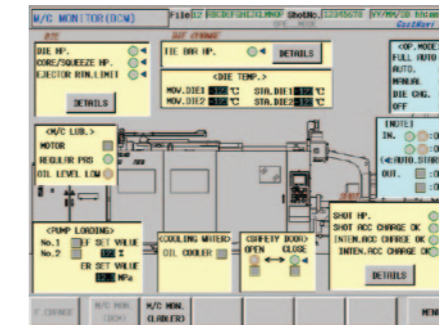
Shot parameter setting screen

Enables multi speed control with 10-points parameter setting function.



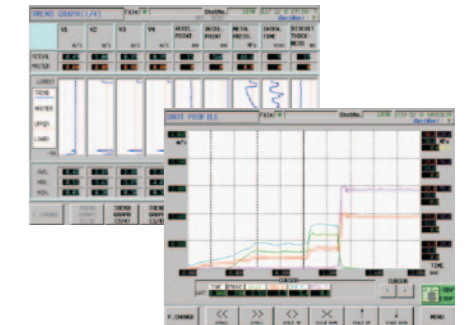
Machine monitor display

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



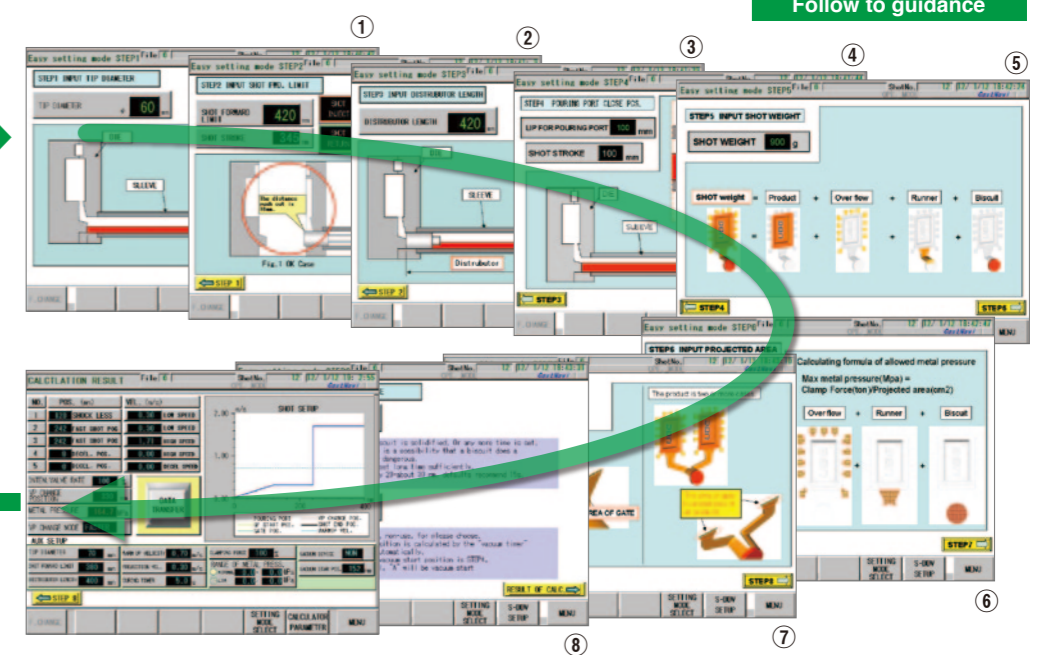
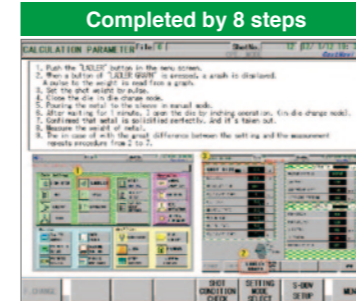
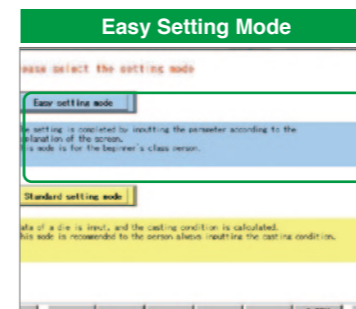
Graphic trend display

Displays each shot trend and enables to retrieve the graphic shot profiles for the previous 100 shots.



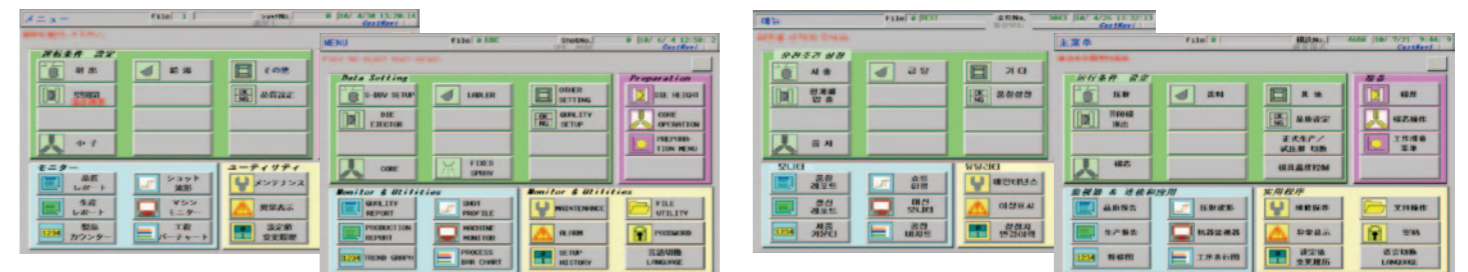
Casting Support Function (Interactive Easy Setting Mode)

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



Multi Language (Japanese, English, Chinese, Korean)

Japanese, English, Chinese, Korean can be displayed. * Vietnamese and Thai will be ready soon.



UB-iS2 Series Main Specifications

Items		Units	UB375iS2	UB530iS2	UB670iS2	UB850iS2	UB1100iS2
Clamping	Clamping force	kN	3750	5300	6700	8500	11000
	Dimension of die plate (L x W)	mm	940x940	1070x1172	1200x1302	1400x1452	1660x1660
	Read between tie bars (L x W)	mm	667x667	751x751	850x850	931x931	1100x1100
	Die stroke	mm	420	560	660	760	830
	Die thickness (min. to max.)	mm	300~700	350~850	350~900	400~950	600~1200
	Die height adjustment speed	mm/min	50~200	50~200	50~200	50~200	50~200
	Injection	Nominal maximum injection force <Option>	kN	340 <420>	425 <525>	471 <581>	570 <703>
Nominal minimum injection force <Option>		kN	238 <129>	298 <162>	330 <186>	399 <225>	436 <238>
Plunger stroke		mm	480	580	670	750	820
Tip projection stroke		mm	165	230	300	355	355
Shot position		mm	-125	-175	-175	-250	-300
Injection speed		m/sec	0.02~7	0.02~6	0.02~7	0.02~7	0.02~6
Plunger tip diameter (Standard)		mm	70	80	85	90	110
Applicable tip diameter		mm	60,70,80	70,80,90	75,85,95	80,90,100	90,110,120
Deceleration adjustment	mm	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	
Ejection	Ejector force	kN	186	235	304	343	539
	Ejector stroke	mm	0~90	0~110	0~125	0~125	0~150
	Distance from moving platen to ejection plate	mm	466	535	606	646	820
General	Motor for hydraulic pump	kW	22/6P	37/6P	37/6P	45/6P	55/6P
	Motor for lubrication	kW	0.06	0.09	0.09	0.09	0.09
	Oil tank capacity	L	540	1000	1030	1300	1420
	Cooling water flow rate for oil cooler	L/min	50 (water temp at 30°C or below)	50 (water temp at 30°C or below)	50 (water temp at 30°C or below)	50 (water temp at 30°C or below)	50 (water temp at 30°C or below)
	Oil pressure	MPa	16.18	16.18	16.18	16.18	16.18
	Machine weight	ton	11.5	21	24	35	60

Note: Appearance, Specifications, Numerical Data of die casting machine may change for improvement without notice

UB-iS2 Series Specification (Standard and Optional Items)

Specification item			Std.	Opt.	Specification item			Std.	Opt.	Specification item			Std.	Opt.	
Die clamping	1	Die plate (Fixed, Moving) with T-Slot machining	●		Control	1	Programmable controller (Mitsubishi Q series)	●		Safety	17	Additional level alarm		○	
	2	Toggle unit automatic lubrication device	●			2	Fully-enclosed outer fan motor (hydraulic pump motor)	●			18	Die cooling water, main stop valve (manual)	●		
	3	Die height adjustment (2 speed control)	●			3	Pilot light tower mounted on top of control panel	●			1	Manual door on operation side	●		
	4	Die height automatic setting	●			4	LS error display	●			2	Toggle cover (operator side, and helper side)	●		
	5	Platen Ni welding (Die mounting surface)		○		5	Symbolic operation nameplate	●			3	Helper-side injection unit cover	●		
	6	Moving platen shoe adjustment mechanism (Shim type)	●			6	Interface for automatic devices by other manufacturers		○		4	Helper-side safety fence			○
	7	Digital load meter (on the fixed platen helper side tie bar)	●			7	Robot interface for automatic devices by other manufacturers		○		5	Die open limit safety hook (stopper type)	●		
	8	Die clamping force automatic adjustment	●			8	Outlet (100V) in control panel		○		6	Emergency stop button (2 locations)	●		
	9	Die clamping force automatic compensation control	●			9	Electric cable protection		○		7	Control panel door with interlock	●		
	10	Automatic tie bar pull-out device		○		10	Earthing interrupter		○		8	Control panel handle enabling securing of padlock	●		
	11	Tie bar and guide rod chrome plating		○		11	Temperature monitor		○		9	Automatic door on operation side			○
	12	Die support		○		12	Control panel cooler		○		10	Manual door on helper side			○
	13	Ejection plate clamp (C plate clamp)		○		13	Lighting in control panel		○		11	Automatic door on helper side			○
	14	Hydraulic die clamping device		○		14	Added a touch panel on control panel (12.1 inch)	●			12	Photoelectric tube safety device			○
	15	*Provisional pouring start signal (for UBE ladler)*	●			15	PC programmer		○		13	Latchet-type safety hook			○
	16	Drain port beneath die clamp at machine base	●			16	CastNavi language options (Japanese, English, Chinese, Korean) 2-language selectable	●			1	Foundation channel system (H-shape steel embedded in the foundation)	●		
Ejection	1	Ejector speed digital setting	●		17	Voltage adapt (Standard:200V)		○	2	Machine color (UBE standard)	●				
	2	Ejector forward limit digital setting	●		18	Voltmeter installed		○	3	Customer specified machine color			○		
	3	Ejecting pressure-reducing circuit		○	19	Ammeter installed		○	4	Tools (with tool box)			○		
Injection	1	Multi speed setting (S-DDV) Real time feed back	●		20	Integrating wattmeter		○	5	Nitrogen gas refilling hose			○		
	2	Low casting pressure injection		○	Timer / Counter	1	Lot counter	●		6	Handy spray gun			○	
	3	Intensification time adjusting valve		○		2	Product (shot) counter	●		7	Automatic ladler			○	
	4	Short sleeve specifications		○		3	Tip lubrication timer	●		8	Thermal-insulated cover mounted on ladler			○	
	5	Casting parameter down-loading for 100 dies conditions	●			4	Cumulative shot counter	●		9	Molten metal surface level drop signal output (hot charge)	●			
	6	Injection digital setting	●			5	Total maintenance counter	●		10	Tip lubricator			○	
	7	Piston type actuator (for metal refilling)	●			6	Maintenance counter by die	●		11	Tip lubricator mixing system			○	
	8	Accumulator for pressure intensification	●			Hydraulic cooling	1	Nonflammable hydraulic fluid specification (Water Glycol Fluid applicable)		○	12	Adjustable tip lubricating volume			○
	9	GF interface		○			2	Mineral type of hydraulic oil applicable	●		13	Automatic sprayer			○
	10	Pressure gauges on injection unit		○			3	*Die cooling water flow control ball valves (fixed side)*	●		14	Tank (volume:200L)			○
	11	Accumulator automatic pressure-release circuit	●				4	*Die cooling water flow control ball valves (moving side)*	●		15	Die release agent mixing and boosting device			○
1	Core sequence-selection circuit	●		5			Die cooling water drain box	●		16	Forward/backward movement in die spraying			○	
2	Core spray circuit (for UBE sprayer)		○	6	Glycerin filled pressure gauge on injection unit		●		17	Automatic parts extractor			○		
3	Core on moving platen (#1)		○	7	Oil temperature gauge (with 1 upper limit contact point)		●		18	Photoelectric product detection sensor (2 sensors)			○		
4	Core on moving platen (#2)		○	8	Oil cooler cooling water ON-OFF circuit		●		19	GF device			○		
5	Core on moving platen (#3)		○	9	Wire-braided hydraulic hose			○	20	CASTTEND (software)			○		
6	Core on fixed platen (#1)		○	10	Hydraulic hose with plastic cover			○	21	Automatic trimming press			○		
7	Core on fixed platen (#2)		○	11	Oil cleaner			○	22	Compliance with North America, European, and Chinese standards and requirements			○		
8	Additional core port on moving platen		○	12	Magnetic separator (one pc)	●		23	Impact Control Valve			○			
9	Additional core port on fix platen		○	13	Size up of oil-cooler		○								
10	Core pressure release circuit		○	14	Line filter	●									
11	Local squeeze circuit(Fix-Moving side)		○	15	*Hydraulic fluid preheating circuit (pump loading)*		○								
12	Core pressure reducing circuit		○	16	Level alarm (one contact point output)	●									

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-02	USL-03	USL-04	USL-05	USL-05L
1	Applicable die casting machine	UB375iS2	US530iS2	UB670iS2	UB850iS2	UB1100iS2
2	Maximum pouring weight	2.8kg	4.0kg	5.6kg	8.0kg (Option 10kg·12kg)	15.0kg
3	Accuracy ladling	±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)	



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-21	Model USP-31	Model USP-51	Model USP-61
1	Applicable die casting machine	UB375iS2	US530iS2 UB670iS2	UB850iS2	UB1100iS2
2	Number of air blow nozzle (Standard)	10pcs	20pcs	20pcs	30pcs
3	Number of spray nozzle (Standard)	20pcs	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)			



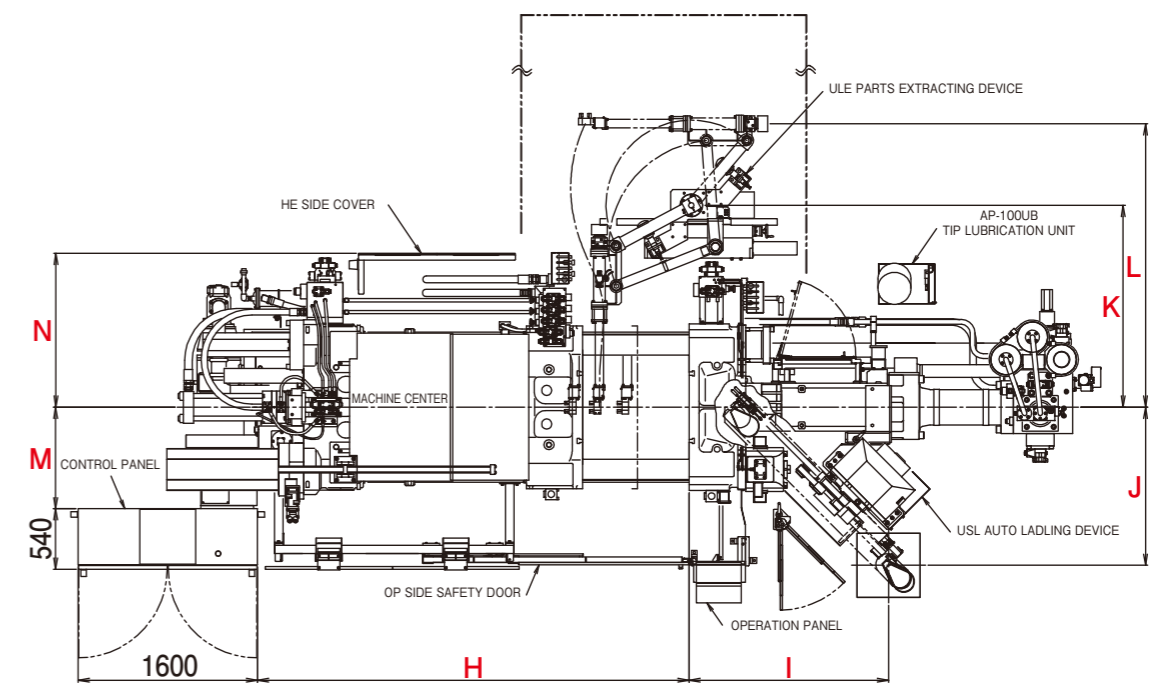
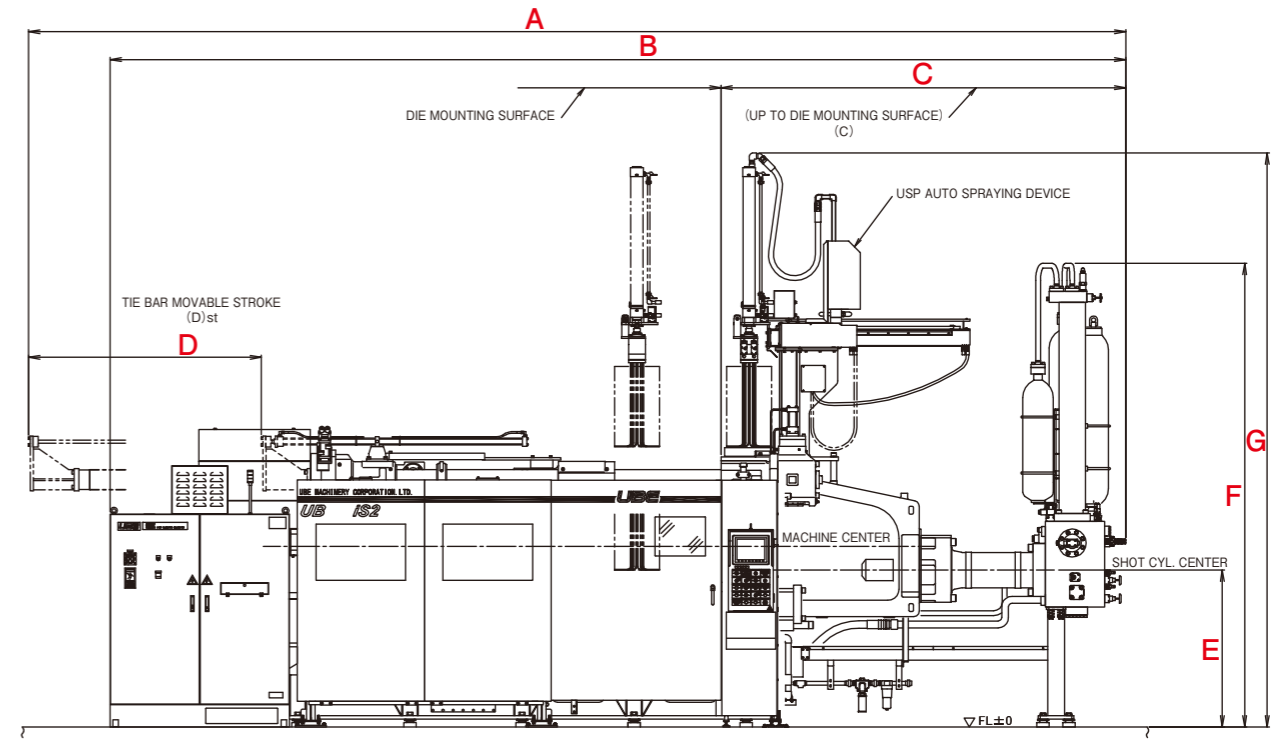
Automatic Extractor

Automatic Extractor

Adopting inverter control with arm drive enables smooth movement.

No.	項目	Model ULE-03	Model ULE-04	Model ULE-05	Model ULE-05L
1	Applicable die casting machine	UB375iS2	US530iS2 UB670iS2	UB850iS2	UB1100iS2
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	1840mm	2200mm	2525mm	2553mm
7	Removal stroke	150mm	250mm		
8	Chuck rotating angle	90°			
9	Power drive	Taking out : AC motor (Inverter control), Others : Air actuator			
10	Air supply port diameter	Rc 1/4 B		Rc 1/2 B	

Dimensional Diagram



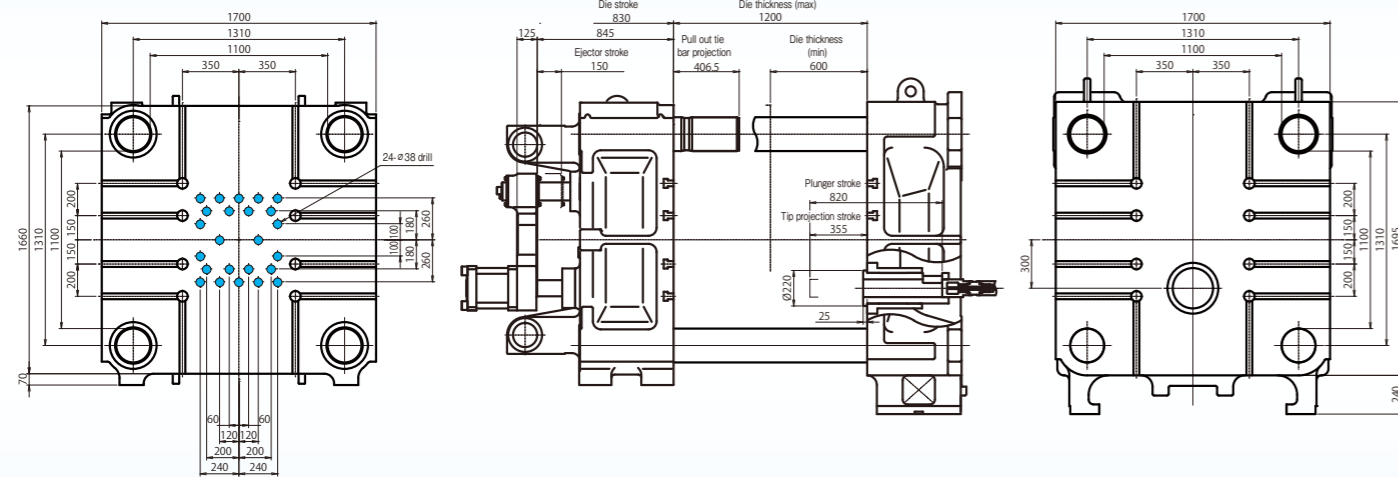
Dimension Table (mm)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
UB375iS2	6760	6740	2695	1322	1230	3239	3898	2445	1538	1221	1360	1837	803	962
UB530iS2	8100	7843	3063	1657	1275	3706	4470	3180	1600	1250	1570	2201	796	1262
UB670iS2	8969	8462	3362	1869	1365	3796	4650	3500	1683	1285	1570	2201	855	1321
UB850iS2	9786	9059	3609	2076	1400	4135	5120	3850	1785	1418	1800	2528	906	1372
UB1100iS2	11335	9678	3958	2490	1540	4060	5678	4120	2060	1655	1800	2553	1190	1714

Die Mounting Dimensional Diagram

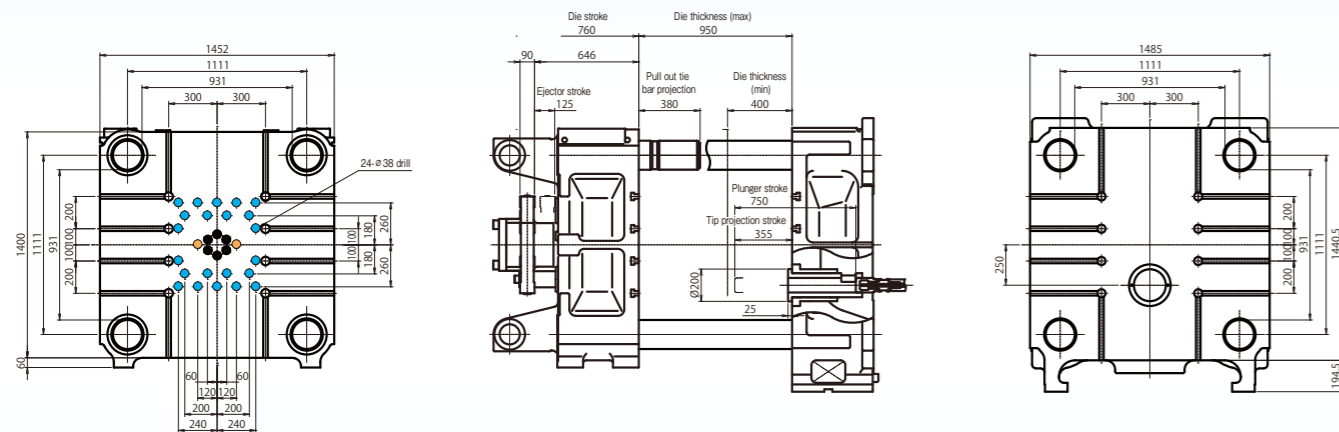
1100t · 850t

UB1100iS2



1. Blue Holes are for ejection rods directly linked to the ejection plate. (24 locations)
3. Minimum size of dies : 773mm×773mm

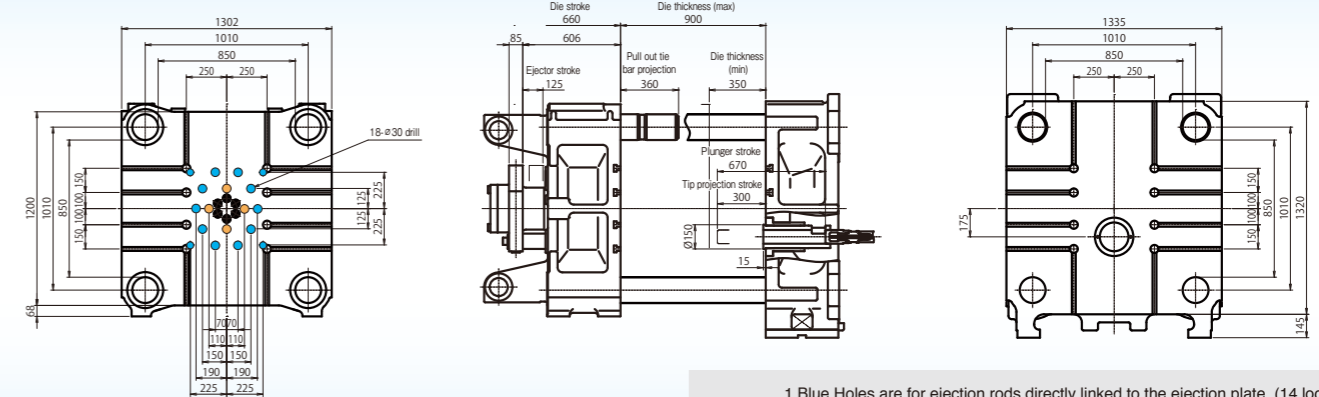
UB850iS2



1. Blue Holes are for ejection rods directly linked to the ejection plate. (22 locations)
2. Orange Holes are for ejection rods not to be directly linked to the ejection plate. (2 locations)
3. Minimum size of dies : 620mm×620mm

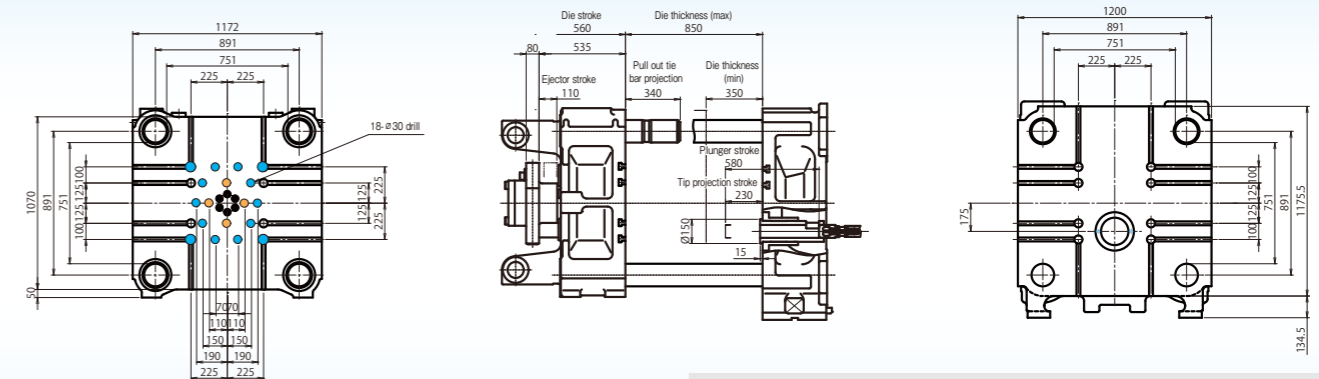
670t · 530t · 375t

UB670iS2



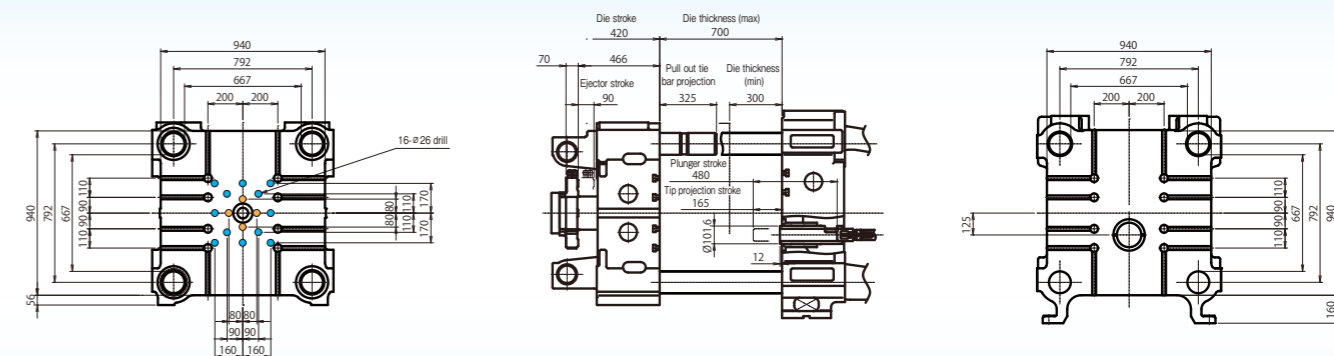
1. Blue Holes are for ejection rods directly linked to the ejection plate. (14 locations)
2. Orange Holes are for ejection rods not to be directly linked to the ejection plate. (4 locations)
3. Minimum size of dies : 567mm×567mm (Center arrangement)

UB530iS2



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 : 500mm×500mm (Center arrangement)

UB375iS2



1. Blue Holes are for ejection rods directly linked to the ejection plate. (12 locations)
2. Orange Holes are for ejection rods not to be directly linked to the ejection plate. (4 locations)
3. Minimum size of dies : 445mm×445mm (Center arrangement)