SPECIFICATION

FORMING

OPEN HEIGHT	Upper table : 1200mm from sheet level	
	Lower table : 1350mm from sheet level	
SHUT HEIGHT	Upper table : 400mm from sheet level	
	Lower table : 450mm from sheet level	
ADDED PRESSURE	It's adjustable iin the range of 20kN～200kN.	
MOVING VELOCITY	20～300mm/sec Setting is possible	
MOTOR	Servo (Upper 37Kw Lower 15Kwx4)	
FORMING TYPE	Heat press forming	
TABLE VALID DIMENSION	Upper table	1970 x 1020 mm
	Lower table	1970 x 1020 mm
TABLE STROKE	Upper table	800mm
	Lower table	900mm
TABLE STOP POSITION,	Stop position is able to set.	
	Numerical control with servo motor. ±0.1mm	
VACUUM CIRCUIT	Upper die	1 circuit
	Lower die	1 circuit
	Tank : 1000L ×2pcs	
VACUUM PUMP	Motor capacity	AC415V 50Hz 7.5kW
	Exhaust speed	250 M^3/Hr
		4000 L/min
	pump cooling	Air cooling type
COMPRESS CIRCUIT	☑	
LOWER DIE TILT	Motor	Hydraulic cylinder (φ80)
	Stroke	380mm
	Tilt	45° ～60°
DIE CLAMP	Upper die	HYD pressure、4 points
	Lower die	HYD pressure、4 points

HEATER

HEATER AREA	2050 x 1350 mm	
HEATER CAPACITY	0.57KWx126pcs＝71.82KW/1 surface	
	AC200V with AC33V ×6pcs in series	
HEATER TYPE	QUT50-2B	
	※Lower heater has safety fence.	
HEATER QTY	Upper surface	126 pcs
	Lower surface	126 pcs
HEATER CONTROL	PID control	
HEATER DIVISION	21Block/1surface (Upper & Lower heater)	
CONTROL METHOD	By timer and camera	
	Heating with setting temp. for setting time	
	Heating complets once settting time elapses.	
LOWER HEATER UP&DOWN	Motor	Air cylinder
	Transportable weight	1000kg
	UP-DOWN STROKE	500mm
	Motion detection	Upper end/Middle end
		Lower end
MAX TEMP. TO USE HEATER	500℃	
HEATER BRAKING ALARM	☑ (Per each block)	
INDICATION OF BREAKING ERROR	Touch panel	
MEASUREMENT OF SHEET TEMP.	radiation thermometer	
	Upper side	1 point
	Lower side	1 point
DRAWN DOWN SENSOR ×2	200～600mm	
	MAX 600mm	
	Once drawn down is detected, heater goes down.	
OTEHRS	Glass window is arranged on cover of heater furnace cover to check inside.	

CLAMP FRAME

CLAMP FRAME OPEN DIMENSION	Max 1850 x 900mm	
	Min 1250 x 550mm	
CLAMP METHOD	One-side open hinge	
SPACE FOR CLAMP	10～30mm	
CLAMP LAYOUT	4 sides	
CLAMP INWARD & OUTWARD MOVE	Motor with break	
	Spac	AC415V 50Hz 0.2kW
MOVING POSITION CONTROL	By encoder (Setting width by 0.1mm)	
CLAMP FRAME FEEDER	Servo motor driving	
	Spec	AC415V
	Stroke	2100mm(More than 600 mm/s)
CLAMP OPEN&CLOSE VALVE	12pcs/1frame	
INTERLOCK	Die size is able to insert on T/P.	
	Limit size of shrinking clamp is able to set.	
	ex) One side is 40mm front side from die size.	

SHEET SET TABLE

SHEET POSITIONING	Sheet sentor criteria	
	Centering with cylinder guide to position.	
CENTERING POSITIOI CHANGE	Manual	
	Position of cylinder driving guide is adjustable with manual handle.	
SHEET EXISTING CHECK	☑	Photoelectric sensor
SET TABLE UP&DOWN	Air cylinder (Φ80)	
	Stroke	250 mm
SET TABLE FEEDER	Motor with break	
	Spec	AC415V 50Hz 1.5kW
	Stroke	1850 mm

DIE

DIE PLATE DIMENSION	W1970 × L1020 mm	
PLATE THICKNESS	20mm(upper) 20mm(lower)	
HEIGHT OF UPP. & LOW. DIE	MAX 1000mm	
DIE WEIGHT	Total 2000kg (Upper die 1200Kg Lower die 800Kg)	
HEIGHT OF UPP. DIE (MAX)	MAX865mm	
HEIGHT OF LOW. DIE (MAX)	MAX700mm	
UPP. DIE FIXING	Hydraulic clamp auto slide type x4pcs	
	TXA2 (Pascal)	
LOW. DIE FIXING	Hydraulic clamp x4pcs TME1	
LOW. DIE BASE POSITIONING	Positioning pin (φ30) x 4 points	
CONNECTOR CONNECTION	Upper die	Auto
	Lower die	Auto
	backup temp. controller	Manual
DIE RECOGNITION	15 car lines	
	by metal connector	

DIE CHANGE

CHANGE DIRECTION	Left ／Right direction
TRANSFERING METHOD	Die is automatically taken in and out
	grappling hook on die change bar.
DRIVING MOTOR	Geared motor with break + Inverter
	1.5kw-1/32 415V 50Hz
DRIVING	Φ36 ball screw driving
GUIDE	LM guide
HOOK STOP POSITION	By LS
	Stop/Slowdown/Die change end
BACKUP TEMP. CONTROLLER	Manually attach backup temp. controller hose from safety fence door.
	※Preparation before auto die change
HOOK FOR BACKUP TEMP. CONTROLLER HOSE (Error proofing)	Make sure backup temp. controller hose is removed and on the specified position at auto die change. (LS is installed.)

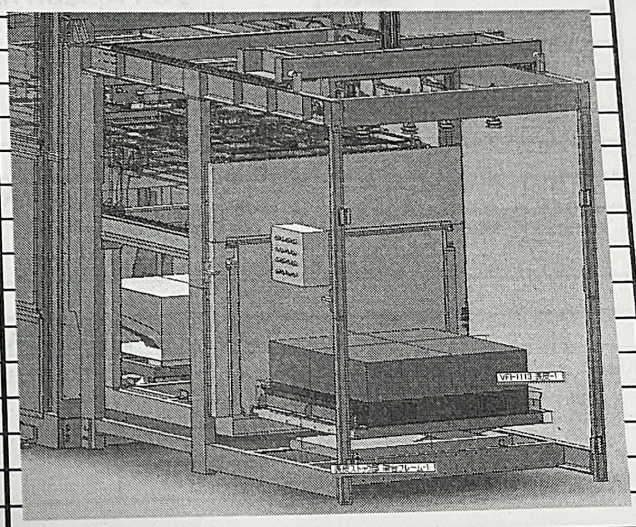
Hydraulic pressure unit (For lower die tilt and die clamp)

OUTSIDE DIMENSION	(400x1200x750mm)
TANK CAPACITY	160L
MAX USING PRESSURE	High voltage
	14MPa
POWER	Enginne
	AC415V 50Hz
MOTOR CAPACITY	7.5kW 4P
MAX. DISCHARGE FLOW	26L / min
HYDRAULIC OIL	ISO VG 46

SHEET SUPPLYING DEVICE

Supplying method	Adsprtion type (Blower type.)	
	・With sheet existance check	
	・Prevention to take 2 sheets	
ADSORPTION UNIT UP & DOWN	Air cylinder (φ80)	
	200 mm	
SHEET ADSORPTION	Ring blower	
	AC415V 50Hz 1.9kW	
SUPPLYING DEVICE TRANSFER	Motor with break	
	Inverter contoroll.	
	AC415V 1.5kW	
	1400 mm	
SHEET LOADING LIFTER	MOTOR	Hydraulic table lifter
	Transportable weight	1000kg
	UP-DOWN STROKE	1600mm
	Motion detection	Upper end
		Lower end
HEIGHT OF PILED SHEET	250mm	
PALLET SET HEIGH	FL～446mm	
PALLET HEIGHT	100mm	
SHEET OUT SIGNAL	E	
ADSORPTION PAD	8pcs	
	Cock is attached to each pad.	
SUPPLYING DOOR	Savety plug × 2	
DIE CHANGE	Die change button is attached.	

SHEET LOADING DIVICE



ELECTRICITY

CONTROL BOX x2	Indipendent (Main breaker outside controller handle is attached.)	
HEATER TEMP. CONTROLLER BOX	Indipendent (Main breaker outside controller handle is attached.)	
OPERATION BOX	Main	Indipendent (With control BOX)
	Sub	Attached on the machine
SUB-OPERATION BOX	☑	1Point
	Operation point	
CONTROL	PLC (By Mitsubishi)	
START	Touch lever	
INDICATION LAMP	1point	
OPERATION BOX METHOD	Main	Touch panel (By keyence)+ Switch
	Sub	Touch panel (By keyence)+ Switch
OPERATION SW	Fuji	＊1
LAMP INDICATION	Fuji	＊1
MAINTENANCE POWER	☑	
WIRING	Steel pipe & Flexible tu ＊2	

＊1 The maker is subject to change.
＊2 Some parts are not subject to be supplied.

CYCLE TIME

CYCLE TIME	129 Sec／cycle (Including reset)
HEATING TIME	25 sec
FORMING TIME	30 sec
MANUAL OPERATION TIME	10 sec
DIE CHANGE TIME	About 70 sec

SAFETY MEASUREMENT

SAFETY COVER	☑		
Attaching/Disattaching way	Fixed		
Area sensor	☑	OMRON F3SJ series	
	45+19 light axis		
RANGE OF AREA SENSOR	Operator side		
Upper slide drop prevention	☑		
Emergency stop	☑	3 POINTS	Main, sub operation panel x2
			Sub-operation BOX x 1
			Sheet stock door
	Lock type, lighting type		

Indication of remaining sheet

- Insert production volume on main touch panel.
- Every time sheet is supplied, production volume is counted and once it reaches the target volume, "production volume complete" etc is shown on touch panel and cycle stops.
- Melody goes off once cycle stops.
- Remaining volumem alarm sound is melody.

UTILITY

AIR	PRESSURE	0.39MPa	QTY	200NL／min
	CONNECTION	Diameter PT 3/4	1point	screw
WATER	TEMP.	Max. 30℃	QTY	30L／min
	CONNECTION	Diameter PT 3/4	1point	screw
ELECTRICITY	CAPACITY	Control	235.5 KVA	
		Heater	150 KVA	
	PRIMARY POWER	AC415V 3 phases		
	Frequency	50Hz		
	Power circuit	AC415V、AC200V		
	Operation circuit	Input	DC24V	
		SOL	DC24V	
		Lamp	DC24V (LED type)	
OIL	Hydraulic oil	Type	Equal to ISO VG46	
		QTY	160L	

PAINTING COLOR

MACHINE	N7.5/0
MOVING PART	N7.5/0
HEAT FURNACE	Heat-proof silver No5
SAFETY COVER	Safety Yellow
	Expand part is black.
Outside & Inside panel	N7.5/0
Relay BOX	N7.5/0
	Excluding commercial item

PIPING COLOR

WATER	Commercial hose color	
AIR HOSE	A Port	Black
	B Port	Black
	Others	Black
	Heat proof tefron tube	Transparency
	Steel pipe	Silver
OIL	Black	
VACUUM	White	
	※Piping on vacuum tank, heat furnace heat proof silver No5.	

PAINTING COLAR

ELECTRICITY	Power=Engine Black (Collar cap :Red, White, Blue
	Inside of control panel DC24V=Blue
	AC100=Red
	AC200V=Yel