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ZF 20211027-IV

VENUS III

SPECIFICATION | INTERNATIONAL

4,500 – 8,000 kN



TECHNICAL DATA VE4500 III

		VE4500 III												
CLAMPING UNIT	Clamping force	kN	4500											
	Mold opening stroke	mm	800											
	Mold height min.	mm	350											
	Mold height max.	mm	810											
	Max. daylight	mm	1610											
	Dist. between tie bars (H×V)	mm	910×910											
	Min. mold dimension	mm	590×590											
	Ejector stroke	mm	180											
	Ejector force	kN	98											
	Size of mold platen (H×V)	mm	1300 × 1300											
INJECTION UNIT	Screw diameter	mm	A	B	C	A	B	C	A	B	C	A	B	C
		L/D	21.8	20	18.5	21.6	20	18.6	21.5	20	17.5	21.3	20	17.8
		Injection volume (theoretical) ¹	cm ³	617	735	862	791	929	1077	1068	1239	1618	1634	1859
	Injection weight (PS) ²	g	562	668	785	720	845	980	972	1127	1472	1487	1692	2141
		MPa	214	180	153	210	180	155	210	180	138	205	180	142
	Holding pressure ³	bar	2140	1800	1530	2100	1800	1550	2100	1800	1380	2050	1800	1420
		MPa	190	160	136	187	160	138	190	162	124	185	162	128
	Screw speed	rpm		300			250			210			185	
		g/s	54	64	71	57	68	72	56	65	80	62	80	100
	Plasticizing rate (HDPE) ⁵	g/s	-	-	-	-	-	-	80	95	120	93	115	150
Nozzle contact force	kN		54			54			63.7			63.7		
Heating power	kW		29.7			34.3			37.6			45		
OTHERS	INJECTION UNIT		1400			1700			2250			3350		
	Injection speed	mm/s	160			160			160			160		
	Injection rate (PS)	g/s	332	395	463	395	463	537	463	537	702	617	702	889
	INJECTION UNIT		1400h			1700h			2250h			-		
	Injection speed	mm/s	250			250			250			-		
	Injection rate (PS)	g/s	518	617	724	617	724	840	723	839	1097	-	-	-
	Connection power	kW/A	1400:53/90 1400h:56/94			1700:56/93 1700h:59/98			2250:73/122 2250h:106/177			85/143		
	Hopper capacity (OP)	l	50			50			50			100		
	Machine dimension	m	8.3×2.3×2.6			8.5×2.3×2.6			8.3×2.3×2.6			8.5×2.3×2.6		
	Machine weight	t	26.42			26.61			27.10			27.45		

NOTE: ¹ Shot volume is the theoretical value which equals to cross section area of screw cylinder or barrel plunger × screw stroke.

² Shot weight (PS) is the theoretical value of shot volume melt density of PS. It is not a measured value.

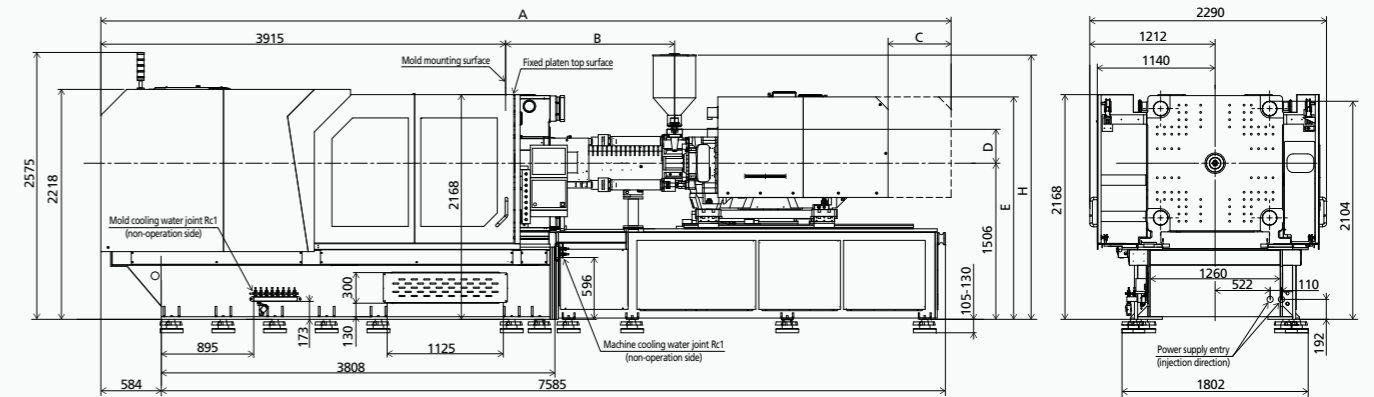
³ Injection & holding pressure are theoretical values of machine output, not the actual resin pressure.

⁴ Plasticizing capacity(GPPS):GB standard, with application of GPPS plasticizing capacity of 3-zone screws.

⁵ Plasticizing capacity(HDPE):Euromap 19, with application of HDPE plasticizing capacity of barrier screws.

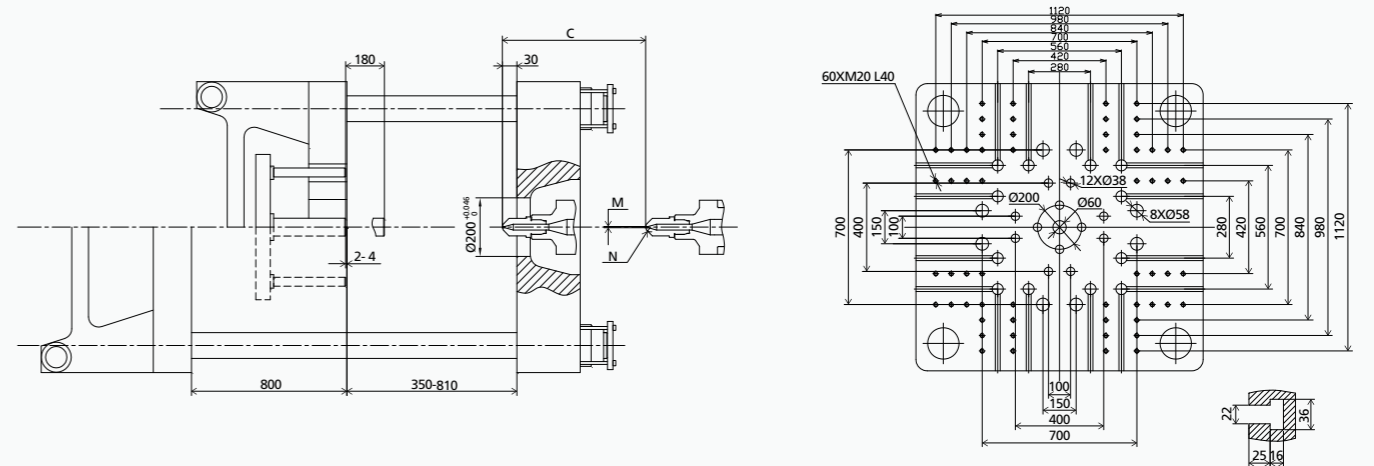
This parameter table is based on machine standard configuration;
We reserve the right to make changes as a result of further technical advances.

MACHINE DIMENSIONS

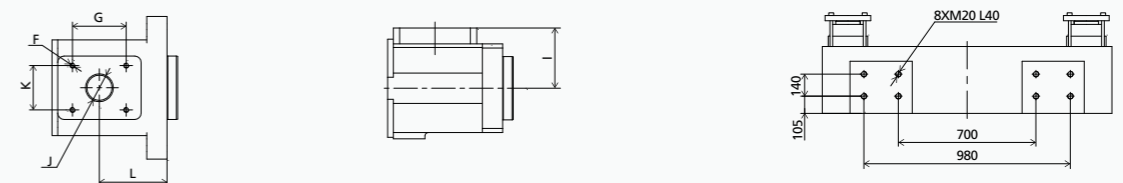


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1400h,1400	8214	1377	610	251	2211	4×M10 L20	115	2360	149	Ø80	115	184	Ø3	SR10
1700h,1700	8413	1543	610	250	2211	4×M10 L20	115	2360	148	Ø80	115	217	Ø3	SR10
2250h,2250	8214	1636	610	327	2146	4×M10 L20	115	2436	225	Ø85	115	70	Ø4	SR15
3350	8481	1841	610	346	2146	4×M12 L25	170	2867	225	Ø100	170	128	Ø4	SR15

PLATEN DIMENSIONS



OTHERS DIMENSIONS



TECHNICAL DATA VE5500 III

		VE5500 III												
CLAMPING UNIT	Clamping force	kN	5500											
	Mold opening stroke	mm	900											
	Mold height min.	mm	400											
	Mold height max.	mm	880											
	Max. daylight	mm	1780											
	Dist. between tie bars (H×V)	mm	970×970											
	Min. mold dimension	mm	630×630											
	Ejector stroke	mm	180											
	Ejector force	kN	137.2											
	Size of mold platen (H×V)	mm	1400 × 1400											
INJECTION UNIT	Screw diameter	mm	A	B	C	A	B	C	A	B	C	A	B	C
	Screw L/D ratio	L/D	55	60	65	60	65	70	65	70	80	75	80	90
	Injection volume (theoretical) ¹	cm ³	21.8	20	18.5	21.6	20	18.6	21.5	20	17.5	21.3	20	17.8
	Injection weight (PS) ²	g	617	735	862	791	929	1077	1068	1239	1618	1634	1859	2353
	Injection pressure ³	MPa	562	668	785	720	845	980	972	1127	1472	1487	1692	2141
		bar	214	180	153	210	180	155	210	180	138	205	180	142
	Holding pressure ³	MPa	190	160	136	187	160	138	190	162	124	185	162	128
		bar	1900	1600	1360	1870	1600	1380	1900	1620	1240	1850	1620	1280
	Screw speed	rpm	300			250			210			185		
	Plasticizing rate (PS) ⁴	g/s	54	64	71	57	68	72	56	65	80	62	80	100
Plasticizing rate (HDPE) ⁵	g/s	-	-	-	-	-	-	80	95	120	93	115	150	
Nozzle contact force	kN	54			54			63.7			63.7			
Heating power	kW	29.7			34.3			37.6			45			
OTHERS	INJECTION UNIT		1400			1700			2250			3350		
	Injection speed	mm/s	160			160			160			160		
	Injection rate (PS)	g/s	332	395	463	395	463	537	463	537	702	617	702	889
	INJECTION UNIT		1400h			1700h			2250h			-		
	Injection speed	mm/s	250			250			250			-		
Injection rate (PS)	g/s	518	617	724	617	724	840	723	839	1097	-	-	-	
Connection power	kW/A	1400:53/90 1400h:56/94			1700:56/93 1700h:59/98			2250:73/122 2250h:106/177			85/143			
Hopper capacity (OP)	l	50			50			50			100			
Machine dimension	m	8.6×2.5×2.6			8.8×2.5×2.6			8.6×2.5×2.6			9.0×2.5×2.6			
Machine weight	t	30.73			30.96			31.42			31.87			

NOTE: ¹ Shot volume is the theoretical value which equals to cross section area of screw cylinder or barrel plunger × screw stroke.

² Shot weight (PS) is the theoretical value of shot volume melt density of PS. It is not a measured value.

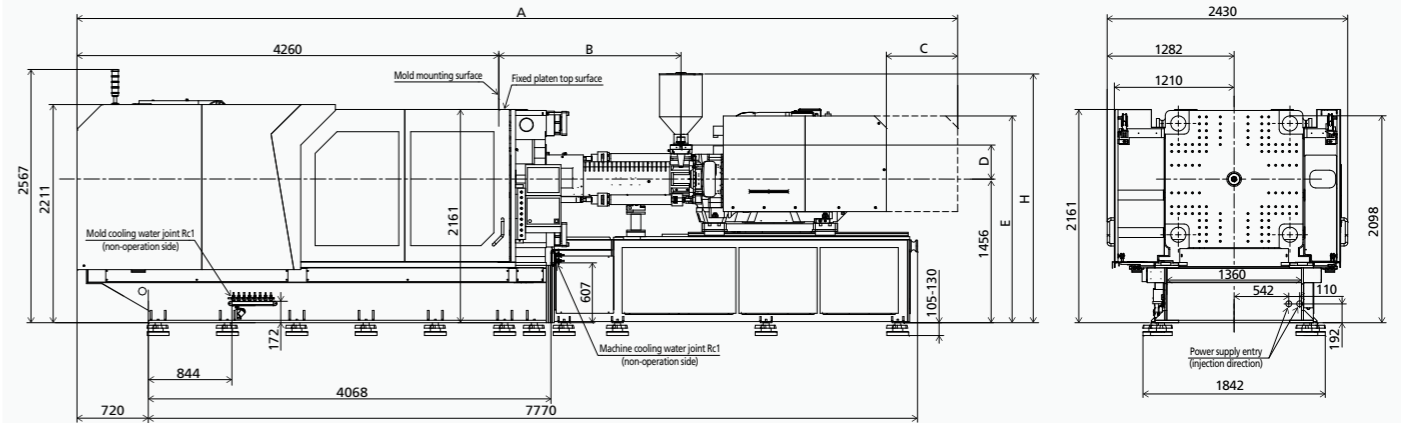
³ Injection & holding pressure are theoretical values of machine output, not the actual resin pressure.

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⁵ Plasticizing capacity(HDPE):Euromap 19, with application of HDPE plasticizing capacity of barrier screws.

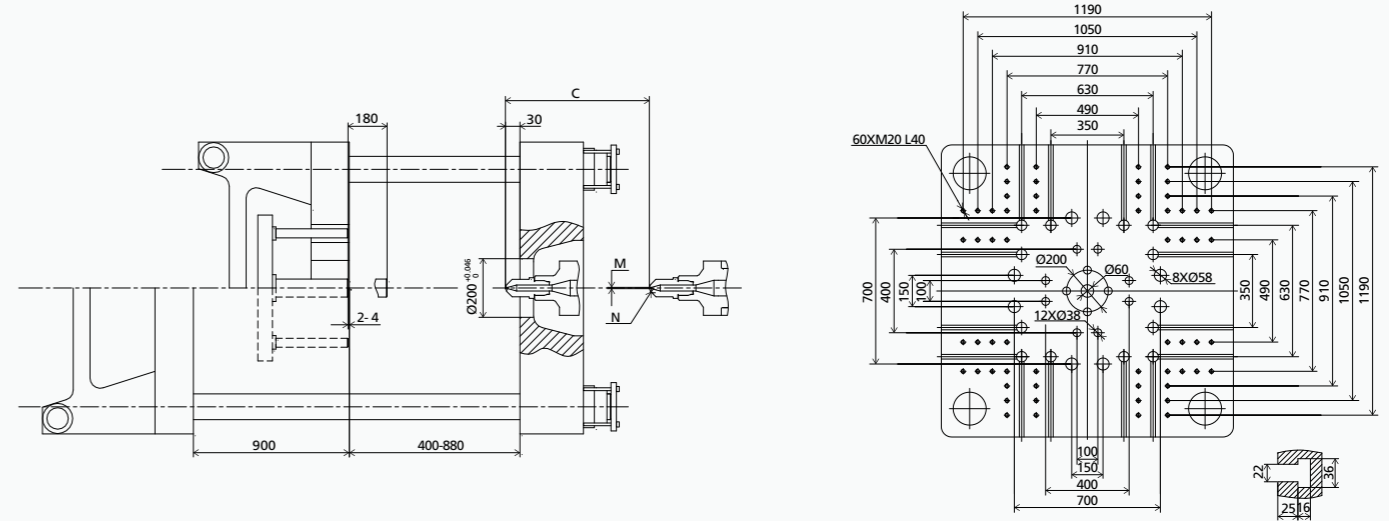
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MACHINE DIMENSIONS

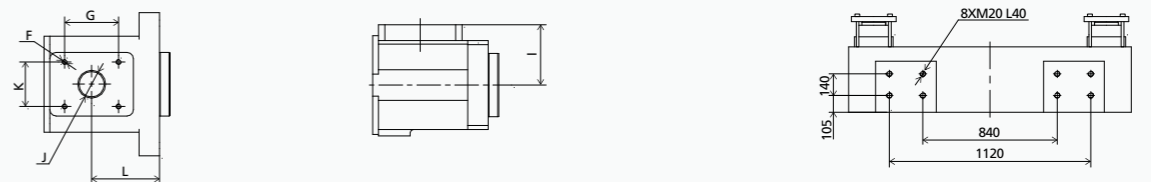


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1400h,1400	8559	1377	610	251	2161	4×M10 L20	115	2310	149	Ø80	115	184	Ø3	SR10
1700h,1700	8758	1543	610	250	2161	4×M10 L20	115	2310	148	Ø80	115	217	Ø3	SR10
2250h,2250	8559	1636	610	327	2096	4×M10 L20	115	2386	225	Ø85	115	70	Ø4	SR15
3350	8936	1841	720	346	2096	4×M12 L25	170	2817	225	Ø100	170	128	Ø4	SR15

PLATEN DIMENSIONS



OTHERS DIMENSIONS



TECHNICAL DATA VE6500 III

		VE6500 III									
CLAMPING UNIT	Clamping force	kN	6500								
	Mold opening stroke	mm	1000								
	Mold height min.	mm	420								
	Mold height max.	mm	1000								
	Max. daylight	mm	2000								
	Dist. between tie bars (H×V)	mm	1080×1080								
	Min. mold dimension	mm	700×700								
	Ejector stroke	mm	200								
	Ejector force	kN	196								
	Size of mold platen (H×V)	mm	1550×1550								
INJECTION UNIT	Screw diameter	mm	A	B	C	A	B	C	A	B	C
		L/D	21.6	20	18.6	21.5	20	17.5	21.3	20	17.8
		Injection volume (theoretical) ¹	cm ³	791	929	1077	1068	1239	1618	1634	1859
	Injection weight (PS) ²	g	720	845	980	972	1127	1472	1487	1692	2141
		MPa	210	180	155	210	180	138	205	180	142
	Holding pressure ³	bar	2100	1800	1550	2100	1800	1380	2050	1800	1420
		MPa	187	160	138	190	162	124	185	162	128
	Screw speed	rpm		250			210			185	
		g/s	57	68	72	56	65	80	62	80	100
	Plasticizing rate (HDPE) ⁵	g/s				80	95	120	93	115	150
kN			54			63.7			63.7		
Heating power	kW		34.3			37.6			45		
			1700			2250			3350		
INJECTION UNIT	Injection speed	mm/s	160			160			160		
	Injection rate (PS)	g/s	395	463	537	463	537	702	617	702	889
			1700h			2250h			-		
OTHERS	Injection speed	mm/s	250			250			-		
	Injection rate (PS)	g/s	617	724	840	723	839	1097	-	-	-
OTHERS	Connection power	kW/A	1700:56/93 1700h:59/98			2250:73/122 2250h:106/177			85/143		
	Hopper capacity (OP)	l	50			50			100		
OTHERS	Machine dimension	m	9.4×2.6×2.8			9.3×2.6×2.8			9.5×2.6×2.8		
	Machine weight	t	37.2			38			38.5		

NOTE: ¹ Shot volume is the theoretical value which equals to cross section area of screw cylinder or barrel plunger × screw stroke.

² Shot weight (PS) is the theoretical value of shot volume melt density of PS. It is not a measured value.

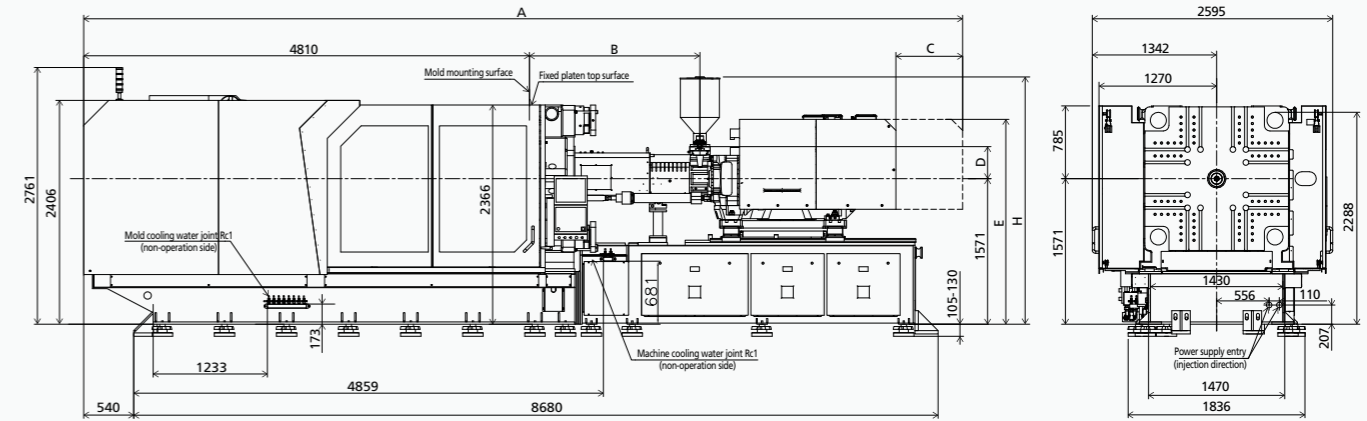
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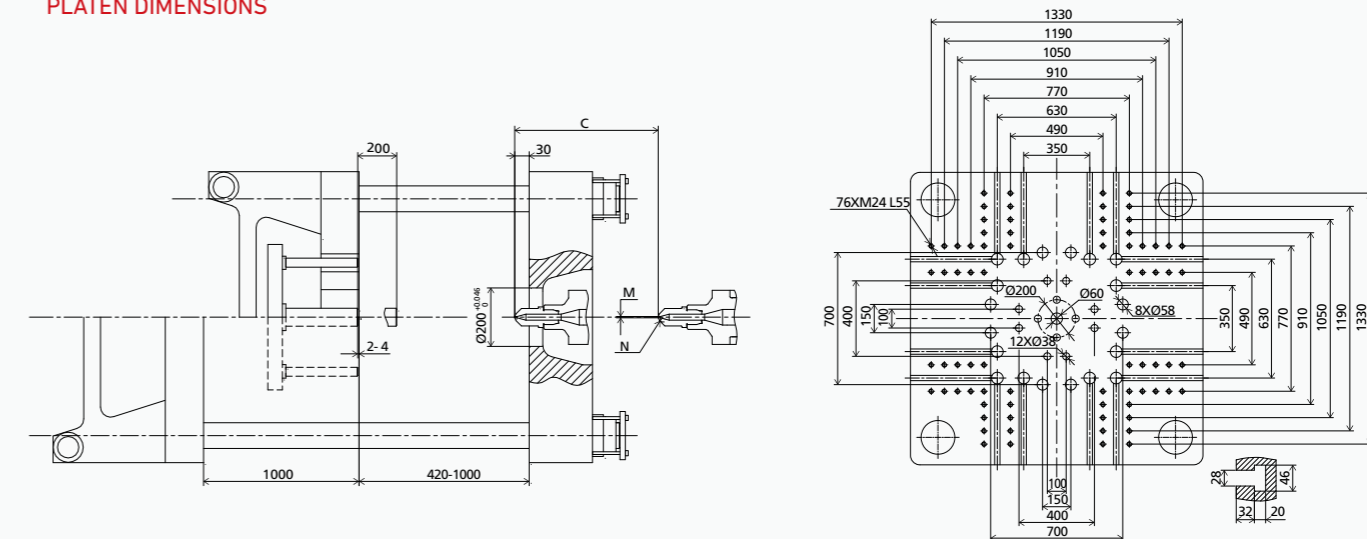
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MACHINE DIMENSIONS

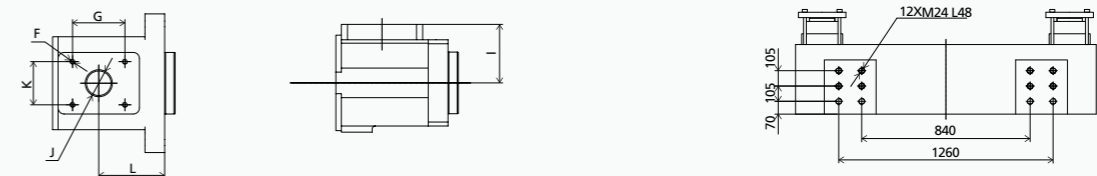


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1700h,1700	9308	1543	610	250	2276	4XM10 L20	115	2424	148	Ø80	115	217	Ø3	SR10
2250h,2250	9109	1636	610	327	2211	4XM10 L20	115	2501	225	Ø85	115	70	Ø4	SR15
3350	9485	1841	720	346	2211	4XM12 L25	170	2932	225	Ø100	170	128	Ø4	SR15

PLATEN DIMENSIONS



OTHERS DIMENSIONS



TECHNICAL DATA VE8000 III

		VE8000 III									
CLAMPING UNIT	Clamping force	kN	8000								
	Mold opening stroke	mm	1000								
	Mold height min.	mm	420								
	Mold height max.	mm	1000								
	Max. daylight	mm	2000								
	Dist. between tie bars (H×V)	mm	1080×1080								
	Min. mold dimension	mm	700×700								
	Ejector stroke	mm	200								
	Ejector force	kN	196								
	Size of mold platen (H×V)	mm	1550×1550								
INJECTION UNIT			A	B	C	A	B	C	A	B	C
	Screw diameter	mm	60	65	70	65	70	80	75	80	90
	Screw L/D ratio	L/D	21.6	20	18.6	21.5	20	17.5	21.3	20	17.8
	Injection volume (theoretical) ¹	cm ³	791	929	1077	1068	1239	1618	1634	1859	2353
	Injection weight (PS) ²	g	720	845	980	972	1127	1472	1487	1692	2141
	Injection pressure ³	MPa	210	180	155	210	180	138	205	180	142
		bar	2100	1800	1550	2100	1800	1380	2050	1800	1420
	Holding pressure ³	MPa	187	160	138	190	162	124	185	162	128
		bar	1870	1600	1380	1900	1620	1240	1850	1620	1280
	Screw speed	rpm	250			210			185		
Plasticizing rate (PS) ⁴	g/s	57	68	72	56	65	80	62	80	100	
Plasticizing rate (HDPE) ⁵	g/s				80	95	120	93	115	150	
Nozzle contact force	kN	54			63.7			63.7			
Heating power	kW	34.3			37.6			45			
OTHERS	INJECTION UNIT		1700			2250			3350		
	Injection speed	mm/s	160			160			160		
	Injection rate (PS)	g/s	395	463	537	463	537	702	617	702	889
	INJECTION UNIT		1700h			2250h			-		
	Injection speed	mm/s	250			250			-		
	Injection rate (PS)	g/s	617	724	840	723	839	1097	-	-	-
	Connection power	kW/A	1700:56/93 1700h:59/98			2250:73/122 2250h:106/177			85/143		
	Hopper capacity (OP)	l	50			50			100		
	Machine dimension	m	9.4×2.6×2.8			9.3×2.6×2.8			9.5×2.6×2.8		
	Machine weight	t	37.2			38			38.5		

NOTE: ¹ Shot volume is the theoretical value which equals to cross section area of screw cylinder or barrel plunger × screw stroke.

² Shot weight (PS) is the theoretical value of shot volume melt density of PS. It is not a measured value.

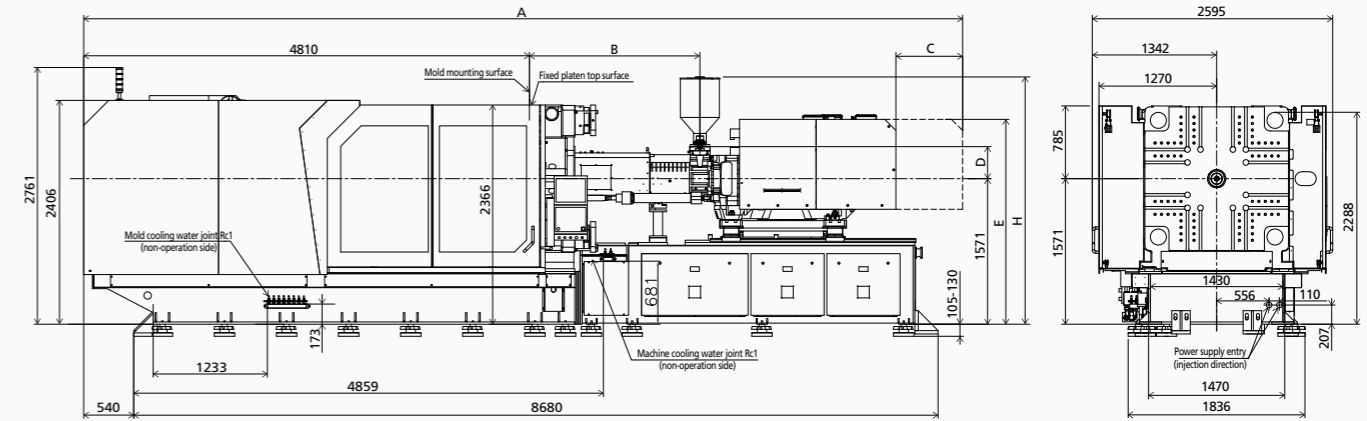
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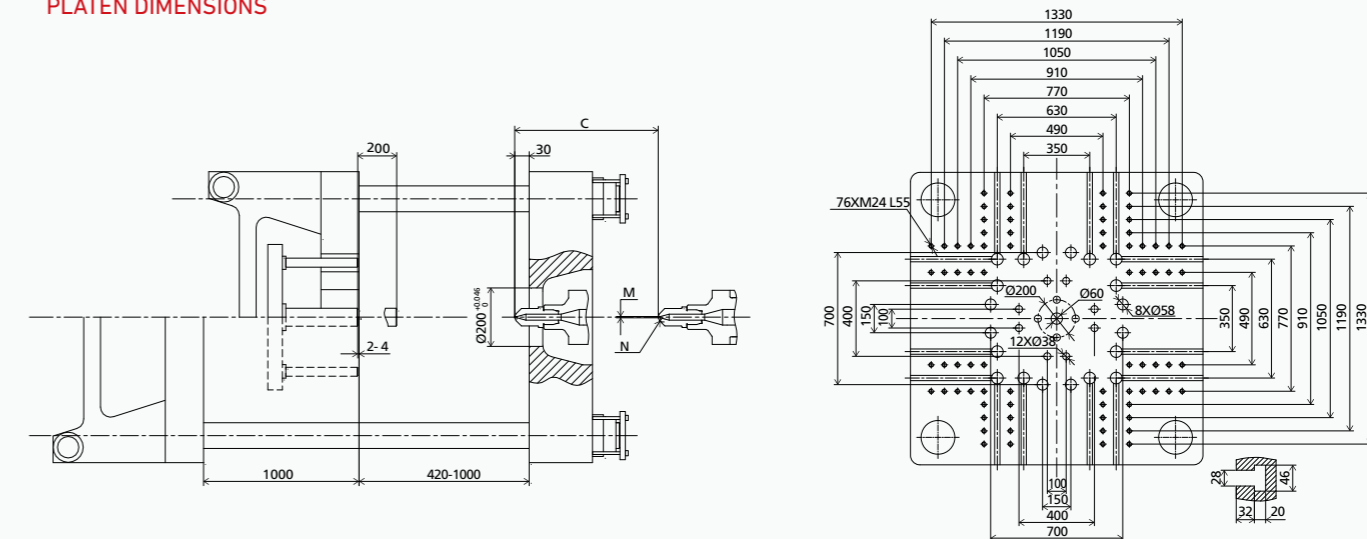
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MACHINE DIMENSIONS

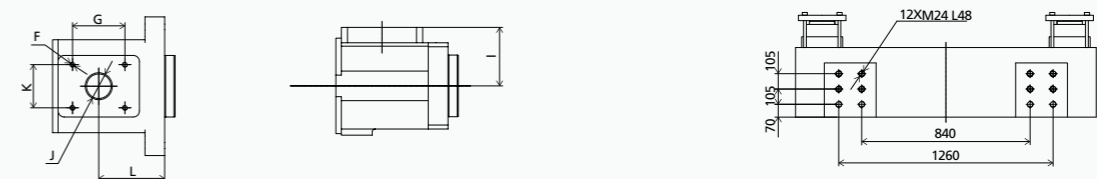


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1700h,1700	9308	1543	610	250	2276	4XM10 L20	115	2424	148	Ø80	115	217	Ø3	SR10
2250h,2250	9109	1636	610	327	2211	4XM10 L20	115	2501	225	Ø85	115	70	Ø4	SR15
3350	9485	1841	720	346	2211	4XM12 L25	170	2932	225	Ø100	170	128	Ø4	SR15

PLATEN DIMENSIONS

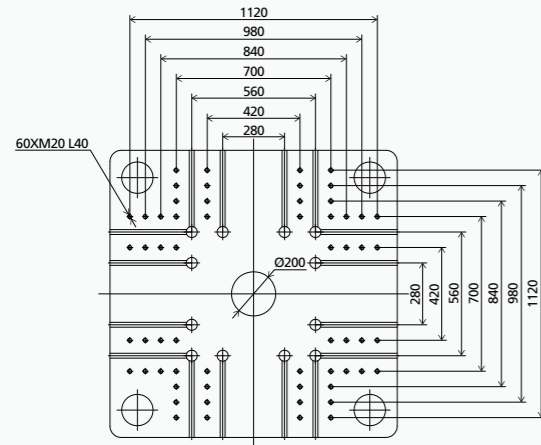


OTHERS DIMENSIONS

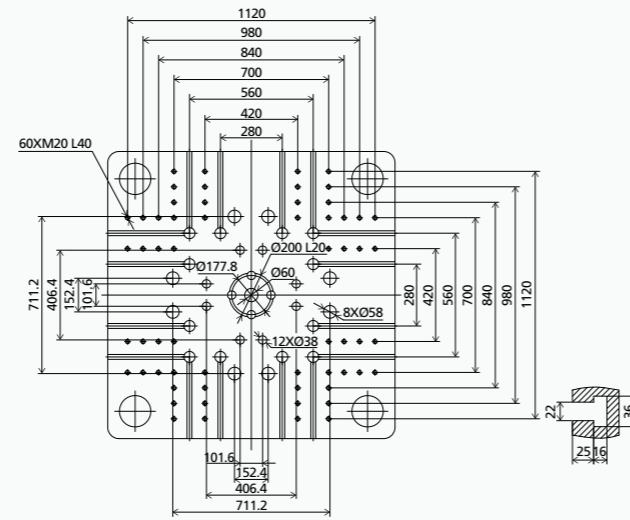


PLATEN LAYOUT VE4500 III

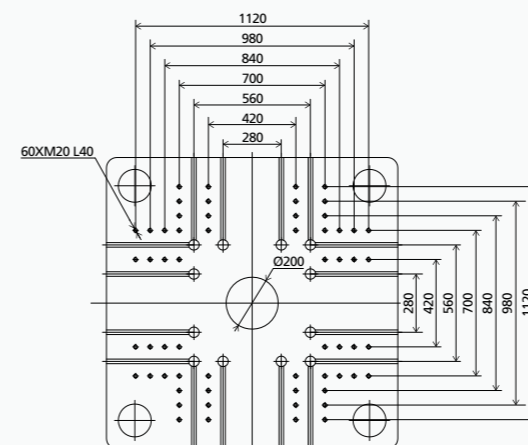
EUROPEAN VERSION
FIXED PLATEN



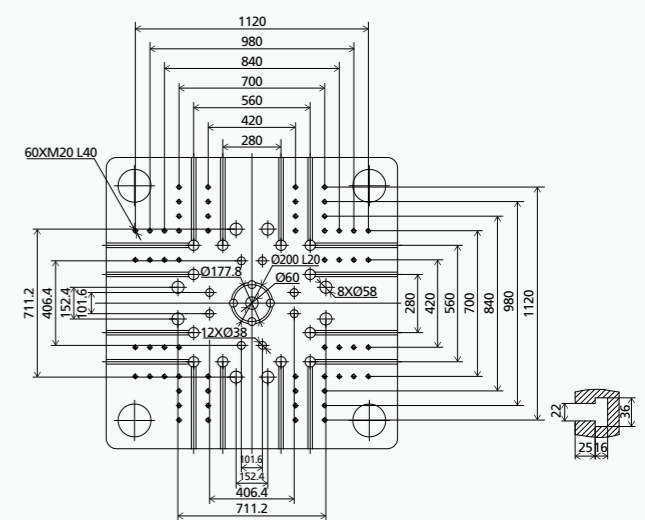
MOVABLE PLATEN



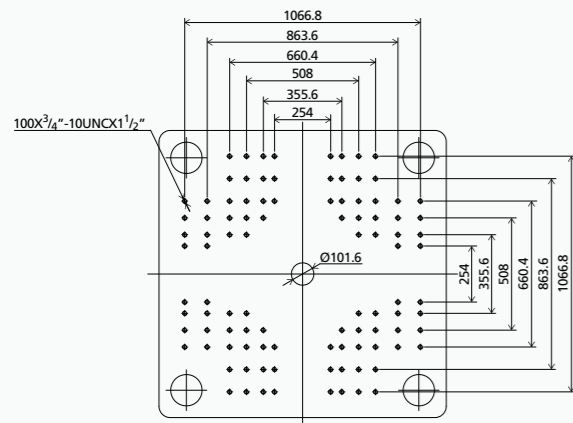
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FIXED PLATEN



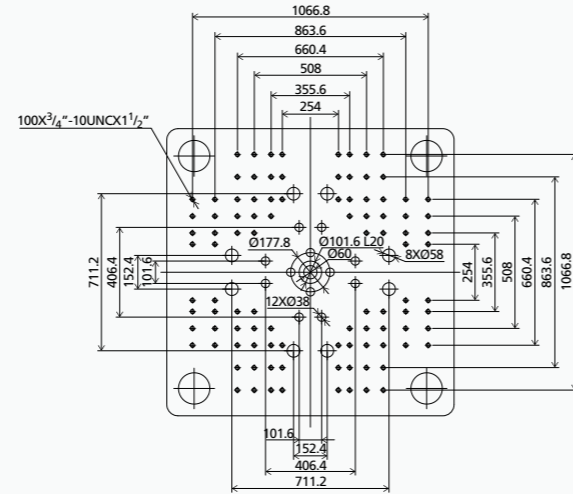
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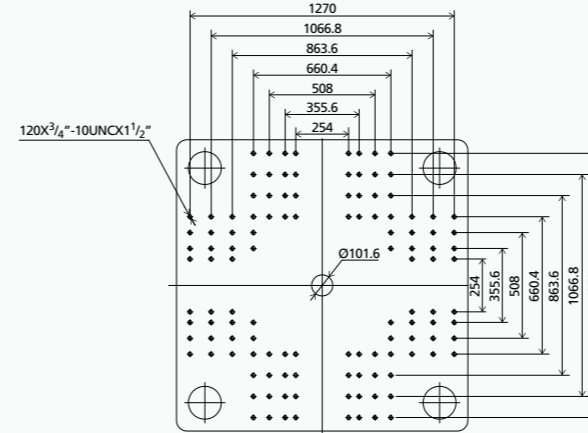
AMERICAN VERSION
FIXED PLATEN



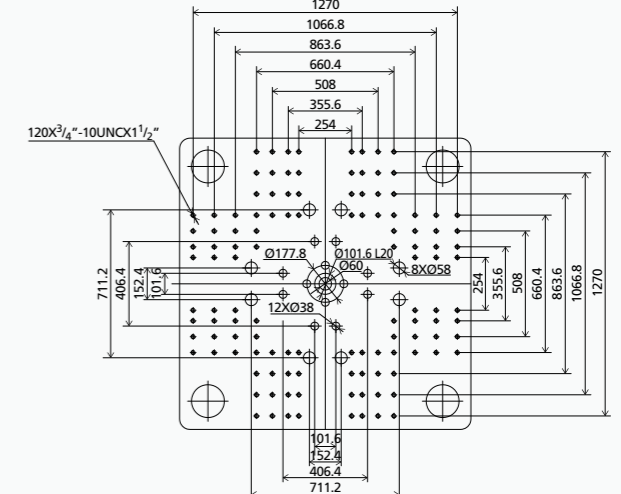
MOVABLE PLATEN



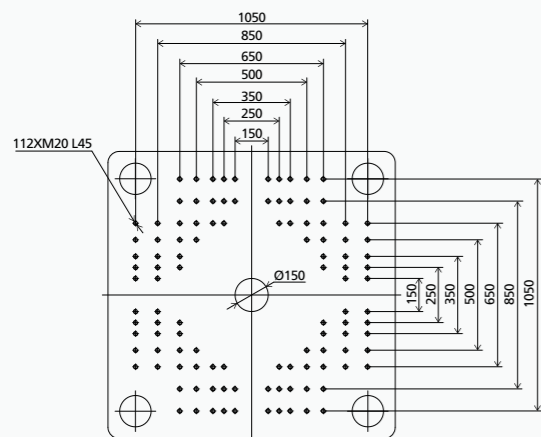
AMERICAN VERSION
FIXED PLATEN



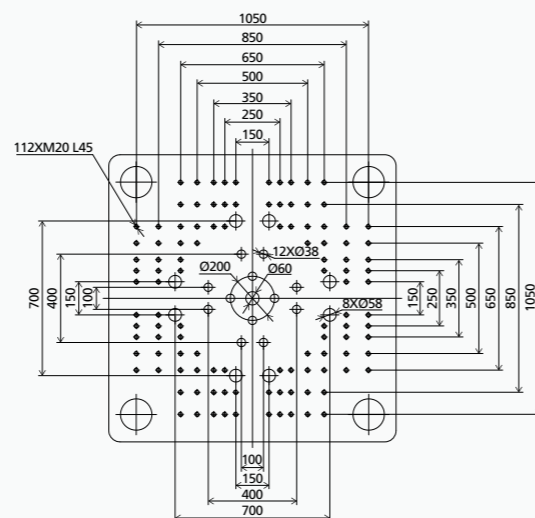
MOVABLE PLATEN



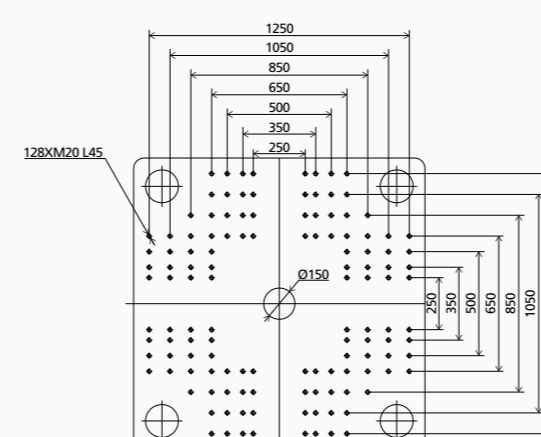
JAPANESE VERSION
FIXED PLATEN



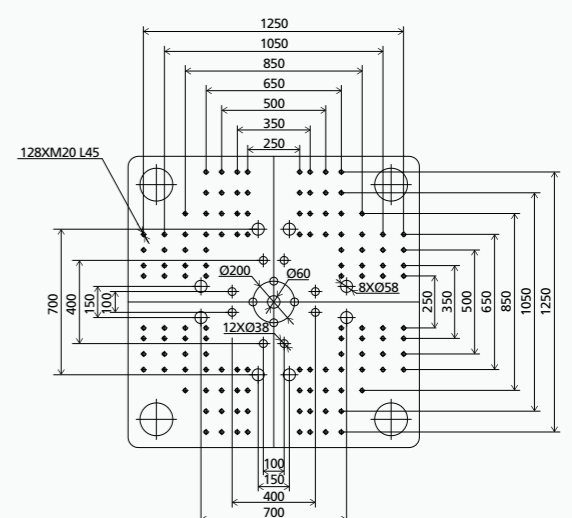
MOVABLE PLATEN



JAPANESE VERSION
FIXED PLATEN



MOVABLE PLATEN

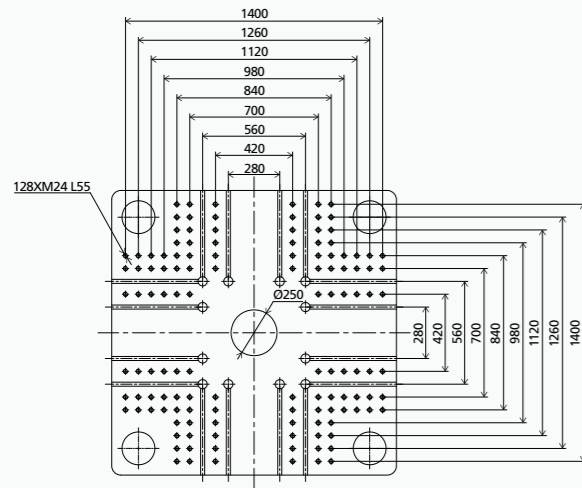


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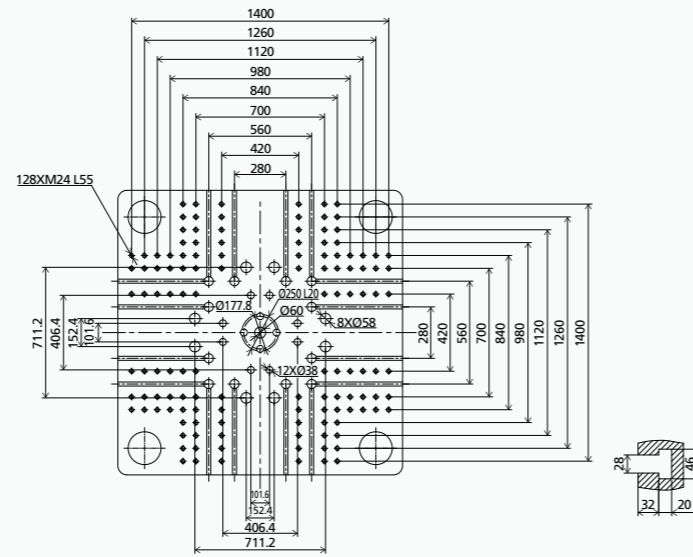
PLATEN LAYOUT VE6500 III

PLATEN LAYOUT VE8000 III

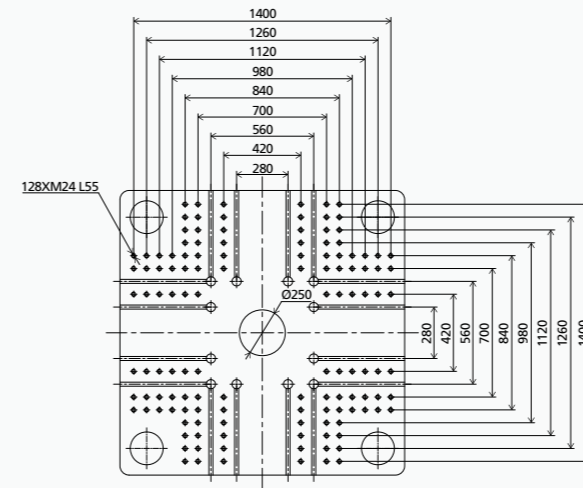
EUROPEAN VERSION
FIXED PLATEN



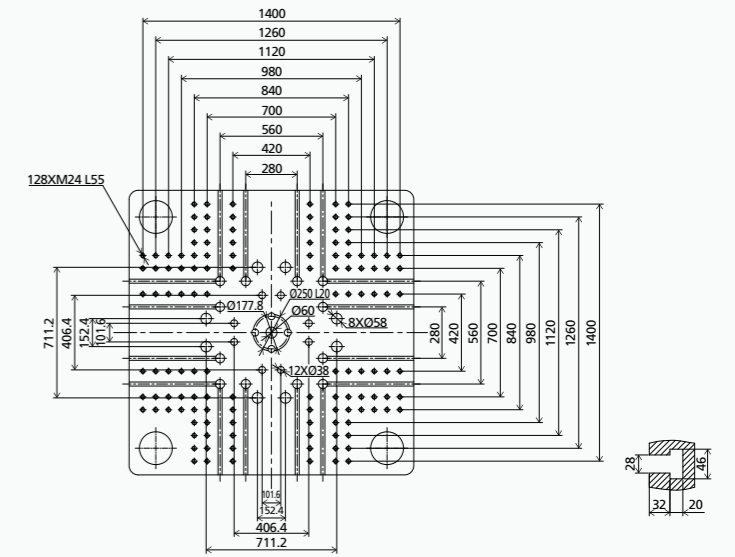
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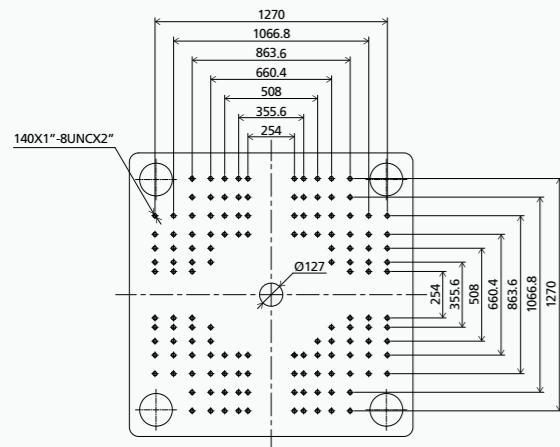
EUROPEAN VERSION
FIXED PLATEN



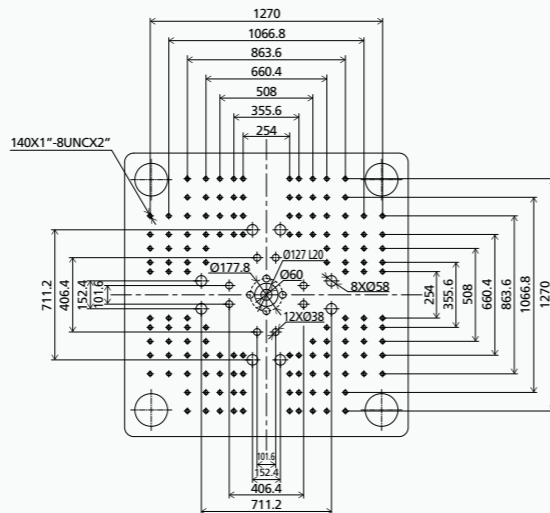
MOVABLE PLATEN



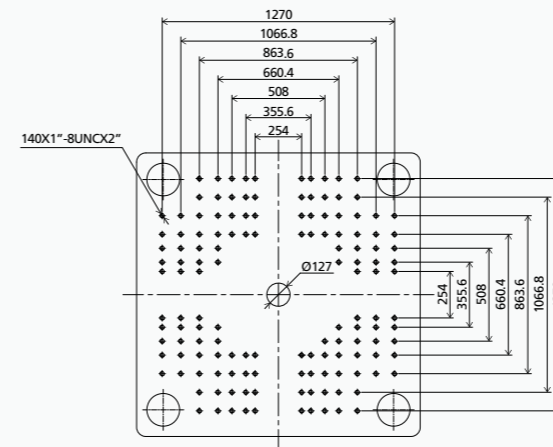
AMERICAN VERSION
FIXED PLATEN



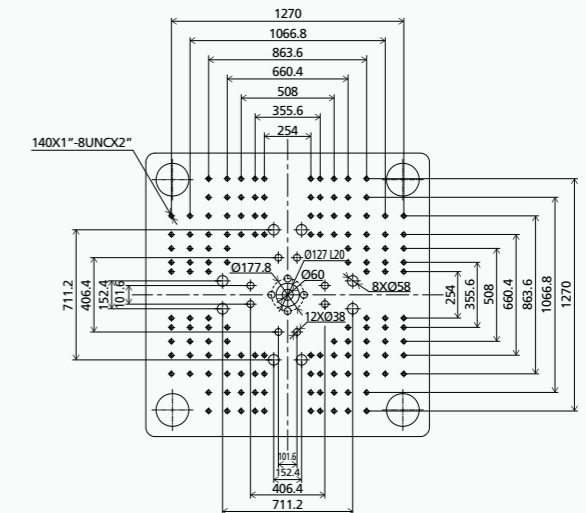
MOVABLE PLATEN



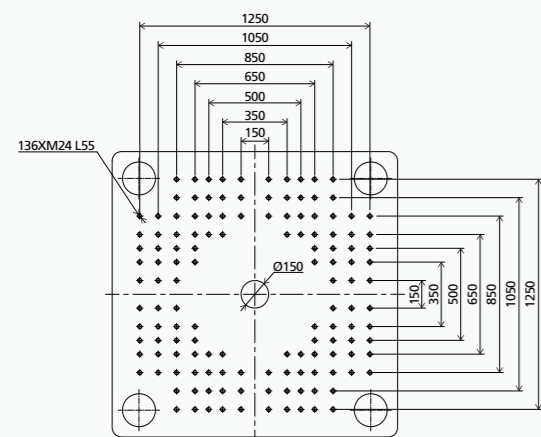
AMERICAN VERSION
FIXED PLATEN



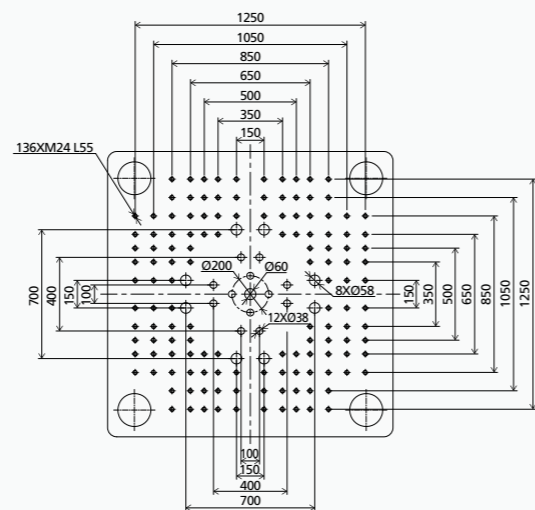
MOVABLE PLATEN



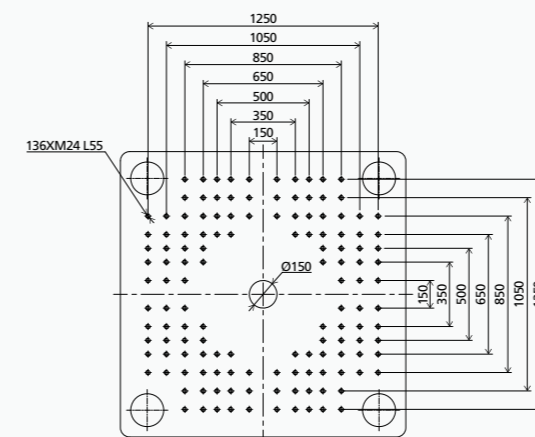
JAPANESE VERSION
FIXED PLATEN



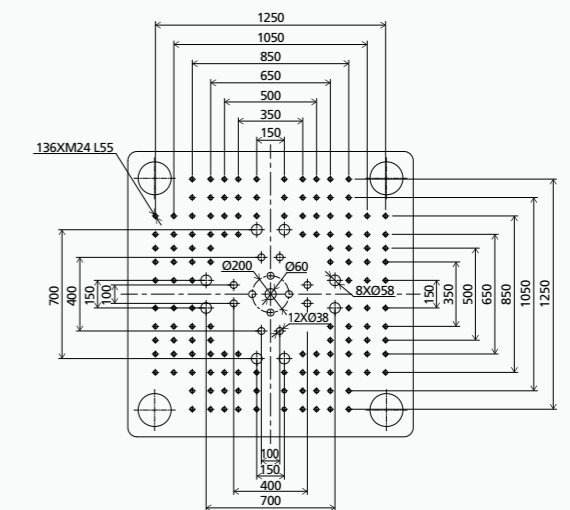
MOVABLE PLATEN



JAPANESE VERSION
FIXED PLATEN



MOVABLE PLATEN



We reserve the right to make changes as a result of further technical advances.

STANDARD EQUIPMENT LIST

GENERAL EQUIPMENT

- » Basic safety device according to GB/22530-2010.
- » ZHAFIR colors: RAL9010, RAL5003
- » Power supply: 380VAC, 3PH+N+PE
- » Sigmatek controller, 15.1 inch touch screen
- » Injection, dosing, platen movement and ejector movement driven independently by servo motor, optical encoder position detection.
- » LUBE central lubrication system

INJECTION UNIT

- » Abrasion-resistant screw set, general version
- » Open nozzle
- » Barrel heating temperature PID control, SSR
- » Extended nozzle, temperature PID control independently
- » Feeding zone temperature closed-loop control
- » Injection speed 6 steps
- » Speed responding mode adjustable
- » Holding pressure 4 steps
- » Pressure responding mode adjustable
- » V/P switch over methods by position/ time/ pressure combinations
- » Dosing rotation speed 3 steps
- » Back pressure 3 steps
- » HPM over-filling protection function
- » Screw retraction before and/or after dosing
- » Auto purge
- » Swiveling injection unit

CLAMPING UNIT

- » 5-point twin toggle mechanism
- » Center pressing platen
- » Clamping force settable at control panel
- » Automatic mold-height adjustment
- » Platen moving speed 6 steps
- » AI mold protection
- » Clamping force pre-release
- » Ejector speed 3 steps
- » Ejector pressure 3 steps
- » Multi ejection function
- » Ejection parallel to mold opening

FUNCTIONS & CONTROLS

- » Multi-language available
(Chinese, German, English, Japanese etc.)
- » Metric/Imperial unit selectable
- » Dosing parallel to mold opening
- » Injection compression
- » Production assistant device function
- » Maintenance alert
- » 5000 cycles process data recording
- » Amendment report
- » Alarm record
- » Quality control function
- » Mold profile data memory (up to 200 sets)
- » 3 USB interface
- » USB printer interface
- » Injection speed & pressure curve
- » 1 free programmable I/O
- » Mold ejector protection interface
- » EUROMAP 12 interface for handling device
- » Auxiliary socket 3PH/380V 32A×1, 16A×2
- » 3 color alarm lamp (red/yellow/green)

OTHERS

- » Tool kit & spare parts package
- » Leveling pads
- » Documents with machine
- » Operating manual