

TECHNOLOGY TO THE POINT



NINGBO ZHAFIR PLASTICS MACHINERY MANUFACTURING CO., LTD.
No. 98 Guanhai Road, Chunxiao, Beilun, Ningbo, China 315800

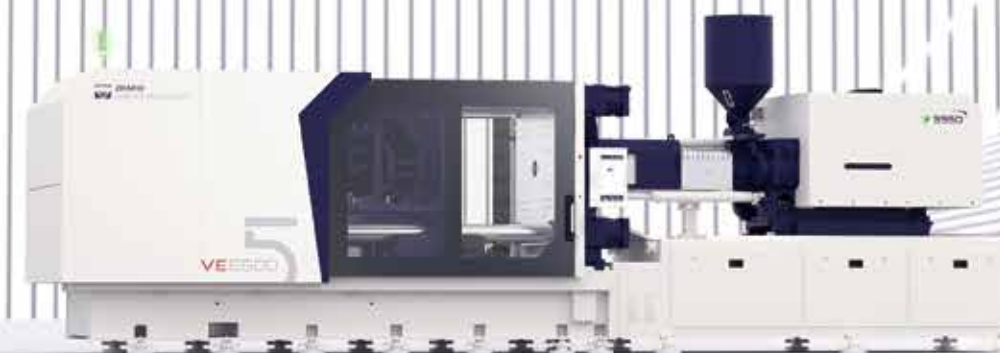
Tel. +86-574-86182986
Fax. +86-574-86182977
E-Mail: contact@mail.zhafir.cn
www.zhafir.cn



VENUS SERIES

TECHNICAL SPECIFICATION

5,500 – 13,800 kN



TECHNICAL DATA VE6500 V

CLAMPING UNIT	Clamping force	kN	6500											
	Mold opening stroke	mm	1000											
	Mold height min.	mm	420											
	Mold height max.	mm	1000											
	Total daylight max.	mm	2000											
	Dist. Between tie-bars (H×V)	mm	1080×1080											
	Size of mold platen (H×V)	mm	1460×1460											
Mold dimension min.	mm	700×700												
Ejector stroke	mm	200												
Ejector force	kN	196												
INJECTION UNIT			A	B	C	A	B	C	A	B	C	A	B	C
	Screw diameter	mm	60	65	70	65	70	80	75	80	90	80	90	100
	Screw L/D ratio	L/D	21.6	20	18.6	21.5	20	17.5	21.3	20	17.8	24.8	22	19.8
	Injection volume (theoretical) ¹	cm ³	791	929	1077	1068	1239	1618	1634	1859	2353	2261	2862	3534
	Injection weight (PS) ²	g	720	845	980	972	1127	1472	1487	1692	2141	2058	2605	3216
	Injection pressure ³	MPa	210	180	155	210	180	138	205	180	142	227	180	145
		bar	2100	1800	1550	2100	1800	1380	2050	1800	1420	2270	1800	1450
	Holding pressure ³	MPa	187	160	138	190	162	124	185	162	128	204	162	131
		bar	1870	1600	1380	1900	1620	1240	1850	1620	1280	2040	1620	1310
	Screw speed	rpm	250			240			220			190		
	Plasticizing rate (GPPS) ⁴	g/s	57	68	72	62	71	88	70	92	105	85	107	131
	Plasticizing rate (HDPE) ⁵	g/s	-	-	-	93	111	132	105	141	165	128	162	200
	Nozzle contact force	kN	54			85			85			85		
INJECTION UNIT		1700			2250			3350			5200			
Injection speed	mm/s	160			160			160			160			
Injection rate (PS)	g/s	395	463	537	463	537	702	617	702	889	702	889	1097	
INJECTION UNIT		1700h			2250h			-			-			
Injection speed	mm/s	250			250			-			-			
Injection rate (PS)	g/s	617	724	840	723	839	1097	-	-	-	-	-	-	
OTHERS	Connection power	kW/A	1700:58/98 1700h:74/125			2250:65/109 2250h:89/150			83/138			98/164		
	Heating power	kW	33.1			36.1			42.6			54.3		
	Machine dimension	m	9.70×2.44×2.70			9.70×2.44×2.70			9.70×2.44×2.70			9.81×2.44×2.70		
	Machine weight	t	-			-			-			-		
Hopper capacity (OP)	l	50			50			100			100			

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.

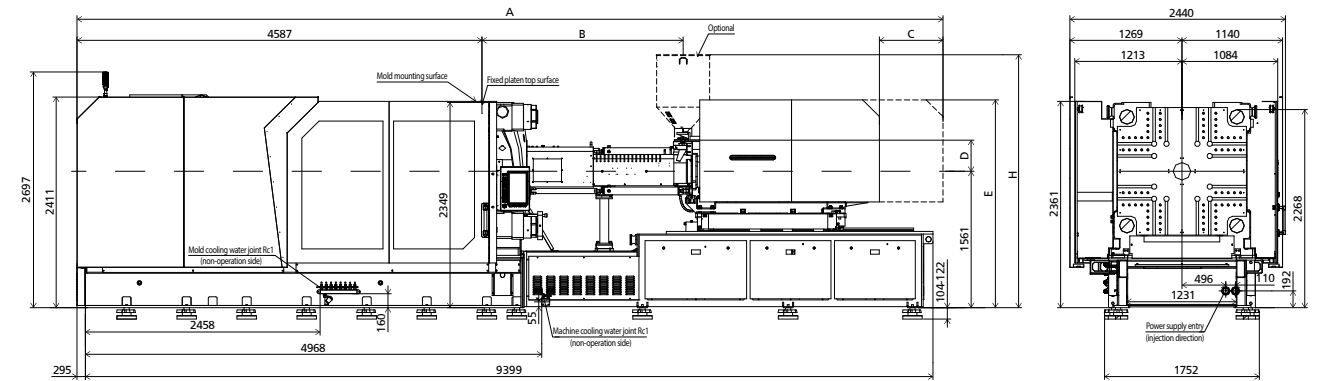
³ Injection & holding pressure are theoretical values of machine output, not the actual resin pressure.

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.

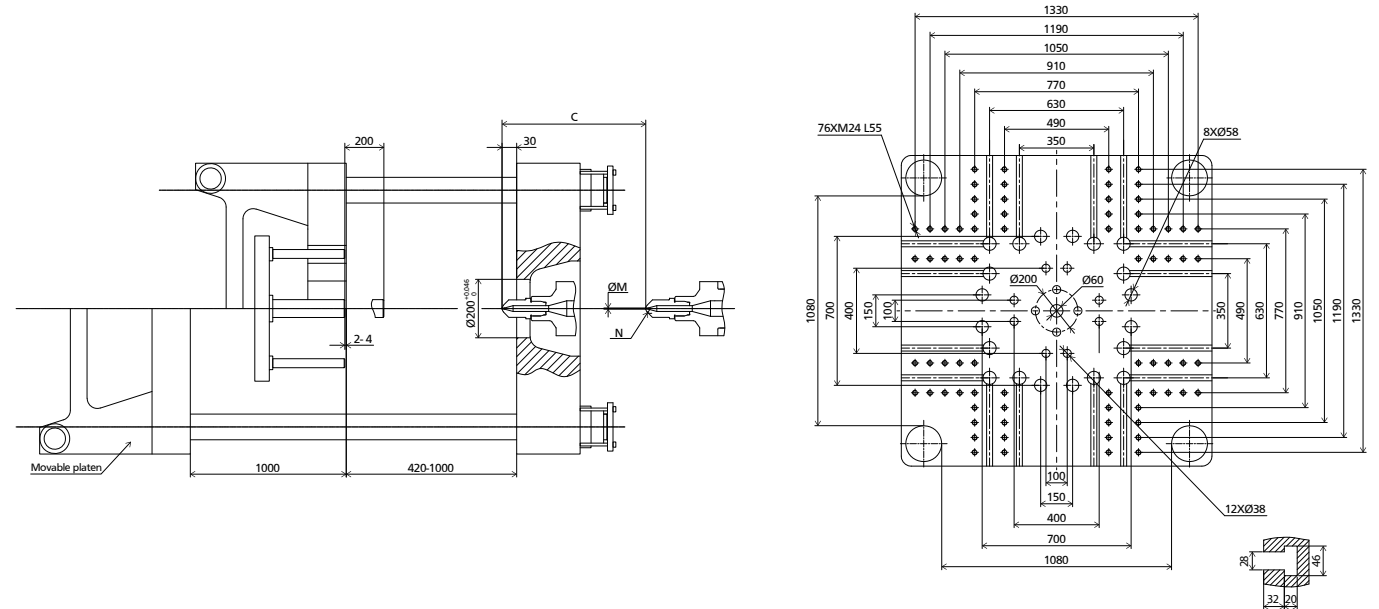
This parameter table is based on machine standard configuration;
We reserve the right to make changes as a result of further technical advances.

MACHINE DIMENSIONS

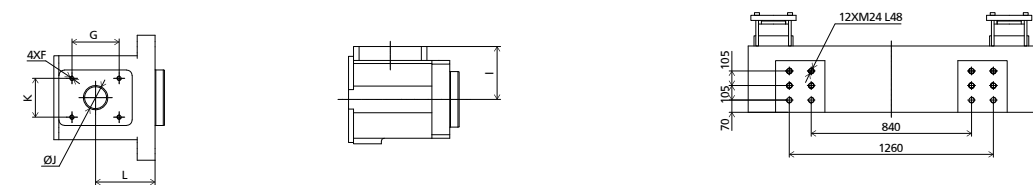


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1700h,1700	8983	1543	560	250	2364	4XM10 L20	115	2414	148	95	115	222.5	Ø3	SR10
2250h,2250	8717	1630	610	327	2212	4XM10 L20	115	2575	225	85	115	70	Ø4	SR15
3350	9096	1841	720	346	2212	4XM12 L25	170	2901	225	100	170	128	Ø4	SR15
5200	9808	2278	720	356	2378	4XM12 L20	170	2895	220	100	170	105	Ø4	SR15

PLATEN DIMENSIONS



OTHERS DIMENSIONS



HOPPER MOUNTING DIMENSION

ROBOT TOP VIEW FIXED PLATEN

TECHNICAL DATA VE8500 V

CLAMPING UNIT	Clamping force	kN	8500											
	Mold opening stroke	mm	1200											
	Mold height min.	mm	450											
	Mold height max.	mm	1100											
	Total daylight max.	mm	2300											
	Dist. Between tie-bars (H×V)	mm	1160×1160											
	Size of mold platen (H×V)	mm	1550×1550											
Mold dimension min.	mm	770×770												
Ejector stroke	mm	200												
Ejector force	kN	230												
INJECTION UNIT			A	B	C	A	B	C	A	B	C	A	B	C
	Screw diameter	mm	65	70	80	75	80	90	80	90	100	90	100	110
	Screw L/D ratio	L/D	21.5	20	17.5	21.3	20	17.8	24.8	22	19.8	24.4	22	20
	Injection volume (theoretical) ¹	cm ³	1068	1239	1618	1634	1859	2353	2261	2862	3534	2989	3691	4466
	Injection weight (PS) ²	g	972	1127	1472	1487	1692	2141	2058	2605	3216	2720	3359	4064
	Injection pressure ³	MPa	210	180	138	205	180	142	227	180	145	222	180	149
		bar	2100	1800	1380	2050	1800	1420	2270	1800	1450	2220	1800	1490
	Holding pressure ³	MPa	190	162	124	185	162	128	204	162	131	200	162	133
		bar	1900	1620	1240	1850	1620	1280	2040	1620	1310	2000	1620	1330
	Screw speed	rpm	240			220			190			170		
	Plasticizing rate (GPPS) ⁴	g/s	62	71	88	70	92	105	85	107	131	103	127	150
	Plasticizing rate (HDPE) ⁵	g/s	93	111	132	105	141	165	128	162	200	156	191	228
	Nozzle contact force	kN	85			85			85			85		
INJECTION UNIT		2250			3350			5200			6700			
Injection speed	mm/s	160			160			160			150			
Injection rate (PS)	g/s	463	537	702	617	702	889	702	889	1097	833	1029	1245	
INJECTION UNIT		2250h			-			-			-			
Injection speed	mm/s	250			-			-			-			
Injection rate (PS)	g/s	723	839	1097	-	-	-	-	-	-	-	-	-	
OTHERS	Connection power	kW/A	2250:65/109 2250h:89/150			83/138			98/164			126/211		
	Heating power	kW	36.1			42.6			54.3			75.6		
	Machine dimension	m	11.17×2.49×2.67			11.17×2.49×2.67			11.17×2.49×2.67			11.17×2.49×2.67		
	Machine weight	t	-			-			-			-		
Hopper capacity (OP)	l	50			100			100			100			

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.

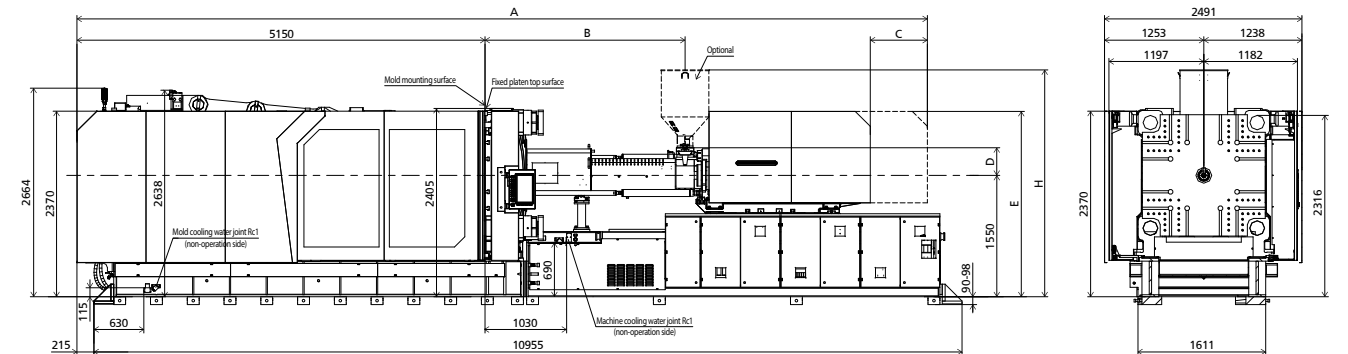
³ Injection & holding pressure are theoretical values of machine output, not the actual resin pressure.

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.

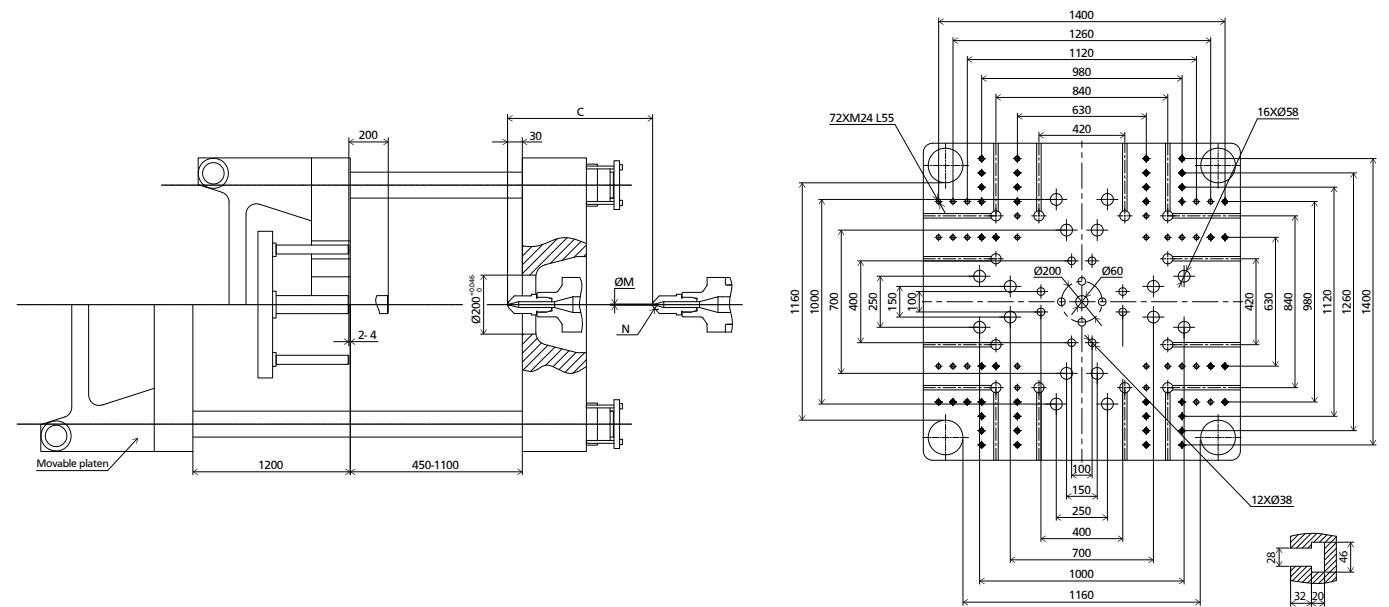
This parameter table is based on machine standard configuration;
We reserve the right to make changes as a result of further technical advances.

MACHINE DIMENSIONS

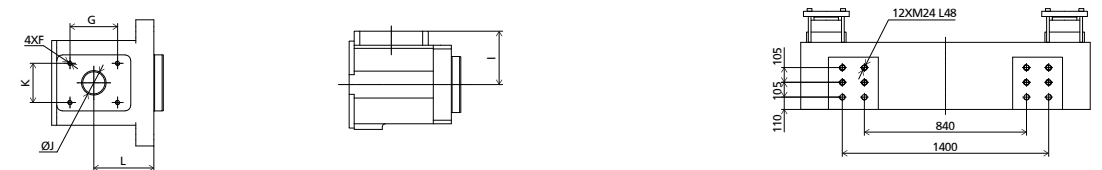


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2250h,2250	9280	1630	610	327	2201	4XM10 L20	115	2564	225	85	115	70	Ø4	SR15
3350	9549	1841	610	346	2201	4XM12 L25	170	2890	225	100	170	128	Ø4	SR15
5200	10371	2278	720	356	2367	4XM12 L20	170	2884	220	100	170	105	Ø4	SR15
6700	10732	2525	720	354	2367	4XM12 L20	170	2897	232	100	170	115	Ø6	SR20

PLATEN DIMENSIONS



OTHERS DIMENSIONS



HOPPER MOUNTING DIMENSION

ROBOT TOP VIEW FIXED PLATEN

TECHNICAL DATA VE10800 V

CLAMPING UNIT	Clamping force	kN	10800											
	Mold opening stroke	mm	1300											
	Mold height min.	mm	500											
	Mold height max.	mm	1200											
	Total daylight max.	mm	2500											
	Dist. Between tie-bars (H×V)	mm	1320×1320											
	Size of mold platen (H×V)	mm	1750×1750											
	Mold dimension min.	mm	870×870											
	Ejector stroke	mm	200											
	Ejector force	kN	230											
INJECTION UNIT			A	B	C	A	B	C	A	B	C	A	B	C
	Screw diameter	mm	75	80	90	80	90	100	90	100	110	100	110	120
	Screw L/D ratio	L/D	21.3	20	17.8	24.8	22	19.8	24.4	22	20	24.2	22	20.2
	Injection volume (theoretical) ¹	cm ³	1634	1859	2353	2261	2862	3534	2989	3691	4466	4005	4846	5767
	Injection weight (PS) ²	g	1487	1692	2141	2058	2605	3216	2720	3359	4064	3644	4410	5248
	Injection pressure ³	MPa	205	180	142	227	180	145	222	180	149	218	180	151
		bar	2050	1800	1420	2270	1800	1450	2220	1800	1490	2180	1800	1510
	Holding pressure ³	MPa	185	162	128	204	162	131	200	162	133	195	162	136
		bar	1850	1620	1280	2040	1620	1310	2000	1620	1330	1950	1620	1360
	Screw speed	rpm	220			190			170			155		
Plasticizing rate (GPPS) ⁴	g/s	70	92	105	85	107	131	103	127	150	121	145	168	
Plasticizing rate (HDPE) ⁵	g/s	105	141	165	128	162	200	156	191	228	181	217	247	
Nozzle contact force	kN	85			85			85			85			
INJECTION UNIT		3350			5200			6700			8700			
Injection speed	mm/s	160			160			150			150			
Injection rate (PS)	g/s	617	702	889	702	889	1097	833	1029	1245	1029	1245	1482	
INJECTION UNIT		-			-			-			-			
Injection speed	mm/s	-			-			-			-			
Injection rate (PS)	g/s	-			-			-			-			
OTHERS	Connection power	kW/A	83/138			98/164			126/211			151/254		
	Heating power	kW	42.6			54.3			75.6			82.8		
	Machine dimension	m	12.27×2.82×2.76			12.27×2.82×2.76			12.27×2.82×2.76			12.27×2.82×2.76		
	Machine weight	t	-			-			-			-		
Hopper capacity (OP)	l	100			100			100			200			

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.

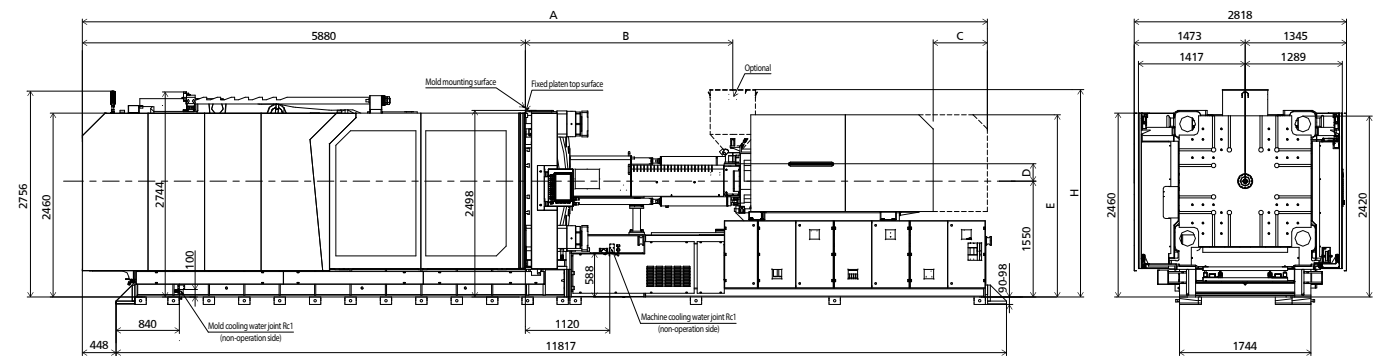
³ Injection & holding pressure are theoretical values of machine output, not the actual resin pressure.

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.

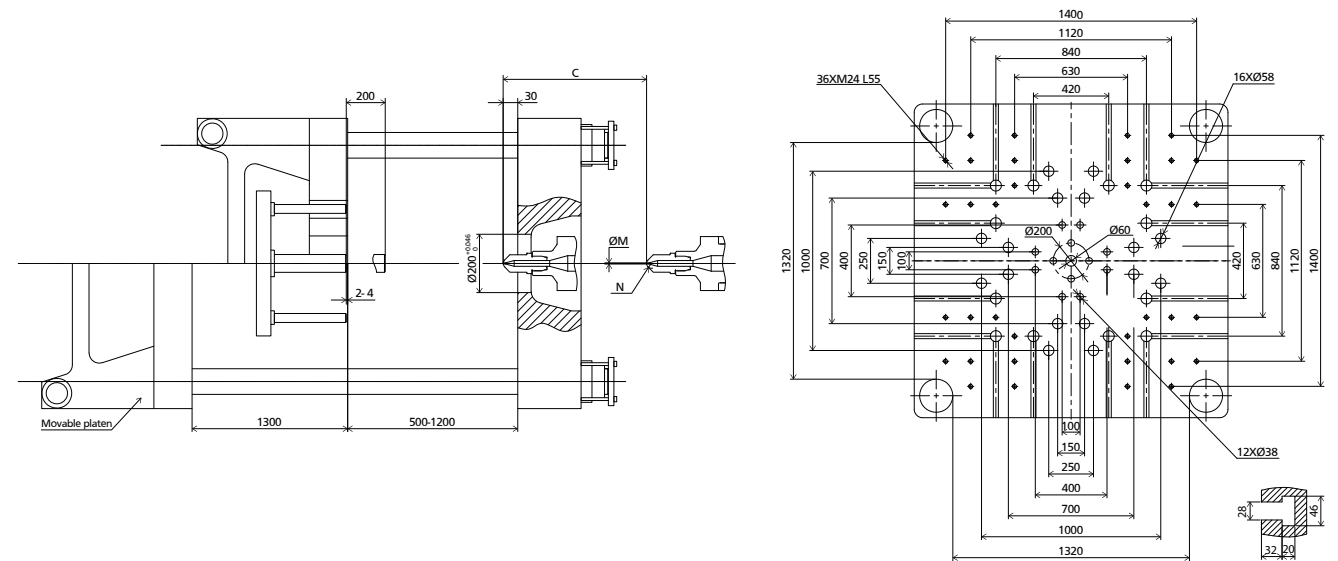
This parameter table is based on machine standard configuration;
We reserve the right to make changes as a result of further technical advances.

MACHINE DIMENSIONS

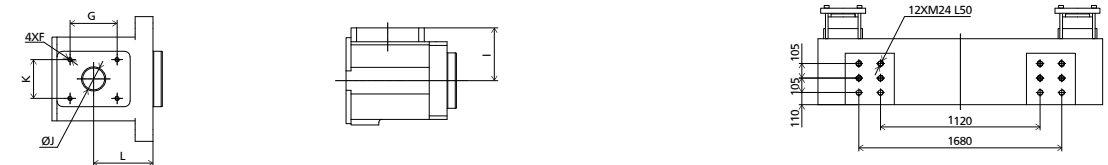


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	3350	10389	1841	720	346	2201	4XM12 L25	170	2890	225	100	170	128	Ø4 SR15
	5200	11101	2278	720	356	2367	4XM12 L20	170	2884	220	100	170	105	Ø4 SR15
	6700	11462	2525	720	354	2367	4XM12 L20	170	2897	232	100	170	115	Ø6 SR20
	8700	12012	2753	720	233	2439	4XM12 L20	170	2776	232	122	170	115	Ø6 SR20

PLATEN DIMENSIONS



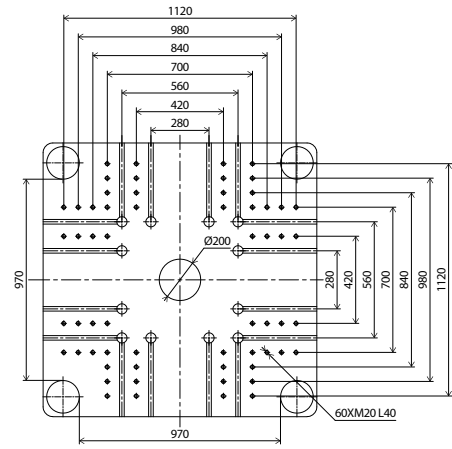
OTHERS DIMENSIONS



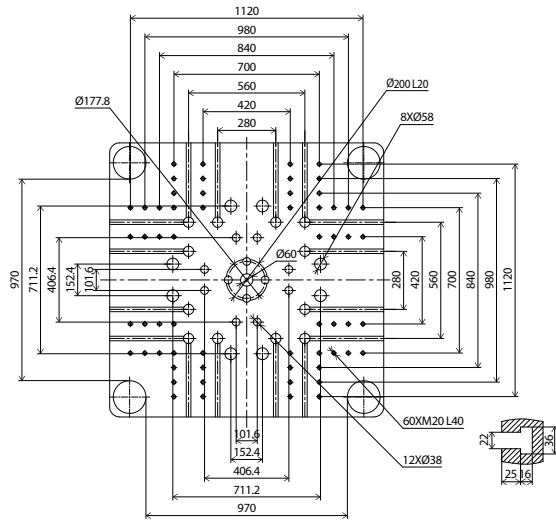
HOPPER MOUNTING DIMENSION

ROBOT TOP VIEW FIXED PLATEN

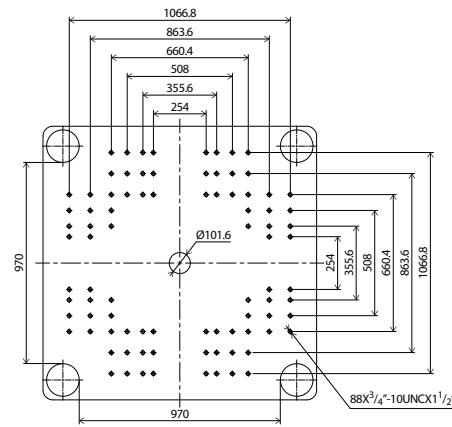
EUROPEAN VERSION
FIXED PLATEN



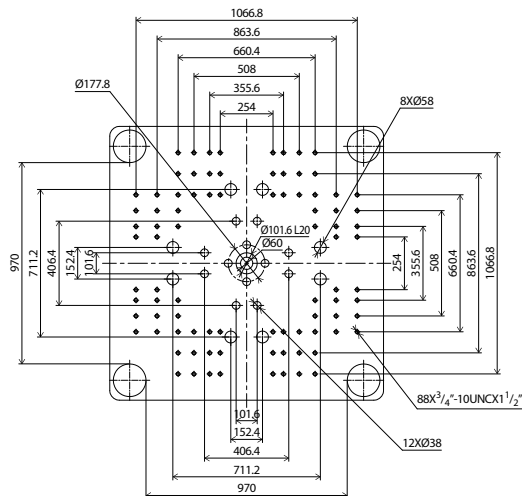
MOVABLE PLATEN



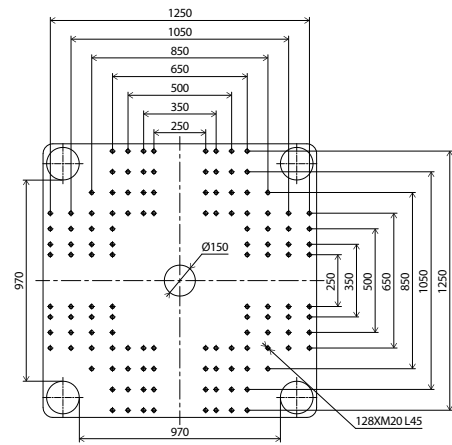
AMERICAN VERSION
FIXED PLATEN



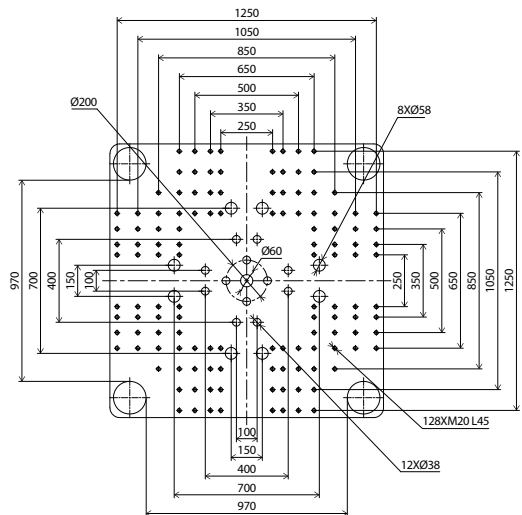
MOVABLE PLATEN



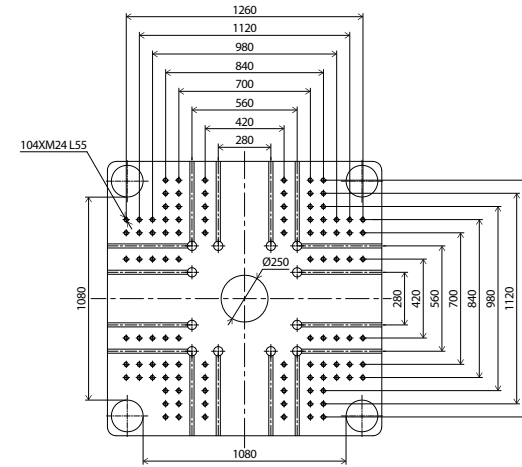
JAPANESE VERSION
FIXED PLATEN



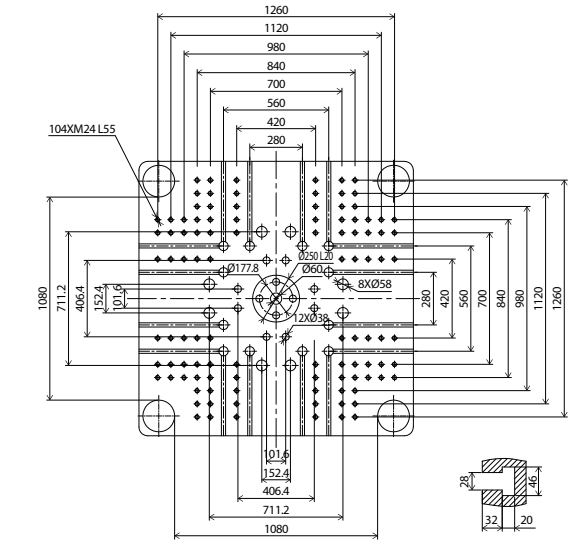
MOVABLE PLATEN



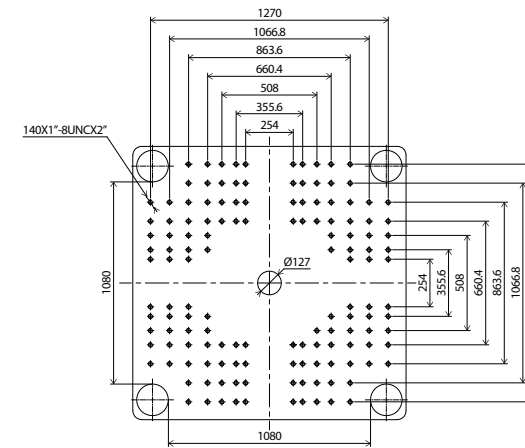
EUROPEAN VERSION
FIXED PLATEN



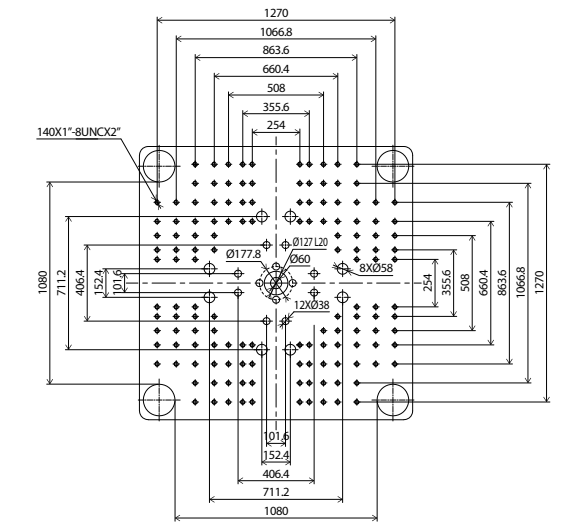
MOVABLE PLATEN



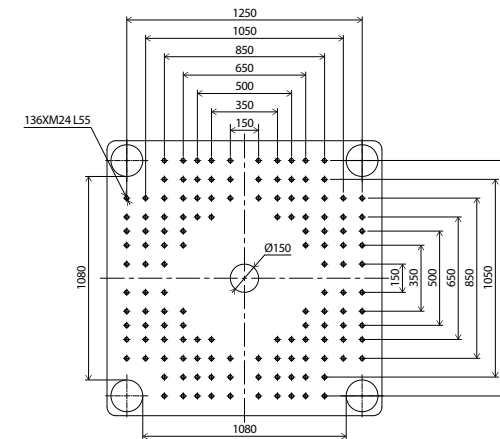
AMERICAN VERSION
FIXED PLATEN



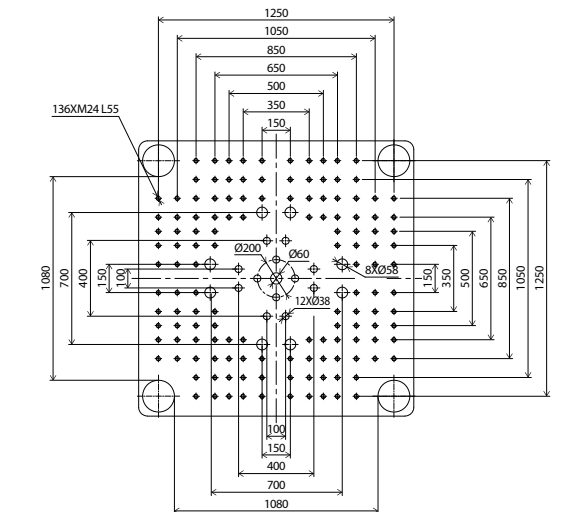
MOVABLE PLATEN



JAPANESE VERSION
FIXED PLATEN

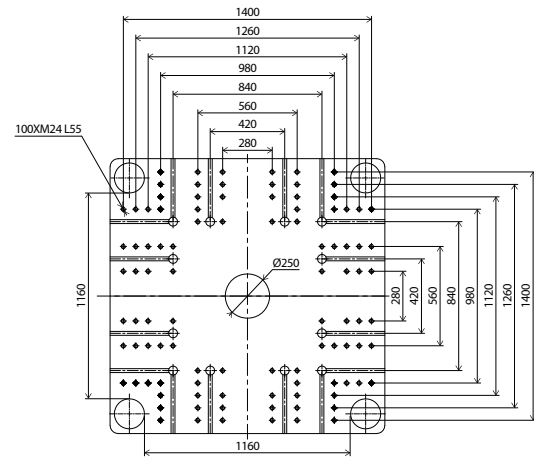


MOVABLE PLATEN

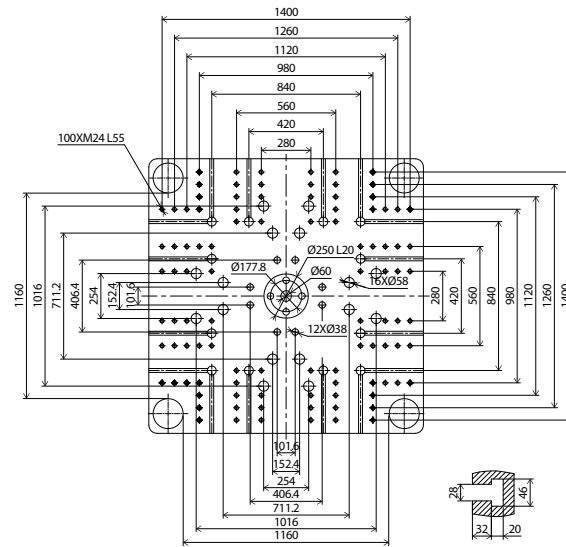


We reserve the right to make changes as a result of further technical advances.

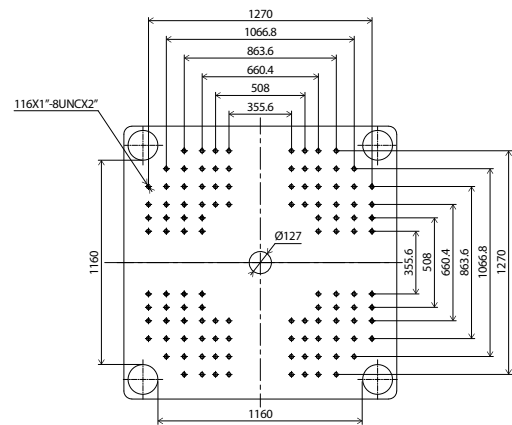
EUROPEAN VERSION
FIXED PLATEN



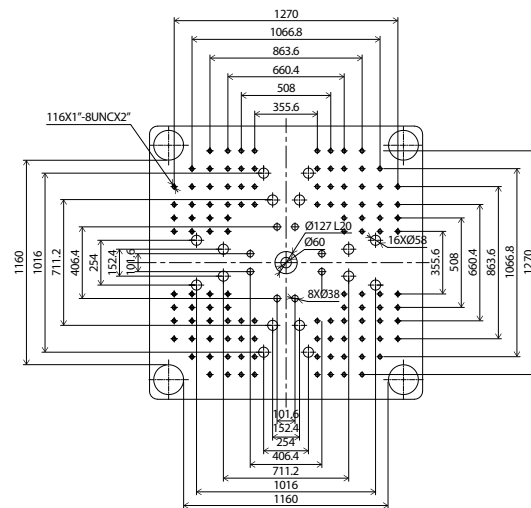
MOVABLE PLATEN



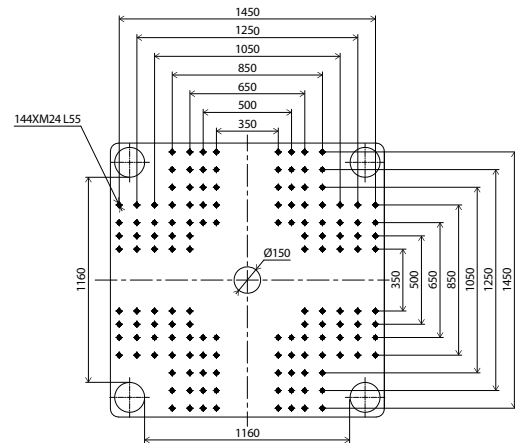
AMERICAN VERSION
FIXED PLATEN



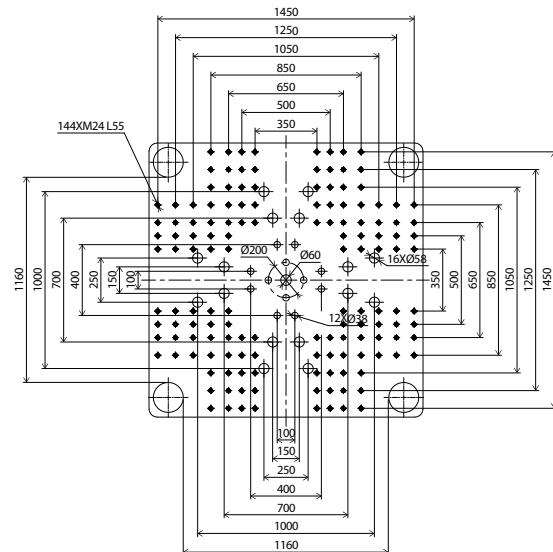
MOVABLE PLATEN



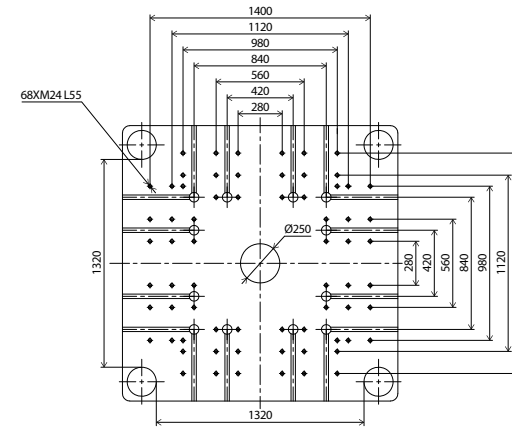
JAPANESE VERSION
FIXED PLATEN



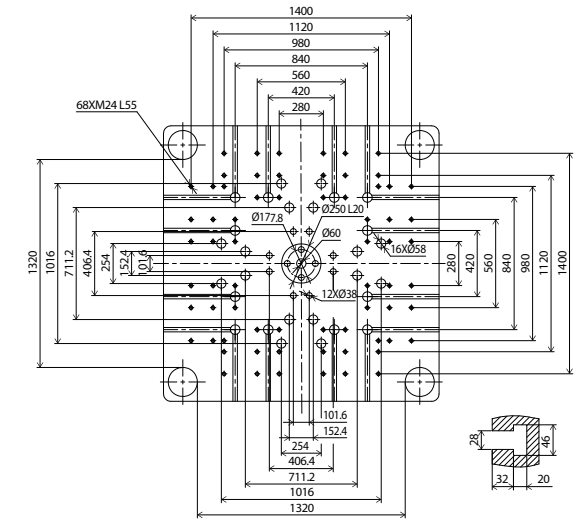
MOVABLE PLATEN



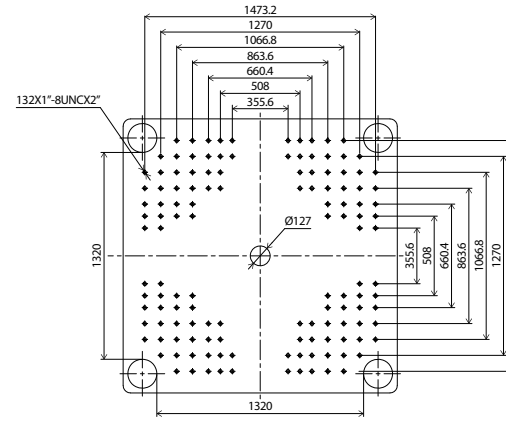
EUROPEAN VERSION
FIXED PLATEN



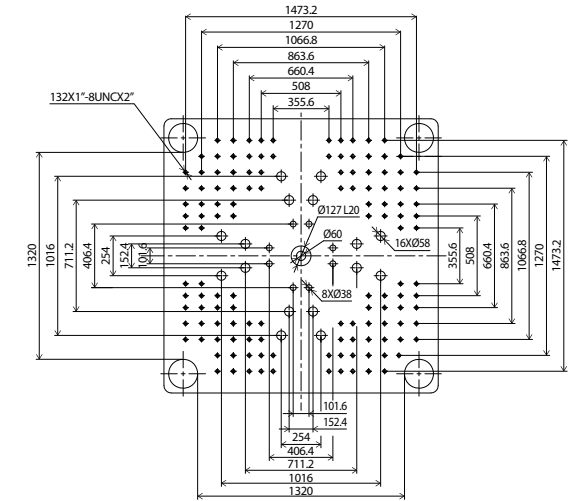
MOVABLE PLATEN



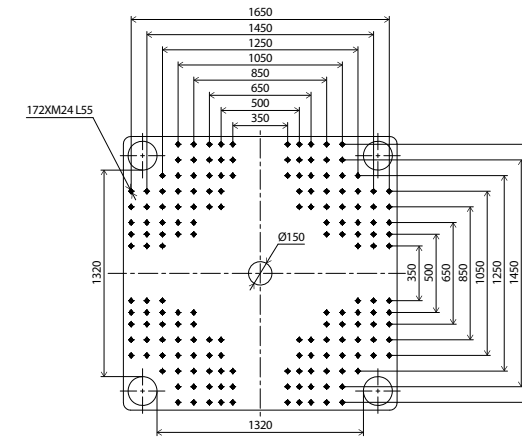
AMERICAN VERSION
FIXED PLATEN



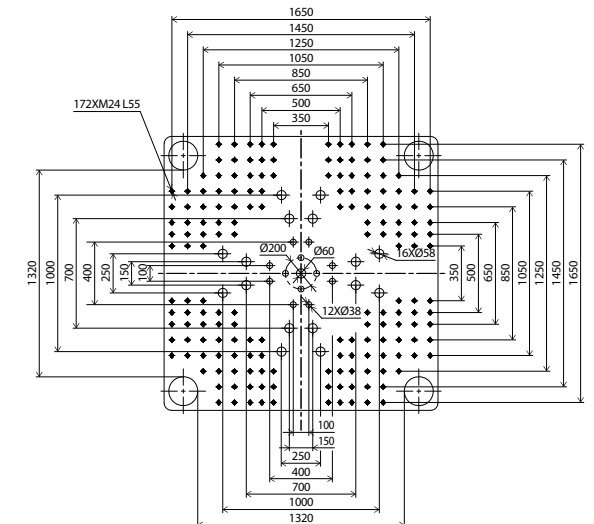
MOVABLE PLATEN



JAPANESE VERSION
FIXED PLATEN

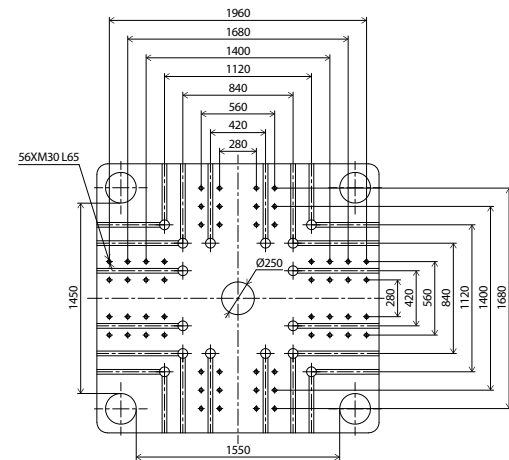


MOVABLE PLATEN

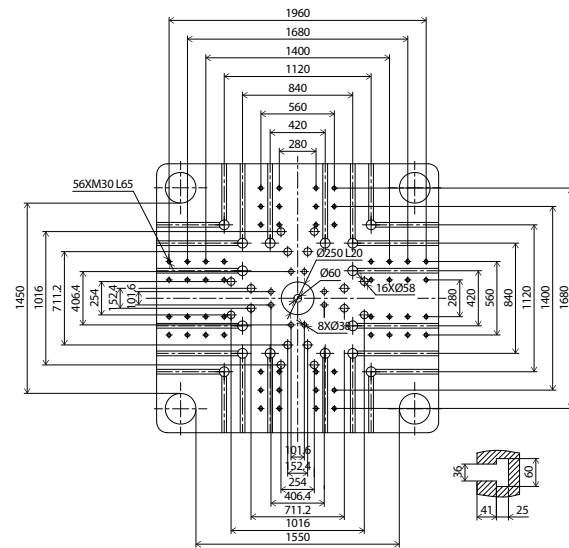


We reserve the right to make changes as a result of further technical advances.

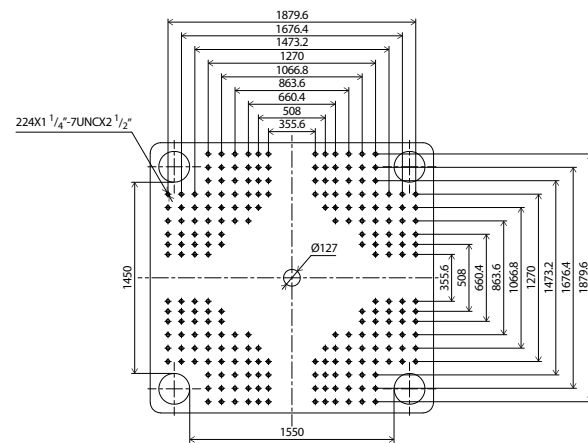
EUROPEAN VERSION
FIXED PLATEN



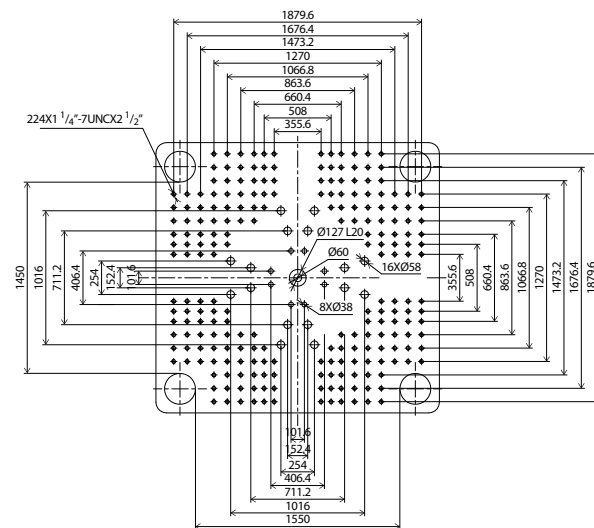
MOVABLE PLATEN



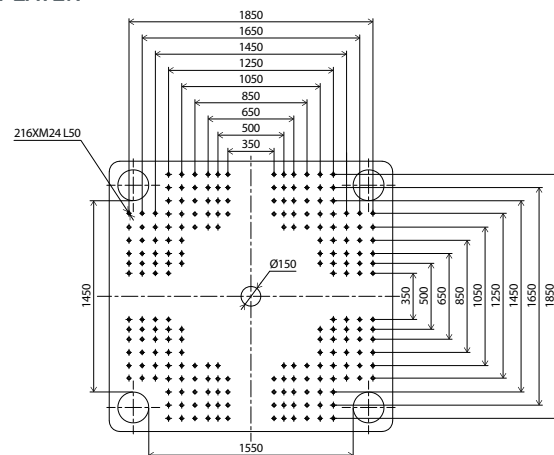
AMERICAN VERSION
FIXED PLATEN



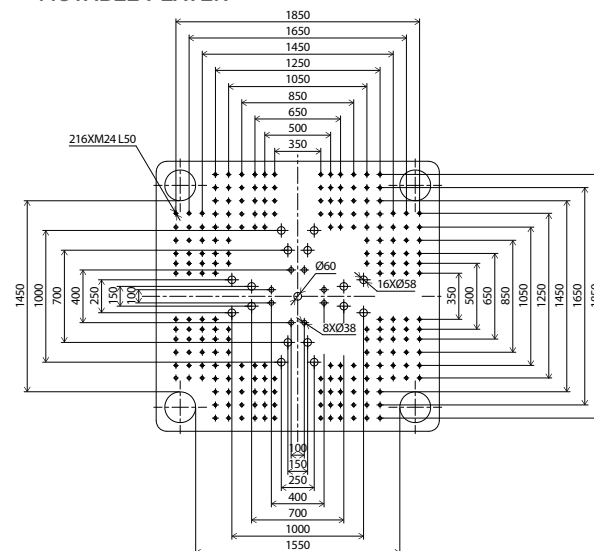
MOVABLE PLATEN



JAPANESE VERSION
FIXED PLATEN



MOVABLE PLATEN



GENERAL EQUIPMENT

- » Basic safety device according to GB/22530
- » 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

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)
- » 2 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

NOTE

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10