

TECHNOLOGY TO THE POINT



SMART  
TECHNOLOGY



FLEXIBLE  
INTEGRATION



SUSTAINABLE  
SOLUTIONS

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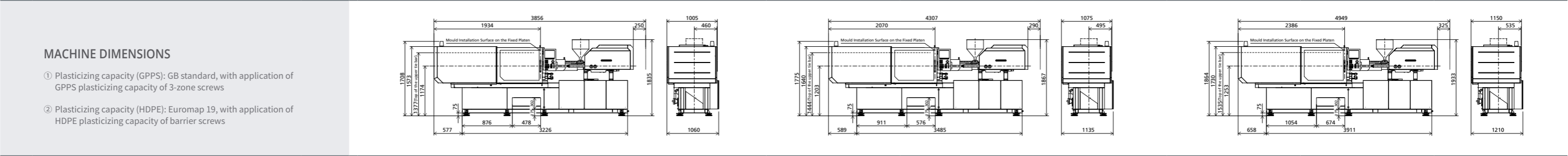
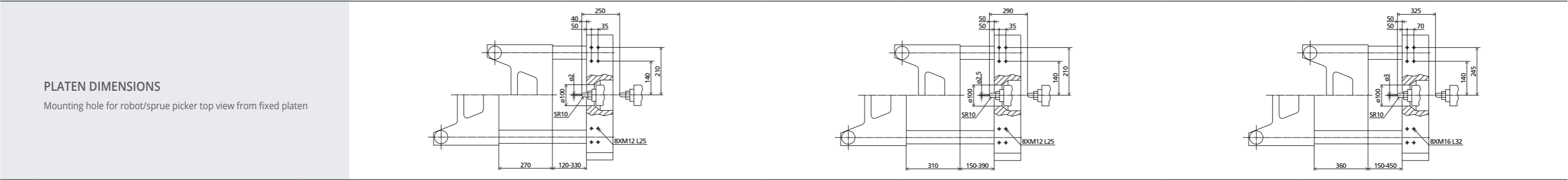
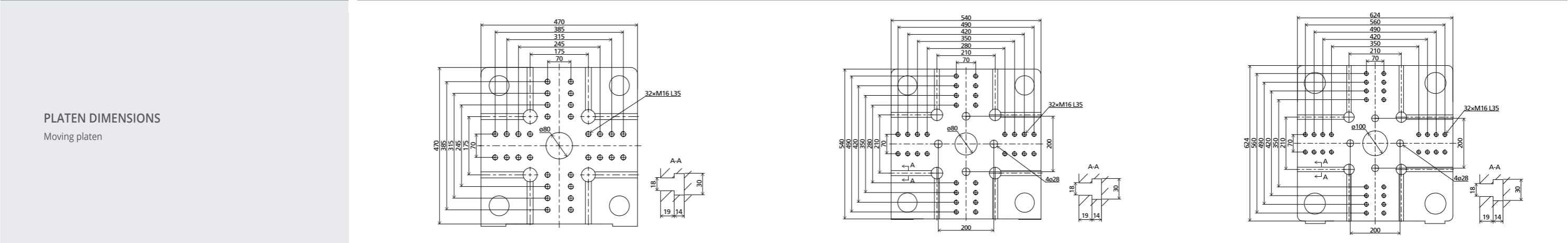
# MARS SERIES

SERVO-HYDRAULIC SOLUTION  
TECHNICAL SPECIFICATION  
600 - 12,000 kN



SPECIFICATION

MACHINE TYPE			MA600V/130		MA900V/280		MA1200V/400	
CLAMPING UNIT	Clamping force	kN	600		900		1200	
	Mold opening stroke	mm	270		310		360	
	Mold height min.	mm	120		150		150	
	Mold height max.	mm	330		390		450	
	Dist. between tie-bars (H×V)	mm	310×310		360×360		410×410	
	Ejector stroke	mm	70		100		120	
INJECTION UNIT	Ejector force	kN	22		33		33	
	Screw diameter	mm	A 24		B 28		C 40	
	Screw L/D ratio	L/D	23.3		20		23.3	
	Injection volume (theoretical)	cm³	49		120		173	
	Injection weight (PS)	g	45		109		157	
	Injection rate (PS)	g/s	53		87		106	
	Injection rate (ESG)	g/s	56		97		117	
	Injection pressure	MPa	263		248		233	
	Plasticizing rate (GPPS) ①	g/s	6.1		14.2		18.9	
	Plasticizing rate (HDPE) ②	g/s	-		-		-	
OTHERS	Screw speed	rpm	350		350		300	
	Pump motor power	kW	13		15		18.5	
	Heater power	kW	6.5		8.6		12.85	
	Machine dimension (L×W×H)	m	3.92×1.09×1.84		4.35×1.16×1.87		4.95×1.24×1.94	
	Machine weight	t	2.5		3.1		4.0	
	Hopper capacity	kg	25		25		25	
	Oil tank	l	90		120		140	

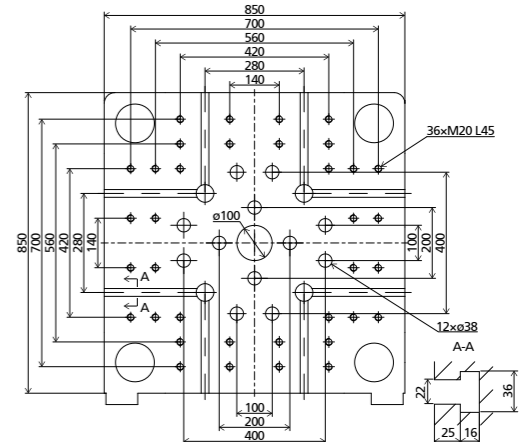
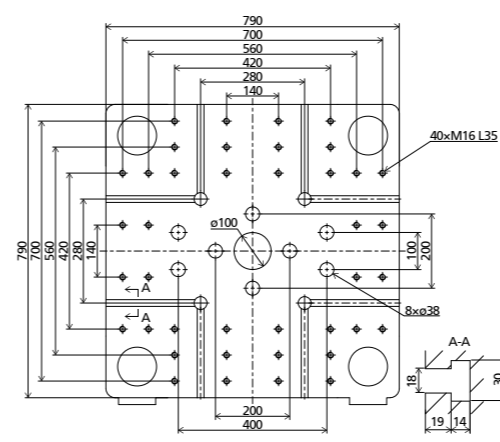
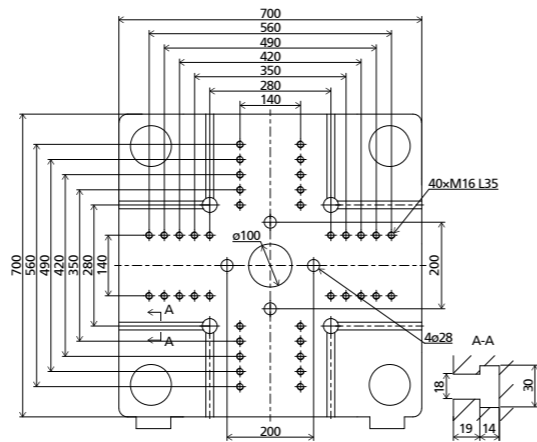


## SPECIFICATION

MACHINE TYPE			MA1600V/570			MA2000V/750			MA2500V/1000		
CLAMPING UNIT	Clamping force	kN	1600			2000			2500		
	Mold opening stroke	mm	430			490			540		
	Mold height min.	mm	180			200			220		
	Mold height max.	mm	520			550			580		
	Dist. between tie-bars (H×V)	mm	470×470			530×530			580×580		
	Ejector stroke	mm	140			140			150		
	Ejector force	kN	33			62			62		
INJECTION UNIT			A	B	C	A	B	C	A	B	C
	Screw diameter	mm	40	45	50	45	50	55	50	55	60
	Screw L/D ratio	L/D	22.5	20	18	22.2	20	18.2	22	20	18.3
	Injection volume (theoretical)	cm³	252	319	394	365	451	546	496	601	715
	Injection weight (PS)	g	229	290	359	332	410	497	452	546	650
	Injection rate (PS)	g/s	131	166	205	166	205	248	196	237	283
	Injection rate (ESG)	g/s	144	183	226	177	219	265	215	261	310
	Injection pressure	MPa	239	189	153	233	189	156	228	189	158
	Plasticizing rate (GPPS) ①	g/s	21.0	27.9	35.0	29.0	36.5	44.6	36.9	45.2	53.5
	Plasticizing rate (HDPE) ②	g/s	-	-	-	-	-	-	-	-	-
Screw speed	rpm	285			270			270			
OTHERS											
	Pump motor power	kW	22			30			37		
	Heater power	kW	12.85			16.8			20.3		
	Machine dimension (L×W×H)	m	5.59×1.36×2.0			6.08×1.44×2.17			6.46×1.51×2.21		
	Machine weight	t	5.0			6.7			8.1		
	Hopper capacity	kg	25			50			50		
Oil tank	l	165			205			245			

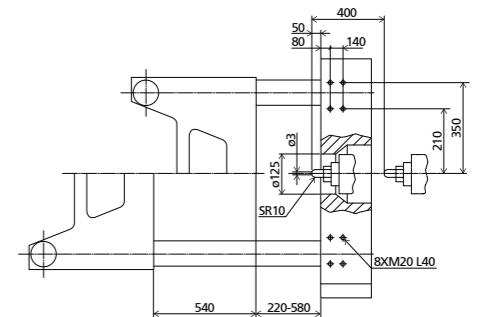
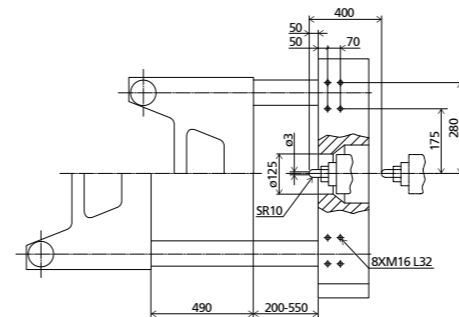
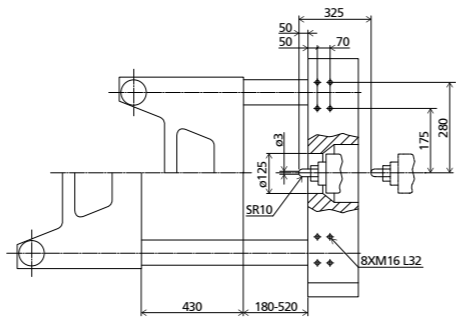
## PLATEN DIMENSIONS

Moving platen



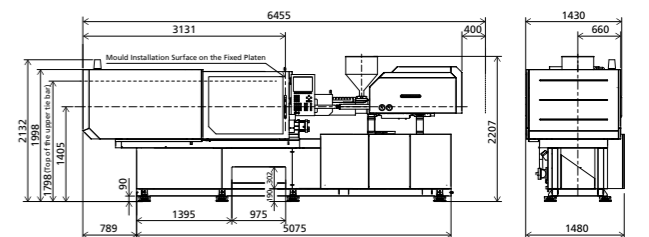
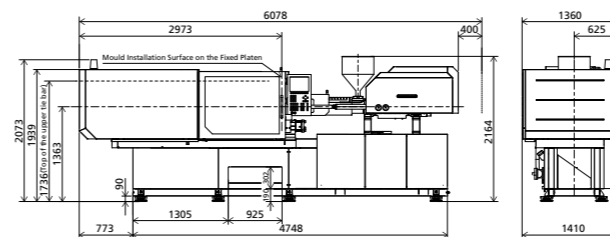
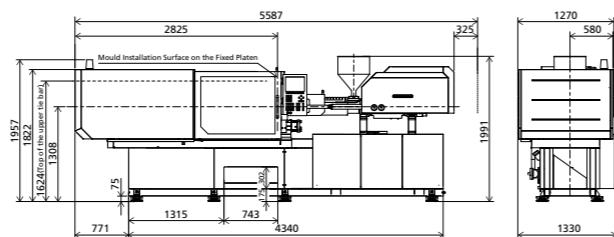
## PLATEN DIMENSIONS

Mounting hole for robot/sprue picker top view from fixed platen

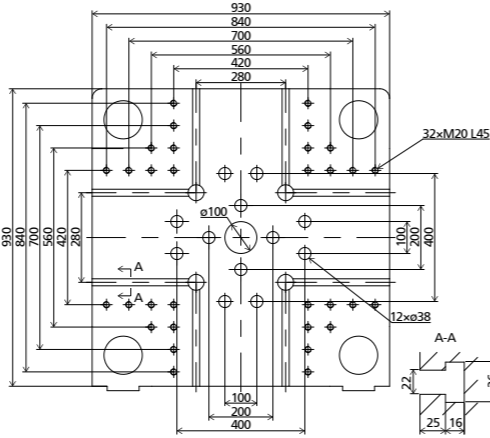
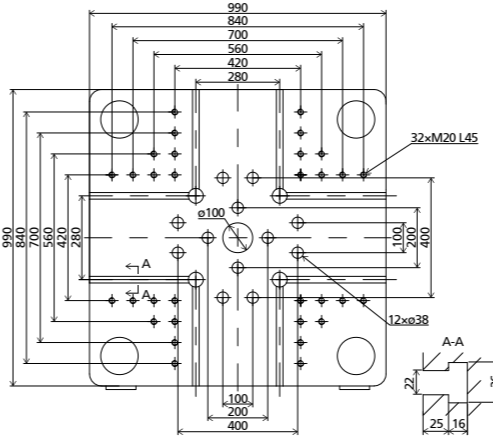
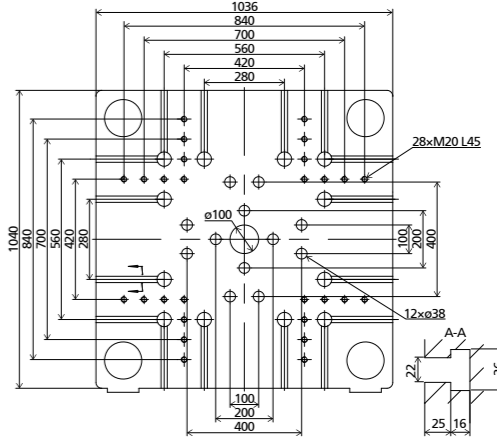
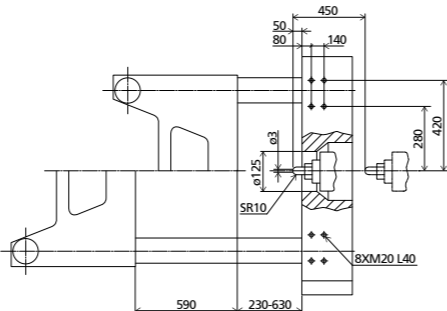
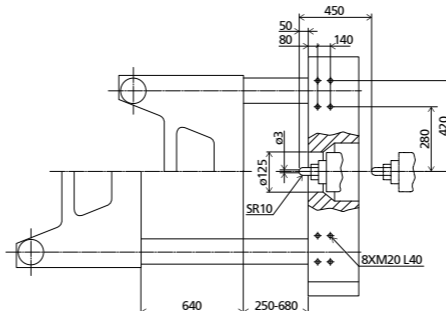
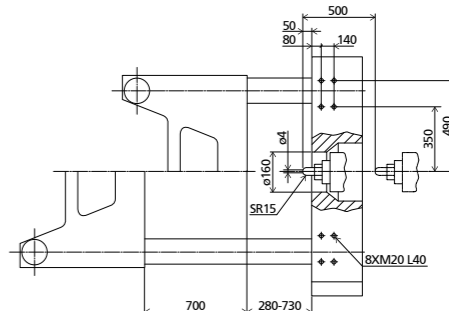
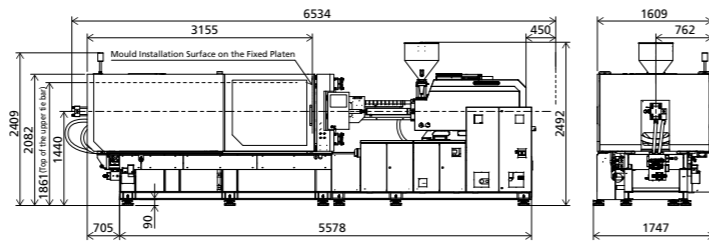
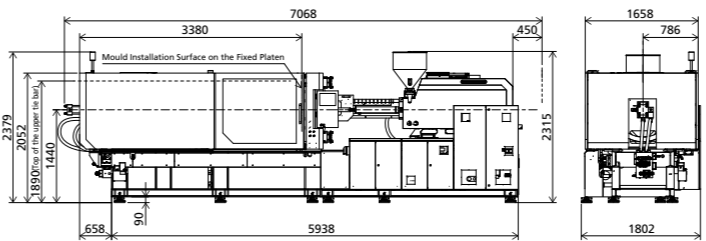
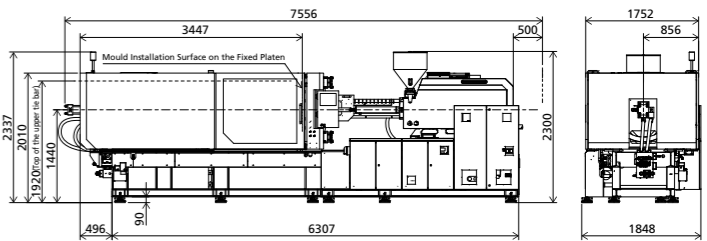


## MACHINE DIMENSIONS

- ① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws
- ② Plasticizing capacity (HDPE): Euromap 19, with application of HDPE plasticizing capacity of barrier screws



SPECIFICATION

MACHINE TYPE			MA2800V/1350			MA3200V/1700			MA3800V/2250		
CLAMPING UNIT	Clamping force	kN	2800			3200			3800		
	Mold opening stroke	mm	590			640			700		
	Mold height min.	mm	230			250			280		
	Mold height max.	mm	630			680			730		
	Dist. between tie-bars (H×V)	mm	630×630			680×680			730×730		
	Ejector stroke	mm	150			160			180		
	Ejector force	kN	62			62			110		
INJECTION UNIT	Screw diameter	mm	A	B	C	A	B	C	A	B	C
	Screw L/D ratio	L/D	55	60	65	60	65	70	65	70	75
	Injection volume (theoretical)	cm <sup>3</sup>	21.8	20	18.5	21.7	20	18.6	21.5	20	18.7
	Injection weight (PS)	g	617	735	862	848	995	1154	1068	1239	1422
	Injection rate (PS)	g/s	562	668	785	771	905	1050	972	1127	1294
	Injection rate (ESG)	g/s	248	295	347	308	362	420	317	367	422
	Injection rate (ESG)	g/s	277	330	388	330	387	449	344	399	459
	Injection pressure	MPa	223	188	160	224	190	164	214	185	161
	Plasticizing rate (GPPS) ①	g/s	46.2	54.9	61.0	59.9	66.5	75.5	62.0	71.1	80.4
	Plasticizing rate (HDPE) ②	g/s	-	-	-	88.4	99	118	93.5	111	125
Screw speed	rpm	270			260			240			
OTHERS	Pump motor power	kW	45			55			55		
	Heater power	kW	22.55			27.05			30.7		
	Machine dimension (L×W×H)	m	6.54×1.75×2.50			7.07×1.81×2.38			7.56×1.85×2.34		
	Machine weight	t	11.3			12.2			14.7		
	Hopper capacity	kg	50			50			50		
	Oil tank	l	400			450			490		
PLATEN DIMENSIONS											
											
MACHINE DIMENSIONS											
			① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws								
			② Plasticizing capacity (HDPE): Euromap 19, with application of HDPE plasticizing capacity of barrier screws								

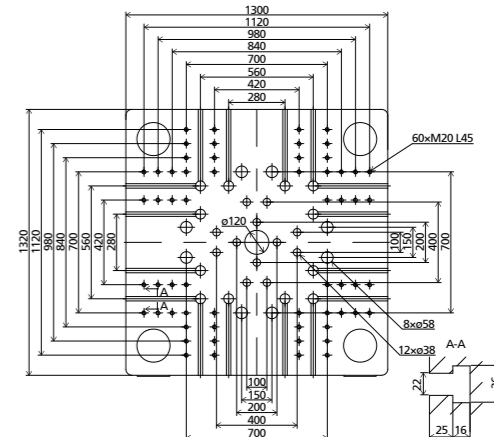
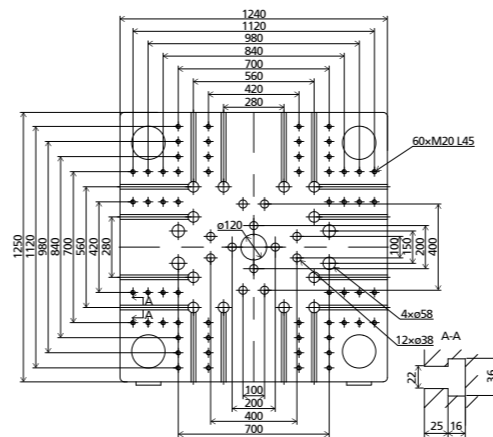
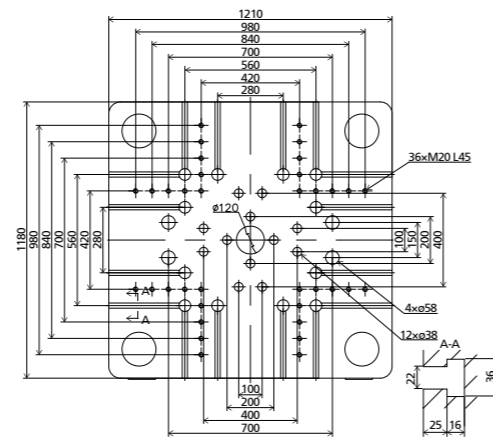


## SPECIFICATION

Machine Type			MA4700V/3200			MA5300V/4500			MA6000V/4500		
Clamping Unit	Clamping force	kN	4700			5300			6000		
	Mold opening stroke	mm	780			850			910		
	Mold height min.	mm	320			350			380		
	Mold height max.	mm	780			850			880		
	Dist. between tie-bars (H×V)	mm	820×800			840×830			880×880		
	Ejector stroke	mm	200			220			240		
	Ejector force	kN	110			158			158		
Injection Unit			A	B	C	A	B	C	A	B	C
	Screw diameter	mm	70	80	85	80	85	90	80	85	90
	Screw L/D ratio	L/D	22.9	20	19.1	23.4	22	20.8	23.4	22	20.8
	Injection volume (theoretical)	cm³	1423	1859	2099	2211	2496	2799	2211	2496	2799
	Injection weight (PS)	g	1295	1692	1910	2012	2272	2547	2012	2272	2547
	Injection rate (PS)	g/s	366	478	539	516	583	654	516	583	654
	Injection rate (ESG)	g/s	388	507	572	-	-	-	-	-	-
	Injection pressure	MPa	240	183	162	210	186	165	210	186	165
	Plasticizing rate (GPPS) ①	g/s	69.8	92	101	80.2	88.7	101	80.2	88.7	101
	Plasticizing rate (HDPE) ②	g/s	105	141	160	120	133	150	120	133	150
Others	Screw speed	rpm	220			200			200		
	Pump motor power	kW	65			85			85		
	Heater power	kW	39.6			48			48		
	Machine dimension (L×W×H)	m	8.29×1.96×2.55			9.17×2.04×2.73			9.41×2.06×2.73		
	Machine weight	t	19.3			23.0			25.0		
	Hopper capacity	kg	50			100			100		
	Oil tank	l	580			720			720		

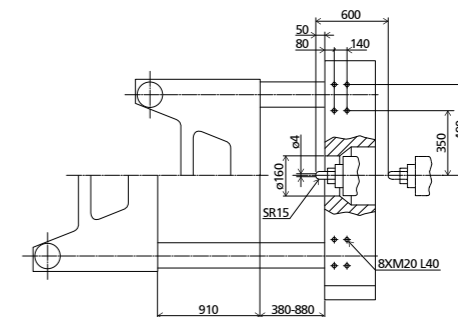
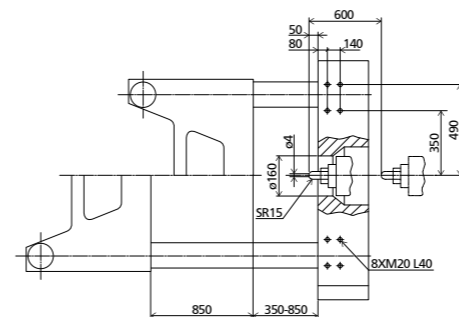
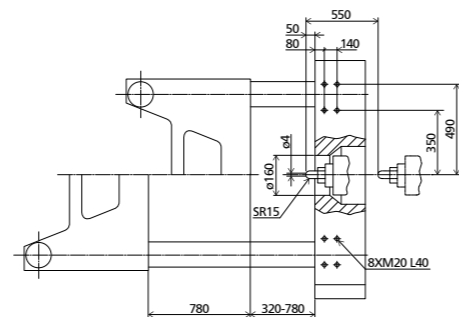
## PLATEN DIMENSIONS

Moving platen



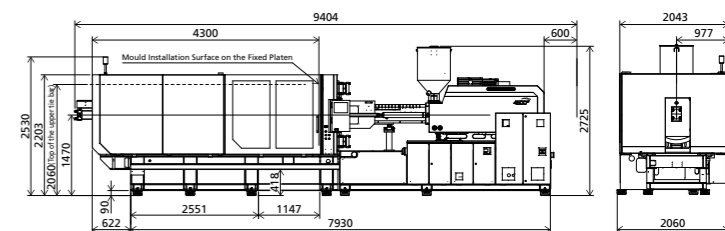
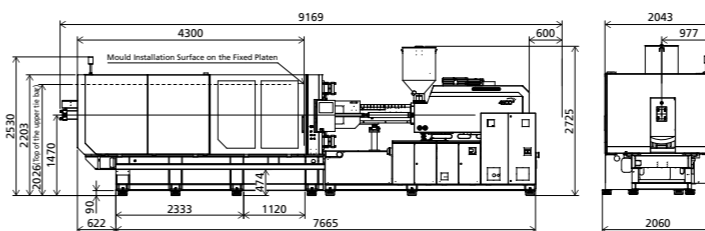
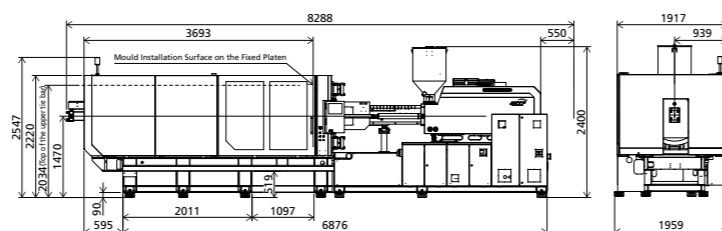
## PLATEN DIMENSIONS

Mounting hole for robot/sprue picker top view from fixed platen

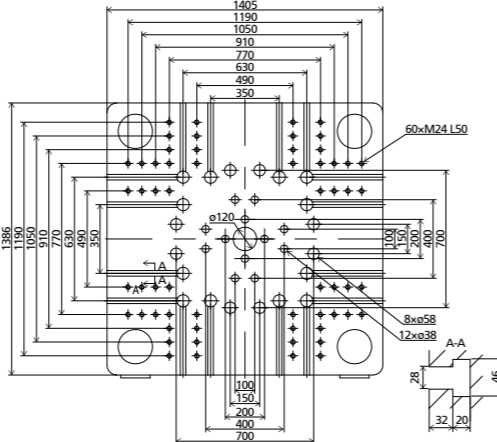
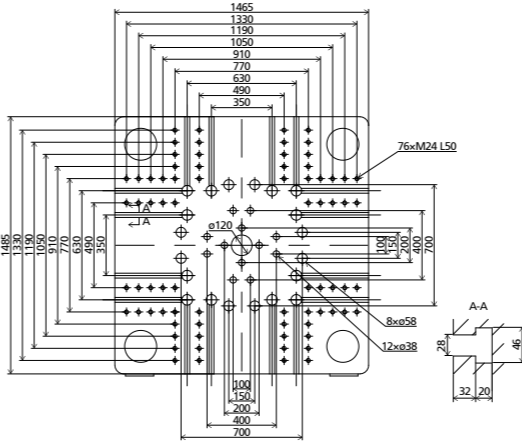
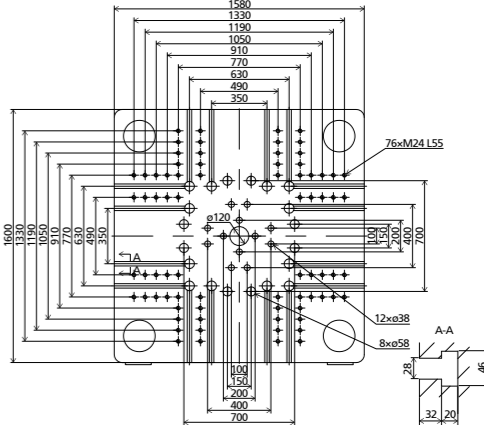
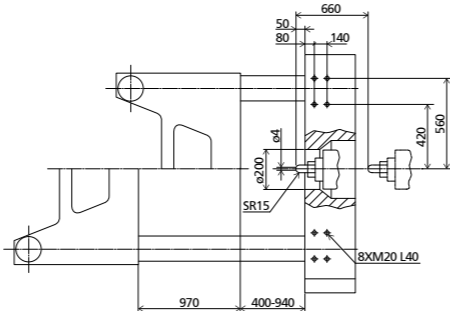
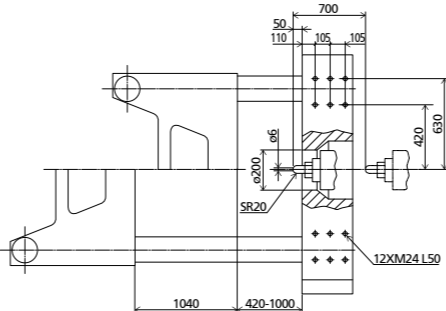
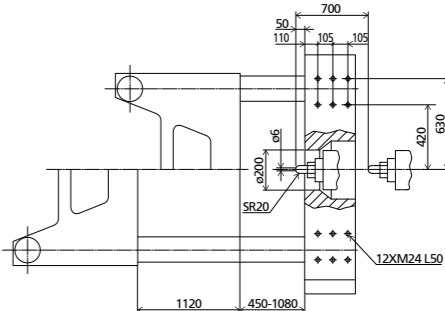
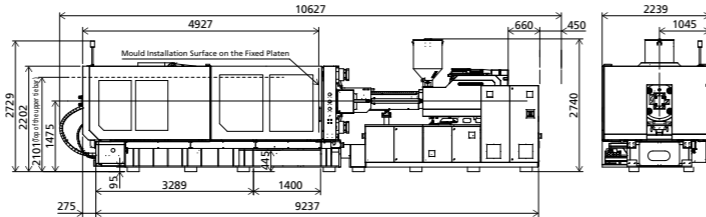
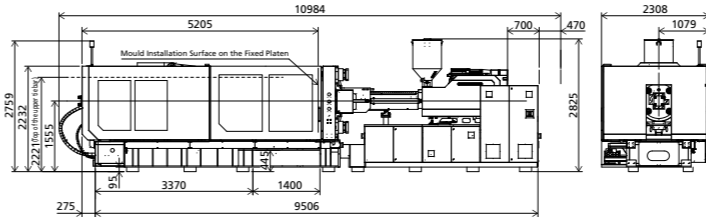
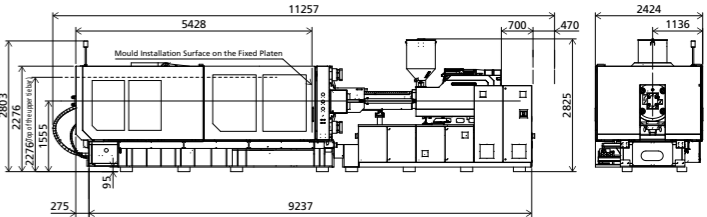


## MACHINE DIMENSIONS

- ① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws
- ② Plasticizing capacity (HDPE): Euromap 19, with application of HDPE plasticizing capacity of barrier screws



SPECIFICATION

MACHINE TYPE			MA7000V/5000			MA8000V/6800			MA9000V/6800		
CLAMPING UNIT	Clamping force	kN	7000			8000			9000		
	Mold opening stroke	mm	970			1040			1120		
	Mold height min.	mm	400			420			450		
	Mold height max.	mm	940			1000			1080		
	Dist. between tie-bars (H×V)	mm	960×940			1000×1000			1080×1080		
	Ejector stroke	mm	260			280			300		
	Ejector force	kN	186			186			186		
INJECTION UNIT	Screw diameter	mm	A	B	C	A	B	C	A	B	C
	Screw L/D ratio	L/D	80	90	100	90	100	110	90	100	110
	Injection volume (theoretical)	cm³	24.8	22	19.8	24.4	22	20	24.4	22	20
	Injection weight (PS)	g	2261	2862	3534	2990	3691	4466	2990	3691	4466
	Injection rate (PS)	g/s	2058	2605	3216	2720	3359	4064	2720	3359	4064
	Injection rate (ESG)	g/s	549	694	857	636	786	951	636	786	951
	Injection rate (ESG)	g/s	-	-	-	-	-	-	-	-	-
	Injection pressure	MPa	237	187	152	230	186	154	230	186	154
	Plasticizing rate (GPPS) ①	g/s	85.0	107	131	103	127	150	103	127	150
Plasticizing rate (HDPE) ②	g/s	128	162	200	156	185	228	156	185	228	
Screw speed	rpm	190			170			170			
OTHERS	Pump motor power	kW	65+37			85+30			85+30		
	Heater power	kW	54.3			69.5			69.5		
	Machine dimension (L×W×H)	m	10.47×2.24×2.74			10.99×2.30×2.83			11.26×2.42×2.83		
	Machine weight	t	32.0			37.6			43.0		
	Hopper capacity	kg	100			100			100		
	Oil tank	l	790			900			900		
PLATEN DIMENSIONS											
PLATEN DIMENSIONS											
MACHINE DIMENSIONS											
① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws											
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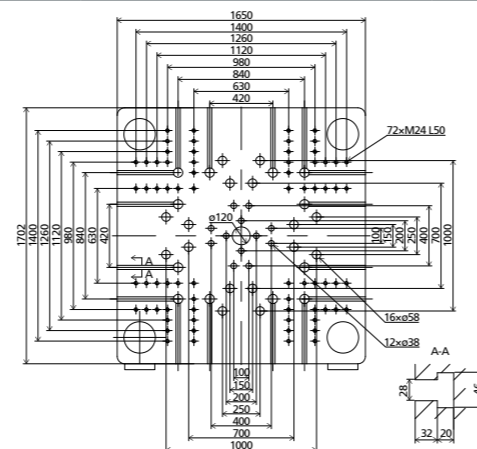


## SPECIFICATION

Machine Type			MA10000V/8400			MA12000V/8400		
Clamping Unit	Clamping force	kN	10000			12000		
	Mold opening stroke	mm	1220			1310		
	Mold height min.	mm	500			550		
	Mold height max.	mm	1160			1250		
	Dist. between tie-bars (H×V)	mm	1160×1160			1250×1250		
	Ejector stroke	mm	320			320		
	Ejector force	kN	215			215		
Injection Unit			A	B	C	A	B	C
	Screw diameter	mm	100	110	120	100	110	120
	Screw L/D ratio	L/D	24.2	22	20.2	24.2	22	20.2
	Injection volume (theoretical)	cm³	4005	4846	5767	4005	4846	5767
	Injection weight (PS)	g	3645	4410	5248	3645	4410	5248
	Injection rate (PS)	g/s	771	933	1111	771	933	1111
	Injection rate (ESG)	g/s	-	-	-	-	-	-
	Injection pressure	MPa	223	185	155	223	185	155
	Plasticizing rate (GPPS) ①	g/s	121	145	168	121	145	168
Plasticizing rate (HDPE) ②	g/s	181	217	247	181	217	247	
	Screw speed	rpm	155			155		
Others								
	Pump motor power	kW	85+45			85+45		
	Heater power	kW	82.8			82.8		
	Machine dimension (L×W×H)	m	12.05×2.49×2.83			12.43×2.66×2.97		
	Machine weight	t	47.0			58.0		
	Hopper capacity	kg	100			100		
	Oil tank	l	1000			1000		

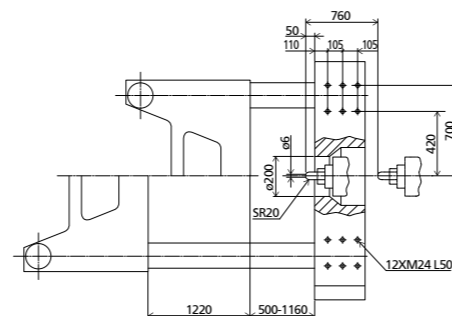
## PLATEN DIMENSIONS

Moving platen



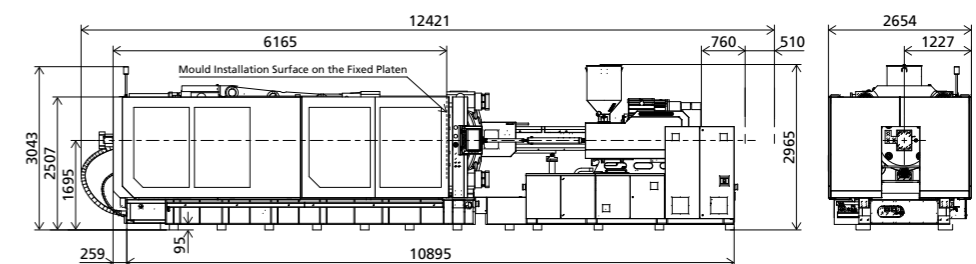
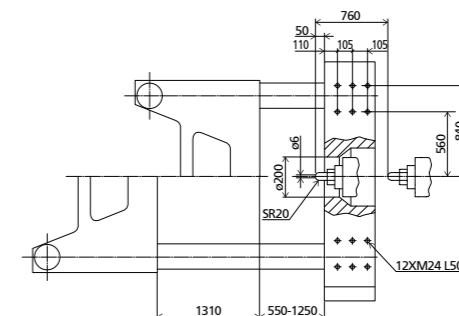
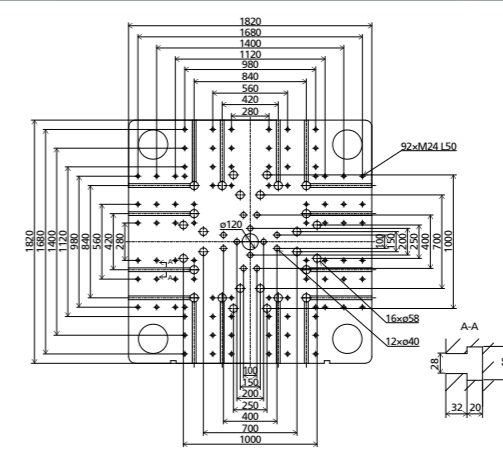
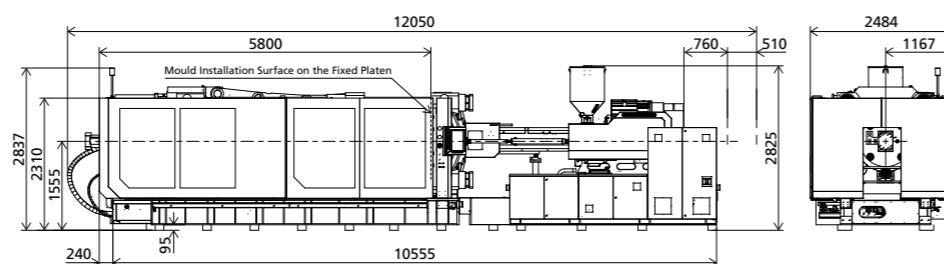
## PLATEN DIMENSIONS

Mounting hole for robot/sprue picker top view from fixed platen



## MACHINE DIMENSIONS

- ① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws
- ② Plasticizing capacity (HDPE): Euromap 19, with application of HDPE plasticizing capacity of barrier screws



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