



# KTD (PVT) LTD

INNOVATIVE MACHINE RELIABLE SOLUTION



### TECHNOLOGY TO THE POINT



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# MARS SERIES

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

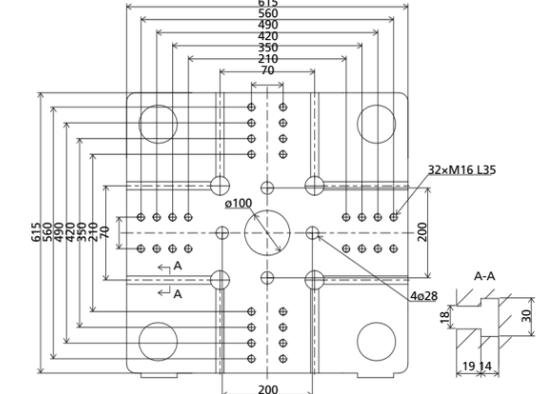
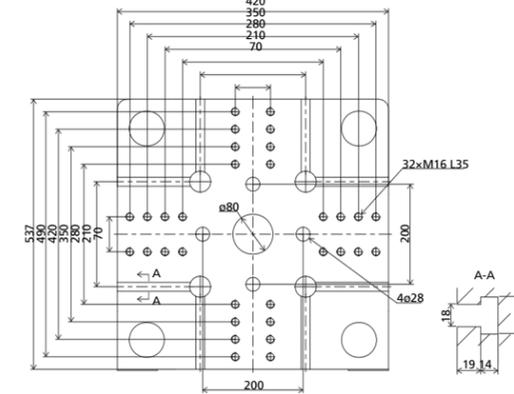
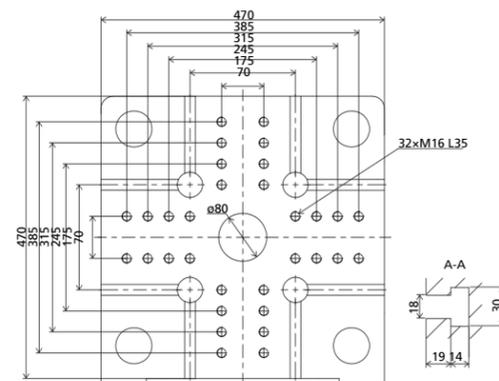


# SPECIFICATION

MACHINE TYPE		MA600 V /130	MA900 V /280	MA1200 V /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					
Ejector force	kN	22	33	33						
INJECTION UNIT	Screw diameter	mm	A 24	B 28	A 32	B 36	C 40	A 36	B 40	C 45
	Screw L/D ratio	L/D	23.3	20	22.5	20	18	23.3	21	18.7
	Injection volume (theoretical)	cm <sup>3</sup>	49	67	120	152	188	173	213	270
	Injection weight (PS)	g	45	61	109	138	171	157	194	246
	Injection rate (PS)	g/s	53	72	87	111	137	106	131	166
	Injection rate (ESG)	g/s	56	76	97	123	152	117	145	183
	Injection pressure	MPa	263	193	248	196	158	233	189	149
	Plasticizing rate (GPPS) ①	g/s	6.1	8.8	14.2	18.8	22.7	18.9	23.1	30.6
	Plasticizing rate (HDPE) ②	g/s	-	-	-	-	-	-	-	-
Screw speed	rpm	350	350	350	350	350	350	350	350	
OTHERS	Pump motor power	kW	13	15	18.5					
	Heater power	kW	6.3	8.1	11.75					
	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					

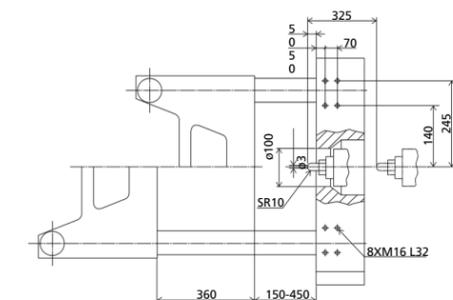
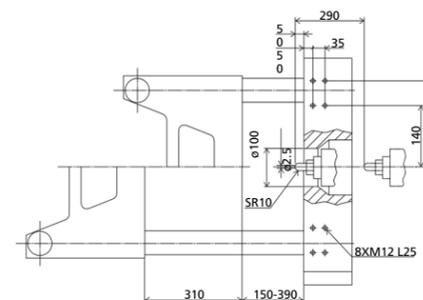
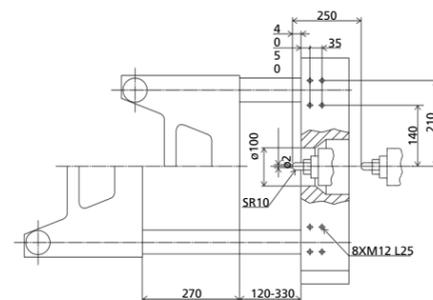
## PLATEN DIMENSIONS

Moving platen



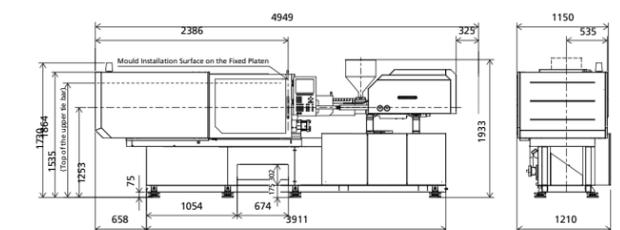
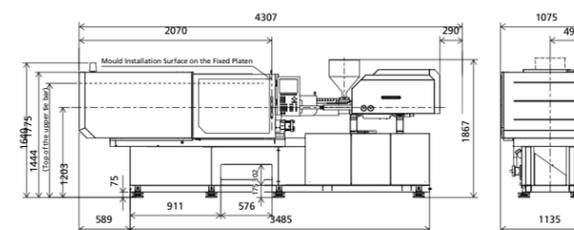
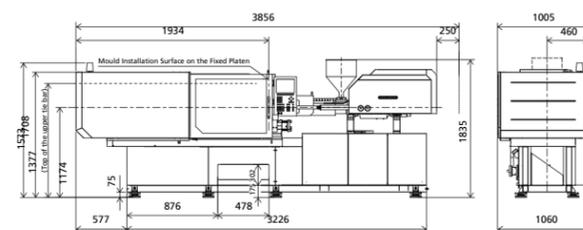
## PLATEN DIMENSIONS

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



## MACHINE DIMENSIONS

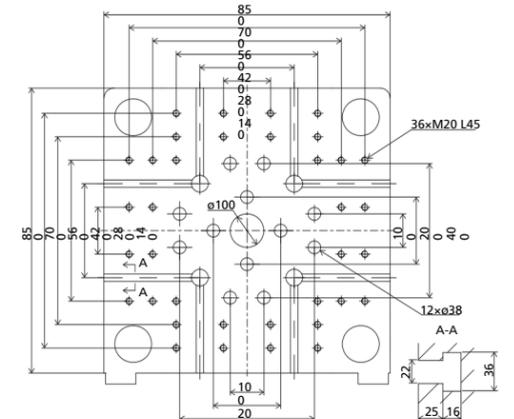
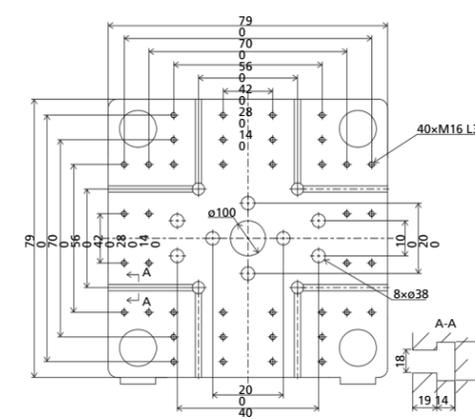
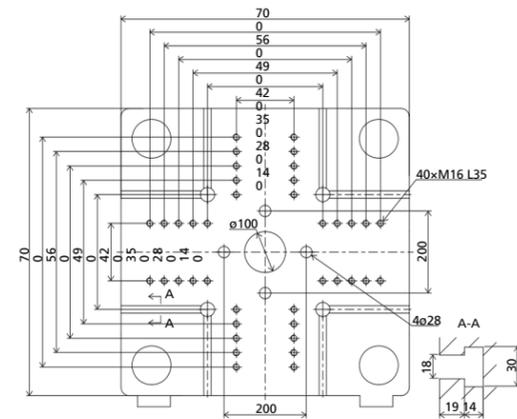
- ① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws
- ② Plasticizing capacity (HDPE): Euromap 19, with application of HDPE plasticizing capacity of barrier screws



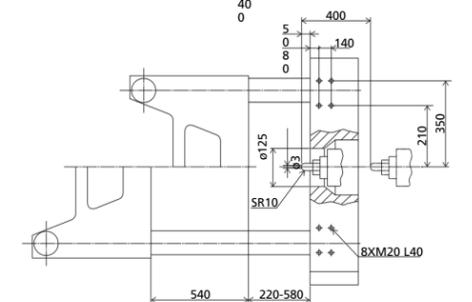
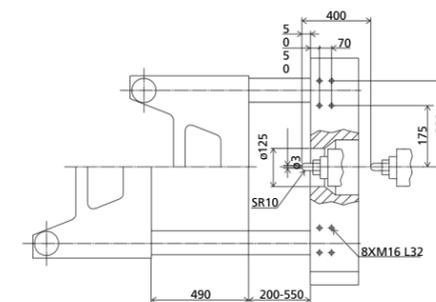
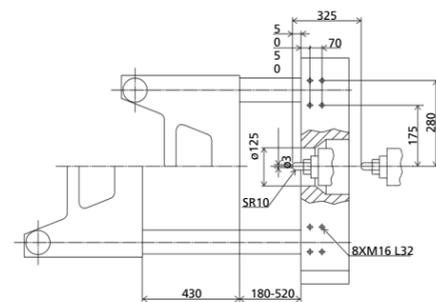
# SPECIFICATION

MACHINE TYPE		MA1600 V /570			MA2000 V /750			MA2500 V /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	Screw diameter	mm	A	B	C	A	B	C	A	B	C
	Screw L/D ratio	L/D	40	45	50	45	50	55	50	55	60
	Injection volume (theoretical)	cm <sup>3</sup>	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	11.75			16			19.9		
	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		

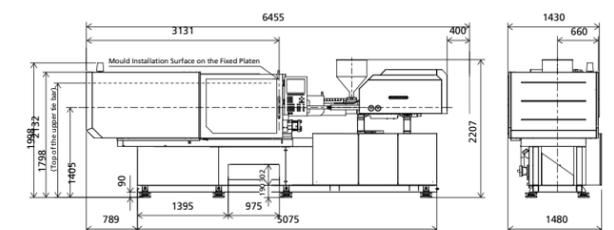
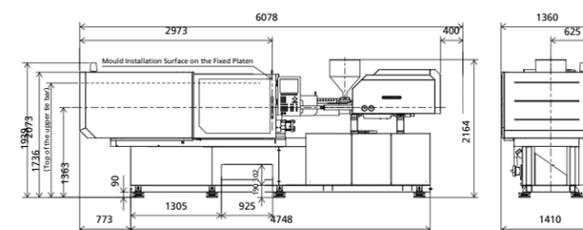
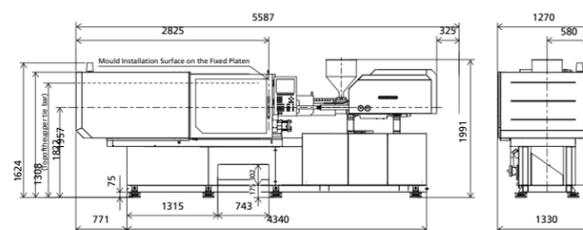
PLATEN DIMENSIONS  
Moving platen



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

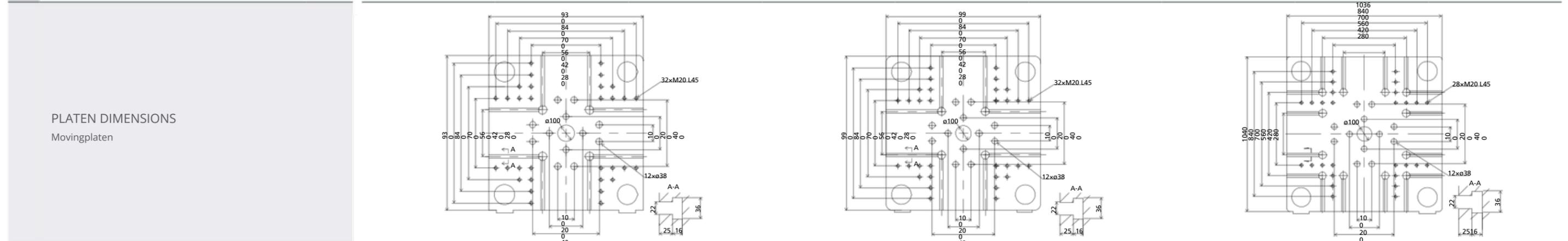


MACHINE DIMENSIONS  
① Plasticizing capacity (GPPS): GB standard, with application of GPPS plasticizing capacity of 3-zone screws  
② Plasticizing capacity (HDPE): Euromap 19, with application of HDPE plasticizing capacity of barrier screws



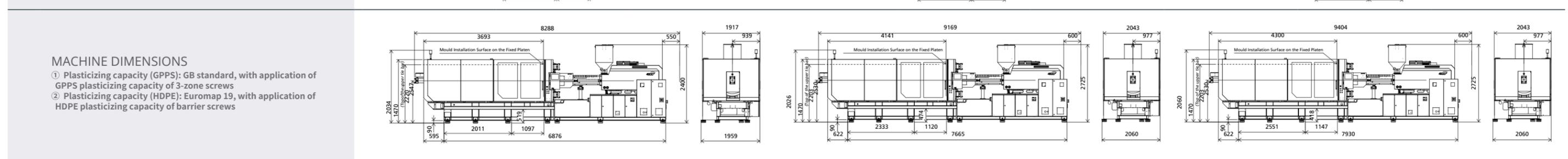
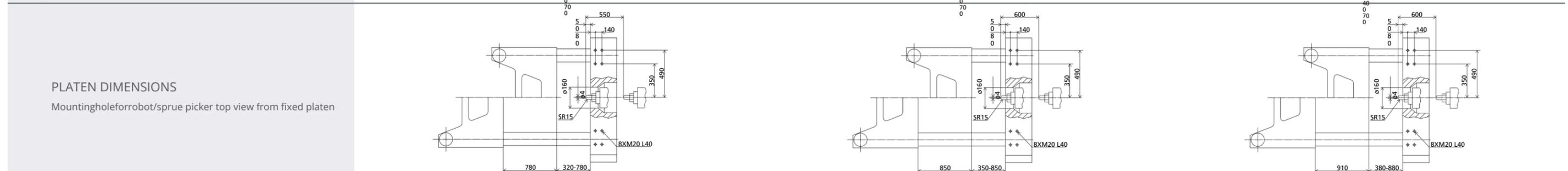
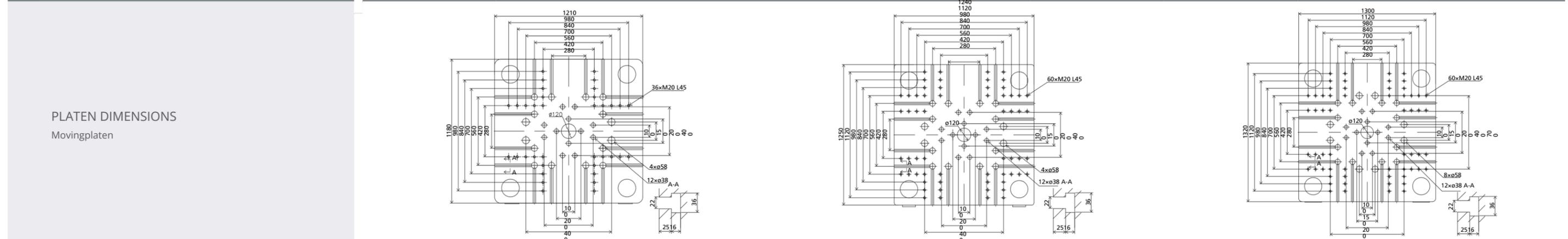
# SPECIFICATION

MACHINE TYPE		MA280Q /1350			MA320Q /1700			MA380Q /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		
				A	B	C	A	B	C	A	B
INJECTION UNIT	Screw diameter	mm	55	60	65	60	65	70	65	70	75
	Screw L/D ratio	L/D	21.8	20	18.5	21.7	20	18.6	21.5	20	18.7
	Injection volume (theoretical)	cm <sup>3</sup>	617	735	862	848	995	1154	1068	1239	1422
	Injection weight (PS)	g	562	668	785	771	905	1050	972	1127	1294
	Injection rate (PS)	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	21.25			27.05			31.3		
	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		



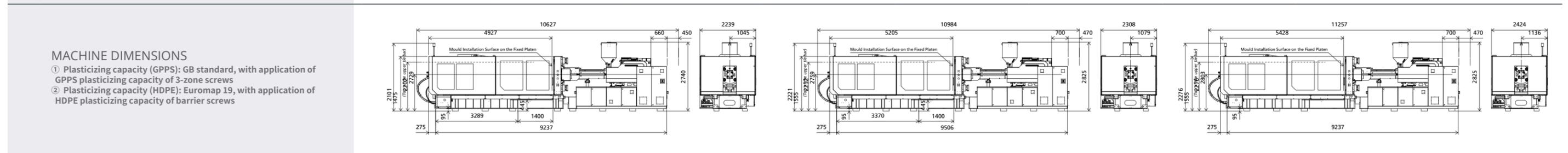
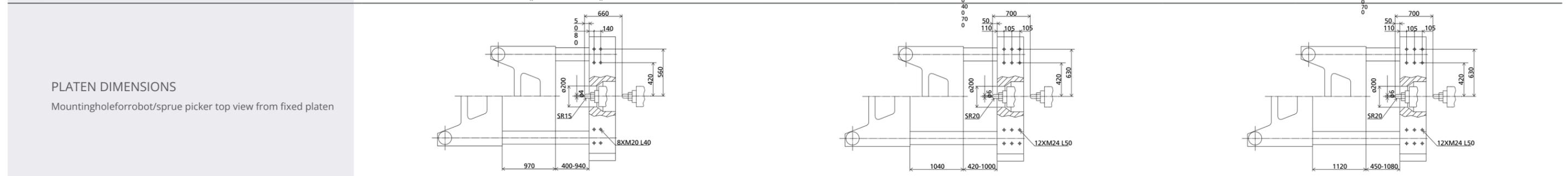
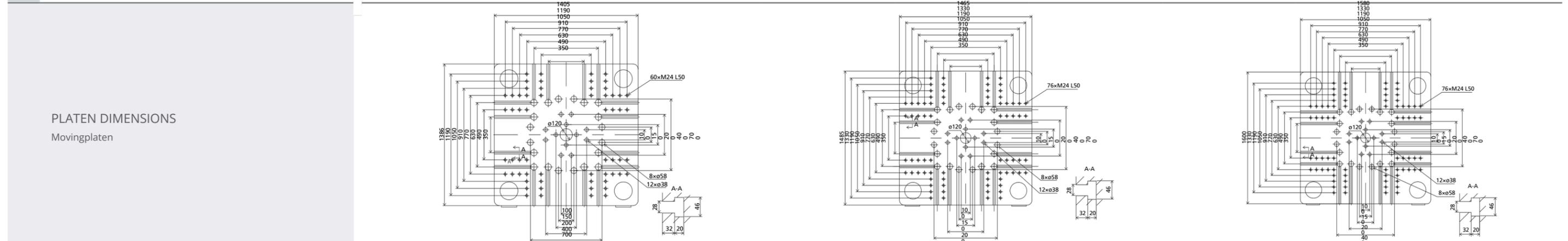
# SPECIFICATION

MACHINE TYPE		MA4700 / 3200			MA5300 / 4500			MA6000 / 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	Screw diameter	mm	A	B	C	A	B	C	A	B	C
	Screw L/D ratio	L/D	70	80	85	80	85	90	80	85	90
	Injection volume (theoretical)	cm <sup>3</sup>	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
Screw speed	rpm	220			200			200			
OTHERS	Pump motor power	kW	65			85			85		
	Heater power	kW	39.2			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		



# SPECIFICATION

MACHINE TYPE		MA700Q /5000			MA800Q /6800			MA900Q /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)	cm <sup>3</sup>	2261	2862	3534	2990	3691	4466	2990	3691	4466
	Injection weight (PS)	g	2058	2605	3216	2720	3359	4064	2720	3359	4064
	Injection rate (PS)	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	56.8			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		

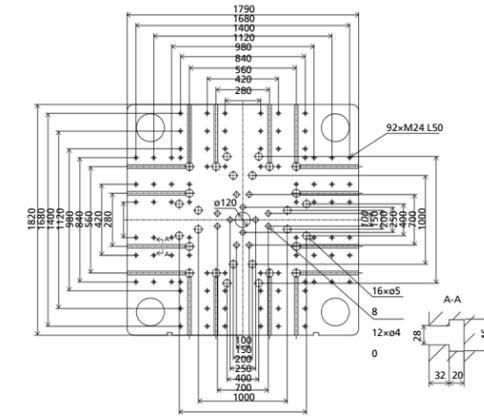
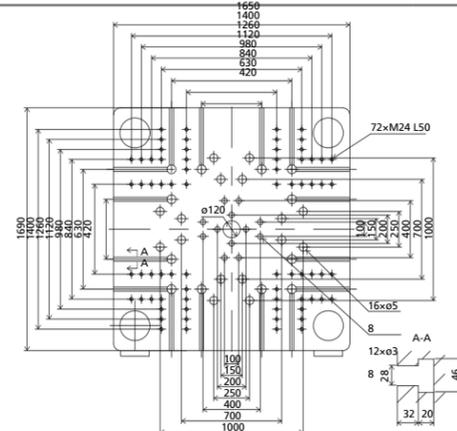


# SPECIFICATION

MACHINE TYPE			MA1000Q /8400			MA1200Q /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	Screw diameter	mm	A	B	C	A	B	C
	Screw L/D ratio	L/D	100	110	120	100	110	120
	Injection volume (theoretical)	cm <sup>3</sup>	24.2	22	20.2	24.2	22	20.2
	Injection weight (PS)	g	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		

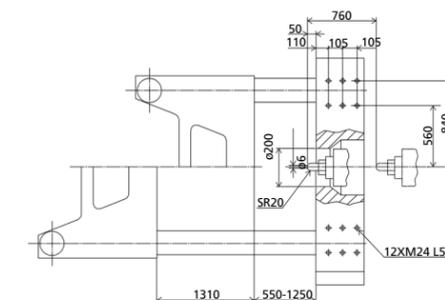
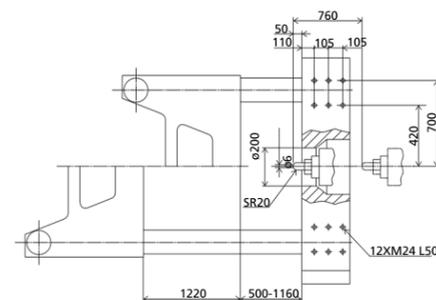
## PLATEN DIMENSIONS

Moving platen



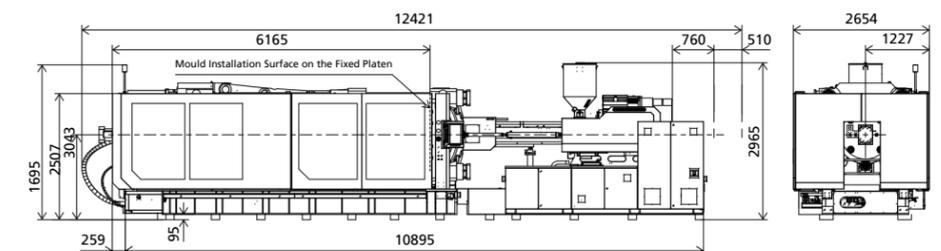
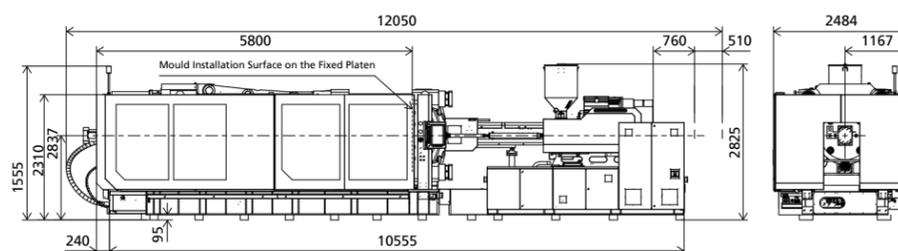
## PLATEN DIMENSIONS

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



# NOTE

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