



Niigata All-Electric Injection Molding Machines

630-283-5880
www.niigata-inj.com

MD-S8000 Series Specifications

Item		Unit	MD55S8000				MD85S8000				MD110S8000				MD150S8000											
Injection Capacity		*1 T·m	i1.0				i1.0				i1.7				i2.7											
Screw Complete	Screw Type	—	YY(OP.)	Y(OP.)	A	B	YY(OP.)	Y(OP.)	A	B	YY(OP.)	Y	A	B	YY(OP.)	Y	A	B	YY(OP.)	Y	A	B	YY(OP.)	Y	A	B
	Screw Diameter	mm	18	22	25	30	18	22	25	30	22	25	30	35	22	25	30	35	25	30	35	40	25	30	35	40
Screw Stroke		mm	85	85	100	120	85	85	100	120	85	100	120	140	85	100	120	140	85	100	120	140	160	100	120	140
		in	3.35	3.35	3.94	4.72	3.35	3.35	3.94	4.72	3.35	3.94	4.72	5.51	3.35	3.94	4.72	5.51	3.35	3.94	4.72	5.51	6.30	3.94	4.72	5.51
Calculated Injection Volume		cm ³	22	32	49	85	22	32	49	85	32	49	85	135	32	49	85	135	49	85	135	201	49	85	135	201
		cu-in	1.34	1.95	2.99	5.19	1.34	1.95	2.99	5.19	1.95	2.99	5.19	8.24	1.95	2.99	5.19	8.24	2.99	5.19	8.24	12.27	2.99	5.19	8.24	12.27
Injection Weight (PS)		g	20	30	45	78	20	30	45	78	30	45	78	124	30	45	78	124	45	78	124	185	45	78	124	185
		oz	0.71	1.06	1.59	2.75	0.71	1.06	1.59	2.75	1.06	1.59	2.75	4.37	1.06	1.59	2.75	4.37	1.59	2.75	4.37	6.53	1.59	2.75	4.37	6.53
Max. Injection Pressure		MPa	280	260	200	140	280	260	200	140	260	280	200	150	260	280	200	150	280	270	200	155	280	270	200	155
		psi	40610	37710	29010	20310	40610	37710	29010	20310	37710	40610	29010	21760	37710	40610	29010	21760	40610	39160	29010	22480	40610	39160	29010	22480
Max. Holding Pressure		MPa	280	235	180	125	280	235	180	125	235	260	180	135	235	260	180	135	260	245	180	135	260	245	180	135
		psi	40610	34080	26110	18130	40610	34080	26110	18130	34080	37710	26110	19580	34080	37710	26110	19580	37710	35530	26110	19580	37710	35530	26110	19580
Standard Specification	Max. Injection Speed	mm/s	350				350				300				300				300				300			
		in/s	13.78				13.78				11.81				11.81				11.81				11.81			
Injection Rate	cm ³ /s	89	133	172	247	89	133	172	247	114	147	212	289	114	147	212	289	147	212	289	377	147	212	289	377	
	cu-in/s	5.43	8.12	10.50	15.07	5.43	8.12	10.50	15.07	6.96	8.97	12.94	17.64	6.96	8.97	12.94	17.64	8.97	12.94	17.64	23.01	8.97	12.94	17.64	23.01	
LP Specification	Max. Injection Speed	mm/s	250				250				250				230				230				200			
		in/s	9.84				9.84				9.84				9.06				9.06				7.87			
Injection Rate	cm ³ /s	64	95	123	177	64	95	123	177	95	123	177	241	95	123	177	241	113	163	221	289	113	163	221	289	
	cu-in/s	3.91	5.80	7.51	10.80	3.91	5.80	7.51	10.80	5.80	7.51	10.80	14.71	5.80	7.51	10.80	14.71	6.90	9.95	13.49	17.64	6.90	9.95	13.49	17.64	
Screw Rotating Speed		min-1	360				360				360				360				360				360			
Plasticizing Capacity (PS)		kg/h	9	18	27	43	9	18	27	43	18	27	43	60	18	27	43	60	27	43	60	93	27	43	60	93
		oz/s	0.09	0.18	0.26	0.42	0.09	0.18	0.26	0.42	0.18	0.26	0.42	0.59	0.18	0.26	0.42	0.59	0.26	0.42	0.59	0.91	0.26	0.42	0.59	0.91
Nozzle Stroke		mm	345				345				345				410				410				460			
		in	13.58				13.58				13.58				16.14				16.14				18.11			
Nozzle Touch Force		kN	20 / 14				20 / 14				20 / 14				20 / 14				20 / 14				20 / 14			
		US ton	2.2 / 1.6				2.2 / 1.6				2.2 / 1.6				2.2 / 1.6				2.2 / 1.6				2.2 / 1.6			
Temp. Zones	Nozzle/Heating Cylinder	—	1G + 4				1G + 4				1G + 4				1G + 4				1G + 4				1G + 4			
	Hopper Base	—	1				1				1				1				1				1			
Heater Capacity		kW	2.8	5.0	5.0	8.0	2.8	5.0	5.0	8.0	5.0	5.0	8.0	10.7	5.0	5.0	8.0	10.7	5.0	8.0	10.7	12.1	5.0	8.0	10.7	12.1
Clamping System		—	Double Toggle				Double Toggle				Double Toggle				Double Toggle				Double Toggle							
		kN	500				750				1000				1300											
Clamping Force		US ton	56				84				112				146											
		mm	370 × 370				420 × 420				470 × 470				520 × 520											
Distance Between Tie Bars (H x V)		in	14.57 × 14.57				16.54 × 16.54				18.50 × 18.50				20.47 × 20.47											
		mm	545 × 545				615 × 615				690 × 690				770 × 770											
Platen Size (H x V)		in	21.46 × 21.46				24.21 × 24.21				27.17 × 27.17				30.31 × 30.31											
		mm	250 × 250				280 × 280				315 × 315				350 × 350											
Min. Mold Size (H x V)		in	9.84 × 9.84				11.02 × 11.02				12.40 × 12.40				13.78 × 13.78											
		mm	270				320				360				420											
Mold Opening Stroke		in	10.63				12.60				14.17				16.54											
		mm	150 / 370				150 / 410				150 / 480				180 / 520											
Mold Height (Min./Max.)		in	5.91 / 14.57				5.91 / 16.14				5.91 / 18.90				7.09 / 20.47											
		mm	640				730				840				940											
Open Daylight		in	25.20				28.74				33.07				37.01											
		mm	80				80				100				120											
Ejector Stroke		in	3.15				3.15				3.94				4.72											
		kN	20				20				30				34											
Ejector Force		US ton	2.2				2.2				3.4				3.8											
		kVA	19				22				22				26				31				34			
Total Machine Power	*9		AC220V(±10%)×60Hz				AC220V(±10%)×60Hz				AC220V(±10%)×60Hz				AC220V(±10%)×60Hz				AC220V(±10%)×60Hz							
Power Source (Voltage × Frequency)	*10	—	AC220V(±10%)×60Hz				AC220V(±10%)×60Hz				AC220V(±10%)×60Hz				AC220V(±10%)×60Hz				AC220V(±10%)×60Hz							
Rated Current		A	50				58				69				81				88							
		m	3.85				4.09				4.09				4.63				5.03				5.03			
Machine Dimensions	Length	in	151.7				160.8				160.8				182.3				198.0				198.0			
		m	1.20				1.27				1.27				1.39				1.41							
Width	in	47.2				50.0				50.0				54.7				55.5				55.5				
	m	1.96				1.76				1.76				1.85				1.95				1.95				
Height	in	77.2				69.3				69.3				72.8				76.8				76.8				
	ton	3.2				4.0				4.5				5.1				5.4				6.8				
Machine Weight		US-ton	3.5				4.4				4.5				5.6				6.0				7.2			
		L	15				15				15				45				45				45			
Hopper Capacity (OP.)		gal	3.96				3.96				3.96				11.89				11.89				11.89			
		L/min	5				5				5				5				5				5			
Cooling Water Consumption		gal/minT	1.32				1.32				1.32				1.32				1.32				1.32			

Note: Above specification is subject to change due to continuous improvement. Items with "OP." are optional.
 *1 Injection capacity is shown by "maximum injection pressure"×"calculated injection volume".
 *2 Calculated injection volume is determined by multiplying screw cross sectional area and screw stroke.
 *3 Injection weight is for polystyrene and 92% of calculated injection volume.
 *4 Maximum injection pressure and maximum holding pressure may be limited by molding conditions.
 *5 Maximum injection speed may not reach this value depending on the load.
 *6 Plasticizing capacity is for polystyrene.
 *7 Do not use a mold that is smaller than this size to prevent machine damage.

*8 Ejector force shown is theoretical value.
 *9 Electric capacity shown doesn't include auxiliary equipment except hydraulic power unit.
 In case power supply of auxiliary equipment is through the injection machine, the machine electric capacity needs to be increased.
 *10 Voltage fluctuation should not exceed by 10% or lower by 10% of rated power.
 Voltage should always be the rated value and fluctuation should be allowed only for a short time.
 *11 Machine dimensions don't include leveling pads and signal tower lights.
 *12 Water is used for cooling hopper base its pressure should be 0.5MPa or lower.

MD-S8000 Series Specifications

Item	Unit	MD200S8000								MD245 S8000								MD310S8000								MD385S8000								
		i4.0				i6.5				i6.5				i10				i6.5				i10				i15				i22				
Injection Capacity *1	T·m																																	
Screw Complete	Screw Type	—																																
	Screw Diameter	mm	30	35	40	45	35	40	45	52	35	40	45	52	40	45	52	60	35	40	45	52	40	45	52	60	45	52	60	68	52	60	68	76
Screw Stroke		in	1.18	1.38	1.57	1.77	1.38	1.57	1.77	2.05	1.38	1.57	1.77	2.05	1.57	1.77	2.05	2.36	1.38	1.57	1.77	2.05	1.57	1.77	2.05	2.36	1.77	2.05	2.36	2.68	2.05	2.36	2.68	2.99
		mm	120	140	160	180	205	205	205	205	205	205	205	205	240	240	240	240	205	205	205	205	205	205	205	205	240	240	240	270	270	270	305	305
Calculated Injection Volume *2		cm ³	85	135	201	286	197	258	326	435	197	258	326	435	302	382	510	679	197	258	326	435	302	382	510	679	429	573	763	981	648	862	1108	1384
		cu-in	5.19	8.24	12.27	17.45	12.02	15.74	19.89	26.55	12.02	15.74	19.89	26.55	18.43	23.31	31.12	41.44	12.02	15.74	19.89	26.55	18.43	23.31	31.12	41.44	26.18	34.97	46.56	59.86	39.54	52.60	67.61	84.46
Injection Weight (PS) *3		g	78	124	185	263	181	237	300	401	181	237	300	401	277	351	469	624	181	237	300	401	277	351	469	624	395	528	702	902	596	793	1019	1273
		oz	2.75	4.37	6.53	9.28	6.38	8.36	10.58	14.14	6.38	8.36	10.58	14.14	9.77	12.38	16.54	22.01	6.38	8.36	10.58	14.14	9.77	12.38	16.54	22.01	13.93	18.62	24.76	31.82	21.02	27.97	35.94	44.90
Max. Injection Pressure *4		MPa	270	260	200	155	260	250	200	150	260	250	200	150	250	250	200	150	260	250	200	150	260	250	200	150	225	225	180	135	225	225	180	145
		psi	39160	37710	29010	22480	37710	36260	29010	21760	37710	36260	29010	21760	36260	36260	29010	21760	37710	36260	29010	21760	36260	36260	29010	21760	36260	36260	29010	22480	36260	36260	29010	23210
Max. Holding Pressure *4		MPa	245	235	180	140	260	225	180	135	260	225	180	135	225	225	180	135	260	225	180	135	225	225	180	135	225	225	180	140	225	225	180	145
		psi	35530	34080	26110	20310	37710	32630	26110	19580	37710	32630	26110	19580	32630	32630	26110	19580	37710	32630	26110	19580	32630	32630	26110	19580	32630	32630	26110	20310	32630	32630	26110	21030
Standard Specification	Max. Injection Speed *5	mm/s	300								300								230								200							
		in/s	11.81								11.81								9.06								7.87							
Injection Rate	cm ³ /s	212	289	377	477	289	377	477	637	289	377	477	637	289	366	488	650	289	377	477	637	289	366	488	650	318	425	565	726	—	—	—	—	
	cu-in/s	12.94	17.64	23.01	29.11	17.64	23.01	29.11	38.87	17.64	23.01	29.11	38.87	17.64	22.33	29.78	39.67	17.64	23.01	29.11	38.87	17.64	22.33	29.78	39.67	19.41	25.94	34.48	44.30	—	—	—	—	
LP Specification	Max. Injection Speed *5	mm/s	200								240								200								160							
		in/s	7.87								9.45								7.87								6.30							
Injection Rate	cm ³ /s	141	192	251	318	231	302	382	510	231	302	382	510	251	318	425	565	231	302	382	510	251	318	425	565	254	340	452	581	340	452	581	726	
	cu-in/s	8.60	11.72	15.32	19.41	14.10	18.43	23.31	31.12	14.10	18.43	23.31	31.12	15.32	19.41	25.94	34.48	14.10	18.43	23.31	31.12	15.32	19.41	25.94	34.48	15.50	20.75	27.58	35.45	20.75	27.58	35.45	44.30	
Screw Rotating Speed	min-1	360								400								400								400								
Plasticizing Capacity (PS) *6	kg/h	43	60	93	115	67	113	148	228	67	113	148	228	113	148	201	274	67	113	148	228	113	148	201	274	111	151	206	315	121	165	252	315	
	oz/s	0.42	0.59	0.91	1.13	0.66	1.11	1.45	2.23	0.66	1.11	1.45	2.23	1.11	1.45	1.97	2.68	0.66	1.11	1.45	2.23	1.11	1.45	1.97	2.68	1.09	1.48	2.02	3.09	1.19	1.62	2.47	3.09	
Nozzle Stroke	mm	460								460								460								570								
	in	18.11								18.11								18.11								22.44								
Nozzle Touch Force	kN	20 / 14								34 / 24								34 / 24								34 / 24								
	US ton	2.2 / 1.6								3.8 / 2.7								3.8 / 2.7								3.8 / 2.7								
Temp. Zones	Nozzle/Heating Cylinder	1G + 4								1G + 2 + 1G								1G + 2 + 1G								1G + 2 + 1G								
	Hopper Base	1								1								1								1								
Heater Capacity	kW	8.0	10.7	12.1	14.1	11.2	11.2	14.2	14.2	11.2	11.2	14.2	14.2	11.2	14.7	18.7	18.7	11.2	11.2	14.2	14.2	11.2	14.7	18.7	18.7	14.7	18.7	20.9	20.9	18.7	21.5	25.1	25.1	
Clamping Unit	Clamping System	—																																
	Clamping Force	kN	1800								2200								2800								3500							
		US ton	202								247								315								393							
	Distance Between Tie Bars (H x V)	mm	570 x 570								620 x 620								730 x 730								820 x 820							
		in	22.44 x 22.44								24.41 x 24.41								28.74 x 28.74								32.28 x 32.28							
	Platen Size (H x V)	mm	840 x 840								915 x 915								1040 x 1040								1170 x 1170							
		in	33.07 x 33.07								36.02 x 36.02								40.94 x 40.94								46.06 x 46.06							
	Min. Mold Size (H x V) *7	mm	380 x 380								415 x 415								490 x 490								550 x 550							
		in	14.96 x 14.96								16.34 x 16.34								19.29 x 19.29								21.65 x 21.65							
	Mold Opening Stroke	mm	470								500								600								730							
		in	18.50								21.65								23.62								28.74							
	Mold Height (Min./Max.)	mm	200 / 650								220 / 700								280 / 750								320 / 810							
		in	7.87 / 7.87								8.66 x 27.56								11.02 / 29.53								12.60 / 31.89							
	Open Daylight	mm	1120								1250								1350								1540							
in		44.09								49.21								53.15								60.63								
Ejector Stroke	mm	150								150								160								160								
	in	5.91								5.91								6.30								6.30								
Ejector Force *8	kN	44								49								60								60								
	US ton	4.9								5.5								6.7								6.7								
Total Machine Power *9	kVA	51								51								51								51								
Power Source (Voltage x Frequency) *10	—	AC220V(±10%) x 60Hz								AC220V(±10%) x 60Hz								AC220V(±10%) x 60Hz								AC220V(±10%) x 60Hz								
Rated Current	A	134								134								134								153								
	Length	m	5.55								5.55								6.06								6.11							
		in	218.5								218.5								238.6								240.6							
Machine Dimensions	Width	m	1.52								1.52								1.72								1.99							
		in	59.8								59.8								67.7								78.3							
	Height *11	m	1.96								1.96								2.04								2.09							
in		77.2								77.2								80.3								82.3								
Machine Weight	ton	8.3								8.9								11.6								12.7								
	US-ton	9.1								9.8								12.8								15.2								
Hopper Capacity (OP.)	L	45								45								80								80								
	gal	11.89								11.89								11.89								21.13								
Cooling Water Consumption *12	L/min	5								7.5								7.5								7.5								
	gal/min	1.32								1.98								1.98								1.98								

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 *7 Do not use a mold that is smaller than this size to prevent machine damage.

*8 Ejector force shown is theoretical value.
 *9 Electric capacity shown doesn't include auxiliary equipment except hydraulic power unit.
 In case power supply of auxiliary equipment is through the injection machine, the machine electric capacity needs to be increased.
 *10 Voltage fluctuation should not exceed by 10% or lower by 10% of rated power.
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 *11 Machine dimensions don't include leveling pads and signal tower lights.
 *12 Water is used for cooling hopper base its pressure should be 0.5MPa or lower.

MD-S8000 Series Specifications

Item		Unit	MD500S8000			
Injection Unit	Injection Capacity *1	T·m	i 32			
	Screw Complete	Screw Type	—	Y	A	B
		Screw Diameter	mm	68	76	82
			in	2.68	2.99	3.23
	Screw Stroke		mm	350		
			in	13.78		
	Calculated Injection Volume *2		cm ³	1271	1588	1848
			cu-in	77.56	96.91	112.77
	Injection Weight (PS) *3		g	1169	1461	1700
			oz	41.24	51.54	59.97
	Max. Injection Pressure *4		MPa	250	200	170
			psi	36260	29010	22480
	Max. Holding Pressure *4		MPa	225	180	155
			psi	32630	26610	22480
	Standard Specification	Max. Injection Speed *5	mm/s	160		
			in/s	6.30		
		Injection Rate	cm ³ /s	581	726	845
			cu-in/s	34.45	44.30	51.56
	LP Specification	Max. Injection Speed *5	mm/s	-	-	-
			in/s	-	-	-
Injection Rate	cm ³ /s	-	-	-		
	cu-in/s	-	-	-		
Screw Rotating Speed		min-1	200			
Plasticizing Capacity (PS) *6		kg/h	210	256	299	
		oz/s	2.06	2.51	2.93	
Nozzle Stroke		mm	610			
		in	24.02			
Nozzle Touch Force		kN	36.3			
		US ton	4.1			
Temp. Zones	Nozzle/Heating Cylinder	—	1G+3+1G			
	Hopper Base	—	1			
Heater Capacity		kW	27.8	33.2		
Clamping Unit	Clamping System	—	Double Toggle			
	Clamping Force		kN	4500		
			US ton	506		
	Distance Between Tie Bars (H x V)		mm	910 x 910		
			in	35.83 x 35.83		
	Platen Size (H x V)		mm	1290 x 1290		
			in	50.79 x 50.79		
	Min. Mold Size (H x V) *7		mm	-	-	-
			in	-	-	-
	Mold Opening Stroke		mm	800		
			in	31.50		
	Mold Height (Min./Max.)		mm	350/910		
			in	13.78/35.83		
	Open Daylight		mm	1710		
			in	67.32		
Ejector Stroke		mm	180			
		in	7.09			
Ejector Force *8		kN	80			
		US ton	9.0			
Others	Total Machine Power *9	kVA	-	-	-	
	Power Source (Voltage x Frequency) *10	—	AC460Vx60Hz			
	Rated Current	A	-	-	-	
	Machine Dimensions	Length	m	-	-	-
			in	-	-	-
		Width	m	-	-	-
	in		-	-	-	
	Height *11	m	-	-	-	
		in	-	-	-	
	Machine Weight		ton	-	-	-
		US-ton	-	-	-	
Hopper Capacity (OP.)		L	-	-	-	
		gal	-	-	-	
Cooling Water Consumption *12		L/min	-	-	-	
		gal/min	-	-	-	

Note: Above specification is subject to change due to continuous improvement. Items with "OP." are optional.

- *1 Injection capacity is shown by "maximum injection pressure"x"calculated injection volume".
 *2 Calculated injection volume is determined by multiplying screw cross sectional area and screw stroke.
 *3 Injection weight is for polystyrene and 92% of calculated injection volume.
 *4 Maximum injection pressure and maximum holding pressure may be limited by molding conditions.
 *5 Maximum injection speed may not reach this value depending on the load.
 *6 Plasticizing capacity is for polystyrene.
 *7 Do not use a mold that is smaller than this size to prevent machine damage.

- *8 Ejector force shown is theoretical value.
 *9 Electric capacity shown doesn't include auxiliary equipment except hydraulic power unit.
 In case power supply of auxiliary equipment is through the injection machine, the machine electric capacity needs to be increased.
 *10 Voltage fluctuation should not exceed by 10% or lower by 10% of rated power.
 Voltage should always be the rated value and fluctuation should be allowed only for a short time.
 *11 Machine dimensions don't include leveling pads and signal tower lights.
 *12 Water is used for cooling hopper base its pressure should be 0.5MPa or lower.