Offices / Technical Support

Ask us.

Shibaura Machine brings a depth of experience and expertise to help you create the ideal molding solution. With locations across the country, plus on-site assistance when you need hands-on help, you get the customer assistance and technical support to help you excel.

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EC-SXIII

ELECTRIC INJECTION MOLDING MACHINE

New V70 controller let's you see the BIG PICTURE right down to the smallest details

Watch the ECSXIII video.

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Smart Electric Molding Solutions.

The New ECSXIII

Smart and intuitive, the new, bigger,19-inch high-resolution V70 touch-screen controller gives you more data and more resource at your fingertips.

If you have a Shibaura machine, programming is easy and familiar. If you are new to Shibaura, this new controller will make you wish you already had one.

The industry's best all-electric injection molding machine just got smarter. Introducing the new ECSXIII from Shibaura Machine. The first all-electric injection molding machine equipped with the V70, Shibaura's most powerful, intelligent, user-friendly controller ever.

With the ECSXIII, molders get a machine that delivers fast injection speeds and dry cycle times, ensures longer mold life and provides more uniform clamping force, for greater productivity, flexibility and versatility, job after job.

With the new V70, you get a controller designed with the smart factory in mind, one that's capable of integrating with auxiliary equipment via OPC-UA communication. Packed with new tools for speeding up mold set ups, optimizing cycle times, analyzing part defects, troubleshooting molding defects and more, giving you a faster payback on your machinery investment.

This all-in-one smart factory system is ideal for virtually any molding application, from automotive and aerospace, to packaging, medical and more.

Tour the new V70 Controller

Watch the V70 video.

Molders who've used Shibaura's V-series controllers will be immediately comfortable with the new V70. Those new to the controller will find it easy to learn and even easier to use. With the V70, you get:

19" High Resolution Touchscreen – Twice the size of previous touchscreens, with touch/swipe functionality and greater visibility of data.

True Split Screen Capability – View two screens simultaneously and get the information you need to enhance machine operation and productivity.

Auxiliary equipment integration – The new V70 is capable of integrating with robots, hot runners, mold temperature controllers and other add-on equipment, providing operators with a single point of control for the entire molding process. (Additional programming required.)

Clamp Customization – New graphic interface allows you to drag and drop icons and create a custom clamp open and close sequence. Data is saved and confirmed at set up, resulting in fewer errors, less mold damage and increased productivity.

Auto Shutdown – You can also use the V70's graphic interface to drag and drop icons to create a custom sequence to automatically shut down the machine at the end of each production run, saving time and ensuring consistency.

Onscreen PDF Library – The new V70 gives you fast, onscreen access to the complete ECSXIII machine manual. You can also add other PDFs -- auxiliary equipment manuals, part quality

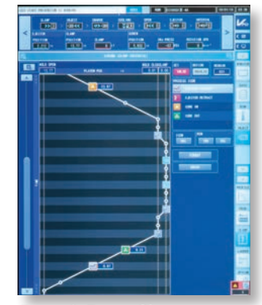
documentation, operating procedures – to create a digital library of technical data.

Onscreen Analysis and Troubleshooting Tools – New tools on the V70 include a cycle analysis screen with a graphic breakdown showing areas where time can be reduced.

Also new is a Molding Support function providing solutions to common molding

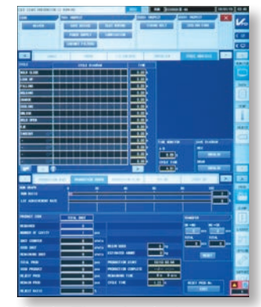

History - Set, Alarm, Stop, Operation


PDF Manual On Board


Drag & Drop Clamp Sequence Setting


Molding & Setup Support


PDF Library


Cycle Time Analysis


Drag & Drop Auto-Shut Down Sequence


Monitor Molding Data

defects, plus troubleshooting tools like a Labeled I/O Checker and Interlock Display with real-time status of inputs, outputs and machine interlocks.

Expanded capacity – The new V70 saves monitoring data for the last 100,000 shots – 100 times more than previous controllers. Also expanded are machine alarm, set and stop history, with the V70 saving the last 1,000 of each. Compared to previous units, the new V70 also separates fill time from hold time.

IPAQET Remote Access and More (Optional) – Get remote access to the V70 anytime, anywhere with the iPAQET Data Management System. Also included are additional production monitoring, data collection and analysis tools.

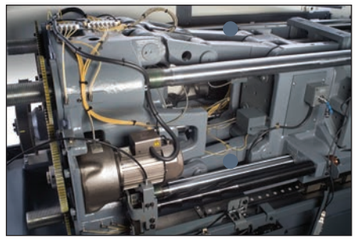

I/O Checker & Machine Interlocks


Integrated Hot Runner Control & Robot

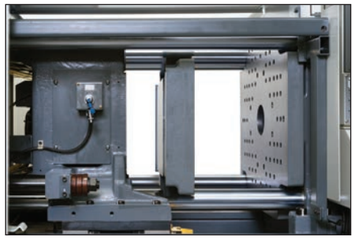
Industry 4.0 – With its OPC-UA architecture supporting Euromap 63 and Euromap 77 communication, wide range of auto-correcting functions and more, the new V70 is the most powerful, flexible tool on the market for achieving your vision of Industry 4.0.

Features & Benefits

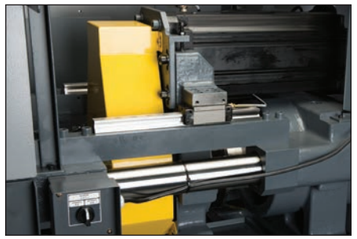
Video



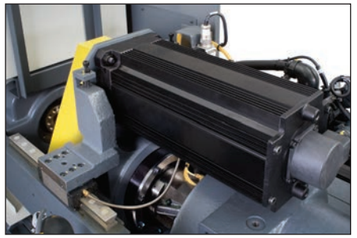
The ECSXIII's 5-point Link-line toggle mechanism is angled to distribute force evenly across the platen, increasing quality and minimizing defects. It has the added benefit of extending mold life and reducing machine maintenance.



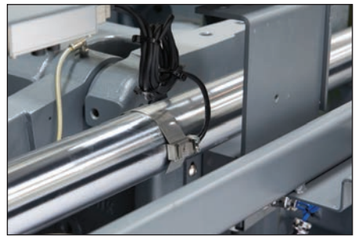
On 30 - 390 ton units the two-piece removable platens can be changed out in 15 minutes giving you extraordinary flexibility. On larger units the moving platen is removable.



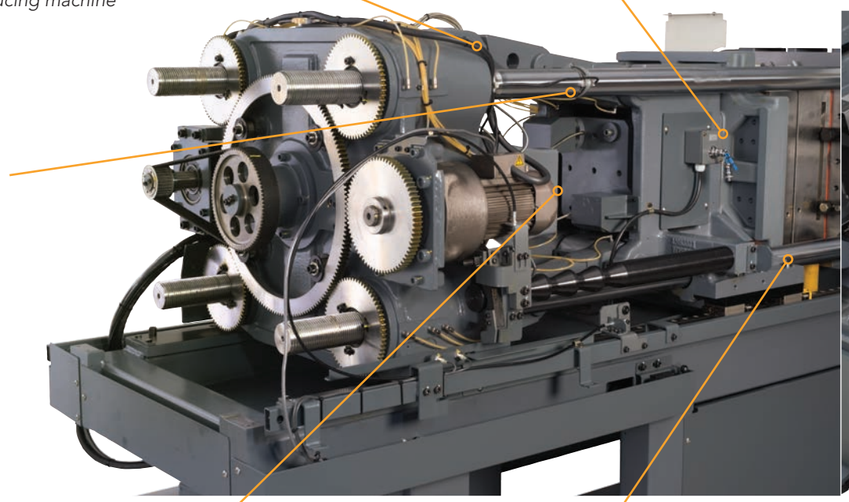
(S3) Simple, Steady, Smooth – Friction free drive system ensures more accurate injection speed and back pressure control, improving shot-to-shot repeatability throughout the processing cycle.

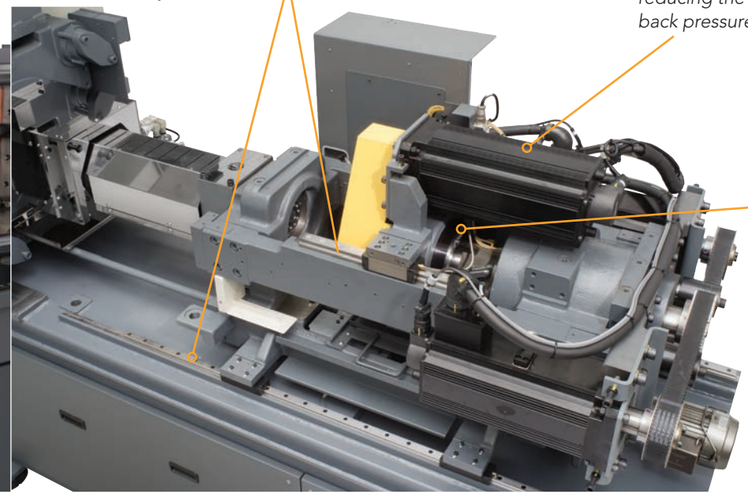


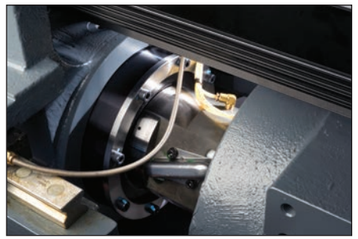
The heavy weight on the injection unit is supported on linear guides, greatly reducing the drag of injection and back pressure.



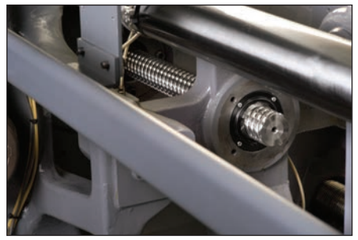
Strain gauge adjusts tonnage automatically and on the fly during the cycle. This ensures accurate tonnage at all times.



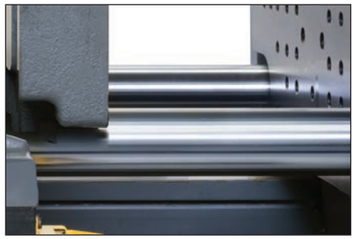




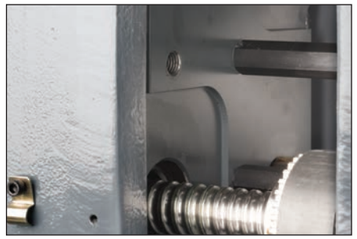
The ECSXIII uses an advance load cell which ensures accurate control of injection pressure. In combination with the V70 controller, this load cell achieves Scientific Molding over the balance of the mold without the use of internal transducers.



Ball screws are designed to push heavier loads, spreading the load across a much larger surface area than conventional ball screws.



With bushing-free, grease-free tie bars, there's less chance of contaminating molded parts, increasing your shop's quality.



Easy access to tie in the ejection plate to the press, for faster, easier mold changes.

You can now fit hydraulic power units directly under the ECSXIII, thanks to the machine's redesigned, space-saving frame (power units not included). Its streamlined design also allows easy access to electrical panels and components. (Note: 55-390 ton only.)

Shorten Cycle Times with Simultaneous Motion – Standard on the ECSXIII

Simultaneous motion is standard on the new ECSXIII. Cycle times can be improved up to 30% with the combination of simultaneous motion and high speed movement.

Eject on the fly
Eject parts as the clamp opens, dramatically improving cycle times. In most cases, the mold opens and closes without a pause for ejection.

Lap sequence
Allows injecting as soon as the mold halves touch. Improves cycle time and venting of the tool.

Clamp relax
The clamp immediately relaxes during cooling, taking more time off the cycle.

Additional simultaneous sequences that shrink your cycle times
- Opening the mold while charging.

- Pulling the core in and out on the fly.

Stress reduction
Coining, which allows the injection to start at lower tonnage and increase to full tonnage during injection, reduces internal stress on the parts.

Repeatability at high speeds
Even at top speed, with multiple functions working seamlessly in tandem, there is no loss of precision or accuracy.

Options for Greater Flexibility & Productivity

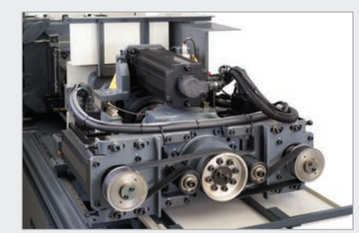
Integrated control panel up to 390 ton only. Box-style control panel on larger units.

Control on the V70 controller

Add secondary units seamlessly
Easily retrofit the two-shot Mold Master secondary injection unit to any ECSXIII. Use the stand-alone control for the greatest programming flexibility.

Built-in Mold Master Hot Runner
Minimize your footprint by integrating the control panel into the machine, or controlling the Mold Master Hot Runner on the V70 controller.

Boost productivity with FIDS
With Shibaura's new FIDS (flexible injection downsize system), you can easily adapt ECSXIII machines down to shot sizes as small as 0.43 oz. (Engineering review required.)



Speed up injection
Optional twin motors are available to boost the ECSXIII's injection speed up to 500 mm/sec. (Note: i17 injection unit and below.)

Robot-ready
Installing a 6-axis robot on top of the ECSXIII's stationary platen saves floor space and adds greater flexibility. (Robots sold separately.)

Optional Shibaura Machine IPAQET3 Remote Monitoring Management Software

As an option, molders can upgrade to the full version of iPAQET, a powerful data management platform enabling you to monitor up to 100 molding machines from any location in real-time. iPAQET also provides you with production monitoring, data collection and analysis, machine operation status, resin lot monitoring and more.

	ITEM		UNIT	EC55SXIII				EC85SXIII				
CLAMP	Clamping Force		tf	50				75				
			US Ton	55				83				
	Tie Bar Distance	H x V	mm	410 x 360				410 x 360				
		H x V	in	16.1 x 14.2				16.1 x 14.2				
	Platen Dimension	H x V	mm	510 x 460				580 x 530				
		H x V	in	20.1 x 18.1				22.8 x 20.9				
	Clamp Stroke		mm	300				300				
			in	11.8				11.8				
	Maximum Daylight		mm	670				770				
			in	26.4				30.3				
	Mold Height	Min. ~ Max	mm	150 ~ 370				150 ~ 470				
		Min. ~ Max	in	5.9 ~ 14.5				5.9 ~ 18.5				
	Ejector Force		tf	2.0				2.0				
			US Ton	2.2				2.2				
	Ejector Stroke		mm	70				70				
			in	2.76				2.76				
INJECTION	Injection Unit			U1.5				U22				
	Barrel Code			1YZ	1Y	1.5Y	1.5A	1Y	1.5Y	2Y	2A	2B
	Screw Diameter		mm	20	22	25	28	22	25	28	32	36
			in	0.79	0.87	0.98	1.10	0.87	0.98	1.10	1.26	1.42
	Injection Capacity		cm^3	31	38	55	69	38	55	78	102	130
			in^3	1.92	2.32	3.35	4.21	2.32	3.35	4.81	6.28	7.95
	Shot Volume	PS	g	29	35	51	63	35	51	72	94	120
			oz	1.02	1.23	1.80	2.22	1.23	1.80	2.54	3.32	4.23
		PE	g	23	28	40	50	28	40	57	75	95
			oz	0.81	0.99	1.41	1.76	0.99	1.41	2.01	2.65	3.35
	Maximum Injection Pressure		MPa	270	270	276	220	270	276	287	220	174
			PSI	39200	39200	40000	31900	39200	40000	41600	31900	25200
	Maximum Holding Pressure		MPa	270	270	276	220	270	276	287	220	174
			PSI	39200	39200	40000	31900	39200	40000	41600	31900	25200
	Injection Velocity	STD	mm/s	200				200				
			in/s	7.9				7.9				
	Injection Rate	STD	cm^3/s	63	76	98	123	76	98	123	161	204
			in^3/s	3.84	4.64	5.98	7.51	4.64	5.98	7.51	9.8	12.4
	Injection Velocity	HIGH SPEED	mm/s	500				500				
			in/s	19.7				19.7				
	Injection Rate	HIGH SPEED	cm^3/s	157	190	245	308	190	245	308	402	509
			in^3/s	9.58	11.6	15.0	18.8	11.6	15.0	18.8	24.5	31.1
	Plasticizing Capacity	PS	g/sec	3.9	6.1	6.9	9.7	6.1	6.9	11.1	16.9	23.1
			oz/sec	0.14	0.22	0.24	0.34	0.22	0.24	0.39	0.60	0.81
	Screw Speed		rpm	430	420	390	390	420	390	400	390	350
	Screw Torque		N-m	109	143	204	280	143	204	280	407	407
			lbf-ft	80.4	105	150	207	105	150	207	300	300
	Nozzle Touch Force		kN	17.6				17.6				
			US Ton	2.0				2.0				
GENERAL	Main Breaker Capacity	STD	A	75				75				
	Electric Capacity	STD	kVA	23		28		23	28	35		
	Main Breaker Capacity	HIGH SPEED	A	75		100		125				
	Electric Capacity	HIGH SPEED	kVA	35		35		35	42	53		
	Heater Capacity		kW	4.8		6.6		4.8	6.6	6.8		7.6
	Machine Dimensions L x W x H		m	3.7 x 1.3 x 1.6		3.9 x 1.3 x 1.6		4.0 x 1.3 x 1.6		4.2 x 1.3 x 1.6		
			ft	12.0 x 4.0 x 5.2		12.6 x 4.0 x 5.2		13.2 x 4.0 x 5.2		13.7 x 4.0 x 5.2		
	Machine Weight		t	3.0		3.1		3.1	3.2	3.3		
			US Ton	3.3		3.4		3.5	3.6	3.6		

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

ECSXIII Specifications

	ITEM		UNIT	EC110SXIII								EC140SXIII				
CLAMP	Clamping Force		tf	100								130				
			US Ton	110								143				
	Tie Bar Distance	H x V	mm	460 x 410								510 x 460				
		H x V	in	18.1 x 16.1								20.1 x 18.1				
	Platen Dimension	H x V	mm	660 x 610								720 x 670				
		H x V	in	26.0 x 24.0								28.3 x 26.4				
	Clamp Stroke		mm	350								400				
			in	13.8								15.7				
	Maximum Daylight		mm	900								950				
			in	35.4								37.4				
	Mold Height	Min. ~ Max	mm	180 ~ 550								180 ~ 550				
		Min. ~ Max	in	7.1 ~ 21.7								7.1 ~ 21.7				
	Ejector Force		tf	3.0								3.0				
			US Ton	3.3								3.3				
	Ejector Stroke		mm	90								90				
			in	3.54								3.54				
INJECTION	Injection Unit			U32			U34					U34				
	Barrel Code			2Y	2A	2B	2Y	2A	4Y	4A	4B	2Y	2A	4Y	4A	4B
	Screw Diameter		mm	28	32	36	28	32	36	40	45	28	32	36	40	45
			in	1.10	1.26	1.42	1.10	1.26	1.42	1.57	1.77	1.10	1.26	1.42	1.57	1.77
	Injection Capacity		cm^3	78	102	130	78	102	162	201	254	78	102	162	201	254
			in^3	4.81	6.28	7.95	4.81	6.28	9.94	12.3	15.5	4.81	6.28	9.94	12.3	15.5
	Shot Volume	PS	g	72	94	120	72	94	145	180	230	72	94	145	180	230
			oz	2.54	3.32	4.23	2.54	3.32	5.11	6.35	8.11	2.54	3.32	5.11	6.35	8.11
		PE	g	57	75	95	57	75	115	145	185	57	75	115	145	185
			oz	2.01	2.65	3.35	2.01	2.65	4.06	5.11	6.52	2.01	2.65	4.06	5.11	6.52
	Maximum Injection Pressure		MPa	287	220	174	287	220	247	200	158	287	220	247	200	158
			PSI	41600	31900	25200	41600	31900	35800	29000	22900	41600	31900	35800	29000	22900
	Maximum Holding Pressure		MPa	287	220	174	287	220	247	200	158	287	220	247	200	158
			PSI	41600	31900	25200	41600	31900	35800	29000	22900	41600	31900	35800	29000	22900
	Injection Velocity	STD	mm/s	200			200					200				
			in/s	7.9			7.9					7.9				
	Injection Rate	STD	cm^3/s	123	161	204	123	161	204	251	318	123	161	204	251	318
			in^3/s	7.5	9.8	12.4	7.5	9.8	12.4	15.3	19.4	7.5	9.8	12.4	15.3	19.4
	Injection Velocity	HIGH SPEED	mm/s	500			400					400				
			in/s	19.7			15.7					15.7				
	Injection Rate	HIGH SPEED	cm^3/s	308	402	509	246	322	407	503	636	246	322	407	503	636
			in^3/s	18.8	24.5	31.1	15.0	19.6	24.8	30.7	38.8	15.0	19.6	24.8	30.7	38.8
	Plasticizing Capacity	PS	g/sec	11.1	16.9	23.1	11.1	16.9	23.1	30.6	33.3	11.1	16.9	23.1	30.6	33.3
			oz/sec	0.39	0.60	0.81	0.39	0.60	0.81	1.1	1.2	0.39	0.60	0.81	1.1	1.2
	Screw Speed		rpm	400	390	350	400	390	350	320	285	400	390	350	320	285
	Screw Torque		N-m	280	407	407	280	407	566	761	761	280	407	566	761	761
			lbf-ft	207	300	300	207	300	417	561	561	207	300	417	561	561
	Nozzle Touch Force		kN	17.6			17.6					17.6				
			US Ton	2.0			2.0					2.0				
GENERAL	Main Breaker Capacity	STD	A	75			100					100				
	Electric Capacity	STD	kVA	35			35		45			35		45		
	Main Breaker Capacity	HIGH SPEED	A	125			125					125				
	Electric Capacity	HIGH SPEED	kVA	53			53		61			53		61		
	Heater Capacity		kW	6.8		7.6	6.8		11.2		11.9	6.8		11.2		11.9
	Machine Dimensions L x W x H		m	4.7 x 1.3 x 1.7					5.0 x 1.3 x 1.7			4.8 x 1.5 x 1.7		5.1 x 1.5 x 1.7		
			ft	15.2 x 4.2 x 5.4					16.1 x 4.2 x 5.4			15.5 x 4.7 x 5.6		16.7 x 4.7 x 5.6		
	Machine Weight		t	4.2			4.3		4.3			5.2		5.3		
			US Ton	4.6			4.7		4.7			5.8		5.8		

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

	ITEM		UNIT	EC200SXIII							
CLAMP	Clamping Force		tf	180							
			US Ton	198							
	Tie Bar Distance	H x V	mm	560 x 510							
		H x V	in	22.0 x 20.1							
	Platen Dimension	H x V	mm	790 x 740							
		H x V	in	31.1 x 29.1							
	Clamp Stroke		mm	450							
			in	17.7							
	Maximum Daylight		mm	1050							
			in	41.3							
	Mold Height	Min. ~ Max	mm	200 ~ 600							
		Min. ~ Max	in	7.87 ~ 23.6							
	Ejector Force		tf	5.0							
			US Ton	5.5							
	Ejector Stroke		mm	130							
			in	5.12							
INJECTION	Injection Unit			U34			U48				
	Barrel Code			4Y	4A	4B	4Y	6Y	8Y	8A	8B
	Screw Diameter		mm	36	40	45	36	40	45	50	55
			in	1.42	1.57	1.77	1.42	1.57	1.77	1.97	2.17
	Injection Capacity		cm^3	162	201	254	162	226	318	392	475
			in^3	9.94	12.3	15.5	9.94	13.8	19.4	24.0	29.0
	Shot Volume	PS	g	145	180	230	145	208	292	361	437
			oz	5.11	6.35	8.11	5.11	7.34	10.3	12.7	15.4
		PE	g	115	145	185	115	165	232	286	346
			oz	4.06	5.11	6.52	4.06	5.82	8.18	10.1	12.2
	Maximum Injection Pressure		MPa	247	200	158	247	253	247	200	165
			PSI	35800	29000	22900	35800	36700	35800	29000	23900
	Maximum Holding Pressure		MPa	247	200	158	247	253	247	200	165
			PSI	35800	29000	22900	35800	36700	35800	29000	23900
	Injection Velocity	STD	mm/s	200			160				
			in/s	7.9			6.3				
	Injection Rate	STD	cm^3/s	204	251	318	163	201	254	314	380
			in^3/s	12.4	15.3	19.4	9.9	12.3	15.5	19.2	23.2
	Injection Velocity	HIGH SPEED	mm/s	400			350				
			in/s	15.7			13.8				
	Injection Rate	HIGH SPEED	cm^3/s	407	503	636	356	440	557	687	832
			in^3/s	24.8	30.7	38.8	21.7	26.9	34.0	41.9	50.8
	Plasticizing Capacity	PS	g/sec	23.1	30.6	33.3	23.1	30.6	33.3	44.4	52.8
			oz/sec	0.81	1.1	1.2	0.81	1.1	1.18	1.57	1.86
	Screw Speed		rpm	350	320	285	350	320	285	255	230
	Screw Torque		N-m	566	761	761	566	761	1058	1421	1421
			lbf-ft	417	561	561	417	561	780	1048	1048
	Nozzle Touch Force		kN	29.4			29.4				
			US Ton	3.3			3.3				
GENERAL	Main Breaker Capacity	STD	A	100			125				
	Electric Capacity		kVA	45			45	59	61		
	Main Breaker Capacity	HIGH SPEED	A	125			175				
	Electric Capacity		kVA	61			61	75	81		
	Heater Capacity		kW	11.2		11.9	11.2	13.6	15.2		15.8
	Machine Dimensions L x W x H		m	5.7 x 1.6 x 1.8			5.7 x 1.6 x 1.8	5.9 x 1.6 x 1.8	6.1x 1.6 x 1.8		
			ft	18.7 x 5.1x5.9			18.7 x 5.1x 5.9	19.3 x 5.1 x 5.9	19.9 x 5.1 x 5.9		
	Machine Weight		t	7.0			7.3	7.3	7.3		
			US Ton	7.7			8.0	8.0	8.0		

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

ECSXIII Specifications

	ITEM		UNIT	EC250SXIII				
CLAMP	Clamping Force		tf	230				
			US Ton	254				
	Tie Bar Distance	H x V	mm	610 x 560				
		H x V	in	24.0 x 22.0				
	Platen Dimension	H x V	mm	880 x 830				
		H x V	in	34.6 x 32.7				
	Clamp Stroke		mm	550				
			in	21.7				
	Maximum Daylight		mm	1230				
			in	48.4				
	Mold Height	Min. ~ Max	mm	250 ~ 680				
		Min. ~ Max	in	9.84 ~ 26.8				
	Ejector Force		tf	5.0				
			US Ton	5.5				
	Ejector Stroke		mm	130				
			in	5.12				
INJECTION	Injection Unit*			U48				
	Barrel Code			4Y	6Y	8Y	8A	8B
	Screw Diameter		mm	36	40	45	50	55
			in	1.42	1.57	1.77	1.97	2.17
	Injection Capacity		cm^3	162	226	318	392	475
			in^3	9.94	13.8	19.4	24.0	29.0
	Shot Volume	PS	g	145	208	292	361	437
			oz	5.11	7.34	10.3	12.7	15.4
		PE	g	115	165	232	286	346
			oz	4.06	5.82	8.18	10.1	12.2
	Maximum Injection Pressure		MPa	247	253	247	200	165
			PSI	35800	36700	35800	29000	23900
	Maximum Holding Pressure		MPa	247	253	247	200	165
			PSI	35800	36700	35800	29000	23900
	Injection Velocity	STD	mm/s	160				
			in/s	6.3				
	Injection Rate	STD	cm^3/s	163	201	254	314	380
			in^3/s	9.9	12.3	15.5	19.2	23.2
	Injection Velocity	HIGH SPEED	mm/s	350				
			in/s	13.8				
	Injection Rate	HIGH SPEED	cm^3/s	356	440	557	687	832
			in^3/s	21.7	26.9	34.0	41.9	50.8
	Plasticizing Capacity	PS	g/sec	23.1	30.6	33.3	44.4	52.8
			oz/sec	0.81	1.10	1.18	1.57	1.86
	Screw Speed		rpm	350	320	285	255	230
	Screw Torque		N-m	566	761	1058	1421	1421
			lbf-ft	417	561	780	1048	1048
	Nozzle Touch Force		kN	29.4				
			US Ton	3.3				
GENERAL	Main Breaker Capacity	STD	A	125				
	Electric Capacity		kVA	45	59	61		
	Main Breaker Capacity	HIGH SPEED	A	175				
	Electric Capacity		kVA	61	75	81		
	Heater Capacity		kW	11.2	13.6	15.2		15.8
	Machine Dimensions L x W x H		m	6.0x1.7x2.0	6.2x1.7x2.0	6.4 x 1.7 x 2.0		
			ft	19.6x5.4x6.5	20.4x5.4x6.5	21.0x5.4x6.5		
	Machine Weight		t	9.2		9.3		
			US Ton	10.2		10.2		

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

	ITEM		UNIT	EC720SXIII				EC950SXIII			
CLAMP	Clamping force		tf	650				850			
			USTon	717				937			
	Tie bar distance	H x V	mm	1060 x 960				1320 x 1320			
		H x V	in	41.7 x 37.8				51.9 x 51.9			
	Platen dimension	H x V	mm	1500 x 1400				1790 x 1790			
		H x V	in	59.1 x 55.1				70.4 x 70.4			
	Clamp Stroke		mm	1000				1200			
			in	39.4				47.2			
	Maximum daylight		mm	2050				2300			
			in	80.7				90.6			
	Mold Height	Min ~ Max	mm	450 ~ 1050				500 ~ 1100			
		Min. ~ Max	in	17.7 ~ 41.3				19.7 ~ 43.3			
	Ejector force		tf	18.0				18.0			
			USTon	19.8				19.8			
	Ejector Stroke		mm	200				200			
			in	7.9				7.9			
INJECTION	Injection Unit			i61		i78		i61		i78	
	Barrel code			AT	B	AT	B	AT	B	AT	B
	Screw Diameter		mm	95	105	105	120	95	105	105	120
			in	3.74	4.13	4.13	4.72	3.74	4.13	4.13	4.72
	Injection Capacity		cm^3	3150	3850	4320	5650	3150	3850	4320	5650
			in^3	192	235	264	345	192	235	264	345
	Shot Volume	PS	g	2900	3540	3980	5200	2900	3540	3980	5200
			oz	102.3	124.9	140.4	183.4	102.3	124.9	140.4	183.4
		PE	g	2300	2810	3160	4120	2300	2810	3160	4120
			oz	81.1	99.1	111.5	145.3	81.1	99.1	111.5	145.3
	Maximum Injection Pressure		MPa	180	147	180	138	180	147	180	138
			PSI	26100	21300	26100	20000	26100	21300	26100	20000
	Maximum Holding Pressure		MPa	150	123	150	115	150	123	150	115
			PSI	21800	17800	21800	16700	21800	17800	21800	16700
	Injection Rate	STD	cm^3/s	1063	1299	1299	1696	1063	1299	1299	1696
			in^3/s	64.9	79.3	79.3	103.5	64.9	79.3	79.3	103.5
	Injection Velocity	STD	mm/s	150		150		150		150	
			in/s	5.9		5.9		5.9		5.9	
	Plasticizing capacity (PS)	STD	g/sec	116.7	136.1	136.1	161.1	116.7	136.1	136.1	161.1
			oz/sec	4.11	4.80	4.80	5.68	4.11	4.80	4.80	5.68
		HIGH TORQUE	g/sec	80.6	102.8	75.0	102.8	80.6	102.8	75.0	102.8
			oz/sec	2.84	3.62	2.65	3.62	2.84	3.62	2.65	3.62
	Screw torque	STD	N m	5500	5500	7090	7090	5500	5500	7090	7090
			lbf-ft	4057	4057	5230	5230	4057	4057	5230	5230
		HIGH TORQUE	N m	7090	7090	10300	10300	7090	7090	10300	10300
			lbf-ft	5230	5230	7597	7597	5230	5230	7597	7597
	Screw speed	STD	rpm	140	127	127	110	140	127	127	110
		HIGH TORQUE	rpm	95	95	71	71	95	95	71	71
	Nozzle touch force		kN	58.8		58.8		58.8		58.8	
			USTon	6.6		6.6		6.6		6.6	
General	Main Breaker Capacity		A	300		350		300		350	
	Electric Capacity		kVa	121		147		121		147	
	Heater Capacity		kW	44.4		57.2		44.4		57.2	
	Machine Dimensions L x W x H		m	9.7 x 2.5 x 2.6		10.3 x 2.5 x 2.7		10.6 x 2.9 x 2.7		10.9 x 2.9 x 2.8	
			ft	31.8x 8.2x 8.6		33.5x 8.2 x 8.7		34.8 x 9.5 x 8.9		35.8 x 9.5 x 9.2	
	Machine Weight		t	40.0		41.5		53.5		55.0	
			US Ton	44.1		45.7		59.0		60.6	

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

Standard Features

Injection

- Open nozzle
- Barrel - anti-corrosion/wear
- Standard screw assembly, high kneading DBG design
- Hopper inlet rust-preventive sleeve
- Barrel heater
- Friction-Free Drive
- Digital load cell
- Purge shield
- Double heater cover
- DST-Fill
- Pressure linear correction
- Programmed purge circuit
- VHI control
- FIT Control
- Laminar control
- ECSXIII 12-Speed/8-pressure injection programmed control
- Shift to hold mode selection
- Shift to hold correction control
- Injection speed FF control
- Screw speed/back pressure programmed control
- Automatic screw back pressure reduction control
- Automatic charging deceleration control
- Decompress before/after charge
- Charge delay timer
- Screw cold start prevention device
- Heater SSR control
- Heater band failure indicating circuit
- Hopper Throat temperature controller
- Barrel temperature FF control
- Programmed heat-up circuit
- Simultaneous barrel heat-up control
- Barrel Temperature shift circuit
- Retention resin overheat prevention circuit
- Manual back pressure setting
- Quick change heater disconnects

Quick change heater disconnects

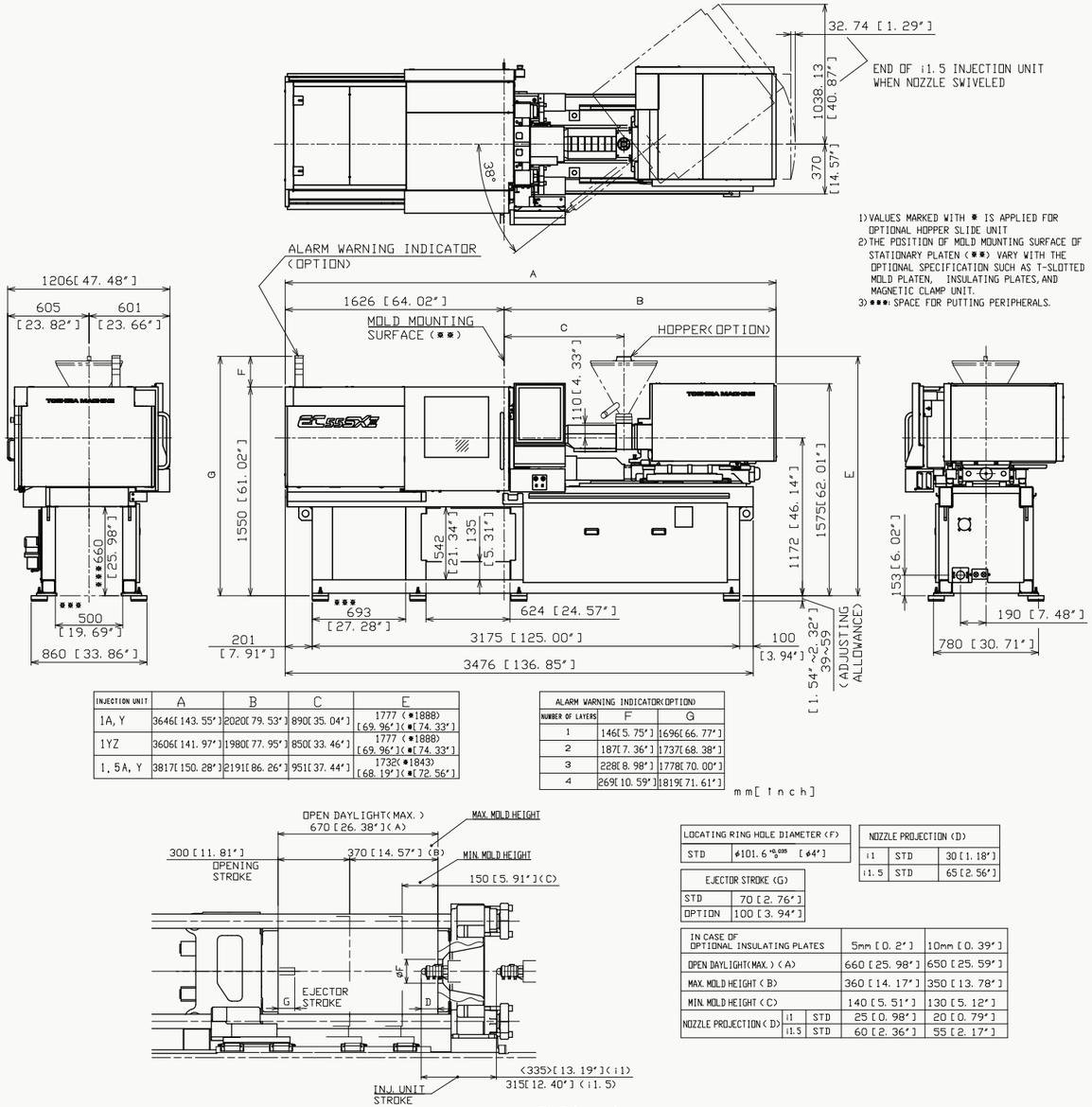
Clamp

- Link-line toggle unit
- Double rigid body platen
- Mold platen
- Locating hold
- Movable platen supporting device
- Mechanical safety device
- Interface for dual hydraulic core pulls standard
- Holes tapped for installation of take-out robot
- Ejection servo motor with brake
- Mold open while charging (simultaneous motion)
- Automatic lubricator
- Dynamic acceleration/deceleration control
- DST-Press control
- 3-step high-speed programmed control
- Prestrol/Injection Compression software is standard, but additional hardware may be required. Contact factory for details.
- Clamp pressure digital display in two steps
- Sensitive mold protection control - provides torque monitor and limiter in two high-speed ranges, and torque/time limiter in low-pressure clamp range
- Automatic mold thickness adjust circuit
- Low pressure and slow speed circuit for mold set-up mode
- Lock-up delay timer
- Lock-up speed digital setting
- Setting of number of repeated ejections
- 3-step ejection speed programmed control
- Repeated ejection control
- RA ejection control
- Ejector retraction check circuit
- Ejector plate, ejecting rod
- Gate cut circuit
- Ejection force digital setting
- Ejection hold time setting
- Ejection during mold opening
- Ejection torque monitor
- Mold open halt - Enables mold opening at an arbitrary position
- Triple core pull interface – 2-hyd. core X 1-Pneumatic (Timer only)
- Single valve gate
- Double air blow
- Dry cycle mode

Controller

- Six programmable outputs standard
- Step switch/ten key input
- Setting data memory for 300 sets of molds
- SPI robot interface (50 pin/Euromap 67)
- Digital display
- Graphic display
- Profile display/storing/measure functions
- Quality monitoring
- Diagnostic function
- Operation select function at production completion
- MOLDLYZER
- iPAQET LITE
- LCD touch panel
- High-Speed control cycle
- List setting screen
- Operation indicator
- External output signal customize function
- Password function

EC55SXIII



INJECTION UNIT	A	B	C	E
1A, Y	3646 [143.55"]	2020 [79.53"]	890 [35.04"]	1777 (✱1888) [69.96"] (✱[74.33"])
1YZ	3606 [141.97"]	1980 [77.95"]	850 [33.46"]	1777 (✱1888) [69.96"] (✱[74.33"])
1.5A, Y	3817 [150.28"]	2191 [86.26"]	951 [37.44"]	1732 (✱1843) [68.19"] (✱[72.56"])

ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	F	G
1	146 [5.75"]	1696 [66.77"]
2	187 [7.36"]	1737 [68.38"]
3	228 [8.98"]	1778 [70.00"]
4	269 [10.59"]	1819 [71.61"]

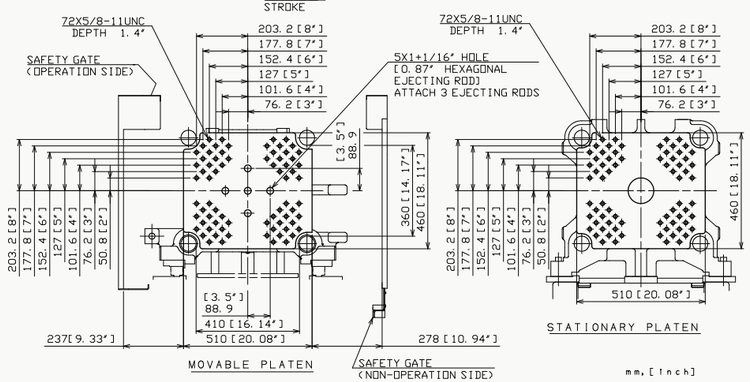
mm [inch]

LOCATING RING HOLE DIAMETER (F)	
STD	ø101.6 $^{+0.035}_{0}$ [ø4"]

NOZZLE PROJECTION (D)		
i1	STD	30 [1.18"]
i1.5	STD	65 [2.56"]

EJECTOR STROKE (G)	
STD	70 [2.76"]
OPTION	100 [3.94"]

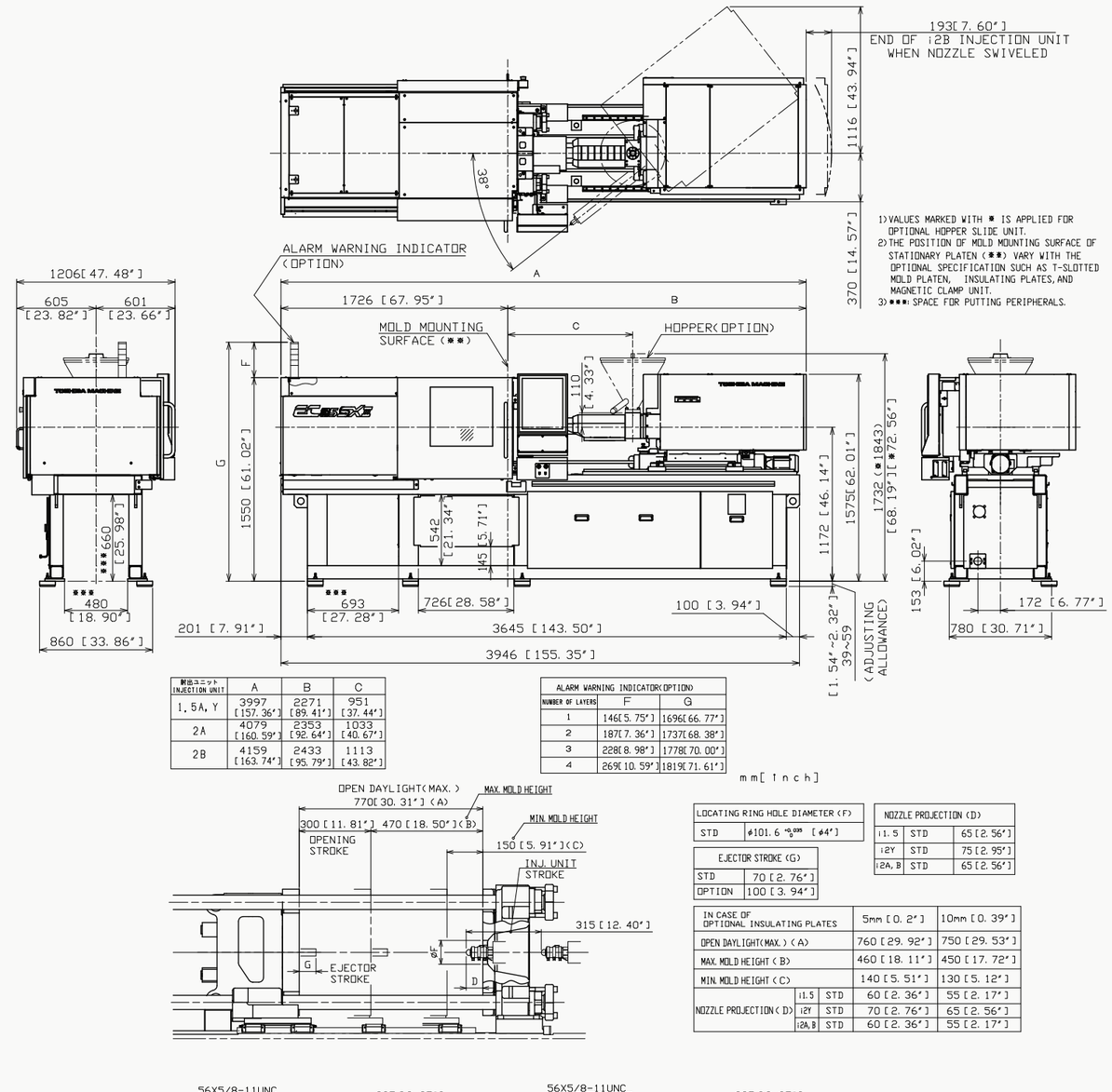
IN CASE OF OPTIONAL INSULATING PLATES			5mm [0.2"]	10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)			660 [25.98"]	650 [25.59"]
MAX. MOLD HEIGHT (B)			360 [14.17"]	350 [13.78"]
MIN. MOLD HEIGHT (C)			140 [5.51"]	130 [5.12"]
NOZZLE PROJECTION (D)	i1	STD	25 [0.98"]	20 [0.79"]
	i1.5	STD	60 [2.36"]	55 [2.17"]



MIN. MOLD DIMENSIONS ARE 235(H)X210(V). 9.3"(H)X8.3"(V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

EC85SXIII



射出ユニット INJECTION UNIT	A	B	C
1.5A, Y	3997 [157.36"]	2271 [89.41"]	951 [37.44"]
2A	4079 [160.59"]	2353 [92.64"]	1033 [40.67"]
2B	4159 [163.74"]	2433 [95.79"]	1113 [43.82"]

ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	F	G
1	146 [5.75"]	1696 [66.77"]
2	187 [7.36"]	1737 [68.38"]
3	228 [8.98"]	1778 [70.00"]
4	269 [10.59"]	1819 [71.61"]

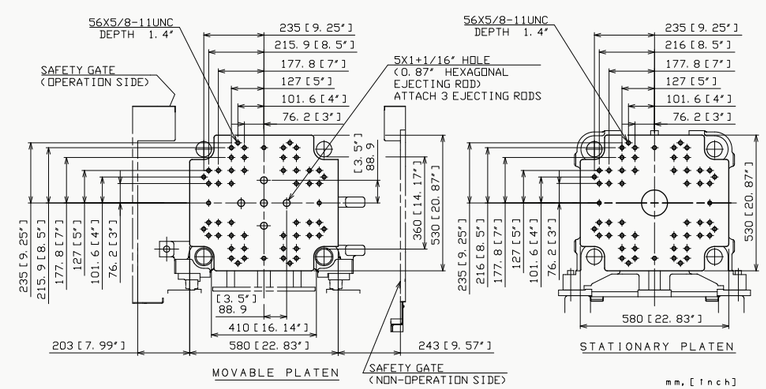
mm [inch]

LOCATING RING HOLE DIAMETER (F)	
STD	ø101.6 $^{+0.035}_{0}$ [ø4"]

EJECTOR STROKE (G)	
STD	70 [2.76"]
OPTION	100 [3.94"]

NOZZLE PROJECTION (D)		
i1.5	STD	65 [2.56"]
i2Y	STD	75 [2.95"]
i2A, B	STD	65 [2.56"]

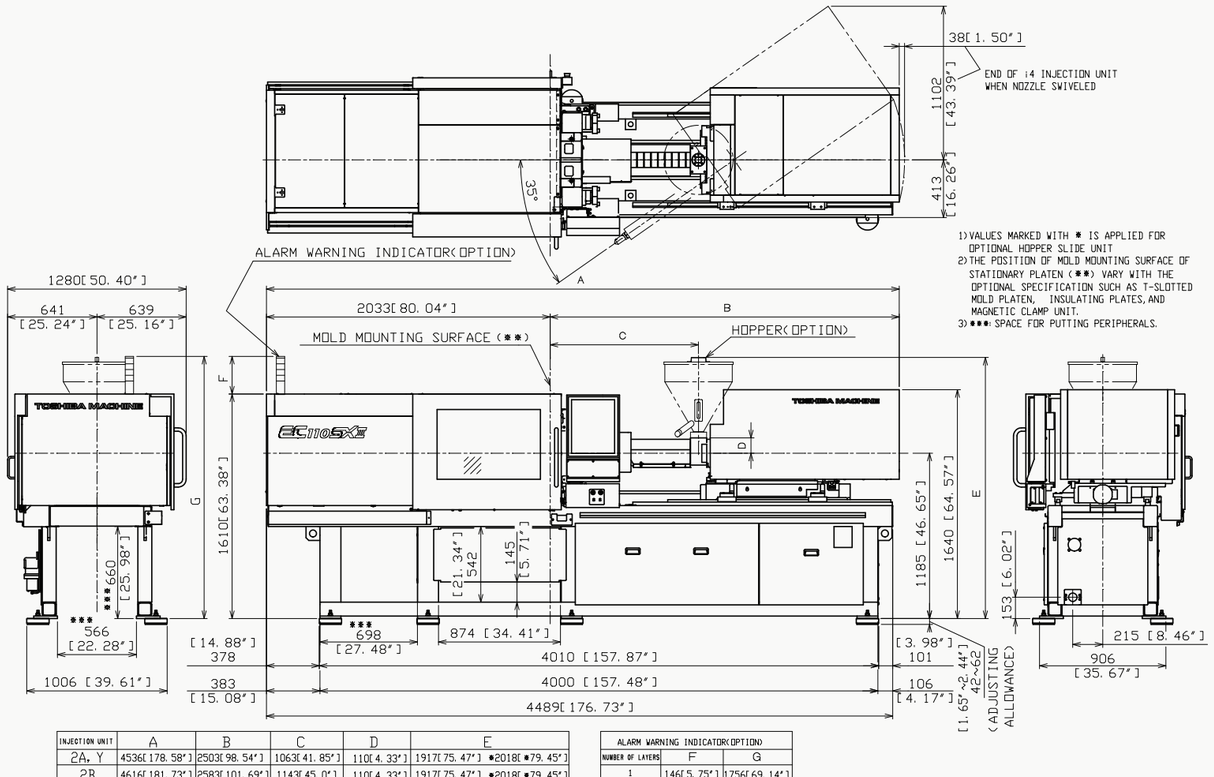
IN CASE OF OPTIONAL INSULATING PLATES			5mm [0.2"]	10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)			760 [29.92"]	750 [29.53"]
MAX. MOLD HEIGHT (B)			460 [18.11"]	450 [17.72"]
MIN. MOLD HEIGHT (C)			140 [5.51"]	130 [5.12"]
NOZZLE PROJECTION (D)	i1.5	STD	60 [2.36"]	55 [2.17"]
	i2Y	STD	70 [2.76"]	65 [2.56"]
	i2A, B	STD	60 [2.36"]	55 [2.17"]



MIN. MOLD DIMENSIONS ARE 235(H)X210(V). 9.3"(H)X8.3"(V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

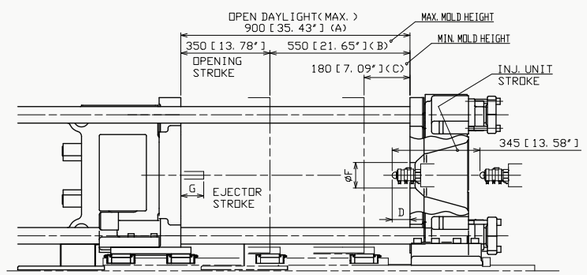
EC110SXIII



INJECTION UNIT	A	B	C	D	E
2A, Y	4536[178.58"]	2503[98.54"]	1063[41.85"]	110[4.33"]	1917[75.47"] *2018[*79.45"]
2B	4616[181.73"]	2583[101.69"]	1143[45.0"]	110[4.33"]	1917[75.47"] *2018[*79.45"]
3A, Y	4632[182.36"]	2599[102.32"]	1159[45.63"]	110[4.33"]	1872[73.70"] *1973[*77.68"]
4A, Y	4797[188.86"]	2764[108.82"]	1249[49.17"]	100[3.94"]	1862[73.31"] *1963[*77.28"]
4B	4901[192.95"]	2868[112.91"]	1353[53.27"]	100[3.94"]	1862[73.31"] *1963[*77.28"]

ALARM WARNING INDICATOR(OPTION)		
NUMBER OF LAYERS	F	G
1	146[5.75"]	1756[69.14"]
2	187[7.36"]	1797[70.75"]
3	228[8.97"]	1838[72.36"]
4	269[10.59"]	1879[73.98"]

mm[inch]

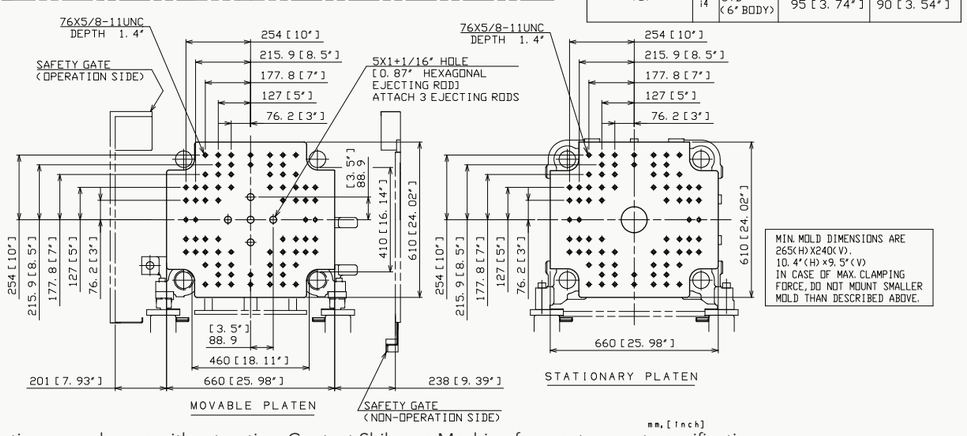


LOCATING RING HOLE DIAMETER (F)	
STD	φ101.6 $^{+0.035}_{0}$ [φ4"]

EJECTOR STROKE	
STD	90 [3.54"]
OPTION	120 [4.72"]

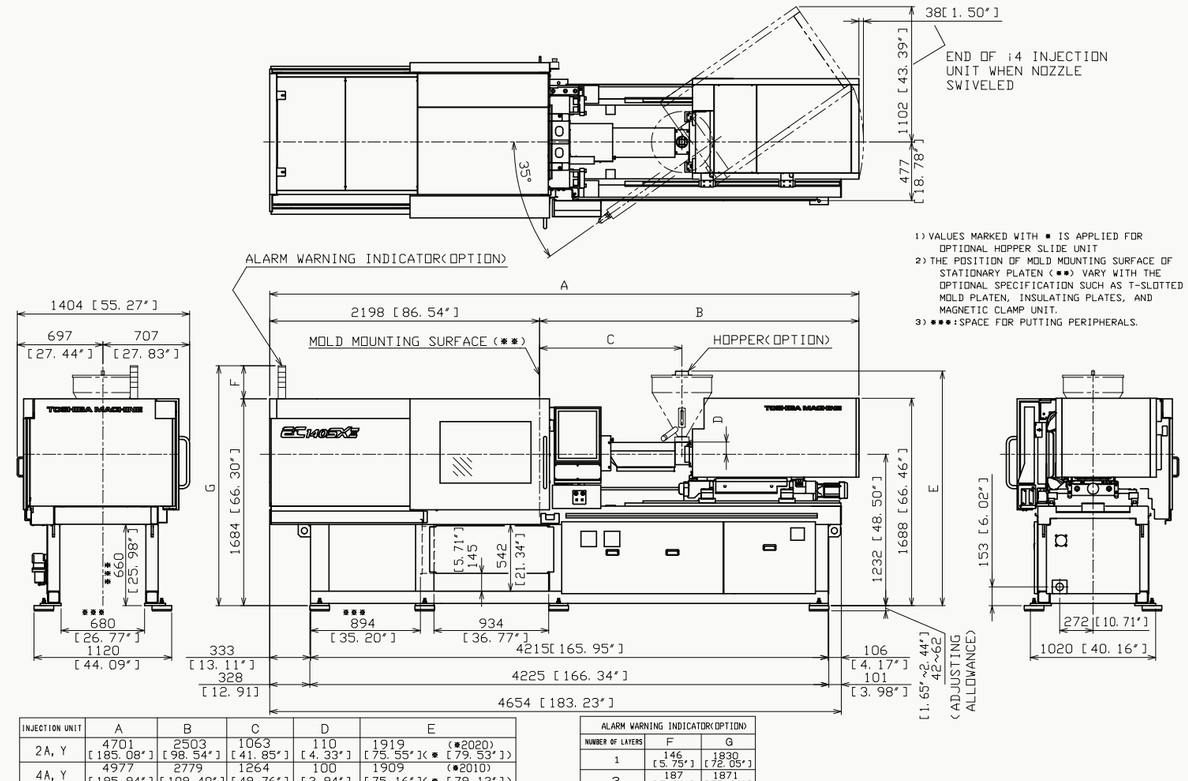
NOZZLE PROJECTION (D)		
i2Y	STD	75 [2.95"]
i2A, B	STD	65 [2.56"]
i4	STD (6" BODY)	100 [3.94"]

IN CASE OF OPTIONAL INSULATING PLATES			5mm [0.2"]	10mm[0.39"]
OPEN DAYLIGHT(MAX.) (A)			890 [35.04"]	880 [34.65"]
MAX. MOLD HEIGHT (B)			540 [21.26"]	530 [20.87"]
MIN. MOLD HEIGHT (C)			170 [6.69"]	160 [6.30"]
NOZZLE PROJECTION (D)	i2Y	STD	70 [2.76"]	65 [2.56"]
	i2A, B	STD	60 [2.36"]	55 [2.17"]
	i4	STD (6" BODY)	95 [3.74"]	90 [3.54"]



Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

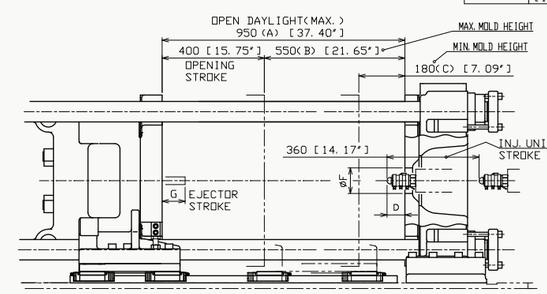
EC140SXIII



INJECTION UNIT	A	B	C	D	E
2A, Y	4701 [185.08"]	2503 [98.54"]	1063 [41.85"]	110 [4.33"]	1919 [75.55"](*2020) (* [79.53"])
4A, Y	4977 [195.94"]	2779 [109.40"]	1264 [49.76"]	100 [3.94"]	1909 [75.16"](*2010) (* [79.13"])
4B	5081 [200.04"]	2883 [113.50"]	1368 [53.86"]	100 [3.94"]	1909 [75.16"](*2010) (* [79.13"])

ALARM WARNING INDICATOR(OPTION)		
NUMBER OF LAYERS	F	G
1	146 [5.75"]	1830 [72.05"]
2	187 [7.36"]	1871 [73.66"]
3	228 [8.98"]	1912 [75.28"]
4	269 [10.59"]	1953 [76.89"]

mm[inch]

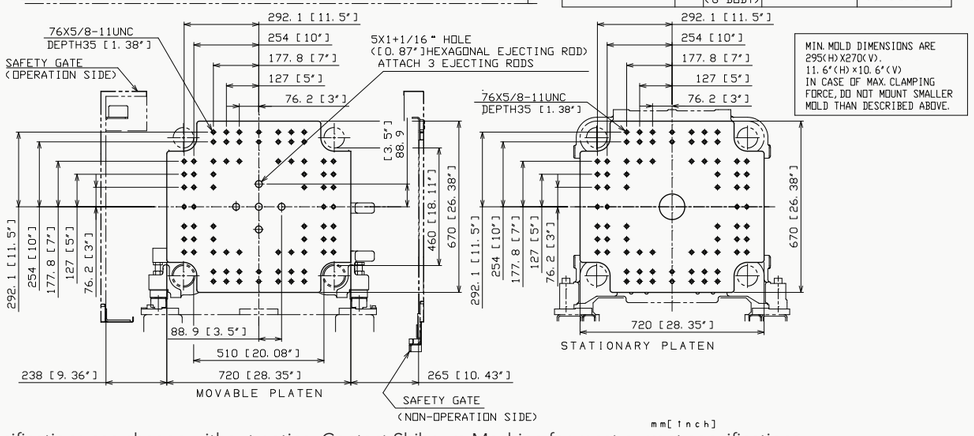


LOCATING RING HOLE DIAMETER (F)	
STD	φ101.6 $^{+0.035}_{0}$ [φ4"]

EJECTOR STROKE (G)	
STD	90 [3.54"]
OPTION	120 [4.72"]

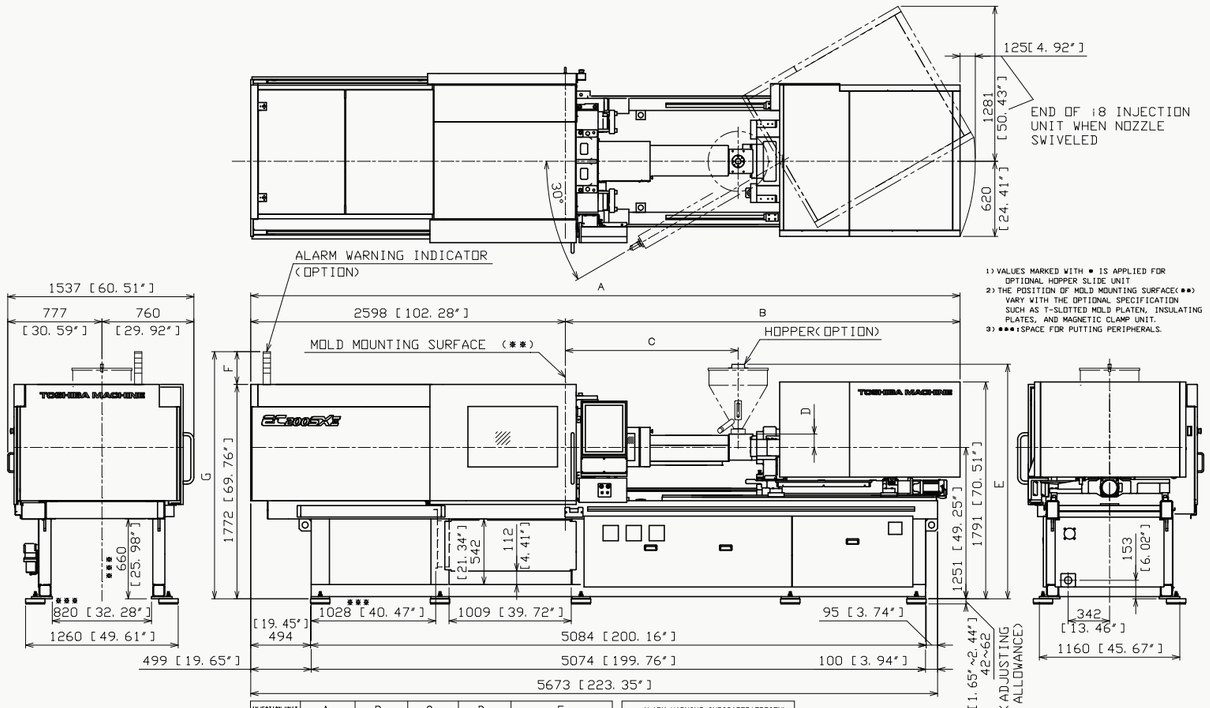
NOZZLE PROJECTION (D)		
i2Y	STD	75 [2.95"]
i2A, B	STD	65 [2.56"]
i4	STD (6" BODY)	100 [3.94"]

IN CASE OF OPTIONAL INSULATING PLATES			5mm [0.20"]	10mm [0.39"]
OPEN DAYLIGHT(MAX.) (A)			940 [37.01"]	930 [37.01"]
MAX. MOLD HEIGHT (B)			540 [21.26"]	530 [20.87"]
MIN. MOLD HEIGHT (C)			170 [6.69"]	160 [6.30"]
NOZZLE PROJECTION (D)	i2Y	STD	70 [2.76"]	65 [2.56"]
	i2A, B	STD	60 [2.36"]	55 [2.17"]
	i4	STD (6" BODY)	95 [3.74"]	90 [3.54"]



Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

EC200SXIII

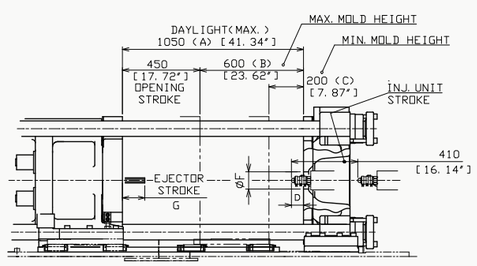


1) VALUES MARKED WITH ■ IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT
2) THE POSITION OF MOLD MOUNTING SURFACE(✱✱) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS T-SLOTTED MOLD PLATEN, INSULATING PLATES, AND MAGNETIC CLAMP UNIT.
3) ■■■:SPACE FOR PUTTING PERIPHERALS.

INJECTION UNIT	A	B	C	D	E
4A, Y	5672 [223.30″]	3074 [121.02″]	1314 [51.73″]	100 [3.94″]	1928 [75.91″] ■2029 [■79.88″]
4B	5776 [227.40″]	3178 [125.12″]	1418 [55.83″]	100 [3.94″]	1928 [75.91″] ■2029 [■79.88″]
6A, Y	5859 [230.67″]	3261 [128.39″]	1428 [56.22″]	110 [4.33″]	1938 [76.30″] ■2039 [■80.28″]
8A, Y	5958 [234.56″]	3360 [132.28″]	1527 [60.12″]	110 [4.33″]	1938 [76.30″] ■2039 [■80.28″]
8B	6062 [238.66″]	3464 [136.38″]	1631 [64.21″]	110 [4.33″]	1938 [76.30″] ■2039 [■80.28″]

ALARM WARNING INDICATOR(OPTION)		
NUMBER OF LAYERS	F	G
1	146 [5.75″]	1918 [75.51″]
2	187 [7.36″]	1959 [77.12″]
3	228 [8.98″]	2000 [78.74″]
4	269 [10.59″]	2041 [80.35″]

mm[inch]

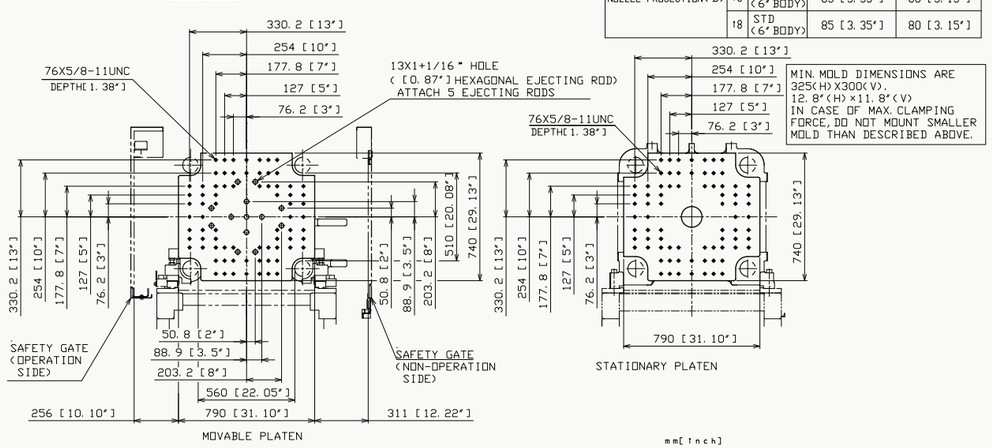


LOCATING RING HOLE DIAMETER(F)	
STD	⌀101.6 +0.035 0 [⌀4″]

EJECTOR STROKE (G)	
STD	130 [5.12″]
OPTION	180 [7.09″]

NOZZLE PROJECTION (D)		
14	STD (6″BODY)	100 [3.94″]
16	STD (6″BODY)	90 [3.54″]
18	STD (6″BODY)	90 [3.54″]

IN CASE OF OPTIONAL INSULATING PLATES			5mm [0.20″]	10mm [0.39″]
OPEN DAYLIGHT(MAX.)(A)			1040 [40.94″]	1030 [40.55″]
MAX. MOLD HEIGHT(B)			590 [23.23″]	580 [22.83″]
MIN. MOLD HEIGHT(C)			190 [7.48″]	180 [7.09″]
NOZZLE PROJECTION(D)	14	STD (6″BODY)	95 [3.74″]	90 [3.54″]
	16	STD (6″BODY)	85 [3.35″]	80 [3.15″]
	18	STD (6″BODY)	85 [3.35″]	80 [3.15″]

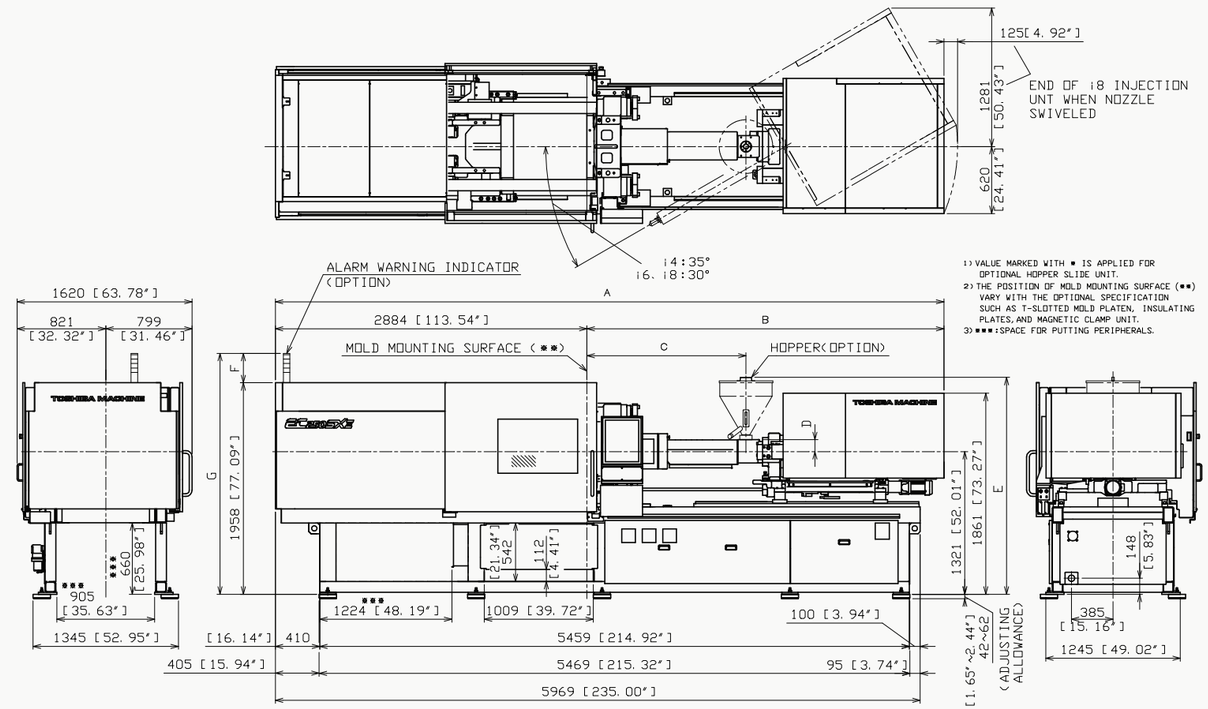


MIN. MOLD DIMENSIONS ARE 325(H)X300(V). 12.8″(H)×11.8″(V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

mm[inch]

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

EC250SXIII

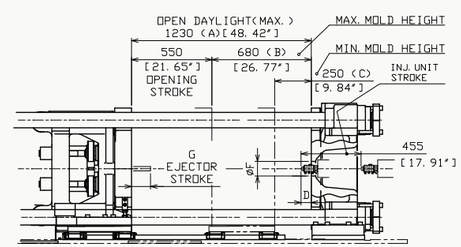


1) VALUE MARKED WITH ■ IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT.
2) THE POSITION OF MOLD MOUNTING SURFACE (✱✱) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS T-SLOTTED MOLD PLATEN, INSULATING PLATES, AND MAGNETIC CLAMP UNIT.
3) ■■■:SPACE FOR PUTTING PERIPHERALS.

INJECTION UNIT	A	B	C	D	E
4Y	5968 [234.96″]	3084 [121.42″]	1324 [52.13″]	100 [3.94″]	1998 [78.66″] ■2099 [■82.64″]
6A, Y	6190 [243.70″]	3306 [130.16″]	1473 [57.99″]	110 [4.33″]	2008 [79.06″] ■2109 [■83.03″]
8A, Y	6289 [247.60″]	3405 [134.06″]	1572 [61.89″]	110 [4.33″]	2008 [79.06″] ■2109 [■83.03″]
8B	6393 [251.69″]	3509 [138.15″]	1676 [65.98″]	110 [4.33″]	2008 [79.06″] ■2109 [■83.03″]

ALARM WARNING INDICATOR(OPTION)		
NUMBER OF LAYERS	F	G
1	146 [5.75″]	2104 [82.84″]
2	187 [7.36″]	2145 [84.45″]
3	228 [8.98″]	2186 [86.07″]
4	269 [10.59″]	2227 [87.68″]

mm[inch]

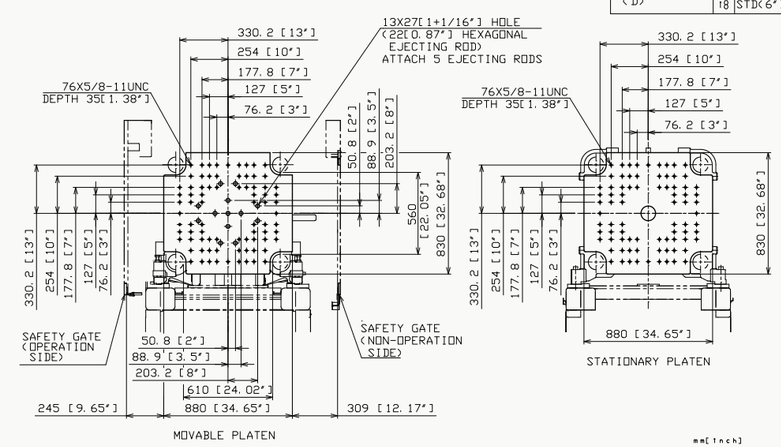


LOCATING RING HOLE DIAMETER(F)	
STD	⌀101.6 +0.035 0 [⌀4″]

EJECTOR STROKE (G)	
STD	130 [5.12″]
OPTION	180 [7.09″]

NOZZLE PROJECTION (D)		
14	STD (6″BODY)	100 [3.94″]
16	STD (6″BODY)	90 [3.54″]
18	STD (6″BODY)	90 [3.54″]

IN CASE OF OPTIONAL INSULATING PLATES			5mm [0.20″]	10mm [0.39″]
OPEN DAYLIGHT(MAX.)(A)			1220 [48.03″]	1210 [47.64″]
MAX. MOLD HEIGHT(B)			670 [26.38″]	660 [25.98″]
MIN. MOLD HEIGHT(C)			240 [9.45″]	230 [9.06″]
NOZZLE PROJECTION (D)	14	STD(6″BODY)	95 [3.74″]	90 [3.54″]
	16	STD(6″BODY)	85 [3.35″]	80 [3.15″]
	18	STD(6″BODY)	85 [3.35″]	80 [3.15″]



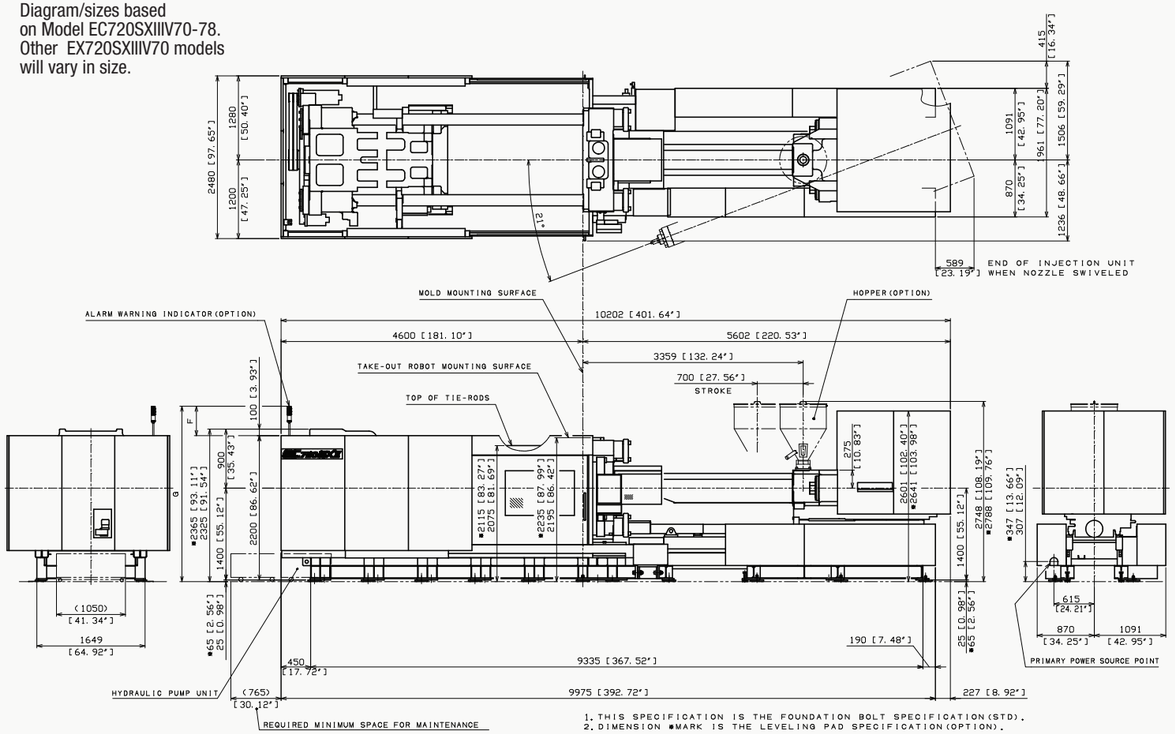
MIN. MOLD DIMENSIONS ARE 360(H)X335(V). 14.2″(H)×13.2″(V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

mm[inch]

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

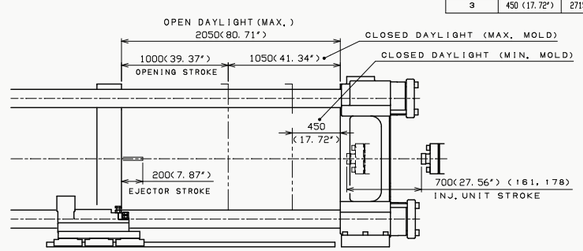
EC720SXIII

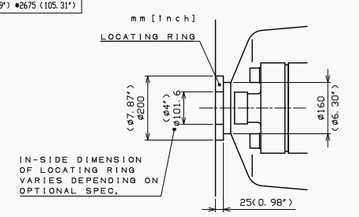
Diagram/sizes based
on Model EC720SXIIIV70-78.
Other EX720SXIIIV70 models
will vary in size.



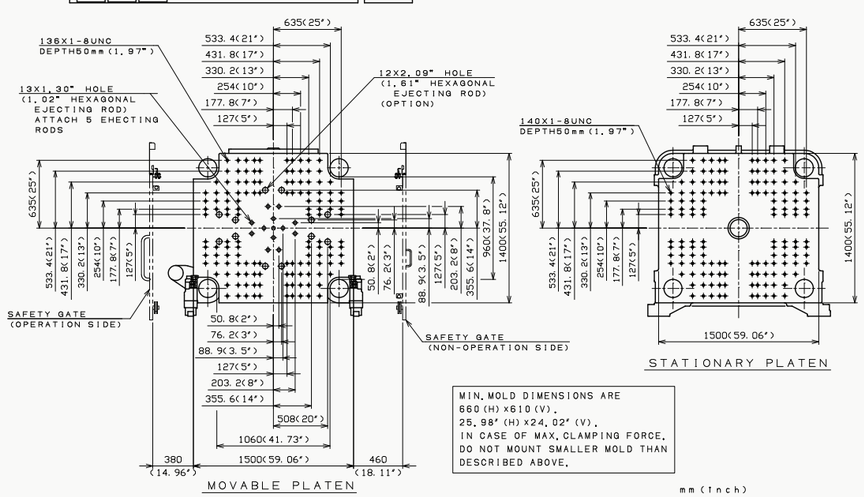
1. THIS SPECIFICATION IS THE FOUNDATION BOLT SPECIFICATION (STD).
2. DIMENSION ●MARK IS THE LEVELING PAD SPECIFICATION (OPTION).

ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	F	G
1	365 (14.37")	2630 (103.54") ●2590 (101.97")
2	405 (15.94")	2670 (105.12") ●2630 (103.54")
3	450 (17.72")	2715 (106.89") ●2675 (105.31")





DETAILS OF LOCATING RING



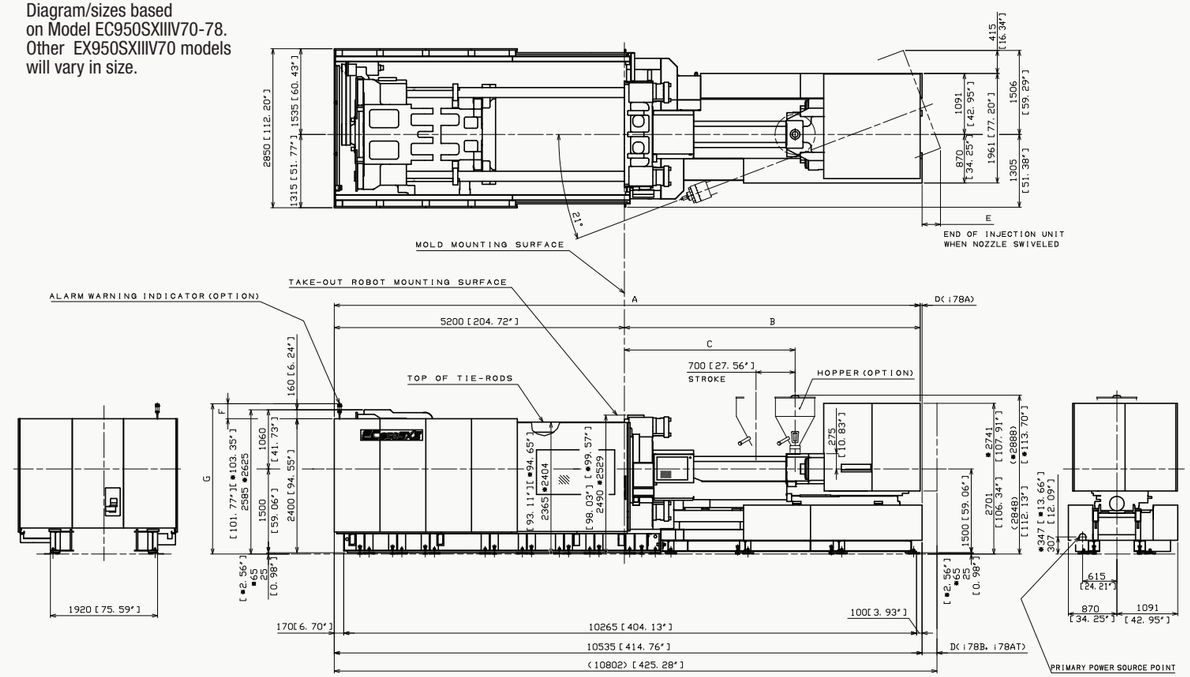
MIN. MOLD DIMENSIONS ARE
660 (H) x610 (V).
25.98" (H) x24.02" (V).
IN CASE OF MAX. CLAMPING FORCE,
DO NOT MOUNT SMALLER MOLD THAN
DESCRIBED ABOVE.

mm (Inch)

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

EC950SXIII

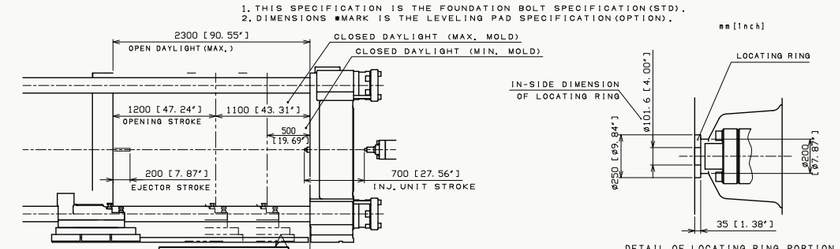
Diagram/sizes based
on Model EC950SXIIIV70-78.
Other EX950SXIIIV70 models
will vary in size.



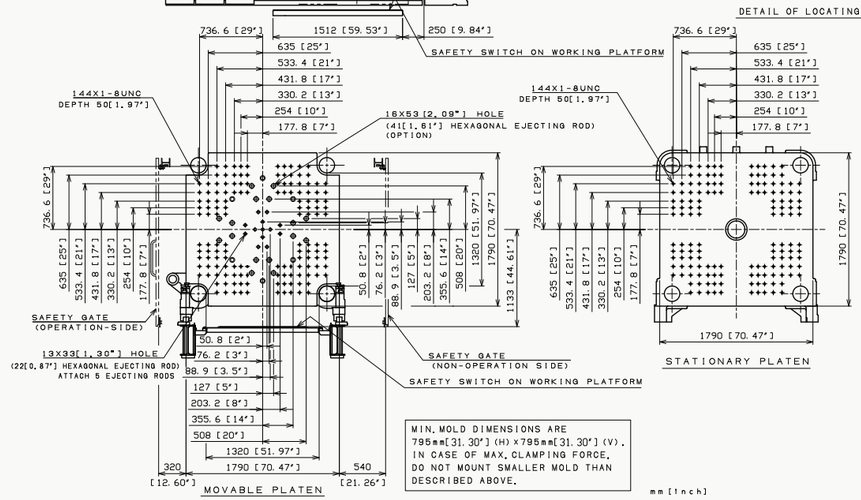
INJECTION UNIT	A	B	C	D	E
78A	10502 [413.46"]	5302 [208.74"]	3059 [120.43"]	33 [1.30"]	329 [12.95"]
78B, AT	10802 [425.28"]	5602 [220.56"]	3359 [132.24"]	267 [10.52"]	629 [24.76"]

ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	F	G
1	271 [10.61"]	2696 ●2736 [106.14"] [●107.72"]
2	312 [12.23"]	2737 ●2777 [107.76"] [●109.34"]
3	353 [13.84"]	2778 ●2818 [109.37"] [●110.95"]

1. THIS SPECIFICATION IS THE FOUNDATION BOLT SPECIFICATION (STD).
2. DIMENSIONS ●MARK IS THE LEVELING PAD SPECIFICATION (OPTION).



DETAIL OF LOCATING RING PORTION



MIN. MOLD DIMENSIONS ARE
795mm [31.30"] (H) x795mm [31.30"] (V).
IN CASE OF MAX. CLAMPING FORCE,
DO NOT MOUNT SMALLER MOLD THAN
DESCRIBED ABOVE.

mm [Inch]

Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.