

# 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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**Shibaura Machine**

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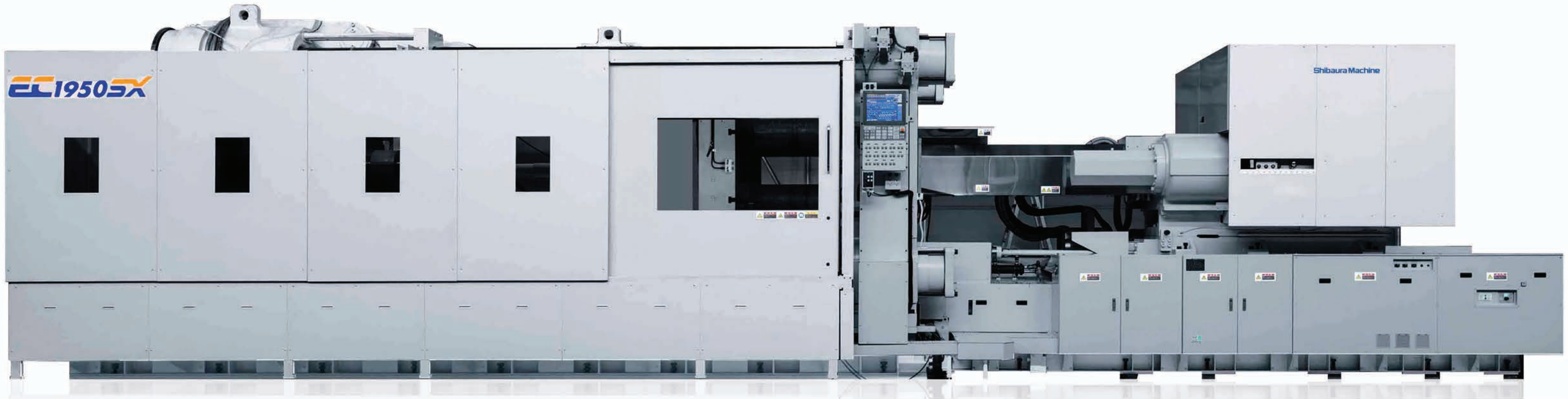
Smart Electric Molding Solutions.

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Watch the ECSXII video.



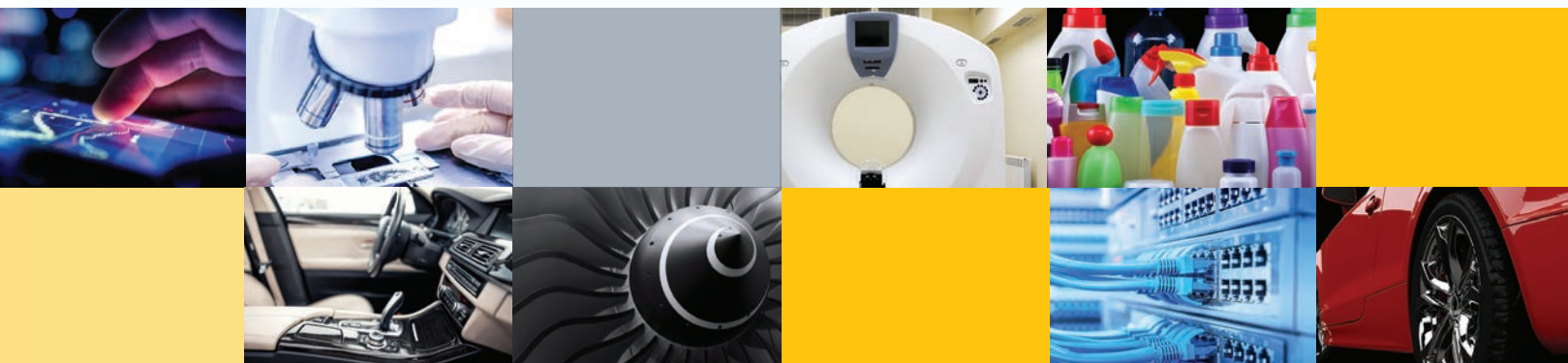
# Meet the Next Generation of Electrics



## The ECSXII from Shibaura Machine

In 2010, Shibaura Machine revolutionized injection molding with the ECSX series of electrics. The powerhouse of injection molding, it not only gave molders faster dry cycle times, longer mold life and more uniform clamping force, but more shot sizes from a single machine and the most advanced controller on the market.

Now we've taken the next step. Introducing the all-new ECSXII – electrics with the same versatility and performance, along with a streamlined frame design, significantly faster injection speeds and new features making your investment work harder and smarter. Extremely flexible and versatile, the new ECSXII is ideal for virtually all molding applications, from automotive and aerospace, to packaging, medical and more.

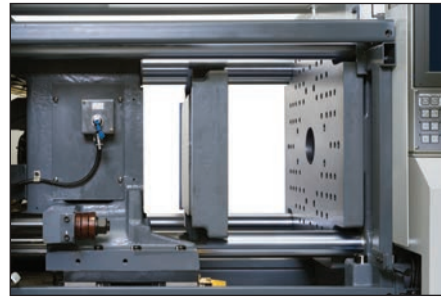
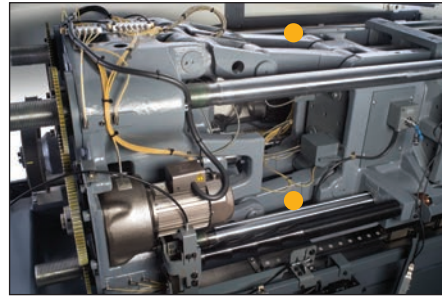


# Features & Benefits

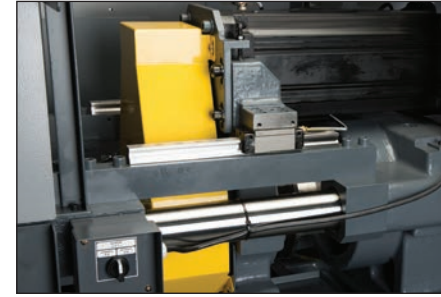


Video

The ECSXII'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.



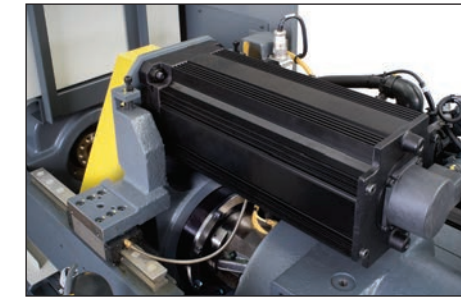
On 30 - 390 ton units the two-piece removable platens can be changed out in 15 minutes giving you extraordinary flexibility. On larger units the moving platen is removable.



(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.



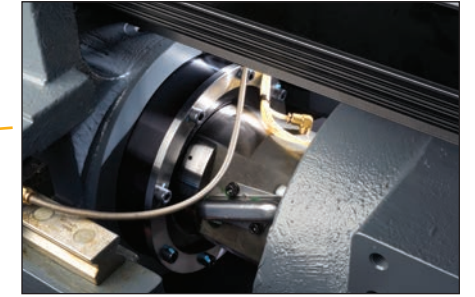
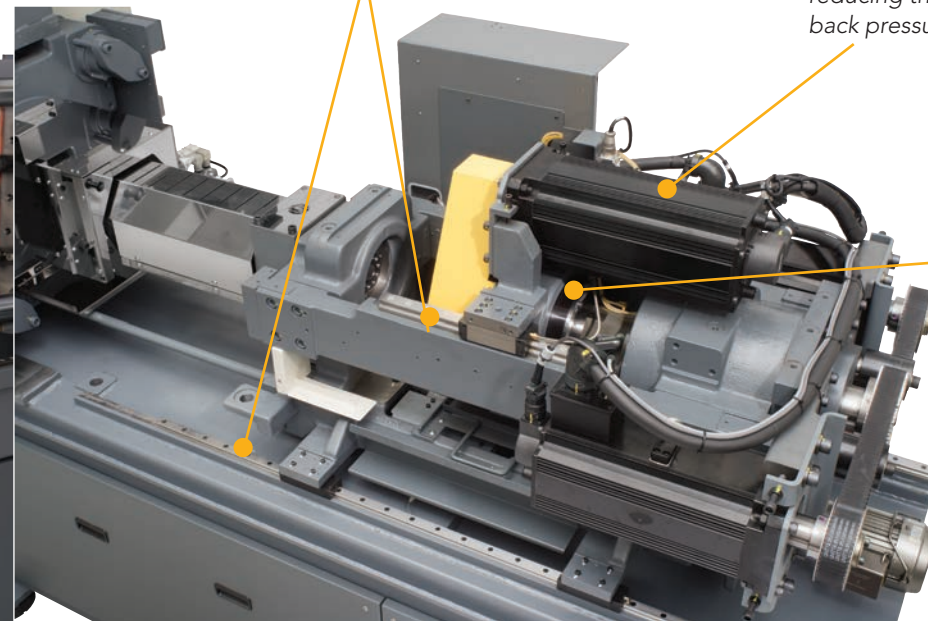
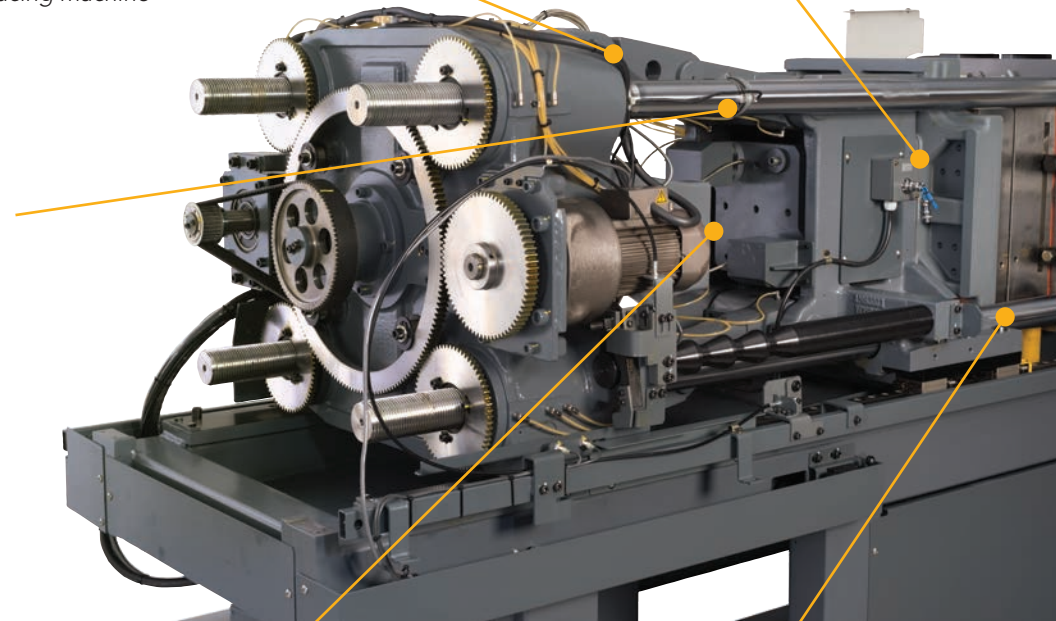
Video



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 ECSXII uses an advance load cell which ensures accurate control of injection pressure. In combination with the V50 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 ECSXII, 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: 55-250 ton only.)

# V50 Controller

Designed into the new ECSXII is the V50, Shibaura's advanced controller that uses real-time input to report molding conditions and make adjustments as needed, resulting in greater part repeatability and fewer rejects.

Molders already using Shibaura machines need little or no training to migrate to the V50 on the new ECSXII. Those who are new to the controller will find its bright, touchscreen programming intuitive and easy-to-use, shortening the learning curve while improving accuracy and productivity.

## User customization

With the V50, you can easily customize machine cells without investing in additional OEM programming. Up to 40 user-programmable outputs are available.

The V50 also includes iPAQET Lite data management software. This value-added benefit enhances your investment by providing you with production monitoring, data collection and analysis, and more.

## Clamping force dynamic self-tuning (DST-PRESS)

As an option setting, you can allow tie-bar strain sensors to automatically adjust clamping force based on direct feedback of changing molding conditions such as increased heat and expansion. This results in more consistent processing from shot-to-shot throughout the processing cycle.



## Injection process condition dynamic self-tuning (DST-FILL)

You can further increase shot consistency by allowing the machine to automatically change barrel temperatures and transfer points to compensate for material viscosity fluctuations.

## Additional molding control software

Virtual Hydraulic Injection (VHI) circuit – Replicates the hydraulic cascade effect to create more even flow rates into mold cavities.

High sensitivity 3-stage mold protection – Puts the machine into mold safety/shutdown

when torque settings are exceeded during mold clamping.

Ejector torque monitor – Helps prevent tool and part damage.



# Shorten Cycle Times with Simultaneous Motion – Standard on the ECSXII

Simultaneous motion is standard on the new ECSXII. 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.

Scan to watch the ECSXII simultaneous motion technology in action.



# Options for Greater Flexibility & Productivity



Integrated control panel on 30-390 ton units. Box-style control panel on larger units.



Control on the V50 controller

## 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 V50 controller.

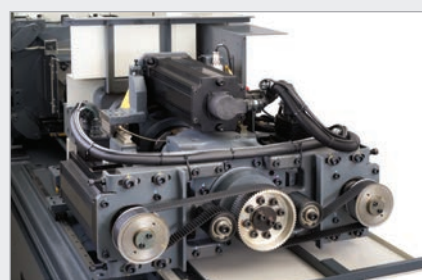
## Add secondary units seamlessly

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



## Boost productivity with FIDS

With Shibaura's new FIDS (flexible injection downsize system), you can easily adapt ECSXII machines down to shot sizes as small as 0.43 oz. (Application Specific)



## Speed up injection

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



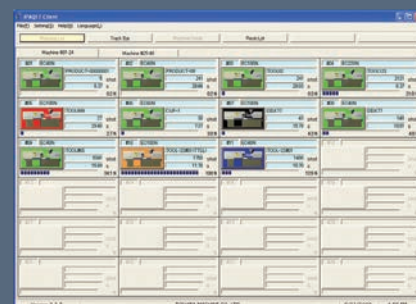
## Robot-ready

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

## Optional IPAQET 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 48 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.



## ECSXII Specifications

ITEM		UNIT	EC30SXII					EC55SXII					EC85SXII						
CLAMP	Clamp Force	tf	30					50					75						
		US Ton	33					55					83						
	Tie Bar Distance	H x V	mm	320 x 290					410 x 360					410 x 360					
		H x V	in	12.6 x 11.4					16.1 x 14.2					16.1 x 14.2					
	Platen Dimension	H x V	mm	440 x 420					510 x 460					580 x 530					
		H x V	in	17.3 x 16.5					20.1 x 18.1					22.8 x 20.9					
	Clamp Stroke		mm	230					300					300					
			in	9.06					11.8					11.8					
	Maximum Daylight		mm	560					670					770					
			in	22.1					26.4					30.3					
	Mold Height	Min. - Max	mm	150 - 330					150 - 370					150 - 470					
		Min. - Max	in	5.9 - 13.0					5.9 - 14.5					5.9 - 18.5					
Ejector Force		tf	0.8					2.0					2.0						
		US Ton	0.88					2.2					2.2						
Ejector Stroke		mm	50					70					70						
		in	1.97					2.76					2.76						
			Injection Unit			i0.4		i1		U1.5			U22						
Barrel Code			0.4Y	0.4A	1YZ	1Y	1A	1YZ	1Y	1.5Y	1.5A	1Y	1.5Y	2Y	2A	2B			
Screw Diameter	mm	16	18	20	22	25	20	22	25	28	22	25	28	32	36				
	in	0.63	0.71	0.79	0.87	0.98	0.79	0.87	0.98	1.10	0.87	0.98	1.10	1.26	1.42				
Injection Capacity	cm <sup>3</sup>	14	18	31	38	49	31	38	55	69	38	55	78	102	130				
	in <sup>3</sup>	0.88	1.12	1.92	2.32	3.00	1.92	2.32	3.35	4.21	2.32	3.35	4.81	6.28	7.95				
Shot Volume	PS	g	13	16	29	35	45	29	35	51	63	35	51	72	94	120			
		oz	0.46	0.56	1.02	1.23	1.59	1.02	1.23	1.80	2.22	1.23	1.80	2.54	3.32	4.23			
	PE	g	10	13	23	28	36	23	28	40	50	28	40	57	75	95			
		oz	0.35	0.46	0.81	0.99	1.27	0.81	0.99	1.41	1.76	0.99	1.41	2.01	2.65	3.35			
Maximum Injection Pressure	MPa	278	220	270	270	220	270	270	276	220	270	276	287	220	174				
	PSI	40300	31900	39200	39200	31900	39200	39200	40000	31900	39200	40000	41600	31900	25200				
Maximum Holding Pressure	MPa	278	220	270	270	220	270	270	276	220	270	276	287	220	174				
	PSI	40300	31900	39200	39200	31900	39200	39200	40000	31900	39200	40000	41600	31900	25200				
Injection Velocity	STD	mm/s	525		300			300			300								
		in/s	20.7		11.8			11.8			11.8								
Injection Rate	STD	cm <sup>3</sup> /s	106	134	94	114	147	94	114	147	184	114	147	184	241	305			
		in <sup>3</sup> /s	6.47	8.18	5.74	6.96	8.97	5.74	6.96	8.97	11.23	6.96	8.97	11.23	14.71	18.61			
Injection Velocity	HIGH	mm/s	-		500			500			500								
		in/s	-		19.7			19.7			19.7								
Injection Rate	HIGH	cm <sup>3</sup> /s	-	-	157	190	245	157	190	245	308	190	245	308	402	509			
		in <sup>3</sup> /s	-	-	9.58	11.6	15.0	9.58	11.6	15.0	18.8	11.6	15.0	18.8	24.5	31.1			
Plasticizing Capacity	PS	g/sec	2.2	3.3	3.9	6.1	7.8	3.9	6.1	6.9	9.7	6.1	6.9	11.1	16.9	23.1			
		oz/sec	0.08	0.12	0.14	0.22	0.27	0.14	0.22	0.24	0.34	0.22	0.24	0.39	0.60	0.81			
Screw Speed		RPM	480	480	430	420	420	430	420	390	390	420	390	400	390	350			
Screw Torque		N-m	58	81	109	143	204	109	143	204	280	143	204	280	407	407			
		lbf-ft	42.8	59.7	80.4	105	150	80.4	105	150	207	105	150	207	300	300			
Nozzle Touch Force		kN	17.6		17.6			17.6			17.6								
		US Ton	2.0		2.0			2.0			2.0								
GENERAL	Main Breaker Capacity	STD	A	75					75					75					
			kVA	20					22					23					
	Main Breaker Capacity	HIGH SPEED	A	-					75					100					
			kVA	-					33					35					
	Heater Capacity		kW	3.4		4.8			4.8			6.6			4.8		6.6		
	Machine Dimensions L x W x H	m	2.9 x 1.0 x 1.6		3.2 x 1.0 x 1.6			3.7 x 1.3 x 1.6			3.9 x 1.3 x 1.6			4.2 x 1.3 x 1.6		4.2 x 1.3 x 1.6			
		ft	9.5 x 3.3 x 5.3		10.3 x 3.3 x 5.3			12.5 x 3.9 x 5.2			12.8 x 3.9 x 5.2			13.2 x 4.0 x 5.2		13.7 x 4.0 x 5.2			
	Machine Weight	t	2.0		2.0			3.0			3.1			3.1		3.2			
US Ton		2.2		2.2			3.3			3.4			3.5		3.6				

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

ECSXII Specifications

ITEM		UNIT	EC110SXII					EC140SXII										
CLAMP	Clamp 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	cm³		78	102	130	78	102	162	201	254	78	102	162	201	254		
		in³		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	300			300			300								
			in/s	11.8			11.8			11.8								
	Injection Rate	STD	cm³/s	184	241	305	184	241	305	376	477	184	241	305	376	477		
			in³/s	11.23	14.71	18.61	11.23	14.71	18.61	22.94	29.11	11.23	14.71	18.61	22.94	29.11		
	Injection Velocity	HIGH	mm/s	500			500			400			500			400		
			in/s	19.7			19.7			15.7			19.7			15.7		
	Injection Rate	HIGH	cm³/s	308	402	509	308	402	407	502	636	308	402	407	502	636		
			in³/s	18.8	24.5	31.1	18.8	24.5	24.84	30.6	38.8	18.8	24.5	24.84	30.6	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								
			kVA	35			35			48								
	Main Breaker Capacity	HIGH SPEED	A	125			125			125								
			kVA	53			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			5.0 x 1.4 x 1.7					
		ft		15.2 x 4.2 x 5.4			16.1 x 4.2 x 5.4			15.5 x 4.6 x 5.6			16.4 x 4.6 x 5.6					
	Machine Weight		t	4.2			4.3			5.2			5.3					
			US Ton	4.6			4.7			5.8			5.8					

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

ECSXII Specifications

ITEM		UNIT	EC200SXII										
CLAMP	Clamp 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	cm³		162	201	254	162	226	318	392	475		
		in³		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	10.30	12.73	15.41		
		PE	g	115	145	185	115	165	232	286	346		
			oz	4.06	5.11	6.52	4.06	5.82	8.18	10.09	12.20		
	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	300			250						
			in/s	11.8			9.8						
	Injection Rate	STD	cm³/s	305	376	477	254	314	397	490	593		
			in³/s	18.61	22.94	29.11	15.5	19.2	24.23	29.90	36.19		
	Injection Velocity	HIGH	mm/s	400			400			350			
			in/s	15.7			15.7			13.8			
	Injection Rate	HIGH	cm³/s	407	502	636	407	502	556	687	831		
			in³/s	24.84	30.6	38.8	24.84	30.6	33.9	41.9	50.7		
	Plasticizing Capacity	STD	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	STD	RPM	350	320	285	350	320	285	255	230		
			HIGH	-	-	-	-	-	-	-	-		
	Screw Torque	STD	lbf-ft	566	761	761	566	761	1058	1421	1421		
			HIGH	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						
			kVA	48			48			59		61	
	Main Breaker Capacity	HIGH SPEED	A	125			175						
			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 1.5 x 1.9			5.7 x 1.5 x 1.9			5.9 x 1.5 x 1.9		6.0 x 1.5 x 1.9	
		ft		18.7 x 4.9 x 6.2			18.7 x 4.9 x 6.2			19.4 x 4.9 x 6.2		19.7 x 4.9 x 6.2	
	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.



ECSXII Specifications

ITEM	UNIT	EC500SXII						EC610SXII						
		tf		450		550		US Ton		496		606		
Clamp Force		mm		870 x 810		970 x 910		34.2 x 31.8		38.1 x 35.8				
		in												
Tie Bar Distance	H x V													
	H x V													
Platen Dimension	H x V													
	H x V													
Clamp Stroke		mm		800		900		31.5		35.4				
		in												
Maximum Daylight		mm		1800		1900		70.9		74.8				
		in												
Mold Height		Min. - Max			350 - 1000		400 - 1000							
		Min. - Max			13.8 - 39.4		15.7 - 39.4							
Ejector Force		tf		13.0		13.0		14.3		14.3				
		US Ton												
Ejector Stroke		mm		180		180		7.1		7.1				
		in												

ECSX Specifications

ITEM	UNIT	EC720SX				EC950SX				EC1450SX				EC1950SX						
		tf		650		850		1300		1800		US Ton		716.5		937		1433		1980
Tie bar distance	H x V	mm		1060 x 960		1320 x 1320		1400 x 1400		1850 x 1660										
		in		41.7 x 37.7		51.9 x 51.9		55.1 x 55.1		72.8 x 65.4										
Platen dimension	H x V	mm		1500 x 1400		1790 x 1790		2000 x 2000		2600 x 2350										
		in		59.0 x 55.1		70.4 x 70.4		78.7 x 78.7		102.4 x 92.5										
Clamp Stroke		mm		1000		1200		1500		1700										
		in		39.4		47.2		59		66.9										
Maximum daylight		mm		2050		2300		2800		3200										
		in		80.7		90.6		110.2		126.0										
Mold Height		Min.xMax			450 x 1050		500 x 1100		650 x 1300		800 x 1500									
		Min.xMax			17.7 x 41.3		19.6 x 43.3		25.6 x 51.2		31.5 x 59.1									
Ejector force		tf		18		18		28.5		44.0										
		US Ton		19.8		19.8		31.4		48.5										
Ejector Stroke		mm		200		200		250		300										
		in		7.9		7.9		9.8		11.8										

\*EC250SXII-17 through EC610SXII-36 are equipped with built-in hydraulics for nozzle touch & single corepull.

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

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
- ▶ ECSXII 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

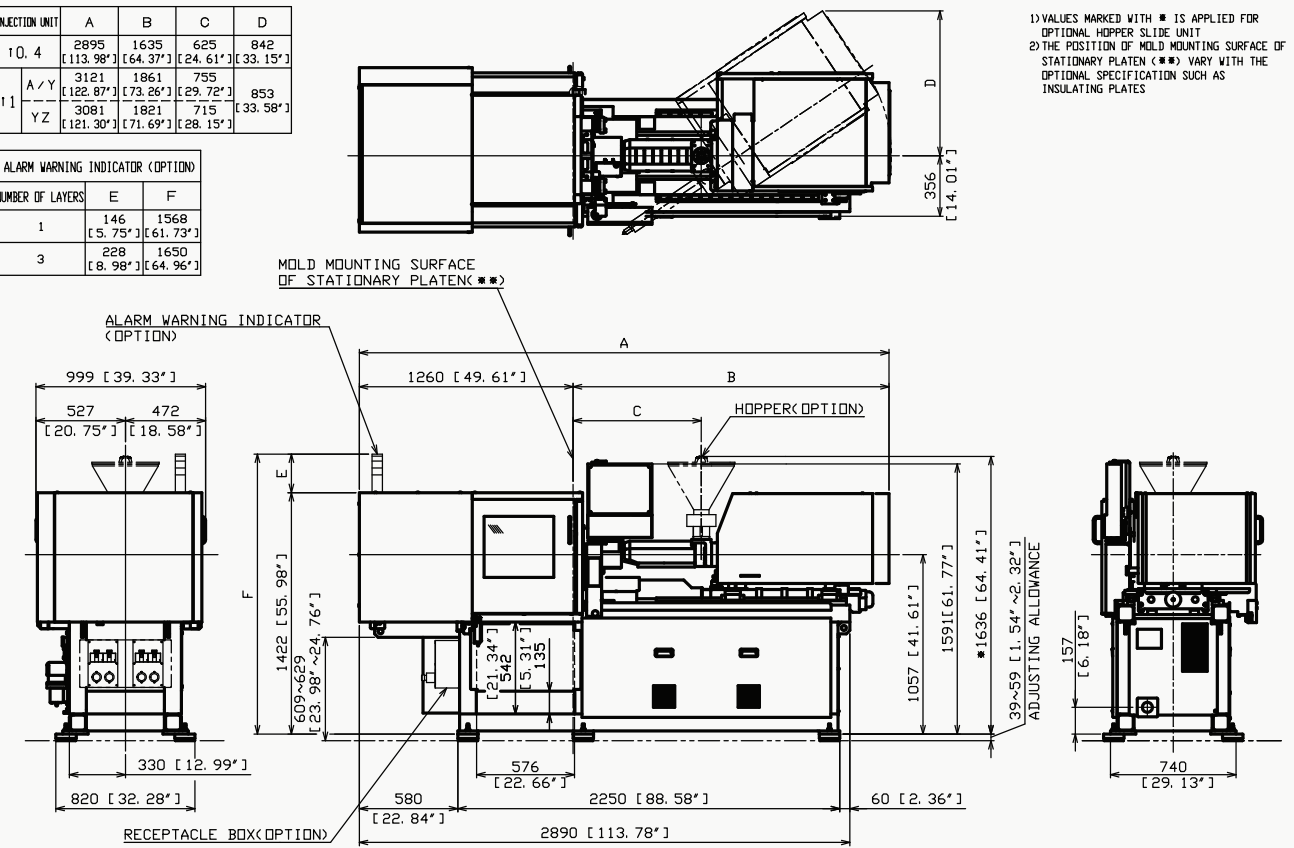
- ▶ Link-line toggle unit
- ▶ Double rigid body platen
- ▶ Mold platen
- ▶ Locating hold
- ▶ Movable platen supporting device
- ▶ Mechanical safety device
- ▶ Interface for dual hydraulic core pulls standard
- ▶ Holes tapped for installation of take-out robot
- ▶ Ejection servo motor with brake
- ▶ Mold 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

## Controller

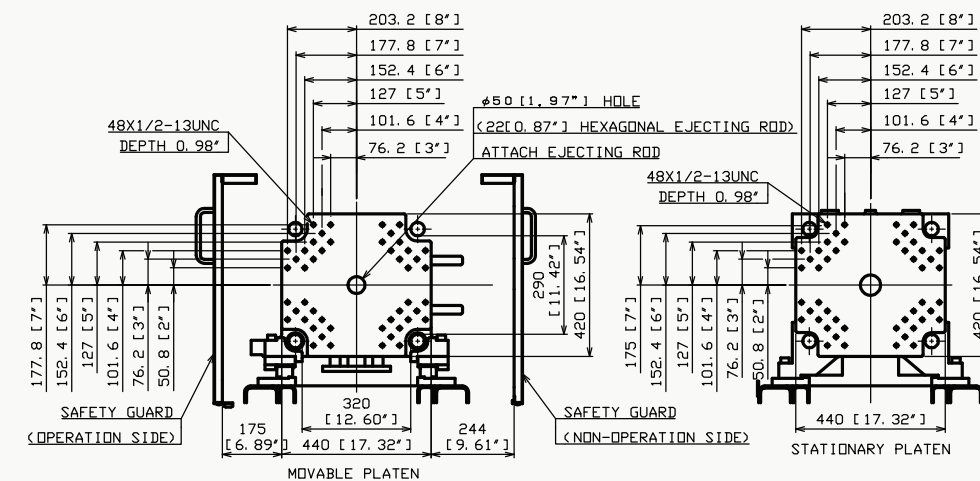
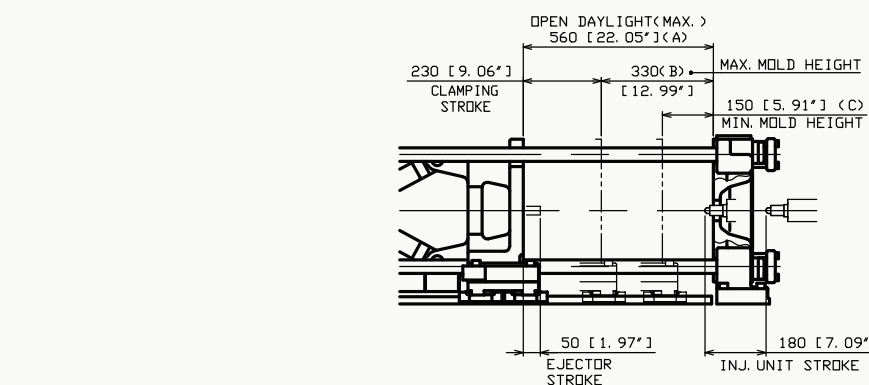
- ▶ Six programmable outputs standard
- ▶ Step switch/ten key input
- ▶ Setting data memory for 300 sets of molds
- ▶ External interface SPI
- ▶ Digital display
- ▶ Graphic display
- ▶ Profile display/storing/measure functions
- ▶ Quality monitoring
- ▶ Diagnostic function
- ▶ Operation select function 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

INJECTION UNIT	A	B	C	D
10, 4	2895 [113.98"]	1635 [64.37"]	625 [24.61"]	842 [33.15"]
11	A/Y	3121 [122.87"]	1861 [73.26"]	755 [29.72"]
	YZ	3081 [121.30"]	1821 [71.69"]	715 [28.15"]
				853 [33.58"]

ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	E	F
1	146 [5.75"]	1568 [61.73"]
3	228 [8.98"]	1650 [64.96"]

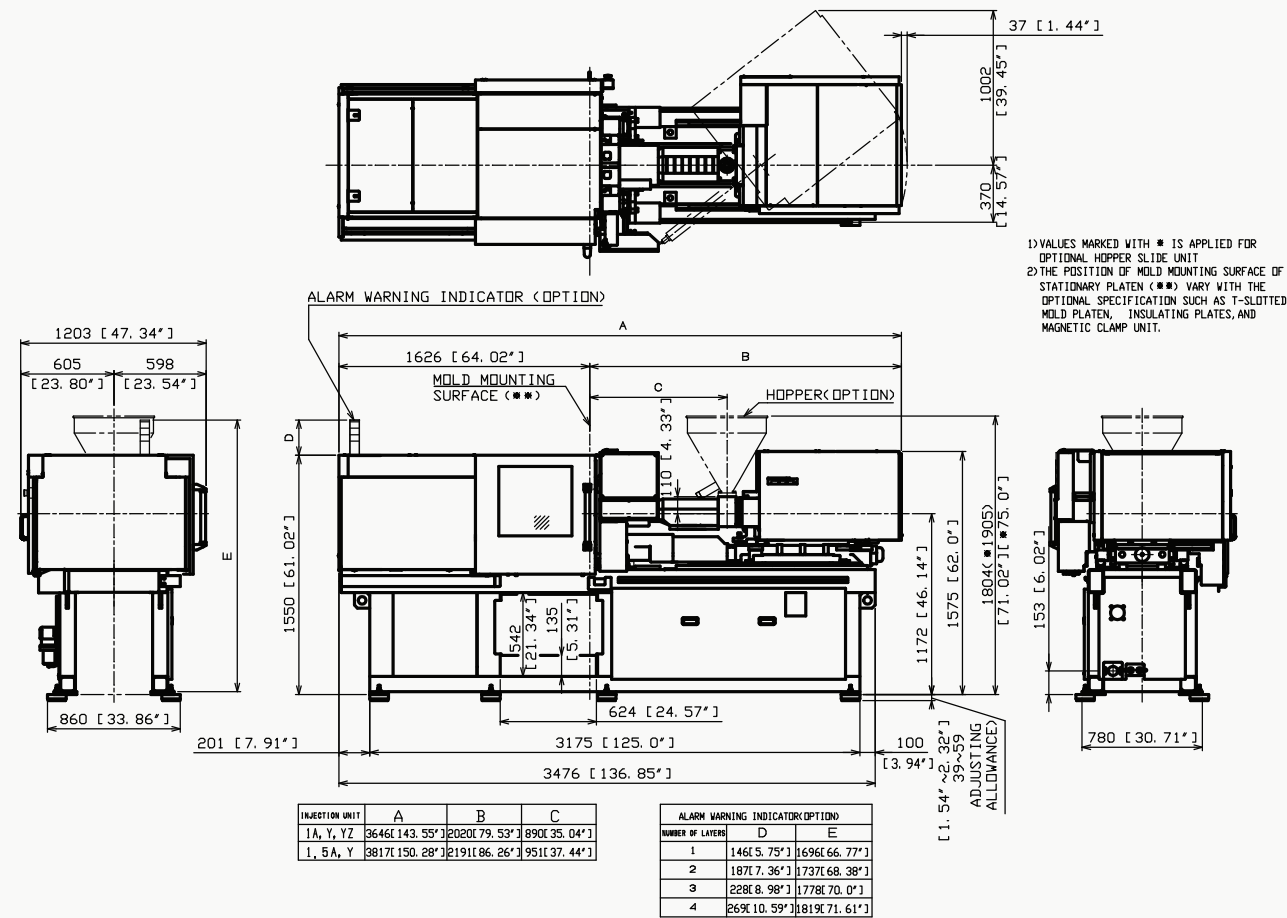


1) VALUES MARKED WITH ■ IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT  
2) THE POSITION OF MOLD MOUNTING SURFACE OF STATIONARY PLATEN (■■■) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS INSULATING PLATES

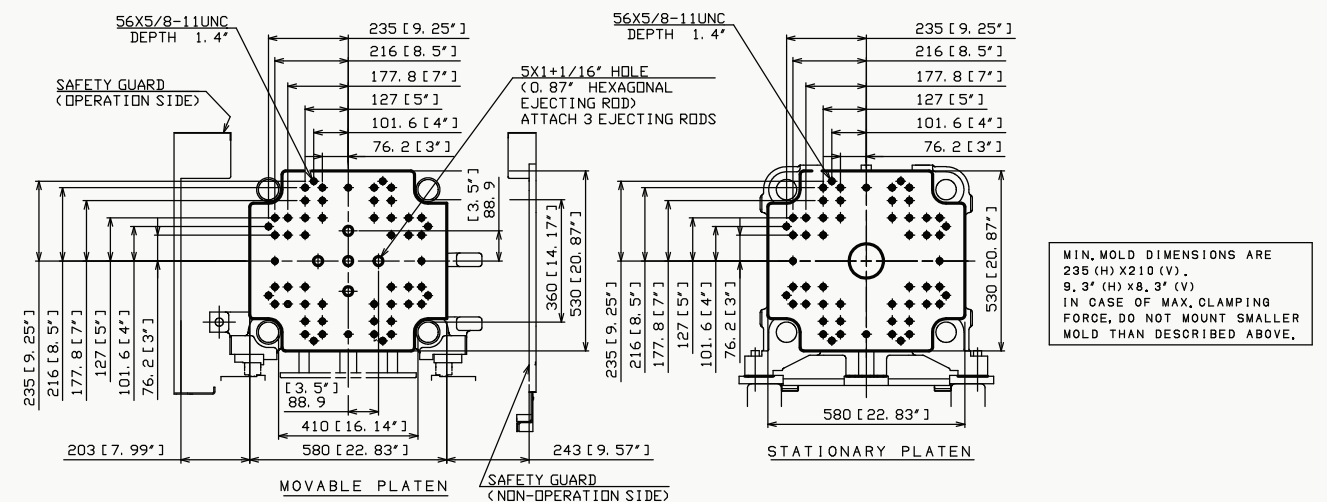
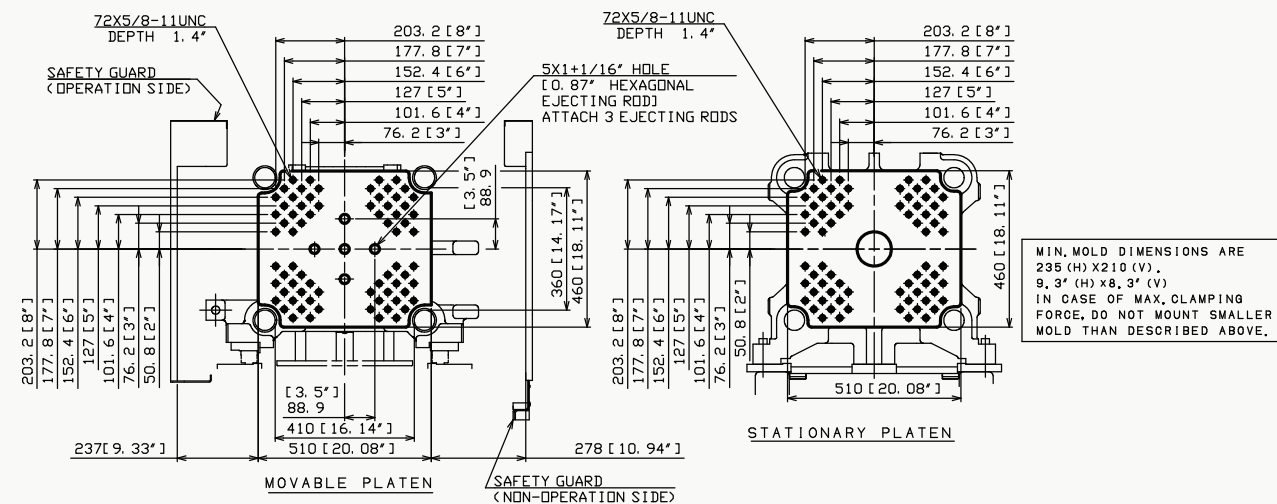
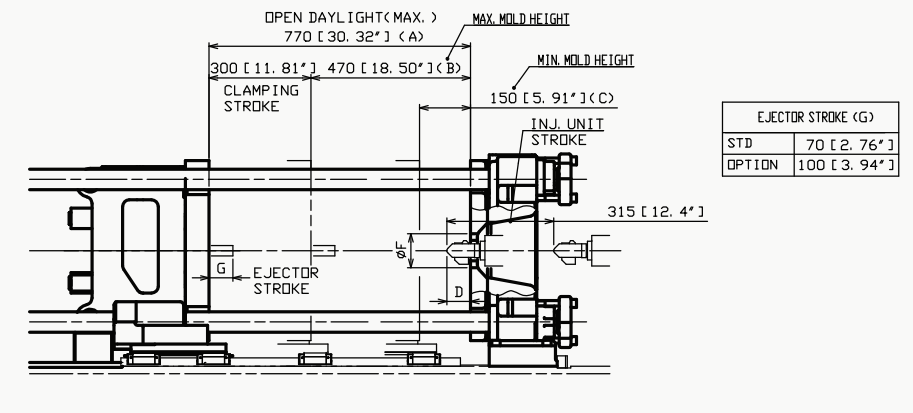
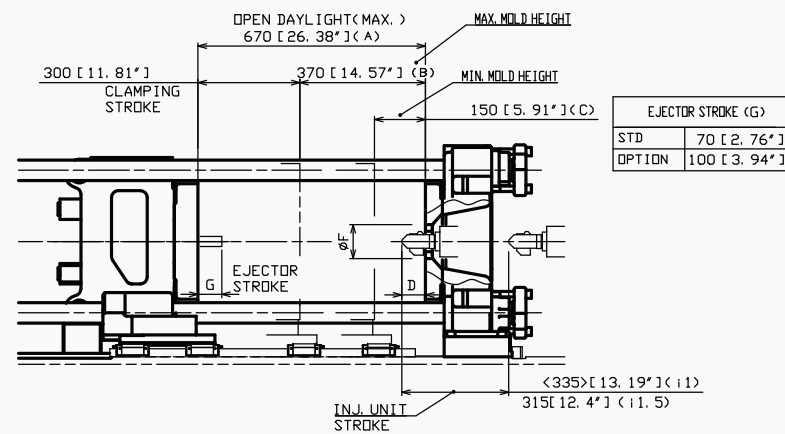
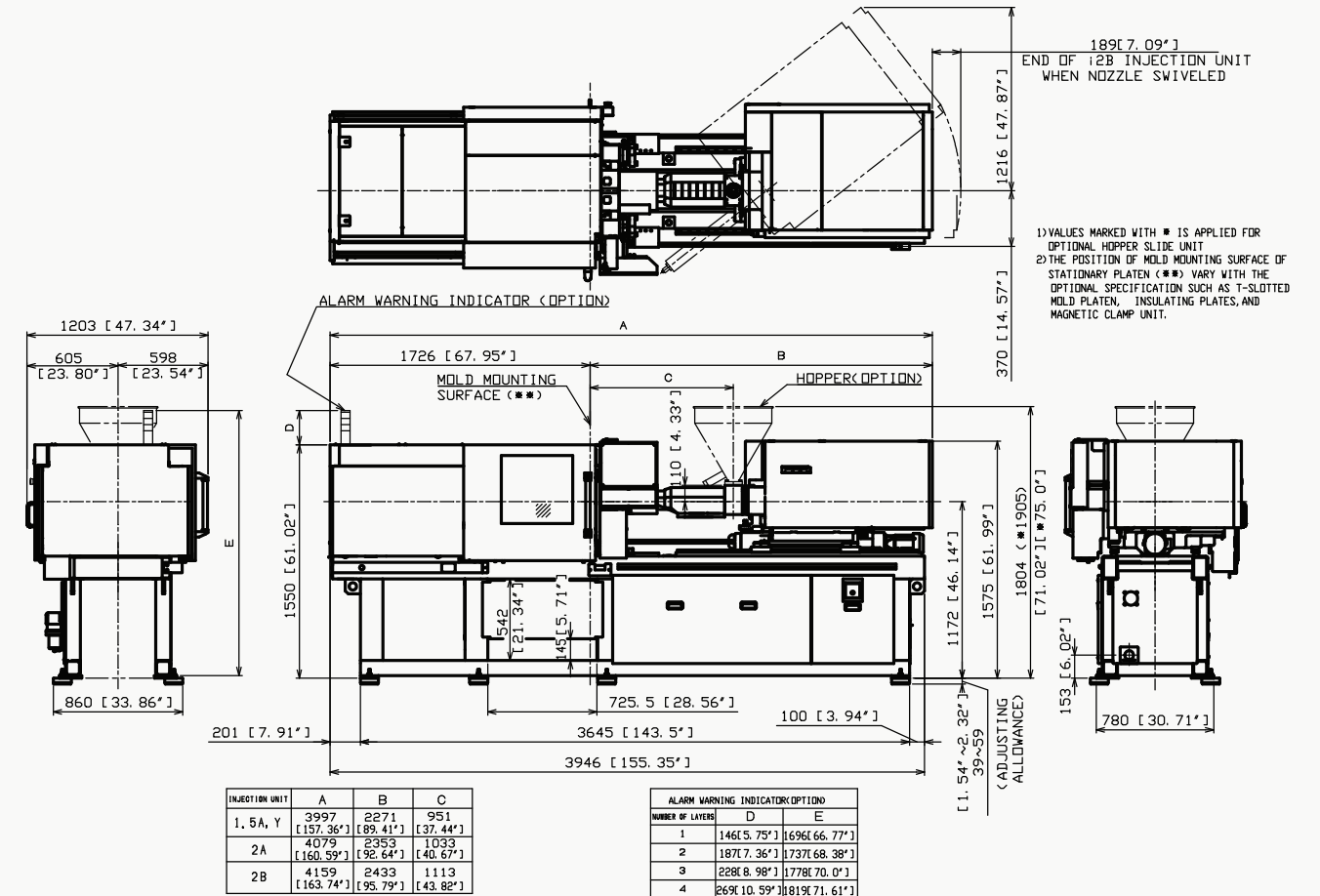


MIN. MOLD DIMENSIONS ARE 180(H)X165(V), 7.1"(H)X6.5"(V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

# EC55SXII



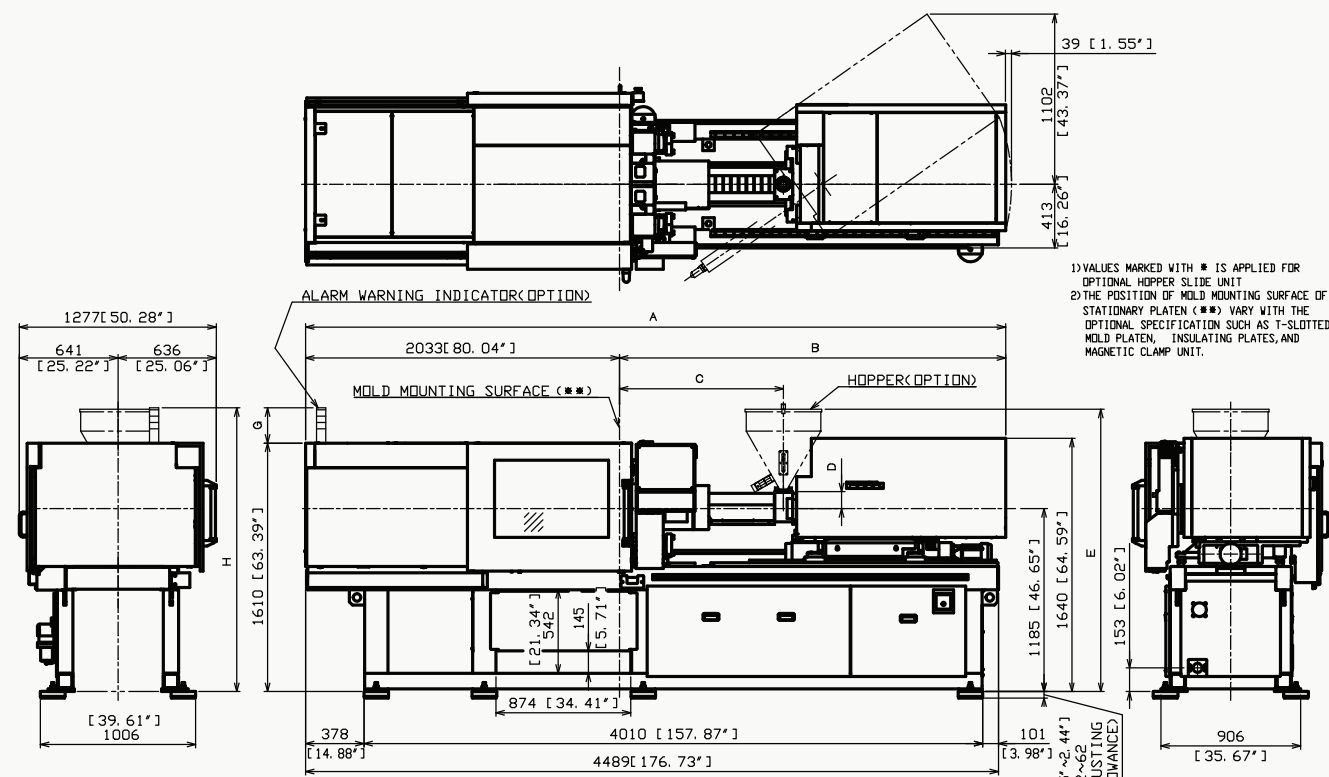
# EC85SXII



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

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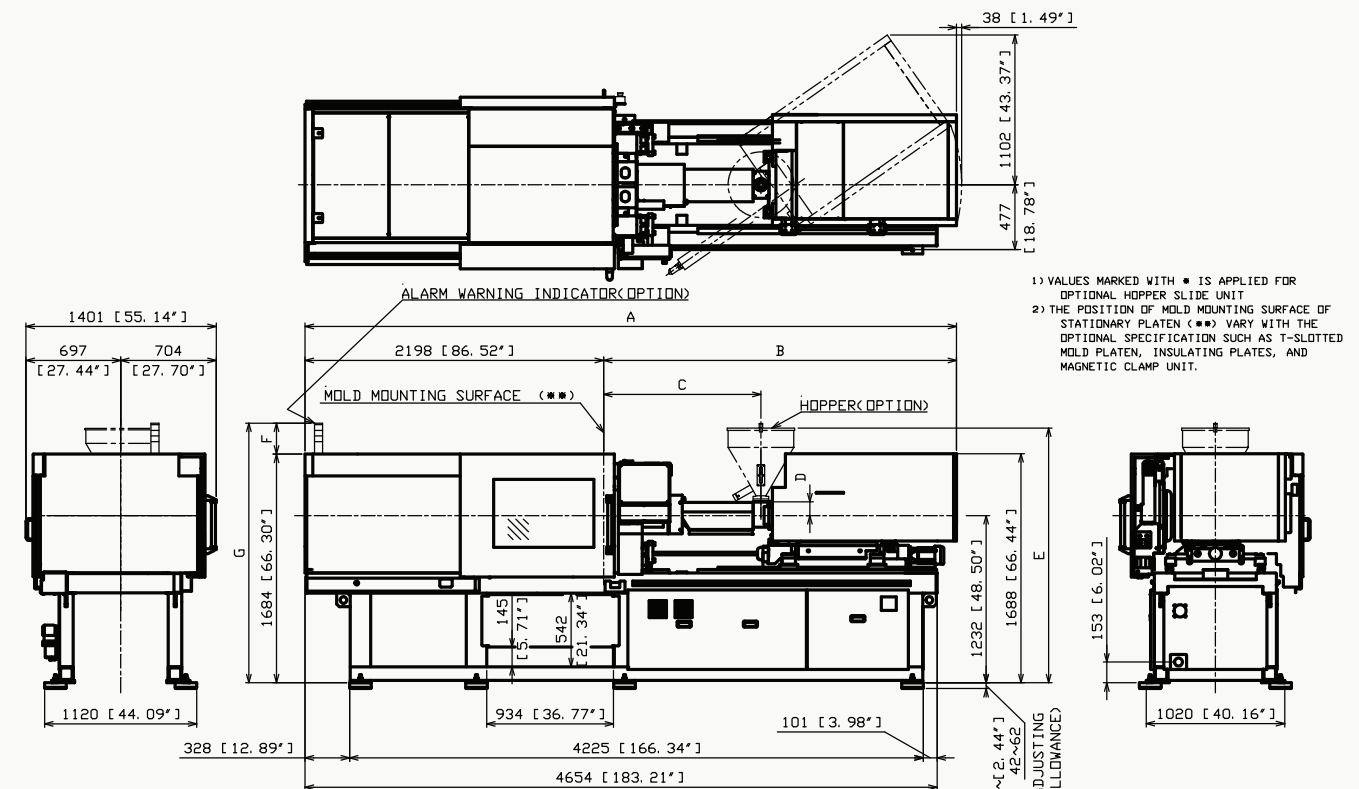
# EC110SXII



INJECTION UNIT	A	B	C	D	E
2A, Y	4536 [178.58"]	2503 [98.54"]	1063 [41.85"]	110 [4.33"]	1827 [71.93"] *1928 [75.91"]
2B	4616 [181.73"]	2583 [101.69"]	1143 [45.0"]	110 [4.33"]	1827 [71.93"] *1928 [75.91"]
4A, Y	4797 [188.86"]	2764 [108.82"]	1249 [49.17"]	100 [3.94"]	1817 [71.54"] *1918 [75.51"]
4B	4901 [192.95"]	2868 [112.91"]	1353 [53.27"]	100 [3.94"]	1817 [71.54"] *1918 [75.51"]

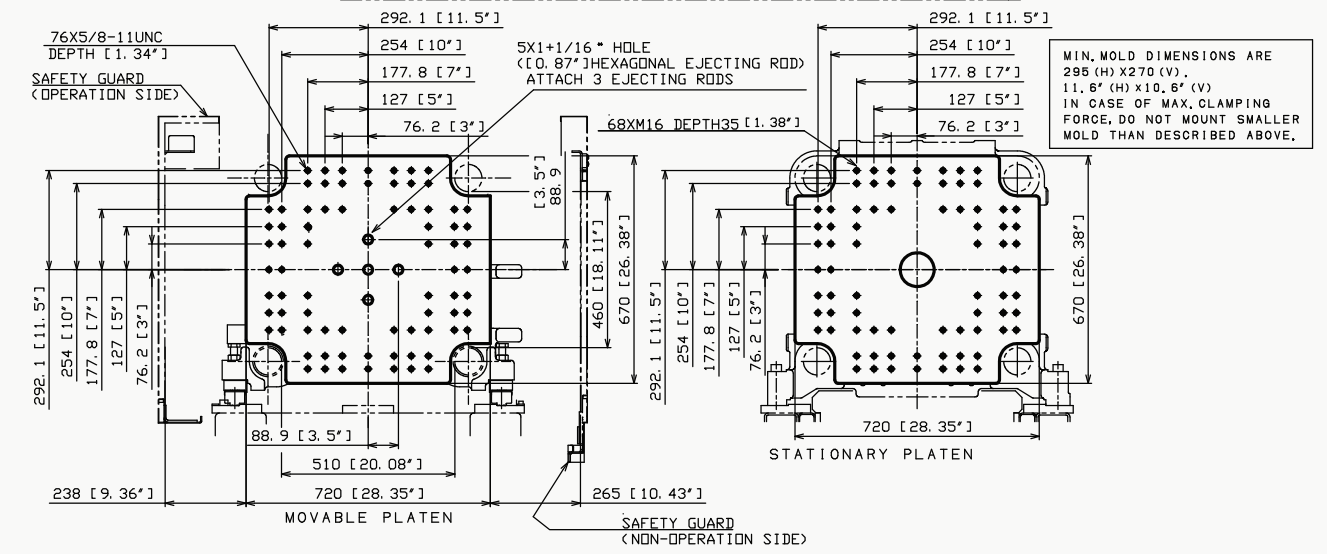
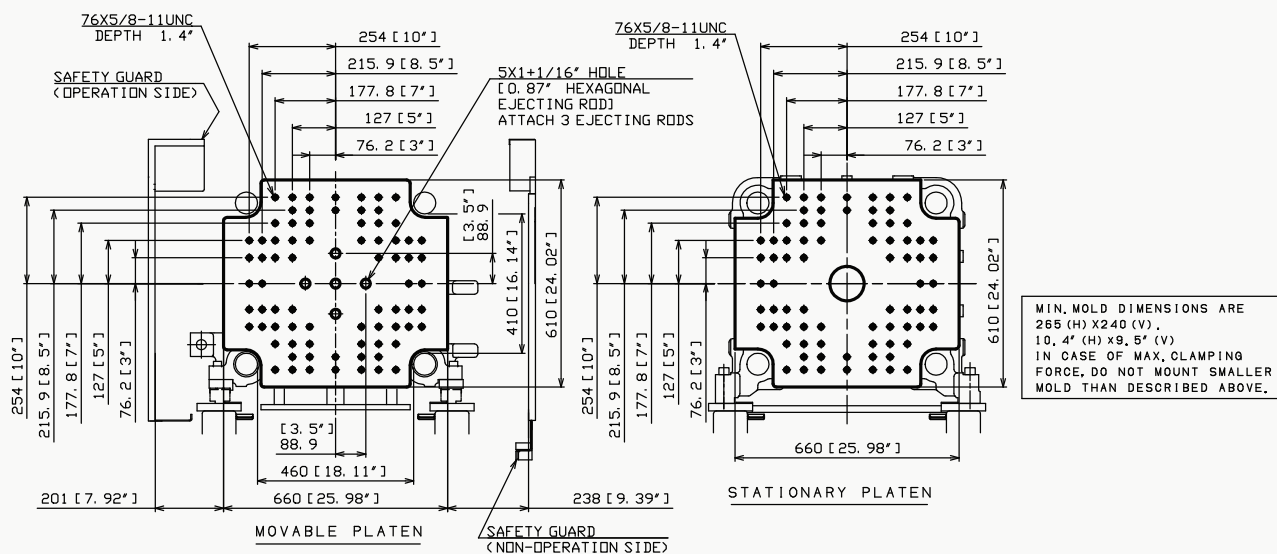
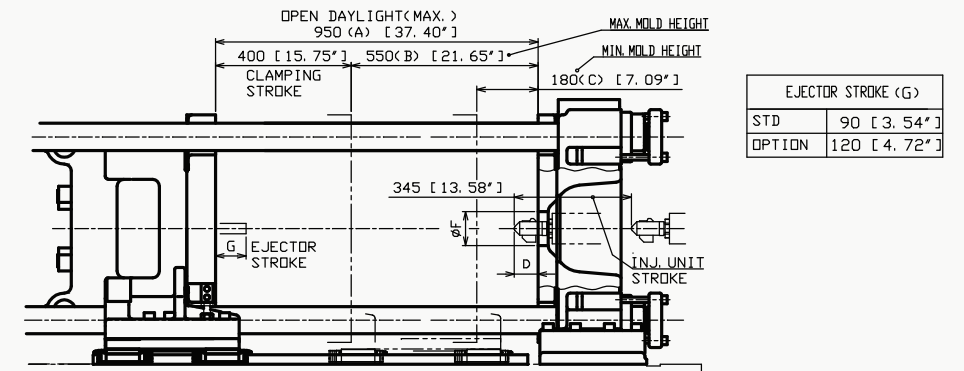
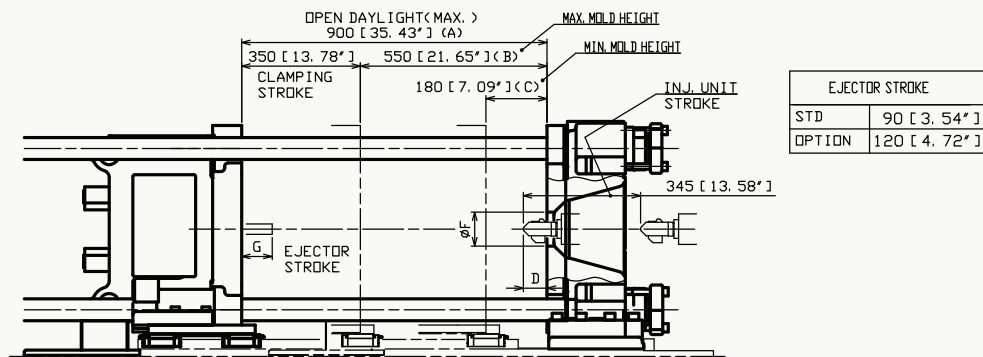
ALARM WARNING INDICATOR(OPTION)		
NUMBER OF LAYERS	G	H
1	146 [5.75"]	1756 [69.14"]
2	187 [7.36"]	1797 [70.75"]
3	288 [11.32"]	1838 [72.37"]
4	269 [10.59"]	1879 [73.98"]

# EC140SXII



INJECTION UNIT	A	B	C	D	E
2A, Y	4701 [185.08"]	2503 [98.54"]	1063 [41.85"]	110 [4.33"]	1886 [74.25"] (*1987 [78.23"])
4A, Y	4902 [192.99"]	2704 [106.46"]	1264 [49.76"]	100 [3.94"]	1876 [73.86"] (*1977 [77.83"])
4B	5006 [197.09"]	2808 [110.55"]	1368 [53.86"]	100 [3.94"]	1876 [73.86"] (*1977 [77.83"])

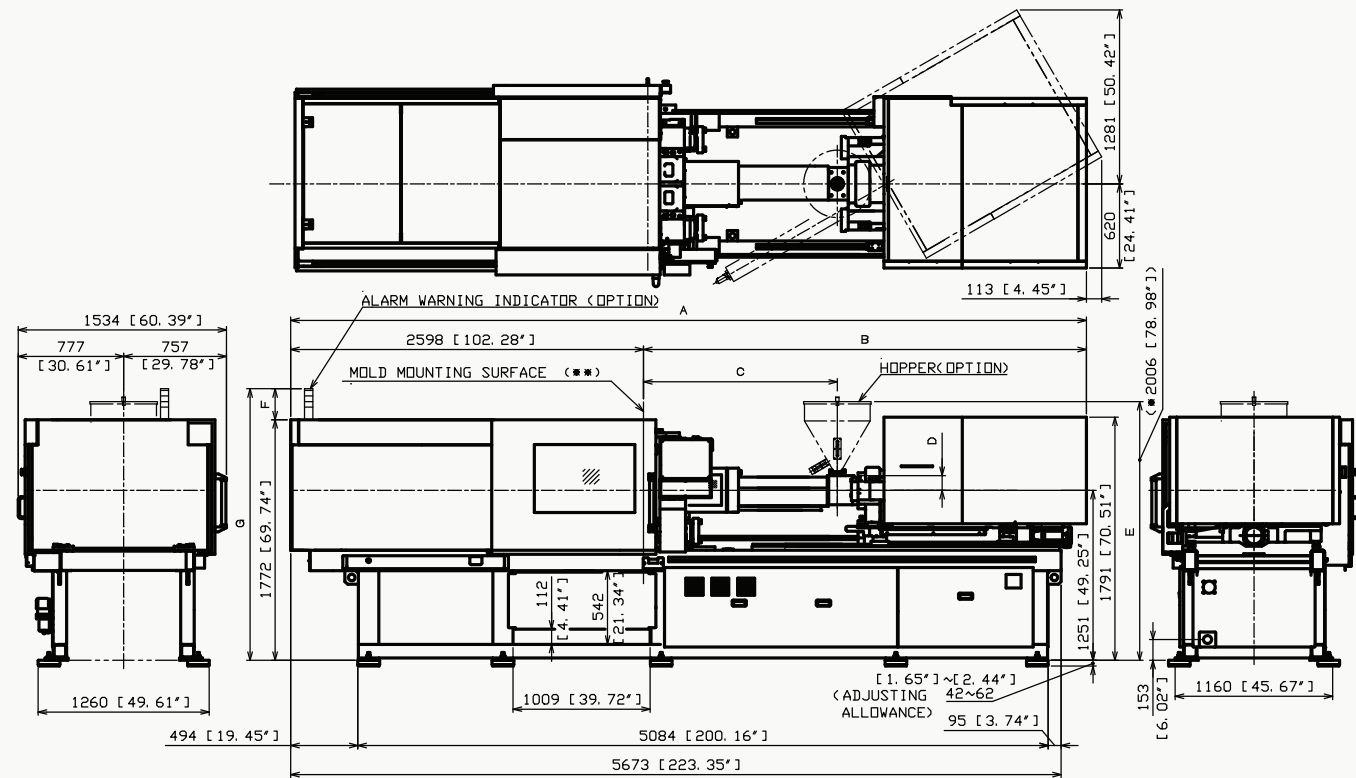
ALARM WARNING INDICATOR(OPTION)		
NUMBER OF LAYERS	F	G
1	146 [5.75"]	1830 [72.05"]
2	187 [7.36"]	1871 [73.66"]
3	288 [11.32"]	1912 [75.28"]
4	269 [10.59"]	1953 [76.89"]



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

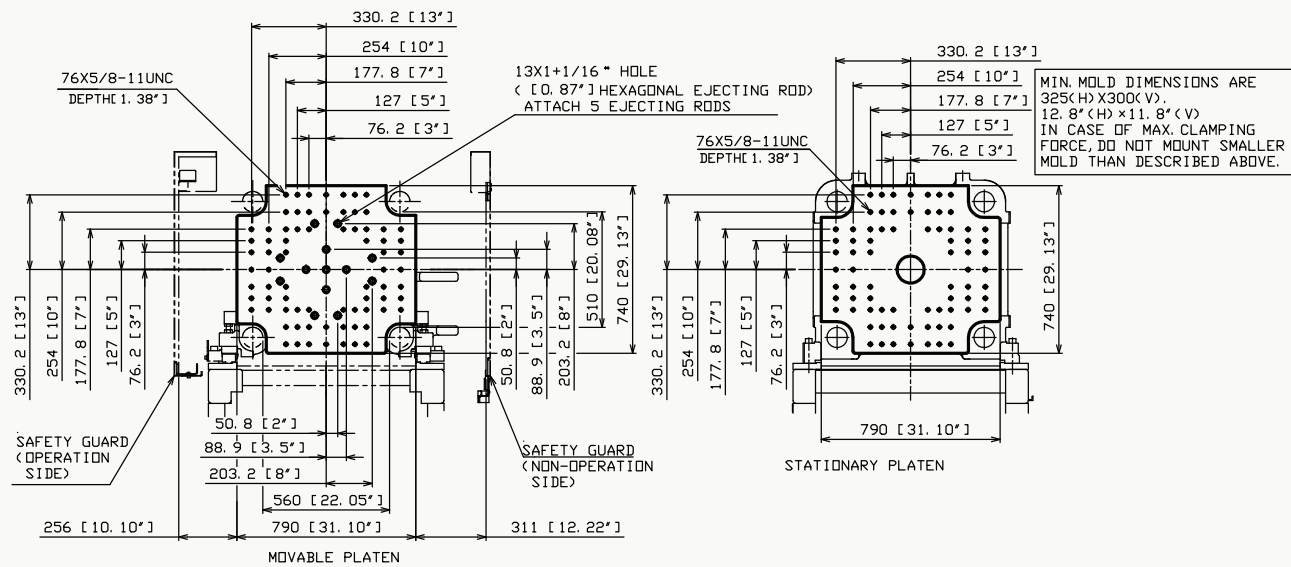
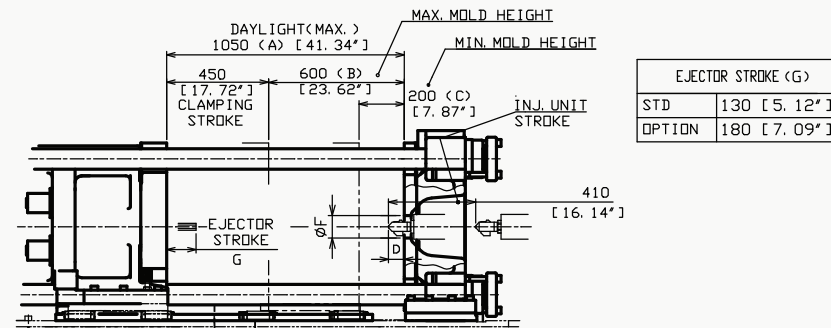
Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

# EC200SXII



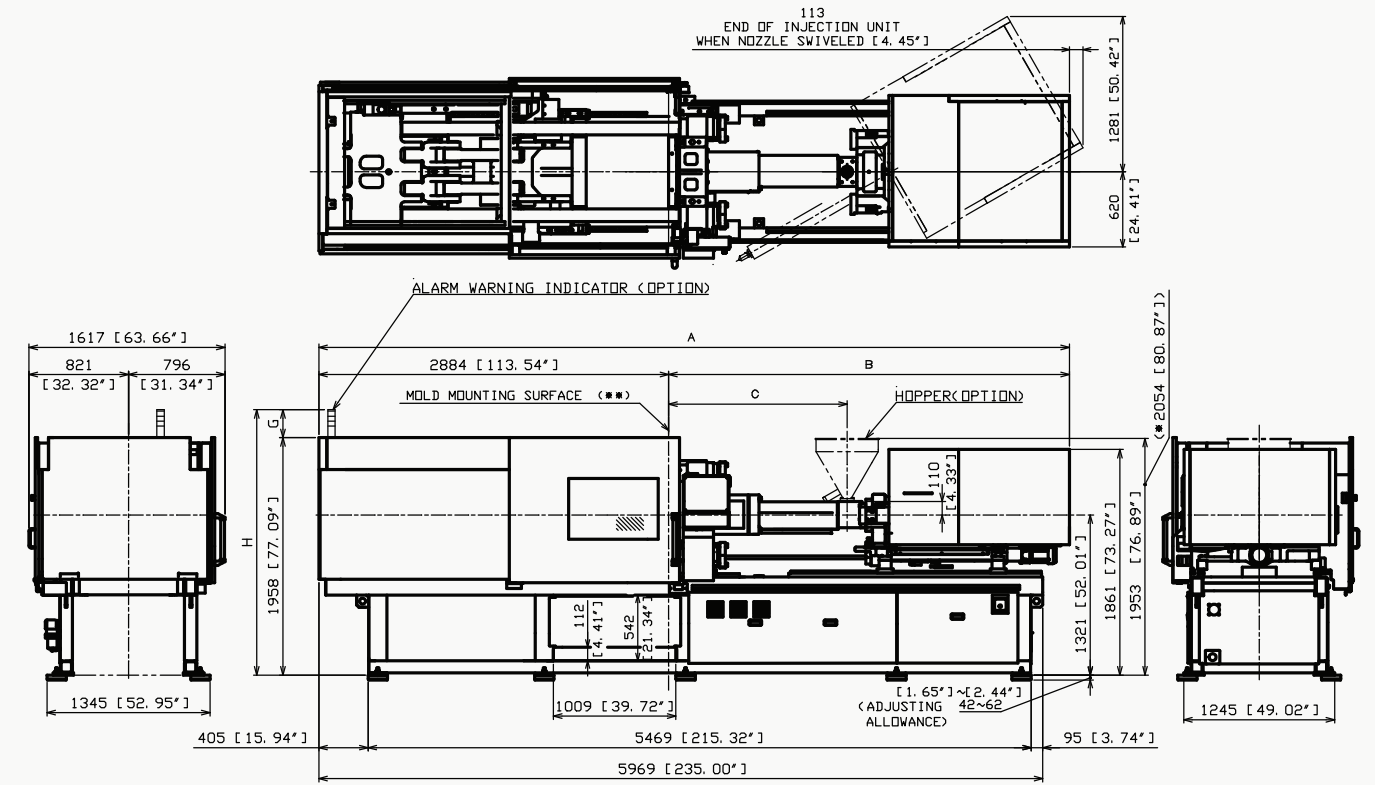
- VALUES MARKED WITH ■ IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT
- THE POSITION OF MOLD MOUNTING SURFACE(■) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS T-SLOTTED MOLD PLATEN, INSULATING PLATES, AND MAGNETIC CLAMP UNIT.

INJECTION UNIT	A	B	C	D	E	ALARM WARNING INDICATOR(OPTION)		
						NUMBER OF LAYERS	F	G
4A, Y	5672 [223.31']	3074 [121.02']	1314 [51.32']	100 [3.94']	1895 [74.61']	1	146 [5.75']	1918 [75.49']
4B	5776 [227.40']	3178 [125.12']	1418 [55.83']	100 [3.94']	1905 [74.61']	2	187 [7.36']	1959 [77.10']
6A, Y	5859 [230.67']	3261 [128.39']	1528 [59.22']	110 [4.33']	1905 [74.61']	3	228 [8.98']	2000 [78.72']
8A, Y	5958 [234.57']	3340 [131.28']	1627 [63.67']	110 [4.33']	1905 [74.61']	4	269 [10.59']	2041 [80.33']



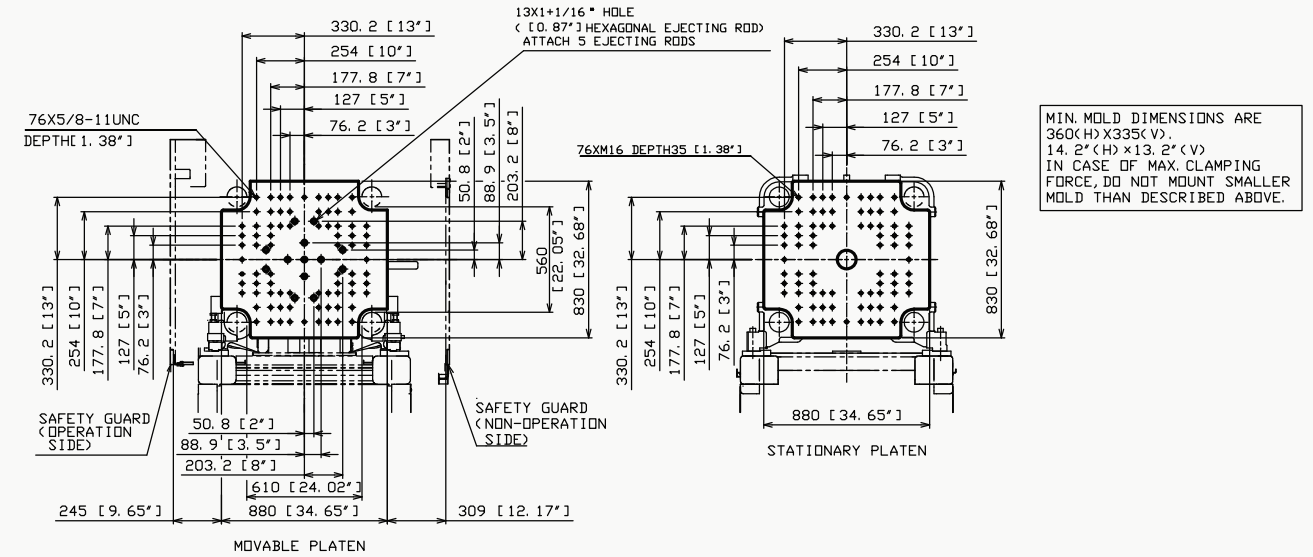
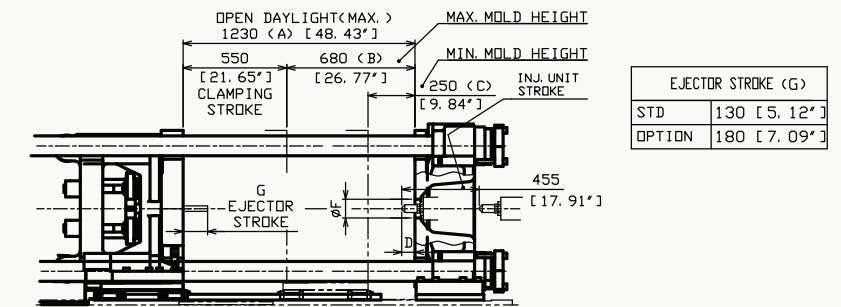
Note: Specifications can change without notice. Contact Shibaura Machine for most current specifications.

# EC250SXII



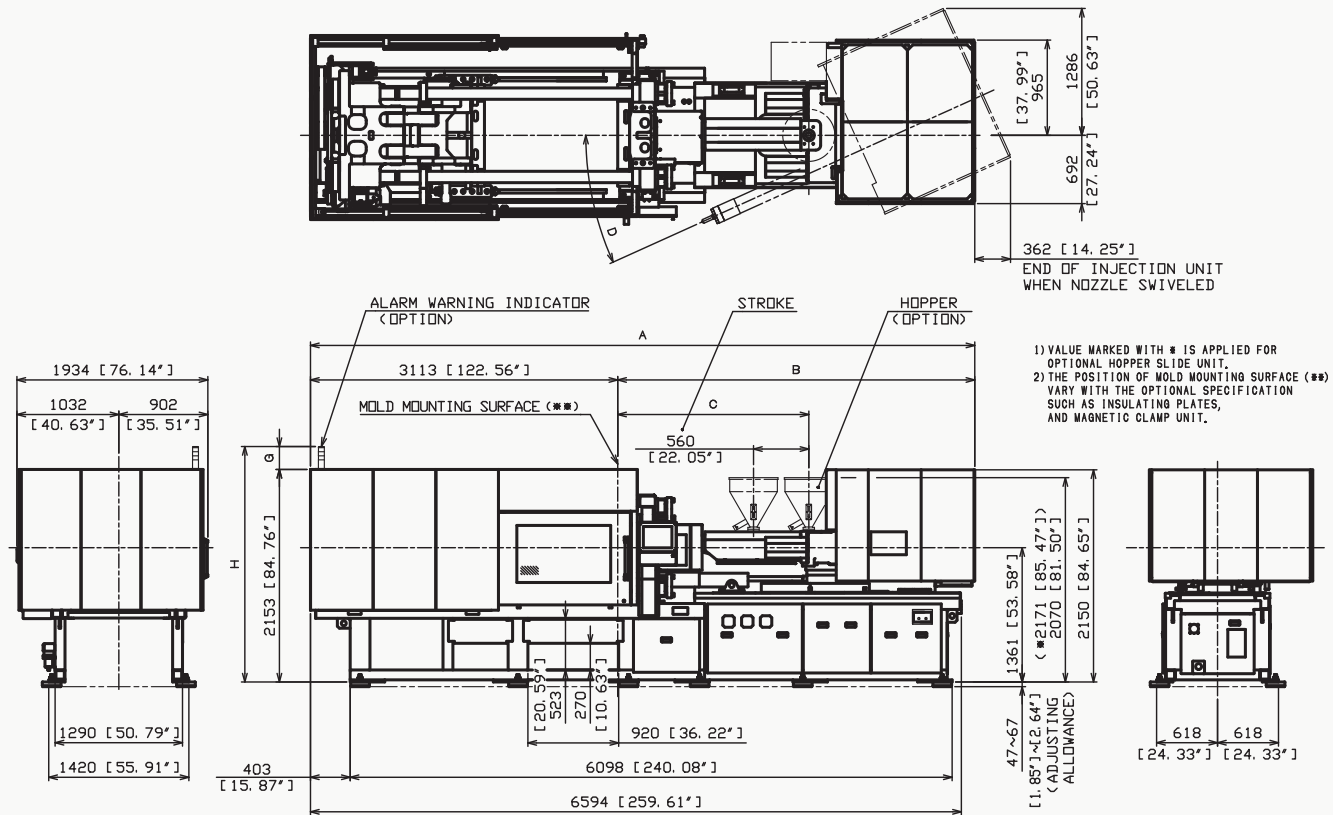
- VALUES MARKED WITH ■ IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT
- THE POSITION OF MOLD MOUNTING SURFACE(■) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS T-SLOTTED MOLD PLATEN, INSULATING PLATES, AND MAGNETIC CLAMP UNIT.

INJECTION UNIT	A	B	C	ALARM WARNING INDICATOR(OPTION)		
				NUMBER OF LAYERS	F	G
4Y	6003 [236.34']	3119 [122.80']	1359 [53.50']	1	146 [5.75']	1918 [75.49']
6A, Y	6190 [243.70']	3306 [130.16']	1473 [57.99']	2	187 [7.36']	1959 [77.10']
8A, Y	6289 [247.60']	3405 [134.05']	1572 [61.89']	3	228 [8.98']	2000 [78.72']
8B	6393 [251.69']	3509 [138.15']	1676 [65.98']	4	269 [10.59']	2041 [80.33']



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

# EC310SXII



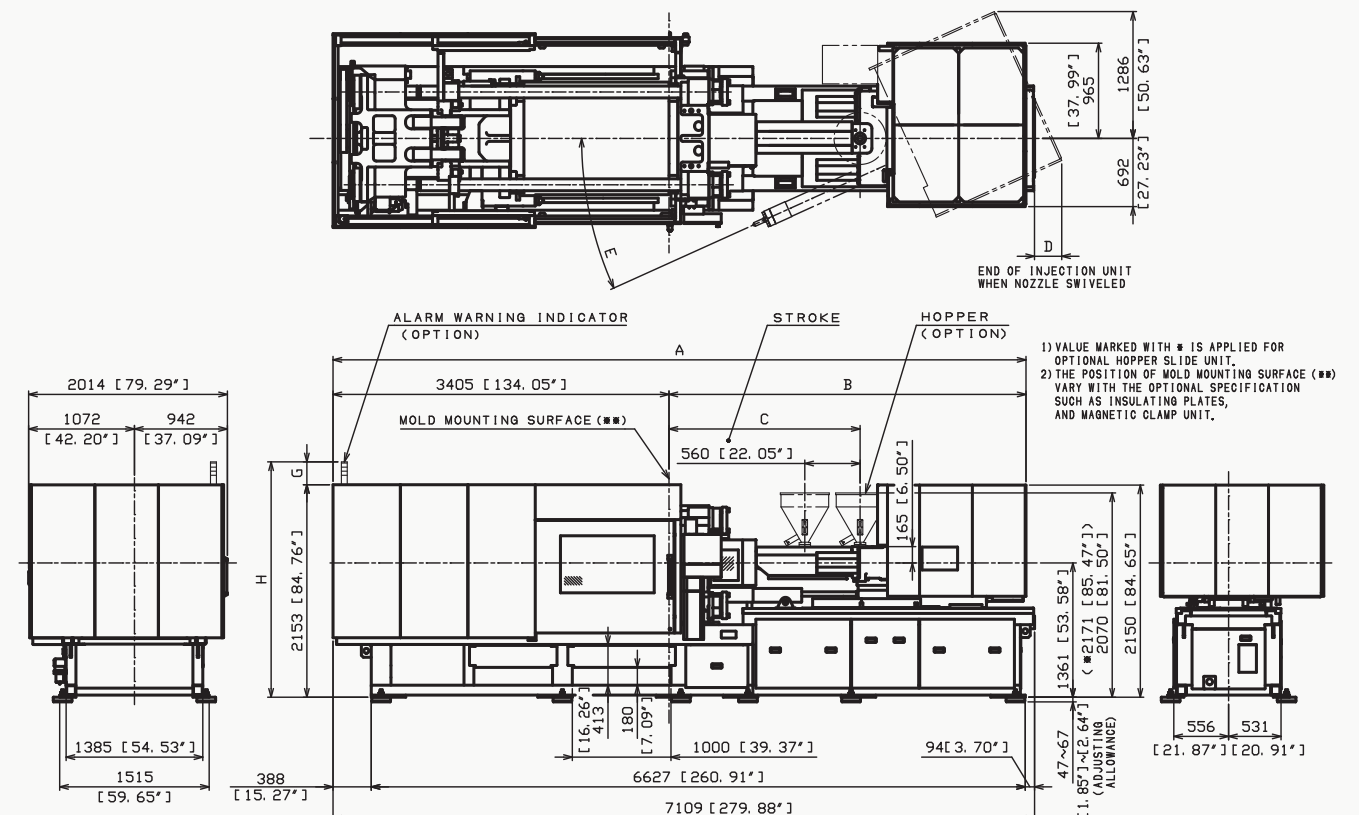
1) VALUE MARKED WITH # IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT.  
2) THE POSITION OF MOLD MOUNTING SURFACE (##) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS INSULATING PLATES, AND MAGNETIC CLAMP UNIT.

INJECTION UNIT	A	B	C	D
17A, Y	6730 [264.96"]	3617 [142.40"]	1936 [76.22"]	24.3°
17B, BH	6930 [272.83"]	3817 [150.27"]	2136 [84.09"]	24.5°

ALARM WARNING INDICATOR (OPTION)	
NUMBER OF LAYERS	D E
1	151 [5.95"] 2304 [90.71"]
3	233 [9.17"] 2386 [93.93"]

# EC390SXII

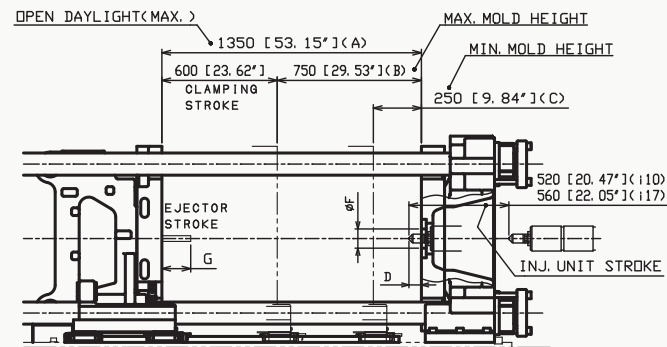


1) VALUE MARKED WITH # IS APPLIED FOR OPTIONAL HOPPER SLIDE UNIT.  
2) THE POSITION OF MOLD MOUNTING SURFACE (##) VARY WITH THE OPTIONAL SPECIFICATION SUCH AS INSULATING PLATES, AND MAGNETIC CLAMP UNIT.

INJECTION UNIT	A	B	C	D	E
117A, Y	7022 [276.45"]	3617 [142.40"]	1936 [76.22"]	276 [10.87"]	24.3°
117B, BH	7227 [284.52"]	3822 [150.47"]	2141 [84.29"]	483 [19.02"]	24.5°

ALARM WARNING INDICATOR (OPTION)	
NUMBER OF LAYERS	G H
1	150 [5.91"] 2303 [90.67"]
3	232 [9.13"] 2385 [93.89"]



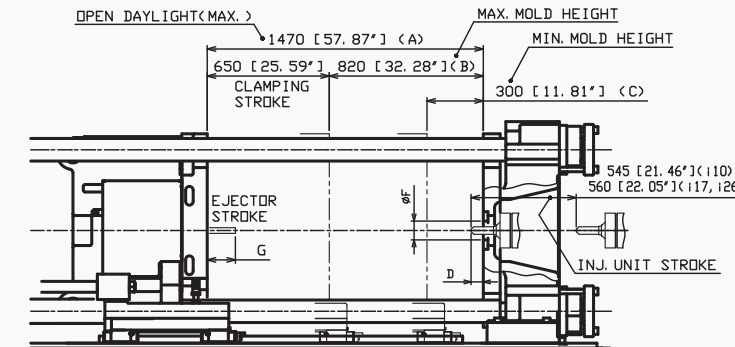
LOCATING RING HOLE DIAMETER (F)	NOZZLE PROJECTION (D)	
STD #101.6 <sup>+0.025</sup> [Ø4"]	110 STD(6" BODY)	86 [3.39"]
	117 STD(6" BODY)	48 [1.89"]

EJECTOR STROKE (G)	
STD	150 [5.9"]

IN CASE OF OPTIONAL INSULATING PLATES	
	5mm [0.20"] 10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)	1340 [52.76"] 1330 [52.36"]
MAX. MOLD HEIGHT (B)	740 [29.13"] 730 [28.74"]
MIN. MOLD HEIGHT (C)	240 [9.45"] 230 [9.06"]
NOZZLE PROJECTION (D)	110 STD(6" BODY) 81 [3.19"] 76 [2.99"]
	117 STD(6" BODY) 43 [1.69"] 38 [1.5"]



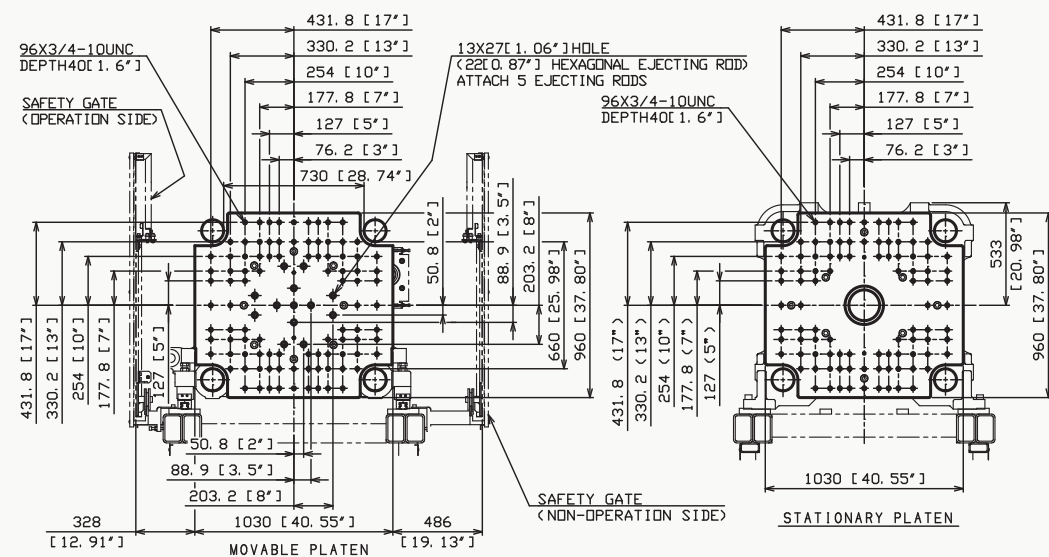
LOCATING RING HOLE DIAMETER (F)	NOZZLE PROJECTION (D)	
STD #101.6 <sup>+0.025</sup> [Ø4"]	110 STD(6" BODY)	86 [3.39"]
	117 STD(6" BODY)	48 [1.89"]
	126 STD(6" BODY)	55 [2.17"]

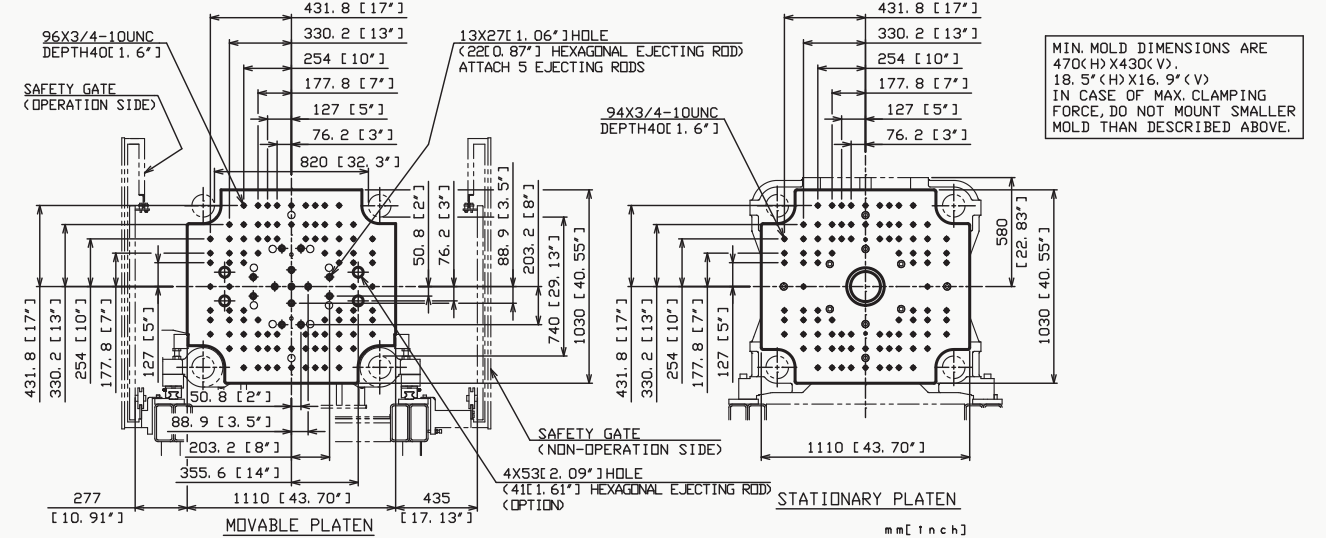
EJECTOR STROKE (G)	
STD	150 [5.91"]

IN CASE OF OPTIONAL INSULATING PLATES	
	5mm [0.20"] 10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)	1460 [57.48"] 1450 [57.09"]
MAX. MOLD HEIGHT (B)	810 [31.89"] 800 [31.5"]
MIN. MOLD HEIGHT (C)	290 [11.42"] 280 [11.02"]
NOZZLE PROJECTION (D)	110 STD(6" BODY) 81 [3.19"] 76 [2.99"]
	117 STD(6" BODY) 43 [1.69"] 38 [1.5"]
	126 STD(6" BODY) 50 [1.97"] 45 [1.77"]



MIN. MOLD DIMENSIONS ARE 425(H) X 390(V).  
(16.7"(H) X 15.4"(V))  
IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

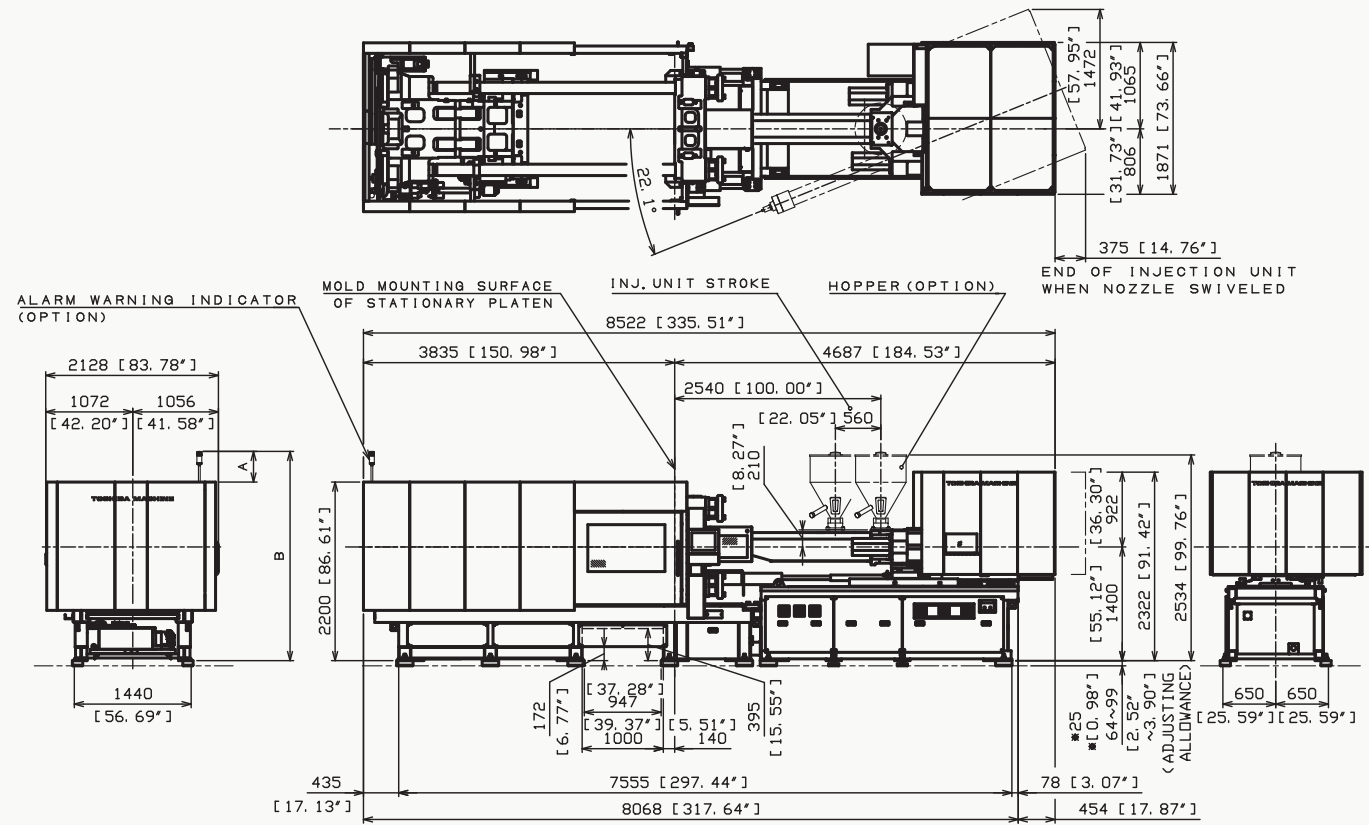


MIN. MOLD DIMENSIONS ARE 470(H) X 430(V).  
(18.5"(H) X 16.9"(V))  
IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

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

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

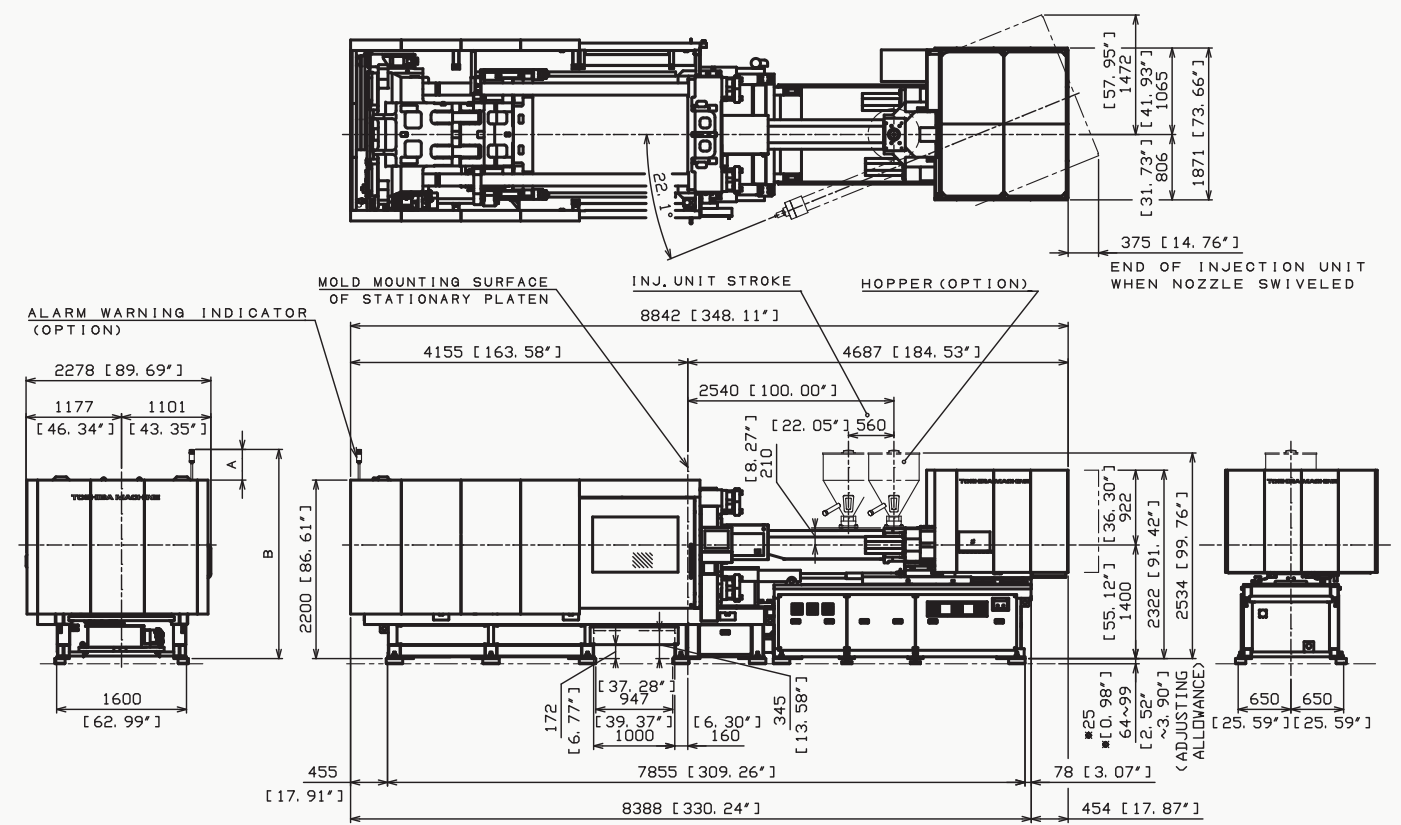
# EC500SXII



ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	A	B
1	378 [14.88"]	2578 [101.49"]
2	419 [16.50"]	2619 [103.11"]
3	460 [18.11"]	2660 [104.72"]

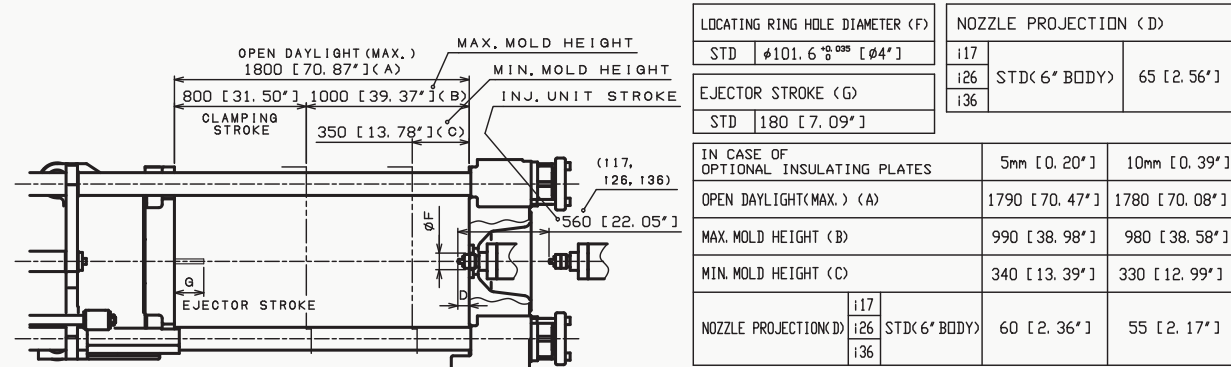
① DIMENSION MARK IS THE SPECIFICATION OF ANCHOR LOCKING FOUNDATION.

# EC610SXII

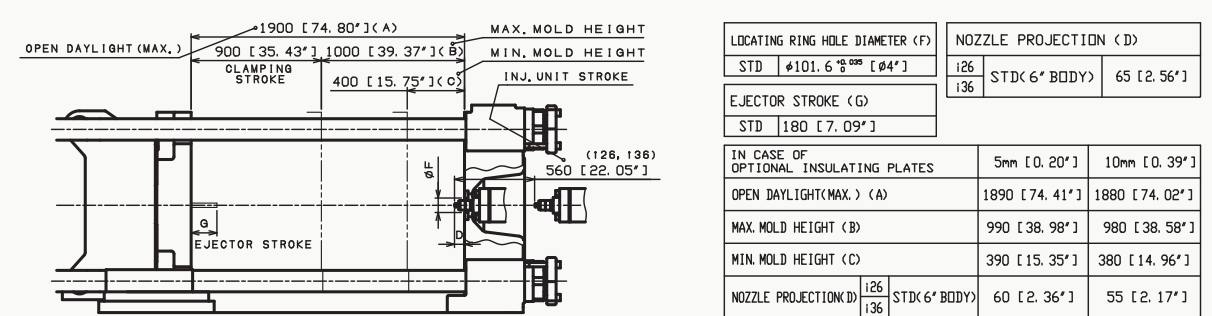


ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	A	B
1	378 [14.88"]	2578 [101.50"]
2	419 [16.50"]	2619 [103.11"]
3	460 [18.11"]	2660 [104.72"]

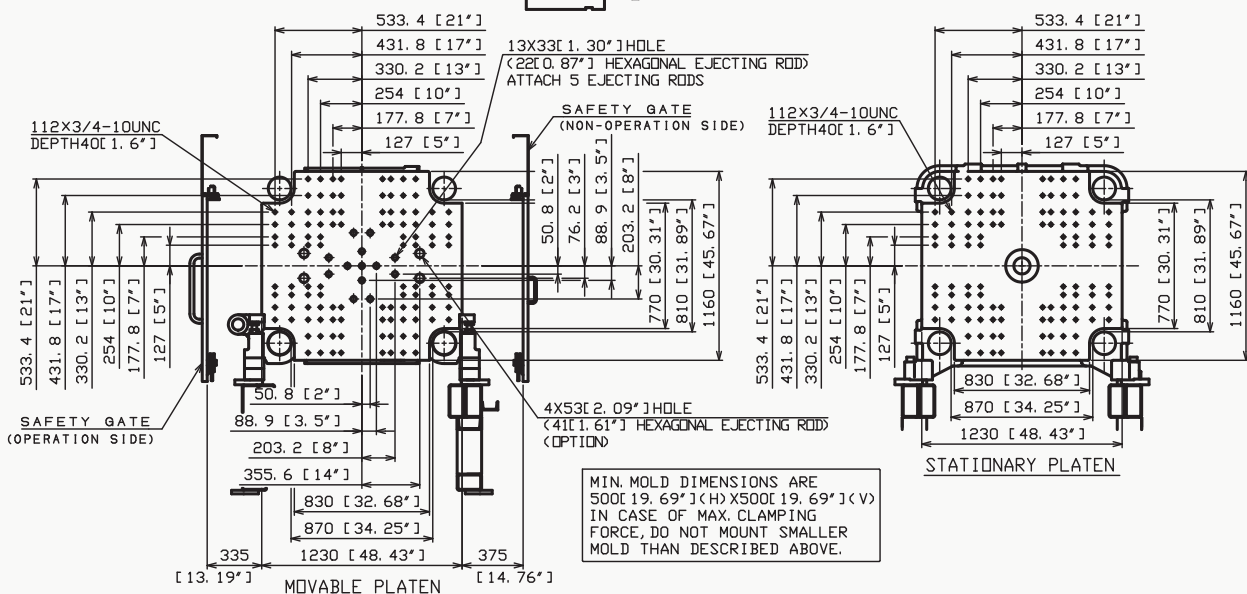
① DIMENSION MARK IS THE SPECIFICATION OF ANCHOR LOCKING FOUNDATION.



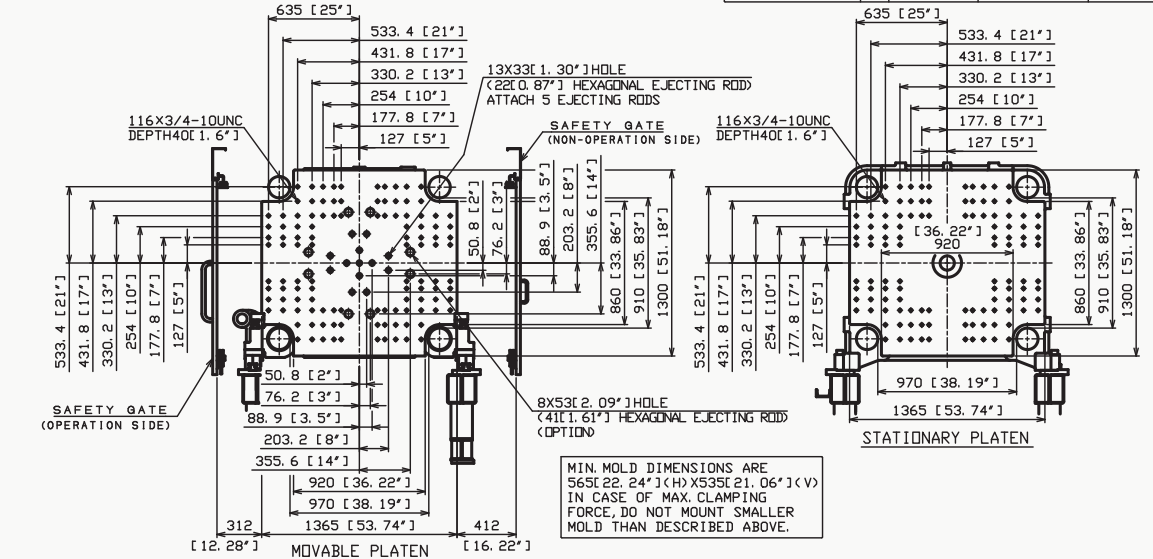
LOCATING RING HOLE DIAMETER (F)		NOZZLE PROJECTION (D)	
STD	φ101.6 <sup>+0.030</sup> [φ4"]	i17	STD(6" BODY) 65 [2.56"]
		i26	
		i36	
EJECTOR STROKE (G)		IN CASE OF OPTIONAL INSULATING PLATES	
STD	180 [7.09"]	5mm [0.20"]	10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)		1790 [70.47"]	1780 [70.08"]
MAX. MOLD HEIGHT (B)		990 [38.98"]	980 [38.58"]
MIN. MOLD HEIGHT (C)		340 [13.39"]	330 [12.99"]
NOZZLE PROJECTION (D)		i17	
		i26	STD(6" BODY) 60 [2.36"]
		i36	55 [2.17"]



LOCATING RING HOLE DIAMETER (F)		NOZZLE PROJECTION (D)	
STD	φ101.6 <sup>+0.030</sup> [φ4"]	i26	STD(6" BODY) 65 [2.56"]
		i36	
EJECTOR STROKE (G)		IN CASE OF OPTIONAL INSULATING PLATES	
STD	180 [7.09"]	5mm [0.20"]	10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)		1890 [74.41"]	1880 [74.02"]
MAX. MOLD HEIGHT (B)		990 [38.98"]	980 [38.58"]
MIN. MOLD HEIGHT (C)		390 [15.35"]	380 [14.96"]
NOZZLE PROJECTION (D)		i26	STD(6" BODY) 60 [2.36"]
		i36	55 [2.17"]



MIN. MOLD DIMENSIONS ARE 500 [19.69"] (H) X 500 [19.69"] (V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

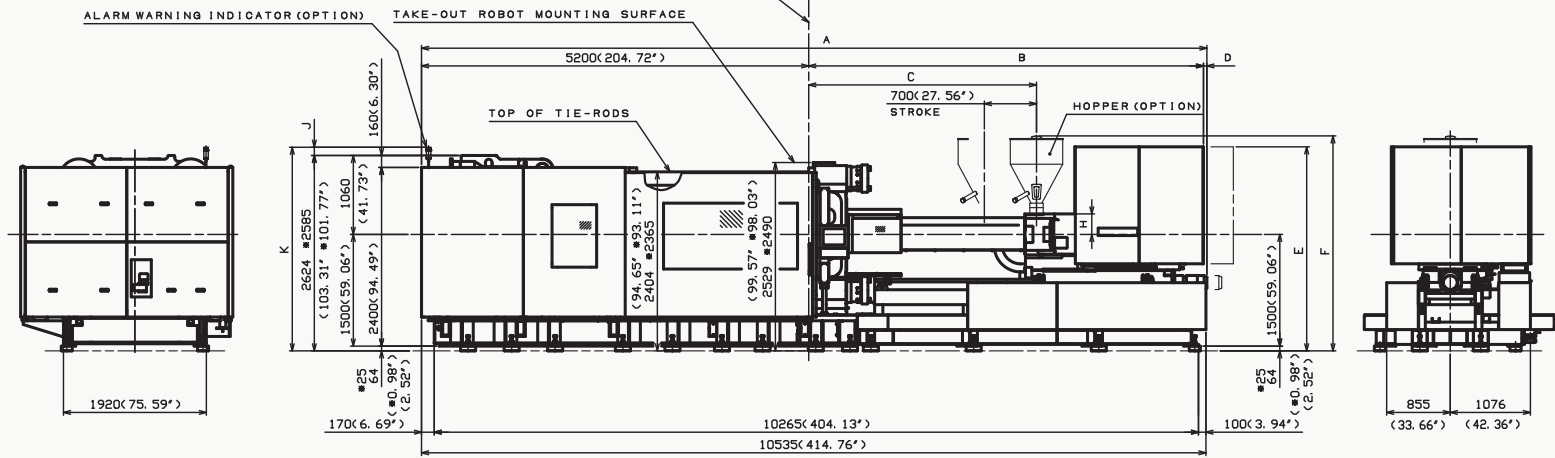
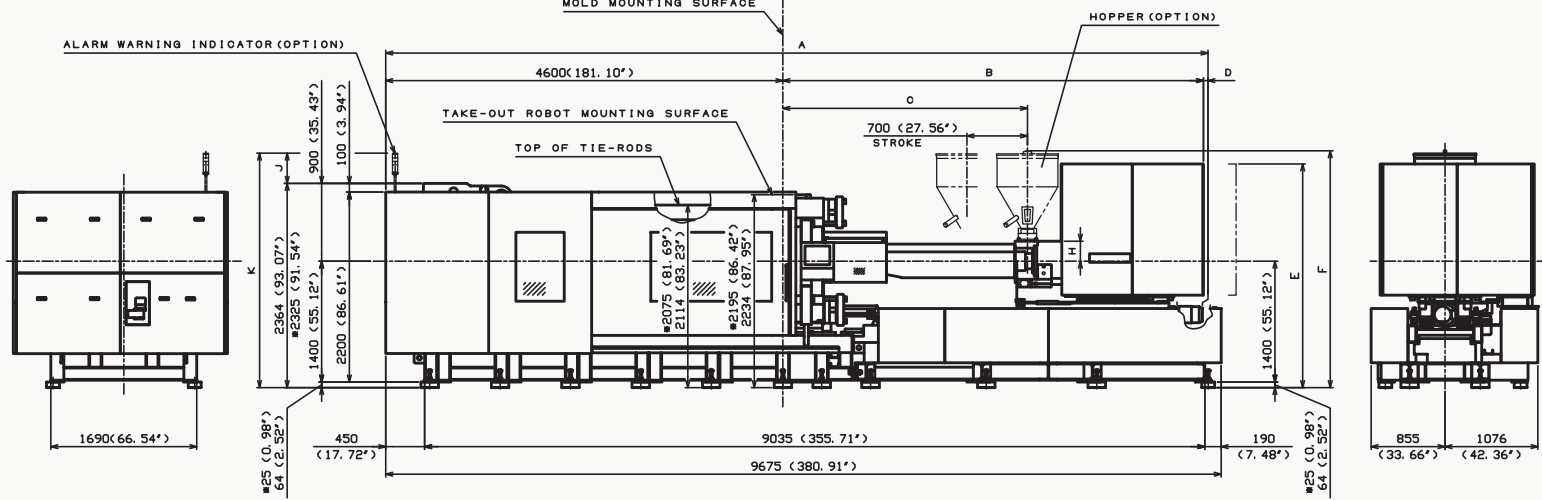
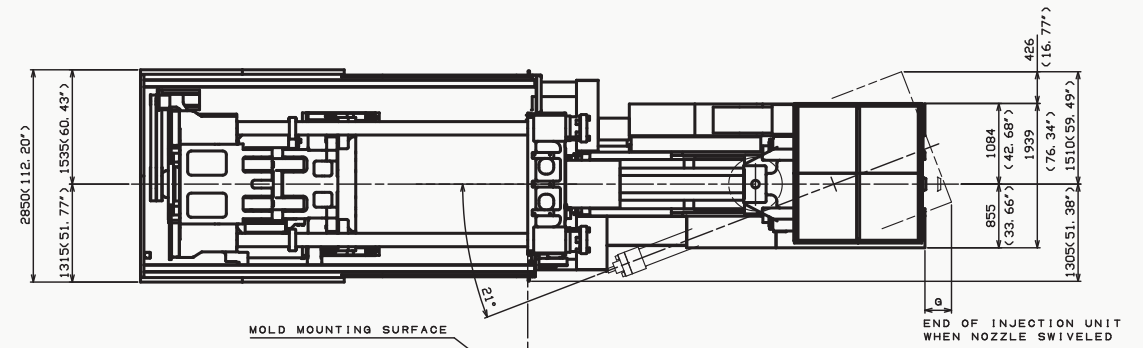
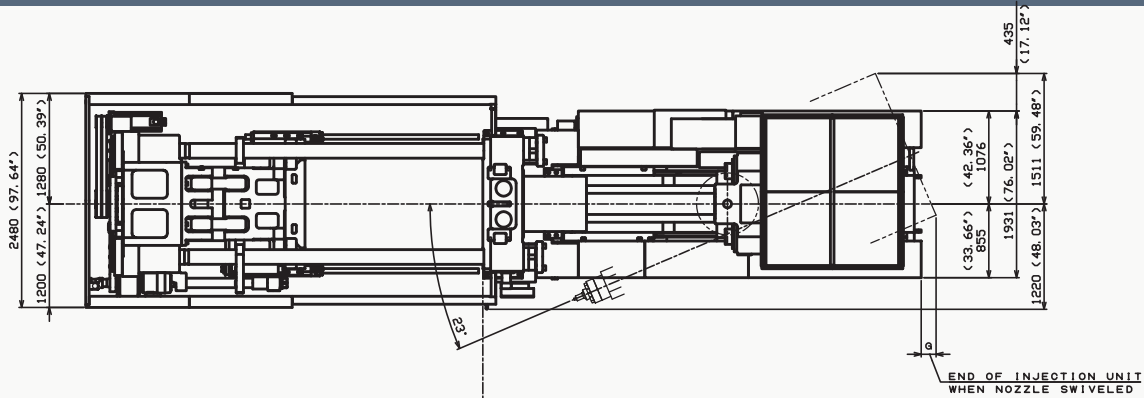


MIN. MOLD DIMENSIONS ARE 565 [22.24"] (H) X 535 [21.06"] (V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

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

# EC720SX

# EC950SX



INJECTION UNIT	A	B	C	D	E	F	G	H
61A	9470(372.83")	4870(191.73")	2832(111.50")	-11(-0.43")	2590(101.97")	#2551(100.43")	(2742(107.55") (#2703(106.42"))	1676(65.97")
61AT, B	9670(380.71")	5070(199.61")	3032(119.37")	-11(-0.43")	2590(101.97")	#2551(100.43")	(2742(107.55") (#2703(106.42"))	1676(65.97")
78A	9948(391.65")	5302(208.74")	3059(120.43")	46(1.81")	2640(103.94")	#2601(102.40")	(2787(109.72") (#2748(108.19"))	1778(69.97")
78AT, B	10248(403.46")	5602(220.55")	3359(132.24")	46(1.81")	2640(103.94")	#2601(102.40")	(2787(109.72") (#2748(108.19"))	1778(69.97")

ALARM WARNING INDICATOR (OPTION)	J	K
1	3651(143.73")	2729(107.44") #2690(105.91")
2	4051(159.49")	2769(109.02") #2730(107.48")
3	4501(177.22")	2814(110.79") #2775(109.25")

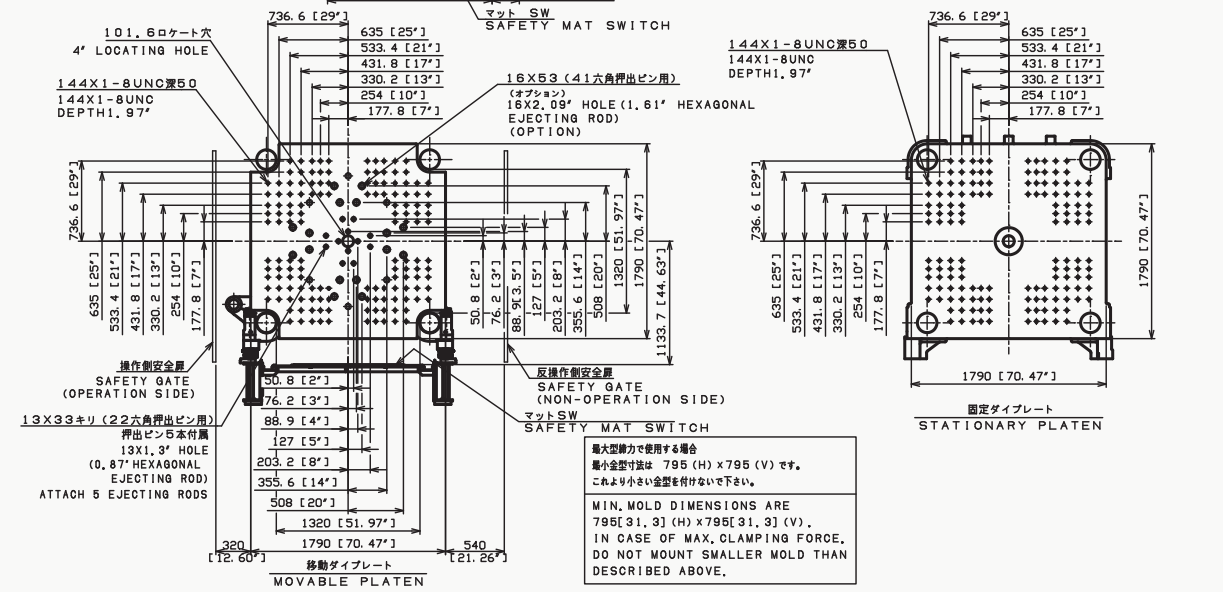
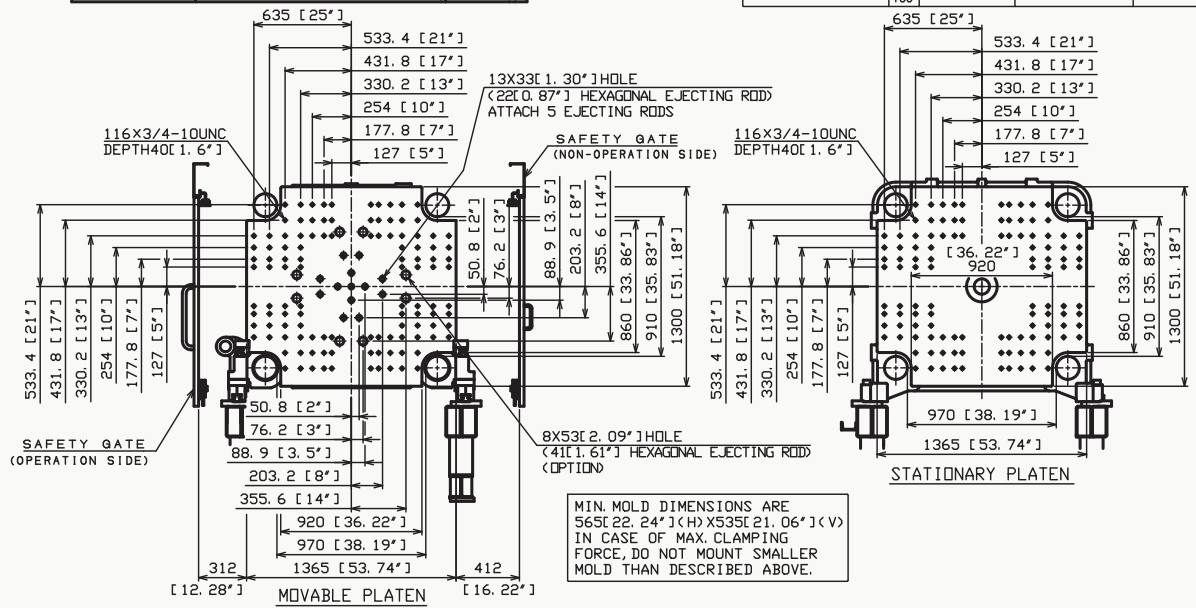
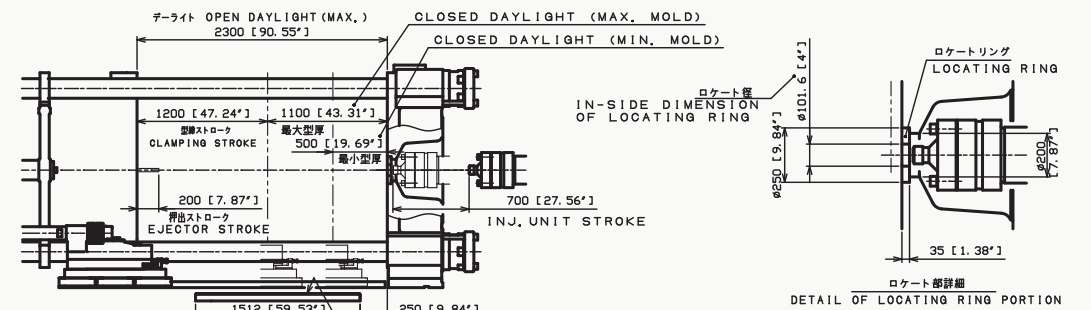
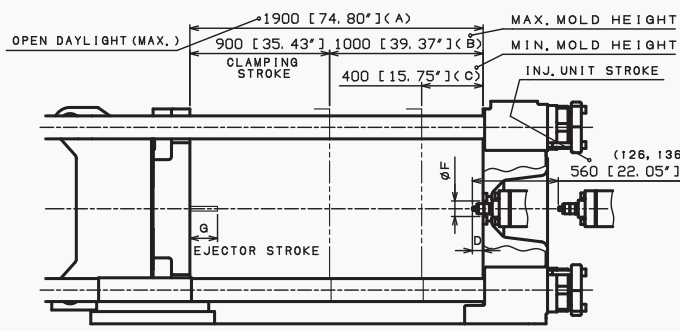
LOCATING RING HOLE DIAMETER (F)	NOZZLE PROJECTION (D)
STD #101.6 (+0.005 / #4")	#126 STD(6" BODY) 65 [2.56"]
EJECTOR STROKE (G)	#136 STD(6" BODY) 55 [2.17"]
STD 180 [7.09"]	

IN CASE OF OPTIONAL INSULATING PLATES	5mm [0.20"]	10mm [0.39"]
OPEN DAYLIGHT (MAX.) (A)	1890 [74.41"]	1880 [74.02"]
MAX. MOLD HEIGHT (B)	990 [38.98"]	980 [38.58"]
MIN. MOLD HEIGHT (C)	390 [15.35"]	380 [14.96"]
NOZZLE PROJECTION (D)	#126 STD(6" BODY) 60 [2.36"]	55 [2.17"]

INJECTION UNIT	A	B	C	D	E	F	G	H
61A	10070 (396.46")	4870 (191.73")	2832 (111.50")	-11 (-0.43")	2690 (#2651 (105.91") (#104.37"))	(2842) (#2803) (111.89") (#110.35") (-3.66")	-93 (3.66")	230 (9.06")
61B, AT	10270 (404.33")	5070 (199.61")	3032 (119.37")	-11 (-0.43")	2690 (#2651 (105.91") (#104.37"))	(2842) (#2803) (111.89") (#110.35") (4.21")	107 (4.21")	230 (9.06")
78A	10548 (415.28")	5302 (208.74")	3059 (120.43")	46 (1.81")	2740 (#2701 (107.87") (#106.34"))	(2887) (#2848) (113.66") (#112.13") (12.60")	320 (12.60")	275 (10.83")
78B, AT	10848 (427.09")	5602 (220.55")	3359 (132.24")	46 (1.81")	2740 (#2701 (107.87") (#106.34"))	(2887) (#2848) (113.66") (#112.13") (24.41")	620 (24.41")	275 (10.83")

ALARM WARNING INDICATOR (OPTION)		
NUMBER OF LAYERS	J	K
1	111 (4.37")	2735 (#2696) (107.68") (#106.14")
2	152 (5.98")	2776 (#2737) (109.29") (#107.76")
3	193 (7.60")	2817 (#2778) (110.91") (#109.37")

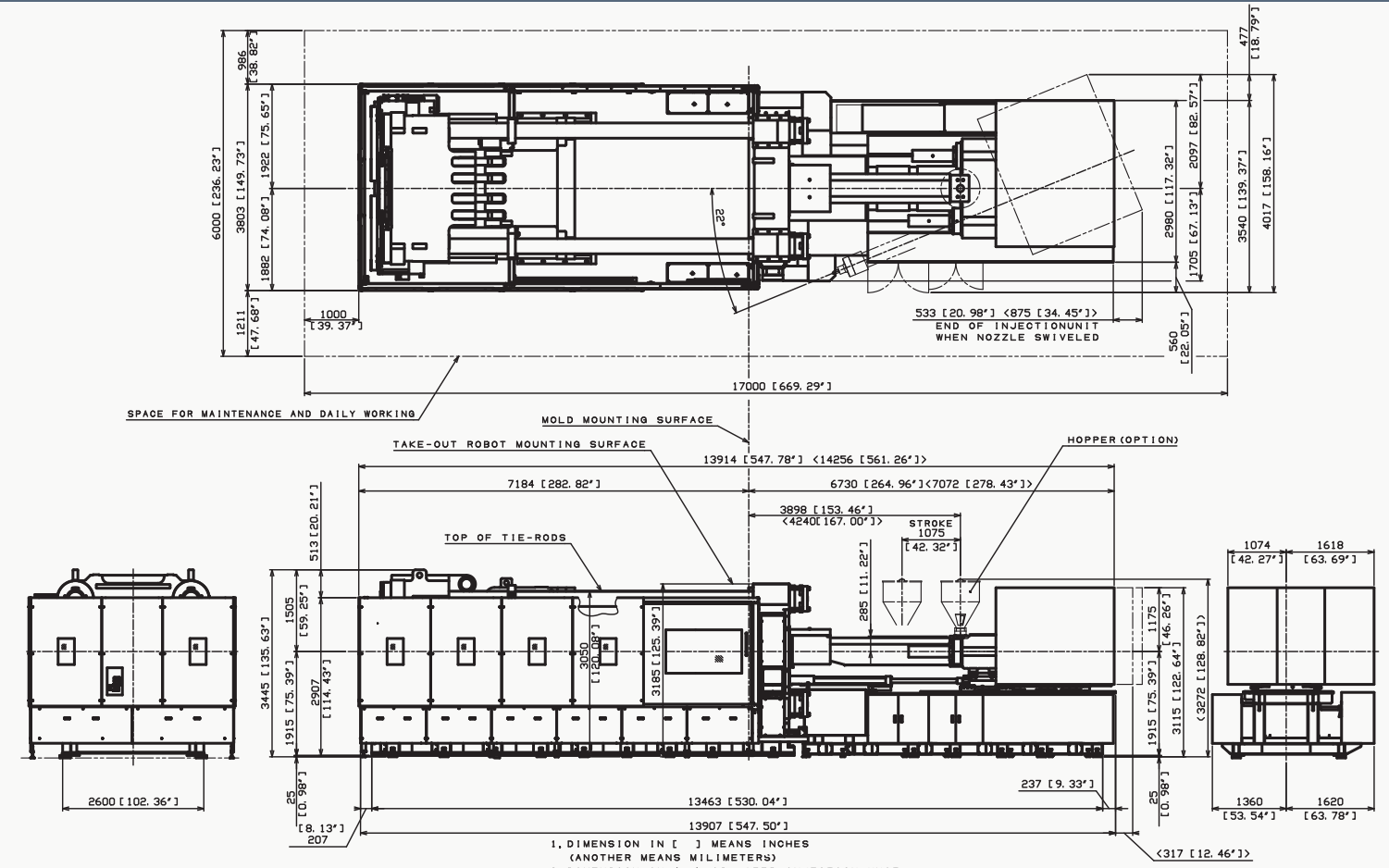
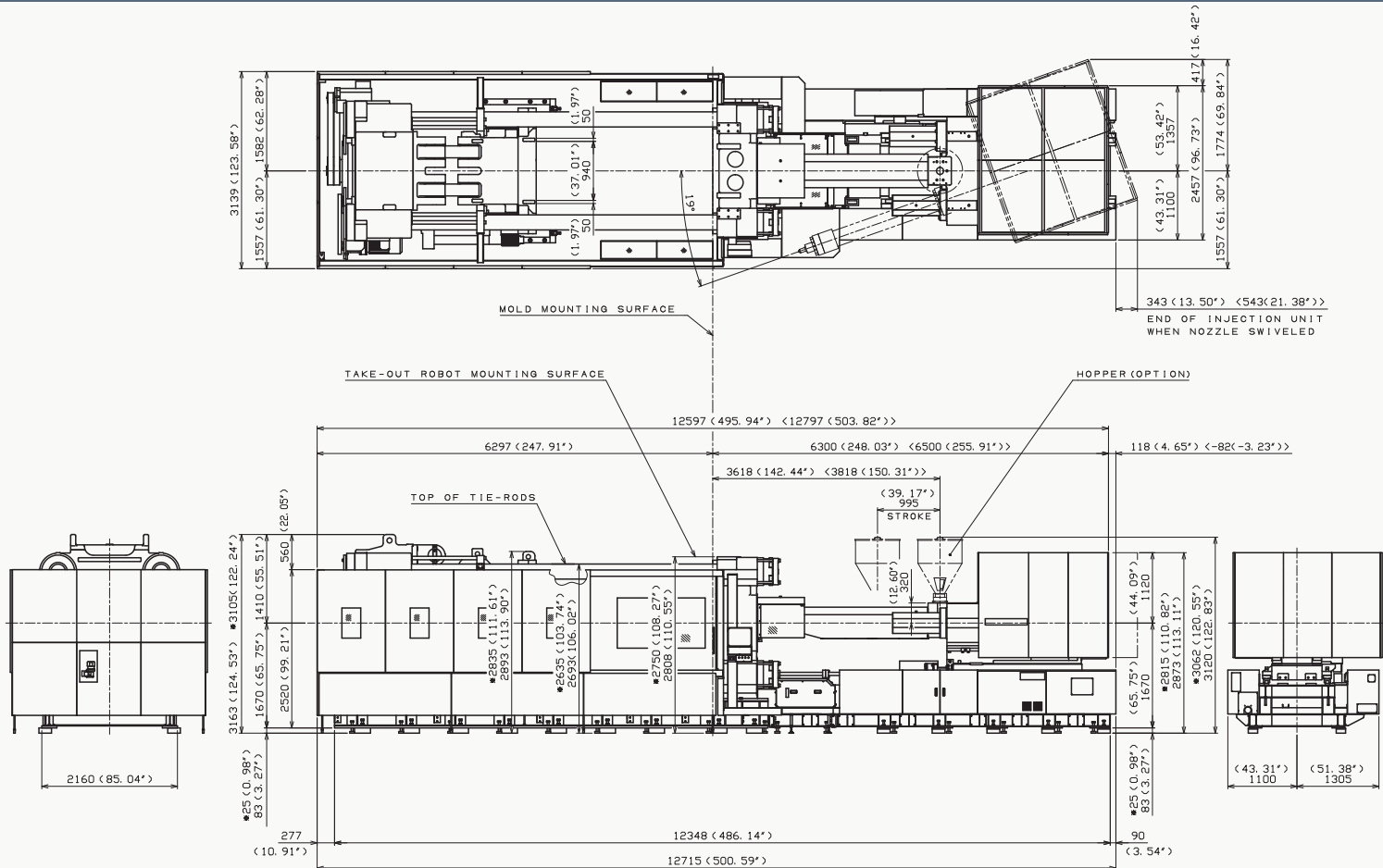


MIN. MOLD DIMENSIONS ARE 565(22.24") (H) X 535(21.06") (V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

MIN. MOLD DIMENSIONS ARE 795(31.3") (H) X 795(31.3") (V). IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.

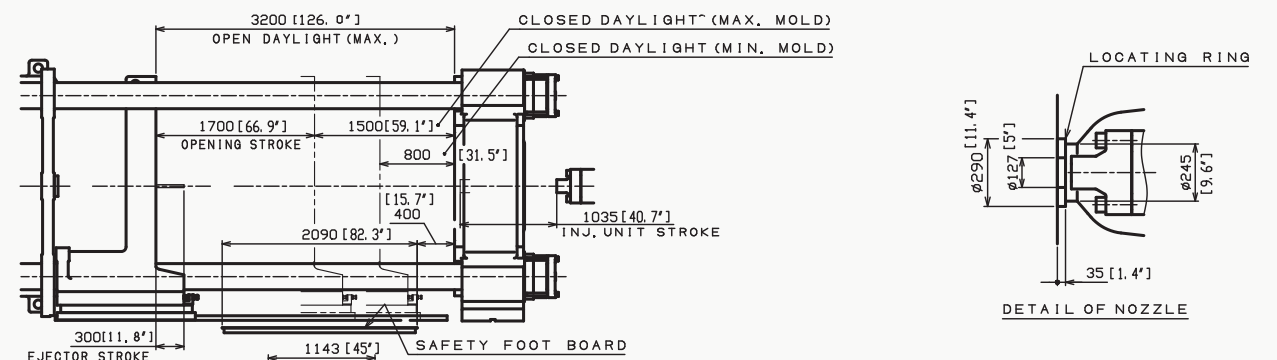
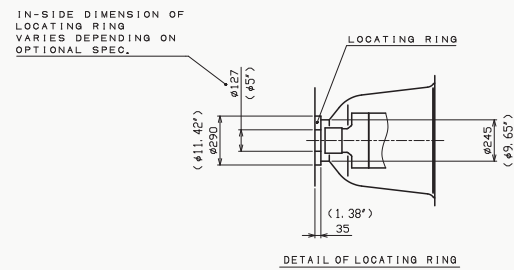
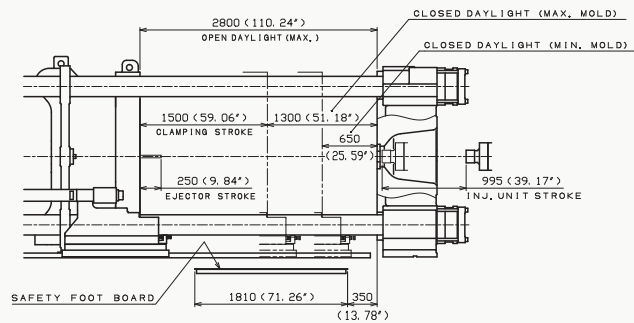
# EC1450SX

# EC1950SX

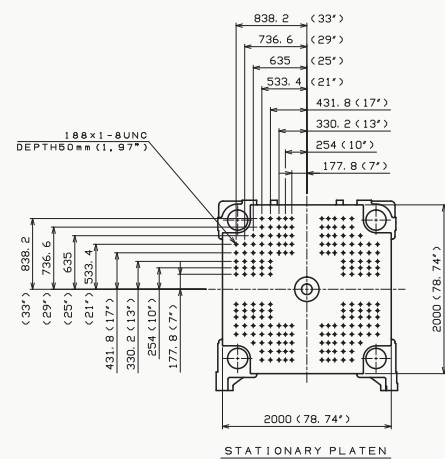
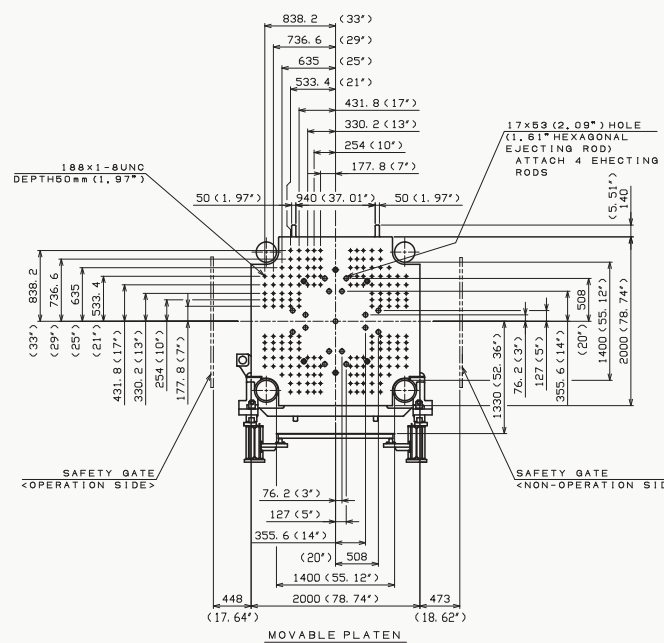


1. DIMENSION IN < > IS 1120B INJECTION UNIT.  
2. DIMENSION \*MARK IS THE FOUNDATION BOLT SPECIFICATION.

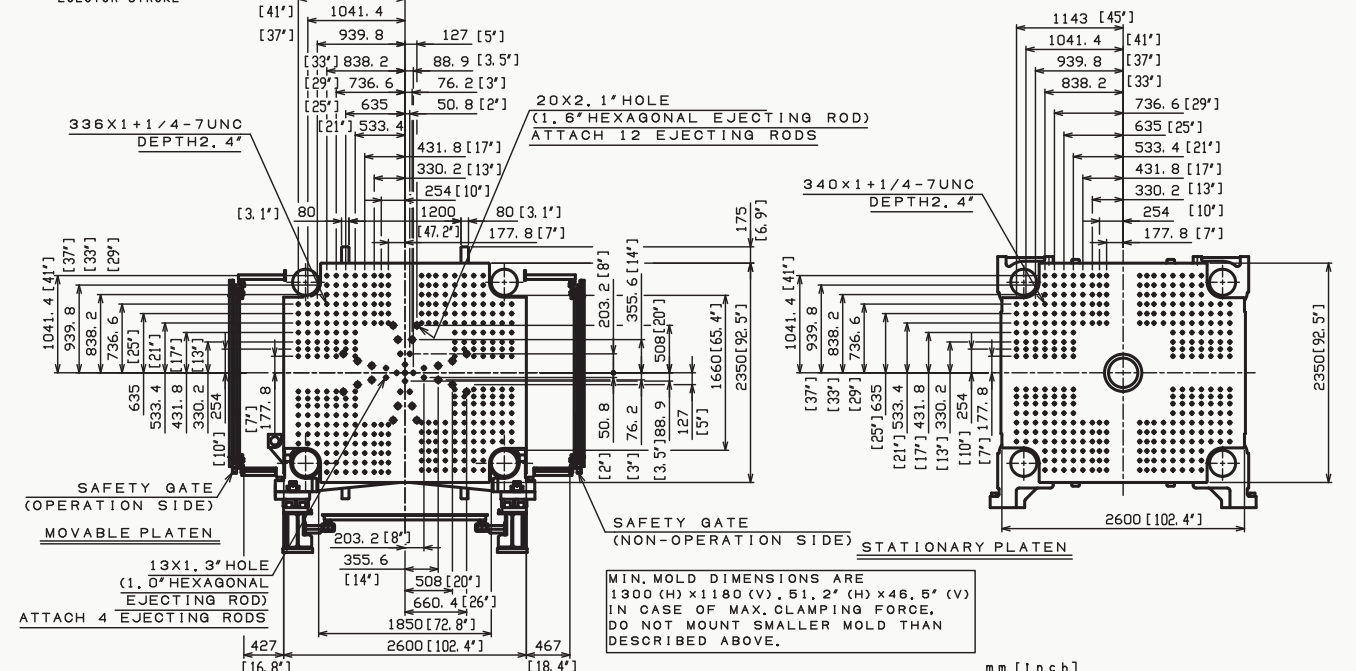
1. DIMENSION IN [ ] MEANS INCHES (ANOTHER MEANS MILLIMETERS)  
2. DIMENSION IN < > IS 1155B INJECTION UNIT



DETAIL OF NOZZLE



MIN. MOLD DIMENSIONS ARE 820(H)X820(V), (32.28"(H)X(32.28"(V)). IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.



MIN. MOLD DIMENSIONS ARE 1300(H)X1180(V), 51.2"(H)X46.5"(V) IN CASE OF MAX. CLAMPING FORCE, DO NOT MOUNT SMALLER MOLD THAN DESCRIBED ABOVE.