

Haitian **Mars II** Series

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Haitian **Mars²** Series
Specifications / Economy
600-5300KN



Haitian Partner:

HT 20140320-IV

Control system

Reliable technology from Taiwan.

Haitian Mars II Series

The Haitian Mars II Series Economy version uses a control technology from Taiwan which has been designed to perfectly fit the standard injection molding processes. The special twin CPU controller and the display are operating independently and provide a high reliability. The logic and clear structure of the functions make machine operation easy and convenient as well as user-oriented.

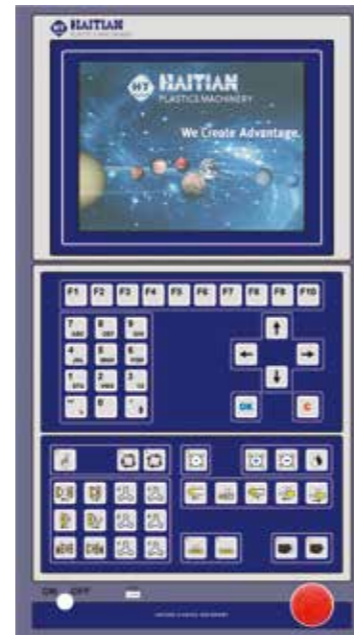
A high-speed 80-500 MHz CPU with 0.5 ms scan cycle time ensure faster system response and improves the machine performance and precision. A screen saving function extends the LCD display life.

Logically structured displays based on convenient indication of the machine operation and maintenance.

The data hardware interlock protects against unauthorized access for modifying the molding parameter and effecting the machines performance.

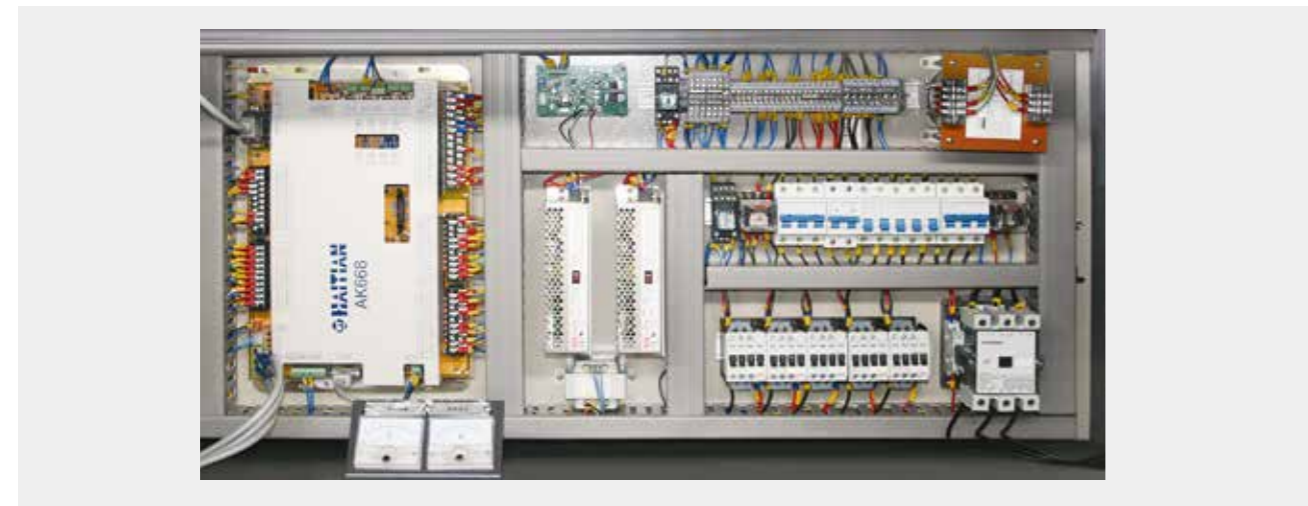
A closed loop barrel temperature control function guarantees the accurate and consistence temperature control up to 450°C.

All electrical control components are clearly arranged and connected, protected by dustproof and waterproof electrical cabinets



Special features

- » Robot interface
- » Unattended running operation lock switch
- » TFT color screen for graphic display (multi-language select (English, Chinese, Japanese)
- » Mold data storage (200 sets of internal mold memory)
- » Molding condition monitoring function
- » Abnormal alarm function
- » Barrel temperature monitoring function
- » Electric motor safety protection device
- » System hardware I/O testing function
- » 3 sets of power outputs for auxiliary equipment
- » Emergency stop safeguard device
- » Alarm light



Standard equipment & options

General

- » Haitian standard color
- » Optimized machine housing
- » Adjustable footpad
- » Extended nozzle
- » Spare parts
- » Professional machine tools

Clamping unit

- » 5-point double toggle system
- » Hydraulic, electrical safety gate interlock
- » Low pressure mold protection
- » Multi stage control of pressure, speed and position of mold open/close/ejection
- » Variable mode of ejector movement
- » Wear-resistant track of moveable platen
- » Cooling water manifold for mold cooling
- » 1 pair of hydraulic core puller from 600 kN till 4700 kN
- » 2 pairs of hydraulic core puller from 5300 kN
- » Adjustable supporting device for movable platen
- » Automatic central lubrication for toggles
- » Fast mold clamping with differential device
- » Automatic mold height adjustment
- » Chrome plated tie bar
- » Controlled mold opening and clamping
- » Controlled ejection
- » Robot Mechanical interface according to Euomap 18

Injection unit

- » Two drive cylinder for the stroke of injection unit(above 2000 kN)
- » Two drive cylinder for screw injection
- » Multi-stage installation of injection speed, pressure and Position
- » Multi-stage installation of holding pressure, time and speed
- » Multi-stage installation of charging speed, time and position
- » Adjusted back pressure during charging
- » Controlled transfer position of injection to holding pressure

- » Monitored starting /ending position of injection
- » Controlled injection process by stoke sensor
- » Suck back function before/after plasticizing
- » Nozzle protecting cover
- » Anti-slid barrel aluminum cover
- » Three retraction modes of injection unit
- » Self purging function
- » Efficient plasticizing device with strong torque motor
- » Free selection of variable screw sizes depending on application
- » Controlled temperature of barrel by PID
- » Ceramic heater bands (above 2800 kN))
- » Cooling device at the feeding throat
- » Nozzle alignment adjusting device
- » Prevented screw movement before completely heating up
- » Mechanical supporting device for barrel (above 5,300 kN)

Hydraulics

- » Efficient servo motor
- » Dynamic gear pump
- » By-pass oil filter
- » Oil tank with level control
- » Oil temperature alarm
- » Alarm in case of filter clogged (above 2500 kN)
- » Air breathing with filter for oil tank
- » Oil cooler

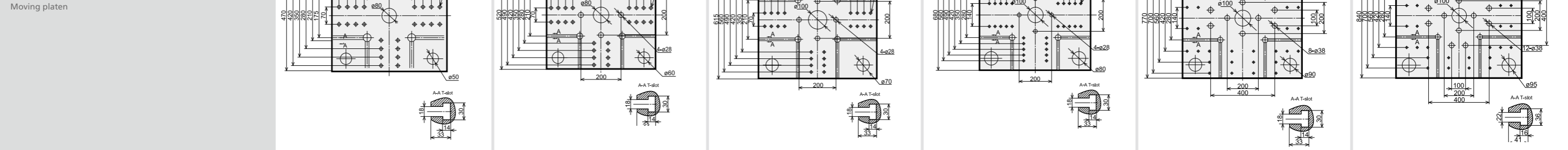
Options

- » Customized injection unit depending on application
- » Temperature controller for mold heating (with external Controller)
- » Spring shut-off nozzle
- » Air valve
- » Additional core puller
- » Heat insulating board for platen
- » Flow meter
- » Mold fixing pad
- » Accessory equipment

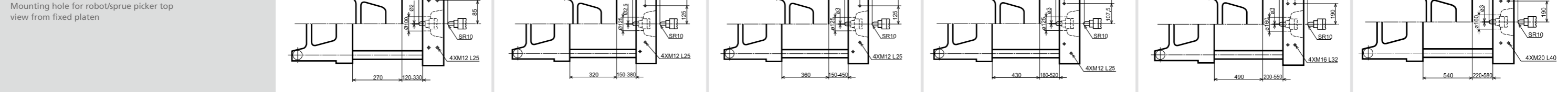
Specification

		MA600 II /130e		MA900 II /260e			MA1200 II /370e			MA1600 II /540e			MA2000 II /700e			MA2500 II /1000e		
		A	B	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
INJECTION UNIT																		
Screw diameter	mm	24	28	32	36	40	36	40	45	40	45	50	45	50	55	50	55	60
Screw L/D ratio	L/D	23.3	20	22.5	20	18	23.3	21	18.7	22.5	20	18	22.2	20	18.2	22	20	18.3
Shot size (theoretical)	cm ³	50	68	121	153	188	173	214	270	253	320	395	334	412	499	471	570	679
Injection weight (PS)	g	46	62	110	139	171	157	195	246	230	291	359	304	375	454	429	519	618
Injection rate (PS)	g/s	51	70	77	98	121	95	117	148	117	148	183	148	182	221	165	200	238
Injection pressure	MPa	243	179	218	173	140	210	171	135	215	169	137	210	170	141	215	178	149
Plasticizing rate (PS)	g/s	6	8.6	10.1	13.3	16.1	13.3	16.2	21.5	17	22.6	28.4	21.5	27	33	27.6	33.8	40
Screw speed	rpm	0-290		0-230			0-205			0-205			0-180			0-170		
CLAMPING UNIT																		
Clamp tonnage	kN	600		900			1200			1600			2000			2500		
Toggle stroke	mm	270		320			360			430			490			540		
Space between tie bars	mm	310×310		360×360			410×410			470×470			530×530			580×580		
Max. mold height	mm	330		380			450			520			550			580		
Min. mold height	mm	120		150			150			180			200			220		
Ejector stroke	mm	70		100			120			140			140			150		
Ejector force	kN	22		33			33			33			62			62		
OTHERS																		
Max. pump pressure	MPa	16		16			16			16			16			16		
Pump motor power	kW	7.5		11			13			15			18.5			22		
Heater power	kW	5.2		6.3			9.95			9.95			14.3			17.1		
Machine dimension (l x w x h)	m	3.75×1.05×1.87		4.4×1.13×1.91			4.88×1.20×2.03			5.4×1.30×2.08			5.9×1.43×2.16			6.42×1.48×2.18		
Machine weight	t	2.5		3.5			4.35			5.65			7.1			8.4		
Hopper capacity	kg	25		25			25			25			50			50		
Oil tank capacity	l	170		190			255			300			350			455		

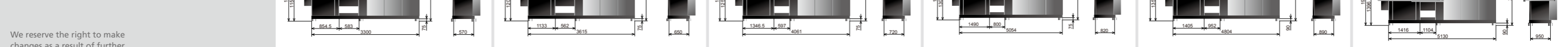
Platen dimensions



Platen dimensions



Machine dimensions

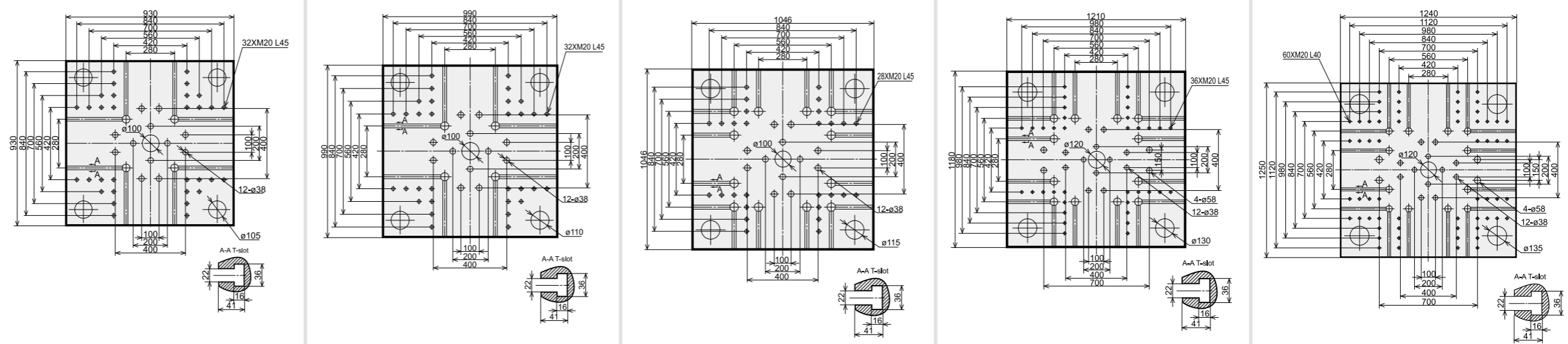


We reserve the right to make changes as a result of further technical advantages.

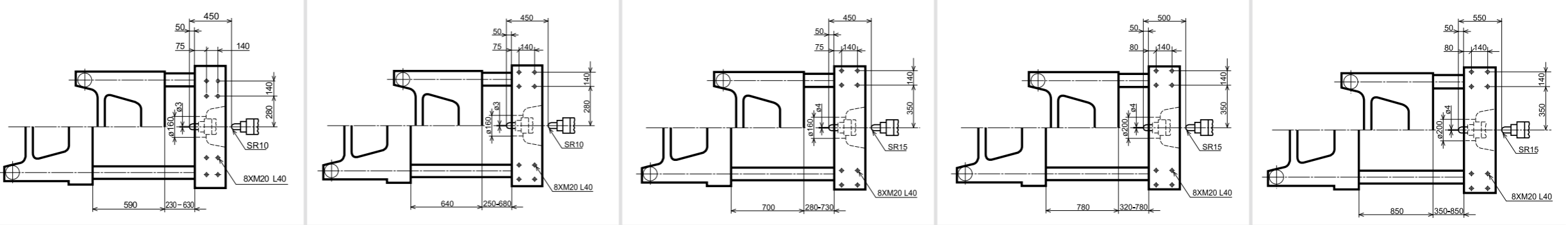
Specification

		MA2800 II /1350e			MA3200 II /1700e			MA3800 II /2250e				MA4700 II /2950e				MA5300 II /4000e			
		A	B	C	A	B	C	A	B	C	D	A	B	C	D	A	B	C	D
INJECTION UNIT																			
Screw diameter	mm	55	60	65	60	65	70	65	70	75	80	70	80	84	90	80	85	90	100
Screw L/D ratio	L/D	21.8	20	18.5	21.7	20	18.6	21.5	20	18.7	17.5	22.9	20	19.1	17.8	22	20.7	19.6	17.6
Shot size (theoretical)	cm ³	618	735	863	792	929	1078	1068	1239	1423	1619	1424	1860	2050	2354	2212	2497	2799	3456
Injection weight (PS)	g	562	669	785	721	845	981	972	1127	1295	1473	1296	1693	1866	2142	2013	2272	2547	3145
Injection rate (PS)	g/s	232	276	324	286	335	389	289	335	385	438	361	471	519	596	490	553	620	766
Injection pressure	MPa	219	184	157	213	182	157	211	182	158	139	207	158	143	125	180	159	142	115
Plasticizing rate (PS)	g/s	41.4	49.1	54.6	51.1	56.7	64.4	50.6	58.1	65.7	72.9	55	72.5	79.6	90	62.5	69	78.6	96
Screw speed	rpm	0-230			0-225			0-190				0-170				0-140			
CLAMPING UNIT																			
Clamp tonnage	kN	2800			3200			3800				4700				5300			
Toggle stroke	mm	590			640			700				780				850			
Space between tie bars	mm	630×630			680×680			730×730				820×800				840×830			
Max. mold height	mm	630			680			730				780				850			
Min. mold height	mm	230			250			280				320				350			
Ejector stroke	mm	150			160			180				200				220			
Ejector force	kN	62			62			110				110				158			
OTHERS																			
Max. pump pressure	MPa	16			16			16				16				16			
Pump motor power	kW	30			37			37				45				55			
Heater power	kW	19.95			22.95			28.2				31.5				42.35			
Machine dimension (l × w × h)	m	6.53×1.64×2.35			7.01×1.7×2.35			7.46×1.84×2.35				8.15×1.99×2.4				9.27×2.04×2.74			
Machine weight	t	11			13.2			15				19				26			
Hopper capacity	kg	50			50			50				50				100			
Oil tank capacity	l	580			690			690				830				940			

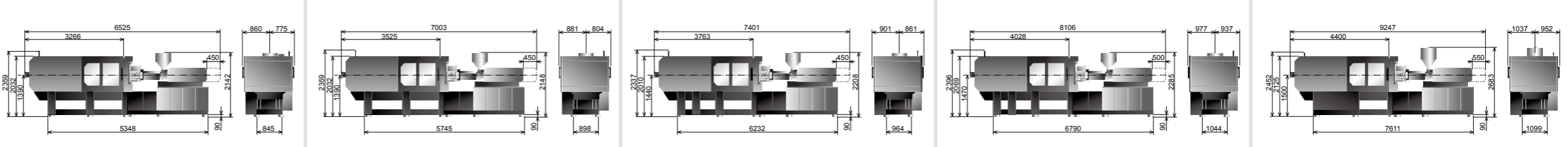
Platen dimensions
Moving platen



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



Machine dimensions



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