

SRC

Injection Moulding Machines
60 - 2100 Ton



New Generation - Energy Efficient

Ultra
Competitive
Prices
*Fast Delivery
Times*

- Energy Saving Technology
- Strong & Reliable
- Fast & Quite
- Precise & User Friendly

50 YEARS OF EXPERIENCE

For more than 50 years, Sarac Plastics Technologies installed most reliable plastic processing machines worldwide with dependable service and competitive prices. This customer satisfaction has earned Sarac reputation as one of the world's leading supplier in plastic machinery industry. With its factory stretching to an area of 5.000 m² and team consists of 30 engineers and technicians, Sarac values the consciousness to provide solution for manufacturing problems of its customers over standard product selling policies.

Since 2008, Sarac manufactures high tech European standards injection moulding machines with a wide product range from 60 ton to 2100 ton, with proven high quality European brand components. Sarac can provide high speed and energy saving injection moulding machines, high precision injection moulding machines, and other individual injection moulding machines. These injection moulding machines are exported to worldwide with the best after sales services.

Throughout the past half century, and into the next, this commitment to customer satisfaction will continue to be the foundation for our success.



SRC ServoTech SERIES

60 - 2100 Ton ENERGY SAVING INJECTION MOULDING MACHINES



In addition to standard injection moulding machines, with clamping force ranging between 600 and 21000 kN, we can provide variable pump and servo pump drive injection moulding machines which are optimized with servo energy-saving technology. These machines provide improved efficiency and will save 30% - 80% energy.

- Servo energy saving technology
- Proven high quality European brand components
- Fast cycles
- Easy maintenance
- CE Certified

SRC Energy saving injection moulding machines keep plastic manufacturers in the lead by offering competitive solutions including packaging, automotive and houseware industries. With the proven modular design of the SRC, Sarac engineers can quickly provide effective real-world solutions for any application. Our experts guide you through the process from machine selection and optimization, through part design, to complete process solutions – including mold, automation and auxiliary equipment.

ADVANTAGES OF SERVO MOTOR TECHNOLOGY

Energy Saving: Between 30% - 80% of energy input is saved.

Quick Response: The drive system requires only 0.005 seconds to reach the maximum power output.

Reduced Heat Generation: The system only delivers hydraulic oil when it is needed.

Reduced Energy Consumption: Servo motor rpm adapts according to need from 0 to 3000 rpm.

Noise Reduction: Quiet gear pump & variable speed operations can be utilised when required

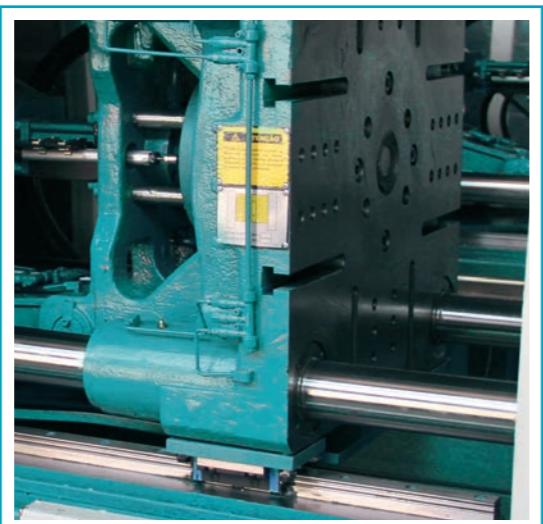
Reliable Holding Pressure - During holding pressure, servo motor slows down rotation and consumes low energy.

SERVO ENERGY SAVING

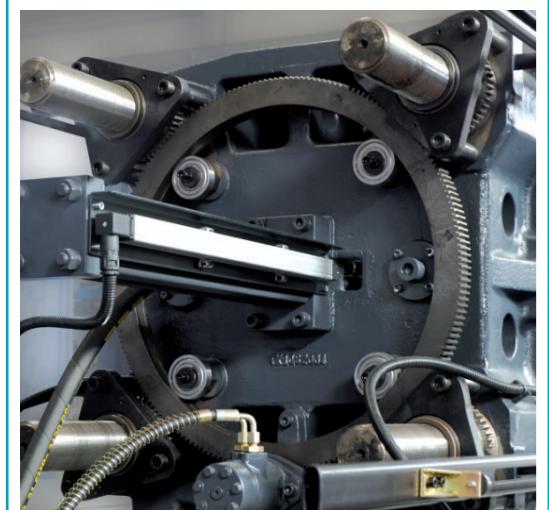
Quality is our sign on every machine we supply...

Clamping Unit

T slot mould platen
5 Points vertical double toggle clamp mechanism
Quick automatic mould height & tonnage setting on screen
Mould height adjustment with hydraulic motor
Precision, low pressure and fast mould adjustment
Mechanical, hydromechanical, electric safety system
4 Stage mould open/close pressure & speed control
Precision mold protection function
Automatic door ($\geq 800T$)
Intensified wear-resistant supporting tracks for movable platen
Mould cooling water flow regulator
2 pcs core valves (4 pcs core valves for 570 Ton - 2100 Ton)
2 pcs air valves (4 pcs air valves for 570 Ton - 2100 Ton)
Multi stage, multi function hydraulic ejection control
Automatic central lubrication system
High speed mould closing function
Linear transducer for accurate clamp position control

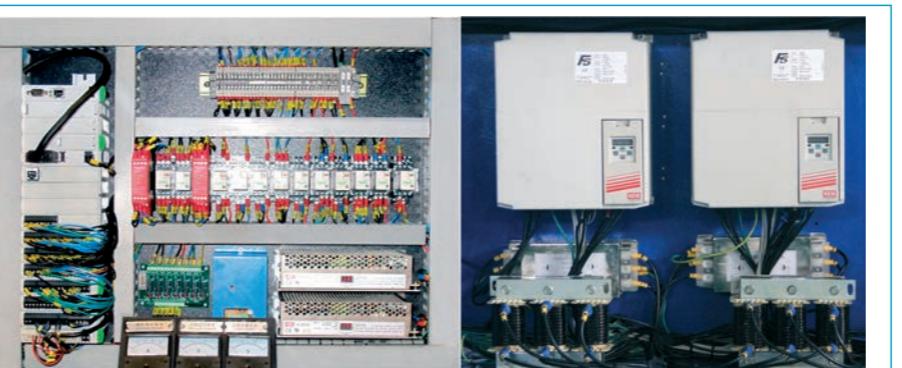


T-slot &
Thread



Electronics

KEBA, GEFTRAN, TECHMATION Controller Units
10.4" TFT Color Screen for graphic display
Dynamic monitor of actual machine operation
Unlimited mould data memory
Precise errors indication and alarm function
NOVOTECHNIK transducer (German)
8 different languages: English, German, Turkish, Chinese, Spanish, Portuguese, French, Arabic.
KEB Driver (German)
Barrel temperature monitoring function
Automatic purge function
Unattended running operation lock switch



Injection Unit

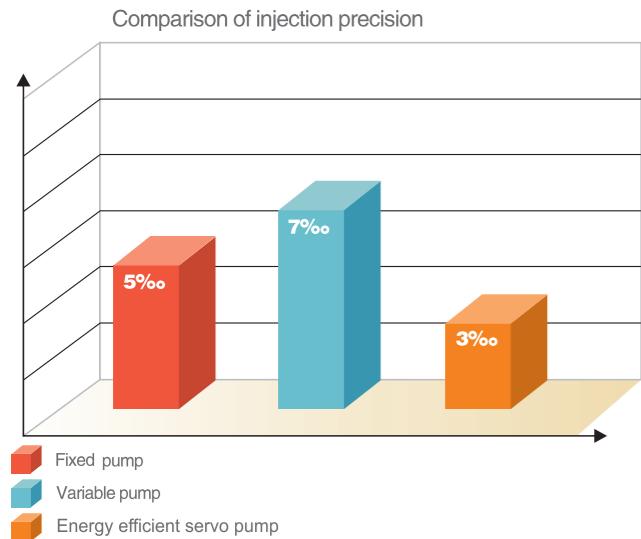
Double cylinder balanced injection system
Twin cylinder injection unit control ($\geq 170t$)
6 Stage injection pressure and speed control
5 Stage injection hold pressure control
5 Stage pressure, speed and time control for plasticizing
Injection cushion position monitoring function
High L/D ratio screw design
Linear transducer for accurate injection position control
Cold start protection
Purge cover (with safety switch)
Automatic purge function
High torque motor for screw plasticization
Suck back function
Mechanical support for injection barrel (≥ 570 Ton)
Wide choice of injection units with A-B-C screw/barrel
Bimetal screw
Pre-suck back function
Ceramic heating bands
SSR temperature control
Stand by (keep warm) control
Weekly pre heating scheduling
Auto-start barrel heating function
Nozzle centering alignment function



Hydraulics

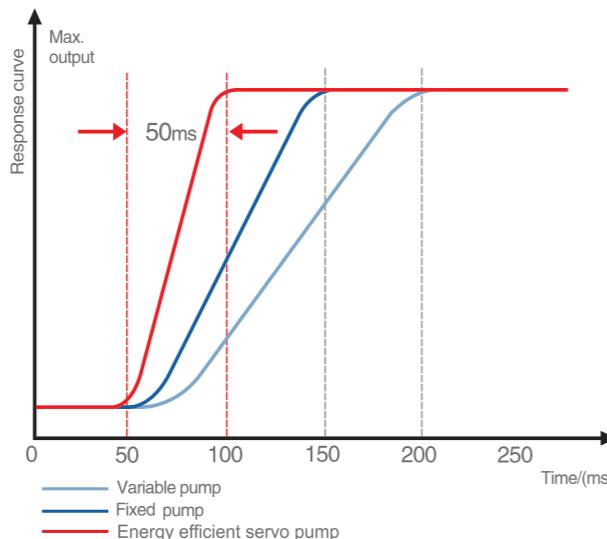
BOSCH - REXROTH, VICKERS Hydraulic components
BOSCH - REXROTH Servo System (optional)
Core in/out, pressure, speed, and position settings
German Eckerle Servo pump
Pressure transmitter
Oil temperature upper and lower limit alarm
Oil temperature temperature alarm
Pressure and flow proportional control
Oil tank air filter
Oil tank level
System pressure gauge
Injection & back pressure gauge
By pass oil filter

PRECISION TOLERANCE COMPARISON



The precision of processing tolerances to produce the plastic parts will be greatly improved by using the energy-saving ServoTech, instead of using traditional hydraulic machines using either a fixed or variable pump. The optimized rate of repeated qualified parts is around 40-130%

QUICK RESPONSE OF SERVO MOTOR

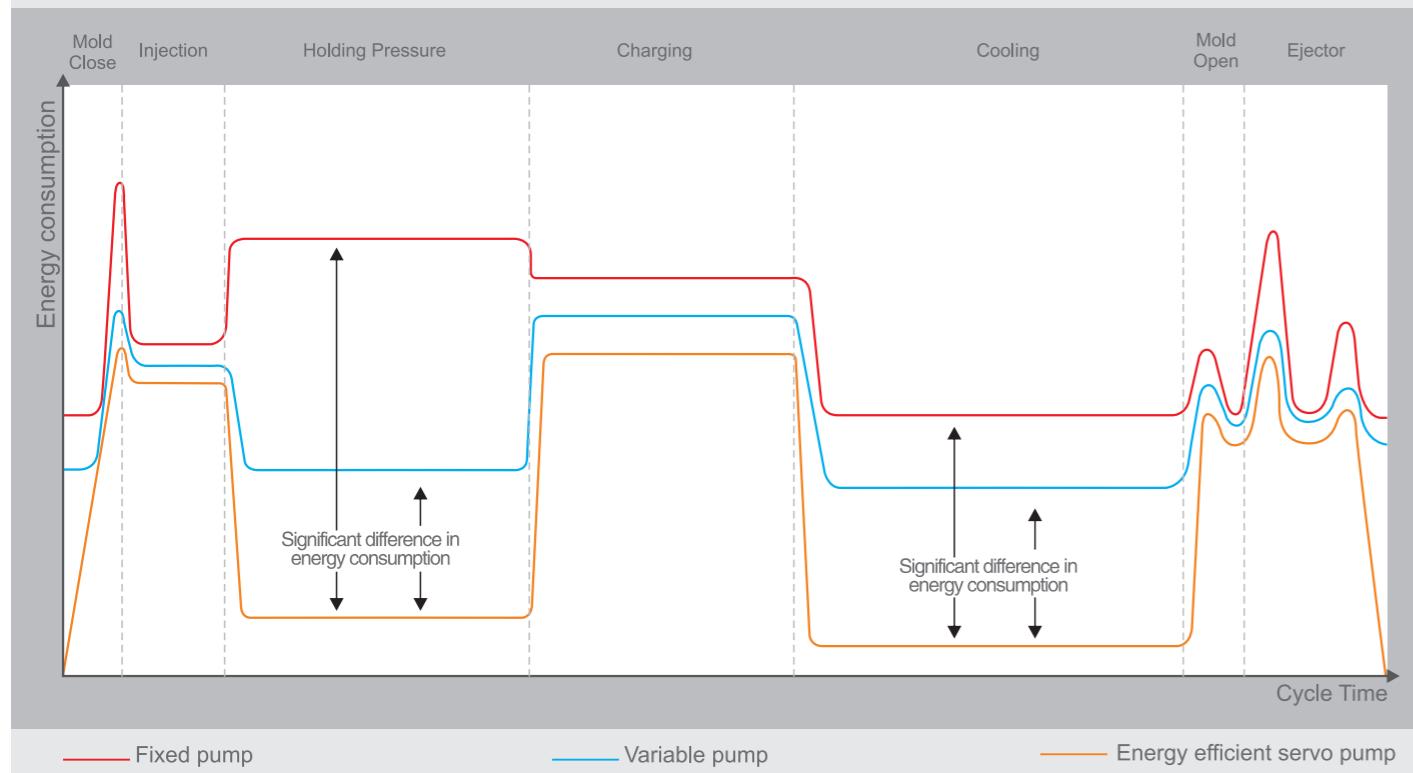


The response time of the drive system is very fast. It requires only 0.005 sec. to reach the maximum power output. Cycle time is substantially shortened comparing with the plastic parts production by traditional hydraulic injection molding machines. The efficiency is improved significantly.

Standard Parts

- KEB Driver (Germany)
- ECKERLE or SUMITOMO pump (Servo) (Germany / Japon)
- BOSCH - REXROTH, VICKERS Hydraulic valves (Germany / U.S.A)
- BOSCH - REXROTH, VICKERS Pumps (Germany / U.S.A)
- NOVOTECHNIK Transducer (Germany)
- FESTO Pneumatic System (Germany)
- SCHNEIDER Electric components (France)
- CALZONI Hydraulic Motor ($\geq 650T$) (Italy)
- INTERMOT Hydraulic Motor (Italy)
- YUKEN Proportional valve (Japan)
- Robot Interface Euromap 67
- KEBA and GEFRAN controller units
- I/O Testing function
- SSR temperature control
- 2 Pcs core valves (4 pcs core valves for 570 Ton - 2100 Ton)
- 2 Pcs air valves (4 pcs air valves for 570 Ton - 2100 Ton)
- 1 Pcs core valve function with electrical
- Proportional valve for mold open/close control
- Water regulator
- Pressure transmitter
- Ceramic heater bands
- T-Slot mould platen
- Suck back function
- Automatic purge function
- Double-cylinder balanced injection system
- 6 Stage injection pressure/ speed control
- 5 Stage injection hold pressure control
- 5 Stage pressure, speed and time control for plasticizing
- Injection cushion position monitoring function
- Fast mould closing function
- Automatic mold adjustment
- Unlimited mould data memory
- High precision mould protection function
- Multi ejector system
- Central lubrication level and pressure switches
- Oil high and low temperature alarm
- Oil level switch
- By pass oil filter
- Photo sensor
- Mould cooling water flow regulator
- Phase sequences and phase protection relay
- Door safety relay
- Mechanical, hydromechanical and electric safety system
- Electric stabilizer
- USB port data connecting
- Adjustable machine leveling function
- Customized color (free)

ENERGY-SAVING MACHINES



Available Options

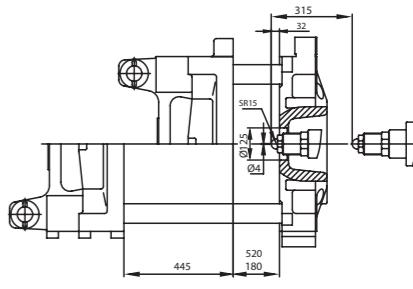
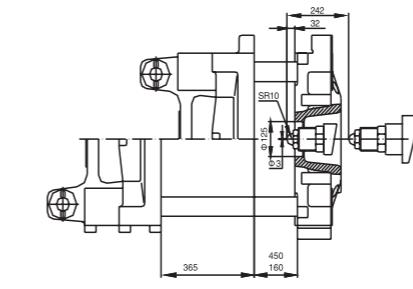
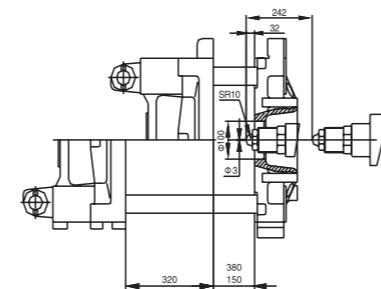
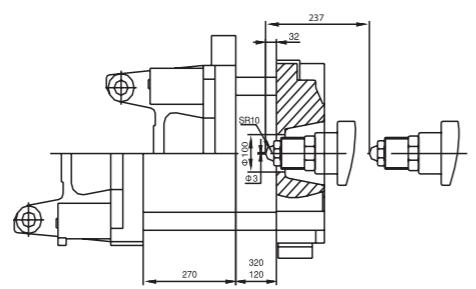
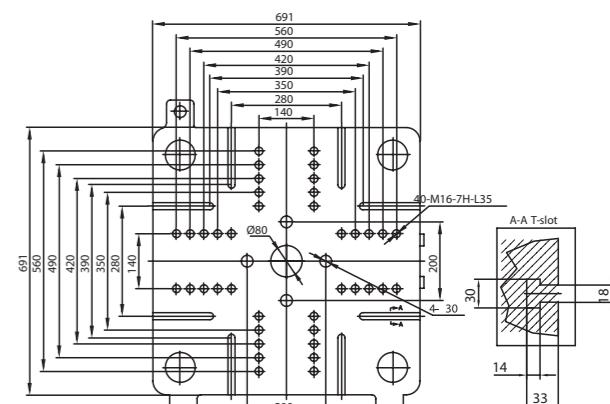
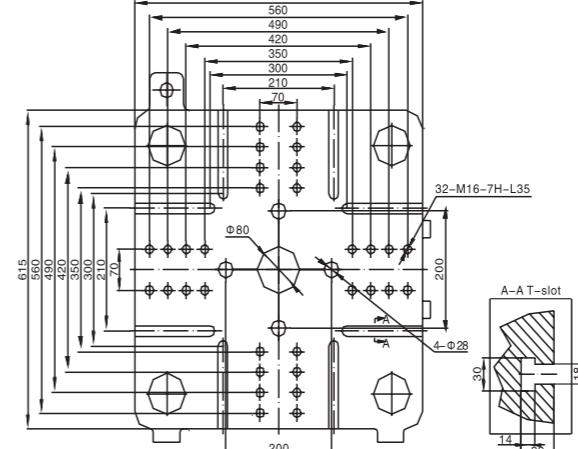
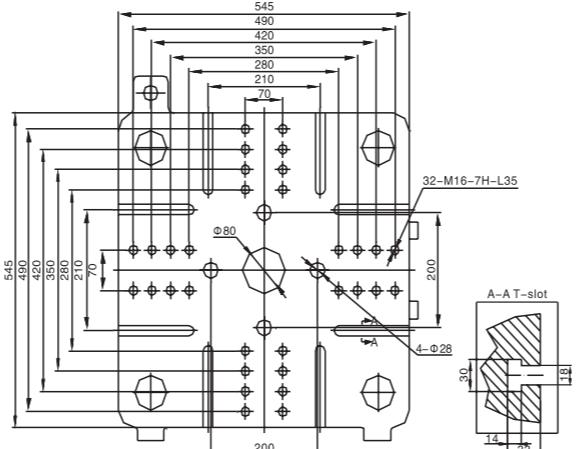
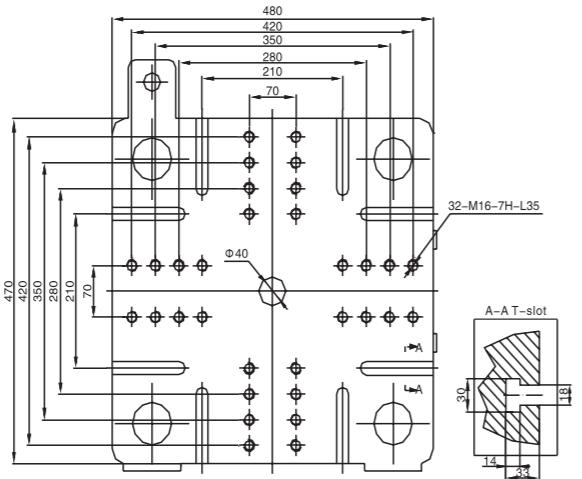
- Variable pump
- Ejector movement function at mold opening
- Parallel movement control
- Accumulator for fast injection
- Sequential valve gate controller
- Suck back proportional
- Hydraulic or pneumatic shut off nozzle
- Solenoid valve for oil cooling
- Oil pre-heating function
- Heater Insulation Jacket for Injection Unit
- Core/ejection parallel with mould
- Clamping unit/injection unit combinations for specific applications
- Special screw designs for PVC, PET, PC production
- Mould temperature control
- Heat isolation plates
- Material dehumidifier
- Hopper dryer
- Hopper loader

Spare Parts

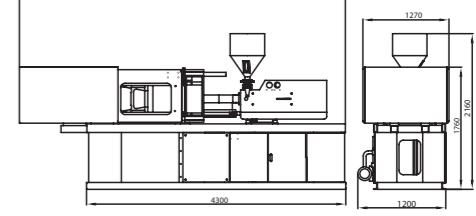
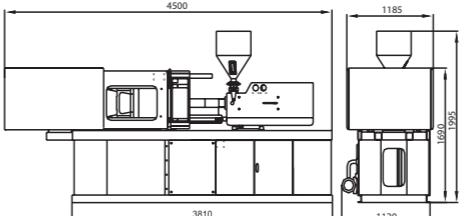
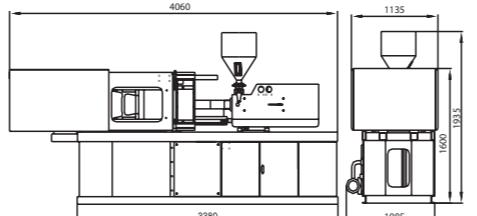
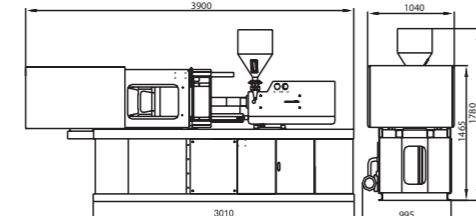
- 1 pcs rocket, ring set
- 1 Set various O-rings
- 1 pcs extended Nozzle
- 1 pcs heather bands
- 1 pcs nozzle key
- 1 pcs ceramic resistance
- 1 pcs lubrication oil
- Professional tools
- Manual for machine and PLC system
- Set of 8 mold clamps for T-Slot or thread

DESCRIPTION	SRC 60 / 160 S	SRC 90 / 240 S	SRC 130 / 360 S	SRC 160 / 550 S
CLAMPING UNIT				
Clamping force	kN	600	900	1300
Toggle Stroke	mm	270	320	365
Space between tie bars	mm	310x310	365x365	412x412
Platen dimensions(H x V)	mm	480x470	545x545	615x615
Max.Mould Height	mm	320	380	450
Min.Mould Height	mm	120	150	160
Ejector Stroke	mm	70	100	130
Ejector Force	kN	22	27.5	39.6
INJECTION UNIT				
Screw diameter	mm	A 26	B 30	C 34
Screw L/D ratio	L/D	24	21	19
Shot Volume(Theoretical)	cm³	66	88	113
Shot weight (PS)	g	60	80	103
Shot weight (PS)	oz	2.1	2.8	3.6
Injection pressure	bar	2450	1840	1430
Injection Speed	mm/s	120	120	120
Injection Rate(ps)	g/s	58	77	99
Plasticizing Capacity(ps)	g/s	7	9,3	11,9
Injection Stroke	mm	125	126	170
Screw speed	U/min	0~220		
OTHERS				
Max.Pump Pressure	bar	175		
Servo Motor Power	kW	8.6		
Heater Power	kW	7.1		
Machine Dimensions(L x W x H)	m	3.9x1.04x1.78		
Oil Tank Capacity	Liter	160		
Machine weight	t	2.5		

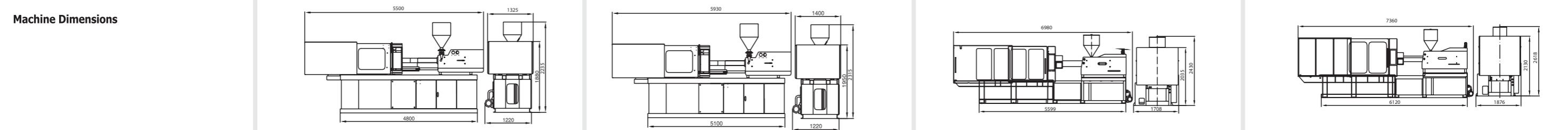
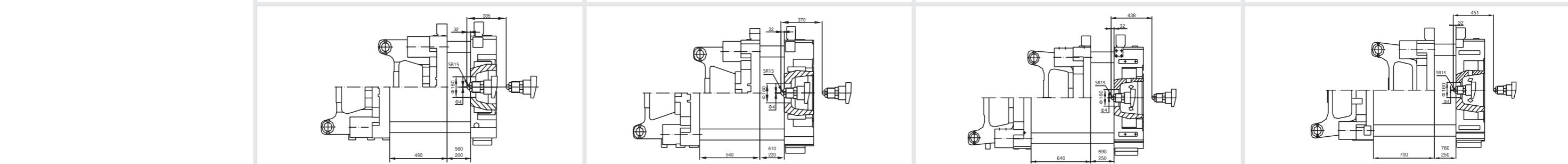
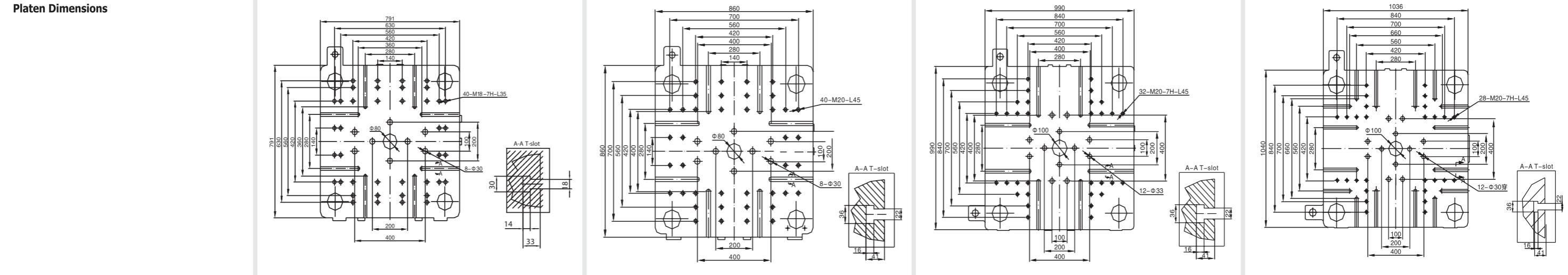
Platen Dimensions



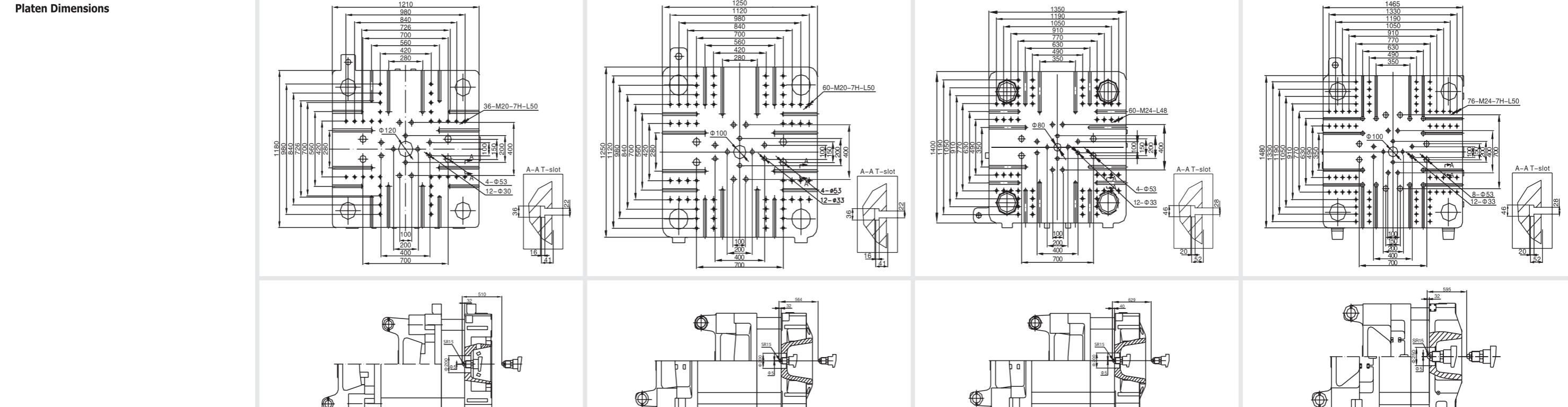
Machine Dimensions



DESCRIPTION	SRC 220 / 740 S			SRC 260 / 1000 S			SRC 320 / 1610 S			SRC 380 / 2250 S		
CLAMPING UNIT												
Clamping force	kN	2200		2600		3200		3800		3800		
Toggle Stroke	mm	490		540		640		700		700		
Space between tie bars	mm	530x530		580x580		685x685		726x726		726x726		
Platen dimensions(H x V)	mm	791x791		860x860		990x990		1036x1040		1036x1040		
Max.Mould Height	mm	560		610		690		760		760		
Min.Mould Height	mm	200		220		250		250		250		
Ejector Stroke	mm	140		150		160		180		180		
Ejector Force	kN	62		62		70		110		110		
INJECTION UNIT		A	B	C	A	B	C	A	B	C		
Screw diameter	mm	45	50	55	50	55	60	60	65	70	75	
Screw L/D ratio	L/D	22.2	20	18.2	22.5	20.5	18.8	21.7	20	18.6	22.4	
Shot Volume(Theoretical)	cm³	350	432	522	491	594	707	735	862	1000	1094	
Shot weight (PS)	g	315	389	470	442	534	636	661	776	900	985	
Shot weight (PS)	oz	11.1	13.7	16.6	15.6	18.8	22.4	23.3	27.3	31.7	34.7	
Injection pressure	bar	2100	1700	1410	2050	1690	1420	2190	1870	1610	2080	
Injection Speed	mm/s	96	96	96	91	91	91	86	86	86	92	
Injection Rate(ps)	g/s	139	172	208	163	197	234	221	260	301	278	
Plasticizing Capacity(ps)	g/s	26.2	31.5	37	31.5	41.2	49	45.5	55.8	60.8	57.5	
Injection Stroke	mm	220			250			260			330	
Screw speed	U/min	0~200			0~180			0~180			0~180	
OTHERS												
Max.Pump Pressure	bar	160			160			160			160	
Servo Motor Power	kW	23			29			39.4			39.4	
Heater Power	kW	16.25			17.3			24.2			26	
Machine Dimensions(L x W x H)	m	5.5x1.32x2.24			5.93x1.4x2.32			6.88x1.77x2.43			7.36x1.88x2.62	
Oil Tank Capacity	Liter	360			405			600			700	
Machine weight	t	6.2			7.35			11.5			13.3	



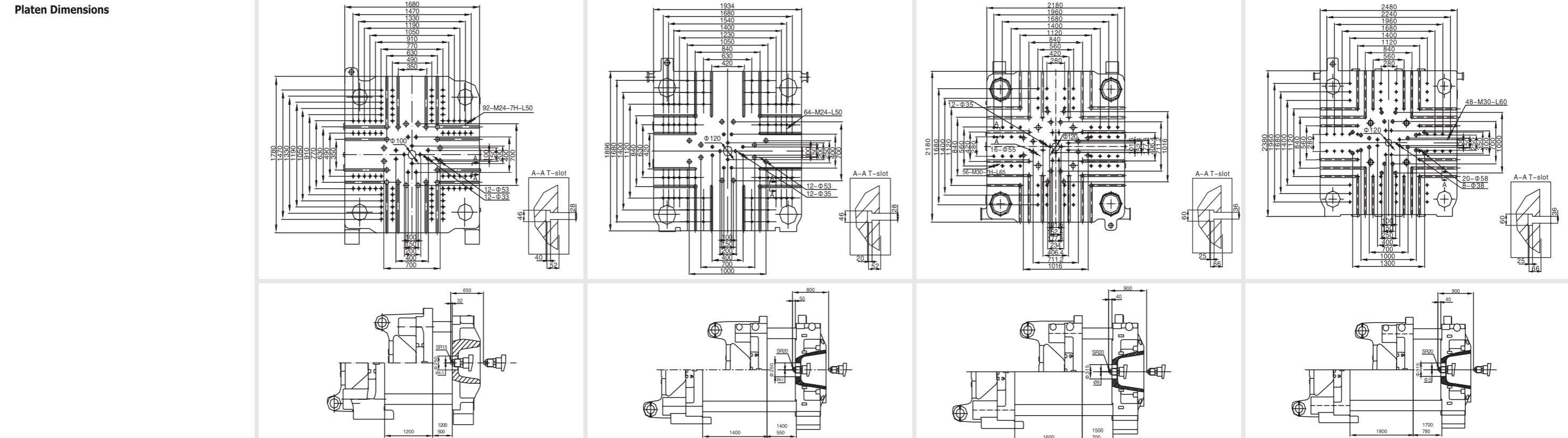
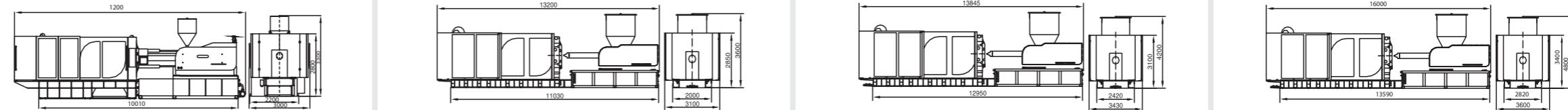
DESCRIPTION	SRC 470 / 3000 S			SRC 570 / 4000 S			SRC 650 / 5000 S			SRC 800 / 6700 S					
CLAMPING UNIT															
Clamping force	kN		4700		5700		6500		8000						
Toggle Stroke	mm		780		850		900		1040						
Space between tie bars	mm		820x800		835x835		900x900		1000 x 1000						
Platen dimensions(H x V)	mm		1210x1180		1240x1250		1350x1400		1465 x 1480						
Max.Mould Height	mm		830		880		900		1030						
Min.Mould Height	mm		300		350		400		400						
Ejector Stroke	mm		200		250		260		280						
Ejector Force	kN		120		158		186		186						
INJECTION UNIT															
Screw diameter	mm	A	75	B	80	C	84	D	80	B	90	C	100	D	110
Screw L/D ratio	L/D		21.4		20		19		24.8		22		19.8		18
Shot Volume(Theoretical)	cm³		1722		1959		2160		2261		2861		3533		4274
Shot weight (PS)	g		1550		1763		1944		2035		2575		3179		3847
Shot weight (PS)	oz		54.7		62.2		68.6		71.8		90.8		112.1		135.7
Injection pressure	bar		1770		1560		1410		2240		1770		1430		1180
Injection Speed	mm/s		96		96		96		95		95		95		95
Injection Rate(ps)	g/s		386		439		484		435		550		679		822
Plasticizing Capacity(ps)	g/s		59,8		68		79,8		56,7		71,8		88,6		101,9
Injection Stroke	mm		390				450				450				460
Screw speed	U/min		0~160				0~110				0~110				0~110
OTHERS															
Max.Pump Pressure	bar		160				160				160				160
Servo Motor Power	kW		23 +29				29 +29				29 + 39,4				39,4 + 39,4
Heater Power	kW		32,5				36,9				50,9				56,1
Machine Dimensions(L x Wx H)	m		7.92x1.97x2.69				8.82x2.32x2.80				9.93x2.45x2.80				11.05 x 2.65 x 3.80
Oil Tank Capacity	Liter		800				1000				1200				1500
Machine weight	t		16.7				27				32				40



Machine Dimensions



DESCRIPTION	SRC 1000 / 8500 S				SRC 1300 / 10600 S				SRC 1600 / 13000 S				SRC 2100 / 18000 S			
CLAMPING UNIT																
Clamping force	kN	10000				13000				16000				21000		
Toggle Stroke	mm	1200				1400				1600				1800		
Space between tie bars	mm	1120x1120				1350x1280				1500x1415				1750x1600		
Platen dimensions(H x V)	mm	1680x1780				1934x1896				2180x2180				2480x2380		
Max.Mould Height	mm	1200				1400				1500				1700		
Min.Mould Height	mm	500				550				700				780		
Ejector Stroke	mm	320				350				350				400		
Ejector Force	kN	215				215				318				430		
INJECTION UNIT		A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
Screw diameter	mm	100	110	120	130	110	120	130	140	120	130	140	150	140	150	160
Screw L/D ratio	L/D	24.3	22.1	20.2	18.7	26.2	24.1	22.4	20.9	26.1	24.1	22.4	20.9	22.4	20.9	19.6
Shot Volume(Theoretical)	cm³	4004	4844	5765	6766	5224	6217	7297	8462	6669	7827	9078	10421	11084	12723	14476
Shot weight (PS)	g	3603	4360	5189	6089	4702	5595	6567	7616	6002	7045	8170	9379	10086	11578	13174
Shot weight (PS)	oz	127.1	153.8	183	214.8	165.8	197.4	231.6	268.6	211.7	248.5	288.2	330.8	355.8	408.4	464.7
Injection pressure	bar	2110	1740	1460	1250	2050	1720	1470	1260	1930	1640	1420	1230	1630	1420	1250
Injection Speed	mm/s	91	91	91	91	84	84	84	84	104	104	104	104	95	95	95
Injection Rate(ps)	g/s	650	787	937	1099	726	865	1015	1117	1070	1256	1457	1672	1331	1528	1738
Plasticizing Capacity(ps)	g/s	83,3	100,8	120	133,8	103	122,6	143,9	166,9	123	147,6	171,2	186,7	171,2	186,7	199
Injection Stroke	mm	510				550				590				720		
Screw speed	U/min	0~107				0~91				0~99				0~80		
OTHERS																
Max.Pump Pressure	bar	160				160				160				160		
Servo Motor Power	kW	39.4 + 29 + 29				29 + 39.4 + 39.4				29 + 39.4 + 39.4 + 39.4				39.4 + 39.4 + 39.4 + 39.4		
Heater Power	kW	79.35				84.95				101.85				114.05		
Machine Dimensions(L x W x H)	m	12.0 x 3.0 x 3.3				13.2 x 3.1 x 3.6				13.85 x 3.43 x 4.20				16.0 x 3.6 x 4.8		
Oil Tank Capacity	Liter	1900				2400				2800				3000		
Machine weight	t	55				67				105				139		


Machine Dimensions


Injection Moulding Machines

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