



**Hong Kong**  
13-15, Dai Wang Street, Tai Po Industrial Estate, Tai Po, Hong Kong  
Tel: +852 2665 3222  
Website: [www.chenhsong.com](http://www.chenhsong.com)  
Email: [marketing@chenhsong.com](mailto:marketing@chenhsong.com)

202209



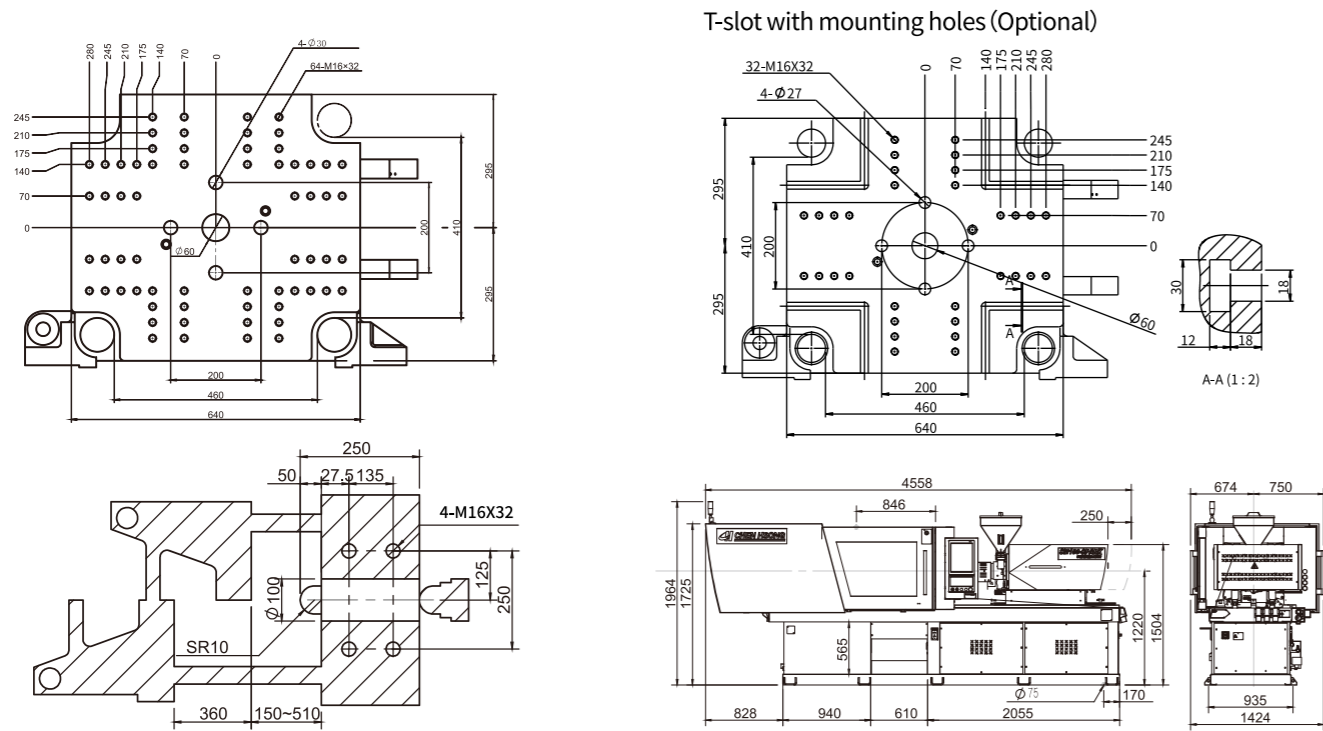
# SPARK

**All-Electric Machine**  
Specifications



# SM100-SPARK

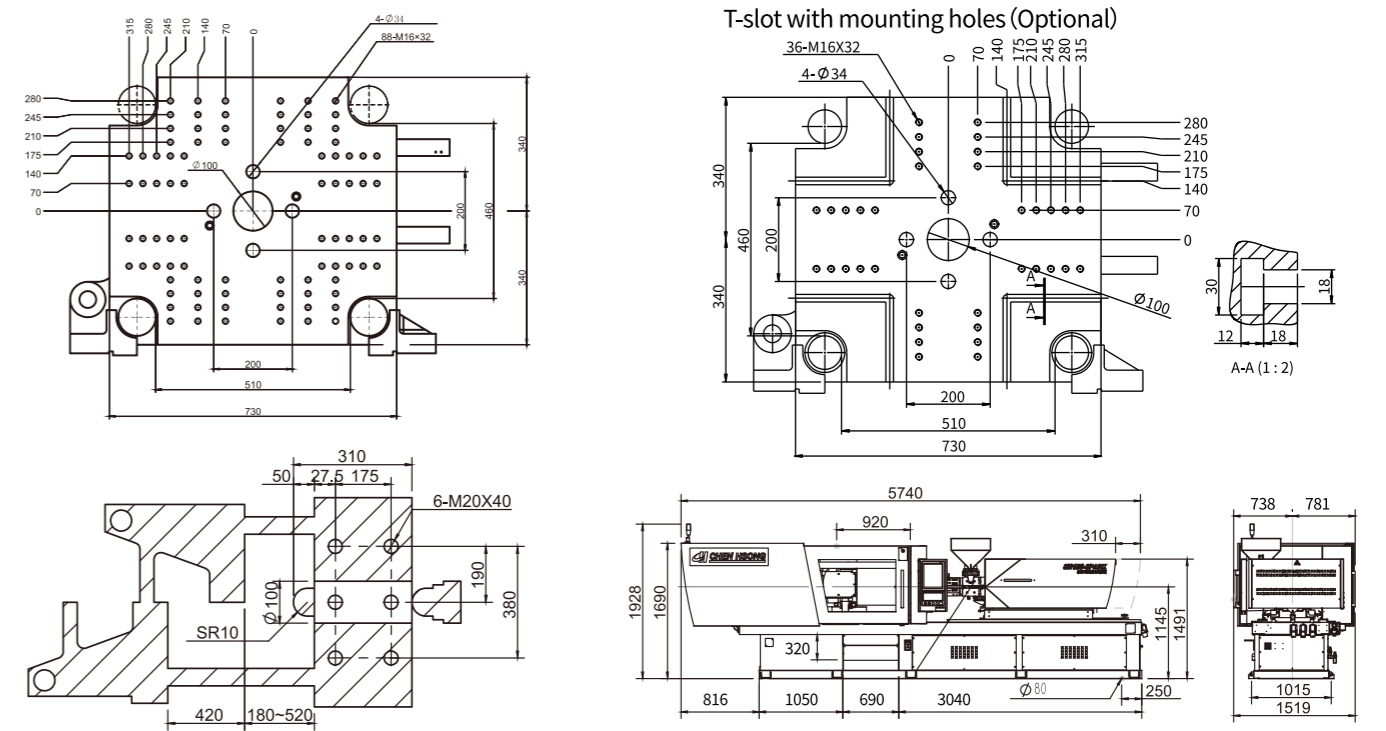
## Specifications



INJECTION UNIT		A	B	C	CLAMPING UNIT		
Screw Diameter	mm	25	28	32	Clamping Force (Max.)	kN	1000
Screw Stroke	mm	100	112	112	Opening Stroke	mm	360
Swept Volume	cm <sup>3</sup>	49	69	90	Min. Mould Thickness	mm	150
Shot Weight (PS)	g	45	63	82	Max. Mould Thickness	mm	510
Shot Weight (PS)	oz	1.6	2.2	2.9	Space Between Tie Bars	mm	460x410
Injection Rate	cm <sup>3</sup> /s	172	216	281	Max. Daylight	mm	870
Injection Speed	mm/s		350		Ejector Force	kN	24.5
Injection Pressure (Max.)	Mpa	260	220	175	Ejector Stroke	mm	100
Holding Pressure	Mpa	208	176	140	<b>POWER/HEATING UNIT</b>		
Plasticising capacity	g/s	7.8	10.9	15	Input Power		380V50Hz
Screw Rotation Speed (Max.)	rpm		350		Electrical Heatig Power	kvA	36
Barrel Heating Power	kW	6.3	7.2	8.2			
Barrel Temperature Zones			3+1				
Nozzle Contact Force	kN		19.6				
<b>OTHERS</b>							
Machine Dimensions LxWxH	mm	4558x1424x1964					
Machine Weight (Approx)	T	3.9					

# SM150-SPARK

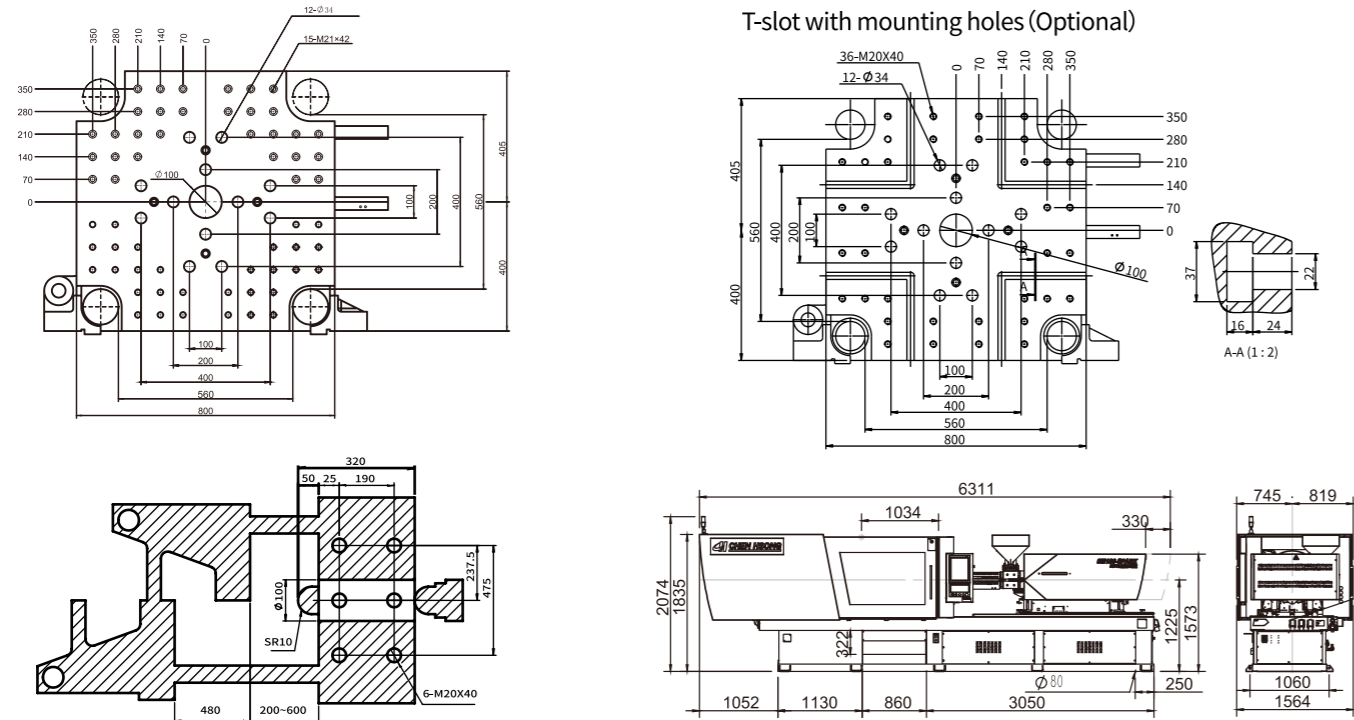
## Specifications



INJECTION UNIT		A	B	C	A1	B1	C1	D1	CLAMPING UNIT		
Screw Diameter	mm	28	32	36	32	36	41	46	Clamping Force (Max.)	kN	1500
Screw Stroke	mm	112	112	112	160	180	205	230	Opening Stroke	mm	420
Swept Volume	cm <sup>3</sup>	69	90	114	128	183	271	382	Min. Mould Thickness	mm	180
Shot Weight (PS)	g	63	82	103	117	167	246	348	Max. Mould Thickness	mm	520
Shot Weight (PS)	oz	2.2	2.9	3.6	4.1	5.9	8.7	12.3	Space Between Tie Bars	mm	510x460
Injection Rate	cm <sup>3</sup> /s	216	281	333	281	356	462	582	Max. Daylight	mm	940
Injection Speed	mm/s				350				Ejector Force	kN	34.3
Injection Pressure (Max.)	Mpa	220	175	138	300	235	183	145	Ejector Stroke	mm	120
Holding Pressure	Mpa	176	140	110	240	188	146.4	116	<b>POWER/HEATING UNIT</b>		
Plasticising capacity	g/s	7.8	10.9	15	15	22	26	35	Input Power		380V50Hz
Screw Rotation Speed (Max.)	rpm				350				Electrical Heatig Power	kvA	45
Barrel Heating Power	kW	7.2	8.2	8.9	10.5	12.4	14.3	16.2			
Barrel Temperature Zones					3+1						
Nozzle Contact Force	kN				24.5						
<b>OTHERS</b>											
Machine Dimensions LxWxH	mm	5740x1519x1928									
Machine Weight (Approx)	T	6.3									

# SM180-SPARK

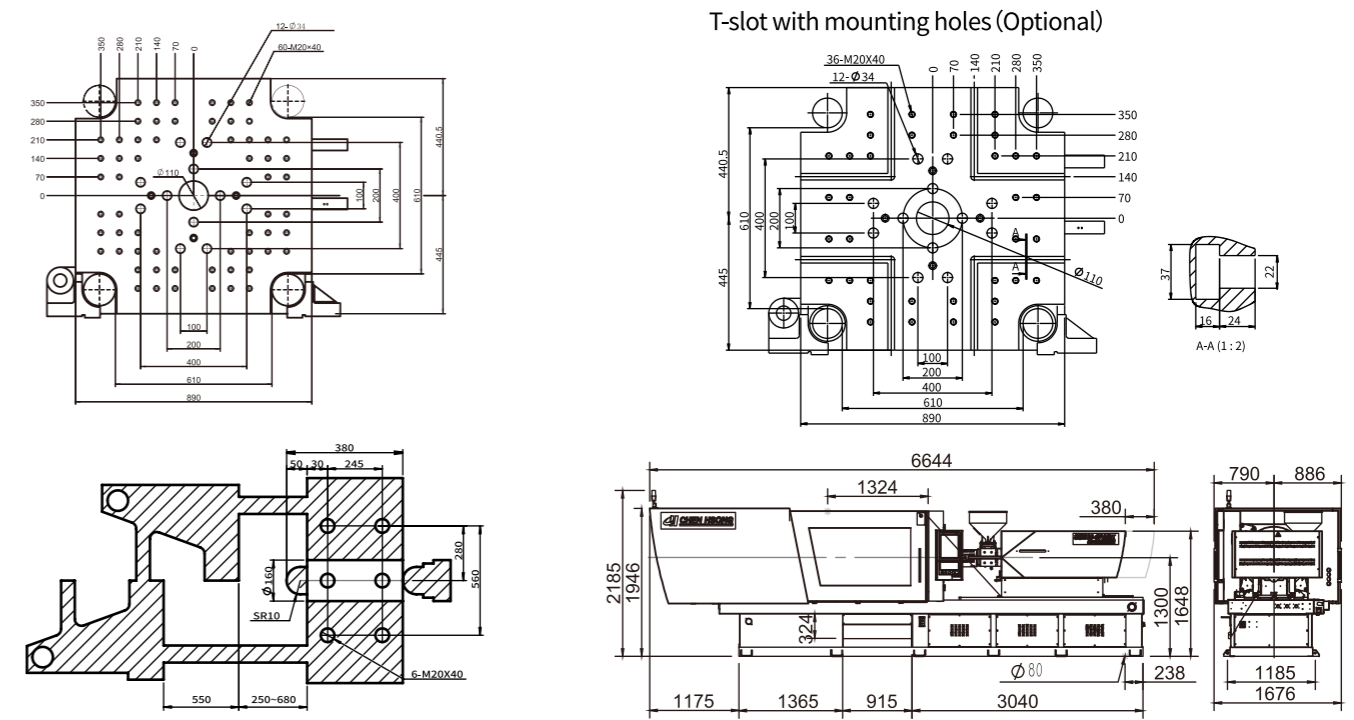
## Specifications



INJECTION UNIT	A	B	C	CLAMPING UNIT			
Screw Diameter	mm	36	41	46	Clamping Force (Max.)	kN	1800
Screw Stroke	mm	180	205	230	Opening Stroke	mm	480
Swept Volume	cm <sup>3</sup>	183	271	382	Min. Mould Thickness	mm	200
Shot Weight (PS)	g	167	246	348	Max. Mould Thickness	mm	600
Shot Weight (PS)	oz	5.9	8.7	12.3	Space Between Tie Bars	mm	560x560
Injection Rate	cm <sup>3</sup> /s	356	462	582	Max. Daylight	mm	1080
Injection Speed	mm/s		350		Ejector Force	kN	34.3
Injection Pressure (Max.)	Mpa	250	235	177	Ejector Stroke	mm	120
Holding Pressure	Mpa	200	188	142	<b>POWER/HEATING UNIT</b>		
Plasticising capacity	g/s	22	26	35	Input Power		380V50Hz
Screw Rotation Speed (Max.)	rpm		350		Electrical Heatig Power	kvA	50
Barrel Heating Power	kW	12.4	14.3	16.2			
Barrel Temperature Zones			3+1				
Nozzle Contact Force	kN		24.5				
<b>OTHERS</b>							
Machine Dimensions LxWxH	mm	6311x1564x2071					
Machine Weight (Approx)	T	7.5					

# SM230-SPARK

## Specifications

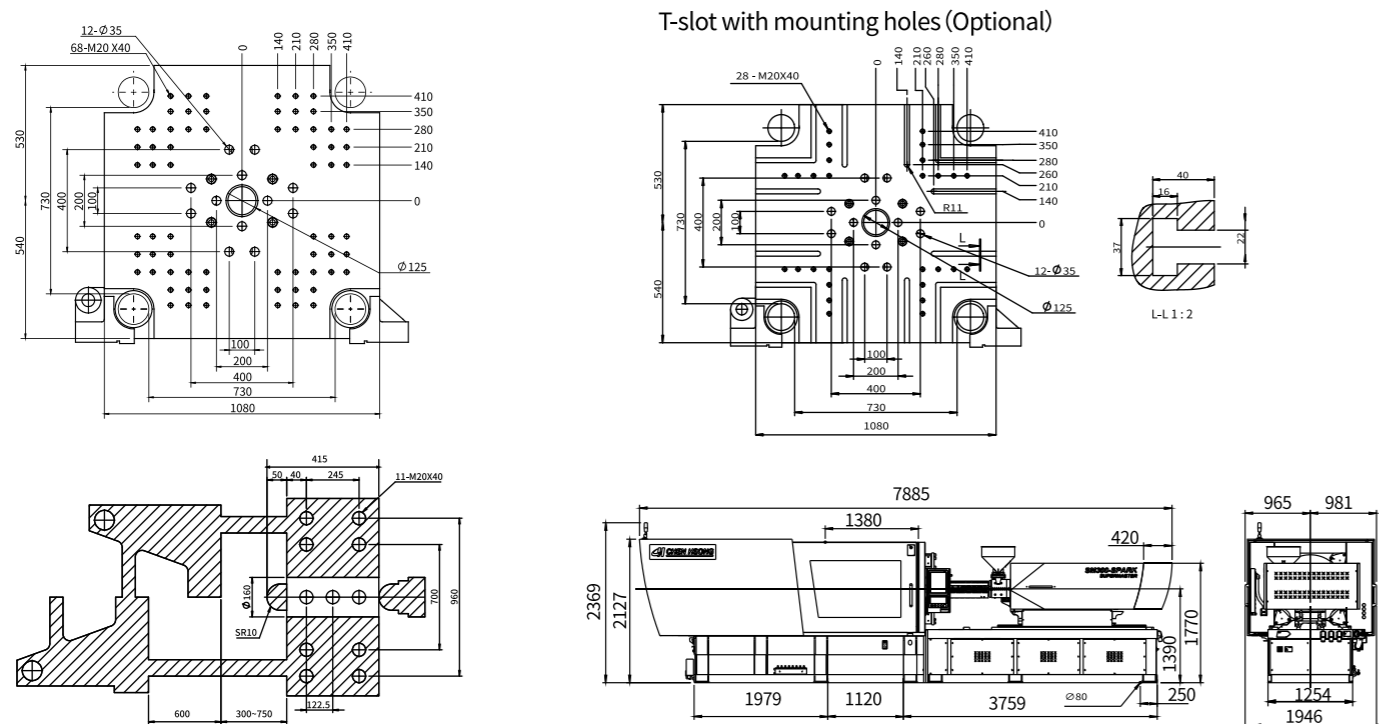


INJECTION UNIT	A	B	C	CLAMPING UNIT			
Screw Diameter	mm	36	41	46	Clamping Force (Max.)	kN	2270
Screw Stroke	mm	180	205	230	Opening Stroke	mm	550
Swept Volume	cm <sup>3</sup>	183	271	382	Min. Mould Thickness	mm	250
Shot Weight (PS)	g	167	246	348	Max. Mould Thickness	mm	680
Shot Weight (PS)	oz	5.9	8.7	12.3	Space Between Tie Bars	mm	610x610
Injection Rate	cm <sup>3</sup> /s	356	462	582	Max. Daylight	mm	1230
Injection Speed	mm/s		350		Ejector Force	kN	51.9
Injection Pressure (Max.)	Mpa	250	235	176	Ejector Stroke	mm	150
Holding Pressure	Mpa	200	188	142	<b>POWER/HEATING UNIT</b>		
Plasticising capacity	g/s	22	26	35	Input Power		380V50Hz
Screw Rotation Speed (Max.)	rpm		350		Electrical Heatig Power	kvA	50
Barrel Heating Power	kW	12.4	14.3	16.2			
Barrel Temperature Zones			3+1				
Nozzle Contact Force	kN		24.5				
<b>OTHERS</b>							
Machine Dimensions LxWxH	mm	6644x1676x2185					
Machine Weight (Approx)	T	10					



# SM300-SPARK

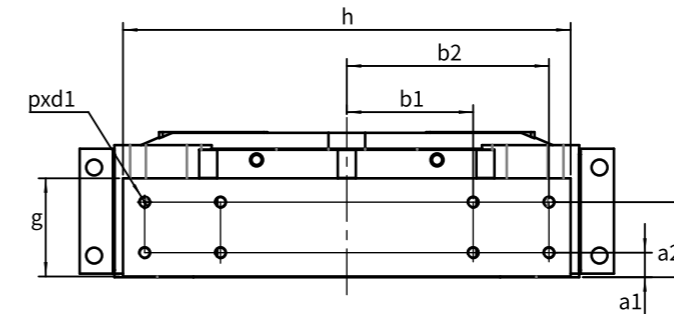
## Specifications



INJECTION UNIT	A	B	C	A1	B1	C1	CLAMPING UNIT		
Screw Diameter	mm	46	52	60	60	67	Clamping Force (Max.)	kN	3000
Screw Stroke	mm	230	260	285	300	330	Opening Stroke	mm	600
Swept Volume	cm <sup>3</sup>	382	552	805	848	1163	Min. Mould Thickness	mm	300
Shot Weight (PS)	g	351	507	740	780	1070	Max. Mould Thickness	mm	750
Shot Weight (PS)	oz	12.4	17.9	26	27.6	37.8	Space Between Tie Bars	mm	730x730
Injection Rate	cm <sup>3</sup> /s	581	743	988	989	704	Max. Daylight	mm	1350
Injection Speed	mm/s		350			200	Ejector Force	kN	62
Injection Pressure (Max.)	Mpa	306	240	180	234	188	Ejector Stroke	mm	160
Holding Pressure	Mpa	244	192	144	187	150	<b>POWER/HEATING UNIT</b>		
Plasticising capacity	g/s	35	48	75	50	80.7	Input Power		380V50Hz
Screw Rotation Speed (Max.)	rpm		300			235	Electrical Heatig Power	kVA	50
Barrel Heating Power	kW	16.2	22.8	29.4	29.4	36			42.6
Barrel Temperature Zones					3+1				
Nozzle Contact Force	kN				32.6				
<b>OTHERS</b>									
Machine Dimensions LxWxH	mm	7885x1946x2639							
Machine Weight (Approx)	T	16							

\*The above technical parameters are for reference only, and there may be deviations under different circumstances. Chen Hsong constantly seeks improvements to products, so it reserves the right to change product specifications and parameters without prior notice. The final interpretation of this specification sheet is governed by the company.

## EU18 ROBOT DIMENSIONS (Optional)



	g	h	a1	a2	b1	b2	p	d1
SM100-SPARK	136	620	34	104	175	280	8	M16
SM150-SPARK	136	620	34	104	175	280	8	M16
SM180-SPARK	196	840	35	175	210	350	8	M20
SM230-SPARK	196	840	35	175	210	350	8	M20
SM300-SPARK	196	990	35	175	350	490	8	M20

## Standard Features

- |   |   |
|---|---|
| 1 STO-compliant fast-dynamic-response servosystem | 13 Two sets of air blow (stationary and moving platens) |
| 2 Barrel inlet temperature close loop control     | 14 Magnetic safeties for guard doors                    |
| 3 "One-touch" servo dynamic profile setting       | 15 Linear guide rails for injection and clamping units  |
| 4 Centralised automatic lubrication system        | 16 High-efficiency ceramic heater bands                 |
| 5 SSR for barrel heating                          | 17 Robot interface                                      |
| 6 Metric/imperial units                           | 18 Ejector-on-fly                                       |
| 7 Plasticising-on-fly                             | 19 Low-pressure injection                               |
| 8 Two-stage injection                             | 20 Compressive moulding                                 |
| 9 In-mould ejection                               | 21 Two-stage ejection                                   |
| 10 Stainless-steel hopper                         | 22 3-color LED status lamp                              |
| 11 15" full-color touch-screen controller panel   | 23 Electroplated screw                                  |
| 12 Front Door Magnetic Locking Device             |   |

## Optional Features

- |   |  |
|---|--|
| 1 Screws and nozzles for specialised applications   | 9 EU67 robot interface                                     |
| 2 High-pressure tight-seal nozzle flange            | 10 Broken heating wire detection                           |
| 3 Core pulls (hydraulic, pneumatic and/or electric) | 11 Independent hydraulic station                           |
| 4 Air blows   | 12 Closed-loop clamping force control                      |
| 5 Customised platen layout                          | 13 Connection for magnetic/hydraulic tool fastening system |
| 6 Connection for gas-assist                         | 14 Power-efficient barrel heating alternatives             |
| 7 EU18 robot interface                              | 15 Connection for micro foaming                            |
| 8 EU12 robot interface                              |  |