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SPARK Series

Electric Injection Molding Machines

SPARK AE, SPARK EH, SPARK HB

SINCE



CHEN HSONG

Powering Your Future in Intelligent Injection Molding

Driven by its founding principle, “Your Vision is Our Mission”, the Chen Hsong Group, established in 1958 and publicly listed in Hong Kong since 1991, has evolved over nearly 70 years from an injection molding machine manufacturer into a one-stop total solutions provider in plastics manufacturing. As one of the world's largest producers of injection molding machines, Chen Hsong achieves unmatched quality through complete in-house manufacturing. This vertically integrated approach means controlling everything from ductile iron castings, parts fabrication and core components (such as advanced controllers) to final assembly. With a comprehensive product matrix serving diverse industries like automotive and medical, we are also spearheading smart manufacturing upgrades through the iChen™ Smart Family Suite, including the iChen™ Smart Factory MES, iChen™ Cloud platform, and iChen™ AI Molder, making the path to Industry 4.0 easily accessible for our global clientele.

800,000m²
R&D and Production Facilities (Four locations)

85+
Countries Globally

1,000,000+
Injection Molding Machines in the Field

120+
Global Technical & Service Centres



Headquarters in Hong Kong



Shenzhen Industrial Park Factory — 560000m²



Taiwan Taoyuan Factory — 30000m²



Foshan Shunde - Two Factories — 150000m²



Zhejiang Ningbo Factory — 70000m²



Shanwei Luhe Factory — 62360m²

Over 1 million+ Chen Hsong machines are in operation worldwide.
They all use Chen Hsong.



Industry leaders choose Chen Hsong!

Four Innovative Technologies of All-Electric Injection Molding Machines



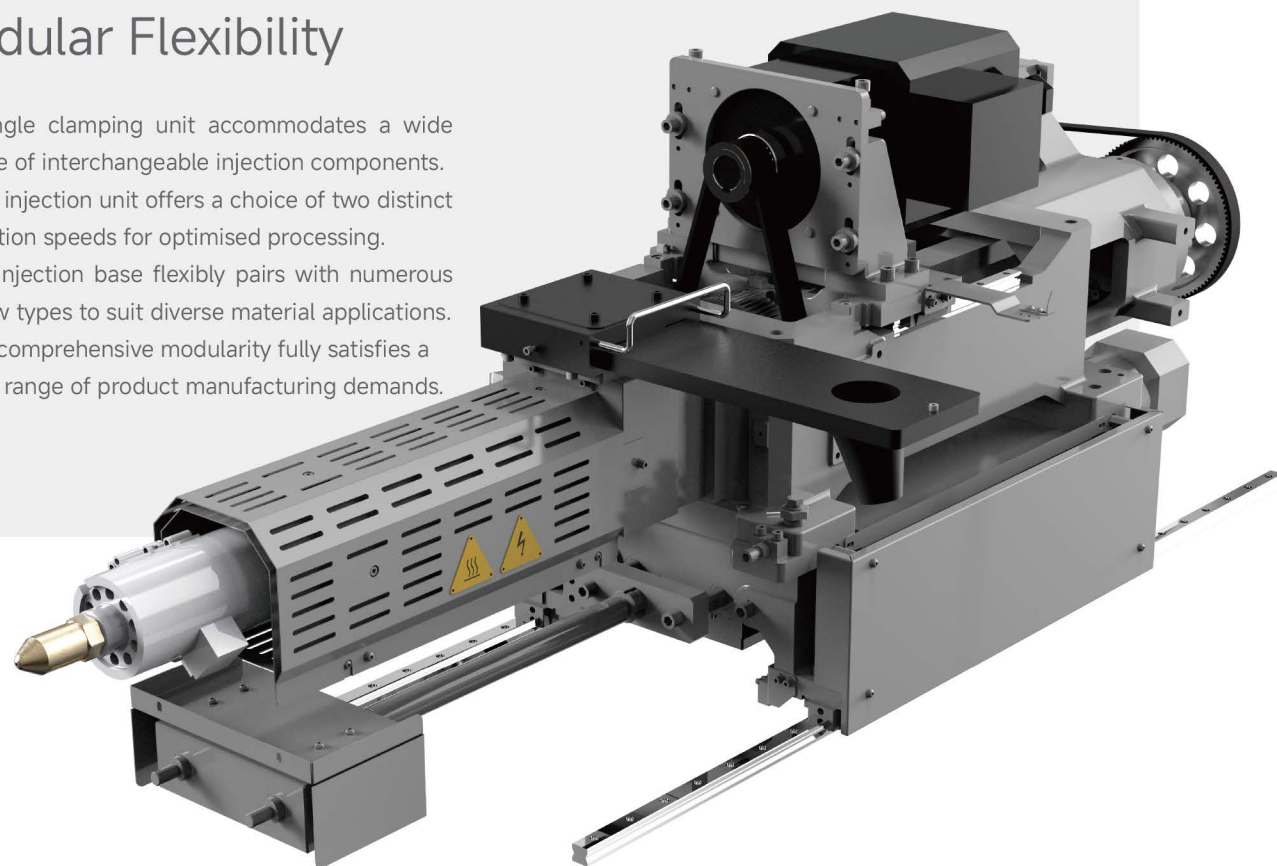
High-Rigidity Integrated Injection

- A high-rigidity, integrated injection base ensures exceptionally stable and reliable machine operation.
- Linear guide rails supports ensure highly stable, smooth, and precise injection actions.
- Its simple structure with minimal assembly errors boosts injection precision and guarantees molded product quality.
- A rotatable injection unit simplifies both operation and maintenance.



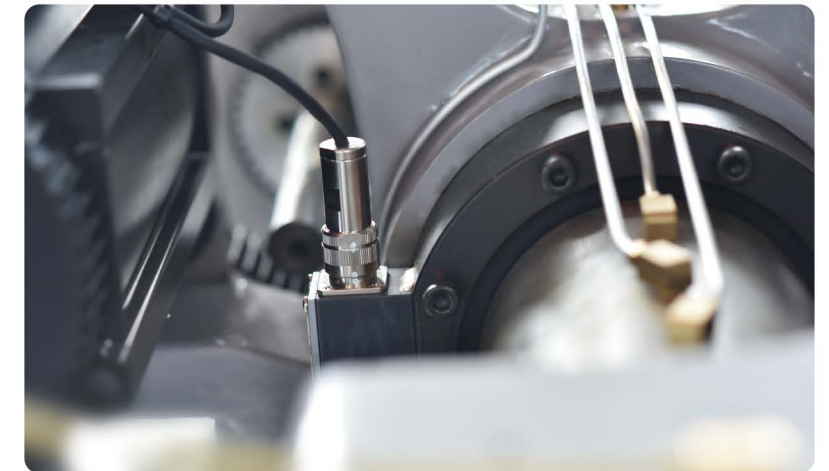
Modular Flexibility

- A single clamping unit accommodates a wide range of interchangeable injection components.
- Each injection unit offers a choice of two distinct injection speeds for optimised processing.
- The injection base flexibly pairs with numerous screw types to suit diverse material applications.
- This comprehensive modularity fully satisfies a wide range of product manufacturing demands.



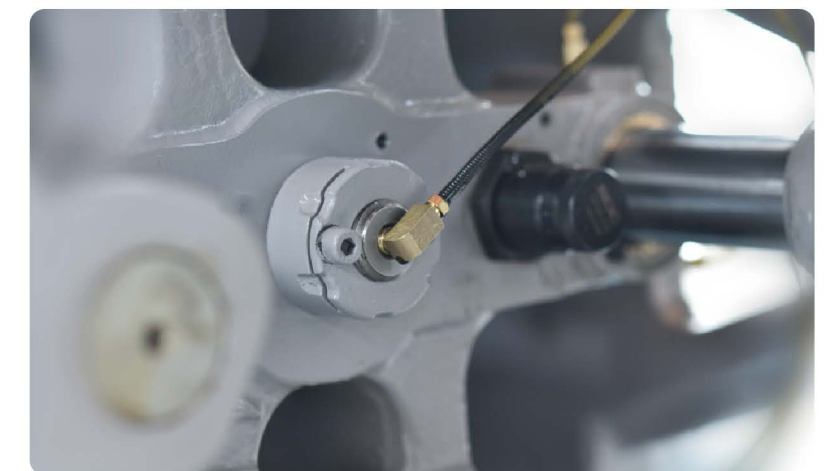
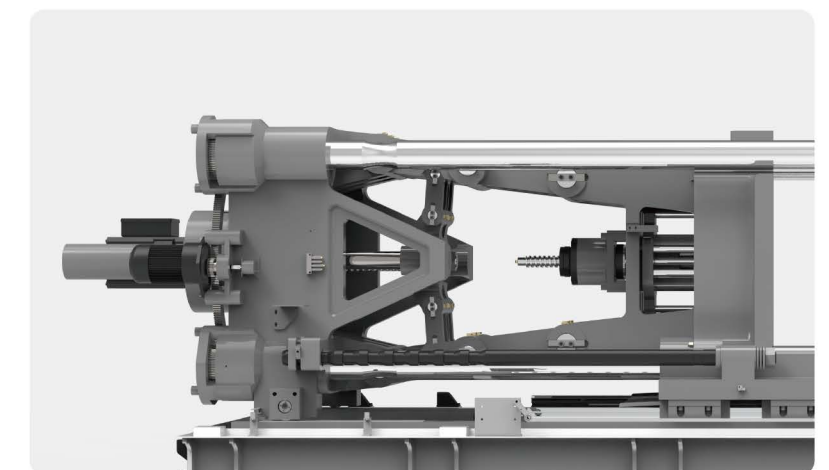
Intelligent Stress Release System

- Auto Stress Release System (ASRS)
This innovative technology enables rapid molding process monitoring in under 1ms, using patented pressure relief to eliminate internal stress and ensure ultra-high product qualification rates.



Intelligent Linkage Protection Technology

- AxP with Floating Point Toggle
This advanced safety system, utilising precise electronics and algorithms, dynamically adjusts the ball screw for collision protection, ensuring gentle, balanced mold clamping while saving energy, reducing noise, and shortening cycle times.



All-Electric · Hybrid · Electric
The Epitome of Injection Molding Technology

SPARK EH Electric-Hydraulic
100-360T

SPARK AE All-Electric
100-360T

SPARK HB Hybrid
130-670T



* Product images are for illustration only; final specifications depend on custom requirements.

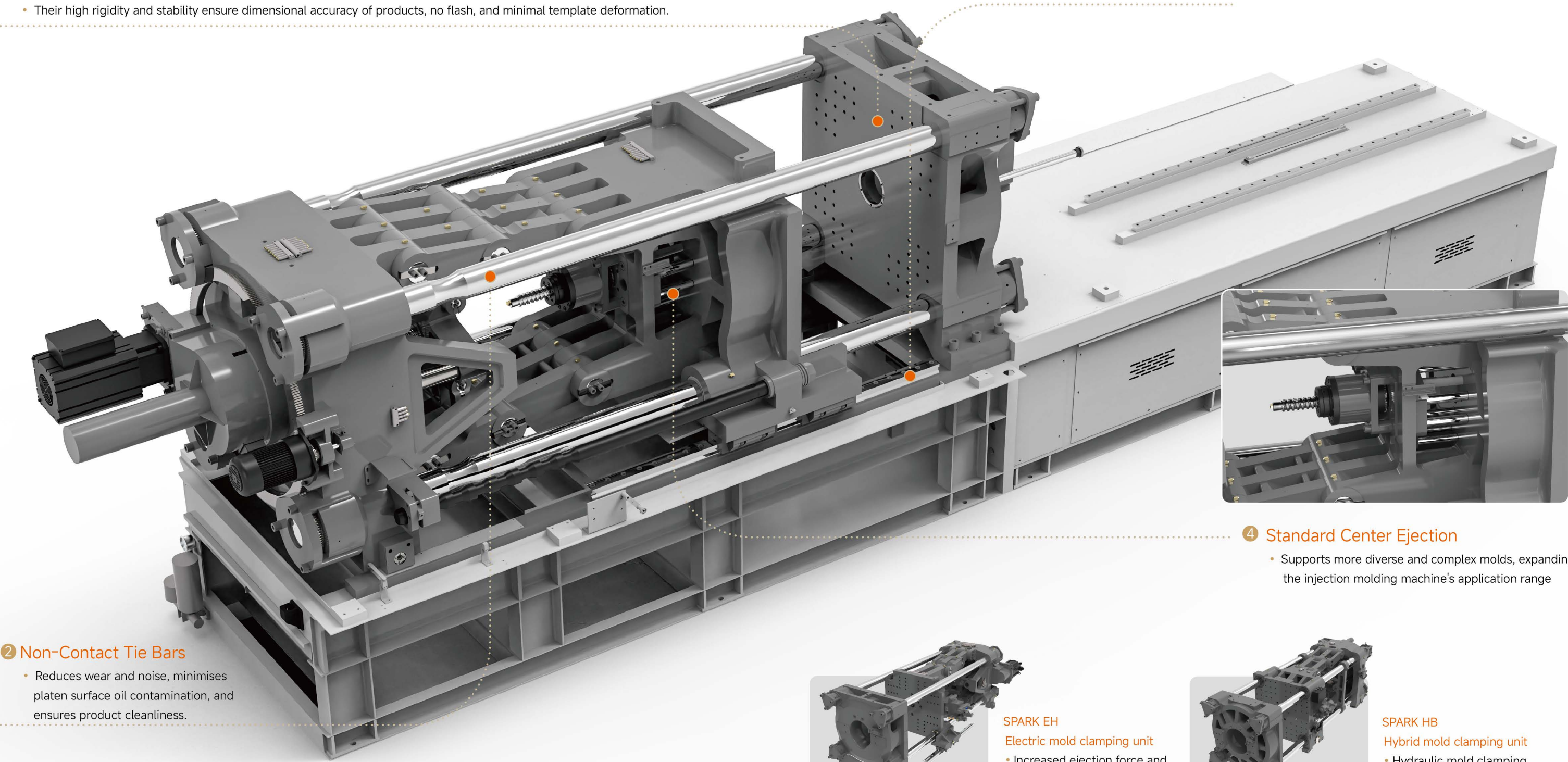
Clamping Unit

① Patented Template Design

- Compared to conventional shaped templates, circular templates provide uniform force distribution for better mold protection.
- Their high rigidity and stability ensure dimensional accuracy of products, no flash, and minimal template deformation.

③ Standard Full-range Linear Guide Rails for Mold Opening/closing

- High repeatability in mold opening/closing positions

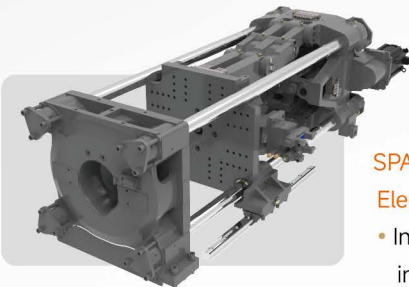


② Non-Contact Tie Bars

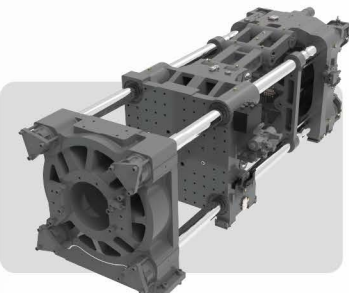
- Reduces wear and noise, minimises platen surface oil contamination, and ensures product cleanliness.

④ Standard Center Ejection

- Supports more diverse and complex molds, expanding the injection molding machine's application range



- SPARK EH**
Electric mold clamping unit
- Increased ejection force and injection shift force
 - Standard hydraulic core-pulling



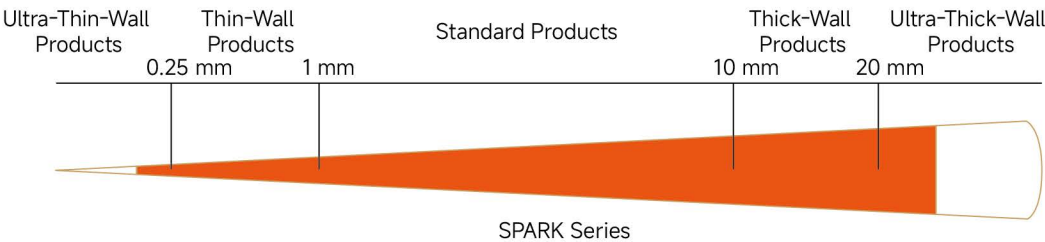
- SPARK HB**
Hybrid mold clamping unit
- Hydraulic mold clamping
 - Standard hydraulic core-pulling

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Injection Unit

5 ALL-Adapt™ Full-Range Adaption Technology

- A single machine meets both ultra-high-speed injection for ultra-thin-wall products and high-pressure holding for thick-wall products
- Strictly adheres to demanding overflow prevention requirements



6 Closed-Loop Injection Pressure Control

- Verified by comparative testing, SPARK all-electric machines provide more stable injection pressure and outperform competitors in maximum holding time.

7 High-Power-Density Ceramic Heaters

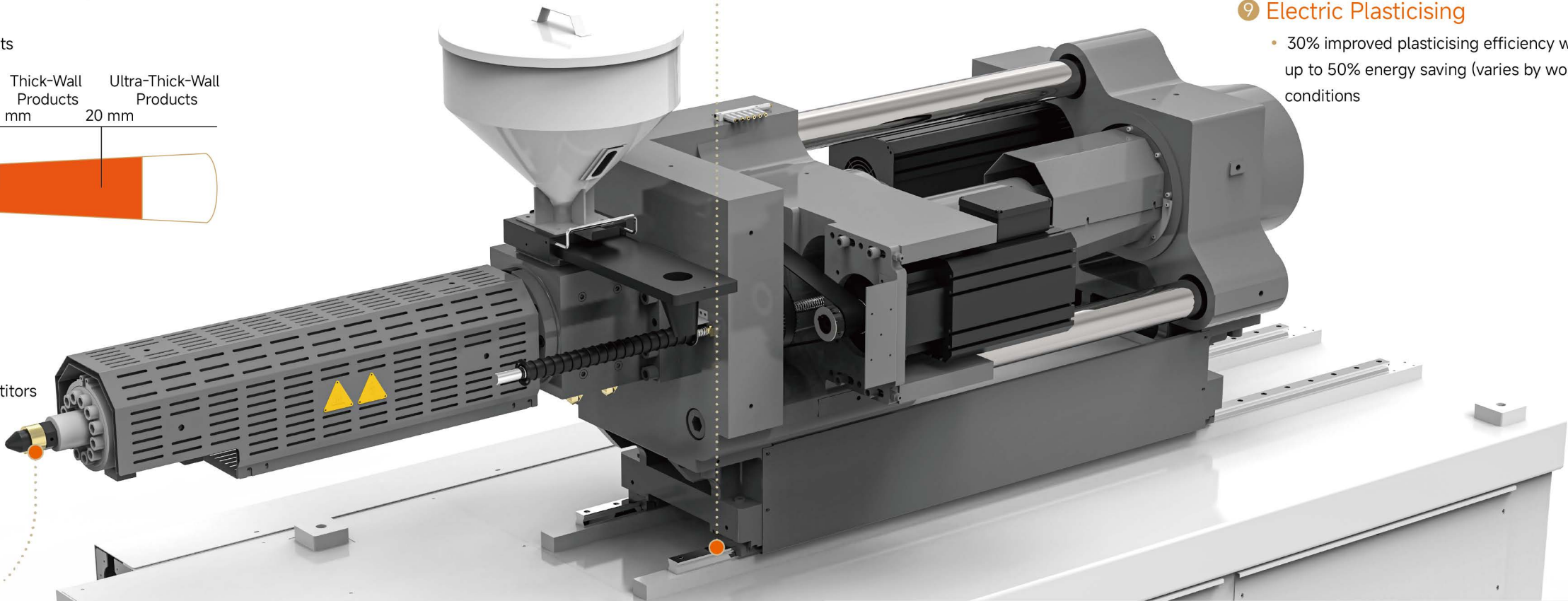
- Excellent thermal conductivity enables rapid temperature ramp-up, improving plasticising efficiency.

8 Standard Full-range Linear Guide Rails for Injection Unit

- Low-friction injection unit with fast response ensures stable shot consistency

9 Electric Plasticising

- 30% improved plasticising efficiency with up to 50% energy saving (varies by working conditions)



	AE	EH	HB
Injection	⚡	⚡	⚡
Plasticising	⚡	⚡	⚡
Mold Clamping	⚡	⚡	🛢️
Ejection	⚡	🛢️	🛢️
Core-pulling	○	🛢️	🛢️
Injection Shift	⚡	🛢️	🛢️

* ⚡ Electric 🛢️ Hydraulic ○ Adaptable

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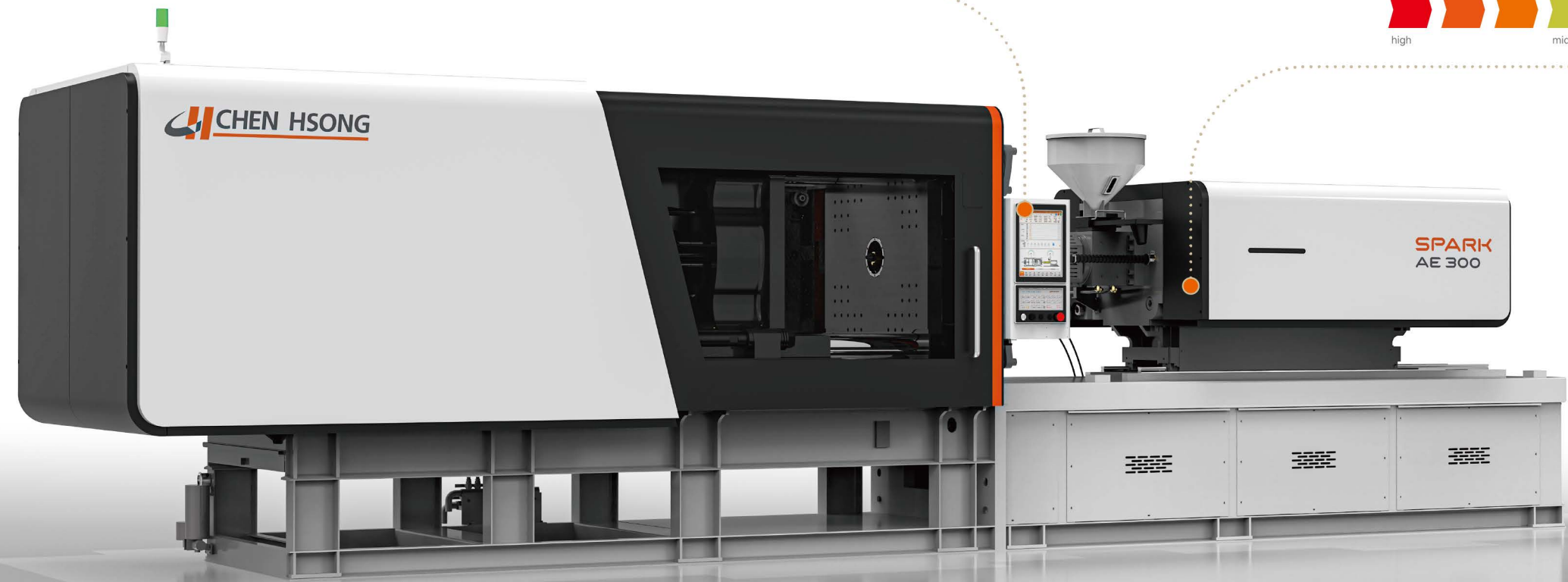
Control Unit



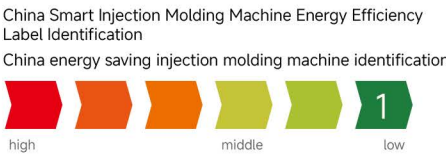
10 15-inch Touchscreen Control Panel



- Full-cycle Monitoring
Enables real-time data monitoring of main injection, pressure holding, plasticising, mold opening/closing, and ejection cycles
- High-speed Control Response
High-performance computer chip with ultra-fast processing capability for instant command response and execution
- Intelligent Stress Release System
During injection process, rapidly monitors screw movement (<1ms) and releases internal stress through patented counter-pressure mechanism design

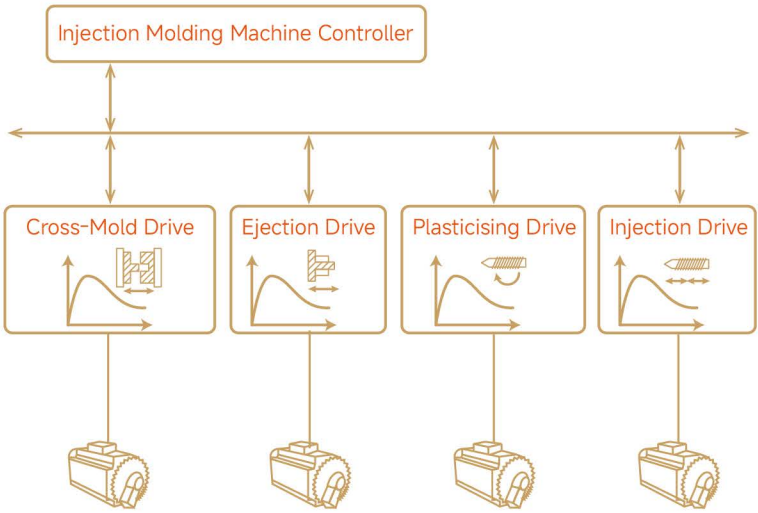


Chen Hsong All-Electric Injection Molding Machine achieves Servo STO (Safe Torque Off) functionality and has passed TÜV safety certification.
(Technischer Überwachungs-Verein German Technical Inspection Association)



11 4 Major Specialised IPM Servo Motors

- Independently controls injection, holding pressure, plasticising, mold opening/closing, and ejection, ensuring fast, precise, energy-efficient, and high-performance operation throughout the entire injection molding cycle.



- High-Sensitivity Dynamic Response Servo Motor System

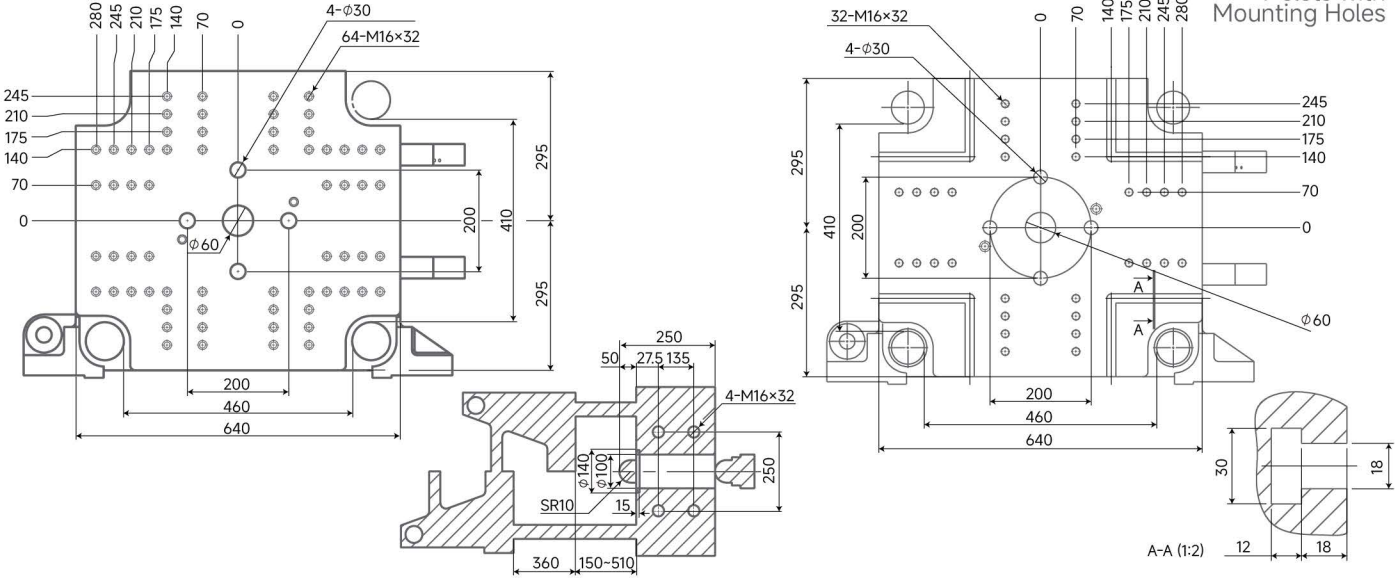


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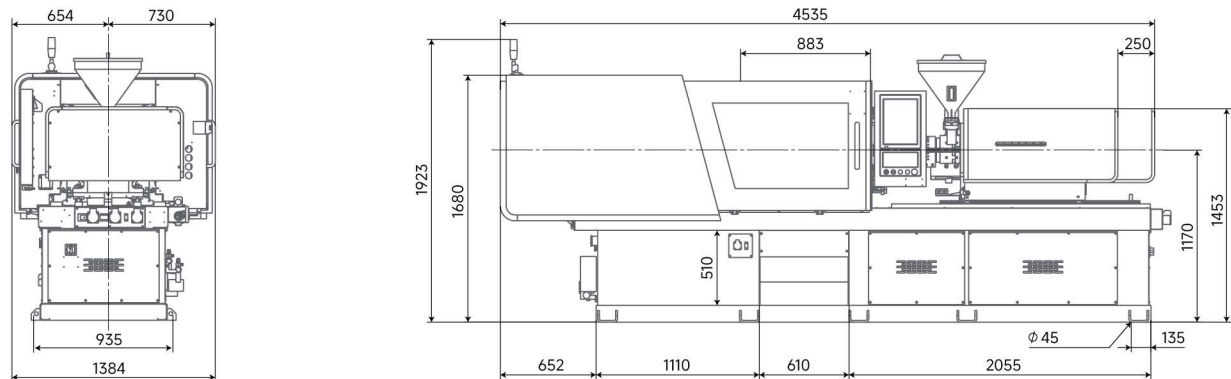
SPARK AE All Electric

SPARK AE100									
INJECTION UNIT		UNIT	A	B	C	CLAMPING UNIT		UNIT	
Screw Diameter	mm	25	28	32		Clamping Force	KN	1000	
Screw Stroke	mm	100	110	110		Clamp Opening Stroke	mm	360	
Injection Capacity (Theoretical)	cm ³	49	67	88		Mold Thickness (Min.)	mm	150	
Injection Shot Weight (PS)	g	45	62	81		Mold Thickness (Max.)	mm	510	
Injection Shot Weight (PS)	oz	1.6	2.2	2.9		Distance Between Tie Bars	mm	460×410	
Injection Rate	cm ³ /s	172	215	281		Max. Daylight	mm	870	
Injection Speed	mm/s	350				Ejector Force	KN	24.5	
Injection Pressure	Mpa	260	220	175		Ejector Stroke	mm	100	
Holding Pressure	Mpa	208	176	140		POWER PACK			
Plasticising Rate (Max.)	g/s	7.8	11	15		Input Power		380V 50Hz	
Screw Rotation Speed	rpm	350				Max. Power Draw	KW/A	18KW/37A	
Barrel Heating Power	KW	6.3	7.2	8.2		OTHERS			
Temperature Control Zones		3+1				Machine Dimensions (L×W×H)	mm	4563×1384×1923	
Nozzle Contact Force	KN	34				Machine Weight	t	3.9	

Mould Platen Dimensions



Overall Dimensions (L×W×H)

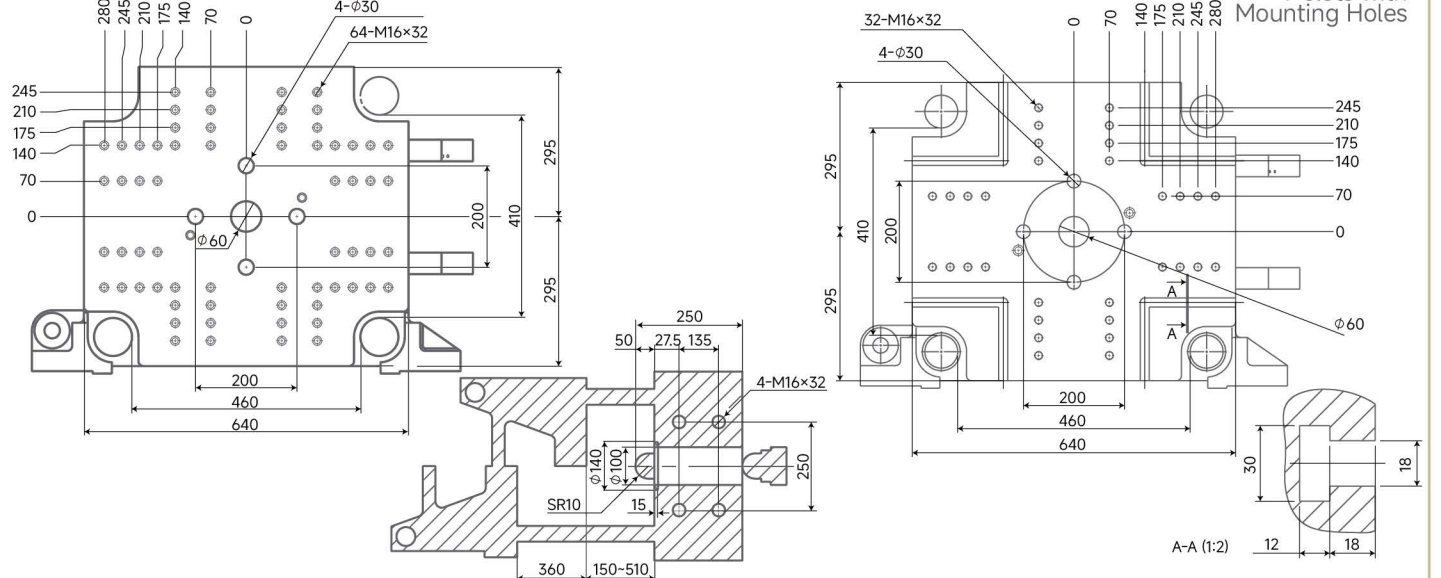


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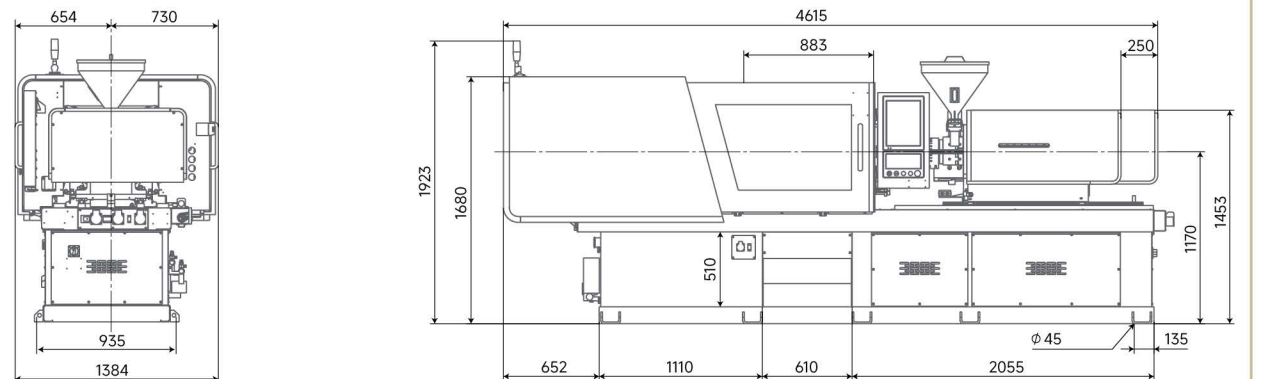
SPARK AE All Electric

SPARK AE120							
INJECTION UNIT	UNIT	A	B	C	CLAMPING UNIT	UNIT	
Screw Diameter	mm	28	32	36	Clamping Force	KN	1200
Screw Stroke	mm	110	110	110	Clamp Opening Stroke	mm	360
Injection Capacity (Theoretical)	cm³	67	88	112	Mold Thickness (Min.)	mm	150
Injection Shot Weight (PS)	g	62	81	103	Mold Thickness (Max.)	mm	510
Injection Shot Weight (PS)	oz	2.2	2.9	3.6	Distance Between Tie Bars	mm	460×410
Injection Rate	cm³/s	215	281	356	Max. Daylight	mm	870
Injection Speed	mm/s	350			Ejector Force	KN	24.5
Injection Pressure	Mpa	220	175	138	Ejector Stroke	mm	100
Holding Pressure	Mpa	176	140	110	POWER PACK		
Plasticising Rate (Max.)	g/s	11	15	21	Input Power		380V 50Hz
Screw Rotation Speed	rpm	350			Max. Power Draw	KW/A	20kW/49A
Barrel Heating Power	KW	7.2	8.2	8.9	OTHERS		
Temperature Control Zones		3+1			Machine Dimensions (L×W×H)	mm	4615×1384×1923
Nozzle Contact Force	KN	34			Machine Weight	t	4.1

Mould Platen Dimensions

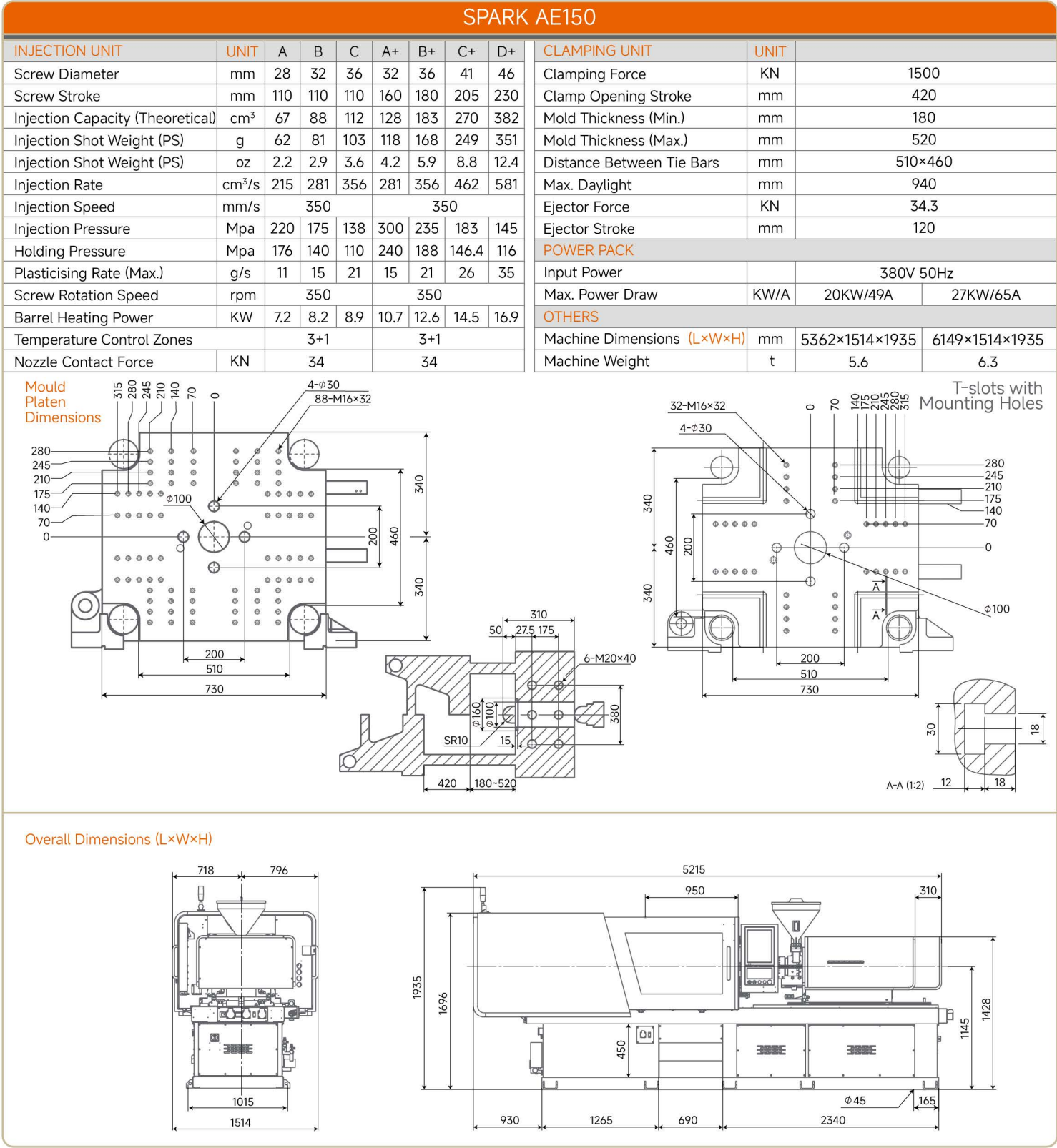


Overall Dimensions (L×W×H)



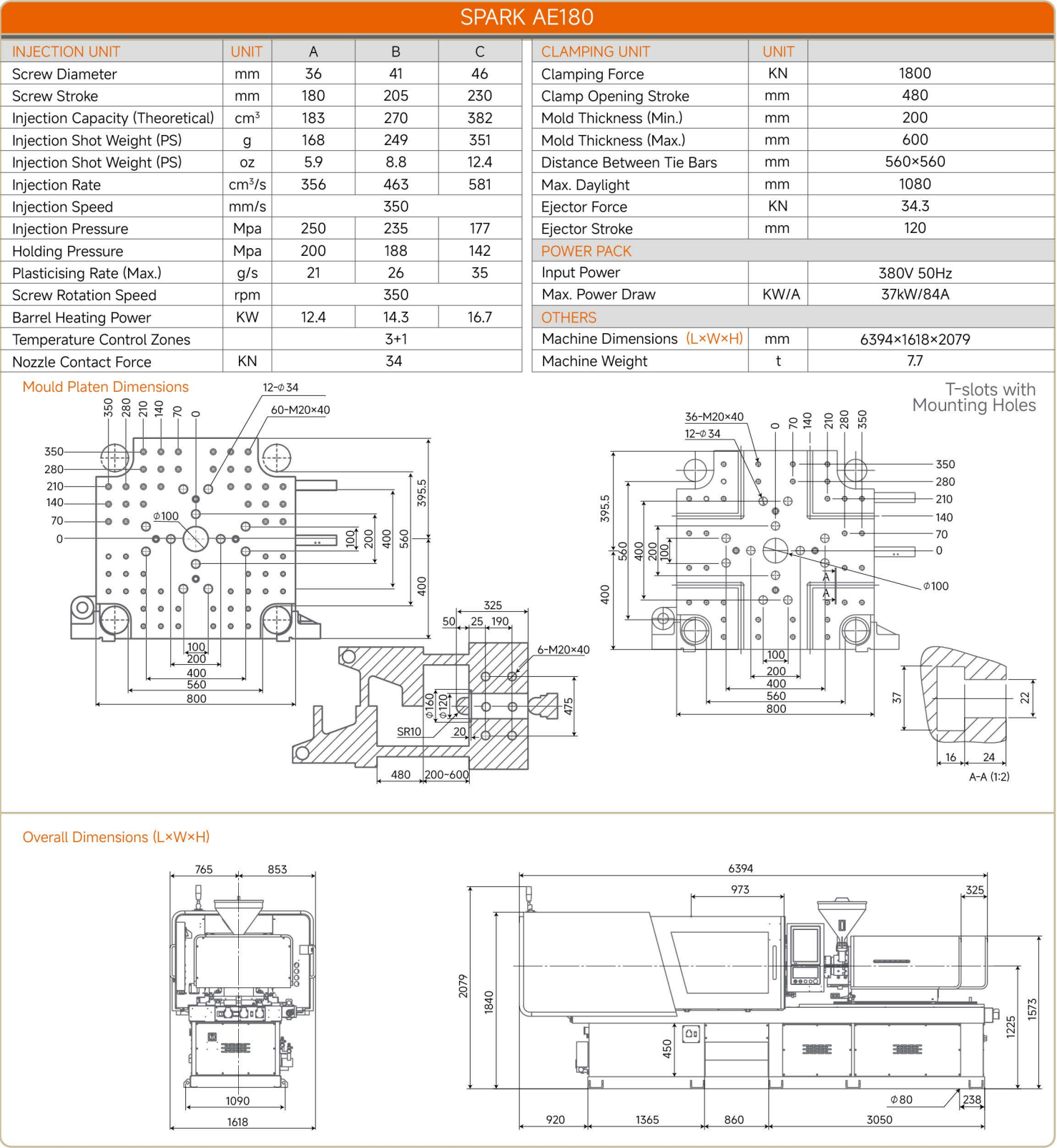
SPARK AE All Electric

Note: A, B, C (Standard injection unit); A+, B+, C+, D+ (Enlarge injection unit)



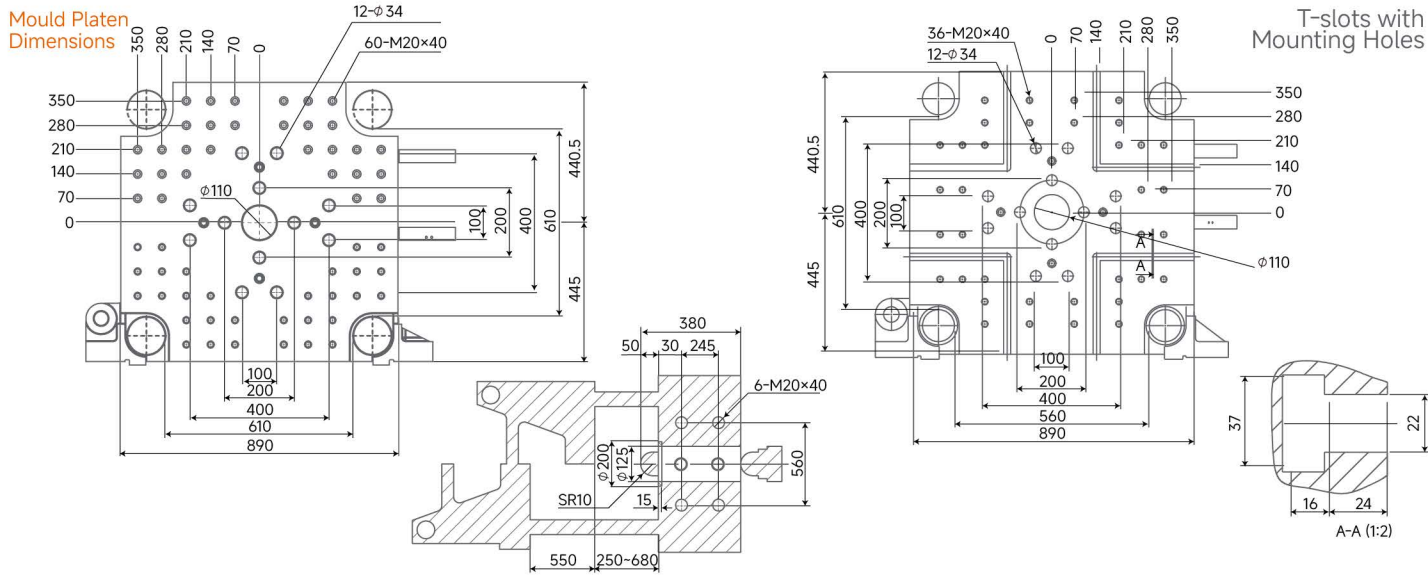
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SPARK AE All Electric

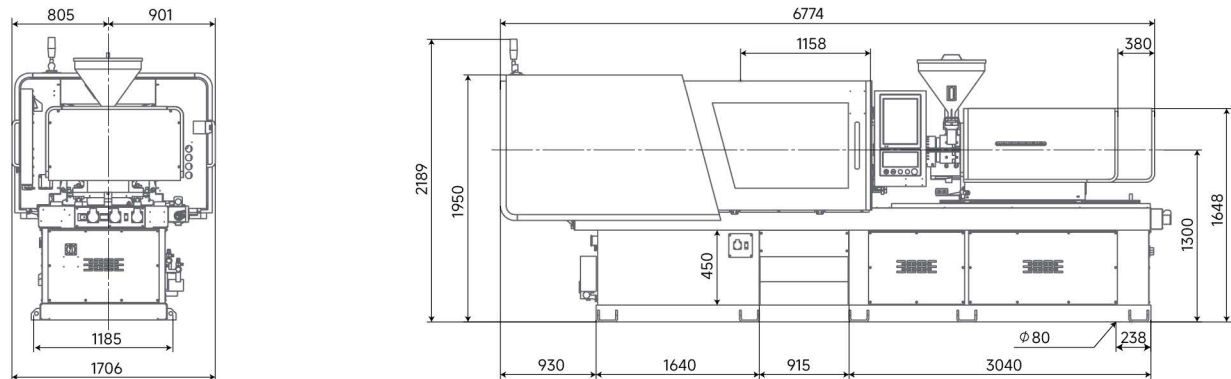


SPARK AE All Electric

SPARK AE230							
INJECTION UNIT	UNIT	A	B	C	CLAMPING UNIT	UNIT	
Screw Diameter	mm	36	41	46	Clamping Force	KN	2300
Screw Stroke	mm	180	205	230	Clamp Opening Stroke	mm	550
Injection Capacity (Theoretical)	cm³	183	270	382	Mold Thickness (Min.)	mm	250
Injection Shot Weight (PS)	g	168	249	351	Mold Thickness (Max.)	mm	680
Injection Shot Weight (PS)	oz	5.9	8.8	12.4	Distance Between Tie Bars	mm	610×610
Injection Rate	cm³/s	356	462	581	Max. Daylight	mm	1230
Injection Speed	mm/s	350			Ejector Force	KN	51.9
Injection Pressure	Mpa	250	235	176	Ejector Stroke	mm	150
Holding Pressure	Mpa	200	188	142	POWER PACK		
Plasticising Rate (Max.)	g/s	21	26	35	Input Power		380V 50Hz
Screw Rotation Speed	rpm	350			Max. Power Draw	KW/A	37kW/84A
Barrel Heating Power	KW	12.4	14.3	16.7	OTHERS		
Temperature Control Zones		3+1			Machine Dimensions (L×W×H)	mm	6774×1706×2189
Nozzle Contact Force	KN	34			Machine Weight	t	10.2



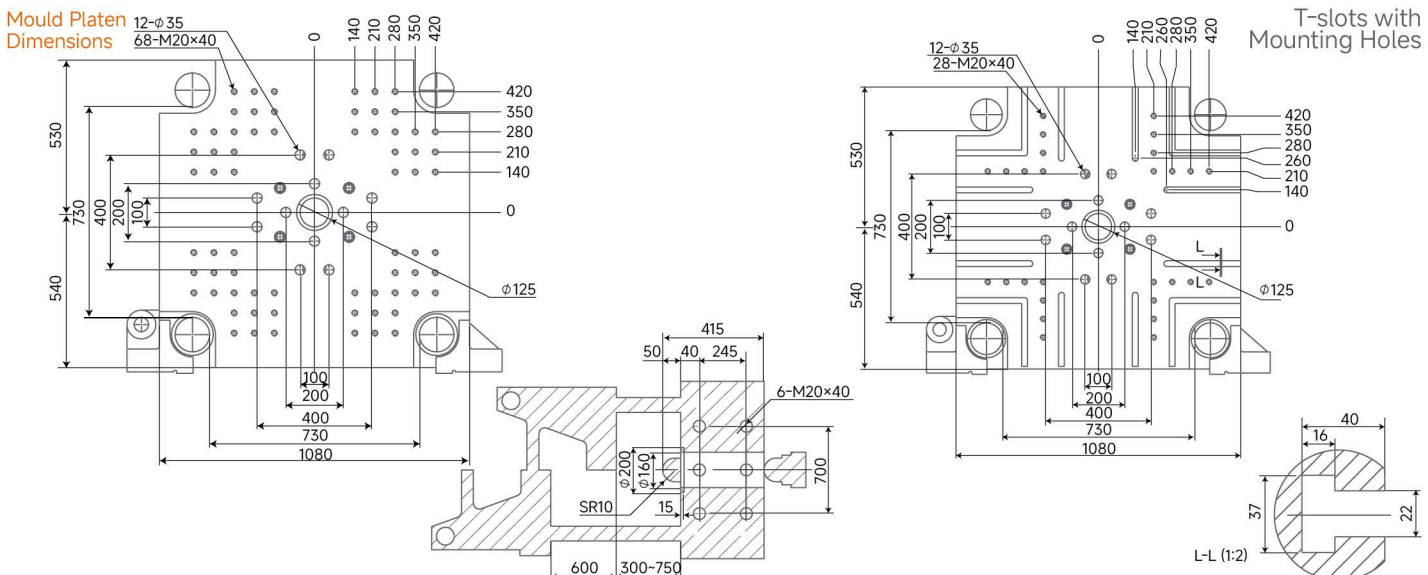
Overall Dimensions (L×W×H)



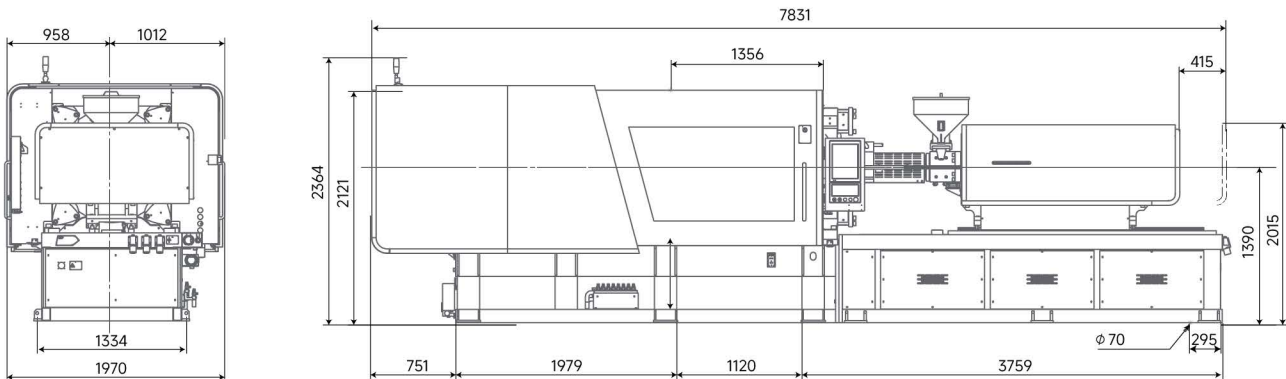
SPARK AE All Electric

Note: A, B, C (Standard injection unit); A+, B+, C+, D+ (Enlarged Injection Unit)

SPARK AE300													
INJECTION UNIT		UNIT	A	B	C	A+	B+	C+	CLAMPING UNIT		UNIT		
Screw Diameter	mm	46	52	60	60	67	75		Clamping Force	KN	3000		
Screw Stroke	mm	230	260	285	300	330	360		Clamp Opening Stroke	mm	600		
Injection Capacity (Theoretical)	cm³	382	552	805	848	1163	1590		Mold Thickness (Min.)	mm	300		
Injection Shot Weight (PS)	g	351	507	740	780	1070	1462		Mold Thickness (Max.)	mm	750		
Injection Shot Weight (PS)	oz	12.4	17.9	26	27.6	37.8	51.6		Distance Between Tie Bars	mm	730×730		
Injection Rate	cm³/s	581	743	988	565	705	883		Max. Daylight	mm	1350		
Injection Speed	mm/s	350			200				Ejector Force	KN	62		
Injection Pressure	Mpa	306	240	180	234	188	150		Ejector Stroke	mm	160		
Holding Pressure	Mpa	244	192	144	187	150	120		POWER PACK				
Plasticising Rate (Max.)	g/s	30	48	64	50	80.7	95.5		Input Power		380V 50Hz		
Screw Rotation Speed	rpm	300			235				Max. Power Draw	KW/A	50KW/117A		69KW/157A
Barrel Heating Power	KW	19.7	22.8	26	30.2	33.6	39.4		OTHERS				
Temperature Control Zones		3+1			3+1				Machine Dimensions (L×W×H)	mm	7831×1970×2364		8440×1970×2364
Nozzle Contact Force	KN	51.1			51.1				Machine Weight	t	14.5		15.3



Overall Dimensions (L×W×H)

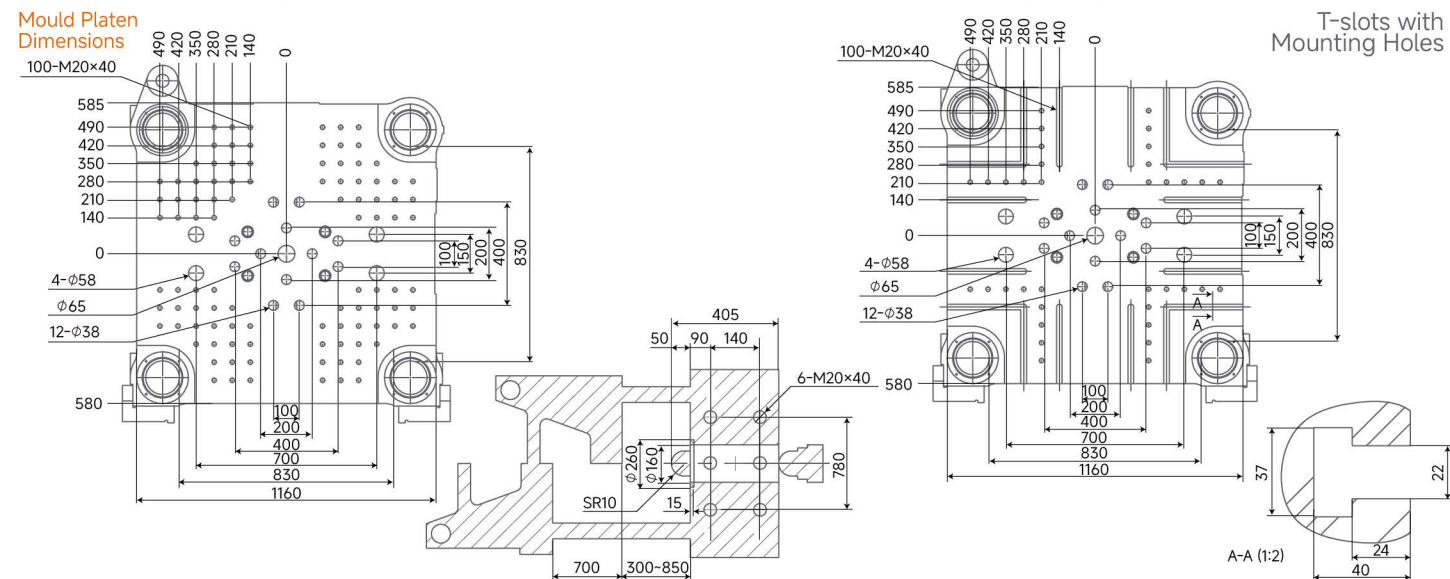


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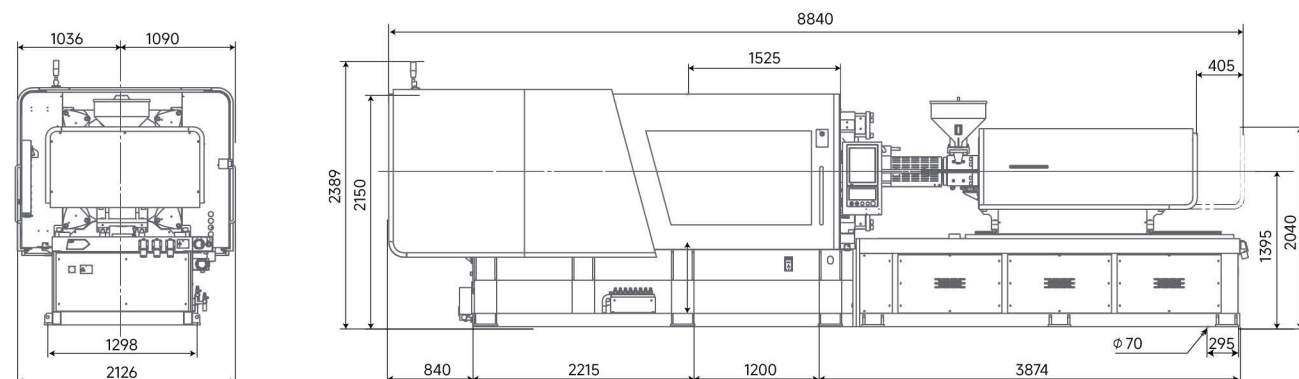
SPARK AE All Electric

SPARK AE360

INJECTION UNIT		UNIT	A	B	C	CLAMPING UNIT		UNIT		
Screw Diameter	mm	60	67	75		Clamping Force	KN	3600		
Screw Stroke	mm	300	330	360		Clamp Opening Stroke	mm	700		
Injection Capacity (Theoretical)	cm³	848	1163	1590		Mold Thickness (Min.)	mm	300		
Injection Shot Weight (PS)	g	780	1070	1462		Mold Thickness (Max.)	mm	850		
Injection Shot Weight (PS)	oz	27.6	37.8	51.6		Distance Between Tie Bars	mm	830×830		
Injection Rate	cm³/s	565	705	883		Max. Daylight	mm	1550		
Injection Speed	mm/s	200				Ejector Force	KN	62		
Injection Pressure	Mpa	234	188	150		Ejector Stroke	mm	200		
Holding Pressure	Mpa	187	150	120		POWER PACK				
Plasticising Rate (Max.)	g/s	50	80.7	95.5		Input Power		380V 50Hz		
Screw Rotation Speed	rpm	235				Max. Power Draw	KW/A	69kW/157A		
Barrel Heating Power	KW	30.2	33.6	39.4		OTHERS				
Temperature Control Zones		4+1				Machine Dimensions (L×W×H)	mm	8840×2126×2389		
Nozzle Contact Force	KN	76.6				Machine Weight	t	18.5		



Overall Dimensions (L×W×H)

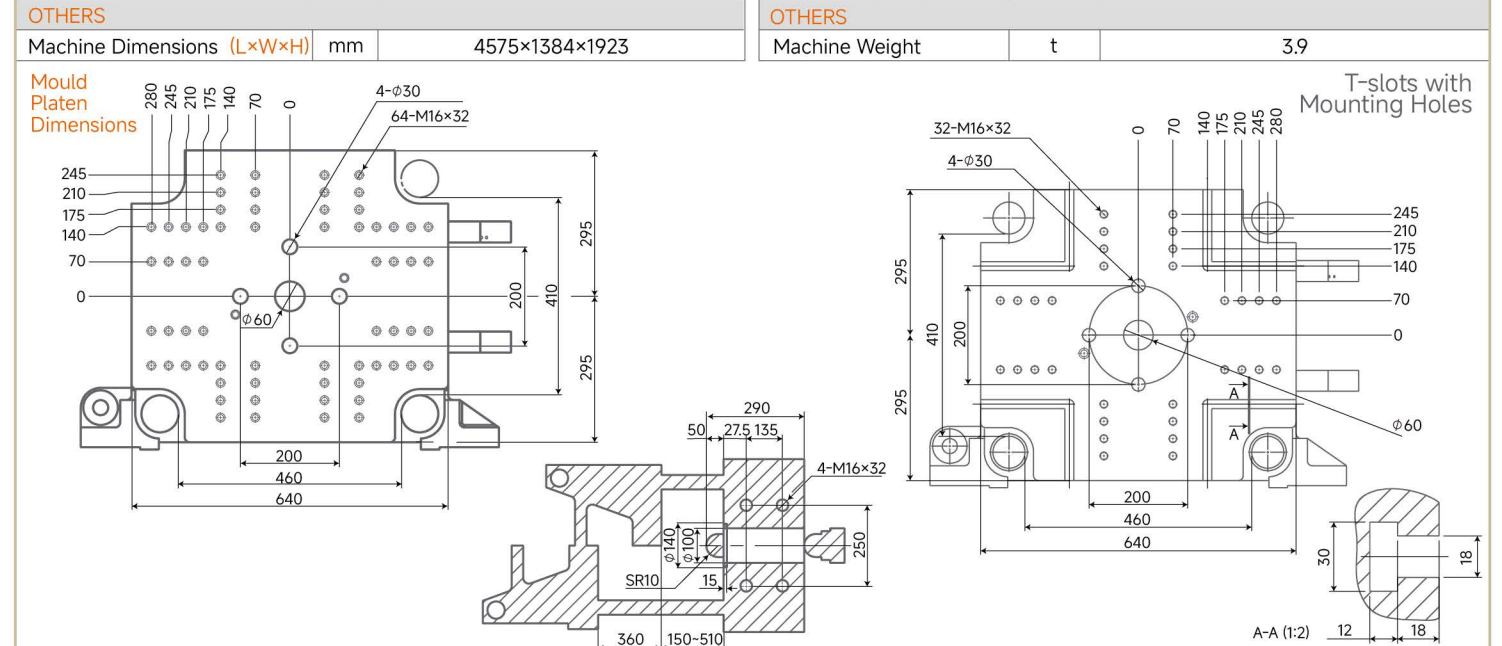


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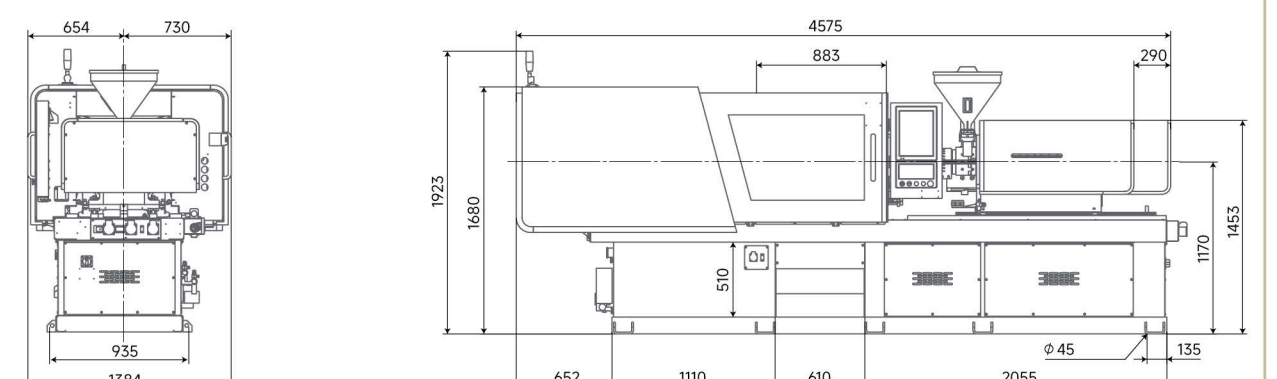
SPARK EH Electric Hydraulic

SPARK EH100

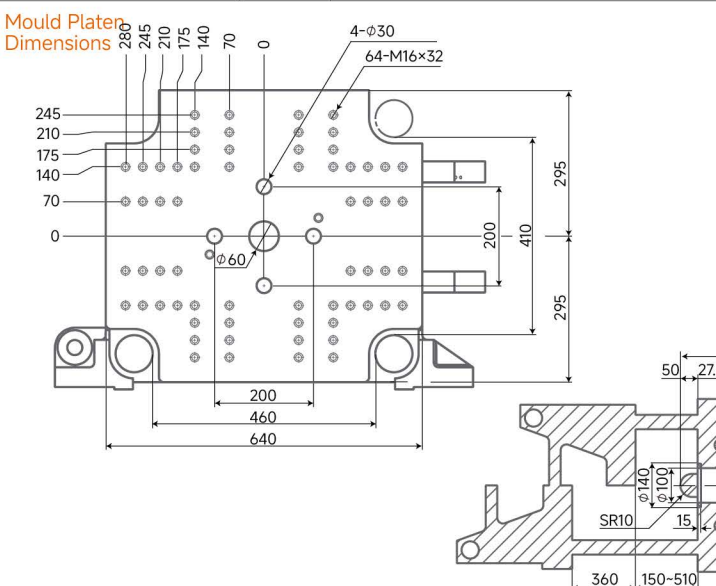
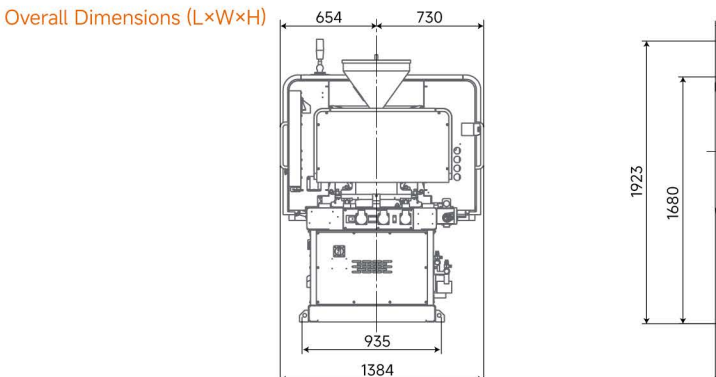
INJECTION UNIT	UNIT	A	B	C	CLAMPING UNIT	UNIT	
Screw Diameter	mm	25	28	32	Clamping Force	KN	1000
Screw Stroke	mm	100	110	110	Opening Force	mm	360
Swept Volume	cm ³	49	67	88	Min. Mold Thickness	mm	150
Shot Weight (PS)	g	45	62	81	Max. Mold Thickness	mm	510
Shot Weight (PS)	oz	1.6	2.2	2.9	Space Between Tie Bars	mm	460×410
Injection Rate	cm ³ /s	98	123	160	Max. Daylight	mm	870
Injection Speed	mm/s	200			Ejector Force	KN	34
Injection Pressure	Mpa	260	220	175	Ejector Stroke	mm	100
Holding Pressure	Mpa	208	176	140	POWER PACK		
Plasticizing Capacity	g/s	7.8	11	15	Input Power		380V 50Hz
Screw Rotation Speed	rpm	350			Max. Power Draw	kW/A	18kW/37A
Barrel Heating Power	kW	6.3	7.2	8.2	Max. System Pressure	Mpa	17.5
Barrel Temperature Zones		3+1			System Flow	L/min	30
Nozzle Contact Force	KN	41			Oil Tank Capacity	L	60



Overall Dimensions
(L×W×H)

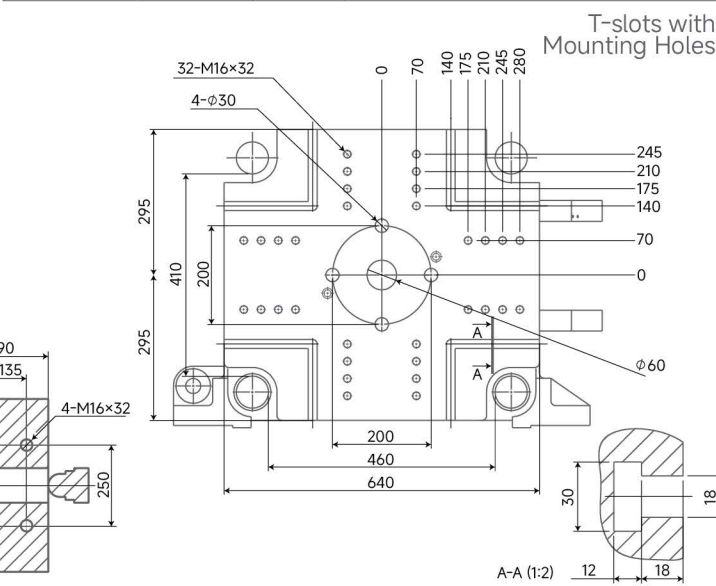


SPARK EH Electric Hydraulic

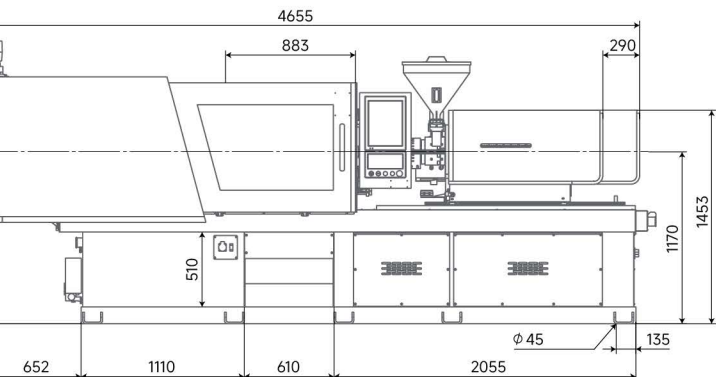
SPARK EH120									
INJECTION UNIT		UNIT	A	B	C	CLAMPING UNIT		UNIT	
Screw Diameter		mm	28	32	36	Clamping Force		KN	1200
Screw Stroke		mm	110	110	110	Opening Force		mm	360
Swept Volume		cm ³	67	88	112	Min. Mold Thickness		mm	150
Shot Weight (PS)		g	62	81	103	Max. Mold Thickness		mm	510
Shot Weight (PS)		oz	2.2	2.9	3.6	Space Between Tie Bars		mm	460×410
Injection Rate		cm ³ /s	123	160	203	Max. Daylight		mm	870
Injection Speed		mm/s	200			Ejector Force		KN	34
Injection Pressure		Mpa	220	175	138	Ejector Stroke		mm	100
Holding Pressure		Mpa	176	140	110	POWER PACK			
Plasticising Capacity		g/s	11	15	21	Input Power			380V 50Hz
Screw Rotation Speed		rpm	350			Max. Power Draw		kW/A	20kW/49A
Barrel Heating Power		kW	7.2	8.2	8.9	Max. System Pressure		Mpa	17.5
Barrel Temperature Zones			3+1			System Flow		L/min	30
Nozzle Contact Force		KN	41			Oil Tank Capacity		L	60
OTHERS			(L×W×H)			OTHERS			
Machine Dimensions		mm	4655×1384×1923			Machine Weight		t	4.1
Mould Platen Dimensions 									
Overall Dimensions (L×W×H) 									

CLAMPING UNIT		UNIT	
Clamping Force		KN	1200
Opening Force		mm	360
Min. Mold Thickness		mm	150
Max. Mold Thickness		mm	510
Space Between Tie Bars		mm	460×410
Max. Daylight		mm	870
Ejector Force		KN	34
Ejector Stroke		mm	100
POWER PACK			
Input Power			380V 50Hz
Max. Power Draw		kW/A	20kW/49A
Max. System Pressure		Mpa	17.5
System Flow		L/min	30
Oil Tank Capacity		L	60
OTHERS			
Machine Weight		t	4.1

Mould Platen Dimensions



Overall Dimensions (L×W×H)



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SPARK EH Electric Hydraulic

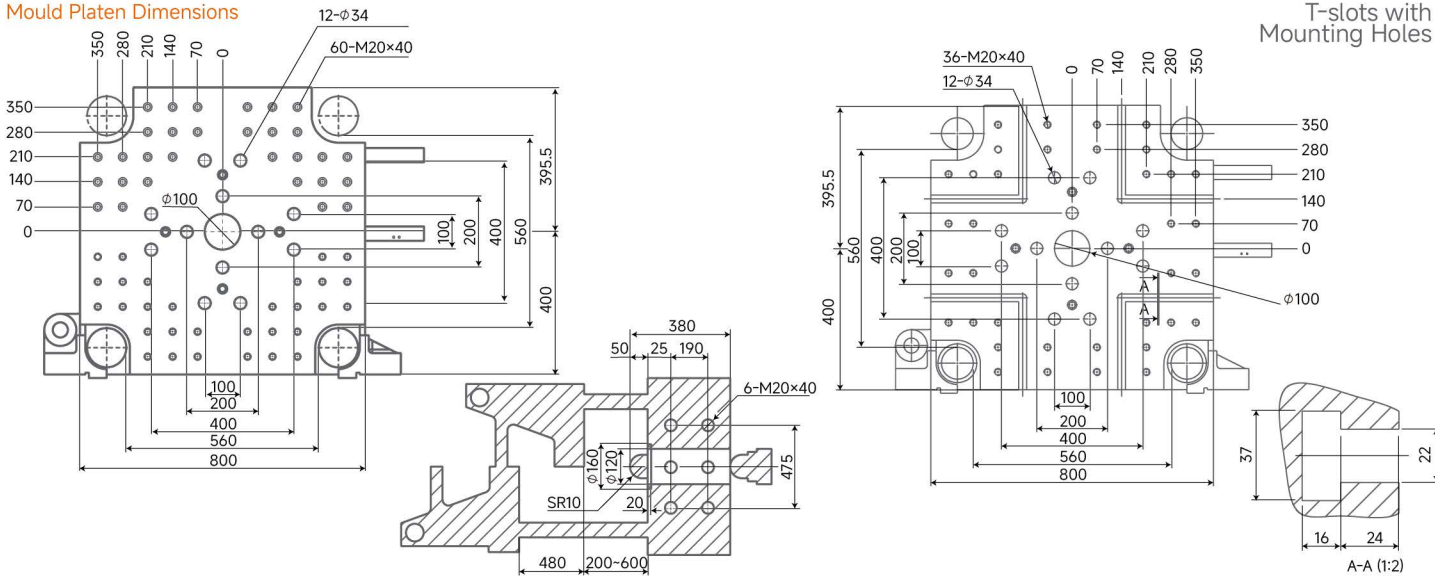
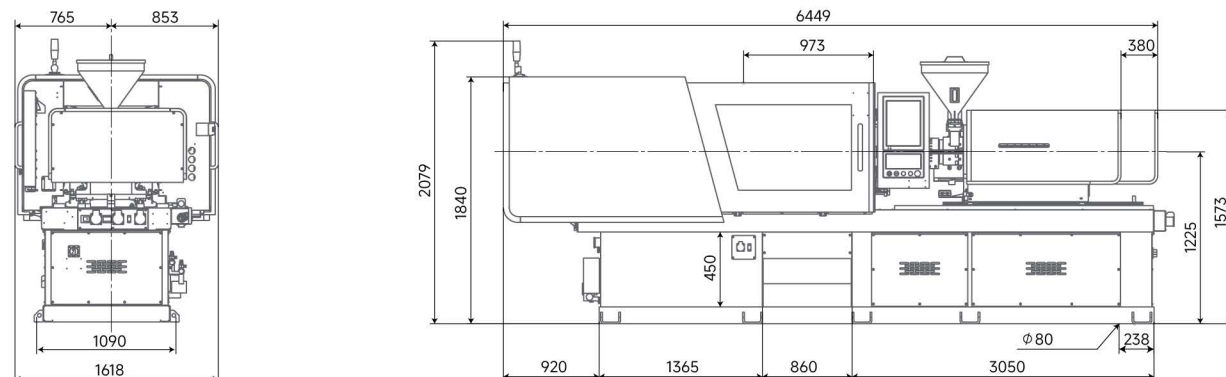
Note: A, B, C (Standard injection unit); A+, B+, C+, D+ (Enlarged Injection Unit)

SPARK EH150									
INJECTION UNIT		UNIT	A	B	C	A+	B+	C+	D+
Screw Diameter		mm	28	32	36	32	36	41	46
Screw Stroke		mm	110	110	110	160	180	205	230
Swept Volume		cm ³	67	88	112	128	183	270	382
Shot Weight (PS)		g	62	81	103	118	168	249	351
Shot Weight (PS)		oz	2.2	2.9	3.6	4.2	5.9	8.8	12.4
Injection Rate		cm ³ /s	123	160	203	160	203	264	332
Injection Speed		mm/s	200			200			
Injection Pressure		Mpa	220	175	138	300	235	183	145
Holding Pressure		Mpa	176	140	110	240	188	146.4	116
Plasticising Capacity		g/s	11	15	21	15	21	26	35
Screw Rotation Speed		rpm	350			350			
Barrel Heating Power		KW	7.2	8.2	8.9	10.7	12.6	14.5	16.9
Barrel Temperature Zones			3+1			3+1			
Nozzle Contact Force		KN	41			61			
OTHERS (L×W×H)									
Machine Dimensions		mm	5362×1514×1935			6164×1514×1935			

CLAMPING UNIT		UNIT		
Clamping Force		KN	1500	
Opening Force		mm	420	
Min. Mold Thickness		mm	180	
Max. Mold Thickness		mm	520	
Space Between Tie Bars		mm	510×460	
Max. Daylight		mm	940	
Ejector Force		KN	34	
Ejector Stroke		mm	120	
POWER PACK				
Input Power			380V 50Hz	
Max. Power Draw		KW/A	20KW/49A	27KW/65A
Max. System Pressure		Mpa	17.5	
System Flow		L/min	45	
Oil Tank Capacity		L	90	
OTHERS				
Machine Weight		t	5.8	6.5

Mould Platen Dimensions

SPARK EH Electric Hydraulic

SPARK EH180									
INJECTION UNIT		UNIT	A	B	C	CLAMPING UNIT		UNIT	
Screw Diameter		mm	36	41	46	Clamping Force		KN	1800
Screw Stroke		mm	180	205	230	Opening Force		mm	480
Swept Volume		cm ³	183	270	382	Min. Mold Thickness		mm	200
Shot Weight (PS)		g	168	249	351	Max. Mold Thickness		mm	600
Shot Weight (PS)		oz	5.9	8.8	12.4	Space Between Tie Bars		mm	560×560
Injection Rate		cm ³ /s	203	264	332	Max. Daylight		mm	1080
Injection Speed		mm/s	200			Ejector Force		KN	67
Injection Pressure		Mpa	250	235	177	Ejector Stroke		mm	120
Holding Pressure		Mpa	200	188	142	POWER PACK			
Plasticising Capacity		g/s	21	26	35	Input Power			380V 50Hz
Screw Rotation Speed		rpm	350			Max. Power Draw		kW/A	37kW/84A
Barrel Heating Power		kW	12.4	14.3	16.7	Max. System Pressure		Mpa	17.5
Barrel Temperature Zones			3+1			System Flow		L/min	74
Nozzle Contact Force		KN	61			Oil Tank Capacity		L	150
OTHERS					(L×W×H)				
Machine Dimensions		mm	6449×1618×2079			Machine Weight		t	7.7
Mould Platen Dimensions					T-slots with Mounting Holes				
									
Overall Dimensions (L×W×H)									

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SPARK EH Electric Hydraulic

SPARK EH230									
INJECTION UNIT		UNIT	A	B	C	CLAMPING UNIT		UNIT	
Screw Diameter		mm	36	41	46	Clamping Force		KN	2300
Screw Stroke		mm	180	205	230	Opening Force		mm	550
Swept Volume		cm³	183	270	382	Min. Mold Thickness		mm	250
Shot Weight (PS)		g	168	249	351	Max. Mold Thickness		mm	680
Shot Weight (PS)		oz	5.9	8.8	12.4	Space Between Tie Bars		mm	610×610
Injection Rate		cm³/s	203	264	332	Max. Daylight		mm	1230
Injection Speed		mm/s	200			Ejector Force		KN	67
Injection Pressure		Mpa	250	235	177	Ejector Stroke		mm	150
Holding Pressure		Mpa	200	188	142	POWER PACK			
Plasticising Capacity		g/s	21	26	35	Input Power			380V 50Hz
Screw Rotation Speed		rpm	350			Max. Power Draw		kW/A	37kW/84A
Barrel Heating Power		kW	12.4	14.3	16.7	Max. System Pressure		Mpa	17.5
Barrel Temperature Zones			3+1			System Flow		L/min	74
Nozzle Contact Force		KN	61			Oil Tank Capacity		L	150
OTHERS					(L×W×H)				
Machine Dimensions		mm	6794×1706×2189			OTHERS			
Machine Weight		t	10.2			T-slots with Mounting Holes			
Mould Platen Dimensions									

SPARK EH Electric Hydraulic

Note: A, B, C (Standard injection unit); A+, B+, C+, D+ (Enlarged Injection Unit)

SPARK EH300												
INJECTION UNIT		UNIT	A	B	C	A+	B+	C+	CLAMPING UNIT		UNIT	
Screw Diameter	mm	46	52	60	60	67	75		Clamping Force	KN	3000	
Screw Stroke	mm	230	260	285	300	330	360		Opening Force	mm	600	
Swept Volume	cm ³	382	552	805	848	1163	1590		Min. Mold Thickness	mm	300	
Shot Weight (PS)	g	351	507	740	780	1070	1462		Max. Mold Thickness	mm	750	
Shot Weight (PS)	oz	12.4	17.9	26	27.6	37.8	51.6		Space Between Tie Bars	mm	730×730	
Injection Rate	cm ³ /s	332	425	565	565	705	883		Max. Daylight	mm	1350	
Injection Speed	mm/s	200			200				Ejector Force	KN	67	
Injection Pressure	Mpa	306	240	180	234	188	150		Ejector Stroke	mm	160	
Holding Pressure	Mpa	244	192	144	187	150	120		POWER PACK			
Plasticising Capacity	g/s	30	48	64	50	80	95		Input Power		380V 50Hz	
Screw Rotation Speed	rpm	300			235				Max. Power Draw	KW/A	50KW/117A 69KW/157A	
Barrel Heating Power	KW	19.7	22.8	26	30.2	33.6	39.4		Max. System Pressure	Mpa	17.5	
Barrel Temperature Zones		3+1			3+1				System Flow	L/min	90	
Nozzle Contact Force	KN	90							Oil Tank Capacity	L	160	
OTHERS		(L×W×H)										
Machine Dimensions	mm	7856×1970×2364				8465×1970×2364				Machine Weight	t	14.9

Mould Platen Dimensions

T-slots with Mounting Holes

Overall Dimensions (L×W×H)

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SPARK EH Electric Hydraulic

SPARK EH360										
INJECTION UNIT		UNIT	A	B	C	CLAMPING UNIT		UNIT		
Screw Diameter	mm	60	67	75		Clamping Force	KN		3600	
Screw Stroke	mm	300	330	360		Opening Force	mm		700	
Swept Volume	cm ³	848	1163	1590		Min. Mold Thickness	mm		300	
Shot Weight (PS)	g	780	1070	1462		Max. Mold Thickness	mm		850	
Shot Weight (PS)	oz	27.6	37.8	51.6		Space Between Tie Bars	mm		830×830	
Injection Rate	cm ³ /s	565	705	883		Max. Daylight	mm		1550	
Injection Speed	mm/s	200				Ejector Force	KN		111	
Injection Pressure	Mpa	234	188	150		Ejector Stroke	mm		200	
Holding Pressure	Mpa	187	150	120		POWER PACK				
Plasticising Capacity	g/s	50	80	95		Input Power			380V 50Hz	
Screw Rotation Speed	rpm	235				Max. Power Draw	kW/A		69kW/157A	
Barrel Heating Power	kW	30.2	33.6	39.4		Max. System Pressure	Mpa		17.5	
Barrel Temperature Zones		4+1				System Flow	L/min		116	
Nozzle Contact Force	KN	90				Oil Tank Capacity	L		210	
OTHERS					(L×W×H)					OTHERS
Machine Dimensions		mm	8875×2126×2389			Machine Weight		t	18.5	

Mould Platen Dimensions
100-M20×40

T-slots with Mounting Holes

Overall Dimensions (L×W×H)

SPARK HB130

Injection Unit		160-1			160-2			430				
Injection Unit	UNIT	A	B	C	A	B	C	A	B	C	D	
Screw Diameter	mm	25	28	32	28	32	36	32	36	41	46	
Injection Stroke	mm	100	110	110	110	110	110	160	180	205	230	
Theoretical Injection Volume	cm³	49	67	88	67	88	112	128	183	270	382	
Injection Capacity (PS)	g	45	62	81	62	81	103	118	168	249	351	
Injection Capacity (PS)	oz	1.6	2.2	2.9	2.2	2.9	3.6	4.2	5.9	8.8	12.4	
Injection Rate	cm³/s	98	123	160	123	160	203	160	203	264	332	
Injection Speed	mm/s	200			200			200				
Injection Pressure	Mpa	260	220	175	220	175	138	300	235	183	145	
Holding Pressure	Mpa	208	176	140	176	140	110	240	188	146	116	
Screw Rotation Speed	rpm	350			350			350				
Heating Power	kW	6.3	7.2	8.2	7.2	8.2	8.9	10.7	12.6	14.5	16.9	
Temperature Control Zones		3+1			3+1			3+1				
Nozzle Contact Force	KN	41			41			61				

Clamping Unit	UNIT	
Clamping Force	KN	1300
Mold Opening Stroke	mm	380
Tie Bar Distance	mm	410×410
Mold Height Capacity	mm	150-450
Max. Mold Plate Distance	mm	830
Ejector Force	t	4.2
Ejector Stroke	mm	120
Locating Flange	mm	100
OTHERS		
Machine Dimensions (L×W×H)	mm	4720×1204×1923

Mould Platen Dimensions

Overall Dimensions (L×W×H)

SPARK HB170

Injection Unit		160-2				430				640		
Injection Unit	UNIT	A	B	C		A	B	C	D	A	B	C
Screw Diameter	mm	28	32	36		32	36	41	46	36	41	46
Injection Stroke	mm	110	110	110		160	180	205	230	180	205	230
Theoretical Injection Volume	cm ³	67	88	112		128	183	270	382	183	270	382
Injection Capacity (PS)	g	62	81	103		118	168	249	351	168	249	351
Injection Capacity (PS)	oz	2.2	2.9	3.6		4.2	5.9	8.8	12.4	5.9	8.8	12.4
Injection Rate	cm ³ /s	123	160	203		160	203	264	332	203	264	332
Injection Speed	mm/s	200				200				200		
Injection Pressure	Mpa	220	175	138		300	235	183	145	250	235	177
Holding Pressure	Mpa	176	140	110		240	188	146	116	200	188	142
Screw Rotation Speed	rpm	350				350				350		
Heating Power	kW	7.2	8.2	8.9		10.7	12.6	14.5	16.9	12.4	14.3	16.7
Temperature Control Zones		3+1				3+1				3+1		
Nozzle Contact Force	KN	41				61				61		

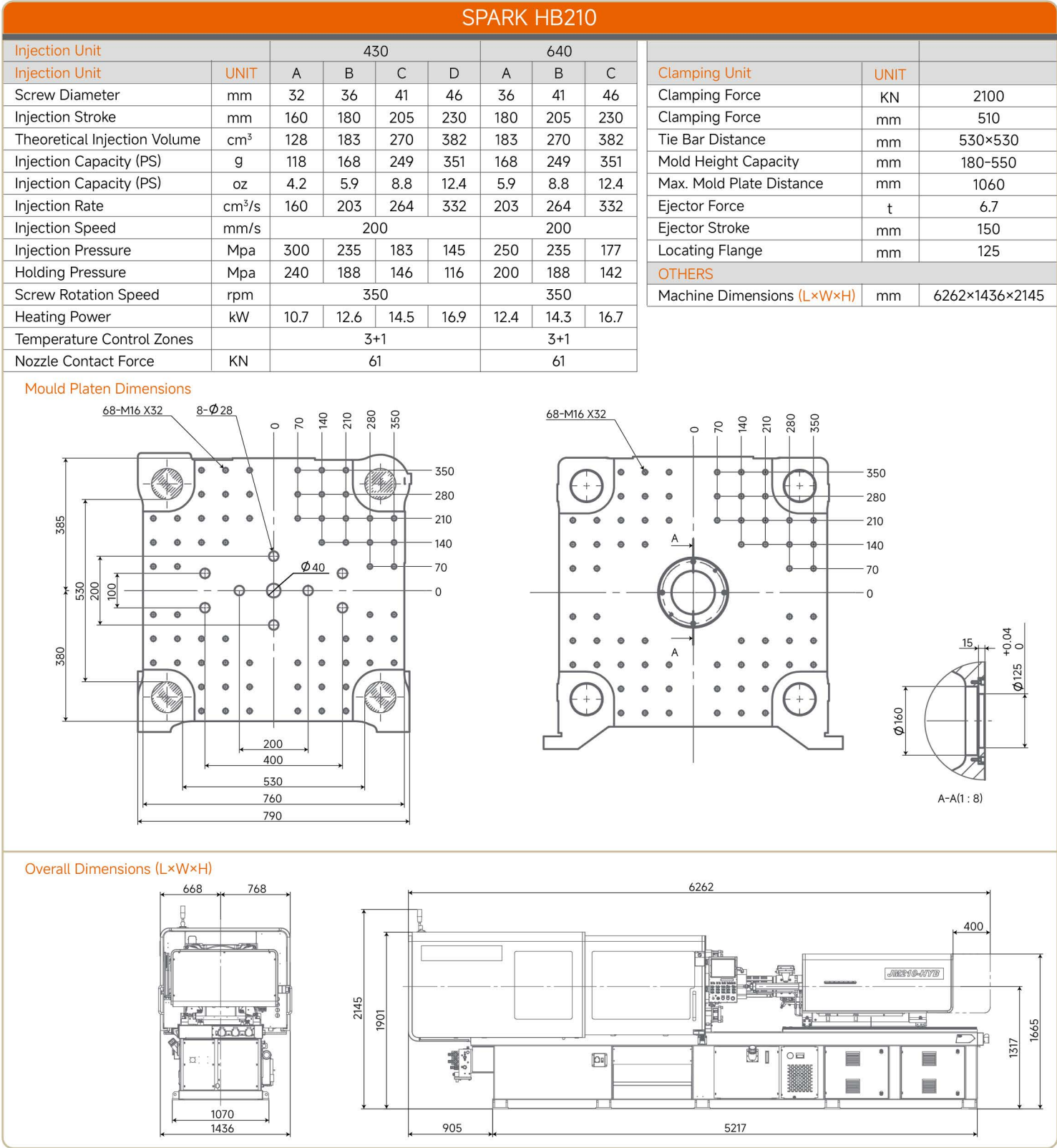
Mould Platen Dimensions

Technical drawing of the mould platen dimensions for SPARK HB170. The drawing includes a front view, a top view, and a side view. The front view shows a square platen with four tie bars, dimensions 700x700mm. The top view shows the tie bar layout with dimensions 680x680mm. The side view shows the platen thickness with dimensions 125mm and 100mm. A detail view B-B shows the tie bar cross-section with dimensions 15mm, 0.04mm, and 100mm.

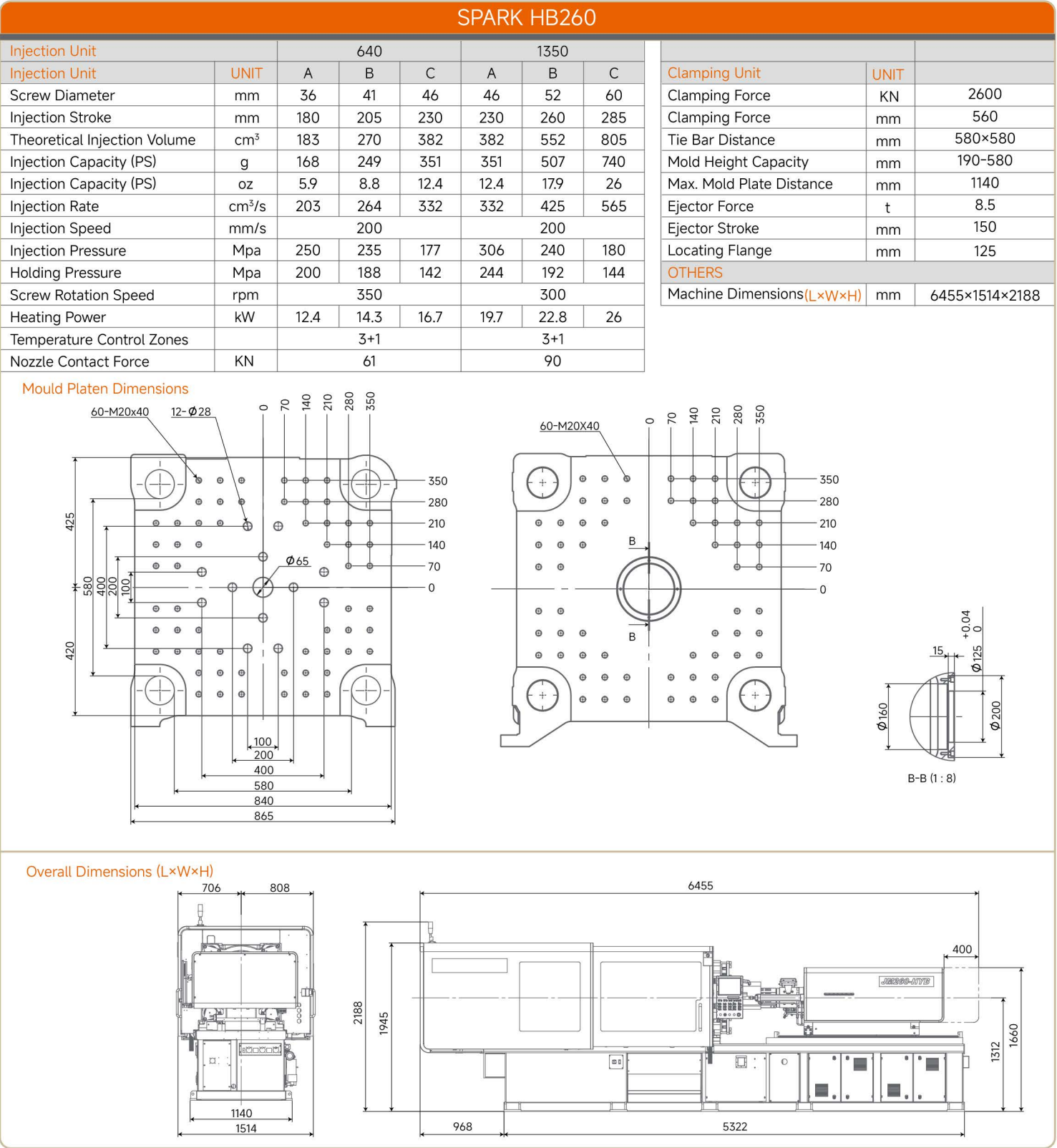
Overall Dimensions (L×W×H)

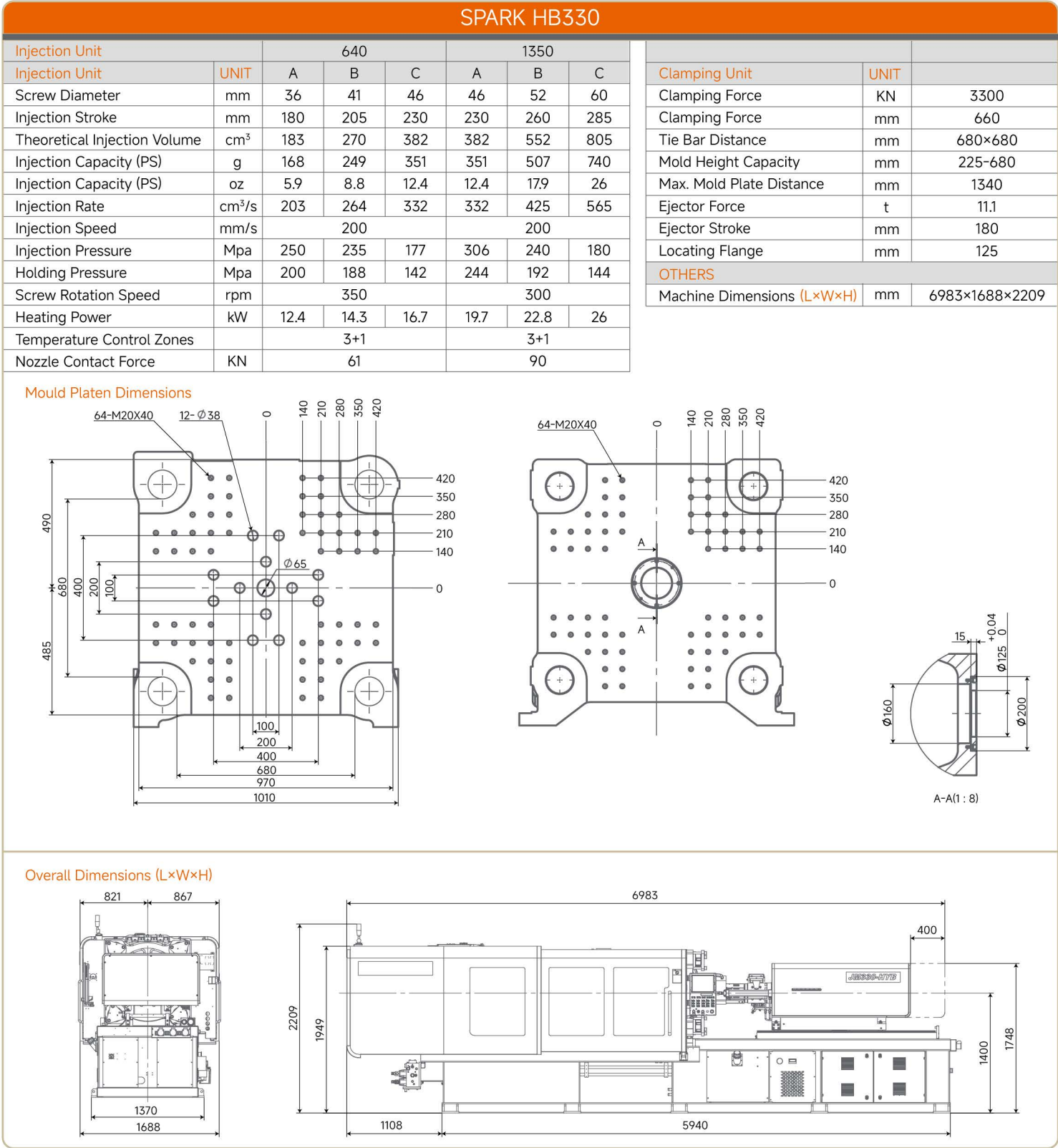
Technical drawing of the overall dimensions for SPARK HB170. The drawing includes a front view, a top view, and a side view. The front view shows dimensions 1239mm (width) and 2018mm (height). The top view shows dimensions 4990mm (length) and 1239mm (width). The side view shows dimensions 2018mm (height) and 4990mm (length).

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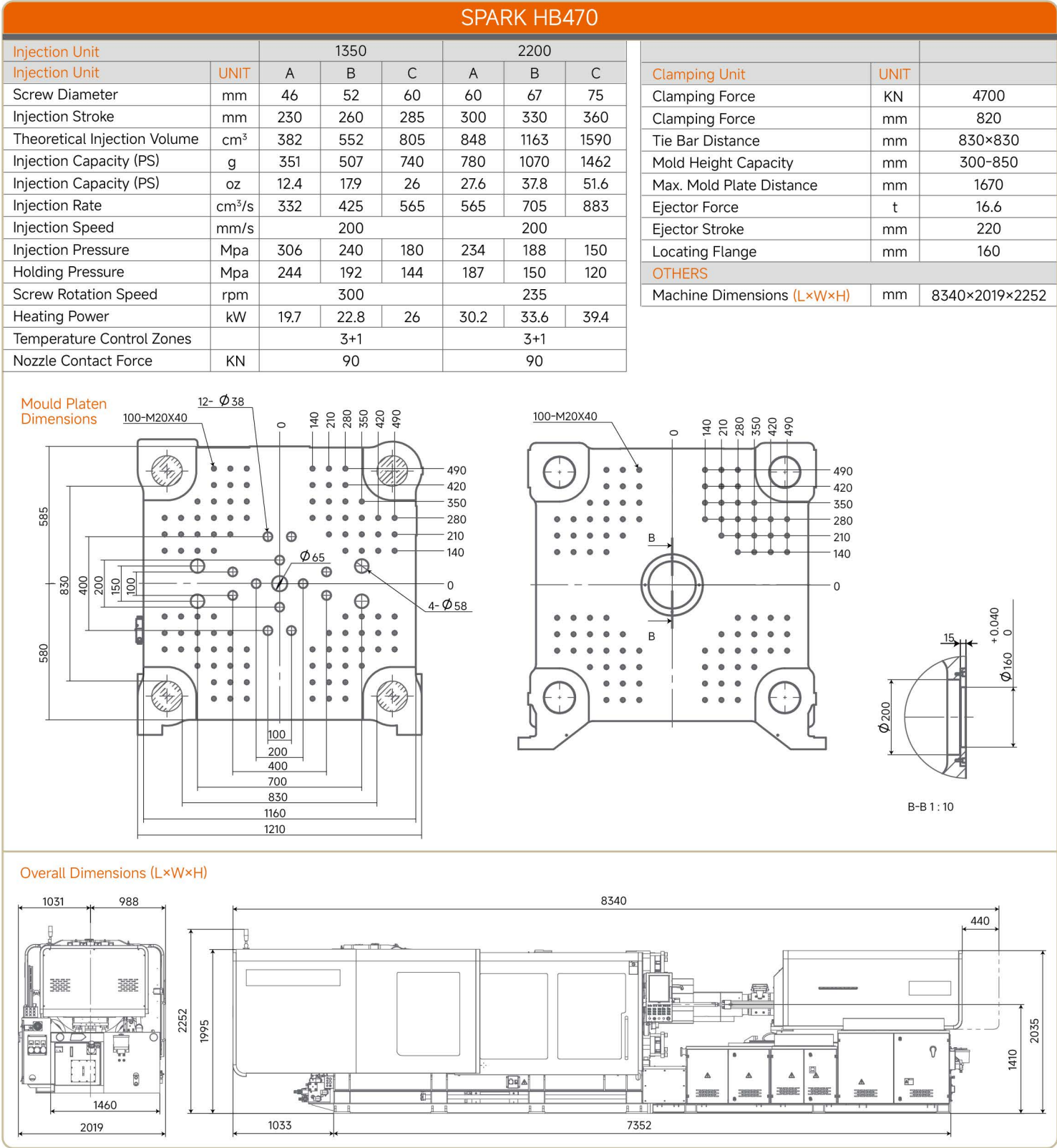


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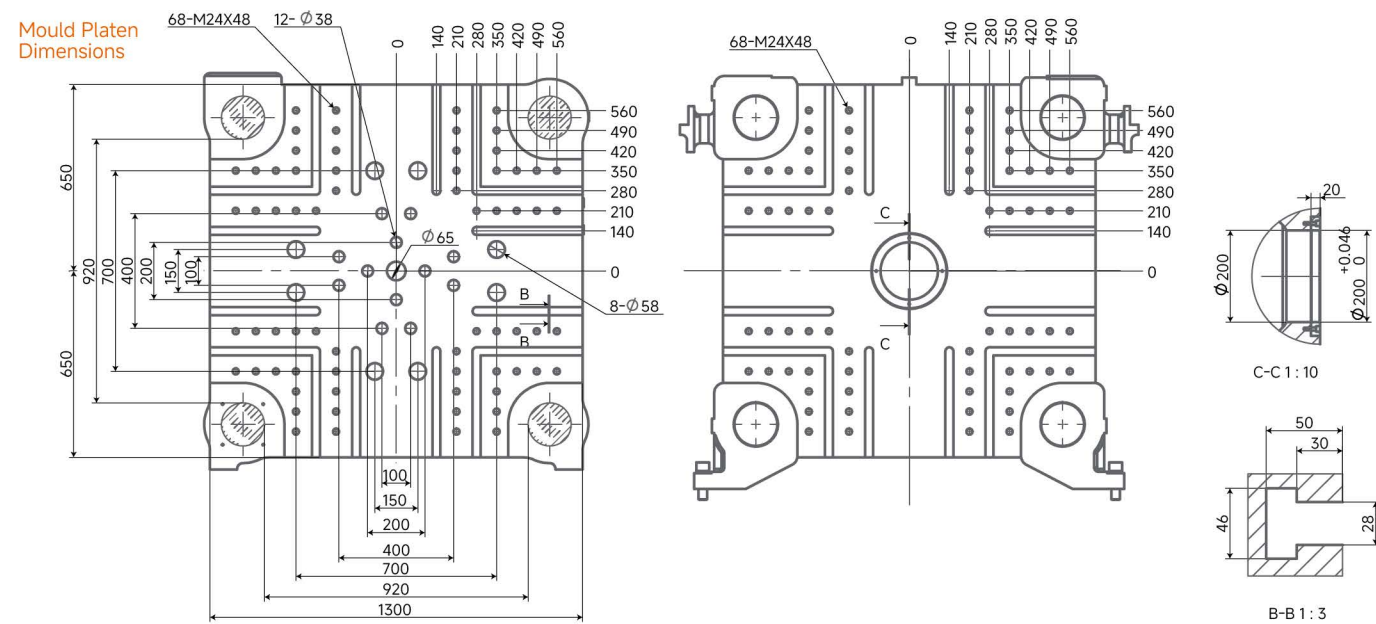




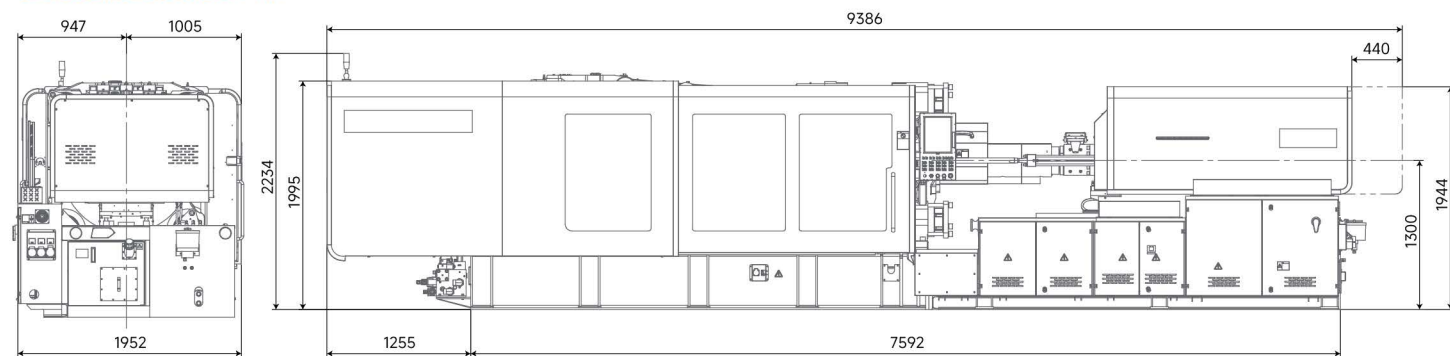
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SPARK HB670						
Injection Unit		2200				
Injection Unit	UNIT	A	B	C	Clamping Unit	UNIT
Screw Diameter	mm	60	67	75	Clamping Force	KN
Injection Stroke	mm	300	330	360	Clamping Force	mm
Theoretical Injection Volume	cm³	848	1163	1590	Tie Bar Distance	mm
Injection Capacity (PS)	g	780	1070	1462	Mold Height Capacity	mm
Injection Capacity (PS)	oz	27.6	37.8	51.6	Max. Mold Plate Distance	mm
Injection Rate	cm³/s	565	705	883	Ejector Force	t
Injection Speed	mm/s	200			Ejector Stroke	mm
Injection Pressure	Mpa	234	188	150	Locating Flange	mm
Holding Pressure	Mpa	187	150	120	OTHERS	
Screw Rotation Speed	rpm	235			Machine Dimensions (L×W×H)	mm
Heating Power	kW	30.2	33.6	39.4	9386×1952×2234	
Temperature Control Zones		4+1				
Nozzle Contact Force	KN	90				



Overall Dimensions (L×W×H)

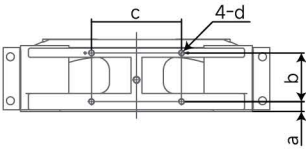
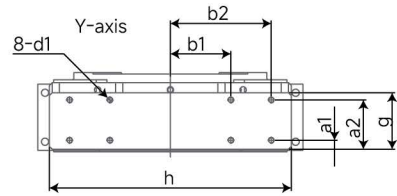
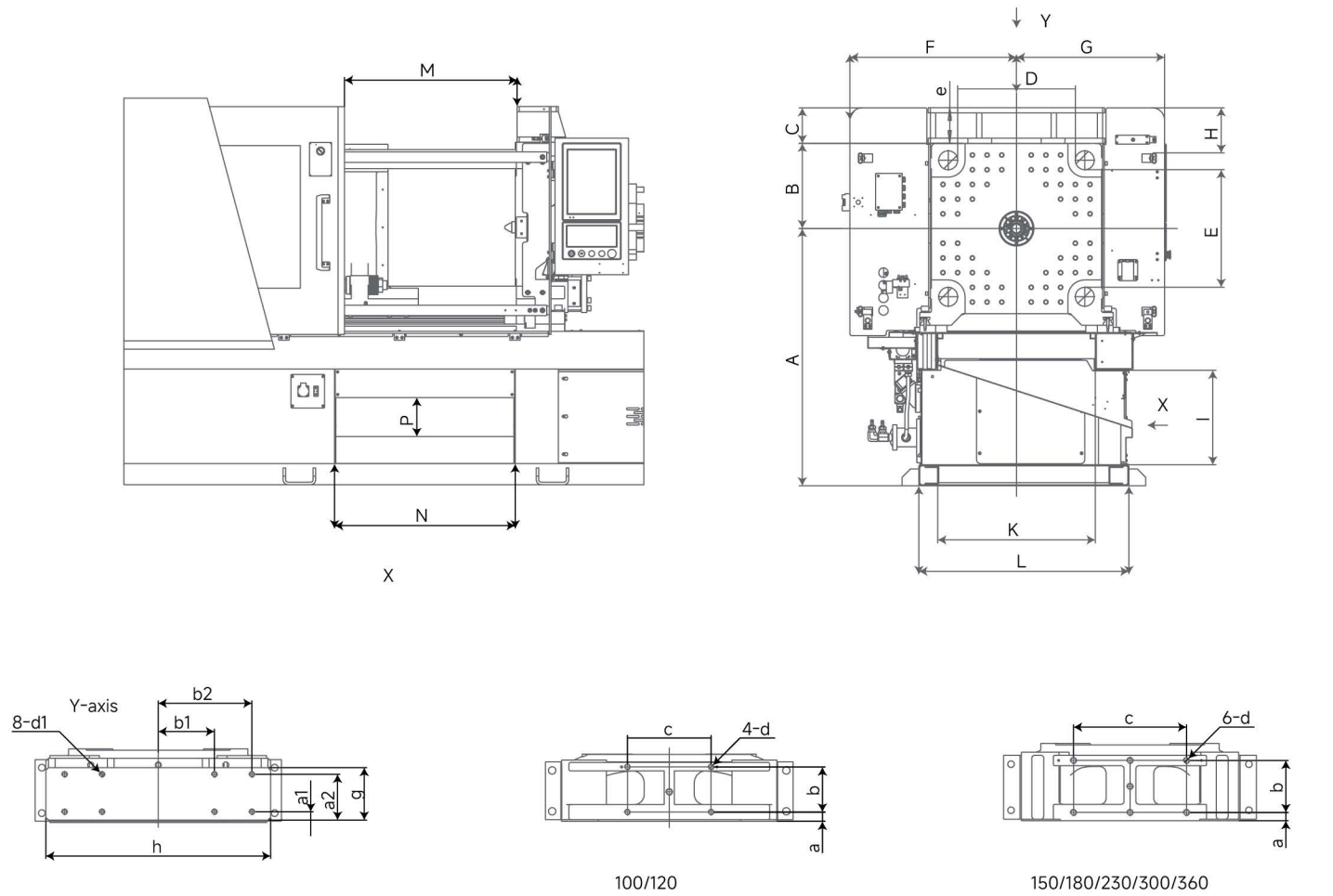


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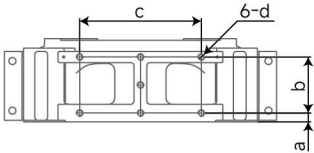
SPARK HB Modular Injection Unit Assembly

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SPARK Series Robot Installation



100/120



150/180/230/300/360

SPARK AE

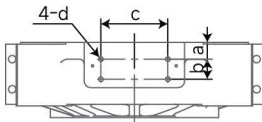
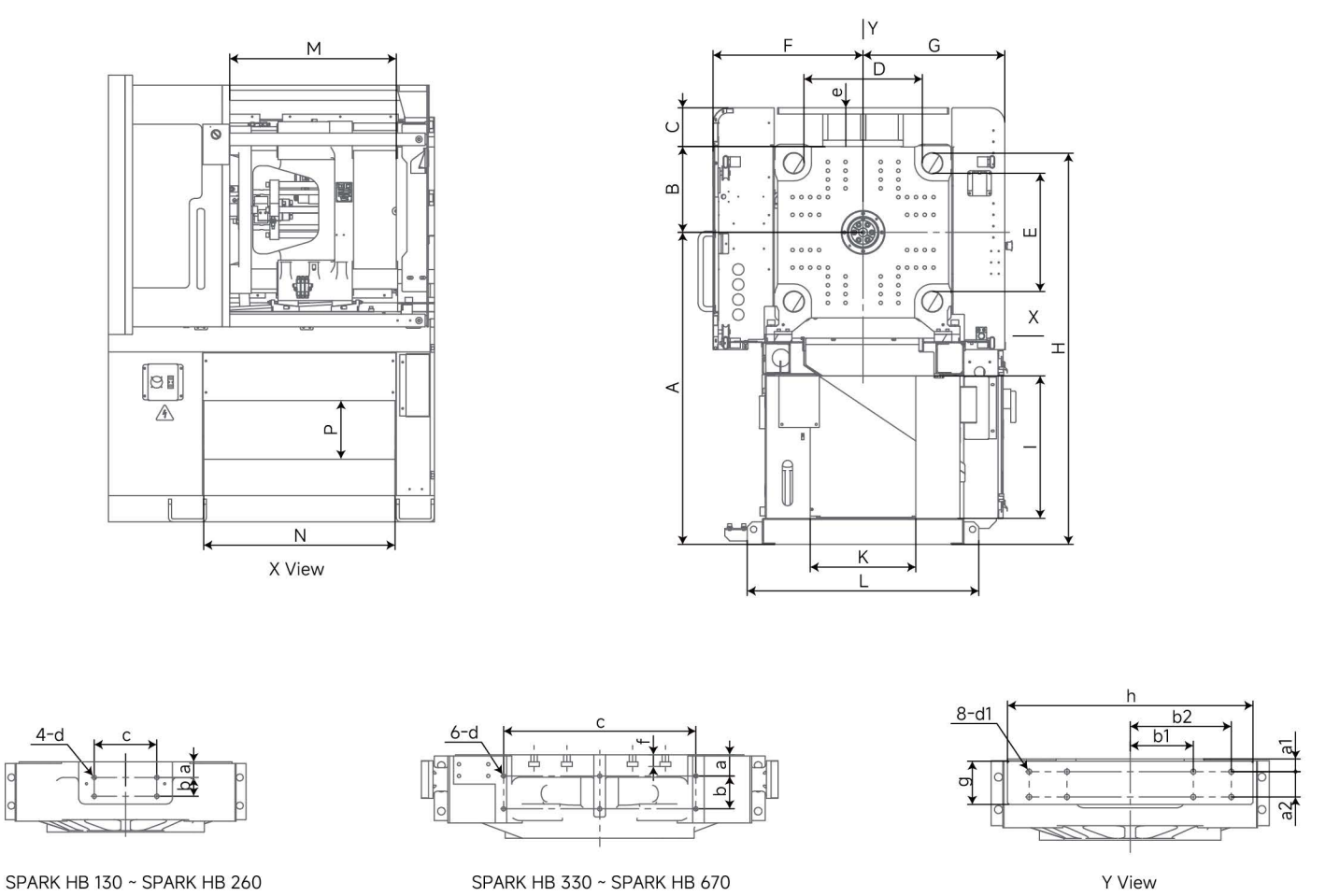
Model	A	B	C	D	E	F	G	H	I	K	L	M	N	P	a	b	c	d	d1	e	g	h	a1	a2	b1	b2
AE100	1170	300	170	460	410	670	594	215	510	630	865	710	610	170	27.5	135	250	M16×32	M16×32	170	136	620	34	104	175	280
AE120	1170	300	170	460	410	670	594	215	510	630	865	710	610	170	27.5	135	250	M16×32	M16×32	170	136	620	34	104	175	280
AE150	1145	300	170	510	460	730	658	215	450	710	945	800	690	140	27.5	175	380	M20×40	M16×32	170	136	620	34	104	175	280
AE180	1225	405	170	560	560	793	705	215	450	750	1000	810	860	145	25	190	475	M20×40	M20×40	170	196	840	35	175	210	350
AE230	1300	440	170	610	610	841	745	215	440	845	1095	970	915	140	30	245	560	M20×40	M20×40	170	196	840	35	175	210	350
AE300	1390	530	160	730	730	952	818	223	295	1006	1254	1300	1120	295	40	245	700	M20×40	M20×40	160	206	1050	35	175	350	490
AE360	1395	608	97	830	830	1030	976	163	215	970	1218	1335	1200	215	90	140	780	M20×40	M20×40	160	206	1190	35	175	350	490

SPARK EH

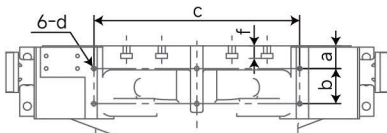
Model	A	B	C	D	E	F	G	H	I	K	L	M	N	P	a	b	c	d	d1	e	g	h	a1	a2	b1	b2
EH100	1170	300	170	460	410	670	594	215	510	630	865	710	610	170	27.5	135	250	M16×32	M16×32	170	136	620	34	104	175	280
EH120	1170	300	170	460	410	670	594	215	510	630	865	710	610	170	27.5	135	250	M16×32	M16×32	170	136	620	34	104	175	280
EH150	1145	300	170	510	460	730	658	215	450	710	945	800	690	140	27.5	175	380	M20×40	M16×32	170	136	620	34	104	175	280
EH180	1225	405	170	560	560	793	705	215	450	750	1000	810	860	145	25	190	475	M20×40	M20×40	170	196	840	35	175	210	350
EH230	1300	440	170	610	610	841	745	215	440	845	1095	970	915	140	30	245	560	M20×40	M20×40	170	196	840	35	175	210	350
EH300	1390	530	160	730	730	952	818	223	295	1006	1254	1300	1120	295	40	245	700	M20×40	M20×40	160	206	1050	35	175	350	490
EH360	1395	608	97	830	830	1030	976	163	215	970	1218	1335	1200	215	90	140	780	M20×40	M20×40	160	206	1190	35	175	350	490

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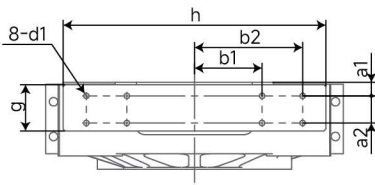
SPARK Series Robot Installation



SPARK HB 130 ~ SPARK HB 260



SPARK HB 330 ~ SPARK HB 670



Y View

SPARK HB

Model	A	B	C	D	E	F	G	H	I	K	L	M	N	P	a	b	c	d	e	f	g	h	a1	a2	b1	b2	d1
HB130	1200	301	154	410	410	593	541	1475	571	370	870	745	670	200	50	55	160	M16×32	154	/	115	600	35	70	140	245	M16
HB170	1240	341	154	470	470	596	563	1555	571	420	920	831	760	200	50	60	200	M16×32	154	/	120	680	35	70	175	280	M16
HB210	1317	395	150	530	530	728	628	1672	571	500	1050	934	843	200	50	80	220	M16×32	154	/	136	760	35	70	175	280	M16
HB260	1362	423	170	580	580	768	666	1747	571	570	1120	1002	843	193	70	105	220	M20×40	170	/	196	840	35	140	210	350	M20
HB330	1400	486	24	680	680	827	781	1850	475	700	1350	1226	1075	475	80	110	260	M20×40	180	/	206	970	35	140	280	420	M20
HB400	1400	532	-22	730	730	893	803	1885	410	920	1120	1504.5	1155	330	80	110	260	M20×40	178	/	206	1070	35	140	350	490	M20
HB470	1410	581	-36	830	830	948	858	1955	350	1010	1210	1526	1325	270	80	110	300	M20×40	195	/	206	1190	35	140	350	490	M20
HB570	1300	635	-16	860	860	925	825	1870	227	1022	1408	1567.5	965	135	90	140	820	M20×40	210	50	250	1350	42	148	450	620	M20
HB670	1300	675	-20	920	920	965	865	1910	/	/	1348	1568	/	/	90	140	880	M20×40	225	50	250	1350	42	148	450	620	M20

SPARK Series Features

●Standard, ○Optional, ×Not available, Numbers indicate required quantities.

		SPARK AE	SPARK EH	SPARK HB
Clamping Unit	Automatic Clamping Force Adjustment	●	●	●
	Euromap 2	○	○	○
	Fully Automatic Centralised Lubrication System	●	●	●
	1 Hydraulic Core Pull	○	●	●
	Multi Core Pulls (Hydraulic/Pneumatic)	○	○	○
	Air Blow on Moving/Fixed Plates (Standard)	●	●	●
	Multiple Air Blow Units	○	○	○
	Product Conveyor	●	●	●
	Quick Mold Clamping	●	●	●
	High-Strength Chromed Tie Bars	●	●	●
	Automatic Front Safety Door	○	○	○
	Automatic Clamping Force Control	●	●	●
	Electromagnetic Safety Door Lock	●	●	○
	Synchronised Ejection	●	●	○
	In-Mold Ejection (Hot Runner Cut)	●	●	●
	Double Ejection	●	●	●
	Center Ejector Retraction	●	●	●
	Linear Guide Rails on Clamping Unit	●	●	○
	Custom Mold Plates	○	○	○
	Hot Runner Needle Valves	○	○	○
Configuration		SPARK AE	SPARK EH	SPARK HB
Injection Unit	Ceramic Heater Bands	●	●	●
	Infrared Heater Bands	○	○	○
	Barrel Insulation Jacket	○	○	○
	Thermal Barrel Cover	●	●	●
	Nitrided Barrel Assembly	●	●	●
	Bimetallic Barrel Assembly	○	○	○
	PEF/PVC Dedicated Barrel Assembly	○	○	○
	Chromium-Plated Screw	●	●	●
	Custom Screw & Nozzle	○	○	○
	Closed-Type Nozzle	○	○	○
	Injection Stroke Transducer	●	●	●
	Screw RPM Display	●	●	●
	Barrel Cooling Control	●	●	●
	Simultaneous Plasticising	●	●	●
	Auto PID Temperature Control	●	●	●
	Proportional Back Pressure	●	●	●
	Thermocouple Breakage Detection	●	●	●
	Nozzle Blockage & Overflow Detection	●	●	●
	Cartridge-Style Three-Way Valve	○	○	○
	Hydraulic/Pneumatic Sequential Injection	○	○	○
	Secondary Injection	●	●	●
	Low-Pressure Injection	●	●	●
	Linear Guide Rails on Injection Unit	●	●	●
	Injection-Compression Molding	●	●	●
	Hopper Throat Auto Cooling Control	●	●	●
	High-Pressure Anti-Loosening Flange	○	○	○
	Material Spray Hopper	○	○	○
	Colour Mixer Interface	○	○	○
	Reduced/Enlarged Injection Unit	○	○	○

SPARK Series Features

●Standard, ○Optional, ×Not available, Numbers indicate required quantities.

		SPARK AE	SPARK EH	SPARK HB
Control Unit	CHE Controller	●	●	●
	15" HD Touch Screen Display	●	●	●
	Unit Conversion (Metric/Imperial)	●	●	●
	STO-Compliant High-Dynamic Safety Servo Unit	●	●	●
	High-Precision Mold Safety System	●	●	●
	EtherCAT-Based Ultra-Fast Control	●	●	●
	Euromap 12 Robot Interface	○	○	○
	Euromap 67 Robot Interface	○	○	○
	Euromap 18 Robot Mounting	○	○	○
	Euromap 13 Core Pull/Ejector Interface	○	○	○
	Euromap 70 & 70.1	○	○	○
	USB	●	●	●
	OPC-UA	●	●	●
	Free I/O Configuration	●	●	●
	LED	●	●	●
	Tri-Colour LED Warning Light	●	●	●
	One-Touch Servo Rigidity Adjustment	●	●	●
	Solid-State Relay (SSR)	●	●	●
	Non-Euromap Robot Interface	●	●	●
	Electromagnetic/Hydraulic Clamp Interface	○	○	○
	Pneumatic/Hydraulic/Electric Core Pull	○	○	○
	Gas-Assist Control Interface	○	○	○
	Heater Breakage Detection	○	○	○
	Energy-Efficient Heating System	○	○	○
	Microcellular Foaming Control Interface	○	○	○
	Hot Runner Control System	○	○	○
Configuration		SPARK AE	SPARK EH	SPARK HB
Others	3-Phase 380V 32A Power Supply	2	2	2
	3-Phase 380V 16A Power Supply	0	0	0
	Single-Phase 220V 32A Power Supply	1	1	1
	Single-Phase 220V 16A Power Supply	0	0	0
	Water Flow Regulator	○	○	○





“Your Vision is Our Mission”