CHEN HSONG

SPARK AE

Euroseries

Datasheet

chenhsong.com
chenhsong.eu

202410

About Chen Hsong

Chen Hsong, established in 1958, is one of the largest manufacturers of injection moulding machines in the world, with annual sales exceeding 20,000 sets.

For over 65 years, Chen Hsong sold to more than 85 countries across the globe, supplying injection moulding machines with clamping force from 20 tons to 6,500 tons. In 1991, Chen Hsong became listed on the Hong Kong Stock Exchange (stock code: 00057). Headquartered in Hong Kong, Chen Hsong operates numerous manufacturing and research facilities in China, including Shenzhen, Shunde, Ningbo and Taiwan, as well as in Japan.

Since 2011 when Chen Hsong and Mitsubishi Plastics Technology of Japan entered into a worldwide strategic partnership, Chen Hsong has been progressively upgrading its internal management, production and quality systems with industry best practices, including TPS (lean manufacturing), M-System (Mitsubishi quality system) and a Japanese “perfect quality” focus towards all R&D, procurement and production activities. For over a decade since then, and leveraging its superior supply chain and production capabilities, Chen Hsong also supplied Mitsubishi, as OEM, with world-renowned “MMX” large-tonnage two-platen injection moulding machines (up to 3,500 tons).

To provide customers with even better peace-of-mind, Chen Hsong insists on being the only fully vertically-integrated maker of injection moulding machines globally, starting from basic ductile iron casting to high-end fabrication and machining, and all major production steps until the completed assembly of each machine. Only through absolute control of each fine step of the manufacturing process would customers be best served with professionalism, quality and perfection.

65+
Years of Excellence
Since 1958

200+
Patented technologies

20+
Software **IP**

20,000
Sets / year
One of the largest producers of injection moulding machines in the world

Operates
800,000m²
Production facilities with global presence

Shenzhen

Shunde

Taiwan

Ningbo

Chen Hsong in Europe

Chen Hsong Europe is headquartered in Germany, with a large stock of ready-to-ship machines and spare parts.

We welcome all enquiries and requests for demonstrations, mould trials, technical support and training.

At Chen Hsong, we hold to the motto of "Think Global, Act Local" as we believe our clients are best served by experts that understand their needs and applications intimately.

That is why Chen Hsong works with a global network of carefully-selected distributors, supported by our European HQ in Germany as well as our global team of engineers.

Chen Hsong distributors not only sell machines, they also provide professional project advice, installation, training, maintenance, spare parts and after-sales technical service.

European Standards

All Chen Hsong equipment sold in Europe conform strictly to fully-certified CE safety standards.

Stability, reliability, precision and power efficiency are also among the best in its class.

As Europe drives towards its goal of carbon neutrality, Chen Hsong does its part offering only fully-servo-driven equipment with the highest energy efficiency.

SPARK AE Euroseries

SPECIFICATIONS	UNIT	AE100			AE120			AE150			AE150				AE180			AE230			AE300			AE300			AE360		
INJECTION UNIT																													
Screw Diameter	mm	25	28	32	28	32	36	28	32	36	32	36	41	46	36	41	46	36	41	46	46	52	60	60	67	75	60	67	75
Screw L/D	/	20			20			20			20				20			20			20			20			20		
Screw Stroke	mm	100	110	110	110			110			160	180	205	230	180	205	230	180	205	230	230	260	285	300	330	360	300	330	360
Injection Capacity (Theoretical)	cm^3	49	67	88	67	88	112	67	88	112	128	183	270	382	183	270	382	183	270	382	382	552	805	848	1163	1590	848	1163	1590
Injection Shot Weight	g	45	62	81	62	81	103	62	81	103	118	168	249	351	168	249	351	168	249	351	351	507	740	780	1070	1462	780	1070	1462
Injection Shot Weight (Max.)	MPa	260	220	175	220	175	138	220	175	138	300	235	183	145	250	235	177	250	235	176	306	240	180	234	188	150	234	188	150
Injection Pressure (Max.)	MPa	208	176	140	176	140	110	176	140	110	240	188	146.4	116	200	188	142	200	188	142	244	192	144	187	150	120	187	150	120
Injection Rate (Max.)	cm^3/s	172	215	281	215	281	356	215	281	256	281	356	462	581	356	462	581	356	462	581	581	742	988	565	705	863	565	705	863
Injection Speed (Max.)	mm/s	350			350			350			350				350			350			350			350			350		
Injection Stroke (Max.)	mm	100	110	110	110			110			160	180	205	230	180	205	230	180	205	230	230	260	285	300	330	360	300	330	360
Plasticising Rate (Max.)	g/s	7.8	11	15	11	15	21	11	15	21	15	21	26	35	21	26	35	21	26	35	30	48	64	50	80.7	95.5	50	80.7	95.5
Screw RPM (Max.)	rpm	350			350			350			350				350			350			350			200			200		
Nozzle Contact Force (Max.)	kN	34			34			34			34				34			34			51.1			51.1			76.6		
Nozzle Stroke (Max.)	mm	250			250			310			310				325			380			415			415			405		
CLAMPING UNIT																													
Clamping Force (Max.)	kN	1000			1200			1500			1500				1800			2300			3000			3000			3600		
Clamp Opening Stroke (Max.)	mm	360			360			420			420				480			550			600			600			700		
Platen Dimensions (HxV)	mm	640×590			640×590			730×680			730×680				800×795.5			890×885.5			1080×1070			1080×1070			1160×1160		
Distance Between Tie Bars (H×V)	mm	460×410			460×410			510×460			510×460				560×560			610×610			730×730			730×730			830×830		
Mold Thickness (Min.-Max.)	mm	150-510			150-510			180-520			180-520				200-600			250-680			300-750			300-750			300-850		
Max. Daylight	mm	870			870			940			940				1080			1230			1350			1350			1550		
Ejector Force (Max.)	kN	24.5			24.5			34.3			34.3				34.3			51.9			62			62			62		
Ejector Stroke (Max.)	mm	100			100			120			120				120			150			160			160			200		
No. of Ejectors	PCS	1			1			1			1				9			9			9			9			13		
Locating Ring Diameter	mm	125			125			125			125				160			160			200			200			200		
Dry Cycle	s	2.3			2.3			2			2				2.5			3			3			3			3.3		
OTHERS																													
Motor Power (Rated)	kW	18			20			20			49				37			37			50			69			69		
Barrel Heating Power (Max.)	kW	6.3	7.2	8.2	7.2	8.2	8.9	7.2	8.2	8.9	10.7	12.6	14.5	16.9	12.4	14.3	16.7	12.4	14.3	16.7	19.7	22.8	26	30.2	33.6	39.4	30.2	33.6	39.4
Max.Rated Current	A	37			49			49			65				84			84			117			157			157		
Temperature Control Zones	Zone	3+1			3+1			3+1			3+1				3+1			3+1			3+1			3+1			3+1		
Machine Dimensions (LxWxH)	m	4563×1384×1923			4615×1384×1923			5362×1514×2046			6149×1514×2046				6394×1618×2079			6774×1706×2300			7831×1970×2470.5			8440×1970×2470.5			8840×2126×2500		
Machine Weight	kg	3900			4100			5600			6300				7700			10200			14500			15300			18500		

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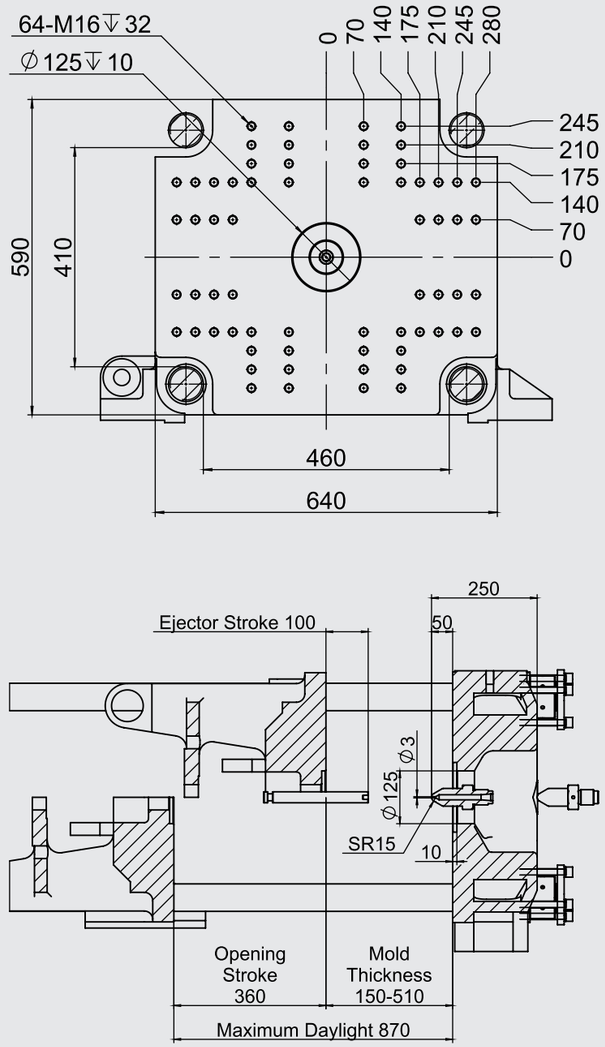
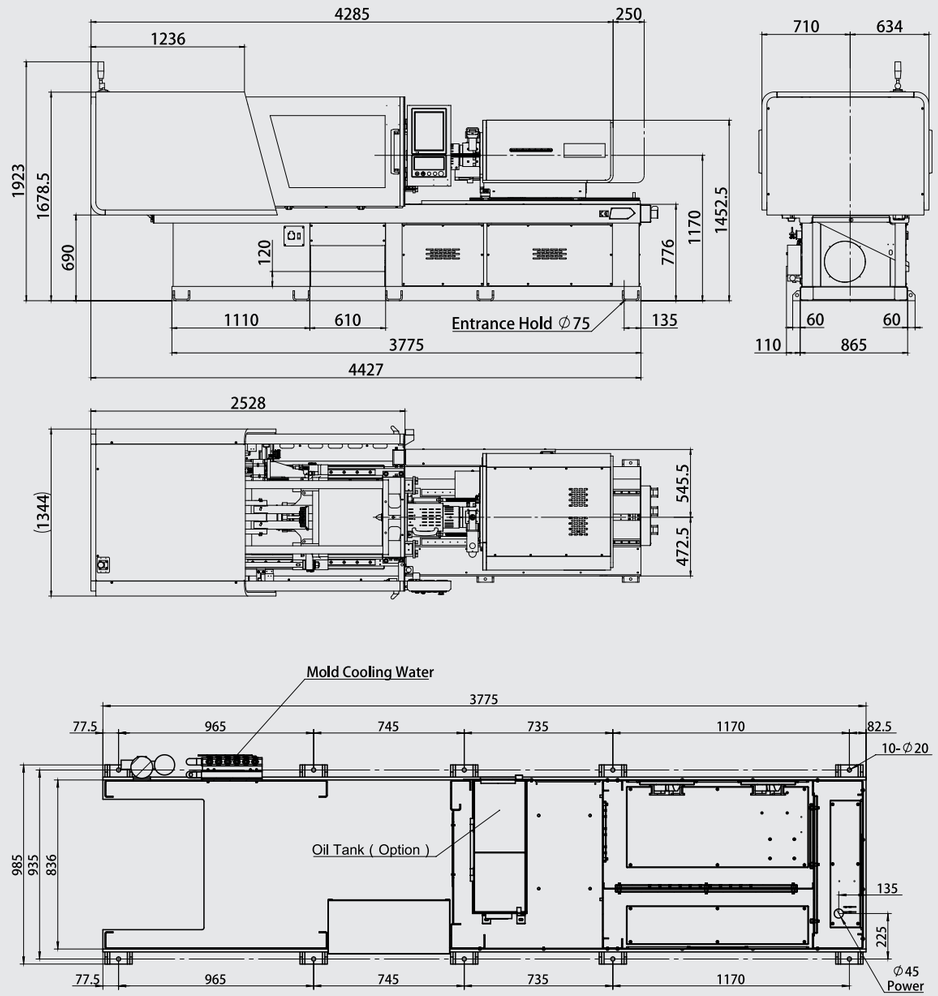
SPARK AE 100 Euroseries





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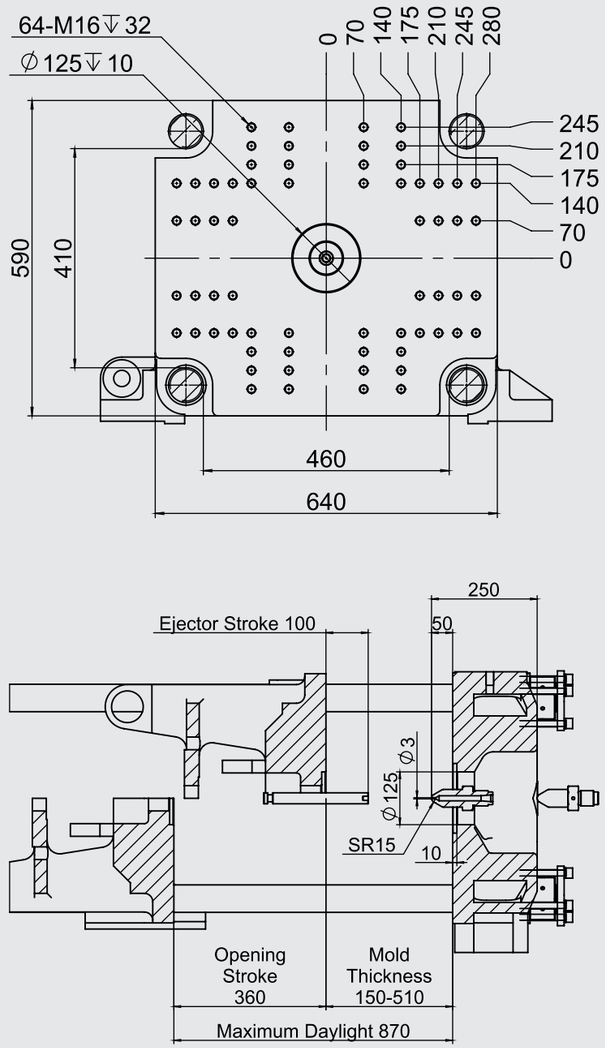
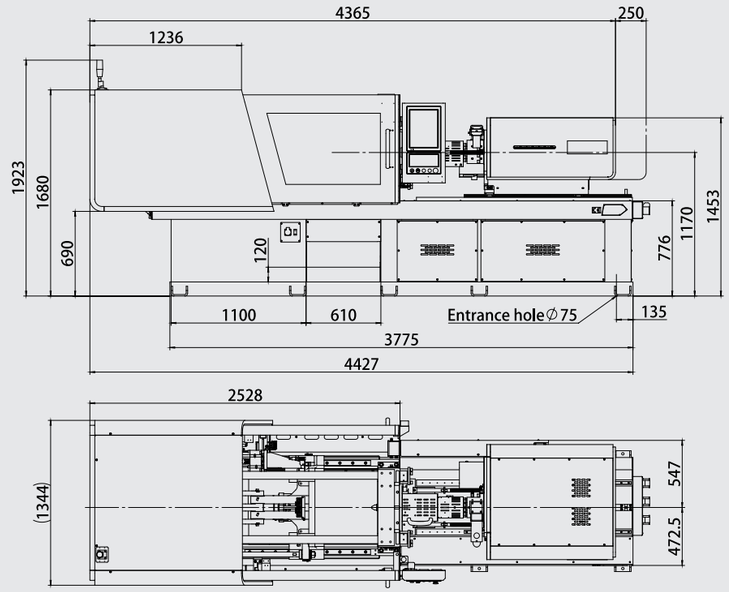
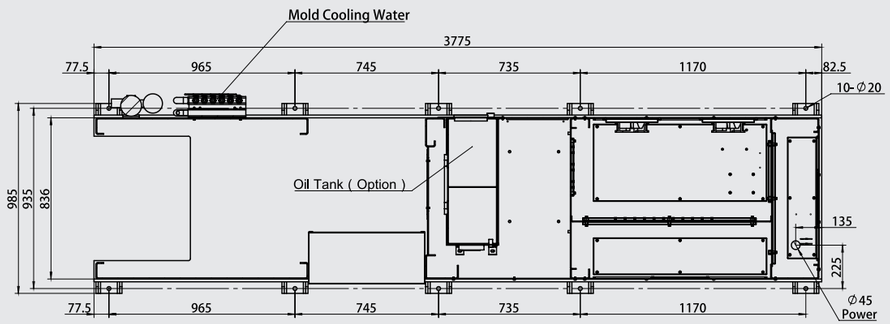
SPARK AE 120 Euroseries







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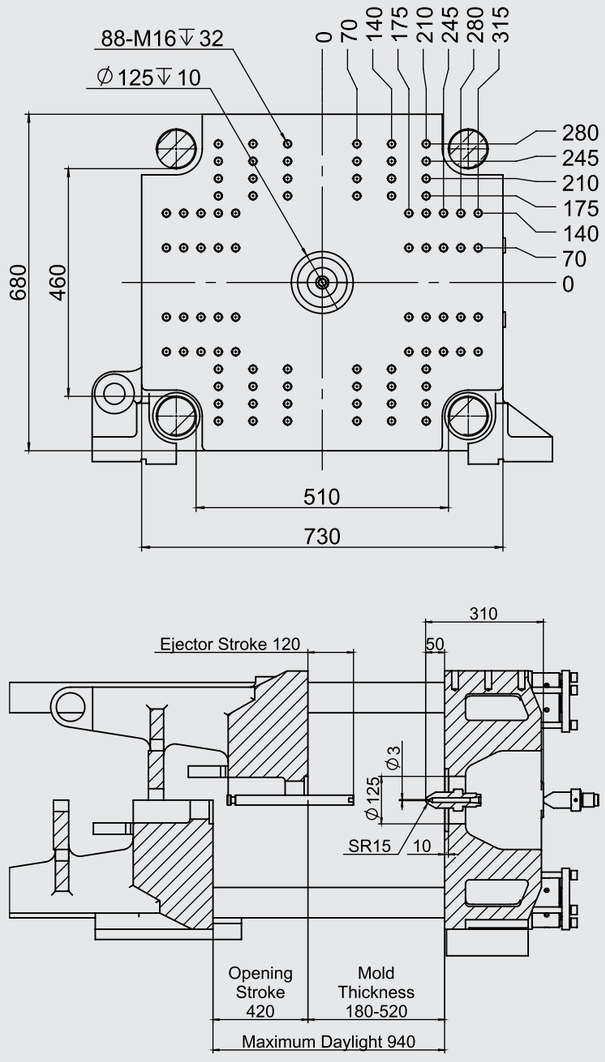
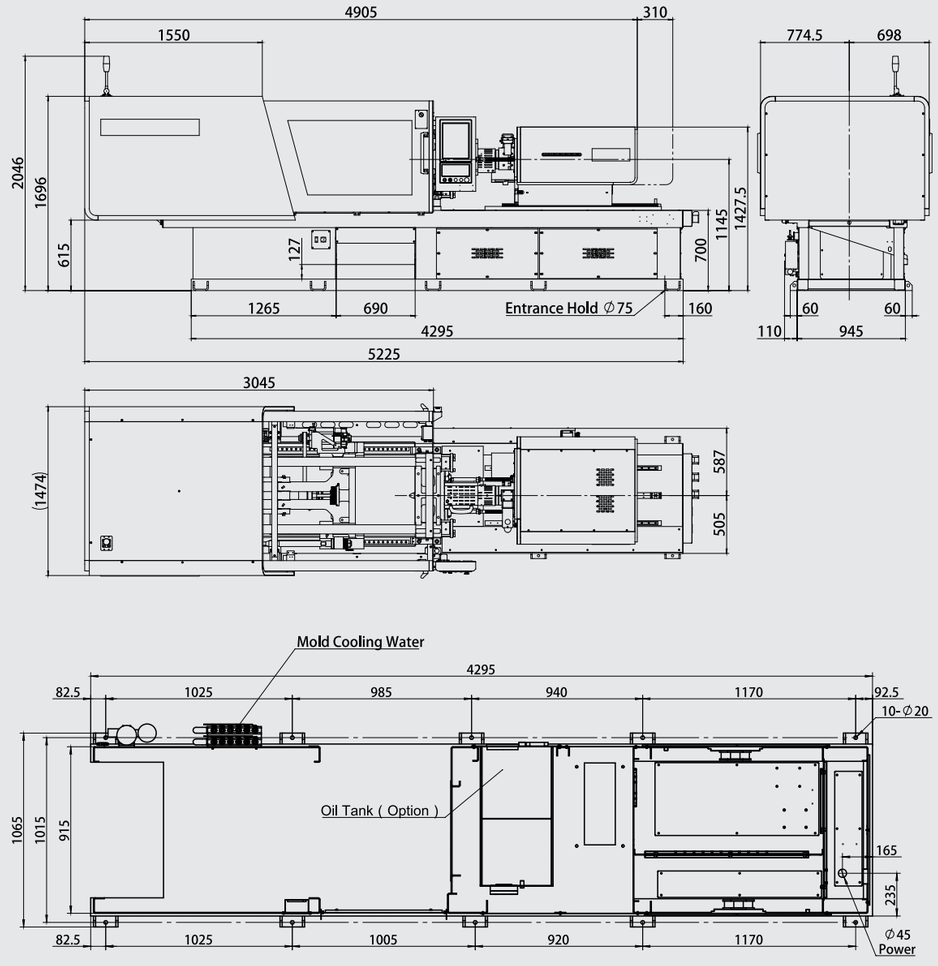
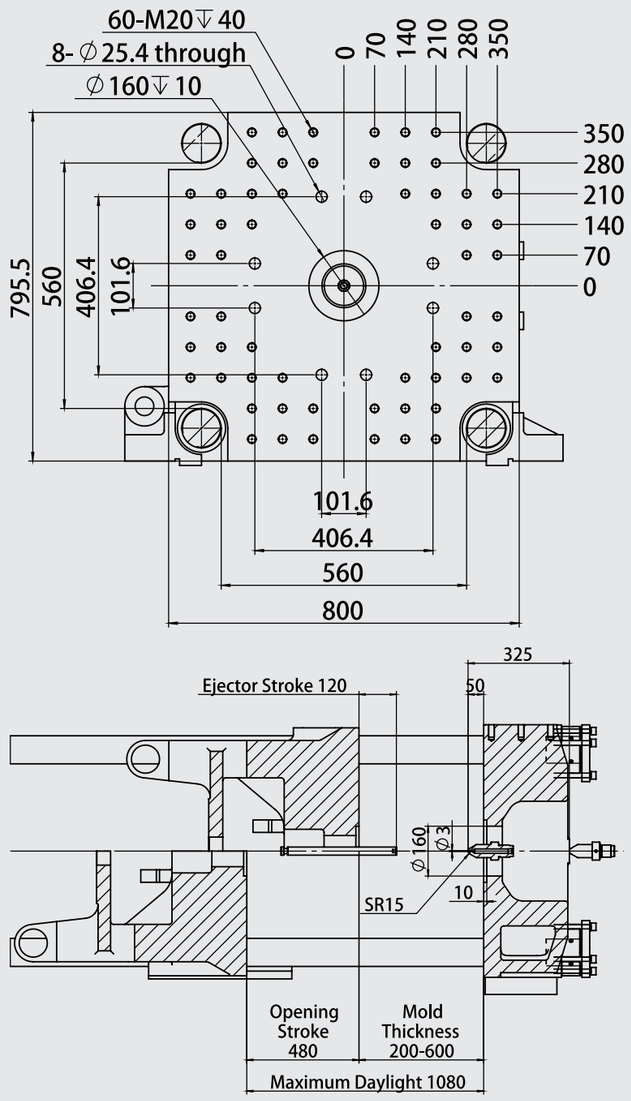
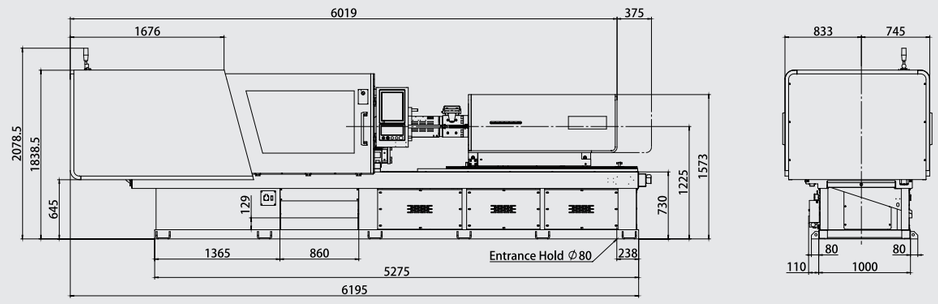
SPARK AE 150 Euroseries

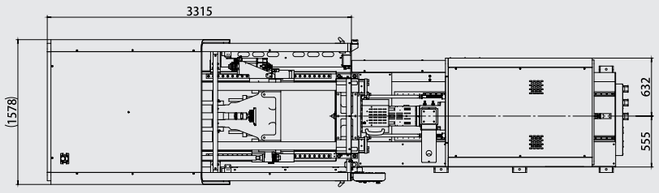


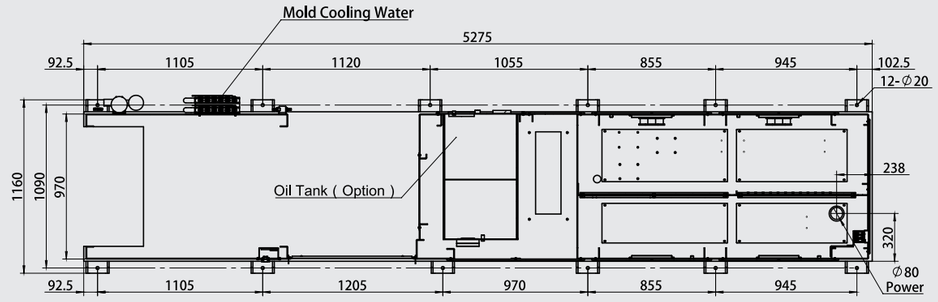


SPARK AE 180 Euroseries









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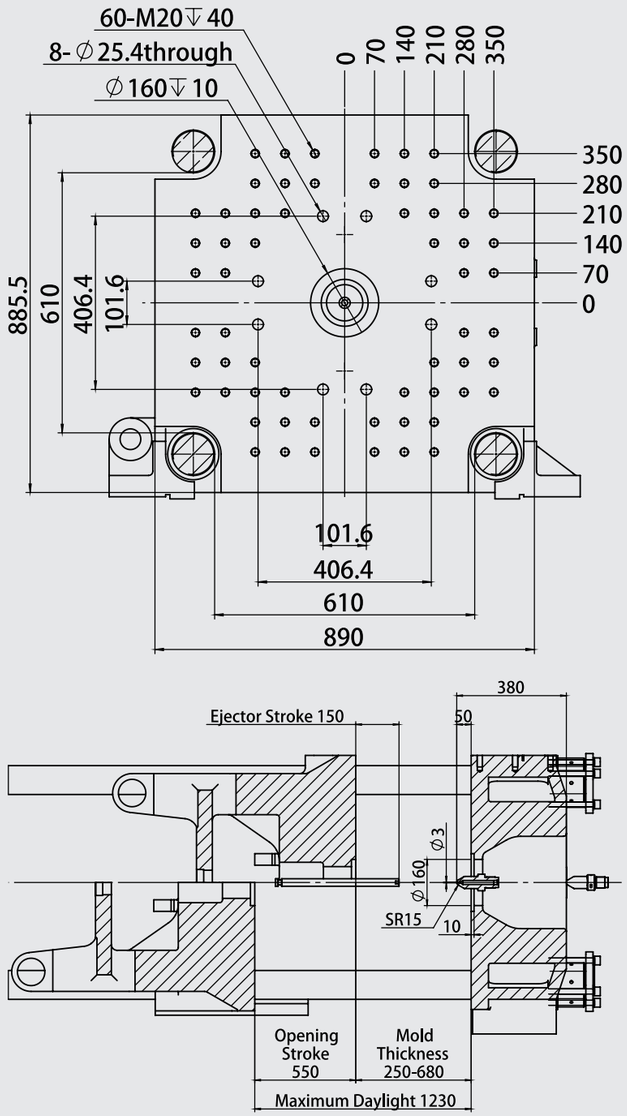
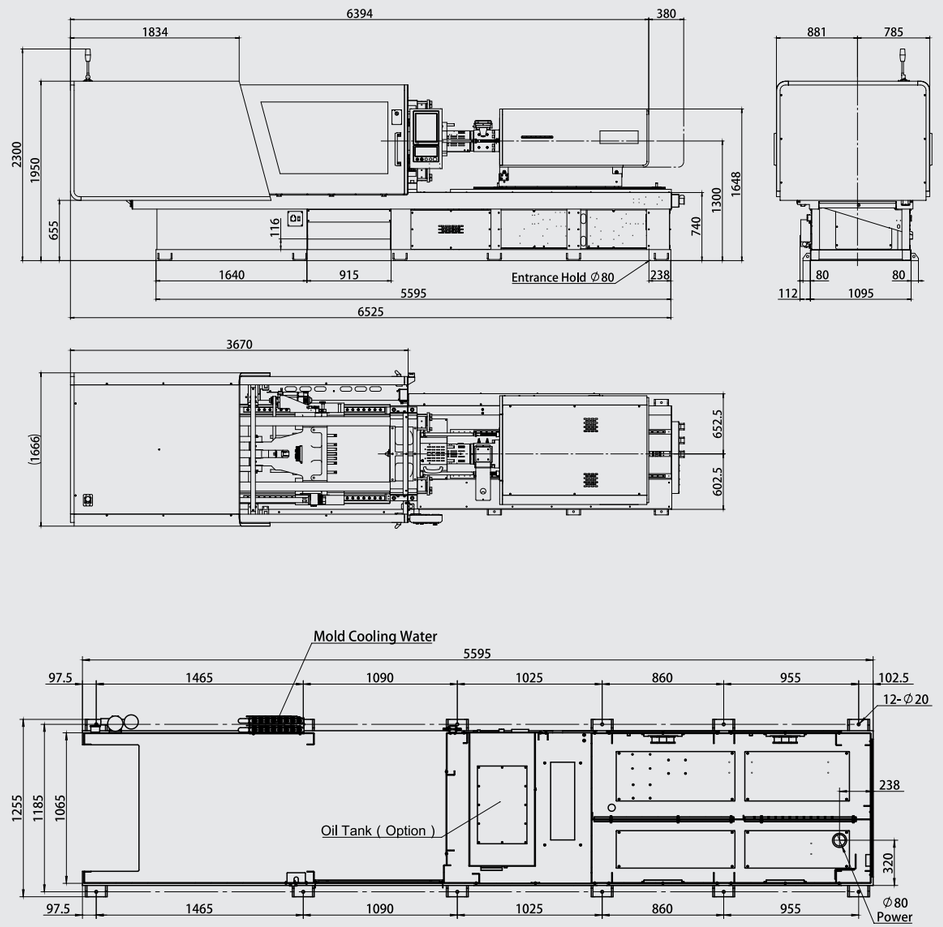
SPARK AE 230 Euroseries





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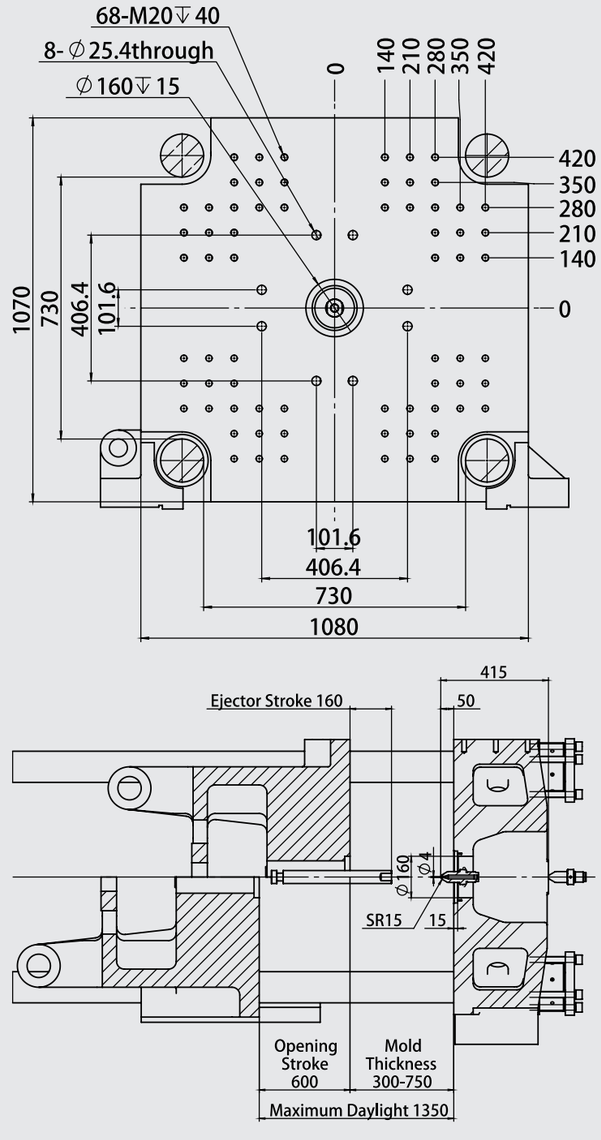
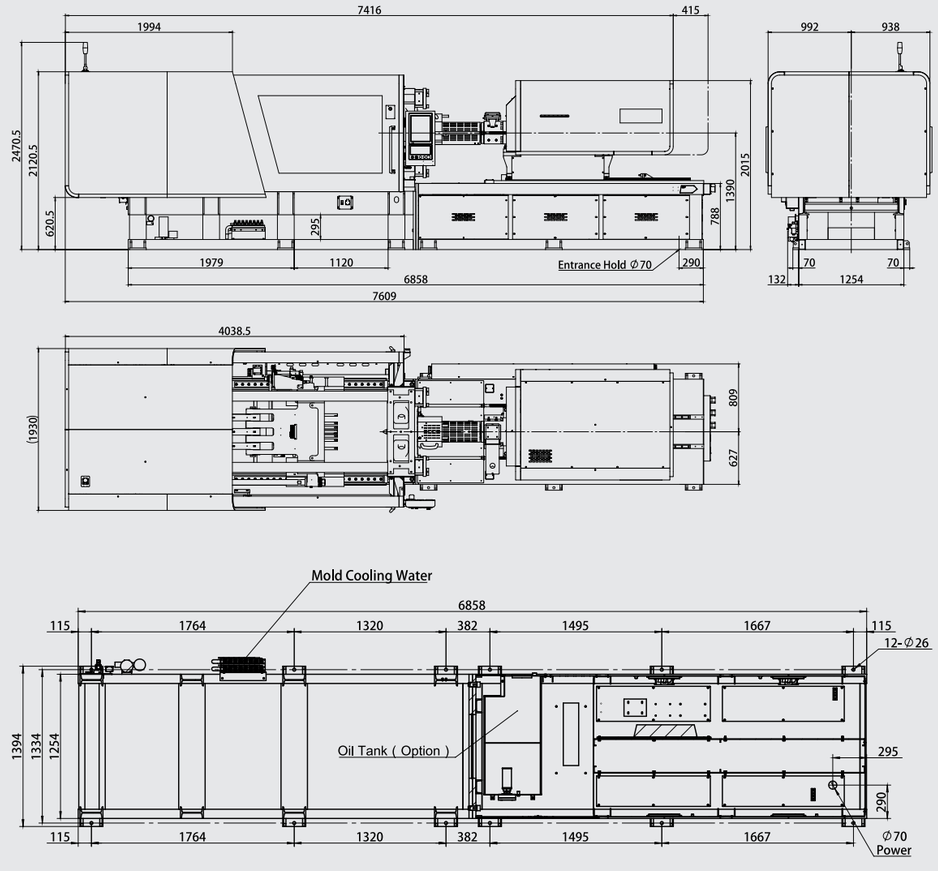
SPARK AE 300 Euroseries





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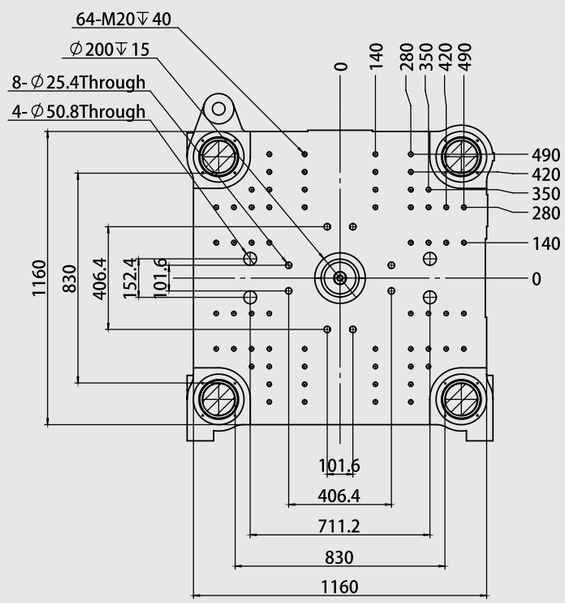
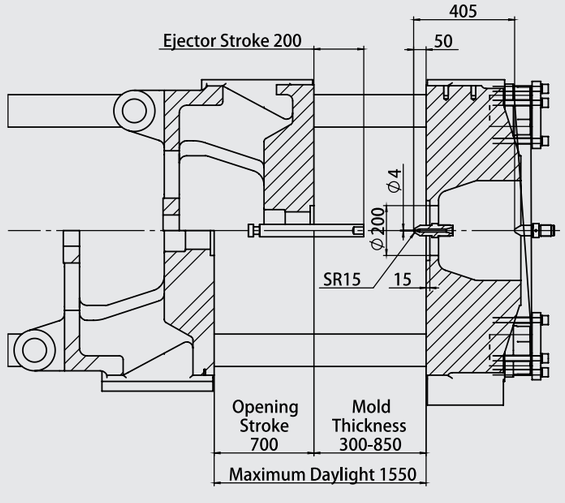
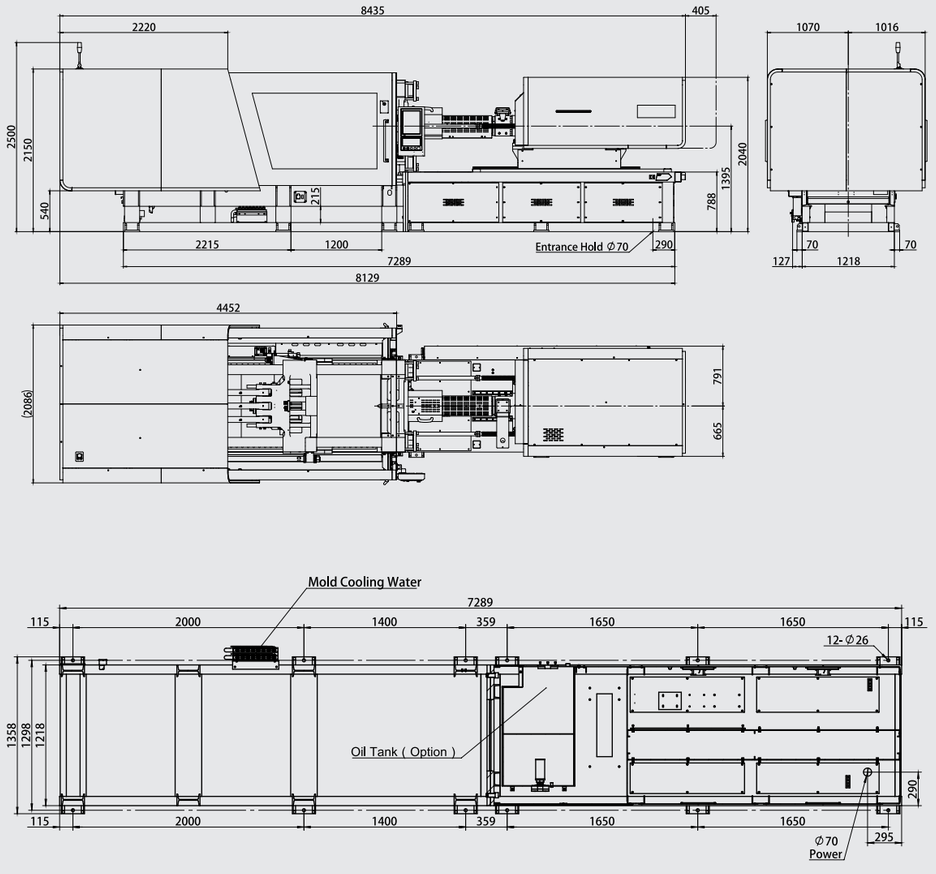
SPARK AE 360 Euroseries







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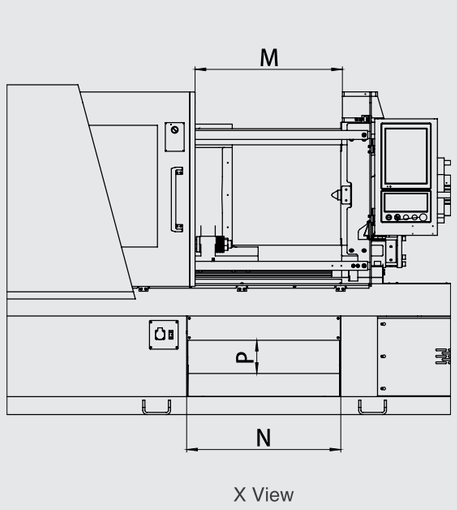
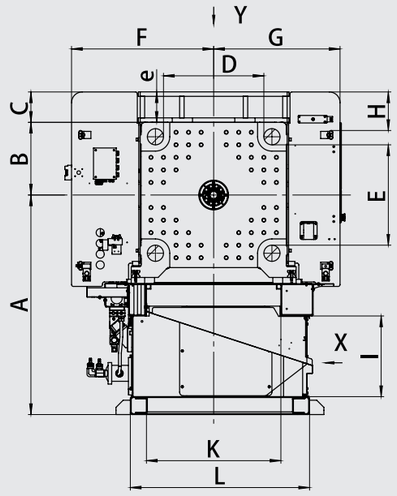
Robot installation Dimension diagram



X View



MODEL	A	B	C	D	E	F	G	H	I	K	L	M	N	P
AE100	1170	300	170	460	410	670	594	215	510	630	865	710	610	170
AE120	1170	300	170	460	410	670	594	215	510	630	865	710	610	170
AE150	1145	300	170	510	460	730	658	215	450	710	945	800	690	140
AE180	1225	405	170	560	560	793	705	215	450	750	1000	810	860	145
AE230	1300	440	170	610	610	841	745	215	440	845	1095	970	915	140
AE300	1390	530	160	730	730	952	818	223	295	1006	1254	1300	1120	295
AE360	1395	608	97	830	830	1030	976	163	215	970	1218	1335	1200	215

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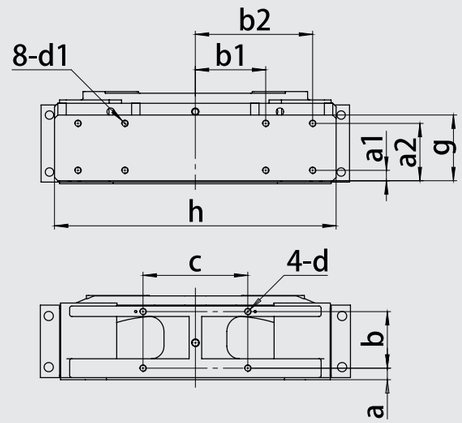
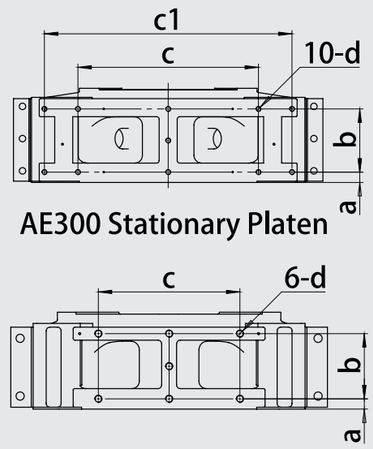
Y View



AE100/120 Stationary Platen



AE300 Stationary Platen

AE150/180/230/360 Stationary Platen

MODEL	a	b	c	c1	d	d1	e	g	h	a1	a2	b1	b2
AE100	27.5	135	250	/	M16×32	M16×32	170	136	620	34	104	175	280
AE120	27.5	135	250	/	M16×32	M16×32	170	136	620	34	104	175	280
AE150	27.5	175	380	/	M20×40	M16×32	170	136	620	34	104	175	280
AE180	25	190	475	/	M20×40	M20×40	170	196	840	35	175	210	350
AE230	30	245	560	/	M20×40	M20×40	170	196	840	35	175	210	350
AE300	40	245	700	960	M20×40	M20×40	160	206	1050	35	175	350	490
AE360	80	110	300	/	M20×40	M20×40	97	206	1190	35	175	350	490

SPARK AE Euroseries

STANDARD AND OPTIONAL FEATURES		
CLAMPING UNIT	**STANDARD**	**OPTION**
Automatic mould height adjustment	●	
Euromap 2 platen design	●	
Euromap 13	●	
Euromap 18 robot mounting	●	
Euromap 67 robot interface	●	
Euromap 70 & 70.1 interface for magnetic mould clamps		○
Extended mould height		○
Mechanical safety bar		○
Product chute photo sensor	●	
Electric power door (front) with sensor		○
Infrared light guard (front door)		○
Automatic lubrication for toggles	●	
Automatic lubrication for mold height adjust		○
Manual lubrication pump for mold height adjust		○
Additional core pulls (on moving platen)		○
Air-blows	1×FP 1×MP	
Additional core-pulls		○
Additional air-blows		○
Oil-less bushings for toggle system	●	
Parallel core pull movements		○
Ejection-on-fly	●	
Electric power door (front)		○
Automatic clamping force control		○
OTHERS		
Power sockets 400V3P32A	2	
Power sockets 400V3P16A		○
Power sockets 240V1P32A	1	
Power sockets 240V1P16A		○
Water manifolds (extra)		○

STANDARD AND OPTIONAL FEATURES		
INJECTION UNIT	**STANDARD**	**OPTION**
Ceramic heater bands	●	
Nitrited screw and barrel		○
Bi-metallic screw and barrel		○
Shut-off nozzle		○
Linear transducer on injection carriage	●	
Screw rpm indicator	●	
Automatic lubrication of injection unit	●	
Manual lubrication pump for injection unit		○
Simultaneous recovery / parallel plasticising	●	
Hopper slider	●	
Hopper	●	
Injection pressure display	●	
Feed zone temperature control	●	
Barrel insulation jacket	●	
Digital back pressure control	●	
Broken thermocouple detection alarm		○
Blocked nozzle and overflow detection	●	
Hydraulic/pneumatic valve gates control		○
CONTROLLER		
CHE controller (15.6" display)	●	
High-sensitivity mould protection	●	
Ethernet interface	●	
USB interface	●	
Euromap 67 interface	●	
Industry 4.0 connectivity		○
OPC-UA interface		○
Free I/O configuration	●	
Hot-runners control	●	

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