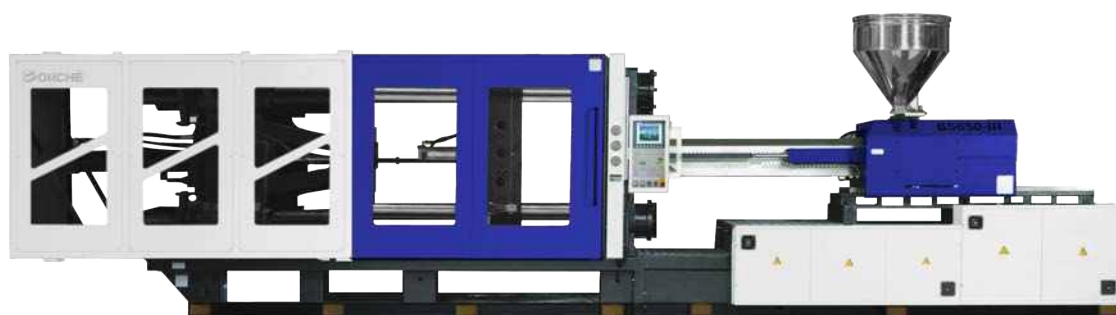


BORCHÉ
BS SERIES



BORCHÉ



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BS SERIES

ENERGY EFFICIENT. DURABLE. PRECISE. COST EFFECTIVE

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UNBEATABLE PRICING

NORTH AMERICAN
PARTS WAREHOUSING

FAST DELIVERY

WHAT'S THERE TO
THINK ABOUT?

NORTH AMERICAN
SERVICE

NORTH AMERICAN
SUPPORT



COMPANY BACKGROUND

Borche was established in 2003 and has quickly grown to become one of the largest injection molding machine manufacturers in the world.

Our 1,800,000 square foot factory is equipped with the latest machining equipment from Japan, Korea and the United States, which enables us to produce over 10,000 precision molding machines per year.

When you choose Borche machinery, you'll quickly appreciate our customer service, realize increased productivity, energy savings and local support that can only be obtained from a dealer located in North America.

Combined with unbeatable pricing, what else is there to think about?

Contact us today and join the thousands of other companies who rely on Borche every day to drive their business forward.



CUSTOMER SERVICE

Borche machines are designed to last several decades so it is important for our customers to know they have a local and reliable service partner.

Borche service will take care of your investments throughout its life cycle; from installation and startup → training of technicians → preventative maintenance → technical support, spare parts warehousing and online diagnostics.

INSTALLATION AND SETUP:

Borche will assist you in setting up and installing the machine in your factory.

Our technicians will train your staff on how to optimally use your machine and guide you through suggested maintenance.

SPARE PARTS:

From our warehouse in Hamilton, Ontario, Borche can supply your company with high quality original spare parts, should the need arise. We understand the importance of uptime and guarantee quick delivery of all standard parts.

PREVENTATIVE MAINTENANCE:

On a yearly basis, Borche will send one of our technicians to do a complete walkthrough inspection, and calibration analysis of your machine to ensure repeatability, minimize maintenance cost and maximize uptime.



SERVO MOTOR + CONTROL



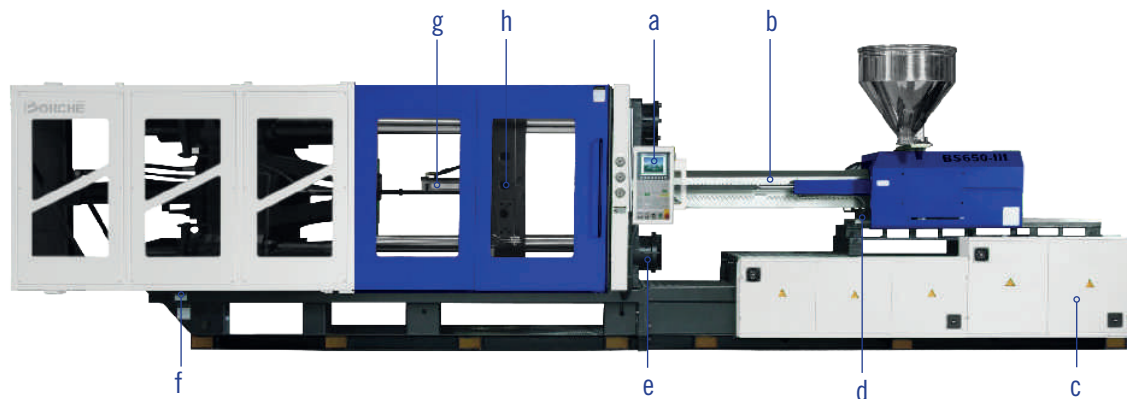
- Energy savings up to 80% compared to conventional hydraulic machines
- Closed loop control increases repeatability
- Noise reduction, as servo motor only runs when machine function is required
- Quick response time of only 0.05s
- Increased precision compared to conventional machines





FEATURES

- a. Keba controller - See page 11
- b. Swivel injection unit for easy access to the barrel and screw
- c. Energy efficient Japanese piston pump combined with low, power consumption holding and cooling settings can decrease power consumption up to 80% over conventional machines
- d. Linear guiderails, built-in carriage cylinder and integral castings ensure proper nozzle alignment
- e. Large part drop-out area allows for easy part removal and use of conveyors
- f. Auto grease lubrication standard on all machines
- g. SPI pattern ejection
 - Easy access to ejector area
 - knock-out bar for multi-point ejection
- h. SPI standard bolt pattern





MAJOR HYDRAULIC/ELECTRIC COMPONENTS

COMPONENTS	BRAND	ORIGIN
FIXED DISPLACEMENT PUMP	YUKEN	JAPAN
DIRECTIONAL VALVE	REXROTH / YUKEN	GERMANY / JAPAN
3-PHASE BREAKER	ABB	SWITZERLAND
AC CONTACTOR	SCHNEIDER	FRANCE
THERMAL OVERLOAD RELAY	SCHNEIDER	FRANCE
RELAY	SCHNEIDER	FRANCE
LINEAR TRANSDUCER	GEFRAN	ITALY
SAFETY SWITCH	SCHMERSA	GERMANY
POSITION SWITCH	SICK	GERMANY
SWITCHING POWER	MEAN WELL	TAIWAN
COMPUTER CONTROLLER	KEBA	AUSTRIA

THE ABOVE DATA IS FOR REFERENCE ONLY. SUBJECT TO CHANGE WITHOUT NOTICE.



CONTROLLER

- 8" screen TFT colour display
- SPC cycle trace function for managing and analyzing product quality
- Dynamic graphic display of temperature
- Alarm record and data revision record
- Auto-tune PID temperature control
- IO extension
- Pre-heating & heat guarding function
- Auto-purging function
- Data-locking function
- Screw cold start prevention
- Linear adjustment of the proportional valve
- Parallel movement control
- Automatic adjustment of clamping force
- Automatic mold height adjustment
- Static monitor and alarm functions for injection end position; injection time, cushion position, mold open and close position
- Alarm system for controller hardware and mechanical error
- Mold protection
- Shot counter
- Adopted dual core CPU for high speed and precision control
- USB interface for load & save machine and mold data
- Ability to download modified programs
- Multi-core pull



KEBA

KEBA AG is a leading manufacturer of computer controller systems. The KEBA controller was specifically developed in Austria for use in Borche injection molding machines.

- **Online monitoring of machine controls and functions allows Borche to provide real-time technical support and service over the internet**
- Large coloured screen with TFT interface
- PC interface (USB, PCI, Flash...)
- Full Automatic Close-Loop Control
- Online Central Monitoring Function
- Module Design of Hardware
- K-CAN Data Transmission
- Curve Monitoring and Analysis Function
- Auto-Tune PID Temperature Control

SPECIFICATIONS

MODEL																				
BS60			BS80			BS120			BS150			BS200			BS260			BS320		

INJECTION UNIT

SHOT VOLUME [in ³]	4.14	5.24	7.32	9.94	12.99	11.10	14.52	18.42	16.47	20.80	26.97	23.73	29.35	42.22	35.94	51.74	70.42	60.35	82.13	107.34
SHOT WEIGHT(PS) [g]	60	78	113	153	199	171	225	283	254	321	397	365	452	650	552	800	1058	928	1266	1652
SHOT WEIGHT(PS) [oz]	2.1	2.8	4	5.4	7	6	8	10	9	11.3	14	12.9	16	23	19.5	28.3	38.3	32.8	44.7	58.4
SCREW DIAMETER [in]	0.98	1.10	1.18	1.37	1.57	1.37	1.57	1.77	1.57	1.77	1.96	1.77	1.96	2.36	1.96	2.36	2.75	2.36	2.75	3.14
INJECTION PRESSURE [Psi]	32343	25816	30312	22335	17114	30747	23496	18564	34083	26831	21755	31618	25526	17839	33648	23351	17114	32778	24076	18419
SCREW L/D RATIO	22	22	24	20.5	18	23.5	20.5	18	23	20.5	18.5	23	21	17	25	21	18	24.5	21	18.5
INJECTION STROKE [in]	5.51		6.69			7.48			8.46			9.64			11.81			13.77		
SCREW ROTARY SPEED MAX [rpm]	260		181			184			206			145			155			159		
NOZZLE CONTACT FORCE [t]	3		3			3			3			3			4			7		
NOZZLE STROKE [in]	8.07		9.84			9.84			9.84			11.02			13.77			14.17		

CLAMPING UNIT

CLAMPING FORCE [t]	66	88	132	165	220	285	350
OPENING STROKE [in]	10.62	12.59	13.38	16.14	18.30	20.47	22.83
PLATEN SIZE [in x in]	19.68 x 19.68	21.25 x 21.25	24.01 x 24.01	26.37 x 26.37	29.52 x 29.52	32.87 x 32.87	37.40 x 37.40
SPACE BETWEEN TIE BARS [in x in]	12.20 x 12.20	14.17 x 14.17	16.14 x 16.14	18.11 x 18.11	20.07 x 20.07	22.63 x 22.63	26.37 x 26.37
MAX. DAYLIGHT [in]	22.44	26.77	31.10	35.82	39.96	44.09	48.62
MOLD THICKNESS (MIN.-MAX.) [in]	5.11-11.81	5.11-14.17	5.70-17.51	6.29-19.65	7.08-21.65	7.67-23.62	8.66-25.78
EJECTION STROKE [in]	3.14	3.93	3.93	5.11	5.90	7.08	7.08
EJECTION FORCE [t]	3	3	3	4	5	8	8
EJECTOR PIN [unit]	4+1	4+1	4+1	4+1	4+1	8+4+1	8+4+1

POWER UNIT

SYSTEM PRESSURE [Psi]	2103	2103	2538	2538	2538	2538	2538
PUMP MOTOR [HP]	12	12	15	15	25	30	40
HEATING CAPACITY [kw]	4.85	6.5	8.86	9.6	10.4	16.2	18.5
NUMBER OF HEATER ZONES [unit]	4	4	4	5	5	6	6

GENERAL

OIL TANK CAPACITY [gal]	42	42	48	61	79	145	217
MACHINE DIMENSIONS [in x in x in]	157 x 43 x 69	165 x 51 x 67	177 x 54 x 67	191 x 56 x 76	213 x 64 x 78	248 x 68 x 79	303 x 77 x 88
MACHINE WEIGHT [lb]	5,732	6,614	7,716	9,700	13,228	18,739	22,046

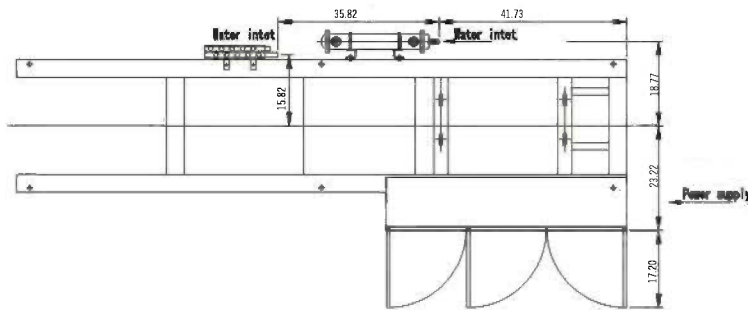
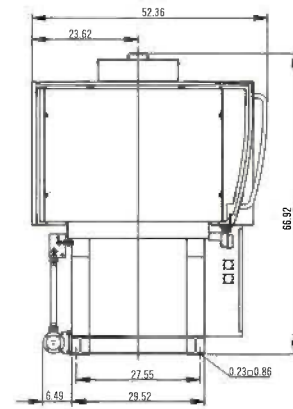
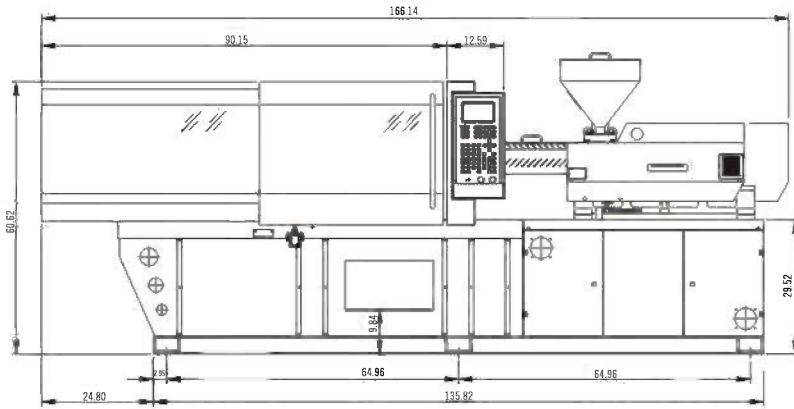
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	93.31	122.65	155.24	114.54	147.12	183.80	138.03	155.85	194.66	137.97	174.64	215.65	194.11	239.64	264.17	251.60	277.41	332.76	317.01	380.29	485.99	317.01	380.29	485.99	526.45	610.60	700.91
	1446	1890	2366	1764	2267	2830	2058	2323	2902	2125	2690	3321	2987	3687	4065	3871	4268	5120	4727	5671	7247	4727	5671	7247	7851	9105	10452
	51.1	66.8	82.5	62.3	80.1	100	72.6	81.9	102.4	75.1	95.1	117.3	105.5	130.3	143.6	136.8	150.8	181	167	200	256	167	200	256	277	321	369
	2.75	3.14	3.54	2.95	3.34	3.74	3.14	3.34	3.74	3.14	3.54	3.93	3.54	3.93	4.13	3.93	4.13	4.52	4.13	4.52	5.11	4.13	4.52	5.11	5.11	5.51	5.90
	30747	23496	18564	30312	23641	18854	26686	23641	18854	28572	22625	18274	26831	21755	19725	26686	24221	20160	32198	26831	21030	32198	26831	21030	27992	24076	21030
	24	21	19	24	21	19	22.3	21	19	23.5	21	19	24	22	20	23	22	20	24	22	19.5	24	22	19.5	24	22	20
	15.74			16.73			17.71			17.71			19.68			20.66			23.62			23.62			25.59		
	116			131			131			100			100			93			90			90			80		
	8			8			8			8			20			20			20			20			20		
	15.55			17.71			17.71			20.07			22.04			22.04			29.52			29.52			36.22		

	440	550	615	715	880	1100	1430	1760	2000
	25.78	29.72	32.28	34.64	40.35	45.27	51.18	61.02	64.96
	41.73 x 40.55	45.86 x 44.68	47.63 x 46.45	52.75 x 51.57	56.29 x 56.29	68.50 x 66.14	73.62 x 73.62	84.25 x 80.31	92.12 x 87.40
	28.74 x 27.55	32.67 x 31.49	34.65 x 33.46	36.61 x 35.43	39.76 x 39.76	45.66 x 43.30	49.21 x 49.21	58.26 x 54.33	62.99 x 58.26
	54.13	61.22	65.74	68.89	78.74	88.58	100.39	116.14	124.01
	9.64-28.34	10.43-31.49	11.81-33.46	11.81-34.25	14.96-38.38	17.71-43.30	23.62-49.21	27.55-55.11	31.49-59.05
	8.07	9.84	11.02	11.02	11.81	13.77	14.96	14.96	14.96
	11	11	14	14	27.5	27.5	30	30	30
	8+4+1	8+4+1	8+8+1	8+8+1	8+8+4+1	8+8+4+1	8+8+4+1	8+8+8+4+1	8+8+8+4+1

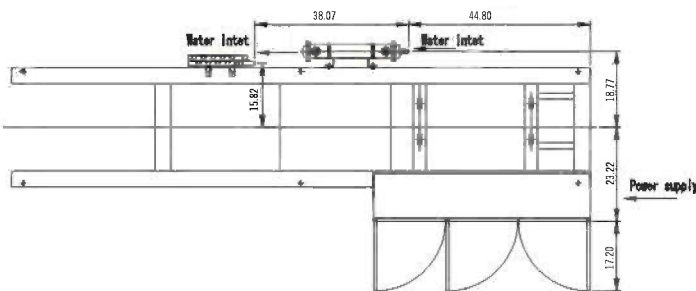
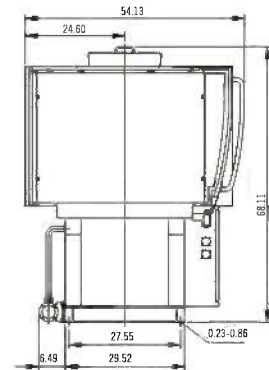
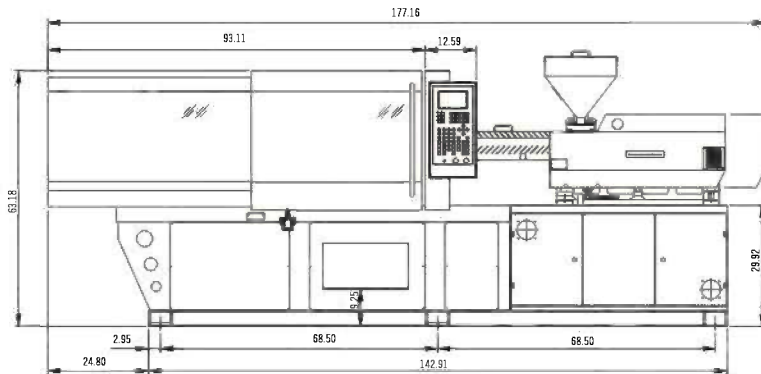
	2538	2538	2538	2538	2538	2538	2538	2538	2538
	50	30 x 2	30 x 2	30 + 40	40 x 2	50 x 2	50 x 2	50 x 3	50 x 3 + 30
	24.5	31.7	31.7	33.5	40.9	49	59	59	78.5
	6	6	6	6	7	7	8	8	8

	264	264	304	357	396	581	581	581	660
	334 x 75 x 90	346 x 77 x 94	361 x 83 x 98	409 x 92 x 120	452 x 100 x 123	516 x 106 x 118	516 x 106 x 118	547 x 121 x 126	602 x 132 x 126
	35,274	41,667	48,502	55,112	83,776	112,436	147,710	216,053	231,485

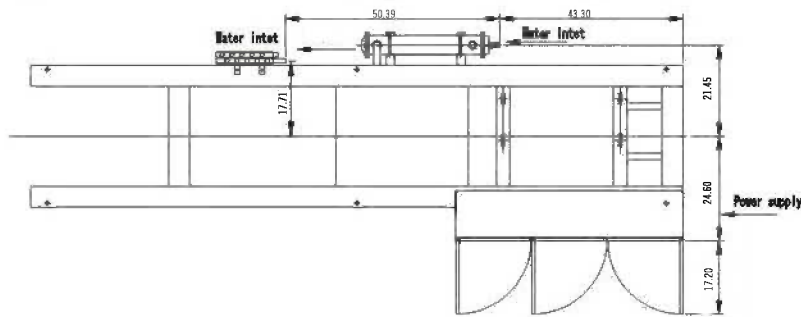
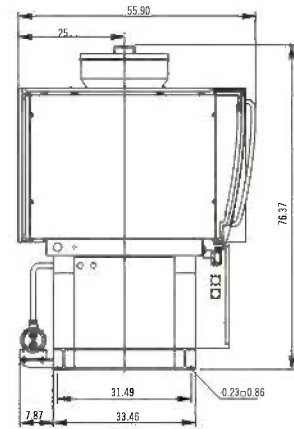
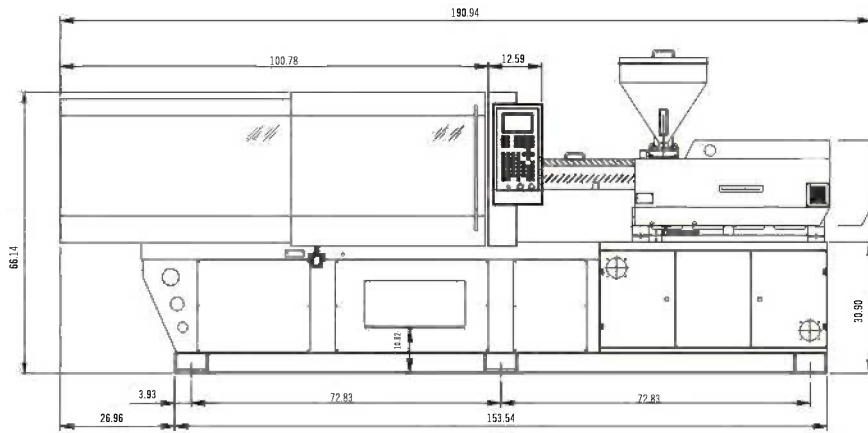
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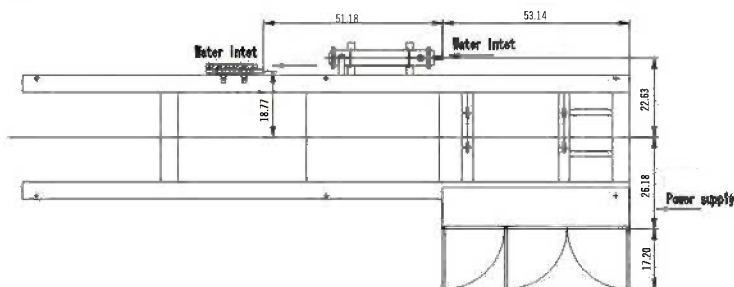
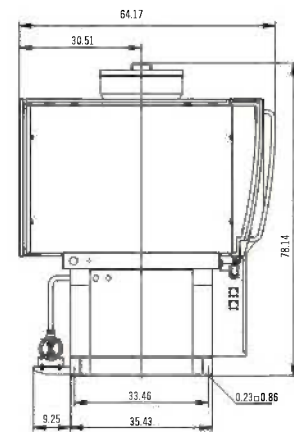
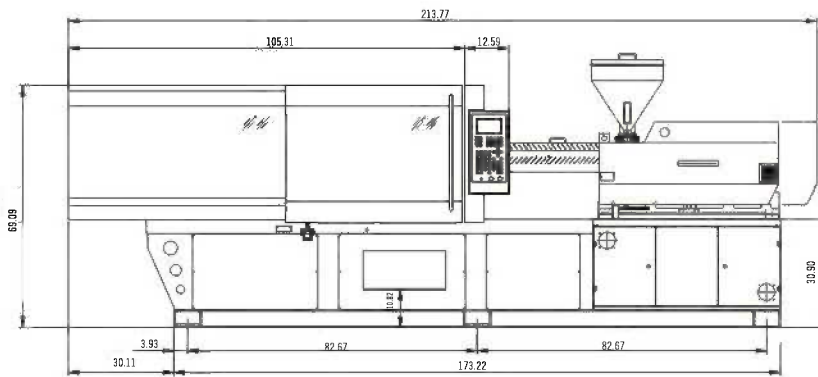
BS80



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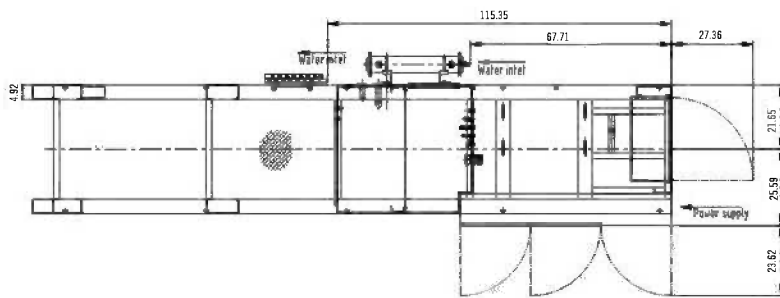
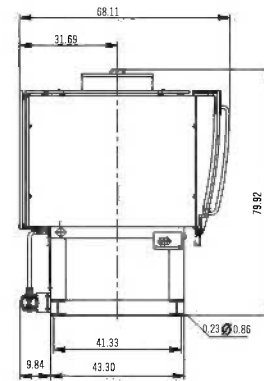
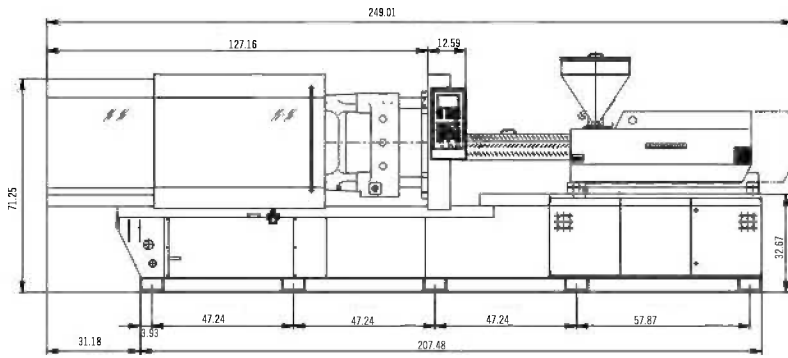


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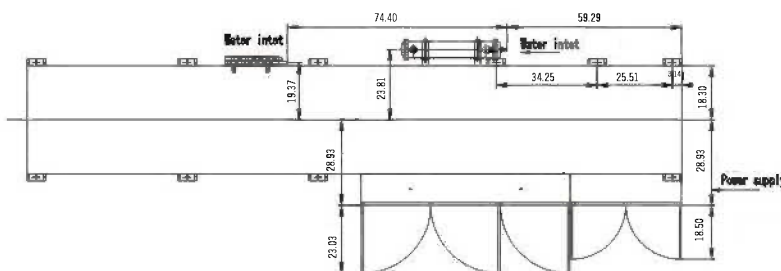
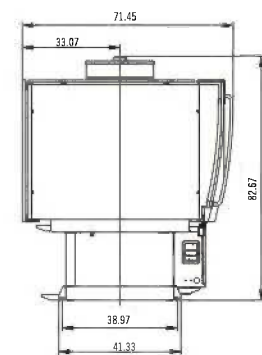
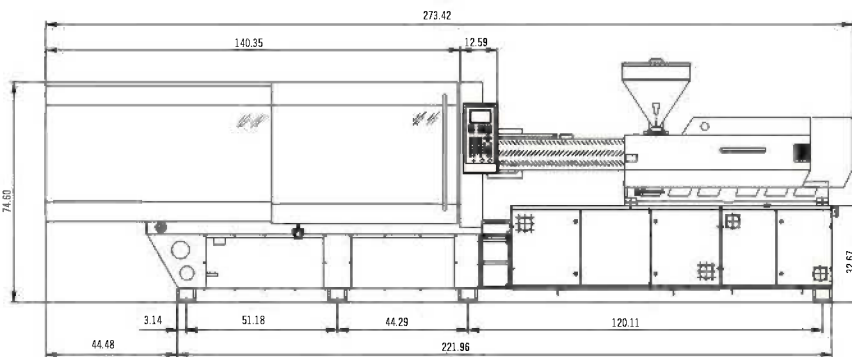


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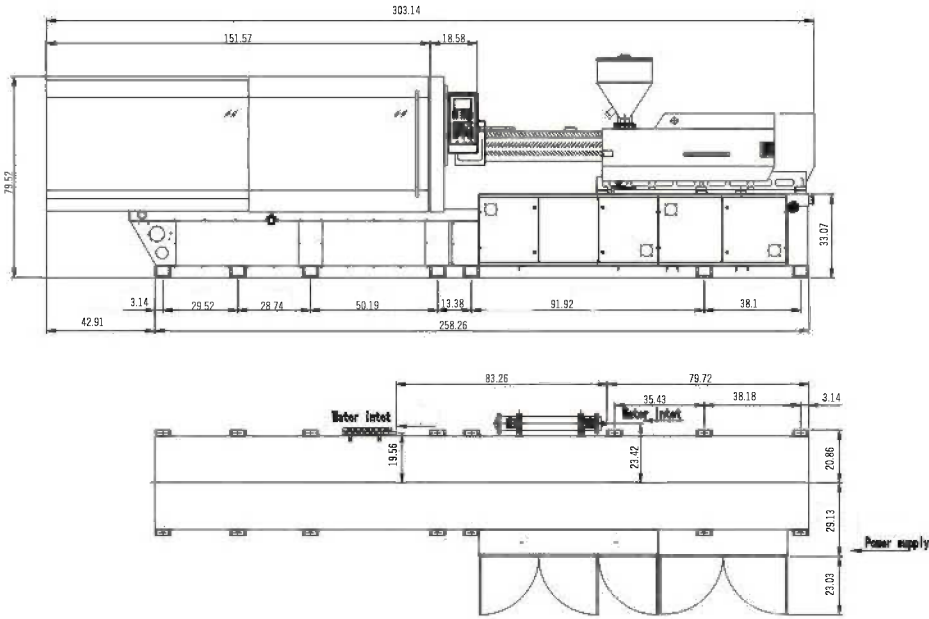
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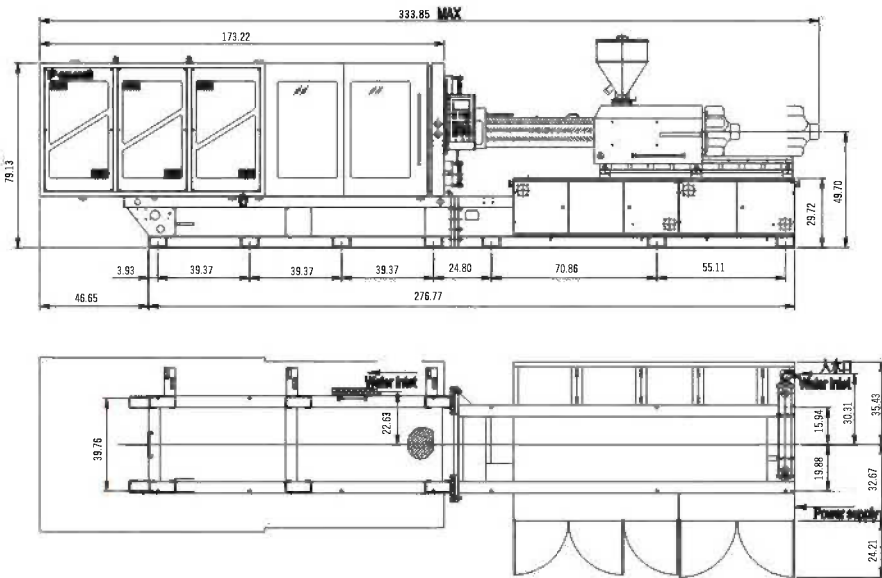
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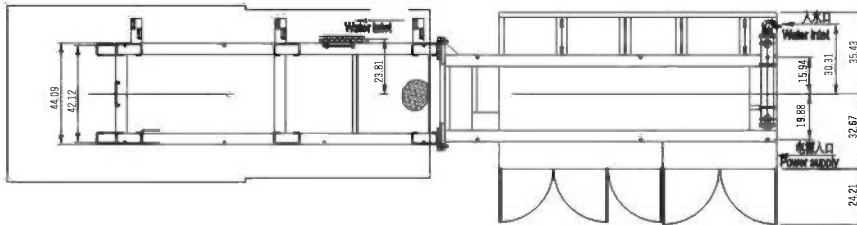
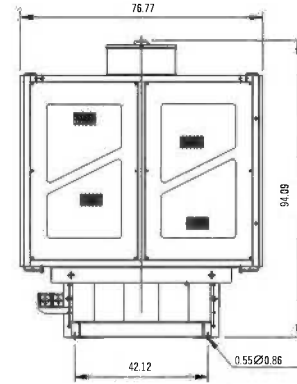
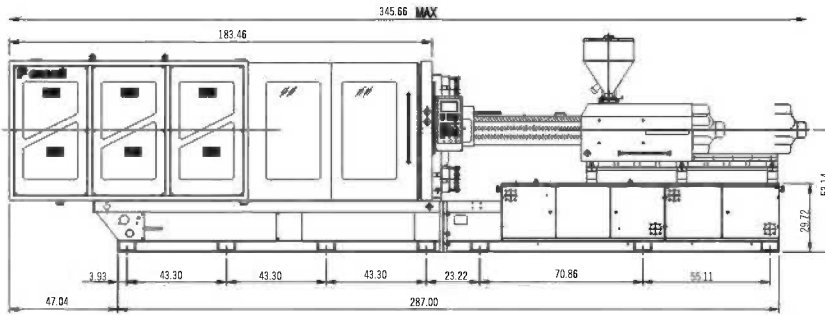


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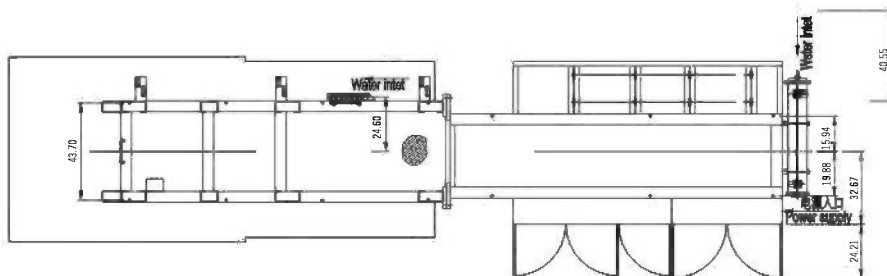
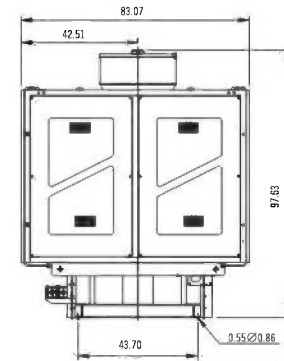
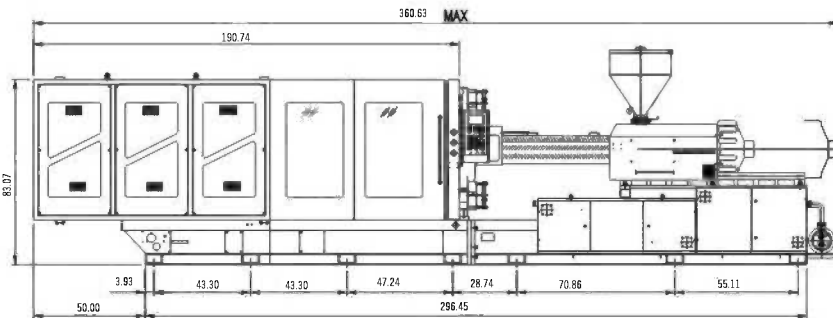


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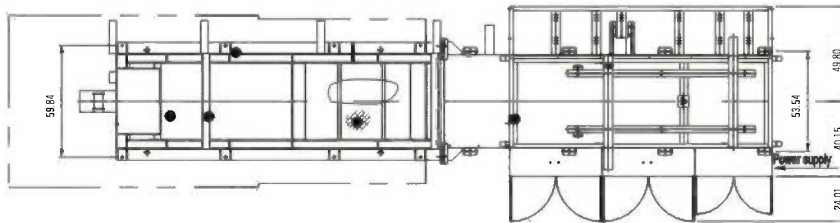
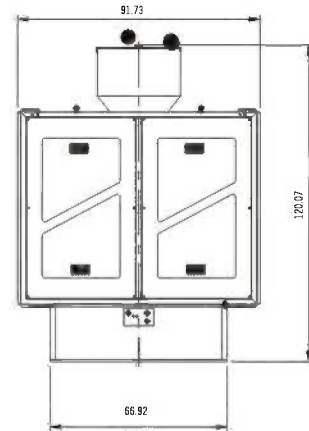
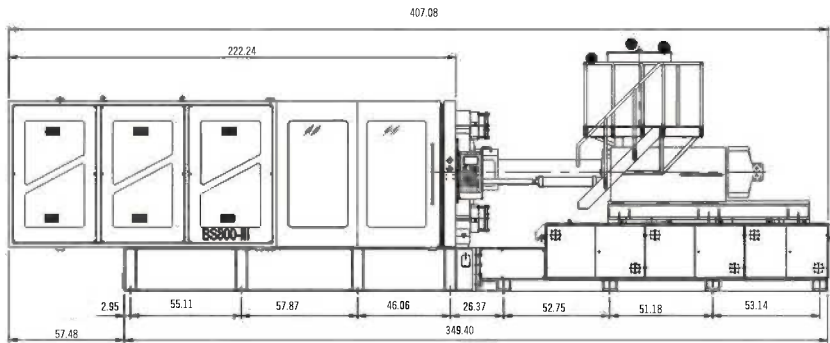
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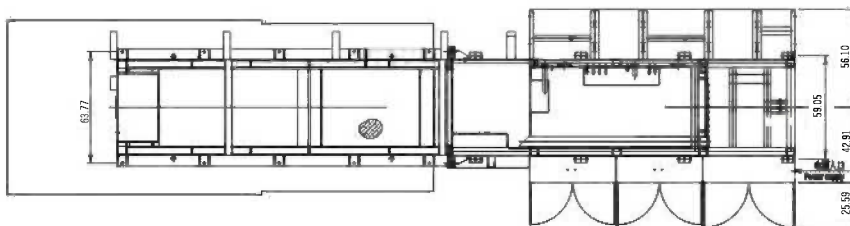
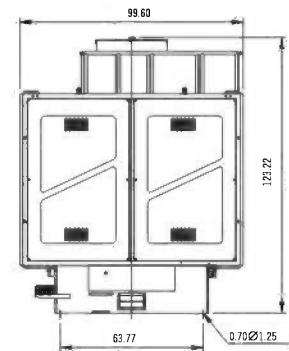
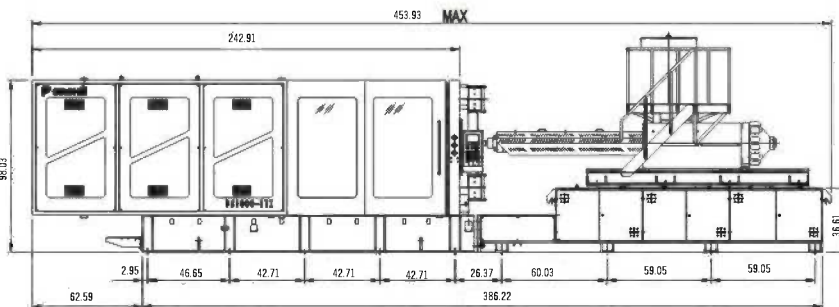
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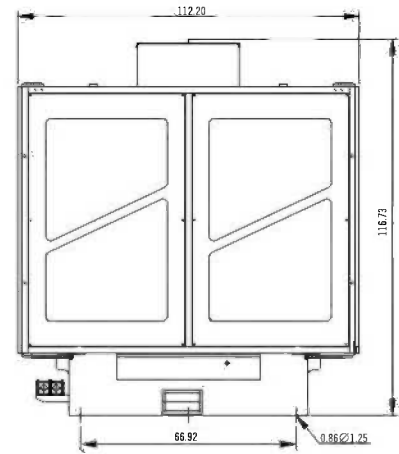
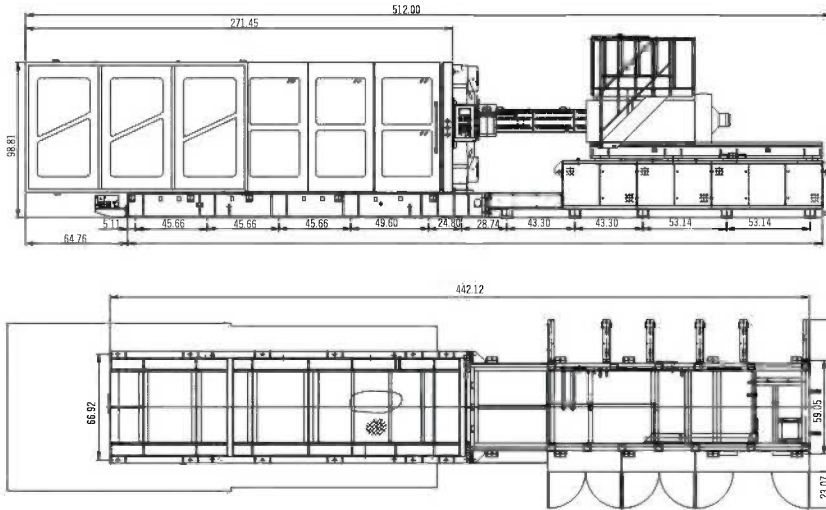


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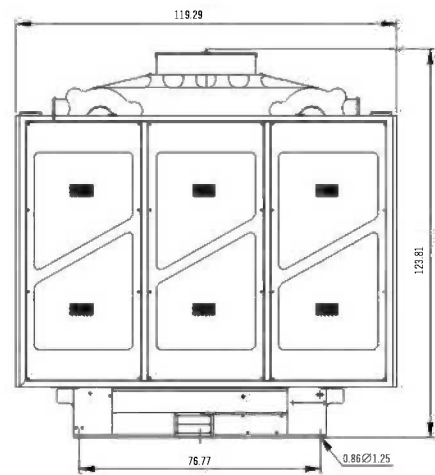
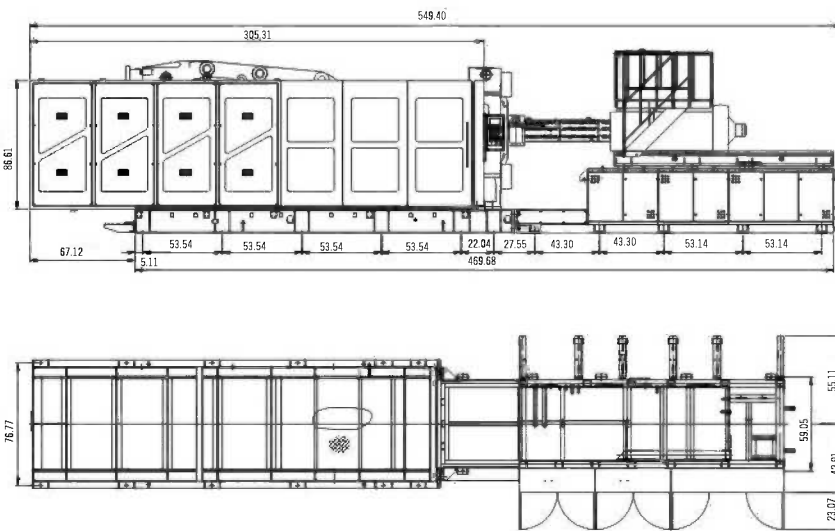


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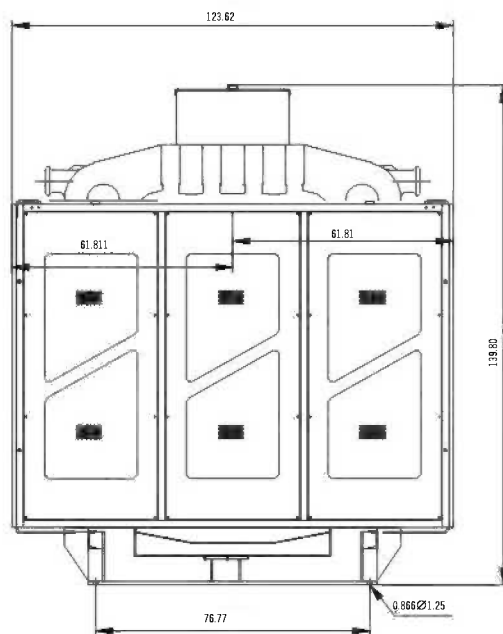
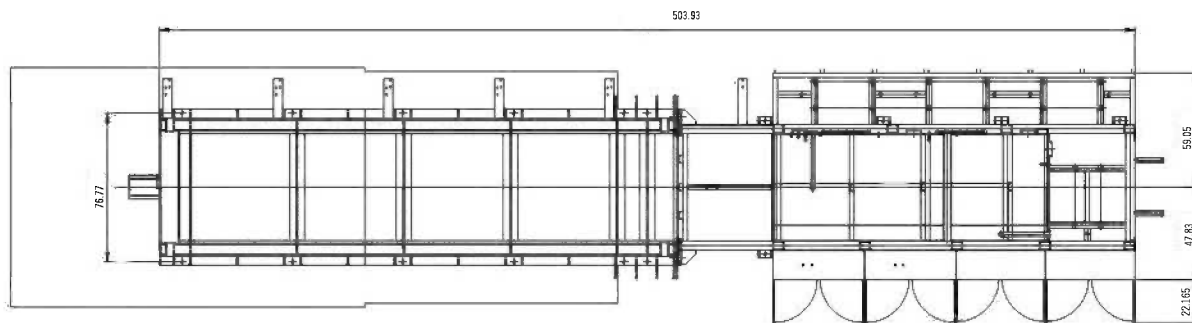
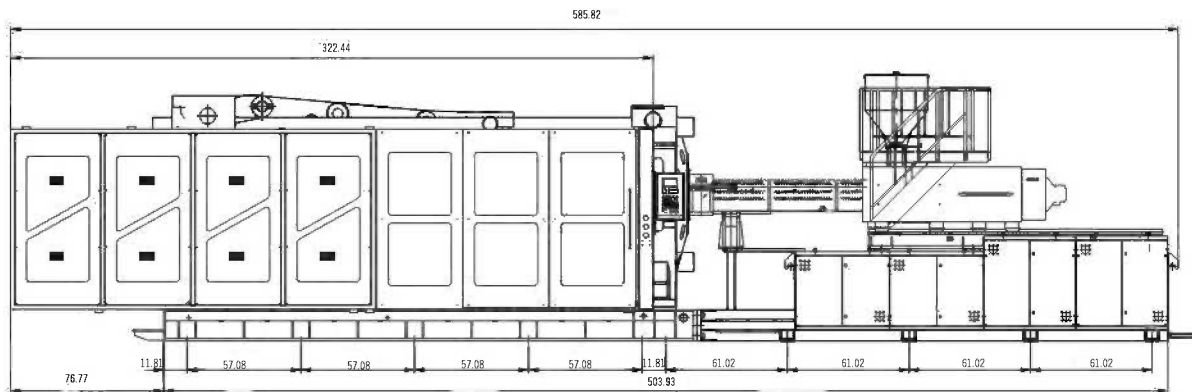
DIMENSIONS



BS1300

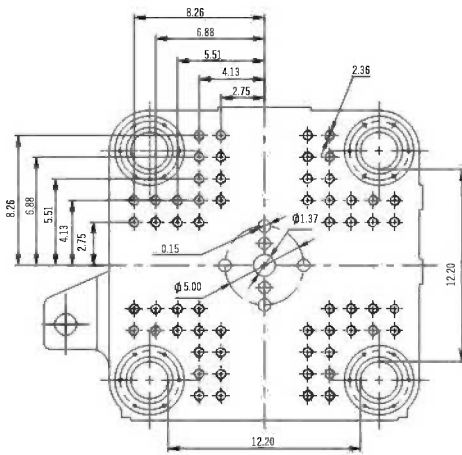


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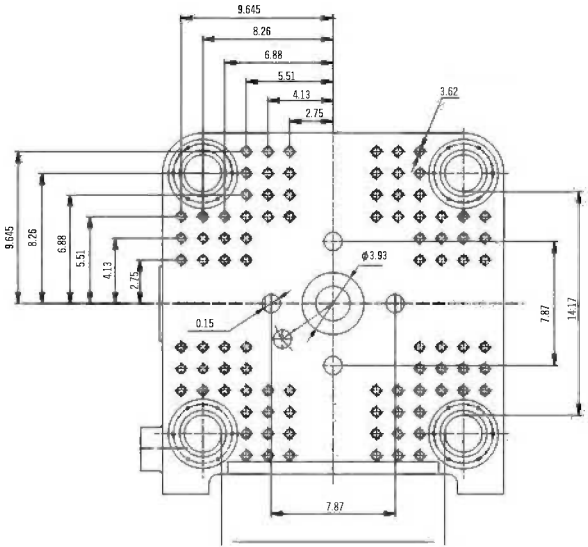


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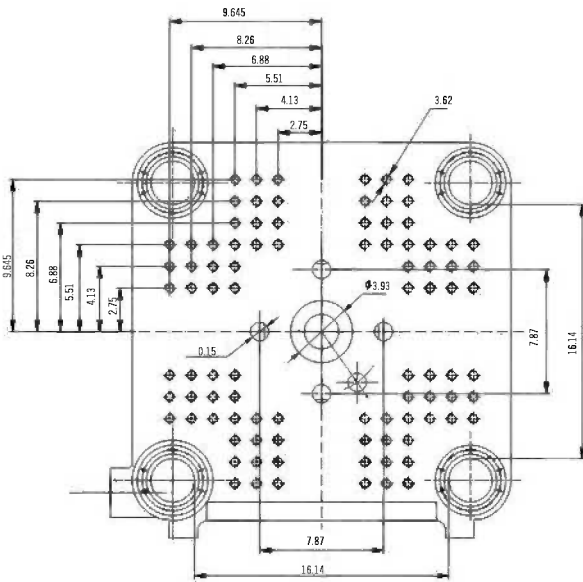
PLATEN SPECIFICATIONS



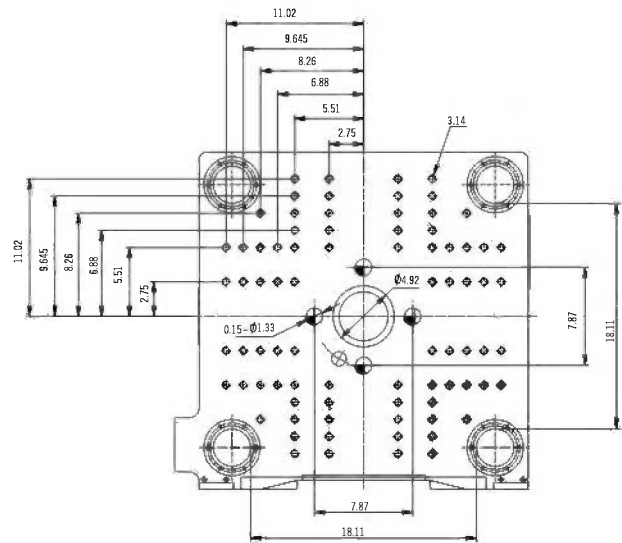
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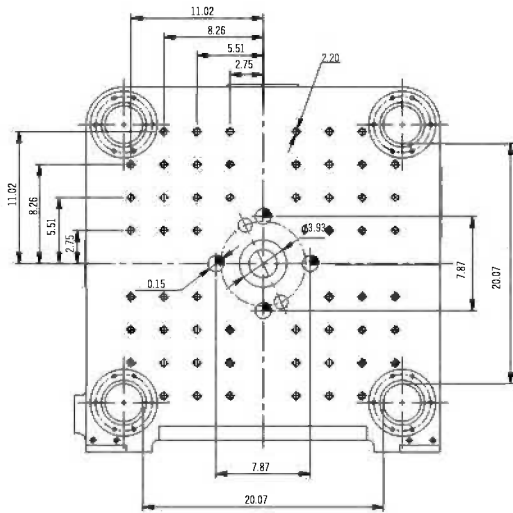
BS80



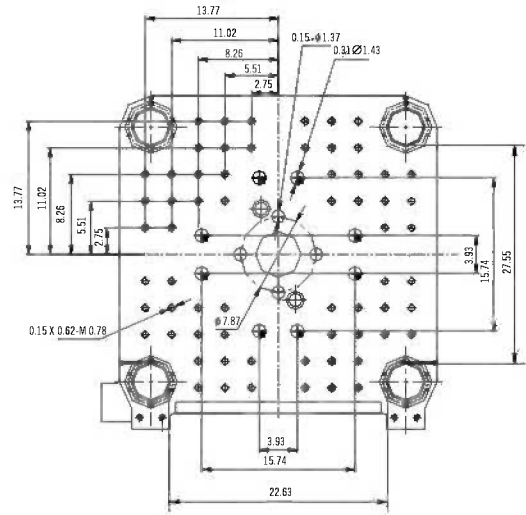
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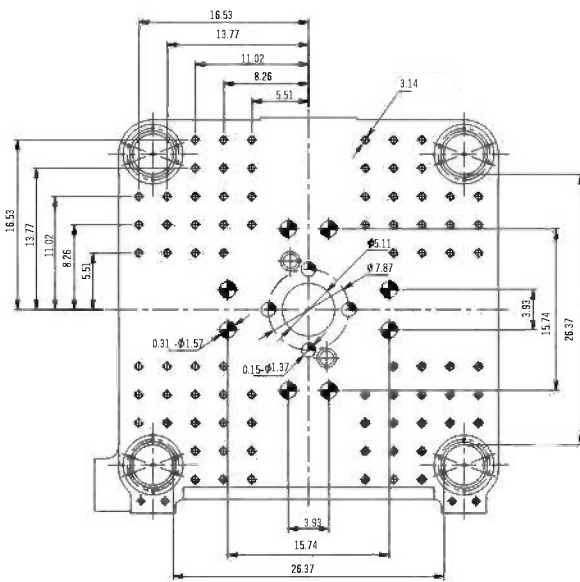
BS150



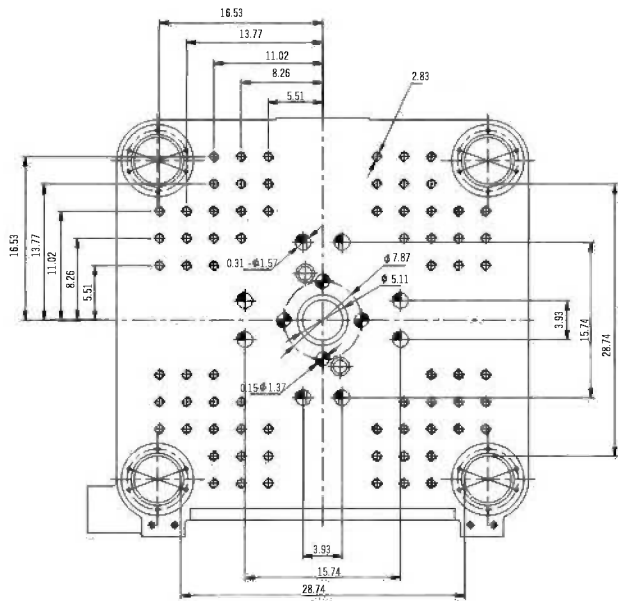
BS200



BS260

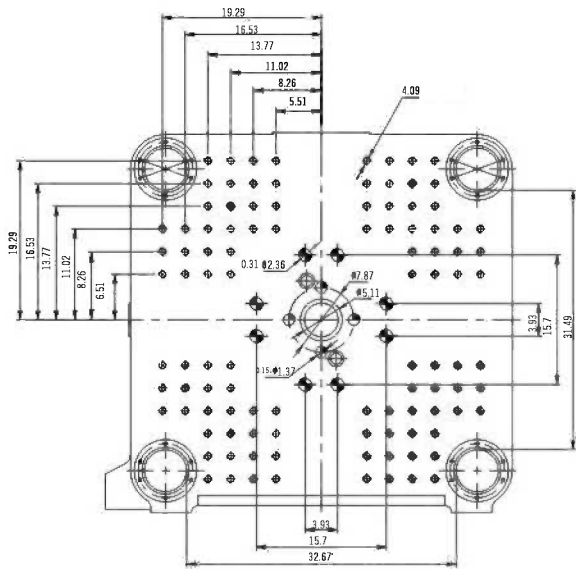


BS320

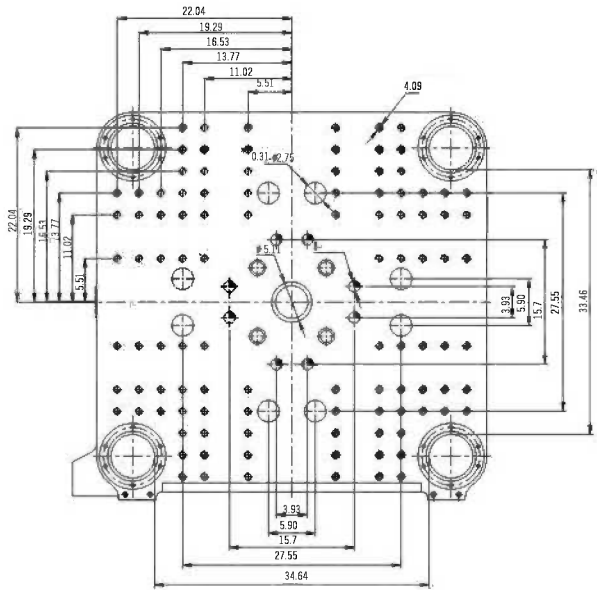


BS400

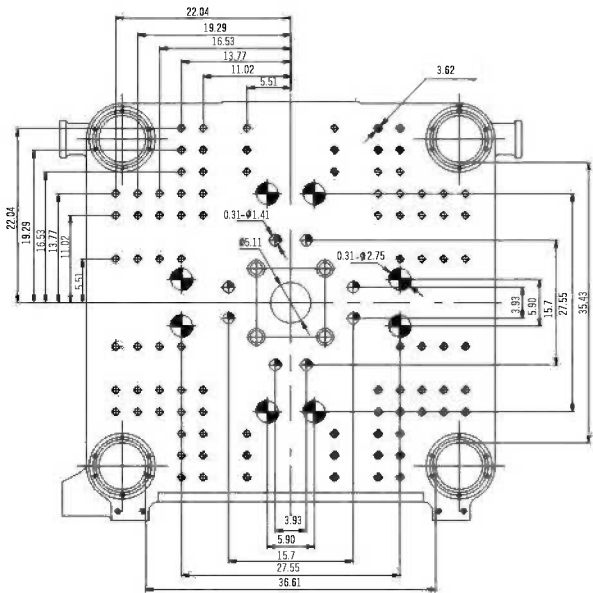
PLATEN SPECIFICATIONS



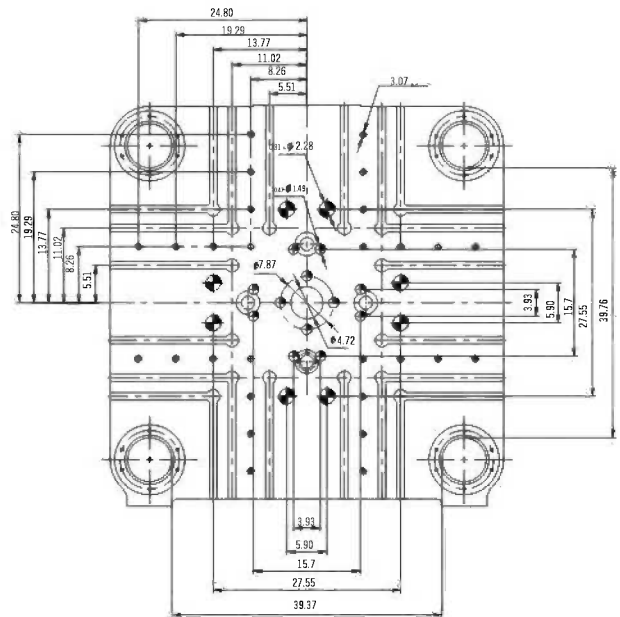
BS500



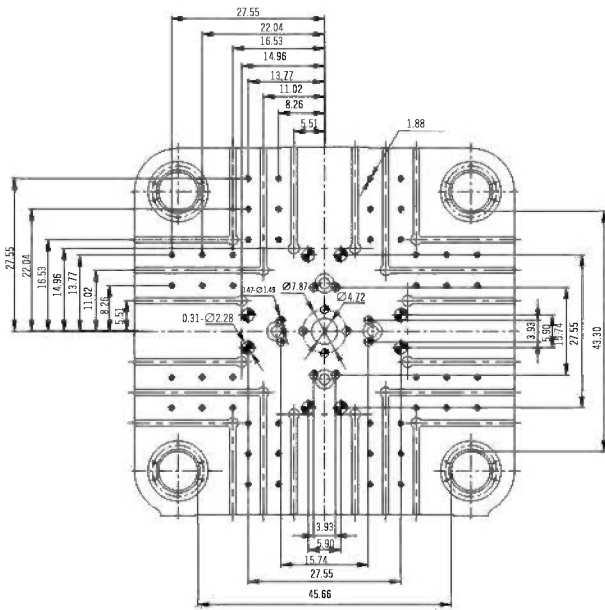
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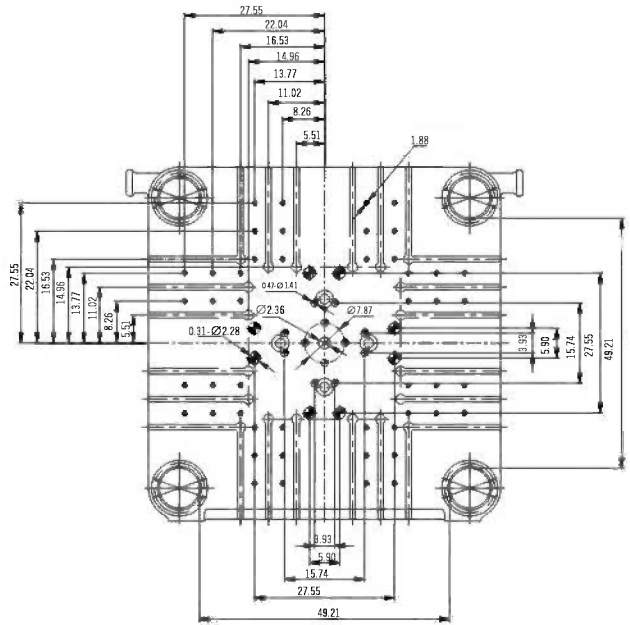
BS650



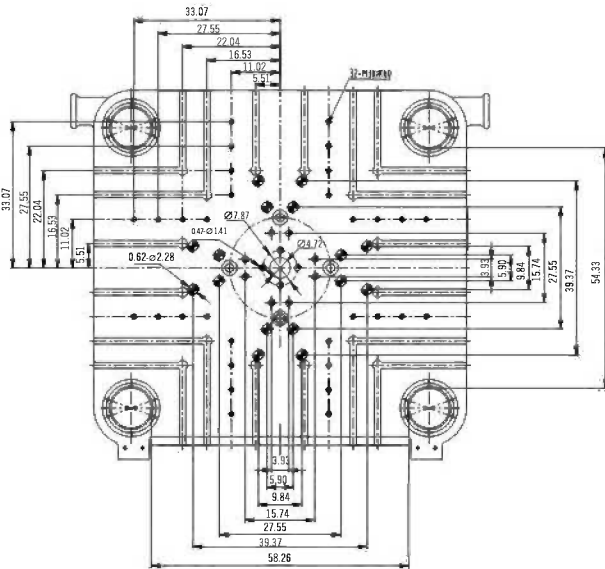
BS800



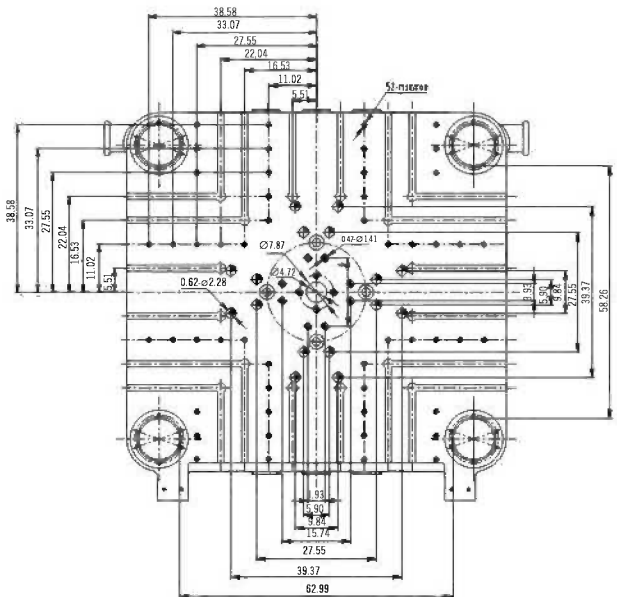
BS1000



BS1300



BS1600

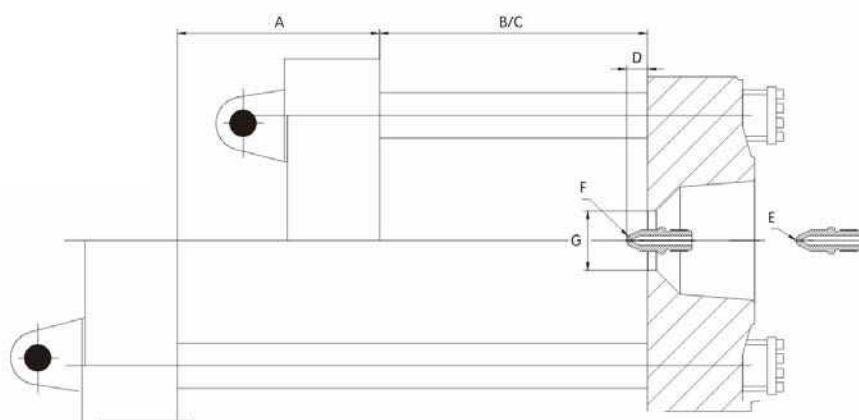


BS1800



CLAMPING UNIT DIMENSIONS

DESCRIPTION	BS60	BS80	BS120	BS150	BS200	BS260	BS320	BS400	BS500	BS560	BS650	BS800	BS1000	BS1300	BS1600	BS1800
OPENING STROKE [A]	10.63	12.60	13.39	16.14	18.31	20.47	22.83	25.79	29.72	32.28	34.65	40.35	45.28	51.18	61.02	64.96
MAXIMUM MOLD THICKNESS [B]	11.81	14.17	15.75	19.69	21.65	23.62	25.79	28.35	31.50	33.46	34.25	38.39	43.31	49.21	55.12	59.05
MINIMUM MOLD THICKNESS [C]	5.12	5.12	5.71	6.30	7.09	7.68	8.66	9.65	10.43	11.81	11.81	14.96	17.72	23.62	27.56	31.50
DISTANCE OF NOZZLE EXTENSION [D]	1.18	1.38	1.38	1.77	1.77	1.77	1.77	1.77	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
DIAMETER OF THE NOZZLE HOLE [E]	0.10	0.12	0.12	0.12	0.16	0.14	0.16	0.16	0.20	0.20	0.20	0.20	0.20	0.24	0.24	0.28
RADIUS OF THE NOZZLE SPHERE [F]	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.59	0.59	0.79
DIAMETER OF LOCATING RING [G]	3.94	4.92	4.92	4.92	6.30	6.30	6.30	6.30	7.87	7.87	7.87	9.84	9.84	9.84	9.84	9.84





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