

CYBER IN SYSTEMS KFT.

Exclusive Distributor of PowerJet

PowerJet JT Series

All-Electric Injection Molding Machines

600 – 4,500 kN | 9 machine sizes | JT60E – JT450E

Product Guide



01

65% energy saving

All-electric drive – no hydraulics, no oil, no heat dissipation. 65% savings compared to conventional hydraulic machines.

02

±0.01 mm precision

Servo motor ball screw for every movement: injection position accuracy ±0.01 mm, clamping force deviation < 3%.

03

Oil-free, clean-room ready

No hydraulic oil – clean production for medical, food, and optical applications.

04

Modular injection unit

9 clamping units × 11 standard + 8 high-speed injection units × 17 screw sizes – flexible configuration for any product.

1. All-Electric Drive System

The key differentiator of the JT series – no hydraulics



The JT series is a fully all-electric injection molding machine – every movement is driven by servo motor ball screws. No hydraulics, no oil tank, no hydraulic pump. This fundamentally differentiates it from the KII and KIII servo-hydraulic series, where clamping and injection are hydraulically driven.

Advantages of electric drive

65% energy saving

No hydraulic pump, no unnecessary oil circulation. Servo motors only consume energy when moving – consumption is near zero during waiting and cooling phases.

Oil-free, clean production

No hydraulic oil – the machine can operate in clean-room conditions. A mandatory requirement for medical, food, and optical product manufacturing.

Low noise level

The servo motor ball screw system is significantly quieter than a hydraulic pump. A direct workplace advantage in labour-intensive assembly and clean-room production.

Servo motor ball screw system

Dedicated servo motor for every movement

Clamping, injection, plasticizing, ejection – each has its own servo motor and ball screw. This enables parallel movements (e.g. clamping and ejection simultaneously), shortening cycle time.

23-bit absolute encoder

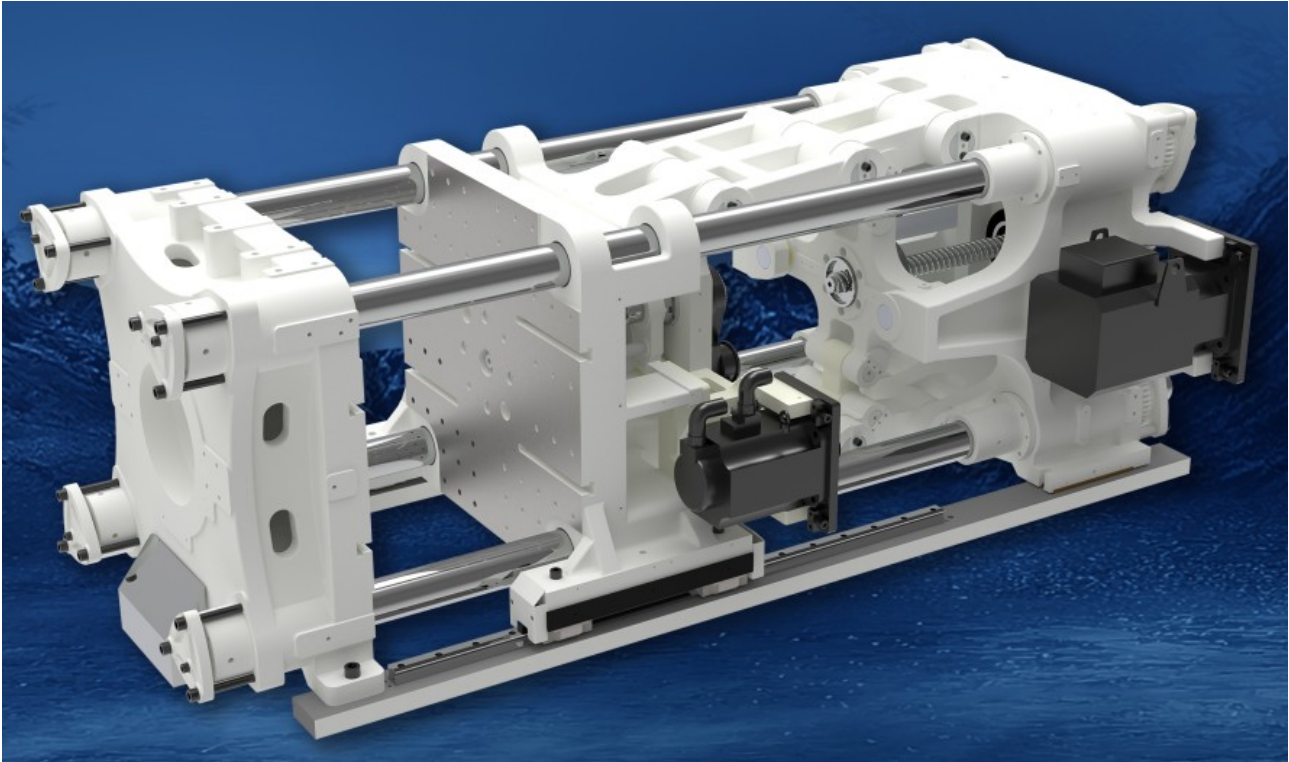
Precise 23-bit absolute encoder on every axis – clamping force deviation < 3%, platen parallelism < 0.05 mm, injection position accuracy ± 0.01 mm, mold open/close repeatability ± 0.02 mm.

Back pressure control accuracy

Back pressure control accuracy ± 0.1 MPa – critical for sensitive materials (PC, PEEK, PA+GF).

2. Clamping Unit (High Rigidity Clamping Device)

FEM-optimised platen | ball screw toggle | ± 0.02 mm



The JT series clamping unit is a servo motor ball screw toggle mechanism. Compared to previous platens, the redesigned FEM-optimised platen offers higher rigidity and more uniform force distribution – less deformation, longer mould life. Automatic mould height adjustment and centralised lubrication simplify operation.

- FEM-optimised platen: less deformation, more uniform clamping force distribution, longer mould life
- Linear rail movable platen guide: friction coefficient as low as 0.01
- Repeatability ± 0.02 mm across the full mould opening stroke
- Automatic mould height adjustment: deviation $< \pm 0.14$ mm
- Automatic clamping force adjustment: deviation $< 3\%$
- Tie bar deformation under pressure $< 3\%$
- High-strength toggle joint with self-lubricating bearing + high-grade ball screw: less vibration, longer service life
- Centralised lubrication system for toggle and ball screw
- Independent lubrication system for mould adjustment: clean working environment

3. Injection Unit (Integrated Injection Structure)

Double carriage tie rod | linear rail | ± 0.01 mm screw accuracy | modular



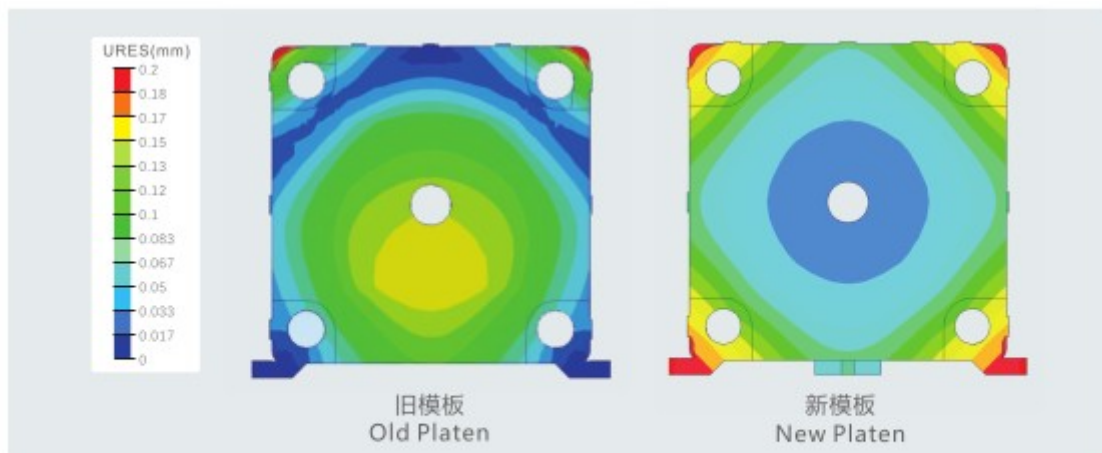
The JT series injection unit features a double carriage tie rod structure: the screw bears only axial force during injection – delivering precise, fast, stable and efficient injection. The injection unit travels on linear rails, ensuring smooth, vibration-free movement. Screw position control accuracy ± 0.01 mm.

Modular design: from B70G to B3000G, 11 standard and 8 high-speed (K) injection units are available, with 17 screw diameter options ($\varnothing 18$ – $\varnothing 95$ mm). This means multiple injection units can be matched to the same clamping unit – configuration can be tailored to the product.

4. Machine Frame and Structure

Stable, rigid, long-service-life design

The JT series machine frame is FEM-analysed and optimised for high rigidity. The electric drive has no hydraulic vibration – further improving stability and reducing noise. The compact design fits a small footprint, and maintenance is simplified – no oil tank, no hydraulic filter changes.



有限元分析图
Finite element analysis diagram

5. Control System (High-Performance Controller)

15" Intel X86 | EtherCAT | 23-bit encoder | Industry 4.0 OPC-UA



JT control system – key features

15" resistive touchscreen with built-in Intel X86 processor – display and control in one unit.

- EtherCAT bus – precise, real-time data sharing on every axis
- Built-in real-time 4-axis oscilloscope – process debugging
- Visualised HMI, graphical programming, offline simulation mode
- 23-bit absolute encoder + pressure sensor → closed-loop speed and pressure control
- Common DC bus structure, modular installation, 2-group STO safety function
- Industry 4.0 OPC-UA communication – integrable into factory-level smart networks
- RS485 and EtherNet expandable – supports third-party applications

6. Why PowerJet JT?

The 6 key strengths of the series

65% energy saving

All-electric drive: no hydraulic pump, no circulation losses. Consumption is proportional to actual load – direct and measurable savings.

±0.01 mm injection accuracy

23-bit absolute encoder + closed-loop pressure control. Repeatable production over long runs – minimal scrap, less post-processing.

Industry 4.0 – factory-level integration

EtherCAT bus, OPC-UA protocol, RS485/EtherNet expandability. The JT series is equipped with built-in data collection and MES/ERP connectivity for the demands of the digital factory.

Oil-free – clean-room compatible

No hydraulic oil – the JT series is the mandatory choice for medical ISO 7/8 clean-room, food, and optical manufacturing. No oil changes, no contamination risk.

Modular – flexible configuration

9 clamping units + 19 injection unit options + 17 screw sizes. Multiple injection units can be matched to the same clamping unit – one machine, multiple products.

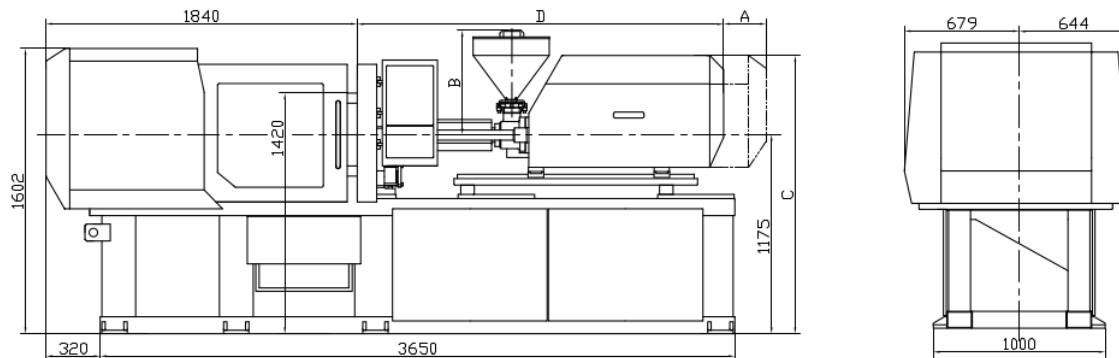
CIS Hungarian support

Exclusive distributor. Local service, spare parts supply, commissioning, training, full local support. MachineCare maintenance programme.

PowerJet JT60E

All-Electric Injection Molding Machine

600 kN
≈ 60 tonna
Clamping force



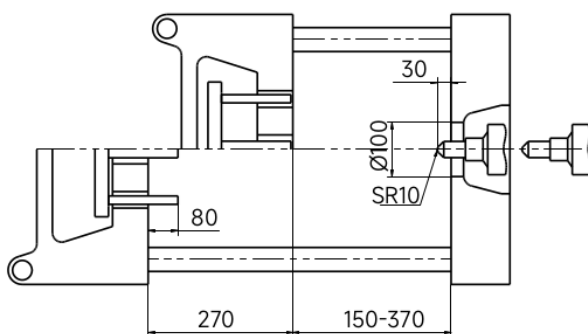
	A	B	C	D	E1/E2	F	G
B70G/B70K	200	724	1645	1900	120/95	M12	72
B120G/B120K	200	724	1645	2031	120/95	M12	72

Description

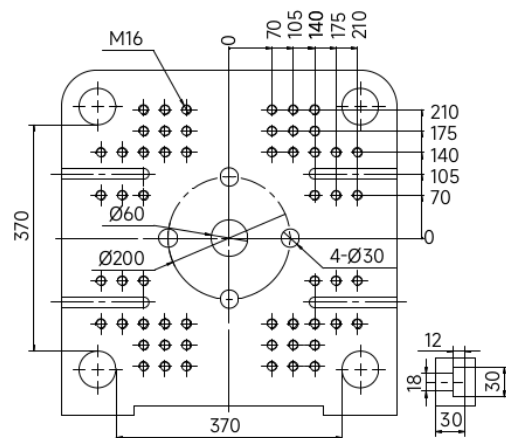
The JT60E is the entry model of the PowerJet JT series, a 600 kN all-electric injection molding machine. Every movement is driven by a servo motor ball screw system – no hydraulics, no oil, no leaks. Thanks to its modularity, it can be paired with B70G/K and B120G/K injection units, covering a screw diameter range of 18–28 mm. Ideal for small precision parts: medical, 5G electronics, and optical products.

Application areas

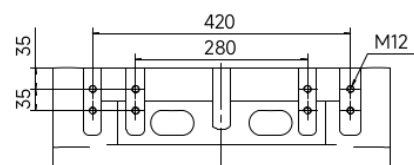
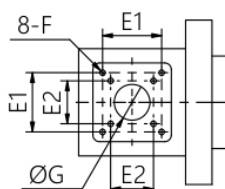
- Medical: blood collection tubes, injection components
- 5G / electronics: micro connectors, antenna elements
- Optical: lens frames, LED diffusers
- Packaging: small precision caps, closures



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	600
Mould stroke	mm	270
Max. daylight	mm	640
Mould height (min–max)	mm	150 – 370
Tie bar spacing	mm	370 × 370
Platen size	mm	550 × 550
Ejector stroke / force / pins	mm / kN / db	80 / 19,6 / 5
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	3,97 × 1,32 × 1,60
Machine weight	t	3,0 – 3,2

Injection units and screw selection

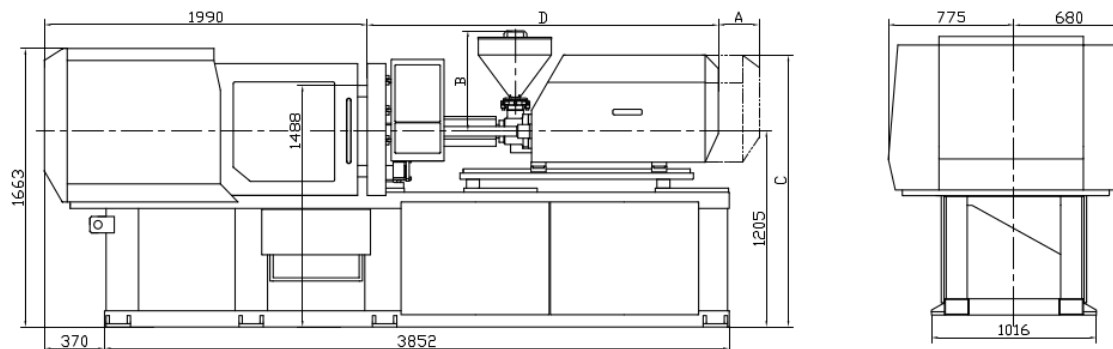
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B70G	18	22	20	21	3,1	2,97	326	261	51	200	7,3+4,4
B70G	20	27	24	22	4,1	3,27	264	212	63	200	7,3+4,4
B70G	22	33	29	22	5,3	3,6	219	175	76	200	7,3+4,4
B70K	20	27	24	22	4,1	3,27	270	216	94	300	10,5+4,4
B70K	22	33	29	22	5,3	3,6	223	178	114	300	10,5+4,4
B120G	22	42	37	22	5,3	3,6	285	228	76	200	10,5+6,7
B120G	25	54	48	20	8,1	3,6	221	177	98	200	10,5+6,7
B120G	28	68	60	20,5	11,4	5,26	176	141	123	200	10,5+6,7
B120K	22	42	37	22	5,3	3,6	325	260	114	300	15,7+6,7
B120K	25	54	48	20	8,1	3,6	252	201	147	300	15,7+6,7
B120K	28	68	60	20,5	11,4	5,26	201	161	185	300	15,7+6,7

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All-Electric Injection Molding Machine

900 kN
 ≈ 90 tonna
 Clamping force



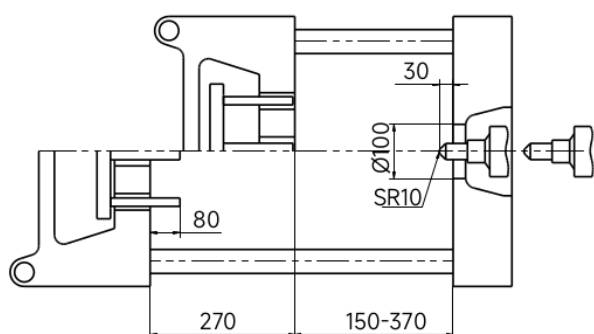
	A	B	C	D	E1/E2	F	G
B70G/B70K	240	724	1675	1900	120/95	M12	72
B120G/B120K	240	724	1675	2031	120/95	M12	72
B188G/B188K	240	724	1700	2247	120/95	M12	72

Description

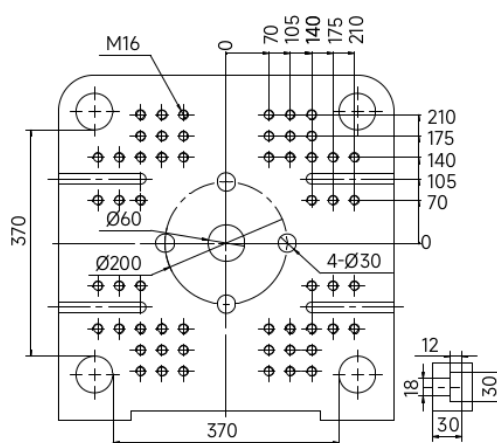
The JT90E is a 900 kN all-electric machine that can be paired with B70G/K, B120G/K, and B188G/K injection units. This configuration covers screw diameters from 18–36 mm, with shot weight in PS ranging from 24 g to 109 g. The electric ball screw clamping system operates with ± 0.02 mm repeatability. Typical applications: medical components, precision electronics, 5G parts.

Application areas

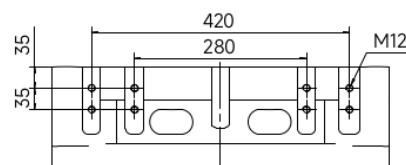
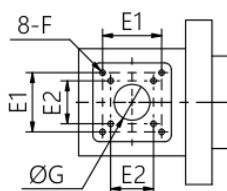
- Medical: sterile syringe parts, capsule housings, diagnostic devices
- 5G / electronics: SIM card holders, antenna elements, micro connectors
- Automotive: precision gears, sensor housings, small sensor parts
- Packaging: cosmetic jar, precision closure cap, dispensing head
- Optical: lens holder, prism housing, LED optics



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	900
Mould stroke	mm	320
Max. daylight	mm	730
Mould height (min–max)	mm	150 – 410
Tie bar spacing	mm	420 × 420
Platen size	mm	620 × 620
Ejector stroke / force / pins	mm / kN / db	80 / 19,6 / 5
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	4,22 × 1,40 × 1,66
Machine weight	t	3,6 – 4,5

Injection units and screw selection

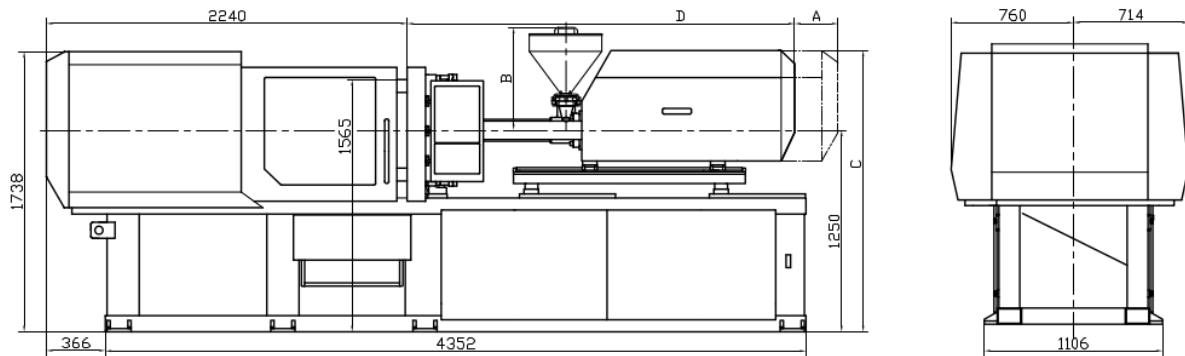
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B70G	18	22	20	21	3,1	2,97	326	261	51	200	7,3+4,4
B70G	20	27	24	22	4,1	3,27	264	212	63	200	7,3+4,4
B70G	22	33	29	22	5,3	3,6	219	175	76	200	7,3+4,4
B70K	20	27	24	22	4,1	3,27	270	216	94	300	10,5+4,4
B70K	22	33	29	22	5,3	3,6	223	178	114	300	10,5+4,4
B120G	22	42	37	22	5,3	3,6	285	228	76	200	10,5+6,7
B120G	25	54	48	20	8,1	3,6	221	177	98	200	10,5+6,7
B120G	28	68	60	20,5	11,4	5,26	176	141	123	200	10,5+6,7
B120K	22	42	37	22	5,3	3,6	325	260	114	300	15,7+6,7
B120K	25	54	48	20	8,1	3,6	252	201	147	300	15,7+6,7
B120K	28	68	60	20,5	11,4	5,26	201	161	185	300	15,7+6,7
B188G	25	59	52	20	8,1	3,6	332	266	98	200	15,7+13,4
B188G	28	74	66	20,5	11,4	5,26	265	212	123	200	15,7+13,4
B188G	32	96	86	20,2	16,6	6,16	203	162	161	200	15,7+13,4
B188G	36	122	109	20,4	23,1	7,42	160	128	204	200	15,7+13,4

PowerJet JT120E

All-Electric Injection Molding Machine

1 200 kN
≈ 120 tonna
Clamping force



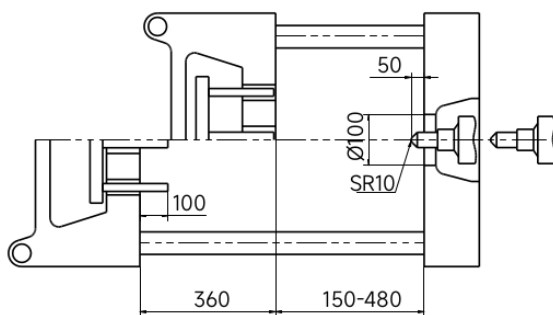
	A	B	C	D	E1/E2	F	G
B188G/B188K	275	724	1745	2247	120/95	M12	72
B288G/B288K	275	724	1745	2471	120/95	M12	72
B438G/B438K	275	833	1808	2762	120/95	M12	72

Description

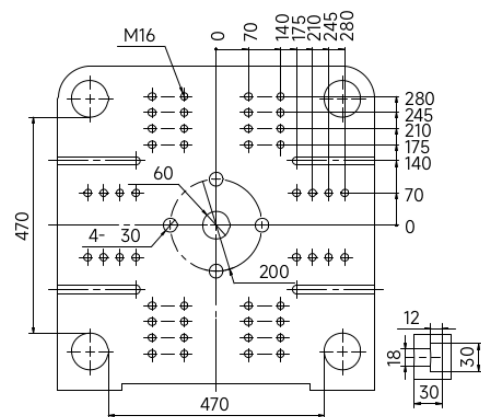
The JT120E is a 1,200 kN all-electric machine with B188G/K, B288G/K, and B438G/K injection unit options. The wide screw diameter range (25–45 mm) and modular injection unit system enable fast changeover between products. ±0.01 mm injection position accuracy and 65% energy saving compared to conventional hydraulic machines.

Application areas

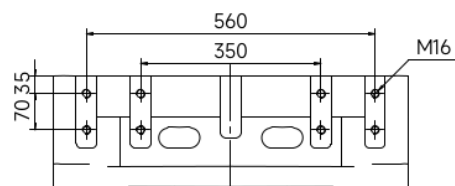
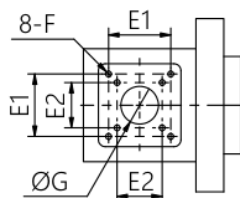
- Medical: blood glucose meter parts, catheter components, single-use devices
- Electronics / 5G: mobile phone case, smartwatch housing, precision connector
- Automotive: airbag part, safety switch housing, dashboard element
- Food packaging: PP/PE cap, box lid, dispensing head
- Home appliances: small precision parts, switch element, gear



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	1 200
Mould stroke	mm	360
Max. daylight	mm	840
Mould height (min–max)	mm	150 – 480
Tie bar spacing	mm	470 × 470
Platen size	mm	690 × 690
Ejector stroke / force / pins	mm / kN / db	100 / 29,4 / 5
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	4,76 × 1,47 × 1,74
Machine weight	t	4,8 – 5,2

Injection units and screw selection

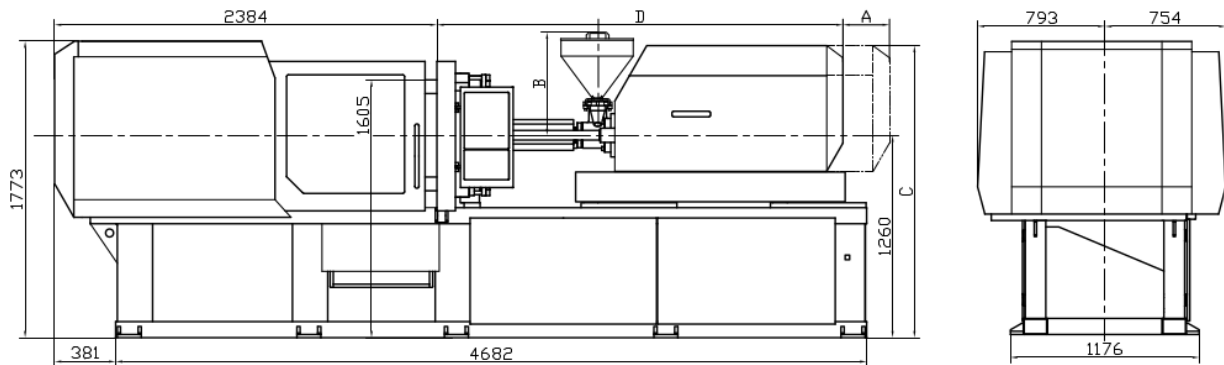
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B188G	25	59	52	20	8,1	3,6	332	266	98	200	15,7+13,4
B188G	28	74	66	20,5	11,4	5,26	265	212	123	200	15,7+13,4
B188G	32	96	86	20,2	16,6	6,16	203	162	161	200	15,7+13,4
B188G	36	122	109	20,4	23,1	7,42	160	128	204	200	15,7+13,4
B288G	28	89	79	20,5	11,4	5,26	324	259	123	200	19,3+13,4
B288G	32	117	104	20,2	16,6	6,16	248	198	161	200	19,3+13,4
B288G	36	148	131	20,4	23,1	7,42	196	157	204	200	19,3+13,4
B288G	40	182	162	21	30,1	8,72	159	127	251	200	19,3+13,4
B288K	28	89	79	20,5	11,4	5,26	327	262	185	300	24,1+13,4
B288K	32	117	104	20,2	16,6	6,16	250	200	241	300	24,1+13,4
B288K	36	148	131	20,4	23,1	7,42	198	158	305	300	24,1+13,4
B438G	32	141	125	20,2	16,6	6,16	310	248	161	200	24,1+16,4
B438G	36	178	158	20,4	23,1	7,42	245	196	204	200	24,1+16,4
B438G	40	220	196	21	30,1	8,72	199	159	251	200	24,1+16,4
B438G	45	278	248	20	40,7	10,06	157	127	318	200	24,1+16,4
B438K	32	141	125	20,2	16,6	6,16	327	261	241	300	34,7+16,4
B438K	36	178	158	20,4	23,1	7,42	258	206	305	300	34,7+16,4
B438K	40	220	196	21	30,1	8,72	209	167	377	300	34,7+16,4

PowerJet JT160E

All-Electric Injection Molding Machine

1 600 kN
 ≈ 160 tonna
 Clamping force



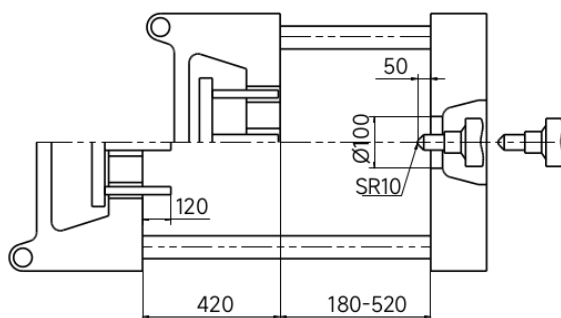
	A	B	C	D	E1/E2	F	G
B288G/B288K	290	724	1745	2471	120/95	M12	72
B438G/B438K	290	833	2194	2762	120/95	M12	72
B680G/B680K	290	833	2194	2975	120/95	M12	72

Description

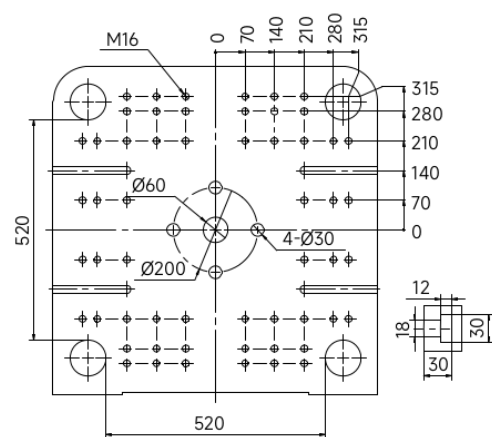
The JT160E is a 1,600 kN all-electric machine with B288G/K, B438G/K, and B680G/K injection units. The 32–50 mm screw diameter range and modular design provide great flexibility. Particularly suitable for medical, electronic, and automotive precision parts where an oil-free, clean environment and ± 0.01 mm injection accuracy are critical requirements.

Application areas

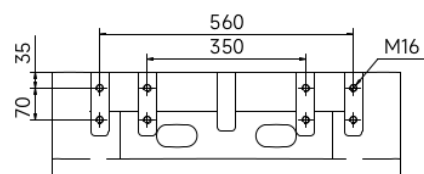
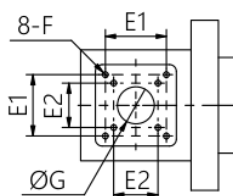
- Medical: blood storage container, diagnostic cassette, sterile component
- Automotive: airbag housing, engine control cover, precision gear
- Food / pharma packaging: flip-top cap, dispenser, medicine box
- Optical: camera module frame, lens holder, spectroscopic part



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	1 600
Mould stroke	mm	420
Max. daylight	mm	940
Mould height (min–max)	mm	180 – 520
Tie bar spacing	mm	520 × 520
Platen size	mm	770 × 770
Ejector stroke / force / pins	mm / kN / db	120 / 29,4 / 5
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	5,18 × 1,55 × 1,78
Machine weight	t	5,2 – 6,0

Injection units and screw selection

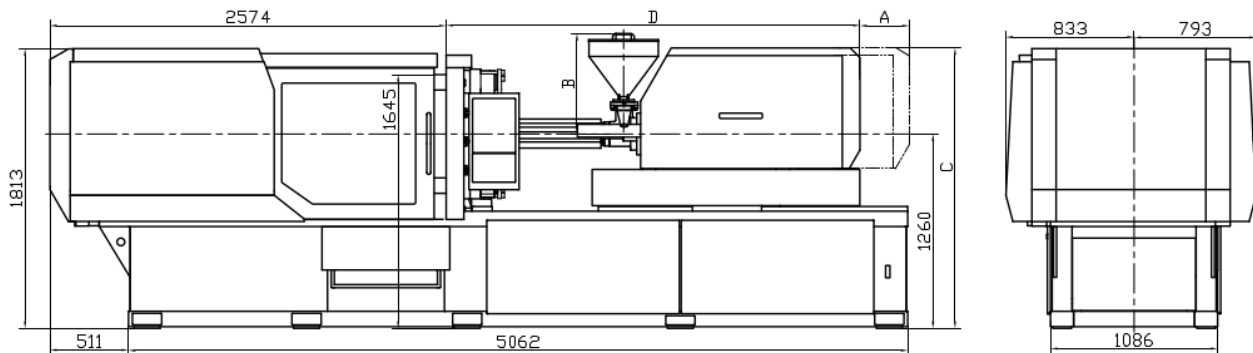
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B288G	28	89	79	20,5	11,4	5,26	324	259	123	200	19,3+13,4
B288G	32	117	104	20,2	16,6	6,16	248	198	161	200	19,3+13,4
B288G	36	148	131	20,4	23,1	7,42	196	157	204	200	19,3+13,4
B288G	40	182	162	21	30,1	8,72	159	127	251	200	19,3+13,4
B288K	28	89	79	20,5	11,4	5,26	327	262	185	300	24,1+13,4
B288K	32	117	104	20,2	16,6	6,16	250	200	241	300	24,1+13,4
B438G	32	141	125	20,2	16,6	6,16	310	248	161	200	24,1+16,4
B438G	36	178	158	20,4	23,1	7,42	245	196	204	200	24,1+16,4
B438G	40	220	196	21	30,1	8,72	199	159	251	200	24,1+16,4
B438G	45	278	248	20	40,7	10,06	157	127	318	200	24,1+16,4
B438K	36	178	158	20,4	23,1	7,42	258	206	305	300	34,7+16,4
B438K	40	220	196	21	30,1	8,72	209	167	377	300	34,7+16,4
B438K	45	278	248	20	40,7	10,06	211	169	477	300	34,7+16,4
B680G	36	214	190	20,4	23,1	7,42	321	257	204	200	31,4+20,5
B680G	40	264	235	21	30,1	8,72	260	208	251	200	31,4+20,5
B680G	45	334	297	20	40,7	10,06	206	164	318	200	31,4+20,5
B680G	50	412	367	21	52,7	12,06	166	133	393	200	31,4+20,5
B680K	36	214	190	20,4	23,1	7,42	330	264	305	300	48,2+20,5
B680K	40	264	235	21	30,1	8,72	267	214	377	300	48,2+20,5
B680K	45	334	297	20	40,7	10,06	211	169	477	300	48,2+20,5
B680K	50	412	367	21	52,7	12,06	171	137	589	300	48,2+20,5

PowerJet JT200E

All-Electric Injection Molding Machine

2 000 kN
≈ 200 tonna
Clamping force



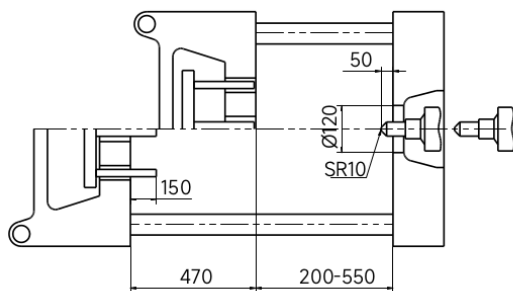
	A	B	C	D	E1/E2	F	G
B438G/B438K	315	833	1818	2762	120/95	M12	72
B680G/B680K	315	833	1818	2975	120/95	M12	72
B1000G/B1000K	415	833	1858	3297	120/95	M12	72

Description

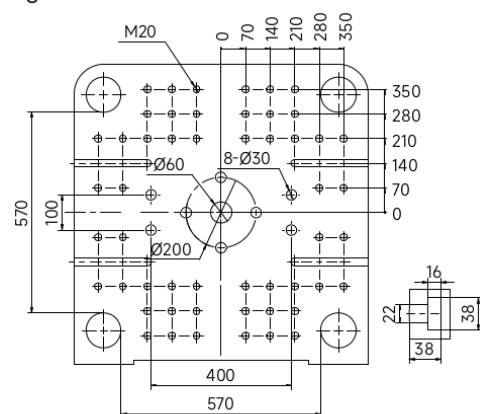
The JT200E is a 2,000 kN all-electric machine with B438G/K, B680G/K, and B1000G/K injection units. The 32–55 mm screw diameter range and large 840×840 mm platen enable medium-to-large precision part manufacturing. The servo motor clamping and injection system provides oil-free, low-noise operation.

Application areas

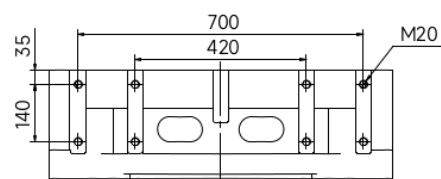
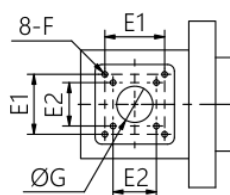
- Medical: infusion bottle cap, injection needle holder, sterile container
- Automotive: dashboard insert, seatbelt component, sensor housing
- Food: PP/PE single-use cutlery (high cavitation)
- Home appliance: vacuum cleaner part, push button, precision gear



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	2 000
Mould stroke	mm	470
Max. daylight	mm	1 020
Mould height (min–max)	mm	200 – 550
Tie bar spacing	mm	570 × 570
Platen size	mm	840 × 840
Ejector stroke / force / pins	mm / kN / db	150 / 44,1 / 9
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	5,57 × 1,63 × 1,81
Machine weight	t	7,5 – 8,2

Injection units and screw selection

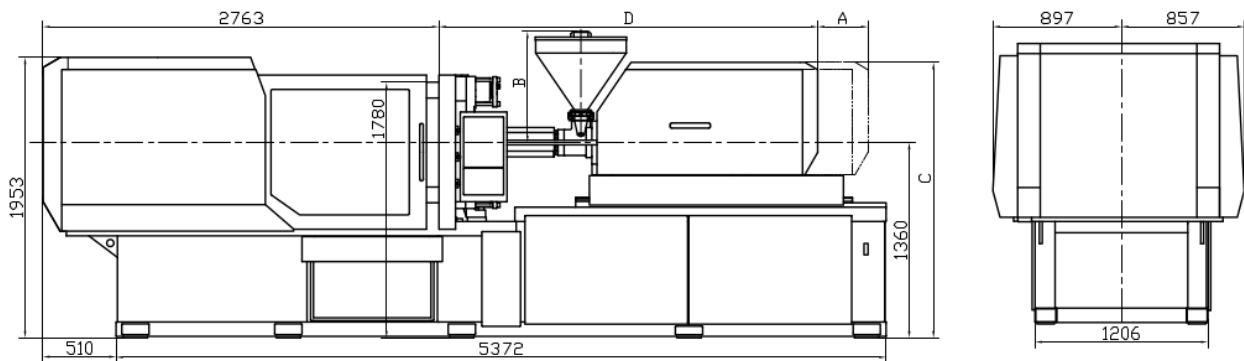
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B438G	32	141	125	20,2	16,6	6,16	310	248	161	200	24,1+16,4
B438G	36	178	158	20,4	23,1	7,42	245	196	204	200	24,1+16,4
B438G	40	220	196	21	30,1	8,72	199	159	251	200	24,1+16,4
B438G	45	278	248	20	40,7	10,06	157	127	318	200	24,1+16,4
B438K	36	178	158	20,4	23,1	7,42	258	206	305	300	34,7+16,4
B438K	40	220	196	21	30,1	8,72	209	167	377	300	34,7+16,4
B680G	36	214	190	20,4	23,1	7,42	321	257	204	200	31,4+20,5
B680G	40	264	235	21	30,1	8,72	260	208	251	200	31,4+20,5
B680G	45	334	297	20	40,7	10,06	206	164	318	200	31,4+20,5
B680G	50	412	367	21	52,7	12,06	166	133	393	200	31,4+20,5
B680K	40	264	235	21	30,1	8,72	267	214	377	300	48,2+20,5
B680K	45	334	297	20	40,7	10,06	211	169	477	300	48,2+20,5
B680K	50	412	367	21	52,7	12,06	171	137	589	300	48,2+20,5
B1000G	45	389	347	20	35,6	10,06	264	211	318	200	40+26,7
B1000G	50	481	428	21	46,1	12,06	214	171	393	200	40+26,7
B1000G	55	582	518	21	60	16,13	177	142	475	200	40+26,7
B1000K	45	389	347	20	35,6	10,06	260	208	477	300	52,9+26,7
B1000K	50	481	428	21	46,1	12,06	210	168	589	300	52,9+26,7

PowerJet JT248E

All-Electric Injection Molding Machine

2 480 kN
 ≈ 248 tonna
 Clamping force



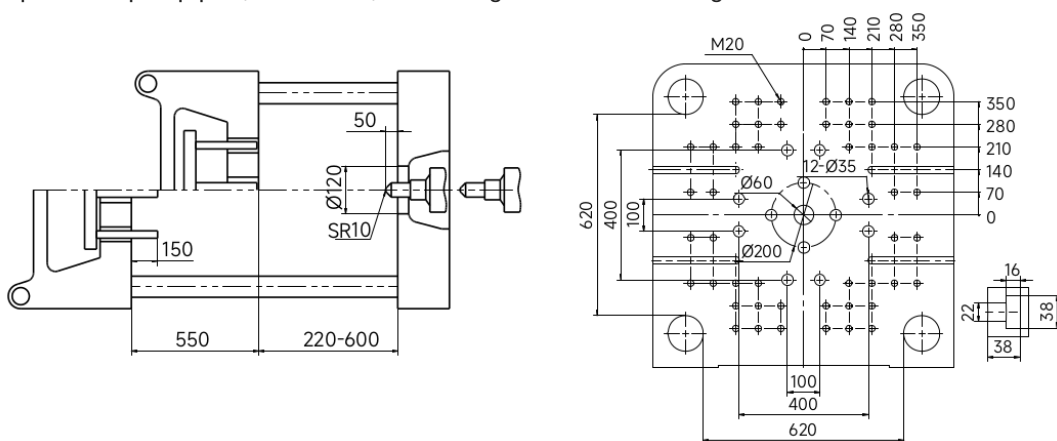
	A	B	C	D	E1/E2	F	G
B680G/B680K	315	833	1918	2975	120/95	M12	72
B1000G/B1000K	465	833	1958	3297	120/95	M12	72
B1320G/B1320K	465	853	1780	3628	120/95	M12	72

Description

The JT248E is a 2,480 kN all-electric machine with B680G/K, B1000G/K, and B1320G/K injection units. This machine size is particularly suited to large precision medical and electronic parts where multi-cavity moulds and short cycle times are critical. EtherCAT bus-based control and OPC-UA communication enable Industry 4.0 integration.

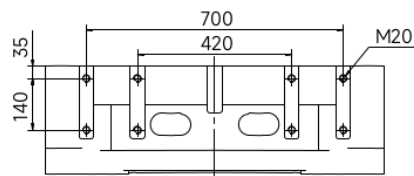
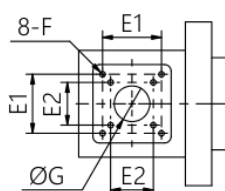
Application areas

- Medical: dialysis cassette, drug delivery device, sterile single-use device
- Automotive: precision connector, airbag cover, gearbox component
- Food / pharma: CIP-compatible storage cap, multi-cavity packaging
- Industrial: precision pump part, valve seat, measuring instrument housing



Hopper Mounting Dimension

Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	2 480
Mould stroke	mm	550
Max. daylight	mm	1 150
Mould height (min–max)	mm	220 – 600
Tie bar spacing	mm	620 × 620
Platen size	mm	930 × 930
Ejector stroke / force / pins	mm / kN / db	150 / 49,0 / 13
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	5,88–6,39 × 1,75 × 1,95
Machine weight	t	9,7 – 11,1

Injection units and screw selection

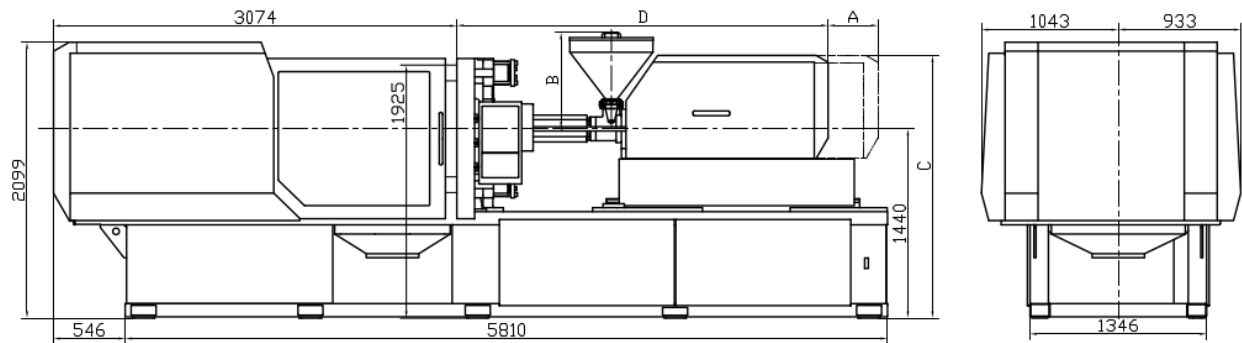
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B680G	36	214	190	20,4	23,1	7,42	321	257	204	200	31,4+20,5
B680G	40	264	235	21	30,1	8,72	260	208	251	200	31,4+20,5
B680G	45	334	297	20	40,7	10,06	206	164	318	200	31,4+20,5
B680G	50	412	367	21	52,7	12,06	166	133	393	200	31,4+20,5
B680K	40	264	235	21	30,1	8,72	267	214	377	300	48,2+20,5
B680K	45	334	297	20	40,7	10,06	211	169	477	300	48,2+20,5
B680K	50	412	367	21	52,7	12,06	171	137	589	300	48,2+20,5
B1000G	45	389	347	20	35,6	10,06	264	211	318	200	40+26,7
B1000G	50	481	428	21	46,1	12,06	214	171	393	200	40+26,7
B1000G	55	582	518	21	60	16,13	177	142	475	200	40+26,7
B1000K	45	389	347	20	35,6	10,06	260	208	477	300	52,9+26,7
B1000K	50	481	428	21	46,1	12,06	210	168	589	300	52,9+26,7
B1320G	50	550	489	21	46	12,06	242	194	393	200	45,3+30,2
B1320G	55	665	592	21	60	16,13	200	160	475	200	45,3+30,2
B1320G	60	791	704	21	71,5	–	168	135	565	200	45,3+30,2
B1320K	50	550	489	21	46	12,06	247	198	491	250	52,9+30,2
B1320K	55	665	592	21	60	16,13	204	163	593	250	52,9+30,2

PowerJet JT300E

All-Electric Injection Molding Machine

3 000 kN
 ≈ 300 tonna
 Clamping force



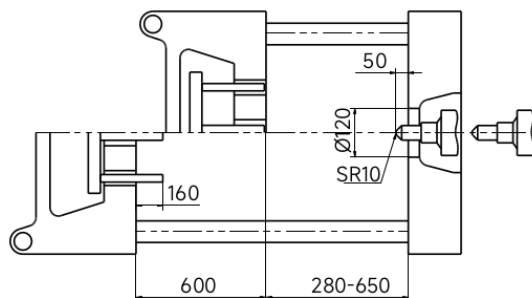
	A	B	C	D	E1/E2	F	G
B1000G/B1000K	415	805	2038	3297	120/95	M12	72
B1320G/B1320K	465	853	1860	3628	120/95	M12	72
B1800G	465	853	1860	3874	120/95	M12	72

Description

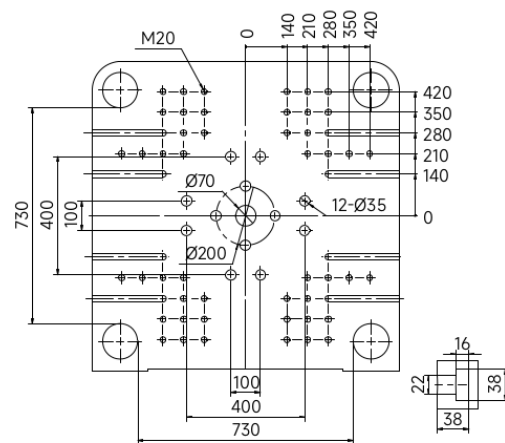
The JT300E is a 3,000 kN all-electric machine with B1000G/K, B1320G/K, and B1800G injection unit options. The 45–70 mm screw diameter range and large 1,040×1,040 mm platen enable medium-to-large precision plastic parts to be manufactured with electric drive. Oil-free, clean operation – ideal for pharma and medical production lines.

Application areas

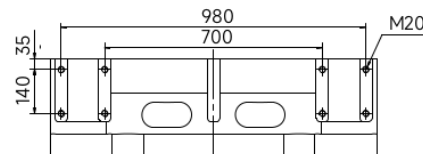
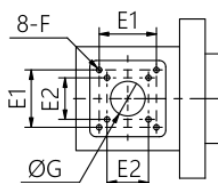
- Medical: large sterile container, blood processing cassette, dialysis component
- Automotive: door trim element, dashboard component, precision connector
- Packaging: large precision container, pharma blister base, industrial holder
- Industrial: pump component, valve body, measuring instrument holder



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	3 000
Mould stroke	mm	600
Max. daylight	mm	1 250
Mould height (min–max)	mm	280 – 650
Tie bar spacing	mm	730 × 730
Platen size	mm	1 040 × 1 040
Ejector stroke / force / pins	mm / kN / db	160 / 58,8 / 13
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	6,37–6,9 × 1,98 × 2,10
Machine weight	t	13,2 – 14,2

Injection units and screw selection

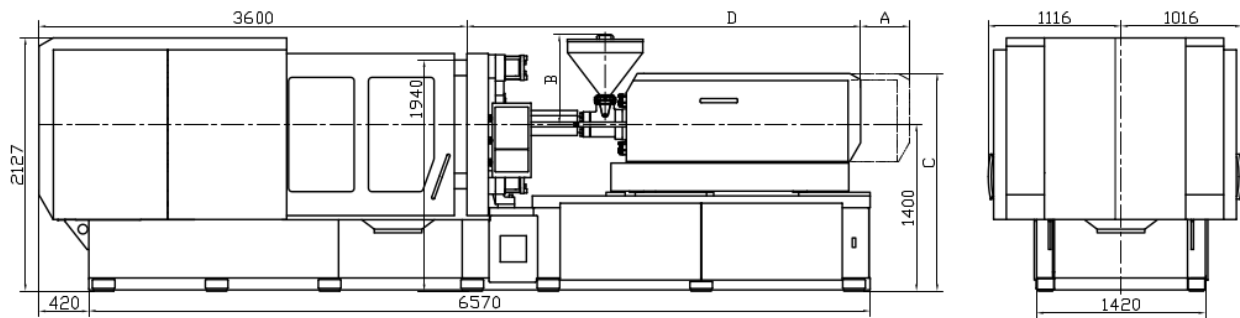
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B1000G	45	389	347	20	35,6	10,06	264	211	318	200	40+26,7
B1000G	50	481	428	21	46	12,06	214	171	393	200	40+26,7
B1000G	55	582	518	21	60	16,13	177	142	475	200	40+26,7
B1000G	60	692	616	19,2	71,5	–	149	119	565	200	40+26,7
B1000K	45	389	347	20	35,6	10,06	260	208	477	300	52,9+26,7
B1000K	50	481	428	21	46	12,06	210	168	589	300	52,9+26,7
B1320G	50	550	489	21	46,1	12,06	242	194	393	200	45,3+30,2
B1320G	55	665	592	21	60,1	16,13	200	160	475	200	45,3+30,2
B1320G	60	791	704	21	71,5	–	168	135	565	200	45,3+30,2
B1320G	65	929	827	19,3	83,5	–	142	114	663	200	45,3+30,2
B1320K	50	550	489	21	46,1	12,06	247	198	491	250	52,9+30,2
B1320K	55	665	592	21	60,1	16,13	204	163	593	250	52,9+30,2
B1800G	55	760	676	21	56,3	16,13	234	187	475	200	52,9+40,9
B1800G	60	904	805	21	67	–	197	157	565	200	52,9+40,9
B1800G	65	1 061	945	21	78,3	–	168	134	663	200	52,9+40,9
B1800G	70	1 231	1 095	19,5	93,3	–	145	116	769	200	52,9+40,9

PowerJet JT360E

All-Electric Injection Molding Machine

3 600 kN
 ≈ 360 tonna
 Clamping force



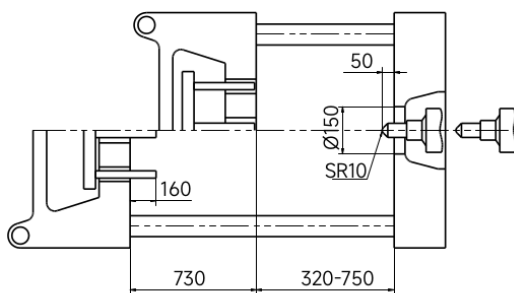
	A	B	C	D	E1/E2	F	G
B1320G/B1320K	465	853	1830	3628	120/95	M12	72
B1800G	465	853	1830	3874	120/95	M12	72
B2250G	465	853	1830	4123	140/120	M12	90

Description

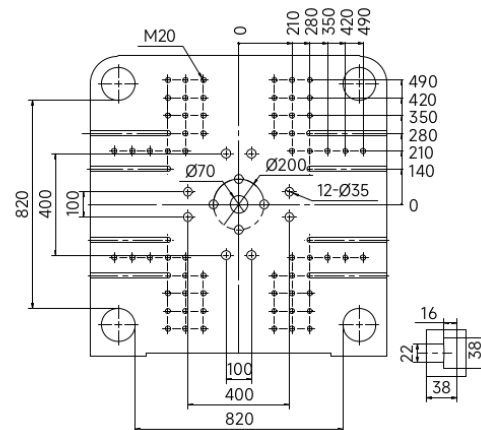
The JT360E is a 3,600 kN all-electric large machine with B1320G/K, B1800G, and B2250G injection units. The 820×820 mm platen and 1,480 mm max. daylight enable larger, complex-geometry parts to be manufactured with electric precision. Outstanding energy efficiency: 65% savings compared to conventional hydraulic machines.

Application areas

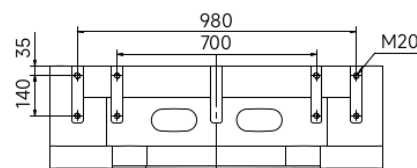
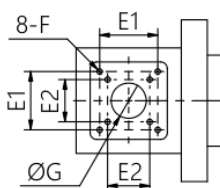
- Automotive: large interior trim element, air deflector, gearbox housing
- Medical: large sterile container, surgical instrument holder, CT component
- Industrial: pump housing, valve body, precision gear housing
- Packaging: large multi-cavity precision container, pharma holder



Hopper Mounting Dimension



Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	3 600
Mould stroke	mm	730
Max. daylight	mm	1 480
Mould height (min–max)	mm	320 – 750
Tie bar spacing	mm	820 × 820
Platen size	mm	1 170 × 1 170
Ejector stroke / force / pins	mm / kN / db	160 / 58,8 / 13
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	7,23–7,72 × 2,04 × 2,13
Machine weight	t	17,3 – 18,0

Injection units and screw selection

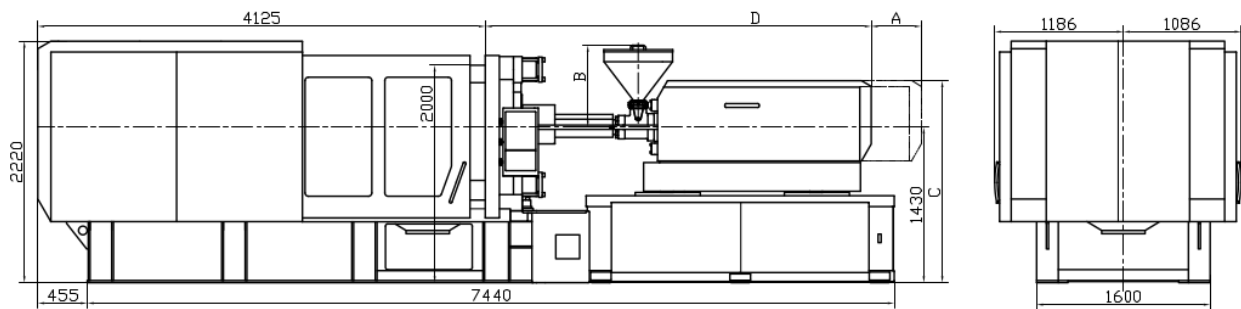
G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plastici zing (g/s)	Heatin g (kW)	Inj.pr. (MPa)	Tar.ny (MPa)	Inj.spd (cm³/s)	Inj.spd (mm/s)	Motor (kW)
B1320G	50	550	489	21	46,1	12,06	240	194	393	200	45,3+30,2
B1320G	55	665	592	21	60,1	16,13	200	160	475	200	45,3+30,2
B1320G	60	791	704	21	71,5	–	168	135	565	200	45,3+30,2
B1320G	65	929	827	19,3	83,5	–	142	114	663	200	45,3+30,2
B1320K	50	550	489	21	46,1	12,06	247	198	491	250	52,9+30,2
B1800G	55	760	676	21	56,3	16,13	234	187	475	200	52,9+40,9
B1800G	60	904	805	21	67	–	197	157	565	200	52,9+40,9
B1800G	65	1 061	945	21	78,3	–	168	134	663	200	52,9+40,9
B1800G	70	1 231	1 095	19,5	93,3	–	145	116	769	200	52,9+40,9
B2250G	60	961	855	21	67	–	233	186	565	200	2×31,4+50,7
B2250G	65	1 128	1 004	21	78,3	–	199	159	663	200	2×31,4+50,7
B2250G	70	1 308	1 164	21	93	–	171	137	769	200	2×31,4+50,7
B2250G	78	1 624	1 445	18,8	115	–	138	110	955	200	2×31,4+50,7

PowerJet JT450E

All-Electric Injection Molding Machine

4 500 kN
 ≈ 450 tonna
 Clamping force



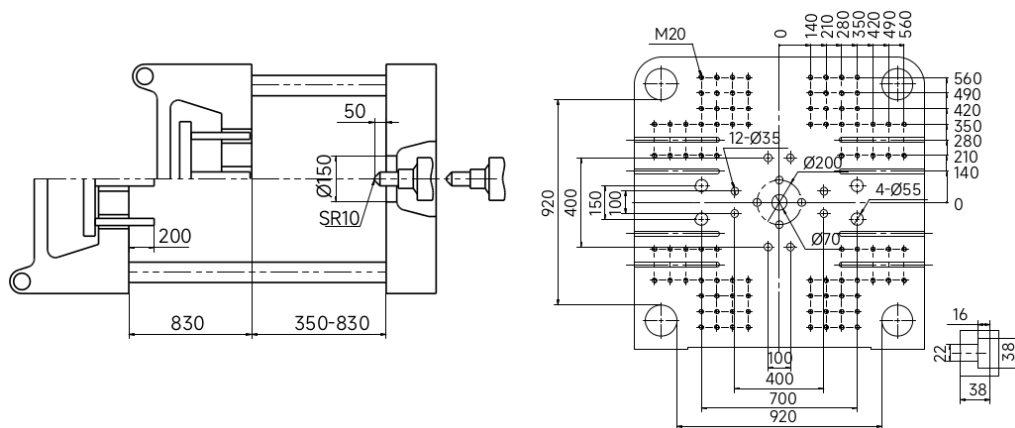
	A	B	C	D	E1/E2	F	G
B1800G	465	853	1860	3874	120/95	M12	72
B2250G	465	853	1860	4123	140/120	M12	90
B3000G	465	853	1860	4340	140/120	M12	90

Description

The JT450E is the flagship model of the PowerJet JT series, a 4,500 kN all-electric large machine. Available with B1800G, B2250G, and B3000G injection units, covering a screw diameter range of 55–95 mm and up to 3,033 cm³ shot volume. The 920×920 mm tie bar spacing and 1,660 mm max. daylight enable the largest and most demanding precision parts to be injection moulded electrically.

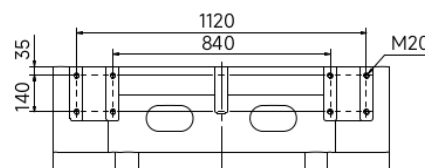
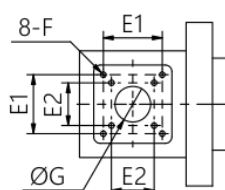
Application areas

- Automotive: large dashboard component, bumper inner frame, door interior panel
- Medical: large sterile container, hospital device housing, laboratory equipment part
- Industrial: large pump housing, compressor housing, machine part cover
- Packaging: large precision industrial container, pharmaceutical container part



Hopper Mounting Dimension

Robot Top View Fixed Platen



Clamping unit – technical data

Parameter	Unit	Value
Clamping structure		Servo motor ball screw toggle
Clamping force	kN	4 500
Mould stroke	mm	830
Max. daylight	mm	1 660
Mould height (min–max)	mm	350 – 830
Tie bar spacing	mm	920 × 920
Platen size	mm	1 300 × 1 300
Ejector stroke / force / pins	mm / kN / db	200 / 98,0 / 17
Controller		15" Intel X86 EtherCAT Ipar 4.0 OPC-UA
Machine L × W × H	m	7,93–8,47 × 2,27 × 2,22
Machine weight	t	22,5 – 23,5

Injection units and screw selection

G = standard speed unit | K = high-speed (fast) unit | Shot vol. = shot volume (cm³) in PS | Gold background = standard (STD) injection unit for this machine

Inj. unit	Ø (mm)	Shot vol. (cm³)	Shot weight PS (g)	L/D	Plasticizing (g/s)	Heating (kW)	Inj.pr. (MPa)	Hold pr. (MPa)	Inj.seb cm³/s	Inj.spd (mm/s)	Motor (kW)
B1800G	55	760	676	21	56,3	16,13	234	187	475	200	52,9+40,9
B1800G	60	904	805	21	67	–	197	157	565	200	52,9+40,9
B1800G	65	1 061	945	21	78,3	–	168	134	663	200	52,9+40,9
B1800G	70	1 231	1 095	19,5	93,3	–	145	116	769	200	52,9+40,9
B2250G	60	961	855	21	67	–	233	186	565	200	2×31,4+50,7
B2250G	65	1 128	1 004	21	78,3	–	199	159	663	200	2×31,4+50,7
B2250G	70	1 308	1 164	21	93	–	171	137	769	200	2×31,4+50,7
B2250G	78	1 624	1 445	18,8	115	–	138	110	955	200	2×31,4+50,7
B3000G	70	1 385	1 232	21	56,3	–	219	175	769	200	2×40+60,5
B3000G	78	1 719	1 530	21	67	–	176	141	955	200	2×40+60,5
B3000G	88	2 188	1 948	19	78,3	–	139	111	1 216	200	2×40+60,5
B3000G	95	2 550	2 270	17,2	110	–	118	95	1 417	200	2×40+60,5

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Standard Equipment

Device Configuration – Standard Devices | PowerJet JT Series

1. Clamping Unit

- | | |
|---|---|
| <ul style="list-style-type: none">● Platen and toggle material: QT500-7A● Euromap 18 robot mounting holes on the platen● Mechanical and electrical dual safety protection● Linear rail movable platen guide● Automatic centralised metered lubrication system● Multiple ejection functions | <ul style="list-style-type: none">● Low pressure mould protection● Automatic mould height adjustment● Ejector forced return● Mechanical safety lock● Ejector position feedback confirmation |
|---|---|

2. Injection Unit

- | | |
|--|--|
| <ul style="list-style-type: none">● Linear rail injection unit / carriage movement● Full hard alloy steel screw and barrel● Cooling device at the hopper throat● Barrel multi-zone PID temperature control● Nozzle independent PID temperature control | <ul style="list-style-type: none">● Double carriage tie rod, constant nozzle contact force device● Screw cold-start protection function● Automatic purge function● Adjustable screw decompression before/after injection● Screw speed sensor and display |
|--|--|

3. Control System

- | | |
|---|---|
| <ul style="list-style-type: none">● Barrel heating protection function● Input/output monitor display● Automatic heat insulation and heating setting● Multiple injection → holding pressure switchover modes● 15" touchscreen● RS485 and EtherNet connectors – intelligent network connection● Large-capacity parameter storage, USB port● Metric / imperial unit switching● Front and rear safety doors with emergency stops● Quality data process control interface | <ul style="list-style-type: none">● SPC (Statistical Process Control) real-time list● Core pull protection function (software only, no hardware)● Multiple three-phase sockets, one single-phase socket● Hot runner valve gate control● Synchronous plasticizing during clamping and ejection● Custom robot arm interface● Euromap 12 robot electrical interface● Three-colour signal tower light● National standard function |
|---|---|

4. Other

- Operating manual in Chinese, English, and Hungarian
- Adjustable vibration-damping feet
- Tool kit + 1 bucket of grease (700 ml)

- Mould clamps (Zhu system)
- Special nozzle wrench

Note on equipment list

This document is based on the explicit equipment table of the PowerJet JT series catalogue. The manufacturer reserves the right to modify product technical parameters, configurations, and features without prior notice. For details on optional equipment and machine model-specific configuration, please contact us.

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