



# GM3-PET

## 160T-480T

INJECTION MOLDING MACHINE FOR PET

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DISCLAIMER

1. Our company reserves the right to make improvements to the products described in the sample. Specifications are subject to change without prior notice.
2. The product photos in the sample are for reference only, and the actual product shall prevail.
3. The data in the sample is obtained through on-site testing and inspection by LANSON Company, and is for reference only. It is not guaranteed to be the latest data, and all actual products shall prevail.

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## TECHNOLOGICAL HIGHLIGHTS

### INJECTION MOLDING MACHINE FOR PET

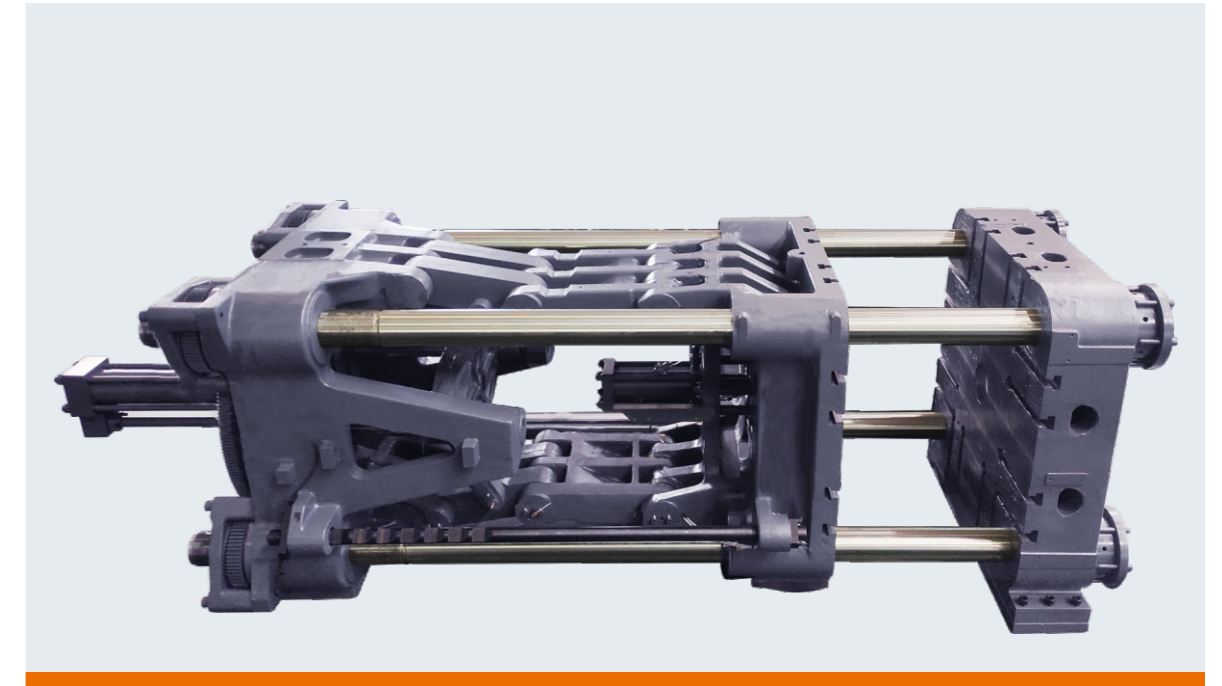
Range Of Application:

GM3-PET series is suitable for producing preforms applied in bottles, beverage industry, food packaging industry and cosmetic industry, etc



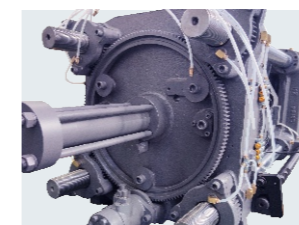
- Imported high efficiency energy saving servo system, machine operates with low noise, strong power and fast response, minimize the energy consumption to be lowest, improve cost effectiveness.
- The new PET-specific screw design ensures plasticizing efficiency and excellent plasticizing performance, breaking through the defects of traditional PET molding such as bubbles, silver streaks, partial whitening and yellowing, etc., greatly improving the quality of the product.
- The screw length-to-diameter ratio is 24:1 (standard), which effectively controls the injection stroke and improves the rational utilization of the shot weight and the plasticizing effect. Prevents material accumulation, easier to clean, durable service life.
- Promote plasticizing capacity, achieve the PET bottle preform production cycle time requirement.
- Enlarge ejector force and stroke, satisfy the requirements of PET special products.
- Enlarge cooling device, good for mould cooling, ensures the crystallization quality of PET products.
- Digital back pressure proportional control, easier to adjust.
- Reserve the hot runner temperature control installation interface.
- Injection and clamping unit use linear transducer to accurately control the stroke with a precision of up to 0.1mm.
- Microcomputer controller has the advantages of six-stage holding pressure, five-stage back pressure, holding pressure position switching control, and 200 sets of mold data memory functions.
- Adopts PID temperature control, has screw cold start limit, disconnection detection, heat preservation and other functions, and can control the temperature error of  $\pm 1$ . The preforms have high dimensional stability and low defective rate.
- Available to provide complete plant supporting planning for dehumidification, drying, loading, freezing, molds, hot runners and other automated peripheral equipment and injection molding machines (i.e. turnkey projects).

## STRONG AND HIGH EFFICIENCY CLAMPING SYSTEM



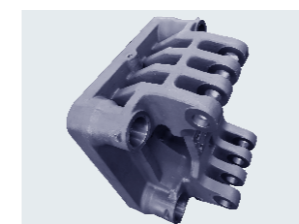
### Reinforced clamping unit

- ▶ Adopting finite element analysis, Maximum increase the fixed platen and moving platen shearing surface, avoid stress concentration. Beside, we increase the number of hinges, hinge pins and steel jackets shearing surface to longer the service life.



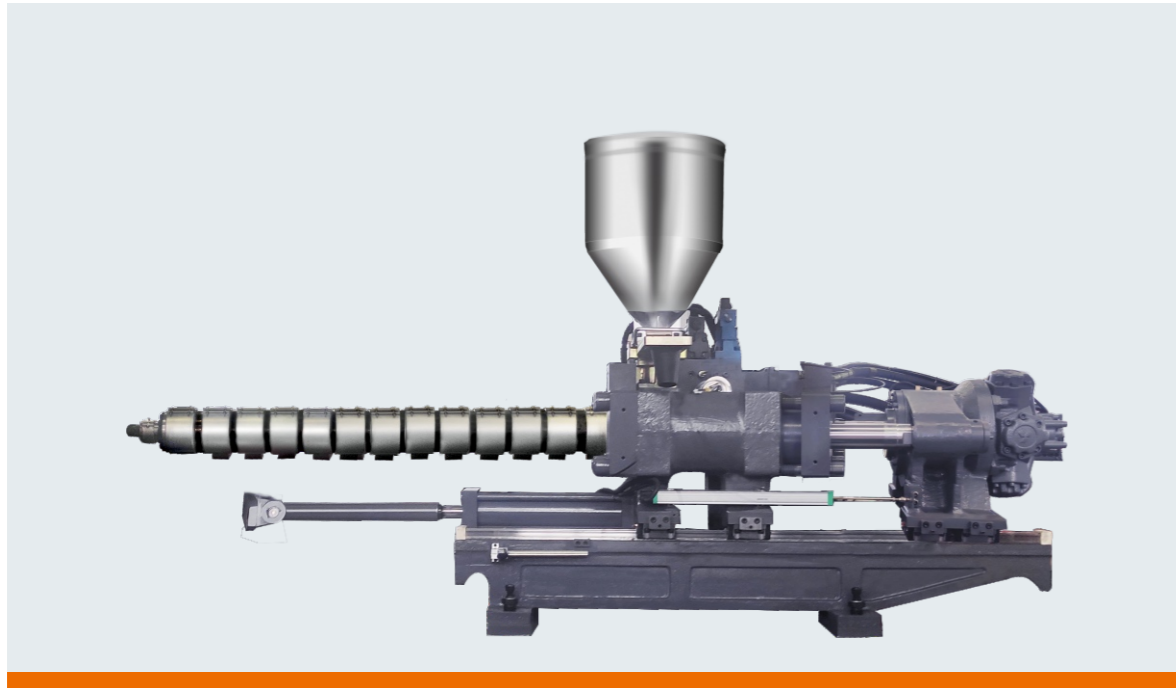
### Accurate and time saving gear mold adjusting system

- ▶ Employed accurate gear mold adjusting device, the mold adjusting action is smooth and fast. It can also save the mold setting time after mould changing.

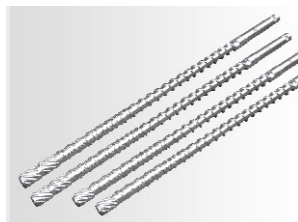


- ▶ Employed accurate gear mold adjusting device, the mold adjusting action is smooth and fast. It can also save the mold setting time after mould changing.
- ▶ The crosshead has wide and thick structure, strong structural rigidity and long service life.
- ▶ Protecting the linear transducer during machine running so that life will be long.
- ▶ Reinforced and integrated toggle by Lanson special design to achieve long service life.

## STABLE RELIABLE INJECTION SYSTEM



- ▶ Injection unit with linear guide way design, longer service life, lower friction.
- ▶ Optimized hydraulic system and injection pipelines, connection without no welding form design, large diameter with better stable sealing performance, stronger scalability.
- ▶ Equipped with digital back pressure.
- ▶ Enlarged one stage servo system,
- ▶ injection speed increased by 10%.

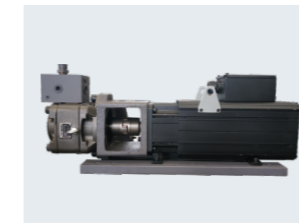


- ▶ Optional diversified screws and barrels, newly upgraded screw and barrel improve the quality of color mixing and plasticizing speed, high precision, wear-resisting, wider applicability.

## FULLY FUNCTIONAL CONTROLLER SYSTEM



- ▶ Advanced control system, which function is control sensitive and precise, intelligent optimization mold open and close movement curve, manufacturing management, fault diagnosis and so on.



- ▶ Advanced servo energy saving system with small action inertia, low noise, fast response and energy saving.



- ▶ Make sure the machine level is in the perfect situation .
- ▶ Lanson care all the small detail including cable connection so as to give a perfect machine to customers.

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Model	unit	GM3-LS160SPET	GM3-LS200SPET	GM3-LS260SPET	GM3-LS320SPET	GM3-LS380SPET	GM3-LS480SPET	
International size rating		1600-605	2000-899	2600-1451	3200-1991	3800-2397	4800-3735	
<b>Injection Unit</b>								
Screw No		B	B	B	B	C	B	
Screw Diameter	mm	55	60	70	75	80	85	
Screw Ratio	L/D	24	24	24	24	24	24	
Shot Volume	cm <sup>3</sup>	513	696	1155	1546	1759	2043	
Shot Weight(Ps)	g	554.2	751.2	1246.9	1670.0	1900.0	2206.2	
Injection Rate	cm <sup>3</sup> /s	266	310	399	487	554	668	
	g/s	287	335	431	526	598	721	
Plasticizing Capacity(PS)	g/s	30.5	42.9	59.9	62.9	76.4	89.8	
Injection Pressure	MPa	118	129	126	129	113	117	
Screw Speed	rpm	134	138	123	108		108	101
<b>Clamping Unit</b>								
Clamping Force	kN	1600	2000	2600	3200	3800	4800	
Mould Opening Stroke	mm	446	490	525	580	655	755	
Space between Tie Bar	mm	470x460	530x510	580x580	670x670	730x700	830x800	
Platen Size	mm	690x690	760x760	875x875	950x950	1060x1010	1165x1135	
Min. Mold Height	mm	185	185	250	250	265	265	
Max. Mold Height	mm	490	520	630	670	745	825	
Ejector Stroke	mm	130	140	160	180	205	250	
Ejector Force	kN	49	77	111	124	137	166	
Ejector Number	PC	5	5	13	13	13	13	
<b>Other</b>								
Hydraulic System Pressure	Mpa	17.5	17.5	17.5	17.5	17.5	17.5	
Pump Motor Power	kW	18	24	32	45	55	65	
Heater Power	kW	13	17	24	31	40	44	
Oil Tank Capacity	L	285	350	400	500	600	695	
Machine Dimension(LxWxH)	m	5.3x1.3x2.15	5.8x1.34x2.2	6.6x1.5x2.23	7.33x1.63x2.1	7.95x1.77x2.1	8.83x1.84x2.23	
Machine Weight	ton	4	5	8	10	14	17	

We reserve the right to make changes as a result of further technical advantages.

Note:  
 Theoretical injection volume=internal cross section area of molten plastic column x screw stroke  
 Shot weight(PET)=theoretical shot x1.07(g/cm<sup>3</sup>)  
 Technical parameters are subject to product enhancements, and no further notice will be issued on their modification  
 For detailed data except for the said technical parameters, please contact the machine manufacturer.

