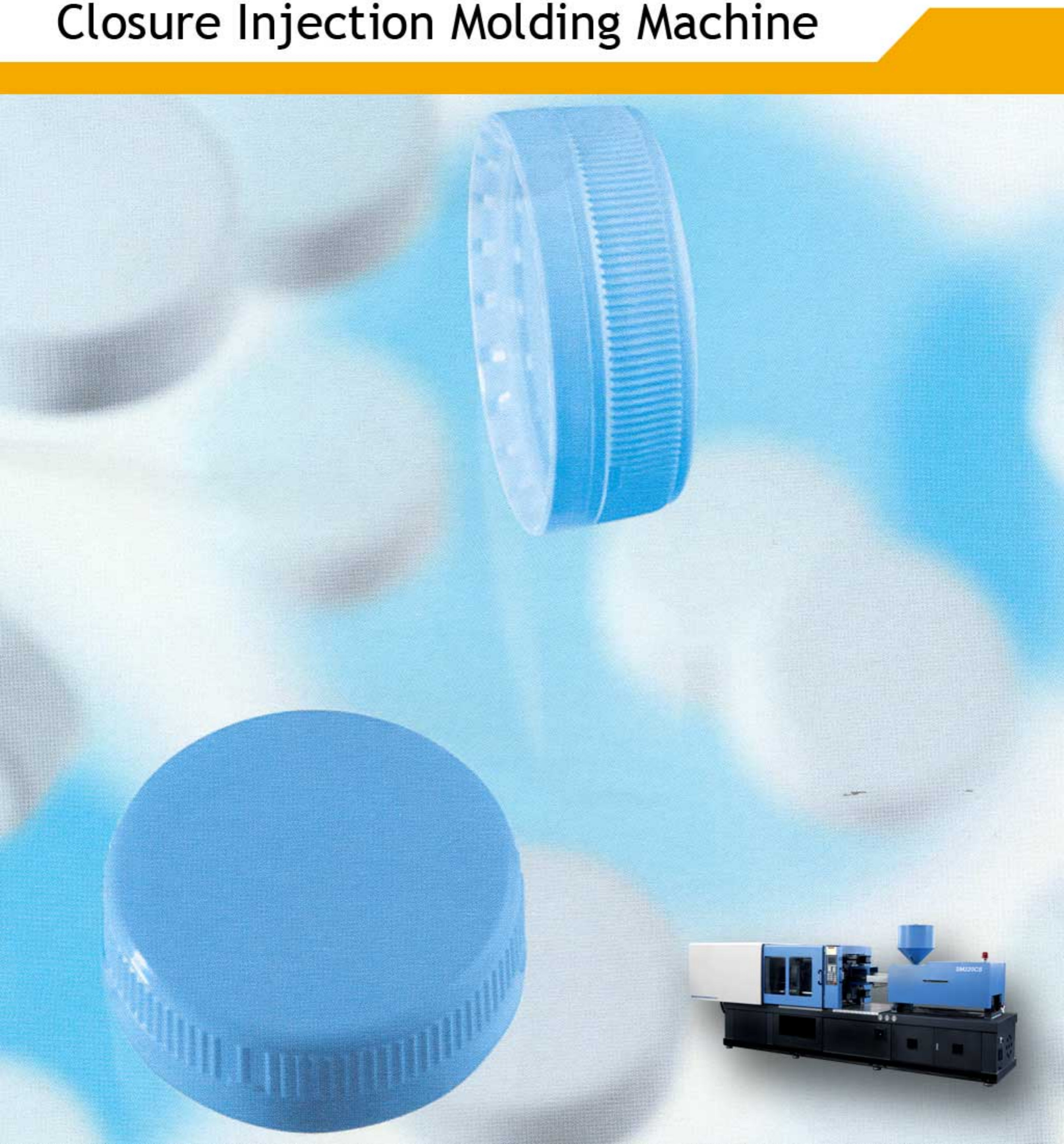


SMCS Series

Closure Injection Molding Machine



SMCS Series

Closure Injection Molding Machine



28 PCO



30/25



38/33

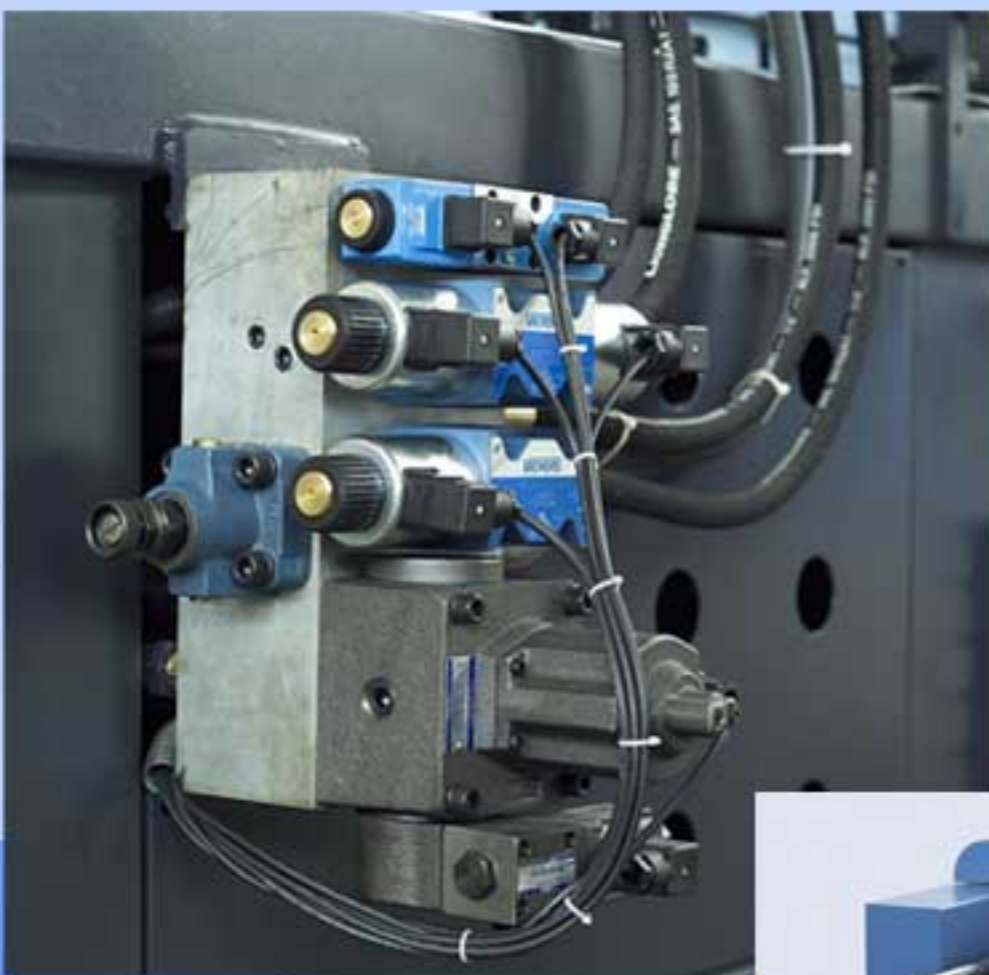


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SMCS series closure injection molding machine is designed for the manufacture of bottle closures. It has been engineered to achieve the lowest possible cycle times during the closure injection molding process. High plasticizing performance, large screw diameter, fast injection, mold closing and opening speeds, ejection speed, large clearance between tie bars, short cycle time, high repeatability, designed by means of dual pump and eject-on-fly, SMCS series closure injection molding machine satisfy all the requirement from the injection molding of closures.

High Efficiency Plasticizing

- The plasticizing motor has been optimized for high screw rotation speed as well as high plasticizing.
- By the design of clamping cylinder and the use of the large flow valve, mold opening and closing are carried out at high speed.
- Double oil pump actions when plasticizing to increase the speed and attain the perfect final product.
- Careful selection of a large diameter screw to satisfy the requirement of closure injection molding, a high plasticizing performance but a small shot weight.
- Special motor for injection molding application with large power, increasing the injection speed, ensure the possible of quality closure injection molding.



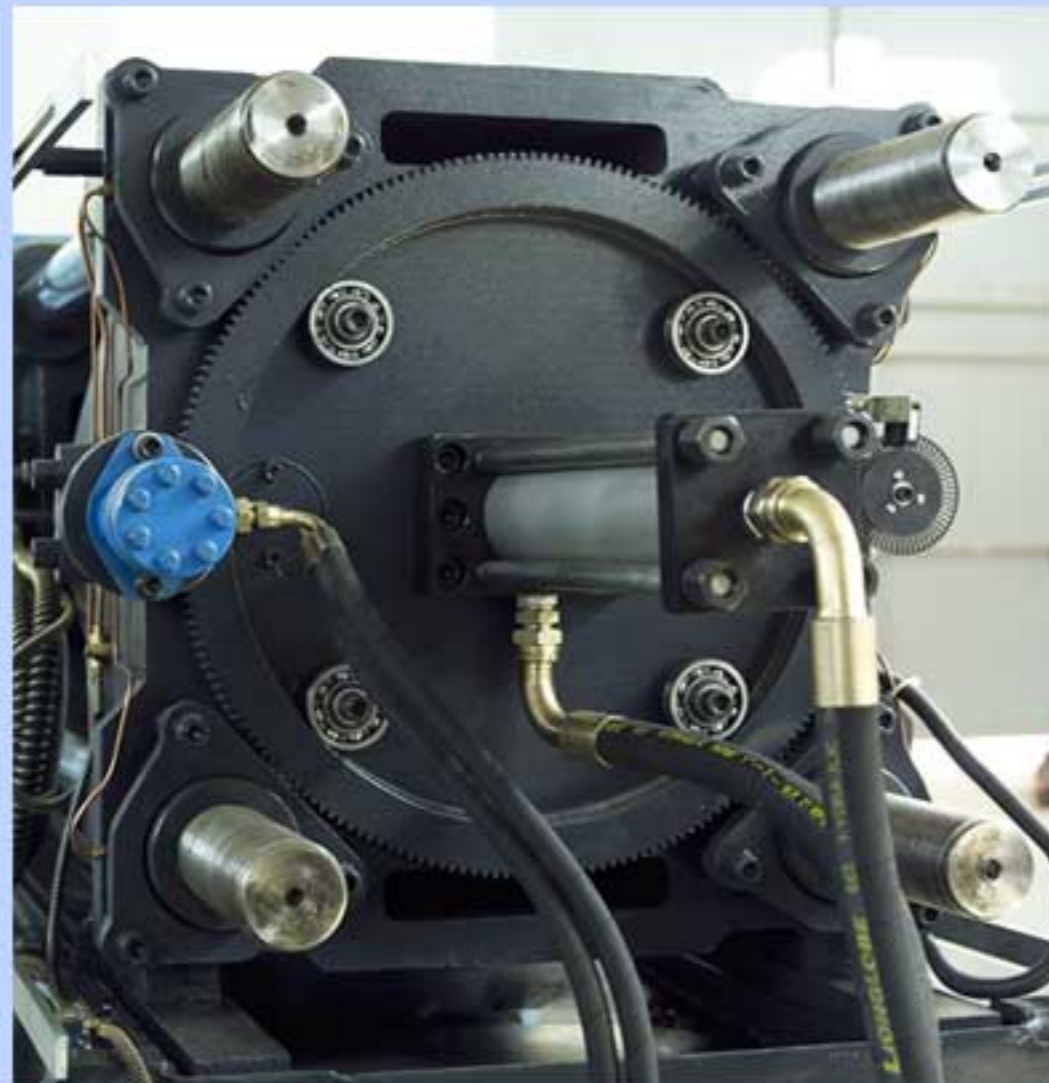
Unique Hydraulic Circuit

- Equipped with double oil pump, the second pump allows eject-on-fly, double pump injection and plasticizing. As a result, the injection and plasticizing speeds are about 60% higher.
- High efficiency double hydraulic circuit design, mold open/closing and ejection action be done at the same time, short the cycle time.
- Independent ejection circuit, ensure the smooth finish of ejection forward/backward actions when mold open and closing.
- The hydraulic oil circuits designed to increase speed and reduce the response time, in tune with the customer's expectation of a fast closure injection molding process.
- Fixed pump system provides stable output, quick response, and powerful strength. A variable displacement pump option reduces power further.



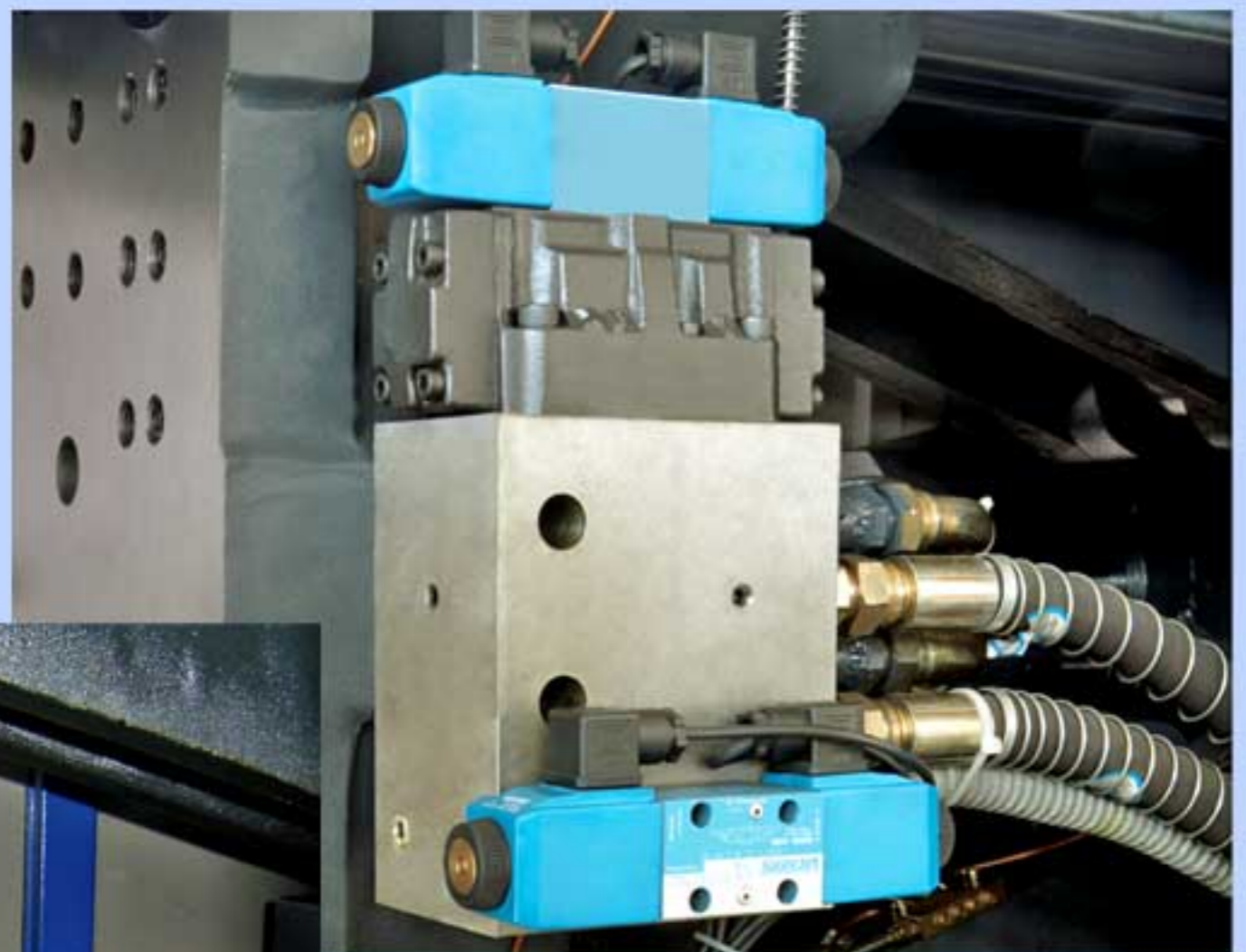
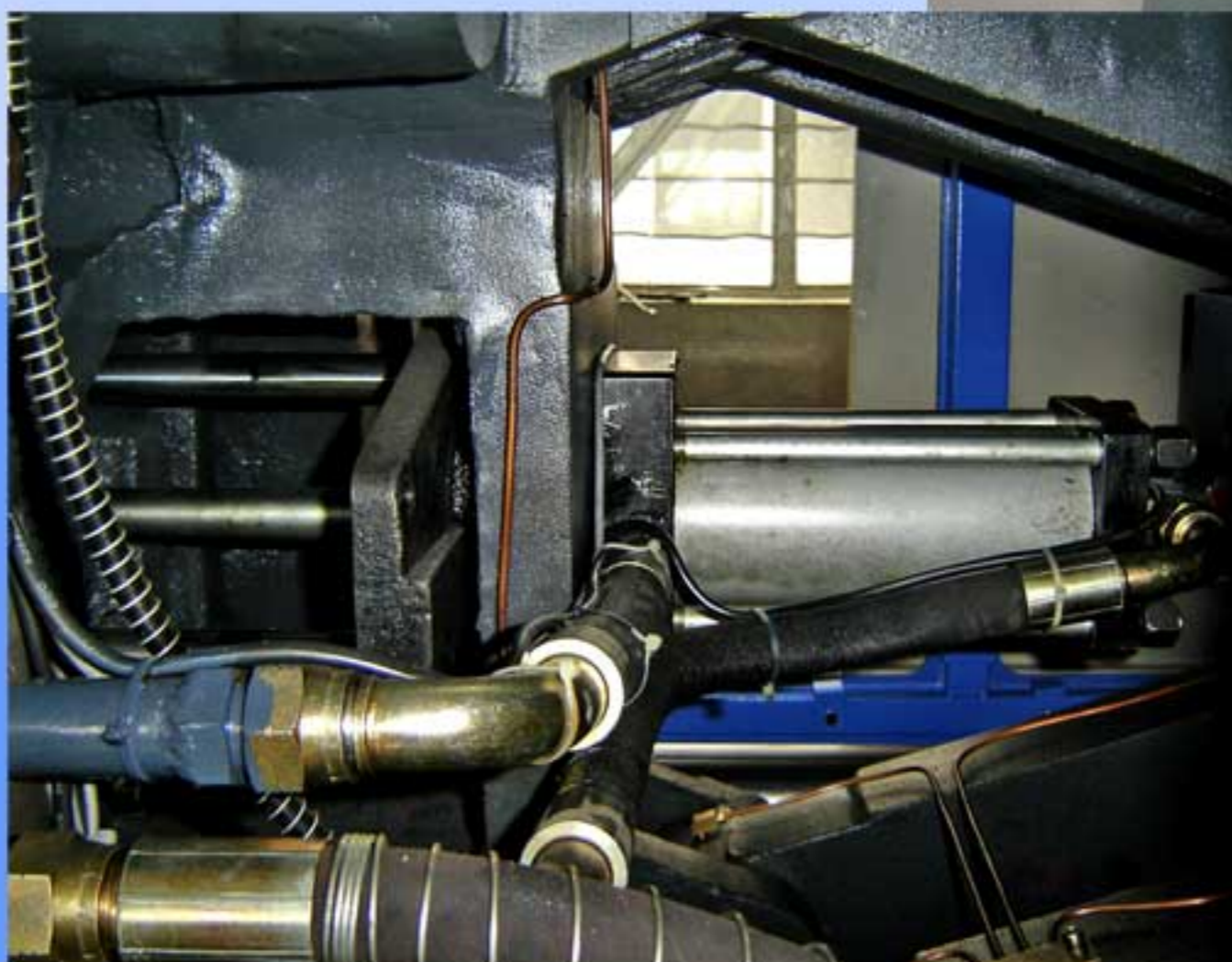
Precise Mold Clamping

- The five points double toggle system can distribute the clamping force evenly to the mold. With more sensitive low pressure mold protection, the fast mold closing & opening be possible and with high repeatable.
- As bottle closures are low cost items, multiple cavities is used to increase efficiency which in turn requires high clearance between tie bars. Purpose-built hot runner SMTC series closure injection mold can just meet with such requirement.



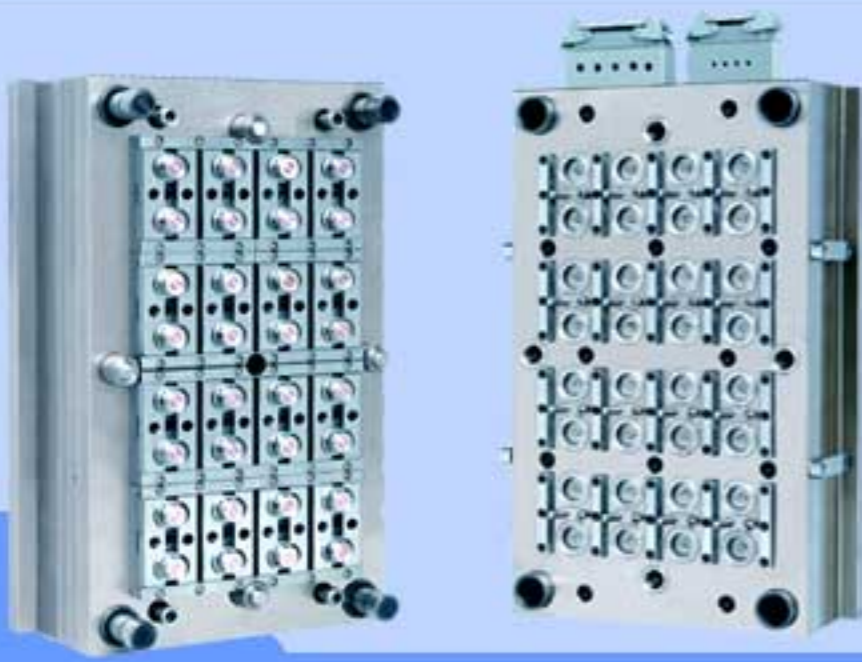
Smooth Ejection

- Eject-on-fly design eliminates the sequence of actions and reduces cycle time at a maximal extent.
- Enlarged ejection force & stroke and is sufficient for force ejection of threaded closures. Lager flow hydraulics improves response time and repeatability under high ejection speed.
- A rapid ejector connection system eliminates the need to adjust the parallelism between the machine ejector plate and the stripper plate. All molds utilities have quick connections that further reduce changeover times.



Suitable SMTC series Closure Injection Mold

The models in the series are SM130CS, SM160CS, and SM220CS covering 8-, 12-, 16-, 24- and 32- cavity standard closure injection molds. Thanks to the SMCS closure system's speed, control and reliable operation, using a SMTC series closure mold with design of hot runner that is purpose built for the demands of closure manufacturing and chilled water cooling, the cycle time has been shortened and fast closure injection molding become into possible.



Neck of Finish	Available Cavity No.	Mold Dimensions	Selected SMCS machine
28 PCO Or 30/25	8	350X300X335	SM130CS
	12	400X360X360	SM160CS
	16	400X400X360	SM160CS
	24	350X450X400	SM220CS
	32	700X445X400	SM220CS
38/33	8	410X420X460	SM160CS
	12	530X440X460	SM160CS
	16	680X460X460	SM220CS
48/41	4	450X310X450	SM130CS
	6	600X350X450	SM160CS
	8	420X440X450	SM160CS
	12	600X500X495	SM220CS

Specification of SMCS Series

Item	Unit	SM130CS	SM160CS	SM220CS
Injection Unit				
Screw Diameter	mm	38	40	48
Screw L/D ratio	L/D	23.2	24.8	23.2
Theoretical Shot Volume	cm ³	209	257	460
Injection Rate	g/s	167	238	302
Plastizing Capacity(PP)	g/s	16.3	17.5	24.6
Injection Pressure	Mpa	195	194	191
Injection Weight(PS)	g	186	229	411
Injection Weight(PP)	g	160	196	352
Injection Stroke	mm	185	205	255
Screw Speed	rpm	564	480	400
Carriage Force	ton	5.1	6.1	6.1
Carriage Stroke	mm	280	355	355
Clamping Unit				
Clamping Force	ton	130	160	220
Open Stroke	mm	350	420	500
Distance of Tie Bar	mm	430×410	455×455	525x500
Max.mold Thickness	mm	430	500	530
Min.mold Thickness	mm	130	150	170
Max.mold Daylight	mm	780	920	1030
Ejector Force	ton	4	5.5	8.2
Ejector Stroke	mm	110	110	140
Ejector Forward Speed	cm/s	30	31	26.8
Ejector Backward Speed	cm/s	40	38	40
General				
System Pressure	Mpa	14.5	14.5	14.5
Motor Power	kw	22	30	37
Heating Power	kw	7.1	9.5	12.1
Condenser Area	m ²	3.6	5	7
Oil tank Volume	L	300	400	480
Hopper Capacity	kg	25	25	50
Dimensions	m	4.7x1.4x1.85	5.2×1.55×1.98	5.8x1.7x2.15
Weight	ton	4.3	5.6	7.5