



SERVO DRIVE ENERGY SAVING INJECTION MOLDING MACHINE

• PRECISE • DURABLE • CONSISTENT • ENERGY EFFICIENT • ADVANCE TECHNOLOGY

List of Industries Covered

- Automobile Industry
- Home Appliances
- Disposable Containers
- Electrical & Electronics
- Medical Equipments
- PVC Pipe Fittings
- Beauty & Cosmetics

ANANTHANAAYAKI INDUSTRIES

(AN ISO 9001:2015 CERTIFIED INDUSTRY)

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Marketed by :

ANANTHANAAYAKI ENTERPRISES

Dealer :

Next Gen Technology for Today's Industry



Creating New Innovation in Machine Technology





Company Profile

TOKIMA MACHINERY is one of the leading plastic injection moulding machines in India (Chennai), manufactured by Anantha Naayaki Enterprises. The company was founded in the year 2004 and is located in Chennai. Established under well-experienced guidance of our Founder, Mr. R.S. Murugesan, we have excelled and attained the heights of success in the industry. His strong business acumen and experience in this domain has helped us to offer durable and the best range of automatic plastic injection molding machines in Tamil Nadu, India.

Now, the company produces wide range of plastic injection molding machines in more than 20 types, with mould clamp force ranging from 60Ton to 1000Ton and injection weight ranging from 40g to 4000g. Our product integrates the latest mechanical, electrical and hydraulic technologies into one, which includes servo energy-saving series, rugged design series, thin-walled series, PET series, PVC and bottle cap series.

“ **Our product integrates the latest mechanical, electrical and hydraulic technologies into one** ”

The complete machines are equipped with hydraulic and electrical control elements branded from Japan, Taiwan, Germany, US, Italy and France, thus have the characteristics of higher rigidity, high clamp force, high injection pressure, high precision and being durable. Products can be made such as hardware and plastic inlay products, medical products, automobile industrial products, electronic and electrical parts, stationery, sporting goods, etc.

We not only provide a machine to our customers, but fine solution and strategy thereby make individual machines for customers who have special requirements. Company believes, “CUSTOMER SERVICE SHOULD NOT JUST BE A DEPARTMENT, IT SHOULD BE THE ENTIRE COMPANY”. First class quality and service is the target which we are pursuing all the time. Our company's philosophy is : “MAKE A CUSTOMER NOT A SALE”.



Screw barrel with infrared nano heated high heated speed ,high efficiency, energy- saving, long working life, etc. (optional)

Optimized pull rod toggle clamping structure more stable in high speed operating.

Precise linear guideway low friction, energy-saving decrease injection move deviation (optional)

Hopper Dryer



Grease for toggle unit

Important Note :
Please inform us when you have the other special requirements.
We deserve the right to make any improvement or specification change without prior notice
Product shown in catalog are for reference.

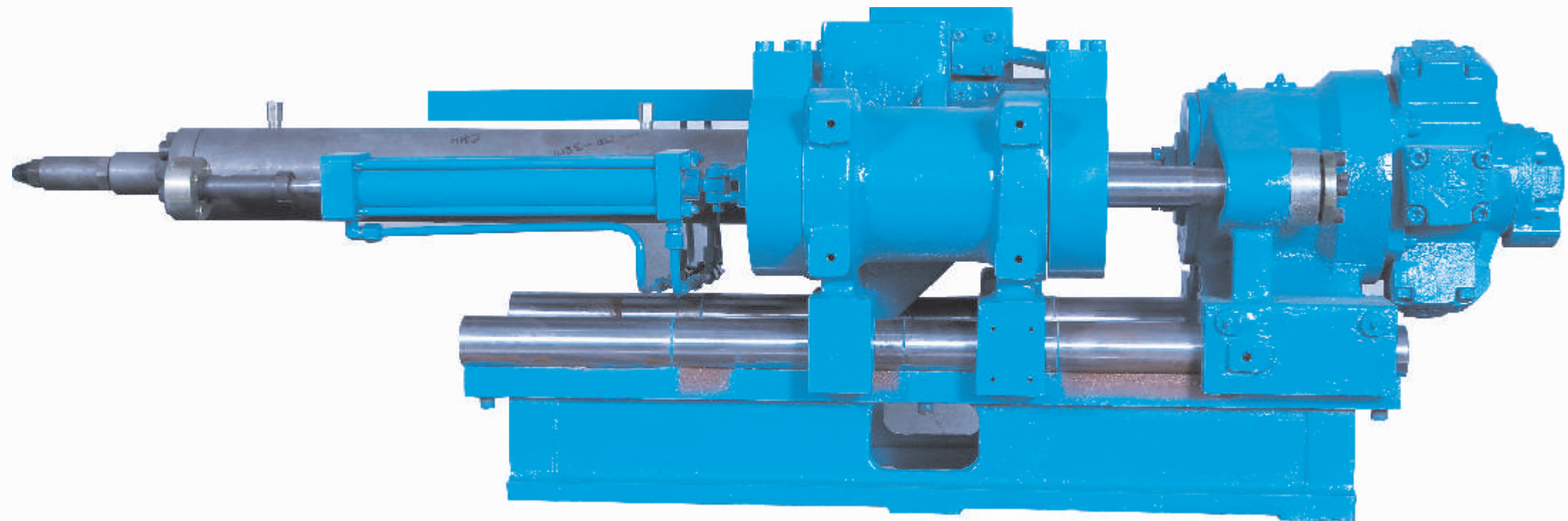
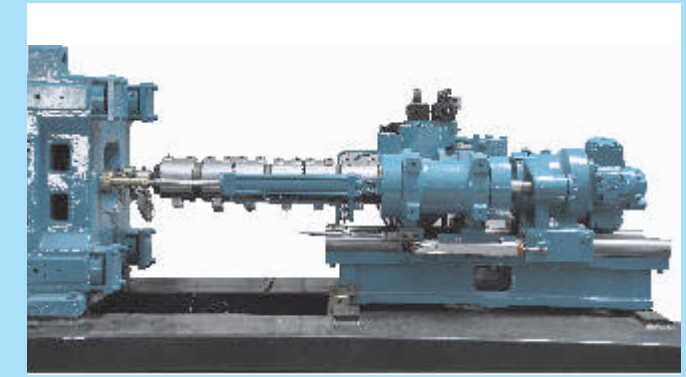
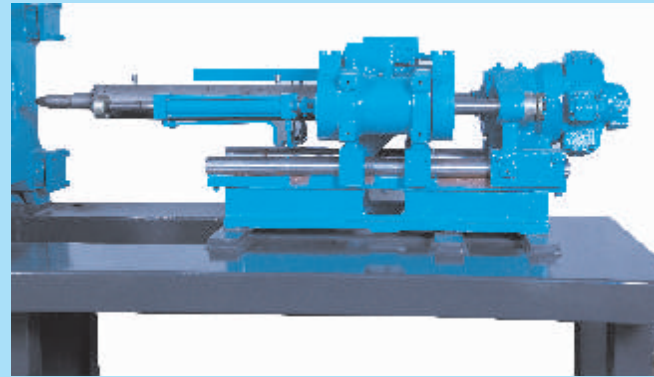
New rigid frame with better shock – absorbing and more stable production.

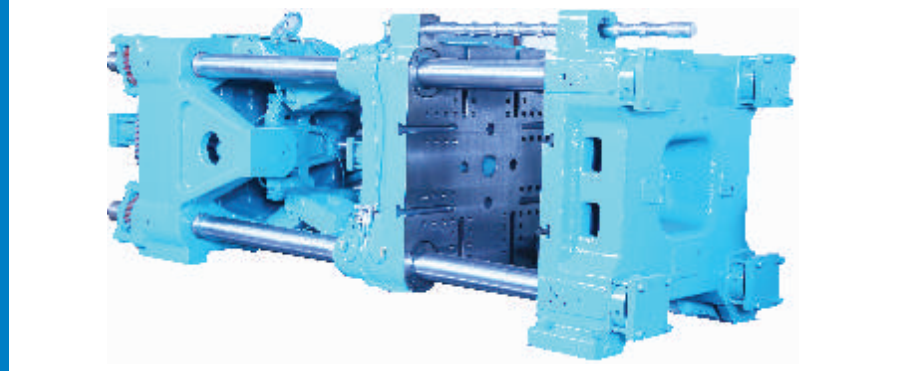
Precise servo motor drive system high speed with rapid mechanical movement.

Newest design braced structures of moving mould plate maintained parallel precision between the mold and the plate.

Modular design, suitable for a variety of moulding requirements, accurate and smooth injection, dual injection cylinder structure to ensure smooth and useful injection. Adopt short and powerful dual – cylinder injection system and high- precision linear guide rail, with a high response to the injection mechanism of the bottom inertia, ensure the balance of injection action and know deformation of the fixed template optimize the design of screw components to achieve plasticizing effect. Automatic cleaning, prevent flow, put the function such as cold start tie delay to ensure the work efficient, convenient and safe.

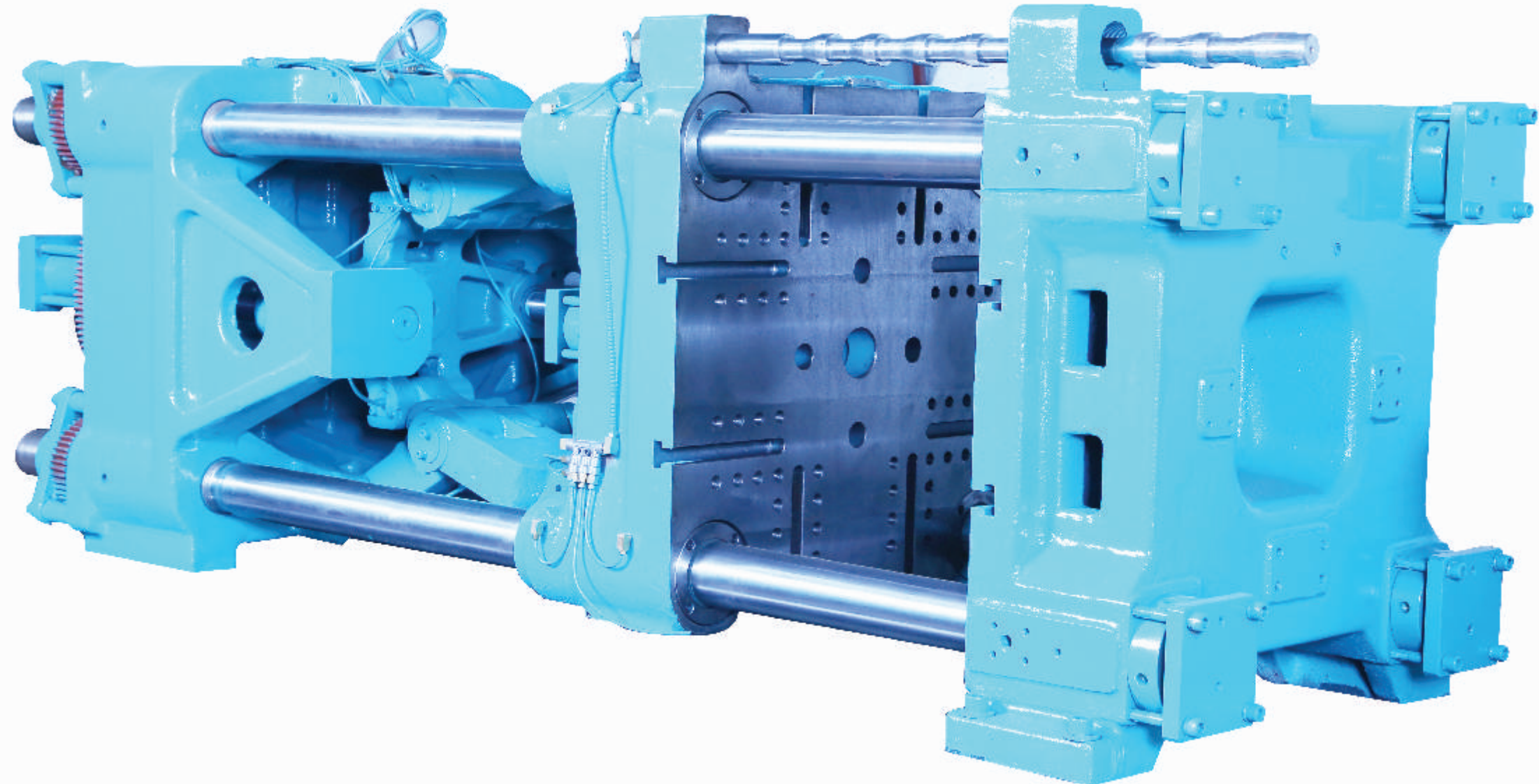
- 1) The three plasticization is a high speed, high-torque hydraulic motor. Electric pre-plasticization is available if better energy conservation is required.
- 2) The standard injection speed is in accordance with the European regulation to ensure fast speed and accurate positioning. The product has little inner stress and stable quality.
- 3) The speed can be as high as 800mm/s if hydraulic accumulator injection or electric injection is used.
- 4) Two symmetrically positioned oil cylinder, with nozzle contact force evenly distribute and precisely adjusted to ensure the concentricity between the nozzle hole and the mould gate.
- 5) The injection unit feature full support structures with line rails; ensuring fast, smooth and low friction with higher operation precision and less energy conception during the movement the barrel can withstand a heavier hopper.
- 6) Proportional back pressure control with easier operation and stable properties.
- 7) PID temperature control with fuzz optimization algorithm that can ensure accurate material temperature.
- 8) For screws of different specification, $L/D = 20:1$, to ensure the consistency of plasticization.
- 9) For high speed screws , $L/D=24:1$ or $28:1$, to secure the high speed plasticization ability





Five fulcrum toggle clever mechanism by the advanced computer optimization and directed by finite element analysis of the optimal structural design, ensure rigidity and strength of the clamping mechanism, unique plate ruler mechanism, ensure the balance of mechanism motion and mute, built – in mechanical security agencies, without adjusting, high safety, complete lubrication system to protect the use of precision mould clamping mechanism and life.

- Optimized new five – point double – toggle clamping unit ensures smooth running at high speed it is especially suitable for 24 – hour nonstop operation with high speed and high pressure.
- Pin bushing , pull-rod bushing and moving plate slide are made of copper material, which require a few lubrication as once per 1000-1500 mouldings with volumetric lubrication system, a substantial saving of lubricant . The clamping zone is very clean.
- Near positioned hydraulic control and high-precision control system allow the movable with accurate positioning.
- European type ejection mechanism featuring wide space and easy installation of the mould.
- Sensitive mould protection function service personal of maritime.



Description	Unit	TM-70			TM-90		
		A	B	C	A	B	C
Injection Unit							
Screw Diameter	mm	25	30	35	32	35	38
Screw L/D Ratio	L/D	24	21	19	22	20.1	18.5
Theoretical Shot Volume	cm ³	64	92	125	133	160	190
Shot Weight (PS)	gm	56	80	109	121	146	173
Injection Pressure	mpa	275	191	140	203	170	144
Max. Screw Speed	rpm		224			225	
Clamping Unit							
Clamping Force	KN		700			900	
Opening Stroke	mm		280			320	
Tie-Bar Distance	mm		310X310			360X340	
Max. Mould Height	mm		330			350	
Min. Mould Height	mm		100			150	
Ejector Stroke	mm		80			90	
Ejector Force	KN		30			30	
Others							
Pump motor power	KW		7.5			11	
Heater power	KW		5			6.5	
Machine dimension (LxWxH)	Meter		3.6X1.12X1.72			3.9X1.2X1.8	
Machine Weight	Ton		2.5			2.8	



TM-100			TM-130			TM-150		
A	B	C	A	B	C	A	B	C
35	38	42	38	42	45	40	45	50
22	20.3	18.4	24	22	20.5	22.5	20	18
163	193.2	235	226	277	318	231	325	397
148	176	214	206	252	289	231	305	377
219	184	152	208	171	149	1950	1540	1180
	210			185			240	
	1000			1300			1500	
	350			380			395	
	370X370			420X420			430X430	
	380			450			450	
	150			160			180	
	120			140			150	
	38			50			45	
	13			13			18.8	
	7.5			8			8.5	
	4.3X1.2X2.0			4.6X1.5X2.1			4.76X1.2X1.7	
	3.4			4			4	



Description	Unit	TM-180			TM-220		
		A	B	C	A	B	C
Injection Unit							
Screw Diameter	mm	42	45	50	45	50	55
Screw L/D Ratio	L/D	23.6	22	19.8	24.4	22	20
Theoretical Shot Volume	cm ³	311	357	441	397	490	593
Shot Weight (PS)	gm	283	325	402	362	446	540
Injection Pressure	mpa	203	177	143	207	168	138
Max. Screw Speed	rpm		180			155	
Clamping Unit							
Clamping Force	KN		1800			2200	
Opening Stroke	mm		435			475	
Tie-Bar Distance	mm		470X470			520x520	
Max. Mould Height	mm		520			560	
Min. Mould Height	mm		180			200	
Ejector Stroke	mm		140			150	
Ejector Force	KN		50			70	
Others							
Pump Motor Power	KW		18.5			18.5	
Heater Power	KW		12.5			14	
Machine Dimensions (LxWxH)	Meter		5.1x1.5x2.2			5.7x1.6x2.33	
Machine Weight	Ton		6			7	

A	B	C	TM-250			TM-300			TM-350		
			A	B	C	A	B	C	A	B	C
50	55	60	55	60	65	65	70	75			
24	22	20.3	24	22	20.3	21.5	20	18.7			
592	704	826	676	805	945	1161	1226	1407			
539	641	752	615	733	860	1057	1226	1407			
202.3	170	144.9	202.3	170	144.9	195	146	160			
	220			220			160				
	2500			3000			3500				
	540			590			670				
	570x570			620x620			710x630				
	600			630			710				
	200			200			260				
	150			150			200				
	70			70			90				
	30			30			37				
	19			19			24.5				
	6.2x1.5x2.2			6.3x1.7x2.4			7.3x1.8x2.2				
	8.3			9.3			12.5				

Description	Unit	TM-400			TM-450		
		A	B	C	A	B	C
Injection Unit							
Screw Diameter	mm	70	75	80	75	80	85
Screw L/D Ratio	L/D	21.4	20	18.8	21.3	20	18.8
Theoretical Shot Volume	cm ³	1324	1520	1729	1679	1910	2156
Shot Weight (PS)	gm	1205	1383	1573	1528	1738	1962
Injection Pressure	mpa	199	173	152	195	172	152
Max. Screw Speed	rpm		160			155	
Clamping Unit							
Clamping Force	KN		4000			4500	
Opening Stroke	mm		710			760	
Tie-Bar Distance	mm		760X670			800X720	
Max. Mould Height	mm		780			800	
Min. Mould Height	mm		250			300	
Ejector Stroke	mm		200			200	
Ejector Force	KN		110			110	
Others							
Pump Motor Power	KW		37			45	
Heater Power	KW		26			34	
Machine Dimensions (LxWxH)	Meter		7.3X1.96X2.41			7.6X1.9X2.3	
Machine Weight	Ton		14.2			18.8	








A	B	C	D	TM-550				TM-650				TM-750			
				A	B	C	D	A	B	C	D	A	B	C	D
80	85	90	95	85	90	95	100	90	95	105	110				
23	21.1	19.5	18.8	22.3	21	19.9	18.9	23.2	22	19.9	19				
2187	2466	2767	3082	2303	2582	2877	3188	2868	3195	3903	4283				
1990	2246	2518	2805	2096	2350	2618	2901	2610	2907	3552	3898				
188	167	149	134	206	184	164	149	195	175	143	131				
	150				125				130						
									7500						
	5500				6500										
	900				930				1000						
	900X820				960X880				1000X940						
	850				900				1000						
	350				350				400						
	250				260				300						
	250				200				200						
	55				30+30				30+37						
	36				37.2				49						
	9.3X2.1X2.4				9.6X2.4X2.7				10.6X2.6X2.8						
	23				32				39						



Vertical Injection Moulding Machine Specifications

Machine Type	UNIT	TMV-15	
Screw diameter	mm	20	25
Injection Pressure	Kg/cm ²	1715	1098
Theoretical Shot Volume	cm ³	31	49
Max. Shot Weight	G	29	45
	oz	1	1.5
Injection Rate	cm ³ /sec	20	30
Screw Stroke	mm	100	
Screw Speed Max	rpm	0-215	
Nozzle Contact Force	tons	-	
Nozzle Retraction Stroke	mm	-	
Number of Temperature Control	-	2	
Material Hopper Capacity	L	15	
Clamping Force	tons	15	
Opening Force	tons	7	
Platen Size	mm	430x250	
Distance between tie bar	mm	250	
Min. Mold Height	mm	100/40	
Opening Stroke	mm	160	
Max. Open Daylight	mm	260/200	
Ejector Force	tons	1.3/1.3	
Ejector Stroke	mm	45/95	
Slide stroke	mm	260	
Max. Mold Weight	kg	60	
Station Clearance	mm	±0.02	
Max. Hydraulic Pressure	Kg/cm	140	
Pump Output	l/min	19	
Oil Reservoir Capacity	L	80	
Cooling Water Consumption	l/hrs	400-600	
Pump Motor Power	kw	2.2	
Barrel Heating Power	kw	2	
Total voltage	kw	4.2	
Machine Weight	tons	0.5/0.55	
Machine Dimensions (L x B x H)	m	1.4x0.8x2.1	
Shipping Weight	tons	0.75/0.85	
Shipping Measurements (L x B x H)	m	1.6x1.0x2.23	

TMV-30			TMV-45			TMV-55			TMV-85				TMV-100			
20	25	30	25	30	35	30	35	40	35	40	45	50	35	40	45	50
2730	1747	1213	2509	1742	1280	2170	1594	1220	2171	1663	1314	1064	2577	1973	1559	1263
31	49	71	59	85	115	99	135	176	135	223	203	275	173	226	286	353
29	45	64	54	77	105	90	123	160	123	176	160	250	158	206	261	321
1	1.6	2.3	1.9	2.7	3.7	3.2	4.3	5.7	4.3	5.7	7.2	8.9	5.6	7.3	9.3	11.3
22	35	50	36	52	71	51	69	90	82	107	135	167	87	114	144	177
100			120			140			140				180			
0205			0490			0475			0200				0180			
2.0			2.4			2.6			2.9				3.3			
140			180			200			220				300			
3			3			3			4				5			
20			30			30			30				30			
30			45			55			85				100			
6.5			8.3			13.5			10.5				15			
520x370			580x430			650x400			740x500				840x500			
355x205			400x250			500x340			560x320				620x280			
160/100			210/150			260/200			250/200				250/200			
180			200			200			250				250			
340/280			410/350			460/400			500/450				500/450			
1.3/1.3			1.3/1.3			1.3/2.1			3.3/3.5				3.3/3.5			
45/95			45/95			45/145			75/145				75/145			
350			420			500			500				540			
90			120			150			200				300			
±0.02			±0.02			±0.02			±0.02				±0.02			
140			140			140			140				140			
26			39			47			76				96			
100			130			150			180				200			
400/600			600/800			800/1000			1200/1500				1500/1800			
3.5			5.5			7.5			11				14.7			
2.7			3.5			4.5			5.6				7.5			
6.2			9			12			16.6				22.2			
1.1/1.2/1.3			1.4/1.5/1.6			2.1/2.3/2.5			4.5/4.8/5				4.9/5.2/5.4			
1.6x1.24x1.9			1.7x1.35x2.15			1.8x1.45x2.65			2.0x1.7x3.2				2.4x1.6x3.1			
1.3/1.5/1.9			1.7/1.9/2.1			2.6/2.9/3.2			5.1/5.6/5.8				5.6/6/6.1			
1.8x1.45x2.1			1.9x1.5x2.2			2.1x1.7x1.5			4.2x2.0x1.7				4.6x2.2x1.8			

APPLICATION AREA	GENERAL MATERIAL	PRODUCT DESCRIPTION	PRODUCTION CYCLE
	Preform	PET	19-22 g / 250 ml 35 g / 500 ml 750 g / 50 / 5 Gallon
	Caps	PP HDPE	φ 28 φ 50 φ 70
	Food Container	PP/PPCP	8 g / φ 70
	PPR Connector	PPR	
	Knife and Fork	PS/PP	160*20
	Tooth Brush	ABS/PP	155*35 mm
	PVC Fittings	PVC	φ 110
	Acrylic Diamond	ACRYLIC	
	Crate	ABS/PP	600*400*260 mm 660*400*200 mm
	Water Breaker	PP	390* 300mm / 1010 g / 20 L
	Waste Paper Baskets	HDPE	260*240 mm
	Outdoors Dustbin	PP	
	Injection Syringe	PE	φ 28
	Bumper	ABS	



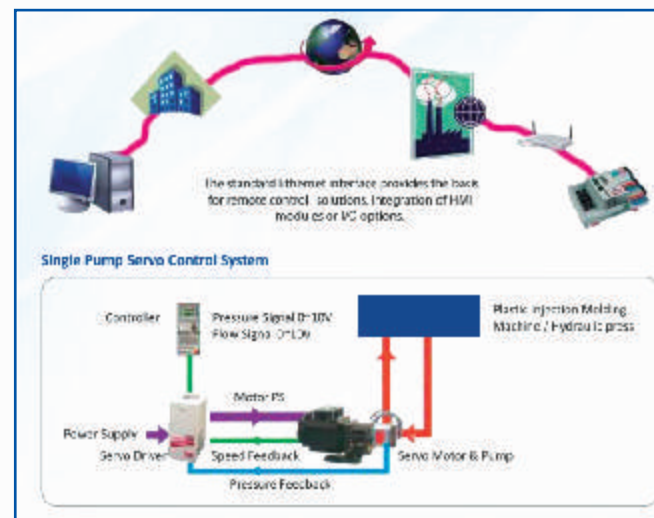
PLC CONTROL SERIES

FEATURES

- A variety of text can be switched.
- Manual, semi-automatic, and fully-automatic mode.
- To provide EUROMAP ROBOT interface.
- Automatic movement monitoring with alarm and fault diagnosis.
- Function of slope setting can set the start and stop of movements.
- So as to ensure the smooth movement.

SERVO SYSTEM

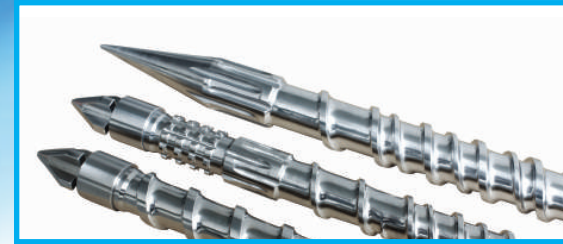
- WATERING SAVING : No overflowing heating. Low oil temperature saves cooling water and increases the using life of sealing elements.
- POWER SAVING : In an ideal working state, compared with conventional injection molding machines, their energy saving can reach 20% - 80%
- STEADY : Repeatability is greatly improved to servo motor close-loop control.
- HIGH SPEED : Quick response.
- LOW NOISE : The machine with low noise.



OPTIONAL FEATURES

1. Purge Guard for Operator protection
2. Linear Transducers for carriage
3. Proportional Back pressure Control through controller.
4. Hopper Dryer
5. Auto Loader
6. Robot Interface
7. SS Water Manifold
8. Second core pulley
9. Linear Transducers for Panel identification

PLASTIC INJECTION MOULDING MACHINE SPARES AVAILABLE



SCREW



RING PLUNGER SET



MOULD CLAMPING SET



HOPPER DRYER



PLASTIC SCRAP GRINDER



WATER MANIFOLD



AUTO LOADER



PLC CONTROLLER

