2020-21

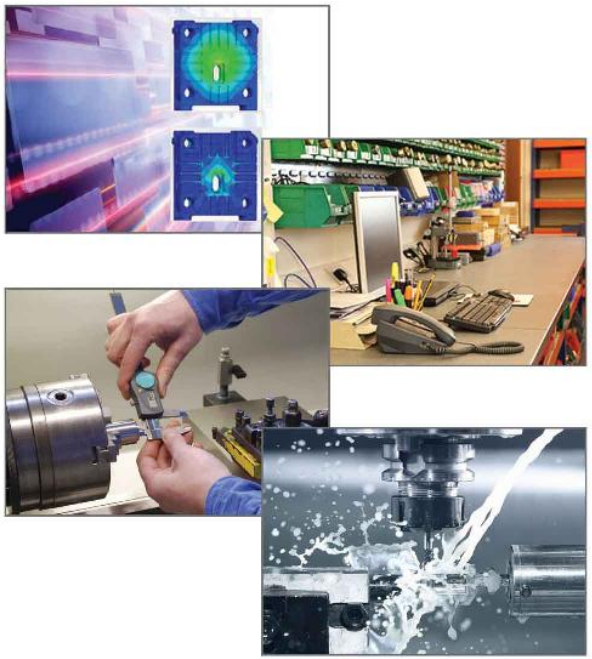
Supermac
www.supermac.in

Supermac Injection Molding Machine

SMH/SMT 60-450 Ton Series

Supermac

INNOVATIVE
TECHNOLOGY PARTNER



INTRODUCTION

Welcome to the world of Supermac Machinery !

Established in 1985 by Mr. Tribhuvandas. J. Panchal, Supermac Machinery becomes one of the leading manufacturer of microprocessor based automatic plastic injection molding machines with Servo, VDP & Fixed Pump variants.

Supermac has earned an excellent reputation for best quality machines, reliability thorough machines best performance. The key to our success comes from innovative design, quality-machine performance, considerate after sales services. Due to the support of our experienced techno-commercial personnel, our customers place complete trust and reliance on Supermac Machinery.

Journey So Far

With an aim to deliver to the Indian injection molded plastics parts processing industries, a start-up with team of engineers & technicians ventured for assembly factory in Thane, Maharashtra, India.

We moved to new factory at G. I. D. C. Kathwada, in the beautiful heritage city of Ahmedabad with bigger manufacturing, assembly & office space with improved infrastructure. As a policy, we always believed in providing friendly working environment to our employees and invested in much larger & spacious assembly area & office to make lives of our employees comfortable.

With modern factory, advanced processing equipment and comfortable working condition Supermac injection molding machines are conceptually design to ensure the highest quality standards.

In-House Manufacturing Makes Difference

We believe in manufacturing our products by ourselves-in-house manufacturing ensures quality and flexible, fast deliveries.

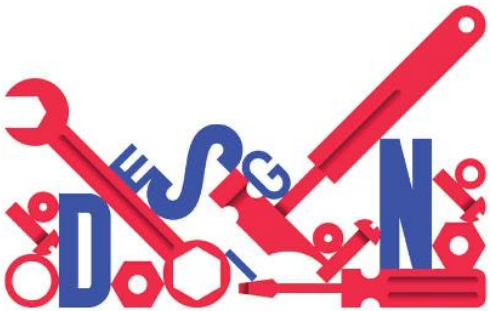
Mission

We are continually setting high standards in technology, quality, performance, service and support. Our Team of Professionals has all the requisite expertise related to injection molding machines.

Vision

To prospect the future, we set our sights on stable quality of present products, research and develop latest technologies and enhanced design, expand the market reach, promote Supermac Machinery Organisation. We expect our company to go ahead to the goal of diversification.

In the competitive era of globalization, Supermac Machinery keeps running principle consistently -"Think globally, footing locally, Active & Creative, enjoys challenge, Brand Marketing, and Upgrade Operation".



Our Partners

Supermac machines are equipped with world famous hydraulic, electrical elements and control system which make sure the machine's precision, stability & reliability long last.

KEBA · B&R · PHASE MOTION CONTROL · GEFRAN · Telemecanique · SIEMENS · ABB · Rexroth Bosch Group · TDE MACNO s.p.a. tecnologie digitali elettroniche · SETTIMA research & innovation, always · intermot · HYDAC · Parker · TVS · YUKEN

Supermac

SMH Series

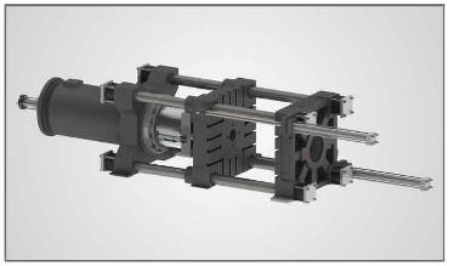
Direct Clamping Injection Molding Machine

- Energy Efficient
- High Precision & Stable Moulding
- High Efficiency & Low Noise

GO green

Special Features

- Wide tie bar spacing and daylight.
- Direct hydraulic clamping system enable stable clamping force.
- Radial piston type hydraulic motor enable excellent performance.
- Low-pressure protection is standard-equipped to prevent mold damage.
- High torque motor capable of meeting various setting for selected screw rotation.
- Double safety control of electrical and hydraulic devices to ensure operator safety
- Direct hydraulic clamping (Ram Lock)
- Meant for high precision part manufacturing
- Lowest maintenance cost
- Large platen size for high cavity molds with hot runner system
- Cartridge hydraulics makes smooth operation
- Rigid platens for lowest deflection
- User friendly controller



Clamp Unit

- Doubling the clamping piston in diameter, uniform clamping force is transferred to the entire mold and thus accurate molding can be easily done.
- In addition, smooth mold opening and closing is achieved with the same feature.
- Actual clamp position readout on screen.
- Actual tonnage read pressure transducer.
- 4 operator adjustable closing speeds.
- T slot on moving & injection platens.
- Large prefill tank designed for fast tonnage build up.

Injection Unit

- Robust construction of injection unit with a rigid twin cylinder design maintains accurate nozzle position.
- 5 step injection pressure.
- Cold screw start protection.
- Digital readout of injection position & actual rpm.
- Swiveling hopper for materia discharge.
- Screw drive directly by high torque radial piston hydro motor.

Controls

- Dedicated Microprocessor based control with self diagnostics.
- Direct accessible menu keys.
- Timer precision of 0.01 seconds.
- Accurate control with PID and SSR to provide stable nozzle & barrel temperature.
- 8.7" backlit LCD screen.
- 120 mould data storage.
- Alarm history with date & time.
- Digital I/O diagnostics screen.
- Equipped with USB & SD card facility for data transfer, reprogramming, Storage & Analysis purpose.

SPECIFICATIONS

MACHINE MODEL	UNITS	SMH - 60			SMH - 110			SMH - 150			SMH - 200			SMH - 250			SMH - 350			SMH - 450		
POWER PACK		**10 HP**			**20 HP**			**30 HP**			**40 HP**			**40 HP**			**60 HP**			**75 HP**		
INJECTION UNIT		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw Diameter	mm	30	35	-	35	40	45	45	50	55	50	55	65	55	65	70	70	80	90	80	90	100
Injection Pressure Maximum	bar	2025	1485	-	1950	1495	1181	1865	1512	1250	2030	1671	1201	1993	1427	1236	1820	1450	1130	1837	1450	1176
Maximum Injection Weight (GPPS)	gm	95	130	-	150	200	250	310	380	460	442	535	745	588	821	952	1220	1585	2010	1805	2285	2825
Plasticizing Capacity	gm/sec	7.1	9	-	12.71	16	21.8	22	34	42	34	44	49	41	64	71	58	80	83	61	82	94
Injection Rate	cc/sec	99	134	-	128	167	210	186	232	280	218	265	365	232	323	376	373	488	618	444	589	729
Injection Screw Stroke	mm	150			175			215			250			275			350			400		
Screw L/D Ratio	L/D	22	20	-	22	20	18	22	20	18	22	20	16.9	22	20	18	22	20	18	22	20	18
Screw Speed Maximum	rpm	295			295			295			250			250			170			150		
Heater Capacity	kw	7			9			13			18			20			30			42		
No. of Heating Zones	Nos	3+1			3+1			4+1			4+1			4+1			5+1			5+1		
CLAMP UNIT																						
Mould Clamping Force	tons	60			110			150			200			250			350			450		
Maximum Day Light	mm	600			750			850			1000			1100			1400			1500		
Minimum Mould Height	mm	150			200			200			250			300			300			400		
Maximum Mould Opening Stroke	mm	450			550			650			750			800			1100			1100		
Distance Between Tie Rods (H X V)	mm	350 x 350			410 x 410			510 x 510			560 x 560			640 x 640			760 x 760			830 x 830		
Mould Platen Size (H X V)	mm	550 x 550			610 x 610			760 x 760			830 x 830			970 x 970			1130 x 1130			1270 x 1270		
Tie Rod Diameter	mm	58			70			90			100			100			120			140		
Ejector Force	tons	2.75			4.5			4.5			7.5			7.5			7.5			11.5		
Ejector Stroke	mm	70			125			140			150			150			200			200		
GENERAL DATA																						
Electric Motor	kw (HP)	7.5 (10)			15 (20)			22 (30)			30 (40)			30 (40)			45 (60)			55 (75)		
Total Connected Load	kw	14.5			24			35			48			50			75			97		
Servo Motor	kw	8.6			11.6			15			22			22			30			37+20		
Total Connected Load	kw	15.6			20.6			28			40			42			60			99		
Oil Tank Capacity	ltrs	250			400			450			600			800			1250			1400		
Water Requirement (inlet temp.29c)	lpm	40			50			50			75			75			100			100		
Machine Dimensions (L x W x H)	ft	12.5 X 2.5 X 5			15 X 3 X 5.5			18 X 3.5 X 6			20 x 4 x 6.5			22 x 4.2 x 6.5			27 x 6 x 7.5			30 x 7.5 x 9		

* Due to continuous improvement , Specifications are subject to change without prior notice.
* Plasticizing capacity is based on the standard test conditions performed by SUPERMAC MACHINERY
* Injection mass, injection ratio and plasticizing capacity differ depending on the resin used & molding condition.
* Kindly contact Us to discuss using machine at the maximum capacity.

Supermac

SMT Series

Toggle Clamping Injection Molding Machine

- Energy Efficient
- High Precision & Stable Moulding
- Quick Response & Low Noise

GO green

Special Features

- **Large** clamp stroke, efficient and reliable movement.
- **Wear Resistance** & high quality casting platen adopts finite element analysis design that brings even stress distribution to increase mold locking precision.
- **Self-lubricating** bushes used in guide rods and tie-bars for smooth running and eliminating the need of external lubrication of machine surfaces and plastic goods.
- **Automatic mold-height** adjustment by hydraulic motor through a planetary gears system ensures fast and constant settings.
- **Multi-eject** function with adjustable pressure, speed, position and delay time.
- **Low pressure** Mold-Protect.
- **Linear potentiometer** for mold clamp position control.
- **Three stages** of MOLD-OPEN/CLOSE pressure and speed control.
- **Whole-covered** guide of clamping unit ensures the operator's safety.

Clamp Unit

- **Large** clamp stroke, efficient and reliable movement.
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Injection Unit

- Robust construction of injection unit with a rigid twin cylinder design maintains accurate nozzle position.
- 5 step injection pressure.
- Cold screw start protection.
- Digital readout of injection position & actual rpm.
- Swiveling hopper for materia discharge.
- Screw drive directly by high torque radial piston hydro motor.

Control

- Dedicated Microprocessor based control with self diagnostics.
- Direct accessible menu keys.
- Timer precision of 0.01 seconds.
- Accurate control with PID and SSR to provide stable nozzle & barrel temperature.
- 8.7" backlit LCD screen.
- 120 mould data storage.
- Alarm history with date & time.
- Digital I/O diagnostics screen.
- Equipped with USB & SD card facility for data transfer, reprogramming, Storage & Analysis purpose.

SPECIFICATIONS

MACHINE MODEL	UNITS	SMT - 90			SMT - 130			SMT - 160			SMT - 200			SMT - 250			SMT - 350		
POWER PACK		**10 HP**			**20 HP**			**25 HP**			**30 HP**			**40 HP**			**60 HP**		
INJECTION UNIT		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw Diameter	mm	30	35	-	35	40	45	45	50	55	50	55	65	55	65	70	70	80	90
Injection Pressure Maximum	bar	2025	1485	-	1950	1495	1181	1865	1512	1250	2030	1671	1201	1993	1427	1236	1820	1450	1130
Maximum Injection Weight (GPPS)	gm	95	130	-	150	200	250	310	380	460	442	535	745	588	821	952	1220	1585	2010
Plasticizing Capacity	gm/sec	7.1	9	-	12.71	16	21.8	22	34	42	34	44	49	41	64	71	58	80	83
Injection Rate	cc/sec	99	134	-	127	167	210	186	232	218	218	265	365	232	323	376	337	440	557
Injection Screw Stroke	mm	150			175			215			250			275			350		
Screw L/D Ratio	L/D	22	20	-	22	20	18	22	20	18	22	20	16.9	22	20	18	22	20	18
Screw Speed Maximum	rpm	295			295			295			250			250			170		
Heater Capacity	kw	7			9			13			18			20			30		
No. of Heating Zones	Nos	3+1			3+1			4+1			4+1			4+1			5+1		
CLAMP UNIT																			
Mould Clamping Force	tons	90			130			160			200			250			350		
Minimum Mould Height	mm	150			160			180			200			200			260		
Toggle Stroke	mm	350			380			435			475			540			670		
Maximum Mould Height	mm	380			450			520			560			600			710		
Distance Between Tie Rods (H X V)	mm	370 x 370			420 x 420			470 x 470			520 x 520			570 x 570			710 x 630		
Mould Platen Size (H X V)	mm	570 x 570			625 x 625			680 x 680			725 x 725			820 x 820			940 x 940		
Tie Rod Diameter	mm	65			70			80			90			95			110		
Ejector Force	tons	3.8			5			5			7			7			9		
Ejector Stroke	mm	120			140			140			150			150			200		
GENERAL DATA																			
Electric Motor	kw (HP)	9 (12)			15 (20)			18.5(25)			22 (30)			30 (40)			45 (60)		
Total Connected Load	kw	16			24			31.5			40			50			75		
Servo Motor	kw	11.6			11.6			15			22			22			30		
Total Connected Load	kw	18.6			20.6			28			40			42			60		
Oil Tank Capacity	ltrs	250			300			400			600			600			800		
Water Requirement (inlet temp.29c)	lpm	40			50			50			75			75			100		
Machine Dimensions (L x W x H)	ft	12.5 x 2.5 x 5			15 x 3 x 5.5			16 x 3 x 5.5			18.5 x 4 x 6			20 x 4 x 6.5			26 x 5 x 7		

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Agriculture		Automotive		CPVC Fittings	
	Houseware		Kitchenware		Medical
Caps		PET Preforms		Food Containers	
	Writing Instruments		Paint Buckets		Plastic Spoon, Fork & Knife
RPVC Fittings		Electrical & Electronics		Two Color Moulding	

CPVC & RPVC MACHINE

- Specially Design Screw for Processing of CPVC & RVPC
- Nitrided Screw & Barrel
- Chrome Plated Ram & Tie Bars
- Hydraulic Core Pull
- Wide & Generous Platens
- Range : 110 to 450 Ton
- Extended Gates

PET PREFORM MACHINE

- Specially Design Screw for Processing of PET
- L/D Ratio of Screw – 24:1
- Wide Platen with Maximum Daylight
- Energy Efficient Power Pack
- Range : 110 to 450 Ton

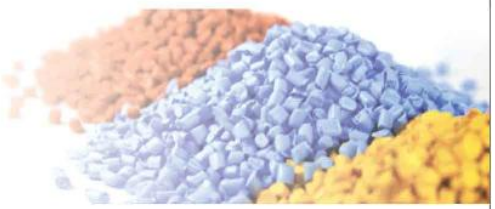
Evolution of Power-Saving Technology

There is no extra energy consumption due to output volume changes according to load. In the phase of holding pressure, servo motor lowers rotate and consumes a little of energies. Servo energy - saving injection molding machines will save 20%-80% energy and bring you prominent economic. It delivers outstanding performance, easy molding setting conditions, user-friendliness, direct-pressure clamping mechanism, long service life, maintenance-free operation, low cost, high-sensitivity mold protection and long hydraulic oil change intervals.

▪ Ultimate energy saving	Almost equivalent to electric molding machine
▪ Silent! The machine runs with low noise	Almost equivalent to electric molding machine
▪ Wide-ranging injection velocity	From 1 mm/s ultra low-velocity to 300 mm/s high velocity
▪ Quick-response injection start-up	Start-up time : 48 ms (Standard mode)
▪ Improved injection pressure holding performance	High injection holding pressure can be maintained for a long time (in comparison with electric type)
▪ Improved molding stability	Improved repeatable stability (in comparison with standard machines)

SPECIFICATIONS

MATERIAL	DENSITY gm/cc	PROCESSING TEMPERATURE C°	CLARITY T/O/C	kg/cm TENSILE STRENGTH AT YEILD	ELONGATION AT BREAK %	SOFTENING TEMPRATURE VICAT O°C	HEAT DEFLECTION O°C AT 66 PSI
LDPE	0.92	160-210	Transclucent	95	200	85	50
LLDPE	0.92	180-260	Transclucent	100	100	80	45
HDPE	0.96	190-280	T-0	250	500	126	75
PP Copolymer	0.90	190-300	T-C	290	500	150	90
PP Homopolymer	0.90	190-300	Transclucent	310	200	152	96
PS(GPPS)	1.05	180-220	Clear	420	5	102	85
HIPS	1.05	180-220	T-0	275	45	88	83
ABS	1.05	210-270	Opaque	440	20	95	86
SAN	1.04	220-270	Clear	650	4	107	95
Polycarbonate (PC)	1.2	260-310	Clear	680	150	150	144
Nylon - 6	1.13	240-270	T-0	740	40	215	165
Nylon - 66	1.13	270-300	T-0	1240	300	245	238
RPVC	1.45	150-210	Clear	440	20	-	76
Acrylics	1.19	200-260	Clear	700	3	89	90
PBT	1.31	220-260	Opaque	530	300	172	155
Polyurethene	1.20	185-240	Clear	520	510	116	-
Acetal	1.41	180-240	Opaque	700	55	-	172
TPE	1.2	180-240	Opaque	310	375	195	111
PET	1.38	260-310	Clear	880	70	110	85



Supermac

Note

SMT Series

SMH Series

Supermac

An ISO 9001 - 2015 Certified Company

SUPERMAC MACHINERY

Mfg. of. : PLASTIC INJECTION MOLDING MACHINES

Regd. Office & Works :
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Our Network

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