Trishul™

Plastic Machine MFG.

All Type Of Plastic Injection Moulding Machines

PLASTIC INJECTION MOLDING MACHINE

AN ERA OF TECHNOLOGY

WE BUILD IT WITH YOUR TRUST

About us

Wel Come to TRISHUL PLASTIC MACHINE MFG.

Trishul plastic machine mfg is ISO 9001 : 2015 certified and high quality plastic molding machine.

Trishul Plastic machine MFG. is manufacturer and exporter offering world class solution in industrial machine. Trishul Plastic Machine MFG. were established in 1994. the research and development and manufacture of machinery. the technology and inteareliles design manufacture assembly, testing & sales are complete provides. trishul plastic mfg upgrading high standard of quality control. the watchword and understanding consumers need and providing best engineering solutions.

Trishul Plastic machine are used and manufacturing for irrigations, Home Appliances, electronic parts and etc. we demonstrated continues growth in terms of product development and up gradation of technology.

JOURNEY SO FAR

with an aim to deliver to the indian injection molded plastic parts processing industries, a start-up with team of engineers & technicians ventured for assembly factory in AHMEDABAD, GUJARAT, INDIA.

in the beautiful heritage city of ahmedabad with bigger manufacturing, assembly & office premises with improved infrastructure. as a policy, we always believed in providing friendly working environment to our staff and invested in much larger & spacious assembly area & office to make lives of our staff comfortable.

with modern factory, advanced processing equipment and comfortable working condition TRISHUL PLASTIC MACHINE are conceptually design to ensure the highest quality standards.

Trishul
PLASTIC MACHINE MFG.

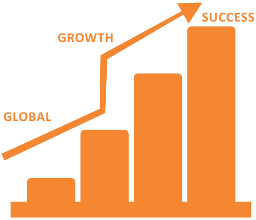
VISION

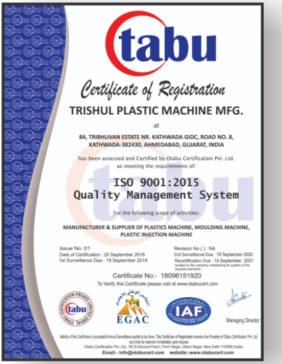
To prospect the future, we set our sights on stable quality of present products, research and develop latest technologies and enhanced design, expand the market reach, promote trishul machinery organization. we expect our company to go ahead tothe goal of diversification.

in the competitive era of globalization. trishul machinery keeps running principle consistently - think globally, footing locally, active & creative. enjoys challenge, brand marketing and upgrade operation.

MISSION

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





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Certificate of Registration

TRISHUL PLASTIC MACHINE MFG.

at

84, TRIBHUVAN ESTATE NR. KATHWADA GIDC, ROAD NO. 8,
KATHWADA-382430, AHMEDABAD, GUJARAT, INDIA

has been assessed and Certified by Otabu Certification Pvt. Ltd.
as meeting the requirements of:

ISO 9001:2015
Quality Management System

For the following scope of activities:

MANUFACTURER & SUPPLIER OF PLASTICS MACHINE, MOULDING MACHINE, PLASTIC INJECTION MACHINE

Issue No :01
Date of Certification : 20 September 2018
1st Surveillance Due : 19 September 2019

Revision No ( ) : NA
2nd Surveillance Due : 19 September 2020
Recertification Due : 19 September 2021
(subject to the company maintaining its system to the required standard)

Certificate No:- 18096151920
To Verify this Certificate please visit at www.otabucert.com

EGAC IAF

Managing Director

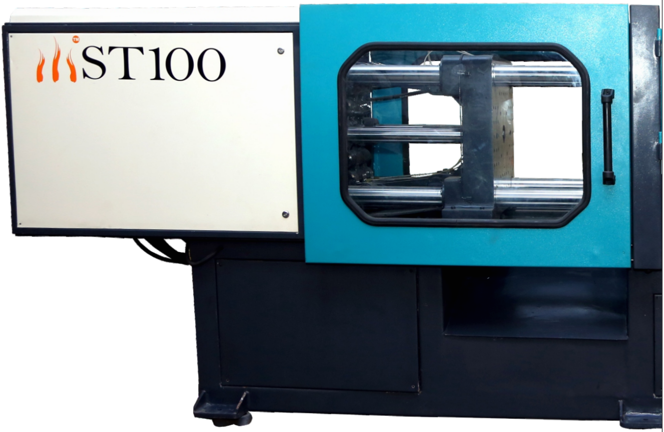
Validity of this Certificate is successful Annual Surveillance audits to be done. This Certificate of Registration remains the Property of Otabu Certification Pvt. Ltd. and shall be returned immediately upon request.
Otabu Certification Pvt. Ltd., RZ-9 (Ground Floor), Prem Nagar, Uttam Nagar, New Delhi-110059 (India)
Email:- info@otabucert.com website:-www.otabucert.com

GLOBAL
BUSINESS
SUCCESS

TPH SERIES

TRISHUL PLASTIC MACHINE MFG.

TOOGGLE INJECTION MOULDING MACHINE



MODEL		**TP-30**	**TP-50**	**TP-75**	**TP-100**	**TP-125**	**TP-150**	**TP-200**
INJECTION UNIT		A'	A B	A B	A B	A B	A B	A B
screw diameter	mm	25	30 35	35 40	40 45	45 50	50 55	55 60
screw L/D Ratio		224	214 184	214 184	214 18.5	214 194	214 194	214 194
shot weight (ps)	gms	40	50 60	95 125	150 195	225 280	320 390	440 530
stroke volume	cm3	55	55 66	105 139	166 216	250 310	355 433	489 588
screw stroke	mm	115	125	150	175	200	225	250
injection pressure	bar	1740	1695 1525	1650 1485	1595 1435	1550 1395	1515 1365	1485 1345
injection rate	gms/sec	37	40 52	58 67	62 85	66 88	108 137	132 153
plasticizing capacity	g/s	5	8 10.4	16 21	23 27	31 34	38 43	48 54
screw speed (max)	rpm	250	225	210	190	165	160	155
nozzle holding force	ton	4	4	5	5	5	5.5	5.5
nozzle stroke	mm	200	200	200	250	250	250	300
CLAMPING UNIT								
clamping force	ton	30	50	75	100	125	150	200
mould opening stroke		200	225	250	300	350	400	450
mould height min. max	mm	100 250	100 250	100 325	150 350	200 400	200 450	200 500
tie bar diameter	mm	40	50	60	70	75	85	95
distance between tie rods (HxV)	mm	250X250	300X300	350X350	380X380	420X420	450X450	500X500
platen size (HxV)	mm	390X390	470X470	550X550	600X600	650X650	710X710	790X790
max daylight	mm	450	475	500	650	750	830	950
ejector force	ton	1.5	2	2	2.5	3	3	3.5
ejector stroke	mm	70	80	80	100	100	125	125
POWER SYSTEM								
hyd. system pressure	kg/cm	140	140	140	140	140	140	140
oil tank capacity	liters	100	100	200	250	300	350	400
pump drive motor	hp/kw	5/3.7	5/3.7	7.5/5.5	10/7.5	12.5/9.3	15/11	20/15
heating capacity	kw	2.8	3.5	4.5	6	7.1	9.5	11
no.of heating zones		4	4	4	4	4	4	5
total power capacity	kw	6.5	7.2	10	13.5	16.4	20.5	26
OTHERS								
hopper capacity	kg	25	25	25	25	25	30	30
machine weight approx	ton	2.5	3.0	3.5	4.0	4.5	5.5	7.8
floor space l x w x h approx	meter	3.5X0.8X1.3	3.5X0.8X1.3	3.8X1.1X1.5	4X1.2X1.6	4.3X1.3X1.7	4.5X1.4X1.8	5X1.5X1.9

TP-250		TP-300		TP-350		TP-400	
A	B	A	B	A	B	A	B
60	65	65	70	70	80	80	90
214	194	214	19.5	214	18.5	214	18.5
580	690	760	1010	970	1290	1490	1900
645	767	845	1125	1077	1433	1655	2110
275		300		350		375	
1435	1292	1405	1265	1380	1242	1350	1215
177	215	246	292	255	299	289	386
62	70	75	85	90	98	105	115
150		150		150		150	
6		6		6.5		6.5	
350		375		400		450	
250		300		350		400	
500		550		600		650	
225	550	250	600	300	650	350	700
105		115		120		130	
550x550		600x600		650x650		700x700	
860x860		950x950		1020x1020		1150x1150	
1050		1120		1170		1250	
4		4		4.5		5	
150		200		225		250	
140		140		140		140	
450		500		550		650	
25/18.5		30/22		40/30		40/30	
12.6		14		15		17.5	
5		5		6		6	
31.1		36		45		47.5	
35		35		50		50	
10		12		13		14	
5.5x1.6x2		6.25x1.7x2.1		7x1.8x2.2		7.6x1.9x2.3	

INJECTION MOLDING MACHINE

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

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.**

Trishul TM
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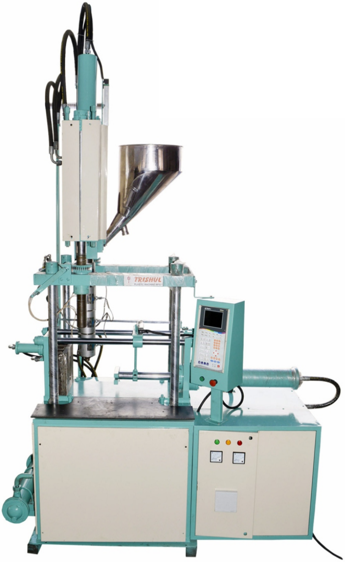
TPV SERIES

VERTICAL SCREW TYPE HYDRAULIC MOULDING MACHINE

MODEL		TPV20	TPV25	TPV30	TPV35	TPV40	TPV45	TPV50
INJECTION UNIT								
SHOT CAPACITY	GMS	30	60	100	150	200	250	300
SCREW DIAMETER	MM	25	30	35	40	45	60	55
SCREW L/D RATIO	L/D	18.1	18.1	17.1	17.1	17.1	16.1	16.1
SCREW STROKE	MM	115	125	150	175	200	225	250
SCREW SPEED (MAX)	RPM	225	200	190	190	160	160	150
INJECTION PRESSURE	PSI	1250	1200	1150	1150	1100	1100	1175
LOCKING UNIT								
LOCKING FORCE	TONS	20	25	30	35	40	45	50
MOULD OPENING STROKE	MM	175	200	225	250	275	275	300
MIN. MOULD HT.	MM	75	100	125	125	125	150	150
MAX.MOULD HT.	MM	175	200	225	250	275	275	300
TIEBAR DIAMETER	MM	40	45	50	55	60	65	70
TIEBAR DIST CENTER	MM	200	250	325	350	375	400	425
PLATEN SIZE (HXV)	MM	170X320	185X380	200X465	225X500	225X535	250X575	250X615
POWER SYSTEM								
ELE.MOTOR POWER	HP/KW	2/1.5	3/2.25	5/3.75	5/3.75	7.5/5.6	7.5/5.6	7.5/5.6
BARLE HEATING LOAD	KW	2.25	2.25	3.5	3.75	4.5	5.6	6.2
TOTAL CONNECTION LOAD	KW	3.75	4.5	7.25	7.5	10.1	11.2	11.8
HEATING ZONES	NO	3	3	3	3	3	4	4
OTHERS								
PUMP CAPACITY	GPM	2	3	3	5	5	8	8
OIL TANK CAPACITY	LITER	60	70	80	90	100	110	120
MACHINE WEIGHT APPROX	TON	0.75	1.0	1.2	1.35	1.6	2.1	2.6
FLOOR SPACE LXHXW	METER	1.3X2X0.7	1.5X2.4X0.7	1.6X2.7X0.7	1.7X2.9X0.8	1.8X3X0.9	2X3.2X1	2.2X3.3X1.1

“TPV SERIES” VERTICAL SCREW TYPE FULLY AUTOMATIC INJECTION MOULDING MACHINE



TPV60	TPV70	TPV85	TPV100
400	500	700	1000
60	65	70	80
16.1	16.1	16.1	16.1
275	300	325	350
150	140	140	140
1050	1050	1000	970
60	70	85	100
300	325	350	400
150	200	200	250
300	350	350	400
70	75	75	80
450	500	550	600
275X640	300X700	325X750	350X810
10/7.5	10/7.5	12.5/9.3	15/11
7.5	9.5	11	12.5
15	17	20.3	23.5
4	4	4	4
8	8	11	11
130	140	150	160
3.0	3.5	3.75	4.0
2.4X3.4X1.2	2.4X3.5X1.3	2.5X3.8X1.3	2.7X4.2X1.5

STANDARD ACCESSORIES

“TP SERIES” COMPETITIVELY BETTER THAN HORIZONTAL MACHINE. AGAINST PRICE WISE SPACE WISE PRODUCTION WISE ELECTRIC CONSUMPTION WISE MOULD COST WISE

- **PROVEN SCREW GEOMETRY FOR OPTIMUM MELT HOMOGENEITY.**
- **SUCK BACK AFTER REFILL.**
- **HIGH PERFORMANCE MOULD CLAMPING STRUCTURE.**
- **DIRECT SCREW DRIVE THROUGH HIGH TORQUE**
- **VARIABLE SPEED RADIAL PISTON HYDRO MOTOR.**
- **MEGNETIC GRILL IN HOOPER THREADED CAP FOR HOOPER EMPTING WEAR & CORROSION RESITANT NITRIDE SCREW / BARRLE.**
- **CLOSE TANK DESIGN.**
- **OUTPUT IS HIGH & PRODUCT QUALITY IS EXCELLENT.**
- **INJECTION SPEED & PRESSURE VARIABLE BY HYDRAULIC CONTROLS.**
- **DIGITAL TIMER, DIGITAL CONTROLLER, DIGITAL SHOT COUNTER.**
- **LOW PRESSURE MOULDING FACALITY.**
- **SAVE YOU RAW MATERIAL PROCESSING CHARGE & TIME.**

OPTIONAL FEATURES

MICRO PROCESSOR CONTROL PANEL BOARD

Trishul (TM)
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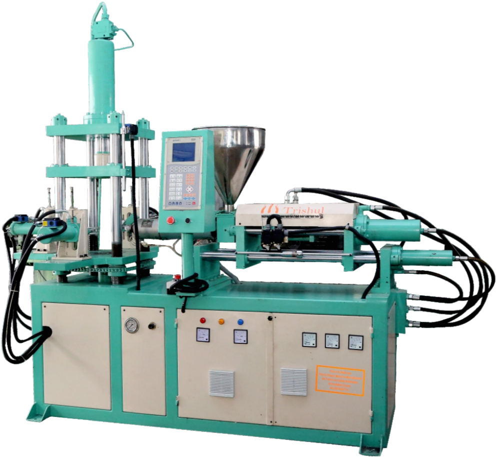
TPVC SERIES

VERTICAL CLAMPING HORIZONTAL INJECTION MACHINE



•Horizontal Screw Type Injection • Fully Micro Processor Controller Machine
•3 Side Core Pulling Optional • Suitable For Insert Moulding

- CLAMPING FORCE : 70T TO 500T
- INJECTION WEIGHT : 90G TO 850G
- VERTICAL FOUR COLUMNS CLAMPING, HORIZONTAL
- INJECTION SUITABLE FOR BIG INSERT PART INJECTION
- MOLDING PROCESS. WE CAN UPGRADE TO SERVO MOTOR
- FOR CUSTOMER'S NEED, THE ACTUAL ENERGY SAVE 50%-70%

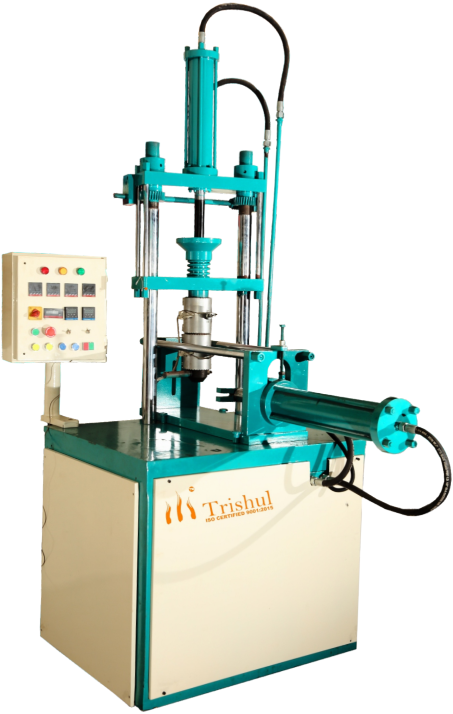
MACHINE TYPE	UNIT	TPVC35	TPVC65	TPVC110	TPVC180	TPVC220	TPVC320	TPVC550
SCREW DIAMETER	MM	25	30	35	40	40	40	50
INJECTION PRESSURE	KG/CM2	1700	1700	1600	1500	1500	1500	1400
THEORETICAL SHORT VOLUME	Cm3	49	71	130	207	251	251	275
MAX. SHOT WEIGHT (PS)	G	45	60	100	150	200	300	500
INJECTION RATE	CM3/SEC	35	50	71	90	114	114	167
SCREW STROKE	MM	100	100	135	165	200	300	350
SCREW SPEED MAX.	RPM	0-250	0-250	0-250	0-250	0-250	0-250	0-200
NUMBER OF TEMPERATURE CONTROL	-	3	4	4	4	4	4	5
MATERIAL HOOPER CAPACITY	l	8	8	10	10	20	20	20
CLAMPING FORCE	TONS	7	7	10	13	18	18	25
OPENING FORCE	TONS	1.5	1.5	2.5	3.1	4	4	6.1
MAX.MOULD SIZE	MM	200X200	200X200	260X260	280X280	340X340	340X340	360X360
MIN. MOLD HEIGHT	MM	75	75	75	100	100	100	125
OPENING STROKE	MM	210	210	300	325	465	465	550
MAX.OPEN DAYLIGHT	MM	375	375	465	540	665	665	790
EJECTOR FORCE	TONS	1.3	1.3	1.3	1.3	2	2	2
EJECTOR STROKE	MM	50	50	70	70	70	70	70
MAX. HYDRAULIC PRESSURE	KG/CM2	120	120	120	120	120	120	120
PUMP OUTPUT	LITER/MIN	20	20	26	26	40	40	56
OILTANK	LITERS	60	50	80	100	140	140	180
PUMP CAPACITY	KW	2.2	2.2	3.5	3.5	5	5	8.8
BARREL HEATING	KW	2.5	3.2	4	5	6.1	6.1	8.3
TOTAL WATTAGE	KW	4.7	5.4	7.5	8.5	11.1	11.1	17.1

MACHINE WEIGHT	TONS	0.5	0.6	0.8	0.95	1.2	1.3	1.5
FLOOR SPACE	M	1.7X0.9X2.3	1.7X0.9X2.3	1.8X1X2.5	2X1.09X2.7	2.2X1.17X2.9	2.2X1.17X3.2	2.4X1.3X3.8

TPVX SERIES

HORIZONTAL PLUNGER TYPE INJECTION

PLASTIC VERTICAL HYDRAULIC MOULDING MACHINE



SHORT CAPACITY IN GRAM	30	60	100	150	200	250	500	750	1000
DIAMETER INJECTION PLUNGER IN MM	28	32	40	45	50	55	60	65	70
STRCK OF INJECTION PLUNGER IN MM	180	210	235	275	325	400	475	550	625
MAX. MOULD HEIGHT	150	150	215	225	250	260	280	330	380
MOULD OPENING MM	150	150	240	250	270	290	310	325	370
MOULD CLOSING PRESSURE KG/CM	110	110	120	120	130	150	150	160	160
OIL CAPACITY LITERS	60	60	100	110	120	135	150	170	180
HEATING CAPACITY KW	600	750	1000	1000	1500	1800	2000	2000	2500
ELEC. MOTOR CAP.RPM 1440 HP	2	2	3	3	5	5	7.5	7.5	10
PUMP PRESSURE CAP KG/CM	110	110	120	120	130	150	150	160	160
LOCKING FORCE IN TONS	25	25	35	35	40	45	50	60	70

SHORT WEIGHT CAPACITY START FROM 60 GM TO 45 K.G

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SERVO ENERGY SAVINGS SERIES

MAIN HYDRAULIC INDEX

- Response Time of Pressure Rise 50ms
- Response Time of Flow Rise 40ms
- Range of Pressure Fluctuations ±0.9 Bar

TRISHUL SERVO INDEX

- Response Time of Pressure Rise 50ms
- Response Time of Flow Rise 40ms
- Range of Pressure Fluctuations +0.9 Bar

Note :-

KW.h/Kg :

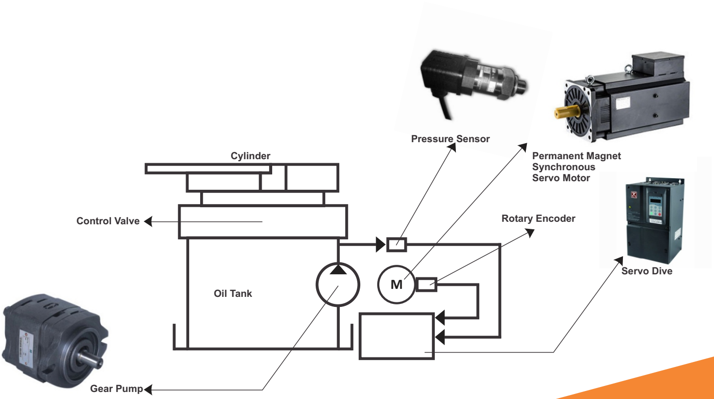
1st Class ≤0.4
2nd Class >0.4-0.55
3rd Class >0.55-0.7

Repeatability Precision

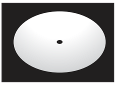
Special Class ≤0.5
1st Class ≥0.5-1
2nd Class ≥1-2

SERVO ENERGY SAVING SCHEMATIC DIAGRAM

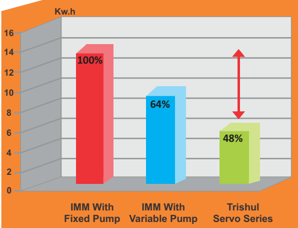
The Servo Energy Saving Plastic Moulding Machinery Configure Rotary Encoder And Pressure Sensor. So It Will Feedback The Flow & Pressure In Time. It Adjusts The Flow & Pressure by Changing The Servo Synchronous Motor’s Rotate Speed And The Torsion to Make Sure Higher Repeatability Precision, Maximum Energy Saving And The Production Efficiency.



CASE :



Test Product	:	Disk
Plastic Material	:	PS
Product Weight	:	100g
Product Wall Thickness	:	2.6mm
Number of Mold Cavity	:	1
Test Condition	:	Power Test Device Record 3 Series IMM’s Value During Full Auto Producing When The Oil Temprature Stable at 45°C



Comparison of IMM **160T IMM** **160T IMM** **160T IMM**

Moulding Cycle Time	s	20	20	20
Test Time	h	3	3	3
Cycle Count	mold	540	540	540
Power Consumption/Hour	KW/h	12.6	8.1	6.6
Power Consumption/Year	KW/h	83160	53460	43560
Power Consumption/Kg	KW.h/kg	0.7	0.45	0.36
Effect of Servo Energy Saving	%	IMM With Fixed Pump		51.6
		IMM With Variable Pump		24.7

the required energy consumption to produce the processing ruler by an energy saving machines are 51.6% less when compared to a traditional hydraulic imm and 24.7% less than imm with an optimized variable pump

the energy saving machine also requires 80% less energy to produce a thick wall product which needs a longer holding & cooling time or 50% less than using an IMM fitted with optimized variable pump.

HOUSEHOLD BASKET

GOODS BASKET

TOYS

HOUSEHOLD TIN

VESSELS TROLLEY

CLOTHE WASHED BOWL

PAPER
PLASTIC
CANS

DUSTBIN

VALVE

HOUSEHOLD BUCKET

PVC & UPVC FITTINGS & MOULDED FITTINGS

Trishul™

Plastic Machine MFG.

All Type Of Plastic Injection Moulding Machines

Trishul™
Plastic Machine MFG.

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