PRIKAN

Ultra Servo

High Performance Hydraulic Injection Molding Machines.

60 - 650 T

Ultra Servo

High Performance Hydraulic Injection Molding Machines.

Generous Mold Space

- Accommodates Large Molds

Large Ram Diameter

- Provides Uniform Force Distribution across Platen
- Provides Excellent Mold Squareness & Parallelism
- Reduces Mold Wear

Clamp on LM Guide Ways

(150T onward)

- Precise Linear Guide ways for Faster Movement with no Frictional Losses
- Higher Mold Carrying Capacity
- Enhanced Mold Parallelism & Squareness
- Lower Grease Consumption

PRIKAN the smart choice

Range

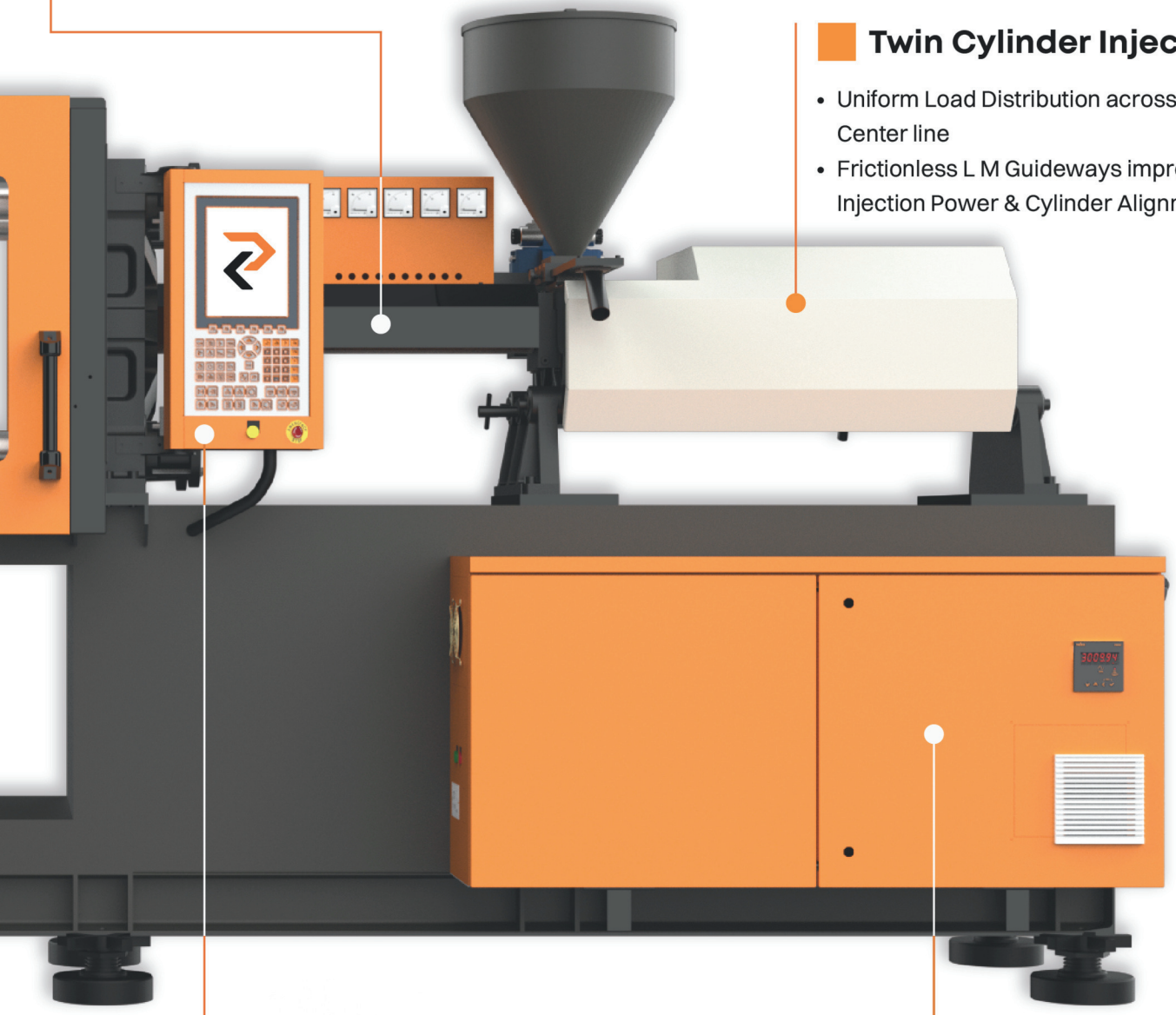
60 | 110 | 125 | 150 | 200 | 280 | 350 | 450 | 650 Ton

Closed Loop PID Temperature Control

- Provides Precise Temperature Control
- Excellent Process Control & Stability

Twin Cylinder Injection Unit

- Uniform Load Distribution across Screw Center line
- Frictionless L M Guideways improve the Injection Power & Cylinder Alignment



X-Mold 9 User Friendly Control

- Extreme Slim Panel Design
- High Speed Microprocessor
- Direct Access Menu Keys
- Graphical Presentation of Machine Features
- Self Diagnostic & Fault Finding Capability
- Parameter Entry in Absolute Value
- Statistical Process Control (SPC)

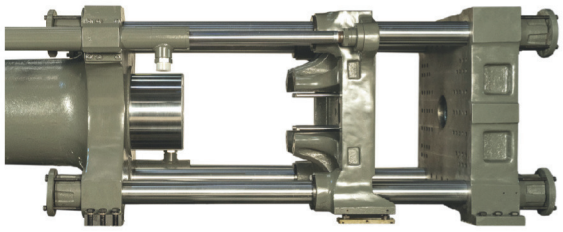
Servo Motor

- Outstanding Energy Saving
- Faster Response towards Hydraulic System
- Excellent Shot Weight Consistency
- Reduced Noise Level

Ultra Servo

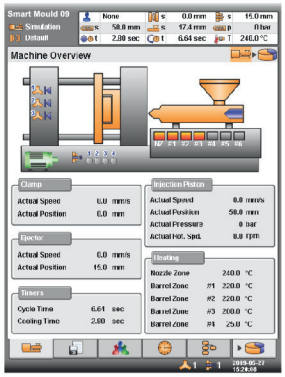
High Performance HydraulicInjection Molding Machines.

The Ultra Servo is Hydraulic Direct Locking Ram Type Machine.



Advanced Clamp Design

- Fast Tonnage Buildup And Actual Tonnage Display On Screen.
- Faster Clamp Movement.
- Precisely Adjustable Moving Platen Supports.
- T-Slot And Tap Holes On Moving And Stationery Platens.



Advantages of Controller

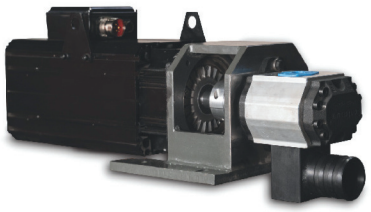
- Unicode Languages Support
- User Customized Menu
- Free I/0 Assignment
- Mold Data Storage - 80 Nos.
- Machine Performance improves significantly
- Quieter Machine Operation
- Integrated Statistical Process Control
- Integrated Statistical Process Control
- Central Monitoring Through Lan and Industry 4.0 Compatible

Servo System

The Next Gen-Tech

UP TO 50% ENERGY SAVING

Replacement of Standard Induction Motor to Servo Motor



Servo Motor

Synchronous Motor with Permanent Magnets

Gear Pump

New-Gen of Gear Pumps for No Pulsation and No Noise

Reduced Heat Generation

- Only Delivers Hydraulic Oil as it is Needed
- Reduced Heat Generation in Hydraulic Oil
- Results in Longer Life for Hydraulic Components & Enhanced Oil Life
- Heat Load on Factory & Cooling Water Consumption is Reduced
- Influence of Oil Temperature on Machine Repeatability is Reduced
- Improves Cycle Precision & Repeatability

Servo Motor

- Improved Repeatability
- Reduced Energy Consumptio
- Increased Accuracy & Precisi
- High Response
- Reduced System Inertia
- Noise Reduction
- Variable Speed Operations When Required

Internal Gear Pump

- Reduced Sensitivity to Contamination
- Increased Reliability and Lower Maintenance Costs
- Bidirectional Pump for Fast Response in Pressure Cor
- Pump is Stopped Intermittently during the cycle
- Extremely low vibrations and pulsations In Pressure Condition
- Low Operating Noise
- Special rotors profile avoids oil encapsulation
- No noise - average 15dB (A) - less noise compared to standard pumps
- Very stable and consistent performances at variable speed, Also in case of sudden speed changes

Ultra Servo

Range 60 | 110 | 125 | 150 | 200 | 280 | 350 | 450 | 650 Ton

TECHNICAL DATA

MACHINE MODEL		ULTRA 60		ULTRA 110 W							
MODEL SIZE		600-280		1100-230		1100-370			1100-630		
INJECTION UNIT	UNIT	280		230		370			630		
SCREW TYPE		A	B	A	B	A	B	C	A	B	C
Screw Diameter	mm	30	35	30	35	35	40	45	40	45	50
Injection Shot Weight (GPPS)	gms	100	136	100	136	160	210	265	256	325	400
Theoretical Displacement	cc	106	144	106	144	168	220	278	270	342	422
Maximum Injection Pressure	bar	2600	1910	2166	1592	2204	1688	1333	2346	1854	1501
Injection Rate	cc/sec	78	106	78	106	164	214	270	137	174	215
Screw L/D Ratio		22	20	22	20	22	20	18.6	22.5	20	18
Injection Screw Stroke	mm	150		150		175			215		
Screw Speed	rpm	375		375		450			400		
Plasticizing Rate (GPPS)	gm/sec	10	15	10	15	18	24	28	22	26	32
No. of Heating Zones	barrel + nozzle	3 + 1		3 + 1		4 + 1			4 + 1		
Total Heat Capacity	KW (hp)	7 (9)		7 (9)		9 (12)			13 (17)		
CLAMPING UNIT	UNIT										
Clamping Force	Ton	60		110		110			110		
Distance Between Tie Bar (HxV)	mm	350 x 350		450 x 450		450 x 450			450 x 450		
Platen Size (HxV)	mm	500 x 525		670 x 670		670 x 670			670 x 670		
Mold Opening Stroke	mm	400		550		550			550		
Mold Height Minimum	mm	200		200		200			200		
Ejector Force	Ton	2.9		5.6		5.6			5.6		
Ejector Stroke	mm	95		130		130			130		
Maximum Daylight	mm	600		750		750			750		
Mold Weight Capacity	Kg	500		1050		1050			1050		
GENERAL DATA	UNIT										
Water Requirement (Inlet Temp 26 deg.)	lpm	60		75		75			75		
Total Oil Tank Capacity	ltrs.	310		450		450			450		
Machine Dimension	L x W x H (mtr)	3.6 x 1 x 1.6		4.6 x 1.2 x 1.8		4.8 x 1.2 x 1.8			4.8 x 1.2 x 1.8		
Machine Weight	Kg	3800		3800		4600			4800		
Servo Motor	KW (hp)	6 (8)		15 (20)		15 (20)			15 (20)		
Connected Load	KW (hp)	13 (17)		22 (29)		24 (32)			28 (37)		

MACHINE MODEL		ULTRA 125								ULTRA 150								
MODEL SIZE		1250-230		1250-370			1250-630			1500-370			1500-630			1500-970		
INJECTION UNIT	UNIT	230		370			630			370			630			970		
SCREW TYPE		A	B	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw Diameter	mm	30	35	35	40	45	40	45	50	35	40	45	40	45	50	45	50	55
Injection Shot Weight (GPPS)	gms	100	136	160	210	265	256	325	400	160	210	265	256	325	400	363	448	541
Theoretical Displacement	cc	106	144	168	220	278	270	342	422	168	220	278	270	342	422	382	471	570
Maximum Injection Pressure	bar	2166	1592	2204	1688	1333	2346	1854	1501	2204	1688	1333	2346	1854	1501	2535	2053	1697
Injection Rate	cc/sec	78	106	164	214	270	172	218	268	164	214	270	172	218	268	178	219	265
Screw L/D Ratio		22	20	22	20	18.6	22.5	20	18	22	20	18.6	22.5	20	18	22.5	20	18.6
Injection Screw Stroke	mm	150		175			215			175			215			240		
Screw Speed	rpm	375		450			400			450			400			350		
Plasticizing Rate (GPPS)	gm/sec	10	15	18	24	28	22	26	32	18	24	28	22	26	32	29	36	52
No. of Heating Zones	barrel + nozzle	3 + 1		4 + 1			4 + 1			4 + 1			4 + 1			4 + 1		
Total Heat Capacity	KW (hp)	7 (9)		9 (12)			13 (17)			9 (12)			13 (17)			16 (21)		
CLAMPING UNIT	UNIT																	
Clamping Force	Ton	125		125			125			150			150			150		
Distance Between Tie Bar (HxV)	mm	450 x 450		450 x 450			450 x 450			510 x 510			510 x 510			510 x 510		
Platen Size (HxV)	mm	670 x 670		670 x 670			670 x 670			740 x 740			740 x 740			740 x 740		
Mold Opening Stroke	mm	550		550			550			650			650			650		
Mold Height Minimum	mm	200		200			200			250 / 250			250 / 250			250 / 250		
Ejector Force	Ton	5.6		5.6			5.6			5.6			5.6			5.6		
Ejector Stroke	mm	130		130			130			180			180			180		
Maximum Daylight	mm	750		750			750			900 / 900			900 / 900			900 / 900		
Mold Weight Capacity	Kg	1050		1050			1050			2000			2000			2000		
GENERAL DATA	UNIT																	
Water Requirement (Inlet Temp 26 deg.)	lpm	75		75			75			100			100			100		
Total Oil Tank Capacity	ltrs.	450		450			450			570			570			570		
Machine Dimension	L x W x H (mtr)	4.6 x 1.2 x 1.8		4.8 x 1.2 x 1.8			4.8 x 1.2 x 1.8			5.4 x 1.5 x 2.1			5.4 x 1.5 x 2.1			5.4 x 1.5 x 2.1		
Machine Weight	Kg	3800		4600			4800			5600			6200			6400		
Servo Motor	KW (hp)	15 (20)		15 (20)			15 (20)			20 (26)			20 (26)			20 (26)		
Connected Load	KW (hp)	22 (29)		24 (32)			28 (37)			29 (38)			29 (43)			36 (47)		

TECHNICAL DATA

MACHINE MODEL		ULTRA 200									ULTRA 280								
MODEL SIZE		2000-630			2000-970			2000-1070			2800-970			2800-1070			2800-1540		
INJECTION UNIT	UNIT	630			970			1070			970			1070			1540		
SCREW TYPE		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw Diameter	mm	40	45	50	45	50	55	50	55	60	45	50	55	50	55	60	60	65	70
Injection Shot Weight (GPPS)	gms	256	325	400	363	448	541	448	542	645	363	448	541	448	542	645	698	820	1023
Theoretical Displacement	cc	270	342	422	382	471	570	471	570	678	382	471	570	471	570	679	735	863	1077
Maximum Injection Pressure	bar	2346	1854	1501	2535	2053	1697	2281	1885	1584	2535	2053	1697	2281	1885	1584	2095	1785	1540
Injection Rate	cc/sec	172	218	268	178	219	265	276	334	398	178	219	265	276	334	398	306	359	417
Screw L/D Ratio		22.5	20	18	22.5	20	18.6	22	20	18.6	22.5	20	18.6	22	20	18.6	22	20	18.6
Injection Screw Stroke	mm	215			240			240			240			240			260	280	
Screw Speed	rpm	400			350			300			350			300			300		
Plasticizing Rate (GPPS)	gm/sec	22	26	32	29	36	52	38	47	56	29	36	52	38	47	56	50	65	76
No. of Heating Zones	barrel + nozzle	4 + 1			4 + 1			4 + 1			4 + 1			4 + 1			4 + 1		
Total Heat Capacity	KW (hp)	13 (17)			16 (21)			18 (24)			16 (21)			18 (24)			20 (27)		
CLAMPING UNIT	UNIT																		
Clamping Force	Ton	200			200			200			280			280			280		
Distance Between Tie Bar (HxV)	mm	570 x 570			570 x 570			570 x 570			660 x 660			660 x 660			660 x 660		
Platen Size (HxV)	mm	830 x 830			830 x 830			830 x 830			920 x 920			920 x 920			920 x 920		
Mold Opening Stroke	mm	850			850			850			850			850			850		
Mold Height Minimum	mm	250			250			250			250			250			250		
Ejector Force	Ton	8.5			8.5			8.5			8.5			8.5			8.5		
Ejector Stroke	mm	200			200			200			200			200			200		
Maximum Daylight	mm	1100			1100			1100			1100			1100			1100		
Mold Weight Capacity	Kg	2500			2500			2500			3800			3800			3800		
GENERAL DATA	UNIT																		
Water Requirement (Inlet Temp 26 deg.)	lpm	150			150			150			150			150			150		
Total Oil Tank Capacity	ltrs.	660			660			660			1100			1100			1100		
Machine Dimension	L x W x H (mtr)	6.5 x 1.7 x 2.2			6.5 x 1.7 x 2.2			6.5 x 1.7 x 2.2			6.9 x 2.1 x 2.5			7.1 x 2.1 x 2.5			7.1 x 2.1 x 2.5		
Machine Weight	Kg	8800			9200			9400			10250			10500			10850		
Servo Motor	KW (hp)	25(33)			25(33)			25(33)			25 (33)			25 (33)			25 (33)		
Connected Load	KW (hp)	38(50)			41(54)			43(57)			41 (54)			43 (57)			45 (60)		

MACHINE MODEL		ULTRA 350									ULTRA 450						ULTRA 650					
MODEL SIZE		3500-1070			3500-1540			3500-3090			4500-3090			4500-3980			6500-6220			6500-7160		
INJECTION UNIT	UNIT	1070			1540			3090			3090			3980			6220			7160		
SCREW TYPE		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Screw Diameter	mm	50	55	60	60	65	70	70	80	90	70	80	90	80	90	100	90	100	110	100	110	125
Injection Shot Weight (GPPS)	gms	448	542	645	698	820	1023	1316	1718	2175	1316	1718	2175	1721	2179	2690	2664	3288	3979	3288	3979	5138
Theoretical Displacement	cc	471	570	679	735	863	1077	1385	1809	2289	1385	1809	2289	1808	2289	2826	2798	3454	4179	3454	4179	5397
Maximum Injection Pressure	bar	2281	1885	1584	2095	1785	1540	2229	1706	1348	2229	1706	1348	2205	1742	1411	2224	1802	1489	2074	1714	1327
Injection Rate	cc/sec	276	334	398	306	359	417	393	513	650	471	616	779	477	603	744	598	738	894	767	928	1198
Screw L/D Ratio		22	20	18.6	22	20	18.6	22	20	18.6	22	20	18.6	22	20	18.6	22	20	18.6	22	20	18.6
Injection Screw Stroke	mm	240			260	280		360			260	280		360			440			440		
Screw Speed	rpm	300			300			200			300			200			200			175	150	
Plasticizing Rate (GPPS)	gm/sec	38	47	56	50	65	76	75	90	106	50	65	76	75	90	106	116	135	155	125	155	200
No. of Heating Zones	barrel + nozzle	4 + 1			4 + 1			4 + 1			4 + 1			4 + 1			4 + 1			4 + 1		
Total Heat Capacity	KW (hp)	18 (24)			20 (27)			30 (40)			20 (27)			30 (40)			54 (71)			59 (78)		62 (82)
CLAMPING UNIT	UNIT																					
Clamping Force	Ton	350			350			350			450			450			650			650		
Distance Between Tie Bar (HxV)	mm	730 x 730			730 x 730			730 x 730			840 x 840			840 x 840			950 x 950			950 x 950		
Platen Size (HxV)	mm	1035 x 1035			1035 x 1035			1035 x 1035			1210 x 1210			1210 x 1210			1400 x 1400			1400 x 1400		
Mold Opening Stroke	mm	1100			1100			1100			1100			1100			1350			1350		
Mold Height Minimum	mm	300 / 600*			300 / 600*			300 / 600*			400 / 750*			400 / 750*			500			500		
Ejector Force	Ton	11.5			11.5			11.5			11.5			11.5			11.5			11.5		
Ejector Stroke	mm	200			200			200			200			200			200			200		
Maximum Daylight	mm	1400 / 1700*			1400 / 1700*			1400 / 1700*			1500 / 1850*			1500 / 1850*			1850			1850		
Mold Weight Capacity	Kg	4800			4800			4800			6800			6800			9500			9500		
GENERAL DATA	UNIT																					
Water Requirement (Inlet Temp 26 deg.)	lpm	180			180			180			220			220			300			300		
Total Oil Tank Capacity	ltrs.	1430			1430			1430			1540			1540			2000			2000		
Machine Dimension	L x W x H (mtr)	8.1 x 2.3 x 2.7			8.5 x 2.3 x 2.7			8.9 x 2.3 x 2.7			9.5 x 2.4 x 3.0			9.5 x 2.4 x 3.0			10.5 x 2.8 x 3.0			10.5 x 2.8 x 3.0		
Machine Weight	Kg	14500			15650			16300			23200			23500			35200			35800		
Servo Motor	KW (hp)	37 (49)			37 (49)			37 (49)			45 (59)			45 (59)			55 (73)			65 (86)		65 (86)
Connected Load	KW (hp)	55 (73)			57 (76)			67 (89)			75 (99)			88 (115)			109 (144)			124 (164)		127 (168)

* Without Ram Spacer

ULTRA SERVO ADVANTAGES & FEATURES

CLAMP

- Hollow Headless Ram with Mono Seal & No Piston Rings
- Unique Prefill Design for Fast Tonnage Build-Up
- High Speed Traverse Cylinders
- Adjustable Moving Platen Skates
- Rigid Casting Platens
- Setable 5 Stage Closing and 5 Stage Opening Speed & Pressure
- Adjustable 2 Stage Mold Safety Pressure & 1 Stage Speed
- Position Based Ramping for Switching - Precise Speed & Pressure Control
- Linear Position Transducer for Precise Clamp Position Control
- Sensitive Mold Protection with Try Again Circuit
- Stage Wise Actual Time Display
- Actual Tonnage Display on Screen

EJECTOR

- Multipoint Ejection for Uniform Force Distribution
- Ejector Speed & Pressure adjustable on Screen
- Liner Transducer for Ejector Position
- Multiple Pulsating Ejector Strokes
- Intermediate Retract Set Point
- Ejector Stay Forward & Forward Delay Timer

CONTROLS

- Automatic sequence either by codes or free programmable sequence
- 10.5'' TFT Color Display with Alpha - Numeric Keypad
- Actual Movement Speed & Pressure Graph Display
- 100 Mold Data Storage
- Configurable Multilevel Password with Operator's Name
- Graphical Hourly Production Table
- Customized Setup Menu
- High/ Low Limit Display for Each Adjustable Parameter
- IO diagnose on visualization -Analog & Digital
- Free I/O assignment
- Change Log Menu: Logs last 100 Set Points Changes with Time & Date
- Integrated Statistical Process Control (SPC)
- Freely Programmable Smart Outputs
- Over View Screen with Graphical Display of Machines Functions
- Soft Keys for Fast Access of Select Menus
- Visual & Audible Alarm
- Alarm History with Date & Time Log
- Graphical representation of automatic cycle
- Recipe exchange via USB
- Host-PC connection through Ethernet
- Remote via modem or internet
- Batch Counter with Option to turn off the motor
- Mold data/ Process data/ Change log saving to External USB device
- Online help
- Function Keys with LED indicator

HYDRAULICS

- Servo Motor Driven Pump
- Convenient Hydraulic Layout for Easy Approach
- Valves Placed near Actuators for Quick Response
- Low Oil Level Indicator
- Continuous Oil Filtration with 10 Micron Filter
- Oil Temperature on Screen

INJECTION

- Multi Stage Injection Speed & Pressure Profile
- Multi Stage Screw Speed & Manual Back pressure Control
- Digital setting of Screw RPM & Digital Read Out of Actual RPM
- Wide Choice of Injection Units with A-B-C Screw/ Barrel Combinations
- Comfortable Injection Unit Swivelling
- Switch Over from Fill to Pack based on Position or Time
- Linear Position Transducer for Accurate Injection Position Control
- Injection Decompression Before/ After Refilling or Both
- Semi- Auto Purge, Cold Slung removal & Intrusion Molding Programs
- Chequered Plate below Purge Area
- Injection start, Suck-back & Melt Decompression - Delay Timer
- Graphically Adjustable Alarm Bands for Injection Pressure
- Sliding Hopper
- Nozzle Contact Force by Pressure Switch

TEMPERATURE CONTROL

- Meters Current Display of Heating Zones
- Heater Failure & Thermocouple Failure Detection
- Accurate PID Temperature Control settable on Screen
- Feed Throat Temperature Indication
- Auto Heat Startup & Shutdown
- Heat Standby after set number of Cycles
- Soak Timer for Cold Start Protection
- High/ Low Temperature Alarm
- Set & Actual Temperature Data with Graph
- Insulated Heaters Band
- Oil Temperature on Screen

AVAILABLE OPTIONS

- Proportional Speed Control for Mold Open & Close
- Proportional Back pressure Control on Screen
- Air Ejection
- Hydraulic Core pull
- Feed Throat Temperature Control
- Part Drop Sensor for Single Cavity
- Water Manifolds
- Robot Interface (EUROMAP 67)
- Extra Heating Zones
- T-Slot Platens (150 - 650 Ton)
- Extended Daylight with Ram Spacer
- Eject Retract Limit Switch Verification
- Bimetallic Barrel & Hardened/ Coated Screw
- Ejector On Fly
- Free Programmable Cores

All specifications reflect average values based on typical machines layouts. Actual figures will vary depending on final machine configuration. Performance specifications are based on theoretical data. Photography may show attachments or accessories, which may not be a apart of the standard scope of supply. Due to continual improvements, specifications & some components are subject to change without notice.

PRIKAN

PRIKAN MACHINERY PVT. LTD.

MAKE IN INDIA

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