

# Platina 650 Servo

The Two Platen Hydraulic Machine

**electronica**  
Plastic Machines

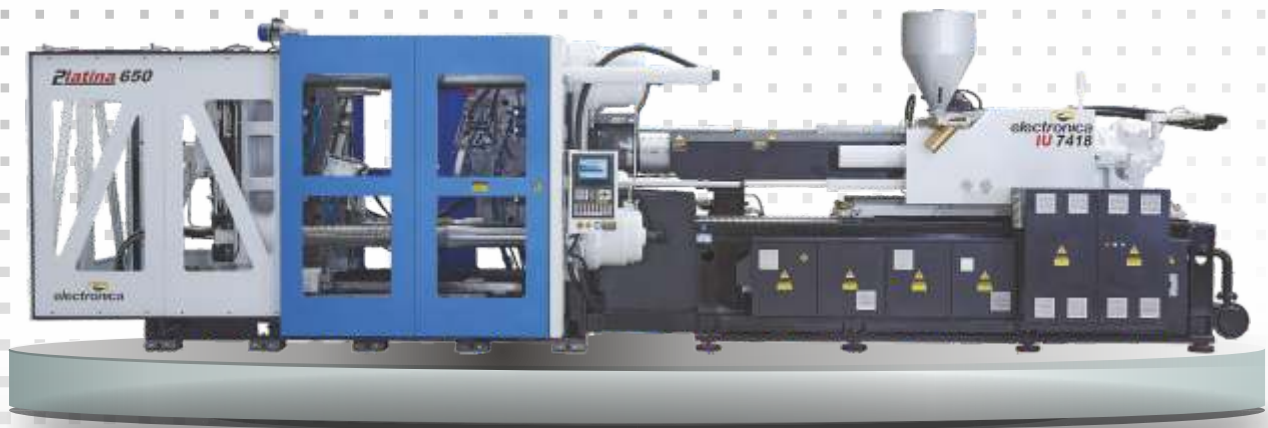
THE ECONOMIC TIMES



**BEST  
PLASTICS &  
POLYMERS  
BRANDS**

2020

## Challenging Convention in a Smart Way




### Reduced Footprint...Enhanced Productivity

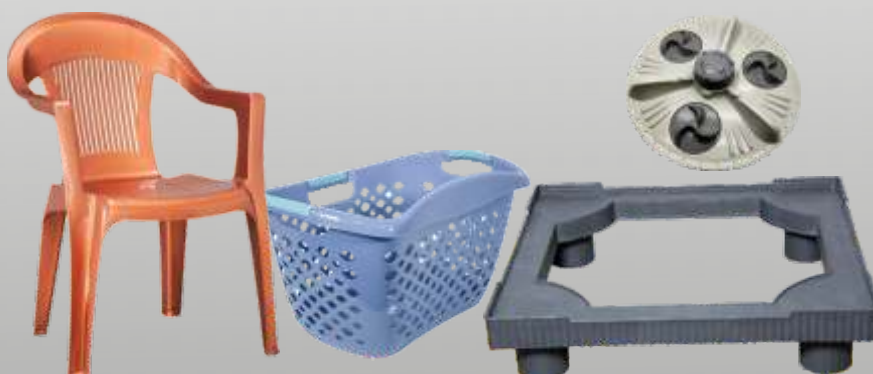
 High Performance

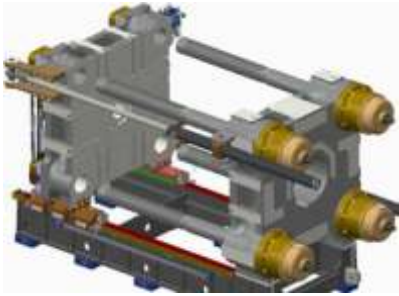
 High Productivity

 High Energy Efficiency

 Strong & Robust Design

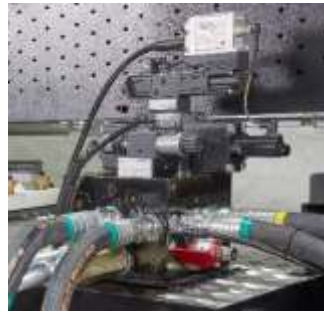
 High Precision & Consistency





**...Sturdy, Balanced & Compact Clamp Unit**

- Tie-bars - No contact with the moving platen and with short-stroke pressure Cylinders
- Excellent platen parallelism
- Lesser mechanical parts in comparison with toggle machine



**Optimized Hydraulic**

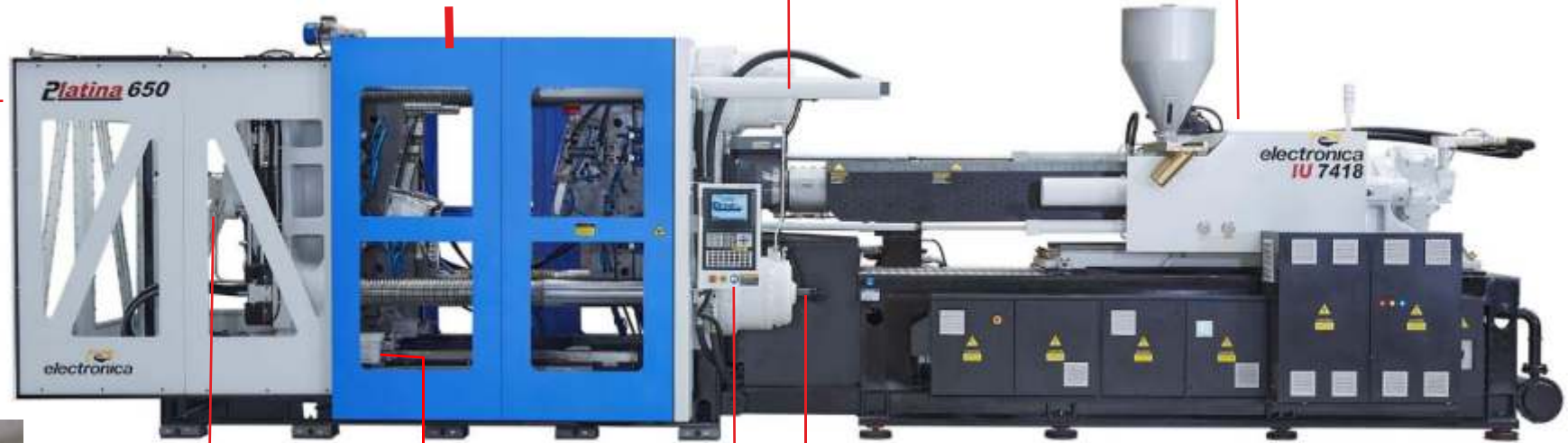
- Ergonomically designed easy to service hydraulic circuit design.
- Fast and precise Twin Traverse Cylinder with proportional valve
- Valves near to the Actuators for fast response



**...Balanced Injection Unit**

- Rigid Injection unit made with Ductile Cast Iron
- Low Friction Linear Motion guideways improves the Injection efficiency.
- Injection Screw with Barrier Flights plus mixing Head

Generous mold mounting area and extra-long opening stroke provides the flexibility and ease for running heavy and large sized molds



**... Tie Bar Nut Locking**

- Parallel High Speed and Synchronized Lock Nut Operation, ensures fast & accurate Tie Bar Locking



High Stroke, Multi Point Balanced Ejector for uniform Ejection Force Distribution



**.... Precise Moving Platen Guide**

Large Moving Platen supports with low friction ensures high platen stability & position accuracy during movement with increased mold weight capacity. Also reduces platen vertical deflection for long core moulds.

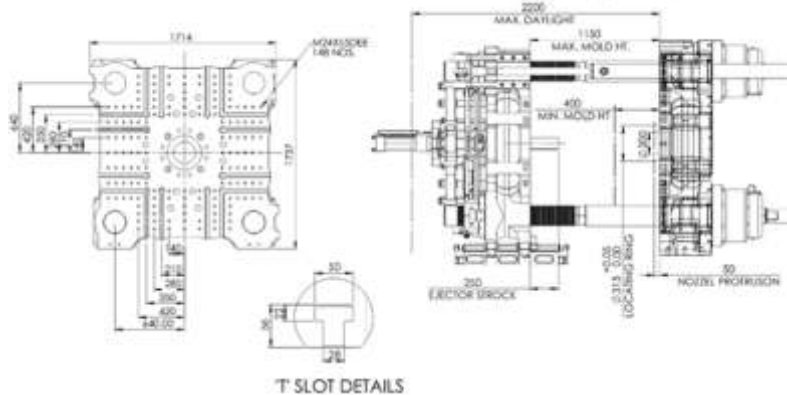
Close loop Tie Bar position feedback with precise magnetic transducer



**Advanced & User-Friendly Control**

- PC Based Control with high response time - Linux Kernel Base
- 10.4" TFT Color Display with Alpha numeric key pad
- Easy & Direct Access to Menu keys
- Graphical Presentation of Various Machine Parameters
- Ethernet Module for access through PC.
- Printer Interface with USB Port
- Auto shut down based on Pre-set Time
- Central Monitoring through LAN & Industry 4.0 compatible

Technical Specifications		ELECTRONICA		
Model		<i>Platina-650Servo</i>		
Clamping Force	ton	650		
Mold Opening Stroke	mm	1800		
Maximum Daylight	mm	2200		
Mold Thickness (min.)	mm	400		
Mold Thickness (max.)	mm	1150		
Platen size, H X V	mm	1550x1550		
Dist Bet.Tie Bars, H X V	mm	1100x1100		
Tie bar Diameter	mm	180		
Ejector Stroke	mm	250		
Ejector Force	ton	14.1		
Injection Unit Number		7418		
Screw Dia.	mm	100	110	120
L/D Ratio		22	20	18
Screw Stroke	mm	500	500	500
Theoretical Displacement	cm <sup>3</sup>	3927	4752	5655
Shot Wt (GPPS)	g	3730	4510	5370
Injection Rate #	cm <sup>3</sup> /s	698	845	1006
Injection speed #	mm/s	89	89	89
Plasticising Rate #	g/s			
Max. Injection Pressure	bar	1890	1562	1313
Screw Speed	rpm	160	160	160
General				
Servo Power Unit (KW)	kW	88 (59.8)		
Heating Capacity	kW	64		
Total Connected Load	kW	152 (123.8)		
Oil Tank Capacity	Litres	1450		
Net weight (Without oil)	ton	32.5		
Machine Dimensions (LxWxH)	m	9.57x2.75x3.20		



## Clamping Unit

- Sturdy, Balanced & Compact Clamp Unit with approx. 25~28%-foot print reduced as compared to Conventional clamping unit
- Two robust Ductile Cast Iron platens with T-Slots & Tapped holes for mold mounting
- Special Tie-bar design with no contact with the moving platen and with short-stroke pressure cylinders.
- Lesser mechanical parts, environmentally friendly, lower maintenance cost.
- Large moving platen supports, ensures high platen stability during movement with increased mold weight capacity and reduces platen vertical deflection
- Generous mold mounting area and extra-long opening stroke provides the flexibility and ease for running heavy and large sized molds.
- Balanced clamping done by 4 separate high-pressure cylinders to assure the longer life of the tie bars.
- Rapid Tonnage build-up time improves energy balance
- Low oil requirements for the tonnage build-up, no need of pre-fill tank
- For accurate mold height control, Close loop Tie Bar position feedback with precise magnetic transducer, ensure the Mold Locking with parallel movement
- Fast and precise Traverse Cylinder operation using Close loop high responsive proportional valve
- Parallel High Speed and Synchronized Lock Nut Operation, ensures fast and accurate Tie Bar locking
- Multi Point Balanced Ejector Platen for uniform Ejector Force Distribution
- Automated Front Door operation with full length photo sensors for safety

## Injection Unit

- Rigid Injection unit made with Ductile Cast Iron
- Twin Cylinder Balanced Injection Unit
- Linear Motion guides for Injection Unit ensures a lower friction resulting in quick, accurate & consistent Injection.
- Injection Screw with Barrier design plus mixing Head for High Plasticizing rates and better melt quality
- 7 Stage Injection Speed & Pressure control and 4 Stage Hold-on Control
- PID Controlled Injection Barrel Ceramic Heater Bands

## Hydraulics

- Ergonomically designed easy to access and easy to service hydraulic circuit design.
- Twin Synchronized Servo Systems
- Optimized with energy efficient Hydraulic Circuit designed with Close loop high response Proportional valve for Mold Open & Close Movements
- Optimized Hydraulic Manifold for Better Injection Control with Nozzle touch pressure sensor
- Fast responding multi check hydraulic door safety interlock
- Hydraulic Valves near to the Actuators for fast response
- Continuous Oil filtration with 10 Micron filter

## Controls

- PC Based Control with high response time - Linux Kernel Base
- Backup of complete Parameters & I/O Mapping can be taken in USB Pen drive
- 10.4" TFT Color Display with Alpha numeric key pad
- Configurable multilevel password for Operator, Manager, OEM & System
- Temperature Autotuning through controller with Heater Failure Alarm
- Easy swapping of Digital Inputs & Outputs, Analog I/O, T/C; through the controller display with diagnosis
- Electrical Cabinet temperature indication on screen
- Display of Energy consumption in kWh for 365 days with RS485 enabled energy meter
- Production history on Per Hour Basis for 365days in Tabular form as well as Histogram
- Unlimited Mold Data Storage. Also, Backup in Pen drive possible

## Controls

- SPC Monitoring for more than 30 process parameters with High-Low tolerance band with Alarm/Warning function selection
- Last 2000+ shots history for process parameters with Graph
- Log Menu for last 200+ set point changes, with Time & Date
- Mold Open / Close Velocity & Pressure Graph
- Injection Pressure & Velocity Graph. Back Pressure Graph
- Process parameters settable in absolute values also, i.e. Pressure in Bar, Speed in mm/s, Screw Rotation in RPM, etc.
- Ethernet Module for access through PC. Printer interface with USB port
- Machine Maintenance scheduling
- Auto shut down based on Pre-set Time
- Central Monitoring through LAN & Industry 4.0 compatible
- Other Optional programs like Mold Gate Valve, Accumulator, Nozzle Shut Off Valve, Sequential Valve Gate, Mold Spray Alarm, etc. are available as a standard scope of supply.



## Nationwide Sales & Service Network

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