

GASBARRE ELECTRIC PRESS

 Gasbarre | PTX-Pentronix | Simac



20T Gasbarre Electric Press

The Gasbarre Electric Press is available for precise compaction of powder into a wide variety of geometries. The technology utilized includes high-efficiency and high-precision drives to control the motion of the upper ram, die plate, and automatic die filling systems. Each axis of the press is freely programmable for complete control of the compaction cycle: die filling, upper punch motion/compaction, die motion, and ejection cycle. Movement of the press axes are performed by closed-loop control. Extreme precision and repeatability are the result.

KEY FEATURES

- Closed-loop controlled electric upper ram
- Closed-loop controlled electric lower ram
- Closed-loop controlled electric fill system ram

RIGID SIDE PLATE FRAME

- Precision machined and stress relieved assembly
- Precision key-locked upper/lower crowns
- Unitized assembly with support base

REMOVABLE DIE SET ASSEMBLY

- Upper punch plate (floating)
- Die plate (floating)
- Lower punch plate (stationary)
- Core rod plate (floating with die)
- Four post plate guidance

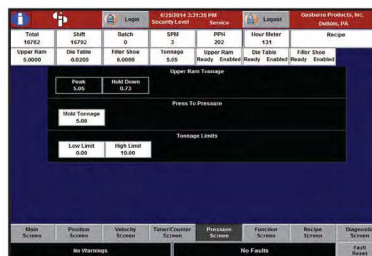
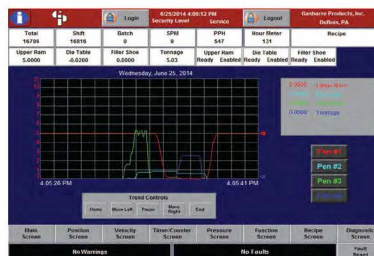
AUTOMATIC DIE FILLING SYSTEM

HMI-BASED CONTROL SYSTEM

- Featured below:



6T Gasbarre Electric Press



TECHNICAL DATA: GASBARRE ELECTRIC POWDER COMPACTION PRESSES (LOW RANGES)

PRESS CAPACITY		6T	15T	20T
		6 Tons US [53.3 kN]	15 Tons US [133.4 kN]	20 tons US [181 kN]
FILL DEPTH				
		2.25" (57.15mm)		4.00" [101.5mm]
UPPER RAM				
Stroke		5.00" (127mm)		8.00" [203mm]
Control		Closed loop servo control with position/velocity & force control programmable via touch screen		
Top Punch Hold Down		Included		
Maximum velocity		13 in/sec [330.2 mm/sec]	12 in/sec [304.8 mm/sec]	
Mold velocity		1.5 in/sec [38.1 mm/sec]	2.5 in/sec [63.5 mm/sec]	
Positioning performance		Repeatability +/- 0.0005" in [+/- 13 µm]		
LOWER RAM				
Pressing/Counterforce Capacity		3 Tons US [26.7 kN]	7.5 Tons US [26.7 kN]	10 Tons US [91 kN]
Ejection Force Capacity		3 Tons US [26.7 kN]	7.5 Tons US [26.7 kN]	10 Tons US [91 kN]
Stroke		2.25" [57.15 mm]		4 in [102mm]
Control		Closed loop control with position & velocity control programmable via touch screen		
Under-Fill/Overfill		Included via touch screen		
Part Balance		Included via touch screen		
Maximum Velocity		13 in/sec [330.2 mm/sec]	14.6 in/sec [370.8 mm/sec]	
Mold Velocity		1.5 in/sec [38.1 mm/sec]	3.1 in/sec [78.7 mm/sec]	
Positioning Performance		Repeatability +/- 0.0005 in [+/- 13 µm]		
TOOL HOLDERS AND ADAPTERS				
Die Size (diameter)		TBD		3½ in [88.9 mm] Flange Diameter 3 in [76.2 mm] Body Diameter 1½ in [38.1 mm] Min Body length
Die Pot & Clamp Ring		Per customer specifications		
DIE FILLING SYSTEM				
Powder Fill Shoe		2 in x 2 in [50.8 mm x 50.8 mm]		4 in x 4 in [102 mm x 102 mm] (Aluminum)
Stroke		8 in [203.2 mm]		9.8 in [250 mm]
Control		Closed loop servo control with position & velocity control programmable via touch screen		
Maximum Velocity		20 in/sec [508 mm/sec] Repeatability +/-		28 in/sec [711 mm/sec]
Positioning Performance		0.002 in [+/- 50.8 µm]		Repeatability +/- 0.001 in [+/- 25.4 µm]
Fill Shoe Hold Down System		Spring Tension		Adjustable pneumatic force
Powder Hopper		Elevated/Frame mounted with transfer hose		
LUBRICATION				
Method		Manual grease fittings		
SAFETIES				
Part Exit		Included		
Air Pressure Monitor		Included		
Point of Operation Barrier Guard		Included		
High & Low Tonnage		Included		
PRESS MODES OF OPERATION				
Auto-Single		Included		
Auto-Repeat		Included		
Manual mode		Included		
Tool Set-Up mode		Included		
TONNAGE MONITOR				
Device		Load Cell (mounted to upper ram)		
Monitor Display		Via touch screen		
ADDITIONAL TECHNICAL INFORMATION				
Supply (inlet) Air Pressure Required		5 SCFM @ 80 psi [5.5 bar @ 28 lit/min]		
Press Weight including Die Set		Ref Dimensional L/O		
Powder Hopper Capacity		Integrated With FFS		
UTILITIES				
Power		480-415-400-380 VAC/3-Phase/60-50Hz		
Compressed air		5 cfm @ 80 psig		
DIMENSIONS & WEIGHT (approximate)				
Width x Depth x Height		57 in x 67 in x 110 in [1448 mm x 1702 mm x 2794 mm]		
(overall) Die height		53 in [1346.2mm]		
Weight		6700lbs.		
OPTIONS:				
Spare removable tool set Pneumatic dual upper punch head Up/down floating core rod Fluidized Die Filling System				
Die Wall Lubrication System Warm Compaction die heating system Dust boot bellows on die set posts Die area light screen				
Quick changeover tool collet system Centralized automatic lubrication system Part handling pick and place system				