



PRESSES

MECHANICAL • HYDRAULIC • SERVO

AUTOMATED HYDRAULIC REFRACTORY & POWDER COMPACTING PRESSES

HRP Series

400T - 3000T



Safeties conform to:
CE (EN-16092 : 2018)
OSHA 1910.217
CSA-Z142
NR-12

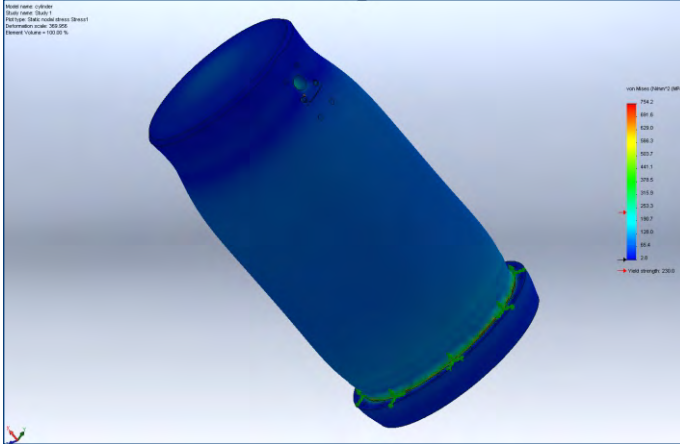
ISO 9001:2015
ISO 14001:2015
OHSAS 18001 :2007

Presses for Refractory, Abrasive & Powder Compaction

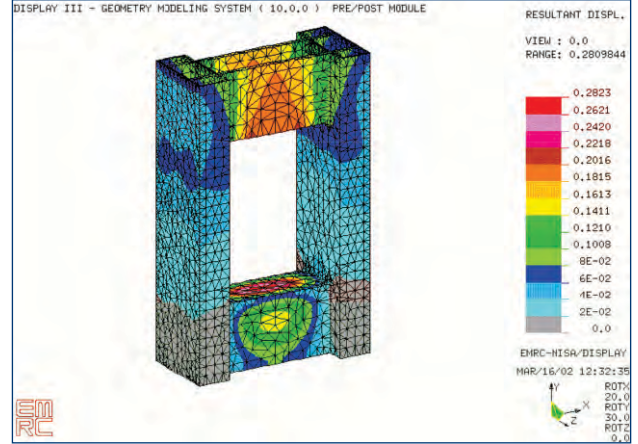
High Reliability • High Endurance • High Productivity

Design & Engineering

Fatigue life of thermally stress relieved Press structure verified using Finite Element Analysis to ensure maximum rigidity for accurate stamping & enhanced die life.



Finite Element Analysis for hydraulic cylinder



Structure thermally stress relieved & fabricated from tested quality steel plates & welded for quality

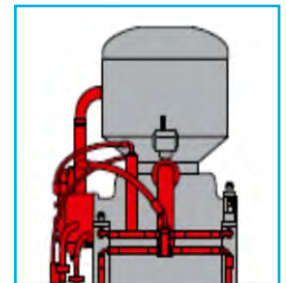
In-House Turnkey Solution - Complete Automation with Auto Volumetric Filling Control System



- Automatic Powder Feeding System with Volumetric Control
- Automated Solution for Unloading with Grippers or Robots
- Uniform Density distribution during Filling
- Mould Lubrication & Spray Unit
- Automatic "Thickness Correction" of Refractory product coming out of the Mould

Salient Features

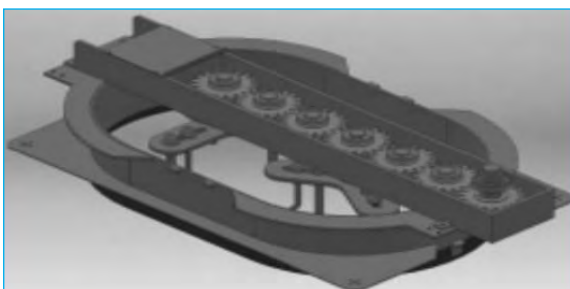
- Presurised Pre-filling Air Sealed Dust Controlled Hydraulic Power Pack for High Reliability
- Hydraulic Cylinders of Floating Table placed near pillars of press for easy access to Automation
- Automated Bottom Bulging, extra filling of mass in projected area of Plates/Bricks for unique Compactness
- Programmable De-airing Mechanism to attain required density of product
- Processing and Production Data Storage



Charger Box Mixer System homogenizes the pre-filled material and ensures a Uniform Filling

Volumetric and Gravimetric Filling Systems

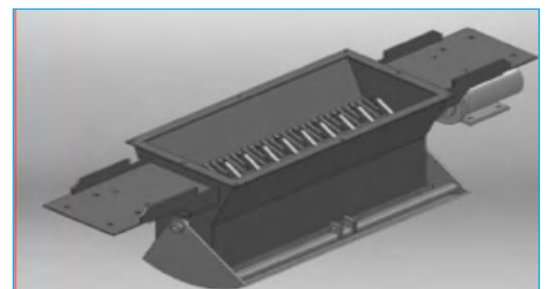
Feeding Conveyor with Fast Shuttle Box Mixer and Lump Breaker / Disintegrator



Mould Filling Box



Powder Feeding Arrangement



Disintegrator

- Isgtec Presses also have experience with complex products like Bricks, Pipes, Nozzles, Plates/Slabs with Spigot, Groove etc.
- Right solution for various Refractory applications for products of geometries requiring a larger depth of fill
- Synchronised movement of charger with Floating Table for manufacturing of Tapered Brick
- Standardised Mechanical, Hydraulic and Electrical Modular Concept
- Air Sealed, Pressurised Hydraulic System, Separate Oil Filtering and Cooling Circuit for High Endurance
- Valve Blocks arranged in proximity to energy consumers for quick reaction times
- Servo Hydraulic Drive (Optional) with precise positioning and Speed Control
- Vacuum Cups, Mechanical gripper arrangements for removal of Finished & Ejected Components
- Regulated axial piston pumps for an effective Energy Utilisation
- Proportional valves for an optimum regulation of all Cylinders
- Slide locking arrangement at TDC
- Quick mould changing arrangement
- Optimum wear & tear, leading to improved duration and reliability of the Press
- Reduced Maintenance
- Operator Friendly Automation



Nozzle manufacturing with Automatic Mould Filling and Unloading



3000 T Servo Hydraulic Press With Charge Filling Automation



2000 T Press for Refractory Bricks, Nozzles & Slide Gates manufacturing

Technical Specifications of Refractory Presses

Parameter	Unit	Model					
		HRP-400T	HRP-750T	HRP-1600T	HRP-2000T	HRP-2500T	HRP-3000T
Maximum Pressing Force	kN	4000	7500	16000	20000	25000	30000
Maximum Ejecting Force	kN	500	1500	2000	2200	2750	4500
Maximum Filling Depth	mm	500	500	600	600	600	600
Maximum Working Pressure	bar	315	315	315	315	315	315
Maximum Size of Mould	mm	800 x 850	1300 x 1300	1300 x 1300	1350 x 1680	1500 x 1900	1840 x 2300
Maximum RAM Stroke	mm	700	750	800	800	800	800

Standard Accessories

- Programable De-airing Stages
- Safety Photo Sensors on Both Sides of Press
- Double Relief Pressure Valve System
- Mould Box Clamping from Both Sides.
- Preset Counters & Production Counters
- Two Hand Operation Stand
- Slide Locking at TDC
- Oil Cooling (Water Cooled Heat Exchanger)

Optional Accessories

- Automatic Filling & Unloading System
- Interfacing with Robotic Transfer System
- Mould Spraying Aggregate
- Hydraulic Mould Box Clamping
- Volumetric Filling Control
- Servo Hydraulic Control
- Oil Cooling by Refrigerant
- Bottom Bulging for Uniform Compaction
- Mould Spraying Aggregate

Infrastructure



Outer view of the shop at Yamunanagar (Haryana) India



Inner view of the shop at Yamunanagar (Haryana) India



Machine Shop with Plano Miller and Boring Machines



Large size Heavy Fabrication shop



Horizontal Boring Machines

Wide Range of Presses

Servo Presses • Transfer Presses • Progressive Presses • High Speed Presses • Hot Stamping & Hot Forming Hydraulic Presses
Standard Straight Sided Mechanical & Hydraulic Presses • Blanking Lines • Tandem Press Lines - Mechanical & Hydraulic
Cold Forging Presses • Tryout & Die Spotting Presses • Gap Frame & Ring Frame Mechanical Presses • Special Purpose Presses



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Thailand • Turkey • Vietnam

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Isgec reserves the right to change specifications without prior notice.
Details given in this Brochure are indicative & may change.