



**PRESSES**

MECHANICAL • HYDRAULIC • SERVO

*HYDRAULIC REFRACTORY & POWDER COMPACTING PRESSES*

*HRP Series*

750T - 3000T



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

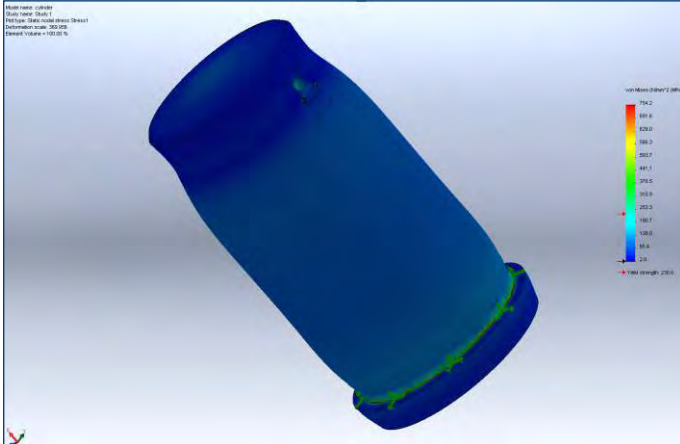
ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001 :2007

**Presses for Refractory, Abrasive & Powder Compaction**

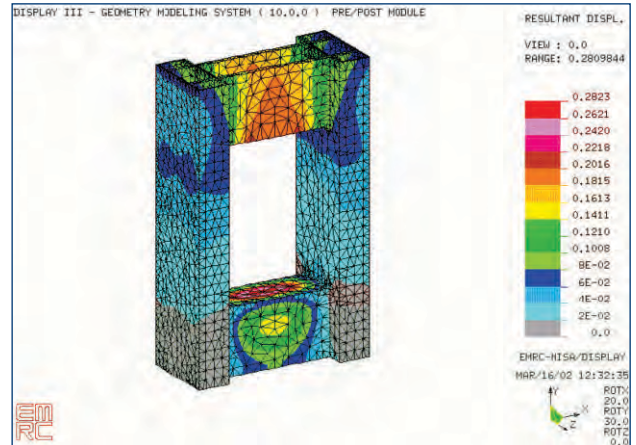
**High Reliability • High Endurance • High Productivity**

## 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

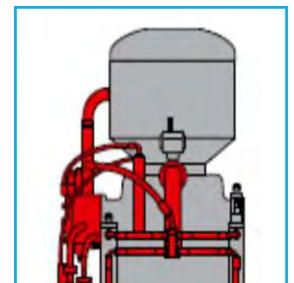
Uniform Density distribution during Filling

Mould Lubrication & Spray Unit

Automatic "Thickness Correction" of Refractory product coming out of the Mould

## Salient Features

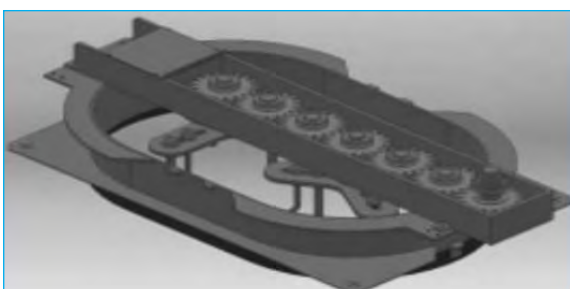
- Presurrised Pre-filling Air Sealed Dust Controlled Hydraulic Power Pack - For High Reliability
- Top Mounted Hydraulic Cylinders for Floating Table - For Easy Automation Access
- Automated Bottom Bulging
- Programable De Dairing Mechanism
- Processing And Production Data Storage



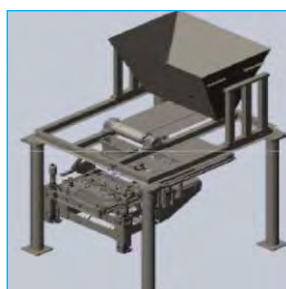
**Charger Box Mixer System** homogenizes the pre-fill and ensures a uniform filling

**Volumetric and Gravimetric Filling Systems**

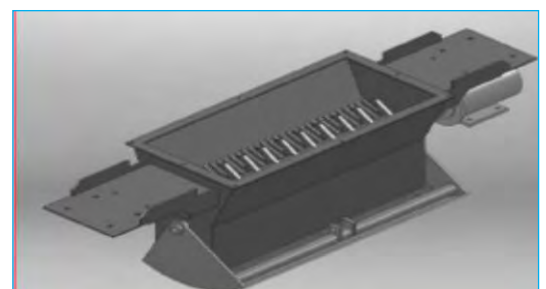
**Feeding Conveyor with Fast Shuttle Box Mixer and Lump Breaker / Disintegrator**



Mould Filling Box



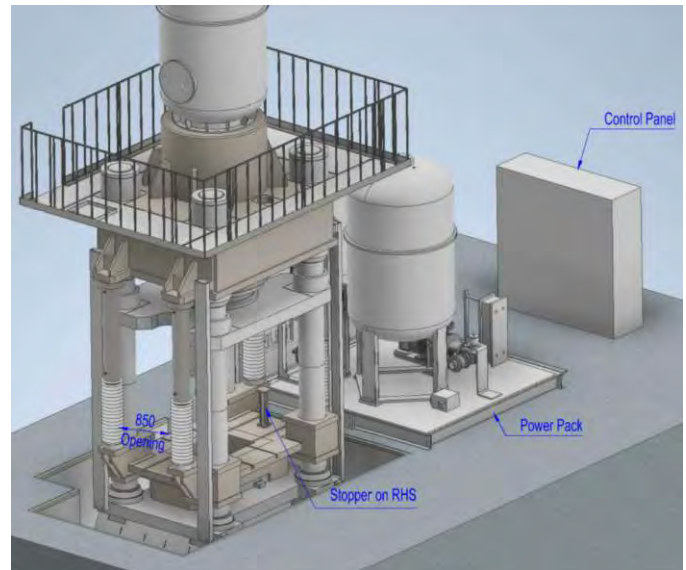
Powder Feeding Arrangement



Disintegrator



- Isgec 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 axis for an even density Distribution
- 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 with precise positioning and Speed Control
- Vacuum cups for removal of finished & ejected component
- 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



Wide Side Opening offer compatibility with Automation and other Auxiliary equipments



3000 T Servo Hydraulic Press With Charge Filling Automation



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

## Technical Specifications – Refractory Presses / Powder Compacting

Model	Unit	HRP-750	HRP-1600	HRP-2000	HRP-2500	HRP-3000
Force Capacity	kN	7500	16000	20000	25000	30000
Day Light ( Ram Table & Floating Table )	mm	1400	850	1450	800	1500
Day Light ( Floating Table & Bottom Head )	mm	650	450	650	450	1200 (Stroke)
Table Size ( LR X FB ) Clear Space for Mould Fixing	mm	1500 x 1500	1500 X 1500	1500 X 1500	1500 X 1500	2000 x 2000
Maximum overall dimension of Mother Mould	mm	1400 x 1400	1400 X 1400	1400 X 1400	1400 X 1400	1900 x 1900



## 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



Machine Shop with Plano Miller and Boring Machines



A Google Earth view of the Isgec Plant at Yamunanagar (Haryana) India



Carl Zeiss Coordinate Measuring Machine



Gleason Pfauter Gear Hobbing 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 Power Presses • Special Purpose Presses



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**Overseas Offices** : Chonburi, Thailand • Ontario, Canada • Tennessee, USA

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Malaysia • Mexico • Poland • Russia • South Africa • Spain • Thailand  
Turkey • USA • Vietnam

Some of the accessories / fitments shown in the reference photograph may not be part of Standard equipment supplied.  
Isgec reserves the right to change specifications without prior notice.  
Details given in this Brochure are indicative & may change.