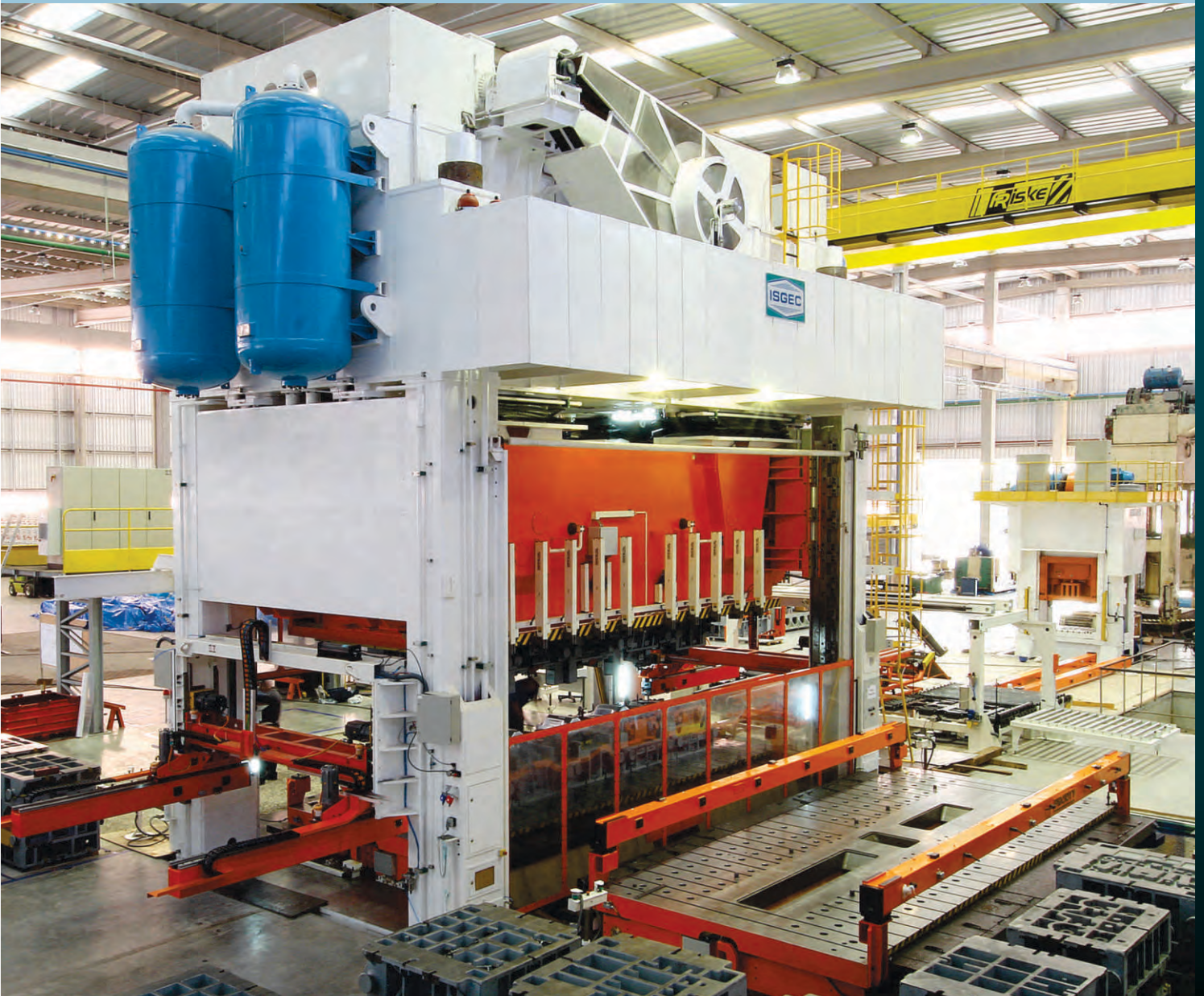


ISO 9001 : 2015  
ISO 14001 : 2015  
OHSAS 18001 : 2007



# PRESSES

MECHANICAL  
&  
HYDRAULIC



**85+**  
YEARS & BEYOND  
ESTB. 1933

Engineering for Excellence





Isgec Corporate Office at Noida (a suburb of New Delhi) India.



Isgec Heavy Engineering Ltd. is a multi-product, multi-location public company that has been providing engineering solutions to customers around the world for the past 85 years.

**Manufacturing Facilities:**

- **Mother Plant:** Yamunanagar (Haryana) India
- **Eagle Presses Plant:** Windsor (Ontario) Canada
- **Coastal Plant:** Dahej (Gujarat) India
- **Boiler Manufacturing & Piping Plant:** Rattangarh (Haryana) India
- **Standard Mechanical Presses Plant:** Bawal (Haryana) India
- **Foundry:** Muzaffarnagar (U.P.) India

**Other Businesses:**

- Process Equipment
- EPC Projects
- Boilers
- Sugar Plants & Machinery
- Castings
- Air Pollution Control Equipment
- Built-to-Print Equipment

**The Company has Customers in 90 Countries, across 6 Continents**



Coastal facility at the port town of Dahej (Gujarat) India with a lifting / handling capacity of 300 MT.

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



We started production of Hydraulic Presses in 1968 with technical knowhow from John Shaw of UK (1967 to 1978) and of Mechanical Presses in 1985 with technical knowhow from Rovetta of Italy (1985 to 1997). We acquired **Eagle Press & Equipment Co. Ltd.**, a Windsor (Ontario) Canada based Press manufacturer in 2018. Eagle is now a wholly owned company of Isgec Heavy Engineering Ltd. We have experience of building over 5000 Presses, most of which have been supplied in the last 20 years.

**Isgec Presses - References include**

- |                       |                              |                          |                               |
|-----------------------|------------------------------|--------------------------|-------------------------------|
| • Ashok Leyland       | • Force Motors               | • JBM Group              | • Suzuki Motorcycle           |
| • AK Pres             | • Franke                     | • Kalyani                | • Satyam                      |
| • Amvian              | • Gruppo Azpiaran            | • Lear                   | • SKH Y-Tec                   |
| • Big Rapids Products | • GM de Mexico               | • LuK                    | • Tata Motors                 |
| • Brandl Maschinenbau | • Hirotec                    | • Munjal                 | • Thai Summit                 |
| • Benteler            | • Hindustan Aeronautics      | • Mahindra & Mahindra    | • ThyssenKrupp                |
| • Bharat Forge        | • Honda Motorcycle & Scooter | • Maruti Suzuki          | • Topre                       |
| • BARC                | • Honda Siel Cars            | • Magnetto               | • Toyota                      |
| • Caparo              | • H-One                      | • Nissan                 | • TVS Group                   |
| • Camaco              | • Hirschvogel                | • Ojihara                | • Unipres                     |
| • CIE Automotive S.A. | • IFB                        | • Ordnance Factory Board | • Uliana Metallurgica         |
| • Farguell            | • Indian Railways            | • Sangwoo Hitech         | • Valeo Group                 |
| • Ford Motors         | • Isuzu                      | • Sankei                 | • Willmes Umformtechnik (UTW) |
|                       |                              |                          | • Yutaka                      |



**Press Manufacturing Plants**

- Windsor (Ontario) Canada
- Yamunanagar (Haryana) India
- Bawal (Haryana) India

**5000<sup>+</sup> Presses**  
**100<sup>+</sup> Transfer Presses**  
**70<sup>+</sup> Press Lines**  
**26 Countries**

Plant at Bawal (Haryana) India for the manufacture of Standard Gap Frame and H-Frame Mechanical Presses



Plant at Windsor (Ontario) Canada for the manufacture of Mechanical Presses.





# GLOBAL REACH

USA • Canada • Germany • Brazil • China • Mexico • France • Spain • Sri Lanka • India • Iran • South Africa • Czech Republic • Slovakia  
UK • Indonesia • Thailand • Turkey • Poland • Hungary • Romania • Egypt • Algeria • Saudi Arabia • Bangladesh • Vietnam



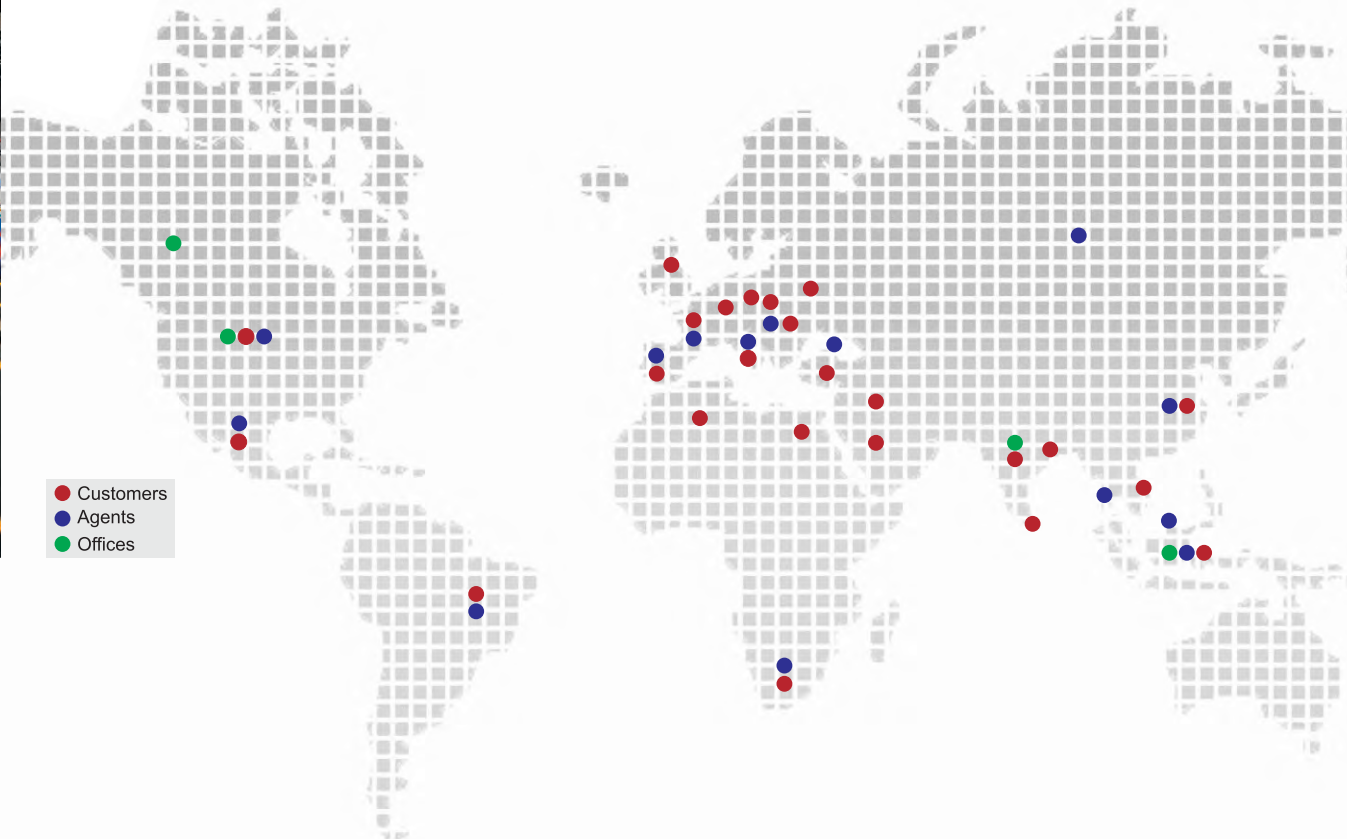
6300 kN Automated Hydraulic Press supplied to **Benteler Group** for their plant near **Port Elizabeth, South Africa**. This Press is fitted with Robots for loading & unloading of components. Repeat order was placed for their Plant in **India** and similar 10000kN and 8000kN presses have also been supplied to same customer for their **China** facility.



**PRESSES**  
MECHANICAL • HYDRAULIC • SERVO



This Servo controlled 12000 kN Press is for Hot Stamping of High Tensile Steel Components. The two slides of 6000 kN capacity each, can move independently. The bolster size is 3000 x 3000 mm. This Press was supplied to the ThyssenKrupp Fabco plant at **Detroit, Michigan, USA** (now owned by Martinrea Fabco). We have supplied 20 Presses to the ThyssenKrupp Group since 1999.



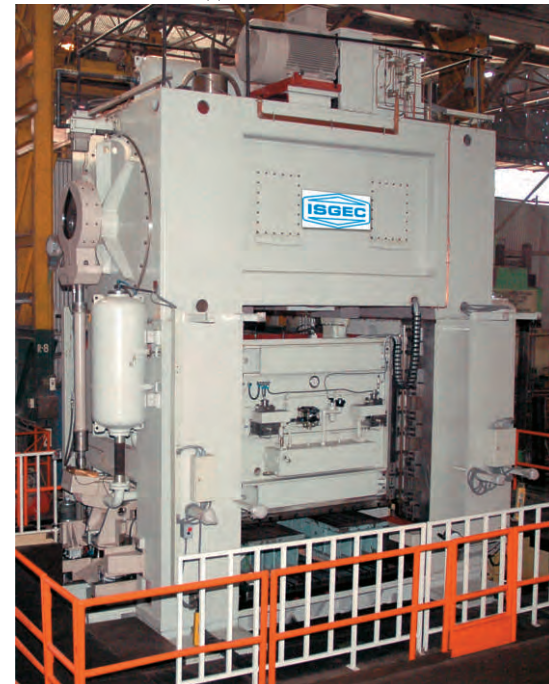
20000 kN Mechanical Transfer Presses supplied to **Big Rapids Products, Kentucky, USA** with Bolster Size 7600 mm x 2800 mm, 3-Axis Servo Transfer System. Below photograph was taken during installation. Subsequently, we have received another order for an Identical Press.



This is one of 3 Link Drive Mechanical Presses of 10000 kN, installed at GM de Mexico, **San Luis Potosi plant in Mexico**, with bolster size of 4500 x 2400 mm. These Presses are part of an Automated Tandem Line for production of skin panels of Cars.

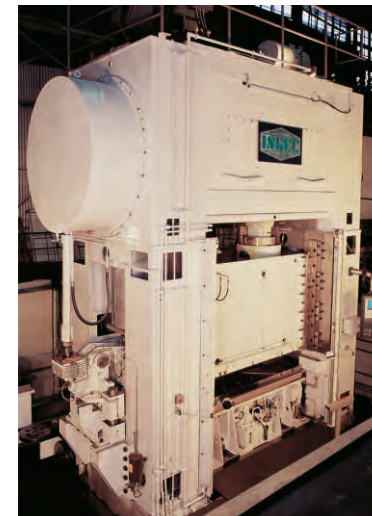


This extra rigid (deflection 0.07 mm / m) 6300 kN Mechanical Press, running at 100 SPM, is for Progressive Die Applications. It has been supplied to LuK, **Sorocaba, Brazil**. Another 15000 kN Hydraulic Press has also been supplied to the same customer.



We have supplied 4 similar Progressive Pressing (Progdie) Presses to the Valeo Group. These Presses are equipped with inbuilt shears and feedlines.

Two of these Presses of 10000 kN capacity are installed at Valeo **Amiens, France**. The first one, supplied in the year 2000, is being run at a speed of 100 SPM. Subsequently we have supplied another 10000 kN Press to Valeo in 2005. This Press runs at a speed of 120 SPM.



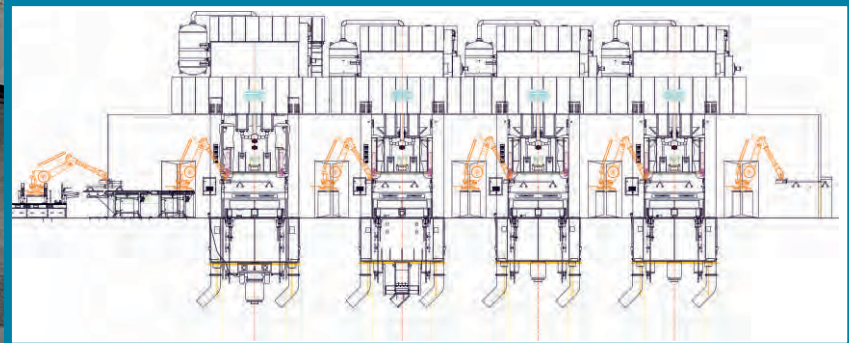
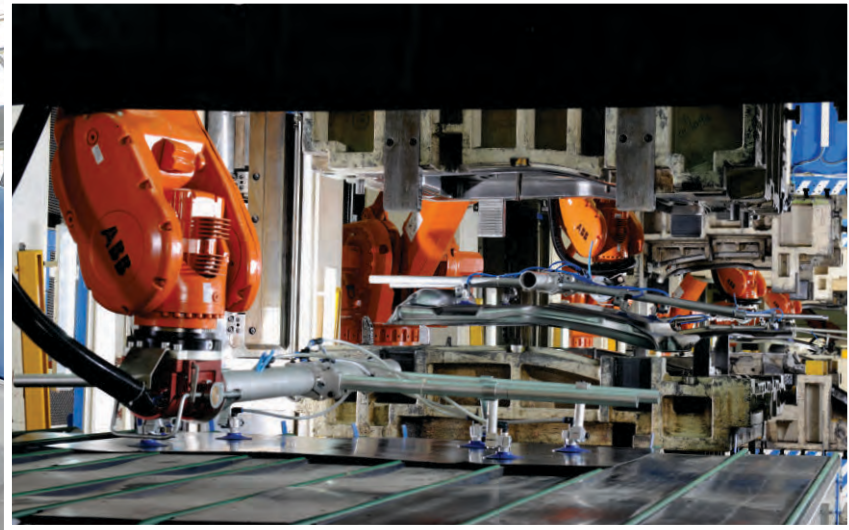
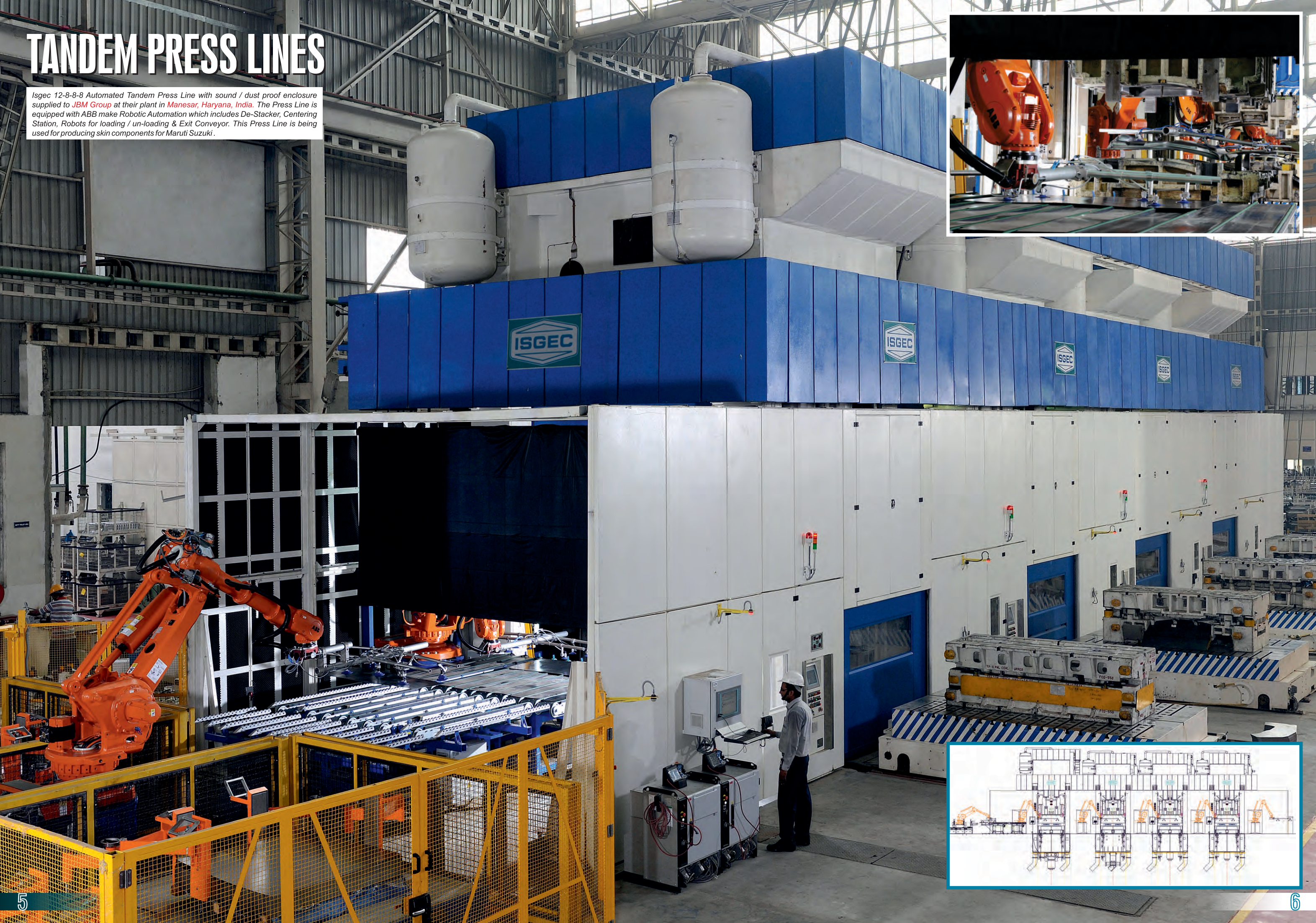
This 20000 kN Press has been supplied to **Brandl Group** for their Plant in **Pfeffenhausen (near Munich) Germany**. This is in addition to a 4000 kN Mechanical and a 3150 kN Hydraulic Press supplied for their Plants in the **Czech Republic & Romania**. The Press has a bed size of 6100 mm x 2800 mm and 5 Station Robotic Transfer with 64 T capacity Die Cushion at each Station.





# TANDEM PRESS LINES

Isgec 12-8-8-8 Automated Tandem Press Line with sound / dust proof enclosure supplied to JBM Group at their plant in Manesar, Haryana, India. The Press Line is equipped with ABB make Robotic Automation which includes De-Stacker, Centering Station, Robots for loading / un-loading & Exit Conveyor. This Press Line is being used for producing skin components for Maruti Suzuki.





# TANDEM PRESS LINES 315T to 2000T

Isgec has so far supplied **70+ Tandem Press Lines.**

Most of these have:

- Link Drive Mechanism on Head Press.
- Variable Speed Drive to Maximize production.
- Compatibility for Inter-Press Automatic Transfer of Parts.
- Quick Die Change with Moving Bolsters, Auto Die Setting and Auto Die Clamps.



6-10-10-6-6 Compact Automated Tandem Press Line with Die Transfer & Storage System installed at **Valeo Transmissions, Mexico.**



8-8-5-5 Tandem Press Line supplied to **ASAL** (a JV of **Gestamp, Spain** & **Tata Auto Components, India**) at their **Pantnagar Plant in India.**



630T Link Drive & 400T Eccentric Gear Drive Tandem Line supplied to **Japanese OEM in India** for manufacturing of **Two Wheeler Components**



10-8-6-5 High Speed Automated Tandem Press Line supplied to **Mahindra-CIE** for their plant in **Zaheerabad, India.** The Press line is equipped with **ABB** make Robotic Automation



1200MT Automated Robotic Mechanical Press line (12-8-5-8-8-5) equipped with **Yashkawa Robots** followed by 315T Mechanical Press Line (3-3-3-3) installed with **Indian Auto Tier-1-Japanese JV in India**



# TRANSFER PRESSES 630T to 3150T



12000 kN Transfer Press supplied to a MNC Car Seat producer for their plant in China. Bolster Size 5500 mm x 2500 mm, equipped with 3 Axis Electronic Servo Transfer System & Destacker.



8000 kN Hydraulic Transfer Press with Parallelism Control System, Supplied to Benteler Group for their plant in Shanghai, China



1250T with Bolster Size of 4300 x 1400 & 630T with Bolster Size of 3700 x 1400 integrated with Korean make transfer system supplied to Auto Tier-1, Bangalore, India supplying majority to most 4 Wheeler & 2 Wheeler OEM's



2500T Transfer Press with Bolster size of 6100 x 2500 integrated with European make 3-axis Servo Transfer system supplied to Auto Tier-1, India for manufacturing components to Suzuki

25000 kN Transfer Press supplied to CIE Automotive, Egana, Bilbao, Spain, with Bolster size 7000 mm x 2750 mm, 3-Axis Electronic Servo Transfer System and Coil Feed Line. The Press was supplied in the year 2009 and is used for manufacture of components for General Motors (GM).



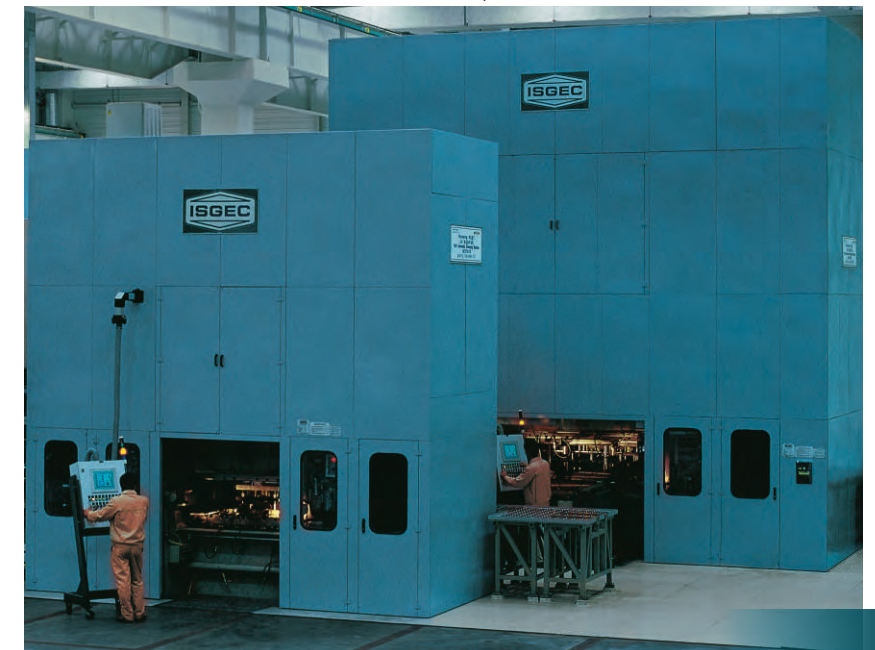
# PROGRESSIVE PRESSES 315T to 1250T



6300 kN Progressive Die Mechanical Press supplied to Comaco Group for their plant in Poland. The press has a bed size of 3700 x 1600 mm, Slide Stroke 400 mm and speed of 22-44 spm. Identical presses supplied for their plants in Mexico and Brazil.

Camaco Group awarded an order for 2 no's 15000 kN Transfer Mechanical Presses for Mexico & USA and 12000 kN Progressive Die Mechanical Press for Brazil after satisfactory performance of 6300 kN Progressive Die Mechanical Presses.

The LuK Group has entrusted Isgec with all orders for their requirements of Progressive Die Presses in the last 11 years for their plants around the world. These include 11 Presses for their plants in Buhl, Germany; Sorocaba, Brazil; Taicang, China; Port Elizabeth, South Africa and Hosur, India. The Presses shown in this picture are installed at the LuK Plant in China.





# SERVO PRESSES 110T to 3150T

110T Ring Frame Servo Mechanical Press



630T Servo Mechanical Press with Bolster Size 3400 x 1600 and 3-50 spm installed in Slovakia for Progressive Application



# HIGH SPEED PRESSES 63T to 400T

Isgec High speed presses are designed to deliver superior part quality with enhanced die life to suit various applications like Motor Laminations, Heat Exchanger Plates and Automotive Key Blanks etc. High Precision, Dynamic Balancing, Repeatability and Special Guiding systems are few of the key features. Isgec High Speed presses are available upto 600 spm.

A line of 2000 kN High Speed Presses installed in Mexico to produce Automotive Heat exchanger Plates @ 200 spm



400T Straight Sided Frame Servo Mechanical Press supplied to Hungary

400T Servo Mechanical Press with Bolster Size 2800 x 1100 mm and 3-60 spm supplied to Romania

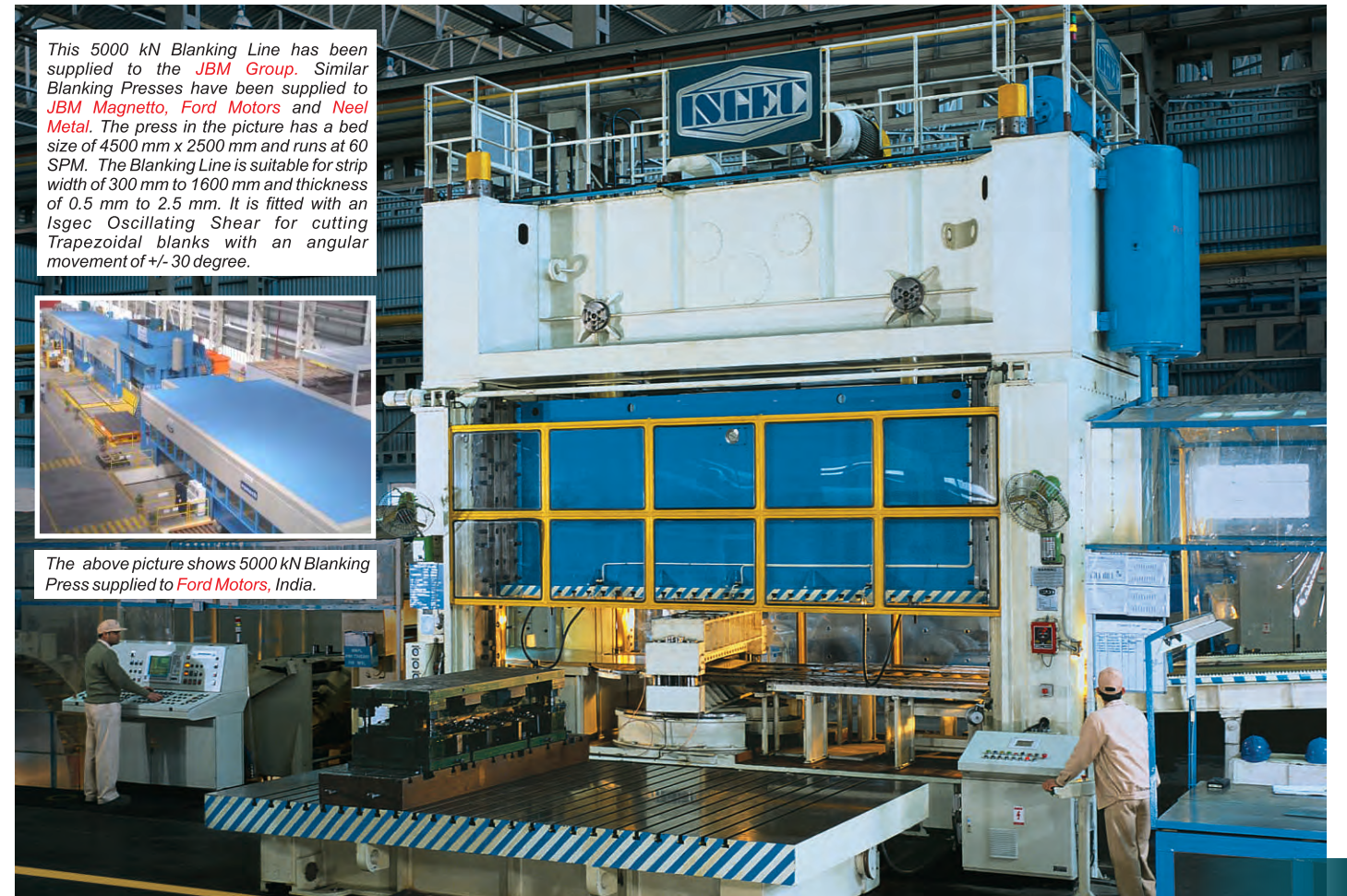


# BLANKING PRESS LINES

This 5000 kN Blanking Line has been supplied to the JBM Group. Similar Blanking Presses have been supplied to JBM Magnetto, Ford Motors and Neel Metal. The press in the picture has a bed size of 4500 mm x 2500 mm and runs at 60 SPM. The Blanking Line is suitable for strip width of 300 mm to 1600 mm and thickness of 0.5 mm to 2.5 mm. It is fitted with an Isgec Oscillating Shear for cutting Trapezoidal blanks with an angular movement of +/- 30 degree.



The above picture shows 5000 kN Blanking Press supplied to Ford Motors, India.



Servo Mechanical Presses are available in Gap Frame, Tandem Line, Progressive and Transfer Series. Customized solutions are available on demand



# HYDRAULIC PRESSES up to 15000T



This 12000 kN Hydraulic Press was supplied to UTW, at Drolshagen-Scheda, Germany for tryout and manufacturing critical components for Auto majors. The Press is equipped with moving bolster of size of 4500 mm x 2200 mm and has provision for mounting Dampers, which makes it suitable for blanking.



Installed at Wheels India, a TVS Group Company, this 20000 kN Hydraulic Press, having a bed size of 3000 mm x 3000 mm, is used for Hot Forming of Earth Mover Wheels for Caterpillar and Komatsu.



16000 kN Hydraulic Press supplied to Hirschvogel Group for their plant in Pune, India. This press is being used to manufacture cold forged transmission components used in Automotives.

1000T Hydraulic Press supplied to an Auto OEM in Vietnam for deep draw components of commercial vehicles



1500T Hi-speed Hydraulic Press supplied to a German MNC in Brazil for manufacturing Clutch Components. Similar supplies made to their plant in South Africa & India



125000 kN Hydraulic Press with large Accumulator Bank is being used for Hot & Cold Forming of High Tensile Steel Plates for Defence & Aerospace Applications



This 7500 kN Hydraulic Press has been supplied to Franke, Switzerland, for their Aurangabad Plant in India. Franke is market leader in the manufacture of Kitchen Sinks. The first Hydraulic Press of 630 T was supplied in the year 2000, followed by a second Press in 2009



2400T Hydraulic Press supplied for manufacturing of Hot Forming Application of Axles to Automotive Tier-1 Industries





# PRESSES for SPECIAL APPLICATIONS

## HYDRAULIC DIE SPOTTING PRESSES



2000 kN Die Spotting Hydraulic Press supplied to **Bajaj Auto**. This Press is equipped with feature of 180 Deg Reversal of Top Die to carry out corrections in top die safely

3000 kN Die Spotting Press built to JIS B 6403 Special Grade with Equalizing Beam, Micro-inching features & Blanking Shock Absorbers. We have supplied 35 similar Presses of capacities up to 4000 kN to major Tool Rooms and OEM's in India including **Toyota, Toyotetsu, Ashok Leyland, Tata Motors, Maruti Suzuki, Suzuki, Honda Motorcycles, Sermo-moulds, ThyssenKrupp, Rasandik, & JBM Group.**



## MECHANICAL TRYOUT PRESSES

20000 kN Mechanical Tryout Presses with full force Micro Inching supplied to **Tata Motors**



12000 kN Mechanical Tryout Presses with full force Micro Inching supplied to the **Mahindra Group**. We have supplied such press upto a capacity of 20000 kN to **Tata Motors, Mahindra-CIE, Unipres** etc.

5 Tandem Lines and over 20 Nos C-Frame Presses have been supplied to Mahindra-CIE



## HYDRAULIC HEMMING (CLINCHING) PRESSES



Isgec has supplied Hemming Presses to **Maruti Suzuki, Ford India & Honda Cars**. The Presses in the picture, installed at Ford India, are equipped with Die Carts and a Die Parking System for fast & efficient changeover.

1200T Tryout cum 300T Die Spotting Press with 180 deg Slide Tilting feature supplied to **Japanese Auto Tier-1** for their JV in **India** for Suzuki Project



1000T Tryout cum 300T Die Spotting Press supplied to Japanese Stamping Dies manufacturer in **India**





# PRESSES for SPECIAL APPLICATIONS

## COMPOSITES

2000T Hydraulic Press for Composite Applications supplied to an OEM Group Company in India



## REFRACTORIES

750T Press supplied for Refractory Application in Iran



## HEAT EXCHANGERS

7000T and 2000T Hydraulic Presses supplied to manufacture Heat Exchanger Plates for High Capacity Industrial Heat Exchangers



## AEROSPACE

6500T Hydraulic Press supplied for Aerospace Application in India



# STANDARD MECHANICAL PRESSES 40T to 630T

Isgec offers a wide range of Standard Mechanical Press Machines ranging from 40T to 630T in Monolithic Frame, Ring Frame & Gap Frame constructions for Domestic & Export markets. These machines are primarily focused at Small & Medium scale Industries and are available at short delivery.



Battery of MAX 2 Series Monolithic Frame Double Crank Presses ranging from 200T to 400T capacity supplied for Progressive & Stamping Applications for Two Wheeler Components to Auto Tier-1 in India. MAX 2 Models are available from 200T to 630T

250T MAX 1 Monolithic Frame Single Crank Press supplied to Auto Tier-2 in India. MAX 1 Models are available from 200T to 400T

Ring Frame Presses GR Series are available from 110T to 300T

Battery of Gap Frame Presses supplied to Automotive Tier1 Industry in India. Gap Frame Presses GZ/GL series are available from 40T to 400T. Link Motion and Medium Speed options are also available



Double Crank Gap Frame Presses are available from 110T to 315T





# TECHNOLOGY

At Isgec, we have been continuously working on developing and updating ourselves Technologically. After acquiring Technology for Mechanical Presses from Rovetta Presse Spa of Italy (1985 to 1997) and Hydraulic Presses from John Shaw of UK (1967 to 1978), we have now experience of building over 5000 Presses, most of which have been supplied in the last 20 years.

Today Isgec has in-house design capability, expertise in Finite Element Analysis & 3-D Modeling and proven skills in the development of dedicated software for System Controls.

To refine our knowledge base, we obtained the help of world renowned premier research institutes including the Indian Institute of Technology (IIT) and consultancy from Aachen University of Technology, Germany.

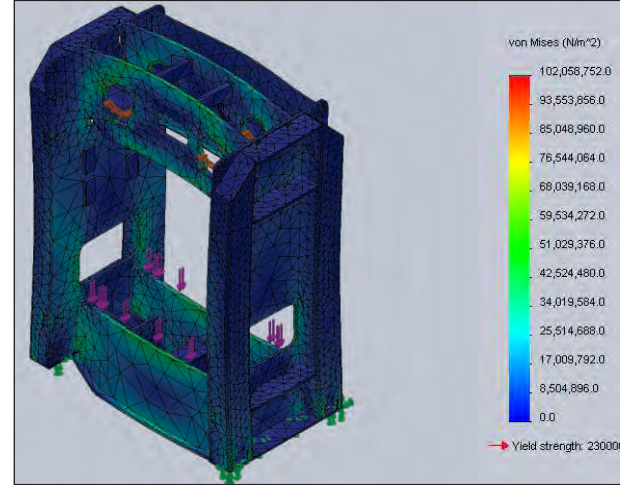
CNC Designs using Servo Motors and Servo Hydraulics are applied extensively on our Presses. Isgec has manufactured a large size 45000 kN Hydraulic Press for manufacturing Long Chassis Members for commercial vehicles. This press is equipped with a tool turning device.

## R & D Center

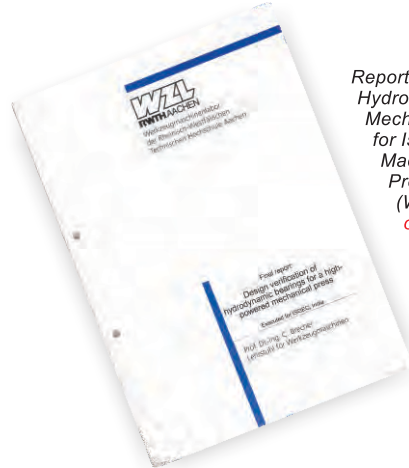


R & D Center at Yamunanagar (Govt. Registered)

## Finite Element Analysis



Finite Element Analysis (FEA) adopted to verify fatigue life of Press structure and to enable Maximum Rigidity.



Report of Design Verification of Hydrodynamic Bearings for Mechanical Presses conducted for Isgec by the Laboratory for Machine Tools and Production Engineering (WZL), Aachen University of Technology, Germany



Isgec has developed a Transfer System "Isgec ACTS" to offer Complete High Productivity Solutions



# QUALITY

## Safety

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

## Accuracy

Mechanical Presses : JIS B 6402 - Grade 1  
Hydraulic Presses : JIS B 6403 - Grade 1  
Die Spotting Presses : JIS B 6403 - Special Grade

## Rigidity

Deflection of Bed / Slide under full load:  
Standard - 0.167 mm/m  
Special - up to 0.07 mm/m



Dedicated software has been developed by Isgec for Press System Controls. The user friendly software is used for instant diagnostics. This picture is of the Main Menu Touch Screen.

# QUALITY COMPONENTS

## Components

- Clutch & Brake Units
- Cam Limit Switches
- Electrical Drives
- Hydraulic Components
- Pneumatic Components
- PLC Controls
- Dual Solenoid Safety Valve
- Safety Relays

## Makes Normally Used

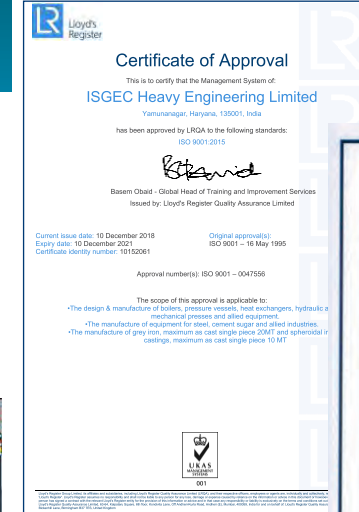
- Ortlinghaus, Goizper, Ompi, Herion
- Balluf, KAMCO
- Siemens, Allen Bradley, Telemecanique, Mitsubishi
- Bosch Rexroth, Parker, Vickers
- Festo, Norgren, SMC Pneumatics
- Siemens, Allen Bradley, OmniLink, Mitsubishi
- ROSS, Herion
- PILZ, Safety PLC

Other Makes can also be used as specified by the customer

CE Certificate for MAX 2 Series of Mechanical Presses.



ISO Certificate for Quality Assurance from Lloyd's Register.



CE certificate of Adequacy for Gap Frame Mechanical Presses.



OHSAS Certificate for Occupational Health & Safety Management from DNV.



ISO Certificate for Environmental Management from DNV.

We can offer third party inspection by TÜV, Lloyd, SG or any other inspecting agency



# INFRASTRUCTURE

## MANUFACTURING CAPACITY : 20 Lines per year

Each Equivalent to G1 Line (2000 T Head Press)

- Shop Area : 30,000 sq. m. (323,000 sq. ft.)
- Maximum Handling Capacity : 300 Tonnes
- Maximum Pit Size : 28 m x 10 m x 6 m
- Maximum Size of Stress Relieving Furnace : 14.5 m x 4.6 m x 4 m
- Maximum Size of Boring Machine : 16 m x 4.5 m x 2.4 m
- Large Floor Type Boring Machines : 15 Nos.
- Qualified Engineers : 180 Nos.
- Maximum Capacity of Gear Hobbing Machine : Diameter 2000 mm & module 20



Waldrich Plano Miller



Design Office



Coordinate Measuring Machine

One of the Assembly Shop



Stress Relieving Furnace



Gleason Gear Hobbing Machine

One of the Sub Assembly







One of the Customer Onsite Training Programs. Isgec provides many such Onsite & Offsite customer training programs



## Mechanical Presses



- Complete Press Reconditioning
- Health Check-up & AMC
- Restore Press Accuracy
- Machining of Bolster and Slide plate
- Reconditioning of Drive Components
- PLC System Upgrade
- Retrofitting of Die Cushion System
- Auto Die Change / Robotic interface

• Integration of Pick & Place Automation & Peripheral equipments with the Press

## Hydraulic Presses

- Complete Press Reconditioning
- Health Check-Up & AMC
- Restore Press Accuracy
- Machining of Bolster and Slide plate
- Reconditioning of Hydraulic system
- Upgrade Hydraulic System with Servo Hydraulics
- Retrofitting of Die Cushion System.
- PLC System Upgrade
- Die Cart System
- Integration of Pick & Place Automation & Peripheral equipments with the Press



# RANGE OF PRESSES

## Presses for Sheet Metal Working:

### MECHANICAL PRESSES:

- Servo Mechanical Presses
- Single Action & Double Action Presses
- Tandem Line Presses
- Progressive Die Presses
- Transfer Presses
- Blanking Lines
- High Speed Presses
- Standard Gap Frame Presses (630 kN to 3150 kN)
- Standard 'H' Frame Presses MAX 2 Series (2000 kN to 6300 kN)
- Standard Tandem Press Line MAT Series
- Standard Single Point Suspension MAG1 Series
- Standard Two Point Suspension MAG2 Series

### HYDRAULIC PRESSES:

- Servo Hydraulic Presses
- Single Action & Double Action Presses
- Die Spotting Presses
- Die Tryout Presses
- Hemming Presses
- Rubber Pad Forming Presses
- Standard Presses HAG Series
- Forging Presses

## Presses for other Applications:

### MECHANICAL PRESSES:

- Trimming Presses
- Presses for Hot and Cold Forging

### HYDRAULIC PRESSES:

- Coining & Calibration Presses
- Powder Compacting Presses
- Moulding Presses – Rubber & Brake Lining etc.
- Composite SMC Forming Presses
- Decorative Laminates & Plywood Presses
- Straightening Presses
- Hot Forming Presses
- Wheel & Axle Assembly Presses

## Other Businesses

Process Equipment • EPC Projects • Boilers • Sugar Plants & Distillery • Castings • Contract Manufacturing



**Sales Offices & Plants :** Isgec Heavy Engineering Ltd.  
Yamunanagar - 135 001 (Haryana) India  
Tel.: +91-1732-661 104, 661 140  
E-mail: presses@isgec.com

Bawal - 123 501 (Haryana) India  
Tel.: +91-1284-302160  
E-mail: smpbawal@isgec.com

**Eagle Press & Equipment Co. Ltd.**  
Windsor (Ontario) Canada

www.isgec.com



**Regional Offices :** Ahmedabad • Bengaluru • Chennai • Gurgaon • Kolkata • Mumbai • Noida • Pune

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

**Corporate Office :** Isgec Heavy Engineering Ltd.  
A-4, Sector 24, Noida - 201 301 (U.P.) India  
Tel.: +91-120-408 50 01 / 02

**Sales Representatives :** Brazil • China • France • Germany • Hungary • Indonesia • Italy • Japan  
Malaysia • Mexico • Poland • Russia • South Africa • Spain • Thailand  
Turkey • USA • Vietnam

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