ISGEC

PRESSES

MECHANICAL • HYDRAULIC • SERVO

Transfer Presses

MATR Series

630T - 3150T

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 High Productivity

High Reliability • High Flexibility • Enhanced Die Life

ISGEC MATR Series

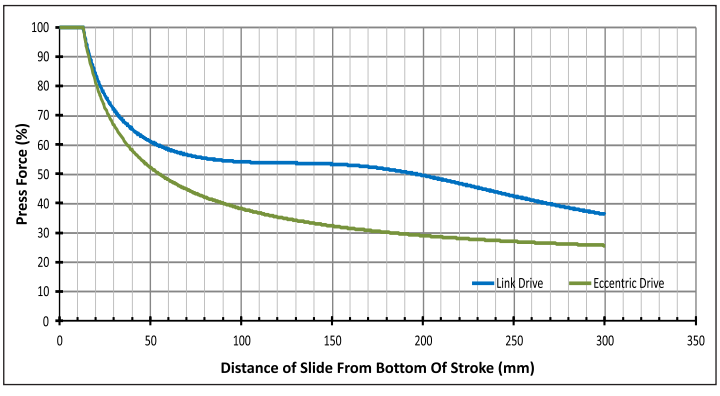
Higher Productivity Solution

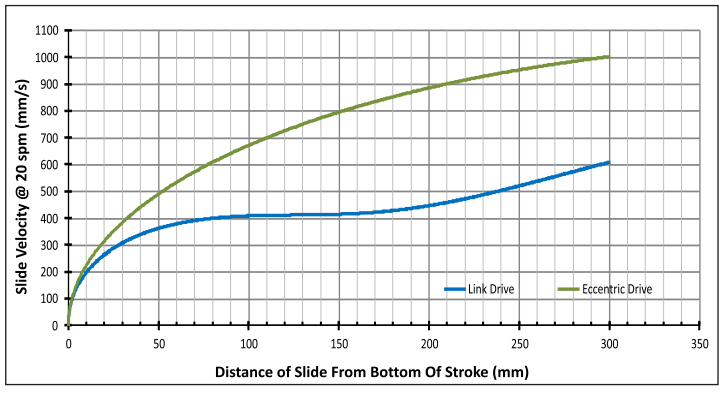
10000kN & 10000kN Transfer press with Bolster size 5000mm x 1500mm

- Optimum time availability for movement of transfer system while press running in continuous mode.
- Wide window opening permits feed of wider material offering flexibility in part production
- Productivity higher as compared to tandem line due to higher operating speeds

12500kN Transfer Press with bolster size 5500mm x 2500mm & 15-30 SPM

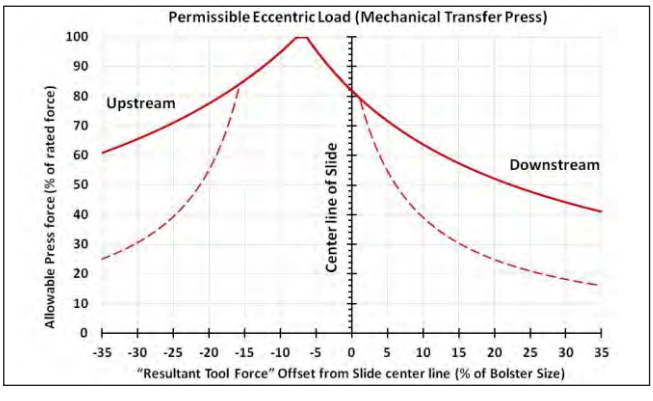
Efficient Drawing at First Station with Link Drive Motion





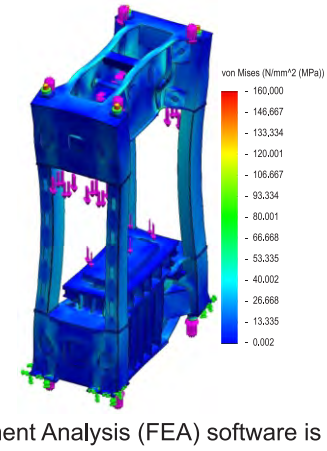
- Link Drive mechanism permits to work at low and constant speed during draw zone and at higher speed during idle (return) zone to improve quality of parts with higher productivity.
- In draw operations required on First station, link drive is particularly beneficial to reduce rejections & noise besides enhancing Die life.
- In Isgec design of Link Drive Mechanism in-line configuration of links at BDC enables smooth continuous motion under load with low acceleration.

Optimal load bearing Capacity (Optional)



- Load bearing capacity optimized as per load requirements at different stamping stations. Due to draw operations required on first station, load bearing capacity is higher on upstream as compared to downstream.
- Widely spaced suspension points and extra-long gibs supplement high eccentric load bearing capability.
- Capable of forming High Strength Steel (On Demand)

Accurate Stampings from High Rigidity

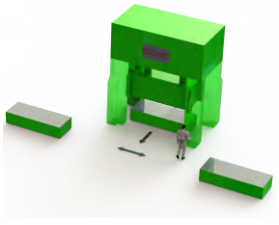


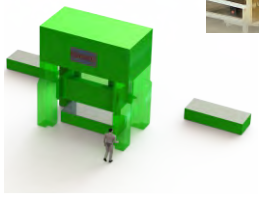
- Finite Element Analysis (FEA) software is adopted to verify fatigue life of Press Structure and to enable required maximized rigidity.
- Structure is fabricated from tested Steel Plates and thermally stress relieved.
- Enhanced Die life from low deflection.

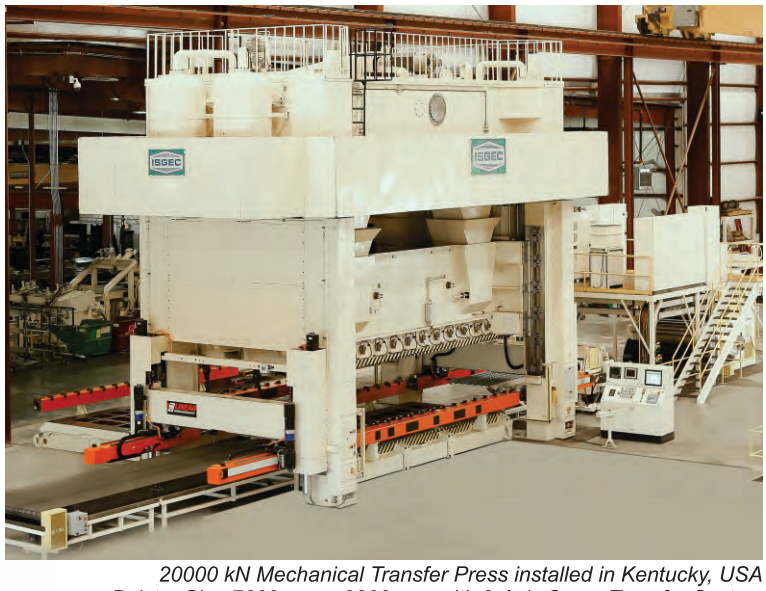
Cover Picture: 25000kN Transfer Press with bolster size 6100 x 2500mm.This Press is being used for production of components for Suzuki.

Quick Die Change System

- Electrically driven Moving Bolsters in Centre to Front and Center to Back with alternative options of movement for Quick Die Change and higher productivity.
- Die Centering Slots on Bolster Plate for quick die location .
- T-Slots as per JIS, JIC & DIN depending upon user's requirement.
- Automatic or Semi Automatic Die Change feature available as optional.
- On demand 'Automatic' or 'Hydraulically operated, Manually positioned' Die clamps provided.



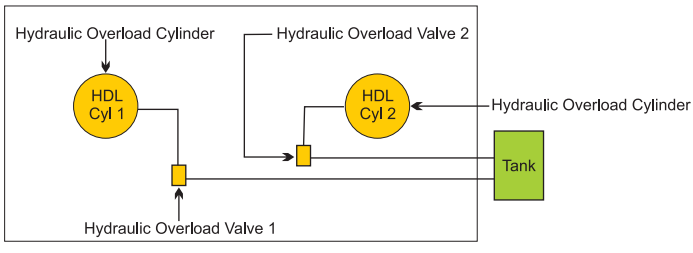




20000 kN Mechanical Transfer Press installed in Kentucky, USA
Bolster Size 7600 mm x 2800 mm with 3-Axis Servo Transfer System

High Response Hydraulic Overload System

- Separate Hydraulic valves for each side suspension points with separate adjustments senses the load beyond rated capacity. Rapid stoppage of press prevents damages to Dies.

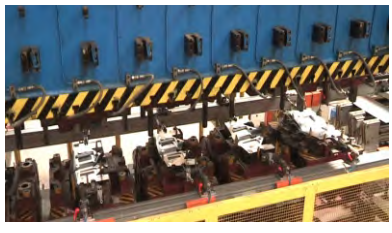


Ease of Operation & Interface

- Programmable Logic Controller with user friendly Operator Interface has operator Screens. HMI (Human Machine Interface) with Diagnostic features developed by constant improvements through feedback from Press users.
- Hardware for reliable interface with Automation.
- Remote online diagnosis feature provided on demand.
- Complete Project Management including Interface with Automation & Dies provided.

Signal to Transfer System

- Transfer System encoder directly connected with Drive Pinion for better Sensitivity & Vibration free transmission of signals
- Dual monitoring of Press and Transfer system



Technical Specifications

TWO POINT SUSPENSION ECCENTRIC DRIVE MECHANICAL PRESS: MATR - 2E						
Model No.		**MATR-2E-630**	**MATR-2E-800**	**MATR-2E-1000**	**MATR-2E-1250**	**MATR-2E-1600**
Maximum capacity	kN	6300	8000	10000	12500	16000
Rated Distance	mm	13	13	13	13	13
Energy at mean speed	kJ	200	240	300	380	480
Strokes Per Minute (Variable)	SPM	10-30	10-30	10-30	10-30	10-30
Stroke Length (fixed)	mm	600	600	600/800	600/800	600/800
Shut Height (SDAU)	mm	1100	1100	1100	1200	1200
Slide Adjustment (Motorised)	mm	250	250	300	300	300
Slide & Bolster Face - LR X FB (Alt-1)	mm	3700x1600	4000x1900	4900x1900	4900x1900	5200x1900
Slide & Bolster Face - LR X FB (Alt-2)	mm	4000x1600	4300x1900	5200x1900	5200x1900	5500x1900
Slide & Bolster Face - LR X FB (Alt-3)	mm	4300x1600	4600x1900	5500x1900	5500x1900	5800x1900
Main Motor Power	kW	75	90	110	132	160
Die Cushion Capacity (optional at 1st and 2nd stations)	kN	As per requirement				

TWO POINT SUSPENSION LINK DRIVE MECHANICAL PRESS: MATR - 2L						
Model No.		**MATR-2L-630**	**MATR-2L-800**	**MATR-2L-1000**	**MATR-2L-1200**	**MATR-2L-1600**
Maximum capacity	kN	6300	8000	10000	12000	16000
Rated Distance	mm	13	13	13	13	13
Energy at mean speed	kJ	200	240	300	380	480
Strokes Per Minute (Variable)	SPM	10-30	10-30	10-30	10-30	10-30
Stroke Length (fixed)	mm	600	600	600/800	600/800	800/1000
Shut Height (SDAU)	mm	1100	1100	1100	1200	1200
Slide Adjustment (Motorised)	mm	250	250	300	300	300
Slide & Bolster Face - LR X FB (Alt-1)	mm	3700x1600	4000x1900	4900x1900	4900x1900	5200x1900
Slide & Bolster Face - LR X FB (Alt-2)	mm	4000x1600	4300x1900	5200x1900	5200x1900	5500x1900
Slide & Bolster Face - LR X FB (Alt-3)	mm	4300x1600	4600x1900	5500x1900	5500x1900	5800x1900
Main Motor Power	kW	75	90	110	132	160
Die Cushion Capacity (optional at 1st and 2nd stations)	kN	As per requirement				

Machines are manufactured as per SI Units
Customised Solutions can be offered on Demand
**Optional Features*

ISGEC MATR Series

Technical Specifications

FOUR POINT SUSPENSION ECCENTRIC DRIVE MECHANICAL PRESS - MATR - 4E

Model No.		MATR-4E-630	MATR-4E-800	MATR-4E-1000	MATR-4E-1250	MATR-4E-1600	MATR-4E-2000	MATR-4E-2500	MATR-4E-3150	MATR4E-3500
Maximum capacity	kN	6300	8000	10000	12500	16000	20000	25000	31500	35000
Rated Distance	mm	13	13	13	13	13	13	13	13	13
Energy at mean speed	kJ	200	240	300	380	480	600	750	900	1000
Strokes Per Minute (Variable)	SPM	10-30	10-30	10-30	10-30	10-30	10-25	10-25	10-25	10-25
Stroke Length (fixed)	mm	800/600	800/600	800/600	800/600	800	800	800	800	800
Shut Height (SDAU)	mm	1100	1100	1100	1400	1500	1500	1500	1500	1500
Slide Adjustment (Motorised)	mm	250	250	300	300	400	400	400	400	400
Slide & Bolster Face - LR X FB (Alt-1)	mm	3700x1900	4000x2200	4600x2200	4900x2200	5500x2500	5500x2500	5800x2500	6100x2500	6100x2500
Slide & Bolster Face - LR X FB (Alt-2)	mm	4000x2200	4300x2200	4900x2200	5200x2200	6100x2500	6100x2500	6100x2800	6700x2800	6700x2800
Slide & Bolster Face - LR X FB (Alt-3)	mm	4300x2200	4600x2200	5200x2500	5500x2500	6400x2800	6400x2800	6700x2800	7300x3050	7300x3050
Slide & Bolster Face - LR X FB (Alt-4)	mm	4600 x 2200	4900x2500	5500x2500	5800 x 2500	6700x2800	6700x2800	7300x2800	7600 x 3050	7600 x 3050
Main Motor Power	kW	75	90	110	132	160	200	250	315	355
Die Cushion Capacity (optional at 1st and 2nd stations)	kN	As per requirement								

FOUR POINT SUSPENSION LINK DRIVE MECHANICAL PRESS - MATR - 4L

Model No.		MATR-4L-630	MATR-4L-800	MATR-4L-1000	MATR-4L-1250	MATR-4L-1600	MATR-4L-2000	MATR-4L-2500	MATR-4L-3150	MATR-4L-3500
Maximum capacity	kN	6300	8000	10000	12500	16000	20000	25000	31500	35000
Rated Distance	mm	13	13	13	13	13	13	13	13	13
Energy at mean speed	kJ	200	240	300	380	480	600	750	900	1000
Strokes Per Minute (Variable)	SPM	10-30	10-30	10-30	10-30	10-30	10-25	10-25	10-25	10-25
Stroke Length (fixed)	mm	800/600	800/600	800/600	800/600	800	800/1000	800/1000	800/1000	800/1000
Shut Height (SDAU)	mm	1100	1100	1100	1400	1500	1500	1500	1500	1500
Slide Adjustment (Motorised)	mm	250	250	300	300	400	400	400	400	400
Slide & Bolster Face - LR X FB (Alt-1)	mm	3700x1900	4000x2200	4600x2200	4900x2200	5500x2500	5500x2500	5800x2500	6100x2500	6100x2500
Slide & Bolster Face - LR X FB (Alt-2)	mm	4000x2200	4300x2200	4900x2200	5200x2200	6100x2500	6100x2500	6100x2800	6700x2800	6700x2800
Slide & Bolster Face - LR X FB (Alt-3)	mm	4300x2200	4600x2200	5200x2500	5500x2500	6400x2800	6400x2800	6700x2800	7300x3050	7300x3050
Slide & Bolster Face - LR X FB (Alt-4)	mm	4600 x 2200	4900x2500	5500x2500	5800 x 2500	6700x2800	6700x2800	7300x2800	7600x3050	7600x3050
Main Motor Power	kW	75	90	110	132	160	200	250	315	355
Die Cushion Capacity (optional at 1st and 2nd stations)	kN	As per requirement								

Machines are manufactured as per SI Units
Customised Solutions can be offered on Demand
**Optional Features*

Standard Accessories

- Programmable Logic Controller (PLC)
- Dual Check safety electrical circuit
- Production Counters (Total Batch/Shift) on HMI
- Counter Balance Cylinder
- High Response Hydraulic Overload System
- Variable Speed through AC Inverter
- Motorized Slide Adjustment
- Centralized Re-circulating Automatic Oil Lubrication system
- User Friendly Touch Screen Interface
- Pneumatic Clutch & Brake till 1250T
- Emergency Stop buttons
- Moving Bolster (Center to Front/Back movement)
- LED Die Area lights
- Safety Guards on front & back
- Portable Two Hand Operator Stand
- Safety Blocks
- Digital Crank Angle Indicators (Display on HMI)
- Maintenance Tool Kit
- Maintenance Platform & Ladder
- Photoelectric guards on front and rear
- Main Motor Forward Reverse Facility
- Programmable Cam Switches

Optional Accessories

- Die clamps for Quick Die Change
- Die Cushion
- Electronic Force Monitoring / Process Monitoring with Signature Analysis
- Anti Vibration Mounts
- Hydraulic Clutch & Brake below 1250T
- Automatic Die Change System
- Higher Hydraulic Overload Stroke
- Compliance with CE/OSHA Safety Standards
- Slide Locking Device
- Moving bolster with T-Track.
- Die Automation Control
- Scrap Chute with Interlocked opening covers
- Bearing Temperature Monitoring System
- Isgec Reach 4.0 enable Smart Control
- SCADA System

Automation Solutions

- Destacker/Coil Feed Line
- 3-D-Electronic Transfer system
- Robotic Auto stacking of parts

Wide Range of Presses

Tandem Press Lines • Transfer Press Lines • Progressive Die Press Lines • Blanking Press Lines • High-Speed Mechanical Presses
Deep Draw Hydraulic Presses • High-Speed Hydraulic Presses • Hot Forming Press Lines • Tryout Mechanical Presses
Die Spotting/Tryout Hydraulic Presses • Refractory Press Solutions • Hot/Cold Forging Presses • Special Application Presses

ISGEC PRESSES India

EAGLE PRESS Canada

www.isgec.com

Follow us on:

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

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

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

Corporate Office : Isgec Heavy Engineering Ltd.
A-4, Sector 24, Noida - 201 301, 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

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.

Printed in October 2024

WY/Presses/MATR L/102024/04/Dtp