



PRESSES
MECHANICAL & HYDRAULIC

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 Uptime, Front Moving Bolsters • Longer Stroke Length • Interfacing with Automation



Higher Productivity Solution



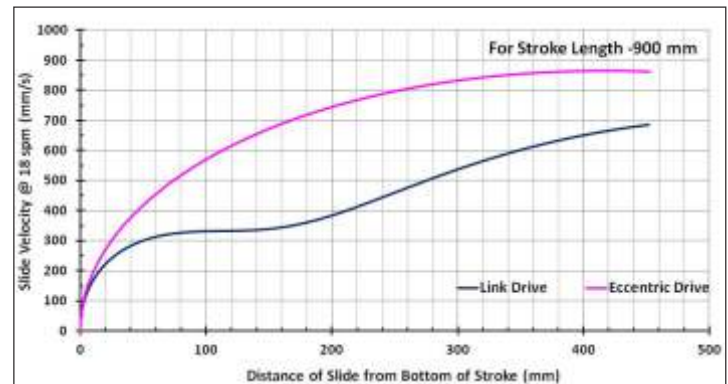
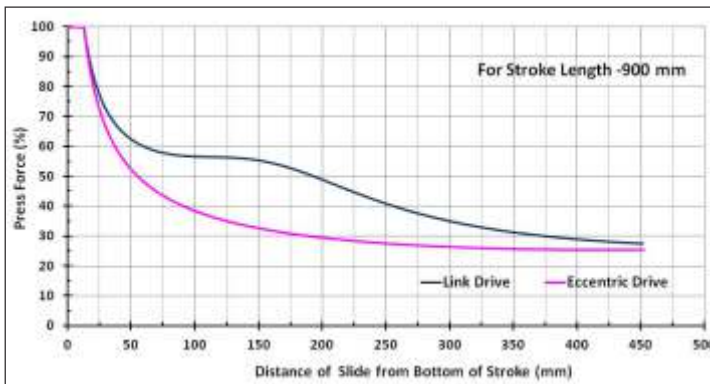
12500kN & 6300kN Link Drive Transfer Press with bolster size 4300mm x 1400mm & 15-30 SPM

- 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



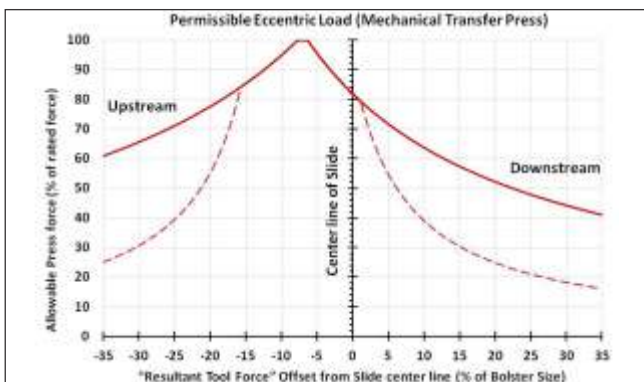
12500kN Transfer Press with bolster size 5000mm x 2500mm & 15-30 SPM

Efficient Drawing at First Station with Link Drive Motion



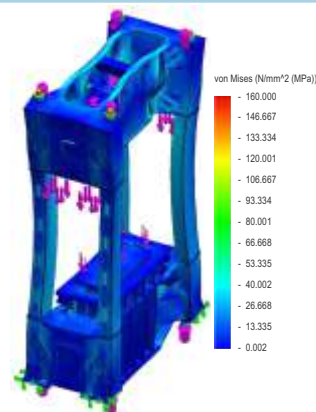
- Link Drive mechanism permits to work at low and constant speed during draw zone and at higher speed during idle (return) zone to improve quality of parts with higher productivity.
- In draw operations required on First station, link drive is particularly beneficial to reduce rejections & noise besides 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.

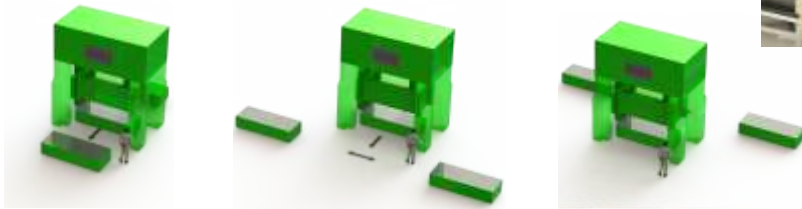
Accurate Stampings from High Rigidity



- 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.

Quick Die Change System

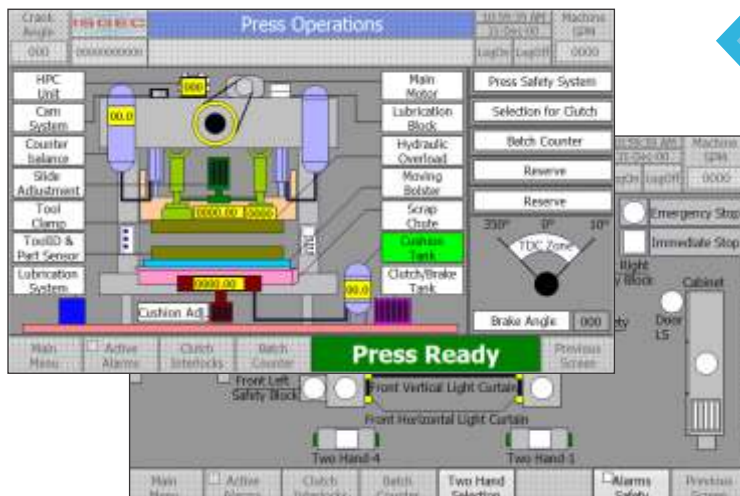
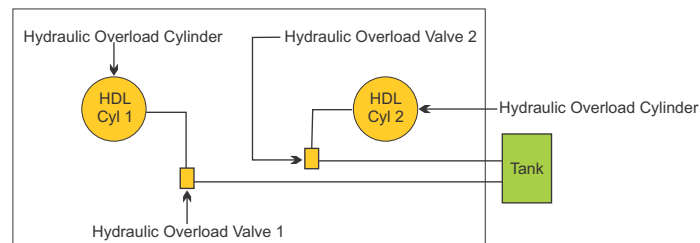
- Electrically driven Moving Bolsters in Centre to Front and Center to Back with alternative options of movement for Quick Die Change and higher productivity.
- Die Centering Slots on Bolster Plate for quick die location .
- T-Slots as per JIS, JIC & DIN depending upon user's requirement.
- Automatic 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 Big Rapids Products, Kentucky, USA
Bolster Size 7600 mm x 2800 mm, 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.		MATR2E-630	MATR2E-800	MATR2E-1000	MATR2E-1200
Maximum Capacity	kN US Ton	6300 693	8000 880	10000 1100	12000 1320
Rated Distance	mm Inch	13 0.5	16 0.6	13 0.5	16 0.6
Energy at mean speed	kJ	110	140	170	200
Strokes Per Minute (Variable)	SPM	10 - 30	10 - 30	10 - 30	10 - 30
Stroke Length (Fixed)	mm Inch	600 23.6	600 23.6	600 23.6	800/600 31.5/23.6
Maximum Opening between Uprights (FB)	mm Inch	2400 94.5	2700 106.3	2700 106.3	2700 106.3
Shut Height (SDAU)	mm Inch	1100 43.3	1400 55.1	1100 43.3	1400 55.1
Slide Adjustment (Motorized)	mm Inch	250 9.8	250 9.8	300 11.8	300 11.8
Slide & Bolster Face- LR X FB (Alt-1)	mm Inch	3700 x 1600 145.7 x 63.0	4000 x 1900 157.5 x 74.8	4900 x 1900 157.5 x 74.8	4900 x 1900 192.9 x 74.8
Slide & Bolster Face- LR X FB (Alt-2)	mm Inch	4000 x 1600 157.5 x 63.0	4300 x 1900 169.3 x 74.8	5200 x 1900 204.7 x 74.8	5200 x 1900 204.7 x 74.8
Slide & Bolster Face- LR X FB (Alt-3)	mm Inch	4300 x 1600 169.3 x 63.0	4600 x 1900 181.1 x 74.8	5500 x 1900 216.5 x 74.8	5500 x 1900 216.5 x 74.8
Main Motor Power	kW hp	75 100	90 120	90 120	110 150
Die Cushion Capacity (Optional on 1st & 2nd stations*)	kN	As per requirement			
Maximum opening between Uprights (FB)	mm Inch	2400 94.5	2700 106.3	2700 106.3	2700 106.3

TWO POINT SUSPENSION LINK DRIVE MECHANICAL PRESS – MATR 2L

Model No.		MATR2L-630	MATR2L-800	MATR2L-1000	MATR2L-1200
Maximum Capacity	kN US Ton	6300 693	8000 880	10000 1100	12000 1320
Rated Distance	mm Inch	13 0.5	16 0.6	13 0.5	16 0.6
Energy at mean speed	kJ	110	140	170	200
Strokes Per Minute (Variable)	SPM	10 - 30	10 - 30	10 - 30	10 - 30
Stroke Length (Fixed)	mm Inch	800/900 31.5/35.4	800/900 31.5/35.4	900/1000 35.4/39.4	900/1000/1100 34.4/39.4/43.3
Maximum Opening between Uprights (FB)	mm Inch	2400 94.5	2700 106.3	2700 106.3	2700 106.3
Shut Height (SDAU)	mm Inch	1100 43.3	1400 55.1	1100 43.3	1400 55.1
Slide Adjustment (Motorized)	mm Inch	250 9.8	250 9.8	300 11.8	300 11.8
Slide & Bolster Face- LR X FB (Alt-1)	mm Inch	3700 x 1600 145.7 x 63.0	4000 x 1900 157.5 x 74.8	4900 x 1900 192.9 x 74.8	4900 x 1900 192.9 x 74.8
Slide & Bolster Face- LR X FB (Alt-2)	mm Inch	4000 x 1600 157.5 x 63.0	4300 x 1900 169.3 x 74.8	5200 x 1900 204.7 x 74.8	5200 x 1900 204.7 x 74.8
Slide & Bolster Face- LR X FB (Alt-3)	mm Inch	4300 x 1600 169.3 x 63.0	4600 x 1900 181.1 x 74.8	5500 x 1900 216.5 x 74.8	5500 x 1900 216.5 x 74.8
Main Motor Power	kW hp	75 100	90 120	90 120	110 150
Die Cushion Capacity (Optional on 1st & 2nd stations*)	kN	As per requirement			
Maximum opening between Uprights (FB)	mm Inch	2400 94.5	2700 106.3	2700 106.3	2700 106.3

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



Technical Specifications

FOUR POINT SUSPENSION ECCENTRIC DRIVE MECHANICAL PRESS – MATR 4E

Model No.		MATR4E-630	MATR4E-800	MATR4E-1000	MATR4E-1250	MATR4E-1600	MATR4E-2000	MATR4E-2500	MATR4E-3150
Maximum Capacity	kN US Ton	6300 693	8000 880	10000 1100	12500 1375	16000 1760	20000 2200	25000 2750	31500 3465
Rated Distance	mm Inch	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6
Energy at mean speed	kJ	110 : 140	140 : 170	170 : 200	200 : 240	240 : 300	320 : 400	450 : 570	640 : 820
Strokes Per Minute (Variable)	SPM	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 28	10 - 25	10 - 25
Stroke Length (Fixed)	mm Inch	800/600 31.5/23.6	800/600 31.5/23.6	900/600 35.4/23.6	900/650 35.4/25.6	900 35.4	1000 39.4	1000 39.4	1000 39.4
Shut Height (SDAU)	mm Inch	1100 : 1400 43.3 : 55.1	1100 : 1400 43.3 : 55.1	1100 : 1400 43.3 : 55.1	1400 55.1	1500 59.1	1500 59.1	1700 66.9	1700 66.9
Slide Adjustment (Motorized)	mm Inch	250 9.8	250 9.8	300 11.8	300/275 11.8/10.8	400 15.7	400 15.7	400 15.7	400 15.7
Slide & Bolster Face- LR X FB (Alt-1)	mm Inch	3700 x 1900 145.7 x 74.8	4000 x 2200 157.5 x 86.6	4600 x 2200 181.1 x 86.6	4900 x 2200 192.9 x 86.6	6100 x 2500 240.2 x 98.4	6100 x 2500 240.2 x 98.4	6700 x 2500 263.8 x 98.4	6700 x 2500 263.8 x 98.4
Slide & Bolster Face- LR X FB (Alt-2)	mm Inch	4000 x 2200 157.5 x 86.6	4300 x 2200 169.3 x 86.6	4900 x 2200 192.9 x 86.6	5200 x 2200 204.7 x 86.6	6400 x 2500 252.0 x 98.4	6400 x 2500 252.0 x 98.4	7000 x 2750 275.6 x 108.3	7000 x 2800 275.6 x 110.2
Slide & Bolster Face- LR X FB (Alt-3)	mm Inch	4300 x 2200 169.3 x 86.6	4600 x 2200 181.1 x 86.6	5200 x 2200 204.7 x 86.6	5500 x 2200 216.5 x 86.6	6700 x 2800 263.8 x 110.2	6700 x 2800 263.8 x 110.2	7600 x 3050 299.2 x 120.1	7600 x 3050 299.2 x 120.1
Slide & Bolster Face- LR X FB (Alt-4)	mm Inch	x x	x x	x x	5500 x 2500 216.5 x 98.4	x x	x x	x x	x x
Main Motor Power	kW hp	75 : 90 100 : 120	90 : 110 120 : 150	110 : 132 150 : 180	132 : 160 180 : 215	160 : 200 215 : 270	200 : 250 270 : 335	250 : 315 335 : 425	315 : 400 425 : 536
Die Cushion Capacity (Optional on 1st & 2nd stations*)	kN	As per requirement							
Maximum opening between Uprights FB (Alt-1)	mm Inch	2700 94.5	3000 118.1	3000 118.1	3000 118.1	3300 129.9	3300 129.9	3300 129.9	3300 129.9
Maximum opening between Uprights FB (Alt-2)	mm Inch	3000 118.1	3000 118.1	3000 118.1	3000 118.1	3300 129.9	3300 129.9	3600 141.7	3600 141.7
Maximum opening between Uprights FB (Alt-3)	mm Inch	3000 118.1	3000 118.1	3000 118.1	3000 118.1	3600 141.7	3600 141.7	3900 153.5	3900 153.5
Maximum opening between Uprights FB (Alt-4)	mm Inch	x x	x x	x x	3300 129.9	x x	x x	x x	x x

FOUR POINT SUSPENSION LINK DRIVE MECHANICAL PRESS – MATR 4L

Model No.		MATR4L-630	MATR4L-800	MATR4L-1000	MATR4L-1250	MATR4L-1600	MATR4E-2000	MATR4L-2500	MATR4L-3150
Maximum Capacity	kN US Ton	6300 693	8000 880	10000 1100	12500 1375	16000 1760	20000 2200	25000 2750	31500 3465
Rated Distance	mm Inch	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6	13 : 16 0.5 : 0.6
Energy at mean speed	kJ	110 : 140	140 : 170	170 : 200	200 : 240	240 : 300	320 : 400	450 : 570	570 : 720
Strokes Per Minute (Variable)	SPM	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 28	10 - 25	10 - 25
Stroke Length (Fixed)	mm Inch	800 31.5	800 31.5	900 35.4	900 35.4	900 35.4	1000 39.4	1100/1000 43.3/39.4	1100/1000 43.3/39.4
Shut Height (SDAU)	mm Inch	1100 : 1400 43.31 : 55.12	1100 : 1400 43.31 : 55.12	1100 : 1400 43.3 : 55.12	1400 55.1	1500 59.1	1500 59.1	1350/1700 53.1/66.9	1350/1700 53.1/66.9
Slide Adjustment (Motorized)	mm Inch	250 9.8	250 9.8	300 11.8	300 11.8	400 15.7	400 15.7	400/600 15.7/23.6	400 15.7
Slide & Bolster Face- LR X FB (Alt-1)	mm Inch	3700 x 2200 145.7 x 86.6	4000 x 2200 157.5 x 86.6	4600 x 2200 181.1 x 86.6	4900 x 2200 192.9 x 86.6	6100 x 2500 240.2 x 98.4	6100 x 2500 240.2 x 98.4	6700 x 2500 263.8 x 98.4	6700 x 2500 263.8 x 98.4
Slide & Bolster Face- LR X FB (Alt-2)	mm Inch	4000 x 2200 157.5 x 86.6	4300 x 2200 169.3 x 86.6	4900 x 2200 192.9 x 86.6	5200 x 2200 204.7 x 86.6	6400 x 2500 252.0 x 98.4	6400 x 2500 252.0 x 98.4	7000 x 2750 275.6 x 108.3	7000 x 2800 275.6 x 110.2
Slide & Bolster Face- LR X FB (Alt-3)	mm Inch	4300 x 2200 169.3 x 86.6	4600 x 2200 181.1 x 86.6	5200 x 2200 204.7 x 86.6	5500 x 2200 216.5 x 86.6	6700 x 2800 263.8 x 110.2	6700 x 2800 263.8 x 110.2	7600 x 3050 299.2 x 120.1	7600 x 3050 299.2 x 120.1
Main Motor Power	kW hp	75 : 90 100 : 120	90 : 110 120 : 150	110 : 132 150 : 180	132 : 160 180 : 215	160 : 200 215 : 270	200 : 250 270 : 335	250 : 315 335 : 425	315 : 400 425 : 536
Die Cushion Capacity (Optional on 1st & 2nd stations*)	kN	As per requirement							
Maximum opening between Uprights FB (Alt-1)	mm Inch	3000 118.1	3000 118.1	3000 118.1	3000 118.1	3300 129.9	3300 129.9	3300 129.9	3300 129.9
Maximum opening between Uprights FB (Alt-2)	mm Inch	3000 118.1	3000 118.1	3000 118.1	3000 118.1	3300 129.9	3300 129.9	3600 141.7	3600 141.7
Maximum opening between Uprights FB (Alt-3)	mm Inch	3000 118.1	3000 118.1	3000 118.1	3000 118.1	3600 141.7	3600 141.7	3900 153.5	3900 153.5

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

Standard Accessories

- Programmable Logic Controller
- 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
- Optimal Load Bearing Capability
- 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
- Die Protection 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

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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