



PRESSES

MECHANICAL • HYDRAULIC • SERVO

Servo Mechanical Presses

MAS Series

315T - 3150T



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

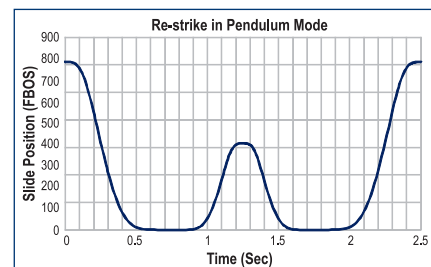
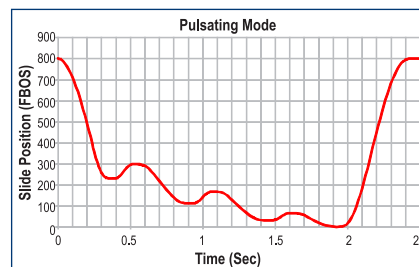
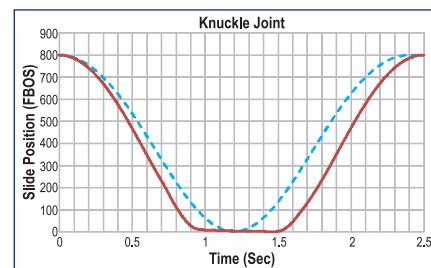
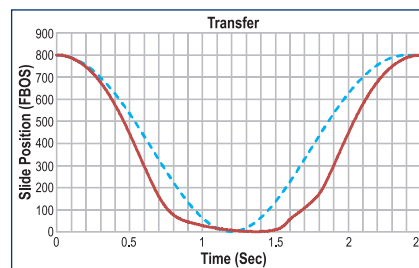
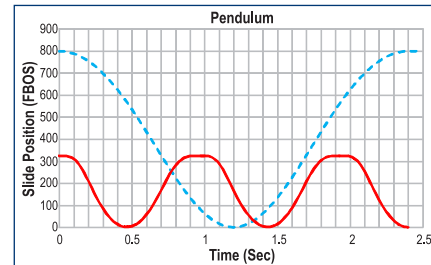
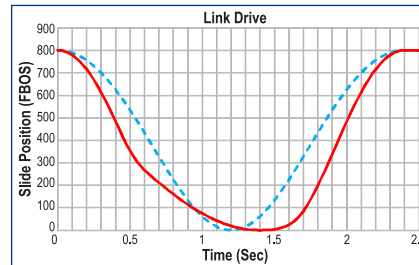
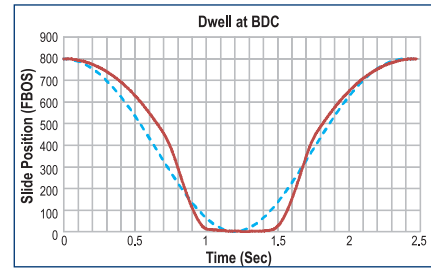
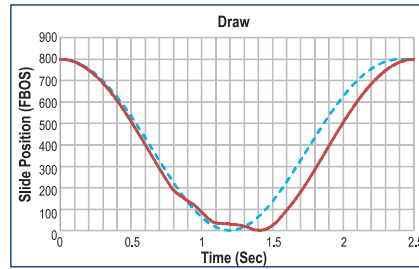
ISO 9001:2015
ISO 14001:2015
OHSAS 18001 :2007

Output - Versatility Redefined

High Productivity • High Position Accuracy • Energy Efficient

Versatility-Freely Programmable Kinematics

- Slide Kinematics quickly and easily adaptable to parameters of Process, Die, Automation System and eliminates adverse effects of motion limitations of conventional press
- Wide range of Tryout functions in production Press
- User Programmable Stroke Heights and Motion Sequences
- Motion Profile Adjustment to suit part transport process with Progressive & Transfer Dies



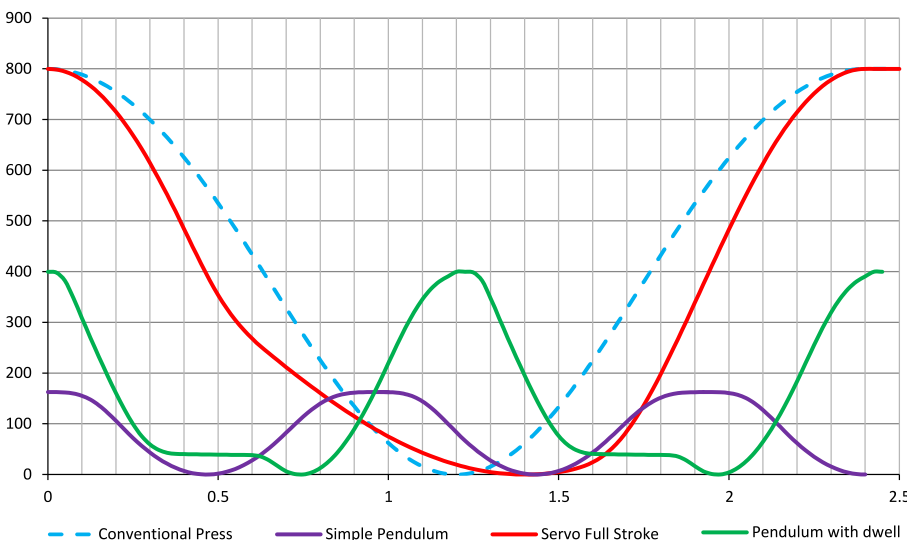
■ Servo Press ■ Conventional Press

Increased Output

- Pendulum Operating Mode enables programmable slide stroke heights. Reversing movement of torque motor means that Eccentric Drive has an oscillating motion and alternates between forward in one stroke and backward in the next stroke
- This significantly increases output and energy efficiency
- User programmable parameters of time & distance sequences allow possibility to integrate several processes in press cycle resulting in higher output
- Pendulum Operating Mode enables higher output
- Individual part curves stored in Die database and quickly available for future use

Operational Advantages

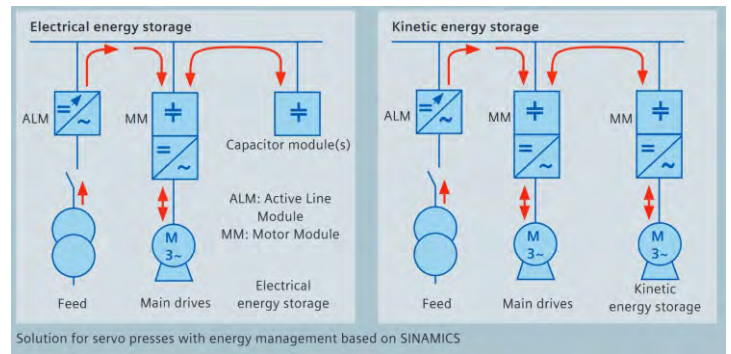
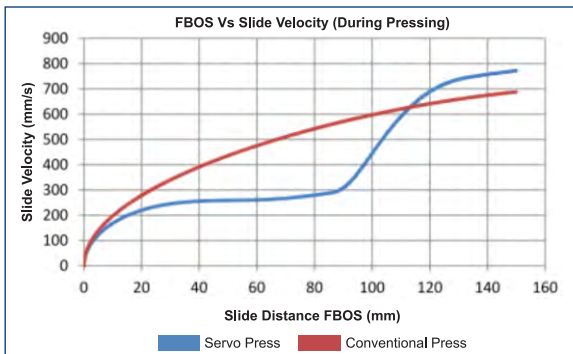
Servo Press Motion Profile



- Increased part quality and Die life due to controlled motion sequence optimally adapted to process requirements
- Reduced rejections & less rework
- Reduced snap through loads and spring back.
- Easier maintenance and reduced maintenance cost compared to conventional mechanical presses due to fewer mechanical components
- Reduced Stamping Noise and vibrations due to precise control of speed

Energy Management

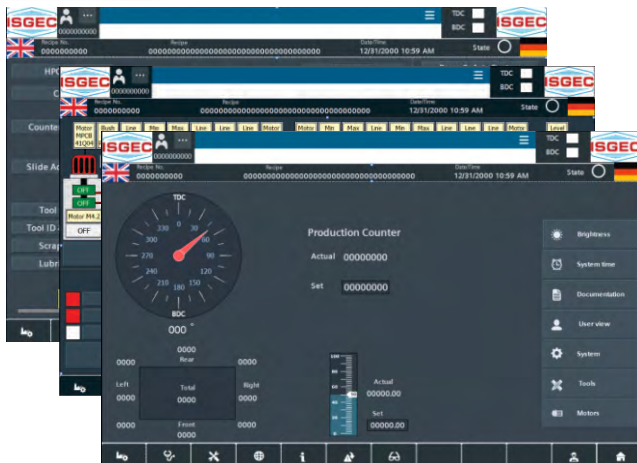
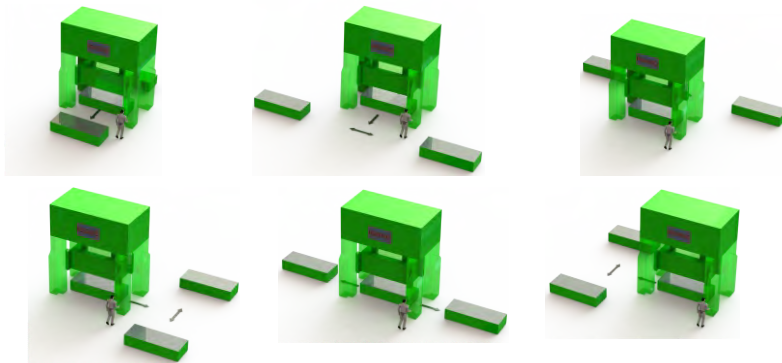
In contrast to conventional Hydraulic & Mechanical Presses wherein energy sources are continuously consuming power, Servo Presses use regenerative feature thus storing energy during braking & deceleration mode. This stored energy is subsequently utilised during acceleration mode resulting in energy efficiency and reduced power consumption.



Quick Die Change System

- Electrically driven Moving Bolsters 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 'Hydraulically Operated Manually Positioned' or 'Automatic' Die Clamps provided



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
- On demand interfacing hardware for reliable interface with Automation
- Remote online diagnosis feature provided on demand
- Complete Project Management including Interface with Automation & Dies provided

Safeties as per International Practices

- Immediate Press stoppage due to absence of high inertia of drive mechanism as compared with conventional mechanical presses
- Inbuilt Servo lock in Servo Motor
- Spring actuated hydraulically released safety brake for dual safety





Technical Specifications of MAS-TR Series 630T-3150T

TWO POINT SUSPENSION ECCENTRIC DRIVE SERVO MECHANICAL PRESS – MAS-TR-2E					
Model No.		MAS-TR-2E-630	MAS-TR-2E-800	MAS-TR-2E-1000	MAS-TR-2E-1200
Maximum Capacity	kN	6300	8000	10000	12000
Strokes Per Minute (Variable)	SPM	3-30	3-30	3-30	3-30
Stroke Length (Fixed)	mm	600	600	600	600
Maximum Opening between Uprights (FB)	mm	2400	2700	2700	2700
Shut Height (SDAU)	mm	1100 1400	1100 1400	1100 1400	1400
Slide Adjustment (Motorised)	mm	250	250	300	300
Slide & Bolster Face- LR X FB (Alt-1)	mm	3700 x 1600	4000 x 1900	4900 x 1900	4900 x 1900
Slide & Bolster Face- LR X FB (Alt-2)	mm	4000 x 1600	4300 x 1900	5200 x 1900	5200 x 1900
Slide & Bolster Face- LR X FB (Alt-3)	mm	4300 x 1600	4600 x 1900	5500 x 1900	5500 x 1900
Die Cushion Capacity (Optional on 1st & 2nd stations*)	kN		As per requirement		
Maximum opening between Uprights (FB)	mm	2400	2700	2700	2700

FOUR POINT SUSPENSION ECCENTRIC DRIVE SERVO MECHANICAL PRESS – MAS-TR-4E									
Model No.		MAS-TR-4E-630	MAS-TR-4E-800	MAS-TR-4E-1000	MAS-TR-4E-1250	MAS-TR-4E-1600	MAS-TR-4E-2000	MAS-TR-4E-2500	MAS-TR-4E-3150
Maximum Capacity	kN	6300	8000	10000	12500	16000	20000	25000	31500
Strokes Per Minute (Variable)	SPM	3-30	3-30	3-30	3-30	3-30	3-28	3-25	3-25
Stroke Length (Fixed)	mm	600	600	600	600	600	600	600	600
Shut Height (SDAU)	mm	1100 1400	1100 1400	1100 1400	1400	1500	1500	1700	1700
Slide Adjustment (Motorized)	mm	250	250	300	300/275	400	400	400	400
Slide & Bolster Face- LR X FB (Alt-1)	mm	3700 x 1900	4000 x 2200	4600 x 2200	4900 x 2200	6100 x 2500	6100 x 2500	6700 x 2500	6700 x 2500
Slide & Bolster Face- LR X FB (Alt-2)	mm	4000 x 2200	4300 x 2200	4900 x 2200	5200 x 2200	6400 x 2500	6400 x 2500	7000 x 2750	7000 x 2800
Slide & Bolster Face- LR X FB (Alt-3)	mm	4300 x 2200	4600 x 2200	5200 x 2200	5500 x 2500	6700 x 2800	6700 x 2800	7600 x 3050	7600 x 3050
Die Cushion Capacity (Optional on 1st & 2nd stations*)	kN				As per requirement				
Maximum opening between Uprights FB (Alt-1)	mm	2700	3000	3000	3000	3300	3300	3300	3300
Maximum opening between Uprights FB (Alt-2)	mm	3000	3000	3000	3000	3300	3300	3600	3600
Maximum opening between Uprights FB (Alt-3)	mm	3000	3000	3000	3000	3600	3600	3900	3900

Machines are manufactured as per SI Units. Dimensions in FPS are approximate and given only for reference Specifications are subject to change without notice

* Optional Features

Technical Specifications of MAS-T Series 315T-2000T

TWO POINT SUSPENSION ECCENTRIC DRIVE SERVO MECHANICAL PRESS – MAS-T-2E									
Model No.		MAS-T-2E-315		MAS-T-2E-400	MAS-T-2E-500	MAS-T-2E-630	MAS-T-2E-800	MAS-T-2E-1000	MAS-T-2E-1250
Maximum Capacity	kN	3150		4000	5000	6300	8000	10000	12500
	US ton	347		440	550	693	880	1100	1375
Strokes Per Minute (Variable)	SPM	3-24		3-24	3-24	3-24	3-24	3-24	3-24
Stroke Length (Fixed)	mm	450	600	600	600	600	600	600	600
Shut Height (SDAU)	mm	800	1100	1100	1100	1100	1100	1400	1400
Slide Adjustment (Motorised)	mm	200	300	300	300	300	400	400	400
Slide & Bolster Face - LR X FB (Alt-1)	mm	2500x1600		2500x1600	2800x1600	2800x1600	3100x1600	3100x1900	3400x1900
Slide & Bolster Face - LR X FB (Alt-2)	mm	2800x1600		2800x1600	3100x1600	3100x1600	3400x1600	3400x1900	3700x1900
Slide & Bolster Face - LR X FB (Alt-3)	mm	3100x1600		3100x1600	3400x1600	3400x1600	3700x1600	3700x1900	4000x1900
Die Cushion Capacity*	kN	500		630	800	1100	1250	1600	2000
	US ton	55		69	88	121	138	176	220
Die Cushion Stroke*	mm	160	220	220	220	220	220	250	250
Die Cushion Pad Size (Alt-1)	mm	2050x1150		2050x1150	2350x1150	2350x1150	2650x1150	2650x1450	2950x1450
Die Cushion Pad Size (Alt-2)	mm	2350x1150		2350x1150	2650x1150	2650x1150	2950x1150	2950x1450	3250x1450
Die Cushion Pad Size (Alt-3)	mm	2650x1150		2650x1150	2950x1150	2950x1150	3250x1150	3250x1450	3550x1450

FOUR POINT SUSPENSION ECCENTRIC DRIVE SERVO MECHANICAL PRESS – MAS-T-4E											
Model No.		MAS-T-4E-315		MAS-T-4E-400	MAS-T-4E-500	MAS-T-4E-630	MAS-T-4E-800	MAS-T-4E-1000	MAS-T-4E-1250	MAS-T-4E-1600	MAS-T-4E-2000
Maximum Capacity	kN	3150		4000	5000	6300	8000	10000	12500	16000	20000
	US ton	347		440	550	693	880	1100	1375	1760	2200
Strokes Per Minute (Variable)	SPM	3-24		3-24	3-24	3-24	3-24	3-24	3-24	3-24	3-24
Stroke Length (Fixed)	mm	450	600	600	600	600	600	600	600	600	600
Shut Height (SDAU)	mm	800	1100	1100	1100	1100	1400	1100	1400	1100	1500
Slide Adjustment (Motorised)	mm	200	300	300	300	300	400	400	400	400	400
Slide & Bolster Face- LR X FB (Alt-1)	mm	2800x1900		2800x1900	2800x1900	2800x1900	3400x1900	3400x2200	3700x2200	4000x2500	4000x2500
Slide & Bolster Face - LR X FB (Alt-2)	mm	3100x1900		3100x1900	3100x1900	3100x1900	3700x2200	3700x2200	4000x2500	4300x2500	4300x2500
Slide & Bolster Face - LR X FB (Alt-3)	mm	3400x1900		3400x1900	3400x1900	3400x1900	4000x2500	4000x2500	4300x2500	4600x2500	4600x2500
Die Cushion Capacity*	kN	500		630	800	1100	1250	1600	2000	2500	2500
	US ton	55		69	88	121	138	176	220	275	275
Die Cushion Stroke*	mm	160	220	220	220	250	250	280	280	300	300
Die Cushion Pad Size (Alt-1)	mm	2350x1450		2350x1450	2350x1450	2350x1450	2950x1450	2950x1750	3250x1750	3250x1750	3250x1750
Die Cushion Pad Size (Alt-2)	mm	2650x1450		2650x1450	2650x1450	2650x1450	3250x1750	3250x1750	3250x1750	3250x1750	3250x1750
Die Cushion Pad Size (Alt-3)	mm	2950x1450		2950x1450	2950x1450	2950x1450	3250x1750	3250x1750	3250x1750	3550x1750	3550x1750



Technical Specifications of MAS-P Series 315T-1250T

Model No.		MASP-2E-315	MASP-2E-400	MASP-2E-500	MASP-2E-630	MASP-2E-800	MASP-2E-1000	MASP-2E-1250
Maximum Capacity	kN	3150	4000	5000	6300	8000	10000	12500
	US Ton	347	440	550	693	880	1100	1375
Suspension Points	no.	2	2	2	2	2	2	2
Speed(variable)	spm	3-90/3-70	3-90/3-70	3-70	3-70	3-70	3-70	3-50
Stroke Length (Fixed)	mm	200/300	200/300	200/250/300	200/250/300	200/250/300	200/250/300	250/300/400
Shut Height (SDAU)	mm	600	700	700	700	800	800	1000
Slide Adjustment (Motorised)	mm	200	250	250	250	300	300	300
Bolster & Slide Face - LR x FB (Alt1)	mm	2200 x 1300	2500 x 1600	2500 x 1600	2800 x 1600	3100 x 1600	3100 x 1600	3100 x 1600
Bolster & Slide Face - LR x FB (Alt2)	mm	2500 x 1300	2800 x 1600	2800 x 1600	3100 x 1600	3400 x 1600	3400 x 1600	3400 x 1600
Bolster & Slide Face - LR x FB (Alt3)	mm	2800 x 1300	3100 x 1600	3100 x 1600	3400 x 1600	3700 x 1600	3700 x 1600	3700 x 1600
Bolster & Slide Face - LR x FB (Alt4)	mm	3100 x 1300	3400 x 1600	3400 x 1600	3700 x 1600	4000 x 1600	4000 x 1600	4000 x 1600
Opening in Uprights (Front to Back)	mm	800	1100	1200	1300	1400	1500	1500

Machines are manufactured as per SI Units. Dimensions in FPS are approximate and given only for reference
 Specifications are subject to change without notice

* Optional Features

Standard Accessories

- High Torque Servo Motor with Controls
- Safety Brakes
- Energy Storage & Management System
- Programmable Logic Controller
- Dual Check Safety Electrical Circuit
- Production Counters (Total Batch/Shift) on HMI
- Counter Balance Cylinder
- Hydraulic Overload Protection
- Centralised Re-circulating Automatic Oil Lubrication System
- User-friendly Touch Screen Interface
- Motorised Slide Adjustment
- Emergency Stop Buttons
- LED Die Area lights
- Portable Two Hand Operator Stand
- Crank Angle Indicators
- Maintenance Tool Kit
- 6 Nos. Preset Motion Profiles

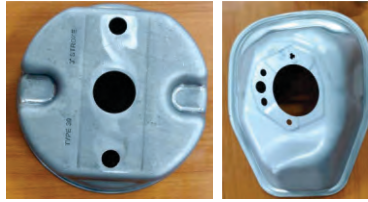
Optional Accessories

- Die Clamps for Quick Die Change
- Programmable Cam Switches
- Die Cushion
- Electronic Force Monitoring / Process Monitoring with Signature Analysis
- Anti Vibration Mounts
- Bearing Temperature Monitoring System
- Higher Hydraulic Overload Stroke
- Compliance with CE/OSHA Safety Standards
- Link Drive option in Servo Press
- Automatic Die Change System
- Slide Locking Device
- Moving Bolster with T-Track
- Die Automation Control
- Scrap Chute with Interlocked Opening Covers
- Photoelectric Guards on front and rear
- SCADA System
- REACH 4.0 Enable Smart Control

Front of Line & End of Line Solutions

- Destacker/Coil Line with 3-D-Electronic Transfer system
- Robotic Auto stacking of Parts

Standard Servo Mechanical Press MAS1 & MAS2 Series 40T-630T



Productivity increased

Increased Output approx. upto 25%

Improved Part Quality

Reduced Rejection by 5%

Reduced Lubrication



Technical Specifications of MAS1 Series 40T-300T

GAP FRAME SERVO MECHANICAL PRESS – MAS1									
tonnage	unit	40	63	80	110	160	200	250	300
Models		MAS1	MAS1	MAS1	MAS1	MAS1	MAS1	MAS1	MAS1
Maximum capacity	kN	400	630	800	1100	1600	2000	2500	3000
	US Ton	45	70	88	121	176	220	275	330
SPM (Crank Mode)	spm	85	80	80	70	60	50	40	30
SPM (Pendulum Mode)	spm	130	120	115	110	100	90	80	60
Stroke Length - Fixed	mm	70	120	150	180	200	200	250	250
Throat	mm	225	250	310	355	400	425	475	475
Shut Height (SDAU)	mm	230	300	325	350	400/500/500	450/550/550	600	600
Slide Adjustment	mm	60	70	80	80	120	120	120	125
Slide Face (a x b)	mm	400 x 350	500x400	525x450	625x500	700x580	840x650	940x700	1100x800
Bolster Face (c x d)	mm	800 x 450	900x500	1000x620	1150x710	1250x800	1450x850	1450x950	1450x950
Bolster Thickness (f)	mm	90	90	100	1150	140	160	160	160
Height of Bolster Surface from floor (without AVM Pads)	mm	800	900	900	900	900	1000	1100	1200

Technical Specifications of MAS2 Series 250T-630T

MONOLITHIC FRAME SERVO MECHANICAL PRESS – MAS2						
tonnage	unit	250T	315T	400T	500T	630T
Model no.		MAS2	MAS2	MAS2	MAS2	MAS2
Maximum Capacity	kN	2500	3150	4000	5000	6300
	US Ton	275	347	440	550	693
SPM (Crank Mode)	spm	40	35	32	30	27
SPM (Pendulum Mode)	spm	85	75	65	60	55
Stroke Length - Fixed	mm	250	300	300	350	350
Shut Height (SDAU)	mm	600	800	800	1000	1000
Slide Adjustment	mm	120	120	120	120	120
Slide Face-LR x FB (Alt-1)	mm	2200X1000	2200X1000	2500X1000	3100X1200	3100X1200
Slide Face-LR x FB (Alt-2)	mm	2500X1000	2500X1000	2800X1000	3400X1200	3400X1200
Slide Face-LR x FB (Alt-3)	mm	X	2800X1000	3100X1000	X	X
Bolster Size-LR x FB (Alt-1)	mm	2500X1100	2500X1100	2800X1100	3400X1300	3400X1300
Bolster Size-LR x FB (Alt-2)	mm	2800X1100	2800X1100	3100X1100	3700X1300	3700X1300
Bolster Size-LR x FB (Alt-3)	mm	X	3100X1100	3400X1100	X	X

Standard Accessories for Gap Frame & Monolithic Frame Presses

- Servo Motor with Controls
- Pneumatic Counter Balance Cylinders
- Hydraulic Overload Protection
- Motorized Slide Adjustment
- Automatic Forced Lubrication
- Operator Panel with PLC & HMI
- Production Counter
- Emergency Stop Buttons
- Electronic Shut Height Indicator
- Two Hand Push Button Station
- Safety Brakes
- Anti-Repeat Safety Device
- Rotary Cam Limit Switches
- Die Area lights
- Power Socket
- Photo Electric Guards
- Programmable Logic Control
- Dual Safeties
- Safety Block
- 6 Cam Box

Optional Accessories

- Pneumatic Die Cushion
- Metallic Guards & Covers
- Variable Speed through AC Inverter
- Tonnage Monitor
- Quick Die Change System
- Anti Vibration Mounts
- Auto Coil Feeding System
- Misfeed Detection Socket
- Air Outlet
- Mechanical Knock Out
- Safety Block
- Interfacing provision with Coil Feeding System
- Safeties conform to CE/OSHA
- Die Protection System
- Fixed type Side Safety Guards

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



www.isgtec.com



Follow us on:



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

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

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

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

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

Corporate Office : Isgtec 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

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