



PRESSES

MECHANICAL • HYDRAULIC • SERVO

Gap Frame Presses

GZ & GL Series

40T - 400T



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

High Performance Sheet Metal Working

ISO 9001:2015

Rigidity • Precision • Reliability

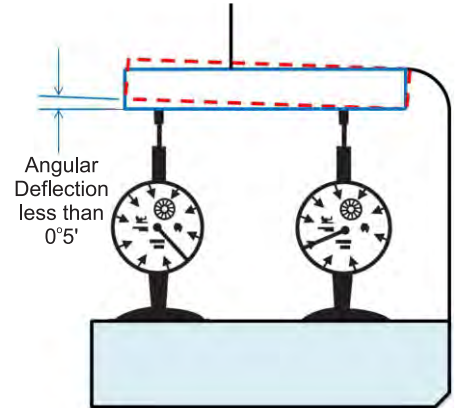
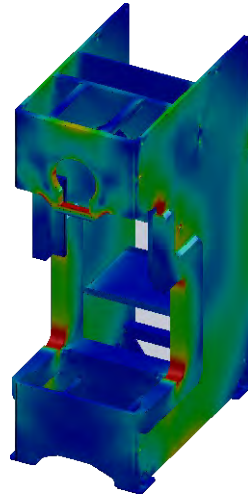


ISGEC RHINO - GAP FRAME PRESSES

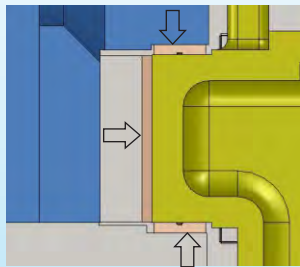
RIGIDITY • PRECISION • RELIABILITY

Rigidity

- Frame fabricated from tested steel plates and stress relieved to ensure uniform stress distribution, better stability and fatigue free long life of the frame.
- Finite Element Analysis software used to verify fatigue life of stress relieved Press structure and to enable maximum rigidity.
- Stronger and symmetric frame having 10% less stress with reinforcement on both sides.
- High rigidity of frame reduces angular deflection thereby maintaining alignment of top and bottom dies. It increases die life and produces better quality stamped parts.



Measured at front and rear of Frame under full Load



Accurate Slide & Guide

- Extra long six point guides to ensure accurate slide guiding.
- Non Ferrous Liners.
- Accurately machined on CNC Machines.

Precise and Vibration Free Transmission

Crank Shaft

Forged from Normalized Alloy Carbon Steel, Ultrasonically Tested.

CAD analysis ensures elimination of stress concentrations and metal fatigues.

Gear

Gears of drive train machined to precision grade, conforming to DIN Grade 7 or AGMA 10 and better, for smooth torque transmission and vibration free operation.

Pinion

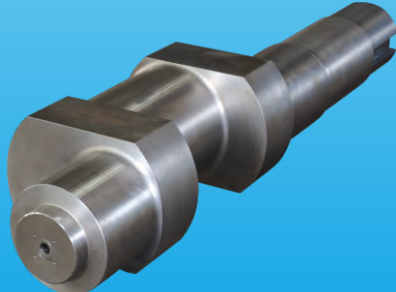
Forged Alloy Steel, Hardened & Tempered, Ultrasonically Tested, Accurately Machined and Ground.

Connecting Rod

Steel Casted, Normalized and Ultrasonically Tested.

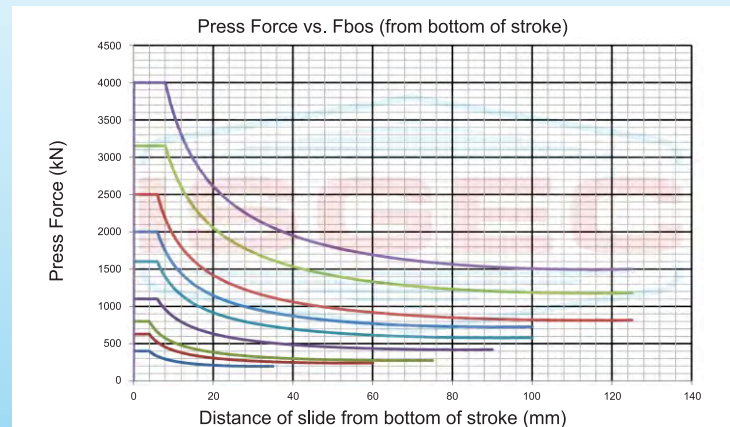
Flywheel

Dynamically balanced Flywheel for long life of bearings.



High Work Energy

- Highest Available Work Energy in its Class per Stroke



Pneumatic Clutch and Brake

- Pneumatically operated Clutch and Brake for easy maintenance and service.
- Clutch & Brake controlled by Dual Solenoid Valve.
- **Wet Clutch provided on demand.**



FEATURES

Hydraulic Overload Protection

Hydraulically operated fast acting Over Load protection mechanism mounted on slide for better performance thereby preventing damage to the Press and Dies



Operator Control Station & Safety

- Programmable Logic Controller with user-friendly operator Interface has Operator Screens with Diagnostic features, improved through continuous feedback from Press users.
- Compliance with CE/OHSA Safety regulations provided on demand.
- Air Reservoir provided with Safety Valve and Drain Cock.



Motorised Grease Lubrication

- Automatic Grease Lubrication system lubricates Crank Shaft Bushes, Connecting Rod Bushes and Slide Guides.
- Oil Sump Lubrication for Main Gear Train for effective lubrication and heat dissipation.
- Lubrication is monitored through Progressive Lubrication Supply Line to give fault signals on HMI screen.

Oil dipped Pitman Screw

- Slide adjustment threads oil dipped to reduce friction.
- Prevents jamming and increases life.



Pneumatic Die Cushion

- Piston type Pneumatic Die Cushion ensures Long life. It is Maintenance friendly and easy to remove & install.
- Hardened grounded saddles on Die Cushion Pad area to ensure enhanced life and accuracy.



Standard Accessories

- Pneumatic Counter Balance Cylinders
- Hydraulic Overload Protection
- Motorized Slide Adjustment
- Automatic Forced Lubrication
- Operator Panel with PLC & HMI
- Pneumatic Clutch & Brake
- Emergency Stop Buttons
- Digital Shut Height Indicator
- Two Hand Push Button Station
- Production Counter
- Anti-Repeat Safety Device
- Rotary Cam Limit Switches
- Die Area Light
- Power Socket
- Photo Electric Guards
- Mechanical Knock Out

Optional Accessories

- Pneumatic Die Cushion
- Wet Clutch
- Variable Speed through AC Inverter
- Tonnage Monitor
- Quick Die Change System
- Anti Vibration Mounts
- Direct Air Socket
- Feedline Equipment (De-Coiler, Straightener, Feeder)
- Cam Operated Air Socket
- Mis Feed Detection Socket
- Metallic Guards & Covers
- Safety Block
- Automated Component Transfer System (ACTS)

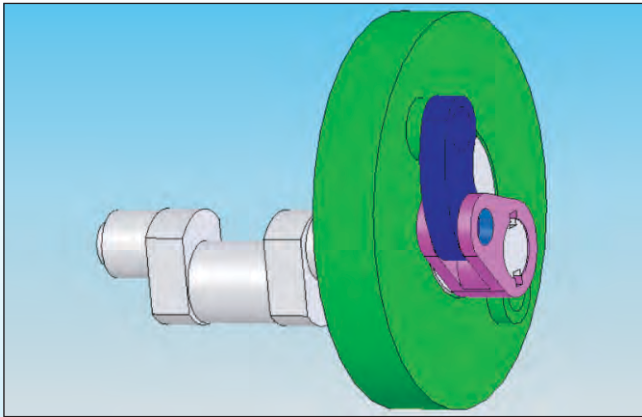


ISGEC RHINO - LINK DRIVE GAP FRAME PRESSES (GZ & GL SERIES)

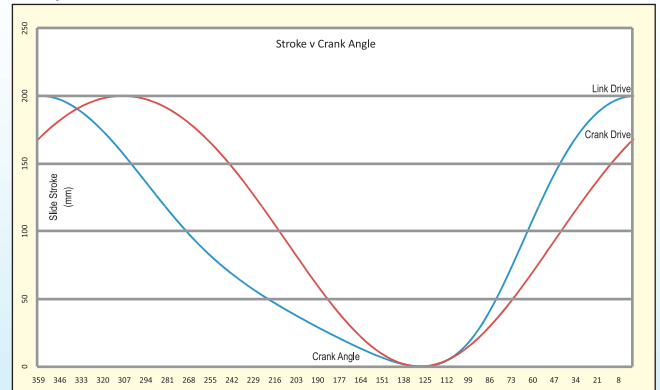
Isgec Rhino Link Drive Presses offer low speed in working zone resulting in increased metal flow time as the slide remains in the working position for more than 40% of the time compared to conventional drives. The approach & return speeds are higher, to maintain cycle time.

- **IMPROVED DIE LIFE**
- **BETTER QUALITY PARTS**
- **LOWER PART REJECTION**
- **HIGHER PRODUCTION RATE**

3D view of Link



The graph demonstrates the higher time available during working stroke in case of Isgec Link Drive Presses, compared to Conventional Drives.



SPECIFICATIONS

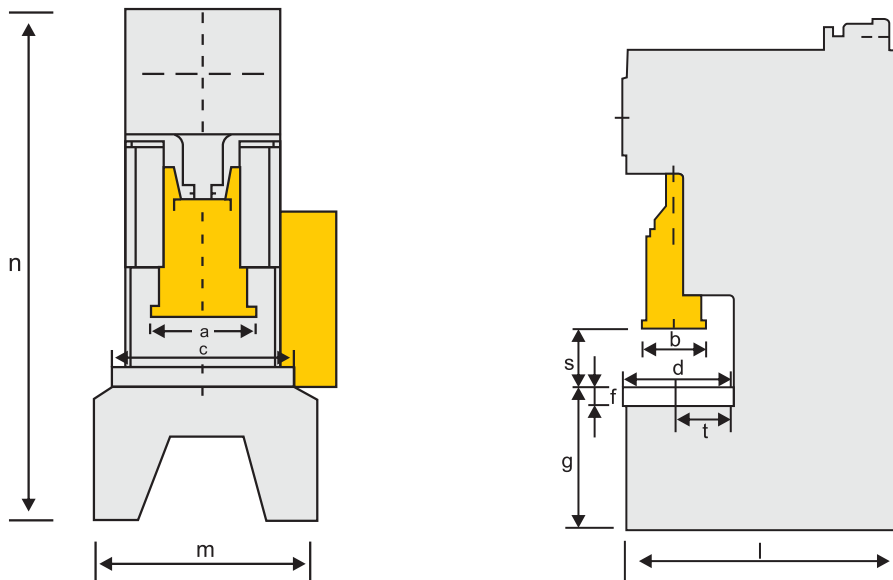
Tonnage	Unit	40	63	80	110		160		200		250	315	400
Maximum Capacity	kN	400	630	800	1100		1600		2000		2500	3150	4000
Models		GZ/GMS	GZ/GMS	GZ/GMS	GZ/GL	GMS	GZS/GZ/GL	GMS	GZS/GZ/GL	GMS	GZ/GL	GZ/GL	GZ
Rated distance	mm	4/2.3	4/2.6	4/3.2	6	3.2	6	4	6	4	6	8	8
Speed (Fixed)	spm	65/120	60/100	60/100	45	90	45	80	40	60	40	40	30
*Speed (Variable)^	spm	45-85/80-160	40-80/75-150	40-80/65-130	30-60	60-120	30-60	50-100	25-50	40-80	25-50	25-50	20-40
Stroke Length - Fixed	mm	70/50	120/50	150/60	180	70	200	80	200	100	250	250	250
Throat (t)	mm	225	250	310	355		400		425		475	475	475
Shut Height (s) Stroke Down Adjustment Up (SDAU)	mm	230	300	325	350		400/500		450/550/550		550	600	600
Slide Adjustment	mm	60	70	80	80		120		120		120	120	125
Slide Face (a x b)	mm	400x350	500x400	525x450	625x500		700x580		840x650		940x700	1100x800	1100x800
Bolster Size (c x d)	mm	800x450	900x500	1000x620	1150x710		1250x800		1450x850		1450x950	1450 x950	1600x950
Bolster Thickness (f)	mm	90	90	100	115		140		160		160	160	190
Height of Bolster Surface from Floor (g) (without AVM)	mm	800	900	900	900		900		1000		1100	1200	1550
Main Motor Power	kW	3.7	5.5	7.5	11		15	11	15		18.5	22.5	37
*Die Cushion Capacity at 7kg/sq.cm.	kN	23/NA	36/NA	36	63	NA	100	NA	140	NA	140	140	250
Die Cushion Stroke Length	mm	35/NA	60/NA	75	90	NA	100	NA	100	NA	125	125	125
Die Cushion Pad Area	mm	300 x 230/NA	350 x 300/NA	450 x 310/NA	500 x 450	NA	600 x 450	NA	600 x 560		600 x 560	600 x 560	750 x 700
#Overall Dimensions (n x l x m)	mm	2650x1450x1400	2750x1600x1500	3400x1800x1550	3400x2100x1650		3700x2300x1750		4150x2400x1950		4460x2600x1950	4850x2600x1900	6000x2800x2200

GZ & GZS: Standard Presses. GL: Link Drive Press. GMS: Medium Speed Press.

* Optional at extra cost.

^ Single stroke working is recommended up to mid SPM only.

Overall Dimensions of GL Series are slightly different.



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A battery of Presses (40 T to 300 T Capacity) supplied to MUSCO, India for production of components for Tata Motors.

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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