



**PRESSES**  
MECHANICAL & HYDRAULIC

*High Speed Mechanical Presses  
for Progressive Operation*

*MHS Series*

40T - 315T



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

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

**Precision & Productivity Hand in Hand**

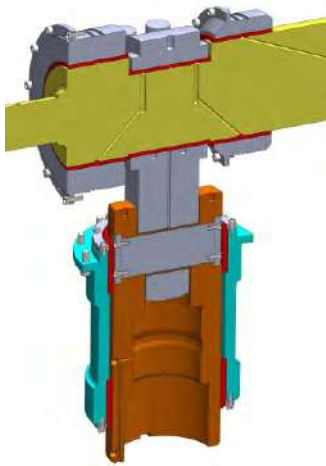
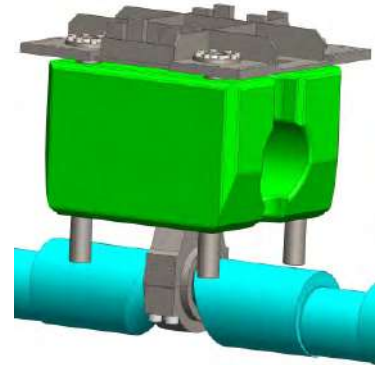
**High Precision • Dynamically Balanced • Superior Part Quality**

**Enhanced Repeatability • Enhanced Die Life • Automated Operation**



## Dynamic Balancing

- Dynamic Balancing System to balance inertia forces generated due to high speed rotation of Crank Shaft.
- Dynamic Balancing System ensures oscillation free operation, High level of production accuracy, longer tool life and many other indirect benefits to the user.



## Shaft Bearings

- High Quality ground Crank shaft supporting connecting rods on combination hydrostatic & hydrodynamic bearings.
- Widely supported connecting rods to ensure usage of long tools for progressive work with higher eccentric loading.

## Plunger Guides

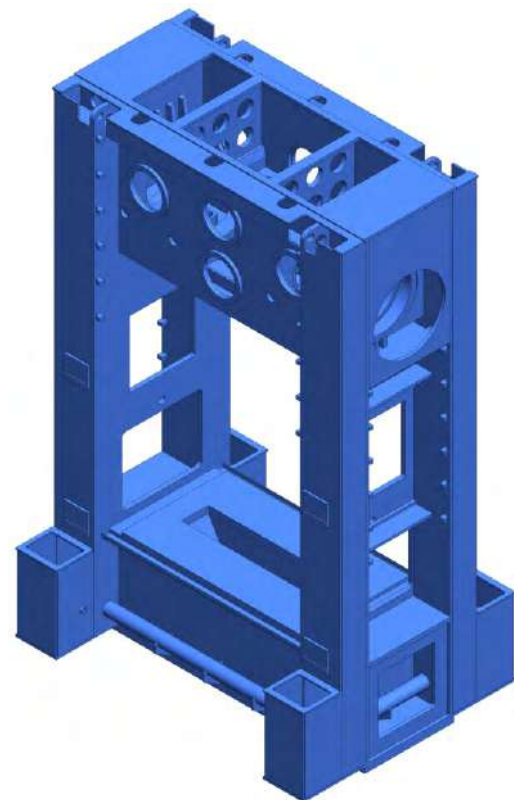
- Movement of Connecting rods through Plungers eliminates thrust on the Gibs due to eccentric motion of Press.
- Plunger Guides avoid change in guide clearance between Plunger and guide sleeve caused by different expansion rates of Crown and Slide in horizontal plane.

## Highly Rigid Frame

- Structure fabricated from quality tested steel plates with quality Welding to ensure high fatigue life compatible for high speed working.
- Finite Element Analysis (FEA) optimized design to ensure high fatigue life of thermally stress relieved Press structure and also to ensure maximum rigidity & long fatigue life.

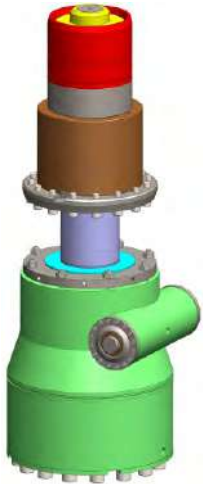
## Automatic Re-circulating Lubrication

- Centralized Re-circulating Automatic lubrication system for lubrication of all critical points with monitoring and interlocks to give fault signals on HMI.
- In addition to above, hydrostatic lubrication system is provided to start press at a higher speed without any risk of damage to the bearings.



## Thermal Control System

- Arrangement for Press Frame cooling to dissipate the heat generated during high speed operation available as an optional feature.



### Hydraulic Quick-Lift

- Hydraulic Quick lift system provides access to tool for maintenance and inspection purpose.
- Hydraulic system returns the Slide to its Original Shut height position against Mechanical Stop quickly & save time.

### Hydraulic Locking of Slide Adjustment Screw

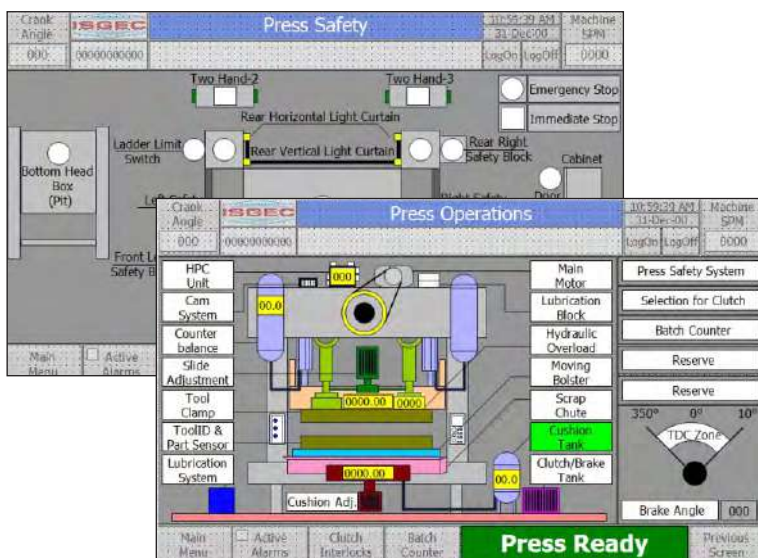
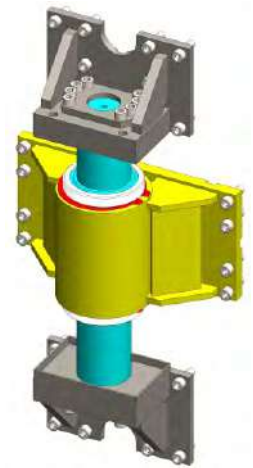
- Hydraulic Locking of slide adjustment screw prevents damage to slide adjustment system (on account of high dynamic load due to high speed) and to ensure precision in slide motion at high speed operation.

### Hydraulic Jamming Release Device

- Hydraulic Jamming Release Device is provided as a standard feature to resolve tool jam problems instantly.

### Hydrostatically Lubricated / Pre-Loaded Slide Guides

Hydrostatically lubricated guides for high reliability are available for medium thickness products. Alternatively solution of High Precision Preloaded Guides are available as an option to meet the customer's process requirement and/or production of highly accurate and thin products.



### User Friendly Operator Interface

- Programmable Logic Controller with user friendly operator interface through HMI (Human Machine Interface) screens with Diagnostic feature to troubleshoot and avoid stoppage.
- Ergonomically designed HMI screens developed over decades of practical experience, engineering efforts & constant feedback from press users.
- FMEA has been applied on machine, control system & operator interface for safety, maintainability & reliability to meet international bench marks for MTBF & MTTR.

### Safeties for Operator

- Dual Safety in Controls with monitoring
- Dual Solenoid Valve for Clutch & Brake actuation for dual redundancy of the system
- Anti repeat Circuit with Dual circuit
- Control Voltage 110V AC & 24V DC for Operator Safety
- Safety Interlocks as per International standards
- Emergency stop buttons
- Under/Over Voltage & Single Phase Protection System
- Two Hand Run Button Station
- Flywheel Safety Guard

## Standard Accessories

- Variable Speed through AC Inverter
- Anti Vibration Mounts
- Programmable Logic Control with User Friendly Interface
- Portable Two Hand Operator Stand
- Powered Slide Adjustment
- Centralized Re-circulating Automatic Lubrication system
- Programmable Cam switches
- Dual Check safety electrical circuit
- Pneumatic Clutch & Brake
- Emergency Stop buttons
- Manual Guards in Front and Rear with Windows
- Maintenance Tool Kit

## Optional Accessories

- Process Monitoring with Signature Analysis
- Quick Die Change System
- Die Automation Control
- Portable Die Area Lights
- REACH 4.0 Enable Smart Control
- Noise Enclosure
- Hydraulic Clutch & Brake
- Thermal Control System
- Compliance with CE/OSHA Safety Standards

## Technical Specifications

Description	Unit	40T	50T	63T		80T		100T		125T	160T	200T		250T	315T	
Model No.		MHS-40	MHS-50	MHS-63		MHS-80		MHS-100		MHS-125	MHS-160	MHS-200		MHS-250	MHS-315	
Maximum Capacity	kN	400	500	630		800		1000		1250	1600	2000		2500	3150	
Rated Distance	mm	1.6	1.6	2		2		2.5		2.5	3.2	3.2	6.35	4	3.2	4
Suspension Points	nos.	2	2	2		2		2		2	2	2	2	2	2	2
Strokes Per Minute (Variable)	SPM	200-600	200-600	200-500	200-600	200-600	200-500	200-500	200-400	200-400	160-320	160-320	45-200	100-250	100-325	100-250
Stroke Length (Fixed)	mm	32/40	32/40	32	40	32/40	50	40/50	63	40/50/63	50/63/80	50/63	80	63/80/100	30	63/80/100
Shut Height (SDAU)	mm	310/360	310/360	280/310/360		280/310/360		310/360/400		360/400	450/500	450/500	500	500/560	525	500/560
Slide Adjustment	mm	25	25	25		25		25		25	25	25	210	25	100	25
Quick Upper Die Lift	mm	100	100	100		100		100		100	100	100	X	100	X	100
Slide Face - LR x FB (Alt-1)	mm	710 x 440	710 x 440	1200 x 650	1000 x 560	1000 x 560	1000 x 560	1250 x 630	1400 x 630	1600 x 850	1600 x 850	1800 x 1200	1900 x 850	1850 x 850	1900 x 850	
Slide Face - LR x FB (Alt-2)	mm	X	X	X	X	1250 x 630	1400 x 560	X	X	X	X	X	2200 x 1100	X	2200 x 1100	
Bolster Size - LR x FB (Alt-1)	mm	710 x 560	710 x 560	1200 x 650	1000 x 710	1000 x 710	1000 x 710	1250 x 800	1400 x 850	1600 x 1000	1600 x 1000	1800 x 1200	1900 x 1000	2000 x 1000	1900 x 1000	
Bolster Size - LR x FB (Alt-2)	mm	X	X	X	X	1250 x 800	1400 x 710	X	X	X	X	X	2200 x 1300	X	2200 x 1300	
Side Opening	mm	140	140	180	180	180	180	200	250	400	400	500	500	500	500	
Main Motor Power	kW	9.3	11	18.5	22	30	30	37	37	45	55	55	55	55	75	

## 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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Some of the accessories / fittings 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.