



PRESSES

MECHANICAL • HYDRAULIC • SERVO

Straight Sided Hydraulic Presses

HSG Series

250T - 2500T



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 Versatile Hydraulic Forming

Energy Efficient Servo Hydraulics • Higher Productivity thru High Speed • Sustained Accuracies

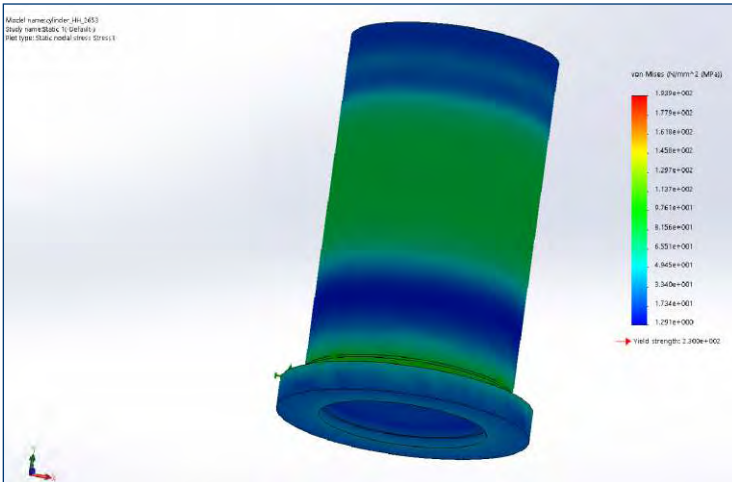
Accurate Stampings & Enhanced Die Life



HSG series Presses are suitable for diversified applications like Deep Draw, Forming, Hot Stamping etc. & are capable to integrate with various automation equipment.

Design & Engineering

Fatigue life of thermally stress relieved Press structure verified using Finite Element Analysis to ensure maximum rigidity for accurate stamping & enhanced die life.



Finite Element Analysis for hydraulic cylinder



Thermal Stress Relieving

Geometrical Accuracies

- Parts machined on high precision CNC Boring mother machines for built-in Geometrical Accuracies which are sustained.
- Geometrical accuracies as per JIS B 6403 Grade -1.
- Extra long guides.



Reliability

- Hydraulic modules for accurate & safe motion control.
- Seamless hydraulic pipes with full penetrated & tested welded joints.
- Single action cylinders to avoid piston rings for high reliability & ease of maintenance.
- Use of reputed make bought outs.

Safety

- Slide locking at TDC to prevent slide from falling
- Double Pressure Relief Valve System
- Interlocks for Filter Clogging, Oil Temperature, Oil Level etc.
- Control Voltage 110V AC & 24V DC for operation safety
- Design of Electrical, Hydraulic & Mechanical System as per IEC & ISO standards
- On demand Presses conforming to CE/OSHA Safety regulations
- Under/Over Voltage & Single Phase Protection System
- Emergency stop buttons
- Safety blocks for safety of operator & maintenance staff
- Two Hand Run Button Station
- Blanking Dampers (On Demand) reduce Noise, Vibration and protects the Press against snap through load thereby Increase Die Life

Blanking Dampers



User Friendly Layout

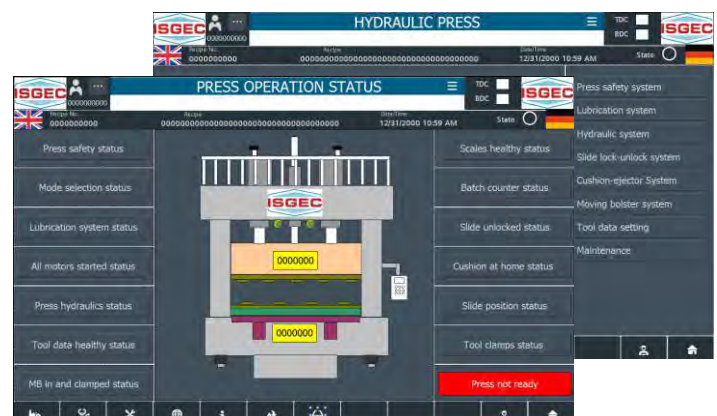
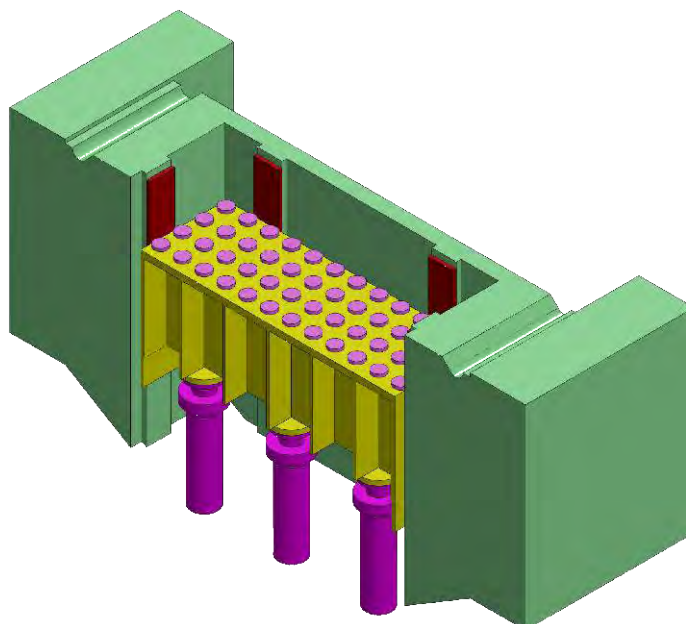
- In line with total productive maintenance (TPM) approach
- Enlarged platform
- Well clamped & isolated from vibration pipes and junction boxes
- Low height of press

High Uptime

- In line with Total Productive Maintenance (TPM) approach, Enlarged Platform, well Clamped & Isolated from Pipes and Junction Boxes etc.
- Single Action Cylinders for ease of Maintenance & High Reliability.
- Seamless Hydraulic Piping with full Penetration Welding joints & duly Tested.
- Use of reputed makes with ease Availability.

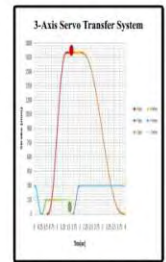
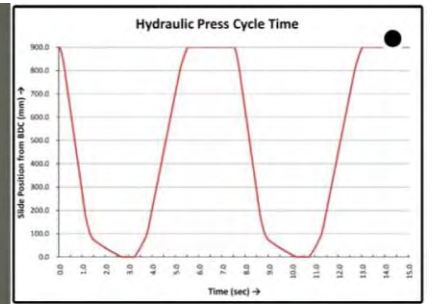
Ease of Operation

Programmable Logic Controller with User Friendly Operator Interface through Ergonomically designed operator Screens. HMI (Human Machine Interface) screens with Diagnostic feature developed by constant improvements through feedback from Press users.



Die Cushion & Ejector - Optional

- Hydraulic operated die cushion for better part quality.
- Cushion Pin Layout as per JIS, JIC & DIN depending upon customer requirement.





Technical Specifications

	Unit	250T	315T	400T	500T	630T	800T	1000T	1250T	1600T	2000T	2500T
Capacity*	kN	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000	25000
	US Ton	275	347	440	550	693	880	1100	1375	1760	2200	2750
Daylight	mm	1000	1200	1400	1400	1600	1600	1600	1800	2000	2000	2000
	inch	39.4	47.2	55.1	55.1	63.0	63.0	63.0	70.9	78.7	78.7	78.7
Stroke of main slide	mm	700	800	900	900	1000	1000	1000	1200	1500	1500	1500
	inch	27.6	31.5	35.4	35.4	39.4	39.4	39.4	47.2	59.1	59.1	59.1
Bolster Size - LR x FB (Alt 1)	mm	1600 x 1000	2200 x 1600	2200 x 1600	3100 x 1900	3100 x 1900	3400 x 2200	3400 x 2200	4000 x 2200	4500 x 2500	4500 x 2500	4500 x 2500
	inch	63x39	87x63	87x63	122x75	122x75	134x87	134x87	158x87	177x98	177x98	177x98
Bolster Size - LR x FB (Alt 2)	mm	1600 x 1300	2500 x 1600	2500 x 1600	3400 x 2200	3400 x 2200	3700 x 2200	3700 x 2200	4500 x 2500	5000 x 3000	5000 x 3000	5000 x 3000
	inch	63x51	98x63	98x63	134x87	134x87	146x87	146x87	177x98	197x118	197x118	197x118
Slide Size - LR x FB (Alt 1)	mm	1450 x 1000	2050 x 1450/1600	2050 x 1450/1600	2950 x 1750/1900	2950 x 1750/1900	3250 x 2050/2200	3250 x 2050/2200	4000 x 2200	4500 x 2500	4500 x 2500	4500 x 2500
	inch	57x39	81x57/63	81x57/63	116x69/75	116x69/75	128x81/87	128x81/87	158x87	177x98	177x98	177x98
Slide Size - LR x FB (Alt 2)	mm	1450 x 1150/1300	2350 x 1450/1600	2350 x 1450/1600	3250 x 2050/2200	3250 x 2050/2200	3550 x 2050/2200	3550 x 2050/2200	4300 x 2500	5000 x 3000	5000 x 3000	5000 x 3000
	inch	57x45/51	93x57/63	93x57/63	128x81/87	128x81/87	140x81/87	140x81/87	169x98	197x118	197x118	197x118
Fast Approach**	mm/s	400	400	400	400	400	400	400	400	400	400	400
	mm/s	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Fixed Pressing Speed ***	mm/s	15	10/15	12/15	10/12/20	10/15	12/15/25	20	15	15	15	15
	inch/s	0.6	0.4/0.6	0.5/0.6	0.4/0.5/0.8	0.4/0.6	0.5/0.6/1.0	0.8	0.6	0.6	0.6	0.6
Return Speed with Fixed Pressing Speed	mm/s	180	180/150	140/185	110/145/215	115/170	130/180/250	250	150	150	150	150
	inch/s	7.1	7.1/5.9	5.5/7.3	4.3/5.7/8.5	4.5/6.7	5.1/7.1/9.8	9.8	5.9	5.9	5.9	5.9
Main Motor Power	KW	22.5	22.5/37	37/55	37/55/75	55/75	75/110/160	160	200	132 x 2	160 x 2	200 x 2
	HP	30	30/50	50/75	50/75/100	75/100	100/150/215	210	263	177x2	215x2	263x2
Cushion Force option	kN	1000	1250	1600	2000	2500	3150	3150	3150	3150	4000	5000
	US Ton	110	138	176	220	275	347	347	347	347	440	550
Cushion Stroke	mm	250	300	300	300	400	400	400	400	400	400	400
	inch	9.8	11.8	11.8	11.8	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Cushion Table size - LR x FB (Alt 1)	mm	1150 x 550	1750 x 1150	1750 x 1150	2650 x 1450	2650 x 1450	2950 x 1750	2950 x 1750	3550 x 1750	3850 x 2050	3850 x 2050	3850 x 2050
	inch	45x22	69x45	69x45	104x57	104x57	116x69	116x69	140x69	152x81	152x81	152x81
Cushion Table size - LR x FB (Alt 2)	mm	1150 x 850	2050 x 1150	2050 x 1150	2950 x 1750	2950 x 1750	3250 x 1750	3250 x 1750	3850 x 2050	4150 x 2350	4150 x 2350	4150 x 2350
	inch	45x33	81x45	81x45	116x69	116x69	128x69	128x69	152x81	163x93	163x93	163x93

* Customised solutions upto 16000T also available

** Faster Speed options available.

*** Pressing Speeds specifically suitable for Cycle Time & Applications can be provided.

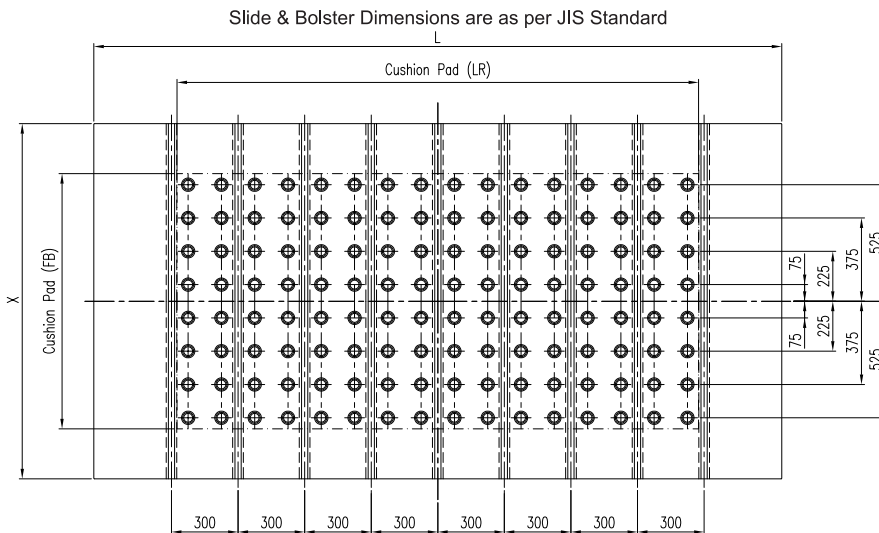
Standard Accessories

- Oil Filtering & Magnetic Particle Capturing (Built in Circuit)
- Oil Cooling (Water Cooled Heat Exchanger)
- Safety Blocks
- HMI including Self Diagnostic
- Slide Locking at Top Dead Center
- Two Hand Operation Stand
- Main Operator Panel
- Servo Hydraulics instead of Conventional Hydraulics
- Programmable Logic Controller
- Photo-Electrical Safety Guard

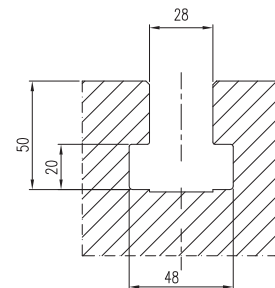
Optional Accessories

- Variable Pressing Speeds
- Oil Cooling through Water Chiller Unit
- Forced Air Cooling System for Oil Cooling
- Hydraulic Dampers for Cutting Loads
- Additional Two Hand Operation Stand
- Interfacing with Robotic/Transfer Systems
- Proportional Hydraulic Controls
- Stepless Slide Locking Device
- Die Cushion & Ejector
- Quick Die Change System
- Servo Motor instead of Conventional Motor
- Feeding & Coil Handling Systems
- Moving Bolster
- Programmable NC Die Cushion
- Die Space details as per JIS, DIN, JIC & Customer Specifications
- REACH 4.0 Enable Smart Control

Bolster T-Slot Details



T-Slot Size as per T-28 of ISO Standard



T-Slots, Cushion Pin Layout as per JIS, JIC & DIN can be given as per customer requirement on demand.

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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Details given in this Brochure are indicative & may change.