



**迪斯油壓**  
DEES HYDRAULIC

THE ESSENCE OF METAL FORMING

**DEES HYDRAULIC INDUSTRIAL CO., LTD.**

HEADQUARTER (TAIWAN)

100, SEC. 1, FIEN LIAO RD., LIN KOU DIST. NEW TAIPEI CITY, TAIWAN

TEL: +886-2-2601 8661

FAX: +886-2-2601 8936

E-mail: [sales@spc.com.tw](mailto:sales@spc.com.tw) / [sales@deesgroup.com.tw](mailto:sales@deesgroup.com.tw)

[www.deesgroup.com.tw](http://www.deesgroup.com.tw)

**CHINA**

58, YUANFENG RD., KUNSHAN, JIANGSU, CHINA

TEL: + 86-512-5757 2598

FAX: + 86-512-5757 2198

E-mail: [sales@deespress.cn](mailto:sales@deespress.cn)

[www.dees1976.com](http://www.dees1976.com)



CE ISO9001 2014.01.2000

The contents disclosed in this catalogue are exclusive property of DEES Hydraulic Industrial Co., Ltd.  
Unauthorized duplication in parts or its entirety is prohibited.



- 1976** DEES Hydraulic was established in January by the president Mr. H.H.Hwang. Specializing in manufacturing various kinds of hydraulic machinery.
- 1977** Received Excellence in Design award from the Ministry of Economic Affairs during the TIMTOS exhibition in Taipei.
- 1986** Dees engineered the first NC Hydraulic press brake in Taiwan with ITRI. (Industrial Technology Research Institute of Taiwan)
- 1986** Relocated to Linkou city for expansion.
- 1990** Over 1000 machine built and exported to more than 50 countries.
- 1993** Developed Taiwan's first CNC press brake with BOSCH and CYBELEC controls.
- 1994** DEES was the first professional hydraulic press manufacturer who obtained the certificate of ISO-9002.
- 1995** DEES successfully built a high speed hydraulic press with integration of automation system for the stamping industries in the United States.
- 1998** DEES hydraulic presses acquired CE certification for Europe.
- 1998** Second production facility completed in Linkou.
- 1999** DEES created a special research team, which consisted of various industry's engineers to terminate the problems of oil leaks through the cylinders.
- 2000** This research lasted 2 years with tremendous accomplishments. Through termination of oil leak problem in cylinder, we also achieve higher precision and faster speed.
- 2000** Successfully installed a 2000ton tandem line with integration of YASKAWA robots for automation .
- 2001** Established the facility in Kunshan City, China and started production.
- 2001** Taipei headquarter received certificate of "ISO-9001" 2000 version.

- 2002** Developed die spotting press with 180 degree tilting slide.
- 2003** Kunshan facility obtained the certificate of ISO-9001.
- 2004** The 2nd phase of the construction of Kunshan facility completed and started its production.
- 2005** Hemming press with automatic die changing system for 8 sets of tooling completed.
- 2005** 3500 tons truck chassis forming press completed.
- 2006** Over 3000 machine built and exported to more than 70 countries.
- 2007** Over 30 running tandem lines installed in main automotive manufacturers and their related industries in China.
- 2008** Taiwan headquarter building with R&D center completed.
- 2009** Get 4 patents for HD type hydraulic press and 2 invention patents.
- 2010** 6000 tons truck chassis forming press completed.
- 2010** Land for 3rd manufacturing facility in Taiwan purchased.
- 2010** DEES Kunshan applied and received China's National Hightech Enterprise Certification.
- 2011** Two 2300ton automotive stamping tandem lines with FANUC robotic system put into operation.
- 2011** Successful development of 1000 tons hydraulic press with fast pressing speed 100mm/sec.
- 2012** Completion of 1400 ton and 1500 ton hydraulic transfer presses for Germany and USA customer.
- 2012** Successfully developed high-precision closed loop servo hydraulic die spotting press.
- 2013** 363,000m<sup>2</sup> Brand new China Kunshan facility completed.

## STRAIGHT SIDE PRESS

**Standard Accessories**  
 Pump / motor horizontal engineering  
 Hydraulic power system utilizes flexible connection for easy maintenance while limiting vibration and noise.



**Standard Accessories**  
 Advanced logic valves integrated manifold design compact manifold allows limited piping, quick response.

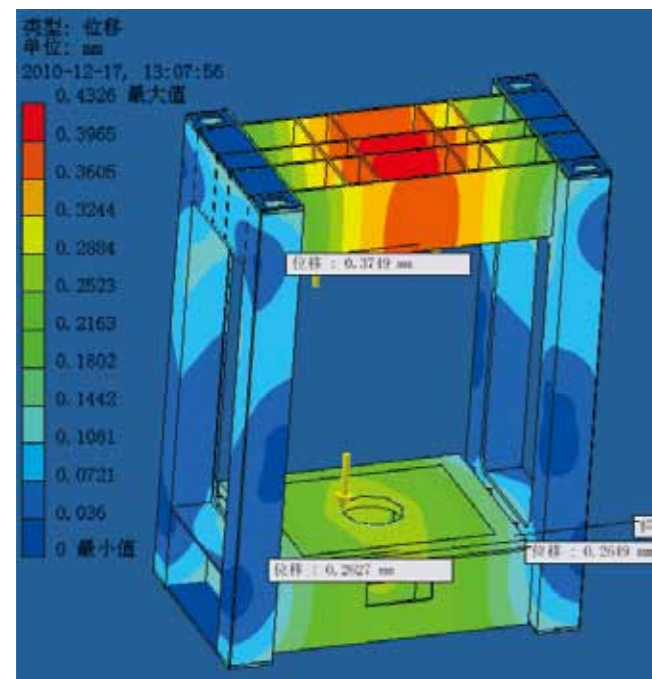


**WEBASTO installed in USA**  
 Intergraded with GUEDEL automation



**GRAMMER installed in Tianjin, China**  
 Intergraded with 3 in 1 straightener feeder w/uncoiler

One-piece frame design focused on structural optimization, while providing efficiency, effortless and area of spicity features. DEES mainly focusing on automotive and appliance industries large stamping equipment development, but detail attentions to the high volume and precision manufacturing of electronics sector to which focuses on special machinery development and optimization. zero leaks and faster speed is our main research and development goals. Our unique equipment combined with excellent market response and multi-integration of resources has provided a long term success as the industry benchmark.



Optimization of frame structure with computerized stress and displacement analysis by PRO-MECHANIC.

### Standard Accessories

- ⊙ High structural rigidity
- ⊙ Adjustable eight faces guided gibs
- ⊙ Japan TOKIMEC solenoid valve
- ⊙ USA PARKER pump
- ⊙ Sick or Banner Light curtain
- ⊙ Advanced logic valves integrated manifold design
- ⊙ SCHNEIDER electrical components

### Optional

- ⊙ Q.D.C. system
- ⊙ Die lifter
- ⊙ Die arm
- ⊙ Moving bolster
- ⊙ Striking damper
- ⊙ Imported BOSCH-REXROTH pump
- ⊙ MITSUBISHI / SIEMENS / Allen-Bradly touch screen
- ⊙ Electrical chiller system
- ⊙ HD-FAS Tech technology
- ⊙ ECO-TECH technology



ELKAY installed in Zhuhai, China

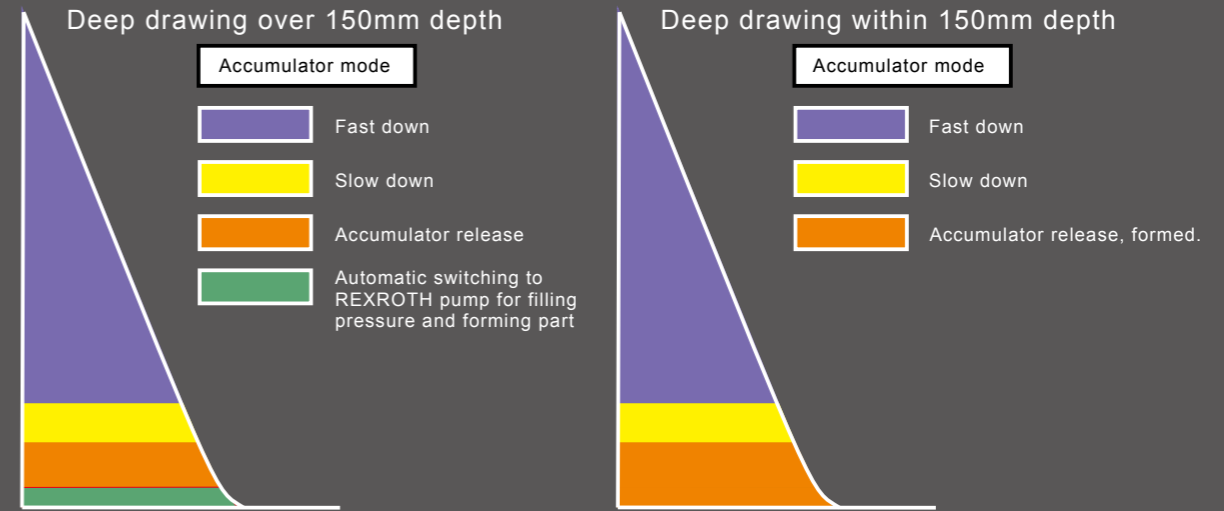
High Speed Hydraulic Press



NEW ERA OF SPEED DRIVEN TECHNOLOGY

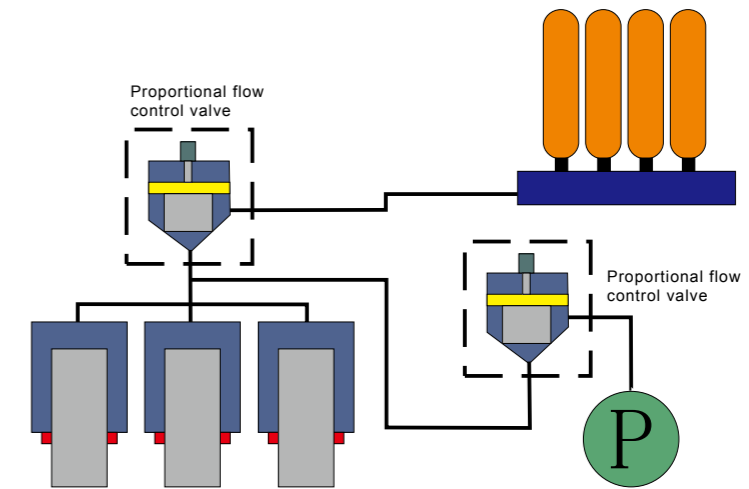
High Speed Hydraulic Press with HD-FASTech

Conventional hydraulic system provide power by motor and pump. Faster pressing speed requires higher horsepower and pump flow rate. DEES analysis the required oil flow for various functions, add monitoring valves for signaling the manifold to store additional oil into the accumulators with the purpose to release stored energy during deep drawing to achieve a faster cycletime. As the development of High speed Hydraulic Press completed, DEES reach a new pinnacle for high speed drawing. Our pressing speeds are 100mm/sec, 200mm/sec and 300mm/sec.



HD-FASTech FACILITATE ACCUMULATOR SUPER-FLOW TECHNOLOGY

**HD-FASTech 100:**  
Working speed 100mm/sec  
**HD-FASTech 200:**  
Working speed 200mm/sec



Configuration of HD-FASTech core system

- BOSCH-REXROTH variable piston pump, high contamination resistance and extensive life cycle
- Germany REXROTH proportional pressure and flow control valves
- Switzerland TRAFAG pressure transducer
- DEES new patent with pipe bursting slide locking protection circuit
- All piping are pre-laid out in 3D for orderly arrangement and easy maintenance
- Advanced logic valves integrated manifold design
- Japan TOKIMEC solenoid valve
- Imported Accumulators

HD-FASTech standard electrical system

- SIEMENS / MITSUBISHI / Allen-Brandy PLC and touch screen
- SCHNEIDER electrical components
- BALLUFF linear transducer
- High efficiency motor

HD-FASTech standard safety system

- Pipe bursting slide locking protection circuit
- Ratchet type slide locking device
- TDC locking device
- Light curtain from SICK or BANNER

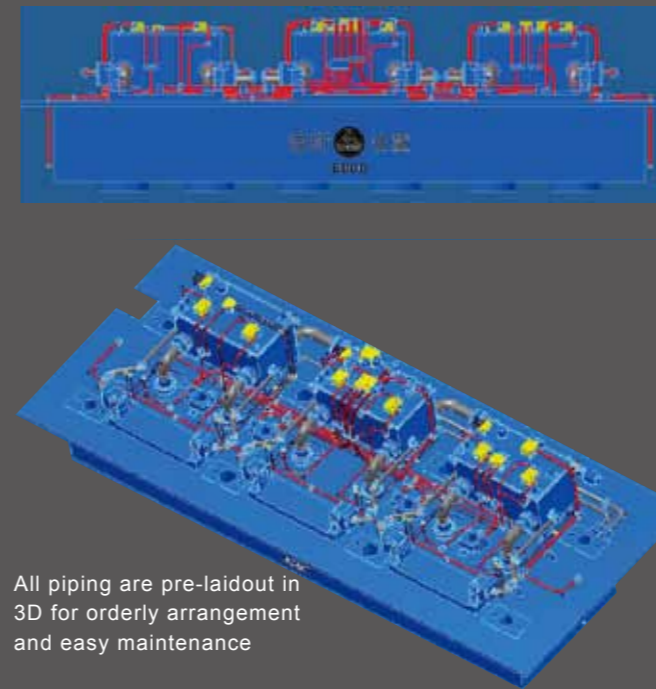


3500tons heavy truck chassis forming press

Machine frame with 8 columns are all strongly jointed as a closed frame structure by hydraulic pre-pressuring nuts. The pressure distribution, deflection and deformation status on the part can be observed through the colors after PRO-E analysis and be improved to make sure of structural rigidity.

Major parts such as top crown, uprights, bolster table, slide and lower base are all jointed by CO2 gas shield welding, with excellent workmanship like box-shape welding structure, stiffeners and symmetric bevel welding.

Four corner of the slide utilizing adjustable gib guides with hardness of HRC45 or better is attached by a low friction copper plating to allow excellent lubrication. The pillar gibs are design with a reverse gib guides to provide better guidance and adjustability.

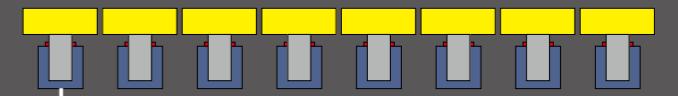
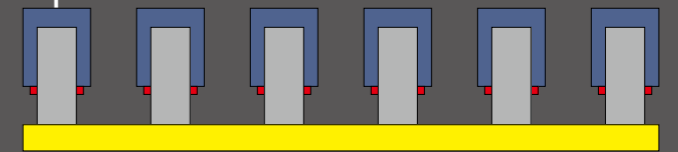


All piping are pre-laidout in 3D for orderly arrangement and easy maintenance

Prop. Flow control valve

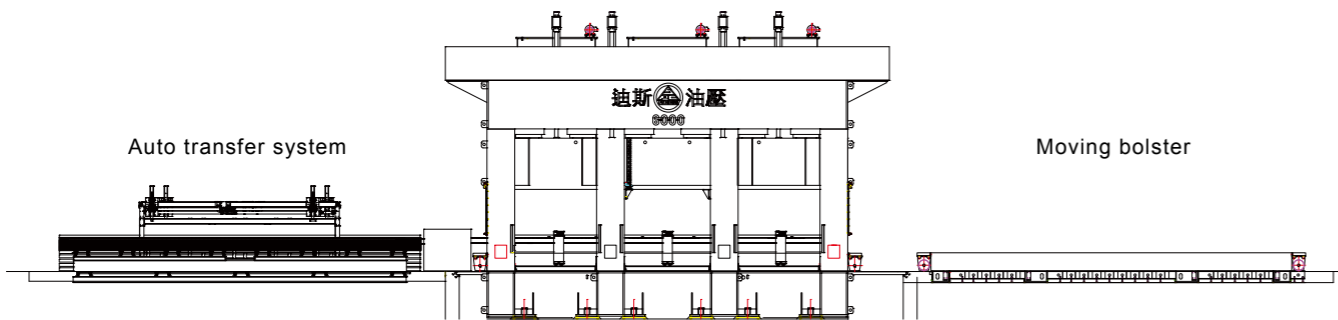


Each 1000 tons cylinder control independently, reassuring the slide operation to reach equilibrium. Position tracking by linear transducers, left to right offset is less than 0.2mm/M



Prop. Flow control valve

Pressure and Speed of 8 cushion cylinders can be independently controlled With plug-in linear transducer for location tracking



- ⊙ Integrated fully automated loading and unloading system
- ⊙ With single or double blanks feeding, layer detection and automatic oiling device.



Each cylinder can be independently controlled pressure and speed, and set output tonnages and position according workpiece length. Slide position tracking by linear transducers, left to right offset is less than 0.2mm/M



Each cushion cylinder can be independently controlled pressure and position, the slide with ejector device.

## Die spotting press

### Closed loop servo-hydraulic die spotting press

Energy efficient servo motor save upto 30% energy  
 Micro Control Volume: pulse wave signal handwheel jog down for micro precision of 0.01mm  
 Mold protection: To prevent damage when spotting punch and die  
 High slide repeatability: +/- 0.02mm

## 2012 Innovation

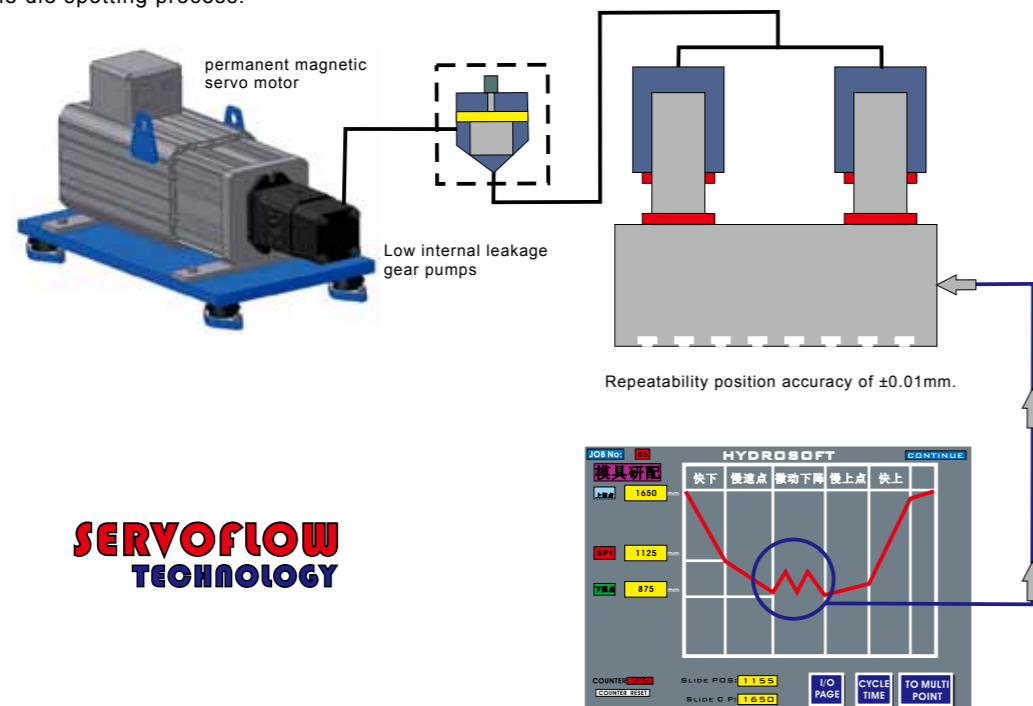
**SERVOFLOW TECHNOLOGY** New Innovation Technology for Automotive Industry

### Specification

MODEL	SLIDE FORCE Ton	BOLSTER SIZE mm	OPEN HEIGHT mm	STROKE mm	OPERATION SPEED			MOTOR HP
					APPROACH mm/sec	RETURN mm/sec	PRESSING mm/sec	
HD-100	100	3500x2000	2000	2000	100	100	10	50
	100	4000x2500	2500	2500	100	100	10	50
HD-200	200	4000x2500	2500	2500	100	100	10	75
	200	4500x2500	2500	2500	100	100	10	75
HD-300	300	4600x2500	2500	2500	100	100	10	100
	300	5000x2500	2500	2500	100	100	10	100

### Optional

DEES HYDRAULIC has long been committed to integrate new technologies and successfully developed a closed loop hydraulic servo controlled die spotting press. With micro-precision control and energy efficiency as top of R & D's goal, the servo system's fixed-flow control as the core technology used in hydraulic spotting press, can further improve the precision of conventional design or overcome ball-screw's wear & tear to reduced maintenance cost. DEES' new technology will create a new direction with hydraulic die spotting press, to further create a high-precision, low-power technology for the die spotting process.



# Die Tryout Press

## High speed die tryout press

Comparable mechanical presses performance curves. Using auxiliary accumulator pressure, low power, high speed.

### Standard accessories

BOSCH-REXROTH variable piston pump, high contamination resistance and extensive life cycle

Switzerland TRAFAG pressure transducer

Single action cylinder

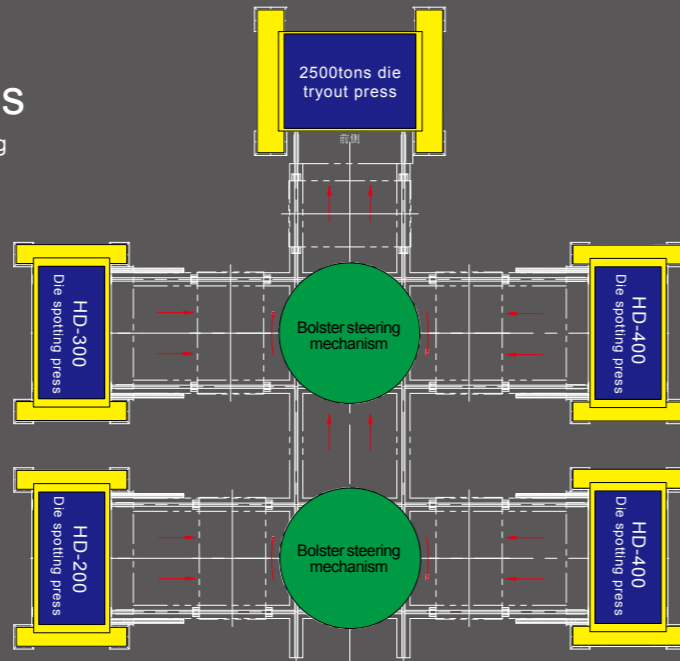
Avoid scratching, simplify maintenance

Advanced logic valves integrated manifold design

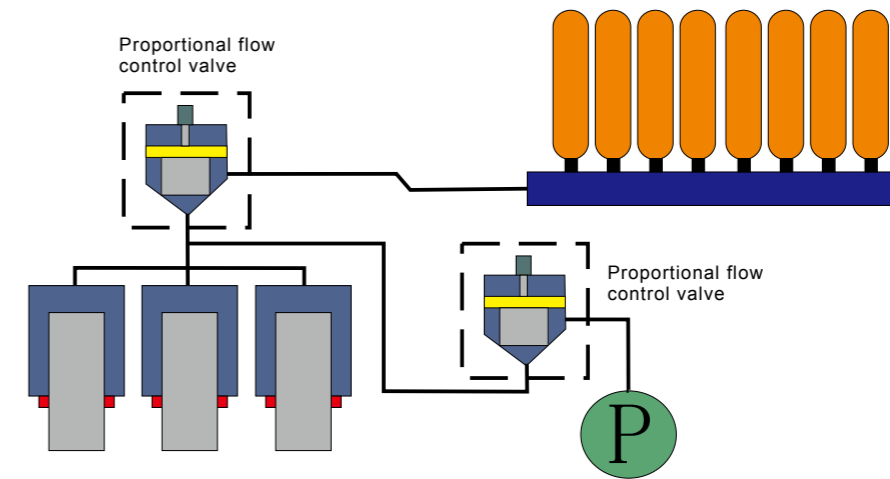
Compact manifold allows limited piping, quick response.

Pipe bursting slide locking protection circuit

Dees patented pipe bursting slide locking protection circuit



Mold center layout



**Optional HD-FASTech** technology  
Mechanical presses speed curve

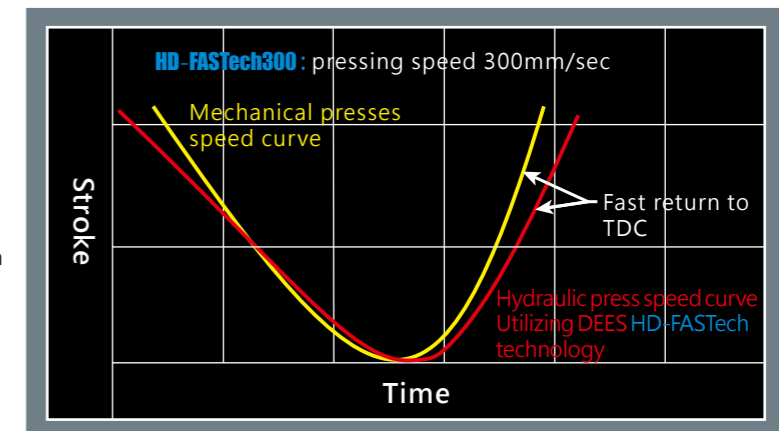
**SERVOFLOW** Technology  
High precision die spotting accuracy

Striking damper

**ECO-TECH**

A new generation of energy saving system for hydraulic cushion  
Fast, accurate positioning, low energy consumption

Electrical chiller system  
air-conditioning



## Hemming Press



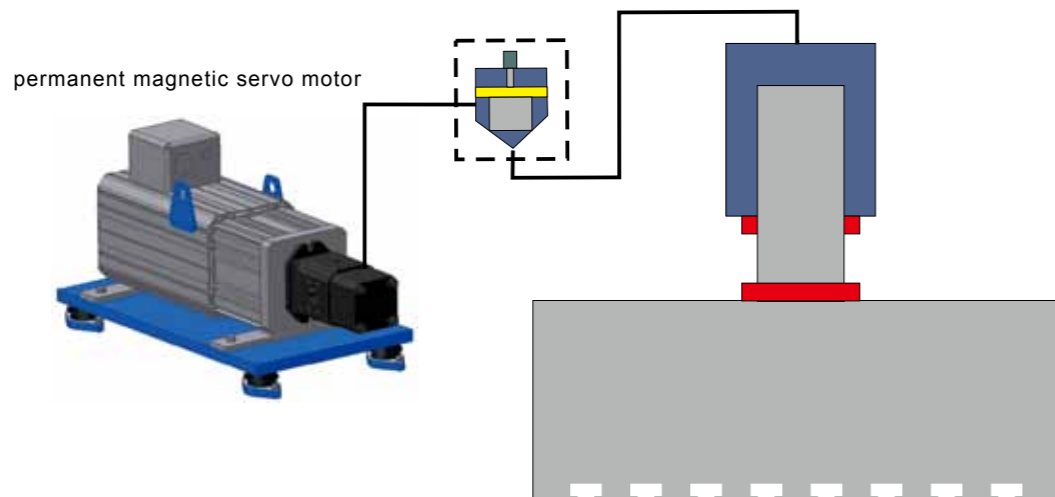
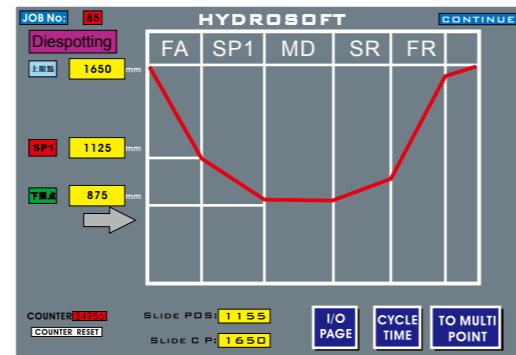
Specification:

MODEL	SLIDE FORCE Ton	BOLSTER SIZE mm	OPEN HEIGHT mm	STROKE mm	OPERATION SPEED			MOTOR HP
					APPROACH mm/sec	RETURN mm/sec	PRESSING mm/sec	
HD-150	150	2500x2500	2000	1400	250	250	22	50
	150	2800x2800	2000	1400	250	250	22	50
HD-200	200	2500x2500	2000	1400	250	250	22	60
	200	2800x2800	2000	1400	250	250	22	60

### REVOLUTIONARY ECO-TECH

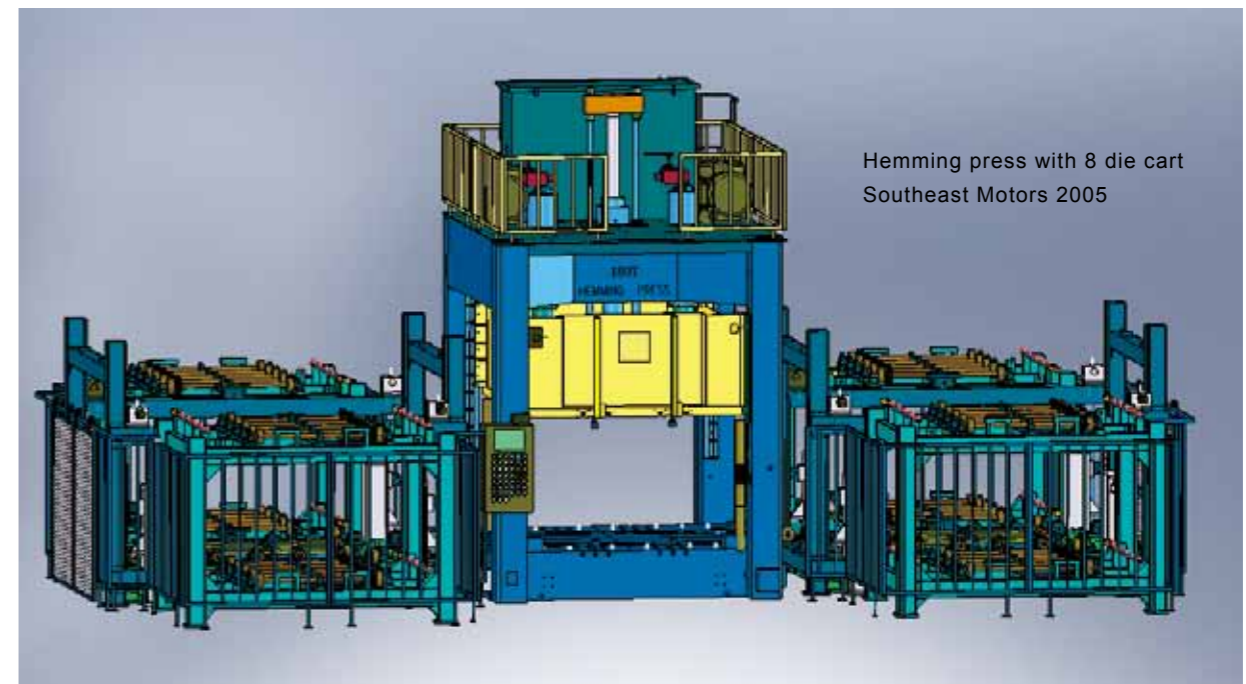
Innovative power saving technology

Optional: Innovative energy-saving technology with high-precision servo motor and gear pump combination, for energy saving and reducing noise pollution



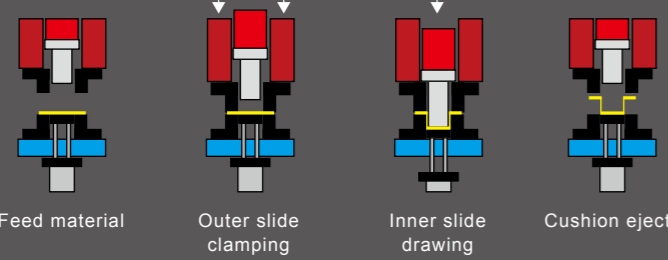
### Automated hemming press

Automated hemming press is special equipment for hemming "four doors and two hoods" of an automobile. DEES designs and offers variety of different methods of automated hemming press for all automotive plants: Starting with multiple die carts per machine, pull chain-type or roller type die storage system for convenient and quick loading of tools. We also offer fully-automated die storage which includes an intelligent electronic management of toolings and multi-level storage system for limited floor space. By integrating robotic handling, gluing, feeding, DEES has the experience for the new trend of the future.





## Triple-Action Press



Feed material    Outer slide clamping    Inner slide drawing    Cushion ejects

Hydraulic forging press  
 Warm forgings of all alloy material  
 Hot forging and hot extrusion  
 Forged powder molding, and aviation turbine blade (plate) and other industrial fields,  
 HD-FASTech can be integrated for fast forgings  
 Intergrade auto load and unload system, the press capacity from 600ton to 6000ton.

Case reference  
 GKN UK  
 Buchanan Metalforming USA  
 XI'AN Aviation  
 Zhejiang Tianfa



2000 tons triple-action tandem line presses

I:1/0	EM.STOP PB	I:2/0	INCH SW	EXIT	I/O
I:1/1	LIGHT CURTAIN	I:2/1	SINGLE SW	O:3/1	SOL3
I:1/2	RAM TOP LIMIT	I:2/2	CONTINUE SW	O:3/2	SOL6
I:1/3	RAM BOTTOM LIMIT	I:2/3	LOCKPIN1 IN LS	O:3/3	SOL7
I:1/4	MOTOR 1 OVER LOAD	I:2/4	LOCKPIN1 OUT LS	O:3/4	SOL8
I:1/5	MOTOR2 OVER LOAD	I:2/5	LOCKPIN2 IN LS	O:3/5	SOL9
I:1/6	INDEX LIMIT SWITCH	I:2/6	LOCKPIN2 OUT LS	O:3/6	LOCPIN
I:1/7	LUBRICATOR	I:2/7	STAND Sw1	O:3/7	MUTE
I:1/8	LOCK PIN OUT SW	I:2/8	STAND Sw2	O:3/8	SPARE
I:1/9	INDEX PB	I:2/9	SPARE	O:3/9	SPARE
I:1/10	OIL TEMP. HI	I:2/10	SPARE	O:3/10	SPARE
I:1/11	PUMP MOTOR ON	I:2/11	SPARE	O:3/11	SPARE
I:1/12	CYCLE STOP PB	I:2/12	SPARE	O:3/12	SPARE
I:1/13	RAM DOWN PB1	O:4.0	RAM_P_#####	O:3/13	SPARE
I:1/14	RAM DOWN PB2	O:4.1	RAM_V_#####	O:3/14	SPARE

Complete I/O signal display for immediate fault diagnosis

1. RAM TDC ADVAN. STOP	###.###	18. RAM P. 100%	#### DA
2. RAM CREEP UP DIST.	###.###	19. RAM RAPID UP P:	###TON
3. RAM SLOW DOWN OFFSET	###.###	20. RAM RAPID DOWN P:	###TON
4. RAM CREEP DOWN GAIN	###.###	21. RAM INCH UP P:	###TON
5. RAM BDC ADVAN. STOP	###.###	22. RAM INCH UP SD:	###mm/s
6. RAM INDEX REF	###.###	23. RAM INDEX SD:	###mm/s
7. RAM INDEX P.	###TON	24. RAM CREEP DOWN SD	###mm/s
8. RAM P. 10%	#### DA	25. RAM CREEP UP SD	###mm/s
9. RAM P. 20%	#### DA	26. RAM RAPID UP SD	###mm/s
10. RAM P. 30%	#### DA	27. RAM RAPID DOWN SD	###mm/s
11. RAM P. 40%	#### DA	28. UNIT WITH	MM
12. RAM P. 50%	#### DA	29. UNIT WITH	INCH
13. RAM P. 60%	#### DA	30. HOLD TO BDC	OFF
14. RAM P. 70%	#### DA		
15. RAM P. 80%	#### DA		
16. RAM P. 90%	#### DA		



GKN 2500tons installed in UK



DEES self-developed HD-FASTech technology, released for the market since early 2012 and has since received excellent responses from the stamping industry. HD-FASTech hydraulic machine completely solved conventional deep-drawing's low efficiency and elevated 3SPM to 5-8 SPM, greatly improving production efficiency.

During early stages of development, Stability, reliability and safety was the center of research for HD-FASTech. By using single acting cylinders for lifting and pressing, we effectively prevented unnecessary scratching of cylinder during off center forming. With the unique design of cylinder cover, maintenance or servicing is performed at easy without removal of entire cylinder thus saving precise time.

The slide return mechanism utilizes DEES proprietary design, by using lifting bars and individual cylinder, slide falling is prevented. DEES also integrated the patented pipe bursting slide locking protection circuit for protection of workers and tooling during forming, if pipe or rubber hose burst, the hydraulic circuit senses a lose in pressure which will lock the slide from sudden downward drop. All hydraulic pipings are pre-laid out through our 3D software and all pipes are cold bend according to simulation drawings to reduce welding and lowering leakage problems.



## Hydraulic Transfer Press

### HYDRAULIC TRANSFER PRESS

Advancing hydraulic press' processing capacity is our main goal. With our new HD-FASTech technology integrated into various forming application, our latest engineering accolade is the completion of the Hydraulic Transfer Press. From home appliance to automotive stamping, this transfer press not just space saving or labor saving and budget saving. This "Hydraulic Driven" transfer press will boost SPM and lead to a new era of hydraulic stamping.

Auto moving die clampers



3D simulated arrangement to having clean and neat pipe / cable arrangement for the best space utilization



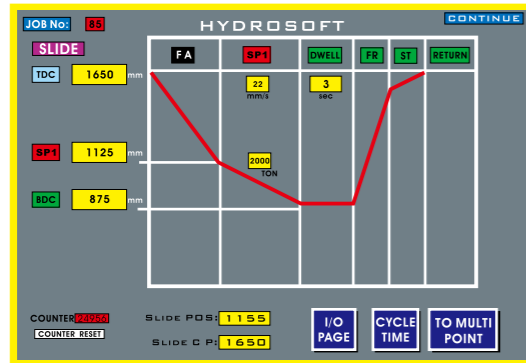
Auto transfer system

Double moving bolsters intergraded with 3D automation system

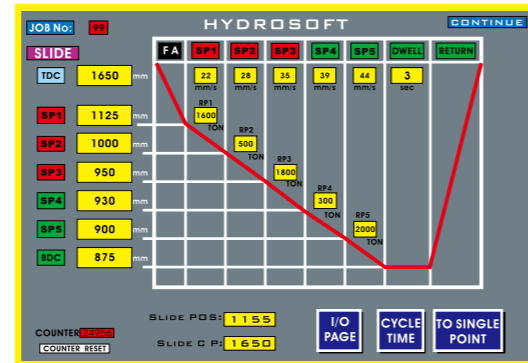


Integrated HD-FASTech technology to complete 8 piece per minute

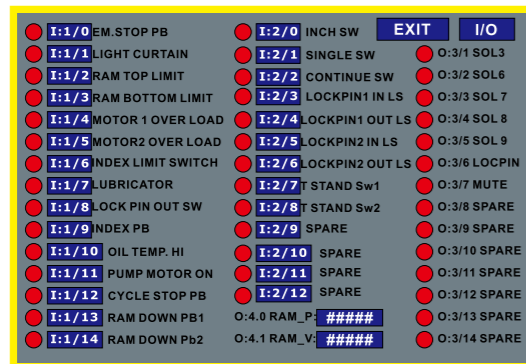
HYDROSOFT is a comprehensive press-motion software designed by DEES to completely meet manufacturing needs and enhance operation. This user friendly controller has a memory capacity of 99 jobs, graphic and numeric display of cycle time, pressure setting, slide position setting, dwell time setting, press speed setting, complete I/O info, single and multi-point edit pages, stroke setting, warning message are all clearly displayed on touch screen panels. When integrating this software into your press, the slide repeatability will reach +/- 0.02mm which results into high accuracy press performance that provide profits through high quality finished products.



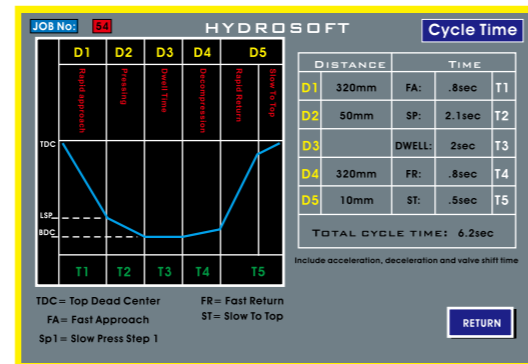
HYDROSOFT set with single point tonnage



HYDROSOFT set with multi point tonnage



HYDROSOFT I/O signal display



HYDROSOFT Cycle time

MODEL	SLIDE FORCE Ton	BOLSTER SIZE mm	MOTOR HP	OPEN HEIGHT mm	STROKE mm	OPERATION SPEED			CUSHION FORCE Ton	CUSHION TABLE SIZE mm	CUSHION STROKE mm	CUSHION MOTOR HP
						APPROACH mm/sec	RETURN mm/sec	PRESSING mm/sec				
HD-100	100	1000x800 1200x1000 1500x1200	20 30	1000	700	300	300	15	30	800x600 1000x800 1200x900	250	5
						400	400	23				
HD-200	200	1000x800 1200x1000 1500x1200	40 60	1000	700	300	300	15	75	800x600 1000x800 1200x900	250	7.5
						400	400	23				
HD-300	300	1200x1000 1500x1200 2000x1500 2500x1500	60 100	1200	900	300	300	15	100	1000x800 1200x900 1500x1200 2020x1120	300	10
						450	400	25				
HD-400	400	1200x1000 1500x1200 2000x1500 2500x1500	75 125	1200	900	300	300	14	150	1000x800 1200x900 1500x1200 2020x1120	300	10
						450	400	23				
HD-500	500	2500x1500 3000x2000 3500x2000 4000x2500	100 200	1800	1400	450	400	15	200	2020x1120 2320x1420 2920x1420 3220x2020	350	20
						450	400	28				
HD-600	600	2500x1500 3000x2000 3500x2000 4000x2500	125 250	1800	1400	450	400	15	200	2020x1120 2320x1420 2920x1420 3220x2020	350	20
						550	500	28				
HD-800	800	2500x1500 3500x2000 4000x2500 4500x2500	150 300	2000	1500	450	400	14	300	2020x1120 2920x1420 3220x2020 3820x2020	400	40
						550	500	28				
HD-1000	1000	2500x1500 3500x2000 4000x2500 4500x2500	200 350	2000	1500	450	400	15	300	2020x1120 2920x1420 3220x2020 3820x2020	400	40
						550	500	26				
HD-1200	1200	2500x1500 3500x2000 4000x2500 4500x2500	250 400	2000	1500	450	400	15	400	2020x1120 2920x1420 3220x2020 3820x2020	400	40
						550	500	25				
HD-1500	1500	4000x2500 4500x2500 5000x2500	300 500	2000	1500	450	400	15	500	3220x2020 3820x2020 4420x2020	400	50
						550	500	25				
HD-2000	2000	4000x2500 4500x2500 5000x2500	400 650	2000	1500	450	400	15	600	3220x2020 3820x2020 4420x2020	400	50
						550	500	24				
HD-2500	2500	4000x2500 4500x2500 5000x2500	500 700	2200	1600	450	400	15	600	3220x2020 3820x2020 4420x2020	450	75
						550	500	21				
HD-3000	3000	4000x2500 4500x2500 5000x2500	600 800	2200	1600	450	400	15	800	3220x2020 3820x2020 4420x2020	450	75
						550	500	20				
HD-4000	4000	4500x2500 5000x2500 5000x3000	800 1050	2200	1600	450	400	15	1000	3820x2020 4420x2020 4420x2320	450	100
						550	500	20				
HD-5000	5000	4500x2500 5000x2500 5000x3000	1000 1350	2200	1600	450	400	15	1200	3820x2020 4420x2020 4420x2320	450	100
						550	500	20				