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 system 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.

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 363,000 Brand new China Kunshan facility completed.
One-piece frame design focused on structural optimization, while providing efficiency, effortless, and area of specialty features. DEES mainly focusing on automotive and appliance industries large stamping equipment development, but detailed 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.

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 filter
- Die arm
- Moving bolster
- Striking damper
- Imported BOSCH-REXROTH pump
- MITSUBISHI / SIEMENS / Allen-Bradley touch screen
- Electrical chiller system
- HD-FASTech technology
- ECO-TECH technology

Optimization of frame structure with computerized stress and displacement analysis by PRO-MECANIC.
High Speed Hydraulic Press with HD-FASTech

Conventional hydraulic systems provide power by motor and pump. Faster pressing speed requires higher horsepower and pump flow rate. DEES analyzes the required oil flow for various functions, adds 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 cycle time. As the development of High Speed Hydraulic Press completed, DEES reaches a new pinnacle for high-speed drawing. Our pressing speeds are 100mm/sec, 200mm/sec, and 300mm/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-kickout 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-Bradley PLC and touch screen
- Schneider electrical components
- Balluff linear transducer
- High efficiency motor

HD-FASTech standard safety system
- Pipe bursting slide locking protection circuit
- Ratcheted type slide locking device
- TDC locking device
- Light curtain from Sick or Banner
3500 ton 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 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 gib are design with a reverse gib guides to provide better guidance and adjustability.

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 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.

All piping are pre-laidout in 3D for orderly arrangement and easy maintenance.
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
New Innovation Technology for Automotive Industry

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.

Specification

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<th>MODEL</th>
<th>SLIDE FORCE</th>
<th>BOLSTER SIZE</th>
<th>OPEN HEIGHT</th>
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<th>APPROACH</th>
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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

Optional

HD-FASTech technology
Mechanical presses speed curve

SEROFLOW Technology
High precision die spotting accuracy

Striking damper
COO-TECH
A new generation of energy saving system for hydraulic cushion
Fast, accurate positioning, low energy consumption

Electrical chiller system
air-conditioning

THE ESSENCE OF METAL FORMING
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.

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Automated hemming press with 8 die cart

Southeast Motors 2005
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

Complete I/O signal display for immediate fault diagnosis

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.
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.
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.