Mechanical Press with Hydraulic Force for Forming High Strength Steel

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Stamping Challenges with High Strength Steel

- Fracturing
- Gulling
- Orange Peeling
- Air and Nitrogen
- Tool and Press Life
Benefits of Hydraulic Cushions with a Mechanical Press Forming High Strength Steel

- Hydraulic force is freely programmable
- Tonnage control to allow material flow
- Pre-acceleration can improve die life and reduce noise levels
- Cushion response can be customized for tailor-welded blanks
Hydraulic Force Producing High Strength Steel Parts in a Mechanical Press

- Center cylinders are for raising and lower the table.

- Four corner cylinders have individual pressure control and positional transducers.

- Each table is divided into 4 quadrants.
Hydraulic Cylinders Can Be Controlled:

• Individually
  - Each cylinder can be independently controlled no matter how many are in each cushion table.

• Force
  - Each cylinder can be controlled from zero to max force per the engineering specifications.

• Stroke
  - Each cylinder can be controlled over eight times, stroke and force, within the mechanical crank stroke from 3 o’clock to 6 o’clock.
Cylinders

- The operator selects pin placements for each quadrant.
- The operator selects pressure in each quadrant.
- The pressures for each quadrant can be modified 8 times from the 3 o’clock to 6 o’clock positions separately.
How Does It Work? (VIDEO)
Contact Information

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