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Center for Precision Forming - CPF

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<https://ercnsm.osu.edu> / <https://cpf.osu.edu>

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CPF Member Companies

August 2017



National Manufacturing Co., Inc.
Specialists in Deep and Shallow Drawn Enclosures



OBJECTIVES

- **Conduct R&D in stamping and apply results in cooperation with CPF members**
- **Support students and offer education/training courses for industry in stamping science, technology and applications**

STRATEGY

- **Cooperate closely with CPF members and others interested in stamping technology**
- **Conduct application-oriented R&D**
- **Keep up with world-wide advances in stamping technology and related training/education**

- **MATERIAL CHARACTERIZATION –Flow Stress / Formability of Al Alloys and AHSs (in cooperation with HONDA R&D, SHILOH Industries, FCA, NUCOR, POSCO, NVOELIS, ARCELOR)**
- **FRICITION / LUBRICATION – Cup Draw Test, Coefficient of Friction (in cooperation with AFTON Chemical, Houghton International, QUAKER Chemical, SHILOH Industries, IRMCO, HYSON Solutions)**

- **DEEP DRAWING IN A SERVO PRESS WITH SERVO CUSHION** - Al Alloys, AHSS, use of spacers, effect of ram motion (in cooperation with AIDA-America, SHILOH Industries, HONDA-EGA, BATESVILLE Tool & Die, ESI, HYSON Solutions, ARCELOR, NOVELIS, NUCOR)
- **BLANKING / HOLE FLANGING IN A SERVO PRESS** – edge fracture, blanking speed, punch/die clearance (in cooperation with AIDA-America, KTH, HONDA R&D)

- **PREDICTION AND REDUCTION OF SPRINGBACK IN FORMING AHSS** – new test to obtain E-modulus, AHSs, U and Hat Bending (in cooperation with BATESVILLE Tool & Die, GM, DIE CAD Group, AIDA-America, SHILOH Industries, FCA)
- **TRAINING COURSE IN SERVO PRESSES AND CUSHIONS** – Applications / first course was held on May 3, 2017 (in cooperation with HYSON Solutions, Shiloh Industries, FCA, AIDA-America, and OAKLAND University)
- **PLANNED ACTIVITIES** – Design of Draw Beads in Drawing with and without Spacers / Possible Elimination of Draw Beads in Forming AHSS / Advanced Applications of Servo Hydraulic Cushions and Servo Drive Presses

For more information , please contact:

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Non-proprietary information can be found at web site:

<https://ercnsm.osu.edu>

