

Stamping Higher Strength Steels In-Plant Training Agenda (Sample)

Full Day Training

Morning Session (3-1/2 hours)

Introduction(s)

Processing Parts from Higher Strength Steel

- The motivation for Advance High Strength Steel (AHSS) grades
- The Challenges for Metal Stamping Companies
- High Strength Low Alloy (HSLA)
- Dual Phase Materials
- Complex Phase Materials
- TRIP Materials
- Gen 3 Materials

The Impact of Higher Strength Materials on Press Capacity

- Forward Tonnage
- Reverse Tonnage (Blanking Operations)
- Press Energy (Deep Drawing Operations)
- Counterbalance Pressure
- Off-Center Loading (Tipping Moments)

Advantages of Servo Press Technology

- Servo Technology
- Programmable Slide Motions
- Increase Strokes-Per-Minute (SPM)
- Maximizing Press Energy
- Minimizing Reverse Tonnage
- Other Advantages

PMA in-plant training programs are fully customizable. Subjects in this agenda can be removed, replaced or additional topics added from other PMA in-plant training programs.

Stamping Higher Strength Steels In-Plant Training Agenda (Sample)

Full Day Training

Afternoon Session (3-hours)

Forming Parts from Higher Strength Materials

- Bending Considerations
- Flanging Considerations
- Drawing Considerations
- Pressure Systems/Pad Retention/Pad Balancing
- Springback Compensation Methods

Cutting and Punching Considerations

- Cutting Clearances
- Slug Control Methods
- Shear Angles
- Staggered Punching
- Materials and Surface Coating Recommendations

Tool Steel Consideration

- Tool Steel Types
- Chipping/Breakage
- Wear/Galling
- Plastic Deformation/Hardness
- Toughness
- Powder Metallurgy (PM) Tool Steel
- Problem Solving