

Transfer Systems/Transfer Presses

Aida America www.aida-america.com

Manufacturers harness the advantages of transfer-press systems to meet increasing demands in the appliance, HVAC and automotive markets. Larger transfer presses continue to serve automotive stampers, but also suit demands for the production of tailor-welded blanks, complete assemblies, smaller part lots for niche markets and parts from thinner, higher-strength materials. For appliance and HVAC applications, the automation capabilities of smallertonnage press transfer systems increase output and reduce costs. To support these diverse needs, Aida offers a range



of flexible manufacturing solutions.

As workhorses for automotive stampers, the Aida TMX series of presses (shown above) support lean and just-intime manufacturing practices with high production speeds, the ability to sense and correct double-blank misfeeds and the ability to deliver quick die changes. The blank-discharge device automatically discharges an extra blank when a double blank is detected. On presses outfitted with a blank-hold device, blanks are automatically held while the stack is changed, eliminating the need to stop the press while changing stacks. With Aida's Data Bank formula, die changes can be performed in less than 5 min.

In contrast to conventional mechanical transfer presses, the TMX comes with an electronic servo-transfer mechanism that allows adjustment of transfer pitch, transfer-bar clamp motion and lift motion. By adjusting all three profiles and retiming them for each part or job, stampers can achieve optimal operating speed. For the industry's more specialized needs, the larger tonnage capacity of the TMX, up to 4000 metric tons, allows the press to produce parts from high-strength materials. Wide-spaced connections minimize tipping and horizontal deflection caused by off-center loading. A large bed size accommodates long dies with multiple stations. For jobs that demand production of massive parts requiring corresponding stroke lengths, Aida supplies an automated press system for coil-fed progressive-die operations or transferdie operations with transfer feeds.

Its SMX series of straightside presses can be used in a tandem line with automation to help improve productivity as parts move from press to press. In a line of two or more presses, SMX presses can be run individually or, when extra tool-

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ing is required, a line can be run as a single, large transfer press by initiating the intermediate stage between the presses and running in a continuous, synchronized operation. Transfer-system programming optimizes the acceleration/ deceleration curves for maximum productivity and strokes per minute.

Aida's NSU straightside unitizedframe press offers a transfer option for automotive manufacturers that don't need the tonnage capacity of a dedicated transfer press but want to perform deep drawing. When used as a dualpress transfer unit, the stamper can gain up to 12 tooling stations with material feeding left to right through both presses. When used individually, the first press feeds left to right with up to six tooling stations. The second press can stamp a different part feeding material right to left with up to six tooling stations.

Appliance and HVAC manufacturers are looking for ways to increase output and reduce costs. Aida's tie-rod NST and gap-frame presses offer transfer options suited to these markets. The NST can be run individually or, when extra tooling is required, as a single large transfer press.

A gap-frame press transfer system also gives stampers the ability to handle a range of stampings. Stampers can expand an 800-ton line into a 1000- or 1200-ton line, yet the physical size of the presses is small, making gap-frame presses suitable for factories with low ceilings. Transfer operations can be performed in a single- or two-point suspension gap press, or in a multiplepress cell where one- and two-point suspension machines are grouped to provide a total capacity of 1000 tons or more and a bed area of 20 ft. or more.

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