

ABSTRACT**A COMPACT AND RELIABLE PRESS FOR PACKAGING
SEMINCONDUCTOR DEVICES**

The present invention is an electromechanical press that features a separate clamping mechanism from the closing and opening mechanism for the mould. By incorporating a clamping assembly and a clamping plate in a transfer mould press, the present invention directs the clamping force onto the cavities. In the process, the reaction force from the clamping operation is deflected to the top and bottom plates of the press instead of the supporting plates for the mould halves. As such, the cavities of the mould are closed fittingly at the critical moment and leakage of resin from the transfer operation is greatly minimized. It follows that a thinner clamping plate can be used without compromising the yield of the overall packaging process. By employing a transfer ball screw for the clamping mechanism, the present invention directs the clamping force onto the leadframe without dissipating energy to the peripheral area of the mould set.

Figure 3.