

SCREEN PRINTING METHOD AND APPARATUS THEREFOR

Abstract of the Invention

A screen printing method optimized for screen printing of high density viscous compounds, such as conductive solder, for electronic circuit printing includes an enclosed type squeegee arrangement. The apparatus utilizes interlocked driven component which by their motion further serve to pump printing material to the printing chamber. Various squeegee arrangements are possible in which squeegees of varying thicknesses are individually controlled for effecting mixed pitch printing operations. Further, movable plate members are disposed between the printing blades for effecting cleaning, agitating of printing material as well as selectively being enabled to act as printing blades and for supplying printing material from a chamber within the enclosed squeegee structure to each of a plurality of paralleled plates acting as squeegee blades. Further, another configuration provides a convex blade portion formed of shape memory alloy or the like which may be retracted to allow a narrow gauge blade portion to effect multi-pitch printing and the like.

(Fig. 1)