

MACHINE DESIGN

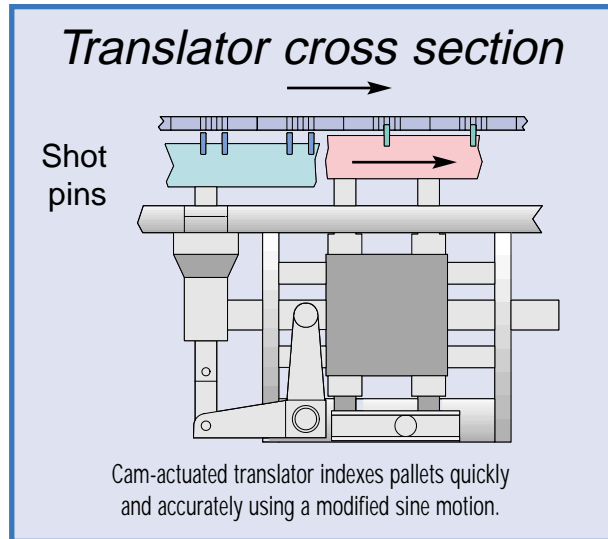
SCANNING THE FIELD FOR IDEAS

MATERIAL-HANDLING INDUSTRY FOCUS

WALKING BEAM KEEPS PALLETS ENGAGED

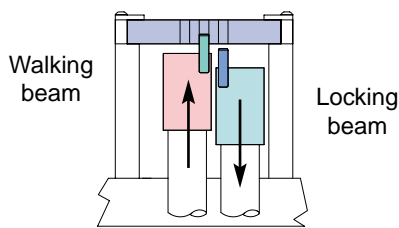
An assembly machine chassis, developed by Stelron Components, Inc., Mahwah, N.J., uses synchronized cam-actuated walking beams to index pallets for assembly operations. The beams employ dowel pins to engage pallets, which ride in tool-steel guideways. Before the walking beams disengage, mechanically synchronized locking beams shot-pin each pallet, achieving an accuracy of ± 0.0015 in.

The new system offers considerable application flexibility. The pallets can be accessed from all sides and, at certain locations, underneath the chassis. What's more, designers can combine modules to build tables of nearly any size. Ample space between pallet tracks provides room for pick-and-place tooling and other mechanisms.

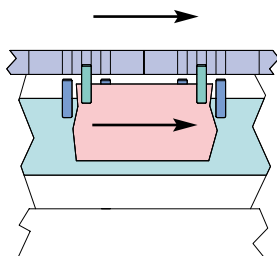


Moving down the line

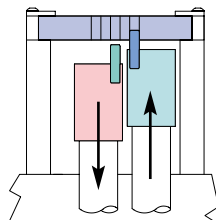
ENGAGE WALKING BEAM



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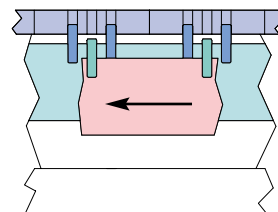


ENGAGE SHOT PIN

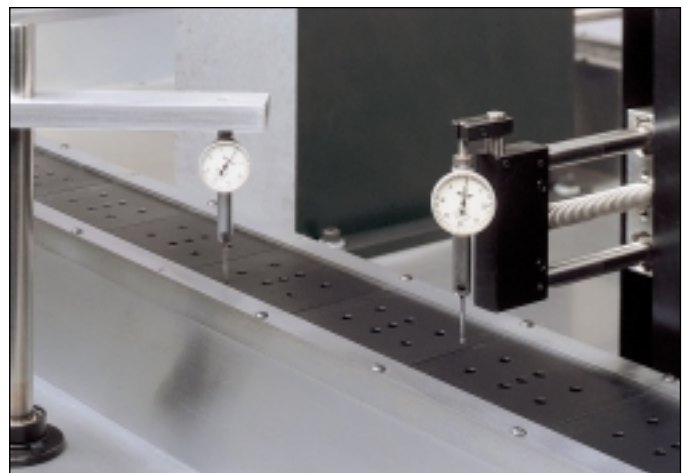


Shot pins position and hold pallets to within ± 0.0015 in.

DWELL



Pallets sit while stations perform assembly operations.



An assembly machine chassis "walks" pallets around a rectangular path, stopping at assembly stations.