

HANDLING DEVICE AND METHOD FOR LOADING AND UNLOADING WORK PIECES FROM TRAYS



G00002

Abstract of the Disclosure

An apparatus and associated method for presenting trays from a first plurality of stacked trays to a pick and place device for loading or unloading work pieces to or from the trays, and for subsequently restacking the trays to a second plurality of stacked trays. A handling device comprises a frame defining a tray loading zone receivingly engaging the first plurality of stacked trays for singulating the trays. The frame furthermore defines a tray unloading zone different from the tray loading zone receivingly engaging the trays for stacking with the second plurality of stacked trays. The frame furthermore defines a handling zone between the loading and unloading zones operatively presenting the singulated trays to the pick and place device. The handling device further comprises a singulating device in the tray loading zone adapted for separating the trays from the first plurality of stacked trays. A stacking device in the tray unloading zone is adapted for joining the trays with the second plurality of stacked trays. A shuttle is adapted for simultaneously moving one of the trays from the tray loading zone to the work zone while moving another of the trays from the work zone to the tray unloading zone.

Figure 1



162162