Glide-Line™
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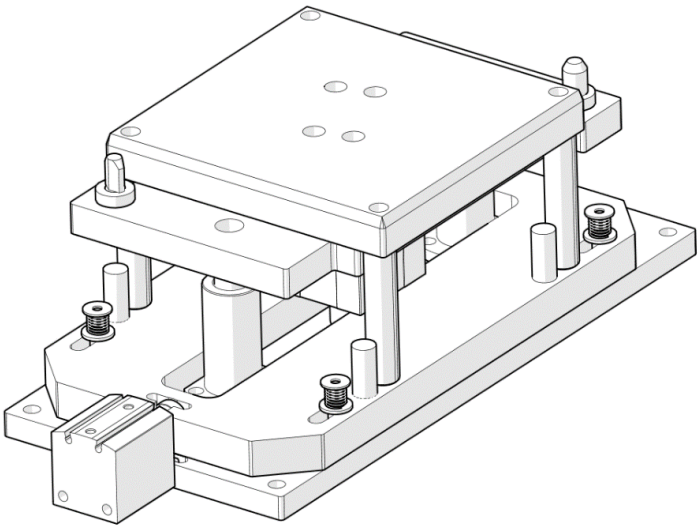
V2.0

HLLU:

The Heavy Duty Lift Locate Unit



The Device:

The Heavy-Duty Lift and Locate Unit (HLLU) delivers repeatable, positional accuracy within ±.05mm. The vertical lift position is fixed at 1.5mm above the belt, and the unit is designed to handle heavy loads for press operations such as swaging and ultrasonic welding. This unit utilizes a pneumatic shuttle that slips between the baseplate and the lift anvil once the pallet is raised into position. Heavy Duty Units must be station-mounted on suitable structures to absorb the required loads; accuracy and repeatability are relative to the mounting structure.

Basic Order of Operation:

1. Pallet is conveyed to device
2. Pallet is stopped directly over device by stop (not included)
3. Lift actuates and rises, with the top plate pins engaging the Work Piece Pallet's locating bushings
4. Shuttle Plate moves support pins into position
5. Release air from lift cylinder so support pins make contact
6. Operations completed to workpiece
7. Re-engage lift cylinder, Shuttle Plate pulls support pins out of position.
8. Lift cylinder lowers, disengaging locating pins from pallet
9. Pallet Stop drops
10. Pallet conveyed out of work area

Part Number: HLLU-(A)-(B)

A = Pallet Width Range 160mm to 400mm*
B = Pallet Length Range 160mm to 400mm*

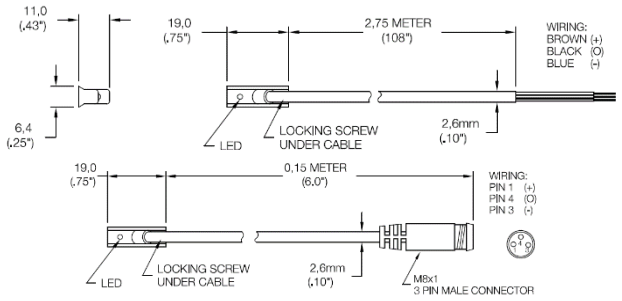
* = Pallet sizes can exceed this size, but will require additional engineering/material

Technical Specifications

Lift range:	1.5mm (above belt)
Lift cylinder bore:	40mm
Lift capacity:	150 Lbs. @ 80 psi.
Load Absorption:	20,000 Lbs. (Starting)
Pallet length range:	160mm to 320mm in 1mm increments.
Pallet width range:	160mm to 320mm in 1mm increments.
Pneumatic Ports:	G1/8

Recommended Cylinder Sensor (Manufacturer: *Nason*):

SKS = Electronic Reed Switch, Flying Lead, NPN
SCS = Electronic Reed Switch, Flying Lead, PNP
SKP = Electronic Reed Switch, M8x1 3-Pin Male, NPN
SCP = Electronic Reed Switch, M8x1 3-Pin Male, PNP
SR = M8 5m Female Locking Connector for SKP/SCP



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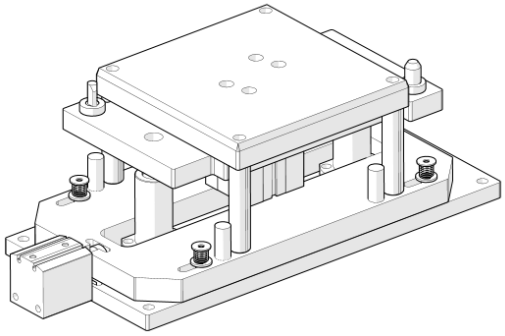

Figure 1

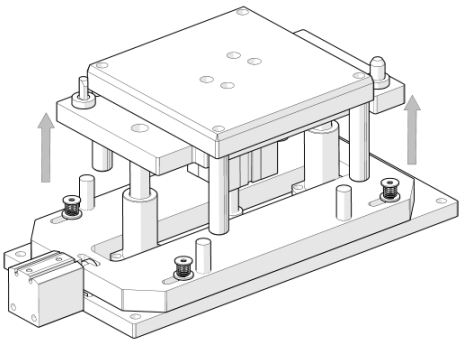

Figure 2

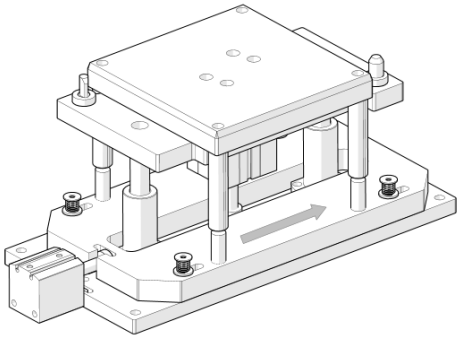

Figure 3

From left to right, the process of lifting into locked position

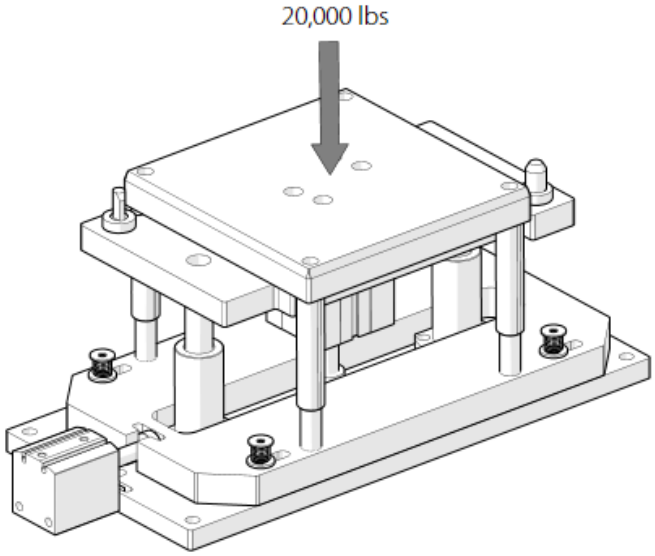

Figure 4: While in the locked position, the anvil plate can support press loads up to 20,000. Additional press capacity available on request.

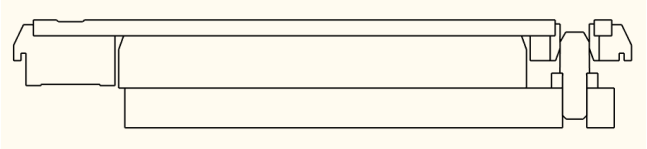

Figure 5: Cross Section view of locating pins engaging pallet bushings

Recommended Pneumatic Schematic:
*Fittings and Valves not included