

Heated hole puncher

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A fabrication manual is available for growers to build their own Heated Hole Puncher. The machine is also commercially available through Precision Ag Services.



Figure 1. A worker hand burning holes in Salinas, CA

The Heated Hole Puncher is a three-point mounted implement that is entirely mechanically driven (Fig. 2). Ground engaging wheels turn the burning assembly and create holes at the desired plant spacing (Fig. 3).

Hole spacing can be altered simply by replacing a single sprocket on each burning assembly.

Also, standard is a hydraulic side shift for when operating the machine on hilly terrain or centering the holes on the bed.



Figure 3. A completed bed in Moss Landing, CA (left).
An example of the hole produced by the machine (right).

The Heated Hole Puncher was developed for the Northern Strawberry Districts to address the grower's needs for a hole burning machine.

Current practices require a tractor to pull a spike roller on the plastic covered beds to mark where the burned holes will go. Hand crews then walk the fields with propane backpacks and burn holes at the marked spacing (Fig. 1).



Figure 2. The Heated Hole Puncher operating in Moss Landing, CA.

Results:

- In 2023, 610 Acres were completed with 5 machines.
- In 2024, ~1000 Acres were completed with 6 machines.
- It achieved a speed of 5 MPH in uniform, sandy soil conditions.
- In heavier soil conditions, speed was reduced, yet still accomplished burning 1.5 to 2 acres/hour.
- Propane torches worked well at high speeds and early morning when the plastic was wet.
- Accommodates a wide variety of bed heights and plant spacings typically used by growers.
- Saves ~\$100/acre in labor costs

