

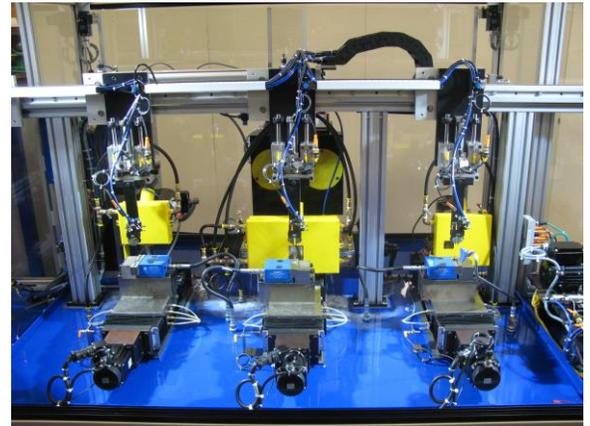


Grinding & Assembly Machine Specifications

- **Assembly:** Speedy Sharp carbide tool; sharpen edges, add handle.
- **Grinders:** (3) Setco grind spindles, each mounted to external motors and independent Setco dovetail slides; 40 TPI lead screws permit accurate adjustment of grinding wheels.
- **Production Rate:** 240 parts per hour.
- **Dimensions:** 60" W x 168"L x 75"H
- **Utilities:** Electrical, 480 VAC, 3PH, Control voltage 24VDC, Compressed Air ¼ NPT, 80 psi.
- **Control:** Allen Bradley, CompactLogix PLC with Ethernet.
- **Safety Features:** Plexiglas guarding of all machine functions. Grinders individually shrouded.

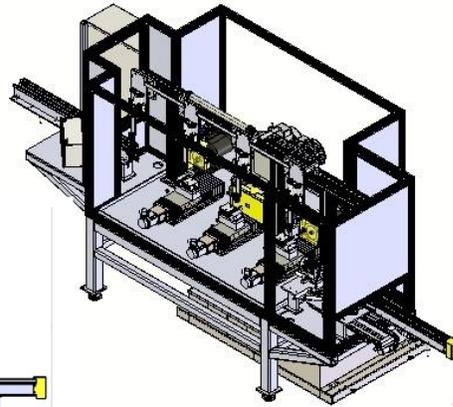
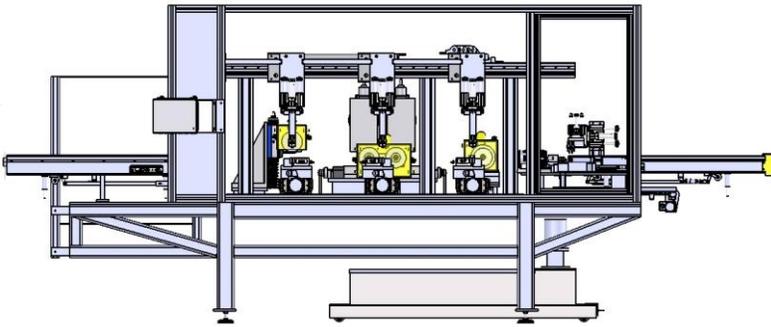
Sequence:

1. At the entry end of the machine, an operator fills conveyor slots with carbide edge tools.
2. A walking beam mechanism moves the tools along until they reach the first part gripper, which places the tool into a hydraulic clamp vise.
3. The hydraulic clamp vise, mounted to a box way slide, advances to the grind wheel and grinds the top of the carbide as coolant floods the area.
4. The part is transferred by a gantry loader to the second grind station to sharpen the sides of the carbide.
5. Part is transferred to third end grind station where it is fed into the face of the grind wheel.
6. A soft plastic handle is loaded by the same operator on the opposite end of the machine.
7. The plastic handle is then placed into a drilling station where a small hole is drilled.
8. Finally, the handle is inserted onto the tool and ejected to the exit chute.

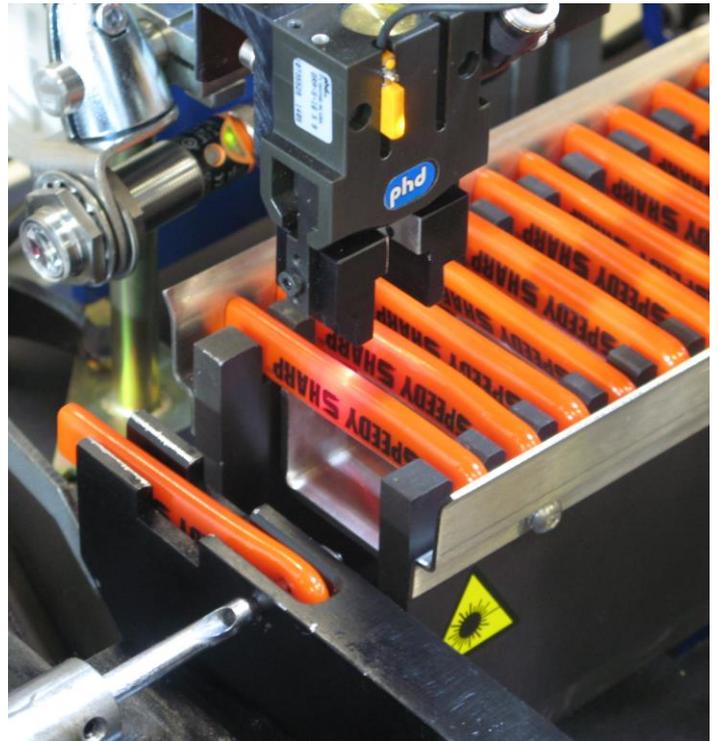


Three grind stations are used to finish all sides of the Speedy Sharp.





After grinding the sides of the carbide, part gripper moves tool to the next grinding station.



Hole is drilled in the Speedy Sharp handle before the tool is inserted.