

A. PUNCH UNIT CARE

1. Shear in only one punch across at a time.
2. Shear in 2-3 punches maximum around at a time. Skip 2-3 cavities around when loading punches. When punching difficult materials shear in only one punch at a time.
3. Shear in punches in one smooth motion with no interruptions.
4. Rotate the punch unit in its specified direction of rotation only.
5. Clean punch cavities periodically.
6. Identify and replace problem punches orpeen if necessary.
7. Lightly peen newly sheared-in punches to reduce the natural lip on the leading or trailing edge of the punch.
8. Clean gear teeth periodically, then re-lubricate.
9. Keep hex wrenches sharp.
10. Replace punch hold down screws before the heads lose their shape. Replace with high quality ANSI B18.3 screws.
11. Replace the (serviceable) loctite on the punch hold down screws when it starts to wear away.
12. Treat punch units with great care. Although the punch units are of heavy construction they should be treated as precision tooling.
13. Avoid emergency stops – unless there is a true emergency.
14. Avoid quick acceleration and deceleration starts and stops.
15. Avoid wrap-ups. Use web break detectors especially after the punch unit.
16. Avoid shearing in punches through the web or material to be converted.
17. Consider punchability when changing the material to be punched.
18. Check the waste removal vacuum system for effective operation. The vacuum system must be on and operating properly whenever the punch unit is in operation.

Converting material punchability:

Generally, converting materials that punch well have the following characteristics:

- Thicker materials between .004” and .016”
- Rigid materials having little elongation and non-extensible
- Non laminated materials
- Paper and board stock

Generally, converting materials that do not punch well have the following characteristics:

- Thinner materials between .001” and .003”
- Elastic materials having greater elongation and extensible
- Laminated materials
- Poly materials, especially polypropylene.