A Whipping Hose Is a Preventable Safety Hazard

Pressurized hoses are used on the jobsite everyday to run tools like paint sprayers and nail guns. While the tools they power can make a worker's job much easier, the hoses themselves can be dangerous if handled improperly. The hoses derive power from the liquid or gas that moves inside them; however, that power also creates a reactive force. If the force is strong enough, it can cause the hose to whip, possibly causing serious injury if it strikes a worker and even additional hazards, like a chemical spill.

The following tips can help you prevent hose whipping hazards:

- Inspect hoses for torn outer jackets, damaged inner reinforcing, or soft spots before using them. Hoses with these types of damage should be removed from service.
- Reduce the pressure in the hose to a lower level if possible. Setting pressure regulators to 30 psi or less can minimize the possibility of the hose whipping.
- Avoid making sharp bends in the hose, which can damage the reinforcement.
- Don’t jerk on a hose that has become snagged as this can cause ruptures. Find the object the hose is caught on, and release it there.
- Restrain pressurized hoses that are unavoidably located near other employees with guards that are strong enough to keep the hoses in place if a leak or rupture occurs.
- Use solid lines with tight fittings if possible instead of flexible hoses when working near other employees. Solid lines do not whip or leak as readily as flexible hoses, which can develop leaks from vibration, pressure cycles and aging.
- Examine the connections on pressurized hoses frequently to prevent any accidental detachment of the line, which would result in uncontrollable whipping. Hose clamps with a restraining chain should be used to minimize the whipping effect if hose connections should accidentally become loose.
- Pin the two sides of the hose’s twist type fitting together using the lugs provided. Be sure these fittings are fully secured.
- Use the safety device at the air supply to reduce the pressure in the event of a hose failure. This device is standard on all hoses that are ½ inch in diameter or larger. If the hose you’re using doesn’t have this device, lash the two ends of the hose together to restrict whipping.
- Never connect or disconnect pressurized hoses, always depressurize first.
- Don’t stop the airflow in a hose by bending or crimping with pliers as this could cause major hose damage.
- Stand clear of potential rupture points when conducting hose pressure tests. During testing, the pressure should be increased gradually with a brief pause between each increase. Instruments for reading pressures should be arranged so they are clearly visible at all times.