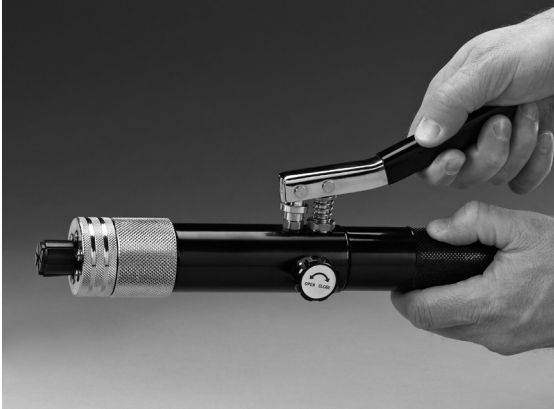


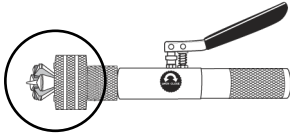
Hydraulic Tube Expander Kit



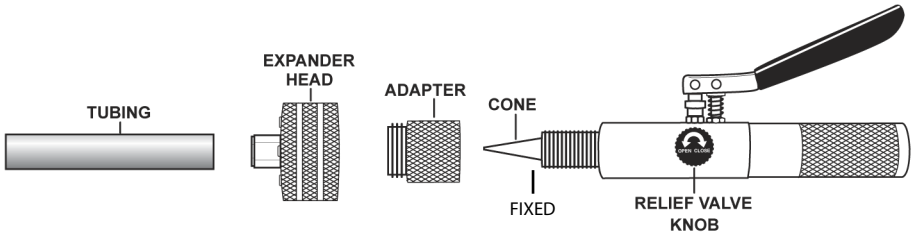
- Save time by eliminating fittings
- Save money on soldering points and materials
- Easy one hand operation
- Hydraulic power
- Lightweight and portable

Operating Instructions

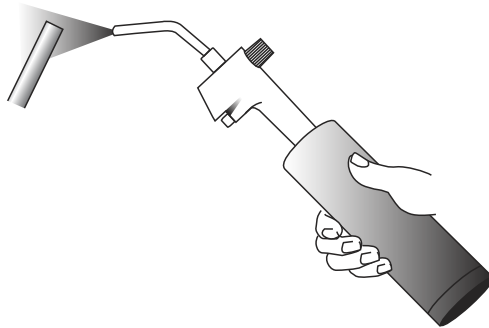
NOTE: Always wear safety goggles and gloves



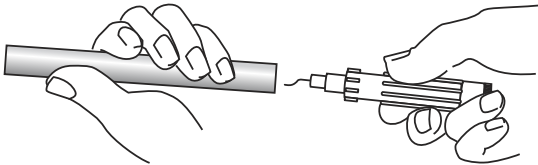
**NEVER OPERATE THE PUMP
WITHOUT TUBING ON THE
EXPANDER HEAD.**



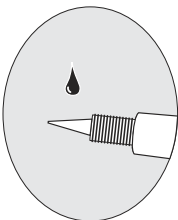
1) Use soft copper tube or heat (anneal) the section of hard copper tubing to be expanded.



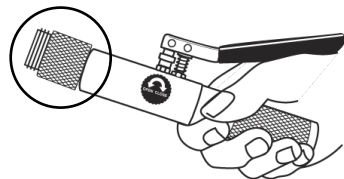
2) De-burr the inner walls of the tubing completely and make sure the tube will fit easily over the expander head. **DO NOT FORCE THE TUBE OVER THE EXPANDER HEAD!**



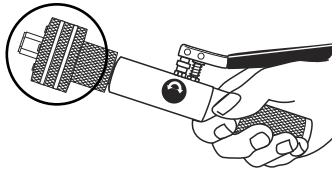
3) Apply lubricant (preferably grease) to the cone before using.



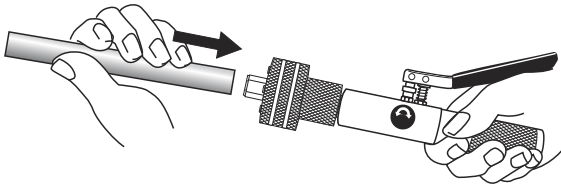
4) Screw the adapter onto the shaft of the pump all the way.



5) Screw the selected expander head onto the adapter.

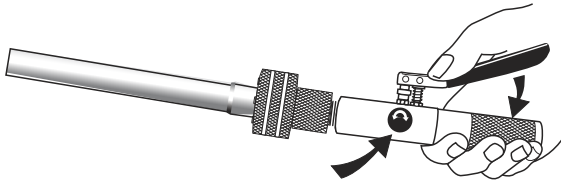


6) Place the tubing onto the expander head. Make sure that the expander head travels into the tube **FREELY**. If the tubing is twisted or the tubing wall is too thick, you won't be able to place the tubing on the expander head. Use a smaller head to expand the tubing first, then use a larger expander head to expand to the proper size.

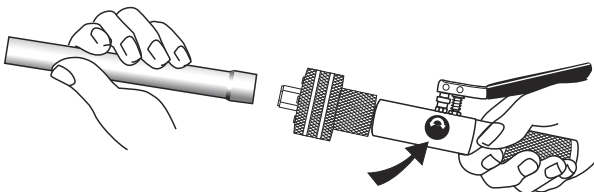


WARNING!! Do not force or twist the tube while you are placing the tube on the expander head.

7) Tighten the relief valve knob and pump the handle until the tubing is expanded and the pump handle becomes firm. Be careful not to pump the handle too hard as this improper operation can reduce the life of your expander.



8) Loosen the relief valve knob to release the finished tubing. **If the tube does not release from the die head because of tube configuration or burrs, unscrew the adapter and die head (together) from the pump body.**



Replacement Parts		
Part #	Description	Tube O.D.
60102	Tube Cutter	-
60161	Inner - Outer Reamer	-
60414	Expander Head	3/8"
60415	Expander Head	1/2"
60416	Expander Head	5/8"
60417	Expander Head	3/4"
60418	Expander Head	7/8"
60420	Expander Head	1-1/8"
60422	Expander Head	1-3/8"
60424	Expander Head	1-5/8"
60493	Hydraulic Expander Kit - 8 heads	3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8", 1-3/8" and 1-5/8"
60496	Hydraulic Pump Top Adapter	-



Ritchie Engineering Company, Inc.
 YELLOW JACKET Products Division
 10950 Hampshire Avenue South
 Bloomington, MN 55438
www.yellowjacket.com
custserv@yellowjacket.com
 (800)769-8370
 (952)943-1300