TGR®

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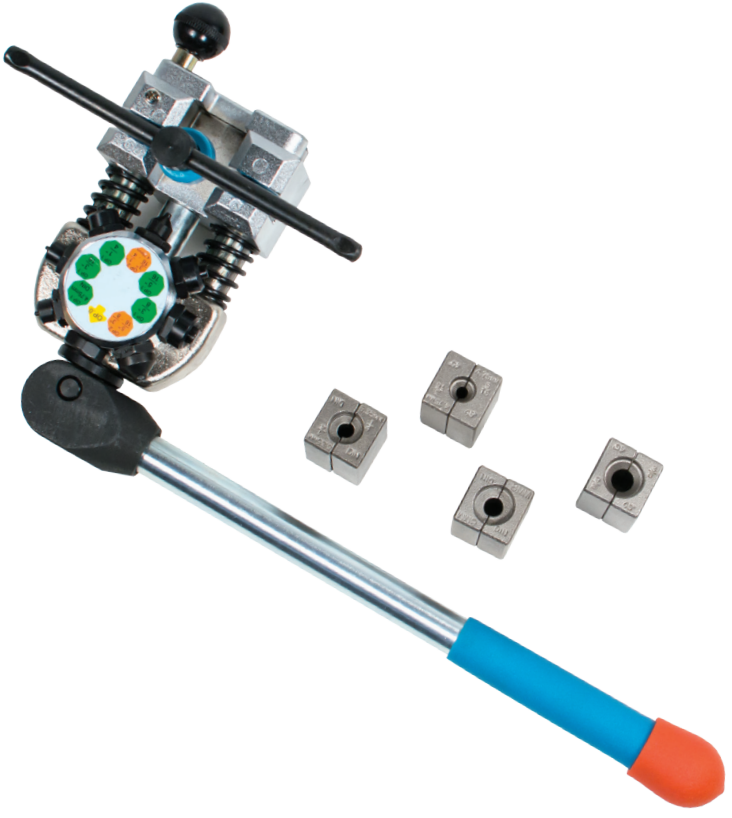
HT-1600 / HT-1650 - Brake Line Flaring Tool



⚠ **WARNING:** Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Owner's Manual & Safety Instructions

Introduction

Quickly create single, bubble or double flares on 5 different sizes of tubing. Great for making perfect flares on brake lines, transmission cooler lines and fuel lines. Works on steel, stainless steel, and soft metal tubing. Easy and quick operation will save you time and money when creating brake lines on your project.

Safety

- Always wear eye protection when operating the Flaring Tool as oils, grease and metal particles may be ejected while the tool is in operation.
- Make sure that the Flaring Tool is clamped securely in a vise, keep hands and fingers away from the mating tool faces.
- Wear gloves while operating to avoid cuts from sharp metal edges.

Contents

Model HT-1600

(1) Vise Mounted Brake Flaring Tool
(1) Rotating Die Head – Features “operation 1” and “operation 2” dies for 3/16”, 1/4”, 5/16”, 3/8” and 4.75mm, 45 degree, double flares
(4) Sets of Split Dies – for 3/16”, 1/4”, 5/16”, 3/8” and 4.75mm
(1) Lever Handle
(1) Blow Molded Case

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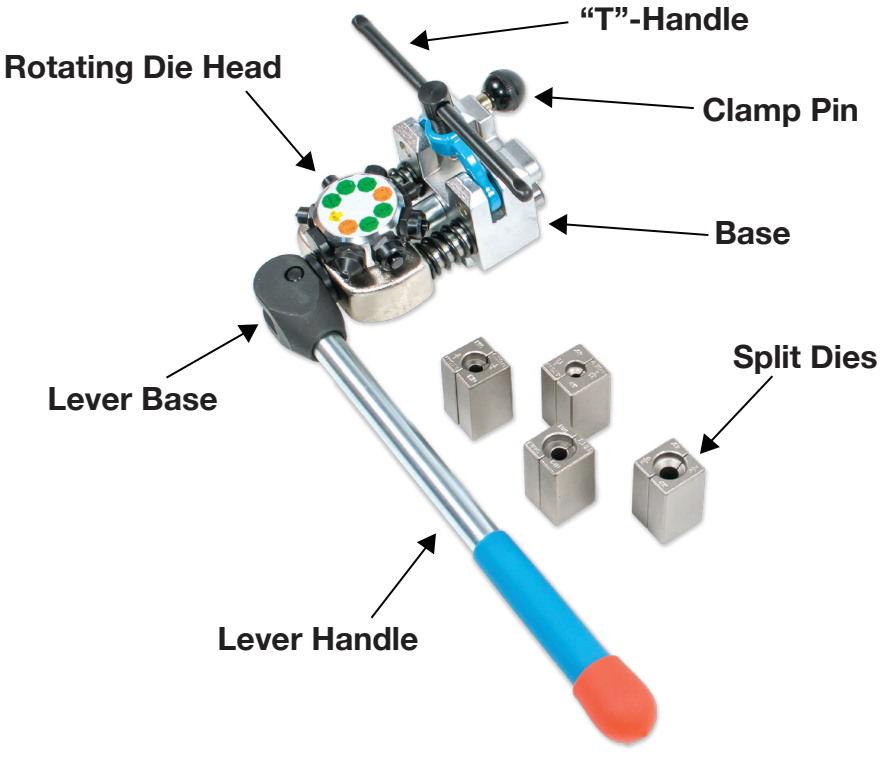
Product Overview



Preparation & Tool Setup

Tubing Prep

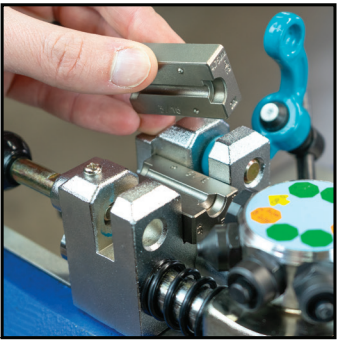
1. Cut the end of the tube square using a tubing cutter.
2. Chamfer the inside of the tube and remove any burrs. Clear any metal chips from inside the tube.
3. Clean the outside of the tube before placing into the jaws and lubricate the end of the cut tubing with an anti-seize compound.
4. Place appropriate fittings over the tube.

Tool Setup and Operation

1. Place the base of the tool into a secure bench mounted vise.
2. Place rotating die head onto round stud.
3. Insert the long handle into the lever base and make sure it is fully seated.
4. Pull clamp pin (with black knob) out releasing clamp.
5. Rotate clamp upward.

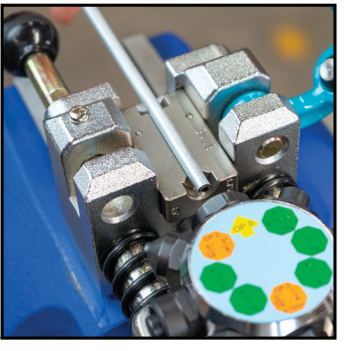
Operation

6. Select the Split Die size that you need and insert the dies into the rectangular recess in the tool base with the beveled counter bore end toward the Rotating Die Head and the back end firmly against the step.

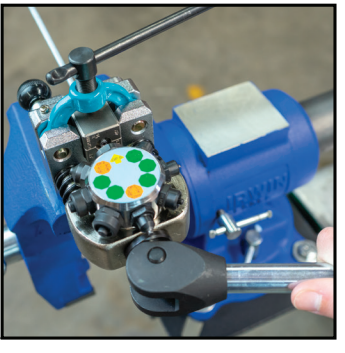


7. Place the tube between the die halves with the tube end flush with the flared end of the Dies. Rotate clamp back into place, push Clamp Pin through holes and back into the tool until the black knob seats against the body of the tool.

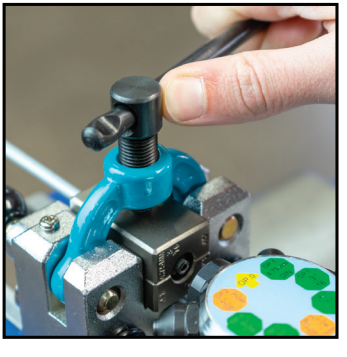
   Turn the “T”-handle to apply slight tension.



8. The Flat Faced OP. 0 die is a gauge used to line up the end of the tube flush with the Split Dies. Rotate Die Head so that the flat faced die OP. 0 is facing the end of the tube. Move lever inward toward body using the OP. 0 die as a stop gauge. The tube end must be flush with the end of the die set to create a complete double flare.

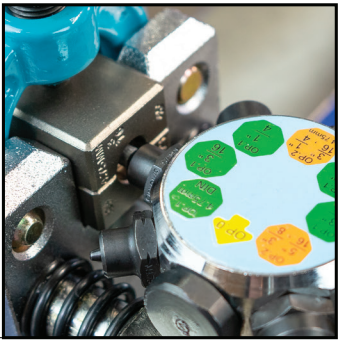


9. Tighten threaded retainer “T”-handle screw in clamp securely against the die set.

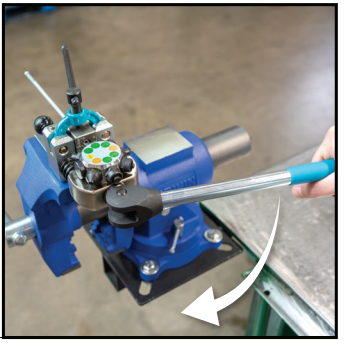


Operation (Cont.)

10. Spin Rotating Die Head with the appropriate size OP. 1 Flaring Die lined up with the end of the tube.

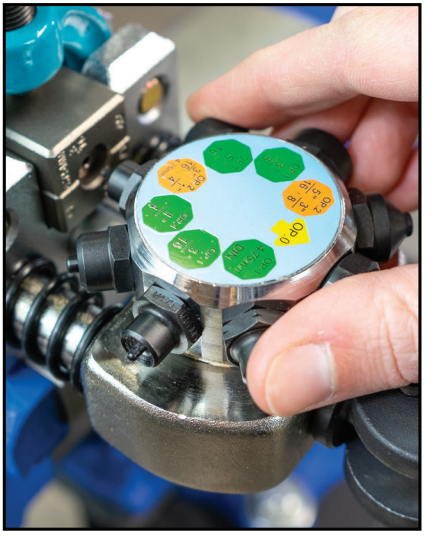


11. Move lever against tool body exerting sufficient effort to create flare, continuing until it stops

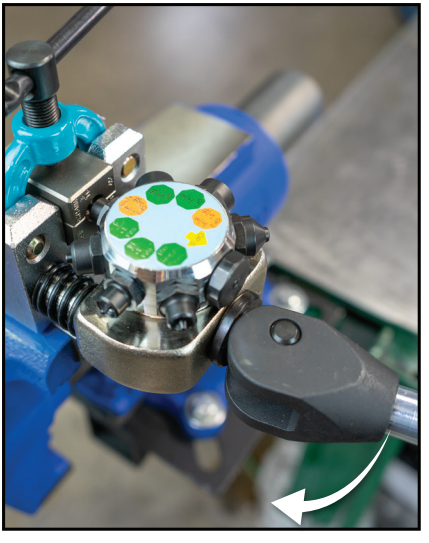


At this step, a *bubble flare* has been created. To create a *double flare*, continue with the following steps.

12. Spin rotating die head with one of the two appropriate sized OP. 2 dies lined up with the end of the tube.

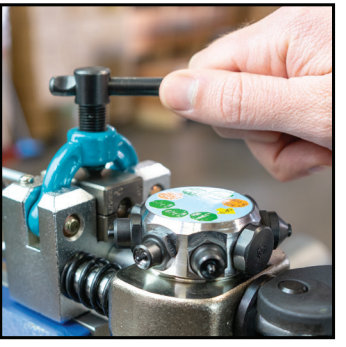


13. Move lever against tool body exerting sufficient effort to create the inverted portion of the double flare, continuing until it stops.

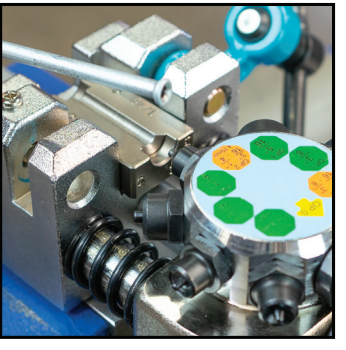


Operation (Cont.)

14. Loosen threaded retainer “T”-handle screw, pull the clamp retaining pin then remove the split dies.



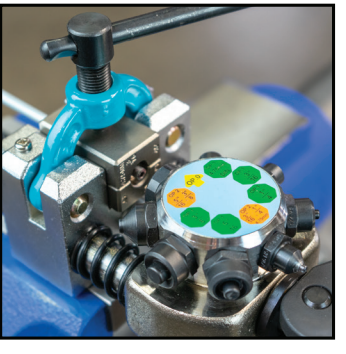
15. Remove the finished flared tube from the dies. A slight tap may be required to release the finished flared tube from the dies.



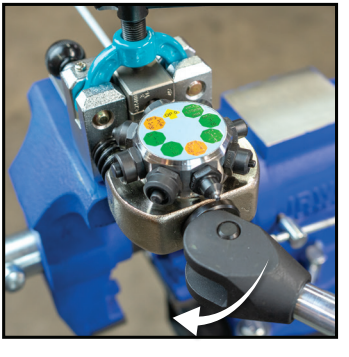
A *double flare* has been formed

Operation (Single Flare)

1. Place the tubing in the die halves and have the “T”-handle clamp lightly touching down on the die halves to apply slight tension.

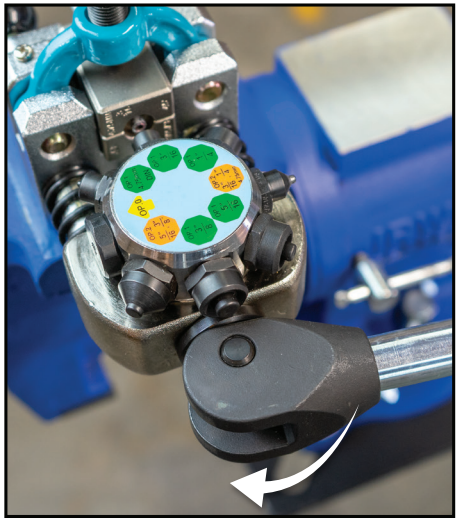


2. Go to OP. 0 to push the tubing flush against the dies.



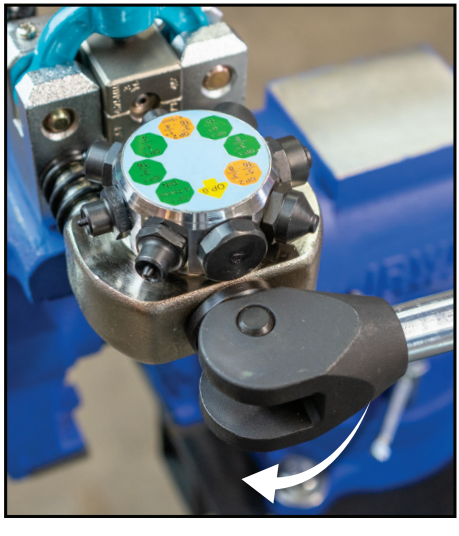
Operation (Single Flare Cont.)

❸ Proceed to OP.1 for the appropriate tubing size to push the tubing further back into the die.

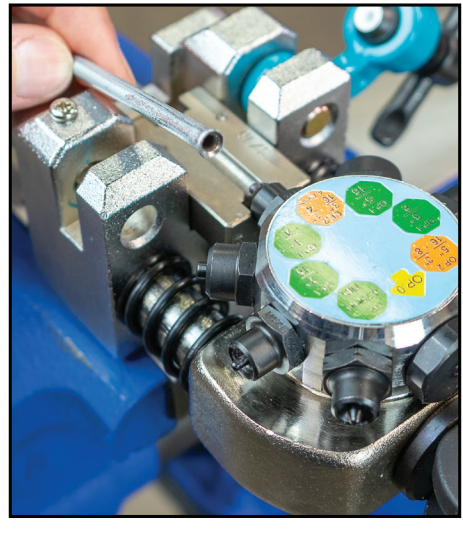


❹ Tighten the “T”-handle to clamp down the tubing against the die set.

❺ Spin the rotating die head (turret) to OP. 2 and move the lever.



❻ A single flare has been formed



Types of Flares

Single Flare: Used for low-pressure applications like carbureted fuel systems.

Single Flare | Bubble Flare | Double Flare

Double Flare: Also known as SAE or inverted, this type of flare is common in American and Asian cars. It's suitable for high-pressure systems like brake systems. The brake line looks like a tiny funnel going into the tubing, and the back side of the flare is at a 45 degree angle. Double flares can handle more pressure and thus last longer with less risk of rupturing.

Bubble Flare: Also known as DIN or ISO, this type of flare is different from a double flare. The end of the tubing looks like a button, and the back side angle of the flare is 90 degrees. Most European cars are fitted with bubble flares.

Warranty

Tool Guy Republic warrants all tools to the original purchaser against any manufacturing defect in material or workmanship for a period of one (1) year from the original date of purchase. If the defective equipment or tool is determined to be covered under this warranty, it shall be repaired or replaced at manufacturer's discretion without charge, provided that the equipment or tool must be returned with proof of purchase. This warranty shall not apply to damage due to accident, negligent use, lack of maintenance, abuse or applications other than the specific function the equipment or tool is designed for.

Support

For any additional support, please contact us

Email: contact@toolguyrepublic.com
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