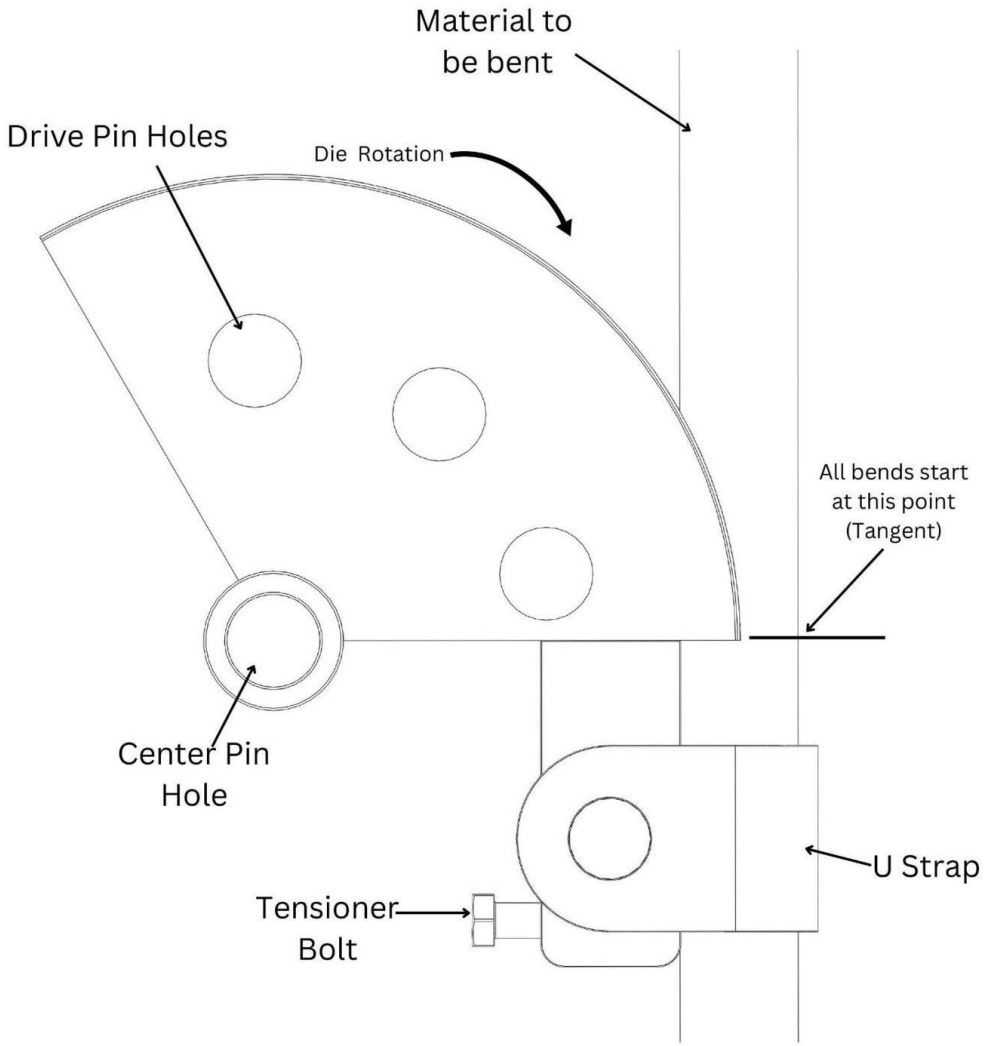


Figure 2. Bends start at edge of radius die.

JMR Manufacturing
web: www.jmrmfg.com
phone: 805-239-5972
email: info@jmrmfg.com

HYDRAULIC TUBE BENDER
TBH-250 / TBH-250-90

WARNING

1. Always pay close attention to what you are doing. Turn off cell phone, pager, etc when using this machine.
2. This machine is meant to be operated by competent individuals who have a thorough understanding of tube bending and machines in general.
3. The bender is intended to be used by a single operator. Never allow a second individual to operate the machine while another holds the tube.
4. Always wear eye protection while operating tube bender.
5. Never put your hands or other body parts into bender apparatus.
6. Never wear loose clothing while operating a tube bender.
7. Always work in a clean, safe, well lit, level work area.
8. Never use the wrong size die/type die for the tube being worked.
9. Never operate the tube bender with broken, worn or damaged parts.
10. DO NOT attempt to repair and reuse any damaged bender parts.
11. The user assumes all risks when using this product.

WARRANTY

1. One year limited warranty on tube bender.
2. One year manufacturers warranty on the hydraulic pump.
3. Limited lifetime warranty on dies against breakage. Warranty is void if damaged due to abuse or misuse.
4. Warranty items must be sent to JMR Manufacturing postage pre-paid for inspection. JMR Manufacturing will replace or repair items at their discretion.
5. JMR Manufacturing makes every attempt to satisfy customers as quickly as possible.
6. JMR Manufacturing will not accept any responsibility for personal injury or property damage arising from the failure of any parts manufactured and/or sold by JMR Manufacturing, LLC.

THE BENDER IS SHIPPED FULL OF HYDRAULIC OIL

1. Be sure to check the level of the hydraulic oil frequently. **DO NOT** allow the reservoir to run dry. This will void the warranty.

2. Use only a high quality 10w hydraulic oil to fill the hydraulic pump. R&O Tractor Oil is also acceptable. **DO NOT** use any other type of oil in the bender, i.e.: motor oil, transmission fluid, etc.

3. Under normal use, the pivot bushings should be greased every 250-500 cycles. Under high use conditions it will be necessary to grease the pivot bushings every month or more often as necessary.

4. Inspect and replace bushing when worn or sloppy.

5. Replace any worn, bent, or damaged parts immediately. Replacement parts are available from JMR Manufacturing or your local dealer.

6. Dies are available for tubing (measured by outside diameter), or Sched 40 pipe. Always use the proper size/type of die for the material being worked.

OPERATING THE TUBE BENDER

1. The tubing should be clean and free from defects.

2. Always lube the aluminum follower bar prior to bending. We recommend JMR Bending Lube.

3. Make sure that all drive pins are fully seated.

4. Pass tube into die and position as required for start of bend. All bends will start at the edge of the radius die.

5. Install the U strap and snug retainer bolt if needed.

6. Switch the hydraulic pump on.

7. Using the hand valve, extend the ram (forward on the control valve) to the full stroke (or as needed for shorter bends).

8. There is an approximate maximum 45º bend for each full stroke of the ram when using the standard cylinder, and 90º when using the 90º cylinder.

9. Pulling up on the drive pin, begin to slowly retract the ram (back on the control valve) removing the pin when tension on the pin is released and before it starts to rotate the die.

10. Slowly retract the ram (back on the control valve) until the second die drive hole lines up.

11. Re-install the pin fully and repeat the above bend process to complete the total bend.

12. To repeat bends, without the degree wheel, measure ram's travel.

13. When the tube is bent the desired amount, slowly retract (back on the control valve) the ram allowing the drive pin to rotate the die and releasing the tube. It may be necessary to loosen the U-strap retaining bolt.

14. Remove the tube.

WARNING

DO NOT attempt to use damaged parts in the tubing bender.

For your safety, DO NOT attempt to repair and reuse any damaged bender parts.

WARNING

Never put your hands or other body parts into bender apparatus.

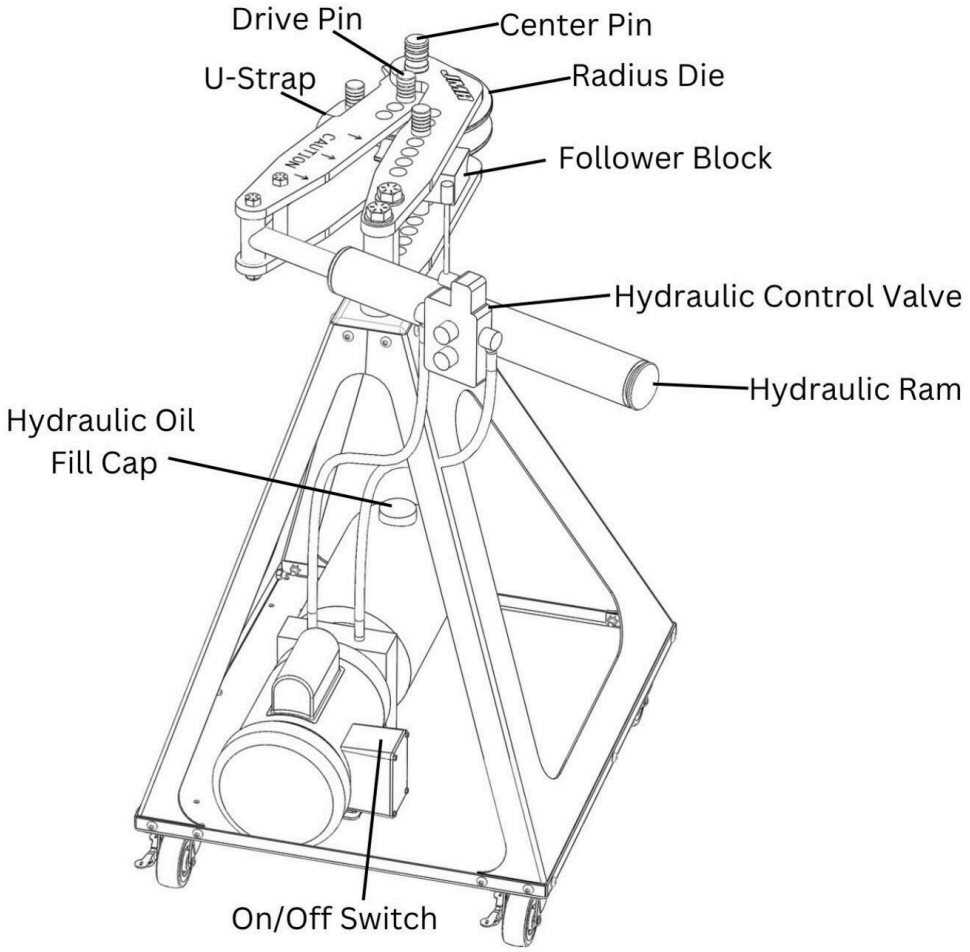


Figure 1. Bender Overall View