

# HB1 Bender Manual



Assembly and Operating Instructions

1-877-VAN-SANT

[www.tricktools.com](http://www.tricktools.com)

# HB1 Unpacking & Parts List

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Van Sant Enterprises, Inc. ○ 80 Truman Rd ○ Pella, IA 50219 ○ [www.trick-tools.com](http://www.trick-tools.com)

Upon receiving packages verify that there are no signs of damage and that all parts are present. If a package has been damaged and parts are either missing or damaged, immediately contact our sales office at 1-877-VAN-SANT.

## PACKAGE 1 CONTENTS:

1 Instruction Manual  
1 HB1 Hand Bender

A.

- (1) VS001-004 Handle  
(1) VS001-006 Front Block  
(1) VS001-007 Rear Block  
(1) VS001-008 Slide Block  
(1) VS001-009 Center Pin  
(4) 1/4"x20-3/4" Socket Head Bolts  
(1) Shoulder Bolt  
(1) Acme Rod Assembly (Rod, Knob, Bushings, & Pins)  
(1) Socket Head Bolt  
(1) Flat Washer  
***The above items are pre-assembled***

B.

- (1) VS001-001 Bender Base Plate  
(1) VS001-002 Stop Roller  
(1) 7/16" Socket Head Counter Sunk Bolt  
(1) 3/8" Socket Head Bolt  
(1) 3/8" Flat Washer  
(1) 3/8" Nut

***The above 6 items are pre-assembled***

C.

- ***Optional Accessories:***  
(1) HB1 Pedestal Adapter  
Die Sets

## PACKAGE 2 CONTENTS:

- (1) Pedestal  
(1) Pedestal Die Rack  
(2) Die Rack Mounting Screws

# Assembly

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- 1) The bender may be mounted to anything rigid enough not to twist or move during the bending operation, or clamped in a standard bench vise. If you purchased the optional pedestal, position the pedestal adapter onto the stand as in Figure 1. Tighten supplied nuts from bottom side of base.



Figure 1

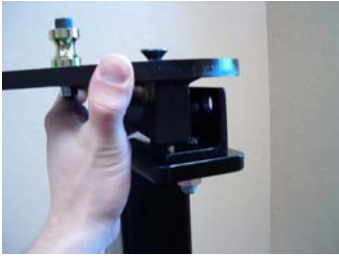


Figure 2

2) Now attach main bender plate to the pedestal adapter. Use the supplied socket head bolts and lock nuts to secure the bender to the pedestal as in Figure 2.

3) As seen in Figure 3, remove the counter-sunk bolt from the center threaded hole in the base plate. Attach the die in which you want to be the "Former Die", or the die in which will eventually match your bent part. Place the recessed hole "UP," and tighten to the base plate. NOTE: Tighten firmly to insure that the tubing does not slip by rotating the former die during the bending process.



Figure 3

4) With the main plate of the HB1 bender now fastened to the Pedestal and Former die installed, pick up the handle assembly and remove the shoulder bolt from the bottom. Figure 4

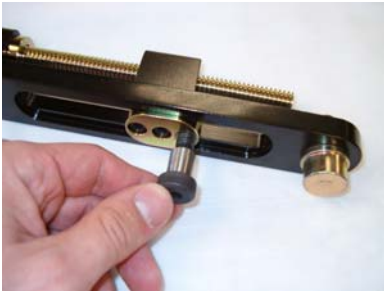


Figure 4

5) Attach the appropriate matching die to the bottom of the handle with the bolt slipping into the recessed side of the die set as seen to the right in Figure 5. This becomes your "Following Die."



Figure 5

6) Lube the center pin and recessed area of former die. Anti-seize or a paste lube is the best. Check lube periodically, and re-lube at die changes.



Figure 6

7) Drop the handle into the former die on the bender by placing the center pin, located on the end of the handle, into the top of the former die. You are now ready to adjust your following die and stopper, and place the tubing into the machine.

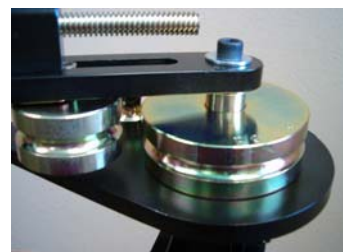


Figure 7

# Optional Pedestal Assembly



Figure 8

- 1) If an optional pedestal was purchased, the die rack can be attached to the frame of the Pedestal using the 2 included lag bolts as seen in Figure 8. It is recommended to place the die rack underneath the overhang of the bender.
- 2) Further, the pedestal can be bolted to the floor using traditional concrete screws or Lag screw/concrete anchor combinations.

## **Operation**

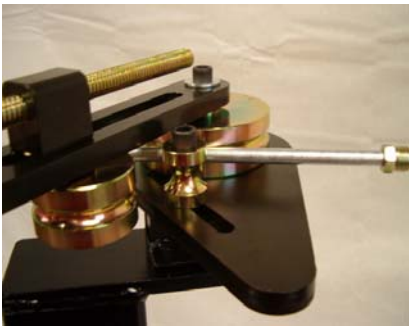


Figure 9

- 1) Back off the knob on the handle far enough to allow the tubing to slide into the bender between the former die and following die. See Figure 9
- 2) Also, as pictured in Figure 9, position the stopper close to the former die. The closer the stopper block is placed to the former, the tighter bend-to-bend distances you can achieve and less chance for your material slipping.

- 3) Spin the knob on handle to position following die close to the former die. NOTE: For best bend quality, especially on thin wall applications, move the following die as close to the former as possible. Figure 10



Figure 10



Figure 11

- 4) Rotate bend arm away from the stopper to produce your bend as seen in Figure 11.

Note: Be flexible with the bender setup. Different materials, wall thicknesses, Center-Line-Radii, etc. may affect bend quality. To obtain the best quality bend possible, experiment with the distance from the Former Die to the Pressure Die by backing off/moving forward the knob on the handle. Keep stopper close to former die to eliminate slippage of material. For more bending advice or help, call 1-877-VAN-SANT.