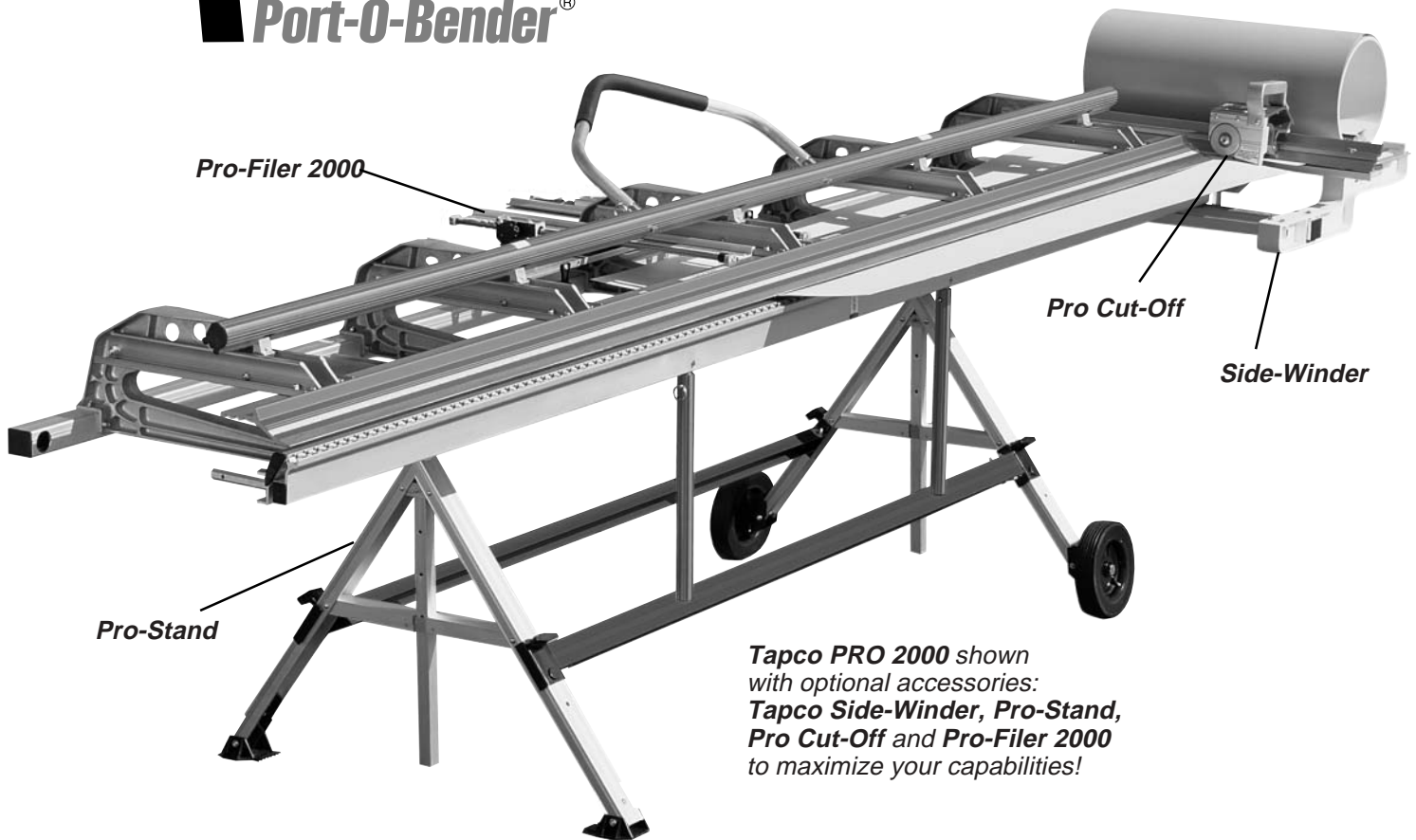


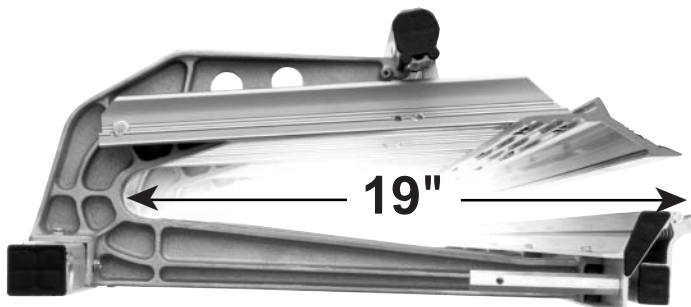


PRO 2000[®] Port-O-Bender[®] OPERATIONS MANUAL

TAPCO **PRO 2000[®]** Port-O-Bender[®]



*Tapco PRO 2000 shown
with optional accessories:
Tapco Side-Winder, Pro-Stand,
Pro Cut-Off and Pro-Filer 2000
to maximize your capabilities!*



Tapco Exclusive!
***Maximum Throat Depth
for Expanded Capabilities***

Featuring

- Accessories
- Setup and operating instructions
- How to form the most popular shapes
- Hints and shortcuts to greater profits with your Tapco PRO 2000[®] Port-O-Bender[®]
- Tune-up instructions
- Complete parts list

TAPCO PRO 2000[®] Port-O-Bender[®]

TAPCO PRO 2000[®] Port-O-Bender[®] Maximum Throat Depth • Expanded Capabilities

PRO 2000 is specifically engineered for optimum use with all Tapco accessories enabling you to do your jobs faster, better and more efficiently. (See accessories p. 3 & 4)

PRO 2000 Features

Inside Working Pockets
The largest in the industry!

19"

Exclusive, 19" throat depth, largest in the industry for making larger, more complex shapes faster and easier.

TAPCO Pro-Filer
(optional accessory see pg. 3)

Hemming Handle

Locking Handle
Part of a strong, positive clamping system.

Pivot Links

Jaw Opening 1 3/4"

Hinge Clip
(see page 6)

Bending/Lifting Handle

Faspin

TAPCO Pro-Stand
(optional accessory see below)

Pivot Arms

Super strong computer redesigned die castings.

Exclusive 19" throat depth allows you to store material inside of bender reducing handling and flipping and speeding up bending.

Base Hinge

Patented "Moving Pivot" hinge, the most advanced hinge design in the world, increases leverage and lifting power and eliminates scratching or marring of materials. (180° hemming capability)

PRO 2000 Bending Capacities

- Up to .030 soft aluminum
- Up to 28 ga. galvanized steel
- Up to 16 oz. copper sheet & coil

PRO 2000 HD Capacities (see pg. 8)

Pro 2000 Port-O-Benders are made under one or more of the following U.S. Patents: 3,161,223, 4,321,817, 4,651,553, 4,489,583, 4,493,200, 4,445,356, 4,372,142, 4,766,757, 3,817,075, 4,557,132, 4,240,279, 4,671,094, 3,482,427, 4,494,397, 3,559,444, 5,343,728, 5,353,620, 5,505,069. Other U.S. and Foreign Patents Pending.

TAPCO PRO-STAND[™]

Deluxe Heavy Duty Transportable Support for your PRO 2000, PRO-III Port-O-Bender and E-Z Angle Siding Table

Pro-Stand Features

- Durable lightweight anodized aluminum construction.
- Fast and easy height adjustments from 28" to 37".
- Heavy duty wheels handle the roughest of job site terrains then convert to support pads.
- Detaches quickly from your Port-O-Bender.
- Fits all 8' 6" through 12' 6" Pro Series Port-O-Benders and E-Z Angle Siding Table.

Heavy Duty wheels convert to foot pads for solid support on all terrains



U.S. & Foreign Pats. Pend.

PRO 2000® PORT-O-BENDER® ACCESSORIES

SIDE-WINDER™ Coil Holder

Works in tandem with your Port-O-Bender and CUT-OFF to form a complete "trim shop"

SIDE-WINDER Features

- Attaches in seconds to the end of your **PRO Series Port-O-Bender**, standard or heavy duty models.
- Allows you to feed coil directly into the jaws of your **Port-O-Bender**. Uses your **PRO CUT-OFF** to give you factory quality cross cuts. Speeds up production, decreases waste.
- Helps eliminate damage from handling coil stock, especially on windy days.
- Holds up to **24" x 50'** coil*. Weighs only **25 lbs.** *When used with **Pro-Stand**.
- New improved versatility! Work both sides of your coil. Coil can be drawn out finished side **up** or **down**. See photos at right.

Speeds Up Bending!



Keeps the coil at your side—where you need it!



Note: When using the **SIDE-WINDER** the **PRO CUT-OFF** must be used to cut off material. Both optional accessories shown with **PRO 2000 Port-O-Bender**. See **Pro Cut-Off** below.

TAPCO PRO-FILER® 2000

Automatic Squaring and Measuring Gauge



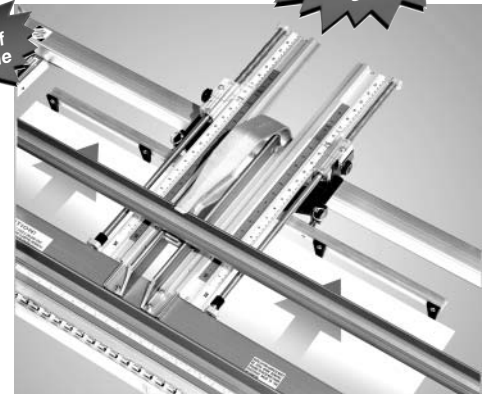
PRO-FILER 2000 Features

- The **PRO-FILER** is the first tool ever to automatically square and measure material fed into your Port-O-Bender, eliminating the need to mark and snip on your coil.
- Automates your production. Saves up to **50%** of your layout time—the largest block of time that slows you down the most!
- Easy to use as a template and profile maker.
- **PRO-FILER Strips** store key information for bending shapes. Simply form strips to your desired profile then insert them into the **PRO-FILER** and they guide your bending.
- Turns rookies into pros in hours instead of years. Makes pros more efficient.

Saves up to 50% of your time



NO more guesswork in laying out shapes



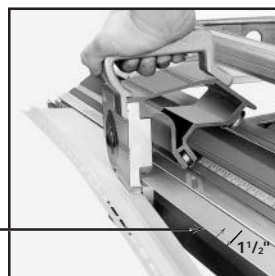
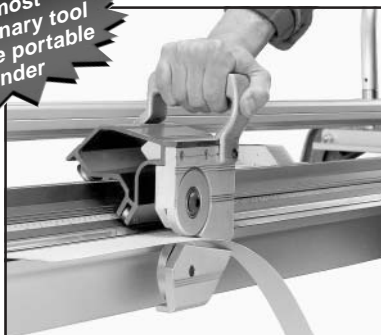
PRO CUT-OFF™

Quickly, safely and easily makes factory quality cut offs right right on your Port-O-Bender

The most revolutionary tool since the portable bender

PRO CUT-OFF Features

- Lightweight aluminum construction built to last.
 - Hardened and captured tool steel cutting knives for safety and durability.
 - Pays for itself by reducing scrap and eliminating knifing damage to costly bending hinges.
 - Eliminates use of dangerous utility knives and shears.
 - Saves time and labor in scoring and breaking off material.
- Also for use with Tapco SIDE-WINDER.**



Note: Shear point remains constant at 1 1/2" from your Bending Edge.

Using the PRO CUT-OFF



The proper technique is to effortlessly push your **Pro Cut-Off** through the material with a smooth, constant motion from right to left. Do not stop in the middle or cut with a back and forth motion. Make sure hinge clip is engaged.

U.S. & Foreign Pats Pend.

PRO CUT-OFF Capacities

- Up to **.030** aluminum. All vinyl.
- Up to **28 ga.** galvanized steel
- Up to **16 oz.** copper

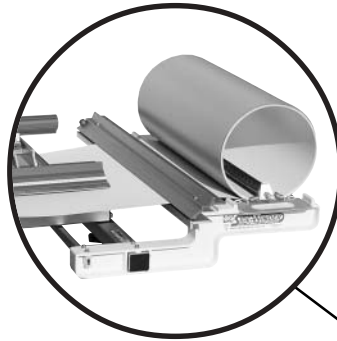
TAPCO ACCESSORIES

A Necessity for Today's Professional Sider



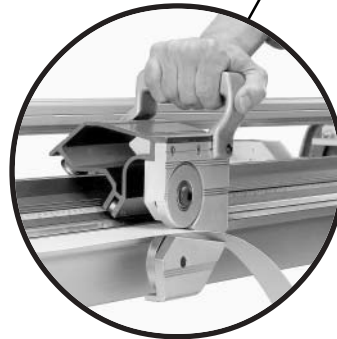
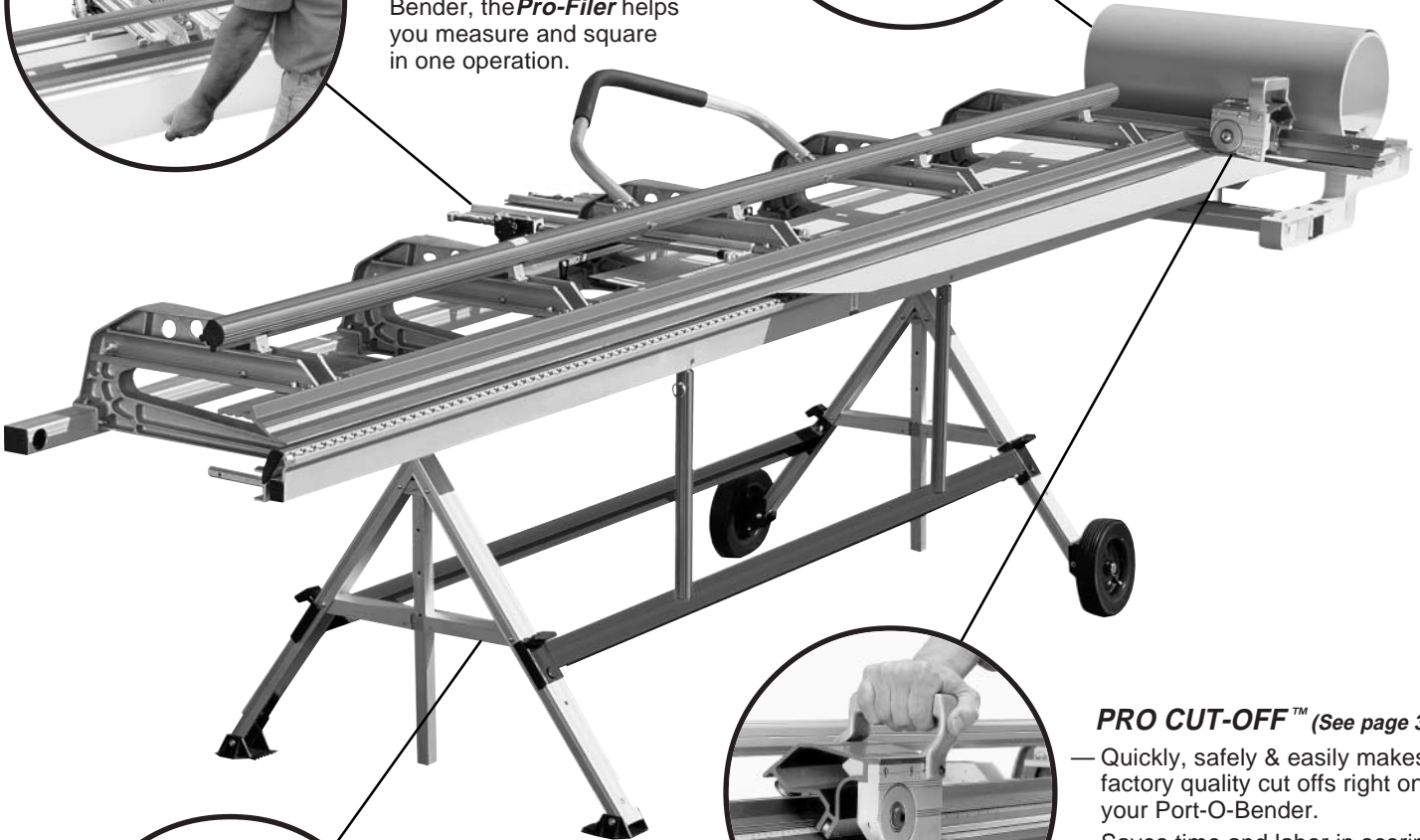
PRO-FILER 2000® (See page 3)

- Reduces layout time and need to snip mark your coil for measuring.
- Simply feed coil in to your Bender, the **Pro-Filer** helps you measure and square in one operation.



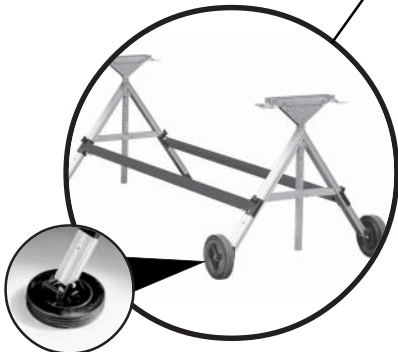
SIDE-WINDER™ (See page 3)

- Saves time by allowing you to roll out coil directly into the jaws of your Port-O-Bender.
- Decreases coil damage due to excessive handling especially on windy days.



PRO CUT-OFF™ (See page 3)

- Quickly, safely & easily makes factory quality cut offs right on your Port-O-Bender.
- Saves time and labor in scoring and cutting off material.
- Also for use with **Side-Winder**.



PRO-STAND™ (See page 2)

- Solid support and mobility on the job site.
- Adjustable, folds up and detaches in seconds.

OTHER MAJOR ITEMS

Ask your distributor for more information



E-Z ANGLE®
Siding Table



PORT-O-SLITTER™
Slitting & Rib Forming System

THE "PRO 2000 COMPLETE" SAVES TIME, INCREASES PROFITS

The "PRO 2000 Complete" system includes: Port-O-Bender, Pro Cut-Off, Side-Winder, Pro-Filer 2000 and Pro-Stand. On an average day, they can save you hours on the job site!



1 **Pro-Stand** provides solid support and transports your **PRO 2000** with all accessories around the job site. Saving you time and effort.



2 **Side-Winder Coil Holder** dispenses coil directly into the jaws of your **PRO 2000**. No need for extra handling of coil stock or separate layout table. Pays off big on windy days.



3 **Pro Cut-Off** cuts your coil to length on the **Side-Winder** in seconds. Also the **Pro Cut-Off** does double duty cutting your coil to width. (See step 4).



4 **Pro Cut-Off** safely cuts the coil with a factory edge in seconds. No need to score and break off material. Saves time, effort and reduces scrap.



5 **Pro-Filer 2000** automatically squares material fed into your **PRO 2000**. Saves time measuring and snipping coil. (See step 6).



6 In making bend after bend, **Pro-Filer 2000** eliminates the need to measure, mark and snip each piece of coil, and ensures accuracy.



7 **PRO 2000's** patented "moving pivot" hinge makes bending easier (requires 35% less lifting) and won't scuff material, preventing touch up work.



8 **PRO 2000's** large working pockets and throat depth let you form more complex shapes faster, easier and better.

The
"PRO 2000 Complete" System

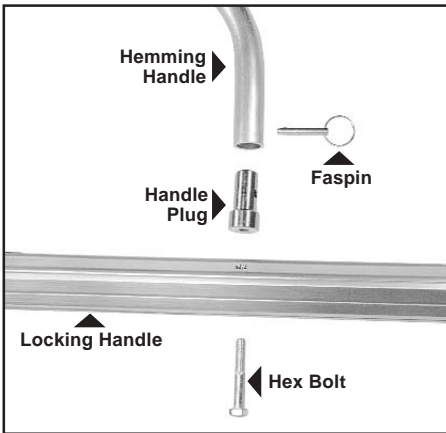
- PRO 2000 Port-O-Bender
- Pro-Stand
- Side-Winder
- Pro Cut-Off
- Pro-Filer 2000

Saves you 1-2 hours on the job site in an average day!

In Today's Busy Economy You Have to be "COMPLETE" to Compete.

SETTING UP YOUR PRO 2000® PORT-O-BENDER®

Hemming Handle Installation

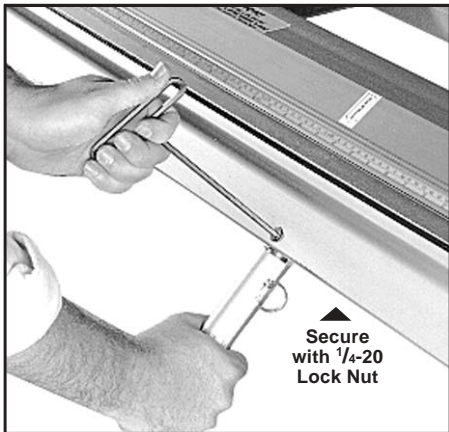
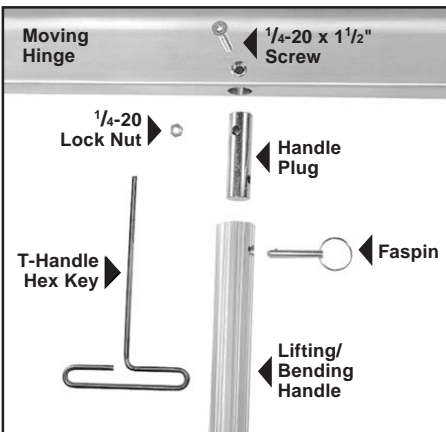


The PRO-III Hemming Handle Assembly includes: (1) Hemming Handle, (2) Handle Plugs, (2) Faspins, (2) Hex Bolts.

Insert Hex Bolt through Locking Handle of your Port-O-Bender and into base of Hemming Handle as indicated using the 3/8" Hex Bolts provided. **HAND TIGHTEN ONLY.** Repeat for other side.

Attach the Hemming Handle over the Handle Plugs and secure them with Faspins. Now tighten the 3/8" Hex Bolts with a 9/16" wrench. Handle can be detached from now on by simply removing the Faspins.

Lifting/Bending Handle Installation



Remove the combination Lifting/Bending Handles from each end of the Port-O-Bender by removing the Faspins as shown.

Insert Handle Assembly into hole in bottom of Moving Hinge. Align hole in hinge with Handle Plug and insert screw using T-Handle Hex Key as shown. Secure with 1/4-20 Lock Nut.

Repeat for other handle(s). To remove handles, simply release Faspins. Always use more than one handle when bending.

Hinge Clip Installation

The Hinge Clip keeps the Moving Hinge in position for ease of aligning material. It can also prevent rippling of the coil during cut off operations.

To install Hinge Clip, locate predrilled hole on bottom center of Moving Hinge. Align holes in Clip and Hinge as shown and insert Phillips head screw provided. Note: You must use hinge clip when using Pro Cut-Off.



ADJUSTING YOUR PRO 2000® PORT-O-BENDER®

Pivot Link Adjustment Instructions

IMPORTANT: Your Port-O-Bender® incorporates an advanced new Micro-Adjust system that enables you to adjust the gripping tension on material faster and easier than ever. The Pivot Links have been pre-set at the factory for average holding capacity and ease of operation. **However, it's important that you readjust your Port-O-Bender® to your stock thickness.** Your Port-O-Bender® may also need periodic adjustment due to extreme weather and/or working conditions. It is important that you follow these steps when you adjust your Port-O-Bender® to ensure proper gripping tension and maximum performance.

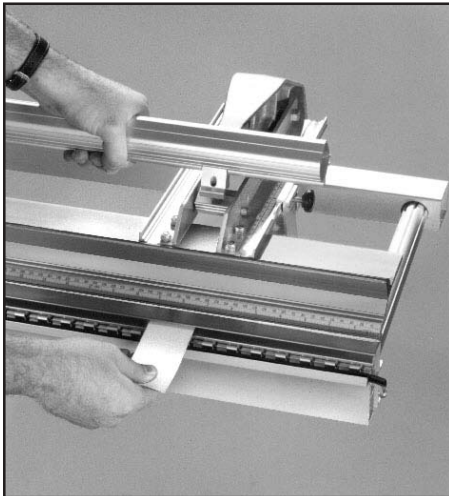


Figure 1

First check the uniformity of the clamping pressure along the entire length of your Port-O-Bender® by using the following method.

TO TEST —

Cut narrow strips of the stock which you will be using and lock one piece under each frame casting as indicated in figure 1. Then move material from left to right and try to pull material straight out. If material can be pulled out or if the material does not move at all then the pivot links need to be adjusted. If material can be moved from left to right but cannot be pulled out directly then the pivot links are properly adjusted.

NOTE: All adjustments are *made* with the Port-O-Bender® in the “open” position. All adjustments are *tested* with strips of material placed in the Port-O-Bender® in the “locked” position.

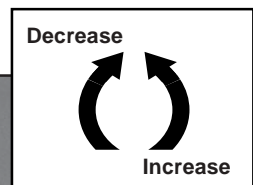
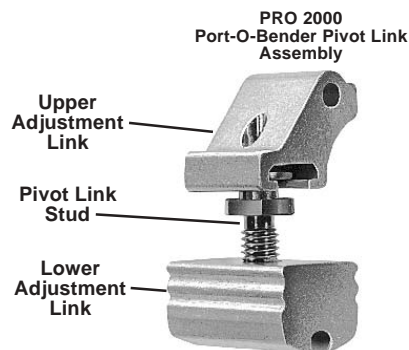


Figure 2

TO ADJUST —

Insert the adjusting wrench provided into the Pivot Link Stud through the access hole in the upper link. (See **Figure 2**.) Turn $1/4$ turn either *COUNTER-CLOCKWISE* to **INCREASE** locking tension or *CLOCKWISE* to **DECREASE** locking tension.

Repeat test step above to check tension.



TO ADJUST (Optional method)—

As an alternate method you may use a $5/8$ " open-end wrench directly on the Pivot Link Stud by turning $1/4$ turn either *COUNTER-CLOCKWISE* to **INCREASE** locking tension or *CLOCKWISE* to **DECREASE** locking tension. (See **Figure 3**.)

Repeat test step above to check tension.

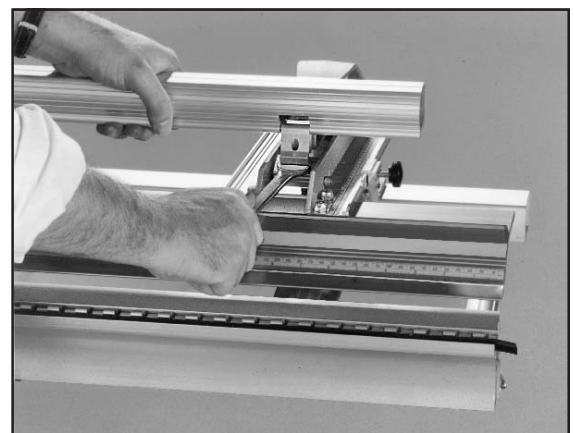


Figure 3

USING THE PRO 2000® PORT-O-BENDER®

Basic Hemming and Folding



1 Insert the material you wish to hem into your Port-O-Bender.



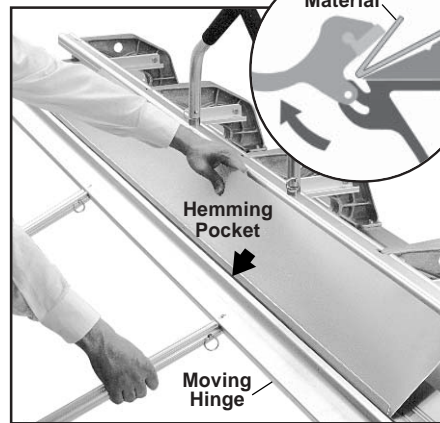
2 Close and lock Bender on the material.



3 Bend as far as you can go.



4 Remove the material from the Port-O-Bender.



5 Position the bent edge of the material in the Hemming Pocket on top of the Anvil.



6 Lift the Bending Handles and compress the bend for a completed hem.

Care and Maintenance of your Port-O-Bender®

Your Tapco Port-O-Bender® is virtually maintenance free and will provide you with years of reliable and trouble-free performance, however, there are a few basic necessities required to keep your Port-O-Bender® like new.

- 1.** Clean the clamping surfaces each day before using. Use only clean shop towels that are free of dirt, oil and metal chips.
- 2.** Do not use your bender around your saw table as the cuttings may get in between clamping surfaces and cause excessive wear or material scratching. Brush away any cuttings or filings that accumulate.
- 3.** Transport your Port-O-Bender® in the unlocked position. You may transport it in the locked position if you clamp a piece of cardboard or vinyl siding between the clamping surfaces.
- 4.** If your material is getting scratched, examine the Stainless Bending Edge, Base Hinge and Moving Hinge for roughness or burrs. Remove burrs with emery cloth or replace excessively worn parts. Optional Pro Cut-Off will help eliminate excessive wear to costly bending edge.
- 5.** Use a lightweight spray oil along the moving pivot hinge after every 40 hours of use.

Capacities

PRO 2000 Bending Capacities

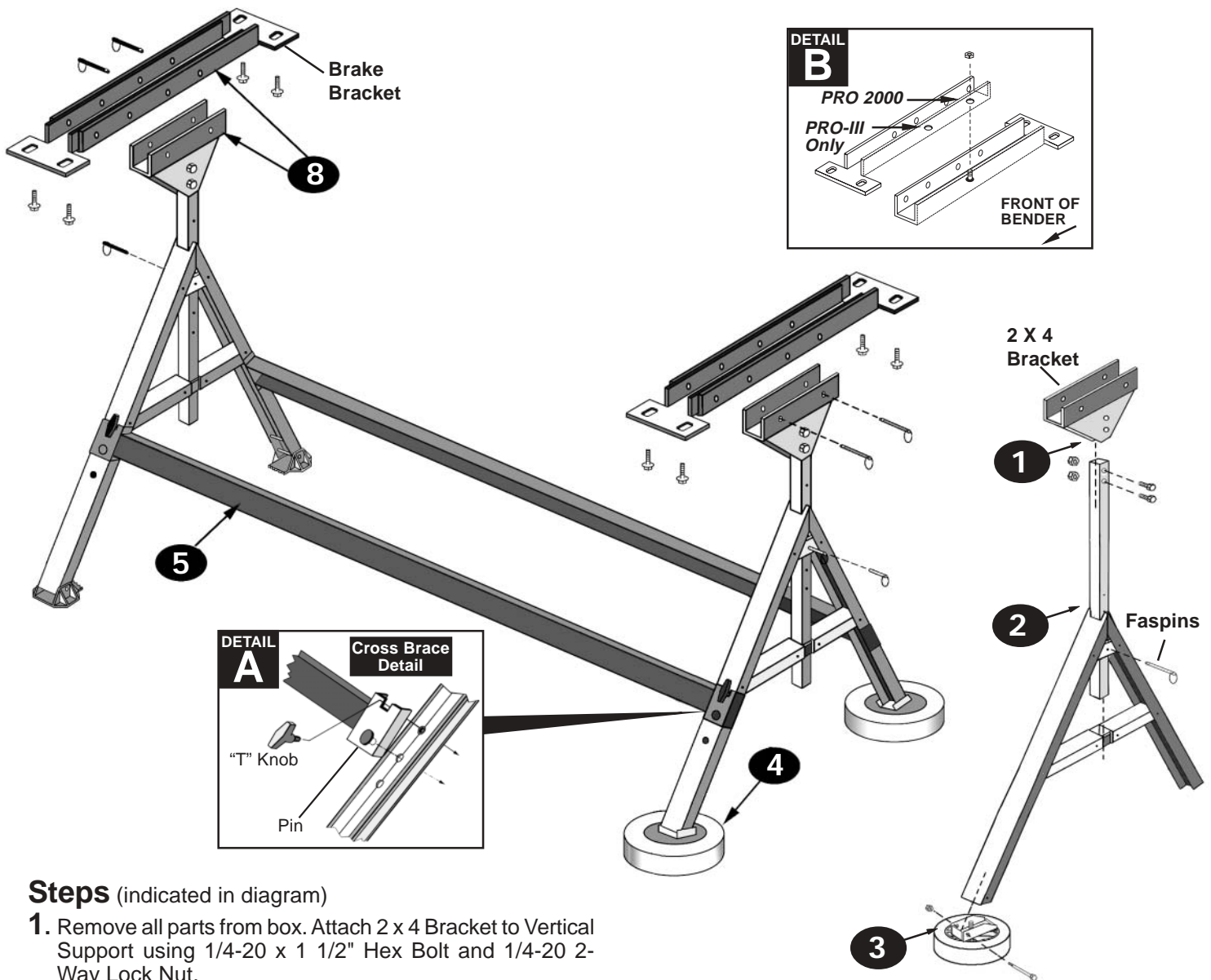
- Up to **.030** soft aluminum
- Up to **28 ga.** galvanized steel
- Up to **16 oz.** copper sheet & coil

PRO 2000 HD Bending Capacities

- Up to **.040** soft aluminum
- Up to **26 ga.*** galvanized steel
- Up to **18 oz.** copper sheet & coil

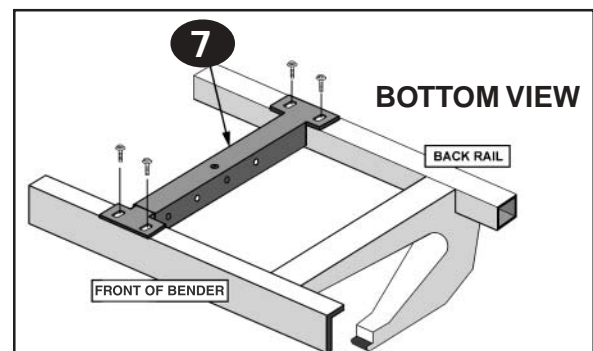
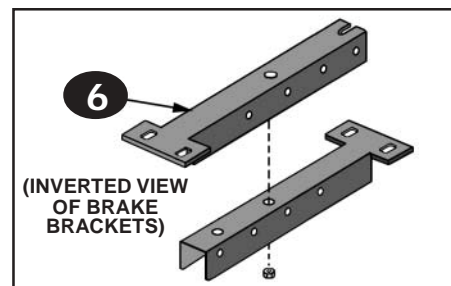
*MAX II commercial model Port-O-Benders are available to bend up to 20 ga. galvanized steel.

PRO-STAND INSTALLATION INSTRUCTIONS



Steps (indicated in diagram)

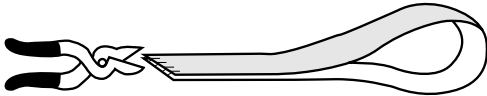
1. Remove all parts from box. Attach 2 x 4 Bracket to Vertical Support using 1/4-20 x 1 1/2" Hex Bolt and 1/4-20 2-Way Lock Nut.
2. Slide Vertical Support into End Assemblies, setting to desired height, and secure with Faspin (part #10678).
3. Attach Wheel Assembly to End Assembly using 1/4-20 x 2 1/2" Hex Cap Bolt and 1/4-20 Two Way Lock Nut.
4. Fold wheels to pad position (as indicated in diagram) and stand End Assemblies apart.
5. Attach both Cross Braces by seating pins into center holes in legs and tightening the "T" Knobs into the top threaded holes (see Detail A above).
6. Assemble Brake Brackets (see Detail B above) securing with hex nuts. Repeat for other Bracket.
7. From bottom of Bender, align holes in Brake Brackets with holes in Front and Back Rails of Bender. Insert washer head screws and tighten Brake Brackets in place. (*Pre '99 Benders will need to be drilled)
8. Turn Bender right side up and fit Brake Brackets into 2x4 brackets. Align holes in Brackets and insert Faspins. After the Brake Brackets are installed on the Port-O-Bender, entire unit can be quickly detached from Pro-Stand by removing Faspins.



TRADITIONAL BENDING TECHNIQUES

Helpful Hints for Trim Work

1. Measure the total length of the trim area to be covered and divide by the length of your Bender to determine the number and length of trim pieces needed.
2. Determine the dimensions of each section of the desired trim shape by measuring the profile to be covered. As an aid, make a pattern out of a 1" strip of coil to get your exact profile.
3. Transfer the dimensions in Hint #2 to each end of a piece of trim coil by making a $\frac{1}{4}$ " slit in the metal with a pair of shears. These marks now become the bending points and makes the bending marks visible from either side. On longer lengths fold the coil over as shown and snip both ends at once. This saves time and ensures accuracy. The Tapco Pro-Filer was designed to make this time consuming part of your job easier and more accurate. See page 3.

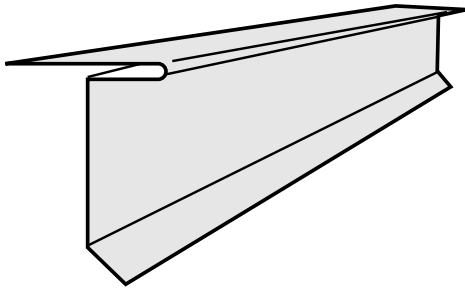


4. Lock the pre-marked coil blank into the bender with the cut marks located directly under the outer edge of the Stainless Bending Edge. Lock Bender. To cut off the coil with a razor knife, score the metal against the Stainless Bending Edge. Now bend the metal up and push back down by hand until the exposed section breaks off. It may require 2 or 3 repetitions.

When braking material, bending to just 45° will avoid rounding the edge. The Pro Cut-Off was designed to safely and easily cut your material in seconds. See page 3.

5. For bending, follow the suggested sequence of bends on page 12. For bending techniques see "Bending the Roof Drip Edge" below.
6. Don't fit your trim parts too tight. This will complicate the joints where parts overlap. A one inch (1") lap joint is enough to allow for expansion and contraction. *Trim should be lapped so that laps are facing away from traffic areas.*
7. Try to nail the trim parts on an area that will make the nails less conspicuous. Fasten at laps. When face nailing, use just enough nails to secure trim; **DO NOT DRIVE NAILS TOO TIGHT!!**
8. *Remember*, when designing shapes you are hanging a cover over the wood parts, not laminating a skin-tight surface. This is called "Floating Your Trim". Allow for irregularities in the wood because your formed trim shapes are straighter than the wood trim moldings or boards you are covering.
9. With practice, you'll learn to overbend or underbend certain sections to achieve a pressure fit of your trim parts which will, in turn, require fewer nails and give your job a more wood-like appearance.
10. Hemming (making a 180° bend on the edge of a sheet) will give your shape a "Factory Edge Look" and will stiffen the entire trim piece to help eliminate "oil canning". See page 8.

Bending the Roof Drip Edge (Use these basic instructions for all examples)



1. This shape is basic to all the other shapes contained in this manual. Practice this shape before you proceed with the other trim pieces illustrated on pages 12.
2. To begin, cut off a piece of coil $\frac{3}{4}$ inches wide by about 1 foot long (As shown at right).
3. Mark your coil with a pencil at 2", $2\frac{3}{4}$ " and $4\frac{1}{4}$ " on both ends. Then snip these marks in about $\frac{1}{4}$ " (so they will be visible on both sides of the coil).
4. Put your coil into the Bender with the **Finished Side Up**. Bend ① is the $2\frac{3}{4}$ " mark, lock the Bender on the mark; then, bend 90° .
5. Remove the coil from the Bender. Bend ② will be at the 2" mark on the coil, now put the coil into the Bender with the **Finished Side Down**. Lock the Bender on this 2" mark. Note that Bend ② shows the symbol * which means the bend is to be 180° . Bend this as far as it will go (about 165°). Then proceed to hem it in the Bender as shown on Page 8 in "Basic Hemming and Folding".
6. Now to Bend ③ put your coil back into the Bender **Finished Side Up** and lock on the $4\frac{1}{4}$ " mark. Bend this approximately 45° as shown to complete the shape.

Roof Drip Edge

* Finish Side Down ②

① Finish Side Up

③ Finish Side Up

Mark with pencil
Then snip in from
edge $\frac{1}{4}$ "

Material: Aluminum coil $\frac{3}{4}$ inches wide x the desired length. (For practice, use only about a 1 foot length of coil)

1. Numbers show the sequence of the bends; thus, ① would be the first bend, ② the second bend, etc.
2. "Finish Side Up" indicates that the finished or exposed side of the trim is to be put into the Bender **FACING UP**.
3. "Finish Side Down" indicates that the finished or exposed side of the trim is to be put into the Bender **FACING DOWN**.

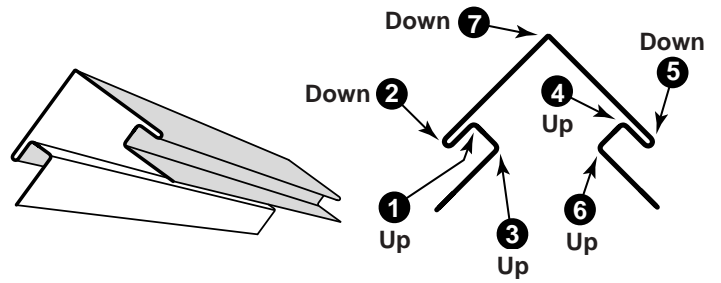
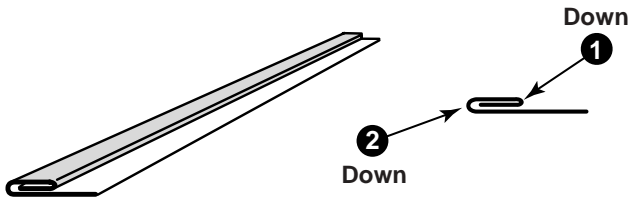
* The bend is to be 180° .

(continued on next page)

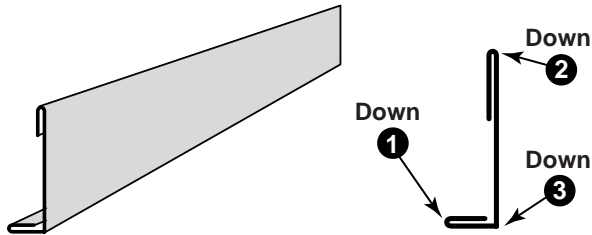
EXAMPLES OF BASIC SHAPES

NOTE: UP and DOWN refers to the clad, painted or FINISH SIDE of the material as it is placed into the Bender.

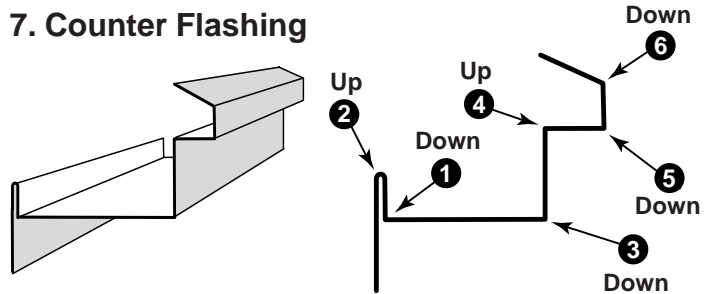
1. All Purpose Sill Trim



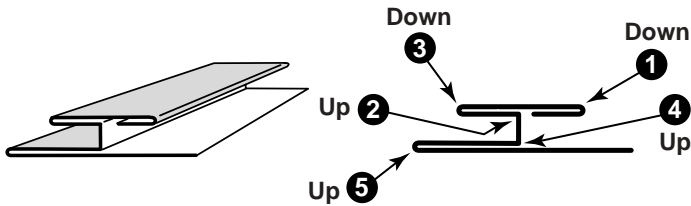
2. Fascia Trim



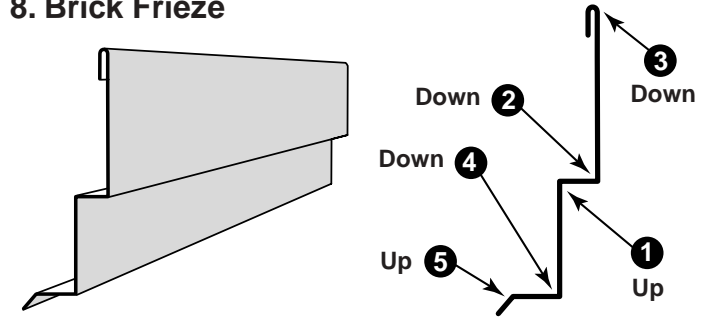
7. Counter Flashing



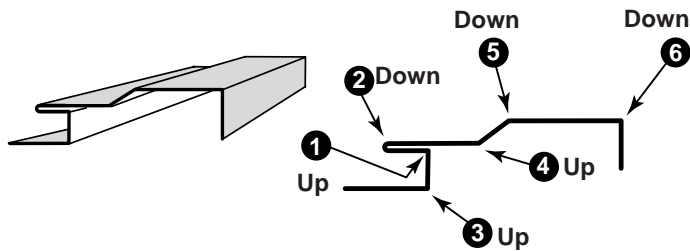
3. One Piece Soffit Mitre



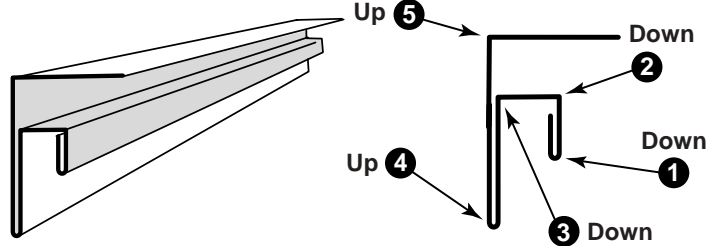
8. Brick Frieze



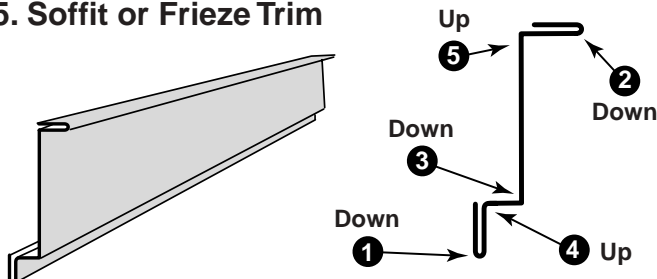
4. Rake Trim with "J" Channel



9. "F" Channel/Inside Corner



5. Soffit or Frieze Trim



10. Window or Door Casing with "J" Channel

