PRO-III® Port-O-Bender® OPERATIONS MANUAL





Featuring

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

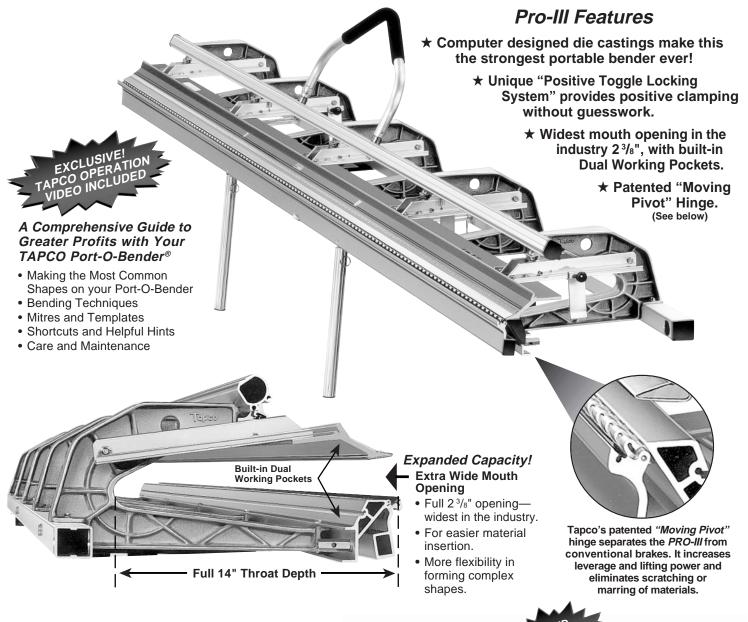
Pro-III Port-O-Benders are made under one or more of the following U.S. Patents: 3,161,223 4,321,817 4,651,553 4,489,583 4,493,200 4,445,356 4,372,142 4,766,757 3,817,075 4,557,132 4,240,279 4,671,094 3,482,427 4,494,397 3,559,444 5,343,728 5,353,620 5,505,069 Other U.S. & Foreign Pats. Pend.

© Copyright 2001 **Price: \$5.00**



The TAPCO PRO-III® Port-O-Bender®

The world's best selling portable bender



TAPCO PRO-STAND™

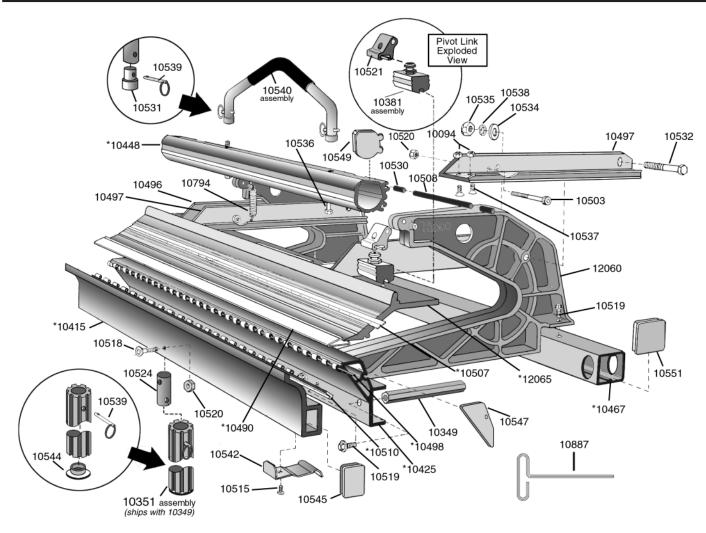
Deluxe heavy duty transportable support for your PRO-III, PRO 2000 Port-O-Bender, and E-Z Angle Siding Table

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.



PRO-III® PORT-O-BENDER® PARTS LIST



NOTE: All multiples of the same part may not be called out.

Part Number	Part Name			
10094	1/4-20 Hex Flange Nut			
10349	Coupling Nut			
10351	Lifting Handle Assembly			
10381	Pivot Assembly			
10496	Pivot Arm - Left			
10497	Pivot Arm - Right			
10503	1/4-20 X 2 1/2" Sock Cap Screw			
10508	Locking Handle Pin			
10515	10-24 X 1/2" Pan HD Screw			
10518	1/4-20 X 1 1/2" Sock FL HD Screw			
10519	1/4-20 X 3/4" Hex Wash HD Screw			
10520	1/4-20 Nylox Hex Nut			
10521	Upper Link			
10524	Lifting Handle Plug			
10530	Rubber Pivot Pin Keeper			
10531	Hemming Handle Plug			
10532	3/8-16 X 3" Hex Cap Bolt			
10534	3/8" Flat Washer			
10535	3/8-16 Nylok Hex Nut			
10536	3/8-16 X 2 1/4" Hex Bolt			
10537	1/4-20 X 3/4" Sock Flat HD Screw			
10538	3/8" Lock Washer			
10539	1/4 X 1 1/4" Faspin			
10540	Hemming Handle Assembly			
10544	Lifting Handle Cap			
10545	Moving Hinge Cap			

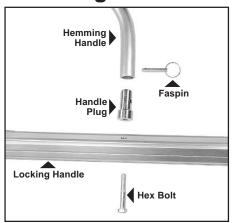
Part Number	Part Name			
10547	Base Hinge Cap - Right			
10548	Base Hinge Cap - Left (not shown)			
10549	Locking Handle Cap - Right			
10550	Locking Handle Cap- Left (not shown)			
10551	Back Rail Cap			
10794	Roller/Pivot Spring			
10887	T-Handle Wrench			
12060	C Casting			

Model Specific Part Numbers (*6'8" part numbers shown in diagram)

	<i>p</i> 000	i dititu	1112010	oo parin	umbers snown in diagram,
6'8"	8'6"	10'6"	12'6"	14'6"	Part Description
10415	10417	10419	10421	10423	Moving Hinge
10425	10430	10435	10440	_	Base Hinge
10428	10433	10438	10443	10445	HD Base Hinge
10448	10452	10456	10460	_	Locking Handle
10450	10454	10458	10462	10464	HD Locking Handle
10467	10472	10477	10482	_	Back Rail
10470	10475	10480	10485	10487	HD Back Rail
10490	10491	10492	10493	10494	Stainless Edge
10498	10499	10500	10501	10502	Hinge Pin
10507	10506	10505	10504	_	Tape Measure
10510	10511	10512	10513	10514	Vinyl Strip
12065	12067	12069	12071	_	Locking Anvil
12066	12068	12070	12072	12073	HD Locking Anvil

SETTING UP YOUR PORT-O-BENDER®

Hemming Handle Installation



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

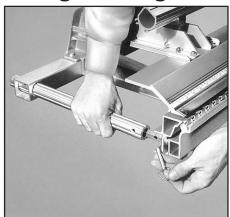


Insert Hex Bolt through Locking Handle of your Port-O-Bender and into base of Hemming Handle as indicated using the 3/8" Hex Bolts provided. HAND TIGHTEN ONLY. Repeat for other side.

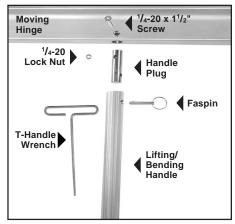


Now tighten the 3/8" Hex Bolts with a 9/16" wrench. Handle can be detached from now on by simply removing the Faspins.

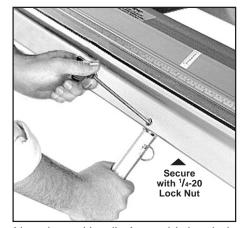
Lifting/Bending Handle Installation



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



Exploded view of Handle Assembly — First insert one end of Handle Plug into Lifting/Bending Handle and install Faspin through holes.



Next, insert Handle Assembly into hole in bottom of Moving Hinge. Align hole in hinge with Handle Plug and insert screw using Allen wrench as shown. Secure with 1/4-20 Lock Nut.

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 engage hinge clip when using Pro Cut-Off.



ADJUSTING YOUR PRO-III 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.

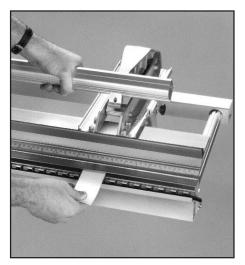


Figure 1

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

TO TEST —

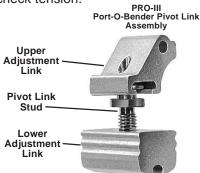
Cut some narrow strips of aluminum or use strips from the stock you will be using and lock one under *each* shoe casting as indicated in **Figure 1**. Then lightly pull the material to determine the tightness and uniformity of each Pivot Link. Refer again to **Figure 1**. If the material can be moved when the Port-O-Bender® handle is locked or if it requires excessive pressure to lock the handle down on the material then the Pivot Links may need adjustment.

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.

TO ADJUST —

Insert the ³/₁₆" hex 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.

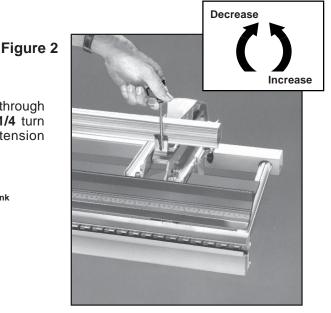


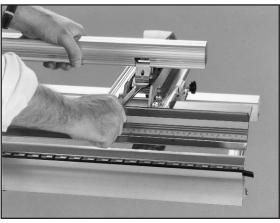
TO ADJUST (Optional method)—

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 III® PORT-O-BENDER®

Basic Hemming and Folding



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



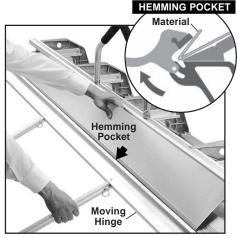
2 Close and lock Bender on the material.



3 Bend as far as you can go.



Remove the material from the Port-O-Bender.



5 Position the bent edge of the material in the Hemming Pocket on top of the Locking 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 brake 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 or pieces 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-III Bending Capacities

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

PRO-III 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. (Ask your distributor for details.)

TRADITIONAL BENDING TECHNIQUES

Helpful Hints for Trim Work

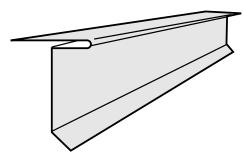
- Measure the total length of the particular trim area to be covered and divide by the length of your Bender to determine the number and length of trim pieces needed.
- 2. Determine the dimensions of each section of the desired trim shape by measuring that particular profile to be covered. As an aid, 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 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 13.



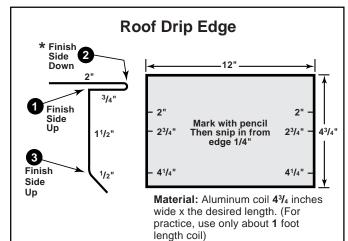
4. Lock the pre-marked coil blank into the Bender with the cut marks located directly under the outer edge of the Stainless Bending Edge. Lock Bender. To cut off the coil with a razor knife, score the metal against the Stainless Bending Edge. Now bend the metal up and push back down by hand until the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

- When breaking 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 12.
- For bending, follow the suggested sequence of bends on pages 8 and 9. For actual 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 6.

Bending the Roof Drip Edge (General 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 8 and 9.
- To begin, cut off a piece of coil 4³/₄ inches wide by about 1 foot long (As shown at right.)
- Mark your coil with a pencil at 2", 2³/₄" and 4¹/₄" on both ends.
 Then snip these marks in about 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 is the 2³/₄" mark, so 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, so 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 12 in "Basic Hemming and Folding."
- 6. Now to Bend 3 put your coil back into the Bender Finished Side Up and lock on the 4¹/₄" mark. Bend this approximately 45° as shown to complete the shape.



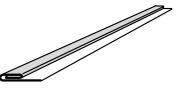
- 1. Numbers show the sequence of the bends; thus, would be the first bend, 2 the second bend, etc.
- 2."Finish Side Up" indicates that the finished or exposed side of the trim is to be put into the Bender FACING UP.
- "Finish Side Down" indicates that the finished or exposed side of the trim is to be put into the Bender FACING DOWN.
- 4. The symbol * means the bend is to be 180°.

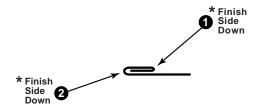
EXAMPLES OF COMMON TRIM SHAPES

"Finish Side Up" indicates that the exposed or finish side of the trim material is to be placed in the Bender facing up.

1. All Purpose Sill Trim

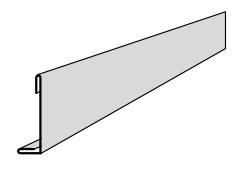
See notes on Bending the Roof or Drip Edge "General Instructions for All Examples" on Page 13.

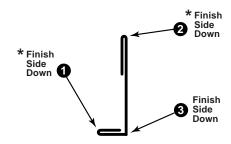




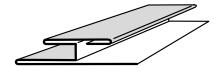
★ Indicates the bend should be 180°. Grey color indicates finish side.

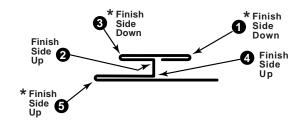
2. Facia Trim





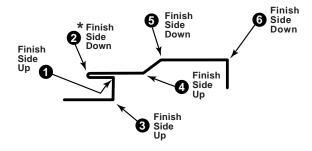
3. One Piece Soffit Mitre



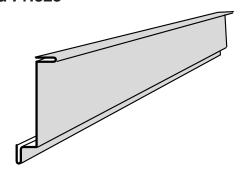


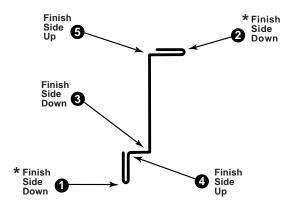
4. Rake Trim with Built-in "J"-Channel

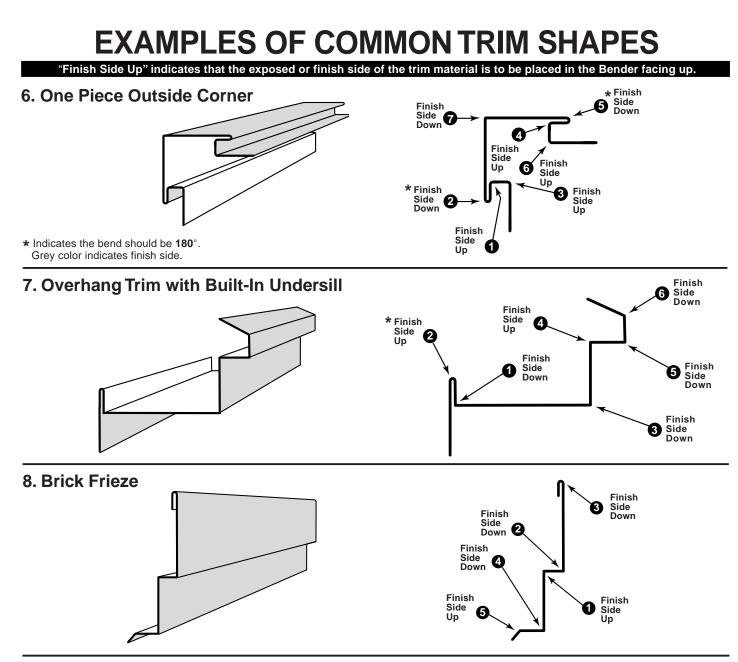




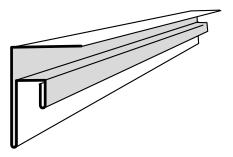
5. Soffit and Frieze

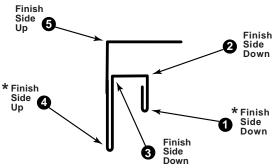




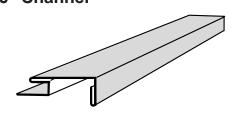


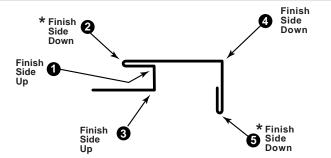






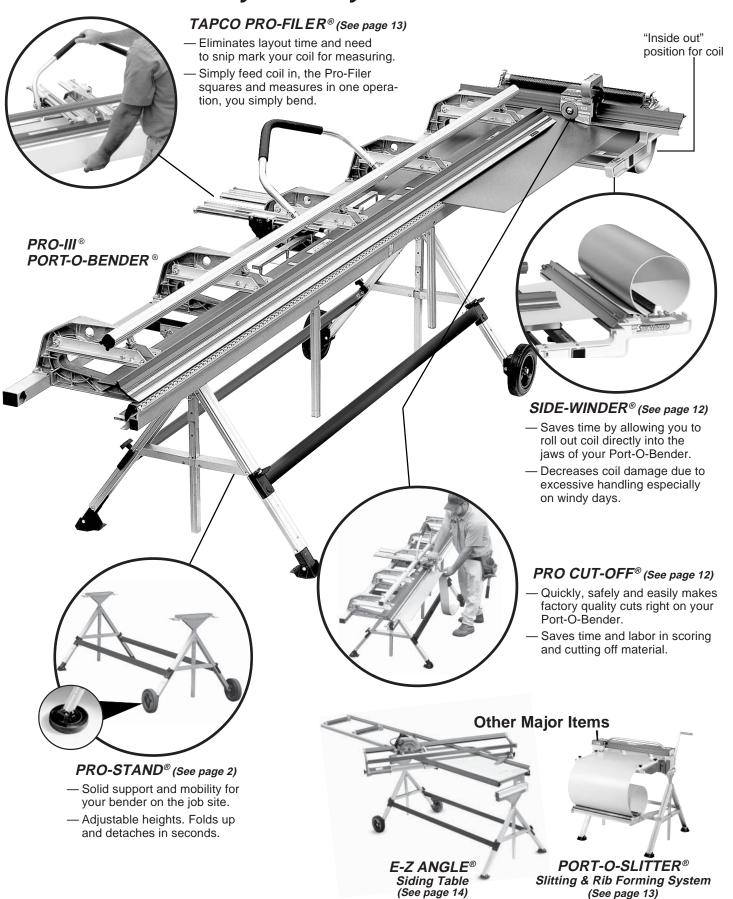
10. Window or Door Casing with Built-in "J" Channel





TAPCO ACCESSORIES—

A Necessity for Today's Professional Sider



THE "PRO-III COMPLETE" SAVES TIME, INCREASES PROFITS

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



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



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.



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



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



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



Pro-Ill's wide mouth opening and large working pockets let you form more complex shapes with built-in J-channels to make your jobs easier, better.



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).



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

The "PRO 2000 Complete" System

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

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



PORT-O-BENDER® ACCESSORIES—

To Help You Do It... Faster, Easier, Better

SIDE-WINDER™ Coil Holder

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

SIDE-WINDER Features

- Attaches in seconds to the end of your PRO III 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 cut offs.* Speeds up production, decreases waste.
- · Helps eliminate damage from handling coil stock, especially on windy days.
- Holds up to 24"x100' coil (when used with Pro-Stand). Weighs only 25 lbs.
- · New improved versatility! Coil can be drawn out finished side up or down in seconds depending on how it's loaded in the SIDE-WINDER.



Just roll out, cut off and in seconds you're ready for bending!

The most

volutionary tool nce the portable



Draw coil through Side-Winder and into open jaws of your Port-O-Bender.



Layout coil to measurements along the length of your Port-O-Bender.



U.S. & Foreign Pats Pend.

Leave Port-O-Bender open, use Pro Cut-Off to cut coil to your length and you're ready to bend!

PRO CUT-OFF™

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

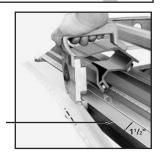
PRO CUT-OFF Features

- 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.

PRO CUT-OFF Capacities

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

Note: Shear point remains constant at 11/2" from your Bending Edge.





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.

OTHER ACCESSORIES & MAJOR ITEMS

TAPCO PRO-FILER® Automatic Squaring and Measuring Gauge

PRO-FILER Features

- · Automatically squares material fed into your Port-O-Bender and keeps all your bends parallel.
- Eliminates measuring, marking or snipping on your coil
- Allows exact repeatability of shapes, automates your production and can save up to 50% of your time
- PRO-FILER Strips guide you in making perfect finished shapes every time. Also functions as a profile duplicating system. You fashion PRO-FILER Strips to your desired profile and then simply insert them into the PRO-FILER and they guide your bending. Helps rookies become pros in hours instead of years; helps pros become more efficient.





Port-O-Slitter™ Saves hours on big jobs!

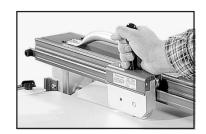
Portable precision slitting and rib forming system for use in the shop or on the job site.

Port-O-Slitter Features

- Slitters come with two sets of cutting knives to make single or multiple factory quality cuts in aluminum, steel, galvanized steel, stainless steel, copper, vinyl, clad metals, paper and some textiles. (Ask your distributor for details.)
- · Forms strengthening ribs and perforates most materials for ventilation purposes.
- Saves 3-4 hours on big jobs.
- Motor kit available in 110v or 220v. Saves even more time!
- 24" Port-O-Slitter weighs only 60 lbs.
- MAX Slitters available to slit up to 22 gauge galvanized steel. (Ask your distributor for details.)

24" Port-O-Slitter Capacities

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



SLITTER CUT-OFF (optional) Makes factory quality cross cut offs to length right on your Port-O-Slitter. Saves time, increases production. (24" SLITTER CUT-OFF shown)





Optional Knives

Standard knife set will rib form and slit. Additional knives are needed for perforating and multiple slitting operations. It takes 2 knives to slit and 3 to rib form.

OTHER ACCESSORIES & MAJOR ITEMS



- Patent pending design always cuts through center of fixed back fence eliminating need for adjustments—Saves setup time!
- · Unique Saw Track Carriage—slides forward and back to save you added steps around the table.
- Self-storing reversible 5 foot long Work Support Extension with built-in fence—A Tapco exclusive!
- Adjustable E-Z Material Stop—convenient to use, flips out of your way when not in use.
- E-Z Angle constructed with high-tech anodized alloys for maximum strength, durability and portability.
- Lightweight, affordable saw table for the serious professional, siding mechanic, carpenter, deck builder and handyman.

- Cuts 75° up to 10" wide
- Cuts 72° up to 12" wide
- · Cross cuts up to 42" wide
- · Rip cuts up to 48" wide, any length
- · Single handle controls all settings
- Accepts most 7¹/₄" or 8¹/₄" full shoe circular saws
- · Weighs only 68 lbs, folds to a compact 25" x 72".



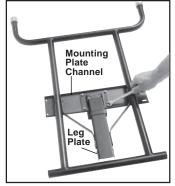
E-Z Angle—Easily the best addition to any workplace!

OPTIONAL PRO-STAND & LIGHT DUTY LEGS SET UP

Pro-Stand Setup BOTTOM VIEW Instructions Brake Bracket (INVERTED VIEW OF BRAKE BRACKETS) FRONT OF BENDER DETAIL Cross Brace Detail 2 X 4 Bracket "T" Knob DETAIL В PRO 2000 Faspins PRO III FRONT OF BENDER **Steps** (indicated above) 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

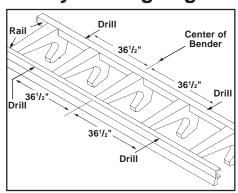
- Slide Vertical Support into End Assemblies, setting to desired height, and secure with Faspin (part #10678).
- Attach Wheel Assembly to End Assembly using 1/4-20 x 2 1/2" Hex Cap Bolt and 1/4-20 Two Way Lock Nut.
- Fold wheels to pad position (as indicated in diagram) and stand End Assemblies apart.
- 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).
- Assemble Brake Brackets (see Detail B) securing with hex nuts. Repeat for other Bracket.
- 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.

Installing the Light Duty Folding Legs

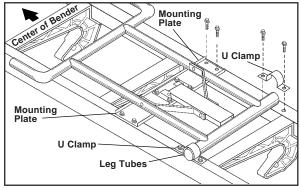


Nut.

Position leg plates into mounting plate channels, align holes and install nuts and bolts provided.



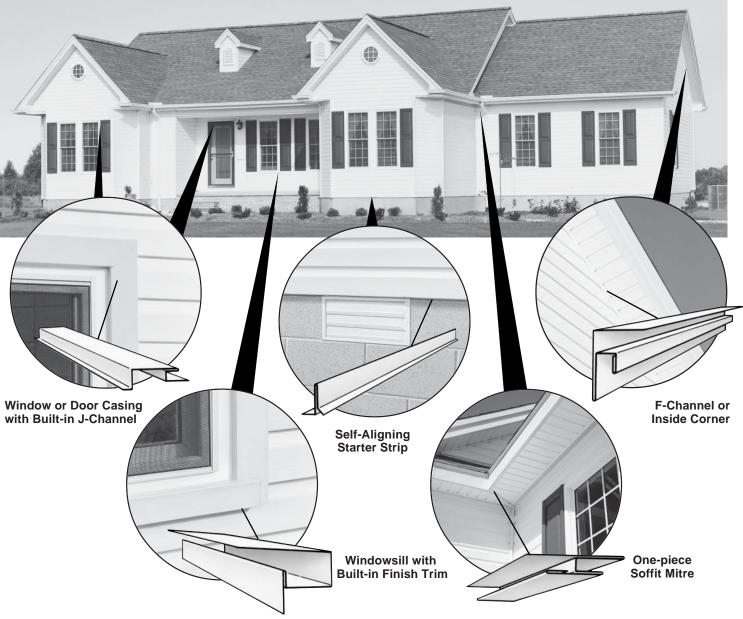
2 Invert Bender. From center of Bender, measure outward along each rail 36¹/₂" and drill one pilot hole in center of each rail using an 11/64" drill bit.



3 Set legs onto Bender with leg tubes near drilled pilot holes. Place "U" clamps over leg tubes, align holes and install sheet metal screws. Drill remaining holes through clamps and install screws. Install screws also in mounting plates as shown.

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For Your Records

Complete the information below and save with this manual for future reference.

Model and Serial Number

Date and Place Purchased



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