

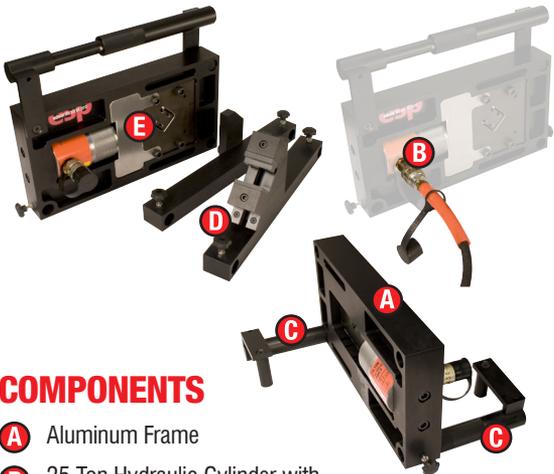
Patent#: US 7,216,573 B2

PRODUCT DESCRIPTION

Your Edwards Strut Pro (**esp**) is a patented, portable hydraulic construction tool designed to cut commonly branded, United States manufactured strut products. This tool has been supplied with a blade set that will cut a variety of strut profiles in 12ga, 14ga, and 16ga mild steel. See the applicable strut profiles section of this manual for a complete listing of applicable manufacturers. This tool is not designed to be used with stainless steel, aluminum or fiberglass strut products. Contact Edwards Mfg. Co. for special application blade, housing and hydraulic sets.

The following instructions outline the basic functions of this multi-tool. With proper use, care and maintenance, your **esp** will serve your construction needs for many years.

Please read the following carefully prior to operating the tool.



COMPONENTS

- A** Aluminum Frame
- B** 25 Ton Hydraulic Cylinder with Universal Hydraulic Coupling
- C** Collapsible Handle System
- D** Machined Material Rest and Back-gauge
- E** Cutting Dies

COMMON SENSE SAFETY PRECAUTIONS

Your **esp** uses hydraulic pressure and moving shear blades to cut most popular U.S.-branded strut profiles. To operate this tool safely, please review the following safety precautions.

1. Read and understand your Operator Manual
2. Use the tool **ONLY** for its intended operation
3. Wear approved eye protection
4. Wear protective gloves
5. Keep away from moving parts during operation
6. Unplug your **esp** before performing any maintenance or adjustment activities

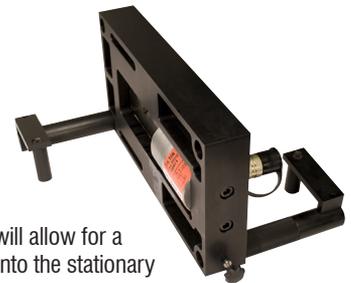
PORTABILITY

Your **esp** tool is designed to take you places your abrasive or band saw can't. The lightweight 7075-T651 anodized aluminum frame and compact SPX 25Ton hydraulic cylinder with universal hydraulic coupling allow you to hook up to any 10,000psi source allowing you to cut strut with a few pumps of your two-speed porta-power or the press of a button with your portable electric-hydraulic. The collapsible handle system provides a stable base for all your light-gauge cuts (16ga) and the machined material rest and back-gauge allow for heavier gauge (14ga, 12ga), single operator use. Cutting strut in the field has never been quicker, cleaner or more cost effective.

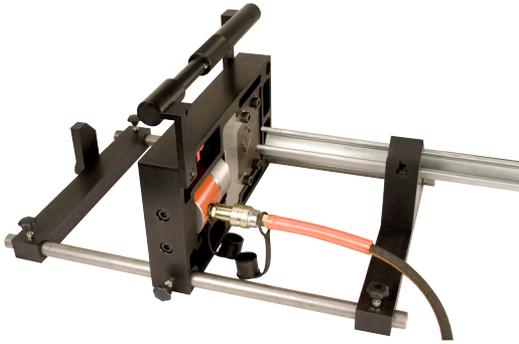
SET-UP

Your **esp** comes to you completely assembled and ready for jobsite operation.

Clear a work area that will allow for a direct feed of the strut into the stationary die.



For 16ga lightweight strut profiles, your **esp** tool is equipped with a collapsible handle system that doubles as stabilizing legs. Slide the knurled sleeve past the ball-lock, rotate the handles from their sockets and place them in the sockets at the base of the tool. Placing the handles on opposite sides of the tool will provide a stable work area for cutting strut.



If you are cutting heavier, 14ga or 12ga pieces of strut or need to cut multiple pieces of a single dimension, slide the adjustable material rest over a section of 1" o.d. tube or pipe (not supplied), feed the tube through the stabilizer bore on the blade side of the tool and locate it 6" - 8" from the stationary die. Adjust the height on the material rest to allow the length of strut to enter perpendicular to the stationary blade. Push the strut through the stationary and moving dies to check for proper alignment of the material rest to the die set. Your strut should move through the die set easily (make sure your product is clean, straight and true). Once you have made your adjustment for alignment, tighten the knurled knob to lock the material rest in place. If you are cutting multiples of the same size, add the backstop to the 1" tube, slide towards the movable die and measure to the die surface. Measure from the stop to the blade and add 3/4" to set your finish length.

CONNECT YOUR HYDRAULIC POWER SOURCE

Once you have set your tool up for cutting, simply attach your hydraulic power source to the **esp** universal couple. Keep the cutting and drop-off area free of hydraulic hoses. Tighten the hydraulic fitting and test the tool unloaded.

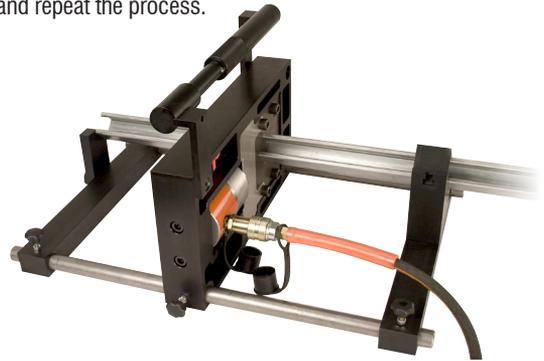
Look to the back of the tool. Make sure the movable shear blade is operating smoothly. Once the movable shear blade has returned to its neutral position make a visual inspection of the blade set to assure that the blades are aligned through the cutting surface. If



adjustment is necessary, remove the faceplate on the front of the tool by removing the cap screws on the inlet side of the tool. Once removed, adjust the bolts and jam nuts that align the movable with the stationary blade. When aligned, tighten jam nuts, replace cover and tighten cap screws.

CUTTING STRUT

Align your strut with the die set and material rest. Push the strut through the stationary and movable blades. Measure to the desired length. Activate your hydraulic power unit to cycle the movable blade and wait for the strut to shear. Release the hydraulic pressure after your cut to return the blade set to the neutral position, remove the cut-off from the rear of the tool and repeat the process.



Depending on the gauge of the material being sheared, you can expect to hear a small crunching sound for lighter gauge material and a sharp snap for heavier gauge strut. Keep clear of all moving parts during operation.

CARE & MAINTENANCE

Your **esp** will benefit from reasonable care and periodic maintenance.

- Provide clean ASTM 215 hydraulic fluid (or equal) to the cylinder in the **esp** tool as contaminated fluid will compromise your cutting operation.
- The **esp** tool shears strut with hydraulic pressure. The shearing action generates shock within the tool. Over time, shock may loosen the restraining bolts that hold the face blade into the aluminum body. Check for bolt security after every 500 or so cuts. Failure to maintain the blades secure in the blade pocket may prematurely age the blades and cause them to fail.

- Periodically clean your **esp** with a compressed air nozzle and soft cloth. Remove filings, dirt, dust and grime.
- When clean, apply a spray lubricant to the working surfaces.
- With frequent use, the heavy duty springs within the push-block will compress and will require replacement. Order additional springs through Edwards Mfg. Co.
- The blade set of your **esp** is crafted from S7, heat-treated steel. These are wearing parts that will fail over time. Order additional blade sets through Edwards Mfg. Co.

TROUBLESHOOTING

In the event of operational problems please refer to the following prior to contacting Edwards Mfg.Co. All remedial actions are to be performed with the **esp** powered off and power to the hydraulic supply turned off.

Problem: Irregular cut.

Solution: Use material rest supplied with your tool. Check alignment of strut to stationary blade. Adjust alignment with cap screw fasteners so that strut is perpendicular to the stationary die set.

Problem: Irregular cut.

Solution: Over time, shock may loosen the restraining bolts that hold the face blade into the aluminum body. Check for bolt security after every 500 or so cuts. Failure to maintain the blades secure in the blade pocket may cause an irregular cut and prematurely age the blades to failure.

Problem: Movable blade not returning to neutral position.

Solution: Check hydraulic source to confirm that the hydraulic dump valve is engaged. Check that blades are not fouled with debris. Check that return springs are operational.

MACHINE IDENTIFICATION

Your **esp** tool has been serialized for Quality Control, Product Traceability and Warranty Enforcement. Please note the Serial number engraved in the body of the tool when ordering parts or placing a warranty claim.

WARRANTY

Edwards Mfg. Co. will, within one (1) year of date of purchase, replace F.O.B. the factory, any goods, excluding blades or return springs, which are defective in materials or workmanship provided that the buyer return the defective goods, freight pre-paid, to the seller, which shall be the buyer's sole and exclusive remedy for the defective goods. Hydraulic components are subject to their manufacturer's warranty.

This warranty does not apply to machines and/or components which have been altered, changed or modified in any way, or subjected to abusive and abnormal use, inadequate maintenance and lubrication, or subjected to use beyond seller recommended capacities and specifications. Edwards Mfg. Co. shall not be liable for labor costs expended on such goods or consequential damages. Edwards Mfg. Co. shall not be liable to the purchaser or any other person for loss, down-time, or damage directly or indirectly arising from the use of the goods or from any other cause. No officer, employee, or agent of Edwards Mfg. Co. is authorized to make any oral representations or warranty of fitness or to waive any of the foregoing terms and none shall be binding on Edwards Mfg. Co.

esp Compatible Strut		
Unistrut	Channel sizes:	P1000, P1000T, P1000SL, P1000HS, P1000H3, P1100, P1100T, P1100SL, P1100HS, P2000, P2000T, P2000SL, P2000HS, P4000, P4000T, P4000SL, P4000HS, P4100 P4100T, P4100SL, P4100HS
	Prime angle:	PA158
Powerstrut	Channel sizes:	PS200, PS200H, PS200S, PS200EH, PS210, PS210H, PS210S, PS210EH, PS500, PS500H, PS500S, PS500EH, PS520, PS520H, PS520S, PS520EH
B-Line	Channel sizes:	B22, B22SH, B22S, B22H17/8, B22TH, B22S58, B24, B24SH, B24S, B24H17/8, B24TH, B24S58, B26, B26SH, B26S, B26H17/8, B26TH, B26S58, B52, B52SH, B52S, B52H17/8, B52TH, B52S58, B54, B54SH, B54S, B54H17/8, B54TH, B54S58, B56, B56SH, B56S, B56H17/8, B56TH, B56S58
Superstrut	Channel sizes:	A1200, A1200HS, A1200P, A1200S, A1400, A1400HS, A1400P, A1400S, B1200, B1200HS, B1200P, B1200S, B1400, B1400HS, B1400P, B1400S
Kindorf	Custom Die Sets Available	
Globe	Channel sizes:	G5812, G5812PO, G5812SH, G5812SL, G5814, G5814PO, G5814SH, G5814SL, G1315, G1315PO, G1315SH, G1315SL
Erico	Custom Die Sets Available	



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