INSTRUCTION BOOKLET FOR

PNEUMATIC STOCK CUTTER
MODELS SCP-6 & SCP-12

MANUFACTURERS OF COIL HANDLING EQUIPMENT
Durant Tool Company

200 Circuit Drive • North Kingstown, Rhode Island 02852 • USA
International Phone: 401-781-7800 • Toll Free: 800-338-7268 • Fax: 401-738-2586 •
• Internet Address: www.durantco.com •

12/03

ATTENTION: PLANT MANAGER

Thank you for purchasing Durant equipment. Enclosed are very important safety instructions, operating instructions, and setup procedures.

Read all these materials completely and carefully. Please distribute copies to your SAFETY MANAGER, PRODUCTION MANAGER, and MACHINE OPERATORS.

If there is any help required in setup or operation, we will be readily available for your assistance.

Thank you again and we look forward to developing and maintaining a fine relationship with your company.

Sincerely,

DURANT TOOL COMPANY

SAFETY INSTRUCTIONS FOR ALL DURANT EQUIPMENT

The enclosed information and instructions must be forwarded and distributed to the Plant Safety Director, Plant Manager, Production Manager, and all Operators of Durant equipment.

Operators of Durant equipment must have a minimum of (3) three years operating experience with similar Durant press room equipment or a minimum of (3) three years experience with identical equipment manufactured by other press room equipment manufacturers.

WARNING

Never operate, install, or maintain this machine without understanding the complete and safe operation thereof.

It is the employer's responsibility to provide proper safety devices and equipment to safeguard the operator from harm and to safeguard this machine at all times to meet all current government safety codes and standards.

CAUTION

All Durant equipment must be securely fastened to the floor. This will prevent the machine from tipping. Failure to follow the above instructions could cause harm to the operator or machine.

ATTENTION

If any danger points are observed:

1. Immediately stop machine.
2. Do not run machine until danger point is eliminated.
3. Report danger point in writing to your employer.
4. Keep a copy of your report for your records.
5. Do not run machine again until danger point has been corrected.
6. It is your employer's responsibility to safeguard this machine to meet all government safety codes and standards.
7. There are U.S. companies that specifically specialize in safe guarding machines to plant requirements and government codes. The safe guarding companies are located throughout the United States, Canada, and foreign countries. Representatives will visit your site to advise and recommend safe guarding procedures for your company.

IMPORTANT

Before the first use and monthly thereafter, all nuts, screws, and bolts should be checked for tightness. Gears, sprockets, chains, and belts should also be checked for tightness.

Grease and oil fittings and reducers monthly.

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1. INTRODUCTIONS:

The Durant Pneumatic Stock Cutter's (SCP) are a sturdy design providing for accurate cut-off and cut-to-length applications. A variety of materials can be cut with no folding and bending of the material.

The standard operation is pneumatic, using an electrical signal from a limit switch, rotary cam or other signaling device to actuate the solenoid valve. There are no mechanical linkages or strikes needed, allowing for a stand alone operation. This is helpful where mechanical actuation is not possible or desirable. The SCP has factory installed guards which must be installed when operating the unit for operator safety.

2. SPECIFICATIONS:

Dimensions: See Assembly's pages 7-8

MODEL	SCP-6		SCP-12	
	INCH	METRIC	INCH	METRIC
CAPACITIES: @ 100 PSI				
Max. Force	2400 Lbs.	1090 Kg	4800 Lbs.	2180 Kg
Max. SPM (no mat'l)	300	300	260	260
Air Consumption @100 SPM	1.00 CFM	28 LPM	3.10 CFM	88 LPM
MATERIAL:	**INCH**	**METRIC**	**INCH**	**METRIC**
Max. Width	6	152.4	12	305
Thickness Range	.001-.064	0.01-1.62	.001-.090	0.01-2.28
Max. Thickness @ Full Width				
Alum / Brass	0.063	1.60	0.089	2.26
C. R. Steel	0.046	1.16	0.068	1.72
SST	0.044	1.12	0.063	1.60

3. SET-UP

Set-up is simple but does require attention. To attain best accuracy the cutter must be level, square to the cut-off and bolted securely to a sturdy bracket. The material should be straightened and supported as flatly as possible. The more bends and bows in the material the less consistent the cut.

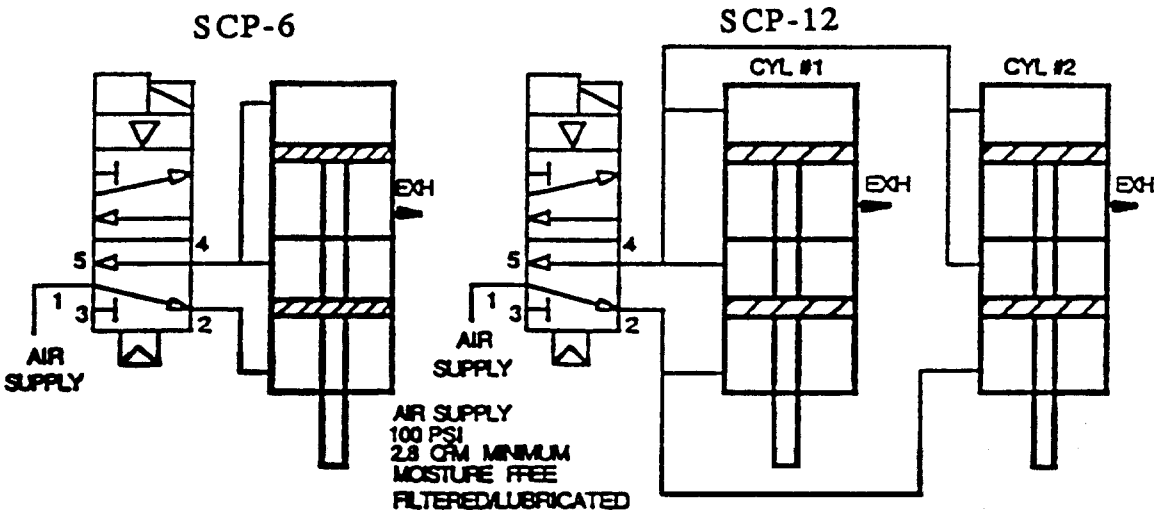
4. CONNECTIONS:

PNEUMATIC:

The Pneumatic Stock Cutter uses a 4-way solenoid valve and double acting pneumatic cylinders, allowing higher speed operation.

A 3/8" port on the Solenoid Valve is provided for the Supply Air connection. Supply Air is 80-110 PSI. It is recommended that a minimum of 3/8" ID line be maintained to the Cutter. Clean, dry, lubricated air must be provided through a filter/dryer/lubricator of comparable size.

PNEUMATIC DIAGRAMS:



ELECTRIC:
A signal of proper voltage and sufficient timing is required to actuate the valve, cut the material, then retract the upper blade in position for the next feed. The timing must allow complete cutting with the strip in a stationary position being held by the clamp block.

An 18 AWG, 3 connector SJO cord is provided from the solenoid valve for actuation of the Pneumatic Stock Cutter with a signal from linear cam, rotary limit switch or other timing device.

With no signal applied, the blades are open with the factory pneumatic connections on the SCP solenoid valve. Reversing the valve porting #2 & #4 will reverse this set-up.

The standard solenoid voltage is 120 VAC. Other optional voltages are possible such as 220 VAC & 24 VDC. Check for the proper voltage and wattage on the solenoid label.

All electrical connections should be to local & national wiring codes.

SAFETY WARNING: DISCONNECTION OR LOCK-OUT ELECTRIC POWER AND AIR LINE BEFORE ATTEMPTING ANY SERVICE.

5. BLADE REMOVAL / INSTALLATION:

(for blade adjustments see BLADE ADJUSTMENT SECTION)

A. LOWER BLADE REMOVAL:

1 - Retract upper Blade (then REMOVE AIR FROM SCP).
2 - Remove Blade for Lower Blade Holder.

B. LOWER BLADE INSTALLATION:

1 - Attach Blade to Lower Blade Holder and adjust height as required.

2 - Adjust blade clearance if required.

3 - Tighten all screws.

C. UPPER BLADE REMOVAL

1 - Remove Exit guard

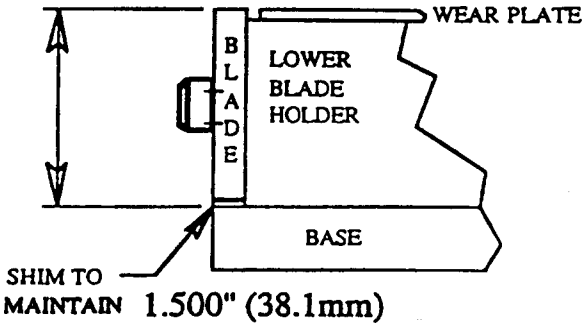
2 - Remove Blade.

D. UPPER BLADE INSTALLATIONS

1 - Attach Blade to Upper Blade Holder and adjust height as required.

2 - Tighten all screws.

3 - Attach Exit Guard.



6. BLADE ADJUSTMENTS

A) HEIGHT ADJUSTMENT - NEW BLADE

1 - Install both Blades without shims.

2 - Adjust blade clearance if required.

B) HEIGHT ADJUSTMENT - RE SHARPENED BLADE

With NEW Blade installed, no shimming is required. As the blades are sharpened on the long narrow faces, the blades must be shimmed to proper height.

The Lower Blade is shimmed "up" level with the wear plate (1.500" (38.1 mm) from its shelf).

The Upper Blade is shimmed "down" to allow proper opening for material when retracted and proper overlap with the blade down (1.500" (38.1 mm) from its shelf).

1- Install both blades with shim(s) to 1.500" (38.1 mm) from their shelf.

2 - Adjust blade clearance if required.

C) BLADE CLEARANCE

1 - Actuate blade DOWN - then REMOVE AIR SUPPLY.

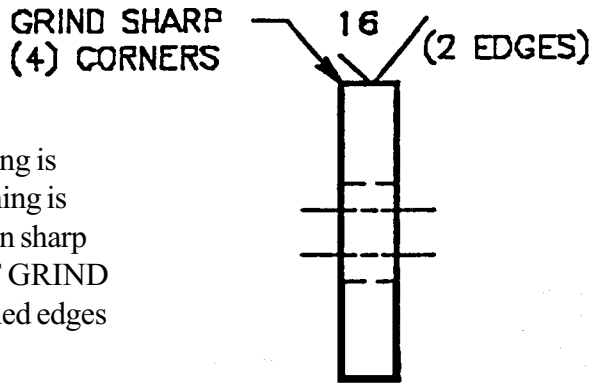
2 - Loosen exposed screws in Lower Blade Holder to finger tight.

3 - Slide Lower Blade Holder along base toward upper Blade until desired gap between the blades is achieved (.001" - .005") (0.03 - 0.12 mm) as the material becomes tougher.

Tighten screws.

4 - Test unit for proper operation.

7. BLADE SHARPENING



The Blade requires sharpening when the cutting edge becomes dull (rounded) or excessively chipped. The upper & lower blades are the same when new. As sharpening is required the heights (1.500" (38.1 mm) may differ. Sharpening is accomplished by grinding of the long, narrow edge to obtain sharp edges. Remove burrs but DO NOT break edge. DO NOT GRIND LARGE FACES. To retain quality cutting, the two sharpened edges must remain parallel within .002 (0.05 mm)

8. CYLINDER REMOVAL / INSTALLATION DISASSEMBLY:

If it becomes necessary to remove the cylinder:

1 - Remove Inlet and Outlet guards.
2 - Remove air valve and all plumbing as necessary.
3 - Remove all mounting screws from Top Plate.
4 - Lift up Top Plate with Upper Blade Holder approx. one inch (25.4 mm)
5 - Extend Piston Rod to full stroke.
6 - Loosen Piston Rod Connector and turn Piston Rod out.
7 - Remove air cylinder mounting screws.

ASSEMBLY: IN REVERSE ORDER

Be sure to tighten Rod End Connector snug against Piston Rod end when connecting air cylinder.

9. MAINTENANCE

The Durant Pneumatic Stock Cutter is a high quality, low maintenance tool. There are some moving parts which will eventually wear with continuous use.

The Bearings are self lubricating for life. No lubrication is required.

The solenoid valve requires no internal maintenance. The supply air must be clean, dry & lightly oiled. Ref. attached Maintenance Bulletin FORM V-294 FP. The cylinders require no internal maintenance. The supply air must be clean, dry & lightly oiled. Use cylinder label information for repair part Ref. attached L - SERIES CYLINDER information sheet. As with any equipment, it should be kept clean, free of any obstructions & in good operating condition for best service. For the safety of the operator,

ALL SAFETY DEVICES MUST BE IN PLACE AND IN GOOD CONDITION.