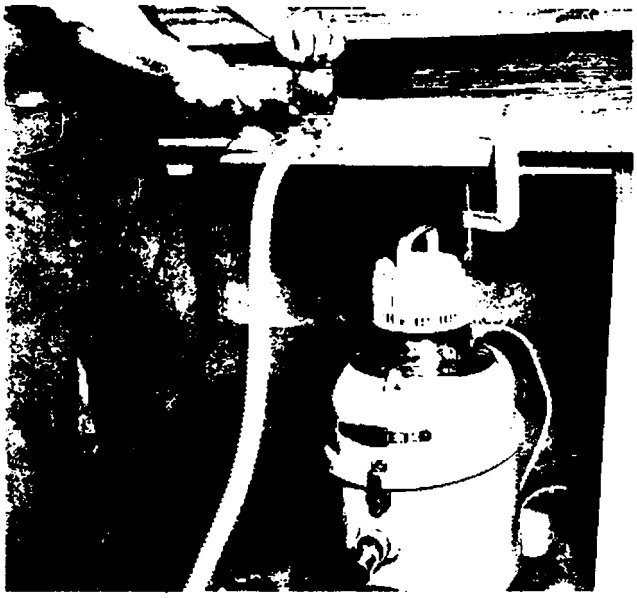
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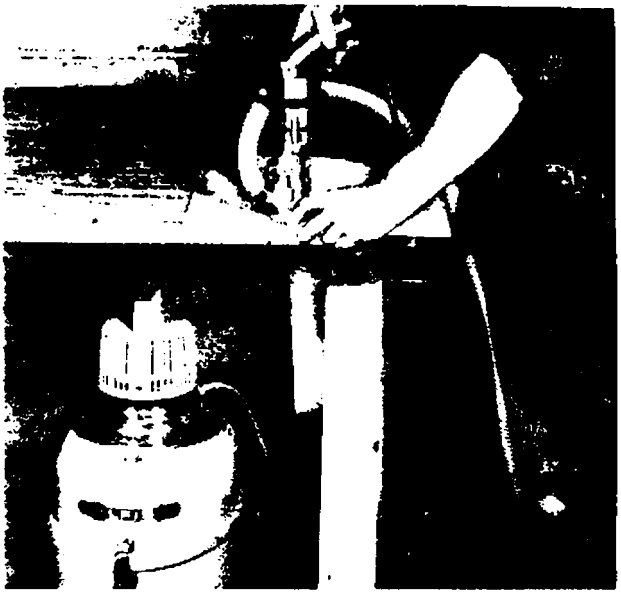
DATE: 0000

DOC#: JMA308

DOCUMENT DESCRIPTION: Product Literature - Asbestos Cement Sheets; Power Saws



Shielded Jig Saw



Shielded Hand Drill

Nilfisk vacuum cleaners are tried and tested. For years they have been in regular use in asbestos processing facilities. Users meet OSHA asbestos dust standards. Nilfisk cleaners are tested and approved by the Asbestosis Research Council.

Disconnect the cleaner from the Shielded Hand-Tool for other dry cleanup chores around the job site.

The Nilfisk Shielded Hand-Tool System you select will contain the following:

Description	Sheet Saw	Corrugated Saw	Jig Saw	Drill
Nilfisk Model GA-73 Vacuum Cleaner (18 gal. cap.)	X	X		
Steel Container Frame (=017101)	X	X		
Container Polyliners, 5 mil (=017102)	X	X		
Microfilter(s) (=613274)	X	X	X	X
HEPA Filter(s) (=115120)	X	X	X	X
10 ft. Neoprene Hose Complete, 2 Inch ID (=106298)	X	X		
Manometer (Optional Dust Gauge =215173)	X	X		
Hose Connection Kit (Double Take-off =017471)	X	X		
* Shielded Circular Saw — Flat Sheet (=017470)	X			
* Shielded Circular Saw — Corrugated Sheet (=017490)		X		
Nilfisk Model GA-71 Vacuum Cleaner (5 gal. cap.)			X	X
Disposable Paper Bag Assembly (=114714)			X	X
10 ft. Neoprene Hose Complete, 1¼ Inch ID (=111513)			X	X
Hose Connector Kit (Single Take-off =017451)			X	X
* Shielded Jig Saw (=017450)			X	
** Drill Shield (=017430)				X

* Includes heavy-duty saw ** Does not include heavy-duty drill

Other vacuum attachments available for traditional cleanup applications

Nilfisk of America, Inc.
201 King Manor Drive
King of Prussia, PA 19406
(215) 277-3900

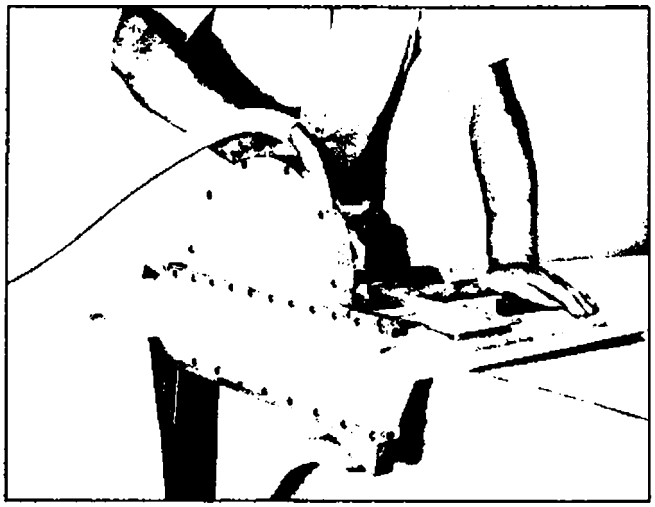
WHEELER—PILOT INTERNATIONAL

P.O. Box 3128, Torrance, Ca. 90510 Cable: PILOTOOLS
(213) 371-1238 Telex 65-3486 Answer Back PILOTOOLS TRNC

Fiber Shield™
SYSTEM TOOLS
FOR ASBESTOS-CEMENT PRODUCTS

CORRUGATED SHEET CIRCULAR SAW

FOR CUTTING U.S. MADE CORRUGATED TO 10mm THICK



Model 898

Circular saw designed especially for cutting corrugated asbestos sheet to 10mm (3/8") thick. Unique flexible skirting conforms both above and below sheet to corrugated contours for efficient dust collection. Includes top dust shield, adjustable bottom shield, 2 each 1½" I.D. flexible vacuum hoses, hose clamps and Wye connector, and 10" diameter Silicon Carbide blade. For longer life, Diamond Blades are also available: only Pilot Diamond Blade part number 275334 is recommended for use with this tool.

FLAT SHEET CIRCULAR SAW

FOR CUTTING FLAT SHEET TO 60mm THICK



Model 888

Circular saw specifically engineered for cutting flat asbestos sheet to 60mm. (2-5/16") thick. Includes top dust collection shield, adjustable bottom collection shield, 2 each 1" I.D. flexible vacuum hoses, hose clamps and Wye connector, and 7" diameter Silicon Carbide blade. For longer life, Diamond blades are also available: only Pilot Diamond Blade part number 275333 is recommended for use with this tool.

Specifications:

Models:	888	8881	898	8981
Volts:	110	220	110	220
Amps:	10	5	10	5
Speed/RPM:	5500	5500	5500	5500

Vacuum System Requirements: (All Above Models):
CFM — 176 minimum
Inches Water — 59 minimum
Certified for use with asbestos.

Vacuum System Recommended:
Pilot No. 275526 (110 volts) or No. 275528, (220 volts). Both units have 69 liter tank capacity, and are furnished complete with microfilters, exhaust filters, manometer, frame, disposable tank liners, and 10 feet of 2 inch intake hose.

CAUTION

THESE TOOLS ARE TO BE USED ONLY WITH VACUUM SYSTEMS CERTIFIED FOR USE WITH ASBESTOS AND WHEN USED IN ACCORDANCE WITH THE MANUFACTURER'S OPERATING INSTRUCTIONS ARE DESIGNED TO MAINTAIN ASBESTOS FIBER LEVEL BELOW OSHA LIMITS AS STATED IN TITLE 29 SECTION 1910.1001 OF THE CODE OF FEDERAL REGULATIONS

PILOT FORM No. AS-9795
LITHO IN U.S.A.

Johns-Manville
Research and Development Center

Report No. E411-1062

Date November 1, 1978

Title: NILFISK VACUUMS FOR USE WITH BAYONET SAW

SUMMARY

The object of this project was to determine if a smaller vacuum source could be used to fabricate asbestos-cement sheet in a dust-free manner using a shielded bayonet saw. Previous tests using a Nilfisk GA-73 (Report No. E411-1050-S3) recorded dust counts of 0.1 f/cc (See Table) in an open room.

Tests were run using the same Rockwell model 548 bayonet saw, with 6T-12390 carbide blades. The vacuum was a Nilfisk GA-71 which moves 60 cubic feet per minute of air compared to 176 cubic feet per minute for a Nilfisk GA-73. Dust counts using the GA-71 were less than 0.1 f/cc in an open room (See Table).

It is recommended that this tool can be used with a Nilfisk GA-71 and be considered satisfactory for the intermittent service for which it is intended.

Contents: Summary and Appendix.

Reported by G. R. Bauman
G. R. Bauman
Asbestos & Minerals Technology

lkh

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KEYWORDS
Asbestos
Asbestos-Cement
Fabrication
Environmental Health

APPENDIX

Tool Description	Test Duration (min)	Dust Counts f/cc		Material Fabricated in/=in	Remarks
		Area	Personal		
(Dust Chamber)					
Rockwell 548 No Shield	15	9.8		12-inch	Very dusty.
Rockwell 548 with shield [1]GA-73 Nilfisk Vacuum	15	0.6		12-inch	Some coarse material on floor.
Rockwell 548 with shield [2]GA-71 Nilfisk Vacuum	15	0.1		12-inch	Some coarse material on floor.
(Open Room) Rockwell 548 with shield [1]GA-73 Nilfisk Vacuum	40	0.1	0.1	12-inch	Sand-like material on floor.
Rockwell 548 with shield GA-71 Nilfisk Vacuum	40	<0.1	0.0	12-inch	Sand-like material on floor.

NOTE: Refer to Report No. E411-1050 for description of "Dust Test Chamber" and conditions of operation. Material being fabricated was 1/4-inch flat flexboard.

[1]Vacuum air velocity pressure 3.2-in. of Hg measured 1/2-in. behind 5/8-in. orfice at end of 2-in. 20 foot hose.

[2]Vacuum air velocity pressure 2.0-in. of Hg measured 1/2-in. behind 5/8-in. orfice at end of 1-1/2-in. 20 foot hose.

JM REFRACTORY PRODUCTS

Engineering Information

J-M Products
MARINITE

Industry
ALL

Application
DUST CONTROL FOR PORTABLE TOOLS

File

J-M Representative
REFRACTORY PRODUCTS DEPT.
INDUSTRIAL PRODUCTS DIVISION

Hand power tools are used extensively in the field to work Marinite sheets. A method has been developed by P.L. Earle's research group to safely collect the dust generated in sawing, drilling, and sanding. The key to the system is high velocity-low volume air movement at the orifice.

Dust collection adaptors have been developed on this principle. The keys to good dust pick up are: (1) small pickup orifice at key locations on each tool; i.e., on saw 5/8" x 5/8" (no larger) with 50 cfm of air, a differential pressure of 4-5" of mercury on suction side and 1½-2" diameter hose no longer than 10 Ft attached from the tool to the dust collector intake.

Rockwell International Co. and Skil Corp. will provide a line of attachments for hand power tools made to J-M specifications. Drawings of units are attached. The user may make his own attachments using aluminum tubing and heavy aluminum tape. These attachments will produce results of less than 2 fibers/cc on all units except the circular saw. A special cutting table that provides suction under the piece being cut must be used with the circular saw to meet the 2 fibers/cc dust requirements. This level is below the 1976 OSHA standard. A drawing of this unit is attached.

A drill attachment is also available from Cape Universal.

Special high-velocity suction units are necessary to provide adequate air velocity to transport dust from the tool. Two units recommended are the Hoffman, Hoffco-Vac 237 and Spencer Model P-190.

Research is continuing study and evaluation on this project. Details will be released as they are developed.

James Jim Neal
Mgr., Engineering and
Technical Services

POWER HAND TOOLS THAT HAVE DUST PICK UP
CAPABILITIES OF PRODUCING LESS THAN 2 FIBERS/CC

Tools Fitted with J-M Designed Units

Rockwell International

10¼" dia - Circular Saw - Model 510 - 5700 rpm

7¼" dia - Circular Saw - Model 315 - 5800 rpm

*4½" dia - Circular Saw - Trim - 3800 rpm

*No detail sketch as yet

Orbital Sander - Model 505 - 10,000 OSC/min

Most U.S. Manufactured Drills*

1/4 - 3/8" that have bearing boss

1/2" that have chuck diameter less than bearing boss diameter.

*J-M design not implemented as yet. Can use Cape Universal type which is available now.

Tools with Built-In Fitting for Bags

(-Remove bag and attach hose-)

Rockwell Int. Belt Sanders - - Model 500 - 4" x 27"

Rockwell Int. Belt Sanders - Model 503 - Smaller

Stanley Power Tools, Orbital Sander - Model 90-502

DUST COLLECTION SYSTEMS

Hoffco - VAC 237

Hoffman Air Filtration Div.
A Div. of Clarkson Industries, Inc.
103 Fourth Ave.
New York, N. Y. 10003

Guy Cusumano

(212) 677-3600

Spencer Model P-190

Spencer Turbine Co.
Hartford, Conn. 06106

Blair Alexander

(203) 233-3631

Tool Attachment Producing Companies

Rockwell International Co.
Power Tool Division
400 N. Lexington Avenue
Pittsburgh, Pa. 15208

Dennis Huntsmen

(412) 241-8400

Skil Corp.
5000-33 Elstran Avenue
Chicago, Ill. 60630

William Foote

(312) 286-2000

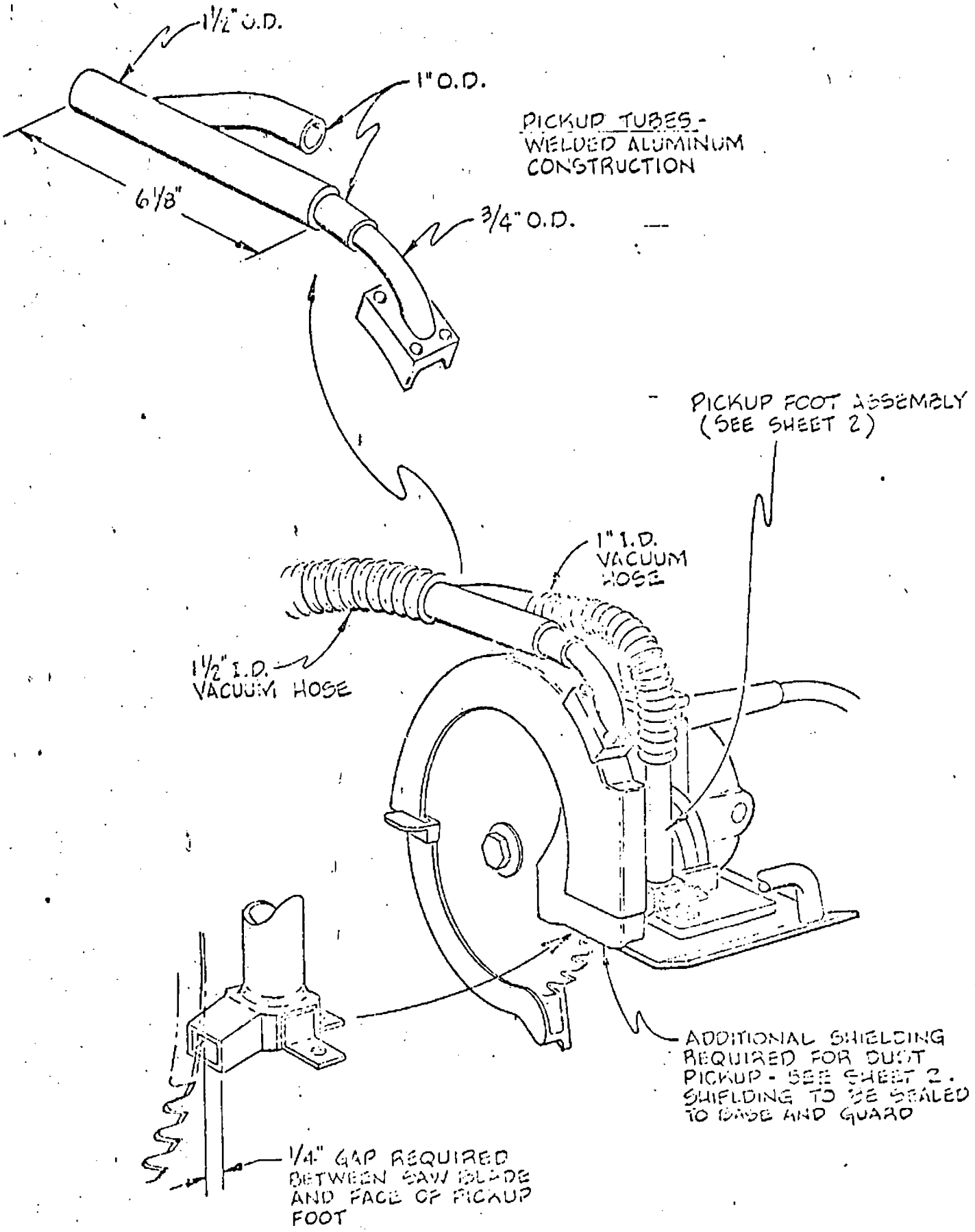
Cape Universal Drill Attachment

Cape Universal Building Products Ltd.
Register Office
P.O. Box 165
Exchange Road
Watford, England

Telephone: WATFORD 34551

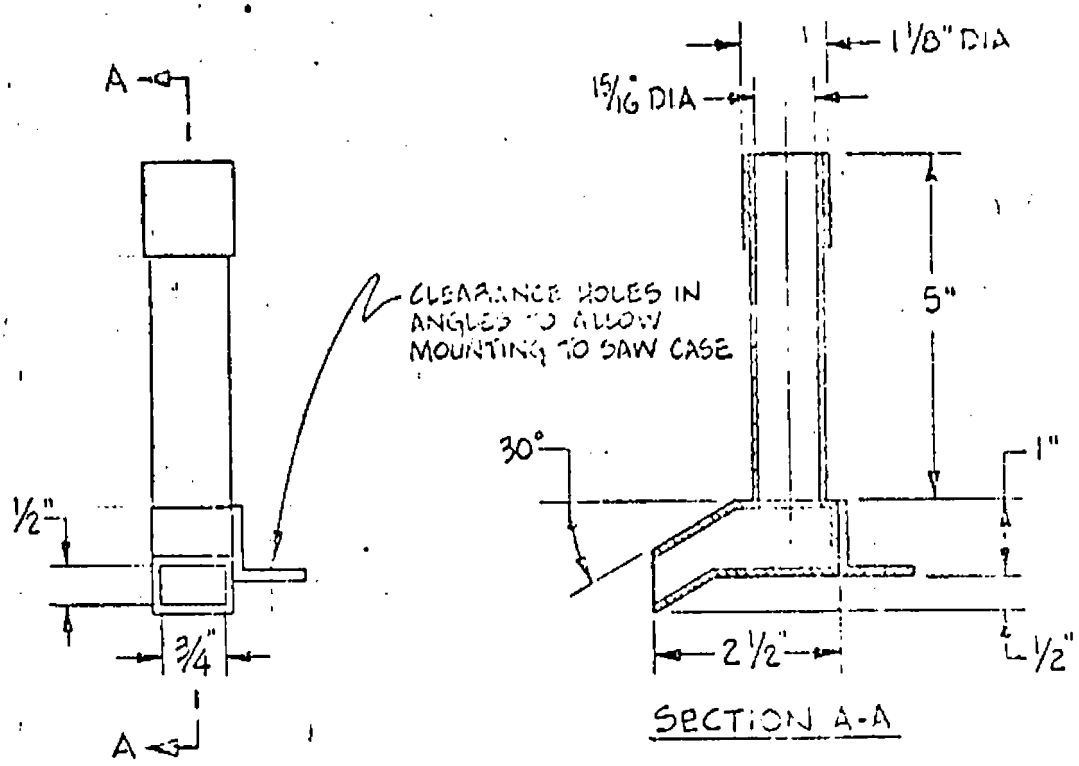
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FIG. 1

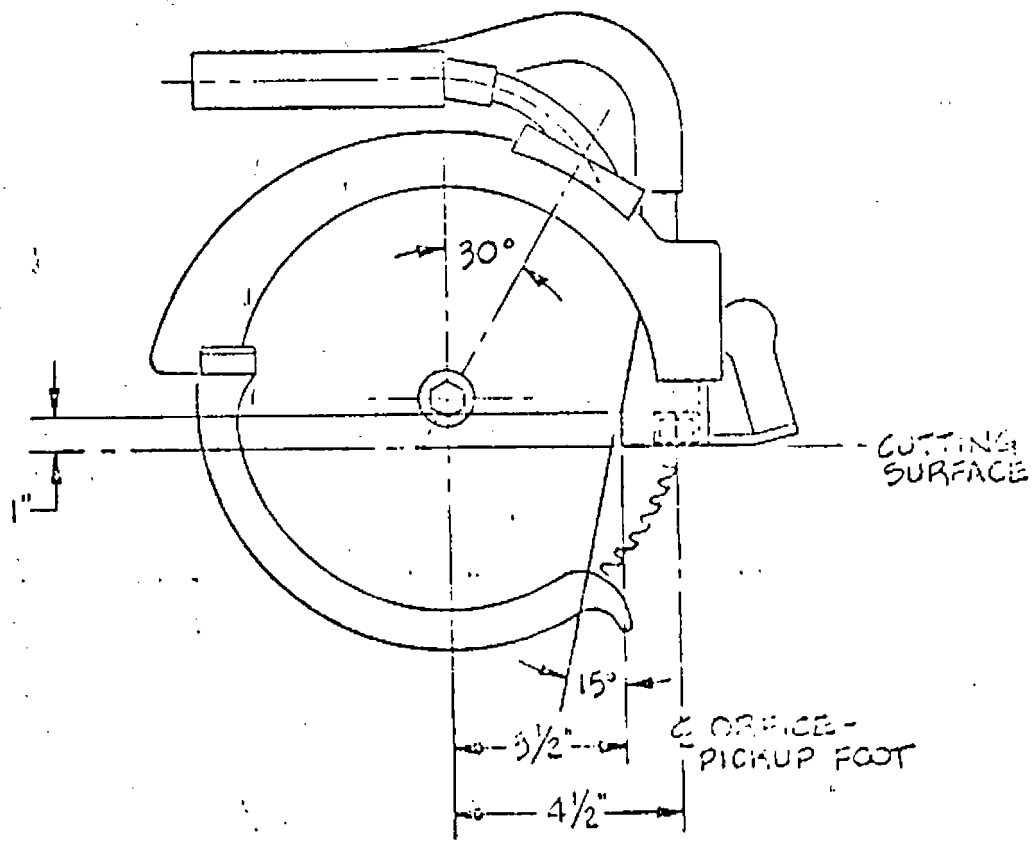


DUST EXTRACTOR - PORTABLE SAW - 10¼" DIA. BLADE

FIG. 2

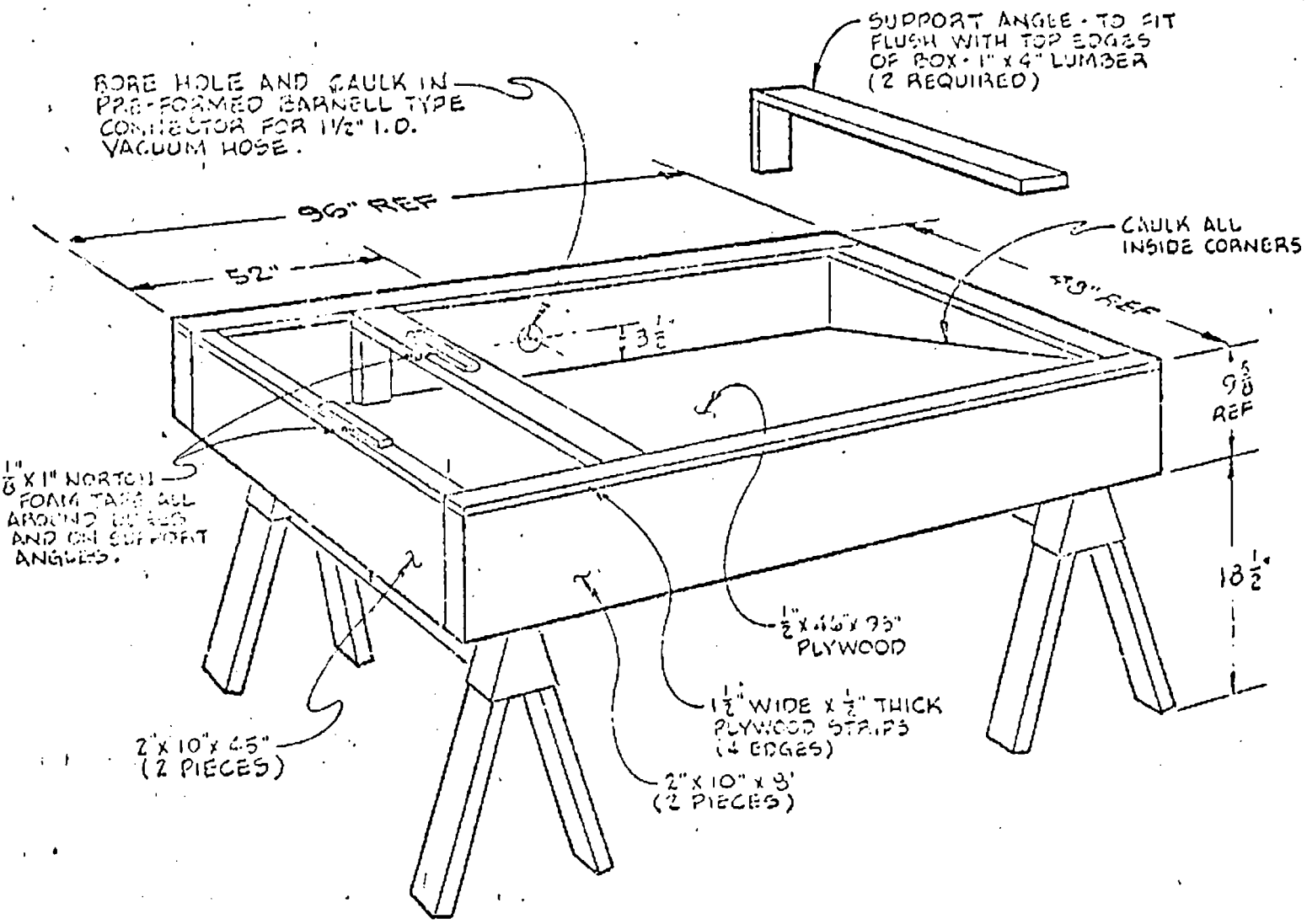


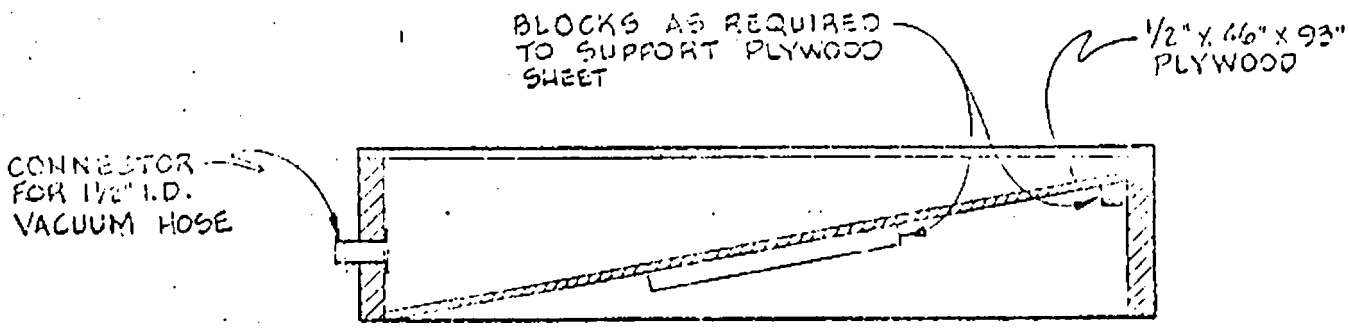
PICKUP FOOT - WELDED ALUMINUM CONSTRUCTION



DUST EXTRACTOR - PORTABLE SAW - 10 1/4" DIA BLADE

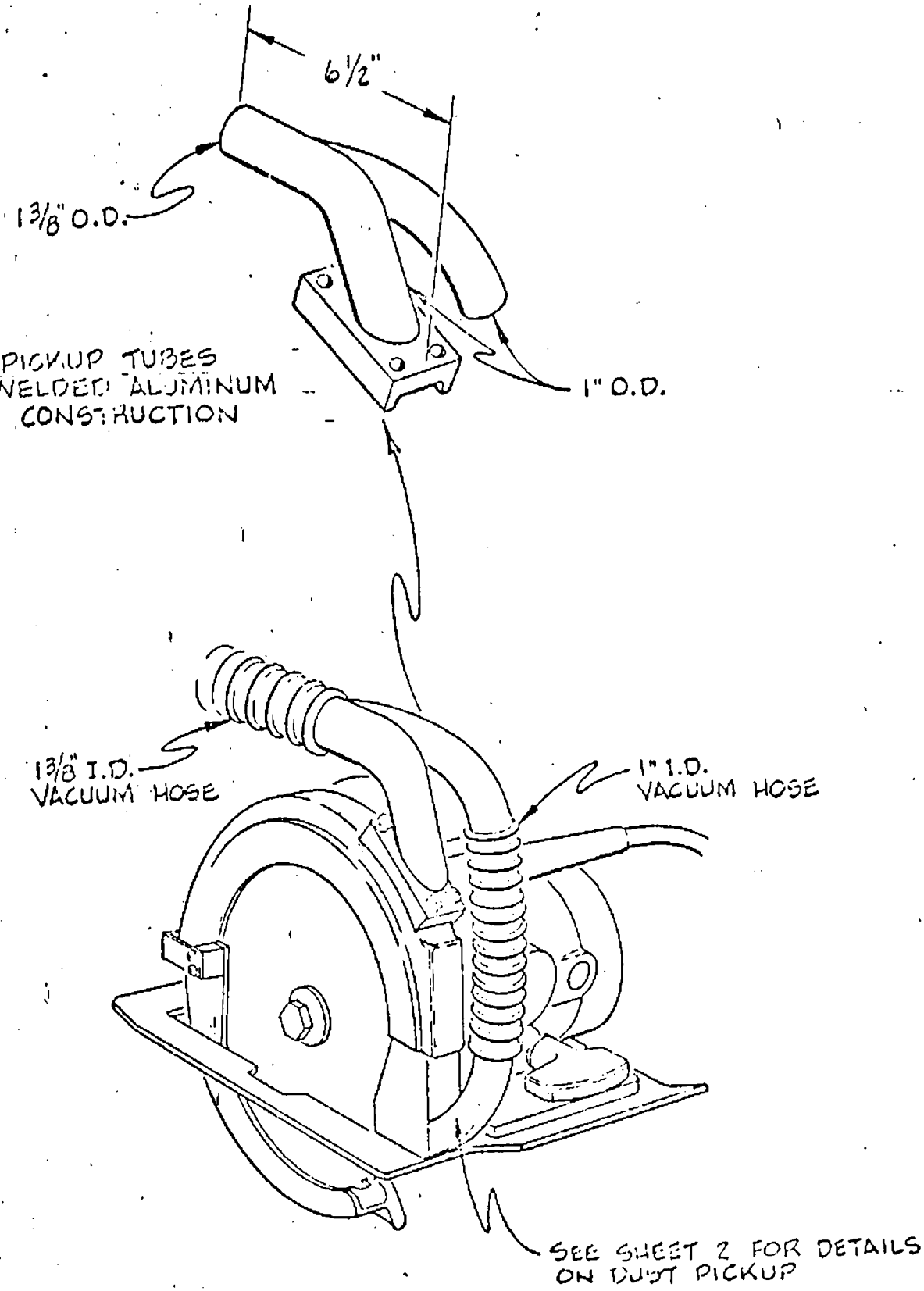
CUTTING BOX – USE WITH CIRCULAR SAW





SECTION

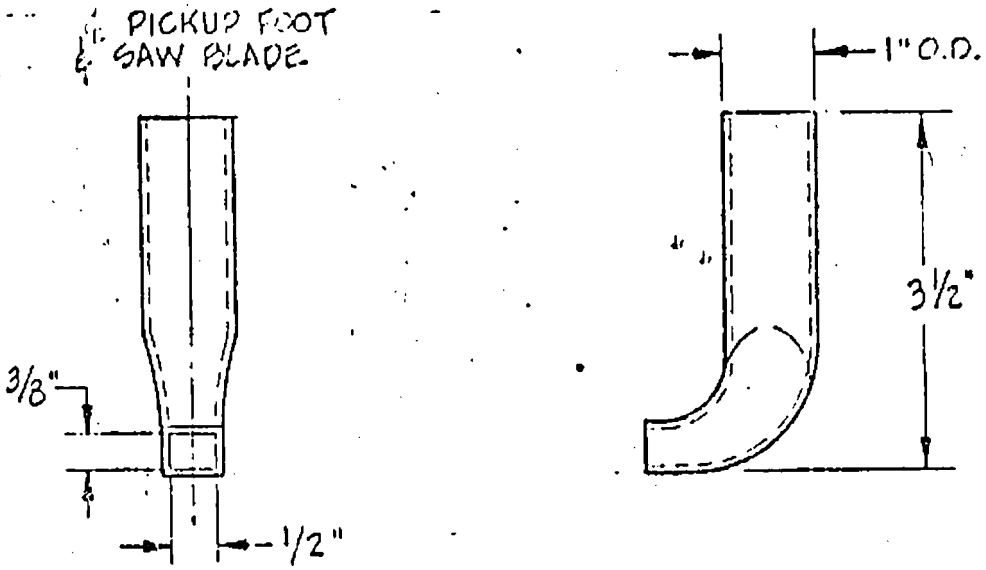
FIG. 4



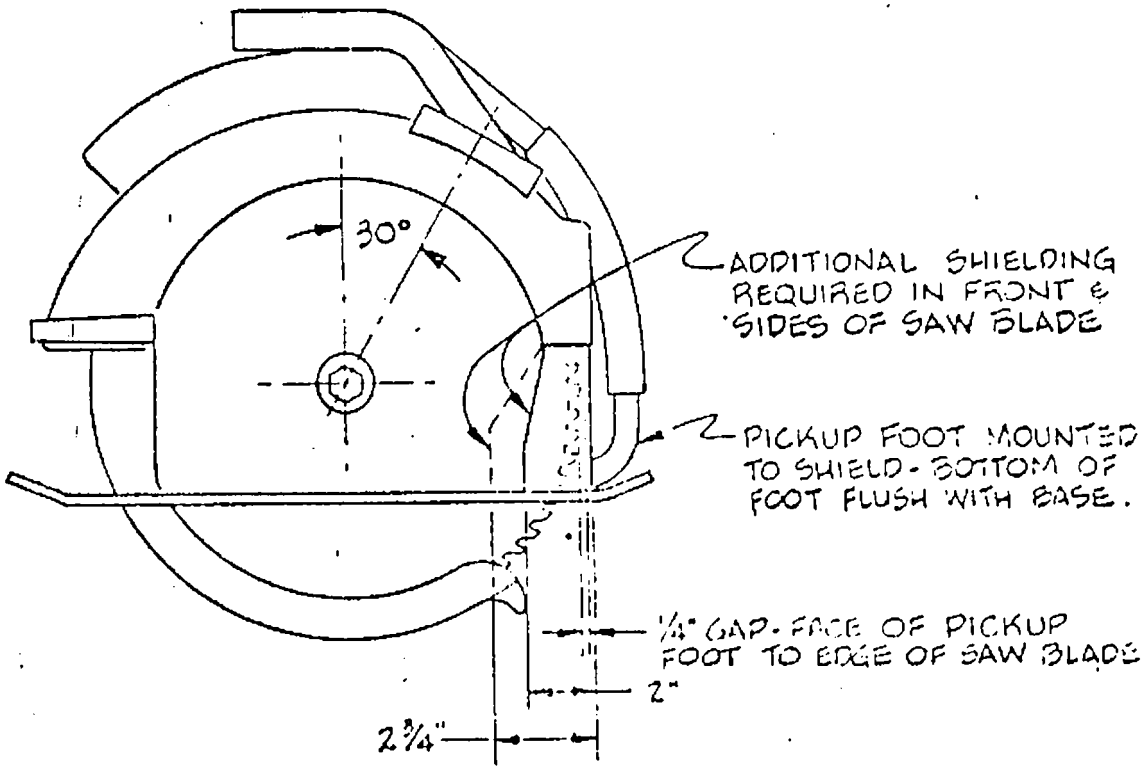
DUST EXTRACTOR - PORTABLE SAW - 7¼" DIA BLADE

SHEET 1 OF 2

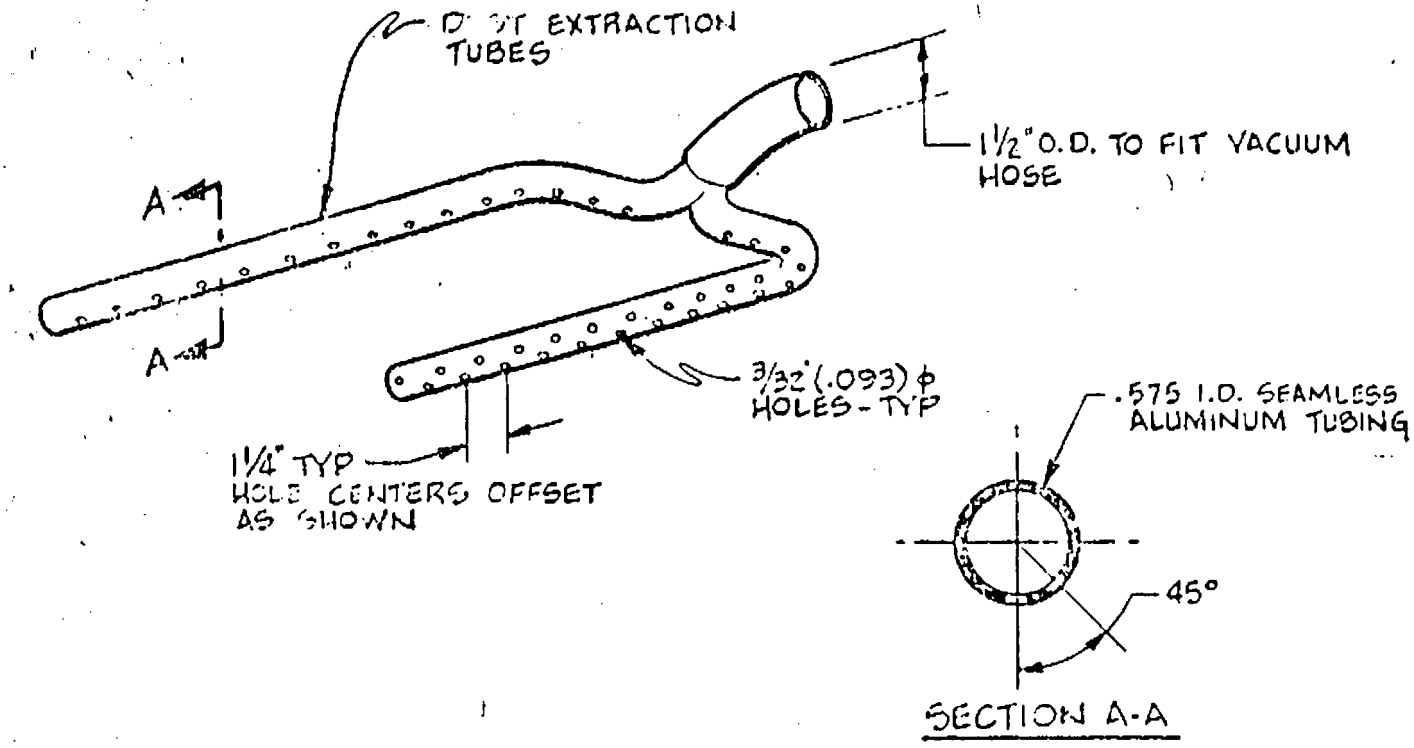
FIG. 5

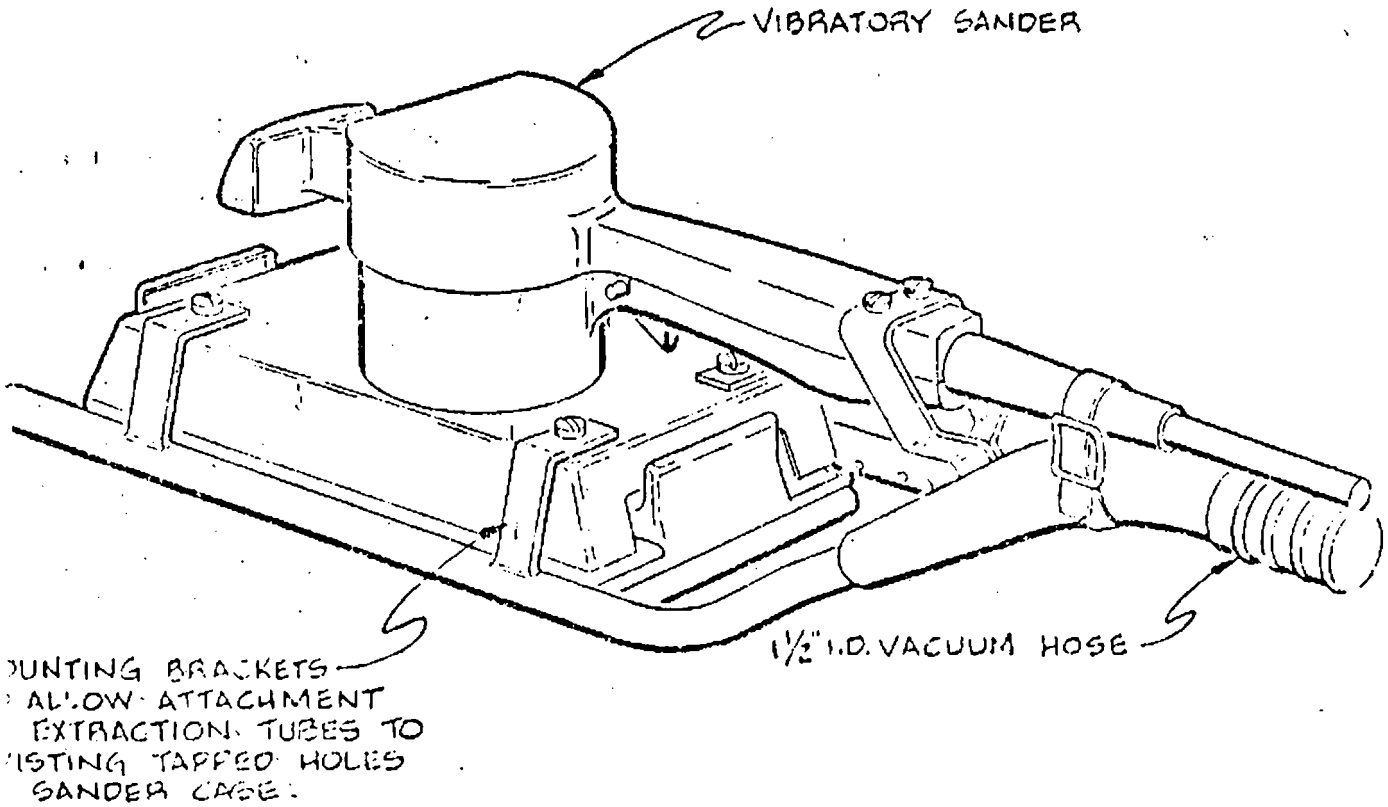


PICKUP FOOT - WELDED TO SHIELDING

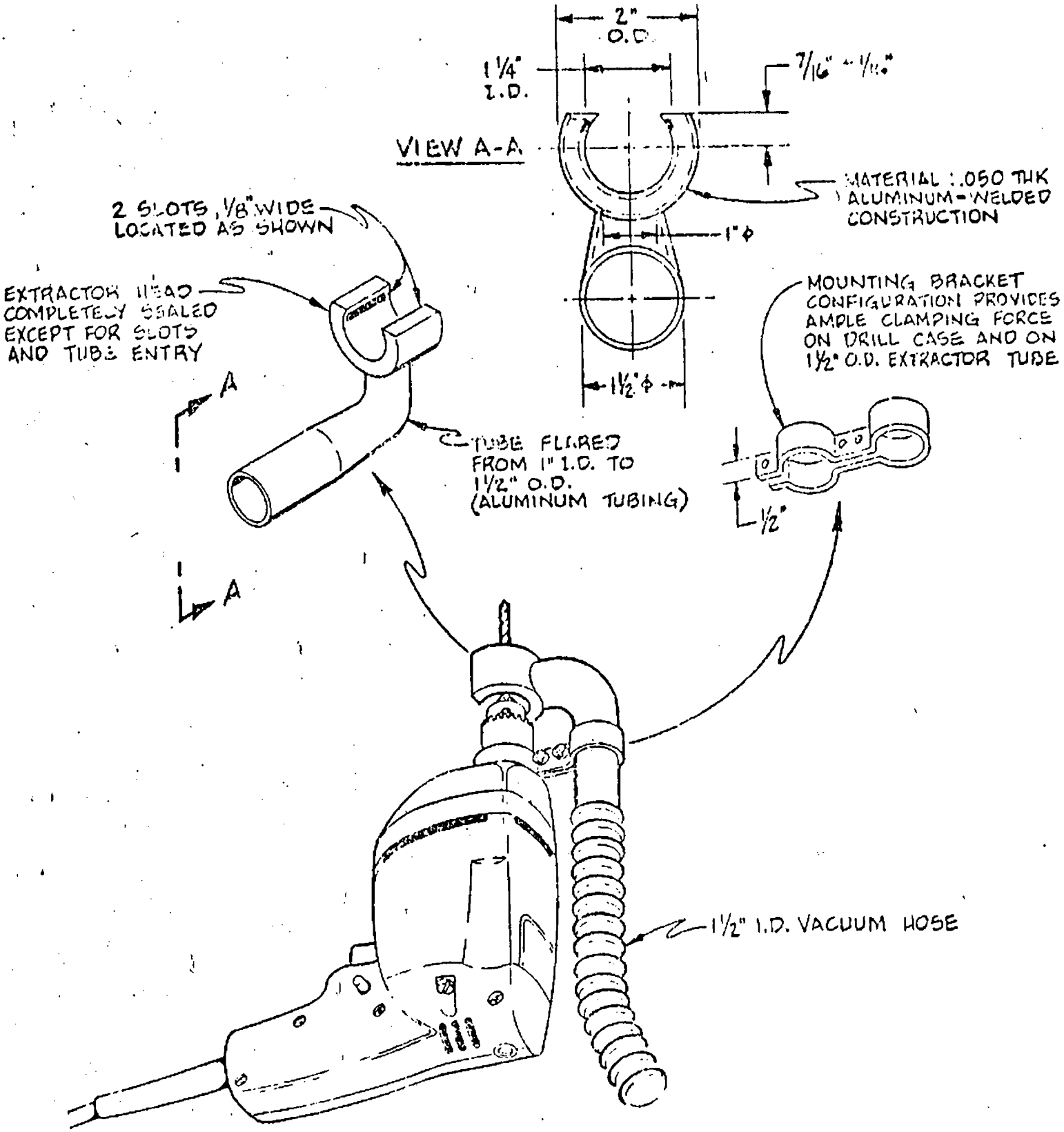


DUST EXTRACTOR - PORTABLE SAW - 7¼" DIA BLADE

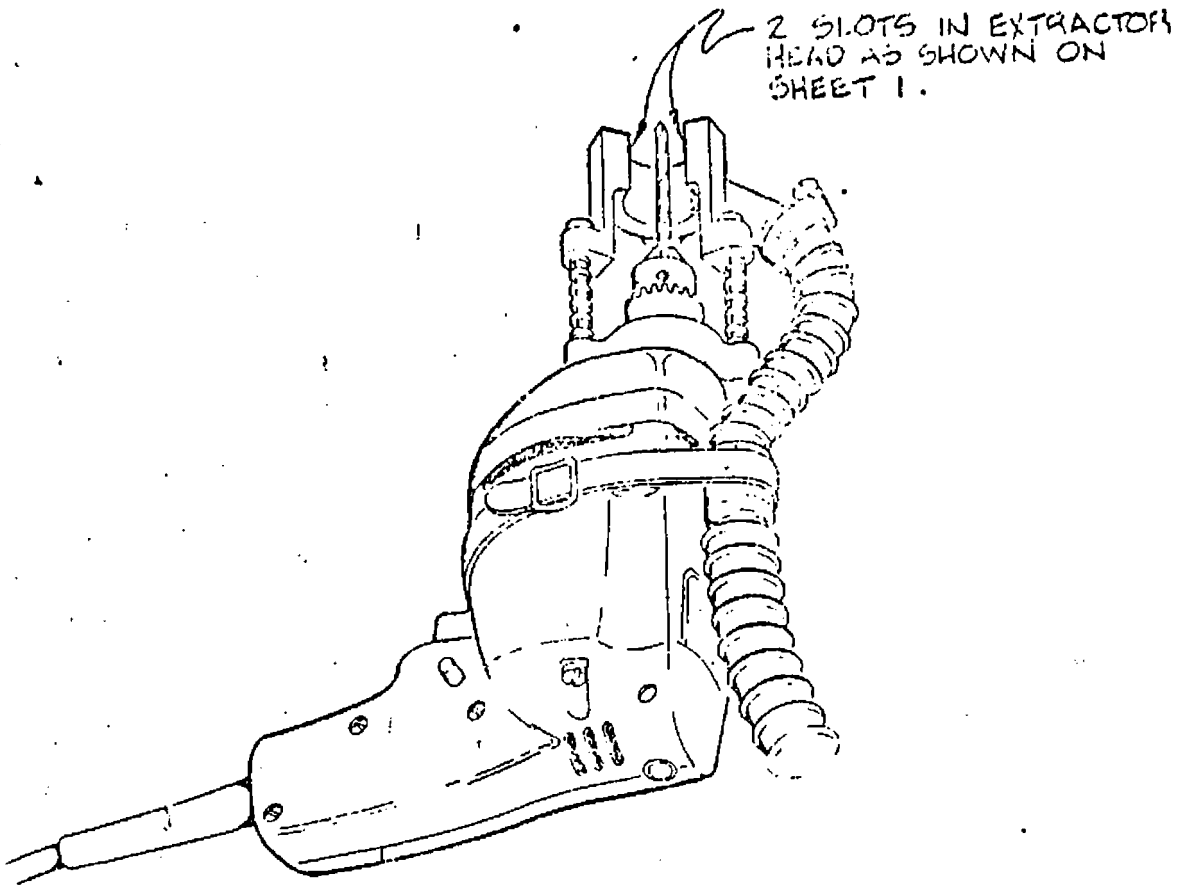




DUST EXTRACTOR - VIBRATORY SANDER

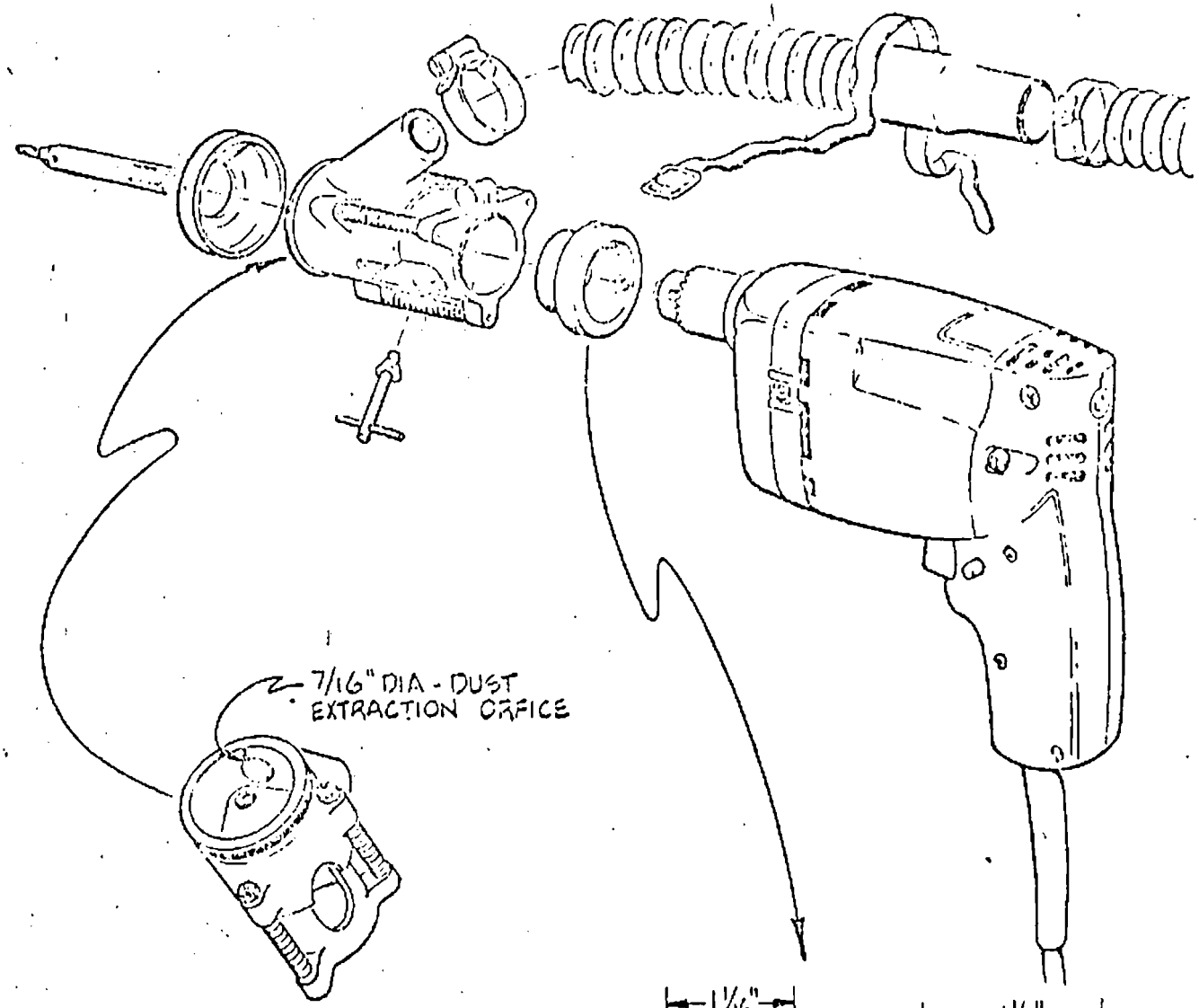


DUST EXTRACTOR - DRILL

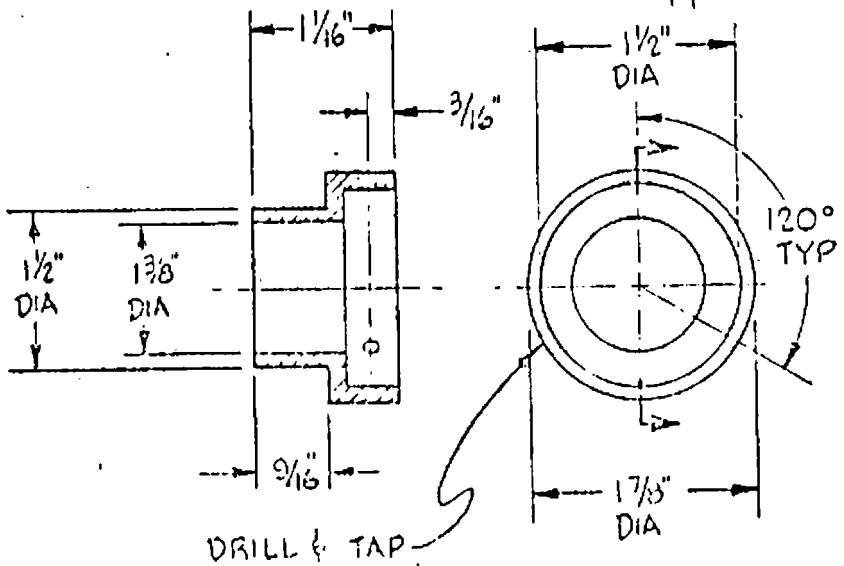


DUST EXTRACTOR - SPRING LOADED

EXTRACTOR HEAD FOLLOWS DRILL ENTRY INTO MATERIAL



DRILL NOZZLE



ADAPTER
300 SERIES STAINLESS STEEL

DUST EXTRACTOR - DRILL - CAPE UNIVERSAL TYPE

440

Johns-Manville Corporation

Greenwood Plaza
Denver, Colorado 80217
(303) 770 1000

F. L. Pundsack
Senior Vice President
Research, Technology &
Corporate Business Development

June 28, 1976

Mr. Robert F. Stewart
Vice President and
President, Consumer Operations
Rockwell International
600 Grant Street
Pittsburgh, PA 15219

Dear Mr. Stewart:

Over the past several years, Johns-Manville has been exploring ways to reduce the amount of dust released to work areas in which asbestos-containing products are being fabricated with hand tools. Our interest grew from the realization that hand tool fabrication was the only remaining weak spot in our efforts to reduce asbestos dust exposure all the way from the manufacturing plant to the end use.

Our work has resulted in the development of special vacuum attachments for hand tools which are capable of maintaining asbestos dust levels well below those required by OSHA. However, the problem of getting such attachments on the market remains. Your people in the Power Tool Division consulted with us in the development phase of this project; but because the market was relatively small and specialized, they were understandably reluctant to move too quickly into manufacturing and marketing.

Recently an OSHA sub-committee, investigating the problems created by dust regulations, requested and received information which could increase the market need for such tools:

1. A representative of the construction industry stated that the lack of tools to meet OSHA requirements, for nuisance dust as well as asbestos, was forcing either violation of the regulations or significantly increased labor costs.

2. Our comments to the committee covered our work on dust control for hand tools, but we had to admit to very slow progress in getting tool manufacturers interested in commercializing the attachments.

In addition to the situation in the United States, we are seeing a rapidly increasing awareness of hand tool dust problems in the international building industry.

Johns-Manville Corporation

Greenwood Plaza
Denver, Colorado 80217
(303) 770 1000

F. L. Pundsack
Senior Vice President
Research, Technology &
Corporate Business Development

We hope you will reconsider your position and agree with us that it is now in our mutual interest to meet this critical and growing need. There are several ways to proceed from this point, and I would suggest the appropriate people in both companies meet to explore them. We would be pleased to have you come to Denver for a complete briefing on our work as a background to our discussions; but in the interest of time we would also be glad to meet at any location convenient to you.

I will call you in a week or two after you have had an opportunity to review the situation with your associates to see if we can arrange a mutually convenient date to meet.

Sincerely yours,

FL Pundsack