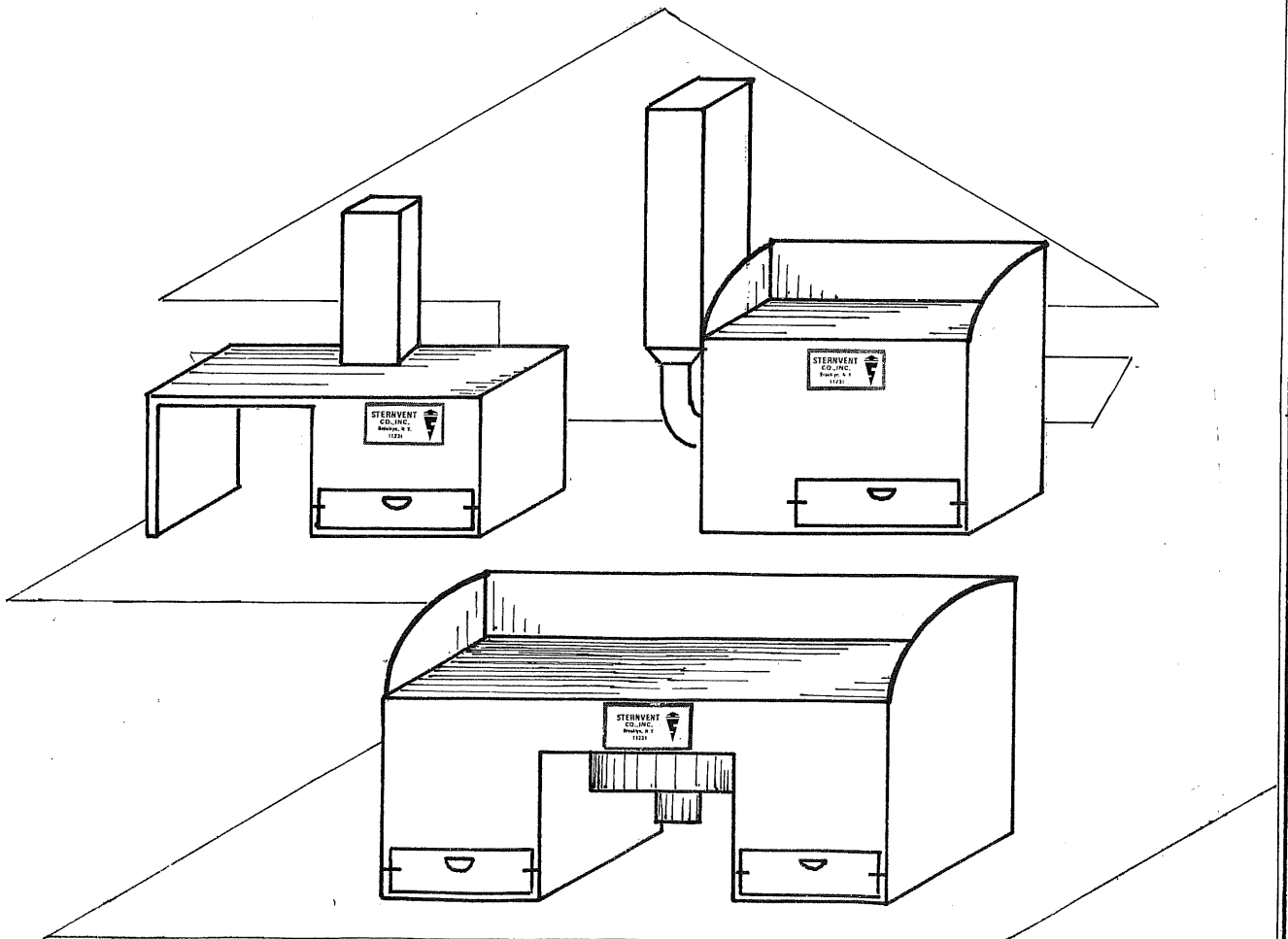




STERNVENT

DOWN DRAFT BENCH

INSTALLATION & MAINTENANCE MANUAL



I. INTRODUCTION

The STERNVENT DOWN DRAFT BENCH effectively combines a large work surface area with a highly efficient dust collecting system. Compact and versatile, this machine is especially suited for use with hand tool operations such as grinding, polishing and sanding. A 2" toe space around the entire bottom perimeter enables the operator to stand comfortably close to his work.

Dust and fumes are drawn downward by a powerful fan into the arrester, away from the worker. The air velocity is greatest at the perimeter (600 LFM), which creates an air seal along the outside edge. This forces the air downward and prevents the dust from escaping into the workplace. The dust filled air flows down the sides of the filters and upon reaching the bottom is forced sharply upward. This separates the heavy particles from the air stream and they fall into a dust drawer. The fine particles are then trapped on the outer surface of the cloth filters and are also shaken down into the dust drawer.

II. ADVANTAGES

- o The STERVENT DOWN DRAFT BENCH is compact, making it economical to ship and easy to install, without taking up valuable work space.
- o Unit is factory assembled and ready for immediate installation.
- o Provides a work space and dust collector all in one.
- o STERNVENT DOWN DRAFT BENCHES are built to last. The cabinet is made of heavy gauge steel, all welded construction, and is reinforced with angle iron.
- o Silencer provides sound attenuation of the blower exhaust.
- o STERNVENT DOWN DRAFT BENCHES are equipped with a lightweight aluminum grille top.
- o Toe space around bottom perimeter provides flexibility and convenience. Workers can position themselves to work comfortably and efficiently.
- o Side shields are furnished with each unit.
- o Dust drawers pull out for easy cleaning.
- o Unit can be made portable by adding casters.
- o Local codes permitting, air may be recirculated into the factory.

III. INSTALLATION

STERNVENT DOWN DRAFT BENCHES are shipped factory assembled except for side shields and silencer.

1. Check that all parts on the packing list have been delivered. Notify trucker and STERNVENT immediately if parts are missing or damaged.
2. Locate BENCH wherever desired. Unit is completely self sufficient and does not require any duct work or piping.
3. Electrical wiring and hook-up should be done by a qualified electrician, following the wiring diagram on the motor. Be sure to include a starter with proper size overload heaters.

IV. CHECK LIST BEFORE BEGINNING OPERATION

All STERNVENT equipment is thoroughly tested before leaving the factory. However, because of varying field conditions, and to ascertain there has been no damage in transport, it is important to test every installation. Make any adjustments before beginning operation.

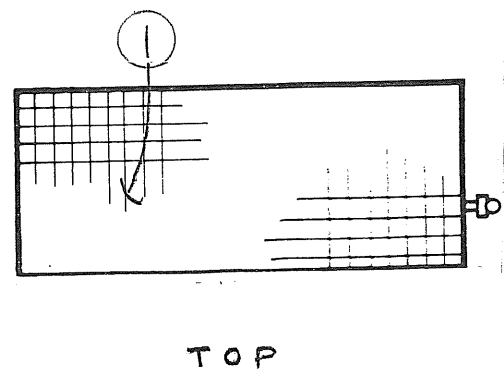
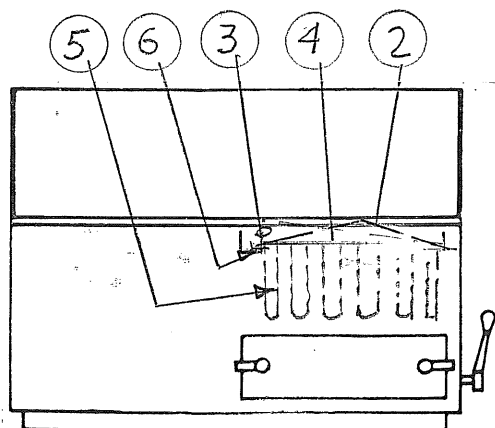
1. Check that the motor has been connected for proper voltage and rotation. Make sure that at the motor the incoming voltage corresponds to the voltage listed on the motor label (a maximum $\pm 10\%$ variation is permissible), otherwise the motor manufacturer will not guarantee the motor.
2. Check that blower rotation is in the direction of the arrow. All STERNVENT standard fans are designed to operate clockwise. On fan cooled motors you can see the cooling fan rotating clockwise when looking down on it. Or, looking into the discharge, you should be able to see the blade turning toward you.

V. MAINTENANCE

1. Shake bags once or twice daily (depending on usage) for about 2 minutes WHEN EXHAUST FAN IS NOT RUNNING.
2. Check dust drawer(s) for accumulation every other day and empty when it becomes 2/3 full.
3. Motor should be lubricated according to manufacturer's instructions.
4. FILTERS

If unit begins to lose suction and has otherwise been operating properly it may be time to clean or replace filters.

- a. To remove filters, first remove aluminum grille (1) and then remove baffle plate (2).
- b. Loosen screws (3) along edge and remove hold-down bar (4).
- c. Now remove bags (5).
- d. Before installing new bags check rubber gasketing in bag holding frame (6) and replace if necessary.
- e. Place bags in unit, put hold-down bar back in place and tighten thumb screws. Unit is ready for operation.



VI. TROUBLE SHOOTING

PROBLEM	SOLUTION
1. Motor will not start.	1a. Check if overload heaters are in the starter and if all switches are ON; push the reset button on the starter.
2. Motor starts with a whine, and is not running at full speed.	2a. Stop motor immediately. It is single phasing (getting current on 2 legs only) and will burn out if not stopped. 2b. Check fuses and wires for a break in one of the lines.
3. Motor makes a scraping or knocking noise.	3a. Check that motor cooling fan is not rubbing against its cover. 3b. Fan blade may be loose. Tighten set screws if necessary.
4. Little or no suction.	4a. Check rotation of fan. 4b. Check system for blockage in suction or discharge lines. 4c. Check for air or water leakage around gasketing. 4d. Check filters for dirt loading.
5. Excess vibration.	5a. Check that unit is level. 5b. Check fan blade for damage. If damaged and out of balance return to factory for repair or replacement.
6. Motor stopped working.	6a. Push reset button on starter. 6b. Take to nearest motor manufacturer's representative (list enclosed) for evaluation.
7. Motor running hot--starter kicking out.	7a. Fan may be rotating backwards (a fan that is running backwards may deliver about 50% of its rated air capacity and draws more Amps than under normal load). Make a visual check of the rotation of the fan wheel; it should be rotating clockwise.

- 7b. Check electrical connections. Are they up to applicable codes? Are the wire sizes correct?
- 7c. Check if starter and heater coils are correct sizes.
- 7d. Check for low or high live voltage (± 10% variation is permissible).
- 7e. Motor hum or growling might indicate there are loose connections in starter or line.

GUARANTEE:

STERNVENT equipment is guaranteed against defects in materials and workmanship for a period of one year from date of shipment (with the exception of filter tubes and filter envelopes, which carry a ninety (90) day warranty and motors, which are guaranteed by their manufacturer). In the event of defects developing within that period under normal and proper use, seller will furnish, f.o.b. its plant, without charge, parts required to replace material found defective. Seller shall not be held liable for any further costs, expenses, indirect or consequential damages, and liability shall not exceed price of purchased equipment.