

# DUSTVENT—DOWNDRAFT BENCHES

## 6' x 4' F2/F4 Front Access Bench

This design provides over 40% greater air flow than Dustvent's earlier designs.

Air, dust & fumes are drawn thru the grid and into the peripheral slots between the inner structure and outer skin. A 180° turn throws coarse dust directly into the pans below. The fine dust is collected on the outside surfaces of the filters.

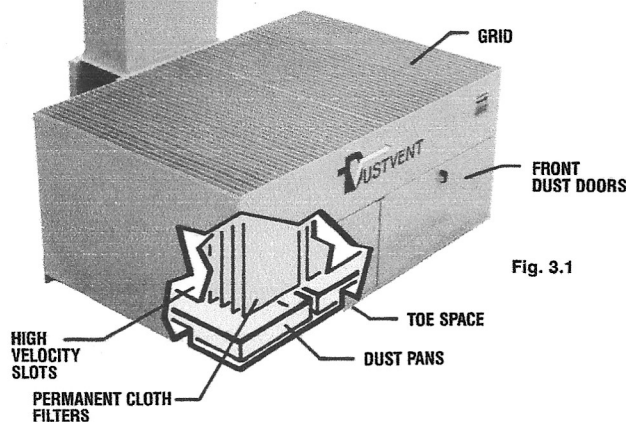


Fig. 3.1

The cleaned air then passes under the top of the inner structure, entering the blower which returns it to the room.

Additional internal reinforcement is available which doubles grid capacities—the "F4 Option". Details of Grids and Capacities are on Page 6.

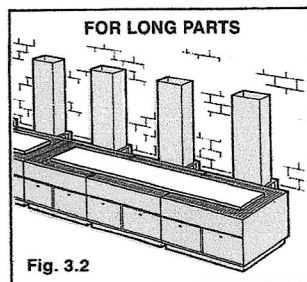


Fig. 3.2

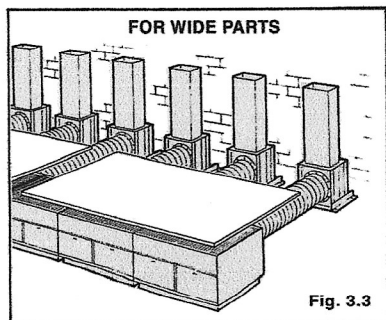


Fig. 3.3

Dustvent's Self-Contained 6' x 4' Downdraft Benches have the versatility to handle long parts by bolting the Benches end to end. See Fig. 3.2.

For wide parts, a blower set-back kit is available. This option is detailed on Page 6. See Fig. 3.3.

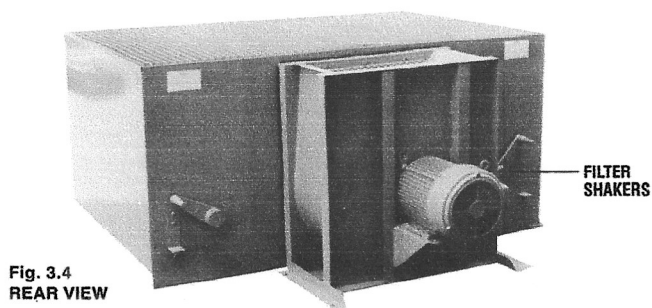


Fig. 3.4  
REAR VIEW

## The 2.3' x 3' F1 Convertible Bench USE AS A DOWNDRAFT BENCH OR AS A DUST COLLECTOR

*A "Two-in-One" unit that  
saves you money  
and space!*

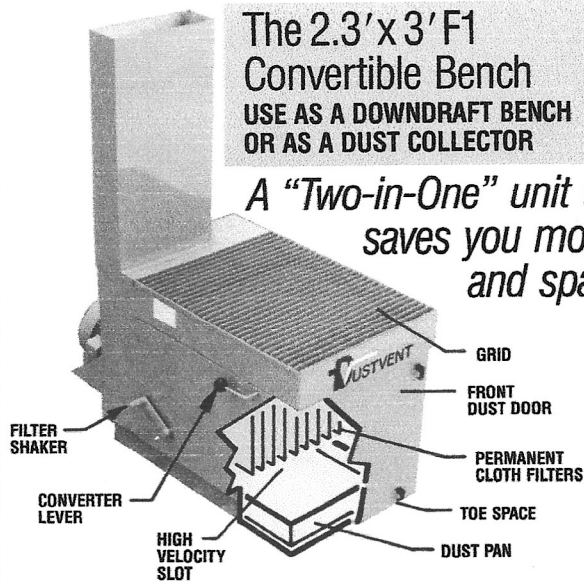
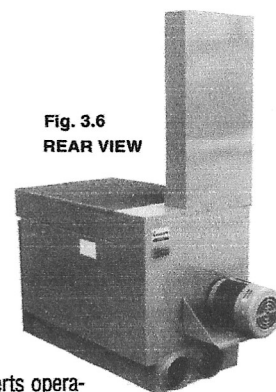


Fig. 3.5

Fig. 3.6  
REAR VIEW



Designed for smaller parts, the 2.3' x 3' F1 Convertible Bench operates exactly as its larger cousin, the 6' x 4' F2/F4 when used as a Downdraft Bench.

Available Options are detailed on Page 6.

A simple external lever instantly converts operation from normal "Downdraft" mode to a powerful high-efficiency conventional "Dust Collector" mode. Single or multiple rear inlets connect to duct work from your machines.

## IN YOUR SHOP:

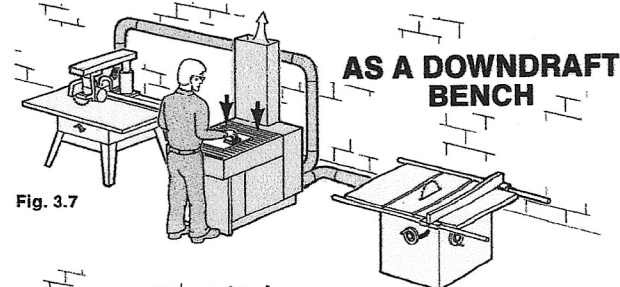


Fig. 3.7



Fig. 3.8

# DUSTVENT DOWNDRAFT SYSTEMS



*Dustvent Downdraft Benches, Work Stations, and Work Centers have been developed to protect the operator's breathing zone when filing, sanding or shaping metals, plastics or woods. A powerful downward air flow captures dust and fumes at the source! In all cases air flows exceed OSHA Para. 1910.94 (a)(8)(b)(5)(iii) thru (x)*

Fig. 2.1

## High Peripheral Velocity

Unique high velocity peripheral slots on front and sides (and rear of 6' x 4' Bench) provide dust capture velocities to 1000 FPM! Symmetrical designs give uniform flows.

## Clean and Recirculate The Air

The heart of these DOWNDRAFT BENCHES are the permanent cloth filters. They should not be confused with throw-away, metal or oiled filters!

Sewn from a continuous bolt of cloth into a unique one-piece module construction in an efficient envelope shape, there is no way that any dust by-pass can occur.

## 99.9% Collection Efficiency!

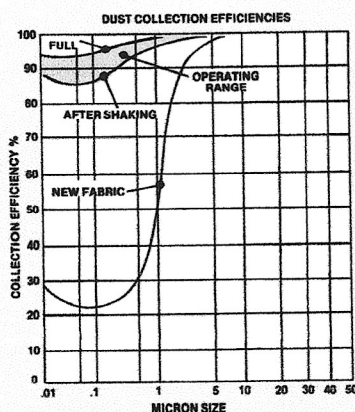


Fig. 2.2

While an initial dust cake is being formed, the efficiency is increasing from "New" to "Full". Vigorous shaking gives the "After Shaking" and, from then on, operation occurs in the range shown. Only by refiltering or dry cleaning can the "New" curve ever again be attained.

Woven sateens, of natural or synthetic fibers to suit specific requirements, are used to give permanency and efficiency both here and in DUSTVENT Fabric Filter and Smoke-Fume Collectors. Independent tests have demonstrated that these filters, when handling copious amounts of smoke from a metal flame spraying application, not only stopped smoke emission but also reduced particulate emission below OSHA levels! Overall efficiency of 99.9% is guaranteed so in-plant air recirculation is normal for most processes. See Fig. 2.2.



## Downdraft Bench Features:

Rugged steel construction, shipped assembled with filters, grids and baffles in place ready to run.

**LOWER NOISE LEVELS**—air foil and forward curve wheels are used in the high efficiency integral blowers. Built-in easé outlets reduce velocities about 50% resulting in even lower noise levels.

**DIRECT DRIVE BLOWERS**—virtually eliminate any maintenance. External motor location assures absolutely no risk of dust damage to the motor. Easiest wiring.

**STEEL GRID**—standard with 1" x 4" openings. Machine tools, grinders, etc. may be bolted to the grid. Optional grids and load capacities are shown on Page 6.

**CONVENIENT 34" WORK HEIGHT**—allows the operator(s) to work comfortably.

**SHAKER PEDALS**—on side or rear of Bench to clean filters. Optional electric shakers available.

**TOE SPACE**—recessed into the front and sides for maximum operator comfort.

**REMOVABLE DUST DOORS**—quick opening type provide front access to the internal dust pan(s).

**OPTIONAL NOISE ATTENUATOR**—reduces noise levels well below OSHA limits. Can always be retrofitted at any time, if needed.

Other options are detailed on Page 6.

## Specifications:

BENCH	6 x 4 F2/F4	2.3 x 3 F1
CFM	5876	1483
Veloc. fpm Average at Slots	245 to 1000	213 to 700
Motor H.P.	7-1/2	3
Filter Area	400 ft. <sup>2</sup>	150 ft. <sup>2</sup>
Noise, db (A) No Noise Trmt. w/Attenuator	90 79	87 72
Grid Capacity Details-Pg. 6	F2-2040 Lbs. F4-4080 Lbs.	F1-1770 Lbs.
Dust Pan(s) Capacity-Total	4 2.9 ft. <sup>3</sup>	1 1.2 ft. <sup>3</sup>
Ship Wt. w/Attenuator	1321 Lbs.	515 Lbs.



## DUSTVENT—DOWNDRAFT WORK STATIONS

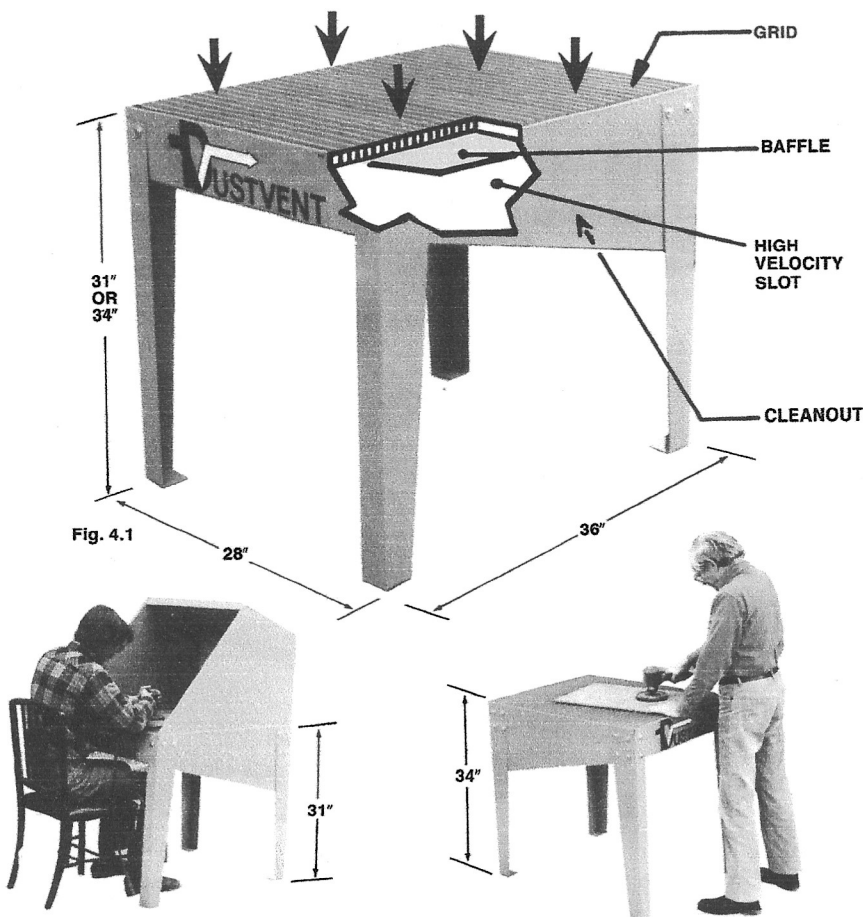


Fig. 4.1

SIT-DOWN WORK STATION SHOWN WITH OPTIONAL DOG HOUSE

Fig. 4.2

STAND-UP WORK STATIONS

Fig. 4.3

### Model 2.3' x 3' WS

Dustvent's Model 2.3' x 3' WS Work Station is identical in concept to the self-contained Downdraft Benches. A powerful downward air flow captures and controls dust and fumes at the source! While protecting the operator's breathing zone, it also maintains plant cleanliness and efficiency.

#### OPERATION

Operation is similar to Dustvent's self-contained Downdraft Bench. Air flow and filtration are provided by a remote Dustvent Collector. Work Stations are designed to operate at a minimum of 1400 C.F.M. each.

#### FEATURES

Available in Sit-Down, Fig. 4.2, or Stand-Up, Fig. 4.3 styles, Dustvent Downdraft Work Stations have the following features:

Rugged Steel Construction; field adjustable to two different heights. The grid and internal baffle lift out providing access to the clean-out. The standard steel grid has 1" x 4" openings. Grinders or other machine tools can be bolted to it. Grid capacities are shown on Page 6.

The SIT-DOWN has a 31" working height and a full 24" width of leg clearance—ideal for standard shop chairs.

The STAND-UP has a most convenient 34" working height.

Can be bolted side-to-side at either height, forming a multiple group to your needs.

Available options are shown on Page 6.

## CUSTOMIZED WORK STATIONS with REMOTE DUSTVENT COLLECTORS

#### VERSATILITY:

DUSTVENT Downdraft Work Stations are simple yet effective. Their design offers great flexibility, with multiple uses. Both the Sit-Down and Stand-Up Work Stations may be used singly or they can also be arranged in multiples for more operators or long parts.

When outfitted with the optional Dog-House shown on Page 6, dust containment is complete. Air Flow rates then exceed OSHA #1910.94 (a)(8)(b)(5)(iii) thru (x)

A remote Dustvent Collector, sized to your needs, provides the needed air flow.

*Any arrangement (limited only by your needs and imagination) can be accommodated.*

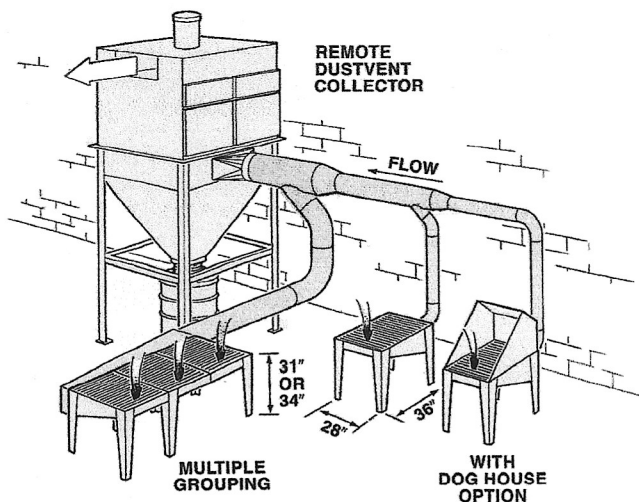


Fig. 4.4