

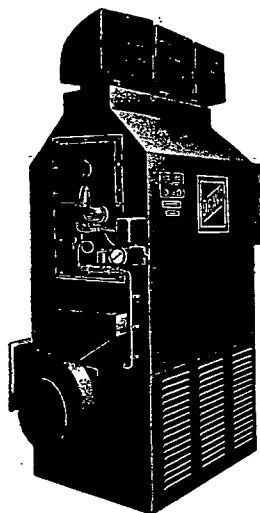
DRAVO CORPORATION

HEATING SECTION

Dravo Bldg., Fifth and Liberty Avenues
PITTSBURGH 22, PA.



DRAVO *Counterflo* DIRECT-FIRED HEATERS



Gas-Fired Dravo "Counterflo"
Direct Fired Heater

offer All these Important Advantages:

- **LOW FIRST COST** . . . Users report savings of 33-66 per cent over standard wet-type systems.
- **WORKING-ZONE WARMTH** . . . Units heat areas of 4000 to 20,000 sq ft each. Warmth is concentrated in working zone; roof heat loss greatly reduced.
- **NO FUEL WORRIES** . . . Burn gas or oil—readily converted from one to other.
- **LOW OPERATING COST** . . . 80-85 per cent efficiency at bonnet *plus* top efficiency in heat distribution holds costs down.
- **AUTOMATICALLY CONTROLLED** . . . On-off or modulating controls. The heater looks after itself—no continuous attention required.
- **EASY INSTALLATION** . . . Just hook up fuel, electric and exhaust connections—the heater is ready to go.
- **STAINLESS STEEL CHAMBER** . . . Rugged mill-type construction, top-drawer engineering, assure durability.
- **5 FUNCTION SERVICE** . . . Each unit can provide not only comfort heating, but year-round ventilation . . . tempered make-up air . . . process drying . . . and heat curing.
- **TESTED-APPROVED** . . . AGA and/or UL seal on all standard units. Each heater flame-tested at factory before shipment.

The Dravo *Counterflo* Direct-fired Heater "manufactures" heat right where it is to be used, provides low-cost, dependable, automatic "working-zone" warmth, without duct-work for industrial or commercial buildings with large open areas. Users report savings of from 33-66 per cent over wet-type systems. Ideal for replacement as well as for new construction installations; mount in any position, on floor, wall or ceiling. Successfully serving in automobile and aircraft manufacturing plants, construction industries, chemical, metal working,

textile and woodworking plants; schools, churches, college buildings, etc. Current users include some of the biggest names in industry.

Dravo *Counterflo* Heaters are available for firing with gas or oil. Gas or oil-fired models are readily convertible from one to other, and coal-fired models are adaptable for gas or oil-firing. Unit capacities range from 400,000 to 6,000,000 Btu per hour output. See tables for external dimensions, weights and capacities of each size.

DRAVO CORPORATION

Pittsburgh • New York
Cleveland • Chicago
Philadelphia • Atlanta
Detroit • Boston

Sales Representatives in Principal Cities

Manufactured and sold in Canada by Marine Industries, Ltd.,
Sorel, Quebec



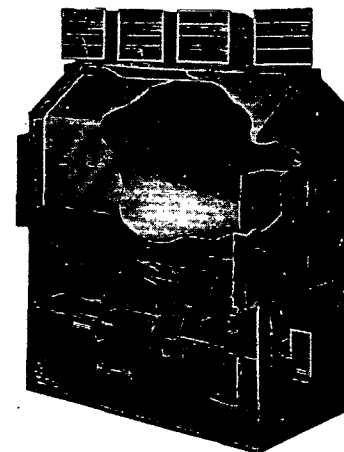
ENGINEERING DATA

Heater Number	Btu Output Capacity	Air at 70 Deg. Free Delivery		Fan Motor HP	No. Discharge Nozzles	Approx. Shipping Weight
		Approx. CFM	Temp. Rise Deg. F			
40	400,000	4500	82	1 1/2	3	1400
50	500,000	5500	84	2	3	1500
75	750,000	8500	82	3	4	2500
100	1,000,000	11000	84	5	4	3600
125	1,250,000	14000	83	7 1/2	4	3400
150	1,500,000	17000	82	10	4	3600
175	1,750,000	19000	85	15	4	4200
200	2,000,000	22000	84	20	4	4400

Heater Number	FUEL CONSUMPTION—Minimum of 80 per cent Heater Efficiency Assumed			Approximate Overall Dimensions		
	Light Oil GPH 140,000 Btu	Heavy Oil GPH 148,000 Btu Oil	Gas CFH 1000 Btu Gas	Width Ft.—In.	Length Ft.—In.	Height to top of Nozzles Ft.—In.
40	3.5	3.5	500	2-6	5-1	8-3
50	4.5	4.3	625	2-6	5-1	8-3
75	6.7	6.5	940	3-7	7-5	9-11
100	8.9	8.6	1250	3-7	7-5	9-11
125	11.1	10.8	1560	4-2	8-1	11-2
150	13.4	13.0	1875	4-2	9-1	11-2
175	15.6	15.0	2190	4-8	9-6	12-9
200	17.8	17.2	2500	4-8	9-8	12-9

5 FUNCTION SERVICE WITH JUST ONE UNIT!

- **COMFORT HEATING**
Fast, economical heating of entire working-zone provides ideal comfort conditions.
- **YEAR-ROUND VENTILATION**
Maintains positive circulation of clean, fresh air—improves hot weather plant conditions.
- **TEMPERED MAKE-UP AIR**
Ideal for foundries, paint spray booth and similar applications; replaces contaminated air with fresh tempered make-up air.
- **PROCESS DRYING**
Process applications include drying of ceramics, paint, hay, rugs, rubber toys, and many other items.
- **HEAT CURING**
The efficient design permits use for low temperature curing.



Cutaway view of Dravo "Counterflo" Heater showing the stainless steel combustion chamber and the extended flame travel within the chamber which results in efficiency of 80 to 85 per cent burning gas or oil.

Write for descriptive Bulletin HVA-523-50 and specification sheets. Address Heating Section, DRAVO CORPORATION, Room 703, Dravo Building, Pittsburgh 22, Pennsylvania.