CONNOR ENGINEERING CORP.

Danbury, Conn.

CONNOR ENGINEERING CORPORATION

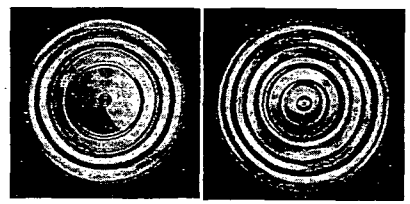
kno·draft®

adjustable air diffusers

In Canada: Douglas Engineering Co., Ltd., Montreal, P. Q.

Representatives in All Principal Cities

CONTROLLED AIR DIFFUSION



Type KDA for supply air. Aluminum, sizes 4 to 36 in. neck dia. Capacities 50 to 15,000 cfm per unit.

Type SRD for combination supply and return air. Sizes 6 to 24 in. supply neck dia. Capacities 50 to 2,500 cfm per unit, return neck area 75% of supply.

Kno-Draft Adjustable Air Diffusers are designed to give accurate control of air distribution, plus installation and operation economies. With air direction and air volume adjustments on each diffuser, "custom-made" air patterns can be created *after installation* which will insure draftless diffusion and equalized temperatures for comfort conditioning or specific patterns for industrial processes.

Installation, balancing and inspection are fast because of features like the Type HD quick-opening set-lock assembly, the self-contained inner unit and the sleeve-type damper.

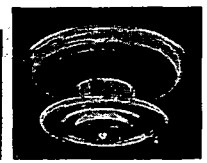
Kno-Draft Diffusers are geometrically proportional, size for size, insuring like resistance at like neck velocity for any size—a considerable advantage when selecting various size diffusers for a common system.

Anti-Smudge Cone

Where exceptionally sooty or dusty air conditions are expected or where rough-textured ceilings are employed, the use of this accessory cone is recommended. It furnishes the additional control needed to provide the precise air separation which inhibits smudging.



Diffuser with anti-smudge Cone assembled



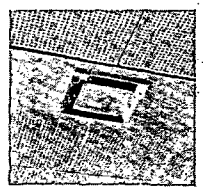
Diffuser and Cone separated

Square Diffusers

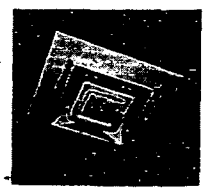
Kno-Draft Square and Panel-type Air Diffusers with built-in volume control and precision *circular* air patterns are engineered to give the utmost in air distribution efficiency.

Designed for installation in modern acoustical ceilings their simple geometrical lines complement the inherent beauty of the ceiling pattern, creating a uniform effect that is pleasing to the eye.

Utmost flexibility of installation is an outstanding feature of the Panel-type diffuser. By use of special patented flexible tubing the diffuser need not be lined up with duct and may even be installed in adjacent bays. Entire offices, partitions and floor areas may be relocated without moving ductwork.



Integrally stamped Panel Type diffusers shown installed in Acousti-Line ceiling. Sizes available, 4 in. to 6 in. neck dia. with capacities from 75 to 175 cfm.



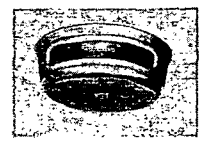
Type KP for installation in acoustical ceilings. 4 in. to 14 in. neck dia. sizes. Capacities from 50 to 1250 cfm.

Kno-Draft Diffusers are covered by U.S. Patents Nos. 2,365,867; 2,369,119; 2,432,289 and others pending; Canadian Patents Nos. 429,206; 443,235.

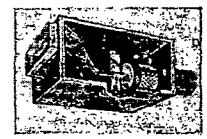
HIGH PRESSURE AIR DIFFUSION

In 1949 **Connor Engineering Corp.** was among the first to supply units for large high pressure diffuser installations. Since that time, the company has been continuously active in the development and use of high pressure systems. High pressure techniques are now applicable to almost every type of proposed or existing structure. High pressure air transmission systems using Kno-Draft high pressure air diffusers are installed and operating satisfactorily in office buildings, hotels, hospitals and schools.

The air outlets are of utmost importance to the successful operation of a high pressure system. Located directly above the occupied areas, they must perform in a completely satisfactory manner if the system is to be a success and its potentialities fully realized. Various high pressure diffusers are required to satisfy all job requirements. Different outlets are necessary for different systems; also, different installations require different methods of air distribution. The illustrations show two of the many types of Kno-Draft high pressure diffusers.



HPC-J High Pressure Diffuser for exposed duct installation.



Cutaway view of HPR-KA showing internal construction.

The HPC-J was the first high pressure diffuser made by Connor Engineering Corp. The one shown is the result of improvements that have been made over the years. This diffuser was specifically designed for use on exposed ducts in existing department stores and office buildings with particular emphasis on achieving a neat, unobtrusive appearance.

The HPR-KA is one of the most silent high pressure diffusers made. The cutaway illustration shows internal construction including the damper mechanism and sound trap. The damper is a perforated cylindrical type patented by Connor Engineering Corp. It is used in all Kno-Draft high pressure diffusers. The inlet tube and perforated cylinder are fabricated from one piece of corrosion resistant, stainless steel An adjustable felt-edge piston seals the cylinder. Changes of position increase or decrease the number of perforations exposed and thus vary the air delivery of the unit.

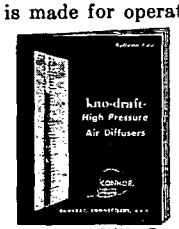
This cylindrical perforated damper has many advantages: it is quiet, simple in construction, self-cleaning, and permits both a complete and positive shut-off together with a wide open position where unavoidable construction dirt can pass through the damper mechanism. The sinuous sound trap is another patented development. It absorbs both low and high frequency noises and the carefully designed contours prevent turbulence and noise generation.

Kno-Draft high pressure units are also available in dual-duct models which feature the same unique construction. Provision is made for operation of the dampering mechanism by pneumatic motors.

Free Handbooks on Air Diffusers

Complete information on Kno-Draft high pressure diffusers is contained in the newly published *Bulletin K-33*. This manual also answers many of the questions about high pressure air transmission and contains complete detailed information for designing these systems

Bulletin K-20A contains complete information on the standard line of Kno-Draft low pressure diffusers. The unique characteristics of these single-jet, high velocity diffusers makes them ideally applicable to low pressure installations. Either of these bulletins may be obtained by writing on your company letterhead to: **Connor Engineering Corp., Dept. Y29, Danbury, Connecticut.**



Kno-Draft High Pressure Bulletin K-33 gives complete technical data on high pressure systems and diffusers.



Kno-Draft Adjustable Air Diffusers and their operating characteristics are fully described in Bulletin K-02-A.

See pages 1326 and 1327 for data on Dorex Air Recovery and Air Purification Equipment.