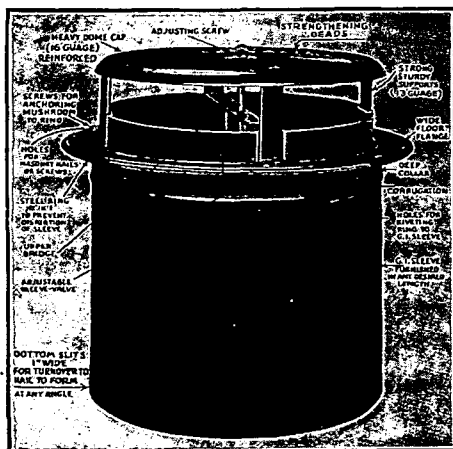


Knowles Mushroom Ventilator Co.

202-204 Franklin Street, New York

Knowles Air Diffusers for Auditoriums of Theatres, Churches, Schools

PRODUCTS:—Cast Iron and All-Steel Adjustable Mushroom Ventilators; Aisle Hood, Tu-Way and Camelback Air Deflectors; Round and Oblong Gallery Riser Vents.



Knowles Aero Valve—The Improved Mushroom Air Diffuser

The newest Knowles product. An up-to-date mechanically correct air unit of fixed height made of heavy rolled steel. Easy to regulate and install, and low in price.

Combines maximum efficiency with convenient adjustment affording finest control of air by simply turning screw on top of cap. Provided with or without sleeve and protecting steel ring. Same capacity as Nu-Notch. (See booklet for detail).

Specifications—(For Unit No. 1)—Furnish and install, where indicated on drawings or as hereinafter specified [6-in.] [8-in.] AEROVALVE Mushroom Air Diffusers with adjustable air regulator complete, known as Unit No. 1 as manufactured by Knowles Mushroom Ventilator Co., New York, N. Y. (See sleeve specification form below.)

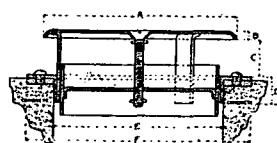
For Unit No. 2—Furnish and install where indicated on drawings or as hereinafter specified [6-in.] [8-in.] AEROVALVE Mushroom Air Diffusers with adjustable air regulator complete, known as Unit No. 2 as manufactured by Knowles Mushroom Ventilator Co., New York, N. Y. (See sleeve specification form below.)

Air Diffusers with adjustable air regulator complete with galvanized iron sleeve 6 in. long known as Unit No. 2 as manufactured by Knowles Mushroom Ventilator Co., New York, N. Y.

The sleeves are to be set by the Heating Contractor in conjunction with the General Contractor at the time the floor is laid, and just before the seats are placed the AEROVALVE Mushrooms are secured to the sleeve rings by three machine screws furnished in the holes provided.

Notes—If preferred, we will furnish the Sheet Metal Contractor with the steel rings separately to attach to his own galvanized iron sleeves in the rivet holes provided. The Nu-Notch Mushrooms may also be anchored to these steel rings in sleeves in 6 in. and 8 in. sizes only.

Size In.	A In.	B In.	C In.	D In.	E In.	F In.	G In.	Wgt. Lbs.	Area Sq. Ft.
6	6 3/4	1 1/4	1 1/2	1	6	8	1 1/2	1 1/2	0.1964
8	8 3/4	1 1/4	2	1	8	10	2	2 1/2	0.3491

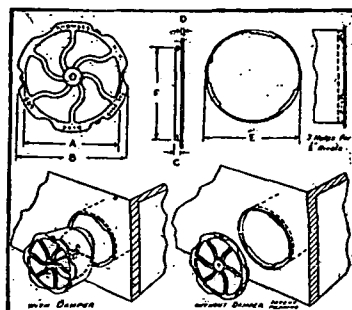


Knowles Disc-Loc Gallery Riser Ventilators

are designed to insure better control of air. Round holes in the gallery risers do not weaken the construction but, on the contrary, with the cast iron rings it is actually strengthened. The sleeve is a plain galvanized iron cylinder, with a 1/2 in. turnover flange, and with a special cast iron ring, riveted flush to the inside front

Size No.	Dimensions, In., Disc-Loc						Net Area Sq. Ft.	C.F.M. at 300 Velocity
	A	B	C	D	E	F		
4	3 3/4	5 1/4	7/8	1 1/4	4 1/4	4	0.08	24
5	4 1/2	6 1/4	1 1/4	1 1/2	5 1/4	5	0.13	39
6	5 1/2	7 1/4	1 1/2	1 3/4	6 1/4	6	0.19	57
7	6 1/2	8 1/4	1 3/4	2	7 1/4	7	0.24†	72

With or without regulating damper. †Square grill.

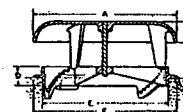


end. Sleeves are grouted in when concrete is poured. The cast iron grill is quickly inserted and locked by a simple twist motion—no bolts, screws or springs. Furnished with or without damper to fit same rings.

Knowles Nu-Notch Mushroom Ventilator or Air Diffuser



The ideal cast iron mushroom. Head has three outer bearings and is absolutely rigid. Ten recessed notches give close regulation of air. Locked into, positive adjustment by tightening head screw. Supplied with dome or flat tops. Three



screwholes in floor flange for fastening to wood, or three steel L lugs for setting in concrete, or three set-screws in floor collar for fastening to sleeve.

Specifications—Furnish and install where indicated on drawings or as hereinafter specified [5-in.] [6-in.] [7-in.] [8-in.] [10-in.] [Dome Top] [Flat Top] Nu-Notch Cast Iron Mushroom Air Diffusers with recessed notches for the permanent adjustment of mushroom caps at any desired opening together with center locking screw feature as manufactured by Knowles Mushroom Ventilator Co., New York, N. Y.

Provide under each air diffuser one No. 20 galvanized iron sleeve to be set by the heating contractor in conjunction with the general contractor at the time the floor is laid. In concrete floors when sleeves are located on forms fill sleeves with sand before being grouted in to prevent their distortion.

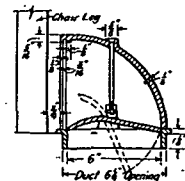
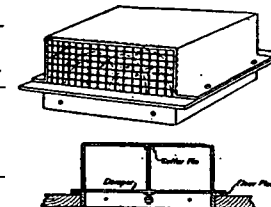
For wood floors: attach the mushrooms to the floor by means of flat head screws. For concrete or similar type floors: by tightening 3 set-screws in the collar, or by embedding 3 L lugs in cement or by screwing to Knowles Sleeve rings. (In your specification indicate the desired size, style of top and method of attachment).

Size No.	A In.	B In.	C In.	D In.	E In.	F In.	Weight Lbs.	Area Sq. Ft.	C.f.m. at Velocity of				
									200 ft.	250 ft.	300 ft.	350 ft.	400 ft.
5	6	7 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₂	5	6	4	0.1364	27.3	34.2	41.0	47.7	54.6
6	7	8 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₂	6	7 ¹ / ₄	4 ¹ / ₂	0.1964	39.3	49.1	59.0	68.7	78.6
7	8	9 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₂	7	8 ¹ / ₄	5 ¹ / ₂	0.2573	53.5	66.8	80.2	93.5	107.0
8	9	9 ³ / ₄	1 ¹ / ₂	2	8	10	6	0.3491	69.8	87.3	105.0	122.0	140.0
10	11 ¹ / ₂	13 ¹ / ₄	2	2 ¹ / ₂	10	11 ¹ / ₂	9 ¹ / ₂	0.5454	109.0	136.3	163.6	191.0	218.0

Tu-Way Air Deflectors are designed to give maximum area of discharge of air with minimum fixed height. The air is discharged at both ends along the row of seats. Do not interfere with the back of chair seats when they are raised. Made of heavy cast iron with heavy wire screens locked into grooves at each end. Damper easily adjusted with screwdriver.

Size *No.	Dimensions, Inches			Area, Sq. Ft.	C.F.M. at 300 Velocity
	High	Wide	Long		
2	2 1/2	8 1/2	4 1/2	0.223	67
3	3 1/2	8 1/2	6 1/2	0.333	100
4	4 1/2	8 1/2	8 1/2	0.45	134
5	5 1/2	8 1/2	10 1/2	0.56	167
6	6 1/2	8 1/2	12 1/2	0.67	200

*With or without regulating damper.



Standard Aisle Hood Air Deflectors are used to throw the fresh air out into the aisles in one direction. They provide the engineer with an inexpensive method of introducing a large volume of air wherever needed without causing annoying drafts. A curved damper reduces friction loss.

	Long	Wide	High	Lbs.	C.F.M. at 300 Vel.	Area Sq. Ft.
Small Size	8"	4 1/2"	4 1/2"	9 1/2	75	0.25
Large Size	8"	6"	6"	13	100	0.333

May also be made in any size to suit conditions.

Send for NEW BOOKLET of Complete Engineering Data