C1 PERFORATED FACE DIFFUSERS

Table of Contents



6100, 6150 56100, 56150 These perforated supply ceiling diffusers feature a neck mounted rotatable core with either a round or square steel perforated face is



6200, 56200 6200FR, 6290F These perforated supply, ceiling diffusers feature neck mounted curved blades with a is available. Fire rated available.

6500, 56500 6500FR, 6590FR

supply, ceiling diffusers feature neck mounted curved blades with a round neck. Aluminum supply and return variations available.



6300

This perforated supply, ceiling diffuser features face mounted deflectors and a prescored fiberglass backpan for field cutting. Available in steel construction



6390

fiberglass backpan for field cutting. Available in steel construction



supply ceiling diffusers feature face mounted as a fire rated variations are available.



perforated, ceiling returns feature a square



6100, 56100 (Supply)

6150, 56150 (Supply)

IntroductionC1-4
Dimensional Information & Frame StylesC1-5
Reference Charts
Performance DataC1-9
Engineering SpecificationsC1-11

6200, 56200, 6200FR (Supply) 6290FR 6290F (Return)

ZYUFR, 62YUF (Return)	
Introduction	C1-12
Dimensional Information	C1-13
Frame Styles	C1-14
Reference Charts	C1-17
Performance Data	C1-19
Engineering Specifications	C1-41

6500, 56500, 6500FR (Supply) 6590FR (Return)

Introduction	C1-12
Dimensional Information	C1-28
Frame Styles	C1-29
Reference Charts	C1-31
Performance Data	C1-33
Engineering Specifications	C1-43

6300 (Supply)

6390 (Return)

Introduction	C1-45
Dimensional Information	C1-46
Reference Charts	C1-46
Performance Data	.C1-48
Engineering Specifications	C1-51

6400, 56400, 6400FR (Supply) 6490, 56490 (Return)

+50, 00+50 (Return)	
Introduction	.C1-52
Dimensional Information	.C1-53
Frame Styles	.C1-55
Reference Charts	.C1-58
Performance Data	.C1-60
Engineering Specifications	.C1-93

6600, 56600, 6600FR (Supply) 6690, 56690 (Return)

C1-52
C1-75
C1-77
C1-80
C1-82
C1-95



These aluminum or steel perforated screen backpan are great for exhaust applications.

1100, 51100

6490, 56490

is available.

or steel perforated face

6600, 56600, 6600FR

feature face mounted

deflectors with a round neck. Aluminum or steel

ceiling returns feature a

or steel perforated face

These perforated supply ceiling diffusers

perforated face is

variation is also

available.

6690, 56690

is available.

These architectural, ceiling diffusers feature blades with a square or rectangular neck. Available in steel or A metric version is also



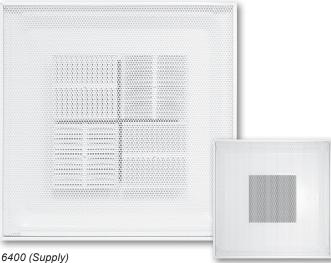
۵

C1 PERFORATED FACE DIFFUSERS

6400, 6600 | Adjustable Deflectors

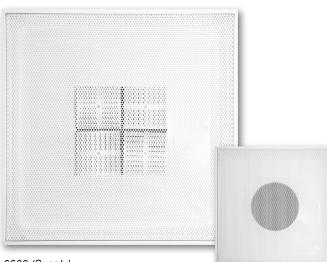


Excellence in Air Distribution



PERFORATED FACE DIFFUSERS

6490 (Return)



6600 (Supply)

6690 (Return)

Introduction: 6400, 6600 Series

The 6400/6600 series perforated diffusers uses modular air pattern controllers mounted to the backside of the perforated face, which are factory set for 4-way air pattern. They are field adjustable for 1, 2, or 3-way pattern or may be removed for down blow without reducing the core area. The 6400/6600 series diffusers exhibit typical isothermal throws of 12' to 17' for 4-way air distribution and 21' to 30' for 1-way air distribution. The modular capability makes the 6400/6600 ideal for installations with changing air pattern requirements such as tenant lease spaces. Matching returns are the 6490 and 6690 series.

MODELS

- 6400 Steel, Square Neck Supply Diffuser
- 6490 Steel, Square Neck Return Diffuser
- 56400 Perforated Aluminum with Steel Backpan, Square Neck Supply Diffuser
- 56490 Perforated Aluminum with Steel Backpan, Square Neck Return Diffuser
- 6400FR Steel, Fire Rated, Square Neck Supply Diffuser
- 6600 Steel, Round Neck Supply Diffuser
- 6690 Steel, Round Neck Return Diffuser
- 56600 Perforated Aluminum with Steel Backpan, Round Neck Supply Diffuser
- 56690 Perforated Aluminum with Steel Backpan, Round Neck Return Diffuser
- 6600FR Steel, Fire Rated, Round Neck Supply Diffuser

FEATURES

- Field adjustable 1, 2, 3, or 4-way blow patterns.
- Great choice for installations with changing air pattern requirements.

• 16"x16"

12"x24"

· Removable perforated face for easy cleaning.

PANEL SIZES

•

- 12"x12"
- 20"x20"
- 24"x24" 24"x48"

ACCESSORIES

- Optional Opposed Blade Damper (Model OBDFA)
- Optional Round Dampers
- Optional Insulated Backpan

FINISHES

- Standard finish is #44 British White.
- Optional finishes available.



PERFORATED FACE DIFFUSERS C1

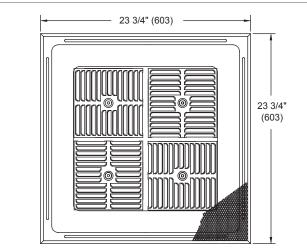
6400FR | Adjustable Deflectors, Fire Rated

6400FR (Fire Rated Supply) Dimensional Information

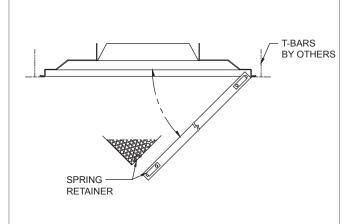
The 6400FR offers the safety of fire rated performance with the proven 6400 series diffuser. It is intended for use with Lay-in T-Bar application involving fire rated ceiling designs. It combines this flexibility with all of the features of the standard 6400 and is available exclusively in steel.

6400FR comes standard as a UL 263 classified assembly which incorporates a 3-hour rated fire damper and a 1/2" thick ceramic fiber blanket.

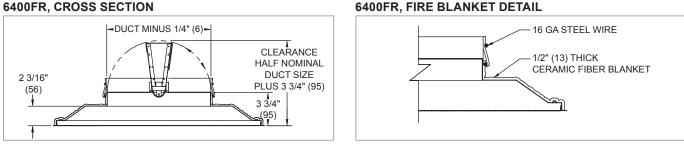
6400FR, SUPPLY FACE VIEW (24"x24" PANEL)



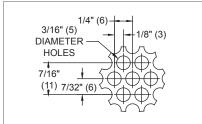
6400FR, HINGE DETAIL



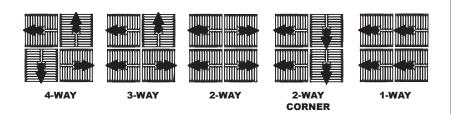
6400FR, FIRE BLANKET DETAIL



6400FR, PERFORATION DETAIL



6400FR, DISCHARGE AIR PATTERNS



6400FR, AVAILABLE INLET SIZES

	INLET SIZES
	6" x 6" (152 x 152)
NOMINAL	8" x 8" (203 x 203)
PANEL 24" x 24"	10" x 10" (254 x 254)
(610 x 610)	12" x 12" (305 x 305)
(010 / 010)	14" x 14" (356 x 356)

NOTE: Dimensions in parentheses are mm.

C1 PERFORATED FACE DIFFUSERS

6400FR | Adjustable Deflectors, Fire Rated

6400FR (Fire Rated Supply) Suggested Specification & Configuration

6400FR

The perforated face fire rated supply diffuser shall be Krueger model 6400FR. The diffuser must be UL classified fire rated ceiling diffuser assembly listed in Underwriters Laboratories <u>Fire Resistance Directory</u>. The diffuser shall be tested in accordance with UL 263 and must meet NFPA 90 requirements. The diffuser must be able to operate in 3-hour fire-rated, exposed grid suspended ceiling. The diffusers shall have a perforated face with 3/16" diameter holes on 1/4" centers resulting in a 51% free area. The diffuser backpan shall be constructed of heavy gage steel and provide a square neck.

The diffuser shall have four separate pattern deflectors mounted on the back of the perforated face and be field adjustable to provide vertical or 1, 2, 3, or 4-way horizontal projection of air in to the room. The perforated face must be easily removable from the backpan for access to the pattern deflectors for adjustments or removal.

PERFORMANCE

The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

FINISH

The paint finish shall be #44 British White and be an anodic acrylic paint, baked at $315^{\circ}F$ for 30 minutes. The paint thickness shall be 0.8 - 1.0 mils, gloss at 60° per ASTM D523-89 of 50 - 85%, pencil hardness per ASTM D3363-92A of HB – H, crosshatch adhesion per ASTM D3359-83 of 4B - 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.

- 1. SERIES: (XXXXXX) 6400FR - Square Neck, Steel Perforated Supply Diffuser with Face Mounted Deflectors, Fire Rated
- 2. PATTERN: (XX) 04 - 4-Way
- 3. DIMENSION 1 x DIMENSION 2: (XX)x(XX)

Excellence in Air Distribution

- 6"x6" 8"x8" 10"x10" 12"x12" 14"x14"
- 4. FRAME: (XXX)

F23 - Lay-in T-Bar

- 5. PANEL: (XX)x(XX) 24"x24"
- 6. FINISH: (XX)
 - 01 Mill
 - 03 Black Backpan with British White Face
 - 10 Alumican
 - 35 Black
 - 44 British White



SAMPLE CONFIGURATION: 6400FR - 04 - 10x10 - F23 - 24x24 - 44