## MODEL

- RA4 - Steel round diffuser, 4 cones and a large outer antismudge cone, fully adjustable


## Features

- Horizontal/vertical air distribution; units ship in vertical position
- Designed for heating and cooling applications
- $360^{\circ}$ discharge air pattern
- Excellent performance in variable air volume systems
- Designed for exposed duct or hard ceiling applications


## INLET SIZES

- Round: 6" - 20" (2" increments), $24^{\prime \prime 1}$


## COMPATIBLE OPTIONS AND ACCESSORIES

- Safety chain (optional on sizes under 12", standard on $12^{\prime \prime}$ and larger)
- PR10 - Steel, radial opposed blade damper, 12" max (neck mount)
- PRN100 - Steel, radial fan damper, 14" max (neck mount)
- PRD10 - Steel, radial opposed blade damper (duct mount)
- PRD100 - Steel, radial fan damper, 14" max (duct mount)
- PR12 - Steel, butterfly bladed damper (duct mount)
- RSG15 - Steel, round straightening grid (duct mount)
- PRSG15 - Steel, round straightening grid
- OBDDM - Steel, square or rectangular damper (duct mount)
- EX8 - Steel duct extractor with 1" blade spacing (duct mount)
- EX88 - Steel duct extractor with 2" blade spacing (duct mount)

NOTES: Not all options available with all configurations or one another. Some options must be ordered separately. See website for complete compatibility.
1 Safety chain included on all units with $12^{\prime \prime}$ or greater inlet size.



Round Diffuser, 4 Cones, Anti-smudge Cone, Fully Adjustable

## DIMENSIONAL DATA

NOTES: Dimensions in parentheses are millimeters (mm). Adjusting shaft projects above the neck of the diffuser on sizes 14 through 36. The maximum amount of this projection is Dimension P .


| DIMENSIONS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NOMINAL ROUND DUCT | GEILING OPENING DIAMETER B | OUTSIDE DIAMETER C | POSITION 1 (HORIZONTAL) D | POSITION 3 (VERTICAL) D | P |
| $6 "$ | 7" (178) | $173 / 8{ }^{\prime \prime}(441)$ | $31 / 16^{\prime \prime}(78)$ | 25/16" (59) | - |
| $8{ }^{\prime \prime}$ | 9" (229) | 23 1/4" (591) | $315 / 16{ }^{\prime \prime}(100)$ | 3" (76) | - |
| 10" | 11" (279) | 29" (737) | $47 / 8{ }^{\prime \prime}(124)$ | $33 / 4{ }^{\prime \prime}$ (95) | - |
| 12" | 13" (330) | $347 / 8{ }^{\prime \prime}$ (886) | $515 / 166^{\prime \prime}(151)$ | $41 / 2^{\prime \prime}$ (114) | - |
| 14 " | $15^{\prime \prime}$ (381) | $405 / 8^{\prime \prime}(1032)$ | $67 / 8{ }^{\prime \prime}$ (175) | 4 15/16" (125) | 21/2" (64) |
| 16 " | 17" (432) | $463 / 8{ }^{\prime \prime}(1178)$ | 79/16" (192) | 59/16" (141) | $25 / 8{ }^{\prime \prime}(67)$ |
| 18" | 19" (483) | 513/8" (1305) | 85/8" (219) | $63 / 8$ " (162) | $23 / 4^{\prime \prime}(70)$ |
| $20 "$ | 21" (533) | $561 / 4 "$ (1429) | 91/2" (241) | $7{ }^{\prime \prime}$ (178) | $31 / 2$ " (89) |
| $24 "$ | 25" (635) | $671 / 2$ " (1715) | $113 / 8{ }^{\prime \prime}$ (289) | 83/8" (213) | $31 / 8$ " (79) |

## PERFORMANCE AND DESIGN DATA

| SIZE |  | PERFORMANGE |  |  |  | DESIGN - BASED ON HORIZONTAL THROW |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NOMINAL | POSITION | NC (< 25) |  | NG (25-40) |  | $\begin{aligned} & \text { GFM @ } \\ & \text { NC= } \end{aligned}$ | SPACING @ $0.6 \mathrm{CFM} / \mathrm{sf}$ (fi) | MINIMUM CFM/sf |
| INLET |  | CFM | THROW (ft) | CFM | THROW (ft) |  |  |  |
| HZ = HORIZONTAL DISCHARGE AIR PATTERN / VT = VERTICAL DISCHARGE AIR PATTERN |  |  |  |  |  |  |  |  |
| 8" | HZ | 70-230 | 3-9 | 250-384 | 10-12 | 280 | 22 | 0.35 |
| $8{ }^{\prime \prime}$ | VT | 70-224 | 1-8 | 240-384 | 9-16 | 260 | N/A | N/A |
| 10" | HZ | 109-355 | 4-11 | 375-600 | 12-15 | 430 | 27 | 0.35 |
| 10" | VT | 109-339 | 1-9 | 363-545 | 10-18 | 400 | N/A | N/A |
| 12 " | HZ | 157-490 | 4-13 | 520-800 | 14-17 | 620 | 32 | 0.35 |
| 12 " | VT | 157-471 | 1-9 | 510-785 | 11-21 | 590 | N/A | N/A |
| $14^{\prime \prime}$ | HZ | 214-665 | 5-16 | 690-1069 | 16-20 | 825 | 37 | 0.35 |
| $14{ }^{\prime \prime}$ | VT | 214-641 | 1-11 | 689-1069 | 13-25 | 800 | N/A | N/A |
| $16{ }^{\prime \prime}$ | HZ | 279-838 | 6-18 | 900-1396 | 18-23 | 1000 | 41 | 0.35 |
| $16 "$ | VT | 279-815 | 1-11 | 838-1396 | 12-28 | 980 | N/A | N/A |
| $18{ }^{\prime \prime}$ | HZ | 353-1060 | 7-20 | 1120-1767 | 20-26 | 1350 | 47 | 0.35 |
| $18{ }^{\prime \prime}$ | VT | 353-1031 | 1-12 | 1060-1679 | 13-30 | 1300 | N/A | N/A |

NOTES: Information shown is abbreviated. See website for complete information. Dimensions in parentheses are millimeters (mm). Throw value ranges are given for isothermal conditions, unless otherwise noted, and a terminal velocity of 50 FPM ( $0.25 \mathrm{~m} / \mathrm{s}$ ). NC ranges are based on octave band $2-7$ sound power levels minus a room absorption of 10 dB , re $10^{-12}$ Watts. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. Design spacing is recommended distance between diffusers in an open plan office based on ADPI $>80 \%$, 9 ft ceiling, and $55^{\circ} \mathrm{F}$ discharge at 30 NC and $0.6 \mathrm{CFM} / \mathrm{sf}$. Minimum CFM/sf is based on recommended spacing at $80 \%$ ADPI. Design recommendations not applicable to vertical throw. "N/A" in design table denotes inapplicable situations or those which do not result in ADPI>80\% and are therefore not recommended.

