Krantz

Ceilling air outlets
Turbulent mixing air flow

Air Distribution Systems

Krantz

From tradition, committed to the future

Clean air is fundamental to quality of life and health. It is therefore essential to be attentive to the air that we breathe on a daily basis. We take this task very seriously. With our state-of-the-art technology, we meet the highest demands for air distribution systems and the strictest requirements for air quality control.

Krantz offers a wide range of the most diverse services related to air under one roof!

Air Distribution Systems

1 Ceiling air outlets

Radial slot outlet RL-Q2 / RL-R2
Radial slot outlet RL-C2

Features:

- With square or circular face
- With square or circular bar array
- Radial jet dispersion
- Various bar segments can be closed, thus enabling asymmetric jet dispersion
- Convenient screw fastener from below
- Also available as return air inlet with/without bars

	RL-Q2/RL-R2	RL-C2
Volume flow rate range:	12.5 – 280 l/s [45 – 1 000 m^3/h]	22 – 272 l/s [80 – 980 m^3/h]
Square face:	300 – 625	
Sizes:		375, 470, 600 and 750
Discharge height:	2.5 – 4.5 m	

References:

1 Radisson SAS Hotel, Cologne
2 CRTD - Technical University of Dresden
3 Maul Belser, Nuremberg

1 Ceiling air outlets

Radial outlet RA-N

Features:

- Radial, horizontal jet dispersion
- With circular or square face
- Low height
- Connection to flexible tube or spiral-seam duct via adapter or connection box
- Convenient screw fastener from below
- Also available as return air inlet

	RA-N
Volume flow rate range:	11 – 555 l/s [40 – 2 000 m³/h]
Nominal sizes:	DN 100 to DN 500
Discharge height:	2.2 – 4.5 m

References:

1 MM Migro Schöntal-Center, Füllingdorf, Switzerland
2 Savings bank "Kreissparkasse", Cologne
3 Athens International Airport, Athens

Radial outlet RA-N3

Features:

- Radial, horizontal jet dispersion; therefore high level of thermal comfort
- Available in 2 sizes, with square or circular face
- High volume flow rate per size
- Low height
- Connection to flexible or spiral seam duct via reducer or connection box
- Easy screw fastening from below
- Can also be used as a return air inlet

	RA-N3
Volume flow rate range:	26 – 400 l/s [95 – 1 440 m^3/h]
Nominal sizes:	DN 355 und DN 500
Discharge height:	2.4 – 4.5 m
Temperature differential:	–12 K to +5 K (+10 K up to 3 m ceiling height)

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References:

1 Apparatus Construction Gauting GmbH, Dresden
2 CRTD - Technical University of Dresden
3 Dreifaltigkeits-Hospital, Wesseling

1 Ceiling air outlets

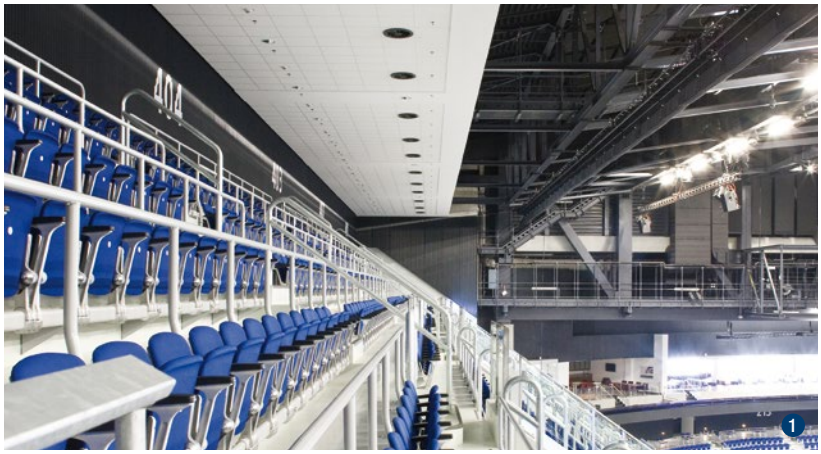
Adjustable radial outlet RA-V

Features:

- Stepless discharge direction adjustment from horizontal to vertical, manually or with electric servomotor
- Radial jet dispersion
- Shorter heating-up period with vertical discharge direction
- Low design
- Large discharge heights

	RA-V
Volume flow rate range:	61 – 1 530 l/s [220 – 5 500 m³/h]
Nominal sizes:	DN 200 to DN 500
Discharge height:	2.5 – 13 m

Air jet pattern,
vertical discharge (heating mode)



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References:

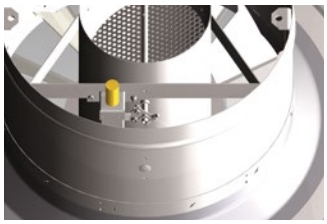
1 O2 World, Berlin
2 Nuremberg Fairgrounds
3 Radisson SAS Hotel, Cologne

Adjustable radial outlet with core tube RA-V2

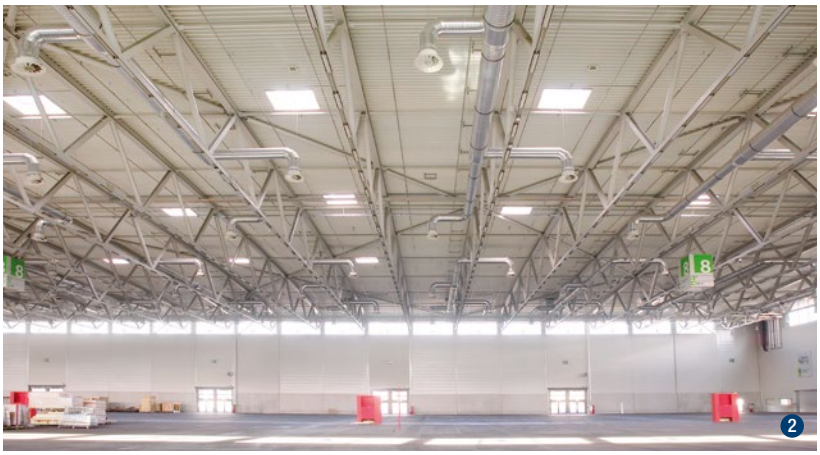
Features:

- Discharge direction adjustable from horizontal to vertical (downwards), manually or with electric servomotor
- Radial jet spread
- Shorter heating-up time due to vertical discharge
- Low design
- Large discharge heights

	RA-V
Volume flow rate range:	111 – 4 444 l/s [400 – 16 000 m³/h]
Nominal sizes:	DN 250 – DN 900
Discharge height:	2.8 – 15 m



Self-acting thermostatic control unit! High volume flow rates and discharge heights



References:

1 Office building, Bonn
2 Cologne Fairgrounds
3 Siemens, Amberg

1 Ceiling air outlets

Variable twist outlet with guide ring DD-VL

Features:

- Adjustable discharge direction from horizontal to vertical, manually or with servomotor
- Radial jet dispersion
- Shorter heating-up period with vertical discharge direction
- Connection to spiral-seam duct or connection box
- Very large penetration depth when heating
- Low sound power level even with high volume flow rates

	DD-VL
Volume flow rate range:	170 – 3 055 l/s [600 – 11 000 m³/h]
Nominal sizes:	DN 315, DN 400, DN 500, DN 630 and DN 710
Discharge height:	3 – 10 m

Air jet pattern, vertical discharge (heating mode)

Air jet pattern, horizontal discharge (cooling mode)

References:

1 Bremen Fairgrounds
2 RTL Media Corner, Brussels
3 Cologne Fairgrounds

Variable twist outlet with jet straightener DD-VG

Features:

- Adjustable discharge direction from horizontal to vertical, manually or with servomotor
- Radial jet dispersion
- Shorter heating-up period with vertical discharge direction
- Connection to spiral-seam duct or connection box
- Same construction as DD-VL, but in addition with jet straightener
- Very large penetration depth when heating

	DD-VG
Volume flow rate range:	170 – 3 055 l/s [600 – 11 000 m³/h]
Nominal sizes:	DN 315, DN 400, DN 500, DN 630 and DN 710
Discharge height:	3 – 28 m

Air jet pattern

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References:

1 Lufthansa AG, Hamburg
2 Post Sorteercentrum, Antwerpen
3 Freiburg Fairgrounds

1 Ceiling air outlets

Induction outlet with preset discharge direction IN-N6

Features:

- Stable single jets for alternating or one-sided inclined discharge, even under reduced volume flow rates, for all ceilings
- Fixed discharge angle of 45° to horizontal
- With connection box and circular connection spigot
- Momentum control device manually adjustable for the optimum adjustment of jet momentum for designing volume flow rate, and for setting one-sided air discharge at half volume flow rate
- Mounting height up to 7 m when heating

	IN-N6
Volume flow rate range:	28 – 85 l/(s·m) [100 – 300 m³/(h·m)]
Element width:	90 mm
Standard lengths:	1, 1.2 and 1.6 m
Discharge height:	4 – 7 m

Air jet pattern

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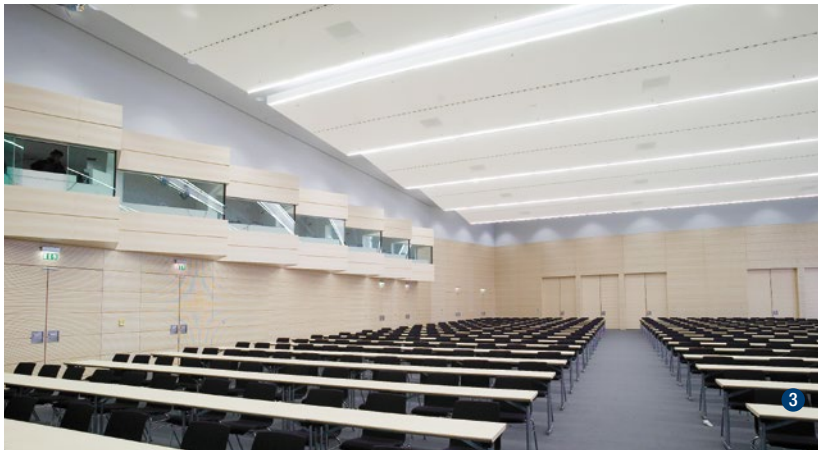

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References:

1 CRTD - Technical University of Dresden
2 Guest House Petersberg, Bonn
3 Nuremberg Fairgrounds

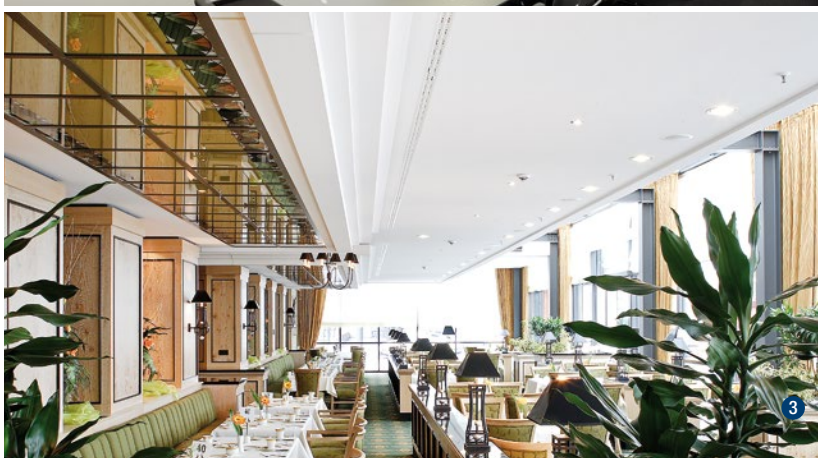
Adjustable induction outlet IN-V

Features:

- Stable single jets with alternate or one-sided discharge, for all ceilings
- Discharge direction adjustment from horizontal to nearly vertical
- Type IN-V2: element width: 28 mm per row; also available in 2, 3 or 4 rows
- Type IN-V3: element width: 15 mm; 1 row
- With connection box and circular connection spigot
- Also available as return air inlet
- Separated installation possible in plasterboard

	IN-V
Volume flow rate range:	2.8 – 110 l/(s·m) [10 – 400 m³/(h·m)]
Element width:	15 or 28 mm
Lengths:	1 050 mm or flexible
Discharge height:	2.5 – 5 m

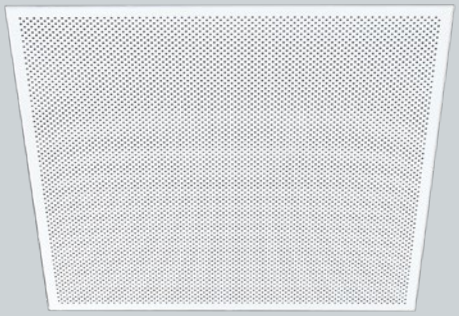
Air jet pattern,
discharge angle approx. 45°



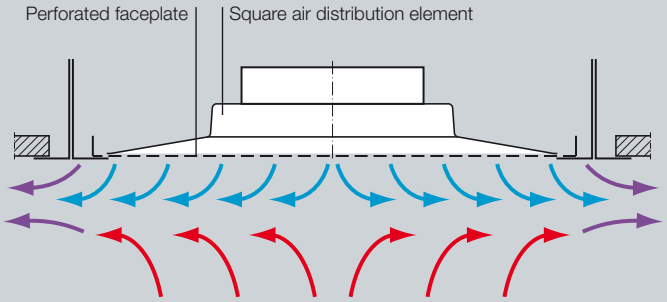
References:

1 Apparatus Construction Gauting GmbH, Dresden
2 Office building, Cologne
3 MARITIM Hotel, Dresden

1 Ceiling air outlets



Functional principle of air distribution

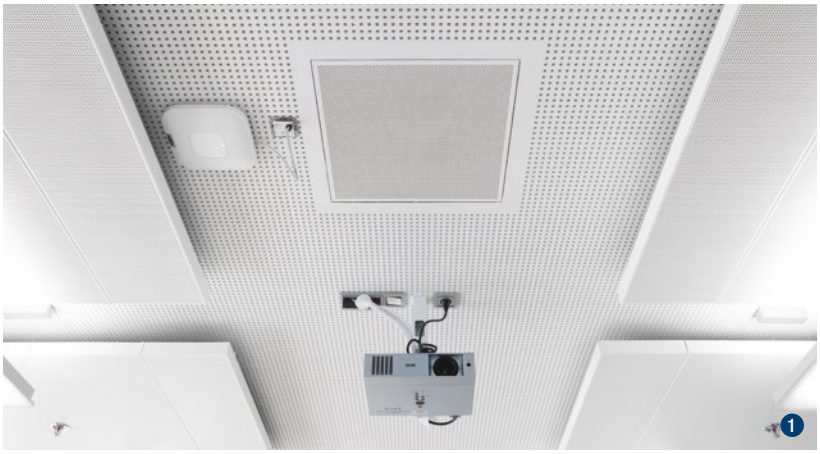


Opticlean OC-Q

Features:

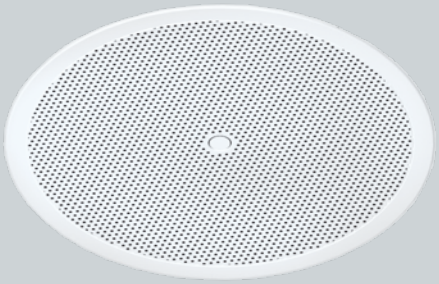
- Radial, horizontal jet spread at high level of thermal comfort
- Perforated square face, grid dimensions: 600 x 600 mm and 625 x 625 mm
- Square design for integration into gypsum board ceilings
- Very uniform air discharge; as a result, no or extremely low dirt accumulation on the ceiling
- Segment covers enable supply air distribution to be adapted to room geometry, e.g. a narrow corridor with 180° discharge

	OC-Q
Volume flow rate range:	11 – 239 l/s [40 – 860 m³/h]
6 sizes:	215, 270, 330, 400, 500, 600, 625
Discharge height:	2.5 – 4.5 m



References:

1 John Deere European Parts Distribution Center, Bruchsal
2 Savings bank "Kreissparkasse", Euskirchen
3 Office building, Dreieich



Circular Opticlean OC-R

Features:

- Steady radial jet spread resulting in high thermal comfort
- Perforated circular faceplate, hole diameter 3 mm
- Strong reduction of dirt accumulation on the ceiling thanks to very even air distribution and the resulting air cushion
- Unobtrusive integration into suspended ceilings
- Also usable as return air inlet

	OC-R
Volume flow rate range:	25 – 169 l/s [90 – 610 m³/h]
Sizes:	300 and 500
Discharge height:	2.5 – 4.5 m

Air jet pattern

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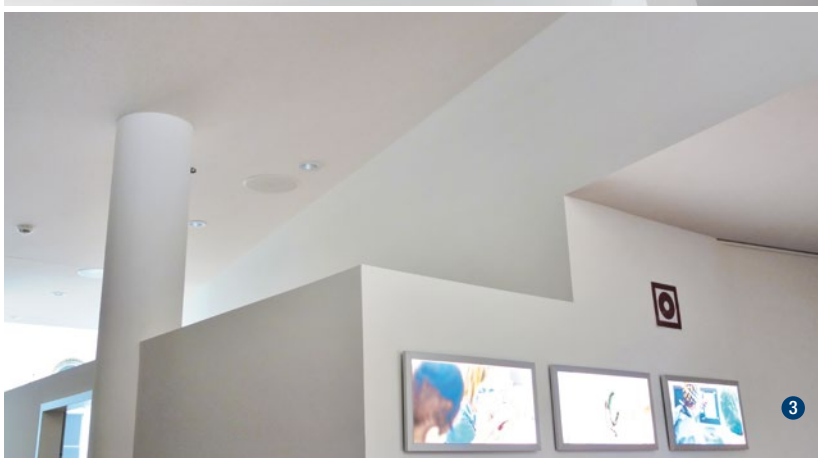

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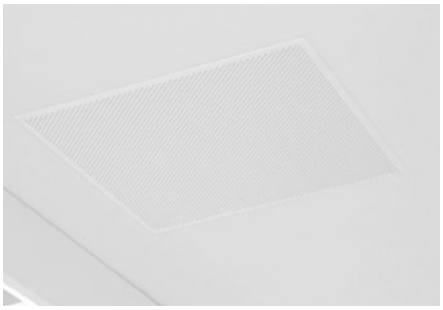
References:
1 - 3 Catholic Marienhospital, Hamburg

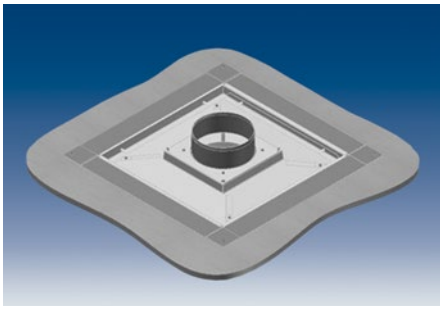
1 Ceiling air outlets

Opticlean
– the solution for a comfortable thermal environment



Opticlean OC-Q with square faceplate

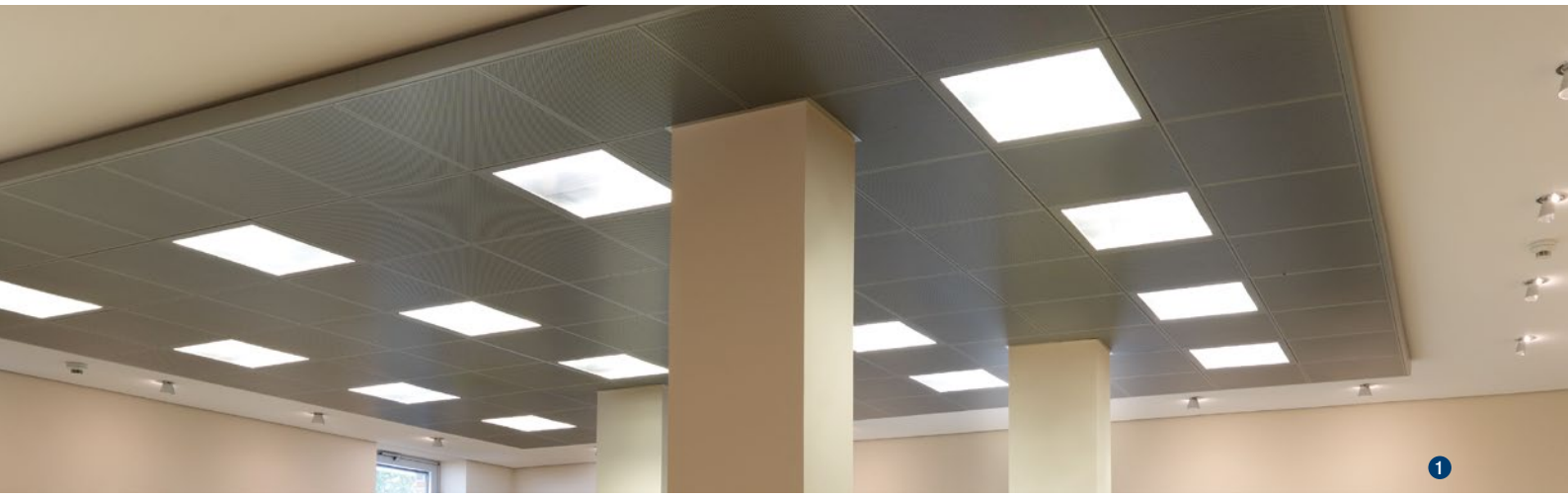
Opticlean OC-R with circular faceplate

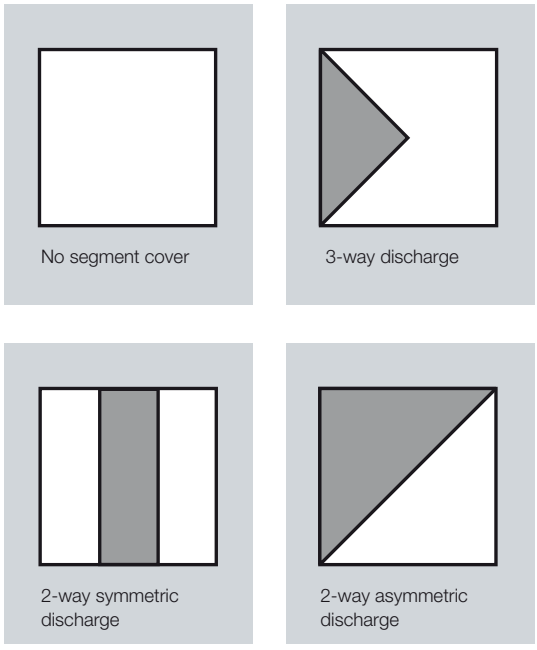


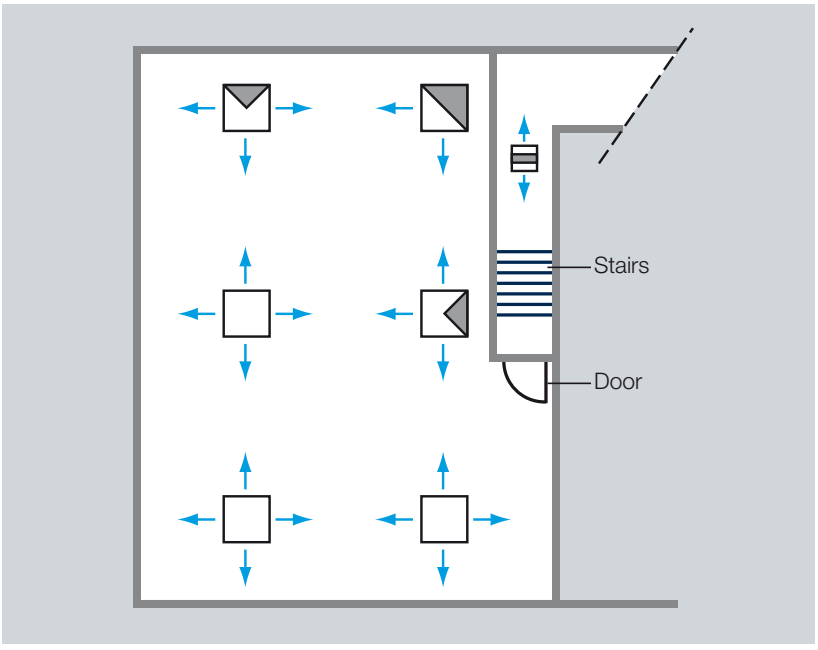
Opticlean OC-Q – installation with mounting frame for gypsum board ceiling

References:

1 Liebherr-Werk Ehingen GmbH, Ehingen
2 Spreedreieck Berlin
Photographer: Foto Krumnow, Bannewitz, Architektur-, Industrie- und Werbefotografie







Principle sketch of Opticlean air outlets with segment covers to adapt the discharge pattern

References:

1 Krantz GmbH, Aachen
2 Opticlean – Installation in plasterboard ceiling in a retirement and nursing home

K 189 e / 2019 – Subject to technical alterations –

Krantz GmbH
Uersfeld 24, 52072 Aachen, Germany
Phone: +49 241 441-1, Fax: +49 241 441-555
info@krantz.de, **www.krantz.de**