

LYRA CHILLED BEAMS

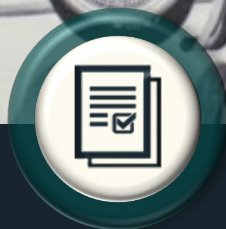
High comfort solutions—
Exceptional flexibility & performance



Corporate Overview



Energy
& Environmental
Focus



Patented &
Certified
Products



U.S & Global
Footprint



Engineered
Air Quality &
Data Center
Solutions



Engineered
Air Distribution
& Sound
Solutions



OEM,
Key Account &
Sales Rep
Route To Market



Service
& Support

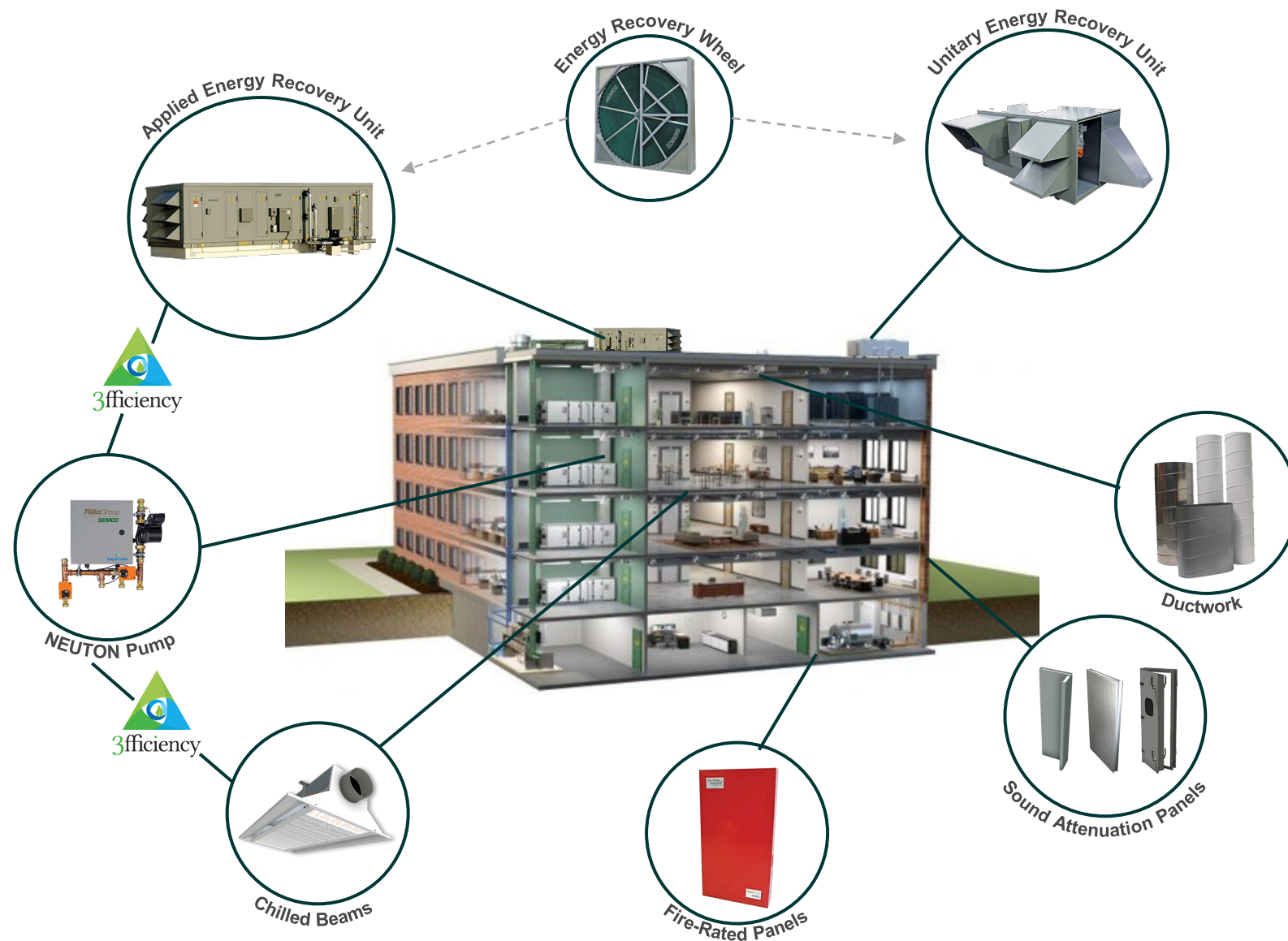


Award Winning
& Industry
Recognized

Who we are & what we do

FläktGroup
SEMCO

FläktGroup SEMCO Products For Commercial Applications



Education



Offices



Healthcare & Labs



Manufacturing & Automotive



Public Buildings & Entertainment



Sports Facilities



Datacenters





FläktGroup SEMCO Superior Sales Support & Service



FläktGroup SELECT

WELCOME TO SELECT - YOUR RESOURCE FOR OPTIMAL INDOOR AIR CLIMATE

Quick Select

Calculate

Project

IQ STAR ORION II Chilled beam (IQHA)

Properties

Length:	100
Coil function:	Cooling
Coil:	Cooling left
Pt Function:	With
Flexible hoses:	Without
Grille:	Adjustable horizontal z

ADVANCED PRODUCT PROPERTIES

Horizontal deflection: 0

Vertical deflection: 0

Parameters

Number of units: 1

Air pressure drop: 1000

RESULT

Power	481	1892	2230	btu/h
Coil power	437	1175	1247	btu/h
Supply air power	44	517	992	btu/h
Power (all units)	481	1892	2230	btu/h
Sound Lp10A dBA	< 20	< 20	25	dB(A)

EXPRESS SELECT

FläktGroup SEMCO

Colleen Devlin Semco
colleen.devlin@flaktgroup.com

Home | Selection Tool | Quote Request | Administrator | Account | Sign Out

Print Schedule | Preview Proposal

Read-only mode

Project | Global Input | Input | Output | Energy Analysis

Project Information

Project Date	08/28/2018
Quote Valid Through	2nd Half 2018
Project Name	Assembly Dental



What are chilled beams?

Chilled beams combine radiant cooling with conventional overhead ventilation to:

- Reduce energy usage
- Improve comfort levels
- Reduce the architectural impact of ductwork and other mechanical systems

Designed for non-residential applications where there is a high temperature load and/or rooms that require individual comfort control.

Chilled beams often are used in lieu of a fan coil unit.



FläktGroup
SEMCO

SPECIALIZED
HEALTHY
AIR SOLUTIONS

Indoor Comfort Components



AIR TEMPERATURE



HUMIDITY



AIR QUALITY



AIR VELOCITY



SOUND LEVEL



LIGHTING LEVEL



CLOTHING
& ACTIVITY



COMFORT

OPTIMIZED COMFORT WITH CHILLED BEAMS



FULLY MIXED AIR

Low-temperature gradient



LOW NOISE

No fan in Chilled Beams



FRESH AIR

Right humidity & temperature



EVEN AIR DISSEMINATION

No pockets of concentrated air



ENVIRONMENTALLY FRIENDLY

- Improves the indoor environment with a low velocity (draught-free) solution
- Low noise level to surrounding area



ECONOMICAL & ENERGY EFFICIENT

- Lower airflow means that you can use a smaller AHU
- Low temperature gradient – more uniform room temperature



EXPERTISE DRIVEN

- No fans, no filters & no drain for condensation means that less maintenance is required over time

Indoor Air Quality

- Increased ventilation to each space (all applications)
- Better air distribution (circulation) within the space
- Lower noise levels than most HVAC systems ~30 db(A)
- Low velocity – no perceived draft



SEMCO Chilled Beam Solutions



JUNO IQHC

Highest cooling with
lowest air & water
pressure drop



LYRA II IQCC

Low noise level with
high flexibility & high
cooling capacity



NOVA II IQFI

Exposed active chilled
beam suitable for
many ductwork
system types



AURORA IQSA

Narrow 1-foot-wide
active beam for
ceiling mount



ORION II IQHA

Very low noise level –
perfect for hotel &
hospital rooms



NEUTON

Active condensation
control for chilled
beams

LYRA II IQCC RECESSED OR EXPOSED CHILLED BEAM

LYRA is the right choice for modern buildings requiring high comfort, low energy consumption and flexibility. Quietly distributes air from all 4 sides.

Three main functions:

1. Ventilation
2. Cooling
3. Heating

LYRA will supply the right indoor climate for applications like offices, schools, hospitals and retail developments



LYRA

RECESSED OR EXPOSED CHILLED BEAM

- Optimum energy consumption
 - High flexibility & ease of installation
 - Available with less than 20 dB of sound level which provides practically silent operation
 - Compact with high cooling capacity
 - Less maintenance thanks to no moving parts
-
- 2X2 & 2X4 ceiling configurations
 - Air flow range: 8 – 151 CFMs





JUNO IQHC

Highest cooling with lowest air & water pressure drop active beam



LYRA II IQCC

Low noise level with high flexibility & high cooling capacity



NOVA II IQFI

Exposed active chilled beam suitable for many ductwork system types



AURORA IQSA

Narrow 1-foot-wide active beam for ceiling mount



ORION II IQHA

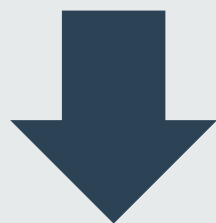
Very low noise level – perfect for hotel & hospital rooms



NEUTON

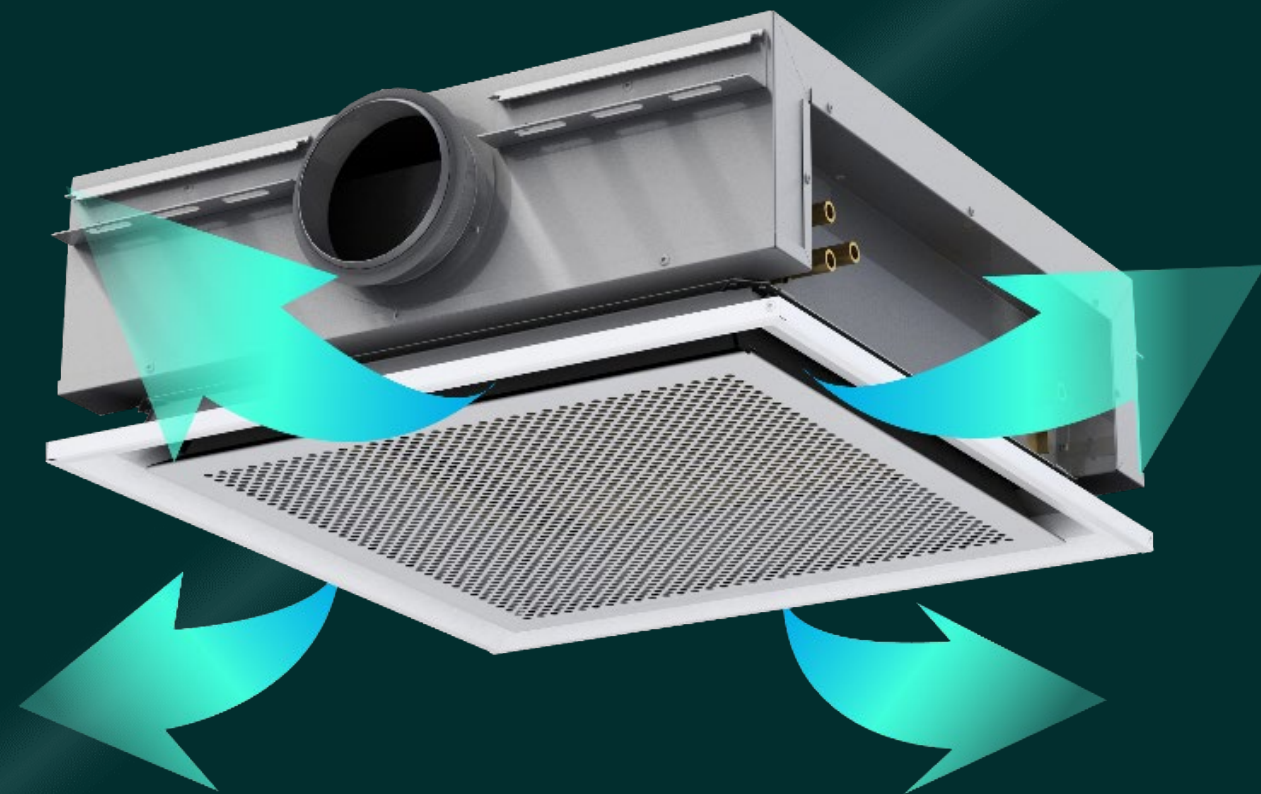
Active condensation control for chilled beams

**HIGH EFFICIENCY
LARGE SAVINGS**



LOW LIFE CYCLE COST

- Smaller AHU size for the system
- Low maintenance
- Free cooling capability
- Reduced energy consumption by



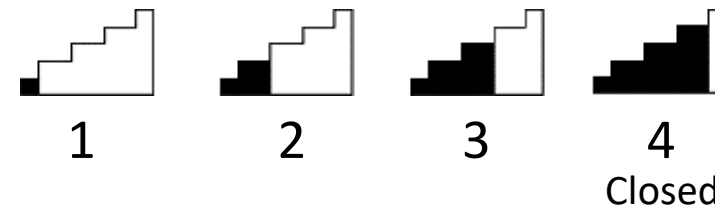
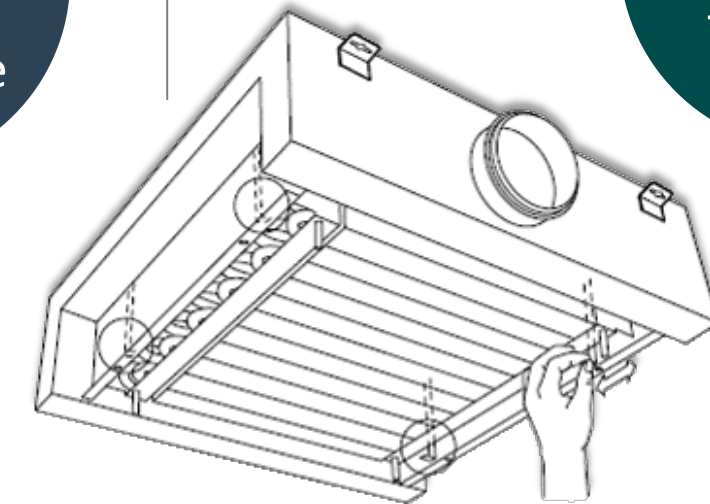
ADJUSTABLE INDUCTION

- Adjustable induction on site (manual)
- Symmetric or dissymmetric airflow
- 3 adjustable rails
 - One closed position
 - 3 open position

Easy to
change
induction
rate on-site

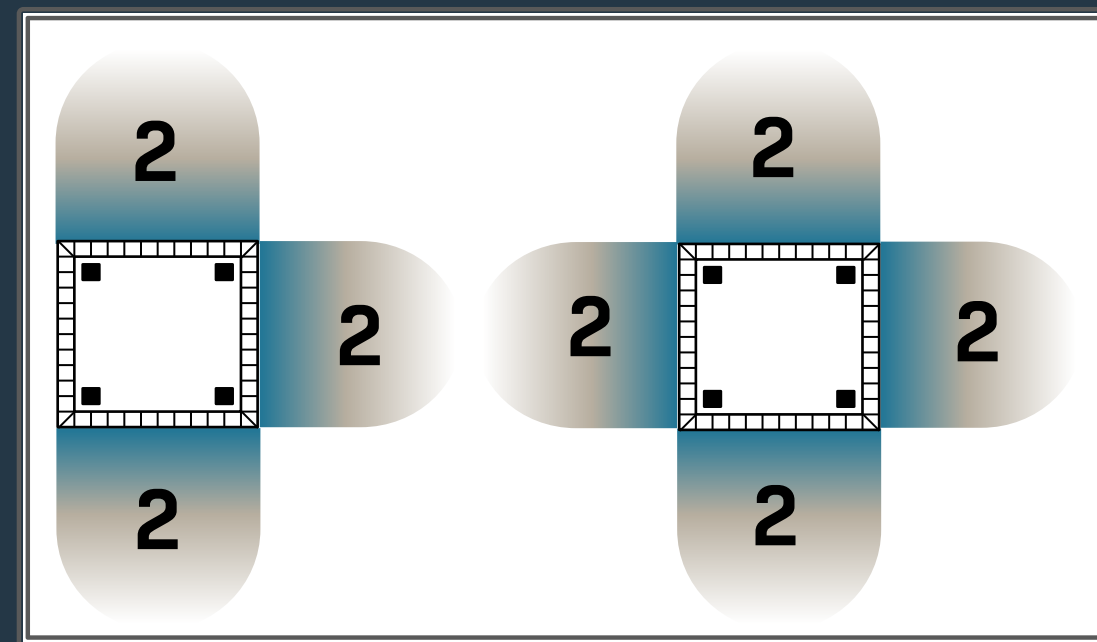
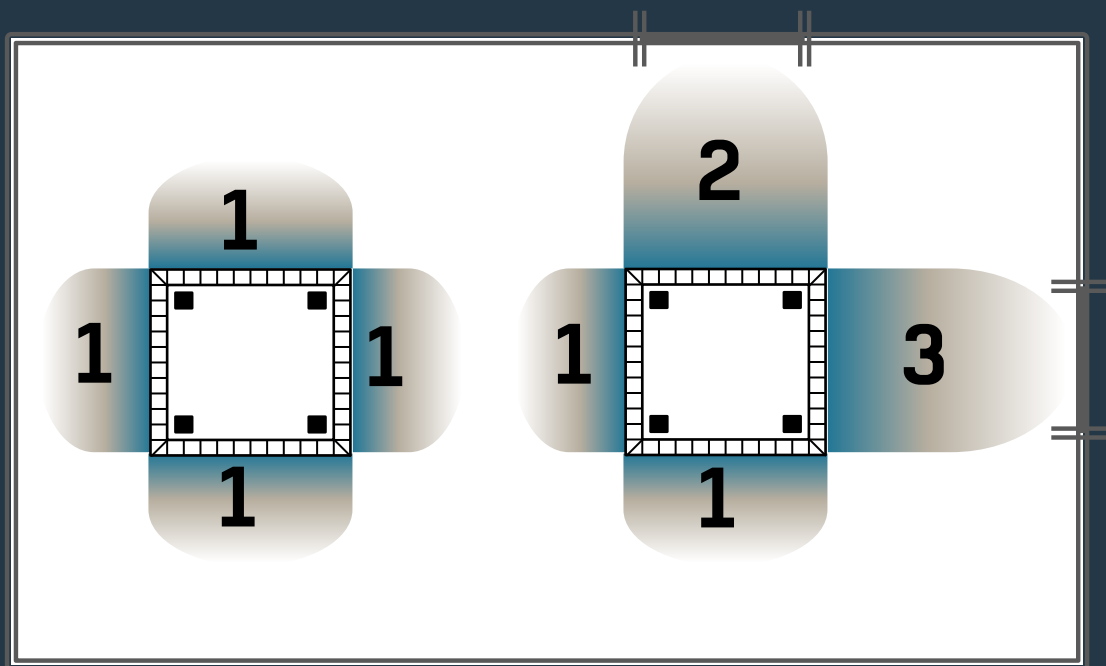
Building
design
flexibility

No tools
required for
adjustments



SYMMETRIC OR DISSYMMETRIC AIRFLOW

- Full-time control – possible to change at any time



BOOST AIRFLOW

- 4 boost versions are also available
 - 2 versions with fixed nozzles
 - 2 versions with 4 adjustable positions on each side

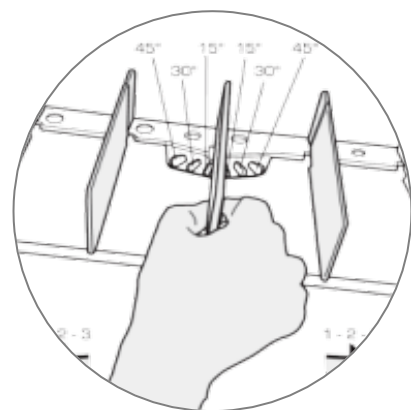


HIGHER AIRFLOW

Air flow in CFM	2X2	2X4
Low	0 – 32	0 – 53
Medium	0 – 44	0 – 72
High	0 – 57	0 – 89
Fixed boost airflow Ø125	98	-
Fixed boost airflow Ø160	-	152
Boost airflow Ø 125	30-99	45-130
Boost airflow Ø 160	-	132-170

FLOW PATTERN CONTROL

- Air diffusion angles: 0° - 60° - 85° - 115°F
- FPC is accessible without removing the front plate



- Increased comfort
- No tools required
- Building design flexibility

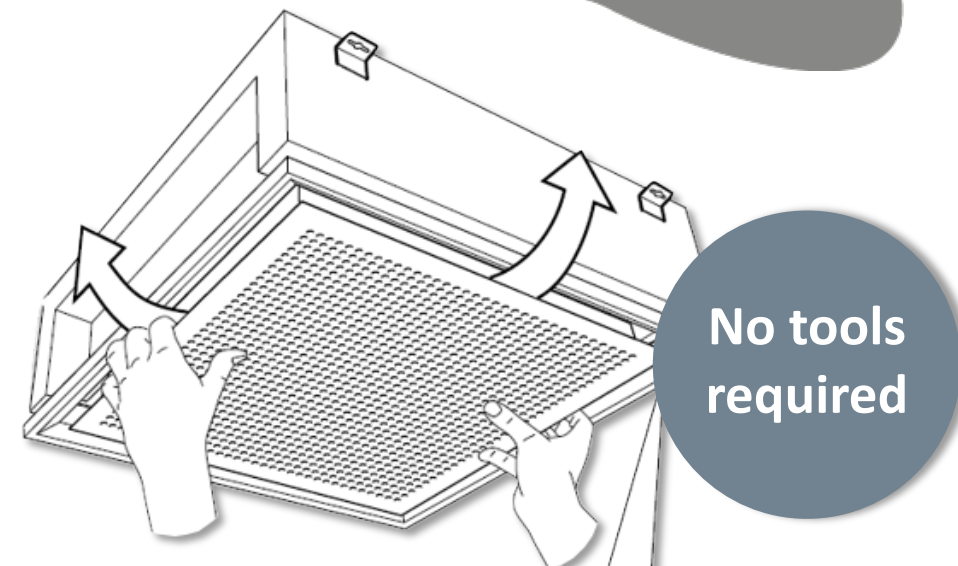
FLOW PATTERN CONTROL

Adjustable flow patterns



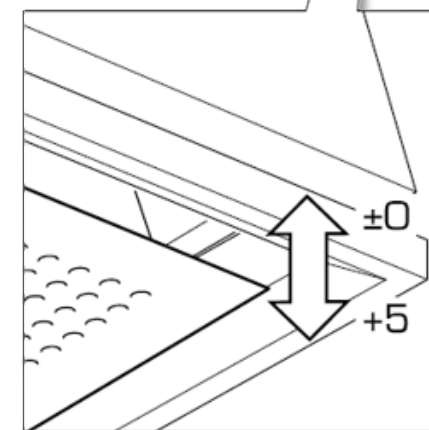
CONTROL THE COANDA EFFECT ACHIEVE DRAUGHT FREE INDOOR AIR

- Increased comfort
- Increased flexibility
- Easy installation



Larger airflow
→ *Larger gap*

Lower airflow
→ *Smaller gap*



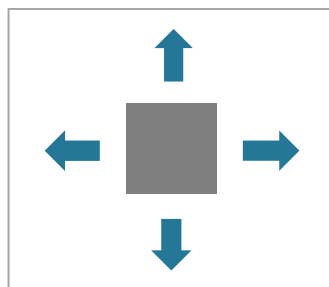
RECESSED OR EXPOSED INSTALLATION

- Integrated or flush mounted in false ceiling - recessed installation
- Free hanging version - exposed installation
- Two standard ceiling grid sizes
 - 2' x 2'
 - 4' x 2'



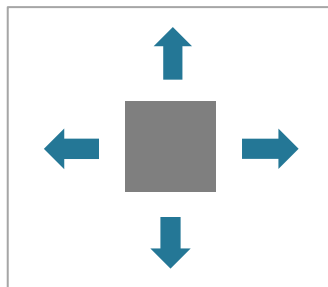
COMFORT WITH LOW NOISE LEVELS WHATEVER THE INSTALLATION TYPE

Single Office



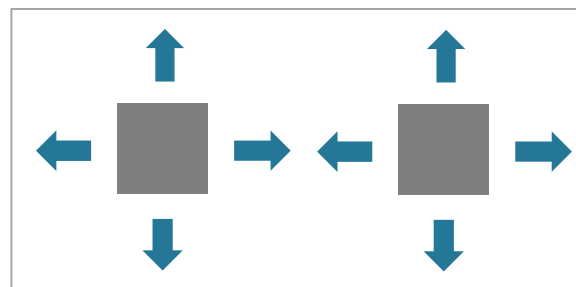
- 27 CFM
- < 20 dB

Small Office



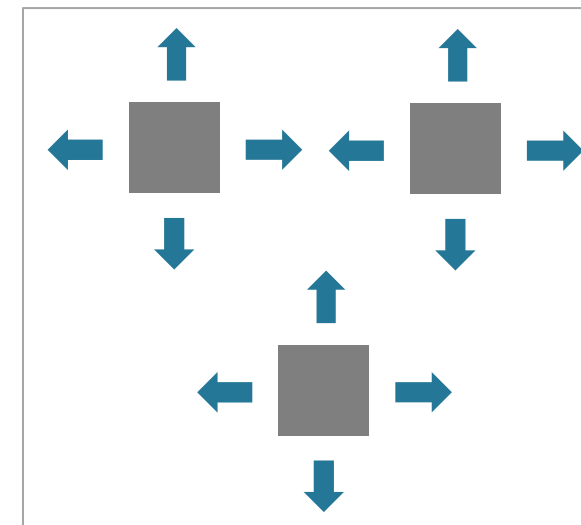
- 53 CFM
- < 20 dB

Medium Office



- 106 CFM
- 23 dB

Large Office



- 159 CFM
- 24 dB

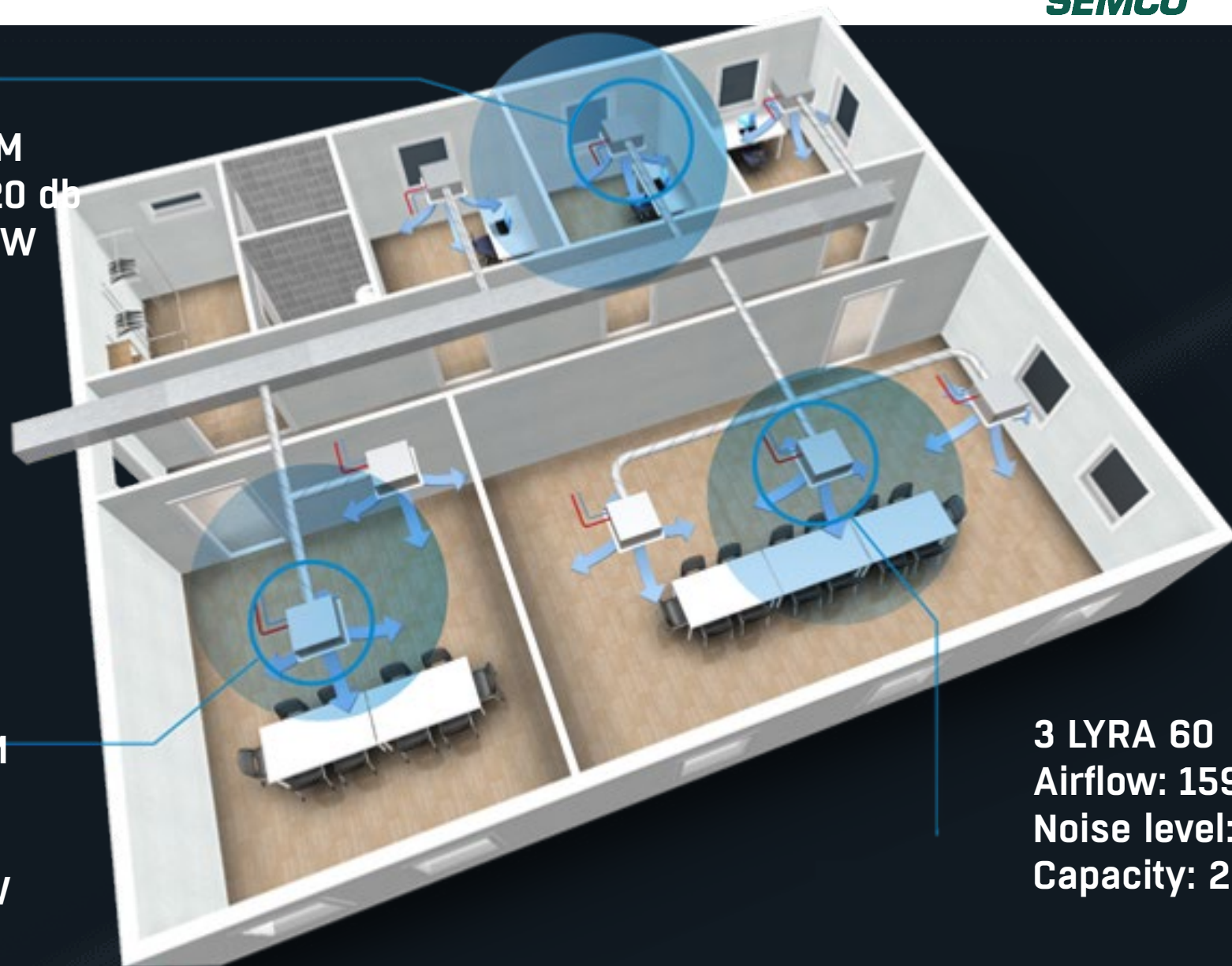
LYRA – Quiet Comfort

Lyra- Quiet

1 LYRA 60
Airflow: 27 CFM
Noise level: <20 db
Capacity: 857 W

2 LYRA 60
Airflow: 106 CFM
Noise level: <23 db
Capacity: 1714 W

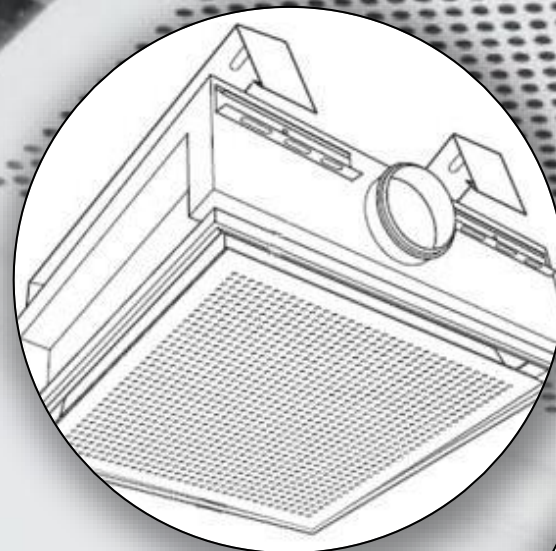
3 LYRA 60
Airflow: 159 CFM
Noise level: <24 db
Capacity: 2571 W



EASY INSTALLATION OPTIONS!

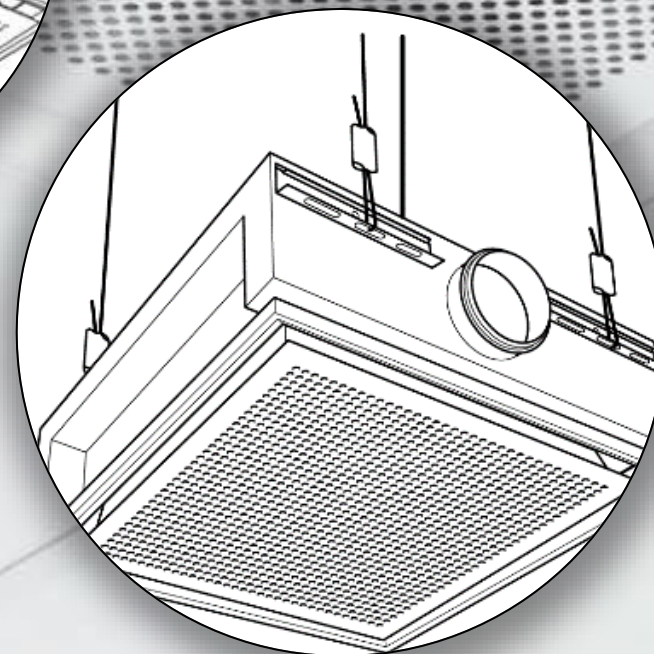
Fastening brackets:

1 person needed for installation



Free-hanging:

2 people needed for installation

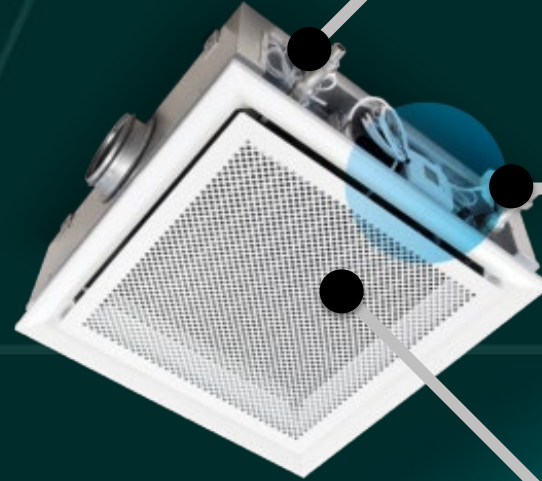


CONCEALED INTEGRATED CONTROLS

- Connected sensors & actuators
- Pre-configured controller
- Push-on connections
- Simply connect LYRA to 24V



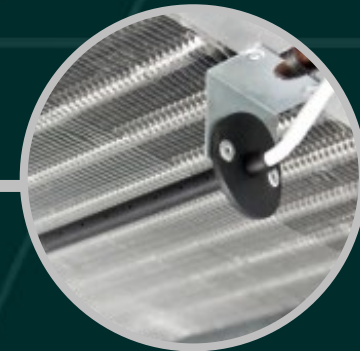
- Plug & Play solution
- Fast Installation
- Fast commissioning



**Condensation
Sensor**



**Heating /
Cooling
Actuators**



**Temperature
Sensor**

LYRA – Benefits By Audience



PROPERTY OWNER

- High indoor air climate comfort – silent and draught free diffusion
- Flexibility in building layout – adjustable capacity and air diffusion
- Low life cycle cost – reduced energy consumption and maintenance costs



CONSULTANT

- Energy saving functions such as free cooling and occupancy detection
- Ease of layout design – compact unit with high cooling capacity
- High indoor air climate comfort – silent unit and low air velocity in the room



CONTRACTOR

- Quick and easy installation – smart fastening brackets system
- Simple commissioning – no tools required
- Low maintenance – no moving parts & no condensation tray

Thank you for your attention!

