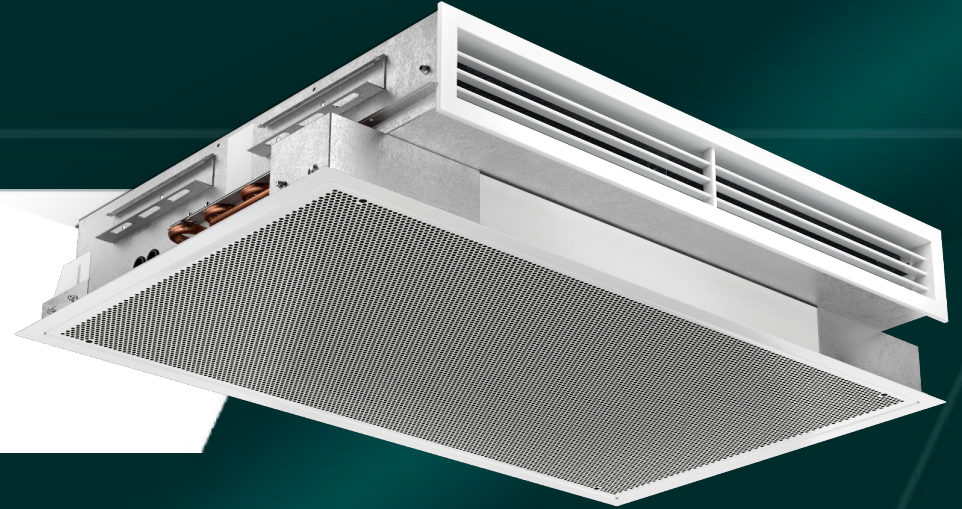


ORION CHILLED BEAMS

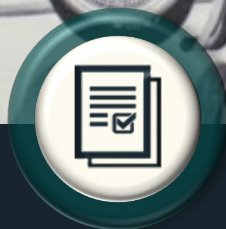
Ideal for Hotel Room Applications



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

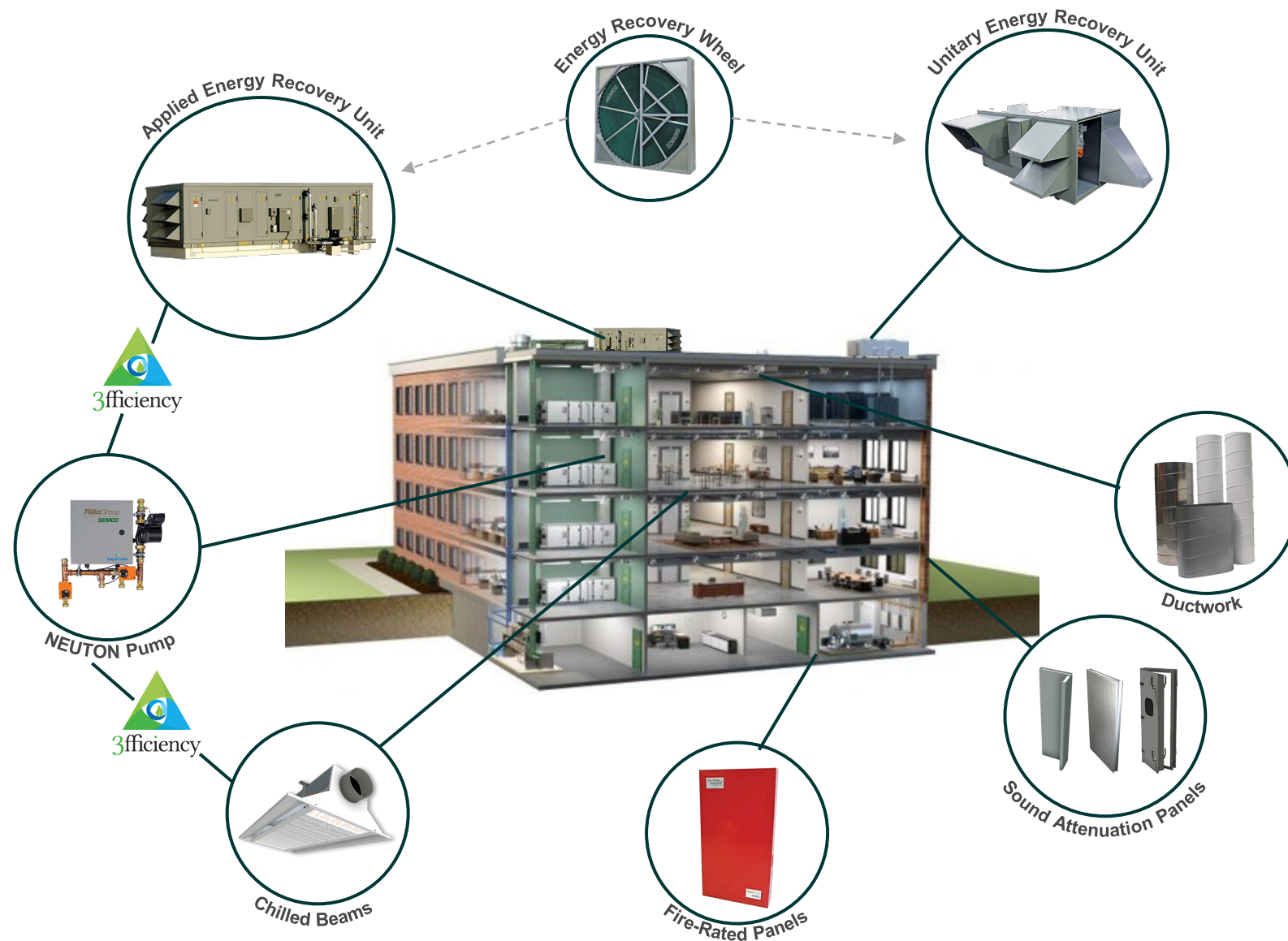


Award Winning
& Industry
Recognized

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



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



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

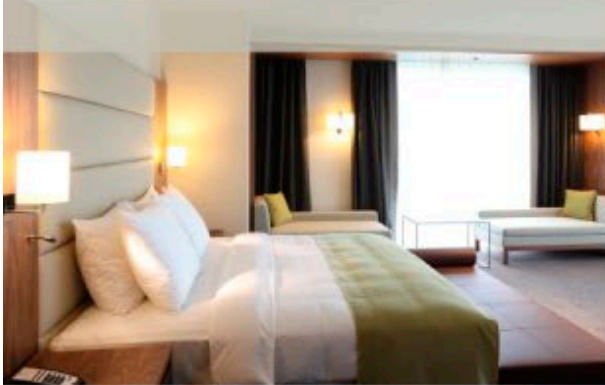


EXPERTISE DRIVEN

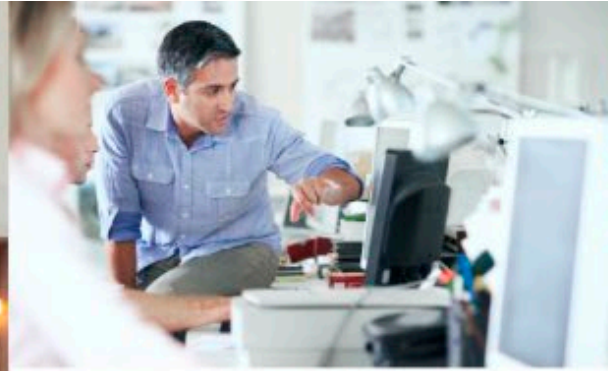
- No fans, no filters & no drain for condensation means that less maintenance is required over time

Chilled Beam Applications

HOTELS & RESTAURANTS



OFFICES



EDUCATION



SHOPPING CENTRES



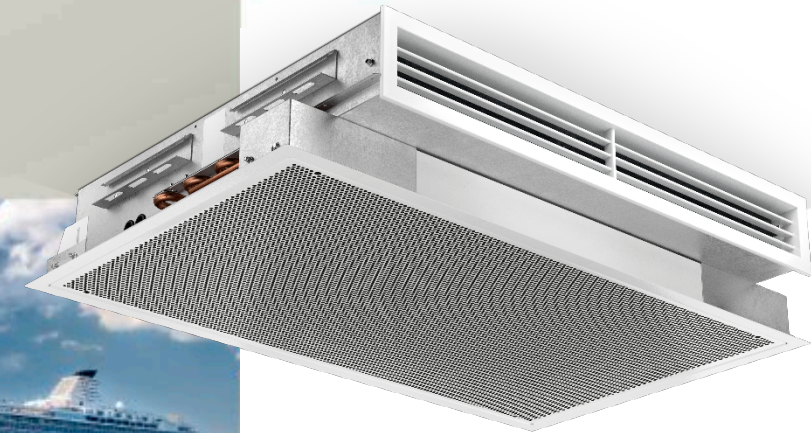
HYGIENE



RESIDENTIAL



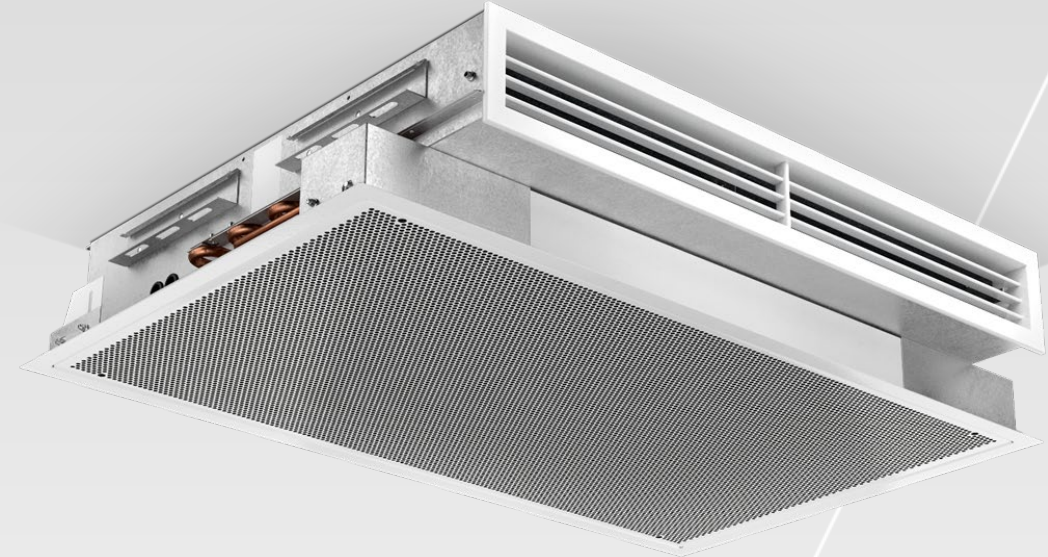
MARINE



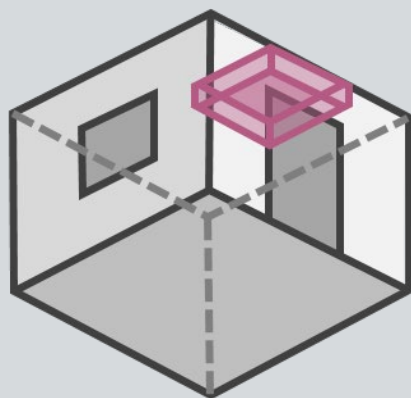
ORION II BULKHEAD OR HOTEL ROOM SOLUTION

BENEFITS:

- Energy efficient solution with demand controlled ventilation providing by our chilled beam ORION II and our motorized PI actuator
- Three main functions: ventilation, cooling and heating for hotel room or bulk head installations.
- Very silent solution without using fans- ranges from >20dB to 36dB. Quieter than soft library sounds.



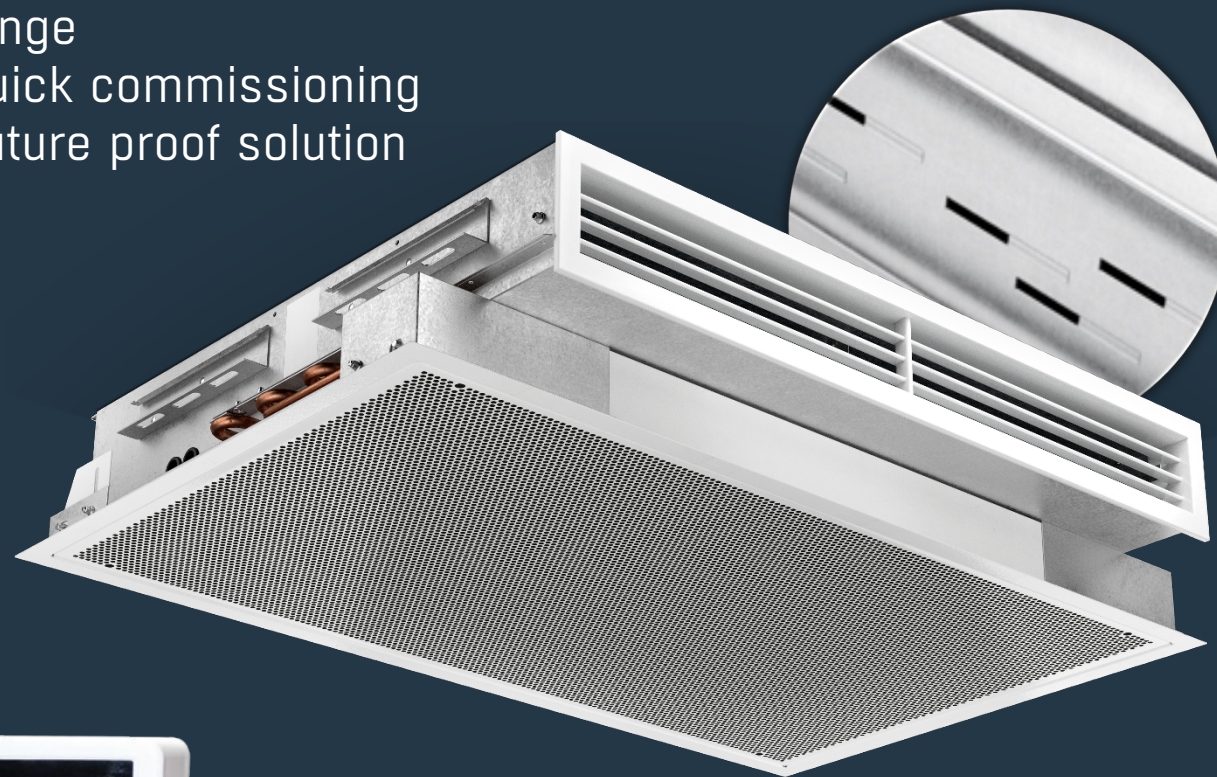
IDEAL SOLUTION FOR HOTEL BEDROOMS,
INDIVIDUAL HOSPITAL ROOMS
AND INDIVIDUAL OFFICES



Air flow range 4 — 123 CFM
Coil Cooling Capacity Range 148 — 828 W
Coil Heating Capacity Range 101 — 300 W

FLEXIBLE NOZZLES SYSTEM

- Stepless - Wide airflow range
- Quick commissioning
- Future proof solution



CHILLED BEAM WITH
PI Pressure
independent VAV
function



WHY ORION II WITH VAV IN HOTEL ROOM?

- Better Comfort
- Higher savings
- More efficient



➤ COMFORT

ORION allows individualized comfort, without pockets of concentrated air blowing or temperature variation. The **ORION** allows room temperature to quickly ramp up and down for the user and brings more fresh air into the space.

- = Comfortable occupant experience
- = Fresh air versus stale
- = Correct humidity
- = Quiet, low decibels



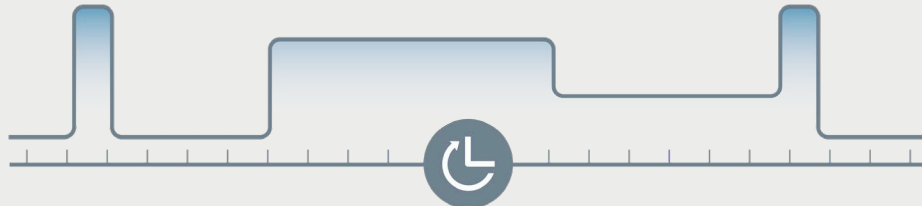


➤ SAVINGS

Because the temperature can quickly ramp up and down, the unoccupied-room temperature can vary more from the preferred-occupied room temperature.

= More energy efficient

= Better rating (BREEAM) and higher value of the property

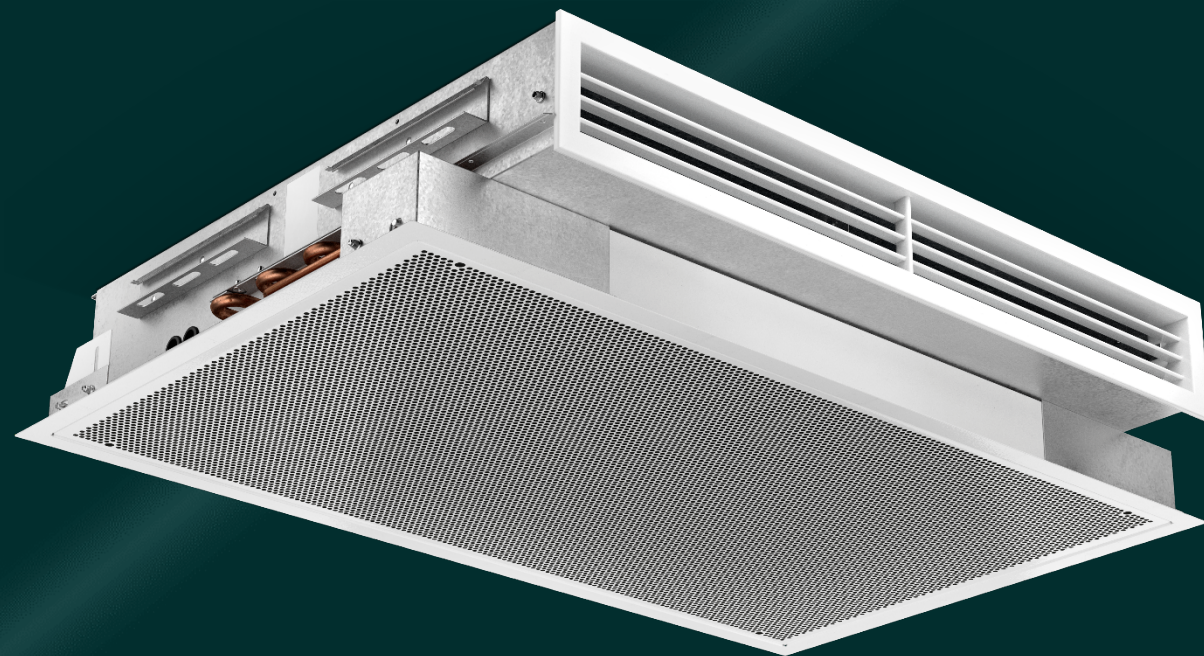


**HIGH EFFICIENCY
LARGE SAVINGS**



LOW LIFE CYCLE COST

- Smaller AHU size for the system
- Low maintenance
- Reduced energy consumption by chiller





➤ EFFECIENT

The powerful BOOST function allows for quick "blow out" of the room. Rooms don't have to be aired to assist with undesirable odors left by prior occupant. Also, maintenance is limited with no fans, filters, or drain pans.

= Shorter time between check-out and next check-in.

=The right fresh airflow guarantees low CO₂ for a better experience.

=Limited maintenance

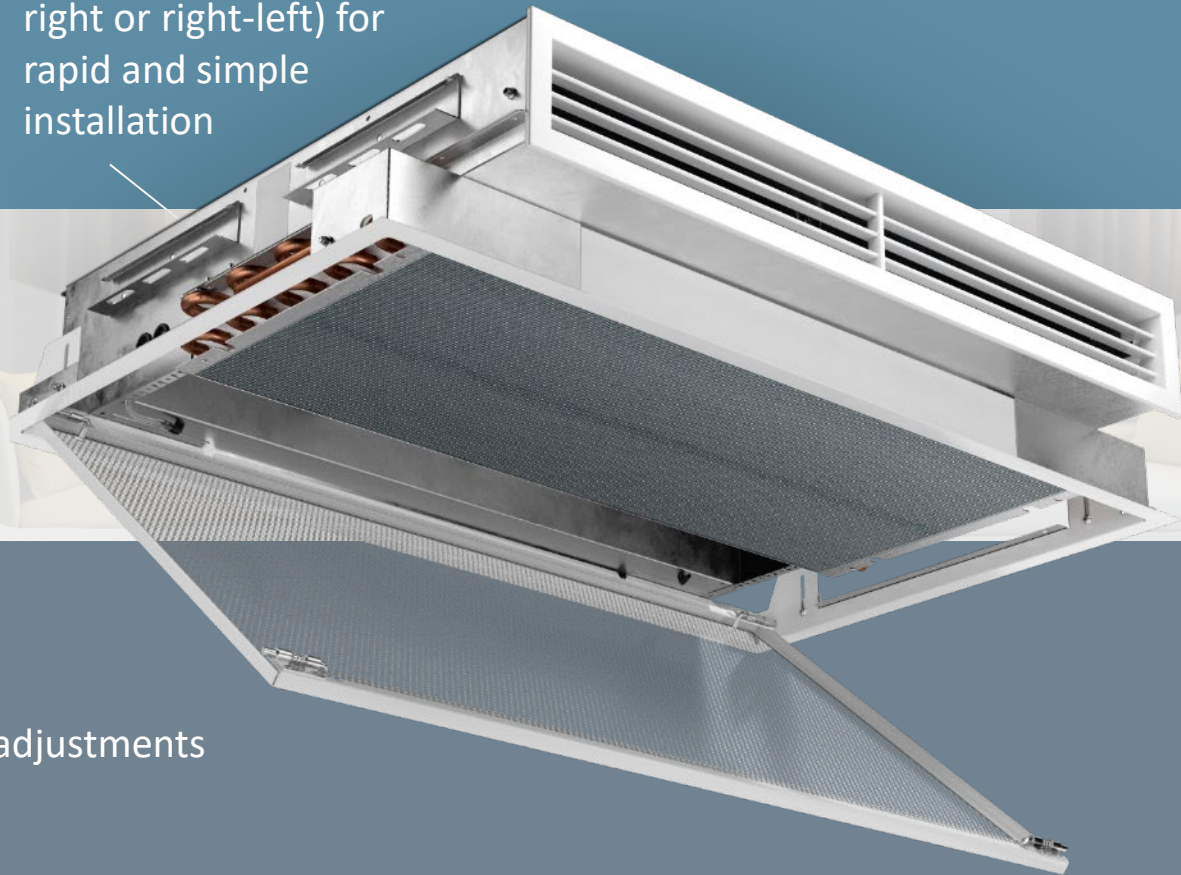


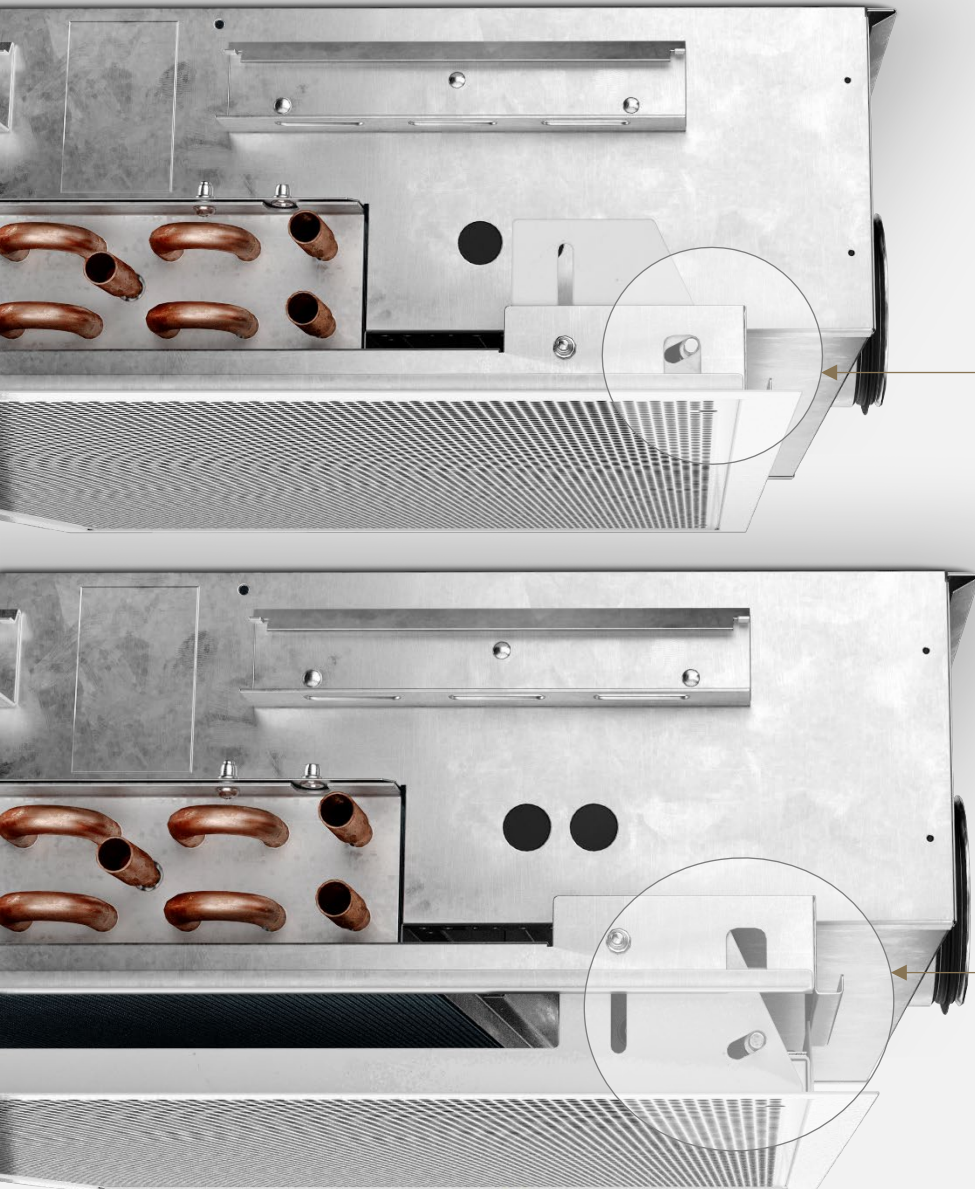
EASY INSTALL & MAINTENANCE

Easy to flip coil (left-right or right-left) for rapid and simple installation

HINGED FRONT-PLATE ACCESSIBLE FROM EITHER SIDE

- Easy access to the PI actuator or manually slot adjustments
- Quick access to the control system
- Great for cleaning the coil & drop-down grille





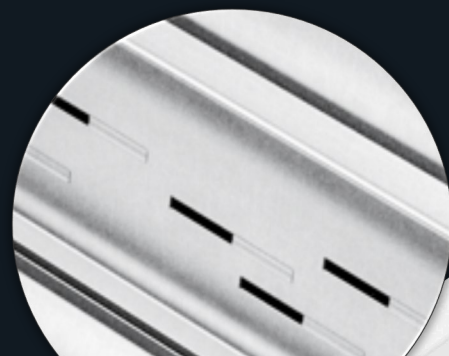
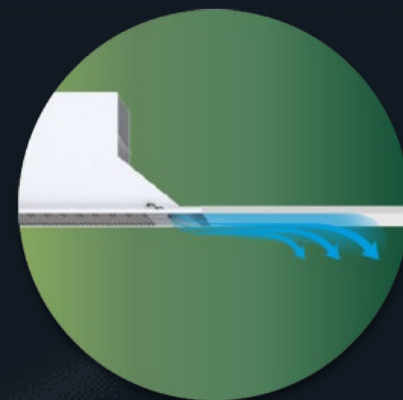
EASY HEIGHT ADJUSTMENT

Telescopic front cover
Height range 190 mm – 230 mm

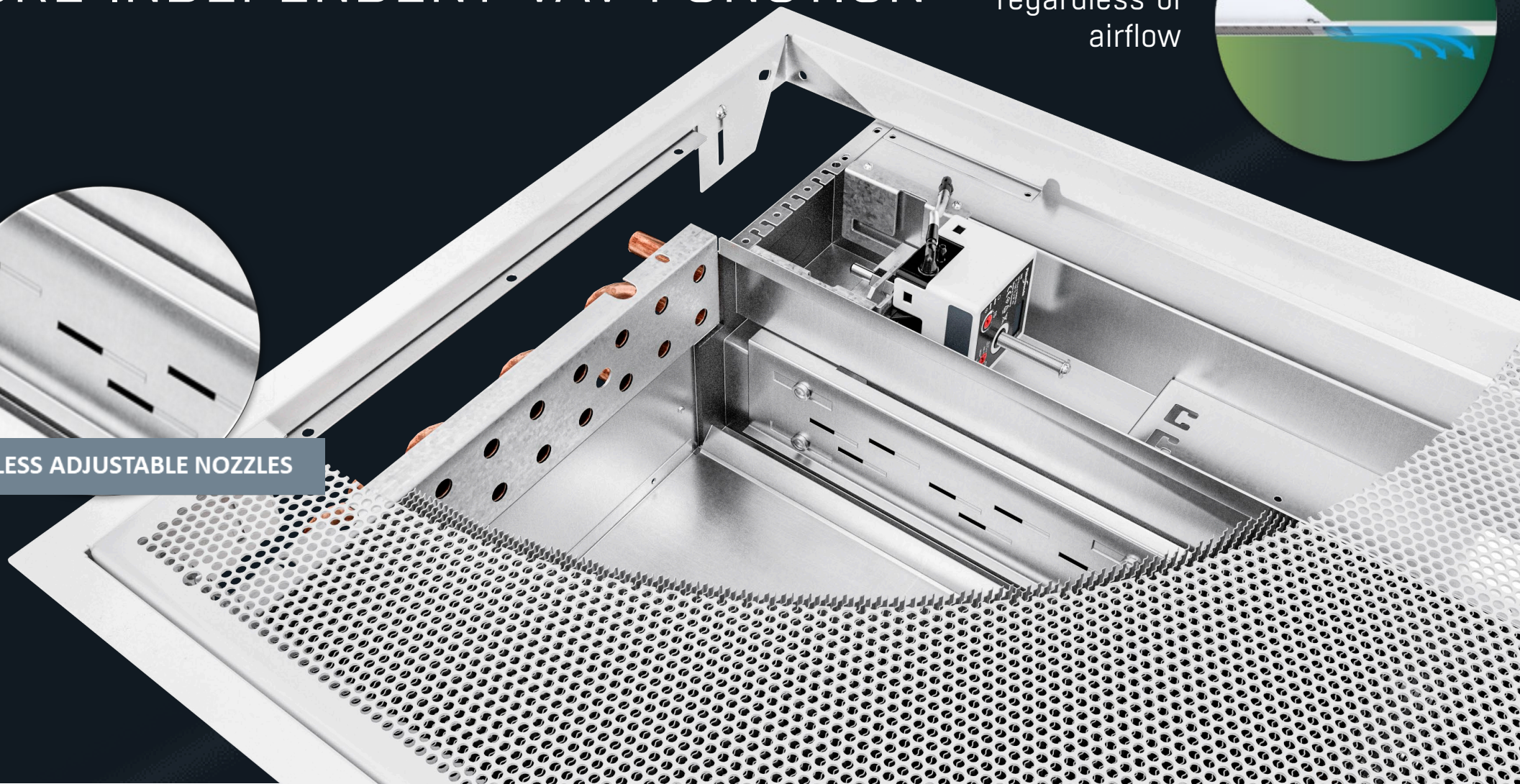


CHILLED BEAM WITH Pi PRESSURE INDEPENDENT VAV FUNCTION

Coanda effect is
ensured
regardless of
airflow



STEPLESS ADJUSTABLE NOZZLES



Pi Actuator

- Optional flow control device
- Adjusts ventilation in real-time to respond to changes in demand, upstream pressure, occupancy levels and evolving zone conditions. Linear airflow adjustment between 3 airflow level. Ensures that conditions always meet occupant needs.
- It allows the beam to be pressure independent and work with any duct system regardless of pressure. Increasing beam flexibility.
- Equipped with a CO₂ sensor, temperature sensor and occupancy sensor.
- Exceptionally accurate adjustments
- Has three operating modes: unoccupied, standard occupancy and high occupancy.
- Can be retrofitted to meet updated needs.
- Modbus communication
- Operating range 0 - 10V



Orion II - Integrated Installation For Clean, Professional Look





PROPERTY OWNER

- Demand controlled ventilation (DCV)
 - Solution for energy saving
- Huge layout flexibility
- Compatible with IPSUM



CONSULTANT

- Flexible – broad application area
- Quick and easy selection with SELECT
- Compatible with IPSUM



CONTRACTOR

- Quick installation
- Quick commissioning
- Base product to complement your wide offering

Thank you for your attention!

