



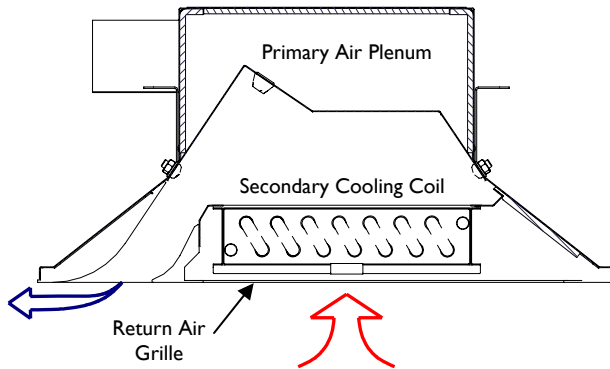
Active Chilled Beam - ACB50

Dadanco ACB50 I-way discharge Perimeter Active Chilled Beams incorporate new patented technologies to deliver a breakthrough for higher energy efficiency perimeter zone air conditioning using lower air quantities.

Dadanco ACB50 Active Chilled Beams provide efficient, effective and whisper-quiet air conditioning for almost any perimeter zone application.



Dadanco Pty Ltd Participates in the ECC programme for Active Chilled Beams
Check ongoing validity of the certificate: www.eurovent-certification.com



ACB50 incorporates I-way supply air discharge with a one piece perforated return air grille and single horizontal secondary cooling coil



Advantages of Active Chilled Beams

- Dadanco Active Chilled Beams supply cooling, heating and the outdoor air required for ventilation in the conditioned space.
- Compact dimensions and intrinsically smaller duct sizes offer real savings in ceiling space requirements for HVAC new construction and refurbishment projects.
- Fan power is dramatically reduced. The low primary air quantity is treated by the AHU and distributed at low pressure. The primary air is typically only 30% of the total air supplied by Dadanco Active Chilled Beams due to the use of efficient induction technology.
- Secondary air is induced over the secondary heat exchanger, delivering localized cooling, for NO FAN ENERGY REQUIREMENT
- ACB50 Active Chilled Beams provide I-way supply air distribution, specifically designed for perimeter zones
- ACB50 Active Chilled Beams are designed for 'Lay-In' installation in ceiling tile systems or in plasterboard ceilings with builders' ceiling frames
- ACB50 Active Chilled Beams deliver more cooling capacity using less treated air than any all-air system.
- Active Chilled Beams offer 2-stage capacity control through control of secondary water flow separate from primary air control.
- Noise radiated from Dadanco Active Chilled Beams is very low...
- Active Chilled Beams require minimal maintenance (no moving parts).

Application Data – ACB50

COOLING	45 to 250 W/m ²
LENGTH	Nominal 600 x 1200mm grille to suit standard suspended ceiling tile systems or plasterboard ceilings. Unit lengths from 600mm to 1800mm available on request for any application
FEATURES	Side or End entry primary air connections
HEIGHT	281mm
INSULATION	Thermal insulation for the primary air plenum is available
GRILLE	I-way discharge supply air grille with one piece hinged centre return air grille.
CONTROLS	ACB50 units can be controlled individually or in groups of units.

APPLICATIONS:

Dadanco Active Chilled Beam ACB50 is specifically designed for perimeter zone in-ceiling installations in:

- Office Buildings
- HVAC New Construction & Refurbishment Projects
- Hospitals, Healthcare Facilities & Laboratories
- Schools and Institutional Buildings
- Airports

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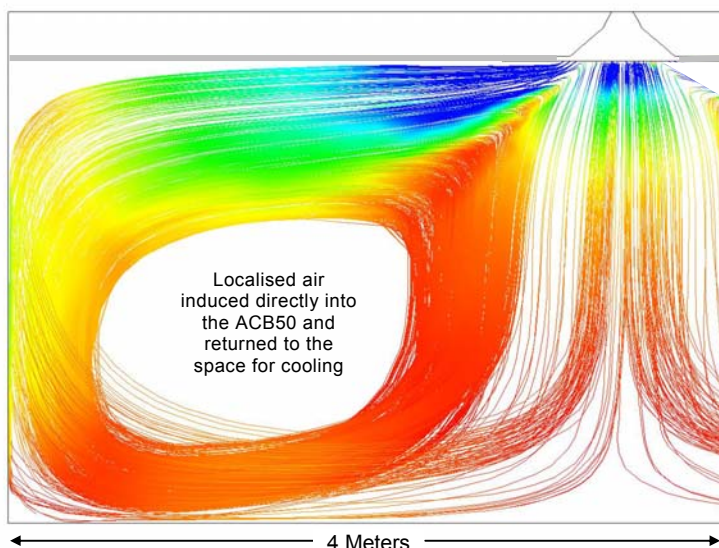


Typical ACB50 Air Distribution

The 1-way discharge air flow characteristics of Active Chilled Beam ACB50, created by the induction of secondary air through the centre of the unit, produces a unique air flow pattern resulting in thorough purging of air in the occupied space compared to most conventional all-air ceiling diffusion characteristics.

Entrainment of secondary air from within the conditioned space reduces the potential for cross-contamination between different zones within the building.

Relatively low terminal velocities can be maintained in the conditioned space.



ACB50 1-Way discharge Active Chilled Beam Ideally suited to perimeter zones with supply air discharged away from facade

Eurovent Certified Product to Rating Standard EN15116

General Product Technical Data

	Full Tile ACB50-1050	1-½ Tile ACB50-1650
Grille Face Size:	600 x 1200mm	600 x 1800mm
Nominal Active Coil Length	1050mm	1650mm
Primary Air Range ≤150Pa:	14 ~ 30 L/s	22 ~ 50 L/s
Nominal Cooling Capacity Range:	670 ~ 1210 Watts	912 ~ 2132 Watts
Configuration:	2-Pipe or 4-Pipe	2-Pipe or 4-Pipe

NOTE: Nominal cooling capacities based on 2-Pipe cooling coil @ 24°C room air, 12°C primary air, 14°C Entering Secondary Chilled Water Temperature and Secondary Water Flow Rate to achieve an average leaving water temperature of 17°C (3°C ΔT) or minimum water flow = 0.03 L/s.

Primary Air Pressure ≤150Pa.

Different performance results can be achieved for varying secondary water flow rates, entering water temperatures, primary air conditions and primary air pressures.

For selections at conditions and unit sizes other than those above please contact DADANCO for further assistance.

New Technologies

Dadanco's Starline™ multi-lobe high performance induction nozzles and superior fluid dynamics design are combined into Dadanco ACB50 Active Chilled Beams for improved performance and lower noise characteristics.

Rather than relying on natural convection as with passive chilled beams, Dadanco ACB50 Active Chilled Beams use primary air to deliver ventilation air and induce secondary room air through the secondary cooling coil within the unit, delivering enhanced performance in one simple ceiling mounted package.

All Dadanco Active Chilled Beams utilize modern Computational fluid dynamics (CFD) analysis in product design and development.

DISCLAIMER

While every effort is made to ensure the details contained herein are kept up to date, in the interests of ongoing product development, Dadanco reserves the right to alter the information without notice

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