TROX® TECHNIK
The art of handling air

AIR-WATER SYSTEMS FOR THE DISSIPATION OF HIGH HEAT LOADS

In typical shops, large amounts of waste heat are produced by lighting, freezers and other pieces of equipment. If all heat loads were to be dissipated only by the supply air, an increased volume flow rate would be required. And higher volume flow rates also mean a higher energy consumption, a more difficult supply air discharge, and also higher costs. This is where energy-efficient air-water systems, such as the TROX X-BEAM units with an additional heat exchanger, are the perfect complement to the existing system layout.

Specifically in shopping centres, where high thermal loads prevail, air-water systems offer a critical advantage: They use water to cool or heat the air. This allows the heating and cooling capacity to be designed independent of the fresh air flow rate, while offering the advantage of a much more efficient form of energy transport than air.

X-BEAMS can be mounted in plain sight, but are typically installed in suspended ceilings. They can also be equipped with additional functions (lighting, loudspeakers, sprinklers).

We continuously run mock-ups and experimental tests to improve X-BEAM aerodynamics; the goal is to find ways of using water for cooling at relatively high temperatures when combined with geothermal energy.

ACTIVE CHILLED BEAM DID614

Primary air:
8 – 83 l/s
30 – 300 m³/h
L: 593, 598, 618, 623, 1,193,
1,198, 1,243, 1,248 mm
B: 593, 598, 618 and 623 mm
H: 230, 245 mm
Cooling capacity: up to 2,170 W
Heating capacity: up to 3,000 W

ACTIVE CHILLED BEAM DID642

10 – 125 l/s
36 – 450 m³/h
L: 893 – 3,000 mm
B: 593, 598, 618, 623 mm
H: 170, 205 mm (plus services)
Cooling capacity: up to 3,100 W
Heating capacity: up to 2,330 W