

Strengths (+) and weaknesses (-) of ventilation systems

Product feature	RESPIRECO	Competitors - central supply-and-exhaust ventilation		
Energy efficiency	guaranteed heat recovery efficiency above 97% in all weather conditions	+	viable efficiency of about 75%, lack of guarantee - due to condensation of moisture and freezing of the exchanger	-
	individual and local (answering individual needs and momentary demands in each room separately) performance adjustment	+	system adjusted "for good", lack of possibility to diversify performance in individual rooms on an ongoing basis	-
	no external air infiltration	+	risk of infiltration as a result of imbalances in air flows in different rooms	-
Use of natural atmospheric phenomena	natural ventilation mechanically assisted by coordinating the phases of all units, resulting in doubling of the airflow efficiency	+	lack of possibility to support natural ventilation	-
	passive, intensive night cooling of cubature with doubled airflow capacity (in summer)	+	lack of such possibility	-
	passive heating of cubature with the heat of a solar facade (in winter)	+	lack of such possibility	-
Installation time	short installation process, only plug&play devices	+	long-lasting works - duct installation, condensate drainage system	-
	can be installed without interrupting other activities in the facility	+	facility must suspend its normal activities	-
Degree of ease of installation	possibility of self-installation, no need to make a condensate drainage system	+	necessity to employ a team of specialists in ventilation ducts and condensate drainage system	-
	possibility of using the existing gravity ventilation ducts	+	lack of such possibility	-
Investment cost	necessity to purchase more than one ventilation device	-	purchase of one ventilation device	+
	no cost of installation works (ducts, condensate drainage system)	+	high installation costs, purchase and assembly of ducts and accessories	-

Reliability of functioning	the system adjusts itself	+	installation must be adjusted by a specialist	-
	heat exchanger does not freeze	+	heat exchanger requires defrosting with additional energy expenditure	-
	correct functioning visible in every room	+	difficulties with diagnosing	-
	ceramic heat exchanger with unlimited service life	+	difficulties in diagnosing malfunctions	-
Ongoing service	necessity to service and inspect multiple devices	-	inspection of one air handling unit	+
	no ventilation channels	+	necessity to inspect and clean the channels	-
	ability to turn off one of the devices without affecting the work of others	+	necessity to turn off the entire installation for the time of service	-
Fire safety	possibility of stopping the transmission of fire and smoke from the room affected by fire to adjacent rooms	+	lack of such possibility	-
	sum of the advantages	18	sum of the advantages	2