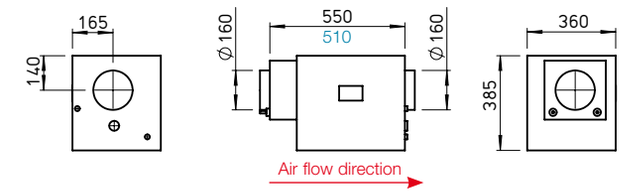
KWL HBX



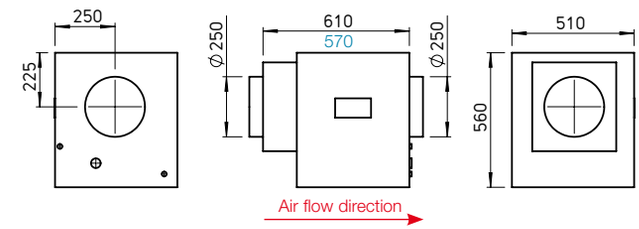
Dimensions KWL HBX 250.. L



Dimensions in mm

KWL HBX 250 WW L, KWL HBX 250 EH L

Dimensions KWL HBX 500.. L



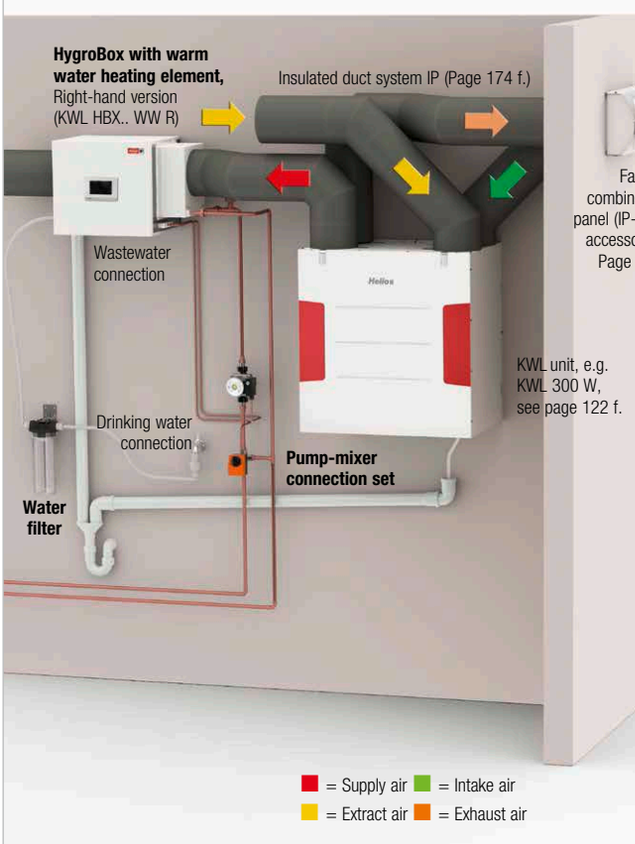
Dimensions in mm

KWL HBX 500 WW L, KWL HBX 500 EH L

Pressure loss KWL HBX



Schematic diagram KWL HBX.. WW R



Specially designed for ventilation systems in residential buildings and offices, the Helios HygroBox automatically maintains a comfortable level of indoor humidity all year round and helps to create a pleasant indoor climate.

Advantages

- A comfortable indoor climate with balanced indoor humidity.
- Reduces damage caused by dryness to furniture, wooden flooring and antiques.
- Can help alleviate allergy symptoms.
- Reduces fine dust and electrostatic charges.

Special HygroBox features

- Constant supply air humidity and temperature in all rooms.
- The principle of natural evaporation prevents excessive humidification.
- Hygienically safe due to UVC disinfection.
- Fully automated operation with automatic summer deactivation.
- Low-maintenance and easy to install.
- Low operating costs through the use of evaporation energy from the existing heating system.

Functional principle

The HygroBox is an active humidification unit for integration in new or existing KWL ventilation units with heat recovery. The fresh intake air flows through the KWL unit heat exchanger and absorbs the thermal energy from the extract air. This preheated air is then delivered to the HygroBox, where active and automatic humidification takes place according to the principle of natural evaporation. A bladed rotor rotates continuously in a water bath inside the unit and releases water molecules into the preheated supply air via the wetted blade surface. Regardless of the KWL unit operating level and external weather influences, the HygroBox constantly maintains the preselected relative air humidity and thus helps to create a pleasant, comfortable environment with balanced indoor humidity.

Delivery

Delivered as a plug-in compact unit including water supply hoses and water filter.

Heating element

- The HygroBox is equipped with a warm water (WW types) or electric heating element (EH types). This heats the supply air before humidification and thereby guarantees the required evaporation energy and pleasant supply air temperature.
- With regard to heating systems with low flow temperature (e.g. heat pumps), a low-temperature heating element (type KWL-NHR, accessories, see right page) must be connected downstream of the HygroBox.

Summer operation

- The HygroBox automatically switches to standby mode when the moisture content of the intake air is sufficiently high (e.g. in summer). In this state, there is no water in the unit and the rotor remains at a standstill.

KWL-NHR



Low-temperature heating element (for KWL HBX.. WW)

Description

- The additional installation of a post-heating element on the HygroBox air outlet is recommended in combination with low-temperature heaters to compensate for the evaporative cooling.
- The external temperature sensor, which is included in the delivery of the post-heating element, must be installed in the supply air duct at a distance of approx. 50 cm behind the post-heating element.

Accessories

Low-temperature post-heating element

– for KWL HBX 250 WW
KWL-NHR 250 Ref. no. 05628

– for KWL HBX 500 WW
KWL-NHR 500 Ref. no. 05633

KWL-PMAS



Pump-mixer connection set (for KWL HBX.. WW)

Description

- For connection of the HygroBox to existing heating circuits.
- Consists of:
  – 1 pc. circulating pump 230 V
  – 2 pc. screw fittings, R 1/2a/15 mm MS (brass)
  – 1 pc. 3-way mixer valve with actuator 24 V (0-10 V), Rp1/2", DN 15.

Accessories

Pump-mixer connection set

– for KWL HBX 250 WW
KWL-PMAS 250 Ref. no. 40193

– for KWL HBX 500 WW
KWL-PMAS 500 Ref. no. 40194

KWL-UVR, KWL-OME



Replacement UVC ducts and osmosis membrane (for all types)

Description

- Helios HygroBoxes are equipped with a constant, automatically monitored UVC disinfection system which effectively kills germs and bacteria.
- In addition, the water in the evaporator tray is automatically changed depending on the water hardness and evaporation performance.
- A reverse osmosis unit protects the unit against limescale deposits.
- The hygienic safety of the HygroBox is documented and certified by experts.

Accessories

Replacement UVC ducts
KWL-UVR Ref. no. 05631

Replacement osmosis membrane
KWL-OME Ref. no. 05632

KWL-WF



Replacement water filter (for all types)

- As a general rule, the water filter in the water supply pipe must be replaced every 6 months. The filter replacement is indicated on the HygroBox display.

Accessories

Replacement water filter
Unit = 1 pc. filter cartridge (without casing, without hoses)
KWL-WF Ref. no. 05630

Technical data

	With electric heating element				With warm water heating element			
	For KWL units up to 250 m³/h flow rate		For KWL units up to 500 m³/h flow rate		For KWL units up to 250 m³/h flow rate		For KWL units up to 500 m³/h flow rate	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
Right-hand version (air outlet right) **Left-hand version** (air outlet left)	**KWL HBX 250 EH R** **KWL HBX 250 EH L**	40188 40187	**KWL HBX 500 EH R** **KWL HBX 500 EH L**	40192 40191	**KWL HBX 250 WW R** **KWL HBX 250 WW L**	40186 40185	**KWL HBX 500 WW R** **KWL HBX 500 WW L**	40190 40189
Adjustable relative supply air humidity in %	40-60		40-60		40-60		40-60	
Adjustable supply air temperature °C	15-25		15-25		15-25		15-25	
Air volume flow m³/h	350		500		350		500	
Power consumption max. W	1450		2850		100		100	
Heat output W	1400		2800		2000		4200	
Voltage/Frequency	230 V~, 50 Hz		230 V~, 50 Hz		230 V~, 50 Hz		230 V~, 50 Hz	
Water connection	3/4“		3/4“		3/4“		3/4“	
Water drain Ø mm	40-50		40-50		40-50		40-50	
Weight (empty weight/operating weight) approx. kg	25		47		25/28		47/53	
Accessories								
Pump-mixer connection set	—		—		**KWL-PMAS 250**		**KWL-PMAS 500**	
Ref. no.	—		—		40193		40194	
Low-temperature post-heating element	—		—		**KWL-NHR 250**		**KWL-NHR 500**	
Ref. no.	—		—		05628		05633	
UVC ducts	**KWL-UVR**		**KWL-UVR**		**KWL-UVR**		**KWL-UVR**	
Ref. no.	05631		05631		05631		05631	
Water filter	**KWL-WF**		**KWL-WF**		**KWL-WF**		**KWL-WF**	
Ref. no.	05630		05630		05630		05630	
Osmosis membrane	**KWL-OME**		**KWL-OME**		**KWL-OME**		**KWL-OME**	
Ref. no.	05632		05632		05632		05632	