COMPACT AIRHANDLING™

ErP 2018

Project Data			
Customer Company		Offer Number	
Project Name		Offer Date	
Unit Project Code			

Product Specifications

FHR40

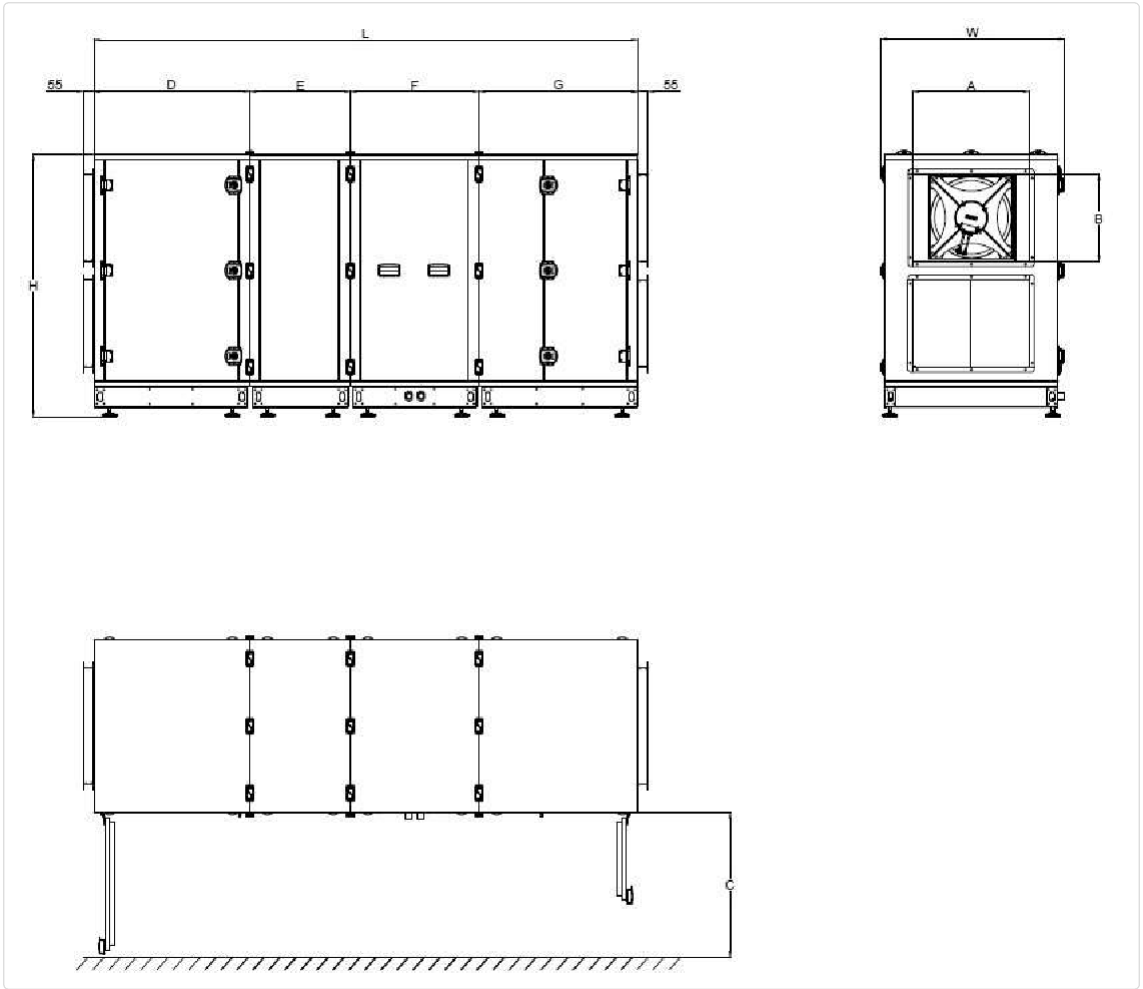


FHR Counter Flow Heat Recovery Units are used in restaurants, shops, historical buildings, offices and other places where clean air is needed. In places where air-conditioning is carried out by heating or cooling, low-quality air-conditioned indoor air is formed, where the internal carbon dioxide and other harmful gases are intense. By-pass damper provides free-cooling and anti-freeze protection of the heat exchanger. FHR Counter Flow Heat Recovery Devices operate on silent and high efficiency with plug fan motors. On the supply side there is a panel filter or an optional high-efficiency filter. With the control card sent as standard, the device can be operated at the desired flow rate.

- Counter Flow Heat Exchanger
- Low Sound Level
- EC Plug Fans
- By-Pass Damper (0-100%)
- M5+F7 Filters for Supply Side
- M5 Filter for Exhaust Side
- Plug&Play
- Optional Electric Heater
- Optional Heating/Cooling Coils
- Optional Sound Attenuator

Product Model	FHR40
Product Type	Commercial Type Heat Recovery
Heat Recovery Type	Aluminum Counterflow
Unit Casing	Double wall - Inside: 0.8 mm galvanized sheet
Unit isolation	50 mm 70 kg/m3-Rockwool
Casing Air Leakage	0
Unit Frame	-
Service Direction	Right
Voltage / Frequency / Phase (V / Hz / Ph)	380/50/3
Operating conditions	-20 ~ 46 ° C Temperature, 90% Max.RH Outdoor Air
Standard Air Density (kg/m³)	1.2

Dimensions



L	W	H	A	B	C	D	E	F	G
2810	950	1355	600	450	750	805	518	664	818

Performance Data

Supply Air Flow	m^3/h	3100	Heat Recovery Efficiency	%	77.97
External Static Pressure	Pa	250	Heat Recovery Capacity	kW	25.18
Return Air Flow	m^3/h	3100	Additional Heating Capacity	kW	0
External Static Pressure	Pa	250	Additional Cooling Capacity	kW	
Unit Total Power / Current	kW/A	1.82/2.91	Air Outlet Temperature	°C	15.13
SFPint,total	$W/m^3/s$	1220.21	Energy Efficiency Class	-	

Heat Recovery Data

Heat Recovery Type	Aluminum Counterflow - -
Fin Pitch (mm)	0

Winter		**Outside Air**	**Return Air**
Air Inlet Flow	m^3/h	3100	3100
Air Inlet Temperature (DB / WB)	°C	-10 / -10.32	21 / 12.66
Air Inlet Relative Humidity	%	90	37
Air Outlet Temperature (DB / WB)	°C	15.13 / 5.16	2.09 / 0.4
Air Outlet Relative Humidity	%	13.62	73.14
Heat Recovery Pressure Drop	Pa	225.31	290.69
Heat Recovery Efficiency (Dry / Wet)	%	77.97 / 81.08	-
Heat Recovery Capacity (Dry / Wet)	kW	25.18 / 26.19	-25.18 / -26.19
Condensation	kg/h	0.00	9.22

Summer		**Outside Air**	**Return Air**
Air Inlet Flow	m^3/h	3100	3100
Air Inlet Temperature (DB / WB)	°C	28 / 22.07	23 / 19.83
Air Inlet Relative Humidity	%	60	75
Air Outlet Temperature (DB / WB)	°C	24.14 / 20.94	26.87 / 21.01
Air Outlet Relative Humidity	%	75.39	59.56
Heat Recovery Pressure Drop	Pa	275.05	268.45
Heat Recovery Efficiency (Dry / Wet)	%	77.2382 / 77.24	-
Heat Recovery Capacity (Dry / Wet)	kW	-4.07 / -4.07	4.07 / 4.07
Condensation	kg/h	0.00	0.00

Filter Data

		SA Filter 1	SA Filter 2	EA Filter	EA Filtre 2
Filter Class	-		F7	M5	
Filter Class (ISO 16890)	-		ISO ePM1 50%	ISO ePM10 50%	
Filter Initial Pressure Drop	Pa		95.01	75.01	
Filter Final Pressure Drop	Pa		200	170	
Filter Average Pressure Drop	Pa		147.505	122.505	
Filter Surface Air Velocity	m/s		2.18	2.18	2.18

Fan Data

		Outside Air	Return Air
Air Flow	m^3/h	3100	3100
Fan Speed	d/d	1760.51	1781.94
Nominal Fan Speed	d/d	2060	2060
Fan Power	Watt	873.59	942.97
Operating Point Current	A	1.4	1.51
Voltage / Frequency / Phase	V/Hz/Ph	380 / 50 / 3	380 / 50 / 3

Fan LWA			LWA (In+Out)	LWA	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Supply Fan	Inlet	dBA	78,57	71,72	67,60	67,10	72,70	70,60	64,50	63,10	58,50	56,00
	Outlet	dBA		77,65	71,00	69,20	75,00	72,40	74,10	70,70	64,20	60,40
Return Fan	Inlet	dBA	78,87	71,72	67,60	67,10	72,70	70,60	64,50	63,10	58,50	56,00
	Outlet	dBA		77,65	71,00	69,20	75,00	72,40	74,10	70,70	64,20	60,40

Fan LPA	@ 1 m		LPA (In+Out)	LPA	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Supply Fan	Inlet	dBA	70.59	63.74	59.62	59.12	64.72	62.62	56.52	55.12	50.52	48.02
	Outlet	dBA		69.67	63.02	61.22	67.02	64.42	66.12	62.72	56.22	52.42
Return Fan	Inlet	dBA	70.59	63.74	59.62	59.12	64.72	62.62	56.52	55.12	50.52	48.02
	Outlet	dBA		69.67	63.02	61.22	67.02	64.42	66.12	62.72	56.22	52.42