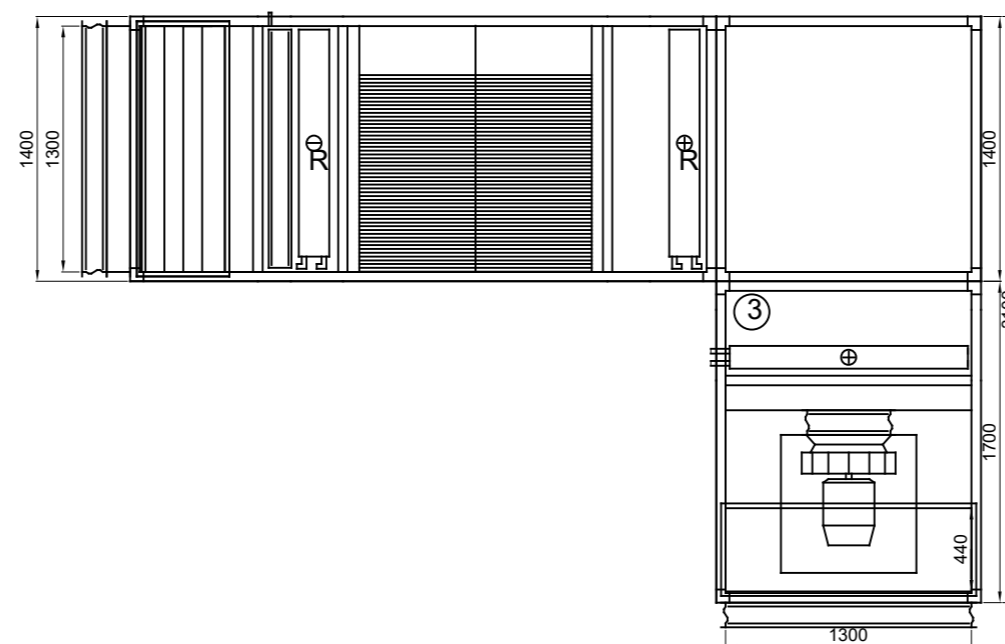
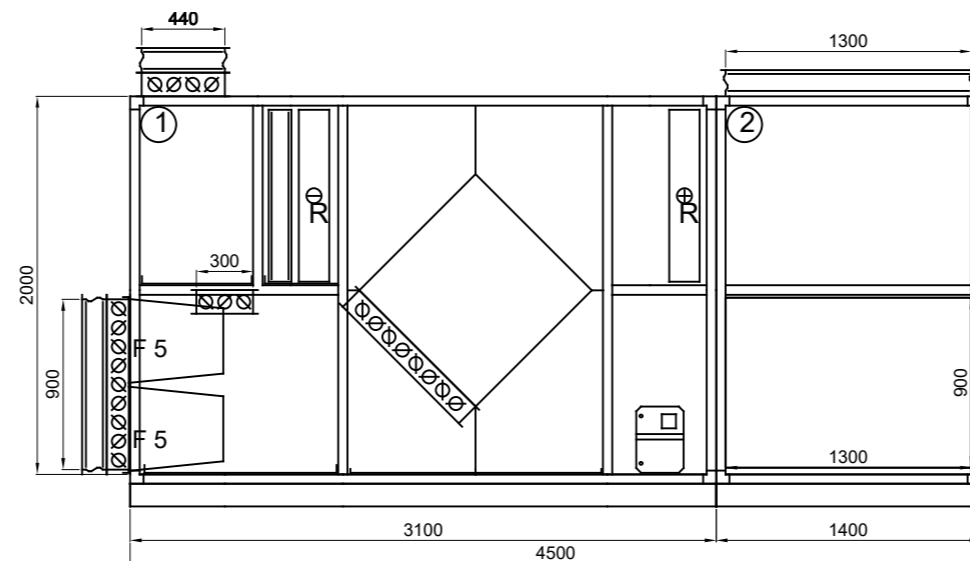



	N - nawiew	W - wywiąg
Typ	BS-RP-RHP-5-SW	BS-RP-RHP-5-SW
Wykonanie	Prawe	Lewe
Grub. izolacji [mm]	50	50
Wydatek [m3/h]	11500	11500
Spręż dysp. [Pa]	220	200
Typ obudowy	szkieletowa	



Centrala basenowa BS-RP-RHP-5-SW

- 1) Jeśli nie określono inaczej, przyłącza wymienników po stronie obsługi, a króciec splywu skroplin po stronie przeciwnej.
- 2) Agregat - ON-OFF
- 3) Kierownica powietrza na przepustnicy recyrkulacji
- 4) Dodatkowa wanna krzyżowego - po stronie nawiewu
- 6) Przepona wentylatorów procesu montowana na słupku wejściowym

Dla: ICS PRO	Nr oferty: 002/KS/2023	Obiekt: Swimming pool	Oznaczenie: OKEANOS BS-RP-RHP-5-SW
		VBW Engineering Sp. z o.o. 81-571 Gdynia, ul. Chwaszczyńska 172 tel.: (0 58)629 91 89 Fax:(0 58)629 92 02 http://vbw.pl info@vbw.pl	
		Opracował: KS Data: 2023-03-13	Strona: 1/1

AHU selection technical data

For:	Offer No.:	002/23
Object:	Symbol:	AHU-1
Elaborated by: KS	Date	13.03.2023

	AHU type	Size	Insulation	Service	Output [m3/h]	Avail.pres. [Pa]	Int. resistance [Pa]
Supply:	BS	5	50	Right	11500	220	726
Exhaust:	BS	5	50	Left	11500	200	727

Supply FB-5 Pocket filter F5

Class	F 5 Air flow speed		0,4 m/s
Air flow resistance	153 Pa	Filter set	FK-592x592x360-F5/2pcs FK-592x287x360-F5/2pcs

Filter class ISOePM10 65%

Supply DM-1 Mixing box

Air flow	11500 m3/h	Inlet air temperature	-20 °C
Air humidity	90 %	Recirculation	1-floating
Recirculation damper		Air flow speed	2,8 m/s
Air humidity	90 %	Outlet air temperature	-20 °C
Air flow resistance	30 Pa		

Supply RP Crossflow heat exchanger

Air flow	11500 m3/h	Inlet air temperature	14,2 °C
Air humidity in	100 %	Exchanger type	X.1.5.N
Drop eliminator		NIE Air flow resistance	362 Pa
Outlet air temperature	24 °C	Air humidity out	54 %
Power	37,8 kW	Effective power	0 kW
Efficiency	52,3 %	Air speed in AHU window	m/s

Supply WPC Cooling system exchanger

Inlet air temperature	24 °C	Air humidity	54 %
Medium type		R407c Refrigerant Condensation temperature	39 °C
Exchanger type		4R Power	34,54 kW
Outlet air temperature	32,8 °C	Air humidity	32 %
Air flow resistance	145 Pa	Air flow speed	3,5 m/s
Medium pressure drop	20,76 kPa	Connections	1*22/1*22

Notis:

- The amount of outdoor air is dependent on the current need for draining the pool hall.
- Selection of a heat pump installed in the unit was carried out according to the following principles:
- For winter:
 - Recirculation =>8050 m3 / h (70% of the nominal flow rate),
 - External air => 3450 m3 / h.
 - Outdoor air parameters -20 C / 90%
 - Parameters of air after mixing +14,2 C / 100%
 - Efficiency for the above-described dehumidifying mode
W.nom = 133 kg / h
 - Maximum efficiency drying of unit W.max = 265 kg / h

Supply HW Water heating coil

Inlet air temperature	24 °C	Air humidity	54 %
Medium type		ethylene glykol Non-freezing agent participation	35 %
Inlet medium temperature	80 °C	Outlet medium temperature	60 °C
bent collectors		0 - unbent	



Exchanger type	W.1.01.5	Power	31,2	kW
Outlet air temperature	32	°C	Air humidity	34 %
Air flow resistance	36	Pa	Air flow speed	3,8 m/s
Medium resistance of flow	4,72	kPa	Medium flow	0,41 l/s
Media speed in exchanger's pipe	0,57	m/s	Connections	25/25

Supply	WOP	Plug fan section		
Air flow	11500	m3/h	Available pressure	220 Pa
Inverter	2-wiele wydatki		well-matched fan	ER50C-4DN.G7.CR
Air flow resistance	102	Pa	Fan efficiency	80,7 %
Power consumption	4,2	kW	Fan speed	2084 rpm
Motor type	BG 132S/B3		Motor rated power	5,5 kW
Current intensity/voltage	11,17 / 400	A; V	supply voltage frequency	71,6 Hz
SFP for clean filters	1,38	kW/m3/s		

Exhaust	FB-5	Pocket filter F5		
Class			F 5 Air flow speed	0,4 m/s
Air flow resistance	153	Pa	Filter set	FK-592x592x360-F5/2pcs FK-592x287x360-F5/2pcs

Filter class ISOePM10 65%

Exhaust	WOP	Plug fan section		
Air flow	11500	m3/h	Available pressure	200 Pa
Inverter	2-wiele wydatki		well-matched fan	ER50C-4DN.G7.CR
Air flow resistance	102	Pa	Fan efficiency	80,6 %
Power consumption	4,1	kW	Fan speed	2074 rpm
Motor type	BG 132S/B3		Motor rated power	5,5 kW
Current intensity/voltage	11,17 / 400	A; V	supply voltage frequency	71,3 Hz
SFP for clean filters	1,34	kW/m3/s		

Exhaust	SPC	compressor section		
WINTER				
Number of compressors	1		Cooling capacity	30 kW
Electric power	4,54	kW	COP	6,61
Initial filling with medium	12	kg		

Exhaust	RP	Crossflow heat exchanger		
Air flow	11500	m3/h	Inlet air temperature	33 °C
Air humidity in	60	%	Air flow resistance	377 Pa
Outlet air temperature	25,1	°C	Air humidity out	92 %
Amount of condensate	26,53	kg/h	Condensation temperature	24,2 °C
Efficiency	46,1	%	Air speed in AHU window	m/s

Exhaust	WPC	Cooling system exchanger		
Inlet air temperature	25,1	°C	Air humidity	92 %
Medium type		R407c	Refrigerant evaporation temperature	13 °C
Exchanger type		3R	Power	29,1 kW
Outlet air temperature	22,2	°C	Air humidity	98 %
Air flow resistance	97	Pa	Air flow speed	3,7 m/s
Medium pressure drop	20,7	kPa	Connections	1*16/1*22

Exhaust	ODK	Drop eliminator		
Air flow speed	3,7	m/s	Air flow resistance	40 Pa

Exhaust	DM-1	Mixing box		
Air flow	11500	m3/h	Inlet air temperature	22,2 °C
Air humidity	98	%	Recirculation	1-płynna
Recirculation damper	PW-1300 x 440		Air flow speed	5,6 m/s
Air humidity	98	%	Outlet air temperature	22,2 °C
Air flow resistance	30	Pa		



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002/23 / AHU-1 Full connection with stable development of products, the manufacturer is informing about possibility of technical changes and elements of appliances without earlier informing. v 4 . 10 . 075 Side: 2/ 3

Acoustic power distribution within particular frequencies

	dB(A)								dB(A)
	63	125	250	500	1000	2000	4000	8000	
Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply suction	38	48,1	68,3	61,7	64,3	58,7	51,6	53,8	70,8
Supply pumping	51,9	60,7	81,6	82,8	87,5	82,2	79,4	80,3	91
Supply surroundings * (1 m)	20	25,1	43,3	39,7	40,3	31,7	30,6	25,8	46,5
Exhaust suction	43	53,2	74,1	68,7	72,2	69,6	67,5	69,8	78,7
Exhaust pumping	47,8	56,7	76,4	77,7	81,3	73	67,3	68,3	84,3
Exhaust surroundings * (1 m)	20	25,2	43,1	39,7	40,2	31,6	30,5	25,8	46,4

* The sound pressure level

Dimensions

Block	Width [mm]	Height [mm]	length [mm]	frame[mm]	Weight [kg]
1	1400	2050	3100	120	879,75
2	1400	2050	1400	120	257,21
3	1400	2050	1700	120	560,3
Total					1 697

