



SPC

SPC HEAT PIPES FZC
www.spc coils.ae

HIDROS



SPC HIDROS DEHUMIDIFIERS

FOR SWIMMING POOL,
COMMERCIAL AND INDUSTRIAL APPLICATIONS

ABOUT SPC THE COMPANY

S & P Coil Products Limited is a UK based specialist manufacturer and supplier of heating and cooling equipment to the public and private sector. Set up in 1979, the business now operates globally.

SPC Heat Pipes FZC started its regional operations 15 years ago from a small office in Dubai, and now has branch offices in Abu Dhabi, Qatar, Jeddah, Riyadh, Delhi and Mumbai.

We have continued to expand into new markets such as Australia, North Africa, Asia and those areas of Europe which can readily profit from the energy benefits of the company's product range.

We have an extensive range of products to meet the needs of our customers wherever their location including; Heat Pipes, Heating/Cooling Coils, Fan Convectors, UV Air and Coil Sterilisers, Trench Heaters, Radiant Panels, Radiant Conditioning Sails and Air Curtains.

Our task is straightforward; to improve the comfort of indoor environments for those who work in them, whilst ensuring that our expert team is on hand to guide you through the process of specifying and acquiring the right product for your application. The result is a range of products that are economical to run, robust and aesthetic – with all the sales and technical support that you need.

It's a winning combination, and after more than 30 years in business, we've built a worldwide network of satisfied customers.

KEY FACTS ABOUT HIDROS

HIDROS designs, develops and tests heat pumps, water chillers and dehumidifying systems all based on the refrigerant cycle. The total range of Hidros products includes standard dehumidifiers with capacities from 25 to 3000 l/24h and heat pumps and water chillers with cooling and heating capacities from 5 to 900 kW. In addition to this, HIDROS can offer a wide range of tailor made machines to meet any customer requirement. Expertise, quality, flexibility and enthusiasm are the other essential elements of the company that ensure we provide a rapid response with appropriately engineered solutions.

KEY FACTS ABOUT SPC HEATPIPES FZC

- ▶ Major supplier to government, health, education and the commercial sector
- ▶ Regional Sales and Technical Support teams throughout the UK, Middle East and Asia
- ▶ Free self-selection software packages and site surveys if required
- ▶ ISO 9001 in both the UK and Middle East
- ▶ Provider of technical seminars/CPD's





DEHUMIDIFIERS

SBA – WALL MOUNTED DEHUMIDIFIERS

The SBA range of units are intended for mounting within the space to be dehumidified. The units mount directly to the wall and treat the humid air drawn in through the bottom of the unit, discharging a 'dry' air stream through the top grille.

SBA units are ideal for small/medium sized pool areas but can also be wall-mounted directly inside any space which requires moisture removal.

Also included within the range is the chassis version [SBA (P)] intended for mounting to the wall on the other side of the conditioned space. This version can be supplied with loose plenums and grilles on the return and supply.

The range covers nominal moisture removal capacities of 50 to 200 litres/day, all suitable for single phase supply.

Units are available with optional built-in electronic humidistats or remote mechanical humidistats, grilles and plenums for chassis style units and feet to allow cabinet style units to be floor mounted. Hot water and electric heater batteries are also available.

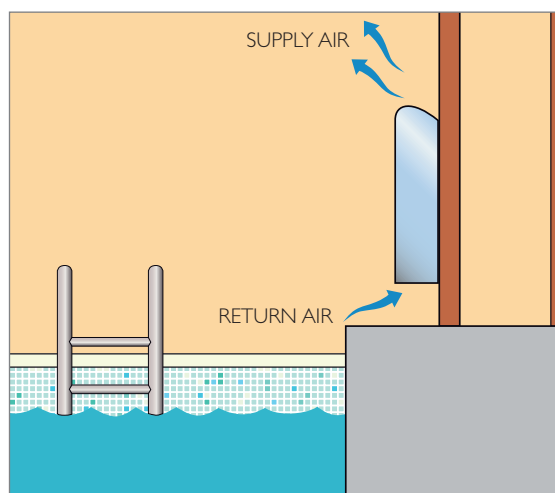
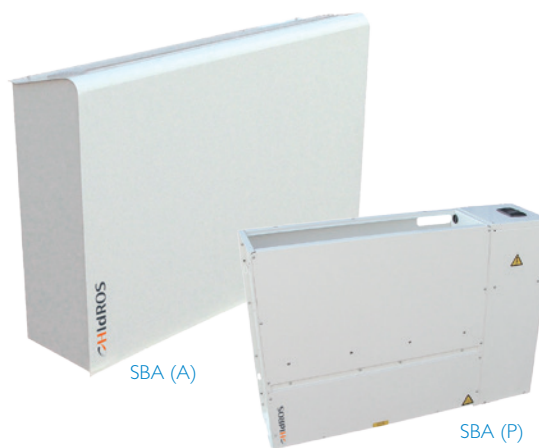


Figure 1. Cased unit SBA(A) & Chassis unit SBA(P)



Model/size	Units	SBA50	SBA75	*SBA100	SBA150	*SBA200
Nominal moisture removal	litres/day	49	73	95	155	190
Nominal input power	kW	0.9	1.2	1.6	1.9	2.5
Power supply	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Air volume	m ³ /s	0.125	0.194	0.194	0.333	0.333
Refrigerant		R410a	R410a	R410a	R410a	R410a
Sound pressure level	dBA	47	50	50	52	54
Weight	kg	41	49	55	72	78
HxWxD	mm	750x760x260	750x1060x260	750x1060x260	836x1311x310	836x1311x310

Notes

Units marked * can be supplied suitable for 60Hz power supply. Other units may be available on special request.

Nominal moisture removal and input power based on 30°C/80%

Sound pressure level measured 1m from unit in free field to ISO 3746

DEHUMIDIFIERS

SDH, SEH & SHH - SWIMMING POOL UNITS

The range of SDH, SEH & SHH units are designed for use in small/ medium sized swimming pools and are intended for mounting in adjacent plant rooms. The humid return air is drawn into the unit and 'dry' supply air ducted from the dehumidifier into the conditioned space via suitably sized supply grilles.

The range of units covers nominal moisture removal capacities of 100 to 940 litres/day; smaller units require a single phase supply while larger units are three phase.

Units are supplied with high static pressure fans to allow the incorporation of considerable lengths of ducting. All units have evaporators treated for corrosion protection and stainless steel draintrays.

A return air filter and frame is available as an option to allow side withdrawal of the return air filter.

Depending upon size, the following range of options are available: condensate pumps, remote mechanical humidistats, horizontal or vertical discharge, low noise versions, versions with partial heat recovery for warming pool water, and hot water or electric heater batteries.

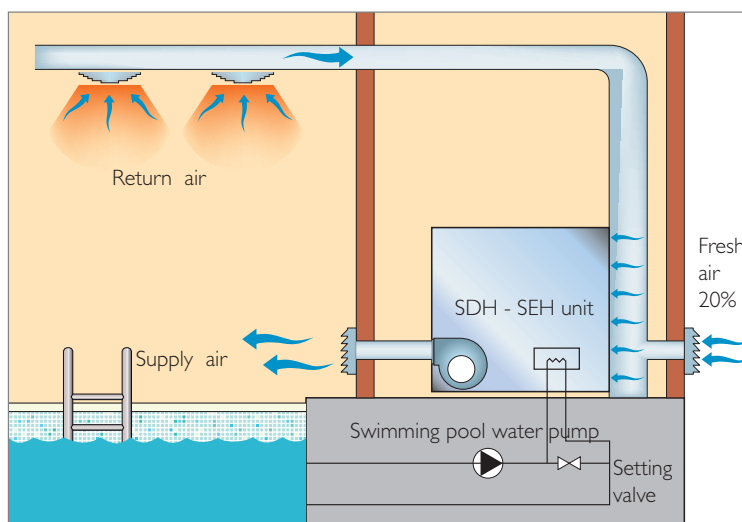


Figure 2: Example of units & schematic with partial heat recovery pool heating



Model/size	Units	SDH100	SDH120	SEH160	*SEH200	SHH330
Nominal moisture removal	litres/day	94	124	164	194	330
Nominal input power	kW	1.7	2.2	2.6	3.0	5.8
Power supply	V/Ph/Hz	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50
Air volume	m ³ /s	0.277	0.333	0.388	0.528	1.055
Refrigerant		R407C	R407C	R407C	R407C	R407C
Sound pressure level	dBA	61	62	63	64	67
Weight	kg	133	147	159	169	195
HxWxD	mm	850x570x800	850x570x800	1750x570x800	1750x570x800	1283x1004x635

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Model/size	Units	*SHH400	SHH560	SHH740	*SHH940
Nominal moisture removal	litres/day	415	564	739	937
Nominal input power	kW	7.3	9.5	12.8	17.1
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
Air volume	m ³ /s	1.055	1.430	1.903	2.277
Refrigerant		R407C	R407C	R407C	R407C
Sound pressure level	dBA	69	72	73	74
Weight	kg	209	405	421	450
HxWxD	mm	1283x1004x635	1410x1630x1010	1410x1630x1010	1410x1630x1010

Notes

Units marked * can be supplied suitable for 60Hz power supply. Other units may be available on special request.

Nominal moisture removal and input power based on 30°C/80%

Sound pressure level measured 1m from unit in free field to ISO 3746



DEHUMIDIFIERS

SRH - SWIMMING POOL UNITS

The SRH range of units are intended for the dehumidification of large scale pool areas and cover nominal moisture removal rates of 1100 to 3000 litres per day.

All units require a 3 phase supply and are supplied as standard with high static pressure fans to allow the incorporation of the necessary ducting on both supply and return sides of the unit. All units have evaporators treated for corrosion protection and stainless steel draintrays.

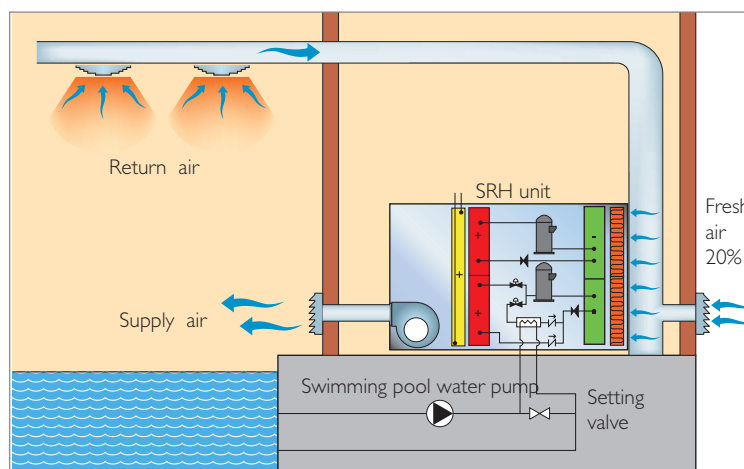


Figure 3. SRH/WZ unit with fresh air and twin condensers

The units are supplied as standard with an advanced electronic control panel and sensors for humidity and temperature control.

The standard unit incorporates an air cooled condenser to reheat the air prior to discharge. The WZ version has a split air/water condenser which rejects 50% of the heat load into the pool water and provides a lower supply air temperature.



A return air filter and frame is available as an option to allow side withdrawal of the return air filters.

The following range of options are available: horizontal or vertical discharge, low noise versions, versions with additional static pressure fans, pressure gauges, hot water batteries and coil/casings suitable for saline environments.

Model/size	Units	SRH1100	SRH1300	SRH1500	SRH1800	SRH2200	SRH3000
Nominal moisture removal	litres/day	1130	1280	1490	1880	2310	3050
Nominal input power	kW	14.1	16.5	19.3	23.6	27.6	37.0
Power supply	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Air volume	m ³ /s	2.640	2.920	3.610	4.170	4.720	7.220
Refrigerant		R407C	R407C	R407C	R407C	R407C	R407C
Sound pressure level	dBA	71	72	74	74	75	76
Weight	kg	640	710	770	830	940	1290
HxWxD	mm	1270x1870x850	1270x1870x850	1566x2608x1105	1566x2608x1105	1566x2608x1105	1566x3608x1105

Notes

Units marked * can be supplied suitable for 60Hz power supply. Other units may be available on special request.

Nominal moisture removal and input power based on 30°C/80%

Sound pressure level measured 1m from unit in free field to ISO 3746

DEHUMIDIFIERS

DH, DR, EH, ITM, FL – GENERAL DEHUMIDIFIER UNITS

The general range of dehumidifiers is intended for commercial and industrial use and covers an extended range of moisture removal capacities. Depending on the units selected there are options available to customise the units to almost any circumstance.

All units are stand-alone and suitable for remote, ducted installation or can be installed directly in the space to be dehumidified.

Standard units include integral air cooled condensers to reheat the dehumidified air but options are available for units with remote condensers along with 'neutral air' units.

The option of remote condensers allows the units to control both space humidity and temperature as the controller switches operation between the remote and integral condenser depending on the sensed room temperature.

The 'neutral' air units provide supply air at the same temperature as the return but a lower moisture level.

The general range also provides units suitable for low temperature applications down to -1°C.

A wide range of options are available depending on size and style; the most commonly used are: integral humidistats, remote humidistats, high static pressure fans, stainless steel casings, wheeled trolley versions, vibration dampers, supply flanges, return air side withdrawable filter frames and condensate pumps.

Smaller units require a single phase supply while larger units are three phase.



FL and DR units

Model/size	Units	DH75	DH100	*DH120	DR75	DR100
Nominal moisture removal	litres/day	75	94	124	75	94
Nominal input power	kW	1.3	1.6	1.8	1.3	1.6
Power supply	V/Ph/Hz	230/1/50	230/1/50	230/150	230/1/50	230/1/50
Air volume	m ³ /s	0.277	0.277	0.333	0.277	0.277
Refrigerant		R407C	R407C	R407C	R407C	R407C
Sound pressure level	dBA	56	58	59	56	58
Weight	kg	68	75	79	64	71
HxWxD	mm	770x570x550	770x570x550	770x570x550	455x560x700	455x560x700

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*DR120	EH160	*EH200	ITM330	*ITM400	FL560	FL740	*FL940
124	164	194	330	415	564	739	937
1.8	2.9	3.3	5.8	7.3	9.5	12.4	16.4
230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
0.333	0.388	0.528	1.055	1.111	1.430	1.903	2.277
R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C
59	61	62	66	68	72	73	74
75	102	108	175	205	390	412	439
455x560x700	850x570x700	850x570x700	1283x1004x635	1283x1004x635	1410x1630x1010	1410x1630x1010	1410x1630x1010

Notes

Units marked * can be supplied suitable for 60Hz power supply. Other units may be available on special request.

Nominal moisture removal and input power based on 30°C/80%

Sound pressure level measured 1m from unit in free field to ISO 3746

DEHUMIDIFIERS SPECIAL UNITS

A number of other styles of dehumidifier units are available from SPC and further details and performance can be found by contacting SPC directly. A brief description of additional units available is given below:

FH, GH units: Specially designed to complement radiant cooling systems in domestic or commercial premises. The units can be supplied with heat recovery modules and pre/post cooling coils to provide controlled humidity and temperature. Moisture removal capacity of up to 160 litres/day. Suitable for false ceiling mounting.

UTH units: These units are intended for use in swimming pools or other areas which utilise a high proportion of fresh air. The units also incorporate crossflow heat exchangers to optimise the efficiency of the dehumidification process. The units are supplied with motorised dampers on the fresh air and extract air connections. Moisture removal capacity of up to 680 litres/day

Bespoke units, tailored to a specific application are also produced and SPC engineers are always available to interpret your requirements and advise on suitable equipment.



GH unit

PROJECT REFERENCES

► Swimming Pools

- Government Schools (Musnada), Abu Dhabi
- Al Maha School, Qatar

► Museums

- Museum of Islamic Arts, Qatar
- Orientalist Museum, Qatar

► Hotels

- PPM Conrad Hotel, Dubai
- G+8 Corniche Hotel, Sharjah

► Art Galleries

- Cultural Village, Qatar

► Hospitals

- Welcare Hospital, Dubai

► Office Buildings

- Ministry of Finance, Qatar
- Al Rayyan Municipality, Qatar



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