POLYTROPIC

· POOL HEATING SOLUTIONS ·

DEHUMIDIFIER RANGES

SPECIAL INDOOR POOLS

POLYTROPIC

· POOL HEATING SOLUTIONS ·

POLYTROPIC: quality and commitment from a designer-manufacturer specialising in pool heating for 20 years.

Present in the pool heating market since 2003, we develop complete ranges of heat pumps and dehumidifiers designed to meet the specific needs of the pool industry.

As a designer and manufacturer, we are naturally committed to meeting current regulatory requirements, but above all to going beyond them. It is now up to us to go further in a comprehensive approach by monitoring the impact of our products throughout their life cycle (reliability of machines, longevity of components, repairability, reduced energy consumption, programming and proper use, recycling) as well as our work processes.

Proven expertise in thermodynamics, reliable, tested and certified products, and an innovative approach are all assets that make POLYTROPIC a leading French brand in pool heating and dehumidification.

A commitment

We are committed to providing solutions to all requests from professionals, even the most specific ones, and to satisfying individual customers on a daily basis. This commitment is made possible by the dedication of our entire team, from the product design phase to after-sales service:

RELIABLE PRODUCTS

Innovative and reliable products certified by independent laboratories, developed by our R&D department and continuously **tested** in-house on our test benches.

INNOVATIONS

Always going the extra mile to support our customers, our ability to listen and understand the specific needs of professionals, responding effectively by designing innovative solutions at fair prices.

CUSTOMER SATISFACTION

We believe it is our responsibility to provide assistance to both business and private customers. That is why dedicated technical teams are at your service and ready to respond to any questions with the utmost responsiveness.

Our **offer**

At POLYTROPIC, customer satisfaction is THE priority! The satisfaction of our customers, whether they are resellers, installers or users of our products, is always at the heart of our concerns.

It is this commitment to excellence that has built our reputation and inspired all our actions for almost 20 years.

Our motto is to be at your disposal and listen to your needs in order to provide you with the most suitable innovative solution at the right price. Beyond supplying quality equipment, we use all our skills to ensure your complete satisfaction:

- **ADVICE**
  Implementation, selection, technical advice.
- **DESIGN OFFICE**
  Design, recommendation, selection.
- **LOGISTICS**
  Storage, order preparation, dispatch.
- **AFTER-SALES SERVICE**
  In-house technical hotline available at every stage of our products' life cycle.
- **A NETWORK OF TRAINED TECHNICIANS**
  ready to intervene throughout the country.
- **FORMATION**
  We provide free training for your technical teams on the POLYTROPIC test bench to master the operation and installation of our products.

A European **network**

FOR ALL PROFESSIONALS AND INDIVIDUALS

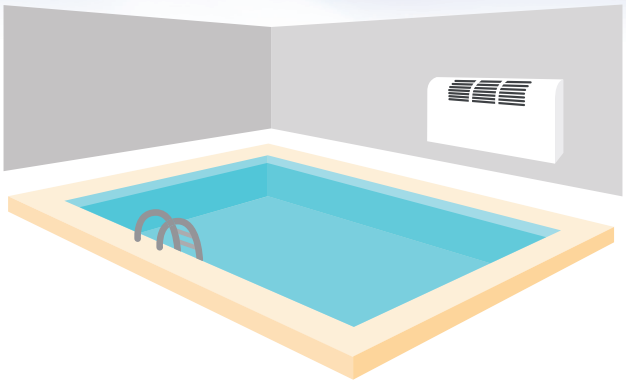
POLYTROPIC has selected more than 130 technical stations in France and around 90 others in Spain, Germany, Benelux, England and Switzerland.

Centralised at the head office in Lyon, this approved network is strictly monitored, enabling rapid response times.

All calls are handled, whether they concern technical issues, usage, etc. We provide technical support to installers in the selection, installation and commissioning of equipment.

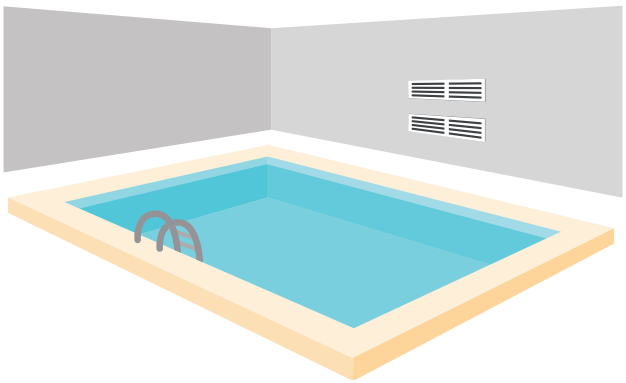
Selection DEHUMIDIFIERS

Each application requires a specific model. That's why there are different ranges of dehumidifiers:



• WALL-MOUNTED OR FLOOR-STANDING MODELS

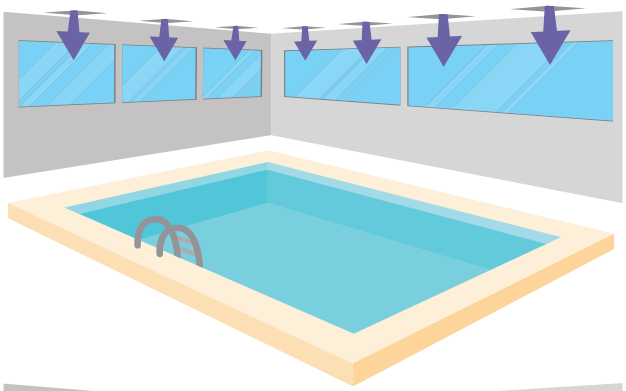
Specially designed for swimming pools, these models are "Plug and Play" and can be installed very easily without any particular technical knowledge. The disadvantage is that they cannot guarantee perfect dehumidification, especially on glass surfaces (and all cold surfaces where residual humidity may remain).



• BUILT-IN MODELS

In some cases, it is not possible to install the appliance directly in the room. To overcome this difficulty, built-in dehumidifiers are installed in an adjacent room and communicate with the room to be dehumidified via plenums and grids.

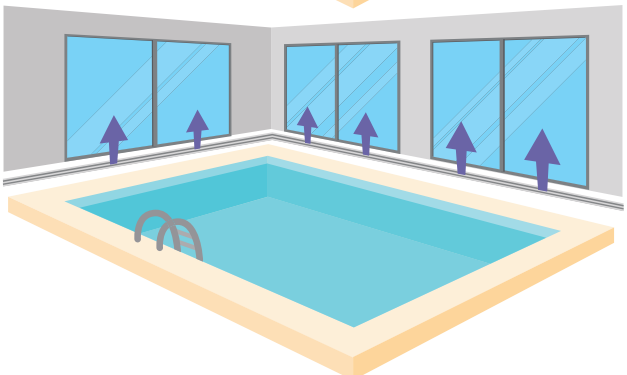
They have the same disadvantage as wall-mounted dehumidifiers, i.e. dehumidification cannot be fully guaranteed.



• DUCTED MODELS

Developed from industrial dehumidification, they are installed in a technical room close to the pool and are connected by ducts to the intake and discharge grids. This optimises air treatment for maximum efficiency.

Only these units can ensure optimum dehumidification by blowing directly onto the bay windows.



Commercial service and dehumidification

DESIGN, RECOMMENDATION, SELECTION

At POLYTROPIC, we understand that **every swimming pool project is unique** and can sometimes present technical challenges. That is why our technical **design office is available** to assist professionals in selecting and installing heating and dehumidification solutions. We offer tailor-made solutions that are perfectly adapted to the specific characteristics of each swimming pool.

Benefit from the **expertise** of our dedicated air handling team, trained to provide you with personalised support. We guarantee an accurate diagnosis and optimal recommendations for your project: thermal studies, selection and sizing of equipment, installation, accessories, duct networks, etc.

OUR OBJECTIVE: TO GUARANTEE A SOLUTION THAT IS PERFECTLY TAILORED TO THE NEEDS OF EACH OF YOUR PROJECTS!

YOUR TURNKEY PROJECT

CALL ON THE DESIGN OFFICE FOR:

- **Thermal study of the project**
- Selection of relevant equipment at the best price
- Preparation of layout plans
- **Selection of essential accessories for completing the entire installation**

This will give you the assurance

> that the installation will function optimally

> and that the solution WILL BE PERFECTLY SUITED to the specific nature of the project... and to your customer's requirements!

Wall-mounted and built-in DEHUMIDIFIERS

DPE

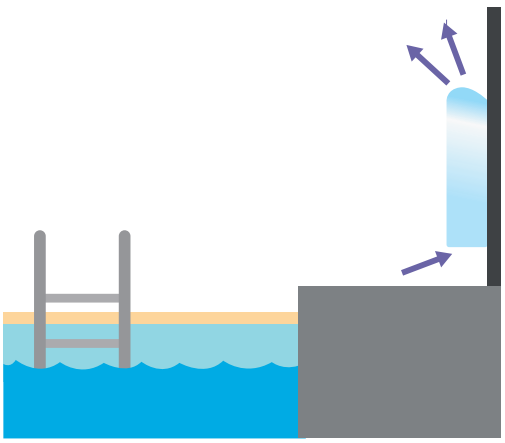
DPM

Features

- They are designed for very simple installation requiring no special skills: wall mounting and 230V/50Hz power supply.
- Installation must comply with current legislation.
- R410a refrigerant
- HP protection
- Electronic regulator and digital display
- Single or three-phase power supply for the DPM/DPE 150 and 200

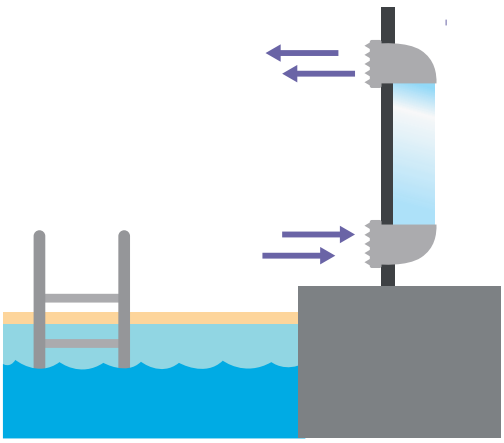
The +

Customise the colour of the DPM wall-mounted dehumidifier casing on request for seamless integration into your client's project.



DPM VERSION

Wall mounting in the pool room



DPE VERSION

Built into the wall, the unit is located in an adjacent room and only the grilles are visible.

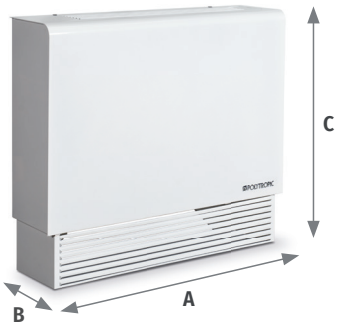
Technical **specifications**

DPM / DPE								
Model		**50 Mono**	**60 Mono**	**100 Mono**	**150 Mono/Tri**		**200 Mono/Tri**	
Dehumidification capacity	**30°C / 80% HR**	2,0 l/h	3,0 l/h	4,0 l/h	6,5 l/h		7,9 l/h	
	30°C / 70% HR	1,9 l/h	2,7 l/h	3,6 l/h	5,6 l/h		6,9 l/h	
	30°C / 60% HR	1,7 l/h	2,4 l/h	3,2 l/h	4,7 l/h		6,0 l/h	
Operating range		50 to 100% HR and 20 to 35°C						
Air flow at maximum pressure		500 m³/h	800 m³/h	1000 m³/h	1400 m³/h		1700 m³/h	
Refrigerant fluid		R410A						
Sound level (at 1m)		45 dB(A)	47 dB(A)	50 dB(A)	52 dB(A)		54 dB(A)	
Weight		65 kg	75 kg		107 kg		113 kg	
Power		230 V / 1~ +N / 50 Hz			230 V / 1~ +N / 50 Hz or 400 V / 3~ +N / 50 Hz			
Maximum power consumption	**W/o resistance**	0,9 kW	1,8 kW	2 kW	2,7 kW		3,4 kW	
	With resistance	3,4 kW	4,8 kW	5 kW	8,7 kW / 7,2 kW		9,4 kW / 7,7 kW	
Cable protection and size (for 20m)	**W/o resistance**	D 4 A 3G 1,5 mm²	D 8 A 3G 1,5 mm²		D 13 A 3G 1,5 mm²	D 6 A 5G 1,5 mm²	D 16 A 3G 1,5 mm²	D 8 A 5G 1,5 mm²
	With resistance	D 16 A 3G 1,5 mm²	D 20 A 3G 4 mm²	D 25 A 3G 4 mm²	D 40 A 3G 10 mm²	D 32 A 5G 4 mm²	D 45 A 3G 10 mm²	D 32 A 5G 4 mm²
AVAILABLE OPTIONS								
Electric heating		3 kW			6 kW Mono or 4,5 kW Tri			
Hot water coil and control Power with a water temperature of 80/70°C - Air 30°C		3,5 kW	7 kW		11 kW			
Hot water coil and control Power with water temperature of 55/45°C - Air 30°C		1,3 kW	2,4 kW		3,5 kW			
Remote control screen		Wired, provide 2x 0.75 mm shielded bus cable						
Feet for floor installation (DPM only)		Weight distribution between wall mounting and legs						
Customised body colour (DPM only)		RAL colour of your choice						
Partition cross-beam plenums (DPE only)		Length to be specified						

Dimensions

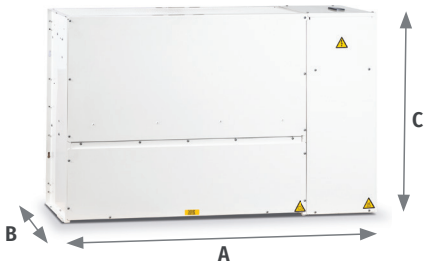
DPM Model	50 Mono	60 Mono	100 Mono	150 Mono/Tri	200 Mono/Tri
A (mm)	760	1060	1060	1311	1311
B (mm)	261	261	261	312	312
C (mm)	750	750	750	838	838

DPM



DPE Model	50 Mono	60 Mono	100 Mono	150 Mono	200 Mono/Tri
A (mm)	694	994	994	1255	1255
B (mm)	252	252	252	303	303
C (mm)	680 *(1230 with elbows)*			770 *(1320 with elbows)*	

DPE



Ducted cabinets
DEHUMIDIFIERS

IDEAL FOR POOLS SMALLER THAN 40/50 M²

Save time and money with this clever range that is quick to install.

Benefits

QUICK, CUSTOMISABLE INSTALLATION

Ductable with 6 or 8 insulated flexible ducts depending on model. Conventional or remote installation on lower level. Supplied with accessories depending on options chosen.

EFFICIENT AND QUIET

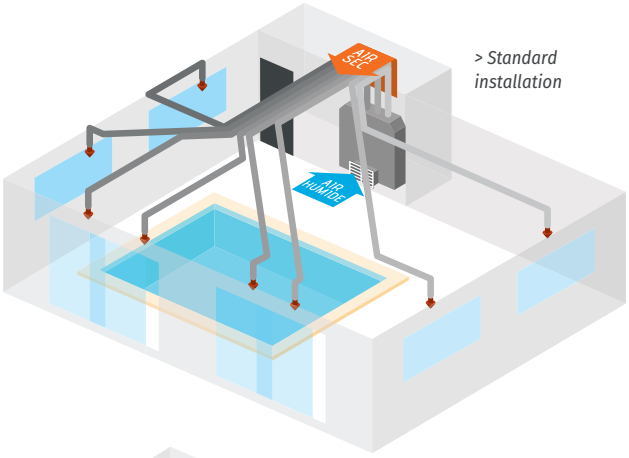
Anti-vibration mounts
Variable-speed EC fan
Copeland scroll compressor (except for Ref 02 and 03)
AREA rotary compressor (for Ref 02 and 03)
10 mm insulation

A ROBUST RANGE

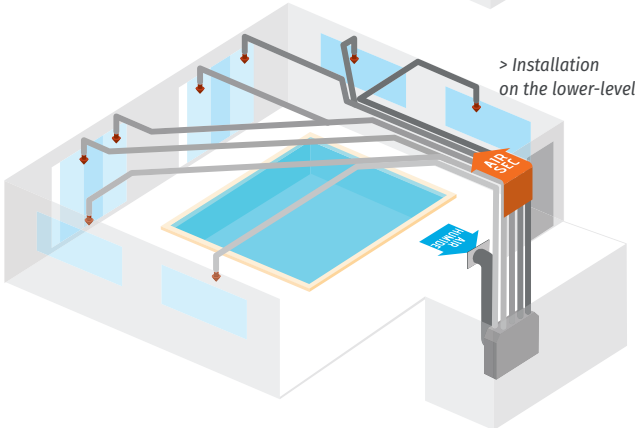
Pre-painted 10/10th epoxy sheet metal (in and out) RAL 9010
Epoxy-treated aluminium finned heat exchangers
5-year parts warranty

COMPONENT QUALITY

Complete Eliwell control system
Basic integrated filter
Supplied with accessories depending on options chosen.



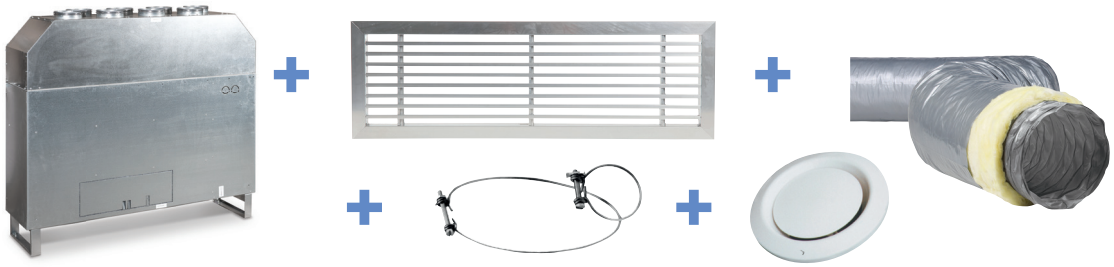
> Standard installation



> Installation on the lower-level

Features

The DPA PACK includes :
the appliance
+ 1 return grille
+ flexible ducts
+ collars
+ extract units

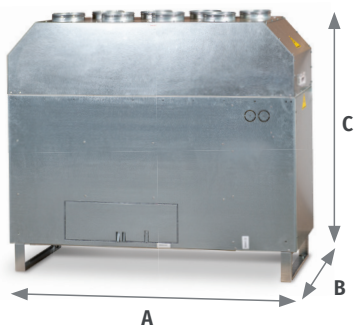


Technical **specifications**

			DPA				
Model			**50 Mono**	**60 Mono**	**100 Mono/Tri**	**150 Mono/Tri**	**200 Mono/Tri**
Dehumidification capacity		**30°C / 80% HR**	2,2 l/h	3,4 l/h	6 l/h	7,3 l/h	8,1 l/h
		30°C / 70% HR	1,9 l/h	2,9 l/h	5,2 l/h	6,2 l/h	7,0 l/h
		30°C / 60% HR	1,6 l/h	2,4 l/h	4,4 l/h	5,2 l/h	5,9 l/h
Operating range			35 à 85% HR et 20 à 35°C				
Air flow at max. pressure			715 m³/h		1050 m³/h		
Available pressure at nominal air flow			110 Pa		60 Pa		
EC variable speed fan			Included				
Floor-standing feet			Included				
Aluminium suction grid			Included				
Pack of 6ml insulated aluminium ducts with vents			Included				
Number of diffusers with ducts (D160 int. and D210 ext.)			6		8		
Refrigerant fluid			R407C				
Noise level (at 1m)			54 dB(A)	54 dB(A)	58 dB(A)	58 dB(A)	59 dB(A)
Weight			115 kg	120 kg	163 kg	167 kg	170 kg
Power			230 V / 1~ +N / 50 Hz		230 V / 1~ +N / 50 Hz or 400 V / 3~ +N / 50 Hz		
Protection and cable size (for 20m)	**Without resistance**		D 10 A 3G 1,5 mm²	D 10 A 3G 2,5 mm²	D 20 A / 3P +N D 10 A 3G 2,5 mm² / 5G 1,5 mm²		
	1 phase	**With resistance 2 kW**	D 16 A 3G 2,5 mm²		D 20 A 3G 2,5 mm²		
		With resistance 4 kW	D 20 A 3G 4 mm²		D 20 A 3G 4 mm²		
	3 phase	**With resistance 6 kW**	NA		3P +N D 16 A 5G 1,5 mm²		
AVAILABLE OPTIONS							
Electrical heating			2 or 4 kW		2 or 4 kW Mono / 6 kW Tri		
Hot water battery and regulation Power with a water temperature of 90/80°C - Air 27°C			6,3 kW		9,6 kW		
Hot water battery and regulation Power with a water temperature of 50/45°C - Air 27°C			2,2 kW		3,3 kW		
10 ml tube with vent holes			Depending on the configuration of the pool room				
Kit for relocating the device			Installation in lower level				
Wired remote control screen			Wired, provide shielded bus cable 3x 0.75 mm				

Dimensions

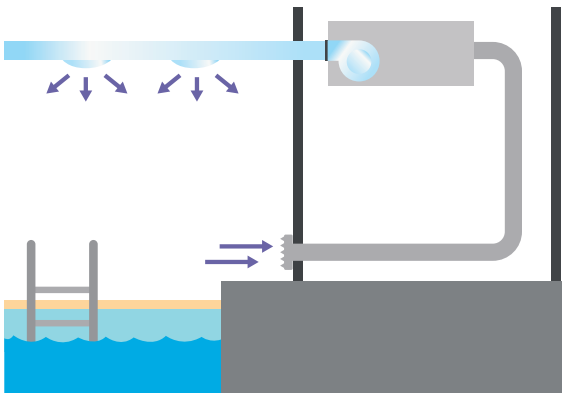
DPA Model	50 Mono	60 Mono	100 Mono/Tri	150 Mono/Tri	200 Mono/Tri
A (mm)	1150	1150	1500	1500	1500
B (mm)	377	377	377	377	377
C (mm)	1150	1150	1150	1150	1150



Ductable DEHUMIDIFIERS

The DPG-LC and DPG-BC dehumidifiers are high-performance units that are particularly suited to swimming pools, mais aussi pour tout milieu où le niveau d'humidité doit être contrôlé.

Features



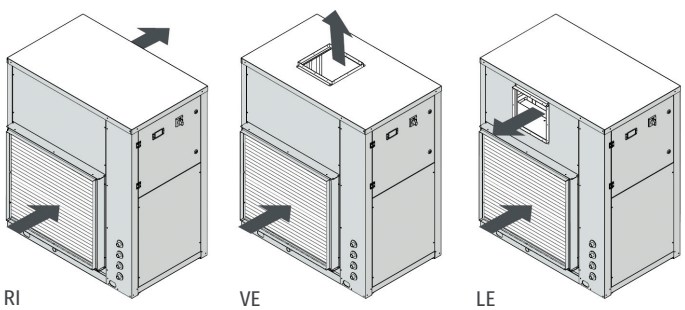
Installation diagram with supply duct

- Self-supporting frame with removable panels.
- Galvanised steel panels with epoxy paint finish.
- Standard G5 air filter made of synthetic fibres (non-electrostatic), removable and cleanable.
- All DPG units come with electronic controls as standard, which regulate:
  - Compressor operation,
  - Defrost cycles,
  - Air humidity management,
  - Air heating,
  - Alarms.

AVAILABLE ACCESSORIES:

- Built-in electronic temperature and humidity sensor
- Remote hygrostat + thermostat
- Electric heating coil
- Hot water coil and control valve
- Partial heat recovery via condenser
- Air inlet and outlet plenum

DPG-BC BODY VARIANTS :



RI
Straight horizontal blowing

VE
Vertical blowing (standard)

LE
Blowing horizontal left

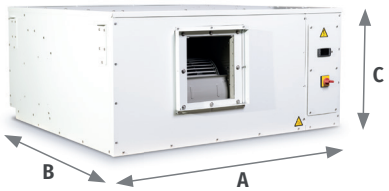
Technical **specifications**

DPG-LC								
Model		**50 Mono**	**75 Mono**	**100 Mono**	**150 Mono/Tri**		**200 Mono/Tri**	
Dehumidification capacity	**30°C / 80% HR**	2,0 l/h	3,0 l/h	4,0 l/h	6,5 l/h		7,9 l/h	
	30°C / 70% HR	1,8 l/h	2,7 l/h	3,6 l/h	5,7 l/h		7,0 l/h	
	30°C / 60% HR	1,6 l/h	2,4 l/h	3,2 l/h	4,9 l/h		6,1 l/h	
Operating range		50 to 100% HR and 20 to 35°C						
Air flow at maximum pressure		500 m³/h	800 m³/h	1000 m³/h	1400 m³/h		1700 m³/h	
Refrigerant fluid		R410A						
Sound level (at 1m)		50 dB(A)	52 dB(A)	54 dB(A)	60 dB(A)		62 dB(A)	
Weight		68 kg	105 kg	108 kg	145 kg		150 kg	
Power		230 V / 1~ +N / 50 Hz			230 V / 1~ +N / 50 Hz or 400 V / 3~ +N / 50 Hz			
Maximum power consumption	**W/o resistance**	0,9 kW	2,0 kW	2,2 kW	3,3 kW		4,0 kW	
	With resistance	3,9 kW	5,0 kW	5,2 kW	9,3 kW		10,0 kW	
Cable protection and size (for 20m)	**W/o resistance**	D 4 A 3G 1,5 mm²	D 13 A 3G 1,5 mm²		D 16 A 3G 1,5 mm²	D 10 A 5G 1,5 mm²	D 20 A 3G 2,5 mm²	D 13 A 5G 1,5 mm²
	With resistance	D 20 A 3G 2,5 mm²	D 25 A 3G 4 mm²		D 45 A 3G 10 mm²	D 32 A 5G 4 mm²	D 45 A 3G 10 mm²	D 32 A 5G 4 mm²
AVAILABLE OPTIONS								
Electric heating		3 kW			6 kW Mono or 4,5 kW Tri			
Hot water battery and regulation Power with a water temperature of 80/70°C - Air 30°C		3,5 kW	7,5 kW	8,5 kW	13,0 kW		14,0 kW	
Hot water battery and regulation Power with a water temperature of 55/45°C - Air 30°C		1,3 kW	2,6 kW	2,7 kW	4,0 kW		4,8 kW	
Wired remote control screen		Wired, provide 2x 0.75 mm shielded bus cable						
EC variable speed fan		Ventilation speed adjustment						

DPG-BC								
Model			**270 Tri**	**350 Tri**	**450 Tri**	**550 Tri**	**750 Tri**	**950 Tri**
Dehumidification capacity	**30°C / 80% HR**		11,0 l/h	14,2 l/h	17,5 l/h	23,6 l/h	31,3 l/h	39,1 l/h
	30°C / 70% HR		9,4 l/h	12,6 l/h	15,8 l/h	20,7 l/h	28,1 l/h	35,4 l/h
	30°C / 60% HR		7,7 l/h	10,9 l/h	14 l/h	17,7 l/h	24,9 l/h	31,7 l/h
Operating range			50 to 100% HR and 20 to 35°C					
Air flow at maximum pressure			3500 m³/h	4200 m³/h	4200 m³/h	5500 m³/h	7000 m³/h	8500 m³/h
Refrigerant fluid			R410A					
Sound level (at 1m)			63 dB(A)	64 dB(A)	64 dB(A)	66 dB(A)	66 dB(A)	66 dB(A)
Weight			210 kg	225 kg	235 kg	415 kg	423 kg	430 kg
Power			400 V / 3~ +N / 50 Hz					
Maximum power consumption	**Without resistance**		6,8 kW	8,2 kW	10,2 kW	13,8 kW	17,8 kW	21 kW
	With resistance	**9 kW**	15,8 kW	17,2 kW	19,2 kW	22,8 kW	26,8 kW	30 kW
		18 kW	NA			31,8 kW	35,8 kW	39 kW
Cable protection and size (for 20m)	**Without resistance**		3P +N D 20 A 5G 1,5 mm²	3P +N D 20 A 5G 2,5 mm²	3P +N D 25 A 5G 4 mm²	3P +N D 32 A 5G 4 mm²	3P +N D 32 A 5G 6 mm²	3P +N D 40 A 5G 10 mm²
	With resistance	**9 kW**	3P +N D 32 A 5G 4 mm²	3P +N D 40 A 5G 6 mm²	3P +N D 40 A 5G 6 mm²	3P +N D 40 A 5G 10 mm²	3P +N D 45 A 5G 16 mm²	3P +N D 50 A 5G 16 mm²
		18 kW	NA			3P +N D 50 A 5G 16 mm²	3P +N D 63 A 5G 25 mm²	3P +N D 63 A 5G 25 mm²
AVAILABLE OPTIONS								
Electric heating			9 kW			9 ou 18 kW		
Hot water battery and regulation Power with a water temperature of 80/70°C - Air 30°C			22,8 kW	24 kW		42 kW	49 kW	56 kW
Hot water battery and regulation Power with a water temperature of 55/45°C - Air 30°C			6,8 kW	7,2 kW		12,6 kW	14,7 kW	16,8 kW
Remote control screen			Wired, provide 2x 0.75 mm shielded bus cable					
EC variable speed fan			Ventilation speed adjustment					
Air filter frame and filter			Simplified accessibility to the filter					

Dimensions

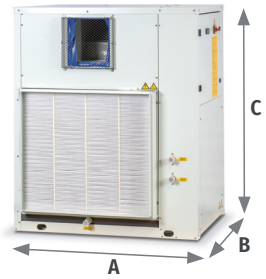
Model DPG-LC	50 Mono	75 Mono	100 Mono	150 Mono/Tri	200 Mono/Tri
A (mm)	784	1054	1054	1234	1234
B (mm)	747	980	980	1160	1160
C (mm)	360	460	460	530	530



DPG-LC

Model DPG-BC	270 Tri	350 Tri	450 Tri	550 Tri	750 Tri	950 Tri
A (mm)	1154	1154	1154	1504	1504	1504
B (mm)	795	795	795	854	854	854
C (mm)	1354	1354	1354	1750	1750	1750

DPG-BC



Installation

ONLY DPG-LC

The highly compact DPG-LC models are particularly suited to installations where space constraints are significant:

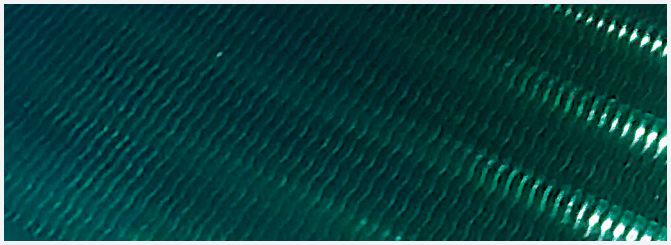
- The unit is designed to be installed on the ceiling using specially designed mounting brackets.
- The filter can be changed either from above or below using a door and drawer system.
- It can be concealed in a false ceiling, provided there is sufficient space between the ceiling and the false ceiling.

This leaves the floor space available for other equipment in a plant room.

DPG-LC AND DPG-BC

In order to adapt to as many installations as possible, the fans have a permissible outlet air pressure of 150 Pa (300 Pa optional).

All heat exchangers are treated with cataphoresis to ensure maximum resistance to chemical attack in swimming pool environments (chlorine, salt, etc.).



For air heating, the units can be equipped with the following options:
- Either an electric booster (anodised aluminium electric resistance integrated into the unit) controlled by the dehumidifier. The unit circulates the air regularly in order to measure the temperature and heat the air if necessary.
- Or a hot water coil, which is an air/water heat exchanger through which water from the boiler circulates. This heat exchanger is also treated to withstand a corrosive atmosphere.

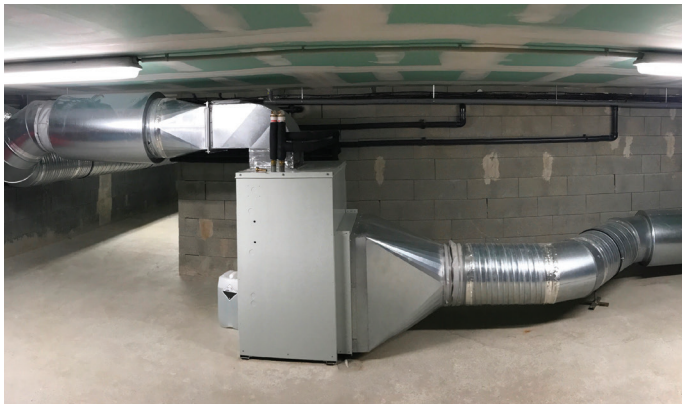
The device can also (as an option) control a 3-way valve that will circulate or not circulate water from the boiler to heat the air in the room, as a thermostatic valve on a radiator would do.

Any type of domestic heating system can be connected to this coil:
- Oil boiler
- Gas boiler
- Heat pump
- Wood and/or pellet boiler

Please note that the heating power will depend on the temperature of the water sent to the device (between 55°C and 80°C maximum).

For the user, there are only two settings: humidity and temperature.
The appliance itself determines how the various components operate in order to achieve the desired result.

It is possible to remotely control the display (wired up to 50 m).



Built-in ductable DEHUMIDIFIERS

DPG-H

The DPG-H ducted built-in pool dehumidifier has been specially designed for dehumidifying private or public swimming pools or spas. Quiet and efficient, it can be installed in any plant room on its adjustable support.

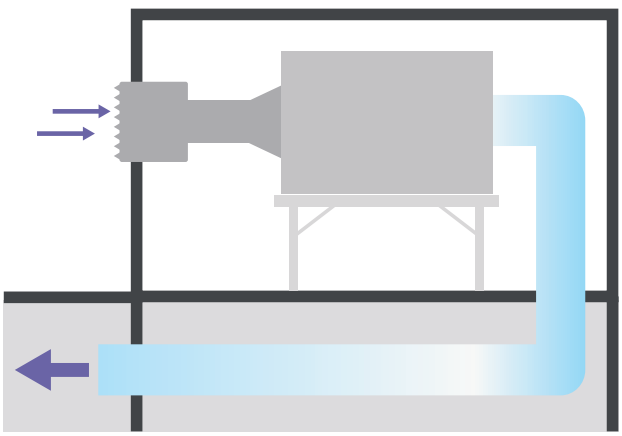
Benefits

SIMPLE AND INTUITIVE OPERATION
Comprehensive, easy-to-use controls.

COMPONENT QUALITY
- 10/10th epoxy pre-coated sheet metal (int/ext) RAL 9010
- Epoxy-coated aluminium finned heat exchangers
- Integrated basic filter

EFFICIENT AND QUIET
- Anti-vibration pads
- Variable speed EC fan
- Copeland scroll compressor
- Dense insulation as standard

QUICK AND CUSTOMISABLE INSTALLATION
- Steel support chair with epoxy paint, customisable height
- Accessories according to the options chosen.



Example of installation with underground air ducting

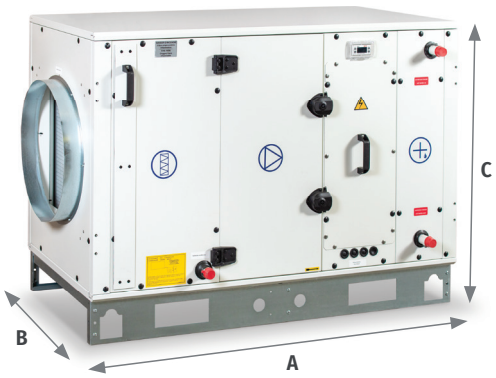
Technical **specifications**

DPG-H							
Model			**200 Mono/Tri**	**250 Mono/Tri**	**300 Mono/Tri**	**350 Mono/Tri**	**400 Tri**
Dehumidification capacity		**30°C / 80% HR**	8,8 l/h	10,4 l/h	13,5 l/h	15,9 l/h	18,0 l/h
		30°C / 70% HR	7,6 l/h	8,9 l/h	11,6 l/h	13,7 l/h	15,5 l/h
		30°C / 60% HR	6,3 l/h	7,5 l/h	9,7 l/h	11,5 l/h	13,0 l/h
Operating range			30 to 85% HR and 20 to 35°C				
Nominal air flow rate			1500 m³/h	1500 m³/h	3000 m³/h	3000 m³/h	3000 m³/h
Pressure available at nominal air flow rate			300 Pa		400 Pa		
EC variable speed fan			Included				
Available flow variation			1 250 to 2 000 m³/h		2 000 to 4 000 m³/h		
Outlet diameter (mm)			400		500		
Fluide réfrigérant			R407C				
Sound level (at 1m)			55 dB(A)	56 dB(A)	60 dB(A)	61 dB(A)	61,5 dB(A)
Weight			173 kg	174 kg	252 kg	252 kg	254 kg
Power			230 V / 1~ +N / 50 Hz or 400 V / 3~ +N / 50 Hz				400 V / 3~ +N / 50 Hz
Cable protection and size (for 20m)	**Without resistance**		D 25 A / 3P +N D 10 A 3G 4mm² / 5G 1,5mm²	D 32 A / 3P +N D 10 A 3G 6mm² / 5G 2,5mm²	D 32 A / 3P +N D 16 A 3G 6mm² / 5G 2,5mm²	D 40 A / 3P +N D 16 A 3G 10mm² / 5G 2,5mm²	3P +N D 16 A 5G 2,5mm²
	1 phase	**With resistance 3 kW**	D 25 A 3G 4 mm²	D 32 A 3G 6 mm²	NA		
	3 phases	**With resistance 6 kW**	3P +N D 16 A 5G 1,5 mm²	3P +N D 16 A 5G 2,5 mm²			
		With resistance 9 kW					
		With resistance 12 kW	NA		3P +N D 20 A 5G 2,5 mm²		
AVAILABLE OPTIONS							
Mono electric heating			3 kW		/		
Electric heating Tri			6 or 9 kW		6 or 9 or 12 kW		
Hot water battery and regulation Power with a water temperature of 90/80°C - Air 27°C			16 kW		32 kW		
Hot water battery and regulation Power with a water temperature of 50/45°C - Air 27°C			5,5 kW		11 kW		
Steel support chair with epoxy paint finish			Height 1 metre				
Left side opening			Possibility of having easements on the left side				
Wired remote control screen			Wired, provide shielded bus cable 3x 0.75 mm				

Dimensions

Model DPG-H	**200 Mono/Tri**	**250 Mono/Tri**	**300 Mono/Tri**	**350 Mono/Tri**	**400 Tri**
A (mm)	1421,5	1421,5	1421,5	1421,5	1421,5
B (mm)	715,5	715,5	715,5	715,5	715,5
C (mm)	684	684	1044	1044	1044

DPG-H

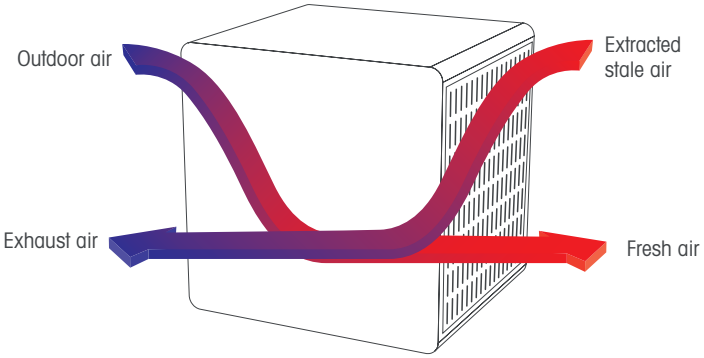


Ductable dual-flow DEHUMIDIFIERS

DPG-DF

The high-efficiency dehumidifiers with energy recovery (dual flow) from the DPG-DF series are high-quality appliances.

- Fully insulated for indoor use.
- Specially designed for use in high humidity environments such as swimming pools.
- Can operate at temperatures up to 36°C.
- Capable of delivering fresh air flow up to 30% of the nominal flow rate.
- Wide range with air flow rates from 1,500 to 6,000 m^3/h of treated air.
- Energy recovery that saves up to 20% of dehumidification capacity.
- The energy recovery system (in which the air passes twice) significantly improves the efficiency of the unit.
- The dual-flow system saves a lot of energy.



When seeking to dehumidify a space such as a swimming pool, the simplest and most economical method is to inject outside air (which contains virtually no moisture) into the space.

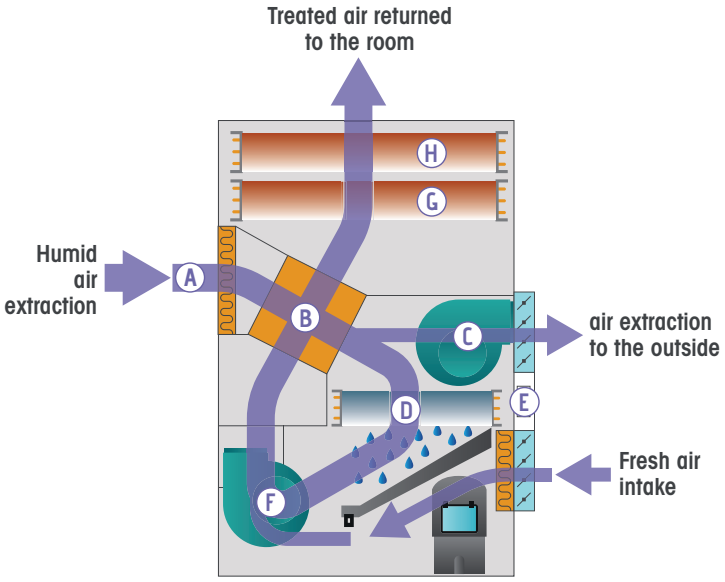
The disadvantage is that this outside air (especially in winter) is much too cold, and the moisture savings will be lost because the air will need to be heated.

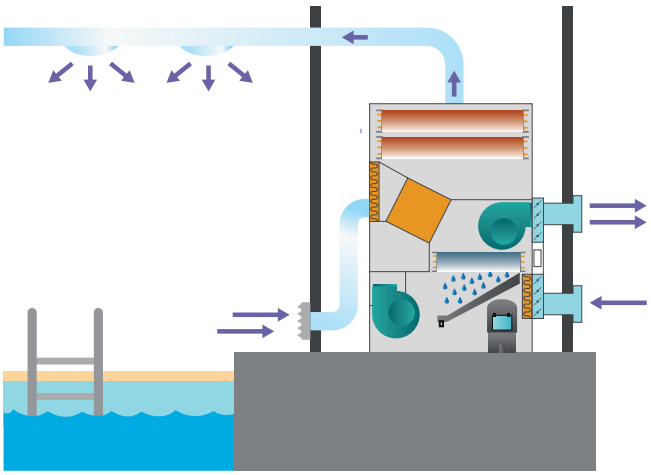
A dual-flow dehumidifier solves this problem. The air recovered from outside passes through a heat recovery unit before entering the room. This air flow crosses the air extracted from the room. The heat from the outgoing air is therefore recovered and returned to the incoming air with a high efficiency (close to 90%). This means there is much less heat loss, and the air is dehumidified without the need for additional energy consumption.

The injected air is mixed in the unit with the air from the pool room so that the dehumidifier works on an ideal air mixture, optimising its efficiency.

- A motorised damper system allows the openings to be completely closed when fresh air intake is not needed to control temperatures.
- An optional additional energy recovery kit recovers the remaining heat in the air that is sent outside and returns it to the injected air, further improving energy savings and allowing operation down to an outside air temperature of 0°C.

Operating principle





Installation diagram

A) The warm, humid air in the room is sucked through the filter.
B) The air transfers some of its heat to the energy recovery unit, which then returns it to the room.
C) Part of the air flow (0 to 30% of the flow) is evacuated by the fan to the outside.
D) The rest of the airflow passes through the evaporator where it is cooled and the moisture condenses in order to dehumidify it.
E) Fresh air (0 to 30% of the flow rate) enters through the damper to be mixed with the treated air.
F) Fresh air and treated air are mixed before being sent to the energy recovery unit to be heated for the first time.
G) The air is heated by the condenser.
H) The air may be heated a second time by the water coil (optional) to heat the room if necessary.

Features

CASING

All DPG-DF units are made with hot-dip galvanised steel panels coated with epoxy/polyurethane paint for improved corrosion resistance. The condensate collection tray is made of stainless steel.

REFRIGERANT CIRCUIT

The circuit, manufactured entirely in Italy, complies with Directive 97/23/EC and includes the following components:

- Thermostatic expansion valve,
- Safety devices compliant with the PED standard,
- Scroll compressor
- Condenser and evaporator with anti-corrosion treatment
- Automatic defrost sensor.

ENERGY RECOVERY UNIT

Static cross-flow system with corrosion-resistant painted aluminium plates and stainless steel condensate collection tray.

VENTILATION

All fans used are variable speed fans (EC or brushless type), treated against corrosion and electronically controlled to reduce noise pollution and improve efficiency.

OUTDOOR AIR REGISTER AND FILTERS

The automatic damper is made of aluminium and nylon and is electronically controlled.
The units are equipped with easily removable G5 class synthetic fibre filters.

ELECTRICAL AND ELECTRONIC

- The units are equipped with Carel controllers allowing complete control of the unit by a single microprocessor system.
- The sensor installed on the return duct allows accurate display of temperature and humidity in a range from 0 to 50°C and 10 to 90% humidity.
- The electrical panel complies with EC Directives 73/23 and 89/336.
- Each component has its own electrical protection.

AVAILABLE OPTIONS

Low temperature kit
For operation at outdoor temperatures below 5°C and down to -20°C.
Remote condenser
Prevents the room from overheating and also air conditions it in summer.
Remote control

Key advantage

The main advantage of dual-flow dehumidifiers is energy savings.
Compared to a conventional dehumidifier:
• At least 30% energy savings on dehumidification,
• Up to 50% energy savings on dehumidification with fresh air supply at 30% of the total air flow,
• 90% energy savings on fresh air supply.

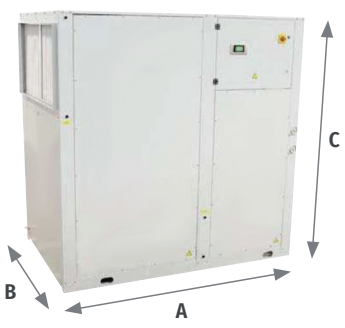
Example:
A DPG-BC 270 consumes 7.5 kW to remove 7.7 l/h (at 30°C / 60% RH).
Under the same conditions, a DPG-DF 28 consuming 7.4 kW (almost the same power) can remove 10 to 15 l/h!

Technical **specifications**

DPG-DF								
Model		15 Tri	20 Tri	28 Tri	35 Tri	42 Tri	52 Tri	60 Tri
Dehumidification capacity	**30°C / 60% HR fresh air 0%**	5,5 l/h	6,8 l/h	10,4 l/h	12,9 l/h	15,7 l/h	19,4 l/h	23,6 l/h
	30°C / 60% HR fresh air 30%	9,3 l/h	12,1 l/h	18,5 l/h	23,0 l/h	24,5 l/h	31,1 l/h	37,8 l/h
Operating range		50 to 100% HR and 20 to 36°C						
EC variable speed fan		Included						
Air flow at maximum pressure.		1500 m³/h	2000 m³/h	2800 m³/h	3500 m³/h	4200 m³/h	5200 m³/h	6000 m³/h
Air flow (renewal)		450 m³/h	600 m³/h	845 m³/h	1050 m³/h	1260 m³/h	1560 m³/h	1800 m³/h
Refrigerant fluid		R410A						
Sound level (at 1m)		63 dB(A)	63 dB(A)	66 dB(A)	66 dB(A)	68 dB(A)	69 dB(A)	69 dB(A)
Hot water battery and regulation Power with a water temperature of 80/70°C - Air 30°C		Included						
		18 kW	23 kW	28 kW	33 kW	53 kW	64 kW	70 kW
Hot water battery and regulation Power with a water temperature of 55/45°C - Air 30°C		8,2 kW	10,4 kW	13 kW	15 kW	24 kW	29 kW	31,5 kW
Weight		290 kg	290 kg	400 kg	420 kg	570 kg	590 kg	620 kg
Power		400 V / 3~ +N / 50 Hz						
Maximum power consumption.		4,1 kW	4,8 kW	7,7 kW	9,1 kW	16 kW	17,5 kW	19 kW
Cable protection and size (for 20m)		3P +N D 20 A 5G 2,5 mm²	3P +N D 25 A 5G 2,5 mm²		3P +N D 25 A 5G 4 mm²	3P +N D 40 A 5G 6 mm²		
AVAILABLE OPTIONS								
Low temperature kit		For operation at outdoor temperatures below 5°C and down to -20°C						
Remote condenser		Prevents the room from overheating and also cools it in summer.						
Wired remote control screen		Provide RJ45 bus cable, maximum length 10m						

Dimensions

Model DPG-DF	15 Tri	20 Tri	28 Tri	35 Tri	42 Tri	52 Tri	60 Tri
A (mm)	1122	1122	1647	1647	2077	2077	2077
B (mm)	638	638	737	737	1240	1240	1240
C (mm)	1766	1766	1766	1766	1951	1951	1951



ACCESSORIES AND OPTIONS

Diffusion

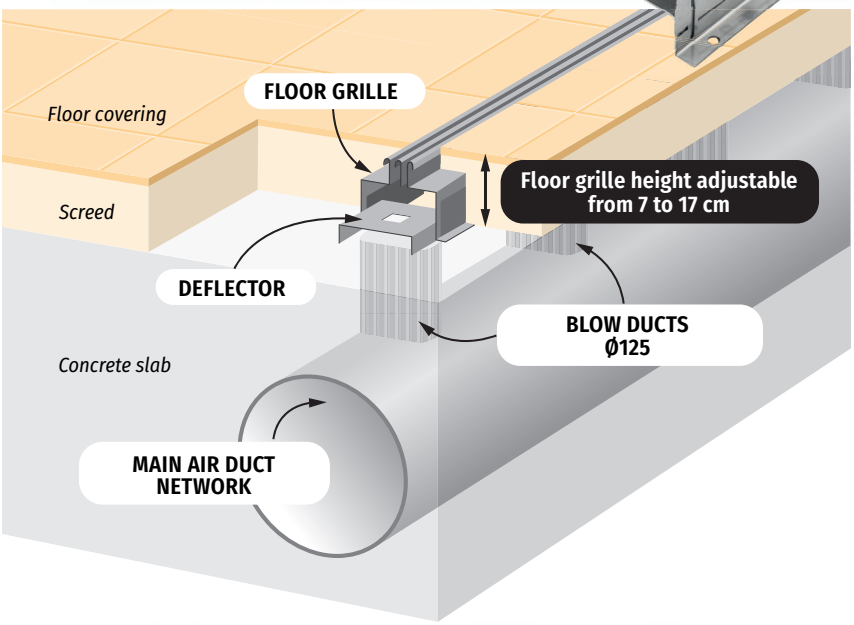
- **BLOW RAIL**

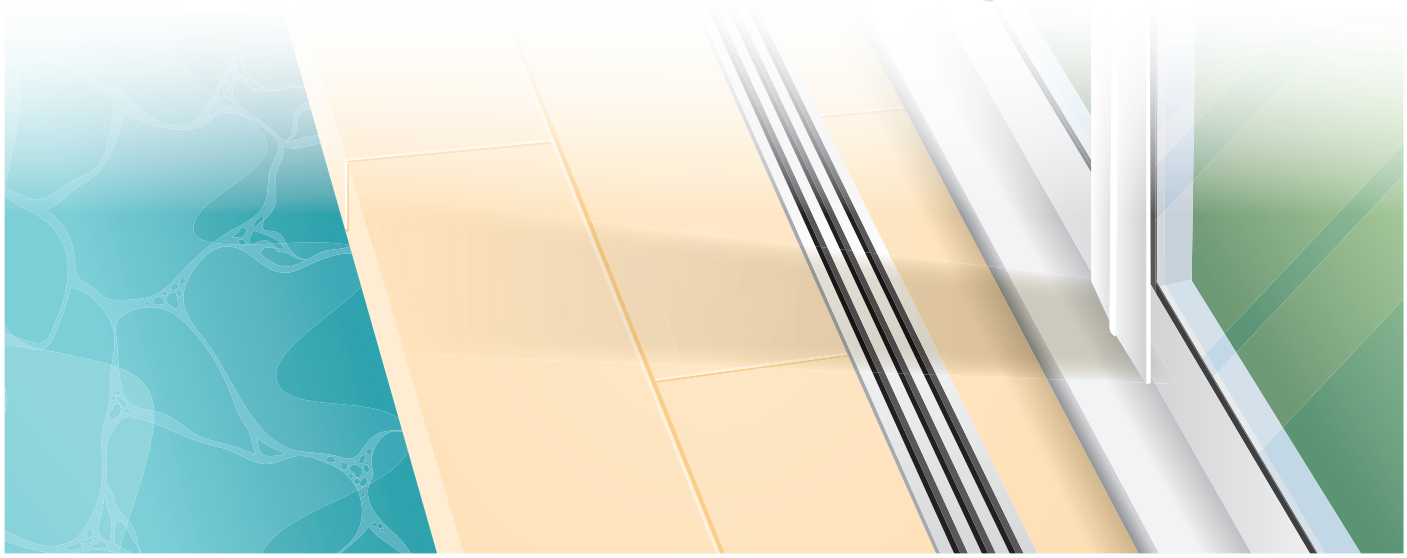
An aesthetic and discreet solution for blowing air along glass walls.

- Easy to install, the air duct rails fit perfectly flush with the floor. Compatible with underfloor heating.

- Adjustable length and height. Air is blown along the entire length of the bay, regardless of its dimensions. Ideal for effectively treating condensation.

- Deflectors to be positioned on site for good air flow distribution along the rail.





Ventilation : an essential

As treating a swimming pool releases fumes (chlorine, pH, etc.), it is necessary to renew some of the air regularly to maintain an ideal atmosphere in the room. In addition, French legislation requires a minimum amount of fresh air to be injected into the room (depending on the number of users).

THROUGH-WALL FAN

- Axial fan for integration into the wall of the room,
- Use for air supply or extraction,
- Variable speed,
- Very quiet,
- Supplied with grilles and wall duct (200 to 380 mm).

If a higher air flow rate is required, it is possible to control several fans with the same control box (up to 5).

Fan	Air flow	Reservation
Energy 500	245 to 445 m³/h	260 x 260 mm
Energy 900	820 to 920 m³/h	330 x 330 mm
Energy 1800	1340 to 1820 m³/h	410 x 410 mm

DUCT FAN

- Compact centrifugal duct fan,
- For supply or extract air applications,
- Quick-fit mounting system,
- Very easy to install,
- Electronic speed control.

Fan	Air flow	Duct
Canalfast 125	285 to 345 m³/h	Ø 125
Canalfast 160	467 to 552 m³/h	Ø 160
Canalfast 200	820 to 1040 m³/h	Ø 200
Canalfast 250	1100 to 1400 m³/h	Ø 250
Canalfast 315	1760 to 2350 m³/h	Ø 315

Networks

Our design office supports you from the design stage right through to the supply of your networks.
In addition to layout plans, we can supply you with ducts, accessories and other components required for your installation.

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