

Overview

GLOBAL AIR HANDLING UNITS

Brilliant Simplicity

Swegon GLOBAL

Air Handling Units



The Swegon GLOBAL air handling units is a new series of efficient and robust units, developed for installers valuing simplicity, contractors that need to keep time and budget and end-users who want the right indoor climate at the right cost.

GLOBAL targets projects which require small to medium air volumes, short delivery times and easy to use controls for start-up and commissioning.

BRILLIANT SIMPLICITY

The air handling units and applicable accessories are easy to choose, install and commission. No deeper specialist knowledge is required.

We call this Brilliant Simplicity.

HIGH PRODUCT EFFICIENCY

All units meet the international LOT 6 Ecodesign energy and performance requirements thanks to the highly efficient counter-flow and rotary energy exchangers and modern direct driven EC fans with speed control.

The stated airvolume for each GLOBAL air handling unit are based on Ecodesign compliance and hence you can be sure when selecting a unit that you will be legislative compliant.

All GLOBAL units are delivered with built-in, integrated TAC5 controls. Functions such as recovery of free-cooling, remote monitoring or accessories like pre- or post-heating-coils or airflow dampers are of course handled by the TAC5 controls.

The GLOBAL range suits small to medium size projects such as retail shops, restaurants, offices, schools, hotels, residential buildings, fitness centers, day-care centers, gyms, theaters and public buildings.

CONNECTIVITY

All GLOBAL units can be connected to controllers such as remote controls or touchpads using Modbus protocols. In addition, units can be fitted with Ethernet or Wifi connections to be controlled through a dedicated App (IOS, Android, Windows) using a smartphone, tablet or PC. Remote Access is also possible, enabling an installer to review the Air Handling Unit and reset settings without leaving the office. Finally, KNX communication can also be enabled as well as connection to BMS systems.

Brilliant Simplicity in every step

SELECTION

The GLOBAL air handling units are easy to select. Every model has a straight forward article number; one for right-hand units (supply air to the right) and one for left-hand units. Other parts, like post-heating coils, dampers or outdoor mounting kits are easily selected as accessory for each unit.

OFFER AND ORDER

You quickly get an offer for any of the GLOBAL air handling units, from your local sales representative who will also assist you in taking care of your order.

DELIVERY

Due to its high level of standardisation the off-the-shelf GLOBAL air handling units can be delivered ex-works within 10-15 working days. The units and accessories are all delivered in the same batch with complete documentation to make handling on site as easy as possible.

USAGE AND SERVICE

Once commissioned the GLOBAL air handling units do not require much attention. Standard maintenance procedures such as change of filters are indicated by a service alarm.

START-UP AND COMMISSIONING

Since the GLOBAL air handling units are one piece units, no mechanical assembly besides accessories and duct work is required on site. All accessories are delivered with standardised slip-clamps and are easy to mount.

Start-up and commissioning is done quickly, due to the built-in TAC5 control on board all the GLOBAL units.

The standard running modes can be activated with a few clicks

- Constant Air Volume
- Constant Pressure
- Constant Torque
- Variable Air Volume

The running modes ensure that the facility will have the right indoor climate at all times and that air volumes are kept in perfect balance to avoid an under- or over pressure in the building.

- Standard equipment
- Accessory
- ✕ Not available

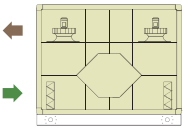
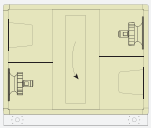
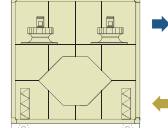
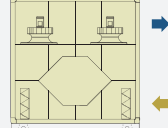


	GLOBAL PX 800	GLOBAL PX 1200	GLOBAL PX 2000	GLOBAL RX 2000	GLOBAL PX 3000
Air Volume	100-800m³/h	100-1200m³/h	200-2000m³/h	200-2000m³/h	300-3000m³/h
	28-220l/s	28-330l/s	55-550l/s	55-550l/s	85-830l/s
Inspection side	R/L	R/L	R/L	R/L	R/L
Counter-flow heat exchanger	●	●	●	✕	●
Rotary heat exchanger	✕	✕	✕	●	✕
Can also be used outside	○	○	○	○	○
Filter Class (supply/extract)	F7/M5 (F7)	F7/M5 (F7)	F7/M5 (F7)	F7/M5 (F7)	F7/M5 (F7)
Filter kit replacement article number	510089	510090	510091	510110	510092
Filter type	Pleated	Pleated	Pleated	Bag	Pleated
Filter size in mm & amount (per air direction)	470 x 287 x 50	830 x 287 x 50	2 pcs 503 x 370 x 50	490 x 592 x 500 & 287 x 592 x 500	2pcs 436 x 370 x 50 & 503 x 370 x 50
Free cooling ; Full or (Partial)	●	●	●	●	●
External pre-/post heating or cooling (Water/DX)	○	○	○	○	○
Internal max pre heater (electrical)	○ 3kW	○ 6kW	○ 6kW	✕	○ 9kW
Internal max post heater	○ 3kW/water	○ 4,5kW/water	○ 6kW/water	○ 6kW/water	○ 9kW/water
External dampers	○	○	○	○	○
Connection power (without accessories)	895W	885W	1960W	1895W	2000W
Power connection	230 V, 50 Hz, 10A	230 V, 50 Hz, 10A	230 V, 50 Hz, 16A	230 V, 50 Hz, 16A	230 V, 50 Hz, 16A
Maximum current without accessories	5,2A	5,2A	11,2A	10,6A	11,2A
Ecodesign LOT6	Motorization	Variable speed drive	Variable speed drive	Variable speed drive	Variable speed drive
	Heat exchanger efficiency W.B./D.B. (EN 308) "	88,9/79%	89,5/79%	92,3/83%	78%
	SFP int (W/(m³/s))	1401	968	1103	928
	Casing radiated sound power level (LWA) in dB(A)	60	60	64	62
	Heat exchanger efficiency W.B./D.B.at reference airflow*	90,3/80%	90,9/81%	93,6/85%	83%
	SFP (kW/m³/s) at reference air volume*	1,49	1,06	1,19	1,11
	Casing radiated sound power level dB(A) at reference air flow*	50	50	52	50
	Sound power level in supply duct dB(A) at reference air flow (without attenuators)*	72	72	75	73
	Sound power level in supply duct dB(A) at reference air flow with attenuators (650mm/1250mm) */**	58/52	61/55	60/53	57/51
	Weight without accessories (in/out)	191/196kg	255/261kg	380/391kg	324/335kg
	Duct connection (mm)	500 x 400	900 x 400	1000 x 400	800 x 500
	Unit size (L x W x H)	1110 x 685 x 1231	1206 x 1044 x 1231	1636 x 1214 x 1361	1640 x 881 x 1275
	Unit size (L x W x H)	1636 x 1584 x 1361			
CID - serial number right/left (without accessories)	885133/885141	885315/885142	885316/885143	888033/888043	885317/885144

CONTROLS : All units are equipped with the smart control system TAC5 with optional connectivity by Modbus RTU, TCP IP over Ethernet, TCP IP over Wifi, KNX. Control panels are available with or without accessories.

HARDWARE : All units have a casing in RAL 9002 and are insulated with 50mm Rockwool and can be delivered as left or right units. Operating temperatures are from -20°C to +50°C



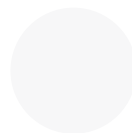
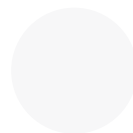
GLOBAL PX 4000	GLOBAL RX 4000	GLOBAL PX 5000	GLOBAL PX 6000
400-4000m³/h	400-4000m³/h	500-5000m³/h	600-6000m³/h
110-1100l/s	110-1100l/s	140-1390l/s	170-1670l/s
R/L	R/L	R/L	R/L
●	×	●	●
×	●	×	×
○	○	○	○
F7/M5 (F7)	F7/M5 (F7)	F7/M5 (F7)	F7/M5 (F7)
510093	510111	510094	510094
Pleated	Bag	Pleated	Pleated
4pcs 436 x 370 x 50	490 x 592 x 500 & 2pcs 287 x 592 x 500	5pcs 503 x 370 x 50	5pcs 503 x 370 x 50
●	●	●	●
○	○	○	○
○12kW	×	○18kW	○18kW
○12kW/water	○12kW/water	○18kW/water	○18kW/water
○	○	○	○
3100W	3090W	3930W	4010W
230 V, 50 Hz, 16A	230 V, 50 Hz, 16A	3x400 V, 50 Hz, 10A	3x400 V, 50 Hz, 10A
13,2A	13,2A	5,8A	5,8A
Variable speed drive	Variable speed drive	Variable speed drive	Variable speed drive
92,3/83%	78%	92,6/83%	92,6/83%
1310	1048	1060	1182
60	60	62	66
93,6/85%	83%	93,9/86%	93,9/86%
1,26	1,06	1,06	1,08
52	52	55	59
76	74	77	80
52/47	62/56	58/52	61/55
537/548kg	376/390kg	680/690kg	705/715kg
1800 x 400	1100 x 500	2000 x 600	2000 x 600
1636 x 1954 x 1361	1640 x 1168 x 1275	1636 x 2244 x 1761	1636 x 2244 x 1761
			
885318 / 885145	888034 / 888044	885319 / 885146	885320 / 885147

without touch screen

* Reference air flow is 70% of maximum air flow with 100Pa external pressure drop

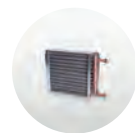
** Values with sound attenuators are based on CADENZA 650mm & 1250mm duct silencers

ACCESSORIES



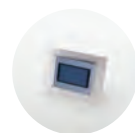
MOTORIZED DAMPERS

Two fully controlled dampers with spring return can be mounted directly onto the unit



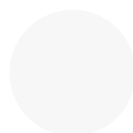
PRE AND POST HEATING AND COOLING COILS

Internal pre (electrical) - and post (water or electrical) heating coils can be fitted into the units. External waterborne post heating and cooling coils are also available



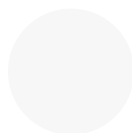
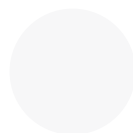
TAC5 CONTROLLER INTERFACE

Depending on the complexity of the project a suitable HMI controller can be chosen



CADENZA SILENCERS

Silencers can be fitted directly on all the connections of the unit. They are available in length of 650mm and 1250mm



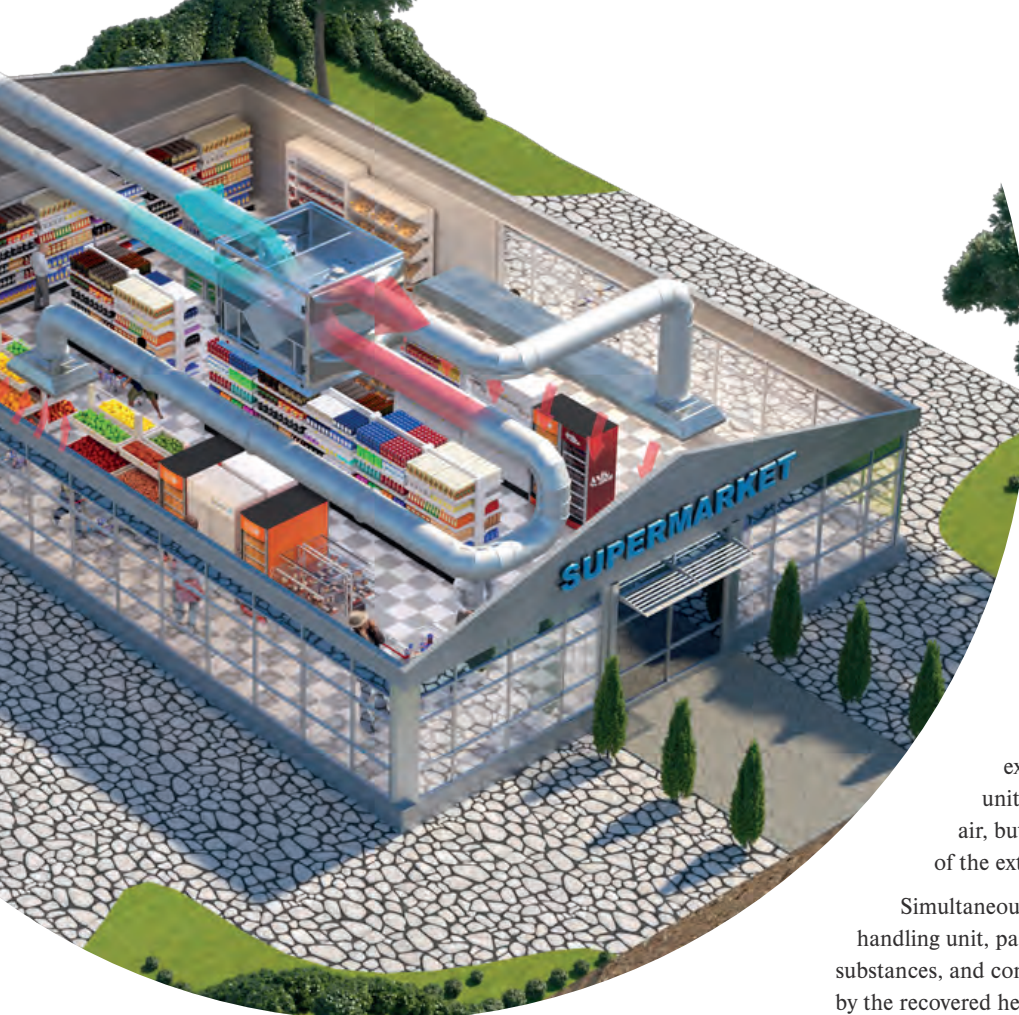
FLEXIBLE CONNECTIONS

For extra safety or projects with high demands the units can be fitted with flexible connections



OUTDOOR KIT

For outdoor placement the units and accessories can be equipped with a roof and hoods for outdoor and exhaust air



QUALITY TO THE HIGHEST STANDARDS

With over 400 000 delivered air handling units Swegon provides fresh and healthy air to millions of people every day.

Solutions tested in high tech laboratories and proven in different climate zones and weather conditions guarantee supreme energy efficiency and healthy indoor climate in all circumstances.

THIS IS HOW IT WORKS!

Extract air is removed from the building through central or decentral placed grilles and from sanitary and cooking areas through the ducting to the ventilation unit. The stale but warm extract air reaches the heat exchanger inside the unit, recovering only the heat energy from the extract air, but moving the used air out of the building with help of the extract air fan as exhaust air.

Simultaneously fresh and cold outside air enters the air handling unit, passing through filters that remove all harmful substances, and continues to the heat exchanger where it is heated up by the recovered heat, without mixing with the extract air. Finally it is distributed through supply air ducts and diffusers to the building as fresh and clean supply air at a comfortable temperature.

Adequate and controlled ventilation extracts excess humidity from indoor air and makes sure that no uncontrolled pressure differences can create a risk of moisture in the structures and surfaces of the building.

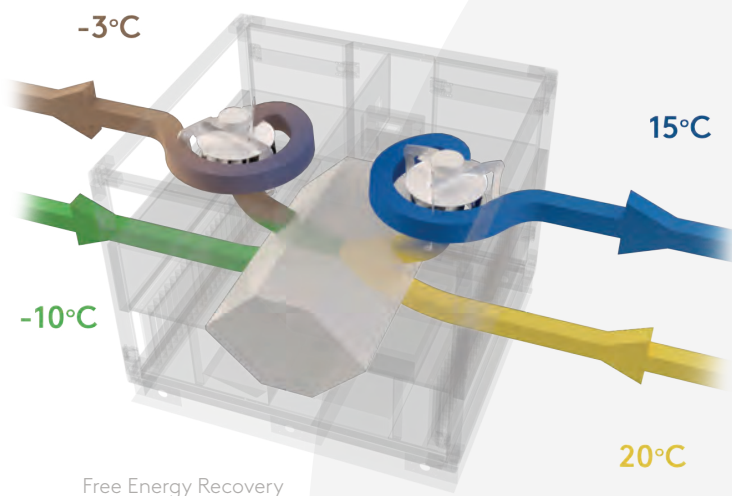
Balanced, demand controlled ventilation is the key to high energy efficiency.

The easy way to energy savings and healthy indoor climate

SAVE ENERGY

In many commercial buildings like e.g. hotels we need fresh air 24 hours a day, all year around. In other buildings, the fresh air requirements vary significantly during the day. In either case, considerable savings can be made via an energy efficient system.

GLOBAL units are equipped with highly efficient heat exchangers that can recover up to 86 percent of the exhaust air heat energy to warm the incoming fresh air! Smart ventilation does not waste energy, but reuses it to create free heating or passive cooling and saves building energy costs. Smart regulation and demand controlled climate, based on sensors, can easily keep the need for energy down.



ACCESSIBILITY OF COMPONENTS

The units are designed to give the user easy access to the different components. The doors are largely sized and even removable, for installations in small spaces. The control panel and central wiring is likewise easy to access.

HEAT EXCHANGERS

The heat exchangers are highly efficient, Eurovent certified counter-flow and rotating heat exchangers. They facilitate supply temperatures and permit or allow transfer of humidity between the two airflows. The exchangers are in "salt-air resistant" aluminium and are suitable for temperatures up to 80°C. They are compliant with the DIN1946 tightness standard and are Eurovent approved according to the EN 308 standard.

HIGH EFFICIENCY FANS

The TAC fans are equipped with high efficiency EC motors with cutting edge technology. They can take care of high external pressure levels while guaranteeing low energy consumption throughout the entire operating range.

The TAC control system ensures a precision operating point. It is designed and programmed to optimise the energy consumption. The efficiency levels are naturally compliant with the ErP 2016/2018 standards.

AIR FILTERS

The GLOBAL air handling units are by standard supplied with oversized air filters (to reduce the pressure drop) in order to protect the exchanger and improve the quality of the incoming air. F7 filters are mounted on the supply air side (outdoor air) and M5 or F7 filters on the extract air side (indoor air). Replacement filter kits are also available.

PLUG & PLAY WITH HARDWARE AND CONTROLS

All units are supplied plug & play, factory programmed and very intuitive. The air handling unit is ready for use just by connecting it and by adjusting the settings.

The GLOBAL units are fitted with a complete electronic control system called TAC5 which is used to operate the fans, the anti-frost protection of the exchanger, free-cooling, the dampers, and post-heating coil as well as external heating and cooling coils (options). The units can be equipped with ETHERNET, MODBUS, KNX or WIFI communication, used for its interfacing and complete integration with a standard centralised control system, or just to be monitored by a cell phone or tablet.



COUNTER-FLOW HEAT EXCHANGER

Counter-flow plate heat exchangers consist of thin aluminium plates that form parallel air ducts arranged at opposite angles to one another. The warmer extract air heats the plates and transfers heat to the colder supply air. The contact surfaces are large because the air streams flow in parallel and in opposite directions. Temperature efficiency is as high as 86%. The supply air and extract air have completely separate air passages therefore any possible odours in the extract air cannot be transferred to the supply air. The heat exchanger does not recover moisture to supply air, which is good in facilities with high humidity levels.

ROTARY HEAT EXCHANGER

The rotary heat exchanger consists of a rotating wheel with a multitude of small air ducts made of aluminium. The warmer extract air heats the ducts and the heat is transferred to the colder supply air. Temperature efficiency is as high as 83%. A certain amount of moisture, removed with the extract air, is recovered to the supply air. This can be beneficial in the winter when the outdoor air is usually dry and results in problems for people and interior fittings and electronics.



We make every breath count.



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Swegon reserves the right for changes.

Swegon