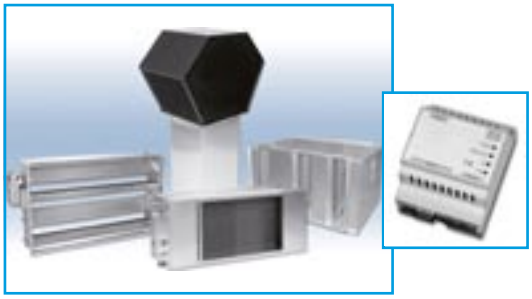
Complements and Accessories



Contents

Plug and Play with CoolDX!

The new CoolDX cooling unit fits in well in the concept of the GOLD air handling unit and really stands for Plug and Play.

All the equipment is housed in one and the same unit and can be docked to the GOLD across ordinary duct connections.

In addition to the above, only an electric power supply and a communication cable (with quick connector) between the CoolDX and the GOLD as well as drainage pipework are required.

The GOLD has ready-to-use cooling functions for controlling the CoolDX. This also includes communication via the web or traditional supervisory systems.

The CoolDX thus means minimal investment for project designing, procurement and installation.

- **Extremely quick and simple installation.**
- **Built-in control equipment operated from the GOLD.**
- **Variable comfort control or economy control in 3 steps.**
- **Ready for communication via the GOLD.**
- **Interlace-connected sections in the coil for maximum capacity.**
- **Its location inside the GOLD prevents the extract air fan motor from being subject to high temperatures.**

Economy or comfort control

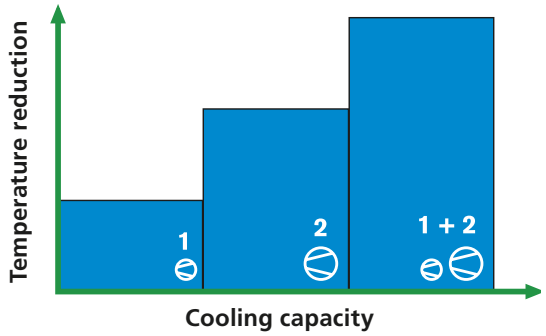
Economy control

Cooling in 3 steps

When cooling is required, cooling compressor 1 starts up. On an increasing ccoling load, cooling compressor 2 starts up and cooling compressor 1 is switched out. If the cooling load increases even more, both cooling compressors are started.

Advantage: Each cooling compressor is switched in and out in pace with the amount of cooling required and this shortens the overall in-operation period.

Consequence: Cooling in 3 steps



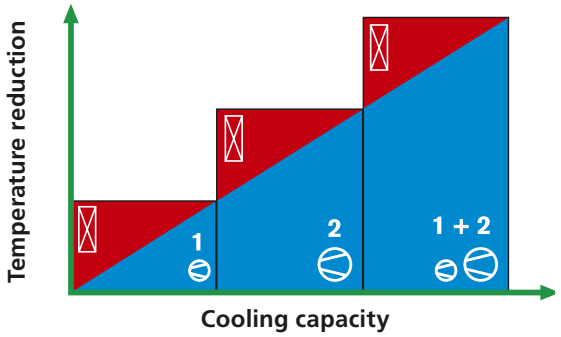
Comfort control

Cooling and variable temperature control

As a form of economy control but when there is a cooling load, the heat exchanger of the air handling unit is also activated and this controls the temperature within the cooling step.

Advantage: Variable control of the cooling capacity and uniform supply air temperature.

Consequence: Each cooling compressor operates for a longer period when cooling is needed.



Cooling compressor *Heat exchanger*

Complements and Accessories

CoolDX

General

The CoolDX is a complete cooling unit for comfort cooling in the air handling system.

The CoolDX is produced in five sizes with cooling capacity from 10 to 95 kW. The five sizes are capacity-wise matched to the size 08-60 GOLD air handling units.

Mechanical Design

The CoolDX cooling unit is designed for installation against the outdoor air and exhaust air side of the GOLD unit.

All electrical and control equipment is prewired and collected inside a common casing.

The casing is fabricated of aluminium profiled sections held together by plastic corner pieces. The panels are of sandwich design consisting of a galvanized sheet metal outer skin (0.7 1 mm thick), visible surfaces are painted (NCS S2005-Y 30R), and an aluminium-zinc plated sheet metal inner skin (1 mm thick) with expanded polyurethane insulation (35 mm thick) sandwiched inbetween.

The cooling coil and condenser are fabricated of copper tubing and profiled aluminium fins.

The cooling unit is test run prior to delivery.

Control and regulation

The CoolDX cooling unit has a built-in control system.

Only an electric power supply and a communication cable are required for the transmission of information between the CoolDX and the GOLD control systems. The communication cable is supplied together with the unit. All in-operation status and other information is readily available for viewing in the hand-held terminal of the GOLD air handling unit.

The cooling capacity is controlled by operating one or both compressors. Cooling is controlled in 3 steps in binary mode.

On an on/off control signal, pump G1 and compressor M1 start up. On an increasing cooling load, compressor M2 starts at the same time that compressor M1 stops. If the cooling load increases even more, both compressors M1 and M2 operate.

When comfort control is selected, an outdoor air temperature sensor is required mounted in the outdoor air duct or outdoors.

Completely direct-acting system

The CoolDX has a completely direct-acting system. It has an evaporation coil for direct-evaporating refrigerant on the cold side and a condenser coil on the hot side.

Refrigerant

The CoolDX has double refrigerant circuits, which are charged with refrigerant on delivery. The volume of refrigerant for each size is tabulated in the Technical Data Table.

Type R407C refrigerant is used. At present, this refrigerant has no known influence on the ozone layer and no known future restrictions are anticipated.

Initial inspection of the installation, obligation to report volumes of refrigerant charged/known leakage, and periodic inspection may in some cases be required by local supervisory authorities.

Duct connection

The duct connections of the size 08 and 12 CoolDX cooling units have an approved rubber ring seal for circular connection to the outdoor air and exhaust air ducts to the size 08 and 12 GOLD units.

The size 20-60 CoolDX cooling unit has rectangular connections. Slip-clamps are used for connection to the ducting.

Complements and Accessories

CoolDX

Technical data

CoolDX Size	Capacity variant	Rated cooling power (kW)	Rated power required (kW)	Refrigerant R407c (kg) Circ. 1	Refrigerant R407c (kg) Circ. 2	Min. permissible airflow	Power supply	Weight (kg)
08	1	10	3,69	1,2	1,6	0,46	3-phase, 400V, 16A	247
	2	14	5,02	1,2	2,2	0,46	3-phase, 400V, 16A	257
12	1	14	4,95	1,3	2,7	0,68	3-phase, 400V, 16A	305
	2	20	6,94	1,4	2,9	0,9	3-phase, 400V, 20A	332
20	1	14	4,95	1,3	2,7	0,68	3-phase, 400V, 16A	323
	2	20	6,94	1,4	2,9	0,9	3-phase, 400V, 20A	351
	3	26	9,88	2,3	3,3	0,9	3-phase, 400V, 25A	373
30	1	27	9,00	2,0	4,2	1,25	3-phase, 400V, 25A	440
	2	32	10,66	2,2	4,7	1,5	3-phase, 400V, 32A	486
	3	45	16,47	3,4	5,6	1,5	3-phase, 400V, 40A	527
40	1	39	12,24	2,6	5,3	1,8	3-phase, 400V, 40A	572
	2	45	14,54	2,9	5,9	2,1	3-phase, 400V, 40A	605
	3	58	21,42	5,1	8,1	2,1	3-phase, 400V, 63A	672
60	1	58	18,94	4,9	8,0	2,6	3-phase, 400V, 50A	720
	2	69	20,20	4,9	8,0	3,2	3-phase, 400V, 63A	819
	3	95	33,18	7,9	11,9	3,2	3-phase, 400V, 80A	944

[1] For an outdoor temperature of 28°C, 50% RH and an extract air temperature of 25°C.

Sizing in ProUnit

There are many factors that influence what size of cooling unit is required.

For correct sizing we refer to our ProUnit air handling unit selection program.

Electrical and control equipment

General
The CoolDX cooling unit is internally fully wired and trial run prior to delivery.

All electrical and control equipment is collected inside an electrical equipment cubicle inside the CoolDX.

The safety switch is positioned on the front panel of the cooling uniit.

Power supply
Wire the 400 V (5-conducter system) incoming power supply directly to the safety isolating switch.

Wire the electrical power supply connections according to the technical data tabulated above. Use delayed fuses! In applications where automatic circuit breakers are used, the circuit breakers must have delta characteristic.

Control and regulation
A ready-to-use communication cable with quick connector for on/off switching, cooling capacity control as well as in-operation indication and alarms is used. The communication cable is supplied together with the unit.

Standards
The CoolDX is CE labelled in accordance with PED and the provisions of the EMC Directive for interference levels defined in SS-EN-50081-1 and SS-EN-61000-6-2 Standards (electromagnetic emissions in dwellings, office buildings, shops and similar environments as well as for immunity in industrial environments).

Applicable to installations in Sweden:
The unit meets the provisions of the ELSÄK-FS 1999:5 and SS-EN 60,204-1 and other applicable Swedish electrical safety standards and rules.

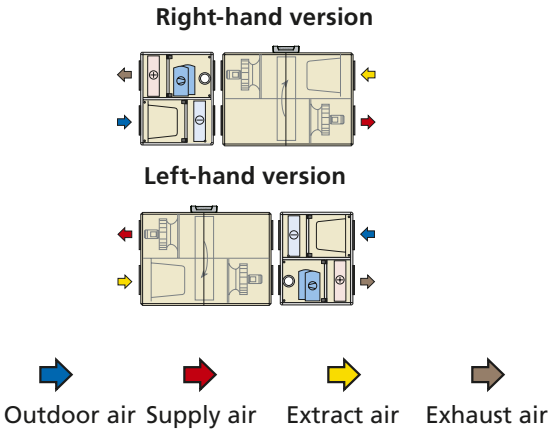
Hand-held micro terminal
Settings can be entered, readings can be viewed and possible alarms are displayed in the hand-held micro terminal of the GOLD air handling unit.

Complements and Accessories

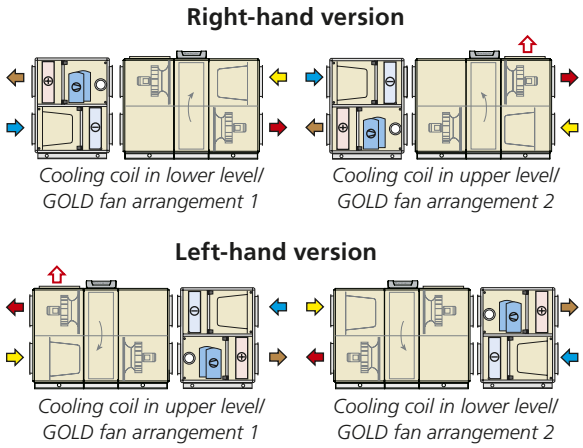
CoolDX

Variants

CoolDX 08



CoolDX 20-60



Installation Tips

On delivery, the CoolDX cooling unit is equipped with duct connections designed for connection to GOLD air handling units. The cooling unit can be positioned directly against the outdoor air/exhaust air side of the GOLD air handling unit; see the illustration above.

When positioning the cooling unit, bear in mind that it must be possible to open the inspection door as well as connect drainage pipework and power supply and control wiring without difficulty.

To drain the cooling coil

The cooling coil in the cooling unit is equipped with a condensate drain tray and a drainage connection (condensate forms on coil surfaces). The condensate discharge pipework must be connected across a water trap (accessory) to the drain connections of the cooling unit and must run with continuous slope to a drain gulley.

Height adjustment to the height of the GOLD/water trap

CoolDX size 08

In combination with the GOLD RX 08

The design of the GOLD unit makes it necessary to mount it on a stand or some other form of support, so that its inspection doors can be opened The stand is available as an accessory.

A corresponding stand is also available as accessory for the CoolDX. The heights of the stands are matched to one another and also provide space for a water trap, if fitted, for connection at the lower section (right-hand version).

In combination with the GOLD PX 08

The air handling unit is supplied on a 180 mm high base frame.

A corresponding base frame is also available as accessory for the CoolDX. The heights of the base frames are matched to one another and also provide space for a water trap, if fitted, for connection at the lower section (right-hand version).

CoolDX sizes 12-40

The GOLD air handling unit and the cooling unit CoolDX are supplied with 100 mm high base beams.

Applicable to a cooling coil in the lower level:

If a water trap (accessory) is fitted, the GOLD air handling unit and the cooling unit must be raised at least 50 mm to provide space for the water trap. Adjustable support feet (accessories) can be appropriately fitted to the base beams for this purpose.

CoolDX size 60

The GOLD air handling unit and the CoolDX cooling unit are supplied with 100 mm high base beams and 100 mm high support feet. The support feet can be removed or be left on the unit.

Applicable to a cooling coil in the lower level:

If a water trap (accessory) is fitted, the GOLD air handling unit and the CoolDX cooling unit must be raised at least 50 mm, above the base beams, to provide space for the water trap. This can appropriately be done by leaving the factory-fitted support feet on the base beams. Or you can remove them and fit adjustable feet (accessory).

Supply air filter

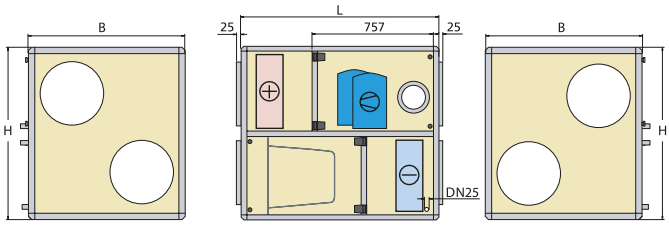
The CoolDX is supplied with its own supply air filter. Consequently, the supply air filter in the GOLD unit should be dismantled.

Complements and Accessories

CoolDX

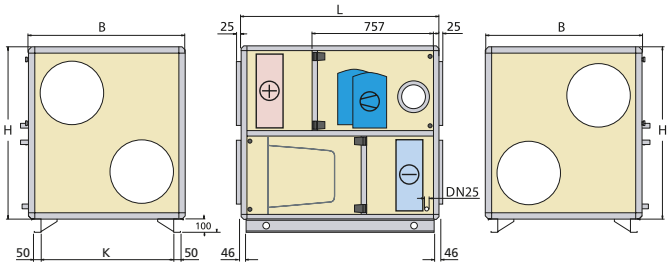
Dimensions

CoolDX 08



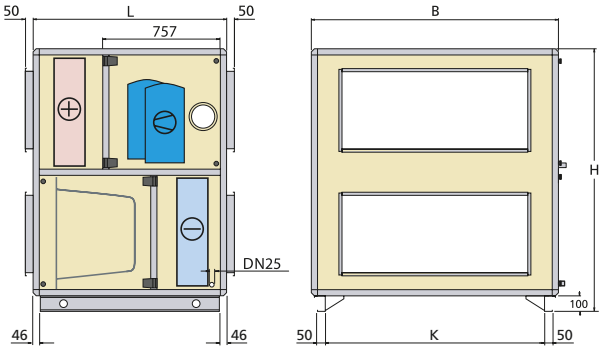
CoolDX Size	L (length) mm	B (width) mm	H (height) mm	Duct connection mm
08	1250	990	1086	Ø 400

CoolDX 12



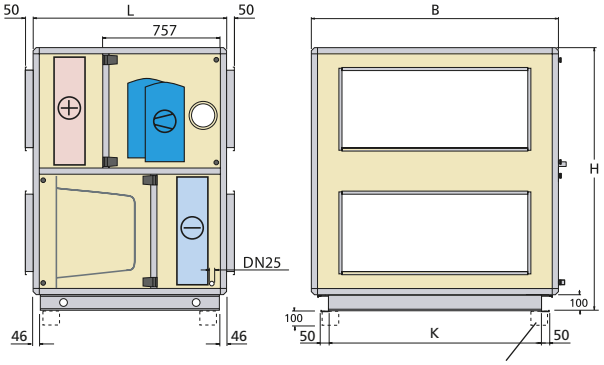
CoolDX Size	L (length) mm	B (width) mm	H (height) mm	K mm	Duct connection mm
12	1250	1199	1394	935	Ø 500

CoolDX 20 - 40



CoolDX Size	L (length) mm	B (width) mm	H (height) mm	K mm	Duct connection mm
20	1250	1294	1394	1036	1000 x 400
30	1250	1595	1696	1336	1200 x 500
40	1250	1886	1986	1706	1400 x 600

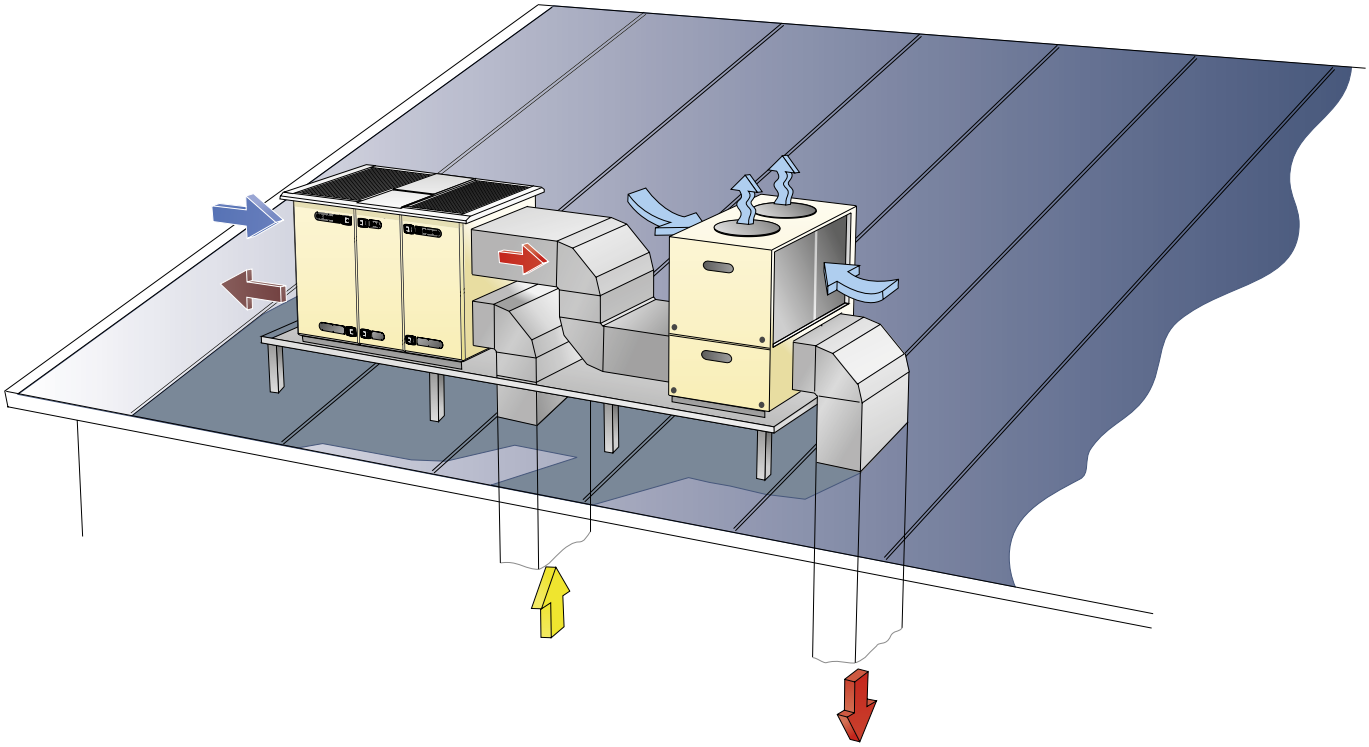
CoolDX 60



CoolDX Size	L (length) mm	B (width) mm	H (height) mm	K mm	Duct connection mm
60	1250	2253	2353	2075	1600 x 800

Supplied on 100 m high support feet. They can be removed or kept as they are when the unit is in place. The unit has provision for fitting the adjustable support feet.

Effective and economical comfort cooling, COOL DXS!



The COOL DXS is a new cooling unit for comfort cooling, designed for use together with Swegon's GOLD air handling unit. The cooling unit is available in several sizes and capacity variants, which also successfully tackle Southern European conditions.

The COOL DXS is a plug and play type unit that is connected to the supply air duct after the GOLD unit. Other than this, all that is required is to connect the power supply and control cable. The controls for the cooling unit, including communication, are fully integrated with the advanced control equipment in the GOLD.

The cooling unit can be used with all types of GOLD unit (RX, CX, PX and SD), although capacity-wise it is adapted for GOLD RX with a hygroscopically coated rotary heat exchanger.

The rotary heat exchanger recovers cooling energy during the summer just as effectively as it recovers heat from the extract air during the winter months. This dramatically reduces the required cooling capacity and cooling power.

- **Extremely quick and simple to install**
- **Integrated control equipment and communication via the GOLD unit**
- **Saves installed capacity and its power consumption is low**

Economy

The COOL DXS and GOLD provide a number of unique economic benefits as regards comfort cooling:

Cooling Energy Recovery

Together with the hygroscopically coated rotary heat exchanger, it is possible, in a Southern European climate; to save as much as 50% installed capacity and 30% energy consumption for cooling.

Fan electricity energy

The air cooler in the COOL DXS is installed at an angle, which produces a larger surface and fewer tube rows. This reduces the pressure drop across the cooler, which is also achieved by the condenser not being located in the exhaust air. The savings in specific fan power (adapted to Ventilation Association rules) of the air handling unit is approximately SFPv 0.2. (SFP = specific fan power)

Energy efficiency

Under normal operating conditions, the EER (energy efficiency ratio) of the COOL DXS is as high as EER 3.2, which is an excellent value for cooling units. Under partial load and lower outdoor temperature conditions, its energy efficiency will be even better.

Economical Control Functions

GOLD has a number of cooling functions that are ready to activate. Several of these are energy efficient, such as Cooling BOOST, which involves increasing the airflow to convey more cooling energy.

Fast, simple installation

Installation is extremely fast and simple. In addition to pure time savings, the simplicity means that the risk of installation faults is minimised.

Complements and Accessories

COOL DXS

General

The COOL DXS is a cooling unit for comfort cooling, designed for use together with Swegon's GOLD air handling unit.
The COOL DXS is available in 12 capacity variants spread on nine physical sizes, designed for the size 12 - 80 GOLD air handling units.
The COOL DXS must be located outdoors.
The COOL DXS is connected to the supply air duct after the GOLD air handling unit.

Mechanical Design

All the components refrigeration engineering-wise and electrically pre-wired and collected inside a common casing.
The casing is composed of profiled frame members, cover panels and inspection covers.
The outside is made of pre-painted (NCS 2005 Y 30R) galvanised sheet steel. The interior is made of aluminium-zinc treated sheet steel. The metal thickness is 1.5 mm. In the lower section, the cover panels and inspection covers are of a sandwich construction with intervening 35 mm thick expanded polyurethane insulation.
The diagonal air cooler is located in the lower section. A droplet separator with aluminium fins is available as accessory. Double condenser coils are located in the upper section. The condenser and cooling coils are fabricated of copper tubing and profiled aluminium fins; the casing is made of galvanized sheet steel.
In the upper section, there is an electrical equipment cubicle containing all electrical and control equipment.
All the equipment is easily accessible from the inspection side or rear for servicing and inspections.
The cooling unit is test run prior to delivery.

Cooling compressors

The cooling compressors are located in a separate space in front of the air cooler. The sight glass and the expansion valve are also located here, where they are easily accessible for service.
The cooling compressors are totally hermetical of scroll-type.
The size 60 units in capacity variant 2 and the size 80 units in capacity variants 1 and 2 are equipped with three cooling compressors. All other sizes/capacity variants have two cooling compressors.

Condenser fans

The cooling unit is equipped with 1-3 condenser fans of axial type on the hot side. The size 40 units in capacity variant 2 and the units up to size 80 in capacity variant 1 have two condenser fans. The size 80 units in capacity variant 2 have three condenser fans. All other sizes/capacity variants are equipped with one condenser fan.
Condenser fans suck air from the surroundings through the condenser coils and discharge it upwards.
Condenser fans are equipped with variable speed regulation.

Control and Regulation

The Cool DXS cooling units have a built-in control system.
Only one communication cable is required for the transmission of information between the cooling unit and the air handling unit. The communication cable is supplied together with the unit. All operation status and other information are readily available for viewing in the hand-held micro terminal of the air handling unit.
The cooling capacity is regulated by having one, two or three compressors in operation. The regulation takes place in 2 steps in the size 12 units, capacity variant 1, up to and including the size 30 units, capacity variant 1 (60 – 100%). Regulation of the other sizes/capacity variants takes place in 3 steps (50-75-100%).

Completely direct-acting system

The Cool DXS has a completely direct-acting system. It has an air cooler for direct-evaporative cooling refrigerant on the cold side and two condenser coils connected in parallel on the hot side.

Refrigerant

The COOL DXS has one refrigerant circuit, which is charged when the unit is delivered. The volume of refrigerant for each size is specified in the Technical Data Table.
Type R410A (HFC) refrigerant is used. This type of refrigerant has no influence on the ozone layer.
Initial inspection of the installation, obligation to report volumes of refrigerant charged/known leakage, and periodic inspection may in some cases be required by local supervisory authorities.

Duct connection

The size 12 COOL DXS cooling units have circular connection spigots and ducts are connected across insertion joints fitted with a rubber seal ring.
The size 20-80 Cool DXS cooling units have rectangular connections. Slip-clamps are used for connection to the ducting.

Complements and Accessories

COOL DXS

Technical Data

Design air condition (at nominal supply airflow):

Capacity variant 1: Inlet air temperature in cooling unit 27°C/50% RH and cooling to 16°C, Ambient air temperature 35°C.

Capacity variant 2: Inlet air temperature in cooling unit 29°C/50% RH and cooling to 15°C, Ambient air temperature 35°C.

The cooling unit can be operated at full capacity at ambient air temperatures up to 45°C, with nominal supply airflow and for an inlet air temperature in the cooling unit as specified above.

The cooling unit is selected according to the required capacity and can be combined freely with GOLD, e.g. COOL DXS size 30 with GOLD size 40. The air recirculation section for the GOLD can be used.

COOL DXS 12/1 to 30/1 have two identical compressors and the cooling capacity is regulated between 0-60-100%.

COOL DXS 30/2 to 60/1 have two compressors of different sizes, 60/2 to 80/2 have three identical compressors. The cooling capacity is regulated between 0-50-75-100%.

Size	Capacity variant	Rated cooling power* kW	Min. airflow m^3/h (m^3/s)	Nominal airflow m^3/h (m^3/s)	Max. airflow m^3/h (m^3/s)	Power supply	Refrigerant charge kg	EER* (energy efficiency ratio)
12	1	18,5	2 520 (0,7)	3 960 (1,1)	6 840 (1,9)	3-phase 400V+N+PE, 25A	3,9	2,9
12	2	28,5	2 880 (0,8)	3 960 (1,1)	6 840 (1,9)	3-phase 400V+N+PE, 32A	6,1	3,1
20	1	29	2 880 (0,8)	6 120 (1,7)	9 720 (2,7)	3-phase 400V+N+PE, 32A	6,1	3,2
20	2	43	3 600 (1,0)	6 120 (1,7)	9 720 (2,7)	3-phase 400V+PE, 40A	9,0	3,1
30	1	44	4 320 (1,2)	9 000 (2,5)	13 680 (3,8)	3-phase 400V+PE, 40A	9,5	3,0
30	2	62	3 600 (1,0)	9 000 (2,5)	13 680 (3,8)	3-phase 400V+PE, 50A	11,0	3,1
40	1	61	3 960 (1,1)	12 600 (3,5)	19 080 (5,3)	3-phase 400V+PE, 50A	12,4	3,0
40	2	89	4 680 (1,3)	12 600 (3,5)	19 080 (5,3)	3-phase 400V+PE, 80A	18,3	3,1
60	1	88	5 400 (1,5)	18 000 (5,0)	26 280 (7,3)	3-phase 400V+PE, 80A	18,3	3,0
60	2	129	6 840 (1,9)	18 000 (5,0)	26 280 (7,3)	3-phase 400V+PE, 110A	30,6	3,0
80	1	127	8 280 (2,3)	25 200 (7,0)	37 080 (10,3)	3-phase 400V+PE, 110A	30,6	3,0
80	2	179	9 720 (2,7)	25 200 (7,0)	37 080 (10,3)	3-phase 400V+PE, 145A	42,2	3,1

** Ambient temperature 35 °C, inlet air temperature in the cooling unit 27 °C (capacity variant 1) and 29 °C respectively (capacity variant 2) for nominal airflow.*

Sizing in ProUnit

There are many factors that influence what size of cooling unit is required.

For correct sizing we refer to our ProUnit air handling unit selection program.

Electrical and Control Equipment

General

The Cool DXS cooling units are internally fully wired and trial run prior to delivery.

All electrical and control equipment is collected inside an electrical equipment cubicle inside the Cool DXS.

The safety switch is located on the front of the electrical equipment cubicle.

Power supply

Wire the 400 V (4 or 5-wire system) incoming power supply directly to the safety isolating switch.

Wire the electrical power supply connections according to the technical data tabulated above. Use delayed fuses!

In applications where automatic circuit breakers are used, the circuit breakers must have delta characteristic.

Control and Regulation

A ready-to-use communication cable with quick connector for on/off switching, cooling capacity control as well as in-operation indication and alarms is used. The communication cable is supplied together with the unit.

Standards and Directives

The COOL DXS units are CE marked according to PED and conform to the standards and directives defined in 97/23/EEC, 93/68/EEC, 2006/95/EC, 2006/42/EC, 2004/108/EEC, 2002/95/EC, EN 378-1, EN 378-2, EN 378-3, EN 378-4, UNI EN 1050, EN 292/2, EN 61 000-6-3:2007, EN 61 000-6-2:2007 and EN 60204-1.

Hand-held Micro Terminal

Settings can be entered, readings can be viewed and possible alarms are displayed in the hand-held micro terminal of the GOLD air handling unit.

Complements and Accessories

COOL DXS

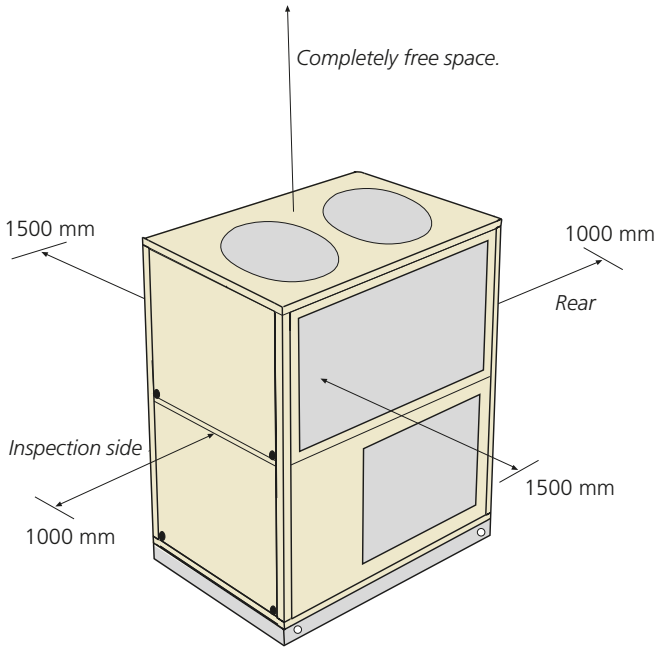
Installation

Arrangement

The cooling unit should be installed at an outdoor location (extra accessories are not necessary). The GOLD unit can also be located outdoors and must then be equipped with accessories for outdoor installation. It is also possible to install the GOLD unit indoors and simply route the supply air duct out to the cooling unit.

A free space of at least 1000 mm must be provided in front of the inspection side and back side of the cooling unit to enable technicians to service the unit. A free space of 1500 mm must be provided for airflow through the condenser coils in the upper level of the cooling unit. The space above the cooling unit should be completely free. See illustration.

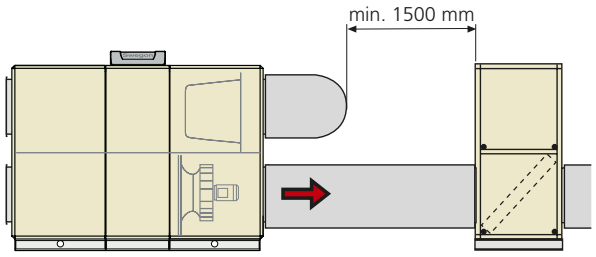
The illustrations on this page show the right-hand version; the COOL DXS units are also available in a left-hand version.



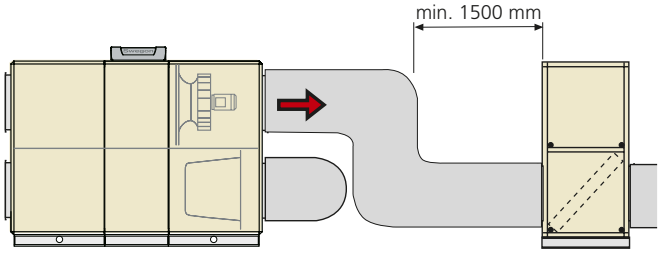
Basic Installation Diagram

Connect the COOL DXS to the supply air duct of the GOLD air handling unit. See illustration. The airflow through the bottom section of the cooling unit should be as indicated by the arrow affixed on the side of the cooling unit.

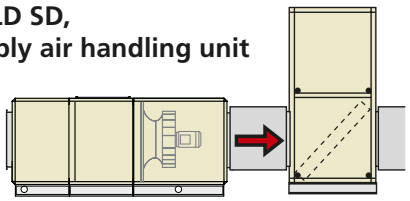
GOLD RX/PX/CX,
supply air duct in the lower level



GOLD RX/CX,
supply air duct in the upper level



GOLD SD,
supply air handling unit



Supply air

To drain the air cooler

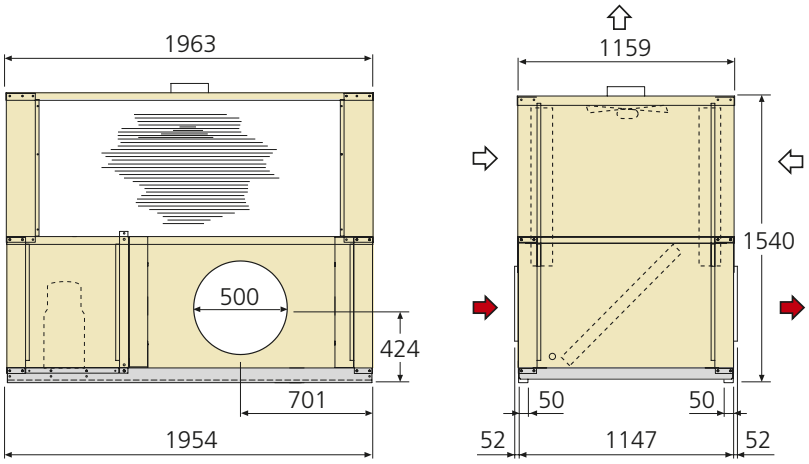
The air cooler in the cooling unit is equipped with a condensate drain tray and a drainage connection (condensate forms on air cooler coil surfaces). If necessary, connect a drain pipe from the drainage connection of the tray to a drain gulley.

Complements and Accessories

COOL DXS

Dimensions

COOL DXS 12

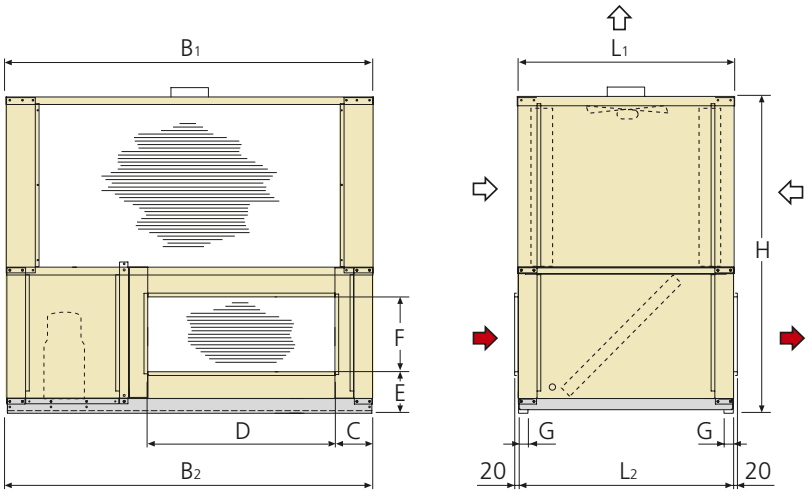


The dimensional drawings show the right-hand version.

Supply air *Condenser cooling*

Weight:
Capacity variant 1, 499 kg
Capacity variant 2, 530 kg

COOL DXS 20 - 80



The dimensional drawings show the right-hand version.

Supply air *Condenser cooling*

Size	Capacity variant	B1 mm	B2 mm	L1 mm	L2 mm	H mm	C mm	D mm	E mm	F mm	G mm	Weight kg
20	1	1963	1954	1159	1147	1540	201	1000	222	400	50	528
20	2	1963	1954	1159	1147	1690	201	1000	222	400	50	605
30	1	2163	2154	1159	1147	1811	201	1200	250	500	50	653
30	2	2163	2154	1159	1147	1811	201	1200	250	500	50	692
40	1	2413	2404	1159	1147	1999	226	1400	294	600	50	742
40	2	2413	2404	1159	1147	2299	226	1400	294	600	50	910
60	1	2861	2852	1159	1147	2350	350	1600	220	800	50	974
60	2	3308	3298	1159	1147	2350	350	1600	220	800	50	1260
80	1	3756	3747	1159	1147	2599	465	1800	257	1000	70	1364
80	2	3756	3747	1159	1147	2599	465	1800	257	1000	70	1462

Complements and Accessories

Unit sections

TBBR/TCBR Air recirculation section

The TBBR/TCBR consists of an extra unit section that has a motor-driven damper (on/off or modulated) in its intermediate deck.

The TBBR/TCBR air recirculation section is available for the size 12 and larger GOLD RX and CX units.

The following is included in the supply:
Air recirculation section. Mounted actuator for damper. Necessary extension wiring for the supply air fan.

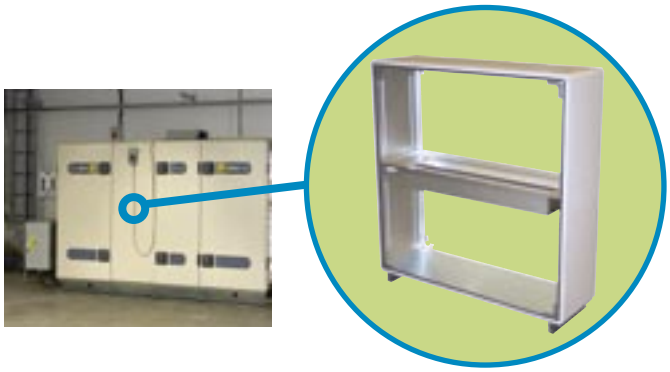
Delivery version:
Sizes 12-40: Air recirculation section as a stand-alone unit section.
Sizes 50-80: The air recirculation section is fitted to one of the unit sections.

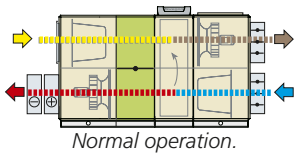
Requirement for additional equipment:
Depending on how the air recirculation section is to be used, it may also be necessary to install extra sensors for reading the pressure, room temperature, CO_2 content, heating and/or cooling coil temperatures and the status of shut-off dampers for exhaust air and outdoor air.

Work to be carried out at the site:
Sizes 12-40: Splitting the GOLD unit into sections. Installing the air recirculation section.
Sizes 50-80: To assemble units according to the delivery version above.

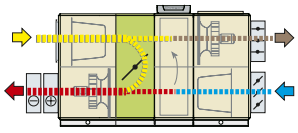
Operation:
Recirculation, on/off: Can be used if you want to heat an unoccupied room with recirculated air – an economic solution for factory buildings, shopping centres, etc. for instance.

The intermittent night-time heating function stops the extract air fan and heat recovery, closes the shut-off dampers for outdoor air and exhaust air and opens the damper in the air recirculation section. See also the section "Control functions".

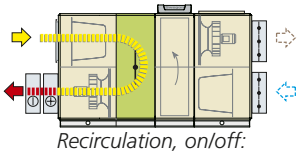




Normal operation.



Recirculation, modulating
Supply air fan runs at higher speed, outdoor air damper and air recirculation section open as required



Recirculation, on/off:
Extract air fan stopped, outdoor air and exhaust air dampers fully closed, damper in air recirculation section fully open.

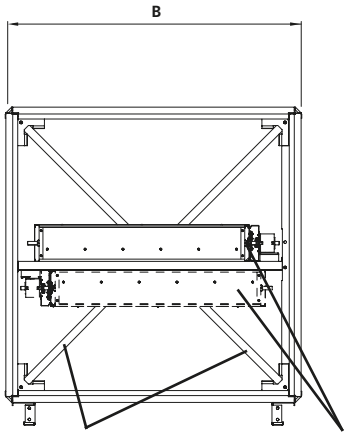
Outdoor air Supply air
Extract air Exhaust air

Recirculation, modulating: Can be used for the demand-controlled and economical operation of fans, heating and cooling, especially in buildings in which the load varies.

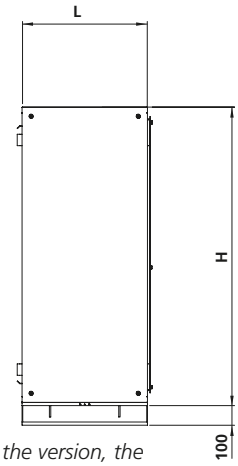
The patent-pending $ReCO_2$ function adjusts the air quality (in response to signals from CO_2 sensors) and temperature by steplessly controlling the shut-off dampers and the damper in the air recirculation section as well as the speed of the fans. See also the section "Control functions".

The $ReCO_2$ function requires the accessory: TBLZ-1-51 Complete set of components for controlling the function for mixing ($ReCO_2$). Pressure sensors and the IQnomic Plus are included. Air quality sensor must be ordered separately.

For GOLD	B	H	L	kg
12	1199	1295	550	94
14/20	1295	1295	550	109
25/30	1595	1595	550	122
35/40	1885	1885	550	141
50/60	2318	2253	570	195
70/80	2637	2640	570	240



Remove the transport locking device when installing (GOLD, sizes 12-40).



Depending on the version, the damper can be mounted in the upper or lower level.

Complements and Accessories

Duct accessories

Common for duct accessories

The duct accessories must be positioned outside the GOLD unit in the ductwork. The unique Wing fans in the GOLD air handling unit also make it possible to connect duct accessories directly to the duct connections of the air handling unit without pressure losses or non-uniform air distribution.

The duct accessories for GOLD sizes 04/05, 08 and 12 are fitted with a rubber ring seal. The duct accessories for GOLD sizes 14/20, 25/30, 35/40, 50/60 and 70/80 are equipped with connection frames for slip-clamp jointing (the slip-clamps must be ordered separately). Type METU connection frames are available as an accessories. Insulating, if required, must be done at the site.

Other particulars for sizing can be computed in the ProUnit air handling unit selection program.

TBSA Dampers

The TBSA 000-031 – 000-040 dampers are used as shut-off dampers or boosting dampers. The dampers of other sizes can also be used for other applications, such as an outdoor air damper for the $ReCO_2$ control function.

Shut-off dampers are normally used if the air handling unit is idle during some period, for example at night, or if a water coil without anti-frost protection is used.

Can be mounted in a horizontal or vertical duct.

Complete with damper actuator for 230 or 24 V. The actuator can be selected with spring return or on/off actuation. TBSA 000-050 – 180-100 are also available with an actuator of modulating type with spring return.

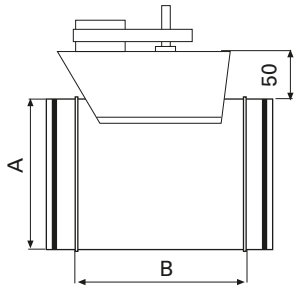
Technical data

Galvanized sheet steel.
Tightness class 3 to EN 1751.
Rectangular damper blades are journalled in nylon bushings.

Installation

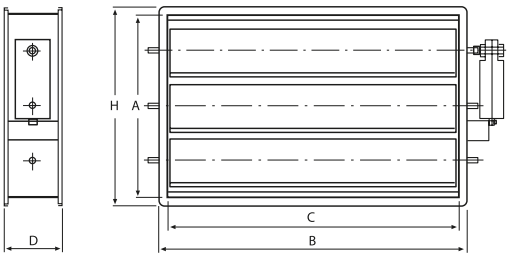
Wire the control and power supply cables to the appropriate wiring terminal on the air handling unit.

TBSA 000-031, is compatible with GOLD sizes 04, 05
TBSA 000-040, is compatible with GOLD size 08
TBSA 000-050, is compatible with GOLD size 12



TBSA	A	B	kg
000-031	Ø 315	140	6
000-040	Ø 400	210	7
000-050	Ø 500	210	8

TBSA 100-040, is compatible with GOLD sizes 14, 20
TBSA 120-050, is compatible with GOLD sizes 25, 30
TBSA 140-060, is compatible with GOLD sizes 35, 40
TBSA 160-080, is compatible with GOLD sizes 50, 60
TBSA 180-100, is compatible with GOLD sizes 70, 80



TBSA	A	B	C	D	H	kg
100-040	400	1040	1000	215	440	22
120-050	500	1240	1200	160	540	23
140-060	600	1440	1400	160	640	29
160-080	800	1640	1600	160	840	41
180-100	1000	1840	1800	215	1040	63

Complements and Accessories

Duct accessories

TBDA Unit silenser

TBDA 000-031, 000-040 and 000-050
The TBDA 000-031, 000-040 and 000-050 silencers are circular silencers for GOLD sizes 04-12 and are intended for installation in the ductwork.

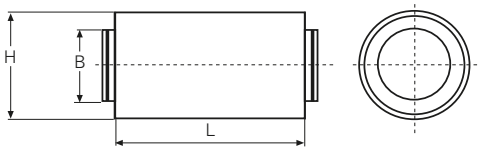
Technical data
Galvanized sheet steel.

Galvanized sheet steel.

Sound attenuating material consisting of 100 mm thick long-fibred glass wool slabs that offer excellent sound attenuation, especially in the mid-frequencies. Glass wool covered with a layer of EUROLON that withstands substantially higher air velocities and mechanical strain than staple fibre. Sound attenuating material covered with perforated sheet steel outside the EUROLON layer.

Installation
Provision for inspection and cleaning must be guaranteed.

TBDA-1-000-031, is compatible with GOLD sizes 04, 05
TBDA-1-000-040, is compatible with GOLD size 08
TBDA-1-000-050, is compatible with GOLD size 12



TBDA	B	H	L	kg
1-000-031	315	520	915	19,5
1-000-040	400	600	1200	29,5
1-000-050	500	700	1200	63

Complements and Accessories

Duct accessories

TBDA Unit silencer

TBDA 100-040 to 180-100

The TBDA 100-040 to 180-100 silencers are rectangular silencers for GOLD sizes 14-80 and are intended for installation in ducts or directly against the air handling unit.

Technical data

Galvanized sheet steel.

Sound absorption material of type Cleanolon-AL. Cleanolon-AL consists of mineral wool covered with perforated aluminium foil. Type approved with regard to suitability for cleaning, emissions and fibre entrainment. The material conforms to the provisions of Surface Layer Class 1 (the highest class). Type approved with regard to cleanability, emissions and fibre entrainment. The material conforms to the provisions of Surface Layer Class 1 (the highest class).

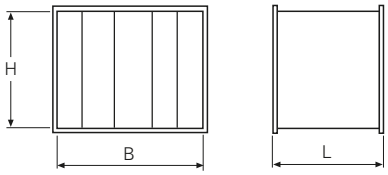
Installation

Provision for inspection and cleaning must be guaranteed.

TBDA-1-100-040
TBDA-1-120-050
TBDA-1-140-060

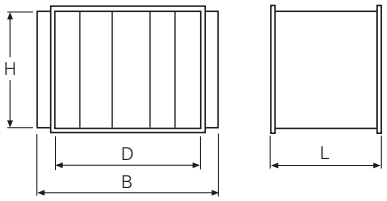
TBDA-1-160-080
TBDA-1-180-100

TBDA-1-100-040, is compatible with GOLD sizes 14, 20
TBDA-1-120-050, is compatible with GOLD sizes 25, 30
TBDA-1-140-060, is compatible with GOLD sizes 35, 40



TBDA	B	H	L	kg
1-100-040	1000	400	650	26
1-120-050	1200	500	650	33
1-140-060	1400	600	650	39

TBDA-1-160-080, is compatible with GOLD sizes 50, 60
TBDA-1-180-100, is compatible with GOLD sizes 70, 80



TBDA	B	D	H	L	kg
1-160-080	1800	1600	800	650	72
1-180-100	2000	1800	1000	1250	115

Complements and Accessories

Duct accessories

TBFK Carbon filter section

The TBFK has activated carbon filter medium designed for improving the air quality indoors by adsorbing gaseous, harmful or foul-smelling substances from the air.

Note that we cannot guarantee one hundred percent elimination of odours due to variations in the impurities and mixtures of various chemical substances arrested in the filter.

The carbon filter cartridges are disposable. They are seated in mounting frames and can be locked in their bayonet socket by simply turning them by hand. The cartridges contain a filter mat made of polyester, which encloses the activated carbon.

The framework consists of 38 mm galvanized (Sendzimir) square frame profiles, sheet metal thickness 1.5 mm, painted in RAL 7032. The frame members are held together by corner pieces made of plastic. Corner pieces and frame members can be separated, since no components are welded.

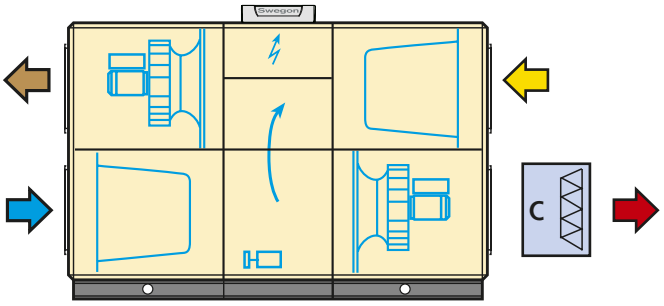
Cover panels and inspection doors consist of double-skin 1.0 mm galvanized (Sendzimir) sheet steel. The intervening 45 mm thick thermal and sound isolation consists of fire-resistant mineral wool in accordance with DIN 4102, Class A1, having a specific weight of 55 kg/m3.

The cover panels can be dismantled from the unit.

The inspection doors have hinges and handles.

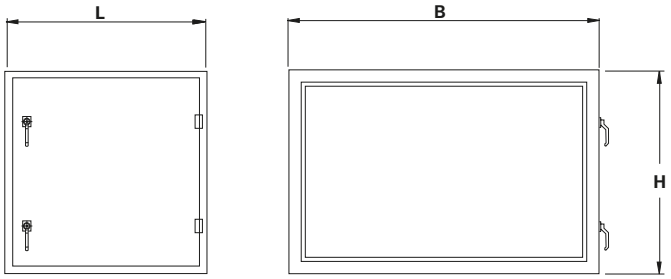
After fabrication the panels and inspection doors are given powder painted, min. 60 µm finish, RAL 7032. This leaves no open sectional areas and provides excellent corrosion resistance.

Carbon cartridges



Installation

The TBFK carbon filter section has a connection frame for slip-clamp jointing and is designed for installation in the ductwork, see adjacent illustration.



Note that the TBFK carbon filter is available in six sizes and that the slip-clamp connection dimensions follow the connection dimensions of the GOLD air handling units.

TBFK	Slip-clamp conn. widthxheigh	B	H	L	kg without cartridges	Number of cartridges	kg with cartridges
017	900x400	994	535	765	75	17	113
024	1100x500	1224	612	765	89	24	143
036	1300x600	1453	688	765	104	36	185
050	1500x700	1606	841	765	120	50	233
072	1800x900	1912	994	765	144	72	307
098	2100x900	2218	1147	765	172	98	393

Complements and Accessories

Duct accessories

TBLA Air heater for hot water

The TBLA air heater uses hot water for post-heating the supply air

The GOLD air handling unit's control system and its efficient rotary heat exchanger make it often possible design ventilation systems without downstream air heaters according to the ERS model if the air handling unit is operated in the temperature control mode.

Air heaters for the GOLD, size 04-40 can be installed for horizontal or vertical airflow, other sizes only for horizontal airflow.

For the GOLD 50/60 and 70/80 units, the TBLA is incorporated into its own insulated unit casing. If the TBKA or the TBKC air cooler are also included, both coils are installed in the same casing (see the TBLK dual-purpose section).

The TBLA air heater, capacity variant 1, is available with Thermo Guard anti-frost tension protection for the size 04-40 GOLD units.

Technical data

Sizes 04-40 have an uninsulated casing made of galvanized sheet steel. Sizes 50-80 have an insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone. The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

Finned-tube heat exchangers fabricated of copper tubes and profiled aluminium fins. The headers and the pipework to the water connections are made of copper. The male threaded pipe connections are made of brass.

The TBLA air heater for hot water is available in three capacity variants. Capacity variant 1 provides the lowest capacity and capacity variant 3 provides the highest capacity.

All the coils are equipped with individual plugs for venting and drainage. A separate connection is provided for an anti-frost monitor sensor.

The valve set with 2(3)-way valve, actuator, anti-frost protection sensor, connection cable with quick connector are included.

Valve set

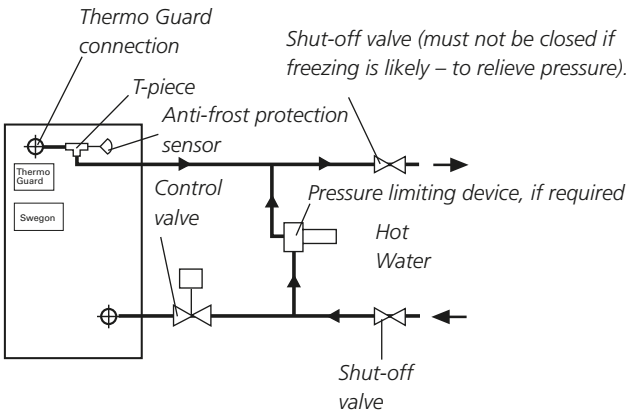
The valve set with 2(3)-way valve, actuator, freeze protection sensor and connection cable with quick connector can be ordered.

If you install a valve of your own, you can instead select a set of electrical connection components. This set contains the connection cable with quick connector, resistor and insertion-type or strap-on sensor.

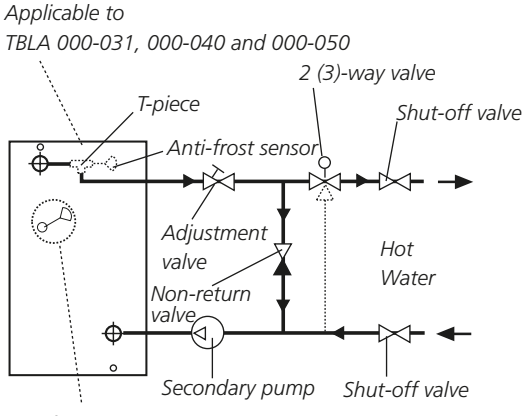
Extra accessories

Circulation pump used for protecting the freeze protection monitor function if air heaters without anti-frost bursting protection are used.

Installation principle *with* Thermo Guard



Installation principle *without* Thermo Guard



Anti-frost monitor sensor. Applicable to TBLA 100-040 to 180-100

1) The anti-frost sensor for the TBLA sizes 000-031, 000-040 and 000-050 should be fitted to the return pipework and for the TBLA sizes 100-040 and 180-100 in the connection on the coil.

Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is built into the control equipment of the GOLD unit.

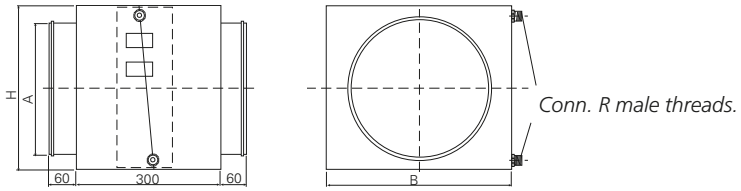
Installation

Provision for inspection and cleaning must be guaranteed. Electrical connection.

Complements and Accessories

Duct accessories

Without Thermoguard

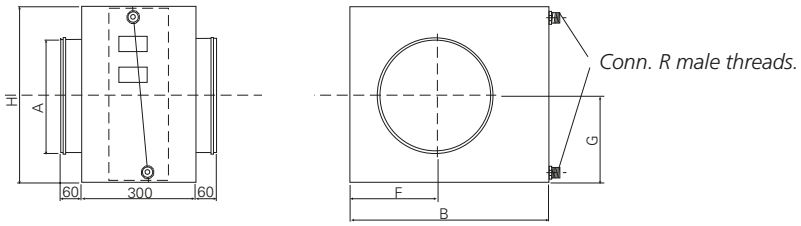


Conn. R male threads.

TBLA	A	B	H	R	kg*
5-000-031-2-1	Ø 315	490	405	DN15	17

** Excluding water.*

TBLA 000-031, is compatible with GOLD sizes 04, 05
TBLA 000-040, is compatible with GOLD size 08
TBLA 000-050, is compatible with GOLD size 12

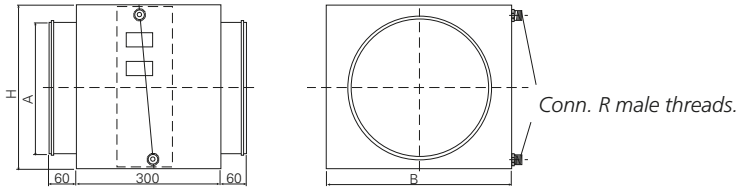


Conn. R male threads.

TBLA	A	B	F	G	H	R	kg*
5-000-040-2-1	Ø 400	590	255	250	500	DN20	22
5-000-040-2-2	Ø 400	590	255	250	500	DN20	25
5-000-050-2-1	Ø 500	690	295	300	600	DN20	26
5-000-050-2-2	Ø 500	690	295	300	600	DN25	30

** Excluding water.*

With Thermoguard



Conn. R male threads.

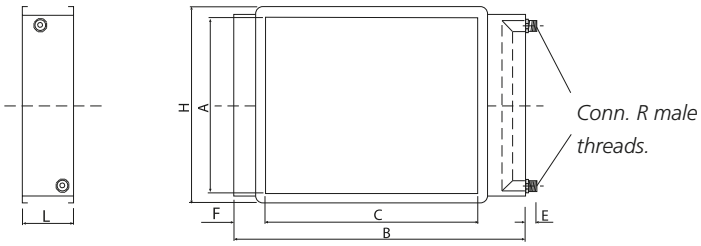
TBLA	A	B	H	R	kg*
4-000-031	Ø 315	488	428	DN 15	14
4-000-040	Ø 400	588	528	DN 15	19
4-000-050	Ø 500	688	628	DN 15	24

** Excluding water.*

TBLA 000-031, is compatible with GOLD sizes 04, 05
TBLA 000-040, is compatible with GOLD size 08
TBLA 000-050, is compatible with GOLD size 12

Complements and Accessories

Duct accessories

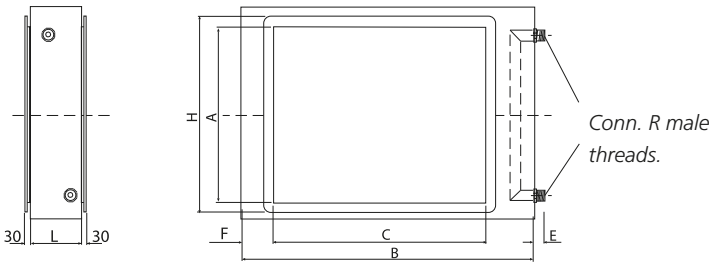


TBLA 100–040, is compatible with GOLD sizes 14, 20
TBLA 120–050, is compatible with GOLD sizes 25, 30
TBLA 140-060, is compatible with GOLD sizes 35, 40

Without Thermoguard

TBLA	A	B	C	E	H	L	R	F	kg*
4-100-040-2-1	400	1119	1000	90	438	148	DN15	40	14
4-100-040-2-2	400	1126	1000	90	438	170	DN20	40	18
4-120-050-2-1	500	1319	1200	90	538	148	DN15	40	17
4-140-060-2-1	600	1526	1400	90	638	148	DN20	40	23

** Excluding water.*

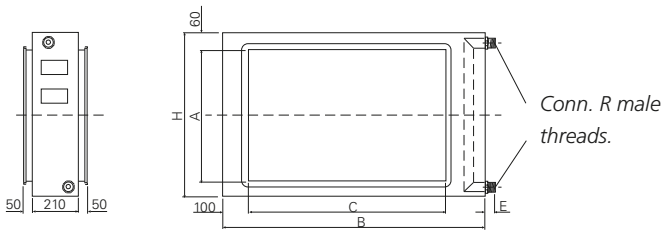


TBLA 100–040, is compatible with GOLD sizes 14, 20
TBLA 120–050, is compatible with GOLD sizes 25, 30
TBLA 140-060, is compatible with GOLD sizes 35, 40

Without Thermoguard

TBLA	A	B	C	E	H	L	R	F	kg*
4-100-040-2-3	400	1250	1000	85	605	300	DN25	125	53
4-120-050-2-2	500	1590	1200	85	700	300	DN20	195	72
4-120-050-2-3	500	1590	1200	85	755	300	DN32	195	78
4-140-060-2-2	600	1815	1400	85	840	300	DN25	208	94
4-140-060-2-3	600	1850	1400	85	880	300	DN32	225	101

** Excluding water.*



TBLA 100–040, is compatible with GOLD sizes 14, 20
TBLA 120–050, is compatible with GOLD sizes 25, 30
TBLA 140-060, is compatible with GOLD sizes 35, 40

With Thermoguard

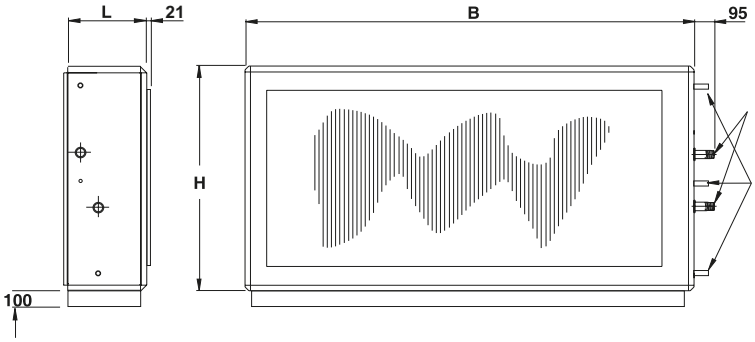
	Capacity variant 1							
TBLA	B	H	L	A	C	E	R	kg*
4-100-040	1213	580	210	400	1000	100	DN15	50
4-120-050	1568	680	210	500	1200	100	DN20	68
4-140-060	1818	820	210	600	1400	100	DN20	90

** Excluding water.*

Complements and Accessories

Duct accessories

TBLA 160-080, is compatible with GOLD sizes 50, 60
TBLA 180-100, is compatible with GOLD sizes 70, 80



Connection dimensions to duct:
TBLA-160-080 1600 x 800 mm
TBLA-180-100 1800 x 1000 mm

				Capacity variant 1			Capacity variant 2			Capacity variant 3		
TBLA	B	H	L	R	kg*Std	kg*EI30	R	kg*Std	kg*EI30	R	kg*Std	kg*EI30
5-160-080	2318	1127	570	DN25	177	197	DN32	192	212	DN50	224	244
5-180-100	2637	1320	570	DN25	217	242	DN40	238	263	DN50	278	303

* *Excluding water.*

Complements and Accessories

Duct accessories

TBLF Air heater for preheating, hot water

The TBLF air heater is used for preheating the supply air and uses hot water as the heating medium. The TBLF is installed in the outdoor air duct.

Reheating the air when the outdoor air is cold and the humidity is high can prevent condensate from forming in the filters. The function can also be used when it is extremely cold outdoors and you want to heat the air up to -20°C for instance.

Used in combination with a plate heat exchanger, it may be of interest to preheat the air in order to avoid having to by-pass the heat exchanger.

Technical data

The air heater is sized for heating from -4°C to + 4°C using 82/71°C heating water.

Uninsulated casing made of galvanized sheet steel.

Finned-tube heat exchangers fabricated of copper tubes and profiled aluminium fins. Fin pitch: 5.5 mm. The headers and the pipework connected to the water connections are made of copper.

The pipe connections have male threads and are made of brass.

Valve set

The TBVA Valve set consisting of 2(3)-way valve including actuator can be ordered.

Extra accessories

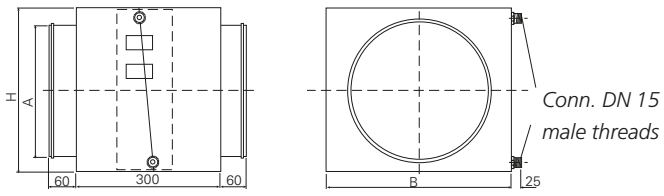
Control system including temperature sensor for installation in a duct and the IQnomic Plus with a 0.25 metre long cable, with or without freeze protection sensor.

Circulation pump used for protecting the anti-frost monitor function if coils without anti-frost bursting protection are used. Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is built into the control equipment of the GOLD unit.

Installation

Provision for inspection and cleaning must be guaranteed. Electrical connections.

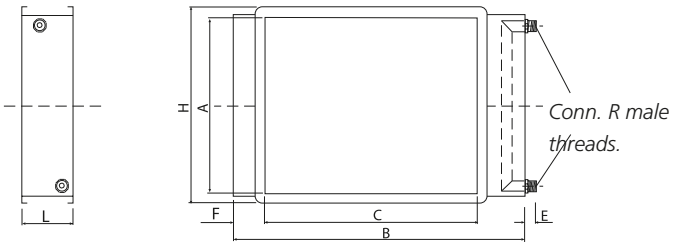
TBLF 000-031, compatible with GOLD sizes 04, 05
TBLF 000-040, compatible with GOLD size 08
TBLF 000-050, compatible with GOLD size 12



TBLF	A	B	H	kg*
1-000-031	Ø 315	488	405	12
1-000-040	Ø 400	588	528	16
1-000-050	Ø 500	688	628	19

* *Excluding water.*

TBLF 100-040, is compatible with GOLD sizes 14, 20
TBLF 120-050, is compatible with GOLD sizes 25, 30
TBLF 140-060, is compatible with GOLD sizes 35, 40
TBLF 160-080, is compatible with GOLD sizes 50, 60
TBLF 180-100, is compatible with GOLD sizes 70, 80



TBLF	A	B	C	E	H	L	R	F	kg
1-100-040	400	1125	1000	100	438	148	DN20	47	13
1-120-050	500	1325	1200	100	538	148	DN20	47	16
1-140-060	600	1535	1400	100	638	148	DN25	47	20
1-160-080	800	1747	1600	100	838	148	DN32	47	27
1-180-100	1000	1947	1800	100	1038	148	DN32	47	31

Complements and Accessories

Duct accessories

TBLE Electric air heater

The TBLE electric air heater is used post-heating the supply air.

The GOLD air handling unit's control system and its efficient rotary heat exchanger make it often possible design ventilation systems without downstream air heaters according to the ERS model if the air handling unit is operated in the temperature control mode.

Air heaters for the GOLD, size 04-40 can be installed for horizontal or vertical airflow, other sizes only for horizontal airflow.

For the GOLD 50/60 and 70/80 units, the TBLE is incorporated into its own insulated unit casing. If the TBKA or the TBKC air cooler is also included, both coils are installed in the same casing (see the TBLK dual-purpose section).

The integrated thyristor is controlled via signals from the GOLD air handling unit. The conductors for the two series-coupled overheating protections and control signal transmission are connected by means of a quick connector to the GOLD unit.

Technical data

Sizes 04-40 have an uninsulated casing made of galvanized sheet steel.

Sizes 50-80 have an insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone. The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

The TBLE electric air heater is available in several capacity variants.

The electrical equipment conforms to the provisions of Degree of Protection IP43.

Installation

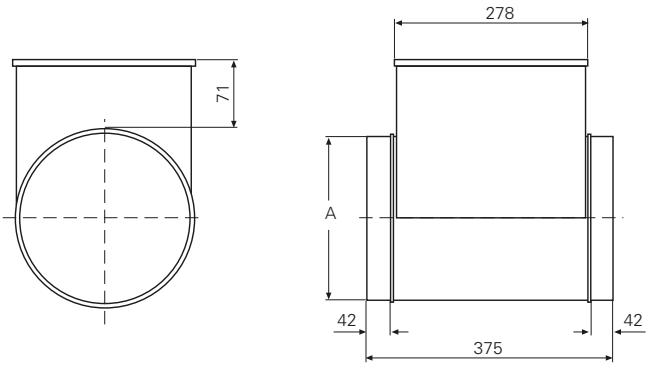
TBLE 000-031, 000-040 and 000-050: The end panel on the connection side can be dismantled for inspection and wiring the electrical connections. TBLE 100-040 to 180-100: Provision for inspection and cleaning must be guaranteed.

The distance from or to a duct bend, damper, filter or similar component should be at least equivalent to twice the duct diameter (TBLE 000-031, 000-040 and 000-050) or equivalent to the electric air heater's diagonal dimension, i.e. from corner to corner in the electric air heater's duct section (TBLE 100-040,120-050 and 140-060). Otherwise there is risk that the airflow through the electric air heater will be non-uniform, involving risk that the overheating protection will trip.

Electrical connections. ***Power must be supplied directly from the electrical distribution box.***

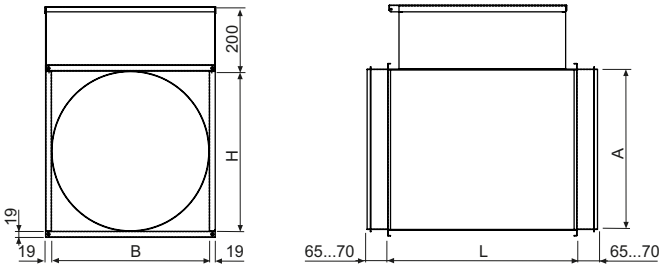
Complements and Accessories

Duct accessories



TBLE 000-031, corresponds to GOLD sizes 04, 05
TBLE-000-040, corresponds to GOLD sizes 08

TBLE	ø A	kg
3-000-031-030-x	315	7
3-000-031-045-x	315	8
3-000-031-075-x	315	9
4-000-031-12-1	315	20
4-000-040-06-1	400	9
4-000-040-12-1	400	12
4-000-040-06-2	400	9

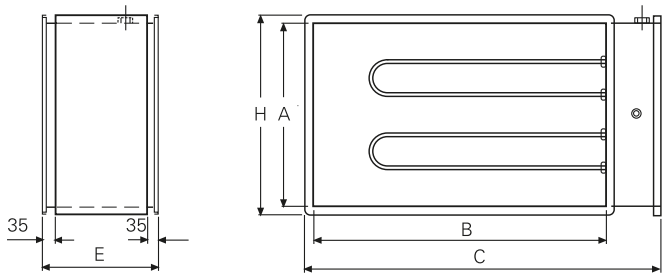


TBLE 000-031, corresponds to GOLD sizes 04, 05
TBLE-000-040, corresponds to GOLD sizes 08
TBLE-000-050, corresponds to GOLD sizes 12

TBLE	ø A	B	H	L	kg
4-000-031-20-1	315	350	350	600	30
4-000-031-27-1	315	350	350	700	32
4-000-031-12-2	315	350	350	500	23
4-000-031-20-2	315	350	350	700	30
4-000-031-27-2	315	350	350	700	35
4-000-040-20-1	400	400	400	500	29
4-000-040-27-1	400	400	400	600	35
4-000-040-36-1	400	400	400	700	40
4-000-040-47-1	400	400	400	700	47
4-000-040-12-2	400	400	400	500	25
4-000-040-20-2	400	400	400	700	33
4-000-040-27-2	400	400	400	700	38
4-000-040-36-2	400	400	400	800	48
4-000-040-47-2	400	400	400	800	56
4-000-050-08-1	500	500	500	370	24
4-000-050-08-2	500	500	500	500	24
4-000-050-12-1	500	500	500	500	25
4-000-050-12-2	500	500	500	500	27
4-000-050-20-1	500	500	500	500	34
4-000-050-20-2	500	500	500	500	37
4-000-050-27-1	500	500	500	500	37
4-000-050-27-2	500	500	500	500	41
4-000-050-36-1	500	500	500	500	46
4-000-050-36-2	500	500	500	600	54
4-000-050-47-1	500	500	500	600	54
4-000-050-47-2	500	500	500	600	55
4-000-050-69-1	500	500	500	700	69
4-000-050-69-2	500	500	500	700	82

Complements and Accessories

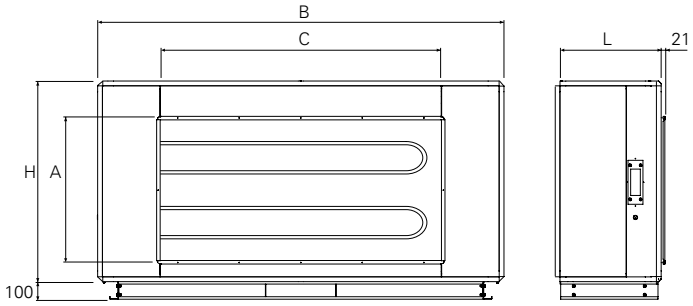
Duct accessories



TBLE 100-040, is compatible with GOLD sizes 14, 20
TBLE 120-050, is compatible with GOLD sizes 25, 30
TBLE 140-060, is compatible with GOLD sizes 35, 40

TBLE	A	B	C	H	E	kg
4-100-040 (400 V)	400	1000	1219	438	370 (8-20 kW) 500 (36-47 kW) 600 (69-79 kW)	25 - 35 48 - 53 70 - 75
4-100-040 (230 V)	400	1000	1219	438	370 (8-12 kW) 500 (20 kW) 600 (36-47 kW) 800 (69-79 kW)	25 -30 40 56 - 67 83 - 89
4-120-050 (400 V)	500	1200	1419	538	370 (12-27 kW) 500 (34-47 kW) 600 (69-79 kW) 700 (90 kW)	30 - 40 50 - 59 75 - 80 92
4-120-050 (230 V)	500	1200	1419	538	370 (12 kW) 500 (20-27 kW) 600 (34-47 kW) 800 (69-79 kW) 1000 (90 kW)	33 45 - 49 60 - 75 90 - 97 108
4-140-060 (400 V)	600	1400	1619	638	370 (12-27 kW) 500 (36-47 kW) 600 (69-79 kW) 700 (90 kW)	34 - 42 56 - 61 80 - 86 98
4-140-060 (230 V)	600	1400	1619	638	370 (12 kW) 500 (20-27 kW) 600 (36-47 kW) 800 (69-79 kW) 1000 (90 kW)	36 49 - 54 68 - 72 99 - 104 115

TBLE 160-080, is compatible with GOLD sizes 50, 60
TBLE 180-100, is compatible with GOLD sizes 70, 80



TBLE	A	B	C	H	L	kg
5-160-080	800	2318	1600	1127	632/792[1)]	220 -313
5-180-100	1000	2637	1800	1320	632/792[2)]	256 - 404

[1)] Dimension L = 792 mm is applicable to capacity variants 63 - 79 kW in the version for 230 V and capacity variants 90 – 135 kW in the version for 400 V. All other capacity variants have dim. L = 632 mm.
[2)] Dimension L = 792 mm is applicable to capacity variants 69 – 90 kW in the version for 230 V and capacity variant 135 kW in the version for 400 V. All other capacity variants have dim. L = 632 mm.

Complements and Accessories

Duct accessories

TBKA Air cooler for chilled water
TBKC (direct expansion)

The TBKA/TBKC air cooler is used for cooling the supply air with chilled water or evaporative refrigerant as the cooling medium.

The TBKA/TBKC air cooler is available in several capacity variants that cover existing needs for each size of GOLD unit.

The air cooler must be installed for horizontal airflow.

For the GOLD 50/60 and 70/80 units, the TBKA/TBKC is incorporated into its own insulated unit casing. If the TBLA or the TBLE are also included, both coils are installed in the same casing (see the TBLK dual-purpose section and the TBEK respectively).

Technical data

Sizes 04-40 have an uninsulated casing made of galvanized sheet steel.

Sizes 50-80 have an insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone. The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

The TBKA/TBKC air coolers consist of copper tubes and profiled aluminium fins. The TBKA has headers and water connections made of copper/brass, with male connection threads. The TBKC has headers and distributor tubes made of copper. The connections are designed for brazed joints.

Valve set

The TBVA Valve set consisting of 2(3)-way valve including actuator can be ordered.

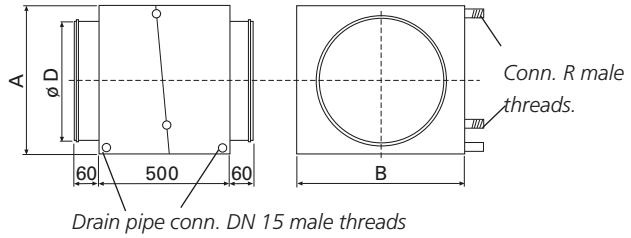
Installation

TBKA/TBKC 000-031, 000-040 and 000-050: The end panel on the connection side can be dismantled for inspection and connection. TBKA 100-040 to 180-100: Provision for inspection and cleaning must be guaranteed.
Connecting the drainage pipework.
Electrical connections.

Complements and Accessories

Duct accessories

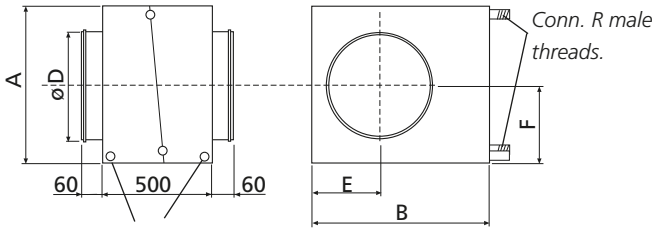
TBKA 000-031, compatible with GOLD size 04/05
TBKA 000-040, compatible with GOLD size 08
TBKA 000-050, compatible with GOLD size 12



Drain pipe conn. DN 15 male threads

TBKA	A	B	D	R	kg*
4-000-031-1	444	490	315	DN15	21
4-000-031-2	444	490	315	DN20	24

** Excl. cooling medium*

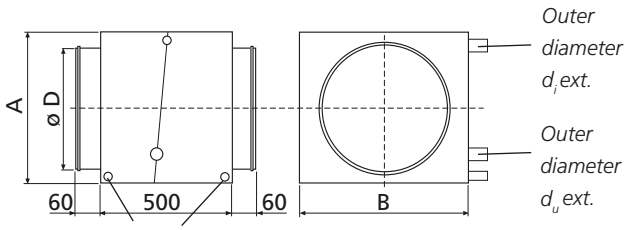


Drain pipe conn. DN 15 male threads

TBKA	A	B	D	E	F	R	kg*
4-000-040-1	475	590	400	255	238	DN20	27
4-000-040-2	475	590	400	255	238	DN25	29
4-000-050-1	575	690	500	295	288	DN25	30
4-000-050-2	575	690	500	295	288	DN25	33
4-000-050-5	755	770	500	358	378	DN25	44
4-000-050-6	755	770	500	358	378	DN32	52

** Excl. cooling medium*

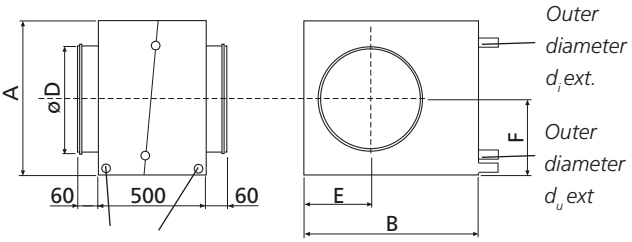
TBKC 000-031, compatible with GOLD size 04/05
TBKC 000-040, compatible with GOLD size 08
TBKC 000-050, compatible with GOLD size 12



Drain pipe conn. DN 15 male threads

TBKC	A	B	D	d_i	d_u	kg*
3-000-031-1-1	444	490	315	12	18	21

** Excl. cooling medium*



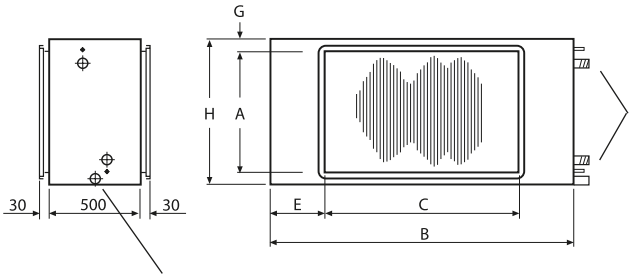
Drain pipe conn. DN 15 male threads

TBKC	A	B	D	E	F	d_i	d_u	kg*
3-000-040-1-1	455	590	400	255	228	12	22	23
3-000-050-1-1	575	690	500	295	288	18	28	29
3-000-050-3-1	755	770	500	358	378	22	42	42

** Excl. cooling medium*

Complements and Accessories

Duct accessories



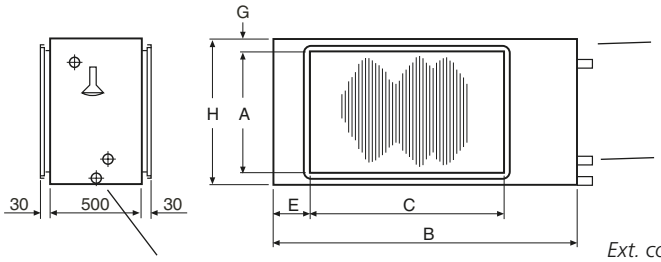
Conn. R male threads.

Drain pipe conn. DN 25 male threads

TBKA 100-040, compatible with GOLD sizes 14, 20
TBKA 120-050, compatible with GOLD sizes 25, 30
TBKA 140-060, compatible with GOLD sizes 35, 40

TBKA	A	B	C	E	G	H	R	kg*
4-100-040-1	400	1295	1000	148	113	625	DN32	90
4-100-040-2	400	1295	1000	148	113	625	DN32	95
4-100-040-3	400	1295	1000	148	113	625	DN32	101
4-120-040-4**	400	1495	1200	148	113	625	DN40	116
4-120-050-1	500	1595	1200	198	168	835	DN40	128
4-120-050-2	500	1595	1200	198	168	835	DN50	140
4-120-050-3	500	1595	1200	198	168	835	DN50	149
4-140-050-4**	500	1790	1400	195	168	835	DN50	169
4-140-060-1	600	1885	1400	243	170	940	DN50	163
4-140-060-2	600	1885	1400	243	170	940	DN50	175
4-140-060-3	600	1885	1400	243	170	940	DN65	188
4-160-060-4**	600	2085	1600	243	170	940	DN65	210

** Excl. cooling agent*
*** The connection dimensions of the air cooler are not the same as those of the GOLD unit.*
Some form of transition piece must be installed between the air handling unit and the air cooler.



Outer diameter d_i ext.
Outer diameter d_u ext

Ext. conn. to be brazed.

Drain pipe conn. DN 25 male thread

TBKC 100-040, compatible with GOLD sizes 14, 20
TBKC 120-050, compatible with GOLD sizes 25, 30
TBKC 140-060, compatible with GOLD sizes 35, 40

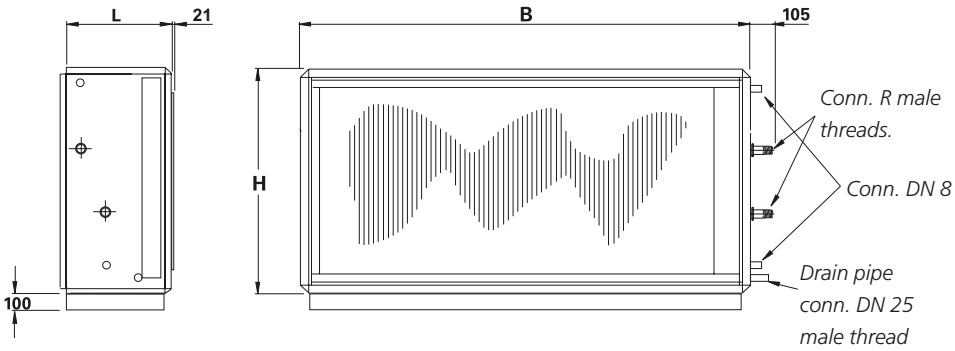
TBKC	A	B	C	E	G	H	d_i	d_u	kg*
2-100-040-1-1	400	1295	1000	198	112,5	625	28	35	76
2-100-040-1-2	400	1295	1000	198	112,5	625	16/22	22/28	76
2-100-040-2-1	400	1295	1000	198	112,5	625	28	35	81
2-100-040-2-2	400	1295	1000	198	112,5	625	16/22	22/28	81
2-120-050-1-1	500	1595	1200	152,5	170	840	28	35	95
2-120-050-1-2	500	1595	1200	152,5	170	840	16/28	22/35	95
2-120-050-2-1	500	1595	1200	152,5	170	840	35	42	103
2-120-050-2-2	500	1595	1200	152,5	170	840	22/28	28/35	103
2-120-050-3-1	500	1595	1200	152,5	170	840	35	42	114
2-120-050-3-2	500	1595	1200	152,5	170	840	22/35	28/42	114
2-140-060-1-1	600	1885	1400	197,5	175	950	35	42	130
2-140-060-1-2	600	1885	1400	197,5	175	950	22/28	28/35	130
2-140-060-2-1	600	1885	1400	197,5	175	950	35	42	143
2-140-060-2-2	600	1885	1400	197,5	175	950	22/28	28/35	143
2-140-060-3-1	600	1885	1400	197,5	175	950	42	54	153
2-140-060-3-2	600	1885	1400	197,5	175	950	28/35	35/42	153

** Excl. cooling agent*

Complements and Accessories

Duct accessories

TBKA 160-080, compatible with GOLD sizes 50, 60
TBKA 180-100, compatible with GOLD sizes 70, 80



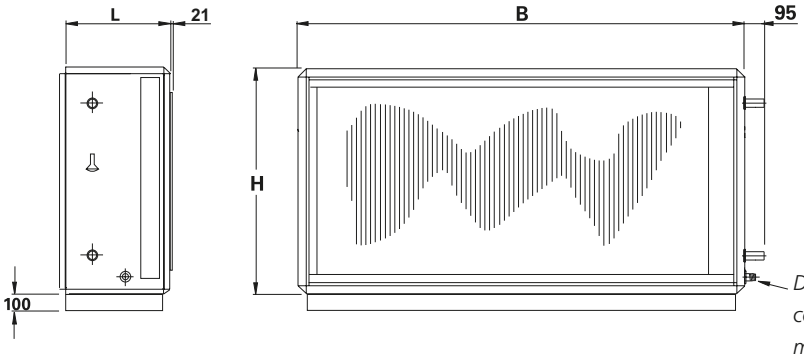
Connection dimensions to duct:
TBKA-160-080 1600 x 800 mm
TBKA-180-100 1800 x 1000 mm

				Capacity variant 1			Capacity variant 2			Capacity variant 3			Capacity variant 4		
TBKA	B	H	L	R	kg*Std	kg*EI30	R	kg*Std	kg*EI30	R	kg*Std	kg*EI30	R	kg*Std	kg*EI30
3-160-080	2318	1127	570	DN65	233	253	DN65	245	265	-	-	-	-	-	-
3-180-100	2637	1320	570	DN65	298	323	DN65	316	341	DN65	335	360	DN65	362	387

				Capacity variant 5			Capacity variant 6		
TBKA	B	H	L	R	kg*Std	kg*EI30	R	kg*Std	kg*EI30
3-160-080	2318	1127	570	DN65	260	280	65	276	296

** Excl. cooling agent*

TBKC 160-080, compatible with GOLD sizes 50, 60
TBKC 180-100, compatible with GOLD sizes 70, 80



Connection dimensions to duct:
TBKC-160-080 1600 x 800 mm
TBKC-180-100 1800 x 1000 mm

				Capacity variant 1		Capacity variant 2		Capacity variant 3	
TBKC	B	H	L	kg*Std	kg*EI30	kg*Std	kg*EI30	kg*Std	kg*EI30
3-160-080	2318	1127	570	203	223	217	237	231	251
3-180-100	2637	1320	570	251	276	270	295	290	315

** Excl. cooling agent*

Complements and Accessories

Duct accessories

TBEK dual purpose section.
Electric air heating and air cooling

The TBEK dual purpose section is used for heating/cooling the supply air The air heater is a TBLE electric air heater. The cooling coil is a type TBKA air cooler for chilled water or a type TBKC air cooler for evaporative refrigerant.
The TBEK dual purpose section must be installed for horizontal airflow.
The TBEK dual purpose section can be obtained for the size 50 – 80 GOLD units.
The TBEK dual purpose section is incorporated into an insulated unit section of its own.
The integrated thyristor is controlled via signals from the GOLD air handling unit. The conductors for the two series-coupled overheating protections and control signal transmission are connected by means of a quick connector to the GOLD unit.

Technical data

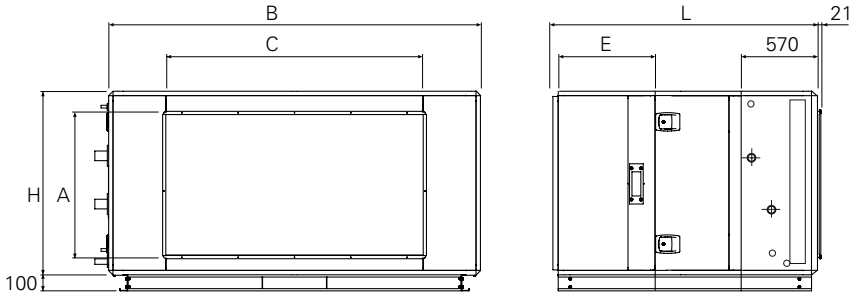
Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone. The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.
The electric air heate is available in several capacity variants; the electrical equipment conforms to the provisions of Degree of Protection IP43.
The coils consist of copper tubes and profiled aluminium fins. The air cooler for chilled water has headers and water connections made of copper/brass, with male connection threads.
The air cooler for evaporative refrigerant has headers and distributor tubes made of copper. The connections are designed for brazed joints.
The air cooler is available in several capacity variants that cover existing needs for the appropriate size of GOLD unit.

Valve set

The TBVA Valve set consisting of 2(3)-way valve including actuator can be ordered for the air cooler.

Installation

Installation.
The dual purpose sections can be installed directly against the air handling unit. Provision for inspection and cleaning must be guaranteed.
Because an electric air heater is incorporated into the section, the distance from or to a duct bend, damper, filter or similar component should be at least equivalent to the electric air heater's diagonal dimension, i.e. from corner to corner in the electric air heater's duct section (TBLE 100-040,120-050 and 140-060). Otherwise there is risk that the airflow through the electric air heater will be non-uniform, involving risk that the overheating protection will trip.
Electrical connections. ***Power must be supplied directly to the electric air heater from an electrical distribution box.***



TBEK	A	B	C	E	H	L	kg [1]	kg [2]
160-080[3]	800	2318	1600	604	1127	1716	396	520 - 579
160-080[3]	800	2318	1600	764	1127	1876	418	563 - 645
180-100[4]	1000	2637	1800	604	1320	1716	447	608 - 674
180-100[4]	1000	2637	1800	764	1320	1876	470	670 - 859

TBEK 160-080, compatible with GOLD sizes 50, 60
TBEK 180-100, compatible with GOLD sizes 70, 80

[1] Casing only.
[2] Excl. cooling agent.
[3] Dimension L = 1,876 mm is applicable to capacity variants 63 - 79 kW in the version for 230 V and capacity variants 90 – 135 kW in the version for 400 V. All other capacity variants have dim. L = 1,716 mm
[4] Dimension L = 1,876 mm is applicable to capacity variants 69 - 90 kW in the version forf 230 V and capacity variant 135 kW in the version for 400 V. All other capacity variants have dim. L = 1,716 mm.

Complements and Accessories

Duct accessories

TBLK Dual purpose section. Waterborne air heating and air cooling

The TBLK dual purpose section is used for heating/cooling the supply air The air heater is a TBLA air heater for hot water. The cooling coil is a type TBKA air cooler for chilled water or a type TBKC air cooler for evaporative refrigerant.

The TBLK dual purpose section must be installed for horizontal airflow.

The TBLK dual purpose section can be obtained for the size 50 – 80 GOLD units.

The TBLK dual purpose section is incorporated into an insulated unit section of its own.

Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone. The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

The air heater for hot water is a finned heat exchanger consisting of copper tubes and profiled aluminium fins. The headers and the pipework to the water connections are made of copper. The male threaded pipe connections are made of brass.

The air heater for hot water is available in three capacity variants. Capacity variant 1 provides the lowest capacity and capacity variant 3 provides the highest capacity.

All the coils are equipped with individual plugs for venting and drainage. A separate connection is provided for an anti-frost monitor sensor.

The coils consist of copper tubes and profiled aluminium fins. The air cooler for chilled water has headers and water connections made of copper/brass, with male connection threads.

The air cooler for evaporative refrigerant has headers and distributor tubes made of copper. The connections are designed for brazed joints.

The air cooler is available in several capacity variants that cover existing needs for the appropriate size of GOLD unit.

Valve set

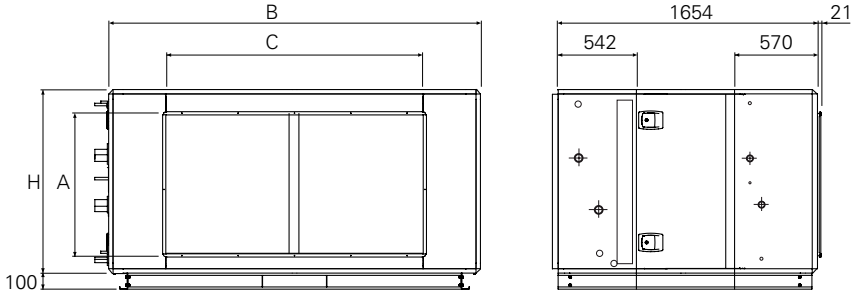
Valve set with 2(3)-way valve, actuator, anti-frost protection sensor, connection cable with quick connector can be ordered.
If you install a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick connector, resistor and insertion/strap-on sensor.

Extra accessories

Circulation pump used for protecting the freeze protection monitor function if an air heater without anti-frost bursting protection is used. Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is built into the control equipment of the GOLD unit.

Installation

Installation. The dual purpose sections can be installed directly against the air handling unit. Provision for inspection and cleaning must be guaranteed.
Electrical connections.



TBLK 160-080, compatible with GOLD sizes 50, 60
TBLK 180-100, compatible with GOLD sizes 70, 80

TBLK	A	B	C	H	kg [1]	kg [2]
1-160-080	800	2318	1600	1127	177	480 - 563
1-180-100	1000	2637	1800	1320	258	561 - 671

[1] *Casing only.*
[2] *Excluding water.*

Complements and Accessories

Duct accessories

TBBD Mixing Section

The TBBD mixing section is available for the GOLD SD in all sizes.

The mixing section can be used when it is desirable use recirculated air for completely or partially heating a building while it is unoccupied.

The TBBD consists of a spiral tubular T-piece (sizes 05-08) or a rectangular duct with three connections for slip-clamp jointing (sizes 20-80).

The spiral duct joints (sizes 05-08) in required quantity, or sets of slip clamps (sizes 14-80) are included in the supply.

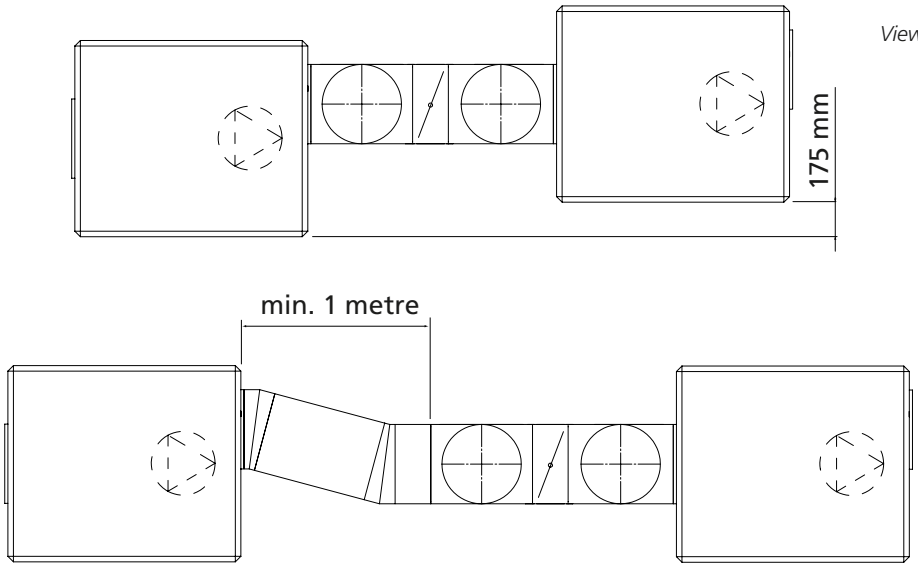
The damper is always supplied with mounted damper actuator. These have modulated action.

The mixing section can be ordered with two or three dampers depending on its range of application. These can be according to Alternative 1 or 2. See the examples on the next page.

The size 04-80 GOLD air handling units whose air outlet that is not in alignment with the air inlet will either have to be displaced by 175 mm toward to one another or else an S bend will also be required (not included in the supply) requiring a minimum of 1 metre extra space. See the illustration below.

Additional equipment required: Supply air units should be provided with a downstream electric air heater or air heater for hot water.

Work to be carried out at the building site: Install the mixing section securing it to the air handling unit/duct Install dampers for the mixing section or duct Wire electrical connections to the GOLD unit's control equipment (separate power supply is not required) Install insulation conforming to local regulations



Viewed from above.

Complements and Accessories

Duct accessories

Sizes 05 and 08

Example 1, two dampers
The mixing section is supplied with two mounted dampers on one spiral tubular T-piece. The connecting rod to the common damper actuator is fitted. The linkage is connected on the right-hand side. The mixing section can easily be converted to enable connection of the linkage on the left-hand side.

Examples 2 and 3, three dampers
As example 1 + one unmounted damper with its own damper motor and one spiral tubular T-piece.

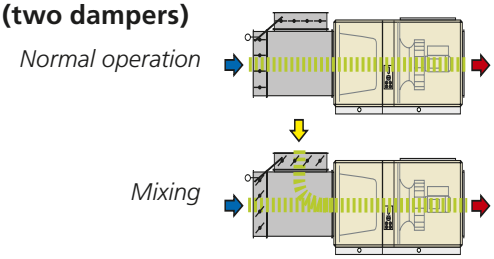
Sizes 20-80

Example 1, two dampers
The mixing section consists of two unmounted dampers and one rectangular duct with three connections for slip-clamp jointing. The connecting rod for the common damper motor is supplied with the unit section for size 20-30 air handling units. The dampers of the size 40-80 unit sections each have their own damper motor. The mixing section can be installed for connection on the right-hand or left-hand side.

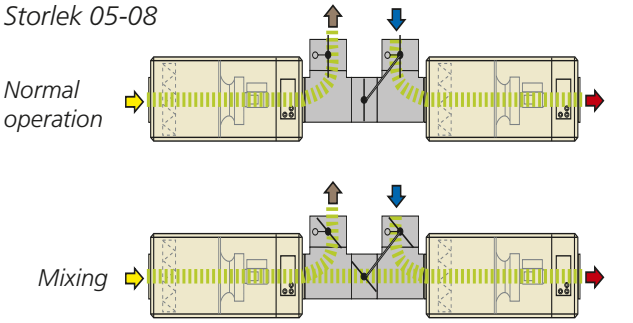
Example 2, three dampers, alternative 1
As example 1 + one unmounted damper with its own damper motor.

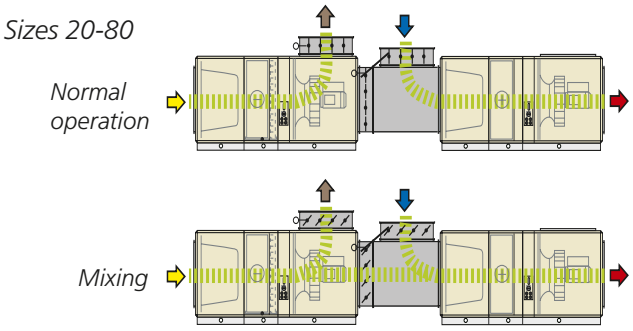
Example 3, three dampers, alternative 2.
As example 1 + one unmounted damper with its own damper motor and one rectangular duct with three connections for slip-clamp jointing.

Example 1 (two dampers)

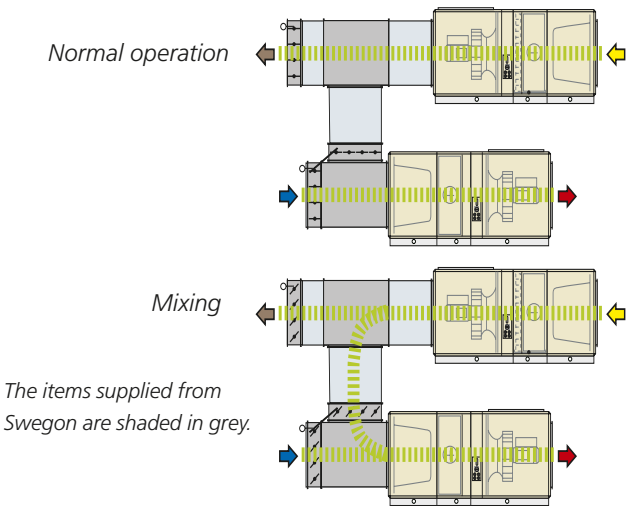


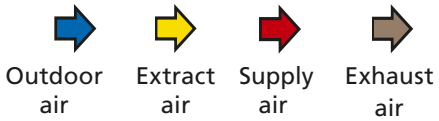
Example 2 (three dampers, alternative 1)





Example 3 (three dampers, alternative 2)



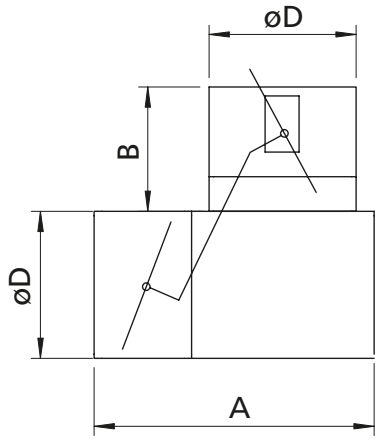


Complements and Accessories

Duct accessories

Two dampers

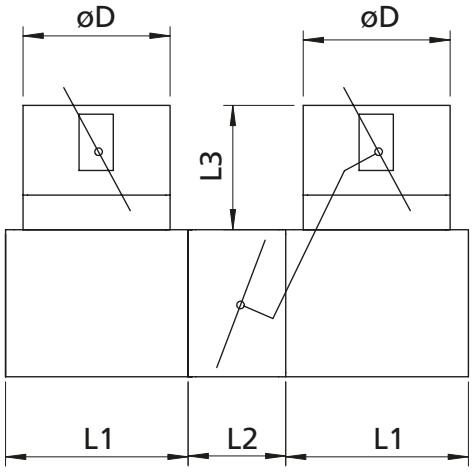
TBBD 05, is compatible with GOLD sizes 04/05
TBBD 08, is compatible with GOLD size 08



TBBD, size	A	B	øD
05	645	305	315
08	910	425	400

Three dampers, alternative 1

TBBD 05, is compatible with GOLD sizes 04/05
TBBD 08, is compatible with GOLD size 08

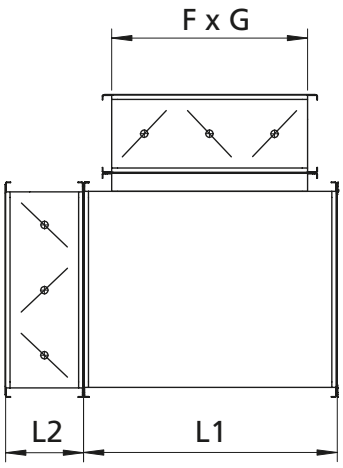


TBBD, size	L1	L2	L3	øD
05	505	140	305	315
08	690	220	425	400

Three dampers, alternative 2

The dimensions of the component parts supplied by Swegon can be read in the sketches above.

Two dampers



TBBD 20, is compatible with GOLD sizes 14/20
TBBD 30, is compatible with GOLD sizes 25/30
TBBD 40, is compatible with GOLD sizes 35/40
TBBD 60, is compatible with GOLD sizes 50/60
TBBD 80, is compatible with GOLD sizes 70/80

TBBD, size	L1	L2	F x G
20	520	215	400 x 1000
30	620	160	500 x 1200
40	720	160	600 x 1400
60	920	160	800 x 1600
80	1120	215	1000 x 1800

Three dampers, alternative 1 and 2

The dimensions of the component parts supplied by Swegon can be read in the sketch to the left.

Complements and Accessories

Duct accessories

TBFA Prefilter

The prefilter should be installed in the outdoor air duct and/or the extract air duct.

The prefilter is used in ventilation systems in which the extract air and/or the outdoor air is heavily polluted and it is desirable to prevent the fine filter located in the GOLD unit from becoming clogged after a short period of use.

Technical data

The TBFA has an uninsulated casing made of galvanized sheet steel. Insulated Inspection door.

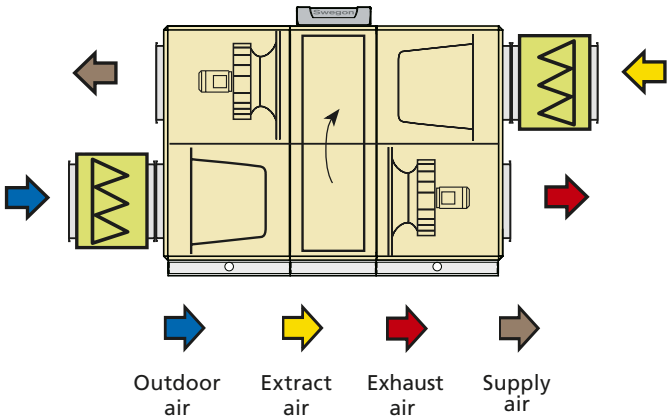
Filter of type woven aluminium filter or class G3 compact filter.

Extra accessories

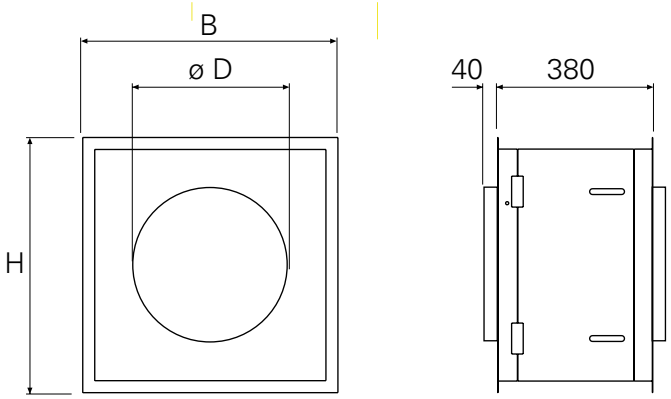
The pressure sensor can be selected; alarm limit and current filter pressure can then be read in the hand-held micro terminal of the GOLD unit.

Installation

Provision for inspection and cleaning must be guaranteed. Install insulation conforming to local regulations.

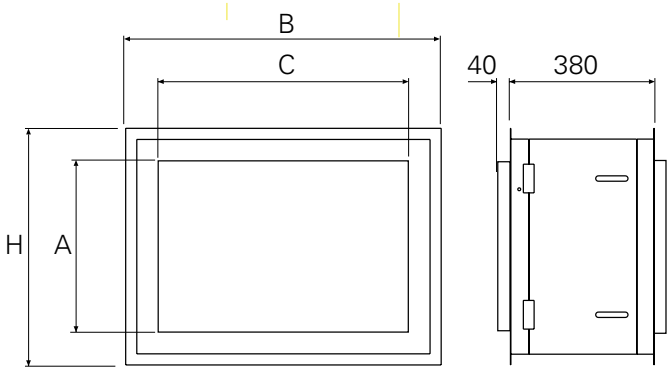


TBFA 000-031, is compatible with GOLD sizes 04/05
TBFA 000-040, is compatible with GOLD size 08
TBFA 000-050, is compatible with GOLD size 12



TBFA	B	D	H	kg
000-031	500	315	500	18
000-040	600	400	600	22
000-050	900	500	600	24

TBFA 100-040, is compatible with GOLD sizes 14, 20
TBFA 120-050, is compatible with GOLD sizes 25, 30
TBFA 140-060, is compatible with GOLD sizes 35, 40
TBFA 160-080, is compatible with GOLD sizes 50, 60
TBFA 180-100, is compatible with GOLD sizes 70, 80



TBFA	A	B	C	H	kg
100-040	400	1200	1000	600	26
120-050	500	1500	1200	600	36
140-060	600	1800	1400	900	48
160-080	800	2475	1600	1000	59
180-100	1000	2400	1800	1200	68

Complements and Accessories

Roof hoods and exterior wall hoods

Common for all roof hoods

The hoods are made of aluminium-zinc plated sheet steel covered with a Plastisol (black) surface coating that conforms to Environmental Class C4.

The roof duct is made of galvanized sheet steel. It is lined inside with 50 mm thick insulation to Fire-resistance Class EI30, with a surface covering of type-approved synthetic woven fabric. Two angle brackets for connection to the relevant roof having client-specified slope are included.

The hoods for the size 04-12 GOLD units have circular duct connection fitted with type-approved rubber ring seal for jointing to spiral ductwork.

The hoods for the size 14-40 GOLD units have rectangular duct connection for slip-clamp joint connection.

TBHA Outdoor air hood

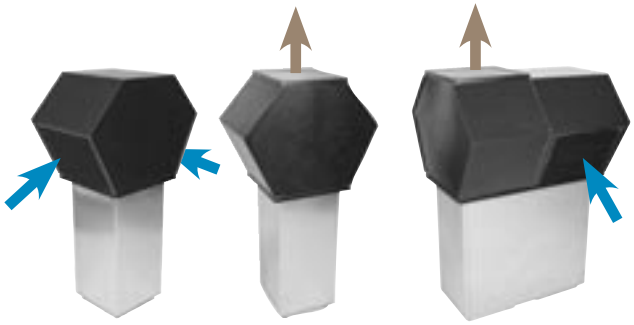
Designed for the intake of outdoor air. The design of the hood obstructs snow and raindrop entrainment. The hood is hinged and has air intake wire screens on both sides. For GOLD sizes 04-40.

TBHB Exhaust air hood

Designed for the discharge of exhaust air. The hood can be opened on hinges and is equipped with air deflectors that effectively direct the exhaust air upward and give the air high discharge velocity. To achieve low pressure drop, the air deflectors are rounded off on both their long sides. The hoods are equipped with effective provision for drainage. For GOLD sizes 04-40.

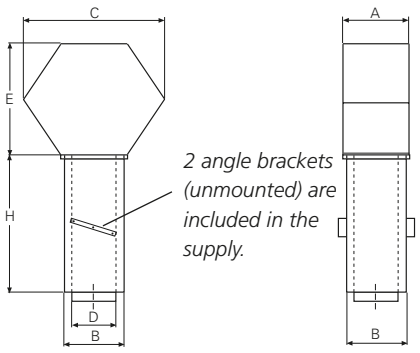
TBHC Dual-purpose hood

The TBHC is a combination of TBHA outdoor air hood and TBHB exhaust air hood and is available for the size 04/05, 08 and 12 GOLD units only.



TBHA Outdoor air hood *TBHB Exhaust air hood* *TBHC Dual-purpose hood*

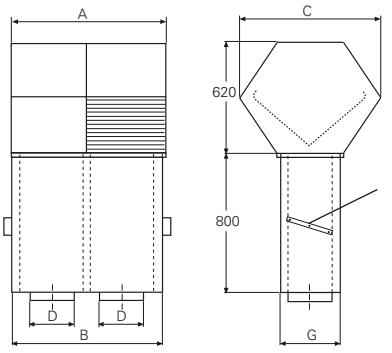
TBHA Outdoor air hood and TBHB Exhaust air hood



2 angle brackets (unmounted) are included in the supply.

For GOLD	A	B	C	D	E	H	kg
04/05	500	400	850	Ø315	620	800	31
08	600	500	950	Ø400	620	800	44
12	820	700	1300	Ø500	850	1200	129
14/20	820	700	1300	600	850	1200	129
25 - 40	1120	1000	1700	900	1150	1200	148

TBHC Dual-purpose hood



2 angle brackets (unmounted) are included in the supply.

For GOLD	A	B	C	D	G	kg
04/05	1000	900	850	Ø315	400	70
08	1200	1100	950	Ø400	500	100
12	1600	1500	1300	Ø500	700	290

Complements and Accessories

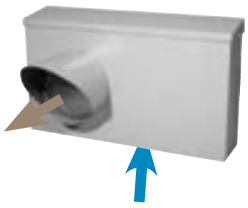
Roof hoods and exterior wall hoods

TBHE Exterior wall hood

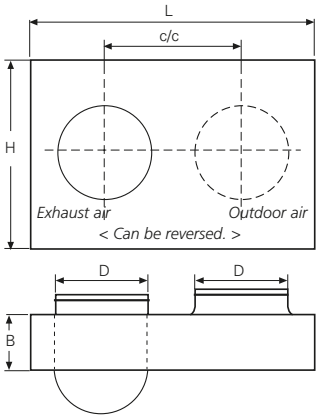
The exterior wall hood is designed for the admission of outdoor air and the discharge of exhaust air. The exhaust air is horizontally discharged through a circular wire mesh grille at the front of the hood. Outdoor air is admitted through a wire mesh grille at the bottom of the hood.

This design effectively prevents short-circuit flow between the outdoor air/exhaust air. For GOLD sizes 04/05, 08 and 12.

The TBHE exterior wall hoods are made of aluminium-zinc plated sheet steel covered with a Plastisol (light grey) surface coating that conforms to Environmental Class C4.



TBHE Exterior wall hood

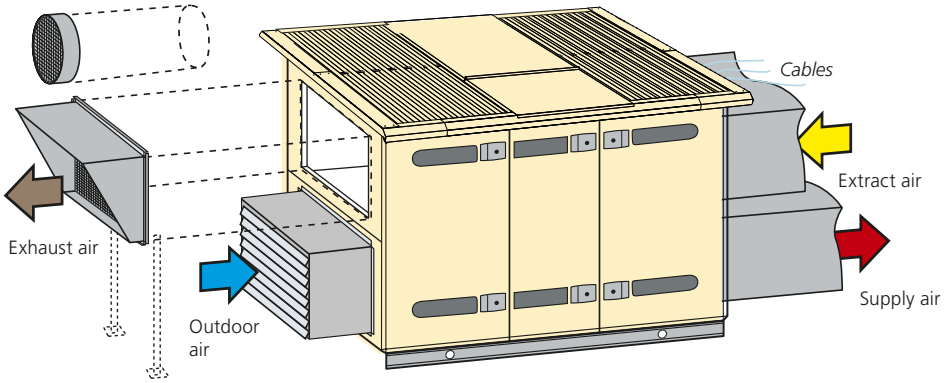


For GOLD	B	c/c	D	H	L	kg
04/05	200	420	Ø315	520	950	11
08	250	500	Ø400	580	1150	15
12	300	600	Ø500	750	1350	20

Complements and Accessories

Outdoor installation

GOLD units equipped with the roof, air intake section and exhaust air hood accessories can be installed outdoors.
The roof cannot be used on GOLD air handling units with the fan outlet/inlet positioned on the top of the unit.



General

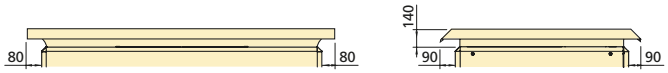
The GOLD air handling units, including TBBR air recirculation section and CoolDX/COOLER cooling unit accessories, can be installed outdoors. This presupposes that the roof, air intake section and exhaust air hood accessories are used. GOLD air handling units cannot be installed outdoors in applications that call for the fan outlet/inlet to be positioned on the top of the unit.

TBTB Roof

The roof is supplied in kit form, complete with the necessary assembly parts and sealing strips. The cover plates for all the door handles are included as standard.

The visible components are made of sheet metal painted in a beige colour tone, NCS S2005-Y 30R. The roof plate is corrugated.

Dimensions



TBTA Intake air section

The TBTA intake air section is made of aluminium-zinc plated sheet steel. The intake air section has a fixed louvre grille that effectively prevents raindrops from entering the duct and is equipped with holes for drainage. The intake air section has rectangular dimensions for all the sizes of GOLD and has space inside for an intake damper, if required. The intake air section has a flange with predrilled holes and is meant to be secured by means of screws to the end wall panel of the air handling unit.

TBTA Exhaust air hood

The TBTA exhaust air hood is made of aluminium-zinc plated sheet steel. The exhaust air hood is equipped with protective netting. The hood is circular for sizes 04/05, 08 and 12 and rectangular with slip-clamp connection for the other sizes (the slip clamps are included).

GOLD CX Cover hood

Cover hood that protects the pipework package on the GOLD CX installed outdoors. The visible components are made of sheet metal painted in a beige colour tone, NCS S2005-Y 30R.

Duct accessories

Dampers

Dampers can be installed outdoors provided that they are fitted with one of the following accessories: either a TBLZ-1-45 or a TBTA-1-aa- 02 protective casing for the outdoor damper (applicable to size 14–80 GOLD units only). Another possibility is to install the damper inside the intake air section.

Silencer

Silencers can be installed outdoors. However, on the size 14-80 units, the TBTA-1-aa- 01 protective casing accessory for outdoor silencers must be to be fitted on the silencer.

Other accessories

GOLD, sizes 04-40:
Post-heating coils and cooling coils should be installed indoors.

GOLD, sizes 50-80:
Accessories equipped with insulated casing can be installed outdoors provided that a roof is also installed to offer them protection.

Installation Tips

GOLD Air handling units should if possible be installed where the most favourable conditions exist from a weather point of view.
The ductwork for supply air and extract air must be insulated in accordance with local standards.
The hand-held micro terminal of the GOLD unit is sensitive to cold and must always be kept in a heated space. If required, use an extension cable or also an extension cable kit (see accessories for electrical and control equipment).
Swegon recommends moving the exhaust air hood a distance from the air handling unit by fitting a straight length of duct between them, especially if the exhaust air leaves the air handling unit from its lower level. This will prevent the risk of exhaust air shortcircuiting to the outdoor air and the risk of water entering the ventilation system.

Complements and Accessories

Mechanical equipment

GOLD Sizes 04/05 and 08

Stand

GOLD RX, rotary heat exchanger

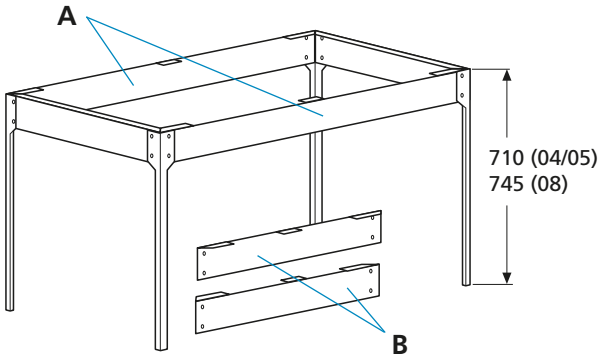
Specially designed stand, whose height makes it possible to arrange ducts under the air handling unit.

The stand is made of galvanized sheet steel profiled sections. The stand is supplied in assembly kit form. The long sides (A in the illustration) are used for horizontal installation and the shorter sides (B) are used for vertical installation.

GOLD SD, Supply air and extract air handling units

Specially designed stand. The height of the stand makes it possible to install ducts under the air handling unit.

The stand is made of galvanized sheet steel profiled sections. The stand is supplied in kit form. It can be assembled with or without legs.



Stand for the GOLD RX, Sizes 04/05 and 08.

Set of support legs

GOLD PX (plate heat exchanger)

Specially designed set of legs, the height of which makes it possible to arrange ducts under the air handling unit.

The set of legs consists of four legs made of galvanized sheet steel profiled sections. The legs are secured by means of bolts under the air handling unit.

Base frame, (base beams) for the CoolDX 08

Specially designed stand with legs. Also used as base beams in combination with the GOLD PX

Cover holder

The cover holder facilitates the servicing and maintenance of vertically installed units. It consists of a mechanic stay with latch and is supplied in unmounted condition.

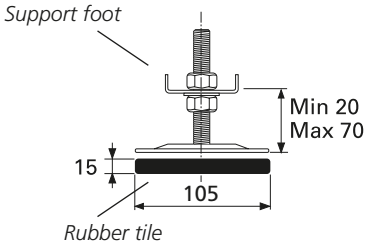
GOLD Size
12, 14/20, 25/30, 35/40, 50/60, 70/80

Support foot

Adjustable support foot for taking up unevenness or sloping of the floor. The support foot should be mounted on the base beam of the air handling unit.

For GOLD Sizes 12, 14/20, 25/30, and 35/40 *at least* six support feet are recommended.

For GOLD Sizes 50/60 and 70/80 *at least* twelve support feet are recommended.



Rubber tile

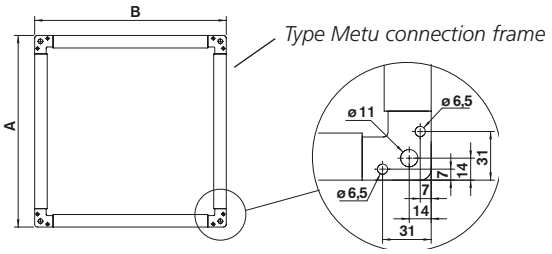
Designed to be glued under the support foot.

Slip-clamps

Set of slip clamps in appropriate lengths for one joint.

Metu connection

Type METU connection frame with set of bolts, 30 mm wide flange.



A	B	kg
458	1058	3
558	1258	4
658	1458	4,5
858	1658	5
1058	1858	6

Complements and Accessories

Mechanical equipment

GOLD CX/SD sizes 14/20, 25/30, 35/40, 50/60, 70/80

Droplet eliminator

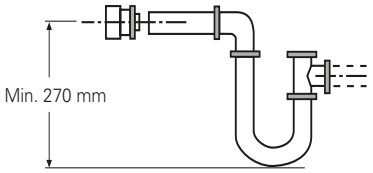
To prevent the condensate from being entrained by the air flow at velocities exceeding 3 m/s, coil heat exchangers can be equipped with droplet eliminator on the extract air side.

The material in the droplet eliminator is GLASdek, which is fire resistant and highly absorbent. The pressure drop across the droplet collector is low. On delivery, the droplet eliminator is mounted.

GOLD - all sizes

Water trap

Water trap for drainage of the plate heat exchanger, coil heat exchanger and CoolDX cooling unit. Supplied with a set of connection fittings. The pipe from the water trap must be run without reduction in pipe dimension to a floor gulley.



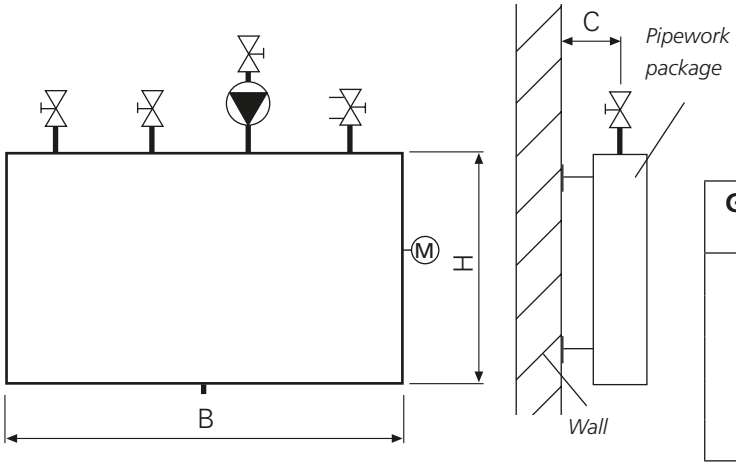
TBXZ Pipework Package

The pipework package is used for the GOLD SD with coil heat exchanger. The floor stand for the pipework package is available as an accessory. With the floor stand, the height from floor level to the thermometers on the installed pipework package is 1480 mm.

The following is included in the supply: The pipework package is supplied complete with insulated sheet-metal casing, pump, control valve with actuator, expansion vessel with safety valve and manometer as well as shut-off cocks, thermometers, filling valve and air purging valve. Wall mounting bracket.

Work to be carried out at the building site: Install the pipework package and controller at an appropriate place. Pipe route with insulated pipes to the air handling unit Electrical connections between the controller and the pipework package. Filling water mixed with glycol

TBXZ Pipework package



GOLD SD size	TBXZ-42 size	B	H	C
14, 20	20	600	415	100
25, 30	30	770	530	120
35, 40	40	770	530	120
50, 60	60	770	530	120
70, 80	80	770	530	120

Complements and Accessories

Communication

TBLZ Communication unit

Communication via TCP/IP, EIA 485 and EIA 232 as well as via an internal web server are standard in the GOLD. The extra TBLZ communication unit is required for communication via LON FTT-10 - Lon Works and Trend. The communication unit must be connected to the communication port of the GOLD unit. Power can be supplied from appropriate terminal connections on the GOLD unit.

The scope available for communication is conditional on the software and programming of the same. The GOLD unit in itself offers possibility for overall communication of readings, settings and functions.

Modem
Analogue or GSM. Can be used when direct connection cannot be made to a network or communication system.

Several units can be connected to the same modem.

Complements and Accessories

Electrical and Control Equipment

Occupant detection sensor
Instead of using a timer for controlling the fans to operate in the high speed or low speed mode, TBLZ occupant detection sensors can carry out this control. As soon as the sensor registers the presence of an occupant in the room, it transmits a signal to the control unit to switch the unit to the high speed operating mode. When no occupant is registered in the room, the unit returns to the normal flow mode.
Connect via appropriate terminal connections on the control circuit card.

Pressure transducer
For use in conjunction with the VAV pressure control function, when constant pressure must be kept in the ductwork. Also for use in conjunction with the heat exchanger defrosting function, when the pressure across the heat exchanger must be controlled. The connection cable is included. 1 – 15 m long cable can be selected.
Connect via appropriate terminal connections on the control circuit card.

Air quality sensor
For use in conjunction with the demand-controlled VAV function, when the airflow of the air handling unit must be variably controlled by means of an air quality sensor. Available for duct or room.
Connect via appropriate terminal connections on the control circuit card.

Room sensor, outdoor/room sensor
Used in conjunction with functions that require temperature readings from outdoors or from rooms. The sensor is designed for wall-mounting and is available for degree of protection IP 20 or IP 43.
Connect via appropriate terminal connections on the control circuit card.

Internal duct temperature sensor
Used in connection with the extract air regulation function or as a temperature monitor/alarm for the GOLD RX. The sensor is supplied with the length of cable specified by the client in the purchase order, 1 – 4.3 metres.

Timer
The ELQZ timer is used for overtime operation in conjunction with the external high speed and external low speed functions. For strap-on mounting.
Connect via appropriate terminal connections on the control circuit card.

Timer, electronic
The TBLZ electronic timer can be used for overtime operation in conjunction with the external high speed and external low speed functions. For strap-on mounting.
Connect communication cable leads to appropriate terminal connections on the control circuit card. Separate power supply

Push button
The ELQZ push button can be used for overtime operation in conjunction with the external high speed and external low speed functions. For strap-on mounting. Can be selected with or without indication.
Connect via appropriate terminal connections on the control circuit card.

Extension cables
5 metres for supply air temperature sensors, water and electric air heaters. 1-15 m for hand-held micro terminal, pressure transducer and IQnomic plus.

Extension kit for hand-held micro terminals
For extending the cable 6-50 m

Extra hand-held micro terminal
Including holder and 3 m long cable

Strap-on sensor
Temperature sensor for mounting against the surface where readings are to be taken.

Fire and smoke protection
The fire and smoke protection function consists of three separate units:
– TBLZ cubicle
– TBLZ smoke detector
– ELQZ* damper actuator.

the cubicle contains the control unit and connections. the smole detector stops the air handling unit and controls the damper actuators to close the dampers. Am alarm is presented in the hand-held micro terminal of the GOLD air handling unit.

MMC circuit card
Multi-media circuit card for program transmissions and logging.

230/400V Transformer
For connecting the air handling unit to 230V mains power supply.

Transformer, 230/24 V AC
For connecting 24 V AC electrical components to 230 V mains voltage.

IQnomic Plus
The Iqnomic plus functional module is used for extra functions for which the inputs and outputs are not included as standard in which the control unit of the GOLD air handling unit. 1 – 15 metre long connection cable

Temperature sensor, IQnomic Plus
Temperature sensor, for the IQnomic Plus module

Humidity sensor, IQnomic Plus
Temperature sensor, for the IQnomic Plus module for dehumidification and dew point control.

Xzone Control box
Control box for controlling one extra temp. zone, max.

ReCO_2
Complete set of components for controlling the function for mixing.
The pressure sensor and the IQnomic Plus are included. Air quality sensor to be ordered separately. The outdoor air damper must be of modulating type.

Control of the air heater for preheating
Includes temperature sensor for installation in a duct and the IQnomic Plus with a 0.25 metre long cable.

All Year Comfort
Electrical equipment cubicle for controlling the primary water circuit for cooling and /or heating. For climate beams, perimeter climate systems, etc.