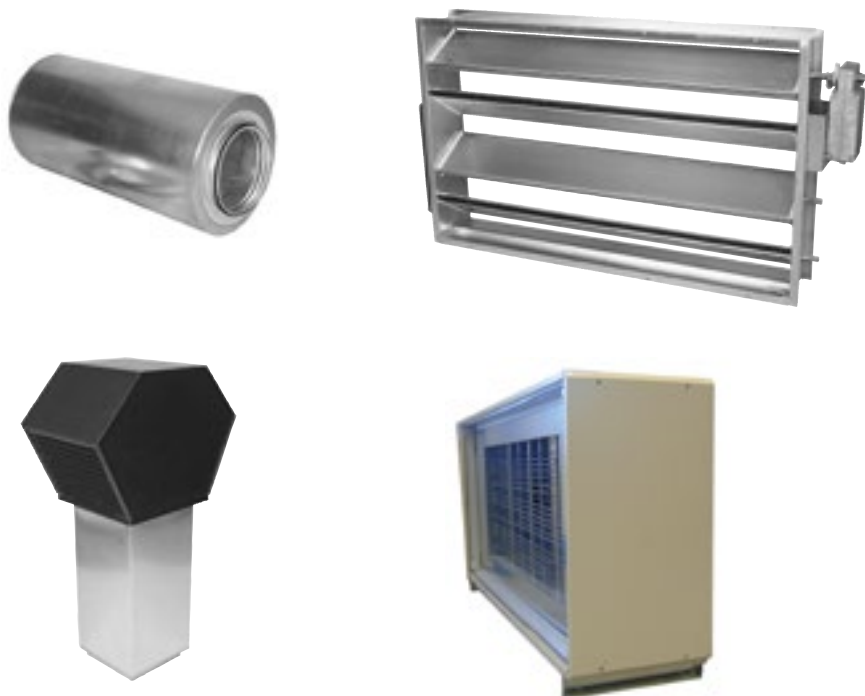


# Complements and Accessories



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# Plug and Play with COOL DX!



Dock the COOL DX to the GOLD air handling unit

The CoolDX Top 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. The COOL DX can also be installed as a stand-alone unit.

In addition to the above, only an electric power supply and a communication cable (with quick-fit connector)



Dock the COOL DX Top on top of the GOLD RX Top air handling unit

between the COOL DX/COOL DX Top and the GOLD as well as the connection of drainage pipework are required.

The GOLD has ready-to-use cooling functions for controlling and regulating the COOL DX/COOL DX Top. This also includes communication via web or traditional performance monitoring systems.

The COOL DX/COOL DX Top 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.
- Its location inside the GOLD prevents the extract air fan motor from being subject to high temperatures.

## Economy or comfort control

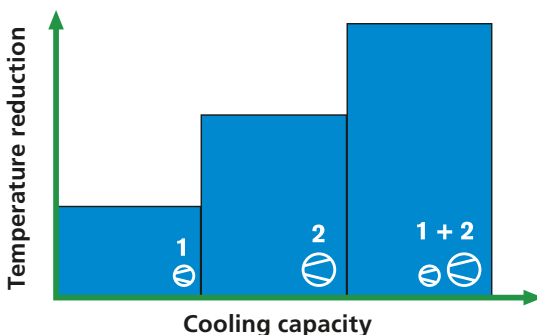
### Economy control

#### Cooling in 3 steps

When cooling is required, cooling compressor 1 starts up. On an increasing cooling 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



Cooling compressor ☉ Heat exchanger ☒

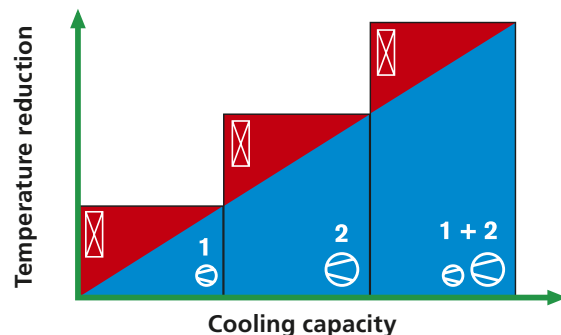
### Comfort control (not COOL DX Top)

#### 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.



## Complements and Accessories

### COOL DX/COOL DX Top

#### General

The COOL DX/COOL DX Top is a complete cooling unit for comfort cooling in the air handling system.

The COOL DX is produced in seven sizes with cooling capacity from 10 to 134 kW. The seven sizes are capacity-wise matched to the size 07-80 GOLD air handling units.

The COOL DX Top is produced in three sizes with cooling capacity from 6.8 to 20.4 kW. On the basis of capacity, the three sizes are matched to the size 04 - 12 GOLD air handling units.

#### Mechanical Design

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

Place the COOL DX Top cooling unit on top of the GOLD RX Top air handling unit

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

Fabricated of cover panels and inspection doors. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4. Panel thickness of 52 mm with intervening insulation consisting of mineral wool.

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 COOL DX/COOL DX Top 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 COOL DX/COOL DX Top 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 receiving an on/off control signal, compressor M1 starts 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.

#### Completely direct-acting system

The COOL DX/COOL DX Top 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.



COOL DX



COOL DX Top

#### Refrigerant

The COOL DX/COOL DX Top 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 R410A 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 end connection panel for outdoor and/or exhaust air is optional for the Cool DX cooling units. If an end connection panel is selected, slip-clamps (sizes 20-80) or rubber ring seals (sizes 08-12) are used for connection to the ducting. If no end connection panel has been selected, the profiled frame members on the cooling unit should be connected to the ducting across an adapter (not supplied by Swegon).

Connect the COOL DX Top to duct connections with rubber seal ring.

# Complements and Accessories

## COOL DX/COOL DX Top

### Technical data

#### COOL DX

COOL DX Size	Capacity variant	Nom. air-flow , m <sup>3</sup> /s	Min. air-flow , m <sup>3</sup> /s	Nom. cooling capacity <sup>1)</sup> (kW)	Nom. Power required (kW)	Refrigerant (kg)		Power supply	Weight excl. end conn. panel (kg)	Weight of each end conn. panel, if required <sup>2)</sup> (kg)
						Circuit 1	Circuit 2			
08	1	0.55	0.22	9.8	2.39	1,20	1,30	3-ph.+N, 400 V, 16 A	194	8
	2	0.70	0.3	13.9	4.33	1,20	1,30	3-ph.+N, 400 V, 20 A	215	8
12	1	0.85	0.35	15.4	3.95	1,50	1,70	3-ph.+N, 400 V, 20 A	260	10
	2	1.05	0.4	20.9	6.53	1,50	1,70	3-ph.+N, 400 V, 25 A	287	10
20	1	1.1	0.45	15.4	4.06	1,20	1,50	3-ph.+N, 400 V, 25 A	243	10/13
	2	1.3	0.5	23.3	5.73	2,50	2,80	3-ph.+N, 400 V, 25 A	283	10/13
	3	1.6	0.6	31.0	9.15	2,10	2,40	3-ph.+N, 400 V, 40 A	314	10/13
30	1	1.8	0.7	25.0	6.33	1,80	2,00	3-ph.+N, 400 V, 32 A	322	11/17
	2	2.0	0.8	35.8	9.34	3,00	3,20	3-ph., 400 V, 25 A	374	11/17
	3	2.4	1.0	46.2	13.5	2,90	3,30	3-ph., 400 V, 40 A	414	11/17
40	1	2.9	1.1	38.6	8.40	3,30	4,00	3-ph., 400 V, 25 A	468	18/22
	2	3.1	1.3	48.4	12.3	3,30	4,50	3-ph., 400 V, 40 A	476	18/22
	3	3.6	1.5	67.0	17.5	5,50	4,50	3-ph., 400 V, 50 A	529	18/22
60	1	3.9	1.5	56.2	11.8	4,50	5,50	3-ph., 400 V, 40 A	708	31
	2	4.1	1.6	66.7	17.1	5,00	5,20	3-ph., 400 V, 50 A	779	31
	3	5.0	2.0	97.5	26.3	6,00	7,50	3-ph., 400 V, 80 A	852	31
80	1	5.2	2.0	67.0	13.3	6,60	7,30	3-ph., 400 V, 50 A	852	38
	2	6.0	2.4	96.5	24.8	6,50	9,00	3-ph., 400 V, 80 A	979	38
	3	7.0	2.8	134.0	36.4	9,00	11,50	3-ph., 400 V, 100 A	1035	38

<sup>1)</sup> For an outdoor temperature of 26°C, 50% RH (capacity variant 1), 27°C, 50% RH (capacity variant 2) or 28°C, 50% RH (capacity variant 3), and an extract air temperature of 26°C. <sup>2)</sup> The first weight applies to a small end connection panel; the second weight applies to a large end connection panel. COOL DX can be supplied completely without end connection panels or with a maximum of 2 small and two large end connection panels depending on the variant selected.

#### COOL DX Top

COOL DX Top Size	Capacity variant	Nom. airflow (m <sup>3</sup> /s)	Min. airflow (m <sup>3</sup> /s)	Nom. cooling capacity <sup>1)</sup> (kW)	Nom. power required (kW)	Refrigerant (kg)		Power supply	Weight (kg)
						Circuit 1	Circuit 2		
05	1	0.40	0.10	6.77	1.66	0.95	1.00	3-ph.+N, 400 V, 16 A	200
	2	0.55	0.20	9.30	2.48	1.02	1.03	3-ph.+N, 400 V, 20 A	200
08	1	0.55	0.22	9.31	2.38	1.15	1.20	3-ph.+N, 400 V, 20 A	280
	2	0.70	0.3	13.5	4.34	1.29	1.30	3-ph.+N, 400 V, 20 A	280
12	1	0.85	0.35	14.8	3.95	1.60	1.70	3-ph.+N, 400 V, 20 A	340
	2	1.05	0.40	20.4	6.69	1.75	1.92	3-ph.+N, 400 V, 25 A	340

<sup>1)</sup> For an outdoor temperature of 26°C, 50% RH (capacity variant 1) or 28°C, 50% RH (capacity variant 2), and an extract air temperature of 26°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.

## Complements and Accessories

### COOL DX/COOL DX Top

#### Electrical and control equipment

##### General

The COOL DX/COOL DX Top 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 COOL DX/COOL DX Top.

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

##### Power supply

The incoming power supply for 400 V (4-wire system for size 30, capacity variants 2 and 3, and sizes 40-80, all capacity variants, 5-wire system for other sizes) should be connected directly to the safety isolating switch.

Wire the electrical power supply connections according to the technical data table on the previous page. 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 COOL DX/COOL DX Top 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

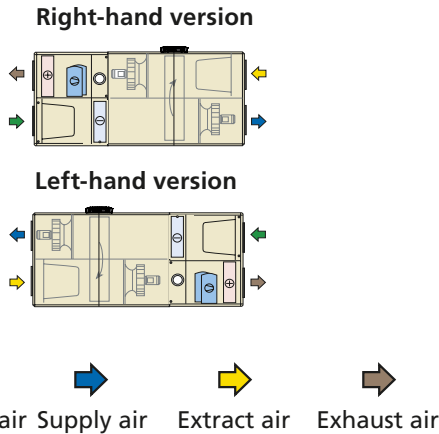
Settings can be entered, readings can be viewed and possible alarms are displayed in the hand-held micro terminal of the GOLD air handling unit.

# Complements and Accessories

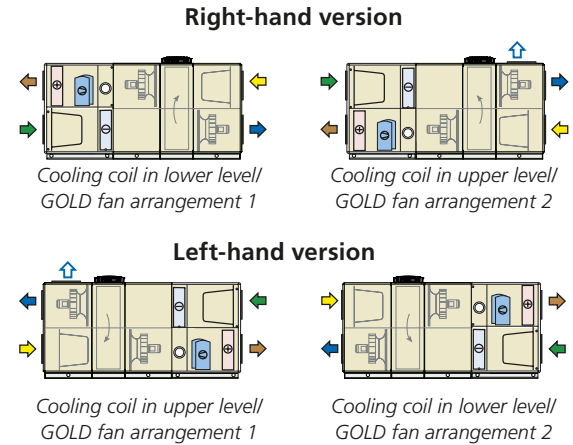
## COOL DX/COOL DX Top

### Variants

#### COOL DX 08



#### COOL DX 12-80



### Installation Tips

The cooling unit can be positioned against the outdoor air/exhaust air side of the GOLD air handling unit: See the illustration above. The COOL DX cooling units can be docked directly to the GOLD air handling unit, with so-called full face connection (without end connection panels). The COOL DX can also be installed as a stand-alone unit. If you order a stand-alone COOL DX, select version D as a variant with end connection panels.

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 gully.

#### Height adjustment to the height of the GOLD/water trap

##### COOL DX size 08

*In combination with the GOLD RX 07/08*

The design of the GOLD unit makes it necessary to place it on base beams, a stand or some other form of foundation, to be able to open its inspection doors. The base beams and stand are available as accessories.

Appropriate base beams are also available as accessories for the COOL DX. The base beams/stand are matched to one another in terms of height. The stands also provide space for accommodating a possible water trap in the lower level (right-hand unit version).

*In combination with the GOLD PX 07/08*

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

A corresponding base frame is also available as accessory for the COOL DX. 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).

##### COOL DX sizes 12-40

The GOLD air handling unit and the cooling unit COOL DX 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.

##### COOL DX size 60-80

The GOLD air handling unit and the COOL DX 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 COOL DX 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).

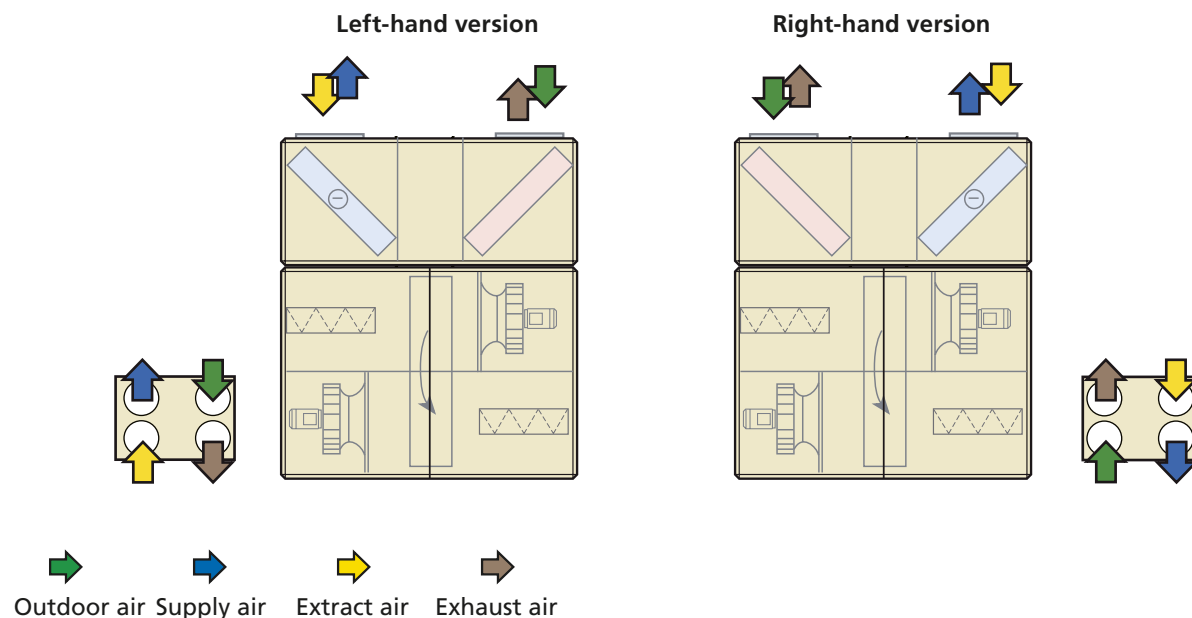
#### Supply air filter

The COOL DX is supplied without supply air filter. Consequently, the supply air filter in the GOLD unit should be dismantled and moved to the COOL DX.

## COOL DX/COOL DX Top

### Variants

#### COOL DX Top, 05 - 12



### Installation tips

The cooling unit can be positioned on top of a GOLD RX Top unit equipped with a docking module. See illustration above.

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

#### To drain the air cooler

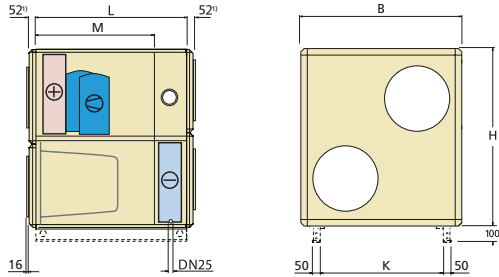
The air cooler in the cooling unit is equipped with a condensate drain tray and a drainage connection (condensate forms on air cooler coil surfaces). The condensate discharge pipework must be connected across a water trap (accessory) to the drain connections of the cooling unit and must run with continuous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

# Complements and Accessories

## COOL DX/COOL DX Top

### Dimensions

#### COOL DX 08



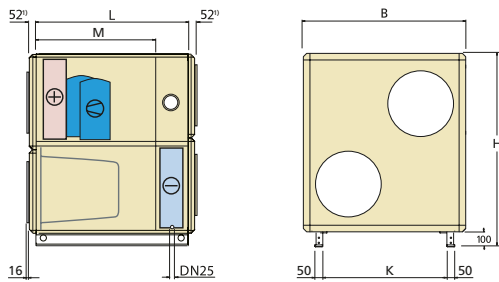
Base beams are accessories.

<sup>1)</sup> End connection panel, optional.

Size	L	B	H	K	M	Duct connection <sup>2)</sup>
08	900	995	1085	730	709	Ø 400

<sup>2)</sup> For particulars on how to arrange the duct connections, see the corresponding GOLD air handling unit

#### COOL DX 12

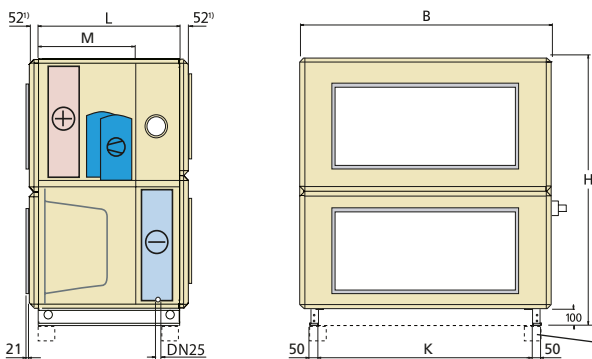


<sup>1)</sup> End connection panel, optional.

Size	L	B	H	K	M	Duct connection <sup>2)</sup>
12	900	1199	1395	935	709	Ø 500

<sup>2)</sup> For particulars on how to arrange the duct connections, see the corresponding GOLD air handling unit

#### COOL DX 20. 30. 40. 60. 80



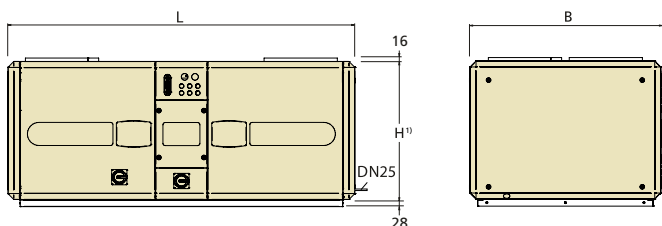
<sup>1)</sup> End connection panel, optional.

Sizes 60 and 80: Supplied on 100 mm high support feet. The feet can be removed or kept as they are when the unit is at its final location. The unit has provision for mounting adjustable support feet.

Size	L	B	H	K	M	Duct connection <sup>2)</sup>
20	900	1400	1495	1136	709	1000 x 400
30	900	1600	1695	1336	709	1200 x 500
40	1100	1990	2085	1726	884	1400 x 600
60	1100	2318	2353	2075	884	1600 x 800
80	1100	2637	2740	2395	884	1800 x 1000

<sup>2)</sup> For particulars on how to arrange the duct connections, see the corresponding GOLD air handling unit

#### COOL DX Top, 05, 08, 12



<sup>1)</sup> When calculating the total plant height, use the height of the GOLD air handling unit + the H dimension from the illustration above.

Size	L	B	H	Duct connection <sup>2)</sup>
05	1500	825	600	Ø 315
08	1600	995	600	Ø 400
12	1860	1199	600	Ø 500

<sup>2)</sup> For particulars of the locations of the duct connections, see the corresponding GOLD air handling unit



# Reversible chiller for direct expansion, CELEST+ LE, LE/HP

CELEST+ in version LE/HP is a new energy-efficient air-cooled and reversible chiller with direct expansion.

The chiller has a frequency-controlled compressor that steplessly operates at exactly the right speed for producing just the right evaporation temperature to meet the immediate need. This means significant energy savings compared with a traditional compressor controlled only by On or Off switching.

The chiller is controlled in a simple way from a GOLD unit via SMART Link DX.

## Versions

LE: For direct expansion

LN: Sound attenuated

LE/HP: Reversible heat pump

## Quick facts

5 sizes with rated cooling capacity up to 26 kW

Speed-regulated scroll compressor with DC inverter, type R410A refrigerant

Condenser fan control as standard

Electronic expansion valve as standard

4-way reversing valve as standard to version HP

Energy class A as standard

Smart and simple control via the GOLD

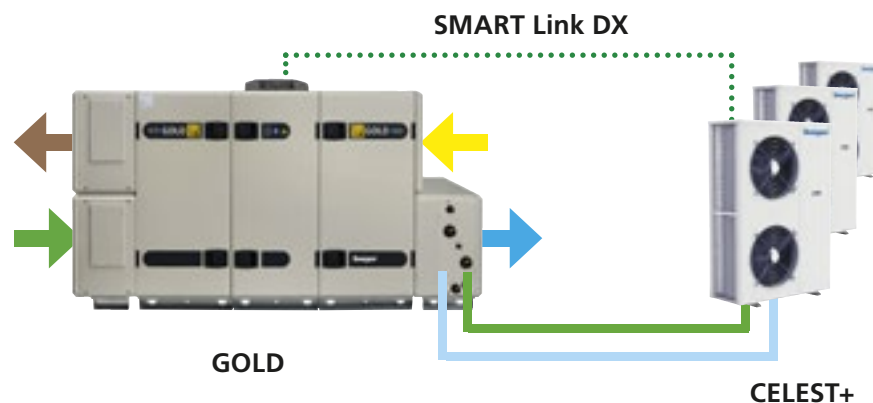
## Control via SMART Link DX

The CELEST+ has integrated SMART Link technology. This enables control of the chiller from the GOLD air handling unit.

The CELEST+ is controlled from the GOLD via internal communication, where the rotational speed of the chiller compressor is regulated to meet immediate needs.

The CELEST+ is reversible and can therefore also be used for reheat in winter. Up to three units can be connected each with its own circuit to the cooling/heating coil for the required cooling/heating demand.

The integrated control system makes the installation very simple. Only one data cable is needed between the GOLD and the CELEST+.



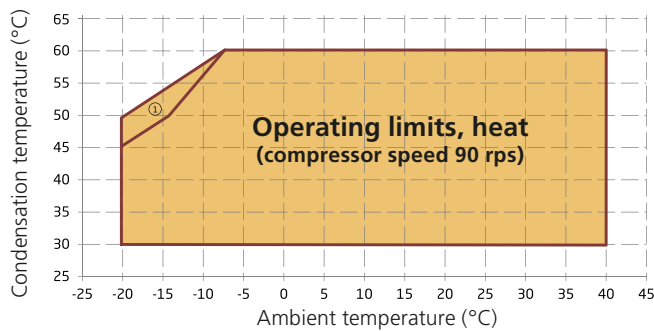
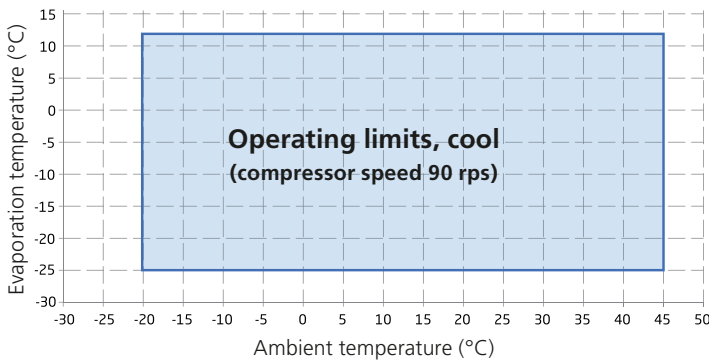
# Complements and accessories

## CELEST+ LE/HP chiller

### Technical data

CELEST+ LE/HP		9	15	20	26	30
Rated cooling capacity (ambient temperature 35°C, evaporation temperature 7.5°C, compressor speed 90 rps)	kW	6,9	12,1	18,2	25,0	29,6
Power consumption, cooling (compressor + fans)	kW	1,9	3,2	5,1	6,9	8,2
EER (to EN 14511-3:2011)		3,69	3,74	3,59	3,63	3,61
Rated heating capacity (ambient temperature 7°C, condensation temperature 7.5°C, compressor speed 90 rps)	kW	7,0	12,5	18,7	24,4	28,9
Power consumption, heat (compressor + fans)	kW	1,76	2,95	4,68	6,20	7,44
COP (to EN 14511-3:2011)		3,98	4,22	3,99	3,94	3,88
Length	mm	925	925	1105	1305	1305
Width	mm	375	375	505	505	505
Height	mm	1350	1350	1385	1585	1585
Weight in operation	kg	146	149	217	262	268
Power supply		1x230V	3+N x 400 V			

### Large operation range



1. In this area, the compressor can be regulated for controlling the condensation temperature

## Complements and Accessories

### Blue Box Chiller/Heat pump

#### General

A wide range of Swegon's chillers/heat pumps of Blue Box type are available. See separate catalogue.

Blue Box chillers/heat pumps are of the highest quality and are leading products in their segment.

#### AQUA Link

The AQUA Link hydraulic module supplies both air handling units and comfort modules with cooling power. See separate catalogue.

#### Control and regulation

The BlueBox unit control system includes functions intended for controlling the times, temperatures, etc. and also for reading the alarms and settings of a Blue Box chiller/heat pump via the hand-held micro terminal and web page in a GOLD air handling unit.

An optimisation function for waterborne chillers/heat pumps is also incorporated into the GOLD air handling unit's control system. The optimisation function optimizes the position of the valve for the water coil, so that the valve always strives to be fully open. The water temperature is controlled instead and this saves energy.

See separate Guide to the SMART Link Functions for waterborne chillers/heat pumps and the Guide to the SMART Link DX Functions respectively for the Celest+ DX chillers/ heat pumps.

#### Installation

The installation work is quick and simple compared with other systems.

All the necessary control functions are ready to be activated.

One supplier for all the equipment



**Blue Box chiller**

*Ex: OXFORD*



**Blue Box heat pump**

*Ex: MAROON 2 HWS*



**AQUA Link**

# Complements and Accessories

## Unit sections

### TCBR Air recirculation section

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

The TCBR air recirculation section is available for the size 11 and larger GOLD RX, PX and CX units. The GOLD PX/CX cannot be used for the ReCO<sub>2</sub> function.

**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 11-40: Air recirculation section as a stand-alone unit section.

Sizes 50-80: The air recirculation section is fitted to one of the unit sections.

Size 120 The air recirculation section is supplied as an individual item in two 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<sub>2</sub> 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 11-40: Splitting the GOLD unit into sections. Installing the air recirculation section.

Sizes 50-80: To assemble units according to the delivery version above.

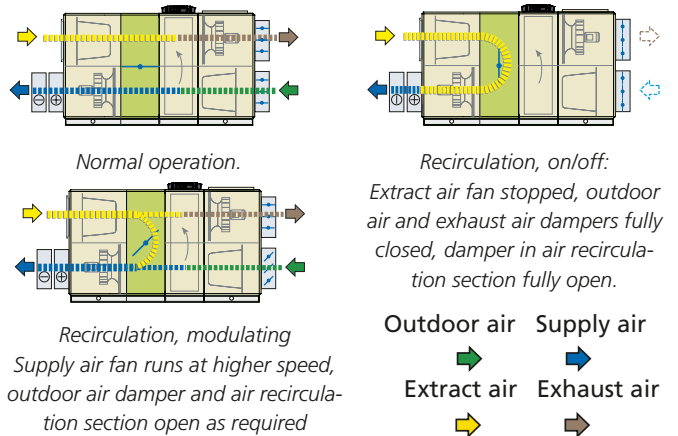
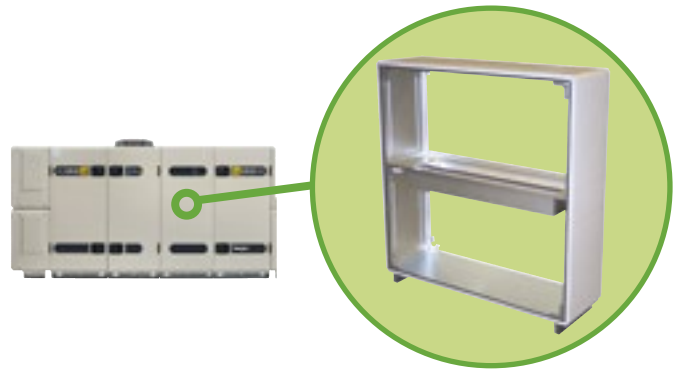
Size 120 Assemble the air recirculation section to become one unit. Then install the air recirculation section together with the other sections of the air handling unit.

**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".

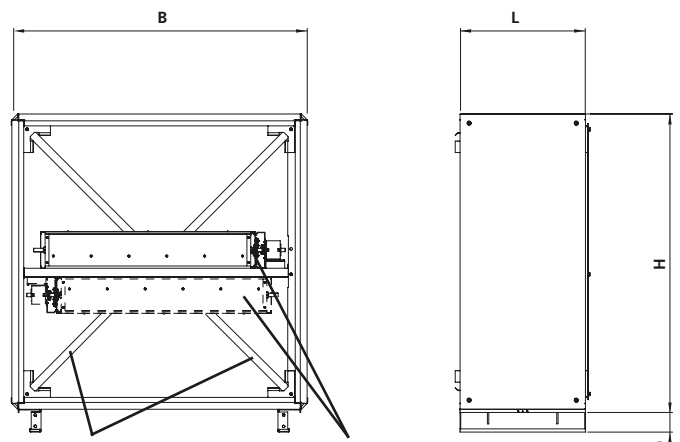
For GOLD	B	H	L	kg
11/12	1199	1295	550	84
14/20	1400	1395	550	92
25/30	1600	1595	550	103
35/40	1990	1985	550	126
50/60	2318	2253	570	195
70/80	2637	2640	570	205
100/120	3340	3340	1070	580



*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<sub>2</sub> function adjusts the air quality (in response to signals from CO<sub>2</sub> 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<sub>2</sub> function requires the accessory: TBLZ-2-51 Complete set of components for controlling the function for mixing (ReCO<sub>2</sub>). Pressure sensors and the IQlogic<sup>+</sup> are included. Air quality sensor must be ordered separately.



Remove the transport locking device when installing (GOLD, sizes 11-40). Depending on the version, the damper can be mounted in the upper or lower level (for GOLD size 120 the damper is always mounted in the upper level).

# Complements and Accessories

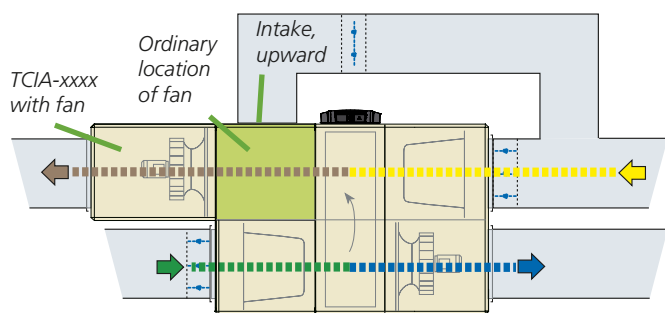
## Unit sections

### Solutions for fire bypass

The air bypass section is used when you want the extract air to bypass the heat exchanger and filter, e.g. as a component in a system for smoke extraction.

See the example for respective variants/sizes. The fans of the air handling unit are tested for, and can cope with, operation for one hour at 70°C.

#### GOLD RX, sizes 04-08



Solution for fire bypass (upward) for GOLD PX 04-08.

**Necessary components/refurbishments required (apart from GOLD units):**

Fan section TCIA-xxxx, supplied as a stand-alone unit section

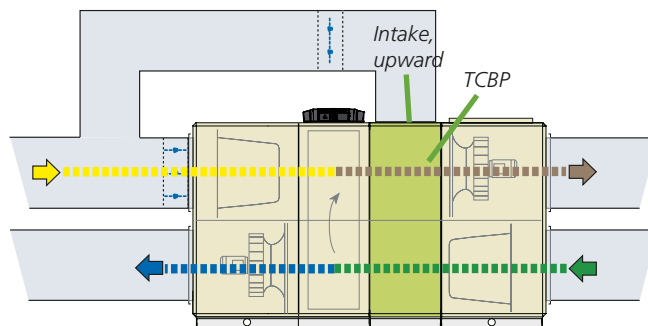
The extract air fan is moved from its ordinary location to the TCIA-xxx from the factory.

Intake from above at the ordinary fan location is available from the factory.

Extra dampers may be required depending on the application.

Should be controlled via TRITON control and supervisory unit or the like.

#### GOLD RX, sizes 11-40



Solution for fire bypass (upward) for GOLD PX 11-40.

**Necessary components required (apart from GOLD units):**

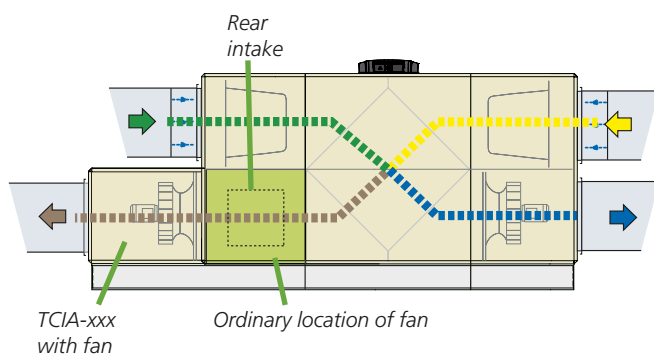
Air bypass section TCBP, delivered as stand-alone unit section.

The splitting of AHUs into sections and the installation of air bypass sections must be done at the building site.

Extra dampers may be required depending on the application.

Should be controlled via TRITON control and supervisory unit or the like.

#### GOLD PX, sizes 04-08



Solution for fire bypass (rear) for GOLD PX 04-08.

**Necessary components/refurbishments required (apart from GOLD units):**

TCIA-xxx fan section, supplied as a stand-alone unit section

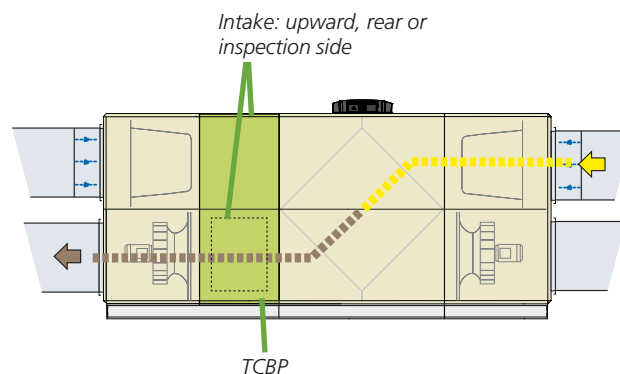
The extract air fan is moved from its ordinary location to the TCIA-xxx from the factory.

Rear intake at the ordinary fan location is available from the factory.

Extra dampers may be required depending on the application.

Should be controlled via TRITON control and supervisory unit or the like.

#### GOLD PX, sizes 11-30



Solution for fire bypass (rear, inspection side or upward) for GOLD PX 11-30.

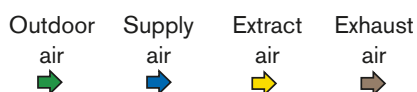
**Necessary components required (apart from GOLD units):**

Air bypass section TCBP-xxxx, supplied as a stand-alone unit section.

The splitting of AHUs into sections and the installation of air bypass sections must be done at the building site.

Extra dampers may be required depending on the application.

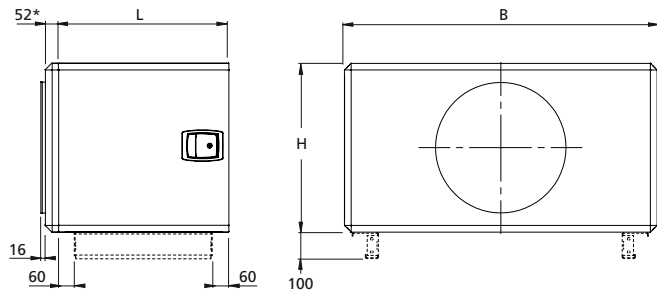
Should be controlled via TRITON control and supervisory unit or the like.



# Complements and accessories

## Unit sections

### Fan section TCIA-xxx

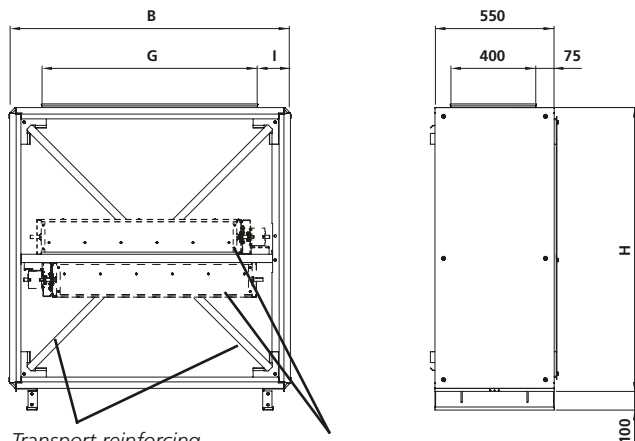


TCIA-xxx	B	H	L	kg	End connection panel, if required kg
1-05	825	460	723	60	7
1-08	995	542	723	72	10

Connection dimensions to duct:  
 TCIA 05  $\varnothing$  315  
 TCIA 08  $\varnothing$  400

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

### Air bypass section, TCBP, intake upward

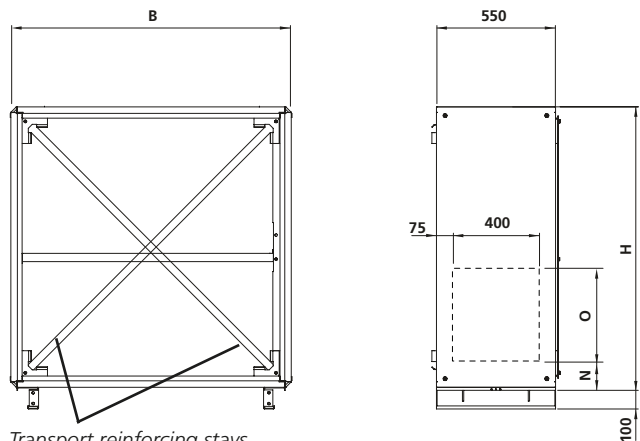


For GOLD	B	H	G	I	kg
11/12	1199	1295	1000	100	73
14/20	1400	1395	1000	200	82
25/30	1600	1595	1200	200	92
35/40	1990	1985	1400	295	113

Transport reinforcing stays, remove prior to installation.

Damper only in units with the extract air fan in lower level (GOLD PX). Depending on the version, the damper can be mounted in the upper or lower level.

### Air bypass section TCBP-xxxx, rear intake or on inspection side (GOLD PX)



For GOLD	B	H	N	O	kg
11/12	1199	1295	110	500	73
14/20	1400	1395	110	500	82
25/30	1600	1595	100	600	92

Transport reinforcing stays (GOLD, sizes 11-30), remove prior to installation.

# Complements and accessories

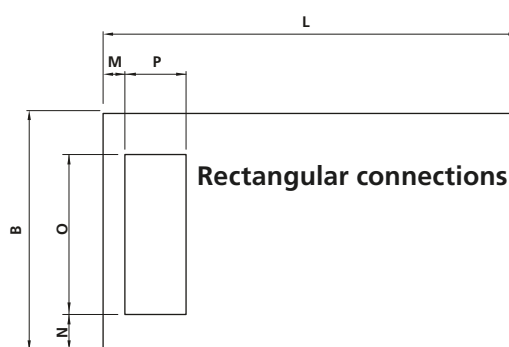
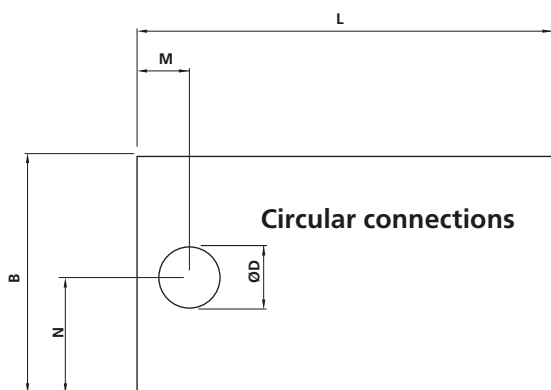
## Unit sections

The GOLD unit duct connection dimensions for fire bypass

### GOLD RX 04-08

The illustration shows the top of the GOLD unit, without end connection panels and in the right-hand version.

Optional connections, circular or rectangular



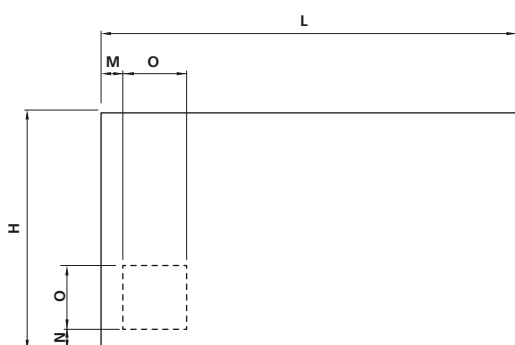
GOLD	B	L	ØD	M	N
04/05	825	1396	315	230	412
07/08	995	1496	400	255	498

GOLD	B	L	M	N	O	P
04/05	825	1396	80	112	600	300
07/08	995	1496	55	148	700	400

### GOLD PX 04-08

The illustration shows the GOLD unit's inspection side, without end connection panels and in the right-hand version.

Rectangular connections:



GOLD	H	L	M	N	O
04/05	920	1996	135	100	250
07/08	1085	2126	100	90	350

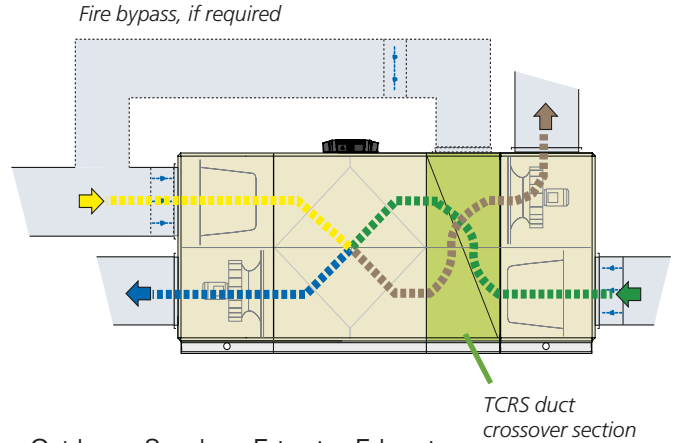
# Complements and accessories

## Unit sections

### TCRS duct crossover section

The duct crossover section for the size 11-30 GOLD PX units is designed for use when you need to have the extract air and/or the supply air fan in the upper level. This may be necessary if space available is restricted or for example when replacing older AHUs with new ones that have fans in the upper level.

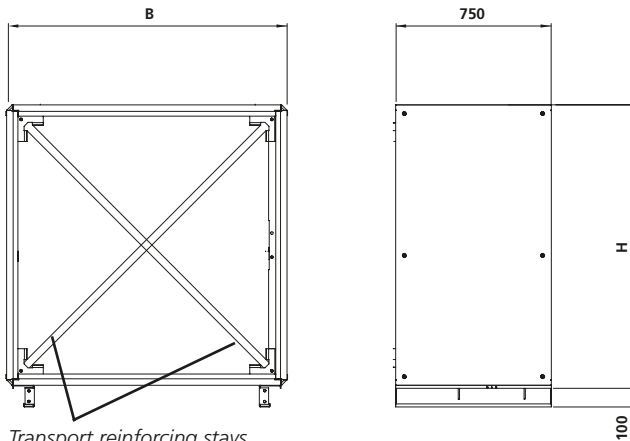
It is also possible to use the duct crossover section as a fire bypass.



Outdoor air    Supply air    Extract air    Exhaust air

➡            ➡            ➡            ➡

For GOLD	B	H	kg
11/12	1199	1295	117
14/20	1400	1395	130
25/30	1600	1595	155

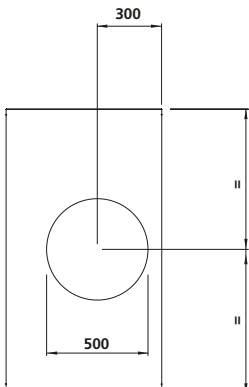


Transport reinforcing stays, remove prior to installation.

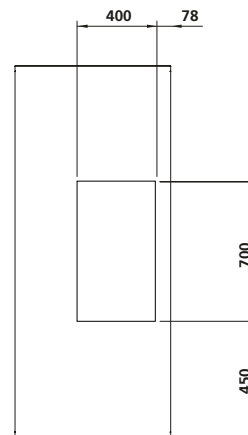
### Duct connection dimensions for fire bypass, if required

The illustration shows the duct crossover section viewed from above.

#### TCRS 12, 20



#### TCRS 30





## Complements and Accessories

### Duct accessories, uninsulated

#### 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.

**GOLD with standard end connection frame:**

The duct accessories for GOLD sizes 04/05, 07/08 and 11/12 are fitted with a rubber ring seal.

The duct accessories for GOLD sizes 14/20, 25/30, 35/40, 50/60, 70/80 and 100/120 are equipped with connection frames for slip-clamp jointing (slip-clamps must be ordered separately).

Type METU connection frames are available as accessories. Insulating, if required, must be done at the site.

**GOLD with full face connection frame:**

Full face connection frames are available as accessories for further reduction of the pressure drop in the ventilation system. See the section on Mechanical equipment.

The duct accessories are equipped with connection frame for slip-clamp jointing (slip clamps must be ordered separately). Insulating, if required, must be done at the site.

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

# Complements and Accessories

## Duct accessories, uninsulated

### TBSA Dampers

The TBSA 000-031, 000-040, 060-030 and 080-040 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<sub>2</sub> 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 24 V. The actuator can be selected with spring return or on/off actuation. TBSA 000-050 and TBSA 100-040 – 250-080 are also available with an actuator of modulating type with spring return.

### Technical data

Circular dampers made of galvanised sheet steel, rectangular dampers made of aluminium-zinc plated sheet steel. Tightness class 3 to EN 1751.

Rectangular damper blades are journalled in nylon bushings.

### Installation

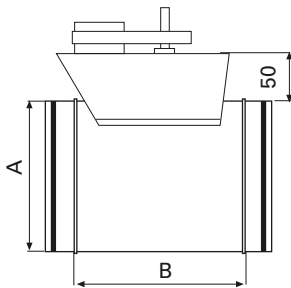
Wire the control and power supply cables to the appropriate wiring terminal on the air handling unit.



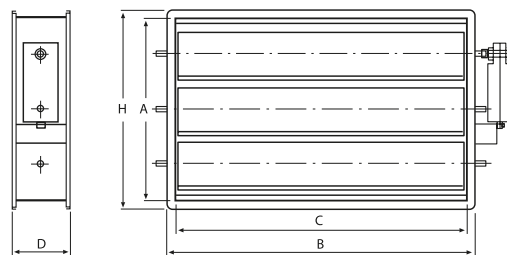
*GOLD with standard end connection frame:*  
 TBSA 100-040, matches GOLD sizes 14, 20  
 TBSA 120-050, matches GOLD sizes 25, 30  
 TBSA 140-060, matches GOLD sizes 35, 40  
 TBSA 160-080, matches GOLD sizes 50, 60  
 TBSA 180-100, matches GOLD sizes 70, 80  
 TBSA 240-120, matches GOLD sizes 100, 120  
 (for air intake resp. fan outlet for forward air discharge)  
 TBSA 250-080, matches GOLD sizes 100, 120  
 (for fan outlet for upward air discharge)

*GOLD with full face connection frame (accessory TBXZ):*  
 TBSA 060-030, matches GOLD sizes 04, 05  
 TBSA 080-040, matches GOLD sizes 07, 08  
 TBSA 100-040, matches GOLD sizes 11, 12  
 TBSA 120-050, matches GOLD sizes 14, 20  
 TBSA 140-060, matches GOLD sizes 25, 30  
 TBSA 160-080, matches GOLD sizes 35, 40  
 TBSA 180-100, matches GOLD sizes 50, 60  
 TBSA 240-120, matches GOLD sizes 70, 80

*GOLD with standard end connection frame:*  
 TBSA 000-031, is compatible with GOLD sizes 04, 05  
 TBSA 000-040, is compatible with GOLD size 07, 08  
 TBSA 000-050, is compatible with GOLD size 11, 12



TBSA	A	B	kg
2-000-031	∅ 315	140	5
2-000-040	∅ 400	210	7
2-000-050	∅ 500	210	8



TBSA	A	B	C	D	H	kg
4-060-030	300	640	600	220	340	10
4-080-040	400	840	800	220	440	15
4-100-040	400	1040	1000	220	440	20
4-120-050	500	1240	1200	220	540	25
4-140-060	600	1440	1400	220	640	32
4-160-080	800	1640	1600	220	840	42
4-180-100	1000	1840	1800	220	1040	63
4-240-120	1200	2440	2400	220	1240	105
4-250-080	800	2540	2500	220	840	93

## Complements and Accessories

### Duct accessories, uninsulated

#### TBDA Unit silencer

##### TBDA 000-031, 000-040 and 000-050

Sound attenuators TBDA 000-031, 000-040 and 000-050 are circular sound attenuators for GOLD sizes 04–12 with standard end connection frame 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.

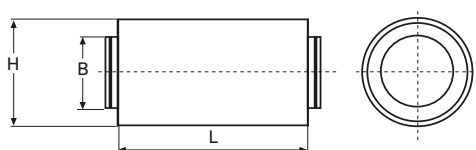


*GOLD with standard end connection frame:*

*TBDA 000-031, is compatible with GOLD sizes 04, 05*

*TBDA 000-040, is compatible with GOLD size 07, 08*

*TBDA 000-050, is compatible with GOLD size 11, 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, uninsulated

### TBDA Unit silencer

#### TBDA 060-030 to 240-120

Sound attenuators TBDA 060-030 to 240-120 are rectangular sound attenuators for the GOLD sizes 04–120 and are intended for installation in the ductwork or directly to air handling units with standard end connection frames or full face connection frames.

#### 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-1060-030  
TBDA-1-080-040  
TBDA-1-100-040  
TBDA-1-120-050  
TBDA-1-140-060  
TBDA-1-240-120

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



*GOLD with standard end connection frame:*

- TBDA 100-040, matches GOLD sizes 14, 20
- TBDA 120-050, matches GOLD sizes 25, 30
- TBDA 140-060, matches GOLD sizes 35, 40
- TBDA 240-120, matches GOLD sizes 100, 120

*GOLD with full face connection frame (accessory TBXZ):*

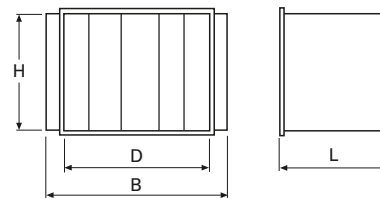
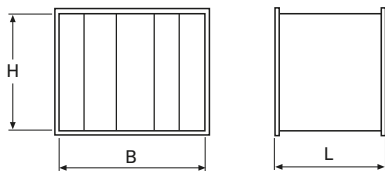
- TBDA 060-030, matches GOLD sizes 04, 05
- TBDA 080-040, matches GOLD sizes 07, 08
- TBDA 100-040, matches GOLD sizes 11, 12
- TBDA 120-050, matches GOLD sizes 14, 20
- TBDA 140-060, matches GOLD sizes 25, 30
- TBDA 240-120, matches GOLD sizes 70, 80

*GOLD with standard end connection frame:*

- TBDA 160-080, matches GOLD sizes 50, 60
- TBDA 180-100, matches GOLD sizes 70, 80

*GOLD with full face connection frame (accessory TBXZ):*

- TBDA 160-080, matches GOLD sizes 35, 40
- TBDA 180-100, matches GOLD sizes 50, 60



TBDA	B	H	L	kg
1-060-030	600	300	650	13
1-080-040	800	400	650	22
1-100-040	1000	400	650	26
1-120-050	1200	500	650	33
1-140-060	1400	600	650	39
1-240-120	2400	1200	1250	180

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, uninsulated

#### 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.

#### Valve set

The TBVL 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.

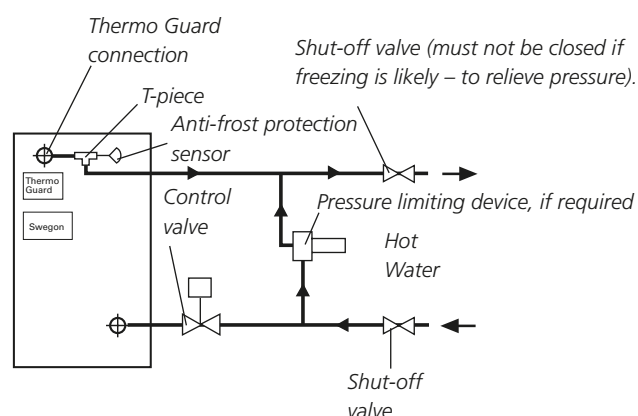
#### Extra accessories

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

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.



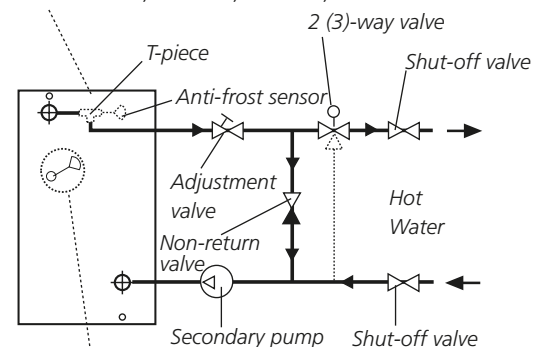
#### Installation principle with Thermo Guard



#### Installation principle without Thermo Guard

Applicable to

TBLA 000-031, 000-040, 000-050, 060-030 and 080-040



Anti-frost monitor sensor. Applicable to TBLA 100-040 to 240-120

1) The anti-frost sensor for the TBLA sizes 000-031, 000-040, 000-050, 060-030 and 000-050 should be fitted to the return pipework and for the TBLA sizes 100-040 and 240-120 in the connection on the coil.

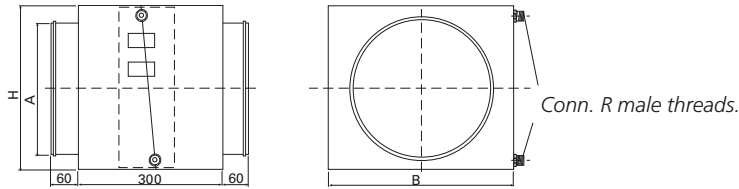
#### Installation

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

# Complements and Accessories

## Duct accessories, uninsulated

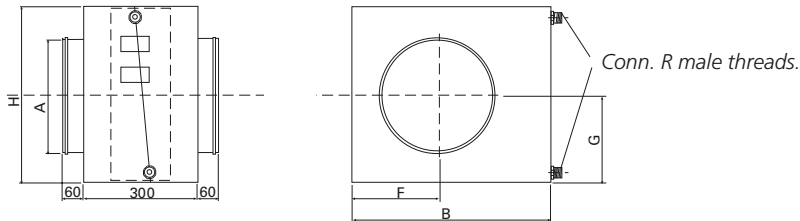
### Without Thermoguard



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

\* Excluding water.

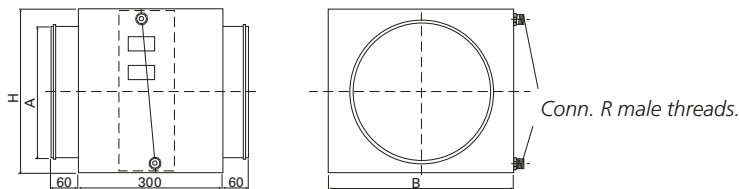
GOLD with standard end connection frame:  
 TBLA 000-031, is compatible with GOLD sizes 04, 05  
 TBLA 000-040, is compatible with GOLD size 07, 08  
 TBLA 000-050, is compatible with GOLD size 11, 12



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	18
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



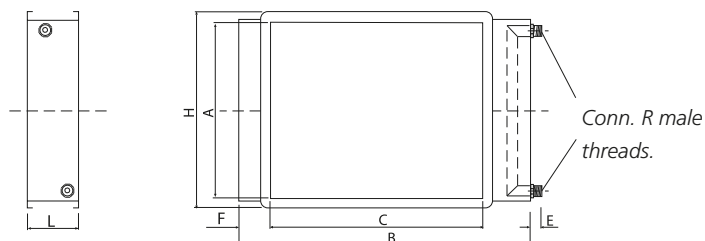
TBLA	A	B	H	R	kg*
4-000-031	Ø 315	488	428	DN 15	14
4-000-040	Ø 400	588	528	DN 15	19
4-000-050	Ø 500	688	628	DN 15	24

\* Excluding water.

GOLD with standard end connection frame:  
 TBLA 000-031, is compatible with GOLD sizes 04, 05  
 TBLA 000-040, is compatible with GOLD size 07, 08  
 TBLA 000-050, is compatible with GOLD size 11, 12

# Complements and Accessories

## Duct accessories, uninsulated

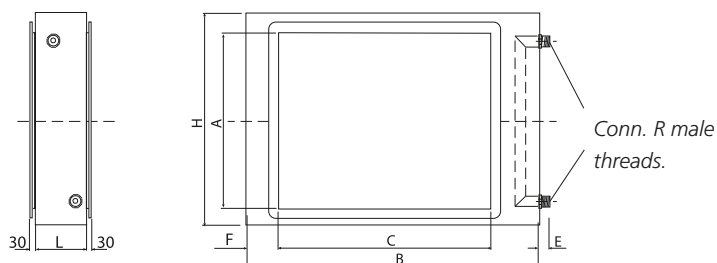


GOLD with standard end connection frame:  
 TBLA 100-040, matches GOLD, sizes 14, 20  
 TBLA 120-050, matches GOLD, sizes 25, 30  
 TBLA 140-060, matches GOLD, sizes 35, 40

GOLD with full face connection frame (accessory TBXZ):  
 TBLA-1-060-030, matches GOLD sizes 04, 05  
 TBLA-1-080-040, matches GOLD sizes 07, 08  
 TBLA-1-100-040, matches GOLD sizes 11, 12  
 TBLA-1-120-050, matches GOLD sizes 14, 20  
 TBLA-1-140-060, matches GOLD sizes 25, 30

### Without Thermoguard

TBLA	A	B	C	E	H	L	R	F	kg*
4-060-030-2-1	300	728	600	80	338	148	DN15	47	6
4-060-030-2-2	300	728	600	80	338	148	DN15	47	7
4-080-040-2-1	400	928	800	80	438	148	DN15	47	8
4-080-040-2-2	400	928	800	80	438	148	DN15	47	10
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



GOLD with standard end connection frame:  
 TBLA 100-040, matches GOLD, sizes 14, 20  
 TBLA 120-050, matches GOLD, sizes 25, 30  
 TBLA 140-060, matches GOLD, sizes 35, 40  
 TBLA 160-080, matches GOLD, sizes 50, 60  
 TBLA 180-100, matches GOLD, sizes 70, 80  
 TBLA 240-120, matches GOLD, sizes 100, 120

GOLD with full face connection frame (accessory TBXZ):  
 TBLA 100-040, matches GOLD, sizes 11, 12  
 TBLA 120-050, matches GOLD, sizes 14, 20  
 TBLA 140-060, matches GOLD, sizes 25, 30  
 TBLA 160-080, matches GOLD, sizes 35, 40  
 TBLA 180-100, matches GOLD, sizes 50, 60  
 TBLA 240-120, matches GOLD, sizes 70, 80

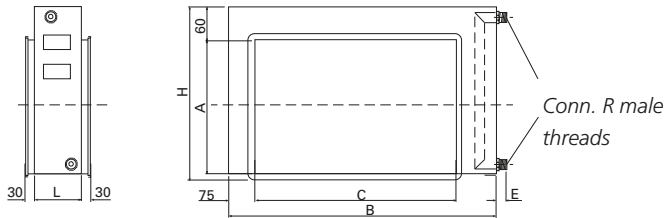
### Without Thermoguard

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
4-160-080-2-1	800	2210	1600	85	1020	300	DN25	280	97
4-160-080-2-2	800	2210	1600	85	1020	300	DN32	274	114
4-160-080-2-3	800	2210	1600	85	1020	300	DN50	259	127
4-180-100-2-1	1000	2530	1800	85	1220	300	DN25	340	127
4-180-100-2-2	1000	2530	1800	85	1220	300	DN32	329	152
4-180-100-2-3	1000	2530	1800	85	1220	300	DN50	319	168
4-240-120-2-1	1200	3240	2400	85	1520	300	DN40	389	187
4-240-120-2-2	1200	3240	2400	85	1520	300	DN50	374	235
4-240-120-2-3	1200	3240	2400	85	1520	300	DN65	358	264

\* Excluding water.

# Complements and Accessories

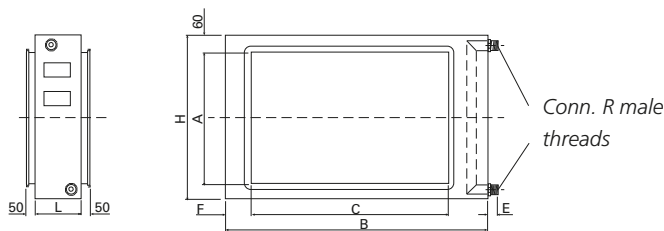
## Duct accessories, uninsulated



GOLD with full face connection frame (accessory TBXZ):  
 TBLA 060-030, matches GOLD sizes 04, 05  
 TBLA 080-040, matches GOLD sizes 07, 08

TBLA	Capacity variant 1							
	B	H	L	A	C	E	R	kg*
4-060-030-1-1	789	381	180	300	600	125	DN15	13
4-080-040-1-1	989	481	180	400	800	125	DN15	18

\* Excluding water.



GOLD with standard end connection frame:  
 TBLA 100-040, matches GOLD, sizes 14, 20  
 TBLA 120-050, matches GOLD, sizes 25, 30  
 TBLA 140-060, matches GOLD, sizes 35, 40  
 TBLA 160-080, matches GOLD, sizes 50, 60  
 TBLA 180-100, matches GOLD, sizes 70, 80  
 TBLA 240-120, matches GOLD, sizes 100, 120

### With Thermoguard

TBLA	Capacity variant 1								
	B	H	L	A	C	E	F	R	kg*
4-100-040	1213	580	210	400	1000	100	100	DN15	50
4-120-050	1568	680	210	500	1200	100	100	DN20	68
4-140-060	1818	820	210	600	1400	100	100	DN20	90
4-160-080	2173	1020	300	800	1600	100	254	DN25	121
4-180-100	2493	1195	300	1000	1800	100	310	DN32	159
4-240-120	3154	1510	300	1200	2400	100	356	DN50	195

\* Excluding water.

GOLD with full face connection frame (accessory TBXZ):  
 TBLA 100-040, matches GOLD, sizes 11, 12  
 TBLA 120-050, matches GOLD, sizes 14, 20  
 TBLA 140-060, matches GOLD, sizes 25, 30  
 TBLA 160-080, matches GOLD, sizes 35, 40  
 TBLA 180-100, matches GOLD, sizes 50, 60  
 TBLA 240-120, matches GOLD, sizes 70, 80



# Complements and Accessories

## Duct accessories, uninsulated

### 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.

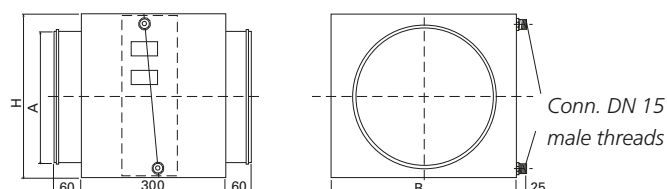
Finned-tube heat exchangers fabricated of copper tubes and profiled aluminium fins. Fin pitch: 5.5 mm. The headers and the pipework connected to the water connections are made of copper.

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

#### Valve set

The TBVL valve set with 2(3)-way valve, valve actuator, freeze protection sensor and connection cable with quick-fit connector can be ordered. If you use a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion type or strap-on sensor.

*GOLD with standard end connection frame:*  
 TBLF 000-031, matches GOLD, sizes 04, 05  
 TBLF 000-040, matches GOLD, sizes 07, 08  
 TBLF 000-050, matches GOLD, sizes 11, 12



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

\* Excluding water.



#### Extra accessories

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

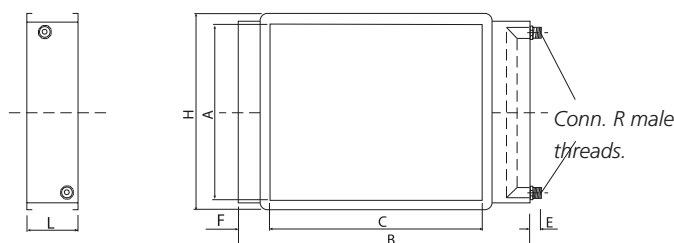
Circulation pump used for protecting the anti-frost monitor function if coils without anti-frost bursting protection are used. Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is built into the control equipment of the GOLD unit.

#### Installation

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

*GOLD with standard end connection frame:*  
 TBLF 100-040, matches GOLD, sizes 14, 20  
 TBLF 120-050, matches GOLD, sizes 25, 30  
 TBLF 140-060, matches GOLD, sizes 35, 40  
 TBLF 160-080, matches GOLD, sizes 50, 60  
 TBLF 180-100, matches GOLD, sizes 70, 80  
 TBLF 240-120, matches GOLD sizes 100, 120

*GOLD with full face connection frame (accessory TBXZ):*  
 TBLF 060-030, matches GOLD sizes 04, 05  
 TBLF 080-040, matches GOLD sizes 07, 08  
 TBLF 100-040, matches GOLD, sizes 11, 12  
 TBLF 120-050, matches GOLD, sizes 14, 20  
 TBLF 140-060, matches GOLD, sizes 25, 30  
 TBLF 160-080, matches GOLD, sizes 35, 40  
 TBLF 180-100, matches GOLD, sizes 50, 60  
 TBLF 240-120, matches GOLD sizes 70, 80



TBLF	A	B	C	E	H	L	R	F	kg*
1-060-030	300	728	600	80	338	148	DN15	47	5
1-080-040	400	935	800	80	438	148	DN20	47	7
1-100-040	400	1135	1000	100	438	148	DN20	47	13
1-120-050	500	1335	1200	100	538	148	DN20	47	16
1-140-060	600	1545	1400	100	638	148	DN25	47	20
1-160-080	800	1757	1600	100	838	148	DN32	47	27
1-180-100	1000	1957	1800	100	1038	148	DN32	47	31
1-240-120	1190	2568	2400	80	1238	148	DN32	47	43

\* Excluding water.

## Complements and Accessories

### Duct accessories, uninsulated

#### 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.

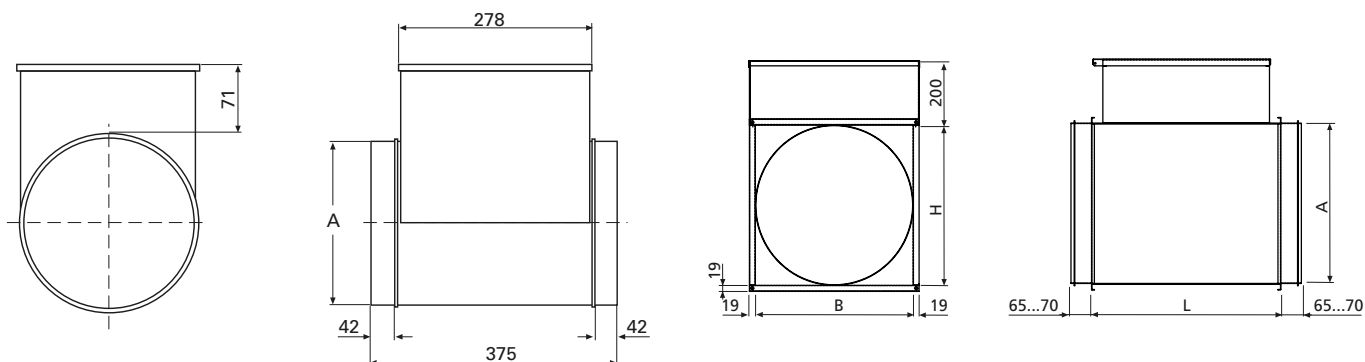
The distance from or to a duct bend, damper, filter or a similar component should be at least the distance that is equivalent to double the diameter of the duct (circular duct connections) or the distance that is equivalent to the diagonal dimension of the air heater (rectangular duct connections), i.e. from corner to corner in the duct section of the air heater. 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, uninsulated



GOLD with standard end connection frame:  
 TBLE 000-031, matches GOLD, sizes 04, 05  
 TBLE 000-040, matches GOLD, sizes 07, 08

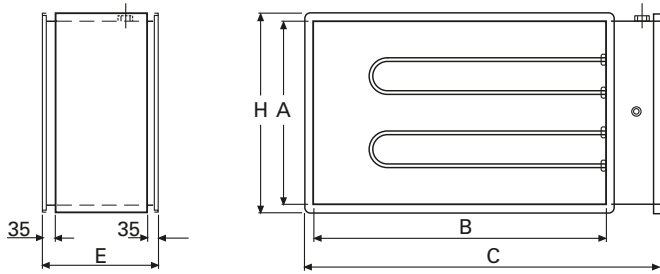
GOLD with standard end connection frame:  
 TBLE 000-031, matches GOLD, sizes 04, 05  
 TBLE 000-040, matches GOLD, sizes 07, 08  
 TBLE 000-050, matches GOLD, sizes 11, 12

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	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, uninsulated



*GOLD with standard end connection frame:*  
 TBLE 100-040, matches GOLD, sizes 14, 20  
 TBLE 120-050, matches GOLD, sizes 25, 30  
 TBLE 140-060, matches GOLD, sizes 35, 40  
 TBLE 160-080, matches GOLD, sizes 50, 60  
 TBLE 180-100, matches GOLD, sizes 70, 80  
 TBLE 240-120, matches GOLD, sizes 100, 120

*GOLD with full face connection frame (accessory TBXZ):*  
 TBLE 060-030, matches GOLD, sizes 04, 05  
 TBLE 080-040, matches GOLD, sizes 07, 08  
 TBLE 100-040, matches GOLD, sizes 11, 12  
 The other sizes are not available in the full face version. An air heater with standard connection size and adapter accessory are used instead.

TBLE	A	B	C	H	E	kg
<b>4-060-030 (400 V)</b>	300	600	819	338	370 (3-4,5 kW) 500 (7,5-12 kW) 600 (20 kW)	17-18 20-25 30
<b>4-060-030 (230 V)</b>	300	600	819	338	370 (3-4,5 kW) 500 (7,5-12 kW) 600 (20 kW)	17-18 20-26 32
<b>4-080-040 (400 V)</b>	400	800	1019	438	370 (6-12 kW) 500 (20-27 kW) 600 (36 kW)	23-25 35-38 43
<b>4-080-040 (230 V)</b>	400	800	1019	438	370 (6 kW) 500 (12-27 kW) 600 (36 kW)	23 27-43 50
<b>4-100-040 (400 V)</b>	400	1000	1219	438	370 (8-20 kW) 500 (36-47 kW) 600 (69-79 kW)	25 - 35 48 - 53 70 - 75
<b>4-100-040 (230 V)</b>	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
<b>4-120-050 (400 V)</b>	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
<b>4-120-050 (230 V)</b>	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

TBLE	A	B	C	H	E	kg
<b>4-140-060 (400 V)</b>	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
<b>4-140-060 (230 V)</b>	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
<b>4-160-080 (400 V)</b>	800	1600	1819	838	370 (24-63 kW) 500 (79-90 kW)	45-66 82-90
<b>4-160-080 (230 V)</b>	800	1600	1819	838	370 (24-34 kW) 500 (47-63 kW) 600 (79-90 kW)	47-55 70-79 95-100
<b>4-180-100 (400 V)</b>	1000	1800	2019	1038	370 (34-55 kW) 500 (69-90 kW) 600 (135 kW)	56-66 85-96 124
<b>4-180-100 (230 V)</b>	1000	1800	2019	1038	370 (34 kW) 500 (45-55 kW) 600 (69-135 kW)	59 76-83 100-135
<b>4-240-120 (400 V)</b>	1200	2400	2619	1238	370 (50 kW) 500 (67-100 kW) 600 (150-190 kW)	73 97-112 145-165
<b>4-240-120 (230 V)</b>	1200	2400	2619	1238	500 (48,8 kW) 600 (70-98 kW) 700 (150-190 kW)	92 114-180 200-215

## Complements and Accessories

### Duct accessories, uninsulated

#### 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 TBVL valve set with 2(3)-way valve, valve actuator, freeze protection sensor (for readings only) and connection cable with quick-fit connector can be ordered. If you use a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion type or strap-on sensor.

#### 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/TBKC 060-030 to 240-120: Provision for inspection and cleaning must be guaranteed.

Connecting the drainage pipework.

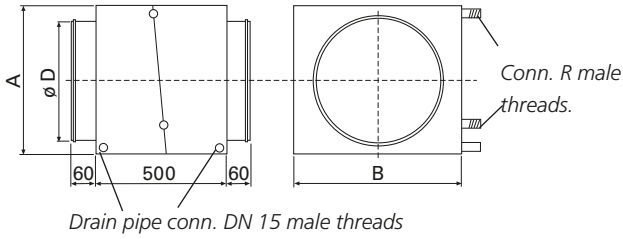
Electrical connections.



# Complements and Accessories

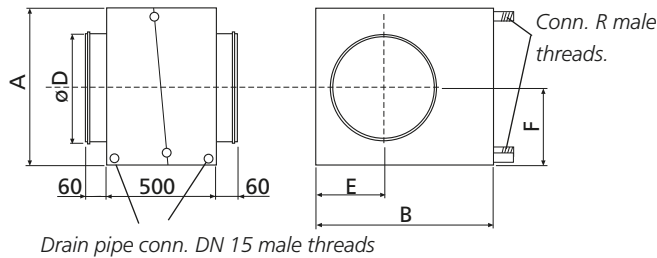
## Duct accessories, uninsulated

GOLD with standard end connection frame:  
 TBKA 000-031, matches GOLD, sizes 04, 05  
 TBKA 000-040, matches GOLD, sizes 07, 08  
 TBKA 000-050, matches GOLD, sizes 11, 12



TBKA	A	B	D	R	kg*
5-000-031-1	430	490	315	DN15	37
5-000-031-2	430	490	315	DN20	39

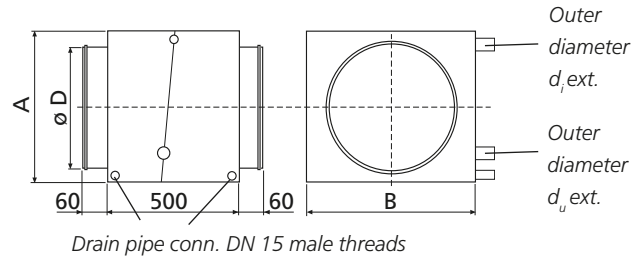
\* Excl. cooling medium



TBKA	A	B	D	E	F	R	kg*
5-000-040-1	475	590	400	255	238	DN20	36
5-000-040-2	475	590	400	255	238	DN20	38
5-000-050-1	575	690	500	295	288	DN25	50
5-000-050-2	575	690	500	295	288	DN25	54
4-000-050-5	755	770	500	358	378	DN25	44
4-000-050-6	755	770	500	358	378	DN32	52

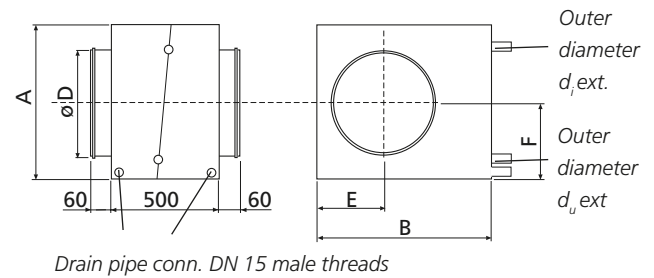
\* Excl. cooling medium

GOLD with standard end connection frame:  
 TBKC 000-031, matches GOLD, sizes 04, 05  
 TBKC 000-040, matches GOLD, sizes 07, 08  
 TBKC 000-050, matches GOLD, sizes 11, 12



TBKC	A	B	D	d <sub>i</sub>	d <sub>u</sub>	kg*
4-000-031-1-1	430	490	315	12	12	37

\* Excl. cooling medium

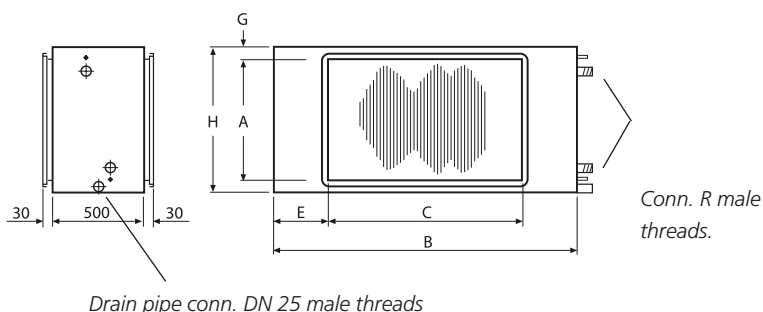


TBKC	A	B	D	E	F	d <sub>i</sub>	d <sub>u</sub>	kg*
3-000-040-1-1	455	590	400	255	228	12	22	28
4-000-050-1-1	575	690	500	295	288	22	22	50
3-000-050-3-1	755	770	500	358	378	22	42	46

\* Excl. cooling medium

# Complements and Accessories

## Duct accessories, uninsulated



GOLD with standard end connection frame:

TBKA 100-040, matches GOLD, sizes 14, 20  
 TBKA 120-050, matches GOLD, sizes 25, 30  
 TBKA 140-060, matches GOLD, sizes 35, 40  
 TBKA 160-080, matches GOLD, sizes 50, 60  
 TBKA 180-100, matches GOLD, sizes 70, 80  
 TBKA 240-120, matches GOLD, sizes 100, 120

GOLD with full face connection frame (accessory TBXZ):

TBKA 060-030, matches GOLD, sizes 04, 05  
 TBKA 080-040, matches GOLD, sizes 07, 08  
 TBKA 100-040, matches GOLD, sizes 11, 12  
 TBKA 120-050, matches GOLD, sizes 14, 20  
 TBKA 140-060, matches GOLD, sizes 25, 30  
 TBKA 160-080, matches GOLD, sizes 35, 40  
 TBKA 180-100, matches GOLD, sizes 50, 60  
 TBKA 240-120, matches GOLD, sizes 70, 80

TBKA	A	B	C	E	G	H	R	kg*
5-060-030-1	300	754	600	47	19	361	DN15	13
5-060-030-2	300	754	600	47	19	361	DN20	15
5-060-030-3	300	754	600	47	19	361	DN20	17
5-080-040-1	400	954	800	47	19	461	DN20	19
5-080-040-2	400	954	800	47	19	461	DN25	22
5-080-040-3	400	954	800	47	19	461	DN25	26
5-100-040-0	400	527	1000	77	64	1225	DN32	52
5-100-040-1	400	1295	1000	148	113	625	DN32	58
5-100-040-2	400	1295	1000	148	113	625	DN32	60
5-100-040-3	400	1295	1000	148	113	625	DN32	64
5-120-040-4**	400	1495	1200	148	113	625	DN40	82
5-120-050-0	500	623	1200	62	62	1425	DN32	70
5-120-050-1	500	1595	1200	198	168	835	DN40	80
5-120-050-2	500	1595	1200	198	168	835	DN50	90
5-120-050-3	500	1595	1200	198	168	835	DN50	100
5-140-050-4**	500	1790	1400	195	168	835	DN50	122
5-140-060-0	600	723	1400	62	62	1625	DN32	91
5-140-060-1	600	1885	1400	243	170	940	DN50	106
5-140-060-2	600	1885	1400	243	170	940	DN50	118
5-140-060-3	600	1885	1400	243	170	940	DN65	134
5-160-060-4**	600	2085	1600	243	170	940	DN65	154
5-160-080-1	800	1794	1600	47	19	846	DN32	66
5-160-080-2	800	2180	1600	290	110	1020	DN50	174
5-160-080-3	800	2180	1600	290	110	1020	DN50	223
5-160-080-4	800	2180	1600	290	110	1020	DN65	211
5-180-100-1	1000	1994	1800	47	19	1051	DN50	88
5-180-100-2	1000	2500	1800	350	110	1220	DN65	232
5-180-100-3	1000	2500	1800	350	110	1220	DN65	228
5-180-100-4	1000	2500	1800	350	110	1220	DN65	250
5-240-120-1	1200	2644	2400	47	19	1256	DN65	138
5-240-120-2	1200	3210	2400	405	160	1520	DN65	309
5-240-120-3	1200	3210	2400	405	160	1520	DN80	406
5-240-120-4	1200	3210	2400	405	160	1520	DN100	454

\* Excl. cooling agent

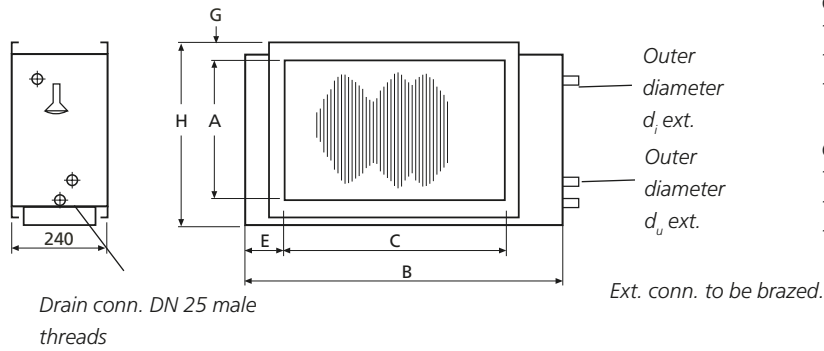
\*\* The connection dimensions of the air cooler are not the same as those of the GOLD unit.

Some form of transition piece must be installed between the air handling unit and the air cooler.

# Complements and accessories

## Duct accessories, uninsulated

### Capacity variant 0



GOLD with standard end connection frame:  
 TBKC 100-040, matches GOLD, sizes 14, 20  
 TBKC 120-050, matches GOLD, sizes 25, 30  
 TBKC 140-060, matches GOLD, sizes 35, 40

GOLD with full face connection frame (accessory TBXZ):  
 TBKC 100-040, matches GOLD, sizes 11, 12  
 TBKC 120-050, matches GOLD, sizes 14, 20  
 TBKC 140-060, matches GOLD, sizes 25, 30

TBKC	A	B	C	E	G	H	d <sub>i</sub>	d <sub>u</sub>	kg*
3-100-040-0-1	400	1154	1000	49	19	461	22	28	24
3-100-040-0-2	400	1154	1000	49	19	461	12/16	16/22	25
3-120-050-0-1	500	1394	1200	49	19	561	28	35	33
3-120-050-0-2	500	1394	1200	49	19	561	16/28	22/35	34
3-140-060-0-1	600	1594	1400	49	19	661	28	35	41
3-140-060-0-2	600	1594	1400	49	19	661	22/28	28/35	42

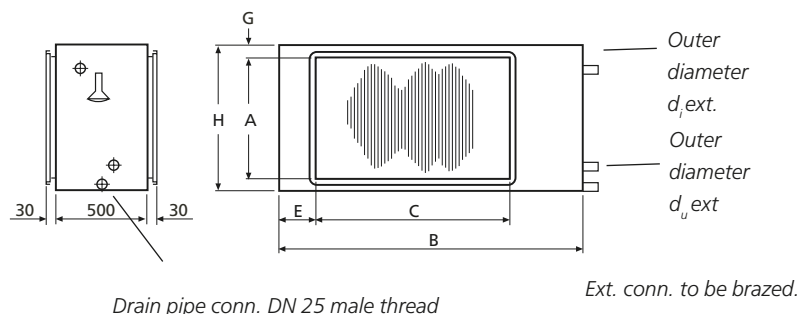
\* Excl. cooling agent



# Complements and Accessories

## Duct accessories, uninsulated

### Capacity variants 1 – 3



GOLD with standard end connection frame:  
 TBKC 100-040, matches GOLD, sizes 14, 20  
 TBKC 120-050, matches GOLD, sizes 25, 30  
 TBKC 140-060, matches GOLD, sizes 35, 40  
 TBKC 160-080, matches GOLD, sizes 50, 60  
 TBKC 180-100, matches GOLD, sizes 70, 80  
 TBKC 240-120, matches GOLD, sizes 100, 120

GOLD with full face connection frame (accessory TBXZ):  
 TBKA 060-030, matches GOLD, sizes 04, 05  
 TBKA 080-040, matches GOLD, sizes 07, 08  
 TBKC 100-040, matches GOLD, sizes 11, 12  
 TBKC 120-050, matches GOLD, sizes 14, 20  
 TBKC 140-060, matches GOLD, sizes 25, 30  
 TBKC 160-080, matches GOLD, sizes 35, 40  
 TBKC 180-100, matches GOLD, sizes 50, 60  
 TBKC 240-120, matches GOLD, sizes 70, 80

TBKC	A	B	C	E	G	H	d <sub>i</sub>	d <sub>u</sub>	kg*
3-060-030-1-1	300	880	600	62	50	401	12	19	10
3-060-030-2-1	300	880	600	62	50	401	22	22	11
3-060-030-3-1	300	880	600	62	50	401	22	28	13
3-080-040-1-1	400	1080	800	62	50	501	22	22	15
3-080-040-2-1	400	1080	800	62	50	501	22	28	17
3-080-040-3-1	400	1080	800	62	50	501	28	28	20
3-100-040-1-1	400	1350	1000	175	112,5	650	28	35	81
3-100-040-1-2	400	1350	1000	175	112,5	650	16/22	22/28	84
3-100-040-2-1	400	1350	1000	175	112,5	650	28	35	86
3-100-040-2-2	400	1350	1000	175	112,5	650	16/22	22/28	89
3-120-050-1-1	500	1590	1200	195	170	840	28	35	108
3-120-050-1-2	500	1590	1200	195	170	840	16/28	22/35	112
3-120-050-2-1	500	1590	1200	195	170	840	35	42	116
3-120-050-2-2	500	1590	1200	195	170	840	22/28	28/35	121
3-120-050-3-1	500	1590	1200	195	170	840	35	42	123
3-120-050-3-2	500	1590	1200	195	170	840	22/35	28/42	128
3-140-060-1-1	600	1950	1400	275	175	950	35	42	147
3-140-060-1-2	600	1950	1400	275	175	950	22/28	28/35	152
3-140-060-2-1	600	1950	1400	275	175	950	35	42	156
3-140-060-2-2	600	1950	1400	275	175	950	22/28	28/35	161
3-140-060-3-1	600	1950	1400	275	175	950	42	54	169
3-140-060-3-2	600	1950	1400	275	175	950	28/35	35/42	175
3-160-080-1-1	800	1794	1600	47	19	861	35	42	55
3-160-080-1-2	800	1794	1600	47	19	861	22/28	28/35	56
3-160-080-2-1	800	2210	1600	305	110	1020	42	54	181
3-160-080-2-2	800	2210	1600	305	110	1020	28/35	35/42	182
3-160-080-3-1	800	2210	1600	305	110	1020	35	54	199
3-160-080-3-2	800	2210	1600	305	110	1020	22/28	35/42	200
3-180-100-1-1	1000	1994	1800	47	19	1061	42	54	80
3-180-100-1-2	1000	1994	1800	47	19	1061	28/35	35/42	81
3-180-100-2-1	1000	2530	1800	365	110	1220	54	76	237
3-180-100-2-2	1000	2530	1800	365	110	1220	28/42	35/54	238
3-180-100-3-1	1000	2530	1800	365	110	1220	42	76	254
3-180-100-3-2	1000	2530	1800	365	110	1220	28/35	42/54	255
3-240-120-1-1	1200	2594	2400	47	19	1261	42	54	121
3-240-120-1-2	1200	2594	2400	47	19	1261	28/35	35/42	122
3-240-120-2-1	1200	3240	2400	420	160	1520	42	76	383
3-240-120-2-2	1200	3240	2400	420	160	1520	28/35	42/54	384
3-240-120-3-1	1200	3240	2400	420	160	1520	42	76	413
3-240-120-3-2	1200	3240	2400	420	160	1520	28/35	42/54	415

\* Excl. cooling agent

## Complements and Accessories

### Duct accessories

#### TBBD Mixing Section

The TBBD mixing section is available for the GOLD SD in sizes 04-80.

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 000-031 – 000-050) or a rectangular duct with three connections for slip-clamp jointing (sizes 060-030 – 180-100).

The spiral duct joints (sizes 000-031 – 000-050) in required quantity and the sets of slip clamps (sizes 060-030 – 180-100) respectively are included in the supply.

The dampers are 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. See the example on the next page.

**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



# Complements and Accessories

## Duct accessories, uninsulated

### Circular duct connections

#### Example 1, two dampers

The mixing section consists of two unmounted dampers, two joints and one spiral tubular T-piece. The connecting rod for the common damper motor is included in the supply.

#### Example 2, three dampers

As example 1 + one unmounted damper with its own damper motor, two joints and one spiral tubular T-piece.

### Rectangular duct connections

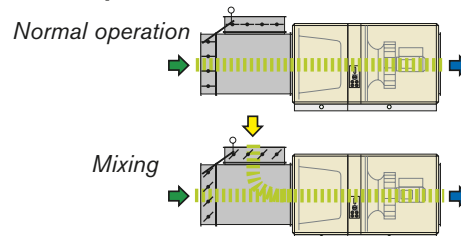
#### Example 1, two dampers

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 included in the supply of sizes 060-030 – 120-050. Dampers in sizes 140-060 – 180-100 each have their own damper motor. The mixing section can be installed for connection on the right-hand or left-hand side.

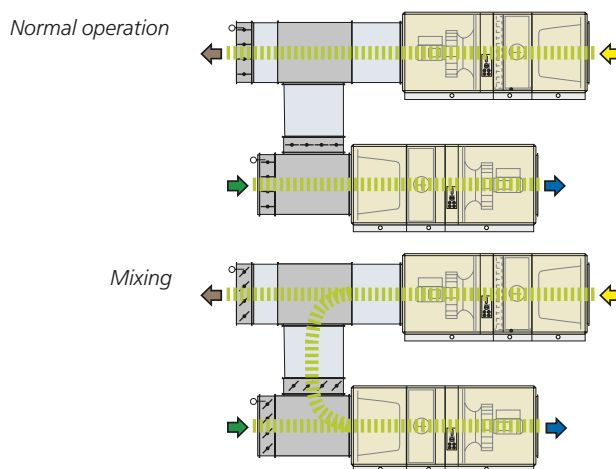
#### Example 2, three dampers

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)



The items supplied from Swegon are shaded in grey.

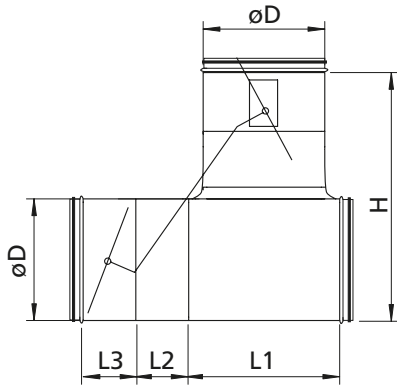


Outdoor air Extract air Supply air Exhaust air

# Complements and Accessories

## Duct accessories, uninsulated

### Two dampers



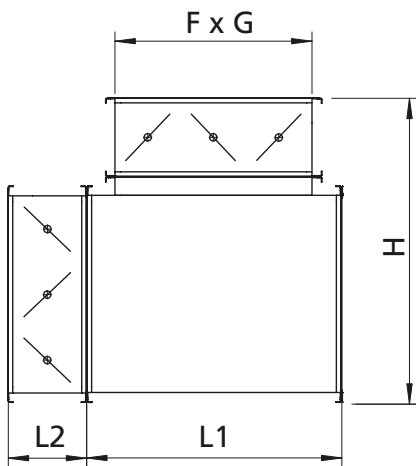
GOLD with standard end connection frame:  
 TBBD 000-031, matches GOLD, size 04/05  
 TBBD 000-040, matches GOLD, size 07/08  
 TBBD 000-050, matches GOLD, size 11/12

TBBD	L1	L2	L3	H	øD
000-031	363	140	140	620	315
000-040	510	180	210	825	400
000-050	552	180	210	930	500

### Three dampers

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

### Two dampers



GOLD with standard end connection frame:  
 TBBD 100-040, matches GOLD, size 14/20  
 TBBD 120-050, matches GOLD, size 25/30  
 TBBD 140-060, matches GOLD, size 35/40  
 TBBD 160-080, matches GOLD, size 50/60  
 TBBD 180-100, matches GOLD, size 70/80

GOLD with full face connection frame (accessory TBXZ):  
 TBBD 060-030, matches GOLD, sizes 04, 05  
 TBBD 080-040, matches GOLD, sizes 07, 08  
 TBBD 100-040, matches GOLD, sizes 11, 12  
 TBBD 120-050, matches GOLD, sizes 14, 20  
 TBBD 140-060, matches GOLD, sizes 25, 30  
 TBBD 160-080, matches GOLD, sizes 35, 40  
 TBBD 180-100, matches GOLD, sizes 50, 60

TBBD	L1	L2	H	F x G
060-030	420	220	570	300 x 600
080-040	520	220	670	400 x 800
100-040	520	220	670	400 x 1000
120-050	620	220	770	500 x 1200
140-060	720	220	870	600 x 1400
160-080	920	220	1070	800 x 1600
180-100	1120	220	1270	1000 x 1800

### Three dampers

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

# Complements and Accessories

## Duct accessories, uninsulated

### 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.

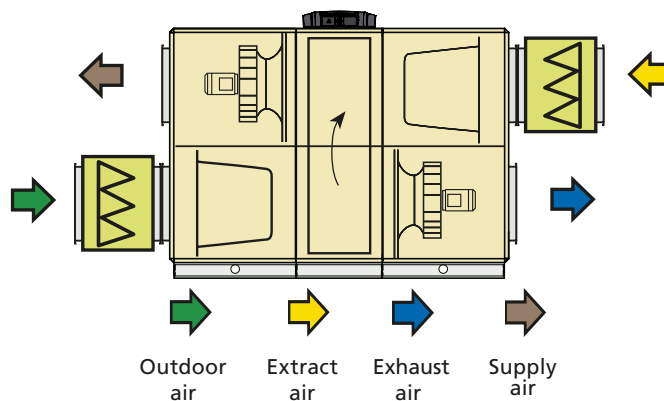
Filter of type woven aluminium filter or class G3 compact filter.

#### 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.

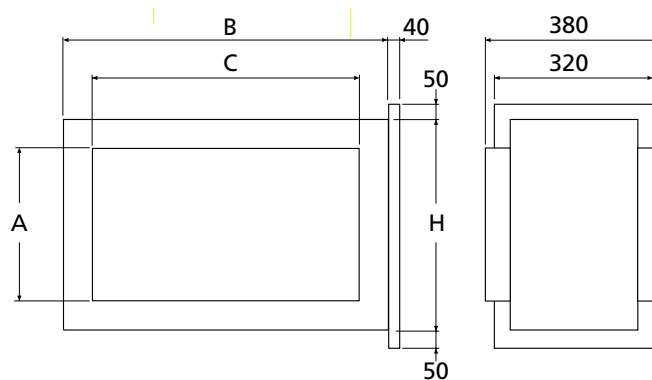
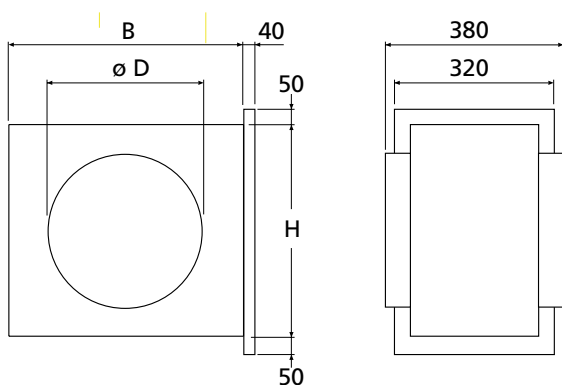
#### Installation

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 07, 08  
 TBFA 000-050, is compatible with GOLD size 11, 12

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 240-120, is compatible with GOLD sizes 70, 80



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

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
240-120	1200	3000	2400	1800	140

## Complements and Accessories

### Duct accessories, in insulated casing

#### Common for duct accessories in an insulated casing

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

Duct accessories in an insulated casing must be used if the unit is installed outdoors.

Duct accessories for the GOLD are equipped with bolt joints and/or expansion-type locking devices for docking them to the air handling unit and/or other duct accessories (does not apply to type TBFK carbon filter sections).

Type METU connection frames are available as an accessories for the size 14 – 120 units.

One duct accessory can be mounted on top of another duct accessory.

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



## Complements and Accessories

### Duct accessories, in insulated casing

#### TCSA Damper section

TCSA dampers are used as shut-off dampers or forced airflow dampers. Sizes 12 - 120 can also be used for other applications, such as outdoor air dampers for the ReCO<sub>2</sub> control function.

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

To be installed for horizontal airflow.

Complete with damper actuator for 24 V. The actuator can be selected with spring return or on/off actuation. TCSA sizes 12 - 120 are also available with modulating type actuator with spring return.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental class C4.

Tightness class 3 to EN 1751.

The dampers are journalled in nylon bushings.

#### Installation

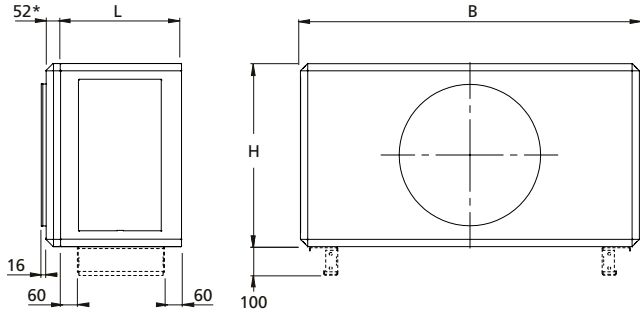
The damper section should be mounted directly against the air handling unit or insulated duct accessory.

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



# Complements and Accessories

## Duct accessories, in insulated casing



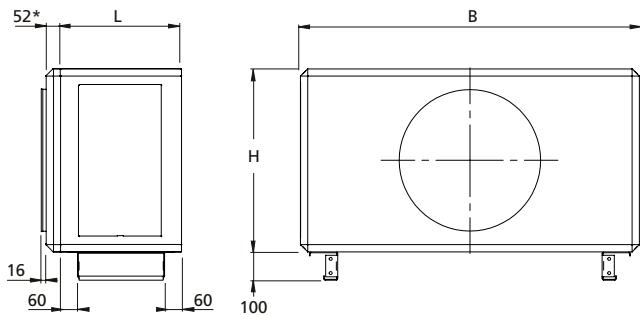
Connection dimensions to duct:

- TCSA 05       $\varnothing$  315
- TCSA 08       $\varnothing$  400

Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCSA	B	H	L	kg	End connection panel, if required kg
1-05	825	460	353	33	7
1-08	995	542	353	38	10



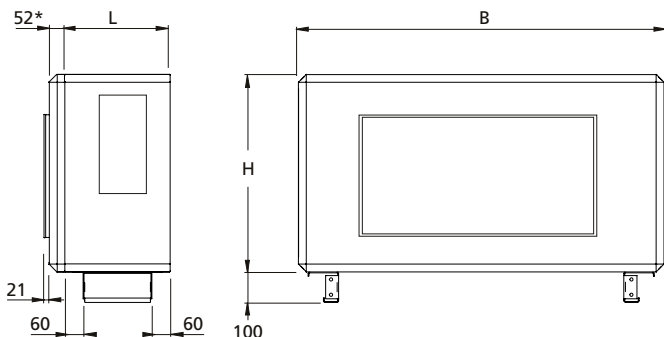
Connection dimensions to duct:

- TCSA 12       $\varnothing$  500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCSA	B	H	L	kg	End connection panel, if required kg
1-12	1199	648	353	52	13



Connection dimensions to duct:

- TCSA 20      1000 x 400 mm
- TCSA 30      1200 x 500 mm
- TCSA 40      1400 x 600 mm

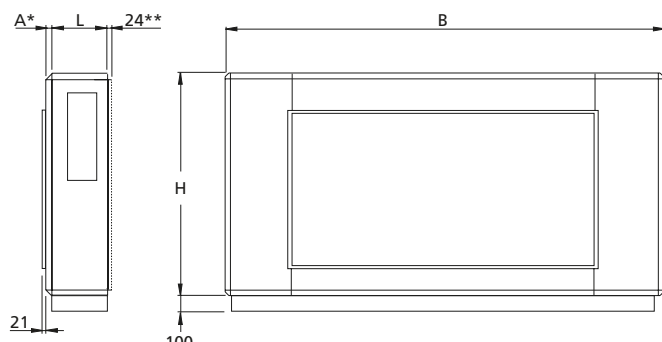
The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCSA	B	H	L	kg	End connection panel, if required kg
1-20	1400	776 <sup>1)</sup> /620 <sup>2)</sup>	353	66 <sup>1)</sup> /61 <sup>2)</sup>	19 <sup>1)</sup> /15 <sup>2)</sup>
1-30	1600	906 <sup>1)</sup> /690 <sup>2)</sup>	353	74 <sup>1)</sup> /66 <sup>2)</sup>	23 <sup>1)</sup> /17 <sup>2)</sup>
1-40	1990	1080 <sup>1)</sup> /906 <sup>2)</sup>	353	92 <sup>1)</sup> /86 <sup>2)</sup>	31 <sup>1)</sup> /26 <sup>2)</sup>



# Complements and Accessories

## Duct accessories, in insulated casing



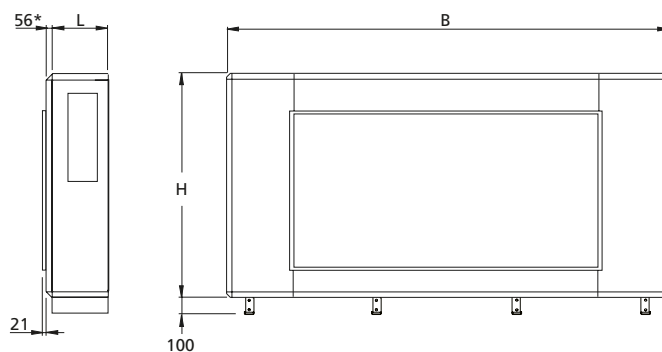
Connection dimensions to duct:  
 TCSA 60 1600 x 800 mm  
 TCSA 80 1800 x 1,000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

\*\* Size 60 only

TCSA	B	H	L	A	kg	End connection panel, if required kg
1-60	2318	1127	377	28	142	31
2-80	2637	1320	381	52	191	38



Connection dimensions to duct:  
 TCSA 120 2400 x 1,200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCSA	B	H	L	kg	End connection panel, if required kg
1-120	3340	1620	500	337	59

# Complements and Accessories

## Duct accessories, in insulated casing

### Spacer section, TCGA/ Inspection section, TCIA.

The TCGA spacer section/TCIA inspection section is used when provision for spacing or inspection is required. The TCIA inspection section is available in two variants, with inspection door the entire length of the section (sizes 05-120), or split cover panel/inspection door (sizes 05-40). The spacer section/inspection section must be installed for horizontal airflow.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel, prepainted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

#### Installation

The spacer section/inspection section should be fitted directly to the air handling unit or other insulated duct accessory.

Provision for inspection and cleaning the spacer section must be guaranteed. The cover panel is easy to remove.



Spacer Section, TCGA

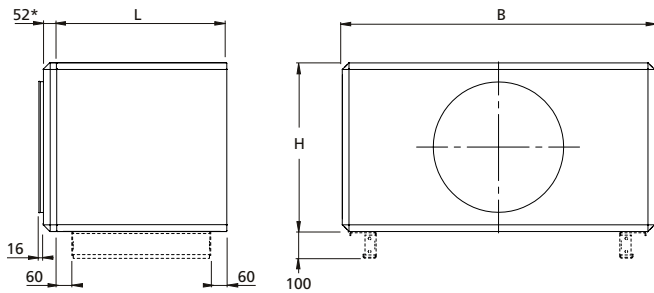


TCIA inspection section. Inspection door the entire length of the section.



TCIA inspection section. Split cover panel/inspection door.

### Spacer Section, TCGA

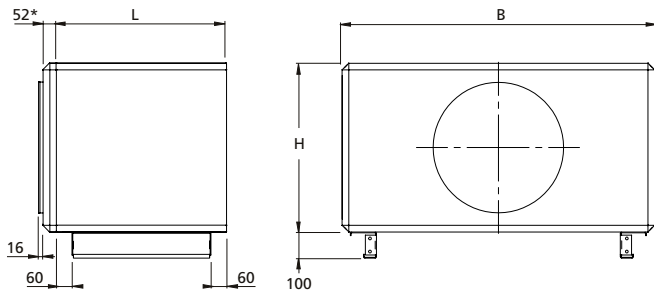


Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCGA	B	H	L	kg	End connection panel, if required kg
2-05	825	460	723	38	7
2-08	995	542	723	46	10

Connection dimensions to duct:  
TCGA 05     ø 315  
TCGA 08     ø 400



Connection dimensions to duct:  
TCGA 12     ø 500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

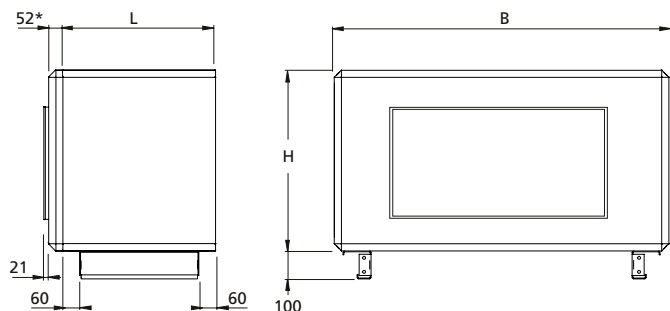
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCGA	B	H	L	kg	End connection panel, if required kg
2-12	1199	648	723	61	13

# Complements and Accessories

## Duct accessories, in insulated casing

### Spacer Section, TCGA

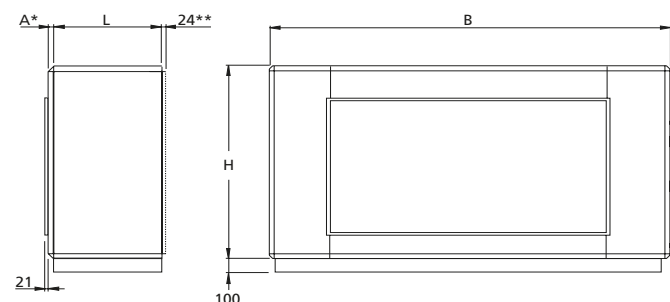


Connection dimensions to duct:  
 TCGA 20 1000 x 400 mm  
 TCGA 30 1200 x 500 mm  
 TCGA 40 1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCGA	B	H	L	kg	End connection panel, if required kg
2-20	1400	776 <sup>1)</sup> /620 <sup>2)</sup>	723	71 <sup>1)</sup> /66 <sup>2)</sup>	19 <sup>1)</sup> /15 <sup>2)</sup>
2-30	1600	906 <sup>1)</sup> /690 <sup>2)</sup>	723	79 <sup>1)</sup> /74 <sup>2)</sup>	23 <sup>1)</sup> /17 <sup>2)</sup>
2-40	1990	1080 <sup>1)</sup> /906 <sup>2)</sup>	723	96 <sup>1)</sup> /91 <sup>2)</sup>	31 <sup>1)</sup> /26 <sup>2)</sup>

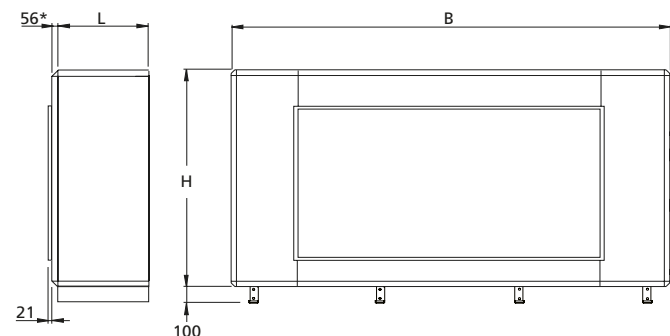
<sup>1)</sup> When mounting on outlet.  
<sup>2)</sup> When mounting on inlet.



Connection dimensions to duct:  
 TCGA 60 1600 x 800 mm  
 TCGA 80 1800 x 1000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.  
 \*\* Size 60 only

TCGA	B	H	L	A	kg	End connection panel, if required kg
1-60	2318	1127	617	28	118	31
2-80	2637	1320	617	52	139	38



Connection dimensions to duct:  
 TCGA 120 2400 x 1200 mm

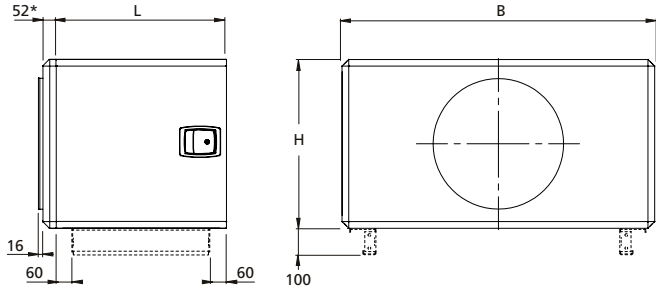
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCGA	B	H	L	kg	End connection panel, if required kg
1-120	3340	1620	720	243	59

# Complements and Accessories

## Duct accessories, in insulated casing

The TCIA inspection section, inspection door in the entire length of the section.

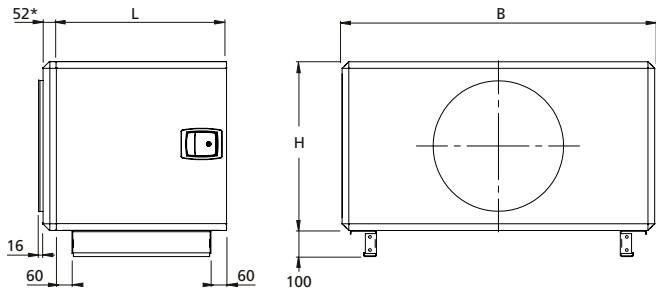


Connection dimensions to duct:  
 TCIA 05       $\varnothing$  315  
 TCIA 08       $\varnothing$  400

Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-05	825	460	723	40	7
1-08	995	542	723	47	10

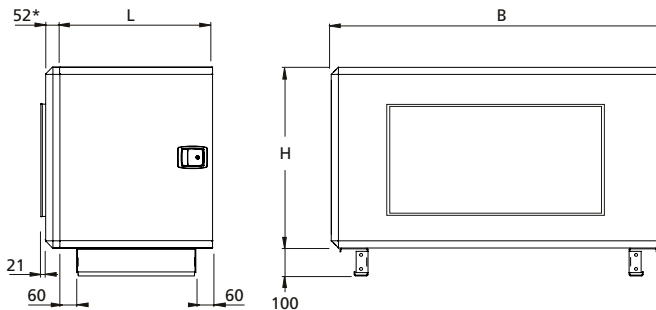


Connection dimensions to duct:  
 TCIA 12       $\varnothing$  500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-12	1199	648	723	62	13



Connection dimensions to duct:  
 TCIA 20      1000 x 400 mm  
 TCIA 30      1200 x 500 mm  
 TCIA 40      1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-20	1400	776 <sup>1)</sup> /620 <sup>2)</sup>	723	74 <sup>1)</sup> /67 <sup>2)</sup>	19 <sup>1)</sup> /15 <sup>2)</sup>
1-30	1600	906 <sup>1)</sup> /690 <sup>2)</sup>	723	82 <sup>1)</sup> /75 <sup>2)</sup>	23 <sup>1)</sup> /17 <sup>2)</sup>
1-40	1990	1080 <sup>1)</sup> /906 <sup>2)</sup>	723	98 <sup>1)</sup> /93 <sup>2)</sup>	31 <sup>1)</sup> /26 <sup>2)</sup>

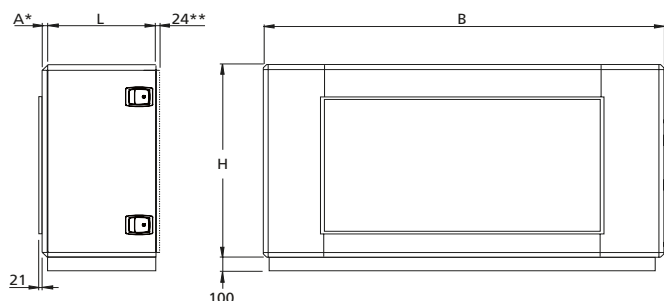
<sup>1)</sup> When mounting on outlet.

<sup>2)</sup> When mounting on inlet.

# Complements and Accessories

## Duct accessories, in insulated casing

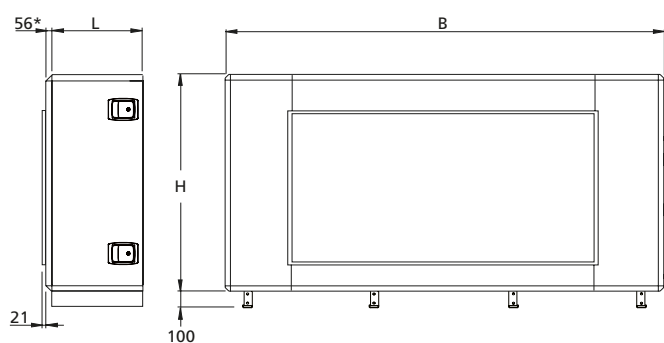
The TCIA inspection section, inspection door in the entire length of the section.



Connection dimensions to duct:  
 TCIA 60 1600 x 800 mm  
 TCIA 80 1800 x 1000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.  
 \*\* Size 60 only

TCIA	B	H	L	A	kg	End connection panel, if required kg
1-60	2318	1127	542	28	114	31
1-80	2637	1320	542	52	136	38



Connection dimensions to duct:  
 TCIA 120 2400 x 1200 mm

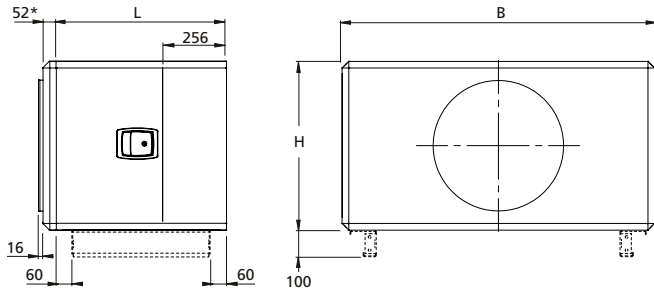
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-120	3340	1620	500	211	59

# Complements and Accessories

## Duct accessories, in insulated casing

### TCIA inspection section, split cover panel/inspection door



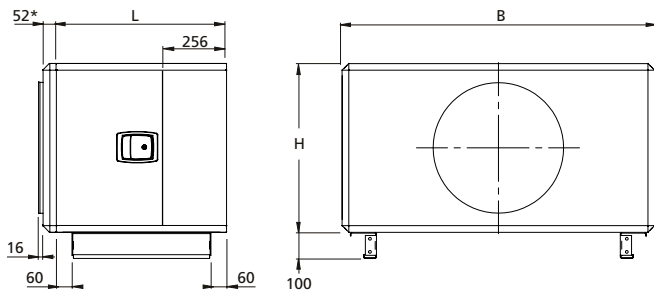
Connection dimensions to duct:

- TCIA 05       $\varnothing$  315
- TCIA 08       $\varnothing$  400

Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-05	825	460	723	40	7
1-08	995	542	723	47	10



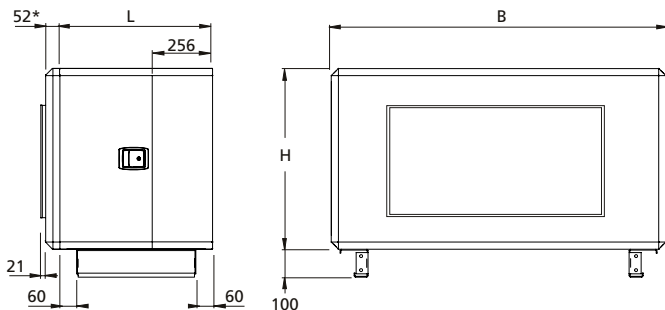
Connection dimensions to duct:

- TCIA 12       $\varnothing$  500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-12	1199	648	723	62	13



Connection dimensions to duct:

- TCIA 20      1000 x 400 mm
- TCIA 30      1200 x 500 mm
- TCIA 40      1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCIA	B	H	L	kg	End connection panel, if required kg
1-20	1400	776 <sup>1)</sup> /620 <sup>2)</sup>	723	74 <sup>1)</sup> /67 <sup>2)</sup>	19 <sup>1)</sup> /15 <sup>2)</sup>
1-30	1600	906 <sup>1)</sup> /690 <sup>2)</sup>	723	82 <sup>1)</sup> /75 <sup>2)</sup>	23 <sup>1)</sup> /17 <sup>2)</sup>
1-40	1990	1080 <sup>1)</sup> /906 <sup>2)</sup>	723	98 <sup>1)</sup> /93 <sup>2)</sup>	31 <sup>1)</sup> /26 <sup>2)</sup>

<sup>1)</sup> When mounting on outlet.

<sup>2)</sup> When mounting on inlet.

# Complements and Accessories

## Duct accessories, in insulated casing

### TCDA Unit sound attenuator

The TCDA sound attenuator is a rectangular sound attenuator designed for mounting directly against the air handling unit.

To be installed for horizontal airflow.

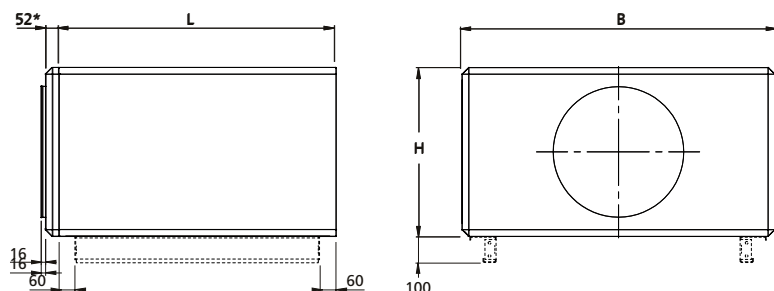
#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental class C4.

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).

#### Installation

The sound attenuator should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed.



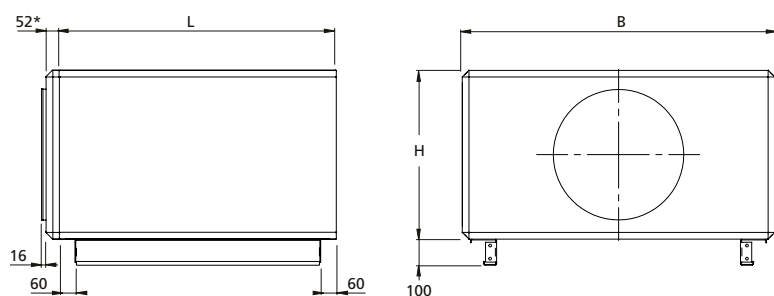
Connection dimensions to duct:

TCDA 05       $\varnothing$  315  
TCDA 08       $\varnothing$  400

Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCDA	B	H	L	kg	End connection panel, if required
					kg
1-05	825	460	948	63	7
1-08	995	542	948	74	10



Connection dimensions to duct:

TCDA 12       $\varnothing$  500

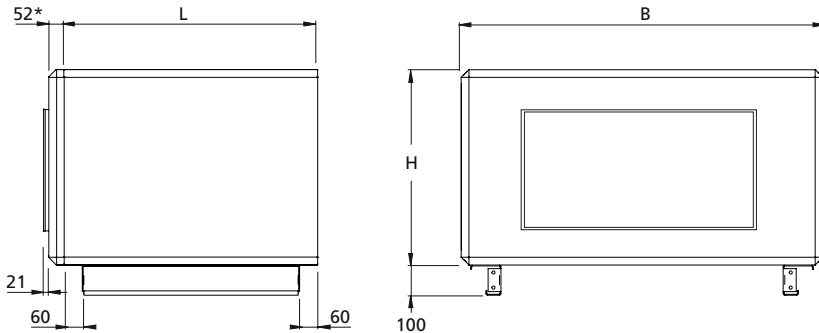
The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCDA	B	H	L	kg	End connection panel, if required
					kg
1-12	1199	648	948	97	13

# Complements and Accessories

## Duct accessories, in insulated casing



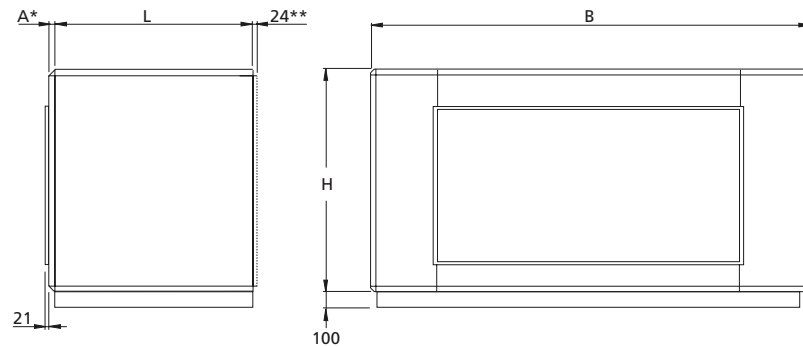
Connection dimensions to duct:  
 TCDA 20 1000 x 400 mm  
 TCDA 30 1200 x 500 mm  
 TCDA 40 1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCDA	B	H	L	kg	End connection panel, if required kg
1-20	1400	776 <sup>1)</sup> /620 <sup>2)</sup>	948	120 <sup>1)</sup> /106 <sup>2)</sup>	19 <sup>1)</sup> /15 <sup>2)</sup>
1-30	1600	906 <sup>1)</sup> /690 <sup>2)</sup>	948	143 <sup>1)</sup> /124 <sup>2)</sup>	23 <sup>1)</sup> /17 <sup>2)</sup>
1-40	1990	1080 <sup>1)</sup> /906 <sup>2)</sup>	948	187 <sup>1)</sup> /168 <sup>2)</sup>	31 <sup>1)</sup> /26 <sup>2)</sup>

<sup>1)</sup> When mounting on outlet.

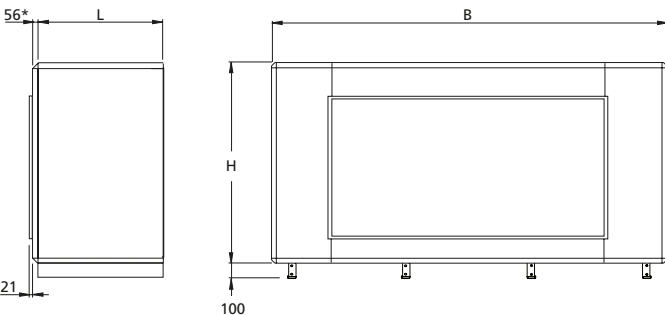
<sup>2)</sup> When mounting on inlet.



Connection dimensions to duct:  
 TCDA 60 1600 x 800 mm  
 TCDA 80 1800 x 1,000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork. \*\* Size 60 only

TCDA	B	H	L	A	kg	End connection panel, if required kg
1-60	2318	1127	972	28	245	31
2-80	2637	1320	972	52	288	38



Connection dimensions to duct:  
 TCDA 120 2400 x 1,200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCDA	B	H	L	kg	End connection panel, if required kg
1-120	3340	1620	1070	443	59



## Complements and Accessories

### Duct accessories, in insulated casing

#### TCLA Air heater, hot water

The TCLA air heater is used for reheating the supply air. The heater uses hot water as the heating medium.

In many applications it is possible to omit the air heater for reheat if the air handling unit control system is operated in the temperature regulation mode according to the ERS model and when the efficient rotary heat exchanger is in use.

To be installed for horizontal airflow.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). 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 pipe-work to the water connections are made of copper. The male threaded pipe connections are made of brass.

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

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

#### Valve set

The TBVL valve set with 2(3)-way valve, actuator, anti-frost protection sensor and connection cable with quick-fit connector can be ordered. If you use a valve of your own, you have the option of instead selecting a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion or strap-on sensor.

#### Extra accessories

A circulation pump is used for guaranteeing the frost guard function, if air heaters without anti-frost burst protection are used. Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is integrated into the control equipment of the GOLD unit.

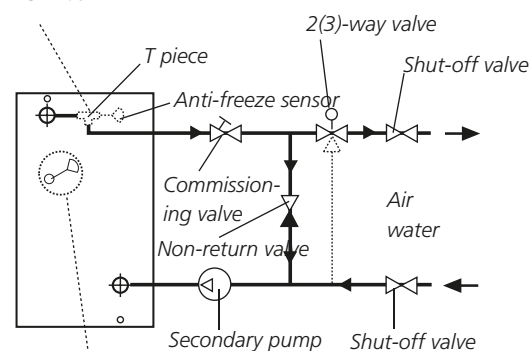
#### Installation

The air heater should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed. Electrical connection.



#### Basic Installation Diagram

Applicable to  
TCLA 05-12

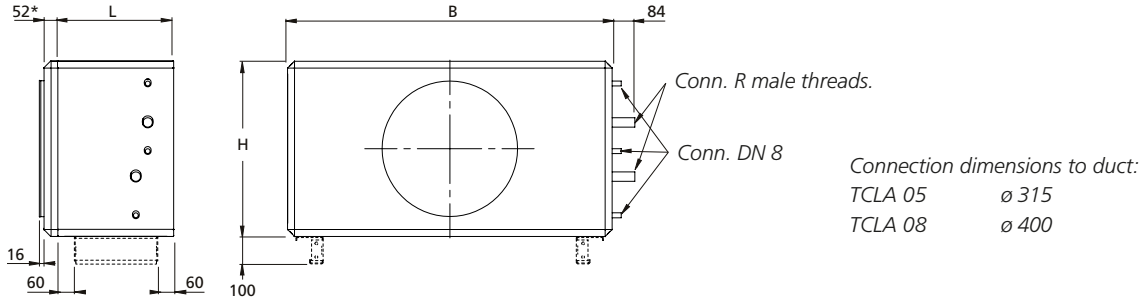


Anti-freeze monitor sensor. Applicable to sizes 14-120

1) The anti-frost protection sensor for the size 05-12 TCLA should be installed in the T-piece on the return pipework and for the size 14-120 TCLA in the connection on the air heater.

# Complements and Accessories

## Duct accessories, in insulated casing

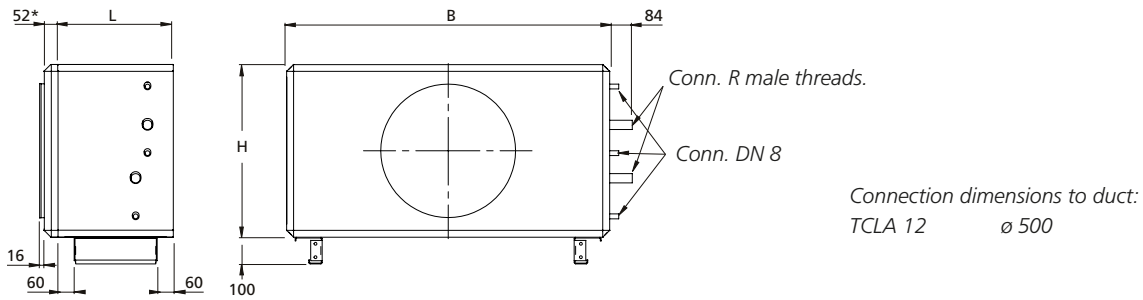


Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLA	B	H	L	Capacity variant 1		Capacity variant 2		Capacity variant 3		End connection panel, if required kg
				R	kg <sup>1)</sup>	R	kg <sup>1)</sup>	R	kg <sup>1)</sup>	
1-05	825	460	353	DN15	25	DN15	26	DN20	27	7
1-08	995	542	353	DN15	31	DN20	32	DN20	34	10

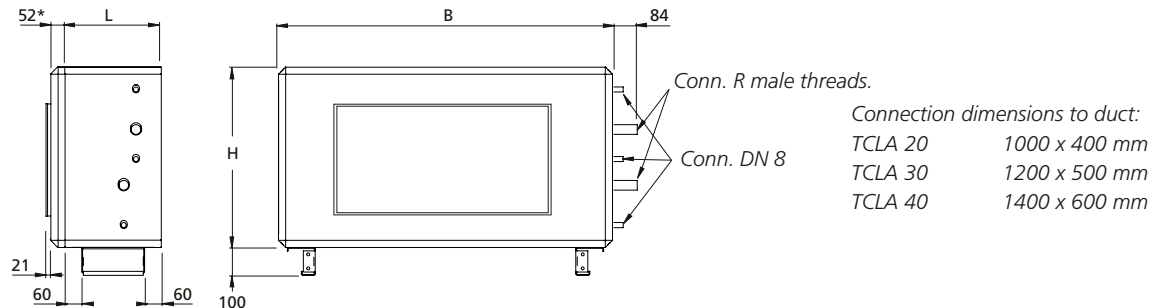
<sup>1)</sup> Not filled with water.



The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLA	B	H	L	Capacity variant 1		Capacity variant 2		Capacity variant 3		End connection panel, if required kg
				R	kg <sup>1)</sup>	R	kg <sup>1)</sup>	R	kg <sup>1)</sup>	
1-12	1199	648	428	DN20	49	DN20	52	DN25	56	13

<sup>1)</sup> Not filled with water.



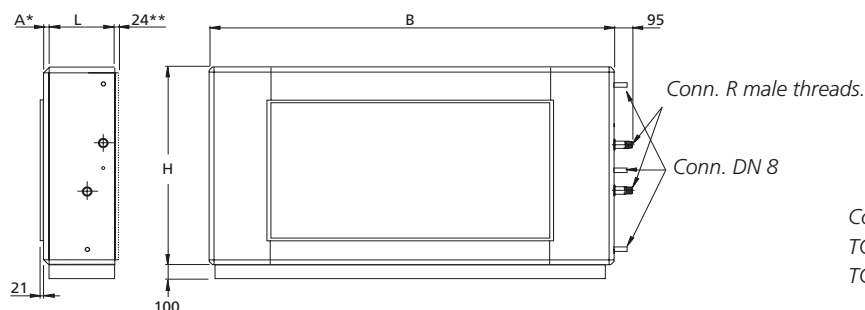
The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLA	B	H	L	Capacity variant 1		Capacity variant 2		Capacity variant 3		End connection panel, if required kg
				R	kg <sup>1)</sup>	R	kg <sup>1)</sup>	R	kg <sup>1)</sup>	
1-20	1400	776	353	DN20	51	DN25	57	DN25	62	19
1-30	1600	906	353	DN25	61	DN32	69	DN32	77	23
1-40	1990	1080	428	DN32	87	DN40	99	DN40	113	31

<sup>1)</sup> Not filled with water.

# Complements and Accessories

## Duct accessories, in insulated casing

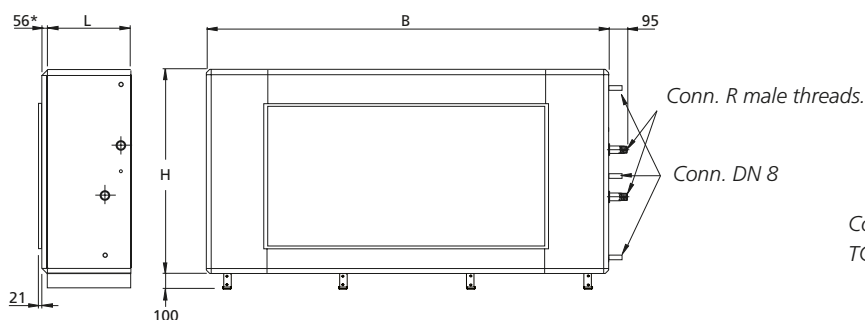


Connection dimensions to duct:  
 TCLA 60 1600 x 800 mm  
 TCLA 80 1800 x 1,000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.  
 \*\* Size 60 only

TCLA	B	H	L	A	Capacity variant 1			Capacity variant 2			Capacity variant 3			End connection panel, if required kg
					R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	
2-60	2318	1127	542	28	DN32	152	111	DN50	171	111	DN50	185	111	31
3-80	2637	1320	542	52	DN50	190	135	DN65	214	135	DN65	236	135	38

<sup>1)</sup> Including casing, not filled with water.  
<sup>2)</sup> Casing only.



Connection dimensions to duct:  
 TCLA 120 2400 x 1,200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLA	B	H	L	Capacity variant 1			Capacity variant 2			Capacity variant 3			End connection panel, if required kg
				R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	
1-120	3340	1620	720	DN50	339	256	DN65	384	256	DN65	429	256	59

<sup>1)</sup> Including casing, not filled with water.  
<sup>2)</sup> Casing only.

## Complements and Accessories

### Duct accessories, in insulated casing

#### TCLF Air heater, hot water

The TCLF air heater is used for preheating the supply air. The heater uses hot water as the heating medium. Install the TCLF against the outdoor air duct.

When it is cold outside and the humidity is high, preheating the incoming outdoor air will prevent condensation in the air filters. The function can also be utilised when it is extremely cold outdoors and it is desirable to heat the air up to -20°C, for instance.

In combination with the plate heat exchanger, it can also be of interest to preheat the air to be spared having to let it bypass the heat exchanger.

To be installed for horizontal airflow.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). 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. Fin pitch: 4.0 mm. The headers and the pipework to the water connections are made of copper. The male threaded pipe connections are made of brass.

#### Valve set

The TBVL valve set with 2(3)-way valve, valve actuator, freeze protection sensor and connection cable with quick-fit connector can be ordered. If you use a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion type or strap-on sensor.

#### Extra accessories

Control system, including temperature sensor for duct and IQlogic<sup>+</sup> with a 0.25 metre long cable, with or without frost guard sensor.

A circulation pump is used for guaranteeing the frost guard function, if air heaters without anti-frost burst protection are used. Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is integrated into the control equipment of the GOLD unit.

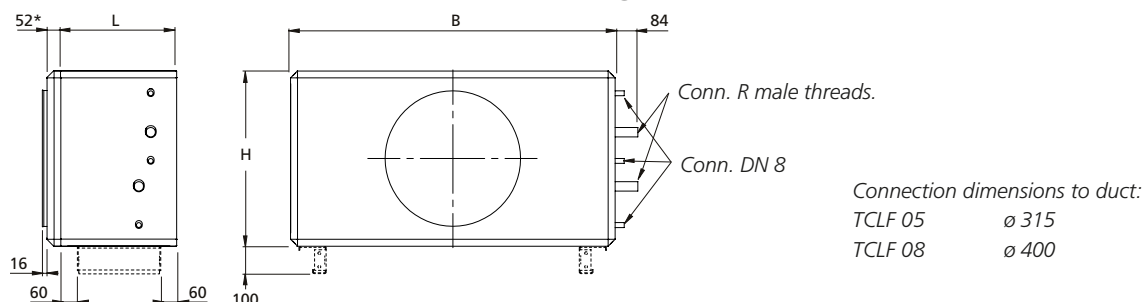
#### Installation

The air heater should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed. Electrical connection.



# Complements and Accessories

## Duct accessories, in insulated casing

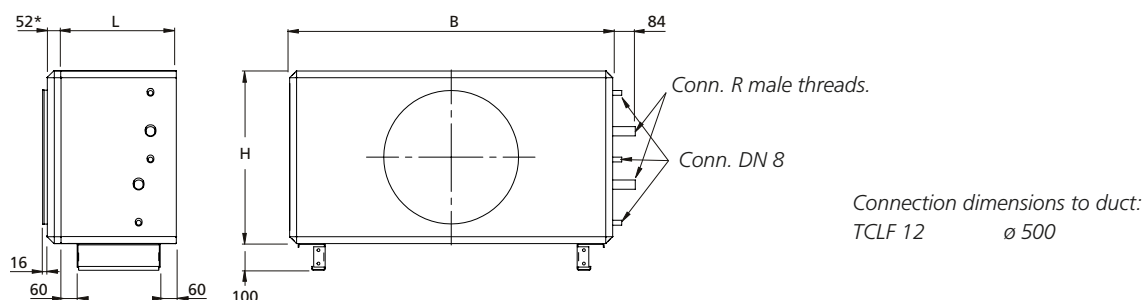


Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLF	B	H	L	R	kg <sup>1)</sup>	End connection panel, if required kg
1-05	825	460	353	DN15	24	7
1-08	995	542	353	DN15	30	10

<sup>1)</sup> Not filled with water.

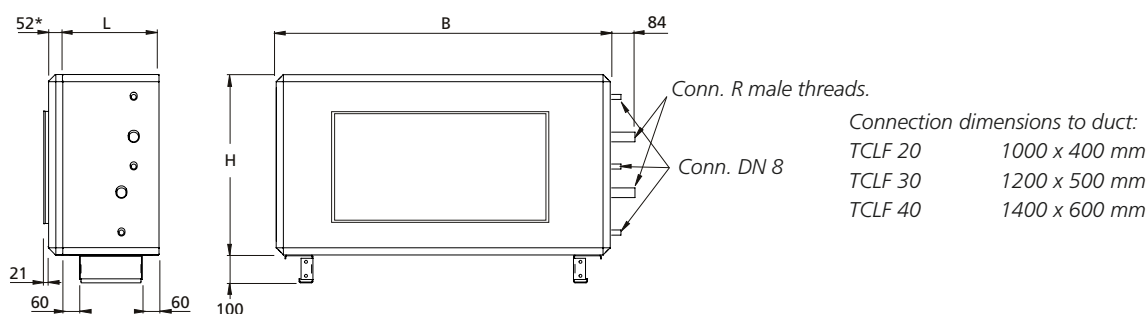


The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLF	B	H	L	R	kg <sup>1)</sup>	End connection panel, if required kg
1-12	1199	648	428	DN20	48	13

<sup>1)</sup> Not filled with water.



The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLF	B	H	L	R	kg <sup>1)</sup>	End connection panel, if required kg
1-20	1400	620	353	DN20	46	15
1-30	1600	690	353	DN20	53	17
1-40	1990	906	353	DN25	73	26

<sup>1)</sup> Not filled with water.

## Complements and Accessories

### Duct accessories, in insulated casing

#### TCLE Electric air heater

The TCLE electric air heater is used for reheating the supply air.

In many applications it is possible to omit the air heater for reheat if the air handling unit control system is operated in the temperature regulation mode according to the ERS model and when the efficient rotary heat exchanger is in use.

To be installed for horizontal airflow.

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 (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental class C4.

The TCLE air heater is available in several capacity variants.

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

#### Installation

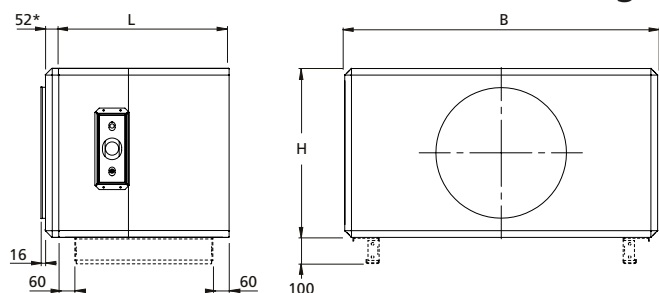
The air heater should be mounted directly against the air handling unit or insulated duct accessory. The space necessary for obtaining a uniform air stream is provided inside the TCLE. Therefore other duct accessories can be fitted downstream of the TCLE without risk of overheating.

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



# Complements and Accessories

## Duct accessories, in insulated casing



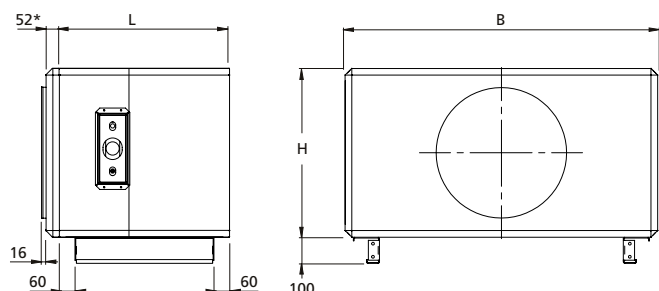
Connection dimensions to duct:

- TCLE 05      ø 315
- TCLE 08      ø 400

Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLE	B	H	L	kg	End connection panel, if required kg
1-05	825	460	593	48-56	7
1-08	995	542	593	57-71	10



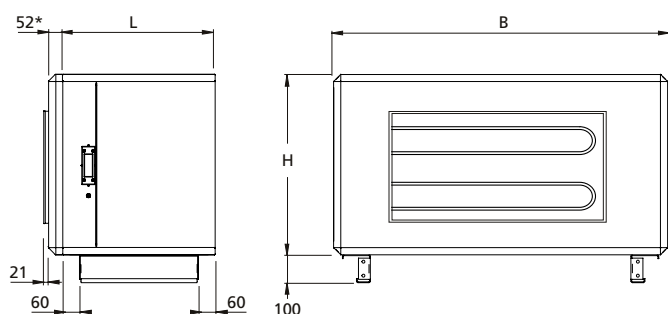
Connection dimensions to duct:

- TCLE 12      ø 500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLE	B	H	L <sup>1)</sup>	kg	End connection panel, if required kg
1-12	1199	648	593/800	75-117	13

<sup>1)</sup> Dimension L = 800 mm is applicable to capacity variants 20 – 36 kW in the version for 230 V and capacity variant 36 kW in the version for 400 V. All the other capacity variants have dim. L = 593 mm.



Connection dimensions to duct:

- TCLE 20      1000 x 400 mm
- TCLE 30      1200 x 500 mm
- TCLE 40      1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site. \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLE	B	H	L	kg	End connection panel, if required kg
1-20	1400	776	518/723 <sup>1)</sup>	83 - 147	19
1-30	1600	906	518/723 <sup>2)</sup>	93 - 156	23
1-40	1990	1080	518/723 <sup>3)</sup>	113 - 189	31

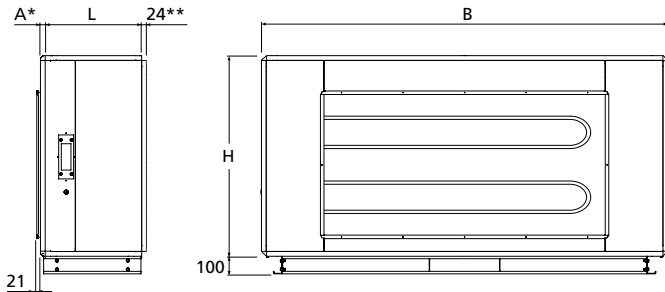
<sup>1)</sup> Dimension L = 723 mm is applicable to capacity variants 20-36 kW in the version for 230 V and capacity variants 27-47.5 kW in the version for 400 V. All the other capacity variants have dim. L = 518 mm.

<sup>2)</sup> Dimension L = 723 mm is applicable to capacity variants 27-47.5 kW in the version for 230 V and capacity variants 34-69 kW in the version for 400 V. All the other capacity variants have dim. L = 518 mm.

<sup>3)</sup> Dimension L = 723 mm is applicable to capacity variants 36-69 kW in the version for 230 V and capacity variant 69 kW in the version for 400 V. All the other capacity variants have dim. L = 518 mm.

# Complements and Accessories

## Duct accessories, in insulated casing



Connection dimensions to duct:  
 TCLE 60 1600 x 800 mm  
 TCLE 80 1800 x 1,000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

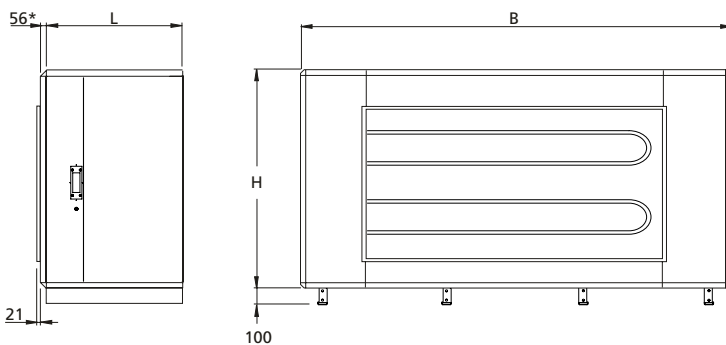
\*\* Size 60 only

TCLE	B	H	L	A	kg	kg <sup>3)</sup>	End connection panel, if required kg
1-60	2318	1127	604/764 <sup>1)</sup>	28	189 -282	130/152	31
2-80	2637	1320	617/760 <sup>2)</sup>	52	218 - 366	143/166	38

<sup>1)</sup> Dimension L = 764 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 the other capacity variants have dim. L = 604 mm.

<sup>2)</sup> Dimension L = 760 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 the other capacity variants have dim. L = 617 mm.

<sup>3)</sup> Casing only. The lower weight applies to dimension L = 604/617 mm and the higher for dim. L = 760/764 mm.



Connection dimensions to duct:  
 TCLE 120 2400 x 1,200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLE	B	H	L	kg	kg <sup>1)</sup>	End connection panel, if required kg
1-120	3340	1620	1070	466-591	323	59

<sup>1)</sup> Casing only.



## Complements and Accessories

### Duct accessories, in insulated casing

#### TCKA Air cooler (water), TCKC (direct expansion)

The TCKA/TCKC air coolers are used for cooling the supply air with chilled water or evaporative refrigerant as the cooling medium.

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

The TCKA air coolers are equipped with connections for insertion sensors and can be used as a multi-purpose coil (cooling and heating).

To be installed for horizontal airflow.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental class C4.

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

#### Valve set

The TBVL valve set with 2(3)-way valve, valve actuator, freeze protection sensor (for readings only) and connection cable with quick-fit connector can be ordered. If you use a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion type or strap-on sensor.

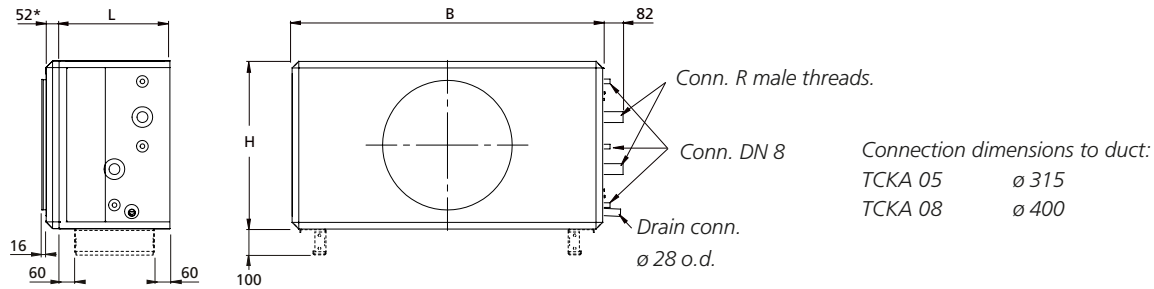
#### Installation

The air cooler should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed.  
Connecting the drainage pipework.  
Electrical connection.



# Complements and Accessories

## Duct accessories, in insulated casing

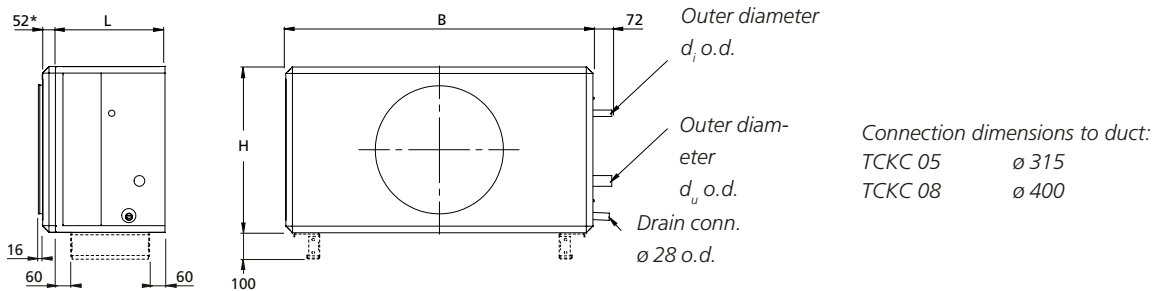


Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCKA	B	H	Capacity variant 1			Capacity variant 2			Capacity variant 4			End connection panel, if required kg
			L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	
3-05	825	460	428	DN20	40	428	DN25	42	593	DN25	55	7
3-08	995	542	428	DN25	49	428	DN25	53	593	DN32	80	10

<sup>1)</sup> Excl. cooling medium



Base beams are optional.

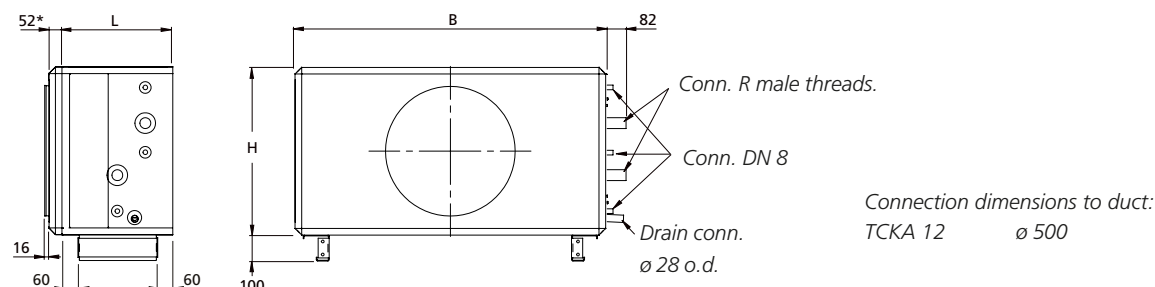
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCKC	B	H	L	Capacity variant 1			Capacity variant 2			End connection panel, if required kg
				d <sub>i</sub>	d <sub>u</sub>	kg <sup>1)</sup>	d <sub>i</sub>	d <sub>u</sub>	kg <sup>1)</sup>	
3-05	825	460	428	1/2"	22	40	5/8"	28	42	7
3-08	995	542	428	5/8"	28	49	5/8"	35	53	10

<sup>1)</sup> Excl. cooling medium

# Complements and Accessories

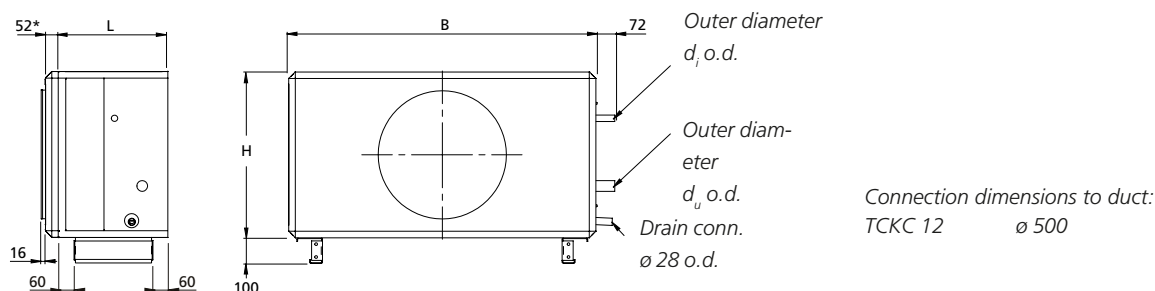
## Duct accessories, in insulated casing



The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCKA	B	H	Capacity variant 1			Capacity variant 2			Capacity variant 4			End connection panel, if required kg
			L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	
3-12	1199	648	428	DN25	66	422	DN32	73	593	DN40	99	13

<sup>1)</sup> Excl. cooling medium



The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

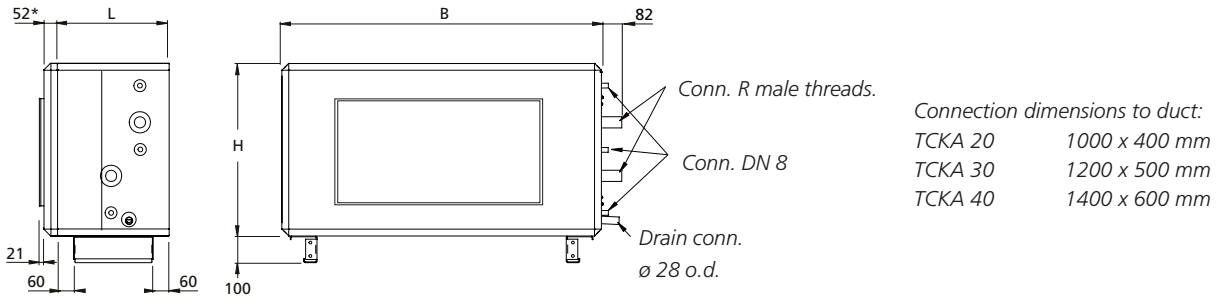
TCKC	B	H	L	Capacity variant 1			Capacity variant 2			End connection panel, if required kg
				d <sub>i</sub>	d <sub>u</sub>	kg <sup>2)</sup>	d <sub>i</sub>	d <sub>u</sub>	kg <sup>2)</sup>	
3-12	1199	648	428	5/8" <sup>1)</sup>	35 <sup>1)</sup>	66 <sup>1)</sup>	19 <sup>1)</sup>	42 <sup>1)</sup>	73 <sup>1)</sup>	13

<sup>1)</sup> If there are two sections: Depending on the division of sections

<sup>2)</sup> Excl. cooling medium

# Complements and Accessories

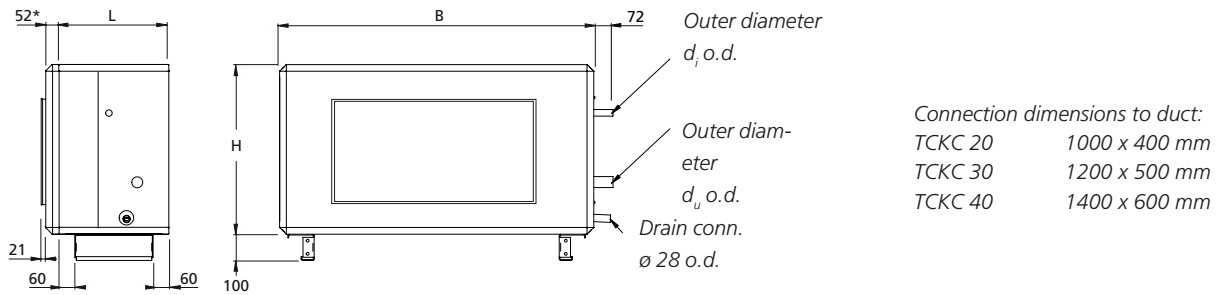
## Duct accessories, in insulated casing



The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCKA	B	H	Cap. variant 1			Cap. variant 2			Cap. variant 3			Cap. variant 4			End connection panel, if required kg
			L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	L	R	kg <sup>1)</sup>	
4-20	1400	776	468	DN32	85	468	DN32	94	593	DN40	114	593	DN50	123	19
4-30	1600	906	468	DN32	103	468	DN40	117	593	DN50	143	593	DN60	158	23
4-40	1990	1080	468	DN40	136	468	DN50	158	593	DN65	193	593	DN80	217	31

<sup>1)</sup> Excl. cooling medium



The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

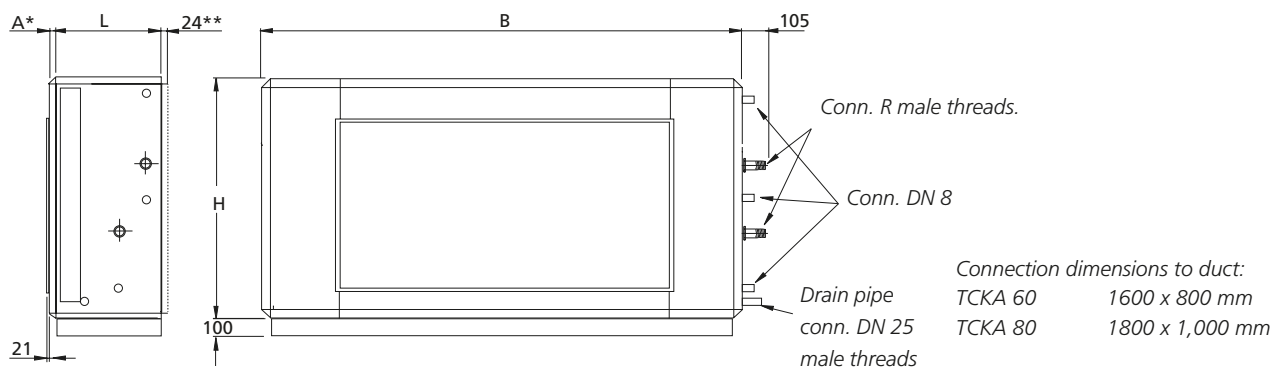
TCKC	B	H	L	Cap. variant 1			Cap. variant 2			End connection panel, if required kg
				d <sub>i</sub>	d <sub>u</sub>	kg <sup>2)</sup>	d <sub>i</sub>	d <sub>u</sub>	kg <sup>2)</sup>	
3-20	1400	776	468	22 <sup>1)</sup>	42 <sup>1)</sup>	30 <sup>1)</sup>	28 <sup>1)</sup>	54 <sup>1)</sup>	39 <sup>1)</sup>	19
3-30	1600	906	468	28 <sup>1)</sup>	54 <sup>1)</sup>	44 <sup>1)</sup>	28 <sup>1)</sup>	54 <sup>1)</sup>	56 <sup>1)</sup>	23
3-40	1990	1080	468	28 <sup>1)</sup>	54 <sup>1)</sup>	63 <sup>1)</sup>	28 <sup>1)</sup>	54 <sup>1)</sup>	83 <sup>1)</sup>	31

<sup>1)</sup> If there are two sections: Depending on the division of sections

<sup>2)</sup> Excl. cooling medium

# Complements and Accessories

## Duct accessories, in insulated casing

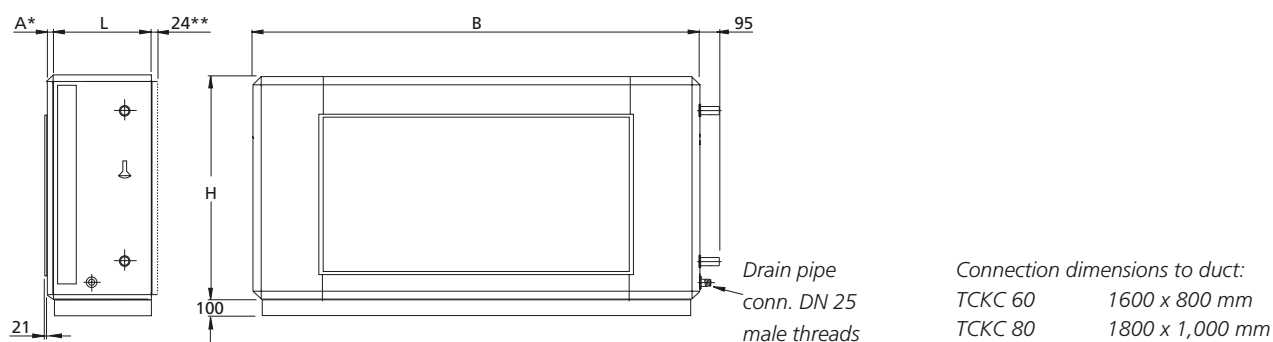


The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.  
 \*\* Size 60 only

TCKA	B	H	L	A	Capacity variant 1			Capacity variant 2			Capacity variant 3			Capacity variant 4			End connection panel, if required kg
					R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	
3-60	2318	1127	542	28	DN65	202	111	DN65	214	111	DN65	229	111	DN65	244	111	31
3-80	2637	1320	542	52	DN65	268	135	DN65	282	135	DN65	302	135	DN65	324	135	38

TCKA	B	H	L	A	Capacity variant 5			Capacity variant 6			End connection panel, if required kg
					R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	
3-60	2318	1127	542	28	DN65	229	111	DN65	245	111	31

<sup>1)</sup> Including casing, not charged with refrigerant.  
<sup>2)</sup> Casing only.



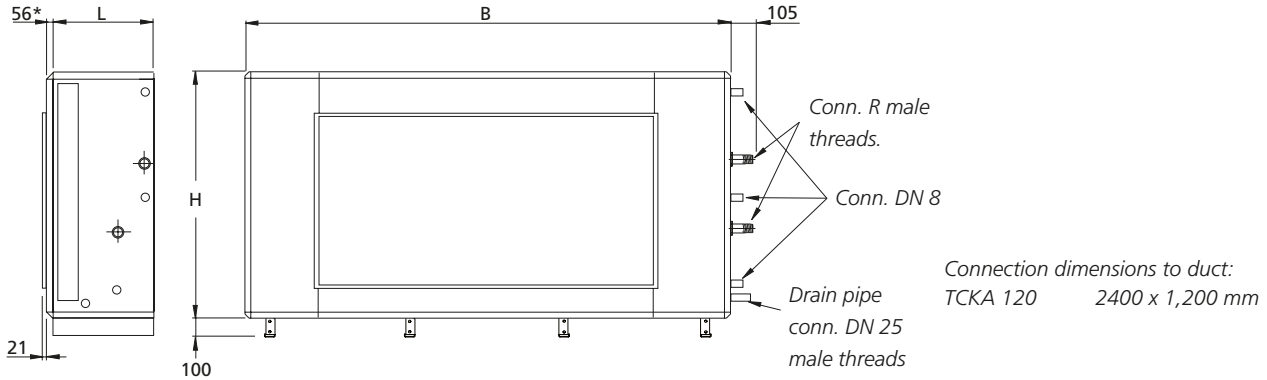
The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.  
 \*\* Size 60 only

TCKC	B	H	L	A	Capacity variant 1		Capacity variant 2		Capacity variant 3		End connection panel, if required kg
					kg <sup>1)</sup>	kg <sup>2)</sup>	kg <sup>1)</sup>	kg <sup>2)</sup>	kg <sup>1)</sup>	kg <sup>2)</sup>	
4-60	2318	1127	542	28	207-213	111	223-233	111	237-252	111	31
4-80	2637	1320	542	52	264-280	135	290-316	135	314-332	135	38

<sup>1)</sup> Including casing, not charged with refrigerant.  
<sup>2)</sup> Casing only.

# Complements and Accessories

## Duct accessories, in insulated casing



\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCKA	B	H	L	Capacity variant 1			Capacity variant 2			Capacity variant 3			Capacity variant 4			End connection panel, if required kg
				R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R <sup>3)</sup>	kg <sup>1)</sup>	kg <sup>2)</sup>	
3-120	3340	1620	720	DN65	417	260	DN80	464	260	DN80	516	260	DN100	571	260	59

<sup>1)</sup> Including casing, not charged with refrigerant.

<sup>2)</sup> Casing only.

<sup>3)</sup> The flange is included.

## Complements and accessories

### Duct accessories, in insulated casing

#### TCCC Air heater/air cooler (direct expansion)

TCCC air heaters/air coolers are used for heating and cooling the supply air in combination with a Celest+ chiller/heat pump and SMART Link DX control function. Evaporating cooling medium.

To be installed for horizontal airflow.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel, prepainted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

TCCC air heaters/air coolers are composed of copper tubes and profiled aluminium fins. The TCCC coils have headers and distributor tubes made of copper. The connections are designed for brazed joints.

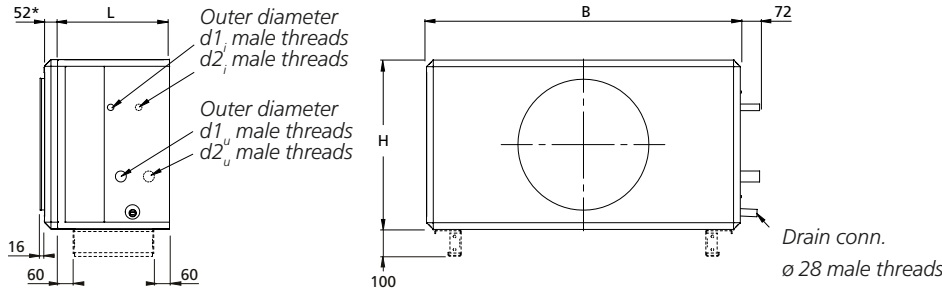
#### Installation

The air heater/air cooler should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed. Connecting the drainage pipework.



# Complements and accessories

## Duct accessories, in insulated casing



Connection dimensions to duct:  
 TCCC 05      ø 315  
 TCCC 08      ø 400

Base beams are optional.

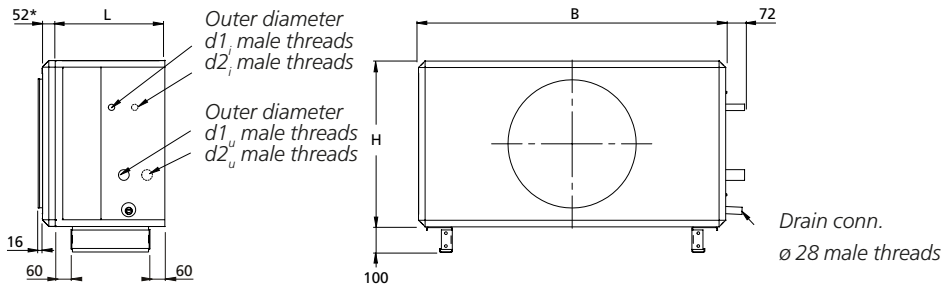
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCCC	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
1-05	825	460	428	34	7
1-08	995	542	428	39 - 42	10

Celest+ size	d <sub>i</sub>	d <sub>u</sub>
9	16	22
15	22	28

<sup>1)</sup> Excl. cooling agent

Connection diameter varies depending on combination of quality/sizes of Celest+ chillers/heat pumps.



Connection dimensions to duct:  
 TCCC 12      ø 500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCCC	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
1-12	1199	648	428	52 - 55	13

Celest+ size	d <sub>i</sub>	d <sub>u</sub>
9	16	22
15	22	28

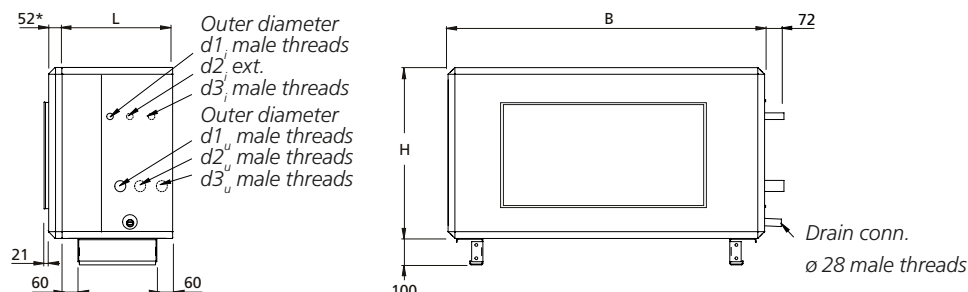
<sup>1)</sup> Excl. cooling agent

Connection diameter varies depending on combination of quality/sizes of Celest+ chillers/heat pumps.



# Complements and accessories

## Duct accessories, in insulated casing



Connection dimensions to duct:

TCCC 20	1000 x 400 mm
TCCC 30	1200 x 500 mm
TCCC 40	1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

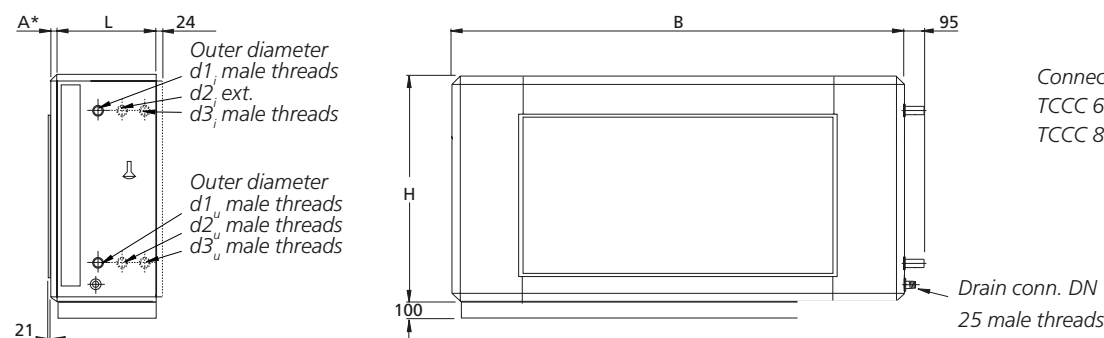
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCCC	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
1-20	1400	776	468	65 - 72	19
1-30	1600	906	468	76 - 86	23
1-40	1990	1080	468	96 - 108	31

Celest+ size	d <sub>i</sub>	d <sub>u</sub>
9	16	22
15	22	28
20	22	28
26	28	35
30	28	35

<sup>1)</sup> Excl. cooling agent

Connection diameter varies depending on combination of quality/sizes of Celest+ chillers/heat pumps.



Connection dimensions to duct:

TCCC 60	1600 x 800 mm
TCCC 80	1800 x 1000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCCC	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
1-60	2318	1127	542	126 - 151	31

Celest+ size	d <sub>i</sub>	d <sub>u</sub>
26	28	35
30	28	35

<sup>1)</sup> Excl. cooling agent

Connection diameter varies depending on combination of quality/sizes of Celest+ chillers/heat pumps.

## Complements and Accessories

### Duct accessories, in insulated casing

#### TCEK Coil section

##### Electric heating and water-borne cooling

The TCEK coil section is used for heating/cooling the supply air. The air heater runs on electric power and its type designation is TCLE. The cooling coil is a type TCKA air cooler for chilled water or a type TCKA air cooler for evaporative refrigerant. The type TCKA air coolers are equipped with connections for insertion sensors and can be used as a multi-purpose coil (cooling and heating).

To be installed for horizontal airflow.

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 (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental class C4.

The electric air heater is available in several capacity variants; the electrical equipment conforms to the provisions of Degree of Protection IP43.

The air cooler is composed 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 each size of GOLD unit.

#### Valve set

The TBVL valve set with 2(3)-way valve, valve actuator, freeze protection sensor (for readings only) and connection cable with quick-fit connector can be ordered for the air cooler for water. If you use a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion type or strap-on sensor.

#### Installation

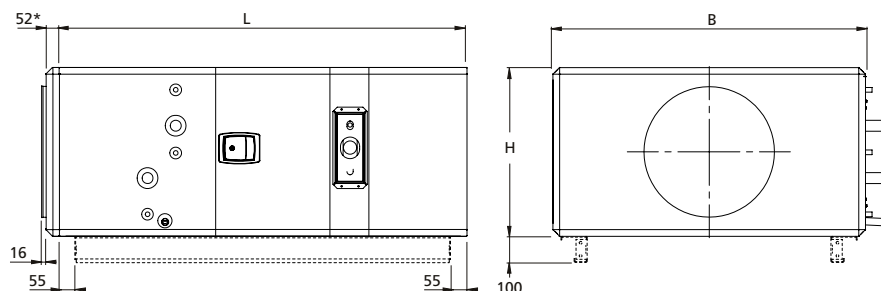
The coil section should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed.

Electrical connection. **Power must be supplied to the electric air heater directly from an electrical distribution box.**



# Complements and Accessories

## Duct accessories, in insulated casing



Connection dimensions to duct:  
 TCEK 05       $\varnothing$  315  
 TCEK 08       $\varnothing$  400

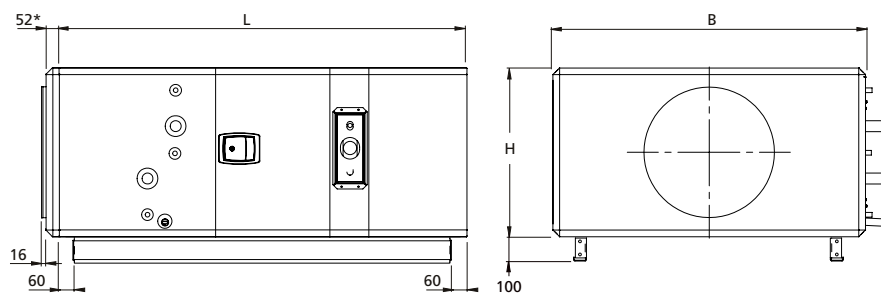
Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCEK	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
3-05	825	460	1409	103-117	7
3-08	995	542	1409	124-156	10

<sup>1)</sup> Not charged with refrigerant.

For particulars of the pipe dimensions, see the corresponding TCKA or TCKC.



Connection dimensions to duct:  
 TCEK 12       $\varnothing$  500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCEK	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
3-12 <sup>2)</sup>	1199	648	1420	169-207	13
3-12 <sup>2)</sup>	1199	648	1873	220-232	13
3-12 <sup>2)</sup>	1199	648	2038	252-266	13

<sup>1)</sup> Not charged with refrigerant.

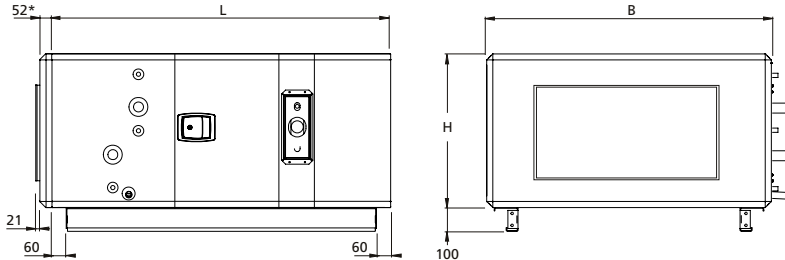
<sup>2)</sup> Dimension L = 2,038 mm is applicable to air heater capacity variants 20 - 36 kW in the version for 230 V and capacity variant 36 kW in the version for 400 V in combination with air cooler in capacity variant 4.

Dimension L = 1,873 mm is applicable to air heater capacity variants 20 - 36 kW in the version for 230 V and capacity variant 36 kW in the version for 400 V in combination with air cooler in capacity variant 1 or 2.

Dimension L = 1,420 mm is applicable to other combinations of capacity variants.

# Complements and Accessories

## Duct accessories, in insulated casing

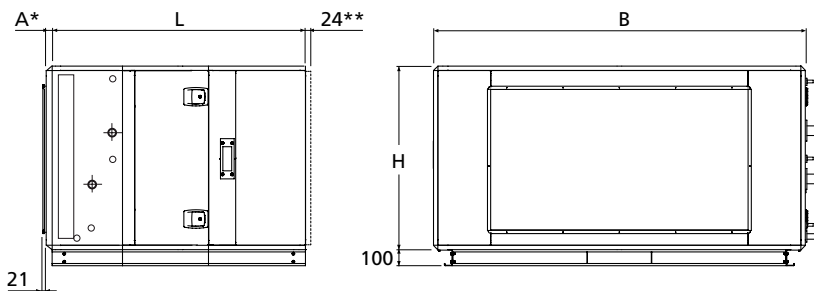


Connection dimensions to duct:  
 TCEK 20 1000 x 400 mm  
 TCEK 30 1200 x 500 mm  
 TCEK 40 1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCEK	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
3-20 <sup>2)</sup>	1400	776	1608	229 - 265	19
3-20 <sup>2)</sup>	1400	776	1733	258 - 317	19
3-30 <sup>3)</sup>	1600	906	1608	265 - 319	23
3-30 <sup>3)</sup>	1600	906	1733	289 - 365	23
3-40 <sup>4)</sup>	1990	1080	1608	334 - 423	31
3-40 <sup>4)</sup>	1990	1080	1733	371 - 473	31

<sup>1)</sup> Including casing, not charged with refrigerant.  
<sup>2)</sup> Dimension L = 1,733 mm is applicable to capacity variants 20-36 kW in the version for 230 V and capacity variants 27-47.5 kW in the version for 400 V. All the other capacity variants have dim. L = 1,608 mm.  
<sup>3)</sup> Dimension L = 1,733 mm is applicable to capacity variants 20-47.5 kW in the version for 230 V and capacity variants 34-69 kW in the version for 400 V. All the other capacity variants have dim. L = 1,608 mm.  
<sup>4)</sup> Dimension L = 1,733 mm is applicable to capacity variants 36-69 kW in the version for 230 V and capacity variant 69 kW in the version for 400 V. All the other capacity variants have dim. L = 1,608 mm.  
 For particulars of the pipe dimensions, see the corresponding TCKA or TCKC.



Connection dimensions to duct:  
 TCEK 60 1600 x 800 mm  
 TCEK 80 1800 x 1,000 mm

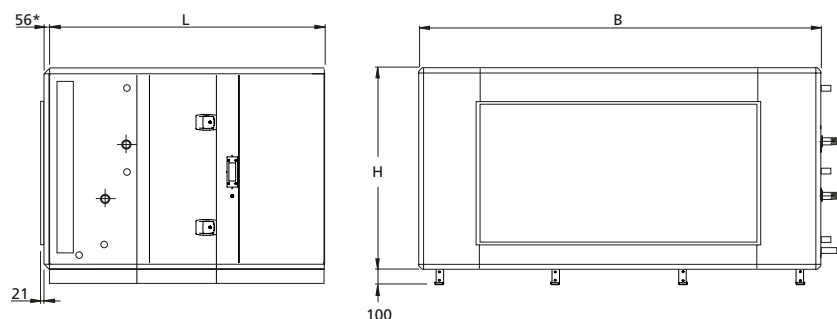
The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork. \*\* Size 60 only

TCEK	B	H	L	A	kg <sup>1)</sup>	kg <sup>2)</sup>	End connection panel, if required kg
4-60 <sup>3)</sup>	2318	1127	1688	28	365	515 - 620	31
4-60 <sup>3)</sup>	2318	1127	1848	28	387	593 - 674	31
4-80 <sup>4)</sup>	2637	1320	1700	52	416	619 - 727	38
4-80 <sup>4)</sup>	2637	1320	1843	52	439	767 - 836	38

<sup>1)</sup> Casing only.  
<sup>2)</sup> Including casing, not charged with refrigerant.  
<sup>3)</sup> Dimension L = 1,848 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 the other capacity variants have dim. L = 1,688 mm.  
<sup>4)</sup> Dimension L = 1,843 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 the other capacity variants have dim. L = 1,700 mm.  
 For particulars of the pipe dimensions, see the corresponding TCKA or TCKC.

# Complements and Accessories

## Duct accessories, in insulated casing



Connection dimensions to duct:  
TCEK 120 2400 x 1,200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCEK	B	H	L	kg <sup>1)</sup>	kg <sup>2)</sup>	End connection panel, if required kg
3-120	3340	1620	2290	789	1015-1230	59

<sup>1)</sup> Casing only.

<sup>2)</sup> Including casing, not charged with refrigerant.

For particulars of the pipe dimensions, see the corresponding TCKA or TCKC.

## Complements and Accessories

### Duct accessories, in insulated casing

#### Coil section TCLK

#### Waterborne heating and cooling

The TCLK coil section is used for heating/cooling the supply air. The air heater is for hot water and its type designation is TCLA. The air cooler is of type TCKA for chilled water or of type TCKC for evaporative refrigerant. The type TCKA air coolers are equipped with connections for insertion sensors and can be used as a multi-purpose coil (cooling and heating).

To be installed for horizontal airflow.

#### Technical data

Insulated casing. The outer skin is made of galvanized sheet steel painted in a beige colour tone (NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

The air heater is a finned-tube heat exchanger 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 air heater is available in three capacity variants. Capacity variant 1 provides the lowest capacity and capacity variant 3 provides the highest capacity.

The air heaters and air coolers are equipped with individual plugs for venting and drainage. A separate connection is provided for an anti-frost monitor sensor.

The air cooler is composed 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 each size of GOLD unit.

#### Valve set

The TBVL valve set with 2(3)-way valve, valve actuator, freeze protection sensor (for readings only when the unit is operating in the cooling mode) and connection cable with quick-fit connector can be ordered for the air heater and air cooler for water. If you use a valve of your own, you can instead select a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion type or strap-on sensor.



#### Extra accessories

A circulation pump is used for guaranteeing the frost guard function, if air heaters without anti-frost burst protection are used. Supplied with T coupling, non-return valve and adjustment valve. The automatic pump control system is integrated into the control equipment of the GOLD unit.

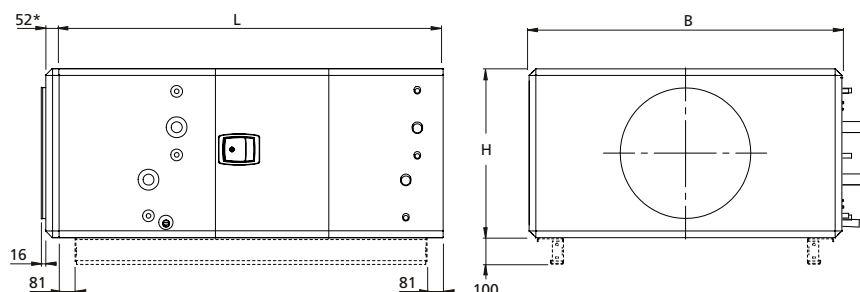
#### Installation

The coil section should be mounted directly against the air handling unit or insulated duct accessory. Provision for inspection and cleaning must be guaranteed.

Electrical connection.

# Complements and Accessories

## Duct accessories, in insulated casing



Connection dimensions to duct:

TCLK 05      ø 315

TCLK 08      ø 400

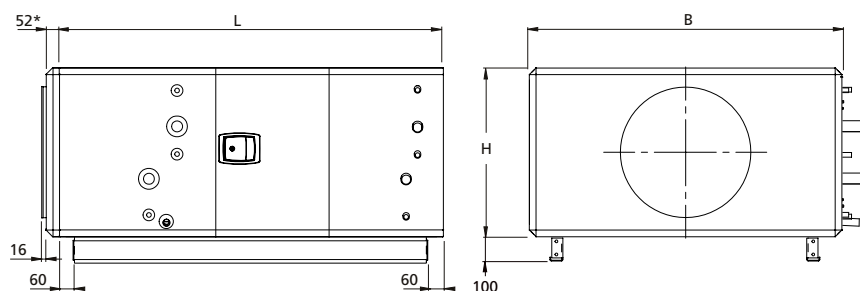
Base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLK	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
3-05	825	460	1098	77-82	7
3-08	995	542	1098	97-113	10

<sup>1)</sup> Not filled with water/not charged with refrigerant.

For particulars of the pipe dimensions, see the corresponding TCLA and TCKA or TCKC.



Connection dimensions to duct:

TCLK 12      ø 500

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

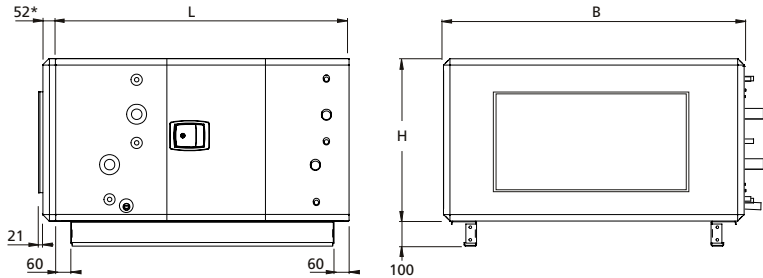
TCLK	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
3-12	1199	648	1148	137-162	13

<sup>1)</sup> Not filled with water/not charged with refrigerant.

For particulars of the pipe dimensions, see the corresponding TCLA and TCKA or TCKC.

# Complements and Accessories

## Duct accessories, in insulated casing

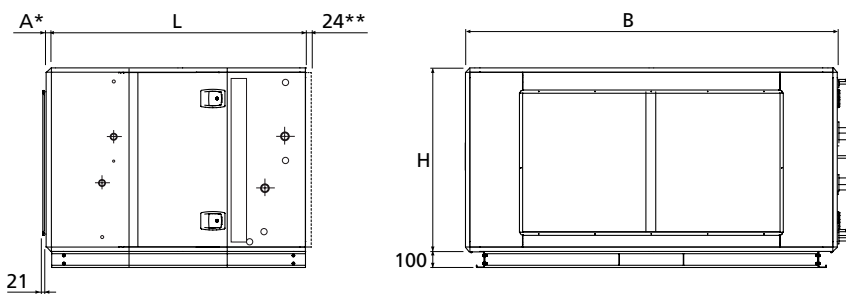


Connection dimensions to duct:  
 TCLK 20 1000 x 400 mm  
 TCLK 30 1200 x 500 mm  
 TCLK 40 1400 x 600 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLK	B	H	L	kg <sup>1)</sup>	End connection panel, if required kg
4-20 <sup>2)</sup>	1400	776	1330	182 - 196	19
4-20 <sup>2)</sup>	1400	776	1455	213 - 234	19
4-30 <sup>3)</sup>	1600	906	1330	218 - 249	23
4-30 <sup>3)</sup>	1600	906	1455	260 - 292	23
4-40 <sup>4)</sup>	1990	1080	1330	279 - 329	31
4-40 <sup>4)</sup>	1990	1080	1455	341 - 391	31

- <sup>1)</sup> Including casing, not filled with water/not charged with refrigerant.
  - <sup>2)</sup> Dimension L = 1,455 mm applies to air heaters in the capacity variants 1-3 in combination with air coolers in the capacity variants 3-4. For the others, L = 1,330 mm.
  - <sup>3)</sup> Dimension L = 1,455 mm applies to air heaters in the capacity variants 1-3 in combination with air coolers in the capacity variants 3-4. For the others, L = 1,330 mm.
  - <sup>4)</sup> Dimension L = 1,455 mm applies to air heaters in the capacity variants 1-3 in combination with air coolers in the capacity variants 3-4. For the others, L = 1,330 mm.
- For particulars of the pipe dimensions, see the corresponding TCLA and TCKA or TCKC.



Connection dimensions to duct:  
 TCLK 60 1600 x 800 mm  
 TCLK 80 1800 x 1,000 mm

The base frame is always supplied in assembled condition. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.  
 \* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.  
 \*\* Size 60 only

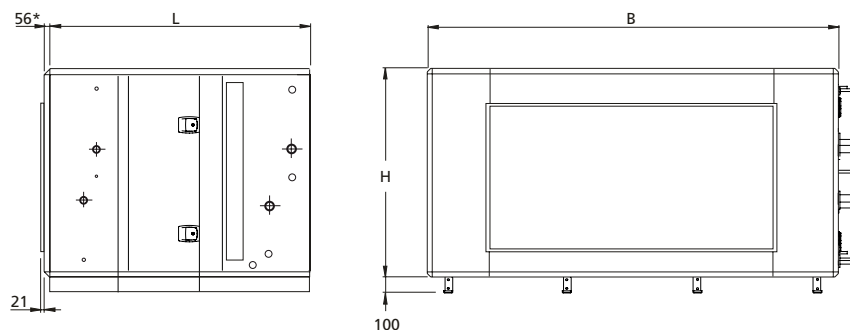
TCLK	B	H	L	A	kg <sup>1)</sup>	kg <sup>2)</sup>	End connection panel, if required kg
4-60	2318	1127	1626	28	353	485 - 584	31
4-80	2637	1320	1626	52	401	556 - 699	38

- <sup>1)</sup> Casing only.
  - <sup>2)</sup> Including casing, not filled with water/not charged with refrigerant.
- For particulars of the pipe dimensions, see the corresponding TCLA and TCKA or TCKC.



# Complements and Accessories

## Duct accessories



Connection dimensions to duct:  
 TCLK 120 2400 x 1,200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLK	B	H	L	kg <sup>1)</sup>	kg <sup>2)</sup>	End connection panel, if required kg
3-120	3340	1620	1940	722	962-1206	59

<sup>1)</sup> Casing only.

<sup>2)</sup> Including casing, not filled with water/not charged with refrigerant.

For particulars of the pipe dimensions, see the corresponding TCLA and TCKA or TCKC.

# Complements and Accessories

## Duct accessories, in insulated casing

### Final filter section, TCFB

The TCFB final filter section should be installed in ventilation systems where further filtration of the supply air is required.

Install the final filter section in the supply air downstream of the air handling unit.

Prefitted pressure sensor is standard. The alarm limit and current filter pressure can be read on the hand-held micro terminal of the GOLD unit.

To be installed for horizontal airflow.

#### Technical data

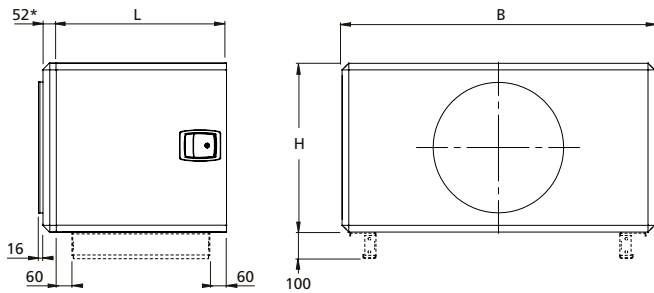
Insulated casing. The outer skin is made of galvanized sheet steel, prepainted in a beige colour tone(NCS S2005-Y30R). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4. Bag filters to filter class F7 or F9 can be selected.



#### Installation

The final filter section should be mounted directly against the air handling unit or an insulated duct accessory. Connect the pressure sensor.

Provision for inspection and cleaning must be guaranteed.

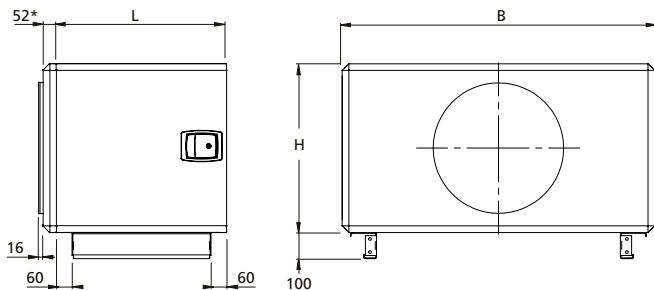


Connection dimensions to duct:  
 TCFB 05       $\varnothing$  315  
 TCFB 08       $\varnothing$  400

The base beams are optional.

\* If several duct accessories are arranged in succession, the end connection panel is supplied on the duct accessory farthest out facing the ductwork only.

TCFB	B	H	L	kg	End connection panel, if required	
					kg	
1-05	825	460	723	51	7	
1-08	995	542	723	59	10	



Connection dimensions to duct:  
 TCFB 12       $\varnothing$  500

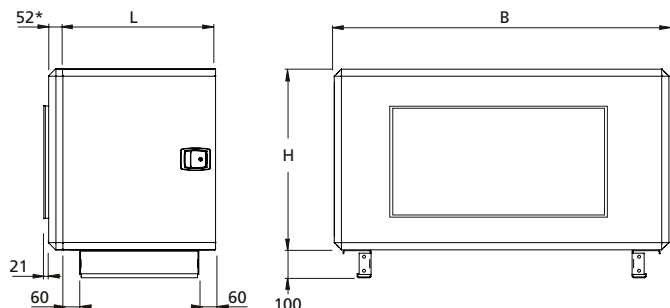
The base beams are always supplied mounted. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied on the duct accessory farthest out facing the ductwork only.

TCFB	B	H	L	kg	End connection panel, if required	
					kg	
1-12	1199	648	723	72	13	

# Complements and Accessories

## Duct accessories, in insulated casing

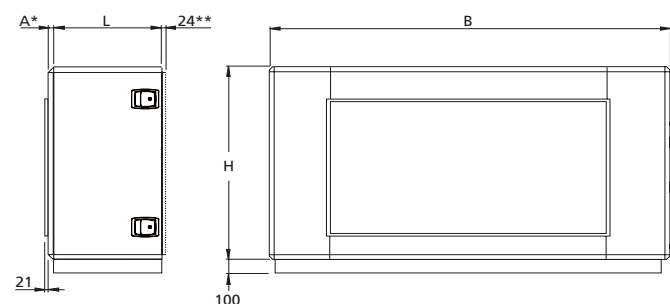


Connection dimensions to duct:  
 TCFB 20 1000 x 400 mm  
 TCFB 30 1200 x 500 mm  
 TCFB 40 1400 x 600 mm

The base beams are always supplied mounted. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied on the duct accessory farthest out facing the ductwork only.

TCFB	B	H	L	kg	End connection panel, if required kg
1-20	1400	776	723	88	19
1-30	1600	906	723	109	23
1-40	1990	1080	723	136	31



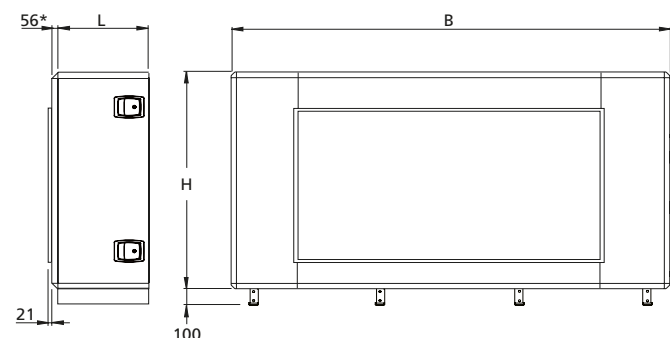
Connection dimensions to duct:  
 TCFB 60 1600 x 800 mm  
 TCFB 80 1800 x 1000 mm

The base beams are always supplied mounted. If the duct accessory is fitted to the upper ductwork, above the duct accessory fitted to the lower ductwork, remove the base beams to the extent necessary, at the building site.

\* If several duct accessories are arranged in succession, the end connection panel is supplied on the duct accessory farthest out facing the ductwork only.

\*\* Size 60 only

TCFB	B	H	L	A	kg	End connection panel, if required kg
1-60	2318	1127	764	28	193	31
1-80	2637	1320	760	52	222	38



Connection dimensions to duct:  
 TCFB 120 2400 x 1200 mm

\* If several duct accessories are arranged in succession, the end connection panel is supplied on the duct accessory farthest out facing the ductwork only.

TCFB	B	H	L	kg	End connection panel, if required kg
1-120	3340	1620	720	343	59

# 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 frame structure consists of 38 mm galvanized (Sendzimir) square profiled sections, painted in RAL 7032. The profiled sections are held together by corner pieces made of plastic.

The outer and inner skins of the cover panels and inspection doors consist of galvanized sheet steel. An intervening 45 mm thick slab of thermal and sound-attenuating insulation is sandwiched between the skins.

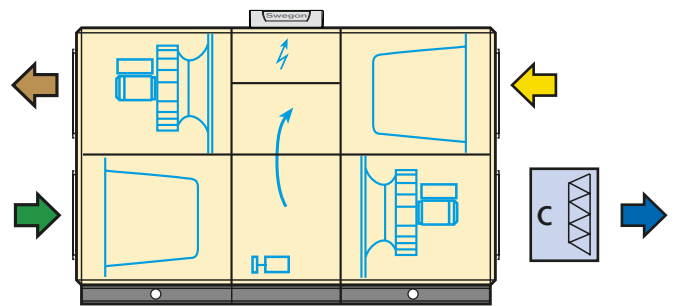
The cover panels can be dismantled from the unit.

The inspection doors have hinges and handles.

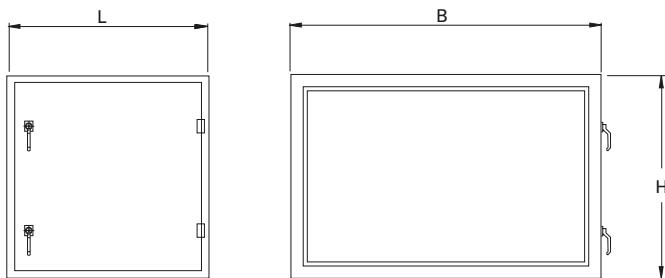
After fabrication the panels and inspection doors are given powder painted, min. 60 µm finish, RAL 7032. This leaves no open sectional areas and provides excellent corrosion resistance.

### 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. width x height	B	H	L	kg without cartridges	Number of cartridges	kg with cartridges
017	850 x 350	1039	546	763	75	17	113
024	1100 x 500	1259	656	763	89	24	143
036	1300 x 600	1459	756	763	104	36	185
050	1600 x 700	1759	906	763	120	50	233
072	1800 x 800	1946	1026	763	144	72	307
098	2100 x 1000	2306	1206	763	172	98	393

# 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

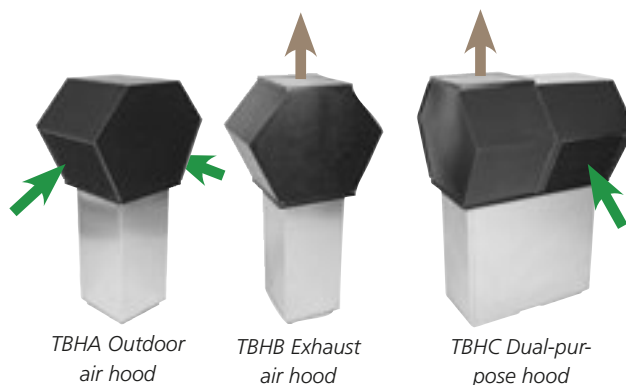
Designed for the intake of outdoor air. The design of the hood obstructs snow and raindrop entrainment. The hood is hinged and has air intake wire screens on both sides. For GOLD sizes 04-40.

### TBHB Exhaust air hood

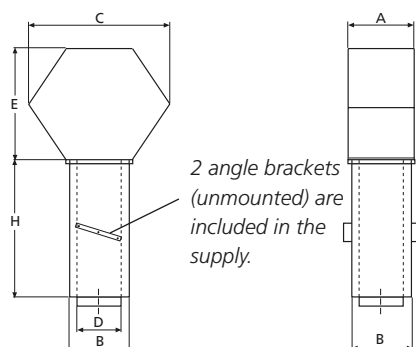
Designed for the discharge of exhaust air. The hood can be opened on hinges and is equipped with air deflectors that effectively direct the exhaust air upward and give the air high discharge velocity. To achieve low pressure drop, the air deflectors are rounded off on both their long sides. The hoods 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 - 12 GOLD units only.

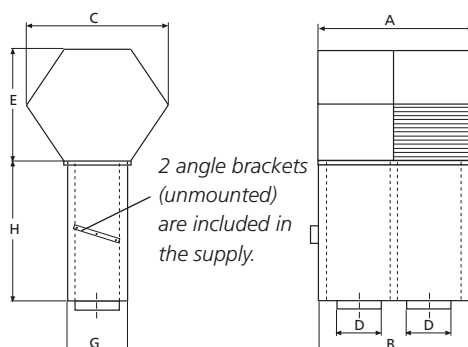


### TBHA Outdoor air hood and TBHB Exhaust air hood



For GOLD	A	B	C	D	E	H	kg
04/05	500	400	850	Ø315	620	800	31
07/08	600	500	950	Ø400	620	800	44
11/12	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



For GOLD	A	B	C	D	E	H	G	kg
04/05	1000	900	850	Ø315	620	800	400	70
07/08	1200	1100	950	Ø400	620	800	500	100
11/12	1600	1500	1300	Ø500	850	1200	700	290

# Complements and Accessories

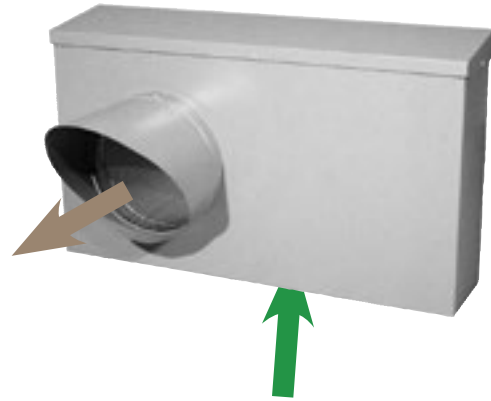
## Roof hoods and exterior wall hoods

### TBHE Exterior wall hood

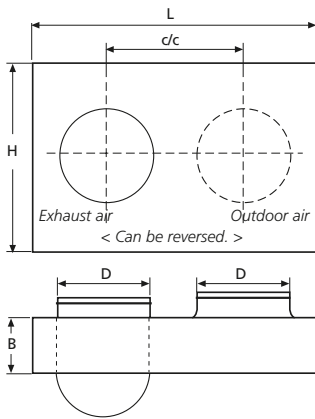
The exterior wall hood is designed for the admission of outdoor air and the discharge of exhaust air. The exhaust air is horizontally discharged through a circular wire mesh grille at the front of the hood. Outdoor air is admitted through a wire mesh grille at the bottom of the hood.

This design effectively prevents short-circuit flow between the outdoor air/exhaust air. For GOLD sizes 04 - 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
07/08	250	500	Ø400	580	1150	15
11/12	300	600	Ø500	750	1350	20

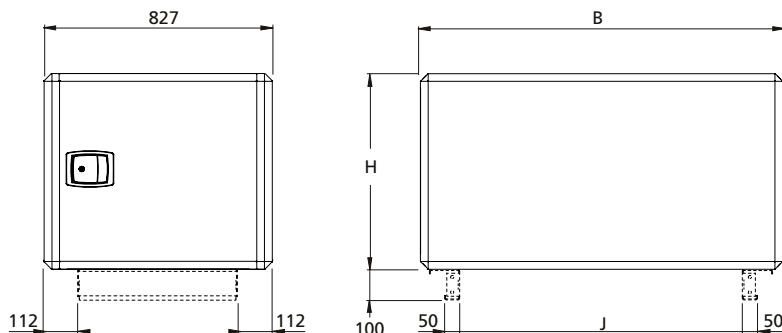
### TCWP Component box

The TCWP component box is intended for the incorporation of components which must be protected from weather or mechanical damage. Typical components are valves, actuators, etc.

The component box consists of a GOLD-type casing. The component box is enclosed on all sides and has an inspection door that can be selected as a right or left-hinged door.

A roof is available as an accessory for outdoor installation.

The cutting of openings for e.g. pipes and electric cables, if required, must be done at the building site.



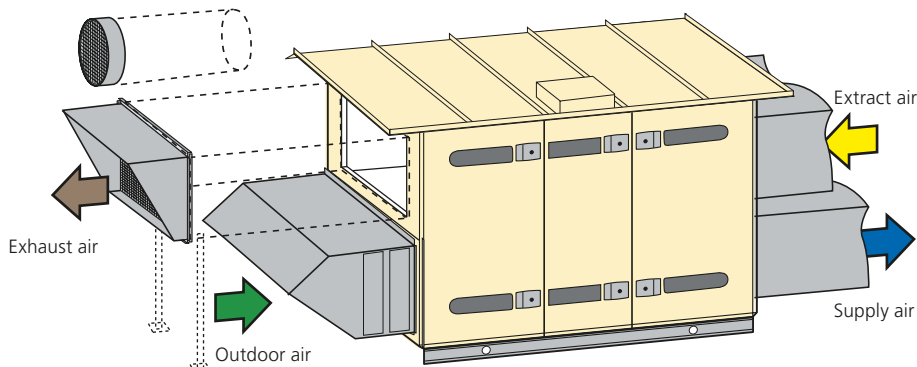
Size	B	H	J	kg
05	825	460	561	54
12	1199	648	935	88
30	1600	906	1336	128
40	1990	1080	1726	160

The base beams are optional extras for the size 05 (Standard on the other sizes).

## 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

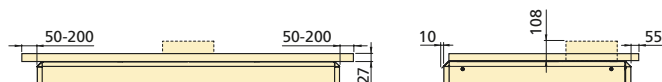
The GOLD air handling units, including TCBR air recirculation section and COOL DX/DXS cooling unit accessories, can be installed outdoors. This presupposes that the roof, air intake section and exhaust air hood accessories are used. GOLD air handling units cannot be installed outdoors in applications 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 shade of beige (NCS S2005-Y30R).

### Dimensions



### TBTF Intake air section with pre-filter (sizes 04-40)

The TBTF intake air section is made of aluminium-zinc plated sheet steel. The intake air section has a fixed grille and has a hole for drainage. The intake air section has rectangular dimensions and the air handling unit is supplied without the end connection for intake air (so-called full face). The intake air section has a flange with predrilled holes and is meant to be secured by means of screws to the air handling unit. Orders can be placed for filter and damper installed in the air intake section. The filter is of class G2 compact type and serves also as a moisture trap. Damper actuator can be ordered with spring return or with modulating function.

### TBTA Intake air section (sizes 50-120)

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 a protective screen. For air handling units with standard end connection frame, the exhaust air hoods are circular for unit sizes 04–12 and rectangular with slip-clamp connection for the other unit sizes (slip clamps are included). For air handling units with full face connection frames, the exhaust air hoods are always rectangular with slip-clamp connection (slip clamps are included). The exhaust air hood of the size 50-120 GOLD units is supplied in loose parts, the other components are assembled.

### GOLD CX Cover hood

Cover hood that protects the pipework package on the GOLD CX installed outdoors (does not apply to sizes 100/120). Visible parts are made of sheet steel painted in a beige colour tone, NCS S2005-Y 30R.

### Duct Accessories

Select duct accessories housed in insulated casings if they are to be installed outdoors. They can be located outdoors, however the enclosure classes and permissible ambient temperatures of any actuators included must be taken into consideration. See the instructions for the corresponding accessory. If necessary, see to it that required protection is arranged. Water-tight protective bags for valve actuators are available as accessories. The protective bag has a zip fastener and is made of polyester with internal plastic coating.

### 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. If internally insulated ducts are used, the TBLZ-1-65 countersink kit should be used so that the measurement probe of the GOLD unit's supply air sensor will reach sufficiently far into the duct.

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 07/08

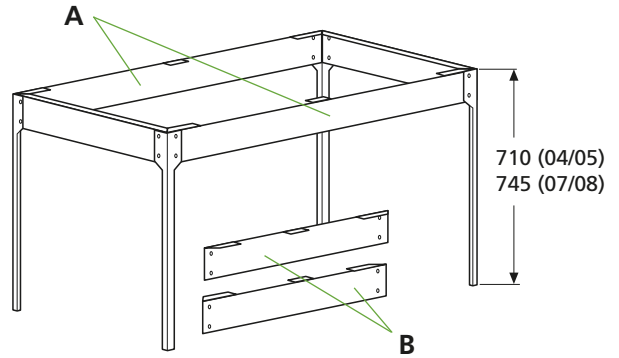
#### Stand

*GOLD RX, rotary heat exchanger*

*GOLD SD, Supply air and extract air handling units*

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.



Stand for the GOLD RX/SD, Sizes 04/05 and 07/08.

#### Set of support legs

*GOLD PX (plate heat exchanger)*

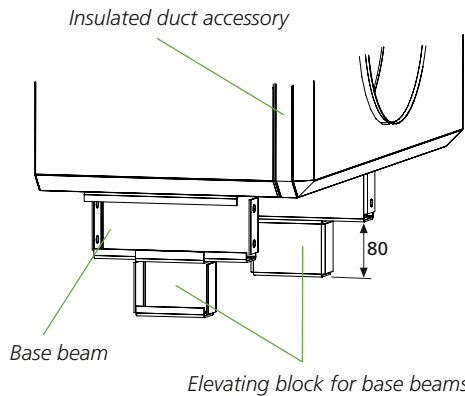
Specially designed set of legs, the height (745 mm, all sizes) of which makes it possible to arrange ducts under the air handling unit.

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.

#### Elevating block for base beams

*GOLD PX, plate heat exchanger*

The base beams of the GOLD PX air handling units, sizes 04-08, are 180 mm high and the base beams of the insulated duct accessories are 100 mm high. An elevating block for base beams (80 mm) must be fitted to elevate the insulated duct accessory and align it with the air handling unit.



Elevating block for base beams

#### Base frame, (base beams) for the COOL DX 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 CX/SD sizes 14/20, 25/30, 35/40, 50/60, 70/80, 100/120

#### 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 eliminator is low. On delivery, the droplet eliminator is mounted.



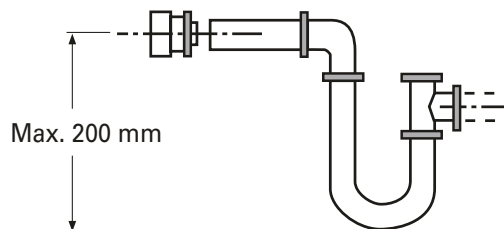
# Complements and Accessories

## Mechanical equipment

### GOLD - all sizes

#### Water trap

Water trap for drainage of the plate heat exchanger, coil heat exchanger and COOL DX 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 gully.



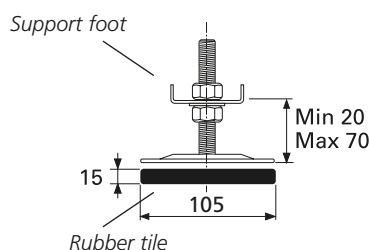
#### Support foot

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 04/05, 07/08, 11/12, 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.

For GOLD Sizes 100/120 *at least* 24 support feet are recommended.



#### Rubber tile

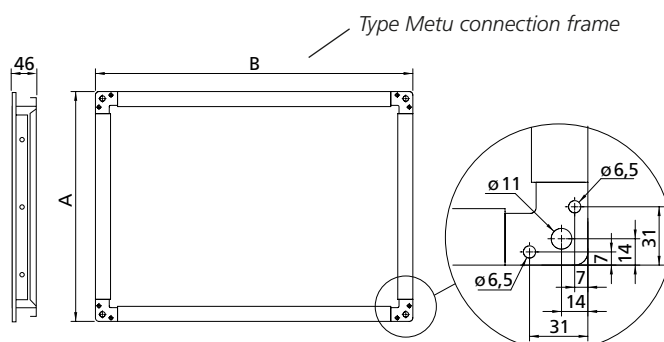
Designed to be glued under the support foot.

#### 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.



For GOLD	A	B	kg
14/20	458	1058	5
25/30	558	1258	5,5
35/40	658	1458	6,5
50/60	858	1658	8
70/80	1058	1858	9
100/120	1258	2458	12

# Complements and accessories

## Mechanical equipment

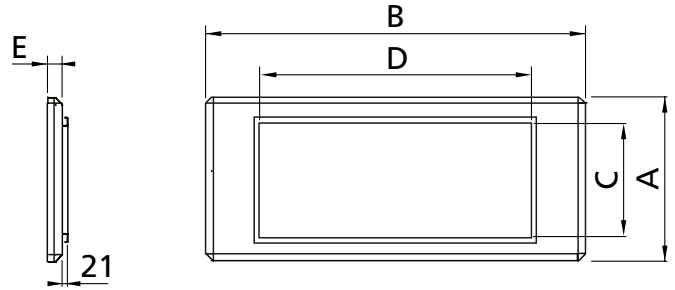
### GOLD, all sizes

#### End connection panel, GOLD/COOL DX full face

End connection panel for transition between GOLD or COOL DX in full face version and uninsulated duct accessories or duct. Version as standard GOLD end connection panel, insulated and prepainted in a beige colour tone (NCS S2005-Y30R).

Duct accessory with duct connection size corresponding to that of the end connection panel's duct connection size can be ordered (does not apply to sizes 100/120). See section on Uninsulated duct accessories.

The end connection panels are supplied mounted on GOLD units and unmounted on the COOL DX units.



C x D correspond to the connection dimensions of the duct

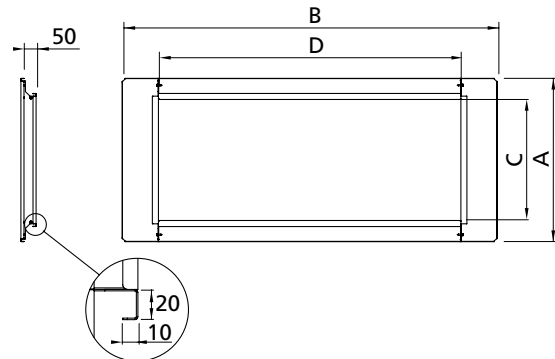
For GOLD RX/PX/ CX, COOL DX	A	B	C	D	E	kg
04/05	460	825	300	600	52	7
07/08	542	995	400	800	52	10
11/12	647	1199	400	1000	52	13
14/20 fan	775	1400	500	1200	52	19
14/20 filter	620	1400	500	1200	52	15
25/30 fan	905	1600	600	1400	52	23
25/30 filter	690	1600	600	1400	52	17
35/40 fan	1080	1990	800	1600	52	31
35/40 filter	905	1990	800	1600	52	26
50/60	1126	2318	1000	1800	52	31
70/80	1320	2637	1200	2400	52	38
100/120	1620	3340	1500	3100	56	59

For GOLD SD	A	B	C	D	E	kg
04/05	490	825	300	600	52	7
07/08	575	995	400	800	52	10
11/12	648	1199	400	1000	52	13
14/20	806	1400	500	1200	52	20
25/30	1026	1600	600	1400	52	25
35/40	1126	1990	800	1600	52	33
50/60	1320	2318	1000	1800	52	31
70/80	1320	2637	1200	2400	52	38
100/120	1620	3340	1500	3100	56	59

#### Adapter, full face connection size to standard connection size

Uninsulated adapter for GOLD/duct accessories with full face connection size for uninsulated electric air heater having standard connection size. Can be used for the GOLD units in sizes 14-120 and can be mounted on the inlet and/or outlet of the air heater. Electric air heaters that fit directly without adapter are available for the size 04-12 GOLD units with full face connection size.

Used for achieving higher air velocity across electric air heaters.



For GOLD	A	B	C	D	kg
14/20	540	1240	400	1000	4
25/30	640	1440	500	1200	5
35/40	840	1640	600	1400	7
50/60	1040	1840	800	1600	8
70/80	1240	2440	1000	1800	14
100/120	1540	3140	1200	2400	20

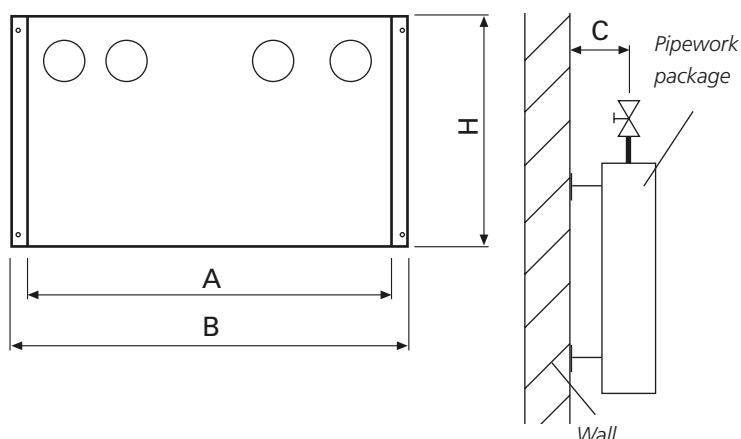
## Complements and Accessories

### TBXZ Pipework Package

The pipework package is used for the GOLD SD with coil heat exchanger and the size 100/120 GOLD CX units. 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 approx. 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 shunt, pump and expansion vessel at an appropriate place. Pipe route with insulated pipes to the air handling unit and between shunt, pump and expansion vessel. Electrical connection. Filling water mixed with glycol.



GOLD/SILVER C Sizes	TBXZ-42 Size	A	B	H	C
11/12	12	601	669	415	130
14/20	20	601	669	415	130
25/30	30	772	839	530	128
35/40	40	772	839	530	128
50/60	60	772	839	530	128
70/80	80	772	839	530	128
100/120	120	937	1003	640	141

## Communication

### Communication unit, TBLZ

Communication via TCP/IP, EIA 485 and EIA 232 as well as via internal web server is standard in the GOLD. The TBLZ extra communication unit is required for communication via LON FTT-10 - Lon Works. 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 its programming. The GOLD unit in itself provides potential for comprehensive 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.

### VOC sensor

For use in connection with Wise Apartment or demand control of the GOLD. To be mounted inside an air duct.

Wiring is to be done on the control circuit card's communication bus.

### 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 – 10 metres.

### Extract air duct, temperature sensor

This can be used in conjunction with the evaporative cooling and Xzone extract air regulation functions, for example. The sensor is supplied with a 7 metre long cable.

### 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 long for air heater, water and electric 8 m long for hand-held micro terminal, supply air temperature sensor, pressure sensor and IQlogic+.

### Extension kit for pressure sensor or external temperature sensor

For lengthening the cable, 6 - 50 m.

### IQnavigator hand-held

#### micro terminal with WLAN

IQnavigator hand-held micro terminal with WLAN for wireless connection to the IQlogic control card. Net adapter for hand-held micro terminal

### 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 smoke detector stops the air handling unit and controls the damper actuators to close the dampers. An alarm is presented in the hand-held micro terminal of the GOLD air handling unit.

### SD 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.

### IQlogic+

The IQlogic+ 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, IQlogic+

Temperature sensor, for the IQlogic+ module

# Complements and Accessories

## Electrical and Control Equipment

### Humidity sensor, IQlogic+

Temperature sensor, for the IQlogic+ module for dehumidification and dew point control.

### IQlogic+ enclosure

Enclosure for the IQlogic+ module. Equipped with DIN rail. IP65. Space for 2 IQlogic+ medium-size modules. Outer dimensions: 266 x 200 x 105 mm.

### Xzone Control box

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

### ReCO<sub>2</sub>

Complete set of components for controlling the function for mixing. The pressure sensor and the IQlogic+ 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 IQlogic+ 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.

