







# **Contents**

Unit section	204
Air recirculation section, TCBRS	
Solutions for fire bypass	205
Smoke extraction adapter	207
Duct crossover section	208
Multi section	209
Duct accessories	211
Uninsulated	
In insulated casing	231
Roof and wall hoods	259
Component box	260
Outdoor installation	261
	262
Mechanical equipment	262



## **Unit sections**

#### TCBR Air recirculation section

The air recirculation section is an extra unit section that has damper in the intermediate level.

The air recirculation section is available for the size 011 and larger SILVER C RX, PX and CX units. The air recirculation section is also available for SILVER C RX/PX size 004-008 in split version.

#### **Included in the delivery:**

Air recirculation section with mounted dampers (24 V damper actuators are available as an accessories).

#### **Delivery version:**

Sizes 004-080: The air recirculation section is fitted to at least one of the other unit sections, see the section entitled: Air Handling Unit/Delivery Configuration RX/PX/CX, sizes 004-080.

Size 120: The air recirculation section is supplied as an individual item in two sections.

#### Work to be carried out at the building site:

Sizes 004-080: Fitting together/splitting of unit sections to the extent required.

Size 120: Assembly of the air recirculation section to become one unit. The air recirculation section is then fitted together with the other unit sections.

#### **Operation:**

Recirculation, on/off: Can be used when it is desirable to heat an unoccupied room with recirculated air; an economic solution for e.g. factory buildings, shopping centres, etc.

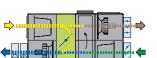
Recirculation, modulating: Can be used for the demand-controlled and economical operation of fans, heating and cooling, especially in buildings in which the load conditions vary.



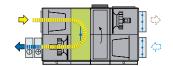




Normal operation.



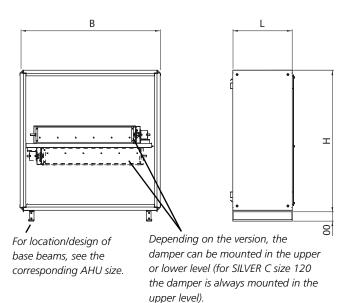
Recirculation, modulating.
Supply air fan runs at higher
speed, outdoor air damper and air
recirculation section open whenever required.



Recirculation, on/off.

Extract air fan stopped, outdoor air and exhaust air dampers fully closed, damper in the air recirculation section fully open.







## **Unit sections**

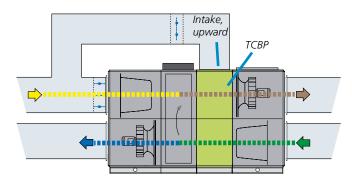
## **Solutions for fire bypass**

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 manage operation for one hour at 70°C.

The air bypass section is available for SILVER C RX/PX size 011-080. The air bypass section is also available for SILVER C RX/PX sizes 004-008 and SILVER C SD extract air handling unit sizes 004-012 in split version.



## SILVER CRX, sizes 004-080



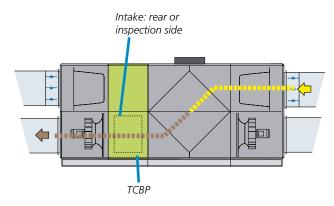
Solution for fire bypass (upward) for SILVER C PX 004-080.

#### Necessary components required (apart from SILVER C units):

The TCBP air bypass section is supplied fitted together with at least one of the other unit sections, see the section entitled: Description of the Air Handling Unit/Delivery Configuration RX/PX/CX, sizes 004-080. The required splitting/fitting together of unit sections is performed 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.

## SILVER C PX, sizes 004-040



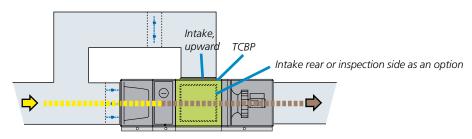
Solution for fire bypass (rear, inspection side or upward) for SILVER C PX 004-040.

#### Necessary components required (apart from SILVER C units):

The TCBP air bypass section is fitted together with at least one of the other unit sections, see the section entitled: Description of the Air Handling Unit/Delivery Configuration RX/PX/CX, sizes 004-080. Required splitting/fitting together of unit sections is performed 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.

#### SILVER C SD extract air handling unit, sizes 004-012



Solution for fire bypass (upwards, back or inspection side) for SILVER C SD 004-012 extract air handling unit in split version.

## Necessary components required (apart from SILVER C units):

Air bypass section, TCBP.

The air handling unit can be supplied as one single unit or in an optional division of sections.

Required splitting/fitting together of unit sections is performed 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.

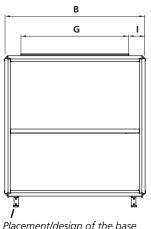
Outdoor air Supply air Extract air Exhaust air

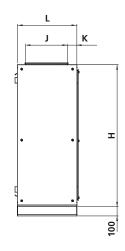


 $\Rightarrow$ 

# **Unit sections**

## Air bypass section, TCBP, intake upward

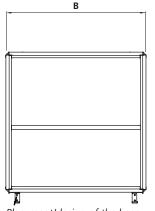


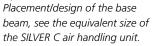


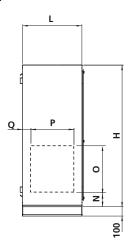
For SILVER C	В	Н	L	G	I	J	K	kg
004/005	825	920	400	500	140	300	30	42
007/008	995	1085	400	650	150	300	30	49
011/012	1199	1295	565	1000	100	400	82.5	87
014/020	1400	1551	565	1000	200	400	82.5	103
025/030	1600	1811	565	1200	200	400	82.5	112
035/040	1990	2159	565	1400	295	400	82.5	123
050/060	2318	2288	565	1600	359	400	82,5	168
070/080	2637	2640	565	1800	418,5	400	82,5	246

Placement/design of the base beam, see the equivalent size of the SILVER C air handling unit.

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

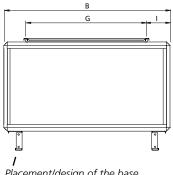




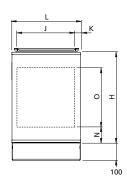


For SILVER C	В	Н	L	N	0	Р	Q	kg
004/005	825	920	400	77	300	300	30	47
007/008	995	1085	400	130	300	300	30	56
011/012	1199	1295	565	110	500	400	82.5	70
014/020	1400	1551	565	110	500	400	82.5	85
025/030	1600	1811	565	100	600	400	82.5	96
035/040	1990	2159	565	110	800	400	82.5	123

## Air bypass section TCBP, intake: upward, rear or inspection side (SILVER C SD)



I Placement/design of the base beam, see the equivalent size of the SILVER C air handling unit.



For SILVER C	В	Н	L	G	I	J	K	N	0	kg
004/005	825	460	400	500	162.5	300	50	80	300	25-26
007/008	995	542.5	400	650	173	300	50	121	300	30-32
011/012	1199	647.5	565	1000	99.5	400	82.5	74	500	43-45



## **Unit sections**

## **Smoke extraction adapter**

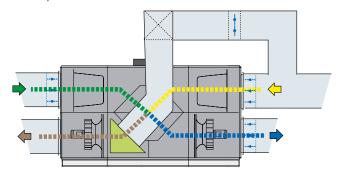
The air bypass section is used when you want the extract air to bypass the heat exchanger and filter, e.g. as a component in a system for smoke extraction. See the example for respective variants/sizes.

The fans of the air handling unit are tested for, and can manage operation for one hour at 70°C.

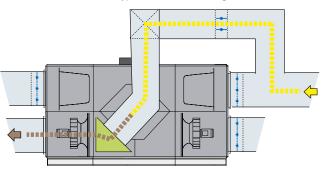
The smoke extraction adapter is designed for use with SILVER C PX, size 004-040.

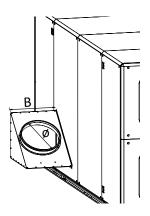
## **Example**

Normal operation.



The extract air is routed to bypass the heat exchanger and filter





For SILVER C	В	Ø
004/005	320	250
007/008	385	315
011/012	477	400
014/020	477	400
025/030	577	500
035/040	700	630



## **Unit sections**

## TCRS duct crossover section

The duct crossover section for SILVER C PX units is designed for use when you need to have the extract air fan 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.

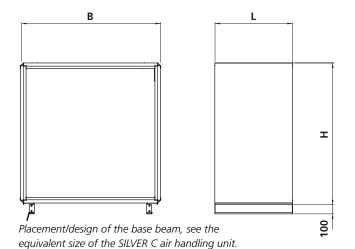
The duct crossover section is available for SILVER C PX size 011-040. The duct crossover section is also available for SILVER C PX size 004-008 in split version.

#### **Delivery version:**

The duct crossover section is fitted to at least one of the other unit sections, see the section entitled: Description of the Air Handling Unit/Delivery Configuration RX/PX/CX, sizes 004-080.

## Work to be carried out at the building site:

Fitting together/splitting of unit sections to the extent required.





Fire bypass, if required

TCRS duct crossover section

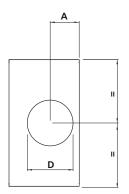
Outdoor air	Supply air	Extract air	Exhaust air
<b>⇒</b>	$\Rightarrow$	$\Rightarrow$	$\Rightarrow$

For SILVER C	В	Н	L	kg
004/005	825	920	565	66
007/008	995	1085	625	84
011/012	1199	1295	750	120
014/020	1400	1551	750	146
025/030	1600	1811	750	169
035/040	1990	2159	750	248

## Duct connection dimensions for fire bypass, if required

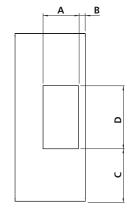
The illustration shows the Duct crossover section viewed from above.

#### **TCRS 005, 020**



For SILVER C	Α	D
004/005	210	315
007/008	250	400
011/012	300	500
014/020	300	500
	•	

## TCRS 030, 040



For SILVER C	Α	В	С	D
025/030	400	78	450	700
035/040	506	74	592	806



## **Unit sections**

## **TCFE** multisection

The multisection is an extra unit section, available in two lengths, with intermediate deck and optional combinations of cover panels/inspection doors on the inspection side, see illustrations on the next page. The cover panels are easy to dismantle.

Up to two multisections can be used in one air handling unit.

The multisection is available for the size 011 and larger SILVER C RX, PX and CX units. The multisection is also available for SILVER C RX/PX size 004-008 in split version. The multisection can be located between the other unit sections of the SILVER C unit. See example below.

The multisection is available, as a special version, with installed accessories from the factory, for example an air heater/air cooler, dampers, etc..

#### **Delivery version:**

Sizes 004-080: The multisection is fitted to at least one of the other unit sections, see the section entitled: Description of the Air Handling Unit/Delivery Configuration RX/PX/CX, sizes 004-080.

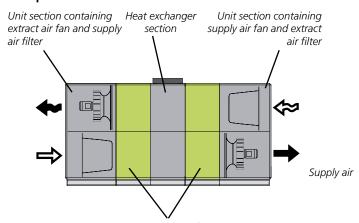
Size 120: The multisection is supplied as an individual item in two sections.

#### Work to be carried out at the building site:

Sizes 004-080: Fitting together/splitting of unit sections to the extent required.

Size 120: Assembly of the multisection to become one unit. The multisection is then fitted together with the other unit sections.

#### **Example**



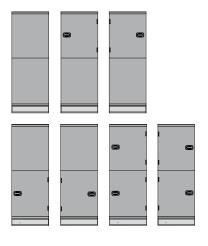
Up to two multisections can be used for one air handling unit. The illustration shows possible locations of the multsection.



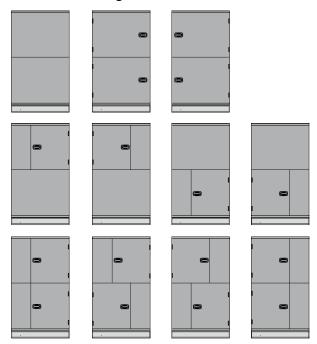
# **Unit sections**

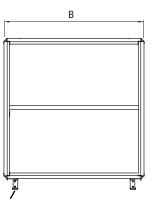
Possible combinations, cover panels/inspection doors

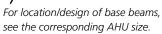
## Multisection, short (565 mm)



## Multisection, long (850 mm)







		-		
]	T			)
	001	t,	្វី For location/design of base bea	1

For location/design of base beams, see the corresponding AHU size.

r <del>-</del>	850	
285		
	(E)	I
<u> </u>		
		8

The possible combinations of cover panels/inspection doors, see	above.
---	--------

For SILVER C	В	Н	kg
004/005	825	920	74
007/008	995	1085	77
011/012	1199	1295	90
014/020	1400	1551	104
025/030	1600	1811	119
035/040	1990	2159	143
050/060	2318	2288	189
070/080	2637	2640	258
100/120	3340	3340	492

For SILVER C	В	Н	kg
004/005	825	920	110
007/008	995	1085	120
011/012	1199	1295	142
014/020	1400	1551	167
025/030	1600	1811	189
035/040	1990	2159	202
050/060	2318	2288	243
070/080	2637	2640	347
100/120	3340	3340	640



## Duct accessories, uninsulated

## Common for duct accessories

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

SILVER C with standard end connection panel: The duct accessories for SILVER C, sizes 004/005, 007/008 and 011/012 are fitted with a rubber ring seal

The duct accessories for SILVER C, sizes 014/020, 025/030, 035/040, 050/060, 070/080 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.

#### SILVER C with full face connection frames:

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 obtained by using the **AHU Design** air handling unit selection program.



## Duct accessories, uninsulated

#### **TBSA** damper

The TBSA 000-031, 000-040, 060-030 and 080-040 dampers are used as shut-off dampers or boosting dampers. Other sizes can also be used for other applications.

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 bursting protection is used.

Can be mounted in a horizontal or vertical duct.

The damper can be selected without damper actuator or 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.

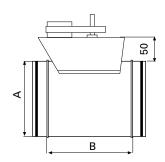
#### **Technical data**

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

## Installation

Connect the control system and power supply wiring to the damper actuator.

SILVER C with standard end connection panel: TBSA 000-031, matches SILVER C, sizes 004, 005 TBSA 000-040, matches SILVER C, sizes 007, 008 TBSA 000-050, matches SILVER C, sizes 011, 012



TBSA	Α	В	kg
2-000-031	Ø 315	140	5
2-000-040	Ø 400	210	7
2-000-050	Ø 500	210	8





SILVER C with standard end connection panel: TBSA 100-040, matches SILVER C, sizes 014, 020 TBSA 120-030, matches SILVER C RX/PX Top sizes 014, 020 (for air intake)

TBSA 120-050, matches SILVER C, sizes 025, 030

TBSA 140-030, matches SILVER C RX/PX Top sizes 025, 030 (for air intake)

TBSA 140-060, matches SILVER C, sizes 035, 040

TBSA 160-080, matches SILVER C, sizes 050, 060

TBSA 180-100, matches SILVER C, sizes 070, 080

TBSA 240-120, matches SILVER C, sizes 100, 120

(for air intake resp. fan outlet for forward air discharge)

TBSA 250-080, matches SILVER C, sizes 100, 120 (for fan outlet for upward air discharge)

SILVER C with full face connection frame (accessory TBXZ): TBSA 060-030, matches SILVER C, sizes 004, 005 TBSA 080-040, matches SILVER C, sizes 007, 008 TBSA 100-040, matches SILVER C, sizes 011, 012

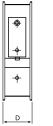
TBSA 120-050, matches SILVER C, sizes 014, 020

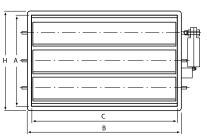
TBSA 140-060, matches SILVER C, sizes 025, 030

TBSA 160-080, matches SILVER C, sizes 035, 040

TBSA 180-100, matches SILVER C, sizes 050, 060

TBSA 240-120, matches SILVER C, sizes 070, 080





TBSA	A	В	C	D	Н	kg
4-060-030	300	640	600	220	340	10
4-080-040	400	840	800	220	440	15
6-100-040	400	1040	1000	220	440	20
1-120-030	300	1240	1200	120	340	11
6-120-050	500	1240	1200	220	540	25
1-140-030	300	1440	1400	120	340	13
6-140-060	600	1440	1400	220	640	32
6-160-080	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



# **Duct accessories, uninsulated**

# TBDA Unit sound attenuator TBDA 000-031, 000-040 and 000-050

The TBDA 000-031, 000-040 and 000-050 sound attenuators are circular sound attenuators for the SILVER C in sizes 004–012 with standard end connection panel and are intended for installation in the ductwork.

#### **Technical data**

Galvanized sheet steel.

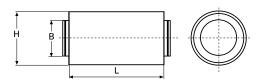
Sound attenuating material consisting of 100 mm thick long-fibred glass wool slabs that offer excellent sound attenuation, especially in the mid-frequencies. Glass wool covered with a layer of EUROLON that withstands substantially higher air velocities and mechanical strain than staple fibre. Sound attenuating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

#### Installation

Provision for inspection and cleaning must be guaranteed.



SILVER C with standard end connection panel: TBDA 000-031, matches SILVER C, sizes 004, 005 TBDA 000-040, matches SILVER C, sizes 007, 008 TBDA 000-050, matches SILVER C, sizes 011,012



TBDA	В	Н	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

## **Duct accessories, uninsulated**

# TBDA Unit sound attenuator

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

The TBDA 060-030 to 240-120 sound attenuators for the SILVER C in sizes 004–120 are rectangular and are intended for installation in the ductwork or directly to air handling units with standard end connection panel or full face connection frame.

#### **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).

#### 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





SILVER C with standard end connection panel:

TBDA 100-040, matches SILVER C, sizes 014, 020

TBDA 120-050, matches SILVER C, sizes 025, 030

TBDA 140-060, matches SILVER C, sizes 035, 040

TBDA 240-120, matches SILVER C, sizes 100, 120

SILVER C with full face connection frame (accessory TBXZ):

TBDA 060-030, matches SILVER C, sizes 004, 005

TBDA 080-040, matches SILVER C, sizes 007, 008

TBDA 100-040, matches SILVER C, sizes 011, 012

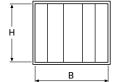
TBDA 120-050, matches SILVER C, sizes 014, 020

TBDA 140-060, matches SILVER C, sizes 025, 030

TBDA 240-120, matches SILVER C, sizes 070, 080

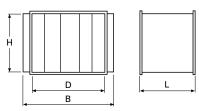
SILVER C with standard end connection panel: TBDA 160-080, matches SILVER C, sizes 050, 060 TBDA 180-100, matches SILVER C, sizes 070, 080

SILVER C with full face connection frame (accessory TBXZ): TBDA 160-080, matches SILVER C, sizes 035, 040 TBDA 180-100, matches SILVER C, sizes 050, 060





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



## Duct accessories, uninsulated

## TBLA Air heater, for hot water

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

The air heater can be installed for horizontal or vertical airflow.

The TBLA air heater, capacity variant 1, is available with Thermo Guard anti-frost tension protection.

#### Technical data

Uninsulated casing made of galvanized sheet steel.

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 is available in two capacity variants. Capacity variant 2 produces 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 TBVA Valve set consisting of a 2(3)-way valve including actuator can be ordered.

#### **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.

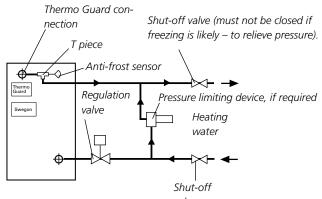
#### Installation

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





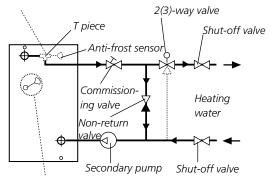
## Installation principle with Thermo Guard



# Installation principle *without* Thermo Guard

Applicable to

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



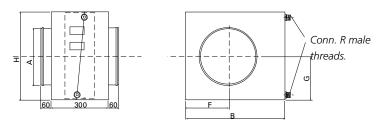
Anti-freeze monitor sensor. Applicable to TBLA 100-040 to 240-120

1) The anti-frost sensor for the TBLA sizes 000-031, 000-040, 000-050, 060-030 and 080-040 should be fitted to a T-piece on the return pipework and for the TBLA sizes 000-040 to 240-120 in the connection on the air heater.



# **Duct accessories, uninsulated**

## Without Thermoguard

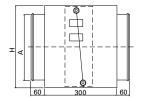


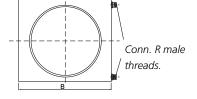
SILVER C with standard end connection panel: TBLA 000–031, matches SILVER C, sizes 004, 005 TBLA 000–040 matches SILVER C, sizes 007, 008 TBLA 000–050 matches SILVER C, sizes 011, 012

TBLA	Α	В	F	G	H	R	kg*
5-000-031-2-1	Ø 315	490	225	192	405	DN15	17
7-000-040-2-1	Ø 400	590	277	250	500	DN20	16
5-000-040-2-2	Ø 400	590	277	250	500	DN20	18
5-000-050-2-1	Ø 500	690	327	300	600	DN20	21
7-000-050-2-2	Ø 500	690	327	300	600	DN20	22

<sup>\*</sup> Excluding water.

## With Thermoguard





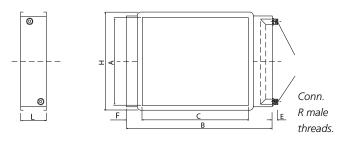
SILVER C with standard end connection panel: TBLA 000–031, matches SILVER C, sizes 004, 005 TBLA 000–040 matches SILVER C, sizes 007, 008 TBLA 000–050 matches SILVER C, sizes 011, 012

TBLA	Α	В	Н	R	kg*
4-000-031-1-1	Ø 315	488	428	DN 15	14
4-000-040-1-1	Ø 400	588	528	DN 15	19
4-000-050-1-1	Ø 500	688	628	DN 15	24

<sup>\*</sup> Excluding water.



## Duct accessories, uninsulated



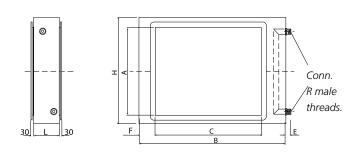
SILVER C with standard end connection panel: TBLA 100-040, matches SILVER C, sizes 014, 020 TBLA 120-050, matches SILVER C, sizes 025, 030 TBLA 140-060, matches SILVER C, sizes 035, 040

SILVER C with full face connection frame (accessory TBXZ): TBLA-1-060-030, matches SILVER C, sizes 004, 005 TBLA-1-080-040, matches SILVER C, sizes 007, 008 TBLA-1-100-040, matches SILVER C, sizes 011, 012 TBLA-1-120-050, matches SILVER C, sizes 014, 020 TBLA-1-140-060, matches SILVER C, sizes 025, 030

## Without Thermoguard

TBLA	Α	В	С	Е	Н	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
5-100-040-2-1	400	1119	1000	90	438	148	DN15	40	14
5-100-040-2-2	400	1126	1000	90	438	170	DN20	40	18
5-120-050-2-1	500	1319	1200	90	538	148	DN15	40	17
5-140-060-2-1	600	1526	1400	90	638	148	DN20	40	23

<sup>\*</sup> Excluding water.



SILVER C with standard end connection panel:
TBLA 100-040, matches SILVER C, sizes 014, 020
TBLA 120-050, matches SILVER C, sizes 025, 030
TBLA 140-060, matches SILVER C, sizes 035, 040
TBLA 160-080, matches SILVER C, sizes 050, 060
TBLA 180-100, matches SILVER C, sizes 070, 080
TBLA 240-120, matches SILVER C, sizes 100, 120

SILVER C with full face connection frame (accessory TBXZ): TBLA 100–040, matches SILVER C, sizes 011, 012 TBLA 120–050, matches SILVER C, sizes 014, 020 TBLA 140-060, matches SILVER C, sizes 025, 030 TBLA 160-080, matches SILVER C, sizes 035, 040 TBLA 180-100, matches SILVER C, sizes 050, 060 TBLA 240-120, matches SILVER C, sizes 070, 080

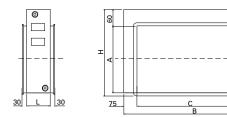
## Without Thermoguard

TBLA	A	В	С	E	Н	L	R	F	kg*
5-100-040-2-3	400	1250	1000	85	605	300	DN25	125	53
5-120-050-2-2	500	1590	1200	85	700	300	DN20	195	72
5-120-050-2-3	500	1590	1200	85	755	300	DN32	195	78
5-140-060-2-2	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

<sup>\*</sup> Excluding water.



# **Duct accessories, uninsulated**



SILVER C with full face connection frame (accessory TBXZ): TBLA 060-030, matches SILVER C, sizes 004, 005 TBLA 080-040, matches SILVER C, sizes 007, 008

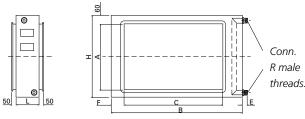
## With Thermoguard

		Capacity variant 1						
TBLA	В	Н	L	Α	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

Conn.

R male

threads.



## With Thermoguard

09	
<b>±</b> ∢	Conn.  R male threads.

	Capacity variant 1											
TBLA	В	Н	L	Α	C	Е	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			

<sup>\*</sup> Excluding water.

SILVER C with standard end connection panel: TBLA 100-040, matches SILVER C, sizes 014, 020 TBLA 120-050, matches SILVER C, sizes 025, 030 TBLA 140-060, matches SILVER C, sizes 035, 040 TBLA 160-080, matches SILVER C, sizes 050, 060 TBLA 180-100, matches SILVER C, sizes 070, 080 TBLA 240-120, matches SILVER C, sizes 100, 120

SILVER C with full face connection frame (accessory TBXZ): TBLA 100-040, matches SILVER C, sizes 011, 012 TBLA 120-050, matches SILVER C, sizes 014, 020 TBLA 140-060, matches SILVER C, sizes 025, 030 TBLA 160-080, matches SILVER C, sizes 035, 040 TBLA 180-100, matches SILVER C, sizes 050,060 TBLA 240-120, matches SILVER C, sizes 070, 080



<sup>\*</sup> Excluding water.

## Duct accessories, uninsulated

## Air heater TBCE/TBRE, electric

Air heater TBCE/TBRE is used for reheating of the supply air or for certain preheating needs of outdoor air.

The air heater can be installed for horizontal or vertical airflow.

The integrated thyristor is controlled via signals 0 - 10V. The air heater is equipped with four, five or six seriescoupled overheating protections.

#### **Technical data**

Uninsulated casing made of galvanized sheet steel.

Air heater TBCE/TBRE is available in several capacity variants.

The electrical equipment conforms to the provisions of Degree of Protection IP44.

The air heater is approved for operating temperatures, in the surroundings and the air stream, from  $-25^{\circ}$ C to  $+40^{\circ}$ C.

#### Installation

TBCE 000-031, 000-040 and 000-050: The end panel on the connection side can be dismantled for inspection and connection.

For air heaters with circular duct connection, the distance from or to a duct bend, damper, filter or the like, should be at least the distance that is equivalent to double (triple recommended) the diameter of the duct. For air heaters with a rectangular duct connection the distance should be at least the equivalent to the air heater's diagonal dimension (double recommended), i.e. from corner to corner in the duct section of the air heater. Otherwise there is risk that the airflow through the air heater will be non-uniform, involving risk that the overheat protection device will trip.

Electrical connection. **Power must be supplied directly** from the electrical distribution box. An isolating switch is recommended.

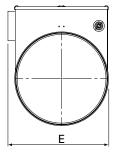


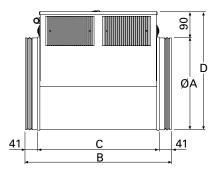
**TBCE** 



**TBRE** 

# **Duct accessories, uninsulated**



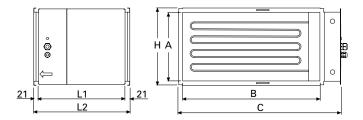


SILVER C with standard end connection frame: TBCE 000-031, corresponds to SILVER C sizes 004, 005 TBCE-000-040, corresponds to SILVER C sizes 007, 008 TBCE-000-050, corresponds to SILVER C sizes 011, 12

TBCE	øΑ	В	C	D	E	kg
-1-000-031-002-2	315	375	293	405	344	8
-1-000-031-004-1	315	375	293	405	344	9
-1-000-031-004-2	315	375	293	405	344	9
-1-000-031-007-1	315	500	418	405	344	10,5
-1-000-031-007-2	315	500	418	405	344	10,5
-1-000-031-010-1	315	500	418	405	344	11,5
-1-000-031-010-2	315	500	418	405	344	11,5
-1-000-040-004-1	400	375	293	490	428	10,5
-1-000-040-004-2	400	375	293	490	428	10,5
-1-000-040-007-1	400	500	418	490	428	12,5
-1-000-040-007-2	400	500	418	490	428	12,5
-1-000-040-012-1	400	630	548	490	428	15
-1-000-040-012-2	400	630	548	490	428	15
-1-000-040-018-1	400	770	688	490	428	19,5
-1-000-040-018-2	400	770	688	490	428	20,5
-1-000-050-006-1	500	375	293	590	528	12,5
-1-000-050-006-2	500	375	293	590	528	12,5
-1-000-050-012-1	500	630	548	590	528	17,5
-1-000-050-012-2	500	630	548	590	528	17,5
-1-000-050-021-1	500	880	798	590	528	26
-1-000-050-021-2	500	880	798	590	528	26,5
-1-000-050-027-1	500	1150	1068	590	528	34
-1-000-050-027-2	500	1150	1068	590	528	34



# Duct accessories, uninsulated



TBRE	Α	В	C	Н	L1	L2	kg
1-060-030	300	600	710	338	378	420	15 - 18
1-080-040	400	800	880	438	378	420	19 - 25,5
1-100-040	400	1000	1084	438	378	420	22 - 37
1-120-050	500	1200	1285	538	378	420	25 - 42
2-120-050	500	1200	1285	538	478	520	44 - 47,5
1-140-060	600	1400	1482	638	378	420	32 - 48
2-140-060	600	1400	1482	638	478	520	49 - 53,5
1-160-080	800	1600	1737	838	378	420	39 - 64
2-160-080	800	1600	1737	838	478	520	61 - 70,5
1-180-100	1000	1800	2017	1038	378	420	56 - 85
2-180-100	1000	1800	2017	1038	478	520	84 - 93
1-240-120	1200	2400	2521	1238	378	420	69,5 - 105
2-240-120	1200	2400	2521	1238	558	600	106

SILVER C with standard end connection frame:
TBRE 100-040, corresponds to SILVER C sizes 014, 020
TBRE 120-050, corresponds to SILVER C sizes 025, 030
TBRE 140-060, corresponds to SILVER C sizes 035, 040
TBRE 160-080, corresponds to SILVER C sizes 050, 060
TBRE 180-100, corresponds to SILVER C sizes 070, 080
TBRE 240-120, corresponds to SILVER C sizes 100, 120

SILVER C with full face end connection panel (accessory TBXZ): TBRE 060-030, corresponds to SILVER C sizes 004, 005
TBRE 080-040, corresponds to SILVER C sizes 007, 008
TBRE 100-040, corresponds to SILVER C, size 011, 012
TBRE 120-050 corresponds to SILVER C sizes 014, 020
TBRE 140-060 corresponds to SILVER C, size 025/30
TBRE 160-080 corresponds to SILVER C, size 035/040
TBRE 180-100 corresponds to SILVER C, size 050/060
TBRE 240-120 corresponds to SILVER C, size 070/080

## Duct accessories, uninsulated

## TBKA Air cooler (water), TBKC (direct expansion)

The TBKA/TBKC air coolers are 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 the corresponding size of SILVER C unit.

The air cooler must be installed for horizontal airflow.

#### **Technical data**

Uninsulated casing made of galvanized sheet steel.

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

#### Valve set

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

#### Installation

TBKA/TBKC 000-031, 000-040 and 000-050: The end panel on the connection side can be dismantled for inspection and connection. TBKA/TBKC 060-030 to 240-120: Provision for inspection and cleaning must be guaranteed.

Connecting the drainage pipework.

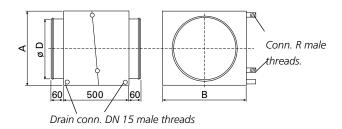
Electrical connection.





# **Duct accessories, uninsulated**

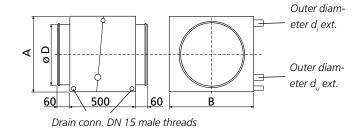
SILVER C with standard end connection panel: TBKA 000-031, matches SILVER C, sizes 004, 005 TBKA 000-040, matches SILVER C, sizes 007, 008 TBKA 000-050, matches SILVER C, sizes 011, 012



ТВКА	Α	В	D	R	kg*
5-000-031-1	430	490	315	DN15	37
5-000-031-2	430	490	315	DN20	39

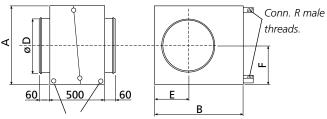
\* Excl. cooling agent

SILVER C with standard end connection panel: TBKC 000–031, matches SILVER C, sizes 004, 005 TBKC 000–040, matches SILVER C, sizes 007, 008 TBKC 000-050, matches SILVER C, sizes 011, 012



ТВКС	Α	В	D	d <sub>i</sub>	d <sub>u</sub>	kg*
4-000-031-1-1	430	490	315	12	12	37

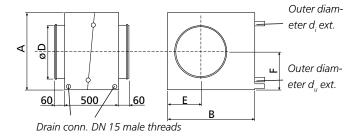
\* Excl. cooling medium



Drain conn. DN 15 male threads

5 590					
5   591	) 400	255	238	DN20	36
5 590	3 400	255	238	DN20	38
5 690	500	295	288	DN25	50
5 690	500	295	288	DN25	54
5 770	500	358	378	DN25	44
5 770	500	358	378	DN32	52
	5 690 5 690 5 770	5 690 500 5 690 500 5 770 500	5 690 500 295 5 690 500 295 5 770 500 358	5 690 500 295 288 5 690 500 295 288 5 770 500 358 378	5 690 500 295 288 DN25 5 690 500 295 288 DN25 5 770 500 358 378 DN25

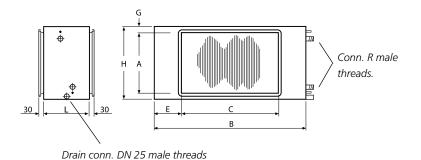
\* Excl. cooling agent



ТВКС	Α	В	D	Ε	F	d	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

<sup>\*</sup> Excl. cooling medium

# **Duct accessories, uninsulated**



SILVER C with standard end connection panel: TBKA 100-040, matches SILVER C, sizes 014, 020 TBKA 120-050, matches SILVER C, sizes 025, 030 TBKA 140-060, matches SILVER C, sizes 035, 040 TBKA 160-080, matches SILVER C, sizes 050, 060 TBKA 180-100, matches SILVER C, sizes 070, 080 TBKA 240-120, matches SILVER C, sizes 100, 120

SILVER C with full face connection frame (accessory TBXZ): TBKA 060-030, matches SILVER C, sizes 004, 005
TBKA 080-040, matches SILVER C, sizes 007, 008
TBKA 100-040, matches SILVER C, sizes 011, 012
TBKA 120-050, matches SILVER C, sizes 014, 020
TBKA 140-060, matches SILVER C, sizes 025, 030
TBKA 160-080, matches SILVER C, sizes 035, 040
TBKA 180-100, matches SILVER C, sizes 050,060
TBKA 240-120, matches SILVER C, sizes 070, 080

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

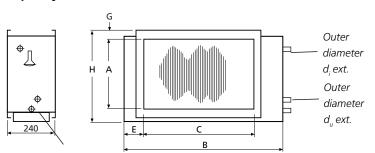
<sup>\*</sup> Excl. cooling agent



<sup>\*\*</sup> The connection dimensions of the coil are not the same as those of the SILVER C unit. Some form of transition piece must be installed between the air handling unit and the air cooler.

# **Duct accessories, uninsulated**

## Capacity variant 0



SILVER C with standard end connection frame: TBKC 100-040, matches SILVER C, sizes 014, 020 TBKC 120-050, matches SILVER C, sizes 025, 030 TBKC 140-060, matches SILVER C, sizes 035, 040

SILVER C with full face connection frame (accessory TBXZ): TBKC 100-040, matches SILVER C, sizes 011, 012 TBKC 120-050, matches SILVER C, sizes 014, 020 TBKC 140-060, matches SILVER C, sizes 025, 030

Drain conn. DN 25 male threads

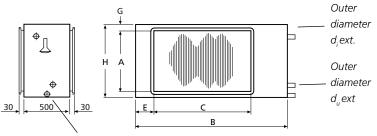
Ext. conn. to be brazed.

ТВКС	Α	В	С	E	G	Н	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

<sup>\*</sup> Excl. cooling agent

## **Duct accessories, uninsulated**

Capacity variants 1 - 3



Drain pipe conn. DN 25 male thread

Ext. conn. to be brazed.

SILVER C with standard end connection frame: TBKC 100-040, matches SILVER C, sizes 014, 020 TBKC 120-050, matches SILVER C, sizes 025, 030 TBKC 140-060, matches SILVER C, sizes 035, 040 TBKC 160-080, matches SILVER C, sizes 050, 060 TBKC 180-100, matches SILVER C, sizes 070, 080 TBKC 240-120, matches SILVER C, sizes 100, 120

SILVER C with full face connection frame (accessory TBXZ): TBKA 060-030, matches SILVER C, sizes 004, 005
TBKA 080-040, matches SILVER C, sizes 007, 008
TBKC 100-040, matches SILVER C, sizes 011, 012
TBKC 120-050, matches SILVER C, sizes 014, 020
TBKC 140-060, matches SILVER C, sizes 025, 030
TBKC 160-080, matches SILVER C, sizes 035, 040
TBKC 180-100, matches SILVER C, sizes 050,060
TBKC 240-120, matches SILVER C, sizes 070, 080

ТВКС	Α	В	С	Е	G	Н	d,	d <sub></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



## Duct accessories, uninsulated

## **TBBD Mixing Section**

The TBBD mixing section is available for the SILVER C SD in sizes 004-080.

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 – 080-100).

The spiral duct joints (sizes 000-031 – 000-050) in required quantity and the sets of slip clamps (sizes 060-030 – 080-100) respectively are included in the supply.

The mounted damper actuators (24 V) are available as optional extras. 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 handling units should be equipped with an air heater.

**Work to be carried out at the building site:** Installation the mixing section to the air handling unit/duct. Install dampers for the mixing section or duct Electrical connection. Install insulation conforming to local regulations



## **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

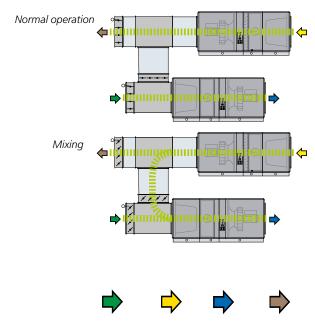
The mixing section consists of two unmounted dampers and one rectangular duct with three connections for slip-clamp jointing. The connecting rod for the common damper motor is included in the supply of sizes 060-030 – 120-050. Dampers in sizes 140-060 – 180-100 each have their own damper motor. The mixing section can be installed for connection on the right-hand or left-hand side.

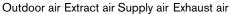
#### Example 2, three dampers

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) Normal operation Mixing

#### **Example 2 (three dampers)**

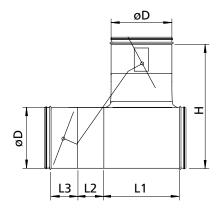






## Duct accessories, uninsulated

#### **Two dampers**



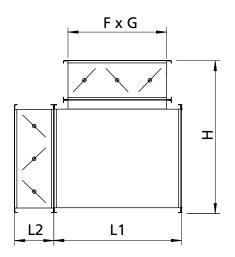
SILVER C with standard end connection panel: TBBD 000-031, matches SILVER C, size 004/005 TBBD 000-040, matches SILVER C, size 007/008 TBBD 000-050, matches SILVER C, size 011/012

TBBD	L1	L2	L3	Н	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**



SILVER C with standard end connection panel: TBBD 100-040, matches SILVER C, size 014/020 TBBD 120-050, matches SILVER C, size 025/030 TBBD 140-060, matches SILVER C, size 035/040 TBBD 160-080, matches SILVER C, size 050/060 TBBD 180-100, matches SILVER C, size 070/080

SILVER C with full face connection frame (accessory TBXZ): TBBD 060-030, matches SILVER C, sizes 004, 005 TBBD 080-040, matches SILVER C, sizes 007, 008 TBBD 100-040, matches SILVER C, sizes 011, 012 TBBD 120-050, matches SILVER C, sizes 014, 020 TBBD 140-060, matches SILVER C, sizes 025, 030 TBBD 160-080, matches SILVER C, sizes 035, 040 TBBD 180-100, matches SILVER C, sizes 050, 060

TBBD	L1	L2	Н	FxG
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.

# **Duct accessories, uninsulated**

## Prefilter, TBFA

Pre-filter should be installed in the outdoor air duct and/ or the extract air duct.

The pre-filter 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 inside the SILVER C unit from becoming clogged after a short period of use.

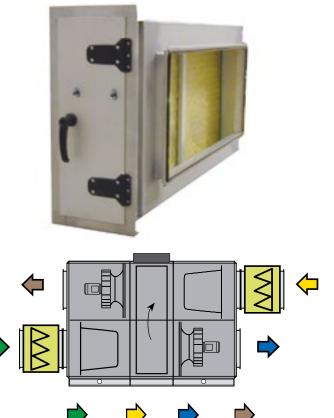
#### **Technical data**

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

The filters are of woven aluminium type or Class G3 compact filters.

#### Installation

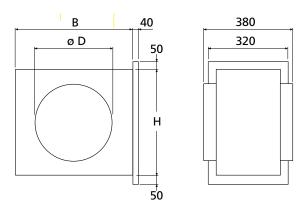
Provision for inspection and cleaning must be guaranteed. Install insulation conforming to local regulations



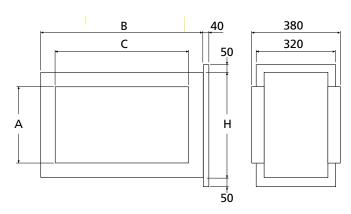
Outdoor air Extract air Supply air Exhaust air

TBFA 100-040, matches SILVER C, sizes 014, 020 TBFA 120-050, matches SILVER C, sizes 025, 030 TBFA 140-060, matches SILVER C, sizes 035, 040 TBFA 160-080, matches SILVER C, sizes 050, 060 TBFA 180-100, matches SILVER C, sizes 070, 080 TBFA 240-120, matches SILVER C, sizes 100, 120





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



TBFA	Α	В	C	Н	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



## Duct accessories, in insulated casing

# Common for duct accessories in an insulated casing

The duct accessories are to be positioned outside the SILVER C unit. The unique Wing+ fans in the SILVER C air handling unit also make it possible to connect duct accessories directly to the SILVER C unit's duct connection 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 SILVER C are equipped with bolted joints and/or expansion-type locking devices for docking them to the air handling unit and/or other duct accessories.

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

Other particulars for sizing can be obtained by using the AHU Design air handling unit selection program.



# Duct accessories, in insulated casing

## **Damper section, TCSA**

The TCSA dampers are used as shut-off dampers or forced airflow dampers. Sizes 012-120 can also be used for other applications.

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 bursting protection is used.

To be installed for horizontal airflow.

The damper can be selected without damper actuator or complete with damper actuator for 24 V. The actuator can be selected with spring return or on/off actuation. TCSA sizes 012-120 are also available with modulating type actuator with spring return.

#### **Technical data**

Insulated casing. The outer skin is made of galvanized sheet steel, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

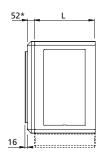
Ductwork leakage class 3 to EN 1751.

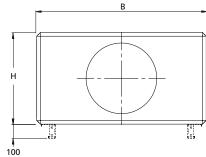
#### Installation

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



# Duct accessories, in insulated casing





Connection dimensions to duct:

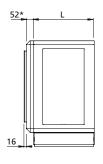
TCSA 005 ø 315

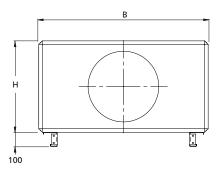
TCSA 008 ø 400

Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-005	825	460	400	41	7
-008	995	542 5	400	47	10



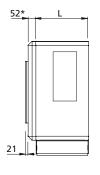


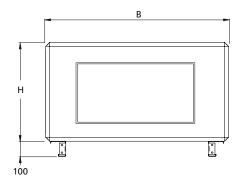
Connection dimensions to duct: TCSA 012 ø 500

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	Н	L	kg	End connection panel, if required kg
-012	1199	647,5	400	60	13





Connection dimensions to duct:

TCSA 020 1000 x 400 mm
TCSA 030 1200 x 500 mm
TCSA 040 1400 x 600 mm
TCSA 060 1600 x 800 mm

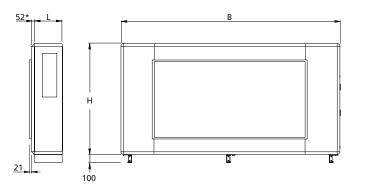
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	Н	L	kg	End connection panel, if required kg
-020	1400	775,5	400	74	19
-030	1600	905,5	400	83	23
-040	1990	1079,5	400	102	34
-060	2318	1144	400	142	34



# Duct accessories, in insulated casing

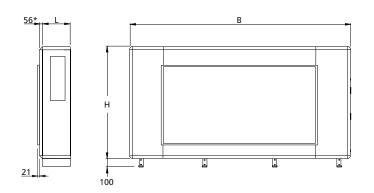


Connection dimensions to duct: TCSA 080 1800 x 1000 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-080	2637	1320	400	192	40



Connection dimensions to duct: TCSA 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.

TCSA	В	н	L	kg	End connection panel, if required kg
-120	3340	1620	500	337	59



## 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 005-120), or split cover panel/inspection door (sizes 005-040).

The spacer section/inspection section must be installed for horizontal airflow.

#### **Technical data**

Insulated casing. The outer skin is made of galvanized sheet steel, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). 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

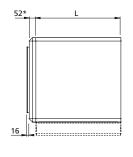


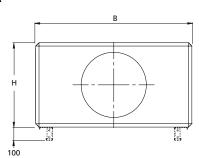
TCIA inspection section. Inspection door the entire length of the section.



TCIA inspection section. Split cover panel/inspection door.

#### **Spacer Section, TCGA**





Connection dimensions to duct: TCGA 005 ø 315

TCGA 008 ø 400

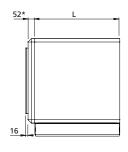
Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

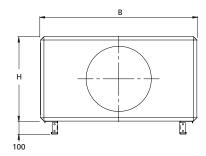
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCGA	В	н	L	kg	End connection panel, if required kg
-005	825	460	565	37	7
-005	825	460	850	54	7
-008	995	542,5	565	43	10
-008	995	542,5	850	63	10

# Duct accessories, in insulated casing

## **Spacer Section, TCGA**



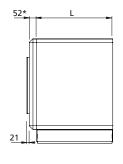


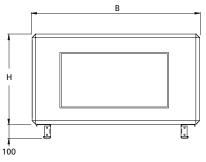
Connection dimensions to duct: TCGA 012 ø 500

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-012	1199	647,5	565	52	13
-012	1199	647 5	850	74	13





 Connection dimensions to duct:

 TCGA 020
 1000 x 400 mm

 TCGA 030
 1200 x 500 mm

 TCGA 040
 1400 x 600 mm

 TCGA 060
 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

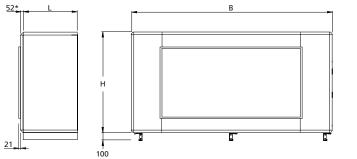
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCGA	В	Н	L	kg	End connection panel, if required kg
-020	1400	775,5	565	61	19
-020	1400	775,5	850	86	19
-030	1600	905,5	565	69	23
-030	1600	905,5	850	96	23
-040	1990	1079,5	565	78	34
-040	1990	1079,5	850	113	34
-060	2318	1144	565	110	34
-060	2318	1144	850	141	34



# Duct accessories, in insulated casing

## **Spacer Section, TCGA**

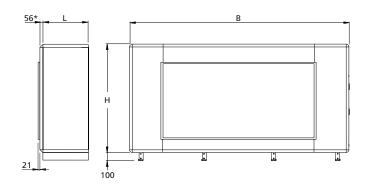


Connection dimensions to duct: TCGA 080 1800 x 1000 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required
-080	2637	1320	565	129	40
-080	2637	1320	850	174	40



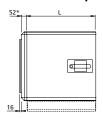
Connection dimensions to duct: TCGA 120 2400 x 1200 mm

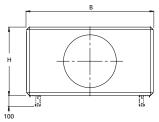
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

					End connection panel, if required
TCGA	В	Н	L	kg	kg
-120	3340	1620	720	244	59

## Duct accessories, in insulated casing

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





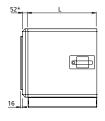
Connection dimensions to duct:

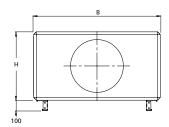
TCIA 005 ø 315 TCIA 008 ø 400

Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

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

					End connection panel, if required
TCIA	В	Н	L	kg	kg
-005	825	460	565	37	7
-005	825	460	850	54	7
-008	995	542,5	565	43	10
-008	995	542,5	850	63	10





Connection dimensions to duct:

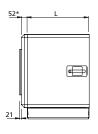
TCIA 012 ø 500

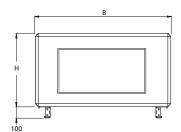
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

farthest out facing the ductwork.

					End connection panel, if required
TCIA	В	Н	L	kg	kg
-012	1199	647,5	565	52	13
-012	1199	647,5	850	74	13





Connection dimensions to duct:

1000 x 400 mm TCIA 020 TCIA 030 1200 x 500 mm TCIA 040 1400 x 600 mm TCIA 060 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

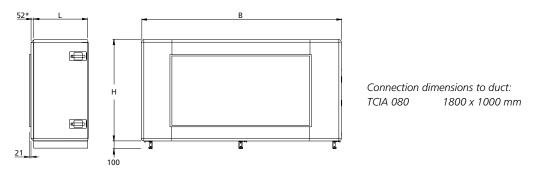
farthest out facing the ductwork.

TCIA	В	Н	L	kg	End connection panel, if required kg
-020	1400	775,5	565	61	19
-020	1400	775,5	850	86	19
-030	1600	905,5	565	69	23
-030	1600	905,5	850	96	23
-040	1990	1079,5	565	81	34
-040	1990	1079,5	850	117	34
-060	2318	1144	565	103	34
-060	2318	1144	850	143	34



## Duct accessories, in insulated casing

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

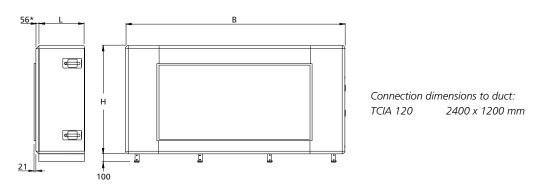


Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

sory farthest out facing the ductwork.

TCIA	В	н	L	kg	End connection panel, if required kg
-080	2637	1320	565	129	40
-080	2637	1320	850	174	40

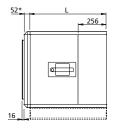


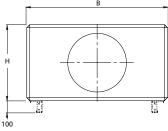
TCIA	В	Н	L	kg	End connection panel, if required kg
-120	3340	1620	500	200	59
-120	3340	1620	720	247	59



## Duct accessories, in insulated casing

TCIA inspection section, split cover panel/inspection door





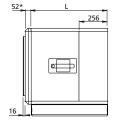
Connection dimensions to duct:

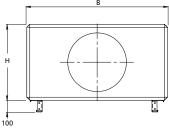
TCIA 005 ø 315 TCIA 008 ø 400

Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-005	825	460	850	54	7
-008	995	542,5	850	63	10





Connection dimensions to duct: TCIA 012 ø 500

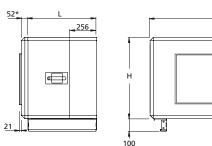
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

TCIA	В	н	L	ka	End connection panel, if required
-012	1199	647,5	850	74	13



## Duct accessories, in insulated casing

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



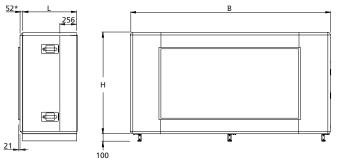
Connection dimensions to duct: TCIA 020 1000 x 400 mm TCIA 030 1200 x 500 mm TCIA 040 1400 x 600 mm TCIA 060 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always

delivered without base beam.

\* 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	В	Н	L	kg	End connection panel, if required kg
-020	1400	775,5	850	86	19
-030	1600	905,5	850	96	23
-040	1990	1079,5	850	117	34
-060	2318	1144	850	143	34



Connection dimensions to duct: TCIA 080 1800 x 1000 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always

TCIA	В	Н	L	kg	End connection panel, if required kg
-080	2637	1320	850	174	40

## Duct accessories, in insulated casing

#### Unit sound attenuator,TCDA

The TCDA sound attenuators are rectangular sound attenuators designed for mounting directly against the air handling unit.

To be installed for horizontal airflow.

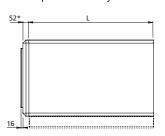
#### Technical data

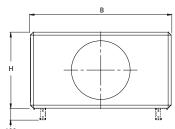
Insulated casing. The outer skin is made of galvanized sheet steel, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4.

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).



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





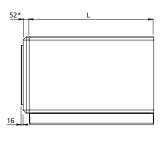
Connection dimensions to duct:

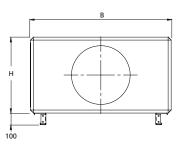
TCDA 005 ø 315

TCDA 008 ø 400

Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam. 
\* 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	١	В	Н	L	kg	End connection panel, if required kg
-005		825	460	975	75	7
-008		995	542,5	975	89	10





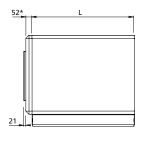
Connection dimensions to duct: TCDA 012 ø 500

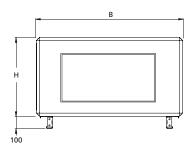
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

TCDA	В	Н	L	kg	End connection panel, if required kg
-012	1199	647,5	975	106	13



## Duct accessories, in insulated casing





 Connection dimensions to duct:

 TCDA 020
 1000 x 400 mm

 TCDA 030
 1200 x 500 mm

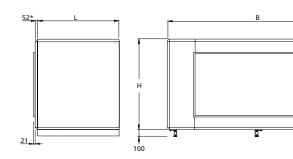
 TCDA 040
 1400 x 600 mm

 TCDA 060
 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-020	1400	775,5	975	130	19
-030	1600	905,5	975	154	23
-040	1990	1079,5	975	199	34
-060	2318	1144	975	234	34

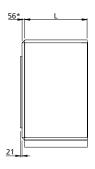


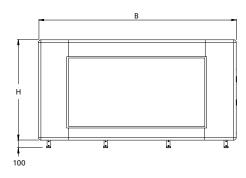
Connection dimensions to duct: TCDA 080 1800 x 1000 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-080	2637	1320	975	295	40





Connection dimensions to duct: TCDA 120 2400 x 1200 mm

TCDA	В	н	L	kg	End connection panel, if required kg
-120	3340	1620	1070	452	59



## Duct accessories, in insulated casing

#### Air heater, TCLA, hot water

The TCLA air heaters are used for reheating the supply air. The heaters use hot water as the heating medium.

To be installed for horizontal airflow.

#### **Technical data**

Insulated casing. The outer skin is made of galvanized sheet steel, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). 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 TCLA air heaters are 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 TBVA Valve set consisting of a 2(3)-way valve including actuator can be ordered.

#### **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.

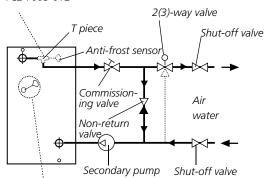
#### Installation

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



#### **Basic Installation Diagram**

Applicable to TCLA 005-012

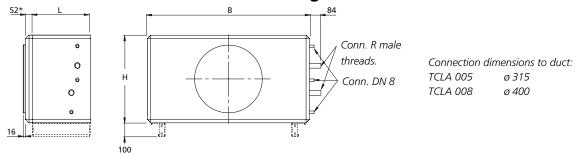


Anti-freeze monitor sensor. Applicable to TCLA 014-120

1) The anti-frost protection sensor for the size 005-012 TCLA should be installed in the T-piece on the return pipework and for the size 014-120 TCLA in the connection on the air heater.



#### Duct accessories, in insulated casing

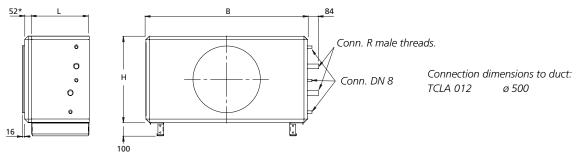


Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

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

				Cap. variant 1		Cap.	Cap. variant 2 Ca		variant 3	End connection panel, if required
TCLA	В	Н	L	R	kg¹)	R	kg¹)	R	kg¹)	kg
-005	825	460	400	DN15	33	DN15	34	DN20	36	7
-008	995	542,5	400	DN15	41	DN20	43	DN20	45	10

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

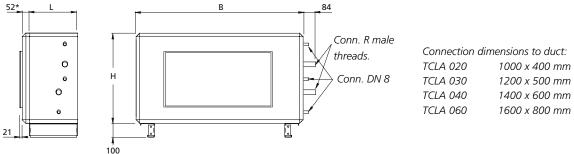


Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

				Сар	.variant 1	Сар.	Cap. variant 2		variant 3	End connection panel, if required	
TCLA	В	Н	L	. R kg <sup>1)</sup>		R	kg¹)	R kg <sup>1)</sup>		kg	
-012	1199	647,5	400	DN20	50	DN20	53	DN25	56	13	

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



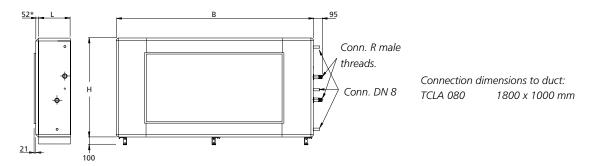
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

				Cap. variant 1			Cap. variant 2			Cap. variant 3			End connection panel, if required
TCLA	В	Н	L	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg¹)	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	kg
-020	1400	775,5	400	DN20	60	-	DN25	65	-	DN25	70	-	19
-030	1600	905,5	400	DN25	70	-	DN32	78	-	DN32	86	-	23
-040	1990	1079,5	400	DN32	89	-	DN40	100	-	DN40	114	-	34
-060	2318	1144	565	DN32	150	112	DN50	161	112	DN50	175	112	34

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



## Duct accessories, in insulated casing



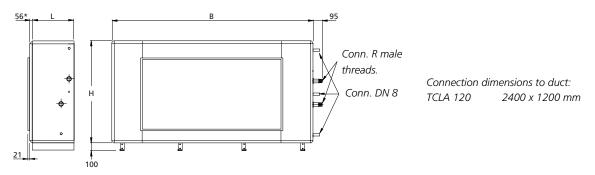
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

				Сар	Cap. variant 1			Cap. variant 2			. varia	nt 3	End connection panel, if required
TCLA	В	Н	L	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg¹)	kg <sup>2)</sup>	R	kg¹)	kg <sup>2)</sup>	kg
-080	2637	1320	565	DN50	181	132	DN65	197	132	DN65	217	132	40

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

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



				Capa	Capacity variant 1			Capacity variant 2			city vari	iant 3	End connection panel, if required
TCLA	В	Н	L	R	kg¹)	kg²)	R	kg¹)	kg²)	R	kg¹)	kg²)	kg
-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.

## Duct accessories, in insulated casing

#### **TCLE-02 Electric air heater**

Air heater TCLE is used for reheating of the supply air or for certain preheating needs of outdoor air.

To be installed for horizontal airflow.

The integrated thyristor is controlled via signals 0 - 10V. The air heater is equipped with four, five or six seriescoupled overheating protections.

#### **Technical data**

Insulated casing. The outer skin is made of galvanized sheet steel, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). 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 IP44.

The air heater is approved for operating temperatures, in the surroundings and the air stream, from -25°C to +40°C.

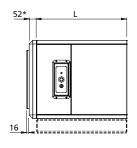
#### Installation

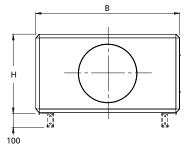
The air heater should be mounted directly against the air handling unit or insulated duct accessory. The space necessary for obtaining a uniform air stream is provided inside the TCLE. Therefore other duct accessories can be fitted downstream of the TCLE without risk of overheating.

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



#### Duct accessories, in insulated casing





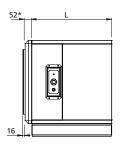
Connection dimensions to duct:

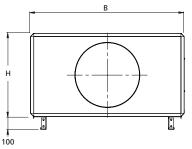
TCLE 005 Ø 315 TCLE 008 Ø 400

Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	End connection panel, if required kg
-005	825	460	625	55-58	7
-008	995	542.5	625	66-72,5	10





Connection dimensions to duct:

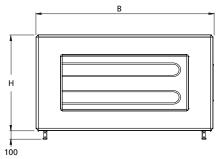
TCLE 012 ø 500

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	Н	L	kg	End connection panel, if required kg
-012	1199	647.5	625	80-95	13





Connection dimensions to duct:

TCLE 020 1000 x 400 mm
TCLE 030 1200 x 500 mm
TCLE 040 1400 x 600 mm
TCLE 060 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

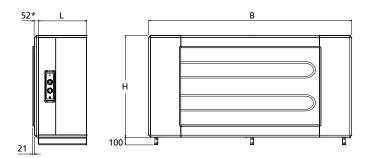
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

TCLE	В	Н	L	kg	kg¹)	End connection panel, if required kg
-020	1400	775,5	625	93-115,5	-	19
-030	1600	905.5	625	109-130,5	-	23
-040	1990	1079.5	625	131-163,5	-	34
-060	2318	1144	625	175-213	121	34

1) Casing only.



## Duct accessories, in insulated casing



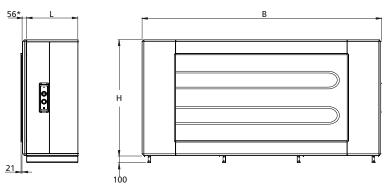
Connection dimensions to duct: TCLE 080 1800 x 1000 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

\* 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	В	н	L	kg	kg¹)	End connection panel, if required kg
-080	2637	1320	625	212-248	156	40

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



Connection dimensions to duct: TCLE 120 2400 x 1200 mm

TCLE	В	н	L	kg	kg¹)	End connection panel, if required kg
-120	3340	1620	720	336,5-373	267	59

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

#### Duct accessories, in insulated casing

# Air cooler, TCKA (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 TBKAS/TBKCS air coolers are available in several capacity variants that cover existing needs for the corresponding size of SILVER C 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, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). 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 have headers and water connections made of copper/brass, with male connection threads. The TCKC have headers and distributor tubes made of copper. The connections are designed for brazed joints.

#### Valve set

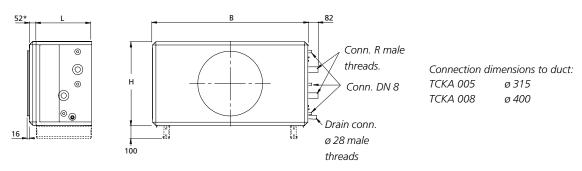
The TBVA Valve set consisting of a 2(3)-way valve including actuator can be ordered.

#### 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.



## Duct accessories, in insulated casing

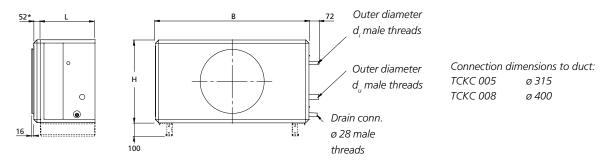


Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

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

			(	Cap. variant 1			Cap. variant 2			Cap. va	riant 4	End connection panel, if required
TCKA	В	Н	L	R	kg <sup>1)</sup>	L	R	kg¹)	L	R	kg¹)	kg
-005	825	460	475	DN20	49	475	DN25	51	625	DN25	66	7
-008	995	542,5	475	DN25	60	475	DN25	64	625	DN32	83	10

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



Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

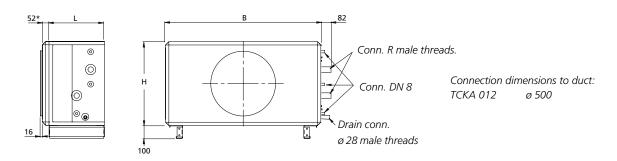
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

				Сар	acity v	ariant 1	Cap	acity v	ariant 2	End connection panel, if required
TCKC	В	Н	L	d <sub>i</sub>	d <sub>u</sub>	kg¹)	d <sub>i</sub>	d <sub>u</sub>	kg¹)	kg
-005	825	460	475	1/2"	22	49	5/8"	28	51	7
-008	995	542,5	475	5/8"	28	60	5/8"	35	64	10

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



## Duct accessories, in insulated casing

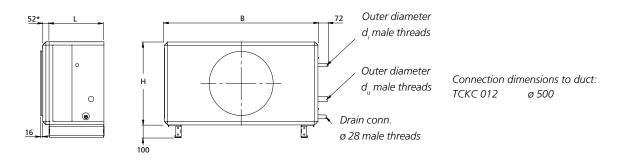


Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

			Capacity variant 1			Capacity variant 2			Capacity variant 4			End connection panel, if required
TCKA	В	Н	L	R	kg¹)	L	R	kg¹)	L	R	kg¹)	kg
-012	1199	647,5	475	DN25	73	475	DN32	79	625	DN40	106	13

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



Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

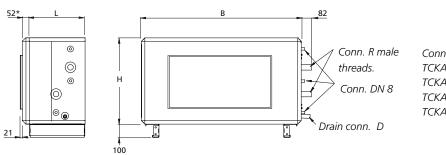
				Сар	acity v	ariant 1	Cap	oacity v	ariant 2	End connection panel, if required
TCKC	В	Н	L	d <sub>i</sub>	du	kg²)	d	du	kg²)	kg
-012	1199	647,5	475	5/8"1)	35 <sup>1)</sup>	73 <sup>1)</sup>	19 <sup>1)</sup>	421)	801)	13

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



<sup>&</sup>lt;sup>2)</sup> Excl. refrigerant

## Duct accessories, in insulated casing



Connection dimensions to duct:
TCKA 020 1000 x 400 mm
TCKA 030 1200 x 500 mm
TCKA 040 1400 x 600 mm
TCKA 060 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

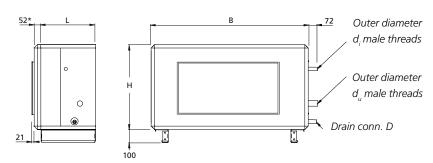
\* If several duct accessories are arranged in succession, the end connection panel is supplied only on the duct accessory farthest out facing the ductwork.

				Cap.variant 1		1	Cap.variant 2			Cap.variant 3			3	(	Cap.vai	iant -	4	End connec-		
тска	В	н	D	L	R	kg¹)	kg²)	L	R	kg¹)	kg²)	L	R	kg¹)	kg²)	L	R	kg¹)	kg²)	tion panel, if required kg
-020	1400	775,5	28 utv.	475	DN32	91	-	475	DN32	100	-	625	DN40	123	-	625	DN50	132	-	19
-030	1600	905,5	28 utv.	475	DN32	110	-	475	DN40	126	-	625	DN50	156	-	625	DN60	173	-	23
-040	1990	1079,5	28 utv.	475	DN40	138	-	475	DN50	160	-	625	DN65	199	-	625	DN60	223	-	34
-060	2318	1144	DN25	565	DN65	199	108	565	DN65	211	108	565	DN65	225	108	565	DN65	242	108	34

				(	Cap.vai	iant!	5	E	ffektva	riant	6	End connection panel, if required
TCKA	В	Н	D	L	R	kg <sup>1)</sup>	kg²)	L	R	kg <sup>1)</sup>	kg <sup>2)</sup>	kg
-060	2318	1144	DN25	565	DN65	210	108	565	DN65	230	108	34

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

<sup>&</sup>lt;sup>2)</sup> Casing only.



 Connection dimensions to duct:

 TCKC 020
 1000 x 400 mm

 TCKC 030
 1200 x 500 mm

 TCKC 040
 1400 x 600 mm

 TCKC 060
 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

					(	Cap. variant 1				Cap. variant 2			Cap. variant 3		End connection panel, if required
TCKC	В	Н	L	D	d	d <sub>u</sub>	kg²)	kg³)	d <sub>i</sub>	d <sub>u</sub>	kg <sup>2)</sup>	kg³)	kg <sup>2)</sup>	kg³)	kg
-020	1400	775,5	475	28 utv.	221)	421)	941)	-	281)	54 <sup>1)</sup>	1041)	-	-	-	19
-030	1600	905,5	475	28 utv.	281)	54 <sup>1)</sup>	115 <sup>1)</sup>	-	28 <sup>1)</sup>	54 <sup>1)</sup>	128 <sup>1)</sup>	-	-	-	23
-040	1990	1079,5	475	28 utv.	281)	54 <sup>1)</sup>	1471)	-	28 <sup>1)</sup>	54 <sup>1)</sup>	167 <sup>1)</sup>	-	-	-	34
-060	2318	1144	565	DN25	-	-	210	108	-	-	230	108	248	108	34

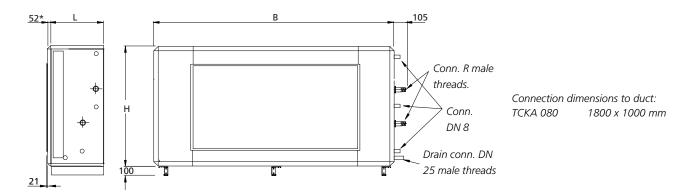
<sup>&</sup>lt;sup>1)</sup> If there are two sections: depending on the division of sections

<sup>&</sup>lt;sup>3)</sup> Casing only.



<sup>2)</sup> Excl. refrigerant

## Duct accessories, in insulated casing



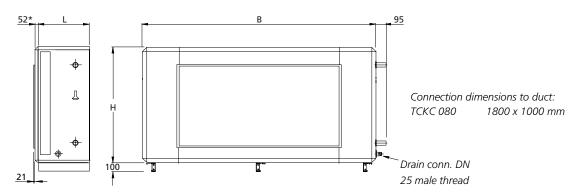
Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

				Сар	. varia	int 1	Cap.	varia	nt 2	Сар	. varia	nt 3	Cap.	varia	nt 4	End connection panel, if required
TCKA	В	Н	L	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg¹)	kg <sup>2)</sup>	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R	kg¹)	kg²)	kg
-080	2637	1320	565	DN65	263	135	DN65	282	135	DN65	302	135	DN65	324	135	40

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

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



Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

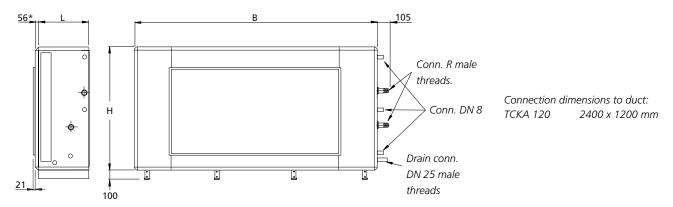
				Cap. va	ariant 1	Cap. v	ariant 2	Cap. v	ariant 3	End connection panel, if required
тскс	В	Н	L	kg <sup>1)</sup>	kg <sup>2)</sup>	kg <sup>1)</sup>	kg <sup>2)</sup>	kg <sup>1)</sup>	kg²)	kg
-080	2637	1320	565	280	135	316	135	332	135	40

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



<sup>&</sup>lt;sup>2)</sup> Casing only.

## Duct accessories, in insulated casing



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

				Capa	city var	iant 1	Capa	city vari	ant 2	Capa	city vari	ant 3	Capa	city vari	ant 4	End connection panel, if required
TCKA	В	Н	L	R	kg <sup>1)</sup>	kg²)	R	kg <sup>1)</sup>	kg²)	R	kg <sup>1)</sup>	kg <sup>2)</sup>	R <sup>3)</sup>	kg¹)	kg²)	kg
-120	3340	1620	720	DN65	414	260	DN80	461	260	DN80	513	260	DN100	568	260	59

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

<sup>&</sup>lt;sup>2)</sup> Casing only.

<sup>&</sup>lt;sup>3)</sup>The flange is included.

# Duct accessories, in insulated casing Final filter section, TCFB

The TCFBS 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.

To be installed for horizontal airflow.

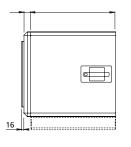
#### **Technical data**

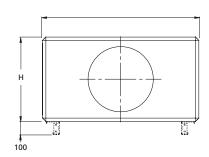
Insulated casing. The outer skin is made of galvanized sheet steel, re-painted in Swegon's own grey metallic paint (closest comparable RAL colour: 9007). The inner skin is made of aluminium-zinc plated sheet steel. Environmental Class C4. Bag filters to filter class ePM1 50% (F7) or ePM1 85% (F9) can be selected.

#### Installation

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

Provision for inspection and cleaning must be guaranteed.







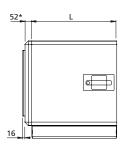
Connection dimensions to duct:

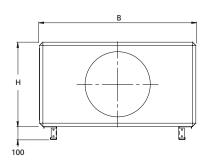
TCFB 005 Ø 315 TCFB 008 Ø 400

Base beam is optional on duct accessories in the lower duct. Duct accessories in the upper duct are always delivered without base beam.

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

ТСЕВ	В	н	L	kg	End connection panel, if required kg
-005	825	460	720	52	7
-008	995	542,5	720	58	10





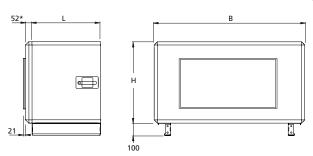
Connection dimensions to duct: TCFB 012 ø 500

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

ТСҒВ	В	н	L	kg	End connection panel, if required kg
-012	1199	647,5	720	72	13



## Duct accessories, in insulated casing



 Connection dimensions to duct:

 TCFB 020
 1000 x 400 mm

 TCFB 030
 1200 x 500 mm

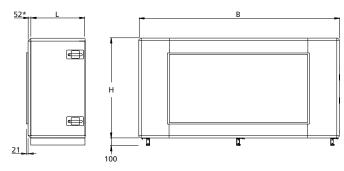
 TCFB 040
 1400 x 600 mm

 TCFB 060
 1600 x 800 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

ТСГВ	В	Н	L	kg	End connection panel, if required kg
-020	1400	775,5	720	88	19
-030	1600	905,5	720	103	23
-040	1990	1079,5	720	119	34
-060	2318	1144	720	150	34

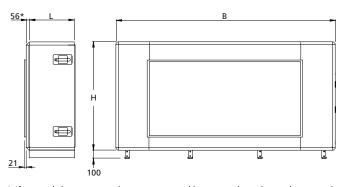


Connection dimensions to duct: TCFB 080 1800 x 1000 mm

Duct accessories in the lower duct are always delivered with mounted base beam. Duct accessories in the upper duct are always delivered without base beam.

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

TCFB	В	Н	L	kg	End connection panel, if required kg
-080	2637	1320	720	198	40



Connection dimensions to duct: TCFB 120 2400 x 1200 mm

TCFB	В	Н	L	kg	End connection panel, if required kg
-120	3340	1620	720	297	59



#### Duct accessories, in insulated casing

#### **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 construction consists of 38 mm galvanized square profiled sections, painted in RAL 7032. The profiled sections are held together by plastic corner pieces.

The outer and inner skins of the cover panels and inspection doors consist of galvanized sheet steel. Intervening 45 mm thick thermal and sound-attenuating insulation.

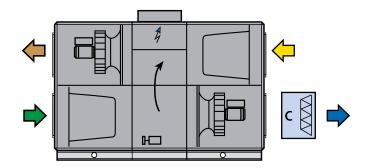
Cover panels can be removed from the unit.

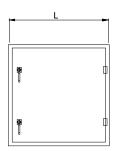
Inspection doors have hinges and handle.

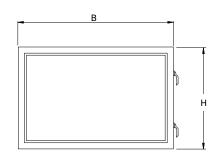
#### Installation

The TBFK carbon filter has a connection frame for slipclamp jointing designed for installation in the ductwork; see 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 SILVER C units.

TBFK	Slip clamps, width x height	В	Н	L	kg without cartridges	Number of cartridges:	kg without cartridges
017	850 x 350	1039	546	763	75	17	113
024	1100 x500	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



#### 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 ducts are made of galvanized sheet steel. Lined inside with 50 mm thick insulation to Fire-resistance Class El30, with a surface covering of type-approved synthetic woven fabric. Two angle brackets for connection to the relevant roof slope are included.

The hoods for the size 004-012 SILVER C units have circular duct connection fitted with type-approved rubber ring seal for jointing to spiral ductwork.

The hoods for the size 014-040 SILVER C 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 makes it difficult for snow and rain drops to enter the hood with the incoming air. The hood is hinged and has air intake louvres on both sides. For SILVER C, sizes 004-040.

#### **TBHB Exhaust Air Hood**

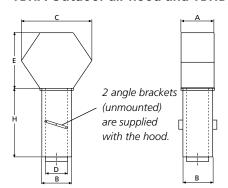
Designed for the discharge of exhaust air. The hood can be opened on hinges and is equipped with air deflectors that effectively direct the exhaust air upward and give the air high discharge velocity. To achieve low pressure drop, the air deflectors are rounded off on both their long sides. The hoods are equipped with effective provision for drainage. For SILVER C, sizes 004-040.

#### **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 004-012 SILVER C units only.

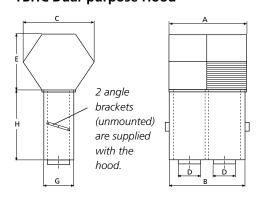
# TBHA Outdoor TBHB Exhaust Air Hood Air Hood purpose Hood

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



For SILVER C	A	В	С	D	Е	Н	kg
004/005	500	400	850	Ø315	620	800	31
007/008	600	500	950	Ø400	620	800	44
011/012	820	700	1300	Ø500	850	1200	129
014/020	820	700	1300	600	850	1200	129
025 - 040	1120	1000	1700	900	1150	1200	148

#### **TBHC Dual-purpose Hood**



For SILVER C	Α	В	С	D	Е	Н	G	kg
004/005	1000	900	850	Ø315	620	800	400	70
007/008	1200	1100	950	Ø400	620	800	500	100
011/012	1600	1500	1300	Ø500	850	1200	700	290

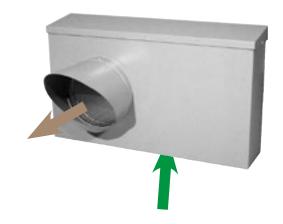
#### Roof hoods and exterior wall hoods

#### **TBHE Exterior wall hood**

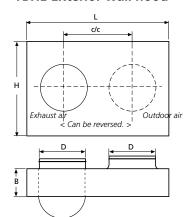
Designed for the admission of outdoor air and the discharge of exhaust air. The exhaust air is horizontally discharged through a circular wire mesh grille at the front of the hood. Outdoor air is admitted through a wire mesh grille at the bottom of the hood.

This design effectively prevents short-circuit flow between the outdoor air/exhaust air. For SILVER C, sizes 004-012.

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 SILVER C	В	c/c	D	Н	L	kg
004/005	200	420	Ø315	520	950	11
0007/008	250	500	Ø400	580	1150	15
011/012	300	600	Ø500	750	1350	20

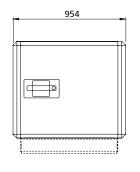
#### **TCWP Component box**

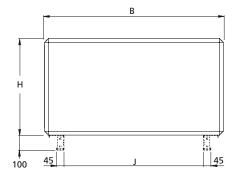
The TCWP component box is intended for the incorporation of components which must be protected from weather or mechanical damage. Typical components are valves, actuators, etc.

The component box is enclosed on all sides and has an inspection door that can be selected as a right-hung or left-hung 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	В	Н	J	kg
005	825	460	579	69
012	1199	648	953	102
030	1600	906	1354	143
040	1990	1080	1726	160

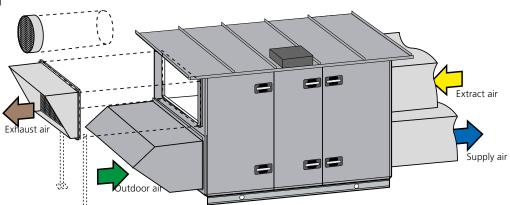
The base beams are optional extras for the size 005 (Standard on the other sizes).



#### **Outdoor installation**

The SILVER C units can be installed outdoors if they are fitted with the roof, air intake section and exhaust air hood accessories.

The SILVER C air handling units with the fan outlet/inlet positioned on the top of the unit cannot be fitted with a roof.



#### General

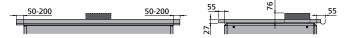
The TCKC air handling units, including optional unit sections and the COOL DX/DXS chiller can be installed outdoors. This presupposes that the roof, air intake section and exhaust air hood accessories are used. SILVER C air handling units cannot be installed outdoors in applications that call for the 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.

Visible parts are made of galvanized sheet steel, painted in Swegon's grey metallic paint (nearest comparable RAL colour: 9007).

#### **Dimensions**



# TBTF Intake air section with pre-filter (sizes 004-040)

The TBTF intake air section is made of galvanized sheet steel with visible parts i painted in Swegon's grey metallic paint (nearest comparable RAL colour: 9007). The intake air section has a fixed grille and has a hole for drainage. The intake air section has rectangular connection dimensions and the air handling unit is supplied with full face end connection panel. The intake air section is equipped with slip-clamp connection (slip clamps are included). It is possible to order a filter and damper installed in the air intake section. The filter is an aluminium-filter type that conforms to filter class G2, and also works as a water separator. Damper actuators can be ordered with spring return or with modulating function.

#### **TBTA Intake air section (sizes 050-120)**

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 004–012 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 050-120 SILVER C units is supplied in loose parts, the other components are assembled.

#### **TBTA Exhaust air hood**

The TBTA exhaust air hood is made of aluminium-zinc plated sheet steel. The exhaust air hood is equipped with protective netting. The hood is circular for sizes 004-012 and rectangular with slip-clamp connection for the other sizes (the slip clamps are included).

#### **Duct accessories**

The duct accessories should be insulated and weather-proofed to the extent necessary. 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, ensure that the required protection is arranged. Watertight 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**

SILVER C 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 applicable local standards.

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 leaking to the outdoor air and the risk of water entering the ventilation system.



## **Mechanical Equipment**

## SILVER C, sizes 004/005 and 007/008 Support stand

SILVER C RX, rotary heat exchanger SILVER C SD, supply air and extract air handling units Specially designed stand. The height of the stand makes it possible to install ducts under the air handling unit.

The stand is made of galvanized sheet steel profiled sections. The stand is supplied in 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.

#### Set of support legs

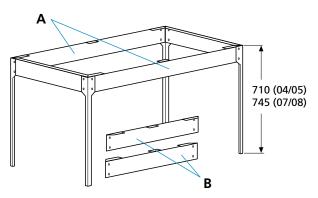
#### SILVER C PX, counterflow heat exchanger

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 in the base beams under the air handling unit.

#### 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.



Stand for the SILVER C RX/SD, sizes 004/005 and 007/008.



## **Mechanical Equipment**

## SILVER C, all sizes

#### Water trap

Water trap for the drain branch of counterflow heat exchangers and coil heat exchangers. Supplied with a set of connection fittings. The pipe from the water trap must be run without reduction in pipe dimension to a floor gulley.

#### 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.

See the table for the number of support feet for a basic set-up (two filter/fan sections and one heat exchanger section) of SILVER C.

#### **Rubber disc**

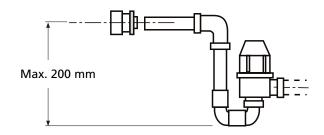
Designed to be glued under the support foot.

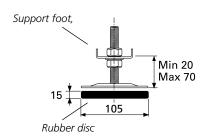
#### Slip-clamp jointing flanges

Set of slip clamps in appropriate lengths for one joint.

#### **Metu connection**

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

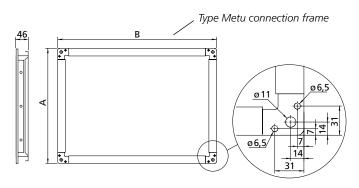




SILVER C RX	Number of support feet
004 - 030	6
035 - 080	10

SILVER C PX	Number of support feet
004 - 012	6
014 - 030	8
035 - 040	12

SILVER CX	Number of support feet
035 - 080	12



For SILVER C	Α	В	kg
014/020	458	1058	5
025/030	558	1258	5.5
035/040	658	1458	6,5
050/060	858	1658	8
070/080	1058	1858	9
100/120	1258	2458	12



## **Mechanical equipment**

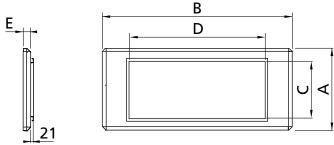
#### SILVER C, all sizes

#### End connection panel, SILVER C full face

End connection panel for transition between SILVER C in full face version and uninsulated duct accessories or duct. Version as standard SILVER C end connection panel, insulated and pre-painted in Swegon's grey metallic paint (nearest comparable RAL colour: 9007).

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 SILVER C units.

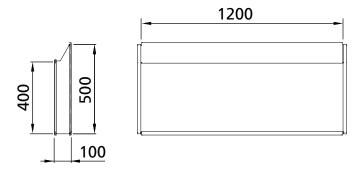


CxD correspond to the connection dimensions of the duct

For SILVER C/ COOL DX	A	В	С	D	E	kg
004/005	460	825	300	600	52	7
007/008	542,5	995	400	800	52	10
011/012	647,5	1199	400	1000	52	13
014/020	775,5	1400	500	1200	52	19
025/030	905,5	1600	600	1400	52	23
035/040	1079,5	1990	800	1600	52	34
050/060	1144	2318	1000	1800	52	34
070/080	1320	2637	1200	2400	52	40
100/120	1620	3340	1500	3100	56	59

# SILVER C RX/PX Top, sizes 025/030 Adapter, duct accessory

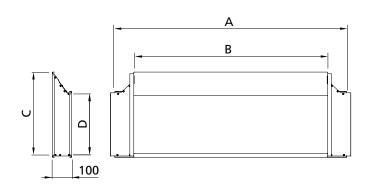
The adapter is used as a transition between the fan outlet on SILVER C RX/PX Top size 025/030 and duct accessories. Alu-zinc treated sheet steel.



Weight: 5 kg

# SILVER C RX/PX Top, sizes 014-030 Adapter, duct accessory

The adapter is used as a transition between the air intake on SILVER C RX/PX Top size 014-030 and duct accessories. Alu-zinc treated sheet steel.



For SILVER C	Α	В	С	D	kg
014/020	1200	1000	400	300	4
025/030	1400	1200	500	300	5



#### **TBXZ Pipework package**

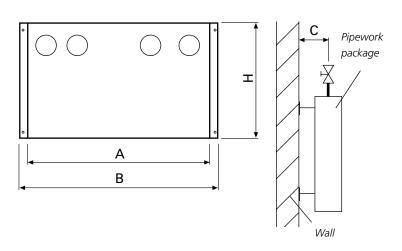
The pipework package is used for the SILVER C SD with coil heat exchanger and the SILVER C CX. The floor stand for the pipework package is available as an accessory. With the floor stand, the height from floor level to the thermometers on the installed pipework package is approx. 1480 mm.

**Included in the delivery:** 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 valves, thermometers, filling valve, commissioning valve and air purging valve. Wall mounting bracket

#### The following are not included in the delivery:

Control system and temperature sensors. Supplied by the controls supplier. The temperature sensor should be of strap-on type.

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.



SILVER C/ SILVER C Sizes	TBXZ-42 Size	Α	В	Н	С
004/005	05	601	669	415	130
007/008	08	601	669	415	130
011/012	12	601	669	415	130
014/020	20	601	669	415	130
025/030	30	772	839	530	128
035/040	40	772	839	530	128
050/060	60	772	839	530	128
070/080	80	772	839	530	128
100/120	120	937	1003	640	141

# Hand-held micro terminal, fan motor control system

The hand-held micro terminal is used for setting the motor parameters of the SILVER C.

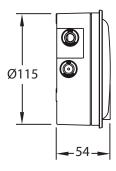


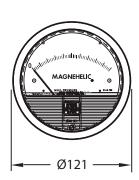


**Manometer Magnehelic, TBXZ** Measures the pressure drop across the filter (700 Pa) or fan (1,500 Pa). Casing painted in grey tone. Hoses are supplied with the manometer.

Can be mounted flush or on surface.







Weight: approx. 600 g

#### **U-tube manometer, TBXZ**

Measures the pressure drop across the filter or fan. 0-1200 Pa, Hoses are supplied with the manometer. 180 x 30 mm.

