

IBIS_b

Installation – Commissioning – Maintenance

20220929

Accessories

- IBIS D:** Duct section of the same design as the IBIS, but without nozzles.*)
- IBIS C:** Sound attenuating measurement and control unit.*)
- IBIS B:** 45° and 90° bend with white painted finish.*)
- IBIS T:** T-piece with white painted finish.*)

*) Available up to and including size 400.

Installation

See next page.

Commissioning

An IBIS C or a flow measuring damper installed in the duct system upstream of the duct diffuser is recommended for commissioning and airflow measurements.

Maintenance

The air diffuser can be cleaned, if necessary, using lukewarm water with dishwashing detergent added or by vacuum cleaning using a brush nozzle.

Methodic Errors

Type of obstruction upstream of the IBIS C	Length of straight duct (L) upstream of the IBIS C	
	For $m_2=5\%$	For $m_2=10\%$
One 90° bend.	3 x Ød	2 x Ød
Two 90° bends in the same plane.	4 x Ød	2 x Ød
Two 90° bends in alignment at right angles to one another.	4 x Ød	2 x Ød
One 45° damper.	6 x Ød	3 x Ød
One T-piece.	4 x Ød	3 x Ød

m_2 = methodic error. Method for measurement of airflows in ventilation Installations.

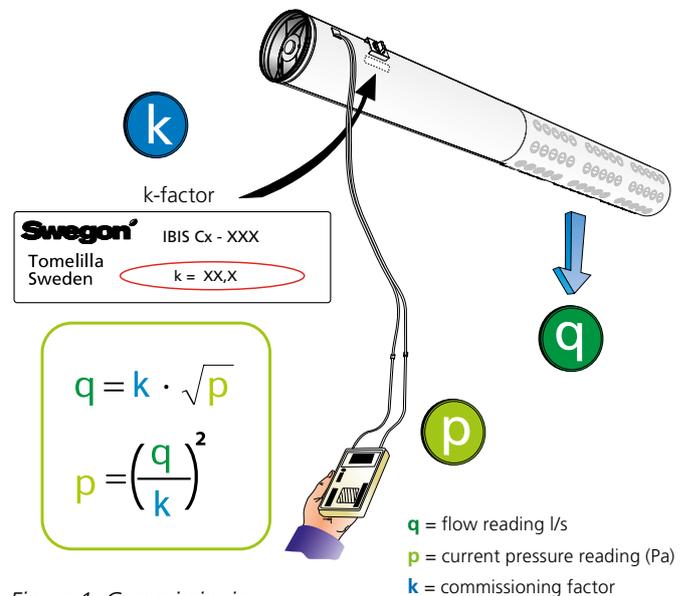


Figure 1. Commissioning.

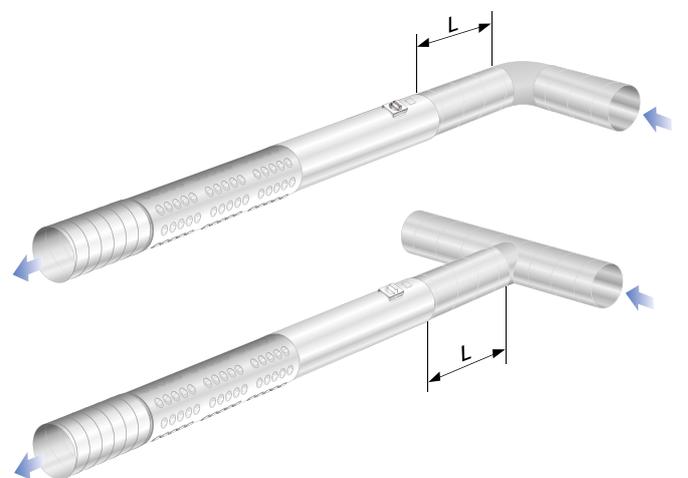
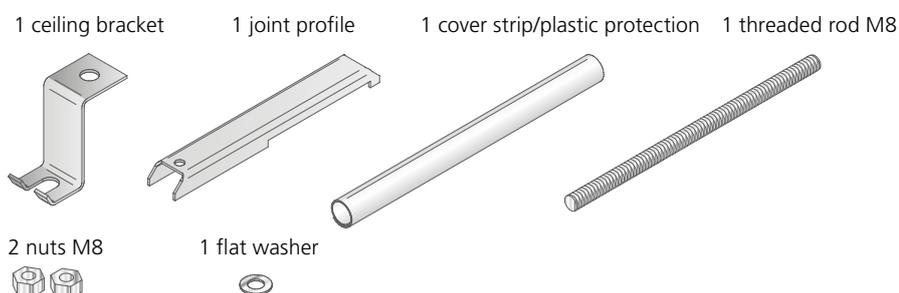


Figure 2. Planning.

Set with installation accessories

These items are enclosed in a plastic bag (Other parts are ready-fitted on the diffuser on delivery).

Note the number of items applies per section.



Installation

The duct diffuser is suspended by hangers from the ceiling. The air diffusers can be installed as in the following examples:

Phase A

- The duct section (1) is placed on the floor. Insert the suspension bracket (2) approx. 100 mm in from the end on the longitudinal profiled rail (3).

NOTE! It is important that the rectangular washer on the suspension bracket rests against the rail, see the zoomed in image.

- Loosen the long nut slightly to create some space.
- Secure the bolts in the profiled bracket with long nuts (4). Screw a threaded rod (5) of appropriate length into each long nut.
- Secure the Z-profiled brackets (6) with bolts to the ceiling to serve as mounting brackets for the duct-shaped air diffusers with nozzles.
- Hang the duct air diffuser with nozzles (1) in the Z-profiled brackets (6) and join it together with the connecting supply air duct (7) using the standard duct joint (8) included in the supply.
- Adjust the duct air diffuser using the nuts (9) until the air diffuser is horizontal and at the correct height. The enclosed white plastic protection (15) is fitted onto the threaded rod.

Phase B

- Loosen the end cap (13) and move it to the outermost section if several sections are mounted. The duct diffuser with distribution nipple (10) must be mounted in the section (12).
- Insert the guide pin (11) in the free end of the installed section.
- Repeat phase A to install the next section (12). Mount a suspension bracket (2) with long nuts (4) at one end as the other is secured with the nipple to the section already installed. The distribution nipple (10) is secured with pan head screws in the sections. Repeat Phase B for last section.

Phase C

- Install the inactive IBIS D duct sections (14) in the same way as the duct air diffuser sections with nozzles. Note the use of supplied joints (8) and distribution joints (10) included in the supply.
- Position on delivery **I** and **II** Position after reassembly and installation. The end cap (13) is supplied mounted in the first section. Move the end cap to the last section if IBIS 3000 and IBIS 4500 are supplied, See Phase B in Figure 3.

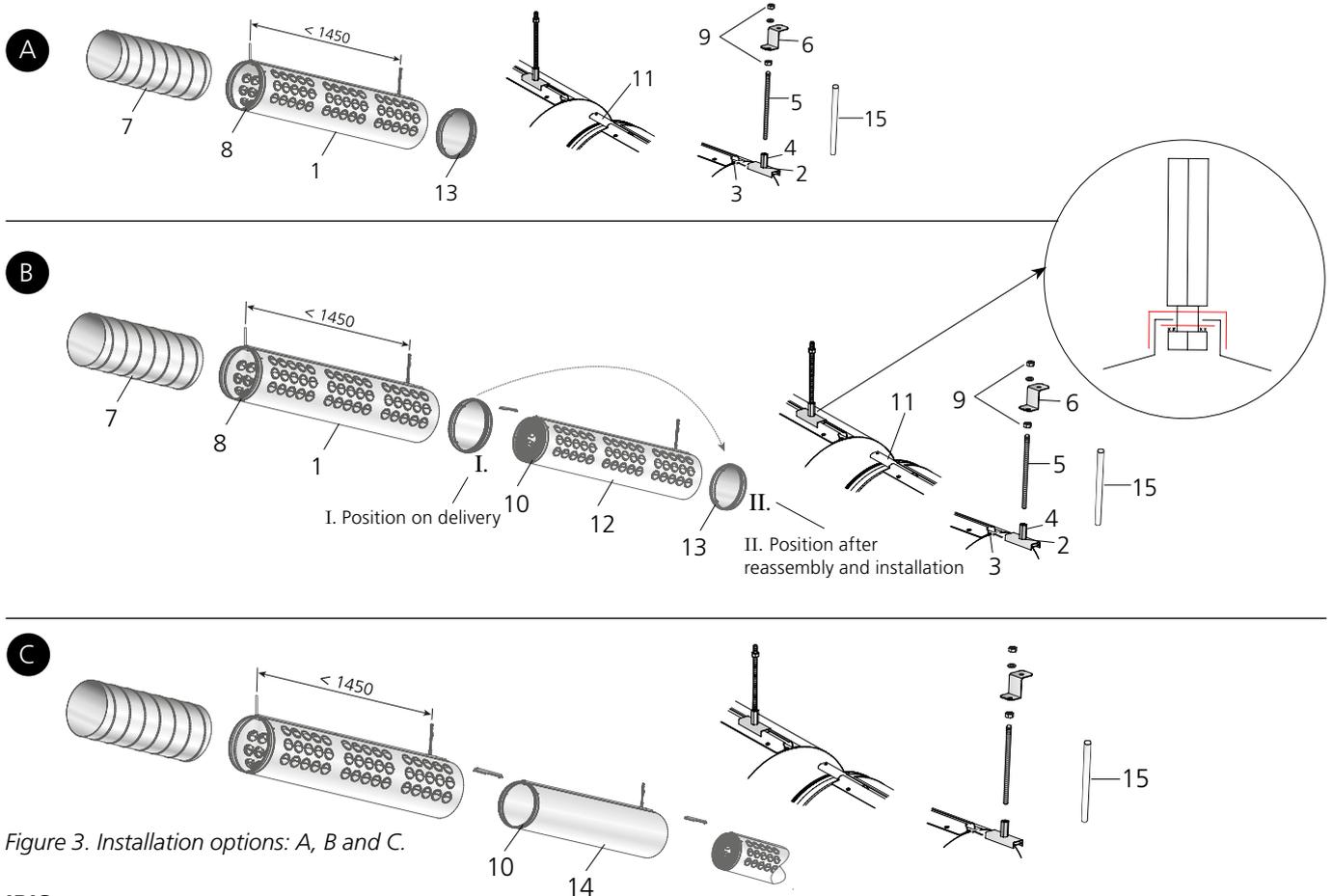


Figure 3. Installation options: A, B and C.

IBIS components

Size	Sections	Standard joint	Distribution joint	End cover	Set with installation accessories
IBIS -aaa-1500-c	1	1	-	1	1
IBIS -aaa-3000-c	2	1	1	1	2
IBIS -aaa-4500-c	3	1	2	1	3
IBIS D-aaa	1	1			1

Nozzle Positioning

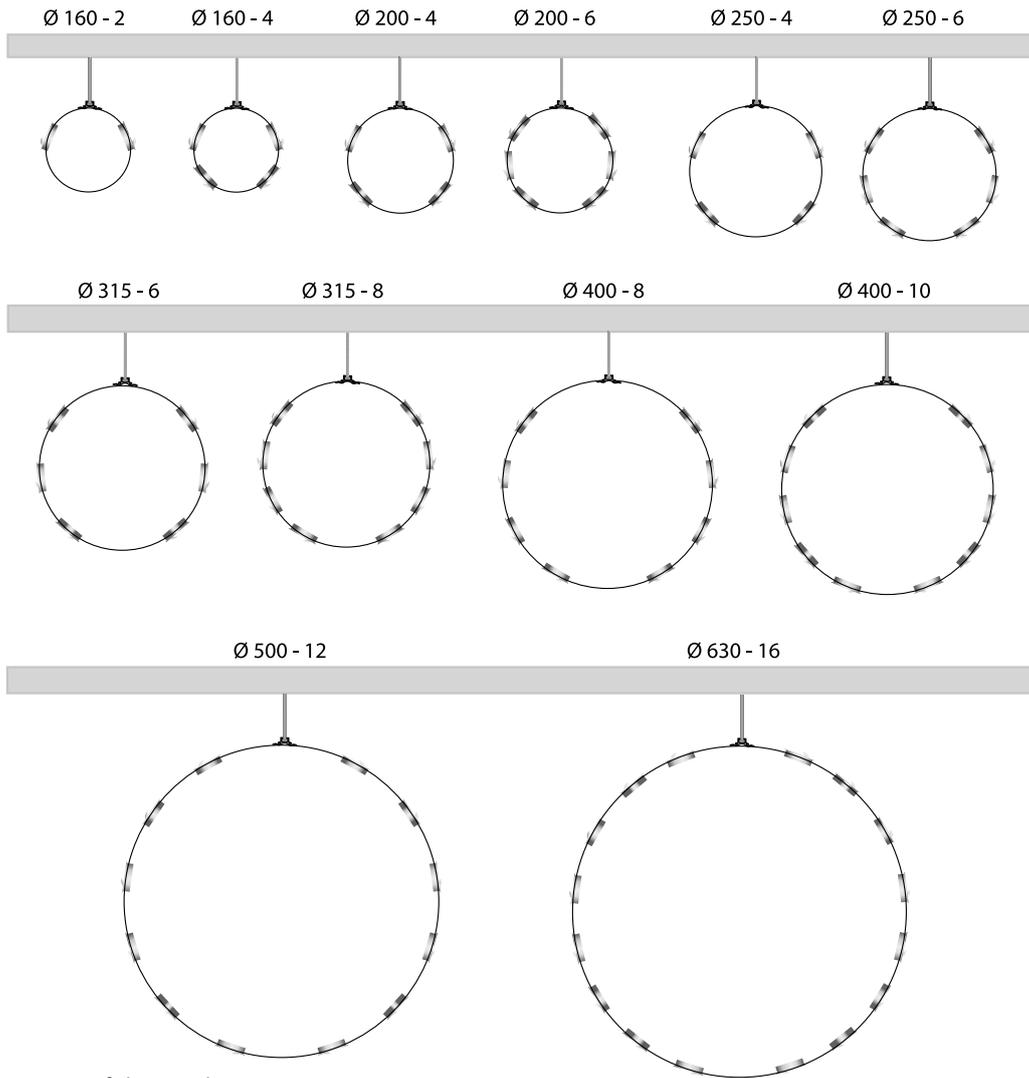


Figure 4. Arrangement of the nozzles.

Nozzle setting

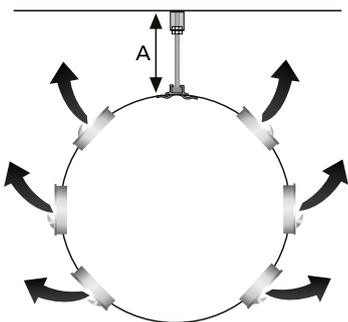


Figure 5. 2-way with short throw length. All the nozzles are directed upward toward the mounting strip.

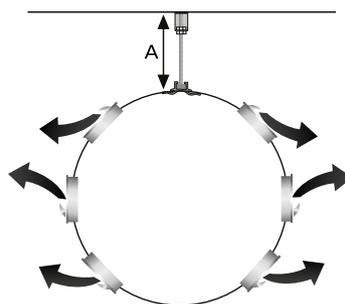


Figure 6. 2-way with long throw length. The uppermost row of nozzles on both sides of the mounting strip should face downward.

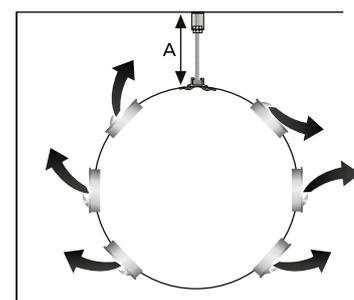


Figure 7. 1-way air discharge close to a wall. The uppermost row of nozzles on the air diffuser half facing the room should discharge air downward; the other nozzles should discharge air upward.

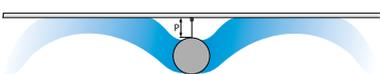


Figure 8. 2-way air discharge.



Figure 9. 1-way air discharge.

A = Hanger length (Standard is 200 mm)

Dimensions and weight

Size	ØD (mm)	L1*= Install size (mm)	L2*= Overall size (mm)	m*)	n*)	Weight (kg)
160-1500-2	159	1455	1495	1	30	6,3
160-1500-4	159	1455	1495	1	60	6,3
160-3000-2	159	2910	2950	2	60	12,4
160-3000-4	159	2910	2950	2	90	12,4
200-1500-4	199	1455	1495	1	60	7,6
200-1500-6	199	1455	1495	1	90	7,5
200-3000-4	199	2910	2950	2	120	14,8
200-3000-6	199	2910	2950	2	180	14,6
250-1500-4	249	1455	1495	1	60	8
250-1500-6	249	1455	1495	1	90	7,9
250-3000-4	249	2910	2950	2	120	15,5
250-3000-6	249	2910	2950	2	180	15,4
250-4500-4	249	4365	4405	3	180	23
250-4500-6	249	4365	4405	3	270	22,8
315-1500-6	314	1455	1495	1	90	10
315-1500-8	314	1455	1495	1	120	9,9
315-3000-6	314	2910	2950	2	180	19,3
315-3000-8	314	2910	2950	2	240	19,2
315-4500-6	314	4365	4405	3	270	28,5
315-4500-8	314	4365	4405	3	360	28,4
400-1500-8	399	1455	1495	1	120	12,8
400-1500-10	399	1455	1495	1	150	12,7
400-3000-8	399	2910	2950	2	240	24,4
400-3000-10	399	2910	2950	2	300	24,3
400-4500-8	399	4365	4405	3	360	36,1
400-4500-10	399	4365	4405	3	450	35,9
500-1500-12	499	1455	1495	1	180	16,1
500-3000-12	499	2910	2950	2	360	30,6
630-1500-16	629	1455	1495	1	240	20
630-3000-16	629	2910	2950	2	480	37,6

*Dimensions without end cap.

Weight including end cap.

m*) = Number of duct modules.

n*) = Number of nozzles.

K-factor (COP)

Sound attenuating measurement and control unit IBIS C		
Size	K-factor	Weight (kg)
160-1500	14,8	7,0
200-1500	22,5	8,0
250-1500	36,1	8,5
315-1500	61,2	10,5
400-1500	96	13,0

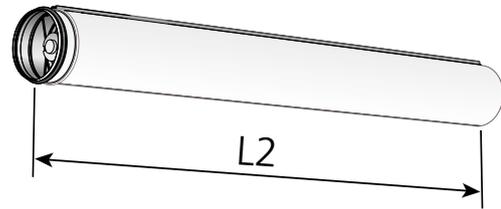
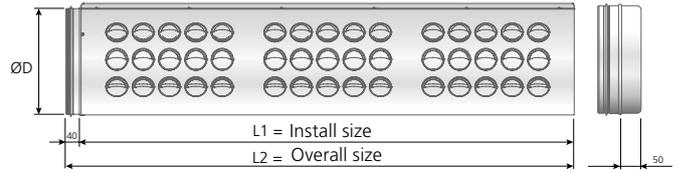


Figure 10. IBIS and IBIS D (The dimension refers to one section). End cap, dimension show the increase when assembled.

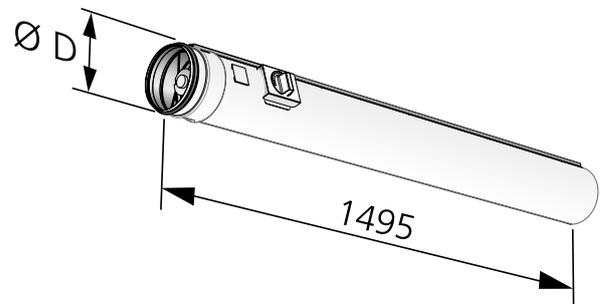


Figure 11. IBIS C.

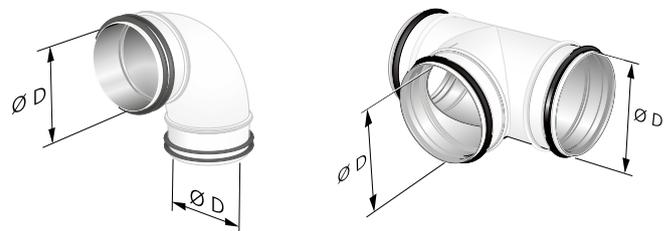


Figure 12. IBIS B and IBIS T.

Accessories up to and including size 400 are available.