

# Lindab **CBC/CBE**

Plenum box  
Installation instructions



# CBC/CBE

## Content

Symbols .....	2
<b>1. Unpacking and protection of CBC-CBE .....</b>	<b>3</b>
Accessories .....	3
Dimensions .....	4
Damper options .....	4
<b>2. Mounting of CBC-CBE .....</b>	<b>5</b>
Accessory MHS .....	5
Threaded rod .....	5
Directly against ceiling .....	5
<b>3. Mounting of diffuser in CBC-CBE .....</b>	<b>6</b>
<b>4. Balancing .....</b>	<b>7</b>
k-factors for ceiling diffusers + CBC-CBE .....	8
<b>5. Maintenance .....</b>	<b>10</b>
Installation of C- and E-damper .....	11

## Symbols



Supply air



Extract air



Open damper



Closed damper



No tools - Magnet



Lock

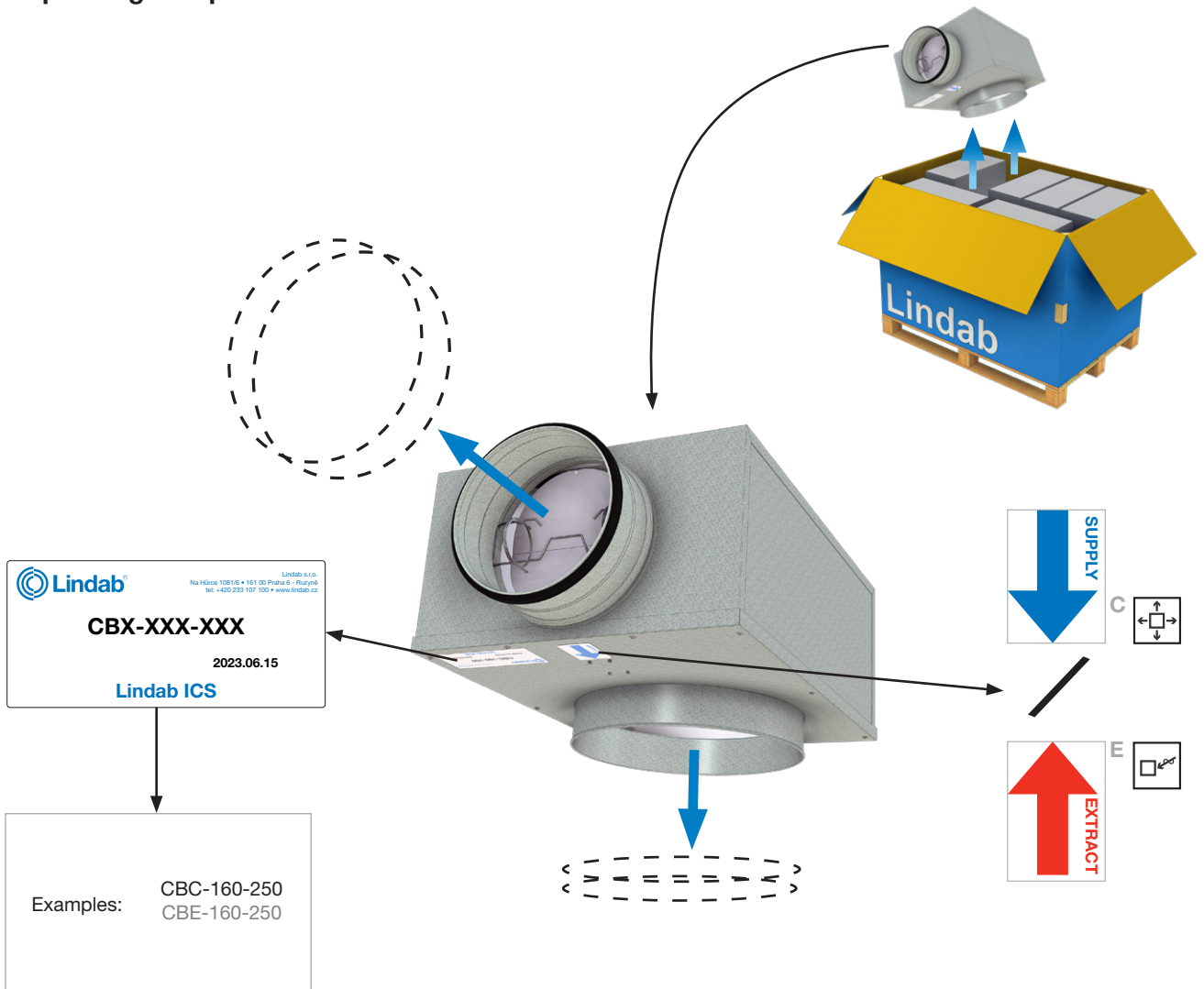


Unlock

# CBC/CBE

1

## Unpacking and protection of CBC/CBE



**Lindab**  
**CBX-XXX-XXX**  
 2023.06.15  
**Lindab ICS**

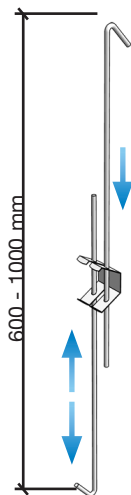
Examples: CBC-160-250  
 CBE-160-250

## Accessories

MHS

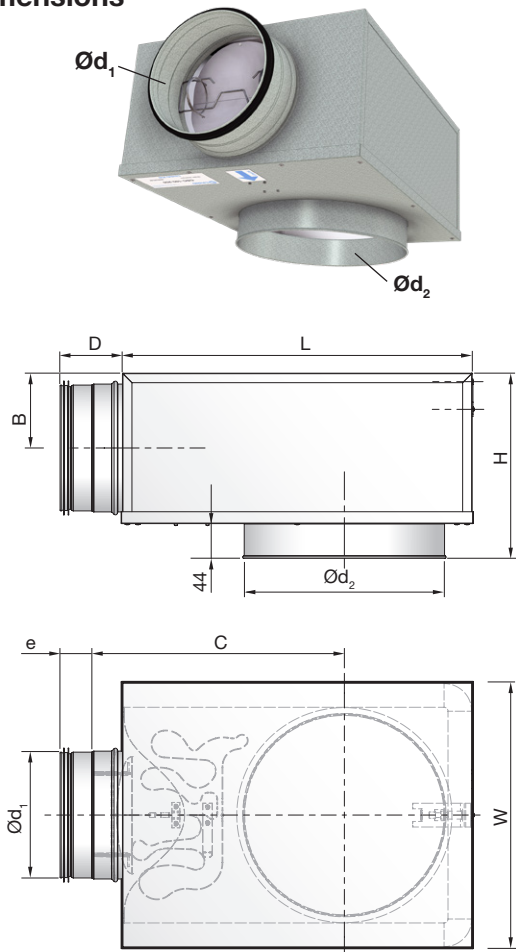
M8

PC410



# CBC/CBE

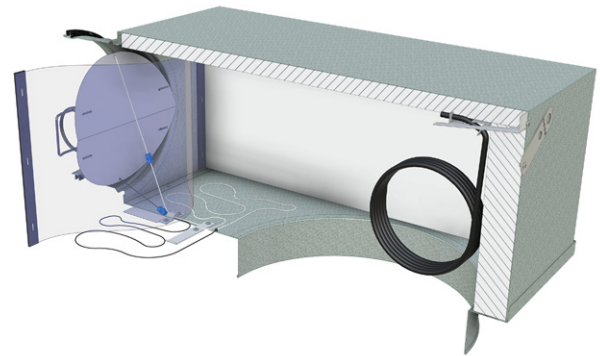
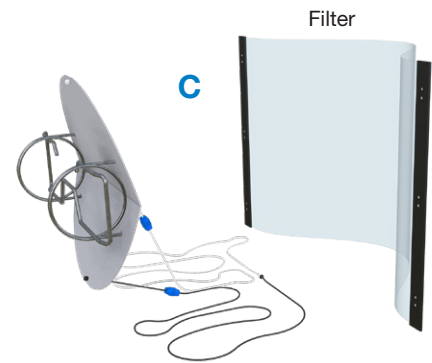
## Dimensions



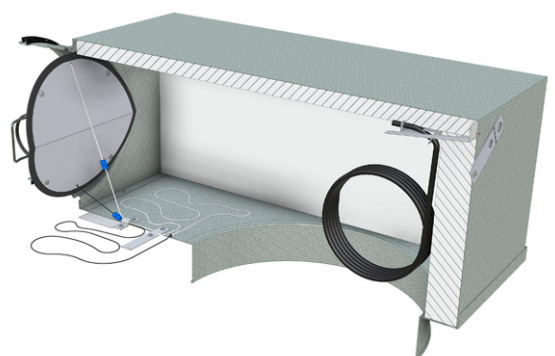
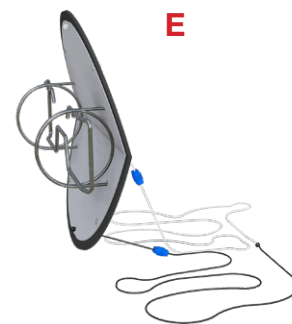
Ød <sub>1</sub> mm	Ød <sub>2</sub> mm	B	C	D	e	H	L	W	m kg
100	125	65	213	78	40	175	277	213	1.4
100	160	65	231	78	40	175	312	248	1.6
125	160	78	250	78	40	200	331	248	1.9
125	200	78	270	78	40	200	371	288	2.3
160	200	95	295	78	40	234	396	288	2.6
160	250	95	320	78	40	234	446	338	3.1
200	250	115	345	78	40	274	471	338	3.6
200	315	115	377	78	40	274	536	403	4.3
250	315	140	423	118	60	325	563	405	6.5
250	400	140	466	118	60	325	648	490	8.6
315	400	173	536	118	60	390	718	490	9.8

## Damper options

### CBC



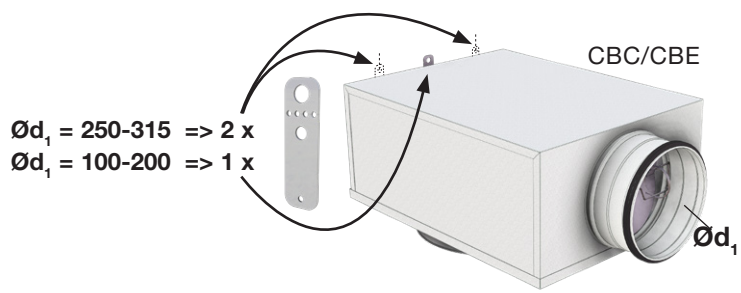
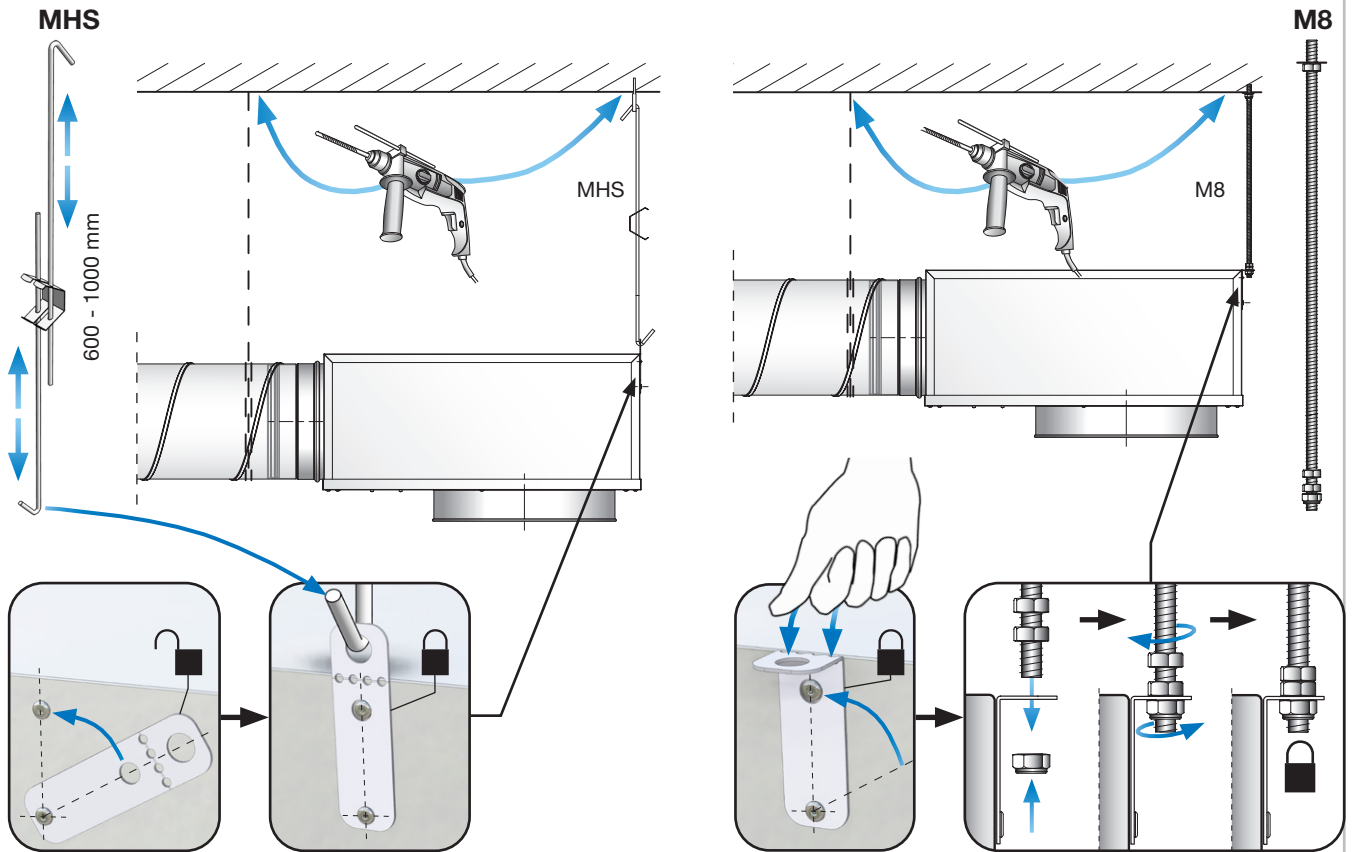
### CBE



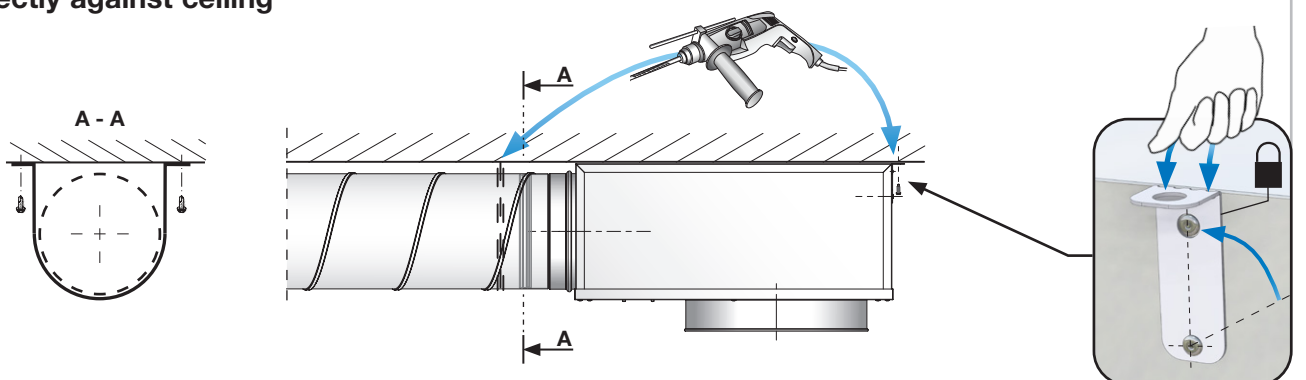
# CBC/CBE

2

## Mounting of CBC/CBE Accessory MHS Threaded rod M8



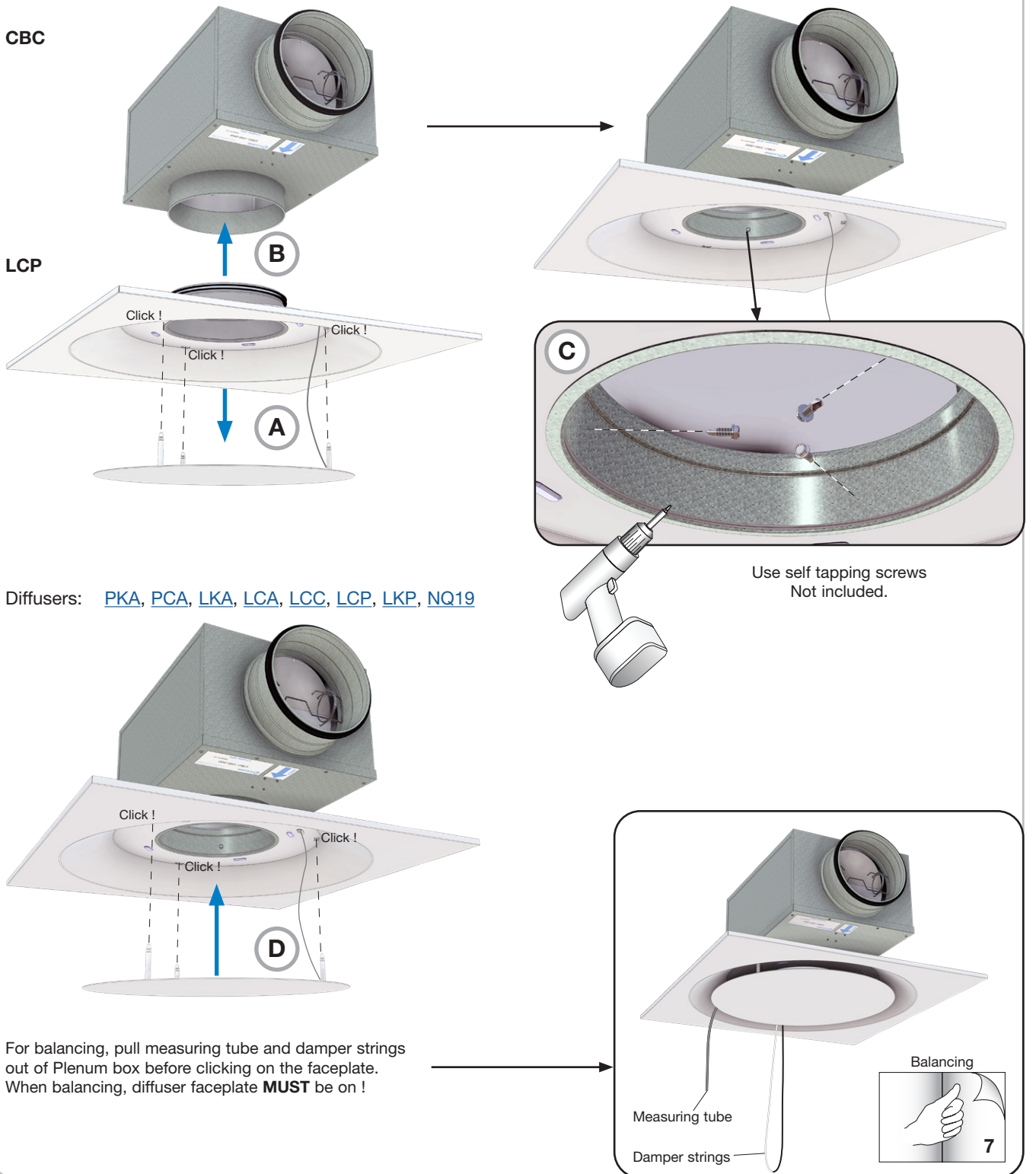
### Directly against ceiling



# CBC/CBE

## Mounting of diffuser in CBC/CBE

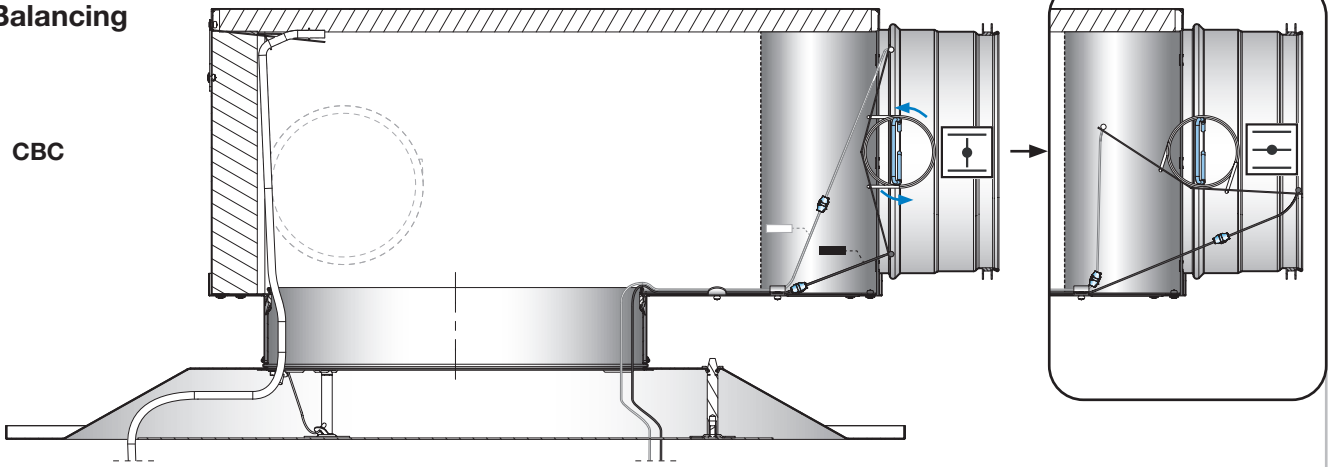
Example: LCP-200 + CBC-160-200



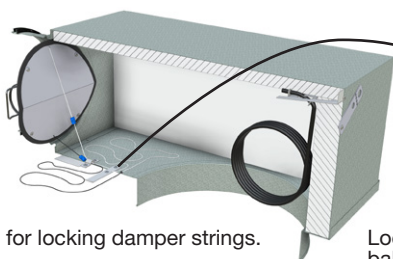
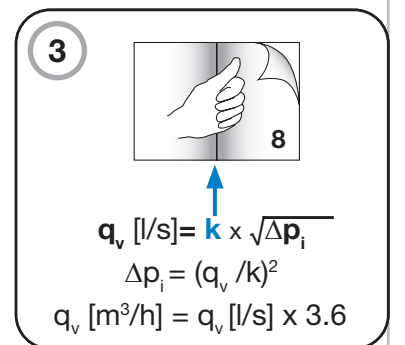
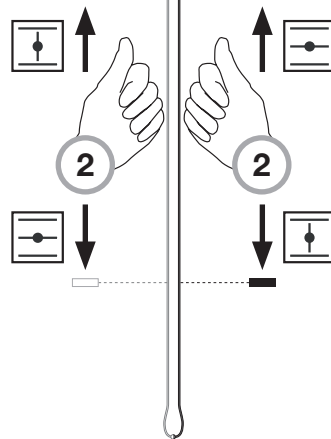
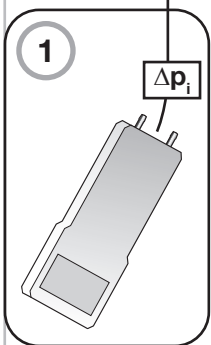
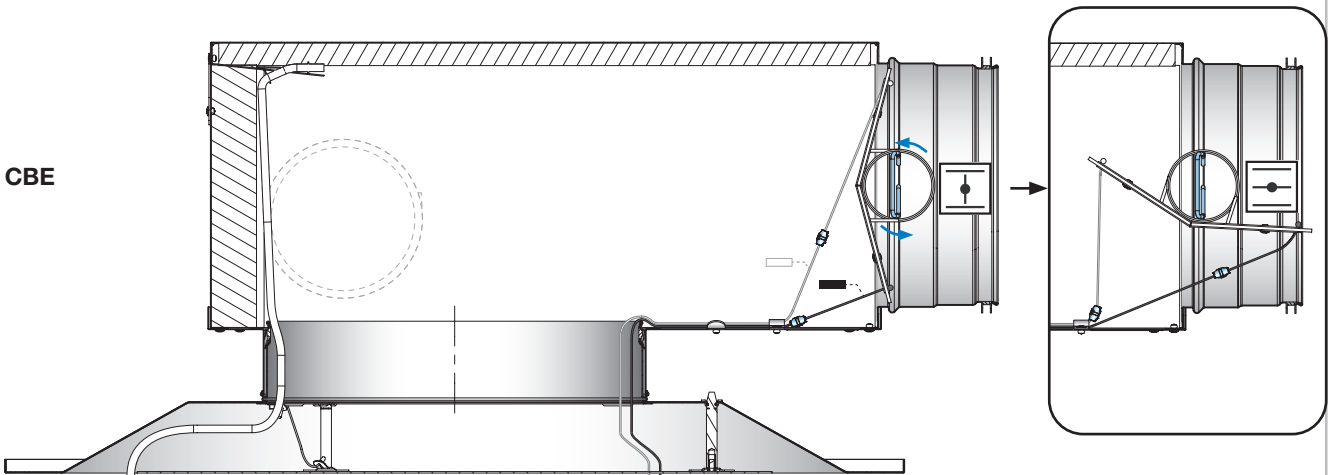
# CBC/CBE

## Balancing

CBC

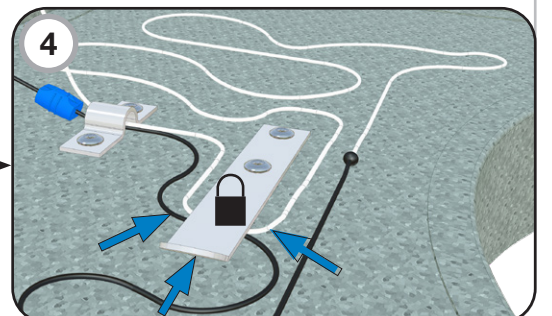


CBE



Bracket for locking damper strings.

Lock the damper strings when balancing is complete.



# CBC/CBE


## k-factors for ceiling diffusers + CBC

$$q_v \text{ [l/s]} = k \times \sqrt{\Delta p_i}$$

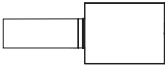
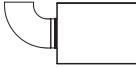
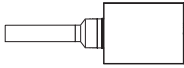
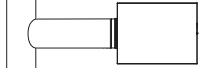
$$\Delta p_i = (q_v / k)^2$$

$$q_v \text{ [m}^3\text{/h]} = q_v \text{ [l/s]} \times 3.6$$

Supply air

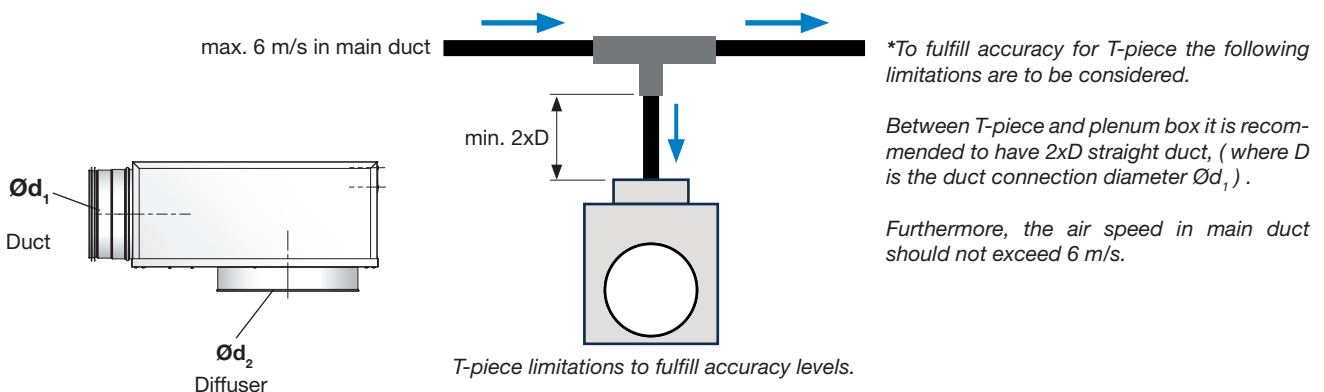
CBC 	Formo				Integra		NQ19
	PCA	PKA	LCA	LKA	LCC/LCP	LKP	
CBC-100-125	9.92	9.80	9.37	9.19	8.64	8.18	-
CBC-100-160	11.64	11.87	10.87	11.44	10.75	10.65	11.06
CBC-125-160	14.66	14.82	12.88	13.78	12.77	12.32	10.94
CBC-125-200	16.96	18.09	14.58	17.06	15.71	15.19	17.82
CBC-160-200	21.39	22.90	17.32	20.65	18.26	17.31	17.57
CBC-160-250	25.98	25.83	22.85	24.19	20.63	21.58	23.38
CBC-200-250	30.91	30.33	26.29	28.23	23.44	24.60	25.17
CBC-200-315	42.64	43.58	33.31	36.78	28.17	29.48	32.24
CBC-250-315	43.04	43.50	32.23	35.99	27.66	28.60	36.90
CBC-250-400	55.65	55.44	35.25	41.35	-	-	41.78
CBC-315-400	62.89	70.18	35.72	43.74	-	-	44.33

- Not possible

Diffuser	Supply			
				
	SR	BKU, BU, BSU	RCFU	TCPU
LCC / LCP / LKP / NQ19	±5%	±7.5%	±7.5%	±10.0%
LCA / LKA	±5%	±7.5%	±7.5%	±10.0%
PCA / PKA	±7.5%	±10.0%	±10.0%	±12.5%

To fulfill the above-mentioned accuracy levels, the min. air speed at the diffuser connection ( $\varnothing d_2$ ) of the plenum box should be 1.2 m/s, which corresponds to the following min. air flow for different sizes:

Diffuser connection $\varnothing d_2$ mm	min. Air flow l/s
125	15
160	24
200	38
250	59
315	94
400	151





# CBC/CBE


## k-factors for ceiling diffusers + CBE

$$q_v \text{ [l/s]} = k \times \sqrt{\Delta p_i}$$

$$\Delta p_i = (q_v / k)^2$$

$$q_v \text{ [m}^3\text{/h]} = q_v \text{ [l/s]} \times 3.6$$

Extract air

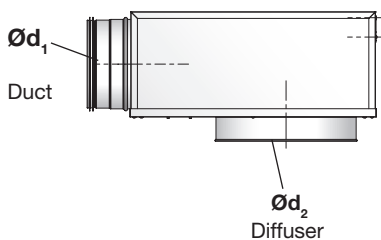
CBE 	Formo				Integra	
	PCA	PKA	LCA	LKA	LCC/LCP	LKP
CBE-100-125	27.27	25.38	16.86	16.08	15.83	16.05
CBE-100-160	30.54	45.55	26.52	20.74	20.84	21.03
CBE-125-160	23.68	30.45	20.45	17.99	18.58	20.44
CBE-125-200	42.66	51.88	27.70	27.52	18.39	25.90
CBE-160-200	33.16	33.80	25.23	26.66	19.98	21.85
CBE-160-250	40.15	59.99	34.07	40.18	22.15	25.65
CBE-200-250	42.32	44.98	31.05	35.54	23.58	26.28
CBE-200-315	73.24	83.27	45.47	53.07	29.64	28.99
CBE-250-315	57.35	59.56	38.27	43.60	22.99	28.20
CBE-250-400	114.1	132.61	41.62	47.57	-	-
CBE-315-400	104.11	103.77	40.27	48.54	-	-

- Not possible

Extract	
Diffuser	All connections
LCC / LCP / LKP	±5%
LCA / LKA	±5%
PCA / PKA	±7.5%

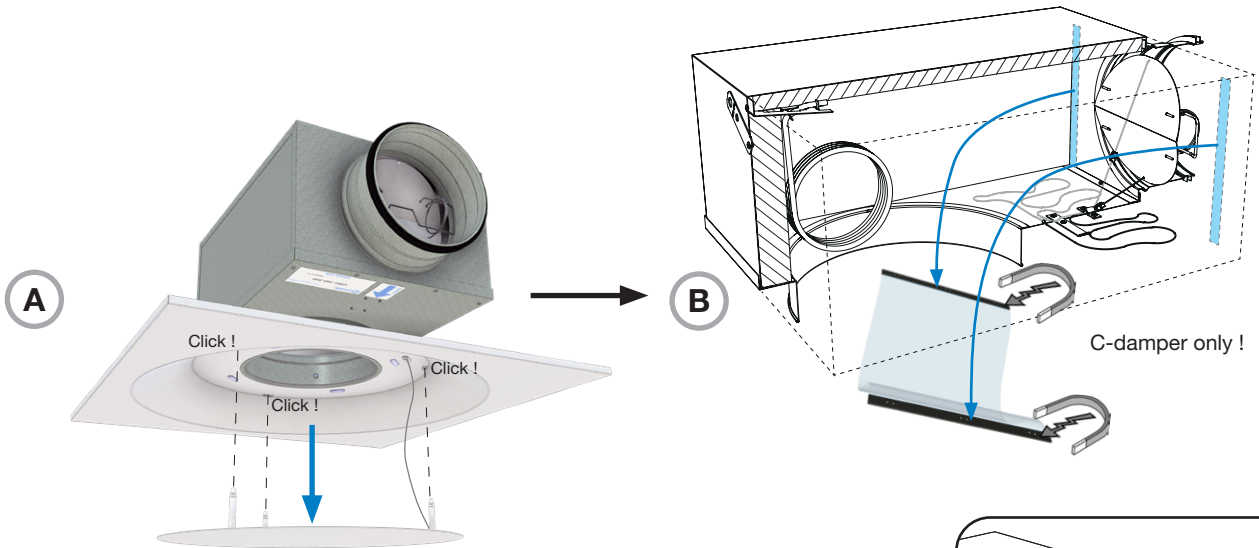
To fulfill the above-mentioned accuracy levels, the min. air speed at the diffuser connection ( $\varnothing d_2$ ) of the plenum box should be 1.2 m/s, which corresponds to the following min. air flow for different sizes:

Diffuser connection $\varnothing d_2$ mm	min. Air flow l/s
125	15
160	24
200	38
250	59
315	94
400	151

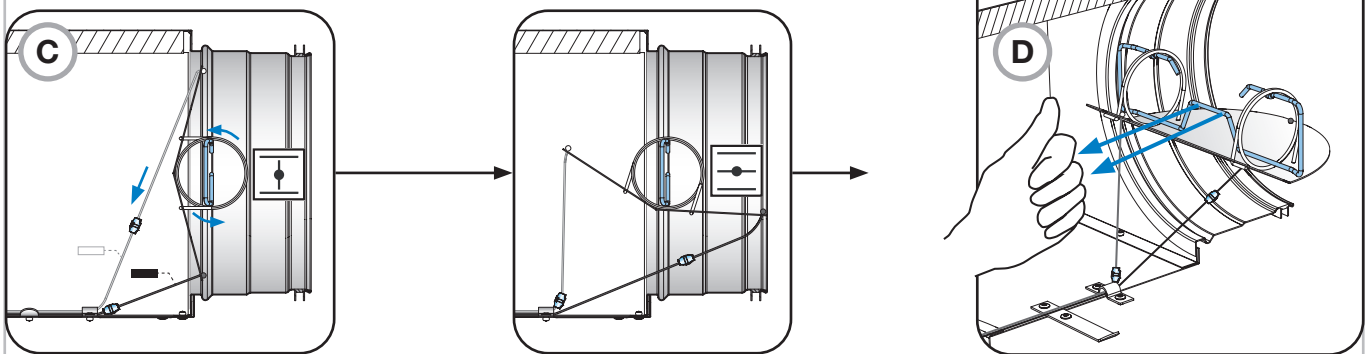


# CBC/CBE

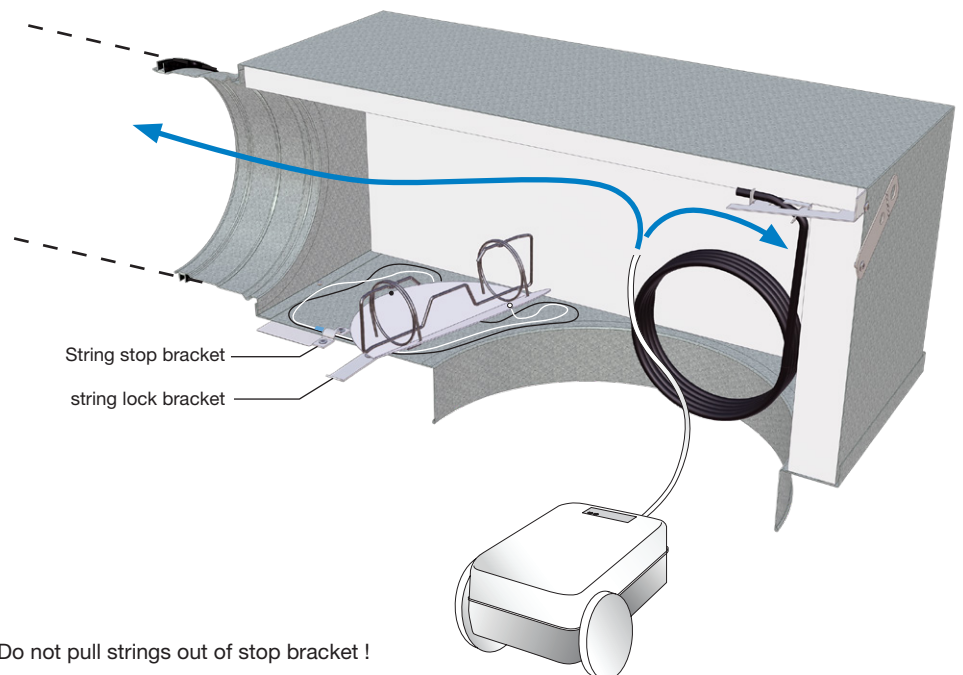
## Maintenance



## CBC/CBE

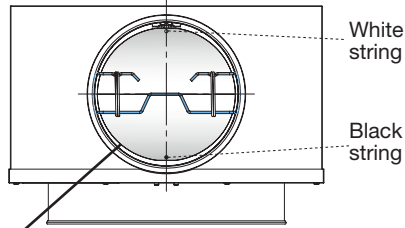


Store the damper in the plenum box



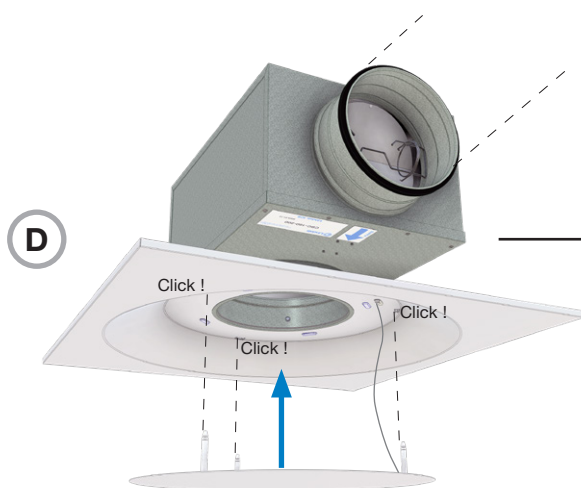
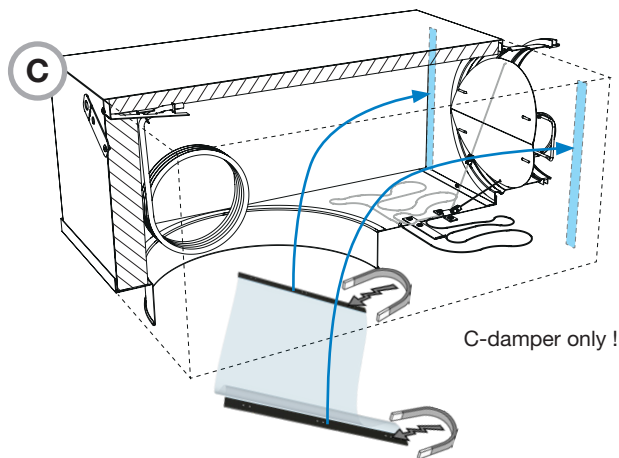
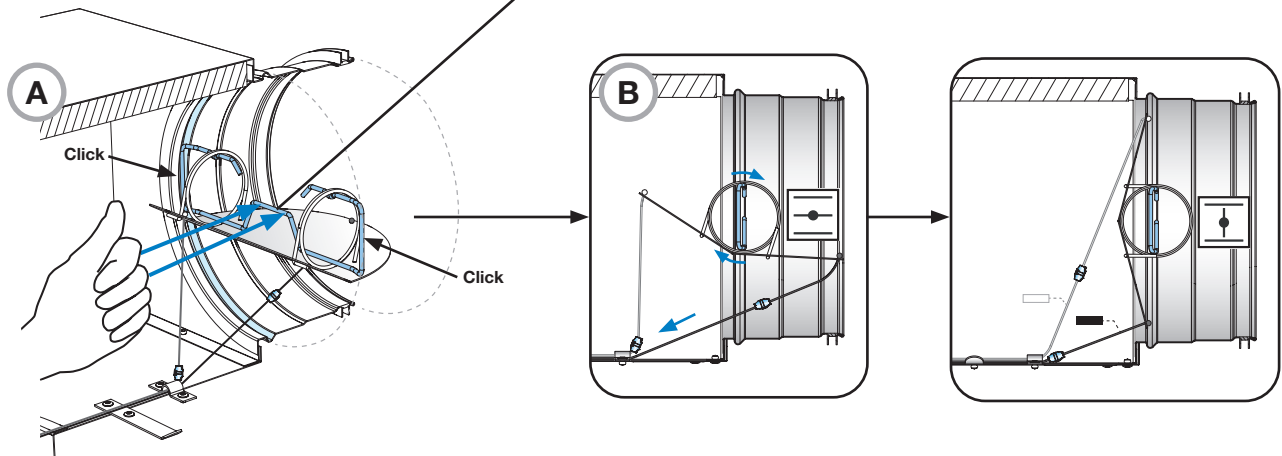
# CBC/CBE

## Installation of C- and E-damper



Damper bracket must be clicked in horizontally closed position. Front view showing closed position.

### CBC/CBE



For balancing pull measuring tube and damper strings out of plenum box before clicking on faceplate.

When balancing, diffuser faceplate **MUST** be on !

After balancing store strings in box and lock damper strings, see page 7.

Measuring tube

Damper strings

Balancing

7



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

[Lindab](#) | For a better climate