

Lindab **CBC/CBE**

Plenum box
Installation instructions



CBC/CBE

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Symbols



Supply air



Extract air



Open damper



Closed damper



No tools - Magnet



Lock

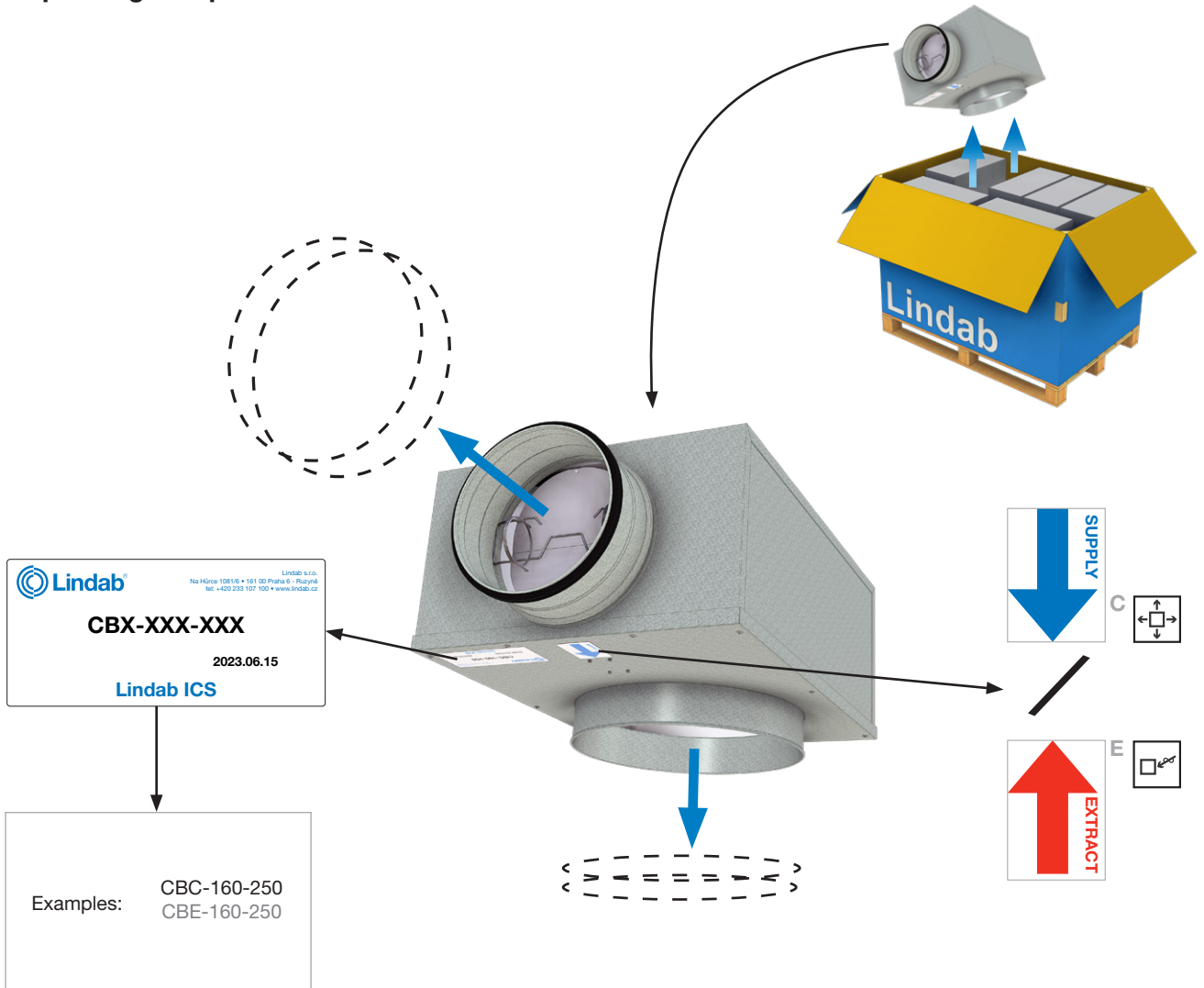


Unlock

CBC/CBE

1

Unpacking and protection of CBC/CBE

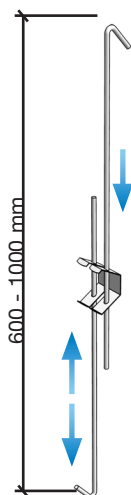


Accessories

MHS

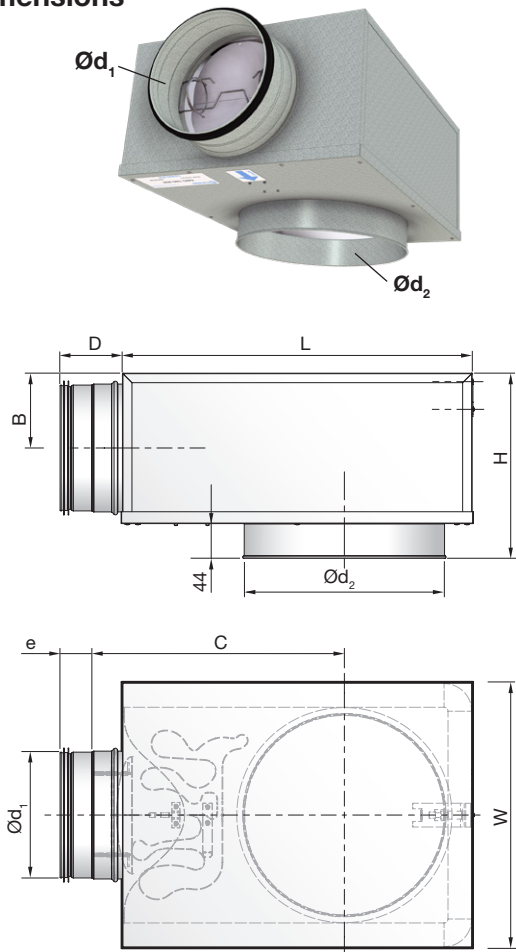
M8

PC410



CBC/CBE

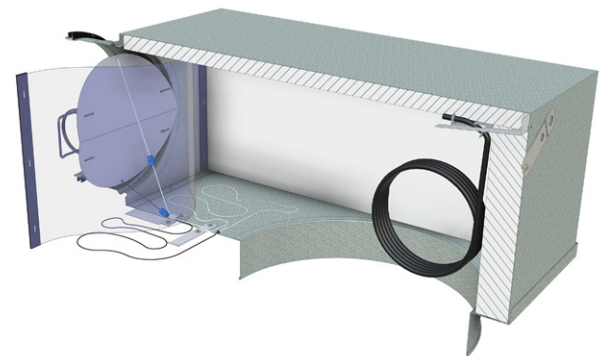
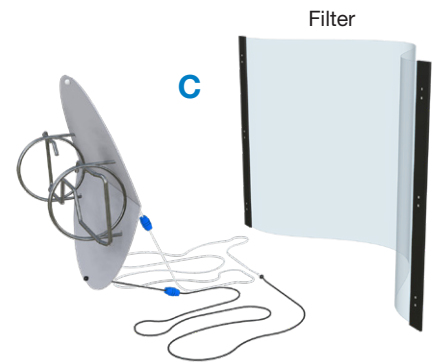
Dimensions



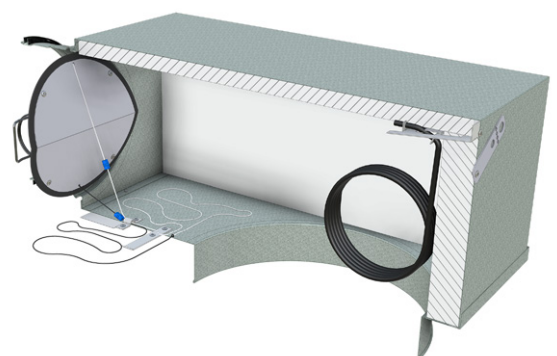
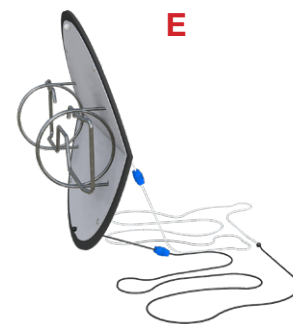
| Ød ₁ mm | Ød ₂ mm | B | C | D | e | H | L | W | m kg |
|-----------------------|-----------------------|-----|-----|-----|----|-----|-----|-----|---------|
| 100 | 125 | 65 | 213 | 78 | 40 | 175 | 273 | 209 | 1.4 |
| 100 | 160 | 65 | 231 | 78 | 40 | 175 | 308 | 244 | 1.6 |
| 125 | 160 | 78 | 250 | 78 | 40 | 200 | 327 | 244 | 1.9 |
| 125 | 200 | 78 | 270 | 78 | 40 | 200 | 367 | 284 | 2.3 |
| 160 | 200 | 95 | 295 | 78 | 40 | 234 | 392 | 284 | 2.6 |
| 160 | 250 | 95 | 320 | 78 | 40 | 234 | 442 | 334 | 3.1 |
| 200 | 250 | 115 | 345 | 78 | 40 | 274 | 467 | 334 | 3.6 |
| 200 | 315 | 115 | 377 | 78 | 40 | 274 | 532 | 399 | 4.3 |
| 250 | 315 | 140 | 423 | 118 | 60 | 325 | 558 | 399 | 6.5 |
| 250 | 400 | 140 | 466 | 118 | 60 | 325 | 643 | 484 | 8.6 |
| 315 | 400 | 173 | 536 | 118 | 60 | 390 | 714 | 484 | 9.8 |

Damper options

CBC



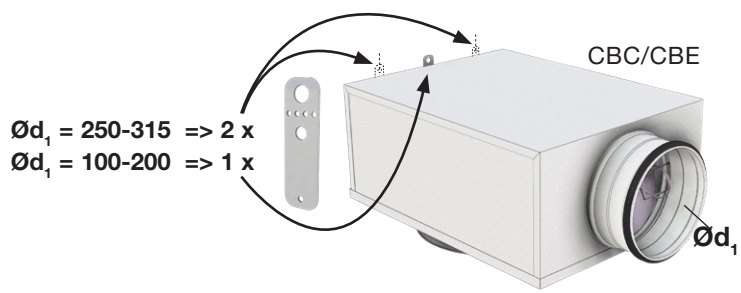
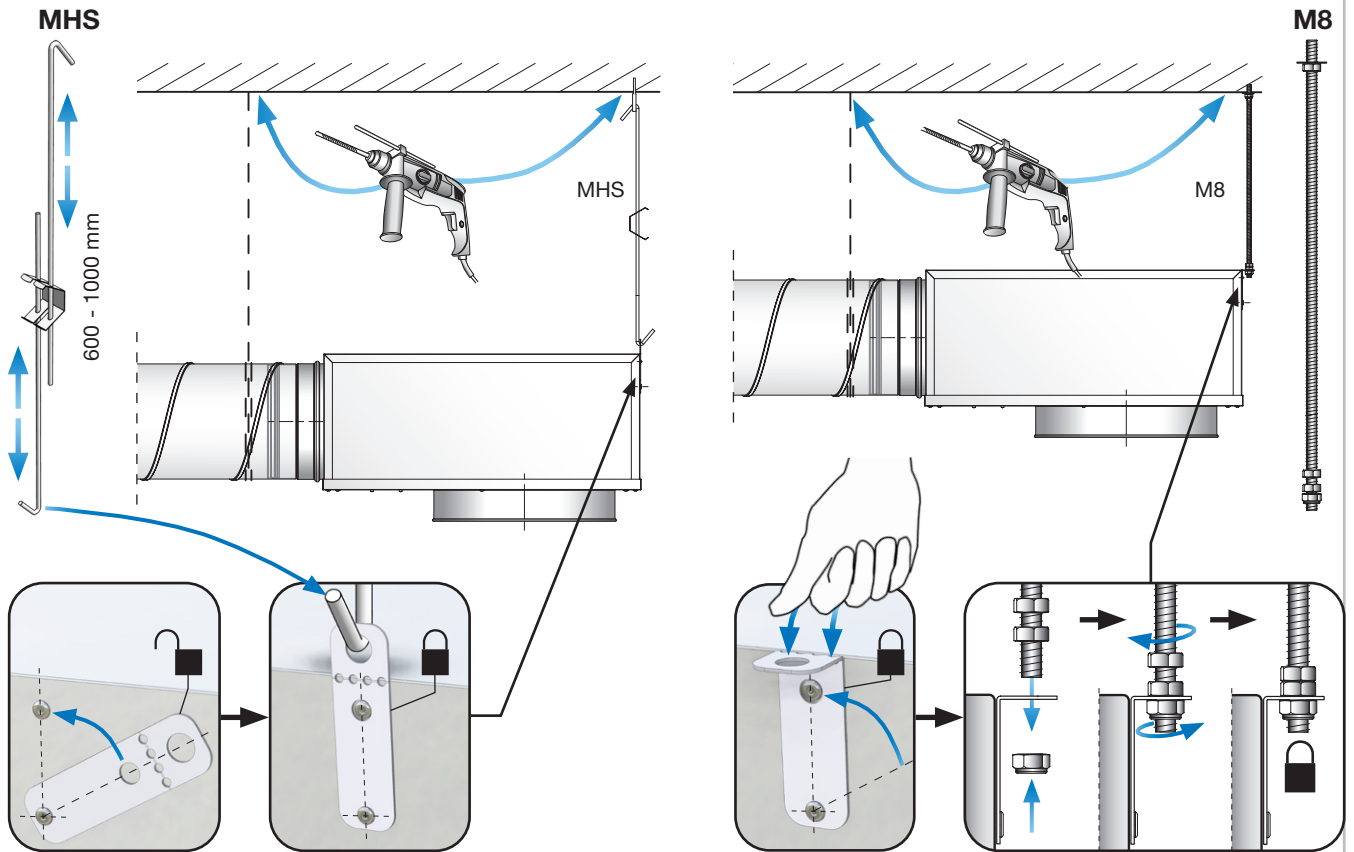
CBE



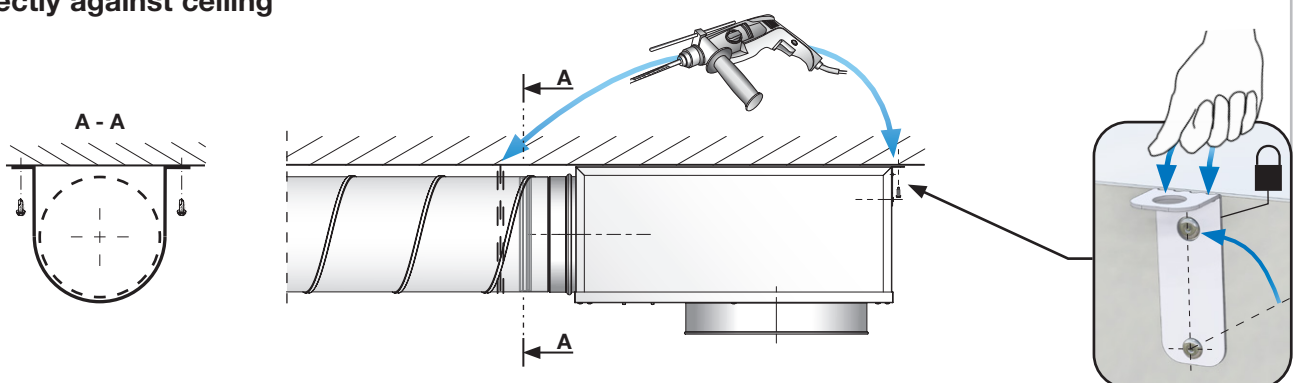
CBC/CBE

2

Mounting of CBC/CBE Accessory MHS Threaded rod M8



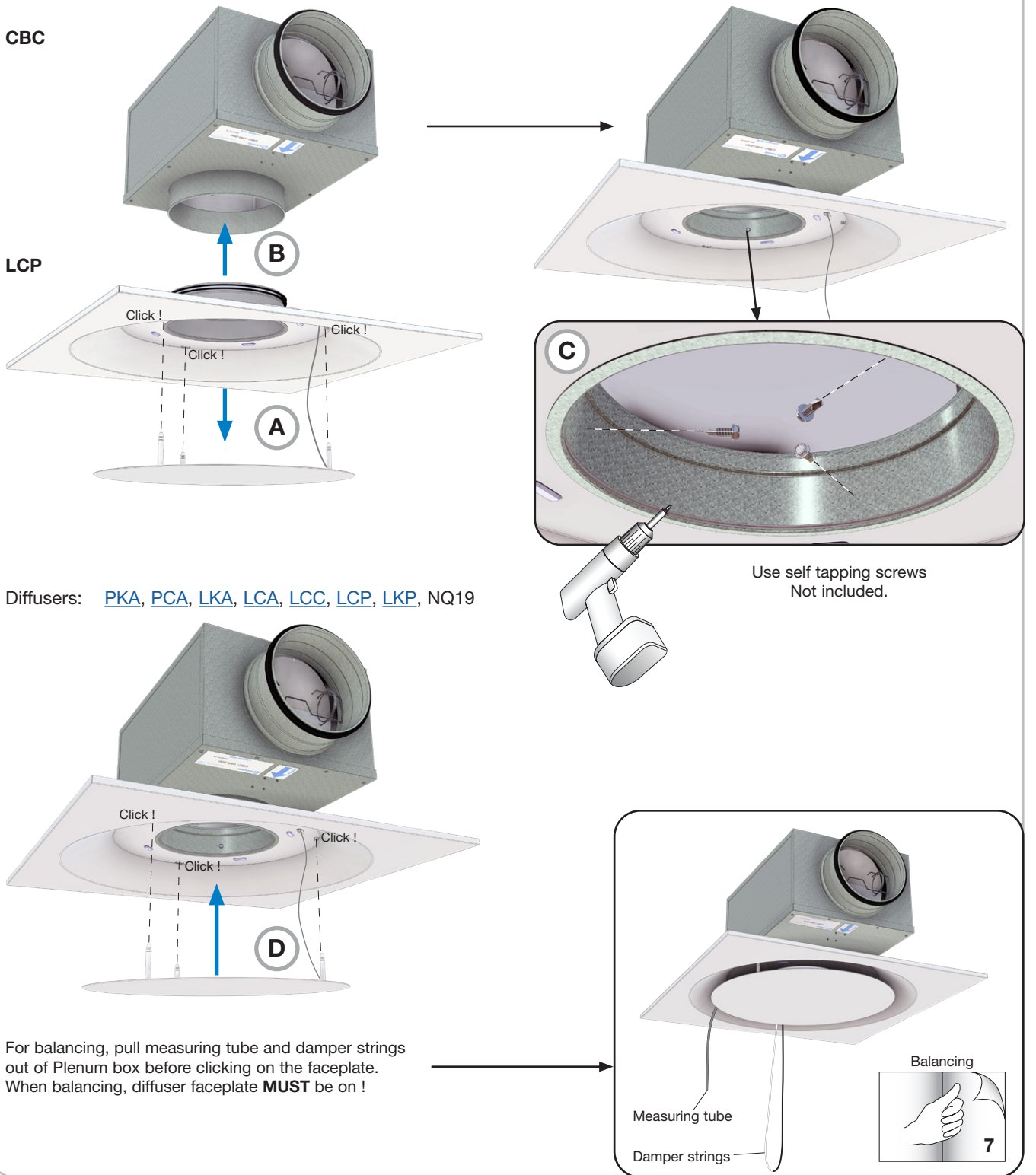
Directly against ceiling



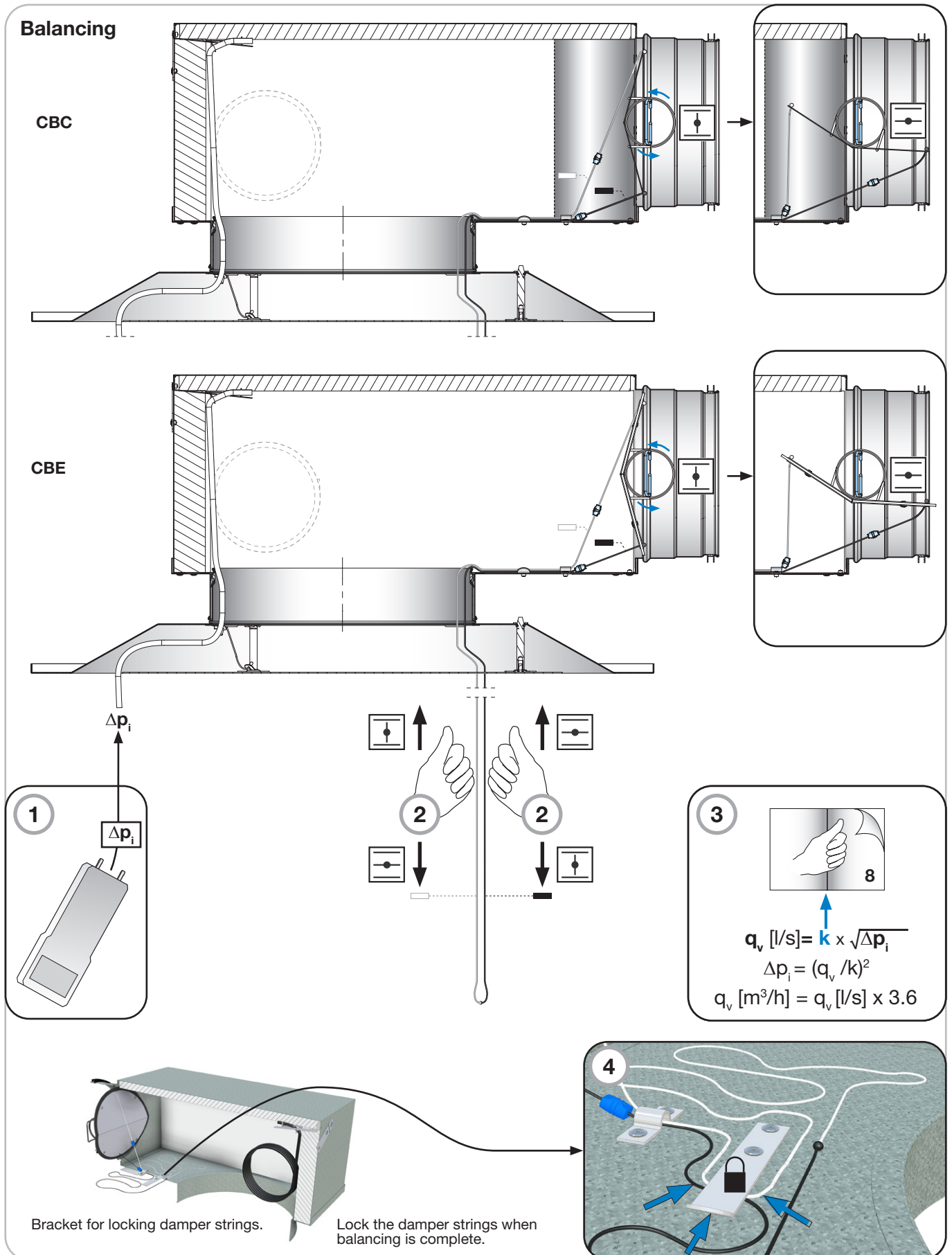
CBC/CBE

Mounting of diffuser in CBC/CBE

Example: LCP-200 + CBC-160-200



CBC/CBE



CBC/CBE


k-factors for ceiling diffusers + CBC

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

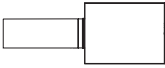
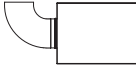
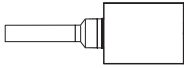
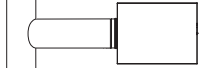
$$\Delta p_i = (q_v / k)^2$$

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

Supply air

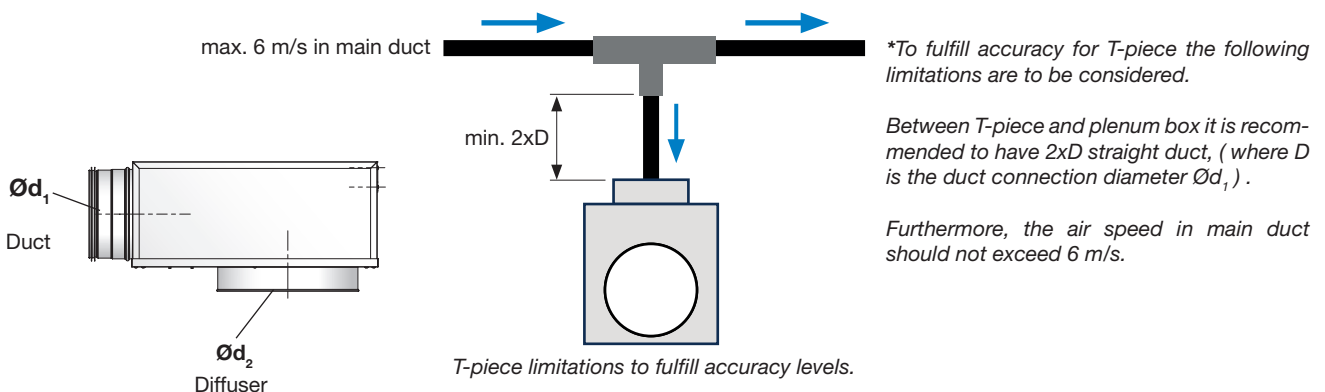
|  | Formo | | | | Integra | | NQ19 |
|---|-------|-------|-------|-------|---------|-------|-------|
| | PCA | PKA | LCA | LKA | LCC/LCP | LKP | |
| CBC-100-125 | 9.92 | 9.80 | 9.37 | 9.19 | 8.64 | 8.18 | - |
| CBC-100-160 | 11.64 | 11.87 | 10.87 | 11.44 | 10.75 | 10.65 | 11.06 |
| CBC-125-160 | 14.66 | 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 | | | |
|------------------------|---|--|--|---|
| |  Straight duct <i>SR</i> |  Bend <i>BKU, BU, BSU</i> |  Expansion <i>RCFU</i> |  T-piece + min. 2xD* <i>TCPU</i> |
| 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

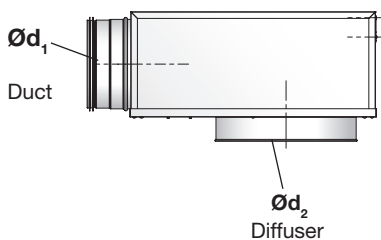
| CBE  | Formo | | | | Integra | |
|--|--------|--------|-------|-------|---------|-------|
| | PCA | PKA | LCA | LKA | LCC/LCP | LKP |
| CBE-100-125 | 27.27 | 25.38 | 16.86 | 16.08 | 15.83 | 16.05 |
| CBE-100-160 | 30.54 | 45.55 | 26.52 | 20.74 | 20.84 | 21.03 |
| CBE-125-160 | 23.68 | 30.45 | 20.45 | 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% |

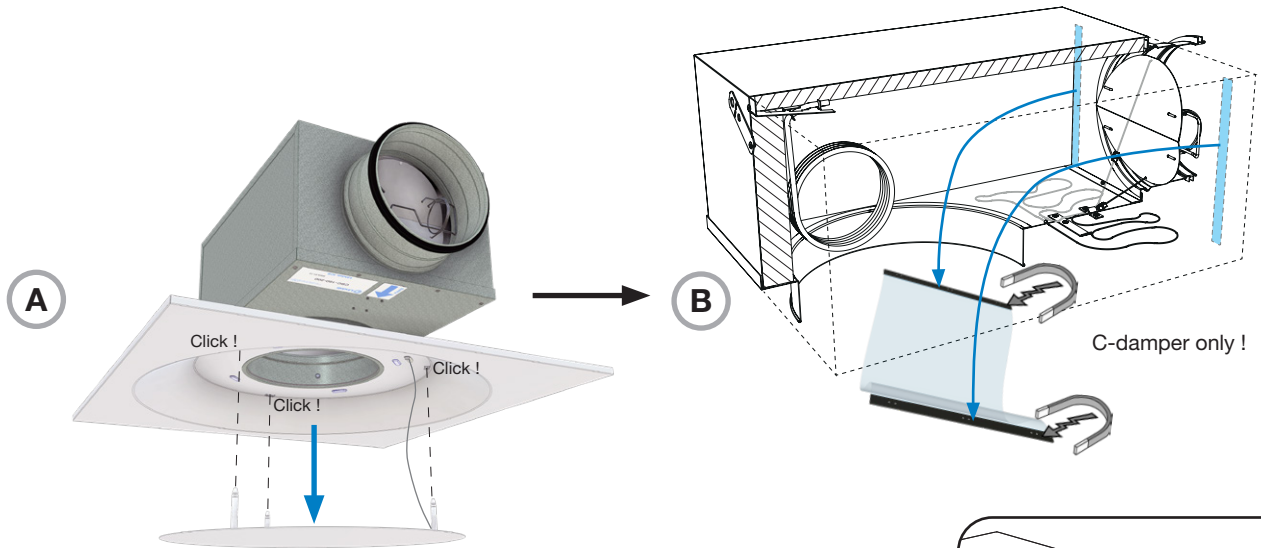
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| Diffuser connection $\varnothing d_2$ mm | min. Air flow l/s |
|---|----------------------|
| 125 | 15 |
| 160 | 24 |
| 200 | 38 |
| 250 | 59 |
| 315 | 94 |
| 400 | 151 |

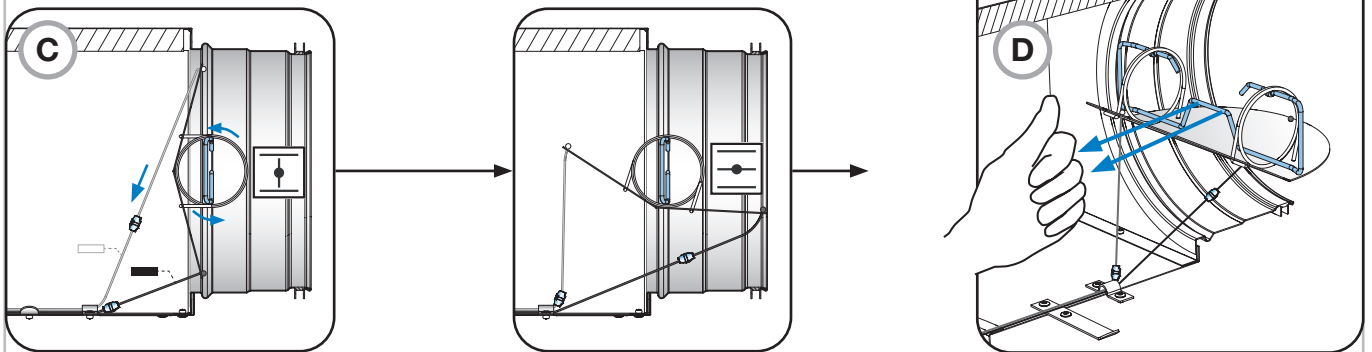


CBC/CBE

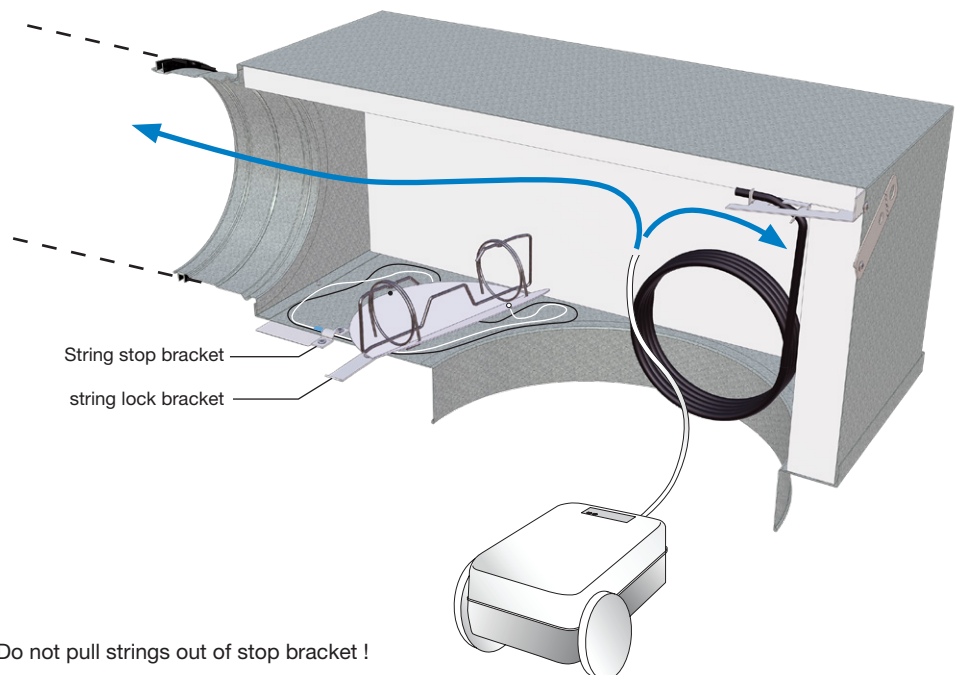
Maintenance



CBC/CBE



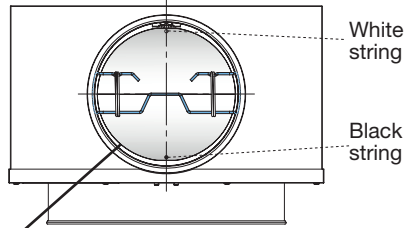
Store the damper in the plenum box



Do not pull strings out of stop bracket !

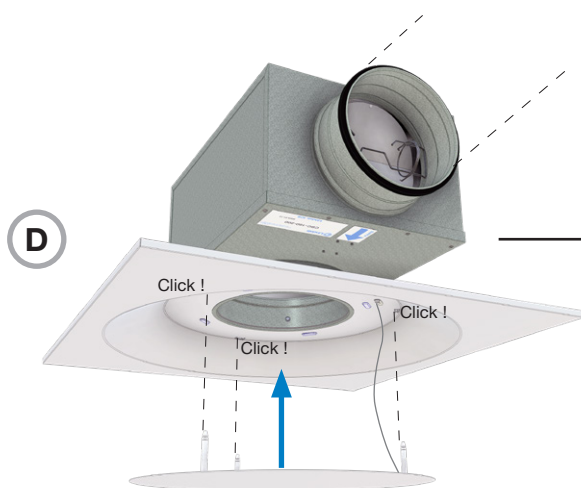
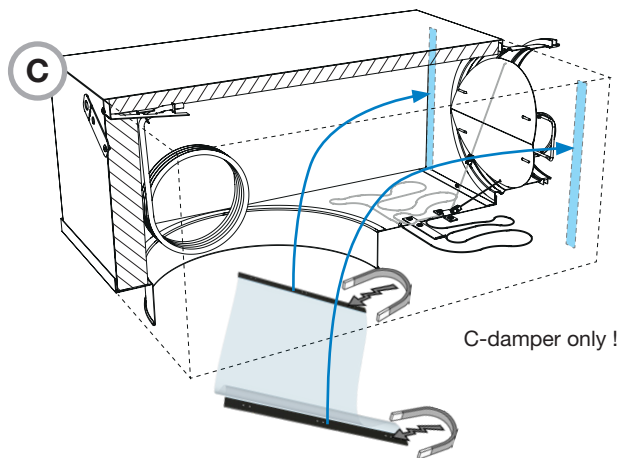
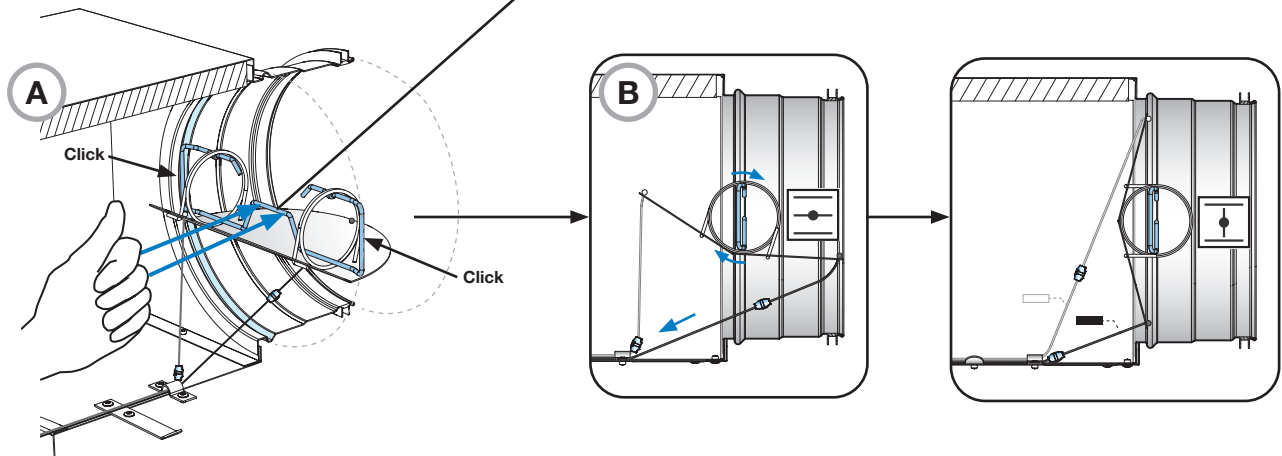
CBC/CBE

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