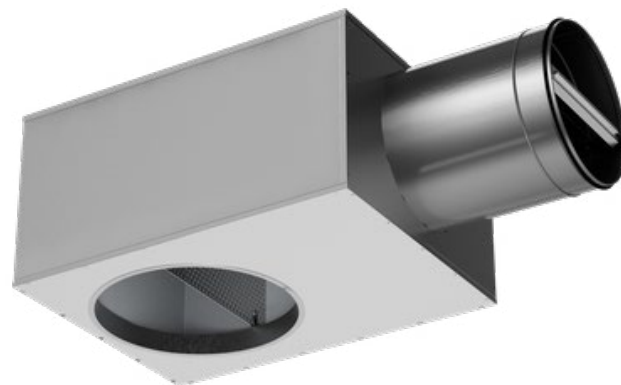




TK

Commissioning box for supply air diffusers



Description

The TK is our flagship commissioning box designed for airflow regulation with supply air diffusers, featuring a low construction height. The product is developed for ceiling installation and ideal for flush mounting in suspended (false) ceilings. The low build height is possible by the internal socket design of the diffuser connection, minimising the total height of the diffuser and box, when assembled together. TK is available with 1- or 2-step dimension change between the air duct and the diffuser box connection. Compatible supply air diffusers: PLI, DRT/DRTI, PET/PETI, PRC/PRCI, TSK, TNC and NAPT.

The TK features environment friendly sound absorbent insulation, a supply air distribution plate and a removable damper module for commissioning and measuring of the airflow. The sound insulation offers optimal sound level attenuation, ensuring quiet operation in order to improve comfort in various settings. The damper module is equipped with a measurement flange with hoses for precise measurement of the airflow and the damper blade is fitted with adjustment cords for easier commissioning and for securing the damper to the commissioned air flow. The box is commissioned with help of provided K-factors. This enables accurate control, ensuring efficient operation when commissioned properly. The removable damper module enables easy access when cleaning the air ducts. When the product is installed according to requirements, the cords also allow for simplified cleaning during service intervals and provides an efficient safety measure when resetting the damper to its commissioned setting after maintenance. The combination of precise airflow control, efficient space utilisation, and optimal sound attenuation properties, makes the TK ideal for comfort applications demanding high capacity and ventilation efficiency.

Main characteristics

- Low build, ensuring minimal height requirements
- Designed for high performance and silent operation
- Uniform airflow distribution with maximised room comfort
- Removable commissioning damper for easy maintenance and cleaning
- Compatible supply air diffusers: PLI, DRT/DRTI, PET/PETI, PRC/PRCI, TSK, TNC and NAPT

Standard sizes

1-step	2-step
TK 125-100	TK 160-100
TK 160-125	TK 200-125
TK 200-160	TK 250-160
TK 250-200	TK 315-200
TK 315-250	TK 400-250
TK 400-315	

Airflow range

50 - 2.520 m³/h (14 - 700 l/s)

Materials

Casing, distribution plate and flanged spigot from galvanised sheet steel with EPDM rubber gasket. Washable surface coated insulation from 100% recycled, non allergenic, hydrophobic PET material. Damper module of galvanised steel with cords of polyester. Measurement device of galvanized steel and aluminum pipe with silicone hose.

Installation

Note: In order to achieve the required accuracy, a straight section/stretch of duct must be maintained before the product, following obstacles in the airflow direction:

- Duct bend/*Elbow*: The box can be installed directly after a bend.
- T-piece/*Tee*: The box must be installed after a straight stretch, equal or higher to 4 times the duct diameter ($\geq 4 \times \varnothing$)
- The box spigot is connected directly to a circular supply air duct.
- Connection to a flexible duct is possible but not recommended.
- The diffuser is connected directly to the box socket.

The connection between diffuser and box can be extended with circular duct:

- For installations in suspended/false ceilings, the MN accessory can be used to extend the connection by 40 mm.
- If the extension exceeds 500 mm, extending the measurement hoses and damper cords is necessary.

Designations

Size designation of the TK commissioning box refers to the connections in mm, according to:

- PRODUCT – DIFFUSER DIM – DUCT DIM (e.g. TK-125-100), indicating a TK-box with a diffuser connection (socket) of $\varnothing 125$ mm and a duct connection (spigot) of $\varnothing 100$ mm.

The terms “1-step” and “2-step” refer to the difference between the connections of the box:

- 1-step – indicates a difference of one duct dimension between the diffuser side and the duct side: TK-125-100, TK-160-125, TK-200-160, TK-250-200, TK-315-250, TK-400-315
- 2-step – indicates a difference of two duct dimensions between the diffuser side and the duct side: TK-160-100, TK-200-125, TK-250-160, TK-315-200, TK-400-250

Dimensions

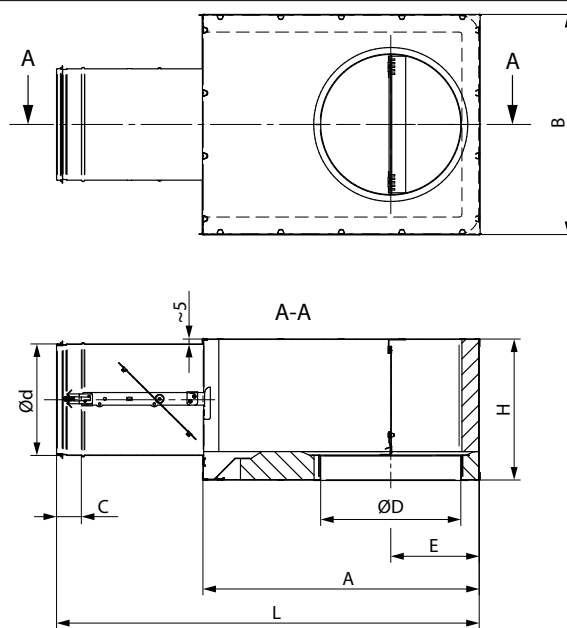


Figure 01 - TK dimensions

Table 01 - TK commissioning box - 1-step type

Size	ØD*	Ød*	A	B	C	E	H	L	Weight [kg]
125-100	125	100	255	238	36	90	140	419	2,0
160-125	160	125	325	273	36	107	165	512	2,8
200-160	200	160	395	313	36	127	200	604	3,9
250-200	250	200	475	368	36	152	240	430	5,4
315-250	315	250	590	443	56	185	295	865	7,8
400-315	400	315	715	548	56	227	355	1050	11,6

*Tolerance according to EN1506

Table 02 - TK commissioning box - 2-step type

Size	ØD*	Ød*	A	B	C	E	H	L	Weight [kg]
160-100	160	100	325	273	36	107	140	489	2,5
200-125	200	125	395	313	36	127	165	582	3,4
250-160	250	160	475	368	36	152	200	684	4,7
315-200	315	200	590	443	36	185	240	430	6,8
400-250	400	250	715	548	56	227	295	990	10,0

*Tolerance according to EN1506

Table 03 - K-factor for calculating air volume

Size	K-factor
125-100	6,13
160-100	6,13
160-125	10,8
200-125	10,8
200-160	17,3
250-160	17,3
250-200	27,2
315-200	27,2
315-250	38,8
400-250	38,8
400-315	66,2

Ordering code

Table 04 - TK ordering code

TK	-XXX-XXX
Product acronym	Size of the supply air unit [mm]
	1-step:
	125-100
	160-125
	200-160
	250-200
	315-250
	400-315
	2-step:
	160-100
	200-125
	250-160
	315-200
	400-250
Ordering example: TK-160-125	