

Lindab **Valves**

Mounting instructions

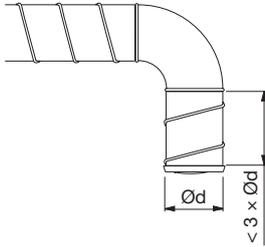
Overview diffusers, valves and cover

Unit				Connects to					
				Socket with thread for units with bayonet holder	Socket with groove for units with spring holder		Cover socket with groove for units with wire spring holder	Smooth socket for units with plate spring holder	Duct/Fitting
Supply air	VTK	Dif-fuser			VRFU 	VRFM 	VRR 		
	VTTB	Dif-fuser			VRFU 	VRFM 	VRR 		
	SHH	Dif-fuser							Duct
	KPT	Valve						IL 	Duct/Fittings
	KI	Valve		VRGU 	VRGL 	VRGM 			
	KIR	Valve		VRGU 	VRGL 	VRGM 			
Supply and exhaust air	TAV	Valve							Duct

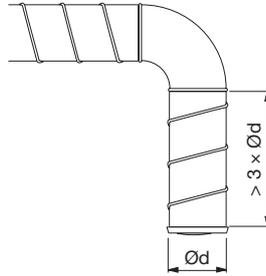
Unit				Connects to							
				Socket with thread for units with bayonet holder			Socket with groove for units with spring holder		Cover socket with groove for units with wire spring holder	Smooth socket for units with plate spring holder	Duct/Fitting
Exhaust air	KVB	Valve					VRFU 	VRFM 	VRR 		
	KDPF	Valve		VRGU 	VRGL 	VRGM 	VRFU 	VRFM 	VRR 		
	KVG Ø 100–160	Valve					VRFU 	VRFM 	VRR 		
	KVG Ø 200	Valve		VRGU 	VRGL 	VRGM 					
	KU	Valve		VRGU 	VRGL 	VRGM 					
	KSU	Valve		VRGU 	VRGL 	VRGM 					
	KPF	Valve								IL 	Duct/Fitting
No air	TLO	Cover					VRFU 	VRFM 	VRR 		

When to use the different k-factor types

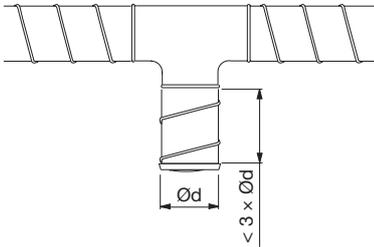
k-factor type: B (Bend 90°)



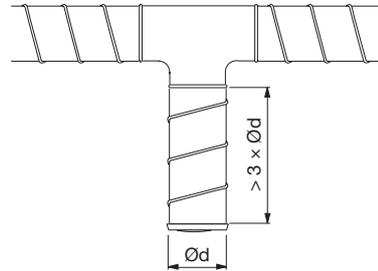
k-factor type: D (Duct)



k-factor type: T (T-piece)



k-factor type: D (Duct)



Explanations

Measurement of air flow

$$q = k \cdot \sqrt{\Delta p_m} \quad \Delta p_m = \left(\frac{q}{k}\right)^2$$

where

q	is air flow	[l/s]
Δp_m	is measuring pressure difference	[Pa]
k	is correction factor, see table	[-]

Tables

a	is setting of valve disc or cone	[mm]
n	is setting of valve disc or cone	[number of opening turns]
D	is valve mounted in a duct	
B	is valve mounted in a bend 90°	
T	is valve mounted in a T-piece	

WOSP is without sector plate

WSP is with sector plate



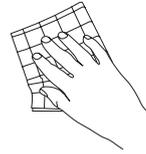
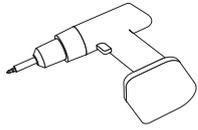
is recommended method



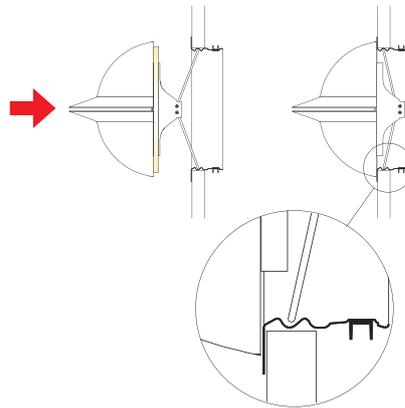
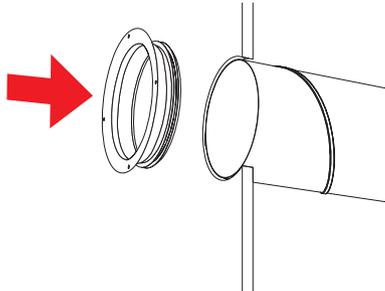
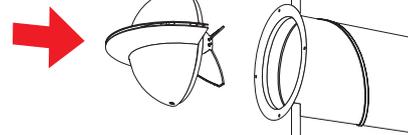
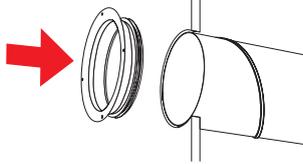
is not recommended method

Diffuser

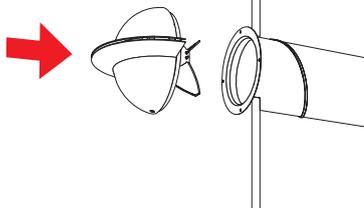
WTK



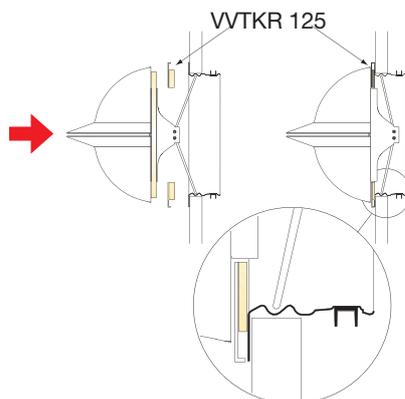
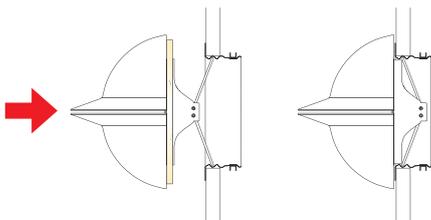
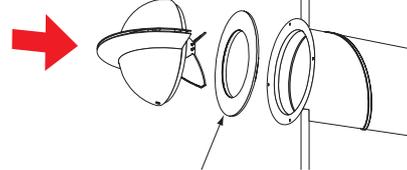
Ø125
Alt 1



Ø100

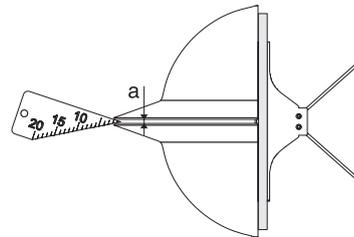
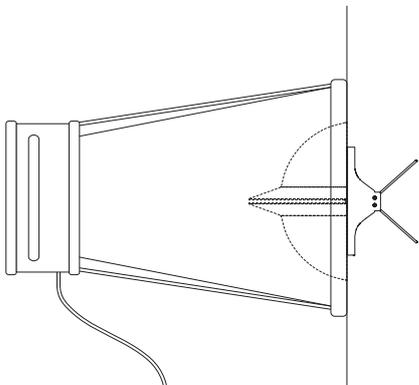
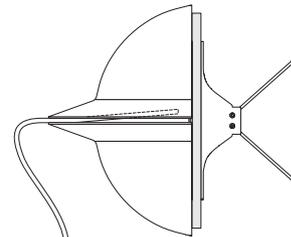
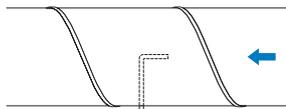
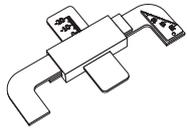


Ø125
Alt 2



Diffuser

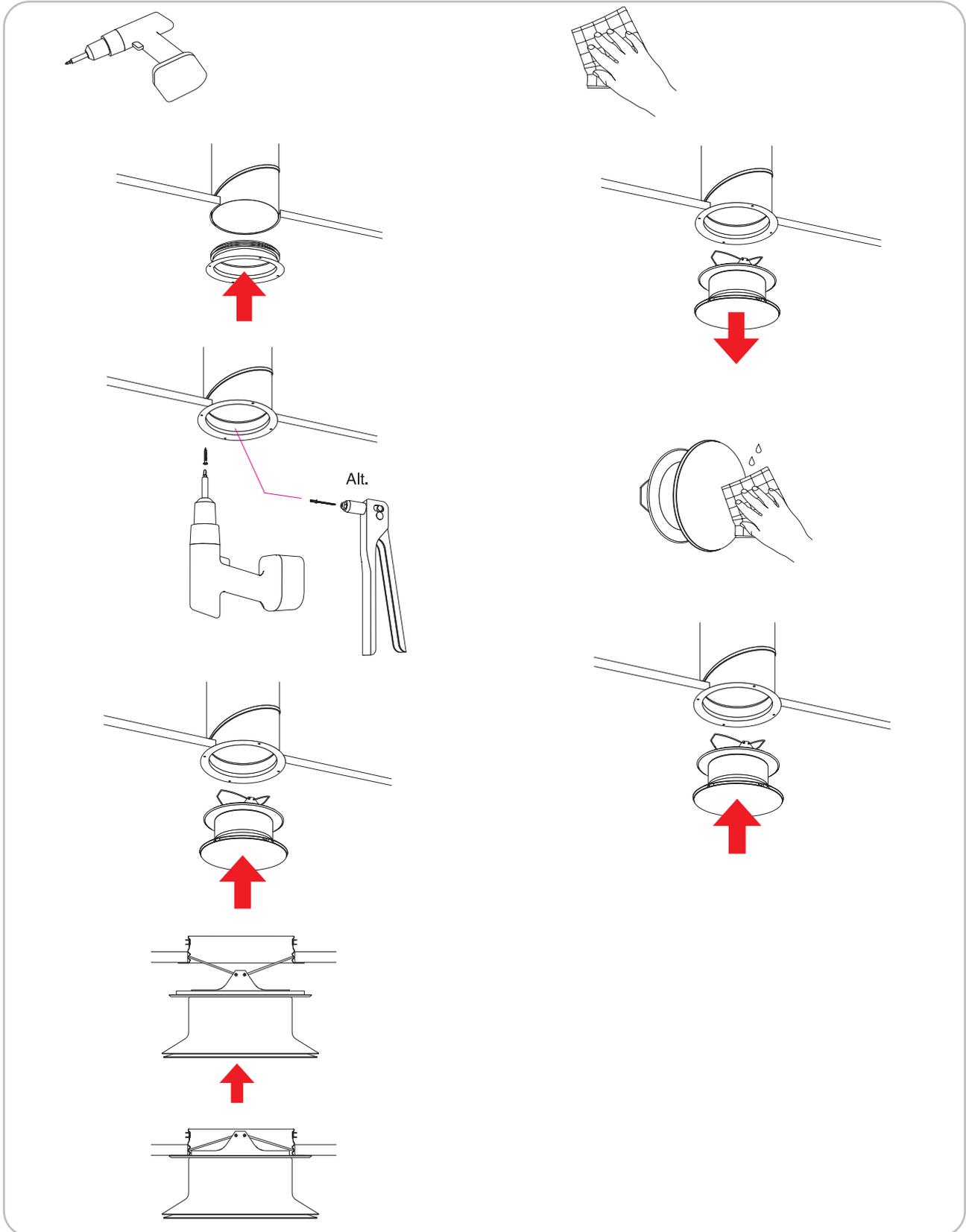
WTK



Ø mm	Valve mounted in	Setting a [mm]						
		a	6	8	10	12		
100	Duct	k	1,14	1,44	1,85	2,48		
		a	6	7	8	10	12	16
125	Duct	k	1,25	1,51	1,87	2,16	2,73	3,61
		a	6	7	8	10	12	16

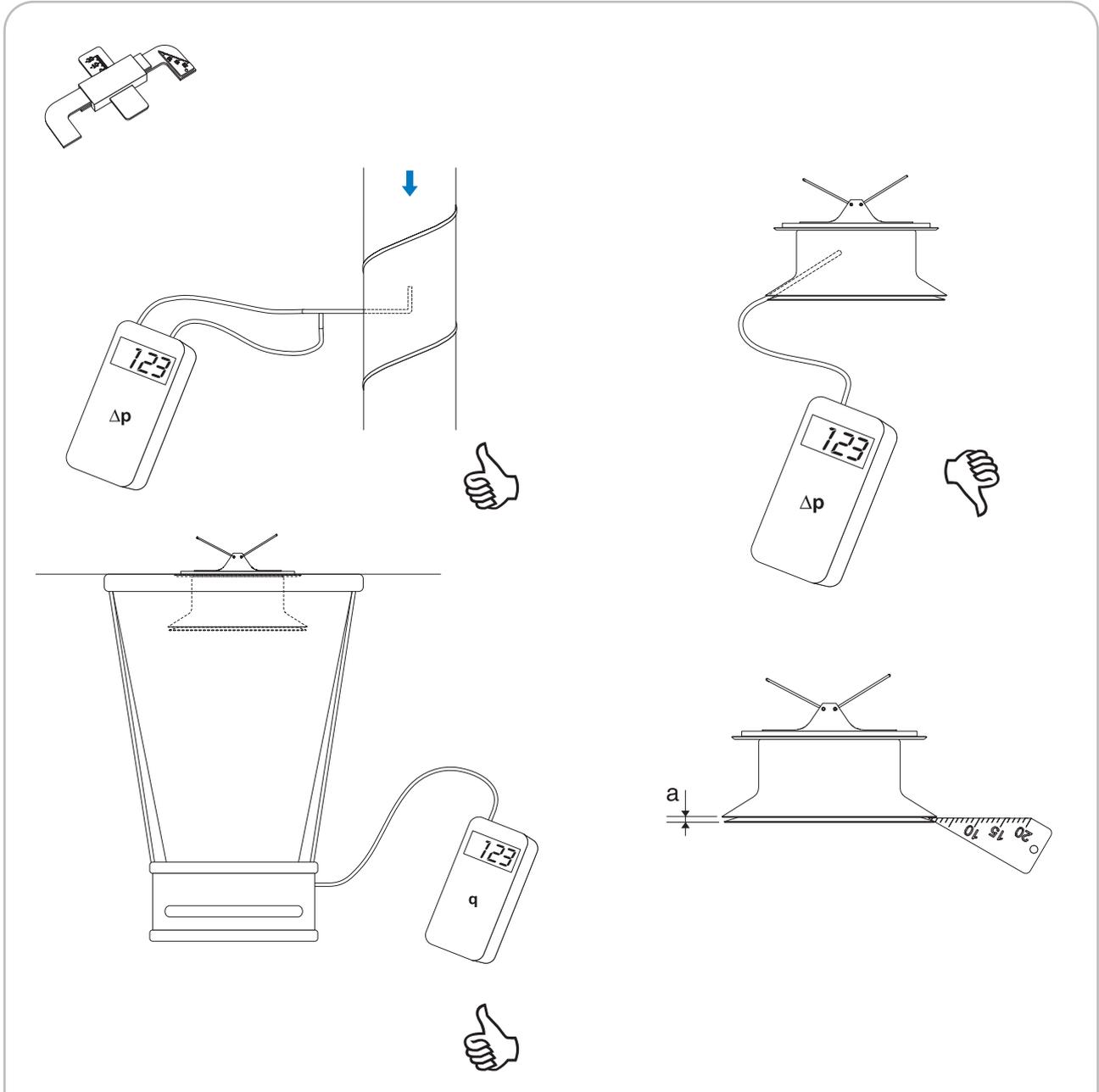
Diffuser

VTTB



Diffuser

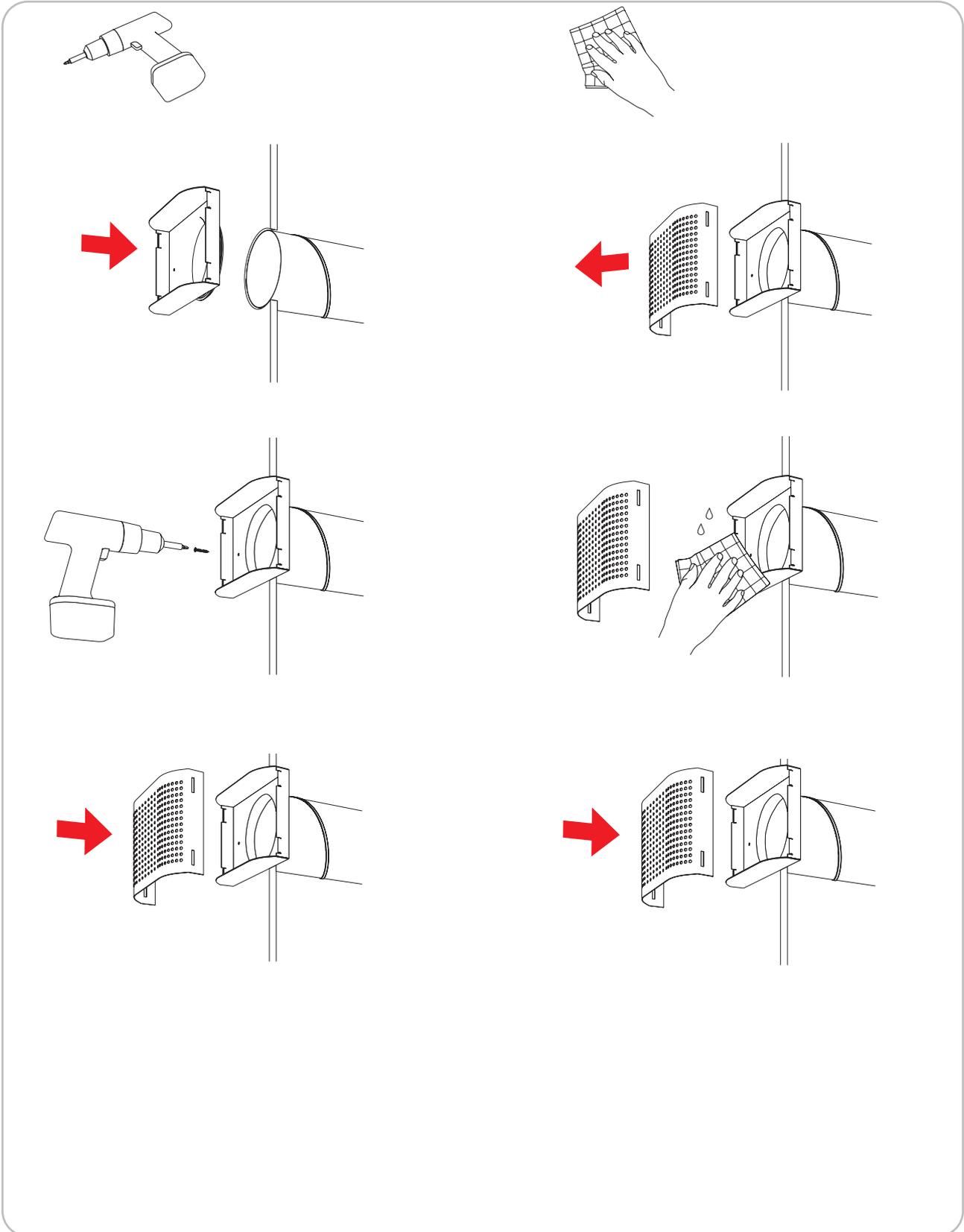
VTTB



Ø mm	Valve mounted in	Setting a [mm]									
		a	4	5	6	7	8	10	12	16	
100	Duct	k	1,29	1,43	1,82	2,01	2,34	2,98	3,46	4,34	
		a	4	5	6	7	8	10	12	16	
125	Duct	k	1,54	1,98	2,28	2,71	3,20	3,90	4,52	5,85	
		a	5	6	7	8	10	12	16	20	
160	Duct	k	2,60	3,23	3,71	3,94	5,03	5,83	7,33	8,40	

Diffuser

SHH



Diffuser

SHH

The diagram illustrates the installation of a diffuser in a duct and a speaker. It shows two measurement points for differential pressure (Δp) and one for air flow (q). The diffuser is shown in a duct with a blue arrow indicating airflow direction. The diffuser is also shown in a speaker. The diffuser is connected to a digital display showing '123'. The diffuser is shown in a duct with a blue arrow indicating airflow direction. The diffuser is also shown in a speaker. The diffuser is connected to a digital display showing '123'. The diffuser is shown in a duct with a blue arrow indicating airflow direction. The diffuser is also shown in a speaker. The diffuser is connected to a digital display showing '123'.

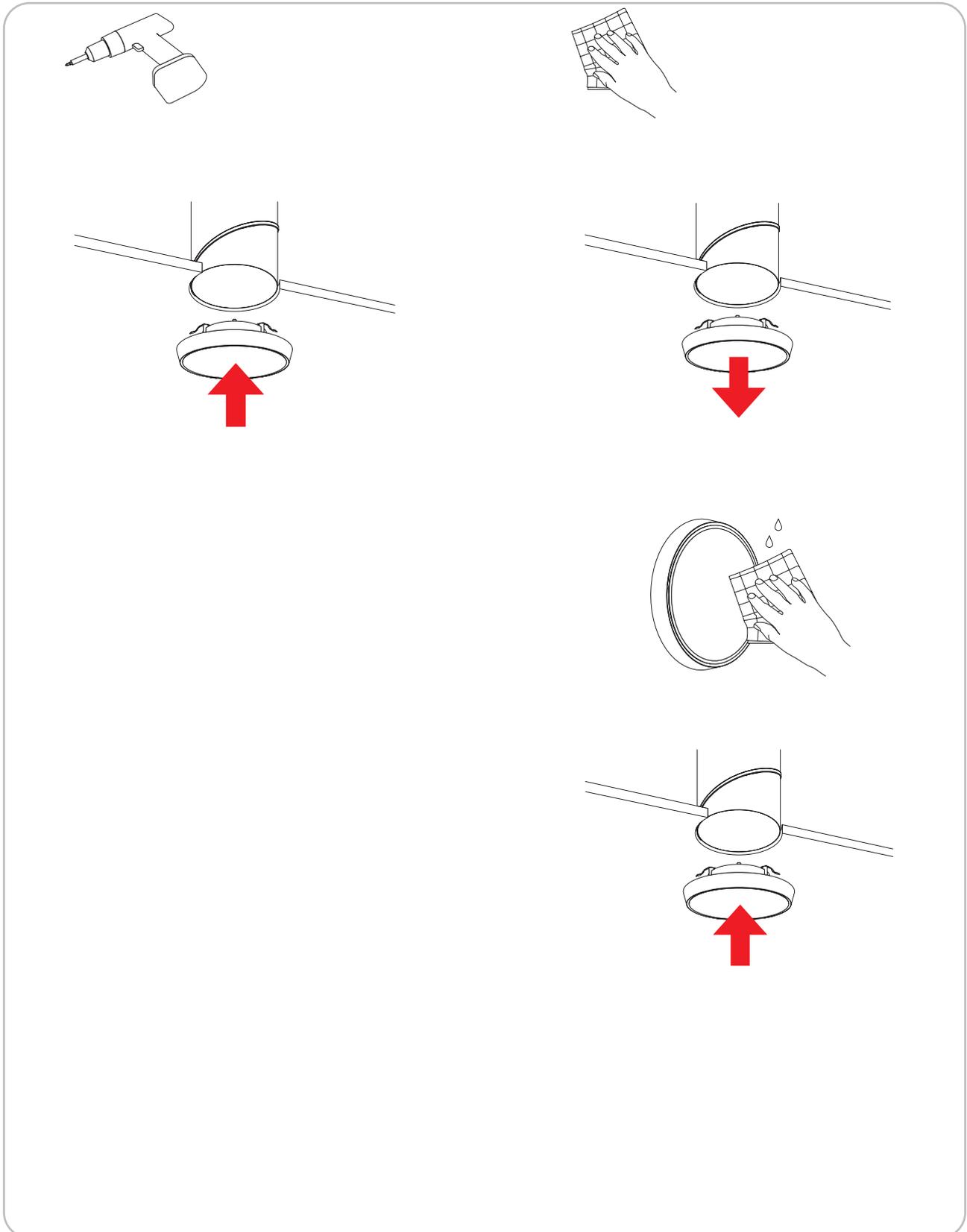
2 taped rows
n = 10
2 taped rows

4 taped rows
n = 6
4 taped rows

Ø mm	Diffuser mounted in	Setting n [number of open rows]							
		n	2	4	6	8	10	12	14
100	Duct	k	0,7	1,2	1,7	2,3	2,7	3,1	3,6
		n	2	4	6	8	10	12	14
125	Duct	k	0,7	1,2	1,8	2,3	2,8	3,3	3,9
		n	2	4	6	8	10	12	14

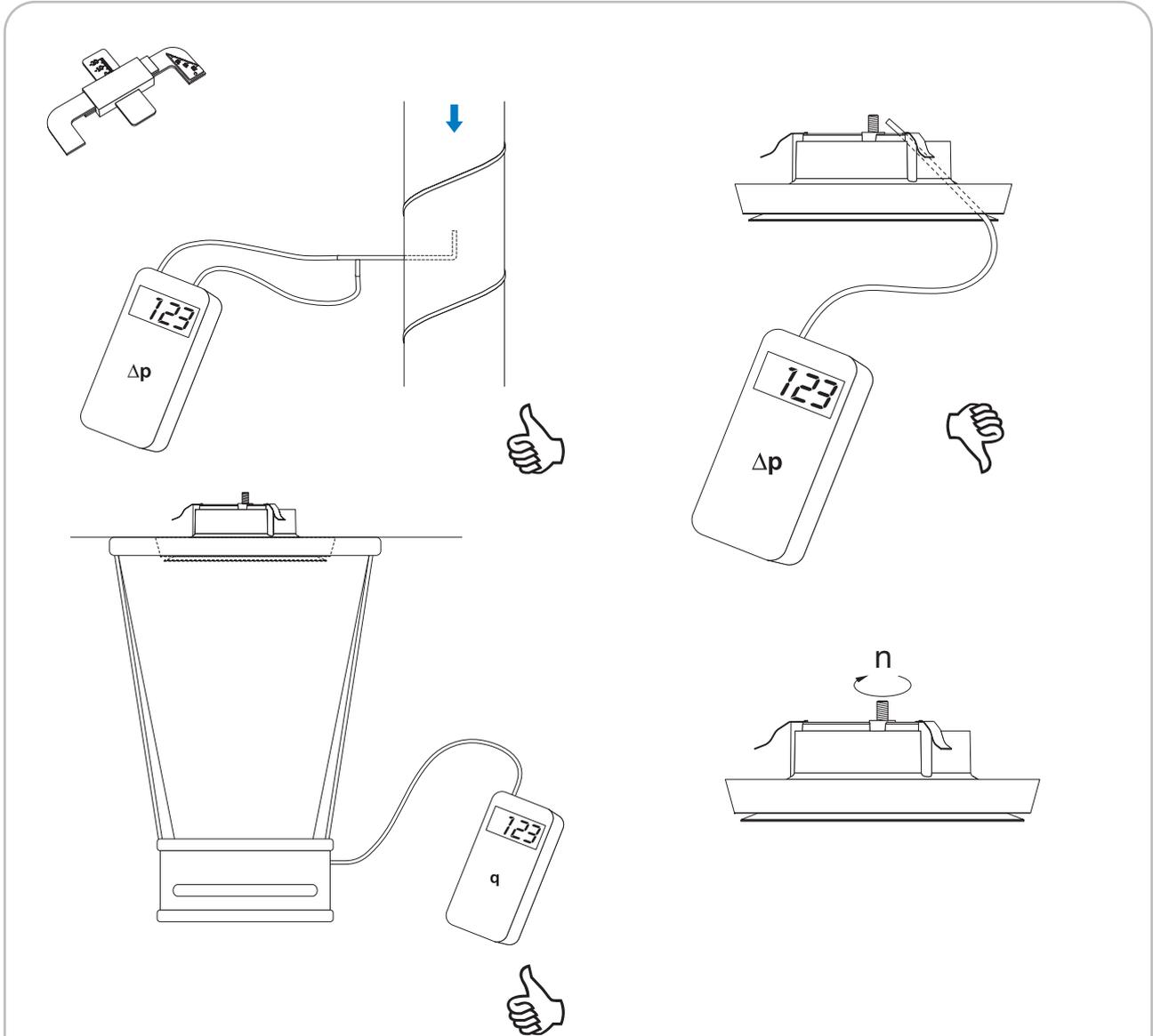
Valve

KPT



Valve

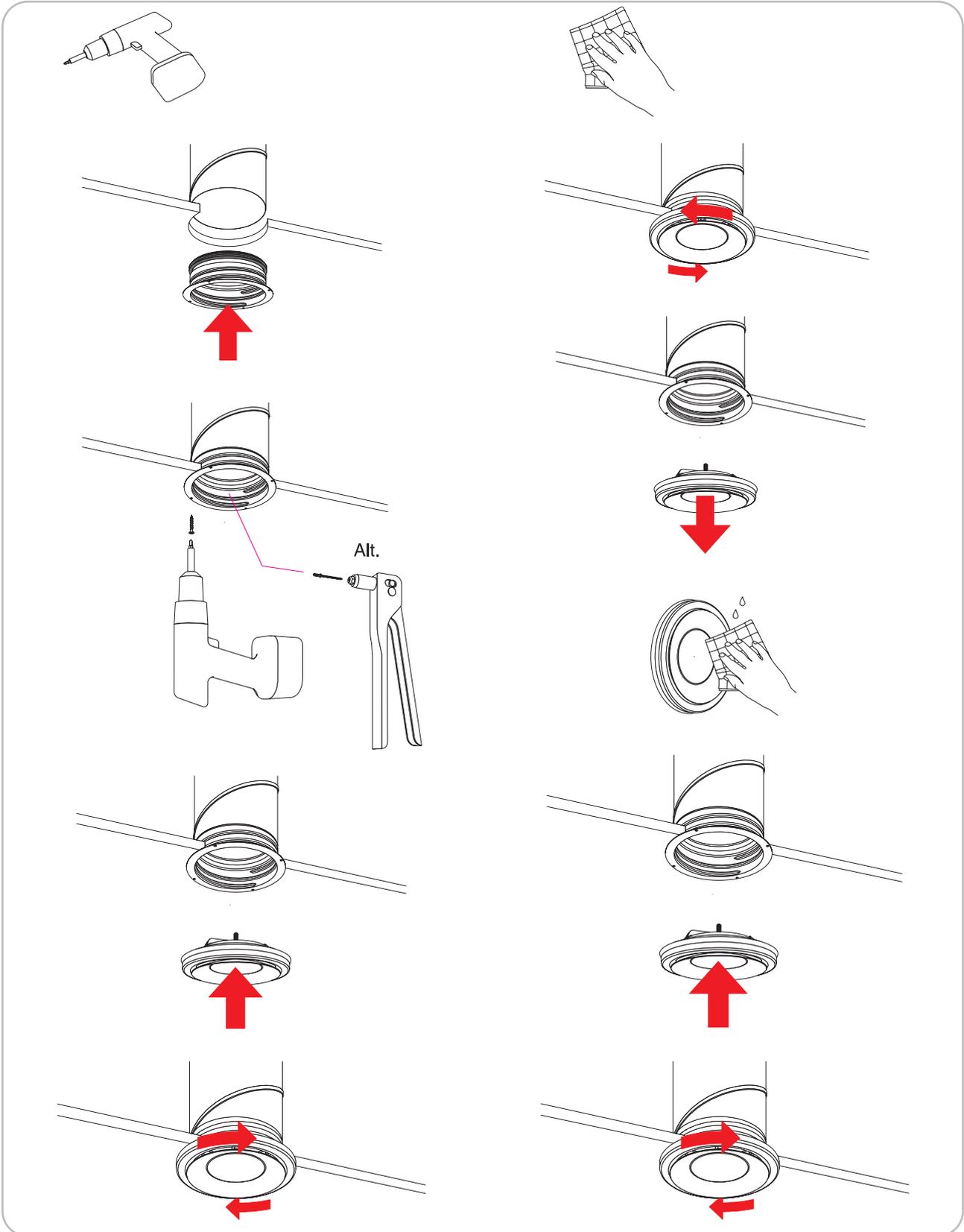
KPT



Ø mm	Valve mounted in	Setting n [number of opening turns]						
		n	1	2	3	4	6	8
80	Duct	k	1,08	1,42	1,83	2,30	2,92	3,77
		n	2	3	4	6	8	10
100	Duct	k	1,12	1,69	2,20	3,36	4,21	4,86
		n	4	5	6	7	8	9
125	Duct	k	1,23	1,50	1,79	2,09	2,30	2,66
		n	6	8	10	12		
160	Duct	k	2,34	3,06	3,73	4,35		
		n	7	9	11	13	15	
200	Duct	k	4,55	5,47	6,35	7,39	8,37	

Valve

KI



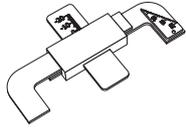
Valve

KI

Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9	12	15
80	Duct	k	0,779	1,36	2,05	2,65	2,80	
		a	2	4	6	9	12	
100	Duct	k	1,00	1,10	2,31	3,19	4,12	
		a	3	5	7	9	12	15
125	Duct	k	1,23	1,85	2,83	3,74	5,08	6,21
		a	4	6	9	12	15	20
150	Duct	k	2,35	3,37	4,50	5,74	7,40	10,3
		a	4	6	9	12	15	20
160	Duct	k	1,66	3,10	4,31	6,04	7,34	10,3
		a	5	6	9	12	15	20
200	Duct	k	3,66	5,17	7,05	8,00	10,4	12,9

Valve

KI

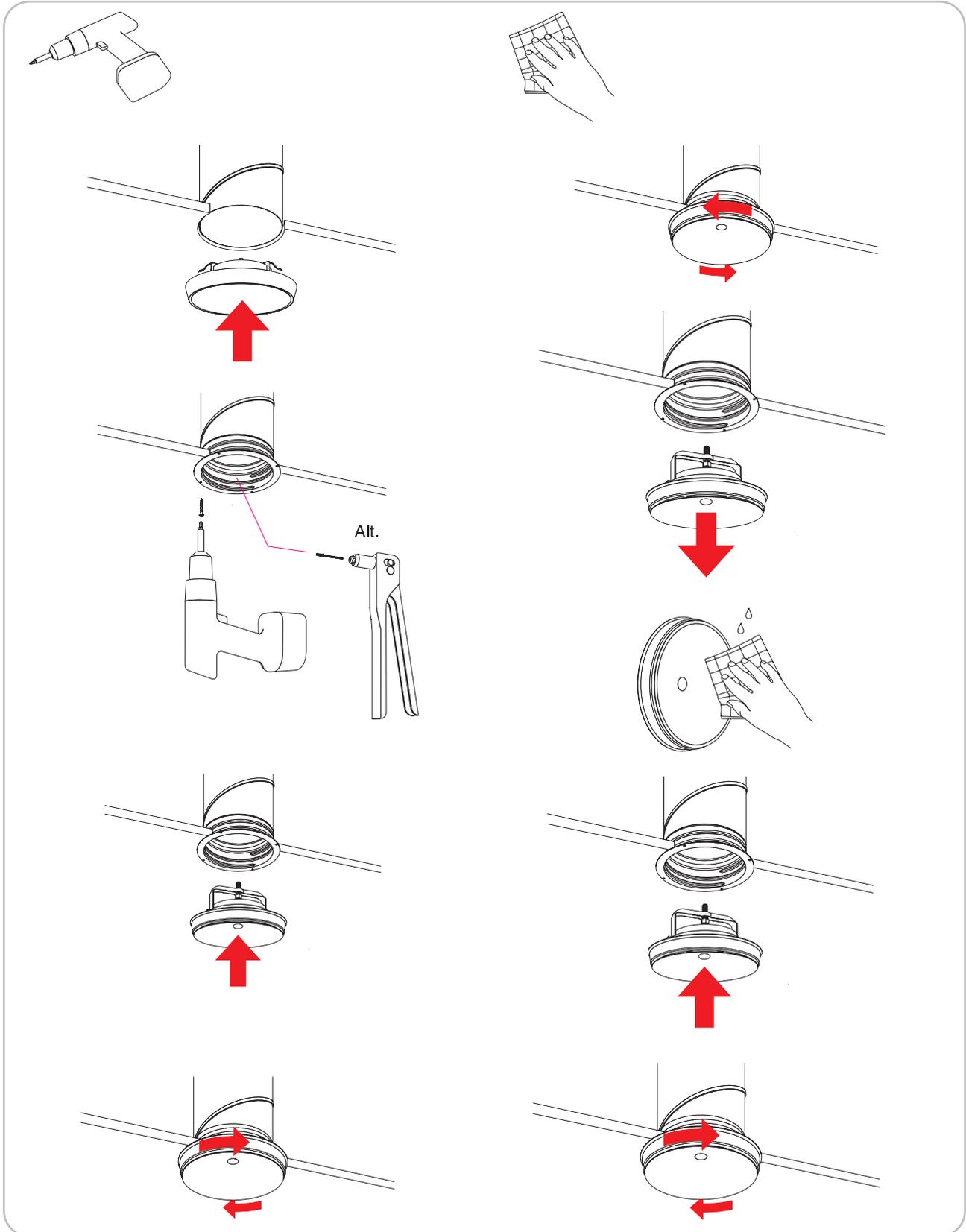


K-factors apply only to products produced after Dec, 1, 2025.

Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9		
80	Duct	k	0,76	1,51	2,52	4,22		
		a	2	4	6	9	12	
100	Duct	k	0,80	1,65	2,50	4,10	5,30	
		a	2	5	7	9	12	15
125	Duct	k	1,35	2,68	3,75	4,80	6,65	9,30
		a	6	9	12	15	20	
150	Duct	k	3,97	5,73	7,83	10,4	12,5	
		a	4	6	9	12	15	20
160	Duct	k	2,70	4,10	6,20	8,20	9,90	14,2
		a	5	7	9	12	15	20
200	Duct	k	4,10	5,80	7,40	9,50	12,4	15,9

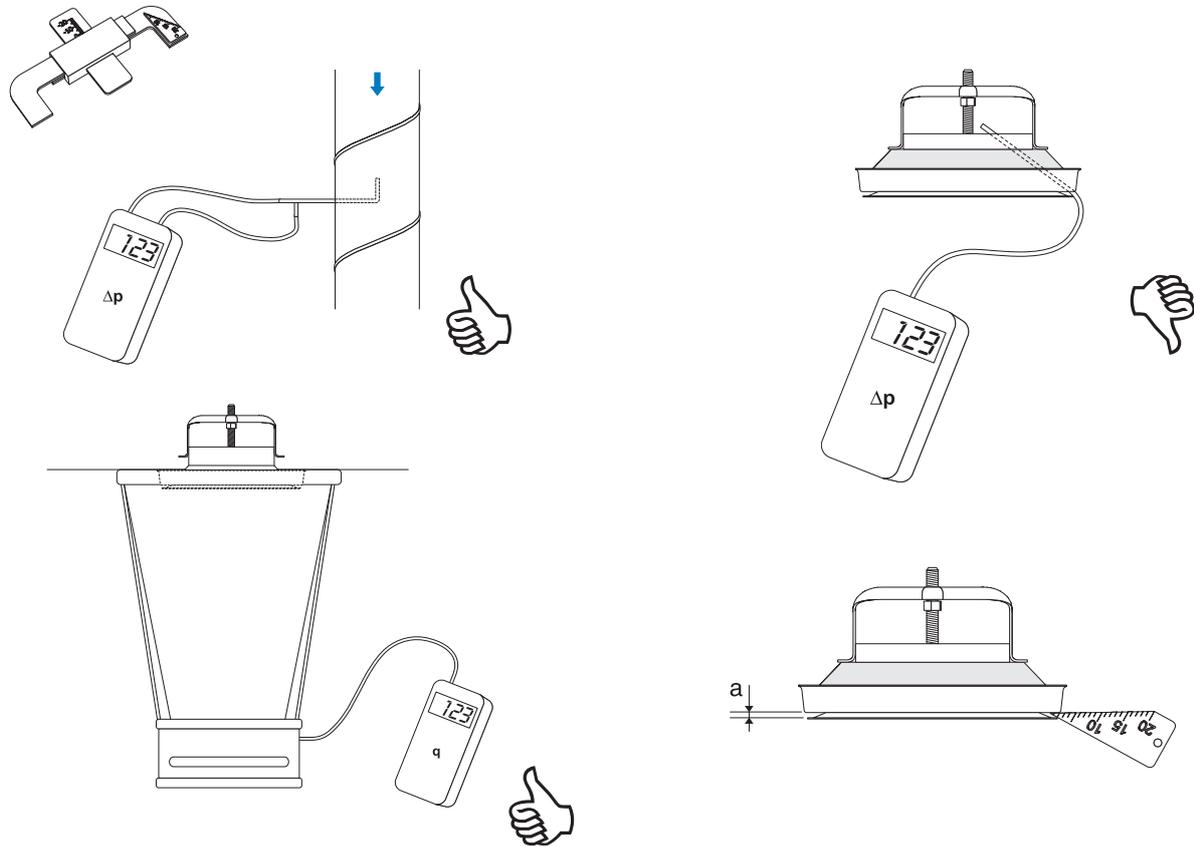
Valve

KIR



Valve

KIR



Without sector plate

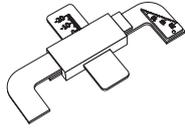
Ø mm	Valve mounted in	Setting a [mm]					
		a	2	4	6	9	12
100	Duct	k	1,09	1,56	2,11	2,81	4,31
		a	4	6	9	12	15
125	Duct	k	1,95	2,99	4,41	5,72	7,41
		a	4	6	10	15	20
160	Duct	k	2,10	3,74	5,83	9,66	12,8

With sector plate

Ø mm	Valve mounted in	Setting a [mm]					
		a	2	4	6	9	12
100	Duct	k	0,882	1,45	1,75	2,49	2,89
		a	4	6	9	12	15
125	Duct	k	1,97	2,65	3,40	4,23	4,77
		a	4	6	10	15	20
160	Duct	k	1,69	2,73	4,39	5,91	7,35

Valve

KIR



K-factors apply only to products produced after Dec, 1, 2025.

Without sector plate

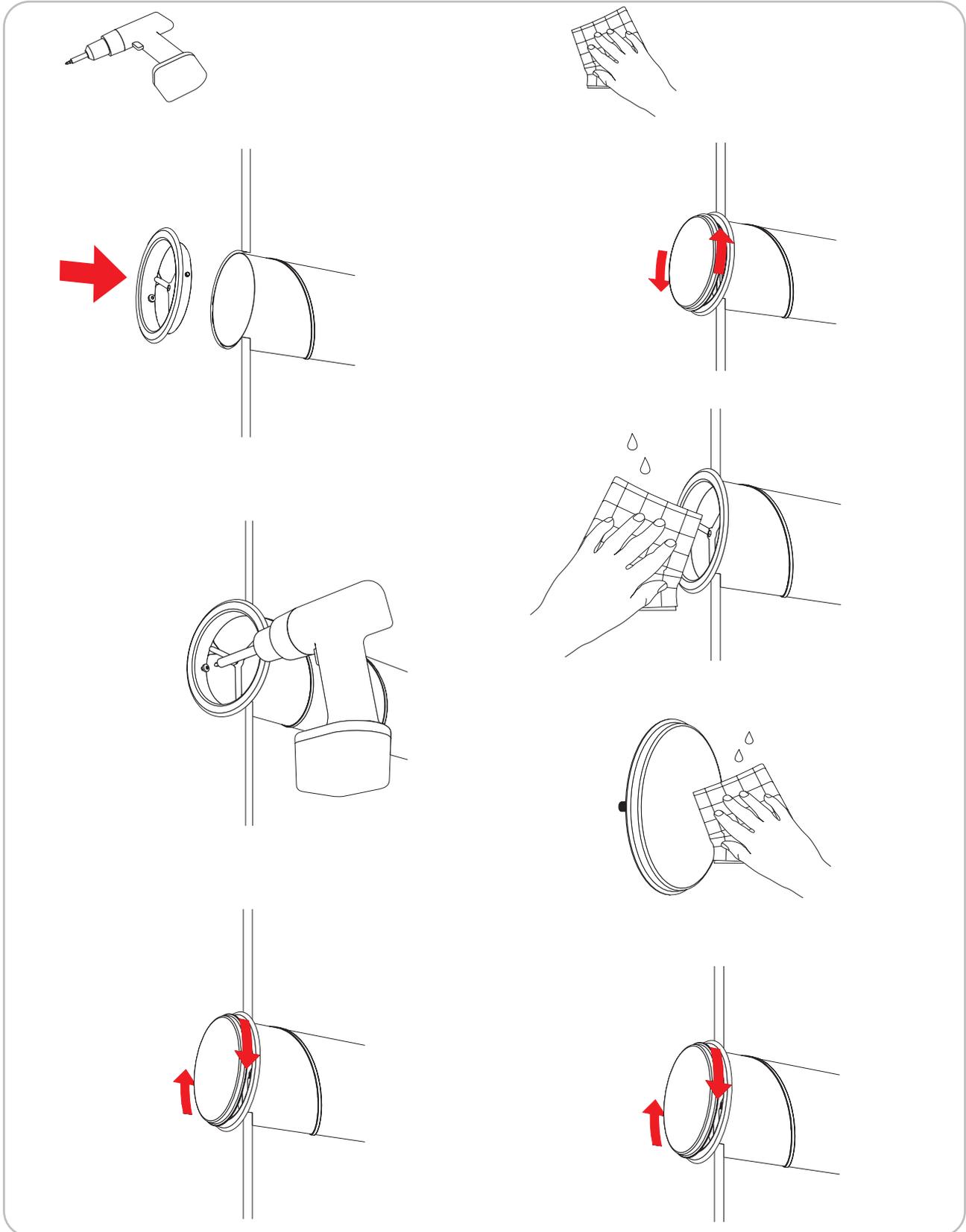
Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9	12	15
100	Duct	k	0,95	1,45	1,85	2,30	2,70	3,80
		a	4	6	9	12	15	
125	Duct	k	2,05	2,68	3,20	3,70	4,80	
		a	4	6	9	15	20	
160	Duct	k	2,70	3,90	4,75	6,40	7,70	
		a	4	6	9	15	20	

With sector plate

Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9	12	15
100	Duct	k	0,85	1,72	2,35	3,40	4,50	4,70
		a	4	6	9	12	15	
125	Duct	k	2,30	3,25	4,55	5,80	6,80	
		a	4	6	9	15	20	
160	Duct	k	3,05	4,30	6,00	10,4	12,6	
		a	4	6	9	15	20	

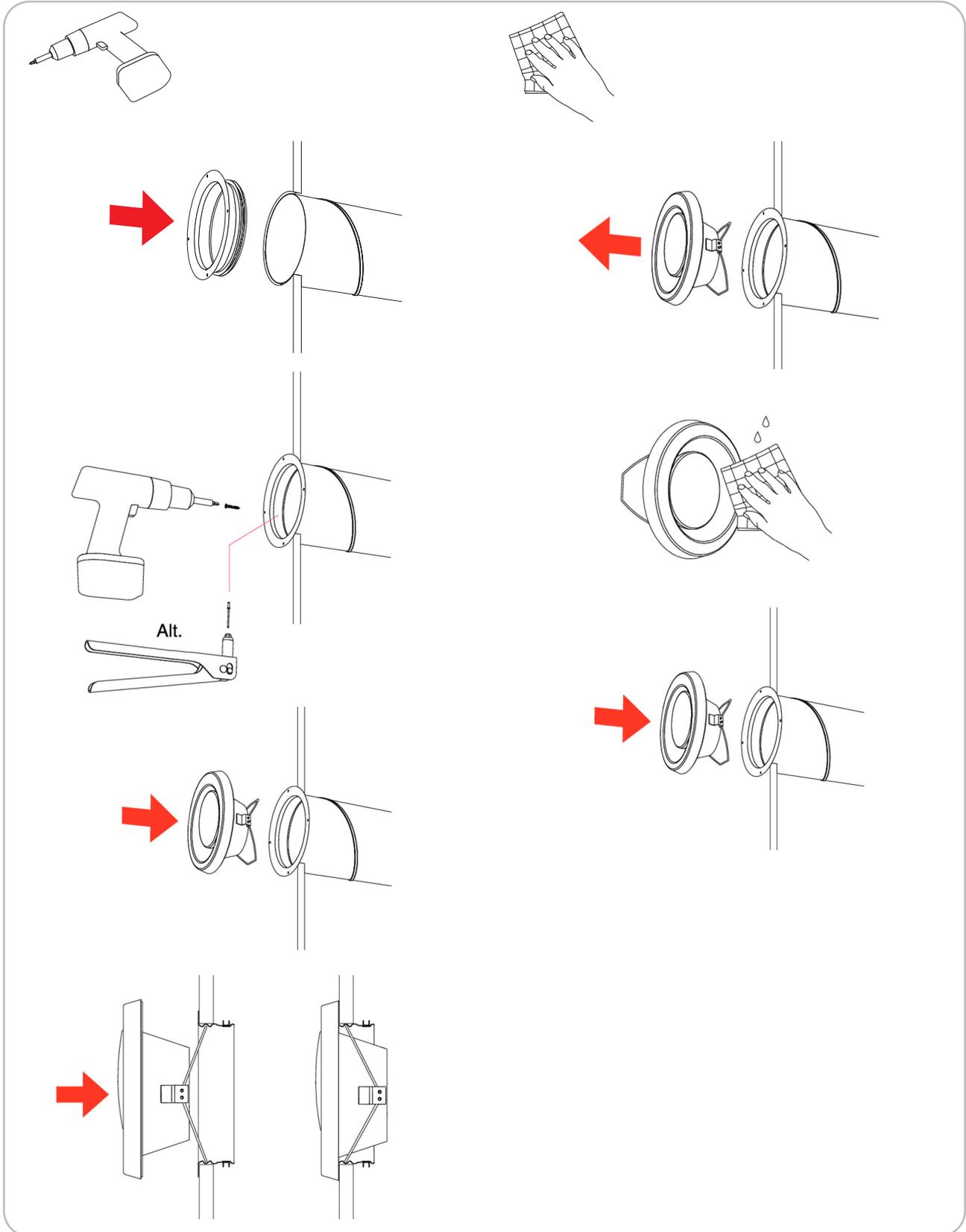
Valve

TAV



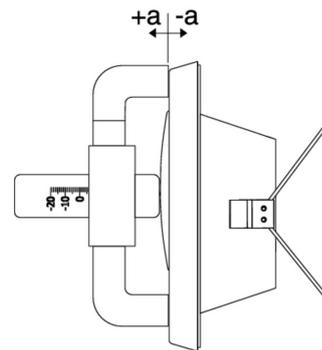
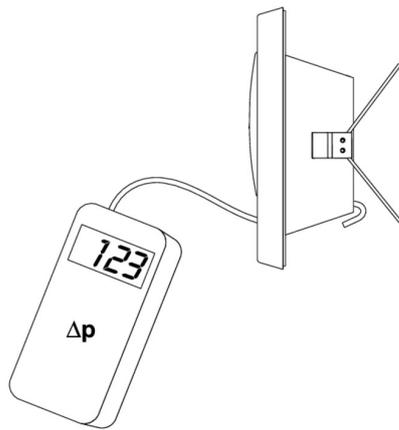
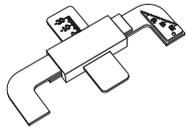
Valve

KVB



Valve

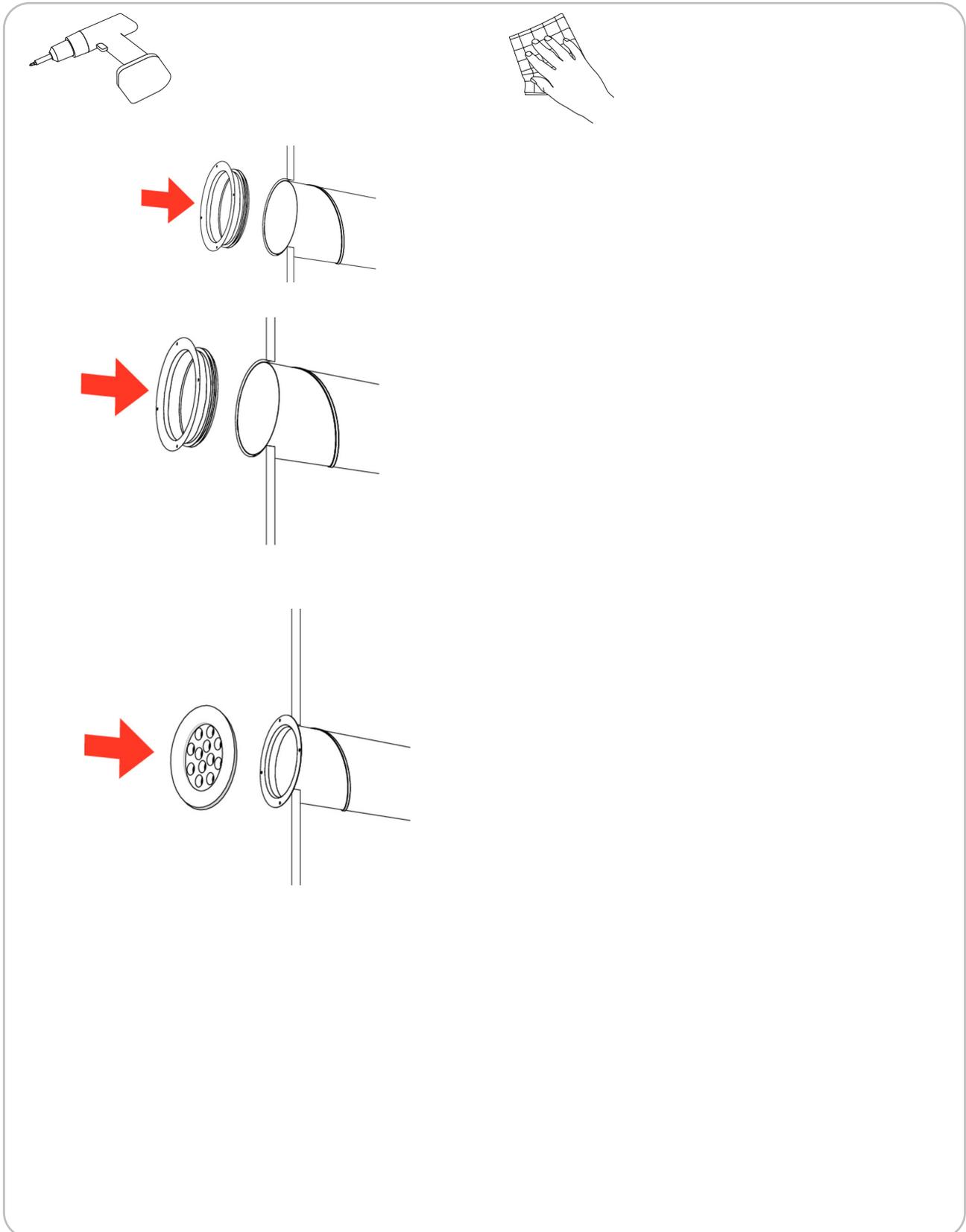
KVB



Ø mm	Valve mounted in	Setting a [mm]						
		a	-11	-9	-6	0	6	9
100	Duct	a	0,389	0,547	0,818	1,37	1,87	2,08
	Bend 90°	k	0,382	0,540	0,830	1,41	1,98	2,20
	T-piece		0,393	0,551	0,851	1,45	1,98	2,18
125	Duct	a	-18	-12	-6	0	6	
	Bend 90°	k	1,32	1,88	2,47	3,01	3,46	
	T-piece		1,26	1,80	2,46	2,90	3,46	
160	Duct	a	-24	-18	-12	-6	0	6
	Bend 90°	k	2,05	2,50	3,31	4,23	5,11	5,73
	T-piece		1,76	2,33	3,15	3,93	4,72	5,29
			-	2,80	3,29	4,04	4,88	5,41

Valve

KDPF



Valve

KDPF

The diagram illustrates three correct installation methods for the Lindab KDPF valve, each accompanied by a thumbs-up icon indicating a correct installation:

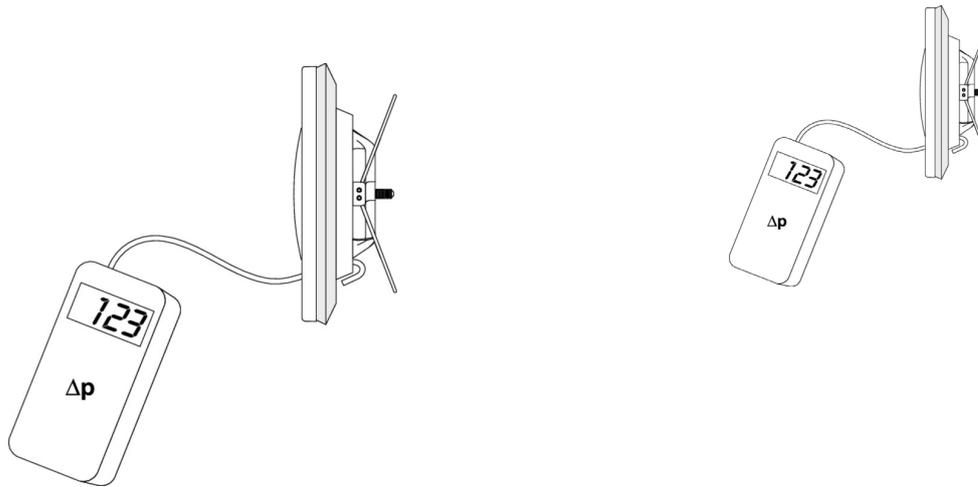
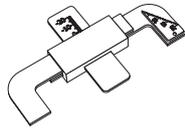
- Method 1:** The valve is installed in a duct. A blue arrow indicates the flow direction. A digital pressure gauge (Δp) is connected to the valve and displays the value 123.
- Method 2:** The valve is installed in a circular grille with 12 holes. A digital pressure gauge (Δp) is connected to the valve and displays the value 123. A thumbs-down icon is shown next to it, indicating this is an incorrect installation.
- Method 3:** The valve is installed in a conical diffuser. A digital pressure gauge (q) is connected to the valve and displays the value 123. A thumbs-up icon is shown next to it, indicating a correct installation.

Below the diagrams, a table provides the relationship between the valve setting (n) and the resulting pressure drop (k) for different duct diameters (Ø mm).

Ø mm	Valve mounted in	Setting n [number of open holes]						
		n	1	2	3	4	5	6
100	Duct	n	1	2	3	4	5	6
		k	0,24	0,42	0,59	0,80	0,98	1,20
	Duct	n	7	8	9	10	11	12
		k	1,50	1,60	1,80	2,10	2,30	2,50

Valve

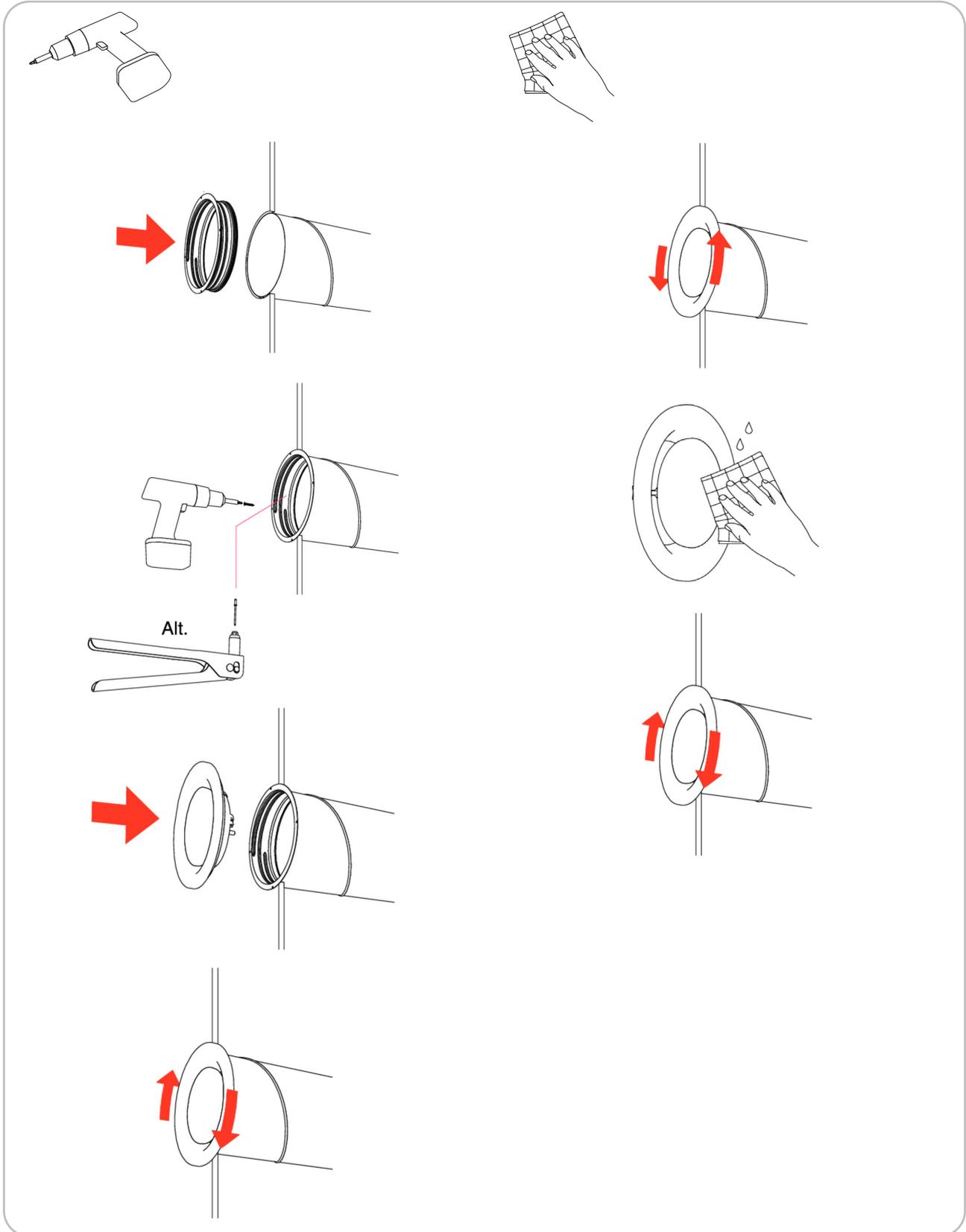
KVG Ø100–160



Ø mm	Valve mounted in	Setting a [mm]									
		a	-9	-5	0	5	8	12			
100	Duct Bend 90° T-piece	a	0,577	1,25	1,85	2,39	2,75	3,07			
		k	0,549	1,15	1,87	2,53	2,86	3,27			
			0,788	1,34	1,78	2,37	2,89	2,99			
125	Duct Bend 90° T-piece	a	-17	-13	-9	-6	-3	0	5	10	15
		k	0,736	1,27	1,96	2,41	2,93	3,36	3,96	4,79	5,85
			0,651	1,31	2,06	2,49	3,35	3,62	5,03	5,43	7,05
		1,12	1,94	2,64	2,89	3,06	3,54	4,07	4,97	5,61	
160	Duct Bend 90° T-piece	a	-18	-14	-10	-5	0	6	12	18	
		k	1,05	1,68	2,33	3,50	4,60	5,62	6,58	7,70	
			1,05	1,71	2,48	3,43	4,35	5,25	6,33	7,49	
		-	1,91	2,68	3,54	4,40	5,60	6,80	7,49		

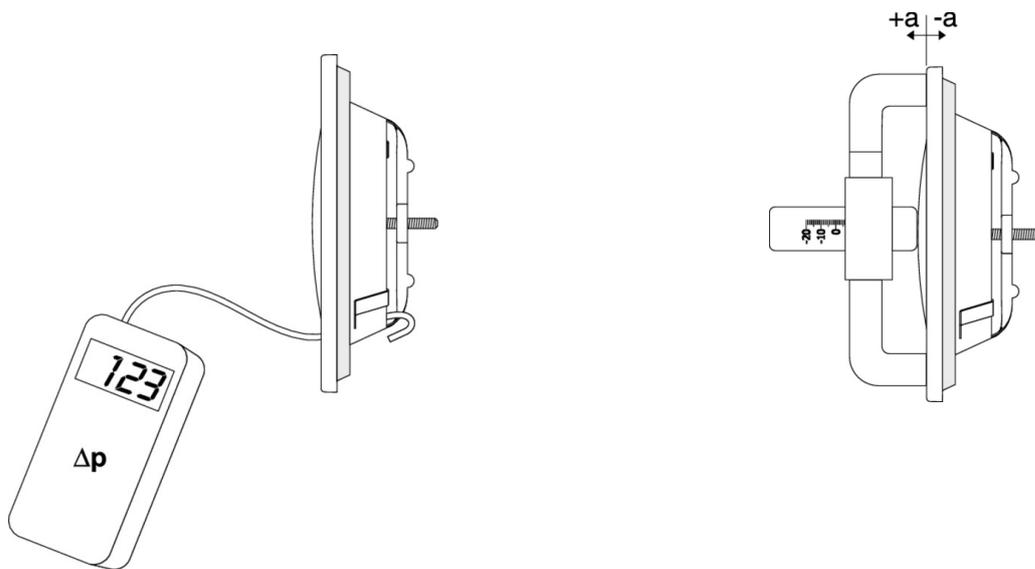
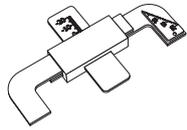
Valve

KVG Ø200



Valve

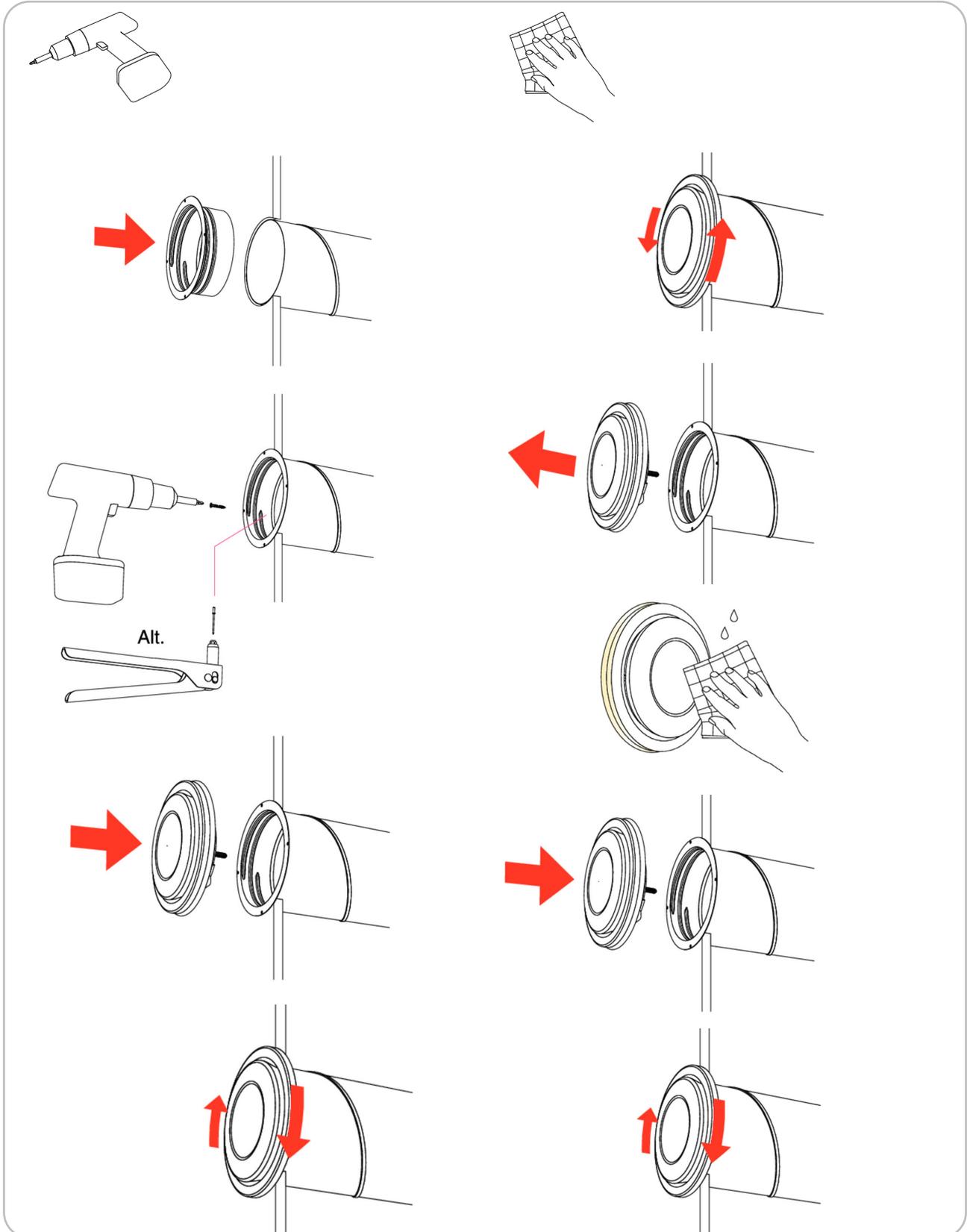
KVG Ø200



Ø mm	Valve mounted in	Setting a [mm]								
		a	-23	-18	-15	-10	-5	0	10	20
200	Duct		1,94	3,23	3,94	4,94	6,32	7,80	10,0	12,6
	Bend 90°	k	1,86	2,99	3,95	5,08	6,14	7,62	10,1	11,2
	T-piece		-	3,28	4,02	5,36	6,75	7,57	10,5	12,5

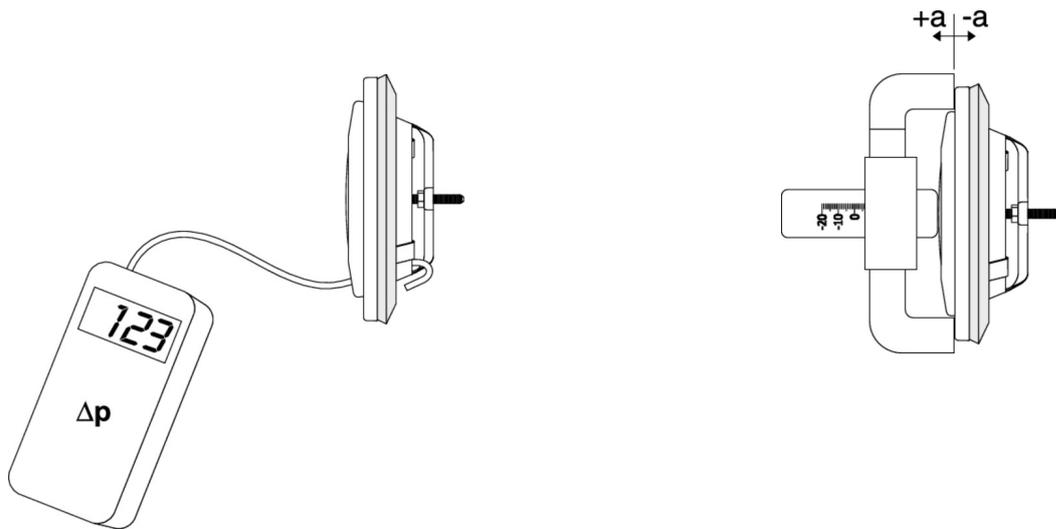
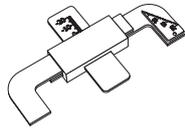
Valve

KU



Valve

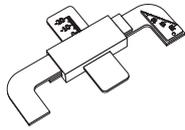
KU



Ø mm	Valve mounted in	Setting a [mm]									
		a	-9	-6	-3	0	3	6			
80	Duct		0,679	0,941	1,32	1,59	1,90	2,13			
	Bend 90°	k	0,715	1,02	1,23	1,54	1,75	2,06			
	T-piece		0,732	1,00	1,35	1,54	1,79	1,95			
100	Duct		0,560	0,938	1,46	2,00	2,72				
	Bend 90°	k	0,632	1,02	1,44	2,20	2,78				
	T-piece		-	1,08	1,54	2,17	2,91				
125	Duct		0,681	0,868	1,45	1,72	2,33	2,73	3,31	3,95	
	Bend 90°	k	0,616	0,854	1,40	1,86	2,35	2,75	3,11	4,01	
	T-piece		-	1,13	1,56	1,97	2,39	3,00	3,40	4,19	
150	Duct		1,47	2,12	2,62	3,83	4,82	5,96			
	Bend 90°	k	1,60	2,01	2,61	4,00	4,96	6,61			
	T-piece		1,79	2,44	3,07	4,09	5,21	6,46			
160	Duct		0,833	1,00	1,79	2,66	3,68	4,66	5,92	6,57	7,04
	Bend 90°	k	0,879	1,09	1,71	2,62	3,63	4,59	5,68	6,61	6,90
	T-piece		-	1,58	2,11	3,09	3,90	4,90	6,10	6,86	7,11
200	Duct		2,39	3,65	5,02	5,77	7,18	8,39	11,4	13,7	
	Bend 90°	k	2,39	3,54	4,87	5,70	7,01	8,51	11,1	13,6	
	T-piece		2,39	4,04	5,15	6,33	7,58	8,45	10,9	14,3	

Valve

KU

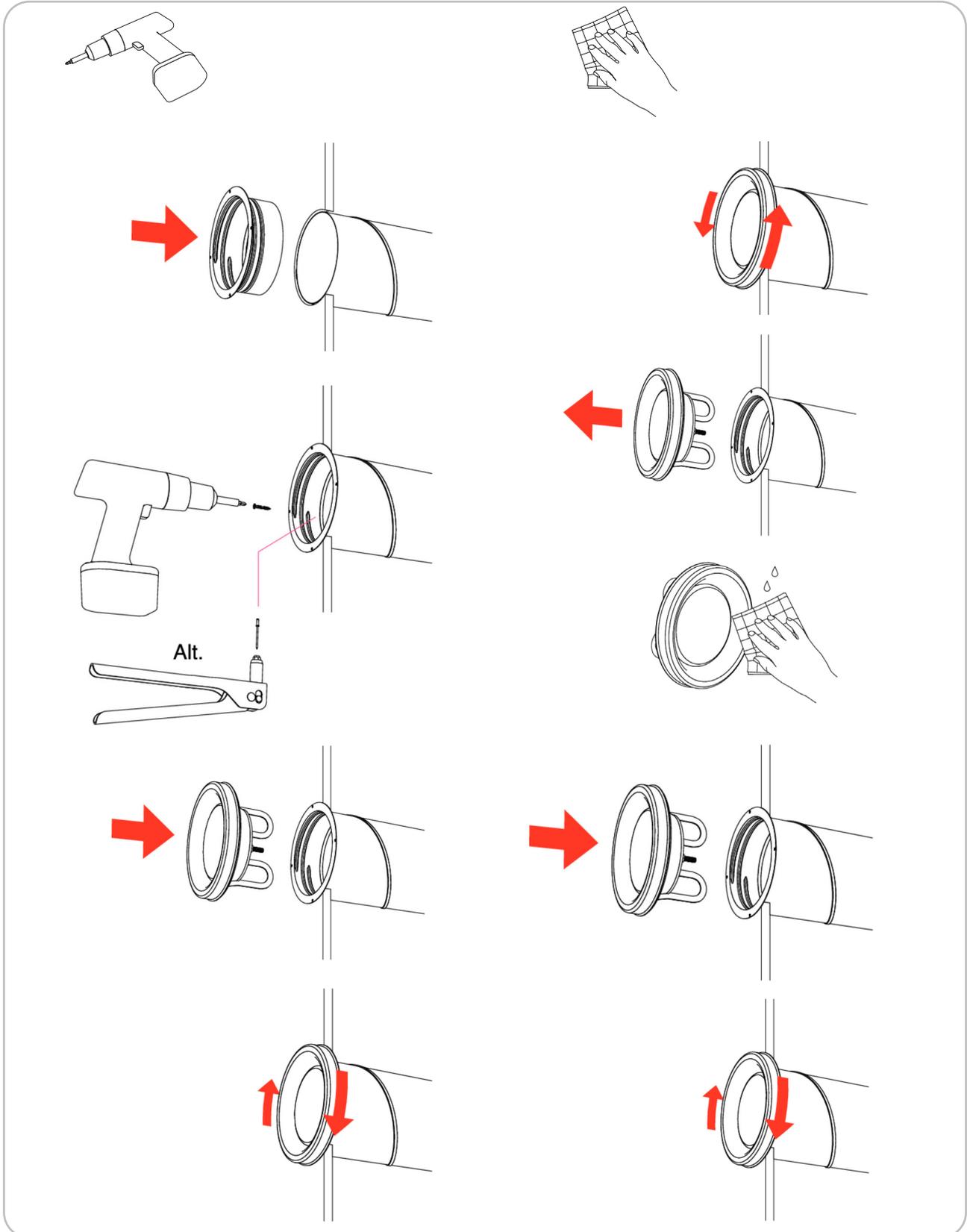


K-factors apply only to products produced after Dec, 1, 2025.

Ø mm	Valve mounted in	Setting a [mm]									
		a	-9	-6	-3	0	3	6			
80	Duct	k	0,62	0,85	1,25	1,42	1,70	2,00			
		a	-12	-9	-5	0	5	10			
100	Duct	k	0,45	0,75	1,05	1,75	2,40	3,05			
		a	-16	-13	-9	-6	-3	0	5	10	
125	Duct	k	0,35	0,85	1,41	1,85	2,22	2,69	3,42	4,37	
		a	-15	-12	-9	-6	-3	0	3	6	9
150	Duct	k	1,45	2,00	2,50	3,10	3,60	4,10	4,68	5,30	5,80
		a	-15	-10	-5	0	5	10	15	20	
160	Duct	k	1,15	2,11	3,10	3,95	5,10	6,35	7,60	8,90	
		a	-20	-15	-10	-5	0	5	10	15	20
200	Duct	k	2,75	4,00	5,20	6,30	7,50	8,80	10,0	11,6	12,8
		a	-20	-15	-10	-5	0	5	10	15	20

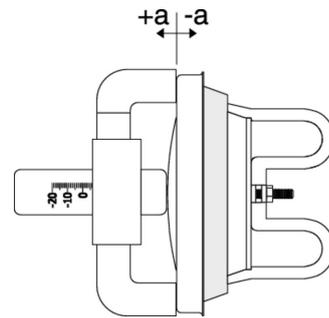
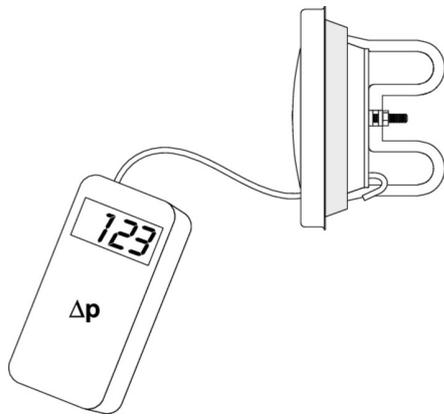
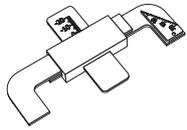
Valve

KSU



Valve

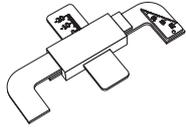
KSU



Ø mm	Valve mounted in	Setting a [mm]							
		a	-15	-12	-10	-5	0	5	10
100	Duct	a	0,459	0,676	0,861	1,36	1,82	2,32	2,75
	Bend 90°	k	0,505	0,841	1,00	1,40	1,86	2,35	2,77
	T-piece		0,576	0,850	1,01	1,42	1,89	2,35	2,66
125	Duct	a	-10	-5	0	5	10		
	Bend 90°	k	1,29	1,93	2,59	3,29	3,91		
	T-piece		1,24	1,90	2,61	3,33	3,90		
150	Duct	a	-10	-5	0	5	10	15	
	Bend 90°	k	1,81	2,69	3,42	4,48	5,17	6,09	
	T-piece		2,01	2,75	3,47	4,37	5,29	6,21	
160	Duct	a	-10	-5	0	5	10	15	
	Bend 90°	k	1,80	2,62	3,62	4,57	5,58	6,46	
	T-piece		1,50	2,50	3,48	4,50	5,39	6,52	
200	Duct	a	-3	0	5	10	15	20	25
	Bend 90°	k	2,02	2,72	3,85	5,19	6,32	7,63	8,72
	T-piece		1,65	2,62	3,71	5,21	6,07	7,40	8,60
			2,11	3,00	3,90	5,46	6,54	7,80	8,90

Valve

KSU

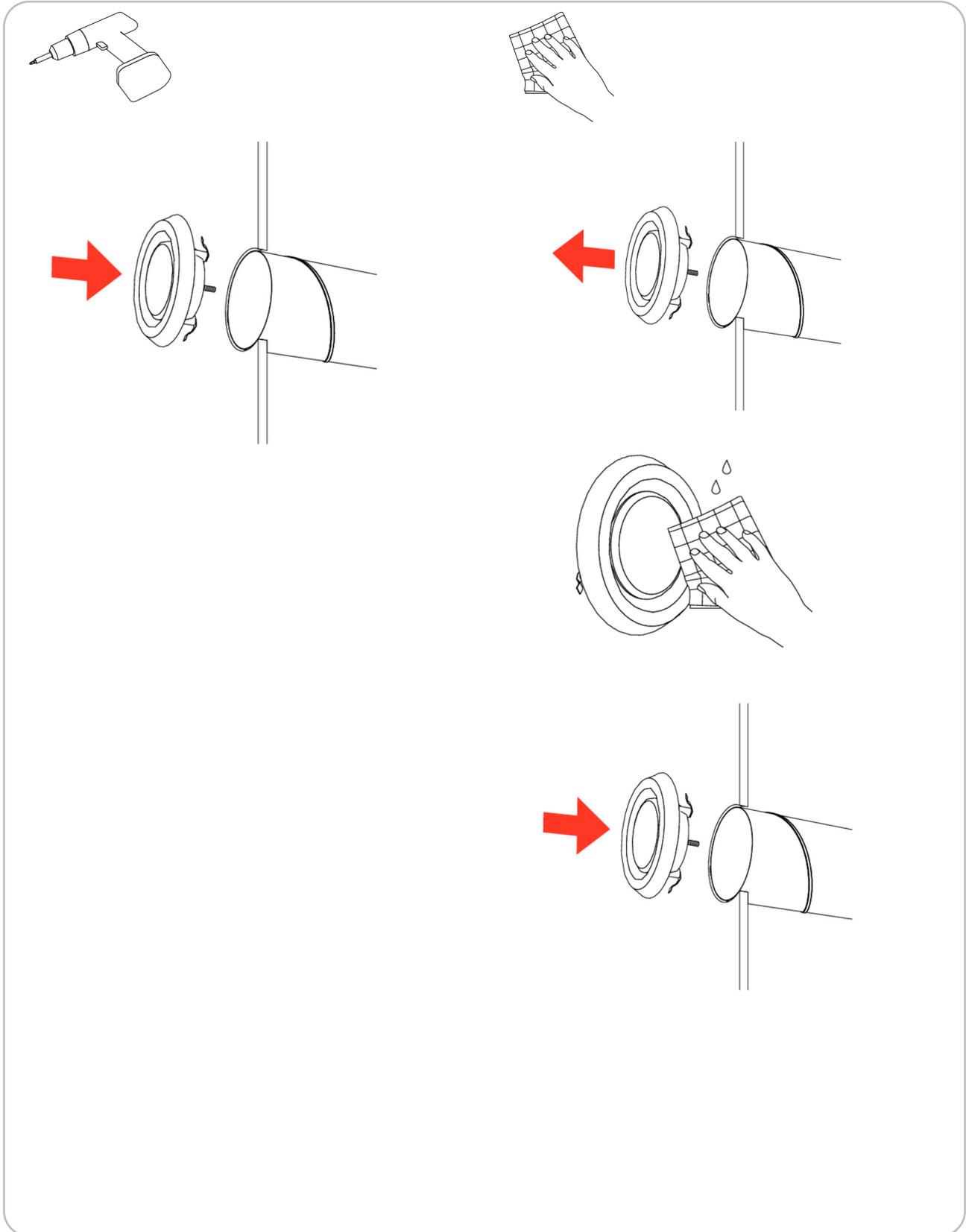


K-factors apply only to products produced after Dec, 1, 2025.

Ø mm	Valve mounted in	Setting a [mm]							
		a	-10	-7	-5	0	5	10	15
100	Duct	k	0,37	0,67	0,87	1,29	1,78	2,35	2,80
		a	-5	0	5	10			
125	Duct	k	1,34	1,94	2,57	3,15			
		a	-10	-5	0	5	10	15	20
150	Duct	k	1,68	2,47	3,31	4,07	4,87	5,79	6,67
		a	-10	-5	0	5	10	15	20
160	Duct	k	1,68	2,47	3,31	4,07	4,87	6,46	6,67
		a	-5	0	5	10	15	20	
200	Duct	k	1,40	2,55	3,75	5,00	6,30	7,60	
		a	-5	0	5	10	15	20	

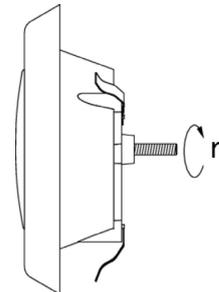
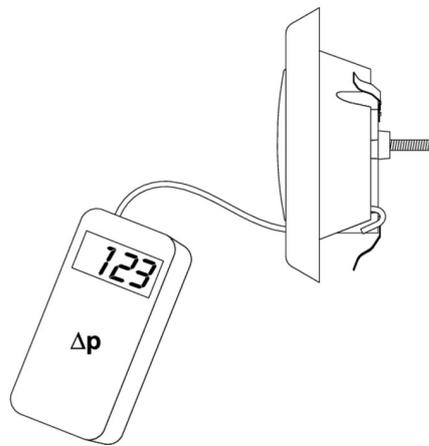
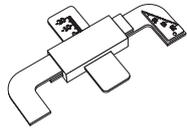
Valve

KPF



Valve

KPF



Ø mm	Valve mounted in	Setting n [number of opening turns]						
		n	0	3	6	9	12	15
80	Duct	n	0,489	0,675	1,08	1,07	1,55	1,42
	Bend 90°	k	0,517	0,621	0,867	1,10	1,31	1,42
	T-piece	-	0,715	0,915	1,14	1,18	1,41	
100	Duct	n	1,54	1,71	1,96	2,48	2,91	3,17
	Bend 90°	k	1,58	1,89	2,20	2,62	2,94	3,39
	T-piece	-	1,68	1,76	2,17	2,52	2,91	3,23
125	Duct	n	1,76	1,99	2,44	2,89	3,31	3,67
	Bend 90°	k	1,82	1,95	2,42	2,74	3,21	3,56
	T-piece	-	2,07	2,66	2,90	3,47	5,26	
160	Duct	n	1,54	2,19	2,78	3,20	3,94	4,46
	Bend 90°	k	1,41	1,97	2,52	3,04	3,63	4,23
	T-piece	-	1,57	2,22	2,84	3,43	4,05	4,63
200	Duct	n	1,77	2,57	3,26	4,23	4,93	5,84
	Bend 90°	k	1,78	2,45	3,26	3,48	4,89	5,14
	T-piece	-	2,53	3,03	3,79	4,55	5,04	

Cover

TLO

