

Lindab **Valves**

Mounting instructions

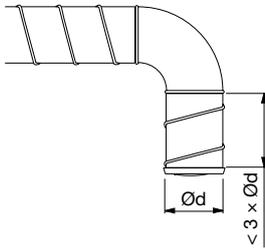
Overview diffusers, valves and cover

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

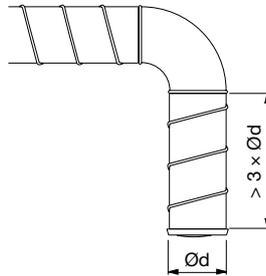
Unit				Connects to							
				Socket with thread for units with bayonet holder			Socket with groove for units with spring holder		Cover socket with groove for units with wire spring holder	Smooth socket for units with plate spring holder	Duct/Fitting
Exhaust air	KVB	Valve					VRFU 	VRFM 	VRR 		
	KDPF	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

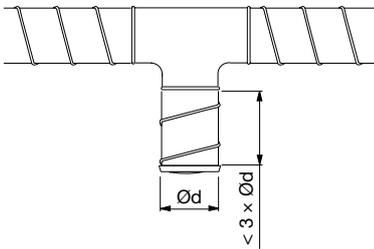
k-factor type: B (Bend 90°)



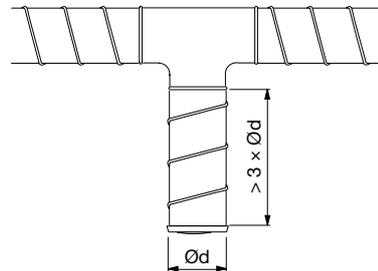
k-factor type: D (Duct)



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



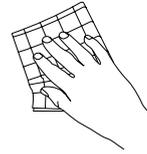
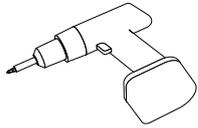
is recommended method



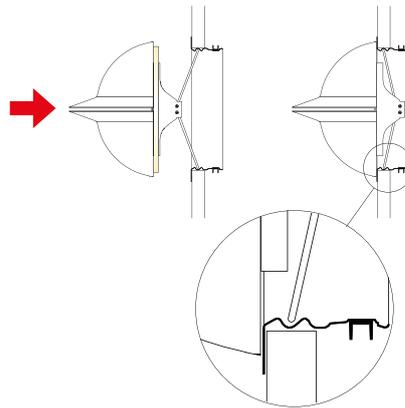
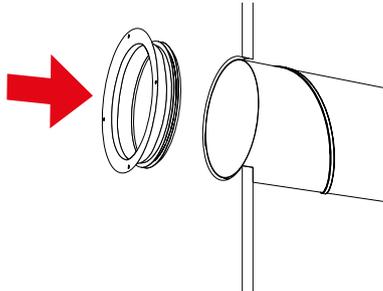
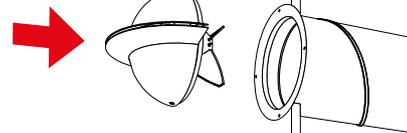
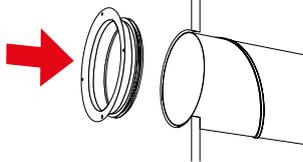
is not recommended method

Diffuser

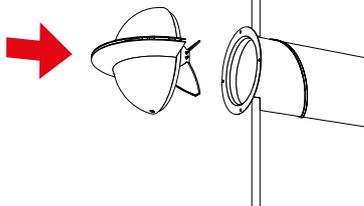
WTK



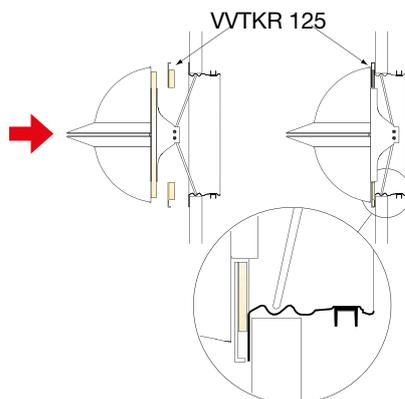
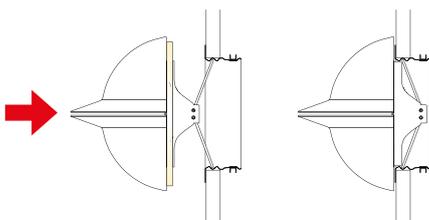
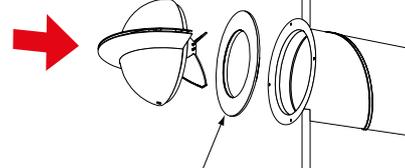
Ø125
Alt 1



Ø100

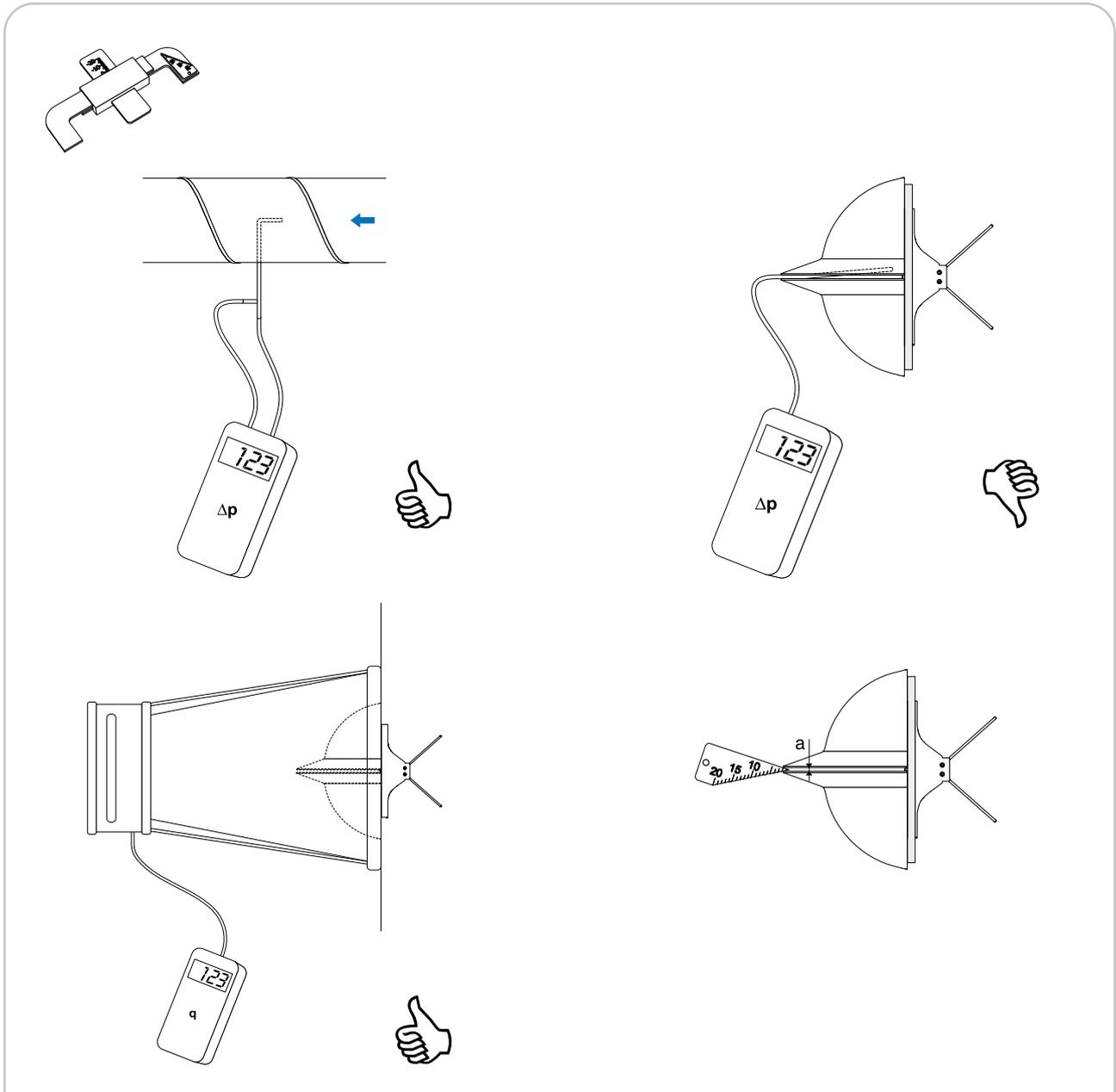


Ø125
Alt 2



Diffuser

WTK

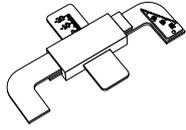


K-factors apply only to products produced after Oct 1, 2025.

Ø mm	Valve mounted in	Setting a [mm]				
		a	5	7	9	12
100	Duct	k	2,30	3,00	3,80	4,60
		a	5	7	9	12
125	Duct	k	2,30	3,00	3,80	4,60
		a	5	7	9	12

Diffuser

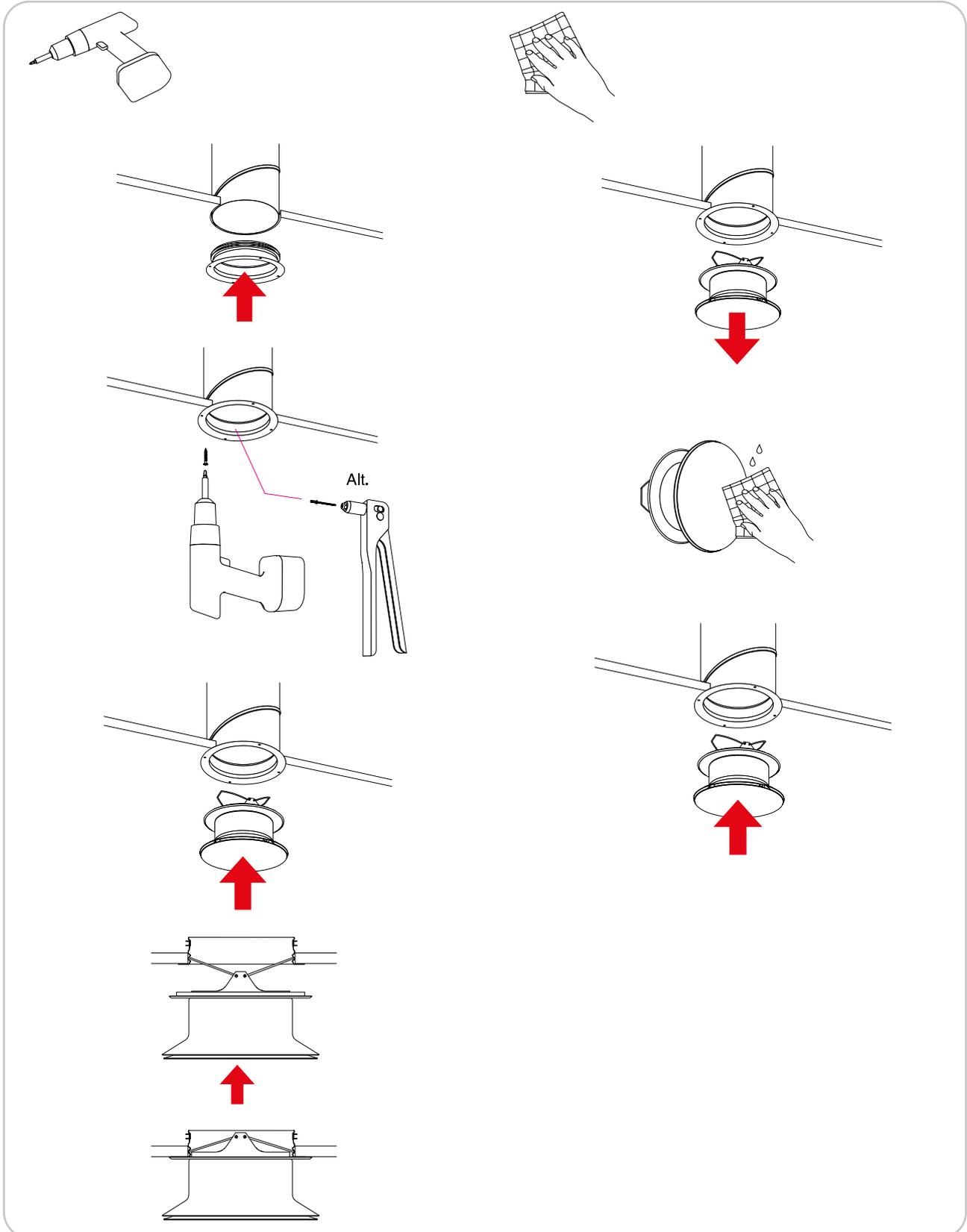
WTK



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

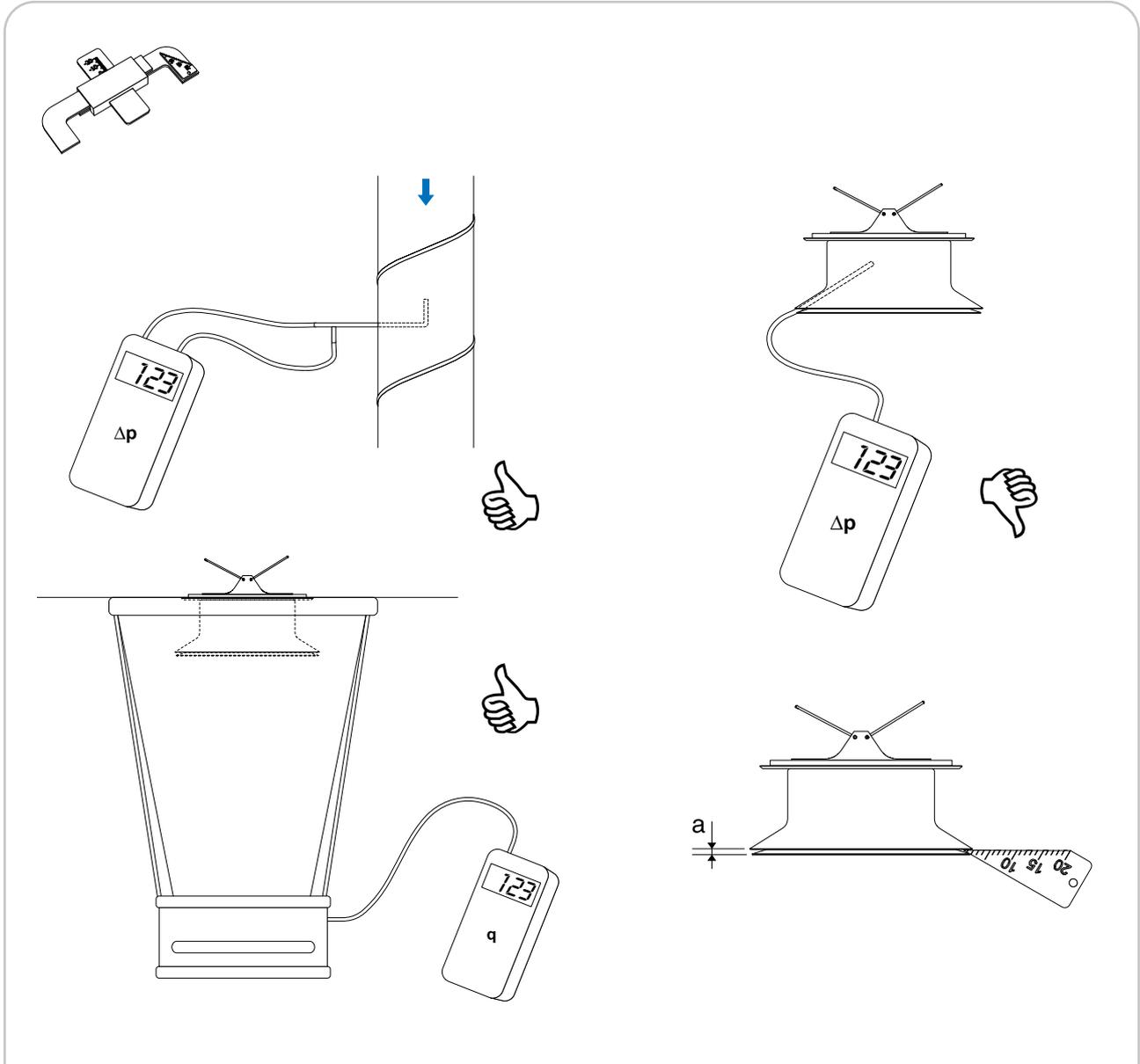
Diffuser

VTTB



Diffuser

VTTB

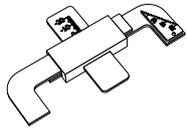


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Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9	12	Fully open
100	Duct	k	0,80	1,60	2,30	3,30	4,40	5,20
		a	4	5	7	9	12	Fully open
125	Duct	k	2,00	2,40	3,30	4,00	5,00	5,40
		a	4	6	9	12	Fully open	
160	Duct	k	2,20	3,20	4,60	5,90	7,20	
		a	4	6	9	12	Fully open	

Diffuser

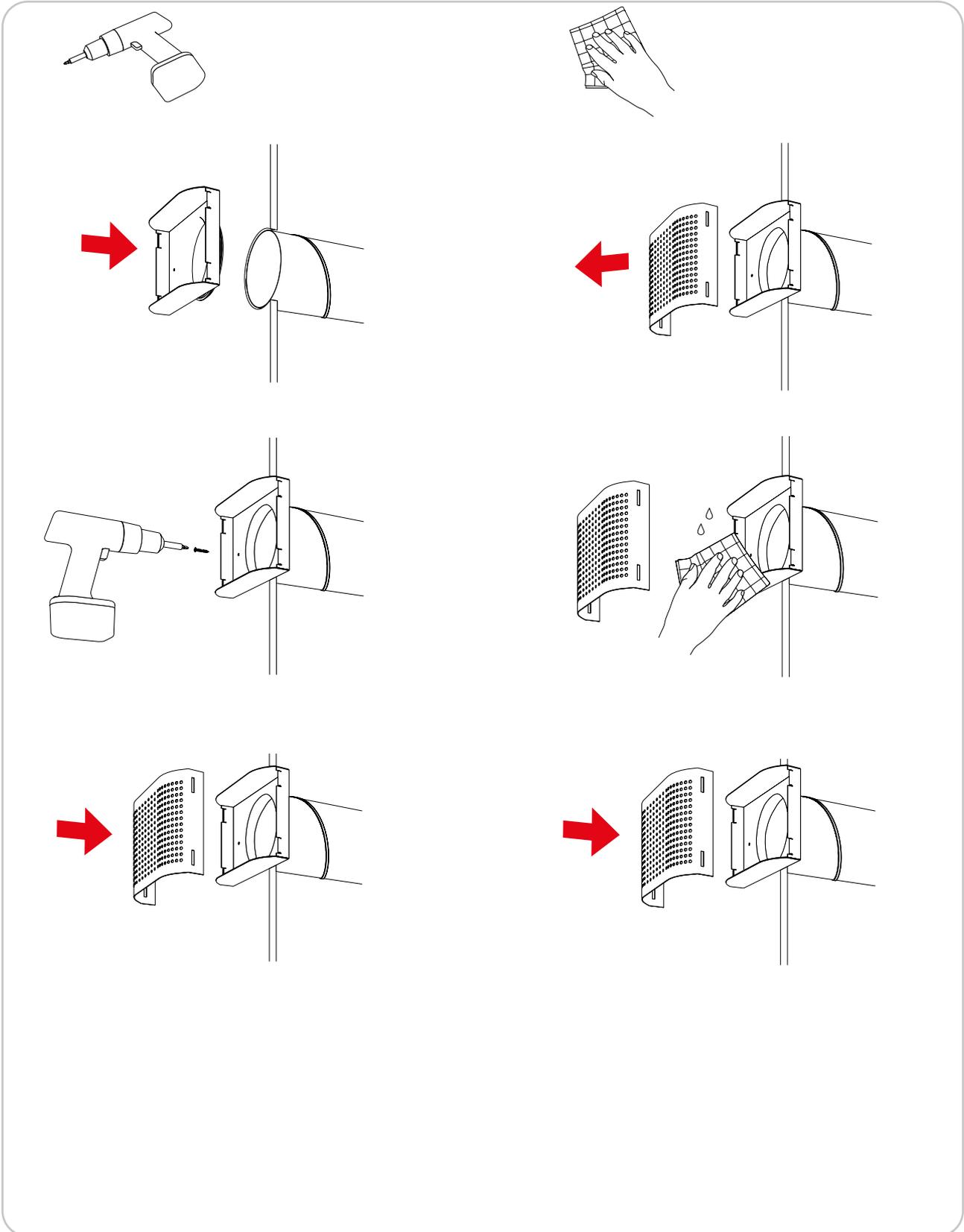
VTTB



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	
		a	5	6	7	8	10	12	16	20	

Diffuser

SHH



Diffuser

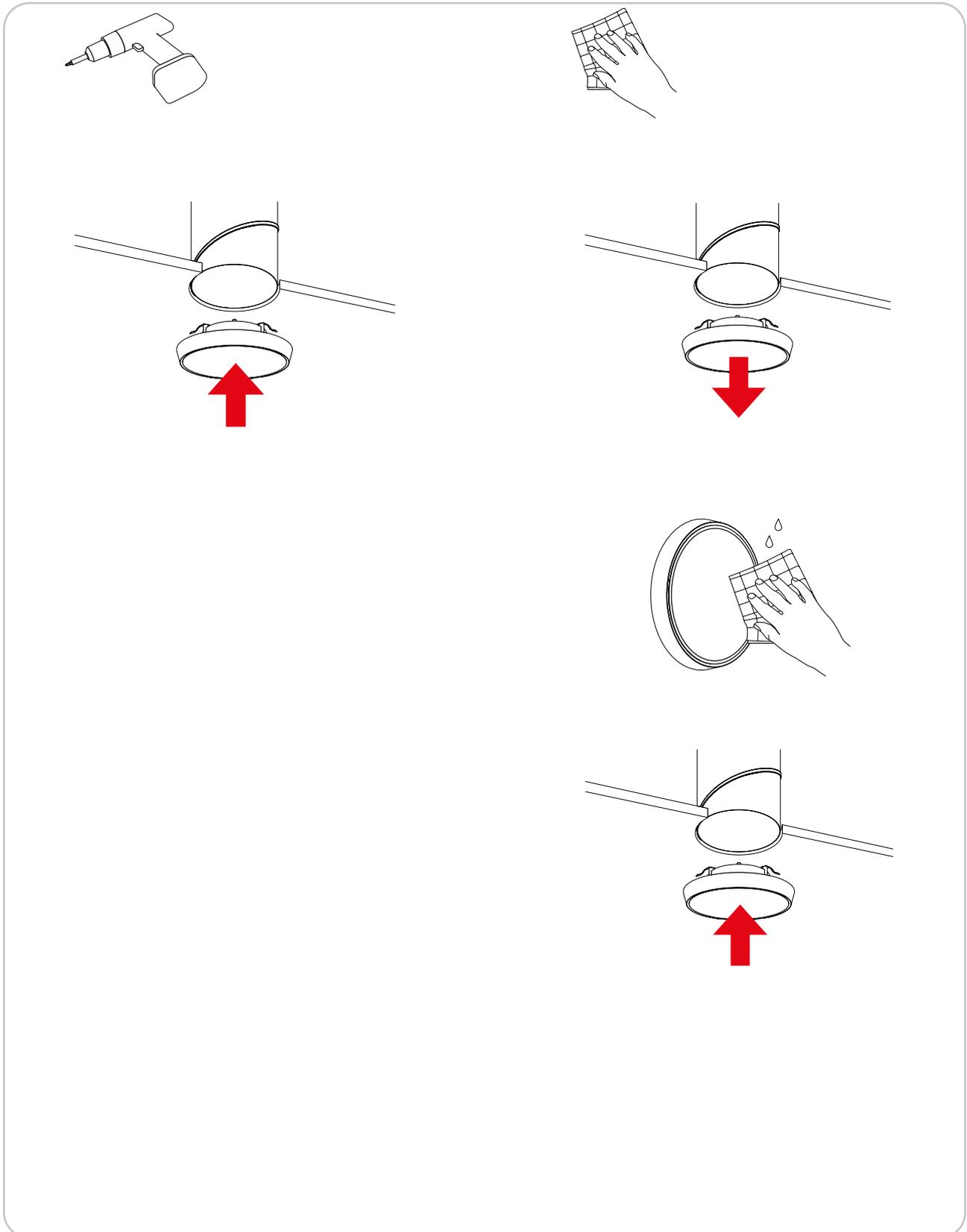
SHH

The diagram illustrates the installation of Lindab SHH diffusers. It shows two scenarios: installation in a duct and installation in a speaker. In the duct installation, a diffuser is mounted on a ceiling, and a pressure sensor (Δp) is connected to it. A pressure gauge shows a reading of 123. A thumbs-up icon indicates a correct installation. In the speaker installation, a diffuser is mounted on a speaker, and a pressure sensor (q) is connected to it. A pressure gauge shows a reading of 123. A thumbs-up icon indicates a correct installation. The diagram also shows two different settings for the diffuser, labeled 'n = 10' and 'n = 6', with corresponding pressure gauge readings and thumbs-down icons indicating incorrect settings. The table below provides the settings for different diffuser diameters and mounting types.

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

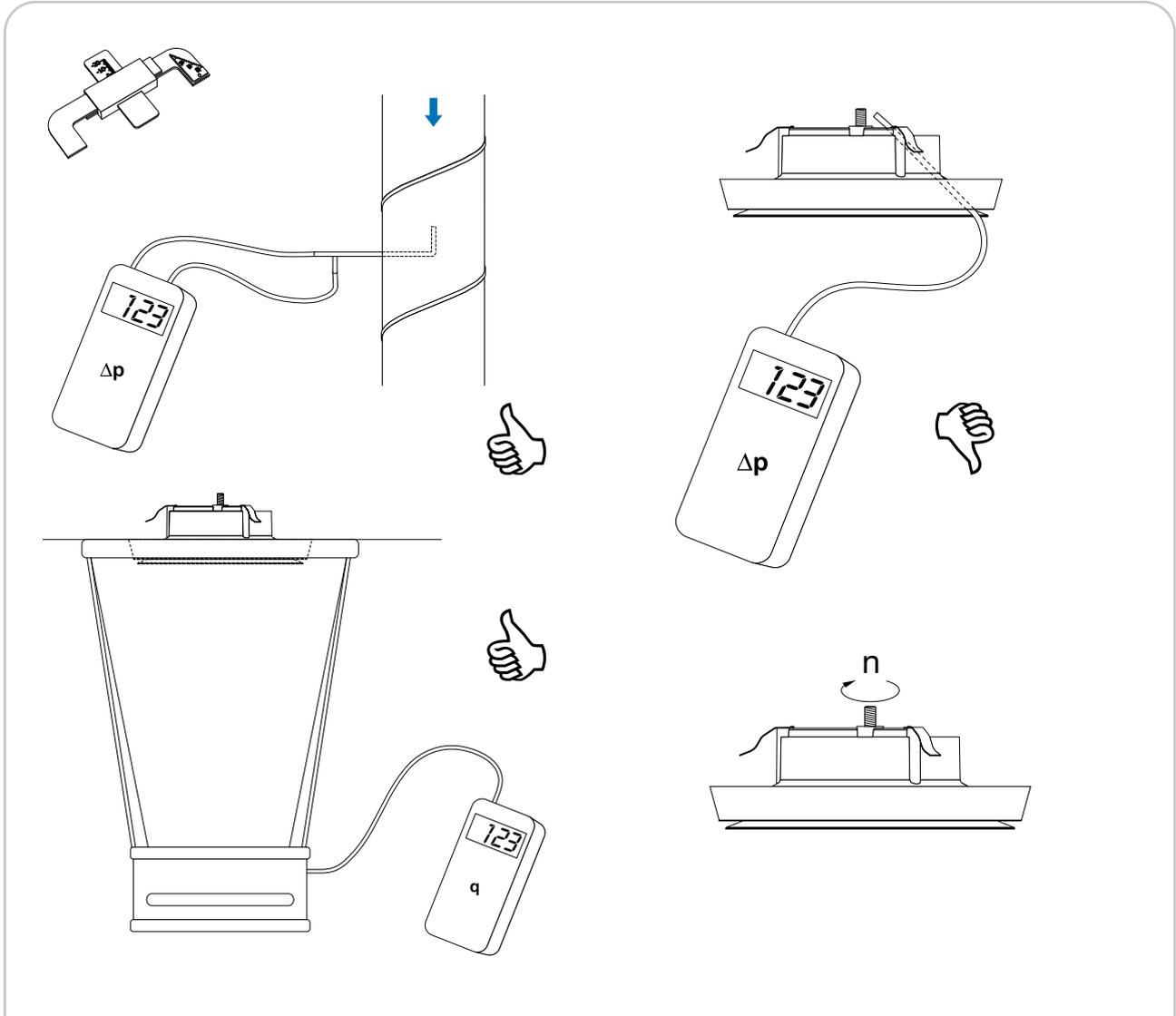
Valve

KPT



Valve

KPT

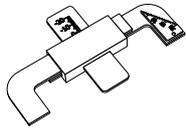


K-factors apply only to products produced after Oct 1, 2025.

Ø mm	Valve mounted in	Setting n [number of opening turns]						
		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	4	6	9	12	15	20
160	Duct	k	1,60	2,20	3,00	3,90	5,00	7,30
		n	7	9	11	13	15	
200	Duct	k	4,55	5,47	6,35	7,39	8,37	

Valve

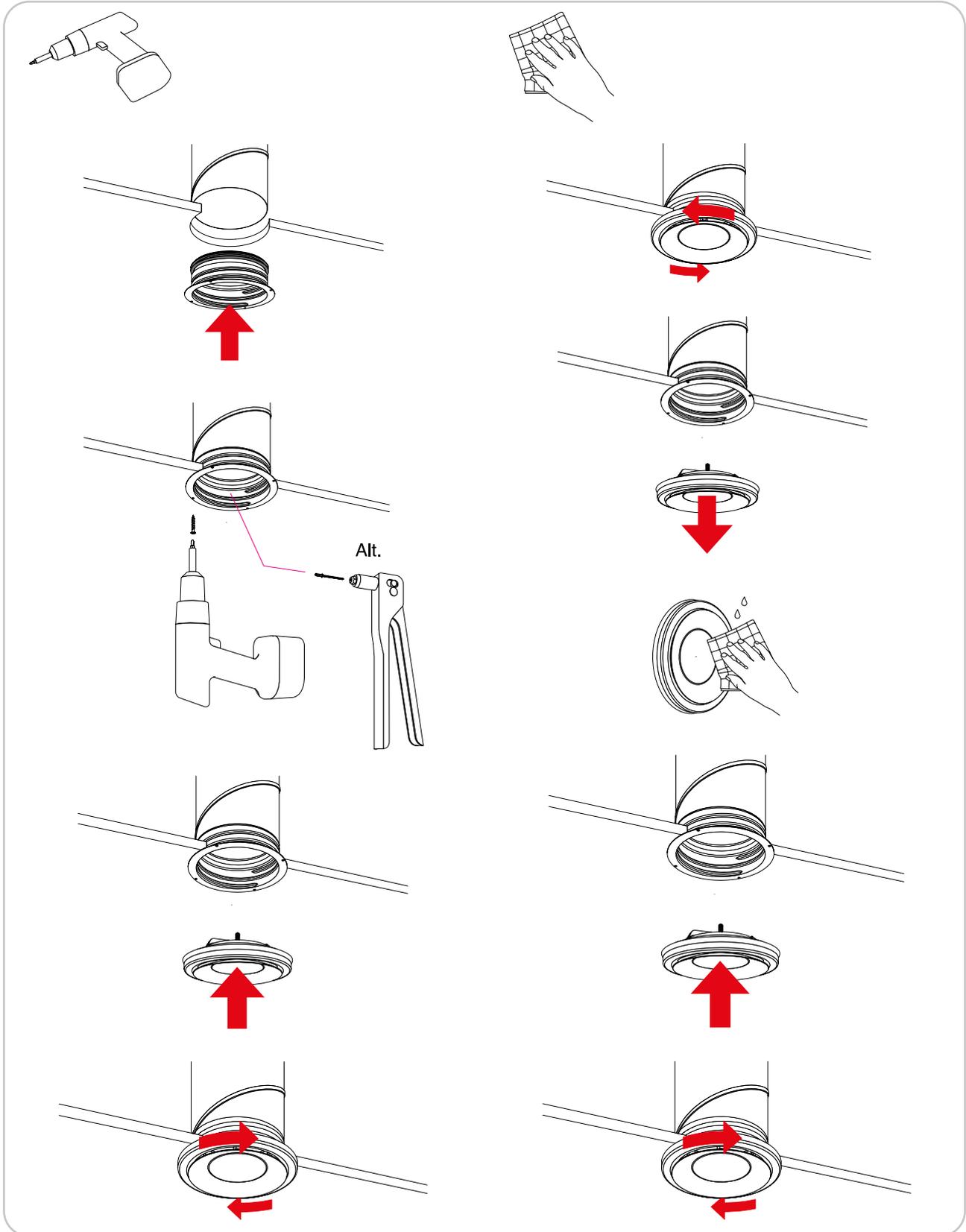
KPT



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	
		n						

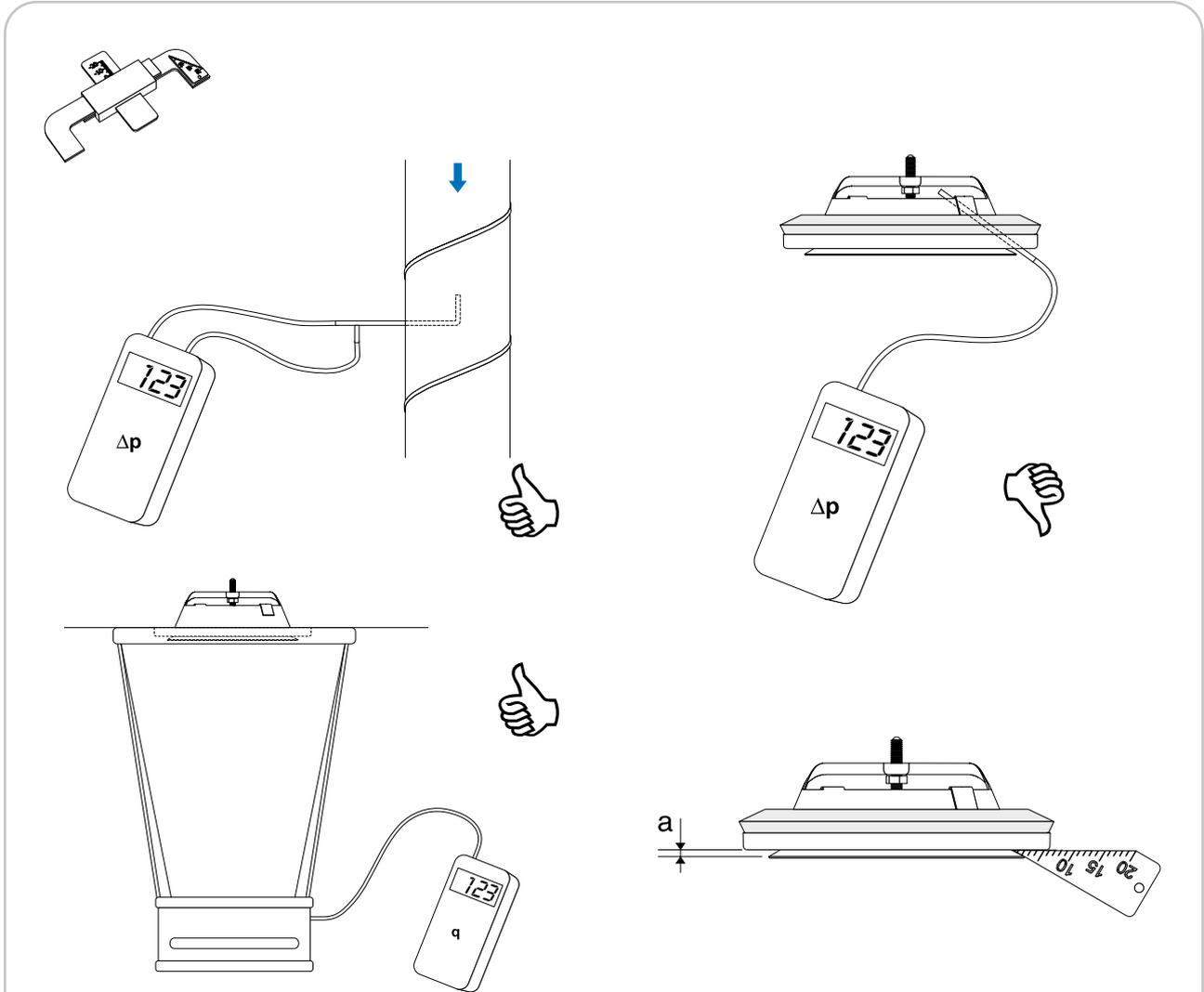
Valve

KI



Valve

KI

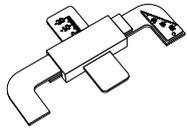


K-factors apply only to products produced after Oct 1, 2025.

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

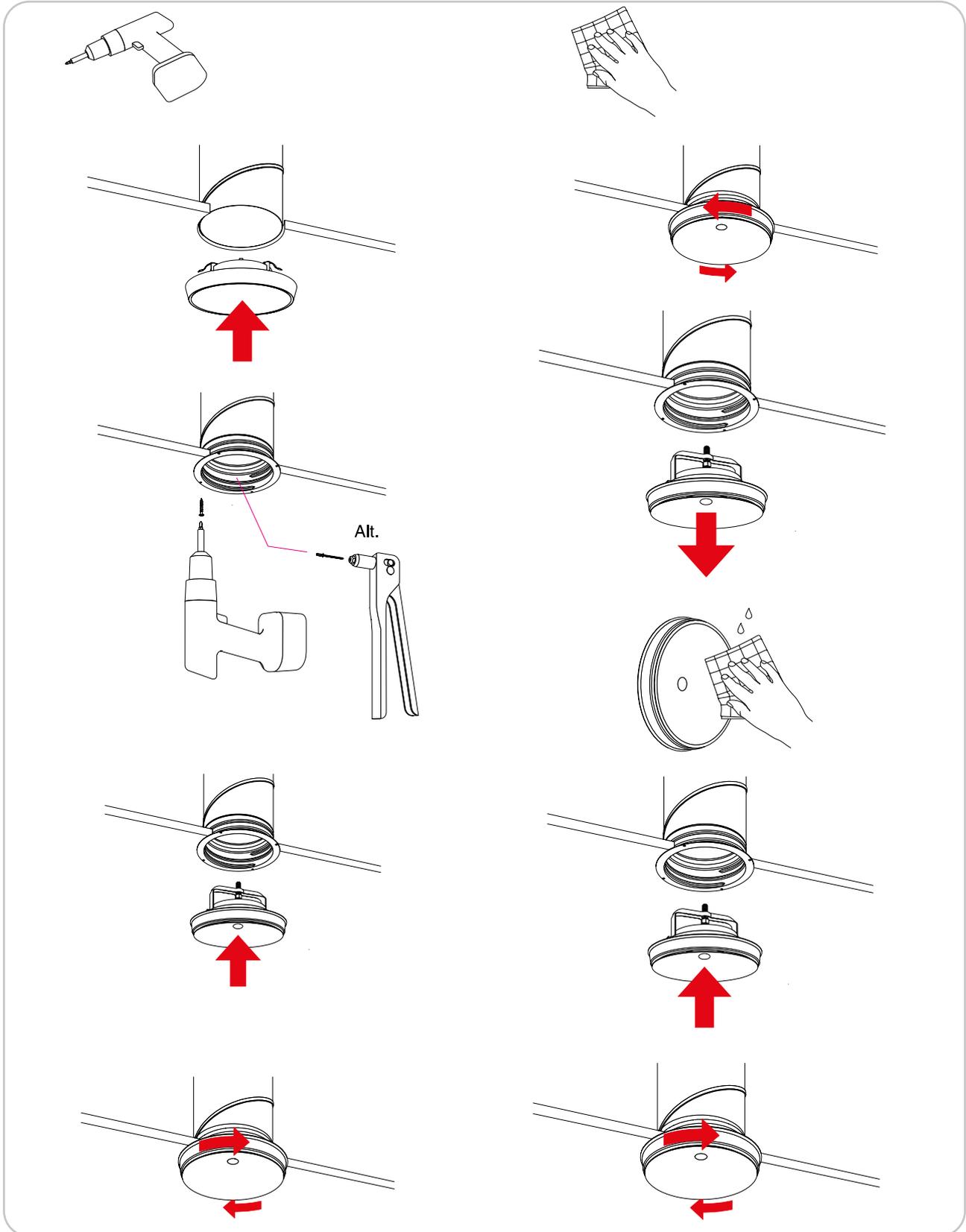
KI



Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9	12	
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	2	4	6	9	12	
125	Duct	k	1,23	1,85	2,83	3,74	5,08	6,21
		a	3	5	7	9	12	15
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	4	6	9	12	15	20
200	Duct	k	3,66	5,17	7,05	8,00	10,4	12,9
		a	5	6	9	12	15	20

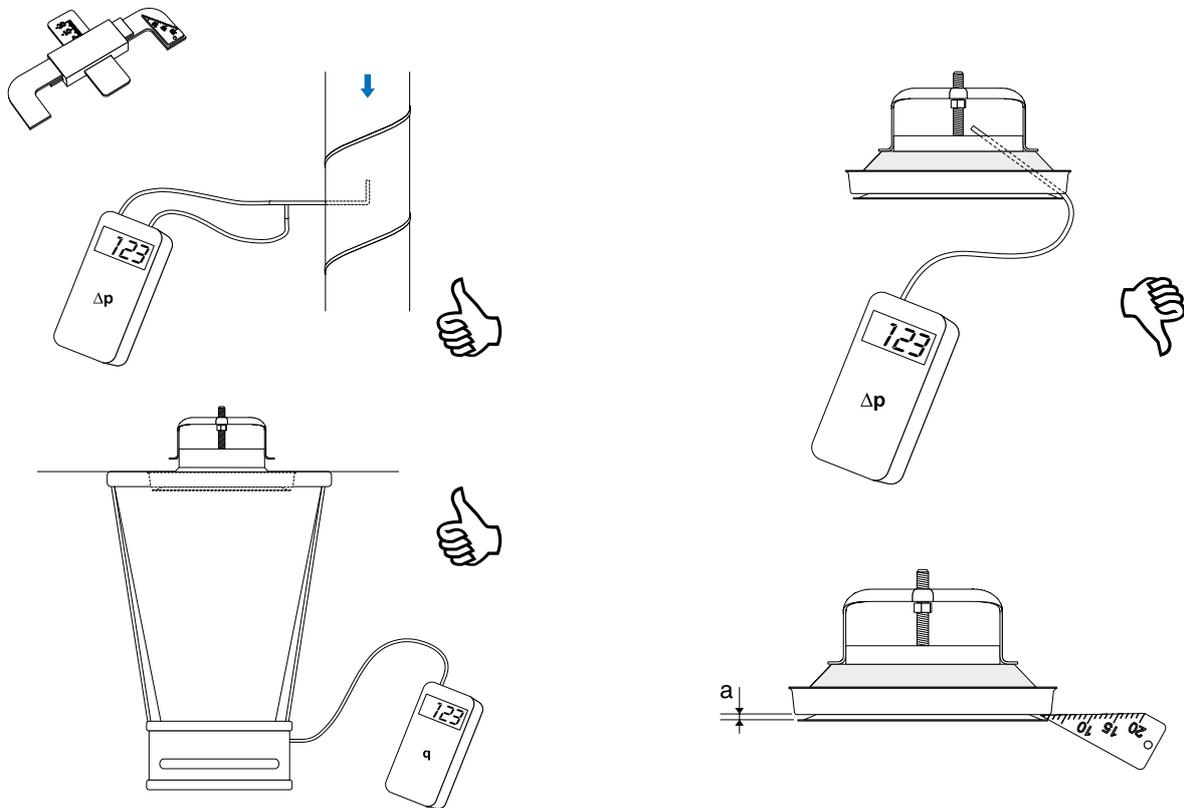
Valve

KIR



Valve

KIR



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

Without sector plate

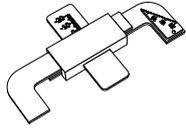
Ø mm	Valve mounted in	Setting a [mm]						
		a	2	4	6	9	12	15
100	Duct	k	0,95	1,45	1,85	2,30	2,70	3,80
		a	4	6	9	12	15	
125	Duct	k	2,05	2,68	3,20	3,70	4,80	
		a	4	6	9	15	20	
160	Duct	k	2,70	3,90	4,75	6,40	7,70	
		a	4	6	9	15	20	

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

KIR



Without sector plate

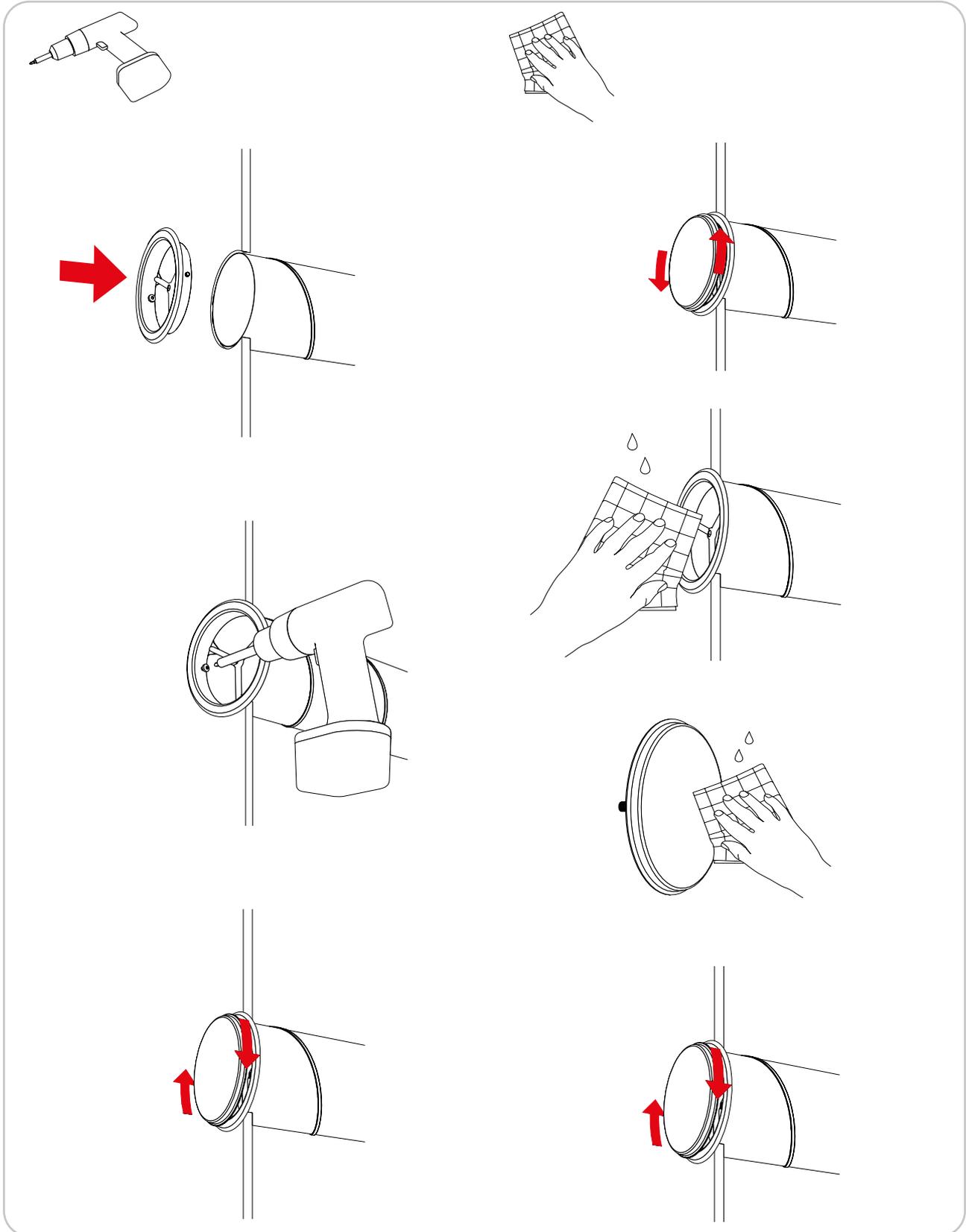
Ø mm	Valve mounted in	Setting a [mm]					
		a	2	4	6	9	12
100	Duct	k	1,09	1,56	2,11	2,81	4,31
		a	4	6	9	12	15
125	Duct	k	1,95	2,99	4,41	5,72	7,41
		a	4	6	10	15	20
160	Duct	k	2,10	3,74	5,83	9,66	12,8

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

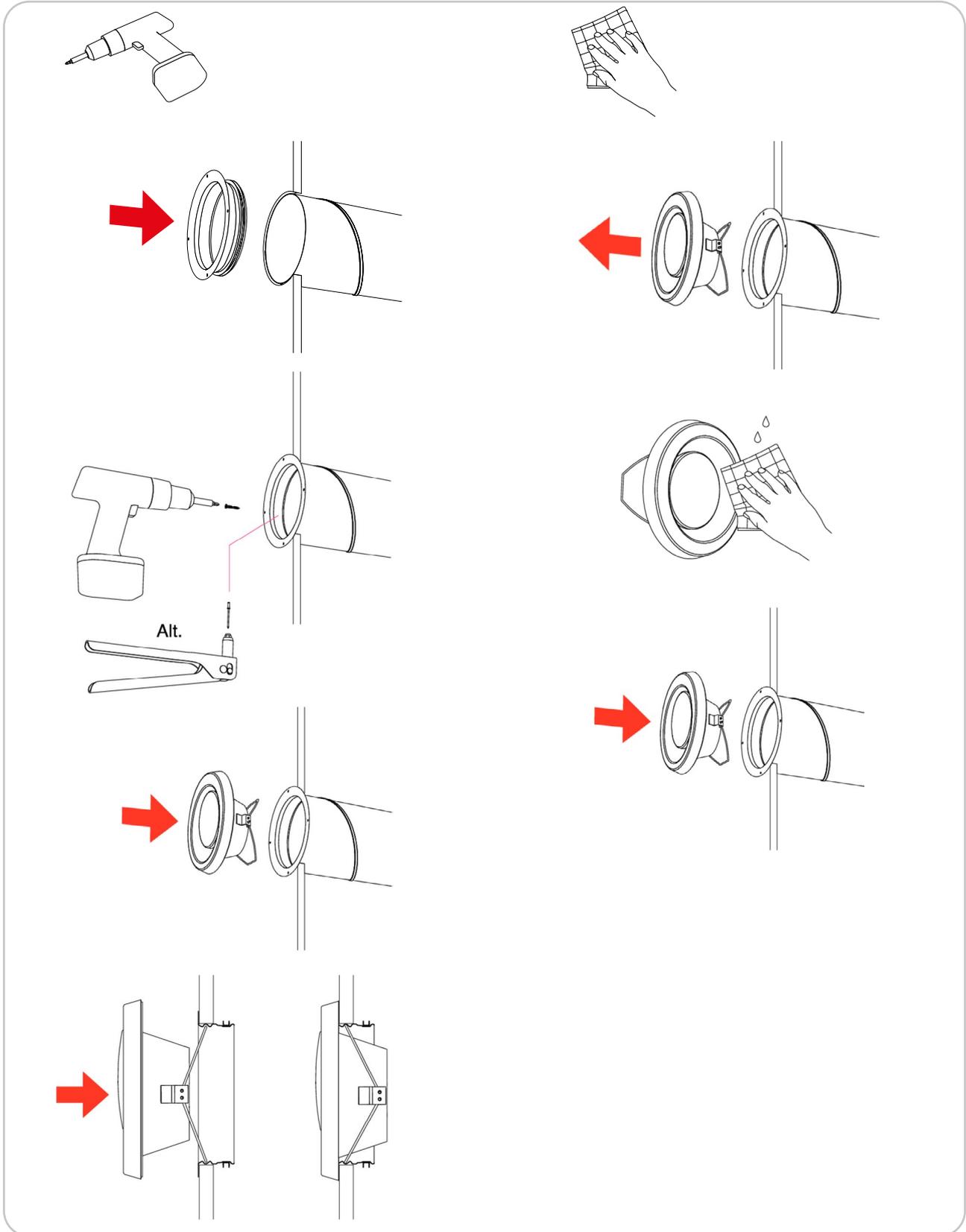
Valve

TAV



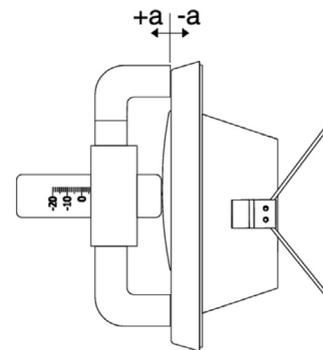
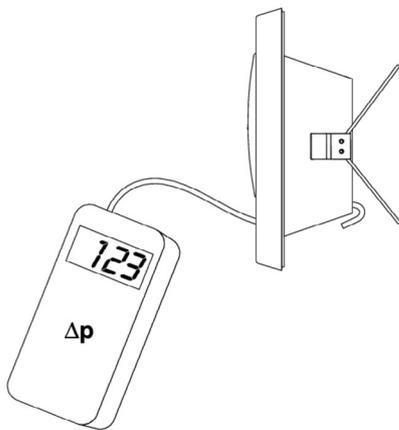
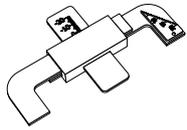
Valve

KVB



Valve

KVB

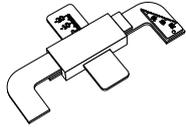


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Ø mm	Valve mounted in	Setting a [mm]									
		a	-11	-9	-6	-3	0	3	6	10	
100	Duct	k	0,40	0,55	0,80	1,10	1,40	1,70	2,00	2,30	
		a	-20	-16	-12	-8	-4	0	4	8	
125	Duct	k	1,10	1,40	2,00	2,30	2,80	3,20	3,60	4,00	
		a	-23	-20	-15	-10	-5	0	5	10	15
160	Duct	k	1,70	1,90	3,00	4,20	5,50	6,70	7,90	8,90	10,5

Valve

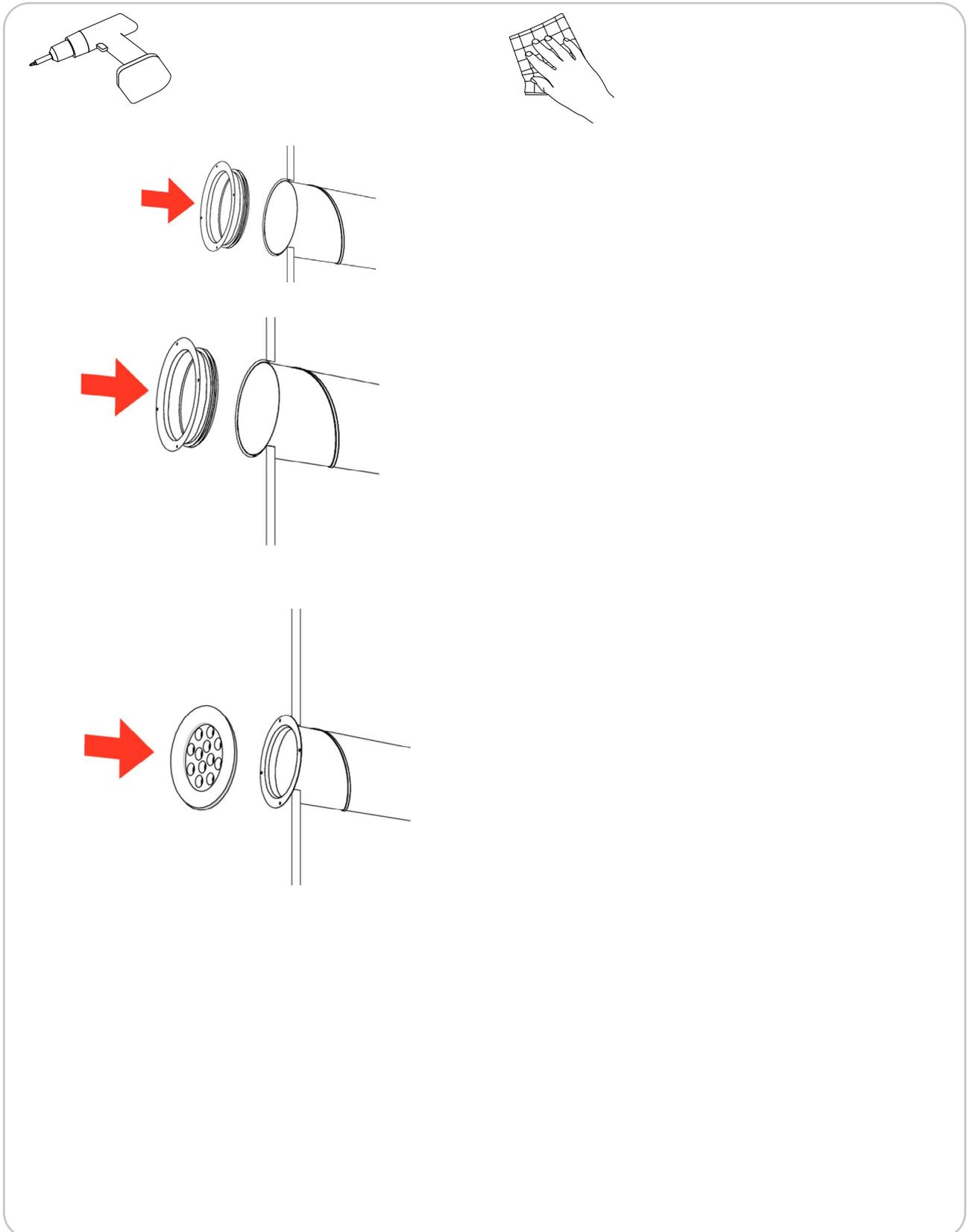
KVB



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

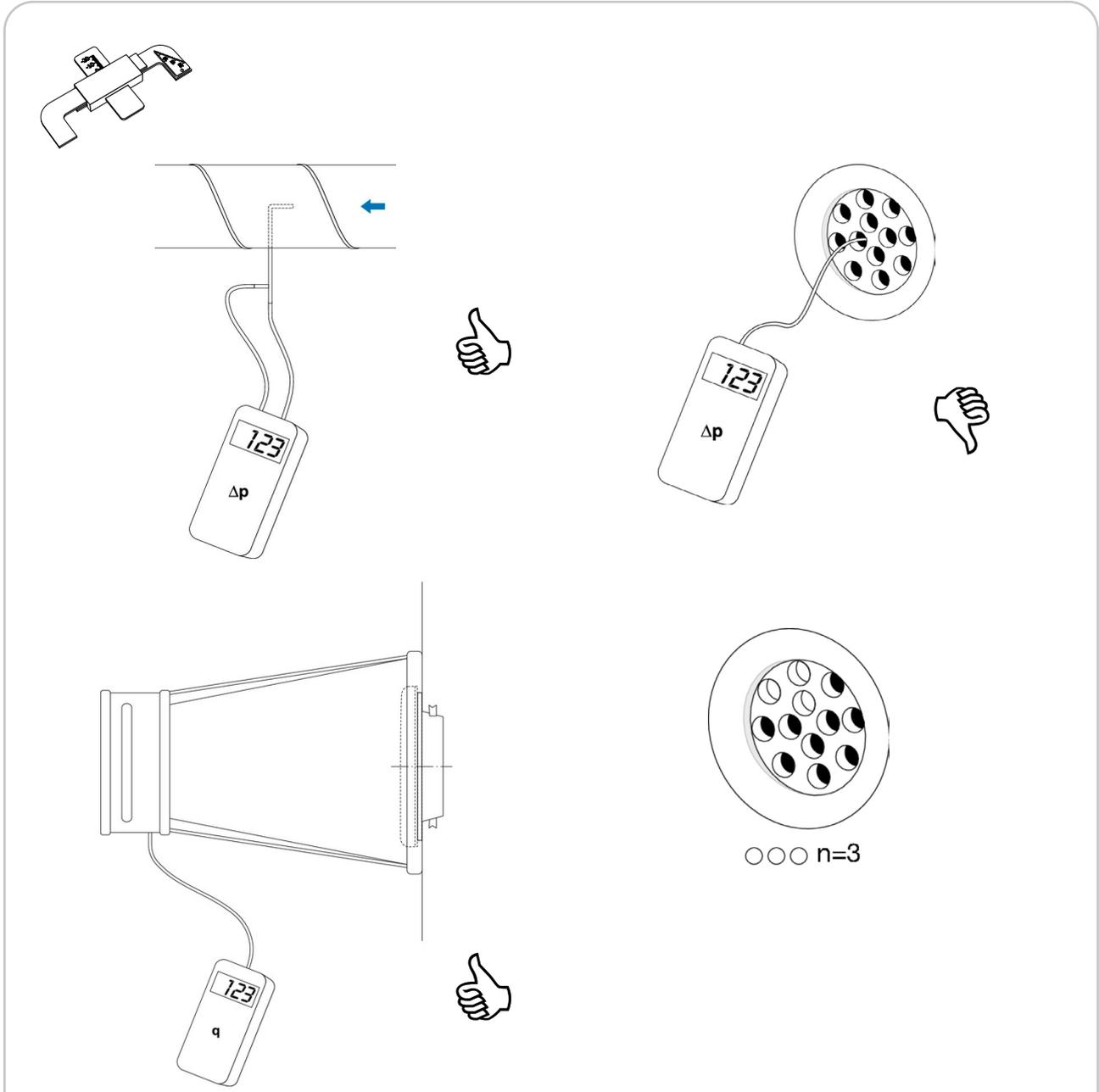
Valve

KDPF



Valve

KDPF

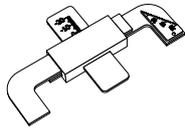


K-factors apply only to products produced after Oct 1, 2025.

Ø mm	Valve mounted in	Setting n [number of open holes]							
		n	2	3	4	6	8	10	12
100	Duct	k	0,60	0,72	0,93	1,28	1,69	2,20	2,65

Valve

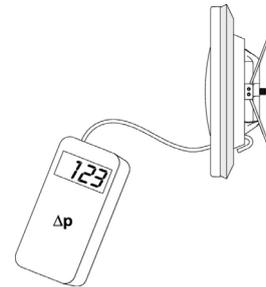
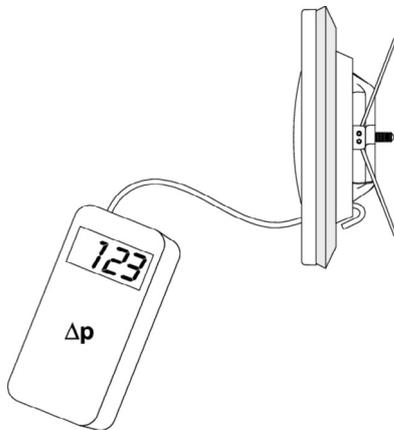
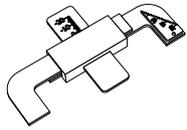
KDPF



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

Valve

KVG Ø100–160

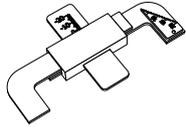


K-factors apply only to products produced after Oct 1, 2025.

Ø mm	Valve mounted in	Setting a [mm]									
		a	-9	-6	-3	0	3	6	9	12	15
100	Duct	k	0,70	1,10	1,40	1,80	2,10	2,50	2,90	3,30	3,30
		a	-17	-13	-9	-6	-3	0	5	10	15
125	Duct	k	0,90	1,40	2,10	2,70	3,10	3,50	4,30	5,00	5,80
		a	-20	-15	-10	-5	0	5	10	15	20
160	Duct	k	0,70	1,60	2,60	3,60	4,50	4,50	5,50	6,50	7,50
		a	-20	-15	-10	-5	0	5	10	15	20

Valve

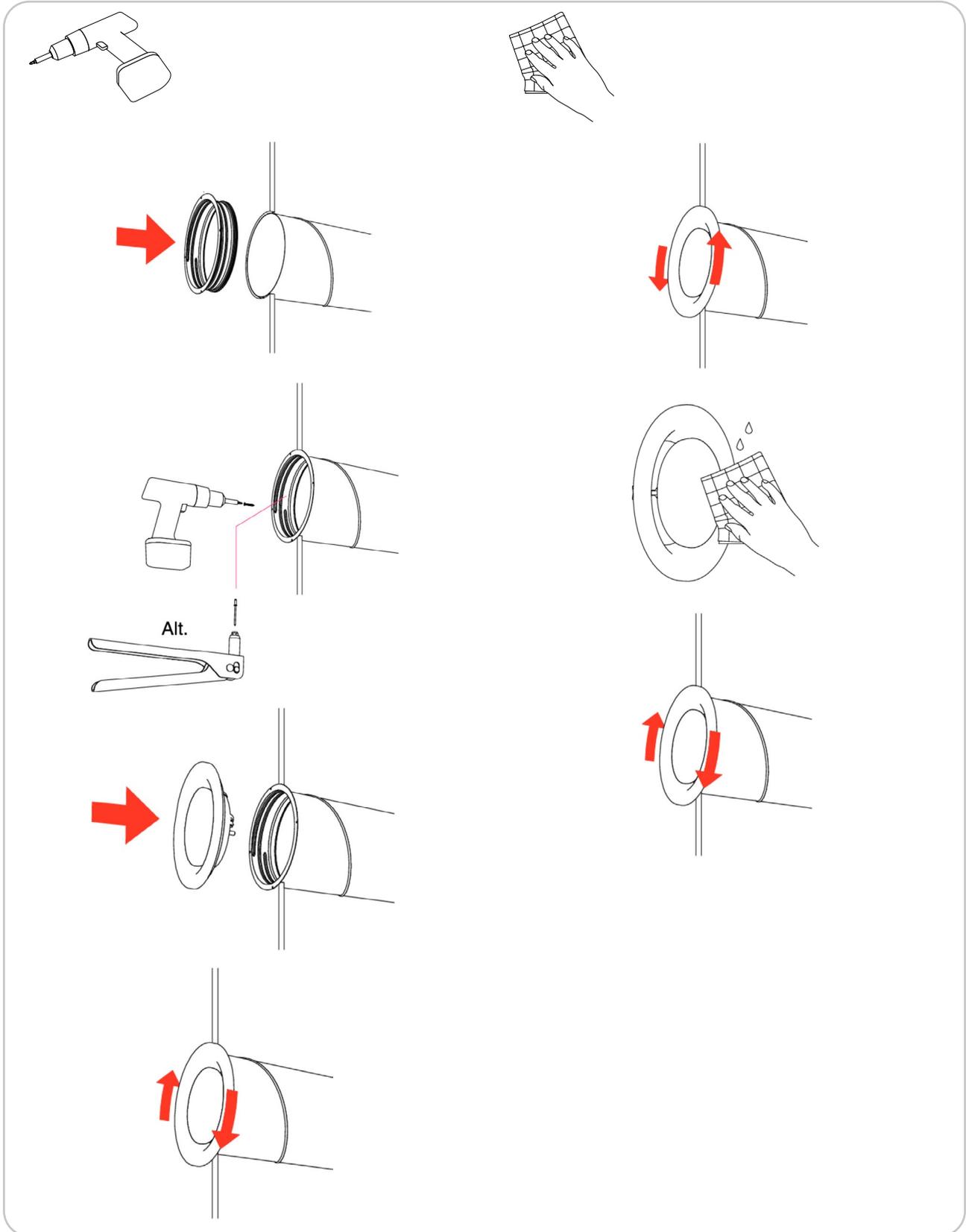
KVG Ø100–160



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

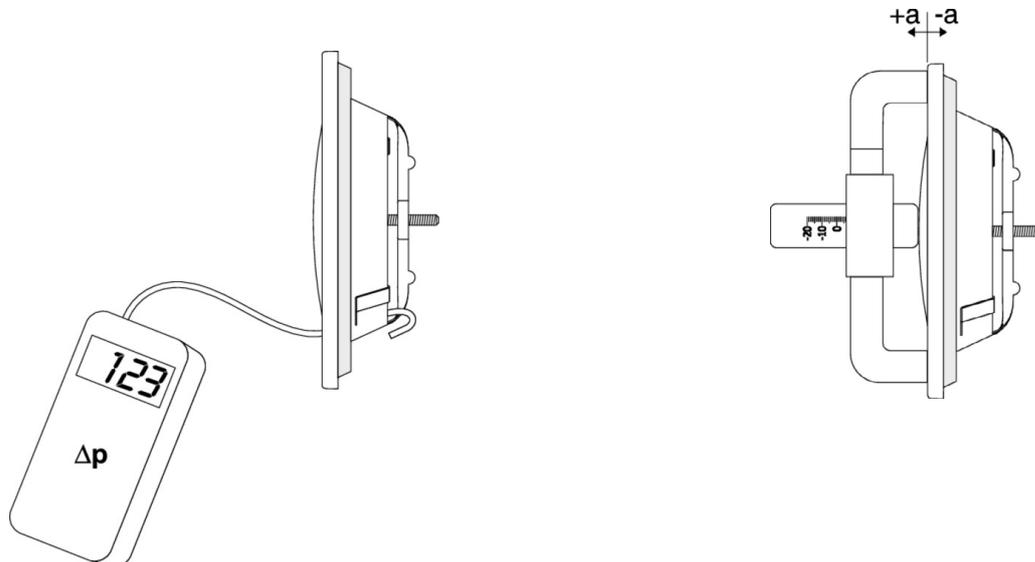
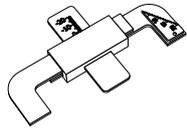
Valve

KVG Ø200



Valve

KVG Ø200

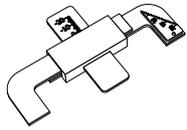


K-factors apply only to products produced after Oct 1, 2025.

Ø mm	Valve mounted in	Setting a [mm]								
		a k	-20	-15	-10	-5	0	5	10	15
200	Duct	k	1,90	3,00	4,20	5,50	6,70	7,90	8,90	10,50

Valve

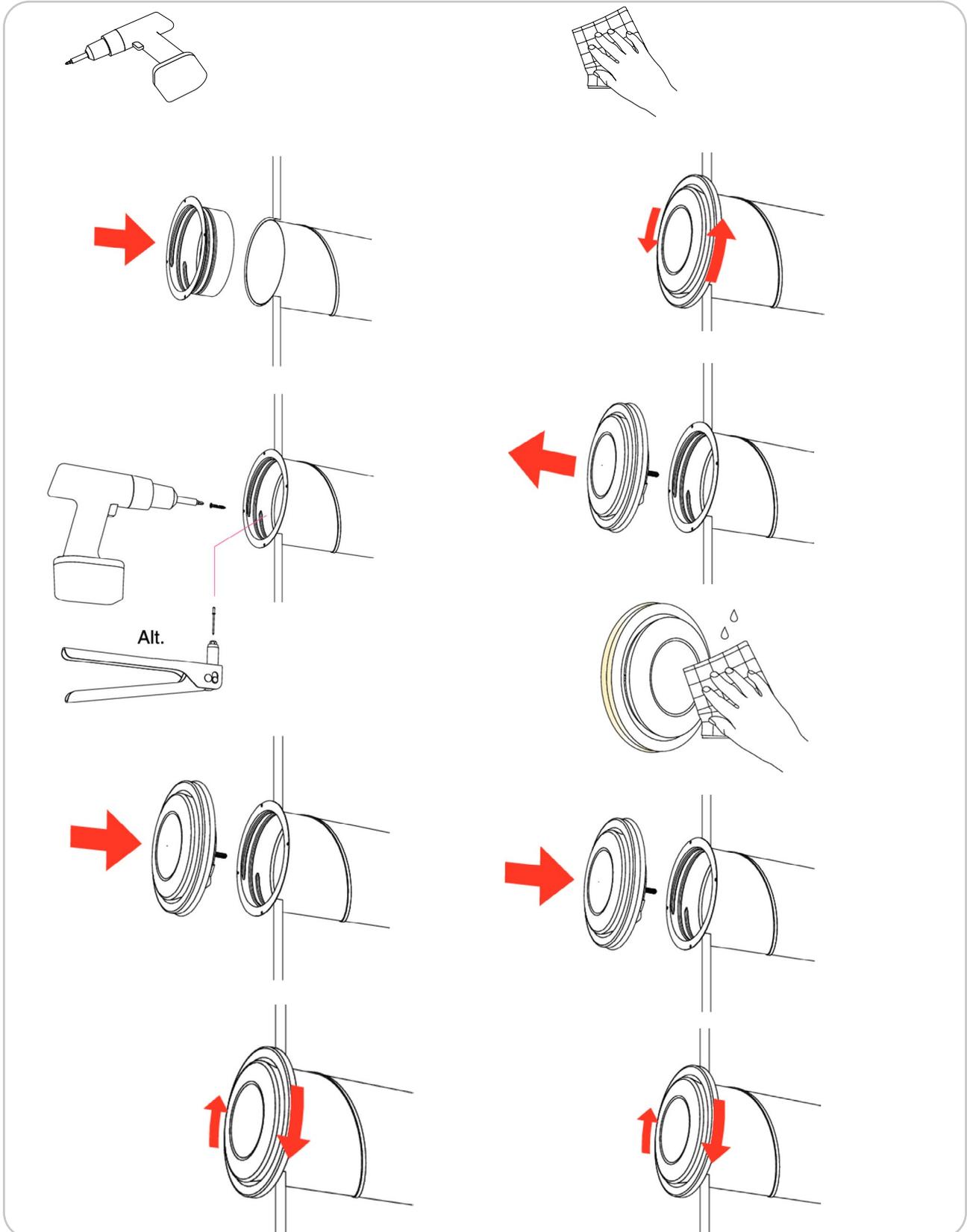
KVG Ø200



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

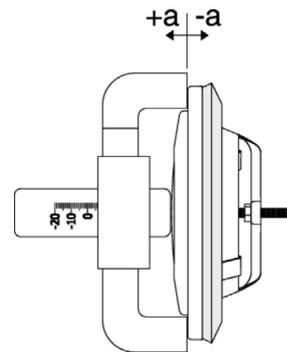
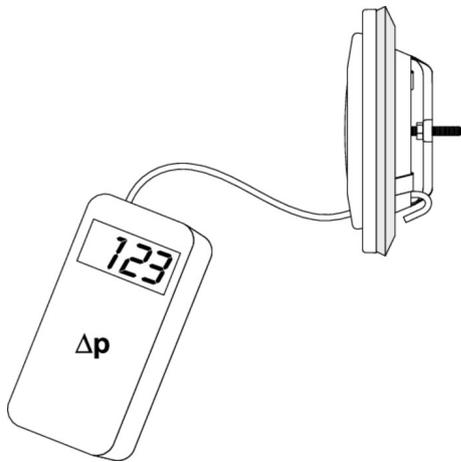
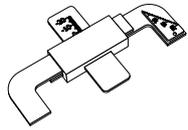
Valve

KU



Valve

KU

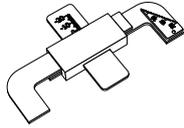


K-factors apply only to products produced after Oct, 1, 2025.

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

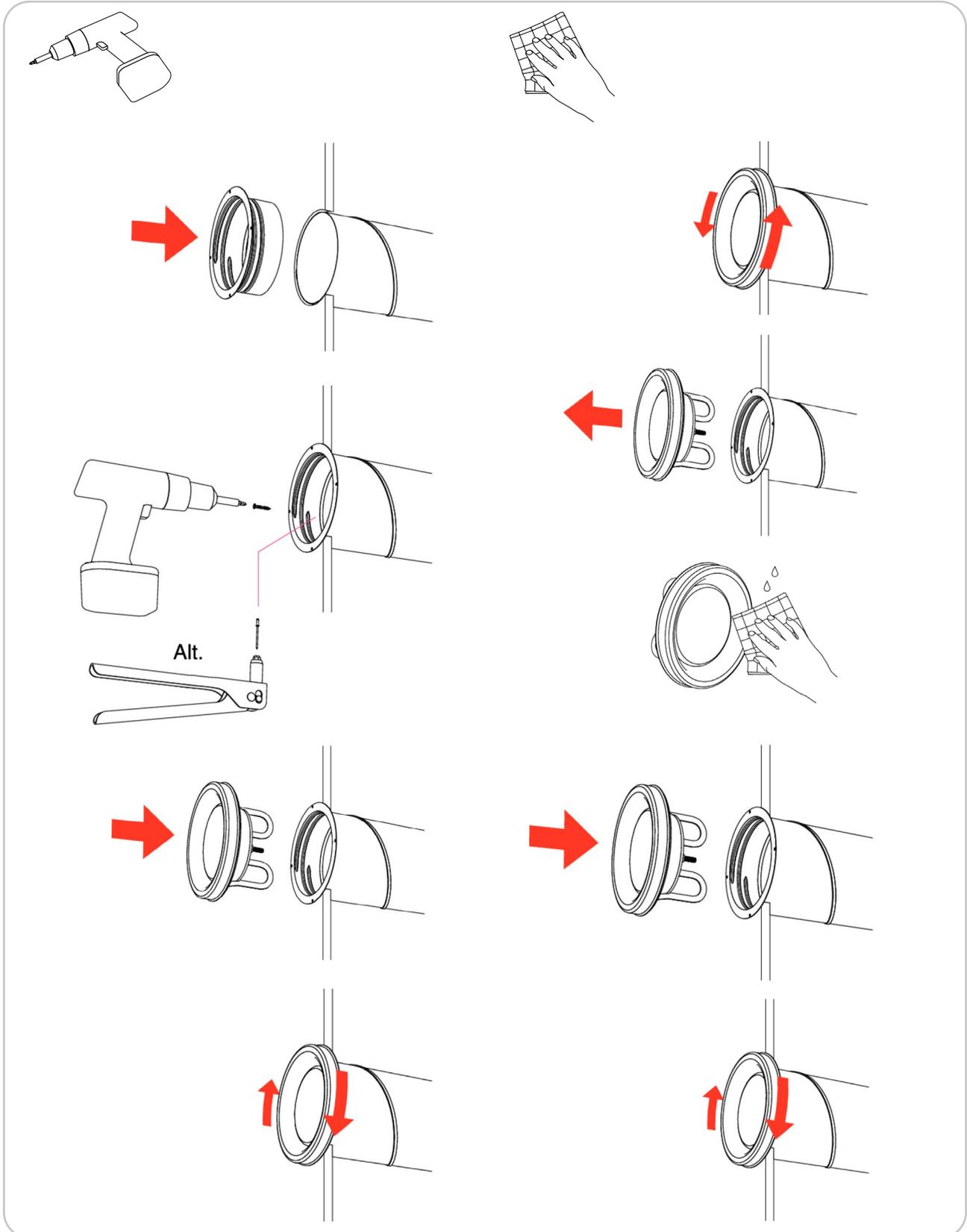
KU



Ø mm	Valve mounted in	Setting a [mm]									
		a	-9	-6	-3	0	3	6			
80	Duct	a	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	a	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	a	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	a	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	a	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	a	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	

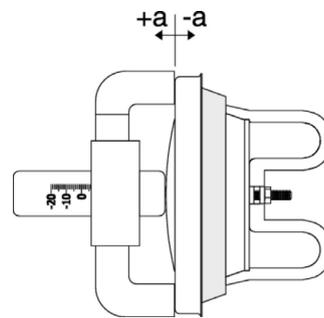
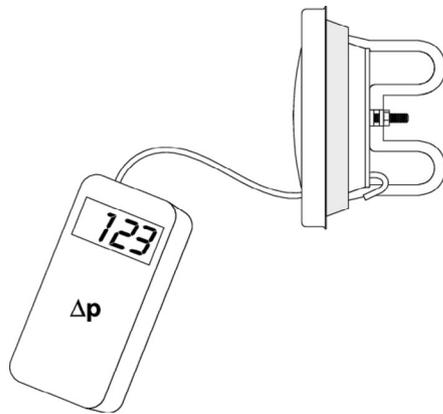
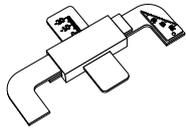
Valve

KSU



Valve

KSU

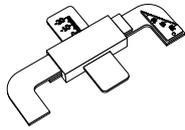


K-factors apply only to products produced after Oct, 1, 2025.

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

Valve

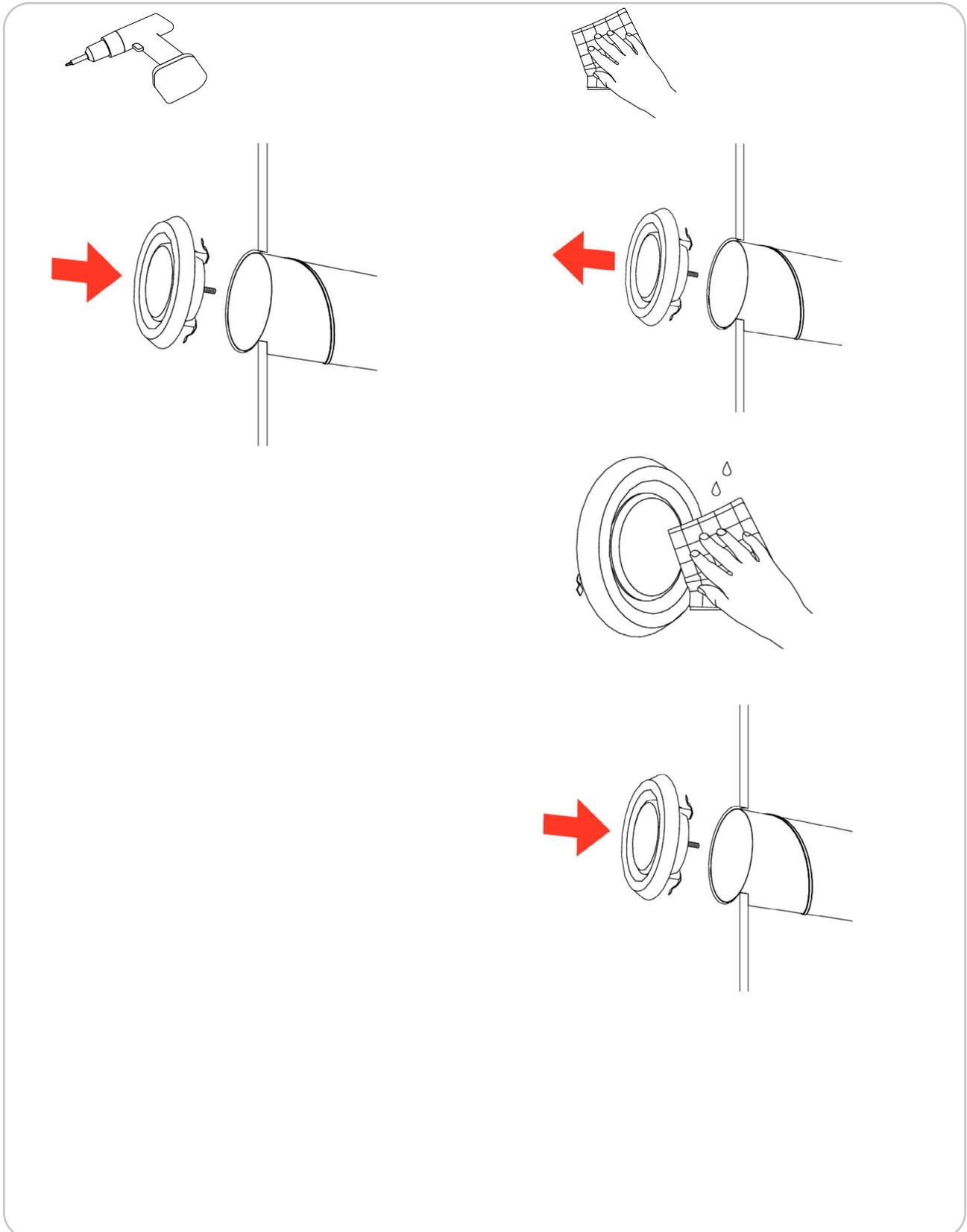
KSU



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

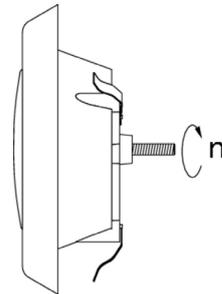
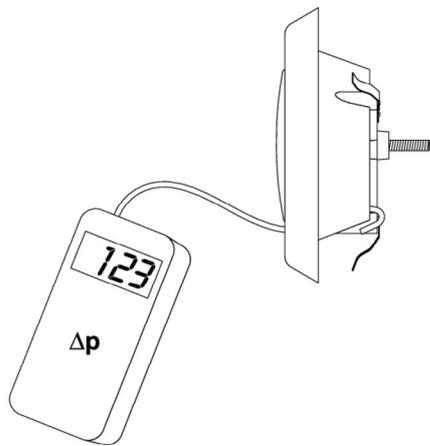
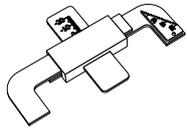
Valve

KPF



Valve

KPF

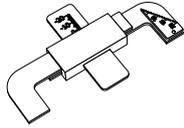


K-factors apply only to products produced after Oct, 1, 2025.

Ø mm	Valve mounted in	Setting n [number of opening turns]						
		n	0	3	6	9	12	15
80	Duct	k	0,68	0,81	0,95	1,11	1,25	1,35
		n	0	3	6	12	15	18
100	Duct	k	1,54	1,71	1,96	2,48	2,91	3,17
		n	0	3	6	9	12	15
125	Duct	k	1,72	1,99	2,35	2,69	2,98	3,31
		n	0	3	6	9	12	15
160	Duct	k	0,90	1,30	1,80	2,70	3,20	3,70
		n	-3	0	3	6	9	15
200	Duct	k	1,77	2,57	3,26	4,23	4,93	5,84
		n	3	6	9	12	15	18

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	0	3	6	9	15	18
	Bend 90°	k	1,54	1,71	1,96	2,48	2,91	3,17
	T-piece		1,58	1,89	2,20	2,62	2,94	3,39
125	Duct	n	0	3	6	9	12	15
	Bend 90°	k	1,76	1,99	2,44	2,89	3,31	3,67
	T-piece		1,82	1,95	2,42	2,74	3,21	3,56
160	Duct	n	3	6	9	12	15	18
	Bend 90°	k	1,54	2,19	2,78	3,20	3,94	4,46
	T-piece		1,41	1,97	2,52	3,04	3,63	4,23
200	Duct	n	3	6	9	12	15	18
	Bend 90°	k	1,77	2,57	3,26	4,23	4,93	5,84
	T-piece		1,78	2,45	3,26	3,48	4,89	5,14
			–	2,53	3,03	3,79	4,55	5,04



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