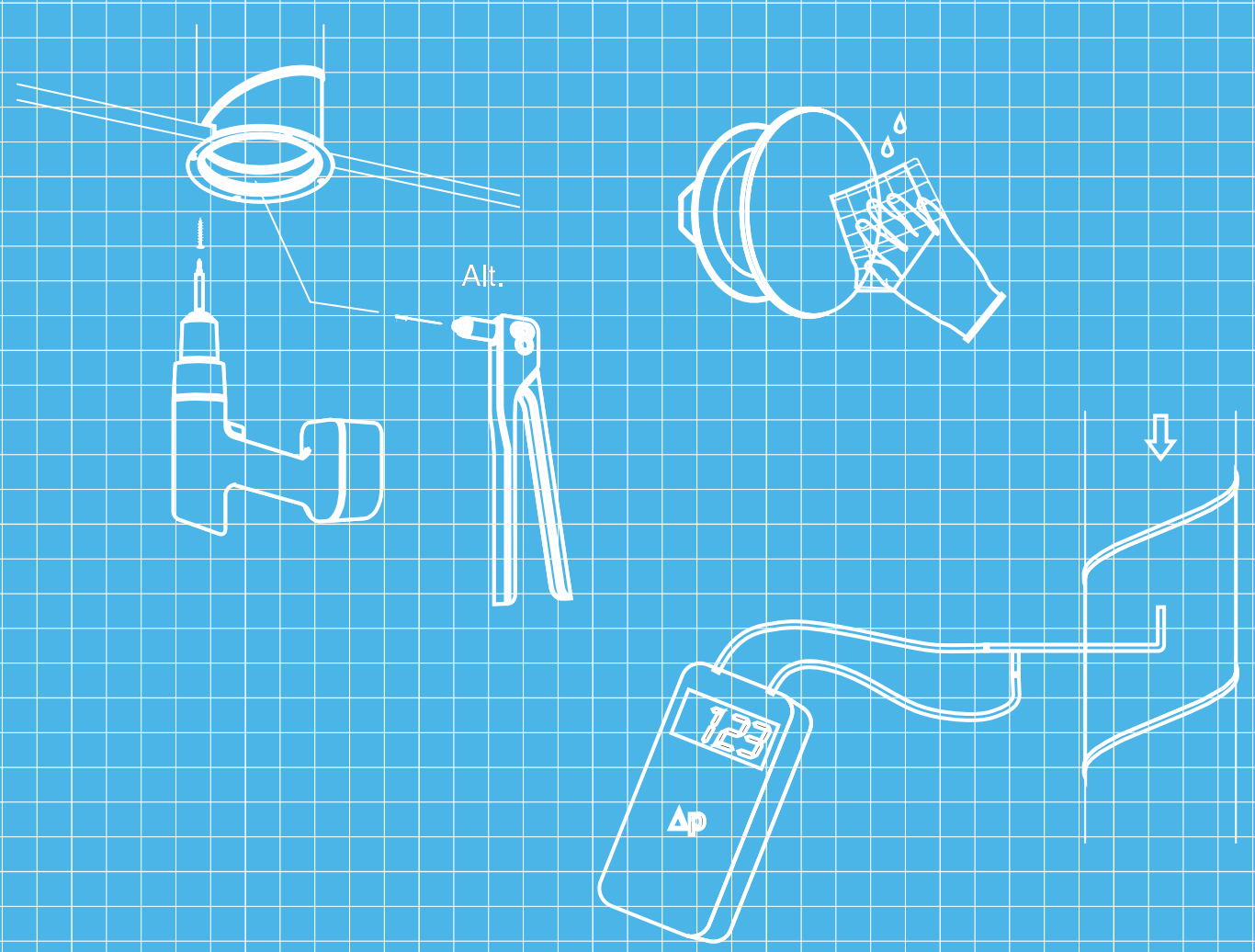


Lindab **Valves**

Mounting instructions

Lindab®

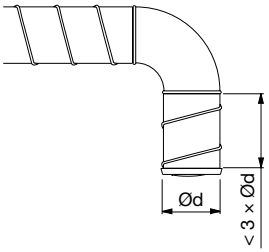
Overview diffusers, valves and cover

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	**VVTK**	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

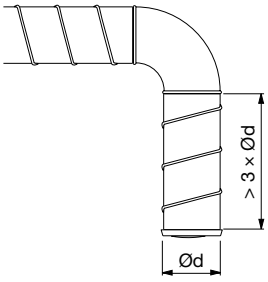
Unit				Connects to								
				Socket with thread for units with bayonet holder			Socket with groove for units with spring holder		Cover socket with groove for units with wire spring holder	Smooth socket for units with plate spring holder	Duct/ Fitting
Exhaust air	**KVB**	Valve					**VRFU** 	**VRFM**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

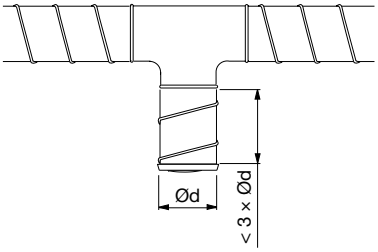
k-factor type: B (Bend 90°)



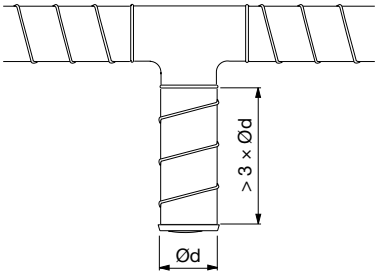
k-factor type: D (Duct)



k-factor type: T (T-piece)



k-factor type: D (Duct)



Explanations

Measurement of air flow

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

where

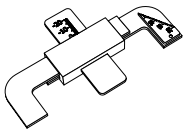
q	is	air flow	[l/s]
Δp_m	is	measuring pressure difference	[Pa]
k	is	correction factor, see table	[–]

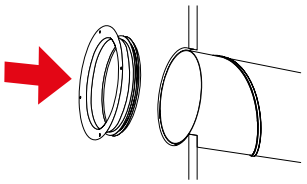
Tables

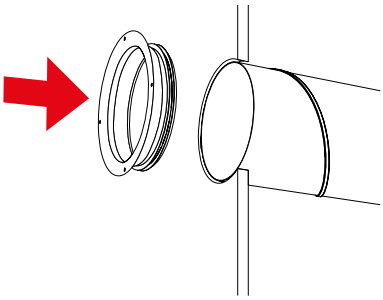
a	is	setting of valve disc or cone	[mm]
n	is	setting of valve disc or cone	[number of opening turns]
D	is	valve mounted in a duct	
B	is	valve mounted in a bend 90°	
T	is	valve mounted in a T-piece	
WOSP	is	without sector plate	
WSP	is	with sector plate	
👍	is	recommended method	
👎	is	not recommended method	

Diffuser

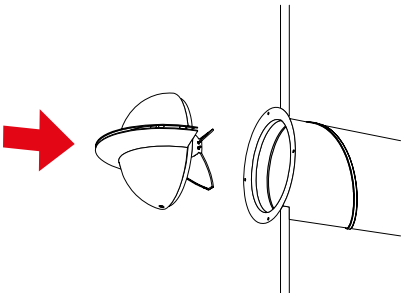
VVTK

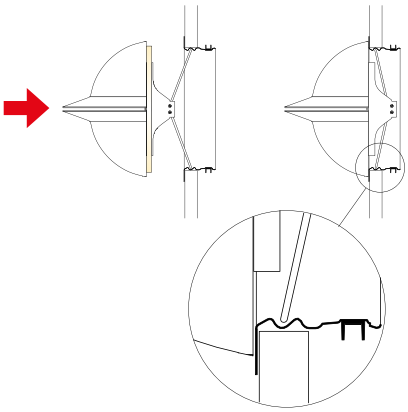




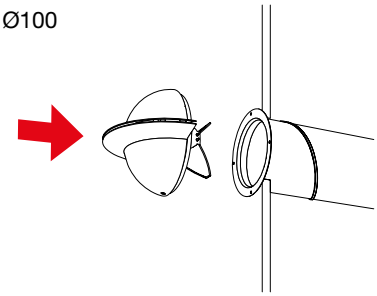


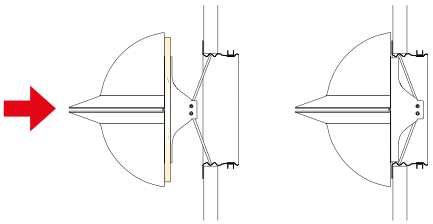
Ø125
Alt 1





Ø100





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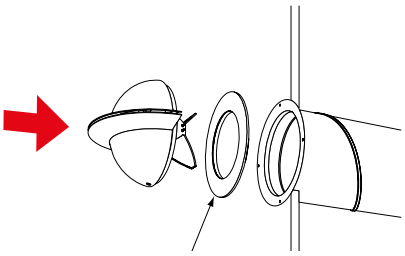
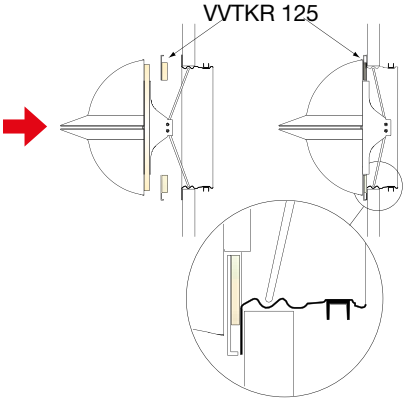
Alt 2

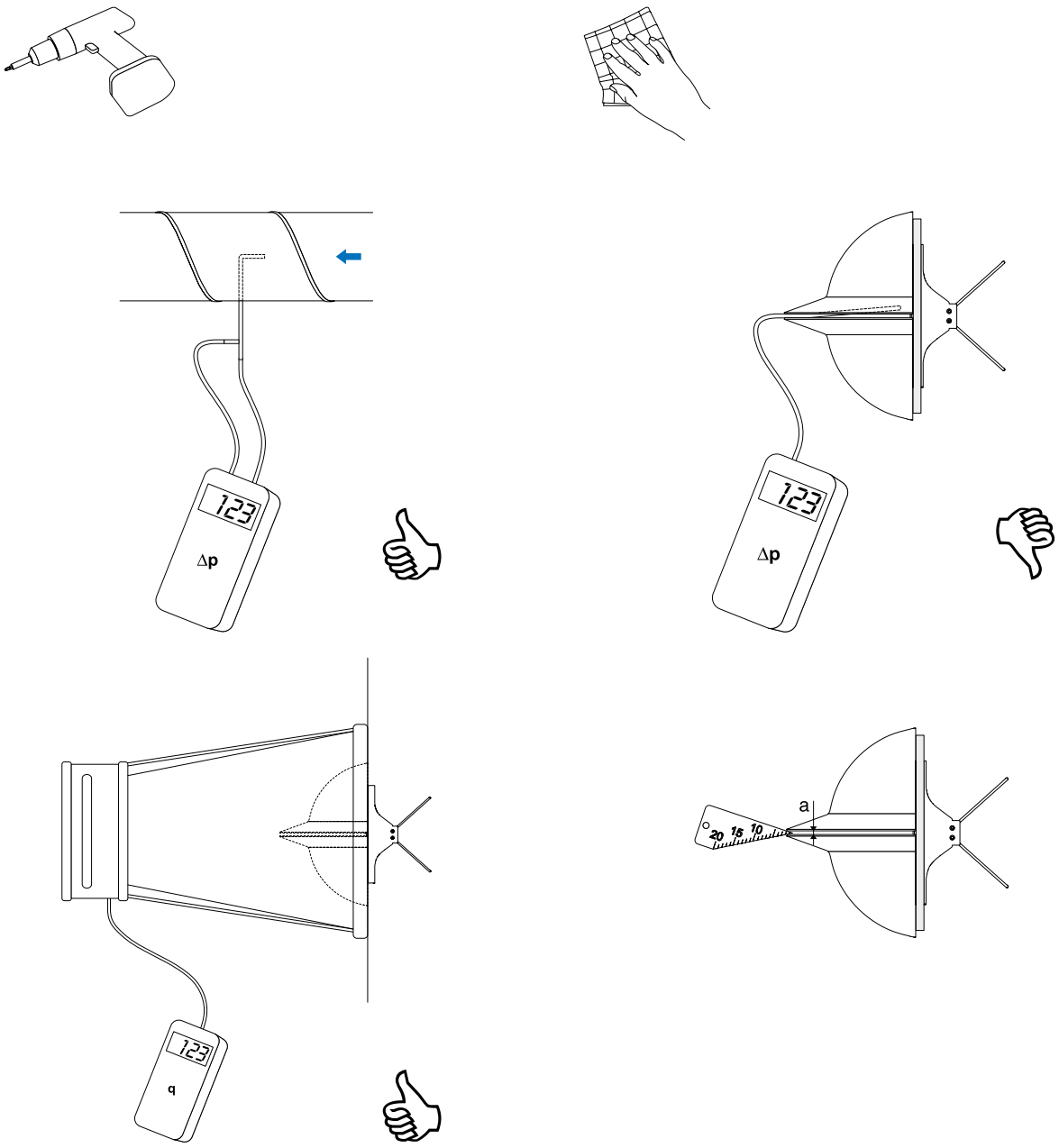


VVTKR 125



Diffuser

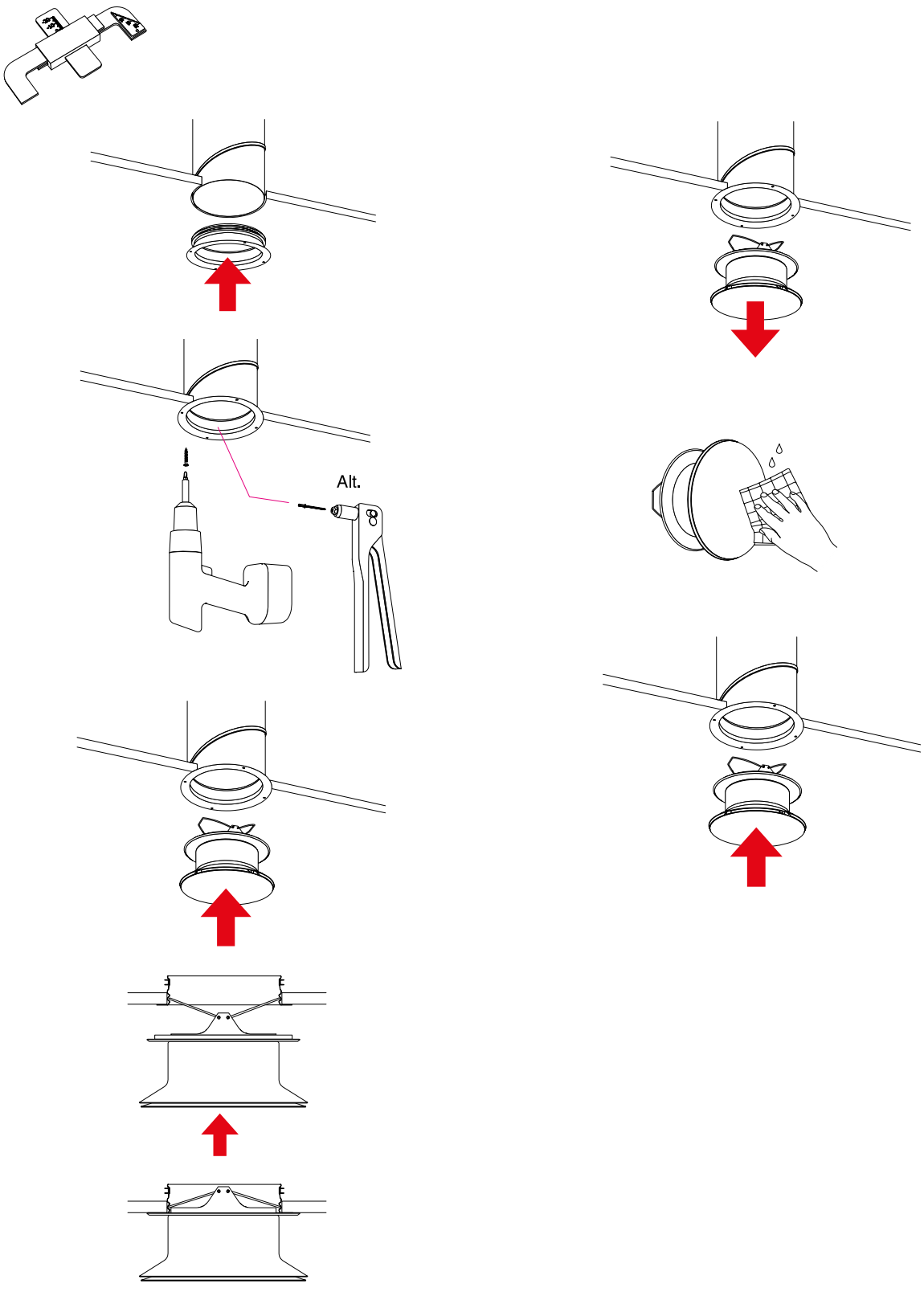
VVTK



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

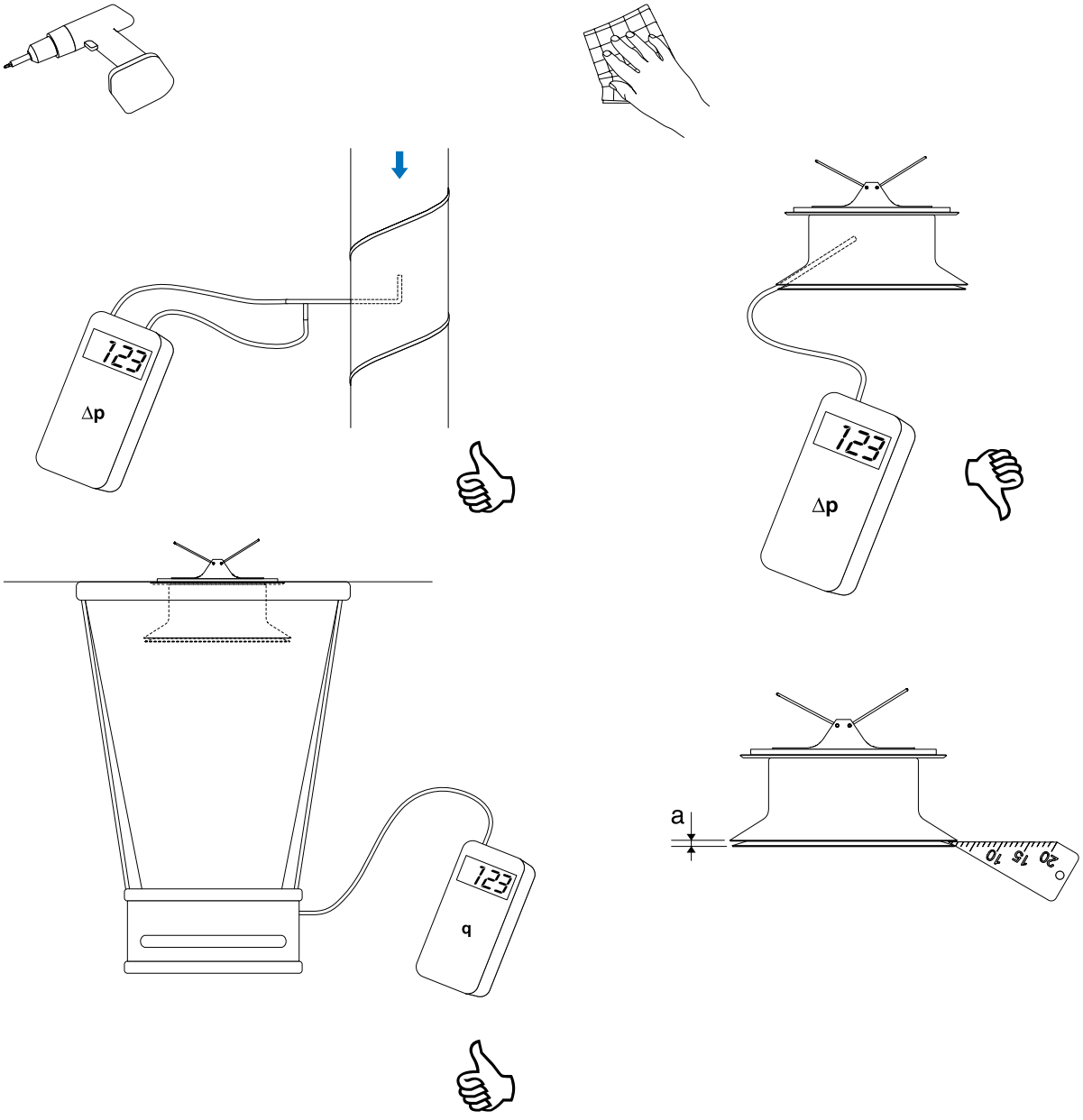
Diffuser

VTTB



Diffuser

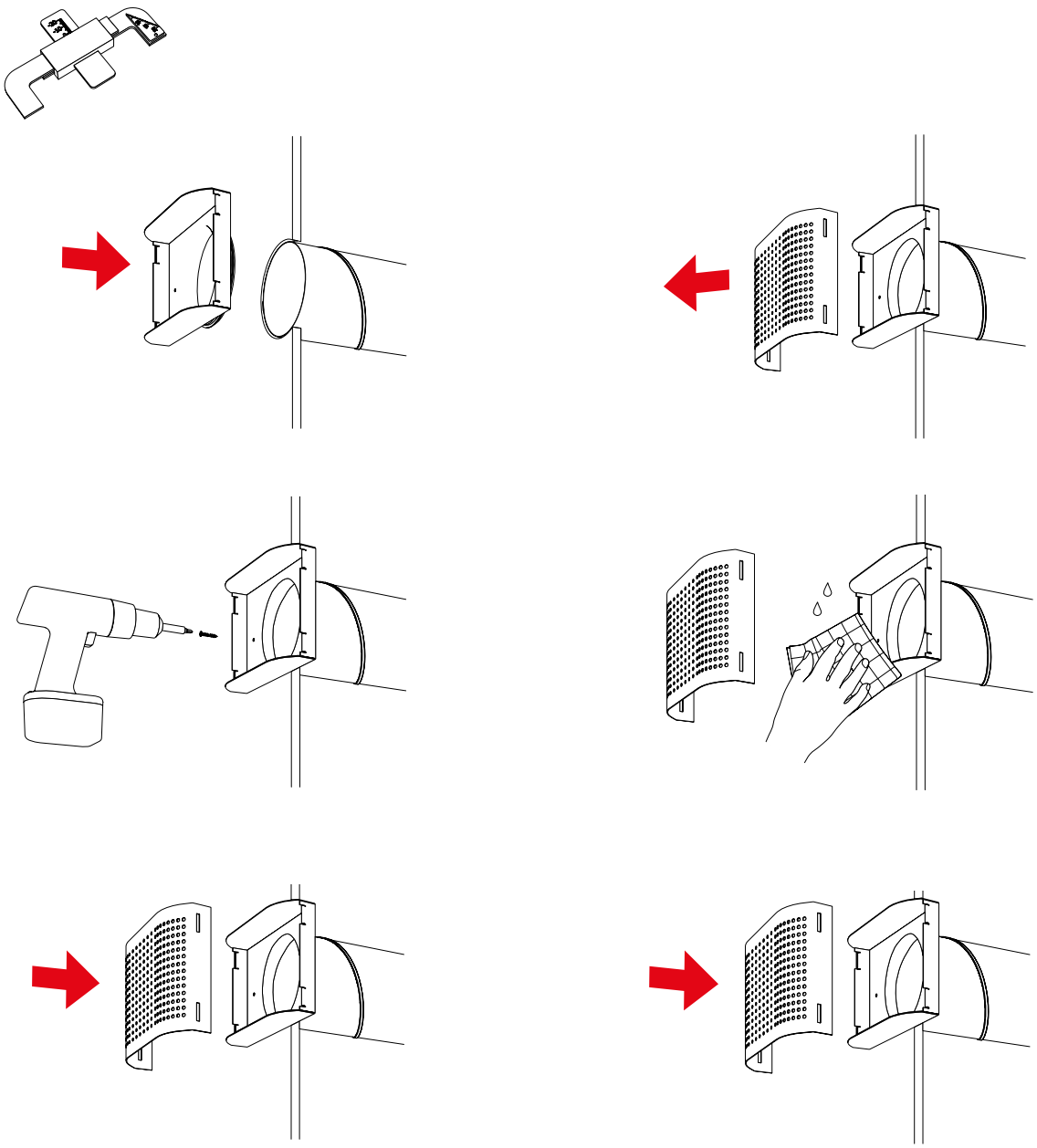
VTTB



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

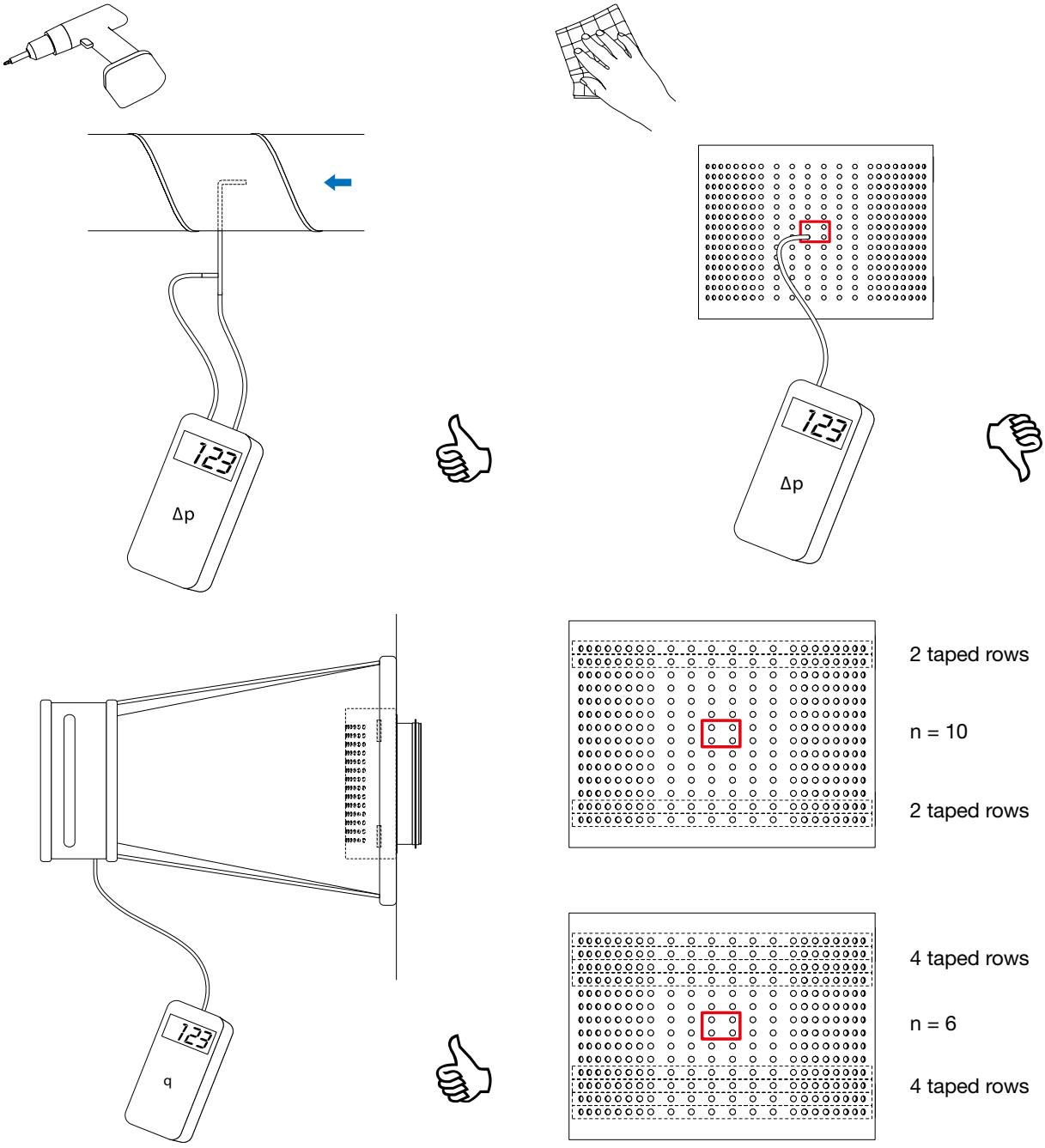
Diffuser

SHH



Diffuser

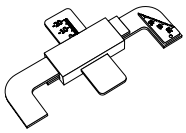
SHH

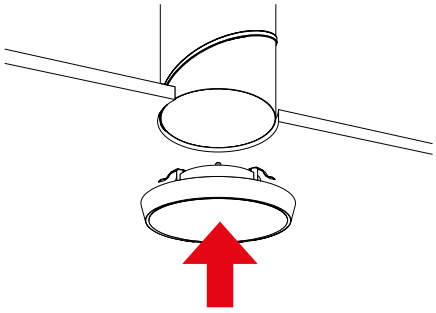


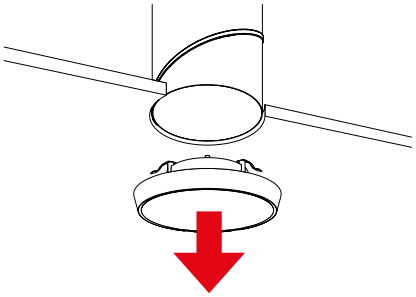
Ø mm	Diffuser mounted in	Setting n [number of open rows]							
100	Duct	**n**	**2**	**4**	**6**	**8**	**10**	**12**	**14**
		k	0,7	1,2	1,7	2,3	2,7	3,1	3,6
125	Duct	**n**	**2**	**4**	**6**	**8**	**10**	**12**	**14**
		k	0,7	1,2	1,8	2,3	2,8	3,3	3,9

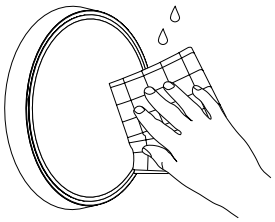
Valve

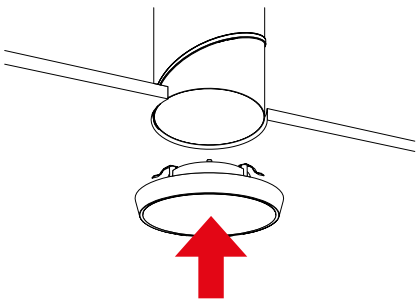
KPT





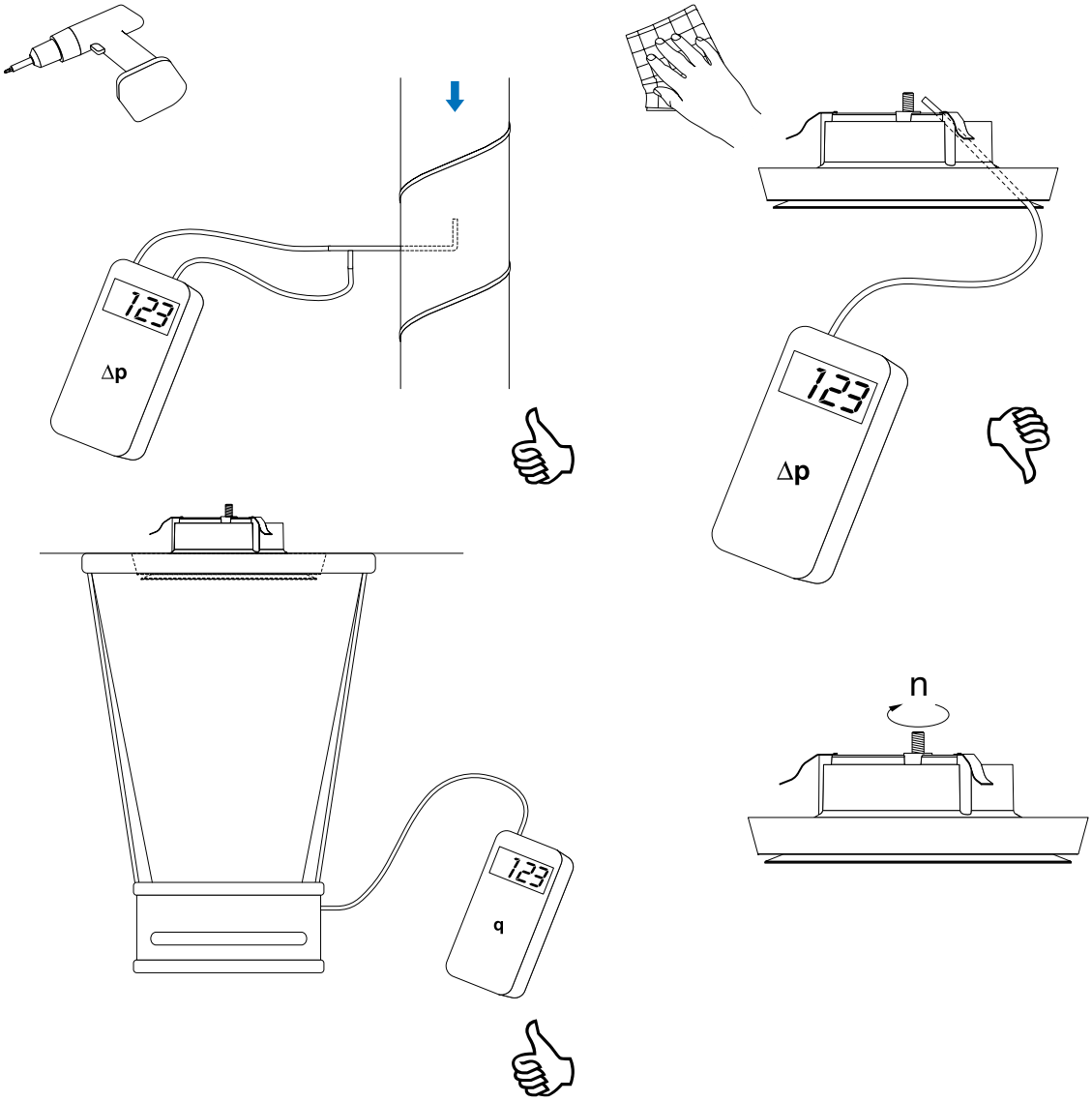






Valve

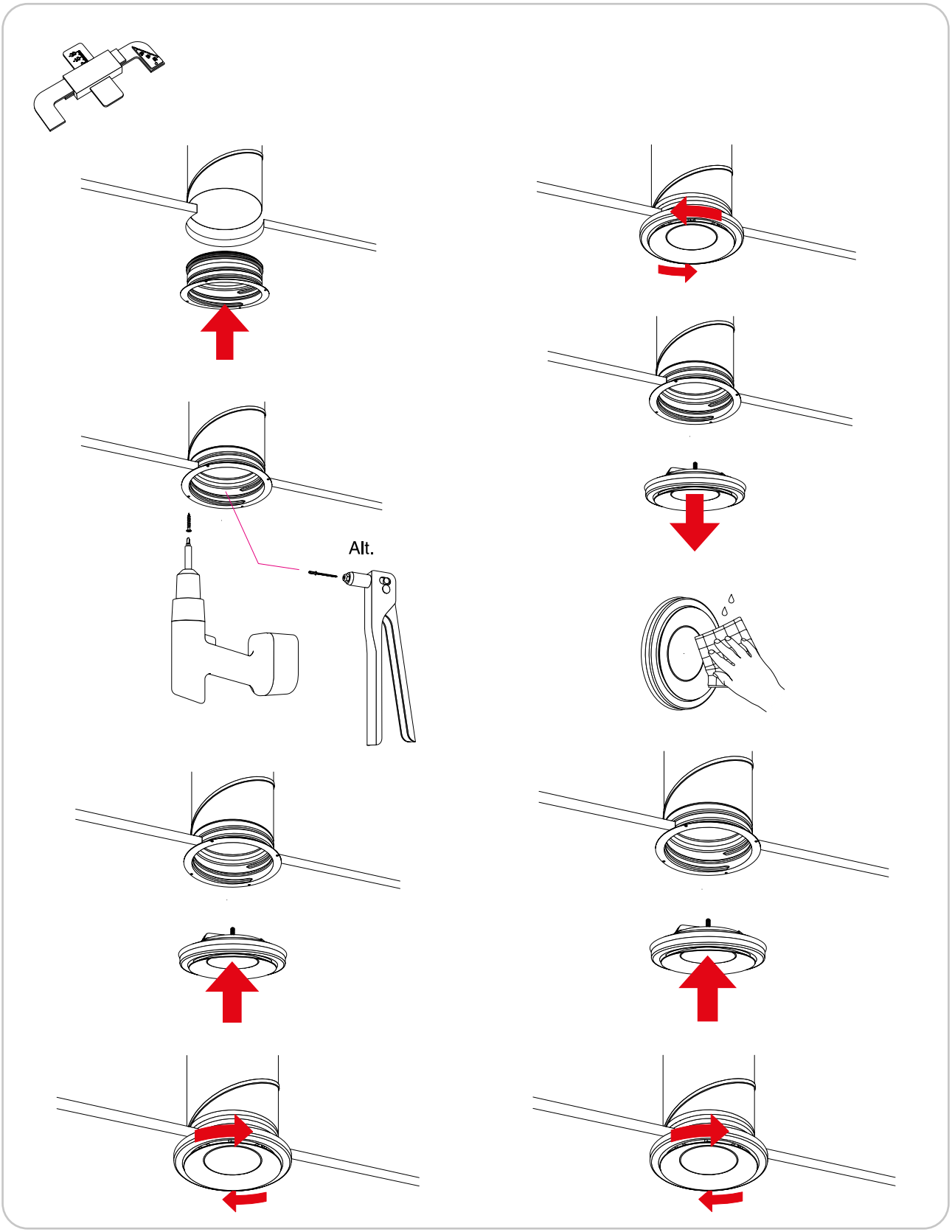
KPT



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

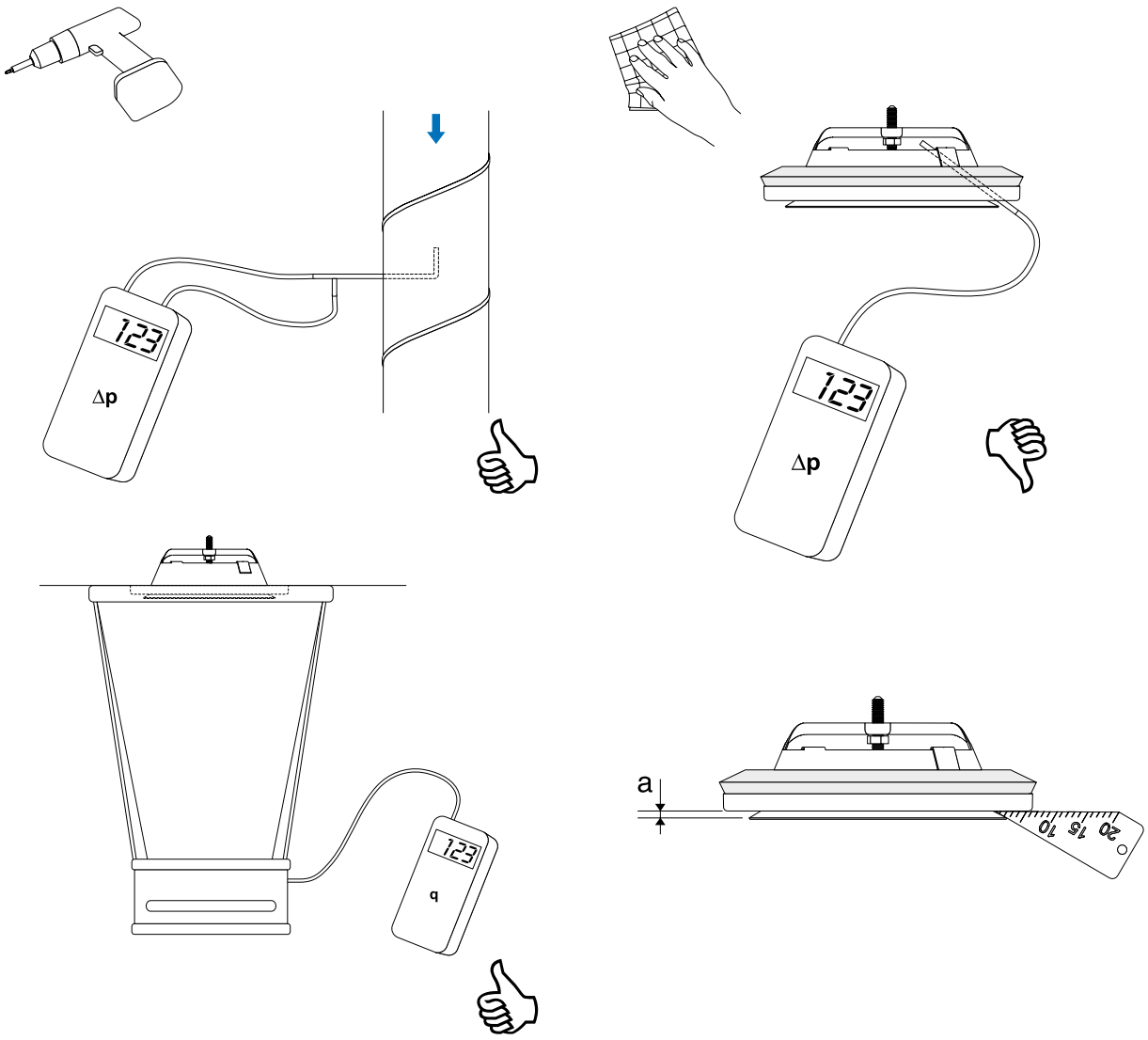
Valve

KI



Valve

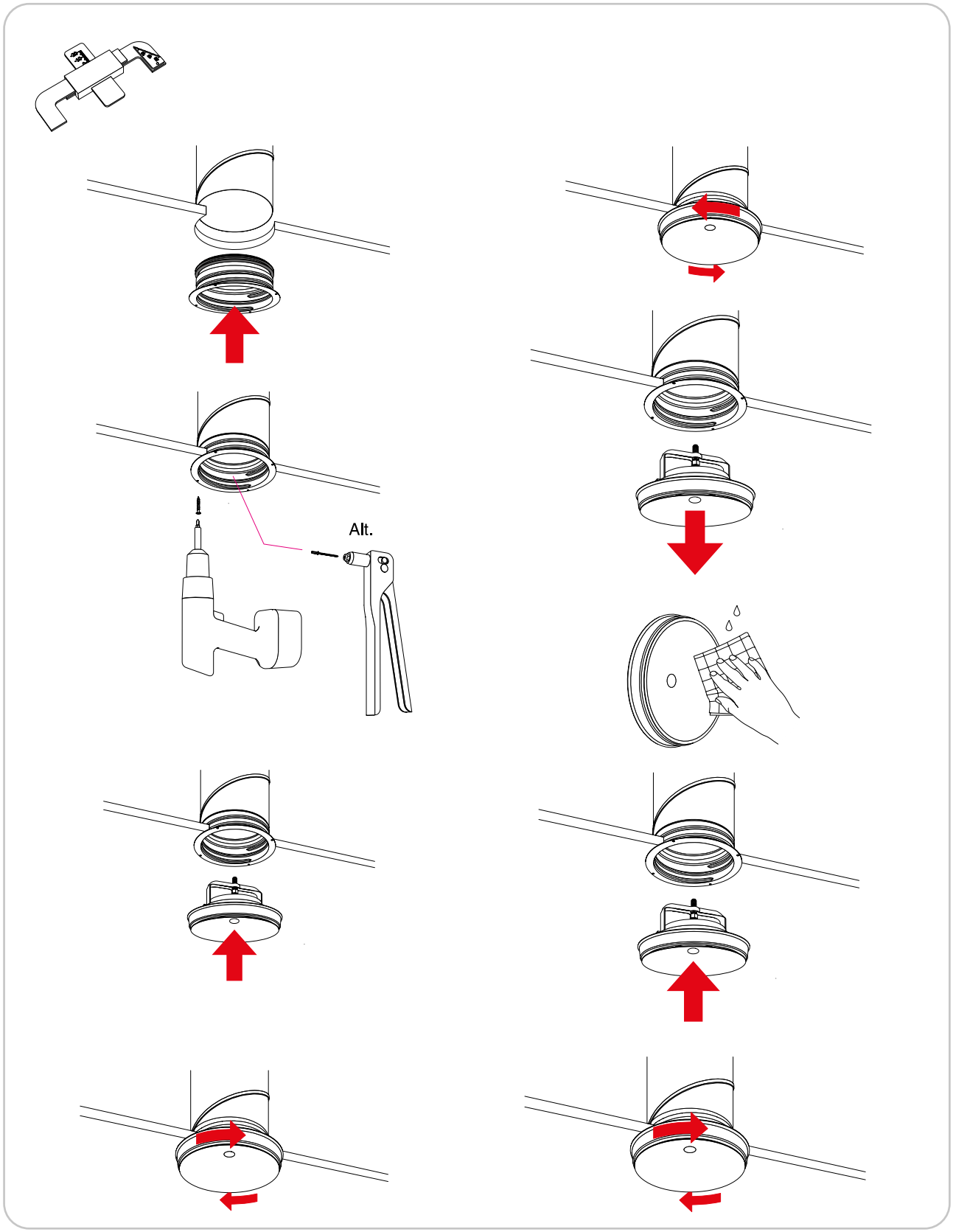
KI



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

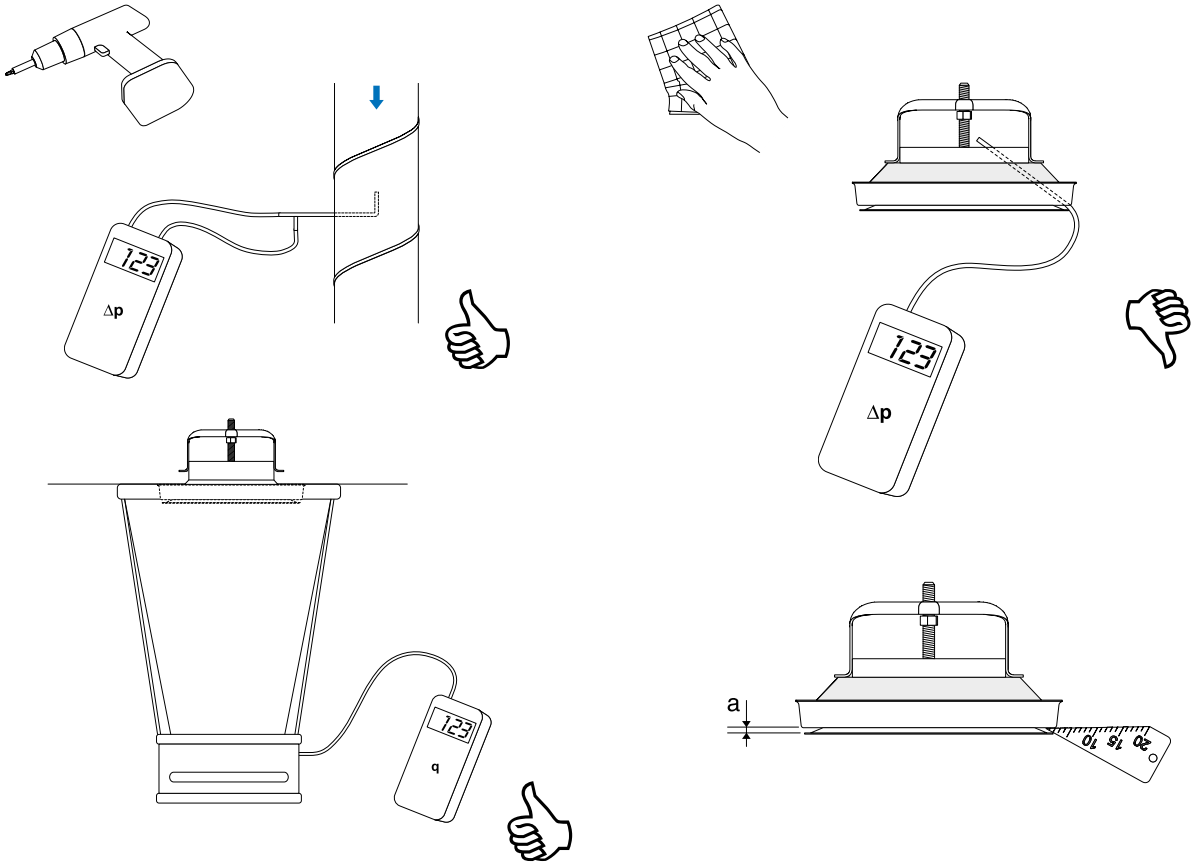
Valve

KIR



Valve

KIR



Without sector plate

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

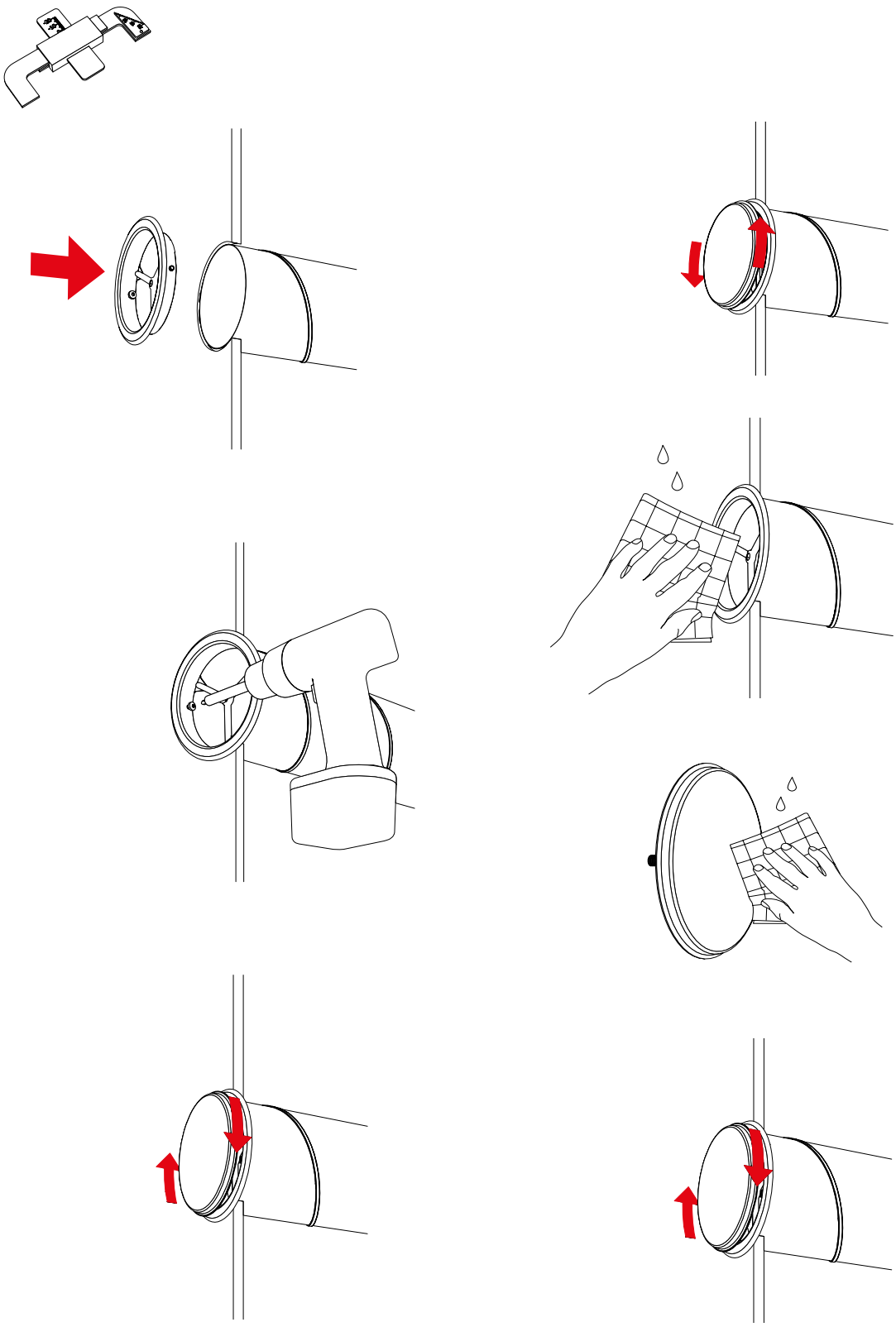
With sector plate

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

2020.05.06

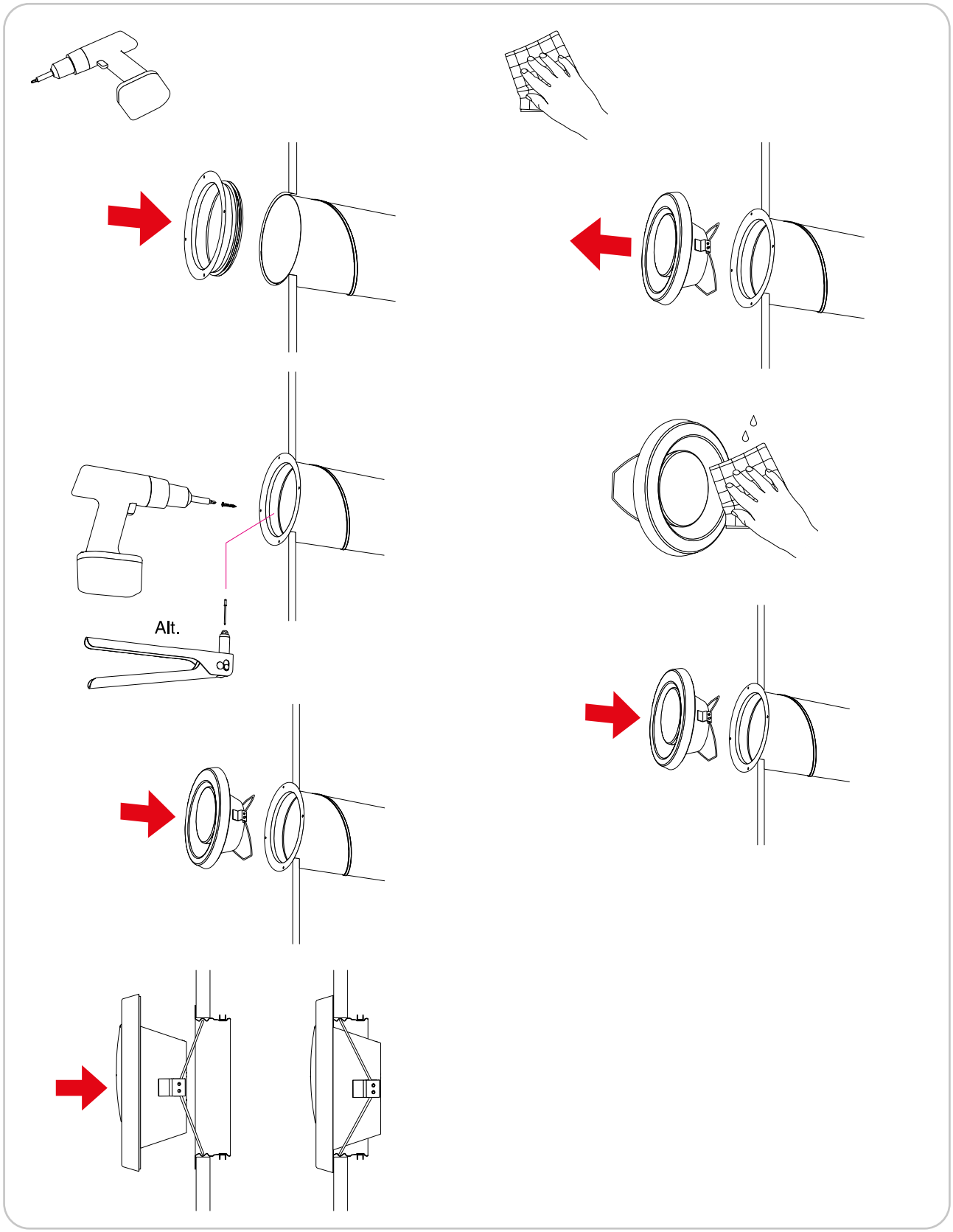
Valve

TAV



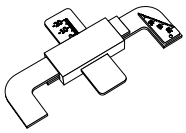
Valve

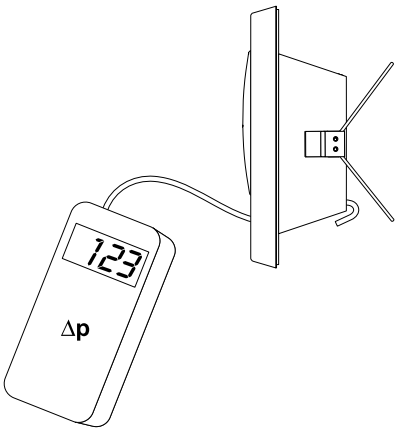
KVB

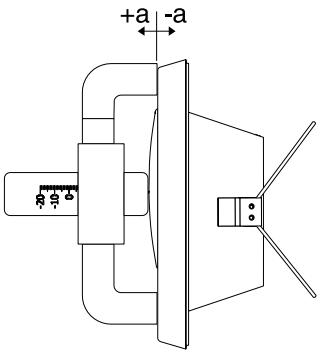


Valve

KVB



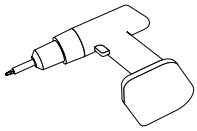


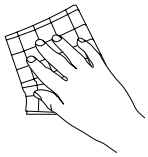


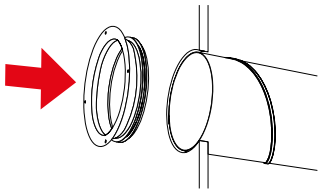
Ø mm	Valve mounted in	Setting a [mm]						
100	Duct Bend 90° T-piece	**a**	**-11**	**-9**	**-6**	**0**	**6**	**9**
		k	0,389 0,382 0,393	0,547 0,540 0,551	0,818 0,830 0,851	1,37 1,41 1,45	1,87 1,98 1,98	2,08 2,20 2,18
125	Duct Bend 90° T-piece	**a**	**-18**	**-12**	**-6**	**0**	**6**	
		k	1,32 1,26 1,40	1,88 1,80 1,81	2,47 2,46 2,63	3,01 2,90 3,11	3,46 3,46 3,72	
160	Duct Bend 90° T-piece	**a**	**-24**	**-18**	**-12**	**-6**	**0**	**6**
		k	2,05 1,76 –	2,50 2,33 2,80	3,31 3,15 3,29	4,23 3,93 4,04	5,11 4, 72 4,88	5,73 5,29 5,41

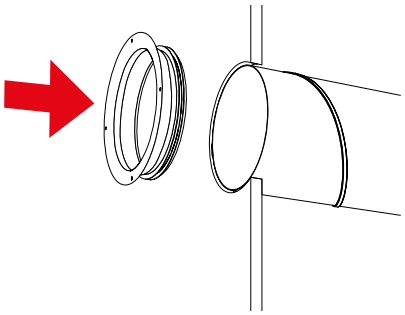
Valve

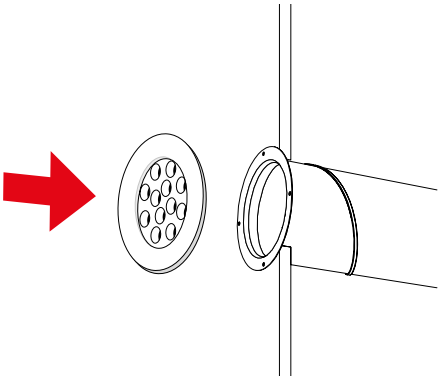
KDPF





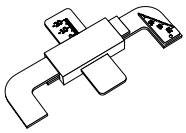


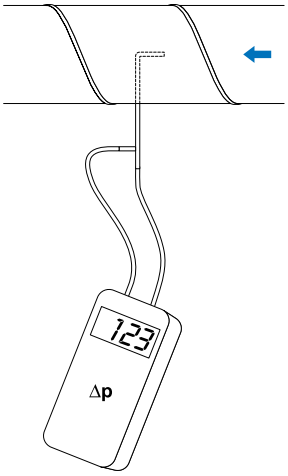


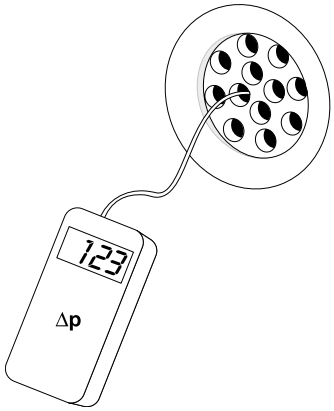


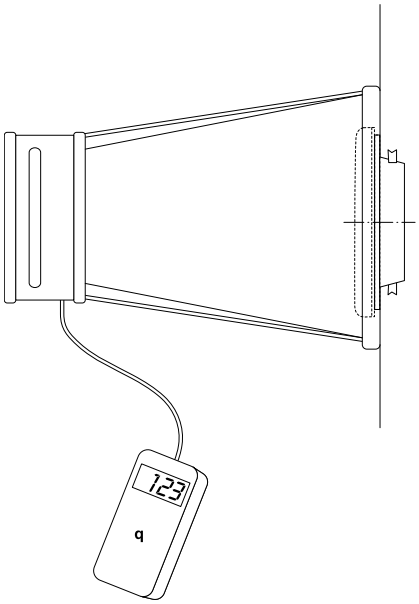
Valve

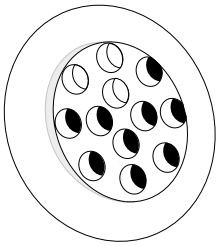
KDPF









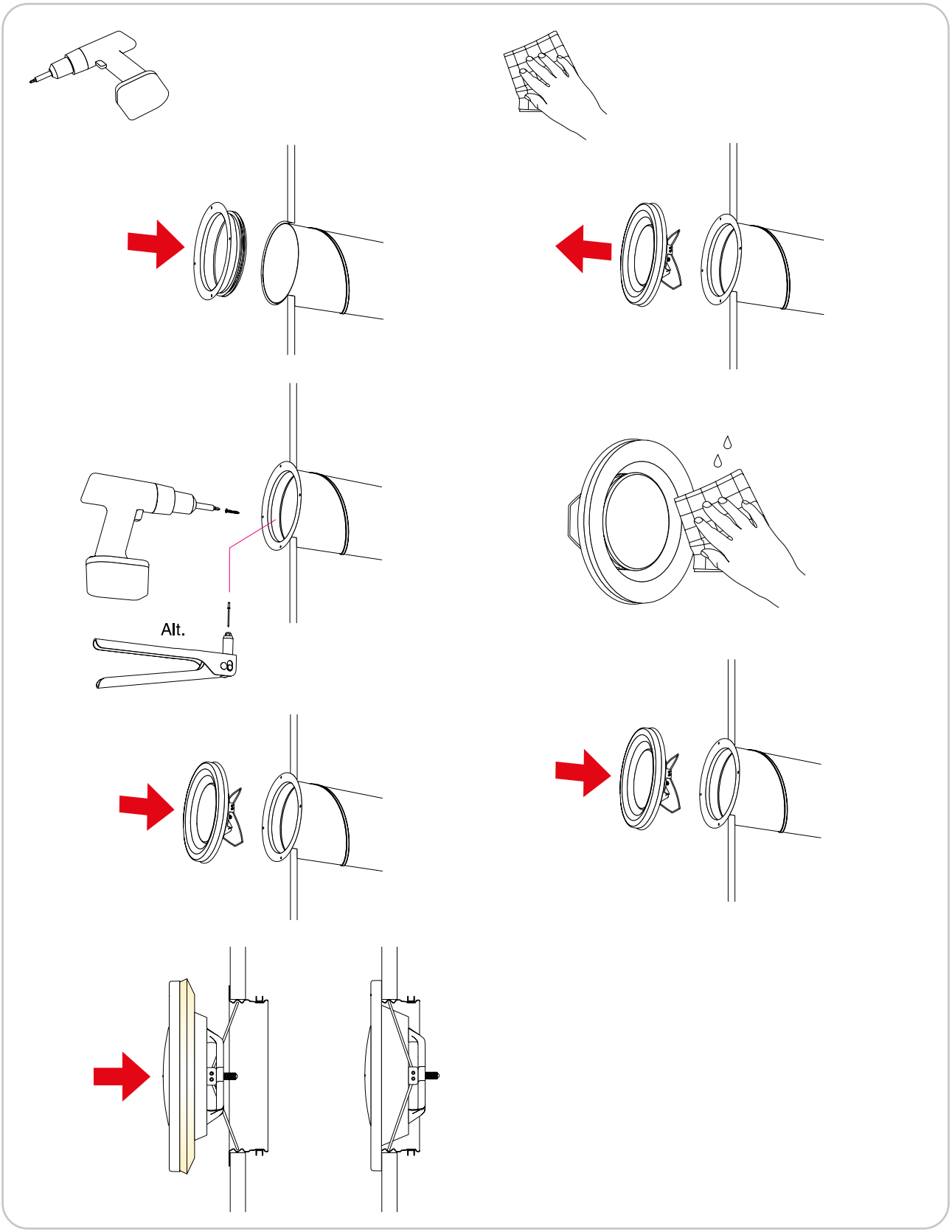


○○○ n=3

Ø mm	Valve mounted in	Setting n [number of open holes]						
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



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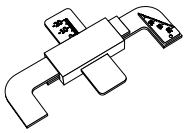
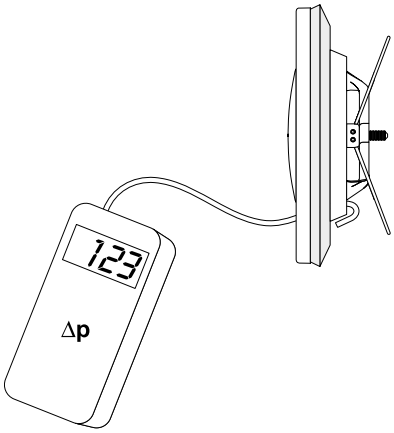
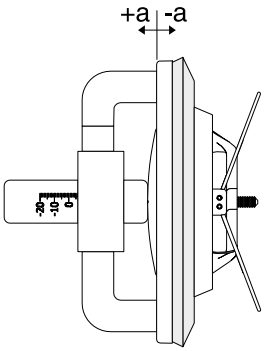
Valve

KVG Ø100–160



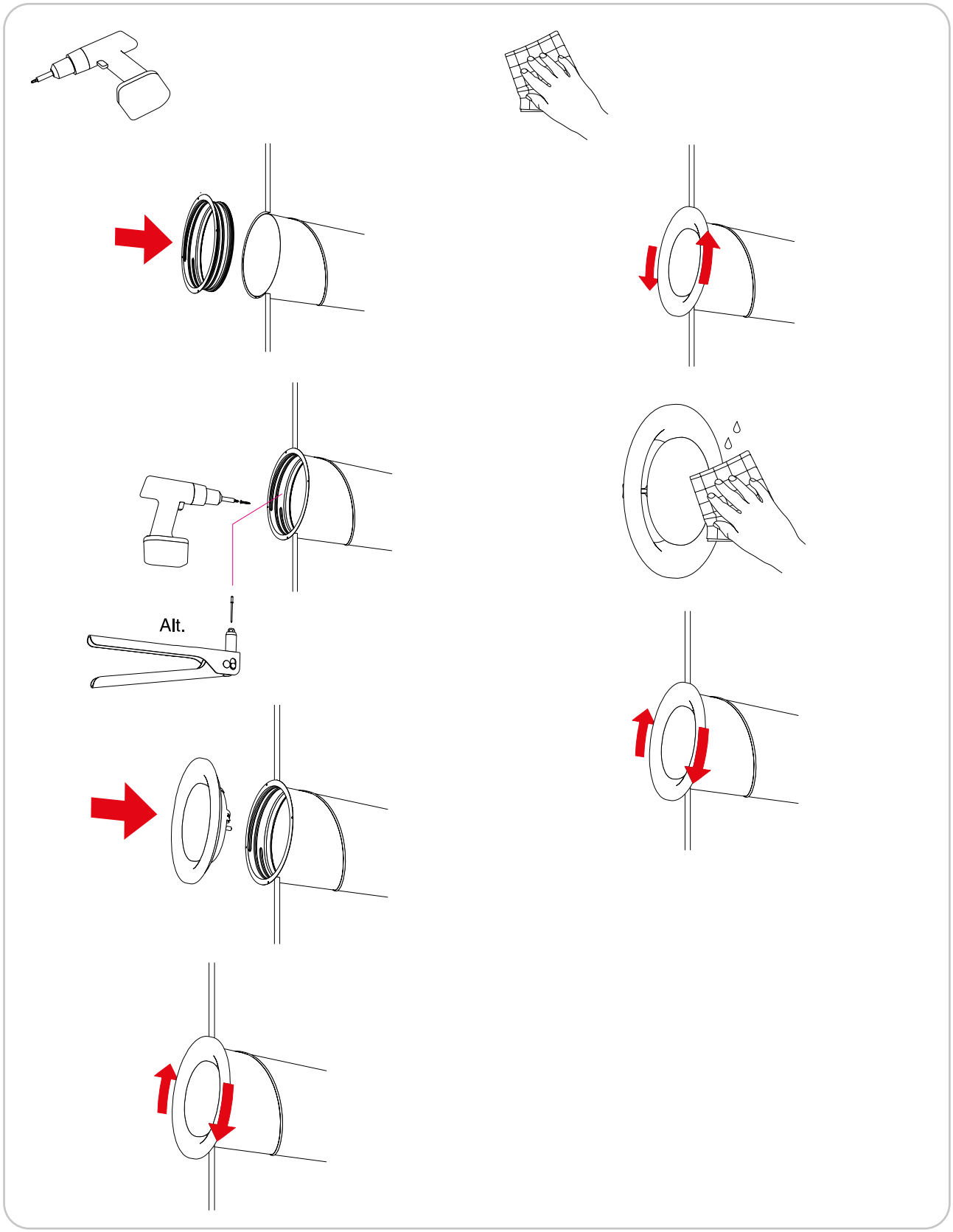




Ø mm	Valve mounted in	Setting a [mm]								
100	Duct Bend 90° T-piece	**a**	**-9**	**-5**	**0**	**5**	**8**	**12**		
		k	0,577 0,549 0,788	1,25 1,15 1,34	1,85 1,87 1,78	2,39 2,53 2,37	2,75 2,86 2,89	3,07 3,27 2,99		
125	Duct Bend 90° T-piece	**a**	**-17**	**-13**	**-9**	**-6**	**-3**	**0**	**5**	**10**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

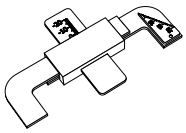
Valve

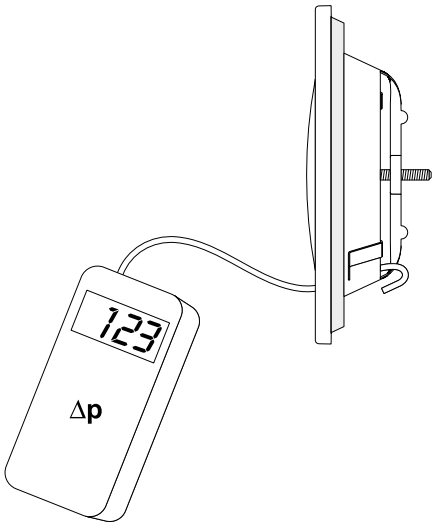
KVG Ø200

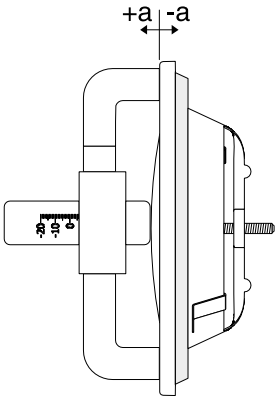


Valve

KVG Ø200



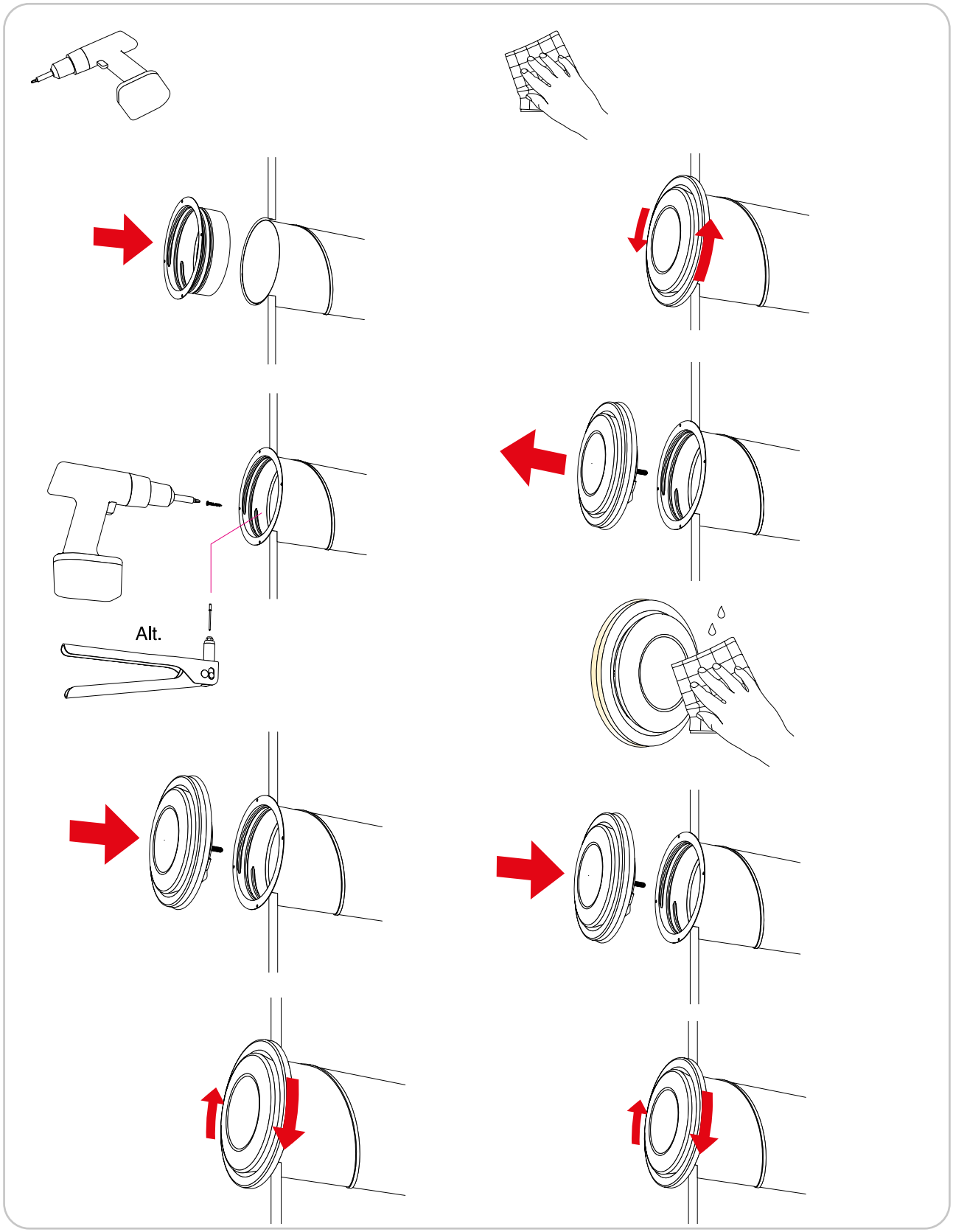




Ø mm	Valve mounted in	Setting a [mm]								
		a	-23	-18	-15	-10	-5	0	10	20
200	Duct Bend 90° T-piece	k	1,94 1,86 –	3,23 2,99 3,28	3,94 3,95 4,02	4,94 5,08 5,36	6,32 6,14 6,75	7,80 7,62 7,57	10,0 10,1 10,5	12,6 11,2 12,5

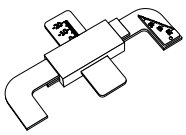
Valve

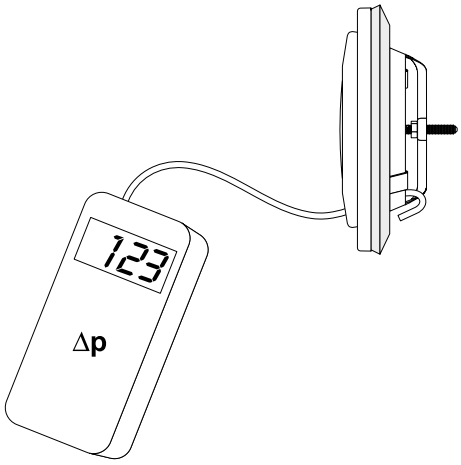
KU

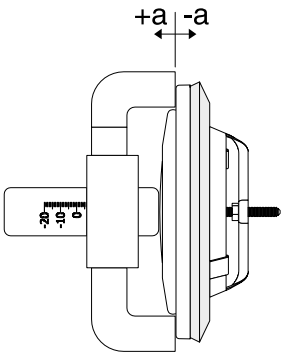


Valve

KU



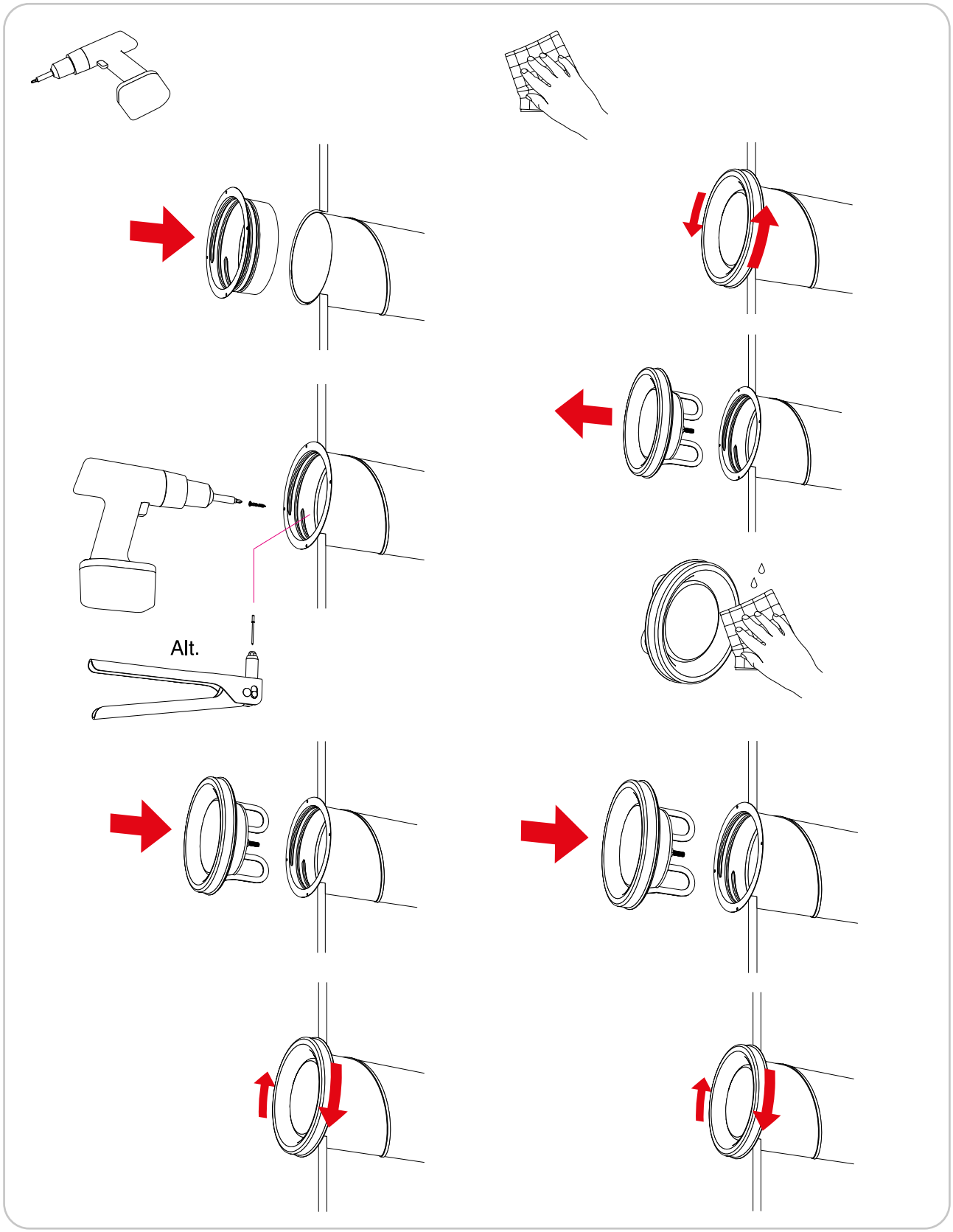




Ø mm	Valve mounted in	Setting a [mm]								
80	Duct Bend 90° T-piece	**a**	**-9**	**-6**	**-3**	**0**	**3**	**6**		
		k	0,679 0,715 0,732	0,941 1,02 1,00	1,32 1,23 1,35	1,59 1,54 1,54	1,90 1,75 1,79	2,13 2,06 1,95		
100	Duct Bend 90° T-piece	**a**	**-12**	**-9**	**-5**	**0**	**5**			
		k	0,560 0,632 –	0,938 1,02 1,08	1,46 1,44 1,54	2,00 2,20 2,17	2,72 2,78 2,91			
125	Duct Bend 90° T-piece	**a**	**-17**	**-15**	**-12**	**-9**	**-6**	**-3**	**0**	**5**
		k	0,681 0,616 –	0,868 0,854 1,13	1,45 1,40 1,56	1,72 1,86 1,97	2,33 2,35 2,39	2,73 2,75 3,00	3,31 3,11 3,40	3,95 4,01 4,19
150	Duct Bend 90° T-piece	**a**	**-15**	**-12**	**-9**	**-3**	**3**	**9**		
		k	1,47 1,60 1,79	2,12 2,01 2,44	2,62 2,61 3,07	3,83 4,00 4,09	4,82 4,96 5,21	5,96 6,61 6,46		
160	Duct Bend 90° T-piece	**a**	**-20**	**-18**	**-15**	**-10**	**-5**	**0**	**6**	**10**	**12**
		k	0,833 0,879 –	1,00 1,09 1,58	1,79 1,71 2,11	2,66 2,62 3,09	3,68 3,63 3,90	4,66 4,59 4,90	5,92 5,68 6,10	6,57 6,61 6,86	7,04 6,90 7,11
200	Duct Bend 90° T-piece	**a**	**-25**	**-20**	**-15**	**-10**	**-5**	**0**	**10**	**20**	
		k	2,39 2,39 2,39	3,65 3,54 4,04	5,02 4,87 5,15	5,77 5,70 6,33	7,18 7,01 7,58	8,39 8,51 8,45	11,4 11,1 10,9	13,7 13,6 14,3	

Valve

KSU



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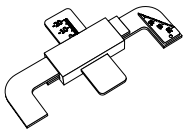
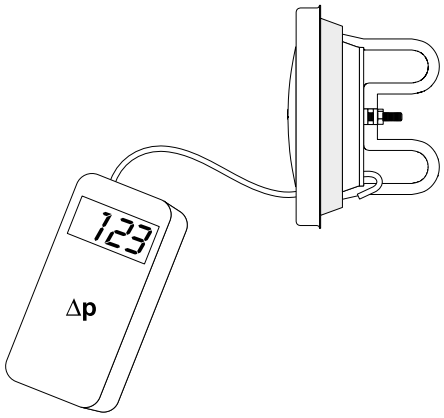
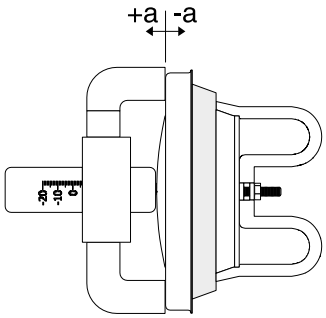
Valve

KSU



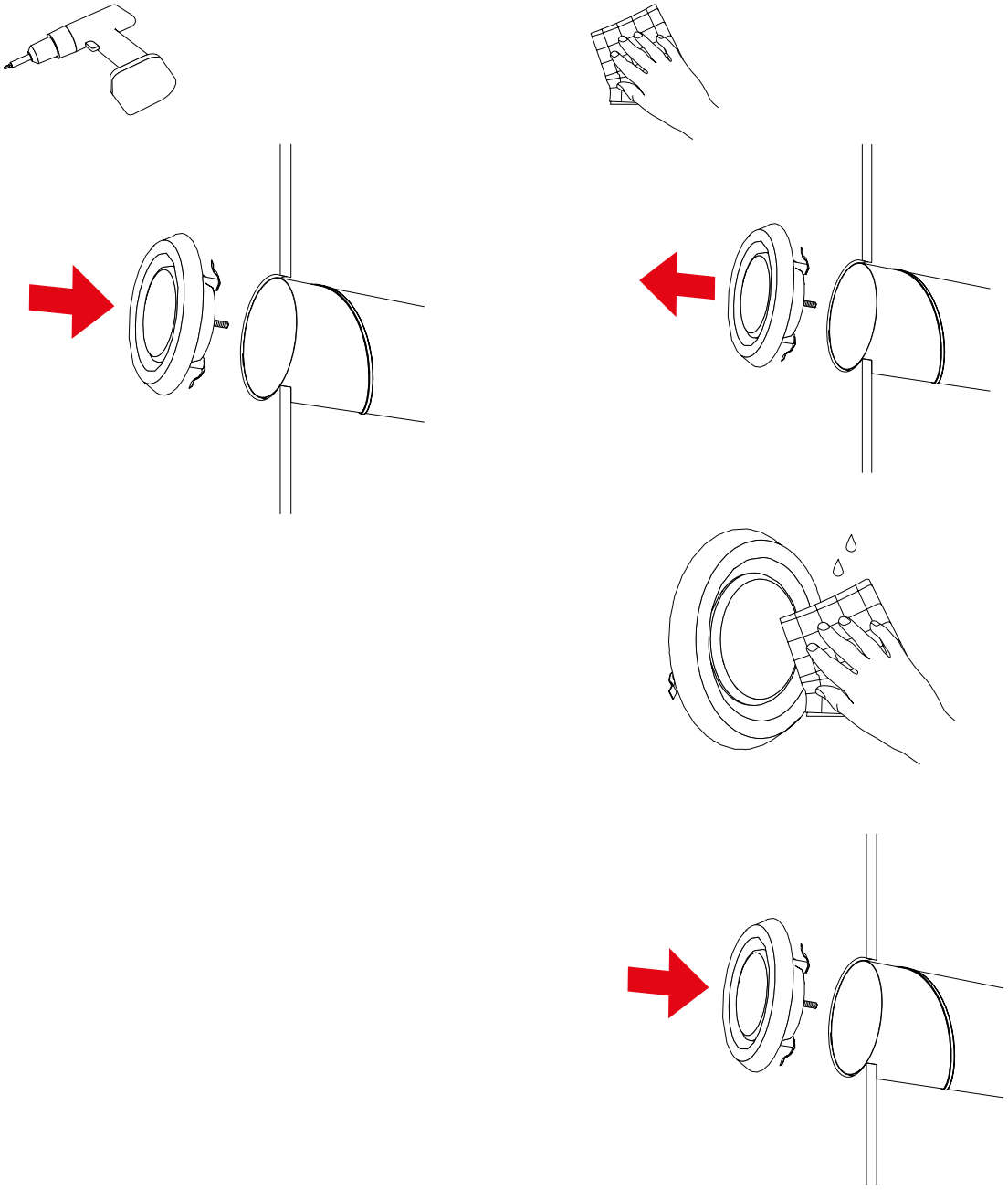




ø mm	Valve mounted in	Setting a [mm]							
100	Duct Bend 90° T-piece	**a**	**-15**	**-12**	**-10**	**-5**	**0**	**5**	**10**
		k	0,459 0,505 0,576	0,676 0,841 0,850	0,861 1,00 1,01	1,36 1,40 1,42	1,82 1,86 1,89	2,32 2,35 2,35	2,75 2,77 2,66
125	Duct Bend 90° T-piece	**a**	**-10**	**-5**	**0**	**5**	**10**		
		k	1,29 1,24 1,53	1,93 1,90 2,20	2,59 2,61 2,88	3,29 3,33 3,41	3,91 3,90 4,27		
150	Duct Bend 90° T-piece	**a**	**-10**	**-5**	**0**	**5**	**10**	**15**	
		k	1,81 2,01 1,98	2,69 2,75 2,89	3,42 3,47 3,84	4,48 4,37 4,64	5,17 5,29 5,61	6,09 6,21 6,43	
160	Duct Bend 90° T-piece	**a**	**-10**	**-5**	**0**	**5**	**10**	**15**	
		k	1,80 1,50 2,04	2,62 2,50 2,92	3,62 3,48 4,00	4,57 4,50 4,81	5,58 5,39 5,87	6,46 6,52 6,57	
200	Duct Bend 90° T-piece	**a**	**-3**	**0**	**5**	**10**	**15**	**20**	**25**
		k	2,02 1,65 2,11	2,72 2,62 3,00	3,85 3,71 3,90	5,19 5,21 5,46	6,32 6,07 6,54	7,63 7,40 7,80	8,72 8,60 8,90

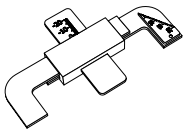
Valve

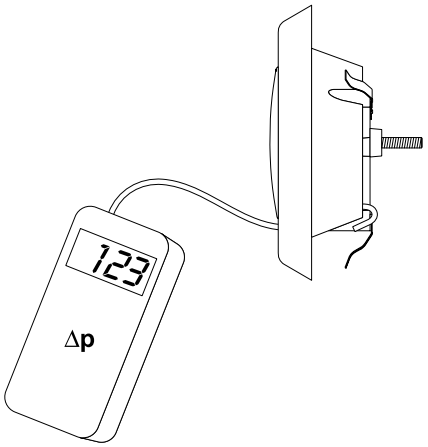
KPF

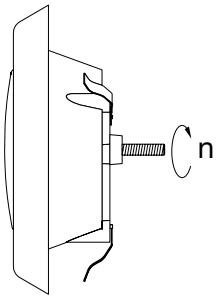


Valve

KPF



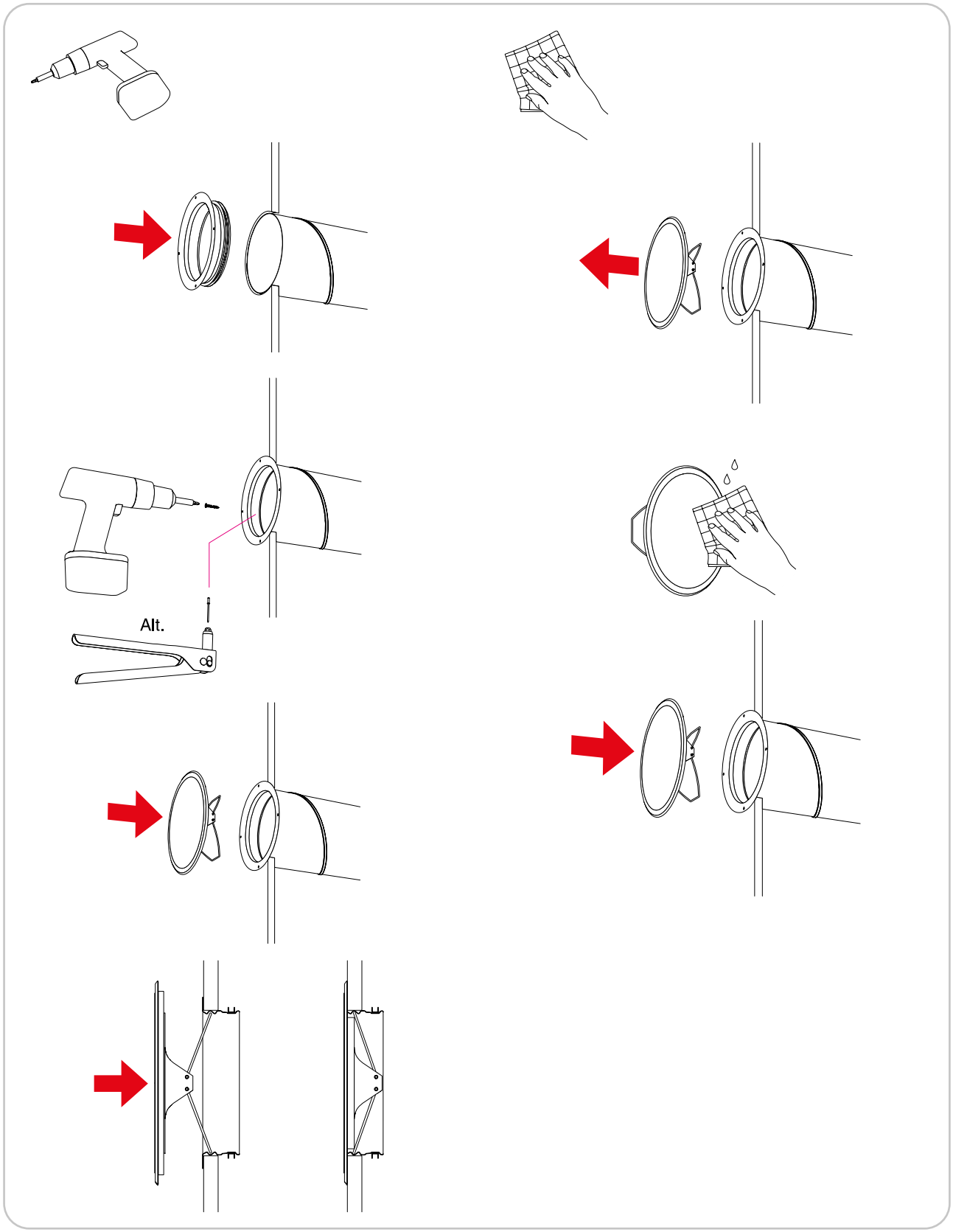




ø mm	Valve mounted in	Setting n [number of opening turns]						
80	Duct Bend 90° T-piece	**n**	**0**	**3**	**6**	**9**	**12**	**15**
		k	0,489 0,517 –	0,675 0,621 0,715	1,08 0,867 0,915	1,07 1,10 1,14	1,55 1,31 1,18	1,42 1,42 1,41
100	Duct Bend 90° T-piece	**n**	**0**	**3**	**6**	**9**	**15**	**18**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

Cover

TLO



Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It's one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

We simplify construction

2020.05.06