






































Venttiilit

Asennus-, mittaus- ja säätöohjeet

Yleiskatsaus

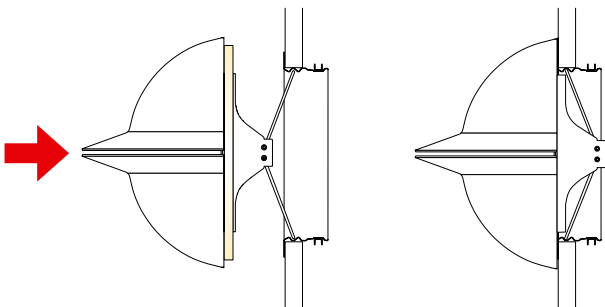
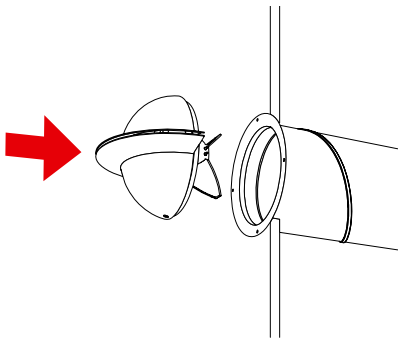
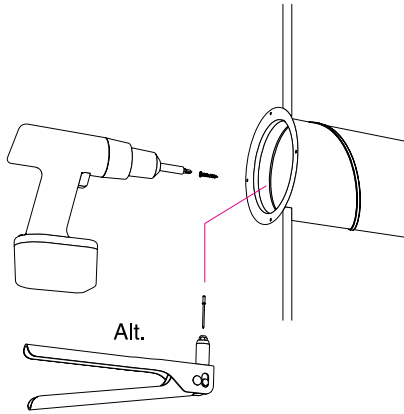
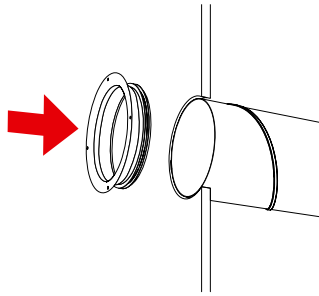
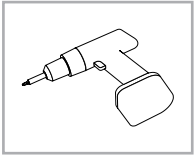
Laite				Liitostapa				
				Kiinnityskehys kierteellä bajonettikiinnitteisiin laitteisiin		Kiinnityskehys uralla jousikiinnitteisiin laitteisiin		Kanava/ Osa/ Ulkoseinä
Tuloilma	VTK	Hajotin				VRFU	VRFM	
	VTTB	Hajotin				VRFU	VRFM	
	KPT	Venttiili						Kanava
	KI	Venttiili		VRGU	VRGL	VRGM		
	KIR	Venttiili		VRGU	VRGL	VRGM		
Tulo- ja poistoilma	TAV	Venttiili						Kanava
	YGC	Säleikkö						Ulkoseinä



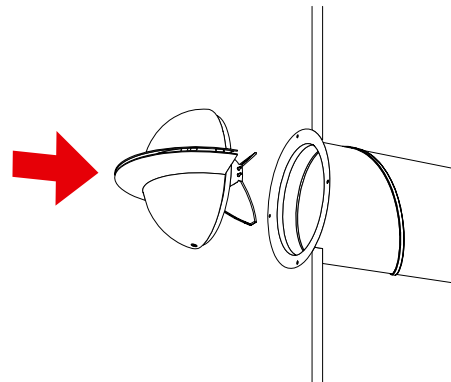
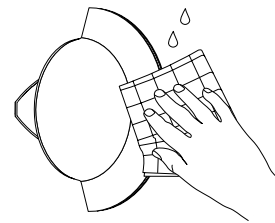
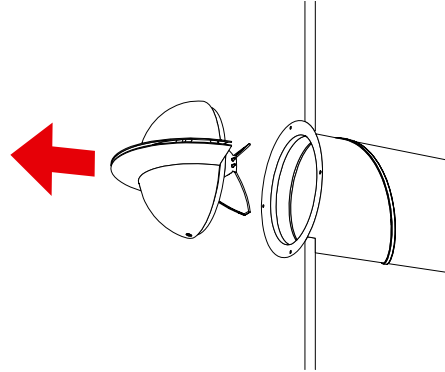
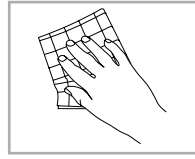
Laite				Litostapa					
				Kiinnityskehys kierteellä bajonettikiinnitteisiin laitteisiin			Kiinnityskehys uralla jousikiinnitteisiin laitteisiin		Kanava/ Osa/ Ulkoseinä
Poistoilma	KVB	Venttiili					VRFU 	VRFM 	
	KVG Ø 100–160	Venttiili					VRFU 	VRFM 	
	KVG Ø 200	Venttiili		VRGU 	VRGL 	VRGM 			
	KU	Venttiili		VRGU 	VRGL 	VRGM 			
	KSU	Venttiili		VRGU 	VRGL 	VRGM 			
	KSUL	Venttiili		VRGU 	VRGL 	VRGM 			
	KSUB	Palon- rajoitin- venttiili			VRGL* 				
	KPF	Venttiili							Kanava
Muu osa	TLO	Tulppa					VRFU 	VRFM 	

* KSUB toimii palonrajoittimena vain kehyksen VRGL kanssa.

Venttiili



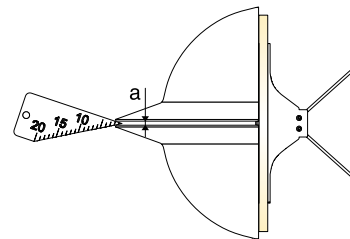
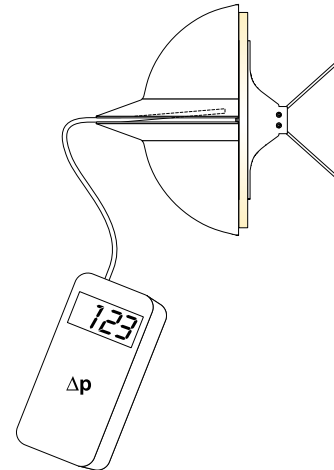
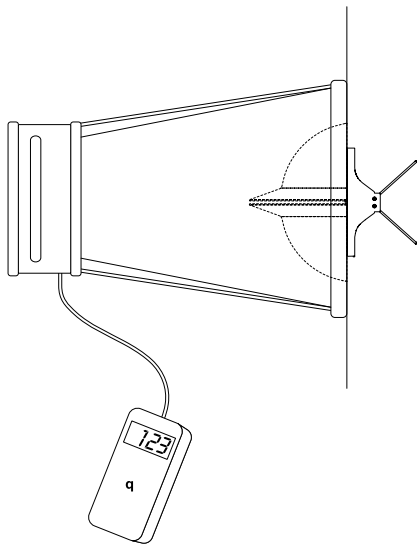
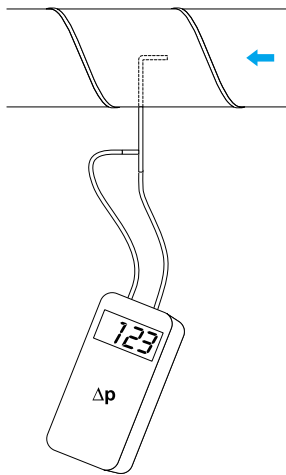
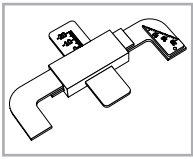
WTK





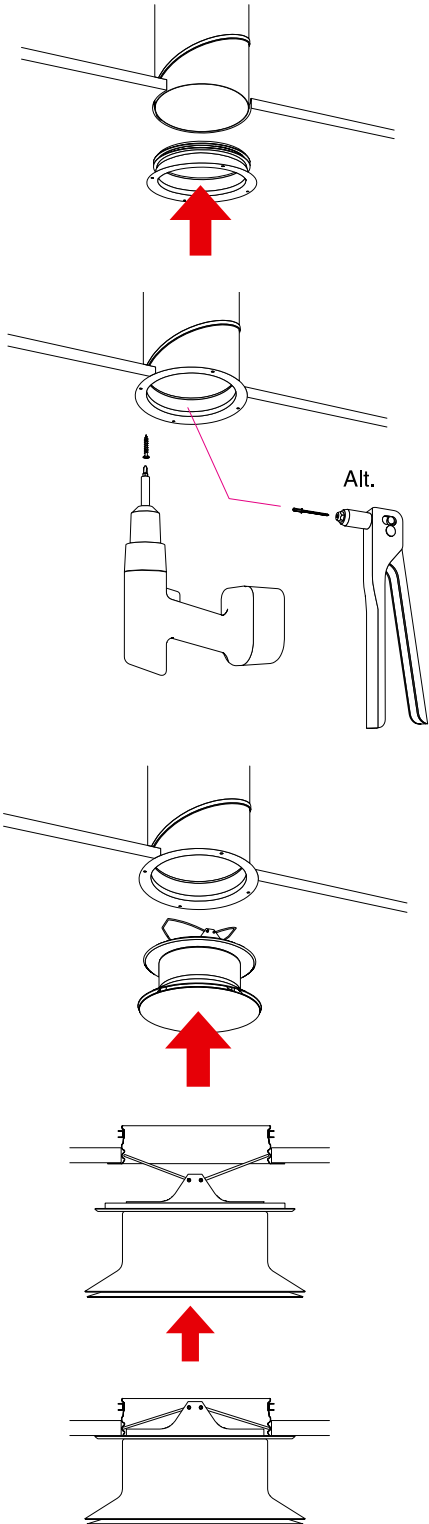
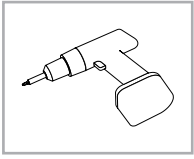
Venttiili

WTK

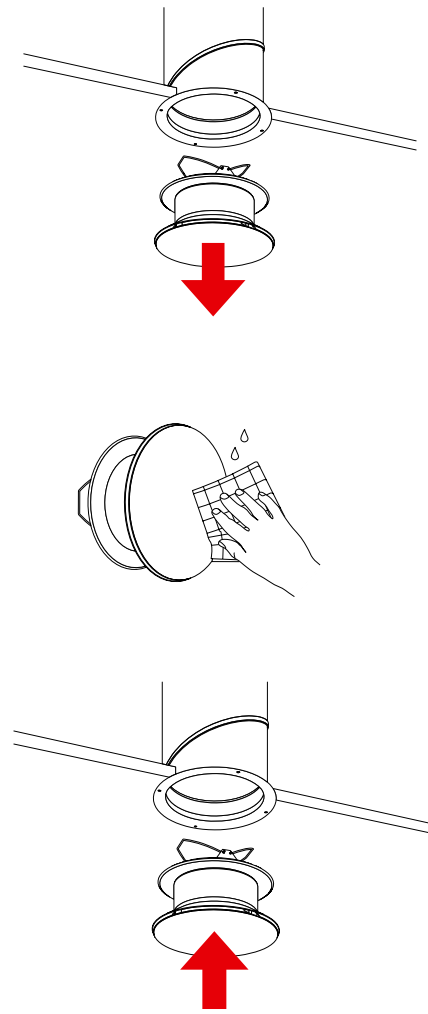
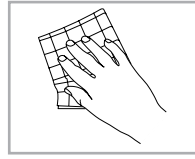


Ø mm	Venttiili Asennus- paikka	Asento a [mm]						
		a	6	8	10	12		
100	Kanava	k	1,14	1,44	1,85	2,48		
		a	6	7	8	10	12	16
125	Kanava	k	1,25	1,51	1,87	2,16	2,73	3,61

Venttiili



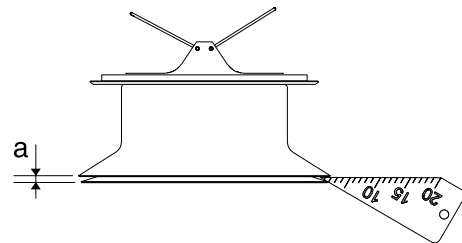
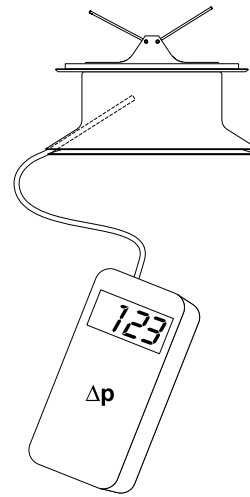
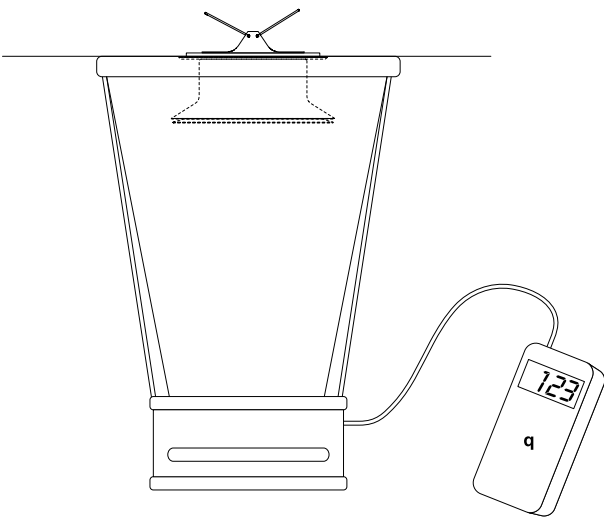
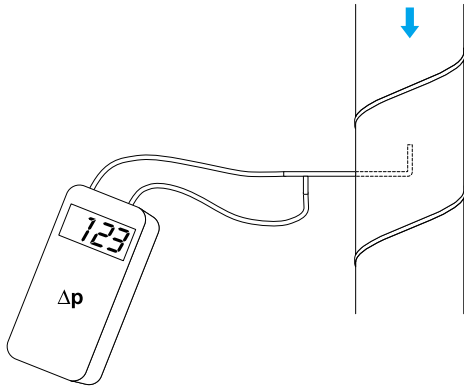
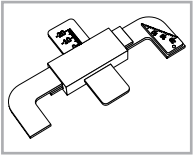
VTTB





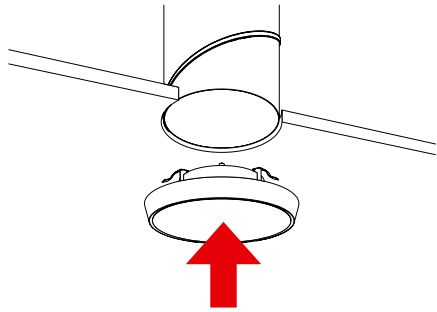
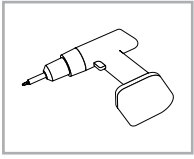
Venttiili

VTTB

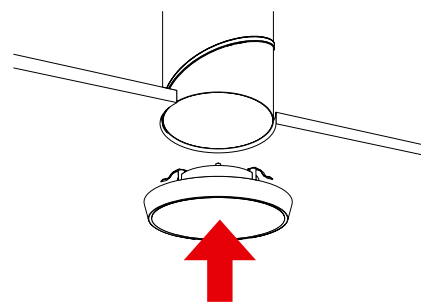
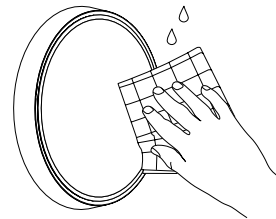
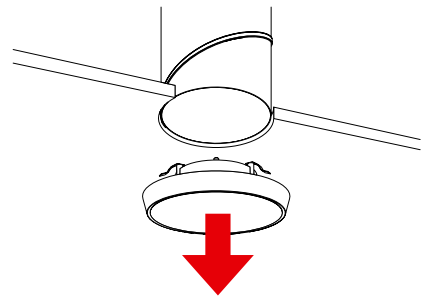
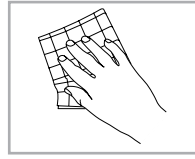


Ø mm	Venttiili Asennus- paikka	Asento a [mm]								
		a	4	5	6	7	8	10	12	16
100	Kanava	k	0,919	0,967	1,17	1,45	1,58	1,89	2,00	3,24
		a	4	5	6	7	8	10	12	16
125	Kanava	k	1,11	1,47	1,69	2,01	2,21	2,72	3,46	4,54
		a	5	8	10	12	16	20		
160	Kanava	k	2,05	2,93	3,51	3,92	5,19	7,20		
		a								

Venttiili



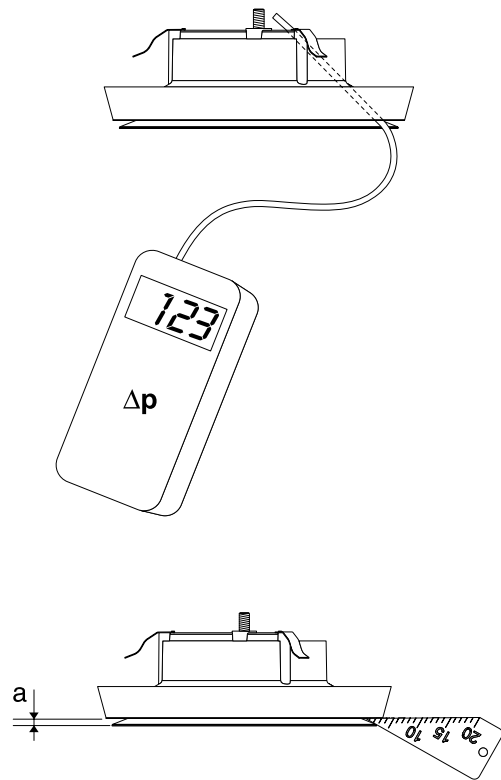
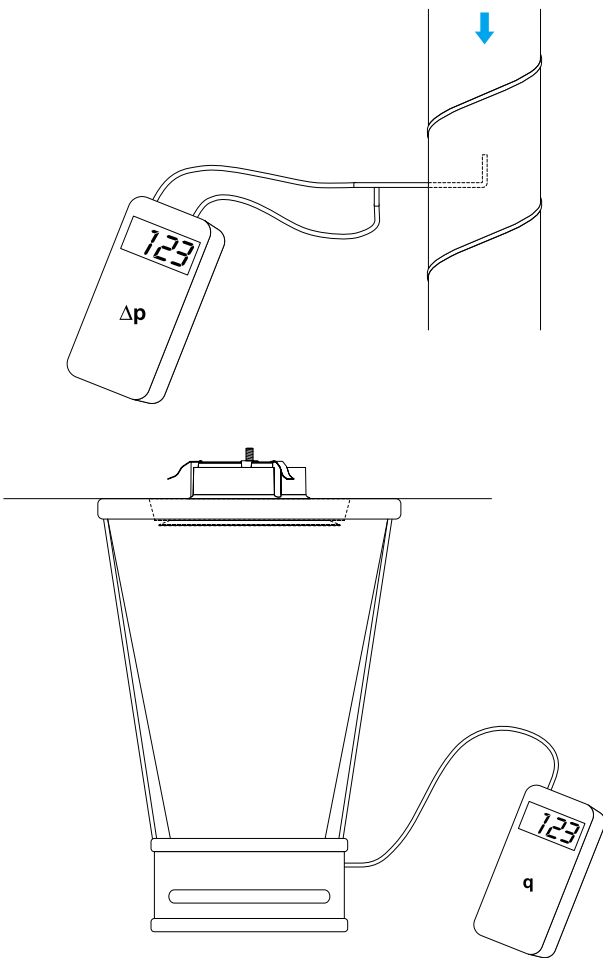
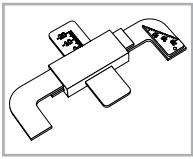
KPT





Venttiili

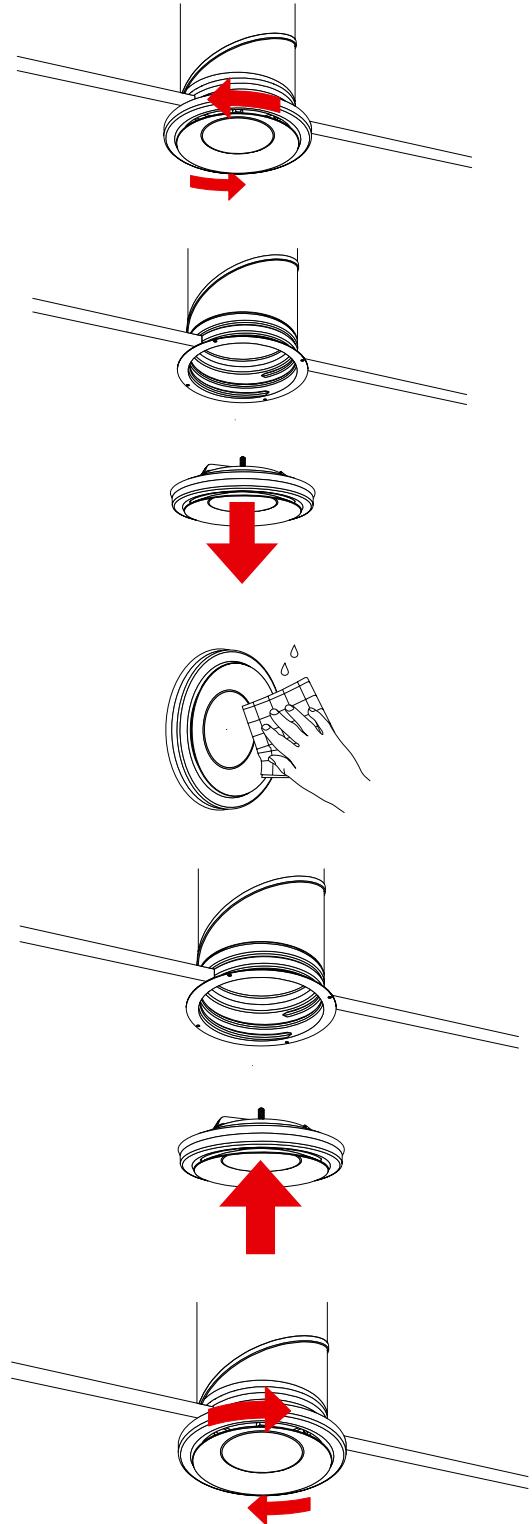
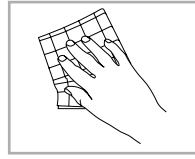
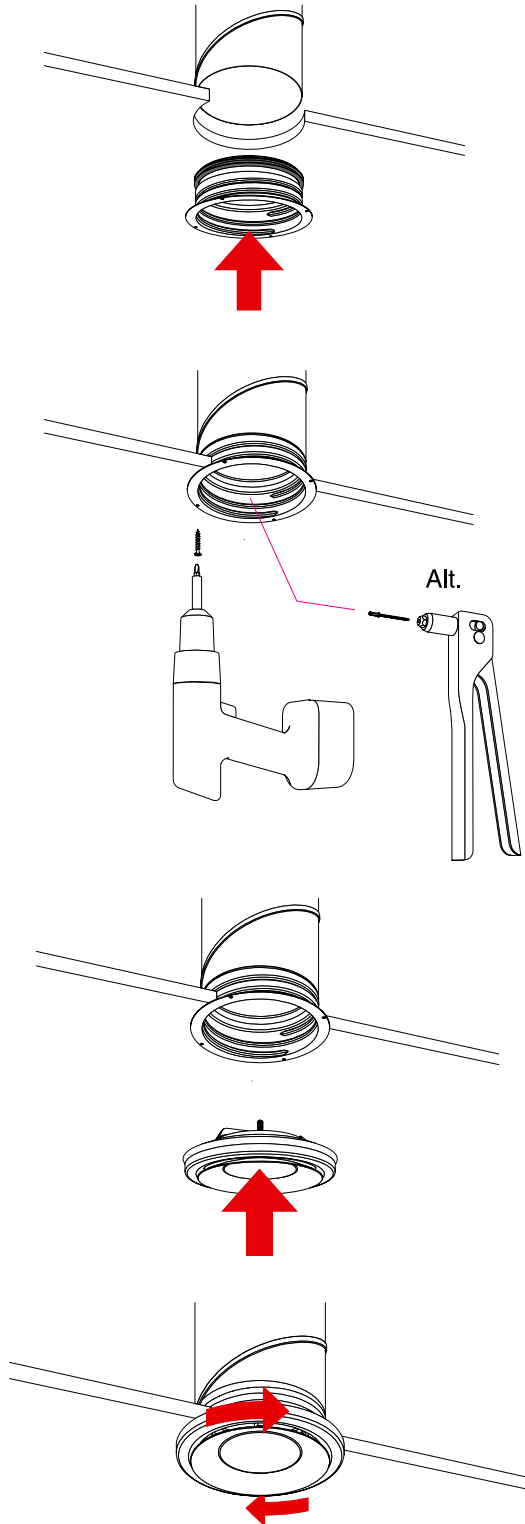
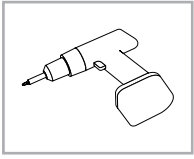
KPT



Ø mm	Venttiili Asennus- paikka	Asento n [avointen kierrosten määrä]						
		n	1	2	3	4	6	8
80	Kanava	k	1,08	1,42	1,83	2,30	2,92	3,77
		n	2	3	4	6	8	10
100	Kanava	k	1,12	1,69	2,20	2,36	4,21	4,86
		n	4	5	6	7	8	9
125	Kanava	k	1,23	1,50	1,79	2,09	2,30	2,66
		n	6	8	10	12		
160	Kanava	k	2,34	3,06	3,73	4,35		
		n	7	9	11	13	15	
200	Kanava	k	4,55	5,47	6,35	7,39	8,37	

Venttiili

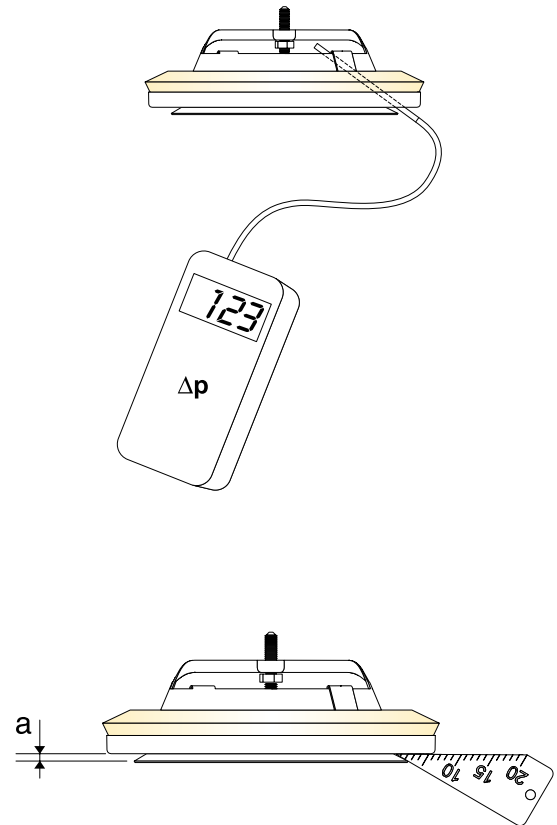
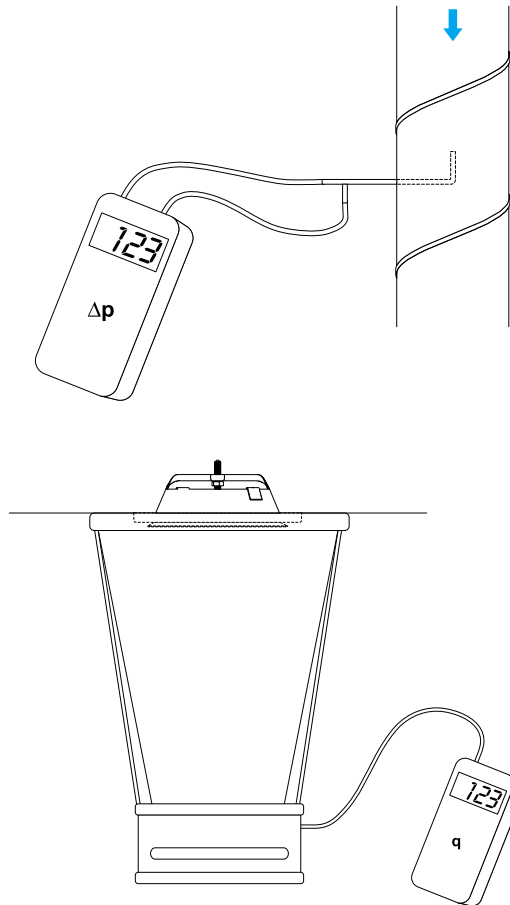
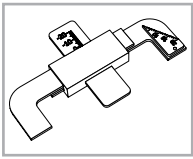
KI





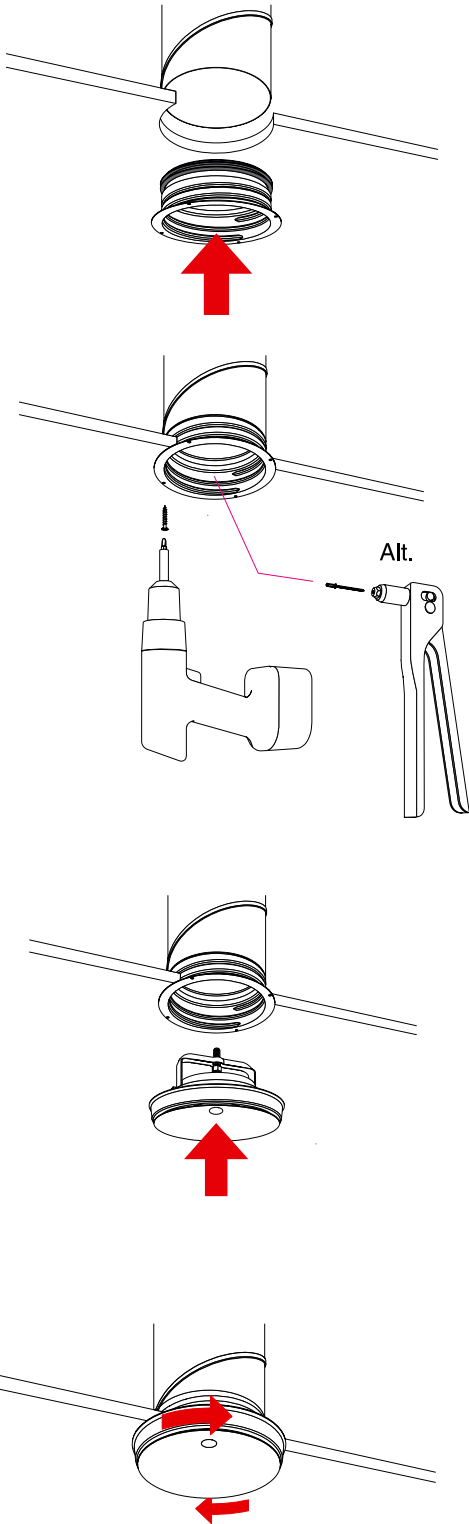
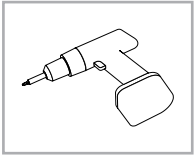
Venttiili

KI

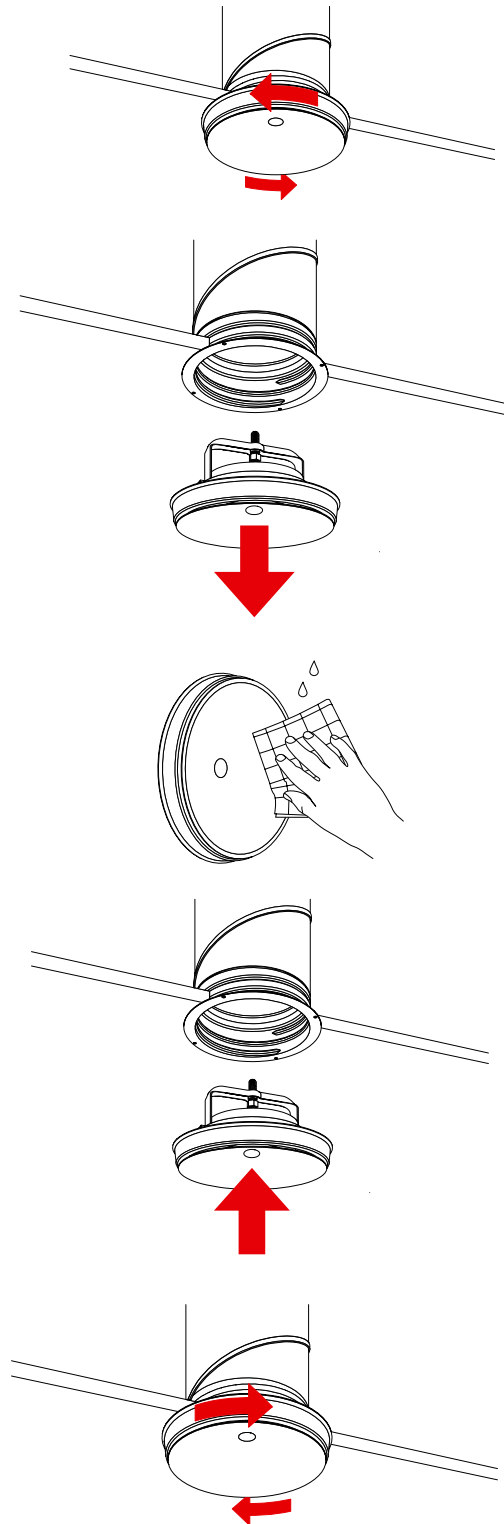
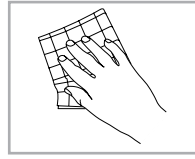


Ø mm	Venttiili Asennus- paikka	Asento a [mm]						
		a	2	4	6	9	12	
80	Kanava	k	0,779	1,36	2,05	2,65	2,80	
		a	2	4	6	9	12	
100	Kanava	k	1,00	1,10	2,31	3,19	4,12	
		a	2	4	6	9	12	
125	Kanava	k	1,23	1,85	2,83	3,74	5,08	6,21
		a	3	5	7	9	12	15
150	Kanava	k	2,35	3,37	4,50	5,74	7,40	10,3
		a	4	6	9	12	15	20
160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

Venttiili



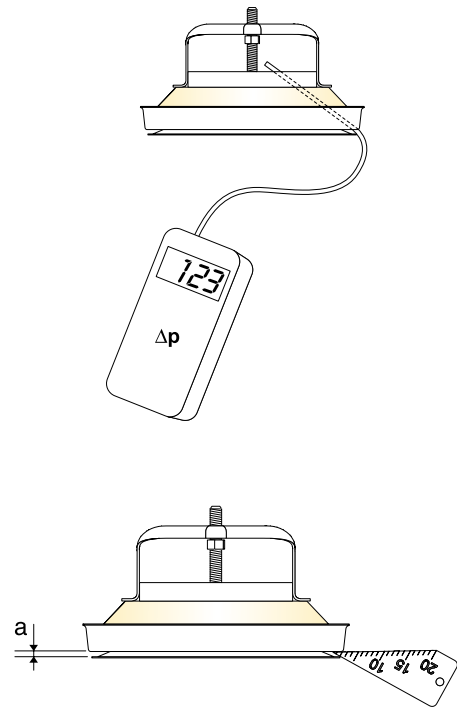
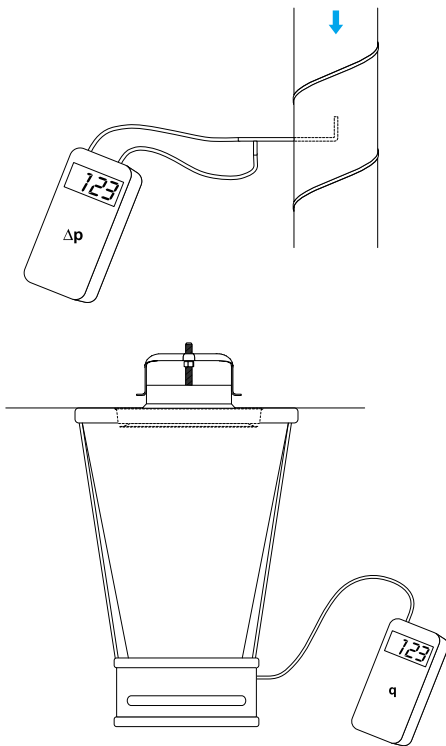
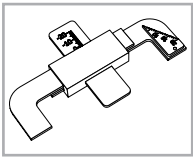
KIR





Venttiili

KIR



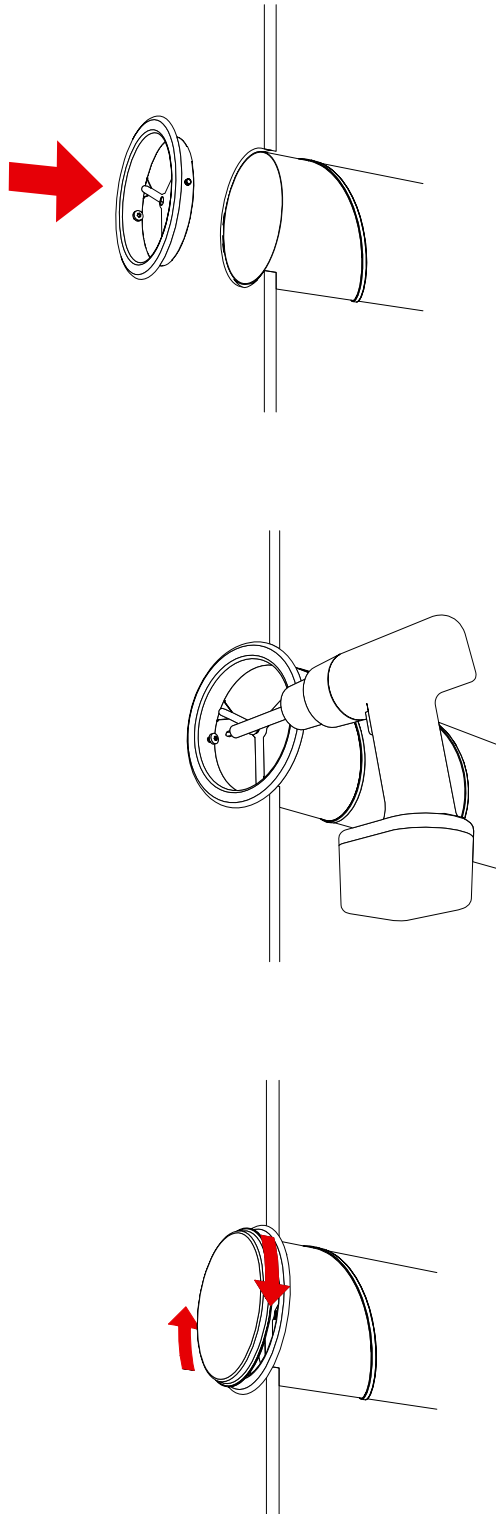
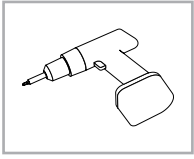
Ilman suuntauslevyä

Ø mm	Venttiili Asennus- paikka	Asento a [mm]					
		a	2	4	6	9	12
100	Kanava	k	1,09	1,56	2,11	2,81	4,31
		a	4	6	9	12	15
125	Kanava	k	1,95	2,99	4,41	5,72	7,41
		a	4	6	10	15	20
160	Kanava	k	2,10	3,74	5,83	9,66	12,8
		a	4	6	10	15	20

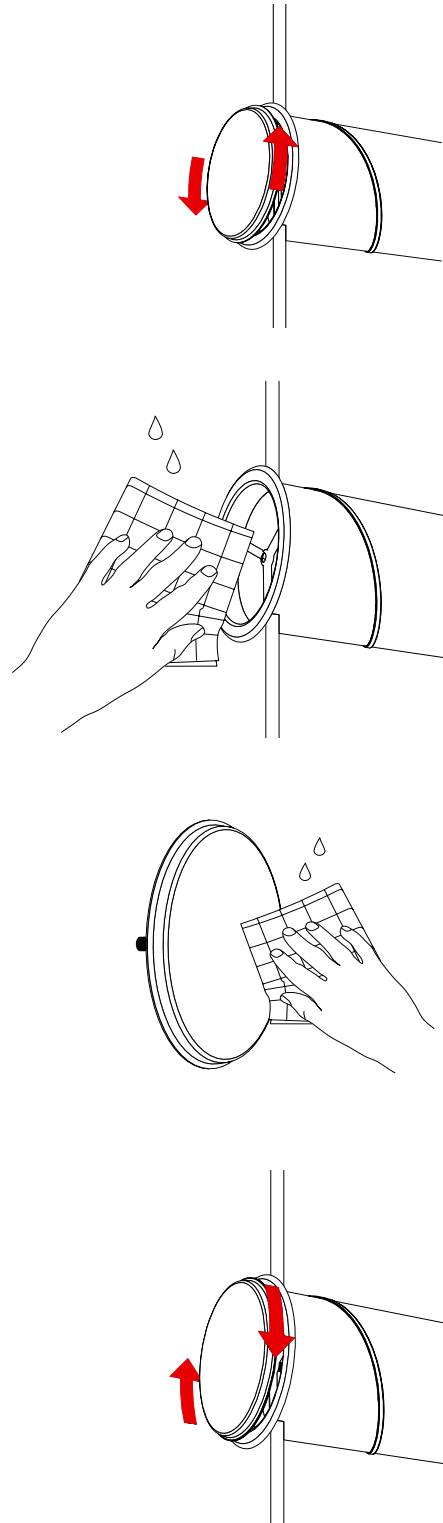
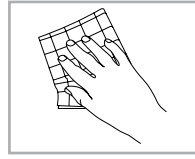
Suuntauslevy asennettuna

Ø mm	Venttiili Asennus- paikka	Asento 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
		a	4	6	10	15	20

Venttiili



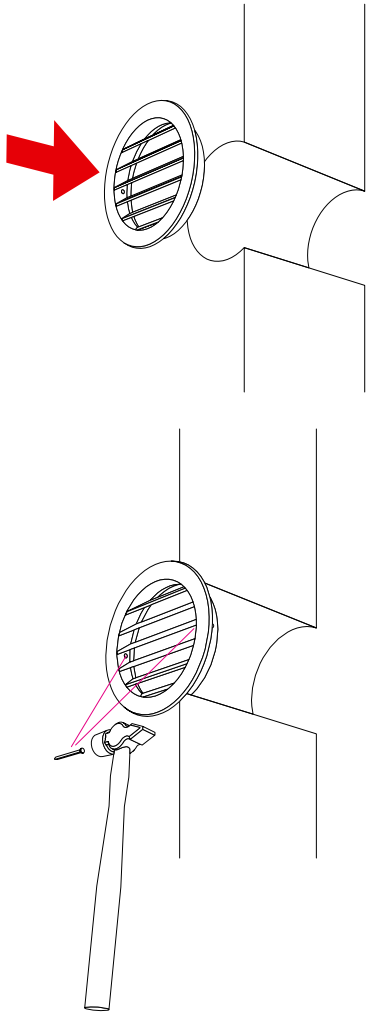
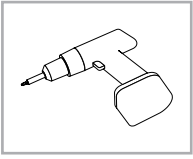
TAV





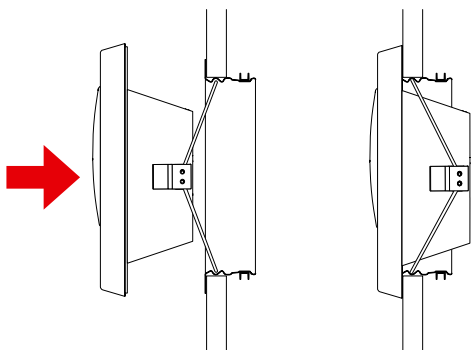
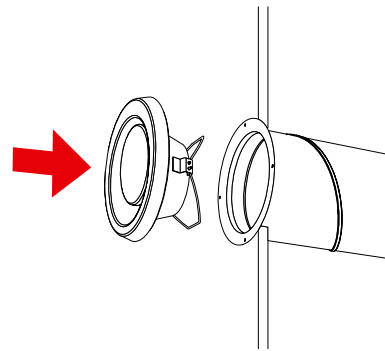
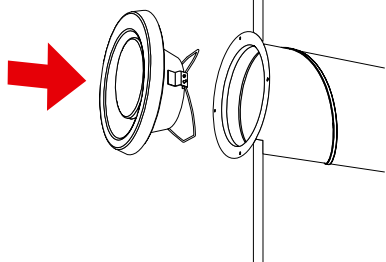
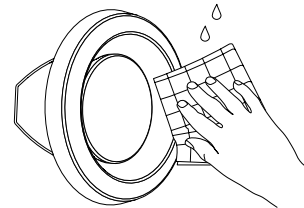
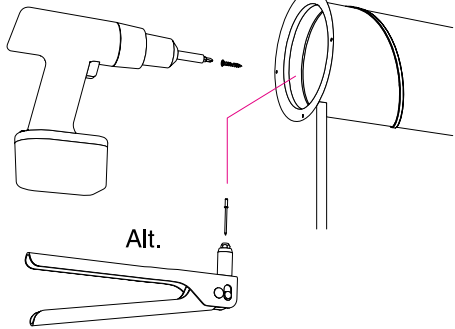
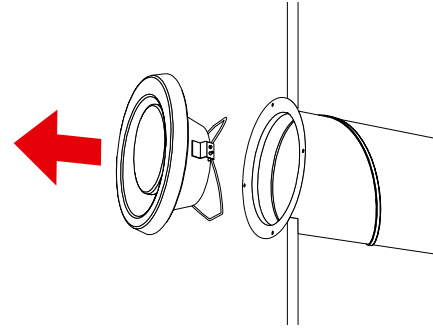
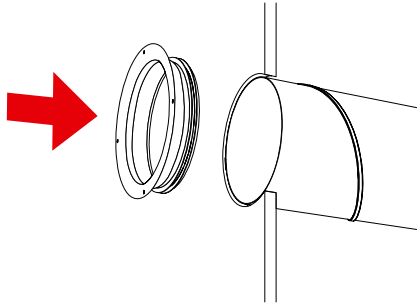
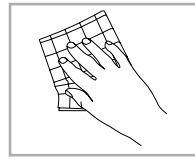
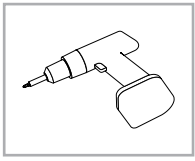
Säleikkö

YGC



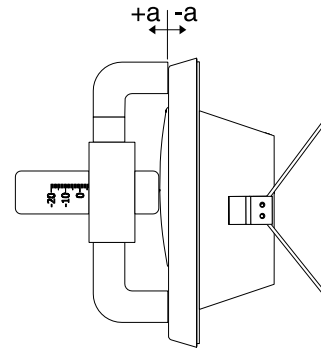
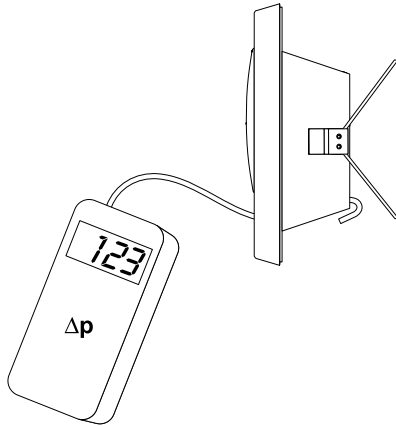
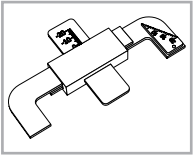
Venttiili

KVB



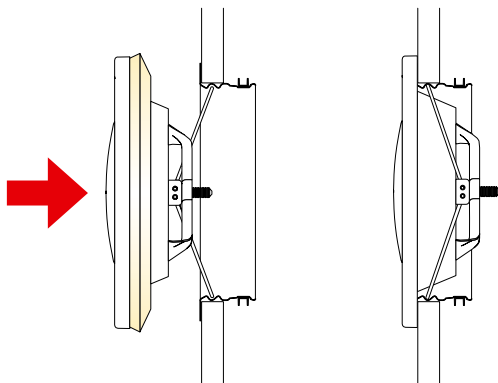
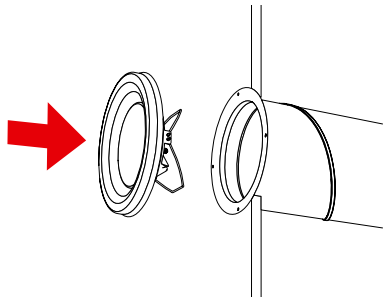
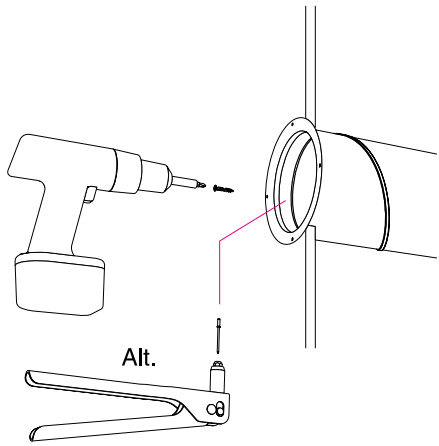
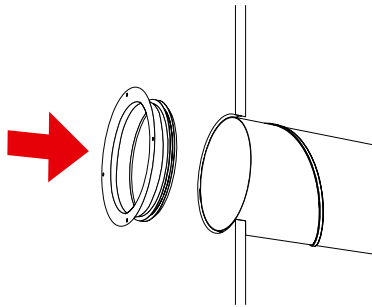
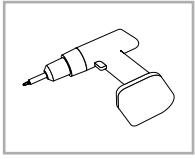
Venttiili

KVB



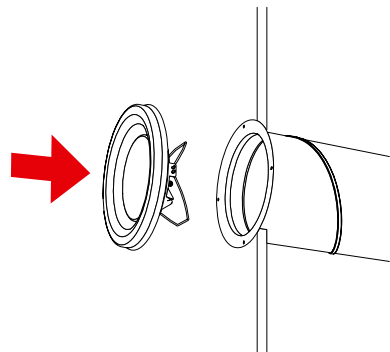
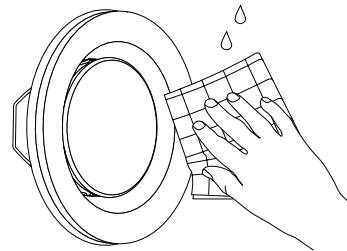
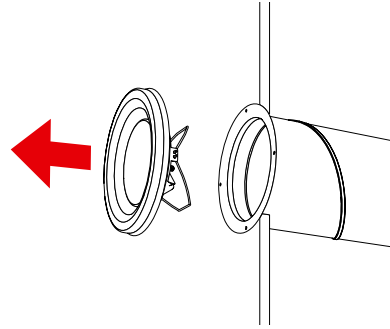
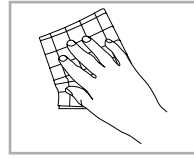
Ø mm	Venttiili Asennus- paikka	Asento a [mm]						
		a	-11	-9	-6	0	6	9
100	Kanava Käyrä 90° T-haara	a	1,14	0,693	1,29	1,42	2,16	2,38
		k	0,590	0,655	1,01	1,53	2,12	2,24
			0,606	0,707	1,04	1,55	2,01	-
125	Kanava Käyrä 90° T-haara	a	-18	-12	-6	0	6	
		k	1,32	1,88	2,47	3,01	3,46	
			1,26	1,80	2,46	2,90	3,46	
160	Kanava Käyrä 90° T-haara	a	-24	-18	-12	-6	0	6
		k	2,05	2,50	3,31	4,23	5,11	5,73
			1,76	2,33	3,15	3,93	4,72	5,29
		-	2,80	3,29	4,04	4,88	5,41	

Venttiili



KVG

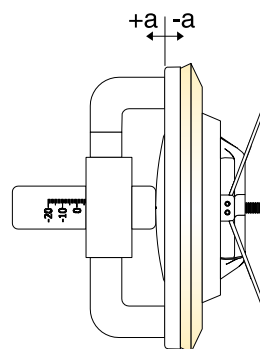
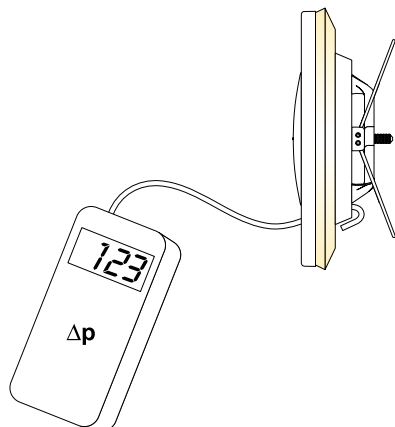
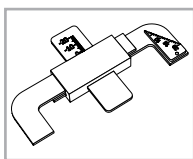
Ø100–160



Venttiili

KVG

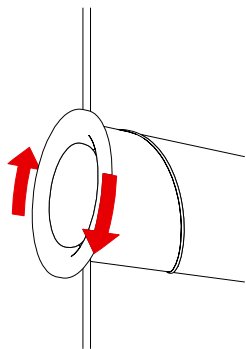
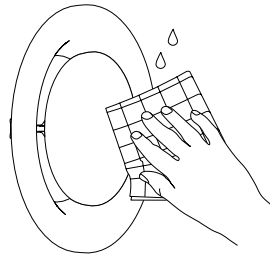
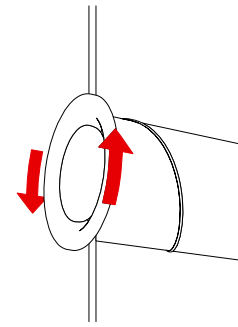
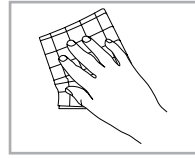
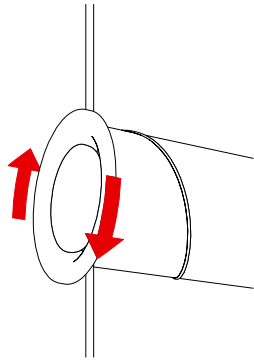
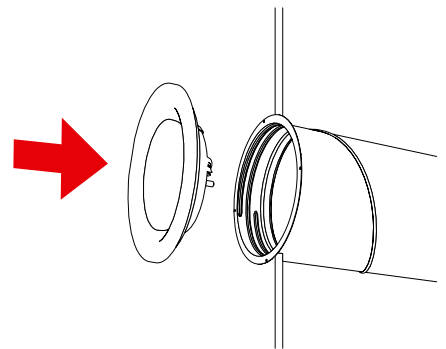
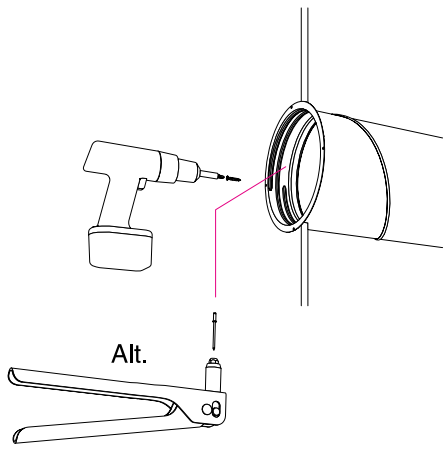
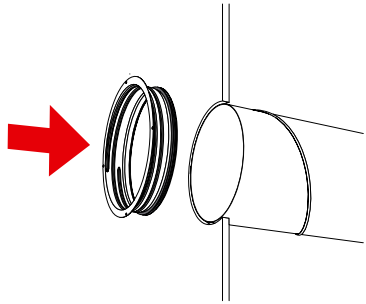
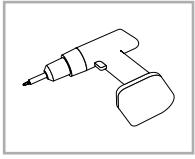
Ø100–160



Ø mm	Venttiili Asennus- paikka	Asento a [mm]									
		a	-9	-5	0	5	8	12			
100	Kanava Käyrä 90° T-haara	a									
		k	0,577	1,250	1,85	2,39	2,75	3,07			
			0,788	1,340	1,78	2,37	2,89	2,99			
125	Kanava Käyrä 90° T-haara	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	3,62	5,03	7,05
160	Kanava Käyrä 90° T-haara	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		

Venttiili

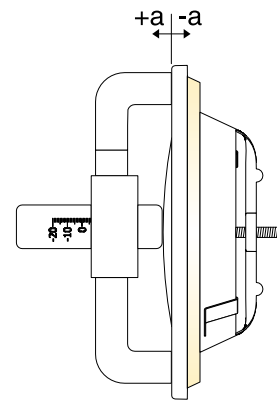
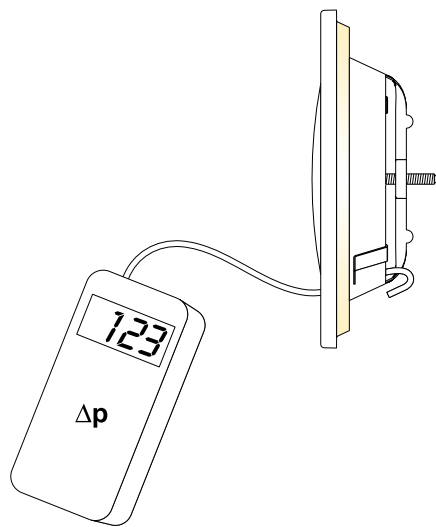
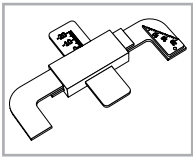
KVG
Ø200





Venttiili

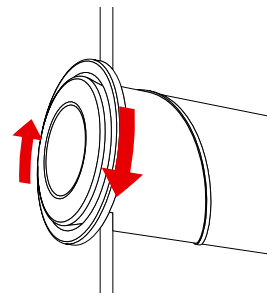
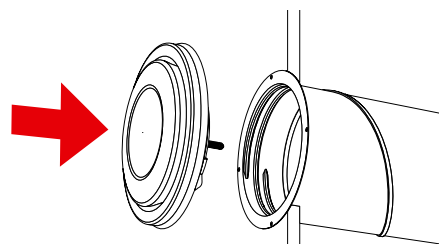
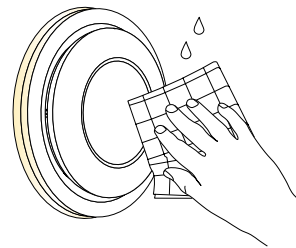
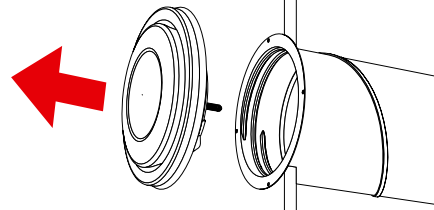
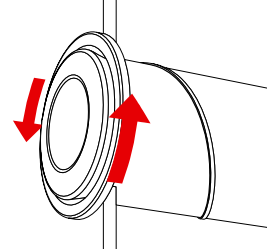
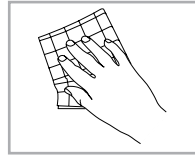
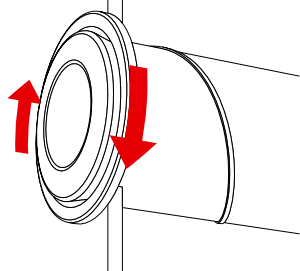
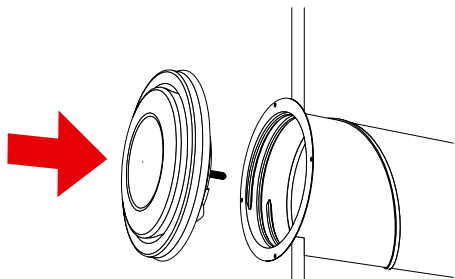
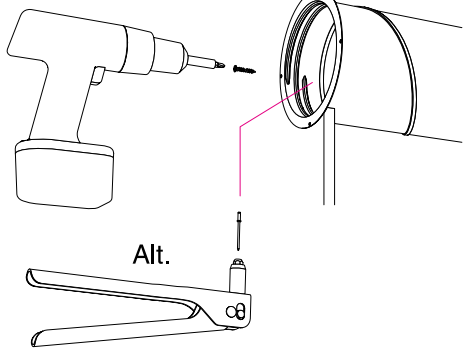
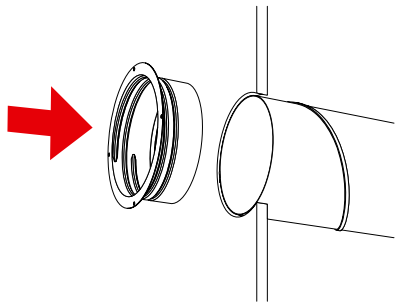
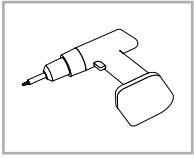
KVG
Ø200



Ø mm	Venttiili Asennus- paikka	Asento a [mm]									
		a	-23	-18	-15	-10	-5	0	10	20	
200	Kanava		1,94	3,23	3,94	4,94	6,32	7,80	10,0	12,6	
	Käyrä 90°	k	1,86	2,99	3,95	5,08	6,14	7,62	10,1	11,2	
	T-haara		-	3,28	4,02	5,36	6,75	7,57	10,5	12,5	

Venttiili

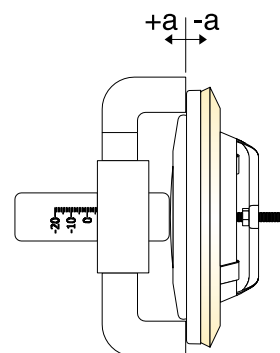
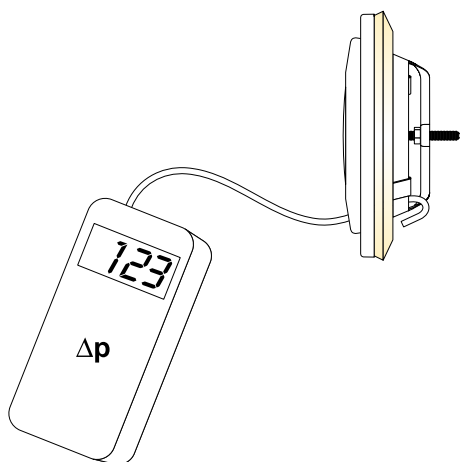
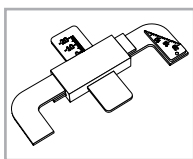
KU





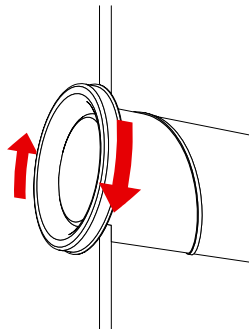
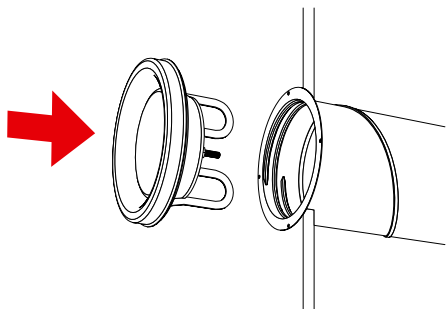
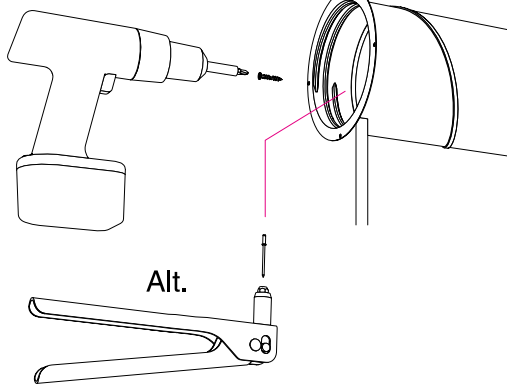
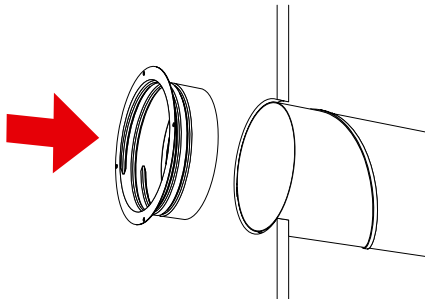
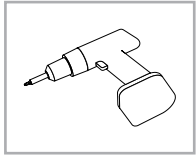
Venttiili

KU

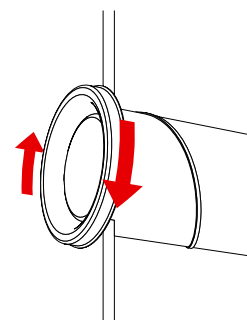
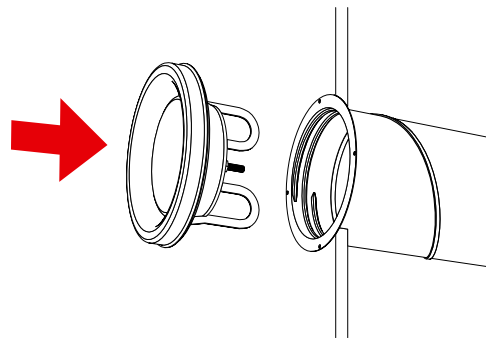
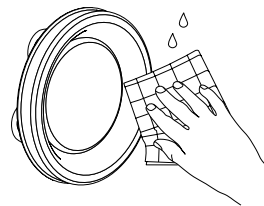
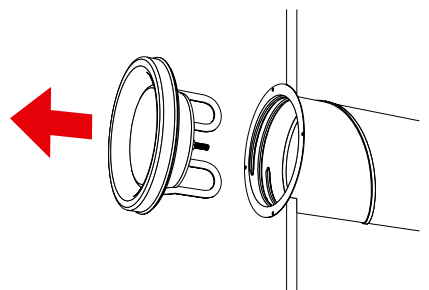
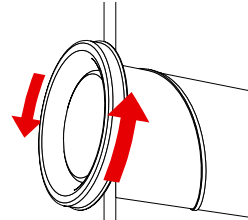
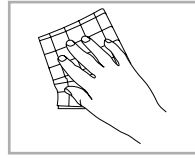


Ø mm	Venttiili Asennus- paikka	Asento a [mm]									
		a	-9	-6	-3	0	3	6			
80	Kanava Käyrä 90° T-haara	a	0,679	0,941	1,32	1,59	1,90	2,13			
		k	0,715	1,02	1,23	1,54	1,75	2,06			
			0,732	1,00	1,35	1,54	1,79	1,95			
100	Kanava Käyrä 90° T-haara	a	-12	-9	-5	0	5				
		k	0,560	0,938	1,46	2,00	2,72				
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

Venttiili



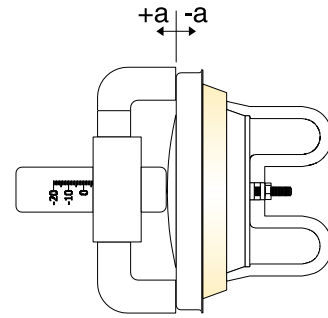
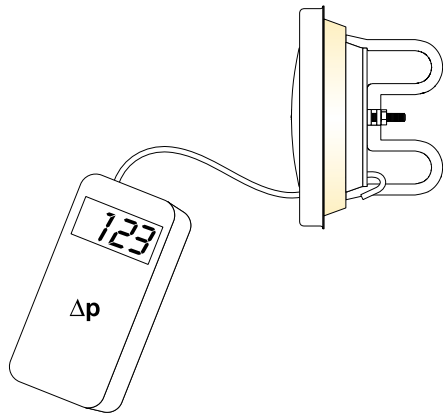
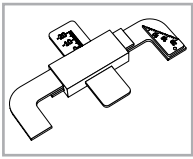
KSU





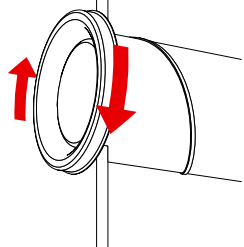
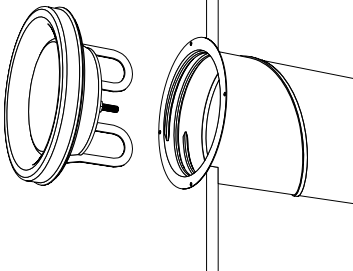
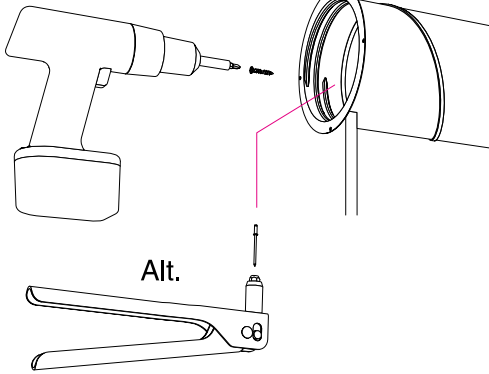
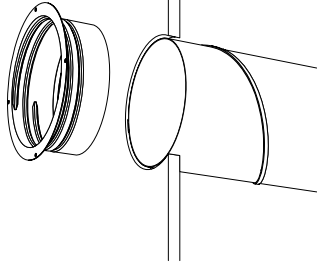
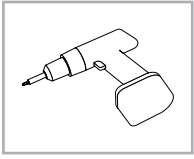
Venttiili

KSU

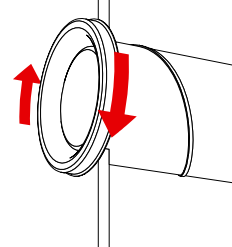
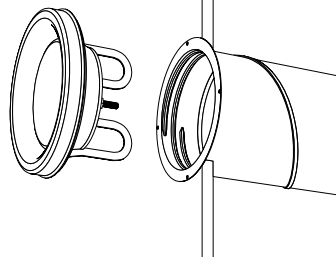
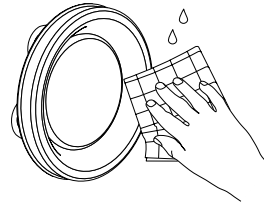
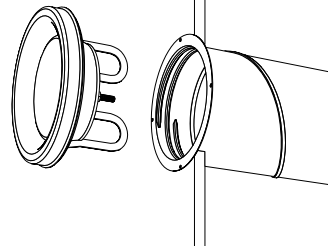
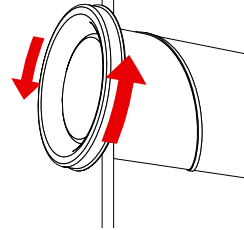
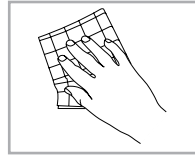


Ø mm	Venttiili Asennus- paikka	Asento a [mm]							
		a	-15	-12	-10	-5	0	5	10
100	Kanava Käyrä 90° T-haara	a	0,459	0,676	0,861	1,36	1,82	2,32	2,75
		k	0,505	0,841	1,00	1,40	1,86	2,35	2,77
			0,576	0,850	1,01	1,42	1,89	2,35	2,66
125	Kanava Käyrä 90° T-haara	a	-10	-5	0	5	10		
		k	1,29	1,93	2,59	3,29	3,91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

Venttiili



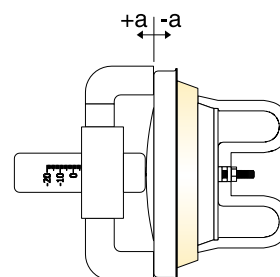
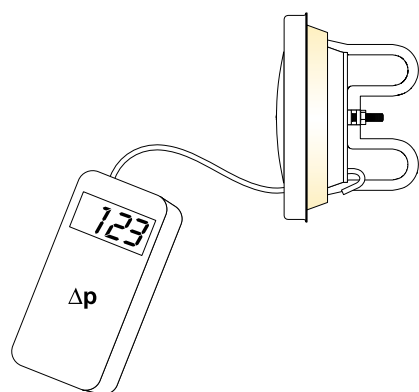
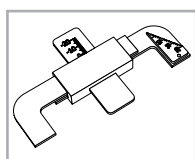
KSUL





Venttiili

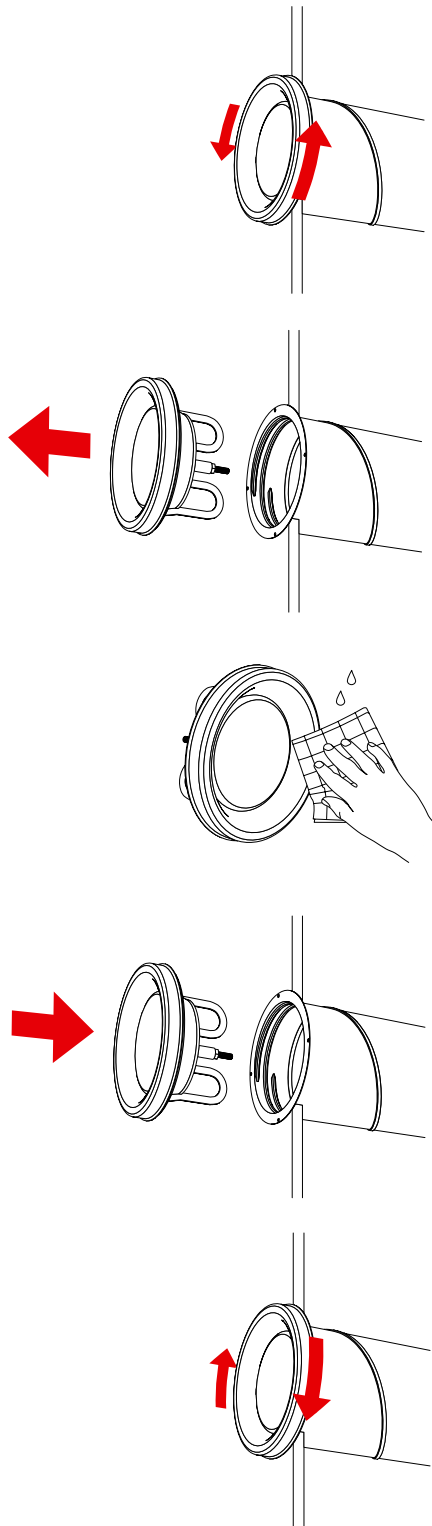
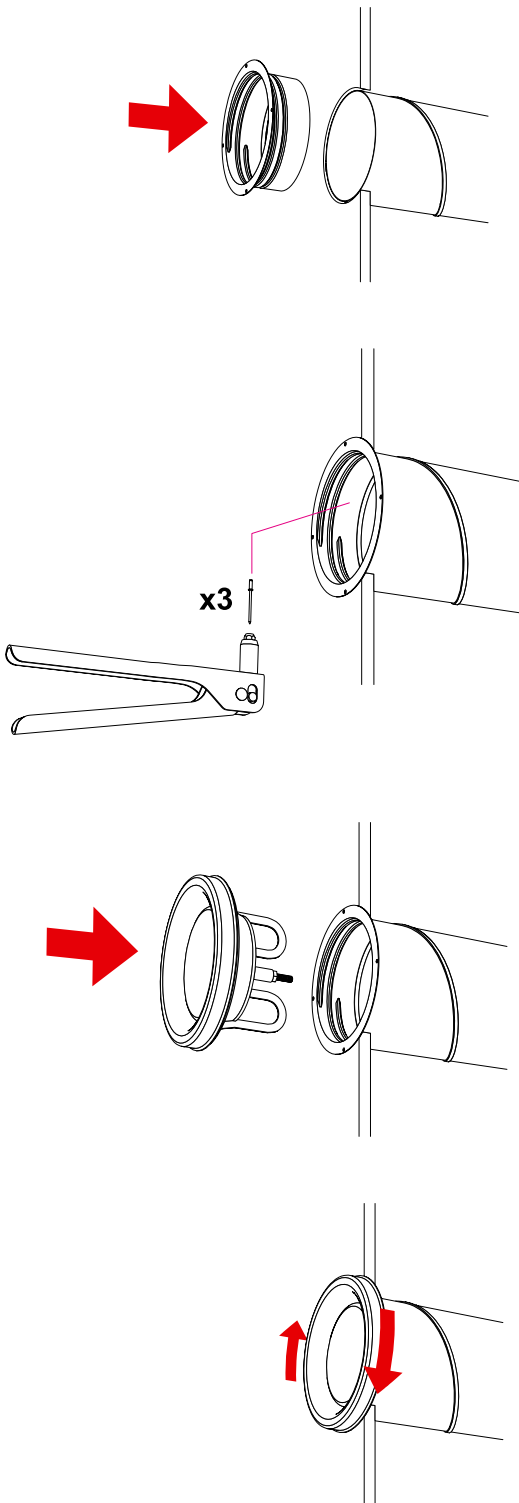
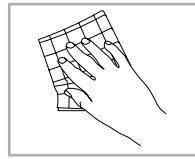
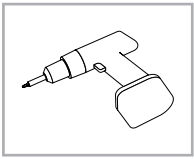
KSUL



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

Venttiili and fire damper

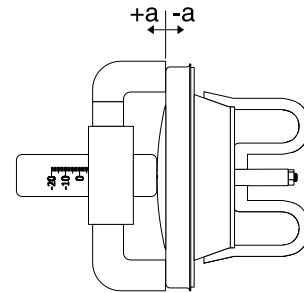
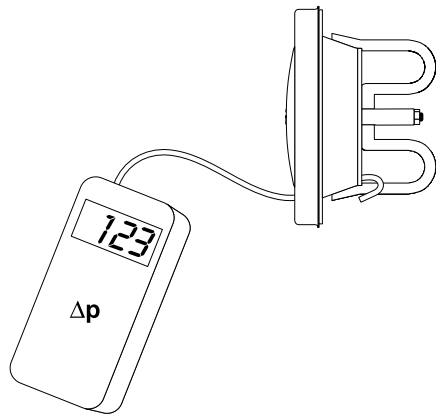
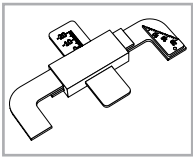
KSUB





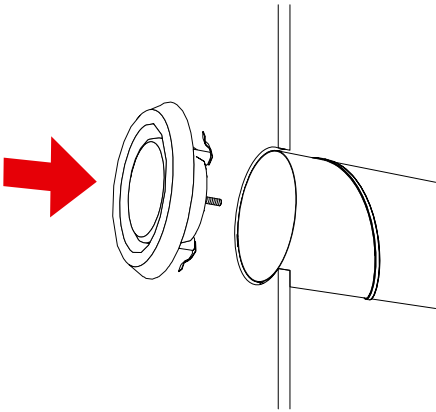
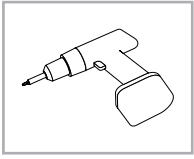
Venttiili and fire damper

KSUB

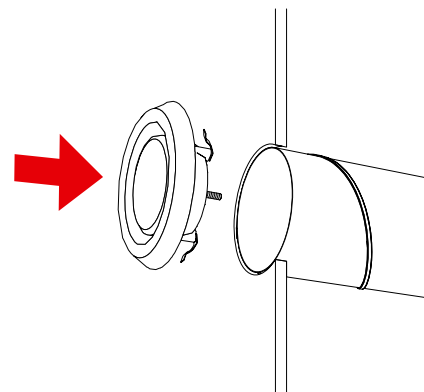
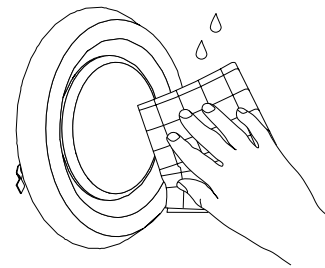
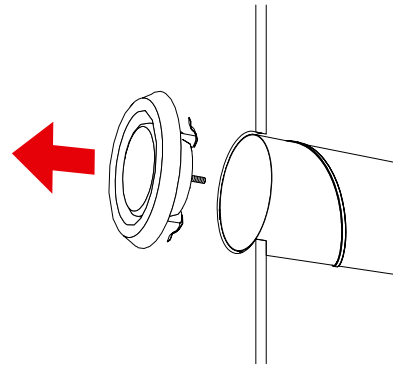
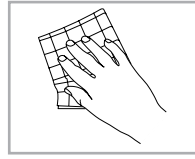


Ø mm	Venttiili mounted in	Asento a [mm]							
		a	-15	-12	-10	-5	0	5	10
100	Kanava Käyrä 90° T-haara	a	0,459	0,676	0,861	1,36	1,82	2,32	2,75
		k	0,505	0,841	1,00	1,40	1,86	2,35	2,77
			0,576	0,850	1,01	1,42	1,89	2,35	2,66
125	Kanava Käyrä 90° T-haara	a	-10	-5	0	5	10		
		k	1,29	1,93	2,59	3,29	3,91		
			1,24	1,90	2,61	3,33	3,90		
160	Kanava Käyrä 90° T-haara	a	-10	-5	0	5	10	15	
		k	1,80	2,62	3,62	4,57	5,58	6,46	
			1,50	2,50	3,48	4,50	5,39	6,52	
200	Kanava Käyrä 90° T-haara	a	-3	0	5	10	15		
		k	2,02	2,72	3,85	5,19	6,32		
			1,65	2,62	3,71	5,21	6,07		
		2,11	3,00	3,90	5,46	6,54			

Venttiili



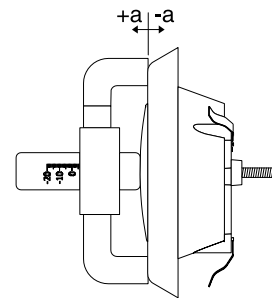
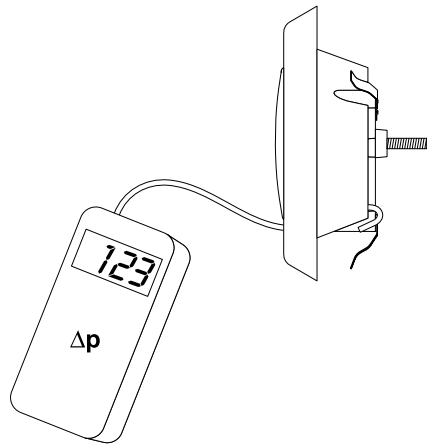
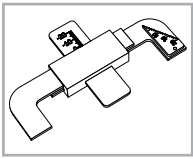
KPF





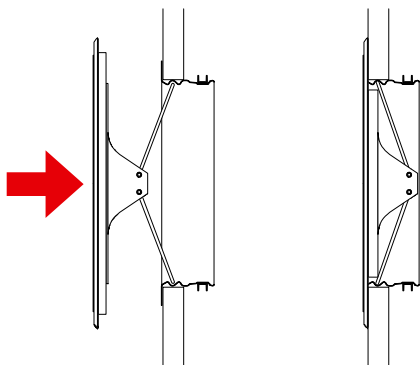
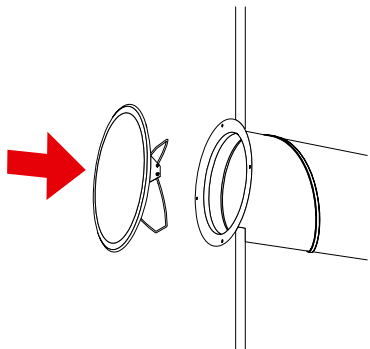
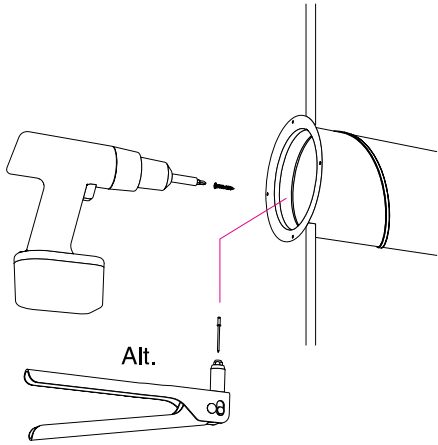
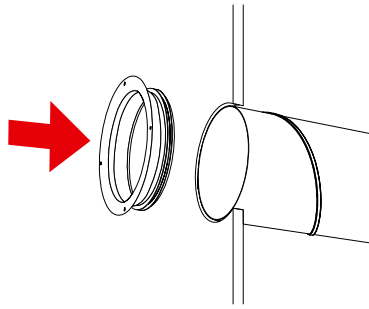
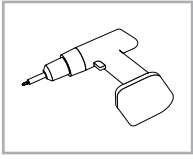
Venttiili

KPF



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

Tulppa



TLO

