



SKC-R rectangular constant air volume dampers

The **SKC-R** series dampers are designed to facilitate balancing of ventilation systems. Damper suitable for rectangular duct mounting.

- Those dampers maintain the constant air volume at varying pressures, caused by connection and disconnection of system parts, clogging of filters and ducts, window opening etc.
- The adjustment knob has a graduated rate scale allows quick and easy adjustment of the desired air flow.
- Possibility of adding an actuator to automatically adjust two different airflows.
- Each nominal size damper allows a selection of flow with a ratio $V_{max} V_{min}$ 3:1.

Product advantages:

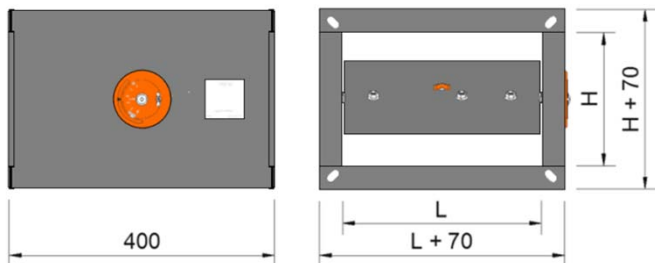
- Autonomous system.
- Easy airflow adjustment.
- Possibility of working with two airflows.
- Automatic balancing of the duct network.
- Economical installation.
- Ease of maintenance.



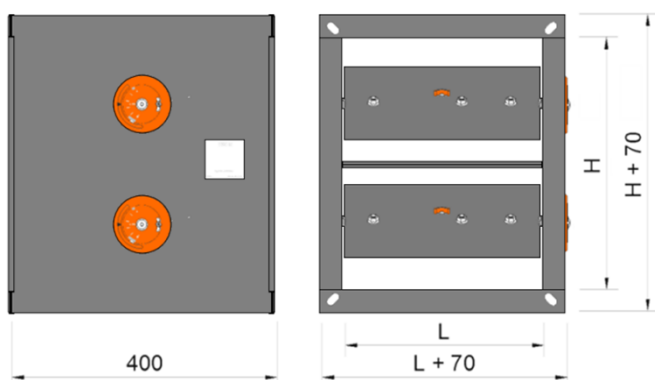
- Offices
- Hotels
- Hospitals and clean rooms

SKC-R/MA

$H \leq 300$

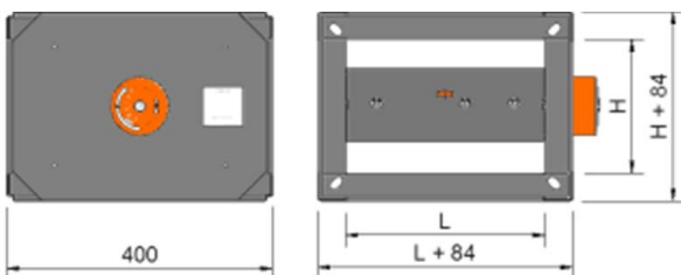


$H > 400$

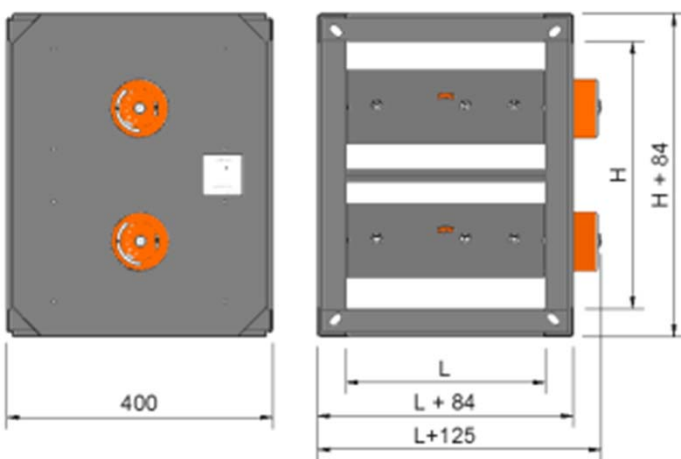


SKC-R/AIS/ MA

$H \leq 300$



$H > 400$



CLASIFICACION

SKC-R /MA/ Circular damper with manual device for setting of one flow (standard factory settings)

SKC-R/MK/CM 24L...230L/ Damper with Belimo On/Off actuator at 24v or 230v 2N.

SKC-R/MK/CM 24-SX-L/ Damper with proportional Belimo actuator (2-10V) at 24v 2N.

.../AIS/ Thermal insulation with foam.

MATERIAL

Damper constructed from galvanized steel.

FIXING SYSTEMS

1) Connection into a rectangular duct.

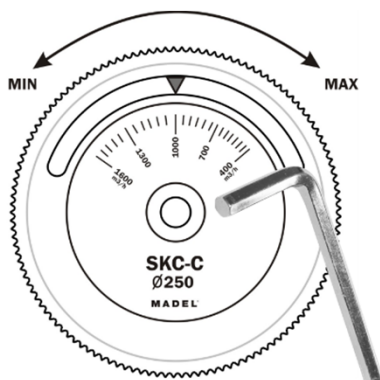
FINISHES

Galvanized steel.

SPECIFICATION TEXT

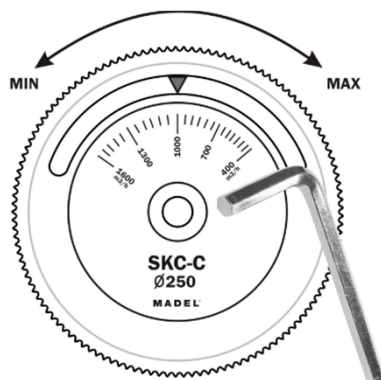
Supply and mounting of rectangular constant air volume damper to facilitate balancing of ventilation systems series **SKC-R/MA LxH mm**. Constructed from galvanized steel and tightness joint from rubber. Manufacturer **MADEL**.

SKC-R/MA/ MANUAL DAMPERS



UNLOCK

1: Unscrew the central screw with an Allen key and rotate the orange knob to the desired flow rate.



LOCK

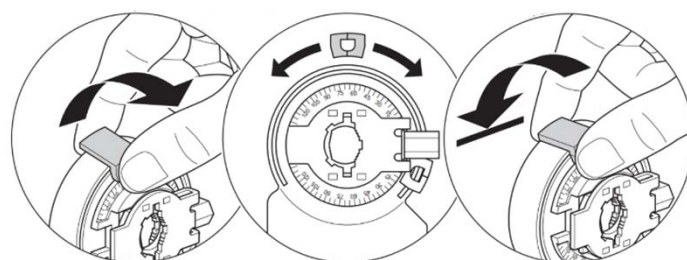
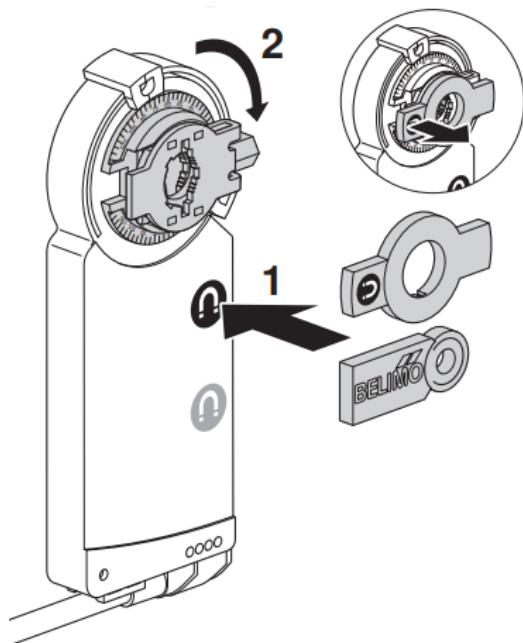
2: Once at the desired flow rate, tighten the central screw again. Medium-strong squeeze.

SKC-R/MK/CM/ MOTORIZED DAMPERS

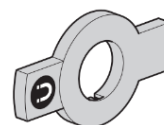
The motorized constant air volume dampers are pre-set at the maximum and minimum flow, in case you want to modify these limits, proceed as follows:

1. Remove the magnetic anti-rotation piece that is attached to the shaft of the damper (orange) Leave it glued to the magnet indicator (1) From this moment the motor shaft is released (2)

2. With your hand, remove the gray plastic stops and place them in the desired limits.



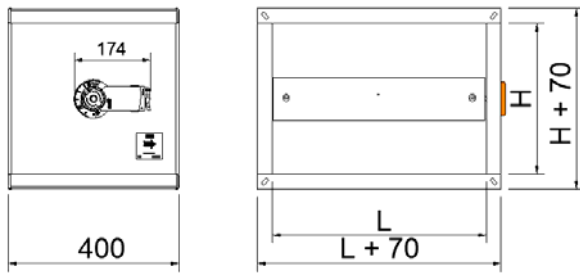
3. Reposition the anti-rotation piece on the damper shaft.



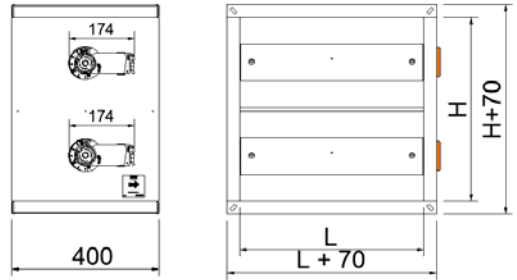
ACCESSORIES - ACTUATORS

SKC-R/ MK

100 ≤ H ≤ 350

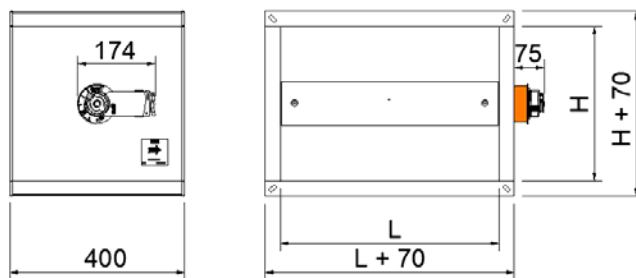


400 ≤ H ≤ 600

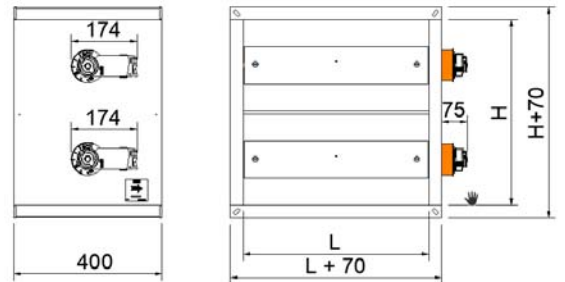


SKC-R/AIS/MK

100 ≤ H ≤ 350



400 ≤ H ≤ 600



ON/OFF actuators

MK/CM 24L Belimo 24V 2N
MK/CM 230L Belimo 230V 2N

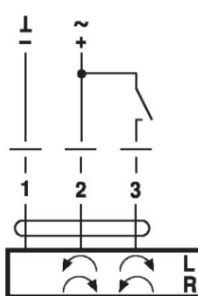
Proportional actuators (2-10V)

MK/CM 24-SX-L
 Belimo 24V 2N

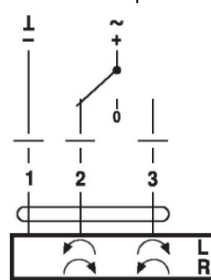
CONNECTION DIAGRAMS

MK/CM24L

AC/DC 24 V On /Off



AC/DC 24 V 3 points

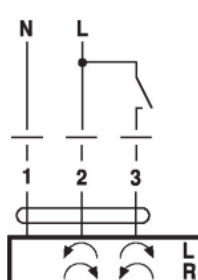


Wire colors

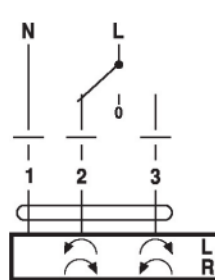
- 1. Black
- 2. Red
- 3. White

MK/CM230L

AC 230 V On /Off



AC 230 V 3 points

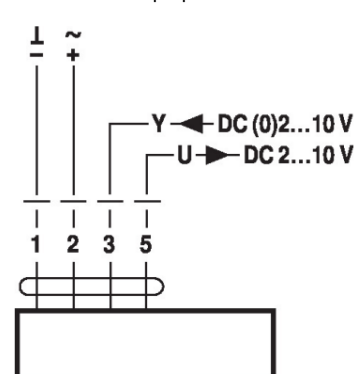


Wire colors

- 1. Blue
- 2. Brown
- 3. White

MK/CM24-SX-L

AC/DC 24 V proportional

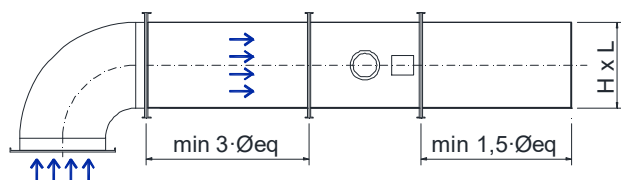


Wire colors

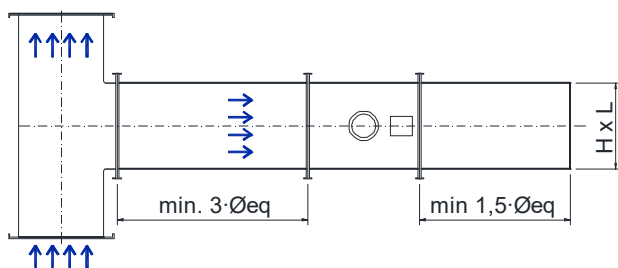
- 1. Black
- 2. Red
- 3. White
- 5. Orange

SKC-R/MA

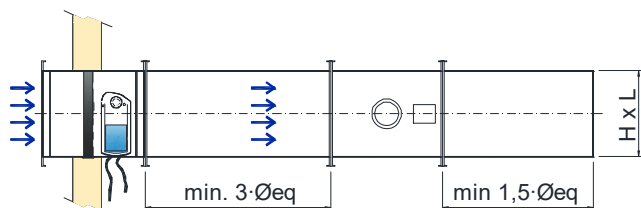
Distance to an elbow joint



Distance to a branch, reducer joint or junction



Distance to a fire damper



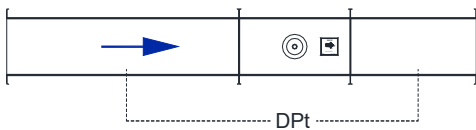
INSTALLATION

For good operation of SKC_R constant flow dampers, the installation must be carried out taking into account the minimum distances between the elements of the installation and the damper itself; failure to take these distances into account may lead to defective operation of the damper.

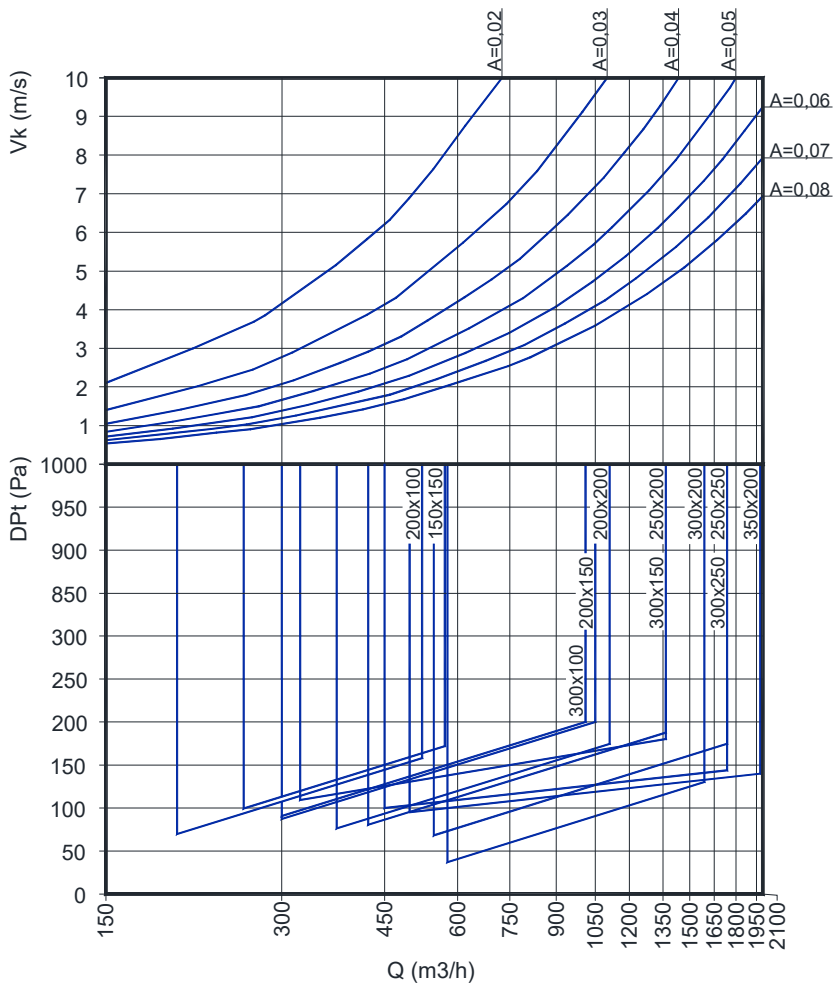
$$\varnothing_{eq} = \frac{2 \cdot H \cdot L}{H + L}$$

SKC-R	Øeq	SKC-R	Øeq
200x100	133	450x250	321
300x100	150	500x250	333
150x150	150	550x250	344
200x150	171	600x250	353
300x150	200	300x300	300
200x200	200	350x300	323
250x200	222	400x300	343
300x200	240	450x300	360
350x200	255	500x300	375
400x200	267	600x300	400
450x200	277	400x400	400
500x200	286	500x400	444
250x250	250	600x400	480
300x250	273	500x500	500
350x250	292	600x500	545
450x250	308	600x600	600

SKC SERIES



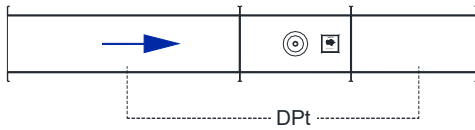
SKC-R	Q (m ³ /h)	dPmin (Pa)	A
200x100	Qmin 200	70 < P < 1000	0,020
	Qmax 525	158 < P < 1000	
300x100	Qmin 300	90 < P < 1000	0,030
	Qmax 1000	195 < P < 1000	
150x150	Qmin 260	95 < P < 1000	0,023
	Qmax 575	165 < P < 1000	
200x150	Qmin 300	84 < P < 1000	0,030
	Qmax 1050	185 < P < 1000	
300x150	Qmin 425	78 < P < 1000	0,045
	Qmax 1350	186 < P < 1000	
200x200	Qmin 375	75 < P < 1000	0,040
	Qmax 1100	175 < P < 1000	
250x200	Qmin 325	80 < P < 1000	0,050
	Qmax 1375	195 < P < 1000	
300x200	Qmin 580	37 < P < 1000	0,060
	Qmax 1600	110 < P < 1000	
350x200	Qmin 375	95 < P < 1000	0,070
	Qmax 2000	140 < P < 1000	
250x250	Qmin 450	100 < P < 1000	0,063
	Qmax 1750	120 < P < 1000	
300x250	Qmin 550	70 < P < 1000	0,075
	Qmax 1750	152 < P < 1000	



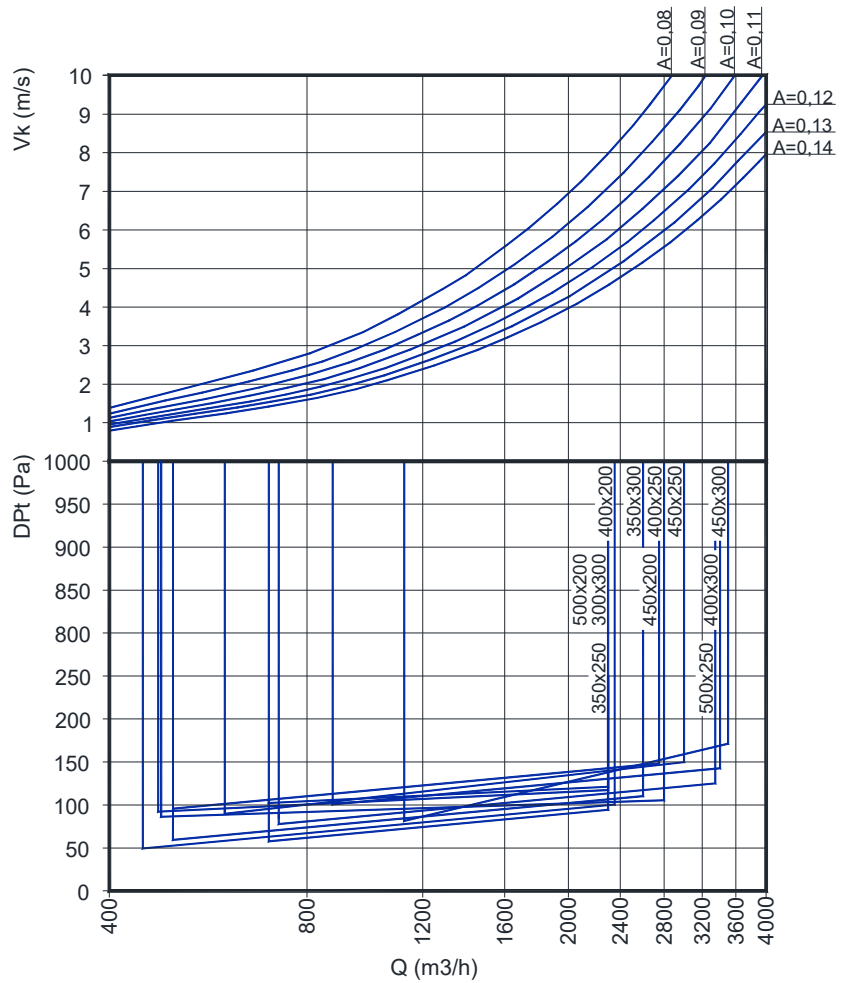
SKC-R	Q (m ³ /h)	L wa1(dB(A))			
		150 Pa	300 Pa	450 Pa	600 Pa
200x100	175	48,1	55,4	59,4	62,4
	300	50,6	57,6	61,4	64,2
	425	53,2	59,7	63,4	66,1
	550	55,8	61,9	65,4	67,9
300x100	275	48,6	55,9	59,9	62,8
	450	51,0	57,9	61,8	64,6
	625	53,4	60,0	63,7	66,3
	800	55,8	62,0	65,5	68,0
150x150	200	48,2	55,6	59,6	62,5
	350	51,0	57,9	61,7	64,5
	475	53,2	59,8	63,5	66,1
	600	55,5	61,7	65,3	67,8
200x150	275	48,6	55,9	59,9	62,8
	450	51,0	57,9	61,8	64,6
	625	53,4	60,0	63,7	66,3
	800	55,8	62,0	65,5	68,0
300x150	400	49,0	56,4	60,4	63,3
	675	51,5	58,5	62,3	65,1
	950	54,1	60,6	64,3	66,9
	1200	56,3	62,5	66,1	68,6
200x200	350	48,8	56,2	60,2	63,1
	600	51,4	58,3	62,2	64,9
	850	53,9	60,5	64,2	66,8
	1100	56,5	62,6	66,1	68,6

SKC-R	Q (m ³ /h)	L wa1(dB(A))			
		150 Pa	300 Pa	450 Pa	600 Pa
250x200	450	49,3	56,6	60,6	63,5
	750	51,7	58,7	62,5	65,3
	1050	54,2	60,7	64,4	67,1
	1350	56,7	62,8	66,4	68,8
300x200	550	49,7	57,0	61,0	63,9
	900	52,1	59,0	62,9	65,7
	1250	54,5	61,0	64,7	67,4
	1600	56,9	63,0	66,6	69,1
350x200	625	50,0	57,3	61,3	64,2
	1050	52,4	59,4	63,2	66,0
	1450	54,8	61,4	65,1	67,7
	1900	57,4	63,6	67,1	69,6
250x250	550	49,6	57,0	61,0	63,9
	950	52,3	59,2	63,0	65,8
	1300	54,6	61,1	64,8	67,5
	1700	57,2	63,3	66,9	69,4
300x250	675	50,2	57,5	61,5	64,4
	1150	52,8	59,7	63,5	66,3
	1550	55,0	61,5	65,2	67,9
	2025	57,6	63,7	67,3	69,7

SKC SERIES



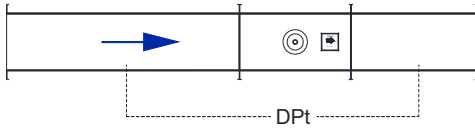
SKC-R	Q (m ³ /h)	dPmin (Pa)	A
400x200	Qmin 450	50 < P < 1000	0,080
	Qmax 2350	100 < P < 1000	
450x200	Qmin 500	95 < P < 1000	0,090
	Qmax 2750	148 < P < 1000	
500x200	Qmin 475	92 < P < 1000	0,100
	Qmax 2300	118 < P < 1000	
350x250	Qmin 700	102 < P < 1000	0,087
	Qmax 2300	120 < P < 1000	
400x250	Qmin 480	86 < P < 1000	0,100
	Qmax 2800	105 < P < 1000	
450x250	Qmin 600	90 < P < 1000	0,112
	Qmax 3000	150 < P < 1000	
500x250	Qmin 725	77 < P < 1000	0,125
	Qmax 3350	130 < P < 1000	
300x300	Qmin 700	58 < P < 1000	0,090
	Qmax 2300	97 < P < 1000	
350x300	Qmin 500	60 < P < 1000	0,105
	Qmax 2600	111 < P < 1000	
400x300	Qmin 875	100 < P < 1000	0,120
	Qmax 3400	143 < P < 1000	
450x300	Qmin 1125	80 < P < 1000	0,135
	Qmax 3500	170 < P < 1000	



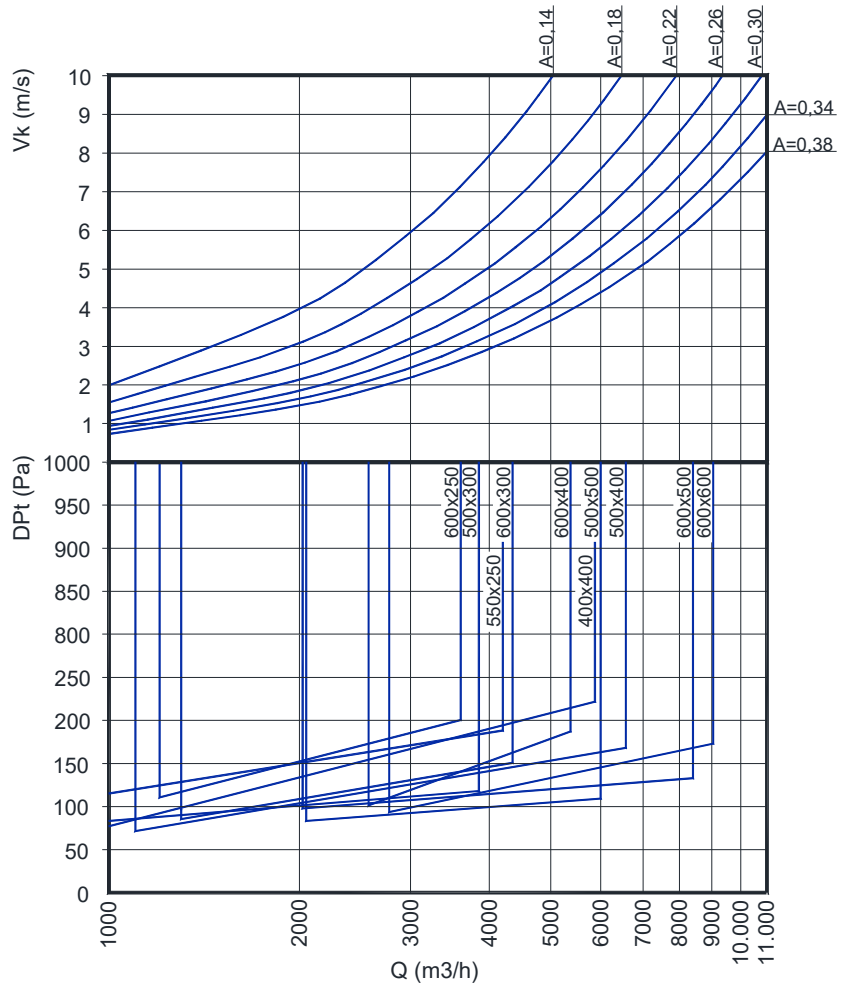
SKC-R	Q (m ³ /h)	L wa1 (dB(A))			
		150 Pa	300 Pa	450 Pa	600 Pa
400x200	725	50,4	57,7	61,7	64,6
	1200	52,8	59,8	63,6	66,4
	1675	55,2	61,8	65,5	68,1
	2150	57,7	63,8	67,4	69,9
450x200	800	50,7	58,0	62,0	64,9
	1350	53,2	60,1	64,0	66,7
	1900	55,7	62,2	65,9	68,5
	2450	58,2	64,3	67,9	70,4
500x200	900	51,1	58,4	62,4	65,3
	1500	53,5	60,5	64,3	67,1
	2100	56,0	62,5	66,2	68,9
	2700	58,5	64,6	68,2	70,7
350x250	800	50,7	58,0	62,0	64,9
	1325	53,1	60,1	63,9	66,7
	1825	55,5	62,0	65,7	68,4
	2350	57,9	64,1	67,7	70,2
400x250	900	51,1	58,4	62,4	65,3
	1500	53,5	60,5	64,3	67,1
	2100	56,0	62,5	66,2	68,9
	2700	58,5	64,6	68,2	70,7
450x250	1000	51,5	58,8	62,8	65,7
	1700	54,0	61,0	64,8	67,6
	2350	56,4	63,0	66,7	69,3
	3050	59,0	65,1	68,6	71,1

SKC-R	Q (m ³ /h)	L wa1 (dB(A))			
		150 Pa	300 Pa	450 Pa	600 Pa
500x250	1125	52,0	59,3	63,3	66,2
	2275	54,5	61,4	65,3	68,1
	3125	56,8	63,4	67,1	69,7
	4050	59,4	65,5	69,1	71,6
300x300	800	50,7	58,0	62,0	64,9
	1350	53,2	60,1	64,0	66,7
	1900	55,7	62,2	65,9	68,5
	2450	58,2	64,3	67,9	70,4
350x300	950	51,3	58,6	62,6	65,5
	1550	53,6	60,6	64,4	67,2
	2200	56,2	62,7	66,4	69,0
	2850	58,7	64,8	68,4	70,9
400x300	1075	51,8	59,1	63,1	66,0
	1825	54,3	61,3	65,1	67,9
	2500	56,6	63,2	66,9	69,5
	3250	59,2	65,4	68,9	71,4
450x300	1200	52,3	59,6	63,6	66,6
	2050	54,9	61,8	65,6	68,4
	2800	57,1	63,7	67,4	70,1
	3650	59,7	65,9	69,4	71,9

SKC SERIES



SKC-R	Q (m ³ /h)	dPmin (Pa)	A
550x250	Qmin 750	100 < P < 1000	0,137
	Qmax 4200	191 < P < 1000	
600x250	Qmin 1200	111 < P < 1000	0,150
	Qmax 3600	200 < P < 1000	
500x300	Qmin 850	90 < P < 1000	0,150
	Qmax 3850	113 < P < 1000	
600x300	Qmin 1300	85 < P < 1000	0,180
	Qmax 4350	151 < P < 1000	
400x400	Qmin 850	75 < P < 1000	0,160
	Qmax 5875	222 < P < 1000	
500x400	Qmin 1100	72 < P < 1000	0,200
	Qmax 6575	168 < P < 1000	
600x400	Qmin 2575	102 < P < 1000	0,240
	Qmax 5375	187 < P < 1000	
500x500	Qmin 2050	87 < P < 1000	0,250
	Qmax 6000	109 < P < 1000	
600x500	Qmin 2025	98 < P < 1000	0,300
	Qmax 8400	133 < P < 1000	
600x600	Qmin 2775	94 < P < 1000	0,360
	Qmax 9050	173 < P < 1000	



SKC-R	Q (m ³ /h)	L wa1 (dB(A))			
		150 Pa	300 Pa	450 Pa	600 Pa
550x250	1250	52,5	59,8	63,8	66,7
	2075	54,9	61,9	65,7	68,5
	2875	57,3	63,9	67,6	70,2
	3700	59,8	65,9	69,5	72,0
600x250	1350	52,9	60,2	64,2	67,1
	2250	55,3	62,3	66,1	68,9
	3250	58,1	64,6	68,3	70,9
	4050	60,3	66,4	70,0	72,5
500x300	1350	52,9	60,2	64,2	67,1
	2275	55,4	62,3	66,2	69,0
	3125	57,7	64,3	68,0	70,6
	4050	60,3	66,4	70,0	72,5
600x300	1625	54,0	61,3	65,3	68,2
	2725	56,5	63,4	67,3	70,0
	3750	58,8	65,4	69,1	71,7
	4850	61,3	67,5	71,0	73,5
400x400	1450	53,3	60,6	64,6	67,5
	2425	55,8	62,7	66,5	69,3
	3350	58,1	64,7	68,4	71,0
	4325	60,6	66,8	70,3	72,8

SKC-R	Q (m ³ /h)	L wa1 (dB(A))			
		150 Pa	300 Pa	450 Pa	600 Pa
500x400	1800	54,7	62,0	66,0	68,9
	3025	57,2	64,1	68,0	70,7
	4175	59,6	66,1	69,8	72,4
	5400	62,1	68,2	71,8	74,3
600x400	2150	56,1	63,4	67,4	70,4
	3625	58,6	65,6	69,4	72,2
	5000	61,0	67,5	71,2	73,9
	6500	63,5	69,7	73,2	75,7
500x500	2250	56,5	63,8	67,8	70,7
	3775	59,0	65,9	69,8	72,5
	5225	61,4	67,9	71,6	74,3
	6750	63,9	70,0	73,6	76,1
600x500	2700	58,3	65,6	69,6	72,5
	4500	60,7	67,7	71,5	74,3
	6250	63,1	69,7	73,4	76,0
	8100	65,7	71,8	75,4	77,9
600x600	3250	58,8	66,1	70,1	73,0
	5450	61,3	68,2	72,1	74,8
	7500	63,6	70,2	73,9	76,5
	9700	66,1	72,3	75,8	78,3