

Actuator for dampers

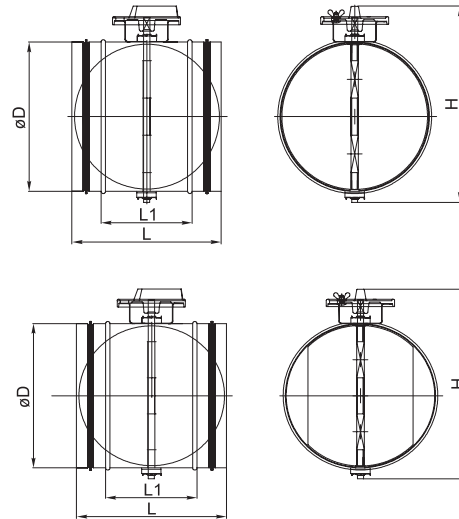


Title	Article No.
CM230-1-F-L	ZAKP0027
LF 230	ZAKP0039
TF 230	ZAKP0063
LM230A-TP	ZAKP0045
LM24A-TP	ZAKP0049
LM230A-SR-TP	ZAKP0043
NM24A-TP	ZAKP0058
NM230A-TP	ZAKP0055
NM24A-SR-TP	ZAKP0057
NFA	ZAKP0051
NF24A	ZAKP0053
SF24A	ZAKP0072
SF230A	ZAKP0059
SF24A-SR	ZAKP0060
SM230A-TP	ZAKP0062
SM24A-TP	ZAKP0067
SM24A-SR-TP	ZAKP0068

Actuators for air dampers control in ventilation and air-conditioning systems.

Type	Area, m ²	Torque power, Nm	Power supply, VAC	Control signals
Actuator LM230A-TP	1	5	AC 100 ... 240 V, 50/60 Hz	2 point (ON/OFF)
Actuator LM24A-TP	1	5	AC 24 V, 50/60 HZ / DC 24 V	2/3 point
Actuator LM24A-SR-TP	1	5	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC
Actuator NM24A-TP	2	10	AC 24 V, 50/60 HZ / DC 24 V	2/3 point
Actuator NM230A-TP	2	10	AC 100 ... 240 V, 50/60 Hz	2 point (ON/OFF)
Actuator NM24A-SR-TP	1	10	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC
Actuator NFA	2	10	AC 100 ... 240 V, 50/60 Hz	2 point (ON/OFF) Spring return
Actuator NF24A	2	10	AC 24 V, 50/60 HZ / DC 24 V	2 point (ON/OFF)
Actuator SF24A	4	20	AC 24 V, 50/60 HZ / DC 24 V	2 point (ON/OFF) Spring return
Actuator SF230A	4	20	AC 230 V, 50/60 Hz	2 point (ON/OFF) Spring return
Actuator SF24A-SR	4	20	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC Spring return
Actuator SM230A-TP	4	20	AC 100 ... 240 V, 50/60 Hz	2/3 point (ON/OFF)
Actuator SM24A-TP	4	20	AC 24 V, 50/60 HZ / DC 24 V	2/3 point
Actuator SM24A-SR-TP	4	20	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC
Actuator CM230-1-F-L	0,4	2	AC 100 ... 240 V, 50/60 Hz	3 point (ON/OFF)
Actuator LF230	0,8	4	AC 230 V, 50/60 Hz	2/3 point Spring return
Actuator TF230	0,5	2,5	AC 230 V, 50/60 Hz	On/OFF

Shut-off dampers



Title	Article No.
SK 100	GSKSK001
SK 125	GSKSK002
SK 160	GSKSK003
SK 200	GSKSK004
SK 250	GSKSK005
SK 315	GSKSK006
SK 355	GSKSK011
SK 400	GSKSK007
SK 450	GSKSK008
SK 500	GSKSK009
SK 630	GSKSK010

Title	Article No.
SKR 100	GSKSKR001
SKR 125	GSKSKR002
SKR 160	GSKSKR003
SKR 200	GSKSKR004
SKR 250	GSKSKR005
SKR 315	GSKSKR006
SKR 355	GSKSKR011
SKR 400	GSKSKR007
SKR 450	GSKSKR008
SKR 500	GSKSKR009
SKR 630	GSKSKR010

Shut-off dampers SK/ SKR are used for shutting off and controlling airflow. They are easily installed in a circular air duct system. Can be mounted in any position. The casing is made of galvanized steel.

Have a rotating, cut-off blade. The blade can be continually adjusted in a 0-90° angle by the handle (a handle is attached using one screw) on the top of damper.

The blade angle of SK/ SKR damper can be read from an embossed scale on the edge of the plate.

Dimensions				
Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SK 100	100	100	200	165
SK 125	125	100	200	190
SK 160	160	100	200	225
SK 200	200	100	200	265
SK 250	250	100	200	315
SK 315	315	140	240	380
SK 355	355	140	240	420
SK 400	400	140	240	470
SK 450	450	140	240	515
SK 500	500	140	240	565
SK 630	630	140	240	695

Dimensions				
Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SKR 100	100	100	200	165
SKR 125	125	100	200	190
SKR 160	160	100	200	225
SKR 200	200	100	200	265
SKR 250	250	100	200	315
SKR 315	315	140	240	380
SKR 355	355	140	240	420
SKR 400	400	140	240	470
SKR 450	450	140	240	515
SKR 500	500	140	240	565
SKR 630	630	140	240	695

SKG / SKG-A / SKM

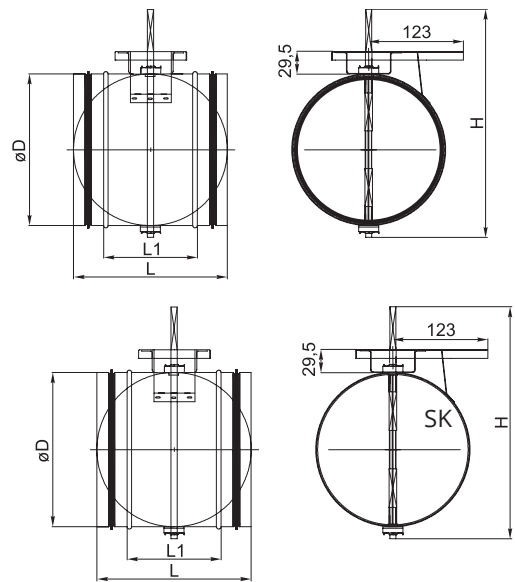
Shut-off dampers



SKG/SKG-A



SKM



Title	Article No.
SKG 450	GSKSKG009
SKG 500	GSKSKG010
SKG 630	GSKSKG011
SKG-A 100	GSKSKG027
SKG-A 125	GSKSKG028
SKG-A 150	GSKSKG029
SKG-A 160	GSKSKG030
SKG-A 180	GSKSKG031
SKG-A 200	GSKSKG032
SKG-A 250	GSKSKG033
SKG-A 300	GSKSKG034
SKG-A 315	GSKSKG035
SKG-A 355	GSKSKG036
SKG-A 400	GSKSKG037

Title	Article No.
SKM 100	GSKSKM001
SKM 125	GSKSKM002
SKM 160	GSKSKM003
SKM 200	GSKSKM004
SKM 250	GSKSKM005
SKM 315	GSKSKM006
SKM 355	GSKSKM022
SKM 400	GSKSKM007
SKM 450	GSKSKM008
SKM 500	GSKSKM009
SKM 630	GSKSKM010

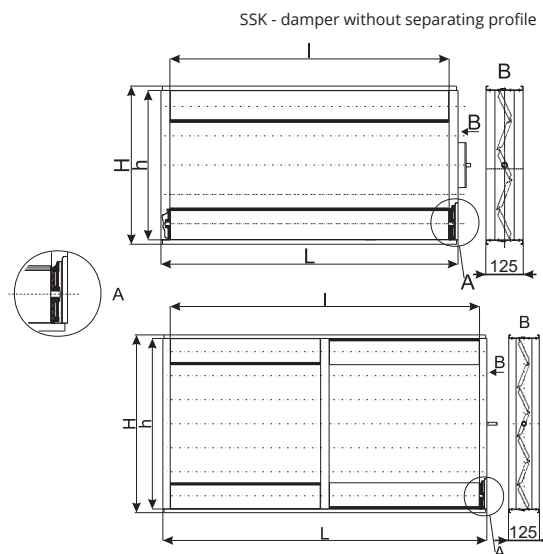
Shut-off dampers SKG/SKG-A/SKM are used for shutting off and controlling airflow. They are easily installed in a circular air duct system. Can be mounted in any position. The casing is made of galvanized steel. Have a rotating, cut-off blade. The blade can be continually adjusted in a 0-90° angle by a motor on the top of damper. The blade of SKG/SKG-A dampers has rubber seal that tightens the inside of the damper when it's in closed position. SKG/SKG-A/SKM shut-off damper is controlled by a motor which is supplied separately.

Dimensions

Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SKG 450	449	140	240	580
SKG 500	499	140	240	630
SKG 630	629	140	240	760
SKG-A 100	99	100	200	230
SKG-A 125	124	100	200	255
SKG-A 150	159	115	185	280
SKG-A 160	159	100	200	290
SKG-A 180	159	100	200	290
SKG-A 200	199	100	200	330
SKG-A 250	500	140	240	565
SKG-A 300	630	140	240	695
SKG-A 315	249	100	200	380
SKG-A 355	354	140	240	485
SKG-A 400	399	140	240	535

Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SKM 100	99	100	200	230
SKM 125	125	100	200	255
SKM 160	160	100	200	290
SKM 200	200	100	200	330
SKM 250	250	100	200	380
SKM 315	315	140	240	445
SKM 355	355	140	240	485
SKM 400	400	140	240	535
SKM 450	450	140	240	580
SKM 500	500	140	240	630
SKM 630	630	140	240	760

Dampers for rectangular ducts



SSK dampers are used for closing airflow. The dampers are made of aluminium profile with sealing rubber gaskets. Palm driving gear is made of glass-fibre material. Silicon sealing strip provides proper tightness. Dampers are suitable to be used in the temperature ranges from -40° to +80°C. The flange system of these dampers is the same as in the rectangular air ducts and fans, therefore mounting operations are simple.

Dimensions

Size range of manufactured SSK dampers varies from 100mm (H_{min} -100mm, L_{min} -100mm) to 3000mm (H_{max} -3000mm, L_{max} -3000mm).

If dimension L bigger than 1000mm, dampers SSK are produced with separating plate.

Calculation of required size:

$$H = H_n + 40$$

$$L = L_n + 40$$

$$h = H - 30$$

$$l = L - 60$$

H - height of damper

L - width of damper

h - inner height of damper

l - inner width of damper

H_n - nominal height of damper

L_n - nominal width of damper

Example:

SSK 2000-1000

$L_n = 2000$ mm

$H_n = 1000$ mm

$L = 2000 + 40 = 2040$ mm

$H = 1000 + 40 = 1040$ mm

$l = 2040 - 60 = 1980$ mm

$h = 1040 - 30 = 1010$ mm

Specification

SSK L-H

Damper for rectangular ducts

SSK

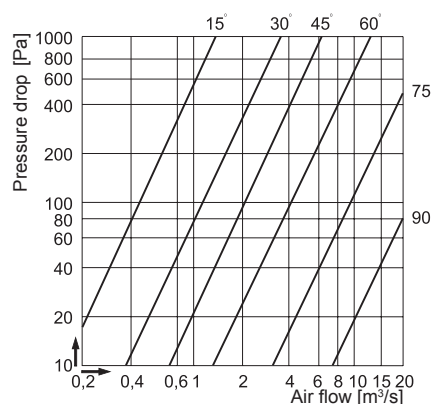
Width [mm]

L_n

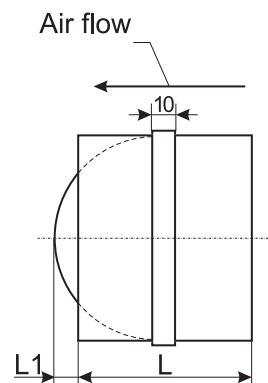
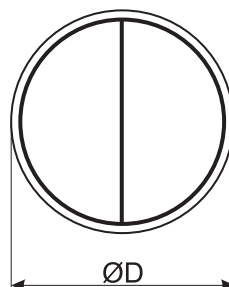
Height [mm]

H_n

Pressure drop



Back draft shutter



Title	Article No.
RSK 100	GSKRSK001
RSK 125	GSKRSK002
RSK 150	GSKRSK008
RSK 160	GSKRSK003
RSK 200	GSKRSK004
RSK 250	GSKRSK005
RSK 315	GSKRSK006
RSK 355	GSKRSK009
RSK 400	GSKRSK007
RSK 450	GSKRSK011
RSK 500	GSKRSK012

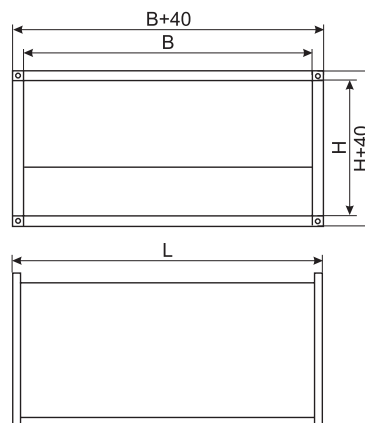
Back draft dampers RSK are used in circular ducting. They allow circulation of air in one direction only. They are mounted into a system of round air ducts.

The damper casing is made of galvanized steel. Blades are made of aluminium, they are spring-loaded. Shutter RSK has to be installed as it is shown in the picture: shaft stands vertically rubber ring is fitted inside.

Dimensions

Type	ØD, [mm]	L, [mm]	L1, [mm]	Weight
RSK 100	100	88	26	0,13 kg
RSK 125	125	88	19	0,17 kg
RSK 150	150	88	31	0,22 kg
RSK 160	160	88	36	0,24 kg
RSK 200	200	88	56	0,29 kg
RSK 250	250	128	61	0,68 kg
RSK 315	315	128	94	0,81 kg
RSK 400	400	198	94	1,68 kg

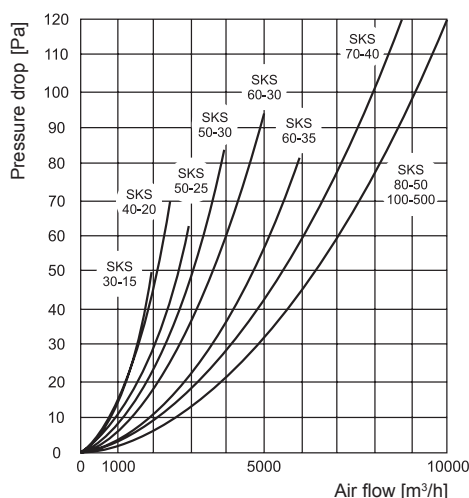
Rectangular duct silencer



Title	Article No.
SKS 30-15	GSOSKS001
SKS 40-20	GSOSKS002
SKS 50-25	GSOSKS003
SKS 50-30	GSOSKS004
SKS 60-30	GSOSKS005
SKS 60-35	GSOSKS006
SKS 70-40	GSOSKS007
SKS 80-50	GSOSKS008
SKS 100-50	GSOSKS009

Rectangular duct silencers SKS are designed for rectangular duct fans VKS/VKSA and can be mounted into a system of rectangular air ducts. SKS silencers have good sound attenuation characteristics. Several silencers can be mounted into a rectangular air duct system if there is requirement for bigger noise reduction. The casing is made of galvanized steel and inner casing is made of perforated sheet steel. Mineral wool is used for sound insulation.

Pressure drop

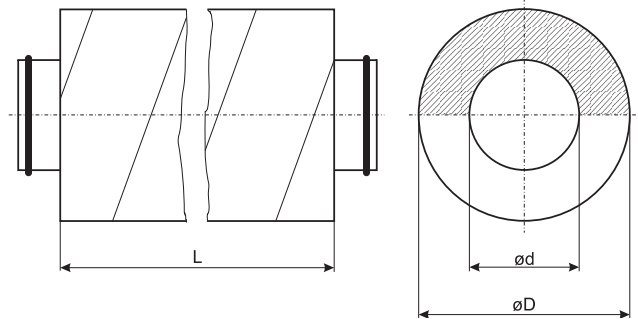


Dimensions				
Type	B, [mm]	H, [mm]	L, [mm]	Weight, [kg]
SKS 30-15	300	150	950	10,0
SKS 40-20	400	200	950	13,0
SKS 50-25	500	250	950	17,0
SKS 50-30	500	300	950	19,0
SKS 60-30	600	300	950	21,0
SKS 60-35	600	350	950	23,0
SKS 70-40	700	400	950	27,0
SKS 80-50	800	500	950	29,0
SKS 100-50	1000	500	950	32,0

Attenuation values in frequency bands [dB]							
Type	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SKS 30-15	7	15	18	25	25	19	19
SKS 40-20	5	9	15	23	16	12	10
SKS 50-25	10	15	25	25	20	15	12
SKS 50-30	8	15	20	31	17	14	11
SKS 60-30	8	15	20	31	17	14	11
SKS 60-35	7	13	17	18	13	10	8
SKS 70-40	7	11	14	14	10	8	6
SKS 80-50	6	10	15	12	10	8	7
SKS 100-500	6	9	15	13	11	8	6

AKS / SAKS

Circular duct silencers



Round duct silencers AKS/SAKS can be mounted into a system of round air ducts. These silencers have good sound attenuation characteristics. Several silencers can be mounted into a circular air duct system if there is requirement for bigger noise reduction. The housing is made of external SPIRO System duct and inner casing is made of perforated sheet steel. Mineral wool is used for sound insulation. The insulating part in SAKS silencers is thicker than in AKS silencers.

ACCESSORIES

Dimensions			
Type	L, [mm]	ød, [mm]	øD, [mm]
AKS 100	300; 600; 900	100	200
AKS 125	300; 600; 900; 1000; 1200	125	200
AKS 160	600; 900; 1000; 1200	160	250
AKS 200	600; 900; 1000; 1200	200	315
AKS 250	600; 900; 1000; 1200	250	400
AKS 315	600; 900; 1000; 1200	315	500
AKS 400	900; 1000; 1200	400	630
AKS 500	900; 1000; 1200	500	630
AKS 630	900; 1000; 1200	630	800
AKS 800	900; 1000; 1200	800	1000
SAKS 100	300; 600; 900; 1000; 1200	100	315
SAKS 125	300; 600; 900; 1000; 1200	125	315
SAKS 160	300; 600; 900; 1000; 1200	160	400
SAKS 200	300; 600; 900; 1000; 1200	200	400
SAKS 250	300; 600; 900; 1000; 1200	250	500
SAKS 500	900; 1000; 1200	500	800

Weight					
Type	Weight [kg]				
	300 mm	600 mm	900 mm	1000 mm	1200 mm
AKS 100	3,0	4,1	4,7	-	-
AKS 125	3,2	4,5	5,0	5,2	7,7
AKS 160	-	5,8	6,4	7,0	10,0
AKS 200	-	7,0	10,0	11,5	12,0
AKS 250	-	10,3	13,0	14,1	15,0
AKS 315	-	13,10	17,2	21,0	24,0
AKS 400	-	-	22,8	23,0	32,0
AKS 500	-	-	25,64	28,0	29,0
AKS 630	-	-	31,6	33,4	35,0
AKS 800	-	-	41,00	46,1	58,5
SAKS 100	2,1	4,2	6,3	7,0	8,4
SAKS 125	2,2	4,4	6,6	7,3	8,8
SAKS 160	3,3	5,6	9,2	10,2	12,2
SAKS 200	3,6	6,8	10,0	11,0	13,2
SAKS 250	4,1	8,2	12,4	13,8	16,6
SAKS 500	-	-	23,6	26,2	31,4

Attenuation values in frequency bands [dB]							
Type	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
AKS 100/6	8	14	26	34	41	45	25
AKS 100/9	8	15	27	36	42	47	24
AKS 125/6	6	12	22	28	37	38	22
AKS 125/9	9	18	30	40	48	43	24
AKS 160/6	5	10	18	23	33	30	19
AKS 160/9	8	16	27	36	47	37	21
AKS 200/6	4	9	17	22	29	25	18
AKS 200/9	7	13	24	31	44	31	20
AKS 250/6	6	11	21	27	39	25	19
AKS 250/9	8	15	29	34	47	33	17
AKS 315/6	5	9	18	23	32	20	18
AKS 315/9	6	12	22	24	36	26	19
AKS 400/9	5	8	11	23	19	17	15
AKS 500/9	6	8	12	23	18	19	15
AKS 630/9	6	8	10	22	17	15	14
AKS 800/9	4	6	7	16	12	10	11

WSG

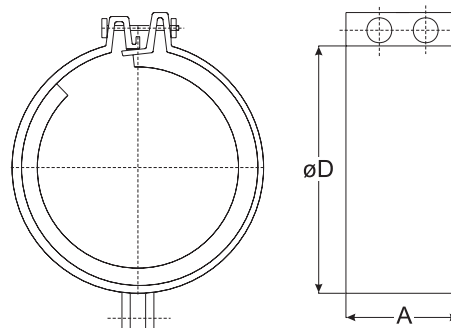
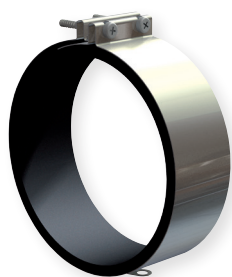
Grilles



Title	Article No.
WSG 150	GGRWSG0126_508
WSG 160	GGRWSG0126_509
WSG 200	GGRWSG0126_510

Grilles WSG are used for air supply and extraction of air handling units. Made of steel with powder coating.

Mounting clamps for circular ducts

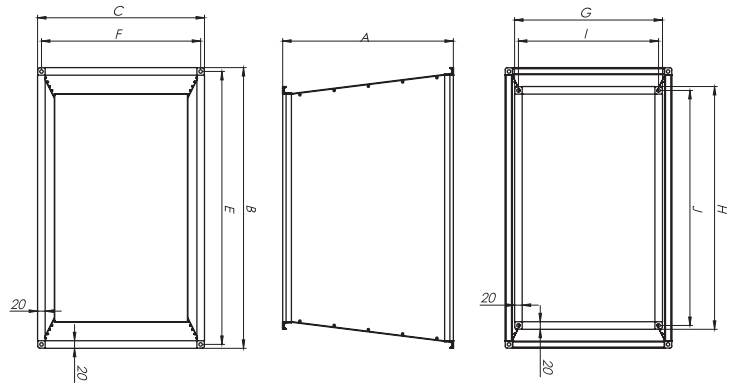
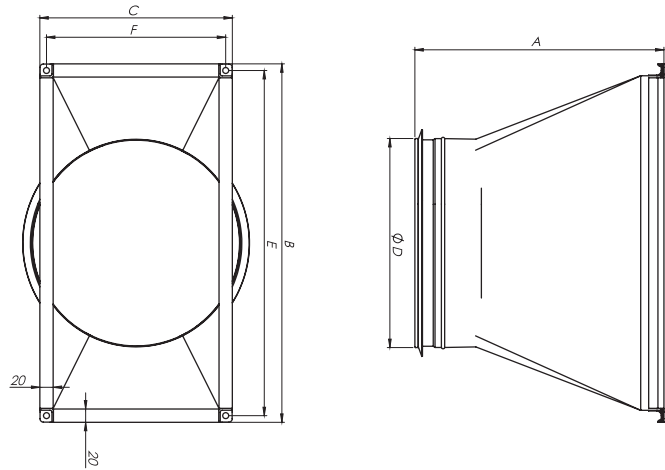


Title	Article No.
AP 100	GAPAP001
AP 125	GAPAP002
AP 150	GAPAP003
AP 160	GAPAP004
AP 200	GAPAP005
AP 250	GAPAP006
AP 315	GAPAP007
AP 355	GAPAP008
AP 400	GAPAP009
AP 450	GAPAP010
AP 500	GAPAP011
AP 560	GAPAP015
AP 630	GAPAP012
AP 710	GAPAP016
AP 800	GAPAP013

Clamps AP are used for the mounting of various elements of ventilation and air conditioning systems. They minimize vibrations and ensure tight fit of various parts of a system. Made of galvanized steel.

Dimensions			
Type	øD, [mm]	A, [mm]	Weight, [kg]
AP 100	100	60	0,12
AP 125	125	60	0,15
AP 150	150	60	0,18
AP 160	160	60	0,20
AP 200	200	60	0,22
AP 250	250	60	0,25
AP 315	315	60	0,28
AP 355	355	60	0,30
AP 400	400	60	0,32
AP 450	450	60	0,35
AP 500	500	60	0,37
AP 560	560	60	0,4
AP 630	630	60	0,44
AP 710	710	60	0,48
AP 800	800	60	0,52

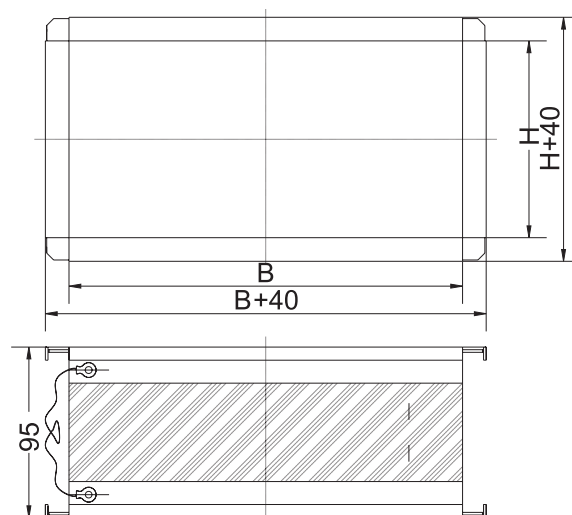
Flange adapter



Flange adapters are used to connect AHU with standard ventilation ducts. Adapters are made of galvanized steel.

Dimensions [mm]	A	B	C	ϕD	E	F	G	H	I	J
STP-C 400x200-250	305	440	240	250	420	220	-	-	-	-
STP-C 500x250-315	375	540	290	315	520	270	-	-	-	-
STP-C 700x300-400	445	740	340	400	720	320	-	-	-	-
STP-C 700x400-500	475	740	440	500	720	420	-	-	-	-
STP-C 800x500-500	555	840	540	500	820	520	-	-	-	-
STP 700x400-600x350	450	740	440	-	720	420	390	640	370	620
STP 700x400-700x300	300	740	440	-	720	420	340	740	320	720
STP 800x500-700x400	450	840	540	-	820	520	440	740	420	720
STP 900x300-800x500	450	940	340	-	920	320	540	840	520	820

Flexible connection



Title	Article No.
LJ/PG 30-15	GLJLJ/PG001
LJ/PG 40-20	GLJLJ/PG002
LJ/PG 50-25	GLJLJ/PG004
LJ/PG 50-30	GLJLJ/PG005
LJ/PG 60-30	GLJLJ/PG007
LJ/PG 60-35	GLJLJ/PG008
LJ/PG-70-40	GLJLJ/PG009
LJ/PG 80-50	GLJLJ/PG010
LJ/PG 100-50	GLJLJ/PG011

Flexible connection LJ/PG is made from galvanised steel sheet and neoprene fabric.

Dimensions

Type	B, [mm]	H, [mm]	Weight, [kg]
LJ/PG 30x15	300	150	0,3
LJ/PG 40x20	400	200	0,4
LJ/PG 50x25	500	250	0,5
LJ/PG 50x30	500	300	0,7
LJ/PG 60x30	600	300	1,0
LJ/PG 60x35	600	350	1,2
LJ/PG 70x40	700	400	1,4
LJ/PG 80x50	800	500	1,7
LJ/PG 100x50	1000	500	2,0