



**DIRECT
VENT**

Product Catalogue

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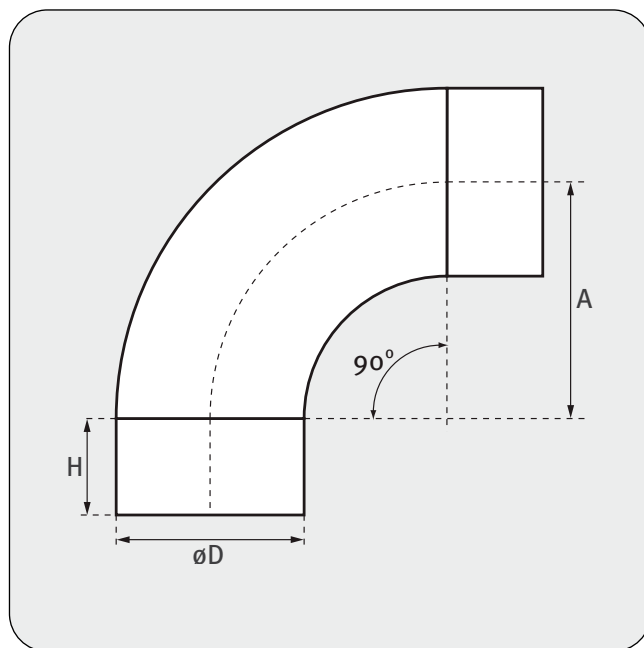
90° PRESSED BEND

B / BL



Version with gasket

BL



MATERIAL

- galvanized steel
- EPDM rubber gasket (BL)

PRODUCT CHARACTERISTICS

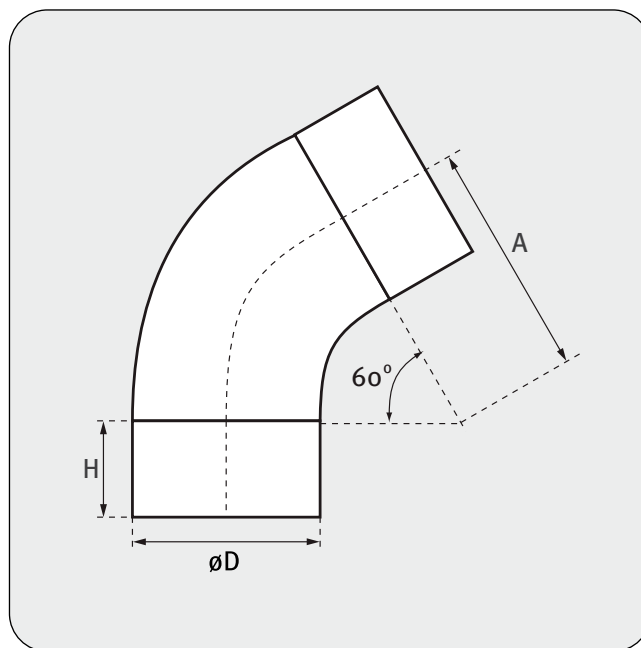
- pressed
- stitch welded
- returned edges
- gasket (BL) is positioned by returned edges

øD (mm)	A (mm)	H (mm)		Box quantity		Packaging
		B	BL	B	BL	
80	72	38*	38*	60	60	P4
100	90	38*	38*	110	110	P2
125	112	38*	38*	60	60	P2
150	135	38*	38*	75	75	P1
160	144	38*	38*	60	60	P1
180	160	38*	38*	45	45	P1
200	180	38*	38*	33	33	P1
250	225	50	40	18	18	P1

* Tolerance +0/-5 mm

**60° PRESSED BEND****B / BL**

Version with gasket

BL**MATERIAL**

- galvanized steel
- EPDM rubber gasket (BL)

PRODUCT CHARACTERISTICS

- pressed
- stitch welded
- returned edges
- gasket (BL) is positioned by returned edges

ØD (mm)	A (mm)	H (mm)	Box quantity	Packaging
80	72	38*	75	P6
100	90	38*	40	P6
125	112	38*	22	P6
150	135	38*	20	P4
160	144	38*	20	P4
180	160	38*	16	P4
200	180	38*	12	P4



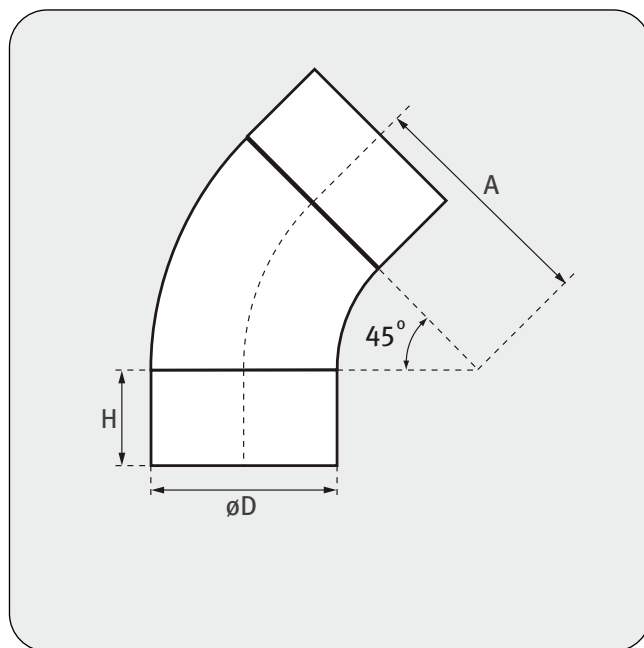
45° PRESSED BEND

B / BL



Version with gasket

BL



MATERIAL

- galvanized steel
- EPDM rubber gasket (BL)

PRODUCT CHARACTERISTICS

- pressed
- stitch welded
- returned edges
- gasket (BL) is positioned by returned edges

øD (mm)	A (mm)	H (mm)		Box quantity	Packaging
		B	BL		
80	72	38*	38*	50	P12
100	90	38*	38*	90	P4
125	112	38*	38*	100	P2
150	135	38*	38*	60	P1
160	144	38*	38*	110	P1
180	160	38*	38*	80	P1
200	180	38*	38*	55	P1
250	225	50	40	30	P1

* Tolerance +0/-5 mm



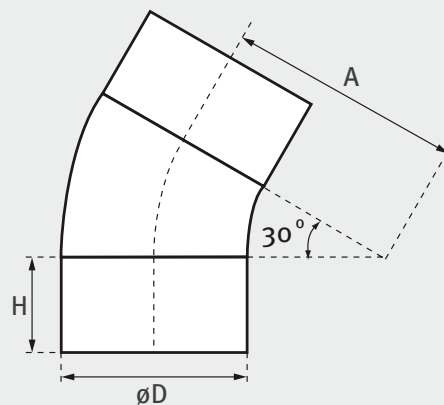
30° PRESSED BEND

B / BL



Version with gasket

BL



MATERIAL

- galvanized steel
- EPDM rubber gasket (BL)

PRODUCT CHARACTERISTICS

- pressed
- stitch welded
- returned edges
- gasket (BL) is positioned by returned edges

ØD (mm)	A (mm)	H (mm)	Box quantity	Packaging
80	72	38*	55	P12
100	90	38*	75	P6
125	112	38*	40	P6
150	135	38*	25	P6
160	144	38*	20	P6
180	160	38*	16	P6
200	180	38*	18	P4



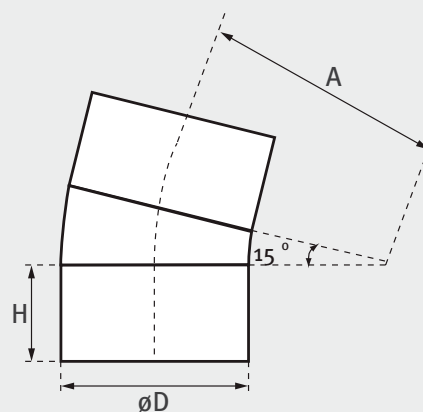
15° PRESSED BEND

B / BL



Version with gasket

BL



MATERIAL

- galvanized steel
- EPDM rubber gasket (BL)

PRODUCT CHARACTERISTICS

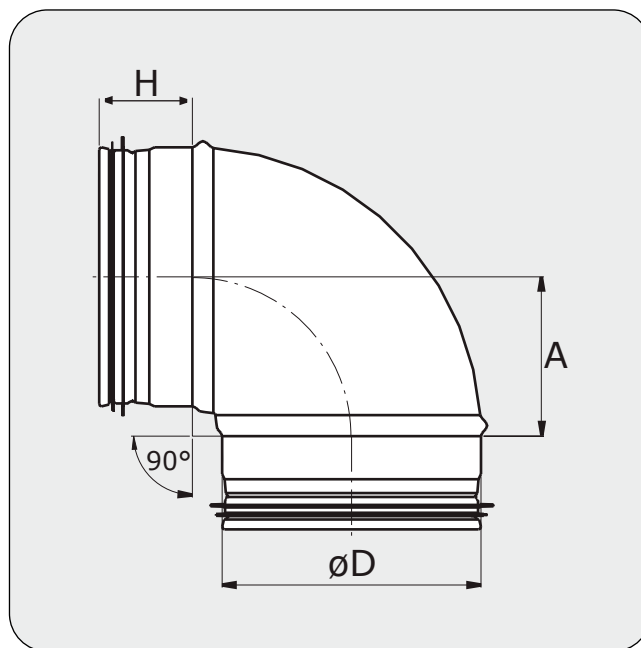
- pressed
- stitch welded
- returned edges
- gasket (BL) is positioned by returned edges

ØD (mm)	A (mm)	H (mm)	Box quantity	Packaging
80	72	38*	70	P12
100	90	38*	50	P12
125	112	38*	28	P12
150	135	38*	16	P12
160	144	38*	15	P12
180	160	38*	25	P6
200	180	38*	16	P6



90° SHORT PRESSED BEND

BKL 90



MATERIAL

- galvanized steel
- EPDM rubber gasket

PRODUCT CHARACTERISTICS

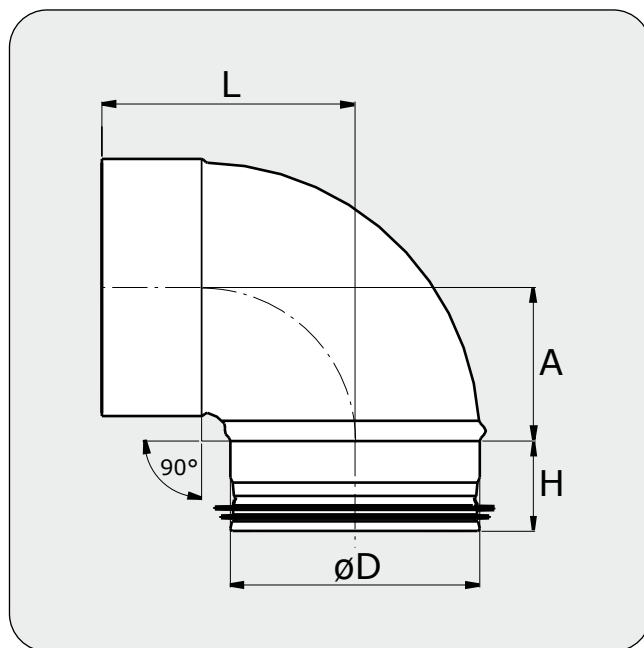
- pressed
- stitch welded
- short installation length
- gasket is positioned by returned edges

ØD (mm)	L (mm)	A (mm)	H (mm)	Box quantity	Packaging
100	105	62	38	50	P6
125	120	79	38	30	P6
160	136	94	38	15	P6



90° SHORT PRESSED BEND

BKML 90



MATERIAL

- galvanized steel
- EPDM rubber gasket

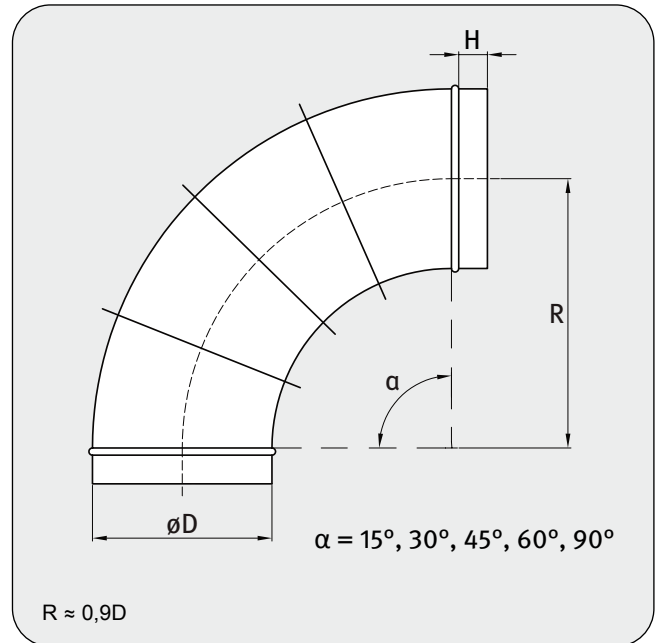
PRODUCT CHARACTERISTICS

- pressed
- stitch welded
- short installation length
- one female end
- gasket is positioned by returned edges

ØD (mm)	L (mm)	A (mm)	H (mm)	Box quantity	Packaging
100	105	62	38	50	P6
125	120	79	38	25	P6
160	136	94	38	15	P6


SEGMENTED BEND 90° 60° 45° 30° 15°
BFE / BFL


Version with gasket

BFL

MATERIAL

- galvanized steel
- EPDM rubber gasket (BFL)

PRODUCT CHARACTERISTICS

- segments connected with lock
- stitch welded
- gasket (BFL) is positioned by returned edges

ØD (mm)	H (mm)
224	40
250	40
280	40
300	40
315	40
355	40
400	50
450	50
500	50
560	60
600	60
630	60
710	60
800	65
900	65
1000	75
1250	75

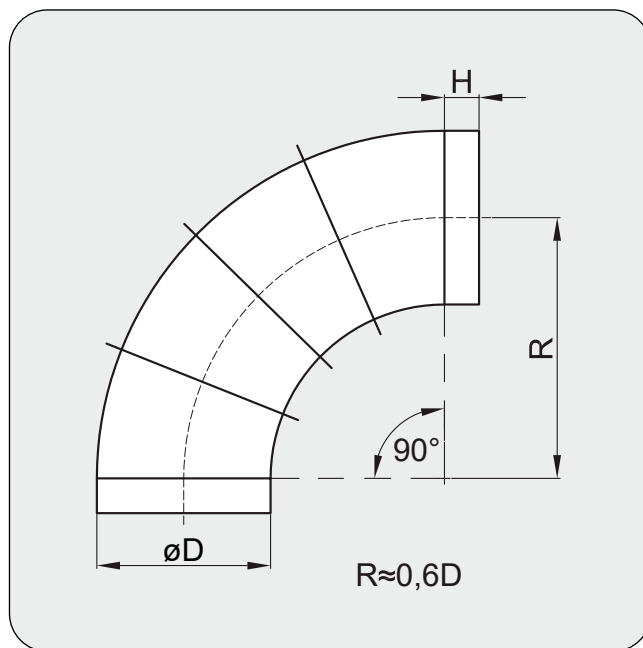
ØD (mm)	90°		45°		30°		15°	
	Box	Pallet	Box	Pallet	Box	Pallet	Box	Pallet
224	21/P1	Z	36/P1	Z	12/P4	Z	Z	Z
250	16/P1	54/60	30/P1	96/108	40/P1	Z	27/P1	Z
280	Z	30/40	24/P1	80	Z	30	Z	Z
300	8/P1	28/32	14/P1	48/54	25/P1	Z	Z	Z
315	8/P1	28/32	16/P1	48/54	21/P1	Z	30/P1	Z
355	–	21	Z	42	20/P1	Z	Z	Z
400	–	12	Z	30	Z	30	18/P1	Z

Z - information upon request



90° SHORT SEGMENTED BEND

BFKL 90



MATERIAL

- galvanized steel
- EPDM rubber gasket

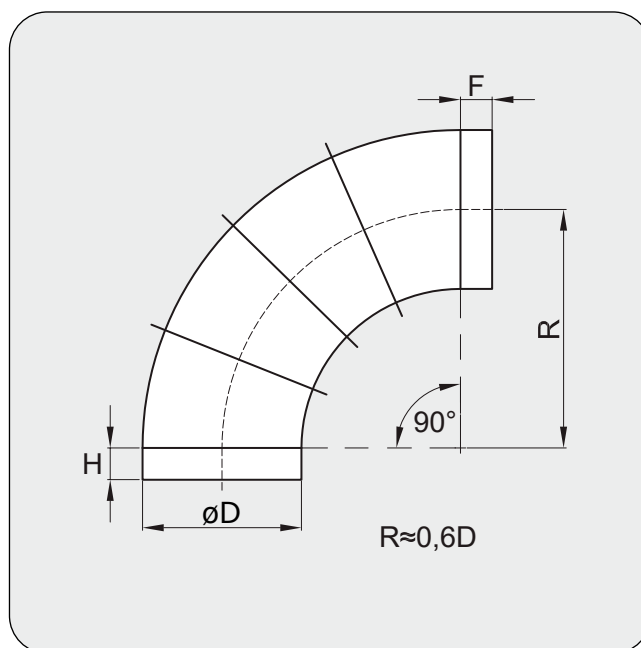
PRODUCT CHARACTERISTICS

- segments connected with lock
- stitch welded
- short installation length
- gasket is positioned by returned edges

øD (mm)	H (mm)
224	40
250	40
280	40
300	40
315	40
355	40
400	50
450	50
500	50
560	60
630	60
710	60
800	65
900	65
1000	75



90° SHORT SEGMENTED BEND

BFKML 90


MATERIAL

- galvanized steel
- EPDM rubber gasket

PRODUCT CHARACTERISTICS

- segments connected with lock
- stitch welded
- short installation length
- one female end
- gasket is positioned by returned edges

øD (mm)	H (mm)	F (mm)
224	40	40
250	40	40
280	40	40
300	40	40
315	40	40
355	40	40
400	50	50
450	50	50
500	50	50
560	60	60
630	60	60
710	60	60
800	65	65
900	65	65
1000	75	75



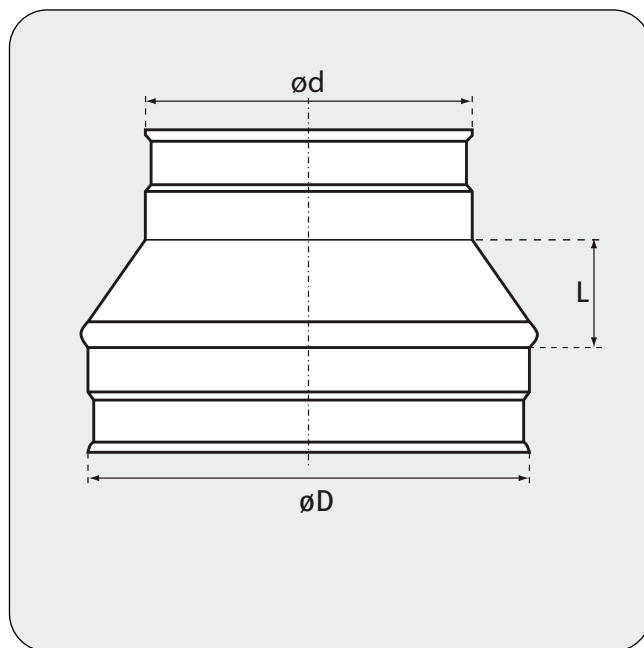
PRESSED REDUCER

RC / RCPL



Version with gasket

RCPL



MATERIAL

- galvanized steel
- EPDM rubber gasket (RCPL)

PRODUCT CHARACTERISTICS

- pressed
- made of single element
- gasket (RCPL) is positioned by returned edges

øD (mm)	ød (mm)	L (mm)	Box quantity	
			RC	RCPL
100	80	26	96	112
125	80	36	63	63
125	100	27	63	63
150	100	36	42	42
150	125	31	42	42
160	80	55	30	30
160	100	46	35	35
160	125	35	35	35
160	150	22	35	35
180	100	55	28	28
180	125	40	28	28
180	150	27	28	28
180	160	20	28	28
200	100	46	28	28
200	125	55	24	24
200	150	37	28	28
200	160	39	28	28

øD (mm)	ød (mm)	L (mm)	Box quantity	
			RC	RCPL
200	180	26	28	28
224	150	48	34	34
224	160	44	34	28
224	200	24	32	30
250	125	70	28	28
250	150	62	30	30
250	160	60	30	28
250	180	47	30	30
250	200	42	30	30
250	224	29	28	28
300	200	59	20	20
300	250	34	22	22
315	160	91	16	16
315	200	74	16	16
315	250	50	16	16
355	250	69	10	15
355	315	33	12	16

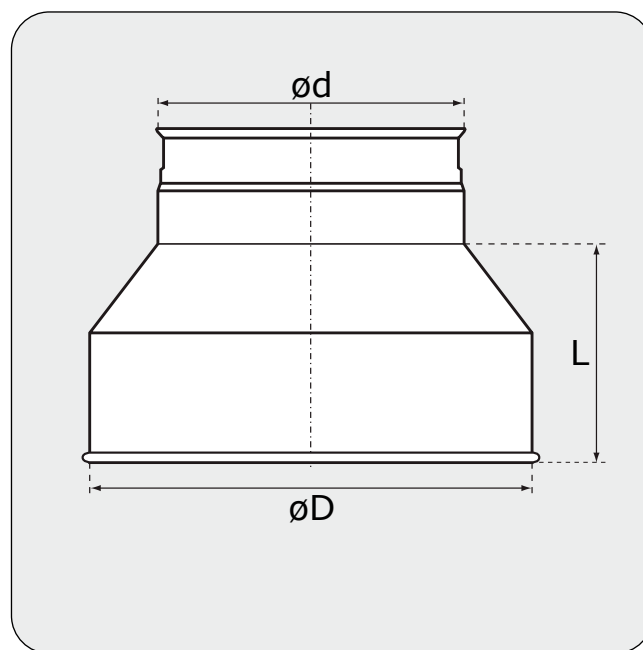


PRESSED MALE-FEMALE REDUCER

RCF / RCFPL



Version with gasket
RCFPL



MATERIAL

- galvanized steel
- EPDM rubber gasket (RCFPL)

PRODUCT CHARACTERISTICS

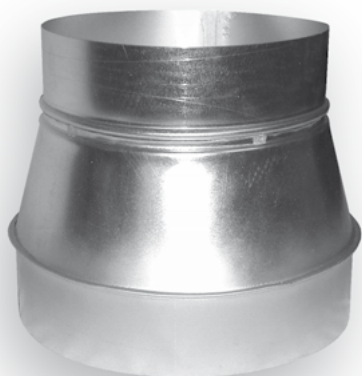
- pressed
- made of single element
- one female end
- gasket (RCFPL) is positioned by returned edges

øD (mm)	ød (mm)	L (mm)	Box quantity	
			RCF	RCFPL
100	80	61	45	45
125	80	73	72	72
125	100	64	72	72
150	100	78	48	48
150	125	66	48	48
160	100	83	35	35
160	125	71	35	35
200	100	84	28	28
200	125	90	28	28
200	150	75	28	28
200	160	73	28	28
250	160	117	30	30
250	200	103	30	30
315	160	153	18	18
315	200	134	16	20
315	250	108	18	18



SYMMETRIC HAND MADE REDUCER

RCLE / RCLL / RCFLE / RCFL / RCFFL



Version with gasket

RCLL



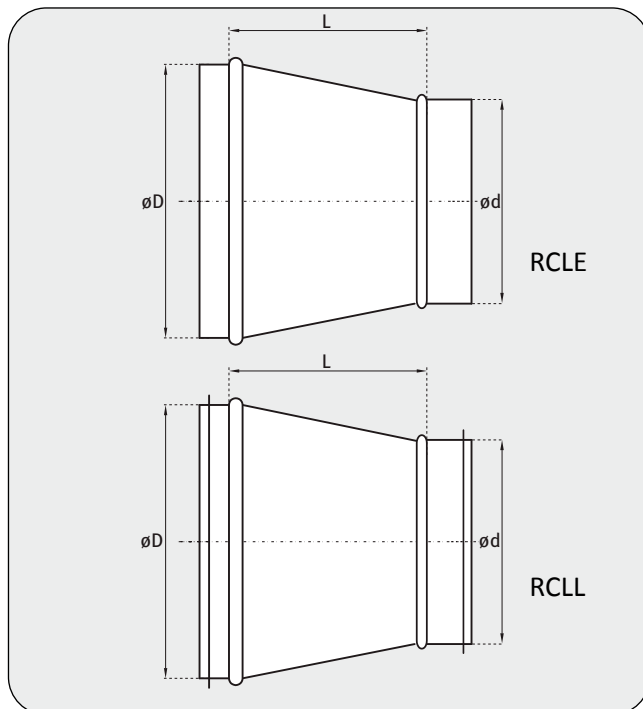
Female-male version
without gasket **RCFLE**



Female-male version
with gasket **RCFL**



Female-female version
with gasket **RCFFL**



MATERIAL

- galvanized steel
- EPDM rubber gasket (RCLL, RCFL, RCFFL)

PRODUCT CHARACTERISTICS

- segments connected with lock
- stitch welded
- gasket (RCLL, RCFL, RCFFL) is positioned by returned edges

øD (mm)	ød (mm)	L (mm)	RCLE		RCLL	
			Box quantity	Pack.	Box quantity	Pack.
125	80	60	Z	Z	Z	Z
125	100	60	Z	Z	Z	Z
140	80	60	Z	Z	Z	Z
140	100	60	Z	Z	30	P12
140	125	60	Z	Z	30	P12
150	80	60	75	P6	70	P6

øD (mm)	ød (mm)	L (mm)	RCLE		RCLL	
			Box quantity	Pack.	Box quantity	Pack.
150	100	60	Z	Z	Z	Z
150	125	60	Z	Z	Z	Z
150	140	60	Z	Z	60	P4
160	80	60	Z	Z	Z	Z
160	100	60	Z	Z	Z	Z
160	125	60	Z	Z	Z	Z



øD (mm)	ød (mm)	L (mm)	RCLE		RCLL	
			Box quantity	Pack.	Box quantity	Pack.
160	140	60	Z	Z	50	P6
160	150	60	Z	Z	Z	Z
180	100	60	Z	Z	56	P6
180	125	60	Z	Z	Z	Z
180	140	60	Z	Z	20	P12
180	150	60	Z	Z	Z	Z
180	160	60	Z	Z	Z	Z
200	100	80	Z	Z	Z	Z
200	125	60	Z	Z	Z	Z
200	140	60	Z	Z	34	P6
200	150	60	Z	Z	Z	Z
200	160	60	Z	Z	62	P4
200	180	60	Z	Z	Z	Z
224	100	80	35	P4	35	P4
224	125	60	90	P2	28	P4
224	140	60	Z	Z	Z	Z
224	150	60	Z	Z	42	P4
224	160	60	Z	Z	39	P4
224	180	60	Z	Z	36	P4
224	200	60	Z	Z	Z	Z
250	100	80	35	P4	13	P6
250	125	80	35	P4	23	P4
250	140	80	Z	Z	Z	Z
250	150	80	80	P2	Z	Z
250	160	80	Z	Z	30	P4
250	180	60	Z	Z	Z	Z
250	200	60	Z	Z	Z	Z
250	224	60	Z	Z	30	P4
280	100	100	Z	Z	Z	Z
280	125	100	Z	Z	Z	Z
280	140	80	Z	Z	Z	Z
280	150	80	Z	Z	Z	Z
280	160	80	Z	Z	Z	Z
280	180	80	Z	Z	Z	Z
280	200	80	Z	Z	20	P4
280	224	60	Z	Z	Z	Z
280	250	60	Z	Z	Z	Z
300	100	100	80	P2	80	P2
300	125	100	45	P2	15	P4
300	140	100	Z	Z	Z	Z
300	150	80	50	P2	50	P2
300	160	80	44	P2	44	P2
300	180	80	Z	Z	Z	Z
300	200	80	50	P2	Z	Z
300	224	60	50	P2	50	P2
300	250	60	48	P2	48	P2

øD (mm)	ød (mm)	L (mm)	RCLE		RCLL	
			Box quantity	Pack.	Box quantity	Pack.
300	280	60	Z	Z	Z	Z
315	100	100	45	P2	11	P6
315	125	100	45	P2	15	P4
315	140	100	Z	Z	Z	Z
315	150	100	50	P2	11	P6
315	160	100	Z	Z	11	P6
315	180	80	Z	Z	Z	Z
315	200	80	Z	Z	14	P4
315	224	60	55	P2	55	P2
315	250	60	45	P2	40	P2
315	280	60	45	P2	48	P2
315	300	60	56	P2	13	P4
355	150	100	50	P1	50	P1
355	160	100	Z	Z	Z	Z
355	180	80	Z	Z	Z	Z
355	200	80	60	P1	38	P2
355	224	80	Z	Z	Z	Z
355	250	80	38	P2	24	P2
355	280	60	Z	Z	Z	Z
355	300	60	38	P2	14	P4
355	315	60	40	P2	26	P2
400	160	100	Z	Z	Z	Z
400	180	100	Z	Z	Z	Z
400	200	100	60	P1	18	P2
400	224	100	Z	Z	Z	Z
400	250	100	28	P2	16	P2
400	280	80	Z	Z	Z	Z
400	300	80	34	P2	60	P1
400	315	70	30	P2	20	P2
400	355	60	28	P2	15	P2
450	160	100	Z	Z	Z	Z
450	180	100	Z	Z	Z	Z
450	200	100	45	P1	30	P1
450	224	100	Z	Z	Z	Z
450	250	100	45	P1	38	P1
450	280	100	Z	Z	Z	Z
450	300	100	45	P1	45	P1
450	315	100	19	P2	10	P2
450	355	80	18	P2	10	P2
450	400	60	45	P1	24	P1
500	200	150	40	P1	40	P1
500	224	100	Z	Z	Z	Z
500	250	100	40	P1	24	P1
500	280	100	Z	Z	Z	Z
500	300	100	40	P1	40	P1
500	315	100	20	P2	10	P2



Round fittings

øD (mm)	ød (mm)	L (mm)	RCLE		RCLL	
			Box quantity	Pack.	Box quantity	Pack.
500	355	100	17	P2	11	P2
500	400	80	20	P2	20	P1
500	450	60	40	P1	20	P1
560	200	150	Z	Z	Z	Z
560	224	100	Z	Z	Z	Z
560	250	150	Z	Z	Z	Z
560	280	100	Z	Z	Z	Z
560	300	100	Z	Z	Z	Z
560	315	100	Z	Z	Z	Z
560	355	100	Z	Z	Z	Z
560	400	100	Z	Z	Z	Z
560	450	80	Z	Z	Z	Z
560	500	60	Z	Z	Z	Z
600	400	100	Z	Z	Z	Z
600	450	100	Z	Z	Z	Z
600	500	80	Z	Z	Z	Z
600	560	60	Z	Z	Z	Z
630	200	150	Z	Z	Z	Z
630	224	150	Z	Z	Z	Z
630	250	150	20	P1	20	P1
630	280	150	Z	Z	Z	Z
630	300	150	Z	Z	Z	Z
630	315	150	Z	Z	15	P1
630	355	150	Z	Z	Z	Z
630	400	100	Z	Z	Z	Z
630	450	100	Z	Z	Z	Z
630	500	100	Z	Z	13	P1
630	560	80	Z	Z	Z	Z
710	355	150	Z	Z	Z	Z

øD (mm)	ød (mm)	L (mm)	RCLE		RCLL	
			Box quantity	Pack.	Box quantity	Pack.
710	400	150	Z	Z	Z	Z
710	450	100	Z	Z	Z	Z
710	500	100	Z	Z	Z	Z
710	560	100	Z	Z	Z	Z
710	600	100	Z	Z	Z	Z
710	630	100	Z	Z	Z	Z
800	315	200	Z	Z	Z	Z
800	355	180	Z	Z	Z	Z
800	400	150	Z	Z	Z	Z
800	450	150	Z	Z	Z	Z
800	500	100	Z	Z	Z	Z
800	560	100	Z	Z	Z	Z
800	600	80	Z	Z	Z	Z
800	630	80	Z	Z	Z	Z
800	710	80	Z	Z	Z	Z
900	500	150	Z	Z	Z	Z
900	560	150	Z	Z	Z	Z
900	600	100	Z	Z	Z	Z
900	630	80	Z	Z	Z	Z
900	710	80	Z	Z	Z	Z
900	800	80	Z	Z	Z	Z
1000	500	220	Z	Z	Z	Z
1000	560	160	Z	Z	Z	Z
1000	600	170	Z	Z	Z	Z
1000	630	150	Z	Z	Z	Z
1000	710	100	Z	Z	Z	Z
1000	800	100	Z	Z	Z	Z
1000	900	80	Z	Z	Z	Z

Z - information upon request



ECCENTRIC HAND MADE REDUCER

RLE / RLL / RFLE / RFL

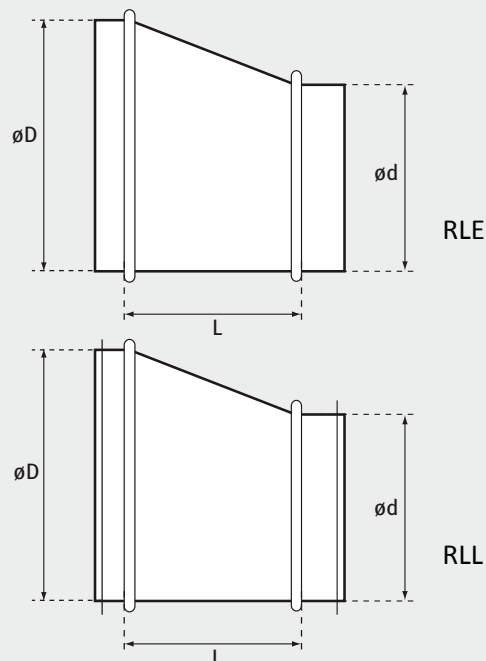

Version with gasket

RLL

 Female-male version
without gasket

RFLE

 Female-male version
with gasket

RFL


MATERIAL

- galvanized steel
- EPDM rubber gasket (RLL, RFL)

PRODUCT CHARACTERISTICS

- segments connected with lock
- stitch welded
- gasket (RLL, RFL) is positioned by returned edges

øD (mm)	ød (mm)	L (mm)
100	80	100
125	80	95
125	100	50
140	80	90
140	100	70
140	125	50
150	80	105
150	100	80
150	125	70
150	140	50

øD (mm)	ød (mm)	L (mm)
160	80	120
160	100	100
160	125	70
160	140	60
160	150	40
180	100	120
180	125	100
180	140	80
180	150	60
180	160	50

øD (mm)	ød (mm)	L (mm)
200	100	150
200	125	120
200	140	100
200	150	80
200	160	60
200	180	50
224	100	190
224	125	160
224	140	130
224	150	120



Round fittings

øD (mm)	ød (mm)	L (mm)
224	160	100
224	180	80
224	200	60
250	100	225
250	125	200
250	140	170
250	150	150
250	160	130
250	180	100
250	200	80
250	224	60
280	140	200
280	150	190
280	160	180
280	180	150
280	200	120
280	224	90
280	250	60
300	160	210
300	180	180
300	200	150
300	224	120
300	250	90
300	280	60
315	100	310
315	125	260
315	160	230
315	180	200
315	200	170
315	224	140
315	250	100
315	280	60
315	300	50

øD (mm)	ød (mm)	L (mm)
355	180	260
355	200	230
355	224	190
355	250	160
355	315	80
400	200	300
400	224	260
400	250	220
400	315	140
400	355	80
450	200	300
450	224	270
450	250	240
450	315	160
450	355	120
450	400	80
500	250	300
500	315	230
500	355	180
500	400	130
500	450	80
560	250	370
560	315	320
560	355	280
560	400	220
560	450	170
560	500	100
600	250	470
600	315	380
600	355	340
600	400	280
600	450	220
600	500	160

øD (mm)	ød (mm)	L (mm)
600	560	100
630	250	485
630	315	400
630	355	350
630	400	290
630	450	240
630	500	180
630	560	110
710	355	460
710	400	400
710	450	340
710	500	270
710	560	195
710	630	130
800	400	510
800	450	450
800	500	380
800	560	310
800	630	220
800	710	150
900	450	580
900	500	520
900	560	430
900	630	350
900	710	260
900	800	160
1000	500	660
1000	560	570
1000	600	510
1000	630	470
1000	710	370
1000	800	260
1000	900	160



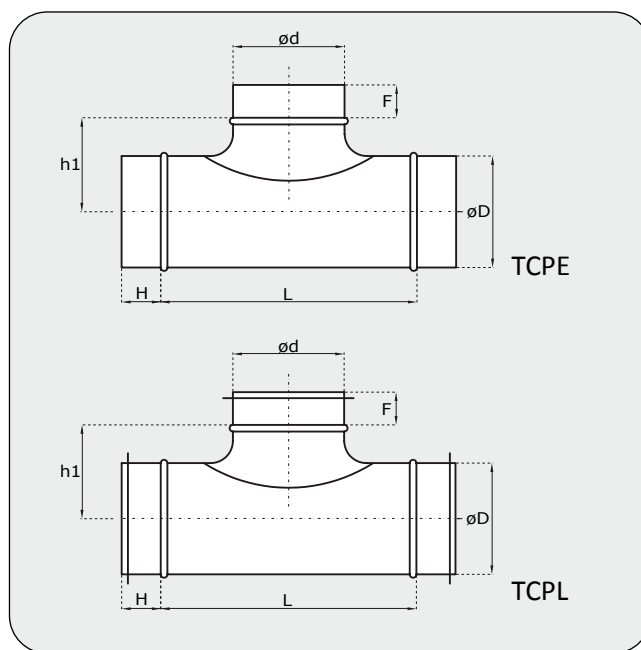
T-PIECE WITH PRESSED SADDLE

TCPE / TCPL



Version with gasket

TCPL



MATERIAL

- galvanized steel
- EPDM rubber gasket (TCPL)

PRODUCT CHARACTERISTICS

- take-off is made of PS pressed saddle
- stitch welded
- take-off is fitted with button locks
- gasket (TCPL) is positioned by returned edges

øD (mm)	ød (mm)	TCPE						TCPL					
		H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.	H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.
80	80	30	30	130	56	160	P2	38*	40	170	56	135	P2
100	80	30	30	130	66	108	P2						
100	100	30	30	155	68	94	P2						
125	80	35	30	130	79	85	P2						
125	100	35	30	160	81	60	P2						
125	125	35	35	180	81	60	P2						
140	80	35	30	130	86	62	P2	38*	40	160	88	42	P2
140	100	35	30	160	88	46	P2	38*	38*	199	91	46	P2
140	125	35	35	180	88	45	P2	38*	38*	230	96	32	P2
150	80	35	30	120	91	58	P2	38*	40	120	93	42	P2
150	100	35	30	150	93	42	P2	38*	38*	150	96	39	P2
150	125	35	35	180	93	39	P2	38*	38*	225	101	35	P2
150	150	35	35	205	97	33	P2	38*	40	270	101	28	P2
160	80	35	30	120	96	58	P2	38*	40	126	98	58	P2



Round fittings

øD (mm)	ød (mm)	TCPE						TCPL					
		H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.	H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.
160	100	35	30	150	98	42	P2						
160	125	35	35	170	98	39	P2						
160	150	35	35	220	102	33	P2	38*	40	280	106	22	P2
160	160	35	35	230	102	28	P2						
180	80	40	30	120	106	160	P1	38*	40	116	108	42	P2
180	100	40	30	150	108	30	P2	38*	38*	146	111	30	P2
180	125	40	35	170	108	30	P2	38*	38*	185	116	28	P2
180	150	40	35	210	112	29	P2	38*	40	270	116	39	P1
180	160	40	35	220	112	20	P2	38*	38*	276	121	20	P2
200	80	40	30	120	116	38	P2	38*	40	126	118	36	P2
200	100	40	30	150	118	27	P2	38*	38*	160	121	27	P2
200	125	40	35	170	118	27	P2	38*	38*	191	126	27	P2
200	150	40	35	220	122	29	P1	38*	40	280	126	16	P1
200	160	40	35	220	122	16	P2						
200	200	40	40	265	126	32	P1						
224	80	40	30	130	129	52	P1	38*	40	126	131	42	P1
224	100	40	30	140	131	20	P2	38*	38*	146	133	21	P2
224	125	40	35	170	131	40	P1	38*	38*	176	138	40	P1
224	150	40	35	210	135	24	P1	38*	40	270	138	28	P1
224	160	40	35	220	135	26	P1	38*	38*	280	143	28	P1
224	200	40	40	270	139	26	P1	38*	38*	320	143	20	P1
250	80	40	30	120	141	52	P1	40	40	126	143	36	P1
250	100	40	30	150	143	39	P1	40	38*	150	146	39	P1
250	125	40	35	170	143	39	P1	40	38*	184	151	36	P1
250	150	40	35	205	147	24	P1	40	40	206	151	24	P1
250	160	40	35	220	147	24	P1	40	38*	216	156	22	P1
250	200	40	40	270	151	22	P1	40	38*	280	156	20	P1
250	250	40	40	320	151	18	P1						
280	80	40	30	130	156	30	P1	40	40	126	158	30	P1
280	100	40	30	150	158	39	P1	40	38*	146	161	30	P1
280	125	40	35	170	158	30	P1	40	38*	186	166	24	P1
280	150	40	35	210	162	18	P1	40	40	206	166	18	P1
280	160	40	35	230	162	19	P1	40	38*	216	171	19	P1
280	200	40	40	280	166	17	P1	40	38*	320	171	17	P1
280	250	40	40	330	166	14	P1	40	40	370	171	14	P1
300	80	40	30	130	166	21	P1	40	40	126	168	21	P1
300	100	40	30	150	168	24	P1	40	38*	156	171	24	P1
300	125	40	35	170	168	21	P1	40	38*	186	176	21	P1
300	150	40	35	210	172	16	P1	40	40	216	176	14	P1
300	160	40	35	220	172	16	P1	40	38*	216	181	16	P1
300	200	40	40	280	176	14	P1	40	38*	276	181	14	P1
300	250	40	40	340	176	12	P1	40	40	370	181	14	P1
315	80	40	30	130	174	21	P1	40	40	126	176	21	P1
315	100	40	30	150	176	24	P1	40	38*	150	179	24	P1
315	125	40	35	170	176	21	P1	40	38*	186	184	21	P1
315	150	40	35	220	180	14	P1	40	40	216	184	16	P1



øD (mm)	ød (mm)	TCPE						TCPL					
		H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.	H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.
315	160	40	35	220	180	16	P1	40	38*	216	189	16	P1
315	200	40	40	280	184	14	P1	40	38*	276	189	14	P1
315	250	40	40	340	184	12	P1	40	40	360	189	12	P1
315	315	40	40	400	189	9	P1						
355	100	40	30	150	196	Z	Z	40	38*	150	199	Z	Z
355	125	40	35	185	196	Z	Z	40	38*	186	204	Z	Z
355	150	40	35	220	200	Z	Z	40	40	216	204	Z	Z
355	160	40	35	220	200	Z	Z	40	38*	216	209	Z	Z
355	200	40	40	280	204	Z	Z	40	38*	280	209	12	P1
355	250	40	40	340	209	Z	Z	40	40	341	209	12	P1
355	315	40	40	404	209	Z	Z	40	40	406	209	Z	Z
400	100	40	30	150	218	Z	Z	50	38*	161	221	Z	Z
400	125	40	35	185	218	Z	Z	50	38*	191	226	Z	Z
400	160	40	35	220	222	Z	Z	50	38*	206	231	Z	Z
400	200	40	40	280	226	Z	Z	50	38*	266	231	Z	Z
400	250	40	40	340	226	Z	Z	50	40	336	231	Z	Z
400	315	40	40	420	231	Z	Z	50	40	386	231	Z	Z
450	100	50	30	160	243	Z	Z	50	38*	156	246	Z	Z
450	125	50	35	185	243	Z	Z	50	38*	186	251	Z	Z
450	160	50	35	220	243	Z	Z	50	38*	216	256	Z	Z
500	100	50	35	160	268	Z	Z	50	38*	156	271	Z	Z
500	125	50	35	185	268	Z	Z	50	38*	186	276	Z	Z
500	160	50	35	220	268	Z	Z	50	38*	216	281	Z	Z

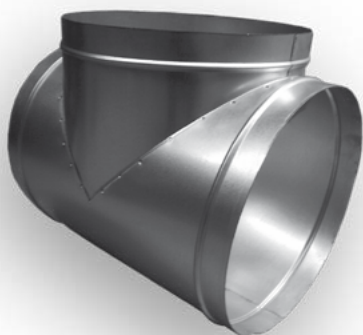
Tolerance: * +0/-5 mm; L, h1 ±5 mm

Z - information upon request



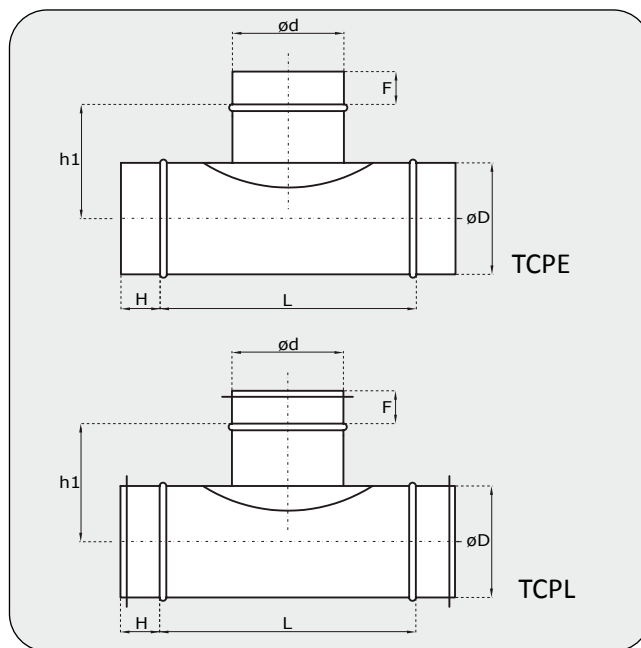
T-PIECE WITH HAND MADE SADDLE

TCPE / TCPL



Version with gasket

TCPL



MATERIAL

- galvanized steel
- EPDM rubber gasket (TCPL)

PRODUCT CHARACTERISTICS

- stitch welded
- take-off is fitted with button locks
- gasket (TCPL) is positioned by returned edges

ϕD (mm)	ϕd (mm)	TCPE						TCPL					
		H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.	H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.
140	140	35	35	190	95	33	P2	38*	40	176	88	33	P2
150	140	35	35	190	100	33	P2	38*	40	176	93	39	P2
160	140	35	35	190	105	33	P2	38*	40	186	98	33	P2
180	140	40	35	180	115	29	P2	38*	40	176	108	30	P2
180	180	40	40	220	115	35	P1	38*	40	216	108	36	P1
200	140	40	35	180	125	29	P1	38*	40	186	118	27	P2
200	180	40	40	220	125	34	P1	38*	40	226	118	34	P1
224	140	40	35	190	138	26	P1	38*	40	176	130	21	P2
224	180	40	40	230	138	25	P1	38*	40	261	130	25	P1
224	224	40	40	275	138	22	P1	38*	40	261	130	22	P1
250	140	40	35	190	150	24	P1	40	40	181	143	24	P1
250	180	40	40	230	150	22	P1	40	40	216	143	22	P1
250	224	40	40	275	150	18	P1	40	40	256	143	18	P1
280	140	40	35	190	165	18	P1	40	40	176	158	18	P1



øD (mm)	ød (mm)	TCPE						TCPL					
		H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.	H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.
280	180	40	40	230	165	17	P1	40	40	216	158	18	P1
280	224	40	40	275	165	14	P1	40	40	261	158	14	P1
280	280	40	40	330	165	10	P1	40	40	316	163	14	P1
300	140	40	35	190	175	16	P1	40	40	176	168	14	P1
300	180	40	40	230	175	14	P1	40	40	216	168	16	P1
300	224	40	40	275	175	12	P1	40	40	261	168	12	P1
300	280	40	40	330	175	10	P1	40	40	316	173	9	P1
300	300	40	40	380	175	10	P1	40	40	366	173	10	P1
315	140	40	35	190	183	14	P1	40	40	176	176	14	P1
315	180	40	40	230	183	21	P1	40	40	261	176	14	P1
315	224	40	40	275	183	12	P1	40	40	316	181	12	P1
315	280	40	40	330	183	10	P1	40	40	366	181	10	P1
355	140	40	40	190	203	Z	Z	40	40	176	196	Z	Z
355	180	40	40	230	203	Z	Z	40	40	216	196	Z	Z
355	224	40	40	275	203	12	P1	40	40	261	196	12	P1
355	280	40	40	330	203	Z	Z	40	40	316	201	Z	Z
355	300	40	40	350	203	Z	Z	40	40	336	201	Z	Z
355	355	40	40	405	203	Z	Z	40	40	391	201	8	P1
400	140	40	35	190	225	Z	Z	50	40	176	218	Z	Z
400	150	40	35	200	225	Z	Z	50	40	186	218	Z	Z
400	180	40	40	230	225	Z	Z	50	40	216	218	Z	Z
400	224	40	40	275	225	Z	Z	50	40	261	218	Z	Z
400	280	40	40	330	225	Z	Z	50	40	316	223	Z	Z
400	300	40	40	350	225	Z	Z	50	40	336	223	Z	Z
400	355	40	40	405	225	Z	Z	50	40	391	223	Z	Z
400	400	40	40	450	225	Z	Z	50	50	436	223	Z	Z
450	140	50	35	190	250	Z	Z	50	40	176	243	Z	Z
450	150	50	35	200	250	Z	Z	50	40	186	243	Z	Z
450	180	50	40	230	250	Z	Z	50	40	216	243	Z	Z
450	200	50	40	250	250	Z	Z	50	38*	236	248	Z	Z
450	224	50	40	275	250	Z	Z	50	40	261	243	Z	Z
450	250	50	40	300	250	Z	Z	50	40	286	248	Z	Z
450	280	50	40	330	250	Z	Z	50	40	316	248	Z	Z
450	300	50	40	350	250	Z	Z	50	40	336	248	Z	Z
450	315	50	40	365	250	Z	Z	50	40	351	248	Z	Z
450	355	50	40	405	250	Z	Z	50	40	391	248	Z	Z
450	400	50	40	450	250	Z	Z	50	50	436	248	Z	Z
450	450	50	50	500	255	Z	Z	50	50	486	248	Z	Z
500	140	50	35	190	275	Z	Z	50	40	176	268	Z	Z
500	150	50	35	200	275	Z	Z	50	40	186	268	Z	Z
500	180	50	40	230	275	Z	Z	50	40	216	268	Z	Z
500	200	50	40	250	275	Z	Z	50	38*	236	273	Z	Z
500	224	50	40	275	275	Z	Z	50	40	261	268	Z	Z
500	250	50	40	300	275	Z	Z	50	40	286	273	Z	Z
500	280	50	40	330	275	Z	Z	50	40	316	273	Z	Z
500	300	50	40	350	275	Z	Z	50	40	336	273	Z	Z



Round fittings

øD (mm)	ød (mm)	TCPE						TCPL					
		H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.	H (mm)	F (mm)	L (mm)	h1 (mm)	Box quantity	Pack.
500	315	50	40	365	275	Z	Z	50	40	351	273	Z	Z
500	355	50	40	405	275	Z	Z	50	40	391	273	Z	Z
500	400	50	40	450	275	Z	Z	50	50	436	273	Z	Z
500	450	50	50	500	280	Z	Z	50	50	486	273	Z	Z
500	500	50	50	550	280	Z	Z	50	50	536	273	Z	Z
560	200	60	40	250	305	Z	Z	60	38*	246	303	Z	Z
560	315	60	40	365	305	Z	Z	60	40	361	303	Z	Z
560	400	60	40	450	305	Z	Z	60	50	446	303	Z	Z
560	450	60	50	500	310	Z	Z	60	50	496	303	Z	Z
560	500	60	50	550	310	Z	Z	60	50	546	303	Z	Z
560	560	60	60	610	310	Z	Z	60	60	606	308	Z	Z
630	100	60	30	150	345	Z	Z	60	40	146	333	Z	Z
630	125	60	35	175	340	Z	Z	60	40	171	333	Z	Z
630	140	60	35	190	340	Z	Z	60	40	186	333	Z	Z
630	150	60	35	200	340	Z	Z	60	40	196	333	Z	Z
630	160	60	35	210	340	Z	Z	60	40	206	333	Z	Z
630	180	60	40	230	340	Z	Z	60	40	226	333	Z	Z
630	200	60	40	250	340	Z	Z	60	38*	246	338	Z	Z
630	224	60	40	275	340	Z	Z	60	40	271	333	Z	Z
630	250	60	40	300	340	Z	Z	60	40	296	338	Z	Z
630	280	60	40	330	340	Z	Z	60	40	326	338	Z	Z
630	300	60	40	350	340	Z	Z	60	40	346	338	Z	Z
630	315	60	40	365	340	Z	Z	60	40	361	338	Z	Z
630	355	60	40	405	340	Z	Z	60	40	401	338	Z	Z
630	400	60	40	450	340	Z	Z	60	50	446	338	Z	Z
630	450	60	50	500	345	Z	Z	60	50	496	338	Z	Z
630	500	60	50	550	345	Z	Z	60	50	546	338	Z	Z
630	560	60	60	610	345	Z	Z	60	60	606	343	Z	Z
630	630	60	60	680	345	Z	Z	60	60	676	343	Z	Z
710	315	60	40	365	380	Z	Z	60	40	361	378	Z	Z
710	400	60	40	450	380	Z	Z	60	50	446	378	Z	Z
710	500	60	50	550	385	Z	Z	60	50	546	378	Z	Z
710	630	60	60	680	385	Z	Z	60	60	676	383	Z	Z
710	710	60	60	760	385	Z	Z	60	60	756	383	Z	Z
800	315	65	40	365	425	Z	Z	65	40	391	423	Z	Z
800	400	65	40	450	425	Z	Z	65	50	476	423	Z	Z
800	450	65	50	500	430	Z	Z	65	50	526	423	Z	Z
800	500	65	50	560	430	Z	Z	65	50	576	423	Z	Z
800	630	65	60	680	430	Z	Z	65	60	706	426	Z	Z
800	710	65	60	760	430	Z	Z	65	60	786	426	Z	Z
800	800	65	65	850	430	Z	Z	65	65	876	426	Z	Z

Tolerance: * +0/-5 mm; L, h1 ±5 mm Z - information upon request

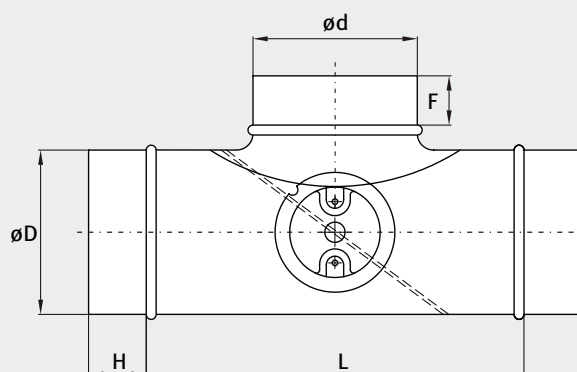


T-PIECE WITH DAMPER

TCP



Version for actuator assembly **TCP-DSBE**



MATERIAL

- galvanized steel
- EPDM rubber gasket (TCP-DSL/TCP-DSBL)

WERSJE PRODUKTU

- TCP-DSE - T-piece with air-tight single-blade damper, SPIRO type damper mechanism
- TCP-DSL - T-piece with gasket and air-tight single-blade damper, SPIRO type damper mechanism
- TCP-DSBE - T-piece with air-tight single-blade damper, version for actuator assembly
- TCP-DSBL - T-piece with gasket and air-tight single-blade damper, version for actuator assembly

PRODUCT CHARACTERISTICS

- the outgoing connection is made of PSE or PSL branching
- fusion welded (linear weld)
- the outgoing connection is fitted with bossings
- flanges are clamped on the gasket (TCP-DSL/TCP-DSBL)

TCP-DSE / TCP-DSBE

øD (mm)	ød (mm)	H = F (mm)	L (mm)
100	100	30	170
125	125	35	180
150	150	35	220
160	160	35	230
200	200	40	280
250	250	40	340
315	315	40	420

TCP-DSL / TCP-DSBL

øD (mm)	ød (mm)	H = F (mm)	L (mm)
100	100	38*	220
125	125	38*	241
150	150	38*	270
160	160	38*	280
200	200	38*	320
250	250	40	346
315	315	40	436

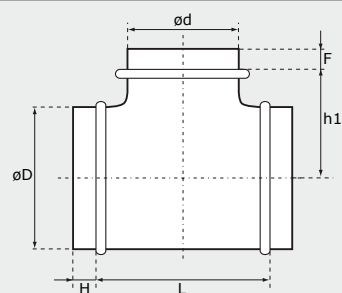


PRESSED T-PIECE

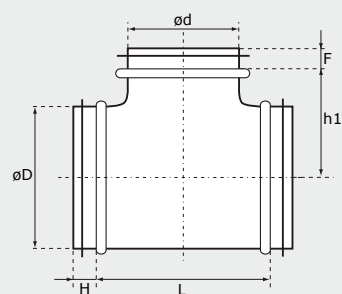
TSHF / TSHFL



Version with gasket
TSHFL



TSHF



TSHFL

MATERIAL

- galvanized steel
- EPDM rubber gasket (TSHFL)

PRODUCT CHARACTERISTICS

- take-off is made of fully pressed upper part
- lower pressure drop
- produced with returned edges
- aesthetic look

øD (mm)	ød (mm)	L (mm)	H (mm)	F (mm)	h1 (mm)	Box quantity	Packaging
100	80	95	38*	40	60	72	P4
100	100	127	38*	38*	68	107	P2
125	80	95	38*	40	73	96	P2
125	100	127	38*	38*	81	75	P2
125	125	162	38*	38*	89	60	P2
160	100	127	38*	38*	98	52	P2
160	125	162	38*	38*	106	39	P2
160	160	207	38*	38*	111	30	P2
200	160	207	38*	38*	131	24	P2
200	200	247	38*	38*	131	36	P1
250	250	327	40	40	171	18	P1
315	315	392	40	40	204	10	P1

Tolerance: * +0/-5 mm; L, h1 ±5 mm

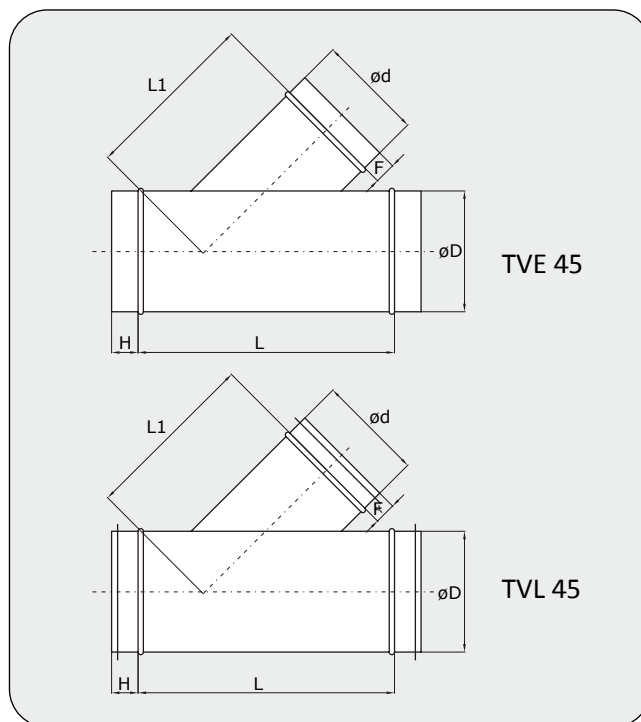


45° T-PIECE

TVE 45 / TVL 45



Version with gasket
TVL45



MATERIAL

- galvanized steel
- EPDM rubber gasket (TVL 45)

PRODUCT CHARACTERISTICS

- stitch welded
- take-off is fitted with button locks
- gasket (TVL 45) is positioned by returned edges

TVE 45						TVL 45			
øD (mm)	ød (mm)	L (mm)	H (mm)	F (mm)	L1 (mm)	L (mm)	H (mm)	F (mm)	L1 (mm)
80	80	181	40	40	129	181	38*	40	127
100	80	181	40	40	143	191	38*	40	141
100	100	209	40	40	153	219	38*	38*	156
125	80	181	40	40	160	191	38*	40	158
125	100	209	40	40	170	219	38*	38*	173
125	125	245	40	40	183	255	38*	38*	186
140	80	181	40	40	171	181	38*	40	169
140	100	209	40	40	181	209	38*	38*	184
140	125	245	40	40	193	245	38*	38*	196
140	140	266	40	40	201	266	38*	40	199
150	80	181	40	40	178	181	38*	40	176
150	100	209	40	40	188	209	38*	38*	191
150	125	245	40	40	201	245	38*	38*	204
150	140	266	40	40	208	266	38*	40	206
150	150	280	40	40	213	280	38*	40	211
160	80	181	40	40	185	191	38*	40	183
160	100	209	40	40	195	219	38*	38*	198
160	125	245	40	40	208	255	38*	38*	211
160	140	266	40	40	215	276	38*	40	213



Round fittings

øD (mm)	ød (mm)	TVE 45				TVL 45			
		L (mm)	H (mm)	F (mm)	L1 (mm)	L (mm)	H (mm)	F (mm)	L1 (mm)
160	150	280	40	40	220	290	38*	40	218
160	160	294	40	40	225	304	38*	38*	228
180	80	181	40	40	199	181	38*	40	197
180	100	209	40	40	209	209	38*	38*	212
180	125	245	40	40	222	245	38*	38*	225
180	140	266	40	40	229	266	38*	40	227
180	150	280	40	40	234	280	38*	40	232
180	160	294	40	40	239	294	38*	38*	242
180	180	323	40	40	249	323	38*	40	247
200	80	181	40	40	213	191	38*	40	211
200	100	209	40	40	223	219	38*	38*	226
200	125	245	40	40	236	255	38*	38*	239
200	140	266	40	40	243	276	38*	40	241
200	150	280	40	40	248	290	38*	40	246
200	160	294	40	40	253	304	38*	38*	256
200	180	323	40	40	263	333	38*	40	261
200	200	351	40	40	273	361	38*	38*	276
224	80	181	40	40	230	181	38*	40	228
224	100	209	40	40	240	209	38*	38*	243
224	125	245	40	40	253	245	38*	38*	256
224	140	266	40	40	260	266	38*	40	258
224	150	280	40	40	265	280	38*	40	263
224	160	294	40	40	270	294	38*	38*	273
224	180	323	40	40	280	323	38*	40	278
224	200	351	40	40	290	351	38*	38*	293
224	224	385	40	40	302	385	38*	40	300
250	100	209	40	40	259	209	40	38*	262
250	125	245	40	40	271	245	40	38*	274
250	140	266	40	40	279	266	40	40	277
250	150	280	40	40	284	280	40	40	282
250	160	294	40	40	289	294	40	38*	292
250	180	323	40	40	299	323	40	40	297
250	200	351	40	40	309	351	40	38*	312
250	224	385	40	40	321	385	40	40	319
250	250	422	40	40	334	422	40	40	332
280	100	209	40	40	280	209	40	38*	283
280	125	245	40	40	292	245	40	38*	295
280	140	266	40	40	300	266	40	40	298
280	150	280	40	40	305	280	40	40	303
280	160	294	40	40	310	294	40	38*	313
280	180	323	40	40	320	323	40	40	318
280	200	351	40	40	330	351	40	38*	333
280	224	385	40	40	342	385	40	40	340
280	250	422	40	40	355	422	40	40	353
280	280	464	40	40	370	464	40	40	368
300	100	209	40	40	294	209	40	38*	297
300	125	245	40	40	307	245	40	38*	310
300	140	266	40	40	314	266	40	40	312



øD (mm)	ød (mm)	TVE 45				TVL 45			
		L (mm)	H (mm)	F (mm)	L1 (mm)	L (mm)	H (mm)	F (mm)	L1 (mm)
300	150	280	40	40	319	280	40	40	317
300	160	294	40	40	324	294	40	38*	327
300	180	323	40	40	334	323	40	40	332
300	200	351	40	40	344	351	40	38*	347
300	224	385	40	40	356	385	40	40	354
300	250	422	40	40	369	422	40	40	367
300	280	464	40	40	384	464	40	40	382
300	300	492	40	40	394	492	40	40	392
315	100	209	40	40	305	209	40	38*	308
315	125	245	40	40	317	245	40	38*	320
315	140	266	40	40	325	266	40	40	323
315	150	280	40	40	330	280	40	40	328
315	160	294	40	40	335	294	40	38*	338
315	180	323	40	40	345	323	40	40	343
315	200	351	40	40	355	351	40	38*	358
315	224	385	40	40	367	385	40	40	365
315	250	422	40	40	380	422	40	40	378
315	280	464	40	40	395	464	40	40	393
315	300	492	40	40	405	492	40	40	403
315	315	513	40	40	412	513	40	40	410
355	125	245	40	40	346	245	40	38*	349
355	140	266	40	40	353	266	40	40	351
355	150	280	40	40	358	280	40	40	356
355	160	294	40	40	363	294	40	38*	366
355	180	323	40	40	373	323	40	40	371
355	200	351	40	40	383	351	40	38*	386
355	224	385	40	40	395	385	40	40	393
355	250	422	40	40	408	422	40	40	406
355	280	464	40	40	423	464	40	40	421
355	300	492	40	40	433	492	40	40	431
355	315	513	40	40	441	513	40	40	439
355	355	570	40	40	461	570	40	40	459
400	125	245	40	40	377	225	50	38*	380
400	140	266	40	40	385	246	50	40	383
400	150	280	40	40	390	260	50	40	388
400	160	294	40	40	395	274	50	38*	398
400	180	323	40	40	405	303	50	40	403
400	200	351	40	40	415	331	50	38*	418
400	224	385	40	40	427	365	50	40	425
400	250	422	40	40	440	402	50	40	438
400	280	464	40	40	455	444	50	40	453
400	300	492	40	40	465	472	50	40	463
400	315	513	40	40	472	493	50	40	470
400	355	570	40	40	492	550	50	40	490
400	400	634	40	40	515	614	50	50	525
450	160	304	50	40	430	304	50	38*	433
450	180	333	50	40	440	333	50	40	438
450	200	361	50	40	450	361	50	38*	453



Round fittings

øD (mm)	ød (mm)	TVE 45				TVL 45			
		L (mm)	H (mm)	F (mm)	L1 (mm)	L (mm)	H (mm)	F (mm)	L1 (mm)
450	224	395	50	40	462	395	50	40	460
450	250	432	50	40	475	432	50	40	473
450	280	474	50	40	490	474	50	40	488
450	300	502	50	40	500	502	50	40	498
450	315	523	50	40	508	523	50	40	506
450	355	580	50	40	528	580	50	40	526
450	400	644	50	40	550	644	50	50	560
450	450	714	50	50	585	714	50	50	585
500	200	361	50	40	486	361	50	38*	489
500	224	395	50	40	498	395	50	40	496
500	250	432	50	40	511	432	50	40	509
500	280	474	50	40	526	474	50	40	524
500	300	502	50	40	536	502	50	40	534
500	315	523	50	40	543	523	50	40	541
500	355	580	50	40	563	580	50	40	561
500	400	644	50	40	586	644	50	50	596
500	450	714	50	50	621	714	50	50	621
500	500	785	50	50	646	785	50	50	646
560	200	361	60	40	528	361	60	38*	531
560	224	395	60	40	540	395	60	40	538
560	250	432	60	40	553	432	60	40	551
560	280	474	60	40	568	474	60	40	566
560	300	502	60	40	578	502	60	40	576
560	315	523	60	40	585	523	60	40	583
560	355	580	60	40	605	580	60	40	603
560	400	644	60	40	628	644	60	50	638
560	450	714	60	50	663	714	60	50	663
560	500	785	60	50	688	785	60	50	688
560	560	870	60	60	708	870	60	60	708
630	200	361	60	40	577	361	60	38*	580
630	224	395	60	40	589	395	60	40	587
630	250	432	60	40	602	432	60	40	600
630	280	474	60	40	617	474	60	40	615
630	300	502	60	40	627	502	60	40	625
630	315	523	60	40	635	523	60	40	633
630	355	580	60	40	655	580	60	40	653
630	400	644	60	40	677	644	60	50	687
630	450	714	60	50	712	714	60	50	712
630	500	785	60	50	737	785	60	50	737
630	560	870	60	60	757	870	60	60	757
630	630	969	60	60	792	969	60	60	792

Tolerance: * +0/-5 mm; L, L1 ±5 mm



TWIN BEND

YVE / YVL



Version with gasket

YVL

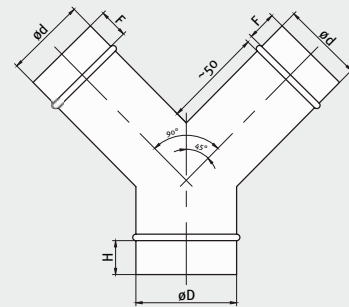


MATERIAL

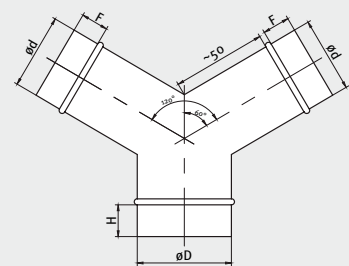
- galvanized steel
- EPDM rubber gasket (YVL)

PRODUCT CHARACTERISTICS

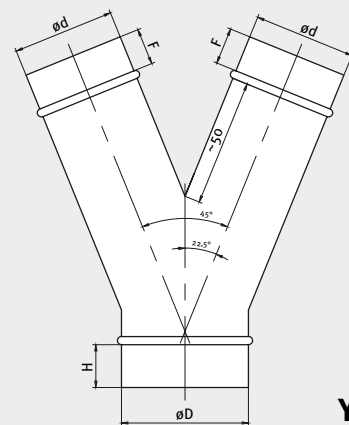
- stitch and spot welded
- gasket (YVL) is positioned by returned edges



YVE 45°



YVE 60°



YVE 22,5°

ØD (mm)	Ød (mm)	YVE 45°				YVL 45°			
		H (mm)	F (mm)	Box quantity	Pack.	H (mm)	F (mm)	Box quantity	Pack.
80	80	40	40	50	P4	38*	40	Z	Z
100	80	40	40	Z	Z	38*	40	Z	Z
100	100	40	40	50	P2	38*	38*	50	P2
125	100	40	40	30	P4	38*	38*	30	P4
125	125	40	40	42	P2	38*	38*	42	P2
150	100	40	40	Z	Z	38*	38*	Z	Z
150	125	40	40	Z	Z	38*	38*	Z	Z
150	150	40	40	25	P2	38*	40	25	P2
160	100	40	40	35	P2	38*	38*	35	P2
160	125	40	40	25	P2	38*	38*	25	P2
160	150	40	40	Z	Z	38*	40	Z	Z



Round fittings

øD (mm)	ød (mm)	YVE 45°				YVL 45°			
		H (mm)	F (mm)	Box quantity	Pack.	H (mm)	F (mm)	Box quantity	Pack.
160	160	40	40	50	P1	38*	38*	50	P1
200	100	40	40	Z	Z	38*	38*	Z	Z
200	125	40	40	40	P1	38*	38*	40	P1
200	150	40	40	Z	Z	38*	40	Z	Z
200	160	40	40	30	P1	38*	38*	30	P1
200	200	40	40	28	P1	38*	38*	28	P1
250	100	40	40	Z	Z	40	38*	Z	Z
250	125	40	40	50	P1	40	38*	50	P1
250	150	40	40	Z	Z	40	40	Z	Z
250	160	40	40	30	P1	40	38*	30	P1
250	200	40	40	18	P1	40	38*	18	P1
250	250	40	40	18	P1	40	40	18	P1
315	160	40	40	Z	Z	40	38*	Z	Z
315	200	40	40	14	P1	40	38*	14	P1
315	250	40	40	10	P1	40	40	10	P1
315	315	40	40	8	P1	40	40	8	P1
355	250	40	40	12	P1	40	40	12	P1
355	315	40	40	Z	Z	40	40	Z	Z
355	355	40	40	6	P1	40	40	6	P1
400	200	50	40	20	P1	50	38*	20	P1
400	250	50	40	10	P1	50	40	10	P1
400	315	50	40	10	P1	50	40	10	P1
400	355	50	40	8	P1	50	40	8	P1
400	400	50	50	6	P1	50	50	6	P1
450	250	50	40	8	P1	50	40	8	P1
450	355	50	40	Z	Z	50	40	Z	Z
500	315	50	40	Z	Z	50	40	Z	Z
500	450	50	50	Z	Z	50	50	Z	Z
500	500	50	50	Z	Z	50	50	Z	Z

Tolerance: * +0/-5 mm; others ±5 mm Z - information upon request



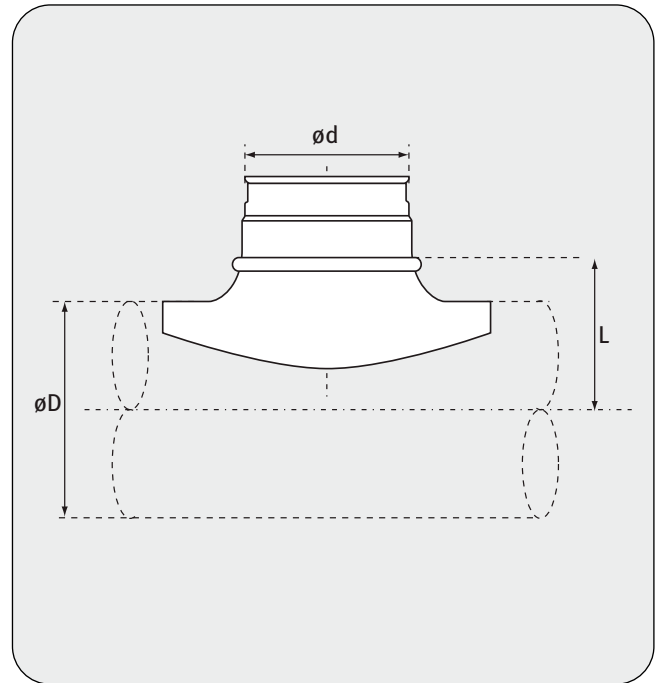
PRESSED SADDLE

PS / PSL



Version with gasket

PSL



MATERIAL

- galvanized steel
- EPDM rubber gasket (PSL)

PRODUCT CHARACTERISTICS

- pressed
- single element

øD (mm)	ød (mm)	L (mm)	Box quantity	
			PS	PSL
80	80	52	30	30
100	80	60	60	60
100	100	65	75	75
125	80	75	60	60
125	100	78	80	80
125	125	83	40	40
150	150	95	25	25
160	80	92	70	70
160	100	95	90	80
160	125	100	50	45
160	160	105	20	20
200	80	112	70	70
200	100	115	90	90
200	125	115	52	45
200	150	120	30	30
200	160	125	25	25
200	200	125	32	32
250	80	137	34	34
250	100	140	90	90
250	125	145	50	50

Z - information upon request

øD (mm)	ød (mm)	L (mm)	Box quantity	
			PS	PSL
250	150	145	35	35
250	160	150	25	25
250	200	150	32	32
250	250	150	15	15
315	100	173	90	90
315	125	178	54	54
315	150	178	35	35
315	160	182	25	25
315	200	182	32	32
315	250	182	16	16
315	315	182	42	42
400	100	215	Z	Z
400	160	225	30	30
400	200	225	42	42
400	250	225	18	18
400	315	225	40	40
500	100	265	40	40
500	125	270	50	50
500	160	275	30	30



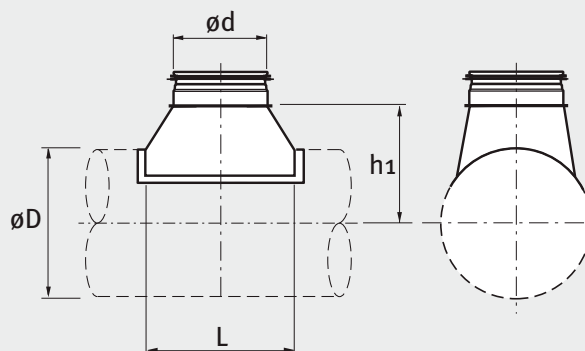
HAND MADE SADDLE

TSTCL



MATERIAL

- galvanized steel
- EPDM rubber gasket



PRODUCT CHARACTERISTICS

- hand made
- stitch welded
- gasket is positioned by returned edges

ϕD (mm)	ϕd (mm)	L (mm)	h_1 (mm)
355	315	410	260
355	355	460	260
400	200	270	270
400	250	335	270
400	315	410	270
400	355	460	285
400	400	505	285
450	200	270	310
450	250	335	310
450	315	410	310
450	355	460	310
450	400	505	310
450	450	555	310
500	200	270	330
500	250	335	330
500	315	410	330

ϕD (mm)	ϕd (mm)	L (mm)	h_1 (mm)
500	355	460	330
500	400	505	330
500	450	555	330
500	500	610	350
560	200	270	360
560	250	335	360
560	315	410	360
560	355	460	360
560	400	505	360
560	450	555	360
560	500	610	370
560	560	670	370
630	200	270	390
630	250	335	390
630	315	410	390
630	355	460	400



øD (mm)	ød (mm)	L (mm)	h1 (mm)
630	400	505	400
630	450	555	400
630	500	610	400
630	560	670	400
630	630	740	400
710	200	270	430
710	250	335	430
710	315	410	440
710	355	460	440
710	400	505	440
710	450	555	440
710	500	610	440
710	560	670	440
710	630	740	440
800	250	335	480
800	315	410	480
800	355	460	485
800	400	505	485
800	450	555	480
800	500	610	480
800	560	670	500
800	630	740	500
900	315	410	525
900	355	460	535
900	400	505	535

øD (mm)	ød (mm)	L (mm)	h1 (mm)
900	450	555	535
900	500	610	540
900	560	670	540
900	630	740	540
1000	315	410	575
1000	355	460	585
1000	400	505	585
1000	450	555	585
1000	500	610	590
1000	560	670	590
1000	630	740	590
1120	315	410	650
1120	355	460	650
1120	400	505	650
1120	450	555	650
1120	500	610	650
1120	560	670	650
1120	630	740	650
1250	315	410	715
1250	355	460	715
1250	400	505	715
1250	450	555	715
1250	500	610	715
1250	560	670	715
1250	630	740	715



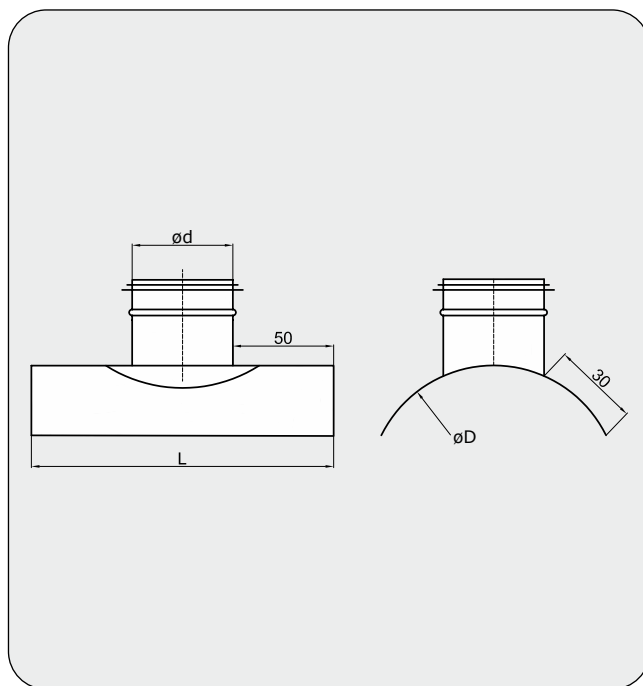
HAND MADE SADDLE

TSTCLS



MATERIAL

- galvanized steel
- EPDM rubber gasket



PRODUCT CHARACTERISTICS

- hand made
- stitch welded
- gasket is positioned by returned edges
- take-off is fitted with button locks

$\varnothing D$ (mm)	$\varnothing d$ (mm)	L (mm)
710	710	810
800	710	810
800	800	900
900	710	810
900	800	900
900	900	1000
1000	710	810
1000	800	900
1000	900	1000
1000	1000	1100
1120	710	810

$\varnothing D$ (mm)	$\varnothing d$ (mm)	L (mm)
1120	800	900
1120	900	1000
1120	1000	1100
1120	1120	1220
1250	710	810
1250	800	900
1250	900	1000
1250	1000	1100
1250	1120	1220
1250	1250	1350



45° COLLAR SADDLE

PSVE 45 / PSVL 45



Version with gasket

PSVL 45



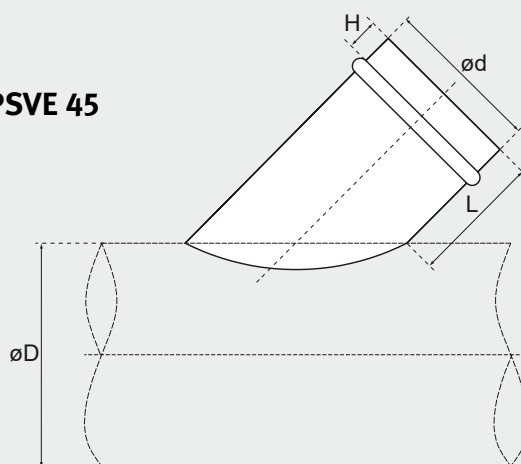
MATERIAL

- galvanized steel
- EPDM rubber gasket (PSVL 45)

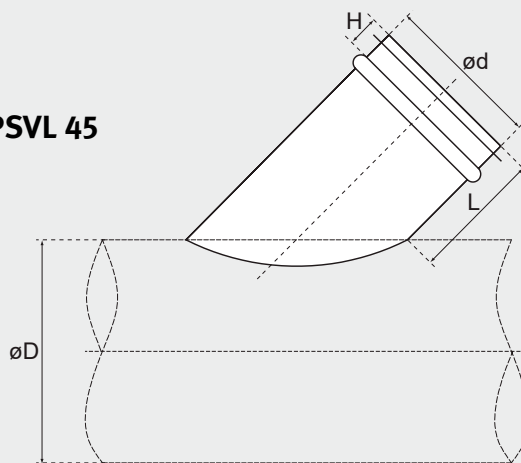
PRODUCT CHARACTERISTICS

- stitch welded
- installed on circular duct

PSVE 45



PSVL 45



øD (mm)	ød (mm)	PSVE 45		PSVL 45	
		H (mm)	L (mm)	H (mm)	L (mm)
80	80	40	70	38*	68
100	80	40	70	38*	68
100	100	40	70	38*	68
125	80	40	70	38*	68
125	100	40	70	38*	68
125	125	40	70	38*	68
140	80	40	70	38*	68
140	100	40	70	38*	68
140	125	40	70	38*	68
140	140	40	68	38*	66
150	80	40	70	38*	68
150	100	40	70	38*	68
150	125	40	70	38*	68
150	140	40	68	38*	66
150	150	40	68	38*	66

øD (mm)	ød (mm)	PSVE 45		PSVL 45	
		H (mm)	L (mm)	H (mm)	L (mm)
160	80	40	70	38*	68
160	100	40	70	38*	68
160	125	40	70	38*	68
160	140	40	68	38*	66
160	150	40	68	38*	66
160	160	40	68	38*	66
180	80	40	70	38*	68
180	100	40	70	38*	68
180	125	40	70	38*	68
180	140	40	68	38*	66
180	150	40	68	38*	66
180	160	40	68	38*	66
180	180	40	68	38*	66
200	80	40	70	38*	68
200	100	40	70	38*	68



Round fittings

øD (mm)	ød (mm)	PSVE 45		PSVL 45	
		H (mm)	L (mm)	H (mm)	L (mm)
200	125	40	70	38*	68
200	140	40	68	38*	66
200	150	40	68	38*	66
200	160	40	68	38*	66
200	180	40	68	38*	66
200	200	40	68	38*	66
224	80	40	70	38*	68
224	100	40	70	38*	68
224	125	40	70	38*	68
224	140	40	68	38*	66
224	150	40	68	38*	66
224	160	40	68	38*	66
224	180	40	68	38*	66
224	200	40	68	38*	66
224	224	40	68	38*	66
250	100	40	70	38*	68
250	125	40	70	38*	68
250	140	40	68	38*	66
250	150	40	68	38*	66
250	160	40	68	38*	66
250	180	40	68	38*	66
250	200	40	68	38*	66
250	224	40	68	38*	66
250	250	40	68	40	66
280	100	40	70	38*	68
280	125	40	70	38*	68
280	140	40	68	38*	66
280	150	40	68	38*	66
280	160	40	68	38*	66
280	180	40	68	38*	66
280	200	40	68	38*	66
280	224	40	68	38*	66
280	250	40	68	40	66
280	280	40	68	40	66
300	100	40	70	38*	68
300	125	40	70	38*	68
300	140	40	68	38*	66
300	150	40	68	38*	66
300	160	40	68	38*	66
300	180	40	68	38*	66
300	200	40	68	38*	66
300	224	40	68	38*	66
300	250	40	68	40	66
300	280	40	68	40	66
300	300	40	68	40	66
315	100	40	70	38*	68

øD (mm)	ød (mm)	PSVE 45		PSVL 45	
		H (mm)	L (mm)	H (mm)	L (mm)
315	125	40	70	38*	68
315	140	40	68	38*	66
315	150	40	68	38*	66
315	160	40	68	38*	66
315	180	40	68	38*	66
315	200	40	68	38*	66
315	224	40	68	38*	66
315	250	40	68	40	66
315	280	40	68	40	66
315	300	40	68	40	66
315	315	40	68	40	66
355	125	40	70	38*	68
355	140	40	68	38*	66
355	150	40	68	38*	66
355	160	40	68	38*	66
355	180	40	68	38*	66
355	200	40	68	38*	66
355	224	40	68	38*	66
355	250	40	68	40	66
355	280	40	68	40	66
355	300	40	68	40	66
355	315	40	68	40	66
355	355	40	68	40	66
400	125	40	70	38*	68
400	140	40	68	38*	66
400	150	40	68	38*	66
400	160	40	68	38*	66
400	180	40	68	38*	66
400	200	40	68	38*	66
400	224	40	68	38*	66
400	250	40	68	40	66
400	280	40	68	40	66
400	300	40	68	40	66
400	315	40	68	40	66
400	355	40	68	40	66
400	400	40	68	50	88
450	160	40	68	38*	66
450	180	40	68	38*	66
450	200	40	68	38*	66
450	224	40	68	38*	66
450	250	40	68	40	66
450	280	40	68	40	66
450	300	40	68	40	66
450	315	40	68	40	66
450	355	40	68	40	66
450	400	40	68	50	88



øD (mm)	ød (mm)	PSVE 45		PSVL 45	
		H (mm)	L (mm)	H (mm)	L (mm)
450	450	50	88	50	88
500	200	40	68	38*	66
500	224	40	68	38*	66
500	250	40	68	40	66
500	280	40	68	40	66
500	300	40	68	40	66
500	315	40	68	40	66
500	355	40	68	40	66
500	400	40	68	50	88
500	450	50	88	50	88
500	500	50	88	50	88
560	200	40	68	38*	66
560	224	40	68	38*	66
560	250	40	68	40	66
560	280	40	68	40	66
560	300	40	68	40	66
560	315	40	68	40	66

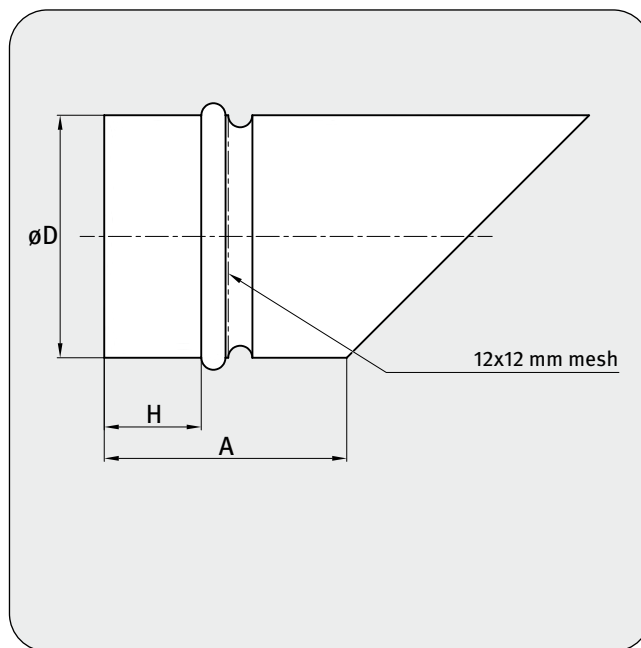
øD (mm)	ød (mm)	PSVE 45		PSVL 45	
		H (mm)	L (mm)	H (mm)	L (mm)
560	355	40	68	40	66
560	400	40	68	50	88
560	450	50	88	50	88
560	500	50	88	50	88
560	560	60	88	60	88
630	200	40	68	38*	66
630	224	40	68	38*	66
630	250	40	68	40	66
630	280	40	68	40	66
630	300	40	68	40	66
630	315	40	68	40	66
630	355	40	68	40	66
630	400	40	68	50	88
630	450	50	88	50	88
630	500	50	88	50	88
630	560	60	88	60	88
630	630	60	88	60	88

Tolerance: * +0/-5 mm.



ANGLE TAKE-OFF WITH MESH

AVE



MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

- mesh mounted by spot welding
- stitch welded
- 12x12 mm mesh

Diameter øD (mm)	H (mm)	A (mm)	Box quantity	Pack.
80	38*	94	Z	Z
100	38*	94	65	P4
125	38*	93	50	P4
140	38*	93	Z	Z
150	38*	93	30	P4
160	38*	93	60	P2
180	38*	93	Z	Z
200	38*	93	50	P2
224	38*	93	Z	Z
250	40	93	30	P2

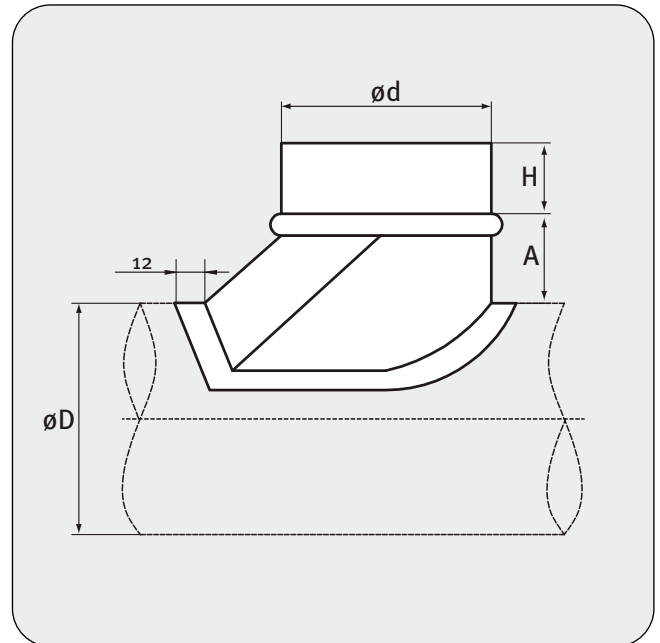
Tolerance: * +0/-5 mm Z - information upon request

Diameter øD (mm)	H (mm)	A (mm)	Box quantity	Pack.
280	40	93	Z	Z
315	40	93	28	P1
355	40	93	24	P1
400	50	93	15	P1
450	50	93	9	P1
500	50	93	8	P1
560	60	95	Z	Z
630	60	118	4	P1
710	60	146	Z	Z



CURVED BOOT

CBE



MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

- stitch welded
- installed on circular duct

$\varnothing D$ (mm)	$\varnothing d$ (mm)	A (mm)	H (mm)
100	100	55	40
125	100	55	40
150	100	55	40
160	100	55	40
200	100	55	40
250	100	55	40
300	100	55	40
315	100	55	40
355	100	55	40
400	100	55	40
450	100	55	40
500	100	55	40
560	100	55	40
630	100	55	40
125	125	70	40
150	125	70	40
160	125	70	40
180	125	70	40

$\varnothing D$ (mm)	$\varnothing d$ (mm)	A (mm)	H (mm)
200	125	70	40
250	125	70	40
300	125	70	40
315	125	70	40
355	125	70	40
400	125	70	40
450	125	70	40
500	125	70	40
150	150	80	40
160	150	80	40
180	150	80	40
200	150	80	40
250	150	80	40
300	150	80	40
315	150	80	40
355	150	80	40
400	150	80	40
450	150	80	40

$\varnothing D$ (mm)	$\varnothing d$ (mm)	A (mm)	H (mm)
500	150	80	40
560	150	80	40
630	150	80	40
160	160	85	40
180	160	85	40
200	160	85	40
250	160	85	40
300	160	85	40
315	160	85	40
355	160	85	40
400	160	85	40
450	160	85	40
500	160	85	40
560	160	85	40
180	180	95	40
200	180	95	40
250	180	95	40
200	200	105	40



Round fittings

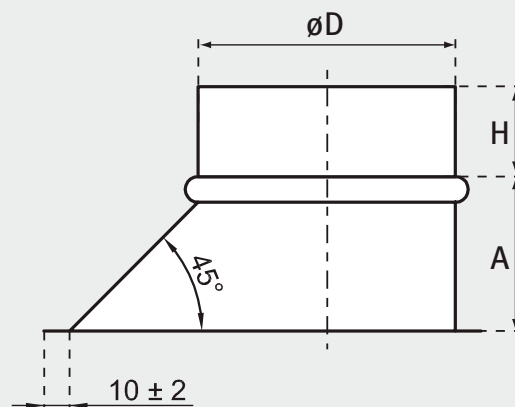
øD (mm)	ød (mm)	A (mm)	H (mm)
250	200	105	40
300	200	105	40
315	200	105	40
355	200	105	40
400	200	105	40
450	200	105	40
500	200	105	40
560	200	105	40
630	200	105	40
224	224	105	40
250	224	105	40
300	224	105	40
355	224	105	40
400	224	105	40
450	224	105	40
250	250	130	40
300	250	130	40
315	250	130	40
355	250	130	40
400	250	130	40

øD (mm)	ød (mm)	A (mm)	H (mm)
450	250	130	40
500	250	130	40
560	250	130	40
300	300	155	40
315	300	155	40
355	300	155	40
400	300	155	40
450	300	155	40
500	300	155	40
560	300	155	40
315	315	165	40
355	315	165	40
400	315	165	40
450	315	165	40
500	315	165	40
560	315	165	40
630	315	165	40
710	315	165	40
800	315	165	40
900	315	165	40

øD (mm)	ød (mm)	A (mm)	H (mm)
355	355	185	40
400	355	185	40
450	355	185	40
500	355	185	40
560	355	185	40
630	355	185	40
400	400	205	40
450	400	205	40
500	400	205	40
560	400	205	40
450	450	205	40
500	450	205	40
560	450	205	40
630	450	205	40
500	500	205	50
560	500	205	50
630	500	205	50
630	630	205	60



FLAT SHOE

FBE


MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

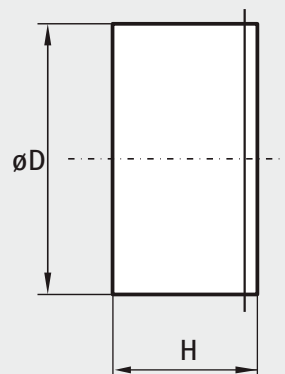
- stitch welded
- installed on rectangular duct

ØD (mm)	A (mm)	H (mm)
80	75	40
100	75	40
125	85	40
150	85	40
160	90	40
180	90	40
200	90	40
224	100	40
250	110	40
280	110	40
300	165	40
315	165	40
355	165	40
400	165	40
450	175	40
500	175	55
560	200	55



MALE CONNECTOR

SSST



MATERIAL

- galvanized steel
- EPDM rubber gasket

PRODUCT CHARACTERISTICS

- stitch welded
- gasket is positioned by returned edges

ØD (mm)	H (mm)	Box quantity	Packaging
80	53	100	P12
100	53	150	P6
125	53	100	P6
140	53	100	P4
150	53	100	P4
160	53	100	P4
180	53	55	P6
200	53	65	P4
224	53	50	P4
250	67	70	P2
280	67	30	P4
300	67	30	P4

Z - information upon request

ØD (mm)	H (mm)	Box quantity	Packaging
315	67	50	P2
355	67	45	P2
400	81	75	P1
450	83	50	P1
500	83	50	P1
560	83	50	P1
630	83	35	P1
710	103	25	P1
800	103	25	P1
900	103	Z	Z
1000	115	Z	Z
1250	115	Z	Z



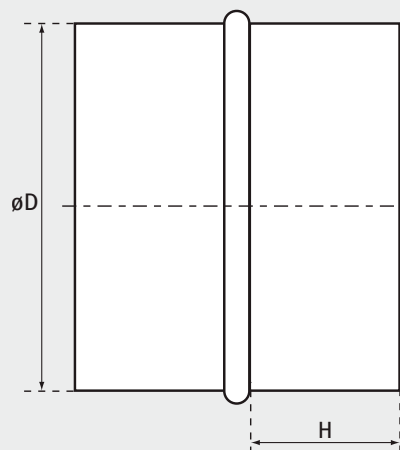
MALE COUPLING

NPE / NPL



Version with gasket

NPL



MATERIAL

- galvanized steel
- EPDM rubber gasket (NPL)

PRODUCT CHARACTERISTICS

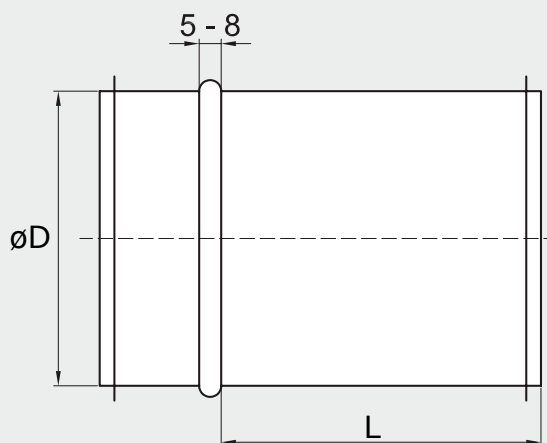
- stitch welded
- gasket (NPL) is positioned by returned edges

øD (mm)	H (mm)		Box quantity		Packaging
	NPE	NPL	NPE	NPL	
80	40	38	80	70	P12
100	40	38	100	90	P6
125	40	38	70	60	P6
140	40	38	75	86	P4
150	40	38	75	45	P4
160	40	38	65	60	P4
180	40	38	55	50	P4
200	40	38	40	40	P4
224	40	38	30	30	P4
250	40	40	20	55	P2
280	40	40	50	50	P2
300	40	40	46	45	P2
315	40	40	46	36	P2
350	40	40	55	55	P1
355	40	40	30	30	P2
400	45	50	30	30	P2
450	45	50	24	24	P1
500	45	50	24	24	P1
560	55	60	21	21	P1
600	70	60	17	16	P1
630	70	60	16	16	P1
710	70	60	15	15	P1
800	70	65	10	10	P1
900	70	65			
1000	70	76			
1250	70	76			



SLIDE-IN COUPLING

SNPL



MATERIAL

- galvanized steel
- EPDM rubber gasket

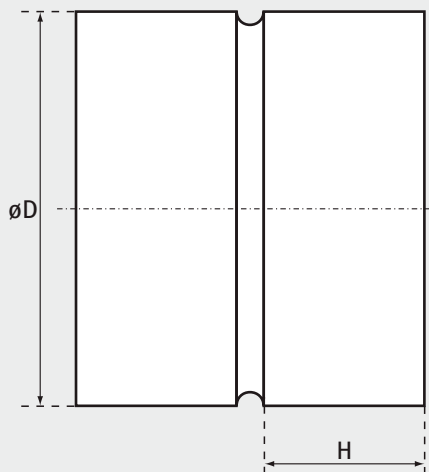
PRODUCT CHARACTERISTICS

- eliminates the need of accurate length cutting of ducts
- makes it possible to use a duct, that was cut to a too short length
- also available - version without rubber gasket

$\varnothing D$ (mm)	Available lengths L (mm)
80	150, 300, 500
100	150, 300, 500
125	150, 300, 500
140	150, 300, 500
150	150, 300, 500
160	150, 300, 500
180	150, 300, 500
200	150, 300, 500
224	150, 300, 500
250	150, 300, 500
280	150, 300, 500
300	150, 300, 500
315	150, 300, 500
355	150, 300, 500
400	150, 300, 500
450	150, 300, 500
500	150, 300, 500
560	150, 300, 500
630	150, 300, 500



FEMALE COUPLING

MFE

MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

- stitch welded

øD (mm)	H (mm)	Box quantity	Packaging
80	40	80	P12
100	40	100	P6
125	40	60	P6
140	40	50	P6
150	40	70	P4
160	40	60	P4
180	40	50	P4
200	40	35	P4
224	40	30	P4
250	40	18	P4
280	40	50	P2
300	40	46	P2
315	40	46	P2
350	40	55	P1
355	40	30	P2
400	45	30	P2
450	45	24	P1
500	45	24	P1
560	55	21	P1
600	70	16	P1
630	70	16	P1
710	70	15	P1
800	70	10	P1
900	70		
1000	70		
1250	70		



DUCT END CAP

EP / ES / ESL / ESLH



Version with gasket
ESL



Version with gasket
and handle **ESLH**



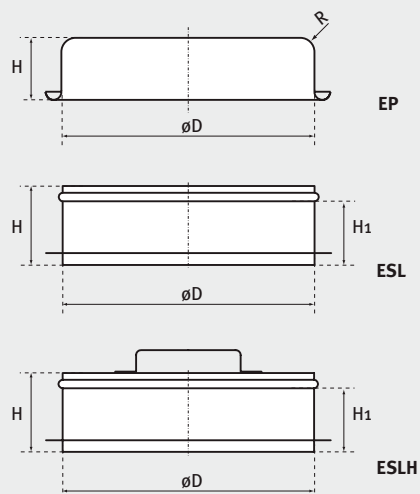
MATERIAL

- galvanized steel
- EPDM rubber gasket (ESL, ESLH)

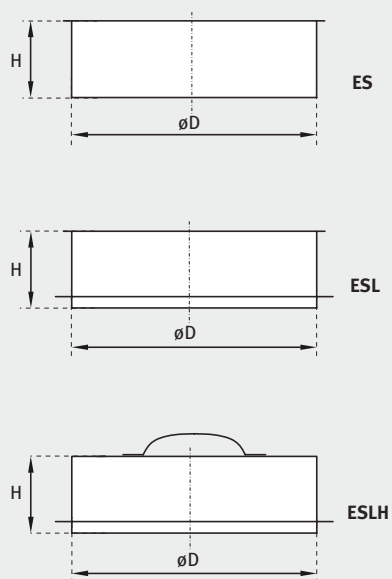
PRODUCT CHARACTERISTICS

- pressed/hand made
- single element (EP)
- can be used for both ducts and fittings (EP)
- handle mounted by spot welding (ESLH)

Pressed



Hand made





EP (pressed)

øD [mm]	H* [mm]	R [mm]	Box quantity	Opak.
80	20	5	150	P24
100	20	5	100	P24
125	20	5	70	P24
140	20	5	65	P24
150	20	5	50	P24
160	20	5	50	P24
180	20	5	40	P24
200	20	5	30	P24
224	20	5	30	P24
250	20	5	20	P24
300	20	5	25	P24
315	20	5	20	P24
355	20	5	15	P24
400	20	5	15	P24
500	20	5	100	P1

ES (hand made)

øD [mm]	H** [mm]
80	40
100	40
125	40
140	40
150	40
160	40
180	40
200	40
224	40
250	50
280	50
300	50
315	50
355	50
400	50
450	50
500	65
560	65
600	70
630	70
650	70
710	80
800	80
900	80
1000	100
1120	100

ESL/ESLH (pressed)

øD [mm]	H1* [mm]	Box quantity	Opak.
80	38	80	P24
100	38	110	P12
125	38	72	P12
140	38	Z	Z
150	38	50	P12
160	38	40	P12
180	38	30	P12
200	38	50	P6
224	38	Z	Z
250	57	25	P6
300	57	Z	Z
315	57	16	P6

ESL/ESLH (hand made)

øD [mm]	H** [mm]
280	57
355	57
400	71
450	73
500	73
560	73
600	73
630	73
650	73
710	90
800	90
900	90
1000	105
1120	105

Tolerance: * ±2mm; ** ±5mm Z - information upon request



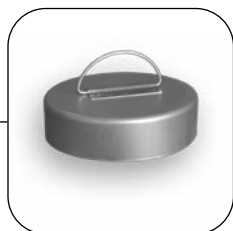
FITTING END CAP

EPF / EPFH



Version with handle

EPFH



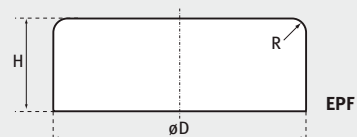
MATERIAL

- galvanized steel

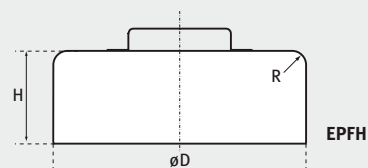
PRODUCT CHARACTERISTICS

- pressed/hand made
- single element
- handle mounted by spot welding (EPFH)

Pressed

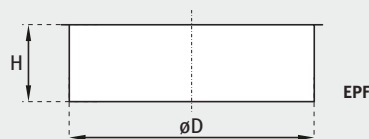


EPF

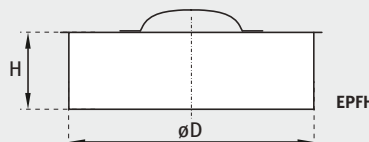


EPFH

Hand made



EPF



EPFH

EPF / EPFH (pressed)

øD (mm)	H* (mm)	Box quantity	Opak.
80	40	75	P24
100	40	55	P24
125	40	80	P12
140	40	60	P12
150	40	55	P12
160	40	45	P12
180	40	40	P12
200	40	40	P12
224	40	Z	Z
250	60	30	P6
300	60	Z	Z
315	60	22	P6
355	60	Z	Z
400	80	12	P4

EPF / EPFH (hand made)

øD (mm)	H** (mm)
280	50
450	50
500	65
560	65
600	70
630	70
650	70
710	80
800	80
900	80
1000	100
1120	100

Tolerance: * $\pm 5\text{mm}$; ** $\pm 2\text{mm}$ Z - information upon request



FLAT TAKE-OFF

ILE / ILL



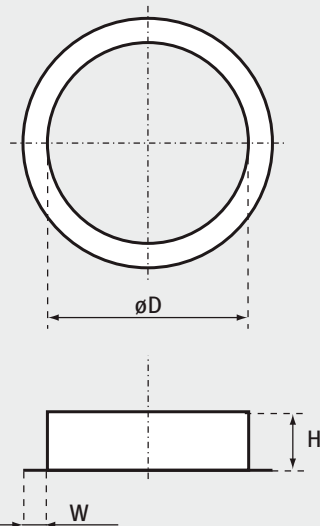
Version with gasket

ILL



MATERIAL

- galvanized steel
- EPDM rubber gasket (ILL)



PRODUCT CHARACTERISTICS

- stitch welded
- gasket (ILL) is positioned by returned edges

ILE

$\varnothing D$ [mm]	W (mm)	H (mm)	Box quantity	Packaging
80	10	50	100	P12
100	12	48	150	P6
125	12	48	100	P6
140	15	45	70	P6
150	15	45	100	P4
160	15	45	100	P4
180	15	45	50	P6
200	15	45	60	P4
224	15	45	60	P4
250	15	54	40	P4
280	15	54	40	P4
300	15	54	30	P4
315	15	54	30	P4
350	15	54	28	P4
355	15	54	28	P4
400	15	54	35	P2
450	15	54	30	P2
500	15	60	60	P1
560	15	60	50	P1
600	15	60	Z	Z
630	15	65	40	P1
710	15	65	Z	Z
800	15	85	Z	Z
900	15	85	Z	Z
1000	15	85	Z	Z

Tolerance: H, W ± 2 mm Z - information upon request

ILL

$\varnothing D$ [mm]	W (mm)	H (mm)	Box quantity	Packaging
80	10	43	100	P12
100	12	41	150	P6
125	12	41	100	P6
140	15	38	70	P6
150	15	38	70	P6
160	15	38	100	P4
180	15	38	50	P6
200	15	38	75	P4
224	15	38	60	P4
250	15	52	40	P4
280	15	52	50	P4
300	15	52	35	P4
315	15	52	30	P4
350	15	52	Z	Z
355	15	52	32	P4
400	15	66	30	P2
450	15	68	30	P2
500	15	68	25	P2
560	15	68	25	P2
600	15	68	Z	Z
630	15	68	34	P1
710	15	85	Z	Z
800	15	85	Z	Z
900	15	85	Z	Z
1000	15	100	Z	Z
1120	15	100	Z	Z
1250	15	100	Z	Z



45° FLAT TAKE-OFF

ILE 45 / ILL 45

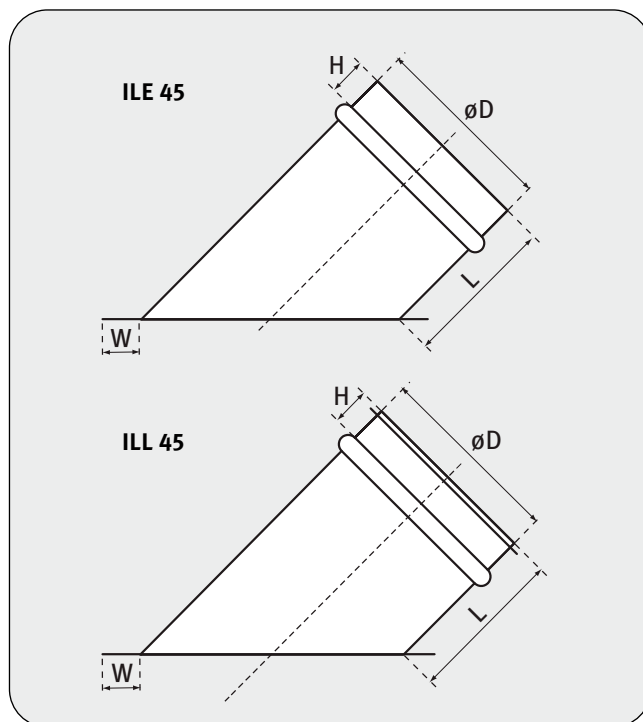


Version with gasket
ILL 45



MATERIAL

- galvanized steel
- EPDM rubber gasket (ILL 45)



PRODUCT CHARACTERISTICS

- used as 45° rectangular duct take-off
- stitch welded
- gasket (ILL 45) is positioned by returned edges

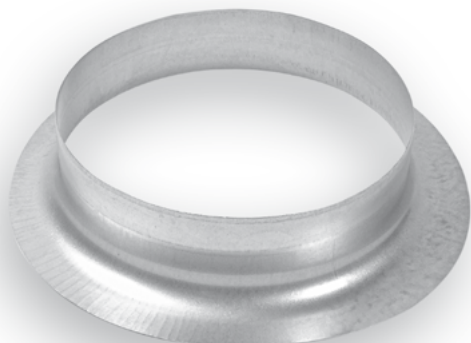
øD (mm)	L (mm)	W (mm)	H (mm)	
			ILE 45	ILL 45
80	60	10	45	38*
100	58	12	45	38*
125	58	12	45	38*
140	58	12	45	38*
150	58	12	45	38*
160	58	12	45	38*
180	58	12	45	38*
200	58	12	45	38*
224	58	12	45	38*
250	58	12	45	40
280	58	12	45	40
300	58	12	45	40
315	58	12	45	40
355	58	12	45	40
400	58	12	45	50
450	88	12	55	50
500	88	12	55	50
560	88	12	65	60
630	88	12	65	60

Tolerance: * +0/-5 mm

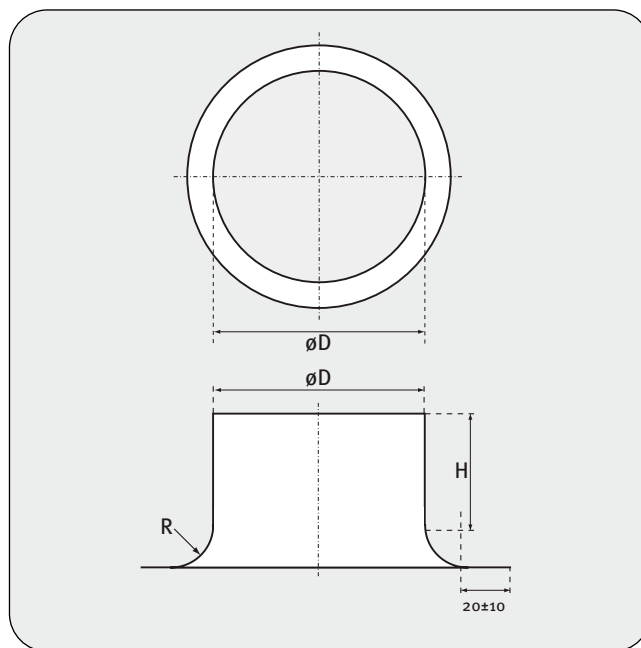


TAKE-OFF WITH RADIUS

ILR / ILRL



Version with gasket
ILRL



MATERIAL

- galvanized steel
- EPDM rubber gasket (ILRL)

PRODUCT CHARACTERISTICS

- pressed
- single element

øD (mm)	H (mm)	R (mm)	Box quantity	Packaging
80	45	12	40	P12
100	45	15	50	P12
125	45	20	70	P6
150	45	20	45	P6
160	45	25	42	P6
200	45	25	30	P6
250	45	25	18	P6
315	45	25	18	P6



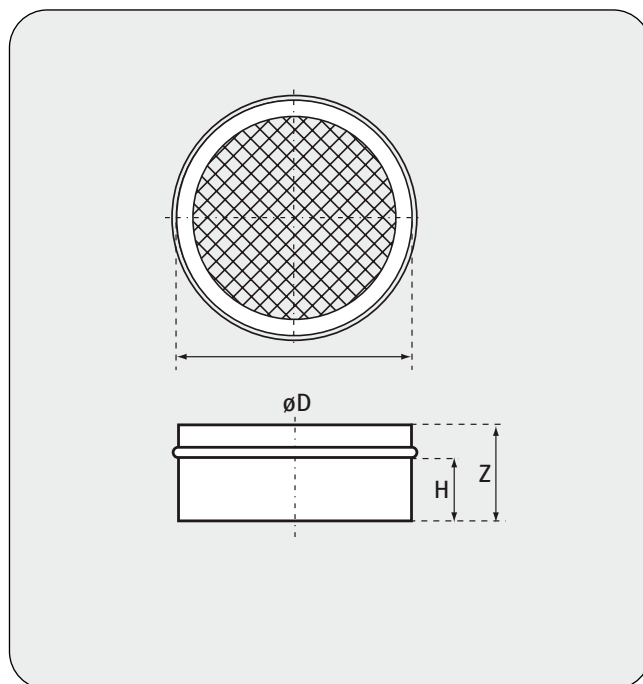
TAKE-OFF WITH MESH

ESNE



MATERIAL

- galvanized steel



PRODUCT CHARACTERISTICS

- mesh mounted by spot welding
- stitch welded
- 12x12 mm mesh

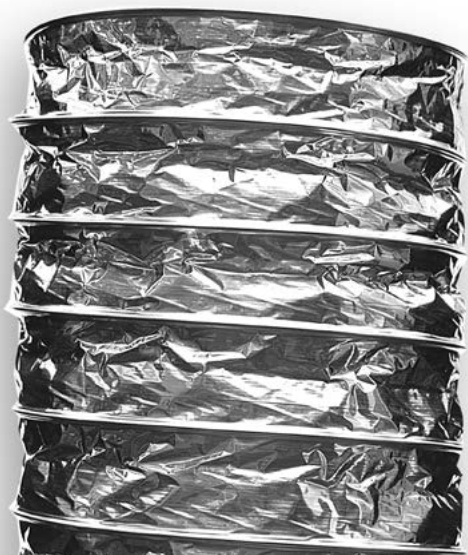
$\varnothing D$ (mm)	Z (mm)	H (mm)	Box quantity	Packaging
80	55	40	65	P24
100	55	40	80	P12
125	55	40	63	P12
140	55	40	40	P12
150	55	40	40	P12
160	55	40	35	P12
180	55	40	35	P12
200	55	40	50	P6
224	55	40	35	P6
250	55	40	30	P6
280	55	40	30	P6
300	55	40	25	P6
315	55	40	20	P6

Tolerance: Z \pm 3 mm

$\varnothing D$ (mm)	Z (mm)	H (mm)	Box quantity	Packaging
350	55	40	20	P6
355	55	40	20	P6
400	55	40	20	P4
450	55	40	40	P2
500	65	50	25	P2
560	65	50	25	P2
600	65	50	Z	Z
630	80	60	Z	Z
710	80	60	Z	Z
800	80	60	Z	Z
900	80	60	Z	Z
1000	80	60	Z	Z



NON-INSULATED ALUMINUM FLEXIBLE DUCT

AF012


PRODUCT CHARACTERISTICS

- standard 10 m long ducts fitted into 0,5 m cardboard boxes
- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- PN-EN 13180:2004 norm compliant

USE

This duct has been designed to transport air in both AC and ventilation duct systems. Attenuates system's vibration. Reduces the need to use fittings.

DESIGN

Three-layer laminate with polyester. Extremely resistant to mechanical damage. The duct is reinforced with a steel spiral wire (lead 24 mm).

Type	AF012
Spiral lead	24 mm
Diameter range	83-635 mm
Operating temperature range	-30/+140°C
Maximum air speed	30 m/s
Maximum operating pressure	2500 Pa
Standard length	10 m
Cardboard package	0,5 m

Note: duct characteristics on page 66



INSULATED ALUMINUM FLEXIBLE DUCT

AF013 / AF019



AF013



AF019

PRODUCT CHARACTERISTICS

- standard 10 m long ducts fitted into 1 m cardboard boxes
- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- PN-EN 13180:2004 norm compliant

USE

Flexible duct with thermal insulation and sound attenuation is designed especially to transport air in ventilation and AC systems. Thanks to perforation of the internal duct, the noise generated by installation is reduced.

Reduces system's vibrations. Reduces the need to use fittings.

DESIGN

Internal layer of the AF013 / AF019 duct is made of lightly perforated AF012 duct. Insulation material is mineral wool, while the external cover is made of three-layer laminate reinforced by carbon fiber. AF013 duct has additional steam insulation foil between the internal duct and insulation layer made of polyester.

Type	AF013 / AF019
Internal duct	AF012 (perforated)
Insulation 20 kg/m ³	25 mm mineral wool
External cover	aluminum, polyester
Diameter range	83-635 mm
Operating temperature range	-30/+140°C
Maximum air speed	30 m/s
Maximum operating pressure	2000 Pa
Standard length	10 m
Cardboard package	1 m

Note: duct characteristics on page 66



INSULATED ALUMINUM FLEXIBLE DUCT

M0izo



PRODUCT CHARACTERISTICS

- completely non-combustible flexible aluminum duct
- internal layer does not contain any polyester
- thanks to thicker aluminum layer the duct's stiffness, hardness and durability are increased as compared to a traditional flexible duct
- standard 10 m long ducts are individually fitted into 1 m cardboard boxes
- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- PN-EN 13180:2004 norm compliant

USE

This flexible and thermally insulated duct has been especially designed for ventilation and AC market. Thanks to its thermal resistance and non combustibility, it can also be used to transport hot air of temperature **up to +250°C** including distribution of hot air from fireplaces. Attenuates system's vibration. Reduces the need to use fittings and provides thermal insulation.

DESIGN

The internal layer of M0izo duct (insulated) is made of non-perforated M0 duct. Two layer aluminum foil glued with non-flammable glue. Fused steel wire spiral with 24 mm lead. Insulation material is mineral wool and the external cover is made of multi layer laminated aluminum reinforced with carbon fibre.

Type	M0izo
Internal duct	M0 (non perforated)
Insulation 20 kg/m ³	25 mm mineral wool
External cover	reinforced aluminum, polyester
Diameter range	102-315 mm*
Operating temperature range	-30/+250°C
Maximum air speed	30 m/s
Maximum operating pressure	3000 Pa
Standard length	5**/10 m
Cardboard package	1 m

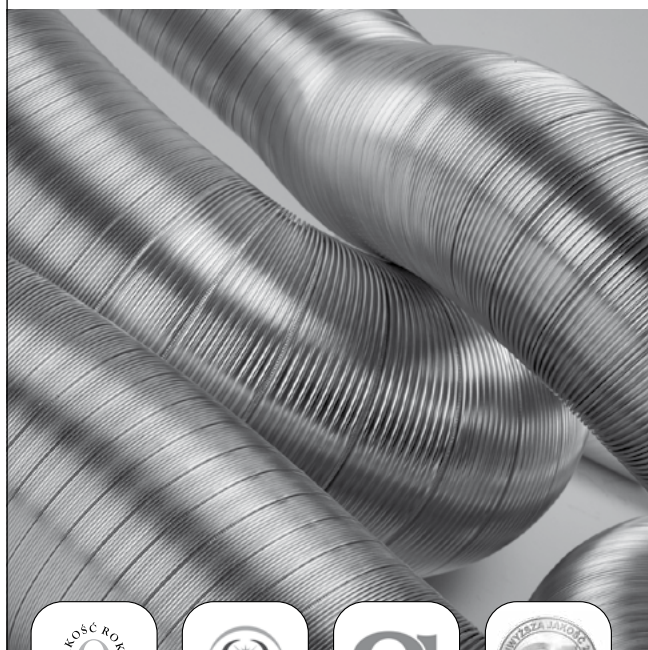
Note: duct characteristics on page 66 * other diameters on request

** only for Ø102-162



SEMI-RIGID ALUMINUM DUCT

S-FLEX®



USE

Semi-rigid aluminum duct. Due to a wide range of possible uses, this product can be used in AC and ventilation systems as well as for other industrial purposes.

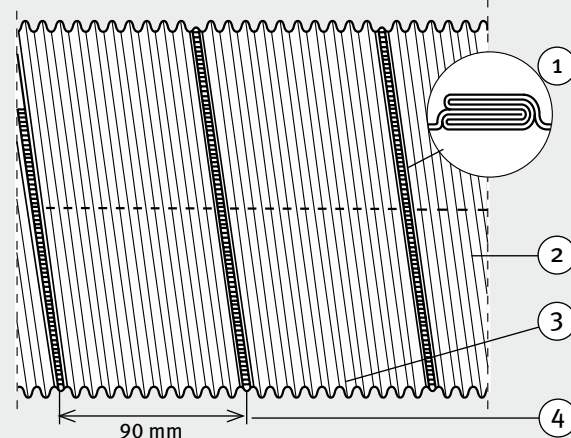
DESIGN

S-Flex® is a product used in construction of ventilation and air conditioning installations. Due to its high mechanical durability, the product proves indispensable also in the installations of industrial facilities. Perfected technical parameters, high flexibility and special design enable to install ducts without the necessity to use special tools or fittings.

Type	S-FLEX®
Material	aluminum
Diameter range	80-400 mm
Operating temperature range	-30/+280 °C
Maximum air speed	25 m/s
Maximum operating pressure	2000 Pa
Standard length	3 m
Compressed duct length	0,8 m (at maximum compression 0,6 m)

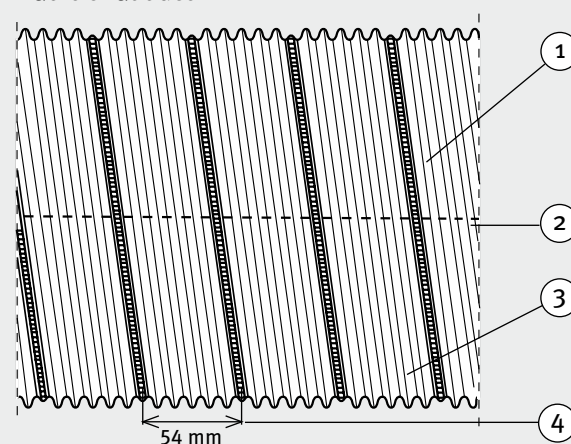
Note: duct characteristics on page 66

S-flex® duct



1. High-quality durable interlock seam
2. Aluminum tape thickness:
for diameters: 80, 100, 250, 315, 400 - 0,09 mm,
for diameters: 120, 125, 130, 150, 160, 180, 200 - 0,07 mm
3. 10 compression grooves
4. S-Flex® duct is manufactured from wide (90mm) aluminum tape. Thanks to this the number of seams is limited by 40%, the duct is more flexible and durable and easy to compress.

Traditional duct



1. Non-durable seam
2. Material thickness below 0,10 mm
3. 5 compression grooves
4. A traditional duct is manufactured from a narrow 54 mm wide aluminum tape. It means more seams (up to 55 seams on 3 m standard length), making the duct less flexible, more prone to damages and less compressible.

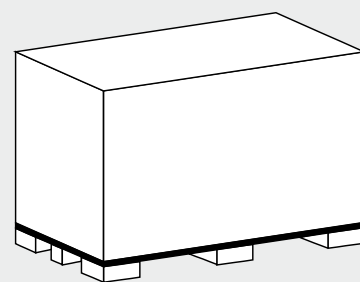


Diameter ød (mm)	Packaging method for S-Flex® for the following diameters length 3000 mm (22%)	
	Number of items /box	Box type
80	125	P1
80	54	P2
100	81	P1
100	40	P2
120	54	P1
125	53	P1
130	48	P1
150	38	P1
160	32	P1
180	24	P1
200	20	P1
250	13	P1
315	5	P1
400	3	P1

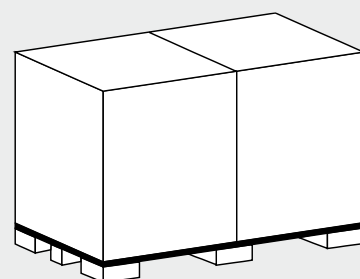
Diameter ød (mm)	Packaging method for S-Flex® for the following diameters length 5000 mm	
	Number of items /box	Box type
80	72	P1
100	52	P1
120	30	P1
125	30	P1
130	28	P1
150	23	P1
160	20	P1
180	16	P1
200	12	P1
250	9	P1

Code	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Volume (m³)	Packaging / pallet
P1	1200	800	800	4,63	0,770	max 3
P2	600	800	800	2,83	0,380	max 6

S-Flex® semi-flexible duct is also available in 315 and 400 mm diameters. The product is sold individually upon orders.



P1



P2





PVC FLEXIBLE DUCT

POLYFLEX HEAVY DUTY



PRODUCT CHARACTERISTICS

- standard 10 m long ducts are individually fitted into 0,5 m cardboard boxes
- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- smooth internal surface
- extremely resistant to mechanical damage
- PN-EN 13180:2004 norm compliant

USE

This duct is designed to be installed in low and medium pressure ventilation and AC systems. Attenuates system’s vibration. Reduces the need to use fittings. This duct is characterized by high flexibility and durability in case of multiple reshaping and relocations.

DESIGN

140 micrometers thick multilayer reinforced PVC.
Fused steel wire spiral with 24 mm lead.
Color: gray.

Type	POLYFLEX HEAVY DUTY
Spiral lead	24 mm
Diameter range	102-356 mm*
Operating temperature range	-10/+75°C
Maximum air speed	30 m/s
Maximum operating pressure	3000 Pa
Standard length	10 m
Cardboard package	0,5 m

Note: duct characteristics on page 66 * other diameters on request



PVC LAMINATED ALUMINUM FLEXIBLE DUCT

COMBIFLEX



PRODUCT CHARACTERISTICS

- high mechanical durability and resistance to high temperatures
- standard 10 m long ducts are individually fitted into 0.75 m cardboard boxes
- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- PN-EN 13180:2004 norm compliant

USE

COMBIFLEX duct is designed to transport air in duct systems. Thanks to the internal aluminum coating, COMBIFLEX is resistant to high temperatures. The external PVC coating ensures mechanical durability. This duct is characterized by high flexibility and durability in case of multiple reshaping and relocations.

DESIGN

Multilayer aluminum and polyester laminate with additional 70 micrometers thick PVC coating. Fused steel wire spiral with 24 mm lead.

Type	COMBIFLEX PVC
Spiral lead	24 mm
Diameter range	102-457 mm
Operating temperature range	-30/+125°C
Maximum air speed	30 m/s
Maximum operating pressure	3000 Pa
Standard length	10 m
Cardboard package	0,75 m

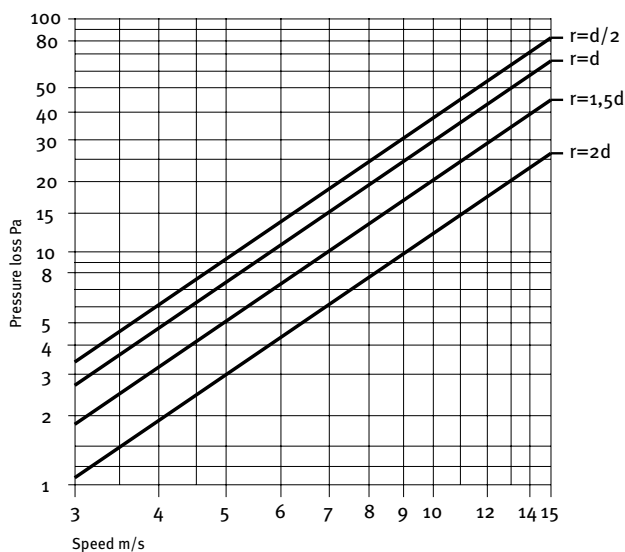
Note: duct characteristics on page 66



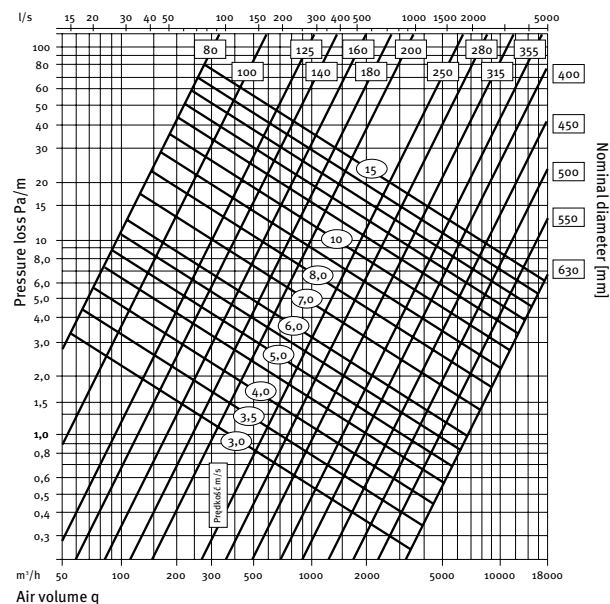
FLEXIBLE DUCT SPECIFICATIONS:

AF012, AF013, AF019, S-FLEX®, POLYFLEX PVC, COMBIFLEX PVC, M0izo

Local pressure loss on bends and elbows - chart



Linear pressure loss chart



Noise attenuation

Length AF013 L=2000 (mm)

dB (A)	Reduction of the noise level through the ducts walls				Noise attenuation	
Frequency (Hz)	1/3 okt.	1/1 okt.	1/3 okt.	1/1 okt.	1/3 okt.	1/1 okt.
100	16,1				31,6	
125	19,7	18,4			28,5	29,1
160	21,0				27,9	
200	18,8				29,1	
250	17,5	15,2			31,6	31,5
315	12,3				37,3	
400	13,9				38,4	
500	11,1	10,8			39,0	38,9
630	8,8				39,3	
800	9,5				39,2	
1000	9,0	9,3			41,0	40,9
1250	9,3				43,6	
1600	10,3				44,3	
2000	11,1	11,1			48,2	46,7
2500	12,2				49,5	
3150	13,9				43,9	
4000	17,6	16,3			35,4	32,8
5000	19,3				29,1	

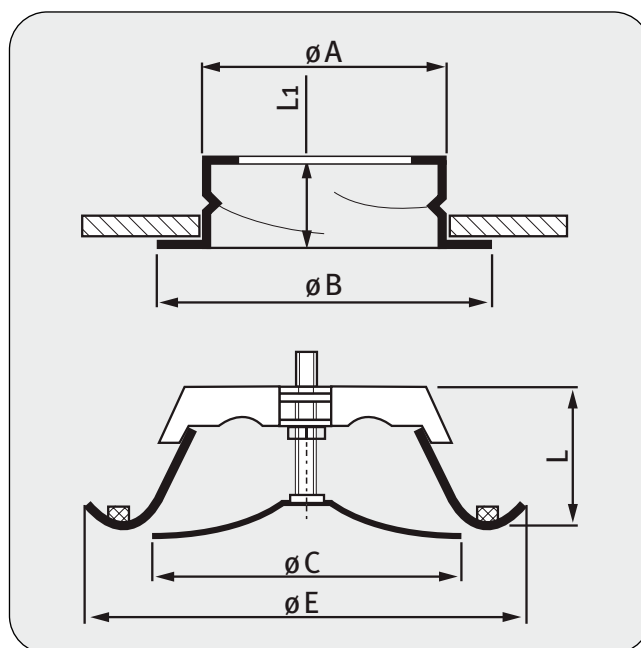
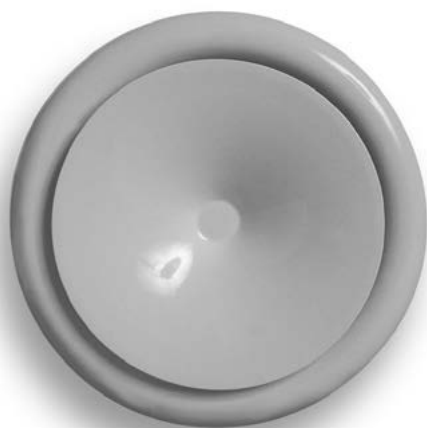
Boxes per pallet (pc)

Diameter	AF012	AF019	AF013	M0izo	COMBIFLEX
80	300	90	90	90	300
102	280	48	48	48	240
127	204	44	44	44	170
152	130	30	30	30	130
162	130	27	27	27	130
178	88	27	27	27	77
203	88	24	24	24	77
229	54	14	14	14	54
254	54	14	14	14	54
280	35	12	12	12	35
305	35	12	12	12	35
315	35	12	12	12	35
356	30	12	12	12	30
406	24	8	8	8	25
457	16	4	4	4	16
508	8	3	3	3	8
560	8	3	3	3	8
635	8	3	3	3	8



SUPPLY AIR VALVE

SR-S



PRODUCT CHARACTERISTICS

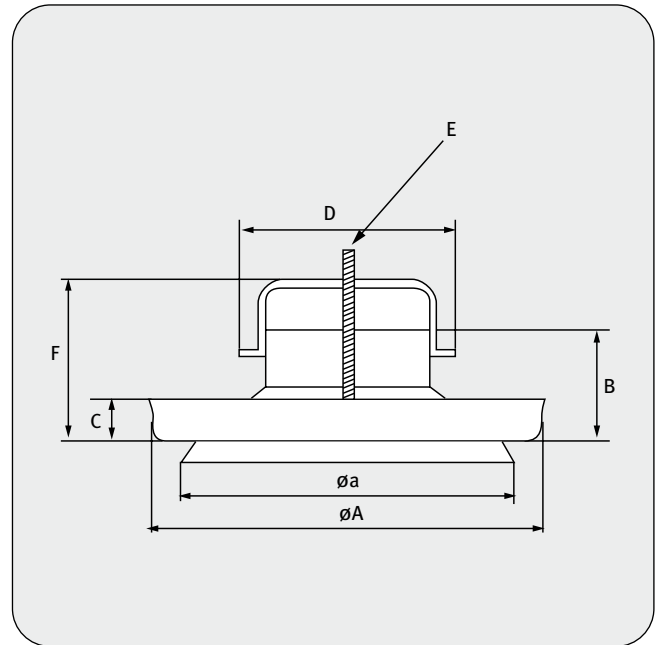
- supply air valve designed for ceiling mounting on ventilation ducts
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- long mounting frame makes it easier to connect to ventilation system
- fast and easy installation

Valve diameter	$\varnothing A$ (mm)	$\varnothing B$ (mm)	$\varnothing C$ (mm)	$\varnothing E$ (mm)	L (mm)	L1 (mm)
80	79,0	105,0	76,0	115,0	42,0	50,0
100	98,4	125,3	92,0	138,0	40,0	50,0
125	124,2	150,0	111,0	164,0	46,0	50,0
150	148,5	175,0	135,0	202,0	50,0	50,0
160	158,5	185,0	147,0	211,0	54,0	50,0
200	198,6	225,0	194,0	248,0	63,0	50,0
250	247,1	286,5	250,0	305,0	75,0	45,0



SUPPLY AIR VALVE

SR-SX



PRODUCT CHARACTERISTICS

- supply air valve designed for ceiling mounting on ventilation ducts
- long mounting frame with gasket makes it easier to connect to ventilation system
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating the central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- fast and easy installation

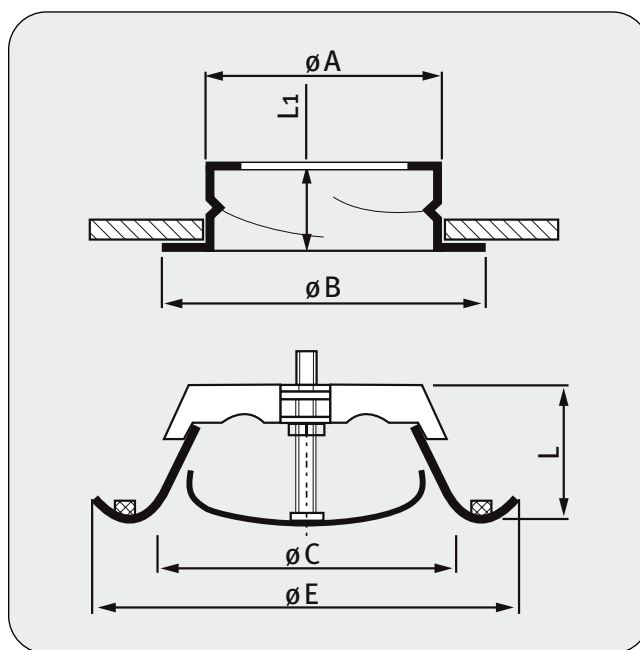
Valve diameter	øA (mm)	B (mm)	C (mm)	D (mm)	øa (mm)	E (mm)	F (mm)
100	134,0	39,0	19,0	98,0	126,0	M6×60	68,0
125	170,5	43,5	19,0	124,0	163,0	M8×70	79,0
160	210,0	44,5	19,5	157,0	200,0	M8×70	76,0

Tolerance: øA, B, C, F, øa ±5 mm; D ±3 mm



EXHAUST AIR VALVE

SR-E



PRODUCT CHARACTERISTICS

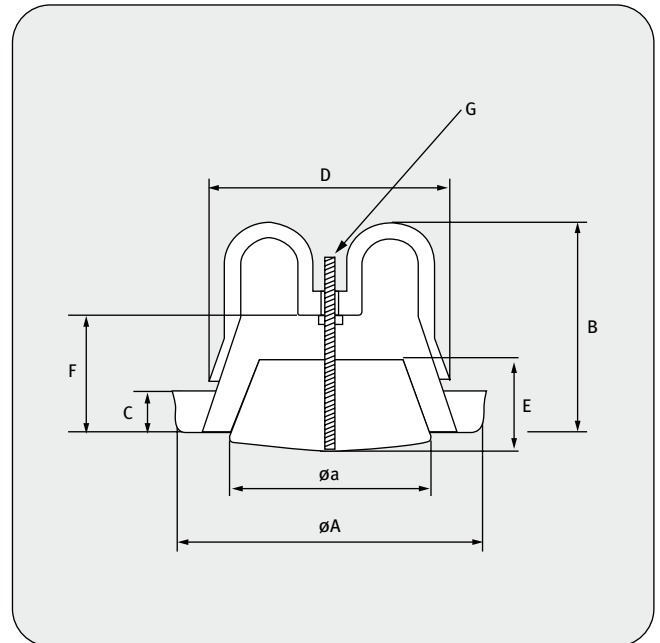
- exhaust air valve designed for ceiling mounting on ventilation ducts
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- long mounting frame makes it easier to connect to ventilation system
- fast and easy installation

Valve diameter	$\varnothing A$ (mm)	$\varnothing B$ (mm)	$\varnothing C$ (mm)	$\varnothing E$ (mm)	L (mm)	L1 (mm)
80	79,0	105,0	62,0	115,0	42,0	50,0
100	98,4	125,3	75,0	138,0	40,0	50,0
125	124,2	150,0	100,0	164,0	46,0	50,0
150	148,5	175,0	120,0	202,0	50,0	50,0
160	158,5	185,0	130,0	211,0	54,0	50,0
200	198,6	225,0	158,0	248,0	63,0	50,0
250	247,1	286,5	215,0	305,0	75,0	45,0



EXHAUST AIR VALVE

SR-EX



PRODUCT CHARACTERISTICS

- exhaust air valve designed for ceiling mounting on ventilation ducts
- long mounting frame with gasket makes it easier to connect to the system
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- fast and easy installation

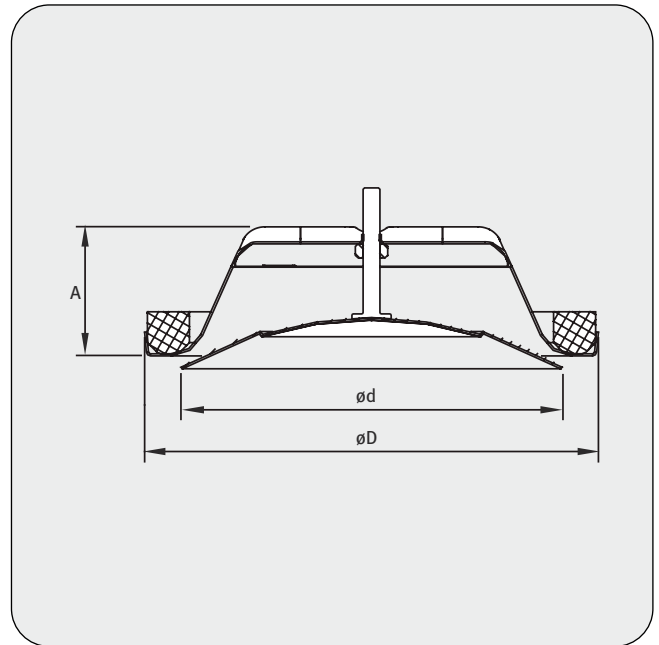
Valve diameter	ØA (mm)	B (mm)	C (mm)	D (mm)	Øa (mm)	E (mm)	F (mm)	G (mm)
100	130,0	87,0	20,0	98,0	88,0	38,5	51,5	M6×80
125	158,0	102,0	19,0	122,0	109,0	38,5	47,0	M6×80
160	188,5	104,0	19,0	158,5	131,0	38,0	47,0	M8×80
200	237,5	122,0	17,5	197,0	175,0	40,5	46,0	M8×80

Tolerance: ØA, B, C, E, F, Øa ±5 mm; D ±3 mm



SUPPLY AIR VALVE

NSV



PRODUCT CHARACTERISTICS

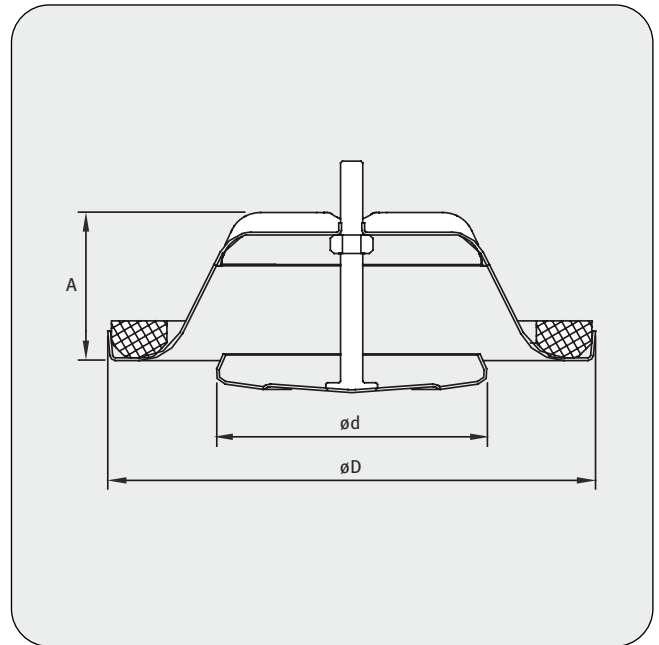
- supply air valve designed for ceiling mounting on ventilation ducts
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- mounting frame allows for easy installation in ventilation systems
- Fast and easy installation

Valve diameter	øD (mm)	ød (mm)	A (mm)	Weight (g)
80	112	93	37	140
100	132	110	40	190
125	162	135	46	260
160	193	158	54	370
200	245	205	64	550



EXHAUST AIR VALVE

NEV



PRODUCT CHARACTERISTICS

- exhaust air valve designed for ceiling mounting on ventilation ducts
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- mounting frame allows for easy installation in ventilation systems
- fast and easy installation

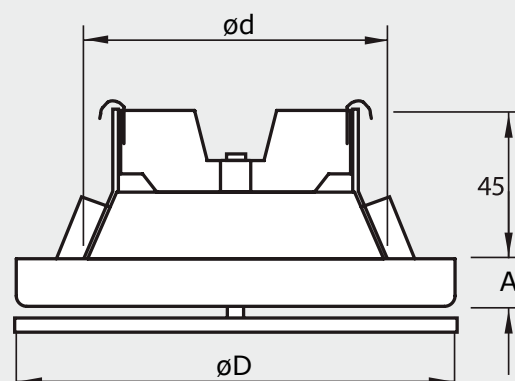
Valve diameter	øD (mm)	ød (mm)	A (mm)	Weight (g)
80*	112	60	37	125
100	132	75	40	160
125	163	99	46	230
160	193	119	54	340
200	245	158	64	510

* on request



SUPPLY AIR VALVE

SF-S



PRODUCT CHARACTERISTICS

- supply air valve designed for ceiling mounting on ventilation ducts
- made of galvanized steel, attenuated with sound-absorbing material
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design of rotary plate filled with attenuating material provides low noise level
- high quality and modern design
- valve can be installed directly on duct or plenum box
- fast and easy installation

Valve diameter	$\varnothing D$ (mm)	$\varnothing d$ (mm)	A (mm)
100	135	100	15
125	160	125	15
160	191	160	15
200	238	200	18

Sound attenuation ΔL (dB):

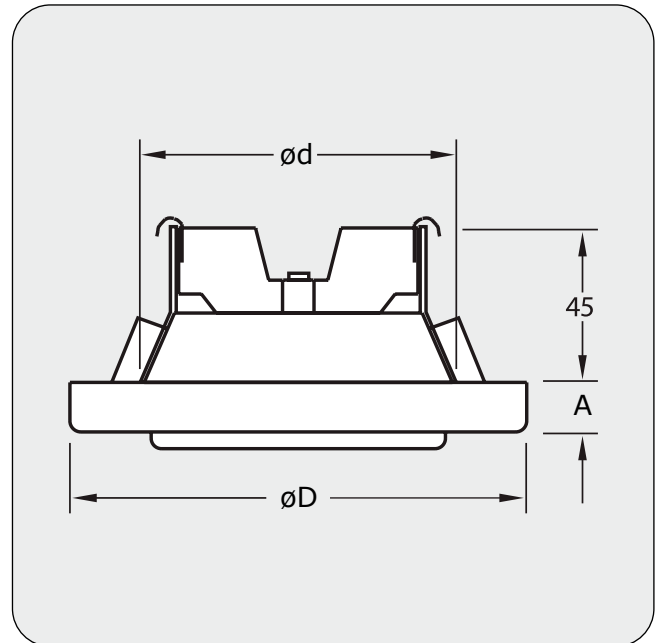
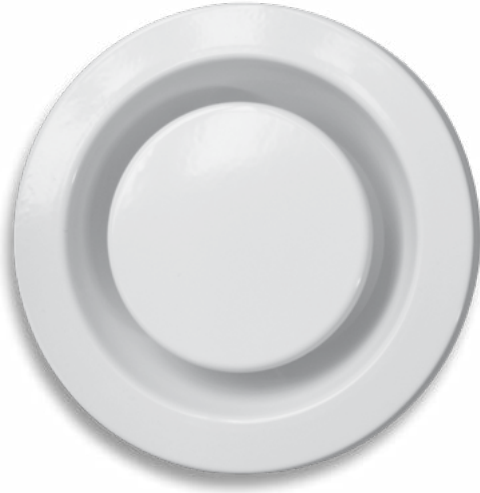
Medium band, Hz

	63	125	250	500	1k	2k	4k	8k
SF-S 80	24	19	15	11	2	3	6	7
SF-S 100	22	17	13	10	2	2	7	8
SF-S 125	18	16	12	8	3	3	7	8
SF-S 160	18	15	11	9	4	5	7	9



EXHAUST AIR VALVE

SF-E



PRODUCT CHARACTERISTICS

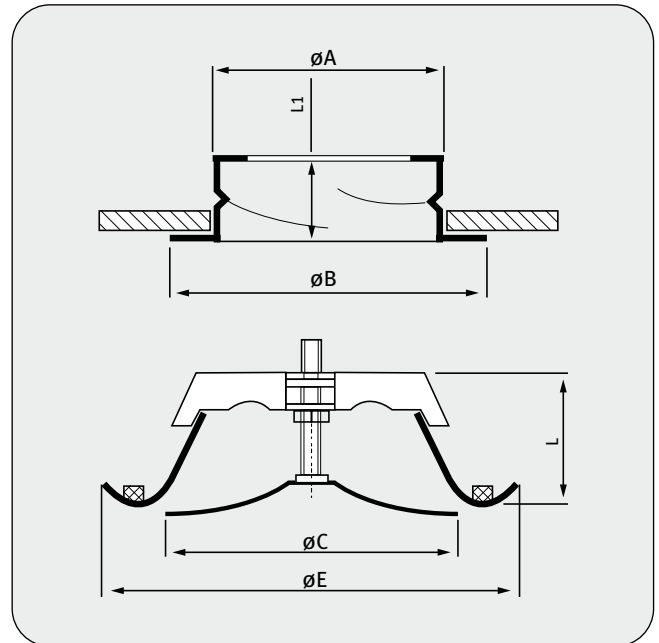
- exhaust air valve for ceiling or wall mounting
- made of galvanized steel
- painted white (RAL 9010)
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- valve can be installed directly on duct
- fast and easy installation

Valve diameter	$\varnothing D$ (mm)	$\varnothing d$ (mm)	A (mm)
100	135	100	15
125	160	125	15
160	191	149	15
200	238	200	18



SUPPLY AIR VALVE (STAINLESS STEEL)

SV-S



PRODUCT CHARACTERISTICS

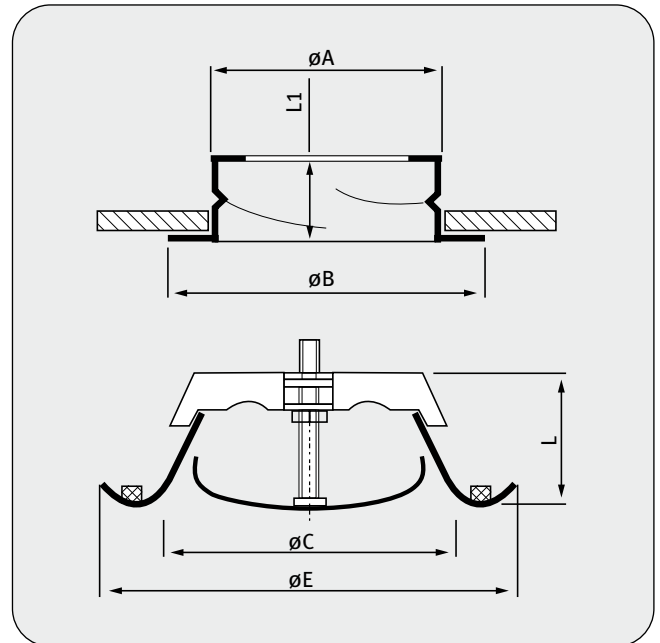
- supply air valve designed for ceiling mounting on ventilation ventilation ducts
- made of stainless steel
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- easy installation in ventilation systems

Valve diameter	$\varnothing A$ (mm)	$\varnothing B$ (mm)	$\varnothing C$ (mm)	$\varnothing E$ (mm)	L (mm)	L1 (mm)
100	98	125	95	137	55	50
125	123	150	115	164	60	50
160	159	185	148	212	60	50
200	198	225	203	248	60	50



EXHAUST AIR VALVE (STAINLESS STEEL)

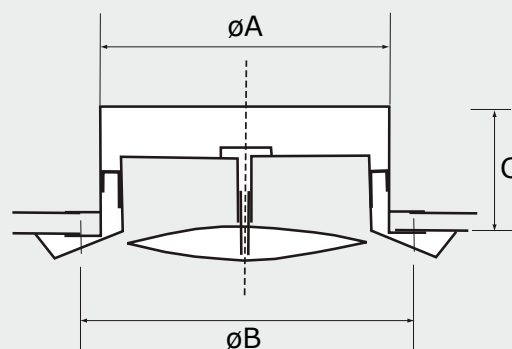
EV-S



PRODUCT CHARACTERISTICS

- exhaust air valve designed for ceiling mounting on ventilation ventilation ducts
- made of stainless steel
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- easy installation in ventilation systems

Valve diameter	$\varnothing A$ (mm)	$\varnothing B$ (mm)	$\varnothing C$ (mm)	$\varnothing E$ (mm)	L (mm)	L1 (mm)
100	98	125	95	137	55	50
125	123	150	115	164	60	50
160	159	176	138	212	60	50
200	198	225	203	248	60	50

**AIR VALVE (CrNi STEEL)****VS****PRODUCT CHARACTERISTICS**

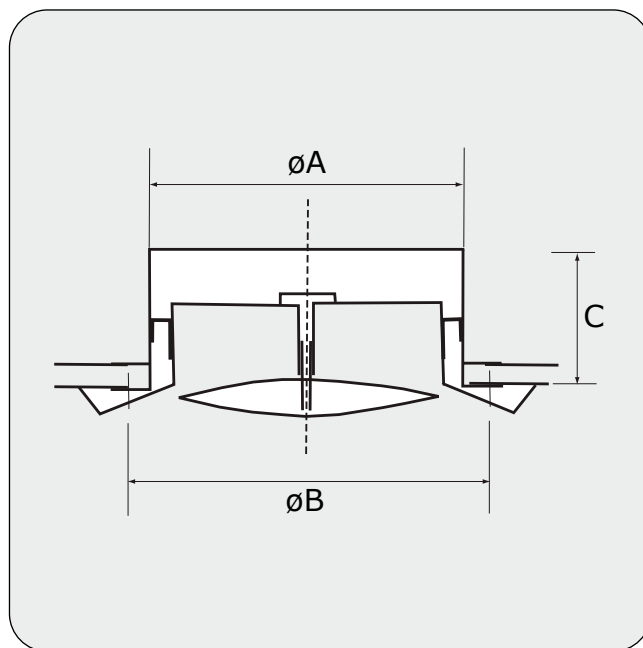
- VS air valve can operate as supply or exhaust valve
- made of CrNi steel – no corrosion occurrence
- non-painted – polished surface
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- long mounting frame made of CrNi steel
- fast and easy installation

Valve diameter	$\varnothing A$ (mm)	$\varnothing B$ (mm)	C (mm)
100	97	118	52
125	120	141	52
150	145	162	62
160	155	172	62
200	195	228	74



PLASTIC AIR VALVE

VP



PRODUCT CHARACTERISTICS

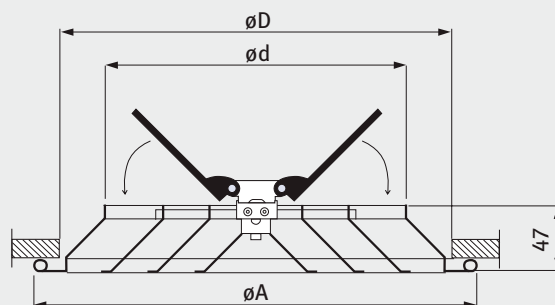
- VP air valve can operate as supply or exhaust valve
- made of polypropylene – no corrosion occurrence
- non-painted
- easy adjustment of air flow by rotating central part
- blocking nut allows for setting the minimum slot
- special design provides low noise level
- high quality and modern design
- long mounting frame made of polypropylene
- fast installation thanks to adjustable metal plates

Valve diameter	$\varnothing A$ (mm)	$\varnothing B$ (mm)	C (mm)
100	97	118	50
125	120	141	50
150	145	162	50
200	195	220	50



ROUND CEILING DIFFUSER

DS



PRODUCT CHARACTERISTICS

- diffuser elements are made of pressed aluminum
- integrated damper made of plastic
- painted white (RAL 9016)
- flat diffuser panel
- light weight
- removable lamellas
- easy installation and adjustment thanks to unique technical design
- suitable for hot or cold air supply and exhaust
- suitable for systems with variable air volume

ALSO AVAILABLE

DSP connection for DS diffuser



Diffuser diameter	$\varnothing A$ (mm)	$\varnothing d$ (mm)	$\varnothing D$ (mm)
150	257	145	225
200	309	197	275
250	357	248	325
300	418	294	398
350	474	348	444



ROUND DIFFUSER

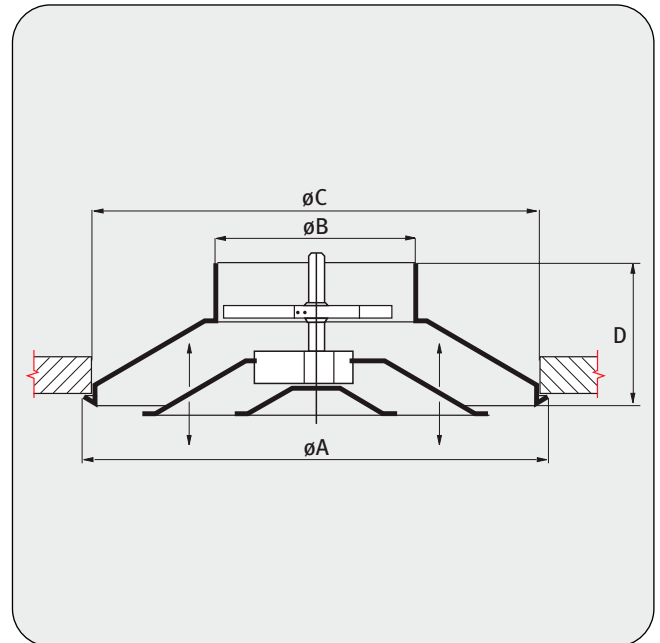
DHPT / DHA



DHPT



DHA*



PRODUCT CHARACTERISTICS

- diffuser elements are made of pressed galvanized steel
- lamellas are made of pressed aluminum
- vertical or horizontal air flow- full adjustment of lamellas
- painted white (RAL 9010)
- can be connected directly to ventilation ducting – no plenum box required
- easy installation – dimension is suitable for standard suspended ceiling (DHPT)

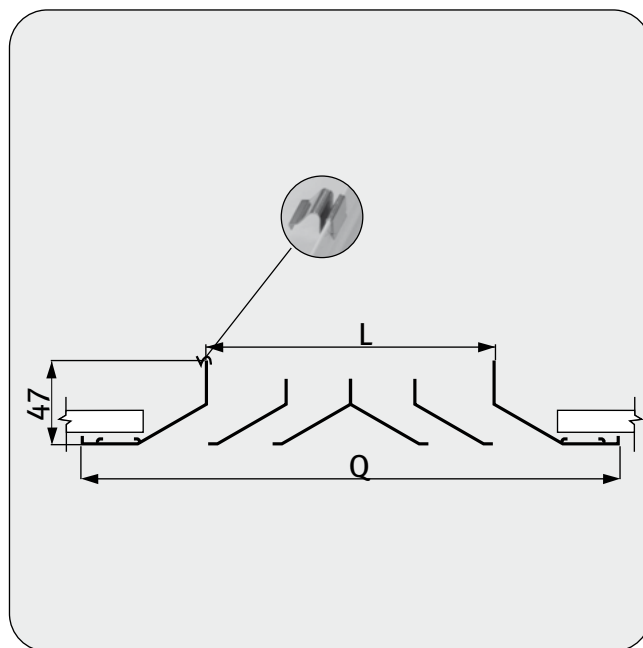
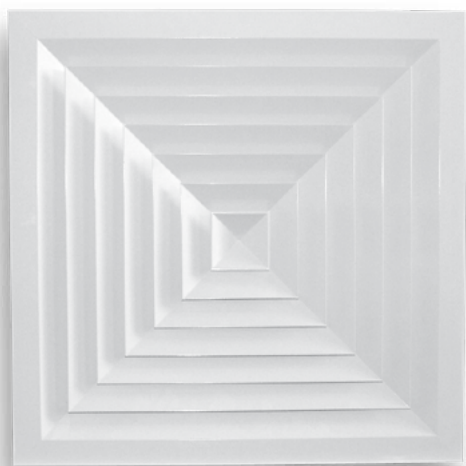
Diffuser diameter	ϕA (mm)	ϕB (mm)	ϕC (mm)	D (mm)
160	300	160	275	85
200	415	200	375	103
250	520	250	475	140
315**	640	315	630	150

* on request ** DHA only



FOUR-WAY DIFFUSER

HB40



PRODUCT CHARACTERISTICS

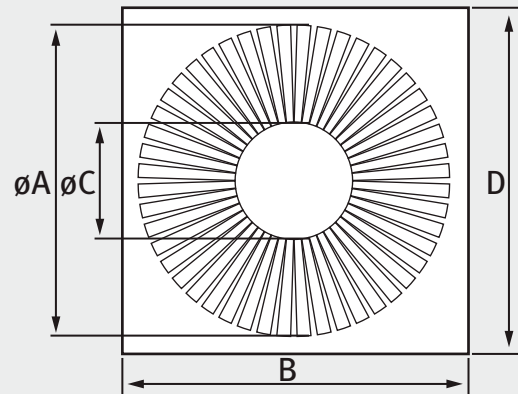
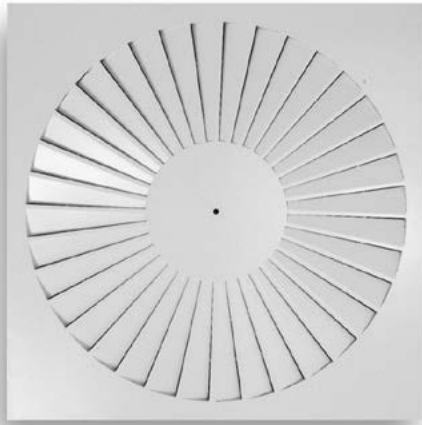
- made of pressed aluminum
- painted white (RAL 9010 and RAL 9016)
- lamellas set at 30° angle
- air flow distributed in four directions
- suitable for hot or cold air supply and exhaust
- light weight
- lamellas can be disassembled – easy access to diffuser's interior
- easy assembly by pressing snap fastener

Diffuser dimensions Q (mm)	Connection dimensions L (mm)
295 × 295	145 × 145
370 × 370	220 × 220
445 × 445	295 × 295
520 × 520	370 × 370
595 × 595	445 × 445

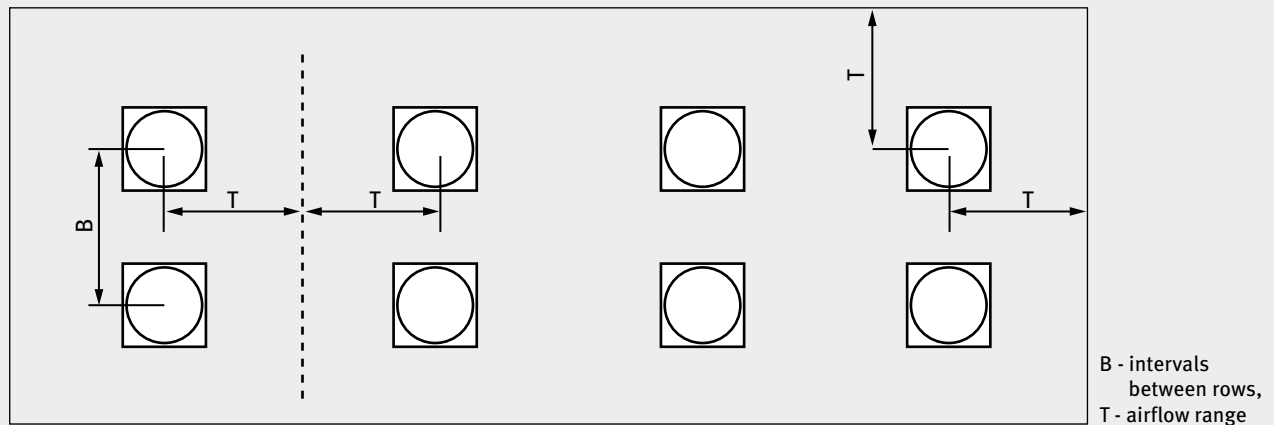


SWIRL DIFFUSER

SW



SW diffusers displacement



PRODUCT CHARACTERISTICS

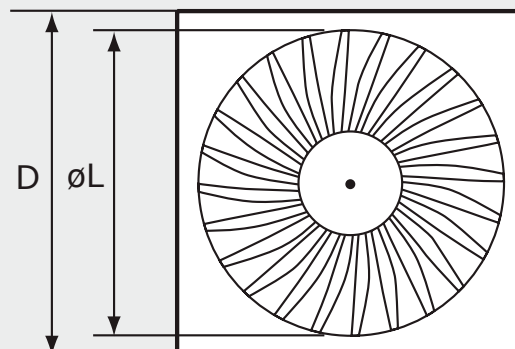
- diffuser elements are made of pressed galvanized steel
- even air distribution is provided by 36 radially located lamellas
- swirl air supply provides fast room temperature equalization
- painted white (RAL 9010)
- suitable for hot or cold air supply and exhaust
- easy installation – dimension is suitable for standard suspended ceiling

Diffuser dimensions	øA (mm)	B (mm)	D (mm)	øC (mm)
595 × 595	540	595	595	200

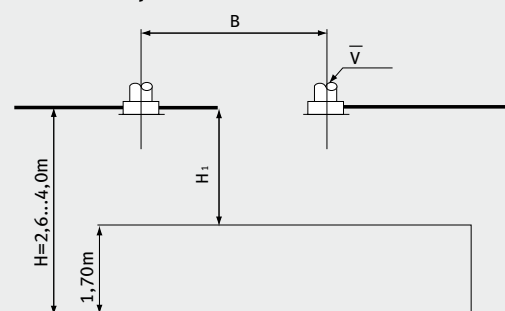


SWIRL DIFFUSER

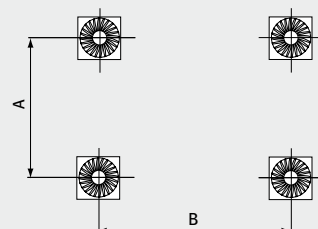
SD-B



SD-B diffusers displacement



V (m³/h) - air volume
 H_1 (m) - distance from the people area



A, B (m) - interval between two diffusers

PRODUCT CHARACTERISTICS

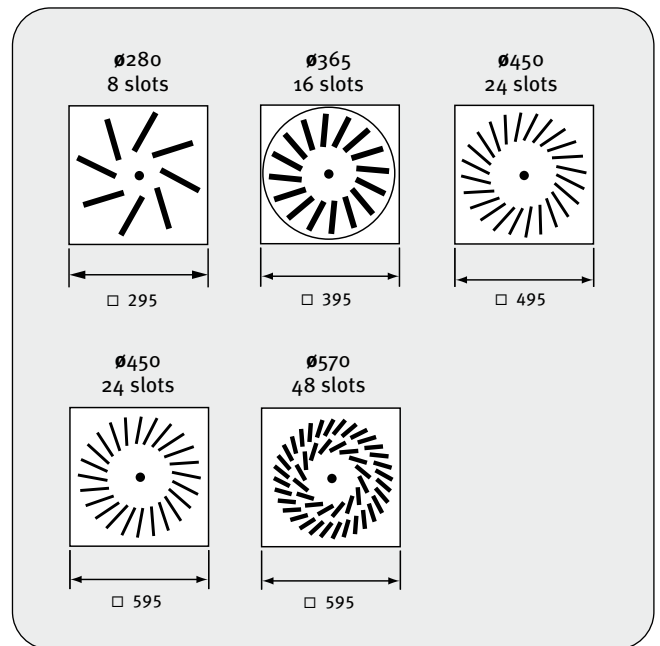
- diffuser elements are made of pressed galvanized steel
- fixed blades provide even air distribution
- swirl air supply provides fast room temperature equalization
- painted white (RAL 9010)
- suitable for hot or cold air supply and exhaust
- easy installation in standard suspended ceiling

Diffuser dimensions	øL (mm)	D (mm)
300	254	595
400	336	595
500	440	595
600	530	595
625	530	620



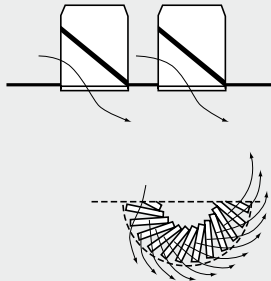
SWIRL DIFFUSER

SD-C

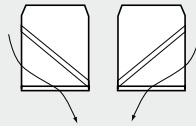


Adjustable lamellas position

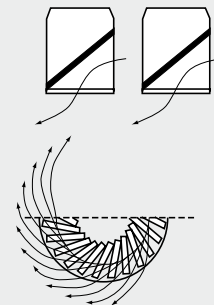
Air flow outwards



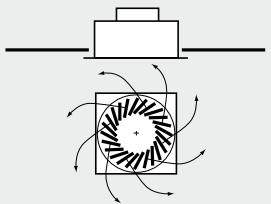
Vertical air flow



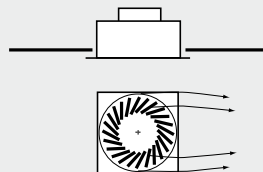
Air flow inwards



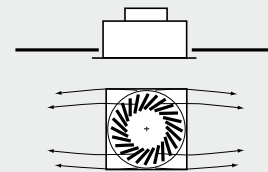
Air flow direction for sizes: 280x8, 365x16, 450x24, 570x24



All lamellas are set at air flow outwards



Half of lamellas are set for air flow outwards, the other half for air flow inwards



Lamellas on opposite quarters are set at air flow inwards or outwards

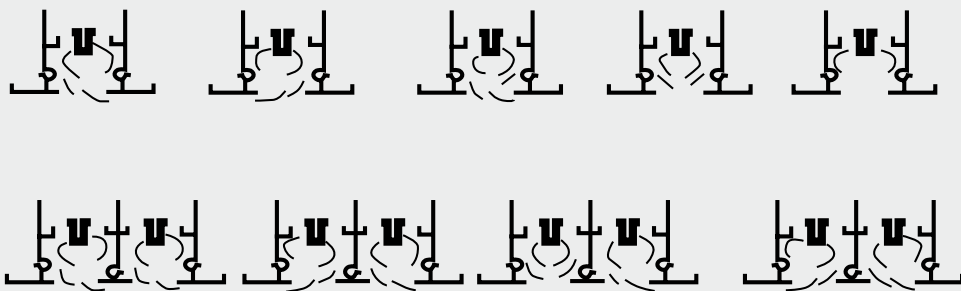
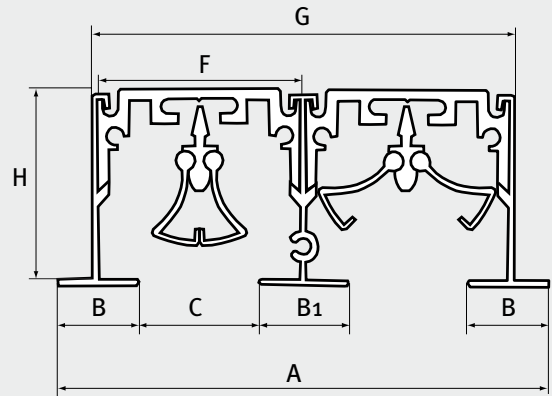
PRODUCT CHARACTERISTICS

- diffuser elements are made of pressed galvanized steel
- adjustable lamellas are made of high quality plastic
- 8 to 48 adjustable lamellas disposed radially provide even air distribution
- painted white (RAL 9010)
- suitable for air supply and exhaust



SLOT DIFFUSER

SDML



PRODUCT CHARACTERISTICS

- diffuser elements are made of pressed aluminum
- painted white (RAL 9016)
- suitable for hot or cold air supply and exhaust
- easy adjustment of air flow direction
- suitable for systems with variable air volume
- light weight

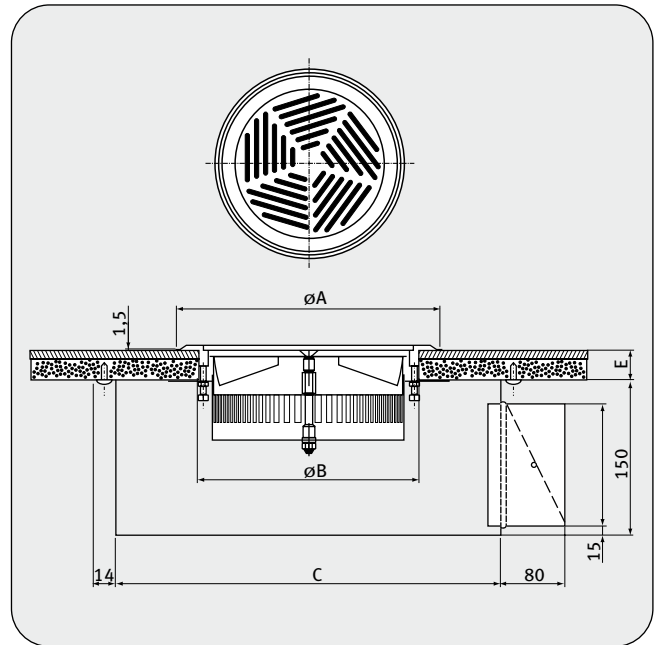
Type	A (mm)	B (mm)	C (mm)	B1 (mm)	F (mm)	G (mm)	H (mm)	L _i / L* (mm)
2 slots	126	28	24	19	42	91	37	1002 / 1040
3 slots	170	28	24	19	42	135	37	1002 / 1040
4 slots	215	28	24	19	42	180	37	1002 / 1040

* inner / outer length



SWIRL FLOOR DIFFUSER

FDS



PRODUCT CHARACTERISTICS

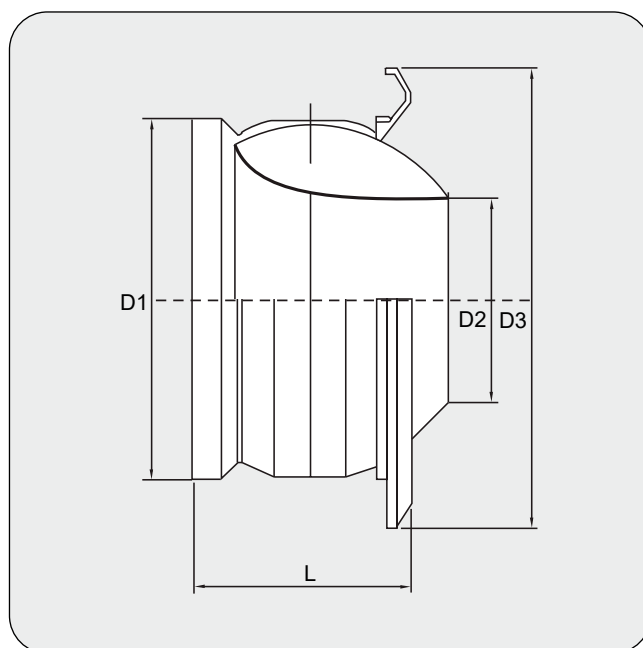
- circular swirl air supply diffuser for floor mounting
- diffuser made of cast aluminum, dirt trap and diffuser base made of galvanized steel
- high induction level
- special design allows for diffuser cleaning
- colour: anodized non-painted surface
- fast and easy installation
- available sizes: $\varnothing 150$, $\varnothing 200$

Type	Dimensions (mm)				
	$\varnothing A$	$\varnothing B$	C	E (min)	E (max)
FDS 150	190	150	225	14	32
FDS 200	240	200	275	14	32



JET DIFFUSER

JNS



PRODUCT CHARACTERISTICS

- material: aluminum and galvanized steel
- application: industrial and public buildings
- range up to 30 m
- low noise level and high efficiency
- adjustable air flow direction
- painted white (RAL 9010)

Diameter	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)
100	98	45	193	63
125	122	61	172	72
160	157	80	210	91
200	197	105	265	107
250	247	128	314	135
315	312	165	390	174
400	397	210	495	218
500	497	256	622	259

Diameter	Applicable duct diameter					
	200	250	315	500	630	1000
100	•					
125		•				
160			•	•	•	•
200				•	•	•
250				•	•	•
315				•	•	•
400					•	•
500						•



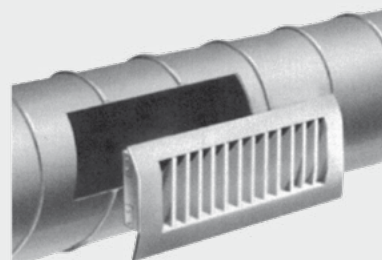
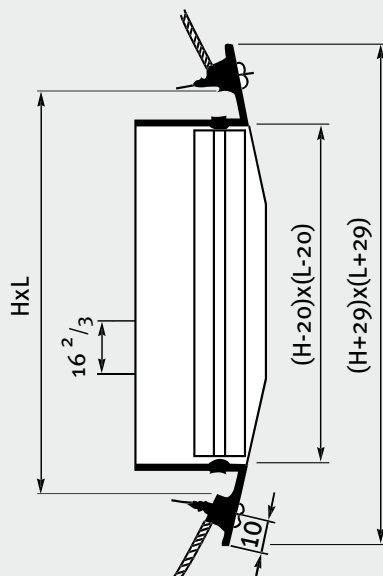
GRILLE FOR ROUND DUCT

SGD / DGD



PRODUCT CHARACTERISTICS

- grille installed directly on round duct without any additional accessories
- suitable for 150-1400 mm round ducts
- made of galvanized steel
- adjustable lamellas
- suitable for large rooms with visible ducting installations, i.e. warehouses, production halls, gyms
- SGD type - single deflection
- DGD type - double deflection



Also available:
PSGD damper for SGD/DGD grille

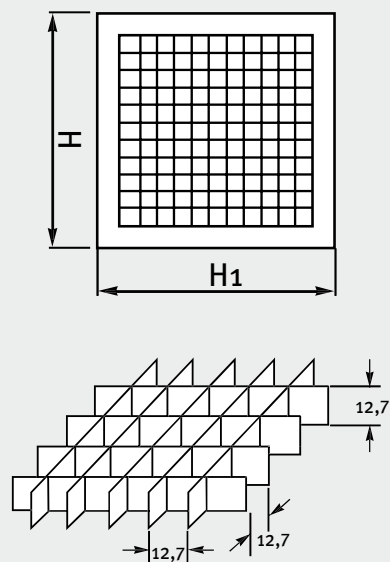
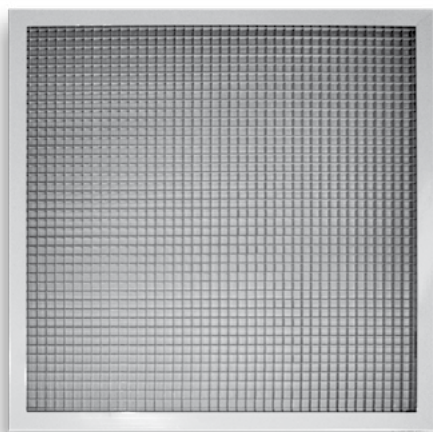


Dimensions LxH (mm)	Duct ø (mm)	
	min	max
425 × 75	150	400
525 × 75	150	400
625 × 75	150	400
425 × 125	315	900
525 × 125	315	900
625 × 125	315	900
425 × 225	600	1400
525 × 225	600	1400
625 × 225	600	1400



EGG CRATE GRILLE

EG-C



PRODUCT CHARACTERISTICS

- made of aluminum
- painted white (RAL 9010)
- core size - 12.7x12.7 mm
- easy assembly – size suitable for standard suspended ceiling

Grille type	H (mm)	H1 (mm)
EG-C	595	595



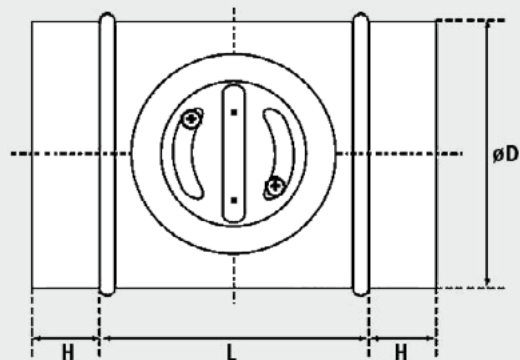
CIRCULAR DUCT DAMPER

DSE / DSL

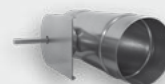


Version with gasket

DSL



Damper with mechanism
for actuator: DSBE / DSBL



MATERIAL

- galvanized steel
- EPDM rubber gasket (DSL)

PRODUCT CHARACTERISTICS

- stitch welded

DSE (manual)

ØD [mm]	L [mm]	H [mm]	Box quantity	Packaging
80	90	40	60	P6
100	90	40	40	P6
125	90	40	27	P6
140	90	40	2	Z
150	90	40	30	P4
160	90	40	24	P4
180	90	40	20	P4
200	90	40	36	P2
224	90	40	30	P2
250	90	40	48	P1
280	90	40	35	P1
300	90	40	35	P1
315	90	40	35	P1
350	90	40	30	P1

DSBE (for actuator)

ØD [mm]	L [mm]	H [mm]
80	90	40
100	90	40
125	90	40
140	90	40
150	90	40
160	90	40
180	90	40
200	90	40
224	90	40
250	90	40
280	90	40
300	90	40
315	90	40
350	90	40



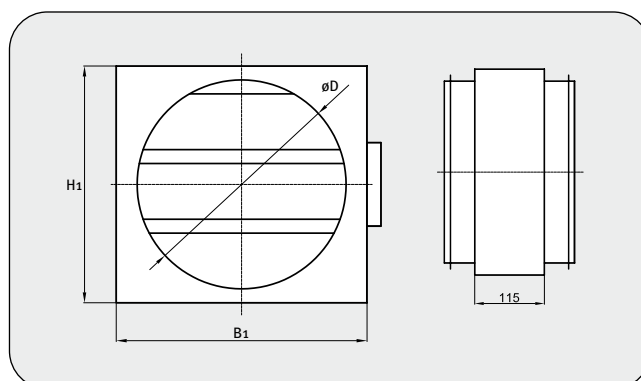
DSE (manual)					DSBE (for actuator)		
øD [mm]	L [mm]	H [mm]	Box quantity	Packaging	øD [mm]	L [mm]	H [mm]
355	90	40	30	P1	355	90	40
400	120	50	15	P1	400	120	50
450	120	50	Z	Z	450	120	50
500	120	50	Z	Z	500	120	50
560	120	60	Z	Z	560	120	60
600	120	60	Z	Z	600	120	60
630	120	60	Z	Z	630	120	60
710	120	60	Z	Z	710	120	60
800	120	65	Z	Z	800	120	65

DSL (manual)					DSBL (for actuator)		
D [mm]	L [mm]	H [mm]	Box quantity	Packaging	D [mm]	L [mm]	H [mm]
80	90	38*	60	P6	80	100	38*
100	100	38*	40	P6	100	100	38*
125	100	38*	27	P6	125	100	38*
140	90	38*	Z	Z	140	100	38*
150	90	38*	30	P4	150	100	38*
160	100	38*	24	P4	160	100	38*
180	90	38*	20	P4	180	100	38*
200	100	38*	36	P2	200	100	38*
224	90	38*	Z	Z	224	100	38*
250	90	40	48	P1	250	90	40
280	90	40	Z	Z	280	90	40
300	90	40	35	P1	300	90	40
315	90	40	35	P1	315	90	40
355	90	40	30	P1	355	90	40
400	120	50	15	P1	400	120	50
450	120	50	10	P1	450	120	50
500	120	50	Z	Z	500	120	50
560	120	60	Z	Z	560	120	60
600	120	60	Z	Z	600	120	60
630	120	60	Z	Z	630	120	60
710	120	60	Z	Z	710	120	60
800	120	65	Z	Z	800	120	65

Tolerance: * +0/-5 mm; L ±5 mm; others ±2 mm Z - information upon request

Adapter to PW and PW-SI dampers:

øD (mm)	B1 (mm)	H1 (mm)
500	560	552
560	620	600
630	690	670
710	770	750
800	860	852
900	960	952
1000	1060	1052
1120	1180	1160
1250	1310	1302





AIRTIGHT CIRCULAR DUCT DAMPER

DTL



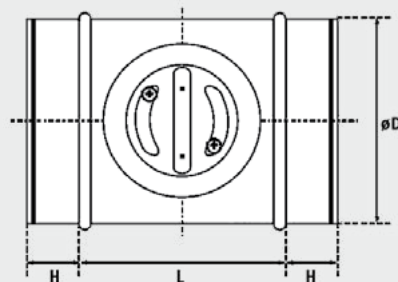
Version for actuator
DTBL



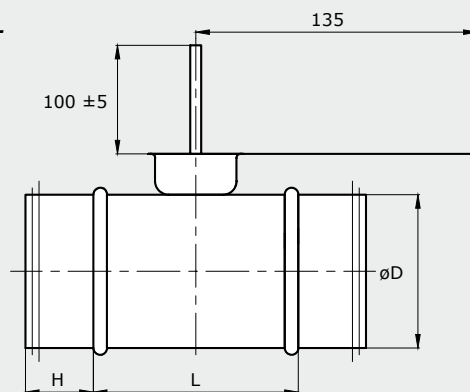
MATERIAL

- galvanized steel
- EPDM rubber gasket
- blade rubber gasket for air-tight dampers

DTL



DTBL



PRODUCT CHARACTERISTICS

- stitch welded

ØD [mm]	L [mm]	H [mm]	DTL	
			Box quantity	Packaging
80	100	38*	60	P6
100	100	38*	40	P6
125	100	38*	27	P6
150	100	38*	30	P4
160	100	38*	24	P4
180	100	38*	30	P2
200	100	38*	36	P2
224	100	38*	30	P2
250	90	40	48	P1
280	90	40	Z	Z

Tolerance: * +0/-5 mm; L ±5 mm Z - information upon request

ØD [mm]	L [mm]	H [mm]	DTL	
			Box quantity	Packaging
300	90	40	35	P1
315	90	40	35	P1
355	90	40	Z	Z
400	120	50	15	P1
450	120	50	10	P1
500	120	50	Z	Z
560	120	60	Z	Z
630	120	60	Z	Z
710	120	60	Z	Z
800	120	65	Z	Z



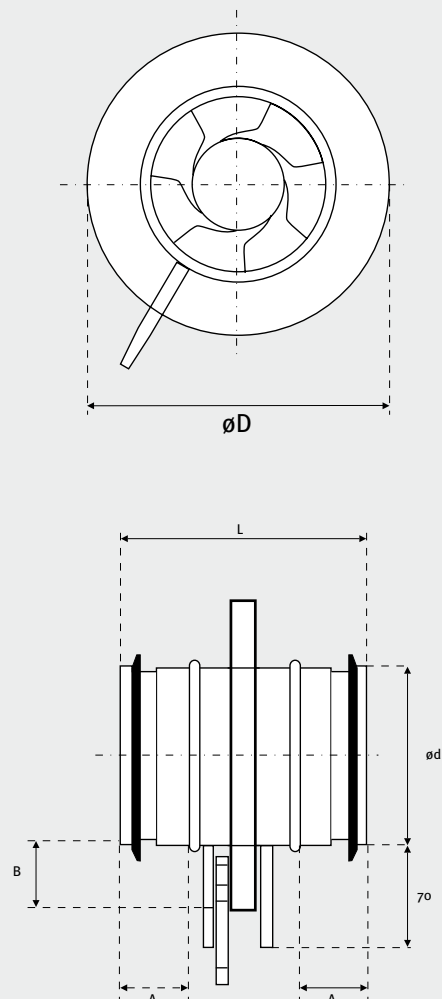
IRIS DAMPER

IRIS



DESCRIPTION

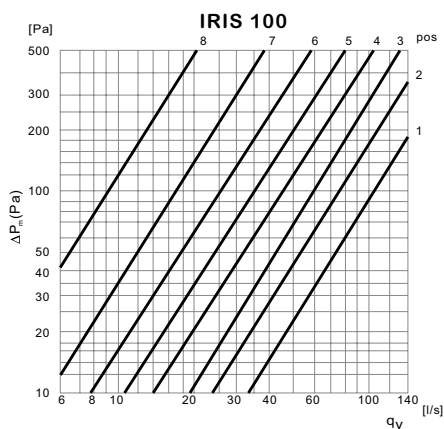
With IRIS damper, the intensity of air flow may be smoothly adjusted. Adjustment is done with a handle located on the damper which changes the diameter of the opening in the damping orifice. The damper is supplied with two endings which may be used to connect instruments measuring intensity of air flow. The damper is also supplied with a gas-ket, which tightens connection with the system.



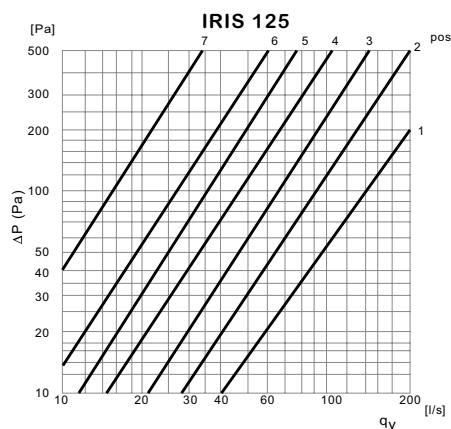
Type	$\varnothing d$ (mm)	$\varnothing D$ (mm)	L (mm)	A (mm)	B (mm)
100	99	165	110	30	32
125	124	210	110	30	42
150	149	230	120	30	35
160	159	230	110	30	35
200	199	285	110	30	42
250	249	335	135	40	42
300	299	410	140	35	42
315	314	410	135	40	47
400	398	525	190	60	62
500	500	400	165	70	60
630	630	800	170	70	90
800	800	1020	280	130	105



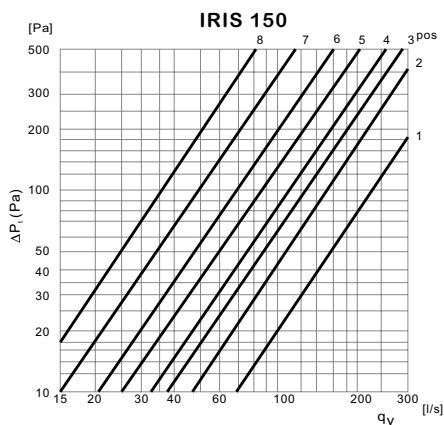
IRIS DAMPER SPECIFICATIONS



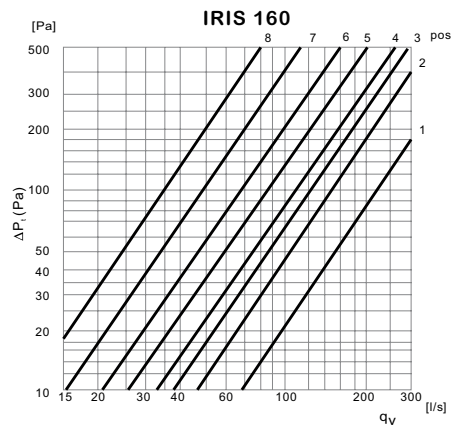
pos	k
1	10,4
1,5	7,9
2	7,5
2,5	6,6
3	6,0
3,5	5,2
4	4,5
4,5	3,8
5	3,4
5,5	2,9
6	2,5
6,5	2,1
7	1,7
7,5	1,2
8	0,9



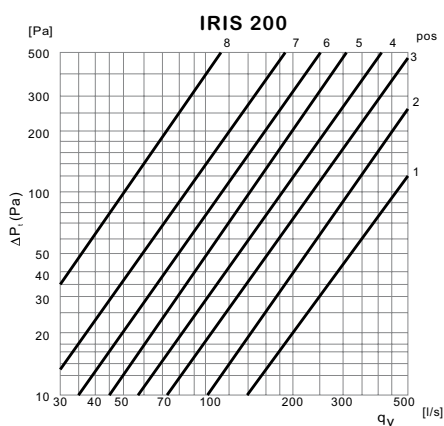
pos	k
1	13,8
1,5	10,4
2	8,8
2,5	7,3
3	6,5
3,5	5,5
4	4,7
4,5	4,0
5	3,5
5,5	3,1
6	2,7
6,5	2,2
7	1,5



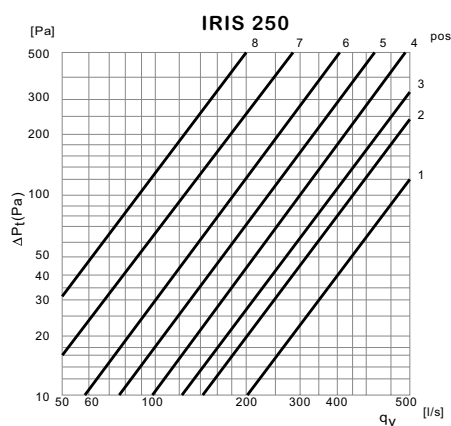
pos	k
1	22,1
1,5	17,2
2	14,8
2,5	13,4
3	12,5
3,5	11,5
4	10,7
4,5	9,5
5	8,5
5,5	7,5
6	6,8
6,5	5,6
7	4,9
7,5	4,0
8	3,5



pos	k
1	22,1
1,5	17,2
2	14,8
2,5	13,4
3	12,5
3,5	11,5
4	10,7
4,5	9,5
5	8,5
5,5	7,5
6	6,8
6,5	5,6
7	4,9
7,5	4,0
8	3,5

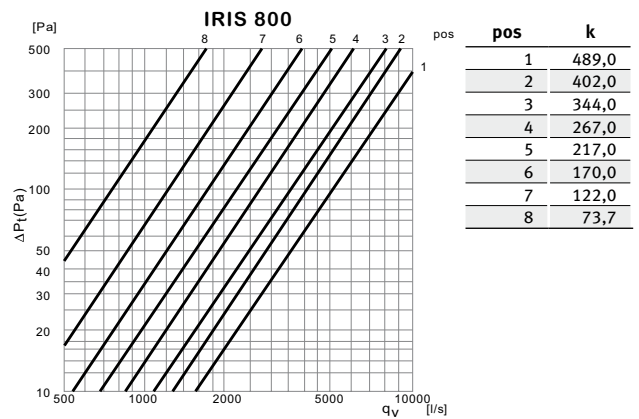
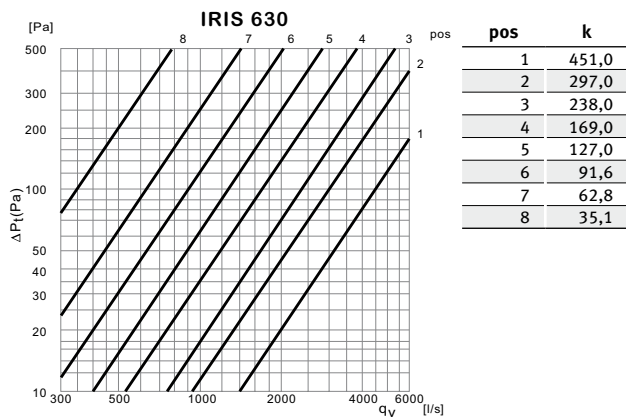
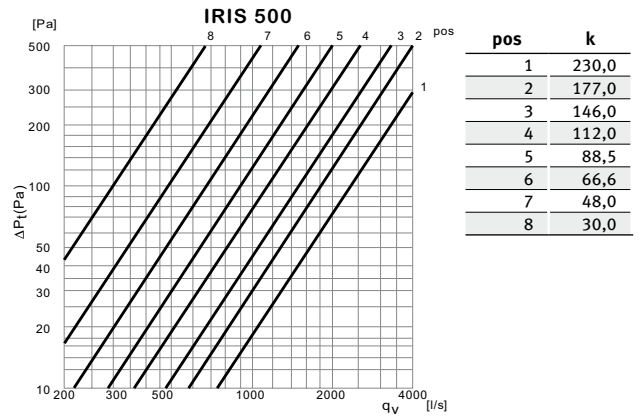
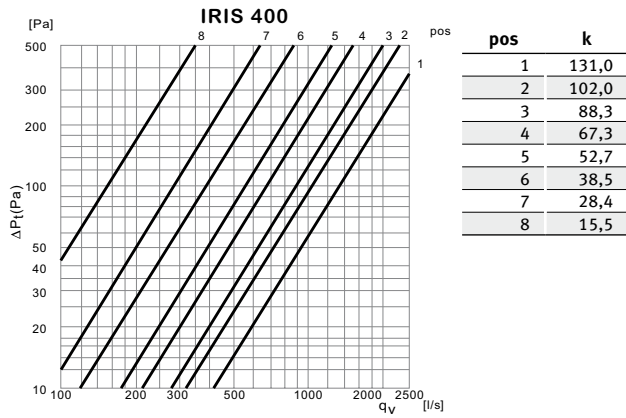
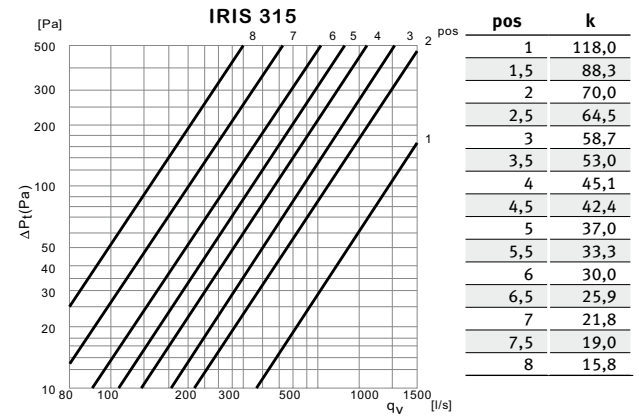
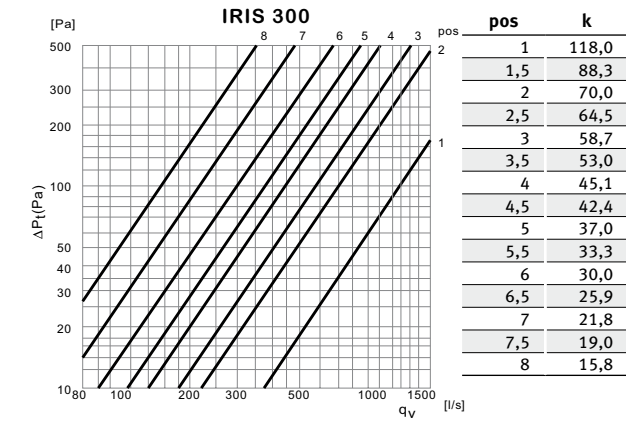


pos	k
1	44,2
1,5	36,6
2	30,9
2,5	26,9
3	23,2
3,5	20,6
4	18,2
4,5	15,9
5	14,0
5,5	12,3
6	11,0
6,5	9,6
7	8,4
7,5	6,5
8	5,0

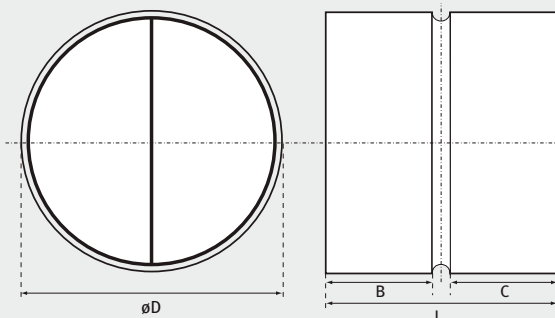
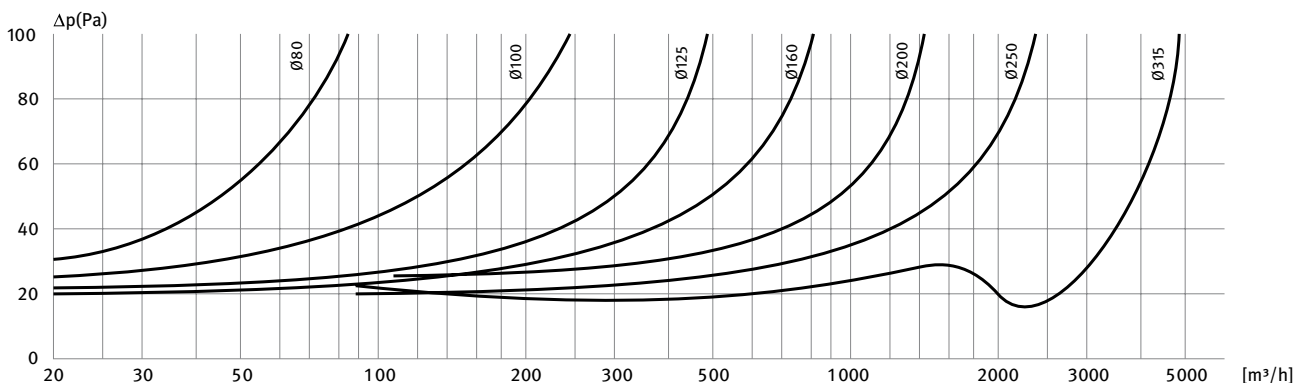


pos	k
1	64,4
1,5	53,5
2	45,6
2,5	41,8
3	38,7
3,5	34,5
4	30,7
4,5	27,3
5	24,1
5,5	21,4
6	18,4
6,5	15,8
7	12,8
7,5	10,9
8	8,9

$$q_v = k \sqrt{\Delta p_m}$$



$$q_v = k \sqrt{\Delta p_m}$$

**BACK DRAFT DAMPER****RSK**Version
without gasket**PRESSURE LOSS DIAGRAM****MATERIAL**

- galvanized steel

PRODUCT CHARACTERISTICS

- blade is equipped with closing spring
- may be installed in any position
- equipped with gasket inside

DESCRIPTION

Back draft damper for round ducts is made of galvanized steel. The damper's blades (oscillating) are closed by a spring which allows for damper assembly in any position. Used to allow air flow in only one direction.

Symbol	$\varnothing D$ (mm)	L (mm)	B (mm)	C (mm)
100	100	88	38	38
125	125	88	38	38
150	150	88	38	38
160	160	88	38	38
200	200	88	38	38
250	250	128	59	59
315	315	128	59	59
355	355	197	75	75
400	400	197	75	75



MULTI-BLADE RECTANGULAR DAMPER

PW



Round duct adapter
only to PW and PW-SI dampers
(page 90)

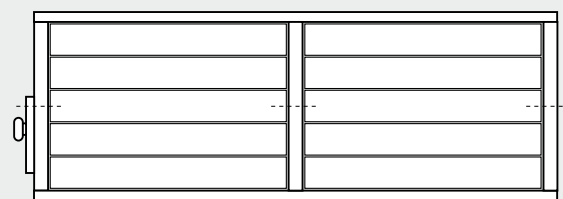
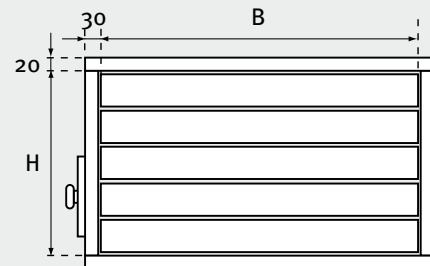


MATERIAL

- aluminum frame
- aluminum louver slats
- driving cogs made of PA material

DESCRIPTION

- damper mechanism is completely covered inside the side profile
- the dampers are produced in manually operated (R) or actuator powered version (E)
- multi blade damper with $B \geq 1300$ mm is produced as divided damper $B < 3000$ mm
- due to transportation limits, one of the dimensions (B or H) cannot exceed 2000 mm
- operating temperature range:
-20°C ÷ +80°C



$B \geq 1300$ Split damper

ind.:

PW - multi-leaf damper with manual mechanism
PW-SI - actuator powered multi-leaf damper
(12x12 mm axle)

PRODUCT CHARACTERISTICS

- aluminum (profiles + louver)
- PA material (driving cogs)
- rubber (gaskets)
- $H \geq 1600$ mm - equipped with additional handle

Also available as separate components for
product assembly

H (mm) 200 – 2000

B (mm) 200 – 2000

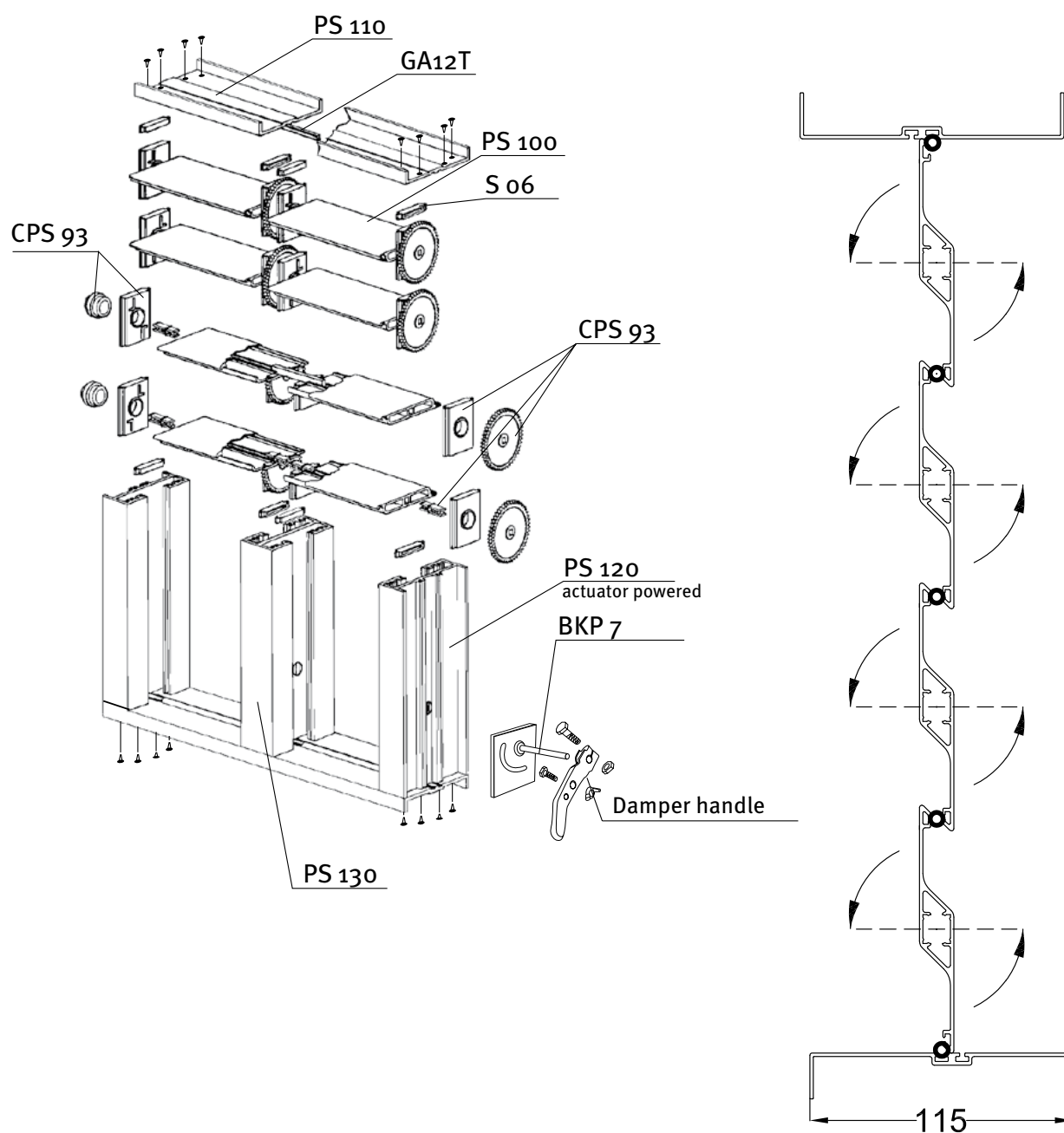
In case of orders of full dimensions H, e.g. 200, 300, 400, etc., the actual size will be increased by 12 mm.



MULTI-BLADE RECTANGULAR DAMPER

PW

ASSEMBLY DRAWING





AUTOMATIC DAMPER

PSK / PSS



wall mounted version

PSS



MATERIAL

- **FRAME** - aluminum
- **LOUVER** - aluminum
- **LOUVER DRIVES** - plastic
- **ATTENUATING GASKET**

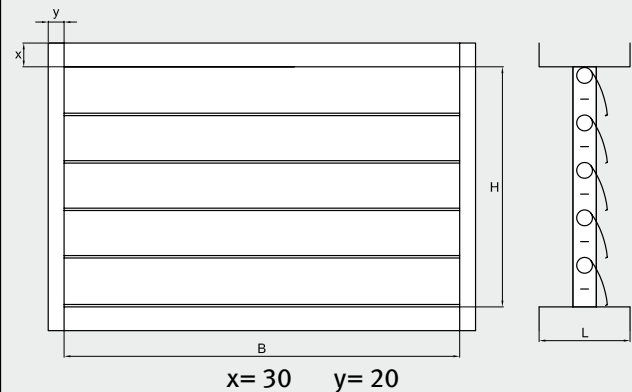
NOTES: Aluminum prevents occurrence of corrosion. Aluminum shapes and louvers guarantee low weight of the product.

DESCRIPTION

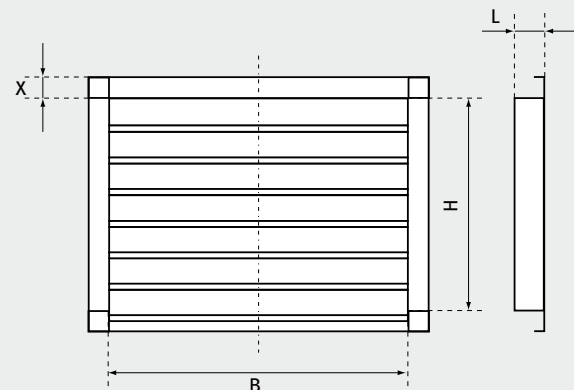
Automatic dampers are produced in duct and wall mounted versions. Wall mounted version of the damper operates as an exhauster and the duct damper serves as a control damper. The louvers are equipped with attenuating gaskets, which prevent their edges from hitting against one another during standard operation. Thanks to that, the louvers do not make additional noise during operation. The dampers are entirely made of aluminum profiles (light and resistant to environment). Max. operating temperature: +80°C.

PSK - duct mounted

L= 115 mm



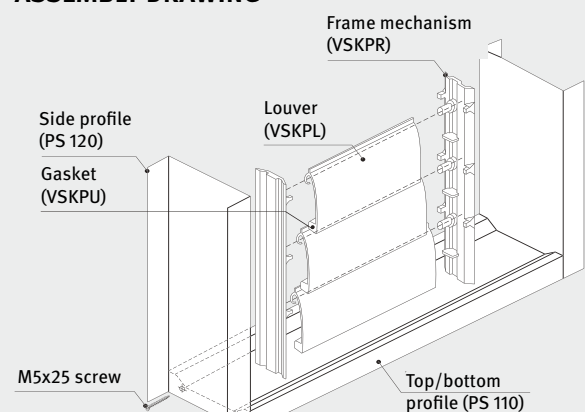
PSS - wall mounted



BxH - duct opening size

$x = 52$ $L = 57$
 $B: -20$ $H: -20$

ASSEMBLY DRAWING*



* duct mounted version - PSK

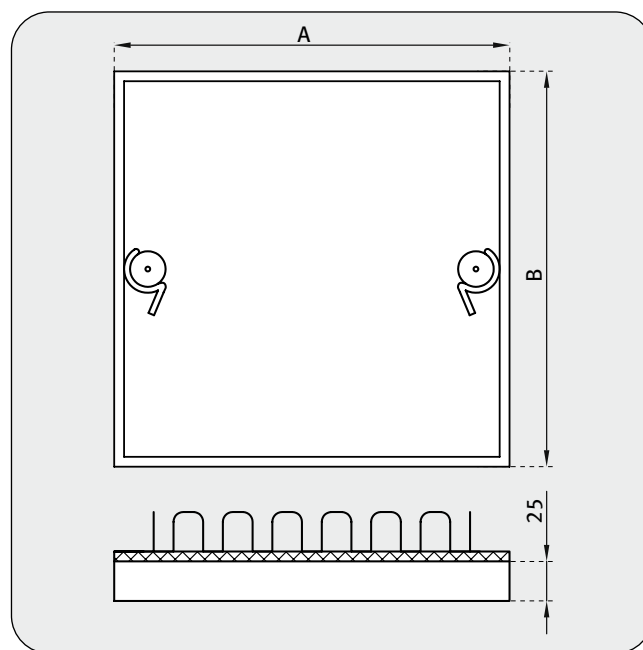
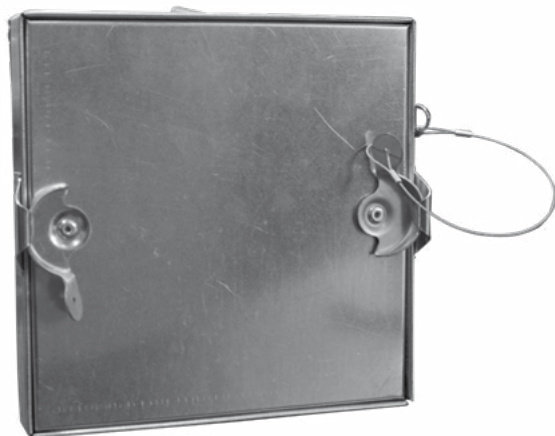
Also available as separate components for product assembly

H (mm)	200 – 2000
B (mm)	200 – 1600



INSULATED ACCESS DOOR FOR RECTANGULAR DUCT

RD



DESCRIPTION

The range of RD series access doors is designed to provide rapid access to smoke, fire and volume control dampers or other devices installed inside ductwork or associated plant. All door panels are of double wall construction, filled with a 25 mm thick high density insulation.

PRODUCT CHARACTERISTICS

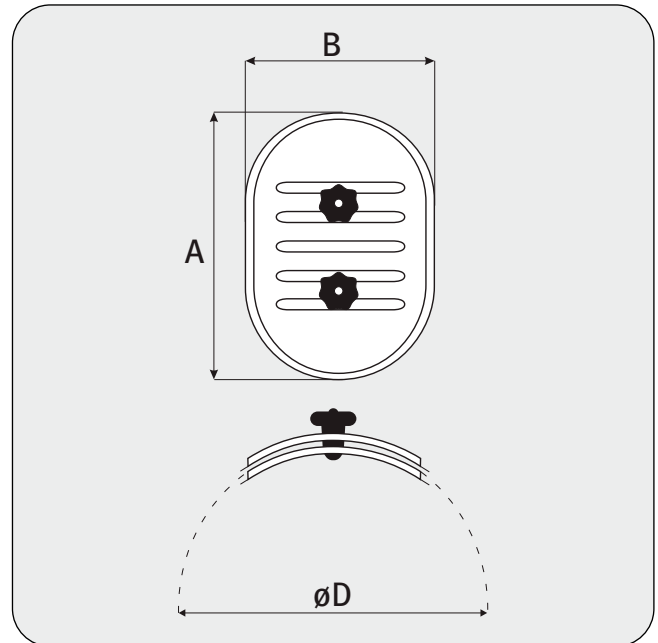
- suitable for high, medium and low pressure applications
- comprehensive range of available sizes
- equipped with progressive action camlocks
- thermally and acoustically insulated
- fast and simple to install
- fitted with sealing gaskets
- product equipped with a connecting cord

Type	Nominal size A × B [mm]	Duct opening size [mm]
RD 15	150 × 150	120 × 120
RD 20	200 × 200	170 × 170
RD 21	200 × 125	170 × 95
RD 25	250 × 250	220 × 220
RD 30	300 × 300	270 × 270
RD 31	300 × 150	270 × 120
RD 32	300 × 200	270 × 170
RD 35	350 × 350	320 × 320
RD 40	400 × 400	370 × 370
RD 42	400 × 200	370 × 170

Type	Nominal size A × B [mm]	Duct opening size [mm]
RD 425	400 × 250	370 × 220
RD 43	450 × 300	420 × 270
RD 44	400 × 300	370 × 270
RD 45	450 × 450	420 × 420
RD 50	500 × 500	470 × 470
RD 63	600 × 300	570 × 270
RD 64	600 × 400	570 × 370
RD 65	600 × 450	570 × 420
RD 66	600 × 600	570 × 570



CURVED ACCESS DOOR FOR ROUND DUCT

KR


MATERIAL

- galvanized steel
- rubber gasket

PRODUCT CHARACTERISTICS

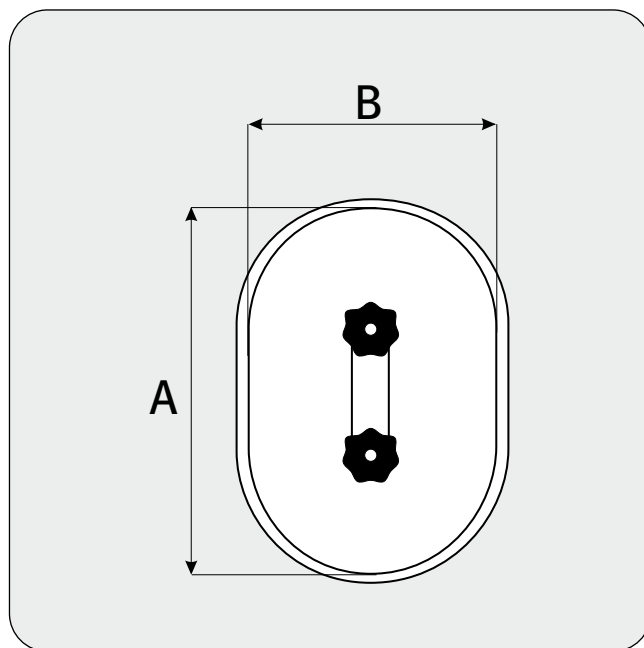
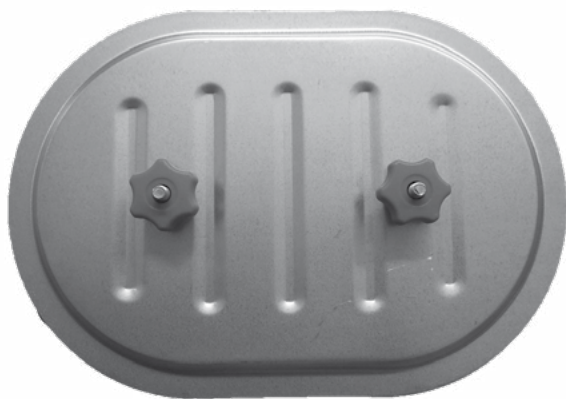
- suitable for assembly on round ducts
- easily accessible access door panel for cleaning ducts
- easy installation
- template is included, which allows cutting
- suitable size of opening in round duct

ØD (mm)	A (mm)	B (mm)	Box quantity
100	180	80	10
125	180	80	10
160	250	150	5
200	250	150	5
250	250	150	5
315	250	150	5
355	250	150	5
400	250	150	5
400	400	300	5
450	400	300	5
500	400	300	5
560	400	300	5
630	400	300	5
710	400	300	5
800	400	300	5



FLAT ACCESS DOOR FOR RECTANGULAR DUCT

FAD



MATERIAL

- galvanized steel
- rubber gasket

PRODUCT CHARACTERISTICS

- suitable for assembly on rectangular ducts
- easily accessible access door panel for cleaning ducts
- easy installation
- template is included, which allows cutting
- suitable size of opening in round duct

DESCRIPTION

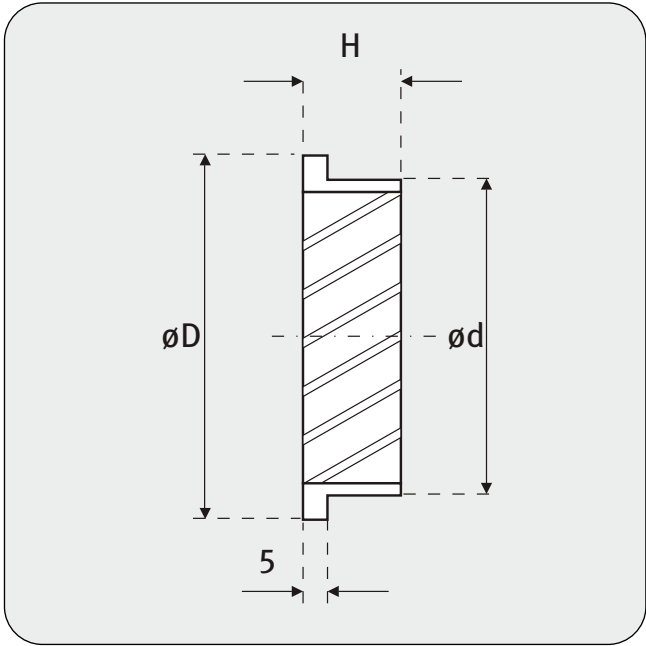
All doors have gasket, thanks to which fitting of a door on duct is sufficiently tight.
Special template facilitates mounting.

A (mm)	B (mm)
180	80
200	100
250	150
300	200
400	300
500	400
600	450



CAST ALUMINUM EXTERNAL WALL GRILLE

KWO-AL



MATERIAL

- cast aluminum

PRODUCT CHARACTERISTICS

- KWO-AL may work as intake or exhauster
- made of aluminum - no corrosion
- non-painted
- insect protection net installed from inside

ød (mm)	øD (mm)	H (mm)	Box quantity
100	125	20	165
125	150	20	108
150	180	20	72
160	185	20	72
200	225	20	52
250	275	20	28
315	350	20	20
400	435	35	8



PRESSED ALUMINUM WALL GRILLE

ELB



MATERIAL

- pressed aluminum

PRODUCT CHARACTERISTICS

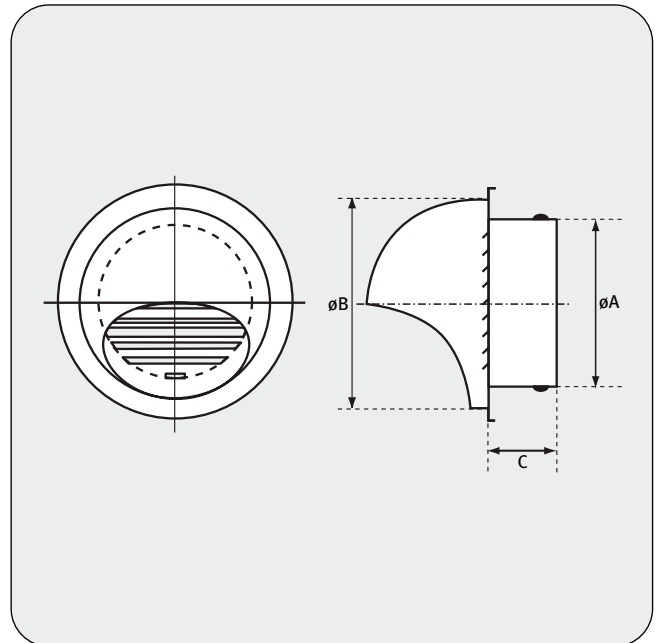
- may work as intake or exhauster
- entirely made of aluminum - no corrosion
- non-painted
- insect protection net installed from inside

øA (mm)	øB (mm)	L (mm)	Box quantity
100	125	50	60
125	150	50	60
150	175	50	60
160	188	50	60
200	225	50	15
250	275	50	13
315	340	50	13



ROUND AIR INTAKE / EXHAUSTER (CRNI STEEL)

VLA



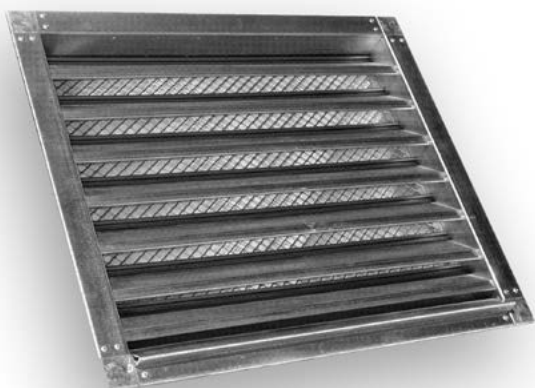
MATERIAL

- CrNi steel

PRODUCT CHARACTERISTICS

- VLA may work as air intake or exhauster
- made of CrNi steel - no corrosion
- non-painted
- cover provides protection against weather conditions
- high quality and modern design
- fast and easy installation

Type	$\varnothing D$ (mm)	$\varnothing A$ (mm)	$\varnothing B$ (mm)	C (mm)	Box quantity
VLA-100	100	97	133	52	36
VLA-125	125	120	165	52	36
VLA-150	150	145	192	62	12
VLA-160	160	155	192	62	12
VLA-200	200	195	253	62	8

**GALVANIZED STEEL RECTANGULAR AIR INTAKE/EXHAUSTER****CW****MATERIAL**

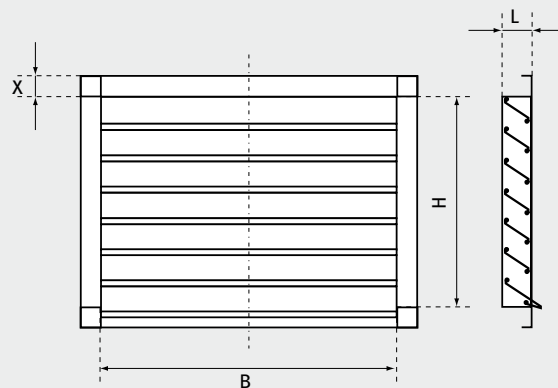
- galvanized steel
- steel profiles system

PRODUCT CHARACTERISTICS

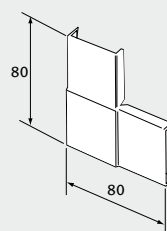
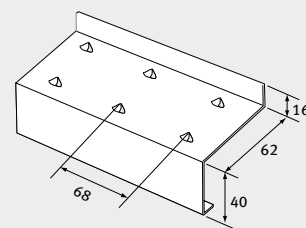
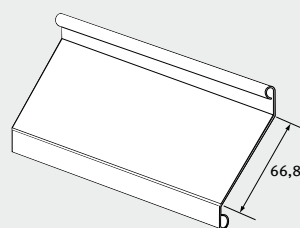
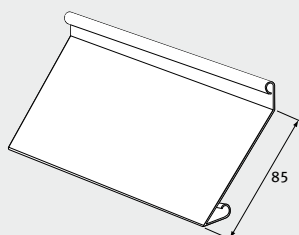
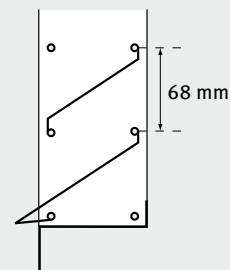
- suitable for powder coating

DESCRIPTION

Used for exchanging air inside a building



B: -20 mm H: -20 mm B × H size of the air
X = 40 mm L = 62 mm intake assembly hole

ASSEMBLY DRAWING**BR 40****BR 40/62****LP 66****LP 88**

Also available as separate components for product assembly

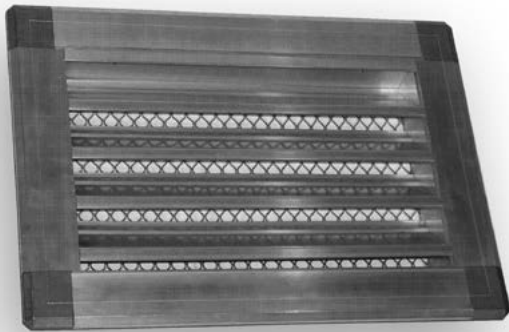
H (mm) 200 - 2000

B (mm) 200 - 3000

Min. height of the air intake H = 200 mm
Max. size of the air intake B × H = 3000 mm × 2000 mm
In case of larger dimensions - on request



ANODIZED ALUMINUM RECTANGULAR AIR INTAKE / EXHAUSTER

CWA


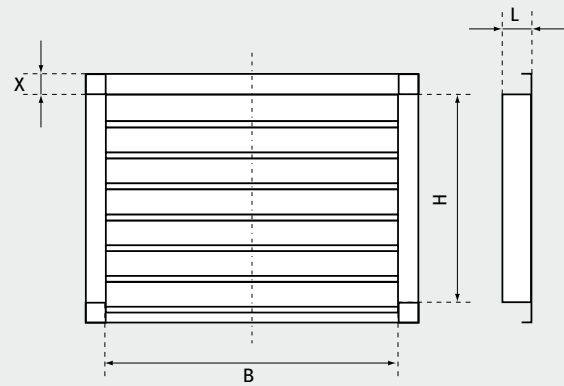
MATERIAL

- anodized aluminum
- aluminum profiles system

DESCRIPTION

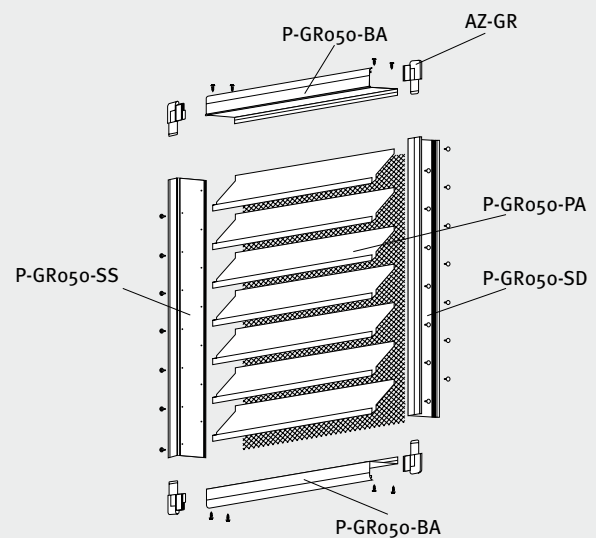
Used for exchanging air inside a building

Also available as separate components for product assembly



B: -20 mm H: -20 mm B × H size of the air intake assembly hole
X=52 mm L=57 mm

ASSEMBLY DRAWING



H (mm) 200 - 2000

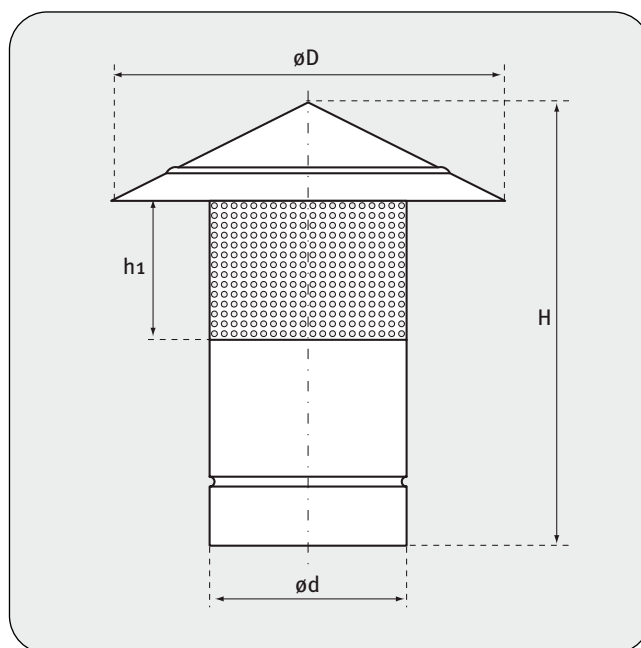
B (mm) 200 - 3000

Min. height of the air intake H = 200 mm
Max. size of the air intake B × H = 3000 mm × 2000 mm
In case of larger dimensions - on request



ROOF AIR INTAKE

K



MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

- outlet additionally secured with perforated steel
- as a standard manufactured with female coupling
- as an option - can be manufactured with male coupling or with VKPK flange

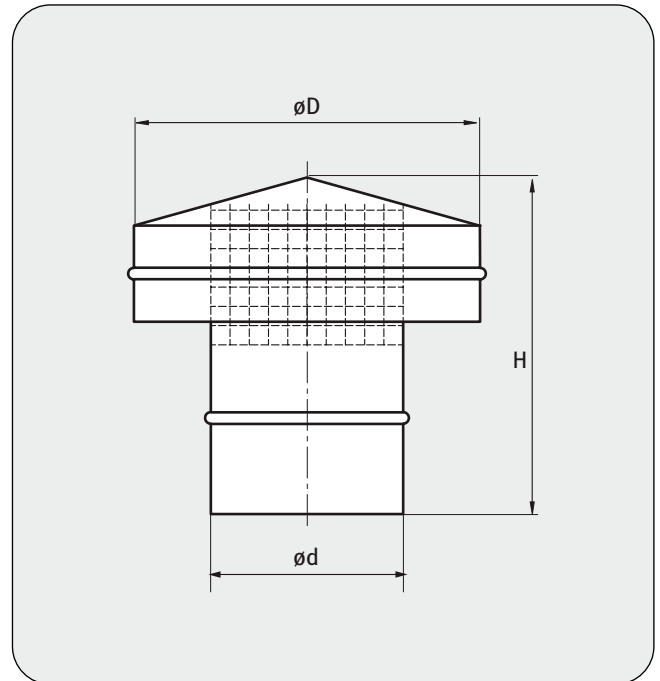
$\varnothing d$ (mm)	$\varnothing D$ (mm)	H (mm)	h_1 (mm)	Box quantity	Packaging
100	200	264	59	40	P2
125	225	267	52	36	P2
150	250	265	45	18	P2
160	260	270	45	18	P2
180	285	270	47	16	P2
200	315	273	49	15	P2
250	400	291	81	12	P1
315	500	303	90	9	P1
355	550	325	110	8	P1
400	600	344	131	5	P1
450	650	370	170	4	P1
500	700	400	210	4	P1

Tolerance: +5 mm $\varnothing d$ - diameter of female coupling



VENTILATION CAP

VH



MATERIAL

- galvanized steel

CHARAKTERYSTYKA

- manufactured with male coupling (as an option - manufactured with female coupling)
- inlet is protected with 12 × 12 mm galvanized steel mesh

ød (mm)	øD (mm)	H (mm)
80	180	165
100	180	165
125	225	170
140	290	180
150	290	180
160	290	180
180	360	230
200	360	230
224	405	235
250	450	240
280	570	255

Tolerance: D i H ±5 mm

ød (mm)	øD (mm)	H (mm)
300	570	255
315	570	255
355	720	345
400	720	355
450	810	370
500	900	430
560	1080	485
600	1080	485
630	1135	495
710	1280	510
800	1440	535



VENTILATION CAP

KV

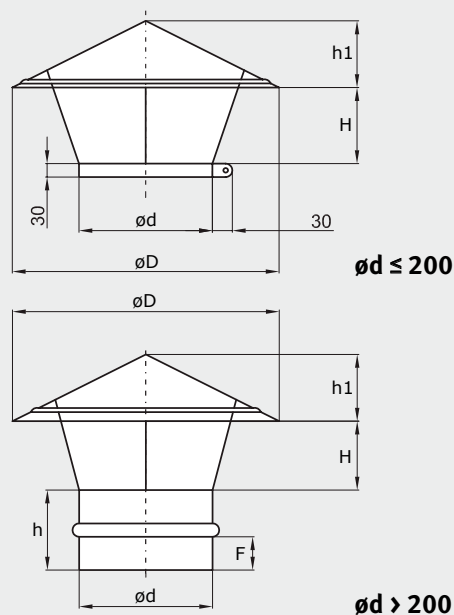


Version in diameter
 $\varnothing d > 200$



MATERIAL

- galvanized steel



PRODUCT CHARACTERISTICS

- up to diameter $\varnothing 200$ - clamp connection
- above diameter $\varnothing 200$ - male coupling end

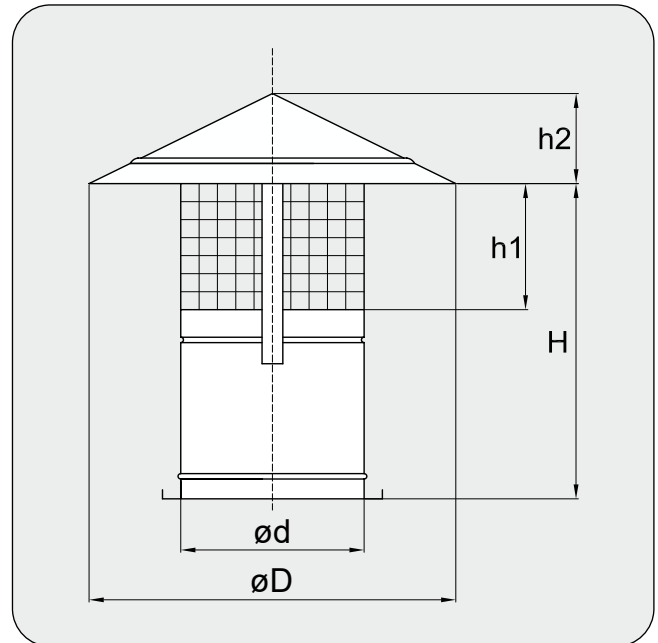
$\varnothing d$ (mm)	$\varnothing D$ (mm)	H (mm)	h1 (mm)	h (mm)
92-98	240	70	40	30
105-111	240	70	40	30
115-120	240	70	40	30
125-130	310	75	50	30
135-139	310	80	50	30
148-154	310	80	50	30
157-160	310	80	50	30
175-180	310	85	50	30
190-200	360	85	60	30

$\varnothing d$ (mm)	$\varnothing D$ (mm)	H (mm)	h1 (mm)	h (mm)	F (mm)
250	440	85	70	80	40
300	550	130	90	88	40
315	580	135	90	88	40
350	640	150	100	88	40
400	720	160	115	100	50
450	720	175	115	100	50
500	720	185	115	100	50
630	950	200	150	125	60



ROOF ROUND AIR INTAKE

CDO



MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

- inlet is protected with 12 x 12 mm galvanized steel mesh
- as a standard - produced with VKPK flange
- as an option - can be produced with male coupling end

ød (mm)	øD (mm)	H (mm)	h1 (mm)	h2 (mm)
100	200	210	60	50
125	250	210	70	50
160	320	225	75	55
200	400	240	75	60
224	450	270	90	70
250	500	310	100	75
315	630	390	125	100
355	710	435	145	105
400	800	490	160	120
450*	900	540	180	135
500	1000	600	200	150
560	1120	690	230	170
630	1260	750	250	190
710 *	1420	870	290	220

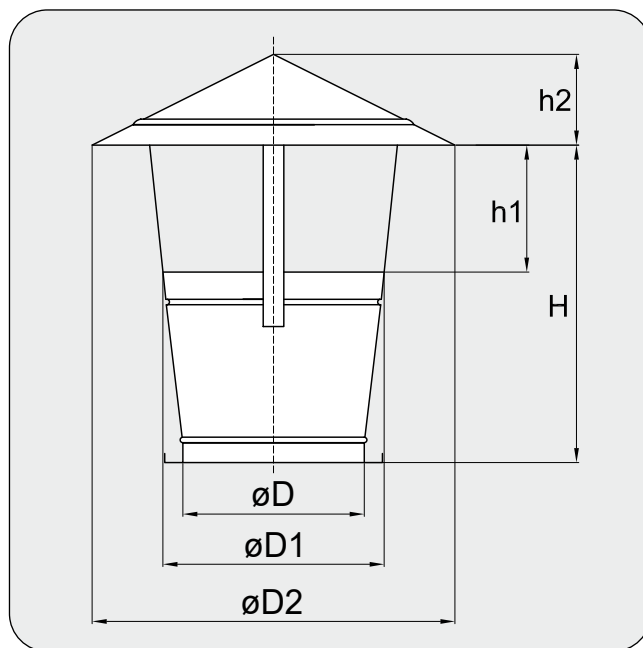
Tolerance: øD, H, h1 i h2 ±5 mm

* only male or female coupling version



ROUND AIR EXHAUSTER TYPE C

WDO-C



MATERIAL

- galvanized steel

PRODUCT CHARACTERISTICS

- used as a terminal part of ventilation system
- special design protects the system against weather conditions
- as a standard - produced with VKPK flange
- as an option - can be produced with male coupling end

$\varnothing D$ (mm)	$\varnothing D1$ (mm)	$\varnothing D2$ (mm)	H (mm)	h1 (mm)	h2 (mm)
100	125	200	175	50	50
125	156	250	220	50	50
160	200	320	270	55	60
200	250	400	340	60	60
224	280	450	380	70	70
250	312	500	425	75	75
315	393	630	530	95	100
355	446	710	600	105	110
400	500	800	680	120	120
450*	560	900	765	135	135
500	625	1000	850	150	150
560	705	1120	920	170	170
630	786	1260	1070	190	190
710*	893	1420	1220	220	220

* only male or female coupling version



ROUND AIR INTAKE / EXHAUSTER

HF / HN

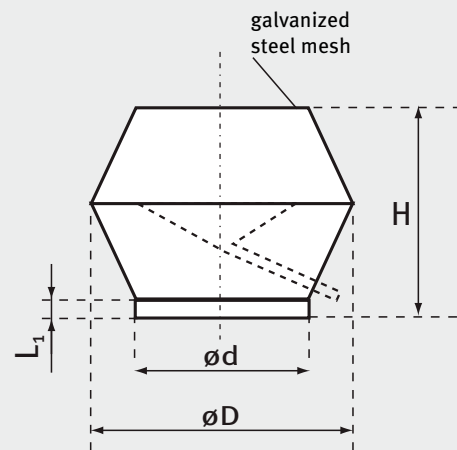


HF



MATERIAL

- galvanized steel



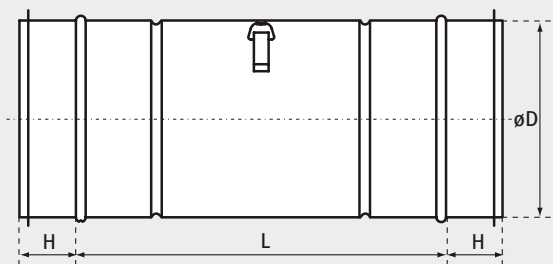
PRODUCT CHARACTERISTICS

- inlet is protected with 12×12 mm galvanized steel mesh
- HF** - produced with VKPK flange
- HN** - produced to fit outside the duct
- equipped with water drip pipe
- as an option - can be produced with male coupling end

ød (mm)	main dimensions			drip pipe
	L1 (mm)	H (mm)	øD (mm)	ø external tube (mm)
100	115	345	180	18
125	115	360	225	18
140	115	400	240	18
150	115	430	260	18
160	115	460	280	18
180	115	495	310	18
200	115	525	345	18
224	115	565	375	18
250	115	610	410	18
280	115	660	470	24
300	115	715	530	24

* only HN version Tolerance: øD, H, L1 ±5 mm

ød (mm)	main dimensions			drip pipe
	L1 (mm)	H (mm)	øD (mm)	ø external tube (mm)
315	115	740	550	24
355	115	810	600	24
400	115	1000	675	24
450*	115	1070	770	24
500	115	1120	845	24
560	115	1240	965	24
600	115	1230	1070	24
630	115	1360	1175	24
710 *	115	1440	1255	24
800 *	115	1540	1340	24

**ROUND DUCT FILTER****OFK****DESCRIPTION**

OFK round duct filter is used for initial filtration of flowing air in round duct systems. Filtering element is EU4 class insert secured with galvanized steel mesh.

Casing is made of galvanized steel, with gaskets on both ends. Construction ensures easy and fast assembly.

Type	øD (mm)	L (mm)	H (mm)	Box quantity	Packaging
OFK 100	100	135	38*	37	P6
OFK 125	125	135	38*	27	P6
OFK 150	150	125	38*	30	P4
OFK 160	160	135	38*	24	P4
OFK 200	200	135	38*	27	P2
OFK 250	250	125	40	36	P1
OFK 300	300	125	40	26	P1
OFK 315	315	125	40	25	P1
OFK 355	355	125	40	24	P1
OFK 400	400	140	50	13	P1
OFK 450	450	140	50	10	P1
OFK 500	500	140	50	8	P1

Wymiar L w tolerancji ± 5 mm, * tolerancja: $+0/-5$ mm.



ROUND DUCT FILTER

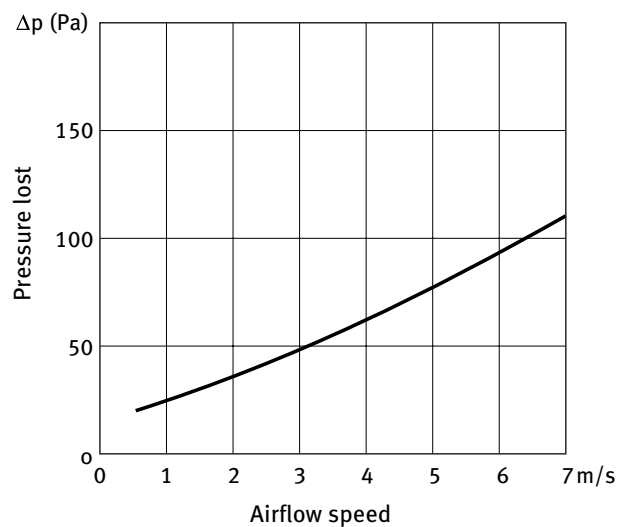
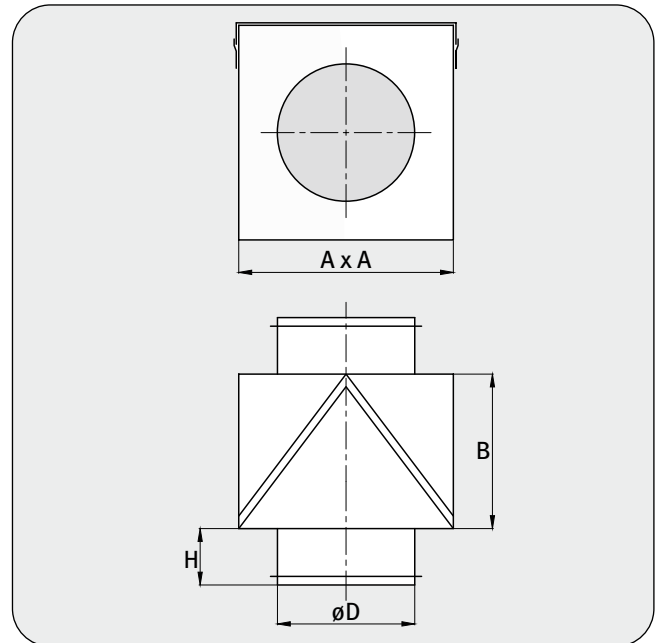
FKO



DESCRIPTION

Duct filters are designed to be installed in round duct systems of standard diameters (100 – 450 mm).

Casing is made of galvanized steel, connectors are equipped with rubber gaskets and the filter cartridge (EU4 class) is secured with galvanized steel mesh. The filter is used for initial filtration of air intake.



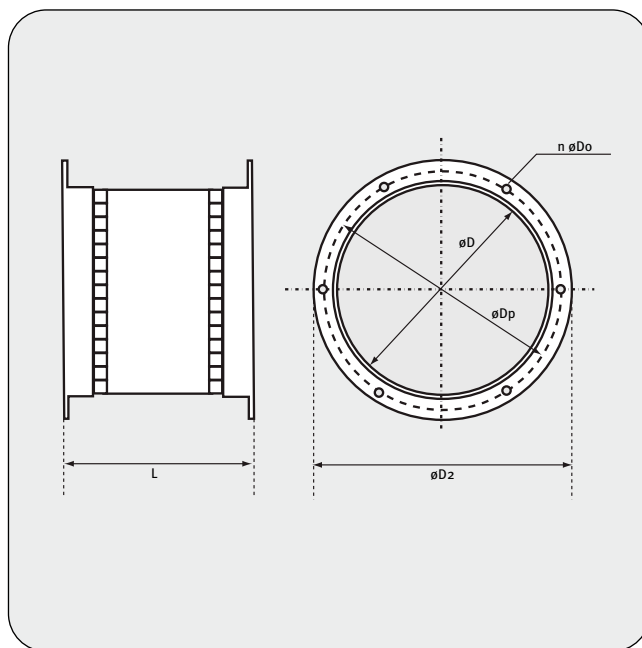
Type	øD (mm)	A (mm)	B (mm)	H (mm)
FKO 100	100	180	180	40
FKO 125	125	180	180	40
FKO 140	140	180	180	40
FKO 150	150	210	180	40
FKO 160	160	210	180	40
FKO 180	180	250	180	40
FKO 200	200	250	180	40
FKO 224	224	300	180	40

Type	øD (mm)	A (mm)	B (mm)	H (mm)
FKO 250	250	300	180	40
FKO 300	300	360	180	40
FKO 315	315	370	180	40
FKO 355	355	410	180	40
FKO 400	400	460	180	50
FKO 450	450	510	180	60
FKO 500	500	560	180	60



ROUND FLEXIBLE CONNECTOR PIPE

KEO-K / KEO

Version without
VKPK flanges

MATERIAL

- flexible connector XEV-50 35/60/35, KEV-25 45/70/45, EEV-25 70/100/70
- flange VKPK (**KEO-K** version)
- L depends on width of the connector (other sizes available)

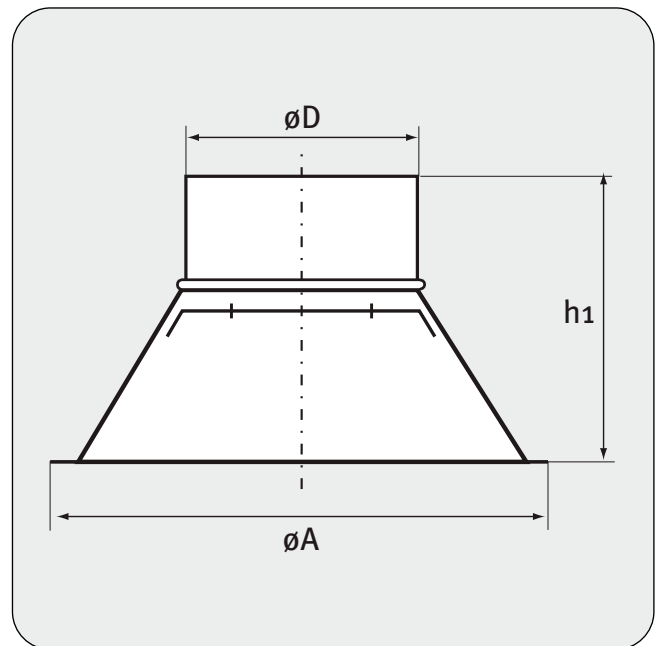
PRODUCT CHARACTERISTICS

- Female version as a standard
- Male version available upon request

$\varnothing D$ (mm)	$\varnothing D_p$ (mm)	$\varnothing D_2$ (mm)	$\varnothing D_o$ (mm)	Number of holes
80	110	130	7	4
100	130	150	7	4
110	140	160	7	4
125	155	175	7	4
140	170	190	7	8
150	181	200	9	8
160	195	220	9	8
180	215	240	9	8
200	235	260	9	8
224	260	285	9	8
250	285	310	9	8

Tolerance: ± 2 mm * only KEO version

$\varnothing D$ (mm)	$\varnothing D_p$ (mm)	$\varnothing D_2$ (mm)	$\varnothing D_o$ (mm)	Number of holes
280	315	340	9	8
315	350	375	9	12
355	390	415	9	12
400	445	460	9	12
450*	495	530	9	12
500	545	580	9	16
560	605	640	12	16
630	680	720	12	16
710*	760	800	12	20
800*	860	900	12	20

**ROUND JOINT****DSP****DESCRIPTION**

- made of galvanized steel
- allows for quick and easy installation of the DS diffuser in the ceiling
- allows for connecting the diffuser to ventilation and air conditioning systems

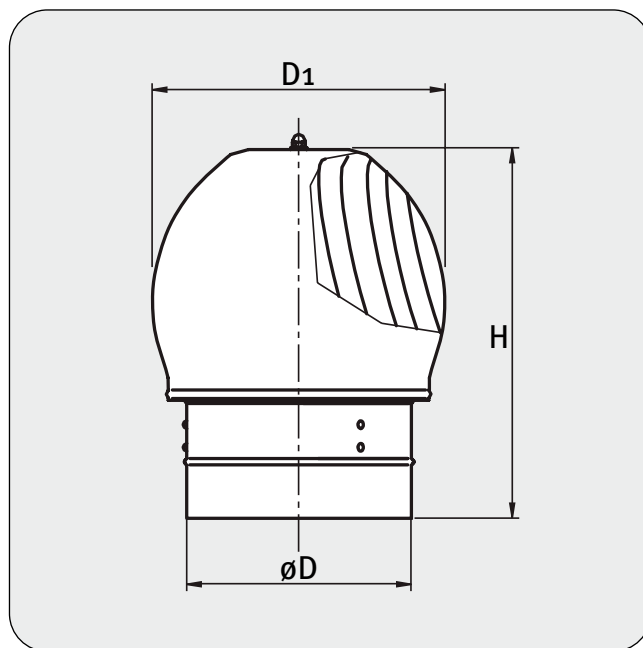
Diffuser dimension (mm)	$\varnothing D$ (mm)	h_1 (mm)	$\varnothing A$ (mm)
150	125	180	257
150	150	140	257
150	160	140	257
200	160	180	307
200	200	140	307
250	200	195	357
250	250	140	357
300	250	195	407
300	300	140	407
300	315	140	407
350	315	180	457
350	350	140	457
350	355	140	457

Tolerance $h_1 \pm 2$ mm



CHIMNEY ROOT CENTROWENT

CA / CN



DESCRIPTION

Rotary chimney cowl Centrowent is a device which, in a dynamic way, uses force of the wind to increase chimney draught. The turbine always rotates in the same direction, regardless of the wind strength, or its direction. It is to be mounted on gravity based ventilation chimney duct endings.

CHARACTERISTICS

CA - rotor made of aluminum

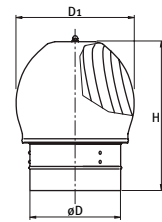
CN - rotor and flange made of stainless steel

- **No corrosion** - collar made of galvanized steel
- **Light weight** - aluminum or stainless steel fan rotor
- **Quiet operation** - rotor bearings
- **Easy cleaning** - rotor fixed to axle with screw
- **Logistics** - each piece in separate box



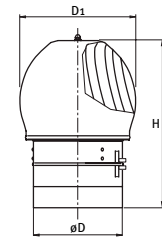
Chimney root, coupling

Diameter (mm)	ø130	ø150	ø160	ø200	ø250	ø300	ø315	ø400	ø450	ø500
øD (mm)	130	150	160	200	250	300	315	400	450	500
H (mm)	193	217	222	283	365	412	433	540	540	650
D1 (mm)	195	225	240	300	360	430	452	550	610	675



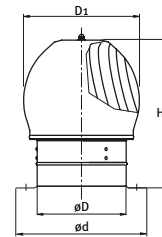
Chimney root, coupling, split

Diameter (mm)	ø130	ø150	ø160	ø200	ø250	ø300	ø315	ø400	ø450	ø500
øD (mm)	130	150	160	200	250	300	315	400	450	500
H (mm)	313	337	342	409	475	532	553	640	660	720
D1 (mm)	195	225	240	300	360	430	452	550	610	675



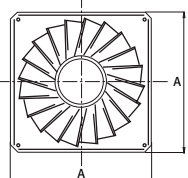
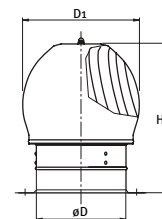
Chimney root with flange

Diameter (mm)	ø130	ø150	ø160	ø200	ø250	ø300	ø315	ø400	ø450	ø500
øD (mm)	130	150	160	200	250	300	315	400	450	500
ød (mm)	190	210	220	260	310	360	375	460	510	560
H (mm)	193	217	222	283	365	412	433	540	540	650
D1 (mm)	195	225	240	300	360	430	452	550	610	675



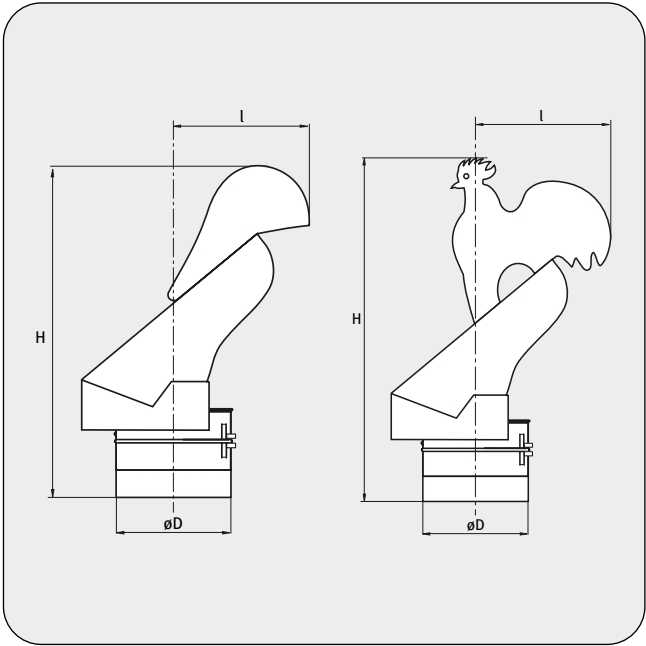
Chimney root with base

Diameter (mm)	ø130	ø150	ø160	ø200	ø250	ø300	ø315	ø400	ø450	ø500
øD (mm)	130	150	160	200	250	300	315	400	450	500
A (mm)	333	333	333	333	390	440	460	540	590	640
H (mm)	193	217	222	283	365	412	433	540	540	650
D1 (mm)	195	225	240	300	360	430	452	550	610	675



CHIMNEY ROOT ROTOFLEX

RTN



DESCRIPTION

Rotating chimney root Rotoflex is designed for supporting the air exhaust in chimneys by generating underpressure. Root's top part always points the wind direction.

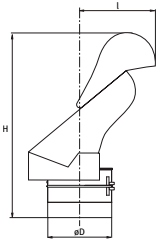
CHARACTERISTICS

- RTN - rotor and flange made of stainless steel
- **No corrosion** - collar made of galvanized steel
 - **Quiet operation** - rotor bearings
 - **Logistics** - each piece in separate box

"FIN" VERSION

Chimney root, coupling, split

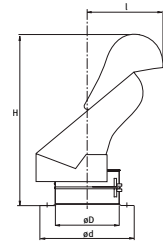
Diameter (mm)	Ø130	Ø150	Ø180	Ø200	Ø250	Ø300	Ø350
ØD (mm)	130	150	180	200	250	300	350
H (mm)	438	486	579	604	672	787	880
L (mm)	150	173	208	231	263	316	364





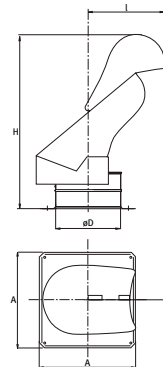
Chimney root with flange

Diameter (mm)	ø130	ø150	ø180	ø200	ø250	ø300	ø350
øD (mm)	130	150	180	200	250	300	350
ød (mm)	190	210	240	260	310	360	410
H (mm)	350	406	499	524	592	707	800
L (mm)	150	173	208	231	263	316	364



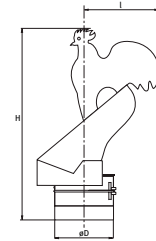
Chimney root with base

Diameter (mm)	ø130	ø150	ø180	ø200	ø250	ø300	ø350
øD (mm)	130	150	180	200	250	300	350
A (mm)	333	333	333	333	333	390	450
H (mm)	350	406	499	524	592	707	800
L (mm)	150	173	208	231	263	316	364

**"ROOSTER" VERSION**

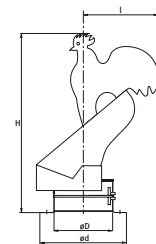
Chimney root, coupling, split

Diameter (mm)	ø130	ø150	ø180	ø200	ø250	ø300	ø350
øD (mm)	130	150	180	200	250	300	350
H (mm)	516	576	607	724	822	967	1090
L (mm)	172	179	230	264	305	366	422



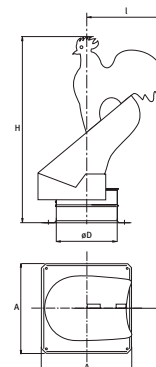
Chimney root with flange

Diameter (mm)	ø130	ø150	ø180	ø200	ø250	ø300	ø350
øD (mm)	130	150	180	200	250	300	350
ød (mm)	190	210	240	260	310	360	410
H (mm)	438	496	607	724	644	896	1010
L (mm)	172	179	230	264	305	366	422



Chimney root with base

Diameter (mm)	ø130	ø150	ø180	ø200	ø250	ø300	ø350
øD (mm)	130	150	180	200	250	300	350
A (mm)	333	333	333	333	333	390	450
H (mm)	438	496	607	724	644	896	1010
L (mm)	172	179	230	264	305	366	422





CIRCULAR SILENCER

SLL



Version with
perforated steel sheet



USE

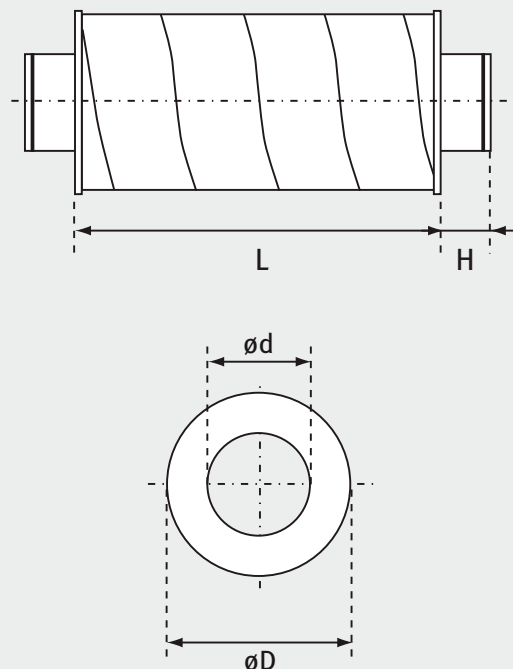
Circular silencers are designed to suppress the noise in ventilation and air conditioning duct systems.

DESIGN WITH MINERAL WOOL SLATES

The external cover is made of circular duct.
The attenuating layer is made of mineral wool slates with a density of 55 kg/m³, protected from the side of the duct with reinforced fibre cloth.
Connecting pipes produced with gasket.

ød (mm)	øD (mm)		H (mm)
	50 mm isolation	100 mm isolation	
80	180*	200*	50
100	200	315*	50
125	200	315*	50
140	250*	355*	50
150	250	355*	50
160	250	355*	50
180	280*	400*	50
200	315	400*	50
224	315*	400*	50
250	355	450*	50

* version with perforated steel sheet



Standard silencer lengths:
L = 300, 600, 900, 1000, 1200 (mm)

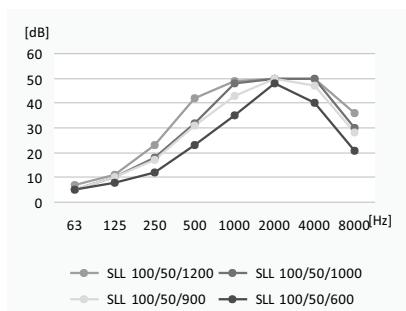
DESIGN WITH PERFORATED STEEL SHEET

The external cover is made of circular duct.
The attenuating layer is made of mineral wool with a density of 12 kg/m³, separated from the duct system by fibre cloth and perforated galvanized steel sheet.
Connecting pipes produced with gasket.

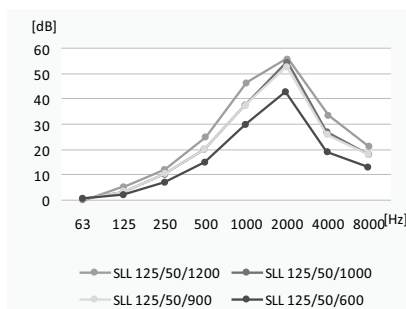
ød (mm)	øD (mm)		H (mm)
	50 mm isolation	100 mm isolation	
280	400*	500*	50
315	400	500*	50
355	450	560*	50
400	500	630*	60
450	560*	630*	60
500	630*	710*	60
560	630*	800*	70
630	710*	800*	70
710	800*	900*	70
800	900*	1000*	70



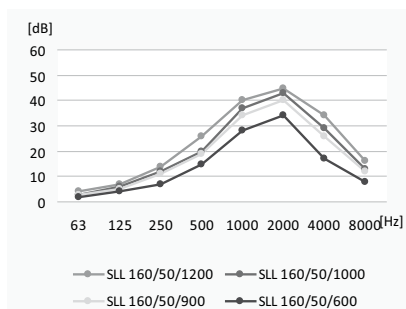
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 100/50/1200	7	11	23	42	49	50	50	36
SLL 100/50/1000	5	10	18	32	48	50	50	30
SLL 100/50/900	5	10	17	31	43	50	47	28
SLL 100/50/600	5	8	12	23	35	48	40	21



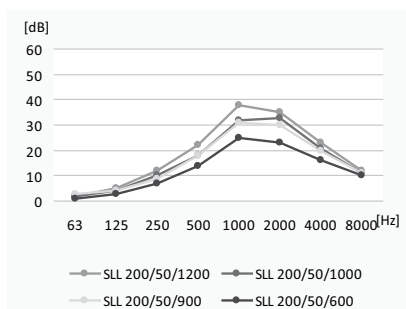
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 125/50/1200	0	5	12	25	46	56	34	21
SLL 125/50/1000	0	3	10	20	38	55	27	18
SLL 125/50/900	0	3	10	20	37	53	26	18
SLL 125/50/600	0	2	7	15	30	43	19	13



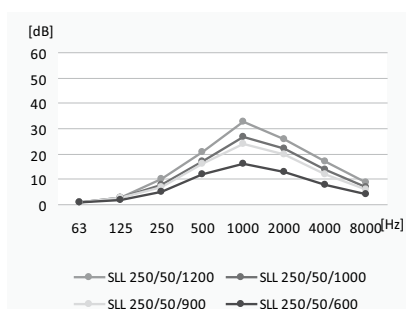
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 160/50/1200	4	7	14	26	40	45	34	16
SLL 160/50/1000	3	6	12	20	37	43	29	13
SLL 160/50/900	3	5	11	19	34	40	26	12
SLL 160/50/600	2	4	7	15	28	34	17	8



Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 200/50/1200	2	5	12	22	38	35	23	12
SLL 200/50/1000	2	4	10	18	32	33	21	11
SLL 200/50/900	3	4	9	18	31	30	20	11
SLL 200/50/600	1	3	7	14	25	23	16	10

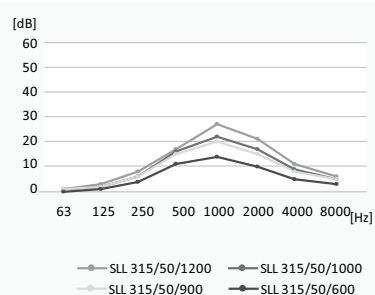


Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 250/50/1200	1	3	10	21	33	26	17	9
SLL 250/50/1000	1	3	8	17	27	22	14	7
SLL 250/50/900	1	3	7	16	24	20	12	6
SLL 250/50/600	1	2	5	12	16	13	8	4

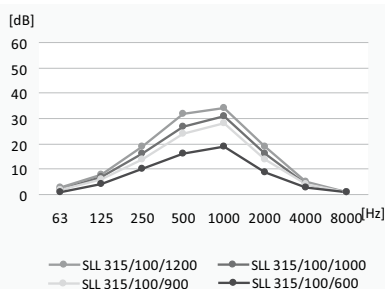




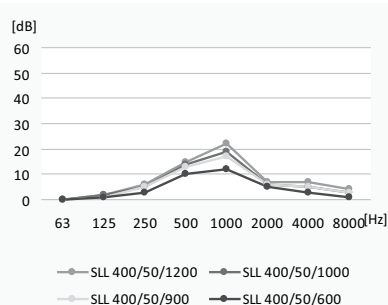
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 315/50/1200	1	3	8	17	27	21	11	6
SLL 315/50/1000	1	2	6	16	22	17	9	5
SLL 315/50/900	1	2	6	15	20	15	8	5
SLL 315/50/600	0	1	4	11	14	10	5	3



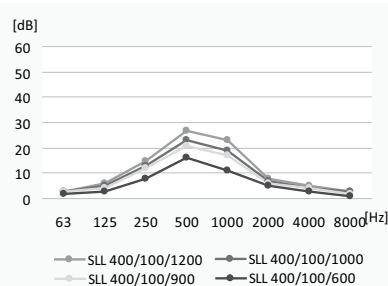
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 315/100/1200	3	8	19	32	34	19	5	1
SLL 315/100/1000	2	7	16	27	31	16	4	1
SLL 315/100/900	2	6	14	24	28	14	4	1
SLL 315/100/600	1	4	10	16	19	9	3	1



Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 400/50/1200	0	2	6	15	22	7	7	4
SLL 400/50/1000	0	2	5	14	19	6	5	3
SLL 400/50/900	0	1	5	13	17	6	5	3
SLL 400/50/600	0	1	3	10	12	5	3	1

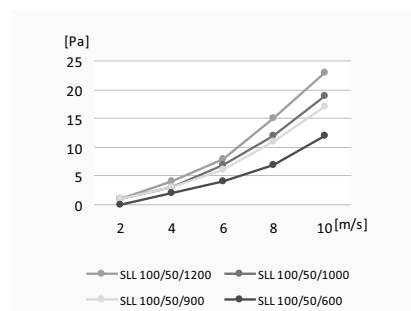


Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL 400/100/1200	3	6	15	27	23	8	5	3
SLL 400/100/1000	3	5	13	23	19	7	4	3
SLL 400/100/900	3	4	12	21	17	6	4	2
SLL 400/100/600	2	3	8	16	11	5	3	1

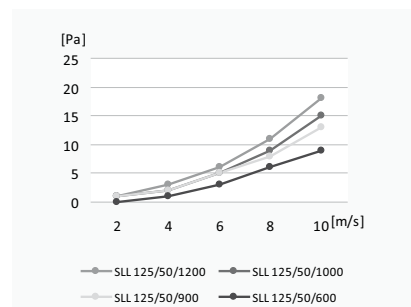




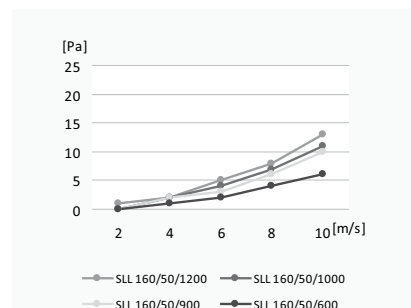
Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 100/50/1200	1	4	8	15	23	0,39
SLL 100/50/1000	1	3	7	12	19	0,32
SLL 100/50/900	1	3	6	11	17	0,29
SLL 100/50/600	0	2	4	7	12	0,19



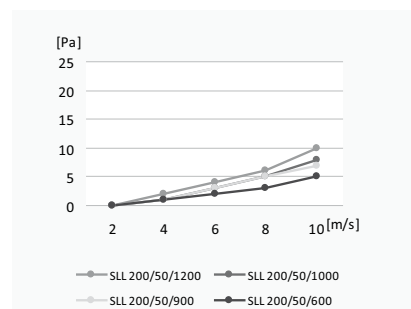
Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 125/50/1200	1	3	6	11	18	0,29
SLL 125/50/1000	1	2	5	9	15	0,24
SLL 125/50/900	1	2	5	8	13	0,22
SLL 125/50/600	0	1	3	6	9	0,15



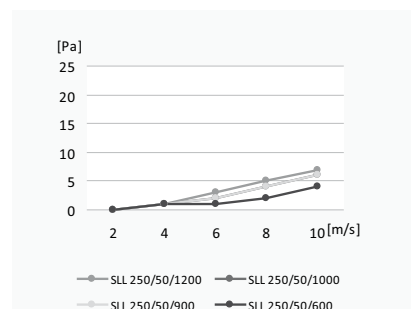
Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 160/50/1200	1	2	5	8	13	0,22
SLL 160/50/1000	0	2	4	7	11	0,18
SLL 160/50/900	0	2	3	6	10	0,16
SLL 160/50/600	0	1	2	4	6	0,11



Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 200/50/1200	0	2	4	6	10	0,16
SLL 200/50/1000	0	1	3	5	8	0,14
SLL 200/50/900	0	1	3	5	7	0,12
SLL 200/50/600	0	1	2	3	5	0,08



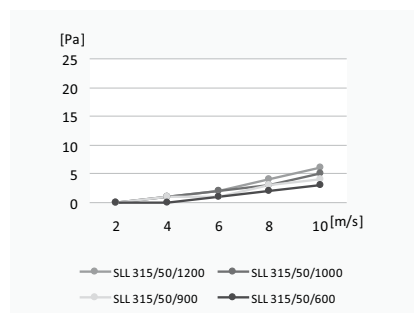
Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 250/50/1200	0	1	3	5	7	0,12
SLL 250/50/1000	0	1	2	4	6	0,10
SLL 250/50/900	0	1	2	4	6	0,09
SLL 250/50/600	0	1	1	2	4	0,06



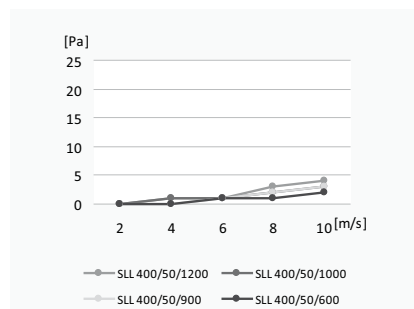


Silencers

Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 315/50/1200	0	1	2	4	6	0,09
SLL 315/50/1000	0	1	2	3	5	0,08
SLL 315/50/900	0	1	1	3	4	0,07
SLL 315/50/600	0	0	1	2	3	0,05



Type	Total pressure loss [Pa]					Total pressure loss coefficient
	2 [m/s]	4 [m/s]	6 [m/s]	8 [m/s]	10 [m/s]	
SLL 400/50/1200	0	1	1	3	4	0,07
SLL 400/50/1000	0	1	1	2	3	0,06
SLL 400/50/900	0	0	1	2	3	0,05
SLL 400/50/600	0	0	1	1	2	0,03





FLEXIBLE CIRCULAR SILENCER

SLL S-FLEX

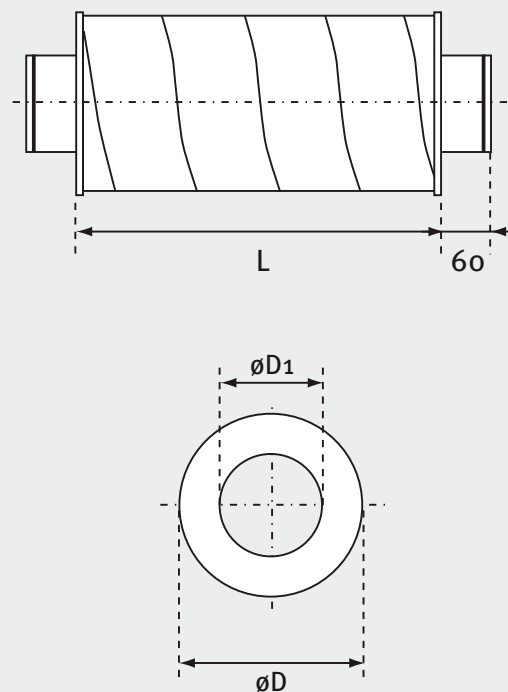


USE

Flexible circular silencers are designed to suppress noise in ventilation and air conditioning duct systems.

DESIGN

External cover made of semi-flexible aluminum duct S-Flex®. Damping layer of mineral wool secured with perforated inner aluminum duct.



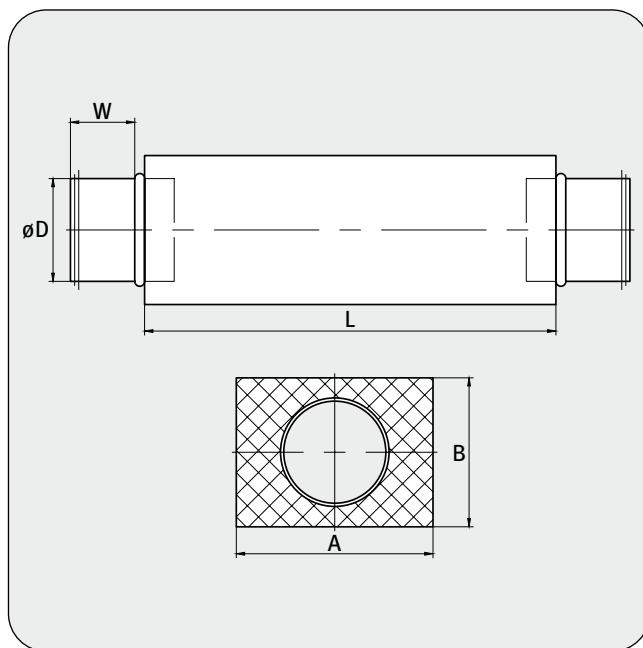
Standard attenuator lengths:
L = 600, 900, 1000, 1200, 1500 (mm)

ØD1 (mm)	ØD (mm)	
	dla izolacji 50 mm	dla izolacji 100 mm
80	180	315
100	200	315
125	250	315
140	250	315
150	250	315
160	250	400
180	315	400
200	315	400
250	400	-
315	400	-



RECTANGULAR SILENCER

SLL-R



USE

Rectangular silencer designed to suppress the noise in ventilation and air conditioning duct systems.

DESIGN

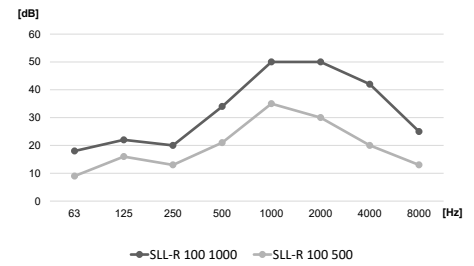
The attenuating layer is made of mineral wool slates with a density of 55 kg/m³.

$\varnothing d$ (mm)	L (mm)	W (mm)	A (mm)	B (mm)
100	500 / 1000	38*	210	158
125	500 / 1000	38*	239	181
160	500 / 1000	38*	275	218
200	500 / 1000	38*	328	254
250	500 / 1000	40	390	308
315	500 / 1000	40	453	372

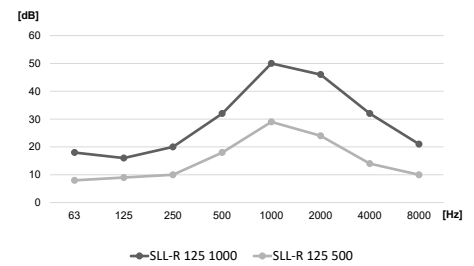
* Tolerance +0/-5 mm



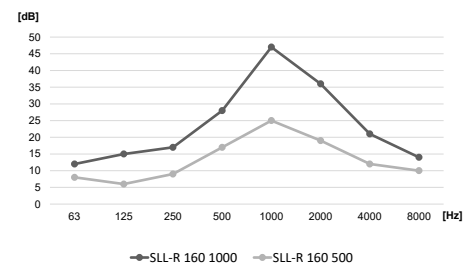
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL-R 100 1000	18	22	20	34	50	50	42	25
SLL-R 100 500	9	16	13	21	35	30	20	13



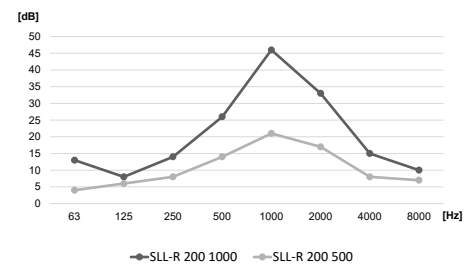
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL-R 125 1000	18	16	20	32	50	46	32	21
SLL-R 125 500	8	9	10	18	29	24	14	10



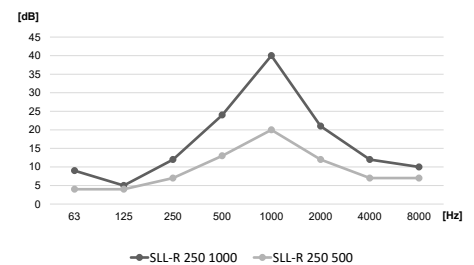
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL-R 160 1000	12	15	17	28	47	36	21	14
SLL-R 160 500	8	6	9	17	25	19	12	10



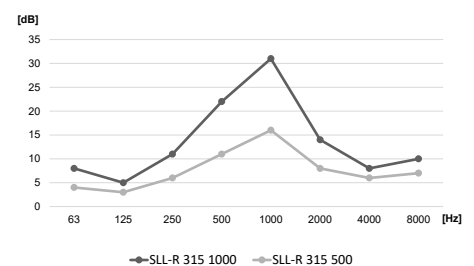
Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL-R 200 1000	13	8	14	26	46	33	15	10
SLL-R 200 500	4	6	8	14	21	17	8	7



Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL-R 250 1000	9	5	12	24	40	21	12	10
SLL-R 250 500	4	4	7	13	20	12	7	7



Type	Attenuation [dB] for frequency [Hz]							
	63	125	250	500	1000	2000	4000	8000
SLL-R 315 1000	8	5	11	22	31	14	8	10
SLL-R 315 500	4	3	6	11	16	8	6	7



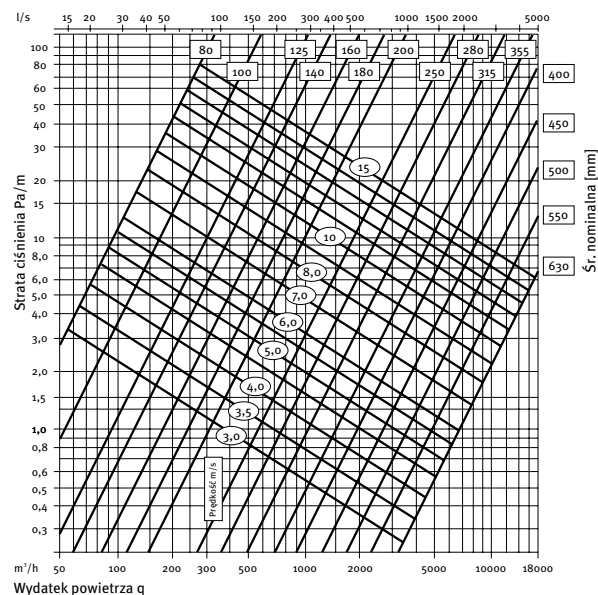


FLEXIBLE CIRCULAR SILENCER

TAE



Linear resistance graph



PRODUCT ADVANTAGES USE

- standard 1 m long silencers fitted into 0,5 m cardboard boxes
- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- does not emit toxic gases in high temperatures

USE

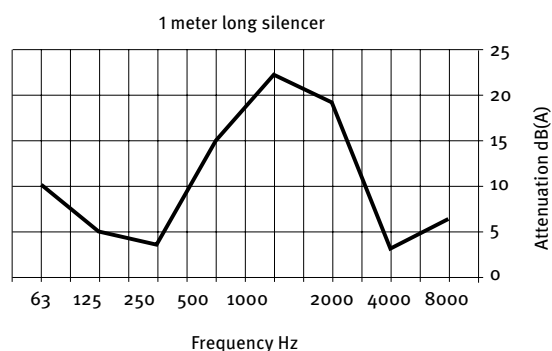
Flexible circular silencer is designed to be used in ventilation and air conditioning duct systems. Attenuates noise and system vibrations. Reduces the need to use fittings.

DESIGN

The external cover is made of multi layer perforated flexible aluminum duct. The silencer is insulated with 25 mm thick mineral wool layer with density of 20 kg/m³. The external layer is made of aluminum-polyester laminate reinforced with fibre wire. The product has properly prepared endings which make its assembly in duct system easier.

The silencer is installed with fixing clips.

Type	TAE
Diameter range	82-406 mm
Operating temperature range	-30/+140 °C
Maximum air speed	30 m/s
Maximum operating pressure	2500 Pa
Standard length	1 m
Cardboard Package	0.5 m





PIPE CLIP FOR ROUND DUCT

OPO / OPOX OPO INOX / OPOX INOX

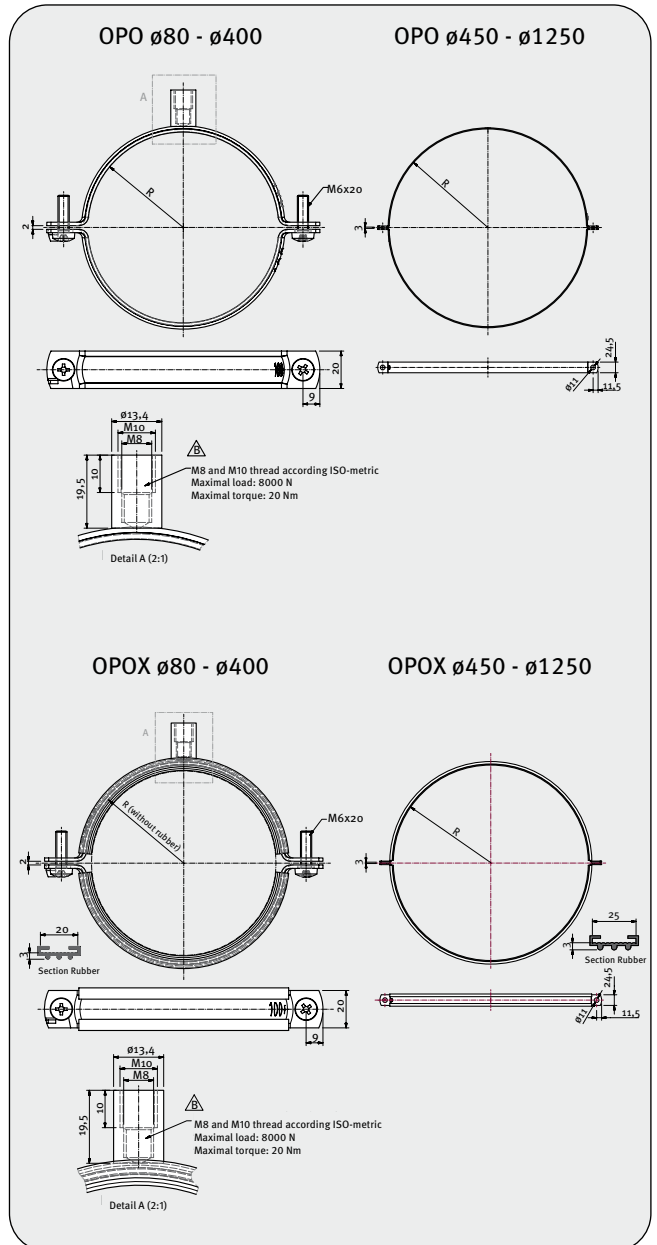


USE

Pipe clips are used to hang round duct systems (SPIRO type or B I). It ensures fast assembly thanks to easy system of locking and tightening. Version with gasket prevents transmission of vibrations from the system to building's structure. The stainless steel version may be used in systems with higher anti corrosion requirements.

DESIGN

- shaped galvanized steel or stainless steel
- available with EPDM rubber shock absorber, which prevents transmission of vibrations (OPOX)
- supplied with M8 or M10 nut, which serves as the threaded rod handle (ø80 - ø400)
- on request available in stainless steel version (INOX)



Nom. diameter øD (mm)	Box quantity	Nut
80	60	M8/M10
100	60	M8/M10
125	60	M8/M10
150	60	M8/M10
160	60	M8/M10
180	60	M8/M10
200	40	M8/M10
224	40	M8/M10

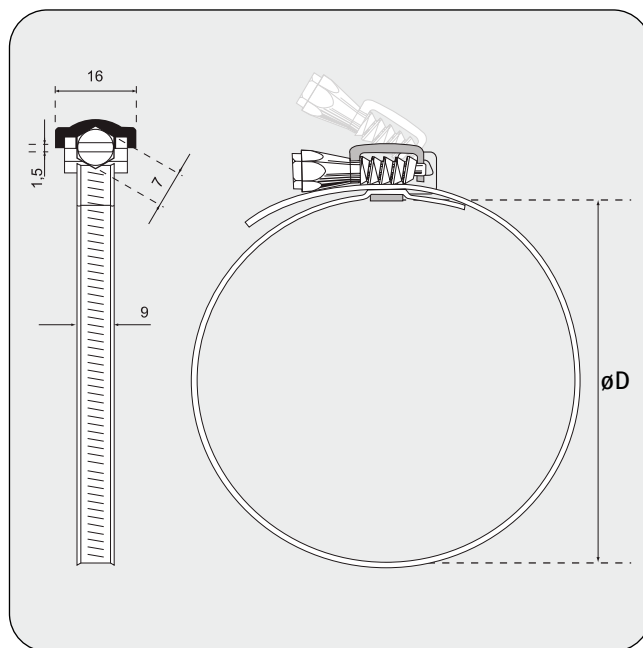
Nom. diameter øD (mm)	Box quantity	Nut
250	40	M8/M10
280	40	M8/M10
300	40	M8/M10
315	30	M8/M10
355	30	M8/M10
400	30	M8/M10
450	40	-
500	30	-

Nom. diameter øD (mm)	Box quantity	Nut
560	24	-
630	20	-
710	18	-
800	18	-
900	18	-
1000	10	-
1120	Z	-
1250	Z	-



METAL BAND CLIP

CM



KONSTRUKCJA/SPOSÓB UŻYCIA

Metalowe opaski zaciskowe CM wykonane są z taśmy ze stali nierdzewnej o szerokości 9 mm. Posiadają odpowiednio ukształtowane krawędzie, aby zapobiec uszkodzeniu przewodów podczas zakładania. Mogą być stosowane do wszystkich typów przewodów elastycznych. Opaska zaciskowa jest montowana za pomocą specjalnego, szybko otwierającego się i szybko zamykającego się zamka CMC.

Zakresy średnic $\varnothing D$ (mm)	Szt./opak.
CM 60 – 110	200
CM 60 – 135	200
CM 60 – 165	200
CM 60 – 215	200
CM 60 – 270	200
CM 60 – 325	200
CM 60 – 525	200
CM 60 – 660	200



TAPE FOR BAND CLIPS / FASTENERS

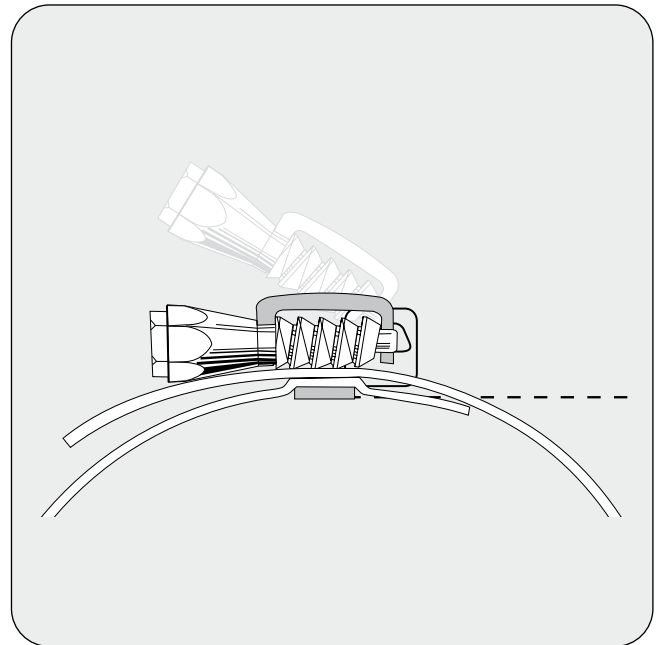
CMB / CMC



DESIGN/USE

CMB is a 9 mm wide stainless steel tape. It is rolled and 30 meters long. Its properly shaped edges prevent damaging the ducts during assembly. The tape is dosed from handy plastic packages. It enables the user to install a clip band on any flexible duct diameter thanks to CMC fastener. The rolled CMB metal tape is an economic, convenient and fast way to create band clips.

Carton: 50 rolls



CLIP FASTENER FOR BANDS CMC

CMC fasteners are used to make band clips for any diameter of flexible duct using CMB tape. This solution allows to avoid the need of having many diameter bands in stock. Special design of CMC fastener allows for quick locking and unlocking, which makes assembly of band on a duct much easier.

Box: 50 pcs

Typ	CMB
Material	stal nierdzewna
Szerokość taśmy	9 mm
Packaging rolka	30 m



NYLON BAND CLIP

CMN



DESIGN/USE

CMN nylon band clips are an economic alternative for metal bands, when installing flexible ducts. Thanks to their design and easy use, they are extremely easy to install, make the work much faster and hold the duct securely on connected pipe. Nylon bands can be used within the temperature range: -55°C to +100°C.

They are available in lengths ranging from 550 mm to 1188 mm. If other lengths are required, bands can be easily connected without using any tools. To tighten nylon bands securely, it is recommended to use DIT-2 clamp tool.

Packaging: 100 pcs

Maksymalne długości (mm)

550	650	800	920	1188
-----	-----	-----	-----	------

Szerokość (mm)

9	9	9	9	9
---	---	---	---	---



SUPRESSING BAND

OM



DESCRIPTION

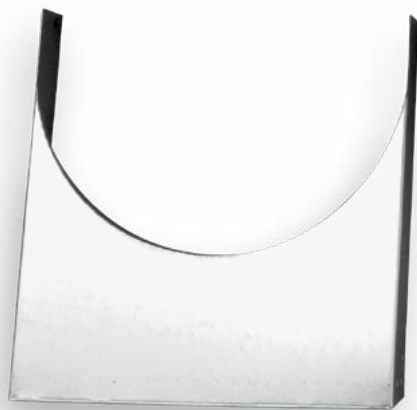
Supressing bands for fan installation in round duct systems

Type	Diameter [mm]	Box quantity
OM 100	100	30
OM 125	125	30
OM 150	150	30
OM 160	160	30
OM 200	200	30
OM 250	250	30
OM 315	315	30
OM 355	355	30
OM 400	400	30
OM 500	500	30



DUCT SUPPORT

MDR

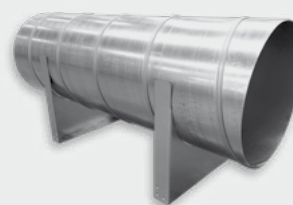
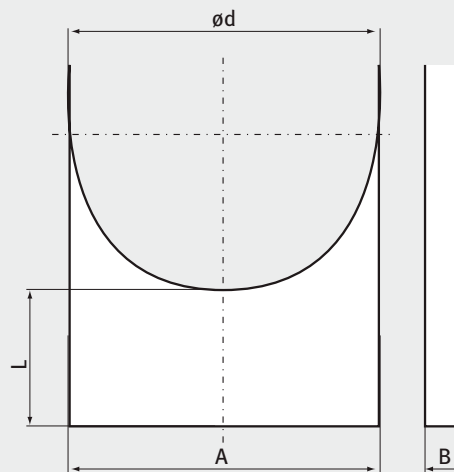


USE

This product has been designed to attach duct on its joints thanks to mounting holes in the base.

MATERIAL

- galvanized steel



Version L=45 available upon request

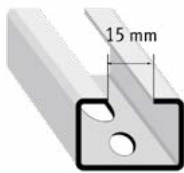
$\varnothing d$ (mm)	A (mm)	B (mm)	L (mm)
80	80	30	75
100	100	30	75
125	125	30	75
140	140	30	75
150	150	30	75
160	160	30	75
180	180	30	75
200	200	30	75
224	224	30	75
250	250	30	75

$\varnothing d$ (mm)	A (mm)	B (mm)	L (mm)
280	280	30	75
300	300	30	75
315	315	30	75
355	355	30	75
400	400	30	75
450	450	30	75
500	500	30	75
560	560	30	75
630	630	30	75



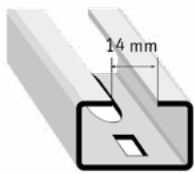
SUPPORT CHANNEL - GALVANIZED STEEL

W 18 SUPPORT CHANNEL



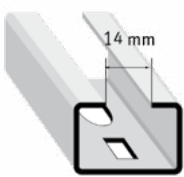
Metal thickness: 1,25 mm
Size: 18×27 mm
Length: 2 m
Weight: 0,67 kg/m
Packaging: 50 pcs

W 2 SUPPORT CHANNEL



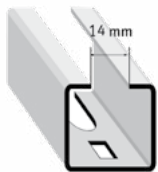
Metal thickness: 2 mm
Size: 20×35 mm
Length: 2 i 5 m
Weight: 1,08 kg/m
Packaging: 50 pcs

W 105 SUPPORT CHANNEL



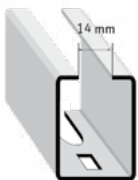
Metal thickness: 1,5 mm
Size: 20×30 mm
Length: 2, 3 i 5 m
Weight: 0,88 kg/m
Packaging: 50 pcs

W 106 SUPPORT CHANNEL



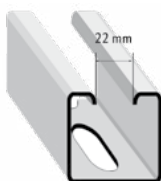
Metal thickness: 1,5 mm
Size: 30×30 mm
Length: 2, 3 i 5 m
Weight: 1,14 kg/m
Packaging: 50 pcs

W 107 SUPPORT CHANNEL



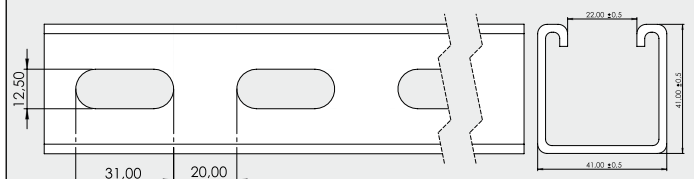
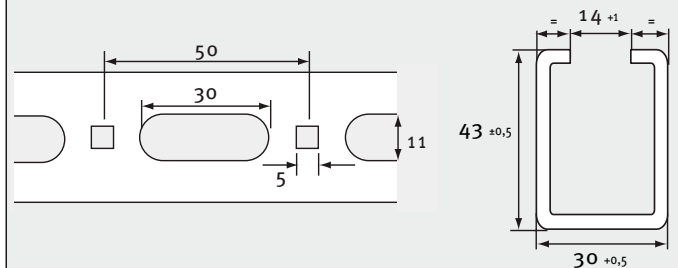
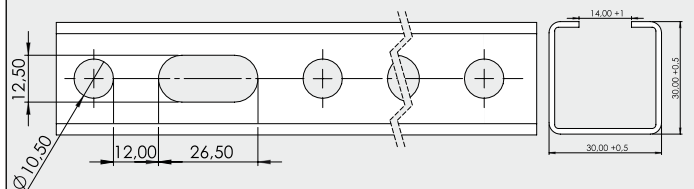
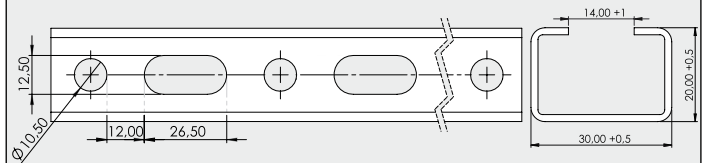
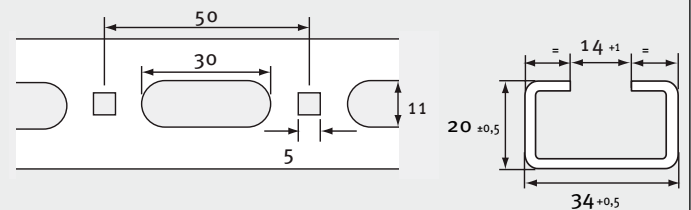
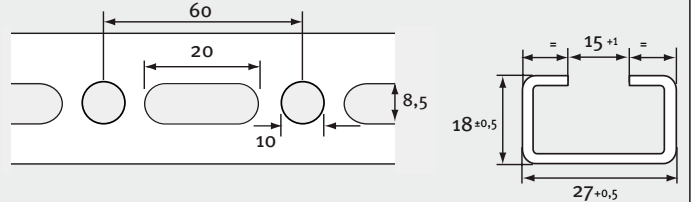
Metal thickness: 1,7 mm
Size: 43×30 mm
Length: 2 i 5 m
Weight: 1,71 kg/m
Packaging: 50 pcs

W 41 SUPPORT CHANNEL



Metal thickness: 1,8* / 2,5 mm
Size: 41×41 mm
Length: 5 i 6 m
Weight: 1,98 / 2,69 kg/m
Packaging: 50 pcs

* 5 m only





L TYPE SUSPENSION



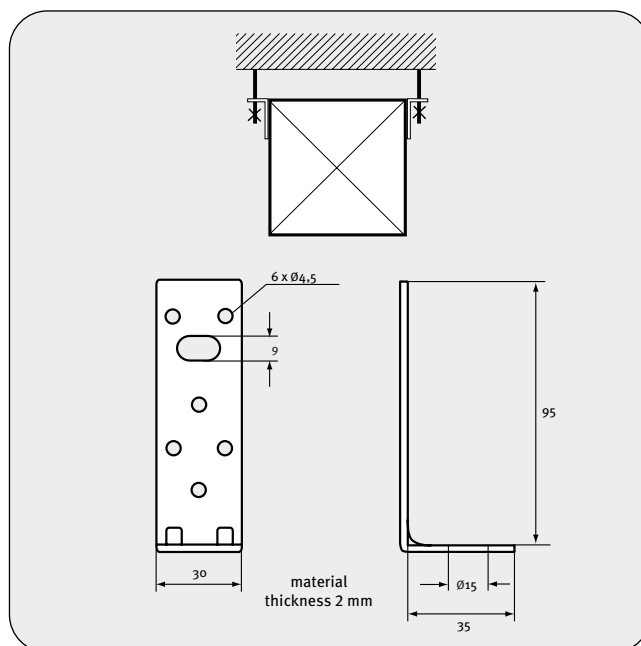
OPIS

For assembly of rectangular ventilation ducts with use of M8 and M10 threaded rods and self-drilling screws.

Material: 2 mm thick galvanized steel tape.

Rubber shock absorber prevents transmission of vibrations from the ventilation system to building's structure.

Package: 100 pcs



Z TYPE SUSPENSION



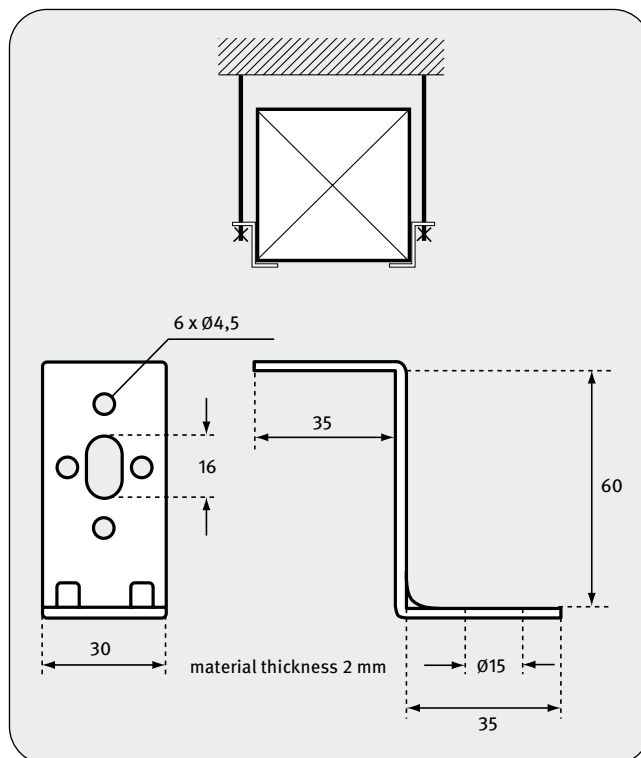
OPIS

For assembly of rectangular ventilation ducts with use of M8 and M10 threaded rods and self-drilling screws.

Material: 2 mm thick galvanized steel tape.

Rubber shock absorber prevents transmission of vibrations from the ventilation system to building's structure.

Package: 100 pcs





R / V TYPE SUSPENSION

TYPE R



TYPE V



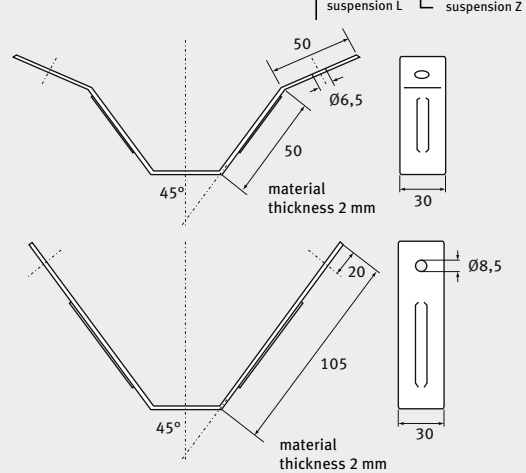
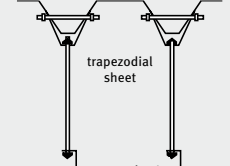
DESCRIPTION

For assembly of ventilation ducts with use of M8 and M10 threaded rods and self-drilling screws.
Material: 2 mm thick galvanized steel tape.
Rubber shock absorber prevents transmission of vibrations from the ventilation system to building's structure.
Package: 100 pcs

Hanger for round ducts



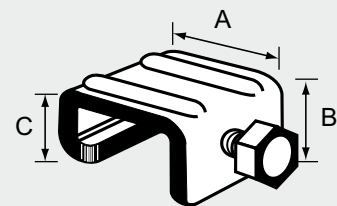
Hanger for rectangular ducts



VENTILATION DUCT CLIP

DESCRIPTION

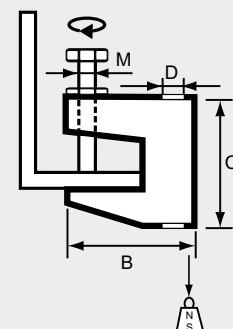
A = 32 mm; B = 19 mm; C = 13 mm
M8 x 25 mm screw for joining DW 20, DW 30 and DW 40 duct profiles and other systems
Thickness: 2,5 and 3,0 mm
Material: galvanized steel
Material: 2,5 mm thick stainless steel
Package: 300 pcs



BEAM CLAMP

Type	B (mm)	C (mm)	D (mm)	M (mm)	Maximum load (kg)
DWK - M8	38	35	M8	10	112
DWK - M10	45	42	M10	10	245

Material: galvanized steel
Package: 50 pcs





THREADED ROD

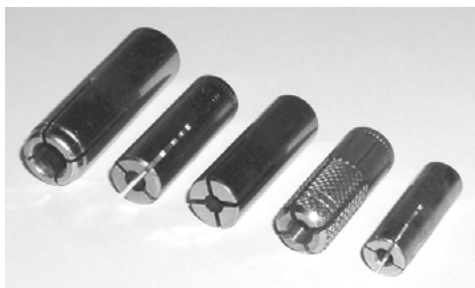


DESCRIPTION

- | | |
|---------------------------|--------------------------|
| M 6 | M 8 |
| M 8* | M 10 |
| M 10* | – length: 2 m |
| – length: 2 m | – stainless steel |
| – galvanized steel | |

* dostępny również o długości 1 m - na zapytanie.

ANCHOR BUSH



DESCRIPTION

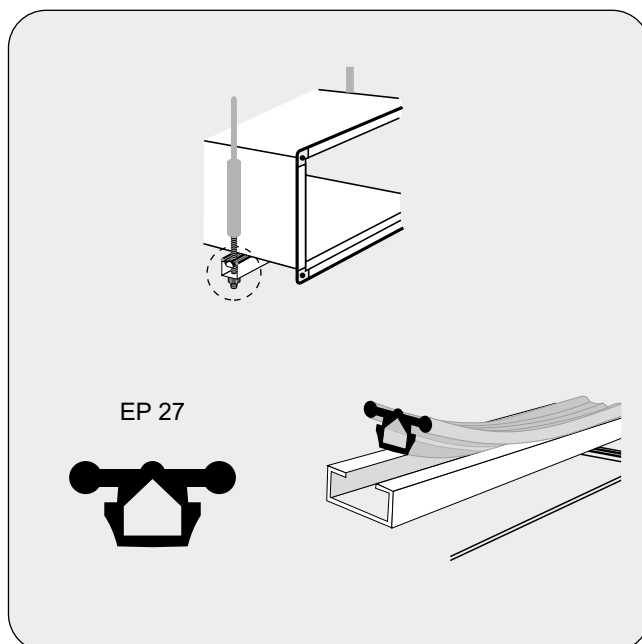
- **spreading galvanized steel**
M8 × 30 mm
M10 × 40 mm
 - **spreading brass**
M8 × 28 mm
M10 × 33 mm
- Package: 100 pcs

SHOCK ABSORBING RUBBER

RU-25

DESCRIPTION

For support channel: W 2, W 105, W 106 and W 107 types





SELF-DRILLING SCREWS



DESCRIPTION

For quick mounting of suspensions, sheet-metal connections and for connecting mouldings in ventilation elements.

Equipped with 7 mm hexagonal head.

SIZE AND PACKAGE

4,2 × 9,5 mm, 1000 pcs

4,2 × 13 mm, 1000 pcs

4,2 × 16 mm, 1000 pcs

4,2 × 25 mm, 1000 pcs

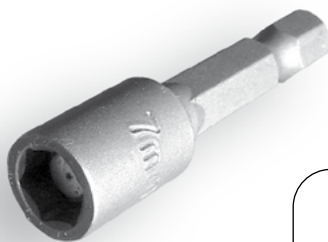
4,2 × 42 mm, 500 pcs

4,8 × 16 mm, 1000 pcs

Terminal for self-drilling screws

TERMINAL FOR SELF-DRILLING SCREWS

DCC



PAN-HEAD



DESCRIPTION

Magnetic tip can be used as a socket wrench together with an automatic screwdriver for hexagonal head 7 mm sheet metal screws.

Size: 7 mm



ALU-ZINC SPRAY ALZN 600



PROPERTIES

- drying time - surface is resistant to touching after 2-3 minutes, complete drying time 30 min
- produced using acrylic resins
- silver colour

INDICATIONS ON PROCESSING

- clean up and remove grease from surface to be painted
- remove remains of rust by rubbing down
- remove old varnish coatings
- mix the product thoroughly by shaking it for ca. 1 minute

APPLICATION

- permanent protection of metal surfaces from corrosion
- spotting of damaged galvanized elements
- repair of cut, heat sealed and welded elements
- applying corrections following galvanization, heat sealing and welding

ADVANTAGES

- high zinc and aluminum content 99%
- excellent resistance to abrasion
- excellent covering power
- highly efficient and economical
- resistant to high temperatures
- short drying time

Packaging: 500 ml, 12 pcs/box

ACRYLIC SILICONE



APPLICATION

- elastic sealing of connections between building materials and finishing elements
- sealing of shop windows, storefronts, counters, show-cases, advertising signs, advertising boards, advertising caissons, etc.
- glazing of windows (mainly in wooden frames)
- in the household for minor repair and hobby works
- sealing of boats, ships, cars, camper trailers

DESCRIPTION

Universal, single-component, permanently elastic silicone sealing compound based on polysiloxanes with an acetate curing system

CHARACTERISTICS

- permanently flexible and durable in various climate conditions
- for indoor and outdoor applications
- very good adhesion to smooth surfaces: glass, ceramics, porcelain, varnished wood, glazed and enameled surfaces
- resistant to atmospheric factors (UV radiation, moisture, temperature fluctuations from -50°C to +120°C)
- forms a smooth and glistening fugue
- easy to apply and form
- cannot be painted (for this purpose, use Den Braven Uni-Fix)

Packaging: 300 ml, 12 pcs/box



GALVANIZED STEEL NUT

NN


Type	Thread	Pack. (pcs.)	Weight (kg)
NN06	M6	4000	8
NN08	M8	2000	9
NN10	M10	1500	15

CONNECTING NUT

LN


Type	Description
LN830	M8, długość 25 mm
LN1030	M10, długość 30 mm

GALVANIZED STEEL SCREW

BB


Type	Description	Pack. (pcs.)	Weight (kg)
BB0625	M6x25	500	3,5
BB0825	M8x25	300	3,75
BB1025	M10x25	200	4

Galvanized steel washer **WW**

GALVANIZED STEEL WASHER

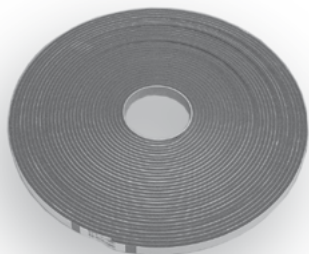
WW


Type	Thread	Pack. (pcs.)	Weight (kg)
WW08	M8	4000	28



SELF-ADHESIVE SEAL

PES



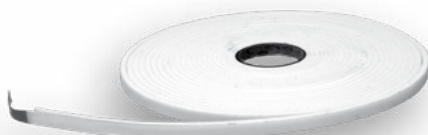
DESCRIPTION

For sealing connections of rectangular duct sections.
Material: polyethylene foam with closed cells, physical reticulation. Dark grey.

- Width 10 mm × thickness 4 mm, roll 20 m, package 100 m, box 1000 m
- Width 15 mm × thickness 4 mm, roll 20 m, package 60 m, box 1200 m
- Width 15 mm × thickness 6 mm, roll 12,5 m, package 50 m, box 1000 m
- Width 10 mm × thickness 7 mm, roll 10 m, package 50 m, box 900 m

TEMPERATURE RESISTANT SEAL

PEST



DESCRIPTION

Gasket is made of ceramic fiber which ensures its high temperature resistance, as well as lack of fumes in case of contact with fire.

Glue applied on one side of the gasket ensures easy assembly.

Gasket is a perfect choice for ventilation ducts with high fire and smoke safety requirements.

- Width 10 mm × thickness 4 mm, package 10 m
- Width 10 mm × thickness 5 mm, package 10 m
- Width 10 mm × thickness 6 mm, package 10 m

Adhesive:	acrylic dispersion, solvent-free
Adhesive carrier:	nonwoven web
Liner:	siliconized PE-foil
Colour:	white
Density:	200 - 300 kg/m ³
Fiber diameter:	∅ 3,2 µm
Tensile strength:	≥ 350 kPa
Classification temperature (maximum service temperature):	1100 °C
Melting point:	> 1330 °C



PERFORATED SUSPENSION BANDING

DUH



DESCRIPTION

For hanging circular ducts in duct system installations.

Material: perforated galvanized steel tape.

0,6 x 17 mm – 25 mb

0,6 x 25 mm – 25 mb

Box: 10 rolls

TYPE T CONSOLE

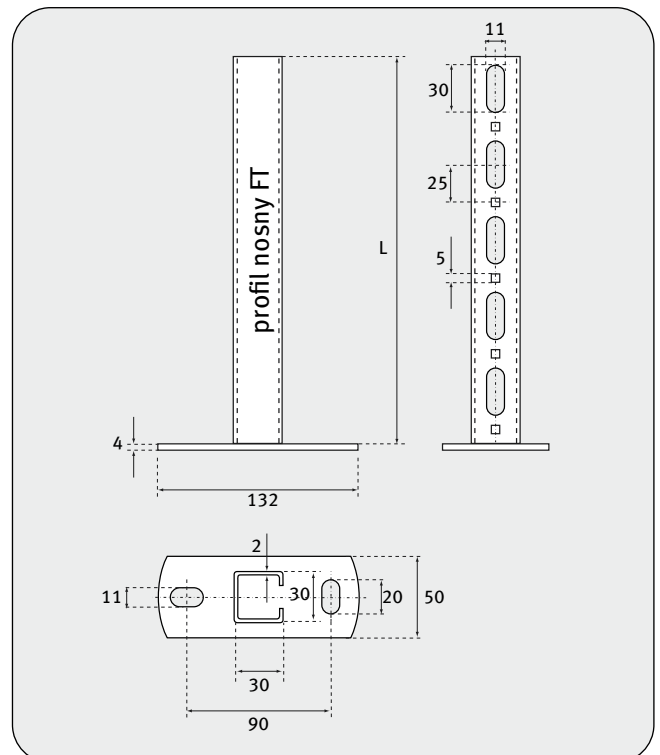


USE

To be installed on walls, floors and ceilings as an assembly support

DESIGN

Welded structure based on rectangular base
Galvanized surface



FT	L (mm)
30	420
30	510
30	690



TYPE T CONSOLE WITH SUPPORT



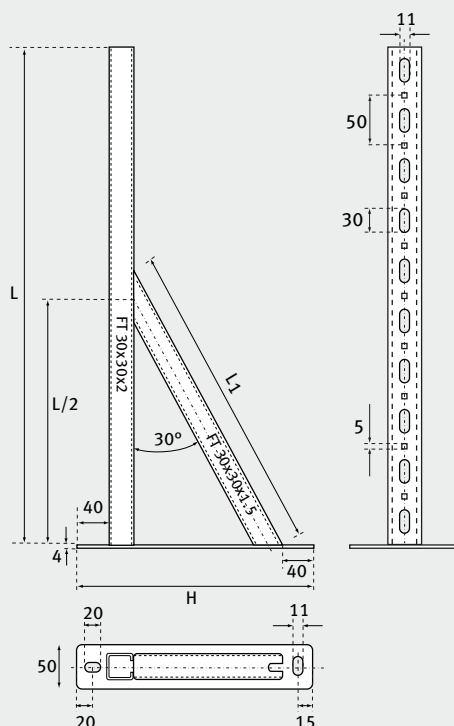
USE

To be installed on walls, as an assembly support. Thanks to diagonal support bar it can carry increased loads.

DESIGN

Welded structure based on rectangular base. Galvanized surface.

FT	L (mm)	L ₁ (mm)	H (mm)
30	510	330	280
30	690	432	329

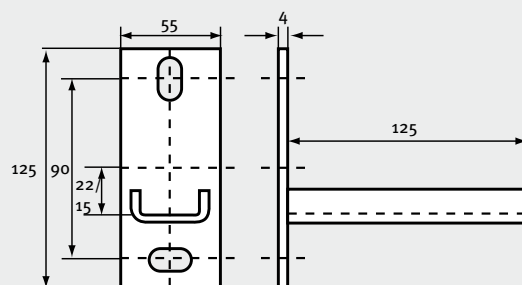


TYPE B PROFILE BASE



USE

To be installed on walls, floors and ceilings as an assembly support



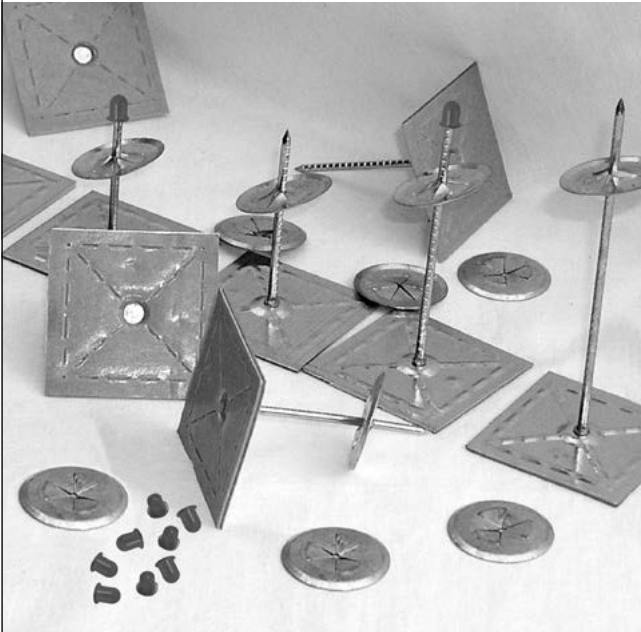
DESIGN

Welded structure based on rectangular base
Galvanized surface



SELF-ADHESIVE NAILS

GS



USE

Self-adhesive nails are used for mechanical fixing of insulation materials on smooth surfaces of ventilation ducts. To be used within temperature range from -40°C to $+80^{\circ}\text{C}$ (for a short time up to 100°C).

HOW TO USE

Fix the nails when air temperature is minimum 10°C .

It is recommended to use 10 to 12 self-adhesive nails per square meter.

Procedure:

- clean, dry and degrease the surface where the nails are to be fixed
- remove paper cover and assemble nails
- cover nails with insulation
- install EC pressing blades and, if necessary, protect nail tip with EP nylon hood

TECHNICAL DATA

SAH self-adhesive nails:

- steel pins, diameter 2,7 mm
- self-adhesive, galvanized steel base (50/50 mm)
- solid, synthetic resin rubber glue made of compact cells filled with polyurethane foam
- length 32-114 mm,
- nail surface is knurled which prevents the blade from sliding

EC pressing blades:

- galvanized steel elastic blades
- external diameter 30 or 40 mm

Protective EP nylon hood:

- plastic hood protecting the nail tip



INSULATING ALUMINUM TAPE



Width (mm)	Length (m)	Box quantity
100	50	12
75	50	16
50	50	24

DESCRIPTION

Single sided self-adhesive aluminum insulation tape. Used in production and assembly of air conditioning and ventilation devices, dust removal systems as well as heat engineering. To be applied on insulation bends and forks, on material and mineral wool or glas wool segment connections. Ensures a coherent aluminum insulation layer which prevents water from penetrating the system. Hardly combustible according to DIN 4102-1-B1 standard.

Carrier: aluminum, thickness 0,03 mm

Total thickness: 0,075 mm

Glue: acryl

Temperature range: -30°C to +120°C

Peel adhesion: 20 N/25 mm

Tensile strength: 37,5 N/25 mm

REINFORCED INSULATING ALUMINUM TAPE



Width (mm)	Length (m)	Box quantity
100	50	12
75	50	16
50	50	24

DESCRIPTION

Single sided self-adhesive aluminum tape reinforced with 5×5 mm carbon fibre mesh, laminated with polyethylene.

Higher mechanical durability as compared to plain tape. Widely used in technical assemblies.

Carrier: aluminum, thickness 0,03 mm

Total thickness: 0,15 mm

Glue: acryl

Temperature range: -20°C to +80°C

Peel adhesion: 25 N/25 mm



UNIVERSAL REPAIR TAPE



DESCRIPTION

Single sided self adhesive tape is perfect for connecting insulations in air conditioning and ventilation systems.
It is perfect for all types of repairs.
Very good adhesive properties.

Carrier: polyethylene laminated
with polyester-cotton fabric
Total thickness: 0,22 mm
Glue: acryl
Temperature range: 0°C to +80°C
Peel adhesion: > 1,5 N/25 mm
Tensile strength: 8 N/cm

Width (mm)	Length (m)	Box quantity
50	50	48

PVC SMOOTH ASSEMBLY TAPE



DESCRIPTION

Soft tape made of vinyl polychlorade is designed for pipes and ducts (ventilation and heating) less exposed to weather conditions. It is elastic, which allows for relatively smooth surface after applying the tape.

Carrier: polyethylene laminated
with polyester-cotton
Total thickness: 0,08 mm
Glue: acryl
Temperature range: -15°C to +80°C
Peel adhesion: 4,9 N/25 mm
Tensile strength: 88,25 N/25 mm

Width (mm)	Length (m)	Box quantity
50	50	24



PP METALIZED TAPE



DESCRIPTION

Single sided self adhesive tape with aluminum dust. Used for tightening of air conditioning or central heating systems. Due to its' good adhesive properties and low side penetration by water and solvents, it is also widely used in other branches.

Carrier: aluminum dusted polypropylene

Total thickness: 0,05 mm

Glue: acryl

Temperature range: -20°C to +80°C

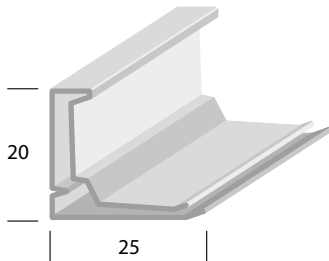
Peel adhesion: 25 N/25 mm

Width (mm)	Length (m)	Box quantity
75	50	64
50	50	96

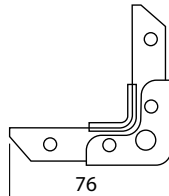


DW DUCTWORK PROFILES, H CORNERS FOR DUCTWORK PROFILES

DW 20



H 20



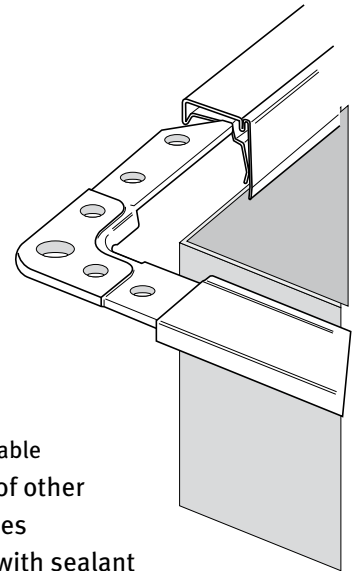
DW 20 - PROFILE - metal thickness: 0,6 mm; length: 5 m

H 20 - CORNER - metal thickness: 2 mm; package: 500 pcs

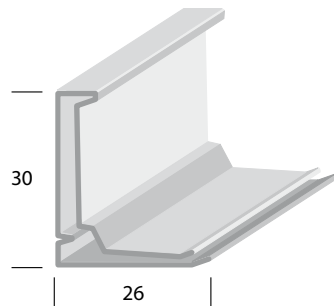
| NOTE.

On request - also available

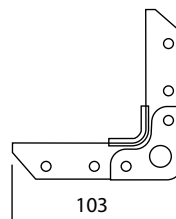
- ductwork profiles of other material thicknesses
- ductwork profiles with sealant



DW 30



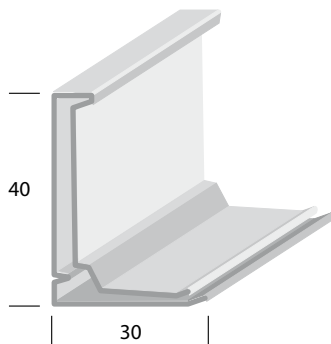
H 30



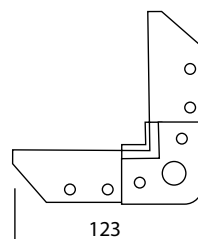
DW 30 - PROFILE - metal thickness: 0,7 mm; length: 5 m

H 30 - CORNER - metal thickness: 2,5 mm; package: 250 pcs

DW 40



H 40



DW 40 - PROFILE - metal thickness: 1 mm; length: 5 m

H 40 - CORNER - metal thickness: 3 mm; package: 100 pcs



TURNING VANE GUIDES FOR RECTANGULAR DUCTS

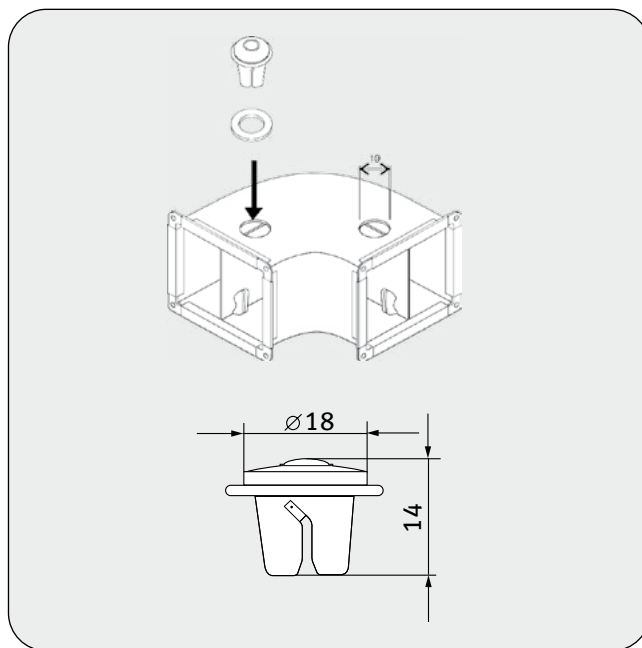
LKK



DESCRIPTION

These guides allow the user to install turning vanes 0,4-1,13 mm thick in rectangular ducting fittings. Made of galvanized steel. Supplied with rubber gasket, which makes connection air tight.

Packaging: 100 pcs



STIFFENING STEEL CROSS

KUS

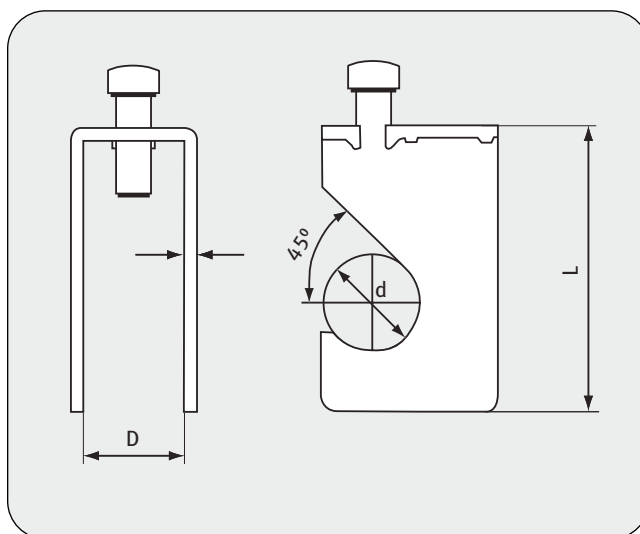


DESCRIPTION

Designed for cross connection of large diameters stiffening pipes. Made of 3 mm galvanized steel, which guarantees resistance to high temperatures necessary e.g. for smoke removing duct systems.

L = 63 mm, D = 17 mm.

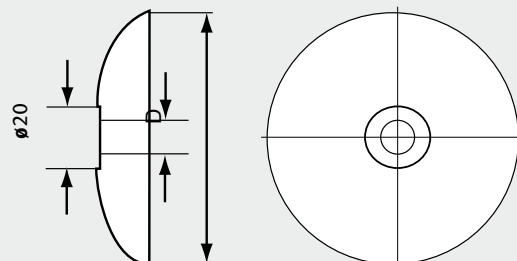
Packaging: 1 pc





STIFFENING DISC

DU



DESCRIPTION

Diameter D=74 mm Used for stiffening of large diameter rectangular ducts. Prevents deformation of the duct, where the stiffening is installed.

Made of 1-1,3 mm thick galvanized steel

Embossing for nut

Packaging: 1000 pcs

STIFFENING ALUMINUM PIPE

RUO

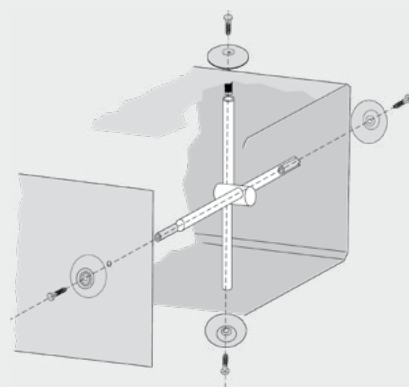


DESCRIPTION

Aluminum pipe designed for stiffening large diameter rectangular ducts.

Wall thickness ca. 2 mm

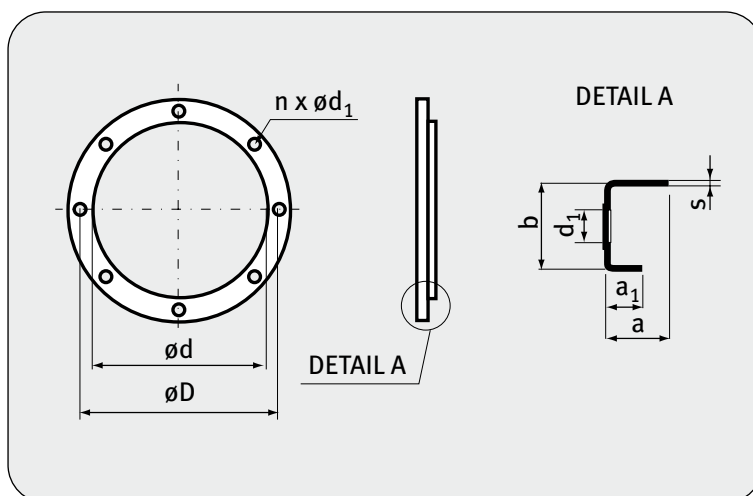
16 mm × 6 mb





FLANGE

VKPK



DESCRIPTION

Galvanized steel flanges are used to produce roof bases, air intakes, roof exhaust vents, etc.

Internal diameter D (mm)	Diameter deviation (mm)	Thickness S (mm)	Spacing holes D (mm)	Flange width b (mm)	Flange length on larger diameter a (mm)	Flange length on smaller diameter a ₁ (mm)	Outlet diameter hole d ₁ (mm)	Number of holes n (szt.)
80	, + 0,50	1-1,5	110	25	11	7	7	4
100	, + 0,50	1-1,5	130	25	11	7	7	4
110	, + 0,50	1-1,5	140	25	11	7	7	4
125	, + 0,50	1-1,5	155	25	18	7	7	4
140	, + 0,50	1-1,5	170	25	18	7	7	8
150	, + 0,50	1-1,5	181	25	20	7	9	8
160	, + 1,00	1-1,5	195	30	20	10	9	8
180	, + 1,00	1-1,5	215	30	20	10	9	8
200	, + 1,00	1-1,5	235	30	21	9	9	8
250	, + 1,00	1-1,5	285	30	20	10	9	8
280	, + 1,00	1-1,5	315	30	20	10	9	8
315	, + 1,00	1-1,5	350	30	20	10	9	12
355	, + 1,00	1-1,5	390	30	20	10	9	12
400	, + 1,00	1-1,5	445	30	20	10	9	12
500	, + 1,00	1-1,5	545	40	20	10	9	16
560	, + 1,00	1,5	605	40	30	11	12	16
630	, + 1,00	1,5	680	45	30	11	12	16



FLEXIBLE CONNECTOR

LE



Technical data

	Metal	Fabric	Metal
Standard dimensions	35 mm	60 mm	35 mm
	45 mm	60 mm	45 mm
	70 mm	100 mm	70 mm
Standard length	50 m, packed in separate cardboard box		
Metal thickness	0.4 mm, galvanized		

DESCRIPTION

Flexible connector is used to prevent transmission of vibrations and noise along the duct system. Different types of connectors are available so that the user could choose the best solution for installation, fire protection and economy.

Flexible connector

Type	Packaging
XEV-50 PVC 35/60/35	50 m
KEV-50 PVC 45/60/45	50 m
EEV-50 PVC 70/100/70	50 m

PROPERTIES

- prevents transmission of vibrations and noise along the duct system
- air tight
- can be used in round, rectangular and oval duct systems
- easy to use and fabricate

Technical data

Standard fabric material	PVC*	Silicon*
Coverage	Polyester	Fiberglass
Coating	Hardly combustible PVC	Silicon
Color	Gray	-
Operating temperatures range	-40/+80°C	-30/+250°C Intermittent 350°C M1 class

* Other materials available upon request



DAMPER MECHANISMS

KS385



Damper mechanism

KS385/set

3/8" Mechanism K4, KP9S
KP9S rectangular bolt,
BKP14 plastic sleeves

KS145

1/4" damper mechanism,
KP6 bolt with a spring,
KP8S square bolt

KSR195/set

3/8" damper mechanism KR3,
KP9S square bolt,
BKP14 plastic sleeves

KS145



KS195

SPIRO DAMPER MECHANISM

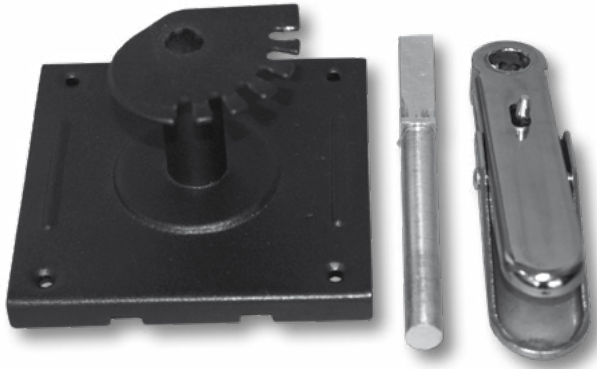


DESCRIPTION

Mechanism made of galvanized steel. It is adjusted with the bar located directly above the mechanism's rotation axis. The set includes bolts, pins and plastic bearing washers. Two screws blocking the damper's knob in the right position guarantee that the setting will not change.



AC-006 DAMPER MECHANISM

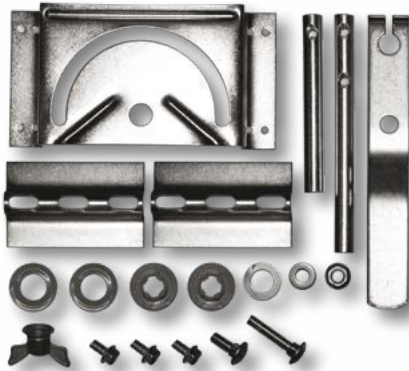


DESCRIPTION

AC-006 mechanism for multi-leaf dampers. In the set you will find body made from powder-painted steel in black color, aluminum pin and handle form nickled steel. Precise regulation is possible because of a handle supporting the given angle of current setting.

MD damper mechanism

MD DAMPER MECHANISM



DESCRIPTION

Can be mounted in all rectangular ducts.
Can also be used in circular ducts - diameters larger than 200 mm

DAMPER MECHANISM FOR QUICK INSTALLATION



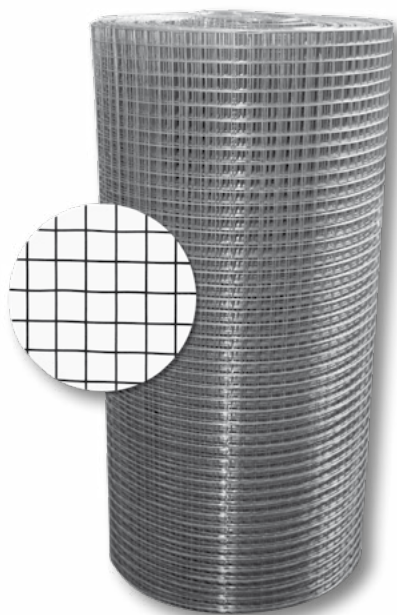
Damper mechanism for quick installation

RS-356

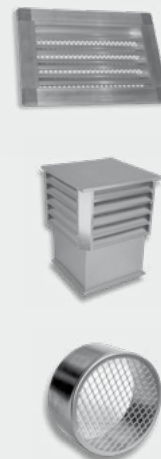
Damper mechanism (set):
RP1 lever, RB50 bolt with a spring (2 pieces),
RP3 washer,
RP2 wing nut



GALVANIZED STEEL 12×12 MESH



Sample applications:



DESCRIPTION

Mesh is made of galvanized 1 mm steel wire. It is sold in rolls to make handling and storage easy. Each roll contains 30 m² (1,5 m x 20 m).

USE

Zinc-plated mesh can be used extensively by manufacturers of ventilation accessories, such as air intakes and exhausters, diffusers, grilles, chimney accessories, etc.

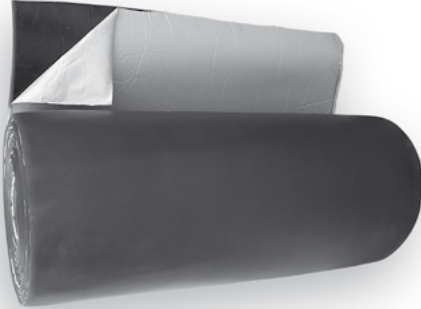
Galvanized steel 12×12 mesh

Mesh size	12×12 mm
WIR dia.	1 mm
Size	1,5 × 20 m (30 m ²)



THERMAL INSULATION SELF-ADHESIVE MAT

MST



DESCRIPTION

Self-adhesive thermal insulation mats MST are made of synthetic rubber foam and rolled into 1 m wide rolls. Mats are used for thermal insulation and protection against condensate water of large diameter pipes, tanks and all types of fixtures in cooling, air conditioning, ventilation, heating, sanitary and special installations

CHARACTERISTICS

Density: 70÷90 kg/m³

Heat conductivity (W/mK):

$\lambda=0,031$ (-20°C); $\lambda=0,034$ (0°C); $\lambda=0,038$ (+40°C)

Thermal resistance: -50°C ÷ +110°C

Steam dispersion resistance factor: $\mu > 4500$

Water absorption: < 5%

Thickness (mm)	Width (m)	Packaging (m ² /roll)
6	1	10
9	1	10
13	1	10
19	1	10
25	1	10



CIRCULAR DUCT INSULATION

SLEEVE



PRODUCT ADVANTAGES

- low transportation and storage cost
- easy assembly
- no need to use special tools for cutting or fixing
- Polish Hygiene Certificate

USE

This insulation is meant to be used with circular ducts

DESIGN

Insulated with 25 mm thick mineral wool layer. The external layer is made of aluminum-Polyester laminate reinforced with fibre wire.

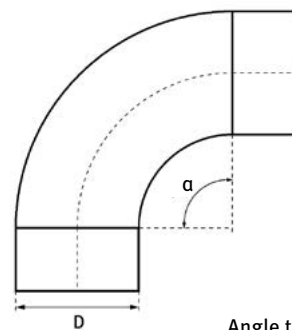
Typ	SLEEVE
Diameter range	102-356 mm
Operating temperature range	-30/+140 °C
Grubość izolacji	25 mm
Standard length	10 m
Packaging - karton	rolka

TOLERANCES

Diameter range for ducts



Diameter range for fittings

Angle tolerance $\alpha \pm 2^\circ$

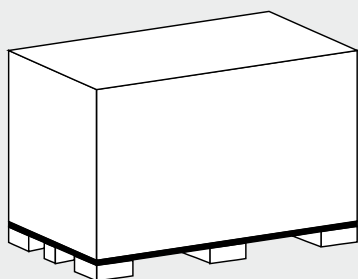
D nom. (mm)	d min (mm)	d max (mm)
80	80,0	80,5
100	100,0	100,5
125	125,0	125,5
140	140,0	140,6
150	150,0	150,6
160	160,0	160,6
180	180,0	180,7
200	200,0	200,7
224	224,0	224,8
250	250,0	250,8
280	280,0	280,9
300	300,0	300,9
315	315,0	315,9
355	355,0	356,0
400	400,0	401,0
450	450,0	451,1
500	500,0	501,1
560	560,0	561,2
630	630,0	631,2
710	710,0	711,5
800	800,0	801,6
900	900,0	902,0
1000	1000,0	1002,0
1120	1120,0	1122,5
1250	1250,0	1252,5

D nom. (mm)	d min (mm)	d max (mm)
80	78,8	79,3
100	98,8	99,3
125	123,8	124,3
140	138,7	139,3
150	148,7	149,3
160	158,7	159,3
180	178,6	179,3
200	198,6	199,3
224	222,5	223,3
250	248,5	249,3
280	278,4	279,3
300	298,4	299,3
315	313,4	314,3
355	353,3	354,3
400	398,3	399,3
450	448,2	449,3
500	498,2	499,3
560	558,1	559,3
630	628,1	629,3
710	708,0	709,3
800	798,0	799,3
900	897,9	899,3
1000	997,9	999,3
1120	1117,8	1119,3
1250	1247,8	1249,3

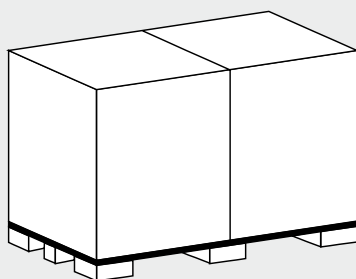
PN-EN 1506



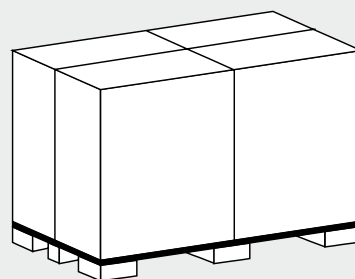
PACKAGING MEASUREMENTS



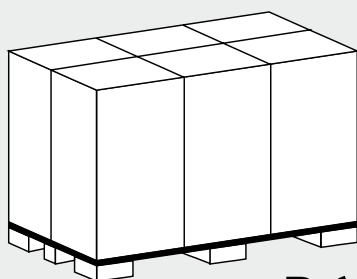
P1



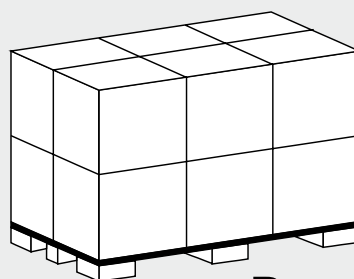
P2



P4



P6



P12

Kod	Długość (mm)	Szerokość (mm)	Wysokość (mm)	Waga (kg)	Objętość (m ³)	Opak./paleta
P1	1200	800	800	4,63	0,770	1
P2	600	800	800	2,83	0,380	2
P4	600	400	800	1,34	0,190	4
P6	400	400	800	1,04	0,130	6
P12	400	400	400	0,71	0,064	12

A

AC-006 - damper mechanism	157
AF012 - non-insulated aluminum flexible duct	59
AF013 - insulated aluminum flexible duct	60
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B 15 - 15° pressed bend	10
B 30 - 30° pressed bend	9
B 45 - 45° pressed bend	8
B 60 - 60° pressed bend	7
B 90 - 90° pressed bend	6
BB - galvanized steel screw	143
BFE 15 - 15° segmented bend	13
BFE 30 - 30° segmented bend	13
BFE 45 - 45° segmented bend	13
BFE 60 - 60° segmented bend	13
BFE 90 - 90° segmented bend	13
BFKL 90 - 90° short segmented bend with gasket	14
BFKML 90 - 90° short segmented bend with gasket	15
BFL 15 - 15° segmented bend with gasket	13
BFL 30 - 30° segmented bend with gasket	13
BFL 45 - 45° segmented bend with gasket	13
BFL 60 - 60° segmented bend with gasket	13
BFL 90 - 90° segmented bend with gasket	13
BKL 90 - 90° short pressed bend with gasket	11
BKML 90 - 90° short pressed bend with gasket	12
BL 15 - 15° pressed bend with gasket	10
BL 30 - 30° pressed bend with gasket	9
BL 45 - 45° pressed bend with gasket	8
BL 60 - 60° pressed bend with gasket	7
BL 90 - 90° pressed bend with gasket	6

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