lindab | for a better climate

Lindab **Rectangular**

Product overview

Lindab®

For a better climate

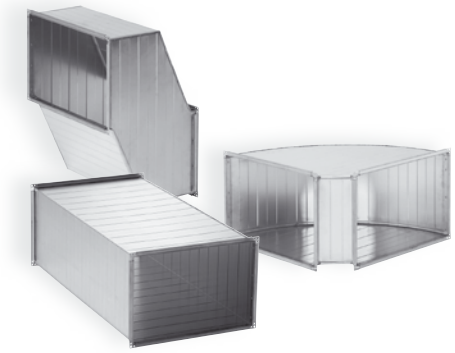
Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate

Rectangular duct system

Lindab's rectangular air duct system is a complement to our circular air duct system, Lindab Safe, when space is tight or flows are very large. The rectangular assortment consists of rectangular ducts, fittings, dampers and silencers with dimensions in accordance with EN1505 when not otherwise specified. All fittings and ducts are made of hot-dip galvanized steel sheet. If higher corrosion protection is needed, aluminium zinc, zinc magnesium or stainless steel can be used.



lindQST – Lindab Quick Selection Tool

lindQST is an advanced web tool that makes the selection of our solutions quick and simple.

With lindQST all documentation is made available directly on the web. That means consultants, installers and architects always have access to the latest documentation, installation instructions and product images etc. lindQST is a unique online tool were you can simulate your room in the Indoor Climate Designer, keep track of your projects and share it with your business partners etc. lindQST provides a simple shortcut to Lindab's material and is a tool that speeds up and simplifies the daily work. All information is just a mouse-click away.

Product overview

Rectangular

Duct

LKR

Bends

LBR

LBXR

S-bend

LBSR

Taper

LDR

End cover

LEPR

Rect-to-round transition

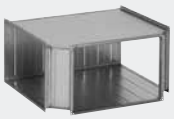
LORU

Collars

LAR

LPSR

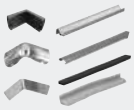
T-piece



LTTR

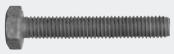
Rectangular

Joint system



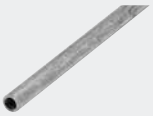
LS

M6M



M6S

MC6S



RDR

RDRC

RDRD

RDRW

RDVF

RJBC

RJCL

RJFPC3

RJSM

RJSP

Click on the product for link to detailed technical information, or visit www.lindab.com

Rectangular

Duct acces for rectangular duct wall

IPF

LKCR

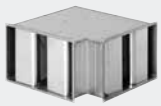
IPL

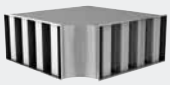
RD

Product overview

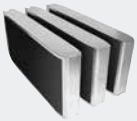
Rectangular

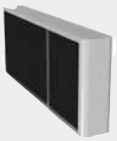
Curved silencers

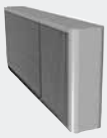

BDLD


SLRB

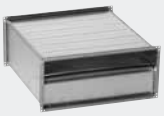
Splitter silencer

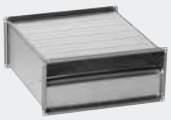

SLRA


TUNE-A


TUNE-PA

Straight low-built silencers


LRLB


LRLS

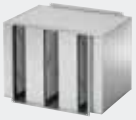
Click on the product for link to detailed technical information and accessories, or visit www.lindab.com

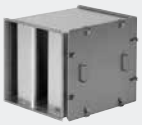
Rectangular

Straight silencers

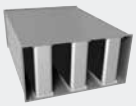

DACKA


DACKA-A

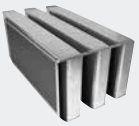

DLD

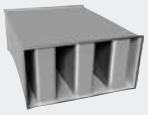

DLDR

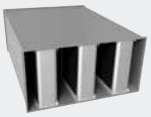

DLDY


MINKA


MINKA-A


SLRS


TUNE-PS


TUNE-S

Rectangular

Dampers


LKSR


JSM


JSMM/JSMMU

To view mounting instructions for Rectangular air duct systems with LS-profile, click here.

To view mounting instructions for Rectangular air duct systems with RJFP profile, click here.

>> or visit lindab.com

About rectangular

Some products might differ slightly from country to country. Please contact your local Lindab store for correct information.

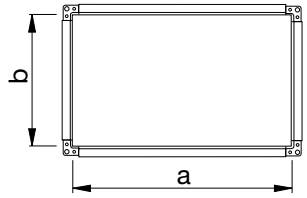
General

The rectangular assortment consists of rectangular ducts, fittings and silencers with dimensions in accordance with EN1505 when not otherwise specified.

All fittings and ducts are made of hot-dip galvanized steel sheet. If higher corrosion protection is needed, aluminum zinc, zink magnesium or stainless steel can be used.

Dimensions and weights

The “l”-measures given in the tables are the overall installation dimensions of products. The following tolerances apply, depending on duct or fitting dimensions, where a and b are the internal duct or fitting dimensions.



Tolerances for dimensions a and b

when a + b ≤ 1200: $^{+0}_{-4}$ mm

when a + b > 1200: $^{+0}_{-6}$ mm

Tolerances for “l”-measures ± 5 mm

Hydraulic diameter d_h

The diameter of a circular duct which gives the same pressure drop at the same air velocity as in the rectangular duct.

$$d_h = \frac{4 \cdot Ac}{O} = \frac{2 \cdot a \cdot b}{a + b}$$

Equivalent diameter d_e

The diameter of a circular duct which gives the same pressure drop at the same air flow as in the rectangular duct.

Insulated ducts

Insulated ducts can be made in the following designs:

- Internally condensation and heat insulated
- Internally insulated, clad with solid sheet metal
- Internally insulated, clad with perforated sheet metal
- Internal fire protection insulation 50 and 100 mm

Technical data for standard sizes

Cross-sectional areas, A_c [m^2]

$A_C = a \times b$

b\a	200	250	300	400	500	600	800	1000	1200	1400	1600	1800	2000
100	0,02	0,03	0,03	0,04									
150	0,03	0,04	0,05	0,06	0,08	0,09							
200	0,04	0,05	0,06	0,08	0,10	0,12	0,16						
250		0,06	0,08	0,10	0,13	0,15	0,20	0,25					
300			0,09	0,12	0,15	0,18	0,24	0,30	0,36				
400				0,16	0,20	0,24	0,32	0,40	0,48	0,56	0,64		
500					0,25	0,30	0,40	0,50	0,60	0,70	0,80	0,90	1,00
600						0,36	0,48	0,60	0,72	0,84	0,96	1,08	1,20
800							0,64	0,80	0,96	1,12	1,28	1,44	1,60
1000								1,00	1,20	1,40	1,60	1,80	2,00
1200									1,44	1,68	1,92	2,16	2,40
1400										1,96	2,24	2,52	2,80
1600											2,56	2,88	3,20
1800												3,24	3,60
2000													4,00

Circumference, O [m]

$O = 2 \times (a + b)$

b\a	200	250	300	400	500	600	800	1000	1200	1400	1600	1800	2000
100	0,6	0,7	0,8	1,0									
150	0,7	0,8	0,9	1,1	1,3	1,5							
200	0,8	0,9	1,0	1,2	1,4	1,6	2,0						
250		1,0	1,1	1,3	1,5	1,7	2,1	2,5					
300			1,2	1,4	1,6	1,8	2,2	2,6	3,0				
400				1,6	1,8	2,0	2,4	2,8	3,2	3,6	4,0		
500					2,0	2,2	2,6	3,0	3,4	3,8	4,2	4,6	5,0
600						2,4	2,8	3,2	3,6	4,0	4,4	4,8	5,2
800							3,2	3,6	4,0	4,4	4,8	5,2	5,6
1000								4,0	4,4	4,8	5,2	5,6	6,0
1200									4,8	5,2	5,6	6,0	6,4
1400										5,6	6,0	6,4	6,8
1600											6,4	6,8	7,2
1800												7,2	7,6
2000													8,0

Hydraulic diameter, d_h [mm]

$d_h = 4 \times A_C/O =$
$2 \times a \times b/ (a + b)$

b\a	200	250	300	400	500	600	800	1000	1200	1400	1600	1800	2000
100	133	143	150	160									
150	171	188	200	218	231	240							
200	200	222	240	267	286	300	320						
250		250	273	308	333	353	381	400					
300			300	343	375	400	436	462	480				
400				400	444	480	533	571	600	622	640		
500					500	545	615	667	706	737	762	783	800
600						600	686	750	800	840	873	900	923
800							800	889	960	1018	1067	1108	1143
1000								1000	1091	1167	1231	1286	1333
1200									1200	1292	1371	1440	1500
1400										1400	1493	1575	1647
1600											1600	1694	1778
1800												1800	1895
2000													2000

Equivalent diameter, d_e [mm]

b\a	200	250	300	400	500	600	800	1000	1200	1400	1600	1800	2000
100	152	169	183	207									
150	189	210	229	260	287	310							
200	219	244	267	305	337	366	414						
250		274	299	344	381	414	470	518					
300			328	378	421	458	521	575	621				
400				438	489	534	610	675	732	783	829		
500					547	599	688	763	829	888	941	991	1036
600						657	757	842	916	982	1043	1098	1150
800							876	978	1068	1148	1221	1289	1351
1000								1095	1199	1292	1376	1454	1527
1200									1314	1419	1514	1602	1684
1400										1534	1639	1736	1826
1600											1753	1858	1957
1800												1972	2078
2000													2191

$d_e = 2 \times b \times (\pi^{2-n} \times (1 + a/b)^{1+n}/(a/b)^3)^{1/(n-5)}$

where $n = 1/(1{,}05 \times \log (Re) - 0{,}45)$

where Re = Reynolds number for air at 20ºC

Specific weight, m_l [kg/m]

b\a	200	250	300	400	500	600	800	1000	1200	1400	1600	1800	2000
100	4	5	6	7									
150	5	6	6	8	9	11							
200	6	6	7	8	10	11	15						
250		7	8	9	11	12	16	19					
300			8	10	11	13	16	19	22				
400				11	13	14	18	21	24	27	33		
500					14	15	19	22	25	28	35	38	41
600						17	21	24	27	30	36	40	42
800							25	28	31	34	41	44	45
1000								31	34	37	44	47	49
1200									37	40	47	50	52
1400										43	50	53	55
1600											58	61	62
1800												65	65
2000													69

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