

# KOOLAIR

## series

# 23-R-FF

## Extract grille



ISO 9001

BUREAU VERITAS  
Certification

Sistema de Gestión



[www.koolair.com](http://www.koolair.com)

## 23-R-FF. Extract grille with curved blades, hinged core and filter holder.

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## 23-R-FF. Extract grille with curved blades, hinged core and filter holder.



### Description

KOOLAIR extract grille with hinged core, integrated frame to hold filter, curved blades and filter with G3 efficiency, model **23-R-FF**, dimensions LxH, for installation in walls, ceilings or rectangular ducts. The hinged core can be detached manually by means of pressure clips providing access to the interior of the unit or duct for cleaning, inspection or to access the filter etc.

Characterised by curved blades that make the grille sight-proof and give a pleasing aesthetic appearance

Dimensions available from 200x150 mm to 1200x600 mm in 50 mm length and height increments.



### Materials and finish

Anodised aluminium finish or painted in RAL colour of choice.

Possibility of fitting filters with G2, G3 and G4 efficiency or without filter.

### Fixings

With clips. Mounting frame required (-MM).

Concealed fixing system (-SFO-PT).

With screws (-T). Option to supply a metal mounting frame (-MM) to ensure that the grille is more securely attached to the wall.

With detachable galvanised sheet steel plenum with lateral connection (-PE21).

With detachable galvanised sheet steel plenum with top connection (-PE20).

Internal insulation in the plenum box (-A).



## General dimensions

23-R-FF-T

$L+28$   
 $L-20$

47  
6  
24  
 $H-20$   
 $H+28$   
 $(H-5) \times (L-5)$  (Loch)  
FILTRO

L = LÄNGE NENNMASS  
H = HÖHE NENNMASS

MAXIMALE ABMESSUNG: 1200x600mm  
MINDESTABMESSUNG: 200x150mm

FILTER = L-25 X H-45

23-R-FF+MM

$L+28$   
 $L-20$

47  
6  
24  
 $H \times L$   
 $H-20$   
 $H+28$   
FILTRO

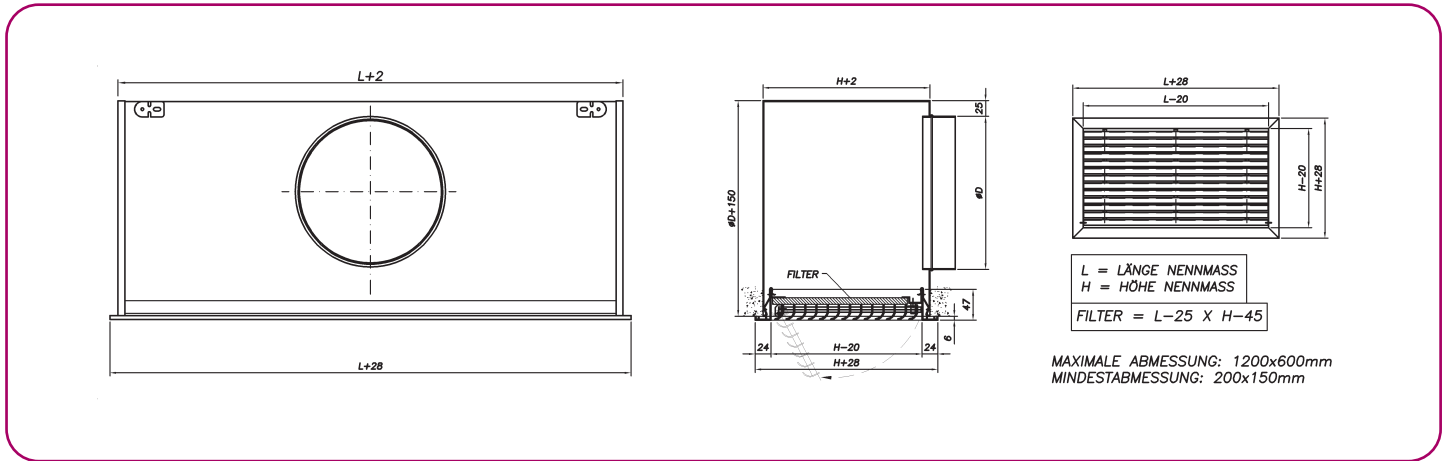
L = LÄNGE NENNMASS  
H = HÖHE NENNMASS

MAXIMALE ABMESSUNG: 1200x600mm  
MINDESTABMESSUNG: 200x150mm

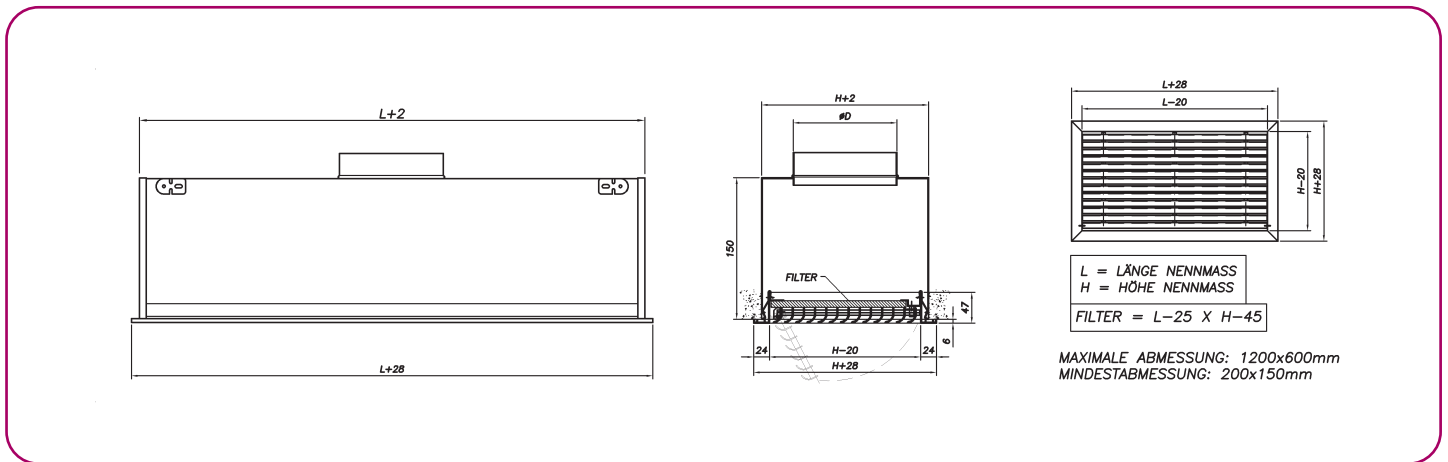
FILTER = L-25 X H-45

## General dimensions

23-R-FF+PE21



23-R-FF+PE20



## Technical data

Q		Dim.	200x150	300x300	450x250	600x300	600x600	1200x600
(m <sup>3</sup> /h)	(l/s)	A <sub>k</sub> (m <sup>2</sup> )	0,0105	0,0351	0,0443	0,0728	0,1507	0,3066
65	18,1	V <sub>k</sub> (m/s)	1,7					
		ΔP with filter (Pa)	19					
		ΔP without filter (Pa)	5					
		L <sub>wa</sub> (dB(A))	24					
100	27,8	V <sub>k</sub> (m/s)	2,6					
		ΔP with filter (Pa)	45					
		ΔP without filter (Pa)	11					
		L <sub>wa</sub> (dB(A))	33					
150	41,7	V <sub>k</sub> (m/s)	4,0					
		ΔP with filter (Pa)	101					
		ΔP without filter (Pa)	25					
		L <sub>wa</sub> (dB(A))	41					
200	55,6	V <sub>k</sub> (m/s)	5,3	1,6	1,3			
		ΔP with filter (Pa)	180	16	10			
		ΔP without filter (Pa)	45	4	3			
		L <sub>wa</sub> (dB(A))	47	24	20			
300	83,3	V <sub>k</sub> (m/s)		2,4	1,9			
		ΔP with filter (Pa)		36	23			
		ΔP without filter (Pa)		9	6			
		L <sub>wa</sub> (dB(A))		33	29			
350	97,2	V <sub>k</sub> (m/s)		2,8	2,2	1,3		
		ΔP with filter (Pa)		49	31	11,4		
		ΔP without filter (Pa)		12	8	2,9		
		L <sub>wa</sub> (dB(A))		36	32	22		
450	125,0	V <sub>k</sub> (m/s)		3,6	2,8	1,7		
		ΔP with filter (Pa)		81	51	18,9		
		ΔP without filter (Pa)		20	13	4,7		
		L <sub>wa</sub> (dB(A))		41	37	28		
550	152,8	V <sub>k</sub> (m/s)		4,3	3,4	2,1		
		ΔP with filter (Pa)		121	76	28		
		ΔP without filter (Pa)		30	19	7		
		L <sub>wa</sub> (dB(A))		45	41	32		
700	194,4	V <sub>k</sub> (m/s)			4,4	2,7	1,3	
		ΔP with filter (Pa)			123	46	11	
		ΔP without filter (Pa)			31	11	3	
		L <sub>wa</sub> (dB(A))			46	37	23	
850	236,1	V <sub>k</sub> (m/s)				3,2	1,6	
		ΔP with filter (Pa)				68	16	
		ΔP without filter (Pa)				17	4	
		L <sub>wa</sub> (dB(A))				41	27	
1000	277,8	V <sub>k</sub> (m/s)				3,8	1,8	
		ΔP with filter (Pa)				93	22	
		ΔP without filter (Pa)				23	5	
		L <sub>wa</sub> (dB(A))				44	30	
2000	555,6	V <sub>k</sub> (m/s)					3,7	1,8
		ΔP with filter (Pa)					87	21
		ΔP without filter (Pa)					22	5
		L <sub>wa</sub> (dB(A))					45	31
3000	833,3	V <sub>k</sub> (m/s)						2,7
		ΔP with filter (Pa)						47
		ΔP without filter (Pa)						12
		L <sub>wa</sub> (dB(A))						40
4000	1111,1	V <sub>k</sub> (m/s)						3,6
		ΔP with filter (Pa)						84
		ΔP without filter (Pa)						21
		L <sub>wa</sub> (dB(A))						46

Data for grille with G3 efficiency filter.

Data for grille without plenum.

### Legend

**Q (m<sup>3</sup>/h):** Flow rate.

**L<sub>wa</sub> [dB(A)]:** Sound power level. Reduction of -4 dB(A) with no filter.

**V<sub>k</sub> (m/s):** True air velocity through filter (m/s).

**ΔP with filter:** Static pressure drop in the grille with filter.

**ΔP without filter:** Static pressure drop in the grille without filter.

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