

OV-R

Air Transfer Device

Data Sheet



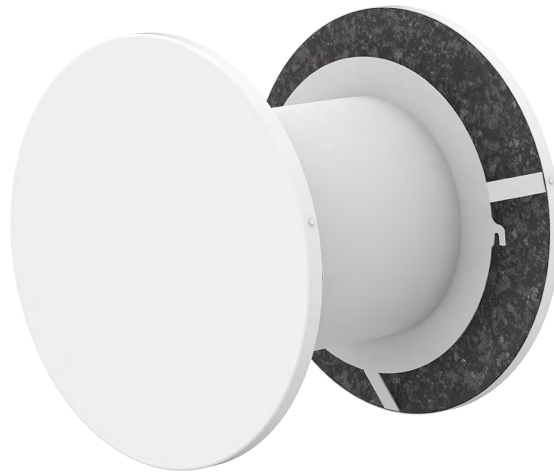
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Good to know

Current information on all products is available at design.systemair.com



Description

OV-R is a wall air transfer unit with sound attenuation elements. It is intended for air transfer between neighbouring residential, hotel, office rooms etc.

Highlights

- Outstanding sound attenuation
- Low generated sound level in operation
- Low air transfer resistance
- Inconspicuous, slim and compact design
- Easy and quick installation

Accessory

Detailed information about accessories for OV-R is available on page 7.

- AL-OV-R
Acoustic lining mat for the air transfer wall opening

Design

The OV-R wall air transfer device consists of two covers from carbon sheet steel with powder coating. Acoustic attenuation foam is attached to the the inner side of the covers.

Acoustic attenuation foam lining mat AL-OV-R for the wall opening is a part of the OV-R package.

Product Parts

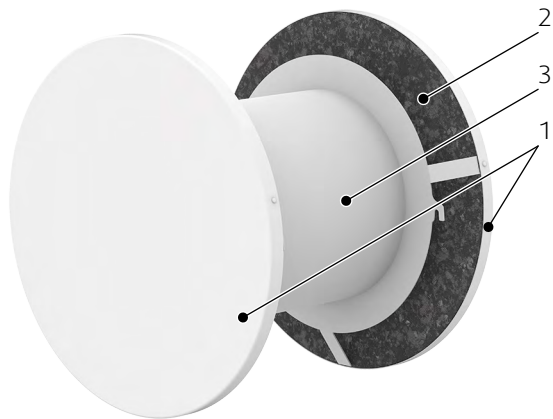


Fig. 1: Components of OV-R

Legend

1	Cover
2	Acoustic attenuation foam inlay
3	Acoustic attenuation lining mat for wall opening (AL-OV-R)

Dimensions

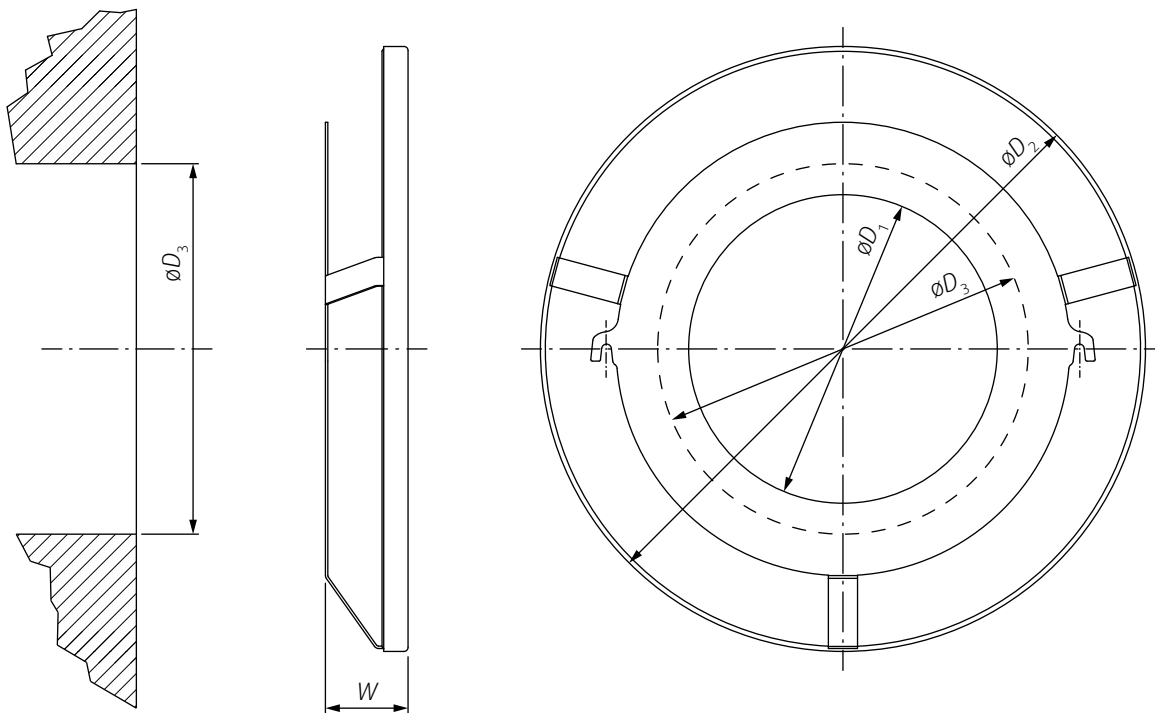


Fig. 2: Dimensions of OV-R

Tab. 1: Dimensions of OV-R

Type	$\varnothing D_1$ (mm)	$\varnothing D_2$	$\varnothing D_3^*$	W	m (kg)
OV-R-100	102	199	120	30	0,71
OV-R-125	127	249	145	34	1,07
OV-R-160	162	249	180	34	1,10
OV-R-200	202	314	220	38	1,49

NOTE: $\varnothing D_3$ is the diameter of the wall opening

Ordering Code

		OV-R-	<input type="text"/>	-	<input type="text"/>
		100			
		125			
		160			
Nominal size $\varnothing D$		200			
	Signal white RAL9003	SW			
Surface finish ¹⁾	Other RAL colour	RALXXXX			

NOTE: 1) If no colour is stated in the ordering code, the diffuser will be delivered in the RAL 9003 signal white colour.

Example of Ordering Code

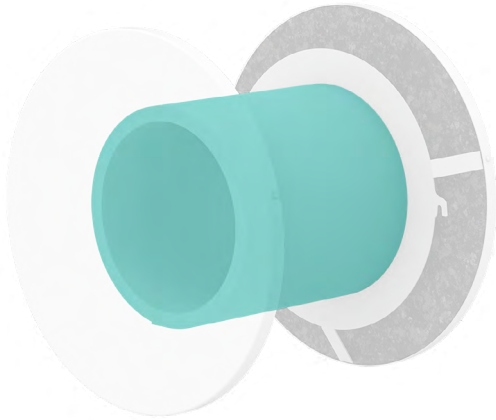
OV-R-125-SW

Wall air transfer device, nominal size 125 mm, signal white (RAL9003).

Accessory

AL-OV-R

Acoustic Wall Mat



Description

The acoustic mat is foreseen to improve the acoustic attenuation of the wall transfer unit OV-R. AL-OV-R is part of delivery of OV-R transfer unit. For walls less than 150 mm thick the mat can be cut to the length corresponding to the wall thickness. For the walls thicker than 150 mm an additional mat can be ordered as accessory. Two mats can be combined and cut to the corresponding length to line the entire inner area of the wall opening.

Design

AL-OV-R is mat made from acoustic attenuating polymer foam. Before the installation of the OV-R it shall be simply rolled and inserted into the wall opening and line the inner surface of the opening.

Ordering Code

		AL-OV-R-	
		100	
		125	
		160	
Nominal size corresponding to the size of OV-R		200	

Example of the Ordering Code

AL-OV-R-125

Acoustic mat, accessory for the wall air transfer device OV-R-125.

Quick Selection

Transfer Unit	Pressure Drop and Air Volume Dependency						Airborne sound insulation $D_{n,e,w}$ (dB)				Wall opening $\varnothing D_3$ (mm)	A-weighted sound power level L_{WA}					
	10 Pa		15 Pa		20 Pa		Studded wall thickness		Solid wall			25 dB		30 dB		35 dB	
	(l/s)	(m ³ /h)	(l/s)	(m ³ /h)	(l/s)	(m ³ /h)	200 mm	150 mm	100 mm	130 mm	(Pa)	(m ³ /h)	(Pa)	(m ³ /h)	(Pa)	(m ³ /h)	
OV-R-100	16	58	24	85	30	107	49	46	43	36	120	18	80	26	99	35	116
OV-R-125	32	115	35	127	42	152	47	44	40	33	145	10	114	25	145	46	170
OV-R-160	34	122	42	150	48	174	46	43	40	33	180	15	152	23	185	31	217
OV-R-200	53	189	65	233	75	270	45	42	39	31	220	10	190	14	225	18	258

Tab. 2: Quick selection of air transfer devices for installation in walls of different types and thicknesses

Technical Parameters

Legend

p_s	Pa	Pressure drop
q_v	l/s m ³ /h	Air flow volume
L_{WA}	dB(A)	A-weighted total radiated sound power level
L_{pA}	dB(A)	A-weighted total sound pressure level expressed for 10 m ² room absorption area
$D_{n,e,w}$	dB	Airborne sound insulation

Gypsum Plaster Studded Wall																			
Transfer Unit	Wall Thickness	Total $D_{n,e,w}$	f	Airborne Sound Insulation $D_{n,e,w}$ (dB) for different frequencies															
	(mm)			(dB)	(Hz) →	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000
OV-R-100	200	49,5		24,8	32,8	38,9	41,4	43,2	46,1	45,4	42,9	43,5	48,1	49,3	51,0	53,4	58,9	61,7	58,1
	150	46,4		24,1	31,1	36,9	39,4	38,5	41,5	44,6	43,0	42,4	40,5	45,2	46,2	49,1	55,4	59,2	55,7
	100	43,3		21,5	27,9	33,0	34,9	36,7	38,9	40,3	40,6	37,4	38,7	43,1	43,7	43,8	49,4	52,7	49,8
OV-R-125	200	46,6		23,7	31,0	36,8	38,5	38,8	43,1	42,3	43,1	44,0	40,3	45,5	47,6	49,3	55,0	58,5	55,2
	150	43,5		21,8	28,5	33,8	35,3	35,6	39,6	38,8	39,5	40,3	37,0	41,8	43,7	45,2	50,4	53,7	50,6
	100	40,4		20,3	26,4	31,5	32,5	34,2	33,7	35,0	38,1	35,7	33,5	40,6	40,7	43,0	46,8	49,9	47,0
OV-R-160	200	46,4		23,2	30,3	36,0	37,1	40,2	42,2	44,3	42,1	44,5	38,7	43,2	45,6	48,6	53,6	57,3	53,7
	150	43,3		21,6	28,2	33,6	34,6	36,1	37,3	40,6	37,4	37,0	41,1	42,6	42,7	45,0	50,7	53,3	50,4
	100	40,2		19,9	26,0	30,6	32,3	33,0	32,6	37,9	34,8	37,8	38,0	37,5	39,2	41,0	46,6	48,7	45,9
OV-R-200	200	45		22,5	29,1	34,6	36,4	37,0	40,4	42,6	40,0	38,6	40,9	42,4	45,4	48,0	51,7	55,2	52,1
	150	41,9		20,9	27,1	32,3	34,0	35,6	35,8	39,0	36,1	38,3	34,4	42,0	43,6	42,8	48,6	51,2	48,5
	100	38,8		18,8	24,7	29,1	30,0	32,5	31,3	35,4	34,2	34,4	36,0	37,9	37,7	40,5	44,3	46,2	43,7

Solid Wall																			
Transfer Unit	Wall Thickness	Total $D_{n,e,w}$	f	Airborne Sound Insulation $D_{n,e,w}$ (dB) for different frequencies															
	(mm)			(dB)	(Hz) →	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000
OV-R-100	130	36,1		38,7	31,4	34,6	31,5	28,7	28,6	28,3	30,9	34,0	36,3	33,8	36,7	37,7	42,9	49,4	55,2
OV-R-125		33,2		32,7	26,9	31,3	28,6	26,5	29,9	26,1	29,1	29,3	31,3	31,9	31,9	33,7	38,1	44,5	48,2
OV-R-160		32,9		31,7	26,6	29,8	26,1	27,9	27,8	27,9	29,0	32,8	30,7	28,4	31,3	32,6	36,7	44,2	46,9
OV-R-200		31,5		31,4	27,4	27,8	26,9	27,3	24,0	25,0	23,4	31,7	30,9	28,3	32,8	32,9	35,9	42,2	47,2

Tab. 3: Airborne sound insulation of OV-R installed in walls of different types and thicknesses

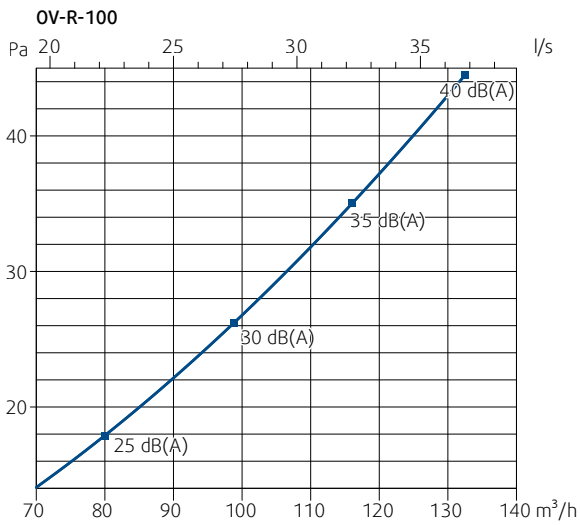


Diagram 1: Pressure drop and radiated sound power level dependent on transfer air flow volume

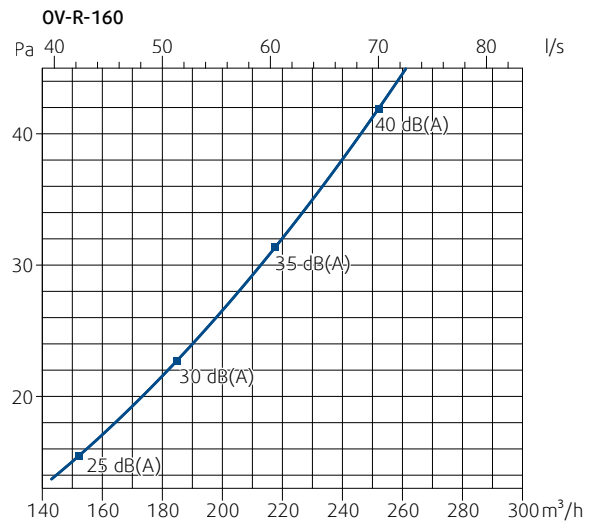


Diagram 3: Pressure drop and radiated sound power level dependent on transfer air flow volume

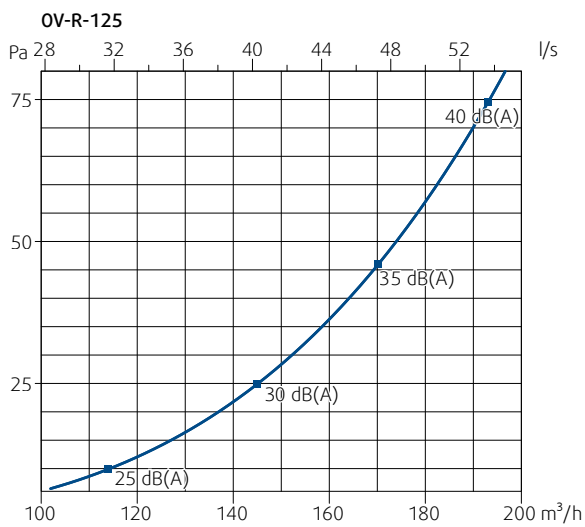


Diagram 2: Pressure drop and radiated sound power level dependent on transfer air flow volume

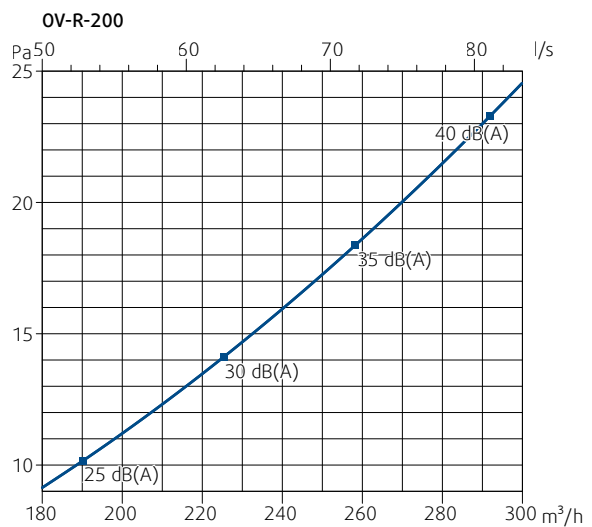


Diagram 4: Pressure drop and radiated sound power level dependent on transfer air flow volume

Installation, Maintenance & Operation

Information about installation, maintenance and operation is available in the "UserManual_OV-R" document on [Systemair DESIGN](#).

Dry indoor conditions with an operation temperature range of -20°C to +70°C.

Transport & Storage

Dry indoor conditions with a temperature range of -40°C to +50°C.

Supplement

Any deviations from the technical specifications contained herein and the terms should be discussed with the manufacturer. We reserve the right to make any changes to the product without prior notice, provided that these changes do not affect the quality of the product and the required parameters.

Current information on all products is available on [Systemair DESIGN](#).

