

KOOLAIR

series

DF-49-ROT

Long-throw nozzles

ISO 9001

BUREAU VERITAS
Certification

Sistema de Gestión



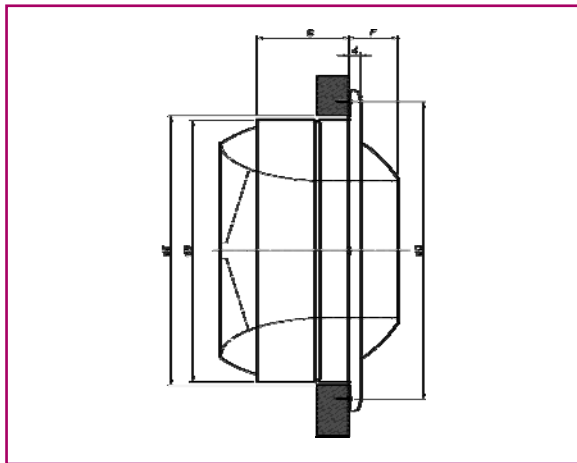
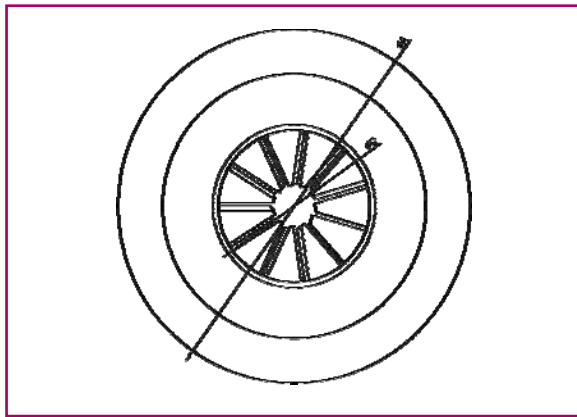
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Long-throw jet nozzle DF-49-ROT



MODEL	ØA	ØB	ØC	ØD	ØE	F	G	H	J
8	268	209	90	235	217	34	93	127	17
10	317	258	123	284	268	48	112	160	17
12	376	313	155	343	323	56	125	181	20
16	511	422	220	478	433	78	149	227	20
20	584	595	290	552	605	80	156	236	20

Description

The new DF-49-ROT combines long-throw efficiency with a more harmonious design, the novelty in this model relative to the nozzle DF49 is the inclusion of a rotational element that reduces air jet for applications where you need shorter throw. The stylised lines of the nozzles and the possibility of matching current decorative styles make these diffusers a reliable, great-looking component for facilities with more stringent requirements in terms of design and comfort.

In addition to effective air blowing at a long distance through nozzles (originally designed for industrial facilities), the use of these terminal units in more comfortable surroundings requires utmost attention to the aesthetic design.

Interior architecture are increasingly designing larger spaces for hotels, shopping malls, salons, convention centres, airport vestibules, passenger stations, social halls, etc.

The DF-49-ROT long-throw nozzle and the decorative ring are manufactured in aluminium, with a standard paint finish in RAL 9010 white.

The fixed blade swirl element and the connection part is manufactured of galvanised steel sheet.

The DF-49-ROT nozzle has an extraordinarily good aesthetic design and can be painted by special order to fit any decorative need.

Application

The DF-49-ROT nozzles provide medium throws with a low noise level, releasing a long air jet with exceptional precision to a length of over 20 metres.

They can be used for spot cooling and are especially appropriate for large rooms requiring a decorative look, for instance, large vestibules, nightclubs or entertainment areas, department stores, hotels, etc.

The configuration allows the nozzle to swivel in all directions up to a maximum of $\pm 30^\circ$ in the horizontal or vertical direction, the angle of rotation can be determined in steps of 5° adapting specifically to the needs of each installation.

Identification

Five sizes with manual swiveling. The motor drive swivels the nozzle in the vertical direction (up and down) at an angle of approximately $\pm 30^\circ$. For motor-driven operation one motor is required per nozzle, even in assemblies containing several units. There is also the possibility of thermo-adjustable version.

Long-throw jet nozzle DF-49-ROT

Q		Size	8	10	12	16	20										
(m ³ /h)	(l/s)	A _k (m ²)	0,0060			0,01262			0,0184			0,0390			0,0724		
150	41,7	V _k (m/s)	6,9			3,3			2,3			1,1			0,6		
		X _{0,3} X _{0,5} X _{1,0} (m)	11,0	6,6	3,3	7,5	4,5	2,3	6,2	3,7	1,9	4,2	2,5	1,2	3,1	1,8	0,9
		ΔP _t (Pa)	28			8			3			1			0		
		L _{WA} - dB(A)	20			<15			<15			<15			<15		
250	69,4	V _k (m/s)	11,5			5,5			3,8			1,8			1,0		
		X _{0,3} X _{0,5} X _{1,0} (m)	18,3	11,0	5,5	12,6	7,5	3,8	10,3	6,2	3,1	6,9	4,2	2,1	5,1	3,1	1,5
		ΔP _t (Pa)	77			21			8			2			0		
		L _{WA} - dB(A)	36			19			<15			<15			<15		
350	97,2	V _k (m/s)	16,1			7,7			5,3			2,5			1,3		
		X _{0,3} X _{0,5} X _{1,0} (m)	25,7	15,4	7,7	17,6	10,6	5,3	14,5	8,7	4,3	9,7	5,8	2,9	7,1	4,3	2,1
		ΔP _t (Pa)	151			41			15			4			1		
		L _{WA} - dB(A)	46			31			16			<15			<15		
500	138,9	V _k (m/s)				11,0			7,5			3,6			1,9		
		X _{0,3} X _{0,5} X _{1,0} (m)				25,2	15,1	7,5	20,7	12,4	6,2	13,9	8,3	4,2	10,2	6,1	3,1
		ΔP _t (Pa)				84			32			7			2		
		L _{WA} - dB(A)				43			27			<15			<15		
750	208,3	V _k (m/s)							11,3			5,3			2,9		
		X _{0,3} X _{0,5} X _{1,0} (m)							>30	18,6	9,3	20,8	12,5	6,2	15,3	9,2	4,6
		ΔP _t (Pa)							71			16			4		
		L _{WA} - dB(A)							39			24			<15		
1000	277,8	V _k (m/s)							15,1			7,1			3,8		
		X _{0,3} X _{0,5} X _{1,0} (m)							>30	24,8	12,4	27,7	16,6	8,3	20,4	12,2	6,1
		ΔP _t (Pa)							126			29			6		
		L _{WA} - dB(A)							48			33			<15		
1250	347,2	V _k (m/s)										8,9			4,8		
		X _{0,3} X _{0,5} X _{1,0} (m)										>30	20,8	10,4	25,5	15,3	7,6
		ΔP _t (Pa)										45			10		
		L _{WA} - dB(A)										40			21		
1500	416,7	V _k (m/s)										10,7			5,8		
		X _{0,3} X _{0,5} X _{1,0} (m)										>30	25,0	12,5	>30	18,3	9,2
		ΔP _t (Pa)										65			14		
		L _{WA} - dB(A)										45			27		
2000	555,6	V _k (m/s)										14,2			7,7		
		X _{0,3} X _{0,5} X _{1,0} (m)										>30	>30	16,6	>30	24,4	12,2
		ΔP _t (Pa)										116			25		
		L _{WA} - dB(A)										54			35		
2500	694,4	V _k (m/s)													9,6		
		X _{0,3} X _{0,5} X _{1,0} (m)													>30	>30	15,3
		ΔP _t (Pa)													39		
		L _{WA} - dB(A)													42		
3000	833,3	V _k (m/s)													11,5		
		X _{0,3} X _{0,5} X _{1,0} (m)													>30	>30	18,3
		ΔP _t (Pa)													56		
		L _{WA} - dB(A)													47		

Symbols

Q = Air flow

V_k = Effective velocity

A_k = Effective area

ΔP_t = Total pressure drop

L_{WA} = Sound power

X_{0,3} - X_{0,5} - X_{1,0} = Throw for a terminal air velocity of 0.3, 0.5 and 1.0 m/s, respectively.

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