

CIRCULAR SILENCER

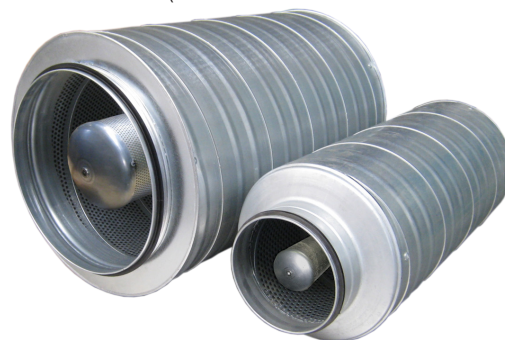
OPTIMUM 100XL RANGE

ACOUSTIC

The **OPTIMUM 100 XL** range circular silencers are equipped with a central attenuator (bulb type) and offer high acoustic and aeraulic performances.

Designed for industrial process and smoke exhaust, the OPTIMUM 100 XL silencers are certified 400°C/2h.

Their performances have been tested and approved by an independent



OPTIMUM 100XL Large dimensions silencers ($\varnothing > 500$ mm) with a 100 mm-thick soundproofing casing and equipped with a central attenuator (bulb type)

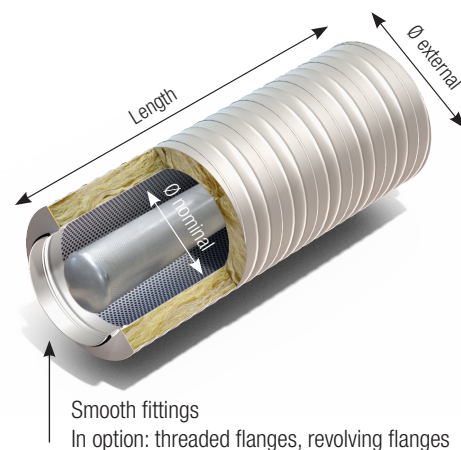
CONSTRUCTION

		Characteristics	Options
Casing	Material	Spiral galvanized steel duct	Stainless steel 304L or 316L, painted steel (RAL standard) or aluminium
	Connection	Male connection with EPDM seal class C*airtightness miniumum	Threaded flanges, revolving flanges
Soundproofing	Material	Mineral wool with anti-erosion fiberglass layer on the surface A2-S1-D0 (M0) fire classification	Anti-erosion fiber glass fabric coating for clean room
	Protection	Perforated steel or stretch metal (depending on diameter) galvanized steel in the air flow	Stainless steel or aluminium
Accessories		Options : protective guards, support legs	

In order to guarantee class C airtightness, the silencer are fitted directly in the air ductwork, without requiring screws.

DIMENSIONS

OPTIMUM 100 XL				
Nominal $\varnothing$ (mm)	External $\varnothing$ (mm)	Length (mm)	Bulb $\varnothing$ (mm)	Weight (kg)
560	710	1000	250	55
630	800	1000	315	63
710	900	1500	355	108
800	1000	1500	400	124
900	1120	1500	450	141
1000	1250	2000	500	220
1120	1400	2000	560	261
1250	1400	2000	630	304



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ACOUSTIC CHARACTERISTICS

OPTIMUM 100XL Soundproofing casing thickness = 100 mm



Nominal diameter (mm)	Length (mm)	Static attenuation (dB)							
		63 Hz	125Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
630	1000	2	4	10	16	22	24	15	7
800	1500	3	6	17	26	29	25	18	16
1000	2000	4	11	23	26	37	31	19	16
1250	2000	4	9	13	24	31	25	17	15

Results from tests carried out by an independent laboratory (CTTM) according to the European standard ISO 7235 : 2004

Diameter & length (in mm)	Air velocity*	Regenerations and pressure losses								Pressure losses (Pa)
		63 Hz	125Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
Ø630 L1000	3 m/s	39	37	14	11	12	15	19	24	<5
	5 m/s	50	40	35	25	16	15	19	24	5
	8 m/s	58	46	43	42	36	26	21	24	10
	11 m/s	64	52	48	47	43	37	30	25	19
	13 m/s	68	57	53	52	51	44	35	30	32
Ø800 L1500	3 m/s	37	26	<10	<10	<10	<10	<10	13	<5
	5 m/s	51	38	27	23	17	10	10	13	5
	8 m/s	61	50	37	35	32	26	18	13	11
Ø1000 L2000	3 m/s	45	32	20	16	11	10	10	13	<5
	6 m/s	63	51	40	38	34	29	22	16	10
	7 m/s	65	54	43	42	38	33	28	20	15
Ø1250 L2000	3 m/s	56	47	33	30	26	19	12	13	<5
	5 m/s	66	59	43	41	37	33	27	20	11

*Air velocity in air sections

Tests carried out by an independent laboratory according to the European standard ISO 7235 : 2004.

PRESCRIPTION

Circular silencers composed of :

- a 100 mm-thick soundproofing casing protected by perforated steel sheet in the airflow,
- a central attenuator of bulb type.

The acoustic performances must have been tested by an independent laboratory.

OPTIMUM 100 XL type, F2A brand.