**Quality Noise Control Solutions** 



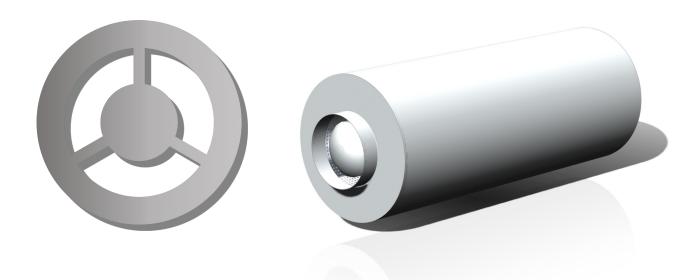
### INTRODUCTION

Type **ACP** Series Cylindrical Attenuators are generally used for ducted systems or items of plant to provide a medium to high level of attenuation whilst allowing passage of air to or from the equipment being treated.

Whilst all **ACP** Series Cylindrical Attenuators are selected to suit particular criteria, in general these are used for higher performance or applications where they are to connect directly to Axial Fans.

The Cylindrical Attenuators are efficient at providing Cross Talk protection as well as being suitable for circular ducted systems.

All attenuators are designed to suit your individual project and our Team of Sales Engineers can assist with the design of the attenuation package for the optimum product selection.



### **DESIGN AND MANUFACTURE**

The **ACP** Series Cylindrical Attenuators are designed and fabricated to suit particular projects to take into account the specific sound reduction requirements for both Octave and Broad Band noise, regenerated noise and airflow characteristics, such as, the effect on other equipment, and pressure drop.

The attenuators are fabricated in line with DW144 and can be varied to suit high pressure or industrial grade systems as well as bespoke applications.

End connections can either be spigots or threaded inserts for direct connection to plant.

The attenuators are manufactured for stability and integrity at High Temperatures.



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### TYPICAL DETAILS

Type **ACP** Series Attenuator.

Manufacturer: Conabeare Acoustics Limited - <u>0118 930 3650</u>

Attenuator Type: **ACP** Series Cylindrical Attenuator.

Outer Skin: Pre-Galvanised Steel Sheet Outer Skin.

Splitters: 45kg/m³ density mineral wool retained behind glass fibre tissue facing and

expanded or perforated metal skin having minimum 30% free area.

Connections: Threaded Inserts / Spigot. Finish: Mill Finish as Standard.

Description: Fabricated Steel Attenuator comprising pre-galvanised steel components

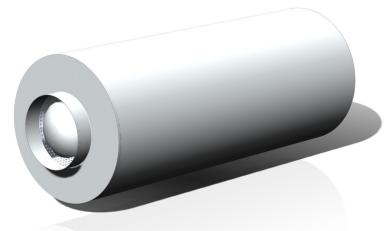
throughout. Attenuator to be factory assembled using mechanical fixings and

supplied in one section to be incorporated into the works.

#### TYPE ACP CYLINDRICAL ATTENUATOR



**ACP** - Podded Cylindrical Attenuator (Threaded Insert)



**ACP -** Podded Cylindrical Attenuator (Spigot)

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# **PERFORMANCE DATA**

Type AC Series (Straight Through) Cylindrical Attenuators have the following Acoustic Performance when directly connected to an Axial Flow Fan.

# Insertion (dB) at Octave Band Centre Frequencies (Hz)

								<i>-</i>		
NOMINAL BORE	63	125	250	500	1000	2000	4000	8000	Length (mm)	Weight (kg)
ACP300 1D	2	7	8	14	22	25	22	19	300	15
ACP300 2D	3	13	14	23	22	25	22	19	600	21
ACP315 1D	2	7	8	14	22	25	22	19	315	16
ACP315 2D	3	13	14	23	30	30	30	25	630	23
ACP400 1D	2	7	9	15	23	25	21	17	400	23
ACP400 2D	3	10	15	24	30	30	29	22	800	33
ACP450 1D	2	7	9	17	25	24	21	17	450	27
ACP450 2D	4	10	16	28	30	30	29	26	900	40
ACP500 1D	3	6	10	18	26	24	21	16	500	32
ACP500 2D	5	10	17	28	30	30	28	23	1000	48
ACP600 1D	3	5	10	18	26	23	20	15	600	43
ACP600 2D	5	9	17	28	30	30	27	21	1200	67
ACP630 1D	3	5	10	19	27	23	20	15	630	47
ACP630 2D	5	9	18	28	30	30	27	20	1260	74
ACP800 1D	4	5	11	20	27	23	20	14	800	73
ACP800 2D	5	9	18	29	30	30	27	20	1600	120
ACP900 1D	4	5	12	21	26	22	21	14	900	93
ACP900 2D	5	9	18	29	30	29	25	19	1800	155
ACP1000 1D	5	6	13	22	25	21	17	14	1000	116
ACP1000 2D	5	10	19	29	30	27	22	18	2000	197
ACP1250 1D	5	8	15	25	23	19	16	12	1250	184
ACP1250 2D	6	11	21	30	30	27	22	16	2500	320

#### **MELINEX**

When Melinex linings are used the following allowances should be made to the Insertion Loss Figures.

#### Insertion (dB) at Octave Band Centre Frequencies (Hz)

63	125	250	500	1000	2000	4000	8000
x 1.00	x 1.00	x 0.95	x 0.85	x 0.80	x 0.65	x 0.55	x 0.50

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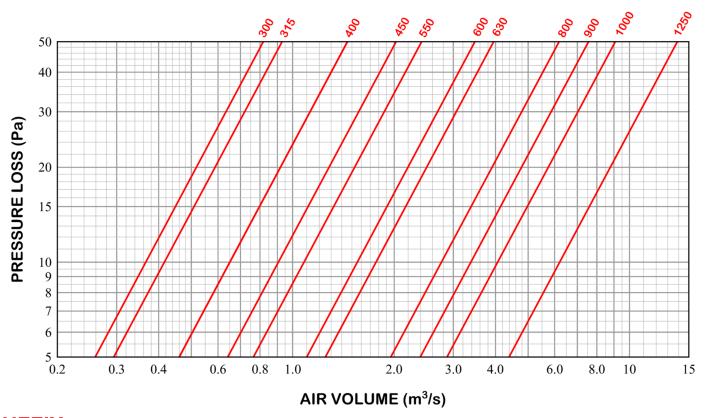


# **PRESSURE LOSS**

To establish the pressure drop through the type **ACP 1D** Attenuators the following graph should be used. For **ACP 2D** Attenuators the Pressure Loss Increases by 50%.

The Pressure Loss through type **ACP** attenuators based on air on and off conditions being straight lengths of duct as detailed within BS EN ISO 7535:2003 are given below.

#### ATTENUATOR NOMINAL BORE mm



#### **SUFFIX**

The suffix defines additional features or special construction details

MX	Melinex Lining to Acoustic Media
CRP	Chlorinated Rubber Paint
HT	High Temperature
XT	Cross Talk Attenuator
ST	Stainless Steel Fabrication
PV	PVC Fabrication

# Cylindrical Attenuators - ACP Series

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