

INTRODUCTION

Type AC, ACS and ACP Series Cylindrical Attenuators are generally used for ducted systems or large items of plant to provide a reasonable level of attenuation whilst allowing passage of air to or from the equipment being treated.

Whilst all AC, ACS and ACP Series Cylindrical Attenuators are selected to suit particular criteria, in general these are used for lower 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 duct cross sectional areas.

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 AC, ACS and ACP Series Cylindrical Attenuators are designed and fabricated to suit particular projects to take into account the specific sound reduction requirements for both Octave Band and Broad Band noise, regenerated noise and airflow characteristics such as 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 designs.

PERFORMANCE DATA

Type ACS Series (Spigotted) Cylindrical Attenuators have the following Acoustic Performance

Insertion Loss in dB at Octave Band Centre Frequencies (Hz)

Nominal Bore	63	125	250	500	1000	2000	4000	8000	Length mm	Weight kg
ACS 100	5	7	12	26	37	36	26	19	500	3.5
ACS 125	4	6	11	25	35	33	23	17	500	4.0
ACS 150	5	7	14	28	37	36	25	18	750	6.5
ACS 160	5	7	13	27	35	34	23	17	750	7.0
ACS 180	4	6	12	26	33	32	20	15	750	8.0
ACS 200	5	7	15	29	35	33	21	18	1000	11.5
ACS 225	5	7	14	26	32	28	19	15	1000	14.0
ACS 280	4	6	12	22	29	21	15	11	1000	18.0
ACS 315	3	5	10	21	28	18	12	8	1000	19.0
ACS 355	3	4	8	19	27	14	9	5	1000	22.0

PERFORMANCE DATA

Type AC Series (Straight Through) Cylindrical Attenuators have the following Acoustic Performance

Insertion Loss in dB at Octave Band Centre Frequencies (Hz)

Nominal Bore	63	125	250	500	1000	2000	4000	8000	Length mm	Weight kg
AC 315 1D	1	2	4	9	11	10	9	7	315	10
AC 315 2D	2	2	5	13	18	12	11	10	630	18
AC 400 1D	2	3	5	10	13	11	9	8	400	14
AC 400 2D	3	4	7	14	18	15	11	12	800	26
AC 450 1D	2	3	6	13	14	10	10	5	450	16
AC 450 2D	3	7	8	19	25	24	20	15	900	28
AC 500 1D	3	4	7	14	14	9	10	6	500	20
AC 500 2D	4	7	10	20	24	20	17	14	1000	38
AC 630 1D	3	5	7	15	13	8	9	6	630	25
AC 630 2D	4	8	13	21	24	18	15	12	1260	48
AC 800 1D	3	5	10	16	15	10	9	8	800	46
AC 800 2D	4	9	17	22	24	17	13	10	1600	96
AC 1000 1D	4	6	11	17	15	11	9	9	1000	74
AC 1000 2D	5	10	16	23	23	16	13	11	2000	150
AC 1250 1D	4	7	12	17	15	11	9	7	1250	150
AC 1250 2D	6	11	21	25	24	19	13	10	2500	290

PERFORMANCE DATA

Type ACP (Central Pod) Series Cylindrical Attenuators have the following Acoustic Performance

Insertion Loss in dB at Octave Band Centre Frequencies (Hz)

Nominal Bore	63	125	250	500	1000	2000	4000	8000	Length mm	Weight kg
ACP 315 1D	2	7	8	14	22	25	22	19	315	12
ACP 315 2D	3	13	14	23	30	30	30	25	630	22
ACP 400 1D	2	7	9	15	23	25	21	17	400	18
ACP 400 2D	3	10	15	24	30	30	29	22	800	34
ACP 450 1D	2	7	9	17	25	24	21	17	450	32
ACP 450 2D	4	10	16	28	30	30	29	26	900	36
ACP 500 1D	3	6	10	18	26	24	21	16	500	27
ACP 500 2D	5	10	17	28	30	30	28	23	1000	52
ACP 630 1D	3	5	10	19	27	23	20	15	630	29
ACP 630 2D	5	9	18	28	30	30	27	20	1260	56
ACP 800 1D	4	5	11	20	27	23	20	14	800	54
ACP 800 2D	5	9	18	29	30	30	27	20	1600	104
ACP 1000 1D	5	6	13	22	25	21	17	14	1000	86
ACP 1000 2D	5	10	19	29	30	27	22	18	2000	166
ACP 1250 1D	5	8	15	25	23	19	16	12	1250	178
ACP 1250 2D	6	11	21	30	30	27	22	16	2500	346

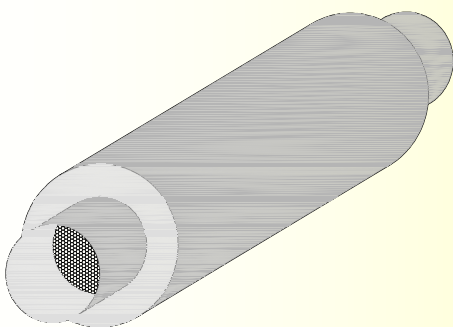
MELINEX

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

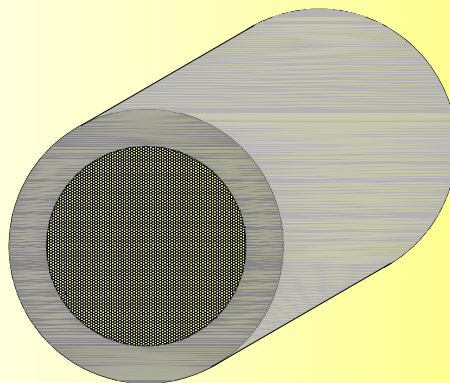
<u>63</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>8000</u>
x 1	x 1	x 0.95	x 0.85	x 0.8	x 0.65	x 0.55	x 0.5

TYPES

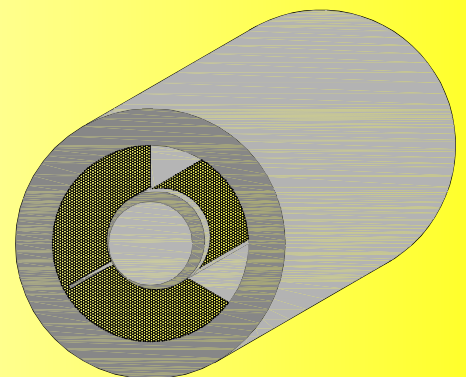
The following cylindrical attenuators are available.



Type ACS - Straight Through Cylindrical Attenuator with Spigots



Type AC - Straight Through Cylindrical Attenuator with drilled and tapped end rings



Type ACP - Podded Cylindrical Attenuator with drilled and tapped ends rings

AVAILABLE OPTIONS

- MX - Melinex Lining to Splitters.
- CRP - Chlorinated Rubber Paint.
- HT - High Temperature.
- XT - Cross Talk Attenuator.
- Stainless Steel Fabrication.
- PVC Fabrication.

TYPICAL SPECIFICATION

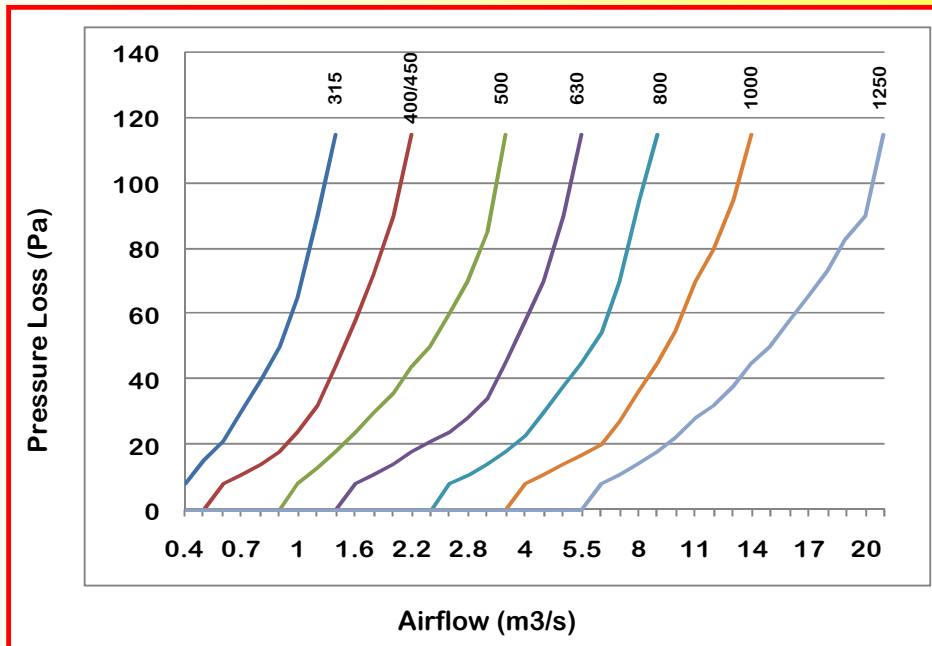
Type AC Series Attenuator.

Manufacturer: Conabeare Acoustics Limited - 0118 930 3650.
Attenuator Type: ACS/AC/ACP Series Cylindrical Attenuator.
Outer Skin: Pre-Galvanised Steel Sheet Outer Skin - 1.2mm thick throughout.
Linings: 45kg/m³ density mineral wool retained behind glassfibre tissue facing and expanded metal skin having minimum 30% free area.
Connections: 50mm Spigots or Drilled Angle End Rings.
Finish: Mill Finish as Standard.
Description: Fabricated Steel Attenuator comprising pre-galvanised steel components throughout. Splitters to be fitted using mechanical fixings. Attenuator to be factory assembled and supplied in one section for incorporation into the works.

PRESSURE LOSS

To establish the pressure drop through the Type ACP attenuators the following graph should be used. For ACP – 2D Attenuators the Pressure Loss Increases by 50%.

AC and ACS attenuators have a negligible loss and a Pressure Drop of 5Pa can be used.



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