



## Performance Data - Open Type

Matching Fan Dia. cm	Length mm	Static Insertion Loss, dB							
		Octave Band Centre Frequency (Hz)							
		63	125	250	500	1k	2k	4k	8k
<b>S1-Dia. 1 Diameter Long (nom.)</b>									
-031	315	1	3	5	9	13	10	8	7
-035	350	2	3	5	9	13	10	8	7
-040	400	2	3	5	9	13	10	8	7
-045	450	2	3	5	10	13	10	8	7
-050	500	2	3	6	10	14	10	8	7
-056	560	2	4	6	10	14	10	8	7
-063	630	3	4	7	13	14	9	8	6
-071	710	3	4	8	14	14	9	7	6
-080	800	3	4	8	14	13	9	7	6
-090	900	3	4	9	14	13	8	7	6
-100	1000	3	4	9	14	12	8	7	6
-125	1155	3	4	10	14	12	8	6	6
-140	1155	3	5	10	13	11	8	5	5
-160	1800	4	6	11	13	10	7	5	5
-180	1800	4	6	11	13	10	6	5	5
-200	1800	4	6	11	13	9	6	5	5
<b>S2-Dia. 2 Diameters Long (nom.)</b>									
-031	630	3	6	9	15	21	17	14	13
-035	700	4	6	10	15	21	17	14	13
-040	800	4	6	10	16	21	18	15	13
-045	900	4	7	10	17	21	18	15	13
-050	1000	4	7	10	18	21	17	15	12
-056	1120	5	7	11	18	21	17	15	12
-063	1155	5	8	11	21	23	17	15	10
-071	1420	5	8	12	22	23	16	15	10
-080	1580	5	8	12	22	23	16	15	10
-090	1800	5	8	13	22	19	13	12	10
-100	2000	6	8	13	22	19	13	12	10
-125	2310	6	8	13	21	18	13	12	11
-140	2400	7	9	15	21	18	11	11	10
-160	3600	8	9	15	20	17	11	9	8
-180	3600	8	9	15	20	17	10	9	8
-200	3600	8	9	15	20	17	10	9	8

### Features

These notes apply to both the open and pod type attenuators.

### Construction

The units are rigidly constructed and consist of an outer cylindrical galvanised steel casing, lined internally with no hygroscopic and incombustible sound absorbent material.

This material is retained by an inner perforated metal cylinder.

An impervious lining of the acoustic infill can be provided to prevent the ingress of moisture or grease.

There is a small performance penalty in high frequencies when an impervious lining is fitted.

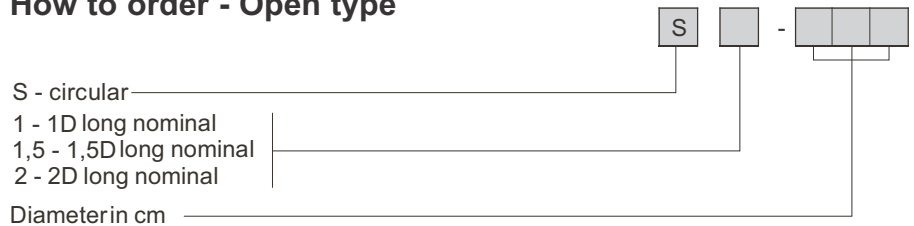
Refer to our Sales Engineers if more information is required.

### Insertion Loss

The values quoted in the table represent the difference between the sound power level ( $L_w$ ) of a fan and attenuator combination and that of the fan alone.

(continued next page)

### How to order - Open type



# CIRCULAR DUCT ATTENUATORS



## Selection

To ascertain the sound power level of a fan fitted with an attenuator, the insertion loss should be subtracted from the sound power level ( $L_w$ ) rating of the fan across the octave band centre-frequency spectrum quoted in the fan characteristic data (obtainable on request). The fan sound power,  $L_w$ , ratings and attenuator insertion loss apply to in-duct operation and where an attenuator is connected between the fan and duct system.

## Rectangular Attenuators

Whilst attenuators provide a convenient form of attenuation when used with axial flow fans and have the added advantage of minimising noise break-out, it is often more economical to consider standard rectangular attenuators. Please refer to the pages G-6/10 for details of these. Purpose-designed attenuators can be supplied for particularly demanding applications requiring performances or construction beyond that provided by our standard product.

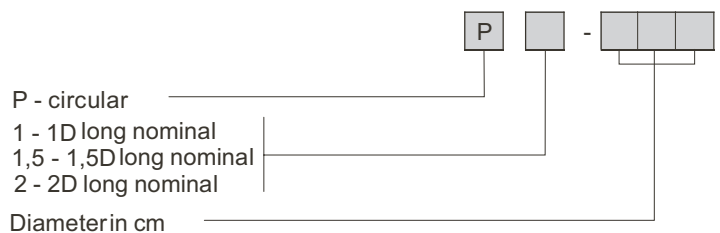
## Suggested Specification

Attenuators shall be as designed and manufactured by Elta Fans and shall have the performances as scheduled. The casing and end flanges shall be constructed from high quality galvanised mild steel sheet. The end flanges shall be match drilled and tapped to suit the fan flanges and facilitate installation. Attenuator pods, where fitted, shall be adequately supported and be fitted with a nose cone on the inlet to minimise noise regeneration and pressure loss.

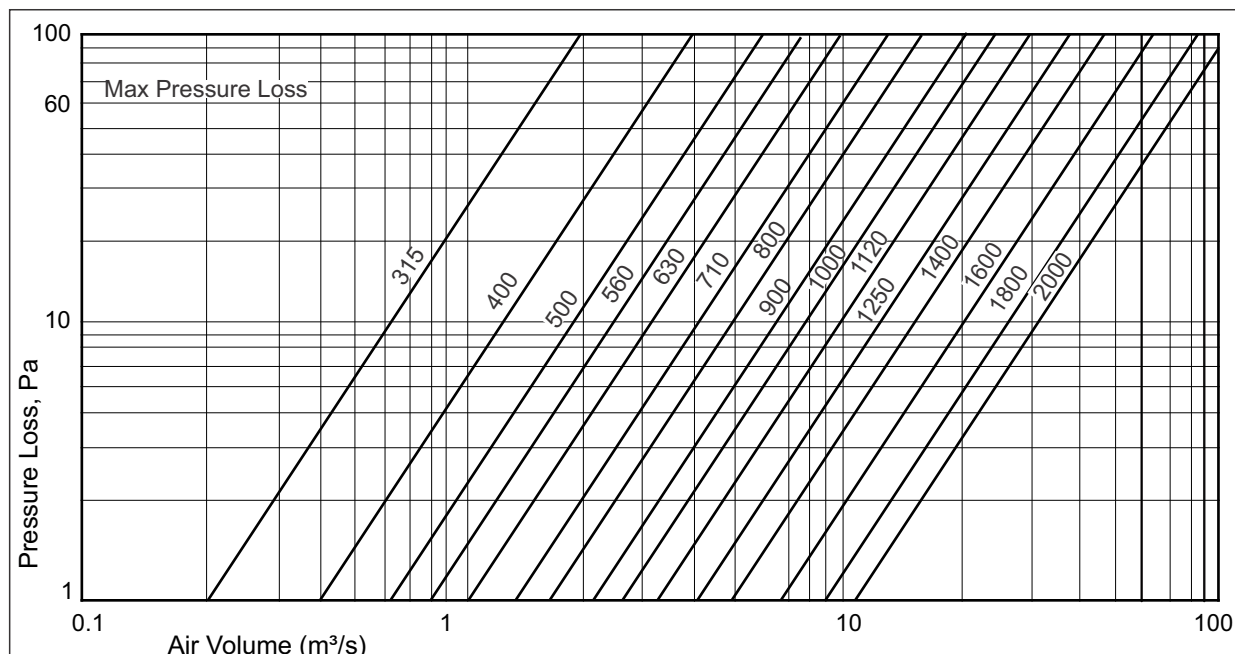
## Performance Data - Pod type

Matching Fan Dia. cm	Length mm	Static Insertion Loss, dB							
		Octave Band Centre Frequency (Hz)							
		63	125	250	500	1k	2k	4k	8k
<b>P1-Dia. 1 Diameter Long (nom.)</b>									
-031	315	3	6	8	13	20	19	16	14
-035	350	4	6	8	13	20	19	16	14
-040	400	4	6	9	14	21	19	16	13
-045	450	4	6	9	15	21	19	16	13
-050	500	4	6	9	15	22	19	15	12
-056	560	4	6	9	15	22	19	15	12
-063	630	4	6	10	18	22	19	15	11
-071	710	5	6	10	18	22	19	15	11
-080	800	5	6	10	18	24	17	15	11
-090	900	5	7	11	20	20	16	13	11
-100	1000	5	7	12	20	19	14	13	10
-125	1155	5	7	12	20	19	14	13	10
-140	1155	5	7	12	19	18	14	12	9
-160	1800	5	7	12	18	17	12	10	9
-180	1800	5	7	12	18	17	12	10	9
-200	1800	5	7	12	18	17	12	10	9
<b>P2-Dia. 2 Diameters Long (nom.)</b>									
-031	630	6	9	14	21	28	28	25	22
-035	700	6	9	14	21	28	28	25	22
-040	800	6	9	14	22	29	28	26	23
-045	900	6	9	14	22	29	28	26	23
-050	1000	7	10	14	24	30	29	27	22
-056	1120	7	10	14	24	30	29	27	22
-063	1155	7	11	16	28	33	32	29	20
-071	1420	8	11	16	28	34	31	28	20
-080	1580	8	11	16	28	34	31	28	20
-090	1800	8	11	18	27	28	27	23	19
-100	2000	8	11	19	27	29	27	23	19
-125	2310	8	11	19	27	28	27	22	17
-140	2400	9	12	20	26	28	26	19	16
-160	3600	10	14	21	26	28	26	18	15
-180	3600	10	14	21	26	28	26	18	15
-200	3600	10	14	21	26	28	26	18	15

## How to order - POD type

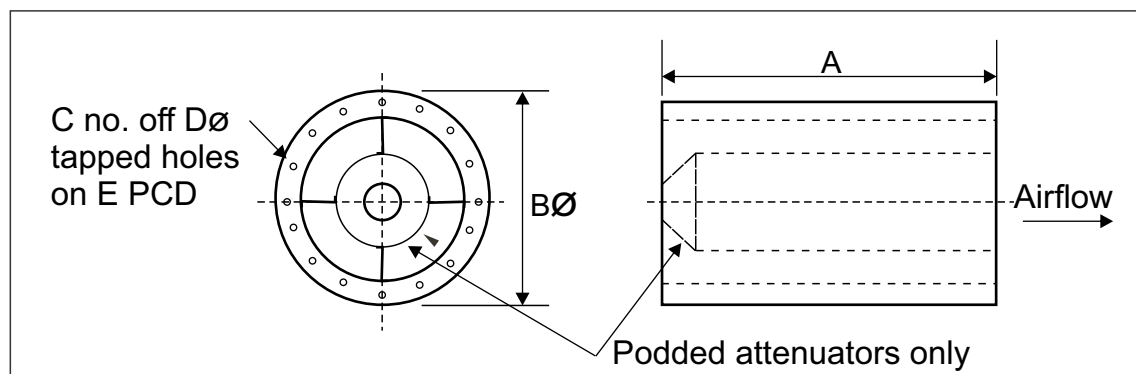


## Pressure Drop Graphs - Pod Type



\* Attenuators without pods have negligible pressure drop.

## Dimensions



Model S1-Dia. S2-Dia. P1-Dia. P2-Dia.	A Type S1 P1	Type S1,5 P1,5	Type S2 P2	BØ	C	DØ	E	*Approx. weight, kg			
								Open		Pod	
								S1	S2	P1	P2
031	315	472	630	415	8	M8	355	13	26	15	30
035	350	525	700	450	8	M8	395	14	28	16	32
040	400	600	800	500	8	M10	450	23	34	25	38
045	450	675	900	550	12	M10	487	25	38	33	50
050	500	750	1000	650	12	M10	560	27	52	36	70
056	560	840	1120	710	12	M10	620	30	57	41	75
063	630	945	1155	780	12	M10	690	34	65	47	90
071	710	1065	1420	860	16	M10	770	50	83	70	116
080	800	1155	1580	950	16	M10	860	55	92	78	130
090	900	1350	1800	1100	16	M12	970	74	116	106	166
100	1000	1500	2000	1200	16	M12	1070	90	140	127	198
125	1155	1875	2310	1450	20	M12	1320	110	229	158	329
140	1155	2100	2400	1631	20	M12	1470	122	254	177	369
160	1800	2350	3600	1833	24	M12	1680	195	389	286	571
180	1800	2700	3600	2034	24	M12	1880	217	434	321	642
200	1800	3000	3600	2236	24	M12	2080	241	482	357	713

\*To determine weights of Q-Seal attenuators multiply the weights shown above by 0.85