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 non-hygroscopic and incombustible sound-absorbent material. This material is retained by an inner perforated metal cylinder.

When a pod is fitted it is of perforated metal, retaining an infill of acoustic material.

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.

Also available is the Q-Seal range which offers impervious lining with features to optimise acoustic performance.

The ends of the attenuators are drilled and tapped to match the Fantech 'AP' series of axial flow fans.

Non-standard flange drillings or sizes can be supplied to the customer's specifications.

Insertion Loss

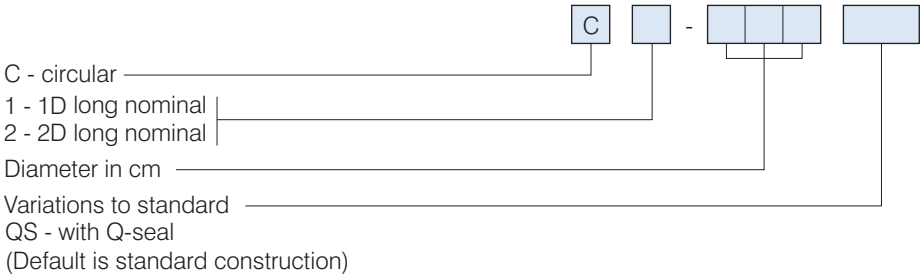
The values quoted in the table represent the difference between the sound power level (L_W) of a fan and attenuator combination and that of the fan alone.

(continued next page)

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
C1-Dia. 1 Diameter Long (nom.)									
-031	300	1	3	5	9	13	10	8	7
-035	300	2	3	5	9	13	10	8	7
-040	600	2	3	5	9	13	10	8	7
-045	600	2	3	5	10	13	10	8	7
-050	600	2	3	6	10	14	10	8	7
-056	600	2	4	6	10	14	10	8	7
-063	600	3	4	7	13	14	9	8	6
-071	900	3	4	8	14	14	9	7	6
-080	900	3	4	8	14	13	9	7	6
-090	1150	3	4	9	14	13	8	7	6
-100	1150	3	4	9	14	12	8	7	6
-125	1150	3	4	10	14	12	8	6	6
-140	1150	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
C2-Dia. 2 Diameters Long (nom.)									
-031	600	3	6	9	15	21	17	14	13
-035	600	4	6	10	15	21	17	14	13
-040	900	4	6	10	16	21	18	15	13
-045	900	4	7	10	17	21	18	15	13
-050	1150	4	7	10	18	21	17	15	12
-056	1150	5	7	11	18	21	17	15	12
-063	1150	5	8	11	21	23	17	15	10
-071	1500	5	8	12	22	23	16	15	10
-080	1500	5	8	12	22	23	16	15	10
-090	1800	5	8	13	22	19	13	12	10
-100	1800	6	8	13	22	19	13	12	10
-125	2400	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

HOW TO ORDER



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FEATURES (contd.)

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 circular 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.

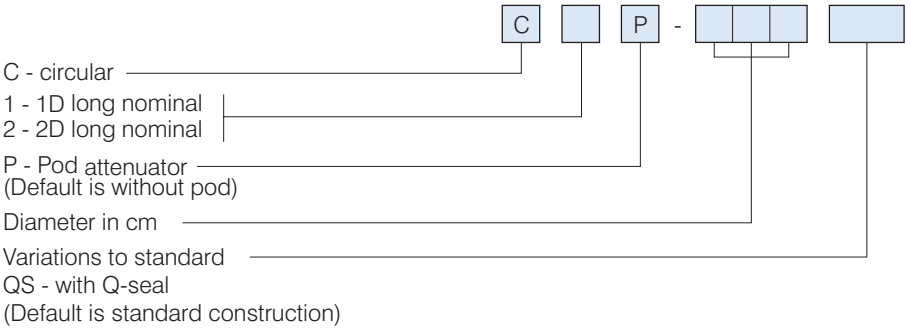
Please refer to the pages *H-9/13* for details of these.

Purpose-designed attenuators can be supplied for particularly demanding applications requiring performances or construction beyond that provided by our standard product.

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
C1P-Dia. 1 Diameter Long (nom.)									
-031	300	3	6	8	13	20	19	16	14
-035	300	4	6	8	13	20	19	16	14
-040	600	4	6	9	14	21	19	16	13
-045	600	4	6	9	15	21	19	16	13
-050	600	4	6	9	15	22	19	15	12
-056	600	4	6	9	15	22	19	15	12
-063	600	4	6	10	18	22	19	15	11
-071	900	5	6	10	18	22	19	15	11
-080	900	5	6	10	18	24	17	15	11
-090	1150	5	7	11	20	20	16	13	11
-100	1150	5	7	12	20	19	14	13	10
-125	1150	5	7	12	20	19	14	13	10
-140	1150	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
C2P-Dia. 2 Diameters Long (nom.)									
-031	600	6	9	14	21	28	28	25	22
-035	600	6	9	14	21	28	28	25	22
-040	900	6	9	14	22	29	28	26	23
-045	900	6	9	14	22	29	28	26	23
-050	1150	7	10	14	24	30	29	27	22
-056	1150	7	10	14	24	30	29	27	22
-063	1150	7	11	16	28	33	32	29	20
-071	1500	8	11	16	28	34	31	28	20
-080	1500	8	11	16	28	34	31	28	20
-090	1800	8	11	18	27	28	27	23	19
-100	1800	8	11	19	27	29	27	23	19
-125	2400	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

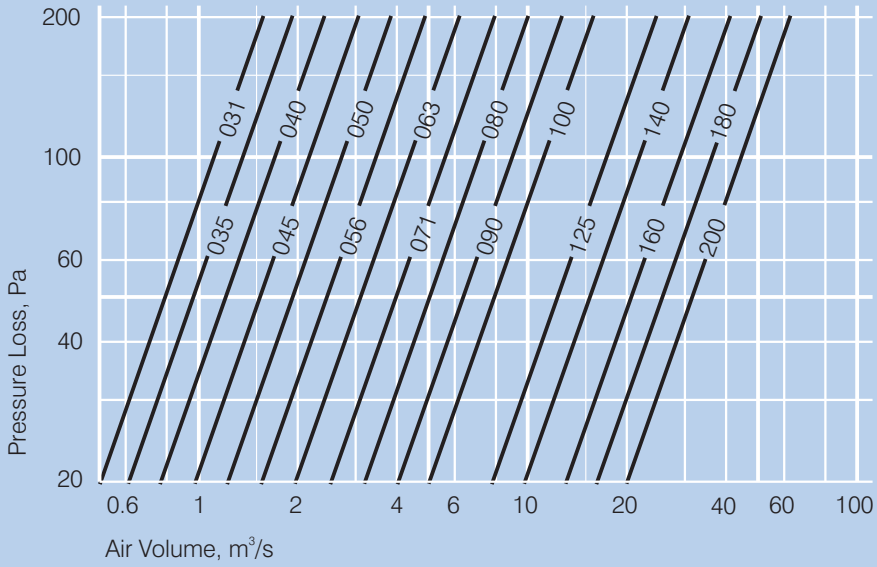


Suggested Specification

Attenuators shall be as designed and manufactured by Q-Tech Acoustics Pty. Ltd. 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.

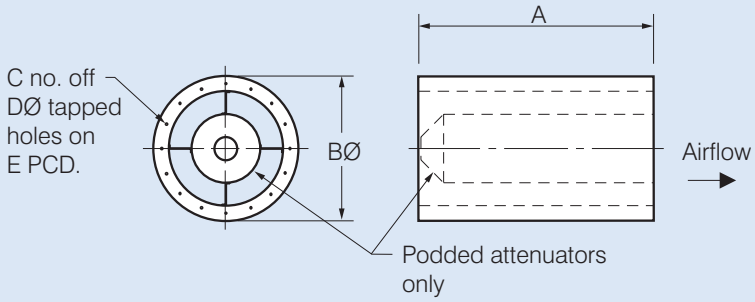
Attenuator pods, where fitted, shall be adequately supported and be fitted with a nose cone on the inlet to minimise noise regeneration and pressure loss.

PRESSURE DROP GRAPHS - POD TYPE



* Attenuators without pods have negligible pressure drop.

DIMENSIONS & WEIGHTS



Model C1-Dia. C2-Dia. C1P-Dia. C2P-Dia.	Dimensions, mm A Type C1 Type C2 C1P	 C2P	 BØ	 C	 DØ	 E	*Approx. weight, kg Open C1	 C2	 Pod C1P	 C2P
-031	300	600	481	8	M6	355	13	26	15	30
-035	300	600	521	8	M6	395	14	28	16	32
-040	600	900	566	8	M8	450	23	34	25	38
-045	600	900	616	8	M8	500	25	38	33	50
-050	600	1150	666	12	M8	560	27	52	36	70
-056	600	1150	730	12	M8	620	30	57	41	75
-063	600	1150	800	12	M8	690	34	64	47	90
-071	900	1500	880	16	M8	770	50	83	70	116
-080	900	1500	970	16	M8	860	55	92	78	130
-090	1150	1800	1070	16	M8	970	74	116	106	166
-100	1150	1800	1220	16	M10	1070	90	140	127	198
-125	1150	2400	1470	20	M10	1320	110	229	158	329
-140	1150	2400	1620	20	M10	1470	122	254	177	369
-160	1800	3600	1820	24	M12	1680	195	389	286	571
-180	1800	3600	2020	24	M12	1880	217	434	321	642
-200	1800	3600	2220	24	M12	2080	241	482	357	713

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

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