Q-SEAL CIRCULAR DUCT ATTENUATORS



FEATURES

Fantech Circular duct attenuators are designed to be directly attached to fans or in-line with circular ductwork.
Applications
Q-Seal attenuators have an impervious seal between the acoustic fill and ambient air. They are used when no possibility of fibre fly or ambient contamination of the acoustic fill is allowable. Typical applications are as follows:-

- clean rooms
  operating theatres
- wet environments where silencers are exposed to the elements
- kitchen exhaust systems
- applications where workers are sensitive to fibre exposure

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 with Q-Seal impervious lining. 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 and Q-Seal impervious lining.

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.
(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.)									
-031QS	300	1	2	4	7	9	7	5	5
-035QS	300	2	2	4	7	9	7	5	5
-040QS	600	2	2	4	7	9	7	5	5
-045QS	600	2	2	4	8	9	7	5	5
-050QS	600	2	2	4	8	9	7	5	5
-056QS	600	2	3	4	8	9	7	5	5
-063QS	600	3	3	5	10	9	6	5	5
-071QS	900	3	3	6	11	9	6	5	5
-080QS	900	3	3	6	11	9	6	5	5
-090QS	1150	3	3	7	11	9	5	5	5
-100QS	1150	3	3	7	11	8	5	5	4
-125QS	1150	3	3	7	11	8	5	4	4
-140QS	1150	3	4	7	10	7	5	4	4
-153QS	1500	4	4	8	10	7	5	4	4
-160QS	1800	4	4	8	10	7	5	4	4
-180QS	1800	4	4	8	10	7	4	4	3
-200QS	1800	4	4	8	10	6	4	4	3
C2-Dia. 2 Diameters Long (nom.)									
-031QS	600	3	5	7	13	18	13	10	9
-035QS	600	3	5	8	13	18	13	10	9
-040QS	900	3	5	8	13	18	14	11	9
-045QS	900	3	5	8	14	18	14	11	9
-050QS	1150	3	5	8	15	18	13	11	8
-056QS	1150	4	5	9	15	18	13	11	8
-063QS	1150	4	6	9	18	19	13	11	7
-071QS	1500	4	6	10	18	19	13	11	7
-080QS	1500	4	6	10	18	19	13	11	7
-090QS	1800	4	6	11	18	16	10	9	7
-100QS	1800	5	6	11	18	16	10	9	7
-125QS	2400	5	6	11	18	15	10	9	8
-140QS	2400	6	7	12	18	15	9	8	7
-153QS	3000	7	7	12	17	14	9	6	6
-160QS	3600	7	7	12	17	14	9	6	6
-180QS	3600	7	7	12	17	14	8	6	6
-200QS	3600	7	7	12	17	14	8	6	6

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FEATURES (contd.)

Testing
The complete range of Q-Seal circular attenuators are based on performance tests to BS4718:1971.

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.

Pressure Loss
Refer to page *H-8.*

Weights
Q-Seal circular attenuators are 15% lighter than standard circular type attenuators.

Refer to page *H-8* for circular attenuators weights.

Selection Procedure
Refer to page *H-11.*

Refer to page *H-6/7*.

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.)									
-031QS	300	3	5	7	11	17	15	11	10
-035QS	300	3	5	7	11	17	15	11	10
-040QS	600	3	5	7	12	18	15	11	9
-045QS	600	3	5	7	13	18	15	11	9
-050QS	600	3	5	7	13	18	15	11	8
-056QS	600	3	5	7	13	18	15	11	8
-063QS	600	3	5	8	15	18	15	11	8
-071QS	900	4	5	8	15	18	15	11	8
-080QS	900	4	5	8	15	20	13	11	8
-090QS	1150	4	5	9	17	17	13	9	8
-100QS	1150	4	5	10	17	16	11	9	7
-125QS	1150	4	5	10	17	16	11	9	7
-140QS	1150	4	5	10	16	15	11	9	6
-153QS	1500	4	5	10	15	14	10	7	6
-160QS	1800	4	5	10	15	14	10	7	6
-180QS	1800	4	5	10	15	14	10	7	6
-200QS	1800	4	5	10	15	14	10	7	6
C2P-Dia. 2 Diameters Long (nom.)									
-031QS	600	5	7	11	19	25	23	17	15
-035QS	600	5	7	11	19	25	23	17	15
-040QS	900	5	7	11	19	26	23	18	16
-045QS	900	5	7	11	19	26	23	18	16
-050QS	1150	6	8	11	21	27	24	19	15
-056QS	1150	6	8	11	21	27	24	19	15
-063QS	1150	6	9	13	25	29	26	20	14
-071QS	1500	7	9	13	25	30	26	19	14
-080QS	1500	7	9	13	25	30	26	19	14
-090QS	1800	7	9	14	24	25	22	16	13
-100QS	1800	7	9	15	24	26	22	16	13
-125QS	2400	7	9	15	24	25	22	15	12
-140QS	2400	8	10	16	23	25	21	13	11
-153QS	3000	8	11	17	23	25	21	13	11
-160QS	3600	8	11	17	23	25	21	13	11
-180QS	3600	8	11	17	23	25	21	13	11
-200QS	3600	8	11	17	23	25	21	13	11

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