# **DEC INTERNATIONAL TECHNICAL SPECIFICATIONS**



**CONNECTDEC** Type **AKUDEC** SEMI FLEXIBLE SOUND ATTENUATORS



The CONNECTDEC TYPE AKUDEC semi flexible sound attenuator consists of a corrugated perforated aluminium innerduct and provided with an aluminium/polyester laminated outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material. The duct is standard fitted with galvanized metal sleeves at both ends to fit to any rigid ductwork or appliance instantly. Choice between: (Fit according to EN1506)

Type 1) Male – Male Type 2) Male – Female Type 3) Female – Female Article code: AKU(1,2,or3){Ø}/Length e.g. AKU3100/1,0 (type 3 Ø100mm)

# THE SOLUTION to over bridge inaccuracy in measurements. Saves installation time and material

# APPLICATIONS

- Female can be combined immediately with our air valves (e.g. Rondo, DAV or DVSC)
- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

# SPECIFICATIONS

Article code: Temperature range: Inner duct: Outer jacket Operating pressure: Operating air velocity: Min. bending radius: Standard diameter range: 80 - 315 mm Standard length:

-30 °C to 250 °C -30 °C to 140 °C up to +2000 Pa max. 10 m/s 1 x Ø + 25mm 0,5+1,0 mtr

AKU(1,2,3){Ø}/L

# CONSTRUCTION

Inner duct:
Barrier
Glass wool blanket:
Outer jacket:
R-value glass wool:

Appearance:

# **CLASSIFICATIONS**

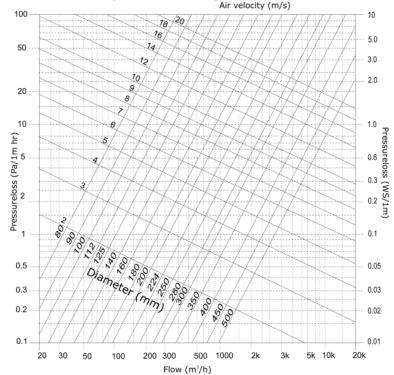
EU (EN 13501-1):	
Innerduct:	
OuterJacket:	

# Aluminium Nonwoven cloth 25mm, 16kg/m<sup>3</sup>

Alu/poly laminate 0.65 m<sup>2</sup> K/W (ASTM C177-76) aluminium

A1 B-s1,d0

# PRESSURE LOSS (STRAIGHT DUCT)



The **CONNECTDEC TYPE AKUDEC** fulfills all the requirements and are classified as specified within EN 13180: Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.

The CONNECTDEC TYPE AKUDEC is also available, on request, with a 50 mm glass wool layer, the article number is:  $AKU(1,2,3)5\{\emptyset\}$ R-value glass wool: 1.3 (50 mm) m<sup>2</sup> K/W (ASTM C177-76).

### LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

## PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

### TRADEMARKS:

CONNECTDEC, AKUDEC, the DEC logo and DEC International are trademarks, or registered trademarks Dutch Environment Corporation BV in the Netherlands and/or other



The CONNECTDEC ducts are not suitable for discharging combustion products from open fireplaces and oilfired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

RESTRICTIONS

# **DEC INTERNATIONAL TECHNICAL SPECIFICATIONS**





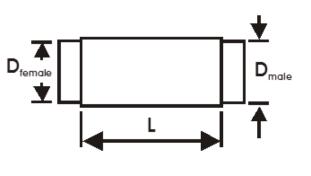
# **CONNECTDEC** Type **AKUDEC**



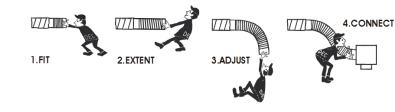
SEMI FLEXIBLE SOUND ATTENUATORS

# DIMENSIONS **Metal sleeves**

According to EN-1506							
D <sub>nom</sub> (mm)	D <sub>female</sub> (mm)	D <sub>male</sub> (mm)	Tol.				
080	80.5	79.3	+0;-0.5				
100	100.5	99.3	+0;-0.5				
125	125.5	124.3	+0;-0.5				
150	150.6	149.3	+0;-0.6				
160	160.6	159.3	+0;-0.6				
180	180.6	179.3	+0;-0.6				
200	200.7	199.3	+0;-0.7				
250	250.8	249.3	+0;-0.8				
315	315.9	314.3	+0;-0.9				



# **HOW TO INSTALL:**



# SOUND ATTENUATION According: ISO 7235

AKUDEC 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
Dn	L		Attenuation, dB - Mid-frequency, Hz						Di	
(mm)	(m)	63	125	250	500	1000	2000	4000	8000	(dB)
080	0.5	11.2	13.3	24.1	29.7	27.2	33.4	32.9	23.5	30
100	0.5	11.9	11.4	22.6	26.8	22.1	29.2	25.8	16.7	26
125	0.5	6.3	7.1	15.2	19.9	20.3	26.1	17.1	12.9	22
150	0.5	8.3	9.3	17.8	19.4	16.7	25	19.8	13.8	21
160	0.5	10.2	11.3	21.5	17.9	15.5	22.6	15.7	12.1	19
200	0.5	9.2	10	17.3	14.3	12.9	15.8	12	8.2	14
250	0.5	10.2	9.8	14.6	11.7	10.8	14.3	8	7.1	12
315	0.5	9.2	11.4	12	9.4	8.3	8	4.7	5.3	8
Dn	L		Attenuation, dB - Mid-frequency, Hz						Di	
(mm)	(m)	63	125	250	500	1000	2000	4000	8000	(dB)
080	1.0	13.8	20.2	39.3	38.6	36	41.8	52.4	40.2	39
100	1.0	9.5	14.5	28.6	37.4	35.6	39.8	44.3	29.5	36
125	1.0	12.4	20.1	33.6	29.8	29.5	33.6	32.1	23.6	32
150	1.0	11.1	11.8	34.2	28.5	26.3	34.9	27.2	21.8	30
160	1.0	14.6	19.1	31.1	27	24.7	32.5	24	18.7	29
200	1.0	11.1	14.6	29.5	20.7	21	30	17.7	13.2	23
250	1.0	14.2	21.7	23.1	18.9	18.4	25.7	11.4	10.1	20
315	1.0	10.8	21.9	17.9	15.5	17.7	16.7	9.2	9.3	17

 $D_i$  = Average attenuation

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