

UEMWS Overflow element for high air volumes

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PERFORMANCE DATA

- Air volumes:
 UEMWS-...-2-... up to 430 m³/h
 UEMWS-...-3-... up to 1000 m³/h
 UEMWS-...-4-... up to 1175 m³/h

- Normalised sound level difference $D_{n,e,w}$:
 UEMWS-...-2-... → 51-52 dB
 UEMWS-...-3-... → 52-57 dB
 UEMWS-...-4-... → 52-59 dB

SPECIAL FEATURES

- UEMWS-D-... for installation in ceilings (concealed installation)
- UEMWS-S-... for installation in cabinets, furniture and dry-wall systems (concealed installation)
- UEMWS-W-... for installation in wall (visible installation)

FUNCTION AND USE

The SCHAKO UEMWS is an overflow element for large air volumes where there are also high soundproofing requirements. It is used for the ventilation of rooms, with the return air flowing into adjacent rooms where it is extracted centrally. Soundproofing and sound transmission play a major role here. It is very commonly used in schools, nurseries, open-plan offices and meeting rooms. The UEMWS can be installed visibly as a wall-mounted overflow element or as a concealed model in furniture and ceilings.

By using the SCHAKO UEMWS overflow element, air ducts and air routing systems are reduced to a minimum, which can result in considerable cost savings.

The SCHAKO UEMWS overflow element minimises the duct system, an overflow of up to 1175 m³/h with maximum soundproofing is possible. With the UEMWS, SCHAKO use a sound insulation system that combines the functions of sound insulation and sound dampening.

MODELS

UEMWS-D-...	for installation in ceilings
UEMWS-S-...	for installation in cabinets, furniture and drywall systems
UEMWS-W-...	for installation in walls

PROCESSING

Base body

- Galvanised sheet steel (-SV)

Outer box

- Galvanised sheet steel (-SV-0000) (only for -W, standard)
- Painted sheet steel (-SB) (only for -W)
 - painted to the RAL colour 9010 (-SB-9010)
 - painted to a freely selectable RAL colour (-SB-xxxx, always with 4 digits)

Air diffusers 10 - 15 / 10 - 15

- Galvanised sheet steel (-SV-0000) (standard)
- Painted sheet steel (-SB) (only for -W-...-10-xx-... & -W-...-xx-10-...)
- Painted to the RAL colour of the outer box

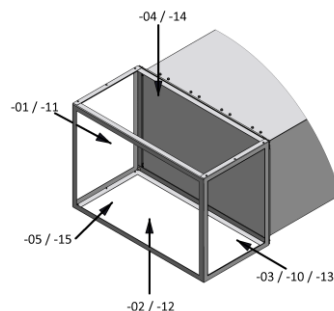
ACCESSORIES

Multi-leaf damper type UNK (only for -S-...-03-xx-...)

- airtight model (-SL) (standard)
- galvanised sheet steel (-SV)
- actuator
 - without actuator, with mounted locking device (standard) (-0000)
 - with electric actuator (2/3-point), 5 Nm, 24 V AC/DC (-E044)
 - with electric actuator (2/3-point), 5 Nm, 230 V AC (-E045)
- with frame bore

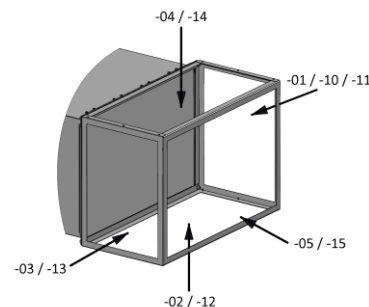
QUICK SELECTION OF AIR DIFFUSERS 1 / 2

Air diffuser 1



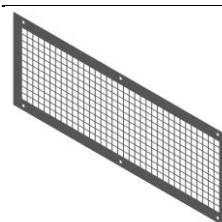
- 10 Model -W with outer box and perforated sheet grille (standard for -W model)
- 01 Position 1 without grille (not possible if air diffuser 2 = 10, see p. 4)
- 02 Position 2 without grille
- 03 Position 3 without grille (standard for -S model)
- 04 Position 4 without grille (standard for -D model)
- 05 Position 5 without grille
- 11 Position 1 with grille
- 12 Position 2 with grille
- 13 Position 3 with grille
- 14 Position 4 with grille
- 15 Position 5 with grille

Air diffuser 2



- 10 Model -W with outer box and perforated sheet grille (standard for -W model)
- 01 Position 1 without grille (standard for -S model)
- 02 Position 2 without grille
- 03 Position 3 without grille (not possible if air diffuser 1 = 10, see p. 4)
- 04 Position 4 without grille (standard for -D model)
- 05 Position 5 without grille
- 11 Position 1 with grille
- 12 Position 2 with grille
- 13 Position 3 with grille
- 14 Position 4 with grille
- 15 Position 5 with grille

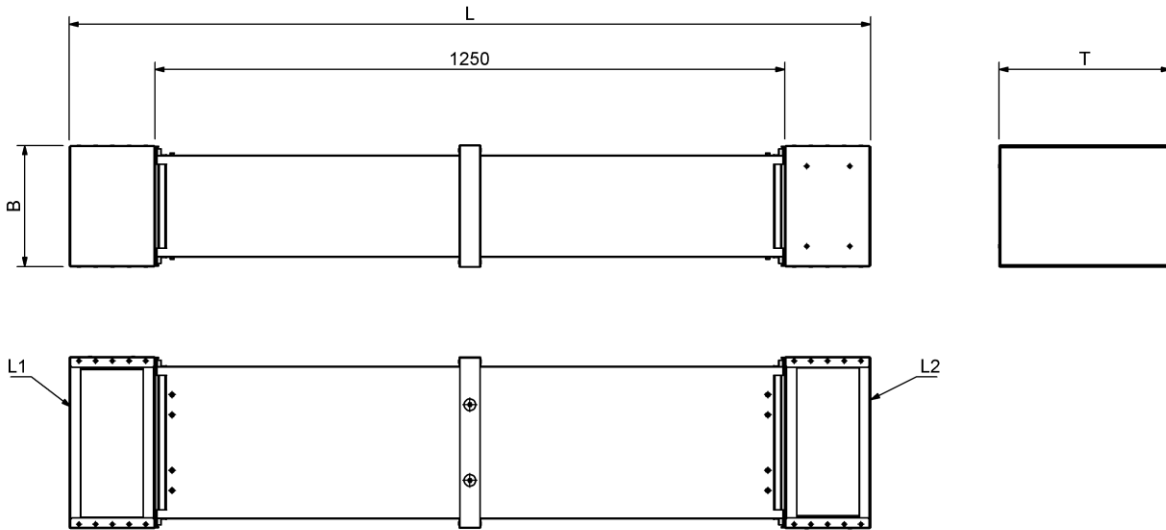
Grille for models 11-15



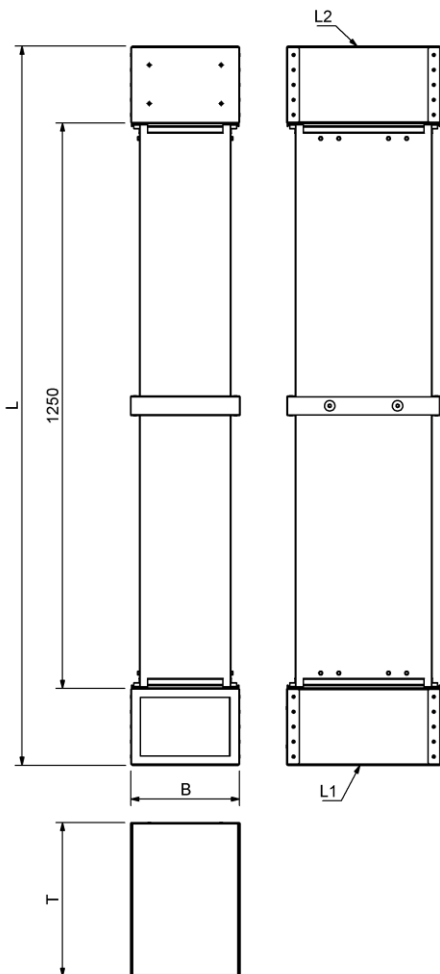
Mounting examples see p. 6

DIMENSIONS

For installation in ceilings (UEMWS-D-...-04-04-...)



For installation in cabinets, furniture and drywall systems (UEMWS-S-...-03-01-...)



Available sizes UEMWS-D/-S-...

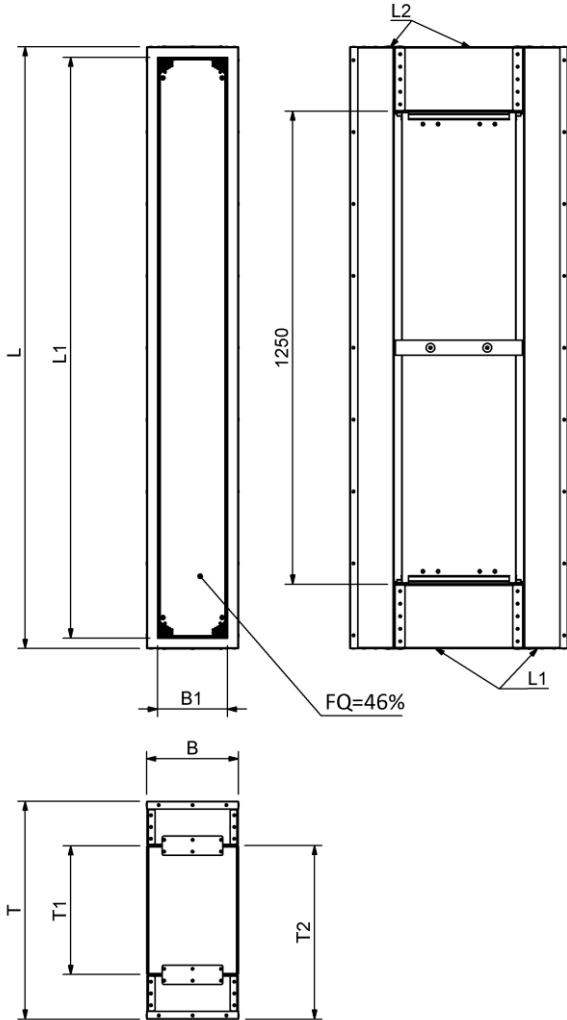
	Model							
	-2-1	-2-2	-3-1	-3-2	-3-3	-4-1	-4-2	-4-3
T	340	340	490	490	490	640	640	640
B	240	340	240	340	440	240	340	440
L	1590	1590	1750	1750	1750	1890	1890	1890

All dimensions in mm.
 Special sizes not possible.

- L1 = Air diffuser 1
- L2 = Air diffuser 2

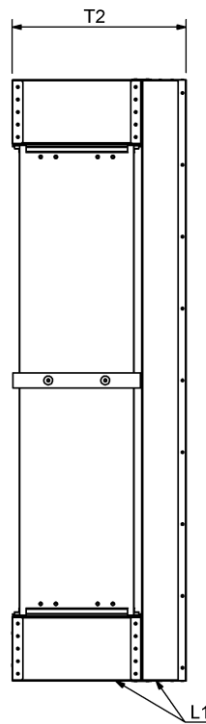
for installation in wall (UEMWS-W-...-10-10-...)

Model when selecting air diffusers 1 & 2 = 10



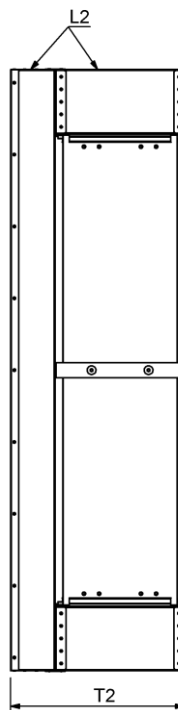
UEMWS-W-...-10-xx-...

Model when selecting air diffuser 1 = 10



UEMWS-W-...-xx-10-...

Model when selecting air diffuser 2 = 10



Available sizes UEMWS-W-...

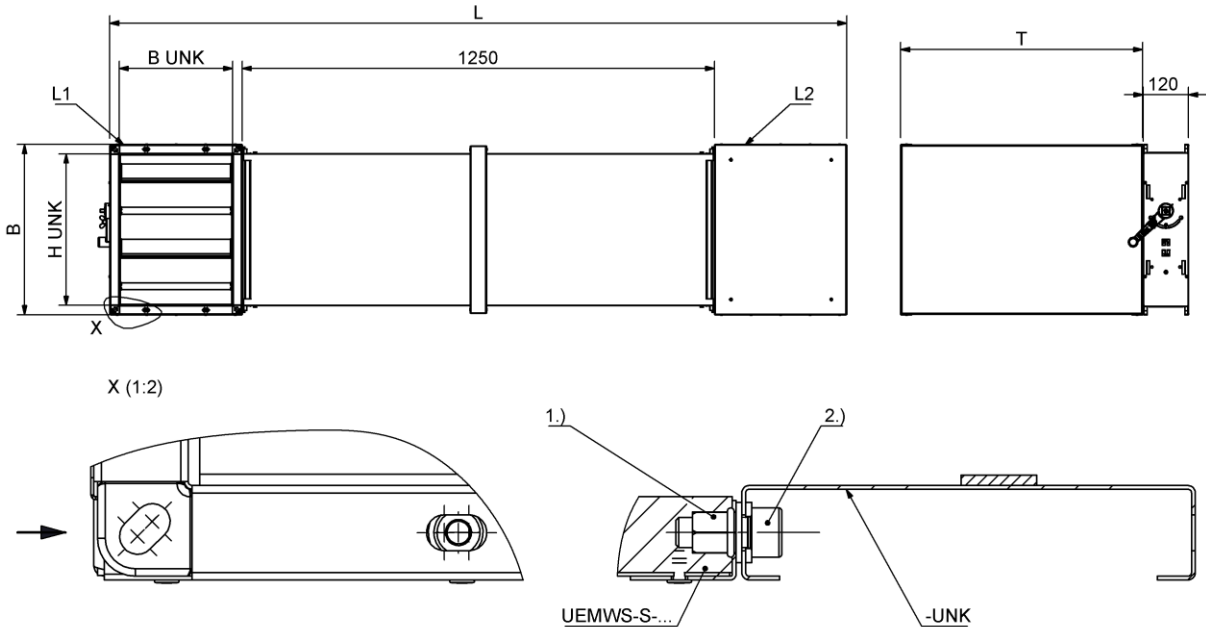
	Model							
	-2-1	-2-2	-3-1	-3-2	-3-3	-4-1	-4-2	-4-3
T	580	580	780	780	780	1040	1040	1040
T1	340	340	490	490	490	640	640	640
T2	460	460	635	635	635	840	840	840
B	240	340	240	340	440	240	340	440
B1	180	280	180	280	380	180	280	380
L	1590	1590	1750	1750	1750	1890	1890	1890
L1	1530	1530	1690	1690	1690	1830	1830	1830

All dimensions in mm.
 Special sizes not possible.

- L1 = Air diffuser 1
- L2 = Air diffuser 2

DIMENSIONS OF ACCESSORIES

UEMWS-S-...-03-xx-... with UNK-SL-S-...



Available sizes UEMWS-S-... with UNK-SL-S-...

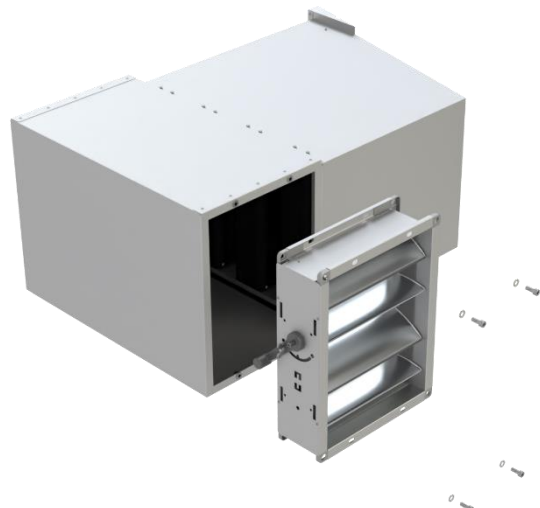
	Model							
	-2-1	-2-2	-3-1	-3-2	-3-3	-4-1	-4-2	-4-3
T	340	340	490	490	490	640	640	640
B	250	350	250	350	450	250	350	450
L	1750	1750	1750	1750	1750	1950	1950	1950
B UNK	200	200	200	200	200	300	300	300
H UNK	200	300	200	300	400	200	300	400

All dimensions in mm.
 Special sizes not possible.

- 1.) Riveting nut M8
- 2.) Cylinder screw M8 x 20
- L1 = Air diffuser 1
- L2 = Air diffuser 2

Mounting the multi-leaf damper UNK

The UNK multi-leaf damper is mounted on site using M8x20 cylinder screws and washers on the M8 riveting nuts pre-mounted in the UEMWS.



Grille for air diffusers 1 / 2

- 11 Position 1 with grille
- 12 Position 2 with grille
- 13 Position 3 with grille
- 14 Position 4 with grille
- 15 Position 5 with grille

Available sizes UEMWS-...-xx-xx-...

	Model							
	-2-1	-2-2	-3-1	-3-2	-3-3	-4-1	-4-2	-4-3
T	340	340	490	490	490	640	640	640
B	240	340	240	340	440	240	340	440
L	1590	1590	1750	1750	1750	1890	1890	1890

All dimensions in mm.

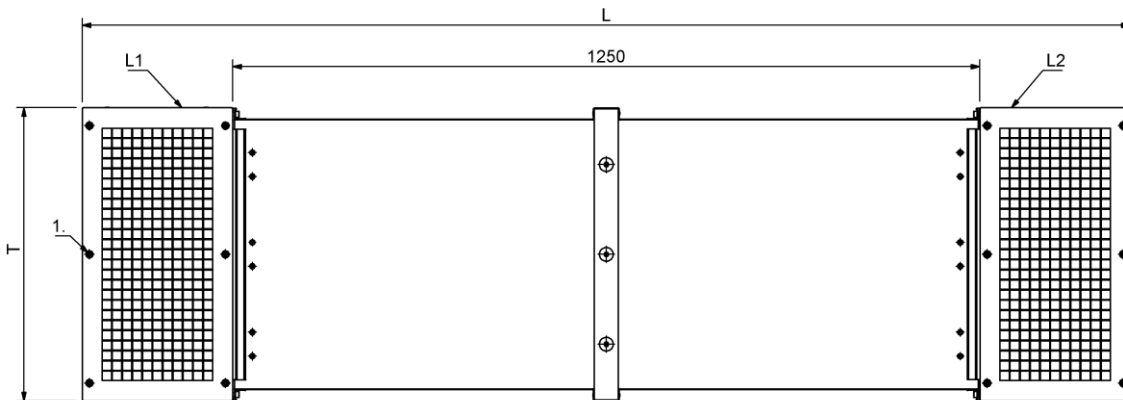
Special sizes not possible.

1.) Additional screws from a depth of -3

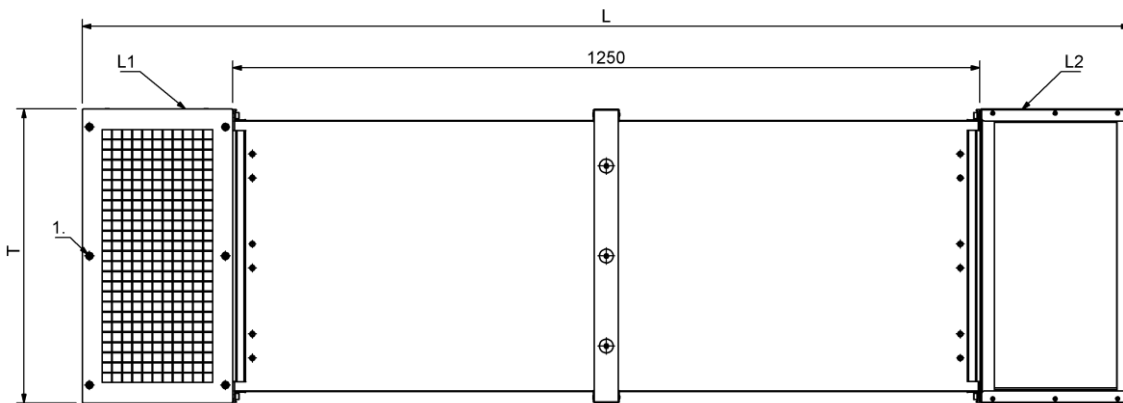
L1 = Air diffuser 1

L2 = Air diffuser 2

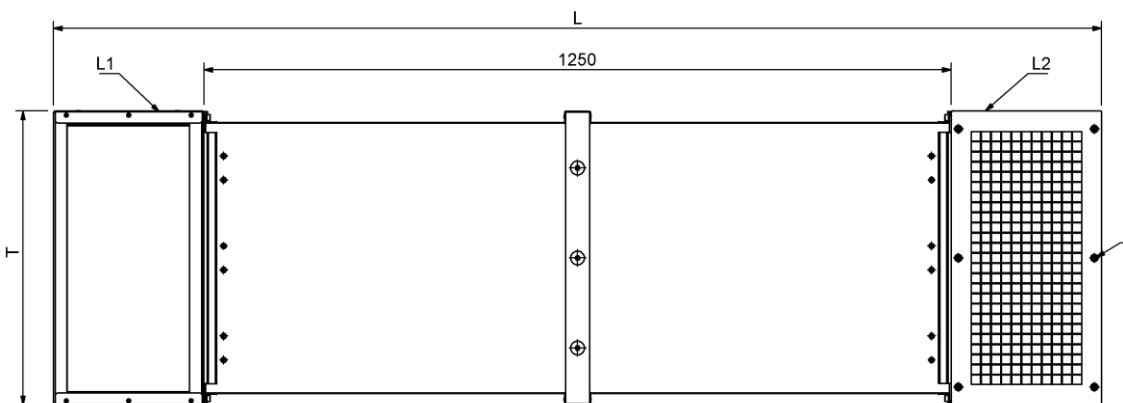
UEMWS-...-xx-xx-... (Fig. UEMWS-...-14-14-...)



UEMWS-...-xx-xx-... (Fig. UEMWS-...-14-04-...)



UEMWS-...-xx-xx-... (Fig. UEMWS-...-04-14-...)



MOUNTING

Mounting is carried out on site by means of a drywall system; for installation in the ceiling, we recommend the use of mounting rails, for example the FUS mounting rail from Fischerwerke GmbH & Co. KG.

INSTALLATION INSTRUCTIONS

see additional technical documentation "Installation information UEMWS"

TECHNICAL DATA

The technical data apply to all models.

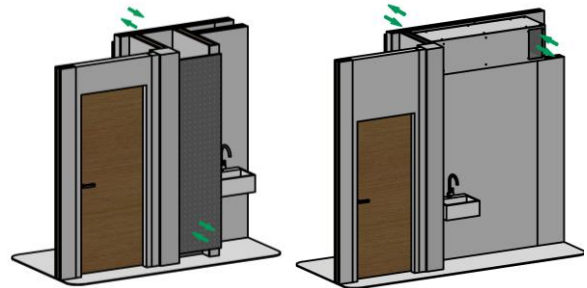
Normalised sound level difference measured according to EN ISO 10140:

All secondary sound channels must be eliminated on site during installation, see additional technical documentation "Installation information UEMWS".

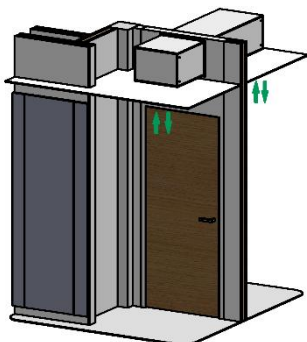
Calculation of the acoustic properties for air sound insulation between rooms is provided in EN-ISO-12354-1.

Normalised sound level difference / pressure difference / air volume

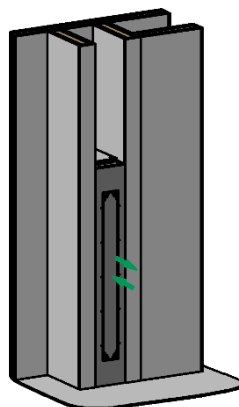
UEMWS-S-...-03-01-... (installation in cabinets, furniture and drywall systems)



Type	D _{n,e,w} (dB)	Air volume (m ³ /h) / pressure loss (Pa)		
		10 Pa	15 Pa	20 Pa
UEMWS-S-2-1-...	52	198	242	280
UEMWS-S-2-2-...	51	305	374	432
UEMWS-S-3-1-...	56	340	414	480
UEMWS-S-3-2-...	56	495	610	710
UEMWS-S-3-3-...	56	700	863	1000
UEMWS-S-4-1-...	58	425	519	600
UEMWS-S-4-2-...	57	630	779	890
UEMWS-S-4-3-...	57	825	1021	1175

UEMWS-D-...-04-04-... (installation in ceilings)


Type	D _{n,e,w} (dB)	Air volume (m ³ /h) / pressure loss (Pa)		
		10 Pa	15 Pa	20 Pa
UEMWS-D-2-1-...	52	198	242	280
UEMWS-D-2-2-...	51	305	374	432
UEMWS-D-3-1-...	53	340	414	480
UEMWS-D-3-2-...	52	495	610	710
UEMWS-D-3-3-...	52	700	863	1000
UEMWS-D-4-1-...	53	425	519	600
UEMWS-D-4-2-...	52	630	779	890
UEMWS-D-4-3-...	52	825	1021	1175

UEMWS-W-...-10-10-... (installation in walls)


Type	D _{n,e,w} (dB)	Air volume (m ³ /h) / pressure loss (Pa)		
		10 Pa	15 Pa	20 Pa
UEMWS-W-2-1-...	52	160	196	230
UEMWS-W-2-2-...	51	240	299	350
UEMWS-W-3-1-...	57	210	259	300
UEMWS-W-3-2-...	57	325	400	465
UEMWS-W-3-3-...	56	450	539	625
UEMWS-W-4-1-...	59	425	519	600
UEMWS-W-4-2-...	58	495	605	690
UEMWS-W-4-3-...	57	575	708	820

LEGEND

- FQ (%) = Free cross-section
 D_{n,e,w} (dB) = Standardised sound level difference, weighted according to EN ISO 717-1

ORDER CODE UEMWS

01	02	03	04	05	06
Type	Installation situation	Depth	Width	Air diffuser 1	Air diffuser 2
Example					
UEMWS	-W	-2	-1	-10	-10

07	08	09
Base body material	Outer body material	Outer body paint
Example		
-SV	-SV	-0000

Sample
UEMWS-W-2-1-10-10-SV-SV-0000

Overflow element with sound-absorbing baffles | for installation in walls | D = 780 mm | width 1 | -W model with outer box and perforated sheet grille | -W model with outer box and perforated sheet grille | galvanised sheet steel | galvanised sheet steel | without paint

ORDER DETAILS
01 - Type

UEMWS = overflow element with sound-absorbing baffles

02 - Installation situation

D = for ceiling installation (concealed installation)
 S = for installation in cabinets/furniture and drywall systems (concealed installation)
 W = for installation in walls (visible installation) (air diffusers 1 or 2 must be -10)

03 - Depth

2 = D = 340 mm (only -D/ -S) / D = 580 mm (only -W)
 3 = D = 490 mm (only -D/ -S) / D = 780 mm (only -W)
 4 = D = 640 mm (only -D/ -S) / D = 1040 mm (only -W)

04 - Width

1 = width 1 (for dimensions for each installation situation, see p. 3-5)
 2 = width 2 (for dimensions for each installation situation, see p. 3-5)
 3 = width 3 (for dimensions for each installation situation, see p. 3-5) (not possible for depth -2)

05 - Air diffuser 1

10 = Model -W with outer box and perforated sheet grille (only possible for -W model)
 01 = Position 1 without grille (not possible if air diffuser 2 = 10, see p. 4)
 02 = Position 2 without grille
 03 = Position 3 without grille (standard for -S)
 04 = Position 4 without grille (standard for -D)
 05 = Position 5 without grille
 11 = Position 1 with grille
 12 = Position 2 with grille
 13 = Position 3 with grille
 14 = Position 4 with grille
 15 = Position 5 with grille

06 - Air diffuser 2

10 = Model -W with outer box and perforated sheet grille (only possible for -W model)
 01 = Position 1 without grille (standard for -S)
 02 = Position 2 without grille
 03 = Position 3 without grille (not possible if air diffuser 1 = 10, see p. 4)
 04 = Position 4 without grille (standard for -D)
 05 = Position 5 without grille
 11 = Position 1 with grille
 12 = Position 2 with grille
 13 = Position 3 with grille
 14 = Position 4 with grille
 15 = Position 5 with grille

07 - Base body material

SV = galvanised sheet steel (standard)

08 - Outer box material

00 = without outer box (only -D/ -S)
 SV = galvanised sheet steel (only for -W) (standard)
 SB = painted sheet steel (only for -W)

09 - Outer box paint

0000 = without paint (only for -00/ -SV) (standard)
 9010 = painted to the RAL colour 9010
 xxxx = painted to a freely selectable RAL colour (only for -W-...-SB-...) (always with 4 digits)

ORDER CODE UNK

01	02	03	04	05	06	07
Type	Model	Installation situation	Depth	Width	Material	Actuator
Example						
UNK	-SL	-S	-3	-2	-SV	-E044

Sample

UNK-SL-S-3-2-SV-E044

Multi-leaf damper type UNK | airtight | for installation in cabinets/furniture and ceiling | D = 490 mm | W = 350 mm | galvanised sheet steel | 5 Nm, 24 V AC/DC

ORDER DETAILS

01 - Type

UNK = multi-leaf damper type UNK

02 - Model

SL = airtight

03 - Installation situation

S = for installation in cabinets/furniture and drywall systems (concealed installation)

04 - Depth

- 2 = D = 340 mm (only -S)
- 3 = D = 490 mm (only -S)
- 4 = D = 640 mm (only -S)

05 - Width

- 1 = W = 250 mm
- 2 = W = 350 mm
- 3 = W = 450 mm (not possible for depth -2)

06 - Material

SV = galvanised sheet steel (standard)

07 - Actuator

0000 = without actuator, with mounted locking device (standard)

Actuator, 2/3-point

E044 = 5 Nm, 24 V AC/DC

E045 = 5 Nm, 230 V AC

SPECIFICATION TEXT

SCHAKO overflow elements with integrated sound insulation system for increased soundproofing with air volumes of up to 1175 m³/h.

For installation in solid walls, wooden walls, drywalls, suspended ceilings or for furniture systems to prevent cross-talk sound and voice transmission through the wall in two adjacent rooms.

Suitable for passive and active overflow.

Normalised sound level difference $D_{n,e,w} = 51$ dB up to 59 dB tested according to EN ISO 10140, weighted according to EN ISO 717-1.

Passive overflows **up to 1175 m³/h**, low maintenance, in accordance with the hygiene requirements of VDI 6022.

By using the SCHAKO UEMWS overflow element, air ducts and air routing systems are reduced to a minimum, which can result in considerable cost savings.

For alternative products, proof of equivalence and technical data must be provided.

Product: SCHAKO type UEMWS-...

Installation situation:

- for installation in ceilings (concealed installation) (-D)
- for installation in cabinets, furniture and drywall systems (concealed installation) (-S)
- for installation in walls (visible installation) (-W)

Depth:

- D = 340 mm (only -D/ -S) / D = 580 mm (only -W) (-2)
- D = 490 mm (only -D/ -S) / D = 780 mm (only -W) (-3)
- D = 640 mm (only -D/ -S) / D = 1040 mm (only -W) (-4)

Width:

- width 1 => W = 240 mm (without UNK) / W = 250 mm (with UNK) (-1)
- width 2 => W = 340 mm (without UNK) / W = 350 mm (with UNK) (-2)
- width 3 => W = 440 mm (without UNK) / W = 450 mm (with UNK) (not possible for depth -2) (-3)

Air diffusers 1 / 2:

- with outer box and perforated sheet grille (only for -W) (-10-10) with removable perforated sheet grille in the outer box
- without grille (models 01-05)
- with grille (models 11-15)

Base body material:

- Galvanised sheet steel (standard) (-SV)
 - without paint (-0000)

Outer body material: (only for -W):

- Galvanised sheet steel (standard) (-SV)
 - without paint (-0000)
- Painted sheet steel (-SB)
 - painted to RAL colour 9010 (-9010) (white)
 - to a freely selectable RAL colour (-xxxx) (always with 4 digits)

Accessories:

- Multi-leaf damper (-UNK)
 - Model:
 - airtight (-SL)
 - Installation situation:
 - for installation in cabinets, furniture and drywall systems (concealed installation) (-S).
 - Depth:
 - T = 340 mm (-2)
 - T = 490 mm (-3)
 - T = 640 mm (-4)
 - Width:
 - B = 250 mm (-1)
 - B = 350 mm (-2)
 - B = 450 mm (-3)
 - Galvanised sheet steel (standard) (-SV)
 - Actuator:
 - without actuator, with mounted locking device (standard) (-0000) actuator, 2/3-point
 - 5 Nm, 24 V AC/DC (-E044)
 - 5 Nm, 230 V AC (-E045)