



## Exhaust air vent, square

as-e 90°/135°

✓ Straightforward installation

✓ Protection against leaves and small animals

✓ Weather resistance

### Product information

DL suction and exhaust air vents are suitable as an easy alternative for outside air intake and routing exhaust air. In order to prevent foreign bodies and small animals from entering the system, a bird protection grille is fitted onto the opening of the outlet.

A connector profile is fitted as standard with the square model to hold it securely in place. DL suction and exhaust air vents are available with a radius of either 90° or 135°.

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel  
Copper

#### Pressure rating

/

#### Leakage class

/

#### Dimensions

Width: min. 200 mm/max. on request  
Height: min. 200 mm/max. on request

#### Recommended air velocity

Exhaust air max. 8 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-40°C to +100°C

### Order code legend

#### Order code

AB-E-W-A-B-A-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm (AxB)

A – channel measurement  
B – channel measurement

#### Connector (A)

P20  
P30  
Angular frame

#### Optional (o)

Lock-seam joints  
Welded  
RB...x...mm – Frame bores... x ...  
mm  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories.

Rain hood  
Roof duct

#### Example

Exhaust air vent, galvanised, 500 x 400 P20

#### Order code

AB-E VZ-500x400 P20



## Exhaust air vent, round ab-r 90°/135°

- ✓ Straightforward installation
- ✓ Protection against leaves and small animals
- ✓ Weather resistance

### Product information

DL suction and exhaust air outlets are suitable as an easy alternative for outside air intake and routing exhaust air. In order to prevent foreign bodies and small animals from entering the system, a bird protection mesh is fitted onto the opening of the outlet.

The round model is fitted as standard using a clip-in connector that fastens with metal ribbing. DL suction and exhaust air outlets are available with a radius of either 90° or 135°.

### Technical data

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Pressure rating</b>	/
<b>Leakage class</b>	/
<b>Dimensions</b>	min. DN 100/ max. DN 1250 > on request
<b>Recommended air velocity</b>	Exhaust air max. 8 m/s
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Temperature resistance</b>	-40°C to +100°C

### Order code legend

<b>Order code</b>	AB-R-W-A-B-A-O	<b>Optional (o)</b>	Lock-seam joints Welded
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A CU – copper	<b>RB...x...mm</b> – Frame bores... x ... mm <b>P-RAL...</b> – powder coating <b>L-RAL...</b> – painting RAL colour of choice	<b>Accessories.</b> Rain hood Roof duct Crane eyelets
<b>Opening in mm</b>	D – Diameter		
<b>Connector</b>	Smooth Seal Edge Flange		

<b>Example</b>	Exhaust air vent, galvanised, DN500 edge
<b>Order code</b>	AB-R-VZ-500-Bord

## Exhaust air nozzle, square



✓ Straightforward installation

✓ Speedy disassembly to enable cleaning

✓ Ventilation in all weathers

### Product information

DL suction and exhaust air nozzles in a square design are suitable for exhaust and incoming air; they are deployed in ventilation systems and building facades, where they serve to protect pipelines against small animals and rough dirt thanks to the bird protection grille fitted as standard.

The nozzles are available with an angle of inclination of 45° to 90°. A connector profile is fitted as standard to hold this model firmly in place.

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel  
Copper

#### Pressure rating

/

#### Leakage class

/

#### Dimensions

Width: min. 200 mm/max. on request  
Height: min. 200 mm/max. on request

#### Recommended air velocity

Exhaust air max. 8 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-40°C to +100°C

### Order code legend

#### Order code

AS-E-W-A-B-A-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm

A – channel measurement  
B – channel measurement

#### Connector (A)

P20  
P30  
Angular frame

#### Optional (o)

Lock-seam joints  
Welded  
RB...x...mm – Frame bores... x ...  
mm  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories.

Wall rosette  
Crane eyelets

#### Example

Exhaust air nozzles, galvanised, 500 x 400

#### Order code

AS-E VZ-500x400

## Exhaust air nozzles, round

as-r 45°/90°



✓ Straightforward installation

✓ Speedy disassembly to enable cleaning

✓ Low pressure loss

✓ Speedy adjustment

### Product information

DL suction and exhaust air nozzles in a round design are suitable for exhaust and incoming air; they are deployed in ventilation systems and building facades, where they serve to protect pipelines against small animals and rough dirt thanks to the bird protection grille fitted as standard.

They are mounted as standard using the smooth clip-in edge with metal ribbing. The nozzles are available with an angle of inclination of 45° or 90°.

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel  
Copper

#### Pressure rating

/

#### Leakage class

/

#### Dimensions

min. DN 100/ max. DN 1250 > on request

#### Recommended air velocity

Exhaust air max. 8 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-40°C to +100°C

### Order code legend

#### Order code

AS-R-° W-D1-A-O  
AS-R45  
AS-90°

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm

D – Diameter

#### Connector

Smooth  
Seal  
Edge  
Flange

#### Optional (o)

Lock-seam joints  
Welded  
Edge

#### Material (M)

Flange Rh.  
Lip seal  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories.

Wall rosette

#### Example

Exhaust air nozzle, galvanised, DN 1250

#### Order code

AS-R 90° VZ-1250

## Acoustic weather protection grille

awsq



✓ Reduction of noise emissions

✓ Free choice of dimensions

✓ Low pressure difference thanks to aerodynamic slats

✓ Larger cross-sections without separation

### Product information

DL acoustic weather protection grilles in a rectangular design are suitable for incoming and outgoing air; they are installed in building facades and ventilation systems. Thanks to their sound-absorbing cladding and low construction depth, they represent an effective solution when it comes to reducing noise emissions at suction/exhaust air openings. At the same time, the weather grille also protects against precipitation, foreign bodies and small animals. An optional insect protection grille can also be installed to supplement the protection offered by the horizontal slats and the bird protection grille. Loose brackets, included in delivery, are used to mount the acoustic

weather protection grille. In the event of extreme weather conditions (driving rain/snow), acoustic weather protection grilles do not offer complete protection against the entry of precipitation. In order to ensure even distribution of the flow speed between the slats, the maximum flow speeds set out in VDI 3803 1 (Air-conditioning – Structural and technical principles – Central air conditioning systems [VDI Ventilation Code of Practice])

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel  
Copper

#### Dimensions

Width: min. 200 mm/max. on request  
Height: min. 200 mm/max. on request  
Depth: 300 mm

#### Recommended air velocity

Outside air <2.0 m/s in the slat area  
Exhaust air <4 m/s in the slat area

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-40 °C to +100 °C

### Order code legend

#### Order code

AWSG W-B-H-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm (WxH)

W – width  
H – height  
Can be freely selected

#### Accessories.

Insect protection grille  
Installation frame  
Combination with multi-leaf damper or backdraft damper  
Frost protection  
Crane eyelets  
Combination with G3/G4 filter mats

#### Optional (o)

AL – cover strip, width 50 mm  
KS – splitter attenuator (for high acoustic requirements) RB...x...  
mm – frame bores... x ... mm  
E – installation frame, bracket frame 35 x 35 x 5 mm with corner holes. (with optional wall anchors – WA)  
ISG – with insect protection grille on reverse  
KÖ – crane eyelets  
JK ... – combination with multi-leaf damper model ...  
ES – frost protection 230 V, behind each slat  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

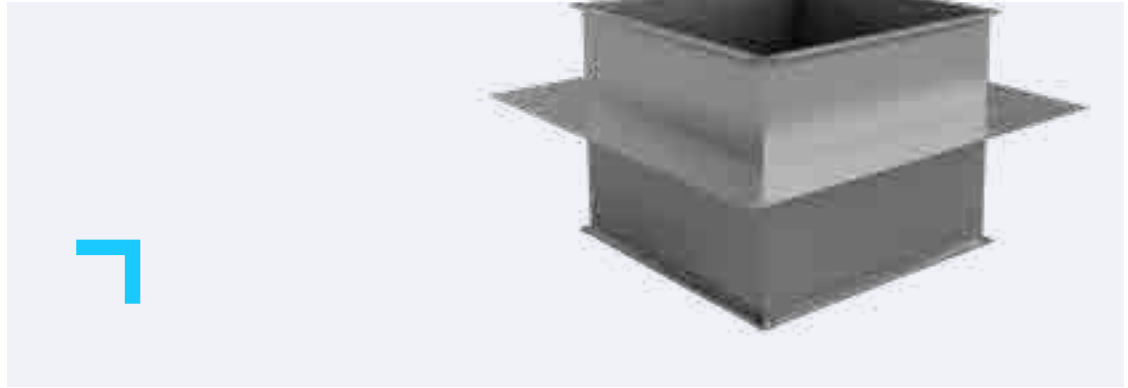
#### Example

Acoustic weather protection grille, galvanised, 500 x 400 with installation frame and insect protection grille

#### Order code

AWSG-VZ-500x400-E-ISG

**Roof duct**  
dd-e



- ✓ Free choice of dimensions
- ✓ For flat and sloping roofs
- ✓ Available in galvanised steel, aluminium/v2a and v4a stainless steel

**Product information**

DL roof ducts and roof curbs in a square design are used to route air ducts and to securely attach roof mounts and air ducts – and are suitable for installation in both flat and sloping roofs. The design is based on specific requirements. If the use case requires the secure accommodation of hood and wind loads, as well as the absorption of vibrations, by the roof duct, it will generally be built in a stable welded design. To ensure secure installation on the roof, the duct comes with a surrounding support flange. The air duct and hood are connected using a connector profile assembled as standard. The lock-seam joint version is suitable if the air duct needs to be routed through the roof. Here, the load is kept away from the roof structure and instead di-

verted to the channel ducts. Here too, the support flange facilitates safe installation. The DL roof mount, which enables the installation of ventilators and hoods on the roof, is always built using a welded design. To enable secure installation on the roof, the roof mount also comes with a support flange. Connection of the components is ensured as standard using an outward-facing fold.

**Technical data**

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Dimensions</b>	Width (A): min. 200 mm/max. on request Width (B): min. 200 mm/max. on request
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs
<b>Lock-seam joints</b>	For the routing of air ducts
<b>Welded</b>	For accommodating roof mounts

**Order code legend**

<b>Order code</b>	DD-E-D-W-B-H-A-O	<b>Optional (o)</b>	V – P30, P20
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs	<b>ISO50</b>	– insulation with 50 mm mineral wool, DIN EN 13501-1 A1
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A CU – copper	<b>AF19</b>	– insulation with 19 mm Armaflex
<b>Opening in mm (WxH)</b>	A – width B – width H – total height Can be freely selected	<b>DW</b>	– double-walled with insulation
<b>Connector (A)</b>	G – smooth P20 – profile frame with corner bracket P30 – profile frame with corner bracket P40 – profile frame with corner bracket	<b>SD</b>	– for sloping roofs, max. 45°
		<b>SW</b>	– welded version
		<b>P-RAL...</b>	– powder coating
		<b>L-RAL...</b>	– painting RAL colour of choice
		<b>Accessories.</b>	
		<b>BA</b>	– roof connection tape
		<b>KF</b>	– second adhesive flange, mobile
		<b>RG-E</b>	– rain hood

**Example**

Roof duct, square, flat roof, galvanised, 500 x 400 mm, P30

**Order code**

DD-E-FD-VZ-500x400-P30

**Roof duct**  
dd-r



**Product information**

DL roof ducts in a round design are used to route air ducts and to securely attach roof mounts and air ducts – and are suitable for installation in both flat and sloping roofs. The design is based on specific requirements.

To ensure secure installation on the roof, the duct comes with a surrounding support flange. If the round roof duct serves to connect air ducts or roof mounts, the roof duct comes with a lip seal as standard.

**Technical data**

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Diameter (DN)</b>	for standard diameters
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs
<b>Lock-seam joints</b>	For the routing of air ducts
<b>Welded</b>	For accommodating roof mounts

**Order code legend**

<b>Order code</b>	DD-R-D-W-DN-V-O	<b>Optional (o)</b>	ISO50 – insulation with 50 mm mineral wool, DIN EN 13501-1 A1
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs		AF19 – insulation with 19 mm Armaflex
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A		DW – double-walled with insulation
<b>For standard diameter in mm (DN)</b>	DN100, 1250 mm		SD – for sloping roofs, max. 45°
<b>Connection/pipe supports (V)</b>	G – smooth U – lip seal BS – flange for clamping ring FFB – R3 flat flange behind flange		SW – welded version P-RAL... – powder coating L-RAL... – painting RAL colour of choice
		<b>Accessories.</b>	BA – roof connection tape KF – second adhesive flange, mobile RG-E – rain hood

**Example**

Roof duct, round, flat roof, galvanised, DN 400 mm, smooth

**Order code**

DD-R-FD-VZ-DN400-G

## Roof hood, rectangular

dh-e



- ✓ Free choice of dimensions
- ✓ Lower pressure difference thanks to large suction areas
- ✓ Optimum protection against the elements

### Product information

DL roof hoods in a rectangular design serve to route exhaust air and facilitate the intake of outside air. The air intake/outlet openings are fitted with a bird protection grille to protect against small animals and foreign bodies. In order to prevent the entry of precipitation, the streamlined hood extends to cover the intake/outlet openings.

A connector profile is fitted as standard to hold the hood firmly in place. In terms of the intake of outside air, it is important to ensure that sufficient distance to the roof area is maintained in order to prevent leaves, snow, etc. from being sucked into the duct. In the event of extreme weather conditions (driving rain/snow), roof hoods do not offer complete protection against the entry of precipitation.

### Technical data

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Pressure rating</b>	
<b>Leakage class</b>	
<b>Dimensions</b>	Width: min. 200 mm/max. on request Height: min. 200 mm/max. on request
<b>Recommended air velocity</b>	Outside air < 6 m/s Exhaust air < 8 m/s
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Temperature resistance</b>	-40 °C to +100 °C
<b>Connector flange</b>	P20 P30 P40 Angle flange or overlapping

### Order code legend

<b>Order code</b>	DH-E W-A-B-H-O	<b>Optional (o)</b>	<b>FB...x...mm</b> – Frame bores... x ... mm
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A CU – copper		<b>IPG</b> – with insect protection grille on reverse <b>CE</b> – crane eyelets <b>P-RAL...</b> – powder coating <b>L-RAL...</b> – painting RAL colour of choice
<b>Opening in mm (AxB)</b>	A – channel measurement B – channel measurement	<b>Accessories.</b>	Insect protection grille Roof duct Rain hood Roof mount Crane eyelets
<b>Connector (A)</b>	P20 P30 P40		
<b>Angle flange</b>			

#### Example

Roof hood, galvanised, 500 x 400 and crane eyelets

#### Order code

DH-E VZ-500x400-KÖ



## Roof hood, round dh-r



- ✓ Free choice of dimensions
- ✓ Lower pressure difference thanks to large suction areas
- ✓ Optimum protection against the elements

### Product information

DL roof hoods in a round design serve to route exhaust air and facilitate the intake of outside air. The air intake/outlet openings are fitted with a bird protection grille to protect against small animals and foreign bodies. In order to prevent the entry of precipitation, the streamlined hood extends to cover the intake/outlet openings.

To ensure secure installation of the hood, it comes with a clip-in connector with metal ribbing as standard. In terms of the intake of outside air, it is important to ensure that sufficient distance to the roof area is maintained in order to prevent leaves, snow, etc. from being sucked into the duct. In the event of extreme weather conditions (driving rain/snow), roof hoods do not offer complete protection against the entry of precipitation.

### Technical data

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Pressure rating</b>	
<b>Leakage class</b>	
<b>Diameter:</b>	min. DN 80/max. on request
<b>Recommended air velocity</b>	Outside air < 6 m/s Exhaust air < 8 m/s
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Temperature resistance</b>	80 °C to 100 °C
<b>Connector</b>	Clip-in connector Lip seal in EPDM rubber Flange for clamping ring Flat flange behind flange

### Order code legend

<b>Order code</b>	DH-R-W-D1-A-O	<b>Optional (o)</b>	KÖ – crane eyelets
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A		P-RAL... – powder coating L-RAL... – painting RAL colour of choice
<b>Opening in mm</b>	D – Diameter	<b>Accessories.</b>	Roof duct Rain hood Roof mount Crane eyelets
<b>Connector (A)</b>	Clip-in connector and metal ribbing U – lip seal in EPDM rubber FFB – DIN 24154 flat flange behind flange BS- flange and clamping ring		
<b>Example</b>	Roof hood, galvanised, DN 1250 and crane eyelets		
<b>Order code</b>	DH-R VZ-1250-U-KÖ		

## Roof duct/roof mount

dd-/-e



- ✓ Free choice of dimensions
- ✓ Available in galvanised steel, aluminium/v2a and v4a stainless steel
- ✓ For flat and sloping roofs
- ✓ Supplementary sound attenuators optionally available

### Product information

DL sound-absorbing roof mounts in a rectangular design are used to reduce the noise level of roof ventilators on the suction side. The housing, clad in mineral wool, is fitted with a sheet metal frame and four stays for the purpose of load bearing. It is securely mounted using a surrounding support flange. Optionally available with additional sound attenuators

The mineral wool is tear-proof up to 20 m/s, sound-absorbing, water-repellent and covered with glass fibre fabric. The damping material is non-flammable pursuant to Euroclass A1 EN 13501, biosoluble and chemically neutral. DL splitter attenuators meet the hygiene requirements of VDI 6022, DIN 1946-4 and VDI 3803. To ensure secure installation, the splitter attenuator comes with a connector profile as standard.

### Technical data

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Dimensions</b>	Width (A): min. 200 mm/max. on request Width (B): min. 200 mm/max. on request
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs

### Order code legend

<b>Order code</b>	DD-E-D-W-B-H-A-O	<b>Optional (o)</b>	V – P30, P20
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs	<b>ISO50</b>	– insulation with 50 mm mineral wool, DIN EN 13501-1 A1
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A CU – copper	<b>AF19</b>	– insulation with 19 mm Armaflex
<b>Opening in mm (WxH)</b>	A – width B – width H – total height Can be freely selected	<b>DW</b>	– double-walled with insulation
<b>Connector (A)</b>	G – smooth P20 – profile frame with corner bracket P30 – profile frame with corner bracket P40 – profile frame with corner bracket	<b>SD</b>	– for sloping roofs, max. 45°
		<b>SW</b>	– welded version
		<b>P-RAL...</b>	– powder coating
		<b>L-RAL...</b>	– painting RAL colour of choice
		<b>Accessories.</b>	
		<b>BA</b>	– roof connection tape
		<b>KF</b>	– second adhesive flange, mobile
		<b>RG-E</b>	– rain hood

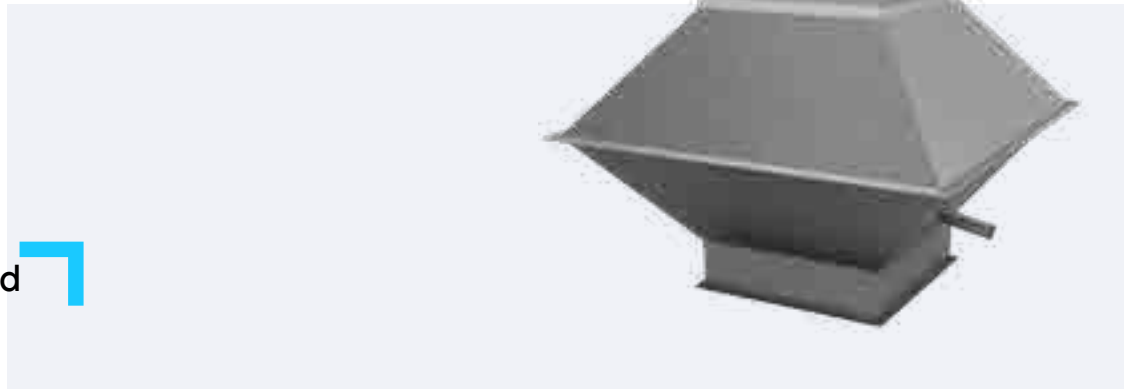
#### Example

Roof duct, square, flat roof, galvanised, 500 x 400 mm, P30

#### Order code

DD-E-FD-Vz-500x400-P3

## Deflector hood den-e



✓ Free choice of dimensions

✓ Architectural design

✓ Ventilation in all weathers

### Product information

DL deflector hoods in a rectangular design are used on roofs to conduct away used air containing harmful substances. The characteristic shape of the deflector hood enables it to carry exhaust air upwards while simultaneously conducting precipitation outwards via an interior rain collection funnel.

In order to achieve maximum vertical thrust with low pressure loss, air speeds of 5–8 m/s are recommended. The bird protection grille fitted to the upper opening also offers protection against foreign bodies and small animals. A connector profile is fitted as standard to hold this model firmly in place. In the event of extreme weather conditions (driving rain/snow), roof hoods do not guarantee complete protection against the entry of precipitation. In addition to the standard model, the DL deflector hood is also available in slim and double-sided models.

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel  
Copper

#### Pressure rating

/

#### Leakage class

/

#### Dimensions

Width (A): min. 200 mm/max. on request  
Length (B): min. 200 mm/max. on request

#### Recommended air velocity

Exhaust air 5–8 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-40 °C to +100 °C

### Order code legend

#### Order code

DEN E-W-A-B-A-O  
DEN-E (standard)  
DEN-S (slim)  
DEN-2 (double-sided)

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm (A–B)

A – channel measurement  
B – channel measurement

#### Optional (o)

Lock-seam joints  
Welded  
RB...x...mm – Frame bores... x ...  
mm  
KÖ – crane eyelets  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories.

Roof duct  
Rain hood  
Roof mount  
Crane eyelets

#### Example

Deflector hood, galvanised, 500 x 400 and crane eyelets

#### Order code

DEN-E VZ-500x400-KÖ

## Deflector hood den-r



- ✓ Free choice of dimensions
- ✓ Architectural design
- ✓ Ventilation in all weathers

### Product information

DL deflector hoods in a round design are used on roofs to conduct away used air containing harmful substances. The characteristic shape of the deflector hood enables it to carry exhaust air upwards while simultaneously conducting precipitation outwards via an interior rain collection funnel.

In order to achieve maximum vertical thrust with low pressure loss, air speeds of 5–8 m/s are recommended. The bird protection grille fitted to the upper opening also offers protection against foreign bodies and small animals. To ensure secure installation of the hood, it comes with a clip-in connector with metal ribbing as standard. In the event of extreme weather conditions (driving rain/snow), roof hoods do not guarantee complete protection against the entry of precipitation. In addition to the standard model, the DL deflector hood is also available glass in a slim model.

### Technical data

<b>Material</b>	Galvanised steel Aluminium Stainless steel Copper
<b>Pressure rating</b>	/
<b>Leakage class</b>	/
<b>Dimensions</b>	min. DN100/ max. DN1250 > on request
<b>Recommended air velocity</b>	Exhaust air 5–8 m/s
<b>Finish</b>	Powder coating as per RAL Wet painting as per RAL NCS or DB
<b>Temperature resistance</b>	-40 °C to +100 °C

### Order code legend

<b>Order code</b>	DEN R-W-A-B-A-O DEN-R (standard) DEN-S (slim)	<b>Optional (o)</b>	Lock-seam joints Welded Edge Flange, round Lip seal CE – crane eyelets
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A CU – copper	<b>P-RAL...</b> – powder coating <b>L-RAL...</b> – painting RAL colour of choice	
<b>Opening in mm</b>	D – Diameter	<b>Accessories.</b>	Roof duct Rain hood Roof mount Crane eyelets

**Example**  
Deflector hood, galvanised, DN 1250 and crane eyelets

**Order code**  
DEN-R VZ-1250-KÖ

## Throttle damper drk



- ✓ Free choice of dimensions
- ✓ Seamless damper blade
- ✓ Good-value alternative to a multi-leaf damper
- ✓ Available in galvanised steel, aluminium/v2a and v4a stainless steel
- ✓ Silicone-free

### Product information

DL throttle dampers in a square design are used to regulate pressure and volumetric flow rate in ventilation systems. They are configured via a damper blade attached in the middle of the housing; in turn, this can be operated using a manual adjuster (including locking mechanism). Optionally, a motorised console can also be fitted to enable electric or pneumatic operation.

The damper is installed at a right angles with a horizontal damper blade. A connector profile is fitted on both sides to hold this model firmly in place. The valve shafts are maintenance-free.

### Technical data

#### Material

Galvanised steel  
Aluminium  
V2A stainless steel  
V4A stainless steel

#### Pressure rating

-500/+1,000 Pa  
-750/+2,000 Pa

#### Leakage class

ATC 3 (C)

#### Dimensions

Width: min. 200 mm/max. up to a cross-section of 0.5 m<sup>2</sup>  
Height: min. 200 mm/max. up to a cross-section of 0.5 m<sup>2</sup>

#### Recommended maximum air velocity

6 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-20° to +80°C

### Order code legend

#### Order code

DRK-W-BxH-DK-DS-V-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A

#### Opening in mm

W – width  
H – height  
Can be freely selected

#### VDI 3803 (DS) pressure rating

M – from -500 to +1,000 Pa  
H – from -750 to +2,000 Pa

#### DIN EN 16798-3 (DIN EN 1507) (DK)

#### airtightness class

B – ATC 4  
C – ATC 3

#### Connection (V)

P30 – profile frame with corner brackets  
P20 – profile frame with corner brackets

#### Optional (o)

KS – console for actuator  
M – motorised actuator  
...-AZ – open/closed  
...-SR – continuously adjustable  
...-F – with spring return  
...-SF – continuously adjustable and spring return  
P – pneumatic drive  
...-EW – single-acting with return spring  
...-DW – double-acting  
...-VSG – with bird protection grille as ingress protection  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories.

Combination with bird protection grille  
Actuator, pneumatic  
Actuator, electric

#### Example

Throttle damper, galvanised, P30 with console for actuator and continuously adjustable motor

#### Order code

DRK-VZ-1000x800-P30-KS-M-SR

## Insulated multi-leaf damper

jk-iso



- ✓ Housing in insulated double-walled version
- ✓ Insulated slats for energy savings
- ✓ Free choice of dimensions
- ✓ Silicone-free

### Product information

DL multi-leaf dampers in an insulated design are suitable for closing off channels and openings in walls and ceilings in order to counteract the influence of cold/heat and minimise the required energy consumption. Optionally, the insulated multi-leaf dampers can be used to regulate volumetric flow rate and pressure within HVAC systems. The damper should be installed at a right angle with horizontal slats. Coupled and insulated hollow body slats with rubber lip seals are held within connector profiles. The adjustment mechanism works using an external rod, meaning that the drive unit is not obstructing the airflow and that the hygiene requirements of VDI 6022 are met. Brass bearing The leakage airflow of a closed damper corresponds to class 4

and the housing leakage airflow corresponds to class C in accordance with DIN EN 1751/is airtight in accordance with DIN 1946, sheet 4. The installation depth is 180 mm. The multi-leaf damper is operated as standard using a manual adjuster with locking mechanism. Optionally, a motorised console can also be fitted to enable electric or pneumatic operation. The housing is fitted with a 30 mm profile frame, with corner brackets, on both sides.

### Order code legend

### Technical data

<b>Material</b>	
Galvanised steel	
Aluminium	
V2A stainless steel	
V4A stainless steel	
<b>Pressure rating</b>	
Low pressure (-200 Pa/+400 Pa)	
Moderate pressure (-500 Pa/+1000 Pa)	
High pressure (-750 Pa/+2000 Pa)	
<b>Leakage class</b>	
ATC 3 (C)	
4 in accordance with DIN EN 1751/DIN 1946 sheet 4, when the multi-leaf damper is closed	
<b>Dimensions</b>	
Width:	min. 210 mm – on request
Height:	min. 210 mm – on request
Depth:	180 mm
<b>Recommended air velocity</b>	
Inflow	6–8 m/s
<b>Finish</b>	
Powder coating as per RAL	
Wet painting as per RAL	
NCS or DB	
<b>Temperature resistance</b>	
-20° to +80°C	

<b>Order code</b>	JK-ISO-180-4-W-B-H-V-O	...-SR – continuously adjustable
<b>Material (M)</b>	VZ – galvanised	...-F – with spring return
	ALU – aluminium	...-SF – continuously adjustable and spring return
	V2A – stainless steel V2A	P – pneumatic drive
	V4A – stainless steel V4A	...-EW – single-acting with return spring
<b>Opening in mm</b>	W – width	...-DW – double-acting
	H – height	E-MA installation frame, bracket frame 35 x 35 x 5 mm with corner holes, with wall anchors – WA
	Can be freely selected	VSG ... – with bird protection grille as ingress protection
<b>Connection (V)</b>	P30 – profile frame with corner brackets	P-RAL... – powder coating
	P20 – profile frame with corner brackets	L-RAL... – painting RAL colour of choice
<b>Optional (o)</b>	KS – console for actuator	ETB – increased temperature resistance
	VK – connector claw (to connect the damper in width)	<b>Accessories.</b>
	VG – connector rod (to connect the damper in height)	Installation frame for masonry
	M – motorised actuator	Combination with weather protection grille or bird protection grille
	...-AZ – open/closed	Frost protection
		Actuator, pneumatic
		Actuator, electric
		Coating as per RAL

**Example**  
Multi-leaf damper, ISO 30, galvanised, 500 x 400 mm, P30 profile frame with return-spring motor and contact protection

**Order code**  
JK-ISO30-GS/GE-180-4-VZ-500x400-P30-KS-M-SR-VSG

## Multi-leaf damper jk-180/120



✓ Free choice of dimensions

✓ Seamless slats, coupled either in the same or the opposite direction

✓ Damper connector enables large width dimensions

✓ Silicone-free

✓ Different installation depth can be selected

### Product information

DL multi-leaf dampers are suitable for regulating pressure and volumetric flow rate in ventilation systems and closing off channels and openings in walls and ceilings. The damper should be installed at a right angle with horizontal slats. Coupled hollow body slats with rubber lip seals are held within connector profiles. With a choice of external cogs or a rod, meaning that the drive unit is not obstructing the airflow and that the hygiene requirements of VDI 6022 are met. Depending on the model, the leakage airflow of a closed damper corresponds to class 4 and the housing leakage airflow corresponds to class C in accordance with DIN EN 1751/is airtight in accordance with DIN 1946, sheet 4. The installation depth is either 180 or 120 mm. The dampers come with a

manual adjuster (including locking mechanism) as standard. Optionally, a motorised console can also be fitted to enable electric or pneumatic operation. The housing is fitted with a 30 mm (standard) or 20 mm profile frame, with corner brackets, on both sides.

### Technical data

#### Material

Galvanised steel  
Aluminium  
V2A stainless steel  
V4A stainless steel

#### Pressure rating

-500/+1,000 Pa  
-750/+2000 Pa

#### Leakage class

ATC 3 (C)

#### Dimensions

Width: min. 210 mm/max. on request  
Height: min. 210 mm/max. on request  
Depth: 180 or 120 mm, depending on model

#### Recommended air velocity

6–8 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-20° to +80°C

### Order code legend

#### Order code

JK-T-K-L-W-B-H-V-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A

#### Depth (T)

180 mm  
120 mm (ZR only)

#### Coupling (K)

GS/GE – rod in opposite direction  
GS/GL – rod in same direction  
ZR – external cogs, opposite direction

#### Leakage as per DIN 1751 (L)

2 – leakage class 2  
4 – leakage class 4

#### Opening in mm (WxH)

W – width  
H – height  
Can be freely selected

#### Optional (o)

KS – console for actuator  
LBM – brass bearing bush (GS+GL only)

VK – connector claw (to connect the damper in width)  
VG – connector rod (to connect the damper in height)  
M – motorised actuator  
...-AZ – open/closed  
...-SR – continuously adjustable  
...-F – with spring return  
...-SF – continuously adjustable and spring return  
P – pneumatic drive  
...-EW – single-acting with return spring  
...-DW – double-acting  
E-MA installation frame, bracket frame 35 x 35 x 5 mm with corner holes, with wall anchors – WA  
VSG ... – with bird protection grille as ingress protection  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

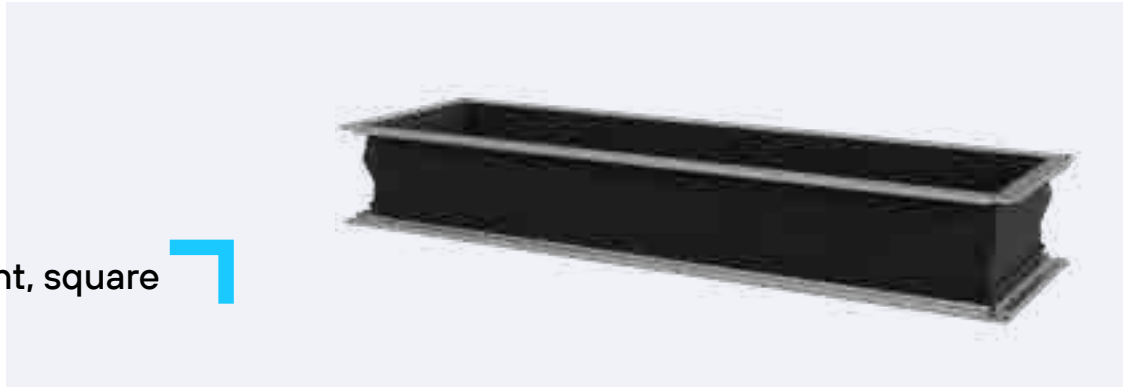
#### Example

Multi-leaf damper, galvanised, with rod in opposite direction, leakage class 4, P30 with console for actuator and continuously adjustable motor

#### Order code

JK-180-GS/GE-4-VZ-1000x800-P30-KS-M-SR

**Expansion joint, square**  
EVS



- ✓ Free choice of dimensions
- ✓ Pressure-resistant
- ✓ Permanently flexible
- ✓ Tear- and rot-proof
- ✓ High leakage class

**Product information**

DL expansion joints in a square design are used as flexible connections in air ducts and as junctions with fire dampers. The special woven material in coated PVC offsets thermal expansion, prevents the transfer of vibrations and also offers the possibility of acoustic decoupling.

A flange profile with high bending strength is mounted on both sides for secure installation. DL expansion joints meet the requirements of VDI 6022 and are also available in a version for installation in smoke extraction ducts.

**Technical data**

<b>Material</b>	
Galvanised steel	
Aluminium	
V2a stainless steel	
V4a stainless steel	
<b>Pressure rating</b>	
N – M – H in accordance with VDI 38031	
<b>Airtightness class</b>	
C (ATC3) DIN EN 1507	
<b>Dimensions</b>	
Width:	min. 200 mm
Height:	min. 200 mm
<b>Length before bending</b>	
130/150/180 mm	
<b>Connector flange</b>	
P20 – profile frame with corner brackets	
P30 – profile frame with corner brackets	
<b>Temperature resistance</b>	
-10° to +80°C	
<b>Fire protection class</b>	
B1-B2 as per DIN 4102	

**Order code legend**

<b>Order code</b>	EVS-B2-W-B-H-L-V	<b>Optional (o)</b>	B1 – fire protection class
<b>Fire protection class (B2)</b>		BKE – 600°C/120 min.	
<b>Material (M)</b>		L – 150/180 mm	
VZ – galvanised			
ALU – aluminium			
V2A – stainless steel V2A			
V4A – stainless steel V4A			
<b>Opening in mm (WxH)</b>			
W – width			
H – height			
Can be freely selected			

**Example**  
Expansion joint, B2, galvanised, 500 x 400, 130, P30

**Order code**  
EVS-B2-VZ-500x400-130-P30



## Expansion joint, round



- ✓ Free choice of dimensions
- ✓ Pressure-resistant
- ✓ Permanently flexible
- ✓ Tear- and rot-proof
- ✓ High leakage class

### Product information

DL expansion joints in a round design are used as flexible connections in air ducts and as junctions with fire dampers. The special woven material in coated PVC offsets thermal expansion, prevents the transfer of vibrations and also offers the possibility of acoustic decoupling.

DL expansion joints meet the requirements of VDI 6022 and are also available in a version for installation in smoke extraction ducts.

### Technical data

<b>Material</b>	Galvanised steel Aluminium V2a stainless steel V4a stainless steel
<b>Pressure rating</b>	H in accordance with VDI 3803 1
<b>Airtightness class</b>	C (ATC3) DIN EN 1507
<b>Diameter:</b>	8-1,250
<b>Length before bending</b>	140/160/190 mm
<b>Connector flange</b>	Smooth Edge Flange P30
<b>Temperature resistance</b>	-10° to +80°C
<b>Fire protection class</b>	B2 as per DIN 4102

### Order code legend

<b>Order code</b>	EVS-B2-V-D1-L-V	<b>Optional (o)</b>	BKE – 600°C/120 min. L – 160/190 mm
<b>Fire protection class (B2)</b>			
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A		
<b>Opening in mm</b>	D – Diameter		

**Example**  
Expansion joint, B2, galvanised, DN 500, 140, flange

**Order code**  
EVS-B2-VZ-500-140-flange

## Splitter attenuator ksd/ksr



- ✓ Free choice of dimensions
- ✓ A range of models
- ✓ Low pressure loss thanks to rounded inflow profile
- ✓ Suitable for use in areas with an explosion risk
- ✓ Hygiene-certified
- ✓ High airtightness class

### Product information

DL splitter attenuators in a square design are used to reduce noise in ventilation systems and construction work openings. Air is conducted through the sound-absorbent housing and past sound traps filled with mineral wool. Depending on the frequency band, sound distribution in the subsequent duct is reduced using the principle of resonance and/or absorption. Streamlined inflow profiles on the sound traps make it possible to keep the pressure loss low. The sound traps must be installed horizontally in order to prevent the mineral wool from coming loose from the frames. The design of the attenuators is customised in line with the intended purpose. Optimum sound absorption is achieved by varying the housing dimensions and the width/number of

sound traps. The mineral wool is tear-proof up to 20 m/s, sound-absorbing, water-repellent and covered with glass fibre fabric. The damping material is non-flammable pursuant to Euroclass A1 EN 13501, biosoluble and chemically neutral. DL splitter attenuators meet the hygiene requirements of VDI 6022, DIN 1946-4 and VDI 3803. To ensure secure installation, the splitter attenuator comes with a connector profile as standard.

### Order code legend

### Technical data

#### Material

Galvanised steel  
Aluminium  
V2a stainless steel  
V4a stainless steel

#### Pressure rating

-500 Pa/+1000 Pa  
-750 Pa/+2000 Pa

#### Leakage class

ATC 4 (B), ATC 3 (C)

#### Dimensions

Width: min. 200 mm/max. on request  
Height: min. 150 mm/max. on request  
Length: up to 1,500 mm (one piece), above this multiple pieces

#### Recommended air velocity

8-12 m/s in the gaps between traps  
Higher air velocities on request

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or D

#### Temperature resistance

-40° to +100 °C

<b>Order code</b>	<b>VDI 3803 (DS) pressure rating</b>
T-KB-KA-W-BxHxL-DS-DK-V-O	<b>M</b> – pressure class moderate, pressure range from
<b>Type (T)</b>	<b>KSD</b> – absorption attenuator <b>KSR</b> – resonance attenuator
<b>KSD</b> – absorption attenuator	<b>H</b> – pressure range high, pressure range from
<b>K</b> – single sound trap, absorption	<b>KR</b> – single trap, resonance
<b>KR</b> – single trap, resonance	-750 to + 2,000 Pa
<b>Sound trap width (KB)</b>	<b>DIN EN 16798-3 (DIN EN 1507) (DK) airtightness class</b>
<b>100</b>	ATC 4 (B)/ATC 3 (C)/ATC 2 (D)
<b>200</b>	<b>Connection (V)</b>
<b>230</b>	<b>P20</b>
<b>260</b> – KSD only	<b>P30</b>
<b>300</b> – KSD only	<b>P40</b> – profile frame with corner bracket
<b>360</b> – KSD only	<b>WF</b> – corner flange, fixed
<b>№ of sound traps (KA)</b>	<b>Optional (o)</b>
As per model	<b>LB</b> – perforated plate cover for sound traps
<b>Material (M)</b>	<b>P-RAL...</b> – powder coating
<b>GV</b> – galvanised	<b>L-RAL...</b> – painting
<b>ALU</b> – aluminium	RAL colour of choice
<b>V2A</b> – stainless steel V2A	<b>Accessories (o)</b>
<b>V4A</b> – stainless steel V4A	Clamping plate to connect multiple sound traps
<b>Opening in mm (WxH)</b>	U-shaped cap to connect multiple sound traps
<b>W</b> – width	
<b>H</b> – height	
Can be freely selected	

#### Example

Absorption attenuator with 200 mm sound traps, galvanised, B-900 H-600 L-1500

#### Order code

KSD200-3, 900x600x1500, H, ATC3

## Slatted hood, square



✓ Free choice of dimensions

✓ Low pressure difference thanks to aerodynamic slats

✓ Architectural design

✓ Low interference on account of rounded slats

### Product information

DL slatted hoods in a square design serve to route outgoing and incoming air while protecting channel ducts. They feature a stable substructure onto which the covered slats are mounted. An additional visual protection profile is fitted in the corner section. The streamlined slats and the fixed roof of the slatted hood, slightly inclined on four sides, ensure rainwater drainage. The bird protection grille fitted behind the horizontal slats also offers protection against foreign bodies and small animals.

A connector profile is fitted as standard to hold this model firmly in place. In the event of extreme weather conditions (driving rain/snow), slatted hoods do not offer complete protection against the entry of precipitation. In order to ensure even distribution of the flow speed between the slats, the maximum flow speeds set out in VDI 3803 1 (Air-conditioning – Structural and technical principles – Central air conditioning systems [VDI Ventilation Code of Practice])

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel  
Copper

#### Pressure rating

#### Airtightness class

#### Dimensions

Channel measurement A: min. 300 mm/max. on request  
Channel measurement B: min. 300 mm/max. on request  
Height H: can be freely selected

#### Bird protection grille

VZ: 12 x 12 x 0.8 mm

#### Connector flange

P20

P30

P40

#### Angle flange or overlapping

#### Recommended air velocity

in duct: < 8 m/s  
Outside air: < 2 m/s  
Exhaust air: < 4 m/s

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

### Order code legend

#### Order code

LH-E W-A-B-H-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm (WxH)

A – channel measurement  
B – channel measurement  
H – height

#### Optional (o)

FB...x...mm – Frame bores... x ... mm  
ISG – with insect protection grille on reverse  
CE – crane eyelets  
ES – frost protection 230 V, behind each slat  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories (o)

Insect protection grille  
Roof duct  
Rain hood  
Roof mount  
Frost protection  
Crane eyelets  
Combination with G3/G4 filter mats

#### Example

Slatted hood, galvanised, 500 x 400 and crane eyelets

#### Order code

LHE-E VZ-500x400-300-KÖ

**Rain trap**  
ra



- ✔ Free choice of dimensions
- ✔ Low pressure loss and reduced flow interference thanks to an innovative separator profile
- ✔ Architecturally appealing version for flat and slanting roofs
- ✔ A range of installation options

**Product information**

DL rain traps in a square design have been developed for a vertical airflow and are mainly used for outgoing air, but are also suitable as an outdoor air unit. Thanks to the various installation options as an on-roof or in-roof version, the DL rain trap represents an architecturally appealing alternative to conventional ventilation structures. It is suitable for flat and sloping roofs and forms the horizontal edge to the duct. To protection against dirt, the upper opening is fitted with a streamlined grille.

The interior slats ensure the lateral drainage of rainwater into the surrounding water-tight collector, whereas the innovative separator profile keeps pressure loss and flow

interference low. To enable installation on the roof, the rain separator also comes with a support flange. Connection to the duct is achieved by a profile frame mounted as standard. In order to ensure even distribution of the flow speed between the slats, the maximum flow speeds set out in VDI 3803 1 (Air-conditioning – Structural and technical principles – Central air conditioning systems [VDI Ventilation Code of Practice])

**Technical data**

<b>Material</b>
Galvanised steel
Aluminium
V2a stainless steel
V4a stainless steel
<b>Pressure rating</b>
Low pressure (-200 Pa/+400 Pa)
Moderate pressure (-500 Pa/+1000 Pa)
High pressure (-750 Pa/+2000 Pa)
<b>Leakage class</b>
ATC1 (D)
<b>Dimensions</b>
Width: min. 200mm/max. on request
Height: min. 200mm/max. on request
Installation height: 800 mm
<b>Recommended air velocity</b>
Outside air < 2 m/s
Exhaust air < 4 m/s in the slat area
<b>Finish</b>
Powder coating as per RAL
Wet painting as per RAL
NCS or DB
<b>Temperature resistance</b>
-20°C to +80°C

**Order code legend**

<b>Order code</b>	RA-E-D-A-W-A-B-A-O	<b>Connector (A)</b>	<b>AD (on roof)</b> – AF support flange 150mm
<b>Roof (D)</b>	FD – for flat roofs SD – for sloping roofs	<b>ID (in roof)</b> – P40, P30, P20 – pre-formed profile frame with <b>corner bracket BFS</b> – attachment including duct cover	<b>Optional (o)</b>
<b>Model (A)</b>	AD – on roof ID – in roof	<b>KO</b> – crane eyelets	<b>BA</b> – walk-in model
<b>Material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A CU – copper	<b>ES</b> – frost protection 230 V, behind each slat	<b>P-RAL...</b> – powder coating
<b>Opening in mm (AxB)</b>	A – width B – length Can be freely selected	<b>L-RAL...</b> – painting RAL colour of choice	<b>Accessories (o)</b>
			Insect protection grille Roof duct Inspection plate Frost protection

**Example**  
Rain separator, galvanised steel, in roof, 1,000 x 1,000, walk-in version with RAL wet coating for flat roofs

**Order code**  
RA-E-FD-ID-VZ-1000-1000-P40-BA-L-RAL

## Protective grille vsg-wdg



✓ Free choice of dimensions

✓ Available in galvanised steel, aluminium/v2a and v4a stainless steel

✓ Considerable free cross-section

### Product information

DL VSG bird protection grilles or WDG corrugated wire grilles in a square design are used in ventilation systems and building facades. They also protect against large impurities such as leaves and prevent the ingress of birds and other small animals. Additional protection can be ensured through the fitting of an insect protection grille.

### Technical data

#### Material

Galvanised steel  
Aluminium  
Stainless steel

#### Dimensions

Width: min. 200mm/max. on request  
Height: min. 200mm/max. on request

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

**vsg bird protection grille – wdg corrugated wire grille**

#### Sheet metal frame

Surrounding, 20, 30 or 40 mm

#### Alternatively with a profile flange

P20 or P30 mm

#### vsg

VZ 12.8 x 12.8 x 0.8 mm

#### wdg

VZ 30 x 30 x 3 mm

### Order code legend

#### Order code

VSG-W-B-H-O  
VSG 12.8 x 12.8 x 0.8 mm  
WDG: VZ = 30 x 30 x 3 mm

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A

#### Opening in mm (WxH)

W – width  
H – height  
Can be freely selected

#### Optional (o)

FB...x...mm – Frame bores... x ... mm  
B30, B20 – sheet metal frame  
P30, P20 – profile flange  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories (o)

Insect protection grille  
Weather protection grille

#### Example

Bird protection grille, galvanised, 500 x 400 with 30 mm flange profile

#### Order code

VSG-VZ-500x400-P30

## Standard pocket filter housing

dl stfg



- ✓ Suitable for standard pocket filters
- ✓ Hygiene-certified
- ✓ Straightforward filter replacement

### Product information

In order to ensure optimum ambient air quality, it is necessary to filter the outside air, removing pollen, dust and particles from this air before it is released into ventilated areas. Thanks to our DL standard pocket filter housing in a square design, pocket filters of all ISO ePM classes as per EN ISO 16890 (G1-F9 as per EN 779) can be integrated within the channel ducts. The filters can be easily replaced via the spring clip fixing.

Access is ensured via the generous lateral inspection plate, which can be opened and closed using knurled screws and which is fitted with a handle. A connector profile is fitted to the channel to hold this model firmly in place. The DL standard filter housing meet the hygiene requirements of VDI 6022, VDI 3803- 4 and DIN 1946-4.

### Technical data

<b>Material</b>	
Galvanised steel	V2a stainless steel
<b>Pressure rating</b>	
-500 Pa/+1000 Pa	-750 Pa/+2000 Pa
<b>Leakage class</b>	
ATC 3 (C)	
<b>Dimensions</b>	
Width:	min. 305 mm/max. 2440 mm
Height:	min. 305 mm/max. 2440
Length: either 500 mm or 800 mm	
<b>Recommended air velocity</b>	
Dependent on the filter used	
<b>Finish</b>	
Powder coating as per RAL	
Wet painting as per RAL	
NCS or DB	
<b>Temperature resistance</b>	
-40°C to +100°C	

### Order code legend

<b>Order code</b>	DL STFG-L-W-BxHxL-DS-DK-V-O	<b>Connection (V)</b>	P20, P30 – profile frame with corner bracket
<b>Length in mm (L)</b>	500 800	<b>Optional (o)</b>	P-RAL... – powder coating L-RAL... – painting RAL colour of choice
<b>Material (M)</b>	VZ – galvanised V2A – stainless steel V2A	<b>Accessories (o)</b>	Insect protection grille Weather protection grille
<b>Opening in mm (WxH)</b>	W – width H – height		
<b>DS/VDI 3803 pressure rating</b>	M – moderate pressure, pressure range from -500 to + 1000 Pa M – moderate pressure, pressure range from -750 to + 2,000 Pa		
<b>DK/airtightness class DIN EN 16798-3 (DIN EN 1507)</b>	ATC 3 (C)		

#### Example

Standard pocket filter housing 1,220 x 905, Length 800 mm, galvanised steel, pressure rating M, leakage class C, with P30 profile

#### Order code

DL STFG-500-VZ-1220x905-M-C-P30

## High-/low-pressure multi-leaf dampers



- ✓ Free choice of dimensions
- ✓ Damper connector enables large width and height dimensions
- ✓ For wall or air duct installation
- ✓ Housing available in galvanised steel, aluminium or v2a and v4a stainless steel

### Product information

DL high-/low-pressure multi-leaf dampers in a square design are suitable for wall and channel installation and are used to prevent the entry of unwanted air against the planned flow direction. The slats, which move freely in the direction of airflow, close the ventilation opening in the event of high or low pressure.

The aluminium slats are borne in a plastic bushing and protected against roll-over. In accordance with the installation method selected, the high-/low-pressure multi-leaf damper is fitted with an installation frame. In most cases, they represent a cost-effective alternative to conventional multi-leaf dampers.

### Technical data

<b>Material</b>	
	Galvanised steel
	Aluminium
	V2a stainless steel
	V4a stainless steel
<b>Leakage class</b>	
	/
<b>Dimensions</b>	
Width:	min. 210– on request
Height:	min. 210– on request
Depth:	120 mm channel mounting, 50 mm wall mounting
<b>Recommended air velocity</b>	
Inflow:	6–8m/s
<b>Finish</b>	
	Powder coating as per RAL
	Wet painting as per RAL
	NCS or DB
<b>Temperature resistance</b>	
	-20°C to +80°C

### Order code legend

<b>Order code</b>	ÜJK-M-W-B-H-V-O	<b>Optional (o)</b>	<b>VK</b> – connector claw (to connect the damper in width)
<b>Assembly (M)</b>	K – channel assembly W – wall assembly	<b>VG</b> – connector rod (to connect the damper in height)	<b>E-MA</b> – installation frame, corner frame, 35 x 35 x 5 mm with corner bores, with wall anchor
<b>Housing material (M)</b>	VZ – galvanised ALU – aluminium V2A – stainless steel V2A V4A – stainless steel V4A	<b>...-VSG</b> – with bird protection grille as ingress protection	<b>WSG</b> –... combination with weather protection grille.
<b>Opening in mm (WxH)</b>	W – width H – height Can be freely selected	<b>P-RAL...</b> – powder coating	<b>L-RAL...</b> – painting RAL colour of choice
<b>Connector for channel mounting (V)</b>	P30 – profile frame with corner brackets, 30 mm P20 – profile frame with corner brackets, 20mm	<b>Accessories (o)</b>	Installation frame for masonry Combination with weather protection grille or bird protection grille Coating as per RAL
<b>Example</b>			
High-pressure multi-leaf damper, channel mounting, housing in V4A stainless steel, 500 mm x 400 mm, P30 connector frame			
<b>Order code</b>			
ÜJK-K-V4A-500-400-P30			

## Weather protection grille for sloping roofs/wsg



- ✓ Free choice of dimensions
- ✓ Low pressure difference thanks to aerodynamic slats
- ✓ Larger cross-sections without separation
- ✓ Visually appealing installation in the roof area
- ✓ Silicone-free

### Product information

DL weather protection grilles in a square design for sloping roofs are suitable for incoming and outgoing air; they are used in roof areas to close off ventilation openings. They serve to protect the channel ducts against precipitation, foreign bodies and small animals. On account of the low construction depth and the option of adapting the colour, the DL weather protection grille for sloping roofs melds into the roof in a discreet and visually appealing manner. The slats, adapted to the roof incline, are fitted with a bird protection grille and – in combination with the rainwater drainage and collection container – form a welded and watertight unit. To enable secure in-

stallation on roof beams, the weather protection grille for sloping roofs comes with a support flange including water cascade that flows vertically on both sides. In the event of extreme weather conditions (driving rain/snow), weather protection grilles for sloping roofs do not offer complete protection against the entry of precipitation. In order to ensure even distribution of the flow speed between the slats, the maximum flow speeds set out in VDI 3803 1 (Air-conditioning – Structural and technical principles – Central air conditioning systems [VDI Ventilation Code of Practice])

### Technical data

#### Material

Galvanised steel  
Aluminium  
V2a stainless steel  
V4a stainless steel  
Copper

#### Pressure rating

Low pressure (-200 Pa/+400 Pa)  
Moderate pressure (-500 Pa/+1000 Pa)  
High pressure (-750 Pa/+2000 Pa)

#### Leakage class

ATC1 (D)

#### Dimensions

Width: min. 300 mm/max. on request  
Height: min. 300 mm/max. on request

#### Recommended air velocity

Outside air < 2 m/s  
Exhaust air < 4 m/s in the slat area

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-20°C to +80°C

### Order code legend

#### Order code

SWSG ° W-B-H-AK-A-O

#### Roof incline (°)

30–60°

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm (WxH)

W – width  
H – height  
Can be freely selected

#### Connector box (AK)

WI – in-roof water drain  
WA – on-roof water drain

#### Connector (A)

P20 – profile frame with corner brackets  
P30  
WF – corner flange

#### Optional (o)

AK-AF19 – connector box with 19 mm Armaflex, external  
DA – roof connection  
RD – inspection opening and plate  
KÖ – crane eyelets  
ISG – with insect protection grille on reverse  
ES – frost protection 230 V, behind each slat  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Accessories (below)

Roof connection  
Inspection plate  
Connector box with 19 mm Armaflex, external  
Insect protection grille  
Frost protection  
Crane eyelets  
Roof mount for roof incline <30°

#### Example

Weather protection grille for sloping roof, galvanised steel, 55° roof incline, 500 mm x 400 mm, on-roof water drain, connector box with 19 mm Armaflex, roof connection, crane eyelets

#### Order code

SWSG-VZ-55°-500x400-WA-AK-AF19-DA-KÖ



## Weather protection grille

WSG



✓ Free choice of dimensions

✓ Low pressure difference thanks to aerodynamic slats

✓ Larger cross-sections without separation

✓ Low interference on account of rounded slats

### Product information

DL weather protection grilles in a square design are suitable for incoming and outgoing air. They are installed within ventilation systems and building facades in order to reduce drops in pressure and flow noise, as well as to protect channel ducts against foreign bodies and prevent the infiltration of precipitation. To protect against birds and other small animals, a barbed wire grille is fitted behind the horizontal slats.

Optionally, protection can be increased through the installation of an insect protection grille. In the event of extreme weather conditions (driving rain/snow), weather protection grilles do not offer complete protection against the entry of precipitation. In order to ensure even distribution of the flow speed between the slats, the maximum flow speeds set out in VDI 3803 1 (Air-conditioning – Structural and technical principles – Central air conditioning systems [VDI Ventilation Code of Practice])

### Technical data

#### Material

Galvanised steel  
Aluminium  
V2a stainless steel  
V4a stainless steel  
Copper

#### Pressure rating

#### Leakage class

#### Dimensions

Width: min. 200 mm/max. on request  
Height: min. 200 mm/max. on request  
Depth: 50 mm

#### Recommended air velocity

Outside air <2 m/s in the slat area  
Exhaust air <4 m/s in the slat area

#### Finish

Powder coating as per RAL  
Wet painting as per RAL  
NCS or DB

#### Temperature resistance

-40°C to +100°C

### Order code legend

#### Order code

WSG-W-B-H-O

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A  
CU – copper

#### Opening in mm (WxH)

W – width  
H – height  
Can be freely selected

#### Accessories.

Insect protection grille  
Installation frame  
Combination with multi-leaf damper or backdraft damper  
Frost protection  
Crane eyelets  
Combination with G3/G4 filter mats

#### Optional (o)

RB...x...mm – Frame bores... x ... mm  
E – installation frame, bracket frame 35 x 35 x 5 mm with corner holes. (with optional wall anchors – MA)  
ISG – with insect protection grille on reverse  
CE – crane eyelets  
JK... – combination with multi-leaf damper model ...  
ES – frost protection 230 V, behind each slat  
P-RAL... – powder coating  
L-RAL... – painting  
RAL colour of choice

#### Example

Weather protection grille, galvanised, 500 x 400 with installation frame and insect protection grille

#### Order code

WSG-VZ-500x400-E-ISG

**Cassette filter housing**  
kfg



- ✓ Free choice of dimensions
- ✓ Space-saving design
- ✓ Quick-change frame
- ✓ Suitable for a variety of filters

**Product information**

Filter housing designed to hold filter mats and metal meshing (grease filters). Stable duct housing with lateral inspection opening, star-shaped grips and handle to enable speedy replacement of filter mats. Can be positioned right or left, depending on the air direction. Thanks to the extremely flat design of min. 150 mm, the housing saves space. The filter medium is collected in a removable cassette with support grille.

**Technical data**

<b>Material</b>	
	Galvanised steel
	Aluminium
	Stainless steel
<b>Dimensions</b>	
Width:	min. 150 mm/max. on request
Height:	min. 200 mm/max. on request
Depth:	150 mm
<b>Finish</b>	
	Wet painting as per RAL
	NCS or DB
<b>Accessories.</b>	
	Safety cord
	Drain supports
	Pressure sensors

**Order code legend**

<b>Order code</b>	KFG-W-B-H
<b>Material (M)</b>	VZ – galvanised
	ALU – aluminium
	V2A – stainless steel V2A
	V4A – stainless steel V4A
<b>Opening in mm (WxH)</b>	W – width
	H – height
	Can be freely selected

## Ventilation tower, round

welded It-r



### Technical data

#### Material

Galvanised steel  
Aluminium  
V2A stainless steel  
V4A stainless steel

#### Dimensions

Standing pipe, D1 diameter in mm  
Material thickness in mm  
Total height in mm  
No of slats

#### Finish

Wet painting as per RAL  
or DB

Volumetric flow rate in m<sup>3</sup>/h  
Flow speed in m/s  
Pressure loss in Pa  
Sound power level in dB (A)  
Corrosion protection class C (1–5)

#### Roof types

Pointed roof  
Flat roof  
Sloping roof  
Protruding  
Protruding with screen  
Flush  
Flush with screen  
360° circumference, can be freely selected

#### Material (M)

VZ – galvanised  
ALU – aluminium  
V2A – stainless steel V2A  
V4A – stainless steel V4A

#### Optional (o)

Rain hood, two-piece, loose  
Rain hood, welded on  
Connector supports, lateral  
Inspection opening  
Rain and condensation drain  
Roof duct with heavy-duty anchor  
Base flange, DIN 2154, welded on  
Anchor cage: Flat flange,  
threaded anchor, accessories  
Anchor cage: Flat flange,  
threaded anchor, accessories  
Floor plate, square or round  
Wall console/wall mount  
Provide evidence of structural  
stability

## Air duct with rectangular cross section lock-seam joints



### Product information

Sheet thickness and edge length as per factory standard, torsion-free, flutter- and vibration-resistant, cross-connections profiled or reinforced, additional reinforcements (interior), streamlined, guide plate arrangement as per DIN EN 1505. Additional seals on joints and corner sections are permanently elastic, silicone-free and non-water-soluble. Transport, storage and assembly as per

VDI 6022. Suspension/support construction as per DIN EN 12236, soundproofed, to be mounted with mounting materials approved under construction regulations, including bores, the underlying masonry, drywall or reinforced concrete ceiling. Billing as per DIN 18379NOB, latest version.

### Technical data

#### Material

- Galvanised steel
- Aluminium
- V2A stainless steel
- V4A stainless steel

#### Airtightness class DIN EN 1507

B/C/D

#### VDI 3803 pressure rating

- Pressure range from -500 bis+ 1000 Pa
- Pressure range from -750 bis+ 2000 Pa

#### Connection

- P30
- P20
- P40 – profile frame with corner bracket

### Order code legend

#### Order code

LL-E-W-DK-DS-V-O

#### Material (M)

- VZ – galvanised
- ALU – aluminium
- V2A – stainless steel V2A
- V4A – stainless steel V4A

#### Optional (o)

- GR – priming/ MBP – matt – pickled and passivated/
- L-RAL... – painting RAL colour of choice
- P-RAL... – powder-coating
- RAL colour of choice

## Air duct with rectangular cross section

welded



### Product information

Transport, storage and assembly as per VDI 6022.  
Including suspension/support construction as per DIN EN 12236, soundproofed, approved mounting material.

### Technical data

#### Material

Galvanised steel  
Aluminium  
V2A stainless steel  
V4A stainless steel  
Black plate

#### Sheet thickness in mm

1.0/1.25/1.5/2.0/2.5/3.0/4.0/5.0  
Other sheet thicknesses on request

#### VDI 3803 pressure rating

Pressure range from -500 bis+ 1000 Pa  
Pressure range from -750 bis+ 2000 Pa

#### Connection

**WF** – corner flange, flush, welded  
**DK ...** – double-edged frame  
30 x 15/40 x 20 mm

### Order code legend

#### Order code

LL-E-SW-W-BS-V-O

#### Material (M)

**VZ** – galvanised (welded seams cold-galvanised)  
**ALU** – aluminium  
**V2A** – (welded seams brushed)  
**V4A** – (welded seams brushed)

#### Optional (o)

**GR** – priming/ **MBP** – matt – pickled and passivated/  
**L-RAL...** – painting RAL colour of choice  
**P-RAL...** – powder-coating  
RAL colour of choice