



VENTILATION GRILLES

UM SERIES

OVERVIEW AND TECHNICAL DATA

CHARACTERISTICS :

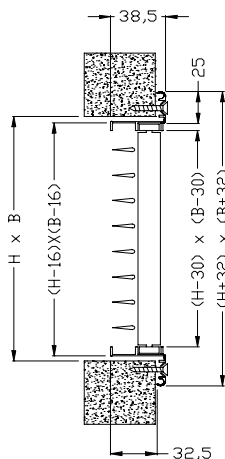
UM series ventilation grilles are completely adjustable air terminal devices with swinging blades which can be regulated one by one. These grilles can mount one or two lines of straight blades.

Frame: extruded aluminium, length 25 mm, rounded corners; it's constituted from 4 assembled parts. **Blades:** extruded aluminium with 20 mm as distance between the centres; the blades are pivoted on a self-locking nylon support fixed on the frame.

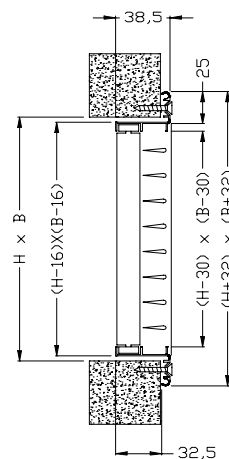
Transversal reinforcement: foreseen only for grilles with size upper than 600 mm. **Damper:** galvanized sheet steel, contrast blade motion.

Mounting frame: galvanized sheet steel suitable for installation with screws on frontal side or with clips. **Installation on wall:** by screws, by clips and mounting frame (without screws), with screws directly on the duct or on the wall, by clips or screws directly on the plenum. **Finishing:** anodized aluminium or painted aluminium with colour white RAL 9010 (epoxy powder treatment).

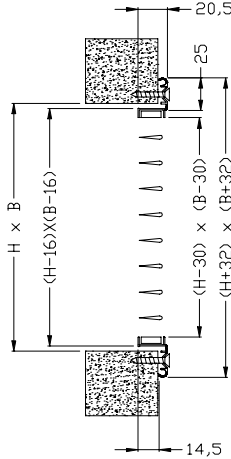
UM2V



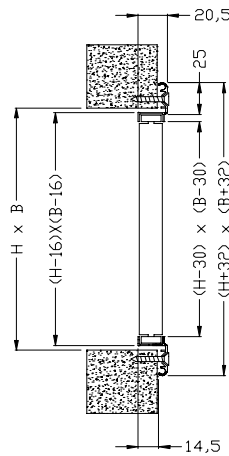
UM2H



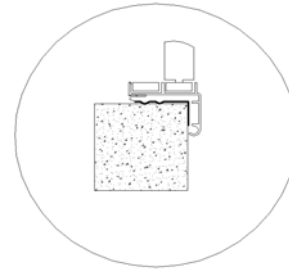
UMIH



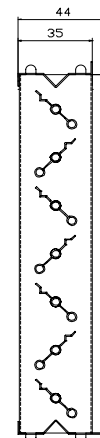
UMIV



Mounting system by clips.



Contrast calibration damper.

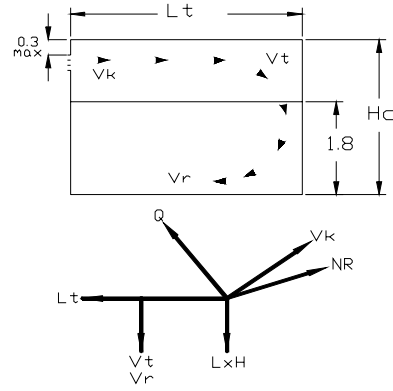
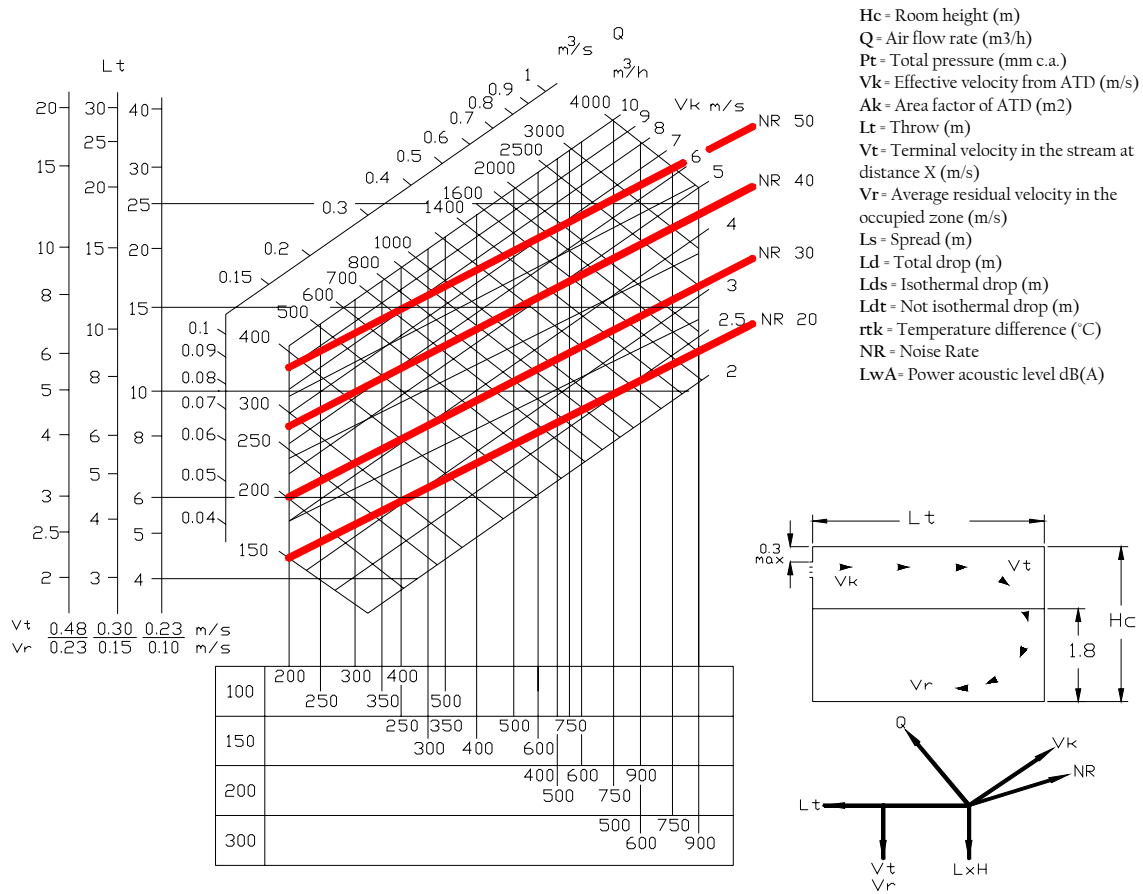




VENTILATION GRILLES

PERFORMANCE

UM SERIES



| | Throw correction (L_t) in relation to the temperature differential on exit (Δt_k) | | | Throw correction (L_t) without ceiling effect | |
|--------------|---|-------------|---------|---|------------------|
| | Cooling | Ventilation | Heating | Minimum distance between grille and ceiling (m) | Factor |
| Δt_k | -10° C | 0° C | +15° C | 0,9 | $L_t \times 0,8$ |
| L_t | x 1,0 | x 1,1 | x 1,2 | | |



VENTILATION GRILLES REGULATION

PERFORMANCE

UM SERIES

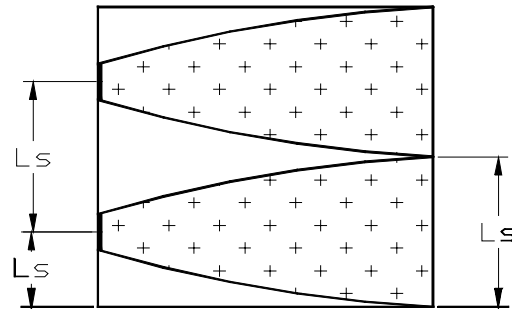
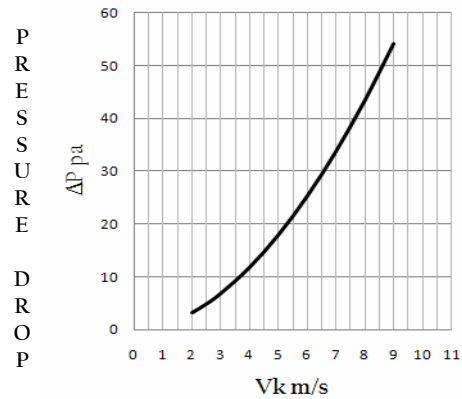
The characteristics of the air flow trend in a room are depending on several variables. The main regulation is carried out by a suitable selection of blades deflection angle (vertical and/or horizontal). The blades can be oriented one by one.

Spread correction:

Spread (L_s) is the maximum distance between two vertical planes tangent to a specified envelope and perpendicular to a plane through the centre of ATD core. The envelope is depending on the terminal velocity (V_t) that is a function of the throw (L_t).

The regulation is carried out by a suitable orientation of the vertical front blades and the second line blades.

The air flow divergence angle changes all characteristics of the ventilation. The delivery air flow characteristics are shown on the diagrams. These characteristics are correct only for grilles without deflection (parallel blades with 0 degree deflection angle). For different deflections, throw (L_t), area factor (A_k), effective velocity air supplied (V_k) and acoustic level (NR) must be changed using the correction factor shown on the table below. For the described deflection, the spread is shown as the function of throw (L_t) (figure 3). At the end of the throw, the spread must be tangent to the lateral walls or tangent to the other envelope (if there is more than one grille in the same room) (see figure 2).

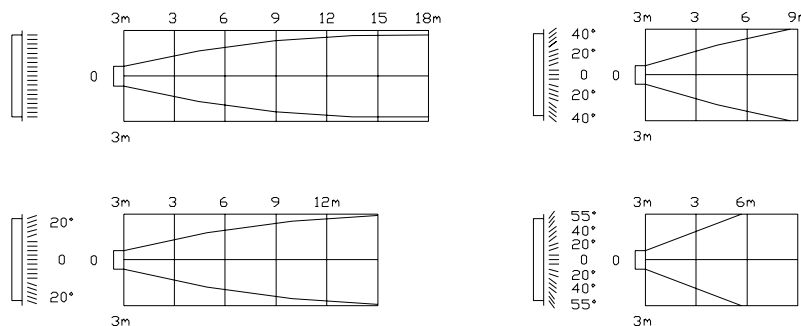


(Figure no. 2)

CORRECTION as
function of
vertical deflection

| Type of grille | Inclination | A_k | V_k | L_t | NR |
|----------------|-------------|--------|--------|--------|-----|
| UM2V UM2H | 20° | x 0,87 | x 1,15 | x 0,85 | + 3 |
| | 40° | x 0,80 | x 1,25 | x 0,75 | + 5 |
| | 55° | x 0,75 | x 1,33 | x 0,55 | + 8 |

DEFLECTION



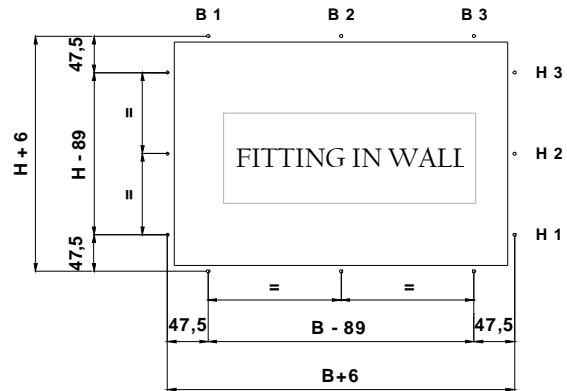
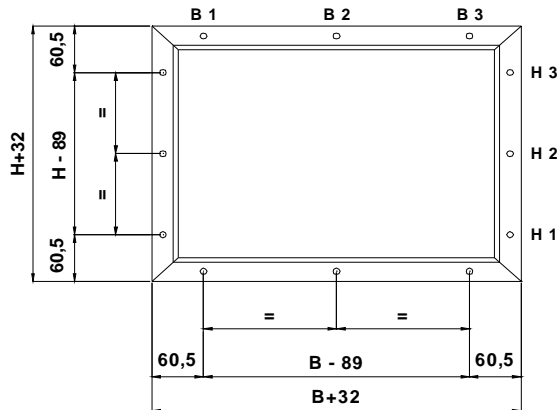
(Figure no. 3)



VENTILATION GRILLES

TECHNICAL CHARACTERISTICS

UM
SERIES



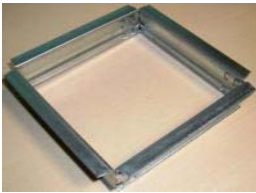
REFERENCE TO NOMINAL SIZES OF GRILLE

B=BASE

H= HEIGHT

| NECESSARY HOLES | | | | | | | |
|-----------------|----|----|----|------|----|----|----|
| B | B1 | B2 | B3 | H | H1 | H2 | H3 |
| 100 | | | | 100 | | X | |
| 200 | | | | 200 | | X | |
| 300 | | | | 300 | | X | |
| 400 | | | | 400 | X | | X |
| | | | | 500 | X | | X |
| | | | | 600 | X | | X |
| | | | | 700 | X | | X |
| | | | | 800 | X | X | X |
| | | | | 900 | X | X | X |
| | | | | 1000 | X | X | X |
| | | | | 1100 | X | X | X |
| | | | | 1200 | X | X | X |
| | | | | 1300 | X | X | X |
| | | | | 1400 | X | X | X |

| NECESSARY HOLES | | | | | | | |
|-----------------|----|----|----|------|----|----|----|
| B | B1 | B2 | B3 | H | H1 | H2 | H3 |
| 500 | X | | X | 100 | | | |
| 600 | X | | X | 200 | | | |
| 700 | X | | X | 300 | | | |
| 800 | X | X | X | 400 | | | |
| 900 | X | X | X | 500 | | | |
| 1000 | X | X | X | 600 | | X | |
| 1100 | X | X | X | 700 | | X | |
| 1200 | X | X | X | 800 | | X | |
| 1300 | X | X | X | 900 | | X | |
| 1400 | X | X | X | 1000 | X | X | X |
| 1500 | X | X | X | 1100 | X | X | X |
| | | | | 1200 | X | X | X |
| | | | | 1300 | X | X | X |
| | | | | 1400 | X | X | X |
| | | | | 1500 | X | X | X |



COUNTERFRAMES FOR SUPPLY AND RETURN GRILLES

UTC
SERIES

OVERVIEW

OVERVIEW

The UTC series counterframes used for supply and return grilles are a strong frame on which the fixing clips can rest. They are required if the grilles need to be frequently removed for cleaning, inspection, filter changing and other similar jobs. The UTC counterframes can be installed both next to steel ducts and on masonry walls.

Bendable parts are placed inside the fixing agent of the wall and a frame that will be completely hidden from the frame of the grille itself, for fixing by means of screws or rivets to the duct wall.

The use of the counterframe on the side of the steel duct allows the use of grilles with fixing clips rather than with screws, therefore allowing to undertake jobs that require removing and reinstalling the grille with the up most simplicity without the need of tools.

The use of the counterframe on masonry walls allows for an almost unlimited number of removals and replacements of the grille without ever damaging or wearing-out the border of the hole made in the wall. The position of the grille can therefore be maintained, precise and secure.

TECHNICAL CHARACTERISTICS

The UTC Series counterframes are made of four separate parts, of galvanized carbon steel sheet, fixable to each other without the need of tools. The parts are completely interchangeable as the particular system of connection eliminated the need to distinguish between horizontal and vertical parts and with between left and right parts.

As shown in the illustration, the necessary space for the counterframe needs to be 5mm more than the nominal size of the grille.

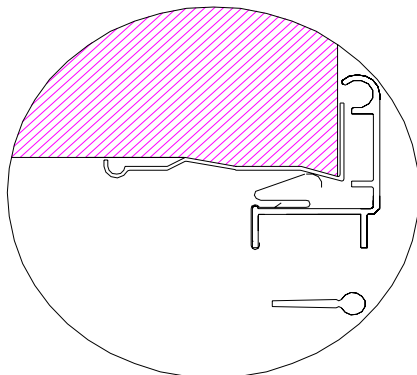
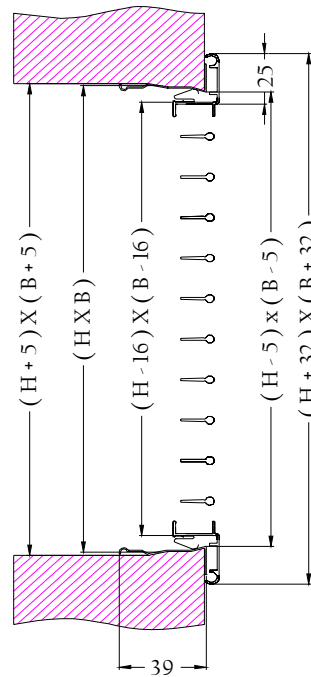
The parts are supplied unassembled, the complete interchangeability helps to easily manage the parts kept in stock.

AVAILABLE SIZES

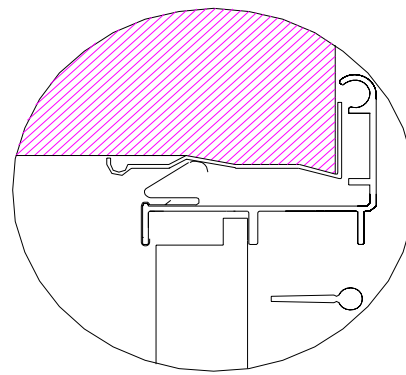
The available sizes for each part range from 100mm up to a maximum of 1400mm, in multiples of 50mm.

Special sizes are also available on request.

By composing the various sizes, all the necessary sizes are achievable.



Mounting with single deflection grille



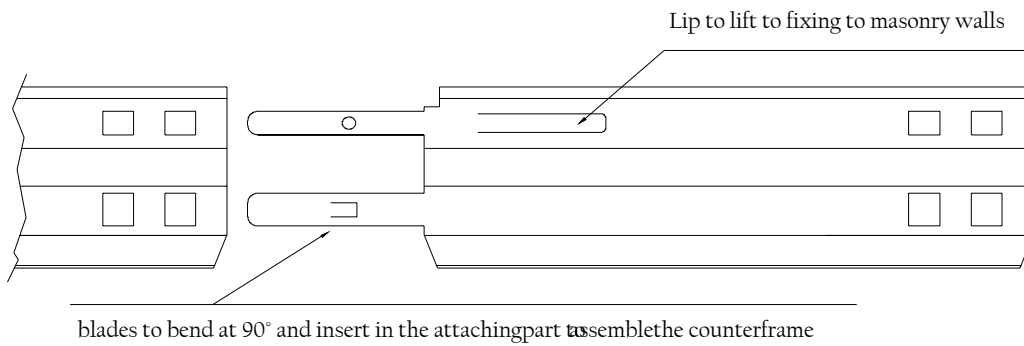
Mounting with double deflection grille



COUNTERFRAMES FOR SUPPLY AND RETURN GRILLES

UTC
SERIES

OVERVIEW



Detail of the fixing method between parts

This system allows to quickly assemble the counterframe, even during the construction phase.

| CODES | |
|-------------------|-------------|
| UTC | XXX |
| part counterframe | length (mm) |

Example:

To order a counterframe for a 400x200mm grille, request:

UTC-400 - 2 pieces

UTC-200 - 2 pieces

To order a counterframe for a 300x300 grille, request:

UTC-300 - 4 pieces

| COUNTERFRAME SIZES WITH AVAILABLE PARTS KEPT IN STOCK | | | | | | | | | | | | | | | | |
|---|------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| HEIGHT H | 1000 | | | | | | | | | | | | | | | |
| | 900 | | | | | | | | | | | | | | | |
| | 800 | | | | | | | | | | | | | | | |
| | 700 | | | | | | | | | | | | | | | |
| | 600 | | | | | | | | | | | | | | | |
| | 563 | | | | | | | | | | | | | | | |
| | 500 | | | | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | | | | |
| | 400 | | | | | | | | | | | | | | | |
| | 350 | | | | | | | | | | | | | | | |
| | 300 | | | | | | | | | | | | | | | |
| | 250 | | | | | | | | | | | | | | | |
| | 200 | | | | | | | | | | | | | | | |
| | 150 | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | |
| | | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 563 | 600 | 700 | 800 | 900 | 1000 |
| | | BASE B | | | | | | | | | | | | | | |

The 563x563 size is for grilles with a 595x595mm outside frame measurement, used for modular counterceilings.



**PLENUM FOR
VENTILATION GRILLES**

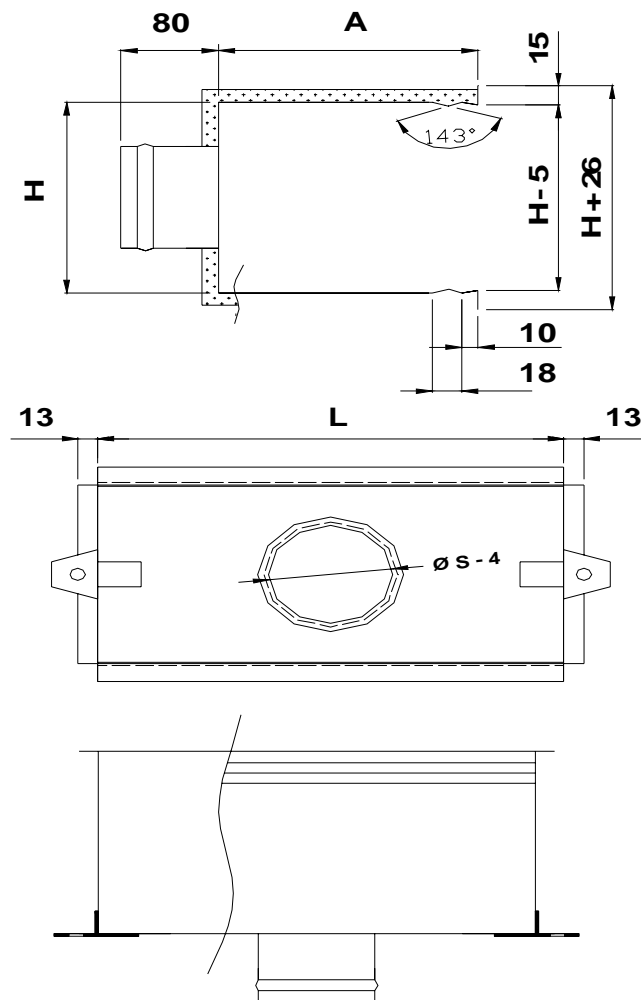
PP 30
SERIES

TECHNICAL CHARACTERISTICS

| PP 30 | | | | |
|-------|-----|-----|-----|-----|
| L | H | A | N° | S |
| 200 | 100 | 140 | 1 | 80 |
| 300 | | 140 | 1 | 80 |
| 400 | | 140 | 1 | 80 |
| 500 | | 140 | 2 | 80 |
| 600 | | 140 | 2 | 80 |
| 700 | | 140 | 2 | 80 |
| 800 | | 140 | 2 | 80 |
| 1000 | | 140 | 2 | 80 |
| 200 | 150 | 180 | 1 | 127 |
| 300 | | 180 | 1 | 127 |
| 400 | | 180 | 1 | 127 |
| 500 | | 180 | 2 | 127 |
| 600 | | 180 | 2 | 127 |
| 700 | | 180 | 2 | 127 |
| 800 | | 180 | 2 | 127 |
| 900 | | 180 | 2 | 127 |
| 1000 | 180 | 2 | 127 | |
| 200 | 200 | 220 | 1 | 150 |
| 300 | | 220 | 1 | 150 |
| 400 | | 220 | 1 | 180 |
| 500 | | 220 | 1 | 180 |
| 600 | | 220 | 2 | 150 |
| 700 | | 220 | 2 | 150 |
| 800 | | 220 | 2 | 150 |
| 900 | | 220 | 2 | 180 |
| 1000 | 220 | 2 | 180 | |
| 200 | 250 | 220 | 1 | 200 |
| 300 | | 220 | 1 | 200 |
| 400 | | 220 | 1 | 200 |
| 500 | | 220 | 1 | 200 |
| 600 | | 220 | 2 | 150 |
| 700 | | 220 | 2 | 150 |
| 800 | | 220 | 2 | 150 |
| 900 | | 220 | 2 | 180 |
| 1000 | 220 | 2 | 180 | |
| 300 | 300 | 260 | 1 | 250 |
| 400 | | 260 | 1 | 250 |
| 500 | | 260 | 1 | 250 |
| 600 | | 260 | 2 | 160 |
| 700 | | 260 | 2 | 160 |
| 800 | | 260 | 2 | 160 |
| 900 | | 260 | 2 | 200 |
| 1000 | | 260 | 2 | 200 |

| | | | | |
|------|-----|-----|-----|-----|
| 400 | 260 | 1 | 350 | |
| 500 | 260 | 1 | 350 | |
| 600 | 260 | 2 | 160 | |
| 700 | 400 | 2 | 160 | |
| 800 | 260 | 2 | 160 | |
| 900 | 260 | 2 | 200 | |
| 1000 | 260 | 2 | 200 | |
| 515 | 515 | 150 | 1 | 250 |
| 563* | 563 | 270 | 1 | 350 |

*Plenum for grilles with external frame dimensions 595x595





**PLENUM FOR
VENTILATION GRILLES**

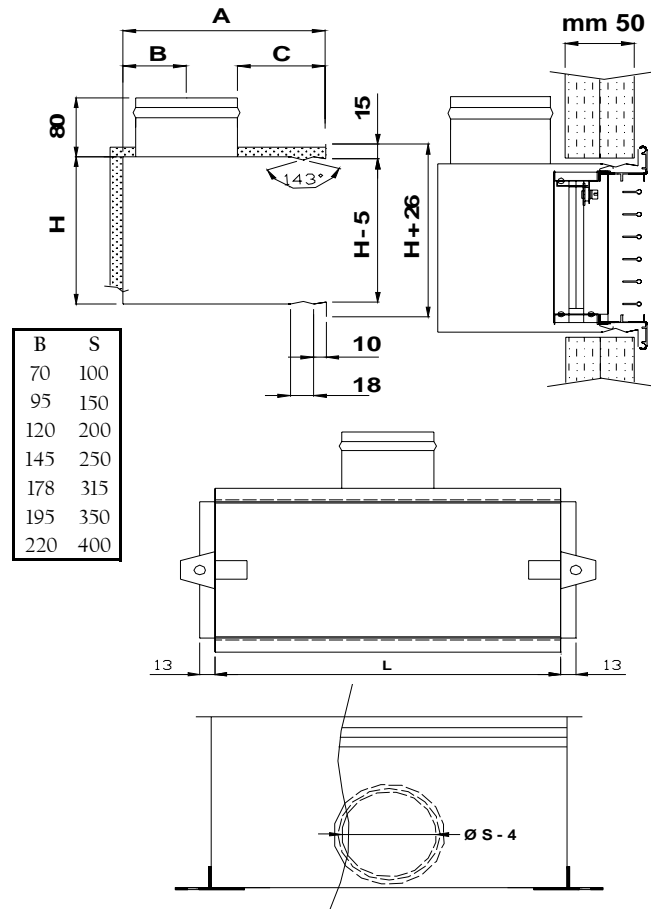
**PP 40
SERIES**

TECHNICAL CHARACTERISTICS

| PP 40 | | | | | | |
|-------|-----|-----|-----|----|-----|-----|
| L | H | A | B | C | N° | S |
| 200 | 100 | 200 | 70 | 80 | 1 | 100 |
| 300 | | 250 | 95 | 80 | 1 | 150 |
| 400 | | 250 | 95 | 80 | 1 | 150 |
| 500 | | 300 | 120 | 80 | 1 | 200 |
| 600 | | 300 | 120 | 80 | 1 | 200 |
| 700 | | 350 | 145 | 80 | 1 | 250 |
| 800 | | 350 | 145 | 80 | 1 | 250 |
| 1000 | | 350 | 145 | 80 | 1 | 250 |
| 200 | 150 | 250 | 95 | 80 | 1 | 150 |
| 300 | | 300 | 120 | 80 | 1 | 200 |
| 400 | | 300 | 120 | 80 | 1 | 200 |
| 500 | | 350 | 145 | 80 | 1 | 250 |
| 600 | | 350 | 145 | 80 | 1 | 250 |
| 700 | | 350 | 145 | 80 | 1 | 250 |
| 800 | | 415 | 178 | 80 | 1 | 315 |
| 900 | | 415 | 178 | 80 | 1 | 315 |
| 1000 | 415 | 178 | 80 | 1 | 315 | |
| 200 | 200 | 250 | 95 | 80 | 1 | 150 |
| 300 | | 250 | 95 | 80 | 1 | 150 |
| 400 | | 350 | 145 | 80 | 1 | 250 |
| 500 | | 350 | 145 | 80 | 1 | 250 |
| 600 | | 415 | 178 | 80 | 1 | 315 |
| 700 | | 415 | 178 | 80 | 1 | 315 |
| 800 | | 415 | 178 | 80 | 1 | 315 |
| 900 | | 450 | 195 | 80 | 1 | 350 |
| 1000 | 450 | 195 | 80 | 1 | 350 | |
| 200 | 250 | 300 | 120 | 80 | 1 | 200 |
| 300 | | 300 | 120 | 80 | 1 | 200 |
| 400 | | 350 | 145 | 80 | 1 | 250 |
| 500 | | 350 | 145 | 80 | 1 | 250 |
| 600 | | 415 | 178 | 80 | 1 | 315 |
| 700 | | 415 | 178 | 80 | 1 | 315 |
| 800 | | 415 | 178 | 80 | 1 | 315 |
| 900 | | 450 | 195 | 80 | 1 | 350 |
| 1000 | 450 | 195 | 80 | 1 | 350 | |
| 300 | 300 | 350 | 145 | 80 | 1 | 250 |
| 400 | | 415 | 178 | 80 | 1 | 315 |
| 500 | | 450 | 195 | 80 | 1 | 350 |
| 600 | | 450 | 195 | 80 | 1 | 350 |
| 700 | | 450 | 195 | 80 | 1 | 350 |
| 800 | | 450 | 195 | 80 | 1 | 350 |
| 900 | | 500 | 220 | 80 | 1 | 400 |
| 1000 | | 500 | 220 | 80 | 1 | 400 |

| | | | | | | |
|------|-----|-----|-----|----|-----|-----|
| 400 | 450 | 195 | 80 | 1 | 350 | |
| 500 | 450 | 195 | 80 | 1 | 350 | |
| 600 | 450 | 195 | 80 | 1 | 350 | |
| 700 | 400 | 450 | 195 | 80 | 1 | 350 |
| 800 | 450 | 195 | 80 | 1 | 350 | |
| 900 | 500 | 220 | 80 | 1 | 400 | |
| 1000 | 500 | 220 | 80 | 1 | 400 | |
| 515 | 515 | 320 | 145 | 50 | 1 | 250 |
| 563* | 563 | 450 | 195 | 80 | 1 | 350 |

*Plenum for grilles with external frame dimensions 595x595





CONTROL DAMPERS

SC SERIES

OVERVIEW TECHNICAL CHARACTERISTICS

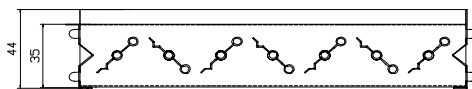
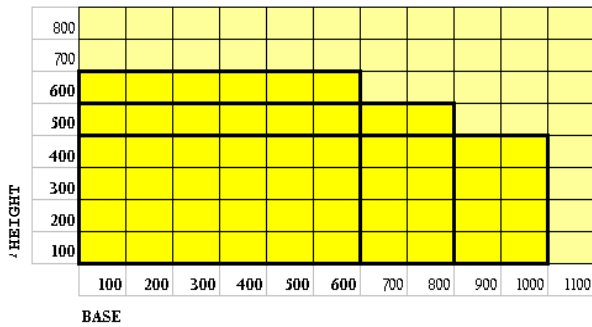
OVERVIEW AND CHARACTERISTICS :

The contrast control dampers of SC series can be fitted to UM series inlet grilles, UP series outlet grilles, and GI series industrial grilles. They are held in place by special patented clips, designed both for fitting the damper to the grille and for fitting it on a false frame.

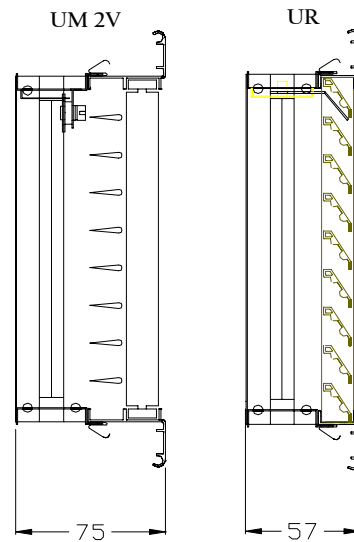
The SC series dampers are made entirely of galvanised steel and have a mechanism for moving and closing all the blades simultaneously.

This mechanism is a simple longitudinal plate that links all the blades, and can be removed by unscrewing a nut using a screwdriver. The careful design, precise assembly, and the quality of the materials used, make this an economical, practical, and efficient component.

Contrast control damper - dimensions that can be created in a single solution



Contrast control damper - overall dimensions for UM2V and UR



Contrast control damper - detail of patented fixing clips





VENTILATION GRILLE COMBINED WITH EXTRACT GRILLE

UMR
SERIES

OVERVIEW TECHNICAL CHARACTERISTICS

OVERVIEW AND CHARACTERISTICS :

Also the grillesUM Rbelong to the seriesUM. These units are composed by a double or single deflection grille with adjustable blades and an extract grille with fixed blades mounted on the same frame.

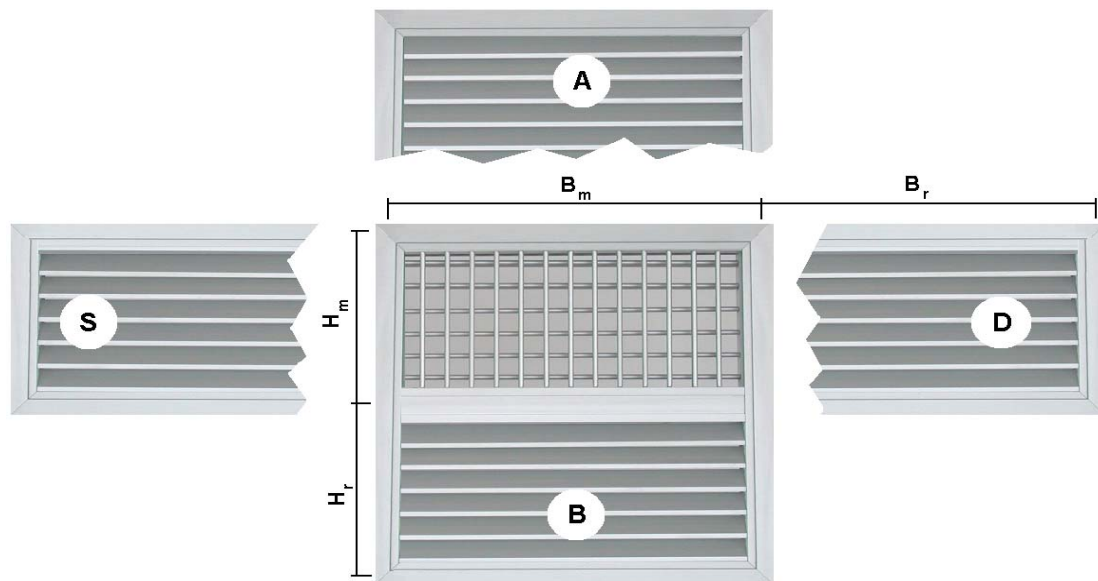
The grillesUM Rare used in those applications, in which the supply and in-take actions are converged on the same opening. Using the type of grilles seriesUM Rcan help to avoid difficulties, waste of time and additional work during the installation.

The construction modality allows to meet all construction and size requirements of the customers.

For the characteristics please see pages of this catalogue referred to UM ventilation grilles and UR extract grilles.

CONSTRUCTIONS :

The possibilities of the construction make refer to all the various models dUM (double or single deflection with horizontal or vertical frontal line) and the position of the extract grille UR (high A, down B, right D, left S) on the ventilation grille. The dimensi of the two units (base x height / bases x height) give more detailed information which could be necessary for the construction.



| | |
|--------------------------|------------------------------------|
| UM | Ventilation grille |
| 1/2 | 1/2 blades line |
| V/H | Vertical / horizontal frontal line |
| R | Extract grille |
| A/B/D/S | Position of the extract grille |
| $B_m \times (H_m + H_r)$ | Sizes for constructions A / B |
| $(B_m + B_r) \times H_m$ | Sizes for constructions D / S |

Example: UM 2V RD (300+500)x200
Double deflection grille- vertical frontal line- with extract grille on the right side. Nominal sizes of the ventilation grill 300x200, of the extract