



VENTILATION GRILLES

OVERVIEW AND TECHNICAL DATA

UM SERIES

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 aluminum, 25 mm wide, with rounded corners built in four parts invisibly connected to each other by mechanical assembly.

Blades: in extruded aluminum with 20mm interaxis, pivoted in a polypropylene lane which is in turn inserted into the frame.

Transversal reinforcement: provided on all the grills having a side dimension greater than 600 mm.

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).

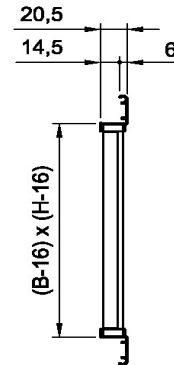
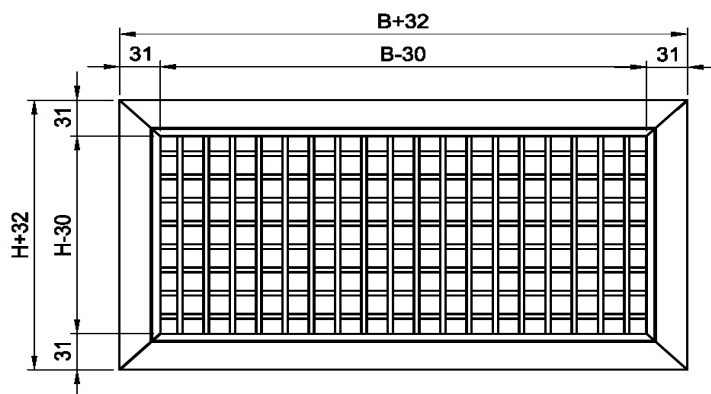
ACCESSORIES:

Damper: built entirely in steel, with multiple fins with opposing movement.

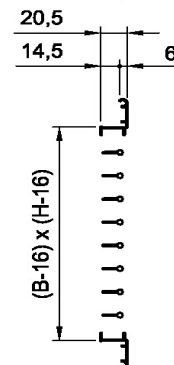
Subframe: Rigid construction made of sheet steel suitable for installations both with visible screws and with non-visible clips.

UNSUITABLE ENVIROMENTS

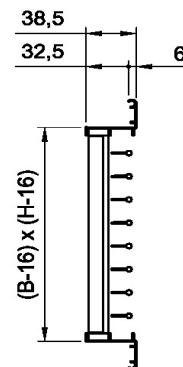
The aluminum products are not suitable for installation in environments with an atmosphere containing corrosive substances for this material and in particular containing chlorine, such as swimming pools, spas and some types of food industries.



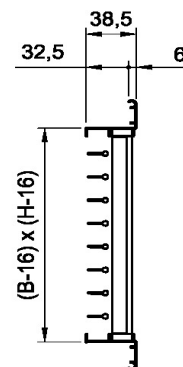
UMIV



UMIH



UM2H



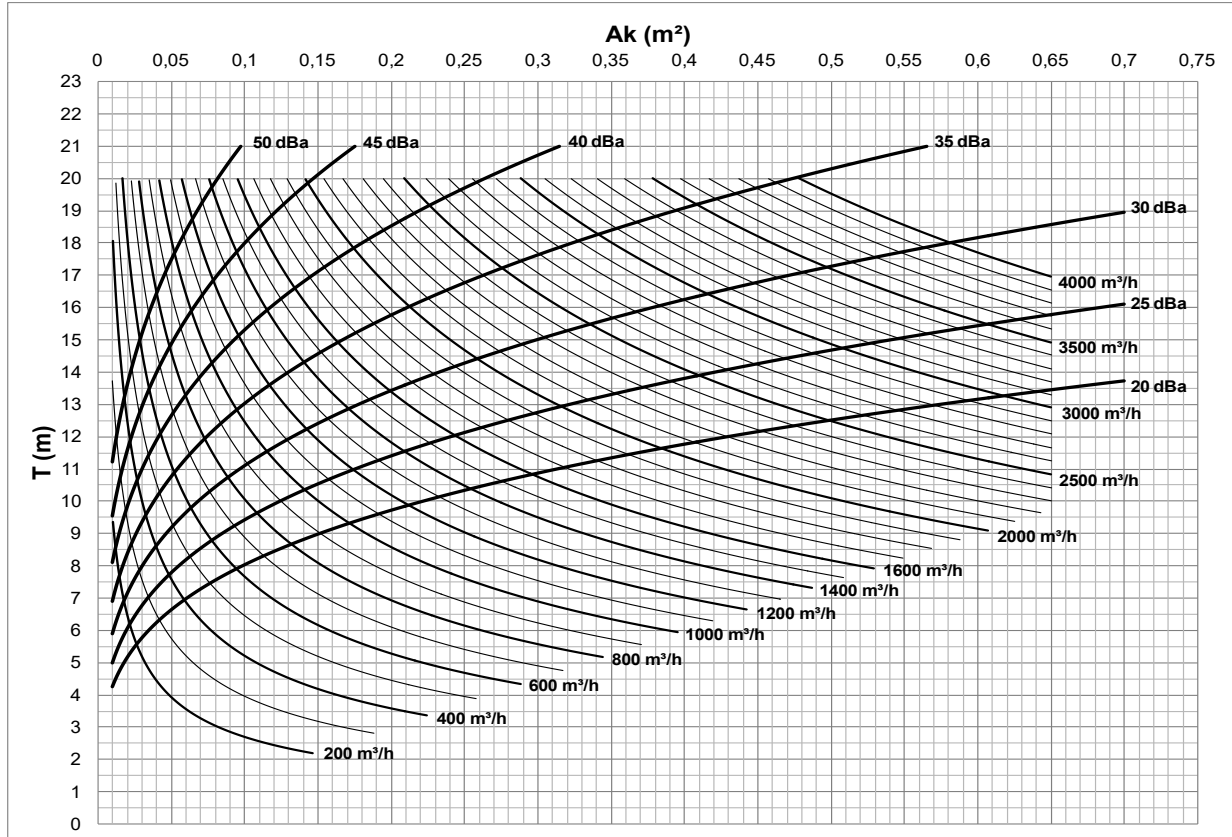
UM2V



VENTILATION GRILLES

PERFORMANCE

UM SERIES



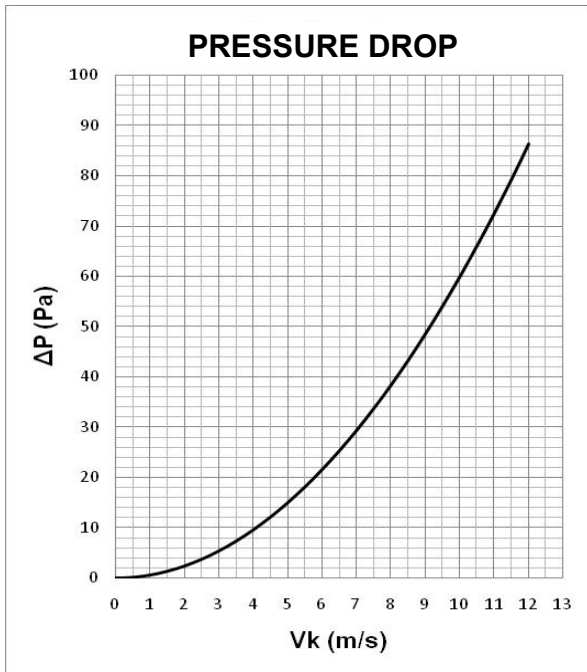
AIR PASSAGE SECTION A_k (m²)											
	BASE										
HEIGHT	100	150	200	300	400	500	600	700	800	900	1000
100	0,0048	0,0082	0,0116	0,0185	0,0253	0,0322	0,0390	0,0459	0,0527	0,0596	0,0664
150	0,0082	0,0141	0,0200	0,0317	0,0434	0,0552	0,0669	0,0786	0,0904	0,1021	0,1138
200	0,0116	0,0200	0,0283	0,0449	0,0615	0,0781	0,0948	0,1114	0,1280	0,1446	0,1613
250	0,0151	0,0258	0,0366	0,0581	0,0796	0,1011	0,1226	0,1442	0,1657	0,1872	0,2087
300	0,0185	0,0317	0,0449	0,0713	0,0977	0,1241	0,1505	0,1769	0,2033	0,2297	0,2561
350	0,0219	0,0376	0,0532	0,0845	0,1158	0,1471	0,1784	0,2097	0,2410	0,2723	0,3036
400	0,0253	0,0434	0,0615	0,0977	0,1339	0,1701	0,2063	0,2424	0,2786	0,3148	0,3510
450	0,0288	0,0493	0,0698	0,1109	0,1520	0,1931	0,2341	0,2752	0,3163	0,3574	0,3984
500	0,0322	0,0552	0,0781	0,1241	0,1701	0,2160	0,2620	0,3080	0,3539	0,3999	0,4459
550	0,0356	0,0610	0,0865	0,1373	0,1882	0,2390	0,2899	0,3407	0,3916	0,4424	0,4933
600	0,0390	0,0669	0,0948	0,1505	0,2063	0,2620	0,3178	0,3735	0,4292	0,4850	0,5407



VENTILATION GRILLES

PERFORMANCE

UM SERIES



Aeraulic data measured in isothermic conditions in accordance with international standards:

ISO 5219 1984: Air distribution and air diffusion - Laboratory.

Aerodynamic testing and rating of air terminal devices.

Measured data with blades perpendicular and without damper.

For other conditions apply the corrections specified in the table

Data measured in reverberation chamber in accordance with international standards:

ISO 3741 1999: Acoustic - determination of sound power levels of noise

sources using sound pressure - Precision methods for reverberation rooms

ISO 5135 1997: Acoustic - determination of sound power levels of noise

from air-terminal devices ; air terminal units; dampers and valves by

measurement in a reverberation room.

The data presented does not consider the attenuation given by the area of installation. This attenuation is normally between 6 and 10 dBA and is determined by the room size, the shape of the environment and the interior features.

Sound power

Lw +		Lw +	
α°	Fattore	α°	Fattore
10	1,53	20	0,77
15	2,26	25	1,15
20	2,98	30	1,53
25	3,67	35	1,90
30	4,35	40	2,26
35	5,00	45	2,62
40	5,64	50	2,98
45	6,25	55	3,33
		60	3,67
		65	4,01
		70	4,35
		75	4,68
		80	5,00
		85	5,32
		90	5,64

Pressure drop

ΔP x		ΔP x	
α°	Fattore	α°	Fattore
10	1,13	20	1,13
15	1,19	25	1,16
20	1,26	30	1,19
25	1,33	35	1,22
30	1,40	40	1,26
35	1,47	45	1,29
40	1,55	50	1,33
45	1,62	55	1,36
		60	1,40
		65	1,44
		70	1,47
		75	1,51
		80	1,55
		85	1,59
		90	1,62

Throw

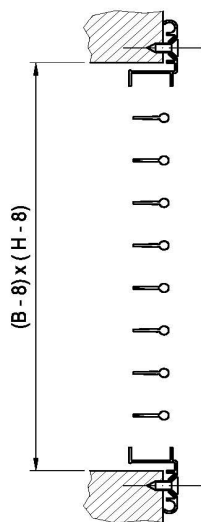
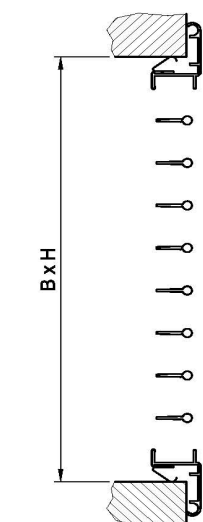
T x		T x	
α°	Fattore	α°	Fattore
10	0,98	20	0,98
15	0,97	25	0,98
20	0,94	30	0,97
25	0,91	35	0,95
30	0,87	40	0,94
35	0,82	45	0,92
40	0,77	50	0,91
45	0,71	55	0,89
		60	0,87
		65	0,84
		70	0,82
		75	0,79
		80	0,77
		85	0,74
		90	0,71



VENTILATION GRILLES

STANDARD FIXING METODS

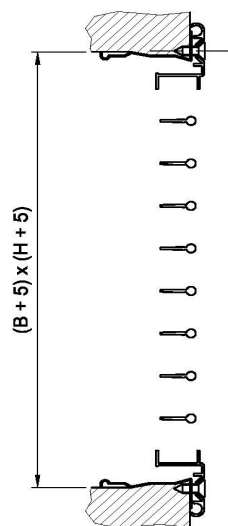
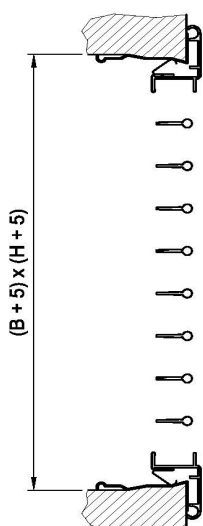
UM SERIES



Fixing without
counterframe

With clips

With screws



Fixing with
counterframe

With clips

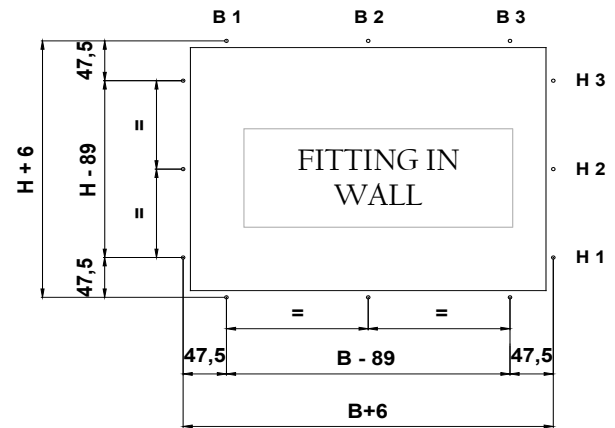
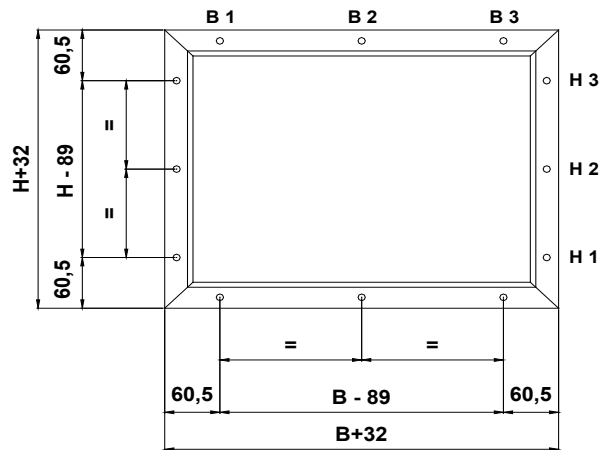
With screws



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

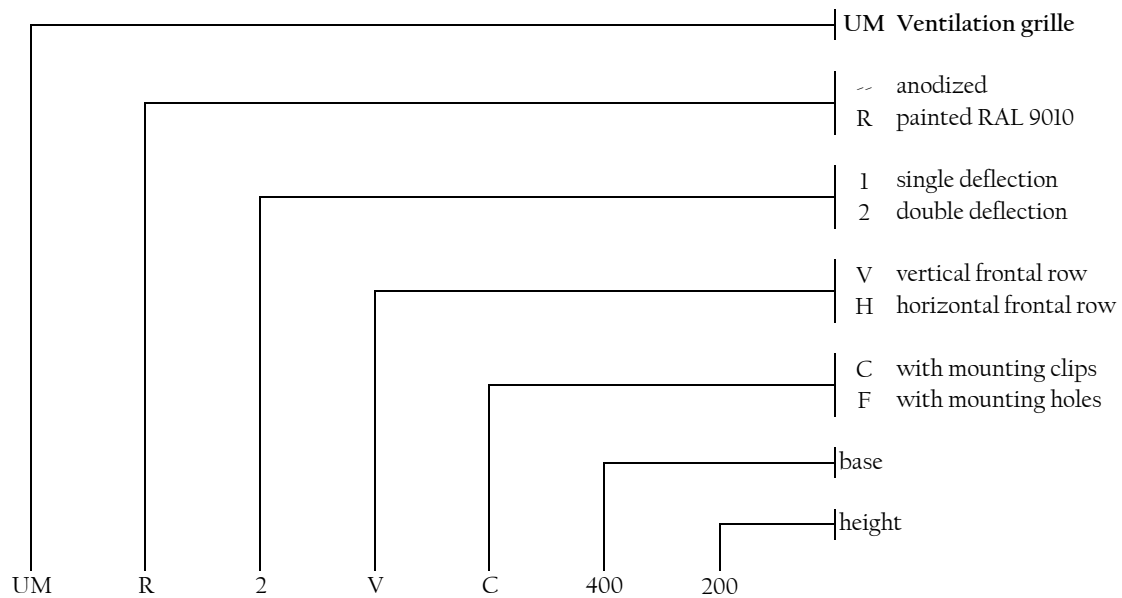
NECESSARY HOLES							
B	B1	B2	B3	H	H1	H2	H3
500	X		X	100			
600	X		X	200			
700	X		X	300			
800	X	X	X	400			
900	X	X	X	500			
1000	X	X	X	600		X	
1100	X	X	X	700		X	
1200	X	X	X	800		X	
1300	X	X	X	900		X	
1400	X	X	X	1000	X	X	X
1500	X	X	X	1100	X	X	X
				1200	X	X	X
				1300	X	X	X
				1400	X	X	X
				1500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



VENTILATION GRILLES

UM
SERIES

HOW TO ORDER





VENTILATION GRILLES

UM
SERIES

ACCESSORIES



PP30 Plenum with rear connection
insulated and non insulated version



PP30 Plenum with lateral connection
insulated and non insulated version



SC Standard control damper
SCUFIX Control damper for grilles equipped with U-FIX



UTC Counterframe



U-FIX Quick installing



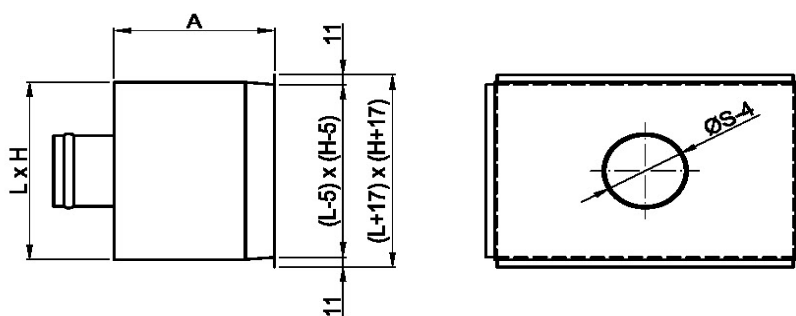
PLENUM FOR VENTILATION GRILLES

TECHNICAL CHARACTERISTICS

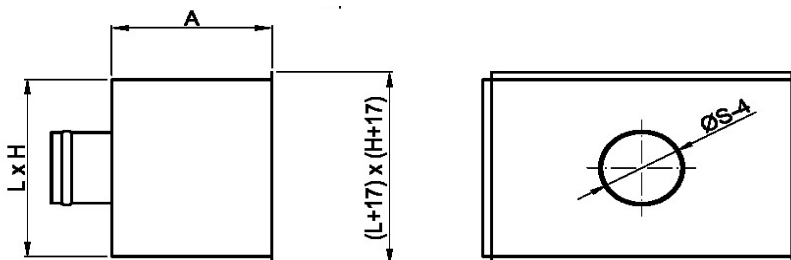
PP 30
SERIES

L	H	A	N°	S
200	100	140	1	80
300	100	140	1	80
400	100	140	1	80
500	100	140	2	80
600	100	140	2	80
700	100	140	2	80
800	100	140	2	80
200	150	180	1	127
300	150	180	1	127
400	150	180	1	127
500	150	180	2	127
600	150	180	2	127
700	150	180	2	127
800	150	180	2	127
900	150	180	2	127
1000	150	180	2	127
200	200	220	1	150
300	200	220	1	150
400	200	220	1	180
500	200	220	1	180
600	200	220	2	150
700	200	220	2	150
800	200	220	2	150
900	200	220	2	180
1000	200	220	2	180
200	250	220	1	200
300	250	220	1	200
400	250	220	1	200
500	250	220	1	200
600	250	220	2	150
700	250	220	2	150
800	250	220	2	150
900	250	220	2	180
1000	300	220	2	180
300	300	260	1	250
400	300	260	1	250
500	300	260	1	250
600	300	260	2	160
700	300	260	2	160
800	300	260	2	160
900	300	260	2	200
1000	300	260	2	200
400	400	260	1	350
500	400	260	1	350
600	400	260	2	160
700	400	260	2	160
800	400	260	2	160
900	400	260	2	200
1000	400	260	2	200
515	515	150	1	250
563	563	270	1	350

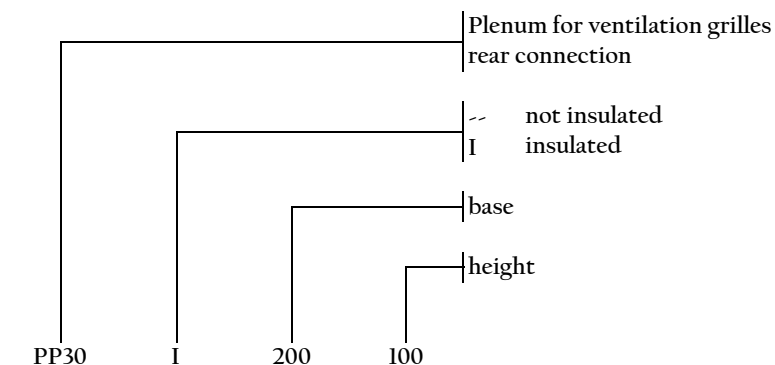
PP 30



STANDARD GRILLE



GRILLE WITH FILTERHOLDER FRAME



For S = 125 - 160 - 200 - 250 connection in ABS - steel on request
For other diameters connection in steel

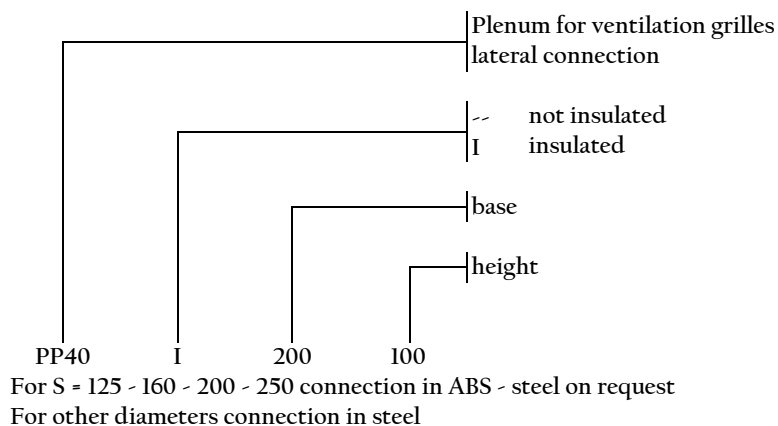
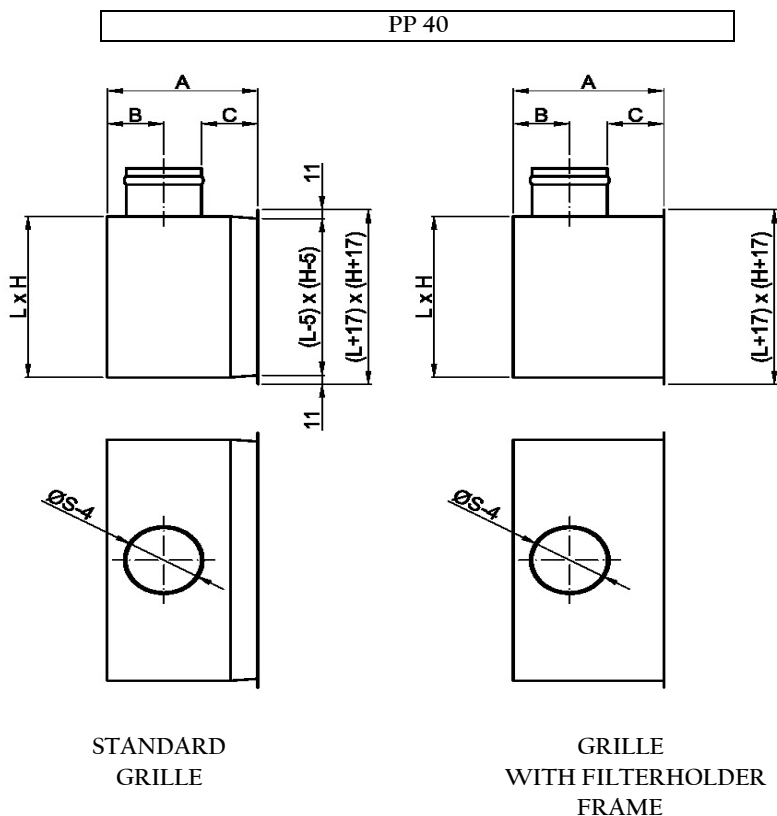


PLENUM FOR VENTILATION GRILLES

PP 40
SERIES

TECHNICAL CHARACTERISTICS

L	H	A	B	C	N°	S
200	100	200	70	80	1	100
300	100	250	95	80	1	150
400	100	250	95	80	1	150
500	100	300	120	80	1	200
600	100	300	120	80	1	200
700	100	350	145	80	1	250
800	100	350	145	80	1	250
200	150	250	95	80	1	150
300	150	300	120	80	1	200
400	150	300	120	80	1	200
500	150	350	145	80	1	250
600	150	350	145	80	1	250
700	150	350	145	80	1	250
800	150	415	178	80	1	315
900	150	415	178	80	1	315
1000	150	415	178	80	1	315
200	200	250	95	80	1	150
300	200	250	95	80	1	150
400	200	350	145	80	1	250
500	200	350	145	80	1	250
600	200	415	178	80	1	315
700	200	415	178	80	1	315
800	200	415	178	80	1	315
900	200	450	195	80	1	350
1000	200	450	195	80	1	350
200	250	300	120	80	1	200
300	250	300	120	80	1	200
400	250	350	145	80	1	250
500	250	350	145	80	1	250
600	250	415	178	80	1	315
700	250	415	178	80	1	315
800	250	415	178	80	1	315
900	250	450	195	80	1	350
1000	250	450	195	80	1	350
300	300	350	145	80	1	250
400	300	415	178	80	1	315
500	300	450	195	80	1	350
600	300	450	195	80	1	350
700	300	450	195	80	1	350
800	300	450	195	80	1	350
900	300	500	220	80	1	400
1000	300	500	220	80	1	400
400	400	450	195	80	1	350
500	400	450	195	80	1	350
600	400	450	195	80	1	350
700	400	450	195	80	1	350
800	400	450	195	80	1	350
900	400	500	220	80	1	400
1000	400	500	220	80	1	400
515	515	320	145	50	1	250
563	563	450	195	80	1	350





CONTROL DAMPERS

SC SERIES

OVERVIEW TECHNICAL CHARACTERISTICS

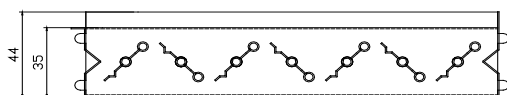
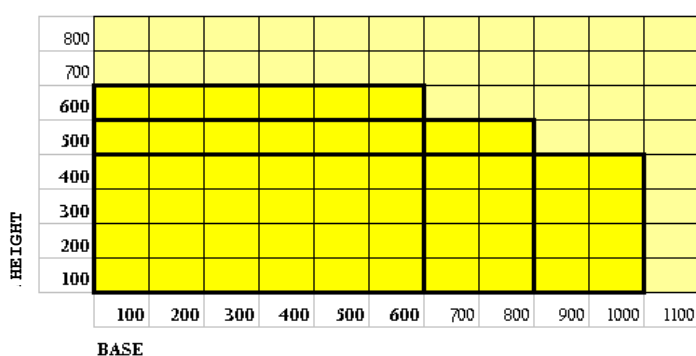
OVERVIEW AND CHARACTERISTICS :

The contrast control dampers of SC series can be fitted to UF KG UM UR GI KN e CR-KN series . They are held in place by special patented clips, designed both for fitting the damper to the grill and for fitting it on a false frame.

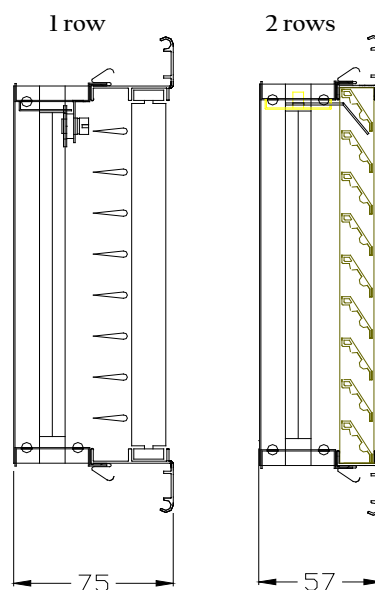
The SC series dampers are made entirely of galvanised steel and have a mechanism for moving and closing all the blades simultaneously.

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.

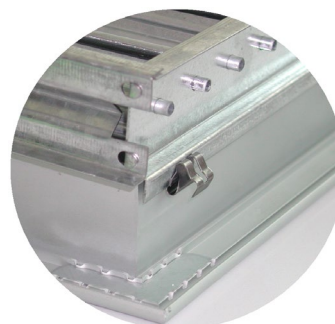
Contrast control damper- dimensions that can be created in a single solution



Contrast control damper - overall dimensions



Contrast control damper -detail of patented fixing clips





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.

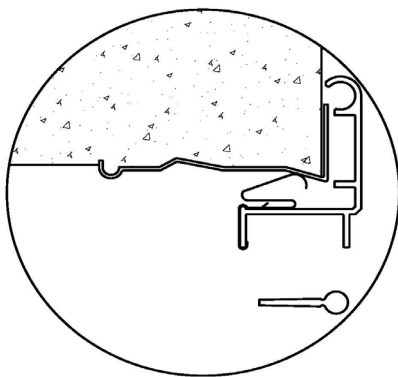
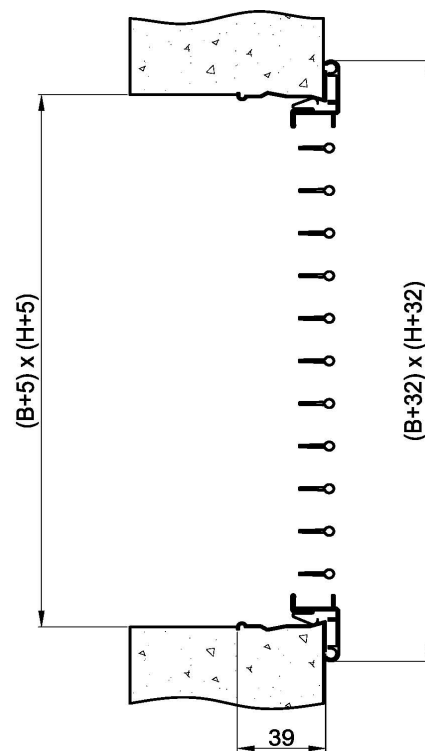
The parts are supplied unassembled, the complete interchangeability helps to easily manage the parts kept in stock.

AVAILABLE SIZES

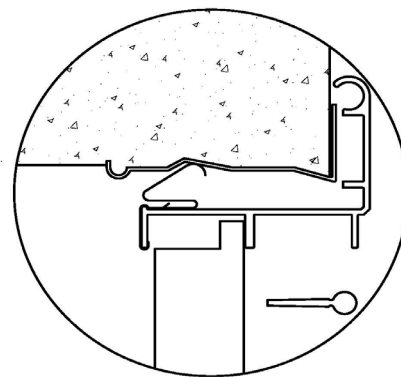
The available sizes for each part range from 100mm up to a maximum of 1400mm, in multiples of 50mm.

Special sizes are also available on request.

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



Mounting with single deflection grille



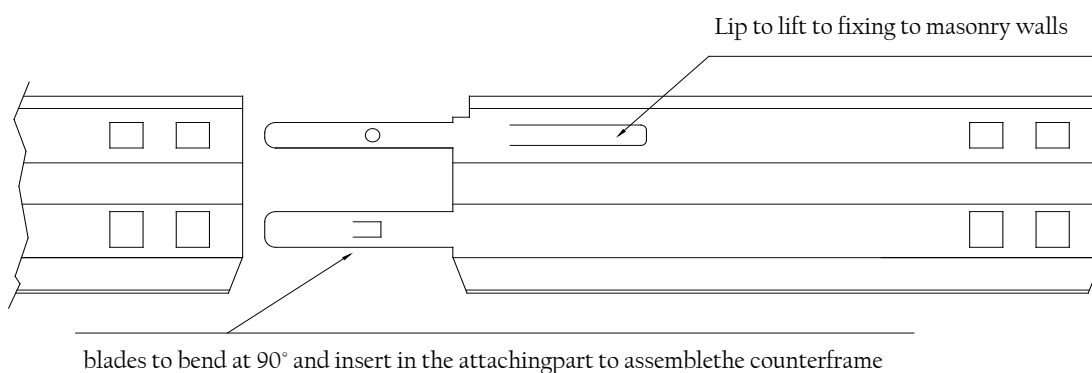
Mounting with double deflection grille



COUNTERFRAMES FOR SUPPLY AND RETURN GRILLES

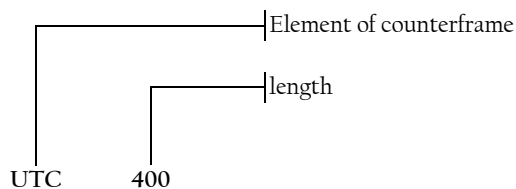
UTC
SERIES

OVERVIEW



Detail of the fixing method between parts

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



Example:

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

UTC-400 - 2 pieces

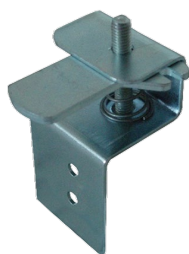
UTC-200 - 2 pieces

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																

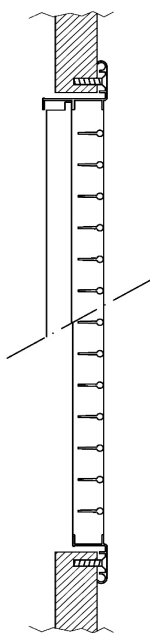
The 563x563 size is for grilles with a 595x595mm outside frame measurement, used for modular counterceilings.



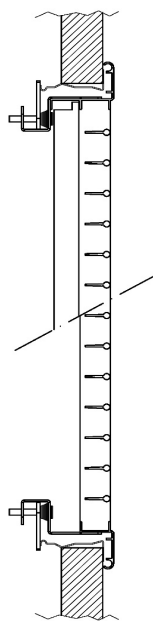
QUICK INSTALLING

U-FIX SERIES

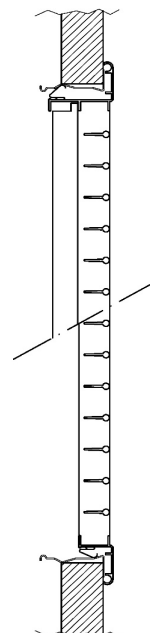
OVERVIEW



Grille with
visible screw fixing



Grille with
hidden screw fixing



Grille with
friction springs

All the fixing methods are available for all the models of grille, with one or two rows of fins

UM	
UF	
UQ	
UH	
KG	

New fixing with hidden screw

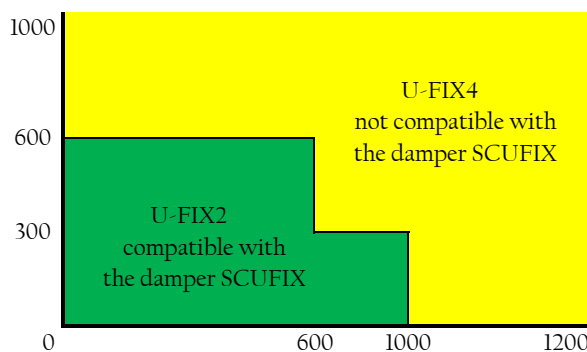
The new U-FIX kit allows a quick fixing of the shown grids to the counterframe simply rotating a hidden screw behind the front fins.

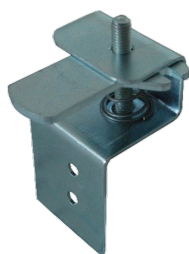
The kit is suitable for grilles with two rows or a single row of fins.

This solution allows you to quickly disassemble and reassemble the grid for any cleaning or maintenance. The kit consists of two or four hardware, depending on the size of the grid.

The kit comes already assembled on the grid.

For the sizes up to 1000x300 and 600x600 it is possible to provide an SC damper mounted during manufacturing on the grid frame.

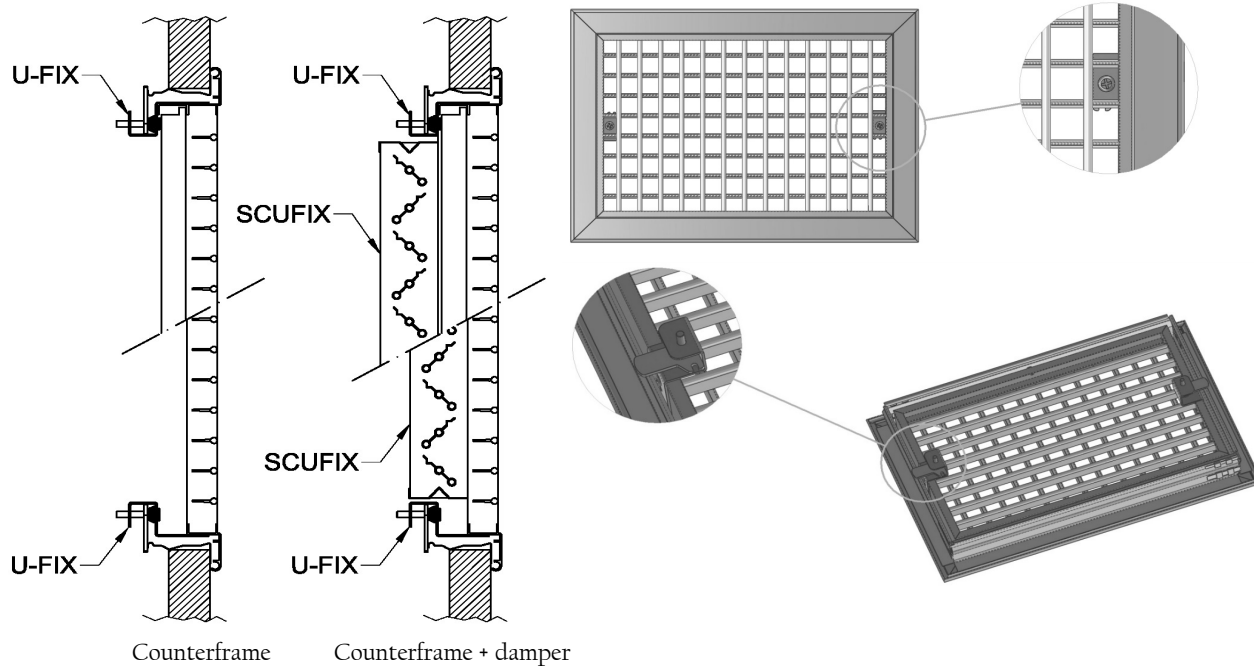




QUICK INSTALLING

U-FIX SERIES

OVERVIEW



HOW TO ORDER

The code of the grid must be with "clips configuration" (not with "holes configuration").
Standard clips will not be provided in presence of U-FIX kit mounted.
The counterframe must be ordered according to standard counterframe dimension.
In case of regulation damper request, please use the specific code SCUFIX

ORDER EXAMPLES

Grid UM 400x200mm with U-FIX and counterframe

- | | | |
|----------------|------|---|
| 1) UMIHC400200 | q.ty | 1 |
| 2) U-FIX2 | q.ty | 1 |
| 3) UTCC0400200 | q.ty | 1 |

Grid UM 700x400mm with U-FIX and counterframe

- | | | |
|----------------|------|---|
| 1) UMIHC700400 | q.ty | 1 |
| 2) U-FIX4 | q.ty | 1 |
| 3) UTCC0700400 | q.ty | 1 |

Grid UM 400x200mm with U-FIX, counterframe and regulation damper

- | | | |
|-----------------|------|---|
| 1) UMIHC400200 | q.ty | 1 |
| 2) U-FIX2 | q.ty | 1 |
| 3) UTCC0400200 | q.ty | 1 |
| 4) SCUFIX400200 | q.ty | 1 |