

## Description and application

Grille intake and exhaust used in low and medium pressure industrial facilities or public areas where it is necessary to exchange a large amount of air. Is designed to installation in walls, ceilings or directly on the ducts using visible screws in stamped holes in front frame or with an additional frame to hide the assembly elements. On request there is possibility of making the grille with a damper for regulating the air flow.

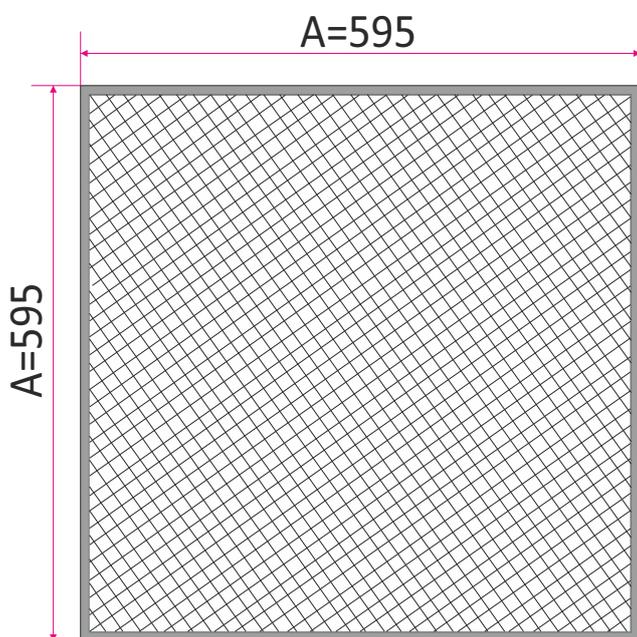
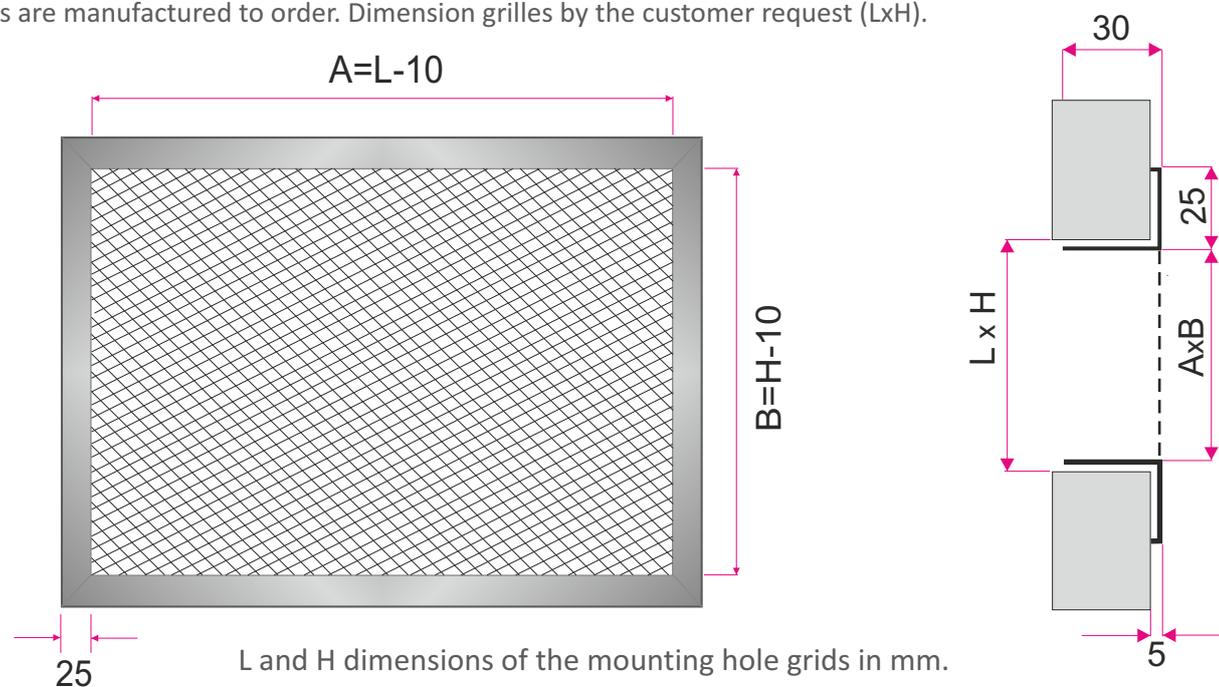
## Grille has Hygienic Certificate

## Material and workmanship

Grille is made of galvanized steel and expanded metal mesh, the whole grille is powder coated in white color RAL 9016. On request, it is possible to paint in any RAL color and execution of stainless steel or aluminum. The manufacturer reserves the right to make technological changes.

## Size

Grilles are manufactured to order. Dimension grilles by the customer request (LxH).



Version in the frame of the angle bar (KSI-1k) is recommended to be mounted on the suspended ceiling construction



**Quick selection**

There is a possibility to use mesh with different mesh sizes:

For  $A_{ef}=0,022 [m^2]$  the smallest proposed dimensions [LxH] grille:

- 1) N16-12x7 - clearance 73% (Table 1.)
- 2) N14-10x6 - clearance 75% (Table 2.)
- 4) N8-5x3 - clearance 68% (Table 3.)

- N16-12x7 (clearance relative 73%) 525x75, 325x125, 225x225
- N14-10x6 (clearance relative 75%) 525x75, 325x125, 225x225
- N8-5x3 (clearance relative 68%) 525x75, 325x125, 225x225

H [mm] \ L [mm]	125	225	325	425	525	625	825	1025	1225
	$A_{ef} (m^2)$ - effective area								
75	0,005	0,010	0,015	0,022	0,024	0,029	0,039	0,048	0,058
125	0,010	0,018	0,026	0,035	0,043	0,052	0,068	0,085	0,102
225		0,034	0,049	0,065	0,081	0,097	0,128	0,159	0,191
325			0,072	0,095	0,118	0,141	0,187	0,233	0,279
425				0,126	0,156	0,186	0,246	0,307	0,368
525					0,194	0,231	0,306	0,382	0,457
625						0,276	0,366	0,456	0,545

**Table 1.**

Effective area to mesh having a mesh N16-12x7 and (73%)

H [mm] \ L [mm]	125	225	325	425	525	625	825	1025	1225
	$A_{ef} (m^2)$ - effective area								
75	0,006	0,011	0,015	0,020	0,025	0,030	0,040	0,050	0,059
125	0,010	0,019	0,027	0,036	0,044	0,053	0,070	0,088	0,105
225		0,035	0,051	0,067	0,083	0,099	0,131	0,164	0,196
325			0,074	0,098	0,122	0,145	0,192	0,240	0,287
425				0,129	0,160	0,179	0,237	0,295	0,353
525					0,186	0,222	0,294	0,366	0,438
625						0,265	0,351	0,437	0,523

**Table 2.**

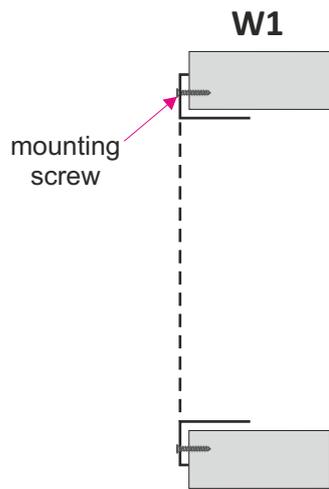
Effective area to mesh having a mesh N14-10x6 (70-75%)  
 The grille clearance depends on the mesh thickness.  
 To keep the rigidity of the grille, the mesh for size L, H > 500 has a thicker bridge of mesh.

H [mm] \ L [mm]	125	225	325	425	525	625	825	1025	1225
	$A_{ef} (m^2)$ - effective area								
75	0,005	0,095	0,014	0,018	0,023	0,027	0,036	0,045	0,054
125	0,009	0,017	0,025	0,032	0,040	0,048	0,064	0,079	0,095
225		0,031	0,046	0,061	0,075	0,090	0,119	0,148	0,178
325			0,068	0,089	0,110	0,132	0,175	0,217	0,260
425				0,117	0,145	0,161	0,213	0,265	0,318
525					0,167	0,200	0,264	0,329	0,394
625						0,238	0,316	0,393	0,471

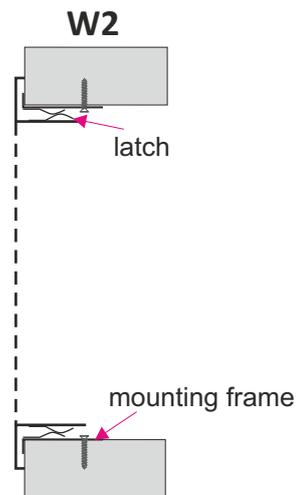
**Table 3.**

Effective area to mesh having a mesh N8-5x3 (63-68%)  
 The grille clearance depends on the mesh thickness.  
 To keep the rigidity of the grille, the mesh for size L, H > 500 has a thicker bridge of mesh.

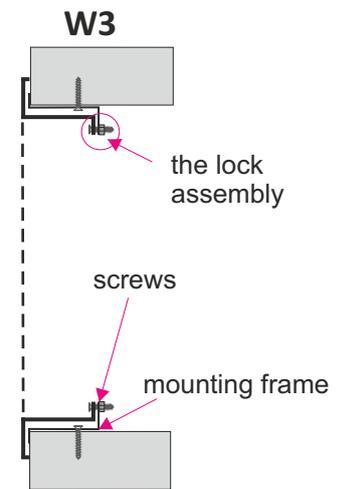
## Methods of mounting



Assembling visible through screws and mounting holes in the grille frame.



Assembling invisible by latches in grille and mounting frame RM or in plenum box.



Assembling invisible by screws and lock assembly in mounting frame RM or in plenum box. Option recommended for invisible installation in the ceiling.



Assembly invisible for dimension 595x595 - Grille to put on the suspended ceiling construction.

## The method of placing an order

Please make orders according to the following formula:

**KSI-1 / 'LxH' / 'RAL' / 'M' / 'W'**

- 'LxH' duct size/mounting hole size
- 'RAL' grille color according to RAL palette (standard RAL9016\*)
- 'M' material:
  - ST - powder coated steel\*
  - AL - aluminum powder coated
  - KO - stainless steel / acid proof steel (type 1.4301 or 1.4404)
- 'W' mounting option: **W1, W2, W3, W4**

\* - If you don't give the information will be used standard parameters.