Floor air grilles



SMAY ALF|STF-H

Hygienic certificates: HK/B/1121/01/2007 HK/B/1704/03/2007



Air grilles ALF and STF-H are designed for applications in the low- and medium pressure ventilation systems. They can be mounted directly in the floor as the finishing of ventilation duct.

 Aluminium grilles ALF They are equipped with stationary vanes with air outflow angle 15 degrees.

Aluminium grilles STF-H 🕨 They are equipped with stationary vanes with air outflow angle 0 degrees.



Air grilles ALF



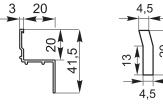
Material

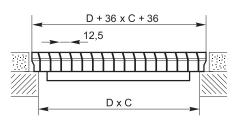
The frame and stationary vanes (insert) of the grilles are made out of anodised aluminium in natural colour. On order, it is possible to varnish them in another RAL colour. The vanes under standard version are made out of the profile which allows shaping the air outflow under the angle of 15 degrees. In the optional version, the vanes may be made out of brass or stainless steel profiles enabling to shape the air outflow under the angle of 0 degrees.

Frame and vane construction

Dimensions

The grille frames and vanes are made out of the profiles as in the figure





Assembly

The grille insert is mounted in the frame by means of spring fasteners. The whole is installed into the properly prepared assembling hole (see figure above).

Dimensions, active surface, grille weight ALF

| The standard dimensions of the grilles are given below. On customer's request, it is possible to produce the grilles with the dimensions other than | С | D | ALF | | С | D | ALF | |
|--|------|------|-----------|------------|-------------|------------|------------------|-------------|
| | | | A_{eff} | Mass | | | A _{eff} | Mass |
| | [mm] | [mm] | m² | kg | [mm] | [mm] | m² | kg |
| the standard ones. | 225 | 75 | 0,011 | 0,8 | 325 | 325 | 0,072 | 3,0 |
| | 325 | 75 | 0,016 | 1,1 | 425 | 325 | 0,095 | 3,8 |
| | 425 | 75 | 0,021 | 1,4 | 525 | 325 | 0,119 | 4,5 |
| | 525 | 75 | 0,027 | 1,7 | 625 | 325 | 0,141 | 5,3 |
| | 625 | 75 | 0,031 | 1,9 | 825 | 325 | 0,188 | 6,8 |
| | 825 | 75 | 0,042 | 2,5 | 1025 | 325 | 0,234 | 8,3 |
| | 1025 | 75 | 0,052 | 3,1 | 1225 | 325 | 0,281 | 9,9 |
| | 1225 | 75 | 0,063 | 3,6 | 425 | 425 | 0,125 | 4.7 |
| | 225 | 125 | 0,003 | 3,0 1,1 | 525 | 425 | 0,156 | 5,7 |
| | 325 | 125 | 0,010 | 1,1 | 625 | 425 | 0,185 | 6,6 |
| | 425 | 125 | 0,027 | 1,9 | 825 | 425 | 0,247 | 8,5 |
| | 525 | 125 | 0,045 | 2,2 | 1025 | 425 | 0,306 | 10,4 |
| | 625 | 125 | 0,053 | 2,6 | 1225 525 | 425 525 | 0,368 0,193 | 12,4 6,8 |
| | 825 | 125 | 0,071 | 3,4 | 625 | 525 | 0,193 | 8,0 |
| | 1025 | 125 | 0,088 | 4,1 | 825 | 525 | 0,220 | 10,3 |
| | 1225 | 125 | 0,106 | 4,9 | 1025 | 525 | 0,379 | 12,6 |
| | 225 | 225 | 0,033 | 1,7 | 1225 | 525 | 0,455 | 14,8 |
| | 325 | 225 | 0,049 | 2,2 | 625 | 625 | 0,272 | 9,3 |
| Where: C - width of the assembly hole in mm | 425 | 225 | 0,066 | 2,8 | 825 | 625 | 0,364 | 12,0 |
| | 525 | 225 | 0,082 | 3,4 | 1025 | 625 | 0,451 | 14,7 |
| | 625 | 225 | 0,097 | 4,0 | 1225 | 625 | 0,543 | 17,3 |
| D - height of the assembly hole in mm | 825 | 225 | 0,130 | 5,1 | | | | |
| A_{eff} - active surface in m ² | 1025 | 225 | 0,161 | 6,2 | | | | |
| Mass - grille weight in kg | 1225 | 225 | 0,194 | 7,4 | | | | |

Selection of ALF



Nomograms presenting the hydraulic and acoustic characteristics of the grilles are on page 369.

Accessories and how to order ALF

Nomograms presenting the hydraulic and acoustic characteristics of the grilles are on page 329

| Gdzie: | ALF - <c>x<d> - <p><ral> / <add></add></ral></p></d></c> |
|-------------------------|--|
| < C > | - width of the assembly hole in mm |
| <d> <p></p></d> | - height of the assembly hole in mm - finishing: ** |
| < r > | AA – anodised aluminium |
| | AL – varnished aluminium |
| | CZ - brass |
| <ral></ral> | SN – stainless steel: grade 1.4301 (304 acc. to AISI, 0H18N9 acc. to PN) - colour according to the RAL palette (for finishing of AL)* |
| <add></add> | - here you should determine the additional accessories as below: |
| Accessorie | ~~ *** |
| <ga></ga> | - backward damper made out of aluminium |
| < GS > | - concurrent damper made out of the galvanised steel |
| <gc></gc> | - tangent-balance damper |
| <gm> <gt></gt></gm> | - arc damper - slot damper |
| <l01></l01> | - screen deflector with useful surface of 38% section |
| <l02></l02> | - screen deflector with useful surface of 58% section |
| Plenum bo | ox according to the configuration as below: |
| | H>- <k><d><r></r></d></k> |
| < | - insulation: |
| | none = no insulation t = insulated |
| < H > | - box height in mm * |
| < K > | - position of connector pipe: |
| | b = lateral |
| <d></d> | g = upper - connector pipe diameter in mm * |
| < R > | - damper in the connector pipe: |
| | none = no damper |
| | P = damper with regulation from outside the box |
| | |

* optional values, when they are not given, the default values shall apply

Example of the order: **ALF - 525x225 - AL9010 / GA, SRt - 270 - b200**

Air grilles STF-H

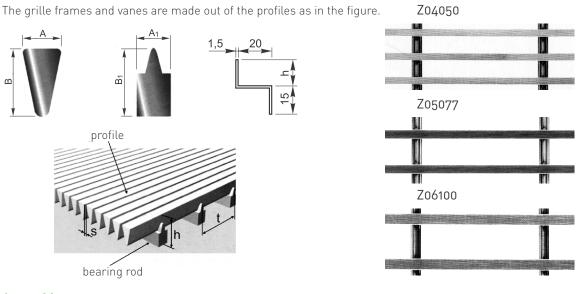


Material

The grille frame and stationary vanes are made out of stainless steel 1.4301. On order, it is possible to varnish them in RAL colour or execution of stainless steel 1.4404 with increased resistance to corrosion.

The vanes (insert) are made out of the profiles enabling to shape the air outflow under the angle of 0 degrees. The standard variant is made with the insert Z06100.

Frame and vane construction

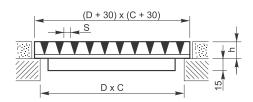


Assembly

The grilles are mounted by embedding in the suitably prepared assembling hole (see figure below).

Dimensions

The presented dimensions C and D are the maximum dimensions for the given design of the grille insert. While making the order, we kindly ask you for giving individual dimensions according to the project needs.



| Raster type | Profile | | Bearing rod | | h | s | t | С | D | A _{eff} [m ²] | Mass / |
|-------------|---------|-----|-------------|----|----|------|----|------|------|------------------------------------|----------------|
| | А | В | A1 | B1 | | - | | Ū. | - | dla 1m ² | m ² |
| Z04050 | 2,2 | 4,5 | 4 | 8 | 11 | 5,0 | 50 | 1970 | 1970 | 0,560 | 10,9 |
| Z05077 | 2,8 | 5,0 | 4 | 8 | 11 | 7,7 | 50 | 1970 | 1970 | 0,596 | 10,9 |
| Z06100 | 3,4 | 6,5 | 4 | 8 | 13 | 10,0 | 50 | 1970 | 1970 | 0,608 | 12,1 |

Where: C - width of the assembly hole in mm D - height of the assembly hole in mm A_{eff} - active surface in m² Mass - grille weight in kg

Selection of STF-H



Nomograms presenting the hydraulic and acoustic characteristics of the grilles are on page 369

Accessories and how to order STF-H

While making the order, it is necessary to provide the information according to the below-mentioned method:

STF-H - <C>x<D> - <T> - <P><RAL> / <ADD> Where: <**C**> - width of the assembly hole in mm <**D**> - height of the assembly hole in mm < **T** > - type of insert (vanes): * Z04050 Z05077 Z06100 <**P**> - finishing: * SN [1.4301] - stainless steel: grade 1.4301 (304 acc. to AISI, 0H18N9 acc. to PN) SN [1.4404] – stainless steel: grade 1.4404 (316l acc. to AISI, 0H17N14m2 acc. to PN) SL – stainless steel 1.4301 varnished <RAL> - colour according to the RAL palette (for finishing of SL)* <ADD> - here you should determine the additional accessories as below: Accessories *** <**GA**> - backward damper made out of aluminium <GS> - concurrent damper made out of the galvanised steel <GC> - tangent-balance damper <GM> - arc damper <GT> - slot damper - screen deflector with useful surface of 38% section <L01> - screen deflector with useful surface of 58% section <L02> Plenum box according to the configuration as below: <**SR**><**I**>-<**H**>-<**K**><**D**><**R**> < > - insulation: none = no insulation t = insulated <**H**> - box height in mm * <**K**> - position of connector pipe: b = lateral q = upper <D> - connector pipe diameter in mm * <**R**> - damper in the connector pipe: none = no damper P = damper with regulation from outside the box * optional values, when they are not given, the default values shall apply Example of the order:

STF-H - 270x1070 - Z06100 - SN (1.4301) / GS, SRt - 270 - b160

Notes

