



## Smoke exhaust fans



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## ST media

### **About the company**

### **Our projects**

### **Smoke extraction fans**

- 1.1. Roof radial smoke exhaust fans VKRN(-V)-DU
- 1.2. Radial smoke exhaust fans VR-80-70-DU

### **Fire valves**

- 2.1. Fire-fighting smoke valves KD
- 2.2. Fire-retardant fire valves KP-1

### **Air supply fans**

- 3.1. Energy-efficient axial fans VO
- 3.2. Low-pressure radial fans VR-80-70
- 3.3. Medium pressure radial fans VR-280-46

### **Air conditioning devices**

- 4.1. Air damper PZU
- 4.2. Excess pressure valve KNT

### **Complete with ventilation system**

- 5.1. Flexible inserts
- 5.2. Vibration isolators
- 5.3. Check valves
- 5.4. Petal valves
- 5.5. Motor protection
- 5.6. Protective umbrellas
- 5.7. Decorative grilles and protective nets
- 5.8. Pallets
- 5.9. Branch pipes
- 5.10. Frequency converters



## About the company

- The company was founded in 2002.
- Total production capacity is 5 thousand m<sup>2</sup>.
- The company's products comply with EN standards.
- Export of equipment to more than 10 countries.

## Facts in numbers

**1.312**

object

More

**1.000**

companies that  
trust us

**21**

year  
on the  
market

**100%**

satisfied  
customers

More

**17.000**

fans  
produced

**10**

countries we  
supply  
products to

**70,000**

products per  
year

# Our projects



**Shopping mall  
"Planeta Mall"**  
Kharkiv, Ukraine



**Residential complex  
"Seven"**  
Kyiv, Ukraine



**Residential complex  
"Jack House"**  
Kyiv, Ukraine



**Residential complex  
"Senat"**  
Kyiv, Ukraine



**Residential complex  
"Udobnyi"**  
Odesa, Ukraine



**Residential complex  
"Great"**  
Kyiv, Ukraine



**Residential complex  
"Varshavsky"**  
Kyiv, Ukraine



**Residential complex  
"Crystal Avenue"**  
Kyiv, Ukraine



**Residential complex  
"Mistechko Pidzamche"**  
Lviv, Ukraine



**Residential complex  
"Artima"**  
Chisinau, Moldova



**Hotel « Ibis »**  
Tbilisi, Georgia



**Residential complex  
"Azimut Copou"**  
Iasi, Romania

## Our projects



**Residential complex  
"Linden"**  
Kyiv, Ukraine



**Shopping center  
"Silpo"**  
Ukraine



**Residential complex  
"Newton House"**  
Chisinau, Moldova



**Residential complex  
"Lucky Land"**  
Kyiv, Ukraine



**Residential complex  
«Central Park»**  
Vinnytsia, Ukraine



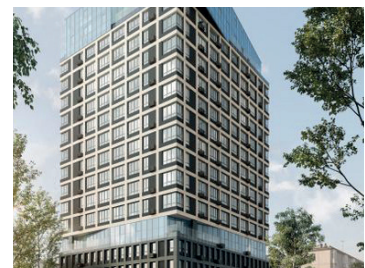
**Residential complex  
«Milltown»**  
Lviv, Ukraine



**Roshen**  
Boryspil, Ukraine



**Residential complex  
"Kryshtalni Dzherela"**  
Kyiv, Ukraine



**Residential complex  
"Park Residence"**  
Lviv, Ukraine



**PAES**  
Ukraine



**Residential complex  
"Optimisto"**  
Gatne, Ukraine



**Residential complex  
"Happy House"**  
Kyiv, Ukraine

## Our projects



**Apart Hotel  
"Skhidnytsia, Ukraine**



**Residential complex  
"Lesoparkovy"  
Vinnytsia, Ukraine**



**Residential complex  
"Metropolis"  
Kyiv, Ukraine**



**Residential complex  
"Teremky"  
Kyiv, Ukraine**



**Residential complex  
"Prichal 8"  
Kyiv, Ukraine**



**Residential complex  
"Nyvky-Park"  
Kyiv, Ukraine**



**Residential complex  
"Aquarelle"  
Vyshneve, Ukraine**



**Residential complex  
"Malachite"  
Kyiv, Ukraine**



**Shopping mall "Stryi"  
Stryi, Ukraine**



**Residential complex  
"Ok'Land"  
Kyiv, Ukraine**



**Residential complex  
"Galaxy"  
Kyiv, Ukraine**



**Residential complex  
«Dibrova Park»  
Kyiv, Ukraine**

Recently, the demand for human safety systems in buildings, including fire safety, has been increasing. In this matter, smoke ventilation and smoke exhaust fans that are part of it play a major role. Creating and designing smoke ventilation is a complex process, because the factors that affect the situation during a fire are practically not subject to forecasting and analysis. It is also worth considering the complexity of all processes - the chemical reaction of combustion, intensive heat transfer, mixing of air flows and combustion products.

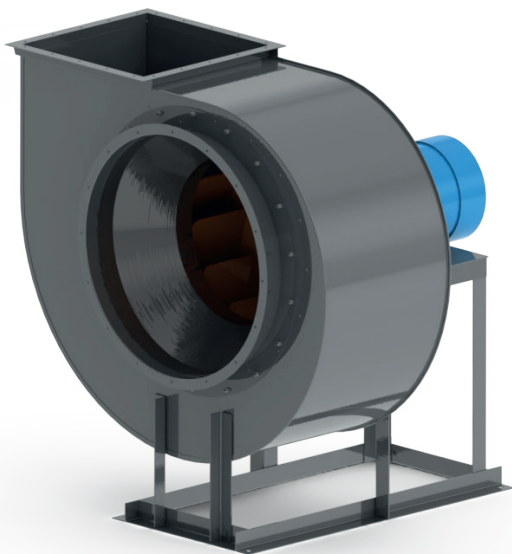
## *What can a smoke exhaust fan be?*

Smoke exhaust fans are classified depending on the design of the fan housing and the impeller design. The most popular are radial roof fans and "snail" type fans (a fan with a spiral housing).

Roof fans have many advantages. First of all, the system uses an unlimited roof area, and there is no need to look for special premises for smoke exhaust fans. Secondly, the use of these fans allows you to do without installing a vertical air duct. The fan discharges air directly into the open air environment.

The fan can discharge air upwards or sideways. When placing the equipment, it is worth considering the accepted safety standard: the discharge into the air environment must occur at a height of at least 2 m from the surface of a combustible material (roof).

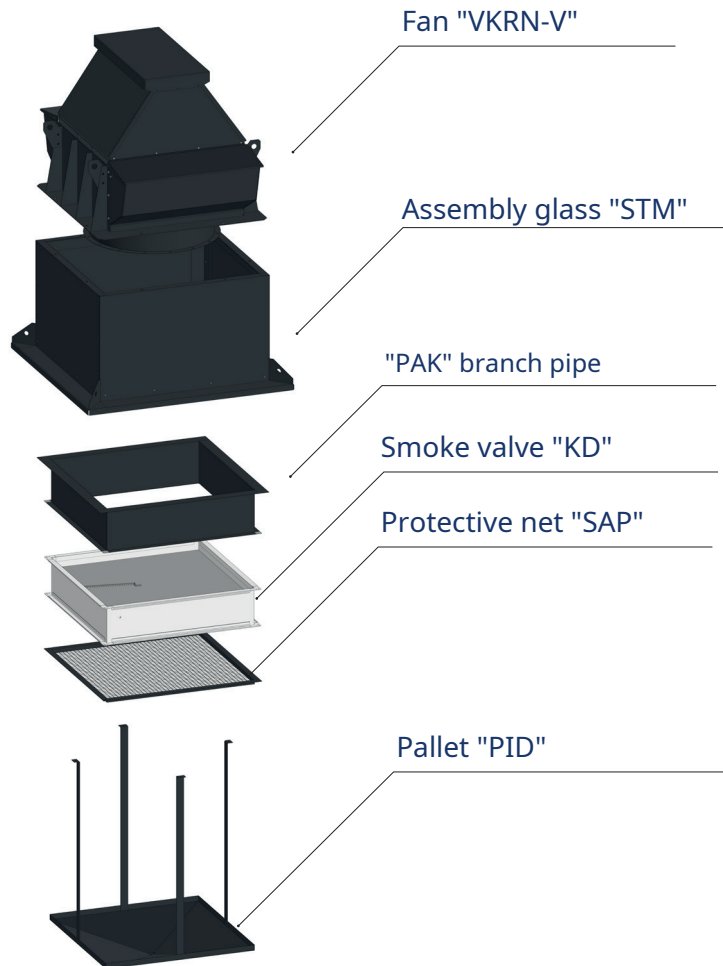
This height can be reduced if the roof is protected with a safe material. If we compare costs, a side discharge fan is a smoke exhaust system, the price of which is slightly lower.



In cases where it is not possible to install a roof fan, a radial fan with a spiral casing can be used. Such a fan can be placed in

any room, and it can also be connected to an air duct at the inlet and outlet. The only requirement for air ducts  
– this is fire resistance, which is provided by the structure due to the application of a special fire-retardant composition.

Radial roof smoke exhaust fans **VKRN(-V)-DU** are installed on the roofs of buildings and structures. They are intended for the removal of high-temperature gas-air mixtures that appear during a fire outside the premises of buildings and structures.



### General characteristics:

- air capacity from 2000 m<sup>3</sup>/h to 115000 m<sup>3</sup>/h;
- static pressure from 150 Pa to 2150 Pa;
- application temperature 400-600 ° C for at least 120 minutes;
- impeller with backward curved blades;
- welded body with wear-resistant paint coating;
- two-way horizontal air discharge (VKRN);
- two-way vertical air discharge (VKRN-V);
- possibility of dense installation of several fans on the roof;
- full protection against precipitation using self-closing nozzle covers that function as a check valve (VKRN-V);
- the body has a square cross-section;



Fans are designed to operate in moderate (U) 1st category of placement according to GOST 15150. Ambient temperature from -40°C to +40°C.

The average vibration velocity of external vibration sources at the fan installation locations is no more than 2 mm/s.

The aerodynamic characteristics of the fans are presented in graphs, where:

Q - air capacity m<sup>3</sup>/h x 10<sup>3</sup>;

Psv - static pressure at p<sub>AT</sub> = 1.2 kg/m<sup>3</sup> and t = 20°C air;

The pressure Psv created by the fan and the power consumed by the electric motor N at a different density ρ of the medium or a different air temperature t can be calculated using the following formulas:

$$P_{sv_t} = \left[ \frac{p}{p_0} \right] * P_{sv_0} \quad N_{p_t} = \left[ \frac{p}{p_0} \right] * N_{p_0}$$

$$P_{sv_t} = \left[ \frac{293}{273 + t} \right] * P_{sv_0} \quad N_{p_t} = \left[ \frac{293}{273 + t} \right] * N_{p_0}$$

### Marking

#### Example:

Radial roof fan; number 8; smoke extraction; temperature of the moving medium 600°C, electric motor with power Ny=5.5 kW, with rotation frequency n=970 rpm.

VKRN-V - 8 - DU - 600 - 5.5/1000

Fan type: <b>VKRN; VKRN-V;</b>			
Fan size: <b>5; 5.6; 6.3; 7.1; 8; 9; 10; 11.2; 12.5;</b>			
Appointment: <b>O</b> - general industrial; <b>G</b> - heat-resistant; <b>DU</b> - smoke extraction; <b>K</b> - corrosion-resistant (specify the brand of stainless steel); <b>VZI</b> - explosion-proof;			
Temperature of the transported air, °C: <b>80 (O); 200 (G); 400 (DU); 600 (DU);</b>			
Electric motor parameters, Ny/n: <b>Ny</b> - power, kW; <b>n</b> - synchronous speed, rpm (750; 1000; 1500; 3000);			

**WARNING!**

The fans are equipped with a three-phase electric motor as standard, in case  
If necessary, it is possible to install a single-phase electric motor.

STM mounting glass

**Appointment**

For easy installation of roof smoke exhaust fans on any type of roof.

**Construction**

Assembly glass **STM**- steel frame sheathed with galvanized steel.

Insulated mounting glass **STM-U**- steel frame sheathed with galvanized steel, insulated inside with thermally insulating non-combustible material.

**Equipment:**

- check valve **KO**, installed inside - to prevent uncontrolled heat loss;
- branch pipe **PACK**- if installation of a smoke valve, a pallet or a corresponding part of the air duct is required;
- smoke valve **KD** with electric drive - to prevent uncontrolled heat loss and condensation;
- decorative aluminum, galvanized and anti-vandal grilles;
- pallet **PID**- for collecting condensate.

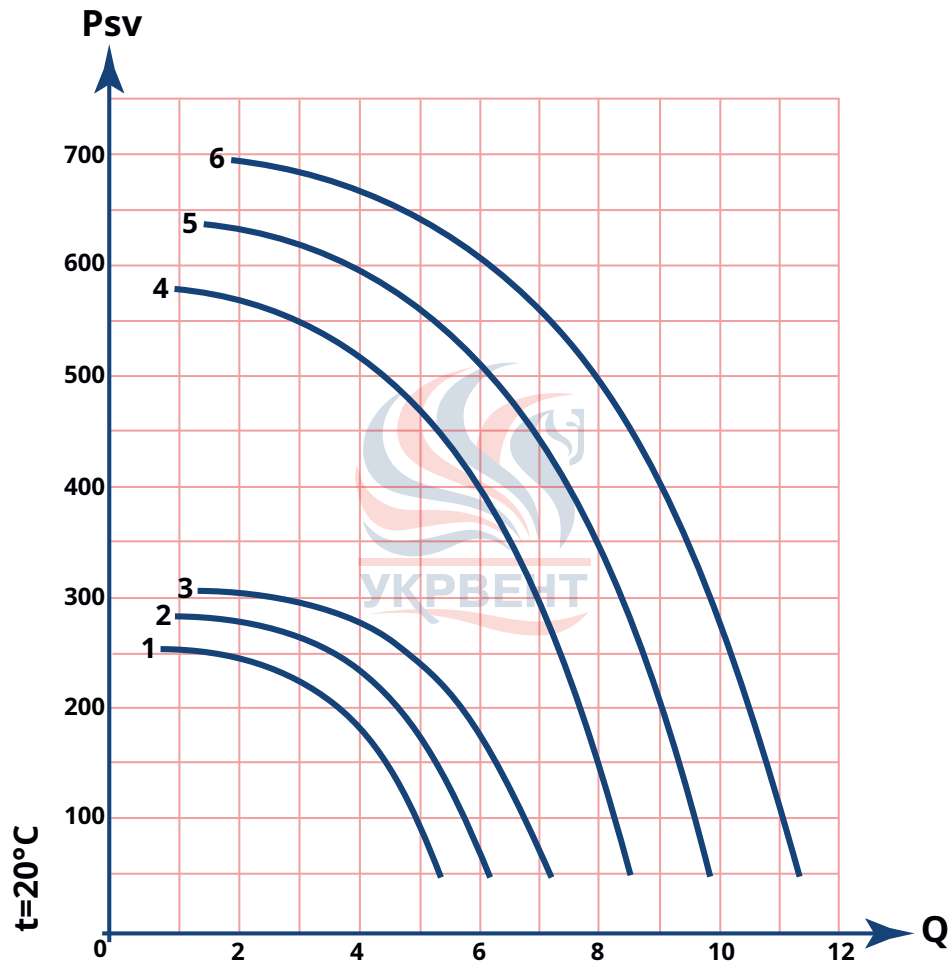
**Marking**

Example:

Mounting cup 115 standard size, insulated with a check valve of general industrial design:

**STM-115 - U - KO - O**

Standard size: <b>72; 92; 115; 140; 156;</b> <b>2x72; 2x92; 2x115; 2x140; 2x156;</b> (for paired glasses)			
Insulation: <b>U</b> - with insulation; <b>O</b> - without insulation;			
Check valve: <b>KO</b> - with a check valve; <b>O</b> - without a check valve;			
Implementation: <b>O</b> - general industrial/smoke extraction; <b>K</b> - corrosion-resistant;			

**VKRN(-V)-5-DU**
**Aerodynamic characteristics**


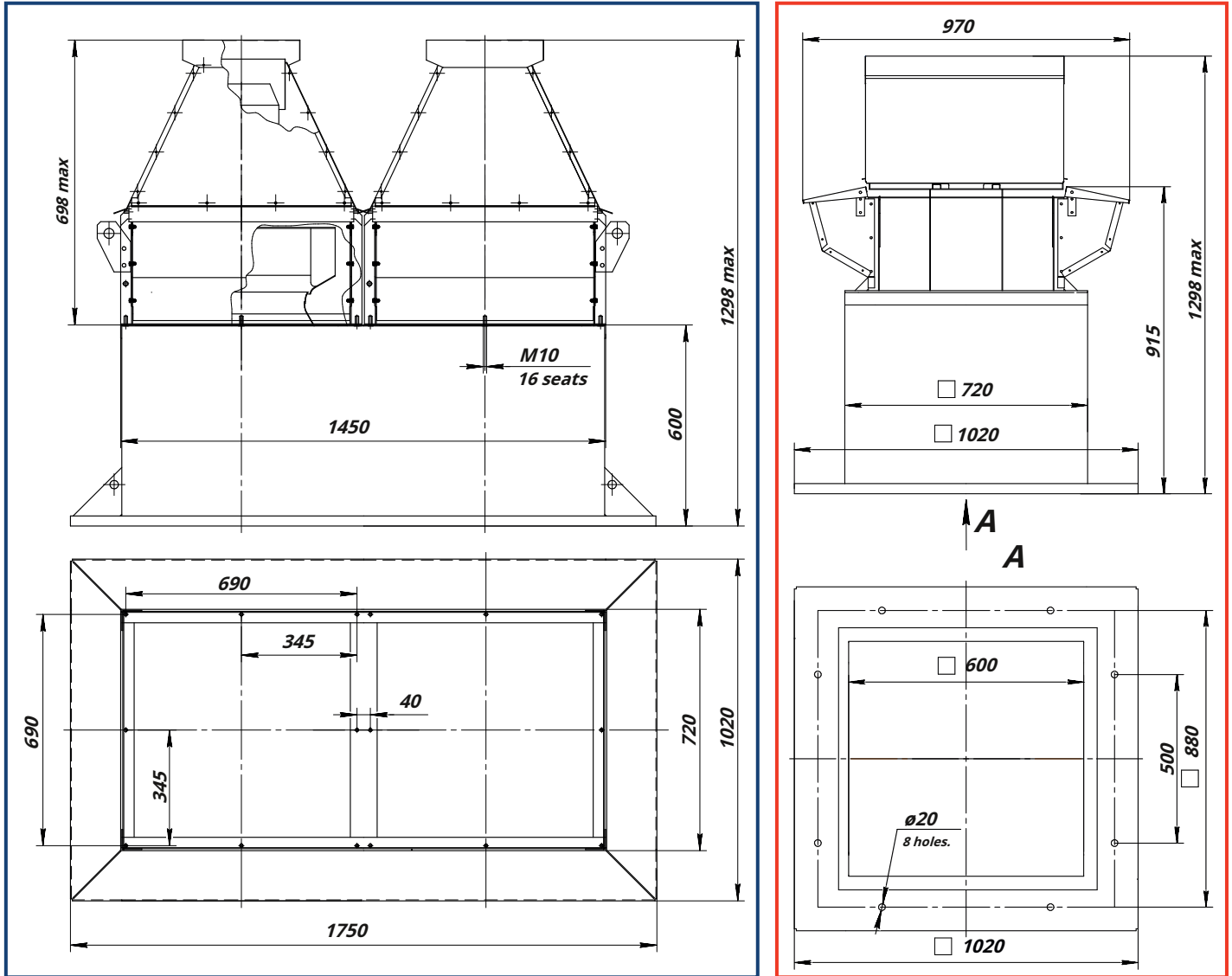
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
<b>1</b>	<b>0.37</b>	<b>895</b>	<b>1.3</b>	<b>116</b>	<b>180</b>
<b>2</b>	<b>0.55</b>	<b>895</b>	<b>1.9</b>	<b>116</b>	<b>180</b>
<b>3</b>	<b>0.75</b>	<b>910</b>	<b>2.29</b>	<b>120</b>	<b>184</b>
<b>4</b>	<b>1.5</b>	<b>1390</b>	<b>3.95</b>	<b>124</b>	<b>188</b>
<b>5</b>	<b>1.5</b>	<b>1395</b>	<b>3.95</b>	<b>124</b>	<b>188</b>
<b>6</b>	<b>2.2</b>	<b>1400</b>	<b>5.3</b>	<b>129</b>	<b>193</b>

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

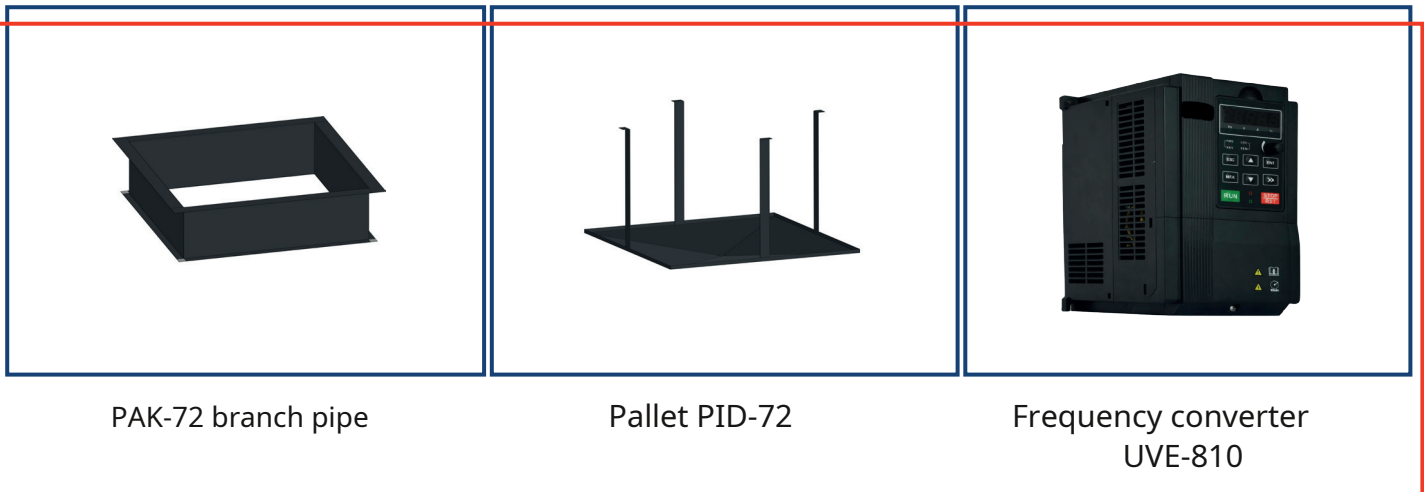
\*\* Paired fans have separate connection boxes

### VKRN(-V)-5-DU

Overall and connection dimensions of the VKRN(-V)-5-DU fan on mounting cups 2xSTM-72-U-KO-O and STM-72-U-KO-O



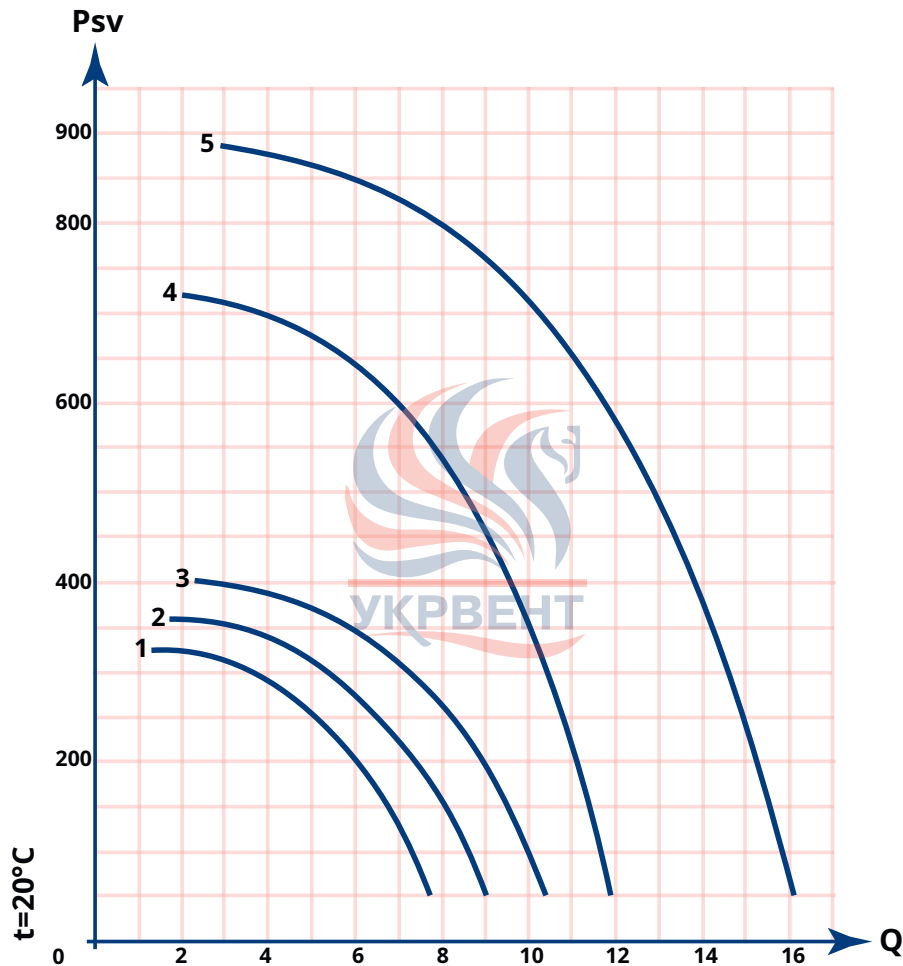
### Additional equipment



PAK-72 branch pipe

Pallet PID-72

Frequency converter UVE-810

**VKRN(-V)-5,6-DU**
**Aerodynamic characteristics**


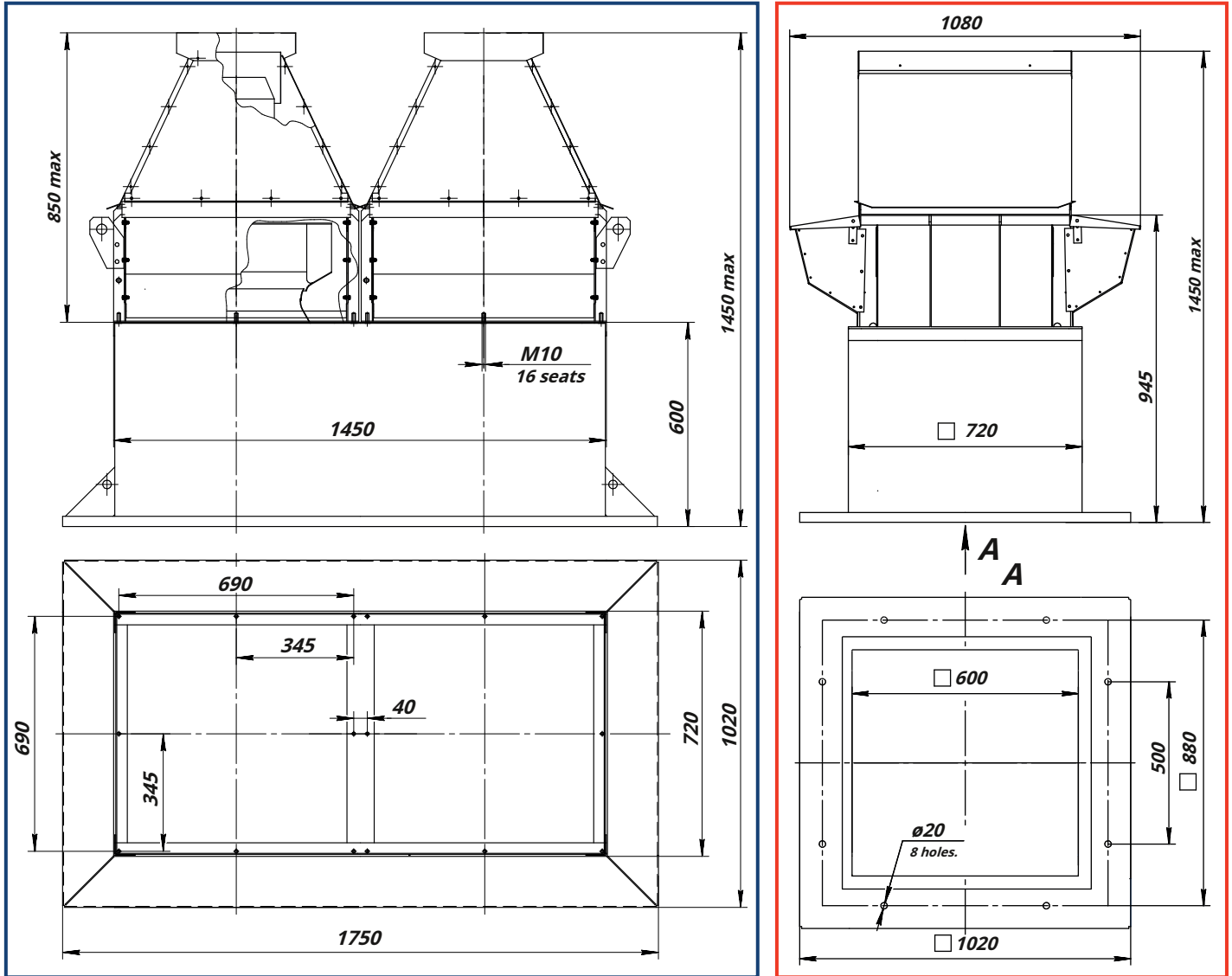
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
<b>1</b>	<b>0.55</b>	<b>895</b>	<b>1.9</b>	<b>138</b>	<b>202</b>
<b>2</b>	<b>0.75</b>	<b>910</b>	<b>2.29</b>	<b>142</b>	<b>206</b>
<b>3</b>	<b>1.1</b>	<b>910</b>	<b>3.18</b>	<b>142</b>	<b>206</b>
<b>4</b>	<b>2.2</b>	<b>1400</b>	<b>5.3</b>	<b>147</b>	<b>211</b>
<b>5</b>	<b>3</b>	<b>1420</b>	<b>7.2</b>	<b>154</b>	<b>218</b>

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

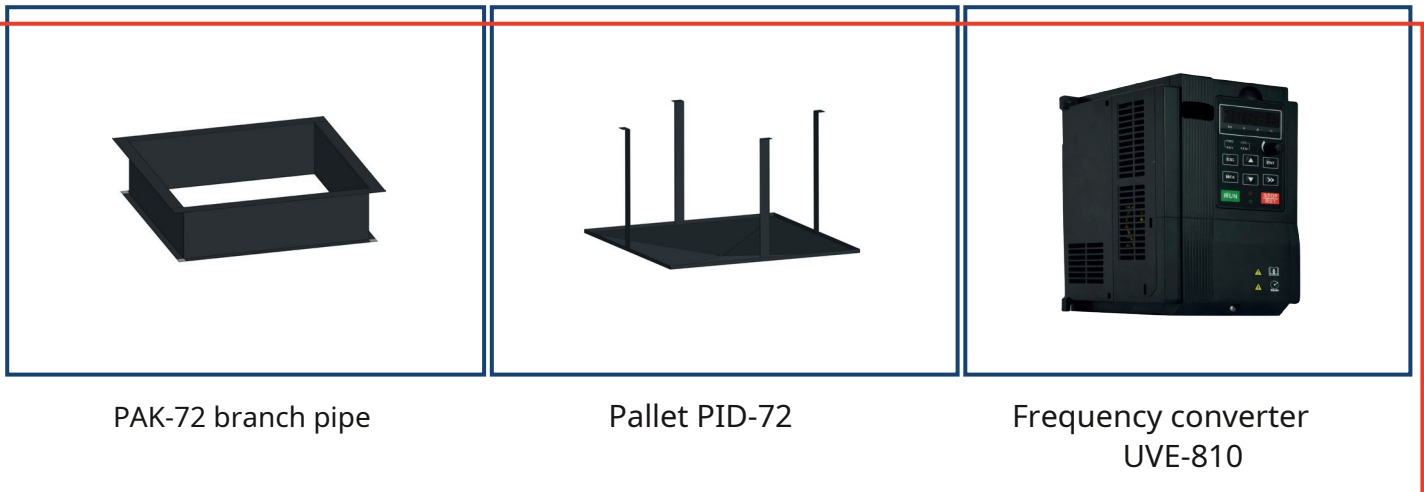
\*\* Paired fans have separate connection boxes

### VKRN(-V)-5,6-DU

Overall and connection dimensions of the VKRN(-V)-5,6-DU fan on mounting cups 2xSTM-72-U-KO-O and STM-72-U-KO-O



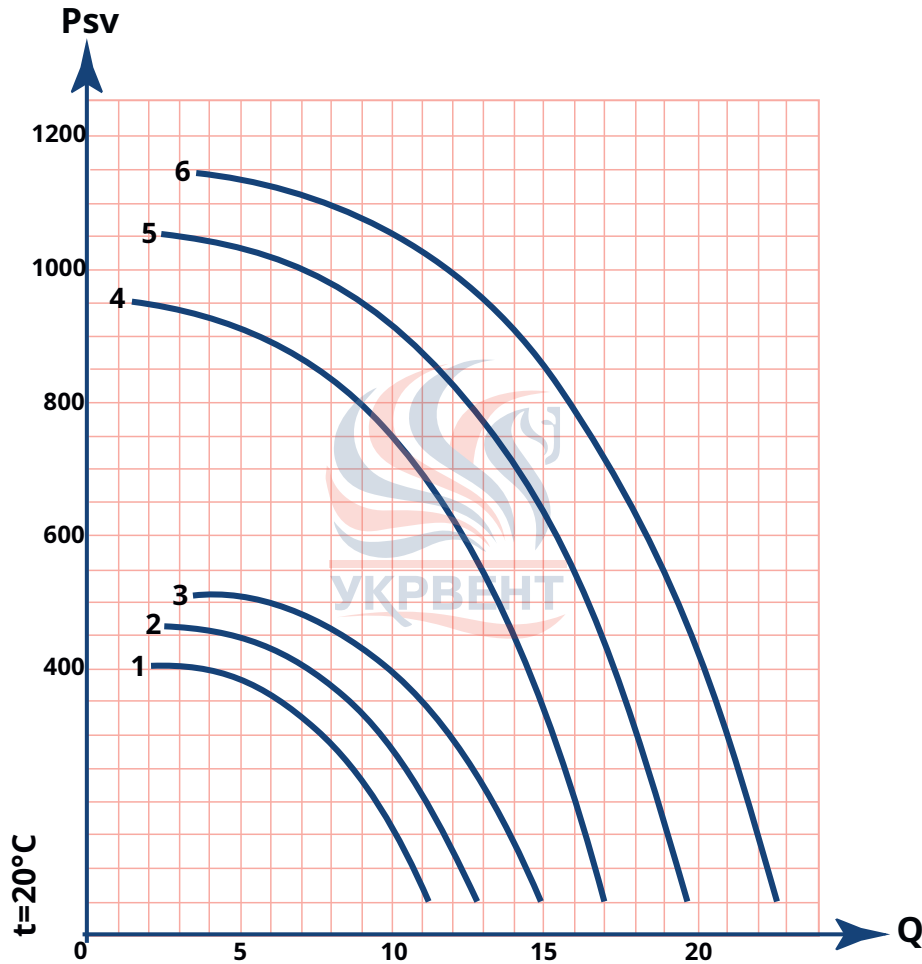
### Additional equipment



PAK-72 branch pipe

Pallet PID-72

Frequency converter  
UVE-810

**VKRN(-V)-6,3-DU**
**Aerodynamic characteristics**


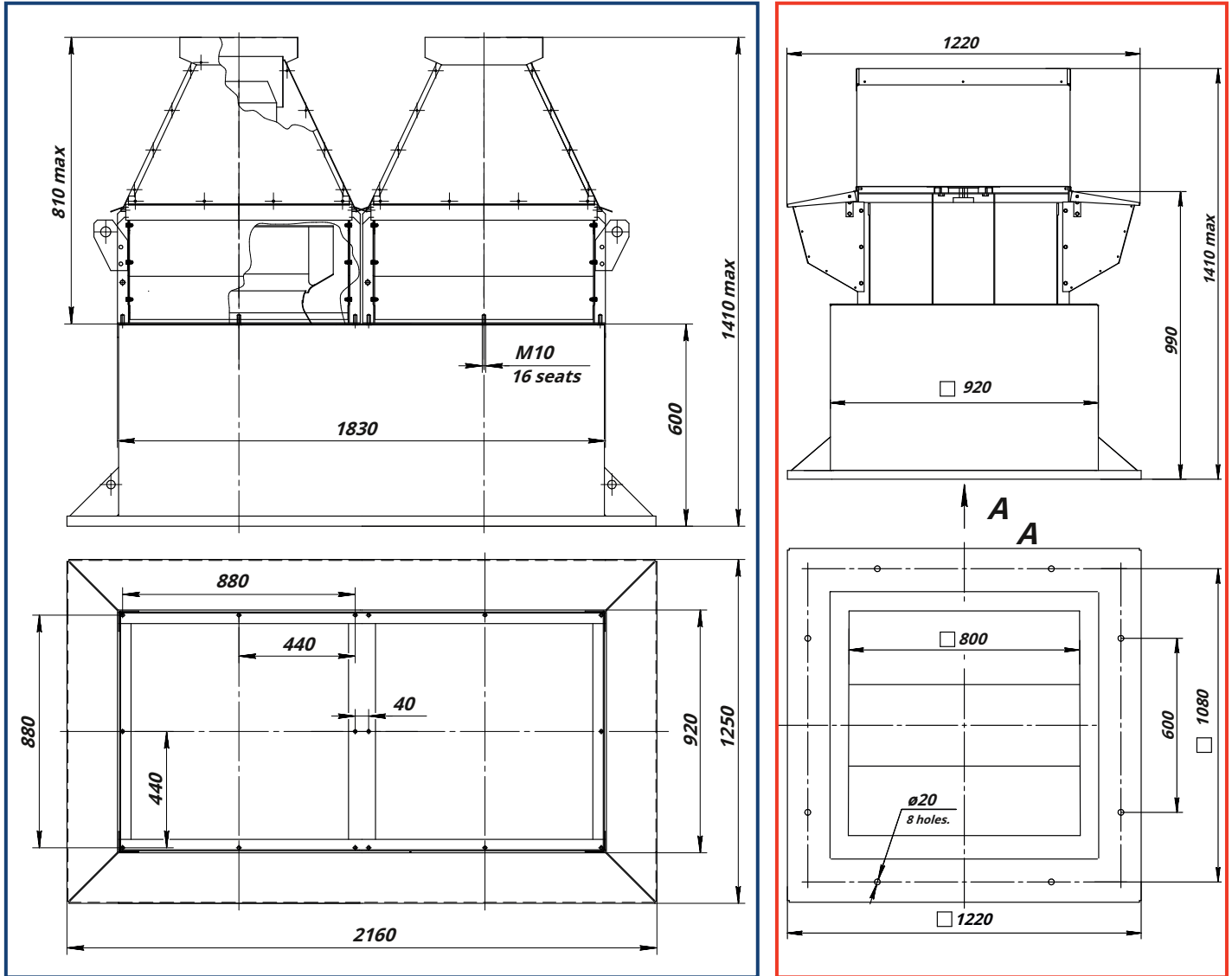
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
<b>1</b>	<b>1.1</b>	<b>910</b>	<b>3.18</b>	<b>156</b>	<b>259</b>
<b>2</b>	<b>1.5</b>	<b>920</b>	<b>4.2</b>	<b>160</b>	<b>263</b>
<b>3</b>	<b>2.2</b>	<b>930</b>	<b>5.9</b>	<b>170</b>	<b>273</b>
<b>4</b>	<b>4</b>	<b>1420</b>	<b>9.3</b>	<b>170</b>	<b>273</b>
<b>5</b>	<b>5.5</b>	<b>1430</b>	<b>12.3</b>	<b>180</b>	<b>283</b>
<b>6</b>	<b>7.5</b>	<b>1440</b>	<b>16.1</b>	<b>194</b>	<b>297</b>

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

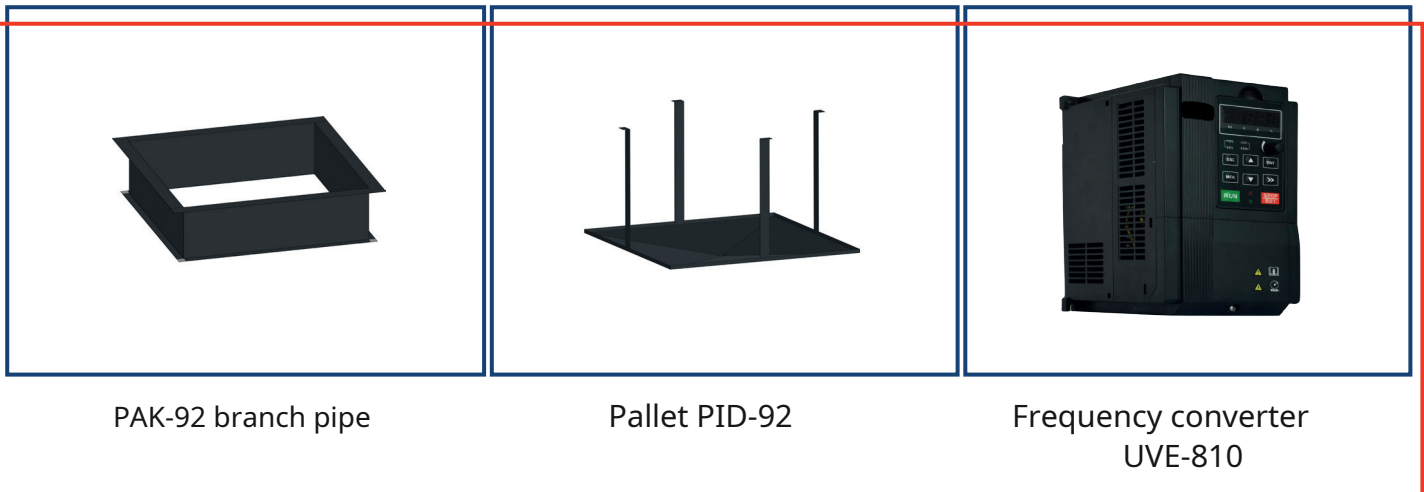
\*\* Paired fans have separate connection boxes

### VKRN(-V)-6,3-DU

Overall and connection dimensions of the VKRN(-V)-6,3-DU fan on mounting cups 2xSTM-92-U-KO-O and STM-92-U-KO-O



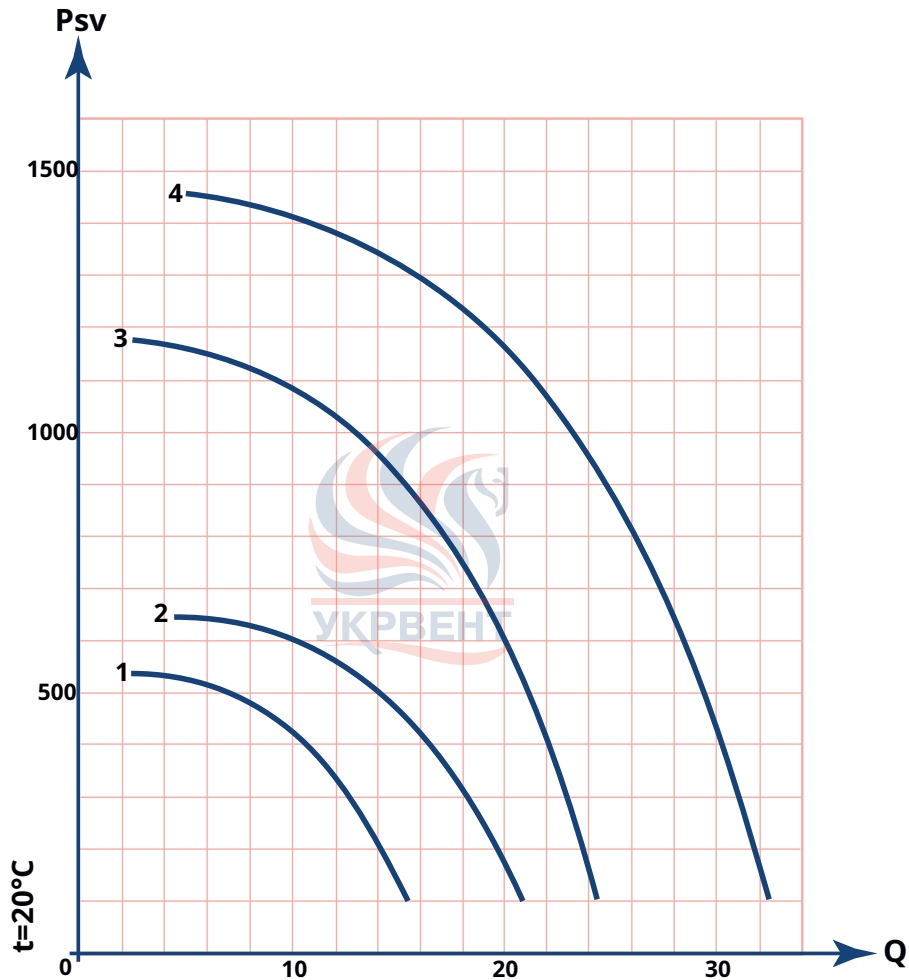
### Additional equipment



PAK-92 branch pipe

Pallet PID-92

Frequency converter  
UVE-810

**VKRN(-V)-7,1-DU**
***Aerodynamic characteristics***


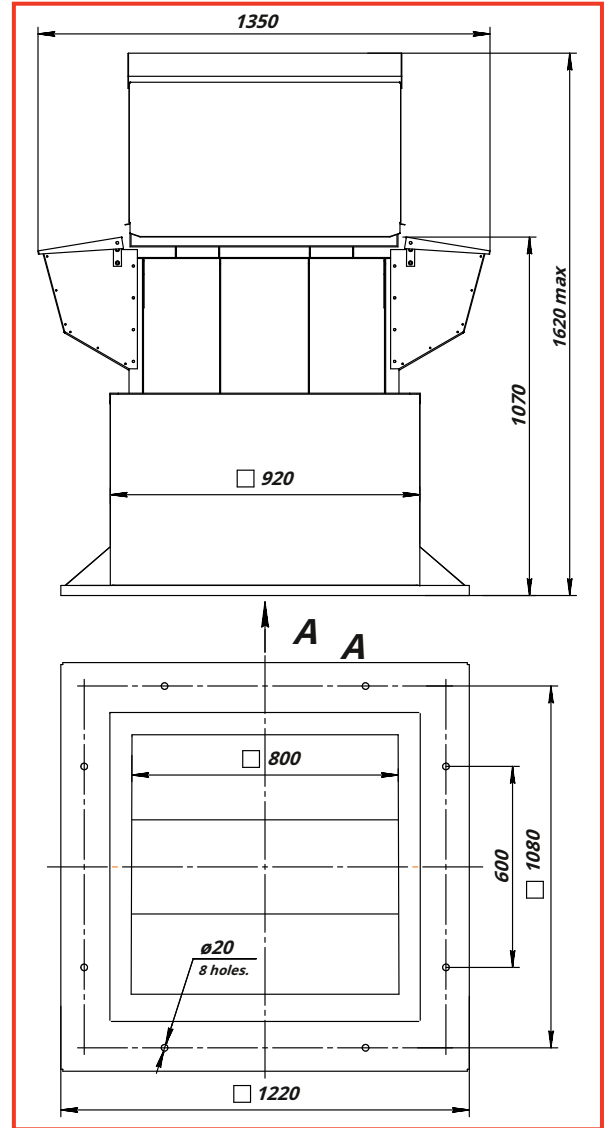
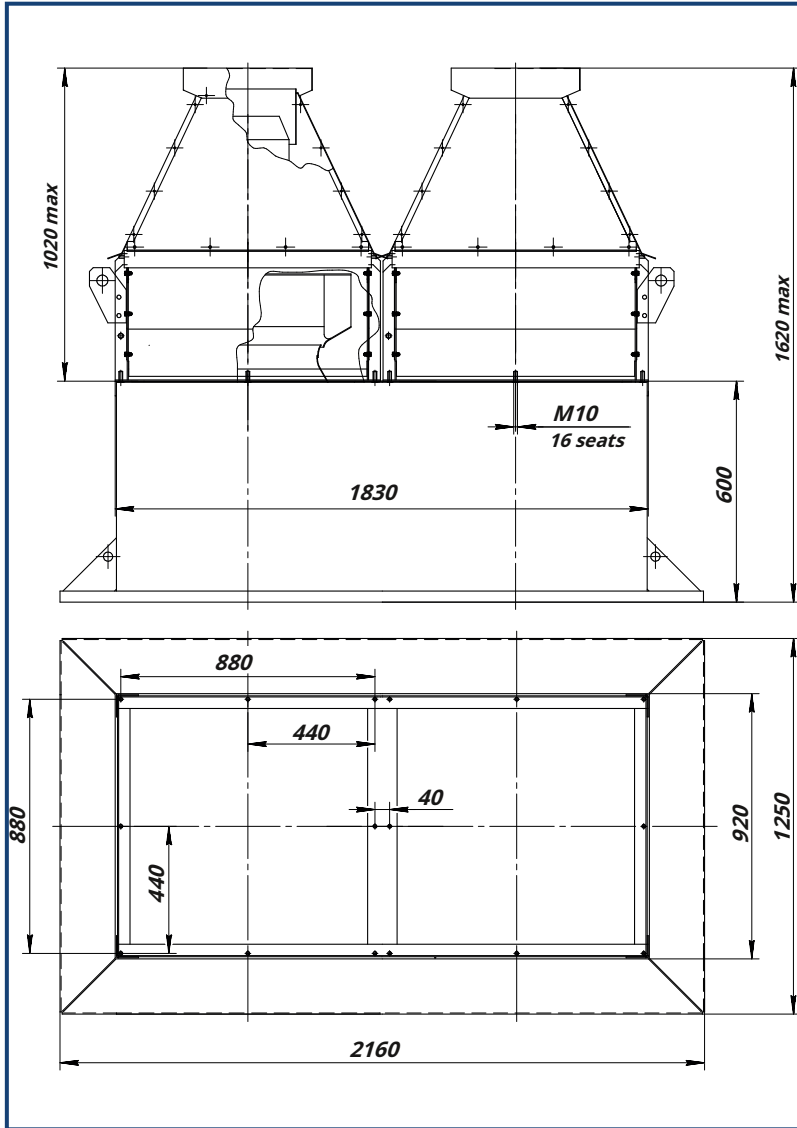
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
<b>1</b>	<b>2.2</b>	<b>930</b>	<b>5.9</b>	<b>208</b>	<b>311</b>
<b>2</b>	<b>3</b>	<b>935</b>	<b>7.9</b>	<b>238</b>	<b>341</b>
<b>3</b>	<b>7.5</b>	<b>1440</b>	<b>16.1</b>	<b>264</b>	<b>367</b>
<b>4</b>	<b>11</b>	<b>1450</b>	<b>23.1</b>	<b>278</b>	<b>381</b>

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

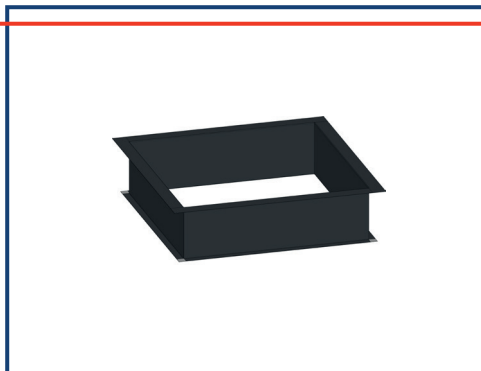
\*\* Paired fans have separate connection boxes

### VKRN(-V)-7,1-DU

Overall and connection dimensions of the VKRN(-V)-7,1-DU fan on mounting cups 2xSTM-92-U-KO-O and STM-92-U-KO-O



### Additional equipment



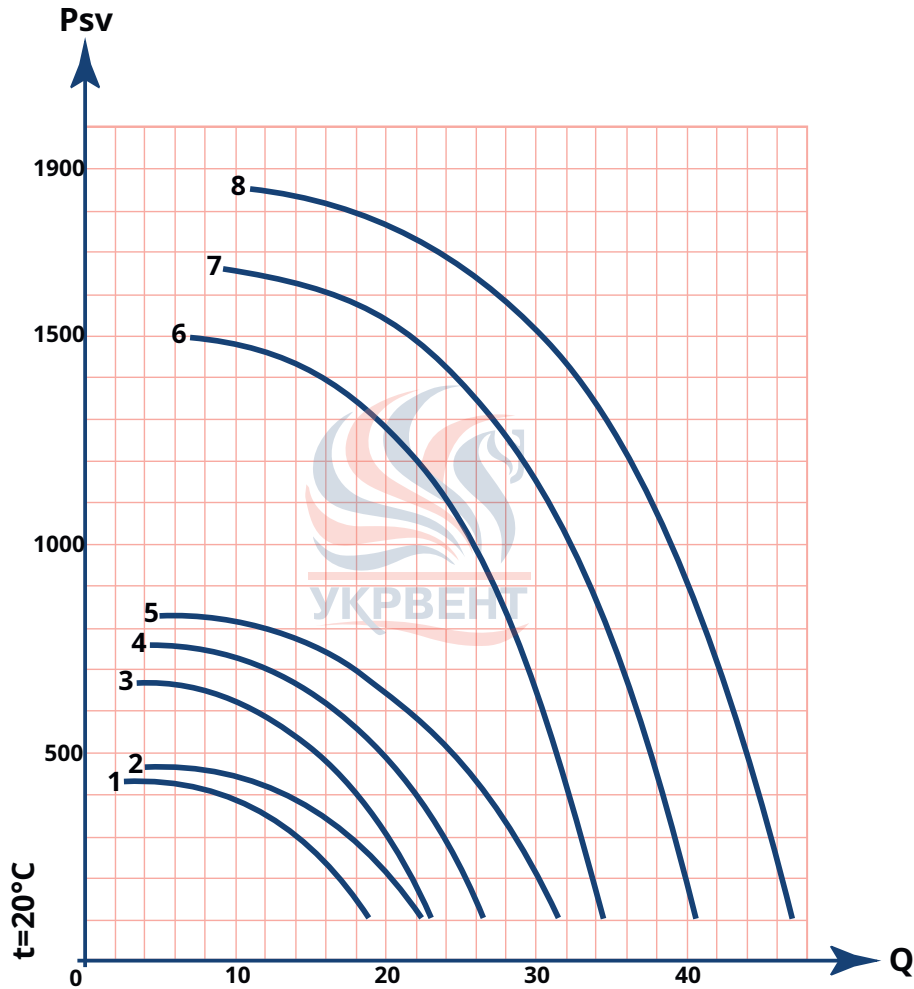
PAK-92 branch pipe



Pallet PID-92



Frequency converter  
UVE-810

**VKRN(-V)-8-DU**
***Aerodynamic characteristics***


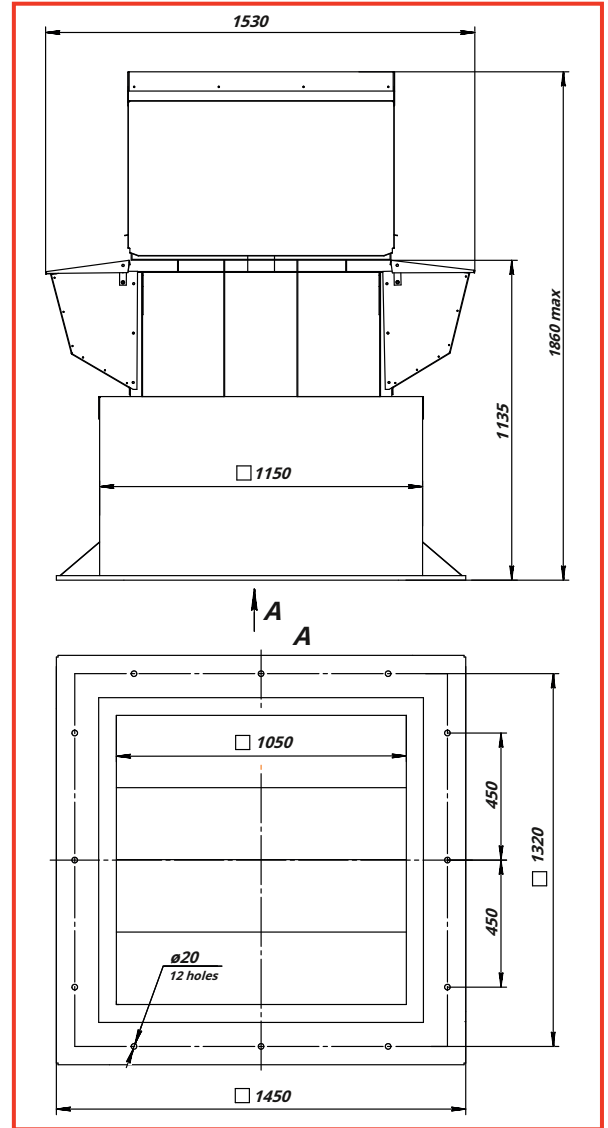
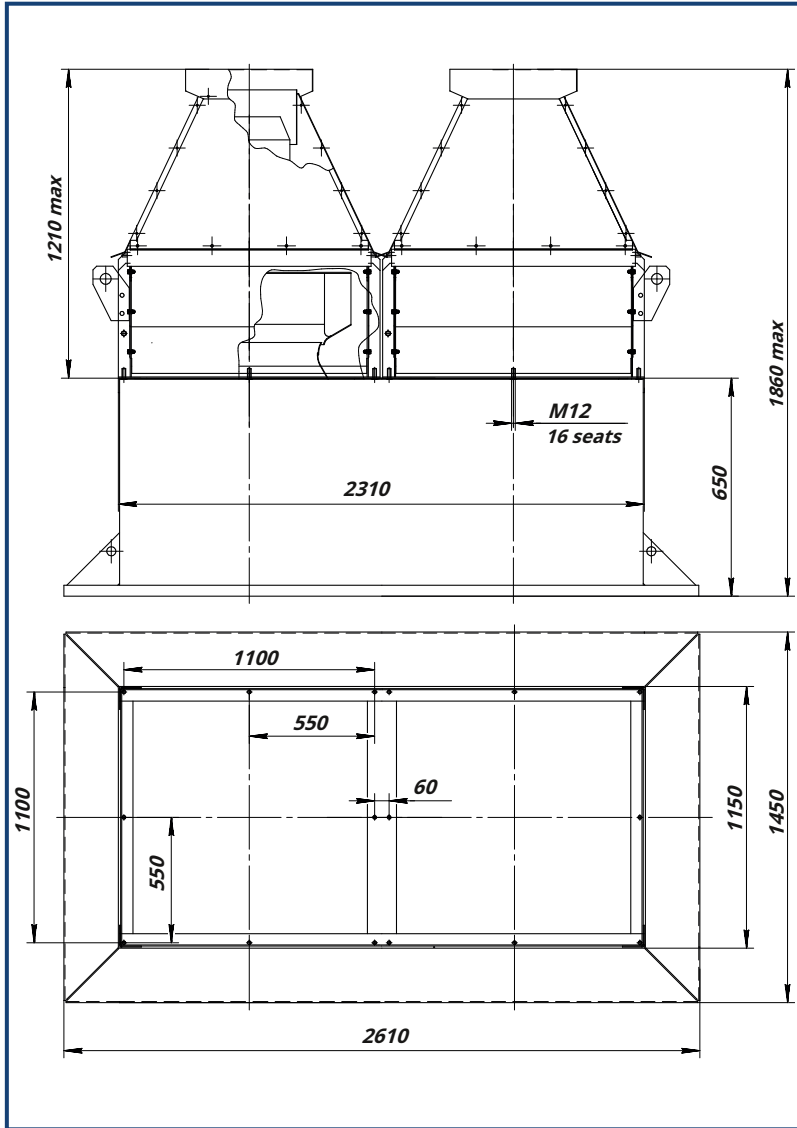
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
1	2.2	700	6.4	306	427
2	3	700	8.6	310	431
3	4	935	10.3	310	431
4	5.5	955	13.5	332	453
5	7.5	960	17.2	346	467
6	11	1450	23.1	348	469
7	15	1455	30.8	390	511
8	18.5	1455	37.8	405	526

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

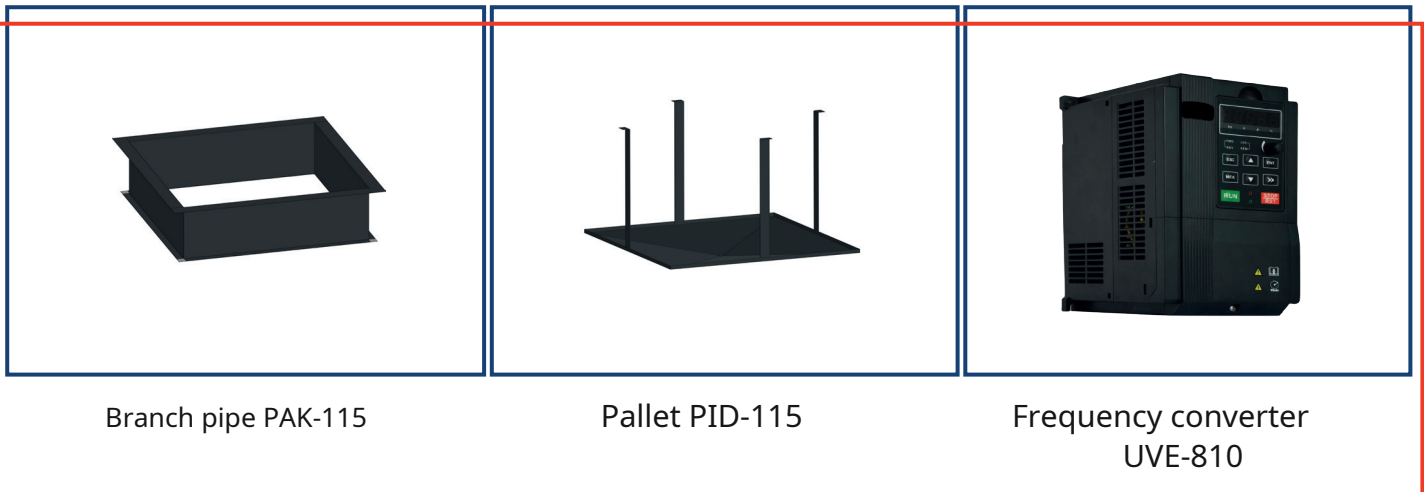
\*\* Paired fans have separate connection boxes

### VKRN(-V)-8-DU

Overall and connection dimensions of the VKRN(-V)-8-DU fan on mounting cups 2xSTM-115-U-KO-O and STM-115-U-KO-O



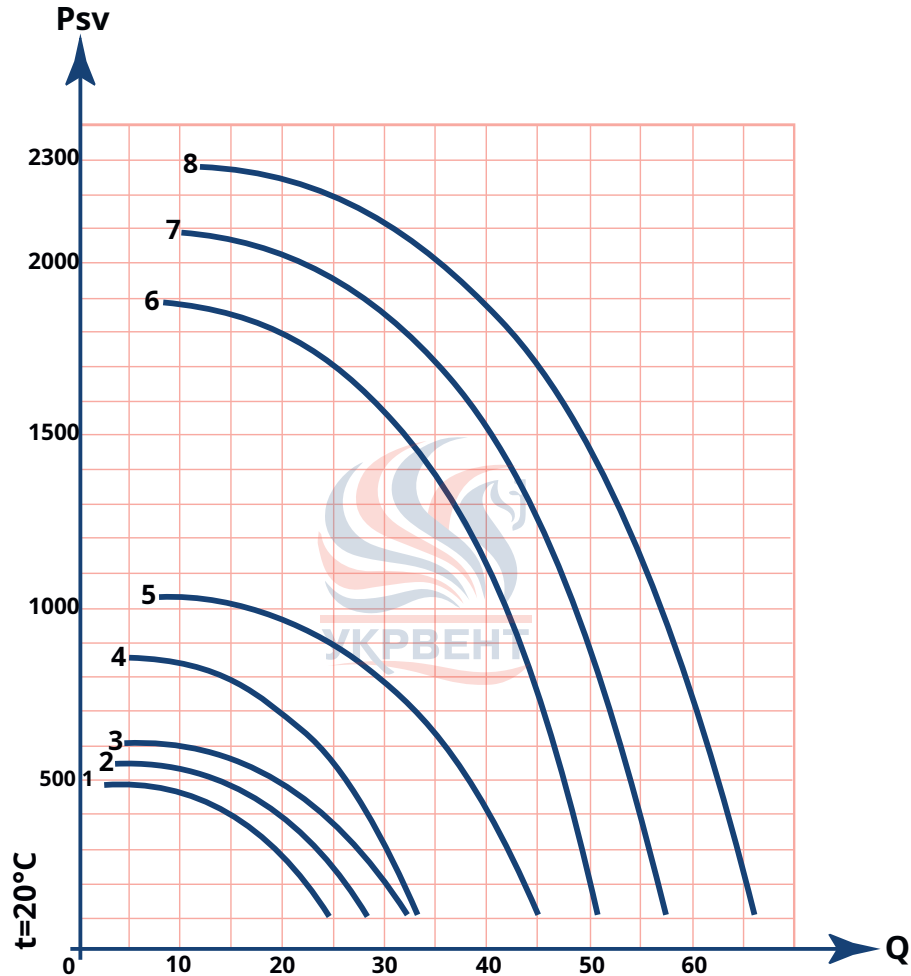
### Additional equipment



Branch pipe PAK-115

Pallet PID-115

Frequency converter UVE-810

**VKRN(-V)-9-DU**
**Aerodynamic characteristics**


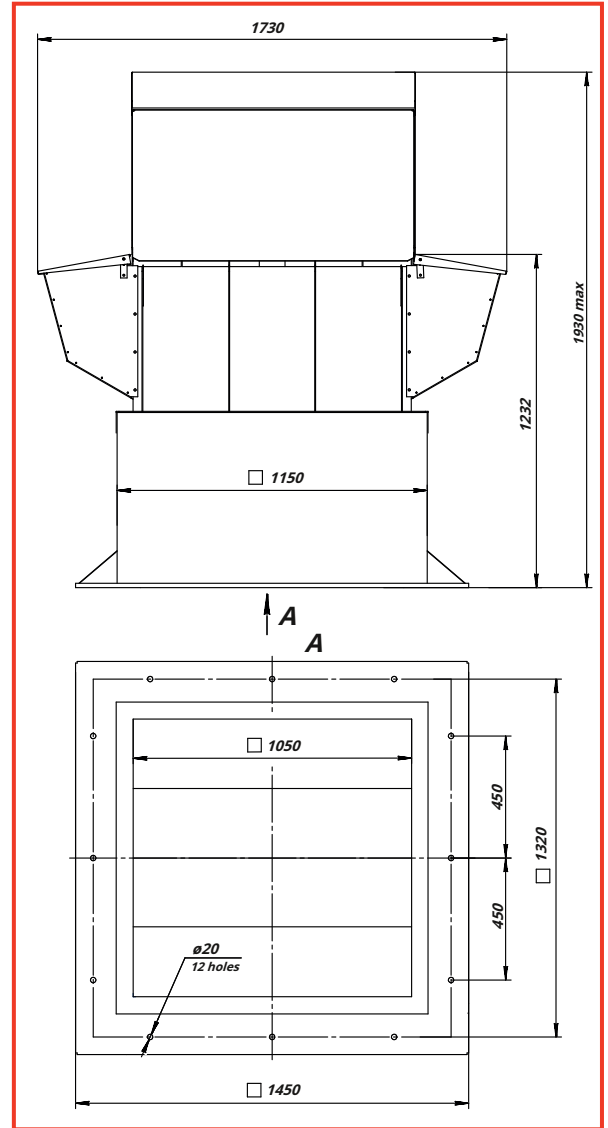
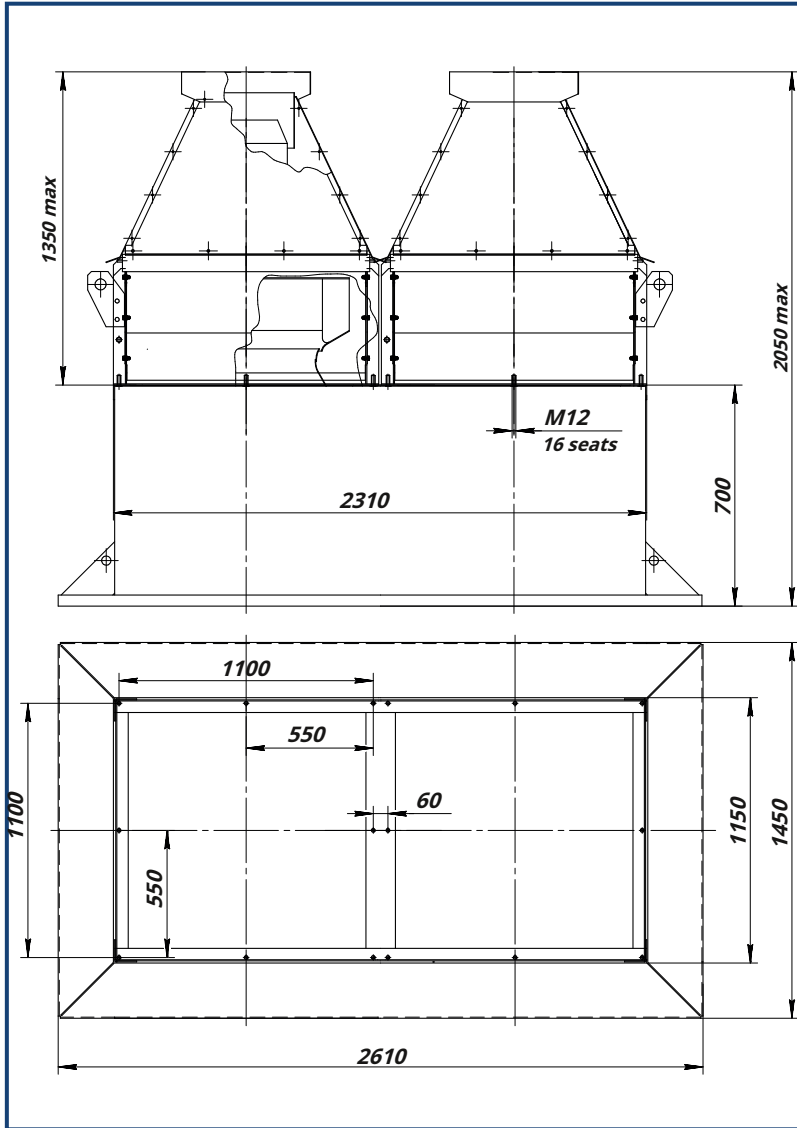
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
<b>1</b>	<b>3</b>	<b>700</b>	<b>8.6</b>	<b>358</b>	<b>479</b>
<b>2</b>	<b>4</b>	<b>715</b>	<b>10.8</b>	<b>372</b>	<b>493</b>
<b>3</b>	<b>5.5</b>	<b>715</b>	<b>14.7</b>	<b>386</b>	<b>507</b>
<b>4</b>	<b>7.5</b>	<b>960</b>	<b>17.2</b>	<b>386</b>	<b>507</b>
<b>5</b>	<b>11</b>	<b>965</b>	<b>24.6</b>	<b>430</b>	<b>551</b>
<b>6</b>	<b>22</b>	<b>1465</b>	<b>44.4</b>	<b>476</b>	<b>597</b>
<b>7</b>	<b>30</b>	<b>1465</b>	<b>59.6</b>	<b>496</b>	<b>617</b>
<b>8</b>	<b>37</b>	<b>1470</b>	<b>73.1</b>	<b>552</b>	<b>673</b>

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

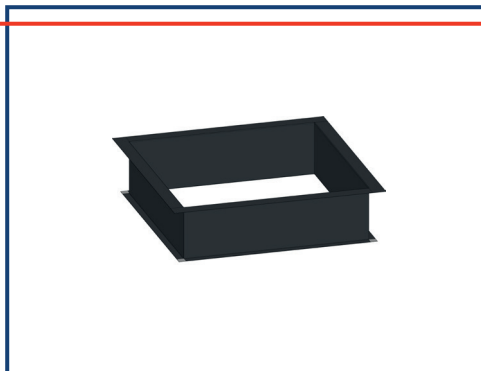
\*\* Paired fans have separate connection boxes

### VKRN(-V)-9-DU

Overall and connection dimensions of the VKRN(-V)-9-DU fan on mounting cups 2xSTM-115-U-KO-O and STM-115-U-KO-O



### Additional equipment



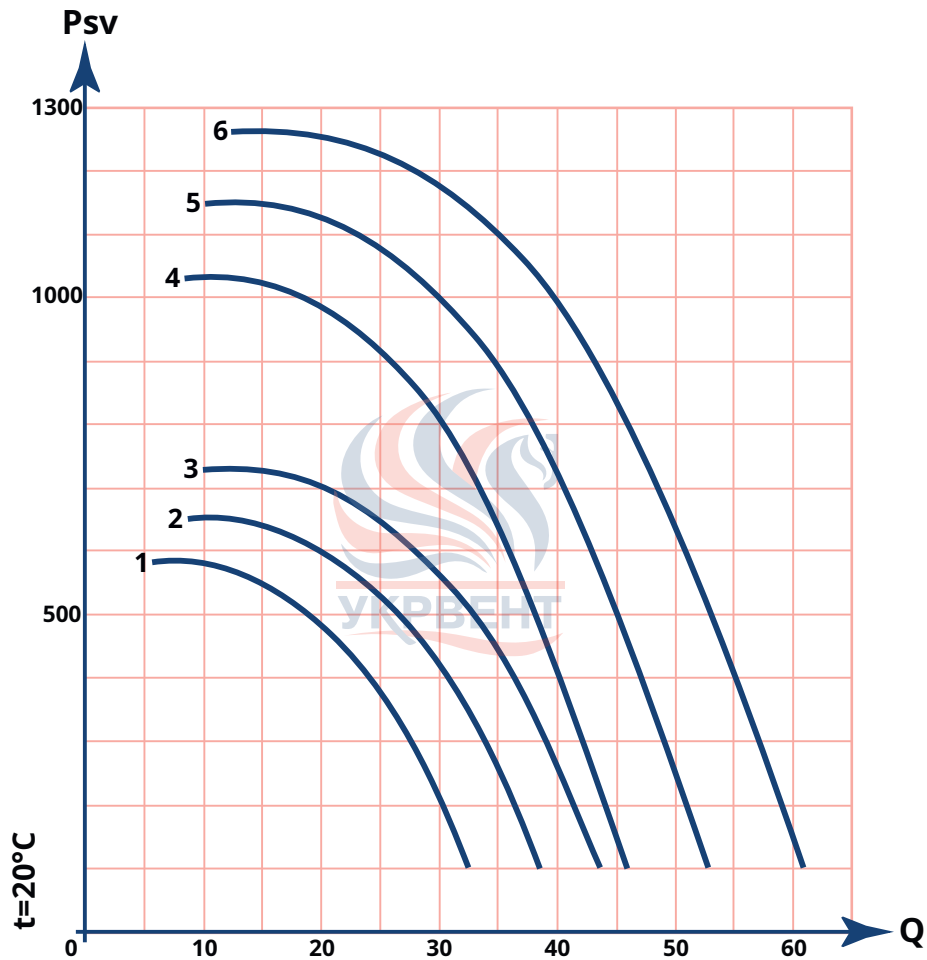
Branch pipe PAK-115



Pallet PID-115



Frequency converter  
UVE-810

**VKRN(-V)-10-DU**
***Aerodynamic characteristics***


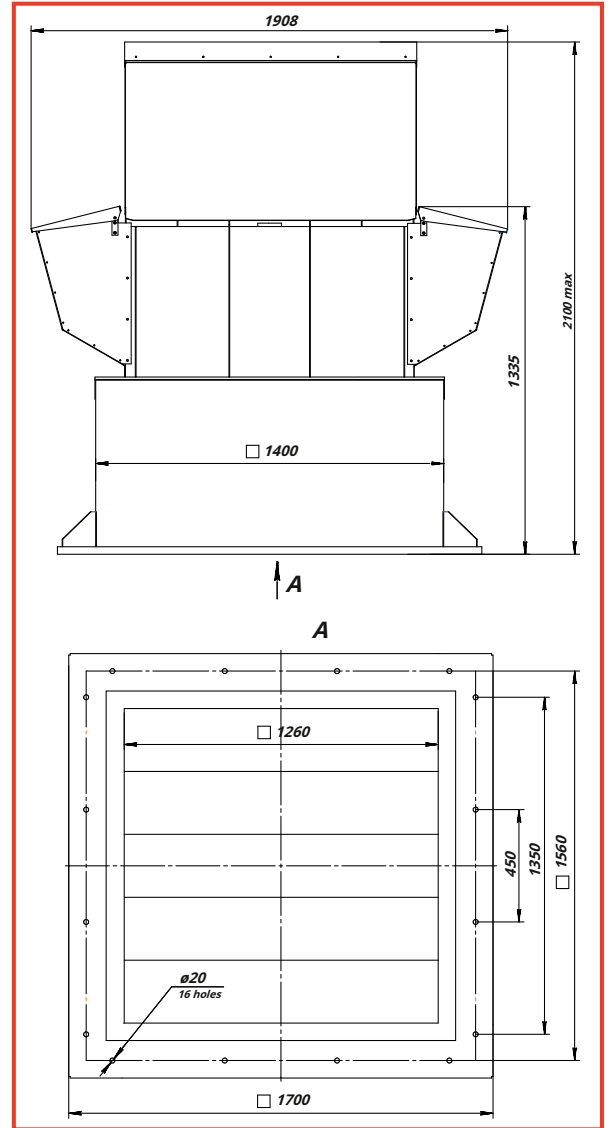
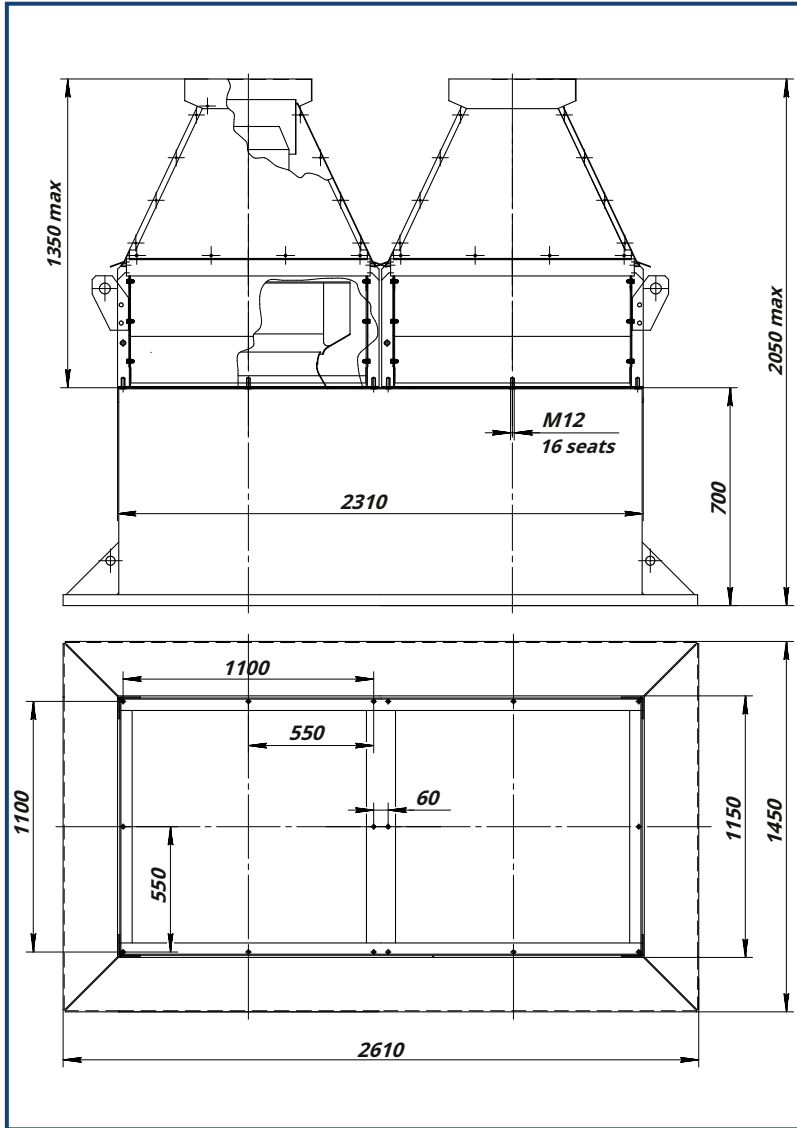
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
<b>1</b>	<b>4</b>	<b>715</b>	<b>10.8</b>	<b>465</b>	<b>611</b>
<b>2</b>	<b>5.5</b>	<b>715</b>	<b>14.7</b>	<b>480</b>	<b>626</b>
<b>3</b>	<b>7.5</b>	<b>720</b>	<b>19.2</b>	<b>521</b>	<b>667</b>
<b>4</b>	<b>11</b>	<b>965</b>	<b>24.6</b>	<b>522</b>	<b>668</b>
<b>5</b>	<b>15</b>	<b>965</b>	<b>33</b>	<b>548</b>	<b>694</b>
<b>6</b>	<b>18.5</b>	<b>970</b>	<b>39</b>	<b>578</b>	<b>724</b>

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

\*\* Paired fans have separate connection boxes

### VKRN(-V)-10-DU

Overall and connection dimensions of the VKRN(-V)-10-DU fan on mounting cups 2xSTM-140-U-KO-O and STM-140-U-KO-O



### Additional equipment



PAK-140 branch pipe



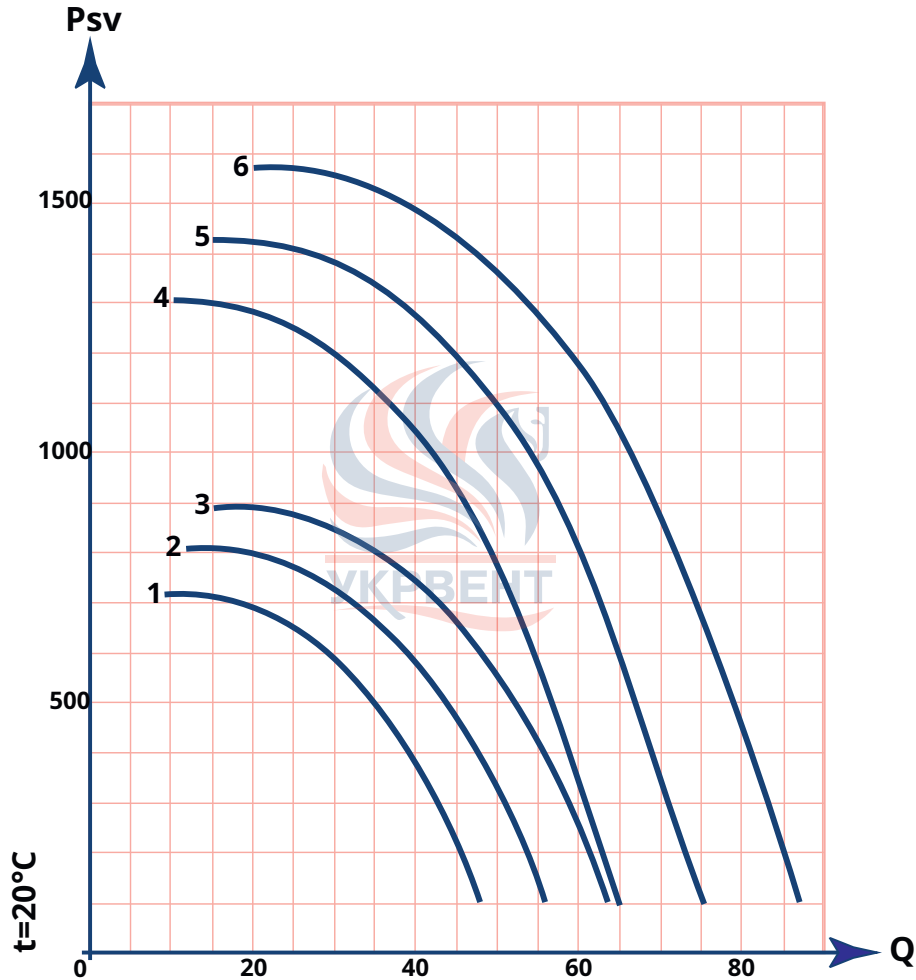
Pallet PID-140



Frequency converter  
UVE-810

**VKRN(-V)-11,2-DU**

**Aerodynamic characteristics**



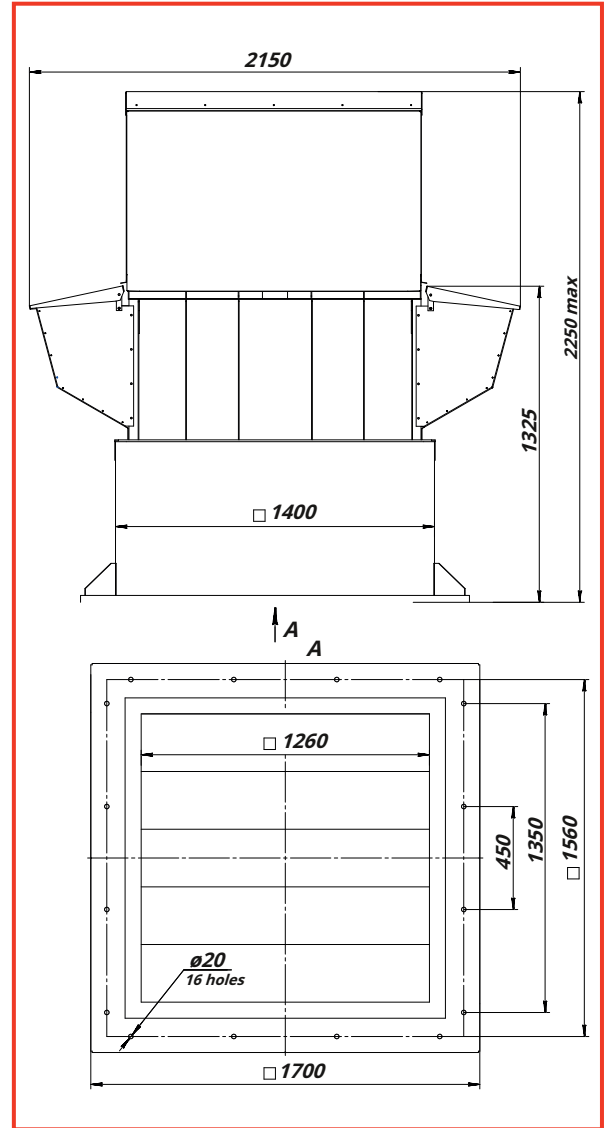
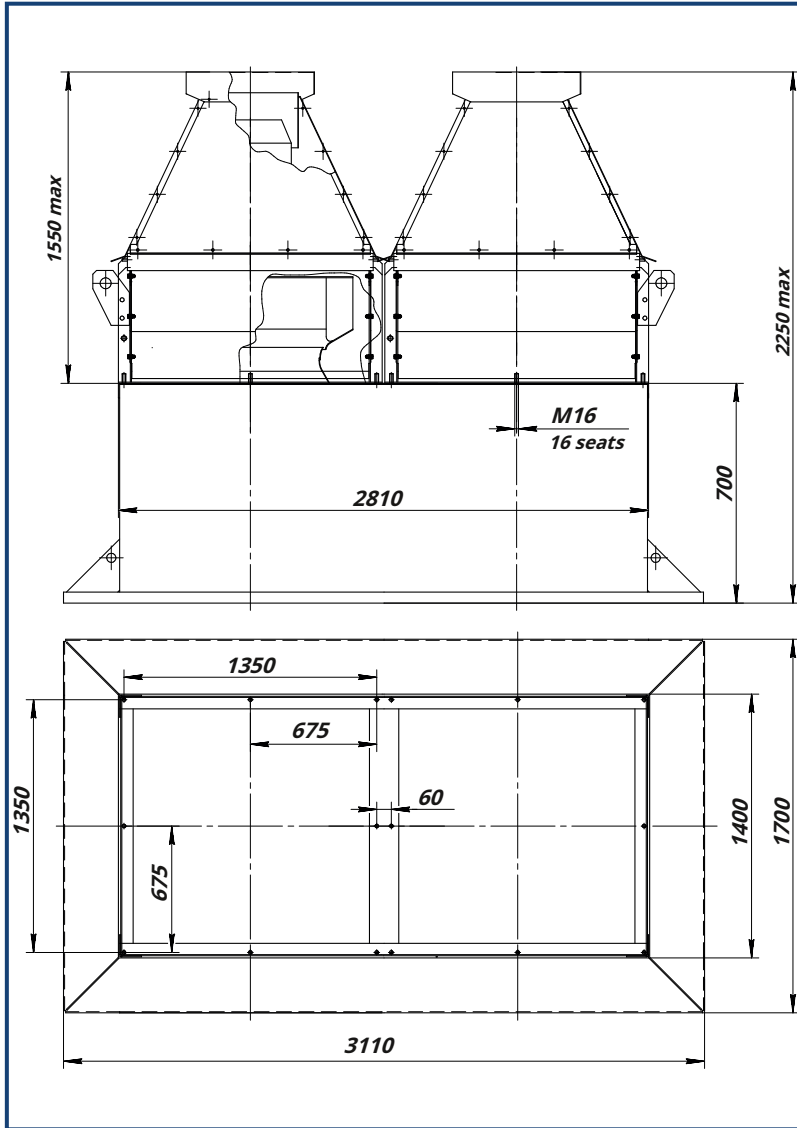
Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
1	7.5	720	19.2	626	772
2	11	720	27.3	652	798
3	15	725	34.5	683	829
4	18.5	970	39	683	829
5	22	975	45.2	748	894
6	30	975	61.8	773	919

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

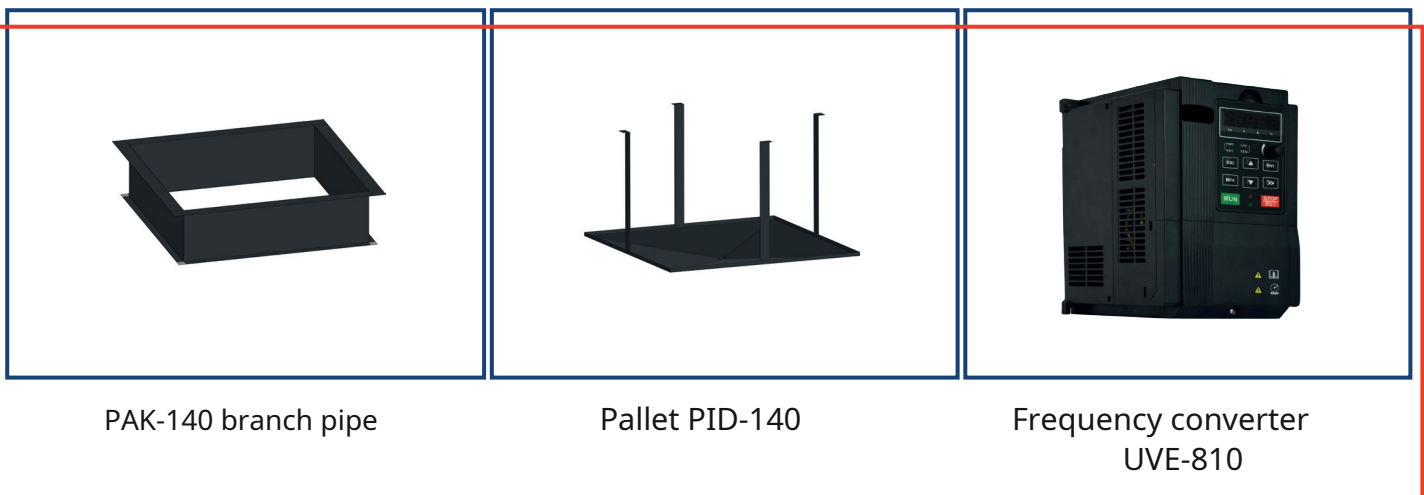
\*\* Paired fans have separate connection boxes

### VKRN(-V)-11,2-DU

Overall and connection dimensions of the VKRN(-V)-11,2-DU fan on mounting cups 2xSTM-140-U-KO-O and STM-140-U-KO-O



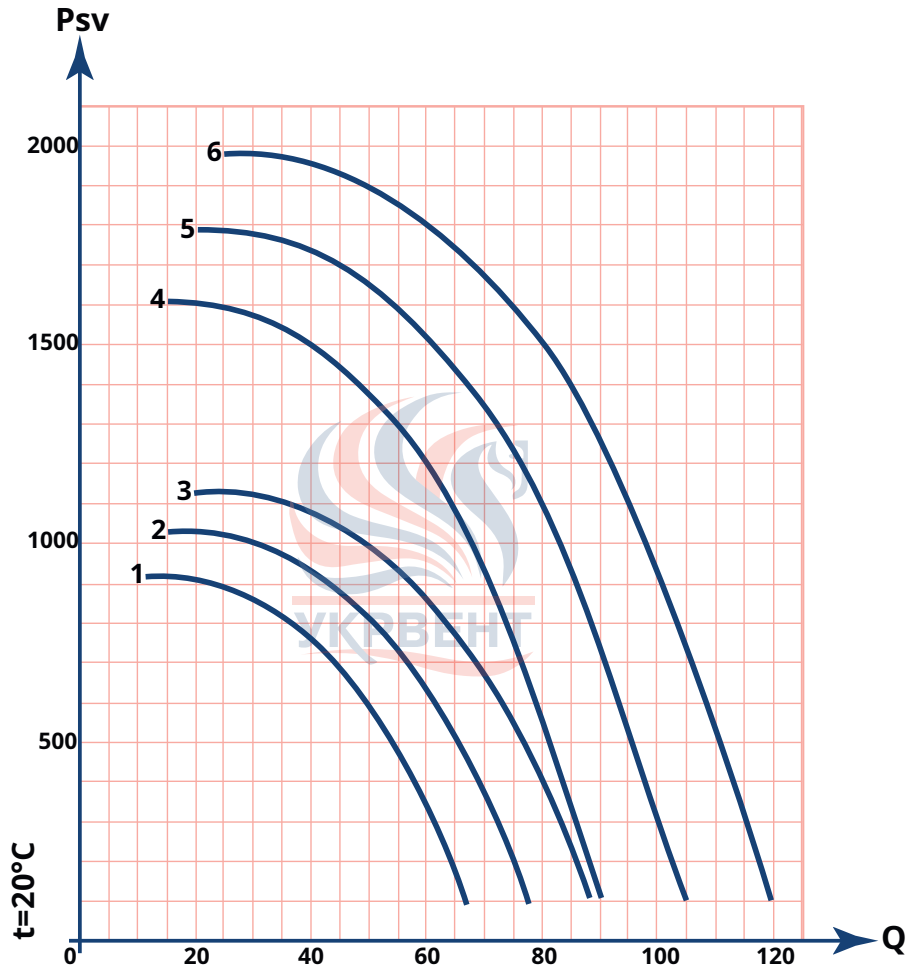
### Additional equipment



PAK-140 branch pipe

Pallet PID-140

Frequency converter UVE-810

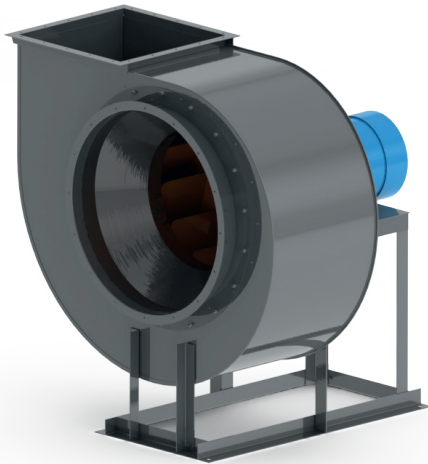
**VKRN(-V)-12.5-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW	Frequency of rotation of the impeller, rpm	Rated current, A	Weight of fan, max kg	Weight of the fan with mounting cup, max kg
1	15	725	34.5	816	1032
2	18.5	730	41.6	876	1092
3	22	730	49.4	896	1112
4	37	980	73.5	966	1182
5	45	980	90.1	1066	1282
6	55	985	110	1086	1302

\* the masses of paired fans with mounting cups are multiplied by a factor of 2.12

\*\* Paired fans have separate connection boxes





Radial smoke extraction **VR-80-70-** for removing from the serviced area high-temperature gas-air fumes arising during a fire. Area

Smoke exhaust fans are used in residential, public, industrial and premises that do not belong to fire and explosion hazard categories.

Radial removal **VR-80-70-DU** For use outside serviced premises with constant occupancy, the fan is installed in ventilation chambers.

- \* used in stationary emergency exhaust ventilation systems;
- \* air capacity from 1000 m<sup>3</sup>/h up to 84000 m<sup>3</sup>/hour;
- \* static pressure from 150 Pa to 3100 Pa;
- \* application temperature 400-600 ° C for at least 120 minutes;
- \* one-sided suction;
- \* number of blades - 12 units;
- \* low pressure;
- \* spiral rotating housing;
- \* direction of rotation - right and left.

Fans are designed to operate in moderate (U) climate conditions of the 1st location category of GOST 15150. Ambient temperature from -40°C to +40°C.

The average vibration velocity of external vibration sources at the fan installation locations is slightly more than 2 mm/s.

The aerodynamic characteristics of the fans are presented in graphs, where:

Q is the air capacity m<sup>3</sup>/hour 10<sup>3</sup>;

P<sub>sv</sub> - static pressure at p = 1.2 kg/m<sup>3</sup> and t = 20°C air;

Fan pressure **P<sub>sv</sub>** and power consumption by the electric motor **N**, at a different density **p** of the transported medium or other air temperature **t** can be calculated according to the following formulas:

$$P_{sv} = \left( \frac{p}{p_0} \right) * P_{sv_0} \quad N_p = \left( \frac{p}{p_0} \right) * N \quad N_t = \left[ \frac{293}{273 + t} \right] * N$$

### Marking

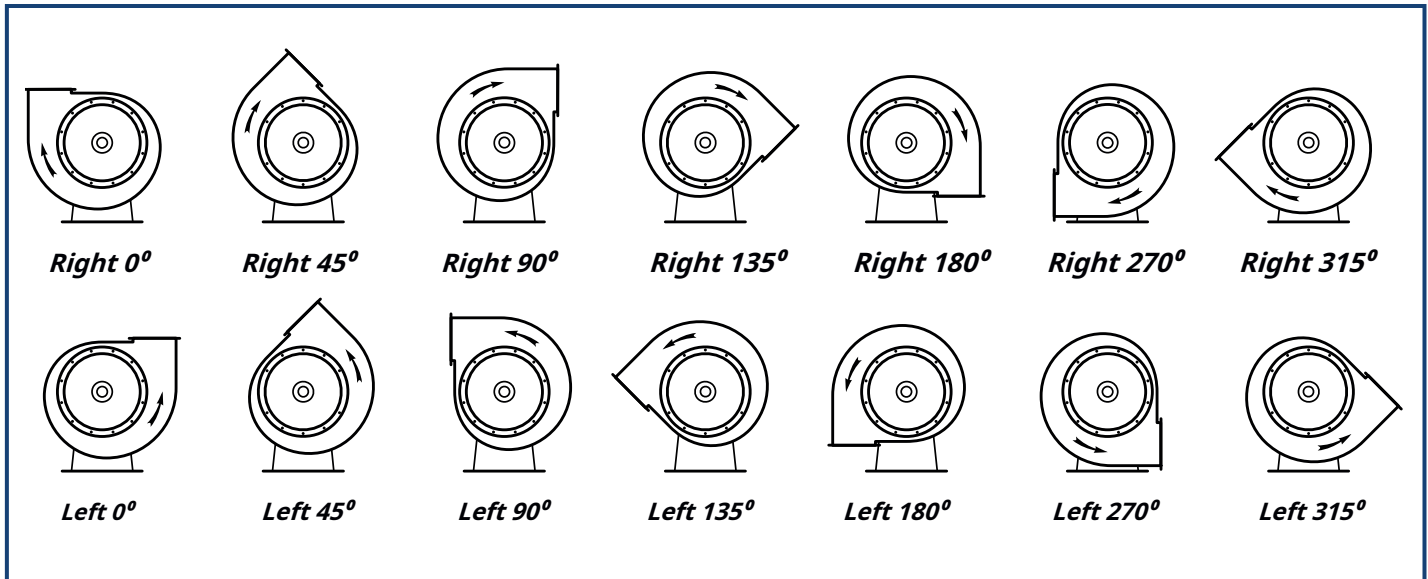
Example:

Radial smoke exhaust fan VR-80-70; number 8; smoke exhaust; temperature moving air 400°C; housing position left 0°; electric motor with installed power Ny=15 kW, rotation speed n=1500 rpm.

#### VR-80-70 - 8 - DU-400 - Left 0° - 15/1500

Fan type: <b>VR-80-70</b>				
Fan number: <b>4; 4.5; 5; 5.6; 6.3; 7.1; 8; 9; 10; 11.2; 12.5;</b>				
Appointment: <b>O</b> - general industrial; <b>DU</b> - smoke extraction; <b>G</b> - heat-resistant; <b>K</b> - corrosion-resistant (specify the brand of stainless steel); <b>VZI</b> - explosion-proof;				
Temperature of the transported air, °C: <b>80 (O); 200 (G); 400 (DU); 600 (DU);</b>				
Fan housing position: <b>Left/Right -0°; 45°; 90°; 135°; 180°; 270°; 315°;</b>				
Electric motor parameters, Ny/n: <b>Ny</b> - power, kW; <b>n</b> - synchronous speed, rpm (750; 1000; 1500; 3000);				

### Radial fan housing position options

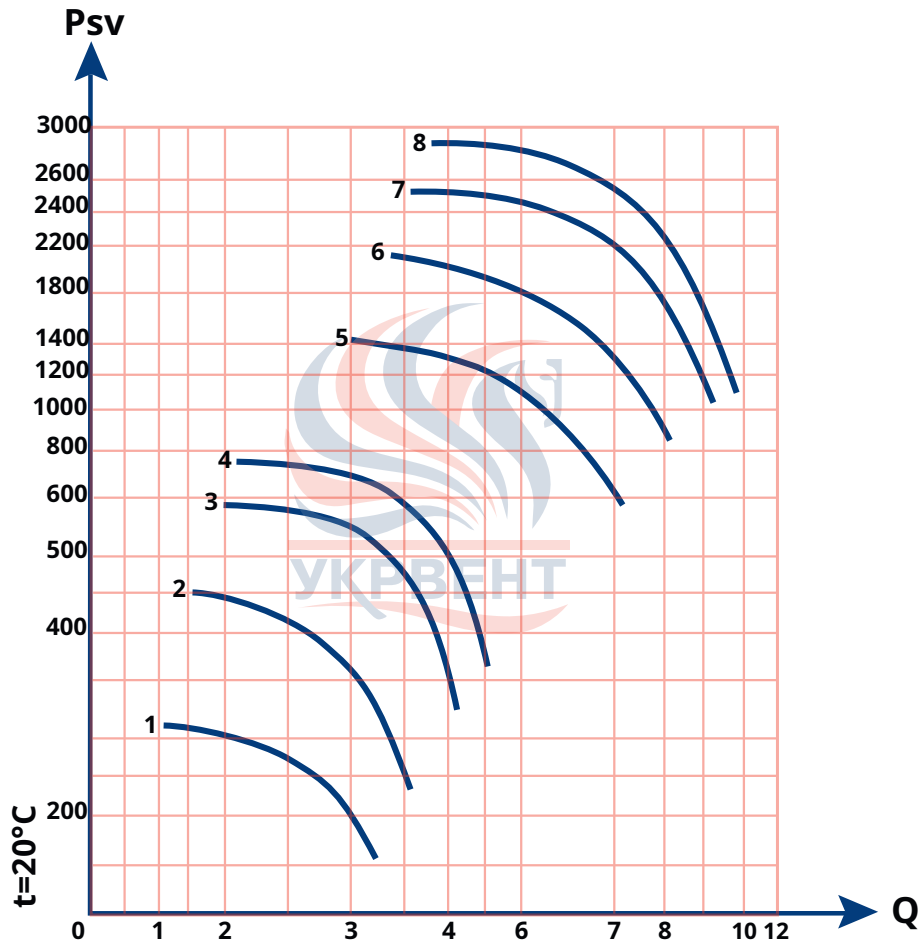


**WARNING!**

The fans are equipped with a three-phase electric motor as standard, in case  
 If necessary, it is possible to install a single-phase electric motor.

**VR-80-70-4-DU**

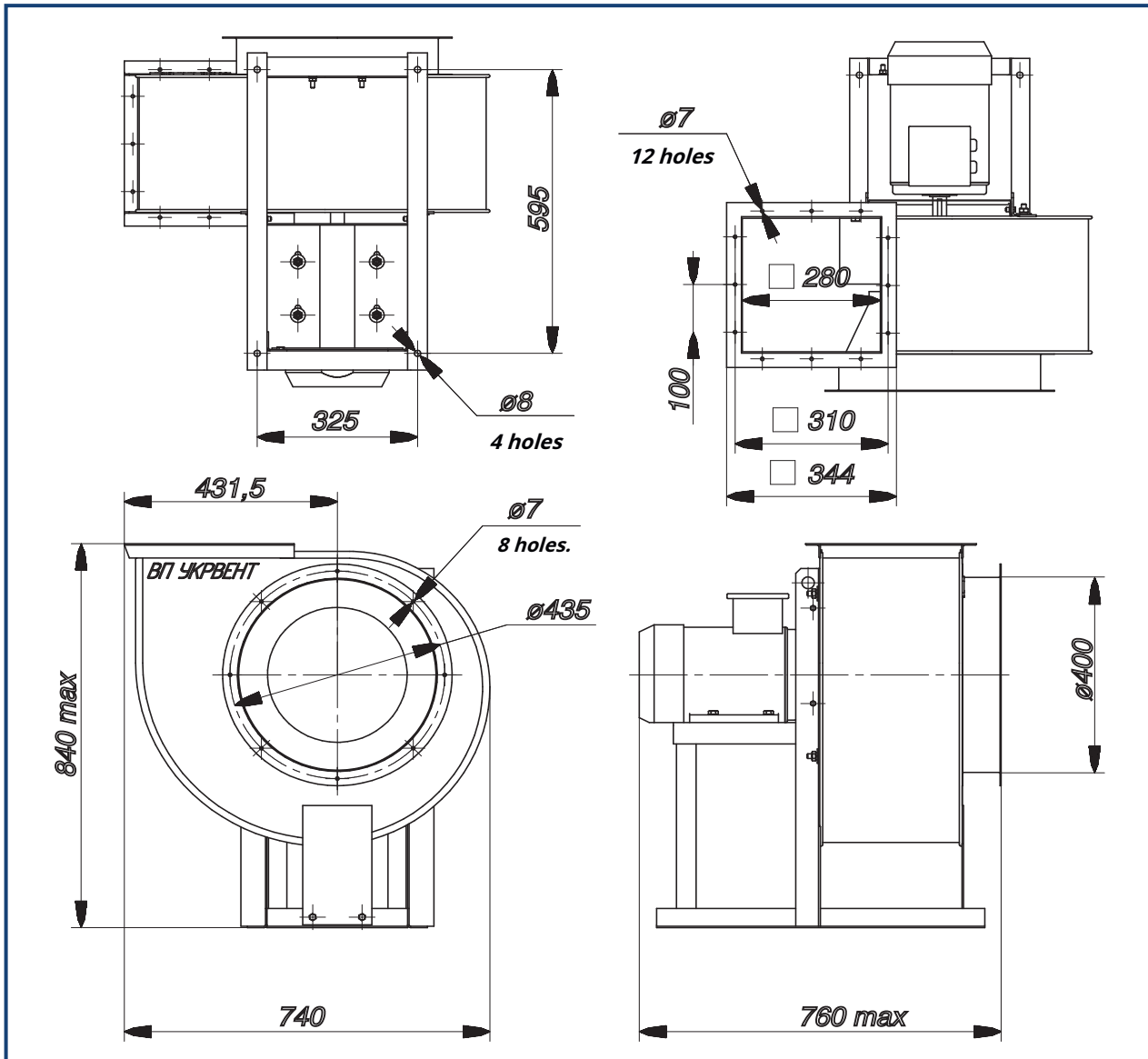
**Aerodynamic characteristics**



Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
<b>1</b>	<b>0.37</b>	<b>1325</b>	<b>1.2</b>	<b>65</b>	<b>83</b>
<b>2</b>	<b>0.55</b>	<b>1350</b>	<b>1.8</b>	<b>66</b>	<b>87</b>
<b>3</b>	<b>0.75</b>	<b>1360</b>	<b>2.2</b>	<b>67</b>	<b>89</b>
<b>4</b>	<b>1.1</b>	<b>1375</b>	<b>3</b>	<b>71</b>	<b>92</b>
<b>5</b>	<b>3</b>	<b>2845</b>	<b>6.5</b>	<b>76</b>	<b>100</b>
<b>6</b>	<b>4</b>	<b>2870</b>	<b>8.4</b>	<b>85</b>	<b>103</b>
<b>7</b>	<b>5.5</b>	<b>2870</b>	<b>11</b>	<b>89</b>	<b>105</b>
<b>8</b>	<b>7.5</b>	<b>2880</b>	<b>15.2</b>	<b>108</b>	<b>108</b>

### VR-80-70-4-DU

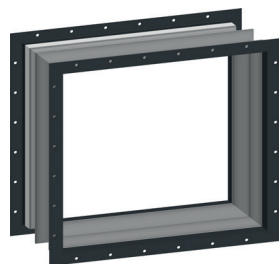
Overall and connection dimensions of the fan VR-80-70-4-DU



### Additional equipment



Flexible insert  
VKO-400



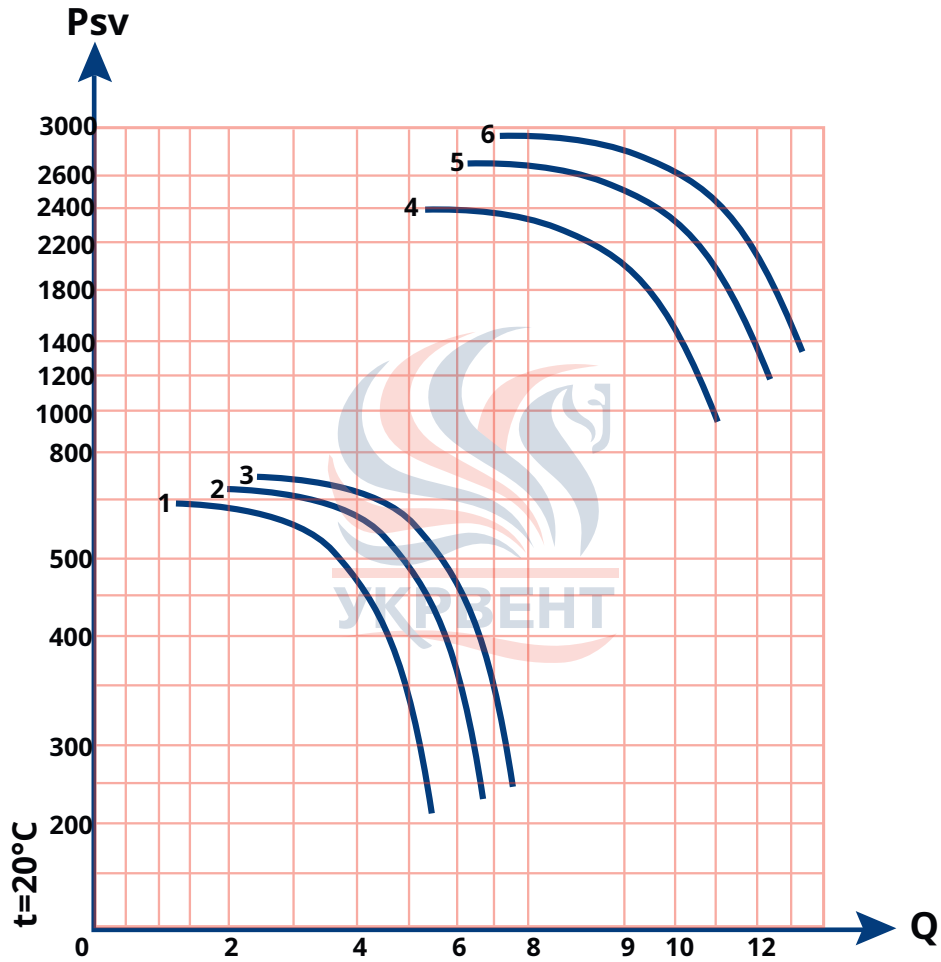
Flexible insert  
VPO-400



Vibration isolator RV-30

**VR-80-70-4.5-DU**

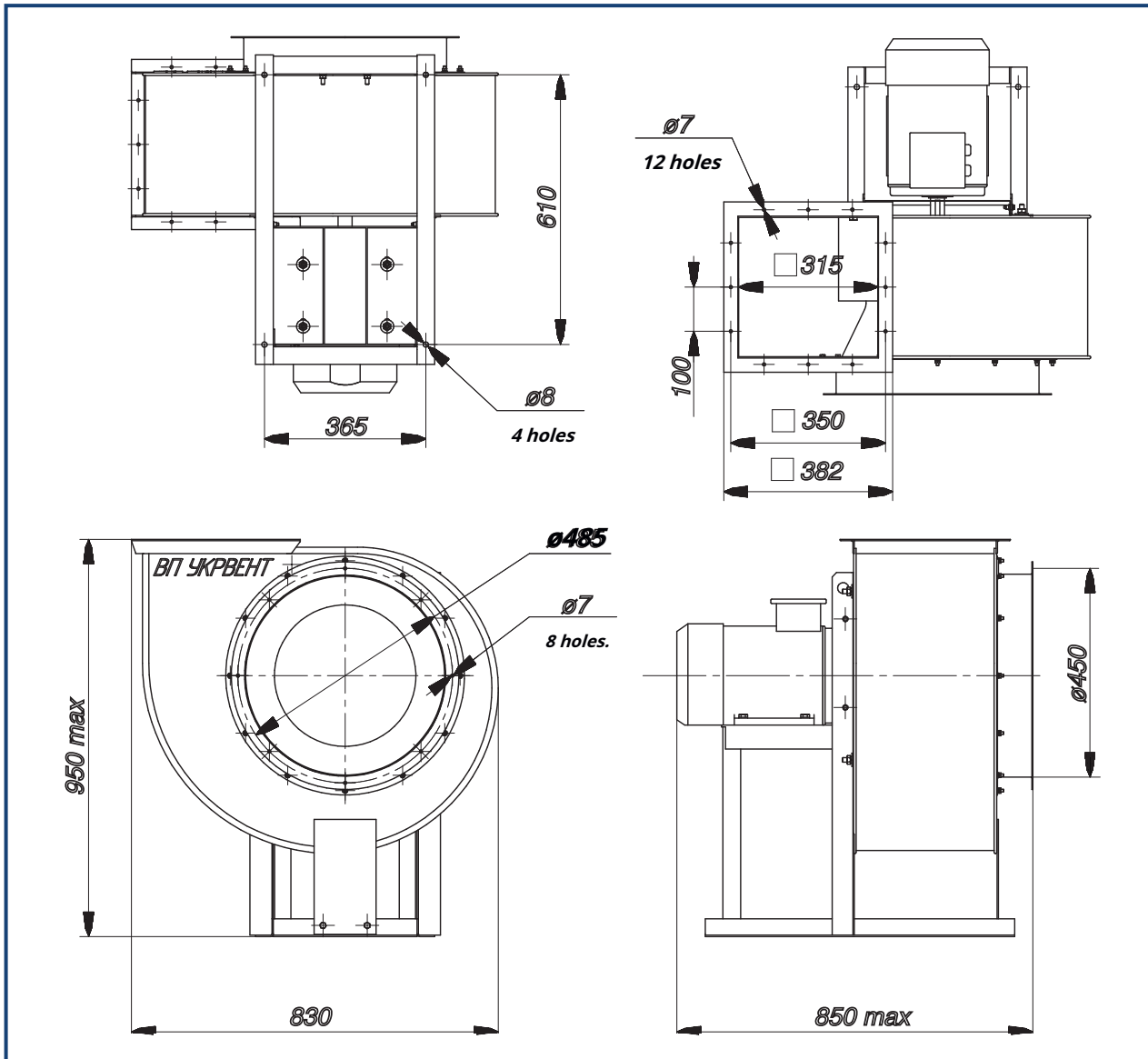
**Aerodynamic characteristics**



Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
<b>1</b>	<b>0.75</b>	<b>1360</b>	<b>2.2</b>	<b>80</b>	<b>93</b>
<b>2</b>	<b>1.1</b>	<b>1375</b>	<b>3</b>	<b>84</b>	<b>95</b>
<b>3</b>	<b>1.5</b>	<b>1390</b>	<b>4</b>	<b>88</b>	<b>99</b>
<b>4</b>	<b>5.5</b>	<b>2870</b>	<b>11</b>	<b>102</b>	<b>103</b>
<b>5</b>	<b>7.5</b>	<b>2880</b>	<b>15.2</b>	<b>121</b>	<b>104</b>
<b>6</b>	<b>11</b>	<b>2900</b>	<b>21.8</b>	<b>158</b>	<b>108</b>

### VR-80-70-4.5-DU

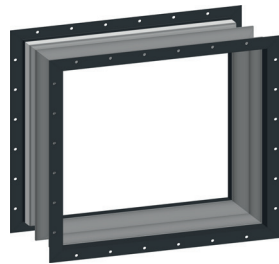
Overall and connection dimensions of the fan VR-80-70-4.5-DU



### Additional equipment



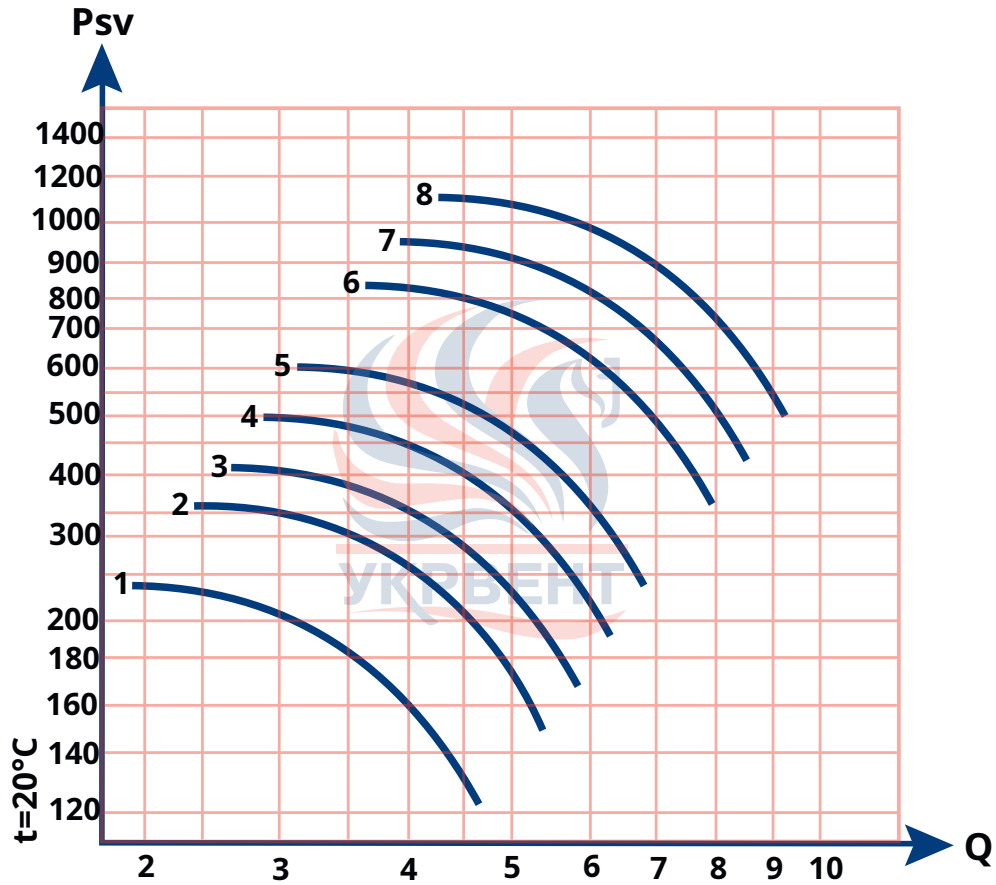
Flexible insert  
VKO-450



Flexible insert  
VPO-450



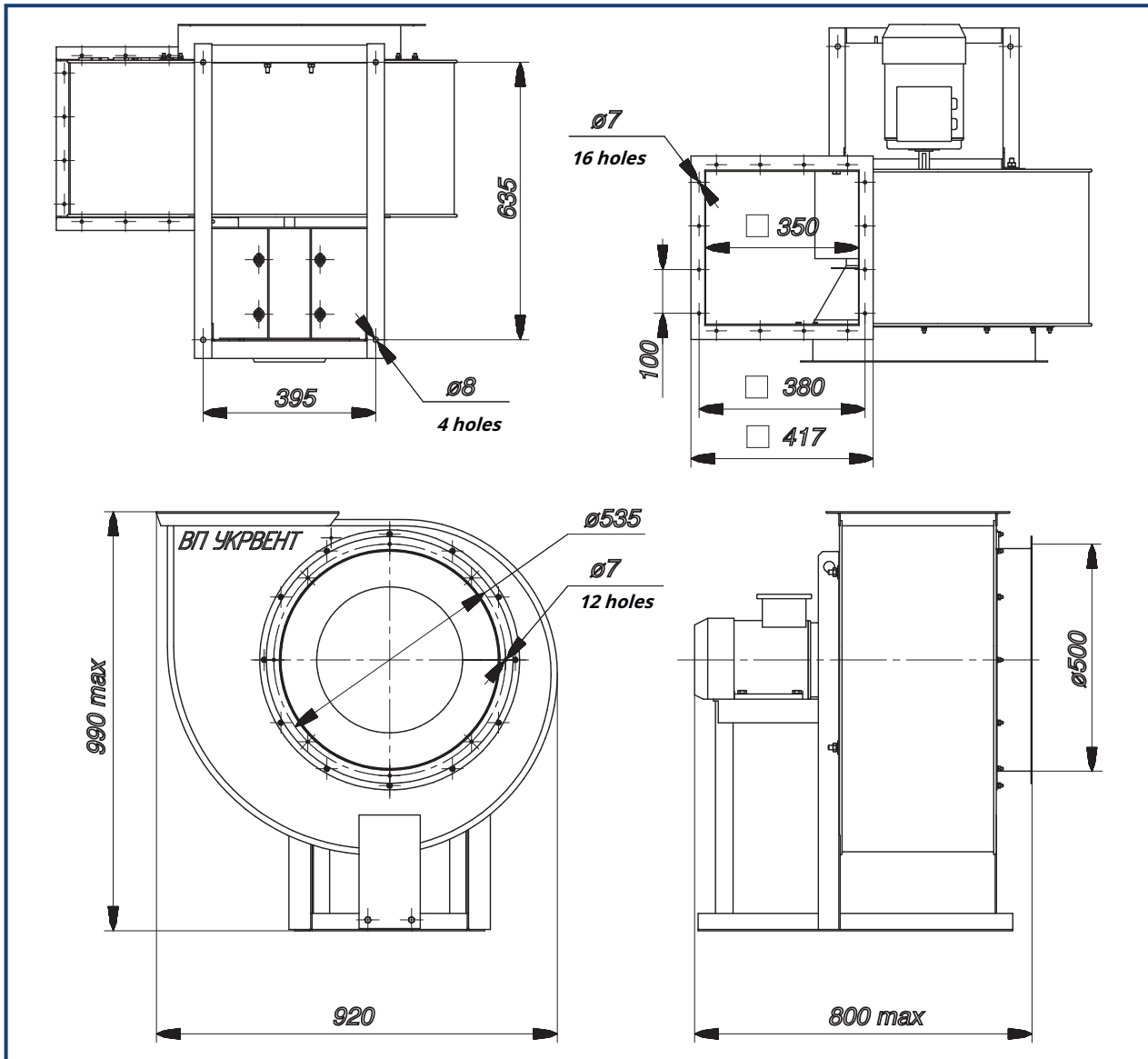
Vibration isolator RV-30

**VR-80-70-5-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
1	0.37	895	1.4	90	93
2	0.55	895	1.9	90	95
3	0.75	910	2.3	94	97
4	1.1	910	3.2	98	99
5	1.1	1375	3	94	103
6	1.5	1390	4	98	104
7	2.2	1400	5.3	103	106
8	3	1420	7.2	112	108

**VR-80-70-5-DU**

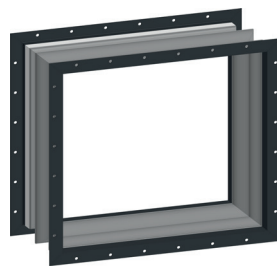
Overall and connection dimensions of the fan VR-80-70-5-DU



**Additional equipment**



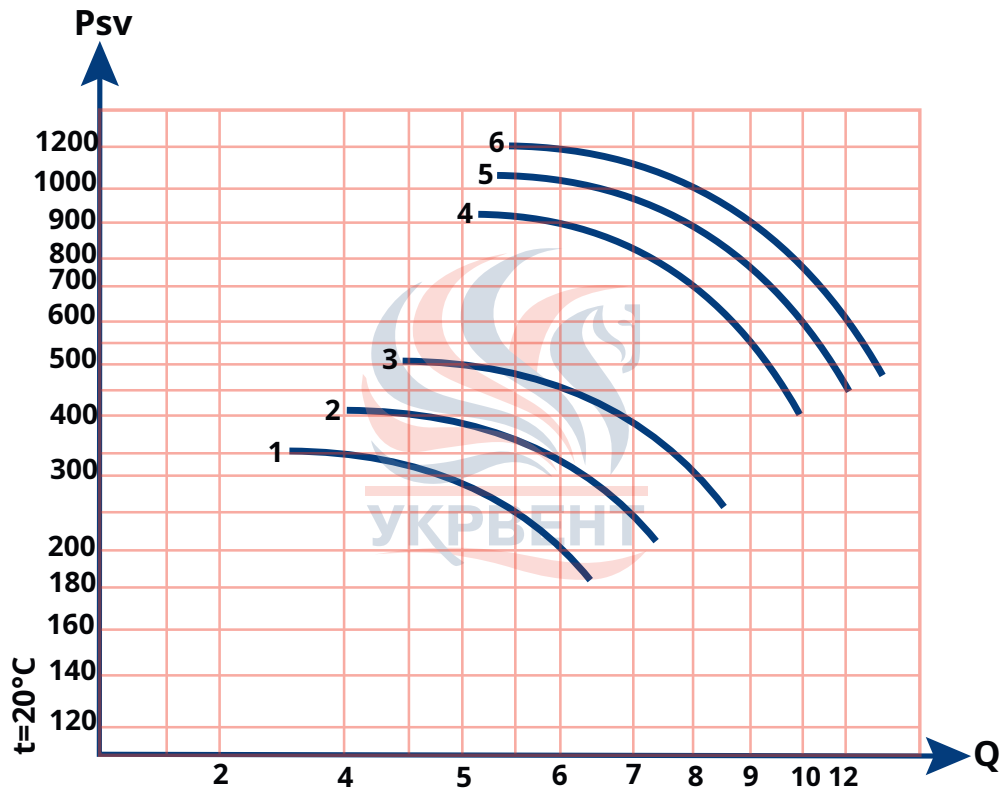
Flexible insert  
VKO-500



Flexible insert  
VPO-500



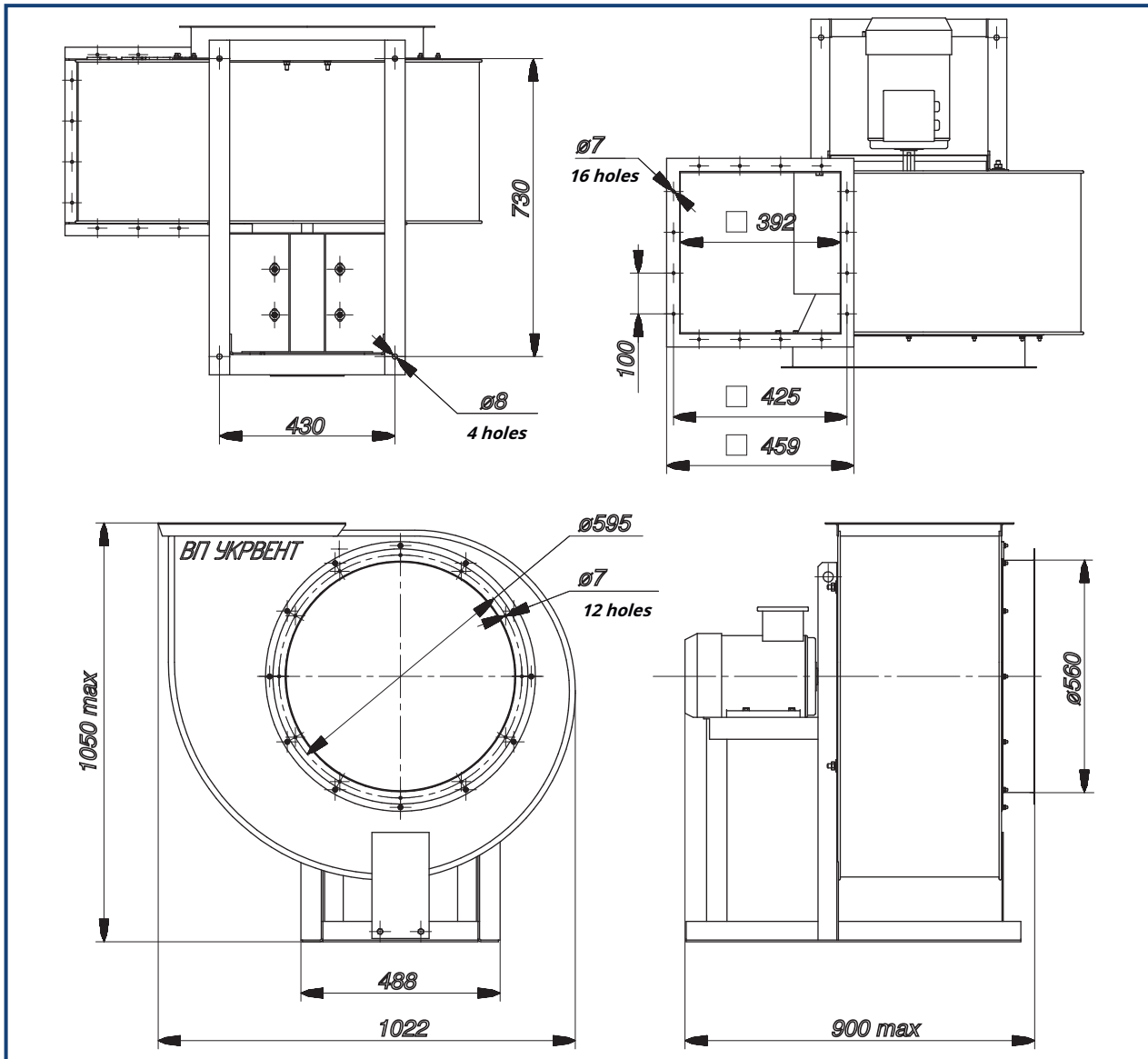
Vibration isolator RV-30

**BP-80-70-5,6 - DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
<b>1</b>	<i>0.75</i>	<i>910</i>	<i>2.3</i>	<i>119</i>	<i>86</i>
<b>2</b>	<i>1.1</i>	<i>910</i>	<i>3.2</i>	<i>123</i>	<i>89</i>
<b>3</b>	<i>1.5</i>	<i>920</i>	<i>4.2</i>	<i>128</i>	<i>94</i>
<b>4</b>	<i>2.2</i>	<i>1400</i>	<i>5.3</i>	<i>128</i>	<i>101</i>
<b>5</b>	<i>3</i>	<i>1420</i>	<i>7.2</i>	<i>137</i>	<i>103</i>
<b>6</b>	<i>4</i>	<i>1420</i>	<i>9.3</i>	<i>140</i>	<i>107</i>

**VR-80-70-5.6-DU**

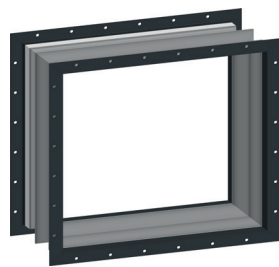
Overall and connection dimensions of the fan VR-80-70-5.6-DU



**Additional equipment**



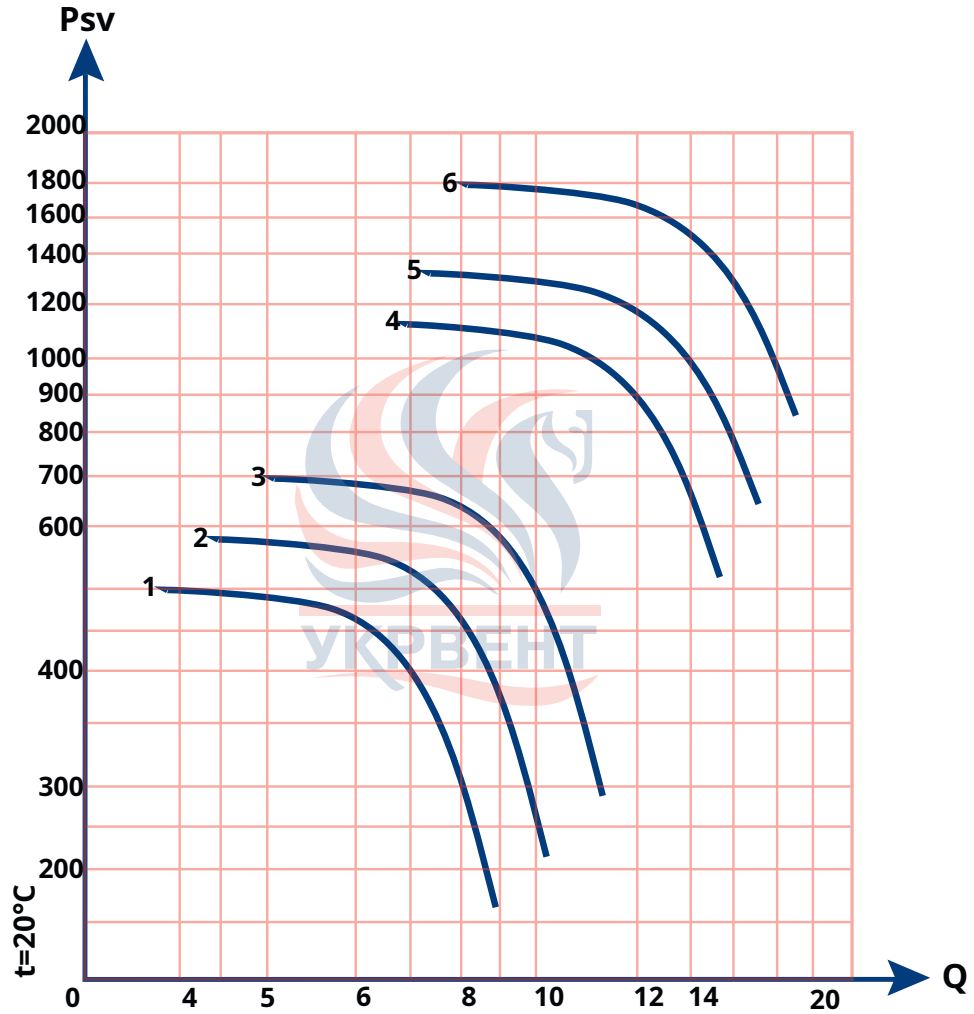
Flexible insert  
VKO-560



Flexible insert  
VPO-560



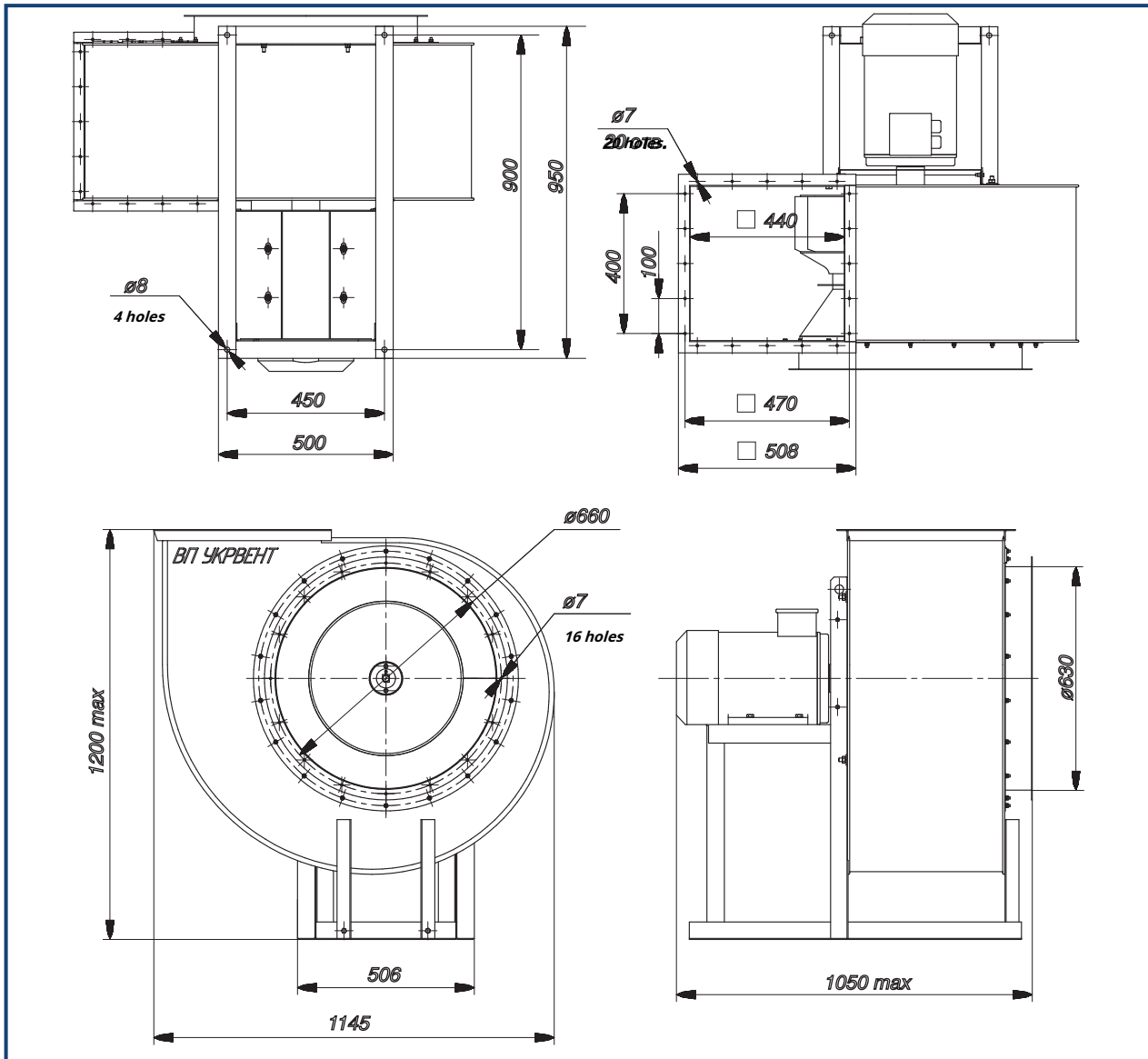
Vibration isolator RV-30

**VR-80-70-6.3-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
1	1.1	910	3.18	135	87
2	1.5	920	4.2	140	92
3	2.2	930	5.9	153	96
4	4	1420	9.3	152	103
5	5.5	1430	12.3	170	105
6	7.5	1440	16.1	195	107

**VR-80-70-6.3-DU**

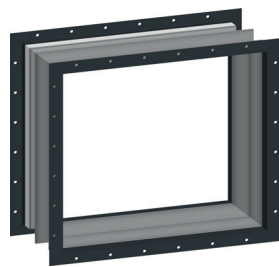
Overall and connection dimensions of the fan VR-80-70-6.3-DU



**Additional equipment**



Flexible insert  
VKO-630



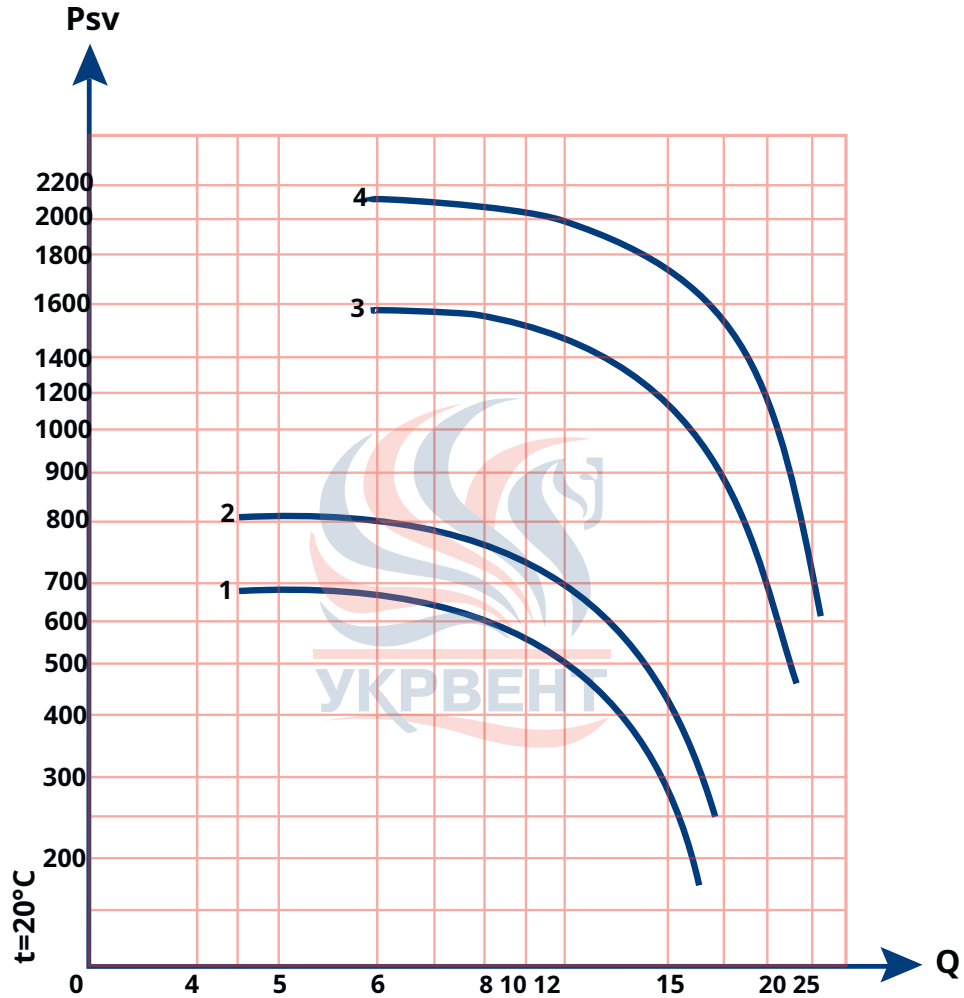
Flexible insert  
VPO-630



Vibration isolator RV-40

**VR-80-70-7.1-DU**

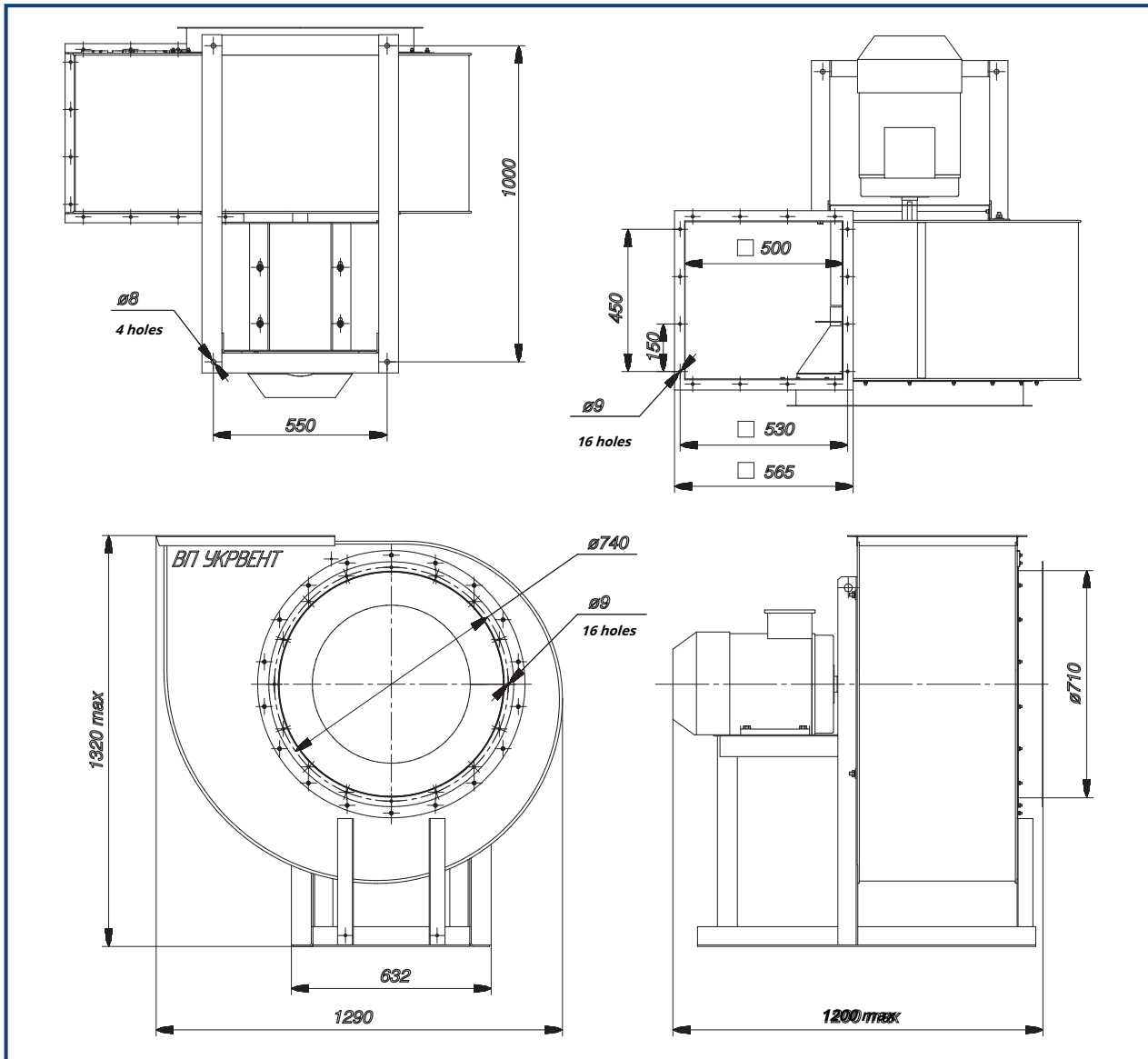
**Aerodynamic characteristics**



Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
<b>1</b>	2.2	930	5.9	216	94
<b>2</b>	3	935	7.9	229	99
<b>3</b>	7.5	1440	16.1	258	105
<b>4</b>	11	1450	23.1	269	109

### VR-80-70-7.1-DU

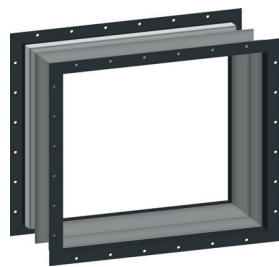
Overall and connection dimensions of the fan VR-80-70-7.1-DU



### Additional equipment



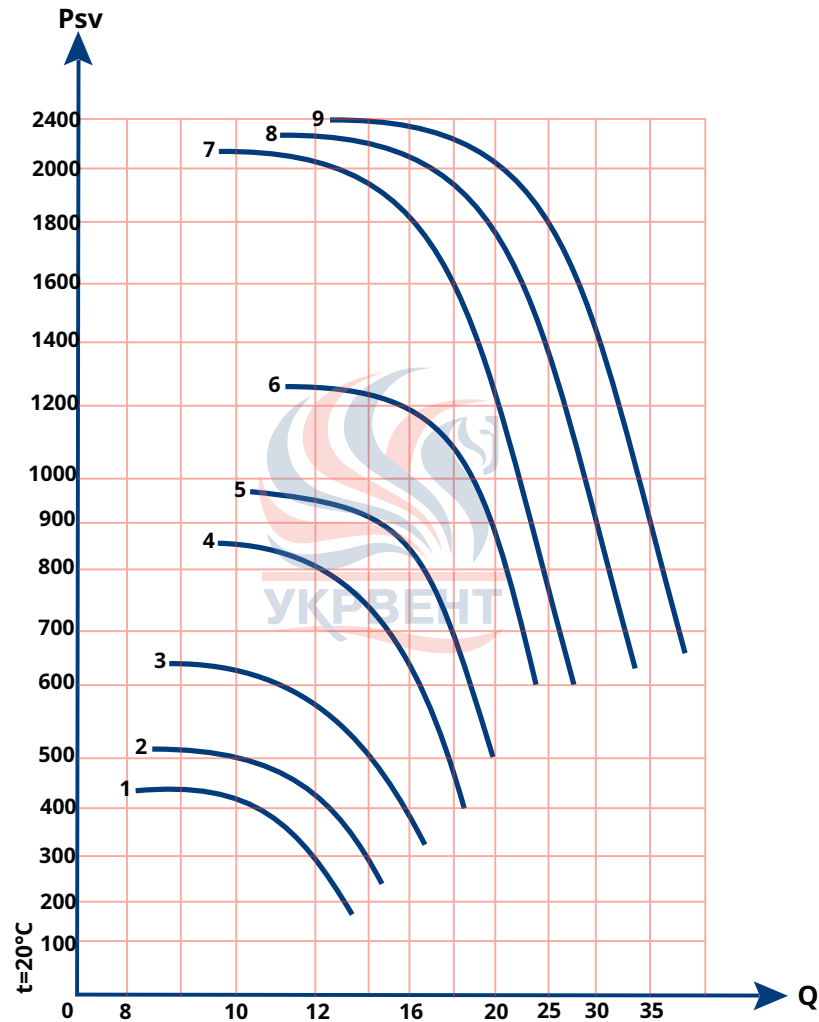
Flexible insert  
VKO-710



Flexible insert  
VPO-710



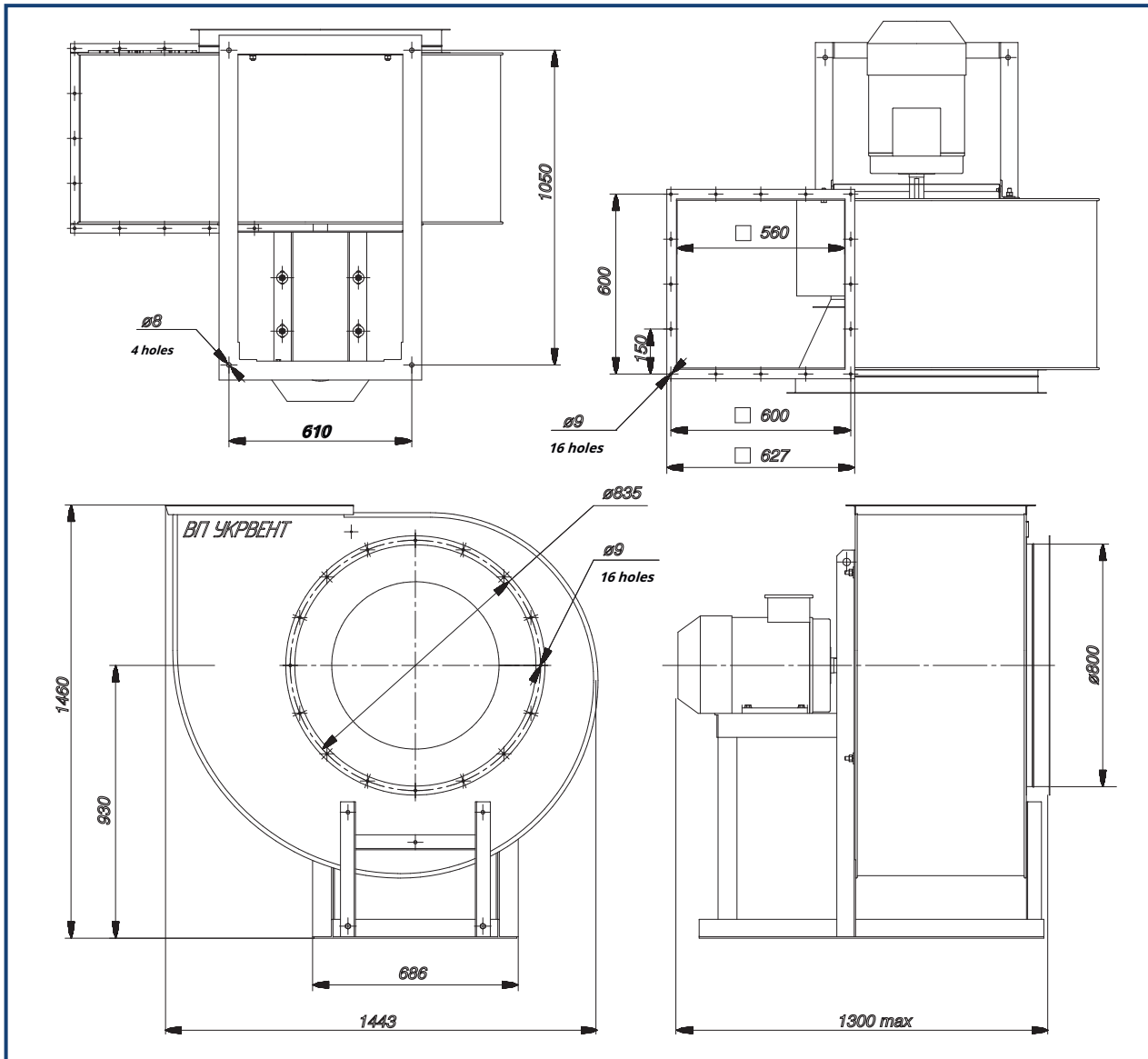
Vibration isolator RV-40

**VR-80-70-8-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
1	1.5	690	4.5	293	92
2	2.2	700	6.4	290	93
3	3	700	8.6	297	95
4	4	935	10.3	296	95
5	5.5	955	13.4	315	97
6	7.5	960	17.2	389	99
7	11	1450	23.1	335	104
8	15	1455	30.8	382	106
9	18.5	1455	37.8	386	109

**VR-80-70-8-DU**

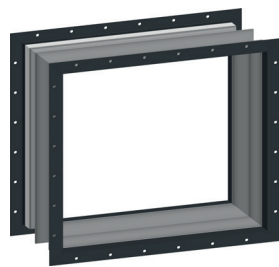
Overall dimensions and connection dimensions of the fan VR-80-70-8-DU



**Additional equipment**



Flexible insert  
VKO-800



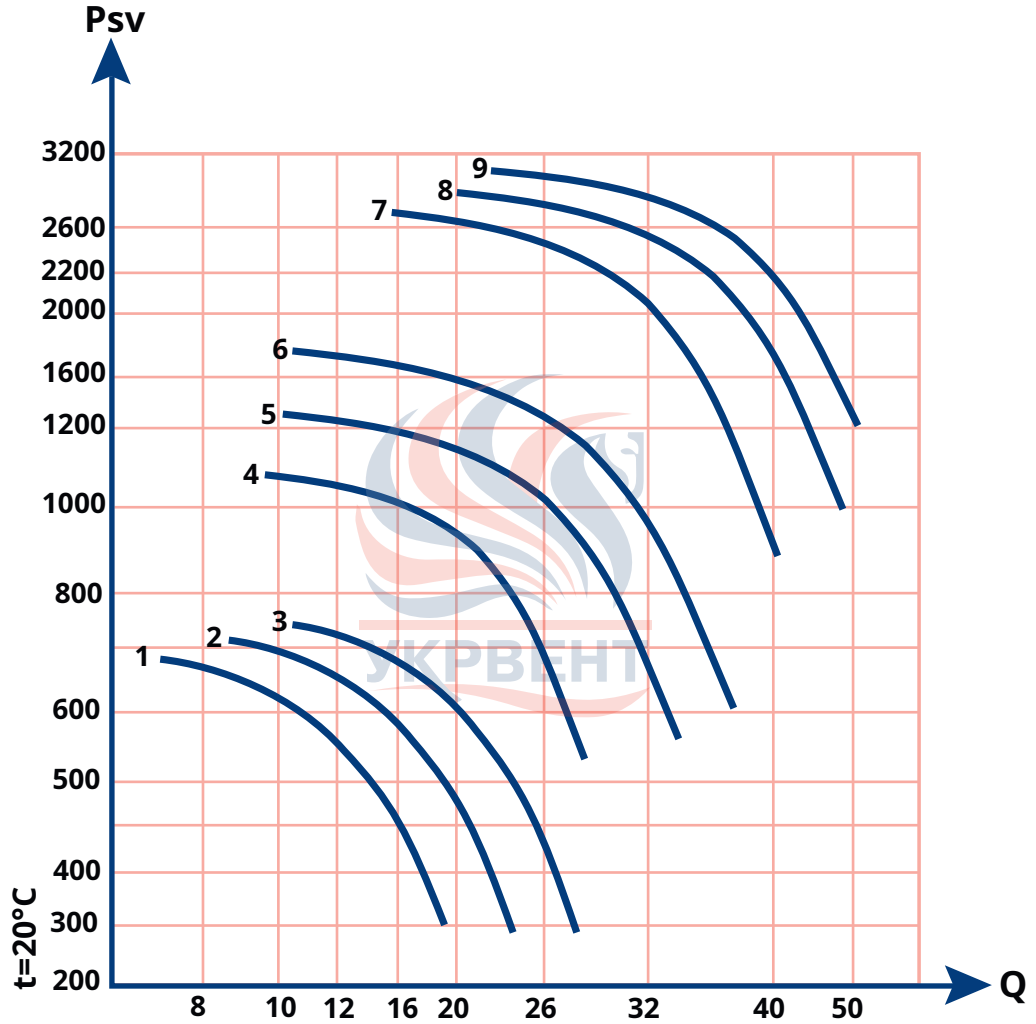
Flexible insert  
VPO-800



Vibration isolator RV-40

**VR-80-70-9-DU**

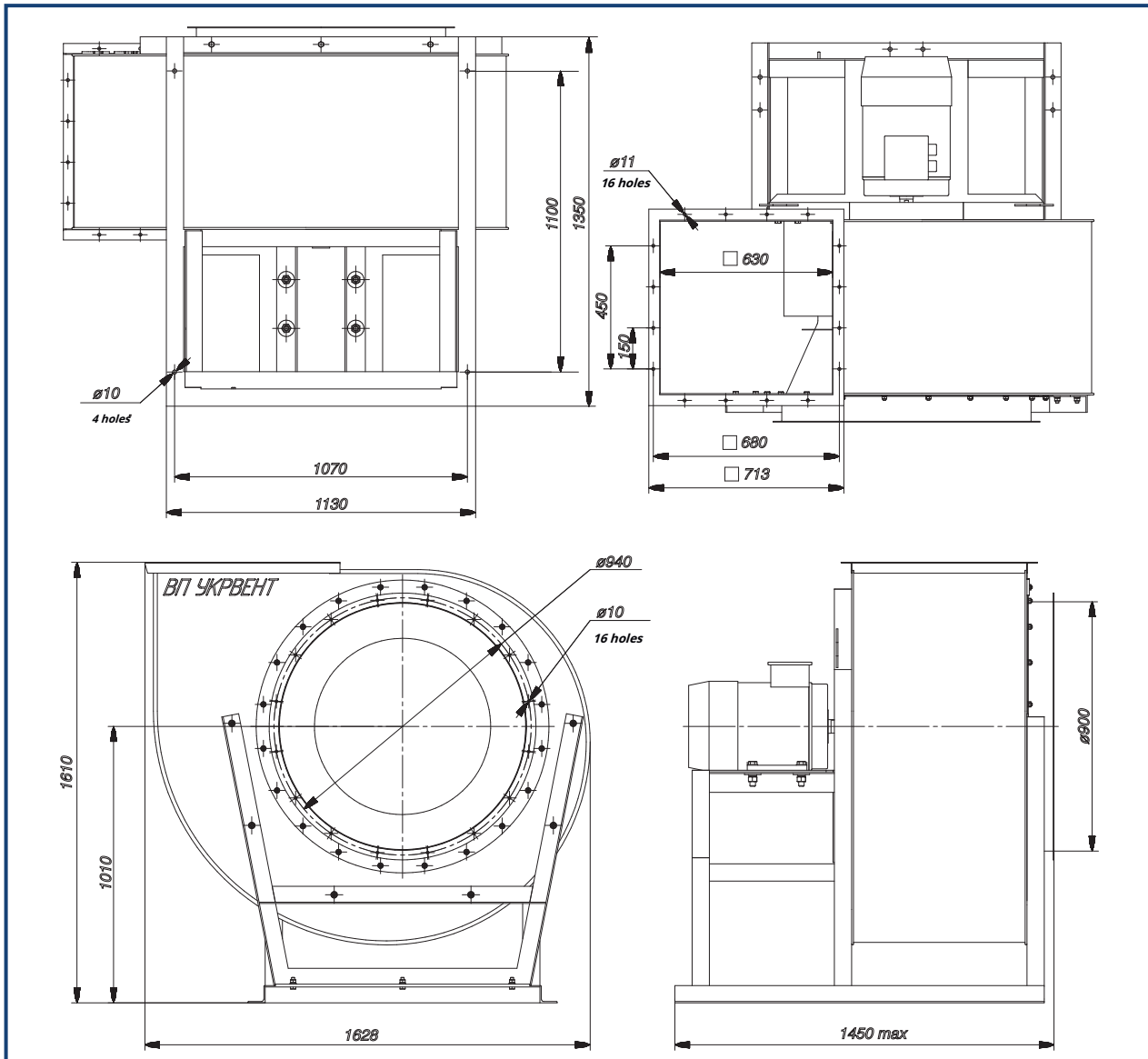
**Aerodynamic characteristics**



Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
1	3	700	8.6	391	97
2	4	715	10.8	430	99
3	5.5	715	14.7	434	101
4	7.5	960	17.2	483	103
5	11	965	24.6	479	104
6	15	965	33	493	105
7	22	1465	44.4	515	109
8	30	1465	59.6	528	110
9	37	1470	73.1	585	113

**VR-80-70-9-DU**

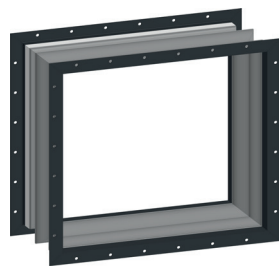
Overall dimensions and connection dimensions of the fan VR-80-70-9-DU



**Additional equipment**



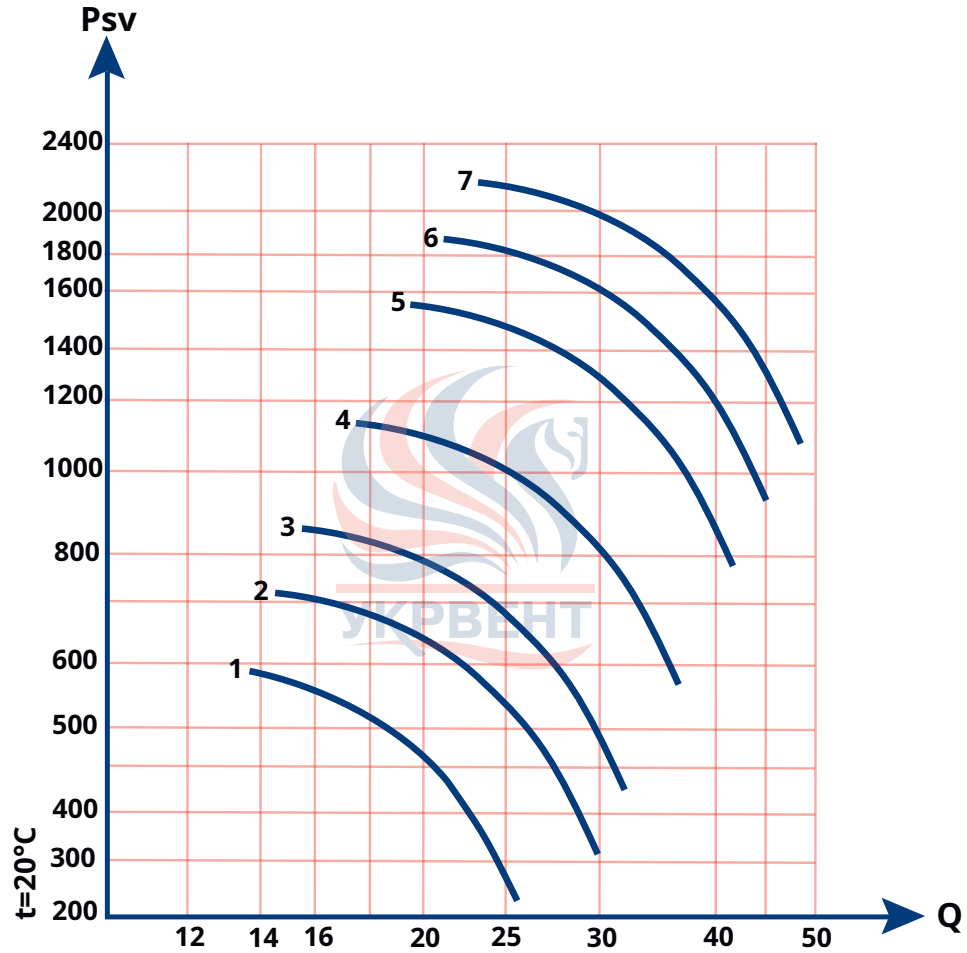
Flexible insert  
VKO-900



Flexible insert  
VPO-900



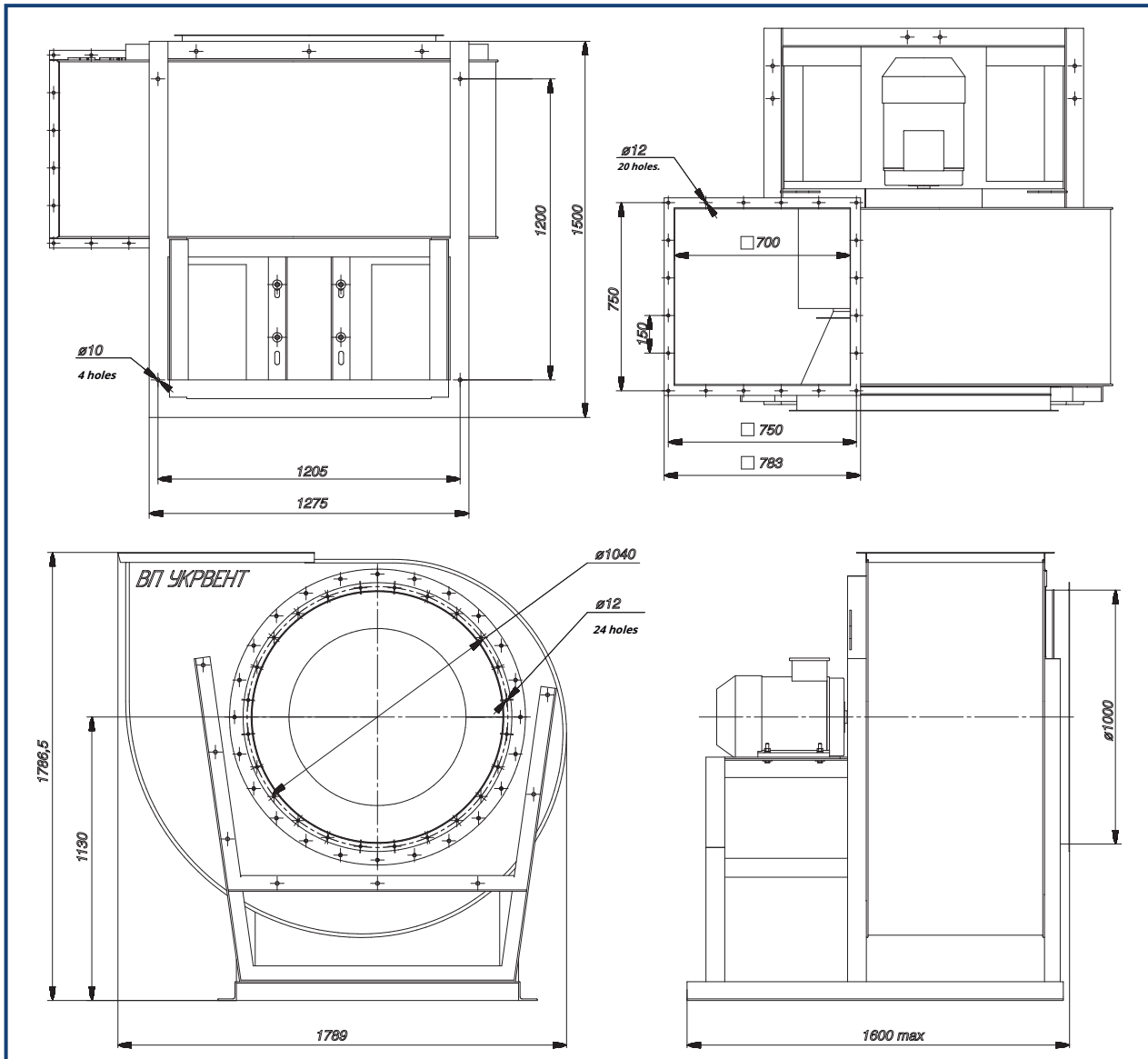
Vibration isolator RV-50

**VR-80-70-10-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
1	4	715	10.8	522	100
2	5.5	715	14.7	516	101
3	7.5	720	19.2	578	103
4	11	720	27.3	585	104
5	15	965	33	585	103
6	18.5	970	39	630	105
7	22	975	45.2	663	106

**VR-80-70-10-DU**

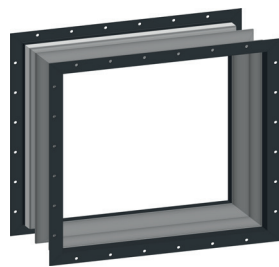
Overall and connection dimensions of the fan VR-80-70-10-DU



**Additional equipment**



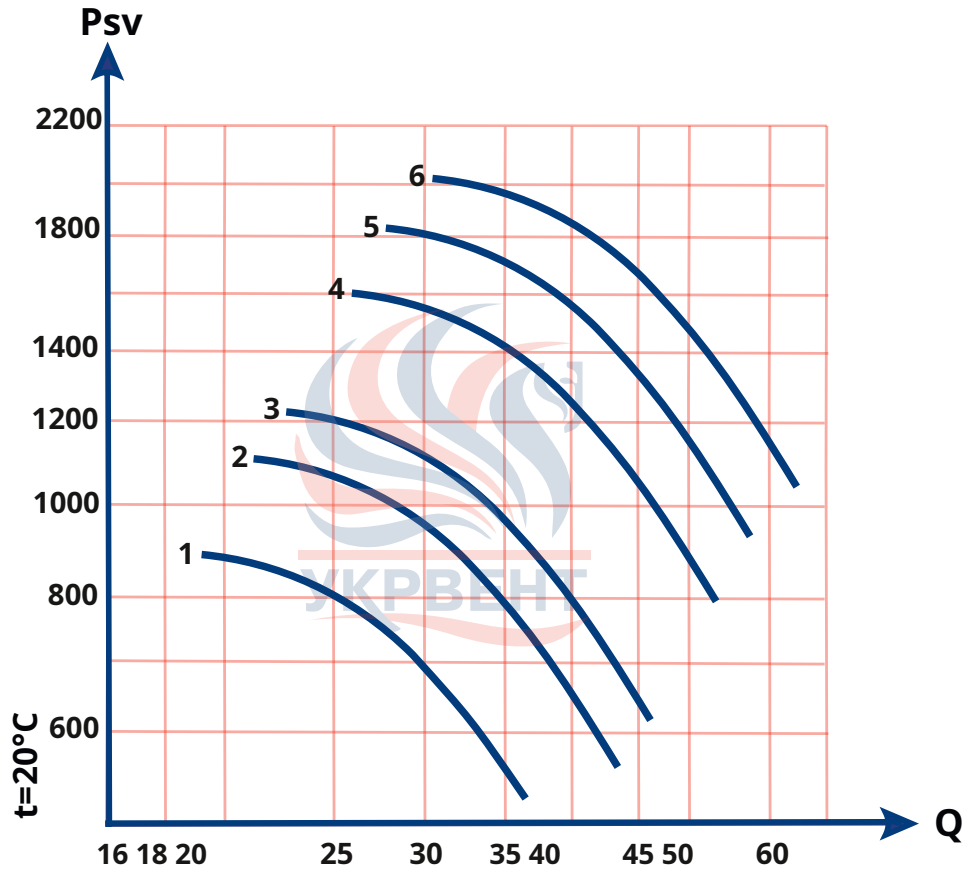
Flexible insert  
VKO-1000



Flexible insert  
VPO-1000



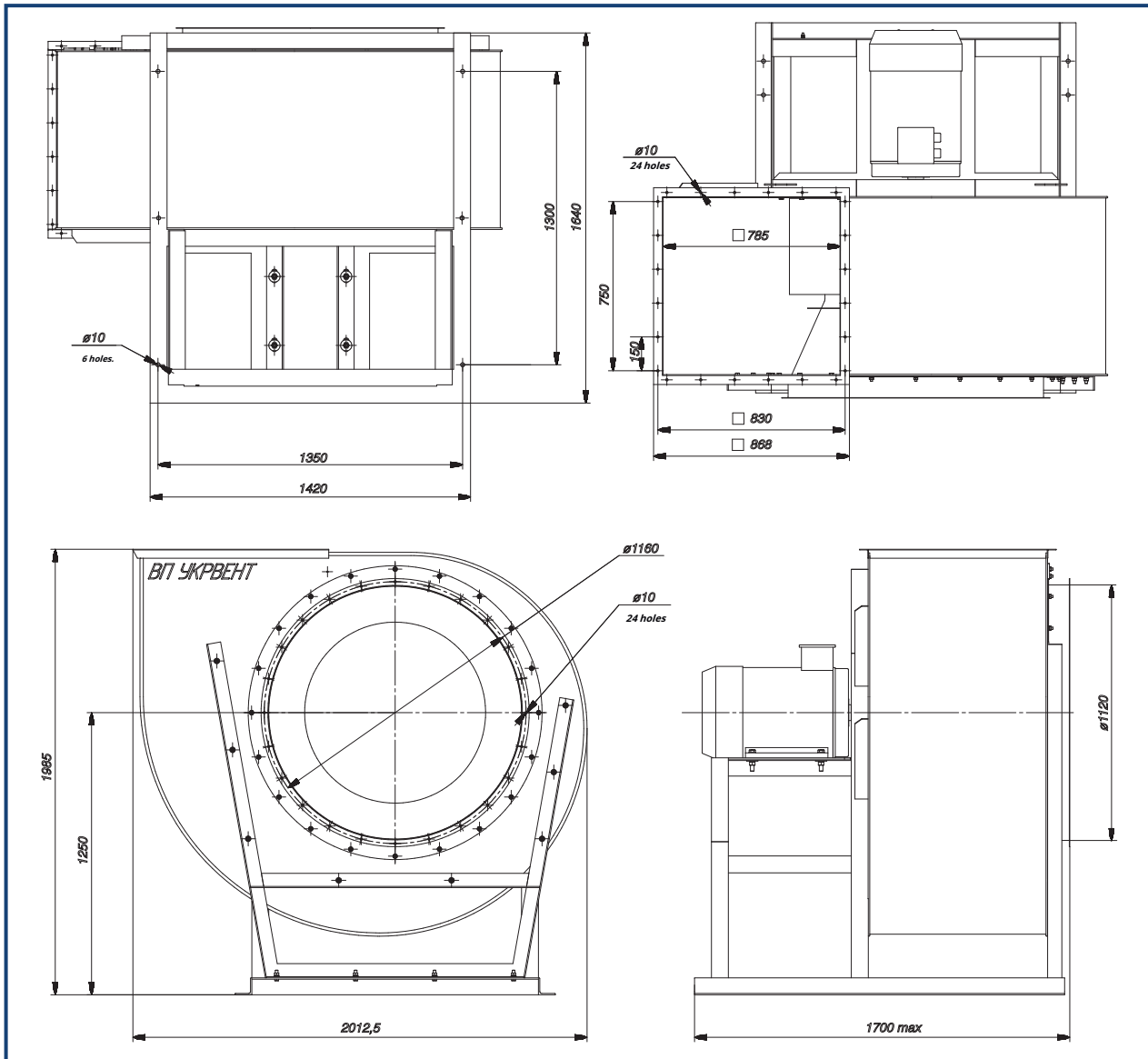
Vibration isolator RV-50

**VR-80-70-11.2-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
<b>1</b>	7.5	720	19.2	689	103
<b>2</b>	11	720	27.3	696	104
<b>3</b>	15	725	34.5	751	105
<b>4</b>	18.5	970	39	741	106
<b>5</b>	22	975	45.2	774	108
<b>6</b>	30	975	61.8	791	108

**VR-80-70-11.2-DU**

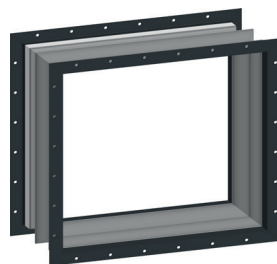
Overall and connection dimensions of the fan VR-80-70-11.2-DU



**Additional equipment**



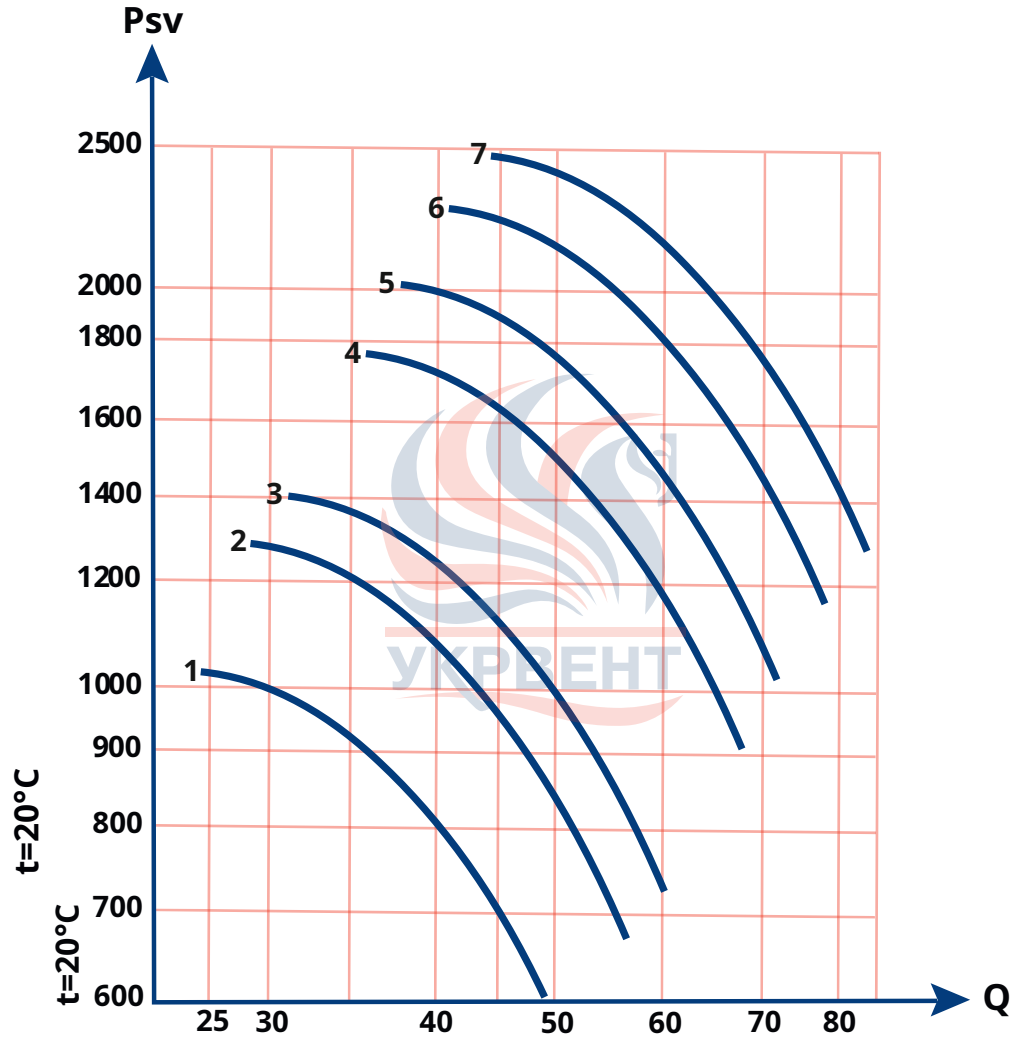
Flexible insert  
VKO-1120



Flexible insert  
IDP-1120



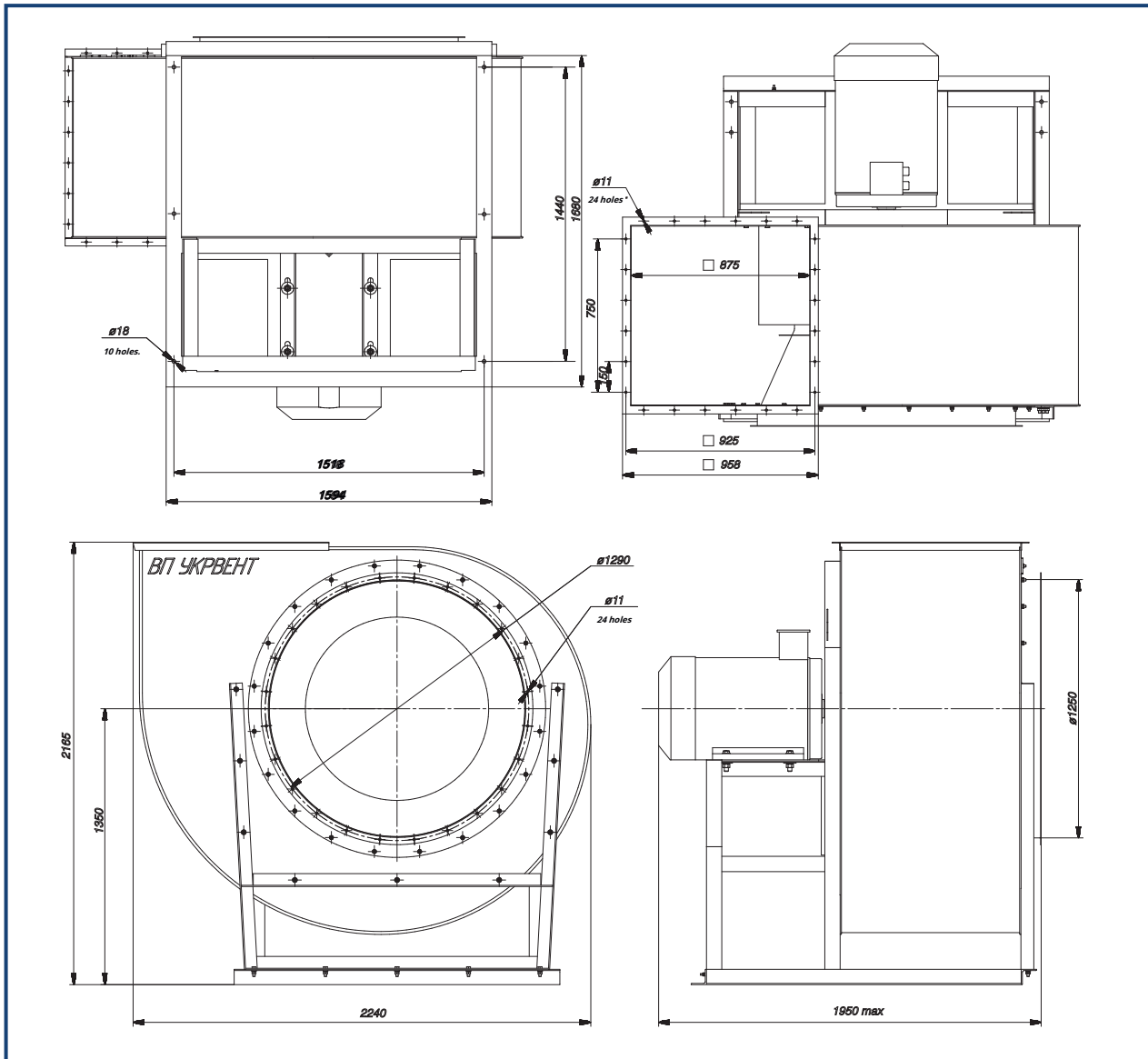
Vibration isolator RV-50

**VR-80-70-12.5-DU**
**Aerodynamic characteristics**


Curve №.	Power, kW,	Rotation speed of the impeller, rpm	Rated current, A	Fan weight, max kg	Acoustics, dB
1	15	725	34.5	855	101
2	18.5	730	41.6	895	102
3	22	730	49.4	905	104
4	30	735	65.3	1005	106
5	37	980	73.5	1005	106
6	45	985	90.1	1110	107
7	55	985	110	1165	107

**VR-80-70-12.5-DU**

Overall and connection dimensions of the fan VR-80-70-12.5-DU



**Additional equipment**

<p>Flexible insert VKO-1250</p>	<p>Flexible insert IDP-1250</p>	<p>Vibration isolator RV-50</p>