



## UGW/D Unit Heaters

The units are used for heating or heating and ventilation of industrial shops, storerooms etc. Constructionally, the units are fitted for mounting on walls or structural posts at the height that allows for direct air intake into the heated area. Providing the unit with centrifugal fan allows for the independent operation of the unit or with additional equipment attached with resistance up to 100 Pa. The units may operate as heaters in the recirculation air independently or with a filter attached at the sucking side of the fan, or as heating and ventilation units with air deriving device which allows for drawing fresh air, recirculation air or air mixed at any proportions. The air deriving device may be delivered with or without a filter.

### PRODUCT DESCRIPTION

Series of types of the units contains 3 sizes with preserving geometrical similarity which are offered in variants differing in rotational speed of fan, water or steam heating factor, number of heater rows and left or right type. The unit consists of:

- casing;
- highly efficient centrifugal fan with electric motor;
- water or steam heater;
- outlet grate;

All heaters are made of bimetallic pipes i.e. steel core barrel and aluminium ribs rolled outside. Standard water heaters are made of pipes with the following dimensions: inner diameter  $d=12,4\text{mm}$ , rib outer diameter  $D=38\text{mm}$  and ribs spacing  $2,8\text{mm}$  and the steam heaters are made of pipes with  $d=21,4$  inner diameter, element outer diameter  $D=58$  and ribs spacing  $5\text{ mm}$ . There are left or right types of units offered which means that with the right type the person looking at the outlet grate sees the air inlet on the right. (the picture shows the unit of right type).

### WORKING CONDITIONS

The units may be fed with water of  $150/70^{\circ}\text{C}$  temperature and pressure of  $1,6\text{Mpa}$  max or with steam of pressure up to  $0,6\text{Mpa}$ . UGW/D 10; 11 units are delivered with three-phase two-gear motors with speed of  $\sim 900/1400\text{rpm}$  and on request with single-phase motors ( $1400\text{rpm}$ ). UGW/D 12 units are delivered with three-phase single gear motors with speed of  $\sim 670$  or  $900\text{rpm}$ .

## UGWD-10-W-B-III

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,37	0,37
Current [A]	1,2	1,2
Revolutions [rpm]	1400	900/1400

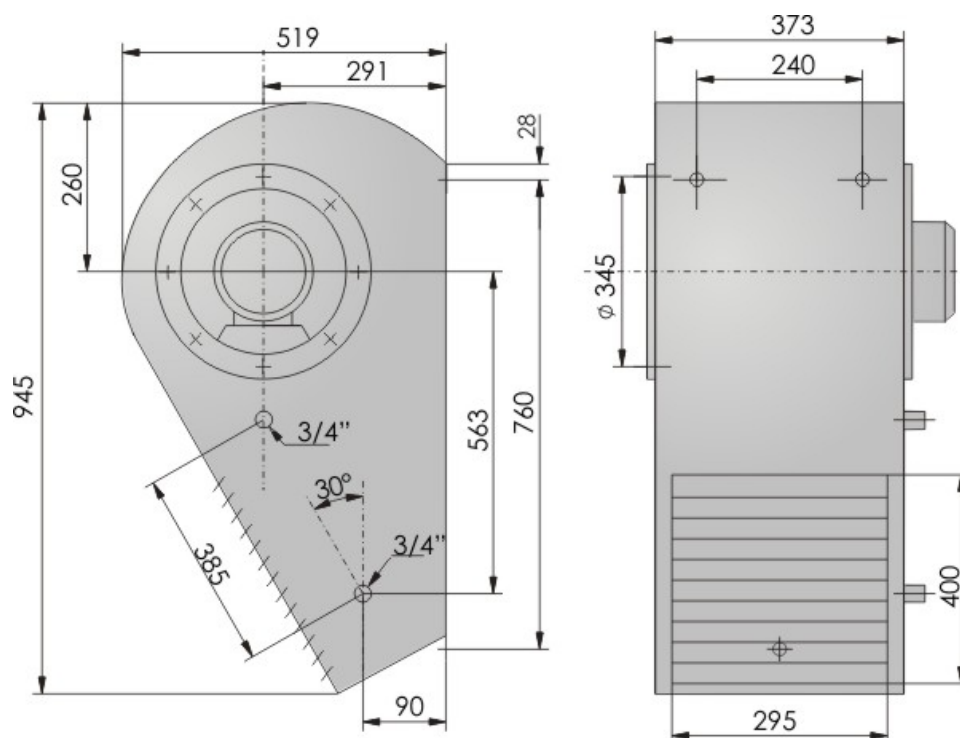
Thermal power of units with water heater					
Number of heater rows		III			
Revolutions [rpm]		900		1400	
Air flow [m³/h]		1020		1530	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
90/70	-15	18	29	23	27
	0	14	37	19	35
	15	11	44	15	43

<b>110/70</b>	<b>-15</b>	18	30	23	27
	<b>0</b>	14	38	19	35
	<b>15</b>	12	46	15	43
<b>130/70</b>	<b>-15</b>	17	32	23	28
	<b>0</b>	15	40	20	36
	<b>15</b>	12	47	16	45
<b>150/70</b>	<b>-15</b>	19	34	24	30
	<b>0</b>	16	42	21	38
	<b>15</b>	13	50	18	46

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>59</b>	67
At the distance of 5m	<b>55</b>	63
Unit weight		
Weight [kg]	53	

## UGWD-10-W-B-IV

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,9	1,2
Current [A]	1,2	1,2
Revolutions [rpm]	1400	900/1400

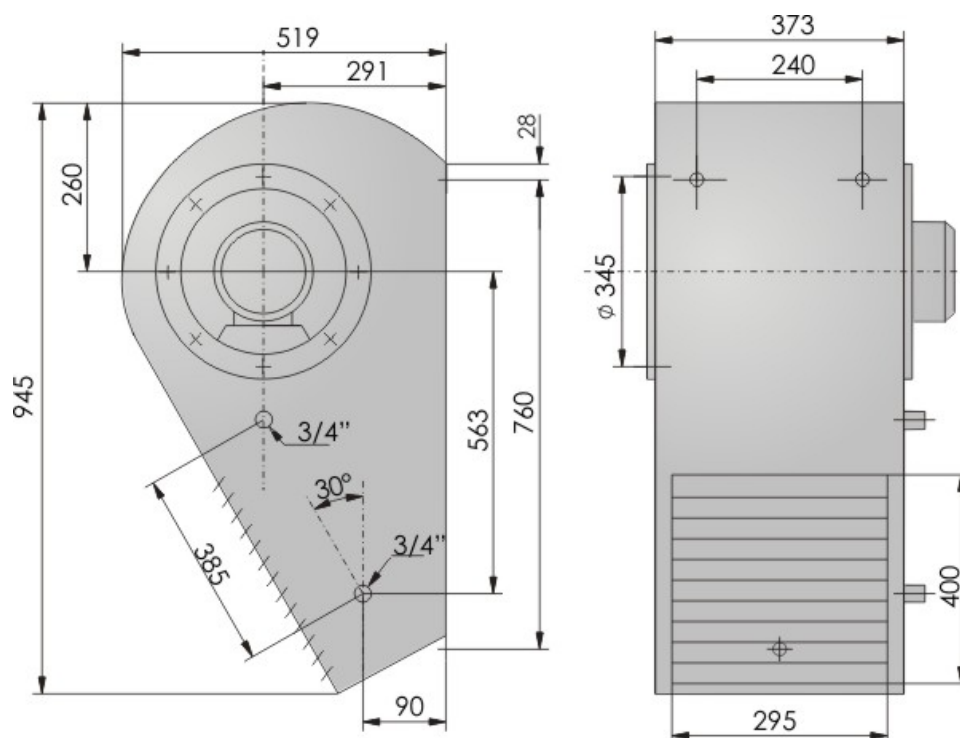
Thermal power of units with water heater					
Number of heater rows		IV			
Revolutions [rpm]		900		1400	
Air flow [m³/h]		1020		1530	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
90/70	-15	19	37	27	37
	0	15	44	22	41
	15	12	50	18	49

<b>110/70</b>	<b>-15</b>	20	39	27	36
	<b>0</b>	16	45	23	43
	<b>15</b>	13	52	19	50
<b>130/70</b>	<b>-15</b>	22	41	29	39
	<b>0</b>	17	47	24	45
	<b>15</b>	14	54	20	52
<b>150/70</b>	<b>-15</b>	21	44	30	41
	<b>0</b>	19	51	25	48
	<b>15</b>	15	57	21	54

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>59</b>	67
At the distance of 5m	<b>55</b>	63
Unit weight		
Weight [kg]	59	

## UGWD-10-P-B-II

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,25	0,37
Current [A]	0,9	1,2
Revolutions [rpm]	900	900/1400

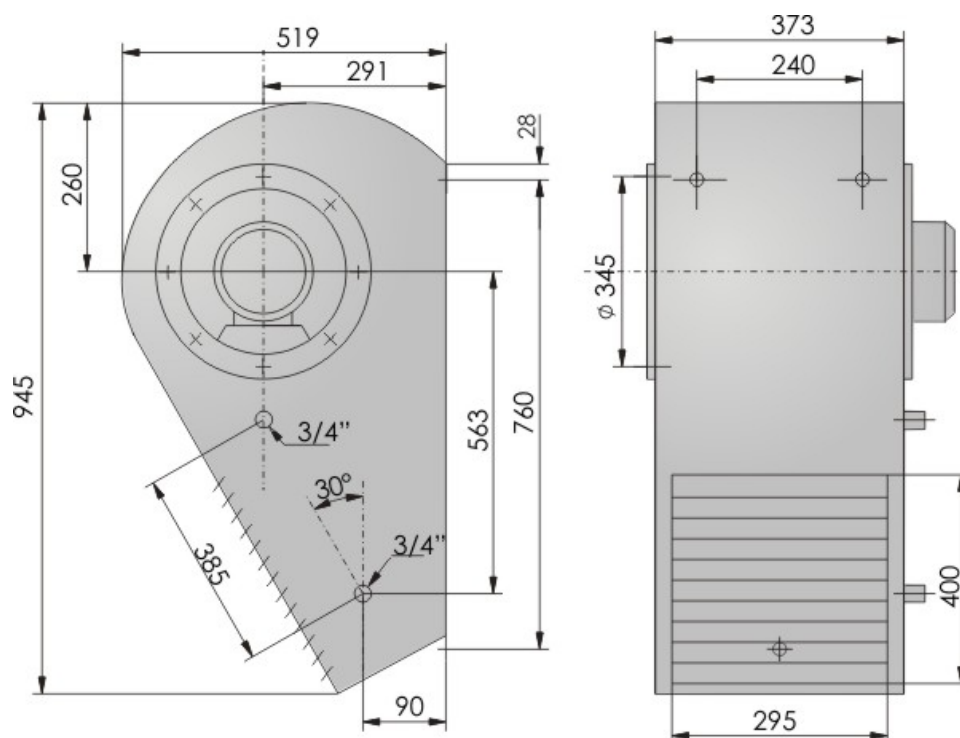
Thermal power of units with water heater					
Number of heater rows		II			
Revolutions [rpm]		900		1400	
Air flow [m³/h]		970		1580	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C

<b>0,01</b>	<b>-15</b>	15	31	20	22
	<b>0</b>	13	39	17	32
	<b>15</b>	11	48	14	41
<b>0,05</b>	<b>-15</b>	16	34	21	25
	<b>0</b>	14	43	18	34
	<b>15</b>	11	51	15	44
<b>0,1</b>	<b>-15</b>	18	37	23	26
	<b>0</b>	15	45	19	36
	<b>15</b>	12	53	16	45
<b>0,2</b>	<b>-15</b>	20	46	26	34
	<b>0</b>	18	54	23	53
	<b>15</b>	15	62	20	43
<b>0,4</b>	<b>-15</b>	23	57	31	43
	<b>0</b>	21	65	28	52
	<b>15</b>	18	72	25	62
<b>0,6</b>	<b>-15</b>	25	64	34	48
	<b>0</b>	23	70	32	58
	<b>15</b>	21	78	28	67

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>59</b>	67
At the distance of 5m	<b>55</b>	63
Unit weight		
Weight [kg]	59	

## UGWD-10-P-B-III

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,25	0,37
Current [A]	0,9	1,2
Revolutions [rpm]	900	900/1400

Thermal power of units with water heater					
Number of heater rows		III			
Revolutions [rpm]		900		1400	
Air flow [m <sup>3</sup> /h]		970		1580	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
0,01	-15	19	51	26	40
	0	16	56	22	47
	15	13	62	18	53

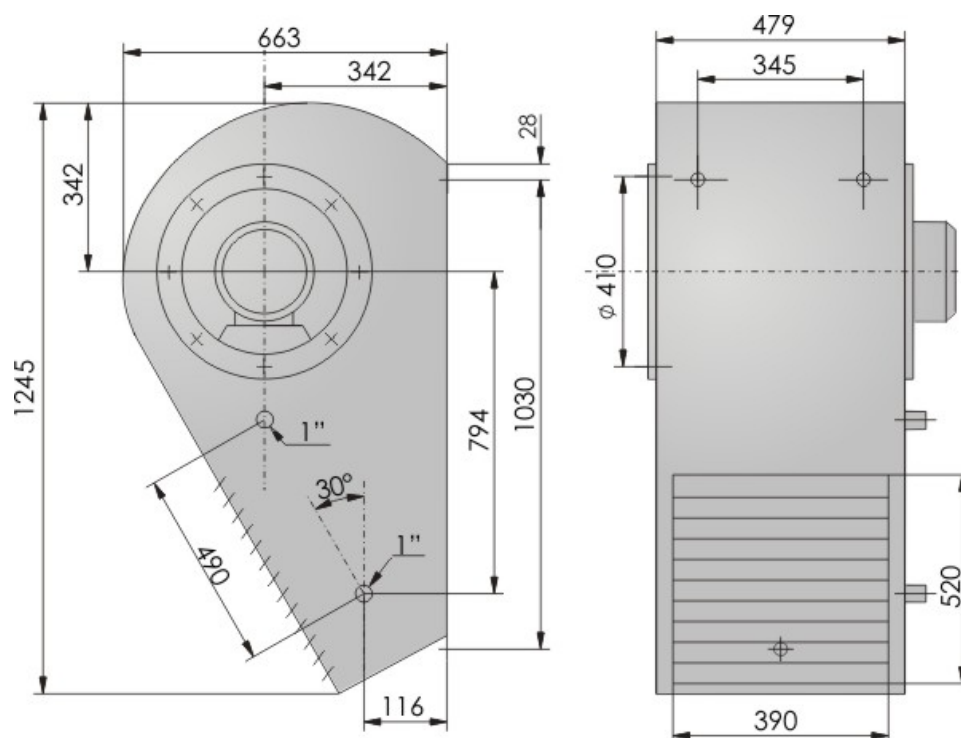


<b>0,05</b>	<b>-15</b>	19	55	27	43
	<b>0</b>	17	61	23	50
	<b>15</b>	14	66	19	57
<b>0,1</b>	<b>-15</b>	21	60	29	46
	<b>0</b>	18	65	25	53
	<b>15</b>	15	70	21	60
<b>0,2</b>	<b>-15</b>	24	74	34	57
	<b>0</b>	22	79	30	64
	<b>15</b>	19	84	26	71
<b>0,4</b>	<b>-15</b>	29	89	40	70
	<b>0</b>	26	93	36	77
	<b>15</b>	23	99	32	84
<b>0,6</b>	<b>-15</b>	32	99	43	78
	<b>0</b>	29	103	41	82
	<b>15</b>	26	108	36	92

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>59</b>	67
At the distance of 5m	<b>55</b>	63
Unit weight		
Weight [kg]	60	

## UGWD-11-W-B-III

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,37	0,55
Current [A]	1,45	1,5
Revolutions [rpm]	900	900/1400

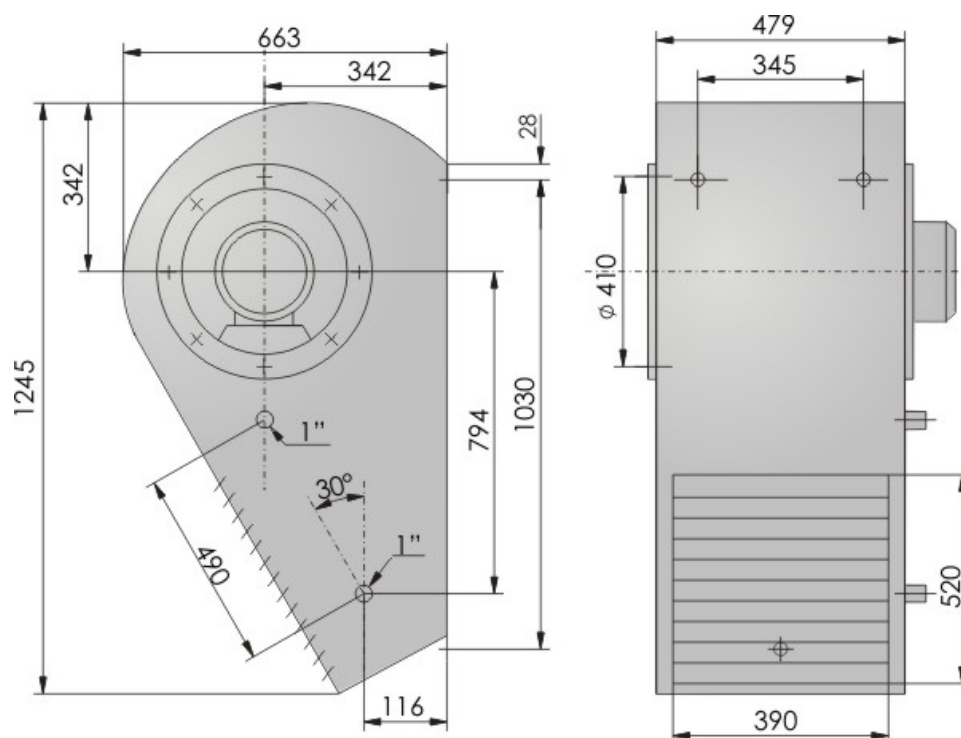
Thermal power of units with water heater					
Number of heater rows		III			
Obroty [obr/min]		900		1400	
Air flow [m³/h]		2090		3130	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
90/70	-15	36	34	45	26
	0	30	41	38	35
	15	23	48	30	42

<b>110/70</b>	<b>-15</b>	36	34	46	26
	<b>0</b>	30	41	38	34
	<b>15</b>	25	48	30	42
<b>130/70</b>	<b>-15</b>	37	35	46	27
	<b>0</b>	31	42	38	35
	<b>15</b>	25	50	30	42
<b>150/70</b>	<b>-15</b>	38	37	47	27
	<b>0</b>	33	44	39	36
	<b>15</b>	26	51	32	44

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>60</b>	70
At the distance of 5m	<b>56</b>	66
Unit weight		
Weight [kg]	87	

## UGWD-11-W-B-IV

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,37	0,55
Current [A]	1,45	1,5
Revolutions [rpm]	1400	900/1400

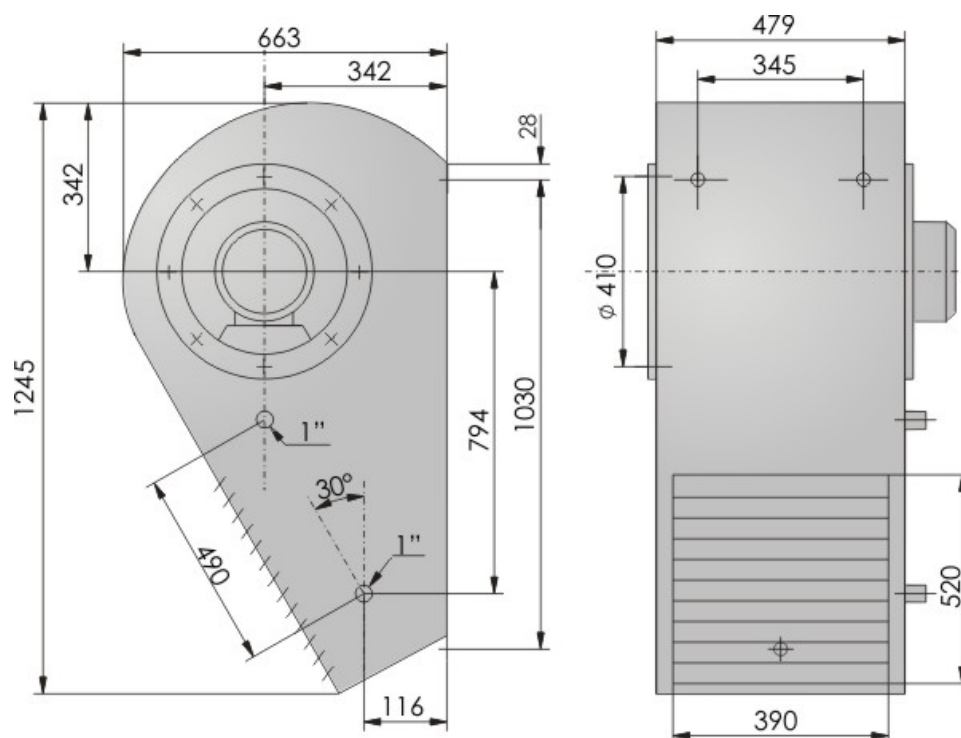
Thermal power of units with water heater					
Number of heater rows		IV			
Revolutions [rpm]		900		1400	
Air flow [m³/h]		2090		3130	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
90/70	-15	42	41	56	39
	0	34	47	46	44
	15	27	52	36	50

<b>110/70</b>	<b>-15</b>	42	42	56	38
	<b>0</b>	35	48	47	45
	<b>15</b>	27	54	37	51
<b>130/70</b>	<b>-15</b>	44	44	58	40
	<b>0</b>	36	51	48	47
	<b>15</b>	30	55	40	53
<b>150/70</b>	<b>-15</b>	45	46	60	43
	<b>0</b>	39	52	52	49
	<b>15</b>	32	58	42	56

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>60</b>	70
At the distance of 5m	<b>56</b>	66
Unit weight		
Weight [kg]	96	

## UGWD-11-P-B-II

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,37	0,55
Current [A]	1,45	1,5
Revolutions [rpm]	900	900/1400

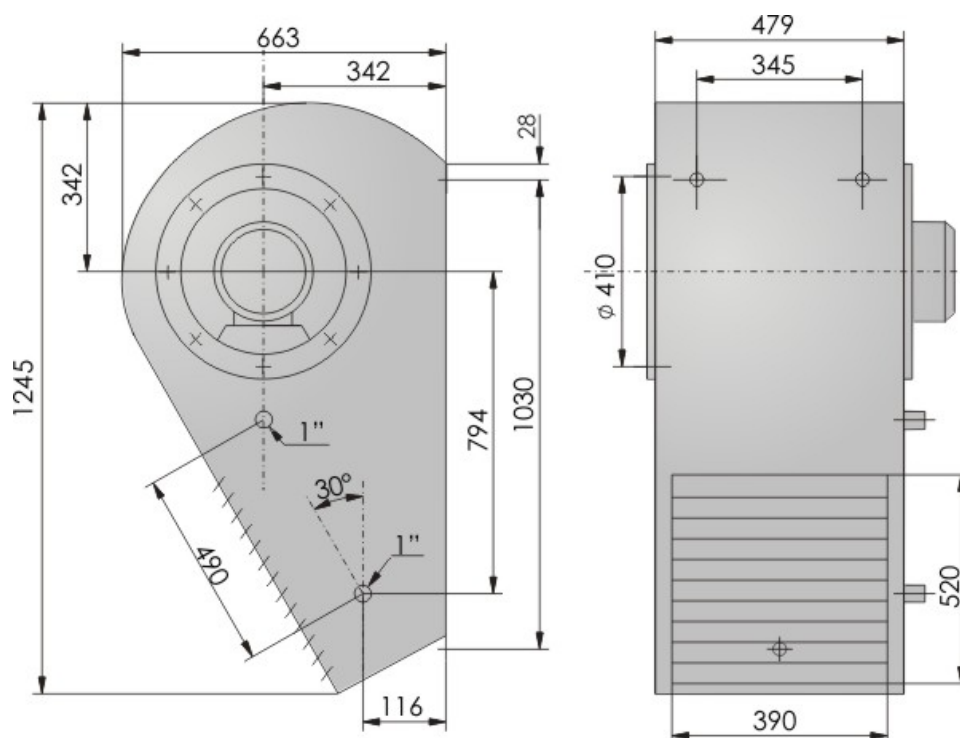
Thermal power of units with water heater					
Number of heater rows		II			
Revolutions [rpm]		900		1400	
Air flow [m³/h]		970		1580	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
0,01	-15	34	32	40	23
	0	29	40	34	33
	15	24	49	28	42

<b>0,05</b>	<b>-15</b>	35	35	45	26
	<b>0</b>	31	44	36	35
	<b>15</b>	26	52	30	45
<b>0,1</b>	<b>-15</b>	38	37	44	27
	<b>0</b>	33	46	38	37
	<b>15</b>	28	54	33	48
<b>0,2</b>	<b>-15</b>	45	47	52	35
	<b>0</b>	40	55	47	44
	<b>15</b>	35	63	40	54
<b>0,4</b>	<b>-15</b>	53	58	62	43
	<b>0</b>	48	66	55	52
	<b>15</b>	41	73	50	62
<b>0,6</b>	<b>-15</b>	58	65	67	49
	<b>0</b>	53	72	63	58
	<b>15</b>	48	79	56	68

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>60</b>	70
At the distance of 5m	<b>56</b>	66
Unit weight		
Weight [kg]	78	

## UGWD-11-P-B-III

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,37	0,55
Current [A]	1,45	1,5
Revolutions [rpm]	900	900/1400

Thermal power of units with water heater					
Number of heater rows		III			
Revolutions [rpm]		900		1400	
Air flow [m³/h]		970		1580	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
0,01	-15	44	52	53	41
	0	36	57	46	48
	15	30	63	38	54

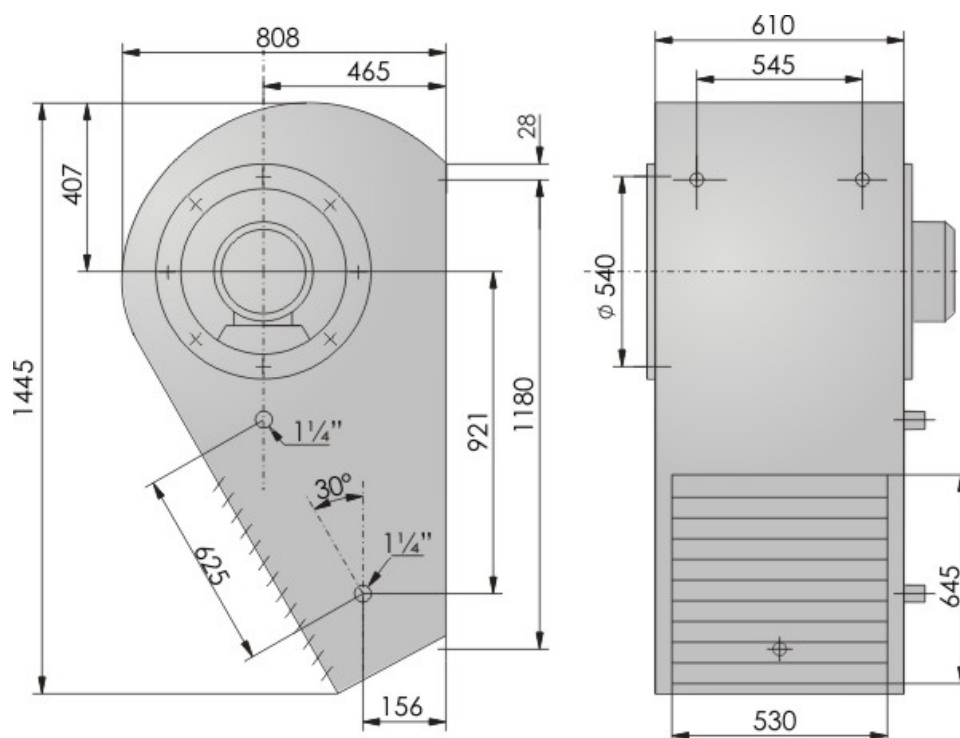


<b>0,05</b>	<b>-15</b>	45	57	58	45
	<b>0</b>	39	62	49	51
	<b>15</b>	33	67	42	58
<b>0,1</b>	<b>-15</b>	47	60	61	47
	<b>0</b>	41	65	53	54
	<b>15</b>	35	70	45	61
<b>0,2</b>	<b>-15</b>	56	74	72	59
	<b>0</b>	50	80	64	66
	<b>15</b>	43	84	56	72
<b>0,4</b>	<b>-15</b>	66	90	84	72
	<b>0</b>	60	94	76	78
	<b>15</b>	51	99	68	85
<b>0,6</b>	<b>-15</b>	72	100	93	80
	<b>0</b>	66	104	87	87
	<b>15</b>	60	109	76	93

Operation noise level [dB(A)]		
Revolutions [rpm]	900	1400
At the distance of 1m	<b>60</b>	70
At the distance of 5m	<b>56</b>	66
Unit weight		
Weight [kg]	95	

## UGWD-12-W-B-III

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,25	0,37
Current [A]	0,9	1,2
Revolutions [rpm]	670	900

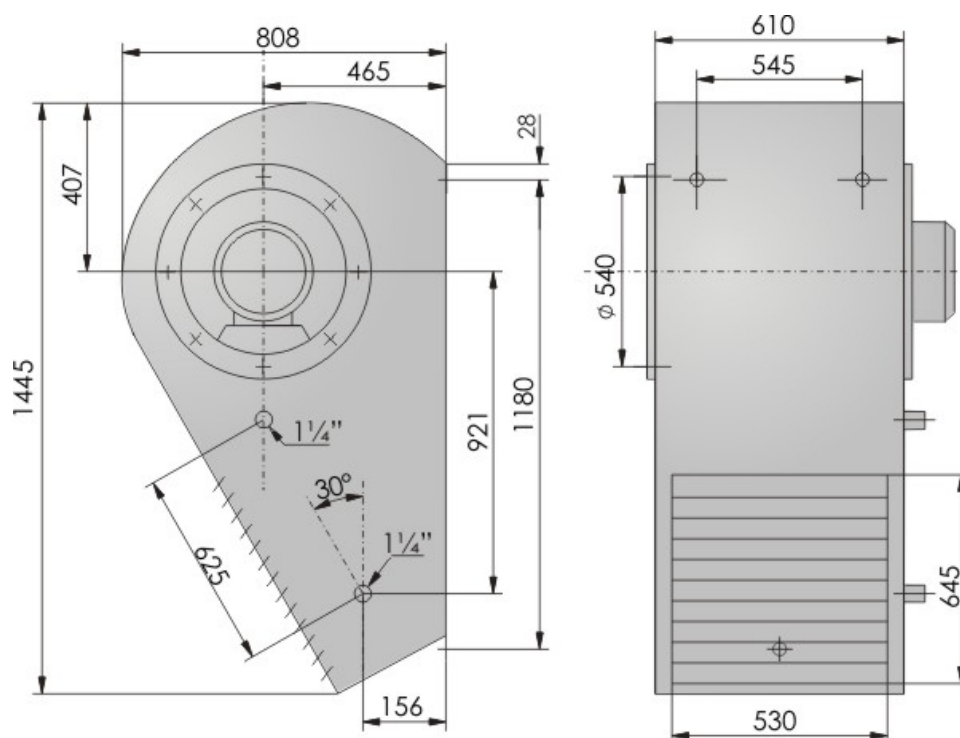
Thermal power of units with water heater					
Number of heater rows		III			
Revolutions [rpm]		670		900	
Air flow [m³/h]		3280		4600	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
90/70	-15	63	37	72	29
	0	53	44	60	37
	15	43	51	48	45

<b>110/70</b>	<b>-15</b>	67	40	76	31
	<b>0</b>	56	47	65	39
	<b>15</b>	46	54	53	47
<b>130/70</b>	<b>-15</b>	70	43	81	34
	<b>0</b>	60	50	70	42
	<b>15</b>	51	57	58	50
<b>150/70</b>	<b>-15</b>	76	46	85	37
	<b>0</b>	65	54	75	46
	<b>15</b>	55	61	63	54

Operation noise level [dB(A)]		
Revolutions [rpm]	670	900
At the distance of 1m	<b>62</b>	68
At the distance of 5m	<b>58</b>	64
Unit weight		
Weight [kg]	117	

## UGWD-12-W-B-IV

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,25	0,37
Current [A]	0,9	1,2
Revolutions [rpm]	670	900

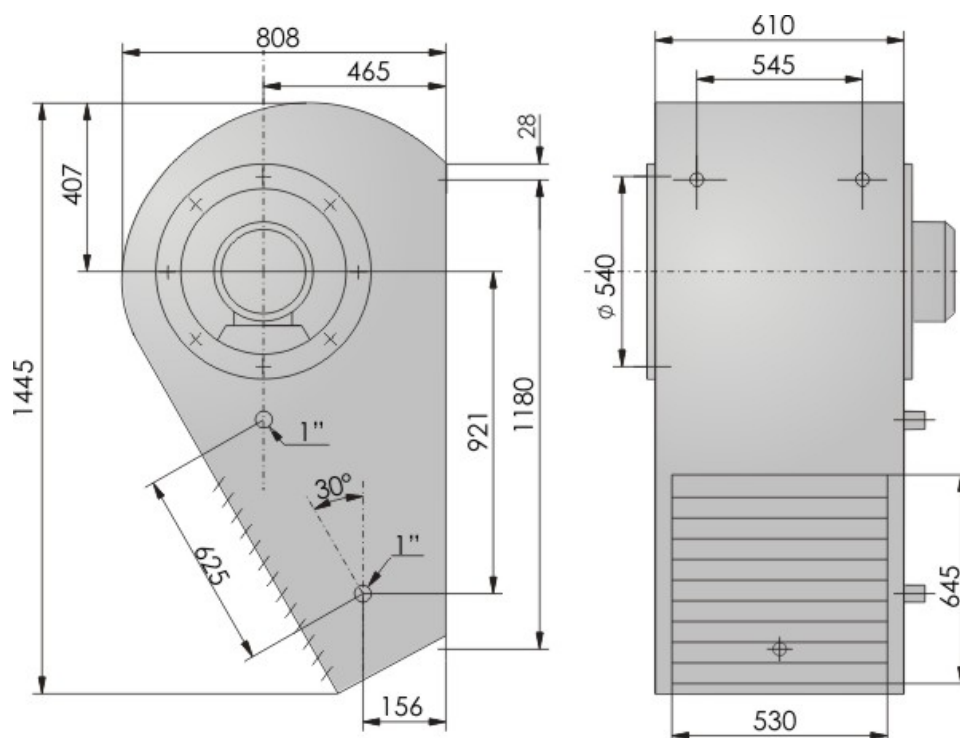
Thermal power of units with water heater					
Number of heater rows		IV			
Revolutions [rpm]		670		900	
Air flow [m³/h]		3280		4600	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
90/70	-15	74	47	92	43
	0	62	52	77	48
	15	50	57	60	53

<b>110/70</b>	<b>-15</b>	77	49	94	44
	<b>0</b>	65	53	97	49
	<b>15</b>	52	60	64	55
<b>130/70</b>	<b>-15</b>	80	52	99	46
	<b>0</b>	68	57	83	52
	<b>15</b>	56	63	68	58
<b>150/70</b>	<b>-15</b>	84	55	103	49
	<b>0</b>	73	61	88	55
	<b>15</b>	60	66	74	61

Operation noise level [dB(A)]		
<b>Revolutions [rpm]</b>	670	900
<b>At the distance of 1m</b>	<b>60</b>	68
<b>At the distance of 5m</b>	<b>56</b>	64
Unit weight		
<b>Weight [kg]</b>	137	

## UGWD-12-P-B-II

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,25	0,37
Current [A]	0,9	1,2
Revolutions [rpm]	670	900

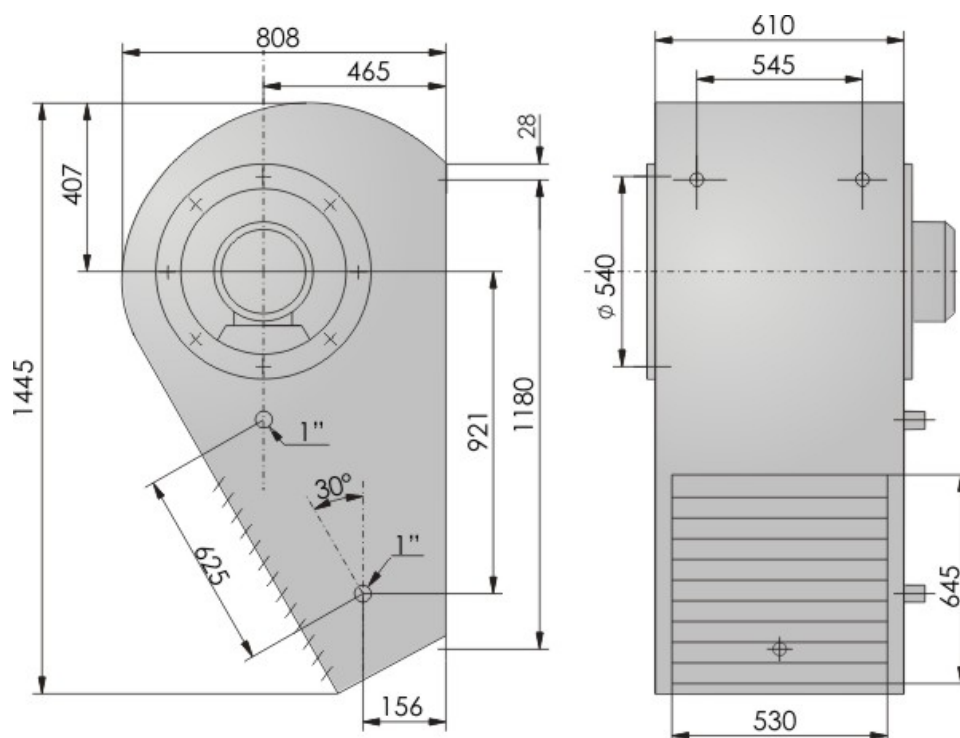
Thermal power of units with water heater					
Number of heater rows		II			
Revolutions [rpm]		670		900	
Air flow [m <sup>3</sup> /h]		3350		4360	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
0,01	-15	53	33	59	24
	0	46	41	51	33
	15	38	50	42	43

<b>0,05</b>	<b>-15</b>	56	36	63	27
	<b>0</b>	49	45	54	36
	<b>15</b>	41	53	46	46
<b>0,1</b>	<b>-15</b>	58	38	67	29
	<b>0</b>	51	46	58	38
	<b>15</b>	43	57	49	47
<b>0,2</b>	<b>-15</b>	69	48	79	37
	<b>0</b>	60	56	70	46
	<b>15</b>	54	64	61	55
<b>0,4</b>	<b>-15</b>	81	59	92	46
	<b>0</b>	73	67	84	55
	<b>15</b>	63	74	75	64
<b>0,6</b>	<b>-15</b>	89	66	101	52
	<b>0</b>	81	73	95	58
	<b>15</b>	73	80	83	70

Operation noise level [dB(A)]		
Revolutions [rpm]	670	900
At the distance of 1m	<b>62</b>	68
At the distance of 5m	<b>58</b>	64
Unit weight		
Weight [kg]	110	

## UGWD-12-P-B-III

### DIMENSIONS



Fan specifications		
Voltage [V]	230	400
Motor power [kW]	0,25	0,37
Current [A]	0,9	1,2
Revolutions [rpm]	670	900

Thermal power of units with water heater					
Number of heater rows		III			
Revolutions [rpm]		670		900	
Air flow [m³/h]		3350		4360	
Thermal power of units with water heater					
Water temp. [°C]	Inflow air temp. [°C]	kW	°C	kW	°C
0,01	-15	71	53	83	42
	0	61	58	71	49
	15	50	64	58	55



<b>0,05</b>	<b>-15</b>	76	58	88	46
	<b>0</b>	66	63	75	52
	<b>15</b>	55	68	63	59
<b>0,1</b>	<b>-15</b>	72	61	92	48
	<b>0</b>	72	66	78	55
	<b>15</b>	58	72	68	62
<b>0,2</b>	<b>-15</b>	93	75	108	60
	<b>0</b>	82	81	96	67
	<b>15</b>	72	86	84	73
<b>0,4</b>	<b>-15</b>	113	61	127	73
	<b>0</b>	99	95	115	79
	<b>15</b>	89	101	103	86
<b>0,6</b>	<b>-15</b>	119	102	141	81
	<b>0</b>	109	106	131	88
	<b>15</b>	99	110	115	94

Operation noise level [dB(A)]		
Revolutions [rpm]	670	900
At the distance of 1m	<b>62</b>	68
At the distance of 5m	<b>58</b>	64
Unit weight		
Weight [kg]	139	