



## Local Unit

The local radiant heating unit is the best-known type of radiant heating system in the country. In these units, the burner, suction fan, and tubes are installed in the intended place altogether. These units are applied to provide the heating for the entire hall (depending on the hall surface area and required heating power).

Local units are designed and produced in three models: AZAR, TABAN, FANTAB, differentiating based on the tube arrangement. The AZAR model has two rows of the tube; Meanwhile, it is one row in TABAN and FANTAB models.

Both TABAN and FANTAB models are implemented in work environments with a low ceiling height (suitable for poultry sheds and greenhouses). The reason is attributed to the lower temperature of the tube surface compared to the AZAR model. However, the TABAN model may occasionally be used in spaces with the conventional ceiling due to the lack of need for high temperatures. Thus, different types of local radiant heating units can be applied to provide heating for different spaces depending on the application, ceiling height, and required heating demand.



Local Unit

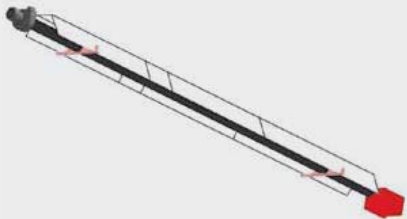
GENERAL CATALOG



AZAR Series



FANTAB Series



TABAN Series

## Local Unit Advantages

The most critical advantages of local units can be stated as follows:

- Possibility of Managing heating and preheating for the environment based on working hours automatically
- No dispersion of dust and environmental Pollution because of using radiation heating instead of convection
- Uniform heating for the hall with the minimum energy consumption Compared to other systems
- Networking of radiant heating units and control them from one location (controlling panel and computer)
- Possibility of monitoring the status of each unit and removing it individually as required
- Elimination of central furnace room, complicated facilities, and related problems
- No occupying the useful workspace, installation at a given height above ground, and floor heating
- 50% reduction in gas consumption and 90% in electricity consumption



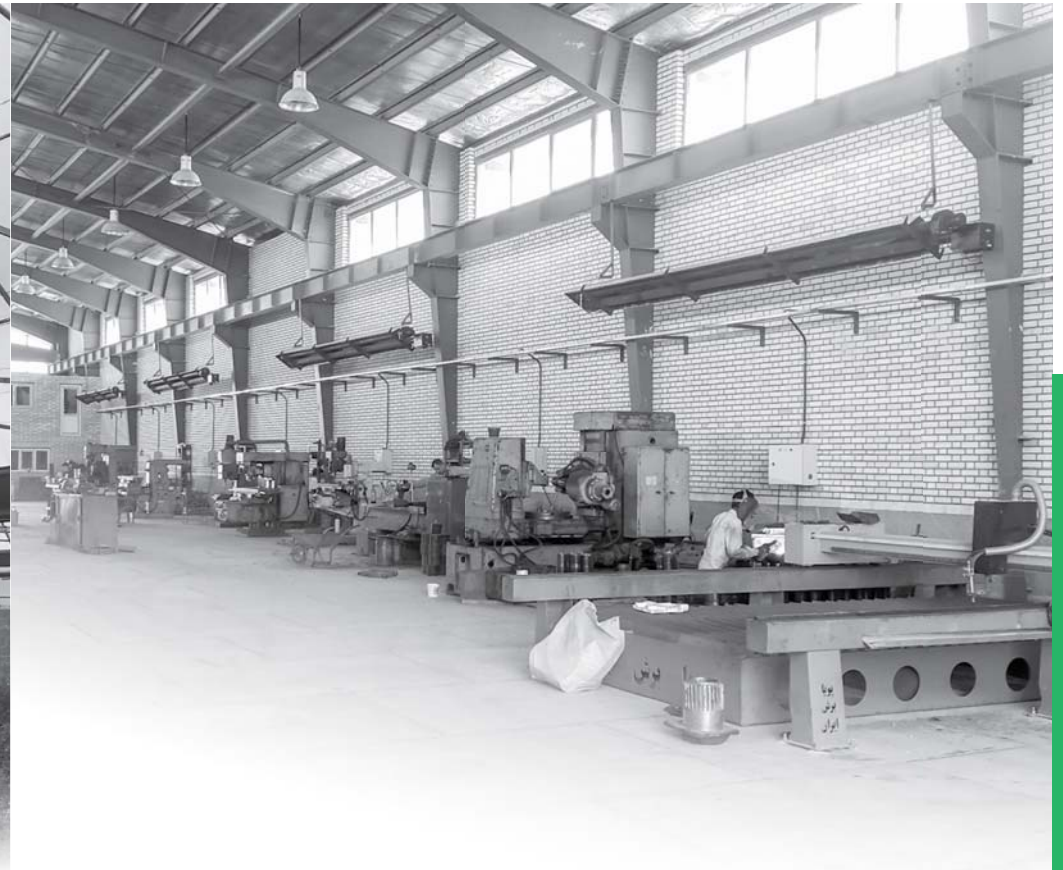
## Radiant Strip

- The fire tube is coated with paints resisting temperatures up to 800 °C. In order to maximize the radiation coefficient, the black paint color is selected for covering tubes because it has the highest radiation coefficient between different color spectra.
- By placing reflectors made of radiant plus with a radiation coefficient of 90% (more than twice the steel radiation coefficient) over the tubes, the radiation flux flowing downward increases; this leads to an increase in the unit efficiency and a decrease in energy consumption.
- Insulating plates cover the reflectors to inhibit the heat loss from the upper area of the radiant strip. Thus, electromagnetic wave radiation is reinforced more than ever and focused on the intended area.
- Supports are designed to retain tubes and reflectors. These supports, which are hanged from the ceiling by plated steel chains, allow the user to adjust the radiant strip height above ground.



### TABAN series specifications

Specifications	L6		L9		L12		L18		
	22SL	35SL	22SL	35SL	40SL	45SL	60SL	65SL	
Heating Power	kCal/h	19,000	30,000	19,000	30,000	35,000	39,000	51,000	56,000
	KW	22	35	22	35	40	45	60	65
Thermal Efficiency	%	88	88.2	88	88.2	89	90	91	91
Energy Consumption	Natural Gas	2.1	3.3	2.1	3.3	4	4.6	6.2	6.7
	LPG	1.5	2.45	1.5	2.45	3	3.5	4.7	5
Electricity Consumption	V/Hz	220/50							
Power	W	100							
Gas Connection	inches	3/4							
Weight	Kg	65		80		99		137	
Length	m	7		10		13		19	
Width	cm	50							
Exhaust Diameter	cm	12							

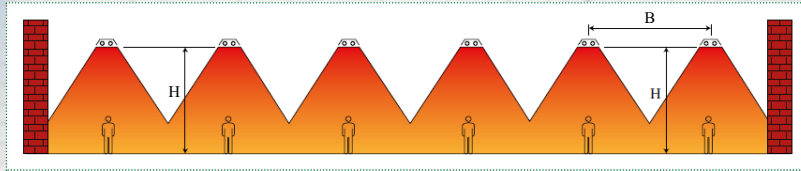


### AAZAR series specifications

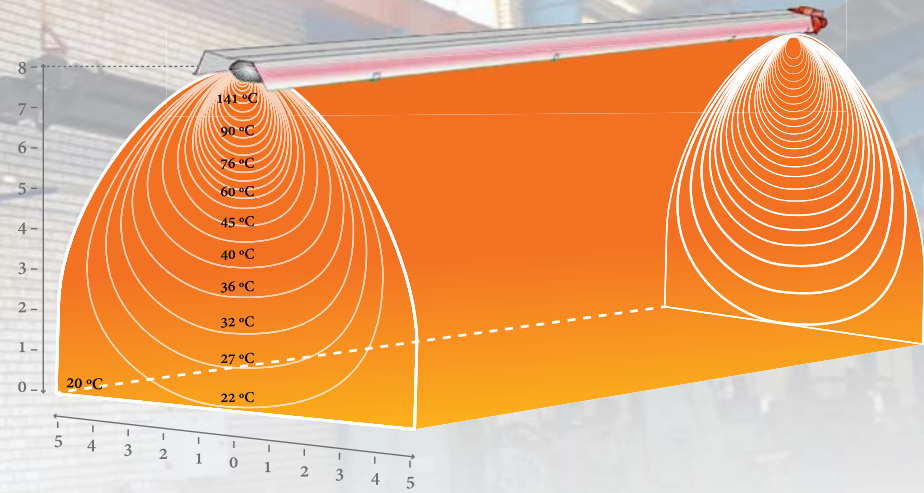
Specifications	U3		U4		U6		U9		U12		
	22SL	35SL	22SL	35SL	40UT	45UT	50UT	55UT	60UT	65UT	
Heating Power	kCal/h	19,000	30,000	19,000	30,000	35,000	39,000	43,000	47,000	51,000	56,000
	KW	22	35	22	35	40	45	50	55	60	65
Thermal Efficiency	%	88	88.2	88	88.2	89	90	91	91	91.7	91.7
Energy Consumption	Natural Gas	2.1	3.3	2.1	3.3	4	4.6	5.3	5.7	6.2	6.7
	LPG	1.5	2.45	1.5	2.45	3	3.5	4	4.4	4.7	5
Electricity Consumption	V/Hz	220/50									
Power	W	100									
Gas Connection	inches	3/4									
Weight	Kg	60		70		94		130		167	
Length	m	3.7		4.7		6.7		9.7		12.7	
Width	cm	60									
Exhaust Diameter	cm	12									

## Covered area and recommended installation height for TABAN and AZAR series

Specifications		U3	U4	U6	U9	U12	L6	L9	L12	L18
Radiant Strip Length	m	3	4	6	9	12	6	9	12	18
Recommended Installation Height (H)	m	4-6	4-6	5-9	5-12	5-12	4-6	4-6	5-9	5-12
Covered Area	m×m	13×8	14×9	18×10	21×11	24×11	13×6	16×7	21×9	27×10



## U6 Unit's Temperature Distribution



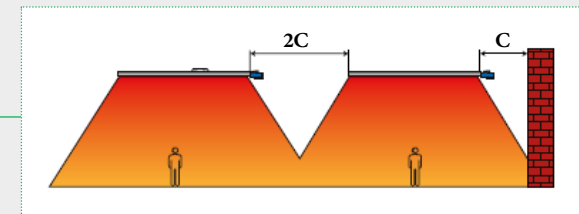
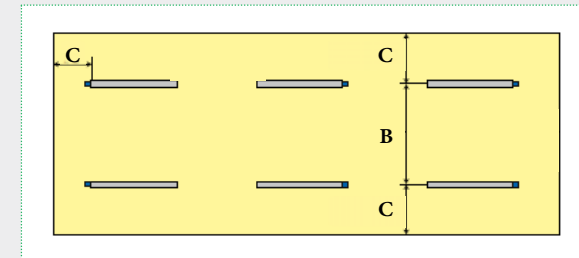
Test conditions: maximum radiant tube temperature 450 °C, floor material: cement  
 Temperature distribution after 90 of thermal radiation, operating temperature: 16 °C, and air flow velocity: 0.15 m/s

## Appropriate installation parameters for TABAN and AZAR series

Model	U4 - U3	U6				U12 - U9											
Installation Height (H)	m	4	5	6	5	6	7	8	9	5	6	7	8	9	10	11	12
Maximum Transverse Distance between Heaters (B)	m	5	6.5	8	6	8	9	10	10	6	8	9	10	10	10	10	10
Maximum Distance between Heater and Wall (C)	m	2.5	3	3.5	3	3.5	4	4.5	4.5	3	3.5	4	4.5	4.5	4.5	4.5	4.5

Model	L9 - L6			L12			L18										
Installation Height (H)	m	4	5	6	5	6	7	8	9	5	6	7	8	9	10	11	12
Maximum Transverse Distance between Heaters (B)	m	5	6.5	8	6	8	9	10	10	6	8	9	10	10	10	10	10
Maximum Distance between Heater and Wall (C)	m	2.5	3	3.5	3	3.5	4	4.5	4.5	3	3.5	4	4.5	4.5	4.5	4.5	4.5



## Advantages of FANTAB unit

### Advantages of FANTAB unit

- Possibility of automatically adjusting the time of heating and preheating for the environment based on working hours
- Uniform heating of the hall with the minimum energy consumption compared to other heating units
- Possibility of indicating the status of each unit and turning off every unit as required
- Possibility of networking between FANTAB units and controlling them through one device (control panel and computer)
- Elimination of central furnace room, complicated facilities, and related problems
- 50% reduction in gas consumption and 90% in electricity consumption
- No occupying the useful workspace and floor heating
- Air circulation and uniform heat distribution
- Installation at a given height above ground and heat at the floor



FANTAB is the best solution to meet heating demand in poultry farms and greenhouses

### Special Advantages of FANTAB for Poultry Farms

- Providing the temperature control, especially at the initial days of incubation
- Improving the feed conversion ratio through creating thermal comfort conditions
- Reducing the number of broiler chicks diagnosed with ascites
- Uniform heat distribution and avoiding the poultry gathering around one source
- Air humidity control and make dry the hall's floor
- Possibility of washing and sterilizing the unit
- Preventing air conditioning problems, especially in cold months

### Special Advantages of FANTAB for Greenhouses

- Making close the greenhouse conditions to natural environment due to higher temperature of soil relative to the air (up to 5 °C)
- Increasing the temperature of plants' leaves and decreasing the rate of fungal diseases
- Increasing condensation on leaves and preventing the leaf blight disease
- Providing suitable heating for the environment similar to the sunlight
- Avoiding the formation of thermal clouds under the ceiling

### Specifications of FANTAB radiant heating unit

Specifications		LP6	LP8	LP9	LP12				
Heating Power	tCal/h	25000	35000	25000	35000	39000	45000	39000	45000
	KW	30	40	30	40	45	50	45	50
Energy Consumption (Natural Gas)	Nmc/h	3.1	3.8	3.1	3.8	4	4.7	4	4.7
	V/Hz	220/50	220/50	220/50	220/50	220/50	220/50	220/50	220/50
Gas Connection	inches	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4
Weight	Kg	90	230	240	260	240	260	240	260
Length	m	6	8	9	12	9	12	9	12

# Local Unit Projects



