

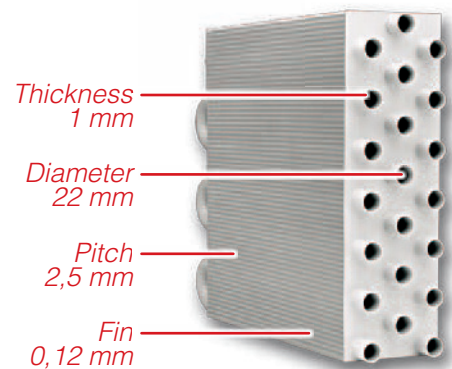


# SABIANA

IL CLIMA AMICO



A leading brand of



## Atlas Unit Heater

The **ATLAS Sabiana** unit heaters have a big "heart": a coil, which has been developed, studied and constructed expressly for heating industrial environments. The increased thickness of the tubes (1 mm steel tube, 0,7 mm copper tube), their large diameter (Ø 22 mm) and the excellent ratio between the air flow and the output guarantee a long life and a high environmental comfort. The Atlas unit heaters are produced in 10 sizes from 5 to 120 kW and are available with a 1-row coil for steam and high temperature hot water installations, a 2-row coil for hot water installations and a 3-row coil for low temperature hot water installations.



**T**he coil of Sabiana Atlas unit heaters with steel tubes Ø 22 mm and aluminium fins has the following advantages compared with the copper-aluminium small diameter tube coils: the material used for the steel tube, which is very thick (1 mm instead of 0,3 - 0,4 mm), makes the Sabiana coil extremely sturdy and long lasting. The tube's large diameter reduces the water pressure drop: this means that reduced power pumps are installed and a very rapid heating capacity is provided. The Sabiana coil for unit heaters uses a reduced number of tubes to give the same yield: this determines a low resistance to the air flow and consequently an optimum leaving air temperature and a very high throw. The greater spacing between the fins as well as their thickness facilitate cleaning and maintenance operations, which is essential to keep the unit heater efficient.

**T**he steel tube coil is the ideal choice for plants where all tubes and equipment are made of steel because it avoids physical and chemical unbalance due to the interaction of different metals. The special painting coat makes the coil long lasting and increases the thermal output.



# Atlas Unit Heater

**T**he Sabiana coil can be used with hot water, high temperature hot water or steam, even with a high working pressure. As a matter of fact each coil is submitted to two tests at 30 bars. However Sabiana, in order to meet any design and installation need, can offer a complete set of unit heaters with copper tubes and aluminium fins.

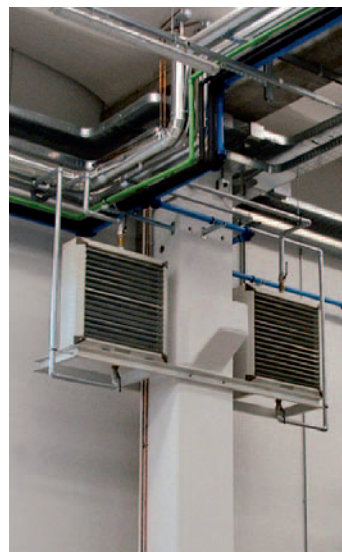
**T**his coil has the same features (tube diameter, fin pitch, etc.) of the steel coil but it is built with copper tube 0,7 mm thick, of higher quality and with a total weight which is double compared with the coils normally used for unit heaters. The wide range of products includes 10 different sizes with 1, 2 or 3 rows each.



Upon request, sizes 1 to 6 are available with the **innovative electronic motors** with extremely low energy consumption, controlled by an inverter board and identified by ECM. The ECM motors allow to decrease electric consumption compared to traditional asynchronous motors and they enable to adjust the air flow continuously and control the ambient temperature



with precision, with further benefits in terms of very low noise levels.



## Technical characteristics of the main components:

- The main casing is manufactured from galvanized prepainted steel finished in a light grey colour (RAL 9002) and is assembled from three component parts.
- The coil is manufactured from the highest quality steel or copper tube. The fins are pressed from aluminium sheet, bonded onto the tubes facilitating the maximum transfer contact available.
- The fan and motor assembly is made up of three components: the fan, the motor and the safety guard, which also acts as the main support. The standard motor fitted is a hermetically sealed motor which is maintenance free. The motors are supplied as standard for a three phase 230/400V 50Hz supply, and they are available, according to the size, with 4/6 or 6/8 pole two speed (protection IP55) and with 4 or 6 pole one speed (protection IP44).

A wide range of air boxes and accessories is available.

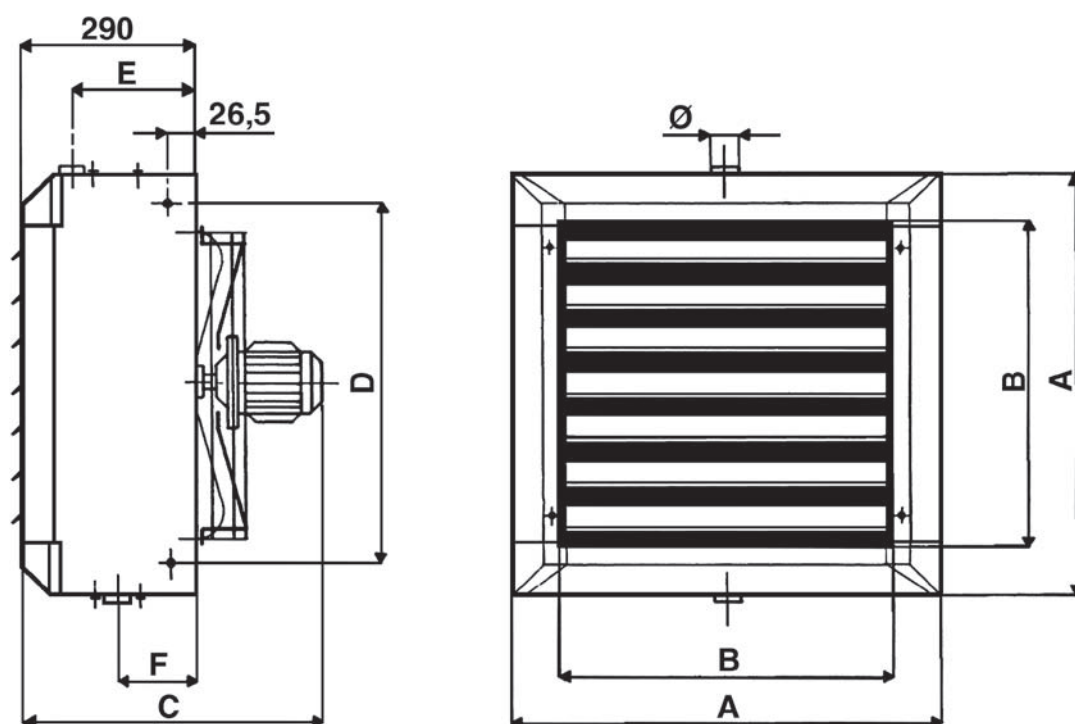
On request: special voltages and special air boxes.

## ATLAS identification code

Reference: 46A42 SX

| 46                                      | A              | 4         | 2         | SX                 | SP                  |
|---|----------------|-----------|-----------|--------------------|---------------------|
| MOTOR<br>4/6 POLE<br>(1350/1000 r.p.m.) | RANGE<br>ATLAS | SIZE<br>4 | ROWS<br>2 | COIL<br>STEEL TUBE | COIL<br>COPPER TUBE |

# Dimensions, Weight, Water content



| SIZE | A    | B   | C (C-ATEX) | D    | E   | F   | Ø      |
|------|------|-----|------------|------|-----|-----|--------|
| 1    | 472  | 336 | 465 (595)  | 375  | 220 | 130 | 1 1/4" |
| 2    | 526  | 390 | 465 (595)  | 429  | 220 | 130 | 1 1/4" |
| 3    | 580  | 444 | 465 (595)  | 483  | 220 | 130 | 1 1/4" |
| 4    | 634  | 498 | 488 (618)  | 537  | 220 | 130 | 1 1/4" |
| 5    | 688  | 552 | 488 (618)  | 591  | 220 | 130 | 1 1/4" |
| 6    | 742  | 606 | 513 (643)  | 645  | 220 | 130 | 1 1/4" |
| 7    | 793  | 657 | 560 (740)  | 696  | 210 | 140 | 1 1/2" |
| 8    | 900  | 764 | 575 (755)  | 803  | 210 | 140 | 1 1/2" |
| 9    | 1010 | 874 | 595 (775)  | 913  | 210 | 140 | 1 1/2" |
| 10   | 1117 | 980 | 640 (820)  | 1020 | 210 | 140 | 2"     |

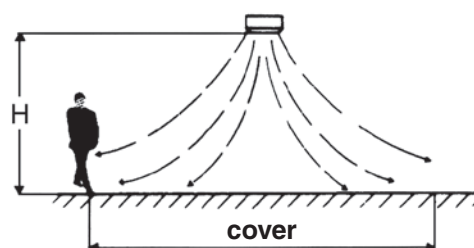
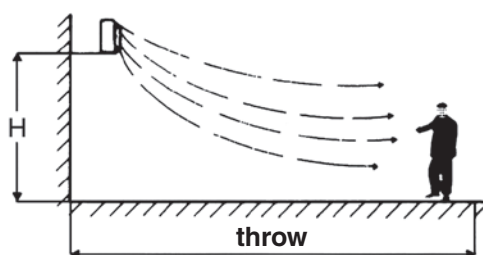
| WEIGHT Kg (ATEX) |          |           | WATER CONTENT Liters |      |      |
|------------------|----------|-----------|----------------------|------|------|
| 1R               | 2R       | 3R        | 1R                   | 2R   | 3R   |
| 19 (32)          | 22 (35)  | 24 (37)   | 1,3                  | 2,6  | 3,9  |
| 22 (35)          | 25 (37)  | 27 (40)   | 1,6                  | 3,2  | 4,8  |
| 26 (38)          | 30 (42)  | 33 (45)   | 1,9                  | 3,8  | 5,7  |
| 30 (42)          | 34 (46)  | 38 (50)   | 2,3                  | 4,6  | 6,9  |
| 33 (47)          | 40 (54)  | 44 (58)   | 3,0                  | 6,0  | 9,0  |
| 38 (52)          | 46 (60)  | 51 (65)   | 3,5                  | 7,0  | 10,5 |
| 46 (63)          | 55 (72)  | 61 (78)   | 4,3                  | 8,2  | 12,3 |
| 55 (71)          | 66 (82)  | 73 (89)   | 5,8                  | 11,1 | 16,6 |
| 65 (86)          | 79 (100) | 88 (109)  | 7,6                  | 14,5 | 21,8 |
| 79 (98)          | 95 (114) | 106 (125) | 9,6                  | 18,2 | 27,3 |

# ATLAS TECHNICAL SPECIFICATIONS

WATER TEMPERATURE 85-75°C  
Drop 10°C -  $\Delta$ tm 65°C - Entering air temperature 15°C

| SIZE | MODEL REF. | MOTOR SPEED | LEAVING AIR VOLUME | NOISE LEVEL AT 5 m. | EMISSION       | LEAVING AIR TEMP. | POLES | MOUNTING HEIGHTS:    |       |                    |       |
|------|------------|-------------|--------------------|---------------------|----------------|-------------------|-------|----------------------|-------|--------------------|-------|
|      |            |             |                    |                     |                |                   |       | HORIZONTAL DISCHARGE |       | VERTICAL DISCHARGE |       |
|      |            |             |                    |                     |                |                   |       | HEIGHT               | THROW | HEIGHT             | COVER |
|      |            | r.p.m.      | m³/h               | dB(A)               | W              | °C                |       | m                    | m     | max m              | m²    |
| 1    | 46A11      | 1350 / 1000 | 1490 / 1055        | 56 / 48             | —              | —                 | 4     | 2,5÷3,5              | 8     | 4                  | 50    |
|      | 46A12      | 1350 / 1000 | 1400 / 1010        | 56 / 48             | 11170 / 8500   | 38 / 41           | 6     | 2,5÷3                | 5,5   | 3                  | 36    |
|      | 46A13      | 1350 / 1000 | 1330 / 960         | 56 / 48             | 12940 / 9790   | 44 / 48           |       |                      |       |                    |       |
| 2    | 46A21      | 1350 / 1000 | 2315 / 1640        | 59 / 51             | —              | —                 | 4     | 3÷4                  | 11    | 4,5                | 60    |
|      | 46A22      | 1350 / 1000 | 2100 / 1440        | 59 / 51             | 15600 / 11880  | 38 / 41           | 6     | 2,5÷3,5              | 7,5   | 3,5                | 45    |
|      | 46A23      | 1350 / 1000 | 2010 / 1380        | 59 / 51             | 17700 / 13390  | 42 / 46           |       |                      |       |                    |       |
| 3    | 46A31      | 1350 / 1000 | 3400 / 2215        | 61 / 52             | —              | —                 | 4     | 3÷4                  | 14    | 5                  | 70    |
|      | 46A32      | 1350 / 1000 | 2960 / 1995        | 61 / 52             | 23850 / 17940  | 38 / 42           | 6     | 2,5÷3,5              | 10    | 4                  | 50    |
|      | 46A33      | 1350 / 1000 | 2750 / 1850        | 61 / 52             | 27700 / 20710  | 43 / 47           |       |                      |       |                    |       |
| 4    | 46A41      | 1350 / 1000 | 4230 / 2845        | 64 / 54             | —              | —                 | 4     | 3,5÷4,5              | 16    | 5,5                | 80    |
|      | 46A42      | 1350 / 1000 | 3525 / 2350        | 64 / 54             | 30840 / 23290  | 40 / 42           | 6     | 3÷4                  | 12    | 4,5                | 60    |
|      | 46A43      | 1350 / 1000 | 3120 / 2080        | 64 / 54             | 35260 / 26630  | 45 / 48           |       |                      |       |                    |       |
| 5    | 46A51      | 1350 / 1000 | 5600 / 3630        | 66 / 56             | —              | —                 | 4     | 4÷5                  | 20    | 6                  | 100   |
|      | 46A52      | 1350 / 1000 | 5280 / 3470        | 66 / 56             | 40600 / 30910  | 39 / 43           | 6     | 3,5÷4,5              | 15    | 5                  | 75    |
|      | 46A53      | 1350 / 1000 | 4550 / 2990        | 66 / 56             | 46310 / 35250  | 43 / 48           |       |                      |       |                    |       |
| 6    | 46A61      | 1350 / 1000 | 6920 / 4700        | 69 / 60             | —              | —                 | 4     | 4÷5,5                | 25    | 7                  | 130   |
|      | 46A62      | 1350 / 1000 | 6450 / 4225        | 69 / 60             | 51780 / 40390  | 38 / 43           | 6     | 4÷5                  | 18    | 6                  | 110   |
|      | 46A63      | 1350 / 1000 | 5570 / 3720        | 69 / 60             | 59380 / 46430  | 43 / 48           |       |                      |       |                    |       |
| 7    | 68A71      | 900 / 700   | 5800 / 4400        | 65 / 60             | —              | —                 | 6     | 4÷5                  | 24    | 7                  | 120   |
|      | 68A72      | 900 / 700   | 5400 / 4100        | 65 / 60             | 44200 / 37100  | 41 / 44           | 8     | 3,5÷4                | 18    | 6                  | 100   |
|      | 68A73      | 900 / 700   | 5200 / 3800        | 65 / 60             | 53500 / 43800  | 48 / 52           |       |                      |       |                    |       |
| 8    | 68A81      | 900 / 700   | 8500 / 6000        | 67 / 61             | —              | —                 | 6     | 4÷5,5                | 26    | 9                  | 160   |
|      | 68A82      | 900 / 700   | 7600 / 5500        | 67 / 61             | 62900 / 52200  | 42 / 45           | 8     | 3,5÷4,5              | 20    | 7                  | 130   |
|      | 68A83      | 900 / 700   | 7000 / 5000        | 67 / 61             | 72700 / 59700  | 48 / 52           |       |                      |       |                    |       |
| 9    | 68A91      | 900 / 700   | 10600 / 8000       | 68 / 62             | —              | —                 | 6     | 4÷6                  | 28    | 11                 | 200   |
|      | 68A92      | 900 / 700   | 10000 / 7500       | 68 / 62             | 81400 / 67600  | 41 / 44           | 8     | 3,5÷5                | 21    | 8                  | 150   |
|      | 68A93      | 900 / 700   | 9500 / 7000        | 68 / 62             | 98800 / 81100  | 48 / 52           |       |                      |       |                    |       |
| 10   | 68A101     | 900 / 700   | 12500 / 9500       | 71 / 65             | —              | —                 | 6     | 4÷6                  | 30    | 12                 | 220   |
|      | 68A102     | 900 / 700   | 11900 / 8800       | 71 / 65             | 97800 / 79200  | 42 / 44           | 8     | 4÷5                  | 22    | 9                  | 160   |
|      | 68A103     | 900 / 700   | 11400 / 8450       | 71 / 65             | 118600 / 97300 | 47 / 52           |       |                      |       |                    |       |

## Mounting heights



The descriptions and illustrations provided in this publication are not binding: Sabiana reserves the right, whilst maintaining the essential characteristics of the types described and illustrated, to make, at any time, without the requirement to promptly update this piece of literature, any changes that it considers useful for the purpose of improvement or for any other manufacturing or commercial requirements.



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