

[®]**GLOBAL**
R A D I A T O R I 



ALUMINIUM RADIATORS


junior



junior

HIGH THERMAL OUTPUT Guaranteed by certification, according to the norm EN 442, from the *Politecnico* in Milan. The high thermal output allows less bulky radiators to be installed.

ENERGY SAVING WITH MAXIMUM COMFORT With the Global radiators the regulation of the temperature is easy and inexpensive. An ideal temperature for every environment according to personal needs is rapidly achieved.

VERY LONG DURATION Thanks to the high quality of the material, that gives the maximum guarantee of resistance and duration. The double protection in the "anaphoresis-bath" followed with epoxy power enameling guarantees a perfect and durable finish.

EASIER INSTALLATION Due to the lightness of the aluminum and the sectional elements that allow greater ease and flexibility of installation.

CERTIFIED QUALITY AND ENVIRONMENTAL The ICIM certified on 1994 (norm ISO 9001:2000) the Quality System and on 2001 (norm UNI EN ISO 14001) the System of Environmental Management.

GLOBAL provides a 10 year warranty from the production date

The conventional warranty grants the sole right to free replacement of the radiator which, due to defects originating from defects in material or workmanship, is not fit for purpose or its ordinary intended use. Replacement radiators shall be delivered free of charge to the retailer who sold the radiator to the end customer or his installer.

The warranty is valid on the condition that the installation and the system to which the product is connected are performed by qualified/authorised personnel to top workmanship standards and in compliance with the regulations and requirements of the sector in force; it is also valid on the condition that there has been full compliance with warnings and instructions for proper installation, use and maintenance of the product indicated in the technical documentation under the paragraph entitled *correct installation, use and maintenance instructions*, available and downloadable from the **TECHNICAL INFO** section on the globalradiatori.it website. The warranty is regulated by further conditions indicated in the technical catalogue and the CONVENTIONAL WARRANTY section on the globalradiatori.it website.

Model	dimensions mm				Ø connection	dry weight approx. Kg	water content litres	heat output EN 442		exponent n	coefficient Km
	A	B	C	D				ΔT 50°C	ΔT 30°C		
	overall height	width	depth	pipe centres				Watts	Watts		
Junior 450/ 7	730	492	42	450	1"	8,10	1,20	377	201	1,22850	3,08458
Junior 450/10	970	492	42	450	1"	11,30	1,70	488	260	1,22922	3,97959
Junior 450/12	1210	492	42	450	1"	15,40	2,00	597	319	1,22995	4,85827
Junior 450/15	1540	492	42	450	1"	17,70	2,60	743	396	1,23095	6,02033

* 1 Watt = 0,863 Kcal/h

The heat output is certified in according to the norm EN 442.



EXAMPLE FOR A DIFFERENT ΔT FROM ΔT 50°C AND 30°C

If you need to know a radiator heat output (P) with different ΔT, use the following characteristic equation: $P = K_m \cdot \Delta T^n$

Example for the Junior 450/12 model with $\Delta T = 60^\circ\text{C} \rightarrow P = 4,85827 \cdot 60^{1,22995} = 747 \text{ Watt}$

EXAMPLE OF HEAT OUTPUT READINGS WITH DIFFERENT ΔT

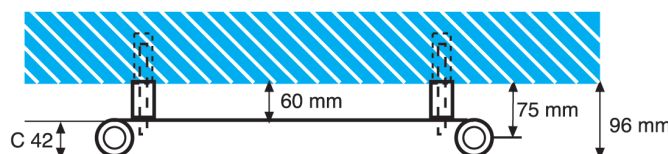
Model	ΔT 20°C	ΔT 25°C	ΔT 30°C	ΔT 35°C	ΔT 40°C	ΔT 45°C	ΔT 50°C	ΔT 55°C	ΔT 60°C
Junior 450/ 7	122	161	201	243	287	331	377	424	472
Junior 450/10	158	208	260	315	371	429	488	548	610
Junior 450/12	194	255	319	385	454	525	597	671	747
Junior 450/15	241	317	396	479	565	653	743	835	930

The expected heat output is obtained by observing the distances specified below:

≥ cm 6 from the wall using special bracket (art. A030)

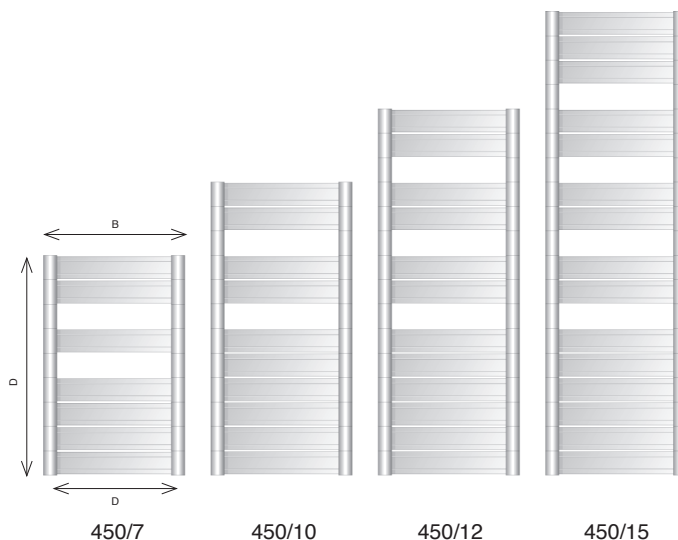
≥ cm 10 from the floor or bath-rim

In order to prevent the thermal expansion of the system from causing noise in correspondence with the heaters, it is advisable to use plastic brackets to support the radiators (art. A030 in our catalogue).



CORRECT INSTALLATION, USE AND MAINTENANCE INSTRUCTION

- The Junior radiators can be used in all hot water or vapour heating installations up to 110°C with a working pressure up to 1600 K Pascal - 16 bar.
- They can be installed in systems with iron, copper or thermoplastic pipes.
- In order to protect the system from scaling and corrosion processes, which affect radiators, pipes and boilers, the INI-CTI 8065 Standard provides for the treatment of the filling water of the system, without distinguishing between aluminium, steel or cast iron.
- In order to preserve the systems from scaling and corrosion, it is recommended to check the pH of the water (preferably between 6.5 and 8) and to introduce a inhibitive additive such as Cillit-Hs 23 Al or similar in the quantity recommended by the manufacturer.
- It is recommended to install automatic air vent valves on each radiator.
- Avoid closing the radiator shut-off valves completely in order to allow any gas that may be inside the radiators to escape through the automatic air vent valve that is compulsory in every heating system, thus avoiding possible overpressure that could damage the radiators.
- If one or more batteries are to be excluded from the circuit, an automatic air vent must be fitted to each battery.
- For a good preservation of the paint, it is necessary that the radiators, before and after installation, are not kept in very hu-



mid environments (inside showers, in saunas, in Turkish baths, near swimming pools, etc.). If paint comes off at one point on the radiator, aluminium oxide can form and cause the paint to peel off completely. Do not use porous clay humidifiers.

- To clean the outside of the radiator, do not use abrasive or chemically corrosive/aggressive products of any kind, as the use of water and neutral detergents is sufficient and the operation must be carried out when the radiator is cold to preserve the original brilliance of the paint over time.
- Do not place weights and/or objects on the radiators. Do not use radiators for any purpose other than as a heater (e.g.: as a bench/stand, ladder, to store furniture or objects).

accessories



WALL BRACKETS FOR JUNIOR
A030 white (pair)
A030 chrome (pair)



REDUCER KIT WITH SILICONE GASKETS AND ADJUSTABLE VALVE

- A044** 3/8" for 900 to 2000 mm radiators and Junior white or chrome
A047 1/2" for 900 to 2000 mm radiators and Junior white or chrome
A049 3/4" for 900 to 2000 mm radiators and Junior white or chrome



1" BLIND PLUG OR REDUCER
A005 white
A006 galvanized



A009 nipples 1"



A024 O-ring for Oscar, Oscar Tondo, Ekos Plus, Junior



MANUAL AIR VENT VALVE

- A012** 1/8"
A039 1/4"
A040 3/8"



A041 1/2" adjustable manual air vent valve - white



A042 1/2" automatic air vent valve - chrome



A038 1/2" adjustable manual air vent valve - chrome



A019 plug wrench



A010 RAL 9010 white spray can
A010 special colours spray can



A018 Cillit HS 23 Combi liquid



A017 RAL 9010 white marker



A079 hex key with lever
A080 hex key 500 mm
A081 hex key 800 mm



cod. 10
white glossy

RAL 9010



cod. 11
white sand

RAL 9016



cod. 12
white matt



cod. 01
ivory glossy
RAL 1013



cod. 05
metallic matt
beige



cod. 06
metallic matt
quartz



cod. 07
metallic matt
dark grey



cod. 08
metallic matt
silver grey



cod. 09
metallic matt
rust



cod. 14
black matt

standard colour | **special colours** see the Colour Card

The colours are indicative. For technical printing reasons, it is no possible to faithfully reproduce the paints used. The colour of the products supplied may differ from that shown in this catalogue.



GLOBAL di Fardelli Ottorino & C. s.r.l.

24060 ROGNO (BG) ITALIA • via Rondinera, 51
 tel. ++39 **035977111** • fax ++39 **035977110**
globalradiatori.it • info@globalradiatori.it

