

# junior

ALUMINIUM RADIATORS



<sup>®</sup> **GLOBAL**   
R A D I A T O R I



# junior

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**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**

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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](http://globalradiatori.it) website. The warranty is regulated by further conditions indicated in the technical catalogue and the CONVENTIONAL WARRANTY section on the [globalradiatori.it](http://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	<b>377</b>	201	1,22850	3,08458
Junior 450/10	970	492	42	450	1"	11,30	1,70	<b>488</b>	260	1,22922	3,97959
Junior 450/12	1210	492	42	450	1"	15,40	2,00	<b>597</b>	319	1,22995	4,85827
Junior 450/15	1540	492	42	450	1"	17,70	2,60	<b>743</b>	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:  $P = Km \cdot \Delta T^n$

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

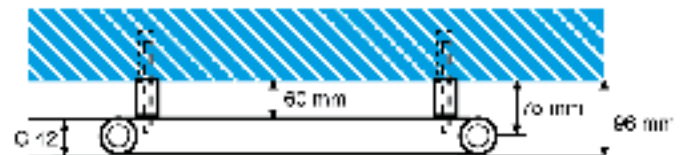
Model	ΔT 20°C	ΔT 25°C	ΔT 30°C	ΔT 35°C	ΔT 40°C	ΔT 45°C	ΔT 50°C	ΔT 55°C	ΔT 60°C
Junior 450/ 7	122	161	201	243	287	331	<b>377</b>	424	472
Junior 450/10	158	208	260	315	371	429	<b>488</b>	548	610
Junior 450/12	194	255	319	385	454	525	<b>597</b>	671	747
Junior 450/15	241	317	396	479	565	653	<b>743</b>	835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

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

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

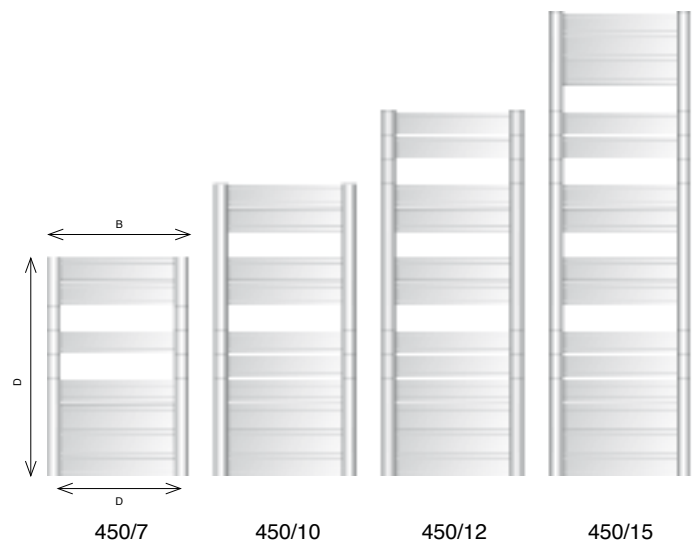
≥ cm 10 from the floor or bath-rim

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 thermo-plastic 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.
- ▶ Among the various products to be added to the system in accordance with the abovementioned UNI Standard, there is a specific one for aluminium, an aliphatic film-forming polyamine marked under the name Cillit-HS 23 Al or similar in the quantity recommended by the manufacturer. However, it is useful to check the pH value of the water, which should preferably be between 6.5 and 8.
- ▶ Automatic or manual air vent valves must be installed on radiators.
- ▶ **Avoid complete closure of the radiator shut-off valves in order to allow any gas that there might be inside the same to escape through the automatic air vent valve, which is mandatory in any 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.**
- ▶ To ensure lasting protection of painting, radiators must not be stored in very wet or damp environments before and after



installation such as inside showers, saunas, turkish baths, near swimming pools etc.

Paint peeling off on parts of the radiator could cause the formation of aluminium oxide and have the paint completely peeled off. Do not use porous clay humidifiers.

- ▶ For the external cleaning of the radiator and surfaces near the radiator, it is necessary to avoid the use of abrasive or chemically corrosive/aggressive products of any nature, as the use of water and neutral detergent is sufficient. Performing the operation when the radiators are cold to maintain 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)



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



**A010** RAL 9010 white spray can  
**A010** special colours spray can



REDUCER KIT WITH SILICONE GA-  
 SKETS 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



MANUAL AIR VENT VALVE  
**A012** 1/8"  
**A039** 1/4"  
**A040** 3/8"



**A018** Cillit HS 23 Combi liquid



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



**A017** RAL 9010 white marker



**A042** 1/2" automatic air vent  
 valve - chrome



1" BLIND PLUG OR REDUCER  
**A005** white  
**A006** galvanized



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



**A009** nipples 1"



**A019** plug wrench



**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 not 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.

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