

### Mini here, maxi there

Simple: We choose appropriate number of columns for a size of the radiator you want to have.

# **Connection: Three possibilities** The radiator can be connected on the upper side, on the lower

side or in the middle.

# **Choose your advantages! Hit of the season: colours!** Not everything which gives warmth must be white. Wide choice of colours according to RAL chart gives

new image to your home. And warmth too!

**High heat rating, smaller weight** and **modern design** are key advantages of new Aklimat radiators.

Possibilities are numerous. See for yourself! >>>

IN THE PERIOD WHEN A MAN LIVED IN CAVES, FIRE MEANT WARMTH: IT ENLIGHTENED DARKNESS, SHOWED A WAY AND IT MEANT A NEW WAY OF PREPARING FOOD AND COMMUNICATION. WHAT WAS ONCE OPEN FIRE IS TODAY A CLOSED HEATING APPLIANCE RADIATING WARMTH AND IT STILL TURNS AN EMPTY SPACE INTO HOME, PLACE OF EVENTS AND WARMTH. IF WE ARE CLOSE TO A RADIATOR WE FEEL NICE. FEELINGS AND VIEW. ONCE BIG AND ROBUST HEATING DEVICE IS TODAY AN UNOBTRUSIVE ELEMENT WHICH GOES

WELL TOGETHER WITH THE FURNITURE.

## Radiator – my new accessory

It is probably not a coincidence that radiators are called heating devices. This term acquires a special meaning when they glow in one of many beautiful colours of Aklimat rainbow. They do not have to hide anymore modestly in regular white – they can glow in yellow, orange or red and they are not any less effective in blue or green! With aesthetic finishing lines and useful racks the radiators become fashionable accessories of our working and living environment. Why not? You know that it is nice when we are warm.

The size of Aklimat radiators can be adjusted to the demands of users and characteristics of rooms. Elegant look and various forms can make a room nicer. The radiators vary from 20 cm to 2 m in height; the width is optional and can be defined with the number of individual columns.

Aklimat radiators are distinguished for their simple mounting, high quality and technical perfection. Additional proof of quality and legitimate great expectations is 15-year guarantee.

### Characteristics and advantages of aluminium radiators

Major advantages of Aklimat radiators come from primary material from which the radiator is made of. This is aluminium.

Most radiators found on the market are made of sheet metal, which has a shorter life expectancy because it gets rusty on columns; steel radiators on the other hand are very heavy, slowly become warm and are not appropriate for modern furnaces which mostly operate in a low temperature range. It means that with Aklimat radiators the water in furnace can reach maximal temperature 60°C and we can already heat the room while other types of radiators require higher temperature around 80°C and radiators need more time to get warm which means that we also use more energy.

### ALUMINIUM

Exceptional thermal features of aluminium, resistance to oxidation, possibility of various ways of connection enable aluminium radiators an outstanding efficiency, perfection and aesthetic form.

### TRADITION AND EXPERIENCE

In 35 years of Aklimat aluminium radiator production we have developed an M-type radiator which is distinguished for its excellent qualities of heating and fast adjustment to conditions in a room. Tradition and long-term experience in production assure a high quality product and therefore we warrant a 15-year guarantee.

### APPEARANCE AND FUNCTIONALITY

Today the radiator is not only a heating device but also a decorative element in a room and therefore its aesthetic form is even more important. Outer shape of the radiator column is well designed: from rounded shapes it proceeds to a flat middle aluminium profile and it ends with a vertical line of lower radiator head. Skilfully shaped radiator columns facilitate air movement and they increase heating of the room with convection. At the same time up-to-date shaped radiators enable profound cleaning of interior – space between columns – and exterior.

### ECONOMY

Due to high level of economy we can get when heating is immense, the Aklimat radiators enable saving of energy. Their technical perfection and functionality and low weight enable simple handling and connection to the heating system. In view of better thermal conductivity they are also suitable for operation at low-temperature way of heating. Loss of heat – the heat absorbed by radiator themselves – is extremely low. The loss of heat which comes from water circulation in the system is also reduced because the water quantity in aluminium radiators is smaller.

### COLOURS

The radiator is varnished in a standard white RAL 9016, but other colours from RAL chart are possible if ordered.

### **USEFULNESS**

For its distinct construction the aluminium radiators are suitable to be inbuilt in all rooms. Their efficiency is also evident when in combination with underfloor heating, especially in bathrooms and other sanitary rooms.

### CONNECTION

Connection of radiators to the central heating can be done in a classical way, with side connection and lower left or right connection. Also MV-realization is possible with inbuilt valve and lower right or lower left connection.

### **SMOOTH OPERATION**

If automatic bleeder value is inbuilt then the radiator shall work properly without hammering in the installation system of heating and thermostatic values.

Electric heater can be built into the radiator and the room can be heated in this way. Power of the heater depends on the size of the room we want to heat.

Such method is extremely useful for heating rooms during the transition period (for example from autumn to winter and from winter to spring).

### PROTECTION

When packing radiators we use a modern technique. All corners of the radiator are protected by carton and covered by thermo-shrinking film.

Finally my own home. And there will always be warm. And nice! Because these radiators will perfectly match my fashionable new sofa.

AAA



I swear by high heels. But for elegant home I chose modern shapes of warmth. Each has its own modern accessory.

the state of the s

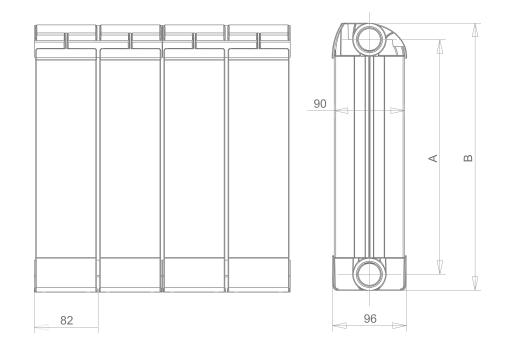
## Technical data

#### Example of calculation:

 $T_v = temperature of water at inlet = 60° C$   $T_i = temperature of water at outlet = 40° C$   $T_p = temperature in the room = 20° C$  $T_m = average water temperature$ 

Calculation for the type M/350 for  $\Delta T$ = 30° C  $T_m = (T_v + T_i)/2 = (60 + 40)/2 = 50°$  C  $\Delta T = T_m - T_p = 50 - 20 = 30°$  C Calorific power:  $Q = Kx \Delta T^n = 0.50178x30^{1.3263} = 45.7$  W/column

Values "K" and "n" are in the tables!



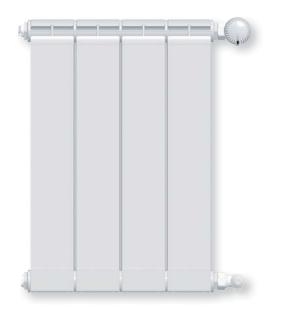
#### Conection sizes - A (mm):

150	200	250	300	310	350	374	380	400	450	460	500	505	515	520	524	530	540	550	570	580	590	600	650	700
740	750	800	820	824	840	845	850	900	915	930	950	1000	1024	1030	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000

Size:

### **Aklimat M** Standard aluminium radiator

Do you wish to replace old radiators with the new ones having good quality? We can offer you radiators from Aklimat M family! You can rely on their quality and many other features permit us to fulfil many other expectations and needs of customers. MADE OF ALUMINIUM GOOD THERMAL CONDUCTIVITY LONG LIFE EXPECTANCY 15 YEARS OF GUARANTEE CHOICE OF COLOURS ACCORDING TO RAL CHART VARIOUS DIMENSIONS CAN BE ORDERED SIMPLE MOUNTING





### Table of calorific power for radiators of standard connection sizes

TIP	Connection size	Height B	Heated area	Weight of a single column	Quantity of water in the column	Connections	DIN EN 442	Constant	Exponent
	A [mm]	B [mm]	[m²]	[kg]	[1]	Ø	∆ T 50 K Wat/column	К	n
M 200	200	241	0.20	0.66	0.15	1"	61	0.36550	1.3087
M 350	350	391	0.33	0.87	0.20	1"	90	0.50178	1.3263
M 500	500	541	0.46	1.07	0.25	1"	116	0.61996	1.3382
M 524	524	565	0.48	1.10	0.26	1"	121	0.63686	1.3401
M 570	570	611	0.52	1.17	0.27	1"	129	0.66800	1.3438
M 600	600	641	0.54	1.21	0.28	1"	136	0.69941	1.3462
M 650	650	691	0.58	1.28	0.29	1"	142	0.71829	1.3501
M 900	900	941	0.80	1.62	0.37	1"	180	0.84797	1.3700
M 930	930	971	0.82	1.66	0.38	1"	185	0.86393	1.3715
M 1024	1024	1065	0.90	1.79	0.41	1"	199	0.91168	1.3763
M 1200	1200	1241	1.05	2.04	0.47	1"	224	0.99212	1.3854
M 1400	1400	1441	1.22	2.31	0.53	1"	252	1.07107	1.3956
M 1600	1600	1641	1.39	2.59	0.59	1"	279	1.20296	1.3917
M 1800	1800	1841	1.56	2.86	0.65	1"	305	1.33497	1.3879
M 2000	2000	2041	1.73	3.14	0.71	1"	330	1.46739	1.3840

### Table of calorific power for radiators of non-standard connection sizes

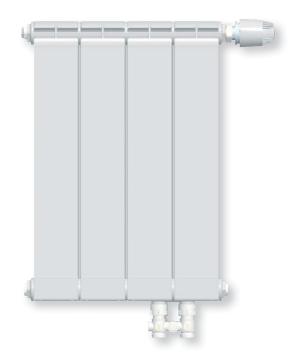
TIP	Connection size	Height B	Heated area	Weight of a single column	Quantity of water in the column	Connections	DIN EN 442	Constant	Exponent
	A [mm]	B [mm]	[m²]	[kg]	[1]	Ø	∆ T 50 K Wat/column	К	n
M 250	250	291	0.24	0.73	0.17	1"	71	0.41522	1.3146
M 400	400	441	0.37	0.93	0.22	1"	99	0.54371	1.3303
M 450	450	491	0.41	1.00	0.23	1"	108	0.58298	1.3342
M 700	700	741	0.63	1.35	0.31	1"	149	0.74736	1.3541
M 750	750	791	0.67	1.42	0.33	1"	157	0.77481	1.3581
M 800	800	841	0.71	1.48	0.34	1"	165	0.80066	1.3621
M 850	850	891	0.75	1.55	0.36	1"	173	0.82500	1.3660
M 950	950	991	0.84	1.69	0.39	1″	188	0.87440	1.3726
M 1000	1000	1041	0.88	1.76	0.40	1"	195	0.89980	1.3751
M 1100	1100	1141	0.96	1.90	0.43	1"	210	0.94775	1.3802
M 1300	1300	1341	1.13	2.17	0.50	1"	238	1.03313	1.3905
M 1500	1500	1541	1.30	2.45	0.56	1"	265	1.13700	1.3937
M 1700	1700	1741	1.47	2.72	0.62	1"	292	1.26894	1.3898
M 1900	1900	1941	1.64	3.00	0.68	1"	317	1.40110	1.3859

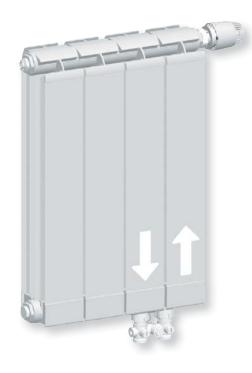
We withhold the right to change conditions!

Underlined: in stock; other items shall be delivered in 14 days.

### **Aklimat MV** Aluminium radiator with inbuilt valve

MV radiators are as well as other radiators from the family Aklimat suitable for connection to single-tube or double-tube system of central heating. In addition to simple mounting we also present other advantages which are a guarantee for your satisfaction and well being in the future. MADE OF ALUMINIUM HIGH ANTI-CORROSIVE STABILITY LONG LIFE EXPECTANCY DOUBLE HEATING EFFECT 15 YEARS OF GUARANTEE VARNISHED LOWER CONNECTION (LEFT OR RIGHT) STRAIGHT AND ANGLE CONNECTION





### Table of calorific power for MV radiators with inbuilt valve and lower connection

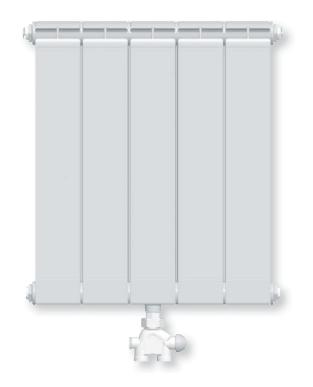
TIP	Connection size	Height B	Heated area	Weight of a single column	Quantity of water in the column	Connections	DIN EN 442	Constant	Exponent
	A [mm]	B [mm]	[m²]	[kg]	[1]	Ø	∆ T 50 K Wat/column	К	n
MV 200	200	241	0.20	0.66	0.15	1"	61	0.36550	1.3087
MV 350	350	391	0.33	0.87	0.20	1"	90	0.50178	1.3263
MV 500	500	541	0.46	1.07	0.25	1"	116	0.61996	1.3382
MV 600	600	641	0.54	1.21	0.28	1"	136	0.69941	1.3462
MV 650	650	691	0.58	1.28	0.29	1"	142	0.71829	1.3501
MV 900	900	941	0.80	1.62	0.37	1"	180	0.84797	1.3700
MV 1200	1200	1241	1.05	2.04	0.47	1"	224	0.99212	1.3854
MV 1400	1400	1441	1.22	2.31	0.53	1"	252	1.07107	1.3956
MV 1600	1600	1641	1.39	2.59	0.59	1"	279	1.20296	1.3917
MV 1800	1800	1841	1.56	2.86	0.65	1"	305	1.33497	1.3879
MV 2000	2000	2041	1.73	3.14	0.71	1"	330	1.46739	1.3840

We withhold the right to change conditions!

Underlined: in stock; other items shall be delivered in 14 days.

### **Aklimat MM** Aluminium radiator with middle connection

MM are aluminium radiators you can offer to anyone who expresses a wish to replace old radiators with lower middle connection and has no special demands about the new ones - they just have to be of good quality. Although every buyer has its own demands the radiators from the MM family shall easily satisfy their demands. MADE OF ALUMINIUM HIGH ANTI-CORROSIVE STABILITY LONG LIFE EXPECTANCY DOUBLE HEATING EFFECT 15 YEARS OF GUARANTEE VARNISHED CONNECTION IN THE MIDDLE





### Table of calorific power for MM radiators (middle connection)

TIP	Connection size	Height B	Heated area	Weight of a single column	Quantity of water in the column	Connections	DIN EN 442	Constant	Exponent
	A [mm]	B [mm]	[m²]	[kg]	[1]	Ø	Δ T 50 K Wat/column	К	n
MM 200	200	241	0.20	0.66	0.15	1"	61	0.36550	1.3087
MM 350	350	391	0.33	0.87	0.20	1"	90	0.50178	1.3263
MM 500	500	541	0.46	1.07	0.25	1"	116	0.61996	1.3382
MM 600	600	641	0.54	1.21	0.28	1"	136	0.69941	1.3462
MM 650	650	691	0.58	1.28	0.29	1"	142	0.71829	1.3501
MM 900	900	941	0.80	1.62	0.37	1"	180	0.84797	1.3700
MM 1200	1200	1241	1.05	2.04	0.47	1"	224	0.99212	1.3854
MM 1400	1400	1441	1.22	2.31	0.53	1"	252	1.07107	1.3956
MM 1600	1600	1641	1.39	2.59	0.59	1"	279	1.20296	1.3917
MM 1800	1800	1841	1.56	2.86	0.65	1"	305	1.33497	1.3879
MM 2000	2000	2041	1.73	3.14	0.71	1"	330	1.46739	1.3840

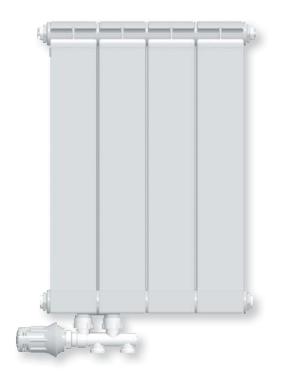
We withhold the right to change conditions!

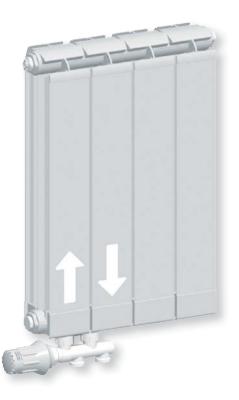
**Underlined: in stock;** other items shall be delivered in 14 days.

# Aklimat **ML** in **MD**

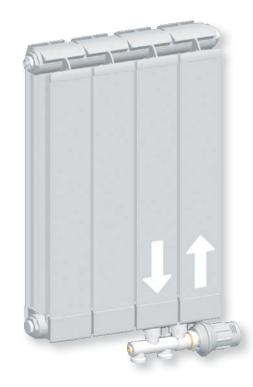
Aluminium radiator with lower left or lower right connection

Radiators Aklimat ML and MD are in addition to other Aklimat radiators characteristics featured by the possibility of left and right lower connection. You can choose between different colours and dimensions, their mounting and cleaning is simple, and what is more – they are beautiful. Quality and, reliability – they have everything you can expect from radiators. MADE OF ALUMINIUM GOOD THERMAL CONDUCTIVITY HIGH ANTI-CORROSIVE STABILITY LONG LIFE EXPECTANCY DOUBLE HEATING EFFECT 15 YEARS OF GUARANTEE CHOICE OF COLOURS ACCORDING TO RAL CHART









### Table of calorific power for ML and MD radiators (lower left or lower right connection)

TIP	Connection size	Height B	Heated area	Weight of a single column	Quantity of water in the column	Connections	DIN EN 442	Constant	Exponent
	A [mm]	B [mm]	[m²]	[kg]	[1]	Ø	∆ T 50 K Wat/column	К	n
ML/MD 200	200	241	0.20	0.66	0.15	1"	61	0.36550	1.3087
ML/MD 350	350	391	0.33	0.87	0.20	1"	90	0.50178	1.3263
ML/MD 500	500	541	0.46	1.07	0.25	1"	116	0.61996	1.3382
ML/MD 600	600	641	0.54	1.21	0.28	1"	136	0.69941	1.3462
ML/MD 650	650	691	0.58	1.28	0.29	1"	142	0.71829	1.3501
ML/MD 900	900	941	0.80	1.62	0.37	1"	180	0.84797	1.3700
ML/MD 1200	1200	1241	1.05	2.04	0.47	1"	224	0.99212	1.3854
ML/MD 1400	1400	1441	1.22	2.31	0.53	1"	252	1.07107	1.3956
ML/MD 1600	1600	1641	1.39	2.59	0.59	1"	279	1.20296	1.3917
ML/MD 1800	1800	1841	1.56	2.86	0.65	1"	305	1.33497	1.3879
ML/MD 2000	2000	2041	1.73	3.14	0.71	1"	330	1.46739	1.3840

We withhold the right to change conditions!

Underlined: in stock; other items shall be delivered in 14 days.

# Tube radiators

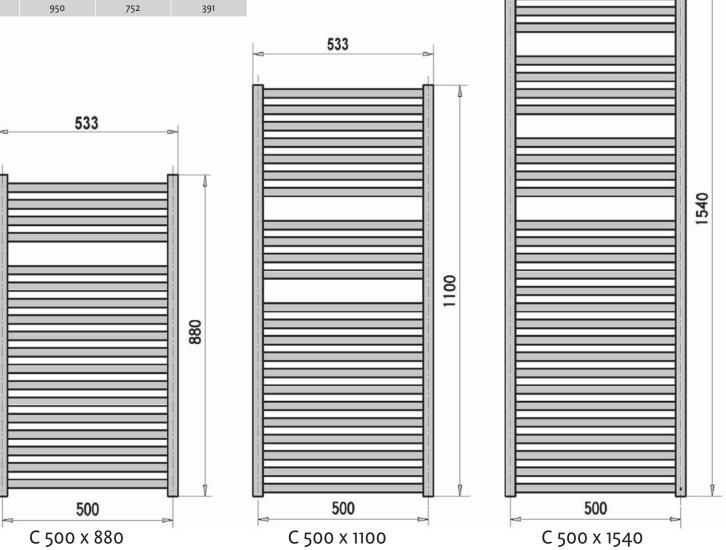
Tube radiators are perfect for bathrooms. With their modern and elegant look they merge with interior, do not take a lot of space and at the same time they are handy and useful also for heating or drying towels.

FOR HEATING BATHROOMS AESTHETIC ACCOMPLISHMENT FOR A ROOM TRANSVERSAL TUBES ARE HEATED RACKS MADE OF ALUMINIUM TUBES WITHOUT SHARP ANGLES CHOICE OF COLOURS ACCORDING TO RAL CHART



TIP	Connection	Hight	ght Calorific power [W] DIN EN 442						
	size [mm]	[mm]	ΔT 60 90/70/20°C	ΔT 50 75/65/20°C	ΔT 30 55/45/20°C				
C500x880	880	500	570	455	242				
C500x1100	1100	500	710	567	301				
C500x1540	1540	500	950	752	391				

We withhout the right to change conditions!





I love colours. And I am always attracted to see white surrounded by a magical evening light. Morning. Day. Night. I enjoy every moment of a day! Sometimes in company, sometimes in couple and sometimes just alone. At home. Where I have everything I need. Warmth!



# Kit and accessories

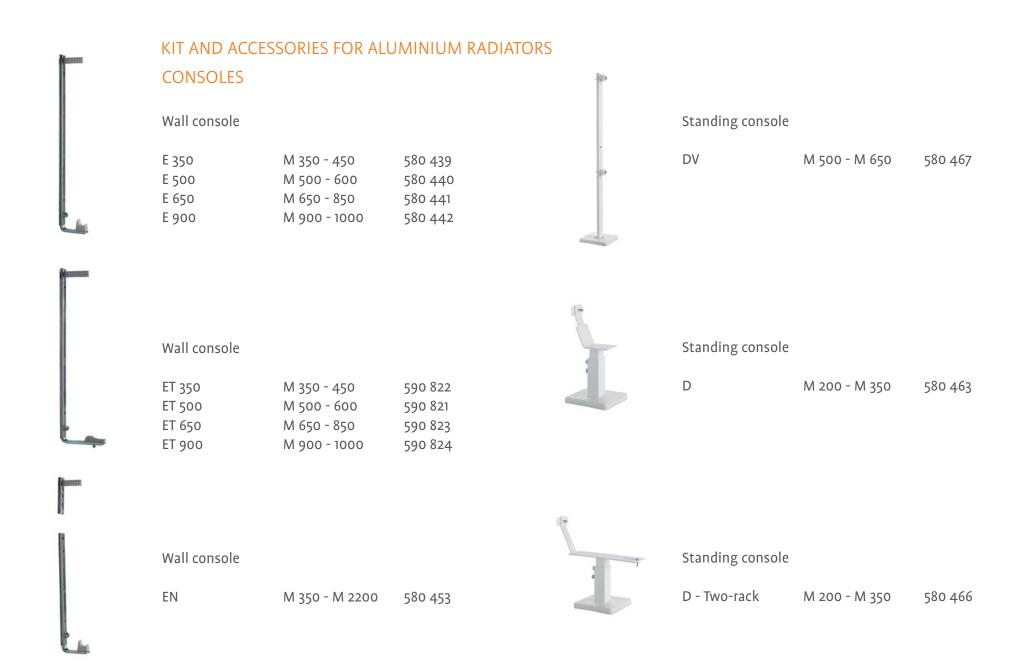
### KIT AND ACCESSORIES FOR TUBE RADIATORS



Electric heater	600 W	593 460
	900 W	593 431
	1500 W	593 462

595 030

595 032

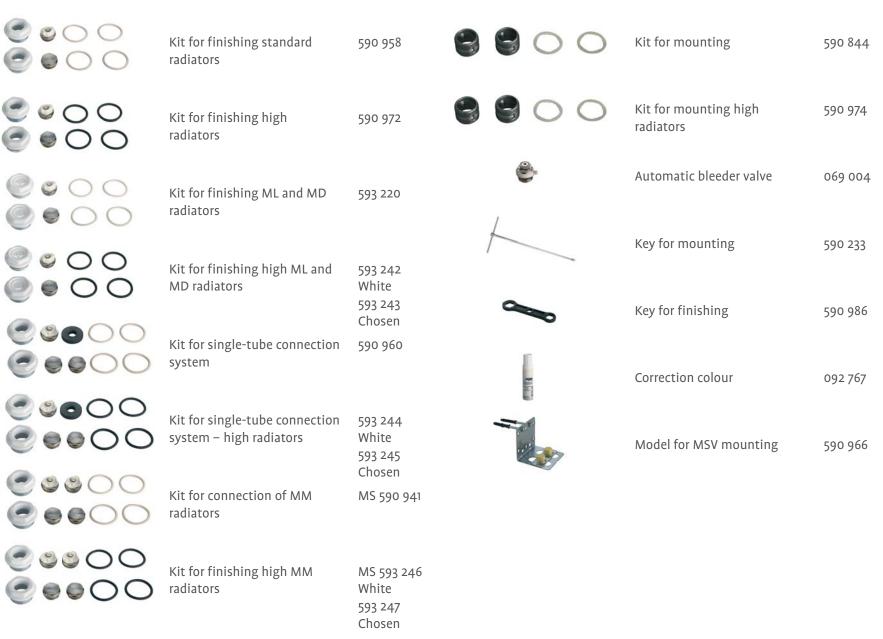


### RADIATOR RACKS

H L	"A"	L=245	592 689
		L=492	592 691
		L=820	592 694

$\bigcirc$	"В"	for 4 columns	590 975 590 976	Chromium White
		for 5 columns	590 443 590 445	Chromium White

FINISHI	NG LINES			$\square$	"C"	for 3 columns	590 880 590 881	Chromium White
M 200	593 296	M 1200	593 308	e e				
M 350	593 297	M 1400	593 309			for 4 columns	590 855	Chromium
M 500	593 298	M 1600	593 310				590 856	White
M 600	593 302	M 1800	593 312					
M 650	593 304	M 2000	593 313			for 5 columns	590 582	Chromium
M 900	593 305						590 583	White



#### KITS FOR FINISHING AND CONNECTONS

### CONNECTIONS AND TIGHTENING NUTS FOR SINGLE-TUBE OR DOUBLE-TUBE SYSTEM



Double straight DR2 connection for double-tube system



Double angle connection for single-tube system

gle DK1 n for e 128 256



Double angle connection for double-tube system

DK2 128 476

128 306



Tightening nut for Cu tubes

Ø 15	C 15	128 257
ø 16	C 16	128 280
ø 18	C 18	128 325



Double straight connection for single-tube system DR1 128 283



 Tightening nut for tubes made of plastics material

 16 x 2.0
 P 16
 128 304

 18 x 2.0
 P 18
 128 305

 20 x 2.0
 P 20
 128 684

Published and edited by: Mariborska livarna Maribor d.d. Oreško nabrežje 9, 2000 Maribor

> Responsible editor: Dominika Koprivc Marketing manager

AD & D: AV Studio d.o.o., Velenje

Rights to errors in press are withheld.

Maribor, september 2008

AKLIMAT Kraigherjeva 22 2230 Lenart Slovenia tel: ++386 2 720 01 50 fax: ++386 2 720 01 65 e: info@aklimat.si www.aklimat.si MLM D.D. Oreško nabrežje 9 2000 Maribor Slovenia tel: ++386 2 234 61 00 fax: ++386 2 234 62 75 e: info@mlm-mb.si www.mlm.si