airfel Safe Heating

Panel Radiator& Towel Warmer, Valve

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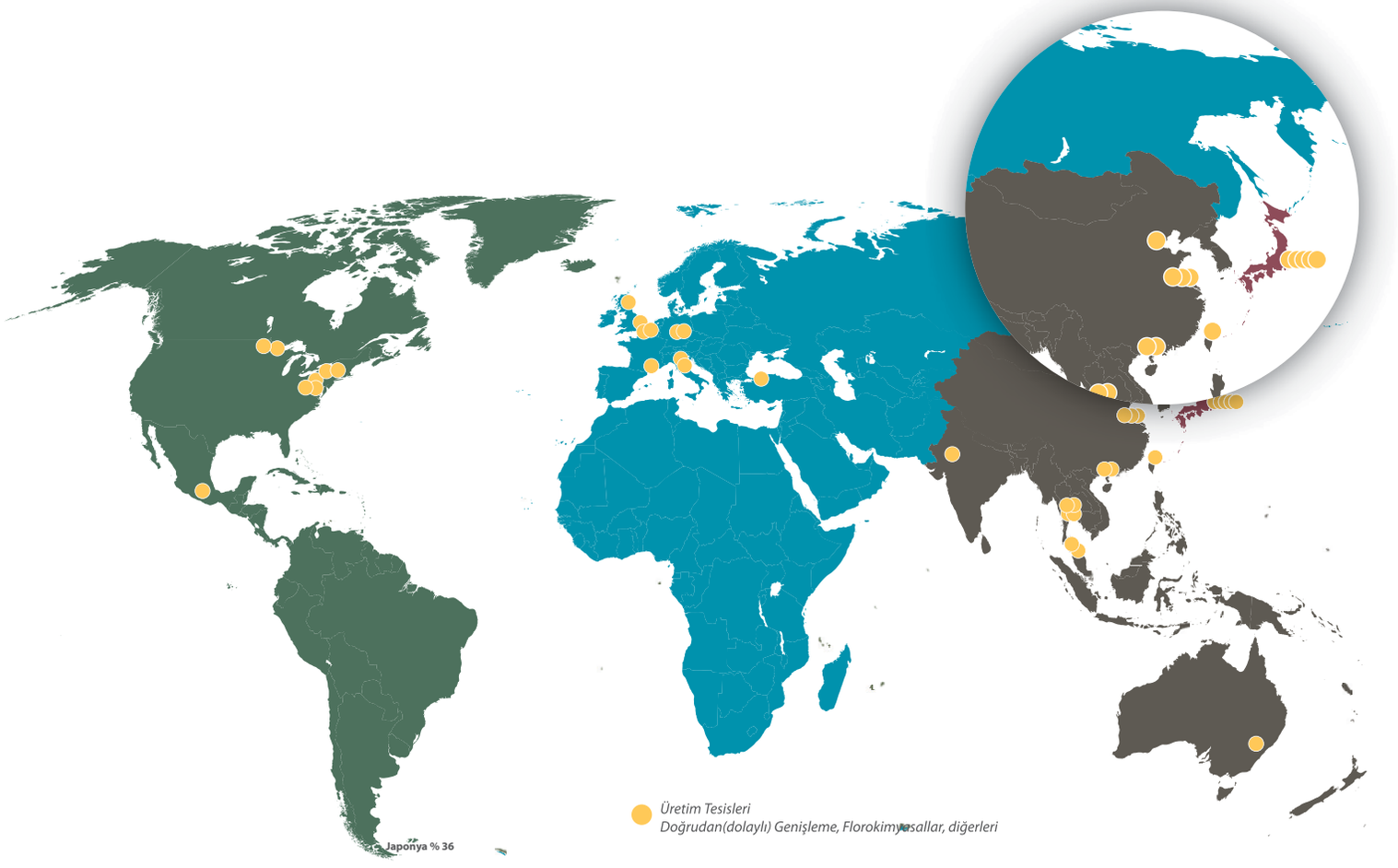
Daikin in the World



SINCE ITS BEGINNINGS IN THE 1950'S, DAIKIN HAS GROWN INTO A GLOBAL PLAYER IN THE HEATING, AIR CONDITIONING AND INDUSTRIAL CLIMATE CONTROL MARKET.

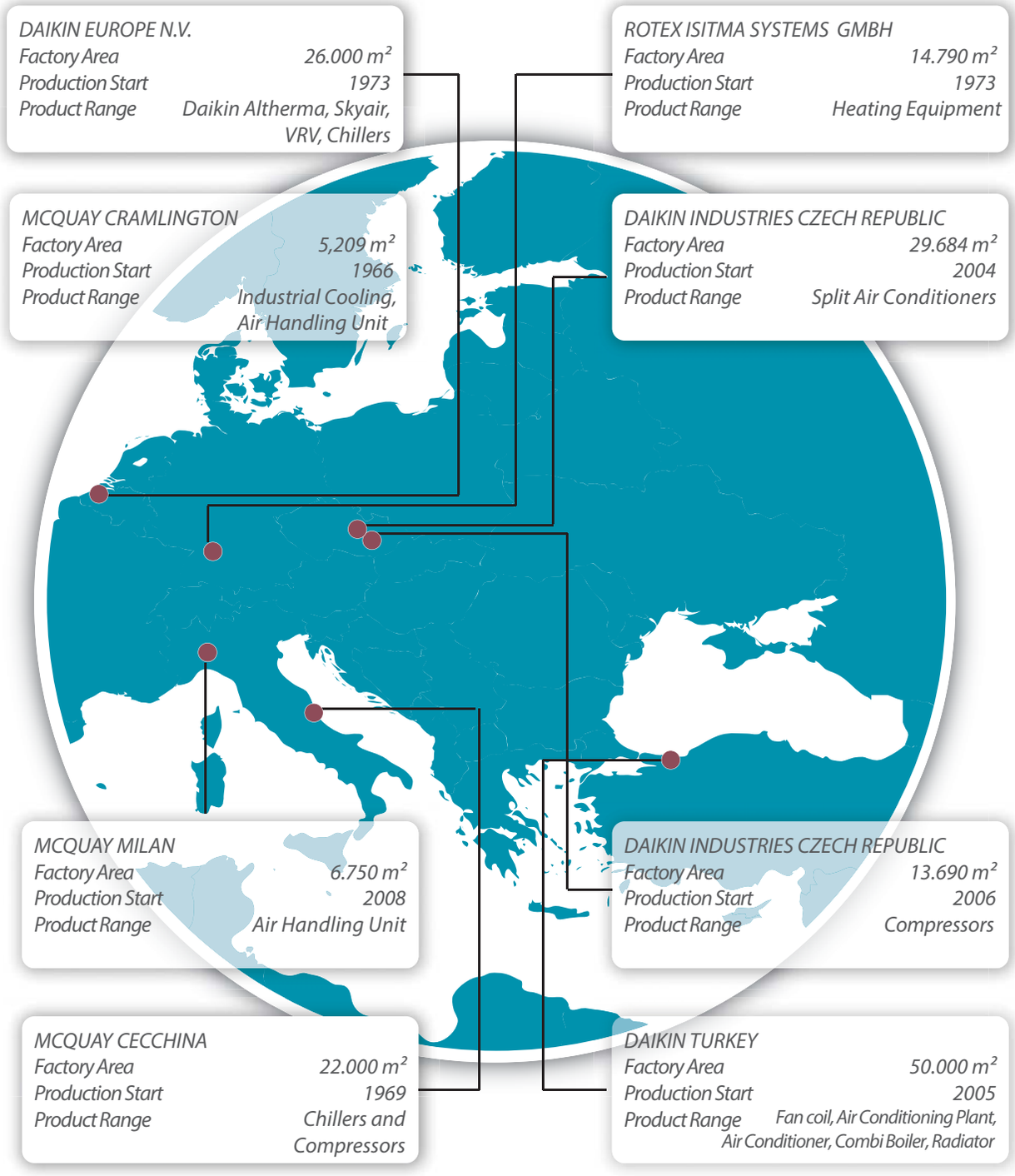
Parent company Daikin Industries ltd. Is actively Engaged in a wide spectrum of technologies and Disciplines: from mechanics and electronics to Chemicals and fluorocarbons. Its japan operations Include major manufacturing locations and a new R&D Centre focused on the creation of next-generation Climate control technologies.

DAIKIN LEADS THE WAY

In 1973, parent company daikin industries ltd. formed daikin europe N.V. in Ostend to tailor and market Daikin products to the specific needs and requirements of Europe, the Middle East, Russia and Africa.

In 2006, daikin complemented its strong position in Japan and Europe with the acquisition of Asian HVAC-R giant OYL Industries Bhd., home to such names as Mc Quay (applied systems) and J&E Hall (refrigeration) and AAF (Air filtration). in addition to expanding its product offerings, the acquisition gave Daikin a significant presence in the North American and Asian markets.

Daikin in Europe



In addition to housing the european production and administration headquarters, Daikin europe N.v. Is home to the EMEA sales and marketing headquarters.

The production site of Daikin Europe N.V. has grown into the most advanced plant of its kind in Europe with over 150,000 m^2 of production and administrative space dedicated to manufacturing state-of-the-art residential, commercial and industrial heating and cooling solutions. European production facilities in Pilsen and Brno (Czech Republic), as well as Cecchina and Milan (Italy) and Cramlington (UK) have added to capacity and optimised lead times to all markets. With the acquisition of German heating manufacturer Rotex Gmbh and Turkish manufacturer Airfel Daikin Europe N.V. sas strengthened its offerings and expanded its market presence in the heating market.

Daikin Turkey

DAIKIN TURKEY, HENDEK FACTORY

Having been active in Turkey through its distributors since 1978, Daikin has become the most powerful players of industry with the acquisition of Airfel in July 2011.

Today among other brands, Daikin has the widest product range in Turkey in heating, cooling and ventilation fields.

Daikin Turkey manufactures Daikin and Airfel branded air conditioners, combi boilers, panel radiators, fancoils, air handling units etc. with cutting edge technology to offer total air conditioning solution to meet different customer needs.

In production facilities of Daikin located in Hendek, Sakarya; along with Airfel branded units, Daikin branded products started to be manufactured.
Having its head office in Istanbul, Daikin Turkey keeps its service quality at highest level with its sales network including 6 regional directorates in Adana, Ankara, Antalya, Gaziantep, İzmir and Trabzon, 170 dealers and 500 sales points and 501 authorized services.
Daikin carries on its business to fulfill customer needs offering total comfort solutions with its wide product range, high technology production facilities, experienced and expert team in Turkey as well as globally.
With Daikin, Turkey will be positioned as R&D, manufacturing and logistic base of Europe, Middle East and Africa and will be the most important air conditioning market of EMEA region.

Daikin Turkey

Combi Boiler Production Plant
Hendek / Sakarya

Boiler production plant, which has a capacity of 300 thousand boiler production in a year, has also great emphasis on R&D studies. Our boilers are designed by a special team and manufactured with use of high quality components of industry. Products are tested for 100% security, function, tightness and pressure resistance. CE certifications are given by accredited laboratories of Europe.

Panel Radiator Production Plant
Hendek / Sakarya

Airfel radiator factory, which reached yearly 1.600.000 meter square production are with latest investments, is among limited number of facilities all around the world in panel radiator production field with high machine technology and cataphoresis coating. Whole manufacturing is made in full automatic weld lines. They are tested for 100% tightness, pressure resistance and presented with Airfel quality, which can be prove with the fact that our panel radiators have 12 years warranty.

Split Air Conditioner Production Plant
Hendek / Sakarya

Our air conditioners that are manufactured in our yearly 400 thousand set capacity split air conditioner factory, are tested for 100% electricity safety, function and high pressure in enthalpy, calorimetric and sound measurement laboratories. In addition to its high quality manufacturing copper pipe connections in critical positions are made by welding robots without any human contact.

Air Conditioning Production Plant
Hendek / Sakarya

Air Handling Units Production Plant, where hygienic package type and comfort type air handling units are manufactured by putting great importance on R&D studies, is the most modern facility in Turkey. Both home and abroad, our applied ventilation systems are preferred in hotel, hospitals, pharmaceutical plants, shopping centers, convention centers and office projects.

Fan coil Production Plant
Hendek / Sakarya

Our fan coil plant started its design and certification operation in 2009, now reached yearly 50 thousand fan coil production capacity. Our products are preferred at Turkey and abroad in several hotel and business centers due to their low sound level and high efficiency.

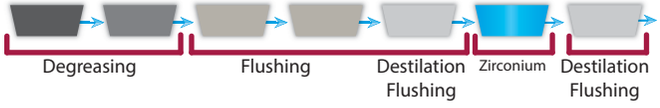
Panel Radiator

GREEN TECHNOLOGY

Airfel Panel Radiators are produced environmentally-friendly by using Green Technology Zirconium coating technology instead of Zinc Phosphate coating technology.

- Elimination of heavy metals such as Nickel, Zinc and Manganese,
- Reduction of waste mud amount up to 95%,
- Reduction of Phosphate amount within waste water
- Water and electric energy saving through process stage reduction

Zirconium®



Ral 9010 and Ral 9016

CATAPHORESIS PAINT TECHNOLOGY

Cataphoresis is the most suitable painting technology developed for corrosion. In cataphoresis, an electro-chemical coating process, all surfaces are coated equally and completely.

- Highly resistant against corrosion,
- Smooth and penetrating coating on complex surfaces
- Smooth film formation without fluxing and sagging
- Environmentally sensitive since it is water based

HIGH THERMAL EFFICIENCY

Airfel Panel Radiators: 1 running meter of Type 22 PKKP 600 series radiator gives 2228 kcal/h heat. (This value is given according to 90/70°C installation water and 20°C room temperature.)

HIGH TESTING PRESSURE

Airfel panel radiators are resistant to, and safe against, high pressure with operational pressure of 10 bars and testing pressure of 13 bars.

Panel Radiator Types

WIDE PRODUCT RANGE BY TYPE AND SIZE

Produced by full automation system, Airfel radiators offer 6 different height options (300, 400, 500, 600, 750, 900 mm) with a wide product range. With 6 different models (p, pk, pp, pkp, pkkp, dkek) in 22 different lengths ranging from 40 cm to 3 m (increases by 100 m until 2 m and by 200 mm after 2 m), they meet all kinds of requirements. Panel radiator types are shaped according to the number of panel and convector used in their production.

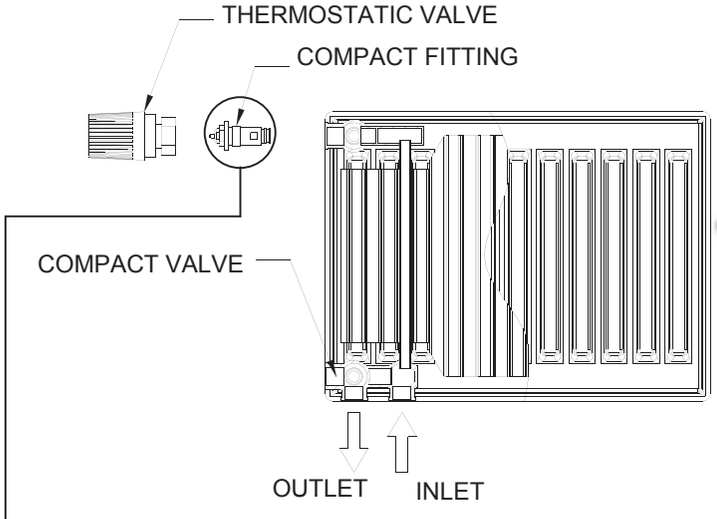
Type	Panel	Convector
10 P	1	0
11 PK	1	1
20 PP	2	0
21 PKP	2	1
22 PKKP	2	2
33 DKEK (PKKPKP)	3	3

Airfel panel is produced in 2 different models as standard (4 holes) and Compact Valve (6 holes).

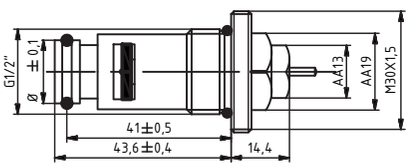
1. Standard Type: Side-connected in accordance with classical connection system. Hot water inlet and outlet is performed from lateral surface of the radiator.

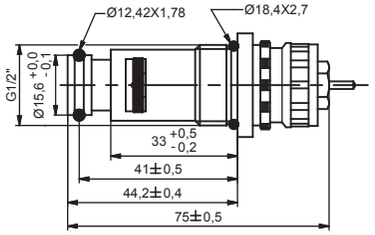
2. Compact Valve Type: Compact valve panel radiator is the most suitable radiator type for floor-fed and classical installation connection systems with high thermal power, sensitive rigging adjustment, thermostatic control and aesthetic view. Moreover, the special connection system inside enables connection of installation pipes from below and single side. Connection direction can be from left or right according to installation conditions.

Compact valve panel can be applied for all radiator models. Moreover, separate thermostatic control can be provided for each radiator with addition of a thermostatic regulator. It has an aesthetic view and covers less space.



Compatible Compact Fitting Types

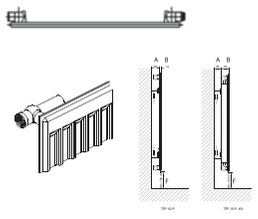




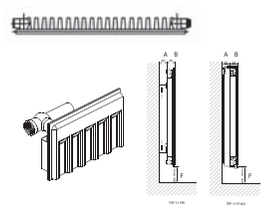
Technical Data

mm	10 P	11 PK	20 PP	21 PKP	22 PKKP	33 PKKPKP
A	45	45	45	45	45	45
B	14	49	70	70	104	160
F	Min.100	Min.100	Min.100	Min.100	Min.100	Min.100

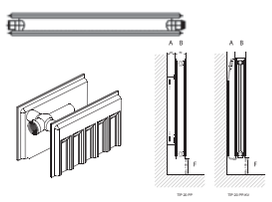
10P



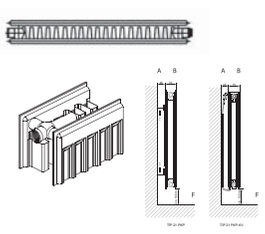
11PK



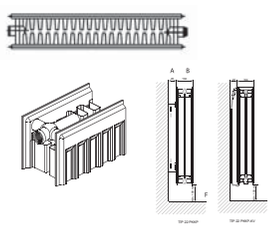
20PP



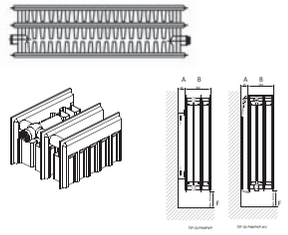
21PKP

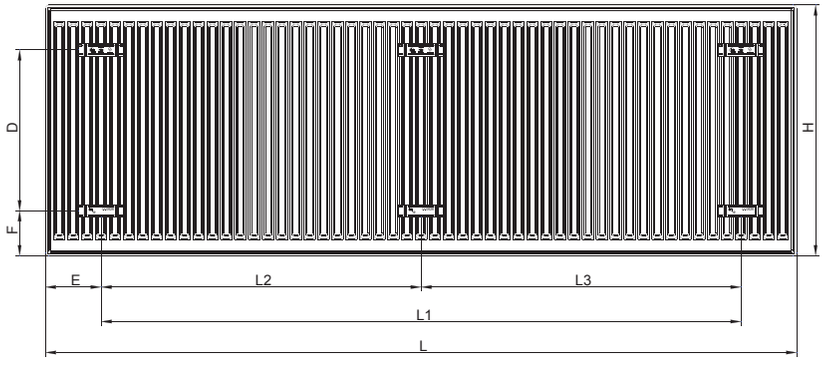


22PKKP



33DKEK





RADIATOR LENGTH L (mm)	TYPE 10-20-21-22-33					TYPE 11				
	L1 (mm)	L2 (mm)	L3 (mm)	E	F	L1 (mm)	L2 (mm)	L3 (mm)	E	F
400	133	--	--	133	107	167	--	--	117	107
500	233	--	--	133	107	267	--	--	117	107
600	333	--	--	133	107	367	--	--	117	107
700	433	--	--	133	107	467	--	--	117	107
800	533	--	--	133	107	567	--	--	117	107
900	633	--	--	133	107	667	--	--	117	107
1000	733	--	--	133	107	767	--	--	117	107
1100	833	--	--	133	107	867	--	--	117	107
1200	933	--	--	133	107	967	--	--	117	107
1300	1.033	--	--	133	107	1.067	--	--	117	107
1400	1.133	--	--	133	107	1.167	--	--	117	107
1500	1.233	--	--	133	107	1.267	--	--	117	107
1600	1.333	--	--	133	107	1.367	--	--	117	107
1700	1.433	--	--	133	107	1.467	--	--	117	107
1800	1.533	767	767	133	107	1.567	783	783	117	107
1900	1.633	800	833	133	107	1.667	817	850	117	107
2000	1.733	867	867	133	107	1.767	883	883	117	107
2200	1.933	967	967	133	107	1.967	983	983	117	107
2400	2.133	1.067	1.067	133	107	2.167	1.083	1.083	117	107
2600	2.333	1.167	1.167	133	107	2.367	1.183	1.183	117	107
2800	2.533	1.267	1.267	133	107	2.567	1.283	1.283	117	107
3000	2.733	1.367	1.367	133	107	2.767	1.383	1.383	117	107

Technical Data

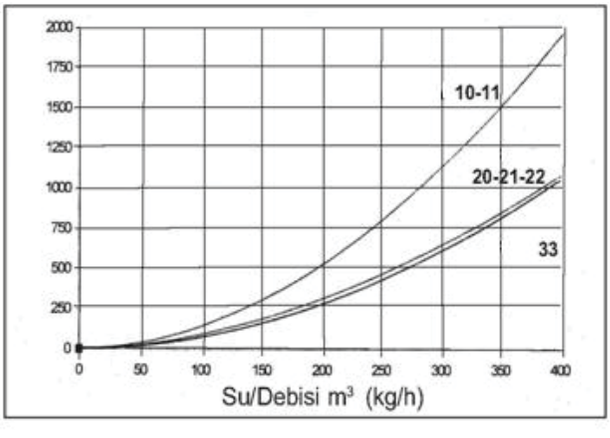
Type	Basic size (mm)	Distance between axes (mm)	Width (mm)	Lenght Min-Maks (mm)	Weight (kg/m)	Water Volume (l/m)
10 P	300	249	49	400-3000	6,1	1,7
	400	349	49	400-3000	7,9	2,3
	500	449	49	400-3000	9,7	2,7
	600	549	49	400-3000	11,5	3,1
	750	699	49	400-3000	14,3	3,8
	900	849	49	400-3000	17	4,5
11 PK	300	249	49	400-3000	8,4	1,7
	400	349	49	400-3000	11,1	2,3
	500	449	49	400-3000	13,5	2,7
	600	549	49	400-3000	16,2	3,1
	750	699	49	400-3000	20,5	3,8
	900	849	49	400-3000	24,3	4,5
20 PP	300	249	70	400-3000	12,1	3,4
	400	349	70	400-3000	15,8	4,4
	500	449	70	400-3000	19,5	5,3
	600	549	70	400-3000	23,2	6,2
	750	699	70	400-3000	28,8	7,6
	900	849	70	400-3000	34,3	8,9
21 PKP	300	249	70	400-3000	13,8	3,4
	400	349	70	400-3000	18,2	4,4
	500	449	70	400-3000	22,5	5,3
	600	549	70	400-3000	26,9	6,2
	750	699	70	400-3000	33,9	7,6
	900	849	70	400-3000	40,4	8,9
22 PKKP	300	249	104	400-3000	15,9	3,4
	400	349	104	400-3000	21,1	4,4
	500	449	104	400-3000	25,9	5,3
	600	549	104	400-3000	31,1	6,2
	750	699	104	400-3000	39,5	7,6
	900	849	104	400-3000	47,1	8,9
33 DKEK	300	249	160	400-3000	23,8	5,1
	400	349	160	400-3000	31,5	6,7
	500	449	160	400-3000	38,7	8,1
	600	549	160	400-3000	46,5	9,5
	750	699	160	400-3000	59,1	11,6
	900	849	160	400-3000	70,4	13,3

* Figures in technical table is are subject to change without prior notice. Figures are for 1m radiators.

Pressure Loss

Pressure loss in radiators is dependent on water flow and radiator capacity. If flow is known, pressure loss can be found by using the graphic below.
If the water flow is unknown, pressure can be calculated through the below method. Water drop (P) functions by radiator type:

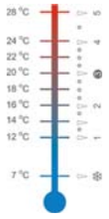
ΔP=Pressure Loss (Pa); m=Water flow (kg/h) Type 10 P, Type 11 PK ΔP=0.0233.m1.892
Type 20 PP, Type 21 PKP, Type 22 PKKP
Type 33 PKKPKP
ΔP=0.0114.m1.909



Airfel Valve

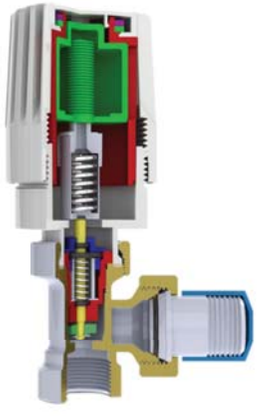
Thermostatic Valve

Thermostatic Radiator Valve detects temperature changes with the sensitive thermostat located on its valve and enables passage of water through radiators until desired room temperature is reached. Thus, it keeps the room temperature stable value between 7-28 °C



Advantages:

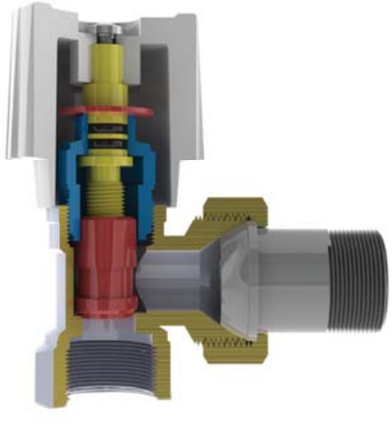
- Provides serious amounts of saving in fuel consumption amount you use for heating.
- Ensures comfort with stable room temperature.
- Provides separate temperature control for each room.
- Provides balanced heating of all floors in multi-storey buildings.



Thermostatic Straight Radiator Valve

Thermostatic Edge Radiator Valve

Radiator Valve



Straight Radiator Valve

Edge Radiator Valve

Nickel Coating | Sand Finish | PN 10 | RoHS | TSE | TS 579 | TS EN 216 | TS EN ISO 9001:2008

Highest Tempature	Use Type	Place of Use	Use Pressure	Connector Threads
Maximum 120 ^{0}C	Straight,Edge	Heating Systems Radiator Connections	PN10	DIN ISO 228/1

Towel Warmer

- Aesthetic Models
- Ease of use
- Long life
- High thermal efficiency

Technical Data

Sizes									Weight			
Width (A) mm	Height (H) mm	Connection Distance (L) mm	Number of Pipes	Water Volume Lt	Electrostatic Paint		Chrome Coating		Electrostatic Paint		Chrome Coating	
					Watt	Btu	Watt	Btu	Net Weight kg	Gross Weight Kg	Net Weight kg	Gross Weight Kg
400	700	355	13	2,57	267	912	201	686	4,14	4,49	4,14	4,49
500	700	455	13	2,98	316	1.079	237	809	4,80	5,15	4,80	5,15
600	700	555	13	3,39	365	1.246	274	936	5,35	5,75	5,35	5,75
400	800	355	14	2,86	294	1.004	221	755	4,60	4,95	4,60	4,95
500	800	455	14	3,30	348	1.188	261	891	5,30	5,70	5,30	5,70
600	800	555	14	3,74	400	1.366	300	1.024	5,90	6,30	5,90	6,30
400	1000	355	16	3,43	350	1.195	262	895	5,52	5,92	5,52	5,92
500	1000	455	16	3,93	410	1.400	308	1.052	6,30	6,75	6,30	6,75
600	1000	555	16	4,43	471	1.608	3053	10.424	7,00	7,45	7,00	7,45
400	1100	355	18	3,81	390	1.332	293	1.000	6,15	6,60	6,15	6,60
500	1100	455	18	4,38	457	1.560	342	1.168	6,98	7,43	6,98	7,43
600	1100	555	18	4,94	525	1.793	394	1.345	7,80	8,25	7,80	8,25
400	1200	355	20	4,20	429	1.465	322	1.099	6,80	7,25	6,80	7,25
500	1200	455	20	4,82	505	1.724	379	1.294	7,70	8,15	7,70	8,15
600	1200	555	20	5,45	580	1.980	435	1.485	8,60	9,10	8,60	9,10
400	1600	355	26	5,53	563	1.922	423	1.444	8,90	9,40	8,90	9,40
500	1600	455	26	6,35	661	2.257	496	1.694	10,10	10,60	10,10	10,60
600	1600	555	26	7,17	759	2.592	569	1.943	11,40	12,00	11,40	12,00
500	1800	455	31	7,30	768	2.622	575	1.963	11,75	12,45	11,75	12,45
600	1800	555	31	8,22	884	3.018	662	2.260	13,20	13,80	13,20	13,80

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