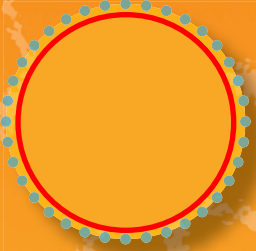


Economy Line

Heating elements

Heating elements type
KDO *economy*

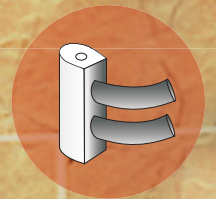
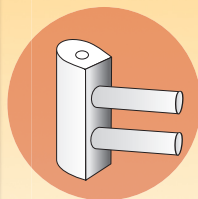
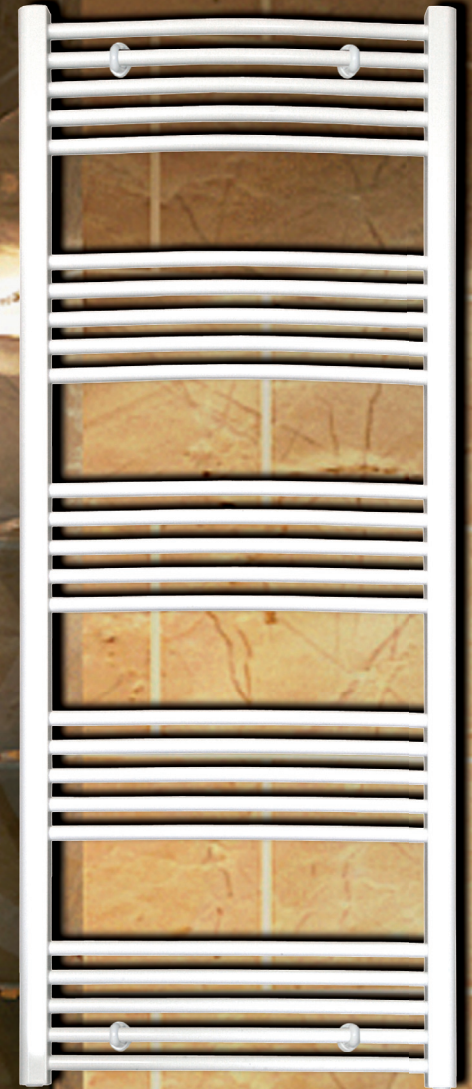
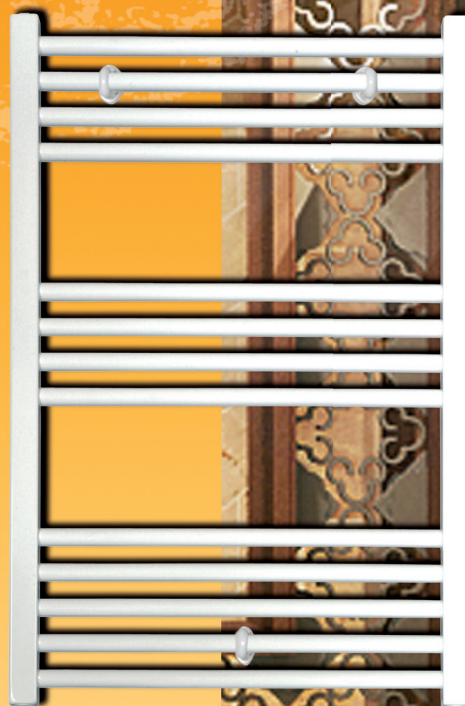
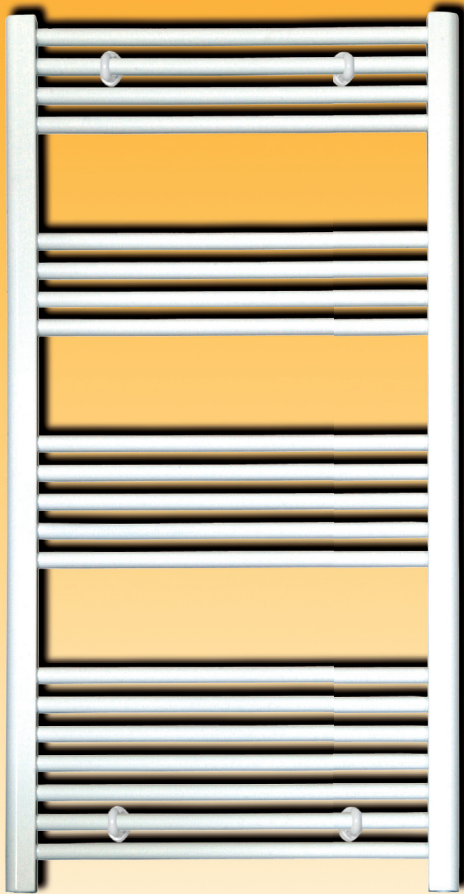


Heating elements type

K *economy*

Heating elements type

KD *economy*



thermal trend

QUALITY THROUGH TRADITION

Product description:

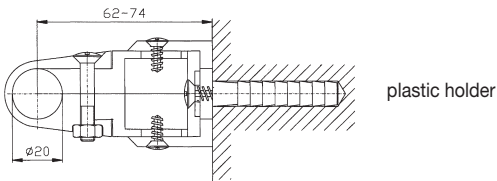
Bathroom (towel rail) radiators are heating elements a new generation designed for heating of bathrooms, corridors, toilets, kitchen nooks, fitness centres etc. They also serve for drying towels, dish-clothes and other textiles that can be hang up on the heating element.

Use of the product:

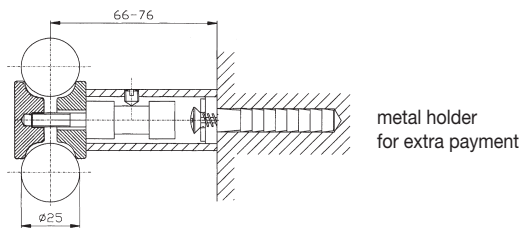
Bathroom radiators are designed for heating systems in individual houses and in residential buildings in which is normally used finished water or other heat-transfer medium for maximum working temperature of 110°C namely ether with forced circulation or gravity circulation for working pressure p=1,0 MPa.

Heating element type **K** *economy*

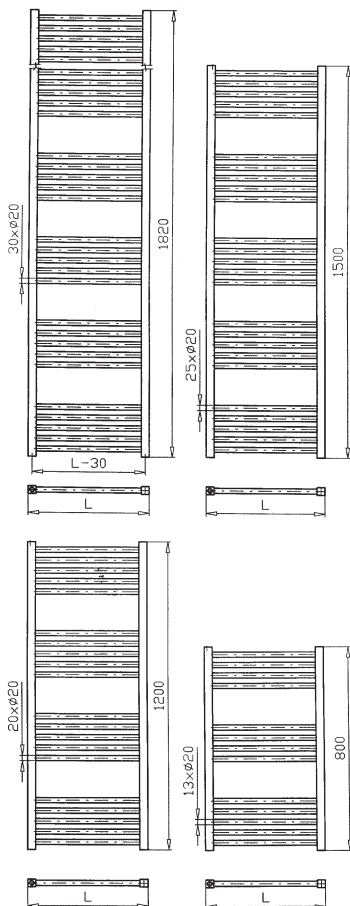
Used material: vertical profile - 30x30 mm square
horizontal profile - straight tube, diameter 20mm



plastic holder



metal holder
for extra payment



Heater power Q[W] for heat-transfer substance water according to DIN EN 442

Type description	Height H [mm]	Length L [mm]	Thread pitch [mm]	t ₁ /t ₂ [°C]	Q[W] pro t ₁ [°C]			Thermal exponent n [-]	Water volume n [l]	Rec. Radiator input power [W]
					18	20	22			
K 400 / 800	800	400	370	90/70	339	325	311	1,24246	2,4	200
				75/65	272	259	246			
				55/45	149	137	126			
K 450 / 800	800	450	420	90/70	372	357	342	1,24246	2,55	200
				75/65	299	284	271			
				55/45	164	151	139			
K 600 / 800	800	600	570	90/70	468	449	431	1,24246	3,05	300
				75/65	376	358	340			
				55/45	206	190	174			
K 750 / 800	800	750	720	90/70	559	537	515	1,24246	3,55	300
				75/65	449	428	406			
				55/45	245	226	208			
K 400 / 1200	1200	400	370	90/70	516	495	475	1,24251	3,6	300
				75/65	415	395	376			
				55/45	227	210	192			
K 450 / 1200	1200	450	420	90/70	567	544	522	1,24251	3,9	300
				75/65	455	434	412			
				55/45	249	230	211			
K 600 / 1200	1200	600	570	90/70	713	685	657	1,24251	4,65	400
				75/65	573	546	519			
				55/45	314	290	265			
K 750 / 1200	1200	750	720	90/70	852	818	784	1,24251	5,4	500
				75/65	685	652	620			
				55/45	375	346	317			
K 400 / 1500	1500	400	370	90/70	659	633	606	1,24256	4,55	400
				75/65	530	504	479			
				55/45	290	267	245			
K 450 / 1500	1500	450	420	90/70	724	695	666	1,24256	4,9	400
				75/65	582	554	526			
				55/45	318	293	269			
K 600 / 1500	1500	600	570	90/70	911	874	838	1,24256	5,8	500
				75/65	732	697	662			
				55/45	400	396	339			
K 750 / 1500	1500	750	720	90/70	1088	1044	1001	1,24256	6,8	600
				75/65	874	833	792			
				55/45	478	441	405			
K 400 / 1800	1800	400	370	90/70	802	770	738	1,2426	5,45	400
				75/65	645	614	584			
				55/45	353	326	299			
K 450 / 1800	1800	450	420	90/70	881	846	811	1,2426	5,85	500
				75/65	708	674	641			
				55/45	387	357	328			
K 600 / 1800	1800	600	570	90/70	1109	1064	1020	1,2426	7	600
				75/65	891	848	806			
				55/45	487	450	413			
K 750 / 1800	1800	750	720	90/70	1324	1271	1219	1,2426	8,1	700
				75/65	1064	1014	964			
				55/45	582	538	493			

The heating performance data applies to one-side connection of top-down

Applies to all elements types

Radiator connection (inner thread G 1/2")

- Single-sided connection from the top down, see the output tables, correction factor fx=1,0
- Diagonal connection from the top down, correction factor fx=1,011
- Connection from the bottom down, correction factor fx=0,969
- Bottom central connection (pitch of 50 mm), radiators customized on request only, correction factor fx=0,892

Elektric heating elements

These radiators can be use for direct self-heating. Can be used as the basis for any mentioned of the heating element and it must be attached to an electrical rod with electrical output which corresponding to a maximum of 70% of heating power at heating conditions 90/70/20. As heat transfer medium serve anticorrosion liquid with the freezing point - 5°C. Type of electric heating rods: 1373/XXheating rod with temperature limiter of radiators liquid (shielding IP64)

Electrical heating elements can be placed in bathrooms in zones 1,2,3.

Order example: - eletrical bathroom heating element, type KDO600/1800 filled with liquid with the freezing point - 5°C furnished with heating rod 600W of power with room thermostat

Characteristic data :

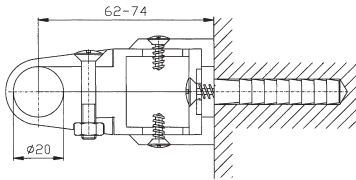
values of hydraulic resistance	
connections	resistance coefficient
DN 15(1/2)	2,5

Connecting thread	G1/2" (internal)
Test pressure	p = 1,5 MPa
Working pressure	p = 1,0 MPa

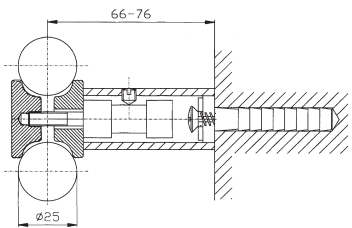
Applies to all elements types

Heating element type **KDO** *economy*

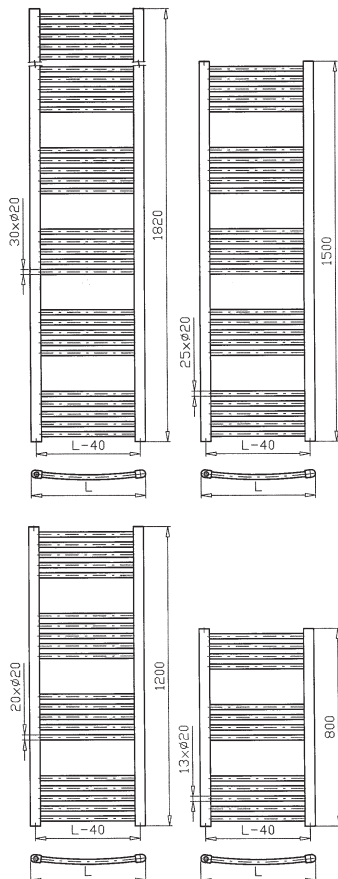
Used material: vertical D profile - 30x40 mm
horizontal profile - curved tube, diameter 20mm



plastic holder



metal holder
for extra payment



Heater power Q[W] for heat-transfer substance water according to DIN EN 442

Type description	Height H [mm]	Length L [mm]	Thread pitch [mm]	t ₁ /t ₂ [°C]	Q[W] pro t _i [°C]			Thermal exponent n [-]	Water volume n [l]	Rec. Radiator input power [W]
					18	20	22			
KDO 400 / 800	800	400	360	90/70	339	325	311	1,24246	3,5	200
				75/65	272	259	246			
				55/45	149	137	126			
KDO 450 / 800	800	450	410	90/70	372	357	342	1,24246	3,65	200
				75/65	299	284	271			
				55/45	164	151	139			
KDO 600 / 800	800	600	560	90/70	468	449	431	1,24246	4,15	300
				75/65	376	358	340			
				55/45	206	190	174			
KDO 750 / 800	800	750	710	90/70	559	537	515	1,24246	4,65	300
				75/65	449	428	406			
				55/45	245	226	208			
KDO 400 / 1200	1200	400	360	90/70	516	495	475	1,24251	5,3	300
				75/65	415	395	376			
				55/45	227	210	192			
KDO 450 / 1200	1200	450	410	90/70	567	544	522	1,24251	5,5	300
				75/65	455	434	412			
				55/45	249	230	211			
KDO 600 / 1200	1200	600	560	90/70	713	685	657	1,24251	6,3	400
				75/65	573	546	519			
				55/45	314	290	265			
KDO 750 / 1200	1200	750	710	90/70	852	818	784	1,24251	7,05	500
				75/65	685	652	620			
				55/45	375	346	317			
KDO 400 / 1500	1500	400	360	90/70	659	633	606	1,24256	6,6	400
				75/65	530	504	479			
				55/45	290	267	245			
KDO 450 / 1500	1500	450	410	90/70	724	695	666	1,24256	6,9	400
				75/65	582	554	526			
				55/45	318	293	269			
KDO 600 / 1500	1500	600	560	90/70	911	874	838	1,24256	7,85	500
				75/65	732	697	662			
				55/45	400	396	339			
KDO 750 / 1500	1500	750	710	90/70	1088	1044	1001	1,24256	8,8	600
				75/65	874	833	792			
				55/45	478	441	405			
KDO 400 / 1800	1800	400	360	90/70	802	770	738	1,2426	7,9	400
				75/65	645	614	584			
				55/45	353	326	299			
KDO 450 / 1800	1800	450	410	90/70	881	846	811	1,2426	8,3	500
				75/65	708	674	641			
				55/45	387	357	328			
KDO 600 / 1800	1800	600	560	90/70	1109	1064	1020	1,2426	9,4	600
				75/65	891	848	806			
				55/45	487	450	413			
KDO 750 / 1800	1800	750	710	90/70	1324	1271	1219	1,2426	10,6	700
				75/65	1064	1014	964			
				55/45	582	538	493			

The heating performance data applies to one-side connection of top-down

Applies to all elements types

Fixing of heating elements

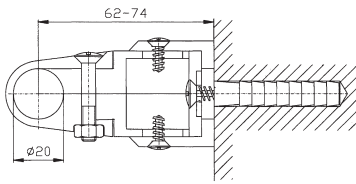
Radiators are fixed in four points (types K400/800, K450/800, K600/800, K400/1200, K450/1200 are fixed in three points only).
Types K, KDO, KD are delivered standard included plastic holders (see picture), metal holders are delivered on request for extra payment
All types of fixture sets include:
-respective mounting brackets (consoles)
-all connections pieces, included fixing set and washers
- vent set for venting of radiators
For drilling the wall shall be used drill 10 mm. To heating elements which are produced in other colour than white RAL 9016 are supplied standard metal mounting brackets in the same colours as radiator.

Combined heating

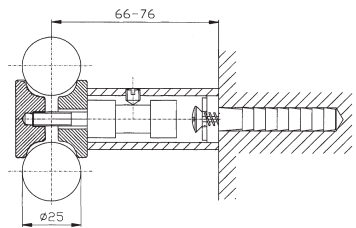
All the above mentioned heating elements connected to the heating system can be completean electric heating rod 1373/XX. This results in a radiator which can then be used at any time independently on the operation of the rest of the heating system. The recommended heat outputs are presented in the output tables of individual types. Type of electric heating rods: 1373/XXheating rod with temperature limiter of radiators water.
So equipped heating element can be placed in bathrooms in zones 1,2,3 (i.e. nex to sink, bath and shower corner)

Heating element type **KD** *economy*

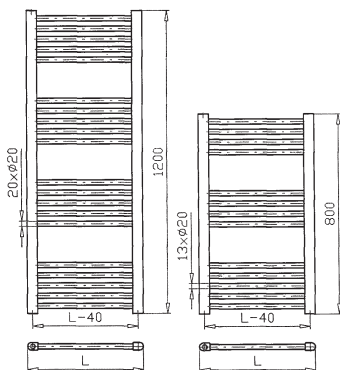
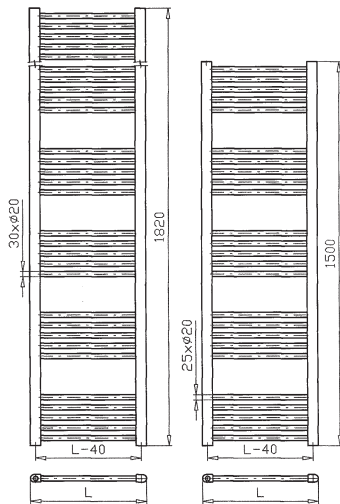
Used material: vertical D profile - 30x40 mm
horizontal profile - straight tube, diameter 20mm



plastic holder



metal holder
for extra payment



Heater power Q[W] for heat-transfer substance water according to DIN EN 442

Type description	Height H [mm]	Length L [mm]	Thread pitch [mm]	t ₁ /t ₂ [°C]	Q[W] pro t ₁ [°C]			Thermal exponent n [-]	Water volume n [l]	Rec. Radiator input power [W]
					18	20	22			
KD 400 / 800	800	400	360	90/70	339	325	311	1,24246	3,5	200
				75/65	272	259	246			
				55/45	149	137	126			
KD 450 / 800	800	450	410	90/70	372	357	342	1,24246	3,65	200
				75/65	299	284	271			
				55/45	164	151	139			
KD 600 / 800	800	600	560	90/70	468	449	431	1,24246	4,15	300
				75/65	376	358	340			
				55/45	206	190	174			
KD 750 / 800	800	750	710	90/70	559	537	515	1,24246	4,65	300
				75/65	449	428	406			
				55/45	245	226	208			
KD 400 / 1200	1200	400	360	90/70	516	495	475	1,24251	5,3	300
				75/65	415	395	376			
				55/45	227	210	192			
KD 450 / 1200	1200	450	410	90/70	567	544	522	1,24251	5,5	300
				75/65	455	434	412			
				55/45	249	230	211			
KD 600 / 1200	1200	600	560	90/70	713	685	657	1,24251	6,3	400
				75/65	573	546	519			
				55/45	314	290	265			
KD 750 / 1200	1200	750	710	90/70	852	818	784	1,24251	7,05	500
				75/65	685	652	620			
				55/45	375	346	317			
KD 400 / 1500	1500	400	360	90/70	659	633	606	1,24256	6,6	400
				75/65	530	504	479			
				55/45	290	267	245			
KD 450 / 1500	1500	450	410	90/70	724	695	666	1,24256	6,9	400
				75/65	582	554	526			
				55/45	318	293	269			
KD 600 / 1500	1500	600	560	90/70	911	874	838	1,24256	7,85	500
				75/65	732	697	662			
				55/45	400	396	339			
KD 750 / 1500	1500	750	710	90/70	1088	1044	1001	1,24256	8,8	600
				75/65	874	833	792			
				55/45	478	441	405			
KD 400 / 1800	1800	400	360	90/70	802	770	738	1,2426	7,9	400
				75/65	645	614	584			
				55/45	353	326	299			
KD 450 / 1800	1800	450	410	90/70	881	846	811	1,2426	8,3	500
				75/65	708	674	641			
				55/45	387	357	328			
KD 600 / 1800	1800	600	560	90/70	1109	1064	1020	1,2426	9,4	600
				75/65	891	848	806			
				55/45	487	450	413			
KD 750 / 1800	1800	750	710	90/70	1324	1271	1219	1,2426	10,6	700
				75/65	1064	1014	964			
				55/45	582	538	493			

The heating performance data applies to one-side connection of top-down

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