



## CHILLED WATER SYSTEMS

*Chilled water generator  
High wall Fancoils  
Ceiling cassette Fancoils  
Floor and ceiling Fancoils  
Triangle Fancoils*



# REMKO – THE CUSTOMER ORIENTATED SYSTEM PROVIDER FOR THE WHOLE YEAR



## *Quality with systems*

### AIR-CONDITIONING

#### Air-conditioners

Portable air-conditioners  
Wall units - cassettes

#### Chilled water systems

Chillers



### HEATING

#### Warm air heating systems

Mobile and stationary heaters  
Oil - gas - electric



### NEW ENERGIES

#### Heat-pumps

Inverter heat-pumps  
Heat pump packages





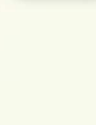
### DEHUMIDIFICATION

#### Dehumidifier

Mobile dehumidifiers  
Professional dehumidifiers  
Pool dehumidifiers



## Product overview Chilled water systems

Page		Series
<b>49-81 Chilled water systems</b>		
54-55	Chilled water generator with built-in storage tank and pump · Cooling capacity 5,8 to 14,7 kW	RVS H 
56-57	Chilled water systems with adaptive electronic control · Cooling capacity 12,9 to 21,8 kW	KWL 
58-59	Chilled water systems with adaptive electronic control · Cooling capacity 27,1 to 37,2 kW	KWL 
60-61	Chilled water generator Cooling capacity 43,5 to 77,7 kW	KWL
62-63	Chilled water generator with built-in storage tank and pump · Cooling capacity 43,5 to 77,7 kW	KWL SP
64-65	Chilled water generator Cooling capacity 98,1 to 309,1 kW	KWL
66-67	Chilled water generator with built-in storage tank and pump · Cooling capacity 98,1 to 309,1 kW	KWL SP
<b>68-80 Indoor units</b>		
68-69	High wall units, 2-pipe system	WLT / WLT S
70-71	Ceiling cassettes, 2-pipe system	KWD / KWD S
72-73	Ceiling cassettes, 4-pipe system	DKT-4
74-75	Floor and ceiling units, 2/4-pipe system	KWK
76-77	Floor and ceiling units for intermediate floor and intermediate ceiling installation, 2/4-pipe system	KWK ZW
78-80	Triangle units The elegant solution for heating and cooling	PWL
<b>81 Planning chilled water pipe network</b>		

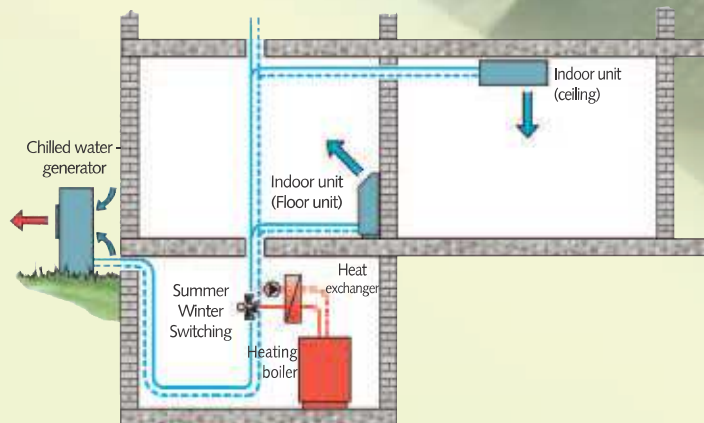
# CHILLED WATER SYSTEMS

*Use the pipe network all year round -  
to heat in winter and cool in summer*



## Environmentally friendly and flexible, the new dimension in application flexibility

- Chilled water air conditioning systems can be used for cooling in summer and in winter for heating.
- The insulated connection pipes can be used for both systems. Moreover, in existing buildings, it may be possible to use parts of an intact and if sufficiently dimensioned, insulated heating network.
- REMKO chilled water air conditioning systems are ideal for cooling of a number of rooms in office buildings, businesses, medical practices, hotels, restaurants, banks, workshops and residential buildings.
- The system consists of a central chilled water generator and the matching interior units.



## Environmentally friendly energy-bearing water

Water flows in the pipes between the central chilled water generator and the indoor units, in which it acts as a cooling or heating carrier. Unlike similar systems, no refrigerant enters the room which needs to be air conditioned. Refrigerant is only present in a separate circuit of the Chilled generator. And even here, it is present in quantities up to 80% lower than in comparable refrigerant systems, thanks to the latest technology used.





# CHILLED WATER SYSTEMS

*The ideal system and efficient climate control for projects large and small*

### Simple installation

- The Chilled water generator is positioned in an exterior location. Its long lifespan is guaranteed by the robust construction of the unit.
- Installation can be quickly and easily done by a specialist company. No further specific installation skills are needed.
- Connection to the interior units is simple and very fast. The units are flexible and can be mounted on the floor, on the wall, or even beneath the ceiling.

### How it works

A hermetically sealed Refrigerant circuit filled with environmentally friendly Refrigerant is used to cool the chilled water circuit. A circulation pump pumps the cooled water continuously to the interior units.

### Comfortable control

- Just as in the automatic air conditioning system in a car, the controller ensures a constant room temperature. Each indoor unit offers options such as room temperature control or infrared remote control.

### Units for every need

The REMKO KWL 130 to KWL 370 chilled water generators are controlled with an adaptive controller, which allows the system to operate without the need of a storage tank. These units are completely installation-ready. Units in the KWL 440 to KWL 3100 Series offer the choice of units with complete, or fully functional partial equipment. The complete equipment includes a storage tank, expansion vessel and circulation pump. Partial equipment allows for the use of these components in the manner best suited to local equipment requirements.

### Chilled water air conditioning systems in use

REMKO chilled water air conditioning systems are used by leading industries, small and medium sized businesses, smaller businesses and even private households:

- VW
- Falke Gruppe
- Bonito TV-Produktionsges.
- VIVA
- Deutsche Bahn
- Jenoptik
- Deutsche Telekom
- Porsche
- Medicon Apotheke
- New Yorker
- Sparda Bank



**RVS 60-150 (H)**  
**RVS 60-150 (H) INOX**  
 with built-in storage tank and pump

Cooling capacity from 5,8 up to 14,7 kW

Heating capacity from 6,5 up to 17,2 kW



**KWL 130 - 370 (H)**  
**KWL 130 - 370 (H) INOX**  
 with adaptive electronic controller

Cooling capacity from 12,9 up to 37.2 kW

Heating capacity from 14.9 up to 39.7 kW



**KWL 440 - 780**  
**KWL 440 - 780 INOX**  
 with two-speed outdoor fan controller

Cooling capacity from 43.5 up to 77.7 kW



**KWL 980 - 3100**  
 with multi-speed outdoor fan controller

Cooling capacity from 98.1 up to 309.1 kW

# CHILLED WATER SYSTEMS

with built-in storage tank and pump

Series RVS 60-150 H (INOX) · Cooling and heating



## RVS 60-150 H RVS 60-150 H INOX

The RVS 60-150 H outdoor, air cooled, chilled water generators are especially quiet units in the cooling performance range from 5.8 to 14.7 kW. With the standard heat pump function, the units can both „cool“ and „heat“.

The series are distinguished by its wide selection of standard equipment. All of the units are equipped with a pressure controlled winter controller, a circulation pump, a water reservoir, a crankcase heater, an expansion tank, a general fault signal system and microprocessor controller regulator. They are therefore ready for installation. The self-supporting housing is available in either powder-coated or stainless steel (INOX) finish. Thanks to removable panels, all components are easily reached for maintenance.

- Installation ready with expansion tank and circulation pump
- Compact and maintenance friendly design
- Microprocessor controller with display for actual operating values
- Highly reliable due to the permanent monitoring of all relevant parameters
- Comprehensive selection of accessories

### standard equipment

- Pressure controlled winter controller in cooling mode from -15°C to 45°C.
- Installation ready medium circuit with medium reservoir, circulation pump, expansion tank and safety module
- Microprocessor controller easily operated from the outside
- Potential-free general fault messaging
- Cooling circuit with rotary piston or scroll compressor and stainless steel plate heat exchanger
- Self-supporting housing in either powder-coated or stainless steel (INOX)-finish including protective grille for the condenser

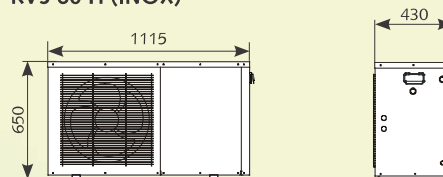
REMKO RVS 150 H



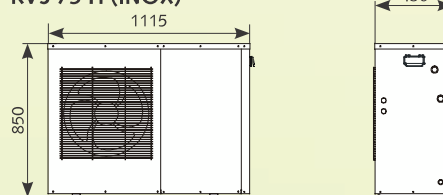
REMKO RVS 60 H

### Dimensions

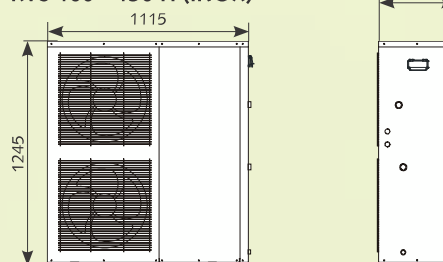
#### RVS 60 H (INOX)



#### RVS 75 H (INOX)



#### RVS 100 - 150 H (INOX)





### Operation

- The chilled water generator is operated by means of an internal microprocessor controller or conveniently using a cabled remote controller.
- Adjusting certain control variables allows the microprocessor to adapt the chilled water generator ideally to local conditions.

### Technical data and prices

PRICE-GROUP 5

Chilled water generator with heat pump function	RVS 60 H	RVS 75 H	RVS 100 H	RVS 150 H
Chilled water generator with heat pump function INOX	RVS 60 H INOX	RVS 75 H INOX	RVS 100 H INOX	RVS 150 H INOX
Design		with built-in storage and pump		
Cooling capacity <sup>1)</sup>	kW 5,8	7,2	10,0	14,7
Heating capacity <sup>2)</sup>	kW 6,5	8,2	11,6	17,2
Energy efficiency ratio Cooling EER <sup>1)</sup>	3,03	2,73	2,60	2,73
Energy efficiency ratio Heating COP <sup>2)</sup>	3,00	3,00	2,86	3,20
Chilled water outlet temperature	°C +5 to +23	+5 to +23	+5 to +23	+5 to +23
Warm water outlet temperature	°C +15 to +45	+15 to +45	+15 to +45	+15 to +45
Outdoor temperature operating limits	°C -15 to +45	-15 to +45	-15 to +45	-15 to +45
Cooling cycles/number of compressors	1/1	1/1	1/1	1/1
Refrigerant	R 410A	R 410A	R 410A	R 410A
Air volume max.	m <sup>3</sup> /h 4500	5000	6500	7000
Sound pressure level <sup>3)</sup>	dB(A) 42,3	43,1	45,5	45,4
Power supply	V/Hz 230/1~/50	230/1~/50	400/3~/50	400/3~/50
Electric power consumption <sup>1)</sup>	kW 1,90	2,65	3,96	5,37
Electric nominal power consumption <sup>1)</sup>	A 8,89	12,88	7,09	9,11
Electric starting current max. LRA	A 33	41	61	67
Operating medium		Water; max. 35% Ethylen glycol; max. 35% Propylen glycol		
Operation pressure max.	kPa 300	300	300	300
Nominal water flow Cooling / Heating	m <sup>3</sup> /h 0,99 / 1,11	1,24 / 1,42	1,77 / 1,99	2,52 / 2,96
Minimum water flow	m <sup>3</sup> /h 0,70	1,00	1,40	2,00
Maximum pump outlet pressure	kPa 29	41	97	67
Evaporatore chamber, volume	L 0,5	0,5	0,5	0,5
Medium connectors	Inches ¾	1	1	1
Tank volume	L 15,0	23,0	32,0	32,0
Dimensions Height	mm 650	850	1245	1245
Dimensions Width	mm 1115	1115	1115	1115
Dimensions Depth	mm 430	430	430	430
Weight	kg 95,8	107,1	146,3	158,2
standard colour		similar to RAL 9010 / INOX		
<b>Chilled water generator with heat pump function</b>	<b>RVS 60 H</b>	<b>RVS 75 H</b>	<b>RVS 100 H</b>	<b>RVS 150 H</b>
Price	€ 3.980.-	4.290.-	5.180.-	6.420.-
Ref. No.	1670060	1670075	1670100	1670150
<b>Chilled water generator with heat pump function, INOX</b>	<b>RVS 60 H INOX</b>	<b>RVS 75 H INOX</b>	<b>RVS 100 H INOX</b>	<b>RVS 150 H INOX</b>
Price	€ 4.250.-	4.620.-	5.580.-	6.820.-
Ref. No.	1670061	1670076	1670101	1670151
<b>Accessories</b>				
Cable remote controller	€ 492.-	492.-	492.-	492.-
Ref. No.	1670001	1670001	1670001	1670001
Vibration damper, set	€ 270.-	270.-	270.-	270.-
Ref. No.	1655161	1655161	1655161	1655161
External mains circuit breaker	€ 198.-	198.-	198.-	198.-
Ref. No.	1611485	1611485	1611485	1611485
Glycol concentrate, 20 L canister	€ 159.-	159.-	159.-	159.-
Ref. No.	1611414	1611414	1611414	1611414

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>2)</sup> Air intake temperature TK 7 °C, water intake 45 °C, water outlet 50 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> White colour, similar to RAL 9010

# CHILLED WATER SYSTEMS

*with adaptive electronic control  
without built-in storage tank*

**KWL 130-220 Series · cooling only**

**KWL 130-220 H Series · cooling and heating**



## KWL 130-220 (H)

KWL 130-220 units, with a capacity ranging from 12.9 to 21.8 kW, are particularly quiet, air cooled chilled water generators for outdoor installation with integrated „low-noise fan control“. Besides its „cooling“ function, the chilled water generator with heat pump function can also be switched to heating mode. The monocoque powder-coated steel sheet housing features removable panels. All components are thus easy to reach for maintenance. The units in sizes 180 and 220 are also available in stainless steel. The plug-in-ready hydraulic circuit consists of a circulation pump, expansion vessel, safety module and plate heat exchanger. A storage tank is not required thanks to the adaptive controller.

- Compact design and maintenance-friendly device structure
- Powder-coated housing and condenser protective grille
- Comprehensive set of accessories available

- Centralised alarm contact
- Electrical release contact
- Low-noise fan control system for particularly low noise emission

### The control system

- The control of the cold-water generator is undertaken by means of an internal controller or via a convenient wired remote controller.
- The user-friendly designed controller enables the entry of the desired water temperature and all additional functions.
- The clearly structured display is subdivided into value and functional displays and enables a clear functional analysis of the device for the operator.
- A standard release contact enables device operation to be e.g. suspended for a period of time, in order to reduce operating costs to a minimum.

### The standard equipment

- A refrigeration circuit with safety components, scroll compressor and stainless steel plate heat exchanger
- Unitary hydraulic circuit with circulation pump, expansion tank and safety module
- An easily operable, micro-processor controlled, adaptive control system
- Master switch and electrical phase monitoring



Wired remote controller

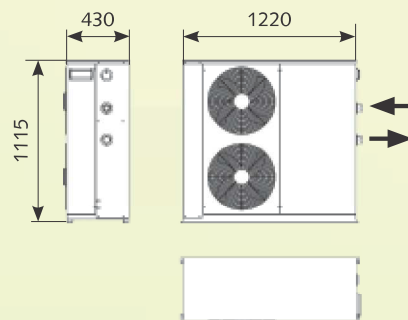


Controller on chilled water generator

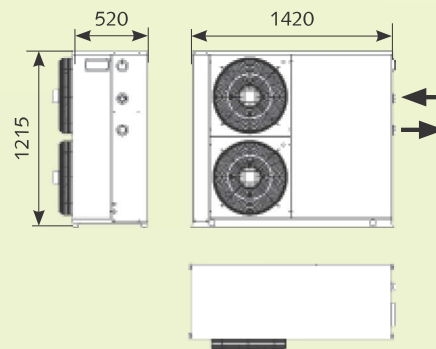


### Dimensions

#### KWL 130-160 (H)



#### KWL 180-220 (H)





**Technical data and prices**
**PRICE-GROUP 5**

Chilled water generator	KWL 130	KWL 160	KWL 180	KWL 220
<b>Chiller water generator with heat pump function</b>	<b>KWL 130 H</b>	<b>KWL 160 H</b>	<b>KWL 180 H</b>	<b>KWL 220 H</b>
<b>Chilled water generator INOX</b>		<b>KWL 160 INOX</b>	<b>KWL 180 INOX</b>	<b>KWL 220 INOX</b>
<b>Chiller water generator with heat pump function INOX</b>		<b>KWL 160 H INOX</b>	<b>KWL 180 H INOX</b>	<b>KWL 220 H INOX</b>
Design		Storage tank without adaptive control function		
Cooling capacity <sup>1)</sup>	kW 12,9	15,9	18,1	21,8
Heating capacity <sup>2)</sup> only KWL...H	kW 14,9	17,5	19,8	24,2
Chilled water outlet temperature C/H	°C	+4 to +18 / +25 to +45		
Operating limits - exterior temperature C/H	°C	+15 to +45 / -10 to +20		
Operating limits C (Extension)	°C	+5 to +45 <sup>4)</sup> / -15 to +45 <sup>5)</sup>		
Cooling cycles/number of compressors	1/1	1/1	1/1	1/1
Refrigerant	R 407C	R 407C	R 407C	R 407C
Air volume max.	m <sup>3</sup> /h 7300	6560	9600	9600
Sound pressure level <sup>3)</sup>	dB(A) 45,0	45,0	48,7	48,4
Sound pressure level	dB(A) 76,0	76,0	79,7	79,4
Power supply	V/Hz	400/3~/50		
Electrical power consumption <sup>1)</sup>	kW 5,33	6,13	7,04	8,51
Electrical nominal current consumption <sup>1)</sup>	A 11,45	12,77	16,04	16,96
Electrical starting current max.	A 69	77	101	126
Operating water		Water; max. 35% Ethylenglycol; max. 35 % Propylenglycol		
Operation pressure max.	kPa 300	300	300	300
Nominal medium flow <sup>1)</sup>	m <sup>3</sup> /h 2,23	2,74	3,10	3,74
Minimum/maximum flow volume, cooling water	m <sup>3</sup> /h 1,40/3,40	1,80/4,50	2,00/5,20	2,40/6,20
Nominal pump pressure, max.	kPa 207,0	195,0	188,0	177,0
Nominal pressure loss,, internal Cooling	kPa 38,0	30,1	23,2	31,4
Rated pressure drop, internal - cooling	kPa 169,0	164,9	164,8	145,6
Evaporator chamber, volume	L 6,0	6,0	6,0	6,0
Water connectors	Inches 1 1/4	1 1/4	1 1/4	1 1/4
Minimum water volume, per unit	L 40,0	47,0	51,0	62,0
Dimensions Height	mm 1115	1115	1215	1215
Dimensions Width	mm 430	430	520	520
Dimensions Depth	mm 1220	1220	1420	1420
Weight	kg 165,0	168,0	255,0	270,0
standard colour		similar to RAL 9018 / INOX		

<b>Chilled water generator</b>		<b>KWL 130</b>	<b>KWL 160</b>	<b>KWL 180</b>	<b>KWL 220</b>
Price	€	7.720.-	8.220.-	10.160.-	11.280.-
Ref. No.		1650130	1650160	1650180	1650220
<b>Chilled water generator with heat pump function</b>		<b>KWL 130 H</b>	<b>KWL 160 H</b>	<b>KWL 180 H</b>	<b>KWL 220 H</b>
Price	€	9.230.-	9.520.-	12.340.-	13.640.-
Ref. No.		1650131	1650161	1650181	1650221
<b>Chilled water generator INOX</b>		-	<b>KWL 160 INOX</b>	<b>KWL 180 INOX</b>	<b>KWL 220 INOX</b>
Price	€	-	9.220.-	12.250.-	13.550.-
Ref. No.		-	1650162	1650182	1650222
<b>Chilled water generator with heat pump function INOX</b>		-	<b>KWL 160 H INOX</b>	<b>KWL 180 H INOX</b>	<b>KWL 220 H INOX</b>
Price	€	-	10.720.-	14.390.-	15.900.-
Ref. No.		-	1650163	1650183	1650223
<b>Accessories</b>					
Winter pressure regulator, set	€	495.-	495.-	495.-	495.-
Ref. No.		1655100	1655100	1655100	1655100
Cable remote controller	€	480.-	480.-	480.-	480.-
Ref. No.		1655120	1655120	1655120	1655120
Compressor crank case heating	€	189.-	189.-	189.-	189.-
Ref. No.		1655140	1655140	1655140	1655140
Vibration damper, set	€	169.-	169.-	270.-	270.-
Ref. No.		1655160	1655160	1655161	1655161
Medium frost protection heating	€	420.-	420.-	420.-	420.-
Ref. No.		1655180	1655180	1655180	1655180
Medium storage tank, external	€	1.430.-	1.430.-	1.530.-	1.530.-
Ref. No.		1655200	1655200	1655201	1655201
Medium storage tank, external, INOX	€	1.840.-	1.840.-	2.030.-	2.030.-
Ref. No.		1655205	1655205	1655206	1655206
Connection pipe	€	272.-	272.-	298.-	298.-
Ref. No.		1655203	1655203	1655204	1655204
Glycol concentrate, 20 L canister	€	159.-	159.-	159.-	159.-
Ref. No.		1611414	1611414	1611414	1611414

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>2)</sup> Air intake temperature TK 7 °C, water intake 40 °C, water outlet 45 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> Only with compressor crank case heating accessory (Series with KWL H)

<sup>5)</sup> Only with winter pressure controller set (incl. compressor crank case heating)

# CHILLED WATER SYSTEMS

*with adaptive electronic control  
without built-in storage tank*

**KWL 270-370 Series · cooling only**

**KWL 270-370 H Series · cooling and heating**

## KWL 270-370 (H)

KWL 270-370 units, with a capacity ranging from 27.1 to 37.2 kW, are particularly quiet, air cooled chilled water generators for outdoor installation with integrated „low-noise fan control“. Besides its „cooling“ function, the chilled water generator with heat pump function can also be switched to heating mode. The monocoque stainless steel or powder-coated steel sheet housing features removable panels. All components are thus easy to reach for maintenance. The plug-in ready hydraulic circuit consists of a circulation pump, expansion vessel, safety module and plate heat exchanger. A storage tank is not required thanks to the adaptive controller.

- Centralised alarm contact
- Electrical release contact
- Low-noise fan control system for particularly low noise emission



- Compact design and maintenance-friendly structure
- Powder-coated housing and condenser protective grille
- Comprehensive set of accessories available

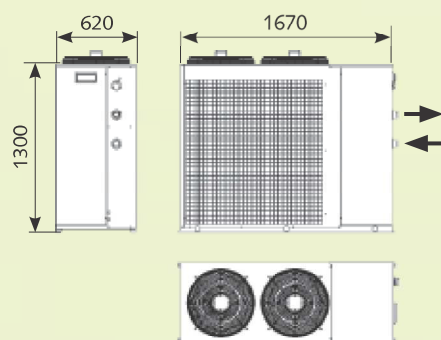


## The standard equipment

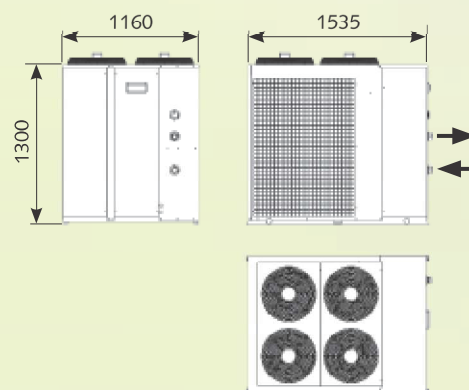
- A refrigeration circuit with safety components, scroll compressor and stainless steel plate heat exchanger
- Unitary hydraulic circuit with circulation pump, expansion tank and safety module
- An easily operable, micro-processor controlled, adaptive control system
- Master switch and electrical phase monitoring

## Dimensions

KWL 270-320 (H)



KWL 370 (H)



## Technical data and prices

PRICE-GROUP 5

		KWL 270	KWL 320	KWL 370
<b>Chilled water generator</b>		KWL 270	KWL 320	KWL 370
<b>Chilled water generator with heat pump function</b>		KWL 270 H	KWL 320 H	KWL 370 H
<b>Chilled water generator INOX</b>		KWL 270 INOX	KWL 320 INOX	KWL 370 INOX
<b>Chilled water generator with heat pump function INOX</b>		KWL 270 H INOX	KWL 320 H INOX	KWL 370 H INOX
Design		without storage tank by adaptive control function		
Cooling capacity <sup>1)</sup>	kW	27,1	31,5	37,2
Heating capacity <sup>2)</sup> only KWL...H	kW	29,9	35,1	39,7
Medium outlet temperature	°C	+4 to +18 / +25 to +45		
Operating limits-exterior temperature	°C	+15 to +45 / -10 to +20		
Operating limits C (expansion)	°C	+5 to +45 <sup>4)</sup> / -15 to +45 <sup>5)</sup>		
Cooling cycles/number of compressors		1/1	1/1	1/1
Refrigerant		R 407C	R 407C	R 407C
Air volume max.	m <sup>3</sup> /h	11500	11300	15700
Sound pressure level <sup>3)</sup>	dB(A)	48,4	48,5	51,3
Sound pressure level	dB(A)	79,4	79,5	82,3
Power supply	V/Hz	400/3~/50		
Electrical power consumption <sup>1)</sup>	kW	10,16	11,81	14,02
Electrical nominal current consumption <sup>1)</sup>	A	19,54	22,35	30,06
Starting current max.	A	130	170	182
Operating water		Water; max. 35% Ethylenglycol; max. 35% Propylenglycol		
Operation pressure, max. Medium	kPa	300	300	300
Nominal water flow <sup>1)</sup>	m <sup>3</sup> /h	4,64	5,44	6,41
Minimum/maximum flow volume, medium	m <sup>3</sup> /h	3.00/7,80	3,50/9,00	4,10/10,70
Rated pump pressure, max.	kPa	162,0	145,0	175,0
Nominal pressure loss, internal cooling	kPa	45,0	47,2	58,1
Maximum pump outlet pressure cooling	kPa	117,0	97,8	116,9
Evaporator chamber, volume	L	6,0	6,0	6,0
Water connectors	Inches	1 1/4	1 1/4	1 1/4
Minimum water volume, per unit	L	80,0	91,0	104,0
Dimensions Height	mm	1300	1300	1300
Dimensions Width	mm	620	620	1160
Dimensions Depth	mm	1670	1670	1535
Weight	kg	310,0	325,0	380,0
Series color		similar to RAL 9018 / INOX		

		KWL 270	KWL 320	KWL 370
<b>Chilled water generator</b>		KWL 270	KWL 320	KWL 370
Price	€	12.140.-	13.260.-	17.450.-
Ref. No.		1650270	1650320	1650370
<b>Chilled water generator with heat pump function</b>		KWL 270 H	KWL 320 H	KWL 370 H
Price	€	14.820.-	16.230.-	20.580.-
Ref. No.		1650271	1650321	1650371
<b>Chilled water generator INOX</b>		KWL 270 INOX	KWL 320 INOX	KWL 370 INOX
Price	€	15.420.-	16.150.-	20.560.-
Ref. No.		1650272	1650322	1650372
<b>Chilled water generator with heat pump function INOX</b>		KWL 270 H INOX	KWL 320 H INOX	KWL 370 H INOX
Price	€	18.100.-	19.130.-	23.810.-
Ref. No.		1650273	1650323	1650373

<b>Accessories</b>				
Winter pressure controller, set	€	495.-	495.-	495.-
Ref. No.		1655100	1655100	1655106
Cable remote controller	€	480.-	480.-	480.-
Ref. No.		1655120	1655120	1655120
Compressor crank case heating	€	189.-	189.-	196.-
Ref. No.		1655140	1655140	1655141
Vibration damper, set	€	389.-	389.-	389.-
Ref. No.		1655162	1655162	1655162
Medium frost protection heating	€	420.-	420.-	420.-
Ref. No.		1655180	1655180	1655180
Medium storage tank, external	€	1.720.-	1.720.-	1.720.-
Ref. No.		1655202	1655202	1655202
Medium storage tank, external, INOX	€	2.320.-	2.320.-	2.320.-
Ref. No.		1655207	1655207	1655207
Glycol concentrate, 20 L canister	€	159.-	159.-	159.-
Ref. No.		1611414	1611414	1611414

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>2)</sup> Air intake temperature TK 7 °C, water intake 40 °C, water outlet 45 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> Only with compressor crank case heating accessory (Series with KWL H)

<sup>5)</sup> Only with winter pressure regulation set (incl. compressor crank case heating)

# CHILLED WATER SYSTEMS

*with two-stage power-control  
without built-in storage tank*

**KWL 440-780 Series · cooling only**



## KWL 440 - 780

The KWL 440-780 devices are particularly noiseless, air-cooled chilled water generators for outdoor installation with integrated "low-noise fan control" for the capacity between 43.5 and 77.7 kW. The self-supporting housing made from powder-coated steel sheet has removable panels. This means that all components can be conveniently accessed for maintenance. The standard design is supplied without storage tank, circulation pump and expansion tank, and can therefore be optimally adapted to the local plant requirements.

- Compact design and maintenance-friendly device structure
- Powder-coated housing and condenser protective grille
- Comprehensive set of accessories available

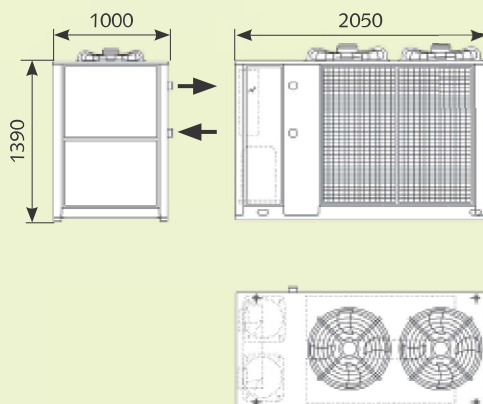
### The standard equipment

- A refrigeration circuit with safety components, 2 scroll compressors and stainless steel plate heat exchanger
- Master switch and electrical phase monitoring
- Centralised alarm contact
- Electrical release contact
- An easily operable, micro-processor controlled control system with two-stage power control
- Low-noise fan control system for particularly low noise emission

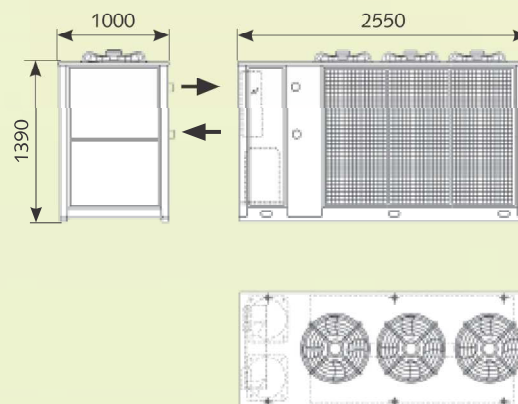


## Dimensions

### KWL 440



### KWL 520-780



### The control system

- The control of the chilled water generator is undertaken by means of an internal controller or via a convenient wired remote control.
- The user-friendly designed controller enables the entry of the desired water temperature and all additional functions.
- The clearly structured display is subdivided into value and functional displays and enables a clear functional analysis of the device for the operator.
- A standard release contact enables device operation to be e.g. suspended for a period of time, in order to reduce operating costs to a minimum.



Controller on cold-water generator



Wired remote controller

### Technical data and prices



Chilled water generator		KWL 440	KWL 520	KWL 670	KWL 780
Design				without built-in storage tank and pump	
Cooling capacity <sup>1)</sup>	kW	43,5	52,4	66,6	77,7
Water outlet temperature	°C			+4 to +18	
Operating limits-exterior temperature	°C			+15 to +45	
Operating limits (expansion)	°C			+5 to +45 <sup>4)</sup> / -15 to +45 <sup>5)</sup>	
Cooling cycles/number of compressors		1/2	1/2	1/2	1/2
Refrigerant				R 407C	
Air volume max.	m <sup>3</sup> /h	11750	17850	17280	25920
Sound pressure level <sup>3)</sup>	dB(A)	49,0	48,0	51,0	59,0
Sound pressure level	dB(A)	80,0	82,0	82,0	89,0
Power supply	V/Hz			400/3~/50	
Electrical nominal current consumption <sup>1)</sup>	kW	16,95	18,87	23,77	28,26
Electrical power consumption <sup>1)</sup>	A	31,86	36,31	42,92	49,68
Electric starting current max.	A	143	151	196	229
Operating water		Water; max. 35% Ethylenglycol; max. 35% Prohylenglycol			
Operation pressure max. agent	kPa			300	
Nominal water flow <sup>1)</sup>	m <sup>3</sup> /h	7,49	9,02	11,45	13,36
Minimum/maximum flow volume, water	m <sup>3</sup> /h	4,90/11,60	5,90/13,90	7,50/17,70	8,70/20,70
Rated pump pressure	kPa	-	-	-	-
Nominal pressure loss, internal	kPa	32,3	44,4	40,4	37,3
Maximum pump outlet pressure	kPa	-	-	-	-
Evaporator chamber, volume	L	-	-	-	-
Water connectors	Inches	2	2	2	2
Tank volume	L	-	-	-	-
Dimensions Height	mm	1390	1390	1390	1390
Dimensions Width	mm	2050	2550	2550	2550
Dimensions Depth	mm	1000	1000	1000	1000
Weight	kg	622,0	692,0	745,0	753,0
Series color		similar to RAL 9018			

Chilled water generator		KWL 440	KWL 520	KWL 670	KWL 780
Price	€	19.210.-	19.870.-	22.310.-	26.180.-
Ref. No.		1650440	1650520	1650670	1650780
<b>Accessories</b>					
Winter pressure controller, set	€	495.-	495.-	495.-	495.-
Ref. No.		1655105	1655105	1655105	1655105
Cable remote controller	€	480.-	480.-	480.-	480.-
Ref. No.		1655120	1655120	1655120	1655120
Compressor crank case heating	€	2 x 196.-	2 x 196.-	2 x 196.-	2 x 196.-
Ref. No.		2 x 1655141	2 x 1655141	2 x 1655141	2 x 1655141
Vibration damper, set	€	365.-	498.-	498.-	498.-
Ref. No.		1655163	1655164	1655164	1655164
Medium frost protection heating	€	320.-	320.-	320.-	320.-
Ref. No.		1655181	1655181	1655181	1655181
Glycol concentrate, 20 L canister	€	159.-	159.-	159.-	159.-
Ref. No.		1611414	1611414	1611414	1611414

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> Only with compressor crank case heating accessory

<sup>5)</sup> Only with winter pressure regulation set (incl. compressor crank case heating)

# CHILLED WATER SYSTEMS

*with two-stage power-control  
with build-in storage tank and pump*

**KWL 440-780 SP Series · cooling only**



## KWL 440-780 SP

The KWL 440-780 SP devices are particularly noiseless, air-cooled chilled water generators for outdoor installation with integrated "low-noise fan control" for the capacity between 43.5 and 77.7 kW. The self-supporting stainless steel housing and powder coated steel has removable panels. This means that all components can be conveniently accessed for maintenance. The KWL 440-780 SP series is supplied without storage tank, circulation pump and expansion tank, and can therefore be optimally adapted to the local plant requirements.

- Compact design and maintenance-friendly device structure
- Powder-coated housing respectively INOX-housing and condenser protective grille
- Comprehensive set of accessories available

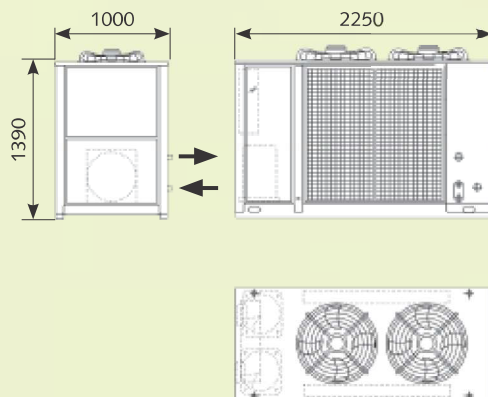
## The standard equipment

- A refrigeration circuit with safety components, 2 scroll compressors and stainless steel plate heat exchanger
- Installation ready hydraulic circuit with storage tank, circulation pump, expansion vessel and safety module
- Master switch and electrical phase monitoring
- An easily operable, micro-processor controlled control system with two-stage power control
- Centralised alarm contact
- Electrical release contact
- Low-noise fan control system for particularly low noise emission

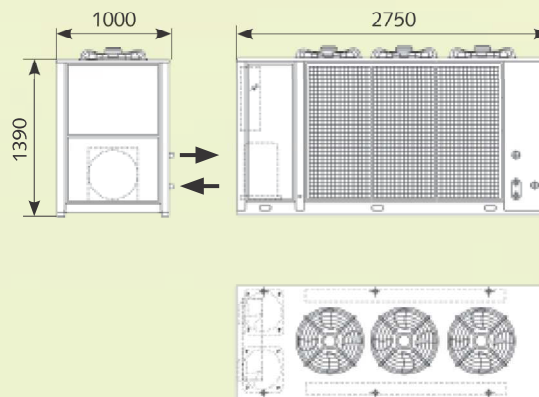


## Dimensions

### KWL 440 SP



### KWL 520-780 SP



### The control system

- The control of the chilled water generator is undertaken by means of an internal controller or via a convenient wired remote control.
- The user-friendly designed controller enables the entry of the desired water temperature and all additional functions.
- The clearly structured display is subdivided into value and functional displays and enables a clear functional analysis of the device for the operator.
- A standard release contact enables device operation to be suspended for a period of time, in order to reduce operating costs to a minimum.



Controller on chilled water generator

Wired remote controller

### Technical data and prices



Chilled water generator		KWL 440 SP	KWL 520 SP	KWL 670 SP	KWL 780 SP
Chilled water generator INOX		KWL 440 SP INOX	KWL 520 SP INOX	KWL 670 SP INOX	KWL 780 SP INOX
Design			with built-in storage tank and pump		
Cooling capacity <sup>1)</sup>	kW	43,5	52,4	66,6	77,7
Water outlet temperature	°C		+4 to +18		
Operating limits-outdoor temperature	°C		+15 to +45		
Operating limits C (expansion)	°C		+5 to +45 <sup>4)</sup> / -15 to +45 <sup>5)</sup>		
Cooling cycles/number of compressors		1/2	1/2	1/2	1/2
Refrigerant		R 407C			
Air volume max.	m <sup>3</sup> /h	11750	17850	17280	25920
Sound pressure level <sup>3)</sup>	dB(A)	49,9	51,8	52,0	59,3
Sound pressure level	dB(A)	80,9	82,8	83,0	90,3
Power supply	V/Hz	400/3~/50			
Electrical power consumption <sup>1)</sup>	kW	18,56	20,42	25,36	29,87
Electrical nominal current consumption <sup>1)</sup>	A	36,41	40,96	47,55	54,24
Electrical starting current max.	A	143	151	196	229
Operating water		Water; max. 35% Ethylenglycol; max. 35 % Prohylenglycol			
Operation pressure max.	kPa	300			
Nominal water flow <sup>1)</sup>	m <sup>3</sup> /h	7,49	9,02	11,45	13,36
Minimum/maximum flow volume, water	m <sup>3</sup> /h	4,90/11,60	5,90/13,90	7,50/17,70	8,70/20,70
Rated pump pressure, max.	kPa	235,0	225,0	220,0	210,0
Nominal pressure loss, internal cooling	kPa	45,0	42,2	47,9	50,5
Max. pump pressure, cooling	kPa	190,0	182,8	172,1	159,5
Evaporator chamber, volume	L	6,0	6,0	6,0	6,0
Water connectors	Inches	1 1/2	2	2	2
Tank volume	L	200,0	290,0	290,0	290,0
Dimensions Height	mm	1390	1390	1390	1390
Dimensions Width	mm	2250	2750	2750	2750
Dimensions Depth	mm	1000	1000	1000	1000
Weight	kg	800,0	902,0	960,0	973,0
Series color		similar to RAL 9018 / INOX			

Chilled water generator		KWL 440 SP	KWL 520 SP	KWL 670 SP	KWL 780 SP
Price	€	22.640.-	23.440.-	25.720.-	29.790.-
Ref. No.		1650441	1650521	1650671	1650781
Chilled water generator INOX		KWL 440 SP INOX	KWL 520 SP INOX	KWL 670 SP INOX	KWL 780 SP INOX
Price	€	27.660.-	29.840.-	30.880.-	34.980.-
Ref. No.		1650442	1650522	1650672	1650782
Accessories					
Winter pressure controller, set	€	495.-	495.-	495.-	495.-
Ref. No.		1655105	1655105	1655105	1655105
Cable remote controller	€	480.-	480.-	480.-	480.-
Ref. No.		1655120	1655120	1655120	1655120
Compressor crank case heating	€	2 x 196.-	2 x 196.-	2 x 196.-	2 x 196.-
Ref. No.		2 x 1655141	2 x 1655141	2 x 1655141	2 x 1655141
Vibration damper, set	€	498.-	498.-	498.-	498.-
Ref. No.		1655165	1655164	1655164	1655166
Medium frost protection heating	€	660.-	660.-	660.-	660.-
Ref. No.		1655182	1655182	1655182	1655182
Glycol concentrate, 20 L canister	€	159.-	159.-	159.-	159.-
Ref. No.		1611414	1611414	1611414	1611414

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> Only with compressor crank case heating accessory

<sup>5)</sup> Only with winter pressure controller set (incl. compressor crank case heating)

# CHILLED WATER SYSTEMS

*with multi-stage power-control  
without built-in storage tank*

**KWL 980-3100 Series · cooling only**

## KWL 980-3100

The KWL 980-3100 devices are particularly quiet, air-cooled chilled water generators for outdoor installation with integrated "low-noise fan control" for the capacity between 98.1 and 309.1 kW. The self-supporting housing made from powder-coated steel sheet has removable panels. This means that all components can be conveniently accessed for maintenance. The standard design is supplied without accumulator, circulation pump and expansion tank, and can therefore be optimally adapted to all local plant requirements.

- Compact design and maintenance-friendly device structure
- Powder-coated housing and condenser protective grille
- Comprehensive set of accessories available
- Large-area heat exchanger in V-design for minimal noise emission and compact device dimensions.

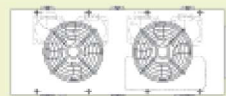
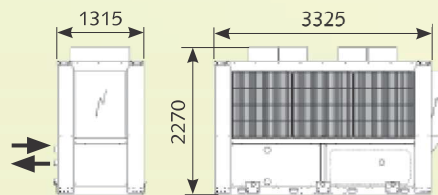
## The standard equipment

- Two refrigeration circuits with safety components, 2 or 4 scroll compressors and stainless steel plate heat exchanger
- An easily operable from outside, microprocessor controlled control system with multi-stage power control
- Master switch and electrical phase monitoring
- Centralised alarm contact
- Electrical release contact
- Victaulic connections

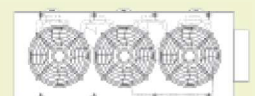
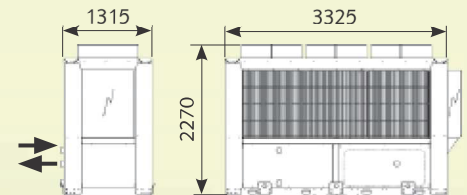


## Dimensions

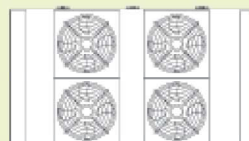
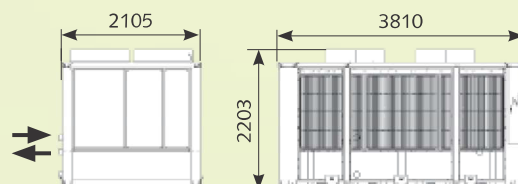
**KWL 980 / 1300**



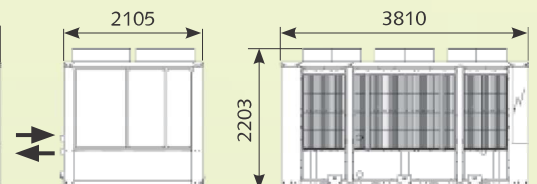
**KWL 1200, 1500, 1600, 1800, 2100**



**KWL 2300 / 2500**



**KWL 2800 / 3100**





## The control system

- The control of the chilled water generator is undertaken by means of an internal controller or via a convenient wired remote control.
- The user-friendly designed controller enables the entry of the desired water temperature and all additional functions.
- The clearly structured display is subdivided into value and functional displays and enables a clear functional analysis of the device for the operator.
- A standard release contact enables device operation to be suspended for a period of time, in order to reduce operating costs to a minimum.



Controller on chilled water generator



Wired remote controller

## Technical data and prices



Chilled water generator		KWL 980	KWL 1200	KWL 1300	KWL 1500	KWL 1600	KWL 1800	KWL 2100	KWL 2300	KWL 2500	KWL 2800	KWL 3100
Design		without built-in storage tank and pump										
Cooling capacity <sup>1)</sup>	kW	98,1	114,0	129,5	148,1	160,0	176,2	206,5	228,3	248,0	279,5	309,1
Chilled water outlet temperature	°C	+4 to +18										
Operating limits-exterior temperature	°C	+15 to +45										
Operating limits (expansion)	°C	+10 to +45 <sup>4)</sup> / -10 to +45 <sup>5)</sup>										
Cooling cycles/number of compressors		2/4	2/2	2/4	2/4	2/2	2/4	2/4	2/4	2/4	2/4	2/4
Refrigerant		R 407C										
Air volume max.	m <sup>3</sup> /h	46720	52890	45340	63450	63450	60180	56970	65000	65000	100800	90900
Sound pressure level <sup>3)</sup>	dB(A)	54,1	56,9	54,3	57,2	58,9	57,9	58,5	60,2	60,3	62,2	63,1
Sound pressure level	dB(A)	83,6	85,9	83,7	86,0	87,0	86,4	86,8	91,2	91,3	93,2	94,1
Power supply	V/Hz	400/3~/50										
Electrical power consumption <sup>1)</sup>	kW	37,24	43,97	47,78	56,25	58,10	65,28	74,22	83,71	91,25	105,77	116,24
Electr. nominal current consumption <sup>1)</sup>	A	91,40	97,93	100,23	114,97	115,74	135,37	155,72	187,22	214,45	227,24	231,48
Electrical starting current max.	A	201	319	222	264	384	315	335	408	435	496	500
Operating water		Water; max. 35% Ethylenglycol; max. 35% Propylenglycol										
Operation pressure max. agent	kPa	600										
Nominal water flow <sup>1)</sup>	m <sup>3</sup> /h	16,88	19,62	22,28	25,49	27,50	30,31	35,28	39,24	42,48	48,05	52,92
Min./max. flow volume, water	m <sup>3</sup> /h	10,2/27,1	11,7/31,3	13,4/25,7	15,4/40,9	16,5/43,9	18,3/48,6	21,4/56,8	23,6/62,7	25,5/67,9	28,8/76,8	31,9/84,8
Nominal pressure loss, internal	kPa	43,3	52,5	47,9	48,1	47,9	58,1	56,5	58,3	56,2	58,8	52,3
Water connectors (Victaulic)	Inches	2	2	2	2 ½	2 ½	2 ½	2 ½	3	3	3	3
Dimensions Height	mm	2270	2270	2270	2270	2270	2270	2270	2203	2203	2203	2203
Dimensions Width	mm	1315	1315	1315	1315	1315	1315	1315	2105	2105	2105	2105
Dimensions Depth	mm	3325	3325	3325	3325	3325	3325	3325	3810	3810	3810	3810
Weight	kg	1353,0	1401,0	1481,0	1590,0	1569,0	1784,0	2016,0	2174,0	2189,0	2469,0	2639,0
Series color		similar to RAL 9018										

Chilled water generator		KWL 980	KWL 1200	KWL 1300	KWL 1500	KWL 1600	KWL 1800	KWL 2100	KWL 2300	KWL 2500	KWL 2800	KWL 3100
Price	€	on request										
Ref. No.		1650980	1651200	1651300	1651500	1651600	1651800	1652100	1652300	1652500	1652800	1653100
<b>Accessories</b>												
Winter pressure controller, set	€	1.980.-	2.290.-	1.980.-	2.290.-	2.290.-	2.290.-	2.290.-	2.420.-	2.420.-	3.380.-	3.380.-
Ref. No.		1655101	1655102	1655101	1655102	1655102	1655102	1655102	1655103	1655103	1655104	1655104
Cable remote controller	€	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-
Ref. No.		1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125
Compressor crank case heating	€	4x 196.-	2x 365.-	4x 196.-	4x 210.-	2x 465.-	4x 380.-	4x 395.-	4x 395.-	4x 395.-	4x 395.-	4x 395.-
Ref. No.		1655141	1655142	1655141	1655143	1655144	1655145	1655146	1655146	1655146	1655146	1655146
Vibration damper, set	€	625.-	625.-	625.-	625.-	625.-	625.-	625.-	890.-	890.-	1.220.-	1.220.-
Ref. No.		1655167	1655167	1655167	1655167	1655167	1655167	1655167	1655168	1655168	1655169	1655169
Medium frost protection heating	€	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-
Ref. No.		1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183
Glycol concentrate, 210 L plastic vat	€	on request										
Ref. No.		1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>2)</sup> Air intake temperature TK 7 °C, water intake 45 °C, water outlet 50 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> Only with compressor crank case heating accessory (Series with KWL H)

<sup>5)</sup> Only with winter pressure controller set (incl. compressor crank case heating)

# CHILLED WATER SYSTEMS

*with multi-stage power-control  
with built-in storage tank and pump*

**Series KWL 980-3100 SP · cooling only**



## KWL 980-3100 SP

The KWL 980-3100 SP devices are particularly low-noise, air-cooled chilled water generators for outdoor installation with integrated "low-noise fan control" for the capacity between 98.1 and 309.1 kW. The self-supporting housing made from powder-coated steel sheet has removable panels. This means that all components can be conveniently accessed for maintenance. Due to their full set of equipment with integrated storage tank, circulation pump and expansion tank, the KWL 980-3100 SP series of devices come ready to install.

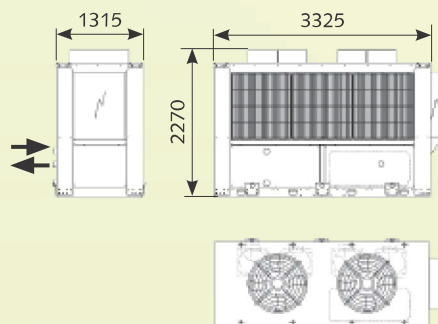
- An easily operable from outside, microprocessor controlled control system with multi-stage power control
- Master switch and electrical phase monitoring
- Centralised alarm contact
- Electrical release contact
- Victaulic connections



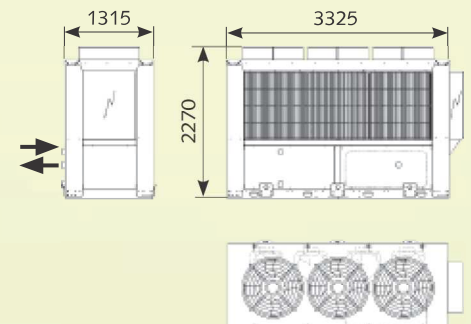
### Dimensions

- Compact design and maintenance-friendly device structure
- Large-area heat exchanger in V-design for minimal noise emission and compact device dimensions.
- Powder-coated housing and condenser protective grille
- Comprehensive set of accessories available

#### KWL 980 / 1300 SP



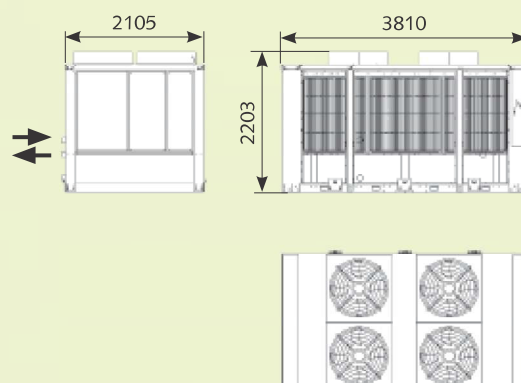
#### KWL 1200, 1500, 1600, 1800, 2100 SP



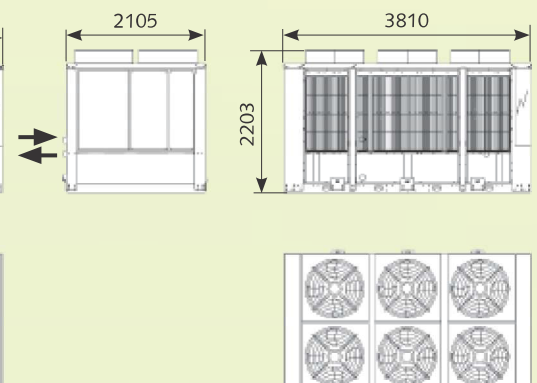
### The standard equipment

- Two refrigeration circuits with safety components, 2 or 4 scroll compressors and stainless steel panel heat exchanger
- Unitary water cycle with accumulator, circulation pump, expansion tank and safety module

#### KWL 2300 / 2500 SP



#### KWL 2800 / 3100 SP



## The control system

- The control of the chilled water generator is undertaken by means of an internal controller or via a convenient wired remote control.
- The user-friendly designed controller enables the entry of the desired water temperature and all additional functions.
- The clearly structured display is subdivided into value and functional displays and enables a clear functional analysis of the device for the operator.
- A standard release contact enables device operation to be suspended for a period of time, in order to reduce operating costs to a minimum.



Controller on chilled water generator



Wired remote controller

## Technical data and prices



Chilled water generator		KWL 980 SP	KWL 1200 SP	KWL 1300 SP	KWL 1500 SP	KWL 1600 SP	KWL 1800 SP	KWL 2100 SP	KWL 2300 SP	KWL 2500 SP	KWL 2800 SP	KWL 3100 SP
Design		with built-in storage tank and pump										
Cooling capacity <sup>1)</sup>	kW	98,1	114,0	129,5	148,1	160,0	176,2	206,5	228,3	248,0	279,5	309,1
Chilled water outlet temperature	°C	+4 to +18										
Operating limits-exterior temperature	°C	+15 to +45										
Operating limits (expansion)	°C	+10 to +45 <sup>4)</sup> / -10 to +45 <sup>5)</sup>										
Cooling cycles/number of compressors		2/4	2/2	2/4	2/4	2/2	2/4	2/4	2/4	2/4	2/4	2/4
Refrigerant		R 407C										
Air volume max.	m <sup>3</sup> /h	46720	52890	45340	63450	63450	60180	56970	65000	65000	100800	90900
Sound pressure level <sup>3)</sup>	dB(A)	54,2	57,0	54,4	57,3	59,0	58,0	58,6	60,3	60,4	62,3	63,2
Sound pressure level	dB(A)	83,8	86,1	83,9	86,2	87,2	86,6	87,0	91,4	91,5	93,4	94,3
Power supply	V/Hz	400/3~/50										
Electrical power consumption <sup>1)</sup>	kW	39,74	46,19	49,96	58,49	60,34	69,20	78,24	87,71	95,20	109,76	120,25
Electr. nominal current consumption <sup>1)</sup>	A	95,71	103,25	105,57	120,24	121,03	144,91	165,32	196,88	224,04	236,86	241,07
Electrical starting current max.	A	201	319	222	264	384	315	335	408	435	496	500
Operating water		Water; max. 35% Ethylenglycol; max. 35 % Propylenglycol										
Operation pressure max. agent	kPa	600										
Nominal water flow <sup>1)</sup>	m <sup>3</sup> /h	16,88	19,62	22,28	25,49	27,50	30,31	35,28	39,24	42,48	48,05	52,92
Min./max. flow volume, water	m <sup>3</sup> /h	10,2/27,1	11,7/31,3	13,4/25,7	15,4/40,9	16,5/43,9	18,3/48,6	21,4/56,8	23,6/62,7	25,5/67,9	28,8/76,8	31,9/84,8
Rated pump pressure	kPa	161,3	194,5	187,9	202,1	188,9	219,1	196,3	156,5	151,9	145,1	150,9
Nominal pressure loss, internally	kPa	43,3	52,5	47,9	48,1	47,9	58,1	43,3	52,5	47,9	48,1	47,9
Maximum pump outlet pressure	kPa	118,0	142,0	140,0	154,0	141,0	161,0	153,0	104,0	104,0	97,0	103,0
Evaporator chamber, volume	L	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0	18,0
Water connectors (Victaulic)	Inches	2	2	2	2 ½	2 ½	2 ½	2 ½	3	3	3	3
Tank volume	L	300	300	300	300	300	300	300	300	300	300	300
Dimensions Height	mm	2270	2270	2270	2270	2270	2270	2270	2203	2203	2203	2203
Dimensions Width	mm	1315	1315	1315	1315	1315	1315	1315	2105	2105	2105	2105
Dimensions Depth	mm	3325	3325	3325	3325	3325	3325	3325	3810	3810	3810	3810
Weight	kg	1723,0	1771,0	1851,0	1966,0	1945,0	2175,0	2407,0	2569,0	2584,0	2864,0	3034,0
Series color		similar to RAL 9018										

Chilled water generator		KWL 980 SP	KWL 1200 SP	KWL 1300 SP	KWL 1500 SP	KWL 1600 SP	KWL 1800 SP	KWL 2100 SP	KWL 2300 SP	KWL 2500 SP	KWL 2800 SP	KWL 3100 SP
Price	€	on request										
Ref. No.		1650981	1651201	1651301	1651501	1651601	1651801	1652101	1652301	1652501	1652801	1653101
<b>Accessories</b>												
Winter pressure controller, set	€	1.980.-	2.290.-	1.980.-	2.290.-	2.290.-	2.290.-	2.290.-	2.420.-	2.420.-	3.380.-	3.380.-
Ref. No.		1655101	1655102	1655101	1655102	1655102	1655102	1655102	1655103	1655103	1655104	1655104
Cable remote controller	€	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-	580.-
Ref. No.		1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125	1655125
Compressor crank case heating	€	4x 196.-	2x 365.-	4x 196.-	4x 210.-	2x 465.-	4x 380.-	4x 395.-	4x 395.-	4x 395.-	4x 395.-	4x 395.-
Ref. No.		1655141	1655142	1655141	1655143	1655144	1655145	1655146	1655146	1655146	1655146	1655146
Vibration damper, set	€	798.-	798.-	798.-	798.-	798.-	798.-	798.-	890.-	890.-	1.220.-	1.220.-
Ref. No.		1655170	1655170	1655170	1655170	1655170	1655170	1655170	1655168	1655168	1655169	1655169
Medium frost protection heating	€	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-	720.-
Ref. No.		1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183	1655183
Glycol concentrate, 210 L plastic vat	€	on request										
Ref. No.		1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415	1611415

<sup>1)</sup> Air intake temperature TK 35 °C, water intake 12 °C, water outlet 7 °C, 0% glycol concentrate

<sup>2)</sup> Air intake temperature TK 7 °C, water intake 45 °C, water outlet 50 °C, 0% glycol concentrate

<sup>3)</sup> Distance 10 m free field conditions

<sup>4)</sup> Only with compressor crank case heating accessory

<sup>5)</sup> Only with winter pressure regulation set (incl. compressor crank case heating)

# HIGH WALL FANCOILS

## WLT Series WLT S Series in 2-pipe system



### REMKO WLT REMKO WLT S

#### High-performance units for rooms with limited space

The units take in the room air via the front panel, filters, cools, and dehumidifies it, and then conducts it back to the rooms through the bottom of the front panel. The air outlet louvers can be adjusted automatically in swing mode for better air distribution.

A low-noise cross-flow fan takes in the room air via an easily accessible filter. The copper-aluminium heat exchanger for water temperatures up to 70°C located behind the fan provides optimum cooling or heating performance.

Any condensate occurring is collected in the condensate pan and conducted out of the unit via a condensate tube. If the condensate cannot drain freely, a condensate pump can be integrated into the unit according to the size and routing of the lines.

- Simple installation above doors or at the top of walls
- Air outlet in swing mode or with individual fine adjustment
- Removable air filter

#### The standard equipment

- 3-way valve assembly fitted as standard
- with infrared remote controller (not for WLT S series)
- Automatic restart after power loss
- Programmable 24-hour timer function (not for WLT S series)



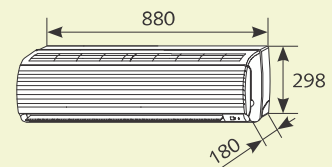
Optional precision room temperature controller for WLT 25-85 S



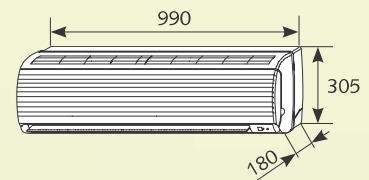
Infrared remote controller for WLT 25-85

#### Dimensions

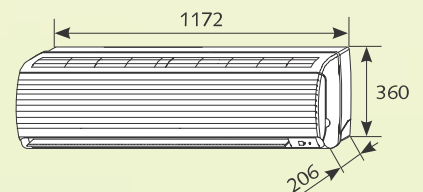
##### WLT 25 (S)



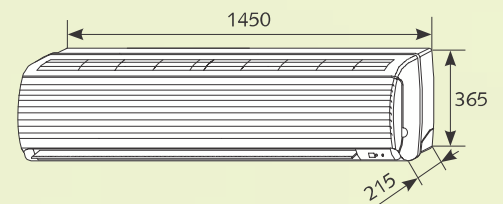
##### WLT 27 (S)



##### WLT 45 / 55 (S)



##### WLT 75 / 85 (S)



#### Cooling capacity

Admittance	WLT 25 (S)		WLT 27 (S)		WLT 45 (S)		WLT 55 (S)		WLT 75 (S)		WLT 85 (S)	
	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>
°C	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
5	2,4	2,0	3,2	2,6	5,0	4,2	6,4	4,9	8,1	5,5	9,4	6,1
7	2,0	1,6	2,7	2,2	4,4	3,6	5,8	4,5	7,0	5,1	8,5	5,6
9	1,8	1,4	2,3	1,8	3,7	3,0	5,2	4,2	6,4	4,6	7,6	5,1
11	1,5	1,2	1,8	1,5	3,2	2,4	4,4	3,7	5,9	4,1	6,7	4,7
13	1,2	1,0	1,5	1,2	2,7	2,0	3,7	3,2	5,2	3,7	5,1	4,2

Rated flow water; 0% glycol concentration; air volume max.  
Room temperature TK 27 °C, FK 19 °C

### Controller

The REMKO WLT wall units have an electronic controller. They are operated using an infrared remote handset using a cable remote controller is available as an accessory.

The desired room temperature is simply set at the press of a button.

The capacity is controlled on the water-side using a built-in valve subassembly.

With the fancoils series WLT 25 S to WLT 85 S the management can take place through an external controller, such as GLT, or through a room-temperature controller available as an accessory.



3-way valve assembly fitted as standard

### Technical data and prices



High wall fancoils with infrared controller	WLT 25	WLT 27	WLT 45	WLT 55	WLT 75	WLT 85	
High wall fancoils for the connection of external controllers	WLT 25 S	WLT 27 S	WLT 45 S	WLT 55 S	WLT 75 S	WLT 85 S	
Cooling capacity <sup>1) 2)</sup>	kW	2,0	2,7	4,4	5,8	7,0	8,5
Heating capacity <sup>1) 3) / 7)</sup>	kW	4,1/0,8	5,4/1,6	8,6/2,7	12,0/3,5	13,9/4,8	17,1/5,9
Nominal air volume	m <sup>3</sup> /h	295/330/360	320/365/415	605/680/735	705/795/865	880/1100/1270	1090/1220/1400
Sound pressure level <sup>3)</sup>	dB(A)	26/30/33	28/31/36	33/36/38	35/37/40	38/40/42	39/42/43
Power supply	V/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electrical nominal power consumption	kW	0,03	0,03	0,06	0,06	0,08	0,09
Electrical nominal current	A	0,12	0,14	0,24	0,27	0,32	0,41
Operating water		Water; max. 35% Ethylenglycol; max. 35% Propylenglycol					
Operation pressure, max.	kPa	600	600	600	600	600	600
Water connectorss	mm	12	12	15	15	18	18
Nominal water flow	m <sup>3</sup> /h	0,35	0,46	0,80	1,00	1,22	1,49
Nominal pressure loss, internally <sup>2)</sup>	kPa	9,5	20,5	21,0	22,5	21,7	33,5
Nominal pressure loss, internally <sup>3)</sup>	kPa	7,0	18,5	19,0	21,0	17,8	27,1
Water volume	L	0,81	0,96	1,07	1,96	2,41	2,93
Condenswater connection	mm	16,5	16,5	24,0	24,0	24,0	24,0
Dimensions Height	mm	298	305	360	360	365	365
Dimensions Width	mm	880	990	1172	1172	1450	1450
Dimensions Depth	mm	180	180	206	206	215	215
Weight	kg	8,6	10,4	16,0	17,6	24,1	25,1
Series color		white	white	white	white	white	white
High wall fancoils with infrared controller	WLT 25	WLT 27	WLT 45	WLT 55	WLT 75	WLT 85	
Price	€	620.-	710.-	930.-	1.060.-	1.270.-	1.380.-
Ref. No.		1611725	1611727	1611745	1611755	1611775	1611785
High wall fancoils for the connection of external controllers	WLT 25 S	WLT 27 S	WLT 45 S	WLT 55 S	WLT 75 S	WLT 85 S	
Price	€	640.-	730.-	950.-	1.080.-	1.290.-	1.400.-
Ref. No.		1611726	1611728	1611746	1611756	1611776	1611786
<b>Accessories</b>							
Condenswater pump KP-8 <sup>6)</sup>	€	225.-	225.-	225.-	225.-	225.-	225.-
Ref. No.		1613125	1613125	1613125	1613125	1613125	1613125
Cable remote controller für WLT	€	96.-	96.-	96.-	96.-	96.-	96.-
Ref. No.		1611702	1611702	1611702	1611702	1611702	1611702
Precision room temperature control for WLT S, RR-20		194.-	194.-	194.-	194.-	194.-	194.-
Ref. No.		1611394	1611394	1611394	1611394	1611394	1611394

<sup>1)</sup> Rated flow water; 0% glycol concentrate; air volume max.

<sup>2)</sup> Room temperature TK 27 °C, FK 19 °C; Water intake 7 °C, Water outlet 12 °C

<sup>3)</sup> Room temperature TK 20 °C, FK 14 °C; Water intake 70 °C, Water outlet 60 °C

<sup>7)</sup> Only WLT S series, Room temperature TK 20 °C, FK 14 °C; Water intake 35 °C, Water outlet 30 °C

<sup>4)</sup> with built-in fan assembly

<sup>5) 3)</sup> Distance 1 m free field conditions

<sup>6)</sup> Pricegroup 4

# CEILING CASSETTE FANCOILS

## KWD Series KWD S Series 2-pipe system

### REMKO KWD REMKO KWD S

#### Ceiling cassettes in compact Euroraster format

The low height of the ceiling cassettes with 258 and 298 mm permits installation into practically all false ceilings. Air distribution to all four sides guarantees an even distribution of the air.

The heat exchangers are available in a copper-aluminium design for water temperatures up to 80°C.

The low-noise radial fan, which can be adjusted in three steps, permits the optimum adaptation of the air volume flow to the existing conditions.

In the standard version, the ceiling cassettes are equipped with an internal condensate pump. Optionally, fresh air can be supplied or adjacent rooms can be cooled.



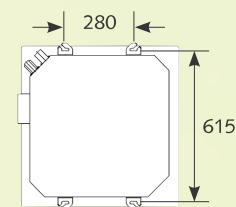
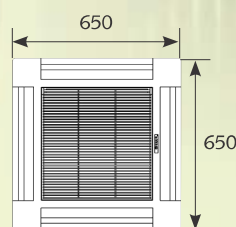
Precision room temperature controller for KWD 20 S - 105 S



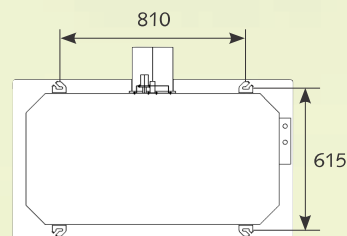
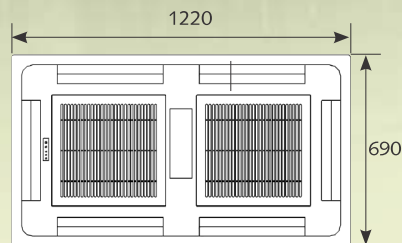
Infrared remote controller for KWD 20 - 105

#### Dimensions

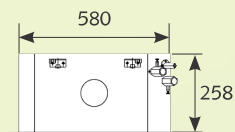
##### KWD 20-50 (S)



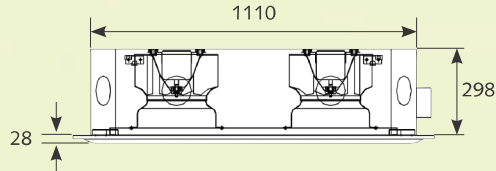
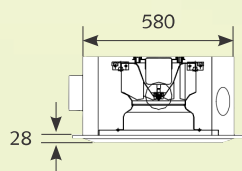
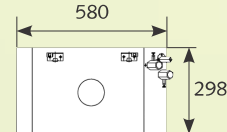
##### KWD 65-105 (S)



##### KWD 20-30 (S)



##### KWD 40-50 (S)



#### Cooling capacity

Admittance	KWD 20 (S)		KWD 30 (S)		KWD 40 (S)		KWD 50 (S)		KWD 65 (S)		KWD 75 (S)		KWD 90 (S)		KWD 105 (S)	
	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>	Q <sub>ges</sub>	Q <sub>sen</sub>
°C	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
5	2,4	1,3	3,5	1,6	4,9	2,3	5,8	2,7	7,4	3,1	8,7	4,2	10,4	4,9	12,4	6,0
7	2,0	1,2	3,0	1,4	4,0	2,0	5,0	2,2	6,5	2,7	7,5	3,6	9,0	4,1	10,5	5,2
9	1,7	1,0	2,6	1,2	3,6	1,8	4,2	2,0	5,7	2,3	6,5	3,1	7,6	3,4	9,0	4,4
11	1,4	0,9	2,2	1,0	3,1	1,5	3,6	1,7	4,8	1,9	5,5	2,5	6,4	2,8	7,6	3,7
13	1,0	0,8	1,6	0,8	2,3	1,2	2,6	1,2	3,8	1,4	4,1	1,9	4,7	2,1	5,4	2,4

Rated flow water; 0% glycol concentration; air volume max.  
Room temperature TK 27 °C, FK 19 °C

- An elegant solution for ceiling installation
- Dimensions in Euroraster format
- Low-noise unit operation
- Servicing-friendly unit structure
- Elegant design
- Low height
- Extensive accessories available

#### The standard equipment

- with infrared remote controller (not for KWD S)
- Air outlet with swing function
- Potential free error and operative contacts (only for KWD S)
- Programmable 24-hour timer function
- Built-in condenswater pump (up to 1000 mm WS)
- Master and slave function and potential-free contact on the control pcb (only KWD)

#### Controller

The controls of the ceiling cassettes KWD 20 to KWD 105 can be programmed automatically or manually by the user in cooling, heating, ventilating, or dehumidifying modes using an infrared remote controller.

The desired room temperature, activation or deactivation time, and the current time can be set easily at the press of a button.

The capacity can be managed on the water side using the optional three-way valve subassembly or using a valve subassembly that must be

adapted to the plant.

When several ceiling cassettes are used within a room or building, a infrared remote controller can be used in an internal network for all devices. With a cable remote controller, every individual ceiling cassette can be addressed and programmed individually within an internal network.

#### Technical data and prices



Ceiling cassettes with IR-remote controller	KWD 20	KWD 30	KWD 40	KWD 50	KWD 65	KWD 75	KWD 90	KWD 105	
Ceiling cassettes for the connection of external controllers	KWD 20 S	KWD 30 S	KWD 40 S	KWD 50 S	KWD 65 S	KWD 75 S	KWD 90 S	KWD 105 S	
Cooling capacity <sup>1) 2)</sup>	kW	2,0	3,0	4,0	5,0	6,5	7,5	9,0	10,5
Heating capacity <sup>1) 3) / 7)</sup>	kW	2,2/0,8	3,2/1,0	4,2/1,6	5,2/1,9	7,2/2,7	8,3/3,1	9,9/3,6	11,0/4,0
Nominal air volume	m <sup>3</sup> /h	336/396/450	348/420/510	468/564/624	516/624/768	690/840/1020	780/960/1158	930/1110/1284	1050/1260/1500
Sound pressure level <sup>3)</sup>	dB(A)	29/35/38	30/36/39	35/41/43	37/43/46	34/39/40	36/44/46	38/45/49	40/47/50
Power supply	V/Hz	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50	230/1~/50
Electrical nominal power consumption	kW	0,03	0,03	0,06	0,07	0,06	0,12	0,12	0,13
Electrical nominal current	A	0,21	0,25	0,29	0,39	0,41	0,63	0,63	0,82
Operating water		Water; max. 35% Ethylenglycol; max. 35% Propylenglycol							
Operation pressure, max.	kPa	1400	1400	1400	1400	1400	1400	1400	1400
Water connectorss	Inches	¾	¾	¾	¾	¾	¾	¾	¾
Nominal water flow	m <sup>3</sup> /h	0,48	0,59	0,77	0,94	1,27	1,45	1,5	1,77
Nominal pressure loss, internal	kPa	7,0	10,2	9,6	13,9	22,5	24,9	12,3	15,4
Water volume cooling coil	L	1,3	1,3	1,8	1,8	1,5	2,9	2,9	2,9
Dimensions ceiling cassettes H	mm	258	258	298	298	298	298	298	298
Dimensions ceiling cassettes B	mm	580	580	580	580	580	580	580	580
Dimensions ceiling cassettes T	mm	580	580	580	580	1110	1110	1110	1110
Dimensions Cover H	mm	28	28	28	28	28	28	28	28
Dimensions Cover B	mm	650	650	650	650	690	690	690	690
Dimensions Cover T	mm	650	650	650	650	1220	1220	1220	1220
Weight	kg	28	28	31	31	59	59	59	59
Series color		white	white	white	white	white	white	white	white
<b>Ceiling cassettes with IR-remote controller</b>		<b>KWD 20</b>	<b>KWD 30</b>	<b>KWD 40</b>	<b>KWD 50</b>	<b>KWD 65</b>	<b>KWD 75</b>	<b>KWD 90</b>	<b>KWD 105</b>
Price	€	990.-	1.040.-	1.090.-	1.140.-	1.480.-	1.520.-	1.690.-	1.780.-
Ref. No.		1611308	1611318	1611328	1611338	1611348	1611358	1611368	1611378
<b>Ceiling cassettes for the connection of external controllers</b>		<b>KWD 20 S</b>	<b>KWD 30 S</b>	<b>KWD 40 S</b>	<b>KWD 50 S</b>	<b>KWD 65 S</b>	<b>KWD 75 S</b>	<b>KWD 90 S</b>	<b>KWD 105 S</b>
Price	€	1.180.-	1.230.-	1.280.-	1.330.-	1.670.-	1.710.-	1.880.-	1.970.-
Ref. No.		1611309	1611319	1611329	1611339	1611349	1611359	1611369	1611379
<b>Accessoires</b>									
Three way valve EDV-Nr	€	280.-	280.-	280.-	280.-	360.-	360.-	360.-	360.-
Ref. No.		1611503	1611503	1611503	1611503	1611504	1611504	1611504	1611504
Condenswater pump KP-5 <sup>6)</sup>	€	286.-	286.-	286.-	286.-	286.-	286.-	286.-	286.-
Ref. No.		1613168	1613168	1613168	1613168	1613168	1613168	1613168	1613168
Cable remote control for KWD	€	96.-	96.-	96.-	96.-	96.-	96.-	96.-	96.-
Ref. No.		1611392	1611392	1611392	1611392	1611392	1611392	1611392	1611392
Bus connector ducting	€	9.-	9.-	9.-	9.-	9.-	9.-	9.-	9.-
Ref. No.		1611393	1611393	1611393	1611393	1611393	1611393	1611393	1611393
Room temperature controller für KWD S	€	92.-	92.-	92.-	92.-	92.-	92.-	92.-	92.-
Ref. No.		1611390	1611390	1611390	1611390	1611390	1611390	1611390	1611390
Precision room temperature controller for KWD S, RR-20	€	194.-	194.-	194.-	194.-	194.-	194.-	194.-	194.-
Ref. No.		1611394	1611394	1611394	1611394	1611394	1611394	1611394	1611394

<sup>1)</sup> Rated flow water; 0% glycol concentrate; air volume max.

<sup>2)</sup> Room temperature TK 27 °C, FK 19 °C; Water intake 7 °C, Water outlet 12 °C

<sup>3)</sup> Room temperature TK 20 °C, FK 14 °C; Water intake 50 °C, Water outlet 45 °C

<sup>7)</sup> Only KWD...S Series, Room temperature TK 20 °C, FK 14 °C; Water intake 35 °C, Water outlet 30 °C

<sup>4)</sup> Accessories

<sup>5)</sup> Distance 1 m free field conditions

<sup>6)</sup> Pricegroup 4

# CEILING CASSETTE FANCOILS

## DKT-4 Series 4-pipe system



### REMKO DKT-4

#### Cassettes for heating and cooling systems

The warm/cool indoor air is taken in via an internal, centred, regenerative air filter. The four-sided, special diffuser grill permits air distribution on two, three, or four sides under the ceiling. The low-noise radial fan, which can be adjusted in three steps, permits the optimum adaptation of the air volume to the existing conditions. The heat exchanger is in a copper-aluminium design for water temperatures up to 80°C. In the standard version, the units are equipped with a condensate pump. Optionally, fresh air can be supplied or adjacent rooms can be heated/cooled. For regulation on the water side, a valve subassembly is included in delivery for the standard version.

- The ideal solution for an optically discreet climate
- Compact dimensions in Euroraster format
- Low-noise unit operation
- Servicing-friendly unit structure
- Air outlet with adjustable slats
- Extensive accessories available

#### The standard equipment

- Built-in condensate pump (up to 550 mm WS)
- Valve subassembly with connecting pipes in the standard version

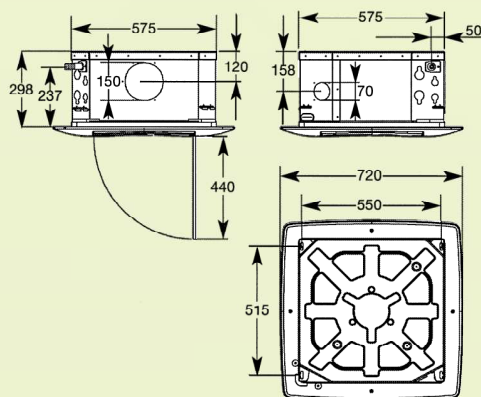
#### Cooling capacity

Admittance °C	DKT 20-4		DKT 50-4		DKT 110-4	
	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW
5	2,3	2,0	4,8	3,6	11,7	8,4
7	2,0	1,8	4,0	3,2	9,8	7,5
9	1,6	1,6	3,0	2,9	7,6	6,6
11	1,3	1,3	2,5	2,5	5,9	5,8
13	1,0	1,0	2,0	2,0	4,8	4,8

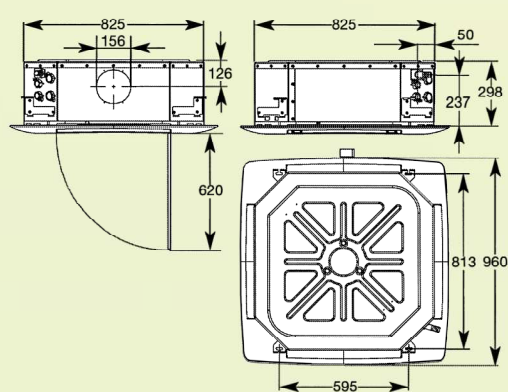
Rated flow medium; 0% glycol concentrate; air volume max.  
Room temperature TK 27 °C, FK 19 °C

### Dimensions

DKT 20-4 / 50-4



DKT 110-4







### Controller

Ceiling mounted cassettes for insertion into false ceilings are operated using a room temperature controller or a precision room temperature controller, either individually or in groups.

The elegant and functional controls can be integrated into any wall decoration.

The operating panel has a selector switch for the operation mode and the fan speed, a main power switch as well as a temperature regulator for setting the desired room temperature.



*Precision room temperature controller for surface installation*



*Room temperature controller for surface installation*

### Technical data and prices

PRICE-GROUP 5

Ceiling cassette fancoils		DKT 20-4	DKT 50-4	DKT 110-4
Cooling capacity <sup>1) 2)</sup>	kW	2,0	4,0	9,8
Heating capacity <sup>1) 3)</sup>	kW	2,0	4,0	13,3
Nominal air volume	m <sup>3</sup> /h	360/450/670	470/600/850	700/1220/1750
Sound pressure level <sup>5)</sup>	dB(A)	11/18/38	34/39/45	28/40/50
Power supply	V/Hz	230/1~/50	230/1~/50	230/1~/50
Electrical nominal power consumption	kW	0,07	0,11	0,18
Electrical nominal current	A	0,38	0,60	1,00
Operating medium		Water; max. 35% Ethylenglycol; max. 35% Propylenglycol		
Operation pressure, max.	kPa	600	600	600
Water connectorss Cooling coil	Inches	¾	¾	1
Water connectorss Heating coil	Inches	½	½	¾
Nominal water flow Cooling	m <sup>3</sup> /h	0,34	0,69	1,69
Nominal water flow Heating	m <sup>3</sup> /h	0,39	0,60	1,00
Nominal pressure loss, internal Cooling	kPa	8,0	16,0	30,0
Nominal pressure loss, internal Heating	kPa	14,0	12,0	10,0
Valve assembly nominal pressure loss <sup>4)</sup>	kPa	1,7	7,6	15,8
Medium volume Cooling coil/Heating coil	L	0,6	1,1	2,1
Dimensions Ceiling cassettes height	mm	298	298	298
Dimensions Ceiling cassettes width	mm	575	575	825
Dimensions Ceiling cassettes depth	mm	575	575	825
Dimensions grill height	mm	30	30	30
Dimensions grill width	mm	720	720	960
Dimensions grill depth	mm	720	720	960
Weight Ceiling cassettes/grill	kg	19,0/2,5	20,0/2,5	46,0/5,0
Series color		white	white	white
<b>Ceiling cassette</b>		<b>DKT 20-4</b>	<b>DKT 50-4</b>	<b>DKT 110-4</b>
Price	€	1.930.–	2.120.–	3.290.–
Ref. No.		1611306	1611326	1611356
<b>Accessories</b>				
Condenswater pump KP-5 <sup>6)</sup>	€	286.–	286.–	286.–
Ref. No.		1613168	1613168	1613168
Room temperature controller	€	92.–	92.–	92.–
Ref. No.		1611390	1611390	1611390
Precision room temperature controller for surface installation, lose RR-20	€	194.–	194.–	194.–
Ref. No.		1611394	1611394	1611394

<sup>1)</sup> Rated flow water; 0% glycol concentrate; air volume max.

<sup>2)</sup> Room temperature TK 27 °C, FK 19 °C; Water intake 7 °C, Water outlet 12 °C

<sup>3)</sup> Room temperature TK 20 °C, FK 14 °C; Water intake 70 °C, Water outlet 60 °C

<sup>4)</sup> "Cooling" valve assembly included in delivery as standard

<sup>5)</sup> Distance 1 m free field conditions

<sup>6)</sup> Pricegroup 4

# WALL AND CEILING FANCOILS

## KWK Series 2 or 4 pipe design



### REMKO KWK

The floor/ceiling units are presented in a discreet design.

The floor/ceiling units are superbly suited for installation in office spaces, conference and meeting rooms, banks, shops and private accommodation.

REMKO floor/ceiling units are equipped with the latest technology and offer extraordinary flexibility in terms of installation. The devices are suitable for floor or ceiling installation corresponding to the room architecture. The water-side connections are positioned on the left-hand side of the housing as standard. The controller can be mounted either on the right side of the device or on the wall. It is possible to change the sides of the connections and controller.

The standard tone of the attractive housing is white, the outlet grille is manufactured from white plastic. The air enters the device via a removable filter.

An extremely low-noise 3-step tangential fan ensures excellent air distribution and maximises the capacity performance. The cooling/heating coils made from

copper-aluminium are designed for medium temperatures up to max. 80° C.

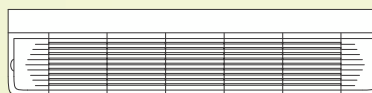
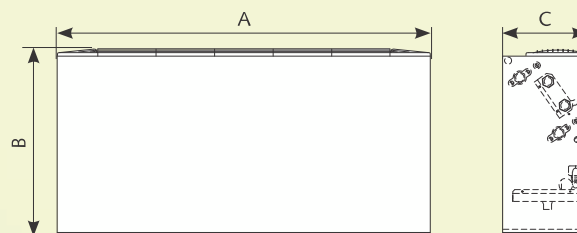
The units can be easily retrofitted for a 4-pipe system by means of fitting a heater element.

- The ideal solution for optically unobtrusive air conditioning
- Low-noise operation
- Service-friendly unit design
- Simple upgrading of the unit to a 4-pipe design
- Suitable for horizontal and vertical installation
- Comprehensive set of accessories available



### Dimensions

#### KWK 100-800



	A	B	C
KWK 100	660	480	220
KWK 150	810	480	220
KWK 250	960	480	220
KWK 400	1100	480	220
KWK 450/600	1410	525	230
KWK 700/800	1710	525	230

### Cooling capacity

Admittance °C	KWK 100		KWK 150		KWK 250		KWK 400		KWK 450		KWK 600		KWK 700		KWK 800	
	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW	$Q_{ges}$ kW	$Q_{sen}$ kW
5	1,4	1,1	2,0	1,3	2,8	2,1	4,7	3,5	5,6	5,4	7,0	5,1	8,4	6,2	9,2	7,0
7	1,1	1,0	1,6	1,1	2,2	1,8	3,9	3,0	4,4	3,9	5,8	4,5	6,8	5,4	7,6	6,1
9	0,8	0,8	1,2	0,9	1,7	1,5	3,1	2,6	3,6	3,3	4,6	3,9	5,2	4,7	6,0	5,2
11	0,7	0,7	1,0	0,8	1,4	1,3	2,4	2,3	2,9	2,8	3,7	3,4	4,2	4,0	1,5	4,4
13	0,6	0,6	0,8	0,7	1,0	1,0	2,0	2,0	2,4	2,4	3,0	2,8	3,5	3,4	3,9	3,8

Rated flow water; 0% glycol concentration; air volume max.  
Room temperature DB 27 °C, WB 19 °C

## Control system

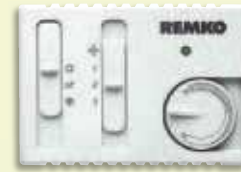
The REMKO KWK floor/ceiling units are controlled by a thermostatic room temperature controller.

The controller is functional and simple to operate. You can choose between two installation options: for installation concealed or for surface mounting on the floor. The room temperature can be regulated by switching the fan on and off or by means of using a valve to regulate the quantity of the water.

With the switch relay, up to 4 units can be operated as a group and controlled with one controller.

The convenient and programmable precision room temperature controller enables an even more constant room temperature through the pulsing of the valves and also has additional features, such as switching between summer/winter mode, shut-off by window contact, connection of sensors for room

temperature and water temperature, and many more.



Room temperature controller for surface installation



Precision room temperature controller for surface installation



Room temperature controller for surface installation

## Technical data and prices



Floor and ceiling fancoils		KWK 100	KWK 150	KWK 250	KWK 400	KWK 450	KWK 600	KWK 700	KWK 800
Cooling capacity <sup>1) 2)</sup>	kW	1,11	1,56	2,20	3,86	4,40	5,79	6,87	7,56
Heating capacity <sup>1) 3)</sup>	kW	1,37	1,72	2,48	4,40	5,32	6,20	6,98	7,89
Nominal air volume	m <sup>3</sup> /h	147/200/252	194/254/304	254/353/430	300/490/716	525/720/920	720/920/1130	946/1150/1320	1150/1320/1520
Sound pressure level <sup>5)</sup>	dB(A)	28,5/34,5/38,5	27,5/34,5/38,5	27,5/35,5/41,5	26,5/37,5/45,5	34,5/40,5/48,5	41,5/48,5/54,5	43,5/48,5/52,5	49,5/53,5/57,5
Power supply	V/Hz	230/1~/50							
Electrical nominal power consumption	kW	0,05	0,03	0,07	0,09	0,11	0,15	0,17	0,22
Electrical nominal current	A	0,21	0,14	0,28	0,39	0,47	0,63	0,75	0,94
Operating water		Water; max. 35% Ethylenglykol; max. 35% Propylenglykol							
Operation pressure, max.	kPa	600	600	600	600	600	600	600	600
Water connectors cooling coil	Inches	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Nominal water flow K/H	m <sup>3</sup> /h	0,19/0,24	0,27/0,30	0,38/0,43	0,66/0,77	0,77/0,92	1,00/1,07	1,17/1,20	1,30/1,35
Nominal pressure loss, internal K/H	kPa	2,6/2,0	5,9/4,2	5,4/3,7	14,7/10,2	9,6/5,0	10,3/7,6	17,9/11,6	22,4/14,4
Water volume	L	0,6	0,9	1,3	1,9	2,8	2,8	3,6	3,6
Dimensions height	mm	480	480	480	480	525	525	525	525
Dimensions width	mm	660	810	960	1110	1410	1410	1710	1710
Dimensions depth	mm	220	220	220	220	230	230	230	230
Weight	kg	14,0	17,0	20,0	23,0	35,0	35,0	47,0	47,0
Series color		white	white	white	white	white	white	white	white
<b>Floor and ceiling unit</b>		<b>KWK 100</b>	<b>KWK 150</b>	<b>KWK 250</b>	<b>KWK 400</b>	<b>KWK 450</b>	<b>KWK 600</b>	<b>KWK 700</b>	<b>KWK 800</b>
Price	€	460.–	480.–	530.–	660.–	710.–	780.–	890.–	980.–
Ref. No.		1662100	1662150	1662200	1662400	1662450	1662600	1662700	1662800
<b>Optionals</b>									
Condenswater pump KP-8 <sup>6)</sup>	€	225.–	225.–	225.–	225.–	225.–	225.–	225.–	225.–
Ref. No.		1613125	1613125	1613125	1613125	1613125	1613125	1613125	1613125
Room temperature controller, for surface installation, lose RR-9	€	98.–	98.–	98.–	98.–	98.–	98.–	98.–	98.–
Ref. No.		1611395	1611395	1611395	1611395	1611395	1611395	1611395	1611395
Precision room temperature controller for surface installation, lose RR-20	€	194.–	194.–	194.–	194.–	194.–	194.–	194.–	194.–
Ref. No.		1611394	1611394	1611394	1611394	1611394	1611394	1611394	1611394
Room temperature controller for surface installation, lose RR-14	€	87.–	87.–	87.–	87.–	91.–	95.–	91.–	95.–
Ref. No.		1662101	1662101	1662101	1662101	1662102	1662103	1662102	1662103
Relay for 4 units, lose SR-1	€	169.–	169.–	169.–	169.–	169.–	169.–	169.–	169.–
Ref. No.		1661105	1661105	1661105	1661105	1661105	1661105	1661105	1661105
Heating coil for 4 pipe design, lose HR-6	€	128.–	145.–	157.–	169.–	225.–	225.–	247.–	247.–
Ref. No.		1662106	1662107	1662108	1662109	1662110	1662110	1662111	1662111
Valve assembly 2 pipe design, vertical VB K	€	196.–	196.–	196.–	196.–	210.–	210.–	210.–	210.–
Ref. No.		1661115	1661115	1661115	1661115	1661116	1661116	1661116	1661116
Valve assembly 4 pipe design, vertical VB H	€	348.–	348.–	348.–	348.–	380.–	380.–	380.–	380.–
Ref. No.		1661120	1661120	1661120	1661120	1661121	1661121	1661121	1661121
Valve assembly 2 pipe design, horiz. VB K	€	196.–	196.–	196.–	196.–	210.–	210.–	210.–	210.–
Ref. No.		1661117	1661117	1661117	1661117	1661118	1661118	1661118	1661118
Valve assembly 4 pipe design, horiz. VB H	€	348.–	348.–	348.–	348.–	380.–	380.–	380.–	380.–
Ref. No.		1661122	1661122	1661122	1661122	1661123	1661123	1661123	1661123
Feet SF-3	€	41.–	41.–	41.–	41.–	42.–	42.–	42.–	42.–
Ref. No.		1662125	1662125	1662125	1662125	1662126	1662126	1662126	1662126
Air intake socket LS-1	€	104.–	106.–	109.–	117.–	136.–	136.–	142.–	142.–
Ref. No.		1662130	1662131	1662132	1662133	1662134	1662134	1662135	1662135
Electric thermal resistor HW-1	€	154.–	162.–	169.–	196.–	236.–	236.–	257.–	257.–
Ref. No.		1662140	1662141	1662142	1662143	1662144	1662144	1662145	1662145
Fault reporting module SB-1	€	169.–	169.–	169.–	169.–	169.–	169.–	169.–	169.–
Ref. No.		1611506	1611506	1611506	1611506	1611506	1611506	1611506	1611506

<sup>1)</sup> Rated flow water; 0% glycol concentrate; air volume max.

<sup>2)</sup> Room temperature TK 27 °C, FK 19 °C; Water intake 7 °C, Water outlet 12 °C

<sup>3)</sup> Room temperature TK 20 °C, FK 14 °C; Water intake 45 °C, Water outlet 40 °C

<sup>4)</sup> Accessoires

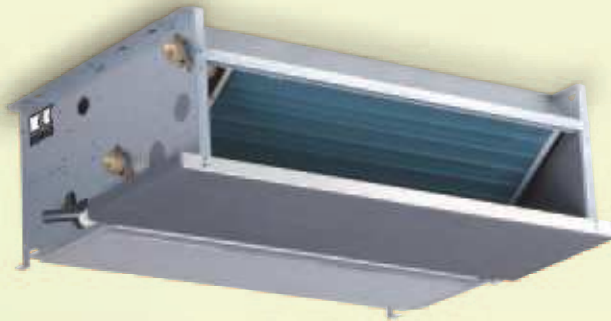
<sup>5)</sup> Measured in 100m<sup>3</sup> room with a reverberation time of 0.3 seconds

<sup>6)</sup> Pricegroup 4

# DUCTED FANCOILS

for concealed wall and concealed ceiling installation

## KWK ZW Series 2 or 4 pipe design



### REMKO KWK ZW

for concealed wall and concealed ceiling installation in 2 or 4 pipe design

standard as 2-pipe design, optionally available in 4-pipe design

Optimal, invisible solution for offices, banks or hotels thanks to its low installation profile. The device's square-shaped air outlet is designed to accept adjustable air outlet grilles for individual ventilation.

The air is filtered in the device's air inlet by means of a recoverable plug-in filter.

Attachable angled conduits are available for vertical air inlets. The interior tangential fan enables a multi-stage air volume setting. The inclined copper-aluminium heat exchanger is designed for water temperatures up to 80°C.

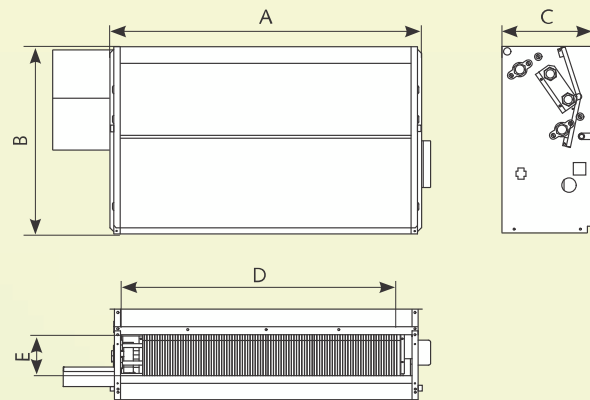
The devices can be easily retrofitted to a 4-pipe design by means of fitting a heater element. The connections for the

element can be made on either side of the condensation-insulated housing. A valve for 2 and 4-pipe systems is available as an optional accessory for managing the cooling capacity.

- Invisible installation
- Slim installation profile
- Flexibly positionable
- Minimal weight
- User-friendly control
- Low-noise operation
- Particularly slim dimensions
- Simple upgrading of the unit to a 4-pipe design
- Suitable for horizontal and vertical installation

### Dimensions

#### KWK 100-800 ZW



	A	B	C	D	E
KWK 100 ZW	440	445	216	390	100
KWK 150 ZW	590	445	216	540	100
KWK 250 ZW	740	445	216	690	100
KWK 400 ZW	890	445	216	840	100
KWK 450/600 ZW	1190	490	226	1140	120
KWK 700/800 ZW	1490	490	226	1440	120

### Cooling capacity

Admittance °C	KWK 100 ZW		KWK 150 ZW		KWK 250 ZW		KWK 400 ZW		KWK 450 ZW		KWK 600 ZW		KWK 700 ZW		KWK 800 ZW	
	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW	Q <sub>ges</sub> kW	Q <sub>sen</sub> kW
5	1,4	1,1	2,0	1,3	2,8	2,1	4,7	3,5	5,6	5,4	7,0	5,1	8,4	6,2	9,2	7,0
7	1,1	1,0	1,6	1,1	2,2	1,8	3,9	3,0	4,4	3,9	5,8	4,5	6,8	5,4	7,6	6,1
9	0,8	0,8	1,2	0,9	1,7	1,5	3,1	2,6	3,6	3,3	4,6	3,9	5,2	4,7	6,0	5,2
11	0,7	0,7	1,0	0,8	1,4	1,3	2,4	2,3	2,9	2,8	3,7	3,4	4,2	4,0	1,5	4,4
13	0,6	0,6	0,8	0,7	1,0	1,0	2,0	2,0	2,4	2,4	3,0	2,8	3,5	3,4	3,9	3,8

Rated flow water; 0% glycol concentration; air volume max.  
Room temperature DB 27 °C, WB 19 °C

## Control

The control of the REMKO ducted fancoils installation KWK ZW can take place through a room temperature controller or an external controller, such as GLT.

The controllers for surface installation are functional and easy to operate. The room temperature control can be achieved by switching the fan on and off or through the quantity regulation of the water

using a valve assembly. With the switch relay, up to 4 units can be operated as a group and controlled with one controller.

The convenient and programmable precision room temperature controller enables an even more constant room temperature through the pulsing of the valves and also has additional features, such as switching between summer/winter mode, shut-off by window contact,

connection of sensors for room temperature and water temperature, and many more.



Precision room temperature controller for surface installation



Room temperature controller for surface installation

## Technical data and prices



Ducted fancoils		KWK 100 ZW	KWK 150 ZW	KWK 250 ZW	KWK 400 ZW	KWK 450 ZW	KWK 600 ZW	KWK 700 ZW	KWK 800 ZW
Cooling capacity <sup>1) 2)</sup>	kW	1,11	1,56	2,20	3,86	4,40	5,79	6,87	7,56
Heating capacity <sup>1) 3)</sup>	kW	1,37	1,72	2,48	4,40	5,32	6,20	6,98	7,89
Nominal air volume	m <sup>3</sup> /h	147/200/252	194/254/304	254/353/430	300/490/716	525/720/920	720/920/1130	946/1150/1320	1150/1320/1520
Sound pressure level <sup>3)</sup>	dB(A)	28,5/34,5/38,5	27,5/34,5/38,5	27,5/35,5/41,5	26,5/37,5/45,5	34,5/40,5/48,5	41,5/48,5/54,5	43,5/48,5/52,5	49,5/53,5/57,5
Power supply	V/Hz	230/1~/50							
Electrical nominal power consumption	kW	0,05	0,03	0,07	0,09	0,11	0,15	0,17	0,22
Electrical nominal current	A	0,21	0,14	0,28	0,39	0,47	0,63	0,75	0,94
Operating water		Water, max. 35% Ethylenglycol; max. 35% Propylenglycol							
Operation pressure, max.	kPa	600	600	600	600	600	600	600	600
Water connectorss Cooling coil	Inches	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Nominal water flow K/H	m <sup>3</sup> /h	0,19/0,24	0,27/0,30	0,38/0,43	0,66/0,77	0,77/0,92	1,00/1,07	1,17/1,20	1,30/1,35
Nominal pressure loss, internal K/H	kPa	2,6/2,0	5,9/4,2	5,4/3,7	14,7/10,2	9,6/5,0	10,3/7,6	17,9/11,6	22,4/14,4
Medium volume	L	0,6	0,9	1,3	1,9	2,8	2,8	3,6	3,6
Dimensions height	mm	216	216	216	216	226	226	226	226
Dimensions width	mm	440	590	740	890	1190	1190	1490	1490
Dimensions depth	mm	445	445	445	445	490	490	490	490
Weight	kg	13,0	16,0	19,0	22,0	33,0	33,0	45,0	45,0
<b>Ducted fancoils</b>		<b>KWK 100 ZW</b>	<b>KWK 150 ZW</b>	<b>KWK 250 ZW</b>	<b>KWK 400 ZW</b>	<b>KWK 450 ZW</b>	<b>KWK 600 ZW</b>	<b>KWK 700 ZW</b>	<b>KWK 800 ZW</b>
Price	€	420.–	440.–	490.–	610.–	660.–	730.–	830.–	910.–
Ref. No.		1662105	1662155	1662205	1662405	1662455	1662605	1662705	1662805
<b>Options</b>									
Condenswater pump KP-8 <sup>6)</sup>	€	225.–	225.–	225.–	225.–	225.–	225.–	225.–	225.–
Ref. No.		1613125	1613125	1613125	1613125	1613125	1613125	1613125	1613125
Room temperature controller, for surface installation, lose RR-9	€	98.–	98.–	98.–	98.–	98.–	98.–	98.–	98.–
Ref. No.		1611395	1611395	1611395	1611395	1611395	1611395	1611395	1611395
Precision room temperature controller for surface installation, lose RR-20	€	194.–	194.–	194.–	194.–	194.–	194.–	194.–	194.–
Ref. No.		1611394	1611394	1611394	1611394	1611394	1611394	1611394	1611394
Relay for 4 units, lose SR-1	€	169.–	169.–	169.–	169.–	169.–	169.–	169.–	169.–
Ref. No.		1661105	1661105	1661105	1661105	1661105	1661105	1661105	1661105
Heating coil for 4 pipe design, lose HR-6	€	128.–	159.–	169.–	192.–	249.–	249.–	274.–	274.–
Ref. No.		1662106	1662107	1662108	1662109	1662110	1662110	1662111	1662111
3 way valve 2 pipe design, vertikal VB K	€	196.–	196.–	196.–	196.–	210.–	210.–	210.–	210.–
Ref. No.		1661115	1661115	1661115	1661115	1661116	1661116	1661116	1661116
3 way valve 4 pipe design, vertikal VB H	€	348.–	348.–	348.–	348.–	380.–	380.–	380.–	380.–
Ref. No.		1661120	1661120	1661120	1661120	1661121	1661121	1661121	1661121
3 way valve 2 pipe design, horiz. VB K	€	196.–	196.–	196.–	196.–	210.–	210.–	210.–	210.–
Ref. No.		1661117	1661117	1661117	1661117	1661118	1661118	1661118	1661118
3 way valve 4 pipe design, horiz. VB H	€	348.–	348.–	348.–	348.–	380.–	380.–	380.–	380.–
Ref. No.		1661122	1661122	1661122	1661122	1661123	1661123	1661123	1661123
Electrical thermal resistor HW-1	€	154.–	162.–	169.–	196.–	236.–	236.–	257.–	257.–
Ref. No.		1662140	1662141	1662142	1662143	1662144	1662144	1662145	1662145
Duct elbow 90°, air inlet KW-1	€	49.–	51.–	59.–	65.–	75.–	75.–	86.–	86.–
Ref. No.		1662146	1662151	1662152	1662153	1662154	1662154	1662156	1662156
Duct elbow 90°, air inlet KW-2	€	46.–	48.–	53.–	59.–	69.–	69.–	78.–	78.–
Ref. No.		1662180	1662181	1662182	1662183	1662184	1662184	1662185	1662185
Aluminium grill, air intake GE-1	€	89.–	92.–	112.–	134.–	165.–	165.–	197.–	197.–
Ref. No.		1662160	1662161	1662162	1662163	1662164	1662164	1662165	1662165
Aluminium grill, air intake GA-1	€	82.–	89.–	97.–	112.–	134.–	134.–	158.–	158.–
Ref. No.		1662170	1662171	1662172	1662173	1662174	1662174	1662175	1662175
Fault reporting module SB-1	€	169.–	169.–	169.–	169.–	169.–	169.–	169.–	169.–
Ref. No.		1611506	1611506	1611506	1611506	1611506	1611506	1611506	1611506

<sup>1)</sup> Rated flow water; 0% glycol concentrate; air volume max.

<sup>2)</sup> Room temperature TK 27 °C, FK 19 °C; Water intake 7 °C, Water outlet 12 °C

<sup>3)</sup> Room temperature TK 20 °C, FK 14 °C; Water intake 45 °C, Water outlet 40 °C

<sup>4)</sup> Accessoires

<sup>5)</sup> Measured in 100m<sup>3</sup> room with a reverberation time of 0.3 seconds

<sup>6)</sup> Pricegroup 4

# TRIANGLE CEILING FANCOILS

## PWL HK Series The elegant solution for heating and cooling



### REMKO PWL HK

#### Modern technology in attractive design

REMKO's PWL series ceiling-mounted fancoils combine the latest technology with a suitable design. Their flat design and variable technology allows their subtle application, both low-down as well as high-up.

The individually adjustable louvers in the upper and lower parts of the housing allow optimal air distribution and thus provide a comfortable room climate. Their use in salesrooms or other customer areas is possible thanks to their low sound pressure levels and their fine design.

Ease of service and a simple, uncomplicated assembly are the characteristic features of these units. The media connections and the main cabling can be installed out of sight in the false ceiling. The elegant plastic housing can easily be removed from its bearing elements thanks to the rapid release couplings. The units in the PWL...HK series are fitted as standard with a high performance condensate pump.

- Elegant design
- Noiseless operation
- Easy to install Construction
- Ease of service
- Universal application
- Self-extinguishing Plastic housing Fire class V-0



*Pleasant coolness with PWL... HK units in combination with REMKO chilled water generators.*

### Technical data and prices



Unit type		PWL 101 HK		PWL 102 HK		PWL 103 HK		PWL 201 HK	
Cooling capacity max. to 6/10 °C and air inlet temperature 30 °C	kW	5,0		7,8		10,5		5,3	
Coolant PKW	°C	6/10	8/14	6/10	8/14	6/10	8/14	6/10	8/14
Cooling capacity for air inlet temperature	kW	5,0/4,5	3,5/3,1	7,8/7,0	5,6/4,8	10,5/9,3	7,5/6,6	5,3/4,8	3,8/3,4
in air temperature	tLE °C	30	30	30	30	30	30	30	30
Nominal air volume	m³/h	24/23	25/24	20/19	21/21	17/16	18/18	25/25	26/26
Sound pressure level	tLA °C	2030/1685	2030/1685	1960/1610	1960/1610	1885/1530	1885/1530	3110/2580	3110/2580
Water connectors	dB(A)	56/47	56/47	56/47	56/47	56/47	56/47	61/53	61/53
Power supply	Inches	1	1	1	1	1	1	1	1
Weight	V/Hz	400/3-N/50							
Price	kg	31		35		38		32	
Ref. No.	€	1.890.-		1.990.-		2.120.-		2.190.-	
		1688101		1688102		1688103		1688201	

#### Switch box

SW2-PU 4.0 switch box, 2-speed, 400 V, with integrated pole switching	385201	495.-	385201	495.-	385201	495.-	385201	495.-
Motor terminal box AKG-5 for the parallel operation of up to 5 units, including thermal contacts	385303	149.-	385303	149.-	385303	149.-	385303	149.-

#### Accessoires

Unit brackets, fixed length 90 mm		standard		standard		standard		standard
Unit brackets, adjustable, 90-145 mm	1687400	38.-	1687400	38.-	1687400	38.-	1687400	38.-



#### Other accessoires

Damp-proof thermostat, Type RTK-1, IP 54, for cooling operation, without connection accessories	1011242	68.-	1011242	68.-	1011242	68.-	1011242	68.-
Electronic temperature control, Type ATR-7, with temperature sensor, surface installation, protection class IP 54	1011292	496.-	1011292	496.-	1011292	496.-	1011292	496.-
Temperature sensor set for 4-point blended temperature assessment	1011343	98.-	1011343	98.-	1011343	98.-	1011343	98.-

Note: Heating capacity of the units PWL .. HK is identical to the PWL Series H ...



#### Areas of application

- Salesrooms
- Car dealership rooms
- Exhibition and lobby areas
- Trade fairs
- Malls
- Retailers and supermarkets
- Large entrance areas
- Business premises
- Industrial buildings

PWL 202 HK		PWL 203 HK		PWL 301 HK		PWL 302 HK		PWL 303 HK	
10,5		13,7		6,8		10,8		17,6	
6/10	8/14	6/10	8/14	6/10	8/14	6/10	8/14	6/10	8/14
10,5/9,5	7,6/6,8	13,7/12,3	9,8/8,4	6,8/5,4	5,0/3,8	10,8/8,3	9,9/6,0	17,6/10,8	12,8/7,7
30	30	30	30	30	30	30	30	30	30
21/20	22/21	18/17	20/19	25/24	26/26	22/20	20/22	18/15	20/17
2900/2400	2900/2400	2850/2350	2850/2350	4300/2650	4300/2650	4150/2400	4150/2400	3900/1710	3900/1710
61/56	61/56	61/56	61/56	66/59	66/59	66/59	66/59	68/61	68/61
1	1	1	1	1	1	1	1	1	1
400/3-N/50									
35		38		43		46		48	
2.270.-		2.390.-		2.350.-		2.480.-		2.540.-	
1688202		1688203		1688301		1688302		1688303	
385201	495.-	385201	495.-	385201	495.-	385201	495.-	385201	495.-
385303	149.-	385303	149.-	385303	149.-	385303	149.-	385303	149.-
standard		standard		standard		standard		standard	
1687400	38.-	1687400	38.-	1687400	38.-	1687400	38.-	1687400	38.-
1011242	68.-	1011242	68.-	1011242	68.-	1011242	68.-	1011242	68.-
1011292	496.-	1011292	496.-	1011292	496.-	1011292	496.-	1011292	496.-
1011343	98.-	1011343	98.-	1011343	98.-	1011343	98.-	1011343	98.-



Switch box  
SW2-PU 4,0, 2-stage



Electronic temperature  
controller, ATR-7

# TRIANGLE CEILING FANCOILS

**PWL HK Series**  
*The elegant solution  
 for heating and cooling*

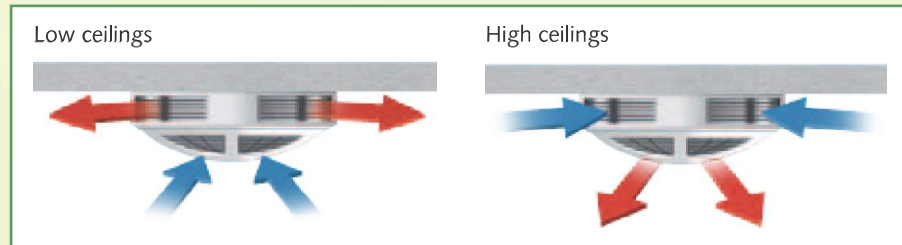


## Sample assemblies

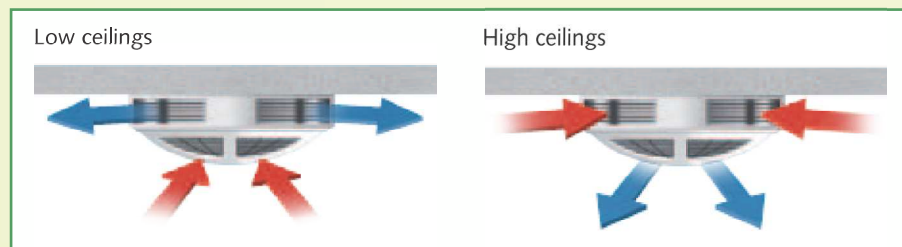
### Versatile

The possibility of changing the direction of rotation of the fans allows optimal air distribution in low-ceilinged as well as high-ceilinged rooms. In addition, this technology is ideal for always achieving the perfect outlet layout for heating and cooling operations.

### Heating

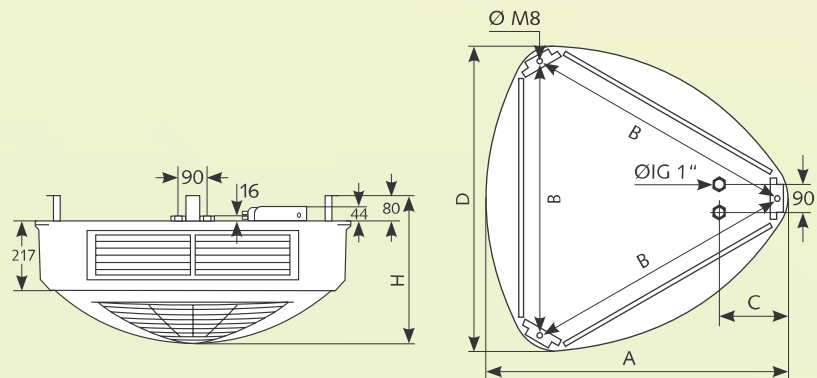


### Cooling



## Dimensions

Dim.	PWL 101-103	PWL 201-203	PWL 301-303
A	985	1084	1178
B	632	963	1043
C	229	229	229
D	989	1073	1160
H	400	485	504





# PLANNING A CHILLED WATER PIPE NETWORK



## Quickfinder

Below you will find a table for the pipe-network layout for chilled water equipment, to allow the simple selection of pipe sizes for copper, plastic and steel piping.

The bases of the tables are the water inlet temperatures of 7 °C, a temperature spread of 5 K, ambient temperature of 30 °C and 70% relative humidity, as well as water operated with a fill of 34% ethylene glycol. The precise assessment should

be performed by a designated planning specialist after taking into consideration all of the requirements. The components and parts to be used in the construction must be planned in the assessment with regards to the design and manufacturer type specifics.

The current provisions of the Energy Saving Regulation must be adhered during the manufacturing of equipment for cooling and heating.

### Sample calculation

piping length 20 m, copper piping used, anti-freeze protection to -20 °C (34% ethylene glycol)

### Solution

**Value from the table**  
Copper pipe Ø 54 mm  
Pressure loss  $\Delta P$  240 Pa/m

**Pressure loss per section**  
 $240 \text{ Pa/m} \times 20 \text{ m} = 4800 \text{ Pa} = 4.8 \text{ kPa}$

**Inlet and return line**  
 $4,8 \text{ kPa} \times 2 = 9,6 \text{ kPa}$

**Insulation thickness**  
value taken from table = 14,5 mm

**Glycol requirement**  
 $0,65 \text{ L/m} \times 20 \text{ m} \times 2 = 13,0 \text{ L}$

Cooling capacity kW	Pipe length m	Copper piping		Plastic piping		Steel piping		Insulation thickness mm	Water content L/m	Ethylene-glycol 34% L/m
		Ø mm	R Pa/m	Ø DN	R Pa/m	Ø DN	R Pa/m			
2,5	0.....10	15	750	15	590			13,0	0,13	0,04
	10.....30	18	330	20	180			13,0	0,20	0,07
5,0	0.....10	22	400	20	450			13,0	0,31	0,10
	10.....30	28	130	25	150			13,5	0,50	0,17
7,5	0.....10	22	980	20	890			13,0	0,31	0,10
	10.....30	28	280	25	280			13,5	0,50	0,17
10,0	0.....10	28	790	25	420			13,5	0,50	0,17
	10.....30	35	170	32	190			14,0	0,80	0,27
15,0	0.....10	28	930	25	850	25	1060	13,5	0,50	0,17
	10.....30	35	310	32	160	32	225	14,0	0,80	0,27
20,0	0.....10	35	550	32	560	32	440	14,0	0,80	0,27
	10.....30	42	220	40	160	40	200	14,5	1,20	0,40
25,0	0.....10	35	940	32	840	32	650	14,0	0,80	0,27
	10.....30	42	330	40	260	40	305	14,5	1,20	0,40
30,0	0.....10	42	430	40	370	32	930	14,5	1,20	0,40
	10.....30	54	120	50	130	40	465	14,5	1,96	0,65
35,0	0.....10	42	610	40	460	32	1260	14,5	1,20	0,40
	10.....30	54	190	50	170	40	600	14,5	1,96	0,65
40,0	0.....10	42	790	40	600	40	800	14,5	1,20	0,40
	10.....30	54	240	50	220	50	265	14,5	1,96	0,65
50,0	0.....10	54	420	50	310	40	1060	14,5	1,96	0,65
	10.....30	64	170	60	150	50	375	16,0	2,83	0,94
60,0	0.....10	54	620	60	220	50	535	14,5	1,96	0,65
	10.....30	64	240	70	100	65	115	16,0	2,83	0,94
70,0	0.....10	64	300	60	300	65	160	16,0	2,83	0,94
	10.....30	76	155	75	110	80	65	16,0	4,07	1,36
80,0	0.....10	64	390	60	370	65	200	16,0	2,83	0,94
	10.....30	76	170	75	160	80	85	16,0	4,07	1,36
90,0	0.....10	64	450	75	180	65	320	16,0	2,83	0,94
	10.....30	76	20	90	80	80	100	16,0	4,07	1,36
100,0	0.....10	76	250	75	200	80	125	16,0	4,07	1,36
	10.....30	89	150	90	90	100	55	16,0	5,55	1,85
120,0	0.....10	76	270	90	110	80	180	16,0	4,07	1,36
	10.....30	89	160	100	80	100	60	16,0	5,55	1,85
140,0	0.....10	89	170	90	120	100	70	16,0	5,55	1,85
	10.....30	108	70	110	90	125	25	16,0	8,47	2,88
160,0	0.....10	89	240			100	115	16,0	8,47	2,88
	10.....30	108	100			125	40	19,0	13,41	4,56
180,0	0.....10	89	300			100	145	16,0	8,47	2,88
	10.....30	108	120			125	50	19,0	13,41	4,56
200,0	0.....10	89	360			100	170	16,0	8,47	2,88
	10.....30	108	145			125	65	19,0	13,41	4,56
220,0	0.....10	89	420			100	200	16,0	8,47	2,88
	10.....30	108	170			125	75	19,0	13,41	4,56
240,0	0.....10	89	500			100	240	16,0	8,47	2,88
	10.....30	108	200			125	85	19,0	13,41	4,56
260,0	0.....10					125	90	19,0	13,41	4,56
	10.....30					150	40	19,0	19,85	6,75
280,0	0.....10					125	120	19,0	13,41	4,56
	10.....30					150	50	19,0	19,85	6,75
300,0	0.....10					125	140	19,0	13,41	4,56
	10.....30					150	60	19,0	19,85	6,75

