

## FL Recirculating Coolers

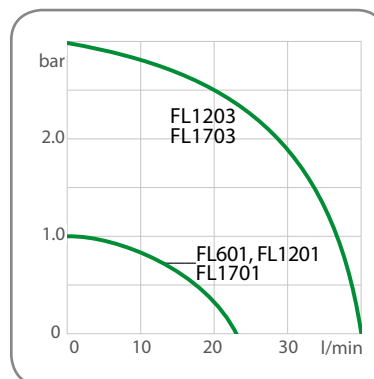
compact models with up to 1.7 kW of cooling capacity for installation below a lab bench

The compact FL models are suited for a wide variety of cooling tasks. Installation under a lab bench saves valuable space. 2 variants: Air-cooled (FL) and water-cooled (FLW).

- Easy filling from above
- Feed pressure indicator (FL1201 and above) and level indicator (all models)
- Large compensation volume
- Circulating pumps designed for continuous operation
- Permissible return temperature up to +80 °C
- Low liquid level protection with visual and acoustic signals
- May be used with water, water-glycol, Thermal bath fluid
- Overload protection for pump motor and cooling machine

### Pump capacity

Bath fluid: water



Included in delivery: 2 barbed fittings each for tubing 8 and 12 mm ID (pump connections M16x1 male)  
2 barbed fittings for tubing 3/4" ID with models FL1203 and FL(W)1703 (pump connections G 3/4" male)



### FL300

Order No.	9 660 003		
Model	FL300		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	0.3	0.25	0.2
	-5 °C	-10 °C	-20 °C
	0.18	0.15	0.1
Pump capacity	l/min	15	
Flow rate / Pressure	bar	0.35	
Filling volume liters	3 ... 4.5		
Dimensions cm	W × L × H 25 × 50 × 60		



### FL601

Order No.	9 661 006		
Model	FL601		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	0.6	0.5	0.4
	-5 °C	-10 °C	-20 °C
	0.37	0.33	0.2
Pump capacity	l/min	23	
Flow rate / Pressure	bar	1	
Filling volume liters	5.5 ... 8		
Dimensions cm	W × L × H 32 × 50 × 62		



### FL1201

Order No.	9 661 012		
Model	FL1201		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	1.2	1	0.9
	-5 °C	-10 °C	-20 °C
	0.75	0.6	0.3
Pump capacity	l/min	23	
Flow rate / Pressure	bar	1	
Filling volume liters	12 ... 17		
Dimensions cm	W × L × H 50 × 76 × 64		



## FLW1701

<b>Order No.</b>	9 671 017		
<b>Model</b>	FLW1701		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	1.7	1.5	1.1
	-5 °C	-10 °C	-20 °C
	0.98	0.85	0.4
Pump capacity	l/min	23	
Flow rate / Pressure	bar	1	
Filling volume liters	12 ... 17		
Dimensions cm	W × L × H 50 × 76 × 64		



## FLW1703

<b>Order No.</b>	9 673 017		
<b>Model</b>	FLW1703		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	1.7	1.4	1
	-5 °C	-10 °C	-20 °C
	0.88	0.75	0.3
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	12 ... 17		
Dimensions cm	W × L × H 50 × 76 × 64		



## FL1203

<b>Order No.</b>	9 663 012		
<b>Model</b>	FL1203		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	1.2	0.9	0.8
	-5 °C	-10 °C	-20 °C
	0.65	0.5	0.2
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	12 ... 17		
Dimensions cm	W × L × H 50 × 76 × 64		



## FL1701

<b>Order No.</b>	9 661 017		
<b>Model</b>	FL1701		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	1.7	1.5	1.1
	-5 °C	-10 °C	-20 °C
	0.98	0.85	0.4
Pump capacity	l/min	23	
Flow rate / Pressure	bar	1	
Filling volume liters	12 ... 17		
Dimensions cm	W × L × H 50 × 76 × 64		



## FL1703

<b>Order No.</b>	9 663 017		
<b>Model</b>	FL1703		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	1.7	1.4	1
	-5 °C	-10 °C	-20 °C
	0.88	0.75	0.3
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	12 ... 17		
Dimensions cm	W × L × H 50 × 76 × 64		

## FL Recirculating Coolers

powerful models with up to 4.3 kW of cooling capacity, tower version

The FL models shown here have higher cooling capacity, powerful circulating pumps, and internal bath volumes of up to 30 liters. 2 variants: Air-cooled (FL) and water-cooled (FLW).

- Powerful circulating pumps up to 60 l/min; 6 bar
- By-pass valve to adjust pump pressure
- Rollers make it easy to move the units
- Early warning function when condenser is dirty
- Overload protection for pump motor and cooling machine
- Stainless steel bath tank
- BlackBox function with error memory for remote diagnosis
- Stakei connection for connecting a solenoid valve

### Applications

Rotary evaporators, bio-reactors/fermenters, Soxhlet apparatuses, distillation systems, vacuum systems, gas chromatographs, spectrometers, semiconductor applications, metering and adhesive technology, diffusion pumps, mass spectrometers, electron microscopes

### Filling level indicator

for all models

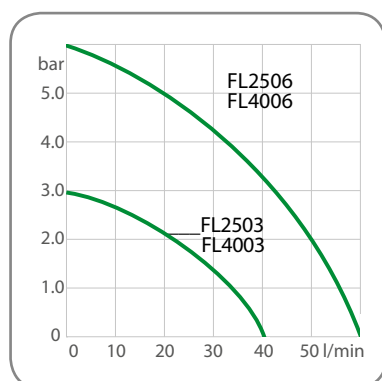


### Practical recessed grip



### Pump capacity

Bath fluid: water



Included in delivery: 2 barbed fittings for tubing 3/4" ID with models FL/FLW2503 and FL/FLW4003 (pump connections G 3/4" male). 2 barbed fittings for tubing 1" ID with models FL/FLW2506 and FL/FLW4006 (pump connections G 1 1/4" male)



### FLW2503

<b>Order No.</b>	9 673 025		
<b>Model</b>	FLW2503		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	2.7	2.5	1.7
	-5 °C	-10 °C	-20 °C
	1.35	1	0.4
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



### FL2503

<b>Order No.</b>	9 663 025		
<b>Model</b>	FL2503		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	2.5	2.2	1.5
	-5 °C	-10 °C	-20 °C
	1.35	1.2	0.55
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



## FLW2506

<b>Order No.</b>	9 676 025		
<b>Model</b>	FLW2506		
Working temperature range °C	-15 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	2.5	1.9	1
	-5 °C	-10 °C	-20 °C
	0.65	0.3	-
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



## FLW4003

<b>Order No.</b>	9 673 040		
<b>Model</b>	FLW4003		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	4.3	3	2.2
	-5 °C	-10 °C	-20 °C
	1.75	1.3	0.45
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



## FLW4006

<b>Order No.</b>	9 676 040		
<b>Model</b>	FLW4006		
Working temperature range °C	-15 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	4	3	1.7
	-5 °C	-10 °C	-20 °C
	1.20	0.7	-
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



## FL2506

<b>Order No.</b>	9 666 025		
<b>Model</b>	FL2506		
Working temperature range °C	-15 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	2.5	1.9	1
	-5 °C	-10 °C	-20 °C
	0.65	0.3	-
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



## FL4003

<b>Order No.</b>	9 663 040		
<b>Model</b>	FL4003		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	4	3.4	2.4
	-5 °C	-10 °C	-20 °C
	1.95	1.5	0.65
Pump capacity	l/min	40	
Flow rate / Pressure	bar	0.5 - 3	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		



## FL4006

<b>Order No.</b>	9 666 040		
<b>Model</b>	FL4006		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	+20 °C	+10 °C	0 °C
	4	2.9	1.9
	-5 °C	-10 °C	-20 °C
	1.40	0.9	0.05
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	24 ... 30		
Dimensions cm	W × L × H 60 × 76 × 115		

### FL Recirculating Coolers

very powerful units, up to 20 kW of cooling capacity

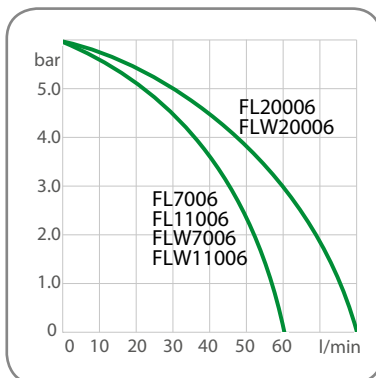
The powerful FL models are suitable for a wide range of cooling tasks in industrial environments, such as removal of large process heat. 2 variants: Air-cooled (FL) and water-cooled (FLW).

- High cooling capacity of up to 20 kW
- Powerful circulating pumps
- Large power reserves with all applications
- Early warning function when condenser is dirty
- Low water consumption (on FLW models)
- Overload protection for pump motor and cooling machine
- Stainless steel bath tank
- BlackBox function with error memory for remote diagnosis
- Stakei connection for connecting a solenoid valve or a booster pump

Included in delivery: 2 Barbed fittings for tubing 1" ID  
(pump connections G 1¼" male)

#### Pump capacity

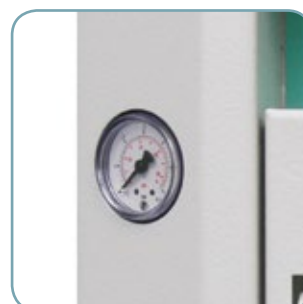
Bath fluid: water



Rollers  
add flexibility



Drain tap located behind  
removable venting grid



Pump pressure indicator for  
models from FL1201



Pump pressure adjustable  
for models from 3 bar





## FLW7006

<b>Order No.</b>	<b>9 676 070</b>		
<b>Model</b>	<b>FLW7006</b>		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	<b>+20 °C</b>	<b>+10 °C</b>	<b>0 °C</b>
	7.4	7	5.5
	<b>-5 °C</b>	<b>-10 °C</b>	<b>-20 °C</b>
	4.30	3.1	1.3
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	39 ... 47		
Dimensions cm	W × L × H		
	78 × 85 × 148		



## FLW11006

<b>Order No.</b>	<b>9 676 110</b>		
<b>Model</b>	<b>FLW11006</b>		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	<b>+20 °C</b>	<b>+10 °C</b>	<b>0 °C</b>
	11.5	9	7.3
	<b>-5 °C</b>	<b>-10 °C</b>	<b>-20 °C</b>
	6.05	4.8	2.7
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	39 ... 47		
Dimensions cm	W × L × H		
	78 × 85 × 148		



## FLW20006

<b>Order No.</b>	<b>9 676 200</b>		
<b>Model</b>	<b>FLW20006</b>		
Working temperature range °C	-25 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	<b>+20 °C</b>	<b>+10 °C</b>	<b>0 °C</b>
	20	15	12
	<b>-5 °C</b>	<b>-10 °C</b>	<b>-20 °C</b>
	9.50	7	3
Pump capacity	l/min	80	
Flow rate / Pressure	bar	0.8 - 6	
Filling volume liters	15 ... 37		
Dimensions cm	W × L × H		
	95 × 115 × 161		



## FL7006

<b>Order No.</b>	<b>9 666 070</b>		
<b>Model</b>	<b>FL7006</b>		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	<b>+20 °C</b>	<b>+10 °C</b>	<b>0 °C</b>
	7	6.4	5.1
	<b>-5 °C</b>	<b>-10 °C</b>	<b>-20 °C</b>
	4.05	3	1.55
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	39 ... 47		
Dimensions cm	W × L × H		
	78 × 85 × 148		



## FL11006

<b>Order No.</b>	<b>9 666 110</b>		
<b>Model</b>	<b>FL11006</b>		
Working temperature range °C	-20 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	<b>+20 °C</b>	<b>+10 °C</b>	<b>0 °C</b>
	11	9	7.5
	<b>-5 °C</b>	<b>-10 °C</b>	<b>-20 °C</b>
	6.25	5	3
Pump capacity	l/min	60	
Flow rate / Pressure	bar	0.5 - 6	
Filling volume liters	39 ... 47		
Dimensions cm	W × L × H		
	78 × 85 × 148		



## FL20006

<b>Order No.</b>	<b>9 666 200</b>		
<b>Model</b>	<b>FL20006</b>		
Working temperature range °C	-25 ... +40		
Temperature stability °C	±0.5		
Cooling capacity kW	<b>+20 °C</b>	<b>+10 °C</b>	<b>0 °C</b>
	20	15	10
	<b>-5 °C</b>	<b>-10 °C</b>	<b>-20 °C</b>
	8	6	2.5
Pump capacity	l/min	80	
Flow rate / Pressure	bar	0.8 - 6	
Filling volume liters	15 ... 37		
Dimensions cm	W × L × H		
	95 × 115 × 161		