# WDP100-AL Water Distribution System



The WDP100-AL water distribution system from Munters provides highly durable means of mounting 100 mm thick CELdek® evaporative cooling pads and supplying water to the pads. Together these form an ideal complete system for incorporating evaporative cooling into the ventilation system of a structure.

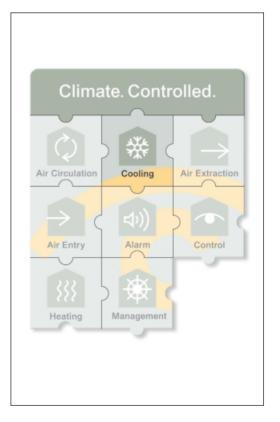
Corrosion of metal parts is a frequent problem amongst gutters used to mount evaporative cooling pads. This leads to frequent leaks and a short life expectancy on such systems. Additionally a lot of time can be wasted on maintenance by trying to keep the system functional. In order to reduce the time and money spent on such unnecessary activities and increase the life expectancy of such a system, all the parts of the WDP100-AL system are manufactured in either extruded aluminium or plastic, which provides for an extremely durable system.

The main structural components of the system are the top and bottom extruded aluminium gutters. They have the dual purpose of holding the pads as well as distributing the water. A perforated water distribution pipe with a unique self cleaning shape is incorporated into the top gutter. This allows for the even distribution of water onto the top of the pads, eliminating dry streaks in the pads. In such dry streaks no evaporative cooling can take place and consequently hot dry air can enter the structure through such spaces even while the system is in operation. The extruded aluminium channels are very sturdy which allows for a longer distance between mounting brackets.

#### **EQUIPMENT**

## WDP100-AL

- Excellent durability extruded aluminium
- Corrosion resistant
- Quick and easy installation:
  - longer distances between mounting brackets
  - perforated water distribution pipe is incorporated into the top aluminium gutter
- · Complete watering kits
- Neat finish



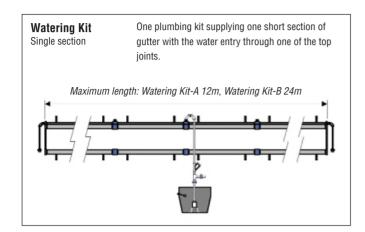


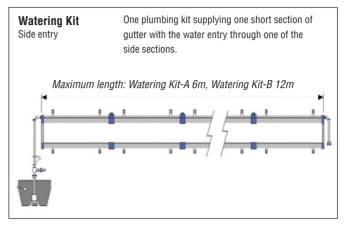
An incorporated distribution pipe; a clean smooth aluminium finish and a long distance between mounting brackets all ensure a neat finish as well as quick and easy installation.

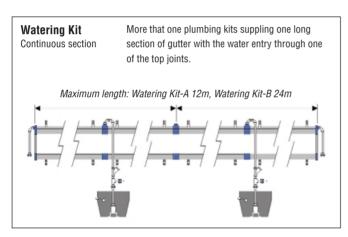
Watering kits provide all the necessary pipe work and fittings, the tank and pump required to complete an installation. The only external connection that has to be supplied is for connecting the supply water line to the ball valve in the tank. Plumbing kits are sized to ensure the right pump capacity and tank size is used for each length of installation.

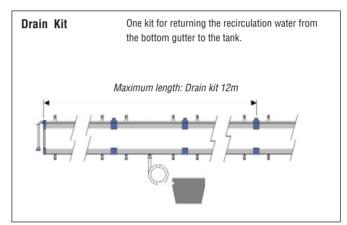
#### **Installation options**

The WDP100-AL can be mounted in different configurations. Below are the possibilities with the maximum length of gutter, each watering kit and drain kit can service.

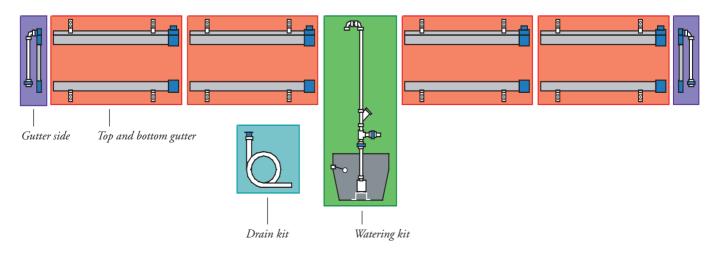






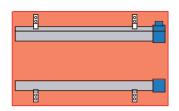


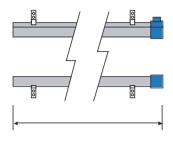
#### System overview



#### **Order information**

#### Top and bottom gutter



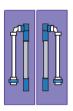


By using the combination of lengths available any total length upwards from 1.2 m is possible, using 0.6 m increments. Each gutter kit consist of the following equipment:

1 x top aluminium gutter, 1 x bottom aluminium gutter, 1 x top plastic connection piece, 1 x bottom connection piece, 2 x top stainless steel mounting brackets, 2 x bottom stainless steel brackets.

Aluminium gutter length	Ordering code
3.0 m	WDP-100-AL-GU-3000
1.8 m	WDP-100-AL-GU-1800
1.2 m	WDP-100-AL-GU-1200

#### **Gutter sides**



The gutter side kit provides a neat ending and prevents water spillage from the pads. It also provides a plumbing kit that can be used for cleaning the water distribution pipe. One kit is required per section. Each kit consists of the following equipment:

2 x top plastic ends, 2 x bottom plastic ends, 2 x aluminium end sections, 2 x plastic plumbing kits with plastic piping, connections and valve.

Pad height	Ordering code
1.2 m	WDP-100-AL-SD-1200
1.5 m	WDP-100-AL-SD-1500
1.8 m	WDP-100-AL-SD-1800

#### **Drain kit**

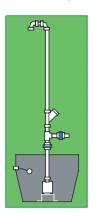


The drain kit is used to channel the return water back from the bottom gutter to the water tank. It consists of the following equipment:

1 x plastic spigot, 1 x flexible pipe (12 m long), plastic connections, clamp and mounting screws.

Kit type	Ordering code
Drain Kit	WDP-100-AL-DK

#### Watering kit



Two watering kits are available. Watering Kit-A has a 300 l tank and 0.5 hp submersible pump while watering Kit-B has a 500 l tank with a 0.75 hp submersible pump. A pump stand can be placed in the bottom of the tank when the pump is installed. This prevents the pump from sucking up any possible dirt that might accumulate there. The kits can be used for all installation options listed above. Each kit

consists of the following equipment:

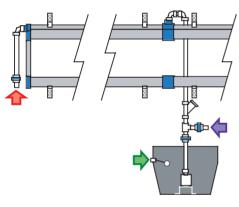
1 x submersible pump with float valve, 1 x plastic tank, 1 x in-line filter, connection for bleed-off, plastic piping, connections and valves, 2 x silicone tubes for installation, 1 x PVC glue tube for piping, 1 x installation manual, 1 x stainless steel pump stand.

#### **Technical specifications**

	Watering Kit-A	Watering Kit-B
Electricity supply	230 VAC 50 or 60 Hz	230 VAC 50 or 60 Hz
Current	2.1 A	3.5 A
Phases	1	1
Power	0.5 hp	0.75 hp

Kit type	Ordering code
A (50 Hz electrical supply)	WDP-100-AL-WK-A-50
A (60 Hz electrical supply)	WDP-100-AL-WK-A-60
B (50 Hz electrical supply)	WDP-100-AL-WK-B-50
B (60 Hz electrical supply)	WDP-100-AL-WK-B-60

The diagram below indicates the sizes of all the external plumbing connections that can be made,







25mm nipple for hose connection



20mm nipple for hose connection



1/2" male thread - water pressure at least 1 bar

### Ordering code - example

To complete an installation with a gutter length of 19.2 m and a pad height of 1.5 m, the following equipment needs to be ordered.

6 x WDP-100-AL-GU-3000

1 x WDP-100-AL-GU-1200

1 x WDP-100-AL-SD-1500

1 x WDP-100-AL-WK-A-50 (for 50Hz electrical supply).

1 x WDP-100-AL-DK

WDP100-AL cooling system is developed and produced by Munters Italy, S.p.A., Italy.



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