

IMPORTANT USER GUIDANCE DF SMART ALL-IN-ONE WATER MISTING CANNON

READ ALL THE INSTRUCTIONS BEFORE USING THE EQUIPMENT

General Specification: The DF Smart All-In-One is an advanced version of the original DF Smart. It is designed for customers who need a complete solution for dust suppression or odour control in areas where a water connection is not available or easy to reach. It can be used as a ground static unit, elevated on a platform or building (which increases its range and coverage) or even mounted on a vehicle with small generating set (5kVA recommended).

The DF Smart All-In One combines a misting fan with a 1000 litre IBC water tank and an electric pump. You only need to connect a 110v power supply (32A coupling) and the unit will discharge a fine water mist of “Nebulized” water droplets to suppress airborne fugitive dust. For extended run times a hose can be linked to the tank using a quick coupler and an auto-refill valve will keep the tank topped up.

The DF Smart All-In-One is an easy to use, straightforward to operate “roll up, plug in, and switch on” solution for dust and odour control.

- INSTALLATION:** the equipment is mounted on a standard pallet and weighs approx. 180 kg (tank empty); it weighs 1180 kg with the water tank full (1000 litres).

Place into position using the pallet base (do not attach chains / strops to the fan or water pump mounting, nor the IBC cage). Locate the IBC on a firm level surface that can support its weight – allow for any water which might be added to the tank. Place where there is nothing to obstruct the fan inlet or discharge - keep away any loose materials that could be entrained and drawn into the fan - they will be discharged at high speed.

Release and stow the “Transit-Lock” (see image right), swivel the fan to the direction required – a 110 degree arc is available - and secure with the sprung lock-bolt. Similarly set the vertical angle for mist discharge - tilt the fan and secure it with the lock-bolt.

Fill the tank with clean water. Connect a water supply hose (1/2”) to the quick coupling on the side of the IBC; a float valve in the IBC will shut off the water when the tank is full.

- OPERATION:** the equipment is supplied with a 110v 32 amp fly lead. Connect this to a 110v CTE site supply; if using a generator we recommend one of at least 5kVA to accommodate the start-up surge current. To operate:

- Press the Fan-Start button; the fan will spool to its operating speed within a few seconds.
- Press and hold the Pump-Start button until a water mist appears; then release the button.
- To switch-off reverse the above procedure.

- IN-USE ROUTINE MAINTENANCE:** the incoming water supply passes through a filter which will gradually block if your supply contains suspended solids (and most supplies contain some). Periodically clean the filter by unscrewing the clear perspex housing and removing the gauze for cleaning. If the water jet is uneven clean the nozzles by unscrewing them and rinsing them in water. If you are in a “hard water” area (water with a high calcium carbonate content) soak the nozzles in an anti-scale solution or vinegar; finally rinse in clean water before re-fitting.

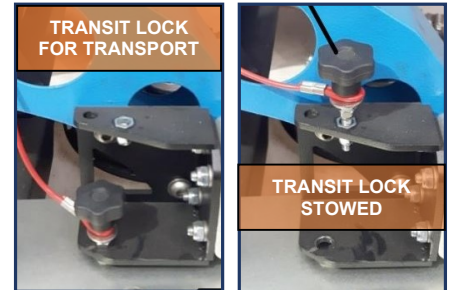
- AFTER USE:** disconnect equipment from the power and water supply. Completely drain water tank before returning to supplier.

- WARNINGS:** NEVER remove the fan guards. The fan discharges high speed air - don't walk within 2 metres of the discharge while in operation; always wear eye protection.

The equipment is intended for operation with clean water; do not use dirty water.

In case of frost – drain off water and cover pump. **DO NOT** use this equipment when the ambient temperature is below 0 Celcius.

If the machine sustains damage it must be taken out of service - contact the supplier for advice.



DF SMART ALL-IN-ONE	TECHNICAL DATA
Electrical Power / Connection	2.2 kW - 110v 32A Coupler - 50Hz.
Water Connection	½” (12mm) quick coupling
Water tank capacity	1000 litres
Water Consumption	2 L/min
Run time with / without auto refill	Unlimited / Approx. 8 Hours
Fan Airflow	5400 m3/hr
Horizontal Range (still air)	15m (range increases if elevated)
Vertical Range	6m above installed level
Vertical Tilt Angle	+10 to + 50 degrees
Rotation Angle	110 degrees of arc
Noise	78dBA at 7 m
Weight Tank Empty / Tank Full	180 kg / 1180 kg
Dimensions (LxWxH mm)	1250 x 1050 x 2020

THESE INSTRUCTIONS CONTINUE OVERLEAF – READ ALL THE INSTRUCTIONS BEFORE OPERATING THE EQUIPMENT

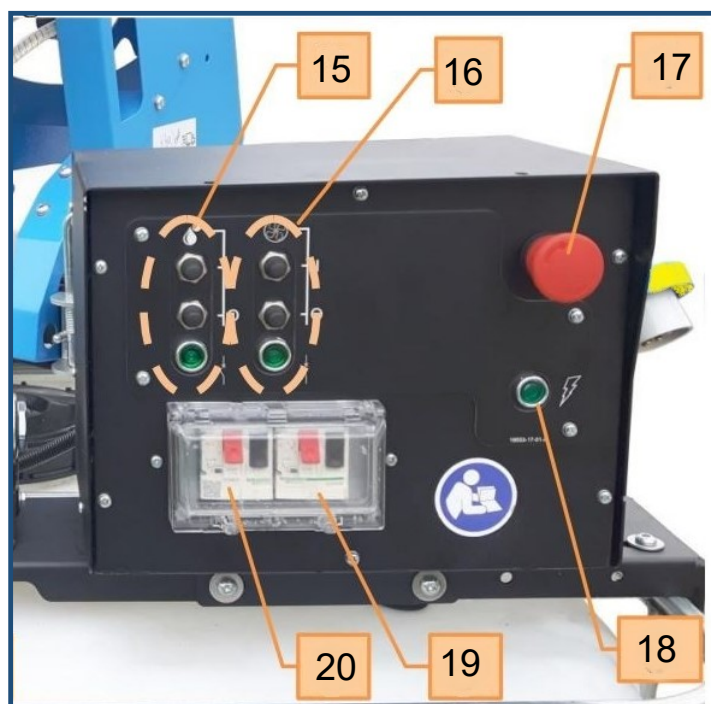
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KEY	COMPONENT
1	VERTICAL TILT LOCK-BOLT
2	WATER MIST RING NOZZLE
3	FAN CASING
4	110v POWER COUPLER
5	1000 LITRE IBC WATER TANK
6	WATER TANK DRAIN
7	WATER PUMP
8	CHECK VALVE
9	FAN SWIVEL LOCK-BOLT
10+11	FORKLIFT POINTS
12+13	WATER SUPPLY QUICK COUPLING
14	PRESSURE GAUGE
15	WATER PUMP START / STOP
16	FAN START / STOP
17	EMERGENCY STOP
18	ELECTRICAL POWER INDICATOR
19+20	FAN & PUMP BREAKERS

6. TROUBLE-SHOOTING:

Problem

Fan won't start ?

Fan tries to turn but supply trips to OFF ?

Fan shows excess vibration ?

Water pump stops ?

Cause / Solution

Re-set emergency stop button, check plug is secure in socket + power is live.

Supply is not delivering sufficient voltage / current to start fan. Minimise power cable length, use heavier gauge cable - 4mm² is recommended - ensure power source can deliver 5KvA transient load for fan start.

Imbalanced fan due to debris build up on fan blade, or damage to fan blade. Stop machine & remove debris; in case of damage to blade contact supplier.

Insufficient water flow to nozzles – press and hold water pump button until water mist appears from nozzles. If problem recurs check that the in-line water filter is clean; top up water tank; consider whether spray nozzles are partially blocked.

If you are unable to resolve a problem after you have checked the above please contact the supplying depot for advice.

FOR MORE INFORMATION ABOUT DUST CONTROL, AIR FILTRATION AND VACUUM EQUIPMENT SEE OUR WEBSITE www.envirogard.co.uk OR CONTACT OUR HIRE DEPOTS.