

DATENBLATT / DATA SHEET

ECOLIT 30 – MF



Model	ECOLIT 30 - MF
Durchflußleistung / flow rate	30 l/min
Abmessungen / measurements (L x W x H)	1120 x 650 x 1720 mm
Gewicht / weight	190 kg
Stromversorgung / power supply	400V - 3/PE - 50Hz
Anschlußleistung / power supply value	1,47 KW
Druckluftanschluß / compressed air supply	6 bar
Betriebsdruck / operating pressure	2,5 bar
Max. Druck / max. pressure	3 bar
Reaktor Tank Inhalt / reactor tank volume	165 liters
Hydro Zyklone / hydro-cyclones	1 unit
Water Stabilizer	1 unit
Hochspannungselektrode / high voltage electrode (HVE)	1 unit
Fein Filter / fine filter	1x 3/4 "
Filter Rückspülung / filter back flush	automatic with compressed air
Filter Rückspülungs Steuerung / filter back flush control	pressure switch
Prozess Steuerung / proces control	relais based
Tauchpumpe(n) / submersible pump(s)	1x 1,1 KW
Druckpumpe(n) / supply pump(s)	1x 0,37 KW
Linearmembranverdichter / linear air compressor	120 l/min
Flotationsmembranen / flotation membranes	2 units
Recyclingwasseranschluß / recycled water connection	1"
Einspeisungs Wasseranschluß /feed water connection	1x 38 mm hose barb
Entleerungsleitung / discharge drain return	1x 63 mm
Wasserzähler / water meter	1 1/4"
Windkessel / air dome	25 liters



ADVANTAGES of FREYLIT ECOLIT- MF recycling systems

The ECOLIT-MF has several significant advantages which we would like to briefly point out :

1. advantage : four stage solid removal

With the ECOLIT-MF system we remove suspended solids by a four stage process.

- a) By stainless steel pump protector coarse screen to block out solid waste
- b) By hydro-cyclone to remove larger particles.
- c) By dissolved air flotation to remove fine flakes and particles.
- d) By fine filter, which are equipped with an automatic back-flush system (20, 50 or 100 micron). The back flush is activated after every car wash cycle is completed. Moreover, the filter mesh is made of stainless steel and does not need periodic changing.

2. advantage : two stage de-germing process

- a) By high voltage electrode (30,000 Volts / 300 mAmps.)
- b) By our well established water stabilizer

3. advantage : removal of algae

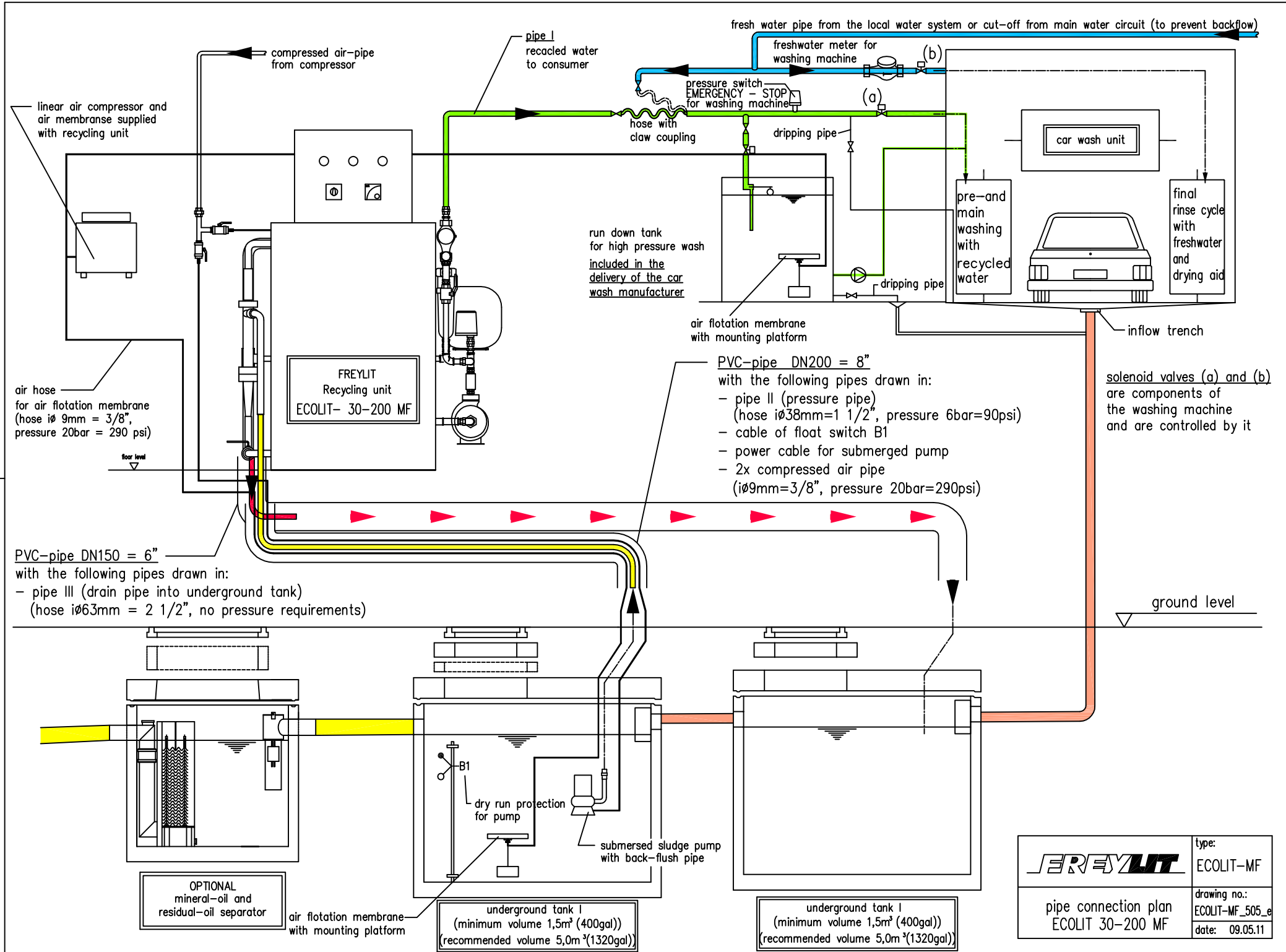
Freylit has been engaged for many years in researching new wash water recycling technology. Recently we discovered that, when wash chemicals are mixed together with dirt and exposed to sunlight algae will grow. These algae will stick to pipes, tanks, car wash and other surfaces and act as a culture for bacteria. These bacteria will cause bad odour. To combat this problem Freylit developed the high voltage electrode which does not only kill bacteria, but is also very effective in preventing the growth of algae. Moreover, the High Voltage Electrode will cause a flocculation of fine particles.

4. advantage : dissolved air floatation in the reactor tank

Dissolved air is produced by an floatation membrane located inside the reactor tank. By air flotation the flakes are brought up to the surface of the water inside the reactor tank and then skimmed off the surface to the overflow back to the silt chamber.

5. advantage : easy installation, minimum civil works needed

The ECKOLIT-MF series is ideal for retrofitting sites where the car wash already exists, because for example the ECOLIT 100-MF or EKOLIT 200 MF only needs two PVC-spring hoses to connect the unit to the underground pit. The ECOLIT 100-MF or EKOLIT 200 MF can work with only one underground tank with an approximate volume of 3780 litres (1000 gallons).



fresh water pipe from the local water system or cut-off from main water circuit (to prevent backflow)

compressed air-pipe from compressor

pipe I recycled water to consumer

freshwater meter for washing machine

(b)

pressure switch EMERGENCY - STOP for washing machine

(a)

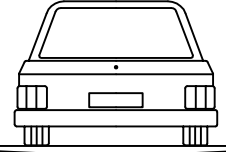
hose with claw coupling

dripping pipe

car wash unit

pre-and main washing with recycled water

final rinse cycle with freshwater and drying aid



dripping pipe

run down tank for high pressure wash included in the delivery of the car wash manufacturer

air flotation membrane with mounting platform

inflow trench

linear air compressor and air membrane supplied with recycling unit

FREYLIT Recycling unit ECOLIT-30-200 MF

air hose for air flotation membrane (hose \varnothing 9mm = 3/8", pressure 20bar = 290 psi)

floor level

PVC-pipe DN200 = 8" with the following pipes drawn in:

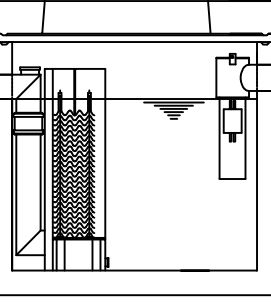
- pipe II (pressure pipe) (hose \varnothing 38mm = 1 1/2", pressure 6bar = 90psi)
- cable of float switch B1
- power cable for submerged pump
- 2x compressed air pipe (\varnothing 9mm = 3/8", pressure 20bar = 290psi)

solenoid valves (a) and (b) are components of the washing machine and are controlled by it

PVC-pipe DN150 = 6"

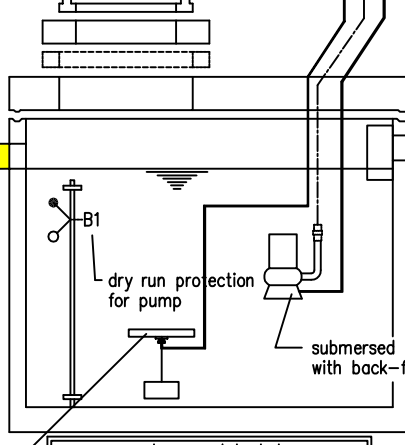
- with the following pipes drawn in:
- pipe III (drain pipe into underground tank) (hose \varnothing 63mm = 2 1/2", no pressure requirements)

ground level



OPTIONAL mineral-oil and residual-oil separator

air flotation membrane with mounting platform

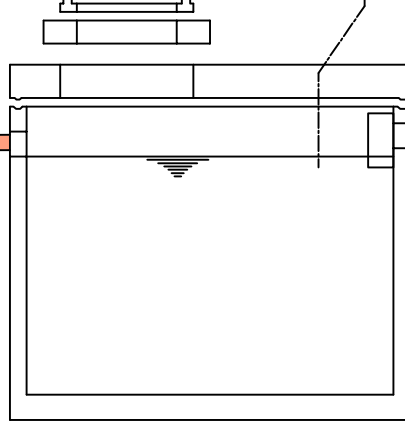


underground tank I (minimum volume 1,5m³ (400gal)) (recommended volume 5,0m³ (1320gal))

B1

dry run protection for pump

submersed sludge pump with back-flush pipe



underground tank I (minimum volume 1,5m³ (400gal)) (recommended volume 5,0m³ (1320gal))

	type:	ECOLIT-MF
	drawing no.:	ECOLIT-MF_505_e
	date:	09.05.11

pipe connection plan ECOLIT 30-200 MF