

# Zebec

## Biologicals

### Z-BIO IDU100

Bio-Augmentation of DAF Units &  
Industrial Grease Traps

#### Product Description

- Green liquid formulation based on emulsifiers, enzymes and selectively adapted micro-organisms.
- Bacterial concentration :  $2.10^7$  (twenty millions/ml)

**Z-BIO IDU100** is formulated to:

- Degrade long chain fatty acids that are known to be persistent and cause 80% of deposits.
- Associate with the hydrophobic phase.
- Degrade Odour Causing Short- Chain Volatile Fatty Acids.



#### Z-BIO IDU100 BENEFITS

- Reduces Line & Pump Station Maintenance Costs.
- Liquefies & Degrade Oil & Grease that upset Degreaser.
- Enhances the oxygen transfer in the Aeration Basin
- Enhances Organic Removal Efficiency
- Lowers Effluent BOD & COD.
- Reduces Foaming over the Aeration Basin Surface.
- Eliminates Bad Odours due to Grease Deposits.

#### Lift Stations – Grease Storage Tank (DAF Units)

##### Problems:

Fat and Grease deposits on walls and pumping equipments (floating contactors, pumps); unexpected pump shut-down; pump keep working with no stop ; strong odours ; frequent pump-outs with vacuum trucks.

#### Secondary Clarifiers – Grease Cap in Bio Filter & Equalisation Tank

##### Problems :

Fat, oil and grease that is not degraded by a DAF unit, will negatively impact the buffer tank, clog the bio-filter medium and float on the top surface of the final clarifier :

##### Benefit of Using Z-BIO IDU100

- No transfer of pollution to the outlet. The slight increase of dissolved organic load is tackled by adapted micro organisms seeded within the flow.
- Aesthetic Benefit, Odour Reduction, Reduces TSS, Improved Oxygen Transfer.
- Benefit to biological filters: Keep sprinkler free of blockage, eliminate grease cap in medium, avoid flow short-cuts, help medium self-cleaning, extend lifetime of medium.

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## Grease Storage Tank (DAF Units)

### Dosage :

- ✓ Addition : spray **Z-BIO IDU100** neat or 1 :10 diluted over grease deposits in the lift station.
- ✓ Dosage : 5 litres per day the first week, thereafter 5 litres per week.

## Equalisation Tank

### Dosage :

For a 10 metre diameter clarifier/biofilter/basin :

- dilute 5 litres of **Z-BIO IDU100** with 5-10 litres of water and spray the solution (Karcher) , or in 100 litres of water to apply over the dirty surfaces (« Giffard » or any venturi system).
- Spray the solution over the surface of floating solids and skimmings.

**First week treatment : 5 L/day**

Weekly maintenance treatment : 5 L/week ; repeat the initial « first week treatment » in case of upset until complete recovery.

## Drain Lines

- ✓ Addition of Z-BIO IDU100: dose the product to the drain of the workshop near the main cleaning point. Use a dosing pump or add the dose manually. Ideally 1 to 2 hours after any heavy cleaning operations.
- ✓ Dosage : 200-300 ml per day per line. Adjust that standard dosage according to the criteria shown in the following table.

Standard Criteria	Trend of the criteria	Trend of dosage rate	Change in standard dosage rate
Blockage frequency (1x/3 months)	↗	↗	+100%
Diameter (80-100 mm)	↗	↘	- 50%
Odour	↗	↗	+ 10-20%
Effluent temperature	↘	↗	+ 20-30%
Line length	↗	→	-

## Grease Traps

### Dosage

- ✓ Addition of Z-BIO IDU100: shortly after the latest pumping, seed the trap as much as 1.5 litre/m<sup>3</sup> of trap. As maintenance, dose the product to the drain of the workshop near the main cleaning point or directly to the entrance of the trap. Use a dosing pump or add the dose manually. Ideally 1 to 2 hours after the heavy cleaning operations.
- ✓ Maintenance dosage : it relates to the volume of the grease trap (see the table below).

Volume of grease trap	Dose of Z-BIO IDU100
1 to 5 m <sup>3</sup>	500 ml/day
5 to 10 m <sup>3</sup>	1,000 ml/day
10-15 m <sup>3</sup>	1,500 ml/day
More than 15 m <sup>3</sup>	2,000 ml/day

### **Storage and Handling:**

- Store in a cool dark place
- Avoid eye contact
- Do not ingest
- Wash hands thoroughly with warm soapy water after handling