



AMI PENTA BIO-VENTURI



For simple and precise dosing of biomass

- ✓ Precise dosing of biomass (bio-fertilizer and beneficials/microorganisms) based on flow of water from the mixer to your cultures
- ✓ Dosing of biomass can be done independently on EC and pH
- ✓ Savings on working hours as irrigation of biomass is done automatically by the mixer
- ✓ Savings on use of biomass
- ✓ User-friendly software - you can also make your own set-ups
- ✓ Up to 8 Bio-venturi can either be added to your existing AMI Penta mixer, or a new AMI Penta can be equipped with the needed number of bio-venturi

Bio-adjustment

Each recipe has the opportunity to run with bio-fertilizers. The system includes eight bio-fertilizers, which can be enabled and disabled by the user in each recipe. In order to work with bio-fertilizer you need to have an outlet flow sensor, analogue controlled proportional solenoid valve and analogue flow transmitter.

The ratio of each bio-fertilizer can via an adjusting valve be adjusted from 0,01% to 1% of the total main flow.

Example: If you have 10 m³/h (166,6 l/m) current outlet flow and 0,5% bio-dosing in one venturi, then the supply of biofluid will be as shown in the formula below:

$$166.6 \frac{\text{l}}{\text{m}} * \frac{0.5 \%}{100 \%} = 0.833 \frac{\text{l}}{\text{m}}$$

Where is Bio-Venturi particularly suitable?

One or more bio-venturi can among other things be used for:

- Bio-fertilizer
- Nematodes
- H₂O₂
- Bactimos
- Beneficials/microorganisms

Use of bio-venturi on an AMI Penta irrigation and fertilizer mixer

As mentioned, bio-venturi is used together with an AMI Penta. This mixer has many options and features and these are reviewed on a separate data sheet. There you can also see the system requirements for adding a bioventuri.



SPECIFICATIONS / AMI PENTA BIO-VENTURI

Set-ups

Bio-fertilizing can be included in every recipe

A function selector to enable or disable bio-fertilizing in a recipe

Bio Control	Enable	Ratio
Fertilizer A	Yes	0.50 %
Fertilizer B	No	0.25 %
Fertilizer C	No	0.25 %
Fertilizer D	No	0.25 %
Fertilizer E	No	0.25 %
Fertilizer F	No	0.25 %
Fertilizer G	No	0.25 %
Fertilizer H	No	0.25 %

Shows if the bio-fertilizer is disabled or enabled

The bio-dosing ratio of the total current outlet flow for each fertilizer

Readings

Et overblik over aktiviteten i biogødningerne.

Aflæsning af det aktuelle bio-flowskrav for hver biogødning beregnet ud fra det aktuelle vandflow i l/m

Aflæsning af det direkte bio-flow fra flowtransmitteren i l/m

Bio status	Flow demand	Flow	Flow Avg	Deviation
Fertilizer A	0.00 l/min	-1.00 l/min	1.00 l/min	1.00
Fertilizer B	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00
Fertilizer C	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00
Fertilizer D	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00
Fertilizer E	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00
Fertilizer F	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00
Fertilizer G	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00
Fertilizer H	0.00 l/min	-1.00 l/min	-1.00 l/min	1.00

Reading of the averaged

Reading the current deviation of the bio-flow measuring compared to the flow demand

Bio-flow overview

Pump installed on the mixer	Max. dosing		Min. dosing	
	% ratio / ppm ratio	l/m	% ratio / ppm ratio	l/m
10 m ³ /t	1 / 10.000	1,04	0,24 / 2400	0,25
15 m ³ /t	1 / 10.000	1,88	0,13 / 1300	0,25
20 m ³ /t	1 / 10.000	2,71	0,09 / 900	0,25
25 m ³ /t	1 / 10.000	3,54	0,07 / 700	0,25
32 m ³ /t	1 / 10.000	4,71	0,05 / 500	0,25
45 m ³ /t	0,87 / 8700	6,00	0,04 / 400	0,25
50 m ³ /t	0,78 / 7800	6,00	0,03 / 300	0,25
64 m ³ /t	0,60 / 6000	6,00	0,02 / 200	0,25
150 m ³ /t (Amigo)	0,25 / 2500	6,00	0,01 / 100	0,25

Each bio-fertilizer regulates the flow from 0.25 l/m to 6 l/m (6 l/m is limited by the venturi itself and not by the flow transmitter).

The water flow is reduced by 0.75 m³/h per venturi or dummy venturi. This means that if the mixer is installed with a 10 m³/h pump, the maximum water flow will be 6.25 m³/h (5 x 0.75 m³/h).

The percentage of bio-dosage ratio for the total water flow can be from 0.01% to 1%.

Distributor:

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