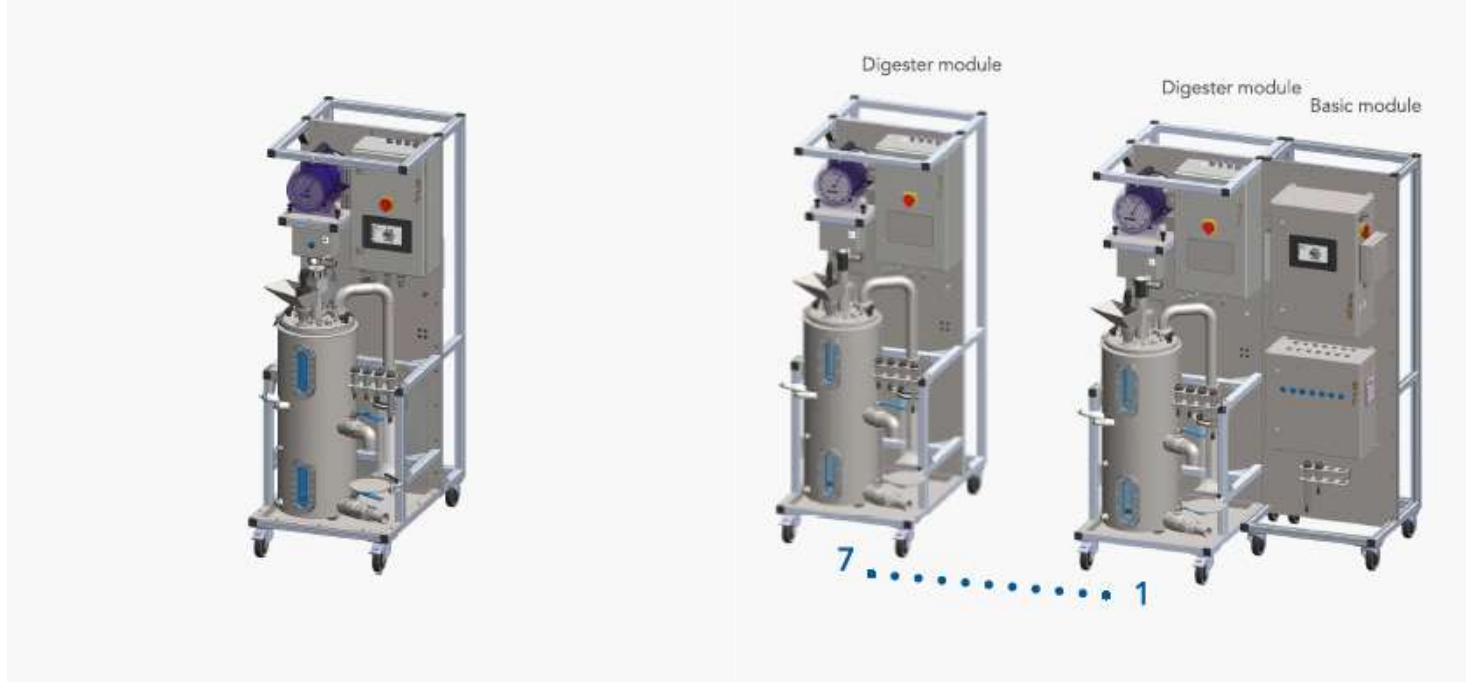


# AWITE LAB FACILITIES

AWILAB DIGESTER „STAND ALONE“

AWILAB DIGESTER „MODULAR“



GENERAL INFORMATION	AWILAB DIGESTER „STAND ALONE“	AWILAB DIGESTER „MODULAR“
Dimensions (WxHxD in mm)	700x1955x1172	basic module: 700x1955x640 + digester module: each 700x1955x1040
Weight	≤ 250 kg	≤ 100 kg (basic module) + ≤ 250 kg (each digester module, max. 7 pcs.)
OPERATING CONDITIONS		
Ambient temperature	5 - 35 °C	
Ambient humidity	0-80% relative air humidity	
Installation height	≤ 2000 m above standard normal zero (sea level)	
Protection type	IP 43/40	basic module: IP 43 digester module: IP 43/40
POWER SUPPLY		
Rated input voltage	230 VAC	
Frequency range	50 - 60 Hz	
Nominal output	≤ 300 W	basic module: 160 W digester module: 300 W

## VISUALIZATION AND OPERATION / AUTOMATION

Panel-PC	7" TFT touch panel 800x480
Remote access	LAN connection, AwiRemote
Data recording and SQL database	

## SAFETY DEVICES

Overpressure protection	20 mbar
Leak test of the entire system	
Power consumption stirrer	
Speed monitoring stirrer	

## AMBIENT SENSORS

temperature	0°C - 100°C
air pressure	500-1.150 mbar abs.

## EQUIPMENT "STAND ALONE"

### Fermentation tank

Material	stainless steel
sight glasses (2)	filling level / ground level
Fermenter size	50l (25l on request)
Nominal operating pressure	5 mbar
Heated and fully insulated	
Sampling connection in the middle	2"
Extraction connection below	2"
Manual substrate feed via filler neck	
Various spare connections in the container and lid	

### Stirrer

Material	Sheet steel
Screw-paddle combination	
Motor Un: 24 VDC   In: 3,8 A   Nn: 64,2 rpm   Mn: 8 Nm	
Interval or continuous operation	
Speed-controlled	

### Gas meter

Drum gas meter	1-60 l/h
Max. overpressure	50 mbar
Pulse generator	

### Control cabinet

Material	stainless steel
Temperature measurement fermenter	
Pressure measurement fermenter	
Drive control stirrer	
Measurement power consumption stirrer	
Timed emptying of the gas bags	

### Electric heating

Control temperature	≤ 55°C +/-0.1 °C (=< 70 °C on request)
Self-limiting heating tape	max. 85°C
Adjustable temperature gradient	

### Gas analysis system

Typ	AwiFLEX Cool+
Discontinuous measurement	
Gases	CH <sub>4</sub> , CO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> , H <sub>2</sub> S
Output of error messages	

### Gas storage bag

Gas collection/analysis	5l
Pressure equalization fermenter	2l
Pressure equalization after measurement	15l
Automatic emptying of the gas collection bag after measurement	
N <sub>2</sub> rinsing for inerting	

### Data interfaces

Ethernet (AwiRemote)	
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## SUPPLY PROVIDED BY CUSTOMER

1x power supply 230VAC   50/60Hz   1 phase + N + PE (fuse 16A, overvoltage and lightning protection)
1x LAN connection cable (for remote access, Data evaluation, ...)
Exhaust air system

## EQUIPMENT 'MODULAR' (IN ADDITION TO 'STAND ALONE')

Consisting of basic module and up to 7 digester modules

### AwiLAB Gasanalysis

Integration and gas measurement of up to 7 fermenters
LED status display
Connection volume measurement

## ON REQUEST

pH probe, redox probe, further sensors
Milligas counter (MGC), drum gas meter (TGZ) with higher flow
Hydrostatic level measurement
Container variants
Modbus TCP/IP
Other versions