



WASTEWATER AUTOSAMPLER SYSTEM

PUB-Oriented Automatic Sampling Solution for Trade Effluent Monitoring

Product Overview

The SerayaEngi Wastewater Autosampler System is a locally integrated automatic sampling solution built around the proven EFCON NL vacuum sampler platform. Configured with 24 x 1-litre bottles and housed in a weatherproof electro-galvanised/stainless steel instrument enclosure, it is suitable for wastewater and trade effluent monitoring applications in Singapore.

Designed with reference to the Singapore PUB Code of Practice on Sewerage and Sanitary Works, the system supports dependable time-based or flow-proportional sample collection for monitoring, investigation, and compliance-oriented applications.

Key Benefits

- Vacuum sampling technology
- 24 x 1L bottle configuration
- Composite and discrete sampling modes
- Time-based and flow-proportional sampling
- Local LCD interface and programmable functions
- IP55 floor-standing enclosure with viewing window

Typical Applications

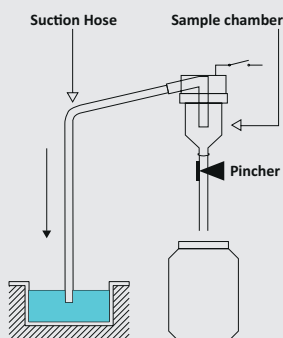
- Trade effluent compliance monitoring
- Industrial wastewater sampling
- Inspection chamber sampling
- Routine laboratory sample collection
- Event-based discharge investigation



Note: This system is locally integrated by Seraya Engineering Pte Ltd using EFCON sampling technology. Final configuration may be adjusted to suit site conditions and project requirements.

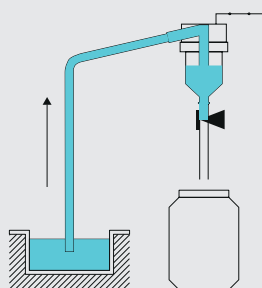


Operational Principal & Installation Instructions:



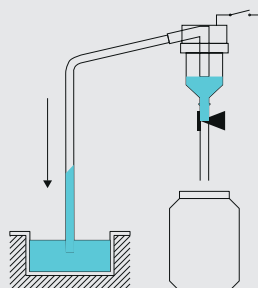
1. Purge:

The air pump starts and generates pressure in the sample chamber. Air bubbles will escape from the end (inlet) of the suction hose. This is a sign that the 'old' wastewater has left the suction hose.



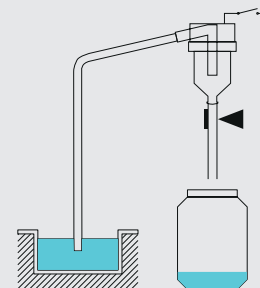
2. Suction:

Suction: the air pump creates a vacuum in the sample chamber. The medium is sucked up through the suction hose until it reaches the level pen again.



3. Dose:

The level pins detect the medium. After this, the pump creates pressure and doses the volume into the flask. The excess medium is blown back through the suction hose.



4. Drain:

The pinch opens and the sample falls into the container. After a few seconds, the air pump stops and the cycle is complete.

Sample Medium

- Free of solid parts
- Temperature: +0,1°C / +40°C
- Non foaming
- Minimal conductivity: 50µS
- Free of air inclusion
- Strainer is always emerged in the wastewater/medium.

Seraya Engineering Pte Ltd | www.serayaengineering.com

2 Jurong East Street 21, #04-22/23/24 IMM Building, Singapore 609601

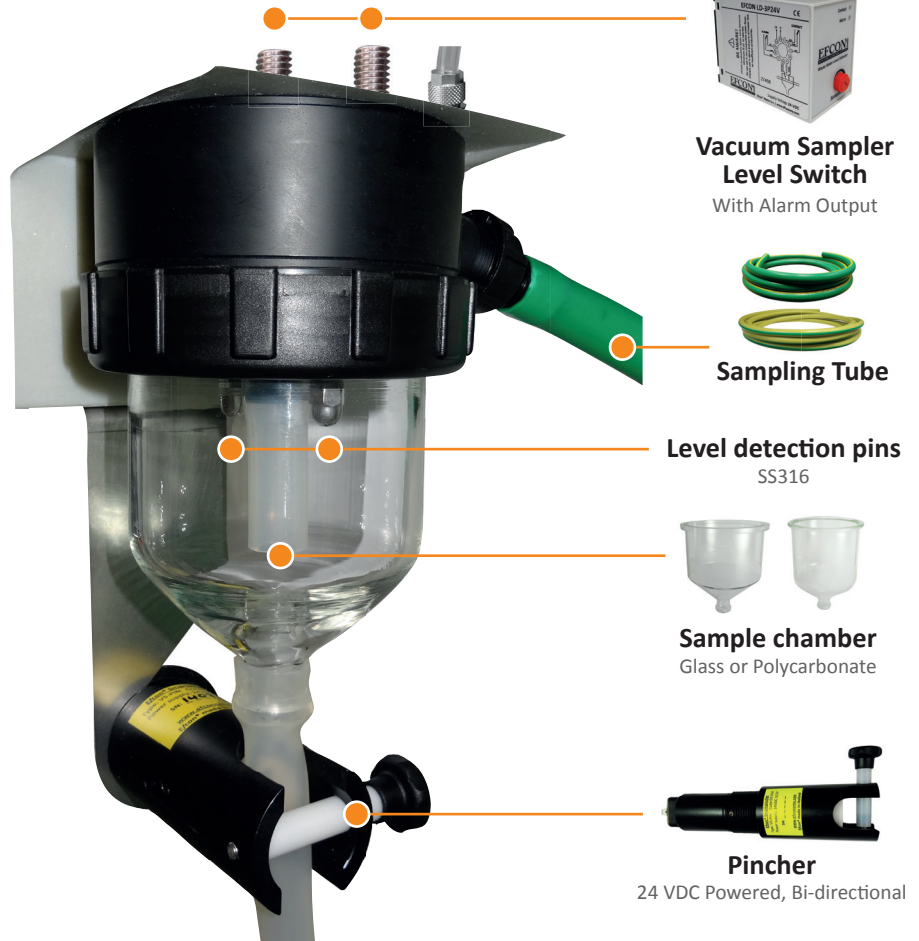
Phone : +65 6252 1737 | sales@serayaengineering.com

Efcon Vacuum Samplers are equipped with reliable basic hardware and standard electronics. The complete design is focussed on long term reliable sampling with minimum drop out. Efcon Vacuum Samplers are constructed with 1 sampling head with a glass or non breakable polycarbonate chamber.

Contact level indicator functions on a minimum wastewater conductivity of 50 µS.

8m pump unit

Maximum suction height 8 meter
Suction height 8 meter acc. EN 16749
3 x Membrane pump 24 VDC
1 x SS Air valve 24 VDC
Volume 17 L/min



Jazz controller:

Display:	2 lines, 16 characters, 16 keys Totalizer 3000000,0 maz (auto reset)
I/O hardware:	8 digital inputs, 4 analog inputs
Quick buttons:	Manual sample, next container, reset
Inputs:	Flow Pulse, flow current 4-20mA, 2x programmable digital input
Outputs:	2x programmable relay output
Sample interval:	Volume, Time or Batch
Interval range:	0,1...2500,0 m3/sample 2...2500 minutes/sample
Max Error samples:	0...999
Sample volume:	20...250ml
Vacuum settings:	Purge, Suction & dose time 1...99 sec.
Turn time:	Clock time (RTC) or time interval
Container config:	1...24 containers, 0,1...99 liter
Password settings:	Yes
Flow signal:	Pulse / Current / pulse + current
Pulse range:	0,1...1000m3
Current range:	1...3600 m3/h
Input options:	PRG on/off, Start PRG, Stop PRG, take sample, next container & start cool unit
Output options:	General alarm, sample alarm, sampling active, sample OK, sample error, 1m3 pulse, 0,1m3 pulse, containers full
Communication:	Modbus RTU optional

Specifications:

Power supply:	110/230VAC /1A
Enclosure:	Weatherproof Instrument Cabinet (IP55) SECC Galvanized Steel / SUS Stainless Steel
Dimensions (HxWxD):	±1500 x 600 x 600mm
Weight:	±83kg
Protection class:	IP55
Ambient temperature:	0... +40°C
Refrigerated zone:	On Request
Installation Method:	Floor Mounted
Container configurations:	24x1L, 12x2L, 8x5L, 4x15L, 2x25L, 1x25L, 1x60L
Zone:	Safe Environment
Warranty :	1 year