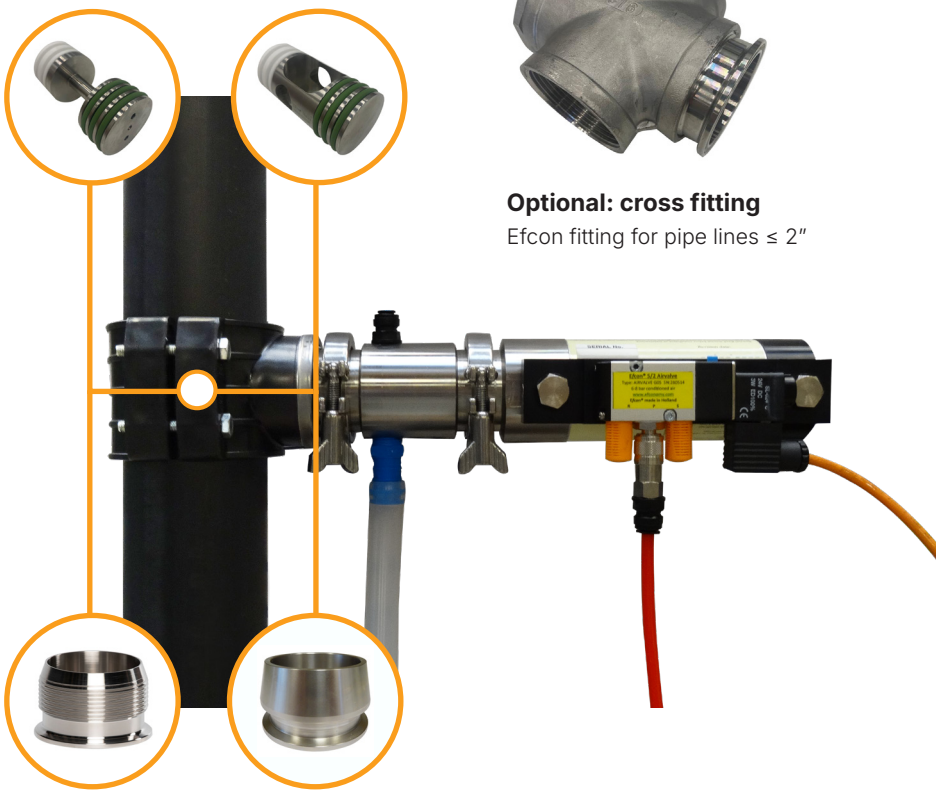
EFCON® Guillotine Sampler

Sample Cycle:	± 5 sec total
Wetted parts:	SS316/V4A, PTFE, Viton, POM and Silicon
Material Plunjer:	SS316/V4A
Material seals:	Viton & PTFE
Water temp:	Max 35°C optional 50°C
Max Pressure:	2,5 Bar optional 5 Bar
Min Pipe DN:	80 mm if smaller, use special EFCON® cross fitting
Outlet DN:	14 mm
Sample vol.:	50 ml fixed volume
Actuator:	Pneumatic
Air supply:	6-8 bar conditioned
Protection class:	IP 65
Encl. cyclinder:	Front SS316 with aluminum cylinder
Air connection:	8 mm / 1/4" coupling
Activation time:	± 5 sec
Resp. contact:	Optional
Valve:	5/2 Valve
Power supply:	24 VDC ±5% / 0,13 A
Current:	0,13 A
Ambient temp.:	0,1°C / 40°C
Zone:	Not in EX zones

Plunjer section



Thread fitting and welding ridge

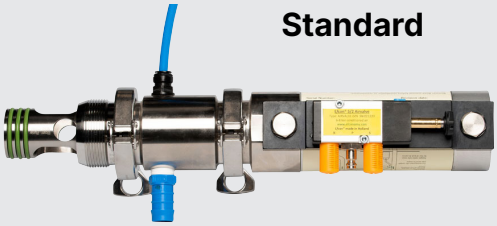
Optional: cross fitting
Efcon fitting for pipe lines ≤ 2"

The EFCON® ILS Guillotine

This is an automatic fixed volume sampler for use on 100 % filled and pressurised effluent lines.
The sampled media must be liquid, and free of air / hard solids.

Designed for sampling of (raw) wastewater, the Efcon Guillotine sampler works with a maximum process pressure of 2.5 Bar and optional up to 5 Bar. This sampling method complies to EN ISO 5667-2, EN ISO 5667-10 and NEN 6600-1 and is equipped with a pneumatic actuator (6-8 bar).

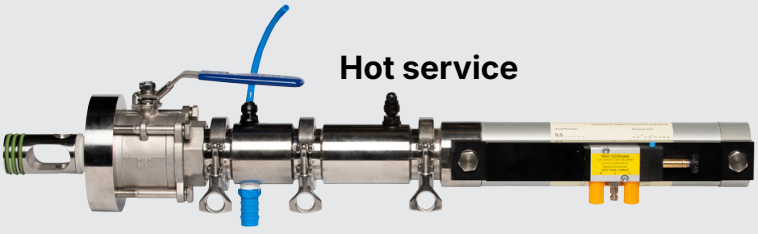
Standard



High pressure

Sludge

Hot service



Jazz controller:

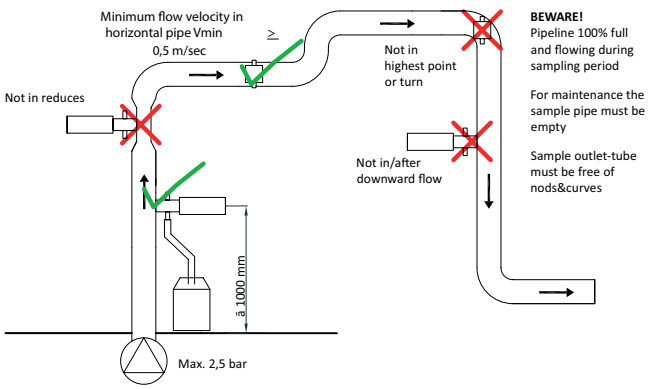
Display:	2 lines, 16 characters, 16 keys Totalizer 3000000,0 maz (auto reset)
I/O hardware:	8 digital inputs, 4 analog inputs
Quick buttons:	Manual sample, next container, reset
Inputs:	Flow Pulse, flow current 4-20mA, 2x programmable digital input
Outputs:	2x programmable relay output
Sample interval:	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

Vision controller:

Display:	8 lines, 128×64 2,4"display, 20 keys
Settings:	Basic functions almost the same as the Jazz with extra options. Better HMI and used in customized applications
Sample settings:	Interval by day of the week
Distributor settings:	Selectable day of the week
Pump controller:	Optional (for ILS samplers only) 4-20mA level sensor input 1 or 2 pump controller with alternating function High/low level & overflow setting
Logging:	2000 log lines for daily/cycle totalizer 2000 log lines for time interval logging Data logging to micro SD-card Optional: Extra analytical values
Calendar sampling:	Program sampler to sample Full 1 year on specified calendar days.
Open channel flow measurement:	Optional: Bubbler or ultrasonic open channel flow measurement: Straight weir Venturi Formula 1: Q=C x (R)h3 × 3600 Formula 2: Q=C x he x 3600 Data table over 24 points
Communication:	Optional: Ethernet, modbus & profibus
Software:	Free supporting software from Unitronics

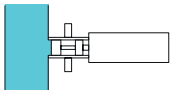
Installation instructions:

- Place sampler in a 100% filled pipe free from air inclusion and in horizontal piping a minimum flow velocity of 0,5/s.
- Ensure there is enough height for the silicon hose which enters the inlet in the enclosure.
- Do not place the sampler in turns or reduces.
- For safe maintenance and reparations the sample pipe needs to be empty.
- Don't place the sampler in or after a downward flow.
- Maximum pipe pressure 2,5 bar (optional 5 bar)
- Ensure the sampler doesn't stick in the piping in standby position.



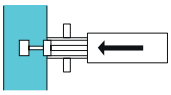
Operational principal:

1.



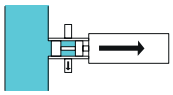
The sampler is in standby position, the plunjer has its cavity above the outlet.

2.



When the actuator is driven by compressed air the plunjer will shoot inward the piping and the cavity will fill with medium.

3.



After several seconds the plunjer shoots back in the inclosure and medium from the cavity drains through the outlet. After discharging the sampler is back in standby position.

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