

Operation instructions

5.1 Technical specifications

ILS “Guillotine” 05 according ISO 5667-2&10 en NEN 6600-1	
Sample characteristics: <ul style="list-style-type: none"> • Sample cycle • Wetted parts • Material plunger • Material seals • Waste water temperature • Maximum pressure • Minimal pipe diameter • Minimal diameter • Sample volume 	Principe Plunger / Cutting device <ul style="list-style-type: none"> • ± 5 sec total • RVS 316 V4A, PTFE, Viton, POM, Silicon • RVS 316 V4A • Viton & PTFE • max 35° C (higher on request) • 2 Bar (higher optional) • 100mm smaller use special fitting • 14 mm • 50 ml fixed volume (optional smaller volume)
Actuator: <ul style="list-style-type: none"> • Air supply • Protection class • Enclosure cylinder • Air connection • Activation time • Response contact 	Pneumatic <ul style="list-style-type: none"> • 6-8 bar conditioned • IP 65 • Hard Anodized Aluminium cylinder • Coupling for 8mm compressed air hose • 5 sec • Optional
Valve: (Optional) <ul style="list-style-type: none"> • Power supply • Current 	5/2 Valve, with NAMUR <ul style="list-style-type: none"> • 24 VDC ±5% / 0.13A • 0,13A
Surrounding conditions: <ul style="list-style-type: none"> • Ambient temperature • Zone 	<ul style="list-style-type: none"> • 0,1° C to +40° C (lower optional) • Not i

5.2 Dimensions

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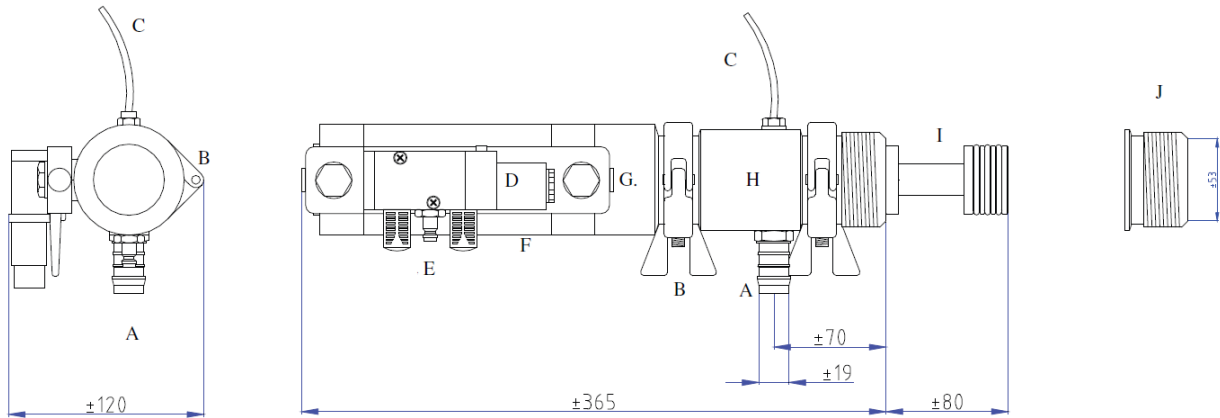


Fig. 5.2a

- A) Sample drain pillar
- B) RVS Tri-clamp couplings
- C) Exhaust
- D) Magnet for 5/2 valve (Valve is optional)
- E) Air coupling
- F) Cylinder
- G) POM nose block
- H) SS 316 Enclosure
- I) SS 316 Plunger
- J) Mounting welding ridge with 2" thread

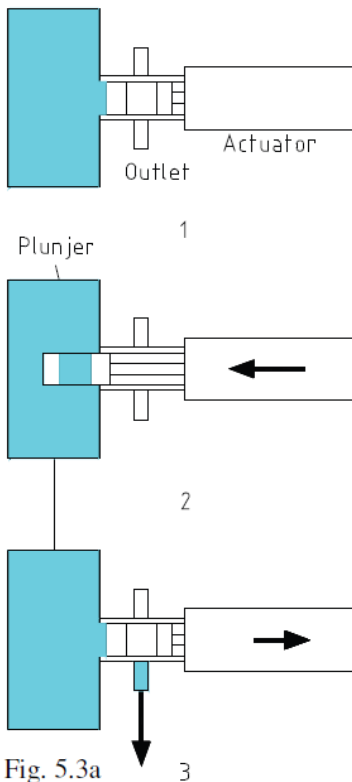


Fig. 5.3a

5.3 Principle of operation

The sampling cycle from an ILS Guillotine sampler

- The sampler is in **standby position**, the plunger has its cavity above the outlet.
- When the actuator is driven by compressed air the plunger will “shoot” inward the piping and the cavity will fill with medium (**fill position**).
- After several seconds the plunger shoots back in the enclosure and medium from the cavity drains through the outlet. After discharging the sampler is back to **standby position**.

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5.4 Installation instructions

See fig. 5.4 for installation instructions, keep in mind:

- 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 bar
- Ensure the sampler doesn't stick in the piping in standby position.

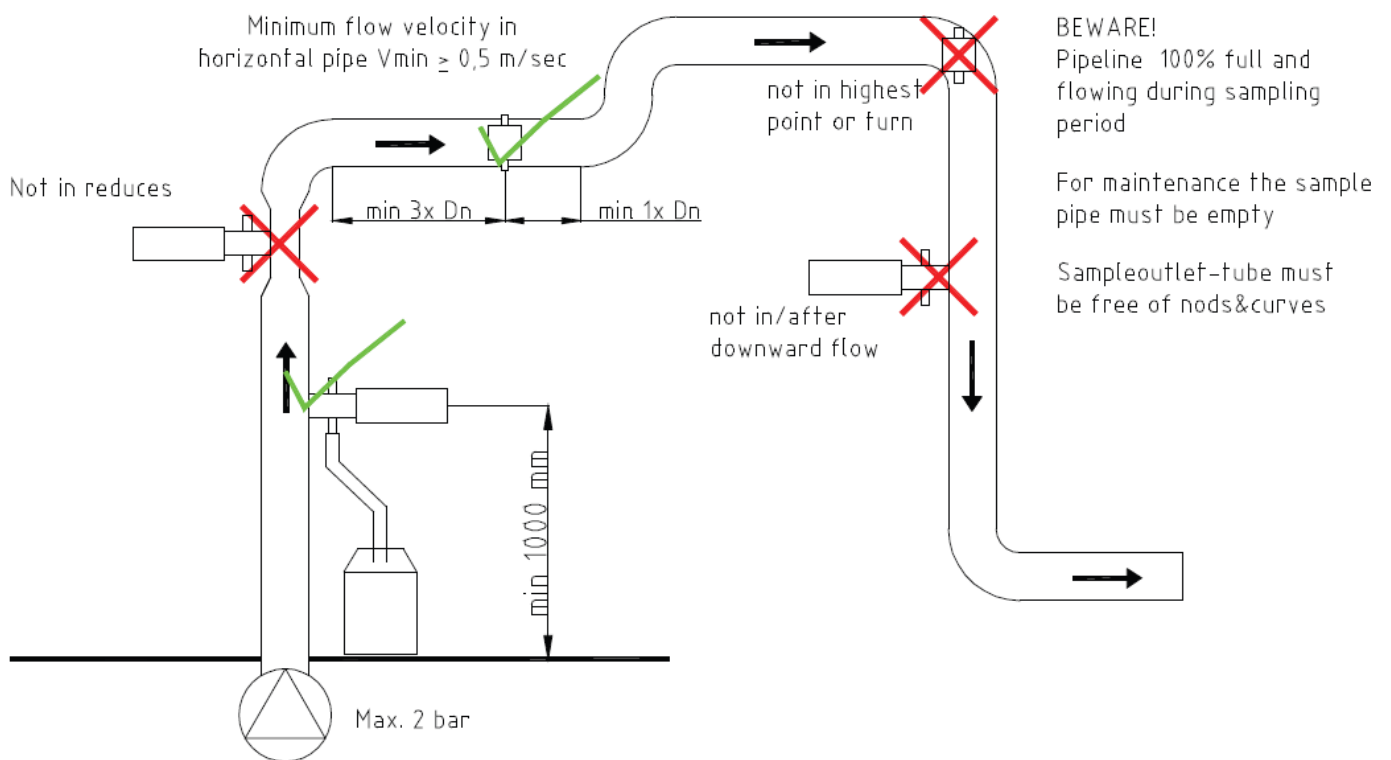


Fig. 5,4a

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5.5 Changing sample volume

To change the sample volume from the ILS Guillotine Sampler the plunger needs to be replaced. There are different plungers with a sample volume < 50 cc available.

5.6 Maintenance

Be aware! Remove power supply, compressed air supply and medium pressure before maintenance or reparations.

Maintenance en reparations should be done by qualified personnel.

Avoid direct contact with waste water/medium, wear during use/maintenance/reparation of the sampler protective gloves.

Be Aware! When removing the sample drain hose from the pincher the danger of fingers entering the pincher accurse, this can cause serious injuries.

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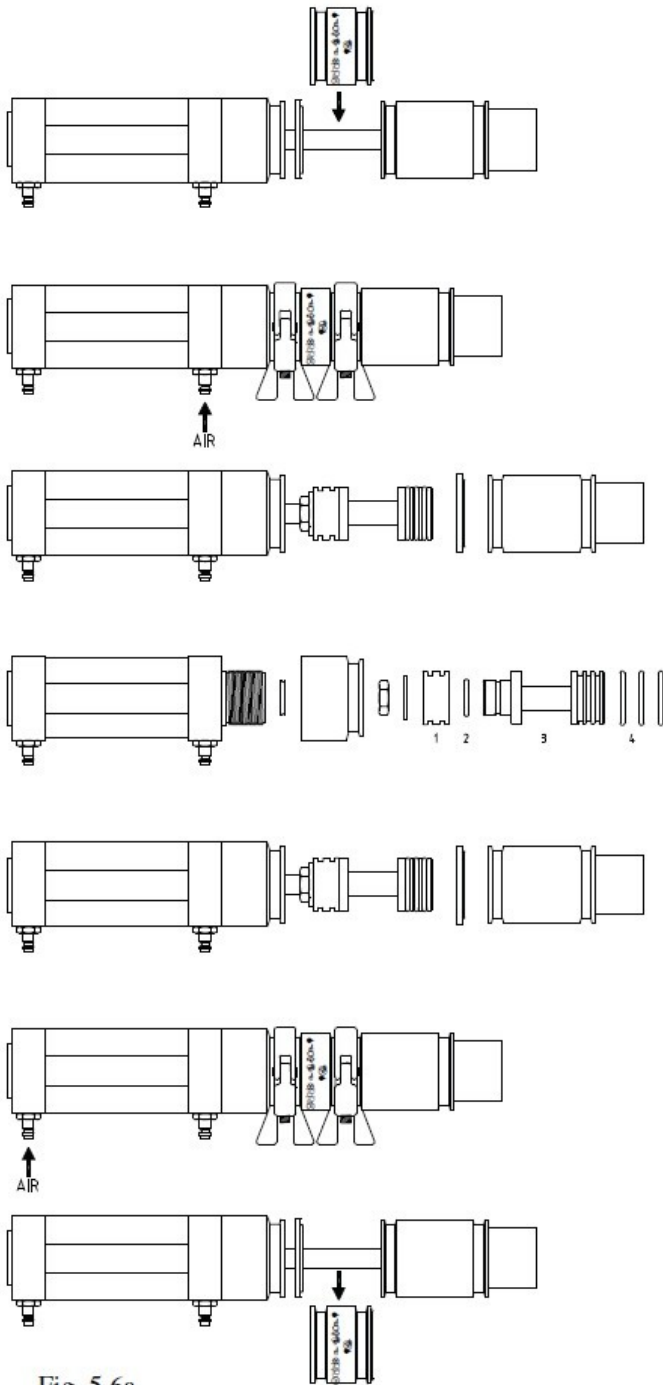


Fig. 5.6a

Maintenance:

Regular (depends on use and sample frequency) clean, or replace if necessary the plunger, sample outlet pillar and sample drain hose with a soft brush and tap water. Regular check if the seals on the plunger are worn.

Disassembly:

- Remove the front TRI-Clamp coupling and pull the sampler from the piping.
- Remove the 2nd TRI-Clamp coupling and pull the enclosure away from the cylinder.
- Place the ILS-service tool around the axle and mount it with 2 TRI-Clamp couplings.
- Place compressed air on coupling B and the plunger shoots backwards (**BE AWARE FINGERS!**).
- Remove the ILS-service tool and pull the enclosure loose from the last seals on the plunger.
- Loosen the locking nut from the plunger and loosen the plunger from the axle

Revision:

Replace the seals on the plunger (3 in fig 5.6a), 3x Viton large (4), 1 Viton small (2) and 1 Teflon (1). Loosen the black protection cover from the cylinder to replace the x-ring on the axle.

Mounting

Work opposite to the disassembly to assemble the sampler. When placing the seals make use of some form of lubricant.

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Problem	Diagnose	Solution
Sampler doesn't sample automatic	Check sampling settings	→ §3.5
	No compressed air	Connect compressed air
	Connector not correctly connected	Rewire connector (→ §5.4)
	Cylinder leaks air	Replace cylinder
Low sample volume	Plunger polluted	Clean plunger (→ §5.6)
	Sampling in a downward flow	See installation instructions (→ §5.3)
Sampler works but doesn't discharge medium	Plunger clogged with dirt	Clean plunger (→ §5.6)
	Sample drain outlet clogged	Clean sample drain (→ §5.6)
Sampler leaks medium from sample outlet	Leaking/worn seal /O-rings	Replace seal / O-rings (→ §5.6)
Sampler drops sample on activation	Air coupling wrongly connected	Switch couplings on cylinder