

FULLY AUTOMATED
TOP OF REACTOR
PFA LINED
SAMPLING SYSTEM



Automated
system



Multi sensors
equipment



FDA compatible
sampler



Atex certified
device



Maximise the safety and efficiency of your hazardous fluid sampling with the automated system UPR. Designed to ensure accurate and representative samples, this device incorporates bottle detection and filling sensors for risk-free operation. Its multiple connections simplify the installation of cleaning systems and sensors for monitoring pH, temperature, and redox potential. Its modular, adaptable design ensures the precise addition of liquids to the reactor, consolidating its reputation for versatility and precision.

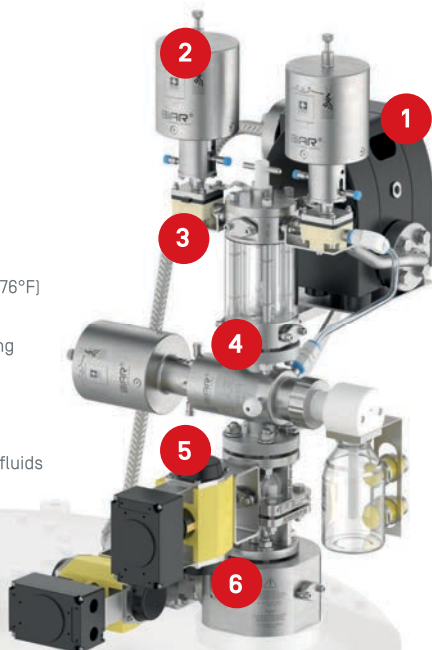


UPR SAMPLING SYSTEM

fully automated, sensor-equipped, easy to use
top of reactor sampling solution

FEATURES

- Non-disruptive, quantitative sampling
- Corrosion resistant materials for wetted parts
- Operating pressures : 0 to 6 bar (0 psi / 87 psi)
- Operating temperatures : -20°C to 80°C (-4°F / +176°F)
- ATEX-certified system & automation
- Versatile connection range for measuring & rinsing
- Incorporates re-circulation pumps
- Fluid circulating back to reactor
- Required 4 bar min. air pressure to operate
- Designed for the precise & controlled addition of fluids



TECHNICAL DETAILS

1. Diaphragm pump

Recirculation pump ensuring representative sampling.
Materials : PTFE - Flow rate: 3.4 m³/h max - Viscosity: >2000 cP

2. Pneumatic valves

Diaphragm valve for recirculation & vent hole. Equipped with sensors.
Materials PVDF, PTFE

3. Sampling cylinder

150 ml glass cylinder featuring 5 connections [rinsing, control]
Materials: Borosilicate, PFA

4. Sampling unit

Sampling valve with sensors [bottle detection, liquid level] featuring vent hole.
Materials: PFA, PTFE

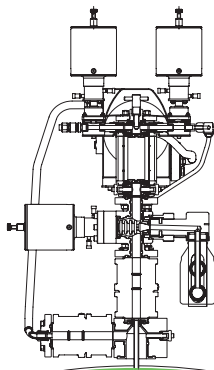
5. Ball valves

Pneumatically operated isolation ball valves controlled by sensors.
Materials : PFA PS max : 16 bar TS -20° to 180°C

6. Flange and dip tube

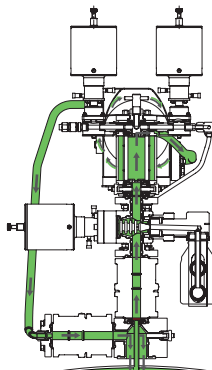
Flange with 2 possible diameters with flexible PFA dip tube up to 4 m long.
Material PFA

INITIAL PHASE



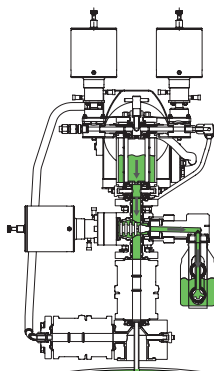
All valves closed, pump off.
System isolated from reactor

PRODUCT RECIRCULATION



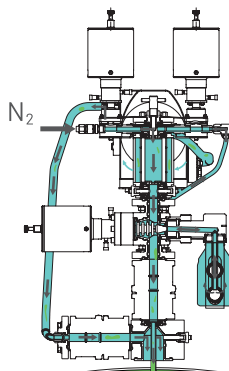
Pump on for liquid recirculation
between reactor and system

SAMPLING



Pump off, sampling with bottle
detection and liquid level control

RINSING



Isolation valves for
nitrogen/solvent rinsing

REACTOR SAMPLING SOLUTIONS

TOP OF REACTOR

Pneumo-magnetic driven xflow systems and UPR ranges



SIDE MOUNTED

Flanged laterally mounted systems on reactor side



RAM or quantitative

Reactor bottom samplers



BY PASS

Sampling on by-pass lines with standard in-line valves



SWISS SAMPLING SPECIALIST SINCE 1983

Since 1983, BIAR SA has embodied Swiss excellence by designing and manufacturing sampling systems that meet the strictest quality and safety standards. As an industry pioneer, our aim is to improve the efficiency, sustainability, and reliability of industrial processes related to complex liquid sampling. Committed to act responsibly, sustainably, and innovatively at all times, BIAR follows three main pillars at the core of our approach: **Safety, Efficiency, Simplicity.**

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