

Please refer to page 6 for selection details

Water Quality Analysis

Acid/alkali Concentration Analyzer AC-P1



Operational Principle

The instrument adopts a conductive electrode type sensor for measurement (the concentration electrode material is platinum). To avoid electrode polarization, the instrument generates a highly stable sine wave signal added to the electrode. The current flowing through the electrode is proportional to the concentration of the measured solution. The current flowing through the electrode is measured by a preamplifier and converted into a voltage signal. After programmable amplification, phase sensitive detection, and filtering, a voltage signal reflecting the concentration value is obtained; The microprocessor alternates sampling of temperature and concentration signals through switch switching. After calculation and temperature compensation, it converts and displays the measured concentration value and real-time temperature value at 25 °C.

The principle of automatic temperature compensation: The concentration of the measured solution is non-linear proportional to its conductivity, and the conductivity of the solution changes due to temperature, requiring temperature compensation. The temperature characteristics of various solutions are different, and processing by microprocessors becomes both fast and accurate, achieving the function of automatic temperature compensation.

Functional Characteristics

Intelligence: Using a single chip microprocessor to measure acid-base concentration values;

High impedance preamplifier: high input impedance, anti noise, strong anti-interference ability;

Multiple calibration methods, including zero calibration, slope calibration, and on-site calibration;

Human machine dialogue: menu operation structure, users can operate according to the prompts on the screen;

Multi parameter display on the same screen: simultaneously display the acid-base concentration value and working status or output current value;

Output signal: The software selects 0-2mA, 4-20mA, or 20-4mA for output;

Free setting of measurement range and alarm upper and lower limits; Upper and lower limit exceeding alarm prompt;

Three sets of relay control switches, with adjustable hysteresis control range;

Self cleaning switch setting, setting cleaning time and interval;

Data storage, operation logs, and printing functions;

Maintenance is very simple, it is recommended to calibrate once a month;


Adopting multiple calibration methods to ensure measurement accuracy;

Chinese and English menus are optional.

Product Application

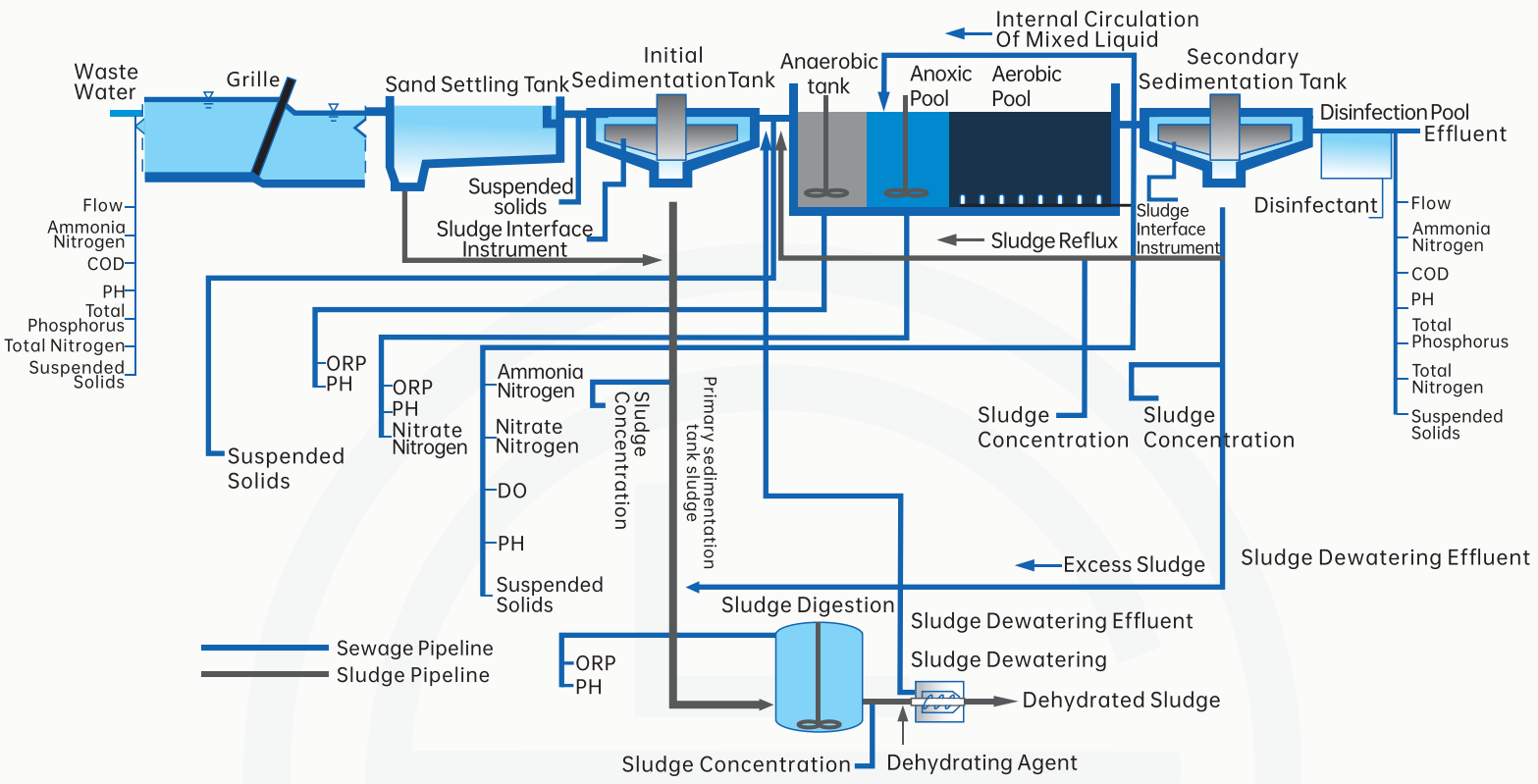
Widely used in industries such as electricity, chemicals, metallurgy, food, pharmaceuticals, etc. Excellent performance in industrial process monitoring and other applications

Product Model

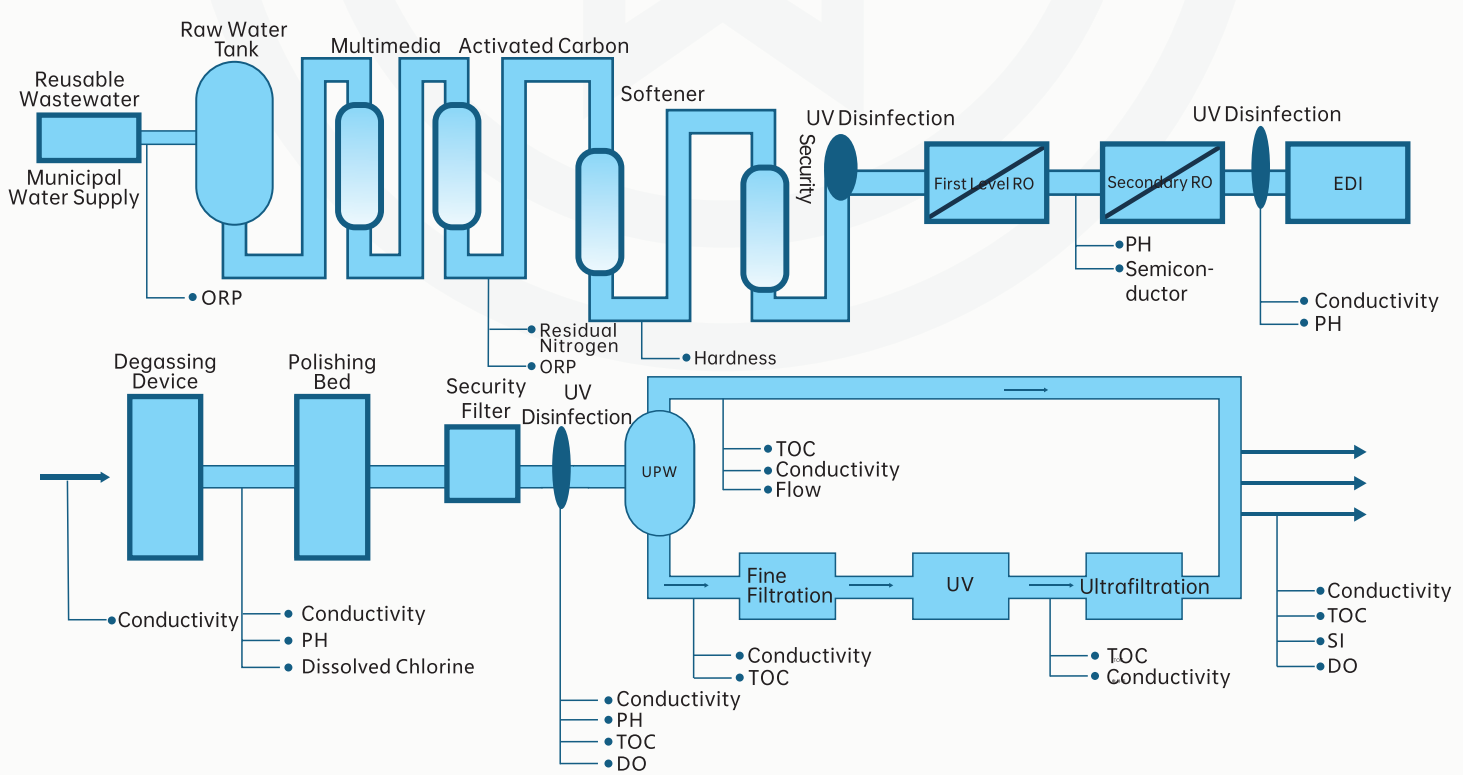
Model	AC-P1	
Product Diagram		
Display	4.3-inch LCD color screen	3.2-inch LCD screen
Installation method	Circulation type	Circulation type
Measuring range	0-10% (HCL) , 0-15% (NaOH)	0-10% (HCL) , 0-15% (NaOH)
Resolving power	0.01%	0.01%
Temperature compensation type	NTC2252, NTC10K,PT1000,PT100	NTC2252, NTC10K,PT1000,PT100
Temperature range	-10-80°C	-10-80°C
Electrode material	Hurricane, quartz glass	Hurricane, quartz glass
Installation interface	Quick connect 8mm	Quick connect 8mm
Isolation output current	4-20mA(Load resistance<800Ω)	4-20mA(负Load resistance<800Ω)
Communication interface	RS-485 Modbus standard communication protocol	Optional RS-485 Modbus standard communication protocol
Two sets of relay contacts	3A 240VAC, 6A28VDC or 120VAC	3A 240VAC, 6A28VDC or 120VAC
Power supply	85-260VAC/50-60Hz or 24VDC	85-260VAC/50-60Hz or 24VDC
Power	≤3W	≤3W
Quality	0.82kg	0.5kg
External dimensions	180x157x84.5mm	96X96X125mm
Installation opening	Plate mounted 138x138mm (wall mounted)	Plate mounted 92X92mm
Usage conditions	Temperature 0-45 °C, humidity not exceeding 85%, no electromagnetic field interference	Temperature 0-45 °C, humidity not exceeding 85%, no electromagnetic field interference
Data function	Data storage, operation logs, Bluetooth printing	-

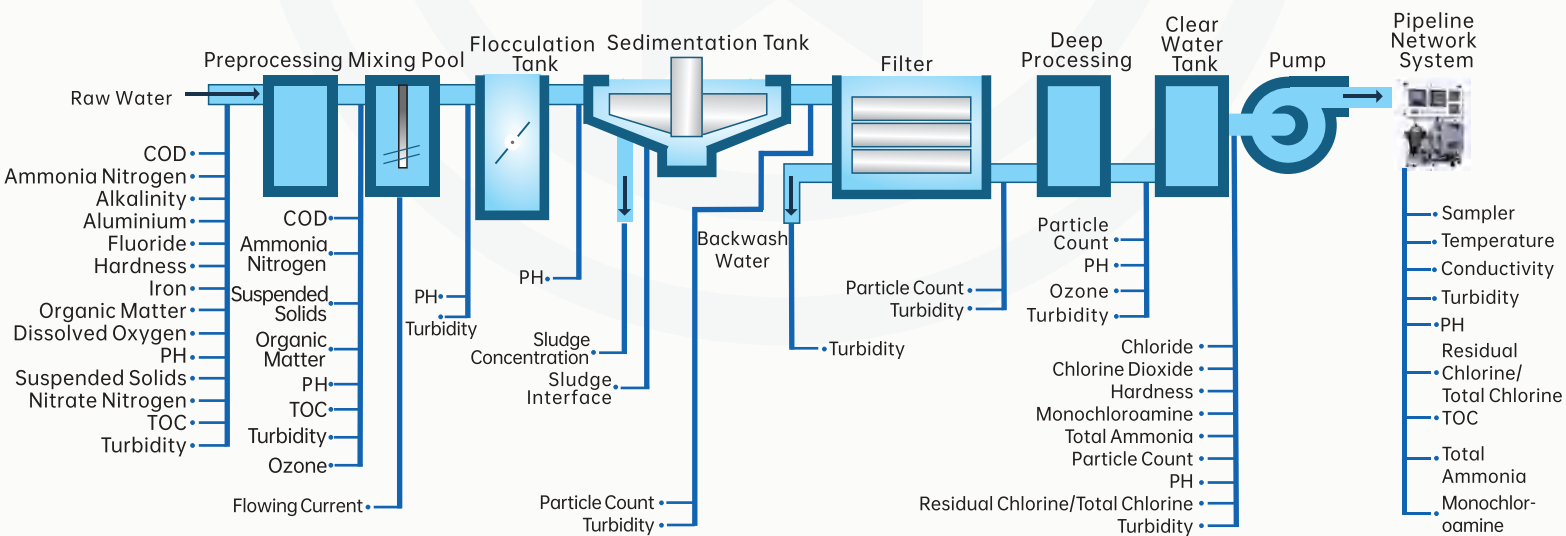
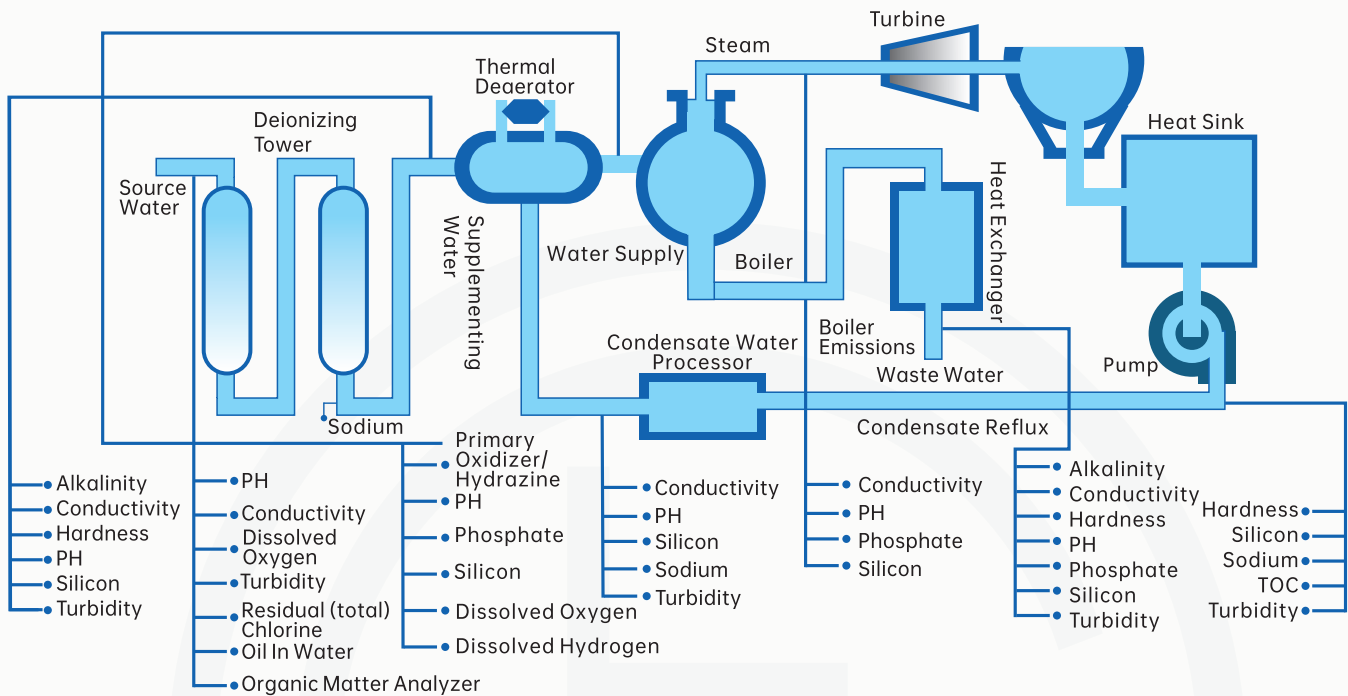


Sewage Treatment Process Diagram

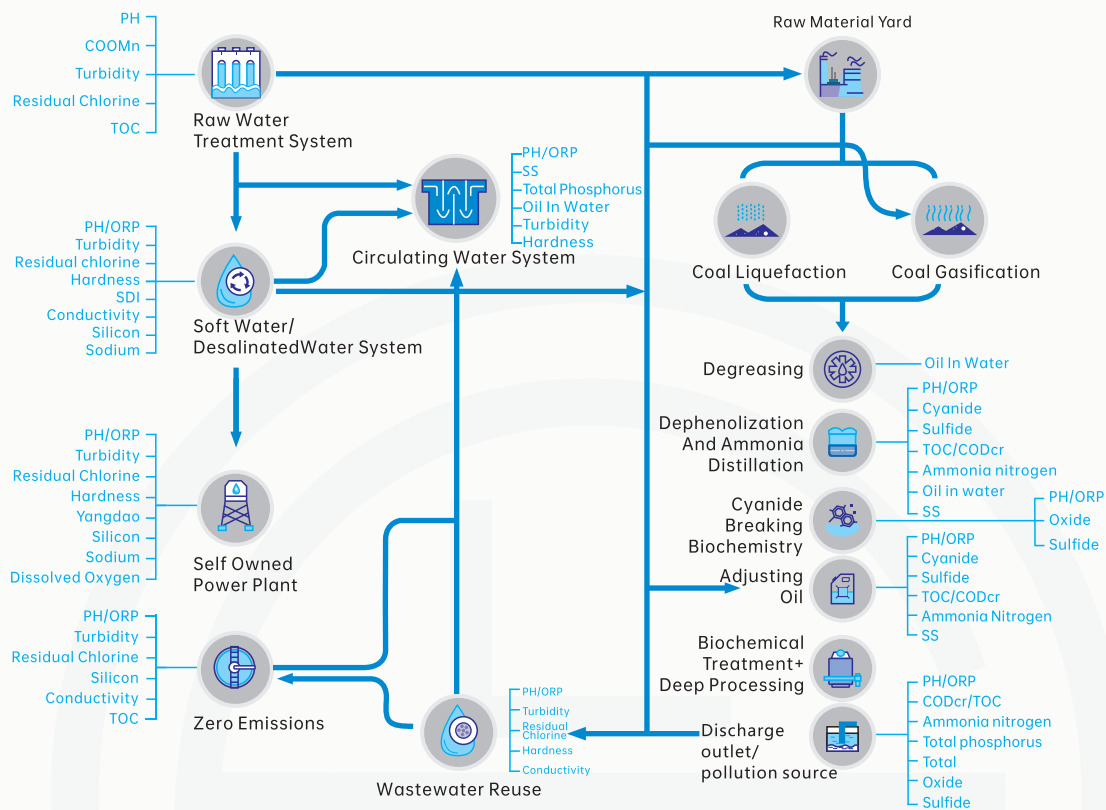


Electronic Industry Water/Wastewater Reuse Process and Water Quality Monitoring Plan



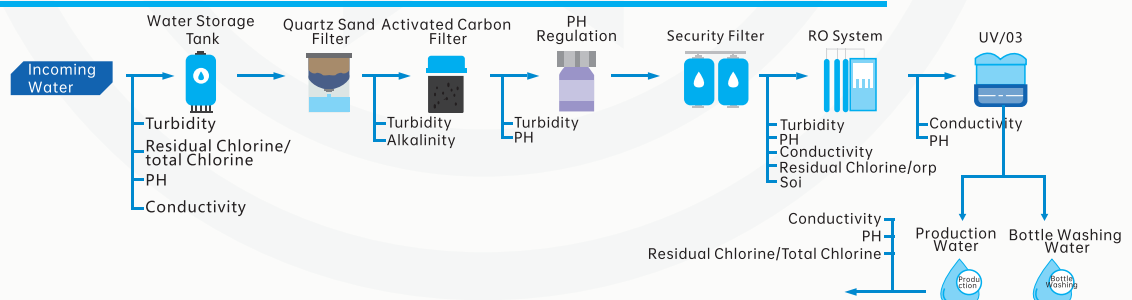


Petrochemical Environmental Water Treatment Process Diagram

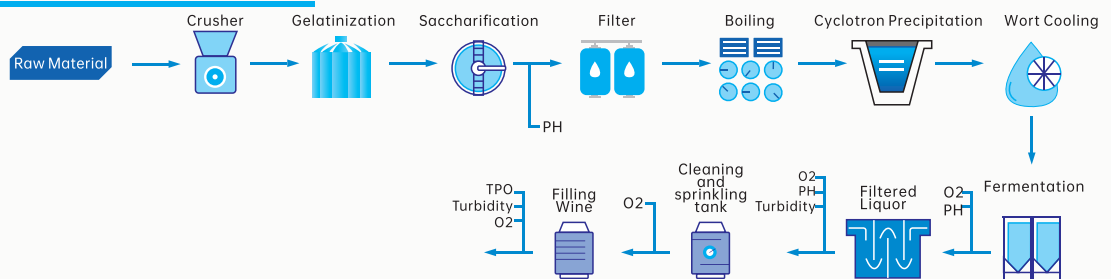


Wastewater Treatment Process And Water Quality Monitoring Plan For The Beer And Beverage Industry

Process Flow Of Beer Beverage Raw Water Pretreatment



Beer Water Usage Process



AC-P1 Selection Composition

Selection example **AC-P1**

A **E** **R** **G** **L** **M** **A** **H** **C**

1.Model	A	AC-P1
2.Display Size	E	4.3-inch LCD color screen
	F	3.2-inch LCD screen
3.Measurement ranges	R	Acidity 0-10% (HCL)
	O	Alkalinity 0-15% (NaOH)
	T()	Other measurement ranges
4.Resolutions	G	0.01%
	T()	Other resolutions
5. Installation method	L	Circulation type
6. Electrode material	M	Hurricane material
	T()	Other materials
7.Installation interface	A	Quick connect 8mm
	T()	Other connection types
8.Temperature compensation type	H	NTC2252
	I	NTC10K
	J	PT1000
	K	PT100
	T()	Other types
9.Output signals	C	4~20mA
	D	4~20mA+RS485
	E	4~20mA+RS232
	T()	Other output signals

Explanation:

AC-P1 acid/alkali concentration analyzer, equipped with a 4.3-inch LCD color screen, range of 0-10% (HCL), resolution of 0.01%, hurricane electrode, installation method of flow type, installation interface of 8mm quick connect, temperature compensation type of NTC2252, output signal of 4-20mA.

Product certification

Compliance and approval; The Ludwig water quality analyzer meets key standards and certifications for process measurement technology; To ensure the highest reliability in such settings;