



Sustainable Energy & Environment Solutions www.axisindia.in

## AXIS AT GLANCE



**Dr. Bijal Sanghvi** *Managing Director* 

Since 1999, with a vision to provide efficient, reliable and sustainable solutions for increasingly complex industrial environments. We, Axis Solutions Limited, emerge as a world-class System Integrator & innovative solutions provider to cater to oil & gas, petrochemicals, refineries, power plants, minerals & other engineering verticals globally through our worldwide regional offices by the team of 240+ that drives Axis passionately in our facilities with engineering, manufacturing, testing, research, and development to provide solutions in Analytical specifically for Gas, Water, Hydrocarbon measurement, Thermal management, Pressure-regulation, industrial automation, IIoT & Industry 5.0."

# OUR VERTICALS

# Analytical Systems

**Integrated House / Shelter** 

Analyzer House / Shelter

Process GC Shelter

Passive Cooled Shelter

Integrated CEMS / GAS

Integrated SWAS

**Purge Panel** 

**System Solutions** 

Calibration Unit

Aspiration System
Close Loop SHS

Liquid Sample Recovery System

Auto Change Over Unit

Double Block and Bleed System

Validation System for HC Liquid

# Analyzer Packages/ Solutions

Blending Analyzer System

**Sulphur Recovery Unit** 

Kiln/Coal Mill

Process Packages

Analyzer with House/Shelter

**Weather Station** 

**Liquid & Water Solutions** 

FGD

CAAQMS

CEMS

**SWAS** 

SCR

### Axis Products

AMISON | GAS Components

baspa | SWAS Components

Typhoon | Pressure Regulators

snowind | Thermal Systems

Ex HVAC / HVAC

Ex AC / Split AC

Ex Proof Chiller

Vortex Cooler

Services & MRO

G. .....

Health check up

Installation

Commissioning

AMC

CMC

**Extended Warranty** 

Retrofitting

### **Product Horizon Gas Components** - Sample Gas Probes - Dilution Probes - Sample Gas Coolers VMI2ON - Sample Filters/Scrubber/NOx Converter - Condensate Removal (Liquid Drainer & Peristaltic Pump) - Eductor(Ventury pump)/Heatless Dryer **SWAS Components** - Sample Cooler båspã - Auto Shut-off Valve - Miniature Header - Direct Acting Pressure Reducing Valve - Sight Flow Indicator - Stream Sequencer Unit - Strainer **Thermal Components** - Safe/Ex-Proof Heating & Ventilating Air Conditioning Unit (XVAC) snowind - Panel Air Conditioning Unit - Ex-Proof Air Conditioning Unit - Chiller Unit - Ex-Proof Split Air Conditioning - Vortex Cooler and Vortex Tube **Pressure Regulations** Typheen - Auto Changeover Regulator - Single stage/Cylinder Pressure Regulators - Dome Loaded Pressure Regulator - Pilot Operated Pressure Regulator - Relief Valve - Adjustable & Inline - Non Return Valve **Water Monitoring System** W-BRI - Chlorine/Turbidity Analyzer, - COD, BOD, TSS, Sensor, UV-VIS Probe - Chlorine, Turbidity, Ammonium, pH, Conductivity Sensors, - Smart Controller & Multi parameter Controller i-BRIX **Field Instruments** - Temperature Transmitters - Pressure Transmitters - Flow Meters - Level Transmitters



## Analyzer House / Shelter



- Suitable for Zone 1 or Zone 2, GR. IIC or IIA, IIB
- SS 304, SS 316, GI options available

## **Applications**

- Flow metering
- Gas chromatograph
- ▶ Blending, SRU & Process Analytical

## **E-House**



- Custom sizing available
- Inbuilt auxiliary equipment options

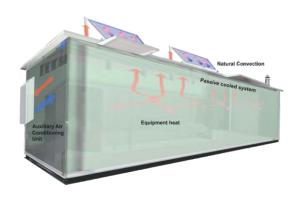
### **Types**

- Fire Retardant
- GRP
- Fire Resistance
- Blast Proof

## **Applications**

- Electrical room E-House
- Power & Communication
- Data storage E-House
- Instrumentation E-House

## **Passive Cooled House / Shelter**



- **▶** 10-15°C Cooler than daytime ambient\*
- No Electricity, No maintenance, Eco-Friendly
- Plug and play installation

\* Depends on Day & Night Temperature Difference



## **Purge Panel**



- ▶ HC accumulation is taken care
- Best economical option

## **Types**

- Purge panel for Zone 1 / Zone 2
- Purge panel with Ex AC / IP65
- Purge panel with Vortex cooler

## **Gas Analysis System** GAS





- Hot extractive
- Dilution technology
- Multi measurement system

### Measurement

- CO & CO<sub>2</sub>
- $CH_4$
- SO<sub>2</sub>
- 0,
- THC
- NOx, NO
- SPM
- Opacity & Particulate
- Zirconia Oxygen Analyzer

### \MISON **Gas Components**



Sample Gas Probe



Blow Back Sample Gas Probe Box





Sample Gas Cooler









Sample Gas Filters

Ex-Proof Sample Gas Cooler





Ex-Proof Sample Gas Probe







Peristaltic Pump / Liquid Drainer



NOx Converter





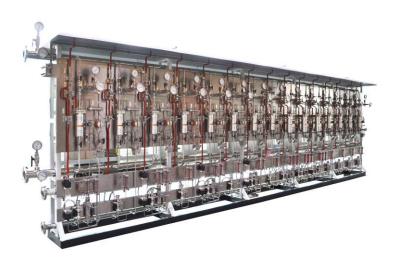


## **Steam and Water Analysis Systems**

SWAS - Single/Multi Stream



- Compact design
- Efficient cooler design
- Ease of Installation
- ASME PTC standarded sampling system
- Open rack type / Walk through panel / Inside shelter
- Online analysis with grab Sampling



### Measurement

- pH / ORP
- SC, CC, CD
- Dissolved O<sub>2</sub>
- Chlorine
- Silica
- Sodium
- Phosphate
- Hydrazine
- Hydrocarbons in Water
- Oil in Water



## **SWAS Components**



Sample Cooler



Miniature Header



Direct Acting Pressure Reducing Valve



Auto Shut-off Valve



Sight Flow Indicator



Strainer



Back Pressure Regulator



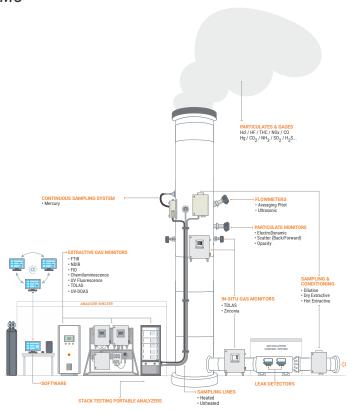
Cation Column





## **Continuous Emission Monitoring System**

**CEMS** 

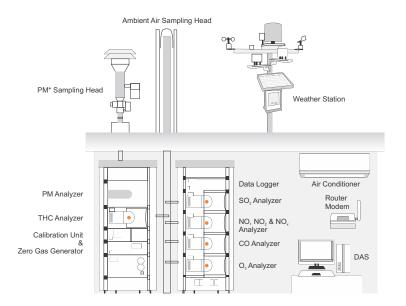


- Data acquisition System
- Auto calibration System
- ▶ 19" Rack mounted analyzer

### Measurement

- SOx, NOx, CO & CO<sub>2</sub>
- $O_2$
- Mercury
- Stack Dust Monitor
- Stack Flue Gas Flow Meter
- Temperature and Moisture
- Differential Pressure Transmitter

## **Continuous Ambient Air Quality Monitoring System** - CAAQMS



### Measurement

- **▶** SO₂
- **▶** CO, CO₂
- PM<sub>2.5</sub> & PM<sub>10</sub>
- NO, NO₂ & NOx → O₃ (Ozone)
- Metrological Sensors

- NH₃
- VOC (BTEX)

## **Weather Station** WS







Total Solar



# **Heating and Ventilating Air Conditioning Unit**

**⟩**⟨VAC



- Industrial heavy-duty design
- Redundant unit / Blower option available
- **3**, 5, 7.5, 10, and 12-ton capacity options
- (- ve) °C to 60° C Customizable ambient design
- Ease of Maintenance







## **Ex-Proof AC**



- Split and Standalone type Models
- Designed for 0 to 60° C ambient temperature
- ▶ 110/230/415/480 VAC, 50/60Hz input supply
- **Delta 1.5** 0.6, 1, 1.5, 2 Ton Capacity





## **Ex-Proof Chiller**



- ➤ Suitable to Zone 1 & 2, IIB + H2
- Efficient cooling capacity
- > High-Quality CRCA, SS 304, SS 316 options
- Individual electrical components are ATEX / PESO certified













## **Calibration Unit**

For Zirconia Oxygen Analyzer





**Auto Calibration Unit** 

Manual Calibration Unit

**Aspiration System** 



## **Auto Change Over Unit**

Suitable for Gas Detectors

## **Close Loop Sampling System**

**CLSS** 



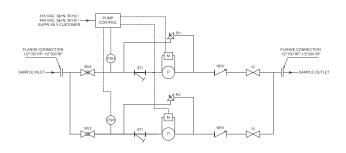
Sample Cylinder DOT/TPED approved

## **Liquid Sample Recovery System**

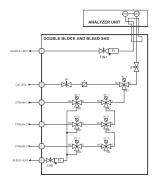


Suitable for Zone 1 or 2 Gr IIA/B, IIB+H2

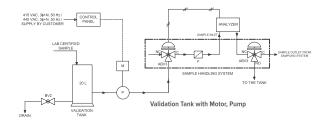
## **Fast Loop System**



## **Double Block & Bleed System**



## Validation system for HC liquid



# Typh⊚⊚n Pressure Regulators



Auto Change Over Regulator



Single Stage Pressure Regulators



**Dual Stage Cylinder Pressure Regulator** 



Piston Type Pressure Regulator



**Back Pressure Regulators** 



High Precision Pressure Regulator



Inline Relief Valve / Adjustable / Inline Filter



Pilot Operated Pressure Reducing Valve



Dome Loaded Pressure Regulator





Indoor/Out Door Air Conditioning Unit



Safe Area Chiller Unit



Peltier Air Conditioning Unit



Split Air Conditioning Unit



Vortex Cooler & Tube

## **Technology Product Presentation**

## W-BRIX

### **Water Analyzer**



**Online Water Analyzer &** COD, BOD, TSS, Colour



Multiparameter Controller



**Automatic Chlorine Dosing System** 

- COD, BOD, TSS, pH, NO<sub>3</sub>-N, NH-N, TN, Turbidity, Colour, Cond., DO, NH<sub>4</sub>, ORP, Nitrate, Residual chlorine, FC, OIW, Oil & Grease, Fluoride, Ferous, Hardness, Phenol, Phosphate, Iron, Total phosphate, Sulphide, Arsenic.

### **Sensors**

- In-built Temperature and pH Compensation
- Robust & Waterproof (IP68)
- 1-sec On-line Realtime Measurement
- Factory pre-calibration for easy set up



### **Sensors**



**UV-VIS Probe** 



Ammonium Sensor



pH Sensor



- Fast and accurate measurement
- Temperature Compensation
- Field calibration for more accuracy

### **Process Instruments**



- Smart, Head & Din Rail Transmitter
- Single Instrument for Multi-parameter
- Display Auto Shut-Off Facility
- Bluetooth, IoT & Hart Available
- Weatherproof IP65, IP67



**Pressure Transmitter** 



**Electromagnetic Flow Meter** 



**Ultrasonic level Transmitter** 



**Ultrasonic** Flow Meter



**Temperature Transmitter** 

# **Our Journey**

### 1999 Onwards



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India-382430

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Janakpuri, New Delhi-110058

Mumbai

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324, Road No. 5

India-382430

Ahmedabad, Gujarat

404, The Ambience Court, Phase 2, Sector 19E, Vashi, Navi Mumbai, Maharashtra-400703

Manufacturing Unit - 3

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Bengaluru

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