BAUER COMPRESSORS
Quality. Our DNA

INSTRUAIRE®

Desiccant-Free Quality Instrument Air for Process Control in Tropical-Hot & Humid Environments

TECHNICAL DATA: INSTRUAIRE

BAUER INSTRUAIRE® Air Quality Specifications	
Expected Dew Point Measurements	0°F +/-10°F (-17.8°C +/- 5.5°C) at 145 PSIG 110°F (43.3°C) ambient , 90% RH, sea level
Particle Size	< 1 micron
Hydrocarbon Content	< 1 PPM
SYSTEM CAPACITY FOR EACH INSTRUAIRE® MODULE	
Air Delivery	360 CFM
Storage Pressure	3500 - 5000 PSIG (241- 345 BAR)
Distribution Pressure	145 PSIG (10 BAR) max
Amount of Buffer Storage	2 ASME 5500 PSIG (34.15 ft^3) storage vessel

QUALITY STANDARD:

FOR INSTRUMENT AIR (ANSI/ISA-S7.0.01-1996)

Particle Size: A maximum of 40 micrometer particle size in the instrument air system is acceptable for the majority of pneumatic devices.

Hydrocarbon Content: The lubricant content should be as close to zero as possible, and under no circumstances shall it exceed one (1) PPM w/w or v/v.

Dewpoint: The pressure dew point as measured at the system outlet shall be at least 10°C (18°F) below the minimum temperature to which any part of the instrument air system is exposed. The pressure dew point shall not exceed 4°C (39°F) at line pressure.

TECHNICAL DATA: INSTRUAIRE PLUS

BAUER INSTRUAIRE® Plus Air Quality Specifications	
Air Quality	Meets CGA G-7.-2011 Grade E Standard
SYSTEM CAPACITY FOR EACH INSTRUAIRE® PLUS MODULE	
Air Delivery	120 SCFM max (deduct from total air delivery)
Storage Pressure	3500 - 5000 PSIG (241- 345 BAR)
Distribution Pressure	125 PSIG (8.6 BAR) max
Amount of Buffer Storage	1 ASME 5500 PSIG (34.15 ft^3) storage vessel

QUALITY STANDARD:

FOR BREATHING AIR (CGA G-7-2011 Grade E)

- **Total Gaseous Hydrocarbons:** 25 PPM
- **Carbon Monoxide:** 10 PPM
- **Carbon Dioxide:** 1000 PPM
- **Dew Point:** -65 °F
- **Oil Particles:** 5 PPM
- **Odor as Supplied by Customer:** None/Slight

LEARN MORE AT: www.BauerComp.com

GLOBAL SUPPORT | SINGLE SOURCE RESPONSIBILITY | LOW COST OF OWNERSHIP | LIFECYCLE PERFORMANCE

FOR MORE INFORMATION ABOUT OUR CUSTOMER SUPPORT PLEASE VISIT: **www.BauerCustomerSupport.com**

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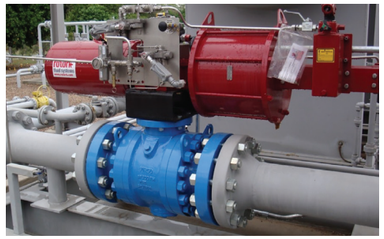
Subject to technical changes



APPLICATIONS

Instrument Air suitable for land-based refineries and offshore environments located in hot and humid hydrocarbon-rich environments.

REASONS AGAINST DESICCANT REGENERATIVE DRYERS TO INSTRUMENT AIR APPLICATOINS

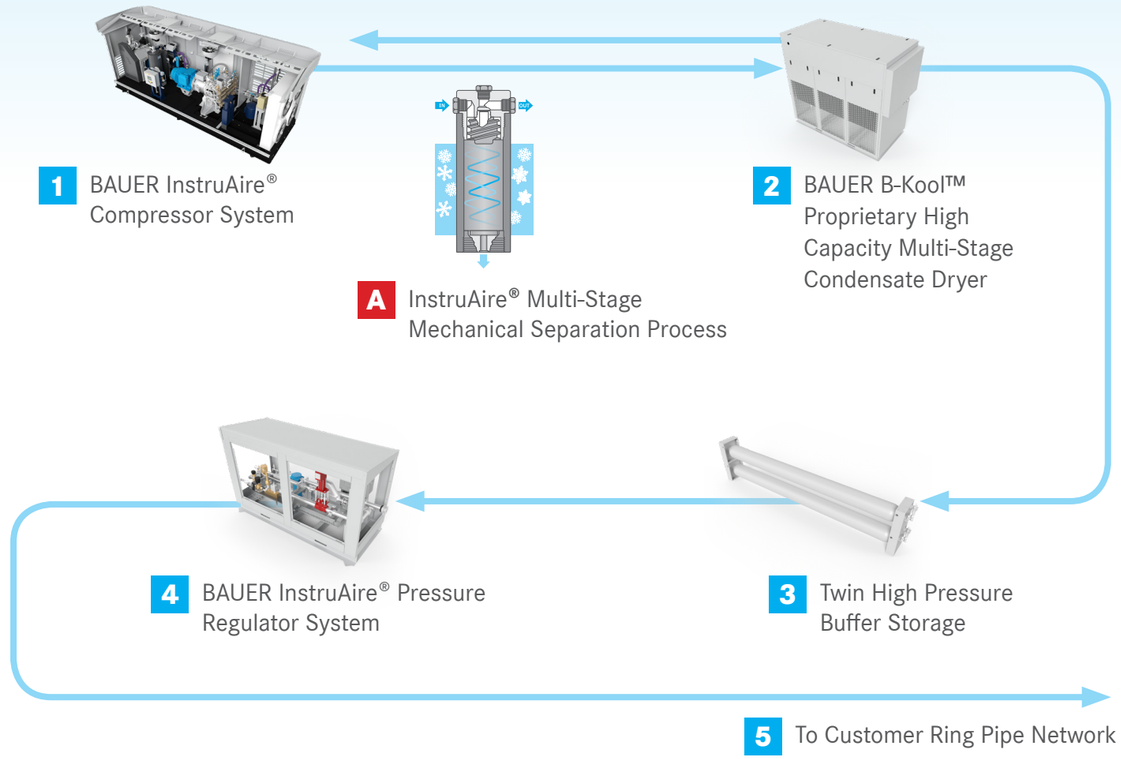
High humidity combined with high hydrocarbon levels in the ambient air can quickly break down the desiccant drying agent used in regenerative dryers. The result is an ineffective dryer and subsequent moisture in the instruments, which can lead to instrument failure and high repair & replacement costs. Instruments which do not function properly can also cause **process control** issues which may result in: an “out-of-spec” product, efficiency issues and environmental concerns.

BENEFITS

- **Consistent air quality:** Instrument air quality is never compromised due to the degradation of the desiccant material as is common in regenerative dryers operating in hot, humid and high hydrocarbon environments
- **Ability to handle spikes in demand:** High pressure buffer storage at 3500-5000 PSIG provides a natural buffer to even out peaks in demand
- **Better process efficiency and control** as a result of consistent instrument air quality and volume
  - **Diminishes exposure to regulatory penalties** caused by “out-of-spec” product
  - **Reduces Waste** as a result of better process control
  - **Longer instrument life = lower operating costs**
- **Optional Breathing Air Module** provides enough continuous breathing air (CGA G-7-2011 Grade E Standard) for 40 personnel

BAUER INSTRUAIRE® DESICCANT FREE INSTRUMENT AIR SYSTEM

InstruAire® is a highly robust, desiccant-free instrument air system which is designed to provide instrument quality air for refineries and offshore / land-based oil & gas operations without the reliability and maintenance issues associated with desiccant dryers. In addition, InstruAire® provides reserve air storage (up to 60 minutes) to handle large peaks in demand as well as assure continuous supply of air to instruments in case of a facility power outage or brown-out.



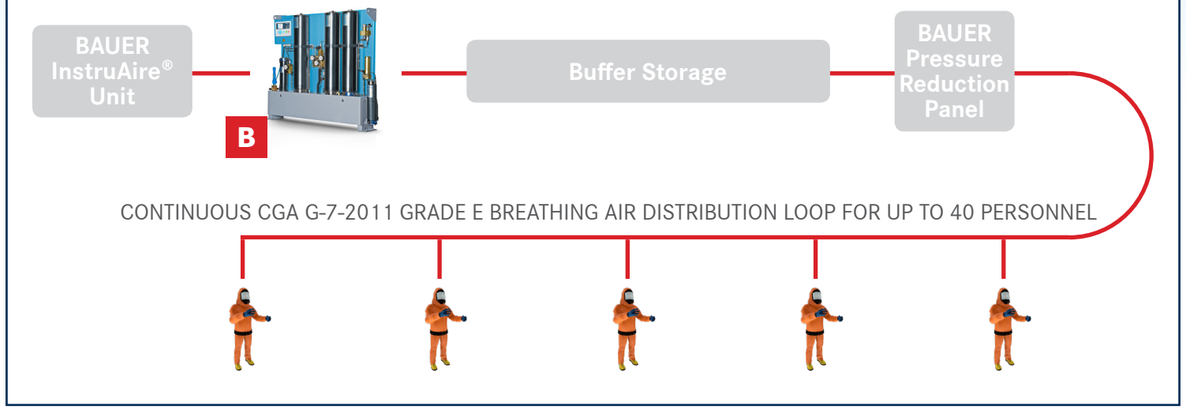
A THE THEORY

BAUER’s InstruAire® mechanical moisture separation system is based on the basic Principles of Thermodynamics. As moist air is compressed and cooled, the ability to retain moisture is diminished.

The BAUER InstruAire® system takes the incoming moist air through 5 compression stages. After each stage the air flows through special separators that remove condensed water and other contaminants. This is akin to mechanically “wringing” the suspended water molecules out of the air.

INSTRUAIRE® PLUS BREATING AIR MODULE

For facilities such as refineries, petrochemical plants, power plants and misc. other industrial facilities which require continuous breathing air for personnel performing turn-around assignments in confined spaces, BAUER now offers optional InstruAire® Plus. The InstruAire Plus module takes the ultra-dry instrument air which is produced by the InstruAire system through an additional stage of purification in order to produce breathing air quality air which meets CGA G-7-200 Grade E Standard. BAUER’s GasTech™ technology assures that only air which is free from harmful gases such as CO, CO2 and H2S is processed through the InstruAire Plus module. For additional safety, the breathing air produced in the InstruAire Plus module is stored in a separate high pressure buffer storage system dedicated to Breathing Air only.



B BAUER SECCANT™ IV

The Seccant™ IV regenerative air purification system has been specifically designed for high-specification continuous-duty breathing air applications. A built-in PLC control system constantly monitors air quality as well as moisture levels to assure that the supplied breathing air meets the required air quality specifications.

BAUER CONNECT® SCADA

The BAUER CONNECT SCADA system provides a visual process flow overview with realtime information as well as historical information on critical system performance criteria. The BAUER CONNECT SCADA system allows for drill-down capability into every important aspect of the system through a series of menus. BAUER CONNECT SCADA is typically used for remote monitoring purposes in control centers, but can be accessed from anywhere in the world using a computer or smart device connected to the Internet.