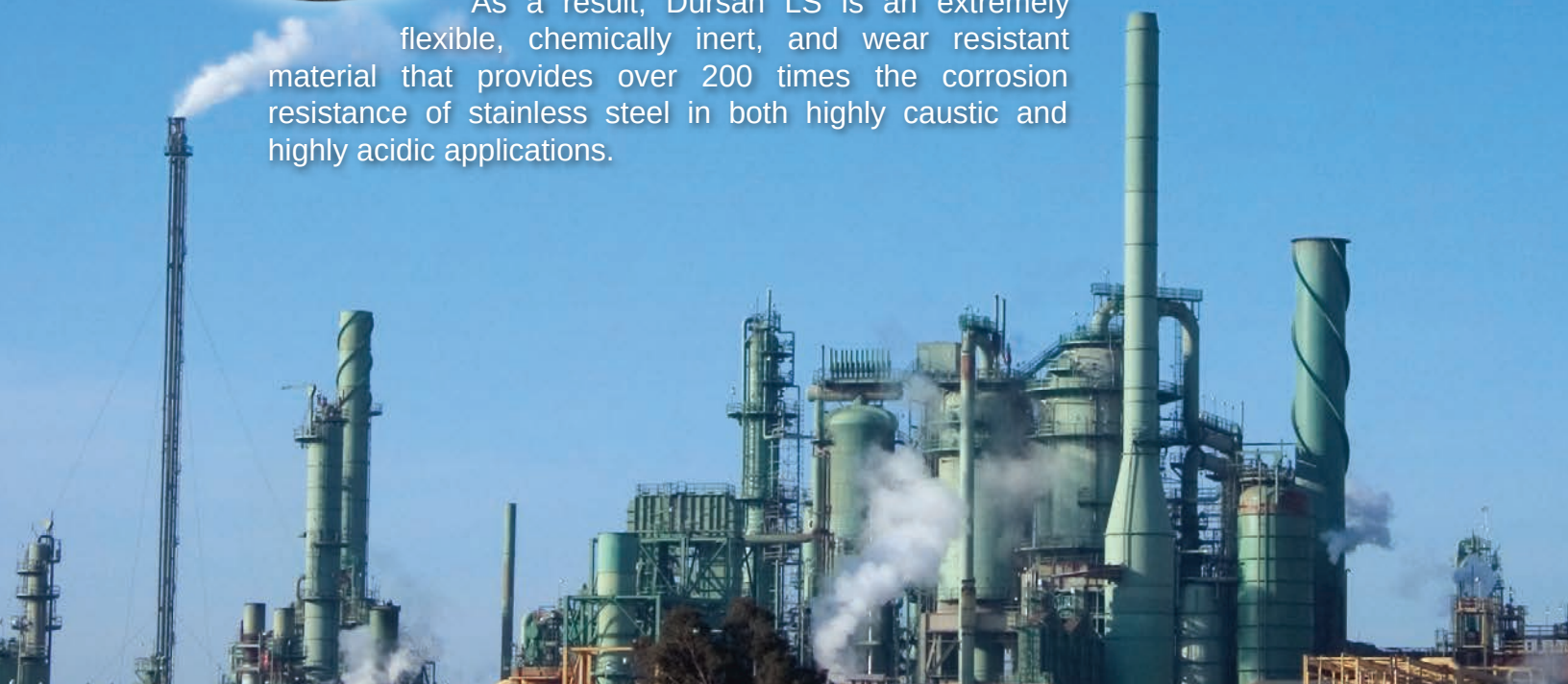
AURA™
GAS CONTROLS

Dursan® LS

INERT AND ANTI-CORROSIVE TECHNOLOGY

AURA's innovative Dursan LS products lower the overall cost of critical applications in harsh environments through significantly better corrosion resistance than traditional metals such as stainless steel or exotic alloys. Dursan LS is produced by bonding a proprietary blend of carbon and silicon to the crystal structure of 316L stainless steel, making it part of the base metal unlike coatings or passivation.

As a result, Dursan LS is an extremely flexible, chemically inert, and wear resistant material that provides over 200 times the corrosion resistance of stainless steel in both highly caustic and highly acidic applications.



Dursan® LS

INERT AND ANTI-CORROSIVE TECHNOLOGY

The Dursan® LS Advantage

Anti-Corrosion

- Resists corrosion significantly better than stainless steel and exotic metals
- Increases component longevity
- Lowers system cost

Anti-Contamination

- Eliminates absorption of reactive compounds
- Eliminates absorption of moisture
- Improves low ppm sampling accuracy
- Shortens cycle times

Performance Specifications

- Corrosive resistance vs. stainless steel: 200x
- Corrosive resistance vs. exotic metals: 5x
- Wear resistance vs. stainless steel: 2x
- pH range stability: 0-14
- Temperature range: -40° to 60° C

Applications

- Flare stack monitoring
- Mercury CEMS analysis
- Natural gas H2S measurement
- HCL sampling systems
- CO2 beverage analysis
- High purity systems
- Ultra-low sulfur emissions testing
- Anhydrous NH3 systems
- Offshore platforms
- Photovoltaics

Materials Compatibility

A-Good, B-Fair, C-Poor

Chemical	Compatibility	Chemical	Compatibility
Acetic Acid	A	Crude Oil	A
Acetone	A	Ethane	A
Alcohols:Amyl	A	Ethanol	A
Alcohols:Benzyl	A	Natural Gas	A
Alcohols: Butyl	A	Glycerine	A
Alcohols:Diacetone	A	Glycols	A
Alcohols:Ethyl	A	Hexane	A
Alcohols:Hexyl	A	Hydrochloric Acid	A
Alcohols:Isobutyl	A	Hydrogen Chloride Gas	A
Alcohols:Isopropyl	A	Hydrogen Sulfide, >20%	A
Alcohols:Methyl	A	Hydrogen Sulfide, <20%	B
Ammonia	A	Mercury	A
Ammonia, anhydrous	A	Methane	A
Ammonia, liquid	B	Nitric Acid	A
Benzene	A	Nitric Oxide	A
Butadiene	A	Nitrogen Dioxide	A
Butyl Amine	A	Nitrous Oxide	A
Butylacetate	A	Phosgene	A
Carbon Dioxide Gas	A	Phosphoric Acid	A
Carbon Monoxide Gas	A	Sodium Chloride	A
Carbonic Acid	A	Sodium Hydroxide	A
Chlorine- liquid	A	Sodium Sulfide	A
Chlorine- gas	A	Sulfur Dioxide	A
Chlorobenzene	A	Sulfuric Acid	B

This information is intended solely to be used as a guide for materials compatibility to assist in equipment selection. To assure compatibility before any installation, the material must be tested with the applicable media within the application using the system's specific process conditions.

AURA™
GAS CONTROLS

Flexible

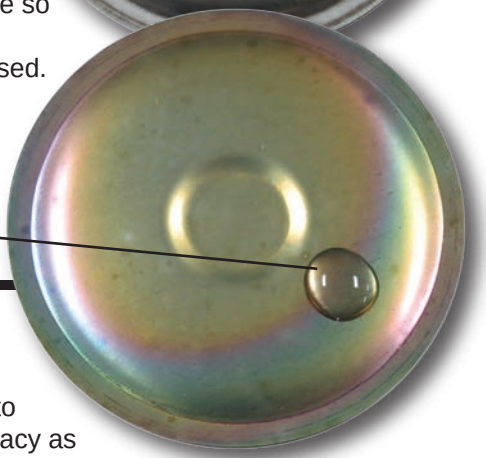
All AURA products are available with Dursan LS technology offering limitless configurations for pressure control and gas delivery. Each regulator is built and packaged in a Class 100 clean room facility to ensure ultra high purity. Quality is assured through 100% helium leak testing on all products prior to shipment from the factory.

Chemically Inert

Water droplet

Untreated

Stainless steel inherently retains moisture so components are more susceptible to corrosion and dry down times are increased.

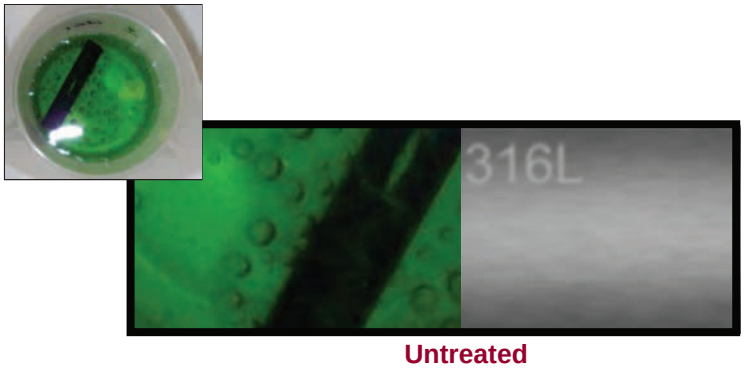


Water droplet

Dursan LS

The low surface tension of Dursan LS eliminates moisture absorption allowing analytical systems to dry faster, leading to reduced cycle times and improved accuracy as moisture reaction with the media is also eliminated.

Corrosion Resistant



Untreated

Dursan LS Treated

24hr; 85% HCl; 71.6ºF	Stainless Steel	Hastelloy® C-22®	Dursan LS
Corrosion Rate (MPY)	389.36	8.75	**1.86**
Improvement Factor vs. Stainless Steel	---	44.5	**209.8**

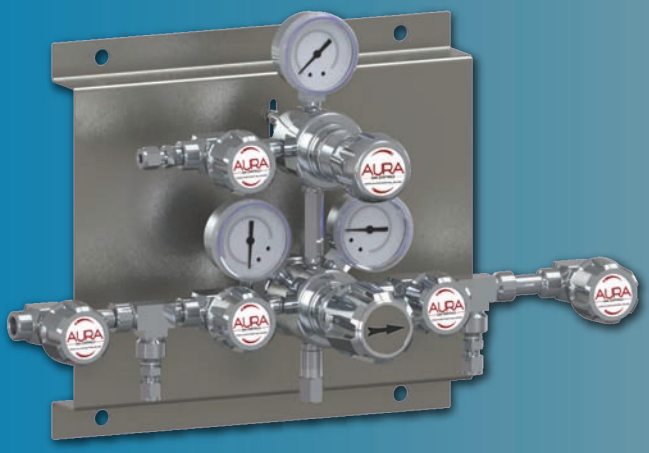
Sample Product Applications

EX2G
Dual Stage Regulator

The AURA EX2G is designed for consistent primary pressure control of reactive or corrosive gases regardless of inlet pressure. The 10 micron 360° inlet filter provides superior filtration of impurities while enabling optimum flow to promote longevity and performance. Manufactured with metal-to metal seals and Dursan® LS wetted internals, body, and bonnet, the EX2G is the superior choice for corrosive media and toxic environments.

Applications
- CEMS calibration gases
- NH_3 emissions monitoring
- Flare stack analysis

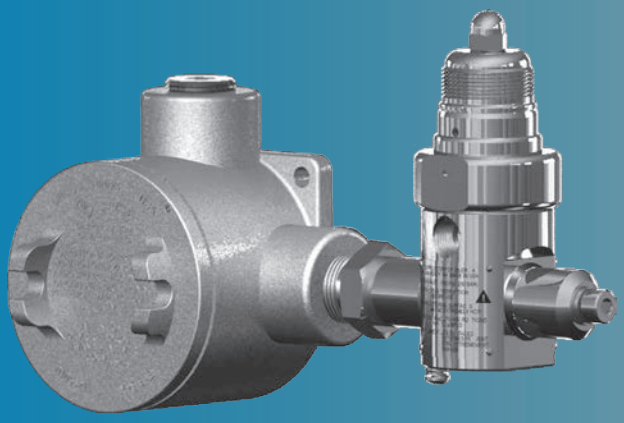
EXDG
Differential Pressure Switchover



The AURA EXDG is an automatic switchover system that provides a continuous supply of reactive or corrosive gases. The low internal volume simplifies the purging process and minimizes connections. Available in a wide variety of configurations with Dursan LS wetted internals, fittings, body and bonnet, the EXDG is the superior choice for uninterrupted delivery of corrosive or reactive gases.

Applications
- Baseline/zero standards for reactive compounds
- Sampling systems
- Refinery stack analysis

EXVG
Vaporizing Regulator



The AURA EXVG vaporizes and maintains gas phase of samples for analysis in corrosive and caustic applications. The proprietary labyrinth-style flow path works in combination with the large orifice size seat to provide the highest available level of heat in the shortest amount of time, at the maximum flow rate, while using a smaller heater. Available in multiple heater wattage and temperature ranges, the fully configurable EXVG is an ideal fit for applications requiring vaporization of active compounds.

Applications
- Natural gas H_2S measurement
- CO_2 beverage analysis
- Ultra-low sulfur diesel analysis

AURA™
GAS CONTROLS

VIRGINIA BEACH, VA • 1.800.582.2565 • www.AURACONTROLS.com

ADF3181C