**MAIN APPLICATIONS:**
- Scrubber technology
- Combustion control
- Chemical industry
- Fertilizer plants
- Waste incinerators
- Cement industry
- Glass industry
- Pulp and paper
- Biomass boilers
- Petrochemical industry

**SPECIFIC FEATURES:**
- Tunable Diode Laser Spectroscopy (TDSL) technique
- In-situ and non-invasive measurement
- Large dynamic range
- Compact and robust system
- Short response time - 1s response
- High sensitivity
- Interference-free gas measurements
- Absolute measurements: no drift, no calibration required, linear response and high resolution
- Suitable for harsh environments. Unaffected by contaminants - no corrosion
- No sample lines required, eliminating errors due to gas sampling
- Low maintenance and low cost of ownership

**VERSIONS OF THE LAS 300XD ARE AVAILABLE TO MEET YOUR ANALYTICAL REQUIREMENTS:**
- LAS 300XD NH₃ for ammonia (NH₃) and water (H₂O) monitoring
- LAS 300XD CO for low and high concentration carbon monoxide (CO) monitoring
- LAS 300XD HCl for hydrochloric acid (HCl) and water (H₂O) monitoring
- LAS 300XD HF for hydrofluoric acid (HF) monitoring
- LAS 300XD O₂ for oxygen (O₂) monitoring

**LaserTool®**
advanced software for setup and operations

**In Situ Cross duct TDLAS gas analyzer**

**PROCESS & EMISSIONS MONITORING SYSTEMS**
TECHNICAL SPECIFICATIONS

Measurement ranges:

- \( \text{NH}_3 + \text{H}_2\text{O} \) 
  0 - 15 ppm / 0 - 500 ppm + 0 - 5% / 0 - 50%
- HCl 
  0 - 10 ppm / 0 - 3000 ppm + 0 - 5% / 0 - 50%
- HF 
  0 - 100 ppm
- CO (low) 
  0 - 500 ppm / 0 - 1%
- CO (high) 
  0 - 1% / 0 - 100%
- \( \text{O}_2 \) 
  0 - 10% / 0 - 100%

Accuracy: \( \leq \pm 2\% \) of full scale

Response time (0–90%) Typically 2-5 s

Linearity: \( \leq \pm 1\% \) of full scale

Max Process gas T°C:
- \( \text{NH}_3 + \text{H}_2\text{O} / \text{HCl} + \text{H}_2\text{O} / \text{HF} \) 
  +400°C
- CO (low) / CO (high) / \( \text{O}_2 \) 
  +1200°C

Max Process gas pressure 2 bar absolute

Display 4x 20 alphanumeric LED backlit LCD

Input signals Optional temperature and pressure signals inputs (4-20 mA)

Communication Modbus RTU / Ethernet

Output signals x2 analog outputs (4-20 mA), x2 relays

Power supply + 24 V DC, ripple and noise 50 mV

Power 15 W when starting-up the LAS 300 XD < 15 W in normal operation

Ambient operating T°C -20°C to +55°C

Enclosure rating IP65

Enclosure material Die-cast aluminium (polyester powder coated)

Mounting flange DN50 PN16, 2” – 150 lbs, Class 150

Mounting flange material SS 316 L

Air purge 10-50 L/min (depends on application conditions)

Typical Stack/Duct diameter 0.5 to 20 m (depends on application conditions)

MAIN OPTIONS:
- IP55 Junction box (for power and signal)
- Purge air unit (blower, filters, flow meters, pressure regulator)
- In-line span check cell
- Weather protection covers
- Specific flanges
- Remote interface
- Audit cell
- Optical alignment tool

THE STANDARD LAS 300XD IS SUPPLIED WITH:
- Transmitter and receiver units
- 2x alignment flanges (DN50)
- 2x analog inputs/outputs
- 2x Relay contacts
- Modbus RTU RS485
- LaserTool® software