

# ATEX Compliance

## Certified Instruments for Operation in Explosive Atmospheres

An explosive atmosphere is a mix of flammable substances in the form of gas, vapor, mist or dust mixed with oxygen under atmospheric conditions; in which, once ignited spreads to the entire unburned mixture.

In the European Union, ATEX is defined by two main directives: 2014/34/EU, known as ATEX 114, and 1999/92/EC, known as ATEX 137. 2014/34/EU defines requirements and guidelines applicable to equipment intended to be operated in explosion hazard zones. 1999/92/EC is applicable for operators and defines measures and guidelines aimed at ensuring safety and health integrity while operating in areas with potentially explosive atmospheres.

The need to have guidelines to ensure health and safety while working in hazardous environments initiated back in the 1920's driven by mining and the emerging chemical industry. Equipment manufacturers have the obligation to ensure their products are never the source of ignition while operated in hazardous environments. One method to achieving this objective is by avoiding any possible contact between the explosive atmosphere and potential sources of ignition within the equipment. Different guidelines apply to electrical and non-electrical equipment.



Type plate of an ATEX-compliant ROSEN tool

ROSEN equipment follows not only guidelines defined by ATEX 114 but also guidelines defined by POF (Pipeline Operators Forum). ROSEN equipment has been certified for working under potentially explosive nonatmospheric conditions.



ATEX-compliant 12" Magnetic Flux Leakage Metal Loss ILI tool

Operators are also required to apply measures in order to comply with the ATEX directive 1999/92/EC. ATEX zones need to be identified and classified and all personnel must be properly trained and certified. While the operation takes place within the premises marked as ATEX zones, the operator is responsible for its personnel and that of subcontractors. All equipment, materials and accessories have to be ATEX certified to be allowed to operate within the ATEX zone.

ROSEN production quality assurance is certified according to EN ISO/IEC 80079-34:2020, which allows for manufacturing and assembly of equipment with flameproof enclosure (Ex d), pressurized encapsulation bodies (EX p) and intrinsic safety (EX i). ROSEN has a team of qualified experts responsible for handling, documenting and maintaining ATEX relevant equipment and components.

Our commitment to a safe working environment is demonstrated by the extensive fleet of ILI tools matching the above mentioned requirements.

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### Technical Specifications

#### Standard Operating Specifications

<b>Tool sizes available</b>	6"-56"
<b>Pipeline product</b>	Gas or liquids
<b>Product temperature range</b>	-20 °C to 60 °C (-4 to 140 °F)
<b>Maximum operating pressure</b>	II 2G Ex pxb h IIB T4 Gb
<b>Operating speed range</b>	EPS 09 ATEX 1 184 X
<b>Minimum pipeline bend radius</b>	15 MPa (2176 psi)
<b>Wall thickness range</b>	Up to 3 m/s (8 mph)
<b>Minimum pipeline bend radius</b>	1.5D
<b>Maximum operating time</b>	400 hours
<b>Maximum inspection length</b>	800 km (497 miles)
<b>Available services</b>	<ul style="list-style-type: none"><li>• Geometry surveys</li><li>• Dent assessment</li><li>• XYZ mapping</li><li>• Metal loss detection</li><li>• Wall thickness mapping</li><li>• Crack detection</li><li>• ... and combinations of the above</li></ul>

By using a modular approach ROSEN ATEX-compliant ILI tools remain as flexible as the standard tools. We combine state of the art technology already available with ATEX required features, resulting in an ILI tool which is not only as technologically advanced as the standard fleet, but is also fully compliant with ATEX 114 directives. To ensure proper handling, ROSEN also manufactures all required accessories, such as tool status monitoring units, ATEX-compliant cups and discs, launching/receiving units, etc. allowing our personnel and our clients to maintain a safe working environment under full compliance with ATEX directives.

### The Key Benefits

- Operational flexibility despite regulatory requirements/high degree of flexibility for entire tool fleet from 6" to 56"
- Compliant with the requirement of the POF specification 2016 – consideration of atmospheric conditions
- Possible multi- and single-body tool configurations and customization, defined by customer & pipeline requirements