Case Study

Finnish Air Force

Location
Tikkakoski, Finland

Needs
To further secure purity and source of nitrogen used to cool homing heads in Sidewinders.

Applications
AIM-9, Sidewinder missiles used in F-18 fighterplanes.

Lasergas Product
- Mobile nitrogen generator

Overview
Finnish Air Force needed to provide ultra-pure nitrogen for AIM-9 missiles used in Hornet F-18 fighterplanes. Nitrogen is used to cool the infrared detectors of the missiles aboard. Finnish Air Force wanted reliable and easy to use system, they had been using another system, but found it was quite unreliable. They then turned to Lasergas Nitrogen Generators.

Challenge
The Finnish Air Force was concerned about the purity of nitrogen and reliability of their nitrogen generators. Additionally Air Force's experts were signalling that increased security will be needed in the near future. They wanted to ensure that they have systems that work in extreme conditions, without interrupts or quality problems.

The system they had been using contained oil-lubricated high pressure compressor which meant purity problems. Generators needed to be warmed for over 30 minutes in order to operate fully. Personnel were concerned that this practice increased the risk of malfunction and contamination of hose system, when nitrogen was injected into missiles. As a result, the Finnish Air Force began searching for a solution that would eliminate problems they had noticed.

LaserGas solution
The Finnish Air Force turned to LaserGas Nitrogen Generators to eliminate purity and reliability problems. Personnel don't have to anymore wait for hours to get ultra-pure nitrogen. The Finnish Air Force have plans to equip each F-18 fighter with own nitrogen generator.

Benefits of LaserGas Nitrogen Generator
- Extremely cost-effective compared to cylinder gas
- Can be customized to match specific requirements
- Minimal servicing requirements
- Can operate also indoors, such places as hangers bunkers, etc.
- Safer to use than other systems

About LaserGas
Laser Gas Ltd manufactures oxygen and nitrogen generators and controlled atmosphere systems, based on Pressure Swing Adsorption (PSA) or membrane technology. Extracting oxygen or nitrogen directly from the air, Laser Gas compact on-site systems are a cost-effective alternative compared to pressurised cylinder gas in many applications. The nitrogen generator can achieve a maximum purity of 99.9999%, which is the highest possible. Laser Gas Ltd is located in Finland. The company operates out of a multi-facility complex that includes administration, engineering, marketing, product support, test and manufacturing departments.

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