



SAAB

GYRO PRODUCTS FOR STABILISATION IN TOUGH ENVIRONMENTS



CV90

HIGH PERFORMANCE

Saab's Fiber Optic Gyros (FOG) are a vital component in many different platforms, including radar, gun, camera and antenna applications. We design gyro solutions by adapting sensors and modular electronics to suit each individual requirement.

Our FOGs can be integrated and deployed rapidly and are not held up by timely International Traffic in Arms Regulations (ITAR) restrictions. In addition to a large range of standard products we can also provide customised packages, providing replacement of form, fit and function in existing designs.

At Saab, we are committed to turning engineering excellence, innovative thinking, and real-world pragmatism into products that enhance your capabilities – whatever the mission. We call it our **thinking edge**.



ENVIRONMENTAL DEMANDS

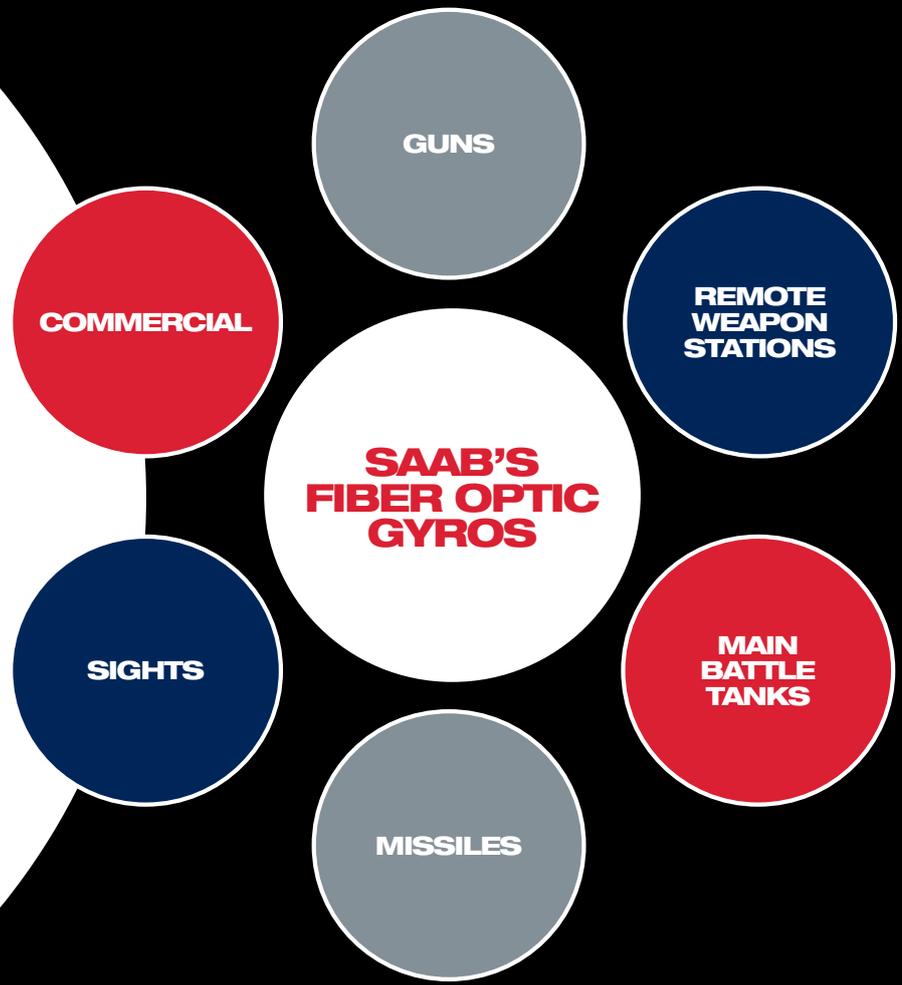
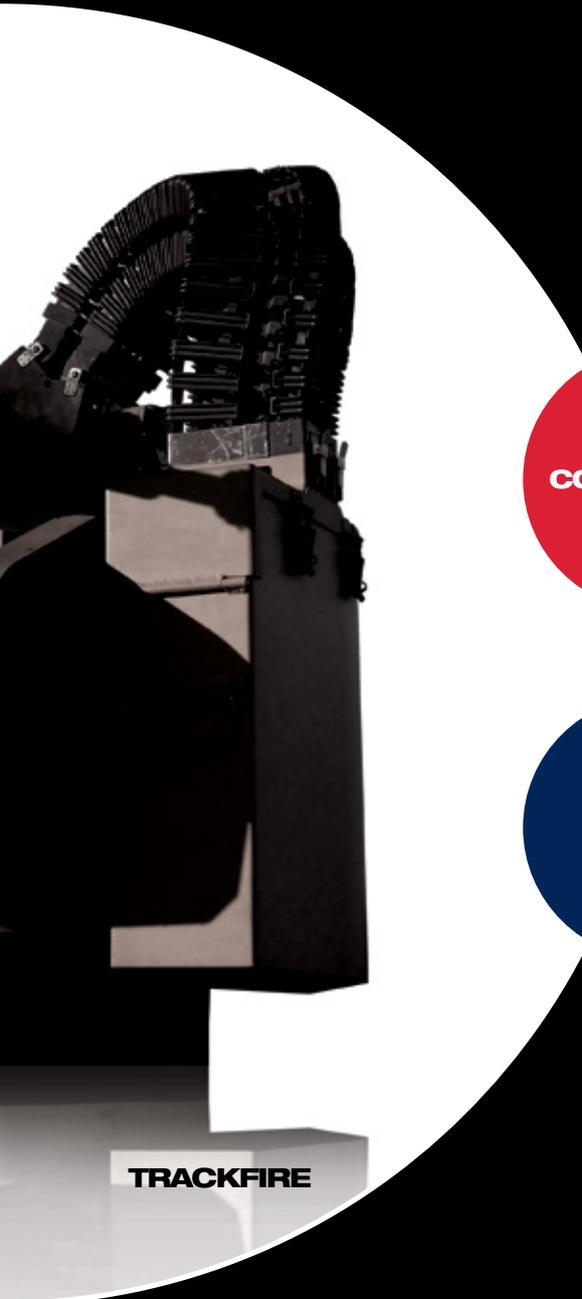
Saab's solid-state FOGs are designed to withstand tough environmental demands, especially in high shock and vibration applications. They feature a short start-up time, high shock and vibration usability, low signal noise and low-drift performance, whilst maintaining sensitivity to ensure precision.

LOW LIFECYCLE COST

Demanding situations require reliable solutions that have a long lifespan. Saab's FOGs are proven to have a low failure rate and because they are designed to be maintenance free, they have minimal lifecycle costs. Coupled with the option to customise, our FOGs are a cost-efficient solution that can be adapted to different application demands.

CUSTOMISATION

Besides having a number of standard products, we specialise in tailoring gyro products according to customers' provided specifications. This typically includes parameter requirement adaptation as well as mechanical and electronic design work to fulfil different interface and outline requirements and, in some cases, to be compatible with an existing product in use by the customer. To achieve this in a cost-effective way, we use a modular approach.



PRODUCT SUPPORT

Over the years, we have gained extensive knowledge of different applications requiring gyros, meaning we can support our customers in all phases of their product development and production phases. We also focus on very efficient internal production planning and organisation, which enables us to provide a proven 100 percent delivery rate and short lead times.

EXTENSIVE TESTING

There are no second chances on the front line. Saab offers a range of gyros that provide absolute accuracy and consistency, whatever the situation. We have extensive testing facilities with traceable calibration that have been built up over many years. We perform qualification tests on every new design and an extensive acceptance test on every delivery.

SAAB'S OFFERING TODAY

The evolution of the digital age and advances in software processing have led to increased demands on accuracy and precision in sensor technology. Saab provides cutting-edge solutions in fiber optic gyro technology, supported by more than 40 years of experience in gyro engineering for the land, air and naval arenas. Below are some examples of our different products.



SINGLE AXIS FIBER OPTIC GYRO

The FOG is a compact, solid state, single axis sensor.

Applications:

- Gun stabilisation
- Sight stabilisation
- Missile stabilisation
- Camera stabilisation
- Antenna stabilisation



MULTI-AXIS GYRO UNITS

Different multi-axis units are designed and manufactured based on our single axis sensor. These products contain our specially designed power supply and compensation electronics. Both analogue and digital interfaces are available.

Applications:

- Gun stabilisation
- Sight stabilisation
- Camera stabilisation
- Antenna stabilisation



HISTORY OF SAAB'S GYRO PRODUCTS



Saab was founded more than 75 years ago when the Swedish Parliament decided to design and construct a Swedish fighter aircraft to defend the country's sovereignty and national interests. Given Sweden's small population and limited resources, the solution had to be intelligent from the start. That is why being smart – in the form of effective technology, as well as cost efficiency – has remained the backbone of our very existence.

Later on, Saab decided it needed to manufacture its own gyros to be used in the country's aircrafts and missiles. This was the start of our gyro product line, which has been supplied to external customers all over the world for many years. The gyros were initially based on mechanical gyro technology until 15 years ago, when it was replaced by FOG technology. Today mechanical gyro production has ceased, and we are focusing on products based on our own FOG as a common sensor for the Saab gyro product family.

Today, Saab has produced more than 40,000 gyro sensors which are based on our more than 40 years of experience producing inertial sensors and high-performance gyros.



PUMA

DUAL-AXIS AC-AC GYRO UNITS

This family of gyro units is based on our FOG and is designed to be a very attractive replacement product for obsolete gyro products based on AC supplied mechanical gyros.

Applications:

- Gun stabilisation
- Sight stabilisation
- Antenna stabilisation



STABILITY UNDER PRESSURE

Saab is a trusted and reliable partner, providing cutting edge technology to customers around the globe. With over four decades of gyro experience, we have the knowledge and resources to meet your individual needs.



STRENGTHS

- ▶ 40 years' experience producing high performance gyros
- ▶ Long record of 100 percent delivery rate
- ▶ Strong customer support
- ▶ No ITAR restrictions
- ▶ Short lead-time for customisation
- ▶ High reliability, resulting in low lifecycle costs

VISBY CORVETTE**TYPICAL PERFORMANCE VALUES**
(UNIT LEVELS)

Operating range °/s	±20–150 (750)
Bias to 20°C (initial condition) °/h max	<100
Bias variation over temperature °/h max	<40
Bias stability at constant temperature °/h max	<3
SF error over temperature range %	<±0.3
Angle random walk %/√h	<0.05
Bandwidth Hz min	100–300
Shock g:msec	300–500:1
Vibration, sine g:Hz	10:20–2,000
Vibration, random g²/Hz:Hz	0.1:20–2,000
Operating temperature range °C	-30/-40–+70
Supply voltage V_{DC}	+18–+32



SAAB

LAND



NAVAL



www.saab.com