The all-new Raptor tank gauging system
Always ready for your next challenge
Welcome to a new era in tank gauging

Big words, we know. But Raptor really takes tank gauging to another level. You will be better equipped to handle the ever-increasing demands on efficiency, safety and accuracy. Raptor is a complete and flexible tank gauging system, giving you total freedom.

**Ready to improve efficiency**
The Raptor system is based on the open industry standard FOUNDATION™ fieldbus. This makes it easy to install exactly the devices you need today as well as adding or replacing units tomorrow. Having access to reliable and accurate tank content information in real time is key to high plant efficiency, as your operators can handle even more tanks, fill the tanks higher and better utilize the storage capacity. Raptor takes you to top efficiency and lets you stay there.

**Ready to improve safety**
With no moving parts, radar technology is fundamentally reliable. But Raptor takes safety further than ever before. The 5900S gauge with a 2-in-1 feature can, for example, be delivered to meet SIL 3 requirements for overfill prevention.

**Ready to improve accuracy**
For decades, Rosemount Tank Radar gauges have been the obvious choice when precision is critical. Raptor builds upon this legacy by offering level measurement accuracy of ±0.5 mm (0.02 in.). But even if accuracy is important, the need can vary. That is why Raptor includes gauging solutions all the way from operational control to custody transfer performance with full inventory management functionality.
Future-proof design
New level of safety
Renowned accuracy
Whatever your next step, Raptor will be ready

There are always new challenges to face in a tank storage facility. Expansion or refur-bishing projects mean you have to connect new equipment to your installation. This is also the case when you replace damaged or outdated technology. Raptor lets you meet your challenges so you can maintain high plant efficiency and protect the value of your tank gauging investment.

Practically unlimited
Thanks to the use of an open communications standard (Foundation™ fieldbus), Raptor lets you combine gauging devices freely within your system. The bus-powered, two-wired Tankbus is self-configured and intrinsically safe allowing cabling without conduits which means lower installation cost. Long-distance communication to the control room can be made via our TRL2 fieldbus or other major fieldbus standards. Wireless data transmission is also an option. This is especially valuable when it is necessary to cross roads or when distance or ground conditions make cabling expensive.

Upgrade gradually
There are numerous tank farms with gauging based on older technology, even in fairly recent installations. But don’t worry. Raptor can emulate gauges from other manufacturers. This means you can add Raptor units to your existing system.

The precision instruments of tank gauging

5900S with LPG/LNG antenna
Pressurized or cryogenic liquefied gas
Strong echo even under surface boiling conditions

5900S with horn antenna
Fixed roof tanks without still-pipe
200–400 mm (8-16 in.) nozzles
Oil products and chemicals except for sticky liquids

5900S with parabolic antenna
Best choice in tanks without still-pipe
Demanding environments with sticky or condensing liquids such as asphalt

5900S with still-pipe array antenna
New or existing still-pipes
Crude oil tanks with floating roofs
Gasoline tanks with/without inner floating roofs

Open and scalable
Two-wire bus or wireless
Emulation capabilities
Taking safety to a higher level

Lawmakers, corporate management, members of the community—demands for increased safety come from just about everywhere. Raptor allows you to meet existing and future requirements and protect plant assets, the environment and human lives.

**World’s first high precision SIL 3 radar**
In addition to measuring level, a 5900S Radar Level Gauge can be used for overfill and dry-run prevention. Together with other radar devices and switches (see examples below) and tank hubs you can achieve SIL 2/SIL 3 certified level alarm functionality. The 5900S is also available with two independent radar gauges in one housing (2-in-1) enabling SIL 3.

**Radar never sleeps**
The Raptor radar level gauges are always in operation. This is not the case with passive devices like traditional switches, where you can only be sure they are working at the very instant you run a test. With two separate gauges, you can compare the results and immediately spot if one gauge is not working.

Wide range of overfill prevention options

- **5900S + 5900S**
  Dual radar gauges for level and overfill measurements. SIL 2 certified with the possibility to achieve SIL 3 safety level.

- **5900S (2-in-1)**
  Two radar gauges in one housing—indepenent level and overfill measurements. SIL 2 and SIL 3 safety.

- **5900S + 5300/5400**
  Radar level gauge and radar level transmitter—indepenent level and continuous high-level alarm. Suitable for SIL 2 safety.

- **5900S + 2120**
  Radar level gauge and point level switch. Suitable for SIL 2 safety.

- **Unique 2-in-1 feature**
- **SIL 2 and SIL 3 safety**
- **Continuous surveillance**
When every drop counts, you can count on radar technology

Thanks to Raptor’s measurement accuracy, you get precise data for custody transfer, inventory management, and loss control. The level measurement accuracy of ±0.5 mm (0.02 in.), together with the highest precision average temperature measurement, ensures exact net volume calculations. In cases where medium accuracy is sufficient, we offer a number of cost-effective gauging instruments.

Works everywhere
The Raptor system suits all kinds of applications and tanks: pressurized and non-pressurized, with fixed or floating roofs, with or without still-pipes. This makes Raptor the perfect choice for refineries, tank terminals, fuel depots, LNG plants and more.

The best there is
With Raptor you enjoy precise tank gauging. More accurate billing, better tank utilization and higher safety are some of the benefits. No moving parts also make the gauges reliable, virtually maintenance-free and long lasting. Simply put, the money you invest in Raptor is soon paid back and turned into years of profits.

The pioneer in radar-based tank gauging
We invented radar tank gauging, delivered our first radar level gauge in 1975 and have since then delivered over 100 000 units all over the world—more than anyone else. Rosemount Tank Gauging representatives are located worldwide, providing you with service and support from highly trained service engineers in more than 80 countries.

Accuracy of ±0.5 mm (0.02 in.)
Precise net volume calculations
All tank storage applications

World market leader
Proven performance
Always close at hand

We introduced the world’s first radar level gauge ...
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