

Touch-Free™

Oil-Free • Carbon-Free • Care-Free



Compressed Air Solutions / Company

Tamturbo
JUST AIR



Touch-Free™, Oil-Free,

Tamturbo started in 2010 around the founding idea that the world needs a more environmentally friendly alternative to producing compressed air - we cannot continue wasting our most valuable resources, energy and harming the environment.

Developed in one of the compressor and sustainability capitals of the world, Tampere, Finland, Tamturbo is expanding its footprint globally through distributors and partners.

Our unique technological advances combined with ingenious engineering work have brought to life a range of compressors that far surpasses the legacy technologies both in performance and in significantly lower life cycle cost.

We take climate-positive approach to producing 100% clean air. Our Touch-Free™ technology enables reliable design, completely Free of Oil and eliminates risk of compressed air contamination.



“Sustainability is built into everything we do at Tamturbo.

This means the compressor is 100% free of oil, does not lose efficiency in use, requires virtually no maintenance and returns 90% of the Input Energy from heat recovery.”

Igor Nagaev, CEO

Carbon-Free, Care-Free

Your plant's biggest cost items are also the biggest carbon-producing items: energy, service, maintenance, repairs and overhauls.

With market-leading efficiency and virtually no maintenance, Tamturbo® direct drive, variable speed compressors offer by far the lowest Total Cost of Ownership - along with the lowest impact on the environment.

Tamturbo® units have much longer lasting energy efficiency compared to the “oil-free” screw compressor alternatives, so you will save significant amounts on money on electrical bills. And periodic maintenance and overhauls are virtually non-existent, lowering the total cost even more.

When you select a Tamturbo® compressor, you are selecting a partner for decades.



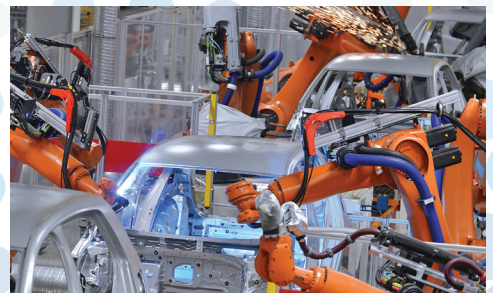
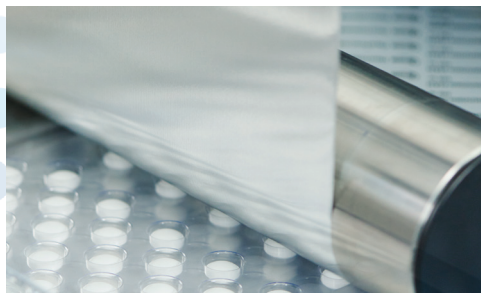
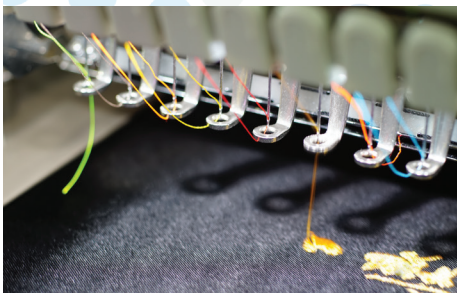
Zero Contamination to Your Product

Does your oil-free screw compressor require oil changes? If so, it's not free of oil! Truth is that a typical "oil-free" rotary screw compressor actually contains up to 60 liters (15 gallons) of oil.

No lubricant is ever required anywhere inside Tamturbo® compressors, so there's 0% risk of oil contaminating your product. There's also 0% risk of oil contaminating the environment.

Did you realize that in every "oil-free" rotary screw, the only thing separating the air from the oil is just a simple oil seal? And older the "oil-free" screws, higher the risk oil leaks.

Fortunately, now there's a much better and 100% pure air option.

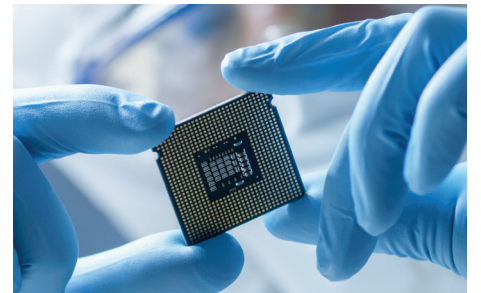




or to The Environment

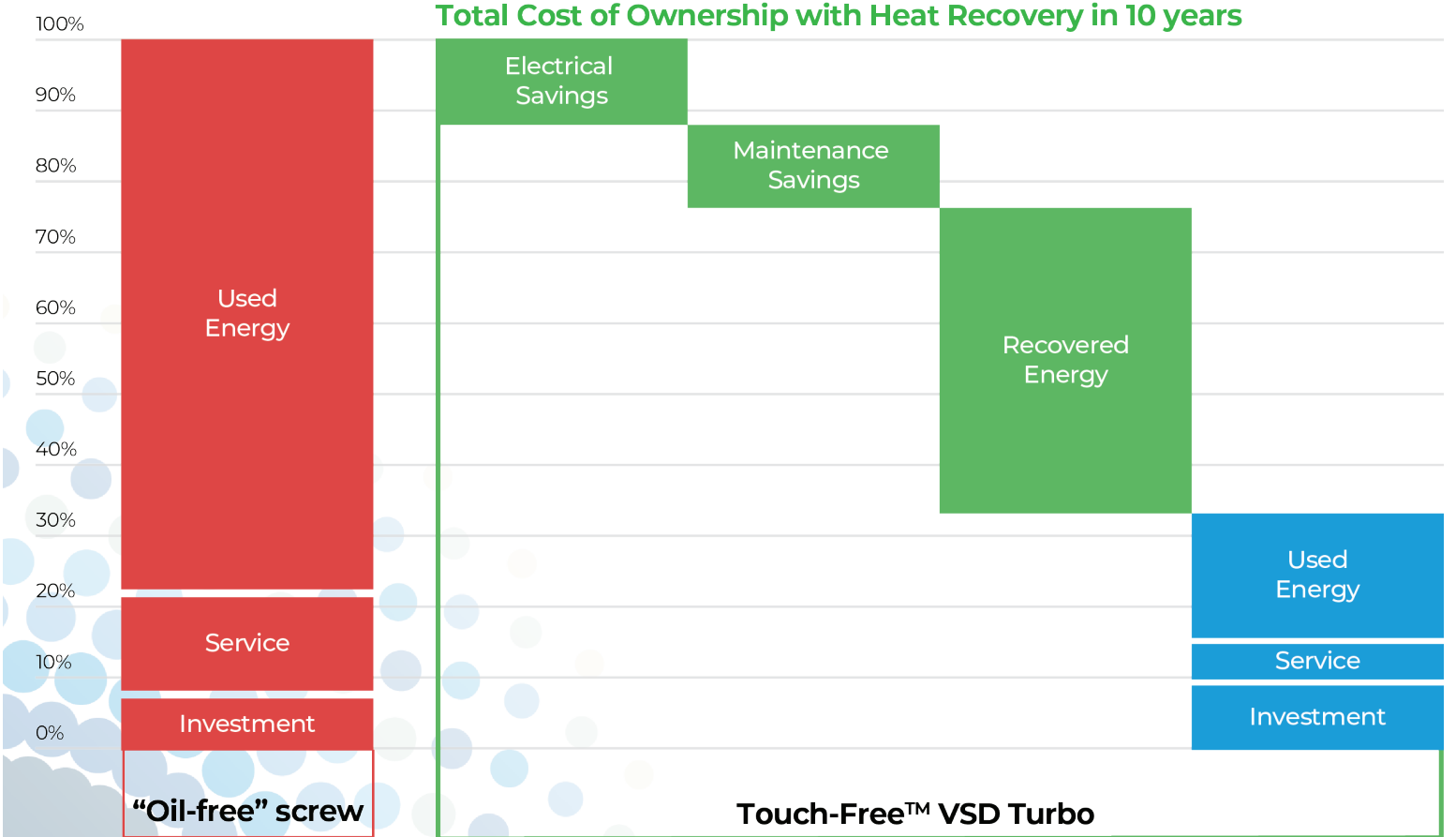
At Tamturbo, **100% oil-free** is all we do. To satisfy the quality requirements of our customers, we eliminate any risk of contaminating air. So, we're the natural fit for industries with 0% tolerance for oil contamination, such as:

- ⊙ Food and Beverage,
- ⊙ Electronics,
- ⊙ Chemical,
- ⊙ Automotive,
- ⊙ Textile,
- ⊙ Printing,
- ⊙ Pharmaceutical and Medical,
- ⊙ Pulp and Paper,
- ⊙ And more.





Total Cost of Ownership with Heat Recovery in 10 years



Sustainability Is Forged Into Everything We Do

Tamturbo makes it easy to meet your production and sustainability targets.

Touch-Free™ Air

Purchase your air in the same manner as your utilities.

Talk to your Tamturbo representative about setting up a Touch-Free™ Air program in your facility. We'll set up, maintain and monitor your air system. All while you enjoy the benefits on 100% oil-free, guaranteed reliability, low operating costs and a reduced carbon footprint.

Energy Recovery

With Tamturbo® compressors, you can efficiently take advantage of the heat produced during compression. Our standard liquid cooling system enables easy energy recovery; up to 90% of the compressor power consumption can be recaptured for your process, heating or other needs. Most compressors waste this energy by blowing it into the atmosphere.

◎ Free From Rising Electric Bills

How does a 10-15% reduction in energy bills sound? How about consistent savings across changing air needs? Now you can have both. Tamturbo® compressor efficiency stays constant during the machine's entire lifetime. The efficiency extends throughout the wide capacity turndown range, and reduced energy usage means less environmental impact.

◎ Free From Maintenance

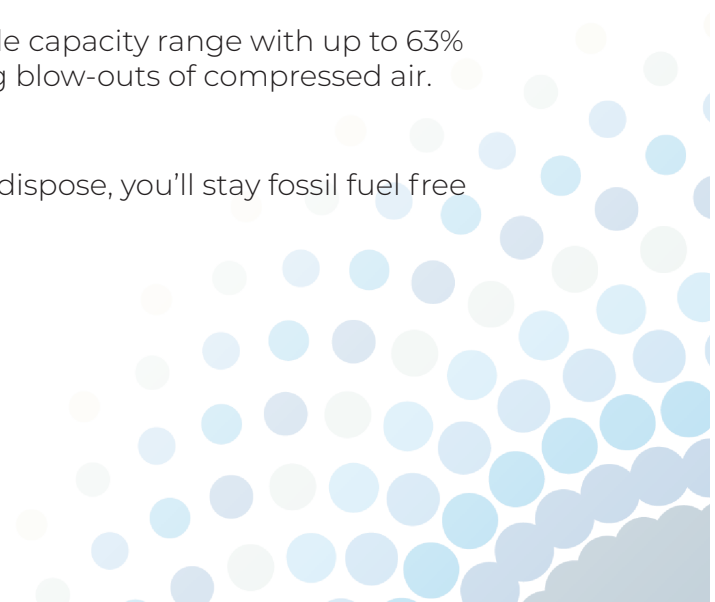
No costly maintenance to critical components is ever needed on a Touch-Free™ compressor. By eliminating service calls and parts shipments, you reduce your carbon footprint.

◎ Free From Energy Wasting Control

Tamturbo® compressors are optimized for a wide capacity range with up to 63% turndown, which eliminates the energy-wasting blow-outs of compressed air.

◎ Free From Environmental Loading

Since the compressor uses no oil or oil filters to dispose, you'll stay fossil fuel free and won't ever contaminate the environment.





Less Wasted Energy

Heat Recovery

Heat Recovery from an air compressor is perhaps the most overlooked and underused feature. This could be because older technologies do not offer a high percentage of recovery from input energy, with high enough liquid temperature.

Tamturbo's unique Standard Heat Recovery (SHR) or Boost Heat Recovery (BHR) returns up to 90% of the compressor input energy for recovery from hot water, up to 90°C (194°F). This water can be used for heating boiler make up water or wash down water, heating molds or facilities and other process needs.

Tamturbo® BHR system is complete solution with HMU (Heat Management Unit) which gives hot water at constant temperature to your needs.

Annual energy savings from using the heat recovery in lieu of burning natural gas for heating water can be as high as over \$100,000 (at average US Natural Gas Price)



and Resources with Heat Recovery

From Sustainability KPIs to Actual Results - A Customer Story

A large global company has an ambitious goal to move to carbon neutral production in just little over ten years.

One of the largest contributors to their current CO₂ emissions is the compressed air system which uses about 10% of the entire power consumption.

Tamturbo® Touch-Free™ Technology can not only reduce their electrical consumption by 10 to 15%, compared to current systems on average but also recover 90% of the compressor input energy.

In one location, the pre-project analysis projected a potential for about 50% energy savings in input power cost. The Tamturbo® VSD capacity control over the old technology is the main contributor to this. The post installation savings proved to be 3.5% better than the anticipated savings.

Heat recovery savings were previously not captured. Following the system startup, heat recovery savings turned out to be 30% higher than estimated savings. This is a direct savings from reduced use of natural gas for heating water.

Zero Costs from Maintenance or Replacement Parts

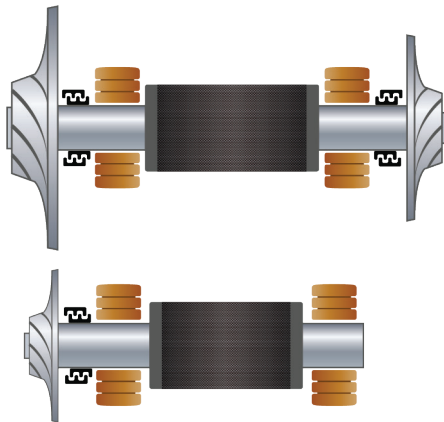
Tamturbo® Touch-Free™ compressors are designed around a simple, yet unique principle to eliminate typical time-based maintenance: Parts that don't touch, don't wear. And parts that don't wear, don't fail.

The core of Touch-Free™ Technology is our exclusive Active Magnetic Bearings with high-speed motors. Simply put, rotating parts that levitate and don't come in contact with anything. Impellers without any gears, couplings, mechanical bearings or oil seals are integrated directly on the motor shaft. The unit is completely maintenance-free with no complications or risk.

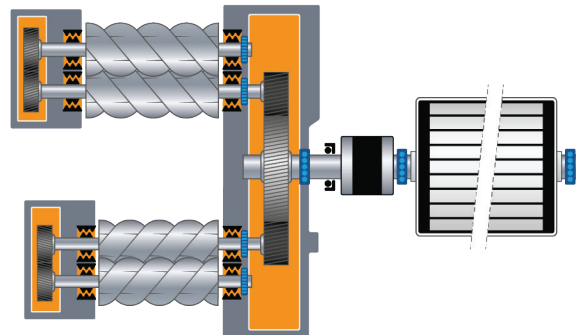
By eliminating all metal-to-metal contact between rotating components, there are no moving parts to wear, replace, lubricate, waste energy or maintain.

To secure the highest reliability, we use only the highest quality components. For example, our impellers are made from the toughest titanium to make sure they exceed your expectations.

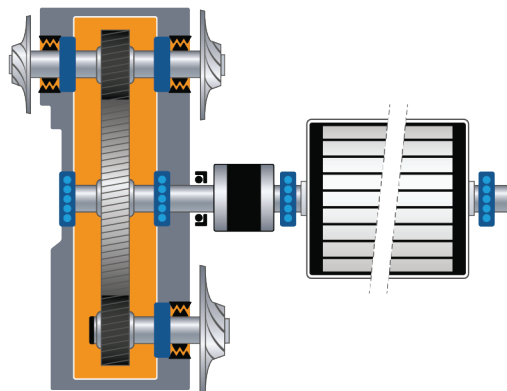
Touch-Free™ Compressor



“Oil-Free” Screw Compressor



Traditional Turbo Compressor







No Surprises with Touch-Free™ Support

Unlike the old one-way remote monitoring, bi-directional Touch-Free™ Support has features not seen before in the industry.

9 out of 10 messages from a compressor can be corrected without physically touching the compressor. This is based on years of experience with remote support. Not only can we optimize compressor parameters, we can correct and fix issues resulting from operational incidents such as:

- ⊙ Power failures
- ⊙ Cooling system issues
- ⊙ Environmental conditions

Customers have access of operational parameters and KPI data for their SCADA.

From our mobile, container-based compressor rooms, to our multi-compressor control systems all with 24/7 remote monitoring and service, we want out partners and customers to feel Care-Free, knowing we that we have their compressed air production secured.



and Care-Free Service Contract

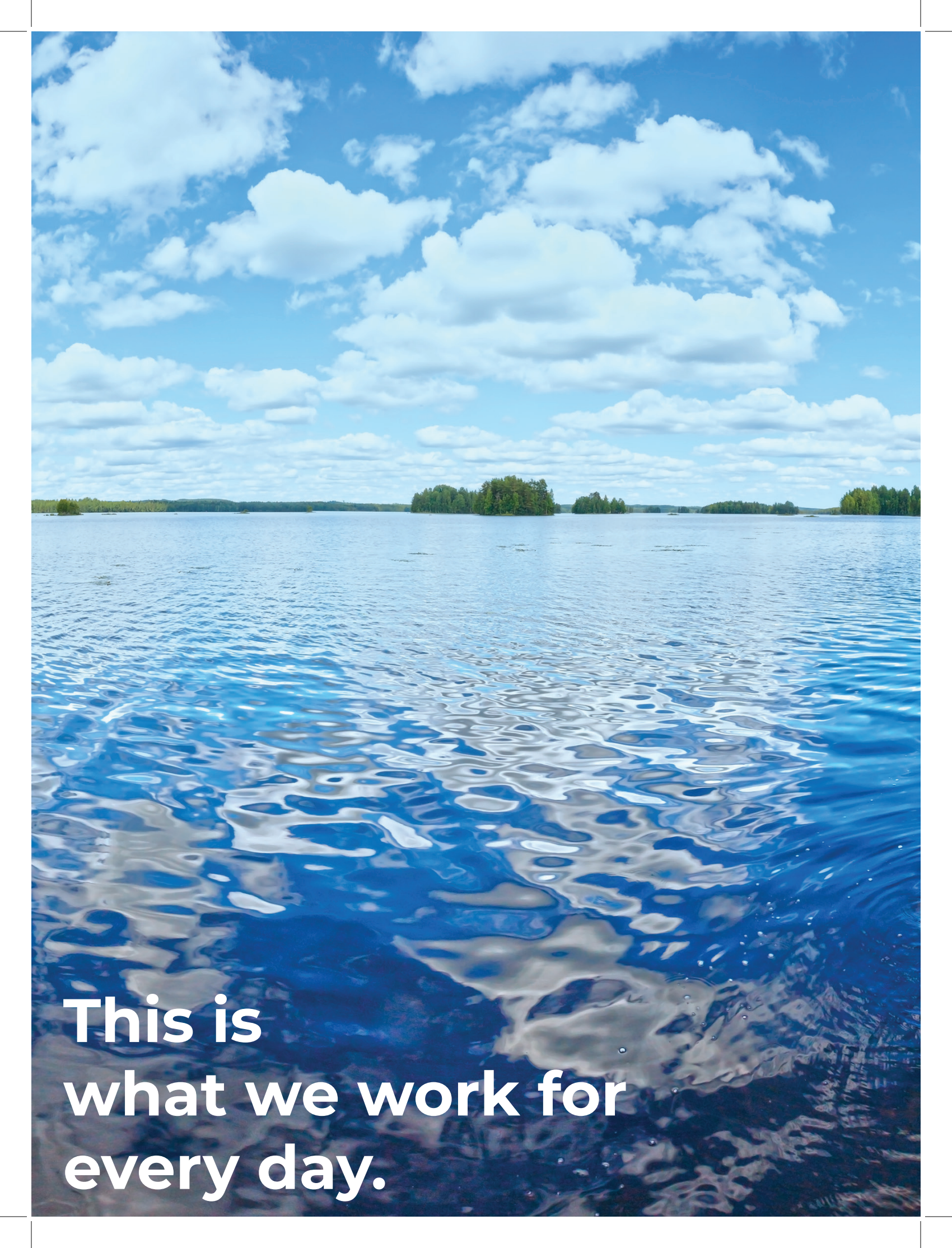
Traditional service contracts offered for air compressors are expensive, open-ended agreements without guaranteed caps on costs.

The Tamturbo® Touch-Free™ Technology offers an alternative – The Care-Free Service. This unique product offers, for a very reasonable annual cost, costs of maintenance, service, parts, labor, warranty and Touch-Free™ Support.

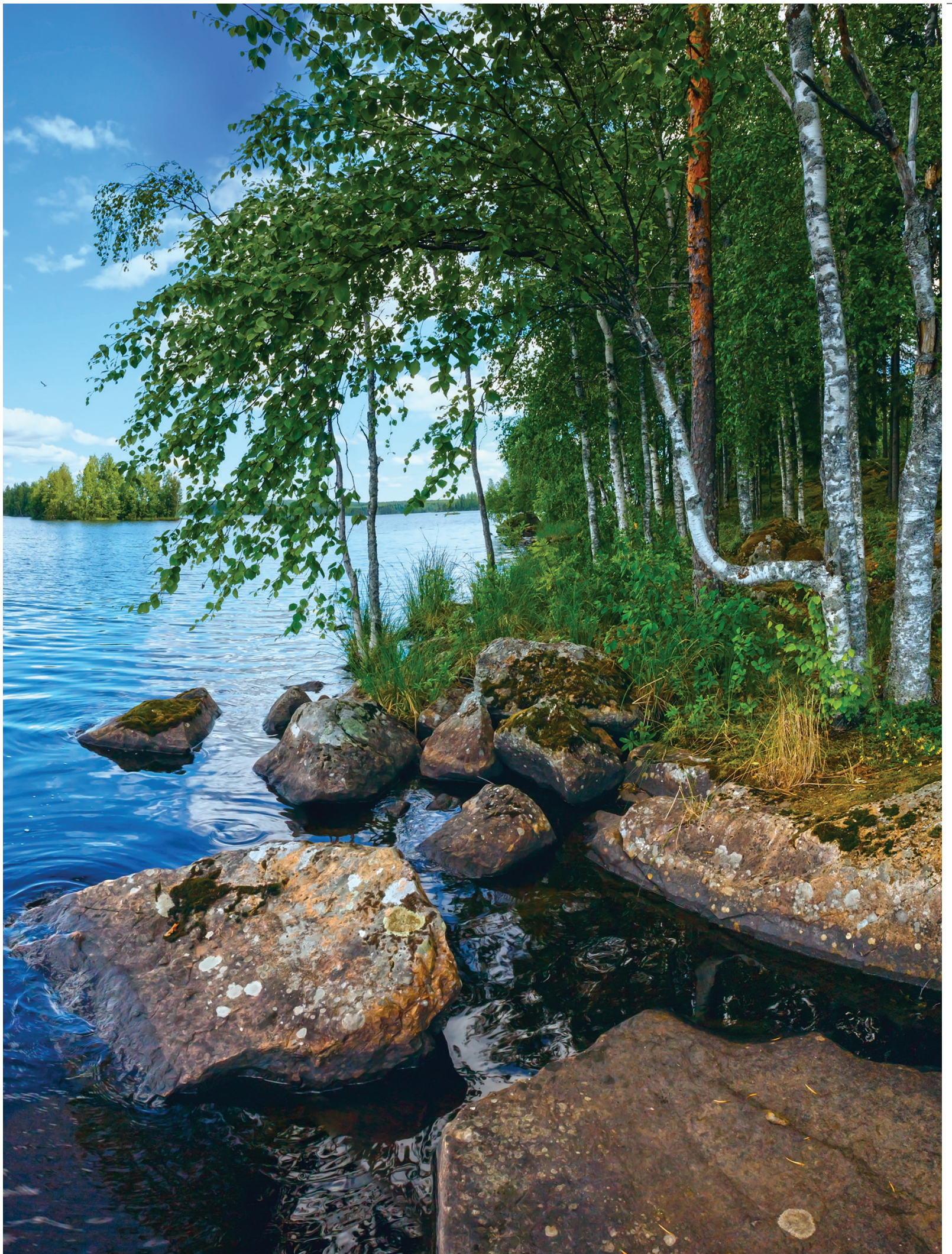
When your compressor needs new intake air filters, we see if from our remote connection and send one of our trained distributor partners to change the filters.

Or if your operating conditions change and settings have to be optimized, we will make the necessary adjustments for you without waiting for a technician to be available and keeping you informed.

We watch the compressor for you, so you don't have to.



**This is
what we work for
every day.**



WE WILL GIVE YOU A HAND TO REDUCE YOUR CO₂ FOOTPRINT



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