ORKEL COMPACTORS

INDUSTRIAL BALING SYSTEMS FOR BULK MATERIALS





BORN IN NORWAY, BUILT FOR THE WORLD

ORKEL IS STANDING THE TEST OF TIME.

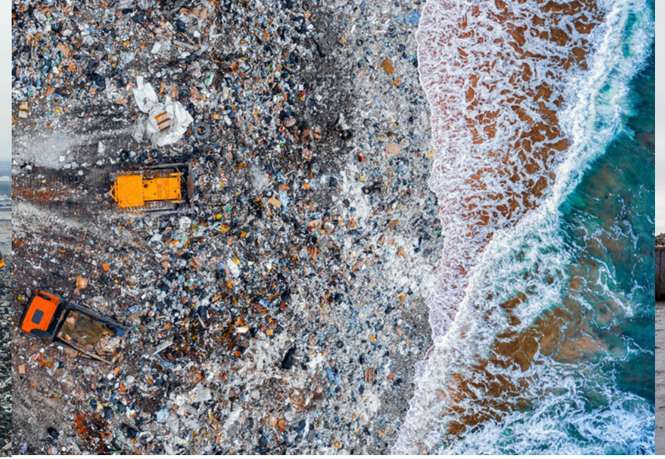
Starting as a humble shop for friends and relatives back in 1949, Orkel began its journey as a family-run business in the midwest of Norway. Over 70 years later, Orkel has evolved into what is best described as a global trailblazer for industrial and agricultural compaction technology. Led by CEO Erlend Johan Gjønnes, grandson of Orkel's founder Johan Gjønnes, Orkel is delivering cutting-edge technology to more than 60 countries across six continents.

About us

Orkel is a pioneer in creating machines and solutions for better conservation and handling of agricultural and industrial materials. Our core values are what defines us, and our commitment to them is strong at every level of our company: Reliability, inclusivity, and innovation!









WASTE HANDLING CHALLENGES AND SOLUTIONS

Pollution, fire risk and rising logistics costs challenge waste handling worldwide. Orkel Compactors deliver a reliable and efficient solution through industrial baling systems for safe and cost-effective waste handling.

POLLUTION - A THREAT TO NATURE AND HEALTH

Landfills are a major source of pollution, leaching toxins into the soil and contaminating groundwater. Wind scatters waste into fields, forests, oceans, and cities, while animals spread plastic and harmful materials further. Coastal landfills face even greater risks—erosion and storms can send massive amounts of waste into the ocean, harming marine life and fueling global pollution.

FIRE - A CONSTANT AND COSTLY RISK

Self-ignition is a common issue in landfills. Organic waste combined with oxygen and heat can spontaneously catch fire, often burning for weeks. Fires are dangerous, hard to extinguish, and release harmful gases. The problem is so widespread that many facilities can't secure insurance.

SPACE AND TRANSPORT - INEFFICIENT AND EXPENSIVE

Uncompressed waste consumes massive amounts of space, **filling landfills at alarming rates** and taking up valuable land that could be used for other purposes. The inefficient use of space also complicates waste handling and storage, leading to **logistical challenges**. Transporting loose waste adds to the problem—each load is bulky, requiring more trips, more fuel, and more emissions.

High transportation costs strain budgets, while the environmental footprint of moving waste continues to grow. The **lack of effective compaction** makes energy recovery and recycling efforts even more difficult.

SOLUTION - ORKEL BRINGS CONTROL AND EFFICIENCY

The Orkel Compactor uses industrial baling technology to compact waste into dense, sealed bales, wrapped in recyclable plastic. This prevents spillage, reduces oxygen exposure to **lower fire risks**, and saves up to 80% of storage space.

The bales are **easy to transport**, lowering costs and emissions. With Orkel, waste becomes safer, cleaner and manageable. This also ensures the bales can be directly used for energy recovery through incineration without requiring additional sorting.





Move two bales at a time

ORKEL COMPACTORS

Orkel Compactors are baling and wrapping systems designed to efficiently handle a wide variety of bulk materials. In industrial applications, Orkel Compactors are used to process materials such as SRF, plastics, biomass, wood chips and other industrial bulk substances. This flexibility makes them ideal for industries like recycling, wood processing, and energy production, offering compatibility with over 25 materials and growing.

TAILORED FOR YOUR NEEDS

X-generation compactors set a new standard for productivity and ease of use, combining robust performance with advanced features like production management tools and traceability systems. Each machine is tailored to specific needs, featuring user-friendly touch screens, efficient feed hoppers and a compact bale size (Ø115×120 cm) optimized for transport.

With Orkel's solutions, customers can manage materials sustainably and cost-effectively while ensuring reliable operation and high performance.

THE BENEFITS OF HIGH-DENSITY BALES

Orkel High-Density Bales offer significant benefits that enhance storage, stacking efficiency, and recycling potential.

Improved storage
Due to **significant compaction**, required storage space is reduced compared to bulk waste. The durable and weather-resistant bales **can be stored outdoors** until they are needed or it becomes cost-effective to transport them further.

Reduced fire risk
Storing waste in round bales reduces the risk of self-ignition. The compacted and **sealed bales prevent oxygen exposure**, minimizing the chance of combustion.

Easy stacking
Orkel High-Density Bales **reduce material volume by up to 3:1**. Bales can be stacked up to six high, saving valuable floorspace. Round bales stack neatly and securely, offering a stable and organized storage solution.

Efficient transport
Multiple options for flexible and easy transport, reduced emissions and lower costs by maximizing load efficiency. A **semi-trailer holds 44 bales** to be fully loaded. Bale weights may vary depending on moisture content.

Enhanced recycling and energy utilization
The inner wide film and the outer wrapping film consist of **identical plastic types, free from metal** or other foreign materials. This ensures bales to be directly used for energy recovery through incineration without requiring additional separation.



HOW THE COMPACTOR WORKS



1. TRANSPORT TO CHAMBER
Bulk material is loaded either from a factory conveyor belt or front-end loader. The material is transported from the feeding table by an elevator into a compression chamber using a robust chained conveyor system with steel carriers.

2. COMPRESSION
Two specially designed belts inside the chamber prevent spillage while the material is compressed. Hardox steel plates on both sides of the chamber to prevent wear and tear. High quality automatically lubricated bushings prevent dust and moisture damage.
Easy replacement and maintenance.

3. INNER WIDE FILM OR NET WRAPPING
The bale is wrapped in wide film or net to allow it to maintain its shape and density. An air pressure cleaning system ensures high quality operation at all times.

4. OUTER WRAPPING
A predefined number of film layers seals the material in a compact bale on the wrapping table, maximizing the storage and handling potential.

Hi-X
COMPACTOR

A versatile Orkel Compactor designed for baling finer materials such as SRF and wood shavings. The Orkel Hi-X is easy to move between sites on road.



weighing system equipped

115 x 120 cm bale size (1,25m³)

250 - 1 400 kg per bale

widefilm 1280 mm wrapping film 750 mm

25+ Materials

compatible with over 25 different materials

Hi-X evo
COMPACTOR

The Hi-X evo handles rougher materials. Upgraded rubber belts ensure smooth operation, reduced maintenance, and minimal downtime. Compared to the standard Hi-X, the evo offers a larger chamber opening, reversible belts, and a gentler elevator incline, enhancing material flow and efficiency.



weighing system equipped

115 x 120 cm
bale size (1,25m³)

250 - 1 400 kg
per bale

widefilm 1280 mm
wrapping film 750 mm

25+ Materials

compatible with over 25 different materials

INTUITIVE AND **FLEXIBLE**

EASY RELOCATION

Orkel Compactors are designed for easy relocation, giving you maximum flexibility. Quick and effortless to set up, they can be positioned exactly where you need them.

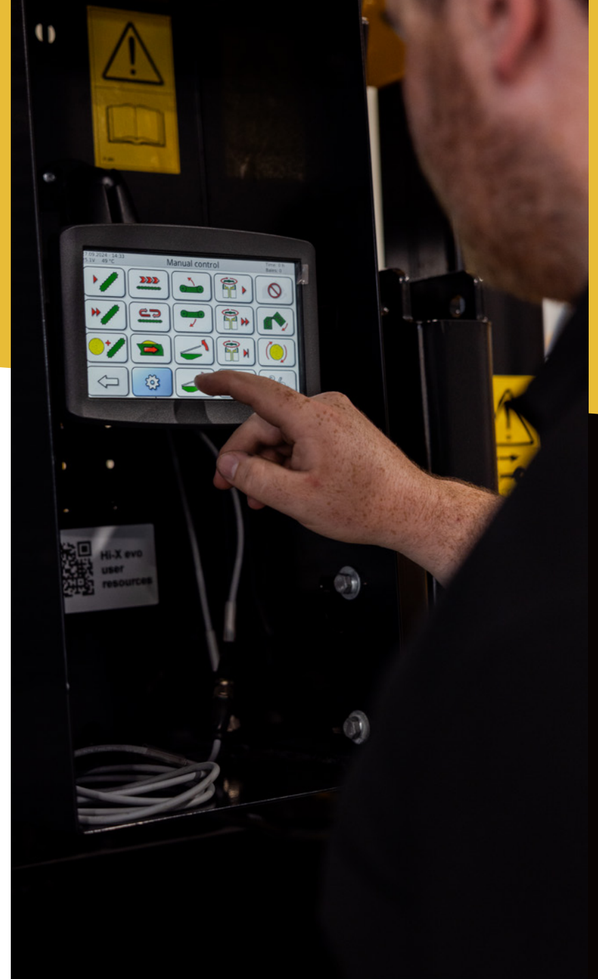
EASY OPERATION

The intuitive touchscreen ensures effortless operation and supervision, with a wide viewing angle, high brightness, and excellent contrast for optimal readability—even in direct sunlight.

The machine can operate fully automatically, reducing manual labor and allowing you to focus on supervision and fine-tuning. For greater flexibility, certain functions can also be controlled manually as needed.

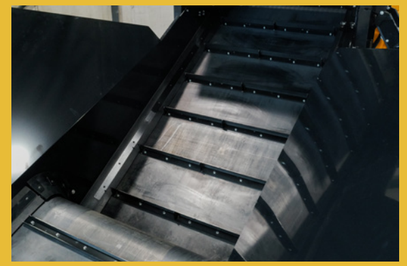
EASY TO INTEGRATE

Designed for versatility, Orkel Compactors fit seamlessly into almost any space. Their compact footprint allows for easy placement, even in narrow areas, without compromising performance.



ROBUST CONSTRUCTION





RUBBER BELTS

The Orkel Hi-X Evo features durable rubber belts designed to handle tough materials like MSW and agricultural plastics. This upgrade minimizes operational downtime and extends service intervals



DURABLE CHAMBER

Orkel's chamber is reinforced with Hardox steel plates and slide bearings, ensuring a durable and strong machine. The chamber has two main chains allowing easier maintenance and increased lifetime.



The pile on the left is the content of an opened bale.

BULK MATERIALS

Storing bulk material is essentially the core of Orkel's business, which is why we emphasize bulk material expertise and know-how. With an established Materials Department, we are continuously seeking out new baleable materials while also expanding our existing bulk material record.

Current baling experience include several industrial materials, such as:

- SRF [Solid Recovered Fuel]
- RDF [Refuse-Derived Fuel]
- MSW [Mixed Solid Waste]
- Household waste
- Agricultural plastic
- Manure
- Compost
- Wood shavings
- Wood chips
- Paper & cardboard
- Paper reject
- Household plastics



MSW - Mixed Solid Waste
Unsorted household and commercial waste, containing a mixture of organic, recyclable, and non-recyclable materials. Typically the raw waste collected before any processing.

SRF & RDF
A higher-grade, refined fuel made from carefully sorted and shredded non-recyclable waste. It meets strict specifications for use in industrial processes like cement production or energy generation.





Sawdust
A versatile material made from finely milled wood, ideal for absorbing moisture and controlling odors. Sawdust is compact and easy to handle, transport, and store, making it useful for animal bedding, mulch, and other applications.

Compost
A nutrient-rich compost made to improve soil and support plant growth. The process removes pathogens, reduces odors, and creates a safe, sustainable product with essential nutrients like nitrogen, phosphorus, and potassium.





ORKEL
SERVICE AND SUPPORT

GLOBAL PRESENCE

Orkel has a strong network of dealers worldwide, providing expert sales guidance and aftersales support.

In regions without a local dealer, Orkel serves as your direct point of contact, ensuring seamless factory-direct sales along with dedicated service and support.

No matter where you are, we are committed to keeping your operations running smoothly.

COMMISSIONING

After delivery of your Compactor, an Orkel certified technician will travel to your site to setup the machine and make necessary adjustments, as well as provide training of your operators.

TECHNICAL SUPPORT

For queries such as machine settings, technical assistance or baling advice, our technicians will gladly assist you over phone or by email.

SPARE PARTS

With warehouses across the globe, including a significant inventory in Norway, accessing the parts you require is effortless. You may contact your nearest Orkel dealer, or the Orkel spare parts team to get necessary parts.



ORKEL
TELEMATICS

Your Production Management Tool
Orkel Telematics provides full overview of your KPIs and production details.



With Orkel Telematics, you gain:

- Full overview of your KPIs and production details
- Production rate
- Production history
- Current machine health
- Email reports
- Better support with remote diagnostics and baling speed optimization.

ACCESSORIES
FOR YOUR ORKEL COMPACTOR



Orkel BaleID

Orkel's BaleID system automates bale tagging with unique, scannable IDs, linking each bale to an online database. Accessible via a mobile app, the tags provide details such as baling date, location, content and weight. This enhances traceability, quality assurance, and brand credibility by verifying bale origin and characteristics.

You may choose to use your Company logo on the tags.

Orkel BaleID is recommended in combination with Orkel Telematics.



Orkel film
High-quality film is a critical component for efficient packaging of materials such as waste, sawdust, manure, and other industrial products. Collaborations with leading manufacturers ensure reliable film that delivers secure and durable wrapping solutions.

Various sizes of both wide film and wrapping film are available, tailored to fit different materials and compactor models. A recent addition is the recycled film option, combining performance with sustainability.



Orkel Powerpack (400v/50Hz)
Advanced power source for your Compactor, providing a frequency-controlled RPM which secures your operation at low and high temperatures.

The automatic RPM control ensures the correct speed of the Compactor during variable operating conditions. The PP550 is optimized to operate the compactor with the lowest possible power consumption, while ensuring high quality baling.

The Orkel PP550 requires 125 amp.

ADD-ONS

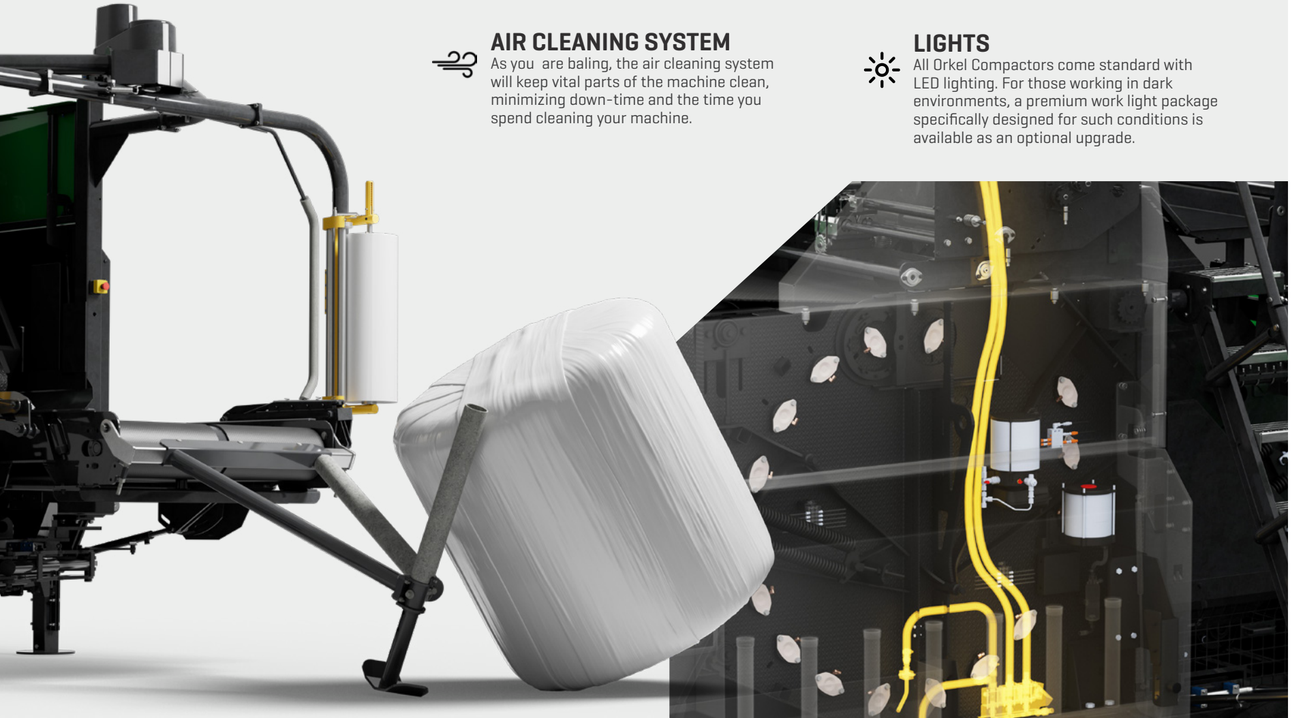
REMOTE CONTROL
2 channel remote control can be added as an option, providing bale drop and stop.

BALE TIPPER
The bale tipper flips the bale over to its side when dropping, making it easier to pick up with a grabber.

WRAPPER GUARD
For added protection, a specially designed wrapper guard can be included as an optional upgrade.

AIR CLEANING SYSTEM
As you are baling, the air cleaning system will keep vital parts of the machine clean, minimizing down-time and the time you spend cleaning your machine.

LIGHTS
All Orkel Compactors come standard with LED lighting. For those working in dark environments, a premium work light package specifically designed for such conditions is available as an optional upgrade.



TECHNICAL DETAILS

MATERIAL SAMPLE	Hi-X	Hi-X evo
Waste SRF	•	•
Waste RDF		•
Waste MSW		•
Sawdust	•	•
Manure	•	•
Agriculture plastic		•
20+ other materials	•	•
BELTS		
Rubber belts		•
OPERATION		
Control system	Touch	Touch
Weighing system	•	•
MAX. CAPACITY *		
Bales/h	55	55
POWER		
Tractor (min. PTO hp)	120	120
Powerpack PP550	55 kW	55 kW
CHAMBER		
Chamber pressure (bar)	280	280
Bale size (cm)	ø115 x 120	ø115 x 120
Volume (m^3)	1,25m^3	1,25m^3
Bale weight (kg)	250-1400	250-1400



Slide bearings on all chamber rollers

DRAWBAR	Hi-X	Hi-X evo
Telescopic	•	•
MEASUREMENTS (MM)**		
Transport length	8 740	11 470
Transport height	4 000	4 000
Transport width	2 550	2 550
Operation length	10 770	10 987
Operation height	3 900	4 030
Operation width	3 710	4 225
WEIGHT *		
Net. weight (kg)	9 850	10 160

***Capacity:** Depending on type of material
****Measurements:** This may vary with different accessories
*****Weight:** Will vary with different accessories. Minimum weight is shown.

SUCCESS STORIES FROM AROUND THE GLOBE



FDC Enterprises, USA

Fred Circle, President & CEO

"The Orkel Compactor technology opens new revenue generating opportunities that can potentially get rid of waste streams within the local community while also sustaining and creating jobs."



Iridex Group Import Export, Romania

Stefan Mihai-Toader, Chief of MSW Plant

"Due to the fact that the bales are sealed, the perimeter of the sorting station is cleaner, there is less wastewater, fewer unpleasant odors, and easier handling and transport."



Throne Farm, UK

Stephan Ware, Owner of Throne Farm

"The Orkel Compactor technology optimises transport, provides efficient and safe storage, creates the ideal environment for decreasing odour, reducing mineral loss via gas and optimising fertiliser availability within the manure."



Marla BVBA, Belgium

Jef Marjinissen, Owner and General Manager

"After 20 years of experience with Orkel Compactors, I know how reliable these machines are. The benefit with the Orkel Hi-X machine is the versatility in baling a large amount of different materials."



Revival Group, Taiwan

Rush Lee, Manager

"Baling waste with our Orkel Compactor offers numerous advantages beyond just improving storage and transportation efficiency. It significantly reduces costs while effectively addressing traditional challenges like residue, leakage, scattering and unpleasant odours."



3 GOOD HEALTH AND WELL-BEING

Choosing Orkel Compactor technology for waste baling over landfill generation helps reduce poor health and illnesses among nearby communities. This is achieved by minimizing pollution and contamination in air, water, and soil, as well as reducing exposure to hazardous chemicals.



2 ZERO HUNGER

The Orkel Compactor technology contributes to ensuring sustainable food production systems by emphasizing agricultural productivity. This leads to resilient agricultural practices that increase overall productivity and production within the global agricultural sector.

BALE HANDLING AND TRANSPORT

A semi-trailer can hold up to 44 bales, while a modular truck combination can carry up to 80 bales when fully loaded.

40 bales can be loaded into one container.

Move and load bales easily with a forklift. Extended forks allows moving two bales at a time.

CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABILITY

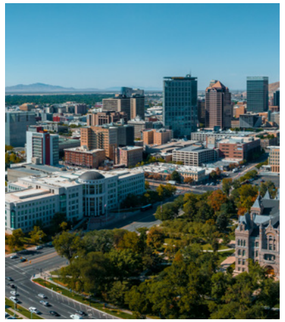


7 AFFORDABLE AND CLEAN ENERGY

The Orkel Compactor technology is developed for baling high-calorific value waste materials such as RDF and SRF, which contributes to increase the rate of improvement in energy efficiency and waste treatment processes

11 SUSTAINABLE CITIES AND COMMUNITIES

Choosing Orkel Compactor technology for waste baling when developing future waste management strategies contributes to reducing the adverse per capita environmental impact of cities. This approach pays special attention to air quality and municipal waste management.





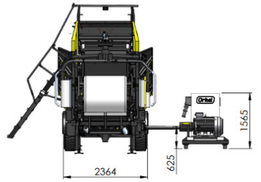
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Storing agricultural bulk material as high-density bales produced by Orkel Compactors limits oxygen degradation. This contributes to reducing global food losses along production and supply chains, with a particular focus on post-harvest losses.

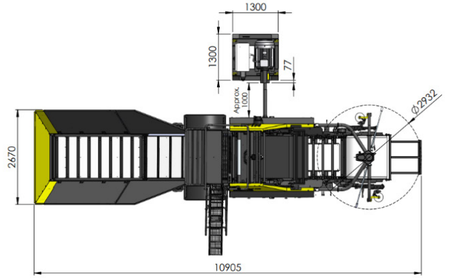


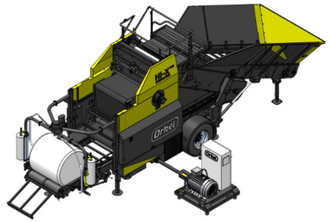
8 DECENT WORK AND ECONOMIC GROWTH

Orkel Compactor technology helps achieve higher levels of economic productivity through technological upgrading and innovation in the agricultural sector. This sector is high-value-added and labor-intensive.









MEASUREMENTS WITH ORKEL POWERPACK



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