

# ORWAK

## HORIZONTAL



# AUTOMATIC SOLUTION FOR CONTINUOUS OUTPUT OF MILL-SIZE BALES

## CENTRALIZED WASTE HANDLING

Fully automated horizontal balers meet the challenges presented by centralized waste handling in many businesses and organizations, which produce huge volumes of recyclable paper-based and plastic wrapping. They quickly minimize the waste material in a cost-effective way and at the same time contribute to improving the internal logistics.

ORWAK HORIZONTAL takes your business one step further in the recycling chain, as the mill-size bales can be sold directly to paper and plastic processing industries.



## A VARIETY OF INFEED OPTIONS

To fit the conditions in your environment, ORWAK HORIZONTAL offers a wide choice of feed systems: manual, bin, air-transport or conveyor belt with side or top feed.

## CONTINUOUS BALING

Orwak horizontal balers enable a production capacity of 1-6 ton cardboard per hour. The baling process is completely automated even though it is possible to run the horizontal balers in a manual mode. The waste is compacted both from above and the sides, while it moves through the channel, until the baler senses that the right compaction degree is achieved.

Continuous baling allows multi-shift operation and the bale counter keeps track of the throughput.

The bales are tied automatically with strong and resilient wire and the bale length is adjustable.

## PERFECT IN YOUR ENVIRONMENT

Typical waste handled by Orwak horizontal balers are different types of paper, cardboard and soft plastic. Therefore, our horizontal balers can be found wherever such waste accumulates:

*Shopping centers*                      *Logistic centers*  
*Supermarkets*                      *Recyclers*  
*Department stores*                      *Printers*  
*Manufacturing industries*                      *Book binders*  
*Warehouses*                      *Small municipalities*

## EXPERTISE THROUGH EXPERIENCE

Due to numerous installations worldwide for large scale waste handling, we have built up a great deal of knowledge and experience with horizontal balers. A comprehensive safety system minimizes risk and our service and maintenance staff are ready to assist you when needed.

## ORWAK HORIZONTAL BENEFITS

- + **Effective large-scale waste handling** due to the high degree of automation.
- + **Easier and less frequent internal and external waste transports.**
- + **Excellent control over the throughput.**
- + **Increased income** when delivering high-quality bales directly to the recycling industry.
- + **Generating and saving money** through recycling leads to **rapid system payback.**
- + **Safe and comfortable working environment.**





# CASE STUDY: PLASTIC IN ORWAK HORIZONTAL 2140 AT, 18 kW

## INTERNATIONAL CARGO-LINE, SWEDEN



A constant flow of plastic bales



Neat high-density plastic bales

International Cargo-Line Sweden AB is a family-owned business started in 1988. "We recycle any type of plastic" is the business concept and Cargo-Line focuses mainly on large manufacturing industries and municipalities. The services include recycling, trade and transport of plastic and approximately 50 % of the material is exported.

The company has expanded significantly the last couple of years and International Cargo-Line now handles volumes of 100 ton plastic per month. Earlier the material was compacted in a standard manual baler, but it did not have the capacity to keep up with the new volume.

Jonas Nilsson, Managing Director of International Cargo-Line, comments: "In pace with growing volumes, it became inefficient and costly to handle the plastic manually and it was more rational to go for an automatic solution."

They chose the horizontal baler 2140 AT, 18 kW. With its large infeed chamber and a press force of 40 ton, it rapidly processes huge amounts of packaging material.

The horizontal baler is placed indoors under roof and it is fed effectively by a forklift. The plastic is dropped directly into the infeed chamber and during the first four weeks of operation the baler has produced close to 130 bales!

The compaction and baling process is completely automated, as the compacted material is cut in the desired lengths followed by automatic bale-binding with steel wire to form dense and steady bales. Jonas Nilsson explains that the adjustable length of the bales is a good feature: "The bale length 120 cm is optimal logistically for the balers to fit on Euro pallets as well as in sea and hook containers."

The soft-plastic bales in this adjusted length weigh approximately 400 kg. The horizontal baler is equipped with autostart, bale counter and an easy-to-use control panel.

Thanks to the investment in the horizontal baler, one member of the staff can allocate all his time to other more productive chores and the baler will be paid off in three years. Johan Nilsson concludes:

"I am very pleased with the automatic horizontal baler and the cost-reduction we gain by it."



Investing in the automatic horizontal baler was a rational decision.

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## CASE STUDY: CARDBOARD IN ORWAK HORIZONTAL 2130 AT, 6.2 kW A MANUFACTURER OF RETAIL PRODUCTS



An international manufacturer of retail products, runs this special division, where 85 % of the bags with fixings used by the chain worldwide are produced. The parts arrive in boxes and are repacked in small volumes in separate bags.

To take care of all the empty boxes, the plant has an ORWAK HORIZONTAL 2130 AT installed and strategically placed indoors in the warehouse.

The horizontal baler is in operation 7 days a week and processes approximately 1 ton cardboard per day. It keeps the floors in the facility clear of boxes and organizes the material handling process efficiently. The steady cardboard bales are tied with steel wire and weigh 350 kg.



2130 AT is the smallest horizontal baler in the range and thanks to its compact dimensions, it can easily be placed indoors.

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## CASE STUDY: OFF-CUTS IN ORWAK HORIZONTAL 2150 SAT, 22 kW THE PACKAGING INDUSTRY

The model 2150 SAT comes with a narrow channel to be able to handle small pieces of material successfully. A factory specialized in creating packaging solutions for the dairy industry, ends up with large volumes of thin paper off-cuts, when producing seals for butter and margarine containers.

The off-cuts are collected in bins and are conveniently fed into the baler with a bin lifter.



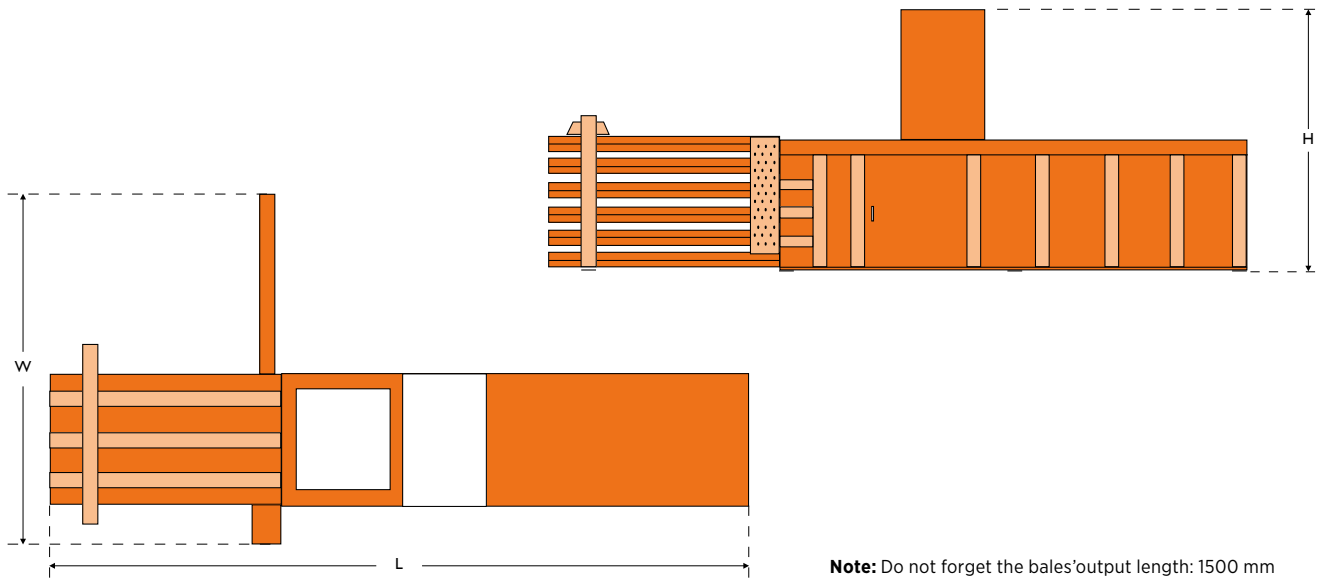
Layers of shiny paper off-cuts compacted into firm bales.

A photocell activates the start and the material is then compacted into firm 500 kg bales that are easy to handle and transport to the recycling industry.





# DIMENSIONS AND SPECIFICATIONS



**Note:** Do not forget the bales' output length: 1500 mm

## MACHINE DIMENSIONS

	Length (L)	Width (W)	Height (H)	Infeed opening
<b>ORWAK HORIZONTAL 2130 AT, 4/6.2 kW*</b>	5776 mm	3801 mm	2370 mm	1200x1100 mm
<b>ORWAK HORIZONTAL 2140 AT, 18 kW</b>	7200 mm	3900 mm	2500 mm	1600x1100 mm
<b>ORWAK HORIZONTAL 2150 AT, 18 kW</b>	7146 mm	3749 mm	2479 mm	1600x1100 mm
<b>ORWAK HORIZONTAL 2150 AT, 22 kW</b>	7200 mm	3900 mm	2000 mm	1600x1100 mm
<b>ORWAK HORIZONTAL 2150 SAT, 22 kW</b>	6400 mm	3900 mm	2000 mm	1200x800 mm
<b>ORWAK HORIZONTAL 2160 AT, 30 kW</b>	7200 mm	3900 mm	2000 mm	1600x1100 mm

## TECHNICAL DATA

Model	Machine weight	Recommended monthly tonnage (cardboard)	Recommended production (cardboard)	Press force	Press chamber volume	Bale size HxW (adjust. length)	Bale volume weight	No. straps	Power supply
<b>2130 AT, 4/6.2 kW*</b>	4.5 t	35 t	1 t/h	30 t	1.05 m <sup>3</sup>	800x1100 mm	333 kg/m <sup>3</sup>	3	3x380-400 V, 50 Hz
<b>2140 AT, 18 kW</b>	7.0 t	100 t	4 t/h	40 t	1.40 m <sup>3</sup>	800x1100 mm	375 kg/m <sup>3</sup>	4	3x380-400 V, 50 Hz
<b>2150 AT, 18 kW</b>	7.5 t	100 t	3 t/h	50 t	1.40 m <sup>3</sup>	800x1100 mm	417 kg/m <sup>3</sup>	4	3x380-400 V, 50 Hz
<b>2150 AT, 22 kW</b>	8.0 t	200 t	5 t/h	50 t	1.40 m <sup>3</sup>	800x1100 mm	417 kg/m <sup>3</sup>	4	3x380-400 V, 50 Hz
<b>2150 SAT, 22 kW</b>	7.0 t	100 t	3 t/h	50 t	0.77 m <sup>3</sup>	800x800 mm	379 kg/m <sup>3</sup>	4	3x380-400 V, 50 Hz
<b>2160 AT, 30 kW</b>	8.5 t	250 t	6 t/h	60 t	1.40 m <sup>3</sup>	800x1100 mm	520 kg/m <sup>3</sup>	4	3x380-400 V, 50 Hz

\* = 6.2 kW when equipped with bin lifter

# FEATURES THAT ENSURE HIGH PERFORMANCE



The details make all the difference. Read more about the features developed to enhance your baler experience! A wide range of accessories and options are also available to tailor ORWAK HORIZONTAL to even better satisfy your needs. Please contact us for advice and more information!

## MATERIAL SELECTOR

Choose between cardboard and soft plastic! The baler adjusts the compaction in the channel to ensure bales of maximum density.



## SIMPLE CONTROL

A user-friendly control panel facilitates automated operation and manual mode is available for testing bale lengths.



## PHOTOCELL

For automatic start of the baler as soon as there is waste in the infeed hopper.



## SPECIAL STEEL TEETH

Tough and long-lasting teeth effectively cut the waste before it goes into the compaction channel.



## BALING WIRE SYSTEM

2.8-3.3 mm wire is used for the bale tying. The horizontal needle package reduces machine height and enables unobstructive wiring.



## BALE COUNTER

Allows you to keep track of the throughput of bales.



## BIN LIFTER

OPTION: used with many types of standard bins.



## OIL HEATER/COOLER

OPTION: The oil heater is available for demanding outdoor conditions and the oil cooler is recommended for ambient temperatures above 30 °C.



## OVERVIEW STANDARD FEATURES

### ALL MODELS IN THE ORWAK HORIZONTAL FAMILY ARE EQUIPPED WITH THESE STANDARD FEATURES

- + Display
- + Bale counter
- + Photocell start

# COMPACTION SOLUTIONS FOR MOST TYPES OF WASTE

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ORWAK develops solutions for sorting and recycling waste materials that improve business efficiency, contribute to a cleaner working and natural environment to provide the best total waste handling economy.

We offer an innovative range of products that promotes sorting at source and make waste management more profitable.



**SiTCO**  
TOTAL PACKAGING SOLUTIONS

شركة الفصول للتجارة والصناعة الدولية

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