

# AUTOMATED BALING SOLUTIONS FOR MORE PROFITABLE WASTE HANDLING



## MEET ORWAK HORIZONTAL

Fully automated horizontal balers meet the challenges presented by centralized waste handling in many businesses and organizations, where huge volumes of recyclable paper-based and plastic packaging material need to be taken care of. The balers quickly minimize the waste material in a cost-effective way and at the same time contribute to improving the internal logistics.

# AUTOMATED SOLUTION FOR CONTINUOUS OUTPUT OF MILL SIZE BALES

The line 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.

## COMPACT AND CLEVER DESIGN

Thanks to the compact and clever design, the horizontal balers take up little floor space relative to their size and the smallest models in the range can be delivered in two or three parts for easier transportation and installation.

## 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.

## CONTINUOUS BALING

ORWAK HORIZONTAL enables a production capacity of 1-25 ton cardboard per hour in the standard range and even more options upwards on demand. The baling process is completely automated even though it is possible to run the horizontal balers in a manual mode. This waste management solution is designed for continuous infeed and an automatic horizontal or



vertical strapping system with adjustable wire links provides optimal output. The material 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.

## ADVANCED PROGRESSIVE CUTTING

An advanced progressive cutting system facilitates the throughput and prevents blockage in the channel.

## ADJUSTABLE BALE SIZE

The bales are tied with strong and resilient wire and the bale length is adjustable to meet the demands in your business.

## PERFECT IN YOUR ENVIRONMENT

The horizontal line is optimized for different types of paper, cardboard, plastic film, PET, metal and aluminum cans. The large models also deal effectively with wooden crates and the smallest are ideal for shredded paper. Our horizontal balers are versatile and can be found wherever those types of material accumulate:

**Shopping centers**

**Supermarkets**

**Department stores**

**Manufacturing**

**industries**

**Warehouses**

**Logistic centers**

**Recyclers**

**Printers**

**Book binders**

**Small municipalities**

## WHY ORWAK HORIZONTAL?

**Effective large-scale waste handling** due to the high degree of automation.

**Improved internal and external logistics**

**Safe and comfortable working environment**

**Excellent control over the throughput**

**Increased income** when delivering high-quality bales directly to the recycling industry.

## CASE STUDY: DISTRIBUTION CENTER



A renowned retail chain has a huge distribution center in Sweden. Two horizontal balers on site effectively handle the vast stream of cardboard packaging.

### **CENTRAL WASTE HANDLING: INDOOR CONNECTION TO OUTDOOR UNIT**

The powerful ORWAK HORIZONTAL 500 AT is placed outside the main warehouse, where goods are dispatched to the stores and the big cardboard wrappings are conveniently disposed of indoors and fed into the baler through a chute in the wall. At peaks in the business, this high capacity application deals with more than 40 tons of cardboard per week and generates up to 120 bales in the same time period.

### **A COMPACT BALER IN THE WEBSHOP WAREHOUSE**

A smaller horizontal baler is installed in the webshop warehouse, where items are repacked into small boxes for home deliveries to customers. Thanks to the compact size of the baler, it could be installed indoors directly at source next to the repack station. It takes care of all the large and midsize cardboard boxes in this hall and quickly turns them into dense bales.



### **FULLY AUTOMATED SOLUTION**

Both horizontal balers offer a completely automated process including compaction, baling and binding. The compact bales form a neat row at the end of the machines and are ready for pick up and delivery to the recycling industry.

### **A COMPLETE SOLUTION WITH MANY ADVANTAGES**

Investing in the horizontal balers has improved internal and external logistics, keeps aisles and floors clear from used packaging material and it generates an income when selling the cardboard bales to recyclers.



## APPLICATION AREA: SHREDDED PAPER & OFFCUTS IN THE GRAPHIC INDUSTRY



Thanks to the narrow channel, model 2050 AT and 15 AT are ideal for compaction of shredded paper, offcuts and other small pieces of material.

### IDEAL FOR OFFCUTS AND SHREDDED MATERIAL

The tight strapping keeps a firm grip of the bales. Yet, the bales are lightweight and easy to handle and transport on site.

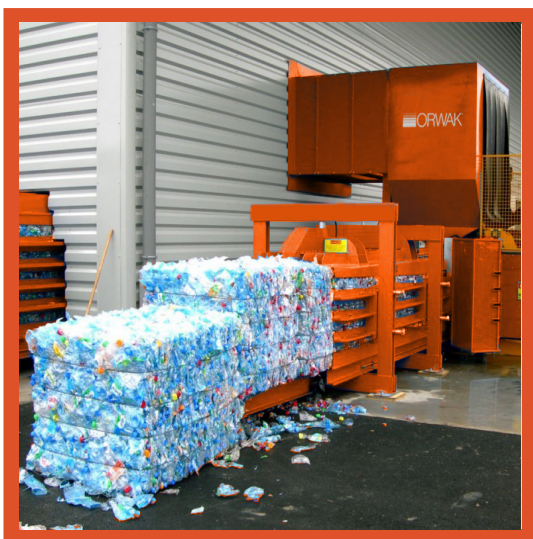
The compact design and small footprint of the balers offer many different placement opportunities. It serves the graphic industry and printing offices, where the floor space often is limited, well.



Compacting and baling shredded material optimizes the logistics and contributes to keeping the area clean and free from clutter.



## APPLICATION AREA: PET BOTTLES & ALUMINUM CANS IN THE BEVERAGE INDUSTRY & RECYCLING CENTERS



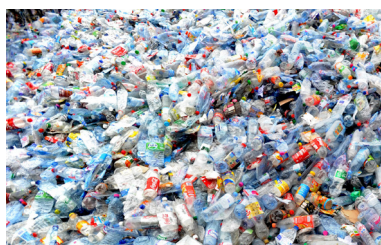
The sturdy large balers in our horizontal range are designed to compact tough material such as empty PET bottles and aluminum cans.

### OPTIONAL PERFORATOR FOR PET BOTTLES

It is challenging to crush PET bottles, especially when the caps are still on. For the most satisfying result, we recommend that you add one of our options, the perforator, to the installation. It effectively punctuates the bottles and relieves the pressure inside in preparation for the compaction.

### PROGRESSIVE CUTTING SYSTEM

Our horizontal balers are equipped with a smart progressive cutting system that supports a trouble-free output and prevents clutter from blocking the chute.



Horizontal tying is most reliable and preferred when baling PET and aluminum cans.

### SUCCESSFUL COMPACTION OF BEVERAGE CONTAINERS

Over the years, through numerous installations at beverage manufacturing facilities and recycling centers, we have built up a lot of experience in compacting and baling beverage containers successfully.



# ORWAK HORIZONTAL THE FULLY AUTOMATED BALER FAMILY



Our fully automated horizontal balers are available in several different models and sizes to satisfy your specific requirements for cost-effective compaction of large volumes of recyclable material. All models meet the same high safety standards and are easy to operate. After simple training, everyone can use ORWAK HORIZONTAL to compact the relevant rest material to high-density bales.

## ORWAK HORIZONTAL 2050 AT

**The most compact baler** in the range.  
**Can be delivered in two parts** for easier transportation and installation.  
**Small footprint** for rich placement opportunities.  
**Ideal for shredded paper** and low volumes of cardboard.  
**Lightweight bales** up to 50 kg.  
**Adjustable bale length**  
**Vertical or horizontal tying**

## ORWAK HORIZONTAL 15 AT

**Small footprint** for rich placement opportunities  
**Can be delivered in three parts** for easier transportation and installation  
**Ideal for shredded paper, cardboard and PET**  
**Adjustable bale length**

## ORWAK HORIZONTAL 25-40 AT

**Compact design** for locations where floor space is limited.  
**25 AT: available with a 15 kW motor**  
**40 AT: available with a 15 or a 22 kW motor**  
**Perfect for paper, cardboard and PET**  
**Adjustable bale length**  
**Vertical or horizontal tying**

## ORWAK HORIZONTAL 450 AT / 500 S AT

**Ideal for large retailers and manufacturing industries**  
**450 AT: available with a 7.5 kW motor**  
**Produce high-density bales** up to 600 kg  
**Ideal for paper, cardboard and shrink film**  
**Adjustable bale length**  
**Vertical or horizontal tying**

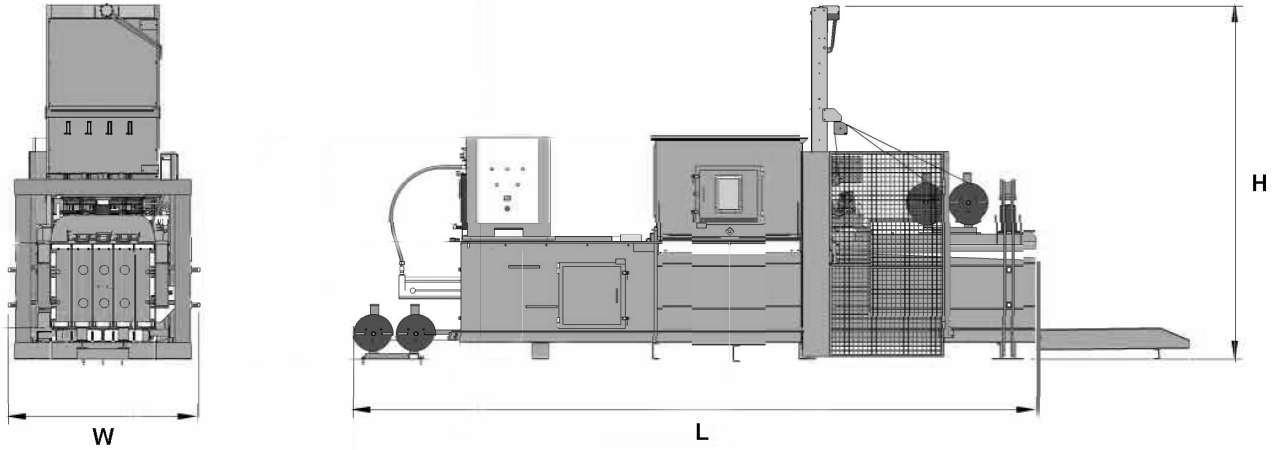
## ORWAK HORIZONTAL 500 AT

**Ideal for large retailers and manufacturing industries**  
**Available with a 15 kW or a 22 kW motor** and 50 or 60 ton press force  
**Produces high-density bales** up to 600 kg  
**Ideal for paper, cardboard, shrink film and PET**  
**Bale counter**  
**Adjustable bale length**  
**Vertical or horizontal tying**

## ORWAK HORIZONTAL 800 AT / 1000ATH

**Ideal for large retailers, manufacturing industries, logistic and recycling centers**  
**Available with different motor options**  
**Produce high-density bales** up to 1000 kg  
**Perfect for vast volumes** of space-demanding packaging  
**Bale counter & adjustable bale length**  
**Vertical or horizontal tying**

# DIMENSIONS & SPECIFICATIONS



## MACHINE DIMENSIONS

MODEL	LENGTH (L)	WIDTH (W)	HEIGHT (H)	INFEED OPENING
<b>ORWAK HORIZONTAL 2050 AT</b>	4165 mm	1060 mm	2425 mm	450x800 mm
<b>ORWAK HORIZONTAL 15 AT</b>	5172 mm	1460 mm	2495 mm	1030x650 mm
<b>ORWAK HORIZONTAL 25-40 AT</b>	6020 mm	1465 mm	3150 mm	1180x650 mm
<b>ORWAK HORIZONTAL 450-500 S AT</b>	6600 mm	1850 mm	3450 mm	1400x1000 mm
<b>ORWAK HORIZONTAL 500 AT</b>	7700 mm	2070 mm	3450 mm	1400x1000 mm
<b>ORWAK HORIZONTAL 800 AT</b>	8515 mm	2150 mm	3450 mm	1550x1000 mm
<b>ORWAK HORIZONTAL 1000 ATH</b>	7860 mm	4435 mm	3060 mm	1550x1100 mm

## TECHNICAL DATA

MODEL	INFEED CAPACITY	PRODUCTION RATE WITH LOAD	PRODUCTION ACCORD. DENSITY	PRESS FORCE	MOTOR	BALE SIZE HXWX (ADJUST. LENGTH)	BALE WEIGHT (UP TO)	AUTOMATIC BINDING	MACHINE WEIGHT
<b>2050 AT</b>	0.15 m <sup>3</sup>	21 m <sup>3</sup> /h	0.7 t/h	10 t	7.5 kW/10 Hp	450x400x 500-1000 mm	20-50 kg	2-fold	1150 kg
<b>15 AT</b>	0.35 m <sup>3</sup>	50 m <sup>3</sup> /h	0.5-0.2 t/h	15 t	7.5 kW/10 Hp	700x500x 600-1200 mm	80-150 kg	3-fold	2800 kg
<b>25-40 AT</b>	0.58 m <sup>3</sup>	90-100 m <sup>3</sup> /h	2-6 t/h	25t 40t	15 kW/20 Hp 22 kW/30 Hp	700x700x 800-1400 mm	100-400 kg	3-fold	5200 kg/ 5300 kg
<b>450 AT</b>	1.10 m <sup>3</sup>	50 m <sup>3</sup> /h	1.2-5 t/h	45 t	7.5 kW/10 Hp	1000x800x 800-2150 mm	450-500 kg	4-fold	6500 kg
<b>500 S AT</b>	1.10 m <sup>3</sup>	100 m <sup>3</sup> /h	2-4 t/h	50 t	15 kW/20 Hp	1000x800xmm 800-2150 mm	400-600 kg	4-fold	7000 kg
<b>500 AT</b>	1.12 m <sup>3</sup>	80-150 m <sup>3</sup> /h	2-4.5 t/h	50 - 60 t	15 kW/20 Hp 22 kW/30 Hp	1000x800x 800-2150 mm	400-600 kg	4-fold	8500 kg/ 9000 kg
<b>800 AT</b>	1.24 m <sup>3</sup>	225 m <sup>3</sup> /h	8-13 t/h	80 t	55 kW/75 Hp	1000x800x 800-2200 mm	400-800 kg	4-fold	13000 kg
<b>1000 ATH</b>	1.36 m <sup>3</sup>	220-320 m <sup>3</sup> /h	11-25 t/h	100 t	55 kW/75 Hp 75 kW/100 Hp	1100x800x 800-2150 mm	400-1000 kg	4-fold	15000 kg/ 15500 kg

Power supply all models: 3x380-400 V, 50 Hz

We reserve the right to make changes to specifications without prior notice.

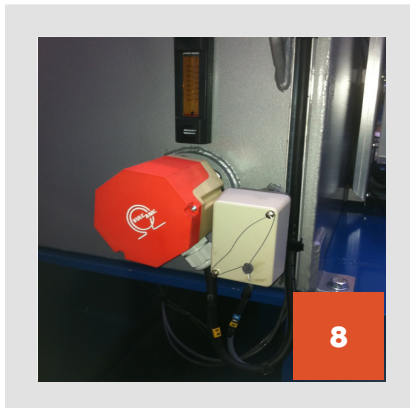
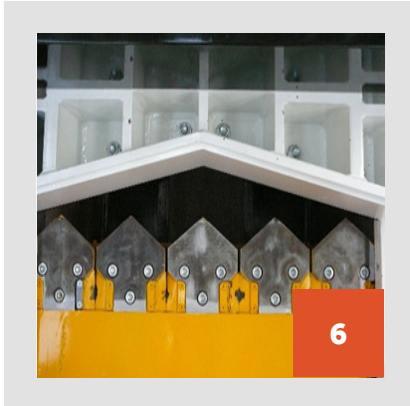
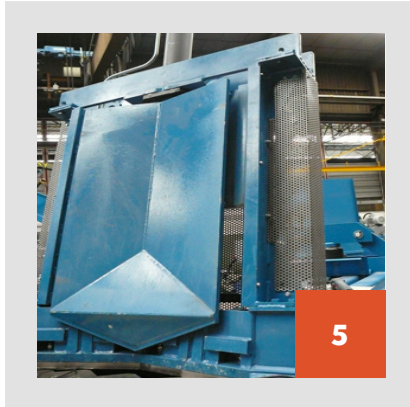
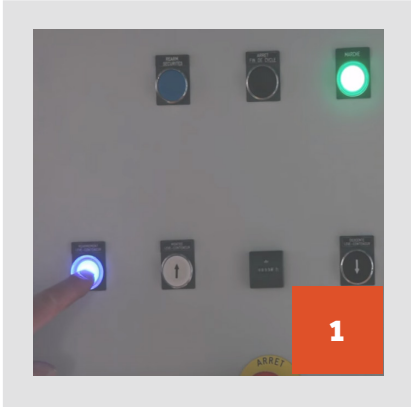
# SEMI-AUTOMATIC HORIZONTAL BALERS 1540-1550-1560

Compact size closed-end horizontal balers in the range 40-60 ton press force and with manual bale tying. They are ideal for businesses with a large volume of recyclable material, such as cardboard, paper, plastic foil and PET, when vertical balers are too labor intensive or where bulk loading is required. Various loading options and extras including hopper feed, conveyor and bin lift are available on demand.



# FEATURES FOR 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!



## 1. USER-FRIENDLY PANEL

For individual settings, easy operation and a material selector for type of material.

## 2. AUTO START

The balers are equipped with photocell start as standard. An optical or audible warning device for auto start can be ordered as an option.

## 3. AUTOMATIC BALE TYING

Choose between automatic vertical and horizontal bale tying. Manual bale tying is also possible.

## 4. INFEEED SYSTEMS

OPTION: We offer a wide choice of infeed systems such as bin lifters, air-transport systems and conveyor belts. Our horizontal balers can also easily be equipped with shredders, bottle presses, rufflers, strippers and different types of hoppers.

## 5. STAMPER

OPTION: Prevents blockage in the channel by pushing down the loaded material from time to time.

## 6. PROGRESSIVE CUTTING

Tough and long-lasting teeth effectively cut the material and the clever progressive cutting system prevents blockage.

## 7. BALE COUNTER

Enables you to keep track of the throughput of bales. Standard on the models 500-600-800 AT.

## 8. OIL HEATER/COOLER

OPTION: The oil heater is available for demanding outdoor conditions; temperatures below 0° C, and the oil cooler is recommended for ambient temperatures above 30° C.

## OVERVIEW: STANDARD FEATURES

### 2050 AT, 15-25-40 AT, 450 AT, 500 S AT

Photocell start  
Automatic tying

### 500 AT, 800 AT, 1000 ATH

Photocell start  
Automatic tying  
Bale counter

### 800 AT, 1000 ATH

Oil cooler

# 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.

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