

**AURORA ENVIRONMENTAL EQUIPMENT**  
**CONSULTANTS L.L.C.**



**“Useful Life” Of Units**

As a general disclaimer, the life of any mechanical device is highly dependent on several factors, such as usage, maintenance, environment, operator abuse, etc. For example, an automobile may have a “Useful Life” of 5 to 10 years, yet it is not unusual to see well kept units on the road after 20 years.

We would estimate the “Useful Life” for a Stationary Compactor in a retail application (one pull every 2 to 4 weeks with mostly paper/corrugated material), with nominal upkeep, to be up to 20 years. The environment (rust) and ultimate service life of the major components would be the limiting factors. This assumes a major overhaul (repacking cylinder, replacing hoses, etc.) after 10 years of service.

Obviously, this represents an optimum situation. A heavier duty cycle such as a warehouse or plant application, “tougher” materials, harsher environments (wet trash or high rainfall), and inadequate maintenance would all contribute to reduce the “Useful Life”.

The estimated “Useful Life” for a Self-Contained Compactor in a retail application (one pull every 1 to 2 weeks with mostly wet waste and some paper/corrugated material), with nominal upkeep, to be up to 12 years. The environment (rust) and ultimate service life of the major components would be the limiting factors. This assumes a major overhaul (repacking cylinder, replacing hoses, etc.) after 6 years of service and periodic cleaning out from behind the ram face (to include cylinders and hose area) every 18 to 24 months (or sooner if waste is extremely wet such as grocery waste).

As above, this represents an optimum situation. A heavier duty cycle such as a warehouse or plant application, “tougher” materials, harsher environments (extremely wet trash or high rainfall), and inadequate maintenance would all contribute to reduce the “Useful Life”.

The Standard or Heavy Duty Vertical Baler in a similar application (one or two bales a day) would have a similar life, based mostly on the service life of the components (motor, pump, cylinder, etc.), as it is not usually subjected to the environmental effects. While the basic structure (body and ram) may last even longer, the many smaller mechanisms (feed gate, sprockets) will make a baler more maintenance intensive through its life than a compactor and more subject to operator abuse (for which one should deduct several years for any retail chain application). Again, a 10-year major overhaul should be factored in. The following example is for general retail locations.

“SHINING THE LIGHT ON YOUR TOTAL ENVIRONMENTAL  
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**“USEFUL LIFE” CALCULATION CHART  
FOR  
STANDARD OR HEAVY DUTY  
VERTICAL BALER**

**INSTRUCTIONS:** Select the appropriate factor for each category. Multiply the four factors together, and then multiply the result by 20 years to obtain the “Useful Life”.

| CATEGORY       | CATEGORY                  | USAGE FACTORS           | USAGE FACTORS           | USAGE FACTORS              |
|----------------|---------------------------|-------------------------|-------------------------|----------------------------|
| DUTY CYCLE     | 1-2 BALES PER DAY<br>1    | 3-4 BALES PER DAY<br>.9 | 5-6 BALES PER DAY<br>.8 | 7 PLUS BALES PER DAY<br>.7 |
| MAINTENANCE    | MONTHLY PREVENTATIVE<br>1 | YEARLY PREVENTIVE<br>.9 | AS NEEDED<br>.8         | NONE<br>.7                 |
| ENVIRONMENT    | INSIDE<br>1               | UNDER ROOF<br>.9        | OUTSIDE<br>.8           | NEAR WATER<br>.7           |
| OPERATOR ABUSE | OWNER USED<br>1           | OWNER SUPERVISED<br>.9  | RETAIL<br>.8            | IDIOTS<br>.7               |

**EXAMPLE:** Retail Store, Low Use, Unit on Dock, Normal Maintenance (1 x .9 x .9 x .8 x 20) = 13 Years.

Thank you for your continued business,

The Aurora Environmental Equipment Consultants

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