
White Paper

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TITLE: The Economics of Rebuilding Versus Buying
New Equipment in the Aggregate Industry

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Is your magnetic separation or vibratory equipment ready for an upgrade or replacement? Follow these guidelines from Eriez' 5-Star Service® Team to determine whether it is better to rebuild or to buy brand new for your aggregates operation.

By Eric Taylor, Manager, Eriez 5-Star Service Center

With the pressures of a challenging economy and the current price tags of new equipment, more and more aggregates companies are deciding to rebuild rather than to buy new. Here are some guidelines for you to consider as you determine which way to go, especially as it pertains to magnetic separation, vibratory feeders, metal detection, suspended electromagnets and magnetic drum separators. However, these basic guidelines can also be applied to all equipment used in your aggregates operation.

1. Track the performance and service life of your product.

You can find out from the manufacturer what the predictable effective life may be for a certain type of equipment. Based upon this forecast, you can schedule the appropriate inspection to help you decide whether repair or replacement is needed.

Optimum operating efficiency and product longevity depend greatly on the individual piece of equipment and its working environment. Routine tests can determine when it's time to upgrade or replace components or purchase a brand new model.

Annual maintenance checks can be performed by qualified plant personnel or an outside party, like the technicians at the Eriez® 5-Star Service Center at pre-determined price. The Center is located in Erie, PA, at the company's Wager Road facility, but technicians are available to visit on-site equipment and recommend an upgrade, repair or total replacement. Other company services are available.

The goal is to limit costly downtime and make sure equipment is operating at peak performance. Once an inspection is completed, the service center will be better able to determine the next course of action, whether this means replacing one component or remanufacturing the equipment to original specifications. In some cases, a total replacement is needed, but that is only after consideration is given to several scenarios to get that equipment back on line.

2. Consider the “buy new” price compared to the rebuild price.

When all is said and done, the price tag for new equipment may be beyond your budgetary constraints. At the Eriez 5-Star Service Center, we have been able to provide economic guidelines for these products when it comes to rebuilding compared to buying new.

PRODUCT	TYPICAL REBUILD COMPONENTS/SERVICE	SAVINGS COMPARED TO NEW	WARRANTY
Suspended Electro Magnets	Coil, core, stud seals, oil expansion tank.	30 – 50%	1 year 5 years on coil
Magnetic Wet Drum Separators	Bearings, seals, shaft ends, drive chain (if applicable), magnetic element.	40 – 60%	1 year
Scrap Drums	Heavy duty bearings, coil, sprocket, drive chain (if applicable).	50 – 60%	1 year 3 years on coil
Vibratory Feeders	Tray, coil, springs, wear items.	40 – 60%	1 year
Metal Detectors	Calibration, cleaning and certifying.	30 – 40%	1 year

3. Research what new features are desirable including energy savings, new technology and software.

As time goes on, manufacturers develop product enhancements that may be sought by your management team. Sometimes these innovations can be added during the rebuild process. Other times these improvements can only be enjoyed if a new product is purchased.

One example of an innovation is related to suspended electromagnets (SE). Eriez has incorporated an external oil expansion tank on its SE models, which helps prevent coil burnout on oil-cooled electromagnets, and the company offers a five-year warranty of the internal coil assembly. This can also be added to existing designs.

When it comes to magnetic drum separators and scrap drums, you will find that the magnetic power of new magnetic drum separators may be incorporated into your old model. Scrap drums have certainly come a long way. Check the service center regarding options.

With vibratory feeders, newer designed products now come equipped with energy saving components that should be explored before your rebuild or buy new. Ask for these when you place your rebuild order.

Today's metal detectors come with software and even smart phone technology that you may wish to consider. By talking to the rebuild facility, you can investigate whether you need to go new or can upgrade your current unit.

4. Timing: Does buying new or rebuild meet your timetable?

When do you need your product? Typically, it takes one to four weeks to rebuild most products. You can expedite delivery sometimes at a premium price. You will need to compare the delivery lead time: new versus rebuild.

When you have stopped production or face safety issues that compromise your working environment, you will need to find the best answer in terms of a firm delivery date.

5. Evaluate warranty and reputation of the company.

Aggregate operations entail numerous pieces of equipment working together in a seamless operation to bring the finished product to market. Metal detectors, magnetic separators, vibratory feeders, screeners and conveyors all play an integral role in many functions. Aggregate companies use this equipment independently or in a comprehensive flow system to help increase product purity, preserve downstream equipment and improve productivity.

Since process equipment represents a significant capital investment, plant operators should perform routine inspections to detect any malfunctioning or underperforming equipment. This procedure helps spot trouble areas, minimizes downtime and prevents potential harm to plant personnel and downstream equipment.

There are several ways to determine which rebuild facility to trust with your upgrade project. You can ask for references from past and present customers or ask your peers who have used the facility. You can also visit the rebuild facility and see first hand the set up and how equipment is repaired and upgraded.

Warranty is also important. Be sure you understand the extent of the warranty before you commit whether you buy new or rebuild.

For more information, call toll-free (888) 300-ERIEZ (3743) within the U.S. and Canada. For online users, visit www.eriez.com or send an email to Eriez@eriez.com. Eriez World headquarters is located at 2200 Asbury Road, Erie, PA 16506.