

Life Cycle Cost Comparison

Single Screw Feeder vs. Vibratory Feeder

LOSS-IN-WEIGHT FEEDERS

are gravimetric feeders that directly measure the material weight to achieve and maintain a predetermined feed rate. They stand for:



High accuracy



Fast batching



High control

Assumptions for the cost comparison:

- › Throughput of about 1,000 kg/h
- › Over a time span of 15 years
- › Data from July 2021



Single Screw Feeder



Vibratory Feeder



Procurement

Purchasing Price	\$17,000	\$27,000
Start-up costs	\$2,000	\$2,000
Transport	\$1,000	\$1,000
Total Procurement Costs	›› \$20,000	›› \$30,000



Operating Costs

Spare Part Costs	\$22,500	\$7,000
Maintenance Costs	\$2,250	\$750
Cleaning Costs	\$11,250	\$5,625
Energy Costs	\$7,200	\$85.50
Total Operating Costs after 15 Years	>> \$43,200	>> \$13,460



Recycling Costs

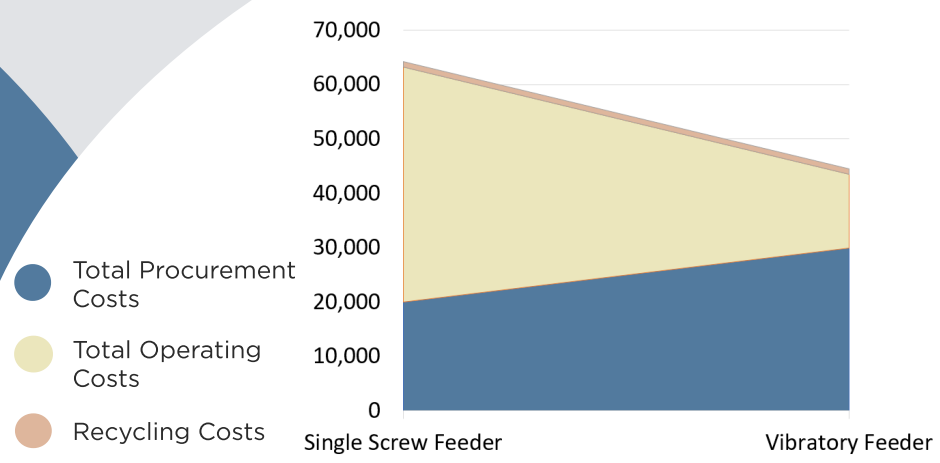
Net Recycling Costs	>> \$1,000	>> \$1,000
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Total Lifecycle Costs	>> \$62,550	>> \$44,410
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Conclusion

Even though the K3 Vibratory Feeder from Coperion K-Tron is more expensive to purchase, it ends up being 30% cheaper over the course of 15 years. This is mainly achieved thanks to its high energy efficiency as well as low spare parts and maintenance costs.

Total Cost Comparison



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