



MORBARK®
BUILDING EQUIPMENT THAT CREATES OPPORTUNITIES



MORBARK® FLAIL

MODELS

2355
2455
2755
5500

HEAVY-DUTY INDUSTRIAL FLAILS FROM THE LEADER IN THE INDUSTRY

Creating Opportunities: Past, Present and Future

At Morbark®, we have always been there for our customers, providing new opportunities throughout our long history, and we always will be.

In 1957, Norval Morey founded the Morbark Debarker Company in Winn, Michigan. Since then, Morbark has grown from a simple blacksmith shop to a huge manufacturing complex; from two workers to hundreds of employees; and from one product to hundreds of heavy equipment designs. From our roots in the sawmill industry, we've expanded into forestry, recycling, tree care and the biomass energy market.

We get to know you by listening to you, then improving our products based on what you say. Our equipment is durable, dependable and productive, and our name is the most trusted in the industry. When you choose Morbark, you make a commitment to excellence – and we're committed to helping you achieve success by creating new opportunities for you: unexplored revenue streams, untapped markets and better uses of byproducts.

We recently invested in Heat Transfer International (HTI), extending our capabilities from making the finest wood reduction equipment to producing systems that generate usable electricity and steam from wood and other organic materials. It's yet another example of how we apply innovation to bring us – and you – new opportunities for today, and far into the future.

Customer Testimonials



"Let me put it to you this way: We've been doing this since 1986, and all we've ever owned is Morbark. We now own the 2755. We've always had chip qualities right where they should be. The hour meter had stopped working on one, and we put a computer on it that showed there were 12,000 hours on the machine. This means we ran 150,000 gallons of diesel through it. No one can hold a candle to the quality of the Morbark Flail Chiparvestor."

Earl Calhoun
Ewing Timber, Inc.
Jonesboro, LA



"We own six Morbark Chiparvestors. With the last two, we gave Morbark input on the feeding system. They were very open to our suggestions. Today, with the changes that were made, what one of our new chippers produces almost equals what we were producing with two in the past. I've recommended Morbark to others. They're great people to work with. Bottom line, the Morbark chipper suited our and our customers' needs."

Larry Dahlin
Boise White Paper
Umatilla, OR

"We've had our flail for just under two years. The machine has owned up to our expectations. We run our machine pretty hard – as many as 22-25 loads per day. It's exceeded the standards presented by Morbark at the time of purchase. Preventive maintenance is the only way to run these machines. Our flail today is not much different than the day we bought it."

Mel Coulston
Plummer Forest Products (Todd Brinkmeyer, Owner)
Plummer, ID

MODELS, FEATURES AND OPTIONS FOR EVEN THE MOST CHALLENGING CHIPPING JOB

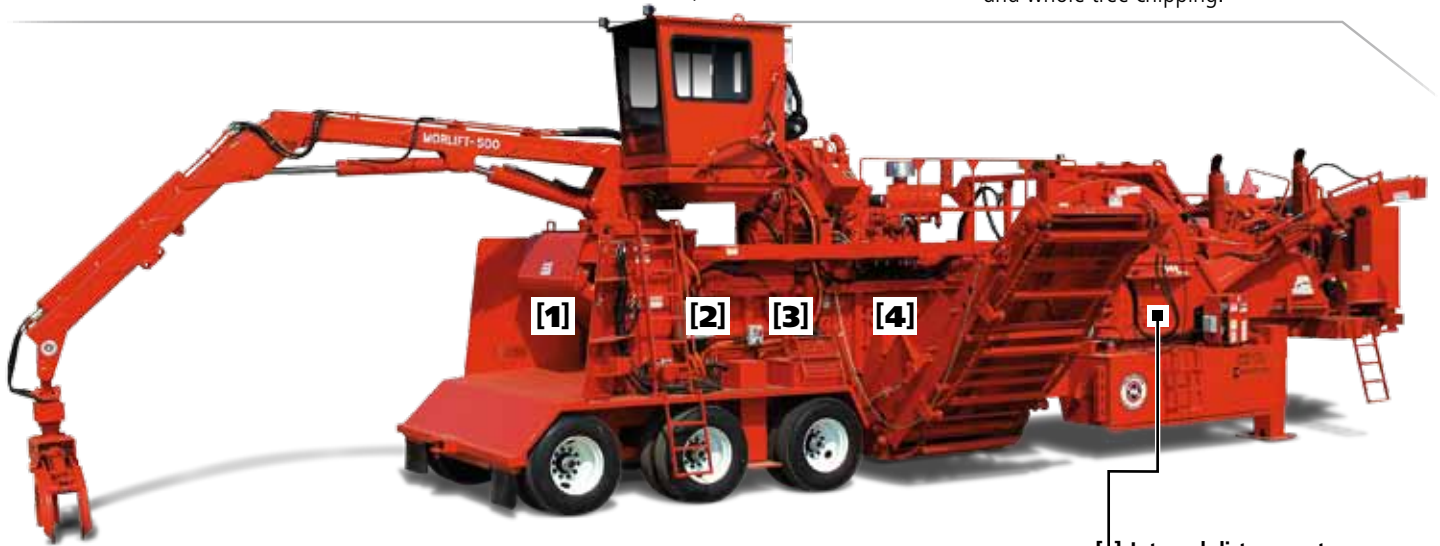
The first Morbark® Flail went into production in 1990, and we now offer a full line of flails in a range of sizes and in several configurations – with two, three or four flail drums; one or two engines; cab and loader or no cab and loader; portable or stationary; stand-alone or combination unit; diesel or electric powered. Add to these choices a wide variety of available options, and you've got the flexibility to customize the perfect Morbark Flail for your particular needs.

All models are aggressive, highly productive, and engineered to give you the power and features you need to maximize output and enhance your profitability. In addition, they:

- Are able to be used with a Morbark whole tree chipper for a total fiber utilization system
- Are durable and long lasting
- Are known for high resale value

Morbark Flails are designed to provide unmatched flexibility in controlling individual variable flail drum speeds, RPM, feed rate

and other parameters, while meeting the challenges of varying timber, climate, species and conditions. They produce clean, high-quality chips even from non-merchantable and juvenile timber. We'll help you configure the ideal machine for your application, whether you're producing highly uniform clean chips for pellet fuels or clean chips to meet the tight specifications of the pulp and paper industry. These are just some of the reasons that Morbark is the largest and most respected name in flails and whole tree chipping.



[1] Feed system

The powerful multi-wheel hydraulic feed system provides a positive and highly efficient feed, crushing limbs and tops for maximum production rates. It controls the wood, feeding it to the chipper at a constant rate and making uniform, high-quality chips that will keep your customers coming back for more. The bottom feed-wheels are direct-driven by torque hubs and have no chains or sprockets; the use of fewer moving parts means easier maintenance. The unique spreader infeed system spreads multiple stems apart, aiding bark removal, especially with smaller-diameter material.

Take a look at some of the **unique Morbark features that help you reduce downtime, increase your profit per job, boost resale value, and gain peace of mind.**

[■] Internal dirt separator

The dirt separator rejects dirt, twigs, bark and foliage, and passes chips, improving the quality of your output by removing a high percentage of the contaminants and impurities found in chips made from whole trees. You get a higher-quality, more marketable product.

[2] Variable-speed hydraulic flail drums

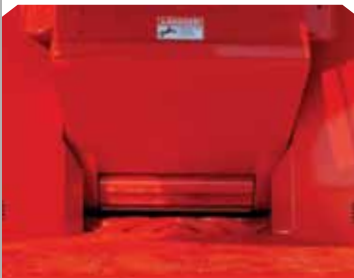
The closed-loop hydraulic flail drive system allows the use of variable-speed hydraulic flail drums, so you can adjust flail RPM individually, based on different wood species and conditions, for greater versatility and lower chain costs.

[3] Segmented flail drum

The segmented flail drums used in Morbark Flails are more durable and longer lasting than tube-type flail drums used by other manufacturers, so you save on maintenance and repair costs.

[4] Bark removal

Morbark Flails can attain bark contents as low as 0.5% or lower. This level of performance makes them your ideal choice for serving even those pulp and paper markets that demand the very highest quality.



WHEN YOU CHOOSE MORBARK, YOU GET MORE THAN JUST THE BEST FLAIL IN THE INDUSTRY.

You also get the benefit of more than a half-century of experience, unmatched expertise in in-woods flailing and chipping, and world-class parts, service and support. Morbark has a global network of dealers that ship, start up and support our equipment, wherever you are. If you need a replacement part, you get it when and where you need it. If you have a problem, our service team gets you up and running quickly, onsite or remotely, saving you time and money.

Create new opportunities with a Morbark Flail. Give us a call now at **800-831-0042**, or visit us at www.morbark.com for more information, including spec sheets and videos, and to find a dealer near you.



[5] Hydraulic air curtain

All combination flails feature Morbark's hydraulic air curtain, unique in the industry. This high-volume, hydraulically-driven fan is mounted just above the chipper infeed spout opening. It's designed to clean the top of the stem and the gap formed between two or more stems of any loose bark, slivers and fines that may ride into the chipper, giving you cleaner, higher-quality chips.

[6] Chipper disc

The heart of the Morbark Flail Chiparvestor is its chipper disc – long recognized for quality and performance. Morbark chipper discs are fabricated from ultrasonically tested and certified plate steel that meets ASTM A36 standards. Discs are processed to perfection to provide high-quality, superior performance for years to come.



[7] Morbark Integrated Control System

Morbark Integrated Control System (MICS) monitors hydraulic pressures, temperatures, clutch systems and engine efficiency to maximize performance and decrease downtime. MICS is the ultimate diagnostic tool, allowing onsite and remote troubleshooting – it's like always having a mechanic onboard to look out for and solve problems. It also tracks operational data and fuel usage.

[+] Optional cab

The optional all-weather cab, with its six-way adjustable seat, is the most operator-friendly and comfortable cab in the industry. It increases productivity by reducing operator fatigue, and its backlit controls, clearly labeled functions, and all-digital MICS display ensure easy operation.

[+] Optional loader

At Morbark, we manufacture a complete line of hydraulic knuckle-boom loaders for our equipment to ensure that we can offer essential design requirements for loader speed, reach and lift capacity. Building our own loaders also guarantees our customers the quality control and parts availability that they have come to expect from Morbark.

[+] Additional options

Customize your Morbark Flail with a variety of options: light package, air compressor, ESPAR heater, reversing fan, and much more.





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MORBARK® FLAIL



2355 Flail Chiparvestor

Length (transport) 54'3"
Height (transport) 13'8"
Width (transport) 12'10"
Gross weight 121,000 lbs.
Horsepower. Up to 1125 HP



2455 Stand-Alone

Length (transport) 39'7"
Height (transport) 13'8"
Width (transport) 12'7"
Gross weight 83,760 lbs.
Horsepower. Up to 600 HP



2755 Flail Chiparvestor

Length (transport) 54'3"
Height (transport) 13'8"
Width (transport) 12'10"
Gross weight 122,000 lbs.
Horsepower. Up to 1125 HP



5500 Stand-Alone

Length (transport) 27'3"
Height (transport) 13'0"
Width (transport) 9'9"
Gross weight 52,020 lbs.
Horsepower. Up to 600 HP

NOTE: Equipment specifications may change, based on options chosen. Current specifications are available at www.morbark.com.