

Vermeer HG4000E



Get performance and on-site power with the stationary Vermeer HG4000E electric powered horizontal grinder. Ideal for municipalities and green waste processors located in urban areas, the HG4000E is adaptable to a wide range of electrical grid systems and configurable to a variety of on-site grinding applications. Additionally, the system can permanently be installed indoors or out as a stand-alone unit or component of an entire waste reduction system.

Specifications

General Dimensions and Weights- Skid Mount with Short Infeed

Maximum Width: 98 " (248.92 cm)

Maximum Length - Fixed Conveyor: 37.2 ' (11.34 m)

Maximum Height - Fixed Conveyor: 11.1 ' (3.38 m)

Weight: 36000 lbs (16329.33 kg)

Electric Fan Motor Option Two - 50 Hz

Manufacturer: Baldor

Frame: 145TC

Horsepower: 1 hp (0.75 kw)

Voltage: 220/380/440

Frequency: 50

Phase: 3

Rated Speed: 1425 rpm

Enclosure: TEFC

Full Load Amps: 6 / 3.5 / 3

Service Factor: 1.15

NEMA Design: B

Insulation Class: F

Power Factor: 81.5

Aproximate Weight: 79 lbs (35.83 kg)

Added Items: 46

Electric Hydraulic Motor Option Two - 50 Hz

Manufacturer: Baldor

Frame: 326TC

Horsepower: 50 hp (37.28 kw)

Voltage: 400

Frequency: 50

Phase: 3

Rated Speed: 1475 rpm

Enclosure: TEFC

Full Load Amps: 68

Service Factor: 1.15

NEMA Design: B

Insulation Class: F



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Power Factor: 93

Aproximate Weight: 85 lbs (38.56 kg)

Electric Mill Motor Option Two - 50 Hz

Manufacturer: Weg

Frame: 586/7T

Horsepower: 300 hp (223.71 kw)

Voltage: 380/415

Frequency: 50 Hz

Phase: 3

Rated Speed: 1490 rpm

Enclosure: TEFC

Full Load Amps: 415/380

Locked Rotor Amps: 3030/2770

Service Factor: 1.15

Duty Cycle: S1

NEMA Design: A

Insulation Class: F

Full Load Torque: 1040 ft-lb (1410.05 Nm)

Locked Rotor (%): 250

Break Down: 270

Ambient Temperature: 40 c (1352 f)

Nominal Efficiency: 95.8

Power Factor: 84

Aproximate Weight: 3371 lbs (1529.06 kg)

Infeed Conveyor

Feed Table Width: 50 " (127 cm)

Feed Table Depth: 28.2 " (71.63 cm)

Feed Table Length - Option One: 14 ' (4.27 m)

Feed Table Capacity: 5 cu yd (3.82 cu m)

Loading Height: 7.8 ' (2.38 m)

Flare Construction: Welded steel, bolt on, replaceable

Feed Conveyor Type: Formed Alloy Slat Chain

Material Construction: All Steel

Drive Type: Open loop hydraulic motor with planetary

Drive Roller Construction: Fabricated steel

Front Idler Roller Construction: Self-cleaning steel auger

Infeed Floor Construction: Steel with replaceable UHMW wear plates

Infeed Roller

Infeed Roller Width: 47.5 " (120.65 cm)

Maximum Feed Height: 25.75 " (65.41 cm)

Infeed Roller Diameter: 28 " (71.12 cm)

Material Type: Fabricated steel

Tooth Design: Serrated bars

Number of Teeth: 14 bars

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Drive Motor: Open loop hydraulic

Drive Planetary: 34.2:1 ratio

Feed Roller Down Pressure: Adjustable

Safety System

Thrown Object Deflector: Standard

Deflector Position: Variable

Duplex Drum

Millbox Opening: 25.75 " x 50 " (65.41 cm x 127 cm)

Drum Diameter: 22.5 " (57.15 cm)

Tip Diameter: 28.6 " (72.64 cm)

Drum Cutting Width: 51.21 " (130.07 cm)

Drum Skin Thickness: 1.5 " (3.81 cm)

Drum Speed: 1050 rpm

Tip Speed: 7862 rpm

Bearing Type: Spherical roller

Bearing - Inner Race Diameter: 4.33 " (11 cm)

Number of Hammers: 8

Number of Cutters: 16

Cutter Block Types: Wide block, t-wing

Center Retention Pin Dimensions: 2.00 " x 64.95 " (5.08 cm x 164.97 cm)

Number of Wipers: 2 (one per side)

Screens

Screen Weight: 398 lbs (180.53 kg)

Screen Dimensions: 55 " x 44 " x 11 " (139.7 cm x 111.76 cm x 27.94 cm)

Screen Type: AR400 material

Number of Screens: Qty 1, many different styles

Number of Sides: 1

Screen Area: 1662 sq in (10722.56 sq cm)

Millbox Lid Liner Dimensions: 1 " (2.54 cm) thick, AR400

Liner Dimensions: 0.25 " (0.64 cm) thick, AR400

Anvil Type: Replaceable, Fabricated T1

Discharge System - Single Belt Design

Length: 52.5 ' (16 m)

Width: 48 " (121.92 cm)

Belt Design: 300# V-cleat

Splice: FLEXCO R2

Return Roller Quantity: 3

Idler Roller Diameter: 5 " (12.7 cm)

Standard Drive Roller Diameter: 12.75 " (32.39 cm)

Magnetic Drive Roller Diameter: 12.75 " (32.39 cm)

Drive Motor: Fixed displacement, Geroller

Belt Speed: 500 ft/min (152.4 m/min)

Load Height: 9.9 ' (3.02 m)

Hydraulic System



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Tank capacity: 50 gal (189.27 L)

Recommended Oil: HyPower 68

Filtration Method: Single, in tank, return filter

Number of Coolers: 1

Implement Hydraulics

System Type: Open loop, pressure and flow compensated

Pump Type: Axial piston

Pump Flow at Maximum RPM: 27.3 gpm (103.34 L/min)

System relief pressure: 3000 psi (206.84 bar)

Discharge Conveyor Hydraulics

System Type: Open loop

Pump Type: Gear

Pump Flow at Maximum RPM: 15.1 gpm (57.16 L/min)

System relief pressure: 3000 psi (206.84 bar)

Motor Series: 6000

Electrical System

System Voltage: 24V

System Protection: Circuit fuses

Control Station

Display Type: LCD monochromatic 128/64 pixel multi function

Machine Information: Operational, diagnostic, system parameters

Operational Faults: SAE J1939 recommended diagnostics codes

Switches: Toggle

Radio Remote Control

Display Type: LCD monochromatic 128/64 pixel multi-line

Machine Information: Operational, diagnostic, system parameters

Operational Faults: SAE J1939 recommended diagnostics codes

Switches: Membrane

Operating Range: 300' (91.44 cm)

Battery Type: Quantity 6, Standard AA Batteries

Channel Setting: Multi-frequency

Other Options

Screens: Multiple styles for hole shape and size

Special Tools Group: Torque wrenches, belt tension meter

Extended Warranty: Parts and labor plan or Parts only plan

Features & Benefits

Feature: Duplex Drum

Description: Featuring the latest technology in hammer design and replacement procedures; the hammers and cutter blocks are reversible.

Benefit: The patented Duplex Drum cutting system offers optimum cutting performance and simplified maintenance. The reversible hammers and cutter blocks nearly double the life of single sided designs.

Feature: Electronic Soft Start for Hammermill Motor

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Description: The electronic soft starter is contained with the motor starter panel. It gradually applies power to the hammermill motor to limit the in-rush current that occurs when starting a heavy load. Limiting the current will reduce the load placed on the power supply system.

Benefit: Lower cost setup because the supply system doesn't need to be sized to handle the large in-rush current.

Feature: SmartFeed

Description: A controller stops and reverses material from feeding into the hammermill when mill motor amperage draw exceeds an efficient operating range.

Benefit: SmartFeed enhances machine and jobsite productivity by reducing operator interface and takes full advantage of the available HP of the electric motor.

Feature: Thrown Object Deflector (TOD)

Description: The TOD is designed to reduce the distance and quantity of thrown material and is positioned to reduce interference when loading over length material.

Benefit: The TOD helps enhance overall jobsite safety.

Feature: Infeed Over-Pressure/Auto-Reverse Function

Description: Hydraulic over-pressure switch monitors infeed chain and feed roller forward circuits. If pressure becomes too high on the feed roller or infeed chain, the circuit will momentarily reverse and return to forward feed.

Benefit: This self-monitoring system helps prevent infeed functions from stalling due to material wedging which can increase production and reduce operator interface.

Feature: Feed roller with "Down Pressure"

Description: Feed roller hydraulic "down pressure" can be applied using the remote control unit.

Benefit: "Down pressure" aids in feeding difficult material sizes and shapes into the Duplex Drum increasing productivity

Feature: Reversible Feed Roller

Description: A top feed roller pulls material into the grinding chamber or reverses material away from the chamber when prompted.

Benefit: Hydraulically driven, the operator can reverse the feed roller independently from the feed table to re-position irregular material as it enters the hammermill.

Feature: Remote Control Unit

Description: A multi-function, wireless remote control allows the operator to control most operating functions from a maximum operating distance of 300' (91 m)

Benefit: This feature can enhance jobsite productivity by allowing the operator to control machine functions from the loader vehicle outside of the thrown object zone.

Feature: Easy Access Screens

Description: The screens are engineered with a top-loading design and a variety of screens are available to meet specific applications.

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Benefit: This allows the operator to change screens easily and in less time than side loading screens

Feature: Removable Anvil

Description: An innovative design secures the anvil in place but allows for convenient removal for maintenance and/or replacement.

Benefit: With the easily removable design, all anvil maintenance can be performed outside of the machine.

Feature: Reversible Cooling Fan

Description: Reserving the direction of rotation of the fan purges debris from the hydraulic oil cooler. The purge occurs when an electrical contactor inside the motor starter panel temporarily switches the phases of the power supplied to the cooling fan motor and causes the fan to run in reverse. A programmable timer can be set from 1 to 60 minutes to cycle and reverse air flow through the cooler.

Benefit: This can help reduce cooler blockages, keep the system running at a lower temperature, and extend the overall life of the hydraulic components

Feature: Formed Alloy Slat Chain Feed Table

Description: The 14' x 50" (4.3 m x 127 cm) infeed table features a solid floor design with continuous support of the infeed chain. Impact resistant materials are used in construction of the conveyor slats.

Benefit: The slat chain design on the GH4000E is engineered to help improve structural support and extend wear life.

Feature: 48" (122 cm) Wide Single Discharge Conveyor

Description: The HG4000E is designed with a single 48" (122 cm) "V-cleat" discharge belt that transfers material from the hammermill and screen out and up for discharge.

Benefit: Provides a smooth efficient transfer of processed material from the belly of the machine to the load out decreasing the likelihood of conveyor plugging. Belt speed and system pressure provides power and speed needed to remove high volumes of material from the machine. Single conveyor belt design reduces drive system and tall pulley complexity.

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