



201 East Shady Grove Road • Grand Prairie, Texas 75050-6699 • Phone (214) 790-7800 • FAX: (214) 790-8733

PROPOSAL SPECIFICATION

**SATURN SHREDDER - MODEL 72-50HT WITH 4-100 HP MOTORS
CREATING A 400 HP HYDRAULIC DRIVE ARRANGEMENT**
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No Publication Intended

GENERAL DESCRIPTION

Hopper Opening	72" x 50"
Shredder Dimensions	150" x 78" x 48"
Hydraulic Motors (2)	MRH 525 Kayaba (2)
Hydraulic Dimensions	96" x 86" x 96" (2)
Estimated Weight	46,000 pounds

GEARS AND SHAFT

All shaft gears are keyed to each shaft and are held in position with heavy-duty snap rings. The shaft diameter is 7.000" at the gear and 8.250" at the cutter assembly.

The shredder shafts are housed in a rigid gear box utilizing tapered roller bearings for gear and shaft support. Both bearings and gears are immersed in gear oil for continuous lubrication.

The gear box is line bored to precision align the cutter shafts and gears.

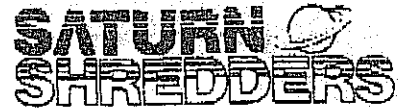
HEAD FRAME AND STANDARD CUTTERS

The shredder frame is constructed of steel plate utilizing heavy-duty fabrication. The shredder end plate, which supports the shaft end of the cutters, is provided with spherical roller bearings lubricated with zerk grease fittings.

The shredder head is made to utilize 33 standard hooks, 2" thick, 26.50" diameter high carbon steel cutters carburized to a hardness on the Rockwell C scale in a range of 50 to 55.

The cutters, spacers and cleaning fingers are spaced and spiraled in accordance with the application. The cutters and spacers are keyed to the main shaft to allow for maintenance accessibility.

The shredder end plate is attached to the shredder head with high strength bolts and is positively aligned with dowel pins.

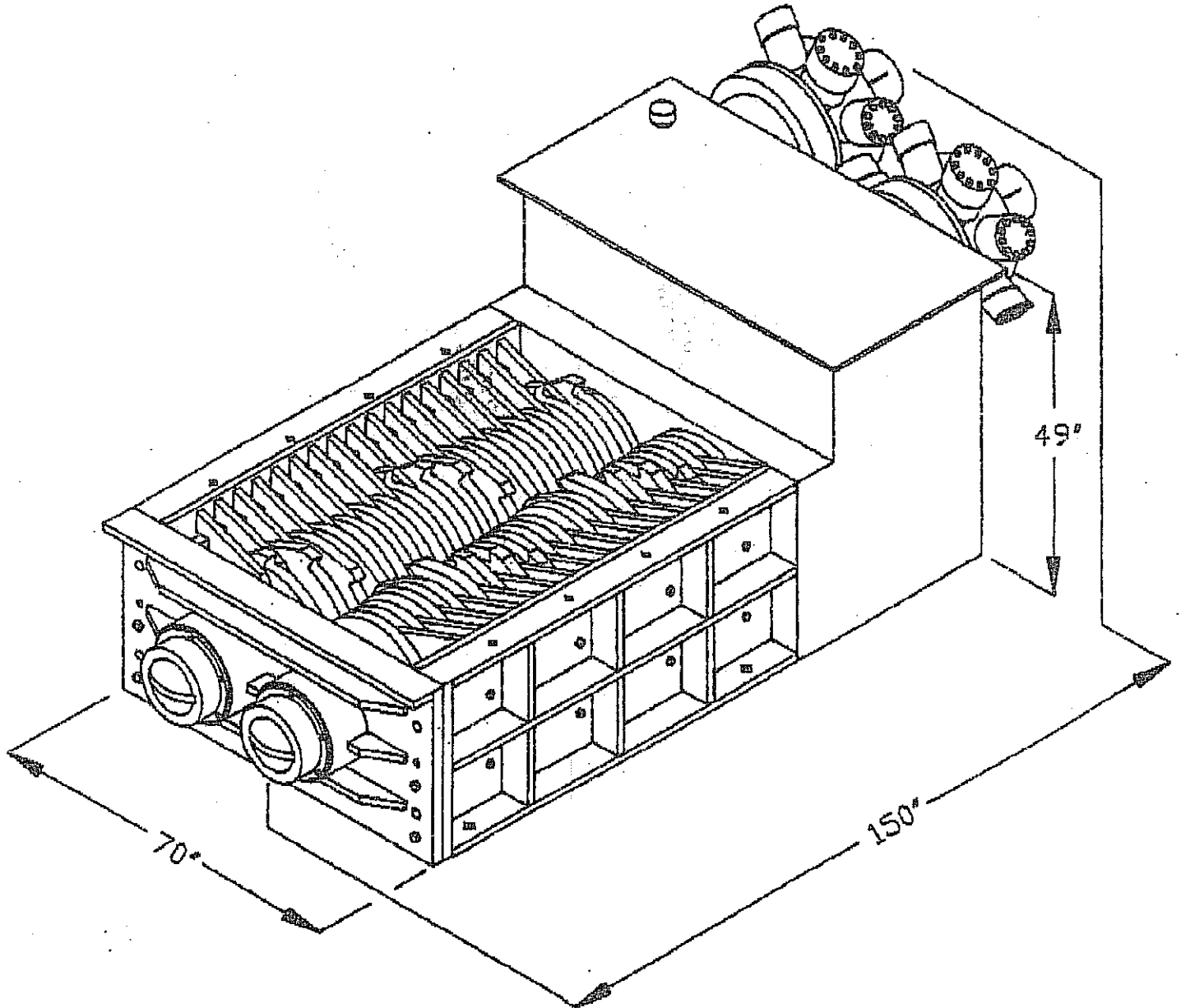


Division

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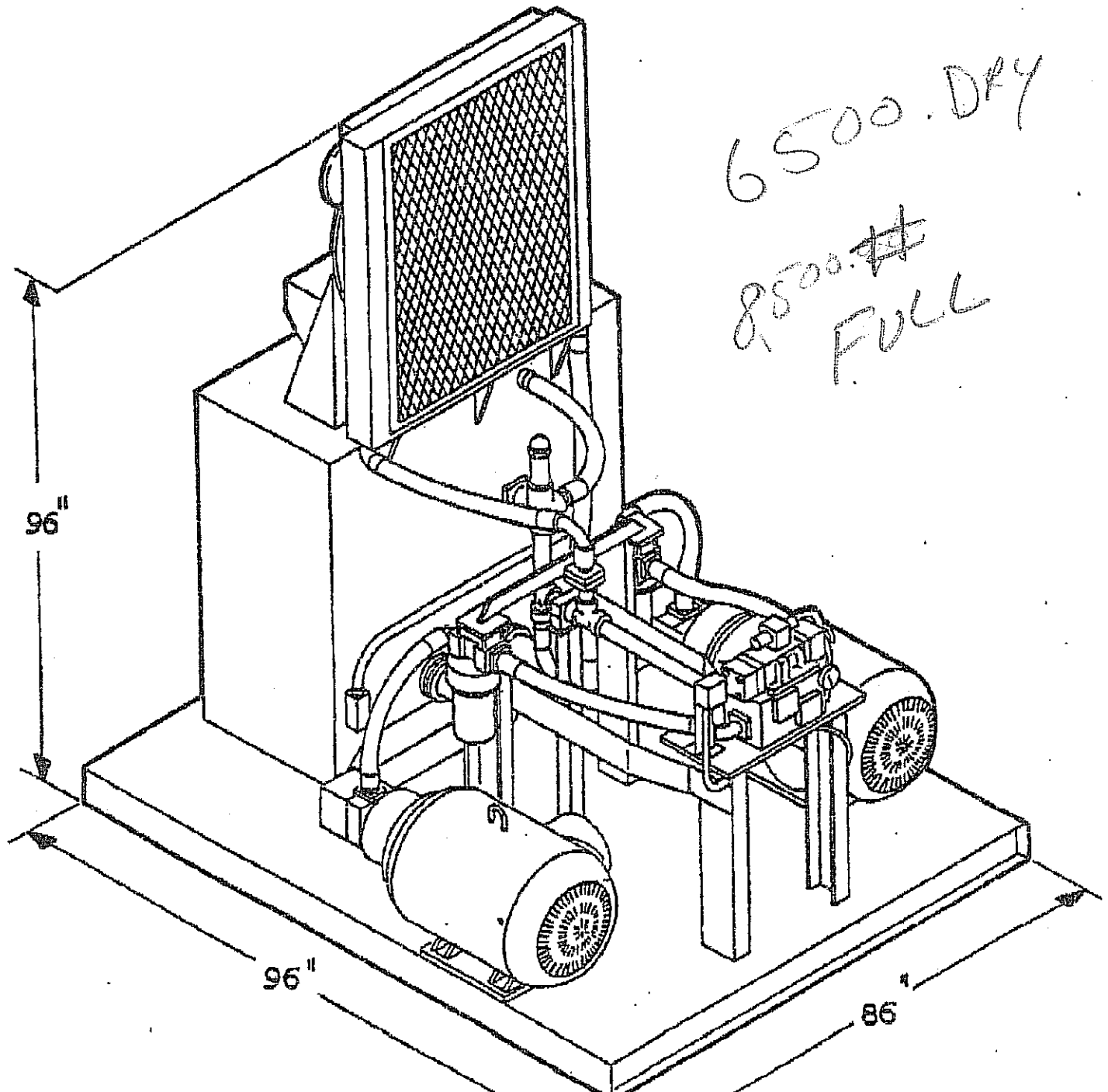
MODEL 72-50 H.T. 400 H.P. SHREDDER





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200 H.P. HYDRAULIC POWER UNIT



HORSEPOWER	400
NUMBER OF ELECTRIC MOTORS	4
NUMBER OF HYDRAULIC PUMPS.....	4
HYDRAULIC PUMPS DISPLACEMENT.....	10.06 cubic inches/revolution each
TOTAL HYDRAULIC FLOW TO MOTOR.....	157.0 x 2 GPM
HYDRAULIC MOTOR MODEL.....	MRH 525 x 2
HYDRAULIC MOTOR DISPLACEMENT.....	525.9 cubic inches/revolution x 2
HYDRAULIC MOTOR SHAFT SPEED.....	69.2 RPM
HYDRAULIC MOTOR TORQUE.....	19,520 x 2 foot/pounds
CUTTER SHAFT TORQUE:	
SLOW SHAFT	46,067 foot/pounds
FAST SHAFT	36,698 foot/pounds
GEAR RATIO:	
SLOW SHAFT	2,360:1
FAST SHAFT	1,880:1
CUTTER SHAFT SPEED:	
SLOW SHAFT	29.3 RPM
FAST SHAFT	36.8 RPM
CUTTER DIAMETER.....	26.5 inches
CUTTER FORCE.....	41,721 pounds
FEED OPENING AT CUTTERS.....	72" x 50"
SHREDDER DIMENSIONS (LxWxH).....	150" x 70" x 49"
HYDRAULIC POWER PACK DIMENSIONS (LxWxH).....	(2) 96" x 86" x 96"
ESTIMATED WEIGHT TOTAL UNIT*.....	46,000 pounds

*Hopper and Stand not included in weight

ESTIMATED THROUGHPUT CAPACITIES

Garbage.....	25-45 TPH	White Goods.....	2-4 TPH
Paper/Cardboard.....	6-9 TPH	Copper Wire/ACSR/Aluminum Cable ..	4-5 TPH
Aluminum Scrap	4.5-7 TPH	Loose Steel Cable	3-4 TPH
Ferrous #16.....	4-6 TPH	Tires - Passenger (2" cut).....	1000+/Hour
Lead Batteries.....	15-25 TPH	Tires - Passenger (4" cut).....	1200-1400/Hour
Wood Pallets.....	500-700/Hour	Tires - Truck (2" cut).....	80-150/Hour
Steel Cans.....	10-15 TPH	Tires - Truck (4" cut).....	150-200/Hour
55-Gallon Drums.....	200-300/Hour	Aluminum Cans	5-7 TPH

DISCLAIMER OF THROUGHPUT RATES: The above throughput rates have been determined by testing representative samples, and have been extrapolated to approximate shred rates for the various materials. This table is to be used only as a guide to help customers visualize the various theoretical throughput rates, not as a guaranteed rate for any throughput rate required by any customer or representative. Saturn will not be responsible for any such guarantee made by its representatives to any customer of Saturn. Tests on a specific Saturn shredder for specific materials are strongly recommended and will be scheduled for testing through Saturn, or its representatives, to determine expected throughput rates and particle sizing. Throughput rates are greatly affected by infeed material size, mode of input feeding, size and design of the hopper opening, size of the shredder, horsepower of the unit, shaft RPM, cutter size and number of cutter hooks. Potential clients should test their materials for better determination of throughput capacities and product sizing. The approximations above are for reference only.

ELECTRICAL

All controls on the hydraulic power unit are pre-wired to a NEMA 4 control box on the hydraulic reservoir. The shredder control functions include:

1. Start/stop of the electric motors/hydraulic pumps
2. Start/stop of the shredder drive
3. Oil heater on/off indicator light
4. Low level indicator light/reset
5. Overheat indicator light/reset
6. Jog/reverse (optional function)

The control panel, mounted in a NEMA 4 waterproof enclosure, is rated for 120VAC control voltage with a 480VAC/120VAC transformer. The motor starters are provided with circuit breakers and front-mounted disconnects for short circuit protection of the main pump and cooling fan motors. All motor starters are wired for 480VAC, 3 phase, 60 Hz operation and are installed in a NEMA 4 enclosure.

GENERAL CONDITIONS

Two operator/maintenance manuals with layouts and part identification are provided.

A factory representative is provided for one day start-up supervision. Additional days will be provided upon request for an additional fee.

The unit is covered by the standard Saturn warranty.

The unit is tested at the factory, but the hydraulic fluid will be drained before shipment due to ICC regulations. The customer must provide hydraulic fluid at the site for start-up.

Pricing of this proposal is valid for 30 days from submission.

PURCHASER MUST PROVIDE THE FOLLOWING ITEMS:

Installation of electrical control/motor panels to an electrical power source, connection of the motor starters to the electric motors, and wiring the control and motor starter panels to the hydraulic power unit.

Unloading, placement, oil tank filling, hydraulic fluid and assembly labor.

Freight charges not covered by quotation. Quotation price is F.O.B. plant unless otherwise stated in writing.

Stand, hopper and any infeed or take-away systems or other peripheral equipment unless ordered as turn-key operation from Saturn.