



# MODEL 24AS SPECIFICATION

## 1.0 General Specifications

There will be furnished one (1) only Grind Hog™ Model 24AS Comminutor as manufactured by G.E.T. Industries, Inc. Rotation shall be in a  clockwise (standard) /  counter-clockwise (optional) direction.

## 1.1 Design Criteria

The comminutor shall be designed to handle the flows indicated below, within the head loss noted.

- (a) hydraulic capacity 10 MGD (37,800m<sup>3</sup>/day)
- (b) satisfactory operation shall occur under conditions of zero flow
- (c) head loss at peak flow shall not exceed 20 inches (508 mm)
- (d) design shall be such that the flow enters the size reduction and screening device horizontally and exits vertically downward to facilitate the flushing of solids

## 1.2 Casing and Curb Ring

Shall be:

- (a) of heavy-duty construction and of high quality cast iron
- (b) machined flat and complete with three (3) holes for anchor bolts
- (c) of the open type allowing free access for complete cutting bar and shear bar mechanism maintenance and inspection without dismantling the unit

## 1.3 Rotating Drum Screen

- (a) heavy-duty Cast Ductile Iron ASTM 536, grade 60-45-18

## 1.4 Cutting Elements

- (a) replaceable shear bars constructed of high-quality A2 tool-steel shall be attached to the rotating drum. Each shear bar shall be machined from solid bar stock, surface ground to establish exact tolerances
- (b) stationary cutting bars (3), shall be of high-quality O1 tool steel hardened to a minimum of 56 Rockwell C, and shall be reversible, allowing for four (4) sets of cutting edges prior to sharpening or replacement
- (c) all submerged fasteners shall be of stainless steel

## 1.5 Motor

Immersible 3 Hp. Motor, 1750 RPM, \_\_\_\_\_ volt, \_\_\_\_\_ phase, \_\_\_\_\_ cycle, suited to periodic submergence. Power cable length 25 ft. (7.6 m).

## 1.6 Drive Arrangement

- a) the motor shall be close-coupled to a speed reducer drive, a heavy duty planetary gear of the totally enclosed non-vented type suitable for total submergence during emergencies
- b) double seals on the output shaft shall ensure flood-proof operation through a reduction ratio of 59:1

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**G.E.T. INDUSTRIES INC.**

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## **SPECIFICATION cont'd...**

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- c) the cycloidal reducer shall be capable of withstanding shock loads to 500% of its mechanical rating of 11.1 Hp. and be warranted for two (2) years
- d) the drive shall have a minimum full load efficiency of 90% and be pre-lubricated with grease, requiring routing maintenance every 500 to 1,000 hours

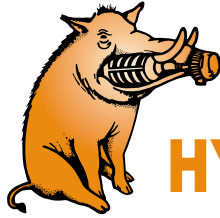
### **A) 'KWIK-LIFT' WET WELL REMOVAL SYSTEM**

The Comminutor shall be equipped with a slide rail system which will allow the Grind Hog™ to be removed without entering the wet well. The guide rails shall be 304 schedule 40 stainless steel pipe, 1.5 inches in diameter, and shall be of adequate length as shown on the drawings. Guide rail support shall be 304 stainless steel and shall be mounted to the wet well wall. All attaching hardware shall be of stainless steel and shall be supplied by the contractor.

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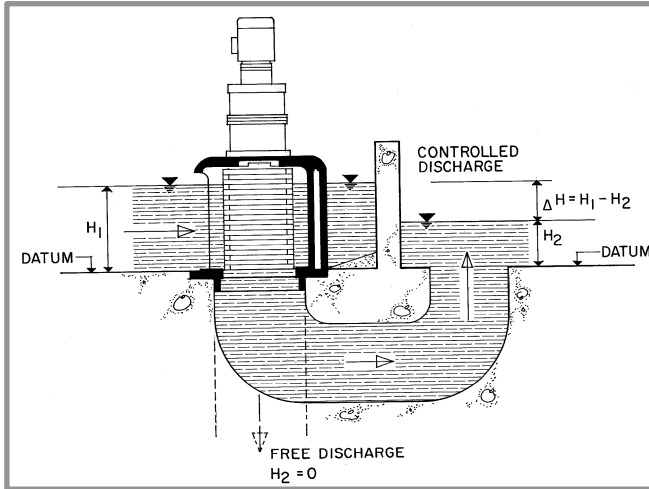
**G.E.T. INDUSTRIES INC.**

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# Grind Hog™

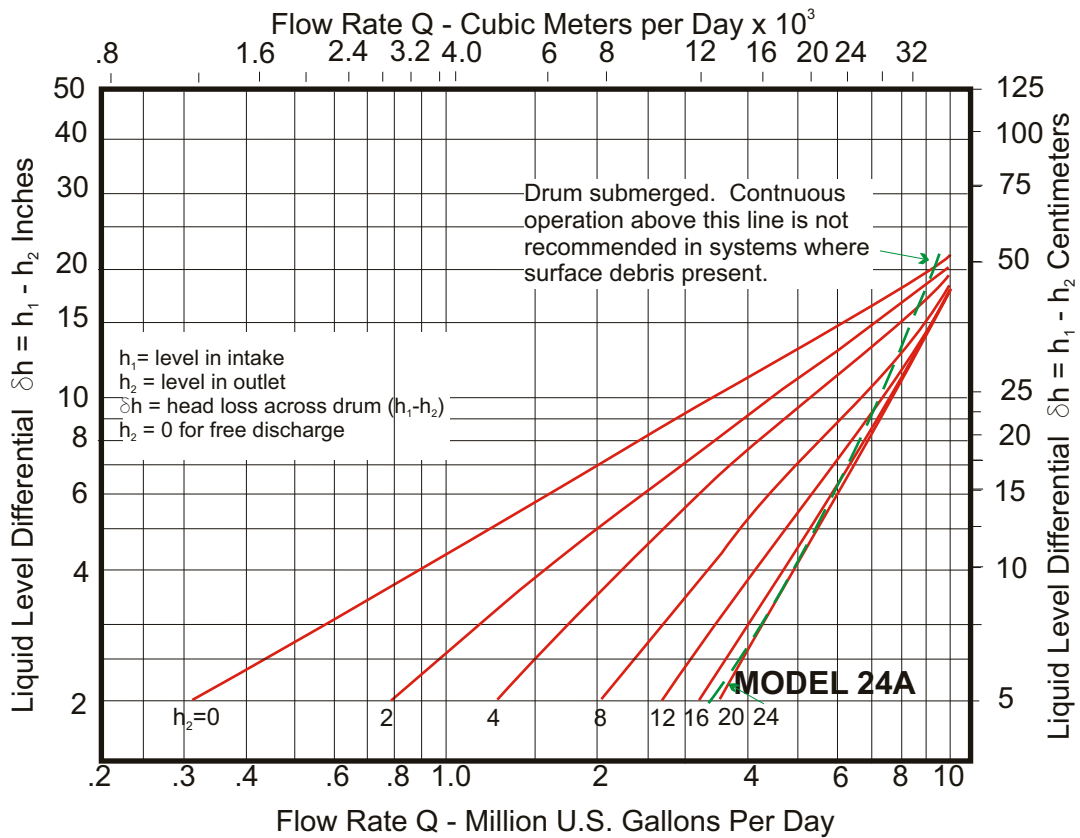
## HYDRAULIC DATA SHEET IN-CHANNEL MODEL 24A



### GENERAL DATA

<b>Capacity</b>	0-10 MGD (US)	0-37800 m <sup>3</sup> /day
<b>Drum Diam.</b>	22.5 in	57.2 cm
<b>Inlet Area</b>	526 in <sup>2</sup>	3393 cm <sup>2</sup>
<b>Outlet Area</b>	324 in <sup>2</sup>	2090 cm <sup>2</sup>
<b>Slot Width</b>	0.470 in	12 mm

### HYDRAULIC PERFORMANCE CURVE



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# IN-CANNEL MODEL 24A cont'd...

## DESIGN FEATURES

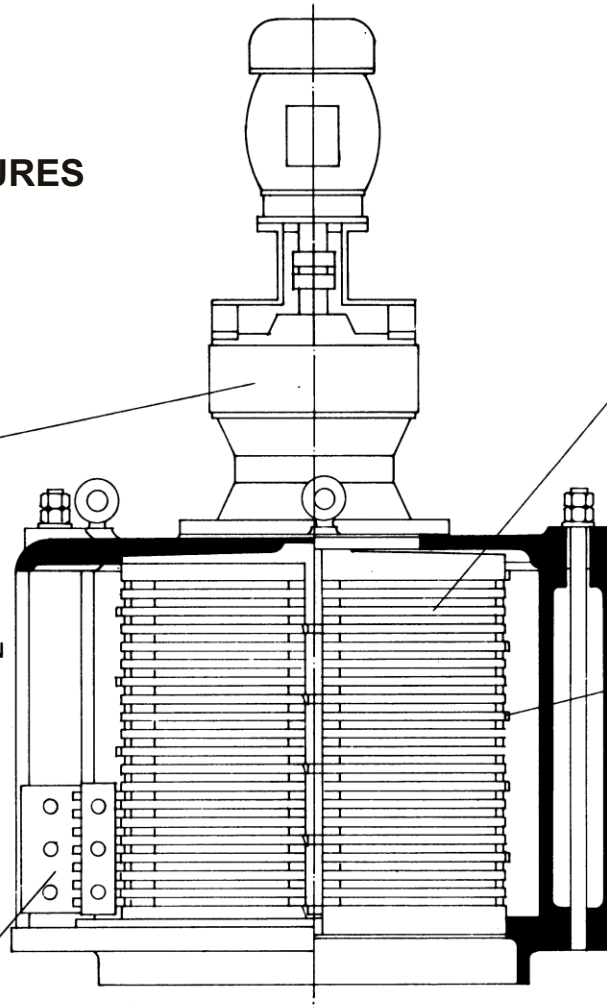
### SM-CYCLO® SPEED REDUCERS

- HIGHEST OVERLOAD CAPACITY FOR FREQUENT STOP-START AND SEVERE REVERSING
- SMOOTH, SILENT OPERATION
- EXCEPTIONAL LIFE

Torque transmitting parts roll, don't grind. There is no sliding friction, so output torque/input horsepower efficiency approaches 95%.

### STATIONARY CUTTING BAR

- REVERSIBLE-SPARE STANDARD EQUIPMENT
- A2 HIGH QUALITY TOOL STEEL
- HIGH RESISTANCE TO WEAR



### CAST DUCTILE IRON SEWAGE SCREEN

- LONG LIFE UNDER ABRASIVE CONDITIONS

### ROTATING SHEAR BAR ASSEMBLY

- MACHINED FROM SOLID BARSTOCK
- PRECISE TOLERANCES MAINTAINED.

### SUBMERGED FASTENERS OF STAINLESS STEEL

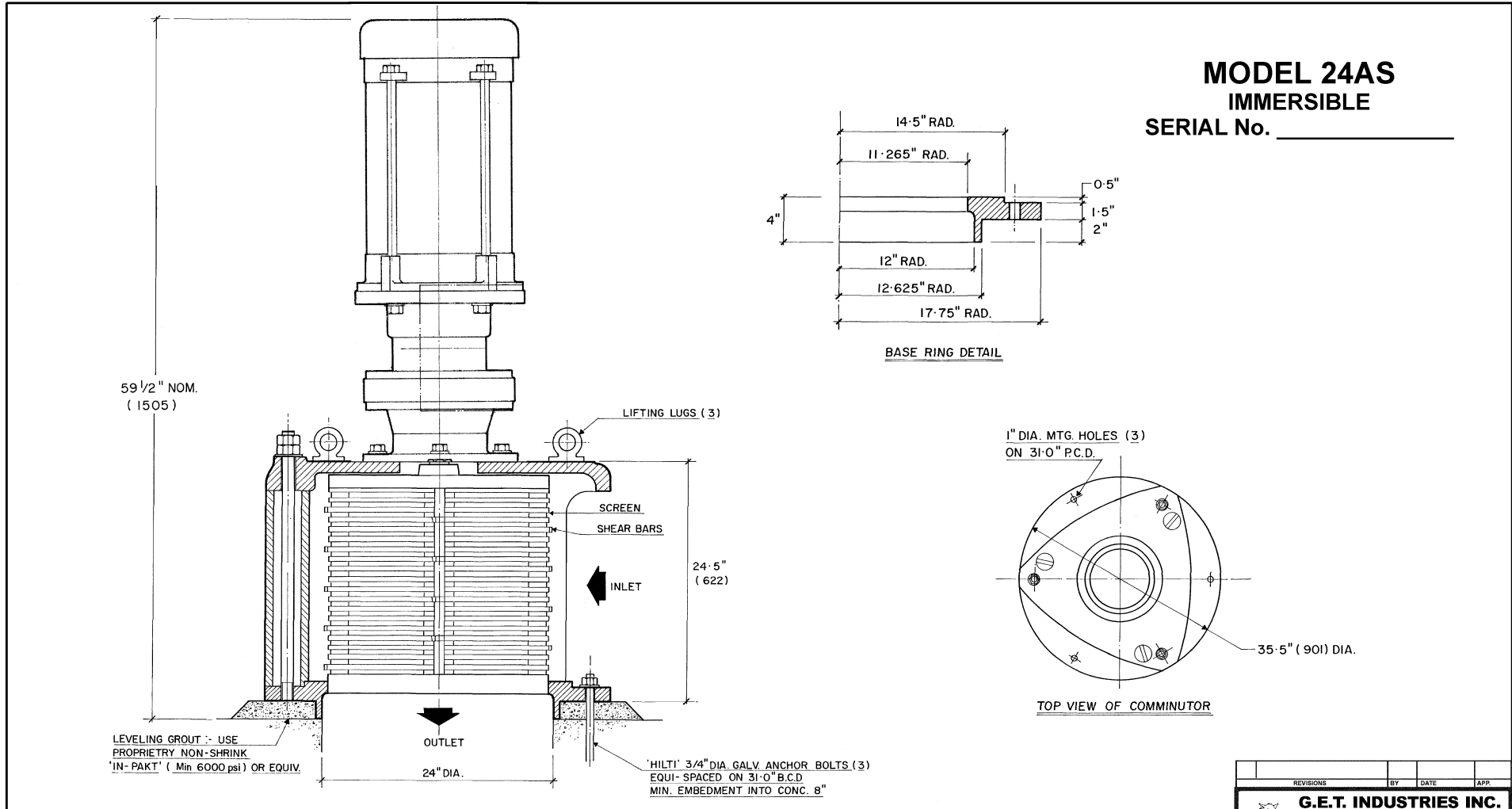
### HEAVY DUTY CAST IRON CONSTRUCTION

VERTICAL "FREE"  
OR  
"CONTROLLED"  
DISCHARGE



# MECHANICAL DETAIL

**MODEL 24AS**  
**IMMERSIBLE**  
 SERIAL No. \_\_\_\_\_



**MATERIALS OF CONSTRUCTION & GENERAL ENGINEERING DATA**

<b>HOUSING:</b>	GREY IRON	<b>CAPACITY:</b>	10 MGD (US)/37800 m <sup>3</sup> /day	<b>INLET AREA:</b>	526 sq in / 3393 cm sq
<b>DRUM (SCREEN):</b>	DUCTILE IRON (ASTM 536 GRADE 60-45-18)	<b>DRUM SPEED:</b>	30 RPM	<b>OUTLET AREA:</b>	324 sq in / 2090 cm sq
<b>SHEAR BARS:</b>	AISI-A2 HIGH ALLOY TOOL STEEL	<b>ROTATION:</b>	CLOCKWISE	<b>DRUM DIAMETER:</b>	22.5 in / 572 cm
<b>CUTTING BARS:</b>	AISI-01 TOOL STEEL REVERSIBLE	<b>SLOT WIDTH:</b>	0.470 in / 12 mm	<b>WEIGHT:</b>	1265 lb / 574 kg
<b>HARDWARE &amp; FASTENERS:</b>	304 STAINLESS STEEL	<b>NO. OF SLOTS:</b>	76		
<b>MOTOR MANUFACTURER:</b>		<b>POWER:</b>	/ /	<b>RPM:</b>	1750
<b>STYLE:</b>	IMMERSIBLE	<b>HP:</b>	3	<b>KW:</b>	2.24
		<b>FRAME:</b>	182TC	<b>FLANGE:</b>	'C'
				<b>RATIO:</b>	59:1
				<b>RATING:</b>	11.1 HP
				<b>SM-CYCLO REDUCER MODEL:</b>	V6170

REVISIONS		BY	DATE	APP.
<b>G.E.T. INDUSTRIES INC.</b> (877) 213-7418 www.grindhog.com				
TOLERANCES				SCALE
±				NTS
DECIMAL				DRAWN BY
FRACTIONAL				APPROVED BY
ANGULAR				WDM
DATE	PROJECT NO.	DRAWING NO.		REV.
Nov. 2006		6 0265		