

# Grind Hog™

## MODEL 16AS T/S - SPECIFICATION

### 1.0 General Specifications

There will be furnished one (1) only Grind Hog™ Model 16AS T/S Comminutor as manufactured by G.E.T. Industries, Inc. Rotation shall be in a clockwise direction.

### 1.1 Design Criteria

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

- a) hydraulic capacity 3.5 MGD (13,200m<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 (500)
- 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 Cover Plate

Shall be:

- a) of heavy-duty construction and of high quality cast iron
- b) fitted with 4 position lock down arrangement, and 2 alignment holes for repositioning following service
- c) located on, and positioned by wall mounted supports allowing for ease of removal for inspection and maintenance.

### 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) the stationary cutting bar, shall be of high-quality 01 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

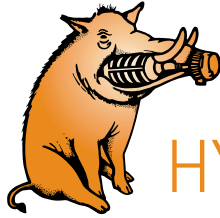
Immersible 3 Hp. Motor, 1750 RPM, \_\_\_\_ volt, \_\_\_\_ phase, \_\_\_\_ cycle, suited to periodic submergence. Power cable length 25 ft. (7.6 m).

### 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
- c) the cycloidal reducer shall be capable of withstanding shock loads to 500% of its mechanical rating of 7.72 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

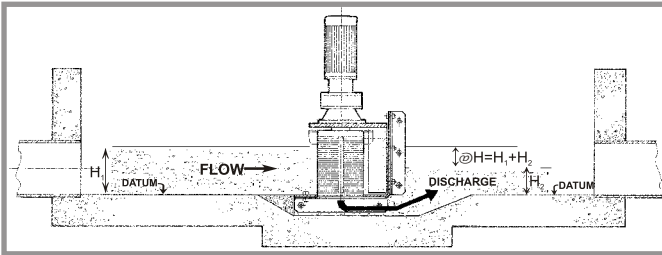
### 1.7 "Toilet Seat" Channel Mounting System

Shall consist of wall mounted brackets and fasteners, horizontal plate and skirt assembly, all of 304 stainless steel.



# Grind Hog™

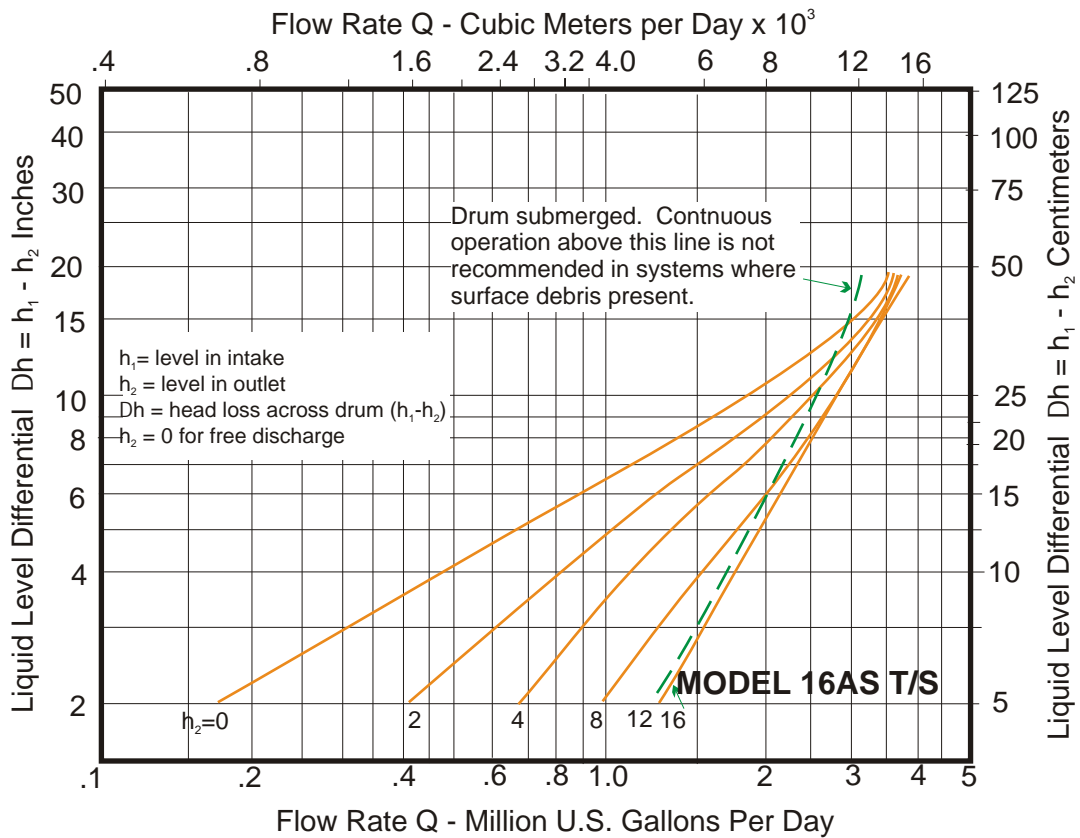
## HYDRAULIC DATA SHEET IN-CHANNEL MODEL 16AS T/S



### GENERAL DATA

<b>Capacity</b>	0-3.5 MGD (US)	0-13200 m <sup>3</sup> /day
<b>Drum Diam.</b>	14.5 in	36.8 cm
<b>Inlet Area</b>	202 in <sup>2</sup>	1303 cm <sup>2</sup>
<b>Outlet Area</b>	121 in <sup>2</sup>	780.6 cm <sup>2</sup>
<b>Slot Width</b>	0.470 in	12 mm

### HYDRAULIC PERFORMANCE CURVE



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## IN-CHANNEL MODEL 16 AS T/S cont'd...

### DESIGN FEATURES

#### **SUMITOMO SM-CYCLO SPEED REDUCER 6000 SERIES**

- 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**

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

#### **CAST DUCTILE IRON SEWAGE SCREEN**

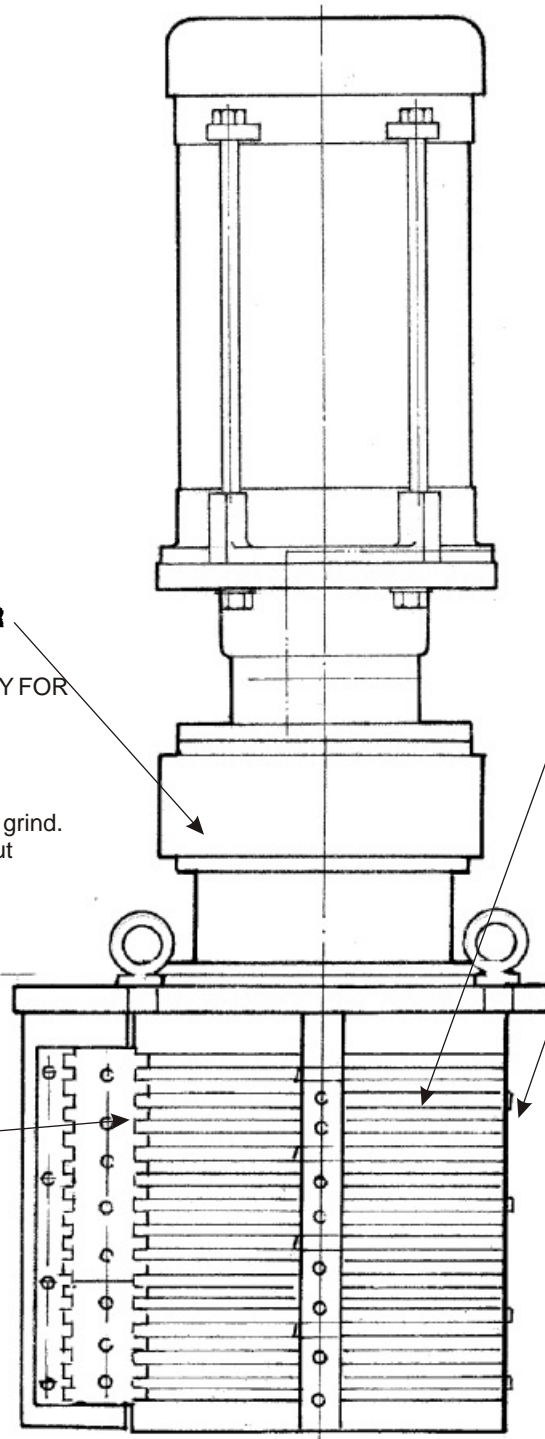
- LONG LIFE UNDER ABRASIVE CONDITIONS

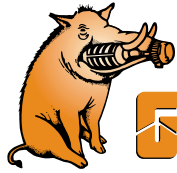
#### **ROTATING SHEAR BAR ASSEMBLY**

- MACHINED FROM SOLID BARSTOCK
- PRECISE TOLERANCES MAINTAINED

#### **SUBMERGED FASTENERS OF STAINLESS STEEL**

#### **HEAVY DUTY CAST IRON CONSTRUCTION**

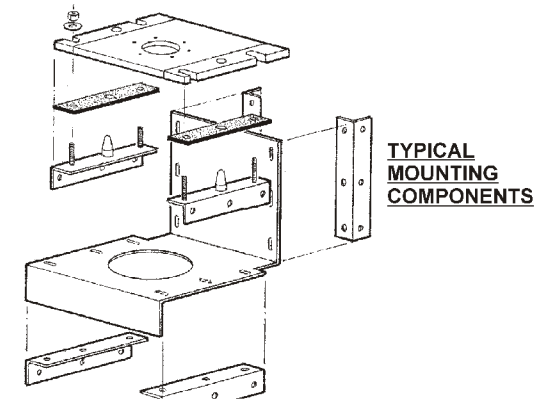
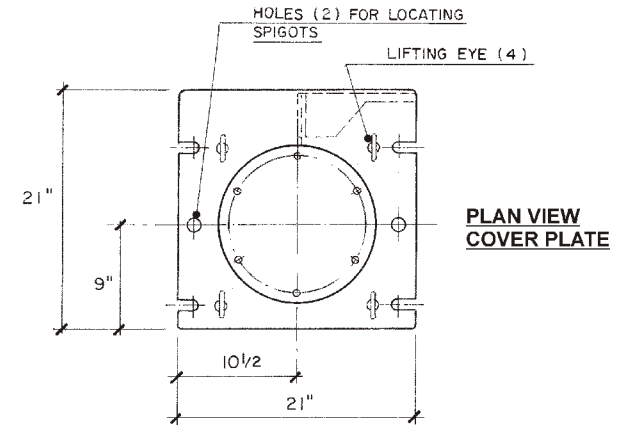
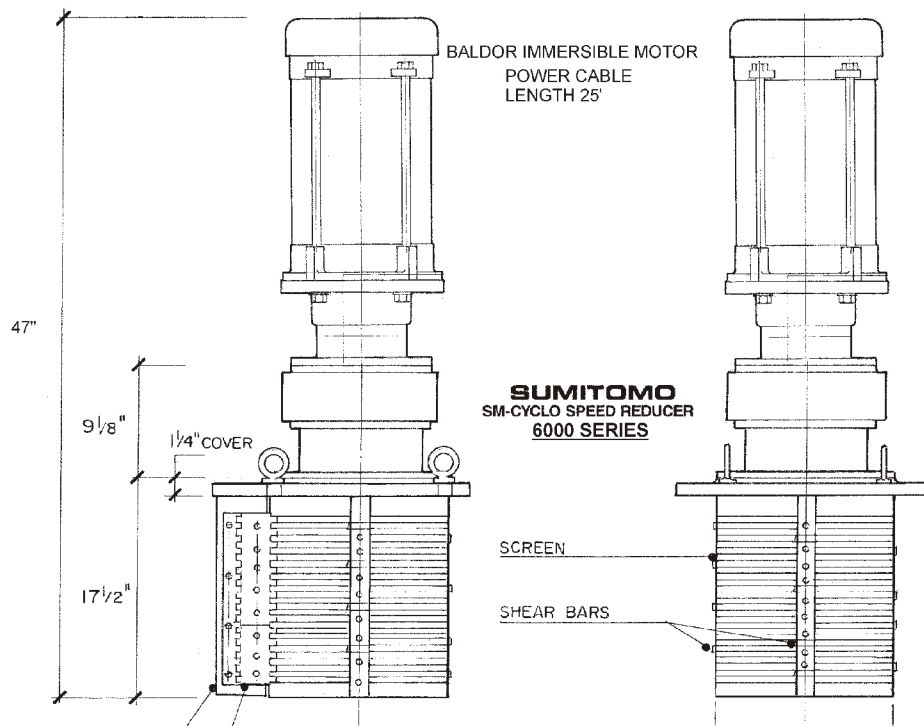




**Grind Hog™**

# DIMENSIONAL & MECHANICAL DETAIL

**MODEL 16AS T/S**  
**IMMERSIBLE**  
 SERIAL No. \_\_\_\_\_



**MATERIALS OF CONSTRUCTION & GENERAL ENGINEERING DATA**

HOUSING:	GREY IRON	CAPACITY:	3.5 MGD (US)/13200 m <sup>3</sup> /day	INLET AREA:	202 sq in / 1303 cm sq
DRUM (SCREEN):	DUCTILE IRON (ASTM 536 GRADE 60-45-18)	DRUM SPEED:	30 RPM	OUTLET AREA:	121 sq in / 780.6 cm sq
SHEAR BARS:	AISI-A2 HIGH ALLOY TOOL STEEL	ROTATION:	CLOCKWISE	DRUM DIAMETER:	14.5 in / 36.8 cm
CUTTING BARS:	AISI-01 TOOL STEEL REVERSIBLE	SLOT WIDTH:	0.470 in / 12 mm	WEIGHT:	lb / kg
HARDWARE & FASTENERS:	304 STAINLESS STEEL	NO OF SLOTS:	56		
MOTOR MANUFACTURER:	Baldor	POWER:	_____ / _____ / _____	RPM:	1750
STYLE: IMMERSIBLE	HP: 3	KW: 2.23	FRAME: 182TC	FLANGE:	'C'
				RATIO:	59:1
				RATING:	7.72 HP
				SM-CYCLO REDUCER MODEL:	V6160

REVISIONS		BY	DATE	APP.
<b>G.E.T. INDUSTRIES INC.</b>				
(877) 213-7418				
www.grindhog.com				
TOLERANCES				SCALE
DIGITAL				NTS
FRACTIONAL				DRAWN BY
ANGULAR				APPROVED BY
DATE	PROJECT NO.	DRAWING NO.	REV.	
May 2007		DD-16AS T/S	WDM	