



# MODEL 16A T/S SPECIFICATION

## 1.0 General Specifications

There will be furnished one (1) only Grind Hog™ Model 16A 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 (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 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

TEFC 1.5 Hp. Motor suited to outdoor weatherproof service (IP55) on \_\_\_\_\_ volt, \_\_\_\_\_ phase, \_\_\_\_\_ cycle service. Close-coupled

## 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

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

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## SPECIFICATION cont'd...

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- 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

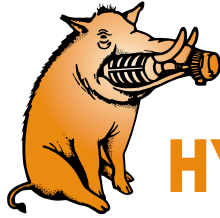
### 1.7 "Toilet Seat" Channel Mounting System

Shall consist of a box style structure fabricated of 304 Stainless Steel dimensioned to suit the existing channel and supported from above for ease of installation

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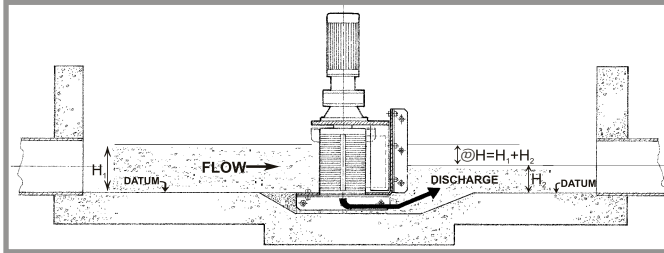
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# Grind Hog™

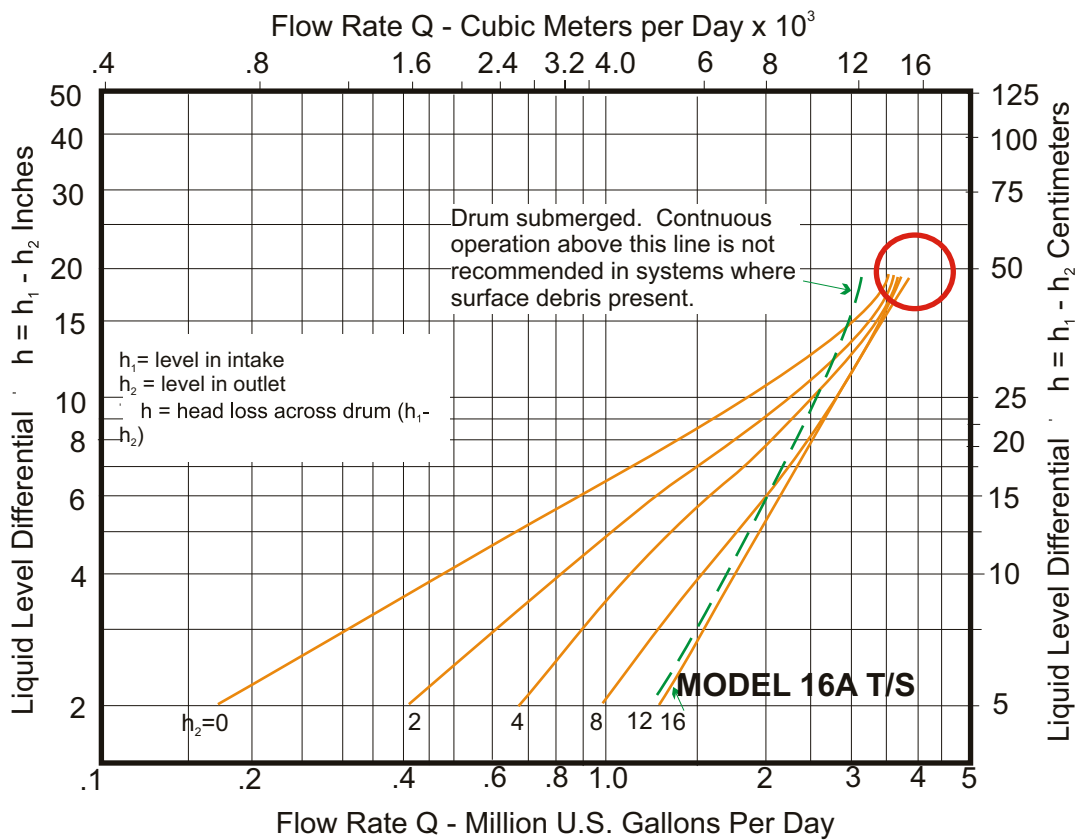
## HYDRAULIC DATA SHEET IN-CHANNEL MODEL 16A T/S



### 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 16A 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**

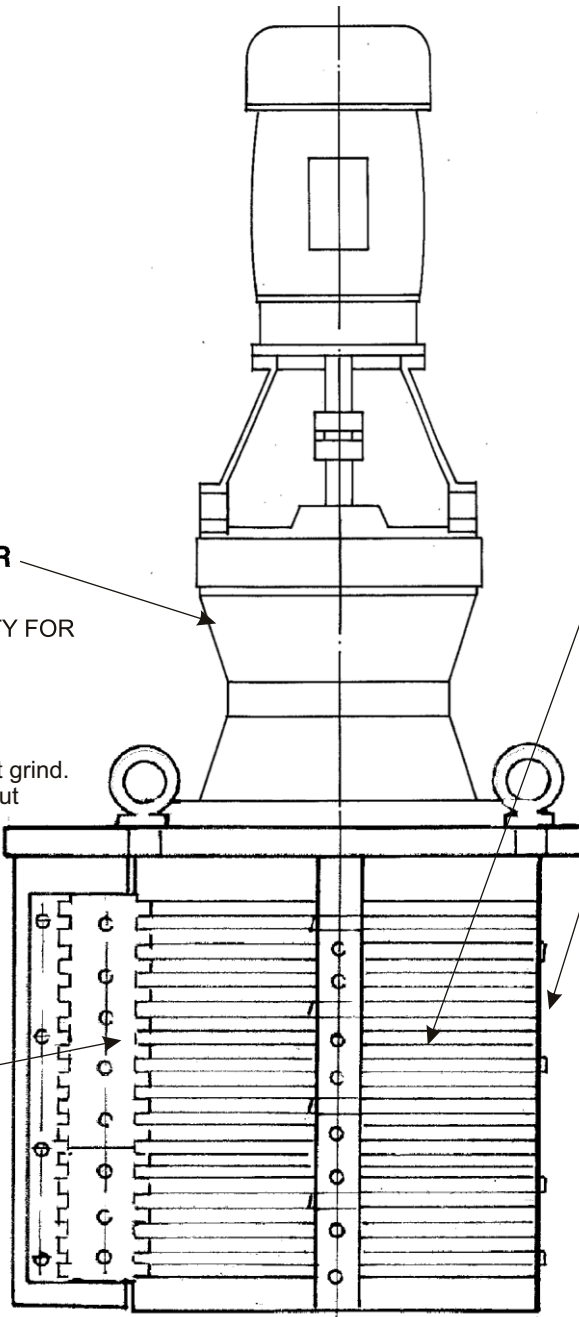
- LONG LIFE UNDER ABRASIVE CONDITIONS

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

- MACHINED FROM SOLID BARSTOCK
- PRECISE TOLERANCES MAINTAINED

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

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

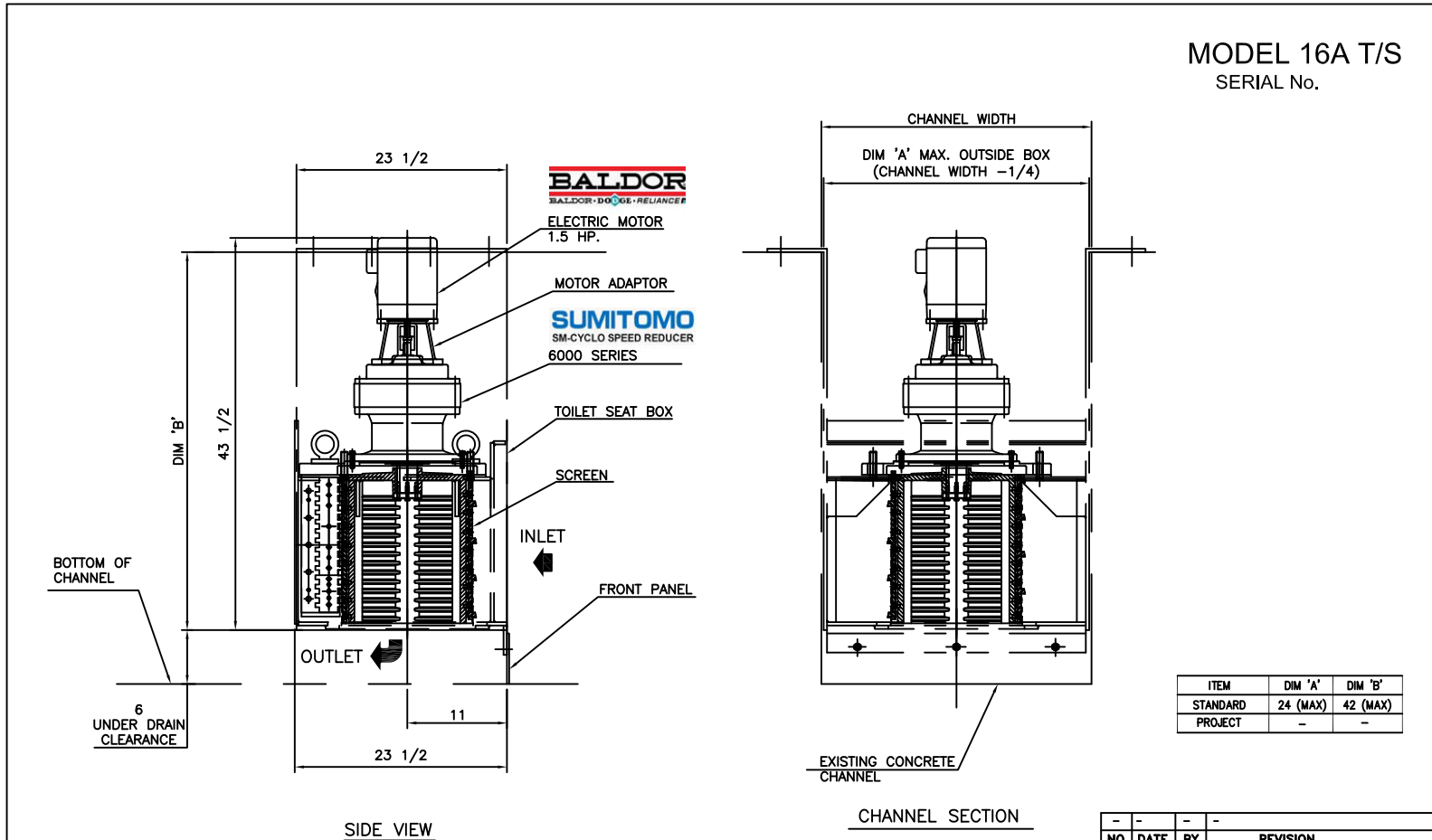




**Grind Hog™**

# MECHANICAL DETAIL

MODEL 16A T/S  
SERIAL No.



ITEM	DIM 'A'	DIM 'B'
STANDARD	24 (MAX)	42 (MAX)
PROJECT	-	-

NO.	DATE	BY	REVISION
-	-	-	-



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**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	.470 IN / 12 mm	WEIGHT	750 LB	340 kg
HARDWARE & FASTENERS:	304 STAINLESS STEEL	No. OF SLOTS	56			
MOTOR MANUFACTURER:	BALDOR	POWER:	- / - / -	RPM:	1750	REDUCER: SM - CYCLO MODEL: V6160 / 65
STYLE:	TEFC	HP:	1,5	KW:	1,12	FRAME: 56C FLANGE: 56C RATIO: 59:1 RATING: 7,72 HP

TOLERANCES	SCALE
DECIMAL	NTS
FRACTIONAL	INFO
ANGULAR	INFO
BOX DISPLAYED	
DATE	FILE NO.
AUG.2013	
DWG. No.	REV.
6 0226,1	-



**Grind  
Hog**

# HORIZONTAL FLOW

RETROFIT ALTERNATIVE

## “TOILET SEAT BOX STYLE” DROP IN REPLACEMENT

PROJECT: \_\_\_\_\_

ANTICIPATED PEAK FLOW: \_\_\_\_\_

EXISTING CHANNEL:

Width (w): \_\_\_\_\_

Depth (d): \_\_\_\_\_

Underdrain Clearance (c): \_\_\_\_\_

MOTOR REQUIREMENTS:

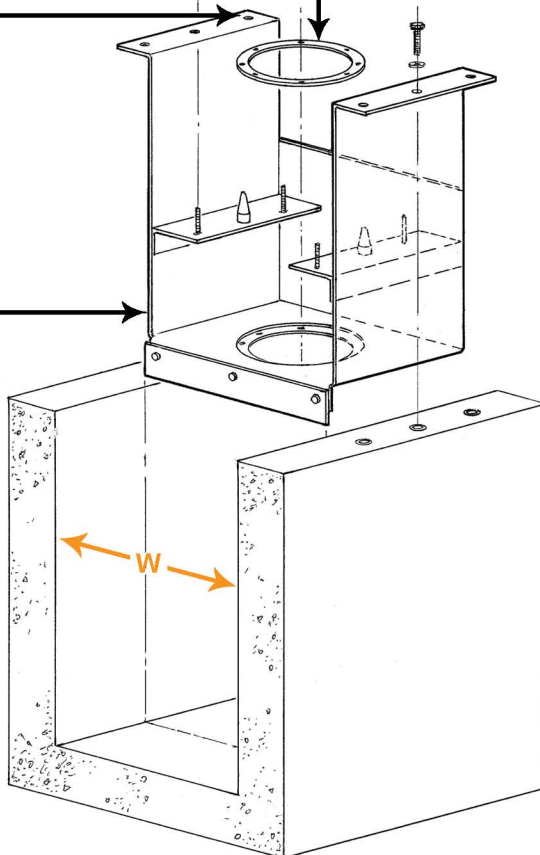
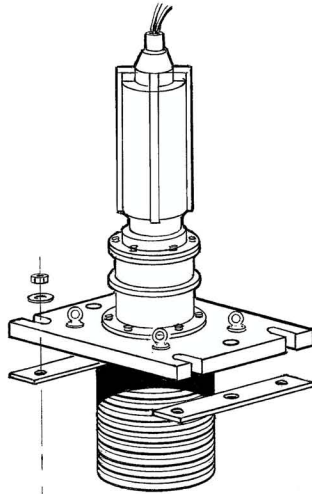
Power: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Enclosure: \_\_\_\_\_

Replaceable wear ring for extended life

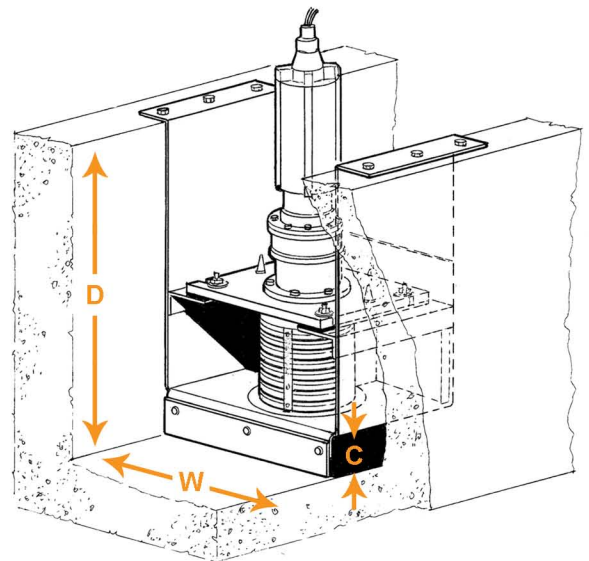
Supported from above on the channel walls, eliminating the requirement for any submerged anchorage

Fabricated from 304 Stainless Steel to suit existing channel dimensions



## REPLACING

- Barminutor
- Clow Aer-O-Flo
- Franklin Miller-Diminutor
- Infilco Degremont
- Muffin Monster
- Worthington
- .....Among others



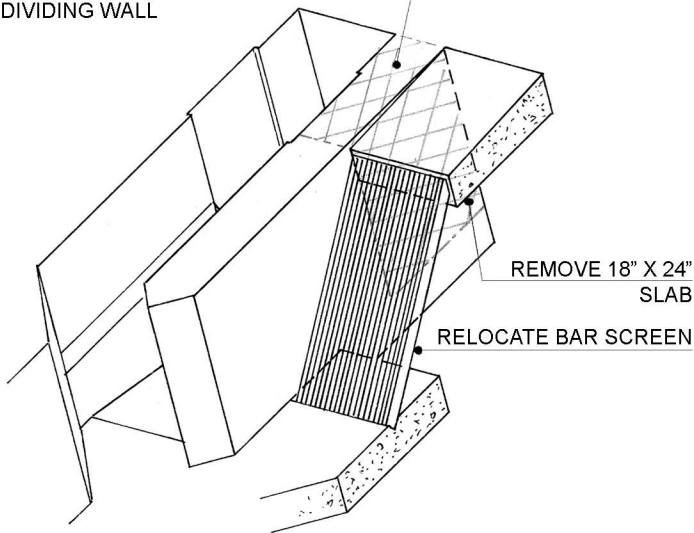
# HORIZONTAL FLOW



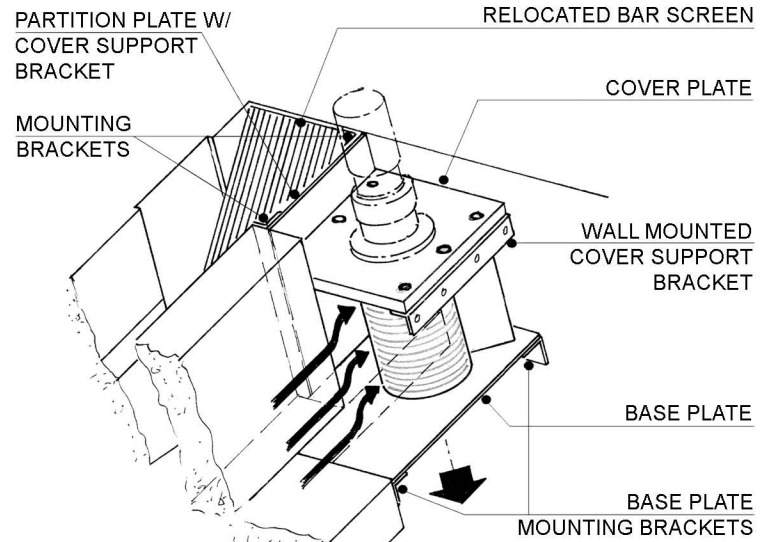
Customized to suit each application

## ORIGINAL CHANNEL

REMOVE 24" SECTION OF DIVIDING WALL



## PROPOSED CHANGES



Original  
Worthington 15-5



Custom Fabricated  
Basin



16 ASX T/S



Custom Fabricated Basin  
& 16ASX T/S  
Ready for Shipment

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