



MODEL 10AS SPECIFICATION

1.0 General Specifications

There shall be furnished one (1) one only Grind Hog™ Model 10AS Comminutor as manufactured by **G.E.T. Industries Inc.** with rotation in a counter-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 850 GPM (53.6 l/s)
- b) satisfactory operation shall occur under conditions of zero flow
- c) head loss at peak flow shall not exceed 8 inches (203 mm)
- d) design shall be such that the flow enters the size reduction and screening device horizontally and exists vertically downward to facilitate the flushing of solids

1.2 Rotating Drum Screen

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

1.3 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 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

1.4 Flanged Body

- a) the body of the comminutor shall be of high quality cast iron and so designed to allow free unobstructed flow of influent through the unit. A Neoprene "O" Ring shall seal the chamber, allowing for operation under conditions of abnormally high head
- b) the inlet flange shall be 8" (203 mm)

1.5 Motor

Immersible 1 1/2 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 35:1
- c) the cycloidal reducer shall be capable of withstanding shock loads to 500% of its mechanical rating of 4.27 Hp. and be warranted for two (2) years

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SPECIFICATION cont'd...



- 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

OPTIONAL INSTALLATION ARRANGEMENTS

A) Auto-Coupling Slide Rail System - Wet Well

- a) each Grind Hog™ shall be equipped with a Slide Rail System allowing for removal without entering the wet well
- b) a stationary PVC Overflow Coupling Box shall be flange mounted to the gravity sewer pipe as shown on the drawings. An open top will allow for overflow in the event of a disruption in service
- c) Wall Mounted Support Brackets shall be 304 stainless steel and shall be attached to the wet well wall
- d) Guide Rails shall be of 304 stainless steel pipe, 1.5" in diameter, and shall be of adequate length as shown on the drawings
- e) all anchorage hardware shall be of stainless steel, supplied by the contractor

B) Auto-Coupling Slide Rail System - Chamber

- a) each Grind Hog™ shall be equipped with a Slide Rail System allowing for removal without entering the manhole
- b) a stationary PVC Overflow Coupling Box shall be flange mounted to the gravity sewer pipe as shown on the drawings. An open top will allow for overflow in the event of a disruption in service

.... alternatively....

a stationary galvanized steel Overflow Bar Screen and influent trough shall be mounted under the gravity sewer pipe as shown on the drawing. Stainless steel support brackets and hardware shall be provided

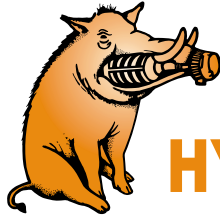
- c) supports brackets shall be of stainless steel and shall be mounted to the:
 - * Manhole Wall - PVC Overflow option
 - * Manhole Floor - Overflow Bar Screen Option
- d) Guide Rail Supports shall be 304 stainless steel pipe. 1.5" diameter, and of adequate length as shown on the drawing
- e) all anchorage hardware shall be of stainless steel, supplied by the contractor

C) Trash Basket - Optional

- a) a Trash Basket compatible with the Slide Rail System shall be provided, allowing for continued screening during comminutor maintenance. Materials of construction are:
 - * 10 Gauge Aluminum
 - * 2" (51 mm) holes on 3" (76 mm) centers

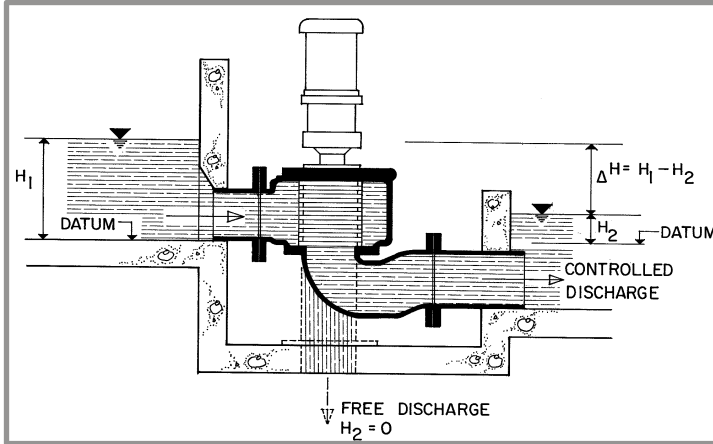
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Grind Hog™

HYDRAULIC DATA SHEET PIPE MOUNTED MODEL 10

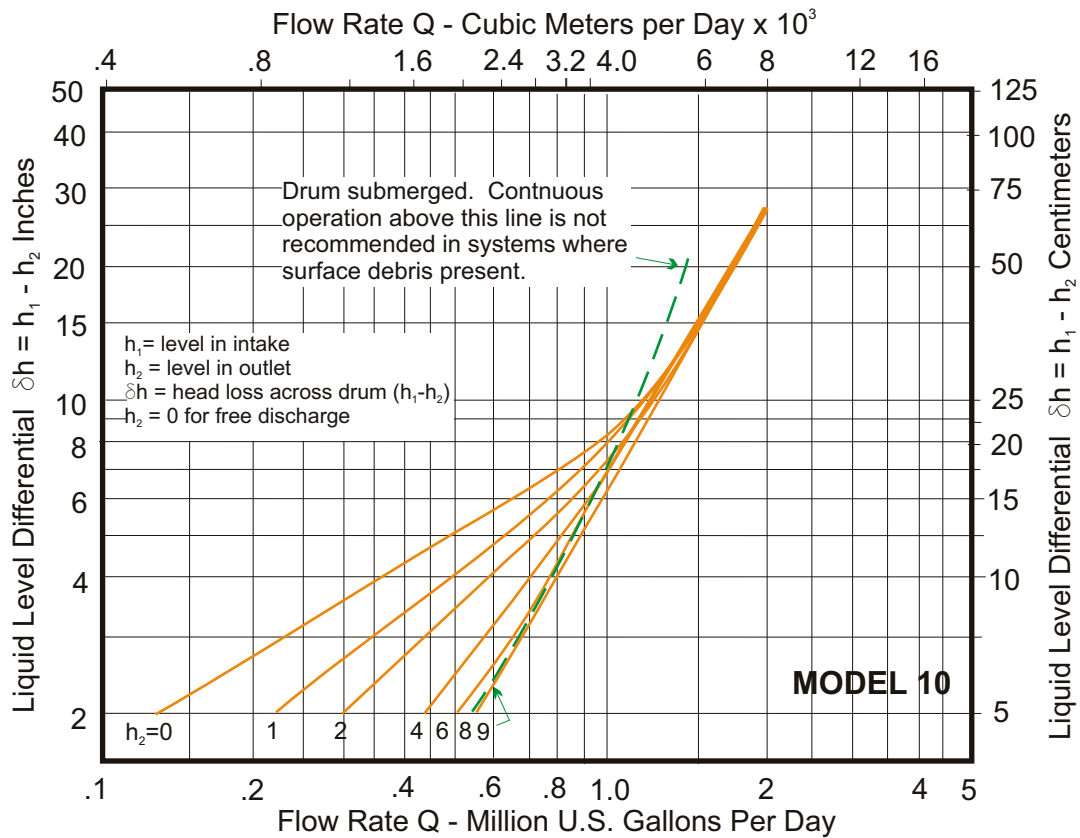


GENERAL DATA

Capacity	0-850 GPM (US)	0-53.6 L/s
Drum Diam.	9.4 in	23.9 cm
Inlet Area	97 in ²	625.8 cm ²
Outlet Area	45 in ²	290.3 cm ²
Slot Width	0.470 in	12 mm

MODEL 10A - FREE DISCHARGE
MODEL 10B - CONTROLLED DISCHARGE WITH
 CAST IRON RETURN BEND
 PVC RETURN BEND

HYDRAULIC PERFORMANCE CURVE



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PIPE MOUNTED MODEL 10 cont'd...

DESIGN FEATURES

SM-CYCLO® SPEED REDUCERS

- HIGHEST OVERLOAD CAPACITY FOR FREQUENT STOP-START AND SEVERE REVERSING
- RELIABLE, MAINTENANCE-FREE SERVICE
- 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%.

SUBMERGED FASTENERS OF STAINLESS STEEL

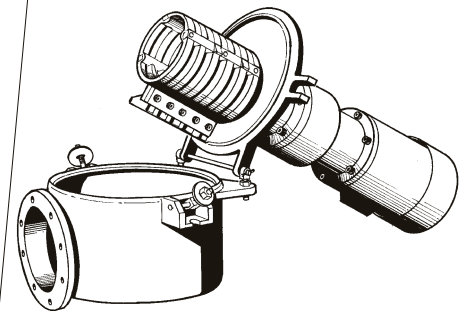
HEAVY DUTY CAST IRON CONSTRUCTION

DISCHARGE OPTIONS

- FREE DISCHARGE TO TANK OR WET WELL
- CONTROLLED DISCHARGE — CAST IRON OR PVC RETURN BEND

HINGED MECHANISM

- EASE OF INSPECTION
- RELEASE POINTS MECHANISM COVER OF CASING FOR INSPECTION AND MAINTENANCE



SEALED CHAMBER

- NEOPRENE "O" RING SEAL ALLOWS FOR SURCHARGED OPERATION

CAST DUCTILE IRON SEWAGE SCREEN

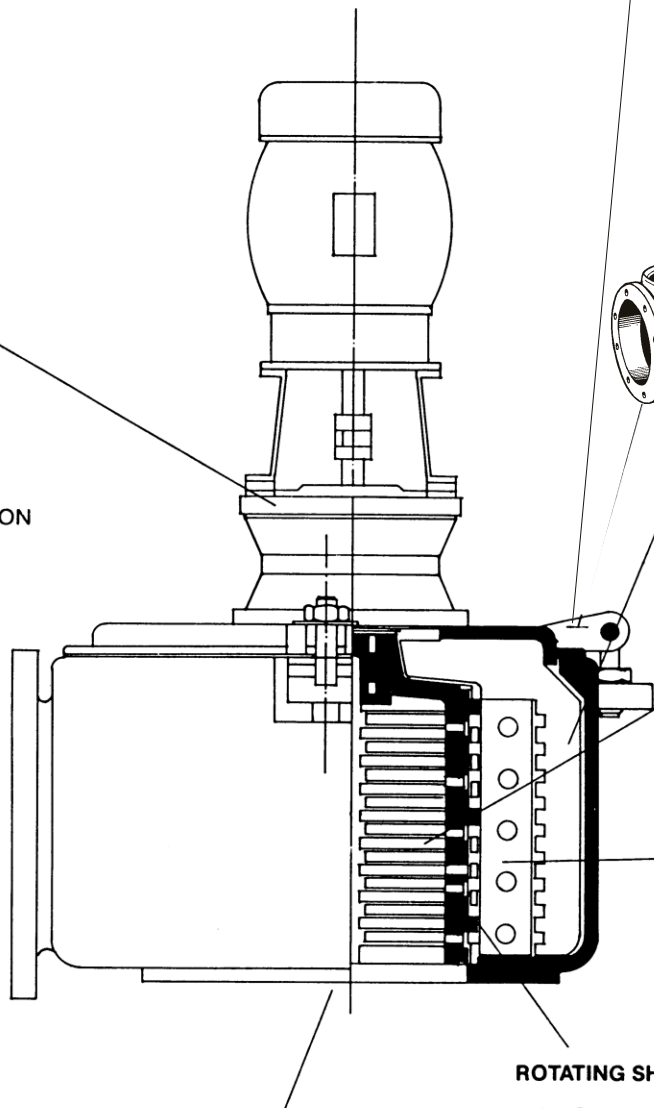
- LONG LIFE UNDER ABRASIVE CONDITIONS

STATIONARY CUTTING BAR

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

ROTATING SHEAR BAR ASSEMBLY

- MACHINED FROM SOLID BARSTOCK
- PRECISE TOLERANCES MAINTAINED.



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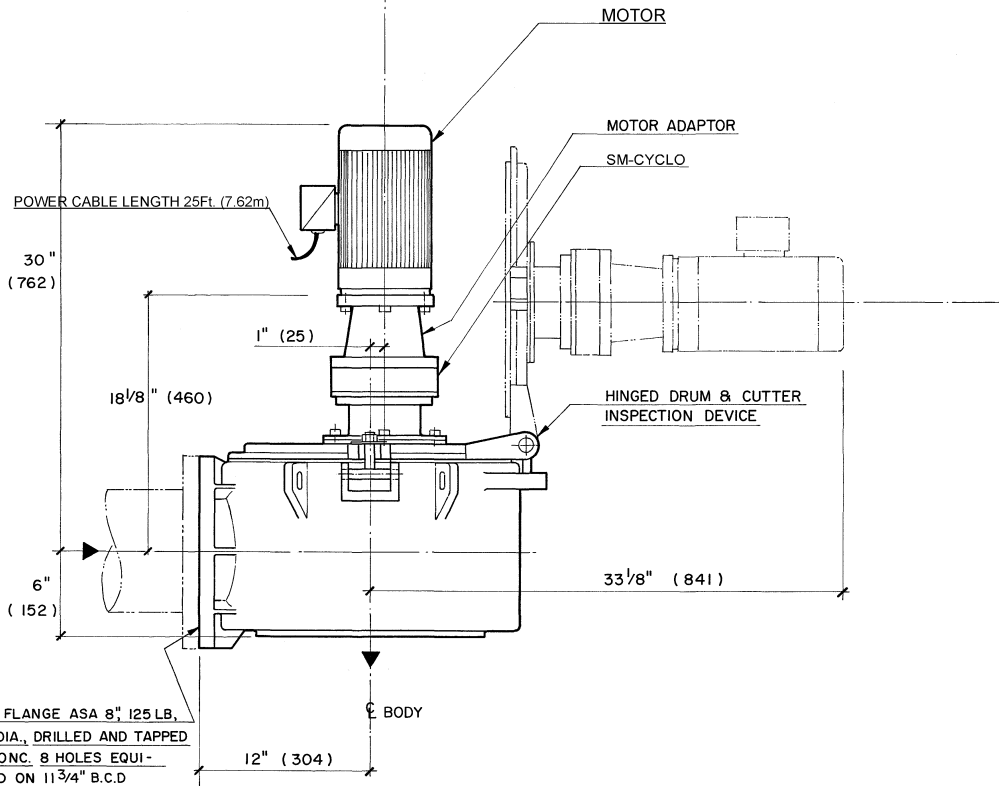
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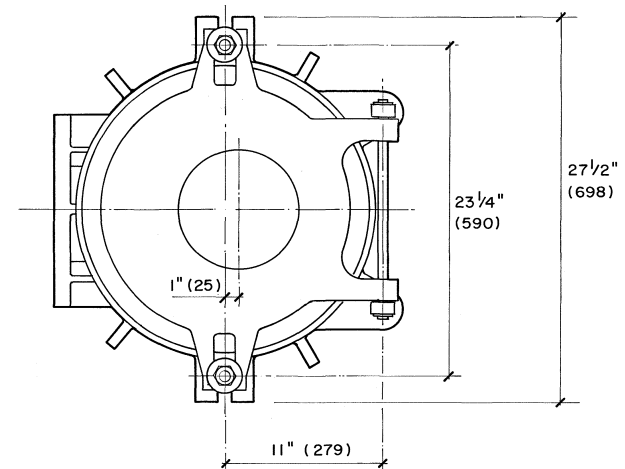


MECHANICAL DETAIL

MODEL 10AS
FREE DISCHARGE
 SERIAL No. _____



SIDE VIEW



TOP VIEW

MATERIALS OF CONSTRUCTION & GENERAL ENGINEERING DATA

HOUSING:	GREY IRON	CAPACITY:	850 GPM (US) / 53.6 L/s	INLET AREA:	97 sq in 626 cm sq
DRUM (SCREEN):	DUCTILE IRON (ASTM 536 GRADE 60-45-18)	DRUM SPEED:	50 RPM	OUTLET AREA:	45 sq in 290 cm sq
SHEAR BARS:	AISI-A2 HIGH ALLOY TOOL STEEL	ROTATION:	C / CLOCKWISE	DRUM DIAMETER:	9.4 in 23.9 cm
CUTTING BARS:	AISI-01 TOOL STEEL REVERSIBLE	SLOT WIDTH:	0.470 in / 12 mm	WEIGHT:	470 lb 213 kg
HARDWARE & FASTENERS:	304 STAINLESS STEEL	NO OF SLOTS:	36		
MOTOR MANUFACTURER:	Baldor	POWER:	/ /	RPM:	1750
STYLE: IMMERSIBLE	HP: 1.5	KW: 1.12	FRAME: 56C	FLANGE: 'C'	RATIO: 35:1
				SM-CYCLO REDUCER MODEL:	V6120
				RATING:	4.27 HP

REVISIONS	BY	DATE	APP.
G.E.T. INDUSTRIES INC.			
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TOLERANCES			SCALE
D			
E			DRAWN BY
F			
G			APPROVED BY
H			
I			
J			
DATE	PROJECT NO.	DRAWING NO.	REV.
Oct. 2006		6 0140	