



# Muffin Monster®

Family of Grinders

## Mini Monster®

For low flow, buildings and certain sludge line applications the Mini Monster is a reliable grinder in a small package. It macerates wastewater or sludge to eliminate costly pump problems and sewer back-ups.

## Muffin Monster

Troublesome solids are now easier than ever to reduce with the Muffin Monster dual-shafted grinder. It's low speed, high-torque design shreds tough solids that typically cause sewer problems. With over 20,000 installations the Muffin Monster is legendary for protecting pumps and keeping the wastewater flowing.

## Macho Monster

For big solids reduction projects the Macho Monster has the power to keep up with huge slugs of material. It uses massive 7-1/2" (190mm) steel cutters that slice through difficult solids in wastewater, sludge, industrial or food processing applications.



Dual shafted grinder



Exclusive: hex seal cartridge



In-Line Unit



Open Channel Unit

## Features & Benefits

### Dual Shafted Grinder

- Capable of grinding a wider variety of solids than single shafted machines or macerators
- High torque allows the grinder to handle rocks, sticks, clothing, plastics, bedding and more without jamming

### Ease and Flexibility of Installation

- Adapts to existing pipeline or channel applications with little or no modification to piping or channel
- In-line unit incorporates a quick-change cutter cartridge

### Cartridge Seal Assembly

- High pressure capability – 90 PSI (6 bar)
- No seal flush required and no packing gland to adjust

### High-Flow Side Rails

- Increases flow rate and decreases head loss
- Deflects solids into the cutting chamber

### Compact, Efficient Design

- Cutter and reducer design allows the use of small, energy efficient motors – 3 to 10 HP (2.2 to 7.5kW)
- Compact units fit in cramped corners or pump stations

### Automated PLC Monitoring and Controls

- Auto load sensing and reversing reduces interrupts, protects system and eliminates need for manual check-ups



**JWC**  
Environmental®

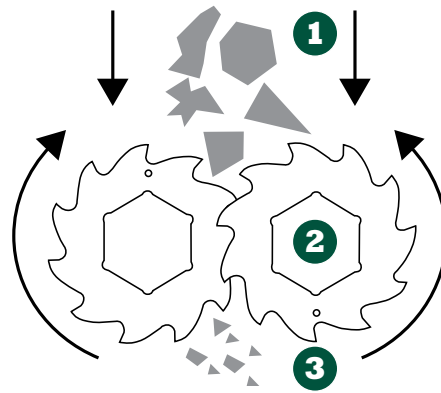
Trust Monster Quality™

www.jwce.com



## Operation

- 1) Solids are conveyed to the Mini / Muffin / Macho Monster via the waste stream.
- 2) Solids pass through the rotating cutters for size reduction.
- 3) Ground particles move on with the waste stream and pose no threat to downstream equipment.



## Applications

Industry	Mini Monster	Muffin Monster	Macho Monster	Application Notes
Buildings / Resorts				More powerful than grinder pumps. Prevents sewer overflows and eliminates messy pump rebuilds
Pump Stations				Stainless steel guide rails make installation and retrieval easy
Screenings				Improves washing and compacting of screened solids
Sludge / Scum				Cleaner, stronger and longer lasting than macerators
Belt Press / Centrifuge				Grinds a wide variety of solids, including rocks and rags, to protect sensitive dewatering equipment
Jails / Prisons				Over 2,000 grinders installed in correctional facilities
Hospitals / Nursing Homes				Shreds large solids including rags, pads, clothing and dangerous medical waste
Food / Fish Processing				Sample grinder installations: fish guts, slaughterhouse scraps, spoiled food destruction, wash water channels, manure tanks
Pulp / Paper				Installed in sludge systems, pulp lines and wastewater plants
Heavy Industrial				Sample grinder installations: refineries, hazardous waste processing, obsolete inventory destruction, recycling

\* Consult factory for additional application assistance and approval.

## Materials of Construction

**Cutters/spacers models 20000 & 30000:** 4130 heat treated alloy steel, surface ground for uniformity and through-hardened to a minimum 45-50 Rockwell "C"

**Cutters/spacers model 40000:** AR500 hardened alloy steel

**Shafts:** 4140 heat treated hexagonal steel

**End Housings, Covers and Flanges:** Cast from ASTM A536 ductile iron

**Seal Faces:** Tungsten Carbide / Tungsten Carbide

**Side Rails:** Cast from ASTM A536 ductile Iron

**Elastomers:** Buna N®





# Mini Monster

## Model 20000

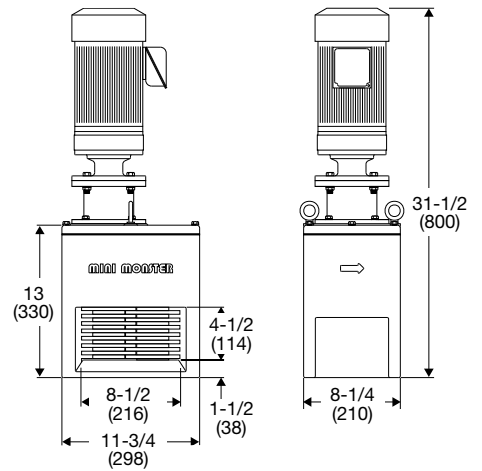
**Motor:** Standard 3 HP (2.2 kW); optional 1 HP (.7 kW)

**Flow rate:** **In-line:** 265 GPM (60 m<sup>3</sup>/h)  
**Open Channel:** 80 GPM (18 m<sup>3</sup>/h)

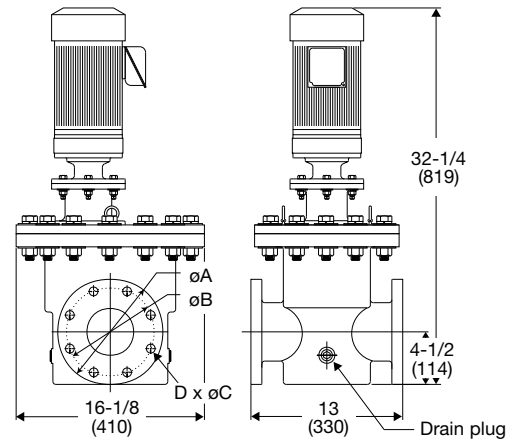
**Pressure:** 90 PSI (6 bar)

**Weight:** **In-line:** 275 lbs (125 kg)  
**Open channel:** 225 lbs (102kg)

**Cutter size:** 4-3/4" (120mm) diameter cutters  
**Max cutting force at tooth tip:** up to 6,150 lbs (27.4 kN)



**Open Channel Configuration**



**In-Line Configuration**



**In-Line Unit**



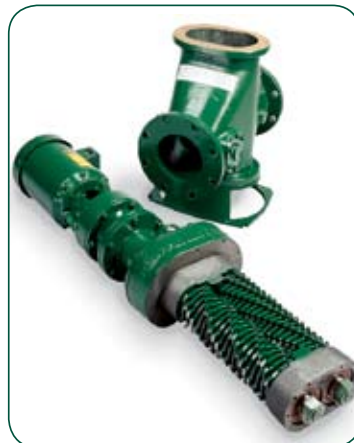
**Open Channel Unit**

	ANSI B16.42 CLASS 150	BS EN 1092	AS 2129 1998	JIS 2210 10K
	4" Flange Size	100 MM PN 10 FLANGE	100 MM TABLE D FLANGE	100 MM FLANGE
<b>A</b>	9"	220	215	210
<b>B</b>	7-1/2"	180	178	175
<b>C</b>	3/4"	18	18	19
<b>D</b>	8	8	4	8

All dimensions in millimeters unless otherwise noted.



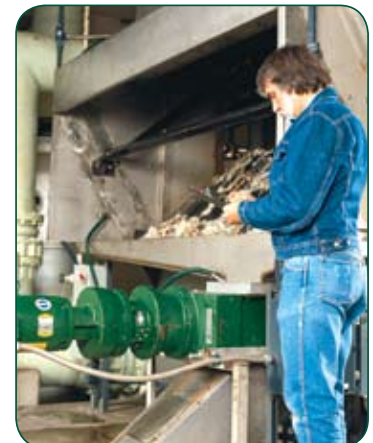
**Removable Mini Monster cartridge**



**Removable Muffin Monster cartridge**



**Muffin Monster in a pump station**



**Macho Monster grinds screenings**



**Removable  
Cutter  
Cartridge**

# Muffin Monster

Model 30000

**Specifications:** 2" (50mm) hex shaped shafts; 3 HP (2.2 kW) motor standard; 29:1 reducer; hex shaped, tungsten face seal cartridges

**Cutter size:** 4-3/4" (120mm) diameter cutters

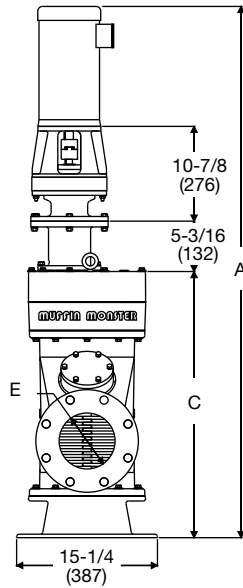
**Max cutting force at tooth tip:** up to 9,150 lbs (40.7 kN)



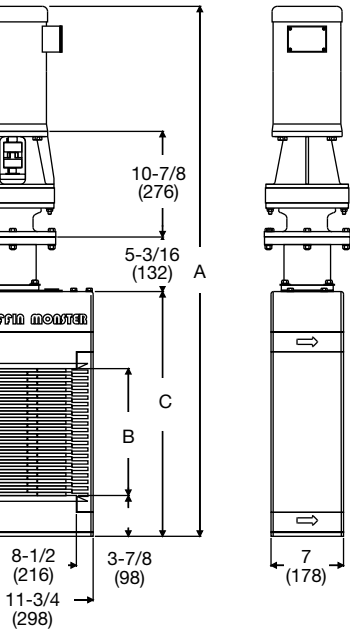
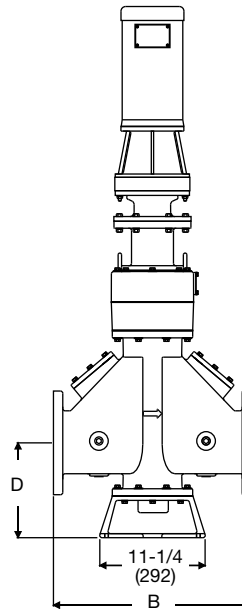
**In-Line Unit**



**Open Channel Unit**



**In-Line Configuration**



**Open Channel Configuration**

## Performance Capability – Open Channel Configuration

Model	Flow Rate GPM (m <sup>3</sup> /h)	Head Drop inches (mm)	Approximate Net Weight lbs (kg)	Dimensions - inches (mm)		
				A	B	C
30005-0008	335 (76)	9-1/2 (241)	370 (168)	48 (1219)	8 (203)	19-1/2 (482)
30005-0012	490 (111)	13-1/2 (343)	410 (186)	52-1/8 (1320)	12 (305)	23-5/8 (584)
30005-0018	740 (168)	17-1/2 (444)	465 (211)	58 (1473)	18 (457)	29-1/2 (736)
30005-0024	1000 (227)	19-1/2 (495)	520 (236)	63-3/4 (1600)	24 (609)	35-1/4 (889)
30005-0032	1470 (334)	21-1/2 (546)	580 (263)	71-1/2 (1803)	32 (813)	43 (1092)
30005-0040	2000 (454)	23-1/2 (597)	650 (295)	79-1/2 (2006)	40 (1016)	51 (1295)

Flow based on optimum channel conditions • Consult factory for final analysis of application • Dimensions based on 3 HP (2.2kW) electrical motor drive

## Performance Capability – In-Line Configuration

Model	Flow Rate GPM (m <sup>3</sup> /h)	Pipeline Size inches (mm)	Pressure Drop PSI (bars)	Approx. Net Wt. lbs (kg)	Dimensions - inches (mm)				
					A	B	C	D	E
30004T-1204	400 (91)	4 (102)	0.42 (0.03)	550 (250)	56-1/4 (1423)	19-1/4 (483)	28-1/4 (711)	8-1/8 (206)	4 (102)
30004T-1206	600 (136)	6 (152)	0.86 (0.06)	560 (254)	56-1/4 (1423)	21-1/4 (534)	28-1/4 (711)	9-1/8 (232)	6 (152)
30004T-1208	800 (182)	8 (203)	1.60 (0.11)	570 (258)	56-1/4 (1423)	23-1/4 (584)	28-1/4 (711)	10 (254)	8 (203)
30004T-2410	1000 (227)	10 (254)	1.22 (0.08)	785 (356)	67-3/4 (1727)	27-1/4 (686)	39-3/4 (1010)	11-1/2 (283)	10 (254)
30004T-2412	1200 (273)	12 (305)	1.59 (0.11)	810 (367)	67-3/4 (1727)	31-1/4 (787)	39-3/4 (1010)	12 (305)	12 (305)

In-Line unit typically installed prior to suction side of pump.



# Macho Monster

Model 40000



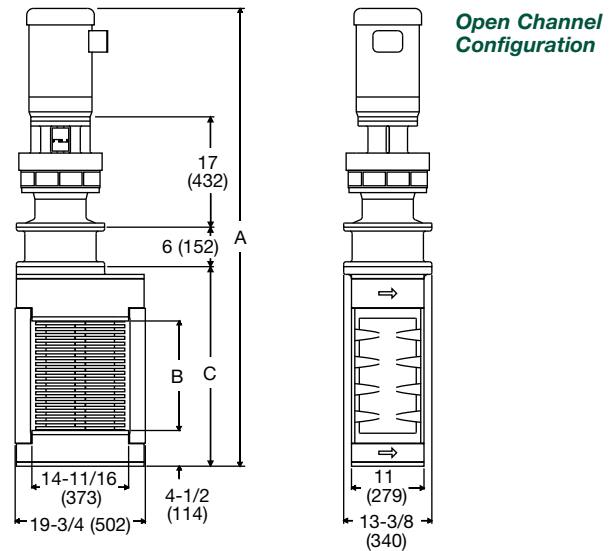
**In-Line Unit**

**Open Channel Unit**

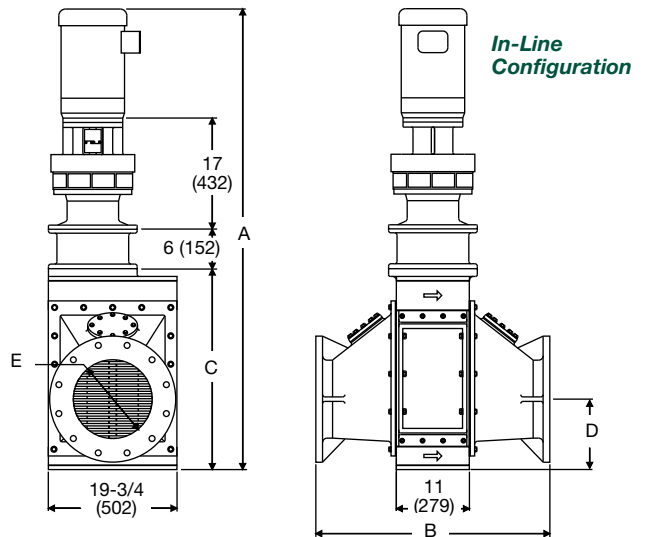
**Specifications:** 2.5" (60mm) hex shaped shafts; 10 HP (7 kW) motor standard or 5 HP (3.7 kW) optional; 43:1 reducer; hex shaped, tungsten face seal cartridges

**Cutter size:** 7-1/2" (190mm) diameter cutters

**Max cutting force at tooth tip:** up to 16,200 lbs (72.1 kN)



**Open Channel Configuration**



**In-Line Configuration**

## Performance Capability - Open Channel Configuration

Model	Flow Rate GPM (m <sup>3</sup> /h)	Head Loss inches (mm)	Approximate Net Weight lbs. (kg)	Dimensions inches (mm)		
				A	B	C
40000-0018	900 (204)	8 (203)	1175 (533)	69-1/4 (1754)	18 (457)	30-1/4 (768)
40000-0024	1500 (341)	16 (404)	1365 (619)	75 (1905)	24 (609)	37-1/4 (946)
40000-0032	2100 (477)	18 (457)	1560 (708)	76-1/4 (1937)	32 (812)	76-7/8 (1444)

## Performance Capability - In-Line Configuration

Model	Flow Rate GPM (m <sup>3</sup> /h)	Pressure Drop PSI (bar)	Approximate Net Weight lbs (kg)	Dimension inches (mm)				
				A	B	C	D	E
40000-1812	2500 (500)	3.00 (.207)	1520 (690)	69-1/4 (1759)	35-1/4 (895)	30-1/4 (768)	10-3/4 (273)	12 (305)
40000-2412	3000 (681)	1.12 (.077)	1775 (805)	76-1/4 (1937)	35-1/4 (895)	37-1/4 (946)	10-3/4 (273)	12 (305)
40000-2416	3500 (795)	1.50 (.103)	1895 (860)	76-1/4 (1937)	43-1/4 (1099)	37-1/4 (946)	12-5/8 (321)	16 (406)
40000-2418	4000 (908)	2.20 (.152)	2095 (950)	76-1/4 (1937)	47-1/4 (1200)	37-1/4 (946)	13-5/8 (346)	18 (457)
40000-3220	5000 (1136)	3.00 (.207)	2610 (1184)	82-3/4 (2102)	51-1/4 (1301)	43-7/8 (1114)	15 (381)	20 (508)

\* Notes: Flow based on optimum channel conditions. Consult factory for final analysis of application. In-Line unit typically installed prior to suction side of pump.

