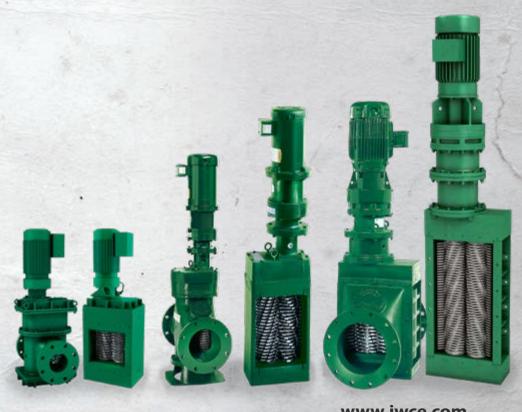


MUFFIN MONSTER® In-line/Open-channel Grinders





www.jwce.com



Muffin Monster sewage grinders are designed to protect pumps and other equipment by grinding down the toughest wastewater solids.

Applications include:
lift stations, sludge lines, septage receiving stations, headworks screenings reduction, prisons and more.

10K Series Muffin Monster®

The 10K Series Muffin Monster is a compact grinder, tough on solids in sludge and sewage applications. It fits into areas with limited space requirements while still providing the necessary power for downstream protection. The 10K Series is an ideal, low-cost solution that goes beyond sludge grinding at resource recovery facilities and fits perfectly into office buildings, apartment complexes, resorts, retail centers and package treatment plants.

30K Series Muffin Monster®

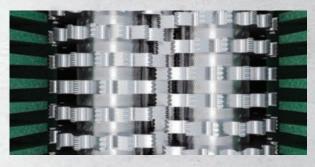
Troublesome solids are now easier than ever to reduce with the Muffin Monster dual-shafted grinder. Its slow-speed, high-torque design shreds tough solids that typically cause sewer problems. With over 40,000 installations, the Muffin Monster is legendary for providing solutions that meet the increasingly demanding needs of wastewater operations.

40K Series Muffin Monster®

The 40K Series Muffin Monster excels in wet and dry grinding applications. It's a powerful shredder for large sludge processing systems. It also serves in many industrial applications, including fish and beef processing, petroleum, chemical plants and recycling plants. The 40K is designed to handle the highest solids loading environments.

Wipes Ready® Technology





Wipes Ready® cutters

Achieve the desired two-dimensional cutting capabilities to control both the width and length of output, preventing materials from forming long strips and reweaving in the waste stream.

- · Cut wipes in two directions
- Smaller particle size = No reweaving

Features

Dual-shafted grinder

- Slow-speed, high-torque grinders handle rags, rocks, wood, wipes, clothing, plastics and other debris
- Capable of grinding a wider variety of solids than single-shafted machines, macerators and chopper pumps

Compact and efficient design

- · Adapts to pipelines or channels with little or no modification
- Custom stainless steel frames allow easy installation in channels, wet wells and pump stations
- In-line 30K Muffin Monster incorporates an easy-to-remove cutter cartridge

Automated monitoring and controls

· Load-sensing and reversal mechanism to optimize grinder's performance

Benefits

Equipment protection

 Protect pumps and other critical equipment from costly clogs and damage from tough solids

Efficient treatment operations

- Grinding separates organic from inorganic materials in the waste stream
- · Organics stay in the treatment process and screens are cleaner

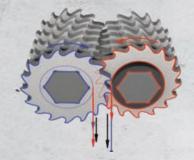
Lower operating cost

• Clear pipes and pumps means shorter pump run cycles and lower electrical costs





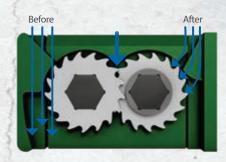




Optimized cut control

Improve cutting by tailoring the speed of the new Wipes Ready cutter rotation with patented optimized cut control.

- Cutters stay clean
- · Prevents long strips



Patented Delta P side rails

Ensure the capture of all items in the waste stream and drive debris into the cutter stack with patented side rail design.

- · Drive debris into cutters
- Prevent buildup
- · Enhance high flow



Materials of construction

Housings: Ductile iron

Cutters: Hardened alloy steel **Shafts:** Hardened alloy steel

Mechanical Seals: Tungsten carbide faces

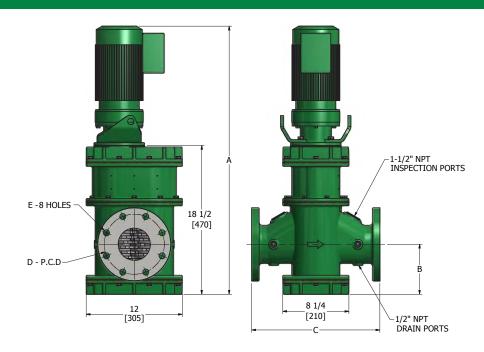
Specifications

2" (50 mm) hex shafts;

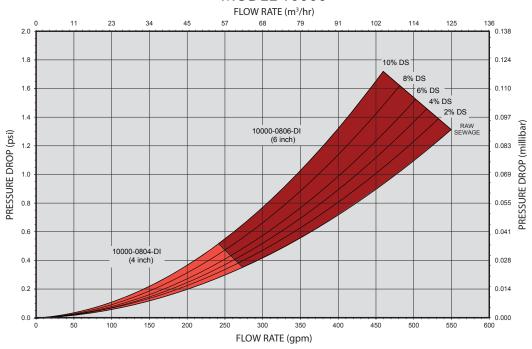
Standard 2 hp (1.5 kW) gear motor

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

Seal Max Working Pressure: 90 psi (6 bar)



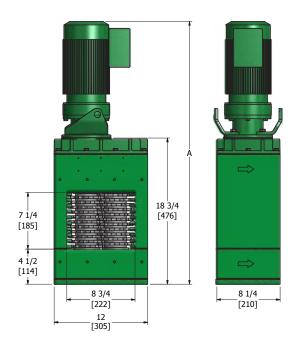
MODEL 10000



In-line Model	Flow Rate* - gpm (m³/hr)	Pipeline Size - inches	Pressure Drop - psi (bar)	Standard Dimensions - inches (mm)				Flange Dimensions - inches (mm)		Approximate Net Weight - lbs (kg)
(,	(mm)		A - 2 hp (1.5 kW)	A - 3 hp (2.2 kW)	В	С	D	E		
10000-0804-DI	275 (62)	4 (100)	0.36 (0.03)	33-7/16 (850)	35-7/16 (900)	6-1/4 (158)	16 (406)	7-1/2 (180)	3/4 (19)	303 (137)
10000-0806-DI	550 (125)	6 (150)	1.33 (0.09)	33-7/16 (850)	35-7/16 (900)	7-1/4 (184)	19 (483)	9-1/2 (240)	7/8 (23)	323 (147)

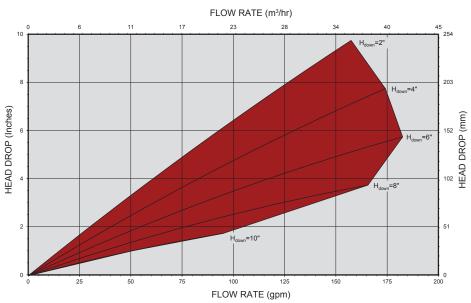
^{* 0-2%} solids • In-line unit typically installed upstream of the pump. Consult factory for analysis of application. Drive dimensions are based on a unit with gear motor.





OPTIONS AVAILABLE							
	In-line	Open- channel					
3 hp (2.2 kW) Gear Motor							
2 hp (1.5 kW), 3 hp (2.2 kW) and 5 hp (4 kW) Electric Motor, 29:1 Reducer	•	•					
7, 11 and 13-tooth Cutters	•	•					
17-tooth Wipes Ready® Cutters	•	•					
Custom Mounting Frames							
SS & NEMA 7 Control Enclosures							
Alternate Voltage & HP Motors							
Explosion-proof Motors							
Immersible Motors							
Extended Motor Shafts	•	•					
ANSI, JIS, JWA, BS & AS Flanges							

MODEL 10002



	Open-channel Model	Flow Rate* - gpm (m³/hr)			Standard Dimensions - inches (mm)		
1				A - 2 hp (1.5 kW)	A - 3 hp (2.2 kW)	- lbs (kg)	
	10002-0008-DI	180 (41.4)	5-3/4 (146)	33-11/16 (856)	35-11/16 (906)	338 (153)	

^{*} Flow based on optimum channel conditions. Consult factory for analysis of application. Drive dimensions are based on a unit with gear motor.



Materials of construction

Housings: Ductile iron

Cutters: Hardened alloy steel **Shafts:** Hardened alloy steel

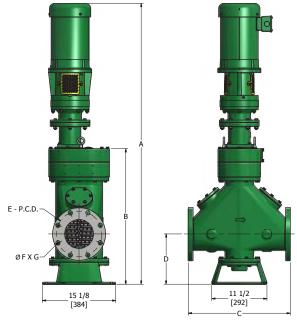
Mechanical Seals: Tungsten carbide faces

Specifications

2" (50 mm) hex shafts;

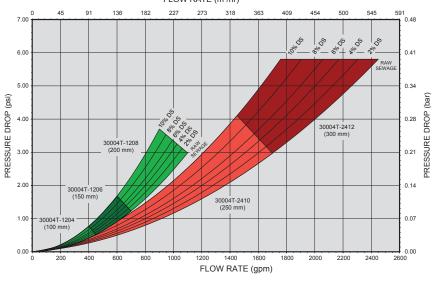
Standard 3 hp (2.2 kW) motor; 29:1 reducer **Cutter Size:** 4-3/4" (120 mm) diameter cutters **Seal Max Working Pressure:** 90 psi (6 bar)

OPTIONS AVAILABLE							
	In-line	Open- channel					
5 hp (4 kW) Motor, 29:1 Reducer	•	•					
7, 11 and 13-tooth Cutters							
17-tooth Wipes Ready® Cutters							
Monster Metal® Cutters							
Custom Mounting Frames		•					
SS & NEMA 7 Control Enclosures							
Stainless Steel Feed Hopper		•					
Alternate Voltage & HP Motors							
Explosion-proof Motors		•					
Immersible Motors							
Hydraulic Power Pack	-	-					
Extended Motor Shafts							
ANSI, JIS, JWA, BS & AS Flanges							



MODEL 30004T

FLOW RATE (m³/hr)



In-line Model	Flow Rate* - gpm (m³/hr)	Pipeline Size - inches	Pressure Drop - psi (bar)	Standard Dimensions - inches (mm)			Flange l - inch	Approximate Net Weight - Ibs (kg)			
	(,,	(mm)	,	Α	В	С	D	E	F	G	
30004T-1204	450 (102)	4 (100)	0.52 (0.04)	60-1/8 (1527)	28-1/4 (718)	19-1/4 (489)	9-3/8 (238)	7-1/2 (191)	3/4 (19)	8	562 (255)
30004T-1206	700 (159)	6 (150)	1.23 (0.08)	60-1/8 (1527)	28-1/4 (718)	21-1/4 (540)	10-3/8 (264)	9-1/2 (241)	7/8 (22)	8	559 (254)
30004T-1208	1100 (250)	8 (200)	3.00 (0.21)	60-1/8 (1527)	28-1/4 (718)	23-1/4 (591)	11-1/4 (286)	11-3/4 (286)	7/8 (22)	8	568 (258)
30004T-2410	1700 (386)	10 (250)	2.97 (0.20)	71-5/8 (1819)	39-3/4 (1010)	27-1/4 (692)	12-5/16 (313)	14-1/4 (362)	1 (25)	12	789 (358)
30004T-2412	2450 (556)	12 (300)	5.80 (0.40)	71-5/8 (1819)	39-3/4 (1010)	31-1/4 (794)	13-1/4 (337)	17 (431)	1 (25)	12	809 (367)

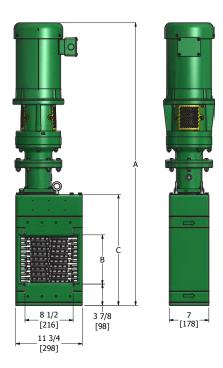
 $^{^{\}ast}$ In-line unit typically installed upstream of the pump. Consult factory for analysis of application.

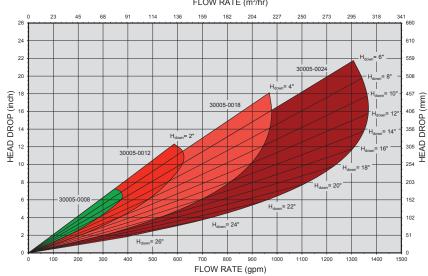
Drive dimensions are a maximum based on a unit with a 3 hp (2.2 kW) drive.



MODEL 30005

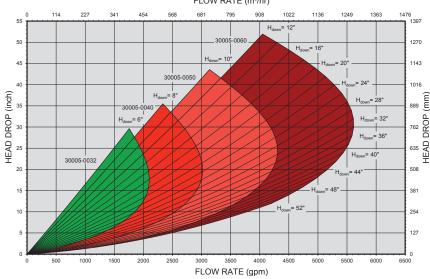
FLOW RATE (m3/hr)





MODEL 30005

FLOW RATE (m³/hr)



Open-channel Model	Flow Rate* - gpm (m³/hr)	Head Drop - inches (mm)	· Inches (mm)				
			Α	В	С	- lbs (kg)	
30005-0008	370 (84)	7 (178)	49-1/2 (1257)	8 (203)	19-1/2 (495)	370 (168)	
30005-0012	620 (141)	11-1/2 (290)	53-5/8 (1362)	12 (305)	23-5/8 (600)	410 (186)	
30005-0018	980 (223)	16 (405)	59-1/2 (1511)	18 (457)	29-1/2 (749)	465 (211)	
30005-0024	1370 (311)	16 (405)	65-1/4 (1657)	24 (609)	35-1/4 (895)	520 (236)	
30005-0032	2100 (477)	17-1/2 (445)	73 (1854)	32 (813)	43 (1092)	580 (263)	
30005-0040	3020 (686)	19-1/2 (495)	81 (2057)	40 (1016)	51 (1295)	650 (295)	
30005-0050	4310 (979)	23-1/2 (595)	90-7/8 (2308)	50 (1270)	60-7/8 (1546)	740 (336)	
30005-0060	5620 (1277)	30 (760)	101-3/8 (2575)	60 (1524)	71-3/8 (1813)	845 (383)	

 $[\]hbox{* Flow based on optimum channel conditions. Consult factory for analysis of application.}\\$

Drive dimensions are a maximum based on a unit with a 182T motor frame. Extended drive shafts are available on request.



Materials of construction

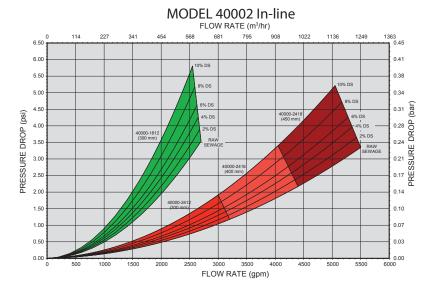
Housings: Ductile iron **Cutters:** Hardened alloy steel **Shafts:** Hardened alloy steel

Mechanical Seals: Tungsten carbide faces

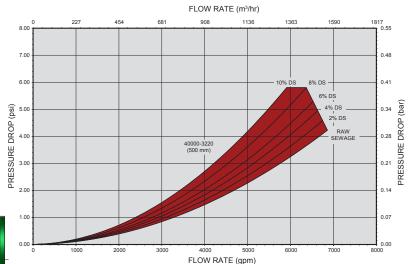
Specifications

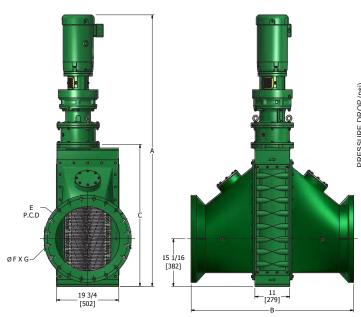
2-1/2" (64 mm) hex shafts;

Standard 10 hp (7.5 kW) motor; 43:1 reducer **Cutter Size:** 7-1/2" (191 mm) diameter cutters **Seal Max Working Pressure:** 150 psi (10.3 bar)



MODEL 40002 In-line



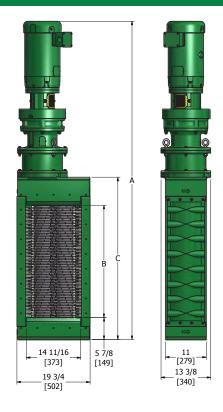


In-line Model	Flow Rate* - gpm (m³/hr)	Pipeline Size - inches	Pressure Drop - psi (bar)	Standard Dimensions Flange Dimensions - inches (mm) - inches (mm)			3		Approximate Net Weight - Ibs (kg)	
	, ,	(mm)		Α	В	С	E	F	G	
40002-1812	2700 (612)	12 (300)	3.5 (0.24)	69-5/8 (1768)	35-1/4 (895)	30-1/4 (768)	17 (254)	1 (25)	12	1520 (690)
40002-2412	3200 (727)	12 (300)	1.2 (0.08)	76-5/8 (1946)	35-1/4 (895)	37-1/4 (946)	17 (254)	1 (25)	12	1775 (805)
40002-2416	4400 (999)	16 (400)	2.2 (0.15)	76-5/8 (1946)	43-1/4 (1099)	37-1/4 (946)	21-1/4 (539)	1-1/8 (29)	16	1895 (860)
40002-2418	5500 (1249)	18 (450)	3.4 (0.23)	76-5/8 (1946)	47-1/4 (1200)	37-1/4 (946)	22-3/4 (578)	1-1/4 (32)	20	2095 (950)
40002-3220	6860 (1558)	20 (500)	4.2 (0.29)	83-1/4 (2115)	51-1/4 (1301)	43-7/8 (1114)	25 (635)	1-1/4 (32)	20	2610 (1184)

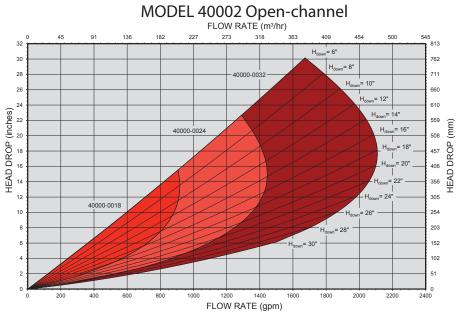
 $^{{}^*\ \}text{In-line unit typically installed upstream of the pump. Consult factory for analysis of application.}$

Drive dimensions are a maximum based on a unit with a 10 hp (7.5 kW) drive.





OPTIONS AVAILABLE							
	In-line	Open- channel					
7, 11 and 23-tooth Cutters	•	•					
Stainless Steel Cutters	•	•					
Custom Mounting Frames		-					
SS & NEMA 7 Control Enclosures	•	•					
Solids Scrapers		-					
Nickel-plated Housing		•					
Stainless Steel Feed Hopper		-					
Alternate Voltage & HP Motors	•	•					
Explosion-proof Motors		-					
Immersible Motors	•	•					
Hydraulic Power Pack		-					
Extended Motor Shafts	•	•					
ANSI, JIS, JWA, BS & AS Flanges							



Open-channel Flow Rate* Model - gpm (m³/hr)		Head Drop - inches (mm)		Approximate Net Weight - Ibs (kg)		
			Α	В	С	
40002-0018	915 (207)	8 (203)	69-5/8 (1768)	18 (457)	30-1/4 (768)	1175 (533)
40002-0024	1440 (327)	16 (406)	76-5/8 (1946)	24 (610)	37-1/4 (946)	1365 (619)
40002-0032	2100 (477)	18 (457)	83-1/4 (2115)	32 (813)	43-7/8 (1114)	1560 (708)

 $[\]ensuremath{^{*}}$ Flow based on optimum channel conditions. Consult factory for analysis of application. Drive dimensions are a maximum based on a unit with a 10 hp (7.5 kW) drive. Extended drive shafts are available on request.



Muffin **Monster**

Options



7-tooth: **Pump Stations or Prisons**



11-tooth: Wastewater, Sludge or Scum



13-tooth: Heat-exchanger or Centrifuge Protection



17-tooth: **★** Rags, Stringy Materials

Cutters

- 7, 11, 13, 17 and 23-tooth options
- Special cutter designs for unique needs
- · Optional stainless steel cutters
- **★** 17-tooth serrated Wipes Ready® cutter



Electric motor



Exclusive: JWC designed immersible motor (NEMA-6P)



Hydraulic drive

Motors

- TEFC: Totally enclosed fan-cooled electric
- XPFC: Explosion-proof fan-cooled electric
- XPNV: Exclusive electric immersible
- Hydraulic drives available in: 2, 3, 5 and 10 hp (2.2, 3.7 and 7.5 kW)

Hydraulic power packs

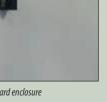
Available in: 5, 10 and 15 hp (3.7, 7.5 and 11 kW)



Custom control configurations



Model PC2200 standard enclosure



Smart controller

- · Load-sensing control system automatically reverses to clear jams
- Standard: NEMA 4X FRP enclosure with 3-position switch and status indicators
- · Optional: NEMA 4X stainless steel or **NEMA 7 enclosures**
- Customized control configurations for any installation
- · UL registered



Muffin Monster

Options



Custom wall frame

• Stainless steel guide frames attach

• Frame is customized to fit each site

and includes: guide rails, grinder

to pump station to make installation

Custom wall frames

Custom channel frame

frames

- Adapt grinders to fit any channel
- Guide rails for easy installation and maintenance
- · Stainless steel construction





Pre-fab Muffin Monster manhole

Muffin Monster Manhole

- Pre-fabricated fiberglass reinforced manhole with grinder
- Custom depth
- Hinged cover or H-20 traffic-rated top



Scrapers

Scrapers

easier

- Integrated steel scrapers increase throughput and help cutters clean
- Improves performance of hopper-fed applications

Extended motor shaft

 Places motor above highest water level. Available in 1'(305 mm) increments
 Maximum: 15' (4570 mm).



Extended motor shaft



Custom hoppers

Hoppers

- Custom made to fit application
- 304 or 316 stainless steel











JWC Environmental, a Sulzer Brand, is a world leader in solids reduction and removal systems for municipal, industrial, and commercial applications. Our solutions include our legendary Muffin Monster® and Channel Monster® sewage grinders, Auger Monster® all-in-one headworks, Monster Wash Press and Monster Separation Systems®, Monster Industrial shredders, and IPEC industrial screens to solve unique wastewater processing situations. We partner with our customers to help them run efficient and compliant wastewater treatment operations as well as solve challenging size-reduction problems in industrial processes. JWC Environmental is headquartered in Santa Ana, California and has a global network of representatives, distributors and regional service centers to meet local customer needs. More information on JWC Environmental is available at www.jwce.com



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