

# **CHANNEL MONSTER**<sup>®</sup>





www.jwce.com



Channel Monster<sup>®</sup> sewage grinders are designed to capture and grind down the toughest wastewater solids in high-flow systems. Common applications include protecting pumps in lift stations and grinding up solids at the plant's headworks. Channel Monsters are the best in class technology for waste water solids reduction. The patented Channel Monster utilizes rotating drums to capture solids and directs them to the proven Muffin Monster<sup>\*</sup> dual shafted grinder. The result is a high flow capacity system that will shred rags, rocks, wood and other trash in to small pieces that can pass harmlessly through pumps, pipes, and process systems.

## **Pump Station Protection**

Channel Monsters are a perfect fit for pump stations where solids need to be ground up. They are proven to handle the toughest solids such as disposable wipe balls and first flush loading that can overwhelm even the best pump. Channel Monsters are designed for installations in channels or for wall mounting in front of influent pipes.

Channel Monsters are an excellent alternative to screening solids out in pump stations. This eliminates the need to handle screening in dispersed locations along with the associated odors, rodent problems and disposal challenges.

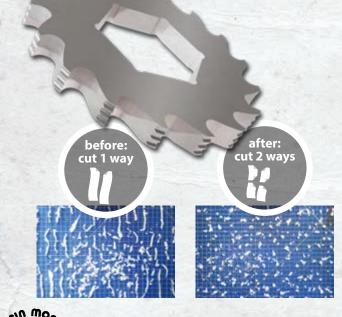
### **Headworks Solutions**

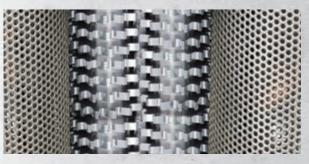
Channel Monsters can handle the high flows at the headworks and still grind down debris and rags before they enter the treatment facility.

#### **Screen Protection & First Flush Loading**

Channel Monsters are also an excellent option to protect fine screens by grinding heavy solids down to a size that will not damage the screens. These units can also handle first flush loading prior to headworks screens.

# wipes ready<sup>®</sup> technology





## Wipes Ready® Cutters\*

Achieve the desired 2-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 2 directions
- Smaller particle size
- No reweaving



#### Features

#### **Dual Shafted Grinder**

- Extreme power that handles a wide variety of solids.
- Grinds debris smaller than single shafted machines.
- Cleaner and more efficient than pump station bar screens.

#### **High-flow Screening Drums**

- · Patented design allows higher flow capacities.
- Captures solids and directs them into the grinder.
- Standard stainless steel 1/2" (12.7 mm) perforated drums or optional 1/2" (12.7 mm) coil drums.

#### **Automated Controller**

- Auto load sensing reduces interrupts and protects the Channel Monster.
- Adaptive to custom requirements and plant SCADA systems.
- Stores operational data.

## 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 treatment process and screening are cleaner.

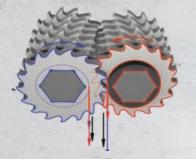
#### **Lower Operating Cost**

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





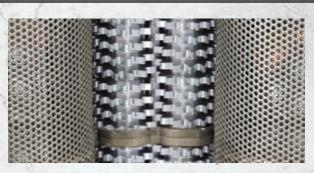




#### **Optimized Cut Control**

Improve cutting by tailoring the speed of the new wipes-ready cutter rotation to achieve with patented optimized cut control.

- Cutters Stay Clean
- Prevents Long Strips



#### **Perforated Drums**

Prevent the bypass of full wipes or build-up on the grinders while maintaining the required high flow rate.

- No Wipes Bypass
- Maintains High Flow



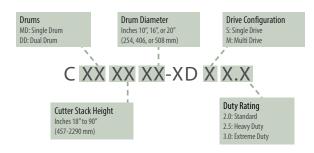
## **Channel Monster**<sup>®</sup>

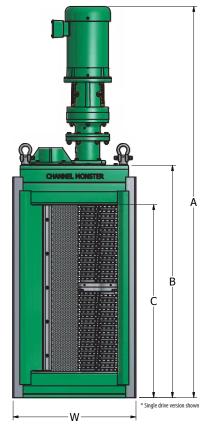
## **Channel Monster Duty Ratings**

- **2.0 Standard Duty:** For most common sanitary sewer flows. Handles typical solids loading as well as tougher solids like wood and occasional rocks.
- **2.5 Heavy Duty:** For higher flows as well as combined sewer applications where first flush storm loading is possible.
- **3.0 Extreme Duty:** Combined sewer applications with the highest flows.

## Materials of Construction

Rotating Drum Screen: Stainless steel Cutters and Spacers: Hardened alloy steel Shafts: Hardened hexagonal steel End Housings, Covers and Side Rails: Ductile iron Seal Faces: Tungsten carbide Channel Frame: Stainless steel







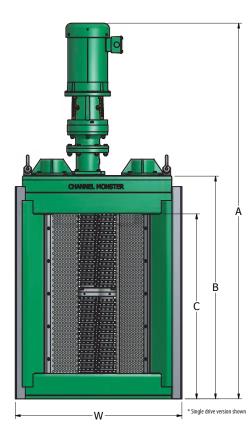
SINGLE DRUM Model	A* - inches (mm)	B - inches (mm)	C - inches (mm)	D – Min. - inches (mm)	W – Min. Channel Width** - inches (mm)	Max Flow - mgd (m³/hr)	Approximate Net Weight - Ibs (kg)
CMD1810-XD2.0	60-5/16 (1538)	30-1/2 (775)	23-1/8 (578)	21-3/4 (552)	21 (533)	2.7 (421)	1270 (576)
CMD2410-XD2.0	66-3/16 (1681)	36-1/8 (918)	28-7/8 (733)	21-3/4 (552)	21 (533)	3.8 (603)	1395 (633)
CMD3210-XD2.0	74-1/16 (1881)	44 (1118)	36-3/4 (933)	21-3/4 (552)	21 (533)	5.5 (873)	1445 (655)
CMD4010-XD2.0	81-15/16 (2081)	51-7/8 (1318)	44-1/2 (1130)	21-3/4 (552)	21 (533)	7.3 (1152)	1570 (712)
CMD5010-XD2.0	91-1/4 (2318)	61-7/8 (1572)	54-1/2 (1384)	21-3/4 (552)	21 (533)	9.7 (1525)	1550 (703)
CMD6010-XD2.0	101 (2581)	72-1/4 (1835)	64-7/8 (1648)	21-3/4 (552)	21 (533)	12.2 (1922)	1710 (775)

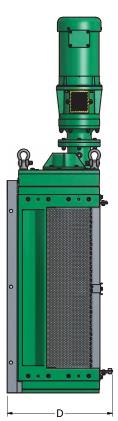
\* Based on use of TEFC motor. \*\* For ideal channel construction width please add 2" (50 mm).





## **Channel Monster**<sup>®</sup>





OPTIONS AVAILABLE						
	2.0 Standard Duty	2.5 Heavy Duty	3.0 Extreme Duty			
7 Tooth Cutters						
11 Tooth Cutters						
13 Tooth Cutters						
17 Tooth Wipes Ready® Cutter						
Single Drum						
Dual Drum						
10"Drums						
16" Drums						
20"Drums						
Single Drive						
Multi-Drive						
Alternate Voltage & HP Motors						
SS & NEMA 7 Control Enclosures						
Explosion Proof Motors						
Immersible Motors	•	•	•			
Hydraulic Power Pack <sup>1</sup>						
Extended Motor Shafts	•					
Custom Mounting Frames						
Overflow Bar Screens						

<sup>1</sup> Only available on single drive 2.0 models.

DUAL DRUM Model	A* - inches (mm)	B - inches (mm)	C - inches (mm)	D – Min. - inches (mm)	W – Min. Channel Width** - inches (mm)	Max Flow - mgd (m³/hr)	Approximate Net Weight - Ibs (kg)
CDD1810-XD2.0	60-5/16 (1538)	30-1/2 (775)	23-1/8 (578)	21-3/4 (552)	30 (762)	3.7 (591)	1480 (671)
CDD2410-XD2.0	66-3/16 (1681)	36-1/8 (918)	28-7/8 (733)	21-3/4 (552)	30 (762)	5.4 (852)	1570 (712)
CDD3210-XD2.0	74-1/16 (1881)	44 (1118)	36-3/4 (933)	21-3/4 (552)	30 (762)	7.9 (1243)	1645 (746)
CDD4010-XD2.0	81-15/16 (2081)	51-7/8 (1318)	44-1/2 (1130)	21-3/4 (532)	30 (762)	10.5 (1650)	1720 (780)
CDD4010-XD2.5	96-3/16 (2443)	57 (1449)	46 (1168)	22-3/4 (578)	30 (762)	10.5 (1650)	4000 (1814)
CDD5010-XD2.5	105-15/16 (2691)	66-3/4 (1695)	55-3/4 (1416)	22-3/4 (578)	30 (762)	13.9 (2195)	4200 (1905)
CDD6010-XD2.5	116-9/16 (2961)	77-3/8 (1965)	66-3/8 (1686)	22-3/4 (578)	30 (762)	17.6 (2775)	4450 (2018)
CDD2416-XD2.0	66-3/16 (1681)	36-1/8 (918)	28-7/8 (733)	26 (660)	42 (1067)	7.1 (1126)	2070 (939)
CDD3216-XD2.0	74-1/16 (1881)	44 (1118)	36-3/4 (933)	26 (660)	42 (1067)	10.6 (1670)	2295 (1041)
CDD4016-XD2.0	81-15/16 (2081)	51-7/8 (1318)	44-1/2 (1130)	26 (660)	42 (1067)	14.2 (2246)	2395 (1086)
CDD4016-XD2.5	96-3/16 (2443)	57 (1449)	46 (1168)	32-3/4 (832)	42 (1067)	14.2 (2246)	4750 (2155)
CDD5016-XD2.5	105-15/16 (2691)	66-3/4 (1695)	55-3/4 (1416)	32-3/4 (832)	42 (1067)	19.2 (3030)	5000 (2268)
CDD6016-XD2.5	116-9/16 (2961)	77-3/8 (1965)	66-3/8 (1686)	32-3/4 (832)	42 (1067)	24.6 (3875)	5300 (2404)
CDD3220-XD2.0	74-1/16 (1881)	44 (1118)	36-3/4 (933)	27-3/4 (705)	54 (1372)	16.6 (2612)	2320 (1052)
CDD4020-XD2.0	81-15/16 (2081)	51-7/8 (1318)	44-1/2 (1130)	27-3/4 (705)	54 (1372)	21.8 (3442)	2395 (1086)
CDD4020-XD2.5	96-3/16 (2443)	57 (1449)	46 (1168)	33-1/2 (851)	54 (1372)	21.8 (3442)	5400 (2449)
CDD5020-XD2.5	105-15/16 (2691)	66-3/4 (1695)	55-3/4 (1416)	33-1/2 (851)	54 (1372)	28.9 (4551)	5675 (2574)
CDD6020-XD2.5	116-9/16 (2961)	77-3/8 (1965)	66-3/8 (1686)	33-1/2 (851)	54 (1372)	36.3 (5730)	6000 (2722)
CDD9020-XD3.0	156-3/8 (3972)	113-3/16 (2875)	97-7/8 (2486)	42 (1066)	54 (1372)	59 (9306)	10,300 (4600)

\* Based on use of TEFC motor. \*\* For ideal channel construction width please add 2" (50 mm).





## **Channel Monster**<sup>®</sup>

#### **Model Comparisons** Model Design Characteristics • Single drive motor: 5 hp (3.7 kW). XDS2.0 • 2" (51 mm) hex shafts. • 1/2" (12.7 mm) perforated drums or optional coil drums. • Multiple motors: 5 hp (3.7 kW) grinder; 1 hp (0.75 kW) drums. XDM2.0 • 2" (51 mm) hex shafts. • 1/2" (12.7 mm) perforated drums or optional coil drums. 3.0 Extreme Duty • Single drive motor: 10 hp (7.5 kW). XDS2.5 • 2 1/2" (64mm) hex shafts. • 1/2" (12.7 mm) perforated drums or optional coil drums. 2.5 Heavy Duty • Multiple motors: 10 hp (7.5 kW) grinder; 1 hp (0.75 kW) drums. XDM2.5 • 2 1/2" (64 mm) hex shafts. • 1/2" (12.7 mm) perforated drums or optional coil drums. • Multiple motors: 15 hp (11 kW) grinder; 1 hp (0.75 kW) drums. XDM3.0 • 3" (76 mm) hex shafts. 2.0 Standard Duty • 1/2" (12.7 mm) perforated drums or optional coil drums. Three different cutter sizes to accommodate your application.



Electric Motor



Exclusive: JWC Designed Immersible Motor (NEMA-6P)



Hydraulic Single Drive Power Pack

### Motors

- Single or Multi-drive.
- Electric: 1, 3, 5,10, 15 HP (0.75, 2.2, 3.7, 7.5, 11 kW).
  - TEFC: Totally enclosed fan cooled electric.
  - XPFC: Explosion proof fan cooled electric.
  - XPNV: JWC exclusive electric immersible.
- Hydraulic Drive with Power Pack available in 5, 10 HP (3.7, 7.5 kW) (Only available on single drive 2.0 models).





7-Tooth: Heavy Solids



13-Tooth: Fine Cutting



11-Tooth: Typical Solids Loading



17-Tooth\*: Rags & Stringy Materials

#### Cutters

- 7, 11 13, and 17 tooth variations.
- Optional: stainless steel cutters.
- 17-Tooth Serrated Wipes Ready<sup>®</sup> Cutter.



## **Channel Monster**®



Model PC2200 Standard Enclosure



Standard Perforated Screening Drums



**Custom Control Configurations** 

11	March 1	-	-	-	_
	Sec.	100.00	-	Contraction of the local division of the loc	-
The rest of the local division of the		2018 -	14	and in case	
	20 R I	189 F	-	A DECK DECK	-
21	13.2	83	-	T. Contemporate	-
the second se	2003	2.5		-	_
the second literature is a second literature in the second literature is a	1000		-		_
The Real Property lies and the Property lies	233	125	100	-	
and the second sec				10.0	
The supervised in the local division of the	1000	1000	100	11.0	_
the second se	2.5	12.0	192	A DOMESTIC OF	_
	S Entit	(국왕 )	100	STREET, STREET	_
and the second division of the second divisio	2.13	1251	-	COLUMN TWO IS NOT	-
	6 E E .				-
STREET, STREET	3127		-	And in case of the local division of the loc	
	6 <b>1</b> = 1		1		_
	St. 1997	100			

Optional Coil Screening Drums

### Smart Controller

- Load sensing control system automatically reverse 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.

### **Screening Drums**

- Standard: 1/2" (12.7 mm) perforated drums.
- Optional: 1/4" (6 mm) perforated drums.
- Optional: 1/2" (12.7 mm) coil drums.
- Materials: 304 Stainless steel (Standard) 316 Stainless steel (Optional)



Custom Wet Well Frames

### **Custom Wet Well Frames**

- Stainless steel guide rails make Channel Monster installation and retrieval simple and quick, even in deep or narrow pump stations.
- Frames include choice of 304 or 316 stainless steel.



#### **Overflow Bar Screens**

#### **Overflow Bar Screens**

• Stainless steel bars are attached to a frame or sub-channel and provide additional overflow capacity.

### Extended Motor Shaft

Places motor above highest water level. Available in 6" (150 mm) increments. Maximum: 20' (6096 mm) depending model.



Extended Motor Shaft

#### **Aftermarket Service**

**Preventative Maintenance Program:** Multi-point inspection and service to keep your Monster operating efficiently. **Grinder Renew:** Minimizes downtime and comes with 1 year warranty.

Grinder Rebuilds: Performed by factory trained professional and comes with 1 year warranty.

Upgrade Options: Renew your grinder to the latest Monster technology like Wipes Ready®.



800.331.2277 | jwce.com | jwce@jwce.com







Since its founding in 1973, JWC Environmental has become a world leader in solids reduction and removal for the wastewater industry with its Muffin Monster grinders and Monster Separation Systems for screening, compaction and washing. JWC also solves challenging size reduction and processing problems in commercial and industrial applications through its Monster Industrial division. JWC Environmental is headquartered in Santa Ana, California, and has a global network of representatives, distributors and regional service centers to provide customer support.

For more information, visit JWC Environmental at www.jwce.com.



Headquarters 2850 S. Red Hill Ave., Suite 125 Santa Ana, CA 92705 USA toll free: 800.331.2277 phone: 949.833.3888 fax: 949.833.8858 email: jwce@jwce.com



www.jwce.com

©2019 JWC Environmental. JWCE's Santa Ana California facility is registered by UL to JS09001:2015 #10001313 QM15. JWC Environmental, Channel Monster, Wipes Ready are trademarks for JWC Environmental Inc, registered in the U.S. and other countries. U.S. patents apply: 7,383,842; 7,086,405; 7,081,171; 7,080,650; 7,073,433; 7,854,850; 7,771,589; 9,421,550; 10,086,320; 10,130,952. U.S. patents pending: 62/054,628; 62/054,643; 62/609,547; 62/608,884; 62/564,662. Additional patents pending. All rights reserved. JWC Environmental is not liable for damages that may result from any information provided in or omitted from this publication, under any circumstances. JWC Environmental reserves the right to make adjustments to this publication at any time, without notices or obligation. Please check the JWC Environmental vebsite (www.jwce.