

Channel Monster™
Open channel grinders





Main applications

The Channel Monster™ sewage grinders are designed to capture and grind down the toughest wastewater solids in high-flow systems such as:

- Pump stations where tough solids need to be ground up
- High flows at the plant's headworks

The Channel Monster™ range

Channel Monster sewage grinders represent the best-in-class technology for wastewater solids reduction. The patented Channel Monster uses rotating screening drums to capture solids and direct them into our proven dual-shafted grinder. The result is a high-flow capacity system that can handle typical solids loading as well as tougher solids like wood and occasional rocks.

Channel Monster grinders are available in a single or dual drum model.



Features and benefits

Dual-shafted grinder

- Proven low-speed, high-torque dual shafted grinding which can shred the toughest solids
- Grinds debris smaller than single-shafted machines

High-flow screening drums

- High-flow screening drums to prevent bypass of unshredded solids without compromising flow
- Stainless steel 12 mm perforated drums

Automated monitoring and controls

- Protect pumps and other critical equipment from costly clogs and damage from tough solids
- Auto load sensing reduce interrupts and protects the system from damage
- Adaptive to custom requirements and plant SCADA systems
- Stores operational data

Wipes Ready™ technology

- Wipes Ready technology available which prevents materials from forming long strips and reweaving in the waste stream

Lower operating cost

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



Operational data

| Single drums models | Unit height, including motor (IEC IP55 motor) mm | Unit height, grinder only mm | Unit depth, min mm | Channel width, min mm | Max flow m ³ /h | Appr net weight (IEC IP55 motor) kg |
|---------------------|--|------------------------------|--------------------|-----------------------|----------------------------|-------------------------------------|
| CMD1810-XDS2.0 | 1'538 | 775 | 552 | 533 | 420 | 323 |
| CMD2410-XDS2.0 | 1'681 | 918 | 552 | 533 | 584 | 563 |
| CMD3210-XDS2.0 | 1'881 | 1'118 | 552 | 533 | 820 | 576 |
| CMD4010-XDS2.0 | 2'081 | 1'318 | 552 | 533 | 1'057 | 633 |
| CMD6010-XDS2.0 | 2'598 | 1'835 | 552 | 533 | 1'700 | 778 |

| Dual drums models | Unit height, including motor (IEC IP55 motor) mm | Unit height, grinder only mm | Unit depth, min mm | Channel width, min mm | Max flow m ³ /h | Appr net weight (IEC IP55 motor) kg |
|-------------------|--|------------------------------|--------------------|-----------------------|----------------------------|-------------------------------------|
| CDD1810-XDS2.0 | 1'538 | 775 | 552 | 762 | 591 | 626 |
| CDD2410-XDS2.0 | 1'681 | 918 | 552 | 762 | 852 | 667 |
| CDD3210-XDS2.0 | 1'881 | 1'118 | 552 | 762 | 1'243 | 701 |
| CDD4010-XDS2.0 | 2'081 | 1'318 | 552 | 762 | 1'650 | 735 |
| CDD6010-XDS2.0 | 2'598 | 1'835 | 552 | 762 | 2'775 | 837 |

Materials of construction

| Part | Material |
|-------------------------------------|--------------------------|
| 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 |

Options

To extend the performance of your Channel Monster, we offer a wide range of options. For information about which options are available for each of our Channel Monster sewage grinders, please visit www.sulzer.com.

Cutters

- 7, 11 and 17* tooth options

* Wipes Ready™ serrated cutters



Motors

- IP55 TEFC motor, standard
- IP55 TEFC motor for ATEX: (Ex d IIC T4), optional
- IP68 immersible motor ATEX: (Ex de IIB T4), optional



Smart controller

- Load-sensing control system automatically reverses to clear jams
- Powder-coated mild steel or stainless steel IP65 enclosures



Screening drums

- 12 mm perforated stainless steel drums

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 stainless steel



Overflow bar screens

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

Wipes Ready™ technology

Channel Monster sewage grinders are available with the unique Wipes Ready suite of technologies. It was designed to capture all wipes in the waste stream and shred them into small pieces that will not reweave into a ragball in sewage systems.

The Wipes Ready technologies applied in Channel Monster sewage grinders are:

- Wipes Ready cutters – A combination of serrated cutters and knurled spacers cuts wipes in two directions. The result is smaller particles that cannot reweave downstream.
- Delta P side rails* – Direct solids into the cutters without sacrificing flow rate and prevent debris build-up in the grinder.
- Optimized cut control (OCC) – The OCC gear ratio optimizes shaft speeds to enhance the cutting action and cleaning of the cutters, which in turn improves the performance and life of the grinder.
- Perforated drums – Prevents the bypass of wipes while maintaining a high flow rate.

Wipes Ready feature availability

| | CMD-XD 2.0 single drum Channel Monster | CDD-XD 2.0 double drum Channel Monster |
|-------------------------------|--|--|
| 17 tooth Wipes Ready cutters* | Optional | Optional |
| Delta P side rails | ✓ | |
| Optimized cut control | ✓ | ✓ |
| 12 mm perforated drums | ✓ | ✓ |

* Patent pending





www.sulzer.com

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