

# Grinder - 10002 Muffin Monster® - Open channel series

**SULZER**

The 10002 Muffin Monster sewage grinder is designed to protect pumps and other equipment by grinding down the toughest wastewater solids. Its dual-shafted, slow speed, high-torque design shreds tough solids that typically cause problems in the wastewater treatment process system. Its compact design fits into areas with limited space while providing the necessary power for downstream protection.

## Construction

- Open channel configuration
- Cutter chamber opening height of 185 mm
- Hardened alloy steel cutters (standard), 120 mm diameter
- Ductile iron housings
- Hardened alloy steel shafts, 50 mm hex
- Mechanical seals with tungsten carbide faces, 6 bar working pressure
- Available with channel or wall mounted frame for easy installation

## Performance

- Flow rates up to 41.4 m<sup>3</sup>/hr

## Applications

- Pump stations
- Collection systems
- Headworks at wastewater treatment
- Private facility discharge to municipal sewer system
- Prison sewage system protection
- Industrial wet waste grinding and maceration

## Monster Renew grinder

In place of repairing a worn grinder, choose a Monster Renew unit. Sulzer provides a new, factory-built grinder cartridge to replace the worn grinder cartridge. Remove the motor and reducer from the worn unit, install the motor and reducer on the Monster Renew unit, and install the new assembly in place of the worn unit. Benefits include:

- Minimizes operational downtime
- Quick turnaround
- All new parts
- Great time to upgrade unit
- Full factory warranty on the Monster Renew grinder cartridge

## Muffin Monster grinder cutters

Tooth count	Thickness	Material
7-tooth	11 mm	Hardened alloy steel
11-tooth	8 mm	Hardened alloy steel
17-tooth Wipes Ready®	11 mm	Hardened alloy steel



## Muffin Monster motor assembly

- 1.5 kW gear motor standard, 2.2 kW gear motor optional
- Optional explosion proof and immersible electric motors available
- 25:1 reducer, cycloidal design

## Muffin Monster frame options

- Adapt grinders for easy installations
- Channel frames to fit most channel types
- Wall frames to mount on flat or round walls
- Type 304 or 316 stainless steel construction
- Guide rails for easy installation and maintenance

## Muffin Monster controller

- Ensures maximum grinding ability with minimum stoppage
- Designed and programmed for specified motor

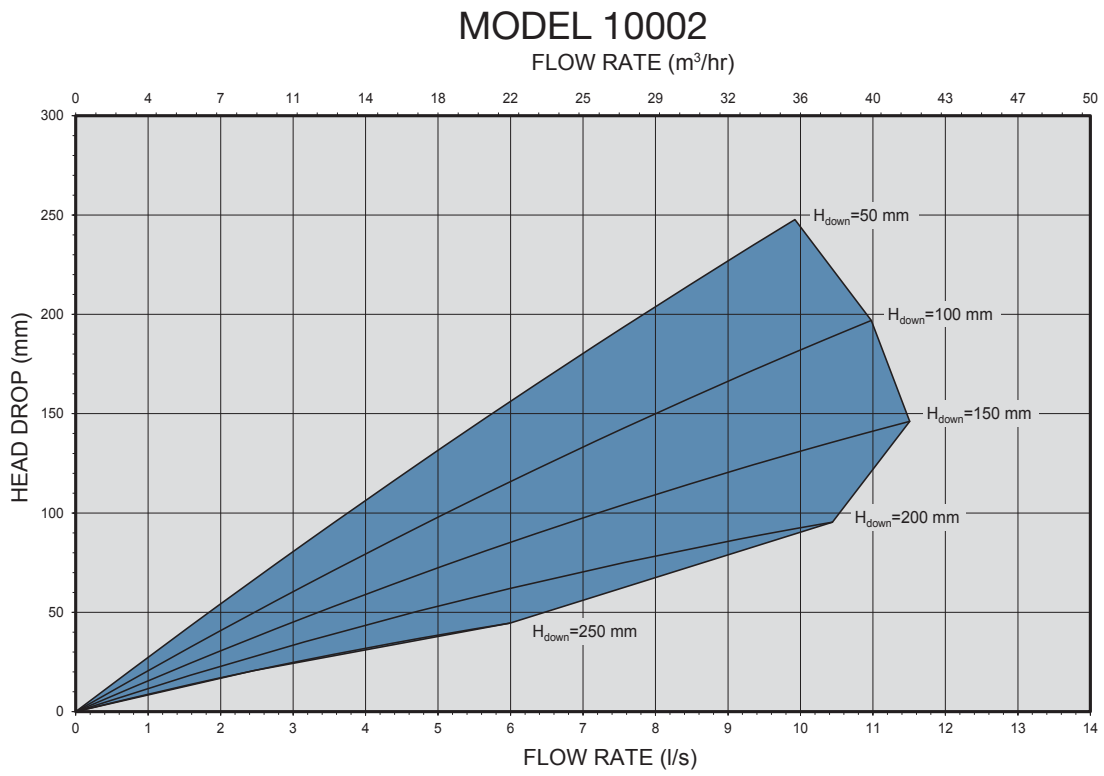
## Muffin Monster grinder materials

Part	Standard
Housings	Ductile iron
Cutters	Hardened alloy steel
Shafts	Hardened alloy steel
Mechanical seals	Tungsten carbide faces
Gaskets	Cork and rubber

For guidance in selecting a 10002 Muffin Monster, please contact Qmax Pumping.

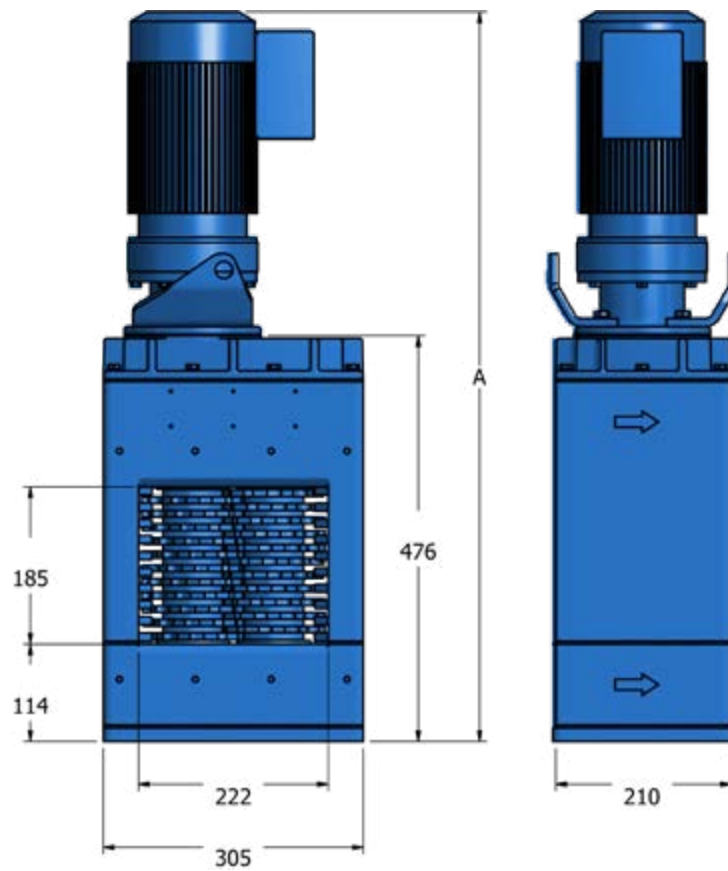


# Performance curves



$H_{down}$  = downstream head

## Dimensions (mm)



Open channel model	Flow rate <sup>1</sup> - m <sup>3</sup> /hr	Head drop - mm	Standard dimensions <sup>2</sup> - mm		Approximate net weight - kg
			A (IP55)	A (IP68)	
10002-0008-DI	41.4	146	1016	1166	153

1. Flow based on optimum channel conditions. Consult factory for analysis of application.
2. Drive dimensions are a maximum based on a unit with a 2.2 kW drive.

## 10002 Muffin Monster grinder model coding

<b>Product family</b>	Solids reduction sewage grinder	Q																		
<b>Grinder family</b>	10K Muffin Monster		1																	
<b>Grinder configuration</b>	New unit with motor (specified separately)			2																
	Monster Renew unit				E															
	Monster Renew unit with spool					F														
<b>Cutter stack height</b>	200 mm stack (8 inch)						J													
<b>Flange information</b>	BS EN 1092, PN16							X	X											
<b>Cutter material</b>	Alloy steel										1									
<b>Cutter</b>	7-tooth, 11 mm thick											C	4							
	11-tooth, 8 mm thick												F	3						
	17-tooth Wipes Ready®, 11 mm thick													W	4					
<b>Body material &amp; colour</b>	Cast iron blue															S				
<b>Seals &amp; gaskets material</b>	Seal cartridge and cork & rubber gaskets																C			
<b>Drum information</b>	Not applicable																	X	X	
<b>Drive configuration</b>	Single drive																			S
<b>Example:</b>	10002-0008 with 11-tooth cutters	Q	1	2	J	X	X	1	F	3	S	C	X	X	S					

## Muffin Monster motor assembly

Power	Voltage	Protection type	Motor model code
1.5 kW gear motor	400V, 3-phase, 50 Hz	IP55	QA1435BXM
2.2 kW gear motor	400V, 3-phase, 50 Hz	IP55	QB1435BXM
1.5 kW TEFC	400V, 3-phase, 50 Hz	IP55 for ATEX (Ex d IIC T4)	QC2435B2M
1.5 kW Immersible	400V, 3-phase, 50 Hz	IP68 for ATEX (Ex de IIB T4)	QC3435B1M
2.2 kW TEFC	400V, 3-phase, 50 Hz	IP55 for ATEX (Ex d IIC T4)	QD2435B2M
2.2 kW Immersible	400V, 3-phase, 50 Hz	IP68 for ATEX (Ex de IIB T4)	QD3435B1M

## Muffin Monster controller

Grinder motor type	Model code for IP65 control panel enclosure	
	Powder coated mild steel material	Stainless steel material
1.5 kW IP55	QK1P45XXX	QK1S45XXX
1.5 kW IP68	QK2P45XXX	QK2S45XXX
2.2 kW IP55	QL1P45XXX	QL1S45XXX
2.2 kW IP68	QL2P45XXX	QL2N45XXX



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