

Grinder - 10000 Muffin Monster™ - Inline series

SULZER

The 10000 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

- Inline pipe configuration
- Pipe flange diameters of 100 mm and 150 mm
- Hardened alloy steel cutters (standard), or optional stainless steel cutters available, or optional stainless steel cutters available, 120 mm diameter
- Ductile iron housings
- Hardened alloy steel shafts, 50 mm hex
- Mechanical seals with tungsten carbide faces (6 bar working pressure) or optional severe-duty seals available (10.3 maximum dry working pressure)

Performance

- Flow rates up to 125 m³/hr

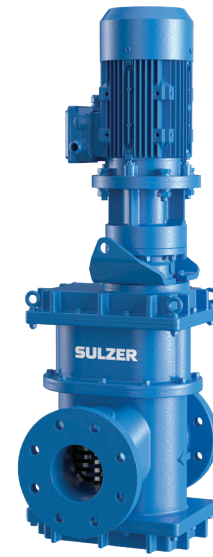
Applications

- Sludge lines
- Pump stations
- 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 motor assembly

- 1.5 kW gear motor standard, 2.2 kW gear motor optional
- Optional explosion proof (1.5 kW, 2.2 kW and 4.0 kW) and immersible electric motors (1.5 kW, 2.2 kW and 3.7 kW) available
- 25:1 reducer, cycloidal design

Muffin Monster controller

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

Muffin Monster grinder cutters

Tooth count	Thickness	Material
7-tooth	11 mm	Hardened alloy steel*
11-tooth	8 mm	Hardened alloy steel*
13-tooth	2 mm	Hardened alloy steel*
13-tooth	5.5 mm	Hardened alloy steel*
17-tooth Wipes Ready™	11 mm	Hardened alloy steel

* Available in optional stainless steel.

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***

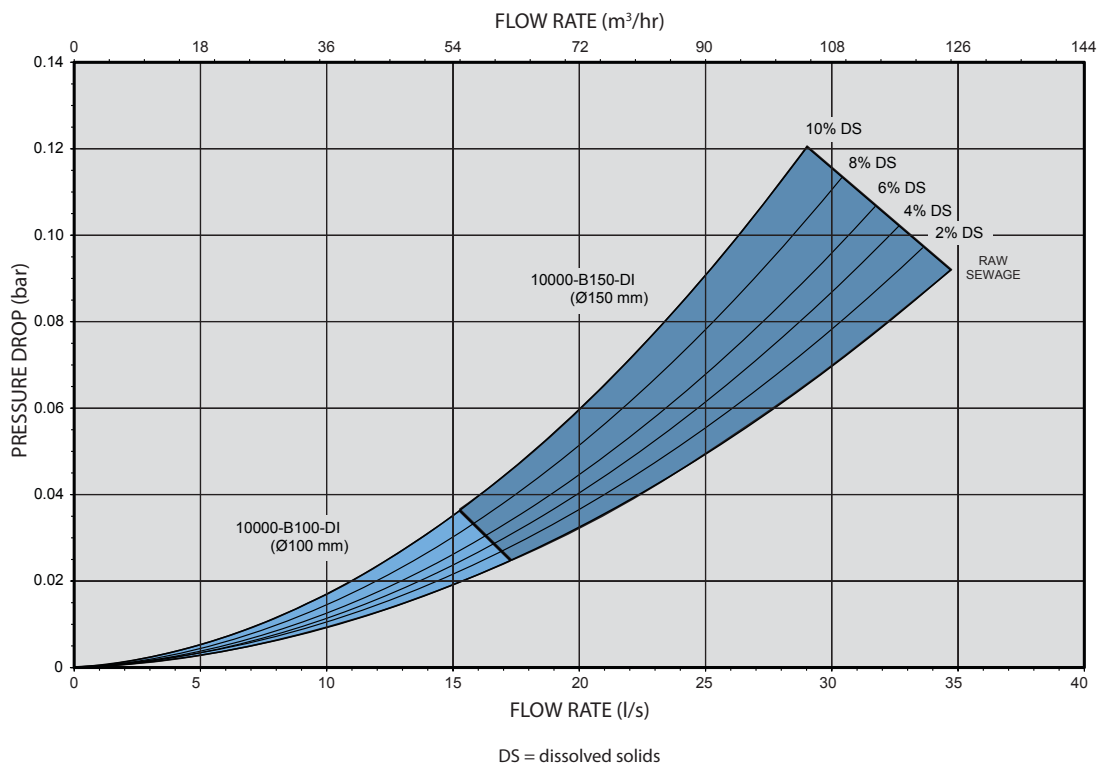
** Available in optional stainless steel.

*** Available in optional Viton™.

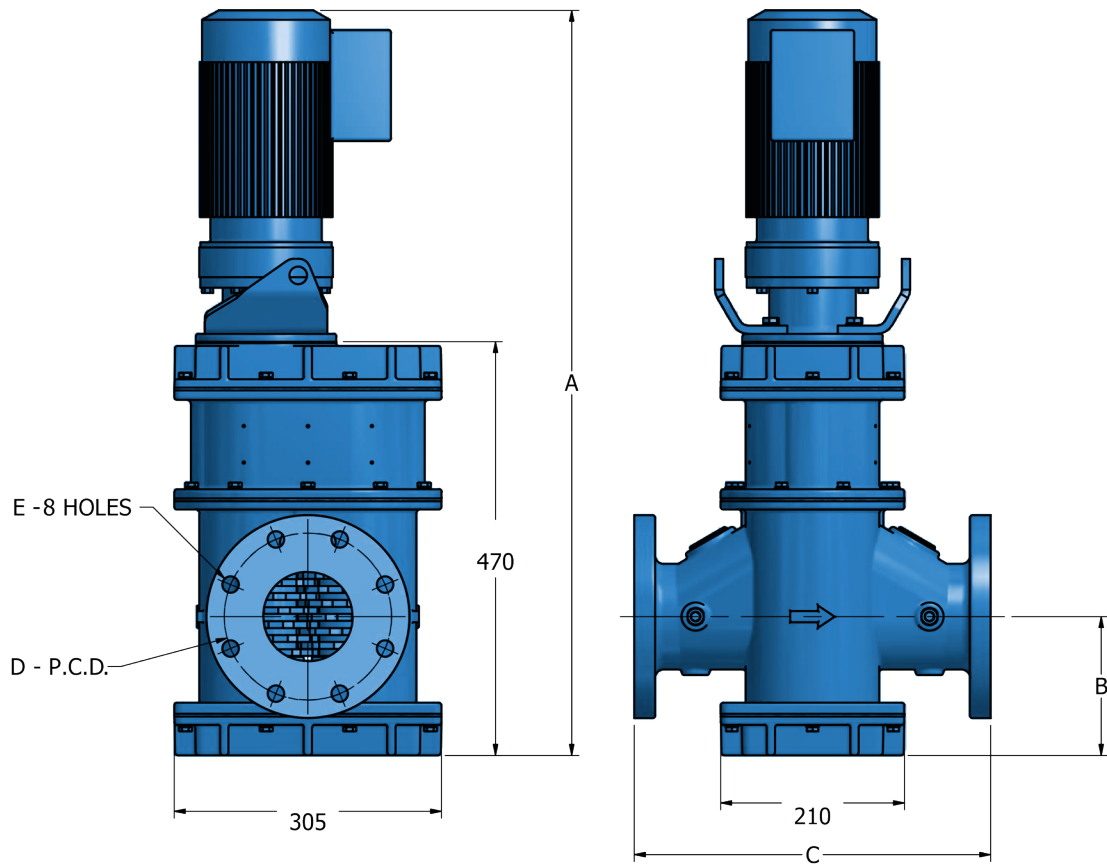
For guidance in selecting a 10000 Muffin Monster, please contact Sulzer.

Performance curves

Model 10000 Inline



Dimensions (mm)



Inline model	Flow rate ¹ - m ³ /hr	Pipeline size - mm	Pressure drop - bar	Standard dimensions ² - mm				Flange dimensions - mm		Approximate net weight ³ - kg
				A (IP55)	A (IP68)	B	C	D	E	
10000-B100-DI	62	100	0.03	1'011	1'156	158	406	180	18 (M16)	237
10000-B150-DI	125	150	0.09	1'011	1'156	184	483	240	23 (M20)	246

1. 0-2% solids. Inline unit typically installed prior to suction side of pump. Consult factory for analysis of application.

2. Drive dimensions are a maximum based on a unit with a 2.2 kW drive.

3. Weight is based on a unit with a 2.2 kW IP68 drive.

10000 Inline Muffin Monster grinder model coding

Product family	Solids reduction sewage grinder	Q																			
Grinder family	10K Muffin Monster		1																		
Grinder configuration	New unit with motor (specified separately)			1																	
	Monster Renew unit				A																
	Monster Renew unit with spool					B															
Cutter stack height and flange diameter	200 mm stack, 100 mm flange					J	1														
	200 mm stack, 150 mm flange					J	2														
Flange type	BS EN 1092, PN16																D				
Cutter material	Alloy steel																		1		
	Stainless Steel																		2		
Cutter	7-tooth, 11 mm thick																		C	4	
	11-tooth, 8 mm thick																		F	3	
	13-tooth, 2 mm thick																		H	9	
	13-tooth, 5.5 mm thick																		H	2	
	17-tooth Wipes Ready™, 11 mm thick																		W	4	
Body material & colour	Cast iron blue																		S		
Seals & gaskets material	Seal cartridge and cork & rubber gaskets																			C	
	Severe duty seals & Viton gaskets																			V	
Drum information	Not applicable																			X	X
Drive configuration	Single drive																				S

Example: 10000-B100 new unit with 100 mm flange, 13-tooth (5.5 mm) alloy steel cutters, and seal cartridge and cork & rubber gaskets Q 1 1 J 1 D 1 H 2 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	400V, 3-phase, 50 Hz	IP55	QC1435B2M
1.5 kW	400V, 3-phase, 50 Hz	IP55 for ATEX (Ex d IIC T4)	QC2435B2M
1.5 kW	400V, 3-phase, 50 Hz	IP68 for ATEX (Ex de IIB T4)	QC3435B2M
2.2 kW	400V, 3-phase, 50 Hz	IP55	QD1435B2M
2.2 kW	400V, 3-phase, 50 Hz	IP55 for ATEX (Ex d IIC T4)	QD2435B2M
2.2 kW	400V, 3-phase, 50 Hz	IP68 for ATEX (Ex de IIB T4)	QD3435B1M
4.0 kW	400V, 3-phase, 50 Hz	IP55	QE1435B2M
4.0 kW	400V, 3-phase, 50 Hz	IP55 for ATEX (Ex d IIC T4)	QE2435B2M
3.7 kW	400V, 3-phase, 50 Hz	IP68 for ATEX (Ex de IIB T4)	QE3435B1M

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	QL2S45XXX
4.0 kW IP55	QM1P45XXX	QM1S45XXX
3.7 kW IP68	QM2P45XXX	QM2S45XXX