

Grinder - 30005 Muffin Monster™ - Open channel series

SULZER

The 30005 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.

Construction

- Open channel configuration
- Grinder cutter stack heights from 200 mm to 1'500 mm
- Hardened alloy steel cutters (standard), 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, 10.3 bar maximum dry working pressure
- Available with channel or wall mounted frame options for easy installation

Performance

- Flow rates up to 1'277 m³/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 motor assembly

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

Muffin Monster frame options

- Adapt grinders for easy installation
- 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 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

* Available in optional stainless steel.

Muffin Monster grinder materials

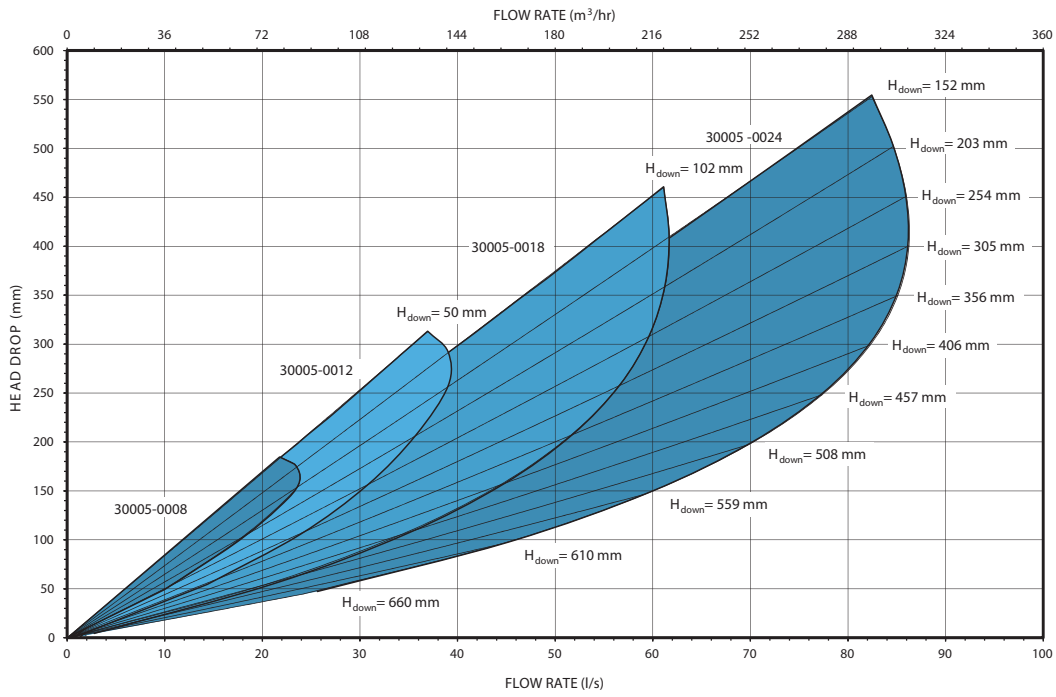
Part	Standard
Housings	Ductile iron
Cutters	Hardened alloy steel**
Shafts	Hardened alloy steel
Mechanical seals	Tungsten carbide faces
Gaskets	Viton™

** Available in optional stainless steel.

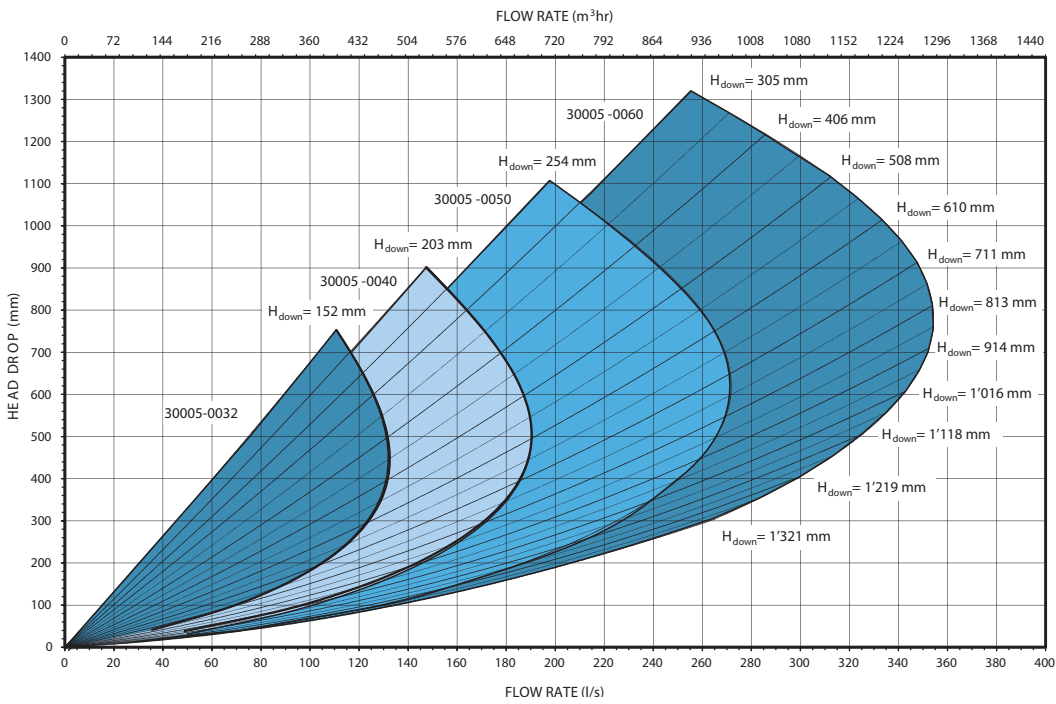
For guidance in selecting a 30005 Muffin Monster, please contact Sulzer.

Performance curves

Model 30005 Open Channel

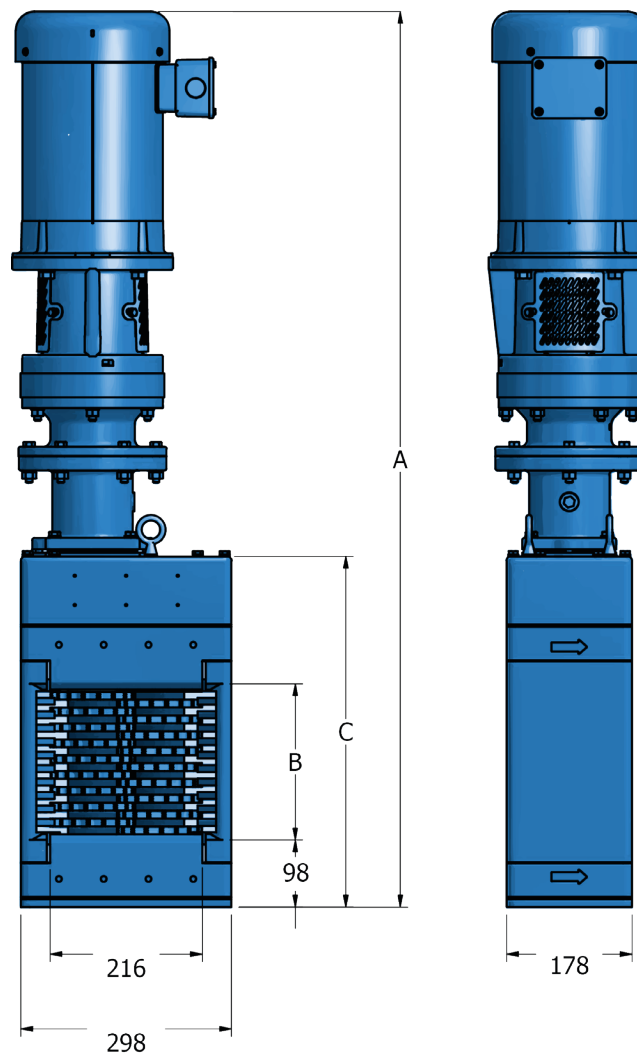


Model 30005 Open Channel



mm = head drop
 m³/hr = capacity (raw sewage)
 H_{down} = downstream head

Dimensions (mm)



Open channel model	Flow rate ¹ - m ³ /hr	Head drop - mm	Standard dimensions ² - mm				Approximate net weight ³ - kg
			A (IP55)	A (IP68)	B	C	
30005-0008	84	178	1'168	1'427	203	495	268
30005-0012	141	290	1'274	1'533	305	600	328
30005-0018	223	405	1'423	1'682	457	749	343
30005-0024	311	405	1'568	1'828	609	895	373
30005-0032	477	445	1'765	2'024	813	1'092	413
30005-0040	686	495	1'969	2'228	1'016	1'295	453
30005-0050	979	595	2'220	2'480	1'270	1'546	485
30005-0060	1'277	760	2'487	2'745	1'524	1'813	575

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 4.0/3.7 kW motor. Extended drive shafts are available on request.

3. Weight is based on a unit with a 3.7 kW IP68 drive.

30005 Open channel Muffin Monster grinder model coding

Product family	Solids reduction sewage grinder	Q																		
Grinder family	30K Muffin Monster		3																	
Grinder configuration	New unit with motor (specified separately)			2																
	Monster Renew unit			E																
	Monster Renew unit with spool			F																
Cutter stack height	200 mm (8 inch)				J															
	300 mm (12 inch)				K															
	450 mm (18 inch)				L															
	600 mm (24 inch)				M															
	800 mm (32 inch)				N															
	1'000 mm (40 inch)				R															
	1'250 mm (50 inch)				T															
	1'500 mm (60 inch)				W															
Flange information	Not applicable						X	X												
Cutter material	Alloy steel									1										
	Steel steel									2										
Cutter	7-tooth, 11 mm thick										C	4								
	11-tooth, 8 mm thick										F	3								
	17-tooth Wipes Ready™, 11 mm thick										W	4								
Body material & colour	Cast iron blue												S							
Seals & gaskets material	Severe duty seals & Viton gaskets													V						
Drum information	Not applicable																X	X		
Drive configuration	Single drive																			S

Example: 30005-0024 new unit with 600 mm cutter stack, 11-tooth (8 mm) alloy steel cutters, and severe duty seals & Viton gaskets

Q 3 2 M X X 1 F 3 S V X X S

Muffin Monster motor assembly

Power	Voltage	Protection type	Motor model code
2.2 kW	400V, 3-phase, 50 Hz	IP55 (standard)	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 (standard)	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
2.2 kW IP55	QL1P45XXX	QL1S45XXX
2.2 kW IP68	QL2P45XXX	QL2S45XXX
4.0 kW IP55	QM1P45XXX	QM1S45XXX
3.7 kW IP68	QM2P45XXX	QM2S45XXX