

N.Mac™ Twin Shaft Grinder

FLANGED AND CHANNEL CONSTRUCTIONS

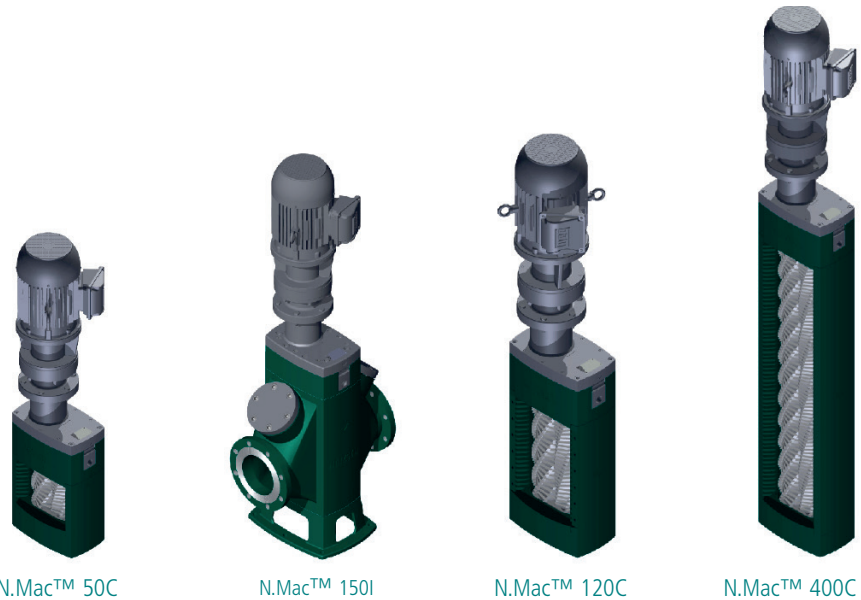
Wide range of cutting variations and options to fit your application

Capable of fragmenting various materials, the N.Mac™ Twin Shaft Grinder is the ideal equipment for wastewater treatment, biogas plants, food, animal processing, and other applications. The housing construction is available in Channel and Inline to allow installation into effluent channels or for flange assembly upstream from a pump. The cartridge design provides easy servicing and maintenance.

- Applications**
- Raw sewage, primary sludge
 - Pump station
 - FOG (fats, oils, greases)
 - Biomass, biogas
 - Food waste, animal processing
 - Industrial waste
 - Plastics, wood, glass, light metals

N.Mac™ Features and Benefits

- Three year warranty.
- Patent Pending vortexing design for fragment reclamation.
- Integral patent pending shearing fins for improved performance.
- Integral stress relief to remove high stress points of cutting knives (under shock loading).
- Extended length cutting cartridges to evenly disperse shock loading across complete length of cartridge.
- Cartridge cutting knives for quick and simple replacement/servicing.
- Universal Patented Bearing and mechanical seal cartridge assembly, Patent US# 9,422,985 B2.
- Cartridge assembly is used for upper and lower shaft support. Same universal cartridge assembly.
- Exclusive shock absorption system to ensure quiet and prolonged operation.
- Leak-free combination mechanical seal and bearing cartridges for easy installation.
- Quenched lubricated mechanical seals for dry running capability.
- Hex shaft in tempered 4140 steel is highly resistant to mechanical shocks.
- Modular assemblies and interchangeable components for universal parts servicing.
- Dual recessed and self-collapsing lifting tabs for simple pull-out servicing.
- Optional control panel with auto-reversing feature to retract jammed media.



Cutters

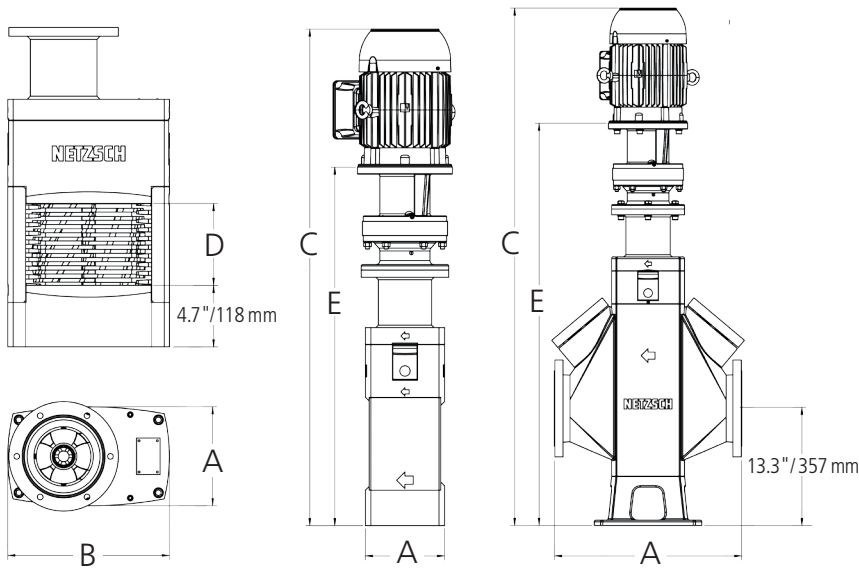
There is a cutter cartridge geometry for every type of solid to facilitate the particle reduction process. The cutters undergo a thermal treatment to increase impact resistance and sharpness and to assure the grinding of different materials.



Cutter Features

- Cartridge cutters from 3 to 11 teeth
- Mix and match teeth for optimal results
- Cutters with different geometries
- Interchangeable, mix-matching cutters
- Multiple Cutting knife materials: 4140, 430SS, and 630SS
- Rotate cartridges for prolonged life
- Worry-free pre-stacked blades and pre-set spacing

N.Mac™ Twin Shaft Grinder



Design Details

- Cast iron housings
- Flanged version max pressure 90 psi (6 bar)
- Silicon carbide mechanical seal faces
- Hardened 4140 hex shafts
- Sealed oversized ball bearings
- Hardened 4140, 430SS, and 630SS cutting knives
- 3 and 5 HP motor (29:1 reducer)
- Optional PLC control panel with automatic reverse system

Model: Channel	Flow Rates (gpm / m ³ /h)*	Load Loss (inches / mm)	Approximate Weight (lbs / kg)	HP / KW	Dimensions (inches / mm)				
					A	B	C	D	E
N.Mac 50 C	220 / 50	3.2 / 80	441 / 200	3 / 2.2	7.5 / 190	12.2 / 310	33.9 / 1191	6.2 / 157	33.9 / 860
N.Mac 120 C	528 / 120	8.4 / 214	507 / 230	5 / 4	7.5 / 190	12.2 / 310	53.8 / 1365	13 / 331	40.8 / 1036
N.Mac 400 C	1761 / 400	29.5 / 750	772 / 350	5 / 4	7.5 / 190	12.2 / 310	81.2 / 2061	40.4 / 1027	68.1 / 1730

Model: Inline	Flow Rates (gpm / m ³ /h)	Max Pressure (psi / bar)	Load Loss (psi / bar)	Approximate Weight (lbs / kg)	HP / KW	Dimensions (inches / mm)				
						A	B	C	D	E
N.Mac 150 I	660 / 150	90 / 6	5.2 / 0.4	816 / 370	5 / 4	21.3 / 540	17.4 / 410	58.7 / 1489	6" Flange	45.6 / 1158

*Note: For higher flow applications, grinders can operate in parallel which allows for partial servicing while in operation.

NETZSCH Pumps North America, LLC
 119 Pickering Way
 Exton, PA 19341 USA
 Phone: 610 363-8010
 Fax: 610 363-0971
 E-mail: npa@netsch.com

NETZSCH Canada, Incorporated
 500 Welham Road
 Barrie, ON L4N 8Z7 Canada
 Phone: 705 797-8426
 Fax: 705 797-8427
 E-mail: ntc@netsch.com