



D-406 / D-506 / D-508 Portable Drain Cleaner

Operating Instruction Manual

Attention: Please read this instruction manual thoroughly before using this product.

D-406 / D-506 / D-508 Portable Drain Cleaner

Safety Precautions & Important Notes

1. The maximum speed of the compatible power drill must not exceed 2200 RPM.
2. This drain cleaner must only be used in the rotation mode. Reverse rotation will damage the flexible shaft.
3. Do not use the drill's hammer or hammer drill mode.
4. Before starting, pull out 2-3 meters of the flexible shaft from the storage drum in sequence and check if the remaining shaft is neatly coiled inside.
5. After operation, pull out the entire flexible shaft, wipe off all debris, and then re-coil it neatly into the storage drum.
6. Before operation, perform a test run. If significant vibration is felt, pull out the entire flexible shaft to release its coiling stress, then re-coil it neatly before use.
7. Special Note for D-508: The D-508 model is equipped with a back rotary plate. The main unit will rotate during shaft extension or retraction. Ensure the area around the unit is clear to allow free rotation.

Operating Instructions

1. When using the D-406 and D-508 drain cleaners:
 - 1.1 Position the drain cleaner approximately 1 meter away from the pipe opening. (The machine should be placed horizontally, with the cover plate opening facing upward at this point). Open the cover plate to remove the flexible cable from the machine, thread the cable through the cable outlet on the cover plate, then close and tighten the cover plate.
 - 1.2 Attach the provided hex socket adapter to the cordless drill. (The drill's rotation speed must be within the recommended range).
2. When using the D-506 drain cleaners:
 - 2.1 Position the drain cleaner approximately 1 meter away from the pipe opening. (The machine should be placed horizontally, with its hexagonal drive shaft pointing vertically upward at this time).
 - 2.2 Attach the cordless drill to the hexagonal drive shaft of the D-506 drain cleaner. (The drill's rotation speed must be within the recommended range).
3. Install the chain hammer cutter head onto the end of the flexible shaft. *Note: The effective cleaning diameter can be adjusted by changing the distance between the chain loops (see "Cutter Head Installation" section for details).*
4. Ensure the power drill is fully charged. Low battery power will reduce cleaning effectiveness.
5. Hold the drill with one hand and pull the flexible shaft out of the cleaner with the other. Insert the shaft into the drain pipe. *Optional: Applying lubricant to the shaft guide tube can reduce resistance.*
6. Once you feel significant resistance inside the pipe, start the power drill. The rotating chain head will break up the clog.
7. For stubborn clogs, slowly push or pull the shaft back and forth to help the cutter head move through the blockage.
8. Pour water into the drain to check if it flows freely. Repeat the steps if necessary until the drain is clear.
9. After clearing the drain, ensure the drill is switched off and the cutter head has completely stopped spinning

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before pulling the shaft out of the pipe. Clean all debris from the shaft and cutter head. Apply a small amount of lubricant to the shaft guide tube for maintenance. Carefully recoil the shaft back into the storage drum and close the cover. Remove the hex socket adapter from the drill. The operation is now complete.

Product Parameters:

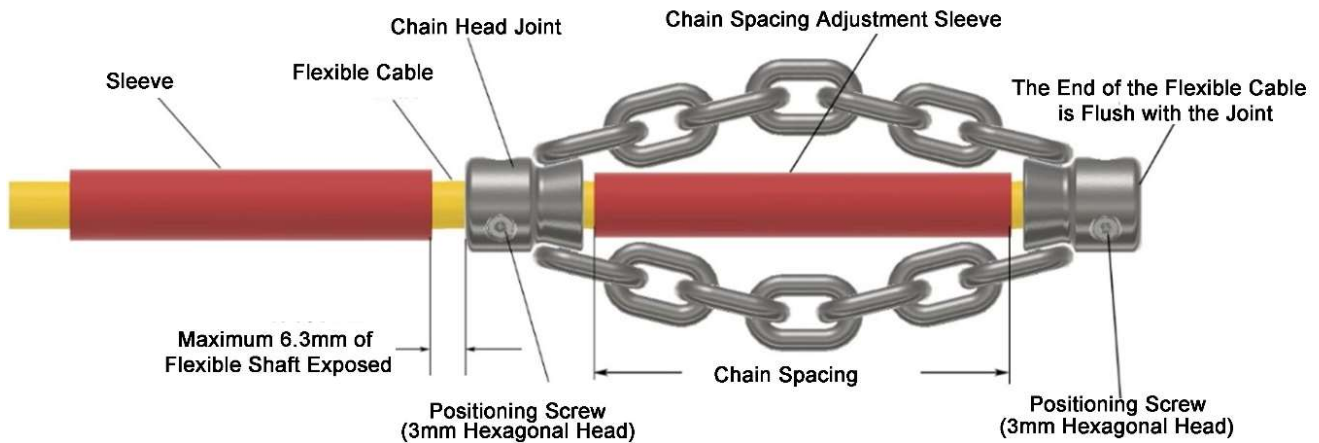
Data	Type	D-406	D-506	D-508
Applicable Pipe Diameter		1 1/2" -2" (38-50mm)	1 1/2" -2" (38-50mm)	2"-4" (50-100mm)
Flexible Shaft Assembly Diameter		3/8" (9.8mm)	3/8" (9.8mm)	1/2" (12.7mm)
Flexible Shaft Diameter		1/4" (6mm)	1/4" (6mm)	5/16" (8mm)
Flexible Shaft Length		32.8' (10m)	52.5'(16m)	49.2'(15m)
Recommended Rotation Speed		1800-2200rpm	1800-2200rpm	1800-2200rpm
Weight		4 kg	9.7 kg	9.3 kg
Overall Dimensions		475×143×378	486×174×569	560×180×665
Applicable Working Temperature		20°F to 140°F (-6°C to 60°C)	20°F to 140°F (-6°C to 60°C)	20°F to 140°F (-6°C to 60°C)

Cutter Head Installation

1. Select the appropriate chain hammer attachment based on the diameter of the pipe to be cleaned and the specific condition of the blockage.
2. If needed, cut a piece of guard tube to use as a chain link spacer. The chain loop distance can be modified based on pipe size/preference. *Note: Increasing the distance reduces the cutting diameter; decreasing it increases the diameter. An incorrect setting may reduce efficiency.*
3. Before cutting, test-fit the chain head, links, and spacer on the shaft as shown in the diagram. The chain must be straight – do not let it twist.
4. The end of the flexible shaft should be flush with the end of the cutter head connector to prevent excessive wear.
5. Check the length of the exposed flexible shaft. To minimize whip risk, the exposed shaft should not exceed 6mm (1/4 inch). If necessary, cut the guard tube to act as a spacer and limit the exposed length. Always use the impactor bushing to reduce wear at the tube end.
6. After correct installation per the diagram, use the provided hex key to tighten the set screw. First, tighten until the screw tip touches the shaft, then turn an additional 1/8 to 1/4 turn (45° to 90°) to secure properly. If the set screw is loose, the cutter head may slip, damage the shaft, or fall into the drain.

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Cutter Head Installation Diagram:



Troubleshooting

Fault	Possible Cause	Solution
Flexible Shaft Kinking or Breaking	• Flexible shaft assembly subjected to force beyond its safety limit.	• Follow operating instructions. Do not use excessive force.
	• Pipe diameter is too large or does not meet the cleaner's recommended range.	• Select the correct chain hammer cutter head for the pipe diameter, or use a different model cleaner.
	• Drill rotating in reverse. Use the cleaner in the correct (forward) direction.	• Reverse rotation is only permitted briefly if the shaft is stuck in the pipe.
	• Flexible shaft assembly is corroded.	• Clean the flexible shaft assembly regularly.
	• The outer sheath of the flexible shaft is damaged.	• Replace the flexible shaft assembly with a new one.
	• Drill torque setting is too high, or speed is too fast.	• Set the drill speed and torque according to the cleaner's recommendations.
Cleaner Sways or Moves During Operation	• The ground is not level.	• Place the cleaner on a level surface for operation.

Important Note: Damage to the flexible shaft or other components resulting from failure to follow normal operating procedures is not considered a quality issue and is not covered under the warranty.