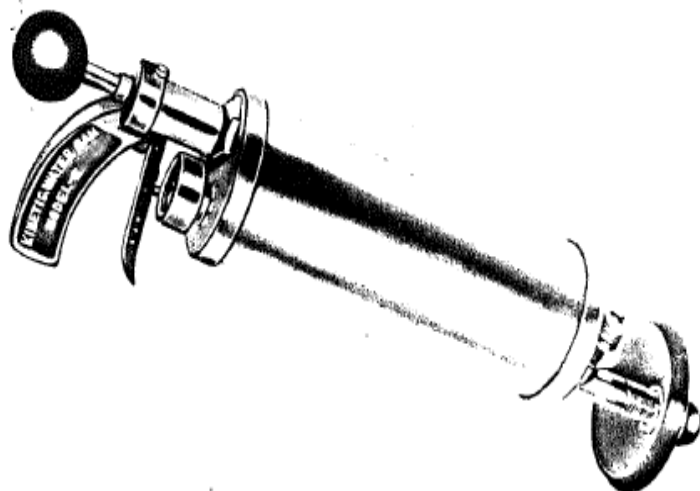


070-0749
OPERATING INSTRUCTIONS FOR

GENERAL'S KINETIC WATER RAM

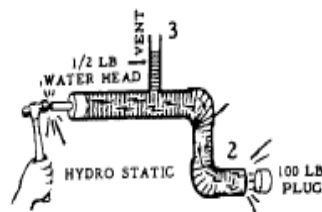
(For 1 1/4" to 4" lines)



Your Kinetic Water Ram drain cleaner is designed to give you years of trouble-free, profitable service. However, no tool is better than its operator. We therefore suggest that you read these instructions through CAREFULLY before using your Kinetic Water Ram. This will enable you to operate it more efficiently and assure you a satisfactory performance.

The Kinetic Water Ram uses a burst of compressed air that drives a shock wave through water to break up a stoppage. This force is called **kinetic energy**. The Ram is particularly useful when a stoppage is on the far side of a drum trap or a series of tight bends, since the shock wave can travel around bends and past stacks without losing its force.

A gauge indicates when the tool has been pumped up to the desired pressure. 98% of the Ram's kinetic force hits the stoppage, while only 2% is spent against the walls of the pipe. The instant impact protects pipes and joints because there's no buildup of pressure in the plumbing system.



GENERAL OPERATING INSTRUCTIONS

Go to the drain or clean-out closest to the stoppage. Pump the ram up to required pressure. (See "Specific Applications.") Wedge tip of rubber cone into drain. To avoid splash back, **press down firmly**, putting your weight behind the Ram. SNAP trigger quickly for triphammer effect.



Blockage will break up on impact. Follow by flushing thoroughly with warm water to carry off waste particles. If blockage persists, gradually increase pressure in 10 lb. increments until blockage has been cleared.

The Ram pumps up very easily to about 60 lbs. For a higher charge of air, use the Schraeder valve and an external compressor (i.e. Your corner gas station). Though the pressure gauge can show up to 160 lbs. of pressure, do not use more than 80 lbs. to clear a line. Most lines can be cleared using only 20 to 40 lbs. of pressure.

The Ram must hit a solid column of WATER, not air. If a pipe is only partly blocked and drains slowly, clamp water supply hose over faucet and connect to Ram check valve.

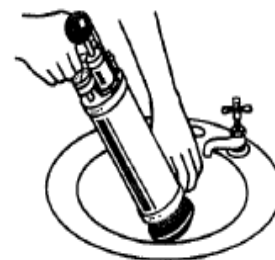
WARNING: ANY HAZARDOUS CHEMICALS IN THE DRAIN WATER SHOULD BE SIPHONED OUT OR OTHERWISE REMOVED BEFORE PROCEEDING.

Turn faucet wide open so that water is supplied faster than it can drain off. With the tip of the rubber cone firmly sealing off the sink drain opening, the water enters pipe, backs against Ram, then rises in stack or vent. Two or three feet of head pressure in stack or vent is sufficient to clear severe stoppages far down the line. Turn off faucet before trigger is snapped.

SPECIFIC APPLICATIONS

WASH BASINS

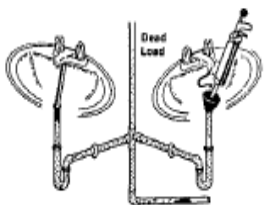
In wash basins and sinks, you must block the overflow vent with a wet rag or towel before firing Ram. Apply as much pressure as possible to rag or towel at the moment when you snap the trigger. There must be some water in the basin, so that the nozzle of the Ram is under water; when placed in the drain opening. Use low pressure at first to make sure you have splash back under control. Then increase at 10 lb. increments until stoppage has been cleared. Flush line with warm water.



COMBINATION SINKS

To unclog double compartment sinks, use the Ram in the sink section leading directly into the trap and stack. To avoid splash back, seal off adjacent sink using expansion plug.

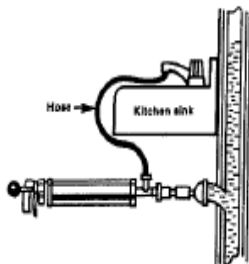
If you do not have an expansion plug, block the adjacent drain by covering firmly with large towel or rag.



EXTREME BLOCKAGES

If the line is severely blocked, insert the caulking hose furnished with Ram into the drain pipe. An excellent seal can be made by caulking the hose into the drain pipe by means of a wet rag and screwdriver. Then, while you hold the hose down, fire the Ram using 30 to 40 lbs. (2 kg/CM²) of pressure.

In extreme stoppages, remove the trap, attach a half inch reducing coupling to drain pipe and connect Ram. Attach water supply hose between faucet and check valve on Ram. Turn on faucet so that vent is filled with water. A two or three foot head in vent or stack is sufficient. Turn off faucet. Apply 50 to 75 lbs. (4-5 kg/CM²) of pressure.

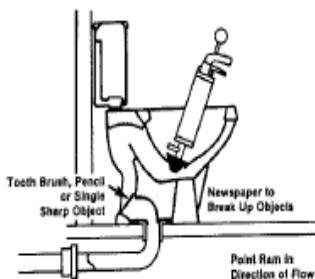


TOILETS

Toilet bowls have an oval shaped opening that can make it difficult to form a good seal around the 4" rubber cone. It often helps to stuff a rag around the cone. A better solution is to use a KR-CA Closet Adapter (optional).

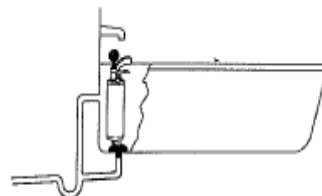
Use 30 lbs. of pressure at first to make sure splash back is under control. Press down firmly, putting your weight behind the Ram and snap trigger. If low pressure is not successful, increase to 60 lbs.

If toilet is only partly blocked, by an object such as a tooth brush or pencil, loosely wad up a double page of newspaper and stuff into the bowl. When Ram is fired, balled-up newspaper will break up blockage and clear line.



BATHTUBS

Remove pop-up cover from tub drain and position ram. Use low pressure at first to make sure splash back is under control. Make sure there is some water in the tub so that nozzle of Ram is under water when placed in drain opening. If not, as with slow draining tub, clamp water supply hose over faucet and connect to Ram check valve. Turn faucet wide open so that water is supplied faster than it can drain off.

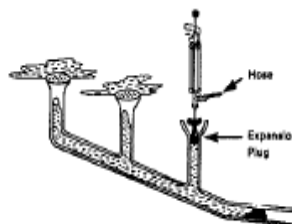


If you're having difficulty with splash back, follow the same basic procedure as for clearing sinks and wash basins. Remove overflow screen and with screwdriver push 8 to 10 inches of thin wet rag down overflow pipe and replace screen.

In some tubs, excellent results can be obtained by unscrewing pop-up lever, turning the lock nuts on Ram nozzle so that the rubber cone can be screwed back far enough to attach the caulking hose in front of cone, then inserting caulking hose into the pop-up valve opening. This will aim kinetic force directly down the drain. Be sure to cover drain opening before snapping trigger.

TWO TO FOUR INCH SEWERS

In case Ram is used at the clean-out or floor drain, connect Ram to expansion plug. A four inch floor drain is frequently a bit over-size for the four inch expansion plug. In that case, wrap a piece of gasket rubber around the expansion plug and make a snug fit before tightening plug.



Where there is more than one outlet, always apply Ram where water backs up first. Do not discharge Ram until water appears on floor at next opening. Other drain openings should be covered to protect against splash back.

MAINTENANCE

The leather seal (E-15) in the Ram's pump should be oiled occasionally to keep it from drying out. This can be done by lifting the pump rod up and then applying a few drops of neat's-foot (leather) oil through the air hole.

The best method for cleaning rubber accessories is to wash them in hot water with soap or detergent.

General
PIPE CLEANERS

GENERAL WIRE SPRING CO.

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