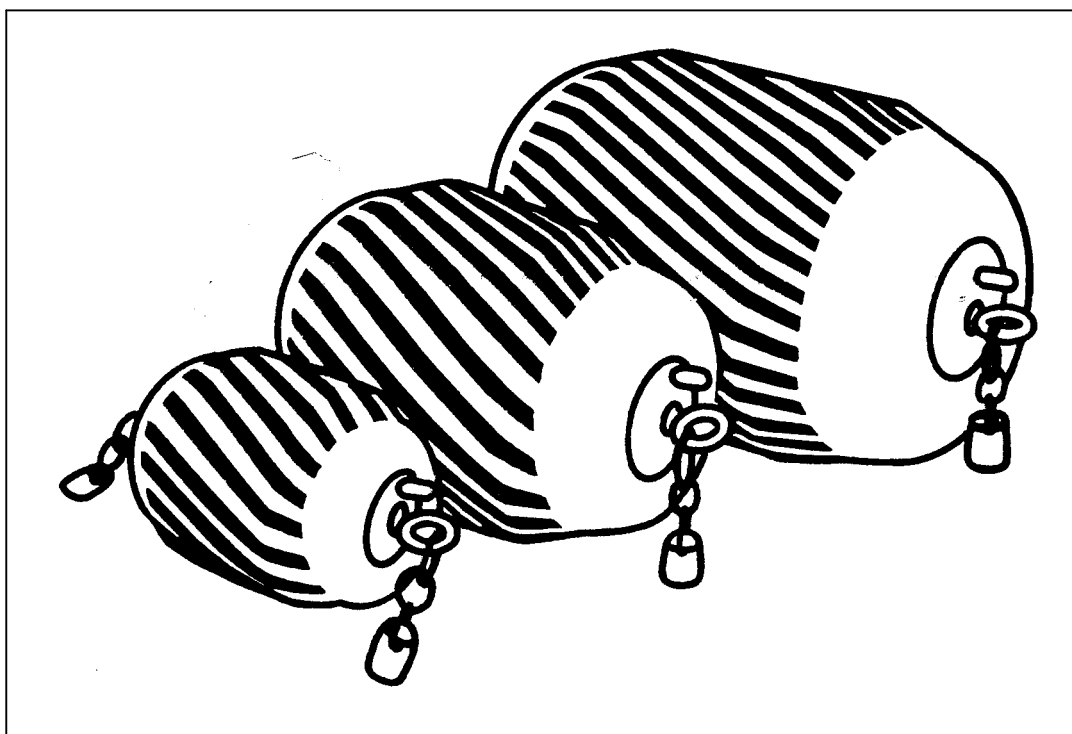


INSTRUCTIONS

JET-BALL® Pipeline Cleaning Ball

THREE SIZES: 6-10", 10-14" & 15-18"

PART NUMBERS 254-207, 254-215 & 254-223



The Jet-Ball® pipeline cleaning ball uses the force of water to spin and scrub pipes clean. The ball's spiral ribs create the spin, while eyebolts on each end of the ball allow it to move in either direction through pipe. The following instructions describe how to install and operate your cleaning ball.



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WARNING

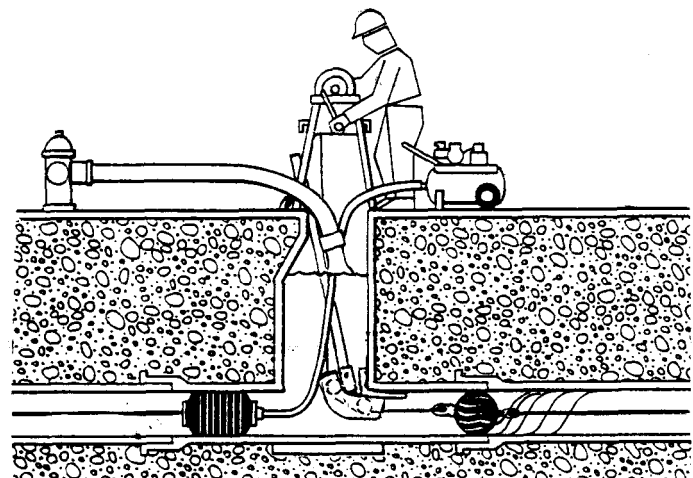
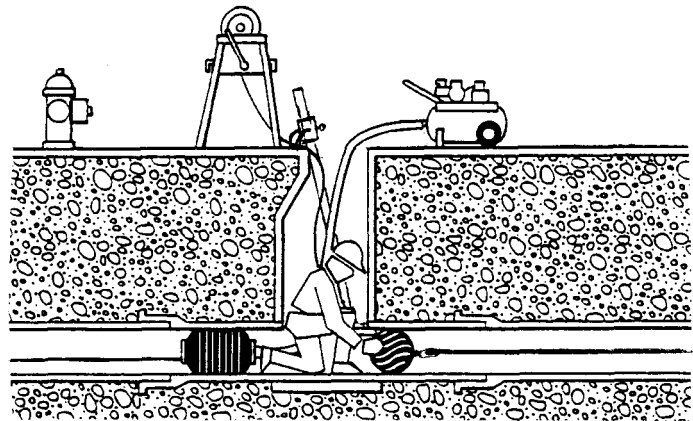
1. Before entering any manhole, test it for toxic or flammable gases and ventilate it if gases are present to avoid injury, asphyxiation and death!
2. When you enter a manhole, observe all local, state and federal regulations and follow the procedure on page 4 of this manual.
3. Wear a hard hat, safety glasses and ear protection. Use a respirator with a self-contained air source when entering a manhole or any other confined space.

INSTALLATION AND OPERATION

1. Enter the upstream manhole of the pipeline to be cleaned. Install plugs (using inflation hoses and tethering lines) into any pipes carrying sewage into the manhole.
2. Locate a water source close to the upstream manhole.
3. Build a catch basin in the pipe outlet of the downstream manhole to keep debris from washing into the next section of pipe.
4. String a line to the downstream manhole. Pull a tag line with a minimum break strength of 500 PPI (pounds per inch) from the downstream manhole with the strung line.
5. Attach the tag line to the cleaning ball. The tag line is used to free the ball IF it becomes stuck in the pipe.
6. Insert the proper size cleaning ball into the line at the upstream manhole. Inflate the ball until it fits snugly in the pipe.
7. Place a down roller assembly behind the cleaning ball and set the steel cable under the rollers. (The down roller will help control the ball and prevent damage to the cable and pipeline.)
8. Place the winch over the upstream manhole.

CAUTION: Check the elevation of building connections along the line to be cleaned -- they must have higher elevations than the level of water you'll put in the upstream manhole. If any building connection is too low, plug it with a pneumatic or mechanical plug. Then warn those in the building not to use any water until the job is finished.

9. Fill the upstream manhole with enough water to rise two to five feet above the top of the outlet holding the cleaning ball.
10. Controlling with the winch, let the water carry the cleaning ball slowly downstream.
11. Don't let the cable go slack. If it slackens, tighten it and hold the tightness briefly (this should loosen any debris blocking the ball). If this doesn't work, crank the ball back 1-2 feet to increase the jet stream. If this doesn't work, let the water subside and pull the ball back. You'll need to clear the obstruction with a different method.
12. When the cleaning ball reaches the downstream manhole, allow the remaining water to subside.
13. Detach the cleaning ball from the winch cable and remove it from the manhole.
14. Rewind the cable onto the winch.
15. Remove the down roller assembly from the upstream manhole.
16. Move the winch to the downstream manhole.
17. Attach a bucket to the winch cable and lower it into the downstream manhole.
18. Shovel debris into the bucket and remove it from the manhole.
19. Remove the catch basin from the downstream manhole and replace the manhole cover.
20. Remove any pneumatic or mechanical plugs you've installed in building connections.
21. Using inflation hoses and tethering lines, remove any plugs installed in the upstream manhole. **Don't remove any plugs while you're in the manhole.**



MANHOLE SAFETY PROCEDURE

RECOMMENDED SAFETY PROCEDURE FOR ENTRANCE INTO MANHOLES OR CONFINED SPACES

WARNING: THIS INSTRUCTION IS TO BE USED AS A GENERAL GUIDELINE ONLY: ALTHOUGH CHERNE RECOMMENDS FOLLOWING THESE GUIDELINES, IT DOES NOT WARRANT, DOES NOT REPRESENT AND ASSUMES NO RESPONSIBILITY THAT THESE RECOMMENDATIONS WILL FULFILL ALL APPLICABLE FEDERAL, STATE, OR LOCAL REQUIREMENTS. CHERNE ASSUMES NO LIABILITY FOR EITHER PERSONAL INJURY OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE RELIANCE ON THESE RECOMMENDATIONS.

IT IS THE PRODUCT USER'S RESPONSIBILITY TO READ AND COMPLY WITH ALL APPLICABLE REGULATIONS. REFER TO THE *CODE OF FEDERAL REGULATIONS*, "CFR" PART 1926 AND ALL OTHER PERTINENT FEDERAL, STATE, AND LOCAL REGULATIONS.

Outfit yourself with the necessary safety equipment for entrance into a manhole or confined space. This may include, but may not be limited to, the items listed below (refer to warning stated immediately above). Ensure that all equipment meets or exceeds the minimum requirements of all applicable regulatory guidelines. All equipment should be properly maintained, stored, calibrated (if necessary), and inspected prior to each use, in compliance with applicable regulations and equipment manufacturer recommendations.

Recommended equipment is as follows:

- | | |
|---|--|
| A. Safety Hat | G. Ear Protection |
| B. Safety Glasses | H. Hazardous Gas Detector |
| C. Respirator or Self-Contained Air Source | I. Manhole or Confined Space Ventilation |
| D. Safety Harness, Ropes, and Winching System | J. Protective Clothing |
| E. Safety Shoes or Boots | K. Safety Ladders |
| F. Protective Gloves | L. Any Other Recommended or Required Equipment |

DANGER

PROPERLY VENTILATE MANHOLE OR CONFINED SPACE BEFORE ENTERING AND MAINTAIN VENTILATION WHILE IN MANHOLE OR CONFINED SPACE.

BEFORE ENTERING MANHOLE OR CONFINED SPACE, THOROUGHLY CHECK AT ALL LEVELS FOR HAZARDOUS GASES AND PROPER OXYGEN LEVELS (20 PERCENT MINIMUM). MONITOR THESE LEVELS CONTINUOUSLY WHEN WORKERS ARE IN THE MANHOLE.

NEVER ENTER A MANHOLE OR CONFINED SPACE WITHOUT CO-WORKER ASSISTANCE. CO-WORKERS MUST BE PROPERLY TRAINED IN SAFETY REQUIREMENTS FOR ACCESS TO MANHOLES OR CONFINED SPACES.

IF YOU ENCOUNTER OR OBSERVE ANY CONDITIONS THAT ARE NOT EXPLAINED HERE OR WHICH YOU DO NOT FULLY UNDERSTAND, NOTIFY YOUR SUPERVISOR OR SAFETY DIRECTOR BEFORE PROCEEDING.

CONSULT WITH PROPER STATE, LOCAL, AND FEDERAL AGENCIES TO INSURE THAT ALL REQUIRED REGULATIONS ARE BEING FULFILLED.

FAILURE TO COMPLY WITH PROPER SAFETY REGULATIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH!!

LIMITED WARRANTY

Manufacturer warrants all products manufactured by it will be free from defects in material and workmanship for one (1) year following the date of manufacture. If any of the goods are found to be defective, such goods will, at manufacturer's option be replaced or repaired at manufacturer's cost. The parties hereto expressly agree that buyer's sole and exclusive remedy against the manufacturer shall be for the repair or replacement of defective goods as provided herein. (The sole purpose of the stipulated exclusive remedy shall be to provide the buyer with free repair and replacement of defective goods in the manner provided herein. The exclusive remedy shall not be deemed to have failed of its essential purpose so long as the manufacturer is willing and able to repair or replace defective goods in the prescribed manner.) Goods which may be sold by manufacturer but are not manufactured by it are not warranted by manufacturer, but are sold only with the warranties, if any, of the original manufacturers thereof. (This warranty does not cover labor or other costs or expenses to remove or install any defective, repaired or replaced goods.) Manufacturer's warranty does not apply to any goods which have been subjected to misuse, mishandling, misapplication, neglect (including but not limited to use of unauthorized parts or attachments), or adjustment or repair performed by anyone other than manufacturer or one of manufacturer's authorized agents.

Any claim by buyer with reference to the goods sold hereunder shall be deemed waived by the buyer unless submitted in writing to manufacturer within the earlier of (1) thirty (30) days following the date buyer discovered or by reasonable inspection should have discovered, any claimed breach of the foregoing warranty, or (2) thirteen (13) months following the date of manufacture. Any cause of action for breach of the foregoing warranty shall be brought within one year from the date the alleged breach was discovered or should have been discovered, whichever comes first.

LIMITATION OF LIABILITY. Manufacturer's liability (whether under the theories of breach of contract or warranty, negligence, or strict liability) for its goods shall be limited to repairing or replacing parts found by the manufacturer to be defective, or at manufacturer's option, to refunding the purchase price of such goods or parts thereof.

DISCLAIMER OF CONSEQUENTIAL DAMAGES. In no event shall manufacturer be liable for consequential damages arising out of or in connection with this agreement, including without limitation breach of any obligation imposed on manufacturer hereunder or in connection herewith. Consequential damages for purposes hereof shall include, without limitation (including death) to any person, or loss of or damage to property (including without limitation property handled or processed by the use of goods). Buyer shall indemnify manufacturer against all liability, cost or expense which may be sustained by manufacturer on account of any such loss, damage or injury.

DEFECTIVE PRODUCTS POLICY. To obtain performance under this warranty, any product suspected of having a manufacturing defect in materials or workmanship at manufacturers request must be returned to CHERNE INDUSTRIES INCORPORATED, freight prepaid, for inspection. A returned goods authorization must be obtained before shipping any product back to CHERNE. Call 1-800-843-7584 and ask for customer service.

CUSTOMER TRANSPORTATION REIMBURSEMENT. Whenever CHERNE repairs or replaces a product at CBERNE'S expense CHERNE will reimburse the distributor by credit memo, the same surface freight amount it cost CHERNE to return the warranty items.

The foregoing warranty is in lieu of all other warranties express or implied, including those of merchantability or fitness for any purpose not expressly set forth herein. No affirmation of manufacturer, by words or action, other than as set forth in this language shall constitute a warranty.

