

ASK THE TAC



I would like to find out if NASSCO guidelines contain information about suggested pressures and/or jetter configurations (angle of nozzle, types of nozzles, etc.) for the cleaning of ductile iron pipe in sewer collection systems. Additionally, are there sewer assessment criteria for ductile iron pipe (and linings), in particular, in the NASSCO assessment guides? I've seen some other pipe materials listed in the NASSCO materials, but did not see ductile iron pipe.



Ductile Iron Pipe (DIP) is coded the same as other types of pipe using PACP™. If it is lined, we have a Group of Lining Features in the coding. If it is used in a pressure situation (force mains or water mains) we will soon have Pressure Pipe Codes in PACP Version 8, which will be released in late 2023.

In general, the question regarding cleaning should be addressed on a case-by-case basis with the specifics of each instance clearly defined. The Ductile Iron Pipe Research Association (DIPRA) has a document titled "Guidelines for Cleaning Internal Pressure Diameter of Ductile Iron Pipe" and is available for download at DIPRA.org. We suggest that anyone considering this procedure on ductile iron pipe or fittings should reach out to a DIP manufacturer with specific questions and information about their application.

Here are some of the Guidelines offered by DIPRA:

1. The nozzle shall be configured with fan jets only (no round jets).
2. The fan jets should be oriented at a maximum angle of 30 degrees to the pipe wall.
3. The nozzle shall be a minimum of 2-inches standoff from the pipe surface.
4. The nozzle assembly shall be self-rotating and incorporate a rotational control mechanism - with a target speed of 30 rpm.
5. The water pressure at the nozzles shall be no more than 1,800 psi.
6. The nozzle assembly shall have non-abrasive wheels and/or UHMW (ultra-high molecular weight) polyethylene skids positioned so that at no time does the nozzle assembly contact the lining of the pipe.
7. The nozzle assembly shall continually move when pressure washing with no hesitation in the pipe.
8. All hose couplings, hoses, etc. shall be smooth to facilitate movement across the pipe joints without creating damage to the lining.

Pipe diameters of 24-inch and larger may require additional passes for effective cleaning. Although research shows no significant damage in testing, the decision to pressure wash, if made by the customer, engineer, or installer, may present some risk of damage to the sealcoat and/or cement-mortar lining. Any such risk is dependent on water pressure, speed, jet design and angle to the lining, distance of the jet from the lining, type of lining, and other factors. DIPRA does not warrant or guarantee the result or assume any risk associated with pressure washing."

Some DIP is factory coated or lined with a rehabilitation product on the inside of the pipe. These pipes may require different cleaning pressures and nozzles. The manufacturer should be consulted on proper cleaning guidelines.

The bottom line is that the type of coating or lining must be known before cleaning techniques can be determined.

.....
Have a technical question? Email TAC@NASSCO.org