

Allowable Cleaning Methods In Various Pipe Materials

CLEANING PROCESS	PIPE MATERIAL				
	VCP	PVC	HDPE	CIPP	FRP/GRP
HYDRO-JETTING PARAMETERS					
Safe Hydro Pressure (psi)	5,000	1,500 ⁵	Unknown	1,500 ⁴	1,200 ^{1,2}
Jet Angle Range (degrees)	6 - 90	6 - 15 ¹	6 - 15 ¹	up to 40 ⁴	6 - 15 ^{1,2}
Max. Nozzle Weight	125 lbs.	Unknown	Unknown	Unknown	5.5 lbs. ²
Min. Jet Standoff from Pipe Wall	1/4 in.	1 in. ¹	1 in. ¹	Unknown	Unknown
Jet Stationary Position	5 min.	60 sec. ¹	60 sec. ¹	Unknown	Unknown
MECHANICAL CLEANING METHODS					
Mechanical/Power Rodders	Yes	No ^{3,6}	No ^{3,6}	No ^{4,6}	No ^{2,6}
Bucket Machines	Yes	No ^{3,6}	No ^{3,6}	No ^{4,6}	No ^{2,6}
Brushes	Yes	No ^{3,6}	No ^{3,6}	No ^{4,6}	No ^{2,6}
Chain Flails	Yes	No ^{1,3,6}	No ^{1,3,6}	No ^{4,6}	No ^{2,6}
Cable Flails	Yes	No ^{1,3,6}	No ^{1,3,6}	No ^{4,6}	No ^{2,6}
Grinders	Yes	No ^{1,3,6}	No ^{1,3,6}	No ^{4,6}	No ^{2,6}
Root Saws	Yes	No ^{1,3,6}	No ^{1,3,6}	No ^{4,6}	No ^{2,6}
Tap/Can Cutters	Yes	No ^{1,3,6}	No ^{1,3,6}	No ^{4,6}	No ^{2,6}
Hydraulic Root Saws	Yes	No ^{1,3,6}	No ^{1,3,6}	No ^{4,6}	No ^{2,6}
<p>1 Plastics Industry Pipe Association of Australia Limited 2009, <i>Water Jet Cleaning of Plastics Pipes</i>, https://www.iplex.com.au/assets/Uploads/ec9c641256/POP205.pdf</p> <p>2 Iplex Pipelines Australia Pty Limited 2017, <i>Flowtite® GRP Pipe Systems Cleaning</i>, viewed 27 April, 2017, http://www.iplex.com.au/iplex.php?page=lib&lib=31&sec=232&chap=302</p> <p>3 New England Interstate Water Pollution Control Commission 2003, <i>Optimizing Operation, Maintenance and Rehabilitation of Sanitary Sewer Collection Systems</i>, viewed 25 June 2020, https://www3.epa.gov/npdes/pubs/sso_optimizing_enitre_doc.pdf</p> <p>4 Insituform Technologies, LLC 2018, <i>Insituform Technologies, LLC 2018, Inspection and Cleaning Guide for Cured-in-Place-Pipe (CIPP)-lined Pipes</i></p> <p>5 Wright, D., Wolgamott, J., & Zink, G. (2005) <i>Safe Waterjet Cleaning of Sewer Pipe</i>, WJTA American Waterjet Conference, Houston, TX, August 21 - 23, 2005</p> <p>6 Black & Veatch Corporation for ASCE and U.S. EPA 2004, <i>Sanitary Sewer Overflow Solutions</i>, http://www3.epa.gov/npdes/pubs/sso_solutions_final_report.pdf</p>					