

Safe Work Instruction - Rioned ProfiJet Jetter Operation

DO NOT use this plant* or complete this task unless you have been inducted in its safe use and operation by an Authorised Experienced Operator (**Note: 2 Worker Operation Only**)

This SWI may not cover all possible hazards and risks and should be referred to as a control measure in the risk assessment process. Additional training may be required for high risk plant/work. Site and task may change required PPE.

PERSONAL PROTECTIVE EQUIPMENT



Eye protection must be worn



Hand protection must be worn



Hearing protection must be worn



Foot protection must be worn



High visibility clothing must worn



Minimum P2 face mask or respirator must be worn when airborne dust or fumes are created



Protective body clothing must be worn if machine used over 3000 psi



Long and loose hair must be contained or covered.

POTENTIAL HAZARDS AND RISKS

- Struck by Moving Object**
Struck by moving object due to work pieces being ejected
- Exposure to High Pressure Fluid**
Injury from exposure to high pressure fluids
- Manual Task Injury**
Manual task injury from incorrect manual handling techniques
Manual task injury from repetitive movements
- Other**
Exposure to atmospheric contamination
Hearing damage from excessive noise
- Explosion**
Explosion of gases, vapours or liquids
- Cutting, Stabbing or Puncturing**
Injury from contact with moving parts
Injury from sharp or flying object
- Slip, Trips, Falls**
Slip, trip, fall due to uneven or slippery work surfaces
- Electrical shock or burn**
Electrical shock or burn from water near electrical equipment

PRE-OPERATIONAL SAFETY CHECKS

- ✓ Complete site-specific risk assessment (online or hard copy – paper form))
- ✓ Complete the appropriate pre-operational plant checklist if applicable (online or hard copy)
- ✓ Ensure all workers are familiar with plant operations and controls, including emergency stop
- ✓ Ensure that guards are fitted, secured and functional in accordance with manufacturers guidelines
- ✓ Ensure all equipment is in good working condition
- ✓ Ensure means of communication are agreed upon before operating machine
- ✓ Ensure appropriate signage/barriers are in place around worksite **DANGER: HIGH PRESSURE WATER JETTING EQUIPMENT IN USE**
- ✓ Ensure no person or animal is nearby or endangered when operating plant

OPERATING PROCEDURES

- ✓ Connect water tank filler hose to suitable water source and run for a short period to clear line of any sediment before filling water tank (Especially when using a Hydrant)

- ✓ Feed pressure hose through the “Tiger Tail” hose protector
- ✓ Where possible position the high-pressure hose reel approximately on the centreline of the manhole downstream of the blockage
- ✓ Select nozzle or cutter required and attach to pressure hose. Small penetrator nozzle to be used initially on all chokes to relieve build-up prior to using the cutter attachment (always check that the nozzle jets are clear of obstructions and that they are not worn)
- ✓ Always operate machine from the downstream manhole back up the main whether line washing or clearing chokes (where possible) as the Jetter is more effective when not operating in a full pipe and there is less chance of a large root build-up dislodging and causing problems further downstream
- ✓ **Note: If the pressure pump attendant and hose attendant cannot make visual contact with each other, two-way communication or a third worker should be used**

- ✓ Turn water control valve to the **On** position and increase the throttle to full revs which will cause the hose to move up the line
- ✓ When cutter/nozzle reaches a blockage (this will be indicated when the cutter stops moving up the line) gently pull the hose back and forward until choke is cleared
- ✓ If pressure hose begins to twist, stop unit immediately by lowering revs to idle speed, move control valve to the **Off** position and turn off ignition as both the cutter and hose could be damaged
- ✓ Try to avoid cutter entering next manhole
- ✓ When withdrawing the hose from the line, shut off the water when the leader hose becomes visible and wait 30 seconds before removing to allow remaining pressure to ease
- ✓ Wind pressure hose on to reel and remove cutter/nozzle
- ✓ Grease cutter after each use
- ✓ **Note: Pressure hose winch is not to be used to remove cutter from pipeline. It is only to assist in rolling the hose onto the reel. Hose should not be under pressure when coiled back onto reel.**
- ✓ **Note: When using the Remote Control, you must maintain a line of sight or be in contact (two-way communication) with the other attendant.**
- ✓ **Warning: Please be cautious when using the High-pressure Water Egg Jetter nozzle as it may get caught in the pipeline resulting in jolting. Care is always to be taken with operator having firm footing and focus on hose line during operation.**
- ✓ For specific information in regard to other forms of jetting/cleaning refer to the operator's manual

BOUNDARY TRAP SYSTEM (BTS) & PEA-TRAP CLEARING

- ✓ Connect small hose to main hose ensuring connections are secure.
- ✓ Connect head required for task
- ✓ Place end of hose/head into BTS/Pea-trap
- ✓ Start machine as per normal operation
- ✓ Wind pressure release valve (right hand side of machine under gauge) to neutral - anti-clockwise.
- ✓ Engage water
- ✓ Increase revs on control panel (approx. one third)
- ✓ Slowly increase pressure release valve - clockwise until gauge reading is no more than 1500psi
- ✓ When choke is cleared, signal to other attendant to turn off water pressure (making sure pressure is released)
- ✓ Turn off Jetter engine
- ✓ Remove hose from BTS/Pea-trap

Note: If Jump jet operation is to be used, disengage water pressure and reach behind reel to Red lever on top of pump. Pull lever toward rear of vehicle to engage. Turn water pressure back on

and slowly increase revs to 2000psi until choke is reached. When hose reaches choke turn revs back to idle. Push Red lever towards front of vehicle to disengage. Increase pressure to required cutter head pressure to clear choke. Remember all fittings/heads have different operating pressures.

ENDING OPERATIONS

- ✓ Allow plant to cool before performing any maintenance, refuelling or cleaning
- ✓ Refuel plant at least 3 metres from combustibles
- ✓ Ensure plant is in good working order and stored in the appropriate location
- ✓ Ensure the vehicles GVM is not exceeded by transporting excess water (If so, release water before leaving site)

DO NOT

- ✗ **Do not start motor unless the cutter/nozzle is completely inside the pipe and the high-pressure water control valve is in the Off position.** If engine won't start check water level as tank is fitted with an emergency cut off switch to prevent pump from running dry (emergency cut-off should be checked regularly to ensure its operation)
- ✗ Note: Do not exceed 3000 PSI / 210Bar (or 2000 PSI when operating the root cutter)
- ✗ Do not use if plant is faulty. Attach an Out of Service tag and report fault to your supervisor
- ✗ Do not leave plant running unattended
- ✗ Do not leave keys in machinery whilst unattended
- ✗ Do not wear loose jewellery
- ✗ Do not use mobile phone while operating plant
- ✗ Do not work on unstable ground
- ✗ Do not use the gun attachment with the trigger locked on
- ✗ Do not point the gun at anyone, even if switched off
- ✗ Do not change fittings/heads on gun or hose unless machine is switched off

*Plant in this SWI refers to any machinery, equipment, appliance, container, implement and tool.

 SAFETY ALWAYS MATTERS 	Shoalhaven City Council MEDICAL ALERT CARD High Pressure Water Jetting
	This card must be carried or easily accessible by all workers operating high pressure water jetters, Class A and Class B
If an accident occurs where the pressurised water penetrates or appears to have penetrated the skin, medical assistance must be sought immediately. Call 000	
Immediate First Aid Treatment is:- 1) Gentle cleaning of the injured area 2) Immobilise and elevate the injured area 3) Keep the injured person calm 4) Do Not give food or fluids	
WARNING - failure to act quickly may result in DEATH or AMPUTATION of the affected limb. * The water entry point may be very small, with little or no bleeding. An injury can result in post injury infection * Injuries can cause serious damage to organs and deeper tissue, even if the injury appears as a small hole. * Serious organ damage can still occur even if protective equipment is worn	