

NEWSBLAST

April 2000

I 70 Overpass - On-Time, On-Budget by Western Waterblasting and CDA



After weeks of trying to demolish a high strength concrete median with hydraulic breakers and jack hammer crews, Ames Construction Inc. of Aurora, Colorado called Western Waterblasting to get the project back on-track. With the StoneAge **CDA**, this 225 ft long, 6 ft wide, 11 to 14 inch high median was removed without damage to the existing deck, and without disrupting traffic below. According to Ames Project Manager Robert Stevens, "the process proved itself within the first hours of operation. Rebar that was exposed was not damaged in the least, and tie wire on the rebar, previously imbedded in concrete, was exposed and looked as if it had been installed that day." Thanks to Bert Hutchins of Western Waterblasting, Denver, Colorado, for submitting this success story!

The **CDA** is powered by two air or hydraulic motors, with a single angled, rotating jet. It can be mounted on a variety of vehicles and skids for concrete demolition work. It works best with 30 to 60 gpm flow, at 14 to 20 Kpsi. The **CDA** is a sensible, inexpensive machine built for the contractor who occasionally encounters concrete demolition work.



New Systems, New Look in Paperwork!

On February 1, we started up our new manufacturing and accounting software system. The change involved software, operating system, hardware, and networking. So it was a big step forward in information technology for StoneAge. In the "George Washington spirit" of honesty, the transition has not been problem-free! The big difference and primary reason for the change is improved inventory

planning - fewer times that we have to delay shipment because a part is not in-stock. Unfortunately these benefits require time to achieve. In the meantime, we appreciate customers' patience with the transition! Customers will notice quotes, statements and invoices look different.



Success Stories



In our last four editions, we have featured success stories from customers in Oman, Norway, Texas, and Colorado. Whether the job is really unusual, or really ordinary; we like to hear how StoneAge tools helped get it done. All we need are facts and photos. So

keep the stories coming!

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NEW Small Warthog Well-Received

We seem to have under-estimated the demand for the new **WS-1/2"** tool for 4" sewers with elbows. It was introduced at the recent Pumper/Cleaner Show in Nashville. We are sorry that some customers had to wait a couple of weeks for shipment. By the time you read this newsletter, we will have completed our third production campaign, and restocked for our usual quick shipment.

We owe a big "Thank You" to customers who worked with us evaluating prototype tools that ultimately led to the **WS-1/2"** - Jet-Vac Sewer Equipment, US Jetting, Hydro-Klean, and Bio Remedies.

The **WS-1/2"** is rated for 4,000 psi, and can go through 4" elbows. Like the other **Warthogs**, it uses a viscous fluid governor, no-leak seal, and powerful jets to cut roots, grease, and flush debris. The **WS-1/2"** can be jetted for 10 - 18 gpm.

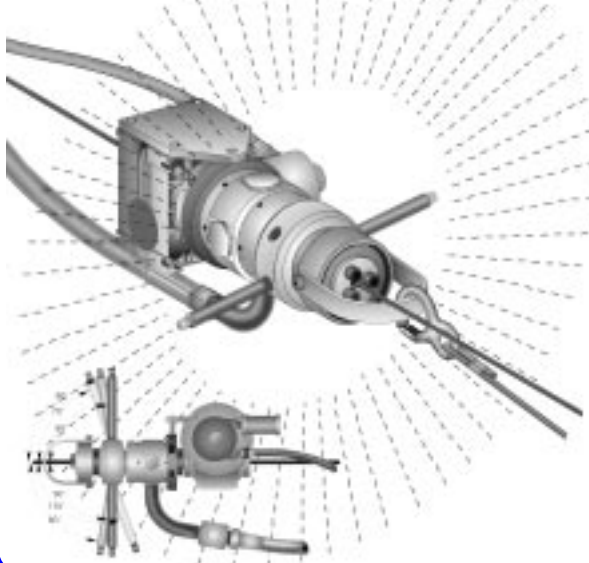
Since the **WS-1/2"** can turn so easily, its use is restricted to 6 inch diameter sewers and smaller. This safety precaution prevents the nozzle from turning around and coming back toward the operator.



**Warthog-WS
Small**

Cable Swivel Tool

NEW for Furnace Cleaning



This new tool has been on the job at several power plants through the winter months. The **CST** replaces men with handheld waterblast guns inside a furnace. So manpower savings as well as safety, are attractive inducements to use the tool. Cleaning results have been very encouraging, and the first production lot of these tools is sold-out. New production is expected to be complete, for shipping mid-May.

The **CST** is an air-powered swivel, with hollow shaft, allowing it to slide on a cable stretched between two anchors. It handles up to 150 gpm at 10 Kpsi. The versatile 6-port head allows several jetting options, including the ability to pull itself along the cable. Extension nipples assure excellent jet quality for hard-hitting power at relatively long standoff distances.

Measure its value in terms of manpower reduction, safety improvement, or quicker turnaround. The conclusion is the same. The **CST** is a money-maker!

Rent StoneAge Tools

For many reasons, it is not always practical to purchase all the equipment needed for a job. Perhaps the contractor is not sure the equipment will work in his application, or the job is so infrequent, he is reluctant to invest in equipment. That's why some StoneAge customers rent pumps, and tools. If you rent StoneAge tools to contractors with a need, we want to know who you are. We will use our **Rent Source List** to refer customers, and also include it on our website. Just call or e-mail to let us know what equipment you rent or lease.

Repairs & Decontamination

Before returning tools for repairs or service, please call for a "Return Goods Authorization" number. It's a simple computer form we fill out so that when your tool arrives, our service people can quickly figure out what needs to be done with it. This simple step helps us get the work done quickly and send it back to you as soon as possible.

Warning - Decontamination of tools used in hazardous or unsanitary environments is the responsibility of the shipper, by Federal law. StoneAge will not accept tools for repair which have not been adequately cleaned up. Please be sure that personnel returning tools understand their responsibilities and liabilities regarding shipping of tools contaminated with hazardous materials.

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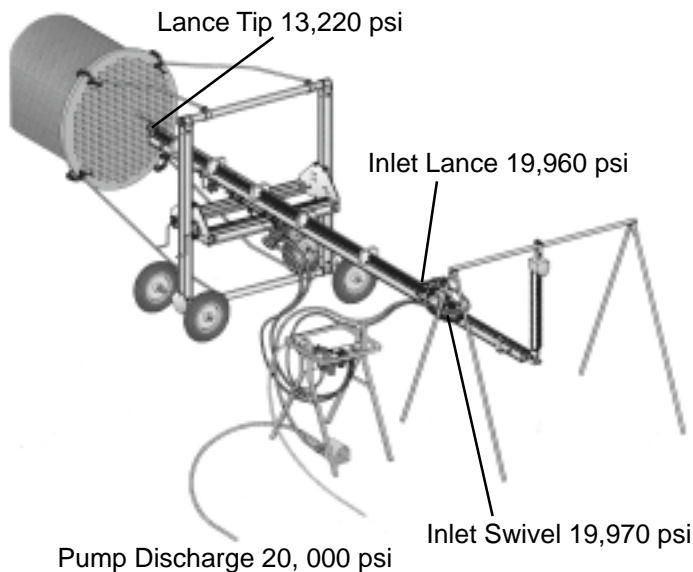
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Tech Corner — Don't Let Lance Pressure Drop Kill Lancing Power!



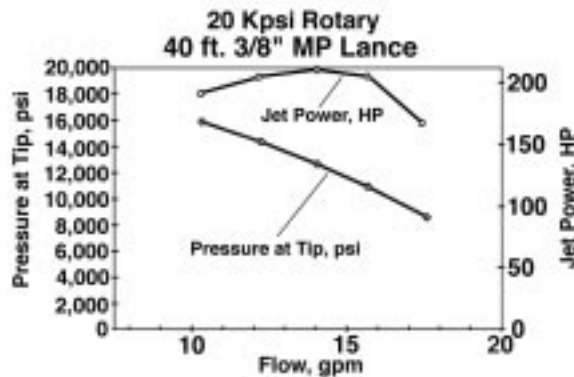
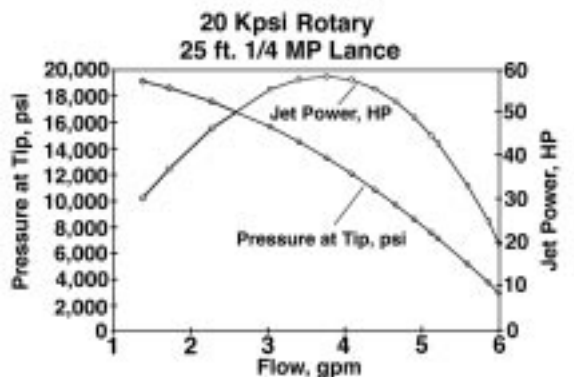
Rigid rotary lancing machines are the most powerful way to clean heat exchanger tubes. They improve safety by moving the operator away from the hazards of high pressure water, chemical, and debris splashback. The machine doesn't get tired, and the mechanically controlled stroke is repeatable and uniform. As a result heat transfer is restored better than with any manual method. But to get the maximum possible power out of the system, StoneAge engineers apply basic principles of fluid dynamics.

In many cases finding the maximum power condition is simple - jet the lance tip for all the pressure and flow available. But that's not true in all cases, especially with small diameter lances, very long lances, or unusually high flow. In these cases, pressure drop in the lances can severely limit power at the jets. The case illustrated here is a good example. Needing to clean small diameter heat exchanger tubes, the contractor was forced to use a 25 ft long, 1/4 in. OD, medium pressure lance in his rotary lancing machine.

Viscosity of the water flowing through the small lance created so much resistance to flow, that pressure left at the lance tip was only a small fraction of the 20,000 psi available at the pump discharge. It's like driving a Corvette with a Geo Metro exhaust system! In such cases, power delivered at the lance tips can be significantly increased by jetting for flows less than the maximum available. In this case maximum power was achieved by running only 3.8 gpm through the lance. This situation gets more severe with 1/4 in. OD lances for 36 Kpsi, where the ID is even smaller, and maximum power requires limiting flow to around 2 gpm per lance.

Use the largest diameter lance whenever possible to minimize the pressure drop concern. You might not avoid the problem entirely, but restrictions will be less severe than with small diameter lances. For example, with a 40 ft long, 3/8 in. medium pressure lance, flow needs to be limited to 14 gpm to maximize power. For a 9/16 in. medium pressure lance, pressure drop is so low that you can confidently jet for maximum flows.

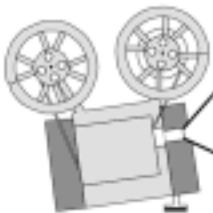
As you can see, specifying too much, or too little flow can seriously reduce performance. StoneAge engineers are pleased to help customers specify the most powerful lancing system we can build. So don't hesitate to ask for assistance when ordering a new system, or when replacing lance tips.



New Videos Available

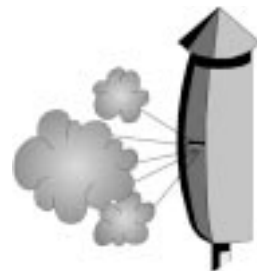
Presenting...

Two new videos are available - one is 28 minutes showing all tools in our catalog, in operation. The other is 6-1/2 minutes of **Warthog** Sewer Nozzle operation. These are helpful to show your customer what tools and methods you might use for a job. Call us or e-mail for a copy. VHS and PAL versions are available.



2000 Catalogs

New catalogs were mailed out last November. If you don't have a copy yet, call or e-mail for one. There are still lots of old catalogs in use, with obsolete tools, and old information that has been changed.



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**SPECIAL
LIMITED-TIME
OFFER**

Declare Independence from Vessel Entry Procedures

HURRICANE 3-D NOZZLE

\$ 5,995

Price includes carrying case, service kit, nozzle tips, cap, and pulling ring.
Regular price \$ 6,800. Sale price expires July 1, 2000.

15-80 gpm, 12,000 psi Max.

Jets rotate around two axes to clean the entire interior surface of a vessel without moving the **Hurricane 3-D**. Used as an alternate to manual methods requiring people to enter the vessel, the **Hurricane 3-D** eliminates the time-consuming precautions required by law for confined space entry. The result is improved safety, reduced labor expense, and quicker turnover of the customer's production facility. With downtime costing as much as \$ 15,000 per hour of lost sales in a typical world-scale process operation, the **Hurricane 3-D** makes the contractor's services more valuable.

The **Hurricane 3-D** has proven to be a reliable, effective tool around the world since its introduction in 1995. Its patented design features simple adjustment to facilitate use with pumps of different capacities. StoneAge offers **Telebooms** and **Simple Booms** to help position the **Hurricane 3-D** in a wide variety of vessels, and extension kits. So call us if we can help you start using this popular tool.

THE PRICE OF FREEDOM HAS NEVER BEEN LOWER!



Left - Nick Lopez
Machinist

Introducing
New Employees

Right - George DuChateau
Manufacturing Engineer



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