



**THE INDUSTRY'S MOST POWERFUL  
& DURABLE SEWER TOOLS**

[WWW.SEWERNOZZLES.COM](http://WWW.SEWERNOZZLES.COM)

**2022  
CATALOG**

# YOUR REPUTATION DESERVES THE BEST!

At StoneAge, we know you want to take on any sewer and drain cleaning job with confidence. To do that, you need nozzles that work. The problem is that clearing some obstructions is harder than it should be, and that can be frustrating. Your reputation deserves the best nozzles. We understand how maddening it can be when jobs don't go as planned, which is why we created Warthog sewer nozzles.

**STOP WASTING TIME AND MONEY.** Get the job done quickly and with confidence. **Use the chart on page 9** to find the right Warthog tool in three easy steps.

## WHAT STARTED OUT AS TWO GUYS IN A GARAGE...

StoneAge was launched in 1979 when co-founders John Wolgamott and Jerry Zink developed a new self-rotary waterjet nozzle in Jerry's garage. Originally intended for the mining industry "to cut holes in rock," the nozzles revolutionized the way tubes and pipes are cleaned. The founders' passion for research and development bred a culture of product innovation where the commitment to designing new tools and equipment has improved the way the waterblasting industry works for over 40 years. We are proud to be an employee-owned company focused on innovation and superior customer service.



## OUR DEALERS ARE YOUR PARTNERS

All Authorized Warthog Dealers are skilled professionals who understand your business. When it comes to the service and support you need to get the job done, they've got your back.

Our Dealers are trained and knowledgeable about Warthog products and can advise you on their best use and optimal maintenance for performance and durability.

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**VISIT [WWW.SEWERNOZZLES.COM/DEALERS](http://WWW.SEWERNOZZLES.COM/DEALERS)  
FOR A LIST OF AUTHORIZED DEALERS IN  
YOUR AREA**

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Cover Photo: Anna Johnson AQUIP Media, anna@quipco.com

# WE'VE GOT WHAT YOU NEED TO STAY INFORMED

## VISIT OUR WEBSITE OR DOWNLOAD OUR MOBILE APP

- Directory of authorized dealers and service center locations
- Product manuals and user instructions
- Complete library of instructional videos

[www.sewernozzles.com](http://www.sewernozzles.com)



## USE OUR JETTING APP

Use our free calculators to evaluate your pressure, flow and jetting so you can dial in the best working configuration for your job

[jetting.stoneagertools.com](http://jetting.stoneagertools.com)



## CONNECT ON SOCIAL MEDIA

We've created social media channels just for you! Join us on the platform of your liking for the latest products, industry news, tips and tricks and much more! Tag us to be featured: #WarthogNozzles



# CUSTOMER SERVICE

## WARTHOG® SEWER NOZZLES ARE SOLD EXCLUSIVELY THROUGH OUR NETWORK OF AUTHORIZED DEALERS

Good service means personal service. That's why you can only get Warthog products from an **Authorized Warthog Dealer**. Our Dealers provide you with competent advice, professional service and total customer care in all respects.



## TECHNICAL SUPPORT

For Technical Support, please contact your local Authorized Dealer. To find an Authorized Dealer near you, please visit [www.sewernozzles.com/dealers](http://www.sewernozzles.com/dealers).

You can also contact StoneAge directly for technical support questions: +1 (970) 259-2869

## MANUALS

Operator's manuals and repair videos for all equipment are available online. They illustrate tools, identify parts, and detail maintenance and overhaul procedures.

## REPAIRS

Check with your nearest Authorized Dealer for questions and inquiries regarding repair. Visit [www.sewernozzles.com/dealers](http://www.sewernozzles.com/dealers) for an Authorized Repair Center near you.

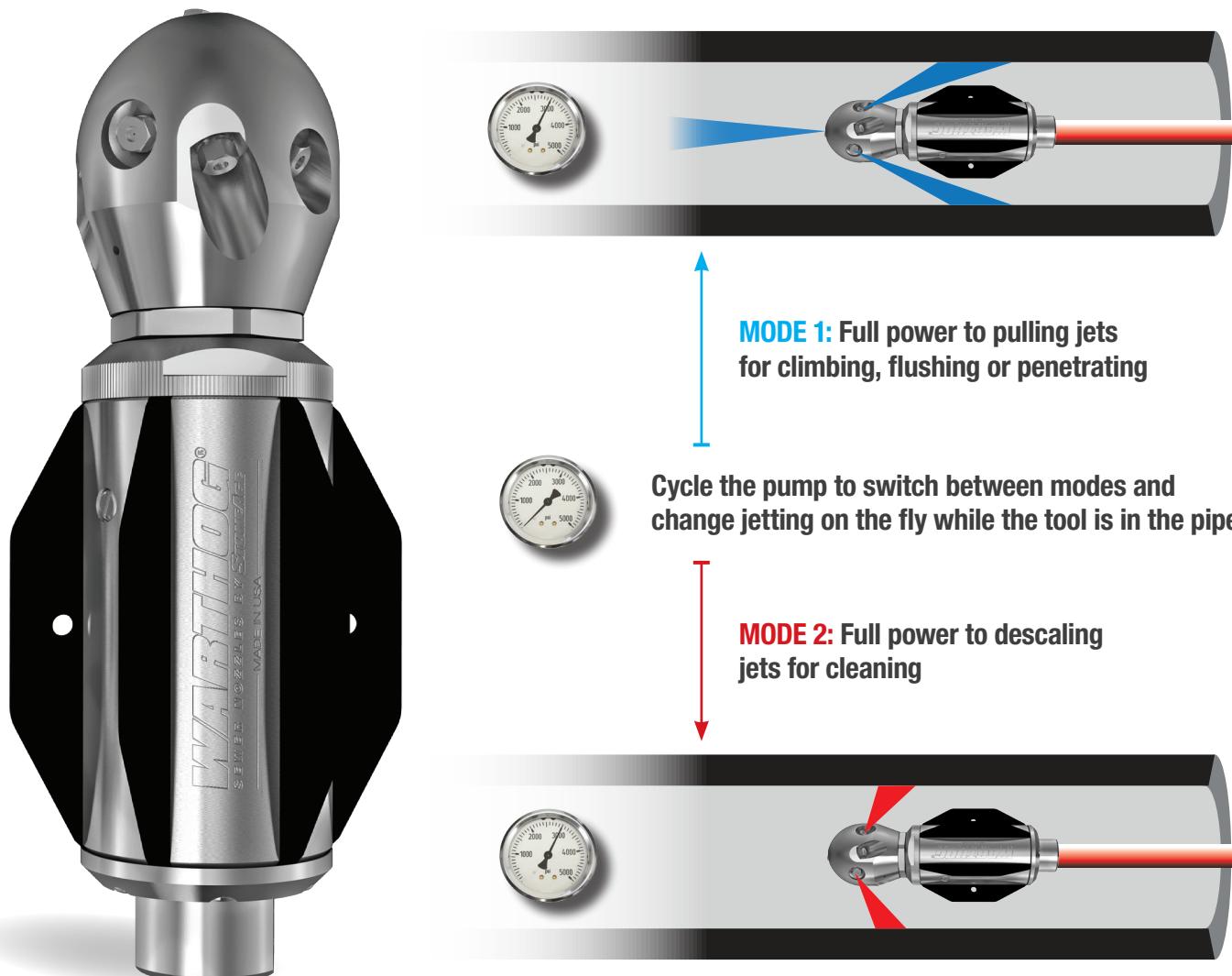
Repairs are also available through StoneAge tools. Visit: [www.sewernozzles.com/service](http://www.sewernozzles.com/service) to request a Return Merchandise Authorization (RMA) number for return of any Warthog parts.

**VISIT [WWW.SEWERNOZZLES.COM/DEALERS](http://WWW.SEWERNOZZLES.COM/DEALERS)  
FOR A LIST OF AUTHORIZED DEALERS IN YOUR AREA**

# SWITCHER™

PULLING AND DESCALING WITHOUT LEAVING THE PIPE

- SAVE MONEY & TIME WITH LESS WATER AND HALF THE RUNS
- FULL POWER PULLING AND FULL POWER DESCALING IN ONE NOZZLE
- FOR CLEANING SEWER LINES FROM 6-36"



**“**For me, it's the versatility. It has the ability to cut roots in cleaning mode without blowing up the houses. It's also very important that it climbs hills very effectively – which it does. It's revolutionary. **There is no other product in the market today that will switch like that.**

Jason Demartini – Vallejo Sanitation

## NEW WARTHOG MODELS

We are excited to introduce two new Warthog Magnum nozzles built to combat two of the biggest problems when it comes to sewer cleaning: removing roots and blowing toilets.

NEW FOR  
2020

### CONTROL CLEAN™ BLOWN TOILET PREVENTION

Until now, hydro-jetting sewer lines without “blowing a toilet” has required the use of flows and pressures so low they don't clean very well. The new **WGR Magnum Control Clean** is the only nozzle that allows full-power cleaning without blowing toilets. This proprietary technology maximizes the flow without the “blow.”

- Full power cleaning without blowing toilets\*
- Unique dual-mode operation (page 6)
- Patented Magnum technology



\*Not all pipes and sewer cleaning conditions are the same. To learn how to optimize your new WGR Magnum Control Clean nozzle, contact your local dealer.



NEW FOR  
2020

### ROOT DESTROYER

Roots in the line collect grease and debris and cause blockages.

The new **WGR Magnum Root Destroyer** nozzle has a unique multi-jet configuration designed to remove roots quickly and efficiently, saving you time and money.

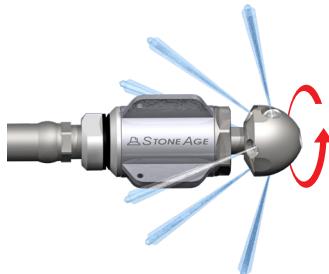
**“**The 3 extra jets make a huge difference. This thing was EATING the roots!"

JC Spalding,  
502 Equipment

- Clears roots faster, saving time, water and money
- Eliminate the use of mechanical tools that can damage the pipe
- The only controlled rotation nozzle optimized to destroy roots

These new nozzles are exciting additions to our premier controlled rotation nozzle line that will help you remove obstructions faster, clean better, and keep your customers happy.

## WHY CONTROLLED ROTATION?



Only rotating nozzles clean the whole pipe – fixed jets do not hit the whole pipe surface leaving “stripes.”

A nozzle spinning at high speed creates splash but doesn’t clean much. Warthog nozzles use a fluid braking system to slow nozzle rotation so that the jets have time to penetrate and break up deposits.

### NOZZLE OPTIONS



#### MAGNUM:

- 1600 hour extended service life
- Handles recycled water
- Patented switcher technology
- Use one nozzle for pulling or descaling



#### CLASSIC:

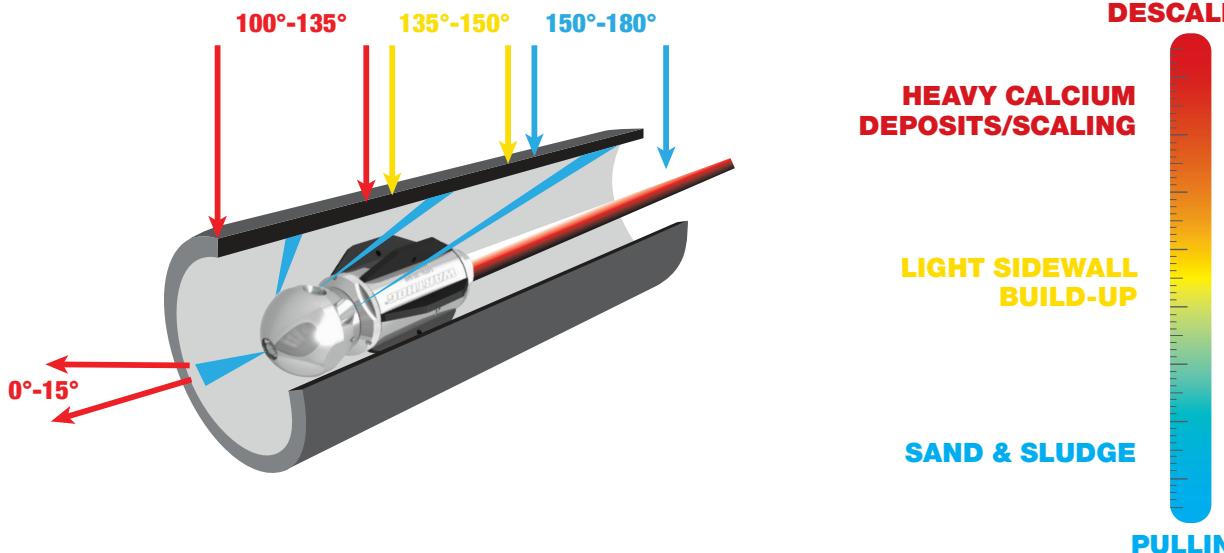
- Full range of sizes for pipes from 2-36"
- Head options for a wide range of flow
- Dependable industry workhorse since 1990

### TOOL CONFIGURATION

Warthog sewer nozzles come in standard, descaling, and pulling configurations.

Standard nozzles utilize controlled rotation technology and a balanced jetting configuration to deliver superior results in nearly all applications. We also offer nozzles that tune descaling or pulling performance for a variety of special conditions.

*See the illustration below for the relationship between jet angle and performance characteristics.*



## WHICH TOOL IS RIGHT FOR YOU?

- ① PIPE SIZE
- ② EQUIPMENT
- ③ APPLICATION

Pipe Inner Diameter	FLOW RANGE		PRESSURE		INLET	STANDARD	DESCALING	PULLING	BLAST PREVENTION	ROOT CUTTING	SWITCHER	RECYCLED WATER	SMALL PIPE BENDS	EXTENDED SERVICE LIFE	PAGE
	GPM	LPM	PSI	BAR											
8-36" 203-914mm	MAGNUM	50-120	189-454	1200-5K	83-345	1" & 1 1/4" NPT OR BSPP	●	●	●	●	●	●	●	●	10
	CLASSIC	50-120	189-454	1200-5K	83-345	1" & 1 1/4" NPT OR BSPP	●	●							14
6-18" 152-457mm	MAGNUM	14-60	53-227	1200-8K	83-552	1/2" & 3/4" NPT OR BSPP	●	●		●	●				12
	CLASSIC	10-50	38-189	1200-8K	83-552	1/2" & 3/4" NPT OR BSPP	●	●							15
4-8" 102-203mm	CLASSIC	9-21	34-79	1200-5K	83-345	1/2" NPT OR BSPP	●	●							16
	CLASSIC	5-21	19-79	1200-5K	83-345	3/8" & 1/2" NPT OR BSPP	●						●		17
3-6" 76-152mm	CLASSIC	3-8	11-30	1200-5K	83-345	1/4" NPT OR BSPP	●								17
2-4" 51-102mm	CLASSIC														

### NOZZLE TERMINOLOGY

**Standard** Nozzles with a balanced jetting configuration that deliver ideal results in most conditions

**Descaling** Nozzles with jet angles that deliver greater impact to the side of the pipe in order to remove heavy calcium deposits, scaling and sidewall build-up

**Pulling** Nozzles with jet angles that create additional thrust for long runs, climbs, or flushing

**Switcher** A Warthog Magnum with patented technology enabling the operator to send full pump flow to either a set of pulling jets **OR** a set of descaling jets while the tool is in the pipe

**Blast Prevention** A new Warthog Magnum nozzle using patented Blast Prevention technology to allow full-power cleaning without blowing toilets or pulling traps

**Root Destroyer** A new Warthog Magnum nozzle combining controlled rotation with a unique 8 jet cutting configuration optimized for removing roots

## WGR MAGNUM

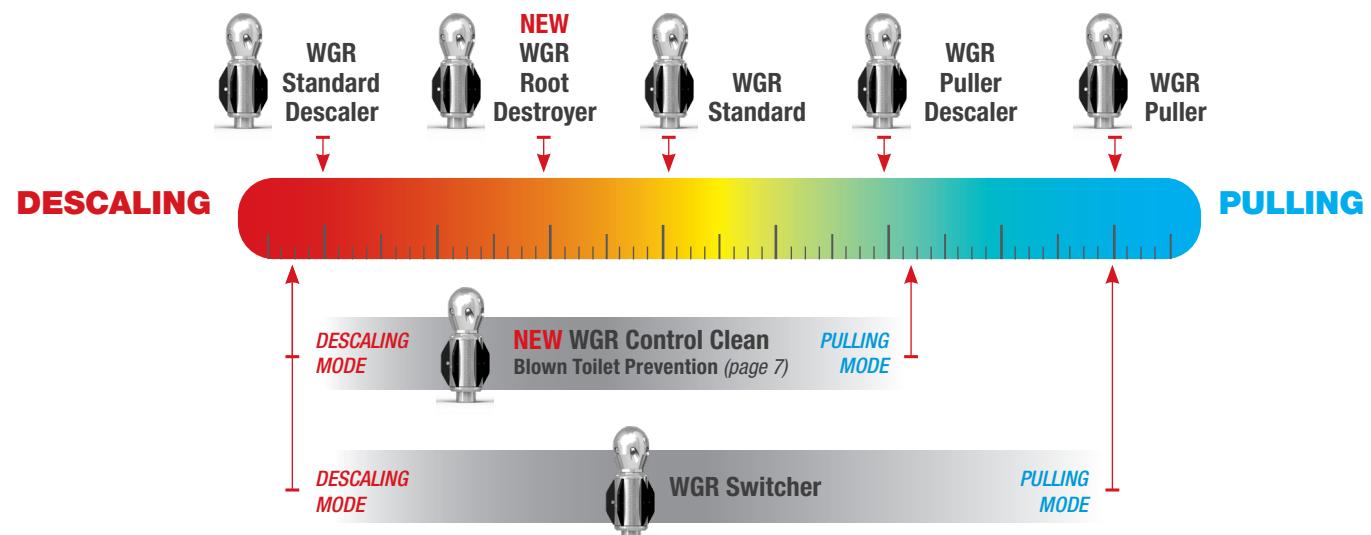
**PIPE SIZE:** 8-36" (203-914 MM)

**INLET:** 1" AND 1-1/4" NPT OR BSPP

- Extended life, reduced downtime
- Durable carbide nozzles
- Customizable rotation speed
- Descaler ports standard

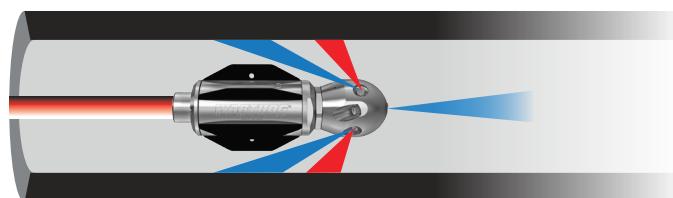


Choose the WGR configuration below that meets the needs of your job – whether you need more **descaling** power, more **pulling** power – or both!

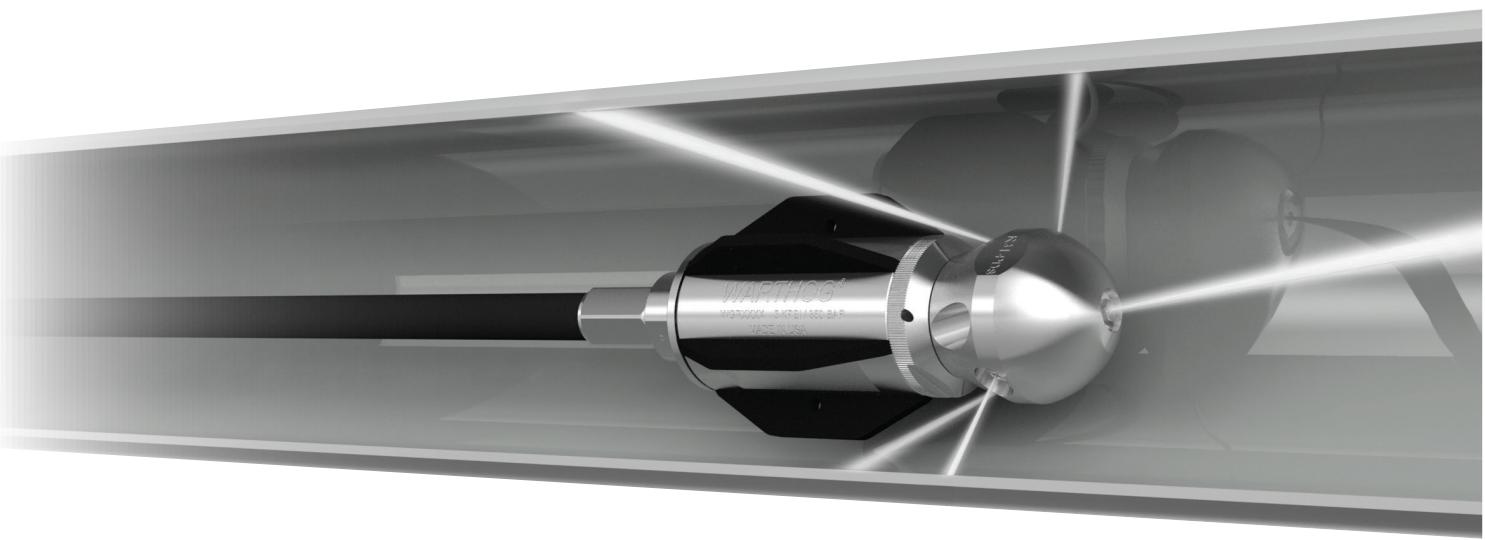


*The Switcher nozzles, including the **NEW WGR Control Clean** for preventing blown toilets, use patented technology to switch between descaling mode and pulling mode to deliver the most Cleaning Power **AND** Pulling Power.*

Learn more on pages 6-7



**DESCALING MODE   PULLING MODE**



### WGR HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGR-1
PULLER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGRP-1
STANDARD DESCALER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGR-DS
	1 1/4" NPT OR BSPP	80-120	303-454	1200-5K	83-345	WGR-1-1/4
PULLER DESCALER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGRP-DS
ROOT DESTROYER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGR-1-RD

### WGR SWITCHER HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
BLAST PREVENTION	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGR-1-CC
STANDARD DESCALER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGR-1-SWT
	1 1/4" NPT OR BSPP	80-120	303-454	1200-5K	83-345	WGR-1-1/4-SWT

### WGR ACCESSORIES

See centralizers for the WGR on page 18

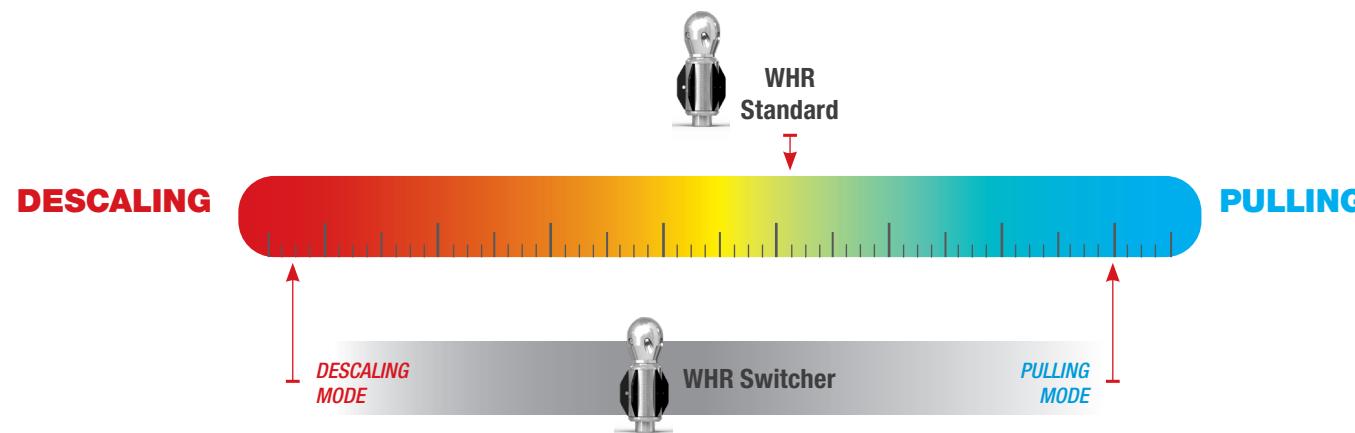
## WHR MAGNUM

**PIPE SIZE:** 6-18" (152-457 MM)  
**INLET:** 1/2" AND 3/4" NPT OR BSPP

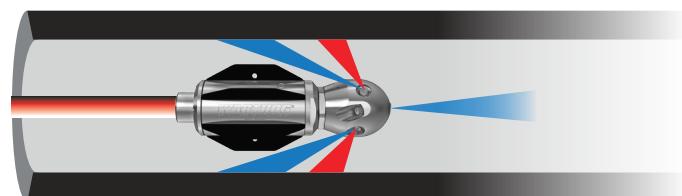
- Extended life, reduced downtime
- Durable carbide nozzles
- Customizable rotation speed



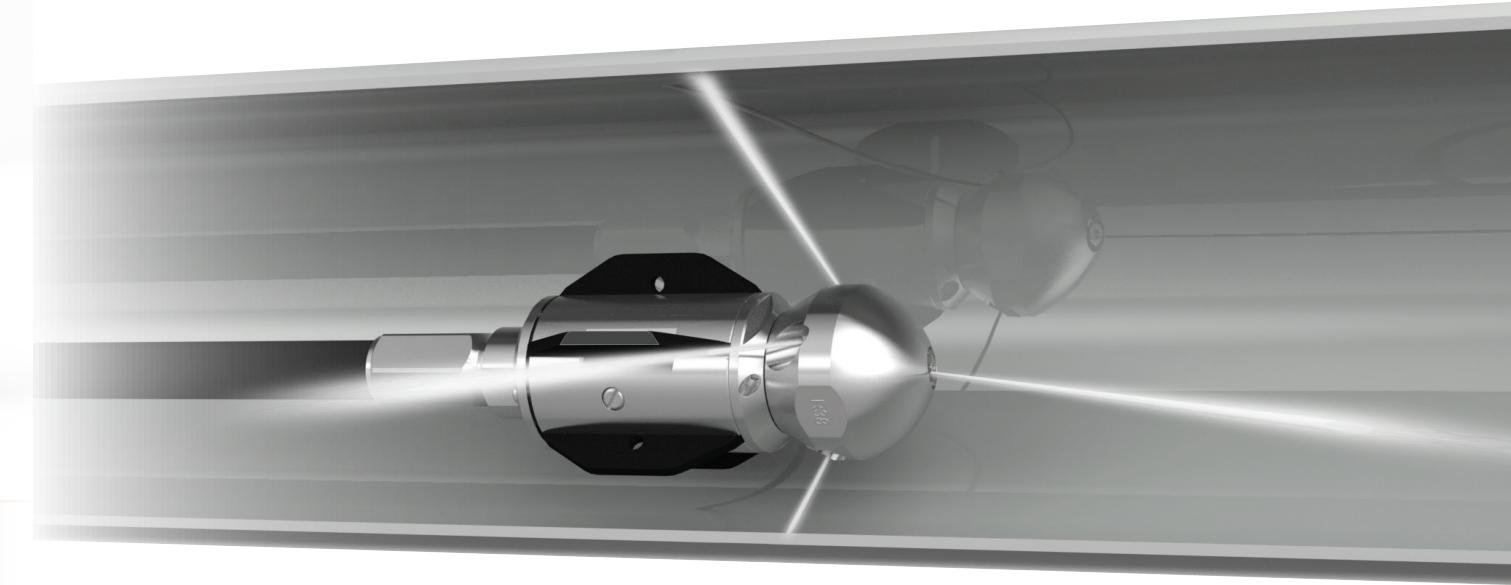
Choose the WHR configuration below that meets the needs of your job – whether you need more **descaling** power, more **pulling** power – **or both!**



The **WHR Switcher** nozzles use patented technology to switch between descaling mode and pulling mode to deliver the most Cleaning Power **AND** Pulling Power. Learn more on page 6



**DESCALING MODE**   **PULLING MODE**



### WHR HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1/2" NPT OR BSPP	14-50	53-190	1200-8K	83-552	WHR-1/2
	3/4" NPT OR BSPP	14-50	53-190	1200-8K	83-552	WHR-3/4

### WHR SWITCHER HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
SWITCHER	1/2" NPT OR BSPP	14-45	53-170	1200-8K	83-552	WHR-1/2-SWT
	3/4" NPT OR BSPP	20-45	76-170	1200-8K	83-552	WHR-3/4-SWT
SWITCHER HYBRID	3/4" NPT OR BSPP	45-60	170-227	1200-5K	83-345	WHR-3/4-SWT-HYBRID

### WHR ACCESSORIES

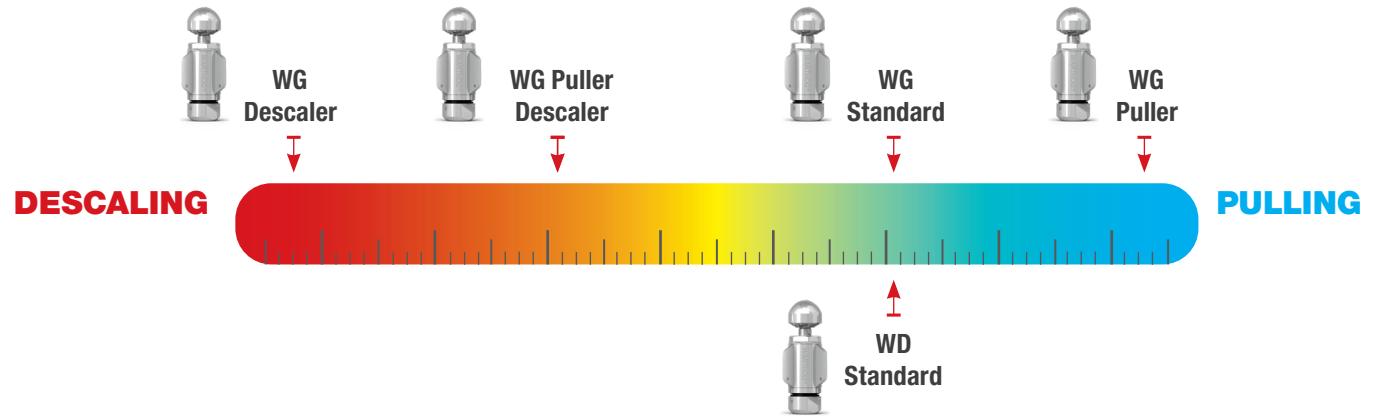
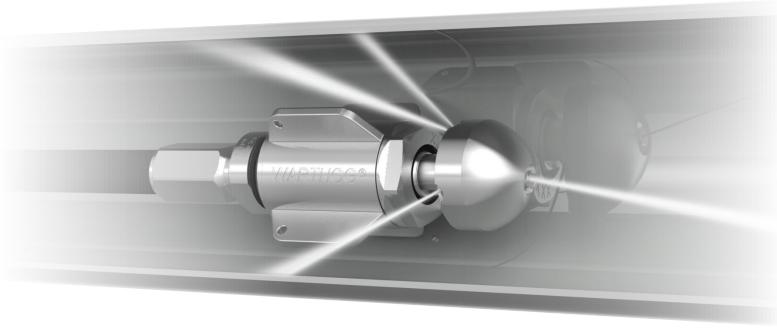
See centralizers for the WHR on page 18

## WG & WD CLASSIC

**PIPE SIZE:** 8-36" (203-914 MM)

**INLET:** 1" AND 1-1/4"NPT OR BSPP

- The industry's work-horse nozzle since 1990
- Controlled rotation allows jets to penetrate deeper through deposits to clean and clear pipes



### WG HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WG-1
DESCALER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGDS-1
PULLER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGP-1
PULLER DESCALER	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WGPDS-1

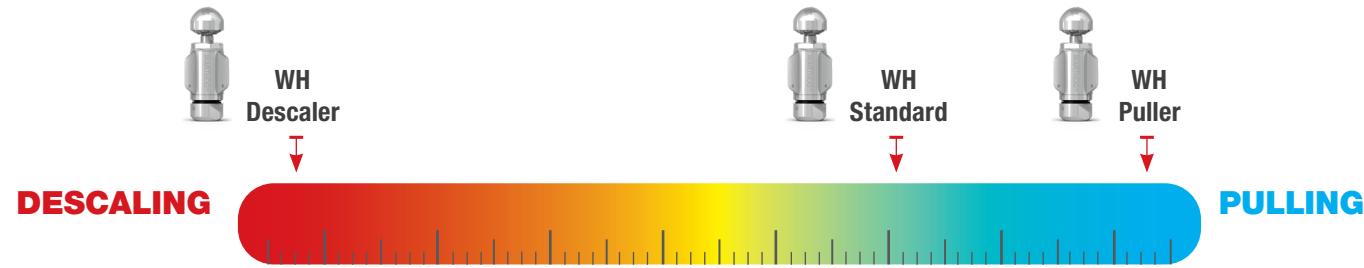
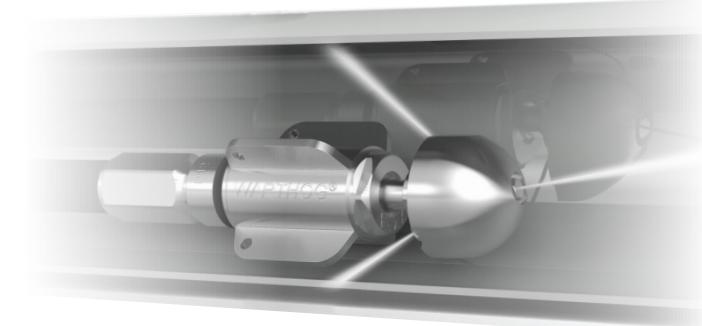
### WD HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1 1/4" NPT OR BSPP	80-120	303-454	1200-5K	83-345	WD-1-1/4

## WH CLASSIC

**PIPE SIZE:** 6-18" (152-457 MM)

**INLET:** 1/2" AND 3/4" NPT OR BSPP



### WH HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1/2" NPT OR BSPP	10-20	38-76	1200-8K	83-552	WH-1/2
	3/4" NPT OR BSPP	10-50	38-189	1200-8K	83-552	WH-3/4
DESCALER	1/2" NPT OR BSPP	10-14	38-53	1200-8K	83-552	WH-1/2-DS
	3/4" NPT OR BSPP	10-50	38-189	1200-8K	83-552	WH-3/4-DS
PULLER	3/4" NPT OR BSPP	15-50	57-189	1200-8K	83-552	WHP-3/4

## WS CLASSIC

**PIPE SIZE:** 4-8" LINES (102-203 MM)

**INLET:** 1/2" NPT OR BSPP

- Navigates sweeping bends
- Whip hose, jointed inlet and rigid connection available



### WS-J JOINTED INLET OPTION

The inlet hose rotates to the side, shortening the rigid length of the tool, which allows access to tighter areas.



### WS-PKG WHIP HOSE OPTION

The whip hose reduces wear on the pressure hose.



### WS-P8 RIGID INLET OPTION

Allows the pressure hose to be connected directly to the nozzle.



### WS HEAD OPTIONS

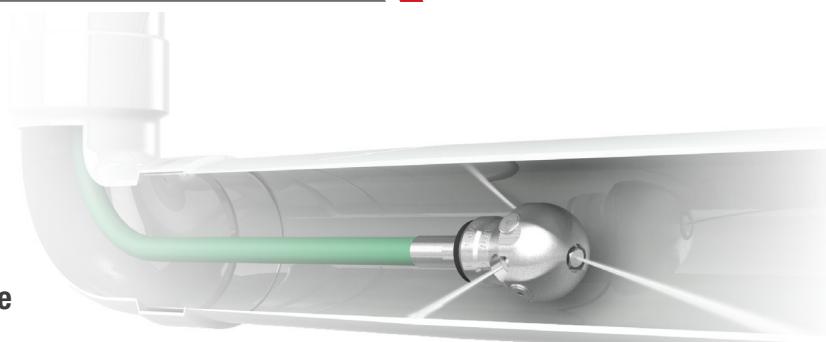
HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1/2" NPT OR BSPP	9-21	34-79	1200-5K	83-345	WS-1/2
DESCALER	1/2" NPT OR BSPP	9-21	34-79	1200-5K	83-345	WSDS-1/2

## WT CLASSIC

**PIPE SIZE:** 3-6" LINES (76-152 MM)

**INLET:** 3/8" AND 1/2" NPT OR BSPP

- Carbide wear buttons extend nozzle life
- Navigates multiple bends



### DESCALING

### WT HEAD OPTIONS

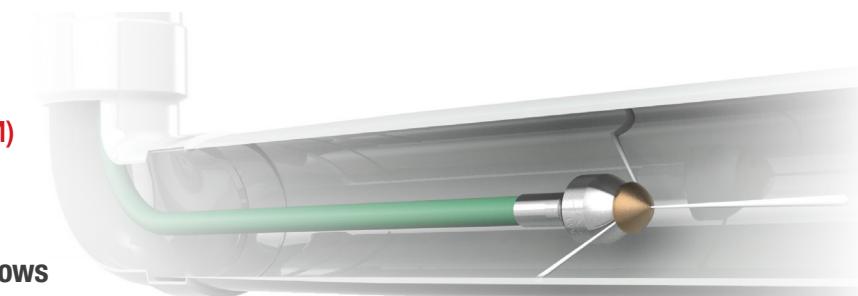
HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1/2" NPT OR BSPP	5-21	19-79	1200-5K	83-345	WT-1/2
	3/8" NPT OR BSPP	5-12	19-45	1200-5K	83-345	WT-3/8

## WV CLASSIC

**PIPE SIZE:** 2-4" LINES (51-102 MM)

**INLET:** 1/4" NPT OR BSPP

- Excellent for navigating multiple elbows
- No high-pressure seals or bearings to maintain
- Easily replaceable heads



### DESCALING

### WV HEAD OPTIONS

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1/4" NPT OR BSPP	3-8	11-30	1200-5K	83-345	WV-1/4-LK

## CENTRALIZERS

A centralizer helps to protect the tool as it passes through the pipe and balances jet standoff distance for more consistent cleaning. In cases where pipe size is more than 1.5 times the diameter of the tool, a centralizer is an important safety device, preventing the tool from turning around and thrusting backwards out of the pipe.



### 6-WHEEL ADJUSTABLE CENTRALIZER

**WG 286-M-P16 – DESIGNED FOR STRAIGHT PIPES**



### 8-WHEEL ADJUSTABLE CENTRALIZER

**WG 288-M-P16 – DESIGNED FOR PIPES WITH BENDS**



### POLY-FIN CENTRALIZER

**WG 070**



### SUPER CENTRALIZER

**WS 084 – 4.5" DIAMETER** For 5" (127 mm) minimum pipe ID

**WH 085 – 5.5" DIAMETER** For 6" (152 mm) minimum pipe ID

**WG 085 – 7" DIAMETER** For 8" (203 mm) minimum pipe ID

## MANHOLE CLEANER

**MANHOLE SIZE: 18-36" (457-914 MM)**

**INLET: 1" NPT OR BSPP**

TURN YOUR WARTHOG PIPE  
CLEANING TOOL INTO AN EFFECTIVE  
MANHOLE CLEANER!

- Fast and efficient cleaning
- Safer than manual cleaning methods



The benefit of using this design is that the jets are directed at the manhole walls at all times — making it much more effective and safer than 3D style tools or manual methods.

This conversion simply requires exchanging the standard WG 040 head with the Manhole Cleaner head kit.

**! STONEAGE RECOMMENDS THE USE OF A  
COVER PLATE FOR INCREASED SAFETY.  
SEE PAGE 22 FOR IMPORTANT SAFETY INFORMATION.**

HEAD OPTION	INLET	FLOW RANGE		PRESSURE		MODEL
		GPM	LPM	PSI	BAR	
STANDARD	1" NPT OR BSPP	50-80	189-303	1200-5K	83-345	WG-MH

Contact your dealer today to learn more about our accessories so you can maximize the cleaning effectiveness of Warthog sewer nozzles for specific job requirements.

## TERMS & CONDITIONS

**1. Acceptance of Terms and Conditions.** Receipt of these Terms and Conditions of Sale ("Terms and Conditions") shall operate as the acceptance by StoneAge, Inc. ("Seller") of the order submitted by the purchaser ("Buyer"). Such acceptance is made expressly conditional on assent by Buyer to these Terms and Conditions. Such assent shall be deemed to have been given unless written notice of objection to any of these Terms and Conditions (including inconsistencies between Buyer's purchase order and this acceptance) is given by Buyer to Seller promptly on receipt hereof.

Seller desires to provide Buyer with prompt and efficient service. However, to individually negotiate the terms of each sales contract would substantially impair Seller's ability to provide such service. Accordingly, the product(s) furnished by Seller are sold only according to the terms and conditions stated herein and with the terms and conditions stated in any effective StoneAge Dealer Agreement or StoneAge Reseller Agreement, if applicable. Notwithstanding any terms and conditions on Buyer's order, Seller's performance of any contract is expressly made conditional on Buyer's agreement to these Terms and Conditions unless otherwise specifically agreed to in writing by Seller. In the absence of such agreement, commencement of performance, shipment and/or delivery shall be for Buyer's convenience only and shall not be deemed or construed to be an acceptance of Buyer's terms and conditions.

**2. Payment/Prices.** Unless other arrangements have been made in writing between Seller and Buyer, payment for the product(s) shall be made upon receipt of invoice. The prices shown on the face hereof are those currently in effect. Prices invoiced shall be per price list in effect at the time of shipment. Prices are subject to increase for inclusion of any and all taxes which are applicable and which arise from the sale, delivery or use of the product(s), and the collection of which Seller is or may be responsible to provide to any governmental authority, unless acceptable exemption certificates are provided by Buyer in accordance with applicable law. Buyer shall pay all charges for transportation and delivery and all excise, order, occupation, use or similar taxes, duties, levies, charges or surcharges applicable to the product(s) being purchased, whether now in effect or hereafter imposed by any governmental authority, foreign or domestic.

**3. Warranty.** SELLER MAKES NO WARRANTIES OR REPRESENTATIONS AS TO THE PERFORMANCE OF ANY PRODUCT EXCEPT AS SET FORTH IN THE STONEAGE LIMITED WARRANTY PROVIDED WITH THE PRODUCT.

**4. Delivery.** Seller is not obligated to make delivery by a specified date, but will always use its best efforts to make delivery within the time requested. The proposed shipment date is an estimate. Seller will notify Buyer promptly of any material delay and will specify the revised delivery date as soon as practicable. UNDER NO CIRCUMSTANCES SHALL SELLER HAVE ANY LIABILITY WHATSOEVER FOR LOSS OF USE OR FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM DELAY REGARDLESS OF THE REASON(S).

All product(s) will be shipped F.O.B. point of origin, unless specifically agreed otherwise, and Buyer shall pay all shipping costs and insurance costs from that point. Seller, in its sole discretion, will determine and arrange the means and manner of transportation of the product(s). Buyer shall bear all risk of loss commencing with the shipment or distribution of the product(s) from Seller's warehouse. Order shortages or errors must be reported within fifteen (15) business days from receipt of shipment to secure adjustment. No product(s) may be returned without securing written approval from Seller.

**5. Modification.** These Terms and Conditions are intended by Seller and Buyer to constitute a final, complete and exclusive expression of agreement relating to the subject matter hereof and cannot be supplemented or amended without Seller's prior written approval.

**6. Omission.** Seller's waiver of any breach or Seller's failure to enforce any of these Terms and Conditions at any time, shall not in any way affect, limit or waive Seller's right thereafter to enforce and compel strict compliance with every term and condition hereof.

**7. Severability.** If any provision of these Terms and Conditions is held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the other portions hereof.

**8. Disputes.** Seller and Buyer shall attempt in good faith to promptly resolve any dispute arising under these Terms and Conditions by negotiations between representatives who have authority to settle the controversy. If unsuccessful, Seller and Buyer shall further attempt in good faith to settle the dispute by nonbinding third-party mediation, with fees and expenses of such mediation apportioned equally to each side. Any dispute not so resolved by negotiation or mediation may then be submitted to a court of competent jurisdiction in accordance with the terms hereof. These procedures are the exclusive procedures for the resolution of all such disputes between the Seller and Buyer.

**9. Governing Law.** All sales, agreements for sale, offers to sell, proposals, acknowledgments and contracts of sale, including, but not limited to, purchase orders accepted by Seller, shall be considered a contract under the laws of the State of Colorado and the rights and duties of all persons, and the construction and effect of all provisions hereof shall be governed by and construed according to the laws of such state.

**10. Jurisdiction and Venue.** Seller and Buyer agree that the state or federal courts located within the City and County of Denver, Colorado shall have sole and exclusive jurisdiction over any litigation concerning any dispute arising under these Terms and Conditions not otherwise resolved pursuant to Section 9 as well as any alleged defects of any Products or damages sustained as a result of such alleged defects. Seller and Buyer further agree that should any litigation be commenced in connection with such a dispute, it shall only be commenced in such courts. Seller and Buyer agree to the exclusive jurisdiction of such courts and neither will raise any objection to the jurisdiction and venue of such courts, including as a result of inconvenience.

**11. Attorney's Fees.** If any litigation is commenced between Seller and Buyer, or their personal representatives, concerning any provision hereof, the party prevailing in the litigation shall be entitled, in addition to such other relief that is granted, to a reasonable sum as and for their attorneys' fees and costs in such litigation or mediation.

### STONEAGE TRADEMARK LIST

View the list of StoneAge's trademarks and service marks and learn how the trademarks should be used. Use of StoneAge trademarks may be prohibited, unless expressly authorized.

<http://www.StoneAgeTools.com/trademark-list/>

### STONEAGE PATENT DATA

View the list of StoneAge's current U.S. patent numbers and descriptions.

<http://www.sapatents.com>

### STONEAGE TERMS AND WARRANTY

View StoneAge's Terms and Warranty Conditions online.

<http://www.stoneagetoools.com/terms>

<http://www.stoneagetoools.com/warranty>

Warranties set forth herein extend only to End-Users, meaning customers acquiring, or that have previously acquired, a product manufactured by StoneAge ("Product") for their own use and not for resale, either directly from StoneAge Inc. ("StoneAge") or from a StoneAge Authorized Dealer or Reseller ("Dealer"). No warranty of any kind or nature is made by StoneAge beyond those expressly stated herein.

**1. LIMITED WARRANTY PERIOD.** Subject to the limitations and conditions hereinafter set forth, StoneAge warrants its Product to be free from defects in workmanship and material for a period of one (1) year from the date of purchase by the End-User, provided that the end of the limited warranty period shall not be later than eighteen (18) months from the date of shipment of the Product to the Dealer or the End-User by StoneAge ("Limited Warranty Period"). All replacement parts which are furnished under this Limited Warranty and properly installed shall be warranted to the same extent as the original Product under this Limited Warranty if, and only if, the original parts were found to be defective within the original Limited Warranty Period covering the original Product. Replacement parts are warranted for the remainder of the original Limited Warranty Period. This Limited Warranty does not cover any component part of any Product not manufactured by StoneAge. Any such component part is subject exclusively to the component manufacturer's warranty terms and conditions.

**2. LIMITED WARRANTY COVERAGE.** StoneAge's sole obligation under this Limited Warranty shall be, at StoneAge's option and upon StoneAge's inspection, to repair, replace or issue a credit for any Product which is determined by StoneAge to be defective in material or workmanship. StoneAge reserves the right to examine the alleged defective Product to determine whether this Limited Warranty is applicable, and final determination of limited warranty coverage lies solely with StoneAge. No statement or recommendation made by a StoneAge representative, Dealer or agent to End-User shall constitute a warranty by StoneAge or a waiver or modification to any of the provisions hereof or create any liability for StoneAge.

**3. WARRANTY SERVICE PROVIDERS.** Service and repair of the Product is to be performed only by StoneAge authorized service representatives, including Dealers who are authorized repair centers, with StoneAge approved parts. Information about StoneAge authorized service representatives can be obtained through the StoneAge website at [www.stoneagetoools.com/service](http://www.stoneagetoools.com/service). Unauthorized service, repair or modification of the Product or use of parts not approved by StoneAge will void this Limited Warranty. StoneAge reserves the right to change or improve the material and design of the Product at any time without notice to End-User, and StoneAge is not obligated to make the same improvements during warranty service to any Product previously manufactured.

**4. WARRANTY EXCLUSIONS.** This Limited Warranty does not cover, and StoneAge shall not be responsible for the following, or damage caused by the following: (1) any Product that has been altered or modified in any way not approved by StoneAge in advance in writing; (2) any Product that has been operated under more severe conditions or beyond the rated capacity specified for that Product; (3) depreciation or damage caused by normal wear and tear, failure to follow operation or installation instructions, misuse, negligence or lack of proper protection during storage; (4) exposure to fire, moisture, water intrusion, electrical stress, insects, explosions, extraordinary weather and/or environmental conditions including, but not limited to lightning, natural disasters, storms, windstorms, hail, earthquakes, acts of God or any other force majeure event; (5) damage to any Product caused by any attempt to repair, replace, or service the Product by persons other than StoneAge authorized service representatives; (6) costs of normal maintenance parts and services; (7) damage sustained during unloading, shipment or transit of the Product; or (8) failure to perform the recommended periodic maintenance procedures listed in the Operator's Manual accompanying the Product.

**5. REQUIRED WARRANTY PROCEDURES.** To be eligible for warranty service, the End-User must: (1) report the Product defect to the entity where the Product was purchased (i.e. StoneAge or the Dealer) within the Limited Warranty Period specified in this Limited Warranty; (2) submit the original

invoice to establish ownership and date of purchase; and (3) make the Product available to a StoneAge authorized service representative for inspection to determine eligibility for coverage under this Limited Warranty. This Limited Warranty shall not extend to any person or entity who fails to provide proof of original purchase from StoneAge or a Dealer. No Product may be returned for credit or adjustment without prior written permission from StoneAge.

### 6. DISCLAIMER OF IMPLIED WARRANTIES AND OTHER REMEDIES.

EXCEPT AS EXPRESSLY STATED HEREIN (AND TO THE FULLEST EXTENT ALLOWED UNDER APPLICABLE LAW), STONEAGE HEREBY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY AND ALL WARRANTIES, REPRESENTATIONS OR PROMISES AS TO THE QUALITY, PERFORMANCE OR FREEDOM FROM DEFECT OF THE PRODUCT COVERED BY THIS LIMITED WARRANTY. STONEAGE FURTHER DISCLAIMS ALL IMPLIED INDEMNITIES.

**7. LIMITATION OF LIABILITY.** End-User specifically acknowledges that the Product may be operated at high speeds and/or pressures, and that as such it may be inherently dangerous if not used correctly. End-User shall familiarize itself with all operation materials provided by StoneAge and shall at all times use and require its agents, employees and contractors to use all necessary and appropriate safety devices, guards and proper safe operating procedures. In no event shall StoneAge be responsible for any injuries to persons or property caused directly or indirectly by the operation of the Product if End-User or any agent, employee, or contractor of End-User: (1) fails to use all necessary and appropriate safety devices, guards and proper safe operating procedures; (2) fails to maintain in good working order such safety devices and guards; (3) alters or modifies the Product in any way not approved by StoneAge in advance in writing; (4) allows the Product to be operated under more severe conditions or beyond the rated capacity specified for the Product; or (5) otherwise negligently operates the Product. End-User shall indemnify and hold StoneAge harmless from any and all liability or obligation incurred by or against StoneAge, including costs and attorneys' fees, to or by any person so injured.

TO THE FULL EXTENT ALLOWED BY APPLICABLE LAW, STONEAGE SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES (INCLUDING WITHOUT LIMITATION, LOSS OF PROFITS, LOSS OF GOODWILL, DIMINUTION OF VALUE, WORK STOPPAGE, INTERRUPTION OF BUSINESS, RENTAL OF SUBSTITUTE PRODUCT, OR OTHER COMMERCIAL LOSS EVEN TO THE EXTENT SUCH DAMAGES WOULD CONSTITUTE DIRECT DAMAGES), WITH RESPECT TO THE COVERED STONEAGE PRODUCT, OR OTHERWISE IN CONNECTION WITH THIS LIMITED WARRANTY, REGARDLESS OF WHETHER STONEAGE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

IT IS UNDERSTOOD THAT STONEAGE'S LIABILITY, WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY, IN NEGLIGENCE, OR OTHERWISE SHALL NOT EXCEED THE AMOUNT OF THE PURCHASE PRICE PAID BY THE END-USER FOR THE PRODUCT. STONEAGE'S MAXIMUM LIABILITY SHALL NOT EXCEED, AND END-USER'S REMEDY IS LIMITED TO EITHER (1) REPAIR OR REPLACEMENT OF THE DEFECTIVE WORKMANSHIP OR MATERIAL OR, AT STONEAGE'S OPTION, (2) REFUND OF THE PURCHASE PRICE, OR (3) ISSUANCE OF A CREDIT FOR THE PURCHASE PRICE, AND SUCH REMEDIES SHALL BE END-USER'S ENTIRE AND EXCLUSIVE REMEDY.

YOU, THE END-USER, UNDERSTAND AND EXPRESSLY AGREE THAT THE FOREGOING LIMITATIONS ON LIABILITY ARE PART OF THE CONSIDERATION IN THE PRICE OF THE STONEAGE PRODUCT YOU PURCHASED.

Some jurisdictions do not allow the limitation or exclusion of liability for certain damages, so the above limitations and exclusions may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction. If any provisions of this Limited Warranty is held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the other portions hereof.

# ⚠️ **WARNING** ⚠️

**Operations with waterjetting equipment can be potentially hazardous. Caution MUST be exercised prior to and during machine and water jet tool use.**

Please read and follow all of these instructions, in addition to the guidelines in the WJTA Recommended Practices handbook, available online at [www.wjta.org](http://www.wjta.org). Deviating from safety instructions and recommended practices can lead to severe injury and/or death.

- Do not exceed the maximum operating pressure specified for any component in a system.
  - The immediate work area MUST be marked off to keep out untrained persons.
  - Inspect the equipment for visible signs of deterioration, damage, and improper assembly. Do not operate if damaged, until repaired.
  - Make sure all threaded connections are tight and free of leaks.
  - Always de-energize the system before opening a door to service or replace any parts. Failure to do so can result in severe injury and/or death.

## **Pre-Run Safety Check**

Install mechanical stops, stingers and backout preventers as appropriate when doing any tube, pipe or vessel cleaning. See the WJTA-IMCA's Recommended Practices for the Use of High-Pressure Waterjetting Equipment and/or the Water Jetting Association's WJA Code of Practice for additional safety information.

- Complete a job specific risk assessment and act on the resulting actions.
  - Adhere to all site specific safety procedures.
  - Ensure the waterjetting zone is properly barricaded and that warning signs are posted.
  - Ensure the work place is free of unnecessary objects (e.g. loose parts, hoses, tools).
  - Ensure all Operators are using the correct Personal Protective Equipment (PPE).
  - Check that the air hoses are properly connected and tight.
  - Check all hoses and accessories for damage prior to use. Do not use damaged items. Only high quality hoses intended for waterjetting applications should be used as high-pressure hoses.
  - Check all high-pressure threaded connections for tightness.
  - Operate the high-pressure water at full pressure and, if applicable, use the Pneumatic Foot Pedal Dump Control to verify that the dump valve is working properly.
  - Ensure that Operators never connect, disconnect, or tighten hoses, adapters, or accessories with the high-pressure water pump unit running.
  - Ensure no personnel are in the jetting zone.

# **Personal Protective Equipment**

Use of Personal Protective Equipment (PPE) is dependent on the working pressure of water and the cleaning application. Managers, Supervisors, and Operators **MUST** carry out a job specific risk assessment to define the exact requirements for PPE. See Protective Equipment for Personnel (Section 6) of JWTA-IMCA's Recommended Practices For The Use Of High-pressure Water jetting Equipment for additional information.

- Hygiene—Operators are advised to wash thoroughly after all waterjetting operations to remove any waterblast residue which may contain traces of harmful substances.
  - First aid provision—users MUST be provided with suitable first aid facilities at the operation site.

## **PPE MAY INCLUDE:**

- Eye protection: Full face visor
  - Foot protection: Kevlar® brand or steel toe capped, waterproof, non-slip safety boots
  - Hand protection: Waterproof gloves
  - Ear protection: Ear protection for a minimum of 85 dBA
  - Head protection: Hard hat that accepts a full face visor and ear protection
  - Body protection: Multi-layer waterproof clothing approved for water jetting
  - Hose protection: Hose shroud
  - Respiratory protection: May be required; refer to job specific risk assessment

StoneAge has designed and manufactured this equipment considering all hazards associated with its operation. StoneAge assessed these risks and incorporated safety features in the design. StoneAge **WILL NOT** accept responsibility for the results of misuse.

- IT IS THE RESPONSIBILITY OF THE INSTALLER/OPERATOR to conduct a job specific risk assessment prior to use. Job specific risk assessment MUST be repeated for each different set up, material, and location.
  - The risk assessment MUST conform to the Health and Safety at Work Act 1974 and other relevant Health and Safety legislation.
  - The risk assessment MUST consider potential material or substance hazards including: **Aerosols, Biological and microbiological (viral or bacterial) agents, Combustible materials, Dusts, Explosion, Fibers, Flammable substances, Fluids, Fumes, Gases, Mists, Oxidizing Agents.**

## **NOTES:**



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