

# **WARTHOG**

SEWER NOZZLES BY **STONEAGE**®



## SEWER NOZZLES & ACCESSORIES

**NEW!**  
**WHR SWITCHER™**  
THE INDUSTRY'S MOST REVOLUTIONARY NOZZLE

PAGE #10



SMALL LINES 2-8" (51-152 MM)

4-5	<b>WV-1/4 LK</b> For cart and trailer jetters. High-speed rotation technology for small lines with light to moderate blockages.
6-7	<b>WT-3/8-C</b> For cart and trailer jetters. Now standard with carbide buttons for longer head life.
8-9	<b>WS-1/2</b> For trailer jetters. Sold with a 2 ft. whip hose standard. Also jointed and rigid models, plus inlet options.

MEDIUM LINES 6-18" (102-457 MM)

10-11	<b>NEW! WHR SWITCHER</b> Switch between pulling or descaling without removing the nozzle from the pipe.
12-13	<b>WHR MAGNUM</b> Designed for mid-size pipes and lines.
14-15	<b>WH-1/2 &amp; 3/4</b> For trailer jetters with 1/2" and 3/4" inlet options, both inlets available in NPT or BSPP.
16-17	<b>WHP-3/4</b> Maximum Puller WHP-3/4. Designed for more pulling power.

LARGE LINES 8-36" (203-914 MM)

18-19	<b>NEW! WGR SWITCHER</b> Switch between pulling or descaling without removing the nozzle from the pipe.
22-23	<b>WGR MAGNUM</b> Built from the ground up. Effectively handles recycled water.
24-27	<b>WG-1 &amp; WGP-1 (PULLER)</b> WG-1 Classic and the Maximum Puller WGP-1. Designed for more pulling power.
28-29	<b>WGR 1-1/4 MAGNUM</b> Built from the ground up. Effectively handles recycled water.
30-31	<b>WD 1-1/4</b> For Municipal jetters. This is a high flow model with up to 120 gpm (450 lpm) flows.

HYDRO EXCAVATION

32-34	<b>NEW! HXR-300 ROTARY HYDRO-X</b> Hydro-Excavation provides safe access to buried utilities by potholing or trenching with high pressure water.
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ACCESSORIES

35	<b>CENTRALIZERS</b> Several different styles available including multi-wheeled models for cleaning extra large pipes.
35	<b>MANHOLE CLEANER</b> Our latest modification kit to convert your Warthog into an effective Manhole Cleaner.
36	<b>CUSTOMER SERVICE</b>
37	<b>WARNING INFORMATION</b>
38	<b>TERMS &amp; CONDITIONS</b>
39	<b>WARRANTY INFORMATION</b>

# 2017

## NEW PRODUCTS



**NEW!**  
**WHR SWITCHER**  
THE INDUSTRY'S MOST REVOLUTIONARY SEWER TOOL  
FOR 6-18" LINES • PAGE #10-11

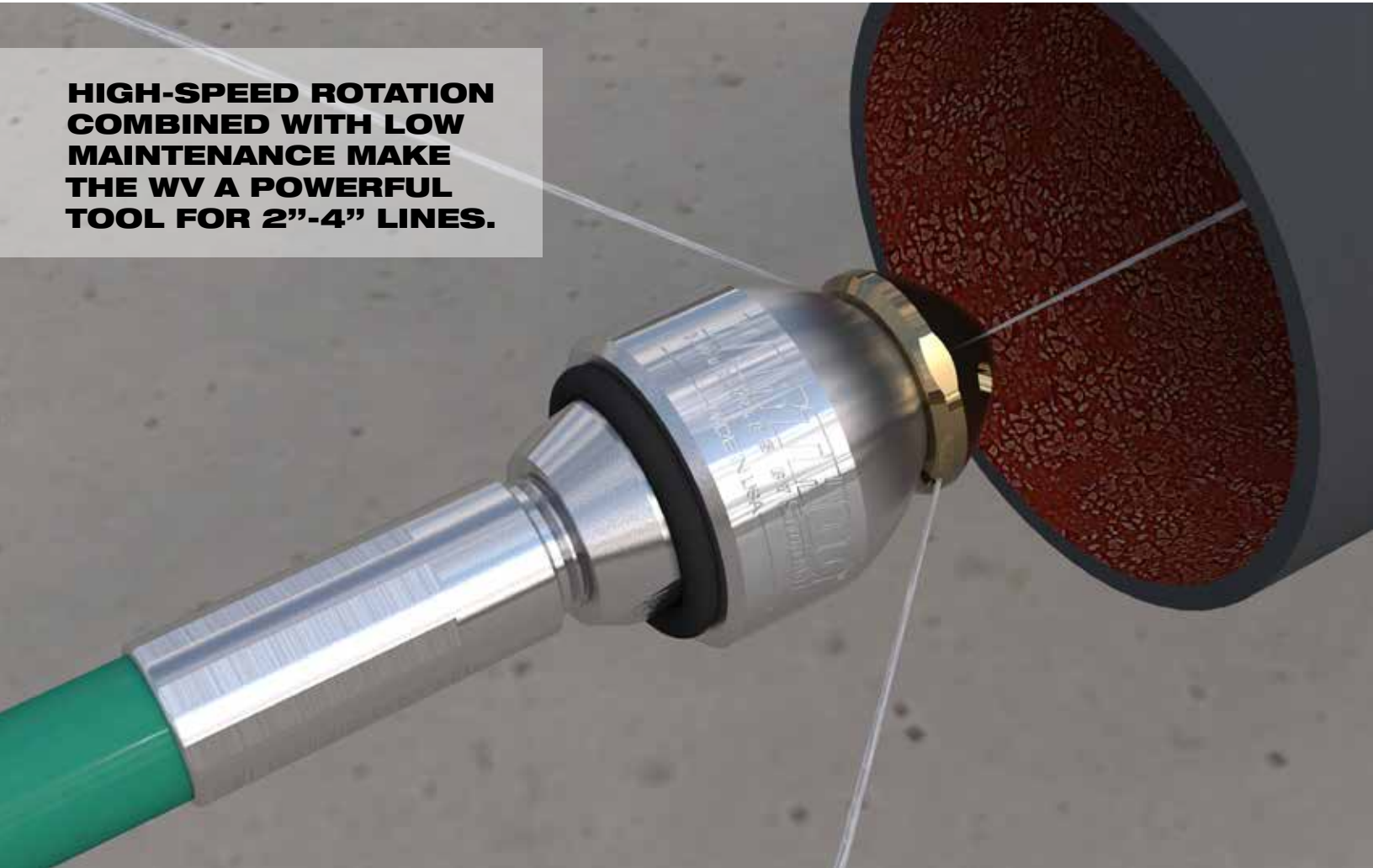


**NEW!**  
**ROTARY HYDRO-X**  
THE INDUSTRY'S SAFEST TOOLS FOR ACCESSING  
BURIED UTILITIES  
PAGE #32-33





HIGH-SPEED ROTATION  
COMBINED WITH LOW  
MAINTENANCE MAKE  
THE WV A POWERFUL  
TOOL FOR 2”-4” LINES.



WV-1/4-LK

2”-4” (51-102 mm) Lines with Elbows

The WV-1/4-LK uses StoneAge’s flow-through technology and features a revolutionary high-speed rotating design with no high pressure seals or bearings to service. It cleans lines as small as 2” (51 mm) with long sweeping elbows. The head design also features permanent, pre-drilled orifices rather than threaded nozzles.

The tool operates from 2-5k psi (140-350 bar) and 3-8 gpm (11-30 l/min). It has a 1/4” NPT pipe thread inlet and can pass through long radius elbows in lines 2” (51 mm) and larger if a 1/4” NPT hose fitting is used.

WV-1/4-LK Tool Head Options

PART #	FRONT JET	BACK JETS	FLOW
WV-1/4-LK-A	0.024 in. 0.6 mm	2 x .052 in. 1.3 mm	7-8 gpm 26-30 l/min
WV-1/4-LK-B	0.020 in. 0.5 mm	2 x .039 in. 1.0 mm	5-6 gpm 19-23 l/min
WV-1/4-LK-C	0.018 in. 0.45 mm	2 x .032 in. 0.8 mm	4-4.5 gpm 15-17 l/min
WV-1/4-LK-D	0.018 in. 0.45 mm	2 x .028 in. 0.7 mm	3-3.5 gpm 11-13 l/min

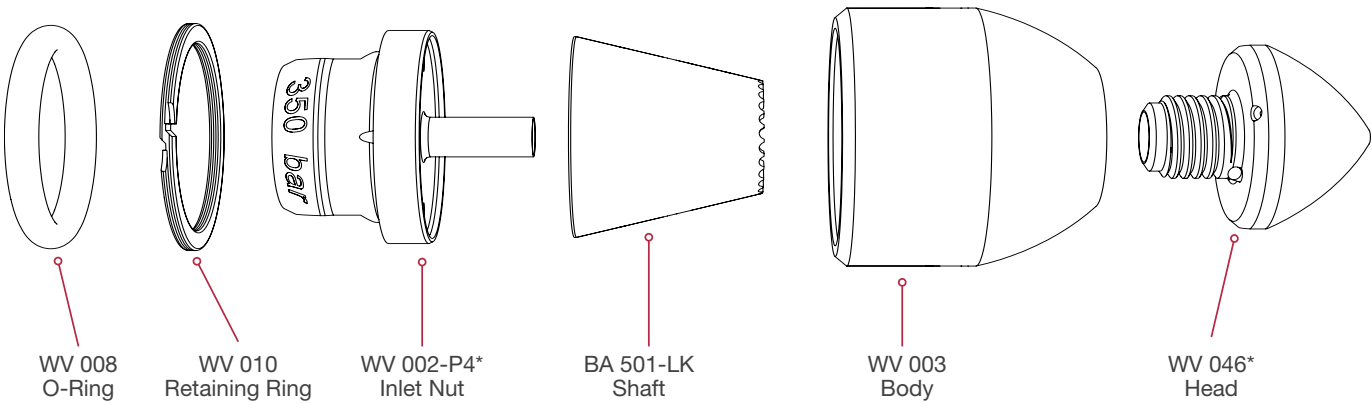
WV-1/4-LK	Up to 5k psi (350 bar)
2”-4” Lines (51-102 mm)	3-8 gpm Flows (11-30 l/min)
	High-Speed Rotation

WV-1/4-LK Specifications

MAXIMUM PRESSURE	5k psi 350 bar
OPERATING PRESSURE	2-5k psi 140-350 bar
FLOW	3-8 gpm 11.4-30.3 l/min
FLOW RATING	0.8 Cv
PULLING FORCE	4-9 lb 40 N
INLET CONNECTION	1/4 NPT or BSPP
TOOL DIAMETER	1.3 in. 33 mm
LENGTH	2.0 in. 51 mm
NOZZLE PORTS	3 Drilled
WEIGHT COMPLETE	0.45 lb 0.20 kg

WV-1/4-LK

Exploded View - Part Names and Numbers



\*See charts on the opposite page for inlet nut and head options.  
This is a low-maintenance tool. There are no maintenance or overhaul kits. However, the **WV 612** tool kit is available for easy tool disassembly.

POTENTIAL HAZARD!

If any Warthog is being used in pipes larger than the recommended diameter, a rigid stinger with a minimum length of 1.5 times the diameter of the pipe I.D. should be installed between the tool inlet and the hose end. Otherwise the tool can turn around inside the line (as shown here) and come back toward the operator, causing serious injury or death.

STONEAGE CARRIES A COMPLETE LINE OF STINGERS  
AND CAN HELP YOU PROPERLY SELECT THE RIGHT ONE  
FOR YOUR APPLICATION.



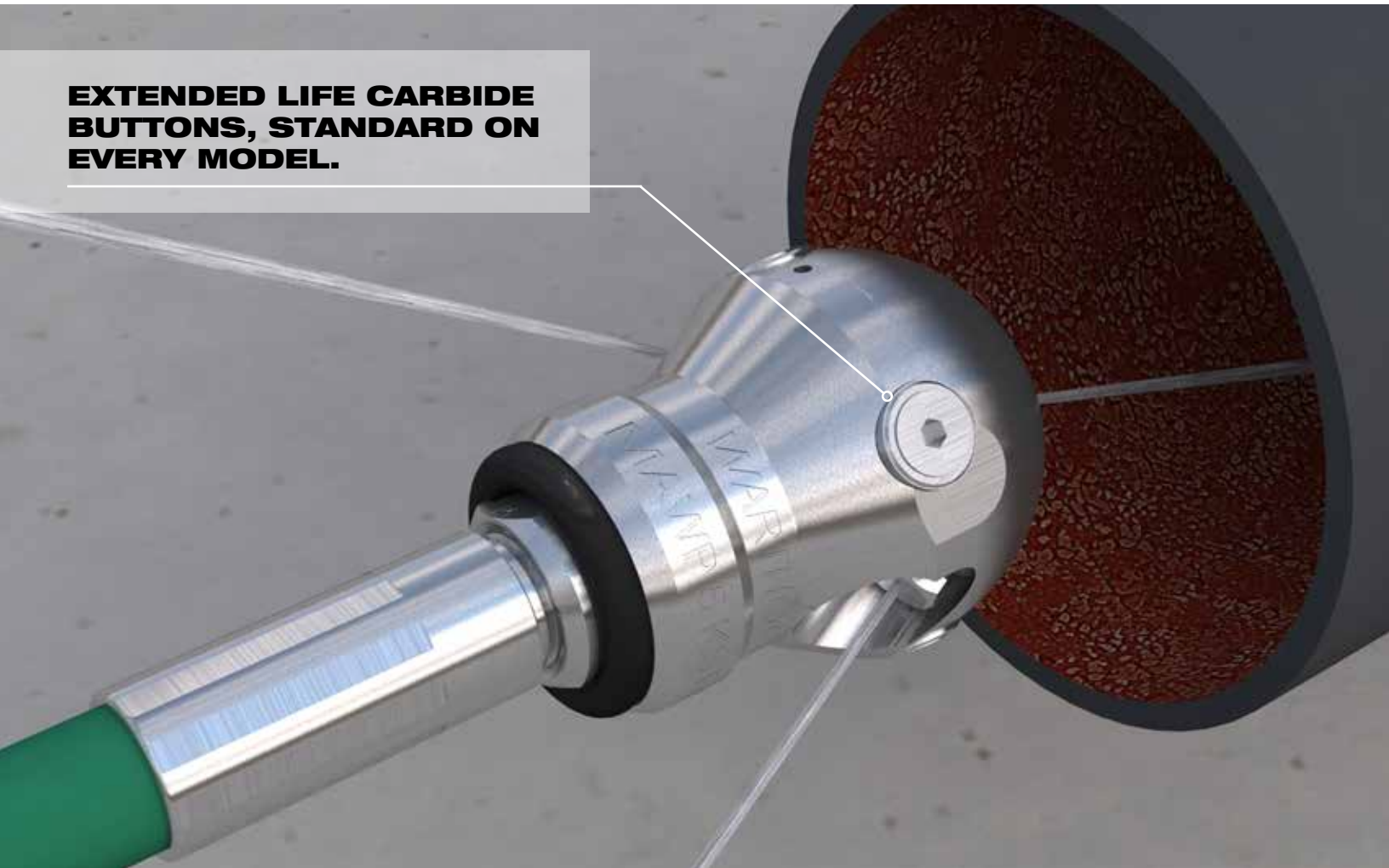
Stinger not in use here – tool  
is backing out of the pipe.



◀ CORRECT

This is an example of **WV-1/4-LK** set up for correct usage in pipes larger than 4” (102 mm) in diameter. A rigid Stinger should be installed between the tool inlet and the hose end. This helps to prevent the tool from turning around inside of the pipe and coming back toward the operator.

EXTENDED LIFE CARBIDE  
BUTTONS, STANDARD ON  
EVERY MODEL.



WT-3/8-C CLASSIC

3"-6" (76-152 mm) Lines with Elbows

Our smaller Classic series models can negotiate elbows and clean-outs commonly found in laterals at homes, buildings, restaurants and other light commercial facilities. This tool is most commonly used on small capacity pumps and cart jetters. Also an excellent choice for cutting roots, clearing ice and removing blockages.

Pipes made of cast iron and those that have sand or silt can act as abrasive agents that can aggressively wear out the tool. We've added permanent carbide buttons to the WT-3/8-C to increase head life. Our carbide buttons are available in all offsets and add up to 5 times the life compared to previous WT-3/8 models. It also features replaceable AP2 nozzles.

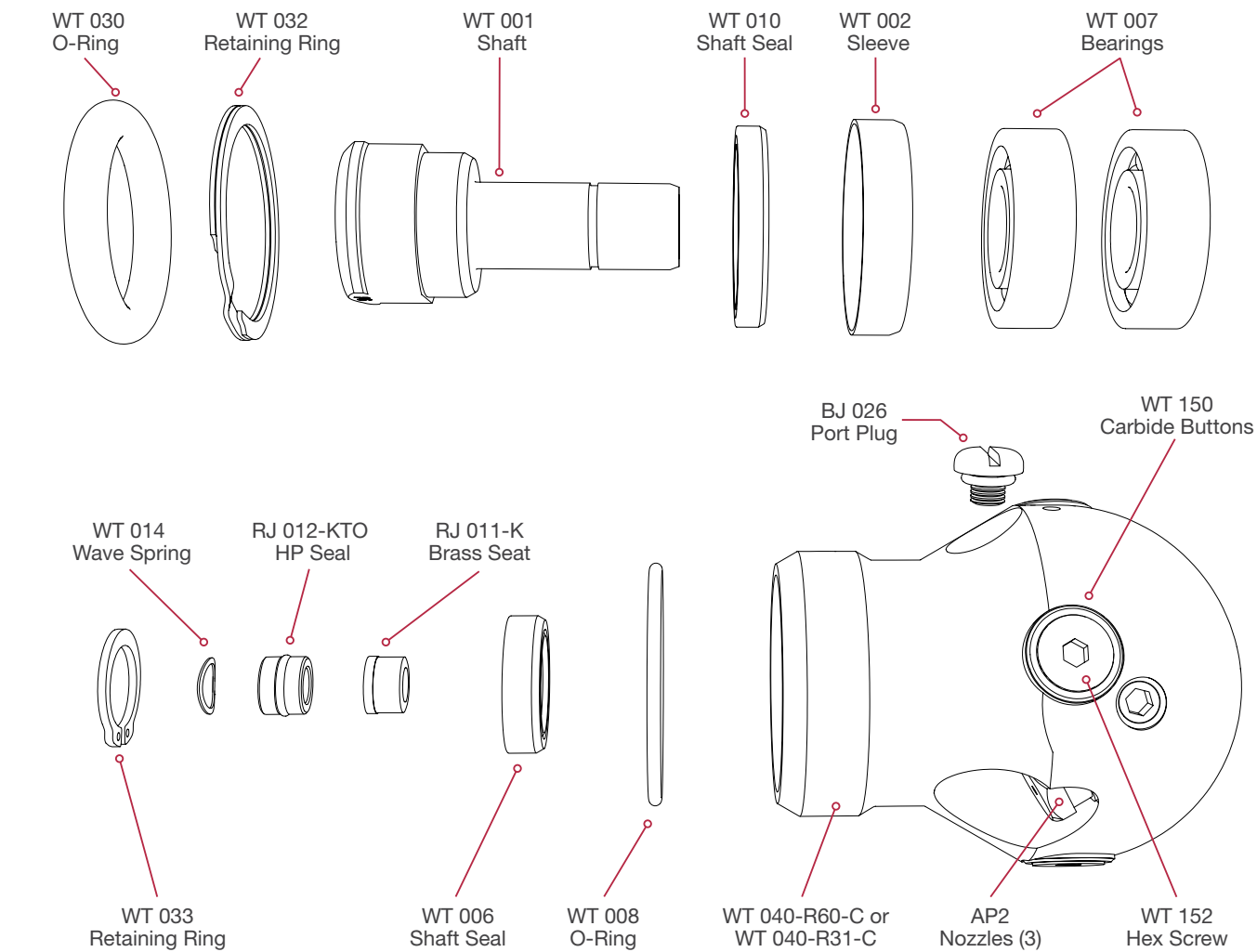
WT-3/8-C	Up to 5k psi (350 bar)
3"-6" Lines (76-152 mm)	5-12 gpm Flows (20-45 l/min)
	Classic Workhorse Model

WT-3/8-C Specifications

MAXIMUM PRESSURE	5k psi 350 bar
OPERATING PRESSURE	1500-5k psi 100-350 bar
ROTATION SPEED	300-500 rpm
FLOW	5-12 gpm 20-45 l/min
FLOW RATING	0.75 Cv
PULLING FORCE	5-20 lb 22-90 N
INLET CONNECTION	3/8 NPT or BSPP
TOOL DIAMETER	1.9 in. 48 mm
LENGTH	3.0 in. 76 mm
NOZZLE PORTS	3 x 1/8 NPT
WEIGHT COMPLETE	1.2 lb .54 kg

WT-3/8-C

Exploded View - Part Names and Numbers

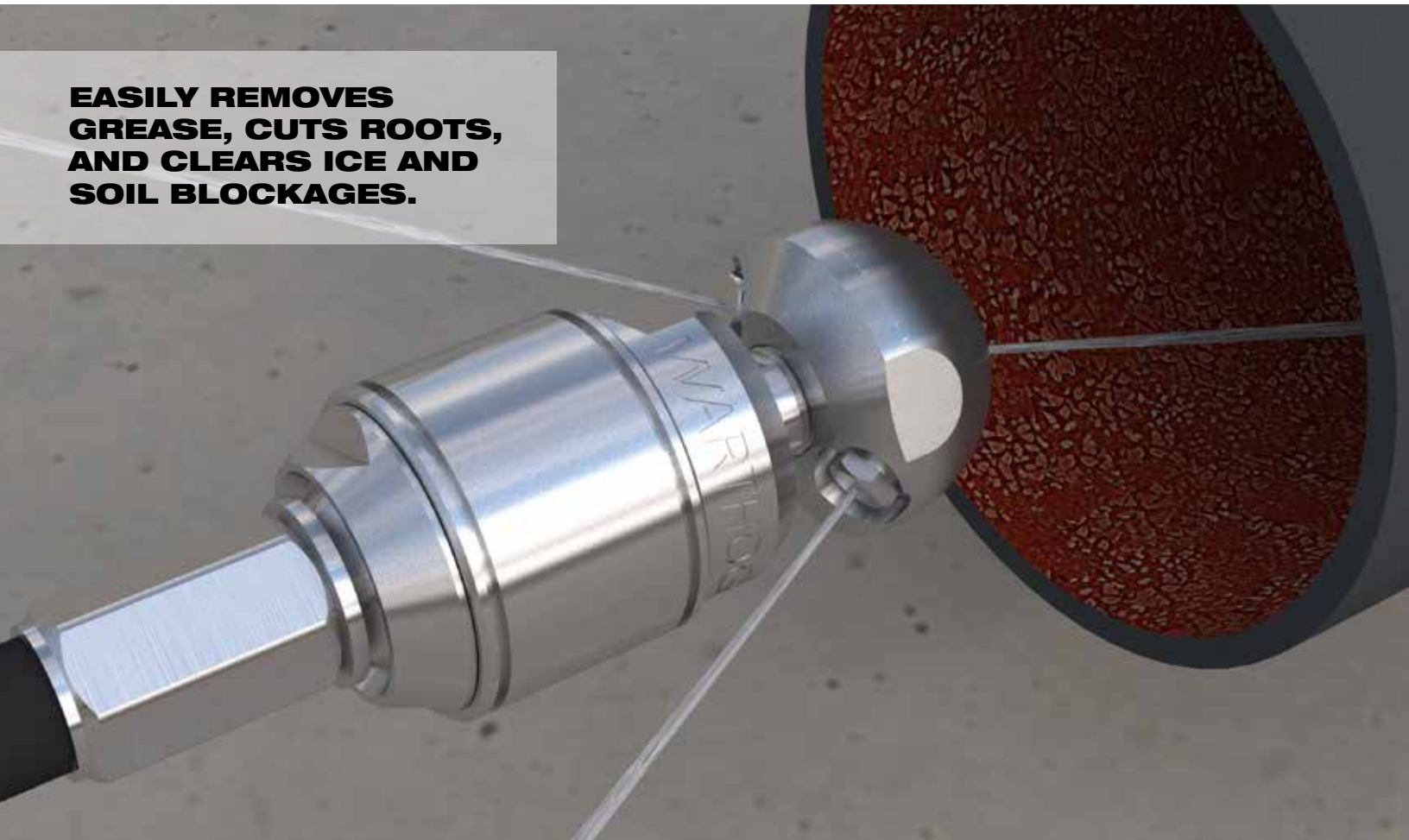


Maintenance & Overhaul Kits

WT 600 • SERVICE KIT	WT 602 • SEAL KIT	WT 610 • OVERHAUL KIT	WT 612 • TOOL KIT
(1) BC 410 Syringe Assembly	(1) RJ 011-K Brass Seat	(1) BJ 026 Port Plug	(1) BA 100 Retaining Ring Pliers
(1) BJ 026 Port Plug	(1) RJ 012-KTO HP Seal & O-Ring	(1) BJ 048-S Visc. Fluid, 6oz.	(1) WT 105 Tool
(1) BJ 048-S Visc. Fluid, 6oz.	(1) WT 014 Wave Spring	(1) RJ 011-K Brass Seat	
(1) BJ 062-S Antiseize, 2g		(1) RJ 012-KTO HP Seal & O-Ring	
(1) GP 025-P2SS Hex Socket Plug		(1) WT 006 Seal	
(1) RJ 011-K Brass Seat		(2) WT 007 Bearing, Ball	
(1) RJ 012-KTO HP Seal & O-Ring		(1) WT 008 O-Ring	
(1) WT 014 Wave Spring		(1) WT 010 Seal	
		(1) WT 014 Wave Spring	
		(1) WT 032 Retaining Ring	
		(1) WT 030 O-Ring	



EASILY REMOVES  
GREASE, CUTS ROOTS,  
AND CLEARS ICE AND  
SOIL BLOCKAGES.



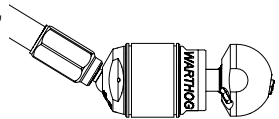
WS-1/2 CLASSIC

4"-8" (102-204 mm) Lines

The WS-1/2 is designed to handle 4"-8" (102-204 mm) lines and is most commonly used with trailer jetters. It is used to clean lines in restaurants, hospitals, multi-story apartment buildings, residential, and other applications. Easily removes grease, cuts roots, and clears ice and soil blockages.

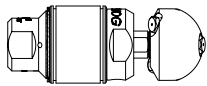
WS-J JOINTED INLET MODELS

This model allows the inlet hose to bend to the side, shortening the rigid length of the tool and allowing limited access applications to be cleaned much easier. 1/2" NPT or BSPP inlet ports available.



WS-P8 OPTIONAL RIGID INLETS

The WS-P8 is excellent for straight pipes. The whip hose is removed, allowing the hose to connect directly to the tool. Available with a female 1/2" NPT or BSPP connection.



NOTE: 4" (102 mm) 90° bends are no longer negotiable in this configuration.

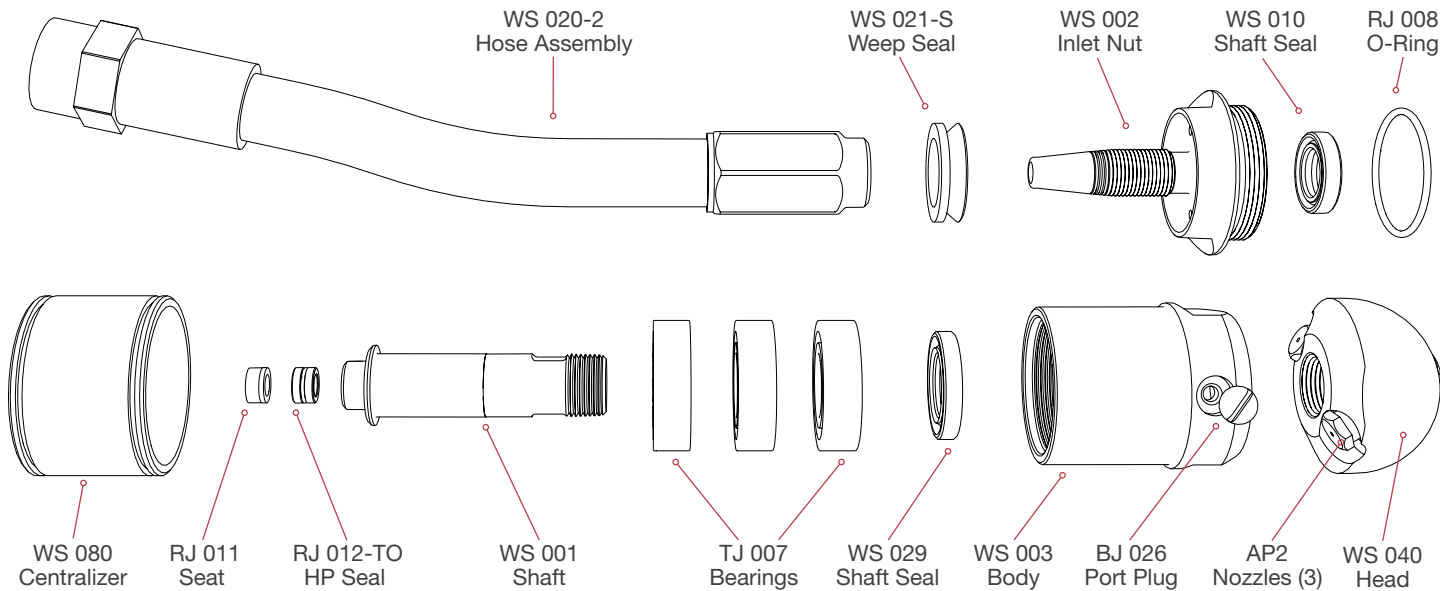
WS-1/2	Up to 5k psi (350 bar)
	8-20 gpm Flows (30-76 l/min)
	Three Models Available

WS-1/2 Specifications

MAXIMUM PRESSURE	5k psi (350 bar)
OPERATING PRESSURE	1500-5k psi (100-350 bar)
ROTATION SPEED	200-500 rpm
FLOW	8-20 gpm (30-76 l/min)
FLOW RATING	1.3 Cv
PULLING FORCE	9-27 lb (40-120 N)
INLET CONNECTION	1/2 NPT & BSPP
TOOL DIAMETER	1.9 in. (48 mm)
LENGTH	4.4 in. (112 mm)
NOZZLE PORTS	3 x 1/8 NPT
WEIGHT COMPLETE	2.95 lb (1.33 kg)

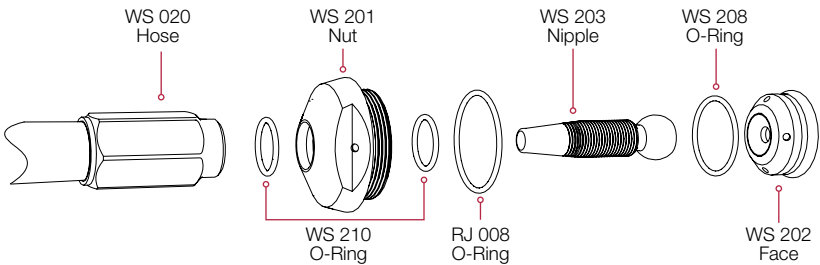
WS-1/2

Exploded View - Part Names and Numbers



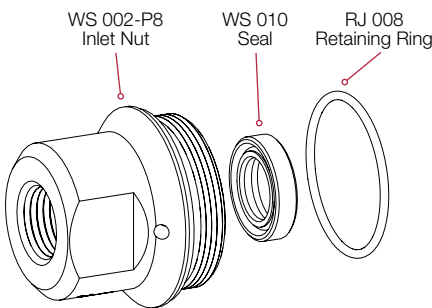
WS-1/2-J

Inlet Area Parts



WS-P8

Inlet Area Parts



Maintenance & Overhaul Kits

WS 600 • SERVICE KIT

(1) BC 410	Syringe Assembly
(1) BJ 048-S	Visc. Fluid, 6oz.
(1) BJ 062-S	Antiseize, 2g
(1) GP 025-P2	Hex Socket Plug
(1) RJ 011	Brass Seat
(1) RJ 012-TO	HP Seal & O-Ring

WS 610 • OVERHAUL KIT

(1) BJ 026	Port Plug
(1) BJ 048-S	Visc. Fluid, 6oz.
(1) BJ 062-S	Antiseize, 2g
(1) RJ 008	O-Ring
(1) RJ 011	Brass Seat
(1) RJ 012-TO	HP Seal & O-Ring
(3) TJ 007	Ball Bearings
(1) WS 010	Small Seal
(1) WS 021-S	Weep Seal
(1) WS 029	Large Seal

WS 610-J • OVERHAUL KIT

(1) BJ 026	Port Plug
(1) BJ 048-S	Visc. Fluid, 6oz.
(1) BJ 062-S	Antiseize, 2g
(1) RJ 008	O-Ring
(1) RJ 011	Brass Seat
(1) RJ 012-TO	HP Seal & O-Ring
(3) TJ 007	Ball Bearings
(1) WS 010	Small Seal
(1) WS 029	Large Seal
(1) WS 208	O-Ring
(2) WS 210	O-Rings

WS 612 • TOOL KIT

(1) TJ 064	Fill Tube
(1) WS 105	Tool
WS 602 • SEAL KIT	
(1) RJ 011	Brass Seal
(1) RJ 012-TO	HP Seal & O-Ring

SWITCH FROM CLEANING  
TO FLUSHING WITHOUT  
EVER LEAVING THE PIPE

SEE PAGES 20-21 FOR  
MORE INFO



NEW FOR 2017

WHR SWITCHER™

The new WHR Switcher is two tools in one. Switch between pulling or cleaning without removing the nozzle from the pipe. When the pump is idled down and brought back to pressure the tool will switch the water flow between two different sets of jets.

FEATURES:

- Eliminates extra runs needed to swap nozzles – saving water and time
- Run more jobs with one tank of water
- Switch to pulling jets for maximum thrust. Excellent for longer runs, climbing hills, going against the flow and flushing large amounts of material
- Switch to cleaning jets to maximize power for cutting roots and clearing debris, all with out affecting the houses

“ I used the Switcher non-stop every day, 8 hours a day, and didn't have one problem with it. I've been waiting for something like this.”

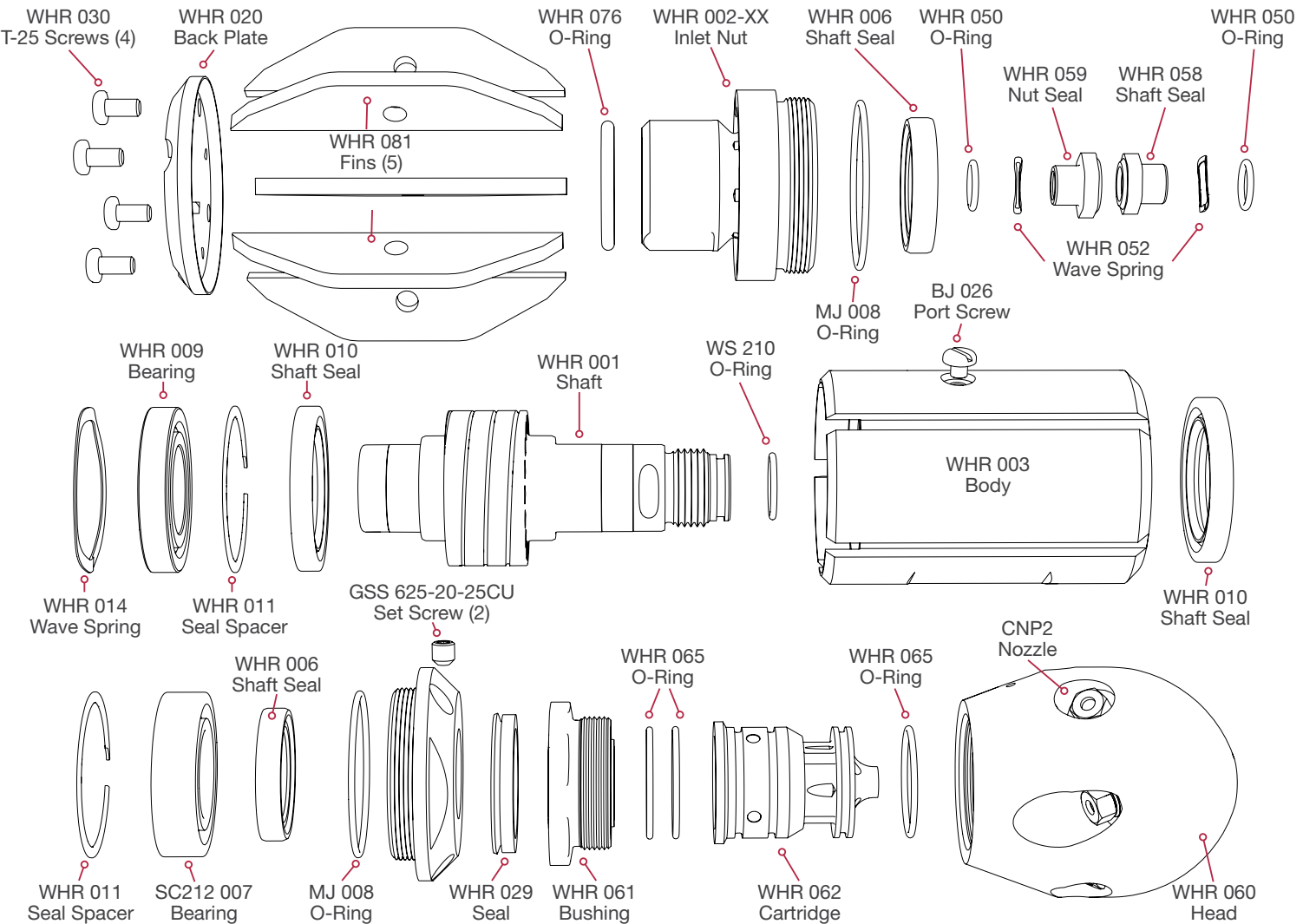
JASON DEMARTINI  
VALLEJO SANITATION

WHR Magnum Specifications

MAXIMUM PRESSURE	8k psi	550 bar
OPERATING PRESSURE	1500-8k psi	100-550 bar
ROTATION SPEED	150-400 rpm	
FLOW	14-50 gpm	60-190 l/min
FLOW RATING	2.6 Cv	
PULLING FORCE	30-90 lb	13-41 kg
INLET CONNECTION	1/2 NPT or BSPP, 3/4 NPT or BSPP	
NOZZLE PORTS	5 x 1/8 NPT	
TOOL DIAMETER INCL. CENT.	3.625 in.	92 mm
LENGTH	8.26 in.	210 mm
WEIGHT COMPLETE	7.48 lb	3.4 kg

WHR SWITCHER

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WHR 600 • SERVICE KIT

- (1) BJ 048-M Visc Fluid, 6oz
- (1) BJ 062-S Antiseize, 2g
- (1) GP 049 Grease Syringe
- (2) GSS 625-20-25CU Set Screw
- (2) MJ 008 Nut O-Ring
- (1) SC212 007 Front Bearing
- (2) WHR 006 Outer Shaft Seal
- (1) WHR 009 Rear Bearing
- (2) WHR 010 Inner Shaft Seal
- (2) WHR 011 Seal Spacer
- (2) WHR 050 O-Ring
- (1) WHR 076 Weep Seal O-Ring
- (4) WHR 030 Torx Screws
- (1) WS 210 O-Ring

WHR 602 • HP SEAL KIT

- (1) BJ 062-S Antiseize, 2g
- (2) WHR 050 O-Ring
- (2) WHR 052 HP Wave Spring
- (1) WHR 058 HP Shaft Seal
- (1) WHR 059 HP Nut Seal
- WHR 610 • OVERHAUL KIT
- (2) BJ 026 Port Plug
- (1) BJ 048-M Visc Fluid, 6oz
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P2SS Hex Plug
- (1) GP 049 Grease Syringe
- (2) GSS 625-20-25CU Set Screw
- (2) MJ 008 Nut O-Ring
- (1) SC212 007 Front Bearing

- (2) WHR 006 Shaft Seal – Outer
- (1) WHR 009 Rear Bearing
- (2) WHR 010 Shaft Seal – Inner
- (2) WHR 011 Seal Spacer
- (1) WHR 014 Bearing Wave Spring
- (4) WHR 030 Torx Screws
- (2) WHR 050 O-Ring
- (2) WHR 052 HP Wave Spring
- (1) WHR 058 HP Shaft Seal
- (1) WHR 059 HP Nut Seal
- (1) WHR 076 Weep Seal O-Ring
- (1) WS 210 O-Ring
- (1) WGR 180 Torx L-Wrench

WHR 612 • TOOL KIT

- (1) BA 481 Bearing Removal Tool
- (1) WGR 180 Torx L-Wrench
- (1) WHR 181 Removal Press Tube
- (1) WHR 182 Install Press Tube
- (1) WHR 183 Hex Tool
- (1) WHR 184 HP Seal Install Tool
- (1) WGR 186 HP Seal Puller
- (1) WHR 187 HP Seal Puller Pin



THE TOOL OF CHOICE  
FOR SMALLER MUNICIPAL  
LINES & LARGER  
RESIDENTIAL LINES



**TECH TIP:** IF YOU CURRENTLY OWN A  
WHR MAGNUM, THE HEAD CAN BE REPLACED WITH  
THE SWITCHER HEAD (WHR 060) TO EXPAND USAGE

# WHR MAGNUM

6"-18" (152-457 mm) Lines

The Warthog WHR Magnum is designed for mid-size pipes and lines, with the proven power and durability of the Magnum line of sewer tools.

- Optimized speed control mechanism extends maintenance intervals
- Latest seal technology effectively handles dirty or recycled water
- Flush style head protects front shaft seals for longer fluid life
- Carbide nozzles generate higher quality jets
- Streamlined design improves forward and reverse movement through pipe
- Hardened steel centralizer with 4x longer life
- New jet angles increase cleaning performance while maintaining pulling force
- Replaceable fins are easily changed without opening tool body

## WHR MAGNUM

6"-18" Lines (152-457 mm)

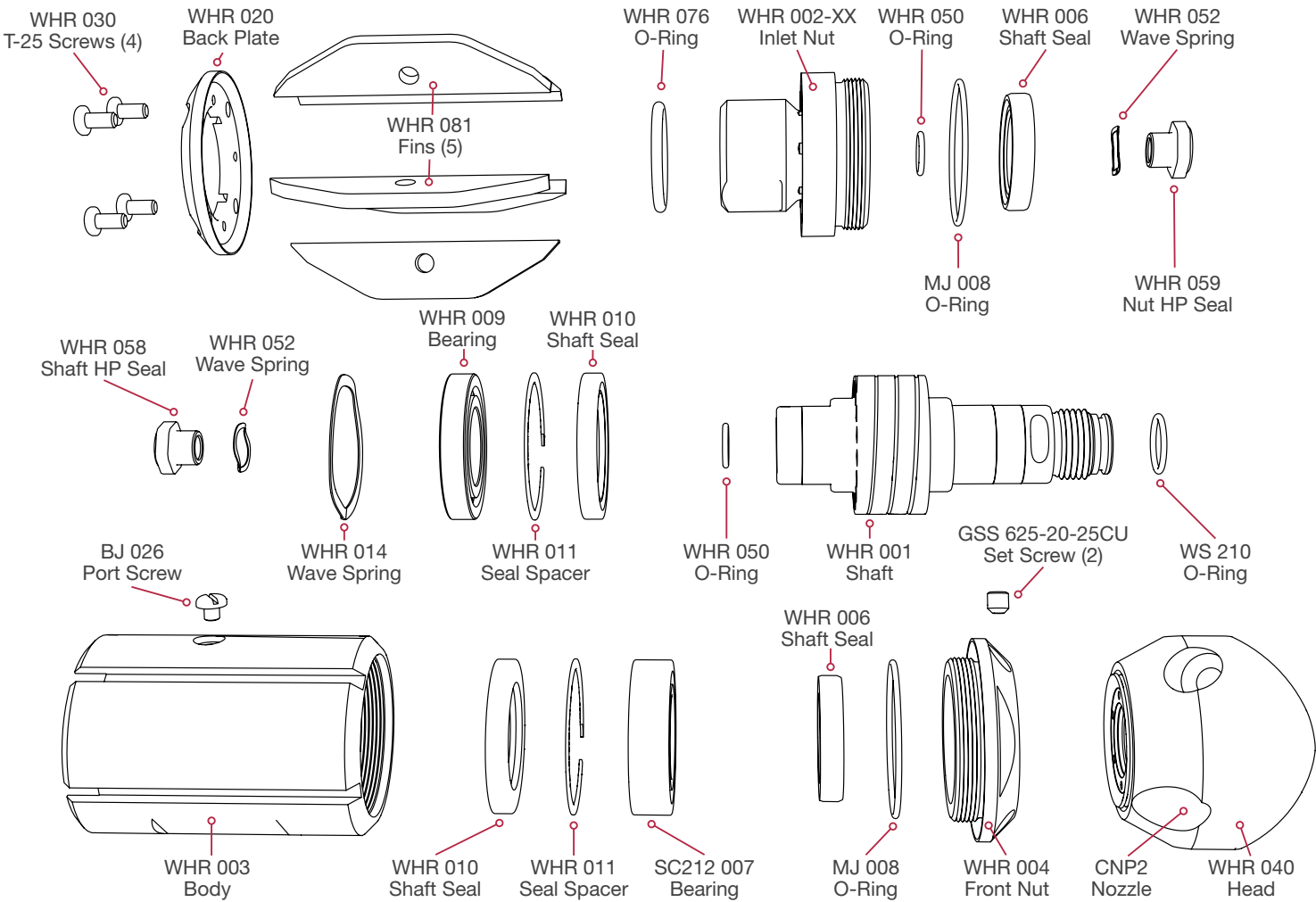
Up to 8k psi (550 bar)
14-50 gpm Flows (60-190 l/min)
Two Inlet Options Available

## WHR Magnum Specifications

<b>MAXIMUM PRESSURE</b>	8k psi 550 bar
<b>OPERATING PRESSURE</b>	1500-8k psi 100-550 bar
<b>ROTATION SPEED</b>	150-400 rpm
<b>FLOW</b>	14-50 gpm 60-190 l/min
<b>FLOW RATING</b>	2.6 Cv
<b>PULLING FORCE</b>	30-90 lb 13-41 kg
<b>INLET CONNECTION</b>	1/2 NPT or BSPP, 3/4 NPT or BSPP
<b>NOZZLE PORTS</b>	5 x 1/8 NPT
<b>TOOL DIAMETER INCL. CENT.</b>	3.625 in. 92 mm
<b>LENGTH</b>	7.25 in. 184 mm
<b>WEIGHT COMPLETE</b>	6.75 lb 3 kg

# WHR MAGNUM

Exploded View - Part Names and Numbers



## Maintenance & Overhaul Kits

### WHR 600 • SERVICE KIT

(1) BJ 048-M	Visc Fluid, 6oz
(1) BJ 062-S	Antiseize, 2g
(1) GP 049	Grease Syringe
(2) GSS 625-20-25CU	Set Screw
(2) MJ 008	Nut O-Ring
(1) SC212 007	Front Bearing
(2) WHR 006	Outer Shaft Seal
(1) WHR 009	Rear Bearing
(2) WHR 010	Inner Shaft Seal
(2) WHR 011	Seal Spacer
(2) WHR 050	O-Ring
(1) WHR 076	Weep Seal O-Ring
(4) WHR 030	Torx Screws
(1) WS 210	O-Ring

### WHR 602 • HP SEAL KIT

(1) BJ 062-S	Antiseize, 2g
(2) WHR 050	O-Ring
(2) WHR 052	HP Wave Spring
(1) WHR 058	HP Shaft Seal
(1) WHR 059	HP Nut Seal
(2) BJ 026	Port Plug
(1) BJ 048-M	Visc Fluid, 6oz
(1) BJ 062-S	Antiseize, 2g
(1) GP 025-P2SS	Hex Plug
(1) GP 049	Grease Syringe
(2) GSS 625-20-25CU	Set Screw
(2) MJ 008	Nut O-Ring
(1) SC212 007	Front Bearing

(2) WHR 006	Shaft Seal – Outer
(1) WHR 009	Rear Bearing
(2) WHR 010	Shaft Seal – Inner
(2) WHR 011	Seal Spacer
(1) WHR 014	Bearing Wave Spring
(4) WHR 030	Torx Screws
(2) WHR 050	O-Ring
(2) WHR 052	HP Wave Spring
(1) WHR 058	HP Shaft Seal
(1) WHR 059	HP Nut Seal
(1) WHR 076	Weep Seal O-Ring
(1) WS 210	O-Ring
(1) WGR 180	Torx L-Wrench

### WHR 612 • TOOL KIT

(1) BA 481	Bearing Removal Tool
(1) WGR 180	Torx L-Wrench
(1) WHR 181	Removal Press Tube
(1) WHR 182	Install Press Tube
(1) WHR 183	Hex Tool
(1) WHR 184	HP Seal Install Tool
(1) WGR 186	HP Seal Puller
(1) WHR 187	HP Seal Puller Pin

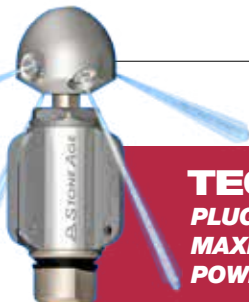
PERFECT FOR SMALL  
CAPACITY COMBINATION  
TRUCKS AND LARGE  
TRAILER JETTERS.

WH-1/2 &  
WH-3/4 CLASSIC

6"-18" (152-457 mm) Lines

The WH-1/2 and the WH-3/4 are the same tool offered with different inlet ports, either 1/2" or 3/4" NPT or BSPP. The WH models are best for 6"-18" (152-457 mm) lines.

These tools are most commonly used with small capacity combination trucks and large trailer jetters. Descaling Heads are available for both models.



Optional Descaling Head  
for the WH-1/2 & WH-3/4

WH 040-DS

**TECH TIP: WE RECOMMEND  
PLUGGING THE FRONT JET TO HELP  
MAXIMIZE DESCALING AND PULLING  
POWER WHEN USING THIS OPTION.**

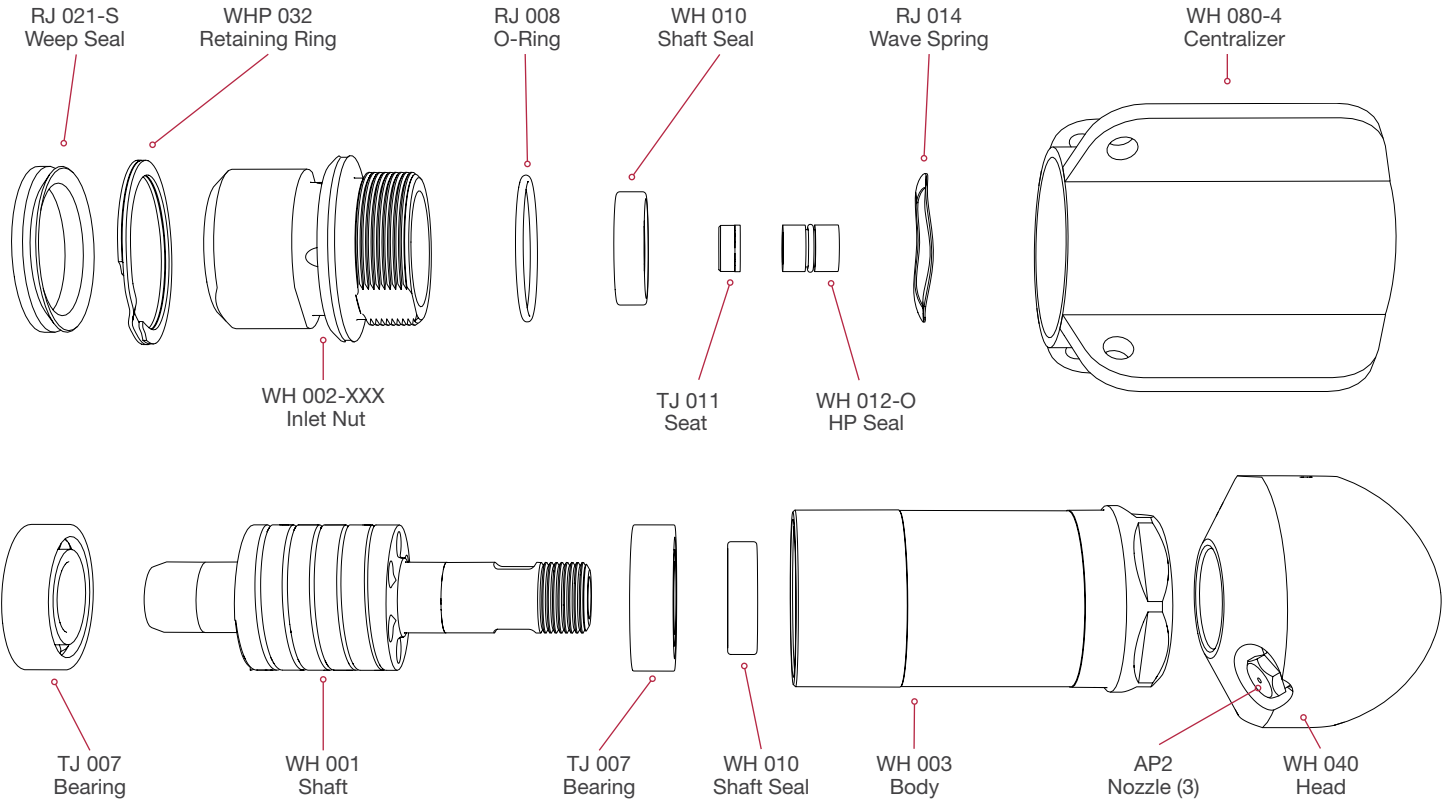
WH-1/2 & 3/4	Up to 8k psi (550 bar)
	10-45 gpm Flows (40-170 l/min)
	6"-18" Lines (152-457 mm)
	Two Inlet Options Available

WH-1/2 & WH-3/4 Specifications

MAXIMUM PRESSURE	8k psi (550 bar)
OPERATING PRESSURE	1500-8k psi (100-550 bar)
ROTATION SPEED	(150-300 rpm)
FLOW	10-50 gpm (40-170 l/min)
FLOW RATING	2.6 Cv
PULLING FORCE	18-50 lb (80-220 N)
INLET CONNECTION	1/2 NPT or BSPP & 3/4 NPT or BSPP
LENGTH	7.5 in. (191 mm)
DIAMETER INCL. CENT.	3.4 in. (86 mm)
NOZZLE PORTS	3 x 1/8 NPT
WEIGHT COMPLETE	4.7 lb 2.1 kg

WH-1/2 & WH-3/4

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WH 600 • SERVICE KIT

- (1) BJ 048-F Viscous Fluid, 6oz.
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P2SS Hex Socket Plug
- (1) TJ 011 Brass Seat
- (1) WH 012-O HP Seal & O-Ring

WH 602 • SEAL KIT

- (1) TJ 011 Brass Seat
- (1) WH 012-O HP Seal & O-Ring

WH 610 • OVERHAUL KIT

- (1) BJ 048-F Viscous Fluid, 6oz.
- (1) BJ 062-S Antiseize, 2g
- (1) RJ 008 O-Ring
- (1) TJ 011 Brass Seat
- (1) WH 012-O HP Seal & O-Ring
- (2) TJ 007 Ball Bearing
- (2) WH 010 Shaft Seal
- (1) RJ 021-S Weep Seal
- (1) RJ 014 Wave Spring

WH 612 • TOOL KIT

- (1) TJ 064 Fill Tube
- (1) WH 105 Tool



THE WHP-3/4 IS  
EXCELLENT FOR  
LONGER LINES AND  
MODERATE INCLINES.



WHP-3/4 CLASSIC

6"-18" (152-457 mm) Lines with Elbows

The WHP-3/4 has been designed to produce more pulling power than other tools available on the market. The centralizer fins are streamlined to allow the rear facing jets to be angled more sharply, giving the tool more forward thrust. The result is more pulling power to handle longer lines and moderate inclines.

The WHP-3/4 features 3 nozzle ports, including a boring jet offset at 15 degrees, and 2 rear jets at 18 degrees. The inlet port comes in either 3/4" NPT or BSPP.

WHP-3/4	Up to 8k psi (550 bar)
	15-50 gpm Flows (60-190 l/min)
	Up to 20% More Thrust*

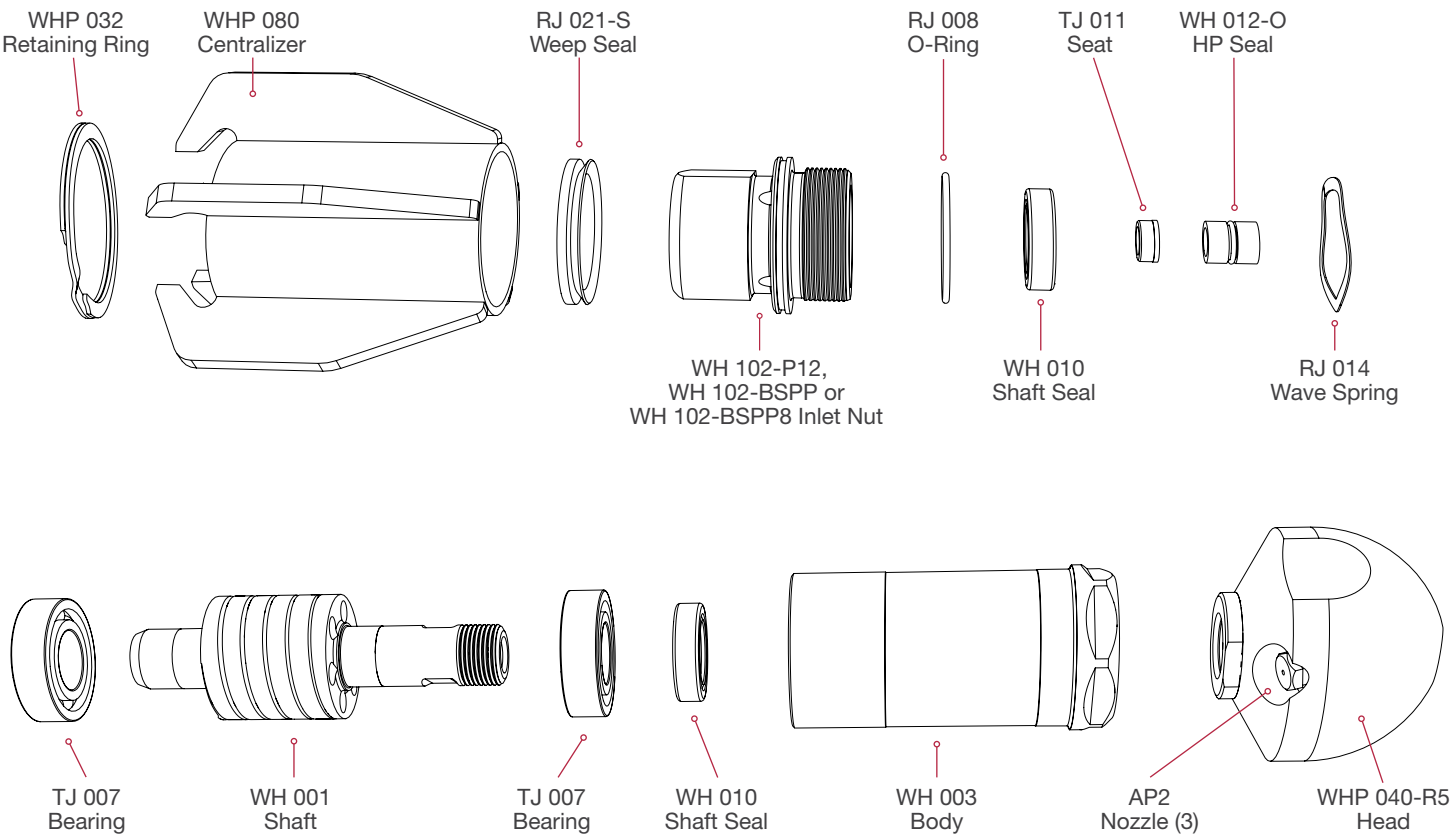
WHP-3/4 Specifications

MAXIMUM PRESSURE	8k psi 550 bar
OPERATING PRESSURE	1500-4k psi 00-275 bar
ROTATION SPEED	150-300 rpm
FLOW	15-50 gpm 60-190 l/min
FLOW RATING	3.0 Cv
PULLING FORCE	45-90 lb 00-400 Nm
INLET PORT	1/2 NPT, 1/2 BSPP, 3/4 NPT, 3/4 BSPP
DIA. INCLUDING CENTRALIZER	3.4 in. 86 mm
LENGTH	7.5 in. 190 mm
NOZZLE PORTS	3 x 1/8 NPT
WEIGHT COMPLETE	4.7 lb 2.1 kg

\* With the front jet plugged.

WHP-3/4

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WH 600 • SERVICE KIT

(1) BJ 048-F	Visc. Fluid Fast, 6oz.
(1) BJ 062-S	Antiseize, 2g
(1) GP 025-P2SS	Hex Socket Plug
(1) TJ 011	Brass Seat
(1) WH 012-O	HP Seal & O-Ring

WH 602 • SEAL KIT

(1) TJ 011	Brass Seat
(1) WH 012-O	HP Seal & O-Ring

WH 610 • OVERHAUL KIT

(1) BJ 048-F	Visc. Fluid Fast, 6oz.
(1) BJ 062-S	Antiseize, 2g
(1) RJ 008	O-Ring
(1) TJ 011	Brass Seat
(1) WH 012-O	HP Seal & O-Ring
(2) TJ 007	Ball Bearing
(2) WH 010	Shaft Seal
(1) RJ 021-S	Weep Seal
(1) RJ 014	Wave Spring
(1) WHP 032	Retaining Ring

WH 612 • TOOL KIT

(1) TJ 064	Fill Tube
(1) WH 105	Tool

**2 TOOLS IN 1**  
SAVE TIME – SAVE WATER**NEW FOR 2017****WGR SWITCHER™**

The new WGR Switcher is two tools in one. Switch between pulling or cleaning without removing the nozzle from the pipe. When the pump is idled down and brought back to pressure the tool will switch the water flow between two different sets of jets.

**FEATURES:**

- Eliminates extra runs needed to swap nozzles – saving water and time
- Run more jobs with one tank of water
- Switch to pulling jets for maximum thrust. Excellent for longer runs, climbing hills, going against the flow and flushing large amounts of material
- Switch to cleaning jets to maximize power for cutting roots and clearing debris, all with out affecting the houses

“

We can now use the same nozzle in either cutting or flushing mode. We're very close to **50% faster** with **35% less water usage** when using the Switcher vs a rotational /fixed nozzle combination.

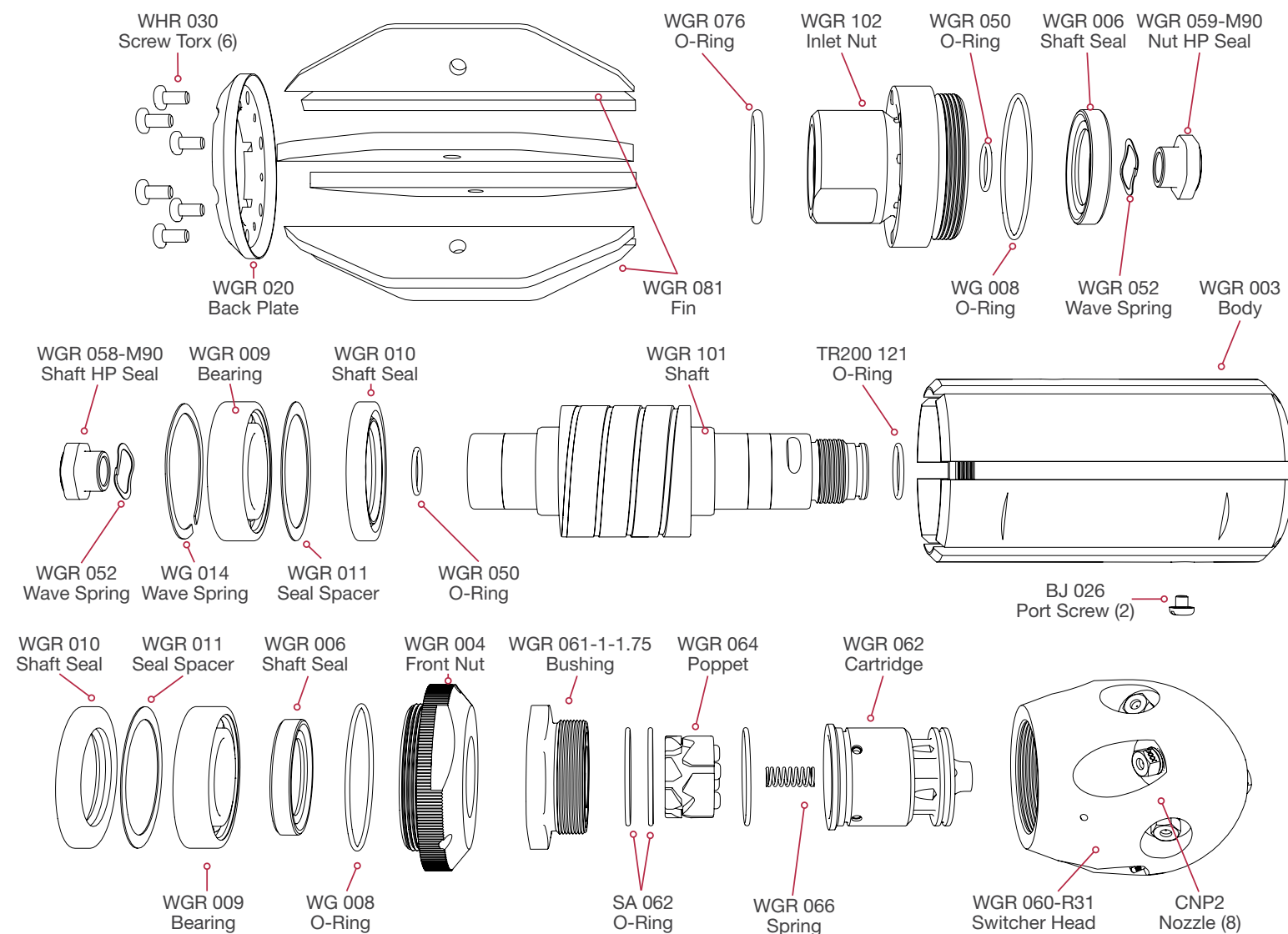
**JOE SCHOTTHOEFER**  
**DOETSCH ENVIRONMENTAL SERVICES**

## WGR Switcher Specifications

<b>MAXIMUM PRESSURE</b>	5k psi 350 bar
<b>OPERATING PRESSURE</b>	1500-5k psi 100-350 bar
<b>ROTATION SPEED</b>	150-300 rpm
<b>FLOW</b>	50-80 gpm 190-300 l/min
<b>FLOW RATING</b>	6 Cv
<b>INLET CONNECTION</b>	1 in. NPT or 1 in. BSPP
<b>NOZZLE PORTS</b>	7 x 1/8 NPT
<b>DIAMETER</b>	4.5 in. 114 mm
<b>LENGTH</b>	10.25 in. 260 mm
<b>WEIGHT COMPLETE</b>	13 lb 5.9 kg

**WGR SWITCHER**

Exploded View - Part Names and Numbers



## Maintenance &amp; Overhaul Kits

**WGR 600 • SERVICE KIT**

- (1) BJ 026 Port Screw
- (1) BJ 048-M Visc Fluid, 6oz
- (1) BJ 062-S Antiseize, 2g
- (1) GP 049 Grease Syringe
- (1) TR200 121 Shaft O-Ring
- (1) WG 008 Nut O-Ring
- (2) WGR 006 Shaft Seal – Outer
- (2) WGR 009 Bearing
- (2) WGR 010 Shaft Seal – Inner
- (2) WGR 011 Seal Spacer
- (2) WGR 050 O-Ring
- (6) WHR 030 Torx Screws

**WGR 601 • FLUID KIT**

- (1) WGR 601 Fluid Service Kit
- (1) BC 410 Syringe
- (2) BJ 026 Port Screw
- (1) WGR 048 Visc Fluid, 6oz
- (3) VISC. FLUID OPTIONS AVAIL.

**WGR 602 • HP SEAL KIT**

- (1) BJ 062-S Antiseize, 2g
- (2) WGR 052 HP Seal Wave Spring
- (1) WGR 058 HP Seal - Shaft
- (1) WGR 059 HP Seal - Nut
- (2) WGR 050 HP Seal O-Ring

**WGR 610 • OVERHAUL KIT**

- (2) BJ 026 Port Screw
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P2SS Front Jet Plug
- (1) TR200 121 Head - Shaft O-Ring
- (1) WG 008 Nut O-Ring
- (1) WG 014 Bearing Wave Spring
- (2) WGR 006 Shaft Seal - Outer
- (2) WGR 009 Bearing
- (2) WGR 010 Shaft Seal - Inner
- (2) WGR 011 Seal Spacer
- (6) WHR 030 Torx Screws
- (1) BJ 048-M Visc Fluid, 6oz

- (2) WGR 052 HP Seal Wave Spring
- (1) WGR 058 HP Seal - Shaft
- (1) WGR 059 HP Seal - Nut
- (1) WGR 076 Weep Seal O-Ring
- (1) WGR 180 Torx L-Wrench
- (2) WGR 050 HP Seal O-Ring

**WGR 612 • TOOL KIT**

- (1) WGR 180 Torx L-Wrench
- (1) WGR 181 Removal Press Tube
- (1) WGR 182 Installation Press Tube
- (1) WGR 183 Hex Tool
- (1) WGR 184 HP Seal Install Tool



# SWITCHER™

- Get jobs done in less time, with less water and half the runs
- Climbs hills & effectively pulls upstream
- Eliminates the need to change heads

## WGR SWITCHER

For cleaning 8-36" (203-914mm) sewer lines.

*"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**

## WHR SWITCHER

For cleaning 6-18" (103-457mm) sewer lines.

10.25 IN. (260 MM)



10.25 IN. (260 MM)

8.26 IN. (210 MM)

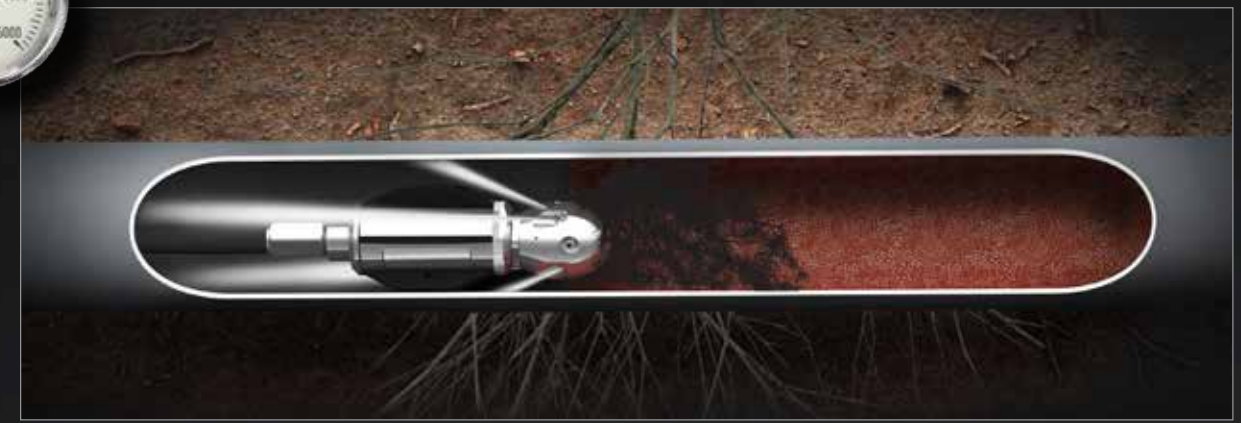


7.25 IN. (184 MM)

## OPERATOR CAN REMOTELY SWITCH BETWEEN PULLING AND CLEANING WITH THE NOZZLE IN THE PIPE.



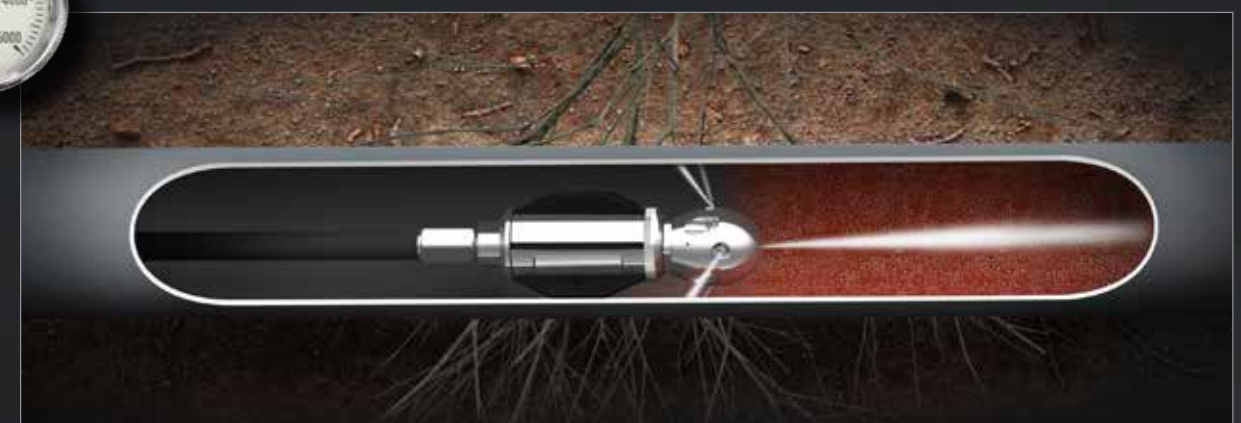
Use full pulling thrust to climb inclines and go upstream to problem area.



Idle the pump down to "switch" jets to cleaning mode.



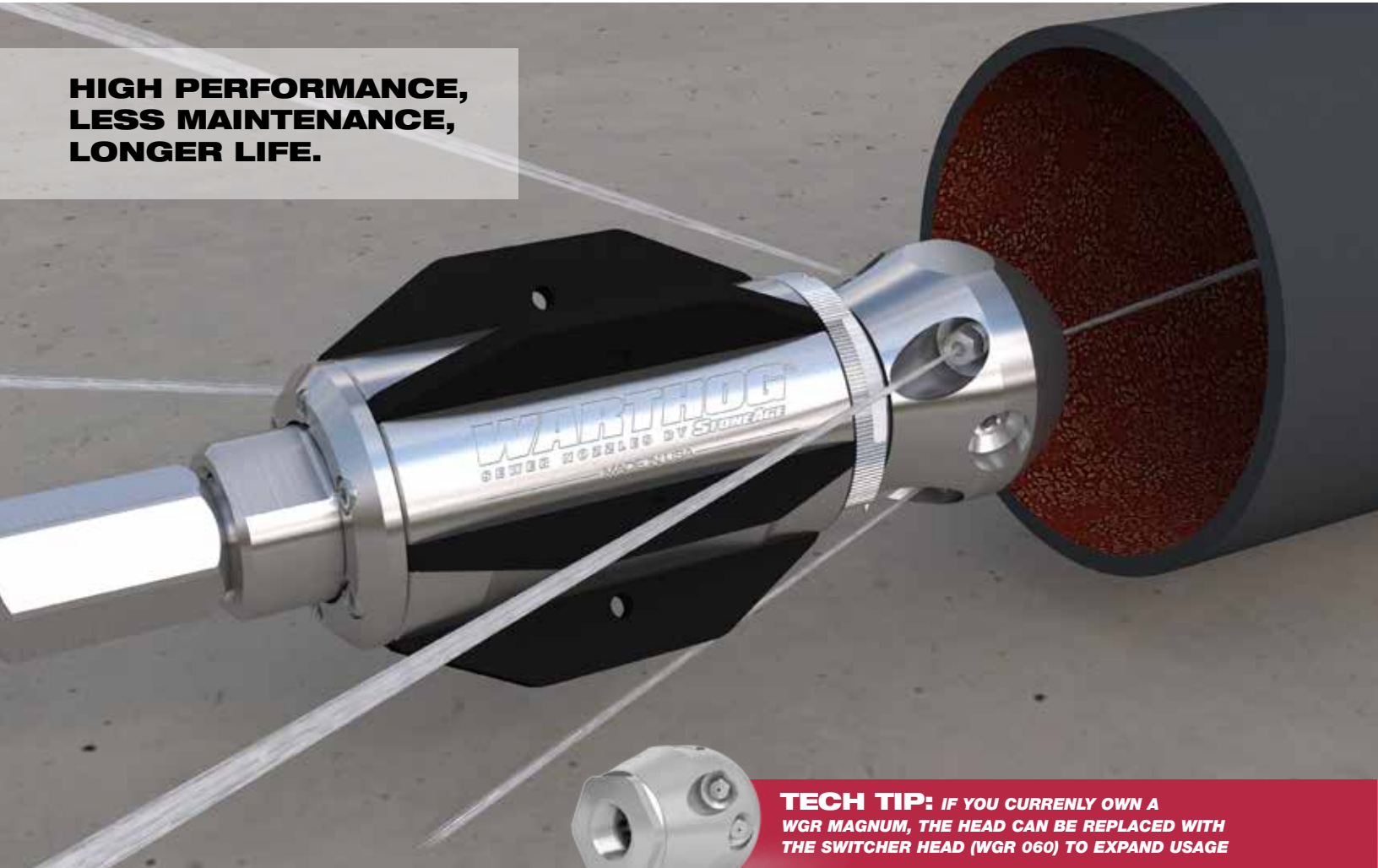
Bring the pump back to pressure to begin cleaning/cutting mode.







HIGH PERFORMANCE,  
LESS MAINTENANCE,  
LONGER LIFE.



**TECH TIP:** IF YOU CURRENTLY OWN A  
WGR MAGNUM, THE HEAD CAN BE REPLACED WITH  
THE SWITCHER HEAD (WGR 060) TO EXPAND USAGE

# WGR MAGNUM

8"-36" (20-90 cm) Lines

The **WGR MAGNUM** is the first tool in the Warthog Magnum series, specifically designed for extended tool durability and optimal handling of dirty or recycled water.

- Optimized speed control extends maintenance intervals
- Latest seal technology effectively handles dirty or recycled water for improved performance
- Flush style head protects front shaft seals for longer tool life
- Streamlined design keeps tool from catching inside pipe
- Carbide nozzles generate higher quality jets
- Descaling ports now come standard
- Hardened steel centralizer with 4x longer life
- Optional fin sizes for different pipe diameters
- Independently replaceable fins can be easily replaced without opening tool body
- Choose your rotation speed with 3 viscous fluid options

## WGR MAGNUM

8"-36" Lines (20-90 cm)

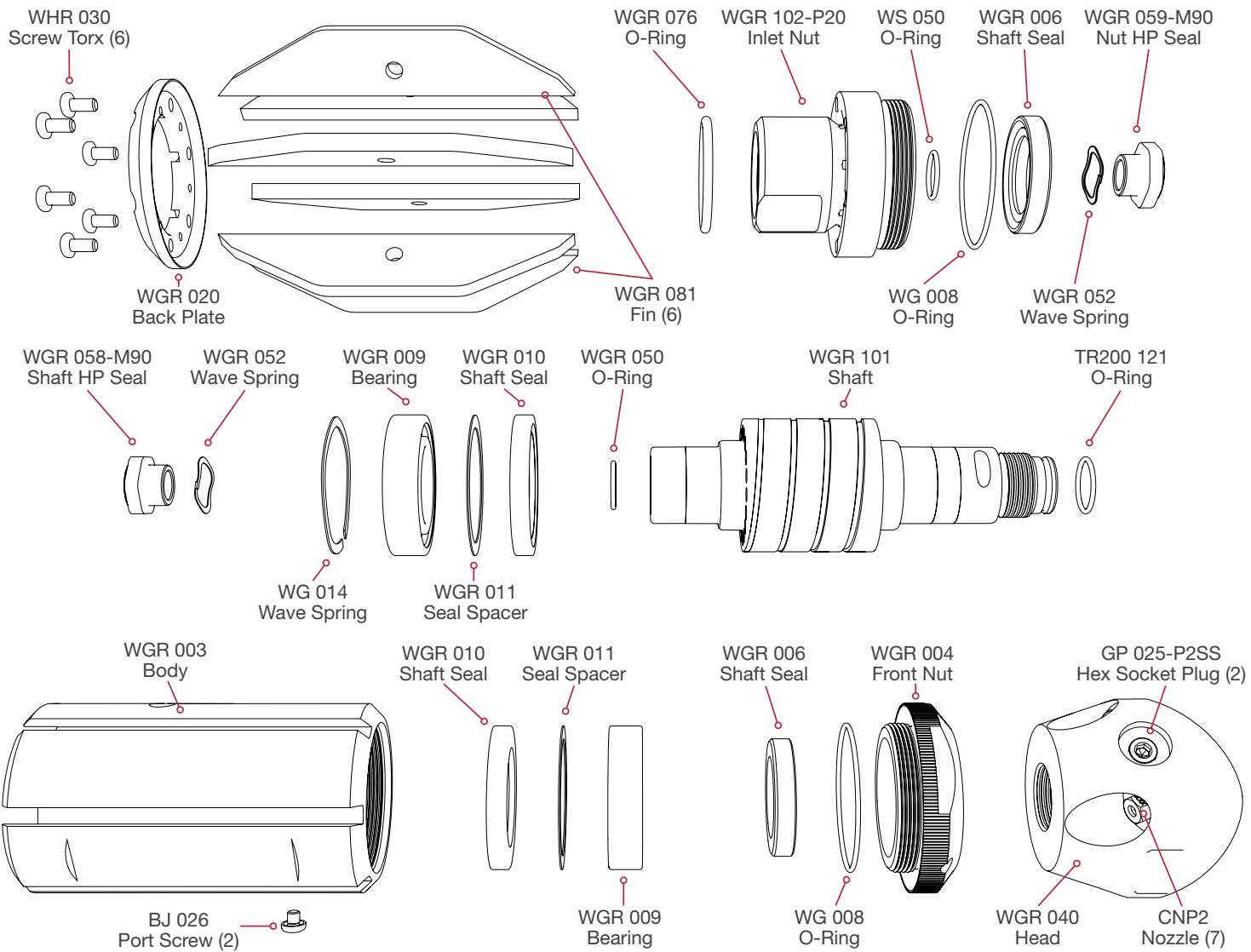
Up to 5k psi (350 bar)
50-80 gpm Flows (190-300 l/min)
Standard Descaler or Puller Descaler

## WGR Specifications

<b>MAXIMUM PRESSURE</b>	5k psi 350 bar
<b>OPERATING PRESSURE</b>	1500-5k psi 100-350 bar
<b>ROTATION SPEED</b>	150-300 rpm
<b>FLOW</b>	50-80 gpm 190-300 l/min
<b>FLOW RATING</b>	6 Cv
<b>INLET CONNECTION</b>	1 in. NPT or 1in. BSPP
<b>NOZZLE PORTS</b>	7 x 1/8 NPT
<b>DIAMETER</b>	4.5 in. 114 mm
<b>LENGTH</b>	10.25 in. 260 mm
<b>WEIGHT COMPLETE</b>	13 lb 5.9 kg

# WGR MAGNUM

Exploded View - Part Names and Numbers



## Maintenance & Overhaul Kits

### WGR 600 • SERVICE KIT

- (1) BJ 026 Port Screw
- (1) BJ 048-M Visc Fluid, 6oz
- (1) BJ 062-S Antiseize, 2g
- (1) GP 049 Grease Syringe
- (1) TR200 121 Shaft O-Ring
- (1) WG 008 Nut O-Ring
- (2) WGR 006 Shaft Seal – Outer
- (2) WGR 009 Bearing
- (2) WGR 010 Shaft Seal – Inner
- (2) WGR 011 Seal Spacer
- (2) WGR 050 O-Ring
- (6) WHR 030 Torx Screws

### WGR 601 • FLUID KIT

- (1) WGR 601 Fluid Service Kit
- (1) BG 410 Syringe
- (2) BJ 026 Port Screw
- (1) WGR 048 Visc Fluid, 6oz
- (3) VISC. FLUID OPTIONS AVAILABLE

### WGR 602 • HP SEAL KIT

- (1) BJ 062-S Antiseize, 2g
- (2) WGR 052 HP Seal Wave Spring
- (1) WGR 058 HP Seal - Shaft
- (1) WGR 059 HP Seal - Nut
- (2) WGR 050 HP Seal O-Ring

### WGR 610 • OVERHAUL KIT

- (2) BJ 026 Port Screw
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P2SS Front Jet Plug
- (1) TR200 121 Head - Shaft O-Ring
- (1) WG 008 Nut O-Ring
- (1) WG 014 Bearing Wave Spring
- (2) WGR 006 Shaft Seal - Outer
- (2) WGR 009 Bearing
- (2) WGR 010 Shaft Seal - Inner
- (2) WGR 011 Seal Spacer
- (6) WHR 030 Torx Screws
- (1) WGR 048 Visc Fluid, 6oz

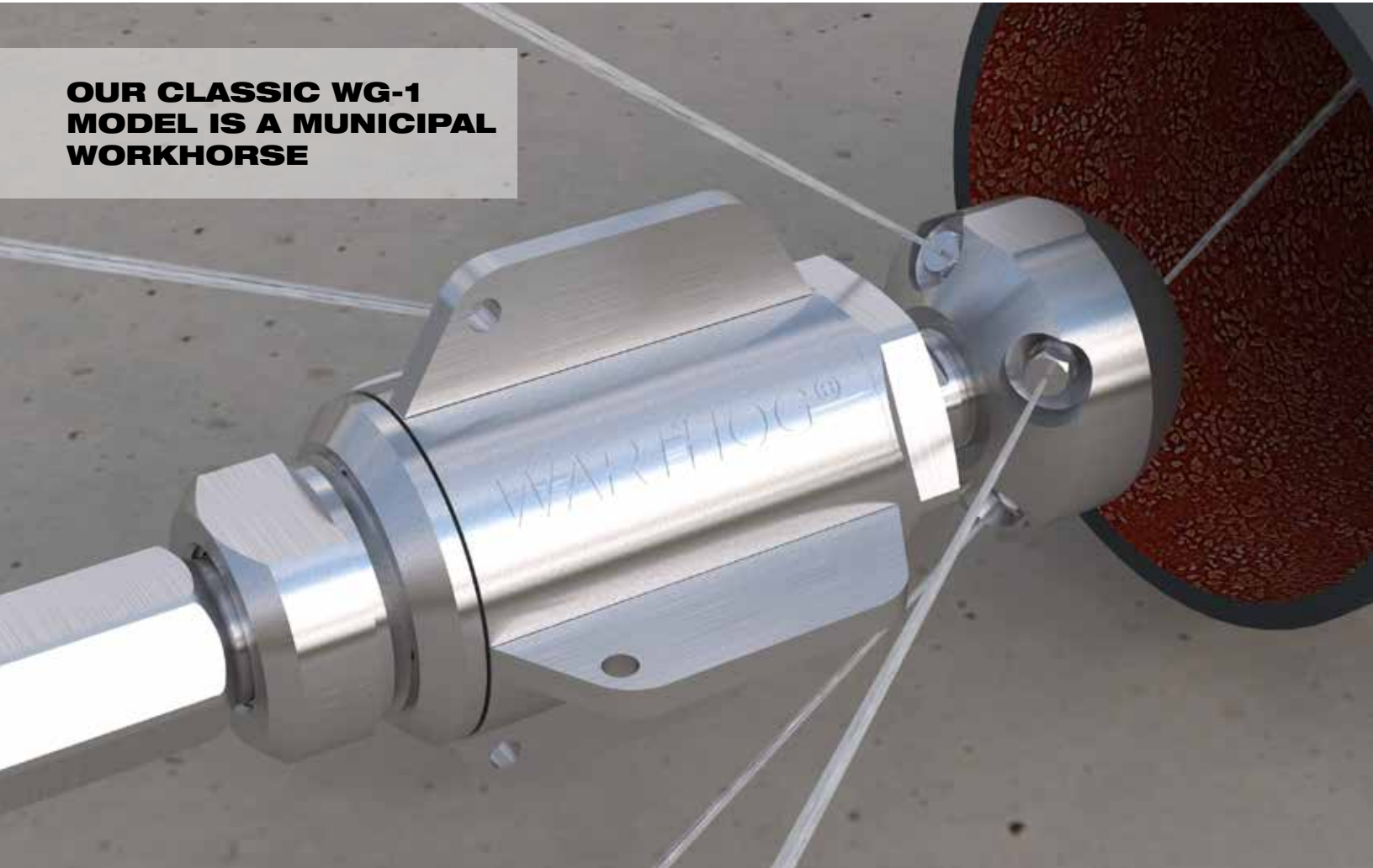
- (2) WGR 052 HP Seal Wave Spring
- (1) WGR 058 HP Seal - Shaft
- (1) WGR 059 HP Seal - Nut
- (1) WGR 076 Weep Seal O-Ring
- (1) WGR 180 Torx L-Wrench
- (2) WGR 050 HP Seal O-Ring

### WGR 612 • TOOL KIT

- (1) WGR 180 Torx L- Wrench
- (1) WGR 181 Removal Press Tube
- (1) WGR 182 Installation Press Tube
- (1) WGR 183 Hex Tool
- (1) WGR 184 HP Seal Install Tool



OUR CLASSIC WG-1  
MODEL IS A MUNICIPAL  
WORKHORSE



WG-1 CLASSIC

8"-36" (203-914 mm) Lines

The WG-1 is the proven choice for municipal, industrial and commercial drain cleaning applications. Predominately used in large combination trucks with 1" (25 mm) hose, the WG-1 is field-maintainable for low cost of ownership and can be fitted with replaceable AP2 nozzle tips sized to maximize pump efficiency and effectiveness.

- **CONTROLLED ROTATION**  
Slower dwell time allows jets to penetrate deeper through deposits
- **MULTIPLE HEAD OPTIONS**  
Customize tool for unplugging, descaling or manhole cleaning
- **HIGHEST QUALITY JETS**  
Hardened stainless steel orifices resist cracking and scratching



WG 040-DS-R5

**TECH TIP: WE RECOMMEND  
PLUGGING THE FRONT JET TO HELP  
MAXIMIZE DESCALING AND PULLING  
POWER WHEN USING THIS OPTION.**

WG-1 CLASSIC

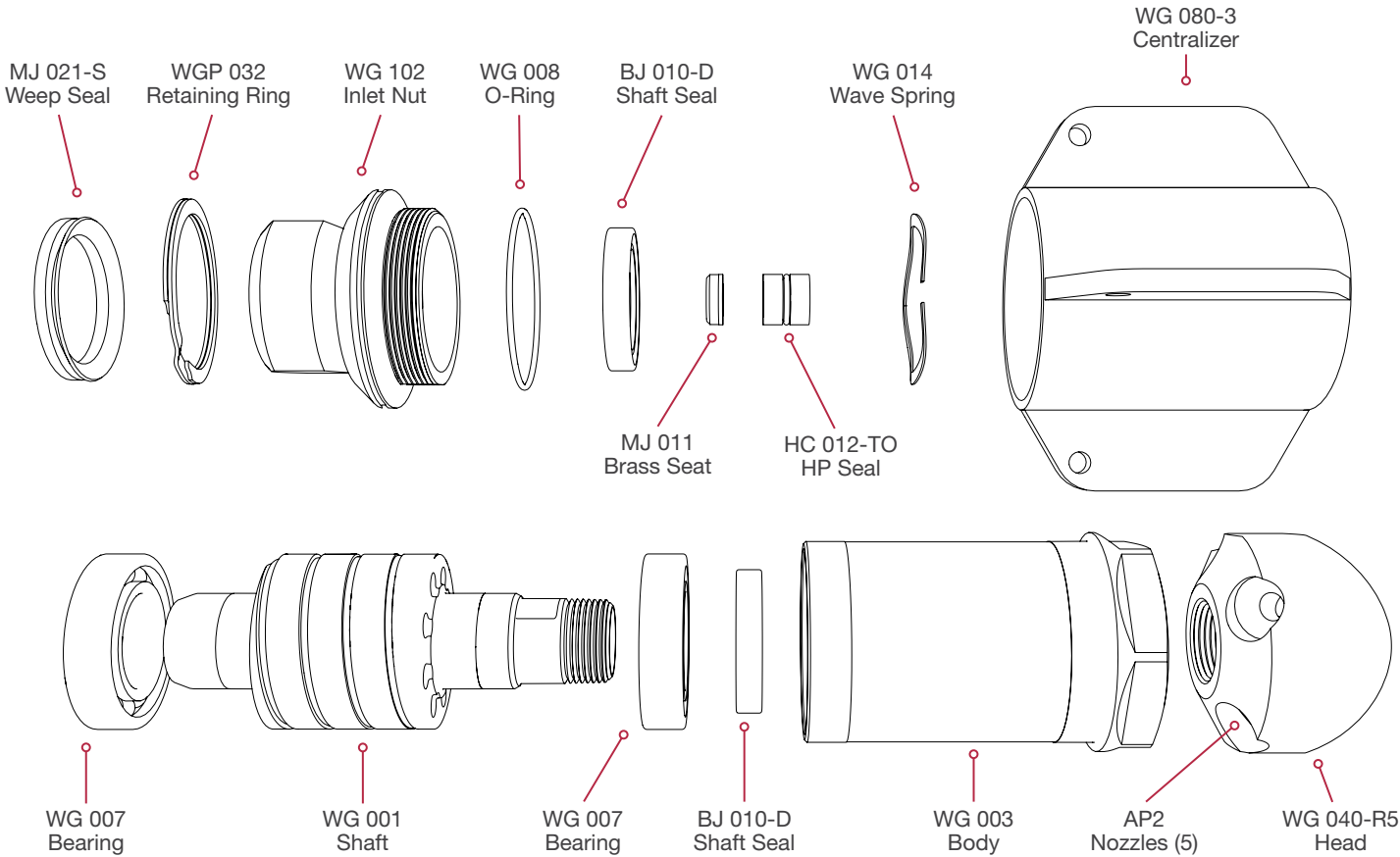
Up to 5k psi (350 bar)
50-80 gpm Flows (190-300 l/min)
Classic WG-1 Model

WG-1 Specifications

<b>MAXIMUM PRESSURE</b>	5k psi 350 bar
<b>OPERATING PRESSURE</b>	1500-5k psi 100-350 bar
<b>ROTATION SPEED</b>	150-300 rpm
<b>FLOW</b>	50-80 gpm 190-300 l/min
<b>FLOW RATING</b>	4.6 Cv
<b>PULLING FORCE</b>	70-100 lb 310-450 Nm
<b>INLET CONNECTION</b>	1 NPT or BSPP
<b>NOZZLE PORTS</b>	5 x 1/8 NPT (P2)
<b>LENGTH</b>	9.1 in. 231 mm
<b>DIAMETER</b>	4.8 in. 122 mm
<b>WEIGHT COMPLETE</b>	10.9 lb 4.9 kg

WG-1 CLASSIC

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WG 600 • SERVICE KIT

- (1) BJ 048-F Visc. Fluid, 6oz.
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P2SS Hex Socket Plug
- (1) MJ 011 Brass Seat
- (1) HC 012-TO HP Seal & O-Ring

WG 610 • OVERHAUL KIT

- (2) BJ 010-D Shaft Seals
- (1) BJ 048-F Visc. Fluid, 6oz.
- (1) BJ 062-S Antiseize, 2g
- (1) MJ 011 Brass Seat
- (1) HC 012-TO HP Seal & O-Ring
- (2) WG 007 Ball Bearings
- (1) WG 008 O-Ring
- (1) WG 014 Wave Spring
- (1) MJ 021-S Weep Seal
- (1) WGP 032 Retaining Ring

WG 612 • TOOL KIT

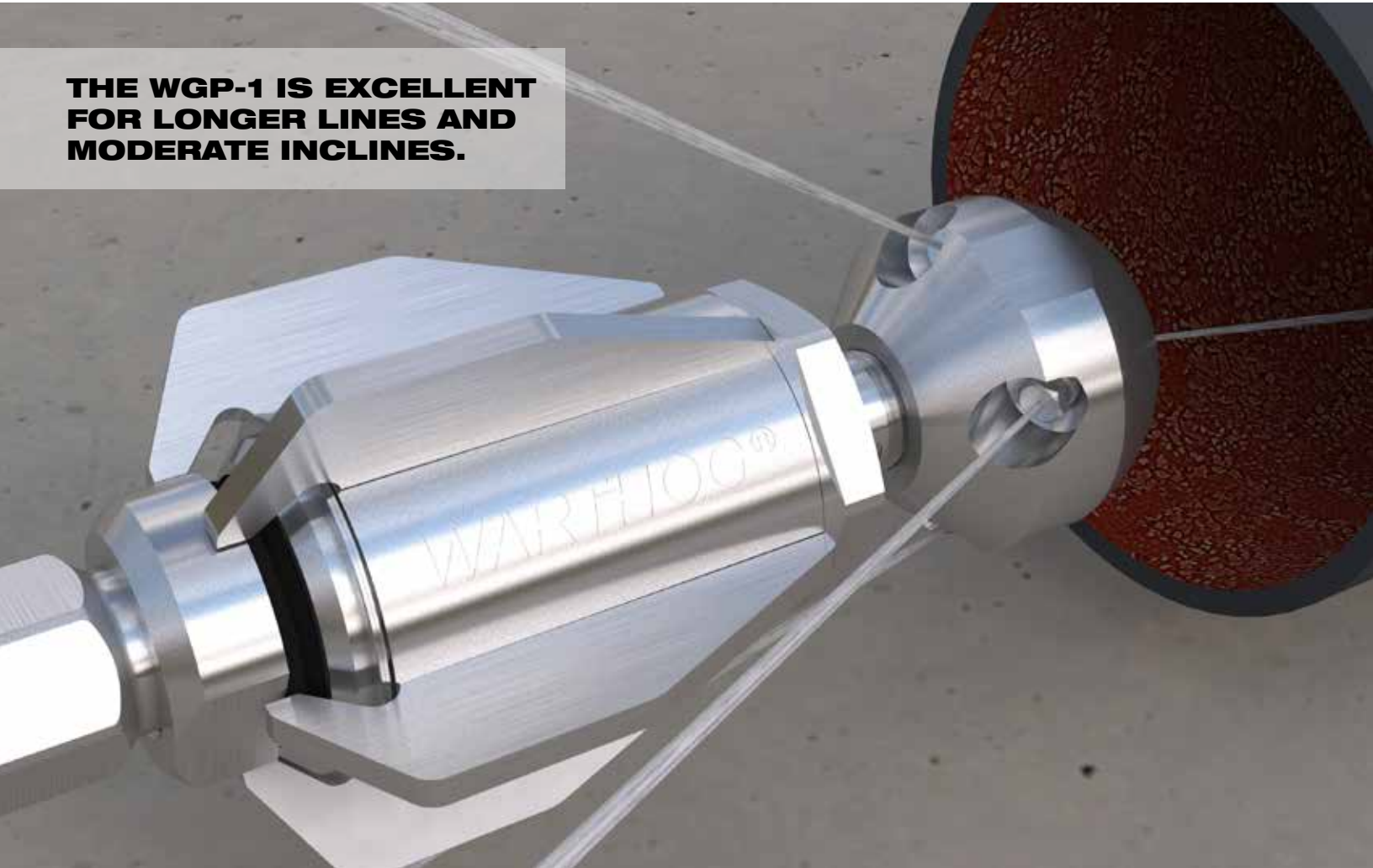
- (1) HC 064 Fill Tube
- (1) BJ 105 Tool

WG 602 • SEAL KIT

- (1) MJ 011 Brass Seat
- (1) HC 012-TO HP Seal & O-Ring



THE WGP-1 IS EXCELLENT  
FOR LONGER LINES AND  
MODERATE INCLINES.



WGP-1 CLASSIC

8"-36" (203-914 mm) Lines

Our WGP-1 is designed to produce up to 40% more pulling power\* than our WG-1. The rear facing jets are angled more sharply and the centralizer fins have been streamlined. The result is more pulling power to navigate longer lines and moderate inclines, plus makes retrieval of the tool easier.

WGP-1  
CLASSIC

Up to 5k psi (350 bar)
50-80 gpm Flows (190-300 l/min)
Up to 40% More Pulling Power*

WGP-1 Specifications

MAXIMUM PRESSURE	5k psi	350 bar
OPERATING PRESSURE	1500-5k psi	100-350 bar
ROTATION SPEED	150-300 rpm	
FLOW	50-80 gpm	190-300 l/min
FLOW RATING	4.6 Cv	
PULLING FORCE	100-140 lb	450-623 N
INLET CONNECTION	1 NPT or BSPP	
LENGTH	9.1 in.	231 mm
DIAMETER WITH CENT.	4.8 in.	122 mm
PORTS	5 x 1/8 NPT	
WEIGHT COMPLETE	10.9 lb	4.9 kg

\* With the front jet plugged.



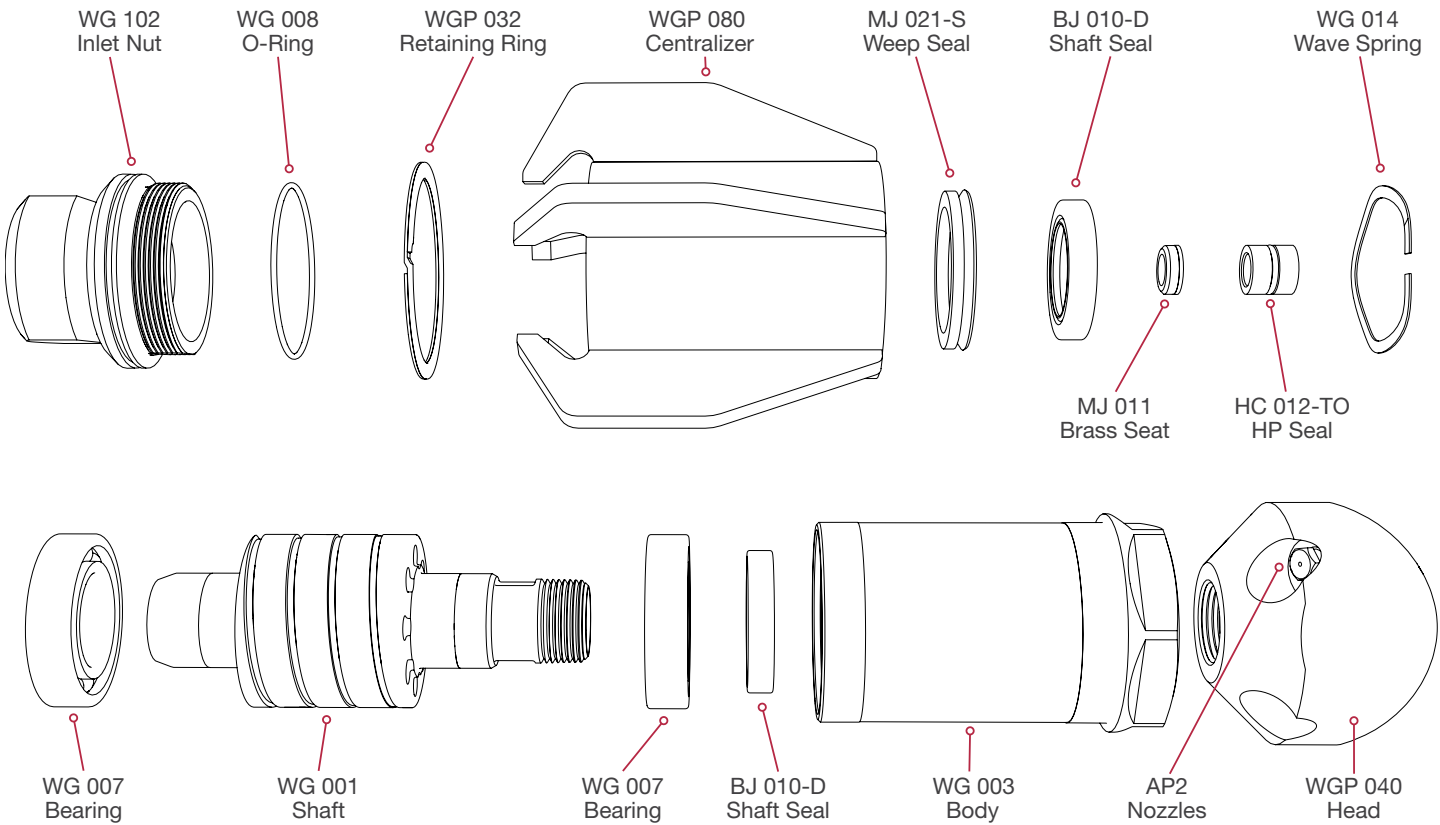
Optional Descaling Head for the WGP-1

WGP 040-R8-DS

TECH TIP: WE RECOMMEND  
PLUGGING THE FRONT JET TO HELP  
MAXIMIZE DESCALING AND PULLING  
POWER WHEN USING THIS OPTION.

WGP-1 CLASSIC

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WG 600 • SERVICE KIT

- (1) BJ 048-F Visc. Fluid, 6oz.
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P2 Hex Socket Plug
- (1) MJ 011 Brass Seat
- (1) HC 012-TO HP Seal & O-Ring

WG 610 • OVERHAUL KIT

- (2) BJ 010-D Shaft Seals
- (1) BJ 048-F Visc. Fluid, 6oz.
- (1) BJ 062-S Antiseize, 2g
- (1) MJ 011 Brass Seat
- (1) HC 012-TO HP Seal & O-Ring
- (2) WG 007 Ball Bearings
- (1) WG 008 O-Ring
- (1) WG 014 Wave Spring
- (1) MJ 021-S Weep Seal
- (1) WGP 032 Retaining Ring

WG 612 • TOOL KIT

- (1) HC 064 Fill Tube
- (1) BJ 105 Tool

WG 602 • SEAL KIT

- (1) MJ 011 Brass Seat
- (1) HC 012-TO HP Seal & O-Ring





HIGH PERFORMANCE,  
LESS MAINTENANCE,  
LONGER LIFE.



WGR-1-1/4 MAGNUM

High-flow Pipe Cleaning

The WGR-1-1/4 Magnum is specifically designed for higher water flow, extended tool durability, and optimal handling of dirty or recycled water.

- Optimized speed control extends maintenance intervals
- Latest seal technology effectively handles dirty or recycled water for improved performance
- Flush style head protects front shaft seals for longer tool life
- Streamlined design keeps tool from catching inside pipe
- Carbide nozzles generate higher quality jets
- Descaling ports now come standard
- Hardened steel centralizer with 4x longer life
- Optional fin sizes for different pipe diameters
- Independently replaceable fins can be easily replaced as wear occurs without opening tool body
- Choose your rotation speed with 3 viscous fluid options

WGR-1-1/4  
MAGNUM

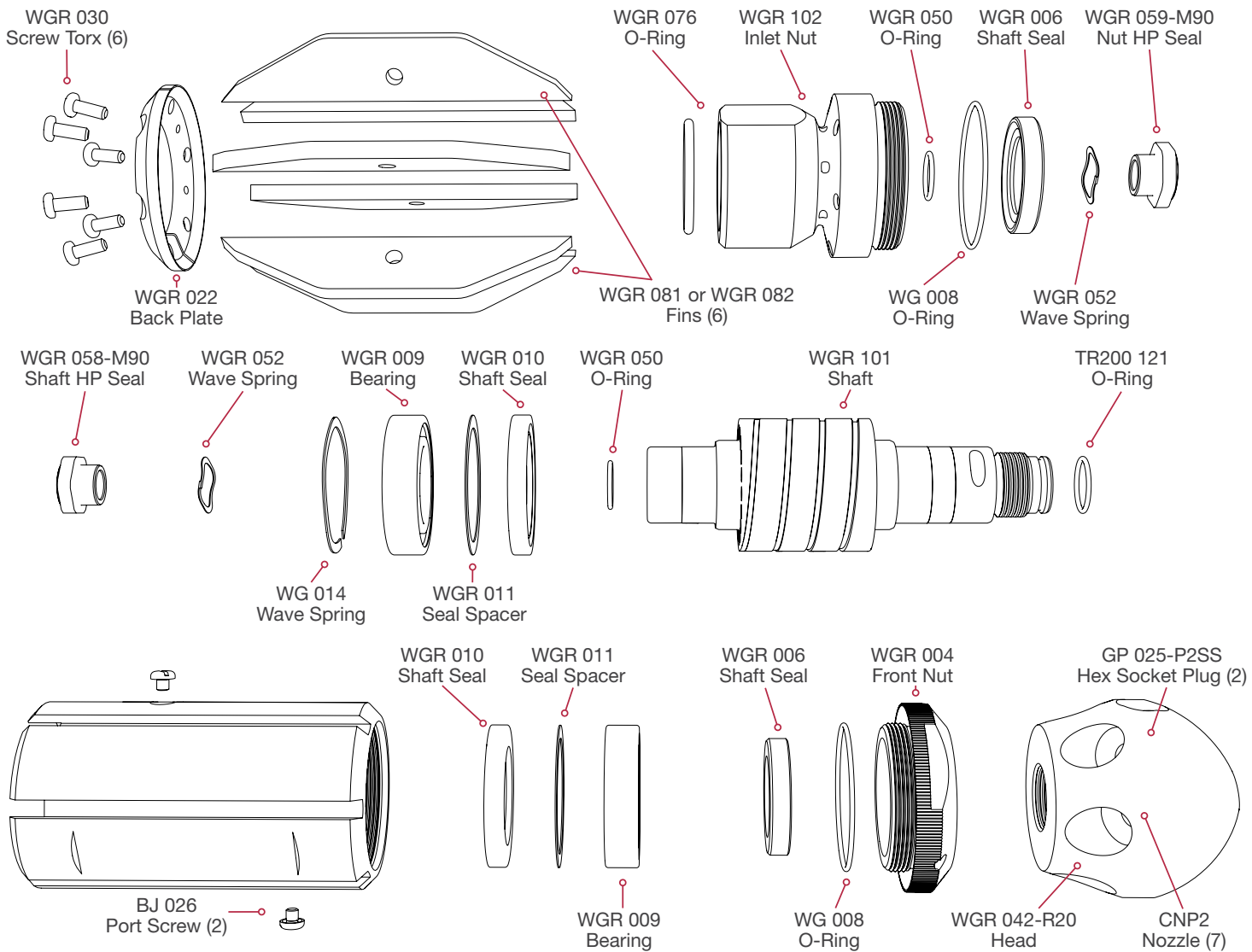
Up to 5k psi (350 bar)
80–120 gpm Flows (300–455 l/min)
8"-36" Lines (200–900 mm)
9 Port Head Comes Standard with Descaling Jets

WGR Specifications

MAXIMUM PRESSURE	5k psi 350 bar
OPERATING PRESSURE	1500-5k psi 100-350 bar
ROTATION SPEED	150-300 rpm
FLOW	80–120 gpm (300–455 l/min)
FLOW RATING	6 Cv
INLET CONNECTION	1.25 in NPT / BSPP
NOZZLE PORTS	9 x 1/8 NPT
DIAMETER	5.75 in. 146 mm
LENGTH	10.25 in. 260 mm
WEIGHT COMPLETE	13 lb 5.9 kg

WGR-1-1/4 MAGNUM

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WGR 600 • SERVICE KIT

- (1) BJ 026 Port Screw
- (1) BJ 048-M Visc Fluid, Medium, 6oz
- (1) BJ 062-S Antiseize, 2g
- (1) GP 049 Bearing Grease Syringe
- (1) TR200 121 Head – Shaft O-Ring
- (1) WG 008 Nut O-Ring
- (2) WGR 006 Shaft Seal – Outer
- (2) WGR 009 Bearing
- (2) WGR 010 Shaft Seal – Inner
- (2) WGR 011 Seal Spacer
- (2) WGR 050 O-Ring
- (6) WHR 030 Torx Screws

WGR 601 • FLUID KIT

- (1) WGR 601 Fluid Service Kit
- (1) BC 410 Syringe
- (2) BJ 026 Port Screw
- (1) WGR 048 Visc Fluid, 6oz
- (3) VISC. FLUID OPTIONS AVAILABLE.

WGR 602 • HP SEAL KIT

- (1) BJ 062-S Antiseize, 2g
- (2) WGR 052 HP Seal Wave Spring
- (1) WGR 058 HP Seal - Shaft
- (1) WGR 059 HP Seal - Nut
- (2) WGR 050 HP Seal O-Ring

WGR 610 • OVERHAUL KIT

- (2) BJ 026 Port Screw
- (1) BJ 062-S Antiseize, 2g
- (1) GP 025-P Front Jet Plug
- (1) TR200 121 Head - Shaft O-Ring
- (1) WG 008 Nut O-Ring
- (1) WG 014 Bearing Wave Spring
- (2) WGR 006 Shaft Seal - Outer
- (2) WGR 009 Bearing
- (2) WGR 010 Shaft Seal - Inner
- (2) WGR 011 Seal Spacer
- (6) WGR 030 Torx Screws
- (1) WGR 048 Visc Fluid, 6oz

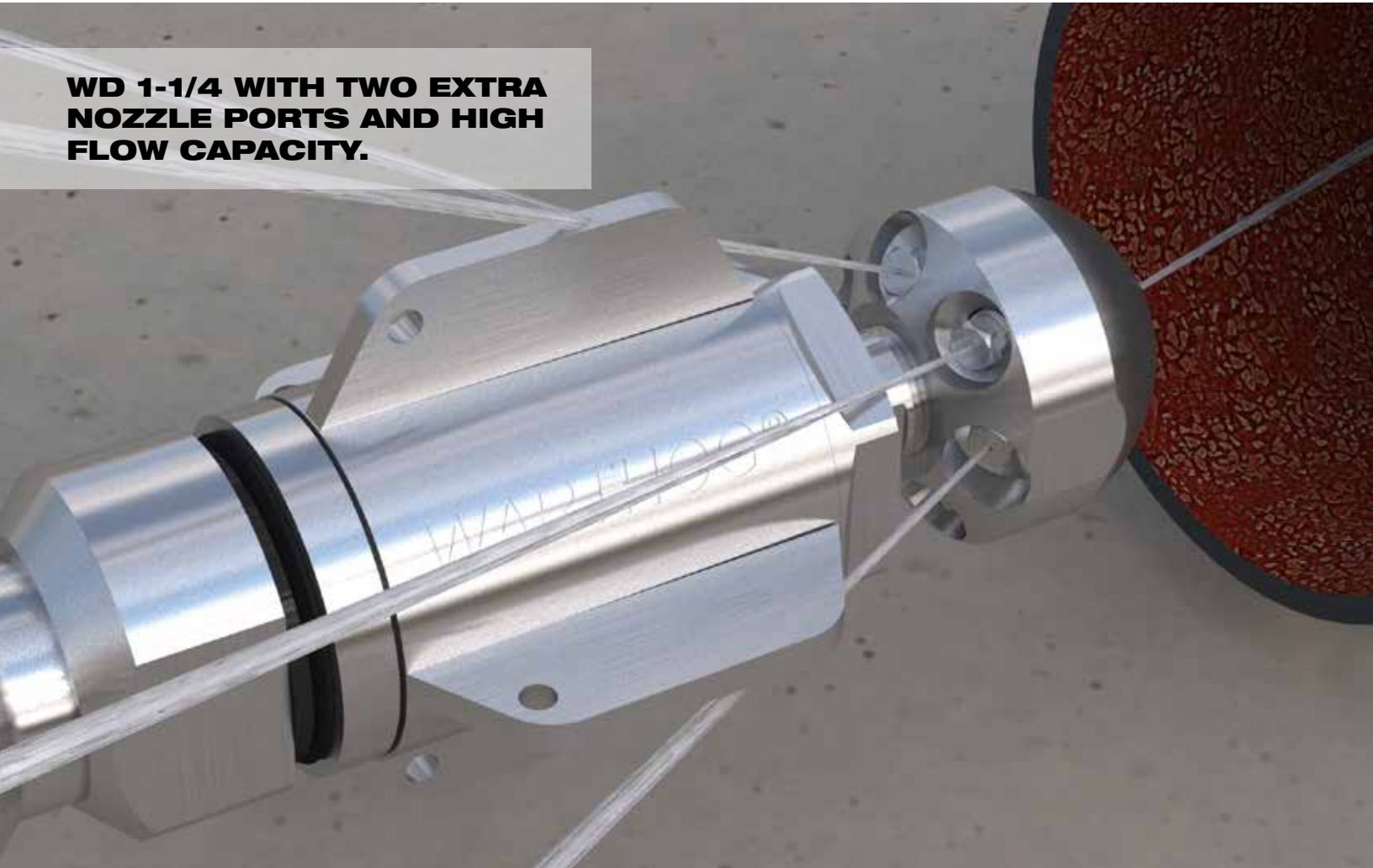
- (2) WGR 052 HP Seal Wave Spring
- (1) WGR 058 HP Seal - Shaft
- (1) WGR 059 HP Seal - Nut
- (1) WGR 076 Weep Seal O-Ring
- (1) WGR 180 Torx L-Wrench
- (2) WGR 050 HP Seal O-Ring

WGR 612 • TOOL KIT

- (1) WGR 180 Torx L-Wrench
- (1) WGR 181 Removal Press Tube
- (1) WGR 182 Installation Press Tube
- (1) WGR 183 Hex Tool
- (1) WGR 184 HP Seal Install Tool



WD 1-1/4 WITH TWO EXTRA  
NOZZLE PORTS AND HIGH  
FLOW CAPACITY.



WD 1-1/4  
CLASSIC

High-flow For 8”-36” (152-457 mm) Lines

The WD 1-1/4 is designed to handle the same applications as the WG-1 but at higher flows. The 1-1/4” inlet combined with seven ports effectively distribute more water.

Descaling heads are not available for this model.

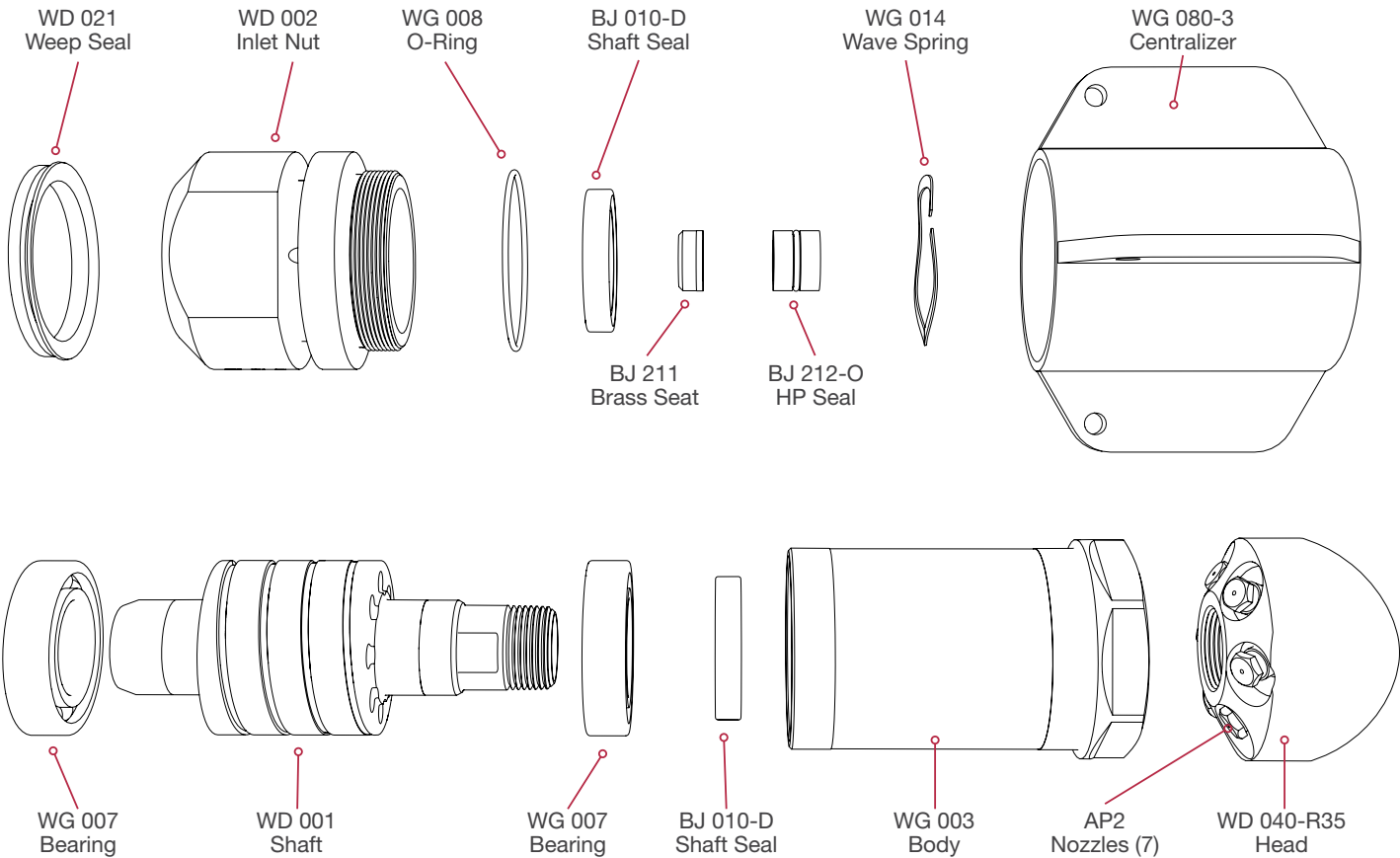
WD 1-1/4 CLASSIC	Up to 5k psi (350 bar)
	80-120 gpm Flows (300-450 l/min)
	8”-36” Lines (152-457 mm)
	High Flow Model

WD 1-1/4 Classic Specifications

MAXIMUM PRESSURE	5k psi	350 bar
OPERATING PRESSURE	1500–5k psi	100–350 bar
ROTATION SPEED		150-300 rpm
FLOW	80–120 gpm	300–450 l/min
FLOW RATING		7.6 Cv
PULLING FORCE	130–190 lb	600–850 Nm
INLET CONNECTION		1-1/4 NPT or BSPP
LENGTH		9.1 in. 231 mm
DIAMETER WITH CENT.		4.8 in. 122 mm
NOZZLE PORTS		7 x 1/8 NPT
WEIGHT COMPLETE	11 lb	5.0 kg

WD 1-1/4 CLASSIC

Exploded View - Part Names and Numbers



Maintenance & Overhaul Kits

WD 600 • SERVICE KIT

(1) BJ 048-F	Visc. Fluid, 6oz.
(1) BJ 062-S	Antiseize, 2g
(1) GP 025-P2SS	Hex Socket Plug
(1) BJ 211	Brass Seat
(1) BJ 212-O	HP Seal & O-Ring

WD 602 • SEAL KIT

(1) BJ 211	Brass Seat
(1) BJ 012-O	HP Seal & O-Ring

WD 610 • OVERHAUL KIT

(1) BJ 048-F	Visc. Fluid, 6oz.
(2) BJ 010-D	Shaft Seals
(1) BJ 062-S	Antiseize, 2g
(1) BJ 211	Brass Seat
(1) BJ 012-O	HP Seal & O-Ring
(2) WG 007	Ball Bearings
(1) WD 021	Seal
(1) WG 008	O-Ring
(1) WG 014	Wave Spring

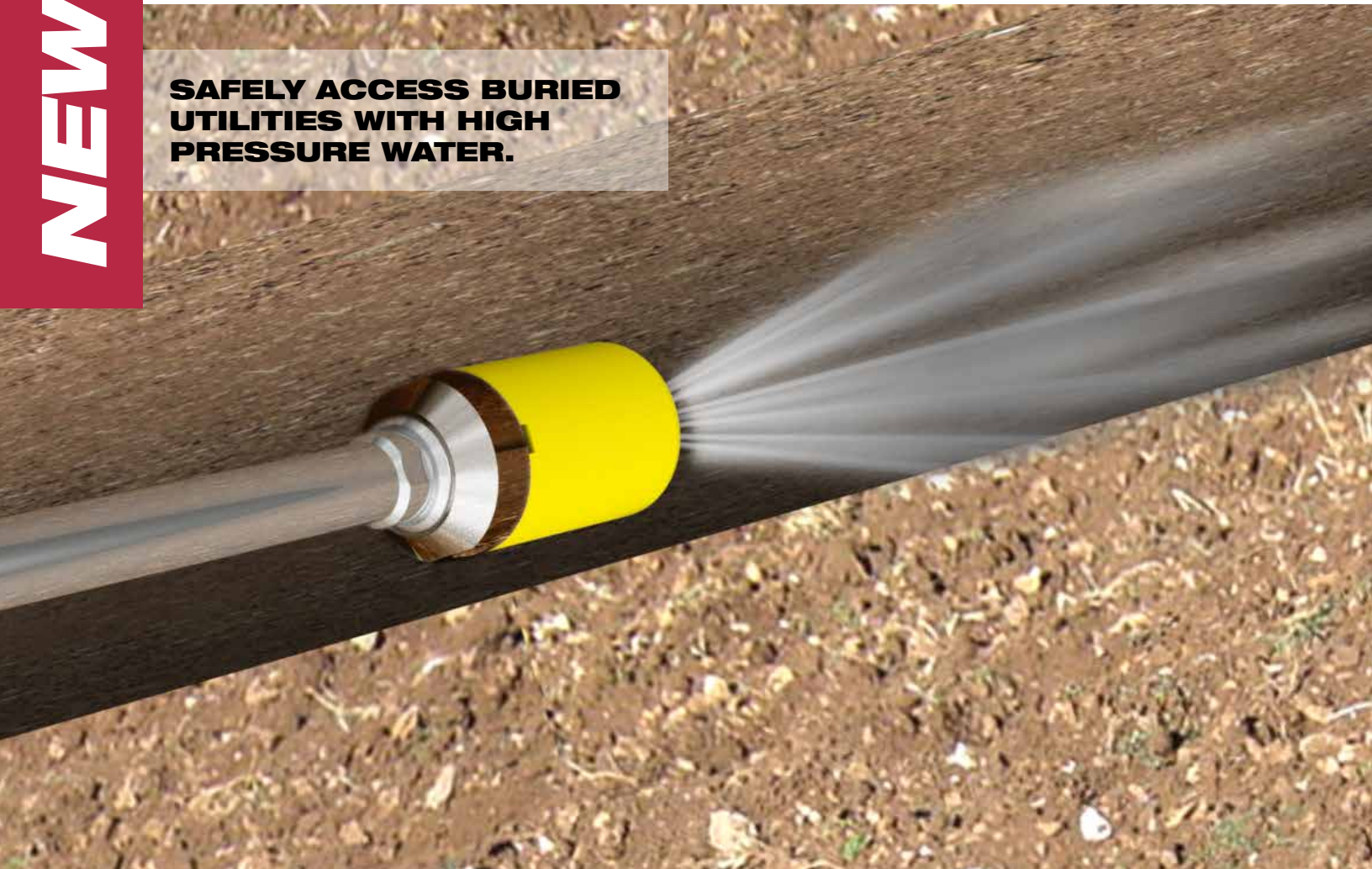
WG 612 • TOOL KIT

(1) HC 064	Fill Tube
(1) BJ 105	Tool





SAFELY ACCESS BURIED  
UTILITIES WITH HIGH  
PRESSURE WATER.



ROTARY HYDRO-X

Rotary Hydro Excavation Tools

Hydro Excavation is a safe alternative to access buried utilities by potholing or trenching with high pressure water.

Three options available for different applications:

- **HXR 310-10: Higher flow for harder surfaces**
- **HXR 310-8: Intermediate flow for general use**
- **HXR 310-5: Lower flow for water savings**

FEATURES:

- Angled rotating jet pattern reduces undercutting and safely cleans around utilities
- Carbide seat for long nozzle life
- Fully rebuildable tool
  - Inexpensive rebuild kits reduce cost of ownership by extending the life of the tool with minimal maintenance
  - Replaceable shield cap

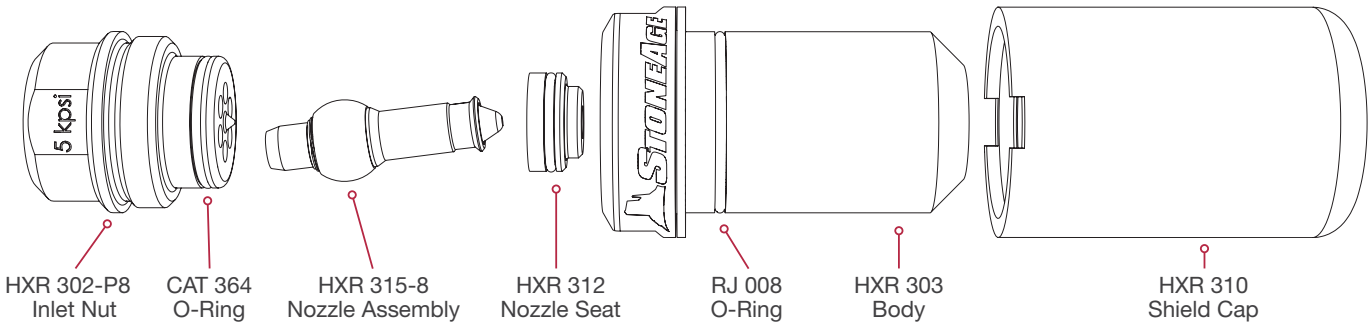
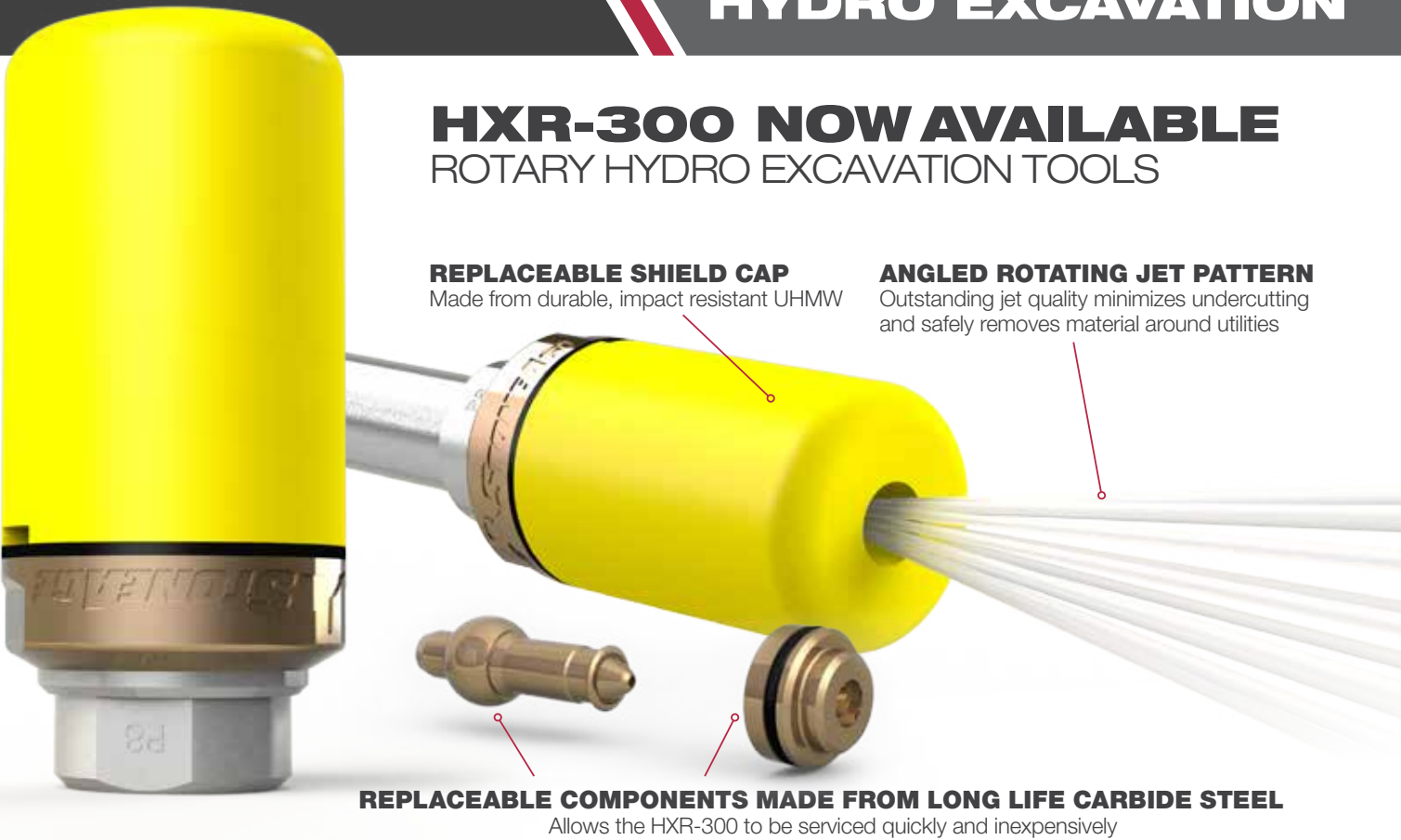
HXR-300

Up to 5k psi (350 bar)
3–15 gpm Flows (9–58 l/min)
3 Flow Ranges Available

Rotary Hydro-X Specifications

PRESSURE RANGE	Up to 5k psi 340 bar
FLOW RANGE	Up to 15 gpm 9–58 l/min
CONE SPRAY ANGLE	18°
INLET CONNECTION	0.5-14 NPT
WEIGHT	1.1 lb 0.5 kg
DIAMETER	1.75 in. 44 mm
LENGTH	4.2 in. 107 mm

HXR-300 NOW AVAILABLE  
ROTARY HYDRO EXCAVATION TOOLS



Maintenance & Overhaul Kits

INTERNAL PARTS

HXR 610-10 • SERVICE KIT

(1) CAT 364	O-Ring
(1) HXR 306-10	ID Ring, White
(1) HXR 312	Nozzle, Seat
(1) HXR 315-10	Nozzle, Stem

HXR 610-8 • SERVICE KIT

(1) CAT 364	O-Ring
(1) HXR 306-8	ID Ring, Black
(1) HXR 312	Nozzle, Seat
(1) HXR 315-8	Nozzle, Stem

HXR 610-5 • SERVICE KIT

(1) CAT 364	O-Ring
(1) HXR 306-5	ID Ring, Purple
(1) HXR 312	Nozzle, Seat
(1) HXR 315-5	Nozzle, Stem

EXTERNAL PARTS

HXR 615-10 • SERVICE KIT

(1) HXR 310	Shield, Yellow
(1) HXR 306-10	ID Ring, White
(1) RJ 008	O-Ring

HXR 615-8 • SERVICE KIT

(1) HXR 310	Shield, Yellow
(1) HXR 306-8	ID Ring, Black
(1) RJ 008	O-Ring

HXR 615-5 • SERVICE KIT

(1) HXR 310	Shield, Yellow
(1) HXR 306-5	ID Ring, White
(1) RJ 008	O-Ring



SINGLE, DOUBLE OR TRIPLE  
JETS – FOR PRECISE &  
ACCURATE SOIL REMOVAL



**HX-101**  
Single Head Assembly  
• OC1H Carbide (1)



**HX-102**  
Double Head Assembly  
• AP2 Attack Tips (2)



**HX-103S**  
Triple Head Assembly  
• AP2 Attack Tips (3)

NON-ROTARY  
HYDRO-X

Static Hydro Excavation Tools

Utilizes replaceable 1/8" npt AP2 Attack Tip nozzles (HX-102/103 models) or a single OC1H 1/4" npt carbide nozzle (HX-101). Using a single nozzle channels all of your pumps power in one direction for the most digging power. Whereas the in-line 2 and 3 patterns give operators the ability to jet with a wider spray pattern to trench material faster.

Each head has a 1/2" npt inlet connection to attach to the operating wand.

The included high-visibility urethane guard is replaceable with three bolts.

HYDRO-X

Up to 5k psi (350 bar)

3–12 gpm Flows (9–58 l/min)

3 Jet Patterns Available

Specifications

PRESSURE RANGE	Up to 5k psi 350 bar
FLOW RANGE	2–15 gpm 11–57 l/min
INLET CONNECTION	1/2 NPT
NOZZLES	1 x OC1H Carbide, 2 or 3 AP2 Attack Tip
WEIGHT	1.1 lb 0.5 kg

Maximize the cleaning effectiveness of Warthog sewer nozzles.  
Ask your Account Representatives about configuration options and extensions.



6 OR 8-WHEEL  
ADJUSTABLE  
CENTRALIZERS

- WG 286-M-P16 – STRAIGHT PIPES  
13"–36" diameters (330–915 mm)
- WG 288-S-P16 – PIPES W/BENDS  
16.5"–22" diameters (420–560 mm)



POLY-FIN  
CENTRALIZERS

- WG 070  
Available in 6", 8", 10" & 12" interchangeable skid sizes.  
(152 mm, 203 mm, 254 mm & 305 mm)



SUPER CENTRALIZERS

- WS 085 – 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  
CLEANERS

Turn your Warthog pipe cleaning tool into an effective Manhole Cleaner

The benefit of using this design is that the jets are directed at the manhole walls at all times which makes it much more effective and safer than 3D tools. The conversion is simple and requires exchanging the standard WG 040 head with our Manhole Cleaner head kits. The head conversion kits include a head with 1/2" extension arms and nozzles. Call our Customer Service team for kit options. We recommend the use of manhole cover plates for increased safety.



1-866-795-1586 (TOLL FREE IN THE U.S.)

OUTSIDE THE US: 970-259-2869 • SALES@STONEAGETOOLS.COM

HOURS: 8:00 AM - 5:00 PM MONDAY - FRIDAY (USA MOUNTAIN TIME)

TECHNICAL SUPPORT

For Technical Support in North America, please contact StoneAge. Outside of North America, please visit our website at [www.stoneagetools.com](http://www.stoneagetools.com).

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

Repair & Maintenance Service is available by the same technicians who build and test our tools. We try to complete repairs and test every tool within three days of receipt. You must call StoneAge for an RMA number prior to sending your tool in for repair.

Send tool to:

StoneAge Inc. Attention Repairs, 466 S. Skylane Dr., Durango CO 81303, USA

Serial Number Database is maintained on all equipment sold. If a serial number is provided when ordering parts, we can verify that the right parts are specified.

LEAD TIME

Parts and Service Kits are available to ship same day as ordered. Standard tools can usually be shipped the next day. Custom porting of heads usually requires 3-4 days to schedule through the factory. More complicated systems like Lancing Machines are built when ordered, which can take several weeks depending on factory backlog. Check availability and place orders early enough to avoid scheduling conflicts.

ORDERING

Call or email your order to StoneAge or an authorized dealer with purchase order number, shipping and billing addresses, and delivery date. Check datasheet to ensure specifications are complete. Advise whether we should hold shipment until all items are available.

SHIPPING

Shipping is pre-paid and invoiced with order but may be charged directly to the customer's account with selected courier by special instruction. Most orders are shipped via UPS or Fed Ex couriers; specify a preference if you wish. Larger equipment will be shipped by truck or air freight. Either party may make the arrangements. Airline counter-to-counter delivery is not reliable from our mountain location.

PAYMENT

Major credit cards or bank transfers are accepted. Pre-payment is required to ship custom equipment.

RETURNS

Any parts returned for credit or warranty must be accompanied by a StoneAge RMA number. Please contact a Customer Service Specialist or Authorized Dealer to obtain an RMA number. A minimum restocking fee of 15% applies to standard items returned unused. Returns will only be accepted on unused items returned 6 months or less from invoice date. All returns and restocking fees are subject to StoneAge final decision. Returns of custom products and obsolete items are not accepted.

WARNING

Operations with waterblast 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 back out preventers as appropriate when doing any tube, pipe or vessel cleaning. See the WJTA-IMCA's Recommended Practices for the use of high-pressure water jetting 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 waterblasting 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 waterblast 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 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 hydroblasting 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 WJTA-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.**

**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 pricelist 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.stoneagetools.com/terms>

<http://www.stoneagetools.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.stoneagetools.com/service](http://www.stoneagetools.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.





## ► **LOOKING FOR A DEALER?**

All **WARTHOG®** sewer tools are sold through StoneAge® authorized dealers only.

Go to **WWW.SEWERNOZZLES.COM** to view a list of dealers near you.

### **UNITED STATES**

- |               |               |
|---------------|---------------|
| • Alabama     | • Iowa        |
| • Arizona     | • Kansas      |
| • Arkansas    | • Kentucky    |
| • California  | • Louisiana   |
| • Colorado    | • Maryland    |
| • Connecticut | • Mass        |
| • Delaware    | • Michigan    |
| • Florida     | • Minnesota   |
| • Georgia     | • Mississippi |
| • Idaho       | • Missouri    |
| • Illinois    | • Nebraska    |
| • Indiana     | • New Jersey  |

- |                  |
|------------------|
| • New York       |
| • North Carolina |
| • Ohio           |
| • Oklahoma       |
| • Oregon         |
| • Pennsylvania   |
| • South Carolina |
| • Texas          |
| • Utah           |
| • Virginia       |
| • Washington     |
| • Wisconsin      |

### **INTERNATIONAL**

- Africa
- Australia
- Canada
- China
- Denmark
- France
- Italy
- Netherlands
- New Zealand
- Sweden
- United Kingdom

**WARTHOG**  
SEWER NOZZLES BY **STONEAGE®**

**WWW.SEWERNOZZLES.COM**