

PHOTO: SUPREME VAC

2023

PRODUCT CATALOG

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

WHAT'S NEW & IMPROVED IN 2023















We've re-imagined and re-engineered the Warthog products to deliver the most reliable, high-quality nozzles with the power to get your jobs done safely and efficiently.

We've introduced new tools and improved our lineup so adding a **controlled rotation** nozzle to your fleet is easier than ever.

Warthog nozzles are now available in three distinct lines – **Classic, Pro, and Magnum**. Each line offers a unique set of features so each Warthog customer can be fitted with the right nozzle for any job, at the right price.

SEWER TOOL LINEUP HEAD CONFIGURATIONS AVAILABLE

	WARTHOG VELOCITY (WV) 2-4" PIPES	WARTHOG TURBO (WT) 3-6" PIPES	WARTHOG SURGE (WS) 4-8" PIPES	WARTHOG HERO (WH) 6-18" PIPES	WARTHOG GUARDIAN (WG) 8-36" PIPES
CLASSIC	 VELOCITY CLASSIC	 TURBO CLASSIC	 SURGE CLASSIC	 HERO CLASSIC	 GUARDIAN CLASSIC
PRO		NEW  TURBO PRO Universal Descaler	 SURGE PRO Universal Descaler Optional <i>Standard or Jointed Whip Hose</i>	NEW  HERO PRO Descaler Puller/Descaler	NEW  GUARDIAN PRO Universal Descaler Puller/Descaler
		NEW  WARTHOG X Descaler Pusher Optional <i>Standard Whip Hose</i> EXTENDED LIFE & WIDER PIPE RANGE			
MAGNUM				RECYCLED WATER	
				 HERO MAGNUM Descaler Switcher Hybrid Switcher	 GUARDIAN MAGNUM Descaler High Flow Descaler Puller/Descaler Root Destroyer Root Destroyer Puller Switcher Manhole Cleaner EXTENDED LIFE RECYCLED WATER



SCAN HERE FOR
MORE TOOL INFO

YOUR WORK IS VITAL

Every job you face is unique, with its own set of unpredictable challenges. From roots to wipes to something entirely new, you're under pressure to not just find and clear obstructions effectively, but ultimately to keep the public safe and healthy.

Luckily, Warthog's Authorized Dealers understand the challenges you face on a daily basis.

As members of your community, our dealers are eager to ensure you have the right nozzles on hand and ongoing expert support to help you get the job done as effectively as possible.



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.



SCAN HERE OR VISIT **WWW.WARTHOG-NOZZLES.COM/FIND-A-DEALER**
FOR A LIST OF AUTHORIZED DEALERS IN YOUR AREA

WHY CHOOSE WARTHOG

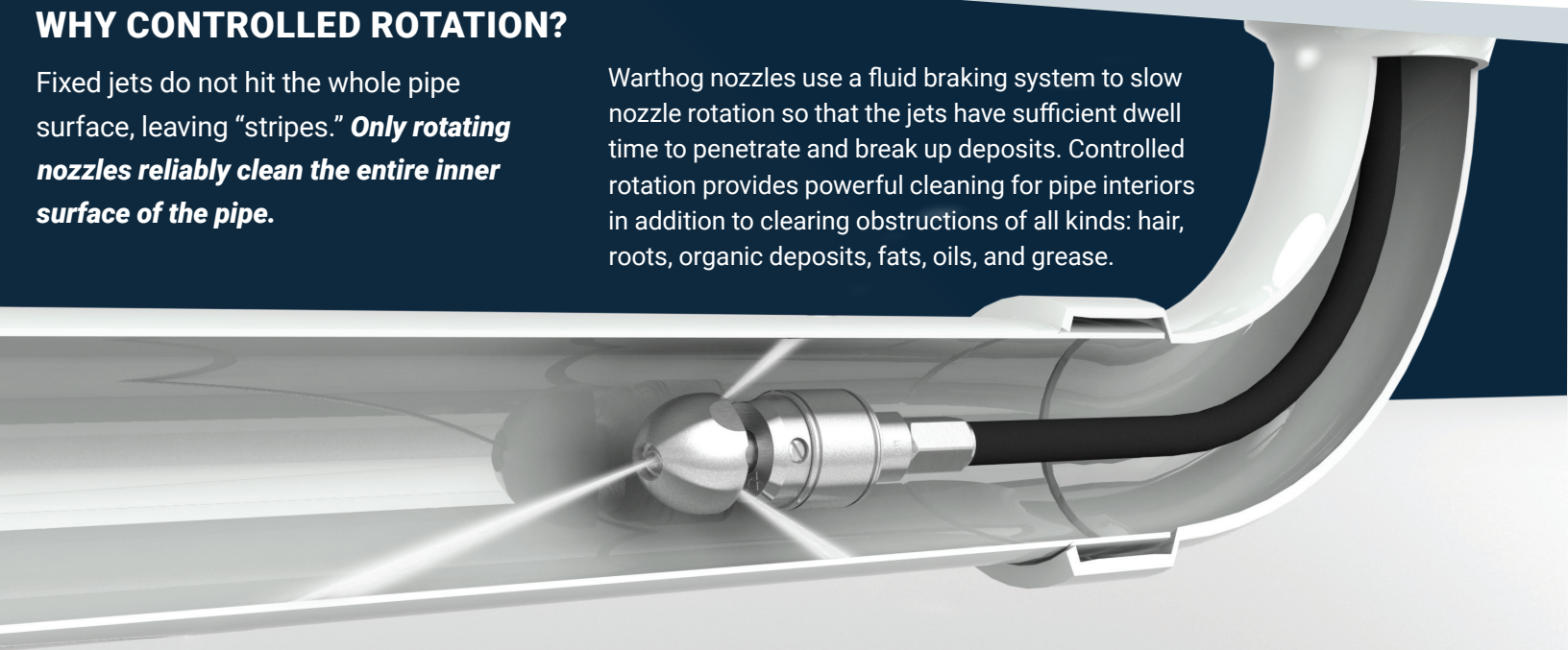


Warthog Nozzles pioneered controlled rotation in the sewer market to ensure water hits 360° of the pipe interior at a speed that delivers the most effective cleaning.

WHY CONTROLLED ROTATION?

Fixed jets do not hit the whole pipe surface, leaving "stripes." **Only rotating nozzles reliably clean the entire inner surface of the pipe.**

Warthog nozzles use a fluid braking system to slow nozzle rotation so that the jets have sufficient dwell time to penetrate and break up deposits. Controlled rotation provides powerful cleaning for pipe interiors in addition to clearing obstructions of all kinds: hair, roots, organic deposits, fats, oils, and grease.



POWER WHERE YOU NEED IT

JET ANGLES

DESCALING

Side jets are angled directly at the walls to cut through hard deposits

UNIVERSAL

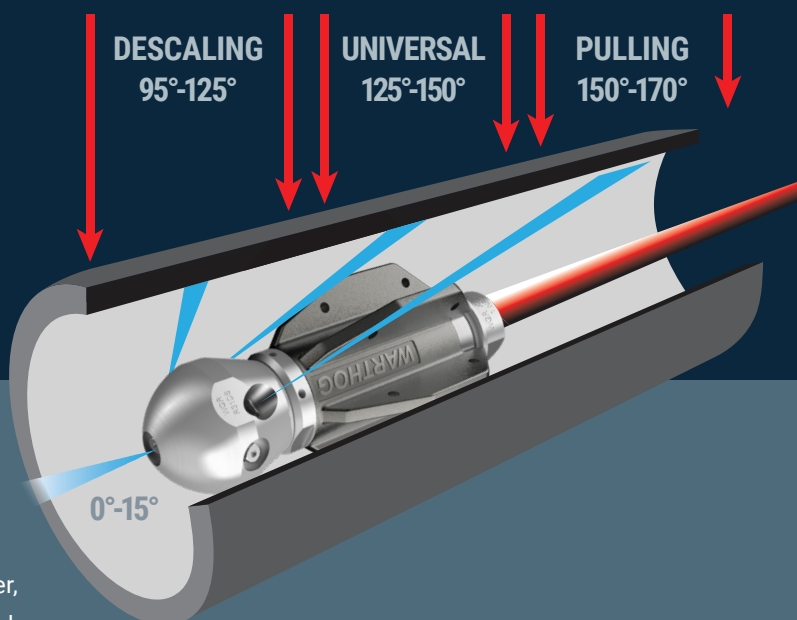
Jets thrust the tool forward while concurrently cleaning the surface

PULLING/FLUSHING

Powerful rear jets propel the tool down the line and flush out debris

TOOL CONFIGURATION

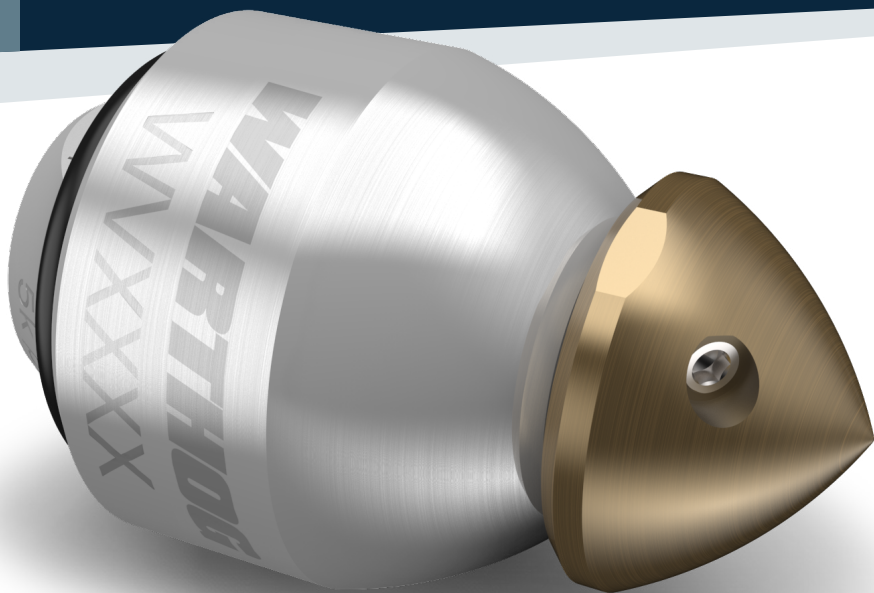
Warthog sewer nozzles are available in multiple configurations to deliver superior results for nearly any job. Our authorized Warthog Dealers can precisely configure tools to send more power to descaler, universal, or pulling jets to accommodate your specific cleaning needs.



MEET THE

WARTHOG VELOCITY

[WV]



High **VELOCITY** cleaning.

The Warthog Velocity is excellent at navigating multiple elbows and bends in 2-4" pipes while clearing roots, ice, and other blockages. The head can be replaced when worn to provide extended life.

IDEAL FOR: Plumbing professionals running small capacity pumps and cart jetters who need a compact powerhouse nozzle that delivers great results in small pipe with bends.

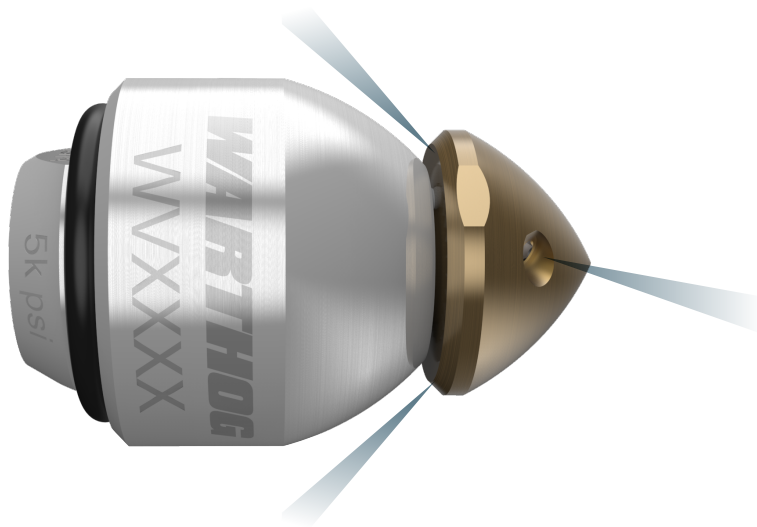
SPECIFICATIONS



VELOCITY CLASSIC

Flow Range	3-8 gpm
Inlet	1/4" NPT
Pressure	1200-5000 psi
Service Interval	40-50 Hours

VELOCITY CLASSIC



JET ANGLES

Front: 1 @ 15°
Rear: 2 @ 125°

VELOCITY CLASSIC

PIPE SIZE: 2-4"

INLET: 1/4" NPT

FLOW RANGE: 3-8 gpm

PRESSURE RATING: 1200-5000 psi

- ➔ Only available in preconfigured options for the most common flows and pressures
- ➔ Maneuverable in lines as small as 2"
- ➔ Without seals or bearings to service, tool is low maintenance with easy-to-change head replacements

UNIVERSAL

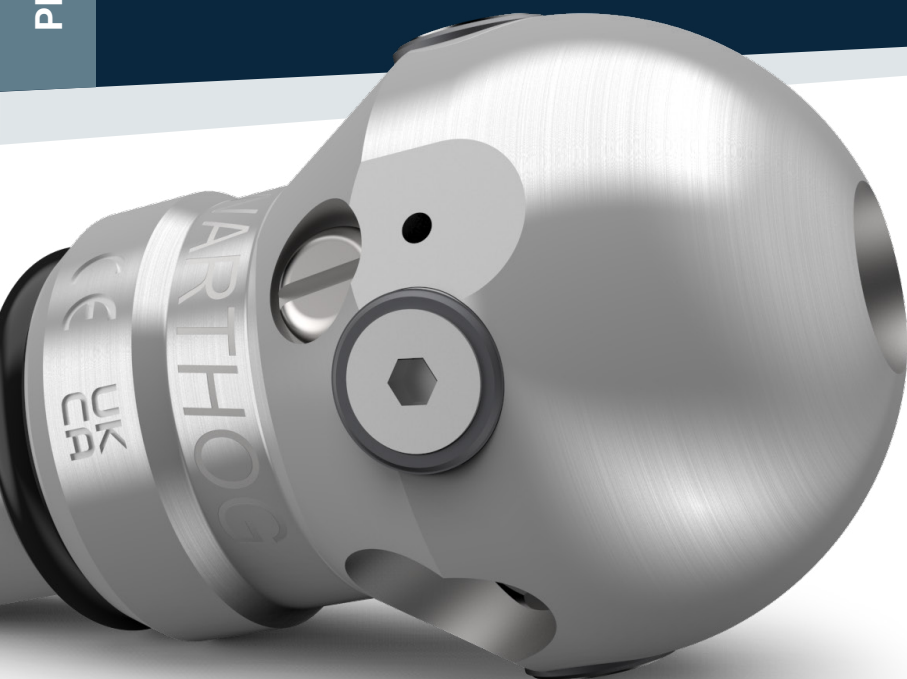
- Jetted for an equal balance of pulling/flushing & cleaning/cutting
- Head can be replaced* when worn to keep the tool operating at peak performance
- Head features a unique locking mechanism for added safety

DESCALING
PULLING/
FLUSHING



**Specialty tool required to remove and replace heads*

MEET THE **WARTHOG TURBO** (WT)



TURBO-charge your next cleaning job.

The Warthog Turbo is built to navigate elbows and bends in 3-6" pipes while clearing roots, ice, and other blockages. The tool has carbide buttons to protect the head and provide extended durability.

IDEAL FOR: Small capacity pumps and cart jetters, most commonly used on laterals at homes, buildings, restaurants and other light commercial facilities.

SPECIFICATIONS



TURBO CLASSIC*

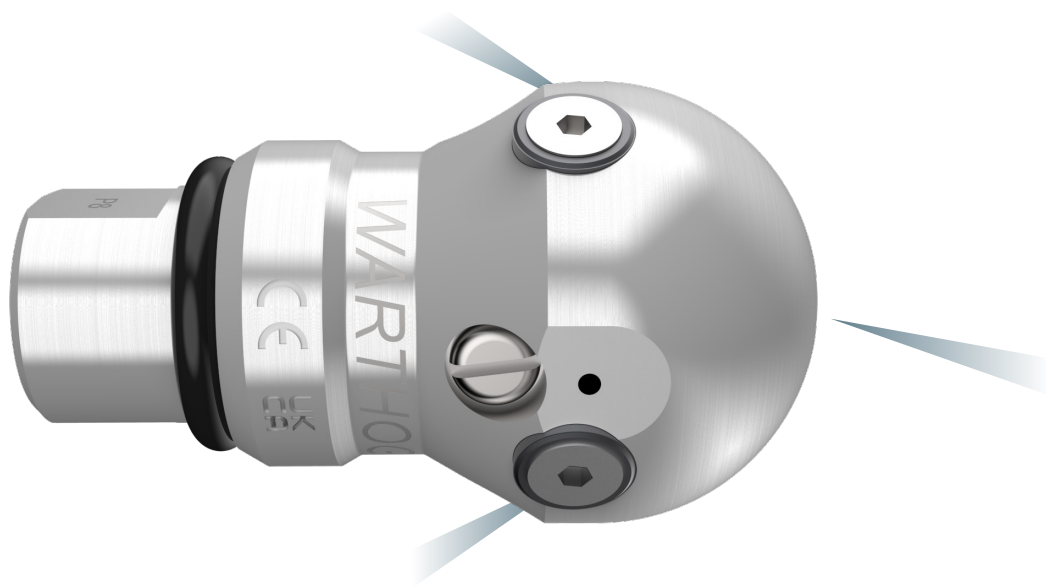


TURBO PRO

Flow Range	5-21 gpm	5-21 gpm
Inlet	3/8" & 1/2" NPT	3/8" & 1/2" NPT
Pressure	1200-5000 psi	1200-5000 psi
Service Interval	40-50 Hours	40-50 Hours
HEAD CONFIGURATION OPTIONS		
Universal	✓	✓
Descaler		✓

* Only available in preconfigured options

TURBO CLASSIC



JET ANGLES

Front: 1 @ 15°

Rear: 2 @ 150°

TURBO CLASSIC

PIPE SIZE: 3-6"

INLET: 3/8" & 1/2" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 5-21 gpm

SERVICE INTERVAL: 40-50 hours

- ➔ Only available in preconfigured options for the most common flows and pressures
- ➔ Ball design reduces hang-ups
- ➔ Maneuverable in multiple elbows
- ➔ Repairable and rebuildable, field serviceable
- ➔ Durability extended by specially designed carbide buttons

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting

DESCALING



PULLING/
FLUSHING



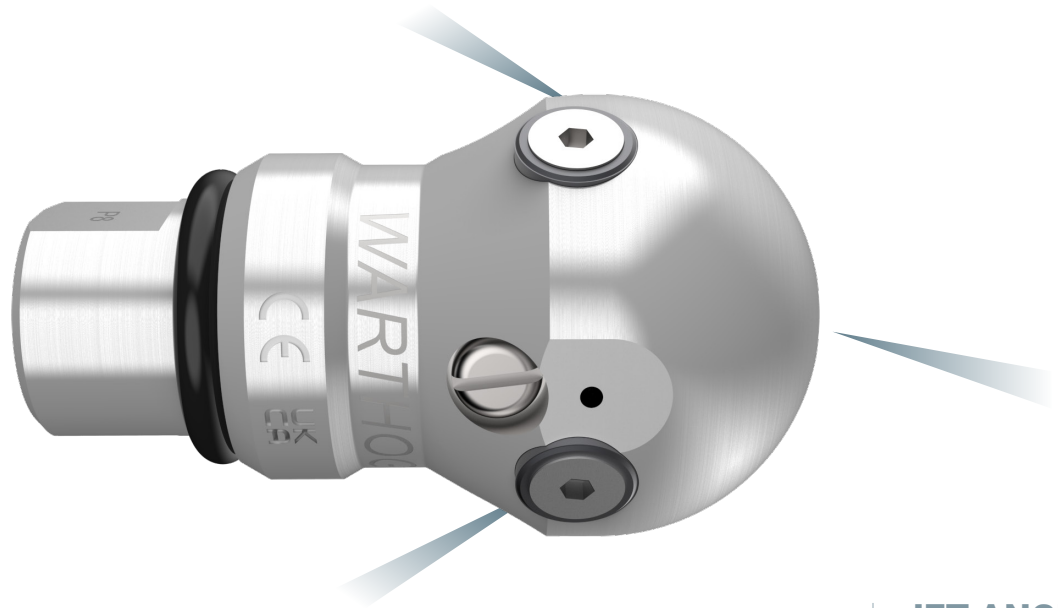
Need customized jetting?

Ask your Authorized Dealer about

WARTHOG TURBO PRO

TURBO PRO

UNIVERSAL



JET ANGLES

Front: 1 @ 15°
Rear: 2 @ 150°

TURBO PRO

PIPE SIZE: 3-6"

INLET: 3/8" & 1/2" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 5-21 gpm

SERVICE INTERVAL: 40-50 hours

- ⊕ Ball design reduces hang-ups
- ⊕ Maneuverable in multiple elbows
- ⊕ Repairable and rebuildable, field serviceable
- ⊕ Durability extended by specially designed carbide buttons

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting

DESCALING
PULLING/
FLUSHING



Need longer service life?

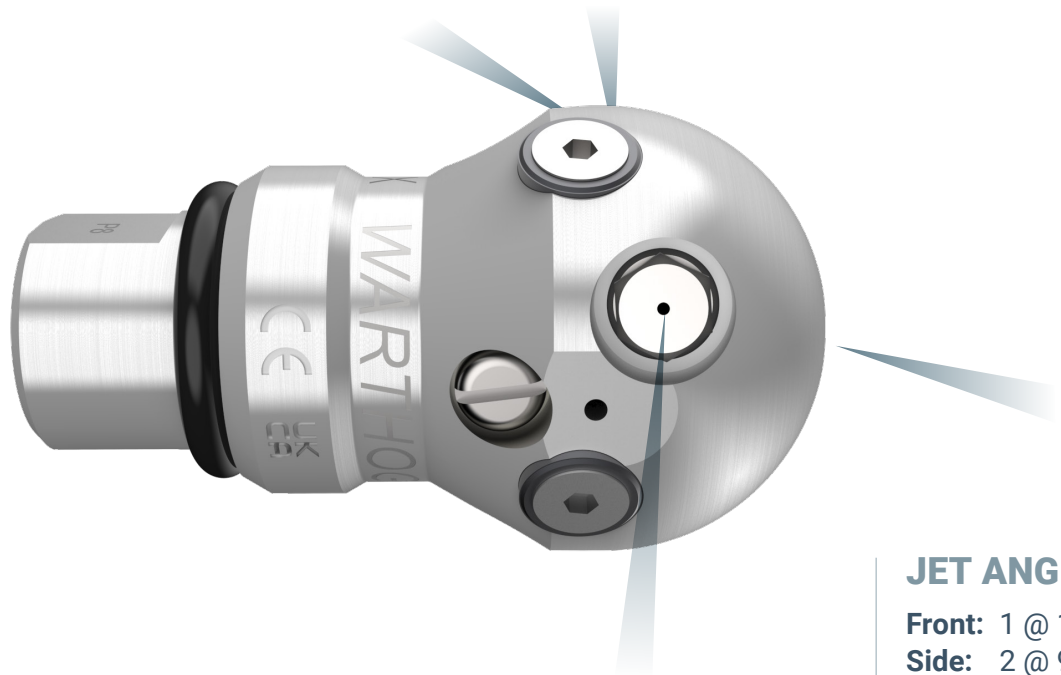
Ask your Authorized Dealer about

WARTHOG X

TURBO PRO

DESCALER

NEW



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 95°
Rear: 2 @ 150°

TURBO PRO

PIPE SIZE: 3-6"

INLET: 3/8" & 1/2" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 5-21 gpm

SERVICE INTERVAL: 40-50 hours

- ⊕ Ball design reduces hang-ups
- ⊕ Maneuverable in multiple elbows
- ⊕ Repairable and rebuildable, field serviceable
- ⊕ Durability extended by specially designed carbide buttons

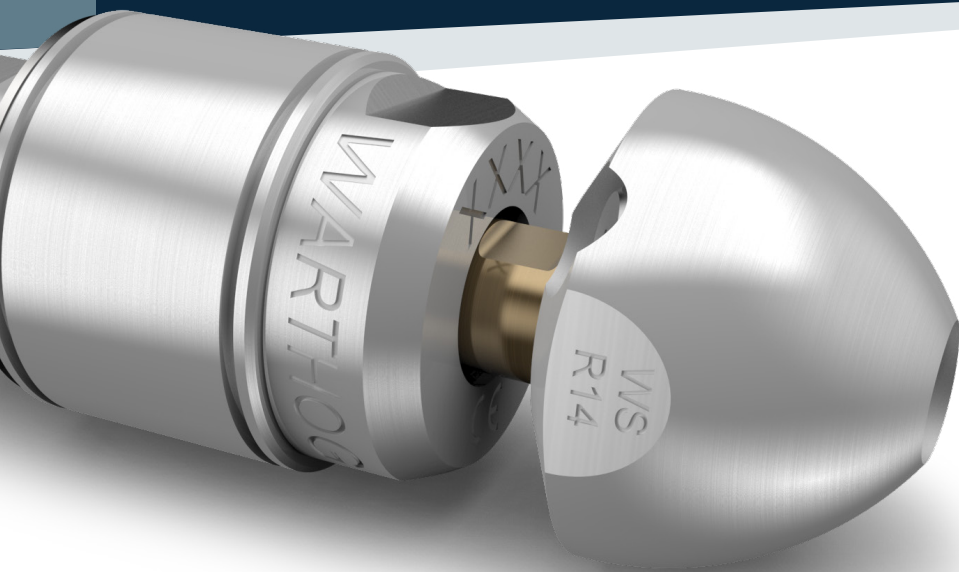
DESCALER

- Two side jets are added and are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING
**PULLING/
FLUSHING**



MEET THE **WARTHOG SURGE** (WS)



SURGE through sweeping bends.

This versatile nozzle easily clears grease, roots, ice, and soil blockages from 4-8" pipes. Additional head configuration options target scale and build up with ease.

IDEAL FOR: Plumbing professionals using trailer jetters to clean pipes in restaurants, hospitals, multi-story apartment buildings, residential, and other applications.

SPECIFICATIONS



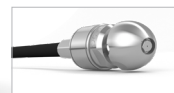
SURGE CLASSIC*



SURGE PRO



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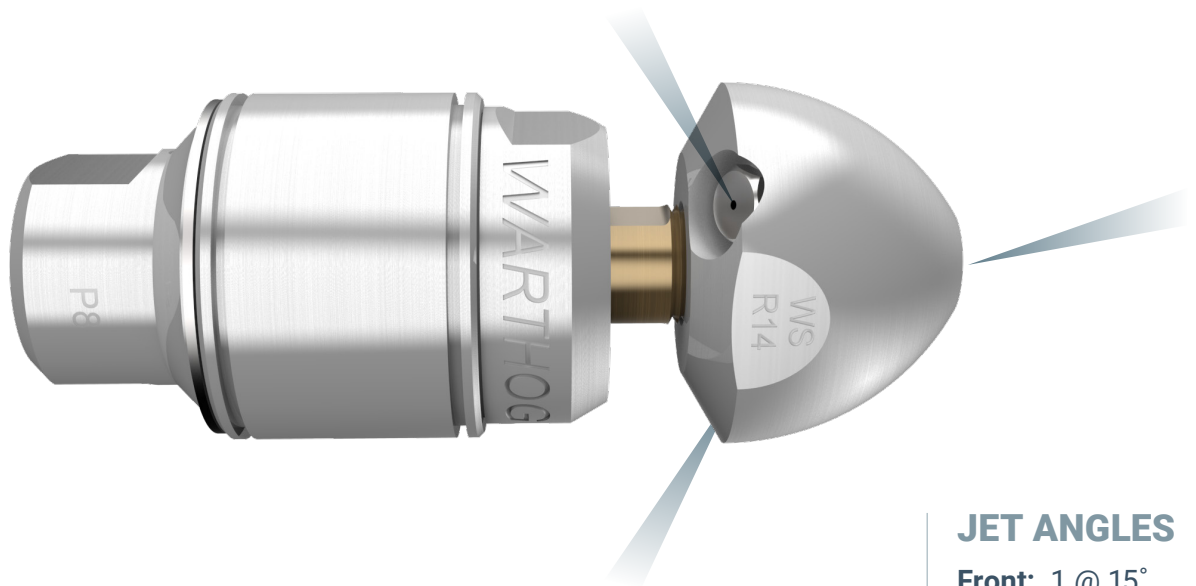


**

Flow Range	9-21 gpm	9-21 gpm
Inlet	1/2" NPT	1/2" NPT <small>**Optional Standard or Jointed Whip Hose</small>
Pressure	1200-5000 psi	1200-5000 psi
Service Interval	40-50 Hours	40-50 Hours
HEAD CONFIGURATION OPTIONS		
Universal	✓	✓
Descaler		✓

* Only available in preconfigured options

SURGE CLASSIC



JET ANGLES

Front: 1 @ 15°
Rear: 2 @ 150°

SURGE CLASSIC

PIPE SIZE: **4-8"**

INLET: **1/2" NPT**

PRESSURE RATING: **1200-5000 psi**

FLOW RATE: **9-21 gpm**

SERVICE INTERVAL: **40-50 hours**

- ⊕ **Only available in preconfigured options for the most common flows and pressures**
- ⊕ Compact and highly maneuverable
- ⊕ Repairable and rebuildable, field serviceable
- ⊕ Only available in rigid inlet

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting

DESCALING



**PULLING/
FLUSHING**

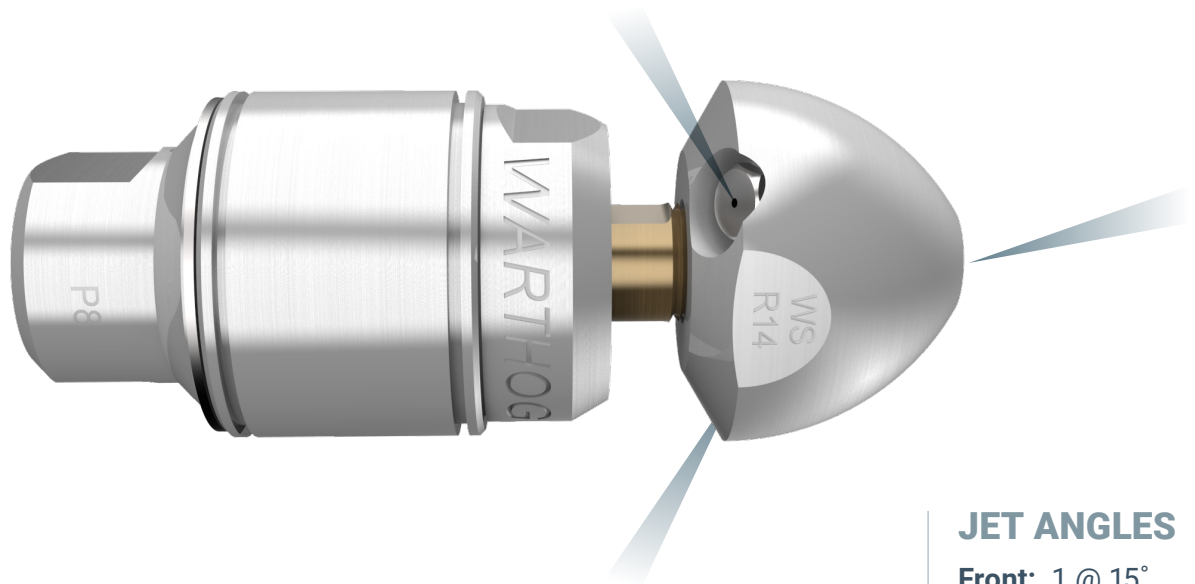


Need customized jetting?

Ask your Authorized Dealer about
WARTHOG SURGE PRO

SURGE PRO

UNIVERSAL



JET ANGLES

Front: 1 @ 15°
Rear: 2 @ 150°

SURGE PRO

PIPE SIZE: **4-8"**

INLET: **1/2" NPT**

PRESSURE RATING: **1200-5000 psi**

FLOW RATE: **9-21 gpm**

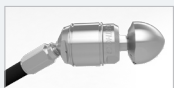
SERVICE INTERVAL: **40-50 hours**

- ⊕ Compact and highly maneuverable
- ⊕ Repairable and rebuildable, field serviceable

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting

DESCALING
**PULLING/
FLUSHING**



JOINTED WHIP HOSE OPTION

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



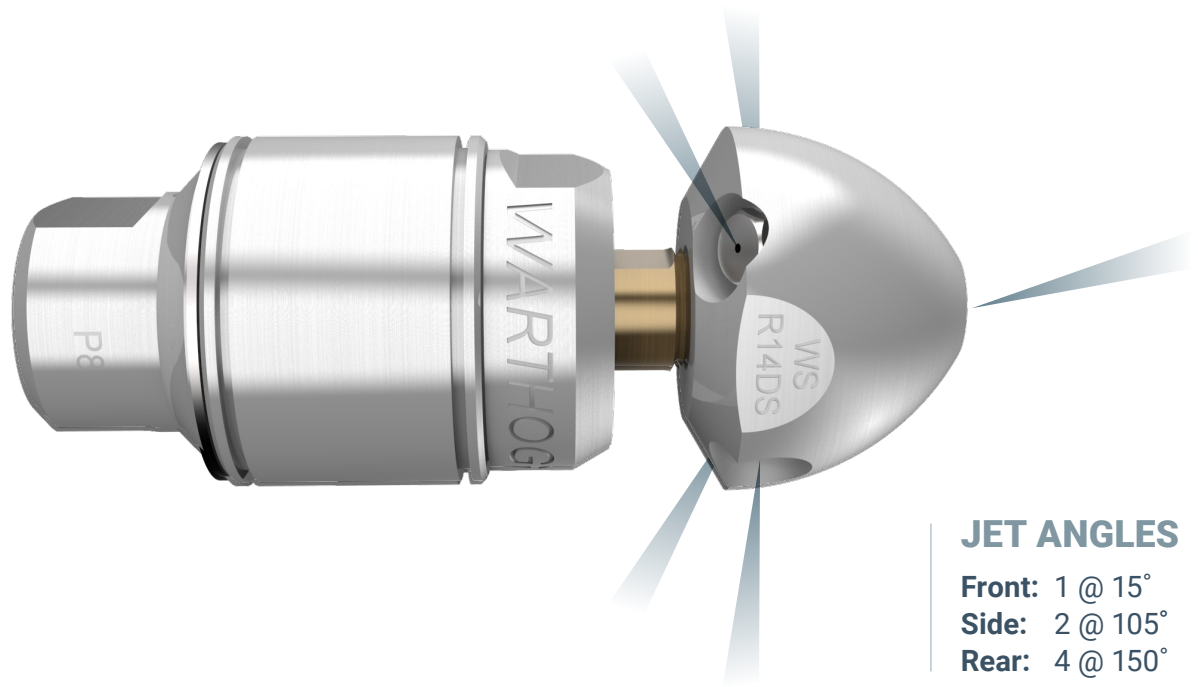
STANDARD WHIP HOSE OPTION

The whip hose reduces wear on the pressure hose.

Need longer service life?

Ask your Authorized Dealer about

WARTHOG X



SURGE PRO

PIPE SIZE: **4-8"**

INLET: **1/2" NPT**

PRESSURE RATING: **1200-5000 psi**

FLOW RATE: **9-21 gpm**

SERVICE INTERVAL: **40-50 hours**

- ⊕ Compact and highly maneuverable
- ⊕ Repairable and rebuildable, field serviceable

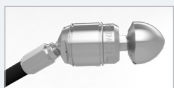
DESCALER

- Two side jets are added and are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING



**PULLING/
FLUSHING**



JOINTED WHIP HOSE OPTION

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



STANDARD WHIP HOSE OPTION

The whip hose reduces wear on the pressure hose.

Need more service life?

*Ask your Authorized Dealer about
WARTHOG X*

PIPE SIZE: 3-8"

MEET THE **WARTHOG^X**



X-TREME cleaning capabilities.

A compact powerhouse nozzle that easily maneuvers long radius elbows in 3-8" pipes. Combining the power of the Surge and the maneuverability of the Turbo, the Warthog X boasts the longest service life of all the small pump Warthog nozzles.

IDEAL FOR: Small capacity pumps and cart jetters, most commonly used on laterals at homes, buildings, restaurants and other light commercial facilities.

SPECIFICATIONS



WARTHOG^X

Flow Range	9-21 gpm
Inlet	3/8" & 1/2" NPT <small>**Standard Whip Hose available for 1/2" inlet</small>
Pressure	1200-5000 psi
Service Interval	250 Hours
HEAD CONFIGURATION OPTIONS	
Descaler	✓
Pusher	✓

NEW

WARTHOG^X

DESCALER



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 2 @ 170°

WARTHOG XTM

PIPE SIZE: 3-8"

INLET: 3/8" & 1/2" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 9-21 gpm

SERVICE INTERVAL: 250 hours

- ⊕ Two fixed, low angle back jets for max thrust and flushing and three controlled rotary side and front jets for optimal cleaning and unplugging
- ⊕ Access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Minimum pressure loss through the tool, delivering more power to the nozzles for higher jet impact
- ⊕ Engineered for long service intervals

DESCALER

- Two side jets angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING



**PULLING/
FLUSHING**



STANDARD WHIP HOSE AVAILABLE FOR 1/2" INLET

The whip hose reduces wear on the pressure hose.

NEW

WARTHOG^X

PUSHER



JET ANGLES

Front: 2 @ 40°

Rear: 2 @ 170°

WARTHOG XTM

PIPE SIZE: 3-8"

INLET: 3/8" & 1/2" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 9-21 gpm

SERVICE INTERVAL: 250 hours

- ⊕ Two fixed, low angle back jets for max thrust and flushing and three controlled rotary side and front jets for optimal cleaning and unplugging
- ⊕ Access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Minimum pressure loss through the tool, delivering more power to the nozzles for higher jet impact
- ⊕ Engineered for long service intervals

PUSHER

- Front jet angles are configured to push debris forward in the pipe while also delivering intense jet impact to side walls to remove tough build up, calcium deposits, and scaling with ease
- Balanced to provide forward cleaning/flushing without affecting the pulling power

DESCALING



**PULLING/
FLUSHING**



ADDITIONAL HEADS
COMING 2023



STANDARD WHIP HOSE AVAILABLE FOR 1/2" INLET

The whip hose reduces wear on the pressure hose.

MEET THE **WARTHOG HERO** (WH)



The industry's proven **HERO** since 1990.

This nozzle is designed to clean and clear pipes between 6-18". Controlled rotation technology allows the jets to deeply penetrate through the toughest deposits. Plus, additional head configuration options deliver even more pulling and descaling power.

IDEAL FOR: municipal and industrial sewer cleaning professionals running vac trucks and large combination trucks to clear lines as small as 6".

SPECIFICATIONS



HERO CLASSIC*



HERO PRO

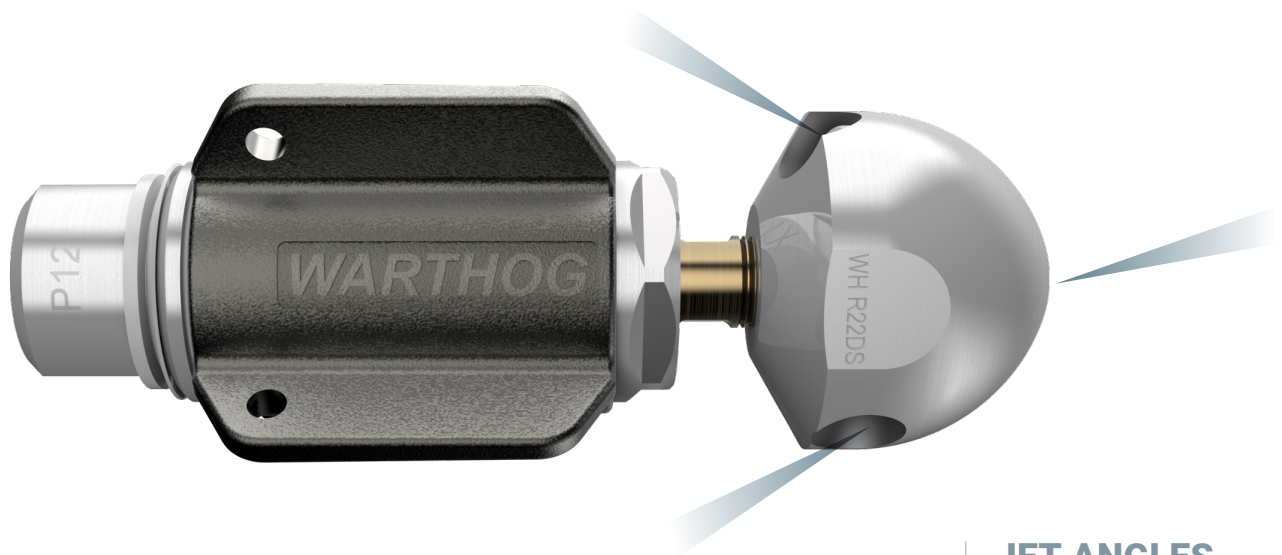


HERO MAGNUM

	HERO CLASSIC*	HERO PRO	HERO MAGNUM
Flow Range	10-50 gpm	20-70 gpm	20-70 gpm
Inlet	3/4" NPT	3/4" & 1" NPT	3/4" & 1" NPT
Pressure	1200-8000 psi	1200-8000 psi	1200-8000 psi
Service Interval	50-60 Hours	50-60 Hours	1600 Hours
Recycled Water		✓	✓
HEAD CONFIGURATION OPTIONS			
Universal	✓	Custom jetting available	Custom jetting available
Descaler		✓	✓
Puller/Descaler		✓	
Switcher			✓
Hybrid Switcher			✓

* Only available in preconfigured options

HERO CLASSIC



JET ANGLES

Front: 1 @ 15°
Rear: 2 @ 150°

HERO CLASSIC

PIPE SIZE: 6-18"

INLET: 3/4" NPT

PRESSURE RATING: 5000-8000 psi

FLOW RATE: 10-50 gpm

SERVICE INTERVAL: 50-60 hours

- ⊕ Only available in preconfigured options for the most common flows and pressures
- ⊕ Repairable and rebuildable, field serviceable
- ⊕ Newly designed centralizer for longer durability

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting

DESCALING



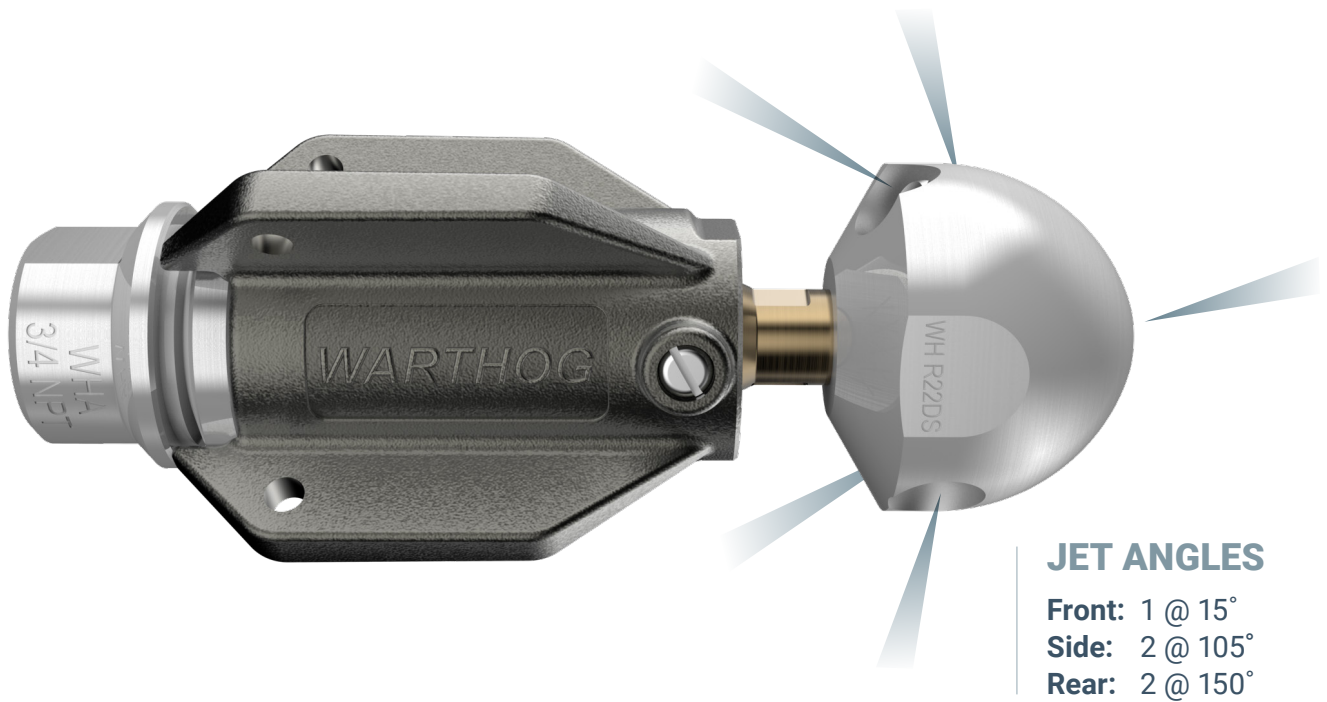
PULLING/
FLUSHING



Need customized jetting?

Ask your Authorized Dealer about

HERO PRO



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 105°
Rear: 2 @ 150°

HERO PRO

PIPE SIZE: **6-18"**

INLET: **3/4" & 1" NPT**

PRESSURE RATING: **5000-8000 psi**

FLOW RATE: **20-70 gpm**

SERVICE INTERVAL: **50-60 hours**

- ⊕ Engineered to handle recycled water
- ⊕ New 4-fin centralizer design allows steeper rear jets for more powerful pulling and flushing and prevents hang-ups in the pipe
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes

DESCALER

- Two side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING



**PULLING/
FLUSHING**

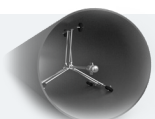


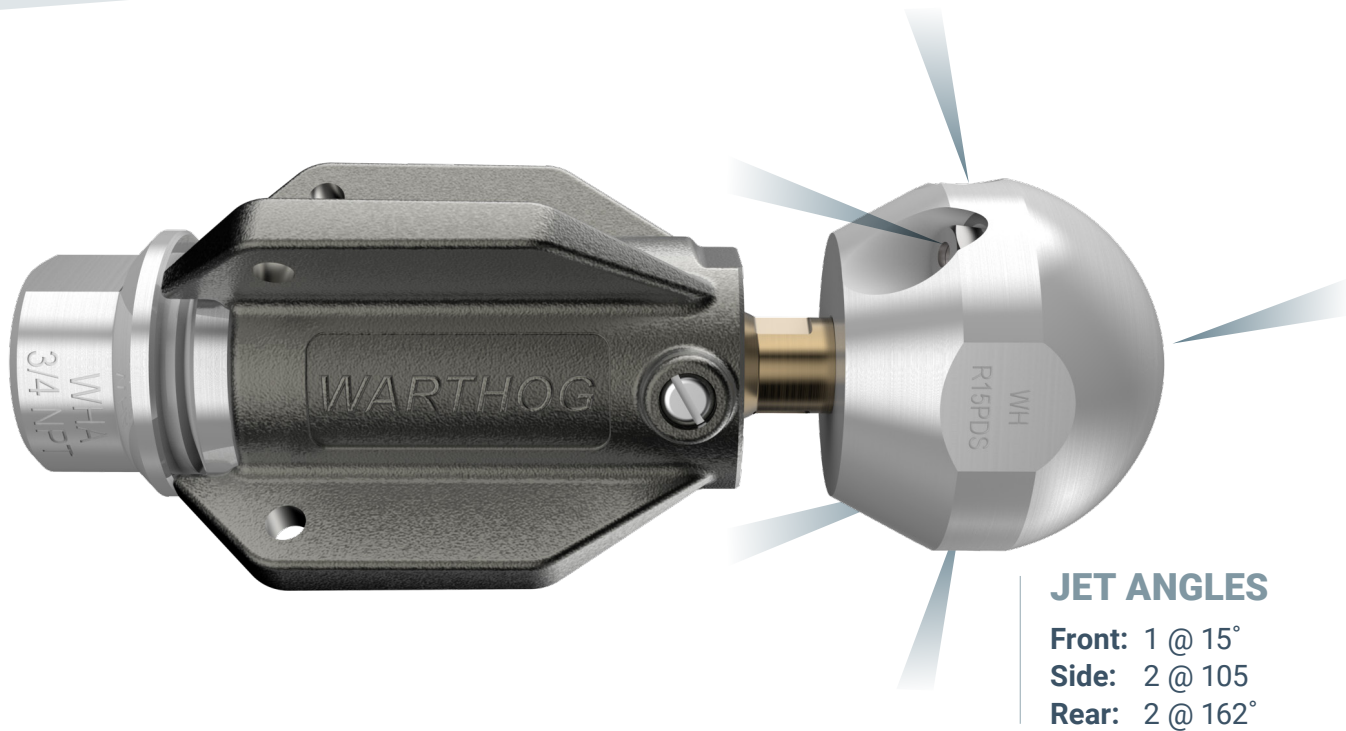
Need customized jetting?

Ask your Authorized Dealer about

UNIVERSAL HEAD CONFIGURATION

Need an add-on centralizer? See the **ACCESSORIES** tab





HERO PRO

PIPE SIZE: **6-18"**

INLET: **3/4" & 1" NPT**

PRESSURE RATING: **5000-8000 psi**

FLOW RATE: **20-70 gpm**

SERVICE INTERVAL: **50-60 hours**

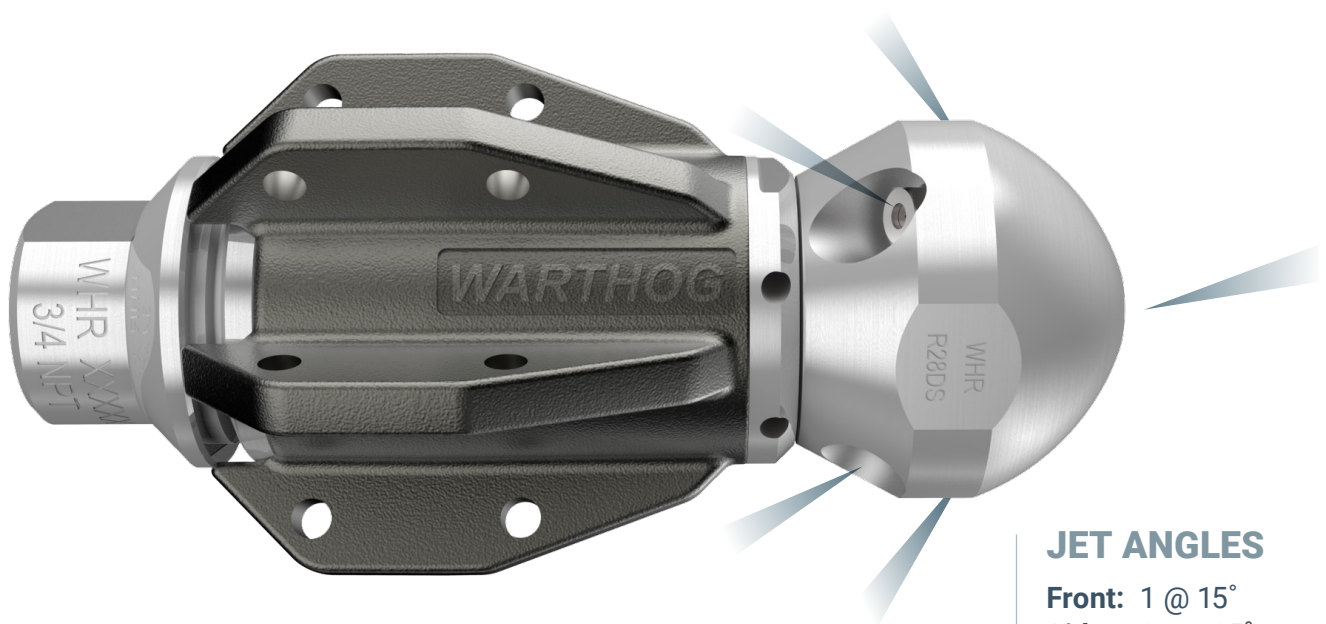
- ⊕ Engineered to handle recycled water
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- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes

PULLER/DESCALER

- Jetting is configured with more force to the side jets for cleaning and polishing and to the rear jets for extra pulling power
- Side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease
- Rear jets are angled further back to increase pulling power for long runs and climbs, and max flushing capability

DESCALING
**PULLING/
FLUSHING**





JET ANGLES

Front: 1 @ 15°
Side: 2 @ 125°
Rear: 2 @ 152°

HERO MAGNUM

PIPE SIZE: **6-18"**

INLET: **3/4" & 1" NPT**

PRESSURE RATING: **5000-8000 psi**

FLOW RATE: **20-70 gpm**

SERVICE INTERVAL: **1600 hours**

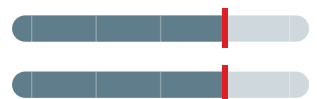
- ⊕ Engineered to handle recycled water
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

DESCALER

- Side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING

PULLING/
FLUSHING



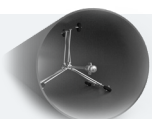
Need customized jetting?

Ask your Authorized Dealer about

UNIVERSAL HEAD CONFIGURATION

Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab





JET ANGLES

PULLING MODE

Front: 1 @ 15°
Rear: 4 @ 155°

CLEANING MODE

Side: 3 @ 115°

HERO MAGNUM

PIPE SIZE: 6-18"

INLET: 3/4" & 1" NPT

PRESSURE RATING: 5000-8000 psi

FLOW RATE: 20-70 gpm

SERVICE INTERVAL: 1600 hours

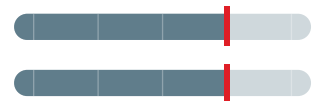
- ⊕ Engineered to handle recycled water
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

SWITCHER

SEE THE PAGE 37

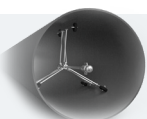
- Jetting is configured to send full flow to the front and side jets for cleaning OR to the rear jets for pulling and flushing
- The operator controls which set of jets get water flow, while the tool is in the pipe
- One nozzle with two sets of jets - turn on pulling jets to run down the pipe, switch to descaling jets to clean and unplug
- The only nozzle of it's kind in the industry – complete your job with half the runs to save water, time, and money

DESCALING
PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab





JET ANGLES

PULLING MODE

Front: 1 @ 15°
Rear: 4 @ 155°

CLEANING MODE

Side: 2 @ 100°
Rear: 2 @ 125°

HERO MAGNUM

PIPE SIZE: **6-18"**

INLET: **3/4" & 1" NPT**

PRESSURE RATING: **5000-8000 psi**

FLOW RATE: **20-70 gpm**

SERVICE INTERVAL: **1600 hours**

- ⊕ Engineered to handle recycled water
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

HYBRID SWITCHER

SEE THE PAGE 37

- Using the Switcher head from the Guardian family, the Hero Hybrid head accommodates the higher flow of the 1" hose, while keeping the maneuverability of the smaller tool size
- Jetting is configured to send full flow to the front and side jets for cleaning OR to the rear jets for pulling and flushing
- The operator controls which set of jets get water flow, while the tool is in the pipe
- One nozzle with two sets of jets - turn on pulling jets to run down the pipe, switch to descaling jets to clean and unplug
- The only nozzle of it's kind in the industry – complete your job with half the runs to save water, time, and money

DESCALING

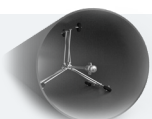


PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab



MEET THE **WARTHOG GUARDIAN** **[WG]**



The **GUARDIAN** of municipal, industrial, and commercial drains.

Designed to handle 8-36" pipes, the Guardian features controlled rotation to deeply penetrate deposits, not to mention our most diverse range of head configuration options.

IDEAL FOR municipal and industrial sewer cleaning professionals running large combination trucks with 1" & 1-1/4" hose.

SPECIFICATIONS



GUARDIAN CLASSIC*



GUARDIAN PRO

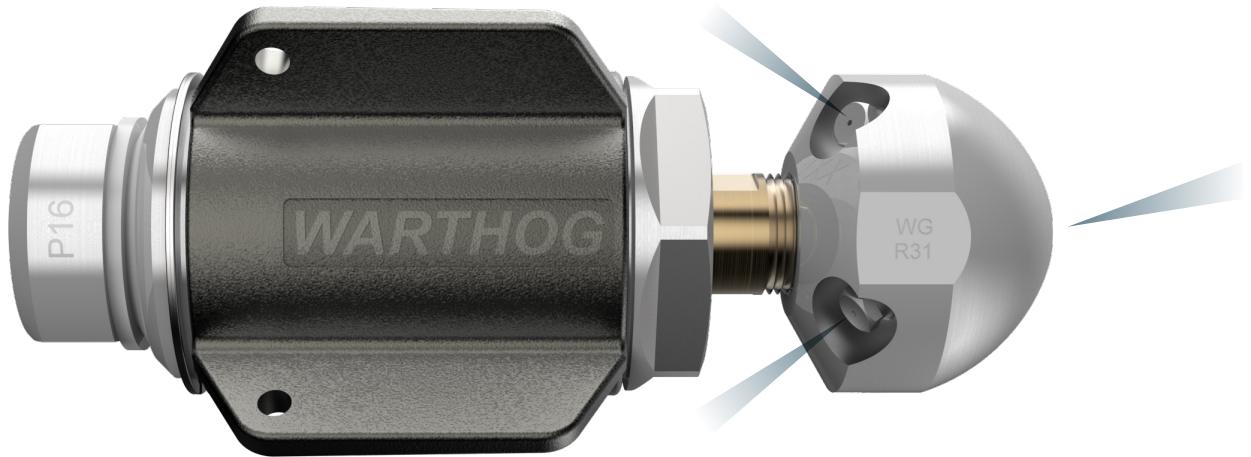


GUARDIAN MAGNUM

Flow Range	50-80 gpm	50-90 gpm	50-120 gpm
Inlet	1" NPT	1" NPT	1" & 1-1/4" NPT
Pressure	1200-5000 psi	1200-5000 psi	1200-5000 psi
Service Interval	50-60 hours	50-60 hours	1600 hours
Recycled Water		✓	✓
HEAD CONFIGURATION OPTIONS			
Universal	✓	✓	Custom jetting available
Descaler		✓	✓
High Flow Descaler			✓
Puller/Descaler		✓	✓
Root Destroyer			✓
Root Destroyer Puller			✓
Switcher			✓
Manhole Cleaner			✓

* Only available in preconfigured options

GUARDIAN CLASSIC



JET ANGLES

Front: 1 @ 15°
Rear: 4 @ 142°

GUARDIAN CLASSIC

PIPE SIZE: 8-36"

INLET: 1" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-80 gpm

SERVICE INTERVAL: 50-60 hours

- ⊕ Only available in preconfigured options for the most common flows and pressures
- ⊕ Repairable and rebuildable, field serviceable
- ⊕ Newly designed centralizer for longer durability

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting

DESCALING
PULLING/
FLUSHING



Need customized jetting?

Ask your Authorized Dealer about

GUARDIAN PRO



JET ANGLES

Front: 1 @ 15°
Rear: 4 @ 142°

GUARDIAN PRO

PIPE SIZE: 8-36"

INLET: 1" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-90 gpm

SERVICE INTERVAL: 50-60 hours

- ⊕ Engineered to handle recycled water
- ⊕ New 4-fin centralizer design allows steeper rear jets for more powerful pulling and flushing and prevents hang-ups in the pipe
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes

UNIVERSAL

- Jetted for an equal balance of pulling/flushing & cleaning/cutting
- Balanced jetting delivers great all around cleaning results in a wide variety of applications
- Individual jets can be customized or for ideal pairing with pump or job

DESCALING

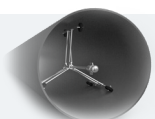


PULLING/
FLUSHING



Need extreme durability and longer maintenance cycle?

Ask your Authorized Dealer about
GUARDIAN MAGNUM



Need an add-on centralizer? See the **ACCESSORIES** tab



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 4 @ 142°

GUARDIAN PRO

PIPE SIZE: 8-36"

INLET: 1" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-90 gpm

SERVICE INTERVAL: 50-60 hours

- ⊕ Engineered to handle recycled water
- ⊕ New 4-fin centralizer design allows steeper rear jets for more powerful pulling and flushing and prevents hang-ups in the pipe
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes

DESCALER

- Side jets are added and are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING

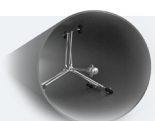


PULLING/
FLUSHING

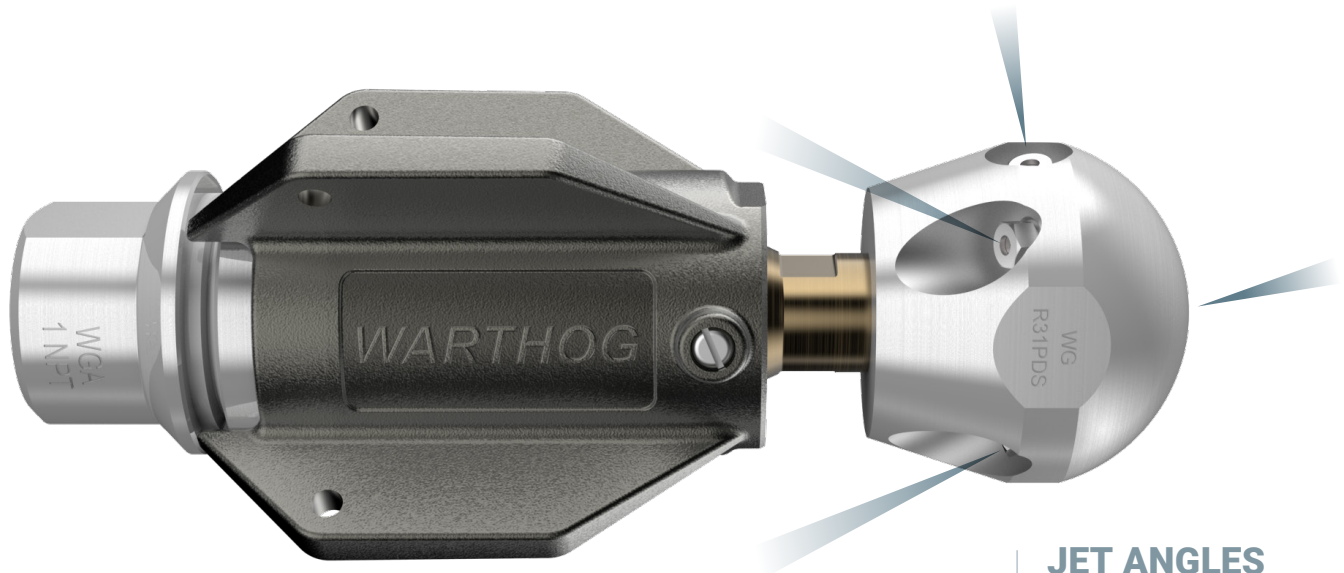


Need extreme durability and longer maintenance cycle?

Ask your Authorized Dealer about
GUARDIAN MAGNUM



Need an add-on centralizer? See the **ACCESSORIES** tab



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 4 @ 155°

GUARDIAN PRO

PIPE SIZE: 8-36"

INLET: 1" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-90 gpm

SERVICE INTERVAL: 50-60 hours

- ⊕ Engineered to handle recycled water
- ⊕ New 4-fin centralizer design allows steeper rear jets for more powerful pulling and flushing and prevents hang-ups in the pipe
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes

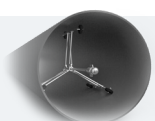
PULLER/DESCALER

- Jetting is configured with more force to the side jets for cleaning and polishing and to the rear jets for extra pulling power
- Side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease.
- Rear jets are angled further back to increase pulling power for long runs and climbs, and max flushing capability

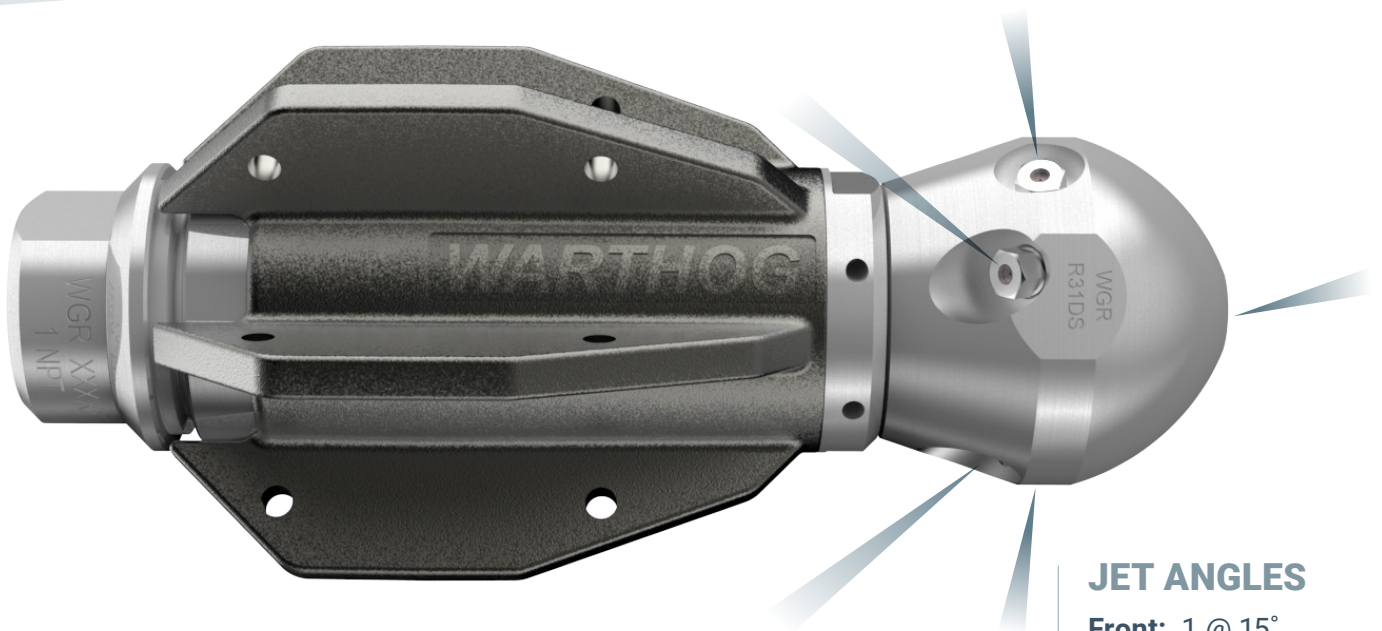
DESCALING



PULLING/
FLUSHING



Need an add-on centralizer? See the **ACCESSORIES** tab



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 4 @ 142°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-120 gpm

SERVICE INTERVAL: 1600 hours

- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

DESCALER

- Side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease, resulting in a faster clean time
- Jetting is configured with more force to the side jets for cleaning and polishing

DESCALING
PULLING/
FLUSHING



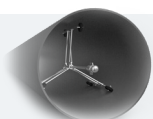
Need customized jetting?

Ask your Authorized Dealer about

UNIVERSAL HEAD CONFIGURATION

Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab





JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 6 @ 145°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-120 gpm

SERVICE INTERVAL: 1600 hours

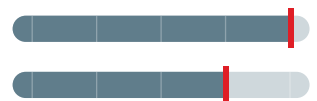
- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

HIGH FLOW DESCALER

- The High Flow Descaler head accommodates the higher flow of the 1" hose
- Jetting is configured with more force to the side jets for cleaning and polishing and to the rear jets for extra pulling power
- Side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease
- Rear jets are angled further back to increase pulling power for long runs and climbs, and max flushing capability

DESCALING

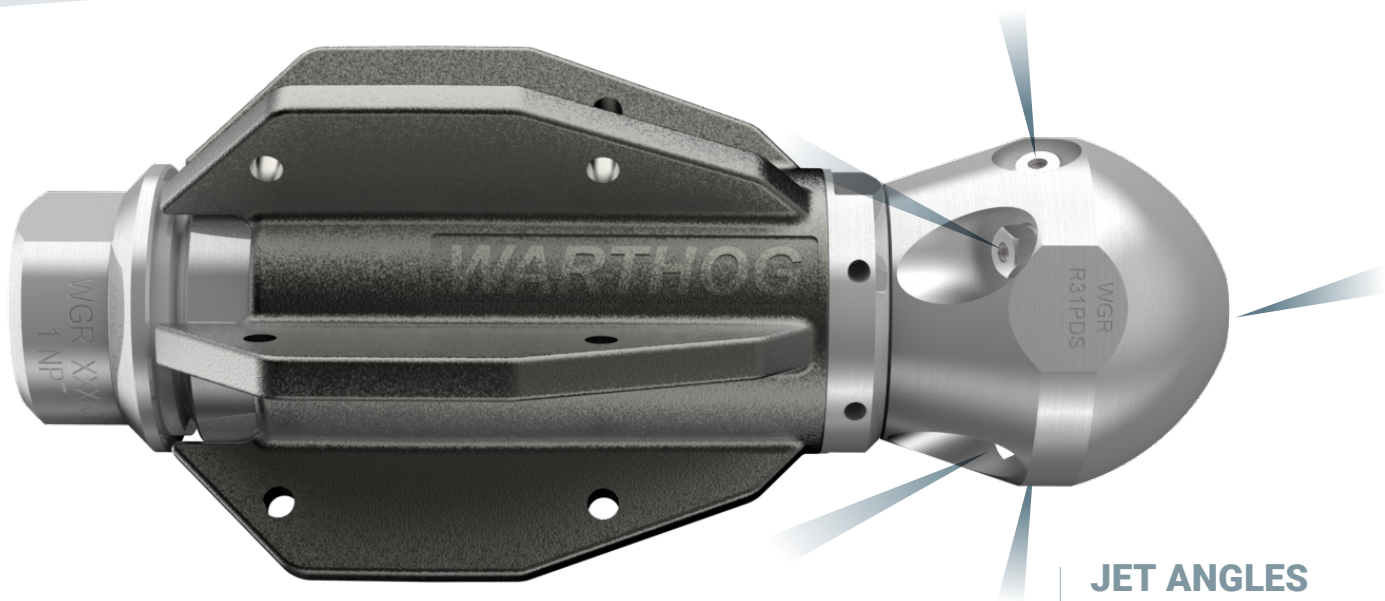
PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab





JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 4 @ 155°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-120 gpm

SERVICE INTERVAL: 1600 hours

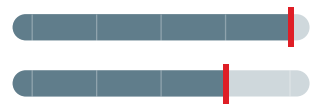
- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

PULLER/DESCALER

- Jetting is configured with more force to the side jets for cleaning and polishing and to the rear jets for extra pulling power
- Side jets are angled to reduce stand-off distance to the pipe wall, delivering intense jet impact to remove tough build up, calcium deposits, and scaling with ease
- Rear jets are angled further back to increase pulling power for long runs and climbs, and max flushing capability

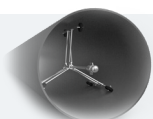
DESCALING

PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab



GUARDIAN MAGNUM

ROOT DESTROYER



JET ANGLES

Front: 1 @ 15°
Rear: 8 @ 135°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-120 gpm

SERVICE INTERVAL: 1600 hours

- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

ROOT DESTROYER

- Jetting is configured to send max force to specially angled side jets optimized for root cutting
- Eight powerful, in-line jets create a water blade proven to clear roots faster, saving time, water and money
- Reduces the use of mechanical tools that can damage the pipe

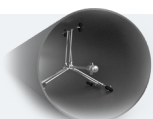
DESCALING

PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab



GUARDIAN MAGNUM

ROOT DESTROYER PULLER

NEW



JET ANGLES

Front: 1 @ 15°
Side: 2 @ 100°
Rear: 2 @ 149°
2 @ 152°
2 @ 155°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-120 gpm

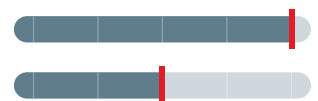
SERVICE INTERVAL: 1600 hours

- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

ROOT DESTROYER PULLER

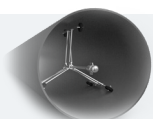
- Adjusted jet angles for increased pulling power
- Jetting is configured to send max force to precision angled side jets optimized for descaling and root cutting
- Eight powerful jets: Two jets angled for maximum power to the side of the pipe and six jets in offset pairs to pin and pulverize roots while providing extra pulling
- Reduces the use of mechanical tools that can damage the pipe

DESCALING
PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab



GUARDIAN MAGNUM

SWITCHER



JET ANGLES

PULLING MODE

Front: 1 @ 15°

Rear: 4 @ 155°

CLEANING MODE

Side: 2 @ 100°

Rear: 2 @ 125°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

FLOW RATE: 50-120 gpm

SERVICE INTERVAL: 1600 hours

- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

SWITCHER

SEE THE PAGE 37

- Jetting is configured to send full flow to the front and side jets for cleaning OR to the rear jets for pulling and flushing
- The operator controls which set of jets get water flow, while the tool is in the pipe
- One nozzle with two sets of jets - turn on pulling jets to run down the pipe, switch to descaling jets to clean and unplug
- The only nozzle of it's kind in the industry—complete your job with half the runs saving water, time and money

DESCALING

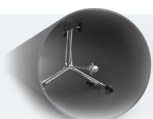


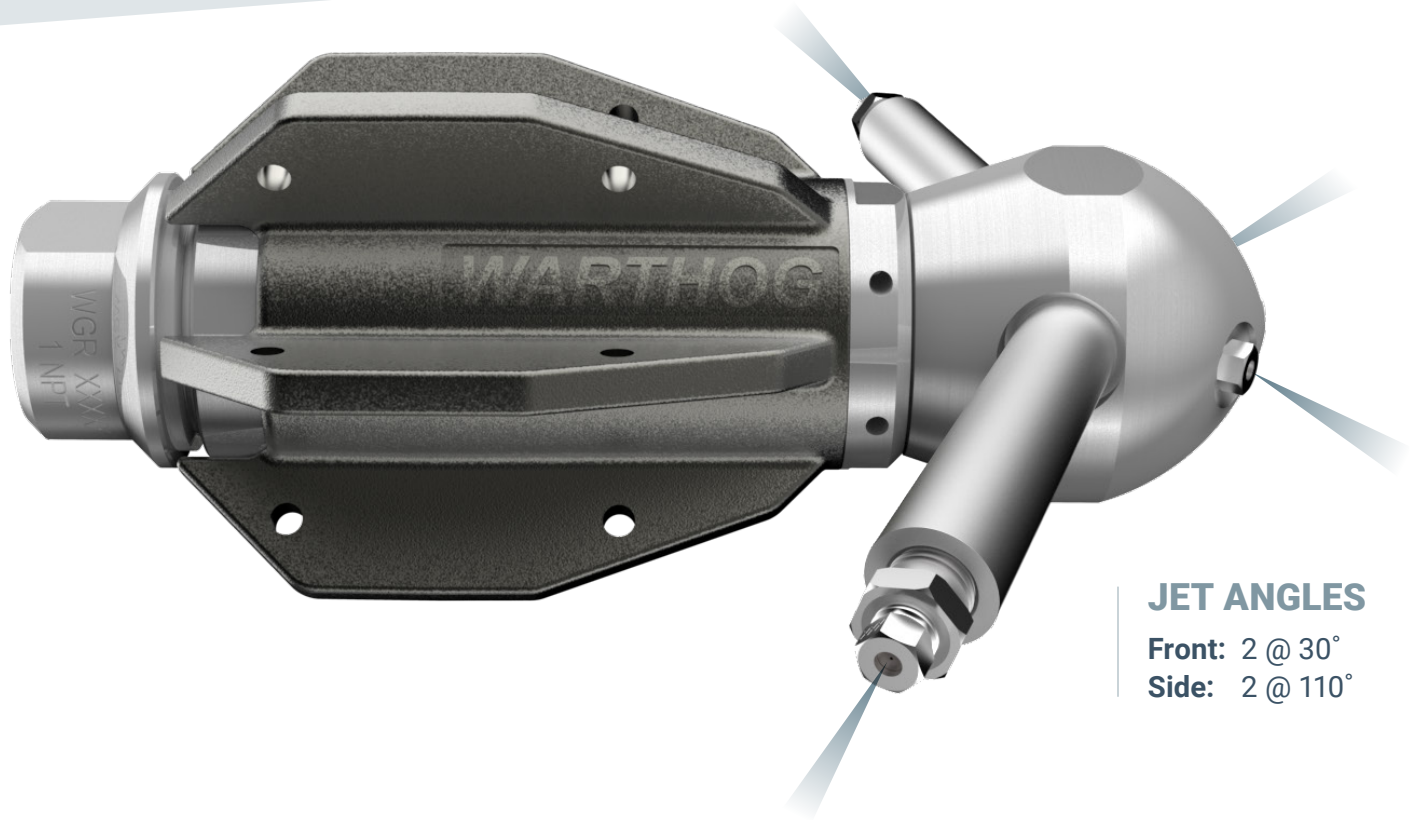
PULLING/
FLUSHING



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab





JET ANGLES

Front: 2 @ 30°
Side: 2 @ 110°

GUARDIAN MAGNUM

PIPE SIZE: 8-36"

INLET: 1" & 1-1/4" NPT

PRESSURE RATING: 1200-5000 psi

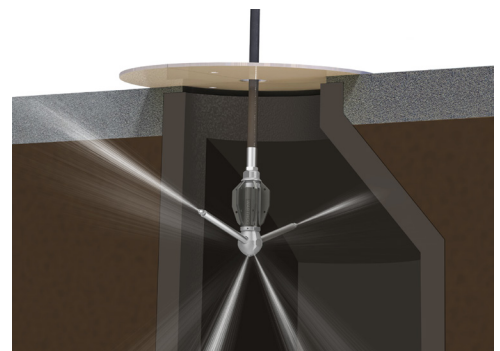
FLOW RATE: 50-120 gpm

SERVICE INTERVAL: 1600 hours

- ⊕ Engineered to handle recycled water
- ⊕ Tool profile keeps seals protected and prevents hang-ups
- ⊕ New access ports enable viscous fluid change without disassembly for easy field maintenance
- ⊕ Head design eliminates the gap between the body which keeps seals protected and prevents snagging
- ⊕ 1" inlet option allows for higher pressure and better maneuverability in small pipes
- ⊕ New 6-fin centralizer design allows steeper rear jets for max pulling/flushing

MANHOLE CLEANER

- Jetting is configured to send equal force to all jets which are uniquely angled for full coverage of the manhole chamber
- Designed to accept extension nipples that reduce the standoff distance, delivering a high pressure attack directly to the build-up
- Safer than 3D tools or manual cleaning methods



Need an add-on centralizer or fin extensions?

See the **ACCESSORIES** tab

SWITCHER™



Maximum pulling and maximum descaling without leaving the pipe.

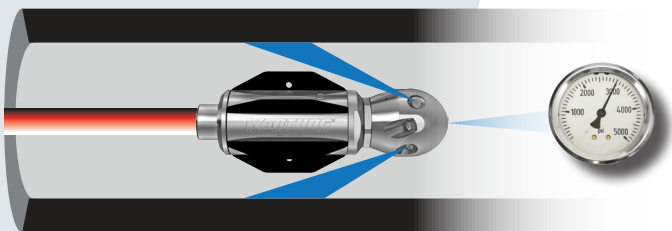
Switcher technology allows a nozzle operator to direct full jet power to **either** the rear jets for maximum thrust **or** the side jets for maximum descaling while the tool is inside the pipe.

- ➔ Save time and money with less water and half the runs
- ➔ Full power pulling/flushing and full power descaling in one nozzle
- ➔ Available in Hero and Guardian models for cleaning sewer pipes 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.

HOW IT WORKS



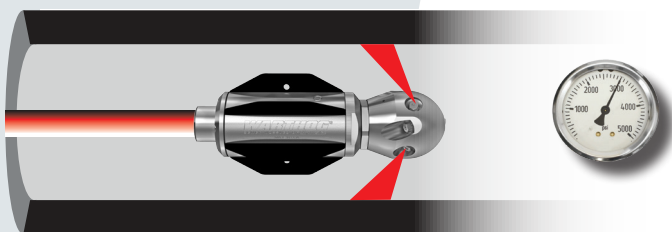
PULLING MODE: Full power to pulling jets for climbing, flushing or penetrating



DE-PRESSURIZE AND RE-PRESSURIZE THE PUMP TO SWITCH BETWEEN MODES AND CHANGE JETTING ON THE FLY WHILE THE TOOL IS IN THE PIPE



CLEANING MODE: Full power to separate set of descaling jets for cleaning



It's revolutionary. There is no other product in the market today that will switch like that. -Jason Demartini – Vallejo Sanitation

MEET THE ***CENTRALIZERS***

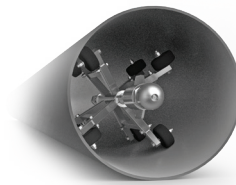
A centralizer helps to protect the tool as it passes through the pipe and balances jet standoff distance for more consistent cleaning. In cases where pipe size is more than 1.5 times the diameter of the tool, a centralizer is an important safety device, preventing the tool from turning around and thrusting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



6-WHEEL ADJUSTABLE CENTRALIZER

WG 286-M-P16

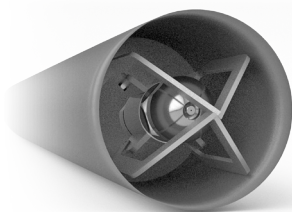
For straight pipes



8-WHEEL ADJUSTABLE CENTRALIZER

WG 288-M-P16

For pipes with bends



SUPER CENTRALIZER

WS 084

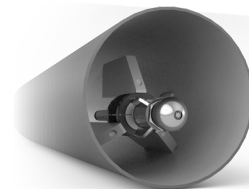
4.5" diameter for 5" (125 mm) minimum pipe ID

WH 085

5.5" diameter for 6" (150 mm) minimum pipe ID

WG 085

7" diameter for 8" (200 mm) minimum pipe ID



POLY-FIN CENTRALIZER

WG 070

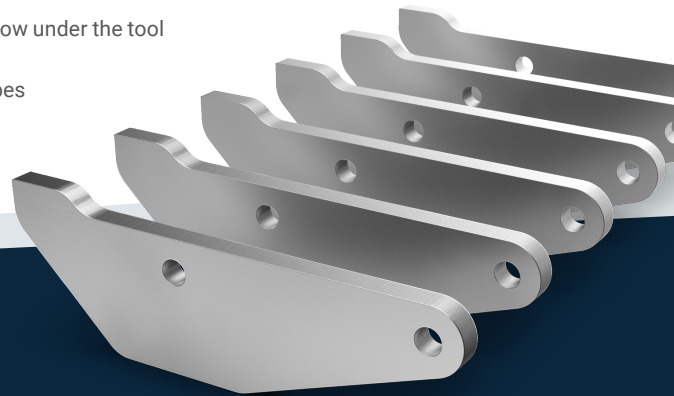
Contact your dealer today to learn more about our accessories so you can maximize the cleaning effectiveness of Warthog sewer nozzles for specific job requirements.



AVAILABLE ***FIN EXTENSIONS***

Easy to bolt on, Fin Extensions increase wear life and maximize your original nozzle investment.

- ⊕ Available in wear-resistant steel or soft plastic
- ⊕ Increases tool to pipe clearance to improve debris flow under the tool
- ⊕ Plastic fins help eliminate damage in ductile iron pipes



AVAILABLE ***SERVICE KITS***

Maintenance made easy.

A variety of **Service**, **Overhaul** and **Tool Kits** are available to help ensure the best performance and longest life possible for your Warthog nozzles.

Contact your dealer to get the right kit for you nozzle.



WE'VE GOT WHAT YOU NEED TO **STAY INFORMED**



VISIT OUR WEBSITE OR DOWNLOAD OUR MOBILE APP

Access our directory of Authorized Dealers and service center locations, product manuals and user instructions, along with a complete library of instructional videos

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.stoneagetools.com



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THIS 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.

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.

You can also contact StoneAge directly for support or any other questions: **+1 (970) 259-2869**

DOCUMENTATION

Operator's manuals and repair videos for all equipment are available online to help 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 for an Authorized Repair Center near you.

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



Visit WWW.SEWERNOZZLES.COM/DEALERS for a list of Authorized Dealers in your area

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.

<https://www.StoneAgetools.com/trademark-list/>

STONEAGE PATENT DATA

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

<https://www.sapatents.com>

STONEAGE TERMS AND WARRANTY

View StoneAge's Terms and Warranty Conditions online.

<https://www.stoneagetools.com/terms>

<https://www.stoneagetools.com/warranty>



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. 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 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.**

