



# Flushing and Accessories





Flushing/Accessories



**Best Products,  
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## 800 Series Truck Jet



**800-HPRTV**

**800-HPR**



**800-H**



**800-HF**





**Configuration**

Model	Drive System	Hose Reel Location	Reel Rotation	Water Tank Size
800-HPRTV	Hydrostatic/Aux Engine	Rear, Extendable	Yes	1000-3000 Gallon
800-HPR	Hydrostatic/Aux Engine	Rear, Extendable	Yes	1000-3000 Gallon
800-HF	Hydrostatic/Aux Engine	Front	Yes	1000-3000 Gallon
800-H	Hydrostatic/Aux Engine	Rear, Fixed	No	1000-3000 Gallon

**General Specifications\***

**Environmental Enclosure**

- One piece welded steel
- Aluminum roll up doors
- Aluminum one piece shroud available
- 80,000 BTU Heater in shroud

**Electrical System**

- NEMA 4 rated controls enclosure
- Loomed wiring
- Sealed connections and junction boxes
- Unit specific wiring diagram
- ICC Lighting System

**Design**

- Tubular steel frames
- Components pre painted
- Modular sub assemblies
- Powder coated shrouds (white only)
- Custom colors available

**Water Jet System**

- Exclusive duraprolene tank
- UV Stable
- Weldable and Repairable
- Dual tank system for flexibility
- Duraprolene baffles inside tank for reduced water movement
- Removable top for inspection and cleaning
- Customizable tank sizes
- 7 year warranty standard
- Pumps with volumes from 40-100 GPM
- "Vari-Flow" water delivery system for flow variable flow
- Integral hydraulic pump drive
- Wash down system
- Winterization blow out system

**Warranty\*\***

- 12 month/ 2000 hour warranty on body

**Safety Hose Reel**

- Variable speed hydraulic drive
- Industrial swivel bearing
- Welded construction
- Controls rotate with reel
- Water level sight gauge on both sides of tanks
- 10' Leader hose

**Convenience Features**

- Curbside ladder
- Optional root cutter maintenance box
- 2 1/2" fill system located at street side and curb side.
- 2" drain valves located on both sides of truck
- Water Level sight gauge on both sides of tanks
- 2 High efficiency nozzles
- Complete accessory package

**NEMA4 Control Panel**



**Power Plant Sub Assembly**



**Hose Reel Assembly**





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## 747-FR2000 Trailer Jet





**747-FR2000**

The 747-FR2000 Series II trailer jet's High Quality Construction Gives you long life and low Owning, Operating, and Maintenance costs. These Valuable Features make the 747-FR2000 the most productive, efficient, flexible, and safest trailer jet available.

**General Specifications\***

**Environmental Enclosure**

- One piece welded steel
- Recessed access panels
- Aluminum one piece shroud available
- Locking Doors for Security

**Electrical System**

- NEMA 4 rated controls enclosure
- Loomed wiring
- Sealed connections and junction boxes
- Unit specific wiring diagram
- ICC Lighting System

**Design**

- Tubular steel frames
- Components pre painted
- Modular sub assemblies
- Powder coated shrouds (white only)
- Custom colors available

**Water / Jet System**

- Exclusive duraprolene tank
- UV Stable
- Weldable and Repairable
- Duraprolene baffles inside tank for reduced water movement
- Removable top for inspection and cleaning
- 7 year warranty standard
- Super Poly Tanks also available
- Pumps with volumes from 18-60 GPM
- Remotely controlled water functions available
- Electronic clutch engagement available
- Wash down system
- Winterization blow out system

**Warranty\*\***

- 12 month/ 2000 hour warranty on body

**Safety Hose Reel**

- Variable speed hydraulic drive
- Industrial swivel bearing
- Welded construction
- Controls rotate with reel
- Flanged reel sides for greater strength
- 10' Leader hose

**Convenience Features**

- Curbside toolbox
- Optional root cutter maintenance box
- 2 1/2" fill system located at curb side of machine.
- 2" drain valves located at the front of the machine
- Water Level sight gauge on both sides of tanks
- 2 High efficiency nozzles
- Complete accessory package

**NEMA4 Control Panel**



**Power Plant Sub Assembly**



**Hose Reel Assembly**





Flushing/Accessories

**SEWER EQUIPMENT  
CO. of AMERICA**

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**747-FR200TV Trailer Jet**

A black and silver trailer-mounted jetting machine. It features two large reels of hoses, one blue and one yellow, mounted on the back. The machine has a control panel with various gauges and switches. It is mounted on a trailer with two axles and four wheels. The machine is shown from a rear three-quarter view.



**747-FR2000TV**

The 747-FR2000TV trailer jet combines the power of a high pressure Sewer Cleaning Machine with a water jet propelled camera system. Cleaning and televising with the same machine reduces costs while improving flexibility and response time.

**General Specifications\***

**Environmental Enclosure**

- One piece welded steel
- Recessed access panels
- Aluminum one piece shroud available
- Locking Doors for Security

**Electrical System**

- NEMA 4 rated controls enclosure
- Loomed wiring
- Sealed connections and junction boxes
- Unit specific wiring diagram
- ICC Lighting System

**Design**

- Tubular steel frames
- Components pre painted
- Modular sub assemblies
- Powder coated shrouds (white only)
- Custom colors available

**Water / Jet System**

- Exclusive duraprolene tank
- UV Stable
- Weldable and Repairable
- Duraprolene baffles inside tank for reduced water movement
- Removable top for inspection and cleaning
- 7 year warranty standard
- Super Poly Tanks also available
- 40GPM @ 3000 PSI Water Pump
- Remotely controled water functions available
- Electronic clutch engagement available
- Wash down system
- Winterization blow out system

**Warranty\*\***

- 12 month/ 2000 hour warranty on body

**Safety Hose Reel**

- Variable speed hydraulic drive
- Industrial swivel bearing
- Welded construction
- Controls rotate with reel
- Flanged reel sides for greater strength
- 10' Leader hose

**TV System**

- Straight View or Pan & Tilt Camera Heads
- 500' Exclusive Umbilical Hose
- Standard DVD Burner Recording
- Optional Mobile Hard Drive or Lap Top Recording
- Hose Reel mounted Viewing Station
- Exclusive Jet Pod Nozzle for Camera Delivery
- Dual Reel System

**NEMA4 Control Panel**



**Power Plant Sub Assembly**



**Hose Reel Assembly**





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# 747-FR2000 Truck Jet



Flushing/Accessories





**747-FR2000**

The 747-FR2000 truck jet brings together big truck features in a package that is easy to maneuver, safe to use, and inexpensive to maintain. The 747 Truck offers features like our Industry Leading Jet TV system and our Industry Breakthrough Vac Buddy light duty vac system to make it the most versatile truck jet on the market.

**General Specifications\***

**Environmental Enclosure**

- One piece welded steel
- Recessed access panels
- Aluminum one piece shroud available
- Locking Doors for Security

**Electrical System**

- NEMA 4 rated controls enclosure
- Loomed wiring
- Sealed connections and junction boxes
- Unit specific wiring diagram
- ICC Lighting System

**Design**

- Tubular steel frames
- Components pre painted
- Modular sub assemblies
- Powder coated shrouds (white only)
- Custom colors available

**Water / Jet System**

- Exclusive duraprolene tank
- UV Stable
- Weldable and Repairable
- Duraprolene baffles inside tank for reduced water movement
- Removable top for inspection and cleaning
- 7 year warranty standard
- Super Poly Tanks also available
- Pumps with volumes from 18-60 GPM
- Remotely controled water functions available
- Electronic clutch engagement available
- Wash down system
- Winterization blow out system

**Warranty\*\***

- 12 month/ 2000 hour warranty on body

**Safety Hose Reel**

- Variable speed hydraulic drive
- Industrial swivel bearing
- Welded construction
- Controls rotate with reel
- Flanged reel sides for greater strength
- 10' Leader hose

**Convenience Features**

- Underbody Toolboxes
- Auxilliary Engine or PTO Drive
- 2 1/2" fill system located on both side of machine.
- 2" drain valves located on both sides of the machine
- Available Jet TV System in either straight view or pan and tilt
- Available Vac Buddy light duty vac system
- Complete accessory package

**Flushing/Accessories**





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**Vac Buddy Light Duty Vac System**



Flushing/Accessories



### Vac Buddy Light Duty Vacuum System

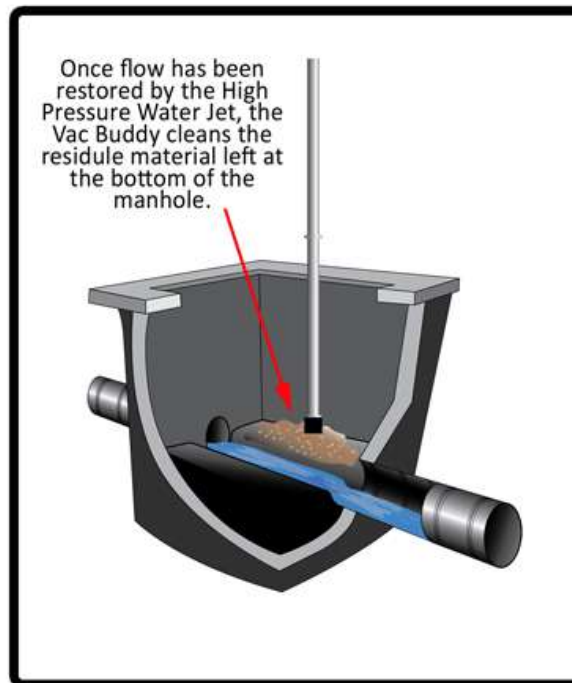
The Vac Buddy Light Duty Vacuum System will change the way you think about cleaning a sanitary sewer line.

The Vac Buddy gives you the ability once a line is clean and flow has been restored to go in and clean up the residual debris left at the bottom of the man hole. Before the Vac Buddy you either had to enter the manhole to clean this debris or use a \$300,000 + large combination sewer cleaner truck.

The Vac Buddy is available with our entire line of 747-Truck Jets. It uses a powerful Positive Displacement Blower to vacuum that leftover the debris out of the manhole quickly and safely. Combine the Vac Buddy System to our 747-TV Truck and have a platform that can do the jobs of three different machines and still stay under the CDL license requirements.

### Specifications\*

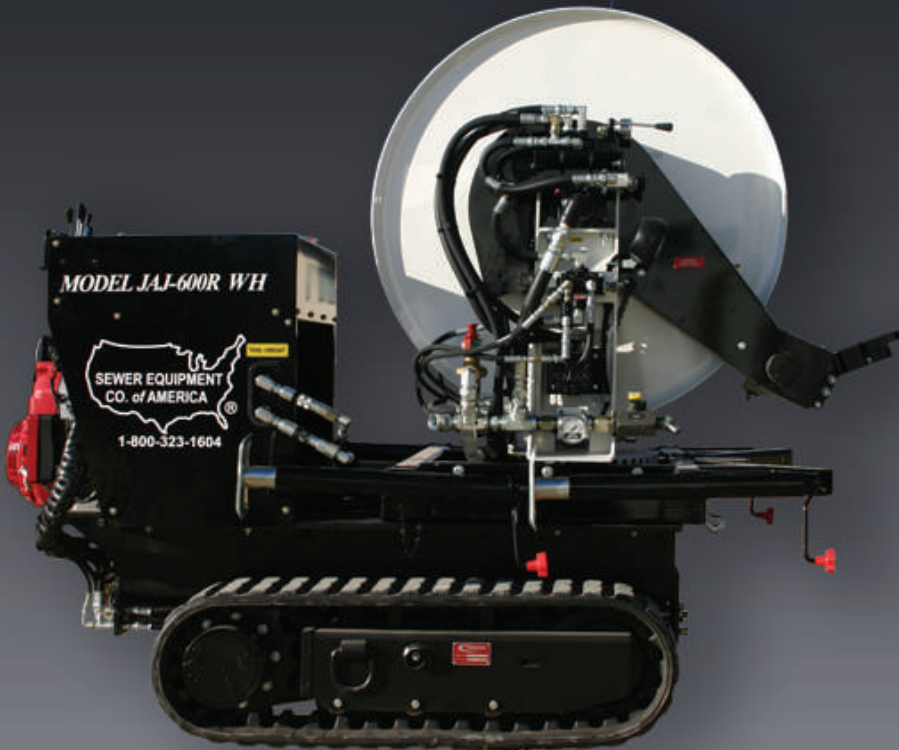
- 800 CFM Positive Displacement Blower
- ½ Yard Debris Tank
- Hydrostatic Drive System via Chassis PTO
- Hydraulic Door
- Debris Washout System
- 3" Hose System
- 186 MPH Air Velocity
- Hose Reel Mounted Controls
- Rack Mounted Tube Storage
- Gate Valve to Discharge Water
- Qty 2 – 3" x 10' Vacuum Tubes





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# JAJ Series Easement Machines



**JAJ-600WH**



**JAJ-600TH**



**JAJ-600R**



**JAJ-600SK**

Flushing/Accessories



**Configuration**

Model	Drive Platform	Engine	Reel Rotation
JAJ-600TH	Fixed Tracks	20HP	Yes
JAJ-600WH	Expandable Tracks	20HP	Yes
JAJ-600R	Wheeled	20HP	Yes
JAJ-600SK	Skid Steer Tractor	NA	Yes

**General Specifications\***

**Safety Hose Reel**

- Variable speed hydraulic drive
- Industrial swivel bearing
- Welded construction
- Controls rotate with reel
- Flanged reel sides for greater strength
- 10' Leader hose
- Reel mounted pressure relief valve
- Water pressure gauge
- Safety outriggers
- Available Auto Level Wind with Up/Down Arm
- 600' of 1" hose capacity
- Footage counter

**Model Variations**

**JAJ-600WH**

- Low ground pressure track system
- Extendable tracks for improved stability
- Hydraulic tool circuit
- Two speed drive unit
- 20 HP gas engine

**JAJ-600TH**

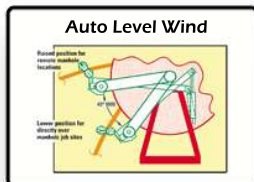
- Low ground pressure track system
- Low profile design
- Hydraulic tool circuit
- Two speed drive unit
- 20 HP gas engine

**JAJ-600R**

- Single or Dual wheel drive system
- Available dump box and lifting hoist
- 20 HP gas or diesel engine

**JAJ-600SK**

- Use your existing skid steer tractor
- Same great hose reel features as other models
- Easy hook up for your style tractor



**Hydraulic or Mechanical BUCKET MACHINES**

Using a Bucket Machine is the most cost effective and the only way to remove sand, solids or sludge from storm and sanitation pipelines. These machines are effective every inch of the way and they need no water.



Flushing/Accessories

## 300 Gallon Platform Series

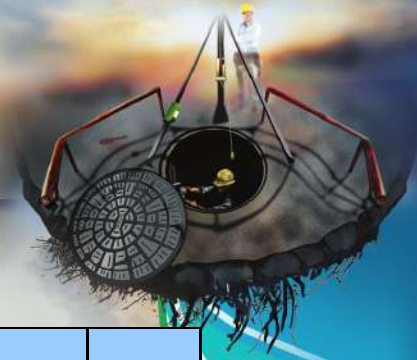
The **US Jetting 300 Gallon Platform Series** of High Pressure Jetting units is a modular component concept of heavy duty single axle trailers for the mounting of selected **US Jetting PumpSets**. This unique concept allows the customer to participate in the design and selection of **US Jetting** units to match their specific performance and job requirements.



The central design feature is a single 300 gallon water storage tank with an additional structural capacity for the inclusion of a selected **US Jetting PumpSet** and hose reel systems. The frame is constructed of welded tubular steel with a powder coated baked-on finish for years of durability. A single 7,000 pound rated Torque-Flex axle

with LT245/R75-16 tires with an electric brake system ensures towing ease behind a service van or pick-up truck.





US Jetting PumpSet Selection Chart

Pump	Engine	Horse-Power	Gen II Wireless Remote	Max. PSI	Water Flow (GPM)	No. Of Cyls. (Pump)	Hose Dia.	ByPass Valve Opt/Std	Jump Jet Opt/Std
USJ 3010	Lombardini	26	N/A	3,000	10	3	1/2"	NO	OPT
USJ 4008	Lombardini	26	N/A	4,000	8	3	1/2"	NO	OPT
USJ 3025	Hatz 3-Cyl NS	49	N/A	3,000	25	3	5/8"	STD	STD
	Hatz 3-Cyl Silent Pack	48	OPT	3,000	25	3	5/8"	STD	STD
	Deutz 4-Cyl	48	OPT	3,000	25	3	5/8"	STD	STD
USJ 4016 RPD	Hatz 3-Cyl NS	49	N/A	4,000	16	8	1/2"	STD	OPT
	Hatz 3-Cyl Silent Pack	48	OPT	4,000	16	8	1/2"	STD	OPT
	Deutz 4-Cyl	48	OPT	4,000	16	8	1/2"	STD	OPT
USJ 4018	Hatz I 3-Cyl NS	49	N/A	4,000	18	3	1/2"	STD	STD
	Hatz 3-Cyl Silent Pack	48	OPT	4,000	18	3	1/2"	STD	STD
	Deutz 4-Cyl	48	OPT	4,000	18	3	1/2"	STD	STD
USJ 4025	Hatz 4-Cyl Silent Pack	66	OPT	4,000	25	3	5/8"	STD	STD
	Deutz 4-Cyl Turbo	72	OPT	4,000	25	3	5/8"	STD	STD

**US Jetting 4018 Pump**  
4000 PSI @ 18 GPM



**The US Jetting Pump**

The key to **US Jetting** high pressure jetting units is the pump. The stainless steel fluid head with a proprietary **US Jetting** internal design provides reliable long term high pressure performance. The **US Jetting** Pump is so durable it can run dry without damage. When maintenance is required, seals and cartridge style check valves can be replaced in less than an hour.



Flushing/Accessories

### **US Jetting 4018 Hatz Silent Pak Pump Set**



### **300 Gallon Platform Series Standard Features**

- Jump Jet Pulsation System
- Anti-Freeze System
- Swivel Hose Reel with 7 Locking Positions
- 500 Feet of High Pressure Hose
- Colored safety Leader Hose
- 3 Rear, 1 Forward & 6 Rear RPD Nozzle
- Tiger Tail Hose Protector
- Drain Jet Extension
- Hydraulic Powered Hose Reel with a Capacity of 700 Feet of ½ High Pressure Hose
- 2" Anti-Siphon Water Fill Connection
- Torque Flex Axle, 7,000 lb. Rated
- LT-245/75R 16 Radial Tires on 8 Bolt Chrome Wheels
- Electric Brakes with Battery Backup Breakaway Activator or Hydraulic Over-Run Braking System
- Amber Electric Strobe Light
- Dual Lockable Tool Boxes with 8 Cu. Ft. of Storage.
- Rear Open Storage Area
- Water Level Gauge
- D.O.T. Compliant Light System
- L.E.D. and Analog Pressure Gauges
- Weather Proof Control Panel
- 2-3/16" Ball Hitch with Lock
- Easy Lube Axle Wheel Bearings

### **GEN II Wireless Remote & Power Pull-Out Reel**



*The two most popular options combine to give a single operator total unit control at the jobsite, even when working within or on top of a building.*

### **Gen II Wireless Remote Control System**



*Remote control by a single operator can be fitted to most units. Choice of Foot Activated Control or Handheld – Belt Control.*





### 300 Gallon Platform Series Optional Features

- Power Pull Out Hose Reel
- Gen II Wireless Remote Control System
- Inlet Hose Reel for Water Supply
- Detachable Accessory Carry Hose Reels for Mini & Micro-Jet Kits
- Optional Special Paint
- Electronic Arrow Signboard
- Pintle Hitch
- Hydraulic Powered Hose Reel with a Capacity of 1000 Feet of ½ High Pressure Hose

### Mini-Jet Kit & Detachable Hose Reel



Portable hose reel with an attached high pressure swivel keeps a Mini-Jet Hose Kit neat, tangle free and accessible for easy use.



Flushing/Accessories



**300 Gallon Platform Series** units are available in optional custom colors to complement existing company or municipal color schemes.

The **300 Gallon Platform Series** is a proven and profitable performer with all nationally recognized sewer and drain cleaning franchises. Units incorporate many standard features required for pipeline cleaning market that are considered options by other manufacturers.





Flushing/Accessories

## 600 Gallon Platform Series

The **US Jetting 600 Gallon Platform Series** of High Pressure Jetting units is a modular concept of heavy duty tandem axle trailers for the mounting of selected **US Jetting PumpSets**. This unique concept allows the customer to participate in the design and



selection of **US Jetting** units to match their specific performance and job requirements. The central design feature is based on twin 300 gallon water storage tanks (600 gallon total capacity) with the structural capacity for the inclusion of a selected **US Jetting PumpSet** and hose reel system(s). The frame is constructed of welded tubular steel with a powder coated baked-on finish for years of durability. A set of 6,000 pound rated Torque-Flex axles with LT245/R75-16 tires with an electric brake system ensures towing stability at highway speeds behind a service van or pick-up truck.



The frame is constructed of welded tubular steel with a powder coated baked-on finish for years of durability. A set of 6,000 pound rated Torque-Flex axles with LT245/R75-16 tires with an electric brake system ensures towing stability at highway speeds behind a service van or pick-up truck.



Flushing/Accessories

**US Jetting 600 Gallon Platform Series** provides more water for increased jetting time and reduces time wasted refilling.

## US Jetting 4018 Pump



## The US Jetting Pump

The key to **US Jetting** high pressure jetting units is the pump. The stainless steel fluid head with a proprietary **US Jetting** internal design provides reliable long term high pressure performance. The **US Jetting** Pump is so durable it can run dry of water without damage. When maintenance is required, seals and cartridge style check valves can be replaced in less than an hour.



Flushing/Accessories

US Jetting PumpSet Selection Chart

Pump	Engine	Horse-Power	Gen II Wireless Remote	Max. PSI	Water Flow (GPM)	No. Of Cyls. (Pump)	Hose Dia.	ByPass Valve Opt/Std	Jump Jet Opt/Std
<b>USJ 2036</b>	Hatz 3-Cyl NS	49	N/A	2,000	36	3	3/4"	NO	OPT
	Hatz 3-Cyl Silent Pack	48	OPT	2,000	36	3	3/4"	STD	STD
	Deutz 4-Cyl	48	OPT	2,000	36	3	3/4"	STD	STD
<b>USJ 3025</b>	Hatz 3-Cyl NS	49	N/A	3,000	25	3	5/8"	STD	STD
	Hatz 3-Cyl Silent Pack	48	OPT	3,000	25	3	5/8"	STD	STD
	Deutz 4-Cyl	48	OPT	3,000	25	3	5/8"	STD	STD
<b>USJ 4016 RPD</b>	Hatz 3-Cyl NS	49	N/A	4,000	16	8	1/2"	STD	OPT
	Hatz 3-Cyl Silent Pack	48	OPT	4,000	16	8	1/2"	STD	OPT
	Deutz 4-Cyl	48	OPT	4,000	16	8	1/2"	STD	OPT
<b>USJ 4018</b>	Hatz 3-Cyl NS	49	N/A	4,000	18	3	1/2"	STD	STD
	Hatz 3-Cyl Silent Pack	48	OPT	4,000	18	3	1/2"	STD	STD
	Deutz 4-Cyl	48	OPT	4,000	18	3	1/2"	STD	STD
<b>USJ 4025</b>	Hatz 4-Cyl SilentPak	66	OPT	4,000	25	3	5/8"	STD	STD
	Deutz 4-Cyl Turbo	72	OPT	4,000	25	3	5/8"	STD	STD
<b>USJ 3036 / 6018</b>	Deutz 2012 4-Cyl Turbo	137	N/A	3,000 6,000	36 18	3	3/4" 1/2"	STD	STD





**US Jetting 4025 Hatz Silent Pak Pump Set on 600 Gallon Trailer**



**Gen II Wireless Remote Control System**



*Remote control system can be installed on 600 Gallon Platform Series units. Choice of Foot Activated Control or Handheld – Belt Control.*

**GEN II Wireless Remote & Power Pull-Out Reel**



*The two most popular options combine to give a single operator total unit control at the jobsite, even when working within or on top of a building.*

**600 Gallon Platform Series Standard Features**

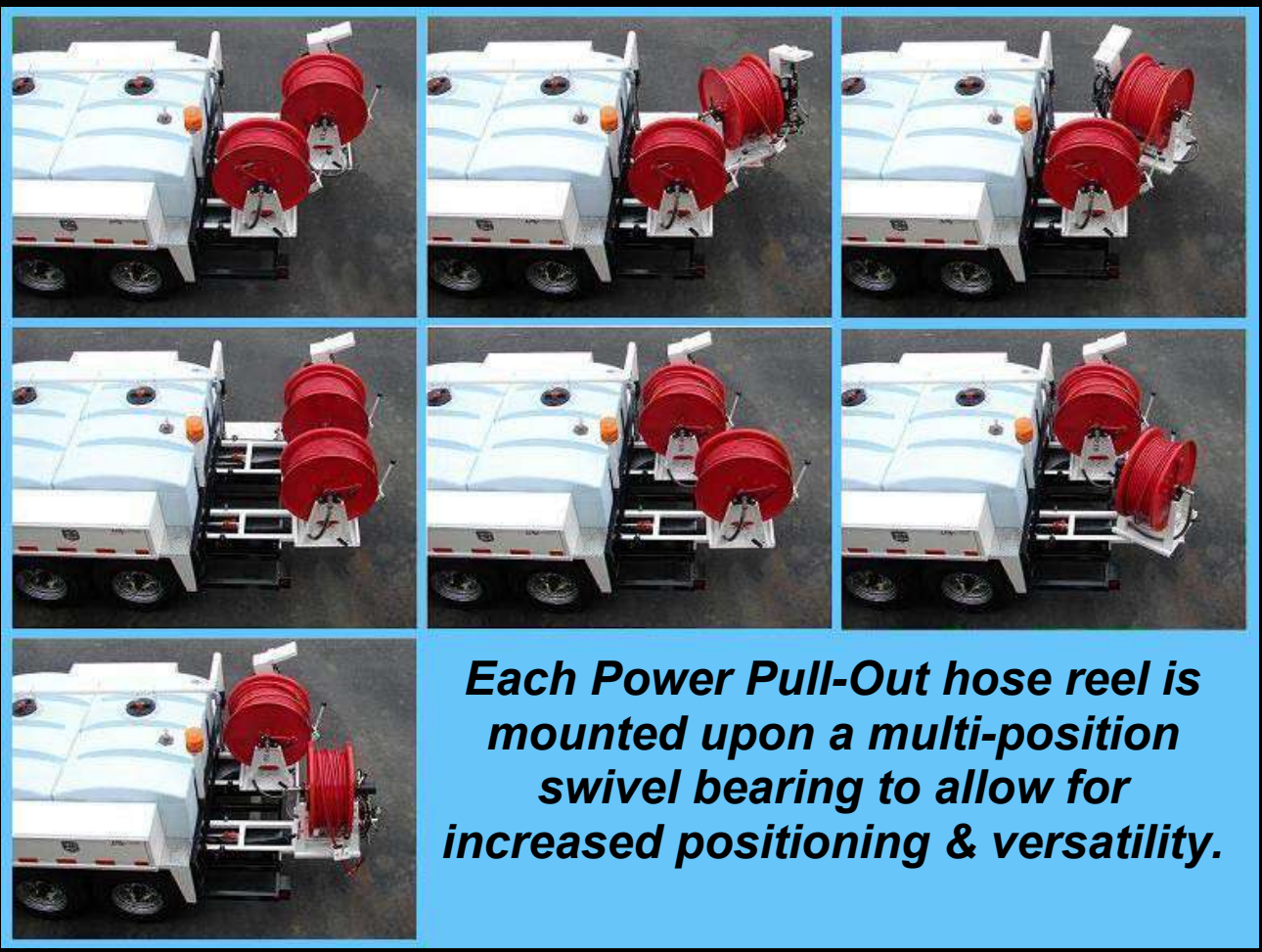
- Jump Jet Pulsation System
- Swivel Hose Reel with 7 Locking Positions
- Anti Freeze System
- 500 Feet of High Pressure Hose
- Colored safety Leader Hose
- 3 Rear, 1 Forward RPD Nozzle
- 6 Rear RPD Nozzle
- Tiger Tail Hose Protector
- Drain Jet Extension
- Hydraulic Powered Hose Reel with a Capacity of 700 Feet of ½ High Pressure Hose
- 2" Anti-Siphon Water Fill Connection
- Tandem 6,000 lb Torque Flex Axles
- LT-245/75R 16 Radial Tires on 8 Bolt Chrome Wheels
- Electric Brakes with Battery Backup Breakaway Activator or Hydraulic Over-Run Braking System
- Amber Electric Strobe Light
- Dual Lockable Tool Boxes with 8 Cu. Ft. of Storage.
- Rear Open Storage Area



Flushing/Accessories



The **Dual Hydraulic Power Pull-Out Hose Reel** is a popular option for **US Jetting 4025** units. One hose reel is equipped with 500 feet of 5/8" diameter high pressure jetting hose & the other hose reel contains 500 feet of 1/2 " high pressure jetting hose.



**Each Power Pull-Out hose reel is mounted upon a multi-position swivel bearing to allow for increased positioning & versatility.**



**600 Gallon Platform Series Optional Features**

- Power Pull-Out Hose Reel
- Dual Power Pull-Out Hose Reels
- Gen II Wireless Remote Control System
- Inlet Hose Reel for Water Supply
- Detachable Accessory Carry Hose Reels for Mini & Micro-Jet Kits
- Optional Special Paint
- Electronic Arrow Signboard
- Pintle Hitch
- Hydraulic Powered Hose Reel with a Capacity of 1000 Feet of ½ High Pressure Hose

**600 Gallon Platform Series**

*Units are available in optional custom colors to match any company or municipal color scheme.*

**Single 2" Water Fill Line Connection Supplies Twin 300 Gallon Water Tanks**



Flushing/Accessories



**Dual hose reels can be ordered in fixed position configuration.**



Flushing/Accessories



**Detachable Hose Reel & Mini-Jet Kit**



Portable hose reel with an attached high pressure swivel keeps a Mini-Jet Hose Kit neat, tangle free and accessible for easy use.



**US Jetting  
Drain Cleaning  
Accessories**

- Sewer & Drain Nozzles
- Spinning Nozzles
- Chain Flail – Scraper Nozzles
- Safety Dump Guns
- Shut-Off Guns
- Safety Colored Leader Hose
- Mini-Jet Hose Kits
- Micro Mini-Jet Kits
- Tiger Tail Hose Guide
- Jet Vac Pump
- Drain Jet Extensions
- Centralizer Skids

**For Versatility & Productivity**



Two lockable toolboxes provide ample space for nozzle & accessory storage.





PROFESSIONALLY ENGINEERED TO CLEAN 2" TO 8" DRAIN LINES



**ELECTRIC EEL**

**EEL JET ELECTRIC & GAS JETTERS**

- POWER AND**
- PORTABILITY**
- FOR A FAST BLAST**
- THROUGH CLOGGED**
- DRAIN LINES**



Convenient Nozzle Storage on Gas Jetter

Sludge. Ice. Grease. Sand. Soap. Dirt. Debris. Whatever the problem, Electric Eel steel nozzles will penetrate and clean tough problems from pipe walls with a variety of spray angles.



Flushing/Accessories



Flushing/Accessories

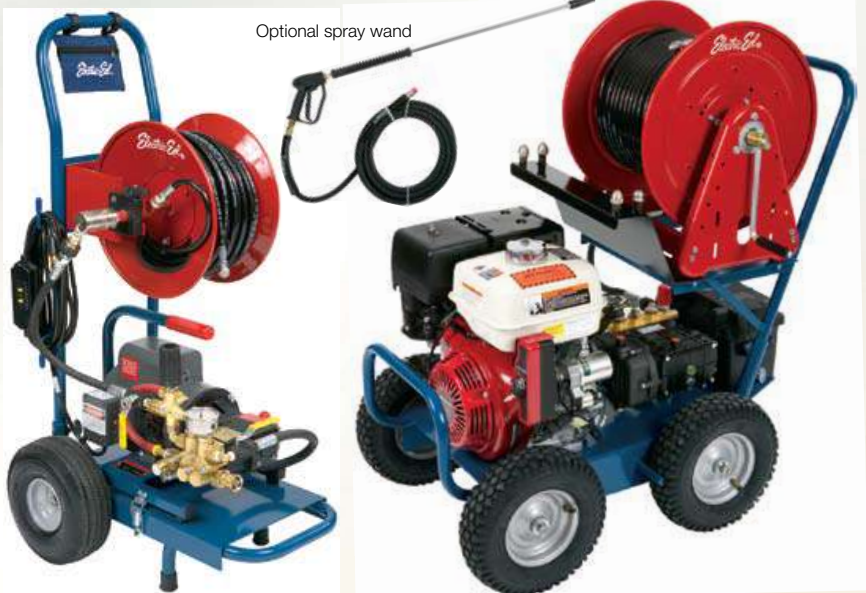
**NOBODY  
MAKES A  
BETTER JETTER  
THAN  
ELECTRIC EEL**

**ELECTRIC EEL  
EEL JET EJ1500 ELECTRIC & EJ3000 GAS JETTERS**

**Portable Hose Reel**



**Hose Reel With Cart**



**Eel Jet EJ1500 Electric Jetter**

- Cleans 1½"– 4" Dia. Drain Lines.
- 1500 PSI / 1.7 GPM.
- 1.5 H.P., 15 AMP Motor.
- Duplex Pump w/Pulsation.
- Reel Capacity 150 Ft. of 1/4" Hose.



- Pump/Motor Assembly Removes in Seconds for Added Portability.
- Sturdy 10" Pneumatic Tires for Ease of Transport.
- Thermal Relief Valve and Inlet Shut Off Valve.
- Removable Handle/Reel on Cart Assembly.
- Utilizes 1/8" and 1/4" Dia. Jet Hose.
- 20 Ft. Power Cord w/GFCI.

**Eel Jet EJ3000 Gas Jetter**

- Cleans 2"– 8" Dia. Lines up to 300 Ft.
- 3000 PSI / 4.7 GPM.
- 13 HP Overhead Valve Engine for Smooth Quiet Running and Dependable Operation – **Electric Start Available.**
- 2-to-1 Gear Reduced Triplex Pump with Pulsation for Longer Life.
- 300 Ft. Capacity Hose Reel.
- 12" Pneumatic Tires for Easy Maneuverability on Rugged Steel Base with Front Bar for Motor Protection.
- Heat Shield to Protect Hose.
- Convenient Nozzle Storage on Unit.
- Throttle Back Control Automatically Adjusts Engine Speed.
- Low Tone Muffler for Quiet Operation.
- Utilizes 1/4" and 3/8" Dia. Jet Hose.



**SMART NOZZLES**<sup>®</sup>  
& ACCESSORIES



Flushing/Accessories

**BEST PRODUCTS, BEST LOCAL SUPPORT™**

Flushing/Accessories

**General Cleaning Nozzles**

**WEISEL**  
GENERAL CLEANING NOZZLE

The "Wiesel" is an affordably priced compact nozzle which is perfect for general pipe cleaning.



**APPLICATIONS:**  
General Pipe Cleaning.  
Optional front jet to help penetrate minor blockages.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
54045-00-F	6 x 30°	0	1/2"	3" - 6"
54046-00-F	6 x 30°	0	3/4"	4" - 10"
54047-00-F	8 x 30°	0	1"	4" - 15"

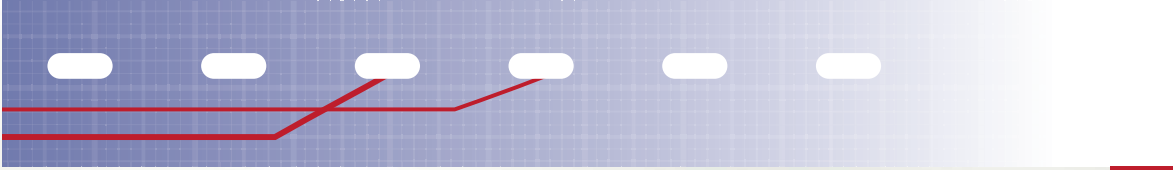
**DUAL DEGREE**  
GENERAL CLEANING NOZZLE

The "Dual Degree" nozzle has six jets (three 10 degree thrust jets and three 30 degree cleaning jets) which create pulling power and cleaning ability. The pull power allows this nozzle to travel far into the pipe - and the 30 degree jets mean that the sewer or storm pipe will be cleaned effectively.



**APPLICATIONS:**  
General pipe cleaning where longer pulls or an incline might be involved.  
Optional front jet available.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
54042-00-F	6 Total: 3x10°, 3x30°	0	1/2"	4" - 8"
54043-00-F	6 Total: 3x10°, 3x30°	0	3/4"	6" - 12"
54044-00-F	8 Total: 4x10°, 4x30°	0	1"	8" - 18"



### **RONDO** FINISHING NOZZLE

The "Rondo" produces an umbrella spray pattern giving this nozzle a complete 360 degree cleaning pattern in the pipe. This is accomplished without moving parts or the maintenance commonly found with a rotation nozzle.

**APPLICATIONS:**  
Use prior to video inspection yields a 360 degree completely clean line, free of grease, dirt, and debris.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52397-00-F	3 x 15°	0	1/2"	3" - 8"
52398-00-F	3 x 15°	0	3/4"	6" - 12"
52378-00-F	3 x 15°	0	1"	6" - 18"
54320-00-F	3 x 15°	0	1"	6" - 24"
52400-00-F	3 x 15°	0	1 1/4"	6" - 24"



### **HW** FLUSHING NOZZLE

The low angle dual degree jets, make the "HW" the ultimate flushing nozzle while using less water and performing the job faster than drilled nozzles.

**APPLICATIONS:**  
Excellent line flushing nozzle with great thrust/pull, and flushing ability to bring debris back to the manhole.

Part No.	Type	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
54003-00-F	HW 53	6 total: 6 x 10°	0	1/2"	4" - 8"
52732-00-F	HW 75	6 total: 6 x 8°	0	3/4"	6" - 15"
52414-00-F	HW 75	8 total: 4 x 6°, 4 x 12°	0	1"	6" - 15"
52385-00-F	HW 100	10 total: 5 x 6°, 5 x 12°	0	1"	12" - 24"
52780-00-F	BK 1	12 total: 6 x 20°, 6 x 30°	0	1"	12" - 36"

**Finishing Nozzles**

**Flushing Nozzles**

**Flushing/Accessories**



**BEST PRODUCTS, BEST LOCAL SUPPORT™**

Flushing/Accessories

**Flushing Nozzles**

**MEGA 6**  
FLUSHING NOZZLE



The "Mega 6" produces extreme flushing capabilities for larger lines which makes this a favorite for cleaning storm drains and for culvert cleaning. The anti-tip heavy weighted design makes the Mega 6 a virtual water shovel to flush back all debris.



The red line in the photo depicts the point in which the jets of the nozzle come in contact with the floor of the pipe creating the "water shovel" affect.

**APPLICATIONS:**

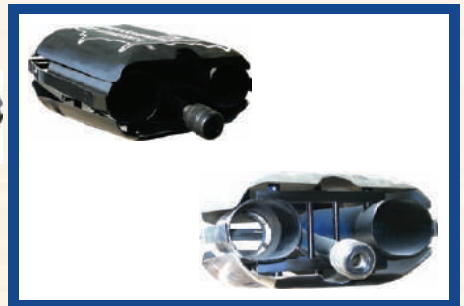
Storm lines, culverts, large diameter pipe lines where a strong flushing floor cleaning nozzle is needed.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52617-00-F	11 x 0°-30°	0	1"	15" - 120"
53641-00-F	11 x 0°-30°	0	1 1/4"	15" - 120"

**POWER JET**  
FLUSHING NOZZLE



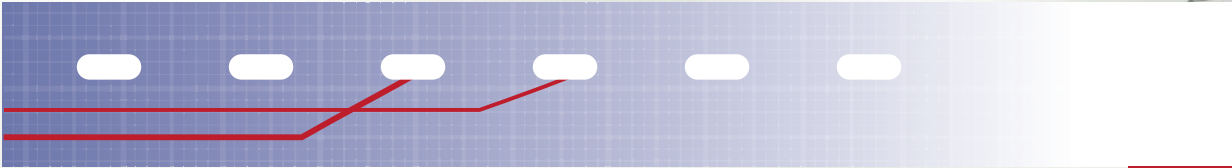
The "Power Jet" injector nozzle uses the water already in the pipe and accelerates it with a venturi pump effect to provide flushing and cleaning of large diameter high-flow lines. Large stones, mud, sand, and litter can all be effectively flushed from the line using this powerful nozzle.



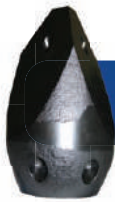
**APPLICATIONS:**

Cleaning large diameter high-flow lines where it is difficult or impractical to plug or reroute the lines for cleaning. Also effective on older lines where pipe walls are delicate.

Part No.	Hose Size	Working Diameter
53262-00-F	1"	18" - 40"
52834-00-F	1"	20" - 80"
52708-00-F	1 1/4"	24" - 100"



**APPLICATIONS:**  
A great nozzle for common obstruction removal and blockage penetration, including ice.



### TRI-STAR PENETRATING NOZZLE

The "Tri-Star" is constructed with six rear thrust jets and four forward thrust jets. This design, combined with the heavy duty forged steel construction, makes this the best blockage penetrator on the market. You will break through blockages quickly to restore flow through the pipe.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52405-01-F	6 x 30°	1 x 0°, 3 x 20°	1/2"	3" - 8"
52374-00-F	6 x 30°	1 x 0°, 3 x 20°	3/4"	4" - 15"
52375-00-F	6 x 30°	1 x 0°, 3 x 20°	1"	6" - 24"



**APPLICATIONS:**  
The ultimate obstruction removing nozzle for extreme blockages and long distance challenges.



### AVANTI PENETRATING NOZZLE

The "Avanti" is a high speed rotational nozzle designed with a hardened steel drilling fixture. The drilling action of this nozzle means it will bore through even the toughest obstructions. This nozzle has rear jets only (no front jets) which means it has a much stronger pull and thrust ability than standard penetrating nozzles.

Part No.	No. & Angle Rear Jets	No. & Angle Spinner Jets	Hose Size	Working Diameter
53246-00-F	3 x 15°	3	1/2"	3" - 8"
53247-00-F	6 x 15°	4	3/4"	4" - 15"
53248-00-F	6 x 15°	4	1"	6" - 24"

Flushing/Accessories

Penetrating Nozzles

**BEST PRODUCTS, BEST LOCAL SUPPORT™**

Flushing/Accessories

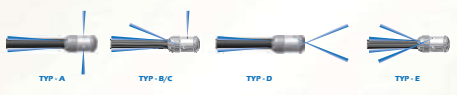
**Rotational Nozzles**

**RDS**  
ROTATIONAL NOZZLES

The "RDS" is a high speed rotational nozzle that cleans the entire inside of the pipe with spinning jets that scour the pipe walls. Offered with four different configurations to match specific cleaning challenges.



**APPLICATIONS:**  
Grease removal, de-scaling, crust elimination, and an excellent secondary blockage removal nozzle after penetration has been established.



Part No.	No. & Angle Rear Jets	No. & Angle Slot Jets	Hose Size	Working Diameter	Type
52419-01-F	3 x 15°	4	1/2"	3" - 8"	A
52419-02-F	3 x 15°	4	1/2"	3" - 8"	B/C
52419-03-F	6 x 15°	4	1/2"	3" - 8"	E
52420-02-F	6 x 15°	4	3/4"	4" - 12"	B/C
52421-01-F	6 x 15°	4	1"	6" - 15"	A
52421-02-F	6 x 15°	4	1"	6" - 15"	B/C
52421-03-F	6 x 15°	4	1"	6" - 15"	E
52422-01-F	6 x 15°	4	1 1/4"	10" - 28"	A
52422-02-F	6 x 15°	4	1 1/4"	10" - 28"	B/C

**ROTOMAX**  
ROTATIONAL NOZZLES

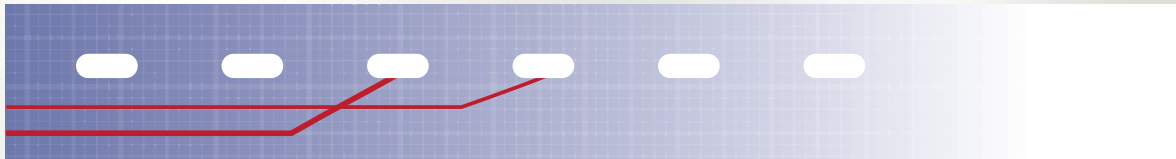
The "Rotomax" nozzle uses a controlled rotational cleaning head which rotates at a lower rotational speed than traditional spinning nozzles. This reduced speed rotation means jetspray contact time is dramatically increased thus allowing for superior cleaning of pipe walls. The Rotomax also has a forward off-set jet that cuts and provides root maintenance.



**APPLICATIONS:**  
Heavy Grease removal and entire pipe cleaning along with excellent root maintenance capabilities.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52423-00-F	6 x 15°	3 + 1 offset forward	1/2"	4" - 8"
52383-00-F	6 x 15°	3 + 1 offset forward	3/4"	4" - 12"
52526-00-F	6 x 15°	6 + 1 offset forward	1"	8" - 20"
52424-00-F	6 x 15°	6 + 1 offset forward	1"	10" - 32"
52425-00-F	6 x 15°	6 + 1 offset forward	1 1/4"	10" - 32"





**APPLICATIONS:**  
Large diameter pipe cleaning up to 120".



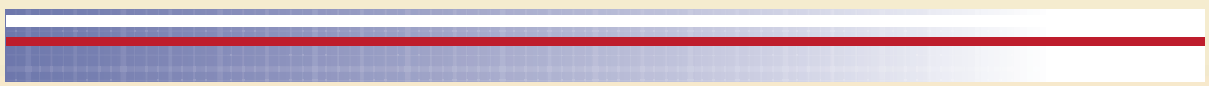
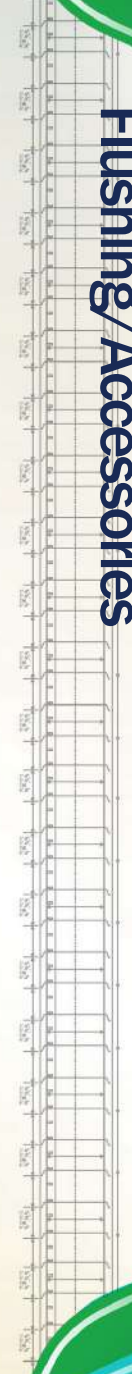
**ROTOJET**  
ROTATIONAL NOZZLE

This state of the art development among rotation nozzles is independently driven, regardless of pressure and volume stream, with a rotation rate between 50 and 300 rotations per minute. Fast removal of solid matter with this rotation system. It is also suited for cleaning tanks and water pipes. Working with a water recovery system on the vehicle is also possible with this nozzle.

Part No.	No. & Angle Rear Jets	No. of Rotation Jets	Hose Size	Working Diameter
53929-00-F	6 x 15	4	1"	6" - 32"
53263-00-F	6 x 20	6	1"	12" - 120"

**Rotational Nozzles**

**Flushing/Accessories**



## BEST PRODUCTS, BEST LOCAL SUPPORT™

Flushing/Accessories

# Cutting Systems

### COMBI CUTTING SYSTEMS

The "Combi" Cutting System is a versatile cutting nozzle that can be fitted with an aggressive drive chain cutter or a less aggressive link chain cutter. The drive chain design is best suited for the most difficult obstructions while the link chain is for older pipes. Each design is easily interchangeable and comes with various lengths for different pipe sizes.



**APPLICATIONS:**  
Aggressive root cutting and mineral deposit removal, and/or general pipe line root maintenance.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52524-00-F	6 x 15°	3 x 90°	1/2"	4" - 8"
52372-00-F	6 x 15°	3 x 90°	3/4"	6" - 18"
52528-00-F	6 x 15°	3 x 90°	1"	6" - 24"

### Drive Chain Replacement Chain For Combi

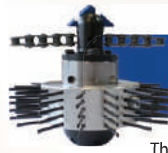
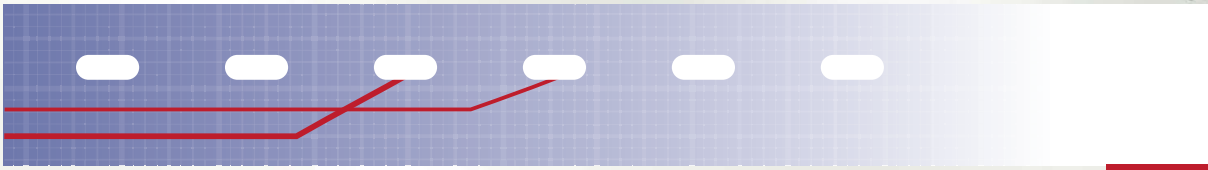


### Link Chain Replacement Chain For Combi



Part No.	No. of Links	Quantity	Working Diameter
22812-02-Z	2	3	4"
22812-04-Z	4	3	6"
22812-06-Z	6	3	8"
22812-08-Z	8	3	10"
22812-10-Z	10	3	12"
22812-12-Z	12	3	14"
22812-14-Z	14	3	16"
22812-16-Z	16	3	18"

Part No.	No. of Links	Quantity	Working Diameter
22811-07-Z	7	3	4"
22811-09-Z	9	3	6"
22811-11-Z	11	3	7"
22811-13-Z	13	3	8"
22811-15-Z	15	3	10"
23292-17-Z	17	3	11"
23292-19-Z	19	3	12"
23292-21-Z	21	3	13"



## EEL CUTTER

CUTTING SYSTEMS

The "EEL Cutter" is a high speed rotational chain cutter utilizing a bristled centering skid to allow it to maneuver through bends, over bad offsets, and around elbows. This unique design allows access to normally impassable areas.

**APPLICATIONS:**  
Small line root cutting.  
Flexible skid allows for travel through bends and over off sets.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52650-00-F	6 x 15°	4 x 90°	1/2"	4" - 6"
52651-00-F	6 x 15°	4 x 90°	3/4"	4" - 6"
52652-00-F	6 x 15°	4 x 90°	1"	6" - 9"



## K114

CUTTING SYSTEMS

The "K114" Cutting System takes over where the Combi Cutter leaves off - handling root cutting and mineral deposit removal in larger diameter lines up to 40". This high speed rotational chain cutter is capable of cutting through the largest and toughest root masses.



**APPLICATIONS:**  
Large line root cutting and mineral deposit removal. Top photo shown with optional Wamax skid for smaller lines. Bottom photo shown with optional Vari-Turn centering skid.

Part No.	No. & Angle Rear Jets	No. & Type Rotor Jets	Hose Size	Working Diameter
53765-00-F	6 x 15°	3 x R 1/2"	1 1/4"	20" - 40"

# Cutting Systems

# Flushing/Accessories



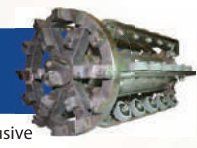
**BEST PRODUCTS, BEST LOCAL SUPPORT™**

Flushing/Accessories

Milling System

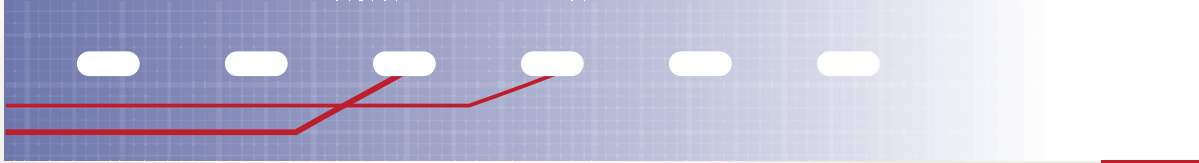
**WAMAX**  
MILLING SYSTEM

The "Wamax" Milling System utilizes an exclusive turbine driven gearing system to generate cutting torque to turn the milling head. This combined with the hammer-drill effect of the cutting wheel makes the Wamax capable of cutting concrete, major mineral deposits, and solid blockages. The internal gearing also allows the system to be used with much lower GPM jetting machines when compared to other milling systems.



**APPLICATIONS:**  
Removal of concrete and major mineral deposits. Available in three sizes – Wamax 100, 200, 300.

Part No.	Type	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
52371-00-F	WAMAX 100	4 x 15°	0	1"	4" - 8"
53261-00-F	WAMAX 200	8 x 10°	0	1"	8" - 34"
54084-00-F	WAMAX 300	8 x 10°	0	1"	12" - 45"



## RADIAL NOZZLE

STANDARD NOZZLE

The standard "RADIAL NOZZLE" is ideal for the most common sewer blockages. Designed to clean lines 4" to 12" in diameter. Available with or without forward jet.

**APPLICATIONS:**  
General cleaning  
This nozzle is rated to 4,000 PSI.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
50973-00-F	5 x 35°	1 x 0°	1/2"	3" - 12"
50975-58-F	5 x 35°	0	1/2"	3" - 12"
50969-00-F	5 x 15°	1 x 0°	1/2"	3" - 12"
50971-22-F	5 x 15°	0	1/2"	3" - 12"



## RADIAL VORTEX

STANDARD NOZZLE

The "RADIAL VORTEX" nozzle combines 15 rear jets for thrust with either 35 or 45 degree angles for effective cleaning. Ideally suited for 8" to 12" lines on a maintenance program. Available with or without forward jet.

**APPLICATIONS:**  
General cleaning  
This nozzle is rated to 4,000 PSI.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
51499-22-F	5 x 15-45°	1 x 0°	1/2"	3" - 12"
54379-75-F	6 x 15-45°	0	1/2"	3" - 12"
51498-22-F	5 x 15-35°	1 x 0°	1/2"	3" - 12"
54380-75-F	6 x 15-35°	0	1/2"	3" - 12"



## SNUB NOSE

STANDARD NOZZLE

The "SNUB NOSE" nozzle is a basic design similar to the standard Radial Nozzle but shorter. The shortness allows for easier negotiation of turns. It is especially effective when working in pipes with small openings. Available with forward jet.

**APPLICATIONS:**  
General cleaning  
This nozzle is rated to 4,000 PSI.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
51726-23-F	5 x 35°	1 x 0°	1/2"	3" - 12"
51109-75-F	6 x 35°	0	1/2"	3" - 12"
51725-22-F	5 x 15°	1 x 0°	1/2"	3" - 12"
51107-75-F	6 x 15°	0	1/2"	3" - 12"

Standard Nozzles

Flushing/Accessories

**BEST PRODUCTS, BEST LOCAL SUPPORT™**

Flushing/Accessories

**Standard Nozzles**

**MINI MISSILE**  
HIGH EFFICIENCY NOZZLE

The "MINI MISSILE" is a solid one piece construction nozzle. The Mini Missile's aerodynamic design combined with 5 degree orifices creates optimum thrust. These large volume orifices also produce massive water output resulting in powerful capabilities.



**APPLICATIONS:**  
Drains, small pipes with limestone, soap and grease build up as well as general pipe cleaning applications. This nozzle is rated to 4,000 PSI.

Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
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52134-48-F	3 x 5°	0	1/2"	3" - 12"
52134-42-F	3 x 5°	1 x 0°	1/2"	3" - 12"

**PULLING EYE**  
STANDARD NOZZLE

The "PULLING EYE" nozzle is used for pulling cable of tag lines for TV and/or Bucket Machines.



**APPLICATIONS:**  
Attach and pull camera  
This nozzle is rated to 4,000 PSI.

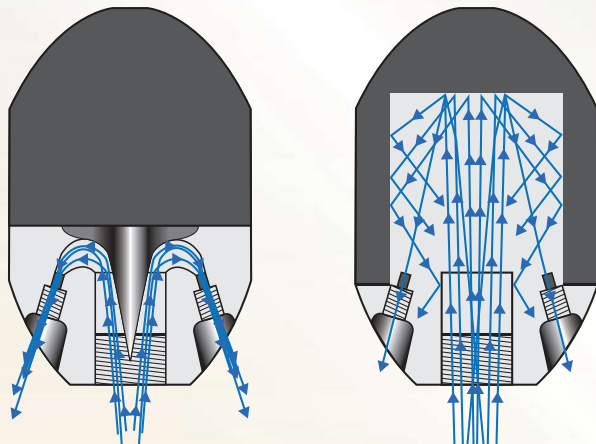
Part No.	No. & Angle Rear Jets	No. & Angle Front Jets	Hose Size	Working Diameter
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51502-23-F	6 x 20°	0	1/2"	3" - 12"
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# WHAT MAKES A SMART NOZZLE™

## Flow Diversion Technology

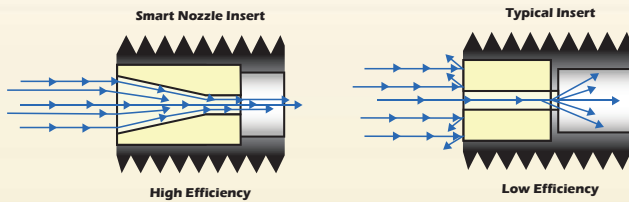


**SMART NOZZLE**

**TYPICAL NOZZLE**

Flow Diversion Technology drastically reduces energy robbing turbulence by more effectively converting the flow and pressure of your water supply into thrust. All this results in your nozzle doing more work while using less energy.

## C3 (Ceramic, Conical, Cylindrical) Orifice



**High Efficiency**

**Low Efficiency**

Water is channeled and shaped via the C3 orifice to create a powerful water core and reduce the inefficient turbulent mist that other orifices allow.

Flushing/Accessories



Flushing/Accessories

# GAMAJET<sup>®</sup> Product Data

## Gamajet E-Z8 Tank Cleaner

CLEANING SYSTEMS, INC.

### A faster, easier way to clean tanks.

The E-Z8 provides the SAME flow as traditional, larger tank cleaners, but this new unit is lighter, shorter and narrower — for much easier entry and maneuverability.

The new Gamajet E-Z8 offers unparalleled ease of handling in a wide variety of tank cleaning applications.

**Safe Easy Handling** – Smaller in diameter than any other fluid driven unit with similar flow characteristics. No power assists required.

Fits through small openings while maintaining the flow required to clean larger vessels.

Light weight, smaller size makes unit easy to move and handle.

Manufactured in the USA for reliability, technical support, and easy service.

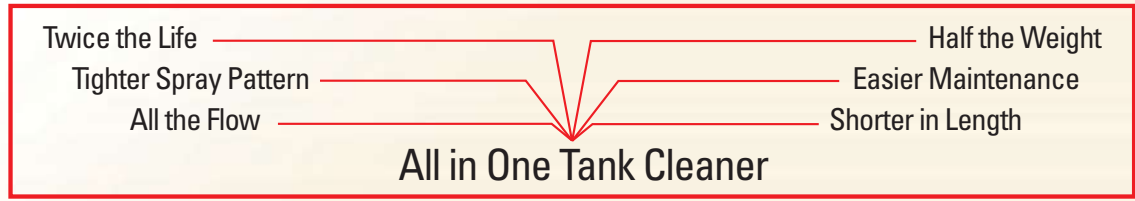
**Durability** – New generation sealed gear technology provides up to double the life compared to current flo-thru lubrication design.

**Efficient** - State of the art gearing, individually designed stators and nozzles, and proper lubrication insure maximum service life and cleaning efficiency.

**Easy access to all working parts** – Standard sizes, minimum number of connections assure simple maintenance. All parts in stock and available on short notice for shipment from our US factory.

**Compatibility** – Offers more choices for O-ring material to allow for greater fluid compatibility when using harsh chemicals.

**Economical** – Develops a pattern that is twice as tight as other larger tank cleaners, insuring a complete scouring of every square inch of a vessel with minimum use of energy and cleaning solutions.



Material of Construction: 316 Stainless Steel  
 Nozzle sizes: 1/4", 9/32", 5/16", 3/8", and 7/16"  
 Stators: Large, Small, LM, and LV  
 Weight: 15 lbs.  
 Length: 11"  
 Minimum Entry Opening: 4-3/4" Dual Nozzle, 6-3/4" Triple Nozzle  
 Inlet Connection: 1 1/2" NPT –Female/2" Quick Disconnect Male (2" NPT or Butt Weld Available)

Flow Range: 25 to 130 gallons per minute  
 Pressure range: 20 to 1000 psig  
 Pattern Coverage: 1-1/2" Dual Nozzle, 1" Triple Nozzle  
 O-Ring Materials: Viton<sup>®</sup>, EPDM, Zalak<sup>®</sup>, Kalrez<sup>®</sup>  
 Minimum Full-Cycle Time: 8 Minutes  
Viton<sup>®</sup>, Zalak<sup>®</sup>, and Kalrez<sup>®</sup> are registered trademarks of DuPont Dow Elastomers

*because your business depends on clean tanks*





**Product Data**

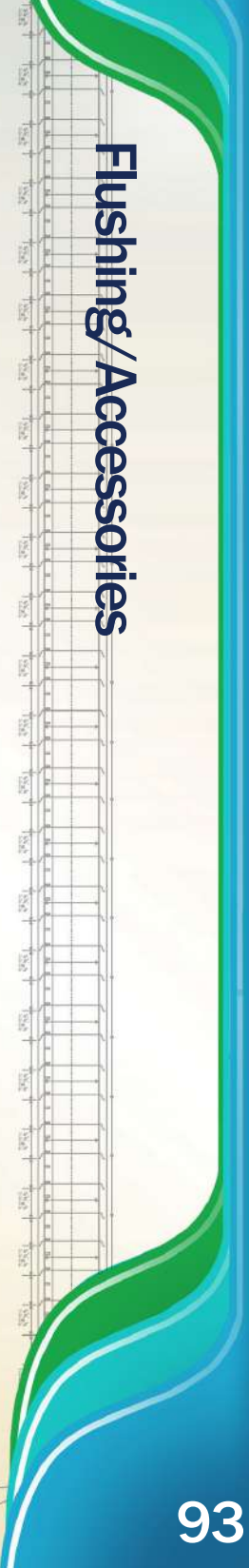
**Gamajet E-Z8**

**Gamajet E-Z8**

Inlet Connection:	1 1/2" NPT-Female / 2" Quick-Disconnect Male. Optional: 2" NPT Female
Construction - Design:	Parts are machined from 316-L Stainless Steel investment castings or bar stock.
Impeller & Final Shafts:	For increased wear resistance, the input and output shafts are plasma-sprayed with a Chromium Oxide coating on Stainless Steel.
Shaft & Gearbox Bushings:	Input shaft thrust is absorbed by a Tungsten carbide bushing. Gearbox bushings are carbon-filled Teflon or other non-cupric material.
Bearings:	Bearings in the rotating tee and nozzle housings are self-lubricating, carbon-fiber-reinforced polyphenylene sulfide.
Bearing Cups:	Main body castings are protected by replaceable 316-L Stainless Steel cups for extended frictional wear life.
Static Seals:	O-Ring materials are selected for each application. Viton is standard with Kalrez, Zalak and EPDM available. Other materials can be supplied on special order.
Dynamic Seals:	Rotary shaft and housing seals are spring-loaded, double-lipped and made of PTFE. They are reinforced for extra long wear and protection against leakage, abrasion and deposit build-up.
Nozzles:	Standard nozzle sizes 1/4" (6.35 mm), 9/32" (7.14 mm), 5/16" (7.94 mm), 3/8" (9.53 mm), 7/16" (11.11 mm) 1/2" (12.10 mm). Other nozzle sizes available upon request.
Drive Mechanism:	The wash fluid enters the Gamajet at the inlet collar where it encounters and spins turbine blades. The turbine blades are attached to the top of the input shaft, the bottom of this shaft is connected to the inside of a sealed, planetary gearhead which then turns the body in the horizontal plane and the nozzles in the vertical plane.
Planetary Gearhead:	The <b>sealed</b> planetary gearhead has an external casing made of steel, surface-anodized to become stainless. This sealed gearhead is located inside the gearbox, which itself is sealed, and thus does not require any lubricant. All internal parts are hardened sintered steel, the end caps and output shaft are stainless steel.
Lubricant:	A food grade grease is <b>inside</b> (Halo-Guard FG-2) the sealed gearhead casing. No additional customer-supplied or user-maintained lubricant is needed.
Operating & Maintenance:	Complete operating and maintenance procedures are covered in a detailed instruction manual furnished with all machines. Ready availability of in-stock spare parts or kits, and the ease of on-site maintenance minimize the need for costly factory repairs. Prompt factory overhaul or repair service is always available. Replacement parts and service kits are stocked year round. Special 24-48 hour delivery available upon request at no extra charge.
Warranty:	Gamajets are warranted for eighteen months from the date of shipment against any defects in workmanship or materials. Normal maintenance parts such as O-rings, bearings, bushings, and seals are not included under this warranty, nor is damage caused by dropping, use of destructively corrosive fluids, or other abuse. This warranty shall not apply to any malfunction resulting from use of non-Gamajet replacement parts purchased from any source other than Gamajet or an authorized Gamajet distributor. For full details, see Gamajet "Terms and Conditions of Sale".



**Flushing/Accessories**



**because your business depends on clean tanks**



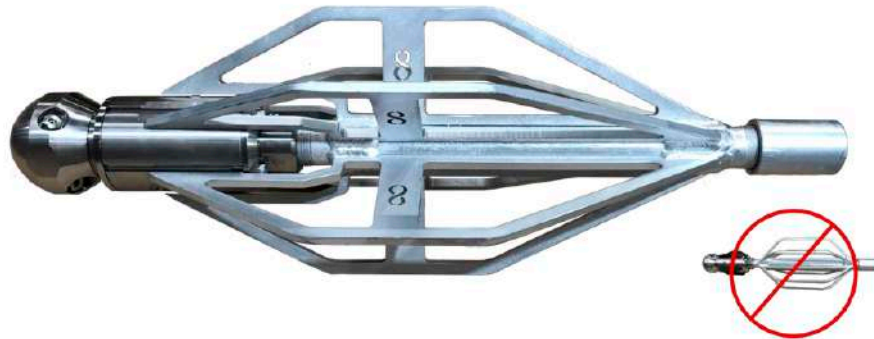
Flushing/Accessories



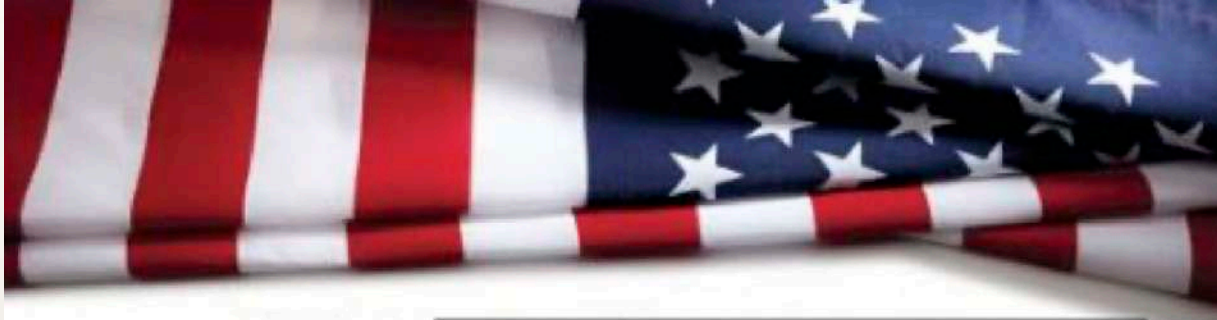
# SEWER SHARK®

## Rotating Nozzle Skids

Sewer Shark® Nozzle Skids are the longest lasting skids available\*. Made from wear resistant AR400 steel, Sewer Shark skids last 2x - 3x longer. Rotating nozzle skids shorten total length and lead to a more balanced assembly. Every skid has the suggested pipe size cut in the fin for easy sizing.



<i>Standard Skids</i>	<i>Rotating Nozzle Skids</i>
4 or 6 Fin configurations	6 Fin configurations
Pipe Sizes from 6" to 12"	Pipe Sizes from 6" to 12"
1/2", 3/4", and 1" hose	1/2", 3/4", and 1" hose



Assembled in the  
**USA**

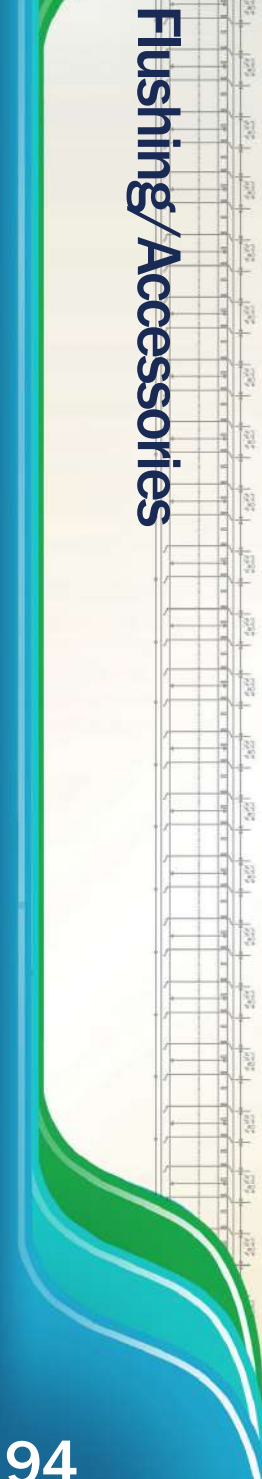


Custom sizes available  
on request



E2 Industries, LLC - Sewer Shark Skids		
Part #	Pipe Size X Hose Size	# of Fins
SS06054	6" x 1/2"	4
SS06754	6" x 3/4"	4
SS06104	6" x 1"	4
SS08054	8" x 1/2"	4
SS08754	8" x 3/4"	4
SS08104	8" x 1"	4
SS10054	10" x 1/2"	4
SS10754	10" x 3/4"	4
SS10104	10" x 1"	4
SS12054	12" x 1/2"	4
SS12754	12" x 3/4"	4
SS12104	12" x 1"	4
SS06056	6" x 1/2"	6
SS06756	6" x 3/4"	6
SS06106	6" x 1"	6
SS08056	8" x 1/2"	6
SS08756	8" x 3/4"	6
SS08106	8" x 1"	6
SS10056	10" x 1/2"	6
SS10756	10" x 3/4"	6
SS10106	10" x 1"	6
SS12056	12" x 1/2"	6
SS12756	12" x 3/4"	6
SS12106	12" x 1"	6
SSWH0605	Warthog 6" x 1/2"	6
SSWH0675	Warthog 6" x 3/4"	6
SSWH0610	Warthog 6" x 1"	6
SSWH0875	Warthog 8" x 3/4"	6
SSWH0810	Warthog 8" x 1"	6
SSWH1075	Warthog 10" x 3/4"	6
SSWH1010	Warthog 10" x 1"	6
SSWH1275	Warthog 12" x 3/4"	6
SSWH1210	Warthog 12" x 1"	6
SSR0875	Standard Rotating 8" x 3/4"	6
SSR0810	Standard Rotating 8" x 1"	6
SSR1275	Standard Rotating 10" x 3/4"	6
SSR1010	Standard Rotating 10" x 1"	6
SSR1275	Standard Rotating 12" x 3/4"	6
SSR1210	Standard Rotating 12" x 1"	6

Flushing/Accessories



# Six Powerful Models

## Table of Contents - Color Coded Sections

	<b>WV-1/4™</b>	<b>2" - 4" Lines for Cart &amp; Trailer Jetters</b>
	<b>WT-3/8™</b>	<b>3" - 6" Lines for Cart &amp; Trailer Jetters</b>
	<b>WS-1/2™</b> & Accessories	<b>4" - 8" Lines for Trailer Jetters</b> <b>WARTHOG Centralizers &amp; Accessories</b>
	<b>WH-1/2™</b> <b>WH-3/4™</b>	<b>Two WH™ Models for 6" - 18" Lines</b>
	<b>WG-1™</b> <b>WD 1-1/4™</b>	<b>8" - 36" Lines for Municipal Jetters</b>

### The WARTHOG® Family of Sewer Nozzles

- Controlled Rotation Cleans Better**  
 With our patented engineering, jets clean pipes more effectively at a controlled and more productive speed.
- Easy Field Maintenance**  
 Customers spend an average of only 15 minutes per year replacing the seals. Step by step instructions make it simple.
- Fewer Jets Deliver More Power**  
 You get more power per jet resulting in superior root cutting and unmatched wall cleaning.
- Replaceable Nozzle Tips**  
 Hard hitting **StoneAge®** Attack Tip™ nozzles are field replaceable and keep your tool performing at its best.

*All these features make it possible to cut roots, clear grease, ice blockages and remove hard mineral deposits with just one tool!*

### WARTHOG® - 6 Models to Fit Your Pumps

MODEL	PIPES	PRES.	FLOW	LENGTH	DIAM.	INLET PORT
<b>WV-1/4™</b>	2" - 4"	4k psi	3-8 gpm 11-30 lpm	2.0 in.	1.3 in.	1/4" npt & BSPP
<b>WT-3/8™</b>	3" - 6"	4k psi	5-12 gpm 20-45 lpm	3.0 in.	1.9 in.	3/8" npt & BSPP
<b>WS-1/2™</b>	4" - 8"	4k psi	8-20 gpm 25-75 lpm	4.4 in.	1.7 in.	1/2" npt
<b>WH-1/2™ &amp; 3/4™</b>	6" - 18"	8k psi	10-45 gpm 40-170 lpm	7.5 in.	3.1 in.	1/2" or 3/4" npt or BSPP
<b>WG-1™</b>	8" - 36"	3k psi	50-80 gpm 190-300 lpm	9.1 in.	4.2 in.	1" npt or BSPP
<b>WD 1-1/4™</b>	8" - 36"	3k psi	80-120 gpm 300-450 lpm	9.1 in.	4.2 in.	1-1/4" npt or BSPP

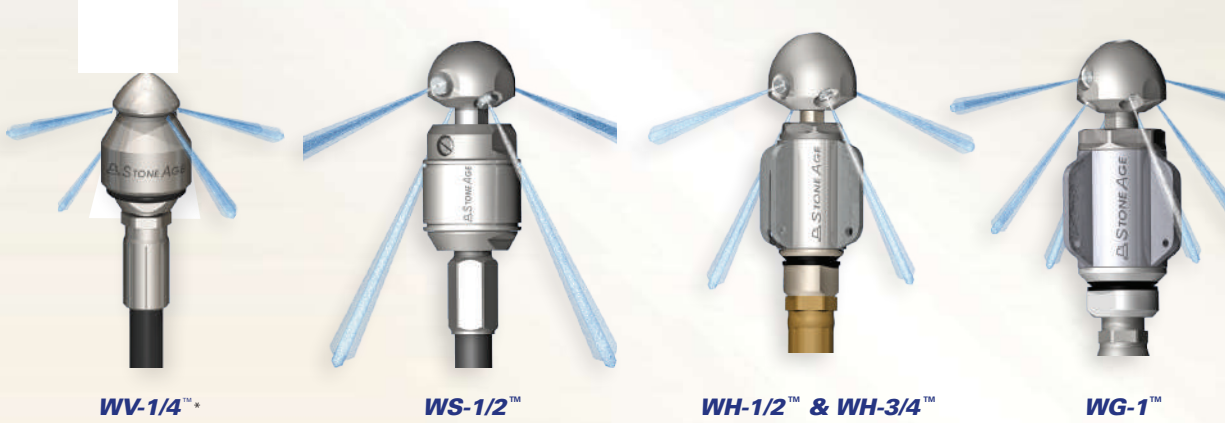




# WARTHOG® Accessories

## Optional Descaling Heads Maximize Wall Cleaning Power

For the models illustrated below this optional head allows you the flexibility to load nozzles into the standard jetting configuration for normal sewer cleaning, or switch nozzle locations for incredible wall cleaning power. Your **WARTHOG®** can be upgraded to the descaling head option easily. The difference in the jetting pattern is that two additional jet ports have been added at 105°. In addition, the front boring jet has been plugged to ensure maximum power is delivered to the scale removing jets. The result is enhanced removal of scale, tuberculation, corrosion products, soap and minerals.



**WV-1/4™**

**WS-1/2™**

**WH-1/2™ & WH-3/4™**

**WG-1™**

## Soft Dig Heads are Perfect for Hydro-Excavation

There is a rapidly growing technology within the vacuum truck industry called Hydro-Excavation, where contractors can utilize their vacuum trucks to replace manual digging. This is a real benefit for companies that need to locate utility lines without the dangers of heavy industrial equipment. **StoneAge®** designed a simple and inexpensive assembly with two 1/4" npt **Attack Tip™** nozzles and a protective guard installed into a stainless steel head. The head threads directly onto the end of your 3/4" npt and allows for safe and effective excavation. The guard prevents abrasive splashback from damaging the stainless steel head. The **Attack Tips™** are replaceable, allowing operators to change nozzles from truck to truck.

**SD 100™**



### Super Centralizers

## WARTHOG® Centralizers



Super Centralizers are available for all **WARTHOGS®** except the **WV-1/4™** and the **WT-3/8™**. These cages provide several benefits, including:

- Keeps tool centered in pipe
- Reduces wear on the tool
- Provides standoff for jets

### Super Centralizers

MODEL	Part #	Diameter
<b>WS-1/2™</b>	<b>WS 084</b>	4.5 in.
<b>WH-1/2™ &amp; WH 3/4™</b>	<b>WH 085</b>	5.5 in.
<b>WG-1™</b>	<b>WG 085</b>	6.85 in.
<b>WD 1-1/4™</b>	<b>WG 085</b>	6.85 in.

Flushing/Accessories

# WH-1/2™ & WH-3/4™ Specs

Flushing/Accessories



## WARTHOG® WH-1/2™ and WH 3/4™

The **WH-1/2™** and the **WH-3/4™** are the same tool but offered with different inlet port sizes to match either 1/2" or 3/4" npt or BSPP.

### WH-1/2™ & WH-3/4™ Service & Overhaul Kits

#### WH 600 - Service Kit

- 1 BJ 048-F Viscous Fluid, Fast - 6oz.
- 1 BJ 062-S Antiseize, 2g
- 1 GP 025-P2 Hex Socket Plug
- 1 TJ 011 Brass Seat
- 1 WH 012-O H.P. Seal & O-Ring

#### WH 602 - Seal Kit

- 1 TJ 011 Brass Seat
- 1 WH 012-O H.P. Seal & O-Ring

#### WH 612 - Tool Kit

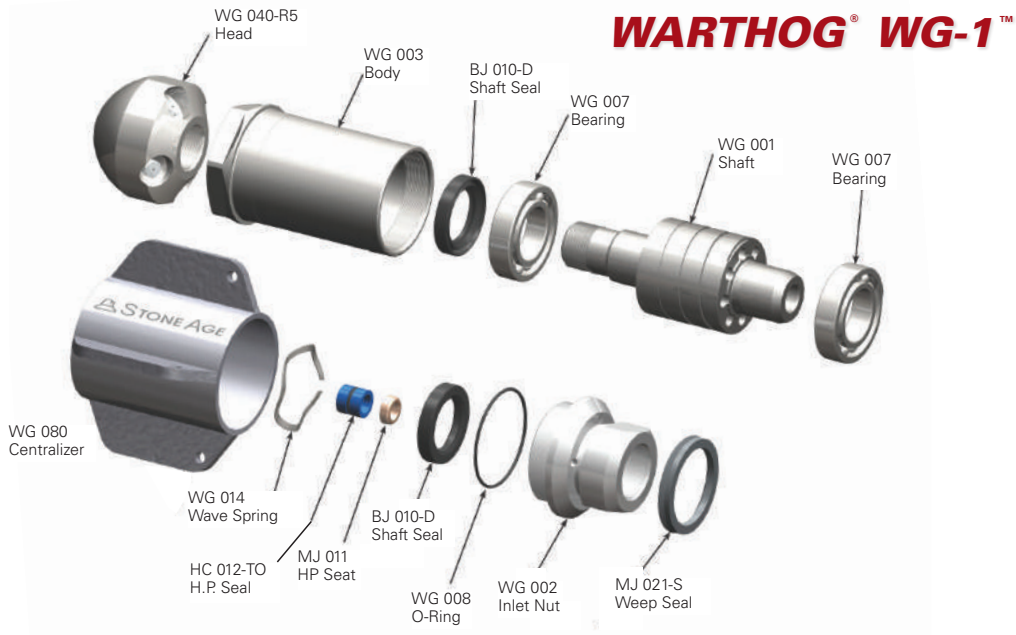
- 1 TJ 064 Fill Tube
- 1 WH 105 Tool

#### WH 610 - Overhaul Kit

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



# WG-1™ & WD 1-1/4™ 8" - 36" Lines




Flushing/Accessories



**COBRA** sewer cleaning hose is engineered and manufactured to handle the toughest and most harsh conditions found in high-pressure sewer cleaning applications. Its thermoplastic composition and unique bonded construction allows for a flexible and light-weight hose, along with superior kink resistance, and improved fitting retention. The high tensile strength polyester reinforcement provides for exceptional low volumetric expansion and eliminates moisture absorption. **Cobra** also features a tough polyether-urethane cover that offers maximum resistance to cutting, abrasion, various chemicals, and fungus.

In accordance with *WASTEC* (formerly *WEMI*) specifications, **Cobra** sewer cleaning hose offers a cream colored inner tube and corresponding markings on all assembly components. **Cobra** hose cover colors conform to industry standards for maximum operating pressure ratings.


**SERIES 4625 COBRA SEWER CLEANING HOSE – 2500 PSIG WORKING PRESSURE**

		Nominal Size		Pressures		Min. Bend Radius	Weight Per 100'
		I.D.	O.D.	Max. W.P.	Min Burst		
Series #	Cover Color	Inches	Inches	PSIG	PSIG	Inches	(Lbs.)
4625-12	Orange	3/4	1.140	2500	6250	4.0	29.0
4625-16	Orange	1	1.445	2500	6250	6.0	38.0

**Tube:** Polyester core tube. Cream color.  
**Cover:** Orange abrasion resistant polyurethane.  
**Branding:** Black letter ink jet branding.

**Reinforcement:** Braided polyester fibers.  
**Temperatures:** -40°F. to +135°F. (-40°C. to +57°C.)


**SERIES 4630 COBRA SEWER CLEANING HOSE – 3000 PSIG WORKING PRESSURE**

		Nominal Size		Pressures		Min. Bend Radius	Weight Per 100'
		I.D.	O.D.	Max. W.P.	Min Burst		
Series #	Cover Color	Inches	Inches	PSIG	PSIG	Inches	(Lbs.)
4630-12	Blue	3/4	1.170	3000	7500	4.0	30.0
4630-16	Blue	1	1.470	3000	7500	8.0	46.0

**Tube:** Polyester core tube. Cream color.  
**Cover:** Blue abrasion resistant polyurethane.  
**Branding:** Black letter ink jet branding.

**Reinforcement:** Braided polyester fibers.  
**Temperatures:** -40°F. to +135°F. (-40°C. to +57°C.)

**SERIES 4640 COBRA SEWER CLEANING HOSE – 4000 PSIG WORKING PRESSURE**

		Nominal Size		Pressures		Min. Bend Radius	Weight Per 100'
		I.D.	O.D.	Max. W.P.	Min Burst		
Series #	Cover Color	Inches	Inches	PSIG	PSIG	Inches	(Lbs.)
4640-08	Lime Green	1/2	.89	4000	10,000	4.0	19.5

**Tube:** Polyester core tube. Cream color.  
**Cover:** Green abrasion resistant polyurethane.  
**Branding:** Black letter ink jet branding.

**Reinforcement:** Braided polyester fibers.  
**Temperatures:** -40°F. to +135°F. (-40°C. to +57°C.)

For safety assurance, Cobra sewer cleaning hose is factory tested and **sold as assemblies only.**





## FITTINGS & TOOLING FOR FIELD COUPLING OF COBRA SEWER CLEANING HOSE

POLYFLOW offers the **Cobra** Swage Tools for the field attachment of end fittings and menders. To assure proper matching of all components, the hose tube, material, end fittings, menders, and tooling must be color coded white. It is important to note that fittings and menders for thermoplastic hose are not necessarily interchangeable. By following the **Cobra** hose inspection instruction card (included with each reel of hose), and swage assembly instructions, the user can be assured of making an acceptable hose assembly.

### COUPLINGS



Part #	Male Thread	Hose Size
8MP-8SC	1/2" NPTF	1/2"
12MP-12SC	3/4" NPTF	3/4"
16MP-16SC	1" NPTF	1"

### MENDERS



Part #	Hose Size
SCM-08	1/2"
SCM-12	3/4"
SCM-16	1"

### PUSHERS & DIES

Hose Size	Dies	Pushers	
		PF-200 Swager	PF-100 Swager
1/2" I.D.	4540-H0800	10P	4599-MP009
3/4" I.D.	4540-H1200	12P	4599-MP011
1" I.D.	4540-H1600	16P	4599-MP013

### Part Numbers For Hose Reel Assemblies-MP x MP Pipe

Hose Type & Size	Working Pressure	Length of Reel
4625-12-400	2500 PSI	400'
4625-12-500	2500 PSI	500'
4625-12-600	2500 PSI	600'
4625-12-800	2500 PSI	800'
4625-16-400	2500 PSI	400'
4625-16-500	2500 PSI	500'
4625-16-600	2500 PSI	600'
4625-16-800	2500 PSI	800'
4630-12-400	3000 PSI	400'
4630-12-500	3000 PSI	500'
4630-12-600	3000 PSI	600'
4630-12-800	3000 PSI	800'
4630-16-400	3000 PSI	400'
4630-16-500	3000 PSI	500'
4630-16-600	3000 PSI	600'
4630-16-800	3000 PSI	800'
4640-08-400	4000 PSI	400'
4640-08-500	4000 PSI	500'
4640-08-600	4000 PSI	600'

### COBRA SWAGE TOOLS

The **Cobra** swage tools are both portable and simple to use. These machines are designed to attach both end fittings and menders.

#### PF-200 Swager

**Cobra Swage Machine**  
P/N **Cobra PF-200**  
(Couplings & menders)  
Add (1) pushers, (2) dies for  
Attaching menders and couplings

#### PF-100 Swager

**Cobra Hand Operated Swage Machine**  
P/N **Cobra PF-100**  
(Couplings only)



Flushing/Accessories





## New Generation Cobra "Tuff-Skin"

### Sewer Cleaning Hose

Flushing/Accessories

**Poly-Flow** has blended **over 25 years** of hose engineering and state-of-the-art technology to provide a new revolutionary line of **Cobra "Tuff-Skin"** Sewer Cleaner/Water Jetting Hose.

Building upon the current outstanding characteristic of our standard **Cobra** product, this new, proprietary, polyurethane cover compound has been specially formulated for outstanding low coefficient of friction (less drag), and superior abrasion resistance for the toughest of applications.

The new **Cobra "Tuff-Skin"** product was not only designed for improved protection from the harsh environment, but for increased efficiency as well. Due to the special design, less water pressure is needed to move the hose, resulting in greater water pressure and jetting action at the nozzle.

**Better Coupling Retention**  
By utilizing a coupling with better cold flow characteristics, the **Cobra "Tuff-Skin"** hose has exceptional coupling retention.

**75% - Coefficient of Friction**  
Test reports show that the new **Cobra "Tuff-Skin"** cover reduces the coefficient of friction by up to 75% over standard polyurethane covers (less drag).

**67% - Superior Abrasion**  
Tests report a 67% improvement in abrasion and chatter gouging our standard polyurethane covers with the new **Cobra "Tuff-Skin"** cover.

**Thicker Cover**  
15-20% thicker cover for added protection.

**Proprietary Tube**  
Specially blended polyester tube for improved flexibility and performance.

**Better Bond**  
Proprietary bonding process that provides exceptional adhesion – tube to braid and braid to cover.



**Better Technology.  
Better Hose.**



# THERMOPLASTIC SEWER CLEANING HOSE AND FITTINGS



## SEWER CLEANING HOSE

## HOSE PRODUCTS

UEMSI PART NUMBER	HOSE COLOR	MAX OP. PRESSURE PSI	SIZE
UEM5500-400	Black	4000 PSI	1/2" x 400'
UEM5500-500	Black	4000 PSI	1/2" x 500'
UEM5500-600	Black	4000 PSI	1/2" x 600'
UEMP500-400	Green	4000 PSI	1/2" x 400'
UEMP500-500	Green	4000 PSI	1/2" x 500'
UEMP500-600	Green	4000 PSI	1/2" x 600'
UEMP5005-400	Red	5000 PSI	1/2" x 400'
UEMP5005-500	Red	5000 PSI	1/2" x 500'
UEMP5005-600	Red	5000 PSI	1/2" x 600'
UEMP550-400	Orange	2500 PSI	5/8" x 400'
UEMP550-500	Orange	2500 PSI	5/8" x 500'
UEMP550-600	Orange	2500 PSI	5/8" x 600'
UEMP5504-400	Black	4000 PSI	5/8" x 400'
UEMP5504-500	Black	4000 PSI	5/8" x 500'
UEMP5504-600	Black	4000 PSI	5/8" x 600'
UEMP225-400	Orange	2500 PSI	3/4" x 400'
UEMP225-500	Orange	2500 PSI	3/4" x 500'
UEMP225-600	Orange	2500 PSI	3/4" x 600'
UEMP225-800	Orange	2500 PSI	3/4" x 800'
UEMP230-400	Blue	3000 PSI	3/4" x 400'
UEMP230-500	Blue	3000 PSI	3/4" x 500'
UEMP230-600	Blue	3000 PSI	3/4" x 600'
UEMP230-800	Blue	3000 PSI	3/4" x 800'
UEMP625-300	Orange	2500 PSI	1" x 300'
UEMP625-400	Orange	2500 PSI	1" x 400'
UEMP625-500	Orange	2500 PSI	1" x 500'
UEMP625-600	Orange	2500 PSI	1" x 600'
UEMP625-700	Orange	2500 PSI	1" x 700'
UEMP625-800	Orange	2500 PSI	1" x 800'
UEMI625-900	Orange	2500 PSI	1 x 900'
UEMI625-1000	Orange	2500 PSI	1 x 1000'
UEMP630-400	Blue	3000 PSI	1" x 400'
UEMP630-500	Blue	3000 PSI	1" x 500'
UEMP630-600	Blue	3000 PSI	1" x 600'
UEMP630-700	Blue	3000 PSI	1" x 700'
UEMP630-800	Blue	3000 PSI	1" x 800'

Flushing/Accessories



**SEWER HOSE AND REPAIR FITTINGS**

All sewer hose and repair fitting tools are manufactured to National Solid Waste Management Association standards. To protect against personal death or injury, inspect and repair the sewer hose per NSWMA standards.

UEMSI\* HYDRAULIC SWAGE MACHINE AND MENDING EQUIPMENT IS APPROVED BY PIRANHA® HOSE PRODUCTS

ALL FITTINGS LISTED BELOW ARE TO BE USED PIRANHA® SEWER CLEANING HOSE ONLY, WHICH CAN BE IDENTIFIED BY THE **YELLOW** INNER CORE AS MANDATED BY THE WASTEC ASSOC.

Flushing/Accessories



PIRANHA®  
HOSE MENDER



PIRANHA®  
MALE HOSE END



PIRANHA® PUSHER PLATE



PIRANHA® DIE PLATE



PIRANHA®  
FEMALE SWIVEL ADAPTER



PIRANHA® SWAGE MACHINE

**MENDING EQUIPMENT**

UEMSI\* HYDRAULIC SWAGE MACHINE AND MENDING EQUIPMENT IS APPROVED BY PIRANHA® HOSE PRODUCTS

ALL FITTINGS LISTED BELOW ARE TO BE USED PIRANHA® SEWER CLEANING HOSE ONLY, WHICH CAN BE IDENTIFIED BY THE **YELLOW** INNER CORE AS MANDATED BY THE WASTEC ASSOC.

**HOSE ACCESSORIES**

UEMSI PART NUMBER	Description	SIZE
UEM110-Case	Case - Shipping/Storage	UEMSI Hydraulic Swage Machine
UEM110P	Yellow Swage Machine Only	w/o Wheels
UEM110PR	Yellow Swage Machine Only	w/ Wheels
UEM111P	Yellow Swage Machine w/o Wheels	3/4" (2) Die Sets & (1) Pusher Plate
UEM111PR	Yellow Swage Machine w/ Wheels	3/4" (2) Die Sets & (1) Pusher Plate



HOSE PRODUCTS  
& ACCESSORIES





## HOSE ACCESSORIES CONTINUED

UEMSI PART NUMBER	Description	SIZE
UEM112P	Yellow Swage Machine w/o Wheels	1" (2) Die Sets & (1) Pusher Plate
UEM112PR	Yellow Swage Machine w/ Wheels	1" (2) Die Sets & (1) Pusher Plate
UEM113P	Yellow Swage Machine w/o Wheels	1 1/4" Machine Only
UEM113PR	Yellow Swage Machine w/Wheels	1 1/4" Machine Only
UE1050-SW	Portable Hand Swage Machine	1/2" to 1" Hose
UE1050-HSW	Hydraulic Piranha Swage Machine	1/2" to 1 1/4" Hose
UE1050-D	Die Set (SHP-8 4000 PSI)	1/2"
UE1050-P	Pusher Plate (SHP-8 4000 PSI)	1/2"
UE1050FS	Female Swivel Adapter use UEMSI Part #: UEM5050FS	1/2"
UE1050HM	Piranha Hose Mender for (SHP-8 4000 PSI)	1/2"
UE1050ME	Male Hose End (SHP-8 4000 PSI)	1/2"
UE1050MES	Male Hose End (SHP-8 4000 PSI)	1/2"
UE1121-D	Die Set 2500 & 3000 PSI	3/4"
UE1121-PH	Pusher Plate 2500 & 3000 PSI	3/4"
UEM7575FS	Female Swivel Adapter	3/4"
UE1121	Male Hose End	3/4"
UE1122	Hose Mender	3/4"
UE1162-D	Die Set	1" 2500 & 3000 PSI
UE1162-PH	Pusher Plate	1" for 2500 & 3000 PSI
UE1161	Male Hose End	1"
UE1162	Hose Mender	1"
UEM1010FS	Female Swivel Adapter	1"
UE1225-D *	Die Set	1-1/4"
UE1225-P *	Pusher Plate	1-1/4"
UE1225-HM *	Hose Mender	1-1/4"
UE1225-ME	Male Hose End	1-1/4"
UEM125125FS	Female Swivel Adapter	1-1/4"

\*

### UE1225-D

THIS DIE SET IS THE "TAPERED" VERSION, IF IT IS GOING TO BE USED ON A UEMSI HYDRAULIC SWAGE MACHINE, IT MUST BE SOLD WITH THE HOLDER WITH IT, PART NUMBER UE1162-H. THIS IS ONLY IN THE CASE OF THE CUSTOMER WANTING TO PUT MALE ENDS ON THEIR HOSE ONLY!!!

### UE1225-HM

IF THE CUSTOMER WANTS TO MEND HOSE, THEN THEY WILL NEED TO BUY AN ORIGINAL PIRANHA SWAGE MACHINE IN ORDER TO DO THIS, PART NUMBER UE1050-HSW.

### UE1225-P

THIS PUSHER PLATE IS THE "TAPERED" VERSION, IF IT IS GOING TO BE USED ON A UEMSI HYDRAULIC SWAGE MACHINE, IT MUST BE SOLD WITH THE HOLDER WITH IT, PART NUMBER UE1162-H. THIS IS ONLY IN THE CASE OF THE CUSTOMER WANTING TO PUT MALE ENDS ON THEIR HOSE ONLY!!!



Flushing/Accessories



**SEWER HOSE AND REPAIR FITTINGS**

All sewer hose and repair fitting tools are manufactured to National Solid Waste Management Association standards. To protect against personal death or injury, inspect and repair the sewer hose per NSWMA standards.

# THERMOPLASTIC SEWER CLEANING HOSE AND FITTINGS



## HOSE PRODUCTS

UEMSI PART NUMBER	HOSE COLOR	MAX OP. PRESSURE PSI	SIZE
UEMI500-400	Green	4000 PSI	1/2" X 400'
UEMI500-500	Green	4000 PSI	1/2" X 500'
UEMI500-600	Green	4000 PSI	1/2" X 600'
UEMI500-800	Green	4000 PSI	1/2" X 800'
UEMI510-500	Green	4000 PSI	5/8" X 500'
UEMI225-400	Orange	2500 PSI	3/4" X 400'
UEMI225-500	Orange	2500 PSI	3/4" X 500'
UEMI225-600	Orange	2500 PSI	3/4" X 600'
UEMI225-800	Orange	2500 PSI	3/4" X 800'
UEMI230-400	Blue	3000 PSI	3/4" X 400'
UEMI230-500	Blue	3000 PSI	3/4" X 500'
UEMI230-600	Blue	3000 PSI	3/4" X 600'
UEMI230-800	Blue	3000 PSI	3/4" X 800'
UEMI625-400	Orange	2500 PSI	1" X 400'
UEMI625-500	Orange	2500 PSI	1" X 500'
UEMI625-600	Orange	2500 PSI	1" X 600'
UEMI625-700	Orange	2500 PSI	1" X 700'
UEMI625-800	Orange	2500 PSI	1" X 800'
UEMI630-400	Blue	3000 PSI	1" X 400'
UEMI630-500	Blue	3000 PSI	1" X 500'
UEMI630-600	Blue	3000 PSI	1" X 600'
UEMI630-700	Blue	3000 PSI	1" X 700'
UEMI925-400	Orange	2500 PSI	1 1/4" X 400'
UEMI925-500	Orange	2500 PSI	1 1/4" X 500'
UEMI925-600	Orange	2500 PSI	1 1/4" X 600'
UEMI925-800	Orange	2500 PSI	1 1/4" X 800'
S624-500	Orange	1 1/2" X 500'	
S624-600	Orange	1 1/2" X 600'	
UEM110-Case	Case-Shipping	UEMSI Hydraulic SM	
UEM110	Swage Machine Only	w/o Wheels	
UEM110R	Swage Machine Only	w/ Wheels	
UEM111	Swage w/o Wheels	3/4" (2) Die Sets (1) Pusher	
UEM75125-SW	Hand Swage	3/4" - 1 1/4" Fitting	

Flushing/Accessories





ALL FITTINGS LISTED BELOW ARE TO BE USED ON HOSE WITH A DARK GRAY INTERIOR COLOR ONLY

**SEWER HOSE AND REPAIR FITTINGS**

*All sewer hose and repair fitting tools are manufactured to National Solid Waste Management Association standards. To protect against personal death or injury, inspect and repair the sewer hose per NSWMA standards.*

UEMSI PART NUMBER	DESCRIPTION	SIZE
UEM7523-D	Die Set	3/4" 2500 & 3000 PSI
UEM7523-P	Pusher Plate	3/4" 2500 & 3000 PSI
UEM1025-D	Die Set	1" 2500 PSI
UEM1030-D	Die Set	1" 3000 PSI
UEM1023-P	Pusher Plate	1" 2500 & 3000 PSI
UEM1225-D	Die Set	1 1/4" 2500 PSI
UEM1225-P	Pusher Plate	1 1/4" 2500 PSI
UEM7575ME	Male Hose End	3/4"
UEM7575FS	Female Hose Swivel	3/4"
UEM7575HM	Hose Mender	3/4"
UEM1010ME	Male Hose End	1"
UEM1010FS	Female Hose Swivel	1"
UEM1010HM	Hose Mender	1"
UEM125125MES	Male Hose End	1 1/4"
UEM125125FS	Female Hose Swivel	1 1/4"
UEM125125HM	Hose Mender	1 1/4"
UEMJJ2424FS	Female Swivel Adapter	1 1/2"
UEMJJ2424ME	Male Hose End	1 1/2"

Flushing/Accessories



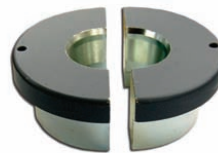
Male End



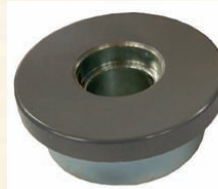
Hose Mender



FEMALE SWIVEL ADAPTER



Die Set



Pusher Plate



Hydraulic Swage Machine





Flushing/Accessories

### ROOT CUTTER KITS

UEMSI Root Cutter Kits contain our "Supreme" saw blades, skids, wrenches, (2) exhaust orifices and tool box. The root cutter kits are designed to utilize a high torque and low RPM principal. The units can operate from 35 to 80 GPM and do the best job when operated at between 900 & 1500 PSI. Available for use with 3/4" and 1" sewer cleaning hose.



Complete Kits Include Tool Box, Choice Of 4 "Supreme"Blades, Choice Of Skids, Motor With Tail Nozzle, & Wrenches

### MAINLINE KITS

- 950-0000C - Complete Kit with Concave Blades - Regular Skids 45lbs
- 950-0000CW - Complete Kit with Concave Blades - Wheel Skids 52lbs
- 950-0000F - Complete Kit with Flat Blades - Regular Skids 43lbs
- 950-0000FB - Complete Kit with Flex Blades - Regular Skids 50lbs
- 950-0000W - Complete Kit with Spiral Blades - Wheel Skids 52lbs
- 950-0000S - Complete Kit with Spiral Blades - Regular Skids 50lbs
- 950-0000CAK - Complete Kit with CAK tool Assembly - Regular Skids
- 950-0000NB - Complete Kit with No Blades - Regular Skids
- 950-1000C - Complete Kit with Concave Blades & Donut Skids 50lbs
- 950-1000F - Complete Kit with Flat Blades & Donut Skids 50lbs
- 950-1000S - Complete Kit with Spiral Blades & Donut Skids 50lbs
- 950-1000FB - Complete Kit with Flex Blades & Donut Skids 50lbs



**Mainline Root Cutter**  
Motor & Tail Nozzle  
950-1115

### LATERAL KITS



**Lateral Root Cutter**  
Motor & tail Nozzle  
950-219

- 950-2000F - Complete Kit with Flat Blades - Regular Skids 25lbs
- 950-2000C - Complete Kit with Concave Blades - Regular Skids 25lbs
- 950-2000S - Complete Kit with Spiral Blades - Regular Skids 30lbs
- 950-2000NB - Complete Kit with No Blades - Regular Skids

### CAK Tool™

Only Available In Mainline Blades Available In 5" & 7" Cables Available In 6" - 30"



**CAK Tool Kit**  
Part # 950-5000

### SKIDS \* Call For Part Numbers

Mainline: Regular And Wheeled Available In 6"-15"  
- Front/Rear Donut Skids Also Available  
Lateral: Regular Available In 4"-12"



Regular Skid



Wheeled Skid



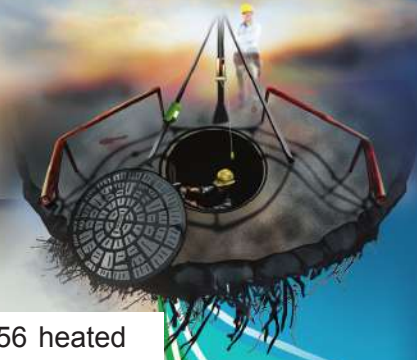
Donut Front Skid



Donut Rear Skid







UEMSI "Supreme" Saw Blades are over 2" wide and have a wall thickness of .156 heated treated, spring steel. The recommended use is for moderate to heavy root cutting applications in all types of sewer pipe.

**Spiral Saw Blade**



Spiral Supreme Saw Blade without Hub

**Concave Saw Blade**



Concave Supreme Saw Blade without Hub

**Flat Saw Blade**



Flat Supreme Saw Blade without Hub

UEMSI Part #	Size
7600-4 1 lbs	4" Spiral Blade
7600-6 2 lbs	6" Spiral Blade
7600-8 3 lbs	8" Spiral Blade
7600-10 5 lbs	10" Spiral Blade
7600-12 6 lbs	12" Spiral Blade
7600-15 6.5 lbs	15" Spiral Blade
7600-18 7.5 lbs	18" Spiral Blade

UEMSI Part #	Size
7600C-4 1 lbs	4" Concave Blade
7600C-6 2 lbs	6" Concave Blade
7600C-8 3 lbs	8" Concave Blade
7600C-10 5 lbs	10" Concave Blade
7600C-12 6 lbs	12" Concave Blade
7600C-15 6.5 lbs	15" Concave Blade
7600C-18 7.5 lbs	18" Concave Blade

UEMSI Part #	Size
7600F-4 1 lbs	4" Flat Blade
7600F-6 2 lbs	6" Flat Blade
7600F-8 3 lbs	8" Flat Blade
7600F-10 5 lbs	10" Flat Blade
7600F-12 6 lbs	12" Flat Blade
7600F-15 6.5 lbs	15" Flat Blade
7600F-18 7.5 lbs	18" Flat Blade

**Spiral Supreme Saw Blade**



Spiral Supreme Saw Blade with Hub

**Concave Supreme Saw Blade**



Concave Supreme Saw Blade with Hub

**Flat Supreme Saw Blade**



Flat Supreme Saw Blade with Hub

UEMSI Part #	Size
7600-4H 2.1 lbs	4" Spiral Blade
7600-6H 3.1 lbs	6" Spiral Blade
7600-8H 4.1 lbs	8" Spiral Blade
7600-10H 6.1 lbs	10" Spiral Blade
7600-12H 7.1 lbs	12" Spiral Blade
7600-15H 7.5 lbs	15" Spiral Blade
7600-18H 8.5 lbs	18" Spiral Blade

UEMSI Part #	Size
7600C-4H 2.1 lbs	4" Concave Blade
7600C-6H 3.1 lbs	6" Concave Blade
7600C-8H 4.1 lbs	8" Concave Blade
7600C-10H 6.1 lbs	10" Concave Blade
7600C-12H 7.1 lbs	12" Concave Blade
7600C-15H 7.5 lbs	15" Concave Blade
7600C-18H 8.5 lbs	18" Concave Blade

UEMSI Part #	Size
7600F-4H 2.1 lbs	4" Flat Blade
7600F-6H 3.1 lbs	6" Flat Blade
7600F-8H 4.1 lbs	8" Flat Blade
7600F-10H 6.1 lbs	10" Flat Blade
7600F-12H 7.1 lbs	12" Flat Blade
7600F-15H 7.5 lbs	15" Flat Blade
7600F-18H 8.5 lbs	18" Flat Blade



Flushing/Accessories



Flushing/Accessories

# THE RIPPER

*"The most effective tool for root removal on the market"*



DML has been developing and testing the "RIPPER" for over 4 years, cleaning miles of storm and sanitary sewers of various types and sizes, much of it in backlot areas that could never be safely accessed before. This extensive testing

has included TV inspection to evaluate the effectiveness of the "RIPPER", with dynamic results. The "RIPPER" will clean sewers like you never could before, better than you ever could before.



The "RIPPER" has been developed by sewer professionals for sewer professionals.



Example of Ripper Kit with 8", 10" & 12"

The "RIPPER" is a root clearing tool that attaches to your existing hydraulic root cutter motor and cleans the complete pipe like never before. The Ripper's design won't allow it to stop cleaning due to major offsets or protruding traps. Your operators will rip roots with less fatigue and stress due to fewer hang-ups. And your backhoe won't be called to dig up a "RIPPER". It just keeps ripping. Sewers will be cleaned to full pipe capacity and what a job it'll do on your grease lines.



The "RIPPER" kit is available in three different versions:

- Mini Kit                    4"-18" lines
- Standard Kit            4"-18" lines
- XL Kit                      12"-30" lines

All kits now come with forward cutting adapters and your choice of three pairs of ripper cables.

*Our new forward probe will allow you to punch through a major root mass. It also lets you attach a rootsaw for precutting if your operator desires.*



*If you have a Spartan root cutter with a front bolt, we offer a set for it as well.*



# THE **RIPPER** →

**NEW HEIGHTS IN PIPE  
CLEANING TECHNOLOGY!**

## THE **FlexKid**



**DML INTRODUCES A SUSPENSION SYSTEM TO  
ALLOW CLEANING PIPES 18 INCHES AND LARGER.**

When used with the new **HDXL  
RIPPER** (Heavy duty XL) you have  
the ability to remove roots,  
grease, and debris in large  
diameter pipes.



The **FlexKid** is available in  
two versions

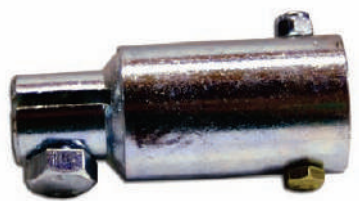
- **FlexKid XL** 18 inch and larger pipes
- **FlexKid STD** 8 inches-18 inches pipes

*All kits provided with skids for  
three pipe sizes.*

Flushing/Accessories



**Saw Blade Hub**



Saw Blade Hub

UEMSI Part #	Size
950-107 1.1 lbs	1" Saw Blade Hub
950-220 1.1 lbs	5/8" Saw Blade Hub

**Flex Saw Blade**



Flex Saw Blade (Set of 3)

UEMSI Part #	Size
7700-4 0.46 lbs	4" Flex Blade 3
7700-6 0.67 lbs	6" Flex Blade 3
7700-8 0.87 lbs	8" Flex Blade 3
7700-10 1.38 lbs	10" Flex Blade 3
7700-12 1.64 lbs	12" Flex Blade 3
7700-15 2.17 lbs	15" Flex Blade 3
7700-18 2.17 lbs	18" Flex Blade 3

**Saw Chuck**



Saw Chuck (For Flex Blades)

UEMSI Part #	Size
960-100 1.5 lbs	1" Saw Chuck
960-200 1.5 lbs	5/8" Saw Flex Blade Chuck

**Brass Flushing Nozzle**



Brass Flushing Nozzle

UEMSI Part #	Size
U-BN7 0.5 lbs	3/4"
U-BN10 0.5 lbs	1"
U-BN12 2 lbs	1 1/4"

**Warning:** Do Not Exceed 100 PSI When Using Brass Flushing Nozzles

**Brass Flushing Gasket**



UEMSI Part #	Size
U-BN7G 0.01 lbs	1/4" Gasket
U-BN10G 0.01 lbs	1" Gasket

**Washdown Gun Hose**



UEMSI Part #	Size
U31014AG 7 lbs	1/2" X 25' Lg X 4000 PSI
U31014AV 14 lbs	1/2" X 50' Lg X 4000 PSI
U31014AGG 21 lbs	1/2" X 75' Lg X 4000 PSI
U31014B 28 lbs	1/2" X 100' Lg X 4000 PSI
U31014C 42 lbs	1/2" X 150' Lg X 4000 PSI





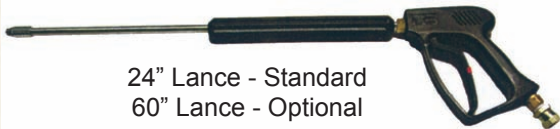
**Washdown Gun**



Washdown Gun

UEMSI Part #	Size
U45109 8 lbs	Heavy Duty 25 GPM @ 850 PSI Max.
U45109A 8 lbs	Heavy Duty 25 GPM @ 3000 PSI

**Washdown Gun**



24" Lance - Standard  
60" Lance - Optional

Washdown Gun

UEMSI Part #	Size
U-357 3.3 lbs	12 GPM Rated at 4000 PSI
U-357A 3.3 lbs	26 GPM Rated at 4000 PSI

**Easement Roller**



Easement Roller

UEMSI Part #	Size
D0-90 8.4 lbs	w/o Counter

**Hose Level Wind Assembly**



Jetter Style

UEMSI Part #	Size
UEM222850J 21 lbs	w/o Counter
UEM222850JC 21 lbs	w Counter

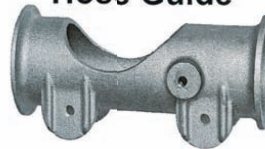
**Hose Level Wind Assembly**



Combination Style

UEMSI Part #	Size
UEM222850C 21 lbs	w/o Counter
UEM222850CC 21 lbs	w Counter

**Hose Guide**



Aluminum Hose Guide

UEMSI Part #	Size	Description
U222B10-1 1.85 lbs	Aluminum Hose Guide	2" Nylon Rollers Extra (Part # 6028)

**Steel Hose Guide**



Steel Hose Guide

UEMSI Part #	Size
S23024-0000 2 lbs	Steel Hose Guide



Flushing/Accessories

**Manhole Roller**



Top Manhole Roller

UEMSI Part #	Description
D0-6A	Standard Duty, Iron frame w/ Nylon Roller (not pictured)
D0-6B	Heavy Duty, Iron frame w/ Aluminum Roller (as pictured)
D0-6C	Heavy Duty, Iron frame w/ Nylon Roller (as pictured)
D0-6D	Aluminum frame w/ Nylon Roller 16 lbs. (not pictured)

**Manhole Roller**



Wishbone Style Top Manhole Roller

UEMSI Part #	Size
D0-6Y 38 lbs	Wishbone Style Iron Frame w/ Aluminum roller

**Safety Manhole Cover**



Safety Manhole Cover w/ 5" Roller

UEMSI Part #	Size
D0-6MRF 41 lbs	Good for manholes 20" to 26" Diameter

**Roller**



4-Way Roller Assembly

UEMSI Part #	Size
S3000-00347 1.5 lbs	4-Way Roller Assembly

**Roller**



For Hose Level Wind Assembly & 4way Roller Assembly

Roller Replacement

UEMSI Part #	Size
S3000-00347A 0.1 lbs	2 " Nylon Roller
6028 0.1 lbs	2" Dia. X 2 1/8"
S3000-00268 0.1 lbs	2" Dia. X 2 1/8"

**Boom Roller**



For Vactor® Type Equipment

Urethane Boom Roller

UEMSI Part #	Description
U36989 6 lbs	7" Wide (1" Core)

**Roller**



For Top Manhole Roller Assembly

Nylon Roller

UEMSI Part #	Size
D0-7N 6 lbs	6" Nylon Roller

**Roller**



For Easement Roller Assembly (see pg. 23) and Top Manhole Roller

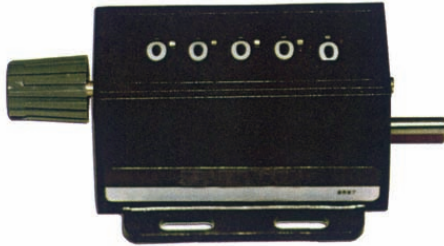
Aluminum Roller

UEMSI Part #	Size
D0-7 6 lbs	6" Aluminum Roller
SRE17048 2.5 lbs	5" X 3 1/4" (2" Core)





**Footage Counters**

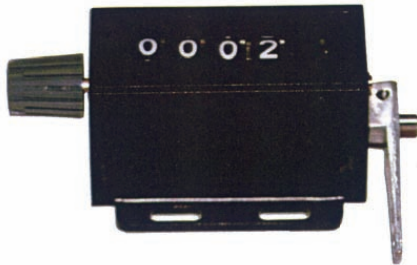


Universal

UEMSI Part #	Description
30-0990-100 0.5 lbs	Universal

Used on Aquatech® & F.E. Meyers® and Super Products® Sewer Machines Replacement-UEMSI Hose Level Wind

**SRECO®**



SRECO®

UEMSI Part #	Description
SRE30173 0.5 lbs	Used on SRECO® Cleaning & Rodding

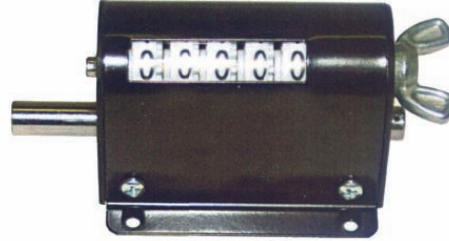
**Counter**



Right Hand

UEMSI Part #	Description
U45054 0.5 lbs	Used on Vector® 1988 & Newer (B)

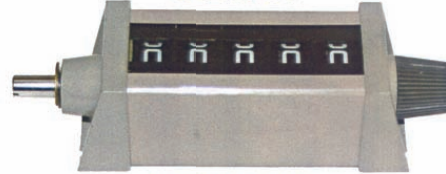
**Counter**



Left Hand

UEMSI Part #	Description
U45047 0.5 lbs	Used on Vector® 1988 & Newer (B)

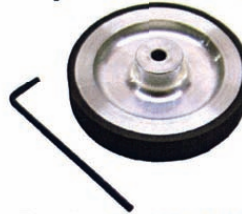
**Counter**



Right Hand

UEMSI Part #	Description
U40866 1 lb	Used on Vector® 1987 & Older (A)

**Replacement Wheel**



Replacement Wheel

UEMSI Part #	Description
U45046 0.5 lbs	Used on Vector® 1988 & Newer

**Replacement Wheel**



Replacement Wheel

UEMSI Part #	Description
U40867 0.5 lbs	Used on Vector® 1987 & Older (D)



Flushing/Accessories

**Gauge**



For Super Products® Type Equipment

Panel Mount

UEMSI Part #	Size
S6000-00260 0.5 lbs	B&E Water & Hydraulic 0-4000 PSI
S6000-01130 0.5 lbs	B&E Water & Hydraulic 0-5000 PSI

**Gauge**



For Vactor® Type Equipment

Bottom Mount 0-600 PSI

UEMSI Part #	Size
U40799 1 lb	Glycerin Filled

**Gauge**



For Super Products® Type Equipment

Panel Mount Hose Tension 0-160 PSI

UEMSI Part #	Size
S6000-00410 0.6 lbs	Air Pressure Gauge

**Vacuum Gauge**



For Vactor® Type Equipment

Vacuum Gauge 0-30"

UEMSI Part #	Size
U42645 1 lb	Vacuum Gauge 0-30"

**Pressure Gauge**



For Super Products® Type Equipment

Mercury Vacuum Gauge

UEMSI Part #	Size
S6000-00261 0.7 lbs	Vacuum Gauge 0-30"

**Pressure Gauge**



For Vactor® Type Equipment

Bottom Panel Mount 0-3000 PSI

UEMSI Part #	Size
U20971 1 lb	Glycerin Filled

**Gauge**



For Super Products® Type Equipment

Water Level Gauge

UEMSI Part #	Size
S6000-00711 1 lb	Water Tank Level 0-100"

**Gauge**



Bottom Mount

UEMSI Part #	Size	PSI
UG-B2000 0.5 lbs	Glycerin Filled 1/4"	0-2000PSI
UG-B3000 0.5 lbs	Glycerin Filled 1/4"	0-3000PSI
UG-B4000 0.5 lbs	Glycerin Filled 1/4"	0-4000PSI
UG-B5000 0.5 lbs	Glycerin Filled 1/4"	0-5000PSI

**Gauge**



Panel Mount

UEMSI Part #	Size	PSI
UG-P2000 0.6 lbs	Glycerin Filled 1/4"	0-2000PSI
UG-P3000 0.6 lbs	Glycerin Filled 1/4"	0-3000PSI
UG-P4000 0.6 lbs	Glycerin Filled 1/4"	0-4000PSI
UG-P5000 0.6 lbs	Glycerin Filled 1/4"	0-5000PSI







**Switch**



Used on Vactor®  
Style Pendant  
Controls

**4 Prong Switch**

UEMSI Part #	Description
U43809 0.3 lbs	Switch (4 Prong)

**Kill Switch**



Used on Vactor®  
Style Pendant  
Controls

**For Pendant Control**

UEMSI Part #	Size
U47867 0.3 lbs	Switch

**Boot Switch**



Used on Vactor®  
Style Pendant  
Controls

**Boot Switch Cover**

UEMSI Part #	Size
U43808 0.1 lbs	Boot, Long Switch - Grey
U44869 0.1 lbs	Boot, Switch - Red
U53003 0.1 lbs	Boot, Short Switch - Grey

**Pendant Control**



Pendant Control



Cord

Used on Vactor®  
Truck  
Application

**Black Square Box**

UEMSI Part #	Size
U44861B 3.5 lbs	7 Button 10' Cord
U44861C 4.5 lbs	7 Button 15' Cord
U44861D 5.5 lbs	7 Button 20' Cord
U44861A 2.5 lbs	7 Button No Cord
U44861E 8.5 lbs	7 Button 50' Cord

**Pendant Control**



Used on Vactor®  
Truck  
Application

**Yellow Square Box**

UEMSI Part #	Description
U54219B 5.2 lbs	5 Button 20' Cord
U54219E 10.5 lbs	5 Button 50' Cord
U54219 4.9 lbs	5 Button 15' Cord
U54219A 5.7 lbs	5 Button 30' Cord
U54219C 3.5 lbs	5 Button No Cord
U54219D 5.4 lbs	5 Button 25' Cord

**Pendant Control**



Used on Vactor®  
Truck  
Application

**Long Yellow Box**

UEMSI Part #	Size
U44861JA 7.0 lbs	7 Button 20' Cord
U44861J 7.5 lbs	7 Button 30' Cord
U44861L 7.5 lbs	7 Button 30' Cord w/ vac relief

**Pendant Control**



**Long Yellow Box** For Super Products®  
Truck Application

UEMSI Part #	Description
S5500-00843 7 lbs	8 Button No Cord

**Pendant Control**



For Aquatech®  
Truck Application

**Long Yellow Box**

UEMSI Part #	Description
AT121952 9.5 lbs	8 Button 30' Cord



Flushing/Accessories

# TYGER-TAIL<sup>®</sup>

## SUCTION HOSE

ALL PLASTIC CRUSH PROOF

STAYS FLEXIBLE IN SUB-ZERO TEMPERATURES

HOSE IS AVAILABLE IN 2" - 2 1/2" - 3" IN LENGTHS UP TO 50 FEET

INCLUDES CUFFS ON EACH END

SIZE	PART #	WEIGHT
2" x 10'	D0-210	8.5 lbs
2" x 20'	D0-220	17 lbs
2" x 25'	D0-225	21.25 lbs
2" x 30'	D0-230	25.50 lbs
2" x 40'	D0-240	34.00 lbs
2" x 50'	D0-250	42.50 lbs
2" CUFF	D0-2C	0.5 lbs
2 1/2" x 10'	D0-2510	12.5 lbs
2 1/2" x 20'	D0-2520	25 lbs
2 1/2" x 25'	D0-2525	31.25 lbs
2 1/2" x 30'	D0-2530	37.5 lbs
2 1/2" x 40'	D0-2540	50 lbs
2 1/2" x 50'	D0-2550	62.50 lbs
2 1/2" Cuff	D0-25C	0.55 lbs
3" x 10'	D0-310	16 lbs
3" x 20'	D0-320	33 lbs
3" x 25'	D0-325	40 lbs
3" x 30'	D0-330	48 lbs
3" x 40'	D0-340	64 lbs
3" x 50'	D0-350	80 lbs
3" CUFF	D0-3C	0.65 lbs

OTHER SIZES AVAILABLE UPON REQUEST

SIZE	WEIGHT (PER FOOT)	MAX. WORKING PRESSURE - PSI
2"	.85 LBS	15
2 1/2"	1.25 LBS	10
3"	1.60 LBS	7

VACUUM MERCURY INCH - 29

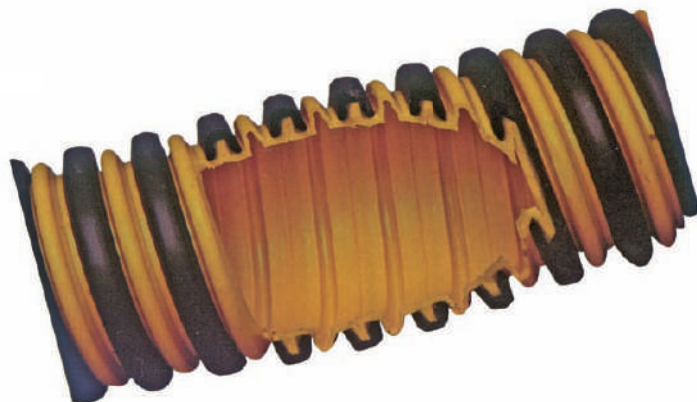
COMPLETE ASSEMBLIES BELOW INCLUDE:

CUFF ON EACH END, CLAMP & 24' POLY ROPE

2" x 36"	D0-69	3 lbs
3" x 36"	D0-89	5 lbs

EXTRA PARTS AVAILABLE AND SOLD SEPARATELY

2" CUFF	D0-2C	0.5 lbs
2 1/2" CUFF	D0-25C	0.55 lbs
3" CUFF	D0-3C	0.65 lbs
2" CLAMP	D0-2A	0.25 lbs
2 1/2" CLAMP	U20695Z	0.15 lbs
3" CLAMP	U52848	0.30 lbs
24' POLY ROPE	U52850	0.50 lbs



SMOOTH INTERIOR - RIBS PROTECT AGAINST DAMAGE

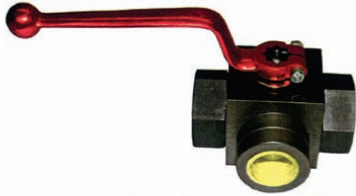
MANY USES FOR THE HOSE ARE:

- \*LIQUID OR MATERIAL SUCTION FROM MACHINE TO MACHINE
- \*LIQUID TRANSFER FROM TRUCK TO DEPOT
- \*LIQUID TRANSFER FROM VAT TO TANK
- \*CONSTRUCTION AND EXCAVATION
- \*PROTECTION FOR SEWER CLEANING HOSE
- \*PROTECTION FOR TELEVISION TV CABLE





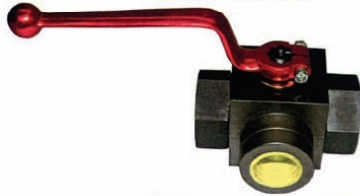
**\* Ball Valve**



Hycon® Style Three-Way

UEMSI Part #	Size
U44535 1.35 lbs	3/8" Three-Way 5000 PSI
AT130890 1.90 lbs	1/2" Three Way 5000 PSI

**\* Ball Valve**



Hycon® Style Three-Way

UEMSI Part #	Size
AT130925 3.95 lbs	3/4" Three-Way 4500 PSI
AT130920 5.85 lbs	1" Three-Way 4500 PSI
AT130919 5.80 lbs	1 1/4" Three-Way 4500 PSI

**Ball Valve Handle**



3/4" & 1" Three-Way Handle

UEMSI Part #	Size
AT1800 0.25 lbs	3/4" & 1" Handle

**Apollo® Valve**

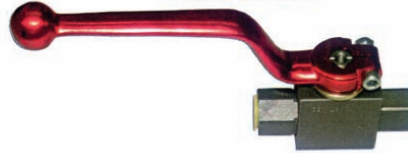


Used on Super Products®  
Type Equipment

Apollo® Valve

UEMSI Part #	Size	PSI
S6000-010293 0.80 lbs	1/2" Apollo Two-Way	2000 PSI
S6000-00681A 2.10 lbs	3/4" Apollo Two-Way	2000 PSI
S6000-00681 1.70 lbs	1" Apollo Two-Way	2000 PSI
S6000-00681B 3.7 lbs	1 1/4" Apollo Two-Way	2000 PSI

**\* Ball Valve**



Hycon® Style Two Way

UEMSI Part #	Size	PSI
U42446HY 1 lb	1/4" Hycon® Two-Way	Rated at 3000 PSI
U40575HY 1.75 lbs	1/2" Hycon® Two-Way	Rated at 3000 PSI
U40575C 3.20 lbs	3/4" Hycon® Two-Way	Rated at 3000 PSI
U40576HY 4.8 lbs	1" Hycon® Two-Way	Rated at 4500 PSI
U43941HY 8.25 lbs	1 1/4" Hycon® Two-Way	Rated at 3000 PSI

**Ball Valve Seal Kit**



1" Three-Way Seal Kit

UEMSI Part #	Size
U43955 0.5 lbs	1" Dynaquip Style Ball Valve
AT191290 0.5 lbs	1/2" 3-Way Ball Valve
U43941HYS 0.5 lbs	1 1/4" 2-Way Ball Valve
U40576A 0.5 lbs	1" 2-Way Ball Valve
U40575HYS 0.5 lbs	1/2" 2-Way Ball Valve
AT1815 0.5 lbs	1" 2 & 3-Way Ball Valve
AT1820 0.5 lbs	3/4" 2 & 3-Way Ball Valve
AT18409 0.5 lbs	1 1/4" 3-Way Ball Valve

\* These Ball Valves are used on many of the leading sewer cleaning equipment such as Vactors®, Vac-Cons®, and Aquatech®



Flushing/Accessories



## The Original RAM Swivel

RAM swivel joints are manufactured and engineered to exacting specifications. Only the highest quality materials are used in manufacturing this product to ensure the purchaser a quality, dependable swivel with a longer life and less down time than competitive models.



<b>U40052A</b>	<b>3/4"</b>	<b>90°</b>	<b>6.00 lbs</b>	<b>U40052B</b>	<b>3/4"</b>	<b>Straight</b>	<b>4.75 lbs</b>
<b>U40052</b>	<b>1"</b>	<b>90°</b>	<b>5.75 lbs</b>	<b>U40052C</b>	<b>1"</b>	<b>Straight</b>	<b>4.50 lbs</b>
<b>U43947</b>	<b>1 1/4"</b>	<b>90°</b>	<b>6.15 lbs</b>	<b>U44106</b>	<b>1 1/4"</b>	<b>Straight</b>	<b>5.50 lbs</b>

### Advantages of the "RAM" Swivel

- The Housings are a steel investment cast for a longer life.
- The Gland Nuts are Heat Treated for a longer wear.
- The Rotary Sleeve is Heat Treated for longer wear and milled with (2) flat areas for use with a wrench.
- The Backup Ring is Nickel plated to prevent rust
- Zerk Fittings are installed as standard to lubricate for longer wear.
- Up to 4000 PSI Working Pressure

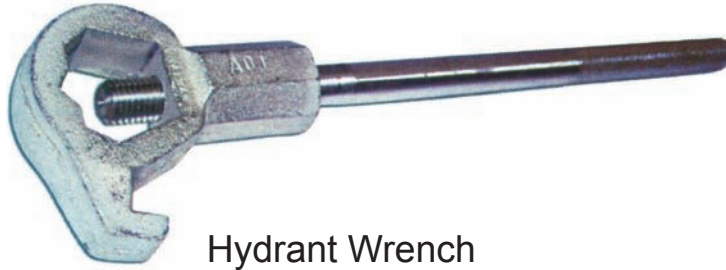
#### "RAM" Swivel Repair Kits

<b>UEMSI Part #</b>	<b>Size</b>
U40375 0.5 lbs	3/4" & 1" Packing Seal Kits
U44647 0.5 lbs	1 1/4" Packing Seal Kits
U42085 0.5 lbs	3/4" & 1" Bearing Kits
U44648 0.5 lbs	1 1/4" Bearing Kits





## Adjustable Hydrant Wrench



Hydrant Wrench

UEMSI Part #	Size
U-189 3.7 lbs	Adjustable

## Water Fill Hose Assembly



Water Fill/Hydrant Hose Assembly is available in Bulk sizes listed are as assemblies as shown. The assembly is available with a Male & Female end with 2 clamps on each end.

UEMSI Part #	Size
U20720K-A 6.55 lbs	2 1/2" X 10'
U20720F-A 8.95 lbs	2 1/2" X 15'
U20720G-A 11.35 lbs	2 1/2" X 20'
U20720A-A 13.75 lbs	2 1/2" X 25'
U20720H-A 16.15 lbs	2 1/2" X 30'
U20720D-A 25.75 lbs	2 1/2" X 50'
U20720E-A 30.55 lbs	2 1/2" X 60'

## Filter Screen



### Vector® Filter Screen

UEMSI Part #	Size
U41280 2 lbs	3"
U45803 1 lb	2"

## Vector® "Y" Strainer Gaskets



Filter Gasket

Cap Gasket

UEMSI Part #	Size	UEMSI Part #	Size
U46137 0.05 lbs	2"	U46138 0.1 lbs	2"
U41272 0.05 lbs	3"	U41271 0.1 lbs	3"



### F.E. Myers® Pressure Regulator

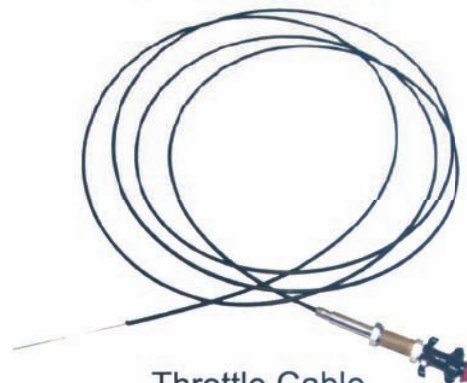


Used on many sewer cleaners

Pressure Regulator

UEMSI Part #	Size
FE15696C2 35 lbs	10-60 GPM 1200 PSI
FE15696C5 41 lbs	25-70 GPM 2000 PSI
FE17678A70	Repair Kits - C5

### Throttle Cable



Throttle Cable

UEMSI Part #	Size
U44876-5 0.75 lbs	5'
U44876-6 0.75 lbs	6'
U44876-8 1 lb	8'
U44876-10 1.25 lbs	10'
U44876-12 1.50 lbs	12'
U44876-14 1.75 lbs	14'
U44876-15 1.88 lbs	15'
U45440 2.25 lbs	18'
U44876-22 2.75 lbs	22'

Used on Vector® and many other sewer cleaners

### F.E. Myers® Relief Valve



Relief Valve

UEMSI Part #	Size
PR-4X 0.5lbs	1" 70 GPM 2000 PSI
PR-5C 20 lbs	1 1/4" 220 GPM

### Fiberglass Hose Shoe



Fiberglass Hose Shoe

UEMSI Part #	Size
D0-88 6.2 lbs	1/2" Pipe Connector





## JETTING - VACUUM TOOLS AND ACCESSORIES

SJS-1	TIGER TAIL 3" X 36" WITH REMOVABLE ROPE AND CLIP
SJS-2	TIGER TAIL 2" X 36" WITH REMOVABLE ROPE AND CLIP
SAMR-1	UPPER MANHOLE ROLLER GUIDE (ALUMINUM) NYLON ROLLER
SASR-1	UPPER MANHOLE ROLLER GUIDE (STEEL) NYLON ROLLER

### BOOM TUBE ROLLER GUIDE

CTR-6	6" COMBO TUBE ROLLER
CTR-8	8" COMBO TUBE ROLLER

### SAF-T-GUIDE UPPER MANHOLE ROLLER GUIDE

		REMOVABLE LEXAN SPLASH COVERS.
SSO-24	24" DIA.	STANDARD OFFSET STYLE ROLLER GUIDE
SSC-24	24" DIA.	CENTER PULL MANHOLE CLEANING ROLLER GUIDE

SHDS-1	HD LOWER MANHOLE ROLLER GUIDE SHOE. (4 NYLON ROLLERS) 3/4" THREADED CONNECTION. POLES NOT INCLUDED. 17 LBS.
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POOK	DOUBLE SIDED PICK AND MANHOLE HOOK.
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HYH-6	6"	6" HYDRO-VAC HANDLE. Handles vacuum tubes for Hydro-excavation
HYH-8	8"	8" HYDRO-VAC HANDLE. Handles vacuum tubes for Hydro-excavation

### DEEP MANHOLE TUBE HOLDER (PAT.PEND.)

DTH-8	8"	8" Deep Tube Holder. Use to lower tubes into manhole. Avoid power lines
DTH-6	6"	6" Deep Tube Holder. Use to lower tubes into manhole. Avoid power lines

### PUMA HYDRAULIC ROOT SAW CUTTER KIT

SHYK-1	8"-12"	HYDRAULIC ROOT CUTTER KIT. INCLUDES: 3 EASY SKIDS AND 3 SAWS FOR 6", 8", 10" OR 12" (YOU CHOOSE) INCLUDES 1" HUB, ARBOR TOOL AND TOOL BOX
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### SKIDS FOR PUMA ROOT CUTTERS

SS-6	6"	6" EASY ROOT CUTTER SKID WITH 3 RAILS
SS-8	8"	8" EASY ROOT CUTTER SKID WITH 3 RAILS
SS-10	10"	10" EASY ROOT CUTTER SKID WITH 3 RAILS
SS-12	12"	12" EASY ROOT CUTTER SKID WITH 3 RAILS
SS-15	15"	15" EASY ROOT CUTTER SKID WITH 3 RAILS
SS-18	18"	18" EASY ROOT CUTTER SKID WITH 3 RAILS

### SKIDS FOR SHAMROCK STYLE ROOT CUTTERS:

STSS-6	6"	6" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-8	8"	8" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-10	10"	10" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-12	12"	12" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-15	15"	15" EASY ROOT CUTTER SKID WITH 3 RAILS



Flushing/Accessories



STSS-18	18"	18" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-20	20"	20" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-22	22"	22" EASY ROOT CUTTER SKID WITH 3 RAILS
STSS-24	24"	24" EASY ROOT CUTTER SKID WITH 3 RAILS

**ROOT CUTTER HUBS**

RSH-1A		1" HUB FOR HYDRAULIC ROOT CUTTER STD. SAW 1/8"
RSH-1B		1" HUB FOR HYDRAULIC ROOT CUTTER HD. SAW 3/16"

3BHC-1		3 BLADE CHUCK FOR 1" HYD. ROOT CUTTER
3BHC-2		3 BLADE CHUCK FOR 5/8" HYD. ROOT CUTTER
WCH-1		1" HUB WITH WINTERS CHUCK FOR 2 SAWS

**VALVES AND SWIVELS**

BHK-1	S-21	1" 2-WAY BALL VALVE 5000 PSI
BHK-3/4	S-234	3/4" 2-WAY BALL VALVE 5000 PSI
BHK3-1	S-31	1" 3-WAY BALVE VALVE 5000 PSI
BHK3-3/3	S-334	3/4" 3-WAY BALL VALVE 5000 PSI
SS-34E		3/4" 90° SWIVEL
SS-1E		1" 90° SWIVEL
SS-12E		1.25" 90° SWIVEL

**DIAMOND TAP CUTTERS**

DTC-6	6"	DIAMOND TAP CUTTER
DTC-8	8"	DIAMOND TAP CUTTER
DTC-10	10"	DIAMOND TAP CUTTER
DTC-12	12"	DIAMOND TAP CUTTER
DTC-15	15"	DIAMOND TAP CUTTER
		ABOVE WITH 1" HUB AND KEYWAY
		ADD "34" TO ABOVE PART NO. FOR 3/4" HUB

**PUMA FANG SAW CUTTER FOR HYD. ROOT SAWS.**

PFHD-6	6"	6" HD FANG CUTTER WITH 1" HUB
PFHD-8	8"	8" HD FANG CUTTER WITH 1" HUB
PFHD-10	10"	10" HD FANG CUTTER WITH 1" HUB
PFHD-12	12"	12" HD FANG CUTTER WITH 1" HUB
PFHD-15	15"	15" HD FANG CUTTER WITH 1" HUB
PFHD-18	18"	18" HD FANG CUTTER WITH 1" HUB

**SUPER DUTY LARGE DIAMETER ROOT SAWS WITH SPOKES AND 1" HUB**

SCRS-12	12"	12" CONCAVE HD SAW WITH 3 SPOKES AND 1" HUB
SCRS-15	15"	15" CONCAVE HD SAW WITH 3 SPOKES AND 1" HUB
SCRS-18	18"	18" CONCAVE HD SAW WITH 3 SPOKES AND 1" HUB
SCRS-20	20"	20" CONCAVE HD SAW WITH 3 SPOKES AND 1" HUB
SCRS-22	22"	22" CONCAVE HD SAW WITH 3 SPOKES AND 1" HUB
SCRS-24	24"	24" CONCAVE HD SAW WITH 3 SPOKES AND 1" HUB

SSR-5		STAKE ROLLER FOR HOSE TO GO AROUND BENDS hardened point and head. Spade to keep from turning.
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**NOZZLE EXTENSIONS**

**4-FINNED NOZZLE EXTENSIONS 1"**

FE-41	4"	1" x 4" FINNED NOZZLE EXTENSION
FE-61	6"	1" x 6" FINNED NOZZLE EXTENSION
FE-81	8"	1" x 8" FINNED NOZZLE EXTENSION
FE-101	10"	1" x 10" FINNED NOZZLE EXTENSION
FE-121	12"	1" x 12" FINNED NOZZLE EXTENSION
FE-151	15"	1" x 15" FINNED NOZZLE EXTENSION

**4-FINNED NOZZLE EXTENSIONS 3/4"**

FE-434	4"	3/4" x 4" FINNED NOZZLE EXTENSION
FE-634	6"	3/4" x 6" FINNED NOZZLE EXTENSION
FE-834	8"	3/4" x 8" FINNED NOZZLE EXTENSION
FE-1034	10"	3/4" x 10" FINNED NOZZLE EXTENSION
FE-1234	12"	3/4" x 12" FINNED NOZZLE EXTENSION







**4-FINNED NOZZLE EXTENSIONS 1/2"**

FE-412	4"	1/2" x 4" FINNED NOZZLE EXTENSION
FE-612	6"	1/2" x 6" FINNED NOZZLE EXTENSION
FE-812	8"	1/2" x 8" FINNED NOZZLE EXTENSION



**6-WIRE NOZZLE EXTENSIONS 1"**

WNE-41	4"	1" x 4" 6 WIRE NOZZLE EXTENSION
WNE-61	6"	1" x 6" 6 WIRE NOZZLE EXTENSION
WNE-81	8"	1" x 8" 6 WIRE NOZZLE EXTENSION
WNE-101	10"	1" x 10" 6 WIRE NOZZLE EXTENSION
WNE-121	12"	1" x 12" 6 WIRE NOZZLE EXTENSION



**6-WIRE NOZZLE EXTENSIONS 3/4"**

WNE-434	4"	3/4" x 4" 6 WIRE NOZZLE EXTENSION
WNE-634	6"	3/4" x 6" 6 WIRE NOZZLE EXTENSION
WNE-834	8"	3/4" x 8" 6 WIRE NOZZLE EXTENSION
WNE-1034	10"	3/4" x 10" 6 WIRE NOZZLE EXTENSION
WNE-1234	12"	3/4" x 12" 6 WIRE NOZZLE EXTENSION



**6-WIRE NOZZLE EXTENSIONS 1/2"**

WNE-412	4"	1/2" x 4" 6 WIRE NOZZLE EXTENSION
WNE-612	6"	1/2" x 6" 6 WIRE NOZZLE EXTENSION



**4-WIRE NOZZLE EXTENSIONS 1"**

W4-1	4"	1" x 4" 4 WIRE NOZZLE EXTENSION
W6-1	6"	1" x 6" 4 WIRE NOZZLE EXTENSION
W8-1	8"	1" x 8" 4 WIRE NOZZLE EXTENSION
W10-1	10"	1" x 10" 4 WIRE NOZZLE EXTENSION
W12-1	12"	1" x 12" 4 WIRE NOZZLE EXTENSION



**4-WIRE NOZZLE EXTENSIONS 3/4"**

W4-34	4"	3/4" x 4" 4 WIRE NOZZLE EXTENSION
W6-34	6"	3/4" x 6" 4 WIRE NOZZLE EXTENSION
W8-34	8"	3/4" x 8" 4 WIRE NOZZLE EXTENSION
W10-34	10"	3/4" x 10" 4 WIRE NOZZLE EXTENSION
W12-34	12"	3/4" x 12" 4 WIRE NOZZLE EXTENSION



**4-WIRE NOZZLE EXTENSIONS 1/2"**

W4-12	4"	1/2" x 4" 4 WIRE NOZZLE EXTENSION
W6-12	6"	1/2" x 6" 4 WIRE NOZZLE EXTENSION
W8-12	8"	1/2" x 8" 4 WIRE NOZZLE EXTENSION
W10-12	10"	1/2" x 10" 4 WIRE NOZZLE EXTENSION



**FOOTBALL STYLE NOZZLE EXTENSIONS 1"**

NFL-41	4"	1" x 4" FOOTBALL NOZZLE EXTENSION
NFL-61	6"	1" x 6" FOOTBALL NOZZLE EXTENSION
NFL-81	8"	1" x 8" FOOTBALL NOZZLE EXTENSION
NFL-101	10"	1" x 10" FOOTBALL NOZZLE EXTENSION
NFL-121	12"	1" x 12" FOOTBALL NOZZLE EXTENSION



**FOOTBALL STYLE NOZZLE EXTENSIONS 3/4"**

NFL-434	4"	3/4" x 4" FOOTBALL NOZZLE EXTENSION
NFL-634	6"	3/4" x 6" FOOTBALL NOZZLE EXTENSION
NFL-834	8"	3/4" x 8" FOOTBALL NOZZLE EXTENSION
NFL-1034	10"	3/4" x 10" FOOTBALL NOZZLE EXTENSION
NFL-1234	12"	3/4" x 12" FOOTBALL NOZZLE EXTENSION



**FOOTBALL STYLE NOZZLE EXTENSIONS 1/2"**

NFL-412	4"	3/4" x 4" FOOTBALL NOZZLE EXTENSION
NFL-612	6"	3/4" x 6" FOOTBALL NOZZLE EXTENSION
NFL-812	8"	3/4" x 8" FOOTBALL NOZZLE EXTENSION
NFL-1012	10"	3/4" x 10" FOOTBALL NOZZLE EXTENSION



**FINNED NOZZLE EXTENSION WITH WHEELS 1"**

WE-61	6"	1" WHEELED NOZZLE EXTENSION FOR 6" AND UP
WE-81	8"	1" WHEELED NOZZLE EXTENSION FOR 8" AND UP
WE-101	10"	1" WHEELED NOZZLE EXTENSION FOR 10" AND UP
WE-121	12"	1" WHEELED NOZZLE EXTENSION FOR 12" AND UP
WE-151	15"	1" WHEELED NOZZLE EXTENSION FOR 15" AND UP





**FINNED NOZZLE EXTENSION WITH WHEELS 3/4"**

WE-634	6"	3/4" WHEELED NOZZLE EXTENSION FOR 6" AND UP
WE-834	8"	3/4" WHEELED NOZZLE EXTENSION FOR 8" AND UP
WE-1034	10"	3/4" WHEELED NOZZLE EXTENSION FOR 10" AND UP
WE-1234	12"	3/4" WHEELED NOZZLE EXTENSION FOR 12" AND UP
WE-1534	15"	3/4" WHEELED NOZZLE EXTENSION FOR 15" AND UP



**HEAVY DUTY TUBE STYLE EXTENSION**

TSE-3/4		HEAVY DUTY TUBE STYLE NOZZLE EXTENSION 3/4"
TSE-1		HEAVY DUTY TUBE STYLE NOZZLE EXTENSION 1"



**SHORT 10 LEG PROOFERS**

S-6	6"	SHORT PROOFER 6" O.D. X 1"
S-7.5	7.5"	SHORT PROOFER 7.5" O.D. X 1"
S-8	8"	SHORT PROOFER 8" O.D. X 1"
S-9.5	9.5"	SHORT PROOFER 9.5" O.D. X 1"
S-10	10"	SHORT PROOFER 10" O.D. X 1"
S-11.5	11.5"	SHORT PROOFER 11.5" O.D. X 1"
S-12	12"	SHORT PROOFER 12" O.D. X 1"
S-15	15"	SHORT PROOFER 15" O.D. X 1"
S-18	18"	SHORT PROOFER 18" O.D. X 1"



**LONG 10 LEGGED PROOFERS (REMOVABLE)**

L-6	6"	LONG PROOFER 6" O.D. X 1"
L-7.5	7.5"	LONG PROOFER 7.5" O.D. X 1"
L-8	8"	LONG PROOFER 8" O.D. X 1"
L-9.5	9.5"	LONG PROOFER 9.5" O.D. X 1"
L-10	10"	LONG PROOFER 10" O.D. X 1"
L-11.5	11.5"	LONG PROOFER 11.5" O.D. X 1"
L-12	12"	LONG PROOFER 12" O.D. X 1"
L-15	15"	LONG PROOFER 15" O.D. X 1"
L-18	18"	LONG PROOFER 18" O.D. X 1"



**SAND TRAPS**

SST-6	6"	SAND TRAP WITH ROPE 25'
SST-8	8"	SAND TRAP WITH ROPE 25'
SST-10	10"	SAND TRAP WITH ROPE 25'
SST-12	12"	SAND TRAP WITH ROPE 25'
SST-15	15"	SAND TRAP WITH ROPE 25'
SST-18	18"	SAND TRAP WITH ROPE 25'
SST-20	20"	SAND TRAP WITH ROPE 25'



**PUMA TOOLS**

A Complete Line of Manhole Cleaning tools and Accessories

**FLAT TRAPS FOR SKIMMING ALONG FLAT AREAS**

FT-6	6"	FLAT TRAP BASKET 6" WIDE X 6" HIGH
FT-8	8"	FLAT TRAP BASKET 8" WIDE X 6" HIGH
FT-10	10"	FLAT TRAP BASKET 10" WIDE X 6" HIGH
FT-12	12"	FLAT TRAP BASKET 12" WIDE X 8" HIGH
FT-15	15"	FLAT TRAP BASKET 15" WIDE X 8" HIGH



**DEBRIS BASKETS (ROUND) TO USE WITH FIBERGLASS POLES.**

DB-6	6"	DEBRIS BASKET 6" FOR FIBERGLASS POLES
DB-8	8"	DEBRIS BASKET 8" FOR FIBERGLASS POLES
DB-10	10"	DEBRIS BASKET 10" FOR FIBERGLASS POLES
DB-12	12"	DEBRIS BASKET 12" FOR FIBERGLASS POLES
DB-15	15"	DEBRIS BASKET 15" FOR FIBERGLASS POLES
DB-18	18"	DEBRIS BASKET 18" FOR FIBERGLASS POLES
DB-24	24"	DEBRIS BASKET 24" FOR FIBERGLASS POLES



**DEBRIS GRIT CATCHERS (ROUND) TO USE WITH FIBERGLASS POLES**

DB-6S	6"	DEBRIS GRIT BASKET 6" WITH FIBERGLASS POLE CONNECTOR
DB-8S	8"	DEBRIS GRIT BASKET 8" WITH FIBERGLASS POLE CONNECTOR
DB-10S	10"	DEBRIS GRIT BASKET 10" WITH FIBERGLASS POLE CONNECTOR
DB-12S	12"	DEBRIS GRIT BASKET 12" WITH FIBERGLASS POLE CONNECTOR
DB-15S	15"	DEBRIS GRIT BASKET 15" WITH FIBERGLASS POLE CONNECTOR
DB-18S	18"	DEBRIS GRIT BASKET 18" WITH FIBERGLASS POLE CONNECTOR
DB-24S	24"	DEBRIS GRIT BASKET 24" WITH FIBERGLASS POLE CONNECTOR

ABOVE COME WITH SOLID HALF BOTTOM AND BACK





**DEBRIS BASKETS WITH 25' ROPE**

DBR-6	6"	DEBRIS BASKET 6" WITH ROPE
DBR-8	8"	DEBRIS BASKET 8" WITH ROPE
DBR-10	10"	DEBRIS BASKET 10" WITH ROPE
DBR-12	12"	DEBRIS BASKET 12" WITH ROPE
DBR-15	15"	DEBRIS BASKET 15" WITH ROPE
DBR-18	18"	DEBRIS BASKET 18" WITH ROPE
DBR-24	24"	DEBRIS BASKET 24" WITH ROPE



**DEBRIS GRIT CATCHERS WITH 25' ROPE**

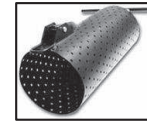
DBR-6S	6"	DEBRIS GRIT BASKET 6" WITH 25' ROPE
DBR-8S	8"	DEBRIS BASKET 8" WITH ROPE
DBR-10S	10"	DEBRIS BASKET 10" WITH ROPE
DBR-12S	12"	DEBRIS BASKET 12" WITH ROPE
DBR-15S	15"	DEBRIS BASKET 15" WITH ROPE
DBR-18S	18"	DEBRIS BASKET 18" WITH ROPE
DBR-24S	24"	DEBRIS BASKET 24" WITH ROPE

ABOVE COME WITH SOLID HALF BOTTOM AND BACK



**DEBRIS CYLINDERS**

DC-6	6"	DEBRIS CYLINDER FOR 6" PIPE
DC-8	8"	DEBRIS CYLINDER FOR 8" PIPE
DC-10	10"	DEBRIS CYLINDER FOR 10" PIPE
DC-12	12"	DEBRIS CYLINDER FOR 12" PIPE



**EXTRACTING AND GRABBING TOOLS (ALL ATTACH TO FIBERGLASS POLES)**

**SCOOPAS**

SC-6	6"	6" SCOOPA FOR FIBERGLASS POLES
SC-8	8"	8" SCOOPA FOR FIBERGLASS POLES
SC-10	10"	10" SCOOPA FOR FIBERGLASS POLES
SC-12	12"	12" SCOOPA FOR FIBERGLASS POLES WITH 4 LATERAL HOLES EACH SIDE FOR BETTER DRAINAGE



LC-9	6"	CURVED CHOPPER FOR FIBERGLASS OR WOOD POLE NOW WITH CUREVE SIDES TO PUSH MATERIAL THAT WAS CHOPPED
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HG-1	9" LONG	IMPROVED HOSE GRABBER FOR FIBERGLASS POLE OR WOOD ANGLED ENDS TO ALLOW EASY ENTRY FOR HOSE.
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4PG-1 3PG-1	8" WIDE	4 PRONGED DEBRIS GRABBER CONNECTS TO FIBERGLASS OR WOOD POLES. 2 LOWER AND 2 UPPER PRONGES (2 OR 3 PRONGED ARE AVAILABLE)
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CRW-1		CRAW FOR ATTACHING TO POLES, INCLUDES ROPE AND INSTRUCTIONS
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SBR-8	8" DIA.	8" STEEL WIRE BRUSH CONNECTS TO FIBERGLASS POLES.
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PS-1	9" DIA.	CATCH BASIN SPOON.
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CAM-1		CAMERA GAFFING HOOK. TESTED TO 200 LBS.
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SMAG-1		MAGNETIC VALVE BOX AND OVERALL METAL GRABBER. ATTACHES TO POLE
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Flushing/Accessories

**CATCH BASIN SPOON ASSEMBLIES**

FS-6	6'	CATCH BASIN SPOON WITH 6' FIBERGLASS POLE
FS-12	12'	CATCH BASIN SPOON WITH 12' OF FIBERGLASS POLES
FS-18	18'	CATCH BASIN SPOON WITH 18' OF FIBERGLASS POLES

ABOVE ARE DIVIDED IN 6' SECTIONS

**OSH STYLE WOOD SPOONS**

PS-6	6'	2" THICK ASH HANDLE AND CATCH BASIN SPOON
PS-12	12'	2" THICK ASH HANDLE AND CATCH BASIN SPOON
PS-18	18'	2" THICK ASH HANDLE AND CATCH BASIN SPOON

ABOVE ARE DIVIDED IN 6' SECTIONS

AHSP-10	10' LONG	CATCH BASIN SPOON WITH 1.25" ASH POLE 10' LONG
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**GRABBERS**

GWCT	15' LONG	GRABBER WITH CRAW ACTION TELESCOPIC POLE FROM 7'-15'
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SGP-15	15' LONG	STEEL TELESCOPIC GRABBER PRONG EXTENDS FROM 5' TO 15'
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SGP-24	24' LONG	STEEL TELESCOPIC GRABBER PRONG EXTENDS FROM 8' TO 24'
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**PUMA GRABBER**

PMA-6S	6' LONG	PUMA GRABBER 6' LONG WITH 8" JAWS
PMA-8S	8' LONG	PUMA GRABBER 8' LONG WITH 8" JAWS
PMA-10S	10' LONG	PUMA GRABBER 10' LONG WITH 8" JAWS
PMA-12S	12' LONG	PUMA GRABBER 12' LONG WITH 8" JAWS
PMA-15S	15' LONG	PUMA GRABBER 15' LONG WITH 8" JAWS
PMA-18S	18' LONG	PUMA GRABBER 18' LONG WITH 8" JAWS

NOTE: ALSO AVAILABLE WITH LARGER OPENING PRONGS

**FIBERGLASS POLES STANDARD WEIGHT ORANGE**

STD6	6'	SINGLE MALE X FEMALE POLE
STD3	3'	SINGLE MALE X FEMALE POLE
STD-24	24'	SET OF 3 MALE X FEMALE POLE AND ONE END POLE FEMALE X RUBBER END POLE

STD-21	21'	SET OF 3 X 6' AND 1 X 3' MALE X FEMALE POLE
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STD-18	18'	SET OF 2 MALE X FEMALE POLE AND ONE END POLE FEMALE X RUBBER END
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STD-14R	14'	SINGLE 14' POLE WITH FEMALE END X RUBBER END
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STD-12R	12'	SINGLE 12' POLE WITH FEMALE END X RUBBER END
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STD6R	6'	SINGLE 6' FEMALE X RUBBER END POLE
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EXT-1	7'-14'	FIBERGLASS EXTENSION POLE 7' - 14"
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**STEEL REINFORCED FIBERGLASS POLES (SUPER STIFF)**

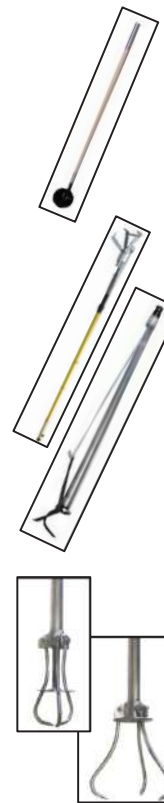
STD-6ST	6'	SINGLE MALE X FEMALE POLE
STD-3ST	3'	SINGLE MALE X FEMALE POLE
STD-24ST	24'	SET OF 3 MALE X FEMALE POLE AND ONE END POLE FEMALE X RUBBER END POLE

STD-21ST	21'	SET OF 3 X 6' AND 1 X 3' MALE X FEMALE POLE
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STD-18ST	18'	SET OF 2 MALE X FEMALE POLE AND ONE END POLE FEMALE X RUBBER END
----------	-----	--

**FOAM FILLED POLES FOR EXTRA STRENGTH AND SAFETY**

FF6	6'	SINGLE MALE X FEMALE POLE
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FF3	3'	SINGLE MALE X FEMALE POLE
FF24	24'	SET OF 3 MALE X FEMALE POLE AND ONE END POLE FEMALE X RUBBER END POLE
FF21	21'	SET OF 3 X 6' AND 1 X 3' MALE X FEMALE POLE
FF6R	6'	SINGLE 6' FEMALE X RUBBER END POLE

**WOOD POLES**

WP-6	6'	POPLAR WOOD POLE WITH MALE X FEMALE ENDS
WP-8	8'	ASH WOOD POLE WITH MALE X FEMALE ENDS ABOVE CAN BE USED WITH ALL PUMA TOOLS

**HANDY-CLAMS**

SHC-6	6'	HANDY CLAM 6' LONG WITH SMALL 12" BUCKET
SHC-8	8'	HANDY CLAM 8' LONG WITH SMALL 12" BUCKET
SHC-10	10'	HANDY CLAM 10' LONG WITH SMALL 12" BUCKET
SHC-12	12'	HANDY CLAM 12' LONG WITH SMALL 12" BUCKET
SHC-16	16'	HANDY CLAM 16' LONG WITH SMALL 12" BUCKET
SHC-18	18'	HANDY CLAM 18' LONG WITH SMALL 12" BUCKET
SHC-20	20'	HANDY CLAM 20' LONG WITH SMALL 12" BUCKET
SHC-25	25'	HANDY CLAM 25' LONG WITH SMALL 12" BUCKET ALSO AVAILABLE WITH 16" BUCKET. ADD "6" TO PART NUMBER PRICE IS THE SAME. CAN BE ORDERED EITHER ONE PIECE (EXPENSIVE TO SHIP OVER 8') OR KNOCKDOWN MODEL. REDUCES SHIPPING COST AS UPSABLE. ALSO CAN BE USED IN DEFFERENT LENGHTS. I.E. 18' CAN BE USED AS EXTENSION PER FOOT. PRICE IS PER FOOT
SHC-EX		



**Flushing/Accessories**





Flushing/Accessories

**OPTIONAL  
DESCALING HEADS  
MAXIMIZE WALL  
CLEANING POWER**



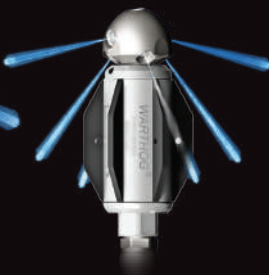
**WS-1/2™**



**WG-1™**



**WH-1/2™ & WH-3/4™**



**WGR MAGNUM™**

Nozzles can be installed into the standard jetting configuration for normal sewer cleaning, or switch nozzle locations for excellent wall cleaning power. The result is enhanced removal of scale, tuberculation, corrosion, soap and minerals.

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

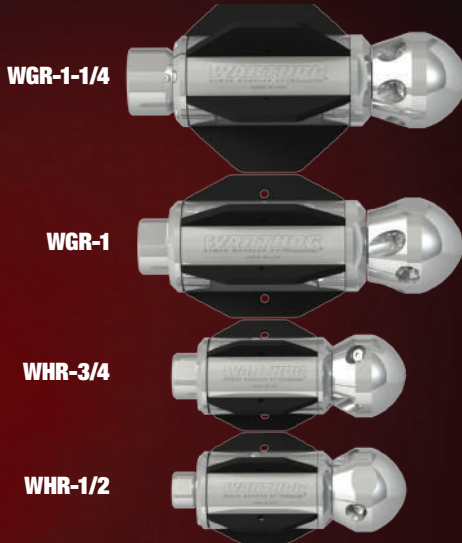




**NEW!**

# MAGNUM SERIES

**HIGH PERFORMANCE.  
LESS MAINTENANCE.  
LONGER LIFE.**



## FEATURES:

- **NEW SPEED CONTROL AND SEALS**  
Designed to operate 4X longer before requiring maintenance
- **NEW FIN DESIGN**  
Individually replaceable fins made of hardened steel for 4X longer life
- **NEW CARBIDE NOZZLES**  
Extreme durability under poor water conditions
- **NEW STREAMLINED DESIGN**  
Prevents tool from catching inside of pipe
- **NEW FLUSH-STYLE HEAD**  
Protects front shaft seals for extended fluid life

	WGR-1-1/4	WGR-1	WHR-3/4	WHR-1/2
<b>PRESSURE</b>	Up to 5000 psi (350 bar)	Up to 5000 psi (350 bar)	Up to 8000 psi (550 bar)	Up to 8000 psi (550 bar)
<b>FLOW</b>	80-120 gpm (300-455 l/min)	50-80 gpm (190-300 l/min)	16-50 gpm (60-190 l/min)	14-25 gpm (53-95 l/min)
<b>PIPE SIZE</b>	8-36 in. (200-900 mm)	8-36 in. (200-900 mm)	6-18 in. (150-450 mm)	6-18 in. (150-450 mm)
<b>INLET</b>	1 1/4 NPT/BSPP	1 NPT/BSPP	3/4 NPT/BSPP	1/2 NPT/BSPP

## A TOOL FOR EVERY APPLICATION

### 2-6" LINES (51-152 mm)

WV-1/4



2-4" Lines for cart and trailer jettets. High-speed rotation technology for small lines with light to moderate blockages.

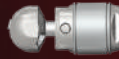
WT-3/8-C



3-6" Lines for cart and trailer jettets. Now standard with carbide buttons for longer head life.

### 4-18" LINES (102-457 mm)

WS-1/2



4-8" Lines for trailer jettets. Sold with a 2 ft. whip hose standard. Also jointed and rigid models, plus inlet options.

WH-1/2  
WH-3/4



6-18" Lines. A real workhorse with 1/2" and 3/4" inlet options, both inlets available in NPT or BSPP.

WHP-3/4



6-18" Lines. Maximum Puller WHP-3/4. Designed for more pulling power.

**NEW!**

WHR-3/4  
WHR-1/2



6-18" Lines. All-new design. Available with 1/2 or 3/4" inlets.

### 8-36" LINES (203-914 mm)

WG-1  
WGP-1



8-36" Lines. WG-1 Classic and the Maximum Puller WGP-1. Designed for more pulling power.

**NEW!**

WGR-1  
WGR-1-1/4



8-36" Lines. Our newest Warthog. Now available with an 1-1/4" inlet.

WD 1-1/4



8-36" Lines for Municipal jettets. This is a high flow model with up to 120 gpm (450 lpm) flows.

**PHONE: 1-970-259-2869  
TOLL FREE: 1-866-795-1586**

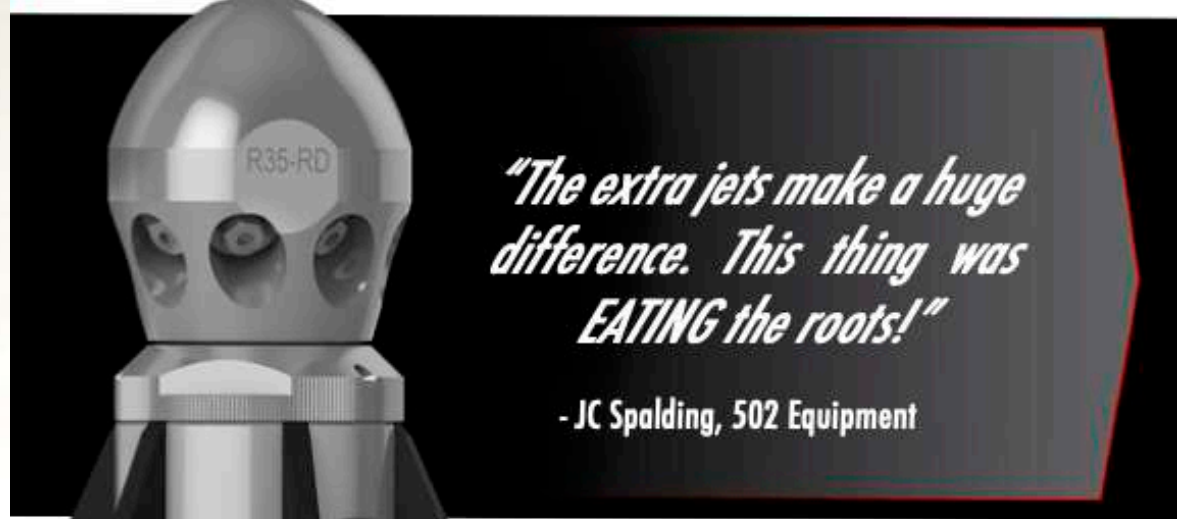
**WWW.SEWERNOZZLES.COM**

Proudly Manufactured in the USA 

Flushing/Accessories



Flushing/Accessories



**ROOT DESTROYER**

Roots in the line collect grease and debris that cause blockages. The new Magnum Root Destroyer nozzle has a unique multi-jet configuration designed to remove roots quickly and efficiently.

1. **Compatible with the WGR**
2. **Clears roots faster, saving time, water and money**
3. **Eliminate the use of mechanical tools that can damage the pipe**
4. **The only controlled rotation nozzle optimized to destroy roots**





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

**NEW**



**MAX FLOW  
WITHOUT  
THE BLOW!!**

**CONTROL CLEAN  
BLOWN TOILET PREVENTION**


Until now, hydro-jetting sewer lines without "blowing a toilet" has required the use of flows and pressures so low that they don't clean very well. The new WGR Magnum Control Clean is the only nozzle that allows full-power cleaning without blowing toilets. This proprietary technology allows for the removal of obstructions faster, cleaner and better - keeping your customers happy.

1. Full power cleaning without blowing toilets
2. Switch from pulling to descaling without leaving the pipe
3. Patented Magnum technology

Flushing/Accessories




## Arrow Nozzle DP

 Wie die Pfeil Düse jedoch mit Bohrspitze im 0° Vorstrahl. Hergestellt aus verschleissfestem, gehärtetem Stahl, durchbohrt die Pfeil Düse mit ihren vier Vorstrahldüsen und scharfen Kanten jede Verstopfung und Vereisung in kurzer Zeit.








### Technische Beschreibung:

- ✓ Auswechselbare VA Düseneinsätze mit Gewinde im Vorstrahl
- ✓ Wasserabstrahlwinkel hinten 23°
- ✓ Wasserabstrahlwinkel vorne 0° und 15°
- ✓ Mit Bohrspitze ausgerüstet
- ✓ 3/4" und 1 1/4" Schlauchanschluss mit Adapter möglich bei 1" (erhältlich in Zubehör)

 Equipped with a drill point, precision engineered and manufactured of wear-resistant tempered steel, the Arrow Nozzle provides excellent performance in the most difficult cleaning application, by cutting and breaking through total obstructions efficiently with its strong, concentrated forward jets and sharp cutting edges.


### Technical Specifications:

- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angle 23°
- ✓ Forward water jet angle 0°
- ✓ Front water jet angle 15°
- ✓ Drill Point equipped
- ✓ 3/4" – 1 1/4" hose connection (with bushings available in Accessories)

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10210S-DP	1/2"	3"	1.1"	R: 6x drilled / FJ 3x M5 ISK / 0° M6 ISK	0°/15°/23°	min 10	3" - 8"	0.3
10212S-DP	1"	5"	2.4"	R: 8x M8 ASK / FJ 3x M8 ASK / 0° M10x1 ASK	0°/15°/23°	min 50	6" - 16"	2.2




## General Nozzle

 Hergestellt aus verschleißfestem, gehärtetem Stahl, werden die General Düsen mit Vorstrahl und Blinddüsenensatz (austauschbar) geliefert. Sie ist hervorragend geeignet zum Einsatz bei präventativer Wartung und zur Rundumreinigung der Kanalisation.

Zwei unterschiedliche Wasserabstrahlwinkel (15° und 25°) bei jeweils vier VA Düsenensätzen schaffen eine ideale Abstimmung zwischen Zug- und Reinigungsleistung, wobei die enorme Reinigungsleistung durch eine innovative, technisch optimierte Wasserführung erreicht wird.

### Technische Beschreibung:






- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düsenensätze mit Gewinde
- ✓ Wasserabstrahlwinkel 15° und 25°

 Precision engineered and manufactured of wear-resistant tempered steel with one forward jet and blind plug (interchangeable) included, the General is a perfect nozzle for preventative maintenance and all-around sewer cleaning.

Two different water jet angles (15 and 25 degrees) provide strong traction and highly efficient cleaning.


### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angles 15° and 25°

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10180S	1/2"	2,8"	1.8"	R: 6x M6 ISK / FJ M6 ISK	15°/25°	min 16	4" - 8"	1.5
10181S	3/4"	6"	3.2"	R: 8x M10x1ASK / FJ M10x1 ISK	15°/25°	min 40	6" - 16"	9
10182S	1"	6"	3.2"	R: 8x M10x1ASK / FJ M10x1 ISK	15°/25°	min 50	6" - 16"	9
10183S	1 1/4"	6"	3.2"	R: 8x M10x1ASK / FJ M10x1 ISK	15°/25°	min 60	6" - 16"	9




## Power Pull Nozzle

 Präzise entwickelt und hergestellt aus verschleißfestem und gehärtetem Stahl, ist die Power Pull Düse ein hervorragendes hydrodynamisches Werkzeug für sehr hohe Anwendungsansprüche. Der enge, einzelne Wasserabstrahlwinkel von 7° in Verbindung mit einer innovativen, technisch optimierten Wasserführung sorgt für eine hervorragende Zug- und Reinigungsleistung, die insbesondere in langen Rohrleitungen und hügeligen Gelände zu ihrer Geltung kommt.








### Technische Beschreibung:

- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 7°
- ✓ Perfekt geeignet für das räumen der Sohle

 Precision engineered and manufactured of wear-resistant tempered steel, the Power Pull Nozzle is an ideal tool for some of the toughest applications. The combination of each and every narrow 7 degree jet provides tremendous traction and cleaning performance in mountainous, difficult terrain. This is a great nozzle with which to clean and remove sand, silt and large debris from sewer lines.


### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angle 7°

Part No.				Inserts				
Artikel-Nr.			Ø	Einsätze		gal/min		lbs
10161S	1/2"	2,2"	1.8"	6x M6 ISK	7°	min 16	4" - 8"	1.5
10162S	3/4"	6"	3.2"	8x M10x1ASK	7°	min 40	6" - 10"	8.8
10163S	1"	6"	3.2"	8x M10x1ASK	7°	min 50	6" - 12"	8.8
10164S	1 1/4"	6"	3.2"	8x M10x1ASK	7°	min 60	12"≥	8.8




## Aluminum Power Pull Nozzle

 Der enge, einzelne Wasserabstrahlwinkel von 7° in Verbindung mit einer innovativen, technisch optimierten Wasserführung sorgt für eine hervorragende Zug- und Reinigungsleistung. Durch Ihr geringes Gewicht ist sie perfekt geeignet für steiles Gelände und sehr lange Leitungen.

### Technische Beschreibung:








- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 7°
- ✓ Perfekt geeignet für das räumen der Sohle

 Due to its extra lightweight, this nozzle is perfect for extra long and steep lines. Tightly grouped 7 degree jets provide tremendous traction and cleaning performance in mountainous, difficult terrain. All these features combine to make a great nozzle with which to clean and remove sand, silt and large debris from sewer lines.

### Technical Specifications:


- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angle 7°


Flushing/Accessories

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10170S	1"	5.9"	3.2"	8x M10x1ASK	7°	min 50	6" - 12"	2.9



## Standard Nozzle

 Präzise entwickelt und hergestellt aus verschleißfestem Stahl, werden alle Standard Reinigungsdüsen mit Vorstrahl und zusätzlichem Blinddüsenersatz (austauschbar) geliefert. Der Abstrahlwinkel beträgt 23°. Die Standard Reinigungsdüse ist ideal zur Beseitigung von Sand, Schlack und weichen Ablagerungen.

 Precision engineered and manufactured of wear-resistant steel, each Standard Nozzle includes one forward jet and blind plug (interchangeable). Water jet angle is 23 degrees. The Standard Cleaning Nozzle is light, maneuverable and highly efficient.

### Technische Beschreibung:

- ✓ Optionaler Vorstrahl oder Blinddüsenersatz bei Kamerabefahrung des Kanals
- ✓ Wasserabstrahlwinkel 23°


### Technical Specifications:


- ✓ Optional front jet
- ✓ Rear water jet angle 23°

Part No.				Inserts				
Artikel-Nr.			Ø	Einsätze		gal/min		lbs
10130S	1/4"	1.1"	0.7"	R: 6x drilled / FJ M5 ISK	23°	min 11	2" - 6"	0.2
10131S	1/2"	2"	1.2"	R: 6x drilled / FJ M5 ISK	23°	min 15	4" - 8"	0.3
10132S	3/4"	3.2"	2.4"	R: 8x M6 ISK / FJ M6 ISK	23°	min 40	6" - 8"	1.8
10133S	1"	3.2"	2.4"	R: 8x M6 ISK / FJ M6 ISK	23°	min 50	6" - 12"	1.8
10134S	1 1/4"	3.2"	2.4"	R: 8x M6 ISK / FJ M6 ISK	23°	min 60	8" - 12"≥	2.2



## Flounder Nozzle

 Hergestellt aus verschleißfestem, gehärtetem Stahl sind die Flunder Düsen hervorragend geeignet für die Reinigung von Rohren mit starker Verschmutzung, verursacht durch Sand, Schlamm, Kies und Ablagerungen. Das Design der Flunder, mit ihren abgerundeten Ecken und Vermeidung von Kanten, verleiht ihr eine sehr gute Gleitfähigkeit in den Rohren.







 Precision engineered and manufactured of wear-resistant tempered steel, the Flounder nozzle is an excellent tool to clean the floor of pipes. The smooth design with rounded edges provides the nozzle with great gliding capability.

### Technical Specifications:

- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Water jet angles 5°/20°


### Technische Beschreibung:

- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 5°/20° bei 1/2" Schlauchanschluß

Part No.			Inserts				
Artikel-Nr.			Einsätze		gal/min		lbs
10330S	1/2"	6" x 3,5" x 1,6"	4x M8 ASK	5°/20°	min 15	6" - 12"	4.4
10331S	3/4"	7,5" x 3,9" x 2"	6x M8 ASK	0°/ 5°/20°	min 60	12" - 24"	11.5




## Spear Nozzle

 Hergestellt aus verschleißfestem, gehärtetem Stahl, durchbohrt und öffnet die Spear Düse mit ihren vier geballten Vorstrahldüsen und scharfen Kanten jede Verstopfung und Vereisung in kurzer Zeit in Rohren mit großen Nennweiten.








### Technische Beschreibung:

- ✓ Schwere Ausführung der Pfeil Düse
- ✓ Auswechselbare Bohrspitze, kann auch mit zusätzlichem Düseneinsatz ausgerüstet werden
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel hinten 23°
- ✓ Wasserabstrahlwinkel vorne 15°
- ✓ 1 1/4" Schlauchanschluss mit Adapter möglich (erhältlich in Zubehör)

 Precision engineered and manufactured of wear-resistant tempered steel, the Spear Nozzle is a bigger, heavier version of the Arrow Nozzle to cut, break and remove total blockages rapidly with its 4 strong concentrated forward jets, drill point and sharp edges in larger pipes.

### Technical Specifications:


- ✓ Heavy duty construction
- ✓ Drill point can be replaced with an additional nozzle insert
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angle 23°
- ✓ Front water jet angle 15°


Part No.				Inserts				
Artikel-Nr.			Ø	Einsätze		gal/min		lbs
10220S	1"	7.5"	2.9"	R: 6x SW14 ASK / FJ 4x M8 ASK / 0° M10x1 ASK	0°/15°/23°	min 60	8" - 24"	6.2
10221S	1 1/4"	7.5"	2.9"	R: 6x SW14 ASK / FJ 4x M8 ASK / 0° M10x1 ASK	0°/15°/23°	min 60	8" - 24"≥	6.2





## Emperor Nozzle

 Hergestellt aus verschleißfestem, gehärtetem Stahl. Zwei unterschiedliche Wasserabstrahlwinkel von 15° und 30° (jeweils sechs) in Verbindung mit einer innovativen, technisch optimierten Wasserführung verleiht der Emperor Düse eine hervorragende Reinigungsleistung in Rohren mit großen Nennweiten.

 Precision engineered and manufactured of wear resistant tempered steel. The Emperor's two different water jet angles of 15 and 30 degrees (six jets each) provide highly effective cleaning performance and traction in large sewer and stormlines.

### Technische Beschreibung:

- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 15°/30°


### Technical Specifications:

- ✓ Optimized Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Heavy design for large pipes
- ✓ Water jet angles 15° and 30°

Part No.				Inserts				
Artikel-Nr.				Einsätze		gal/min		lbs
10110S	1"	7.5"	4.3"	12x SW14 ASK	15°/30°	min 80	12" - 30"	19.8
10111S	1 1/4"	7.5"	4.3"	12x SW14 ASK	15°/30°	min 80	12" - 30"	19.8




## Anti Blower Nozzle

 Hergestellt aus verschleißfestem, gehärtetem Stahl. Der weite Abstrahlwinkel von 36° und die innovative, technisch optimierte Wasserführung in Verbindung mit reduziertem Wasserdruck beim Rückfahren der Düse vermeidet ein Ausblasen von Toiletten.







### Technische Beschreibung:

- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 36°
- ✓ 3/4" und 1 1/4" Schlauchanschluss mit Adapter möglich (erhältlich in Zubehör)

 Precision engineered and manufactured of wear-resistant tempered steel, the specially designed water jet angles of this nozzle - in conjunction with reduced pressure - effectively eliminates blown toilets.

### Technical Specifications:


- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Water jet angle 36°
- ✓ 3/4" – 1 1/4" hose connection (with bushings available in Accessories)

Part No.			$\varnothing$	Inserts		 gal/min		 lbs
Artikel-Nr.				Einsätze				
10362S	1"	6"	3.2"	R: 8x M10x1ASK / FJ M10x1 ISK	36°	min 50	6" - 16"	8.8



## Penetrator Nozzle


Flushing/Accessories

 Präzise entwickelt und hergestellt aus verschleißfestem, gehärtetem Stahl, besitzt die Superior Düse ein spezielles Design zur Überwindung von Rohrversätzen und Kanalabsenkungen.

Der enge, einzelne Wasserabstrahlwinkel von 12° in Verbindung mit einer innovativen, technisch optimierten Wasserführung sorgt für eine hervorragende Zug- und Reinigungsleistung zur restlosen Beseitigung von Sand, Schlack und Ablagerungen aus Abwasserrohren. Durch Ihre Form eignen Sie sich perfekt für den Einsatz in Ei-Profil Rohren. Bei größeren Nennweiten empfiehlt sich die Penetrator Big zu verwenden.

### Technische Beschreibung:








- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 12°
- ✓ 3/4" und 1 1/4" Schlauchanschluss mit Adapter möglich (erhältlich in Zubehör)

 Precision engineered and manufactured of wear-resistant tempered steel, the Penetrator Nozzle is specifically designed to successfully navigate over small voids in pipes.

Eight individual 12 degree water jets provide tremendous traction and cleaning performance. An optional pulling eye is available. Also perfect for cleaning Egg-shaped pipes. For bigger pipes, a larger version is also available.


### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Optional front jet
- ✓ Rear water jet angle 12°
- ✓ 3/4" – 1 1/4" hose connection (with bushings available in Accessories)

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10121S	1"	7.9"	3.1"	R: 8x M10x1ASK / FJ M10x1ASK	12°	min 50	6" - 16"	15.4
10122S	1 1/4"	9.8"	3.9"	R: 8x M10x1ASK / FJ M10x1ASK	12°	min 80	12" - 48"	30.9




## Stealth Nozzle

 Hergestellt aus verschleißfestem und gehärtetem Stahl. Zwei unterschiedliche Wasserabstrahlwinkel von 12° und 18° (jeweils vier) der Stealth's, schaffen eine ideale Abstimmung zwischen Zug- und Reinigungsleistung, wobei die enorme Reinigungsleistung durch eine innovative, technisch optimierten Wasserführung erreicht wird.

Stealth Düsen sind hervorragend geeignet zur Rund um Reinigung von Rohren bis ØDN 600mm








### Technische Beschreibung:

- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 12° und 18°

 Precision engineered and manufactured of wear-resistant tempered steel. The Stealth's two different water jet angles of 12 and 18 degrees (four jets each) provide powerful traction and effective cleaning performance to remove sand, silt and obstructions from sewer or stormlines.


### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angles 12° and 18°

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10100S	3/4"	7.5"	3.9"	8x SW14 ASK	12°/18°	min 60	8" - 24"	17.6
10101S	1"	7.5"	3.9"	8x SW14 ASK	12°/18°	min 60	8" - 24"	17.6
10102S	1 1/4"	7.5"	3.9"	8x SW14 ASK	12°/18°	min 60	8" - 24"	17.6




## Power Pull Nozzle LRG

 Präzise entwickelt und hergestellt aus verschleissfestem und gehärtetem Stahl, ist die Fly Düse ein hervorragendes hydrodynamisches Werkzeug für sehr hohe Anwendungsanprüche. Der enge, einzelne Wasserabstrahlwinkel von 7° in Verbindung mit einer innovativen, technisch optimierten Wasserführung sorgt für eine hervorragende Zug- und Reinigungsleistung, die insbesondere in langen Rohrleitungen und hügeligen Gelände zu ihrer Geltung kommt.

### Technische Beschreibung:








- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare VA Düseneinsätze mit Gewinde
- ✓ Wasserabstrahlwinkel 7°
- ✓ 3/4" und 1 1/4" Schlauchanschluss mit Adapter möglich (erhältlich in Zubehör)

 Precision engineered and manufactured of wear-resistant tempered steel, the Power Pull Nozzle is an ideal tool for the toughest applications. Its pattern of narrow, 7 degree water jets provides tremendous traction and cleaning performance in mountainous, difficult terrain. It's a proven nozzle which cleans and removes sand, silt and large debris from sewer lines.

### Technical Specifications:


- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angle 7°

Flushing/Accessories

Part No.				Inserts				
Artikel-Nr.				Einsätze		gal/min		lbs
10166S	1"	7.5"	3.9"	8x SW14 ASK	7°	min 60	8" - 24"	17




## Raptor Nozzle

 Hindernisse und total Verstopfungen, verursacht durch Verwurzelungen, Fetten oder anderen organischen Materialien, werden mit der kräftigen Raptordüse in kürzester Zeit beseitigt. Der gehärtete Bohrkopf wird von einer Hochleistungsturbine angetrieben und dreht sich zwischen ca. 6000 und 12000/Minute, abhängig vom Wasserdurchfluss und Wasserdruck. Die Raptordüse ist an den Stellen erfolgreich, wo Standard Kanalreinigungswerkzeuge nicht zum Erfolg führen.








### Technische Beschreibung:

- ✓ Düse mit Optimierter 3D Wasserführung
- ✓ Auswechselbare Keramik Düseneinsätze mit Gewinde
- ✓ Edelstahl Gehäuse mit gehärtetem Edelstahl Bohrkopf
- ✓ Wasserabstrahlwinkel hinten 22°
- ✓ G 1/2" – G 1 1/4" Schlauchanschluss

 The Raptor Nozzle is a powerful nozzle capable of removing heavy obstructions caused by roots, grease, or any other solid organic material quickly. Its tempered stainless steel drill head is turbine-driven and spins in the range of 6000 and 12000 rpm, depending on water flow and pressure. The Raptor Nozzle succeeds where standard hydromechanic tools fail!

### Technical Specifications:


- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded ceramic nozzle inserts
- ✓ Stainless steel nozzle body with tempered stainless steel drill head
- ✓ Rear water jet angle 22°


Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10320SC	1/2"	4.3"	2.2"	3x M6 ISK F 3x M6 ISK R	22°	min 18	4" - 8"	2.4
10321SC	1"	5.9"	2.8"	3x M6 ISK F 6x M6 ASK R	22°	min 40 - 60	6" - 12"	5.5



Flushing/Accessories








## Raptor Chain Cutter

 Unsere innovative, sehr zuverlässige und effiziente Raptor Kettenschleuder ist aus Edelstahl gefertigt und bietet überlegene Antriebs- und Schubleistung. Der Kettenhalter wird von einer Hochleistungs-Turbine angetrieben und erzielt so unübertroffene Ergebnisse bei der Entfernung von Wurzeln, Fett- und Mineralablagerungen. Die Ketten sind nicht starr und beschädigen die Rohre nicht. Der Kettenkopf wird angetrieben und dreht sich ca. Zwischen 6000 und 12000 U / min, je nach Wasserdurchfluss und Druck.

 The Raptor Nozzle can be converted from a total blockage remover to a chain cutter capable of operating in a 4" – 6" sewer line (1/2" Raptor Nozzle) and 6" – 8" sewer lines (1" Raptor Nozzle) by unscrewing the drill head and attaching a chain retainer with chains.


The Raptor Nozzle is a powerful nozzle capable of removing heavy obstructions caused by roots, grease, or any other solid organic material quickly. Its tempered stainless steel drill head is turbine-driven and spins in the range of 6000 and 12000 rpm, depending on water flow and pressure. The Raptor Nozzle succeeds where standard hydro-mechanic tools fail!

Die Raptor-Düse kann von einer Bohrdüse zu einer Kettenschleuder im handumdrehen umgebaut werden, die in einer DN100-150mm Leitung (1/2" Raptor Düse) und DN150 - 200mm (1" Raptor Düse „) arbeiten kann. Dies erfolgt durch lösen des Bohrkopfes und Befestigen des Kettenhalters mit Ketten. Somit erhalten Sie eine 2 in 1 Lösung.

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10322	1/2"	4.3"	2.2"	3x M6 ISK F 3x M6 ISK R	22°	min 18	4" - 6"	3.5
10323	1"	5.9"	2.8"	3x M6 ISK F 6x M6 ASK R	22°	min 40 - 60	6" - 8"	6.8




## Raptor Chain Cutter with flexible Guide Skid

 Die Raptor Kettenschleuder, hergestellt aus Edelstahl, ist ein extrem kräftiges und innovatives Werkzeug, um Wurzeln, Fett- und Mineralablagerungen zu beseitigen. Die Kettenschleuder wird mit Keramikeinsätzen bestückt. Der Kettenkopf wird durch eine hochleistungsstarke Turbine angetrieben, welche keine Schmierung benötigt.

Rohrversätze? Kein Problem. Unsere Raptor Kettenschleuder ist mit einem einzigartigen, fortlaufend verstellbarem Schlitten von 6" – 12" (DN150-300mm) ausgestattet. Für die Größenverstellung wird kein extra Werkzeug benötigt.







Die Kettenschleuder kann ganz einfach von einem Wurzelschneider zu einer Bohrkopfdüse umgewandelt werden, indem der Kettenkopf abgeschraubt und der Bohrkopf angeschraubt wird.

 The Raptor Chain Cutter is an extremely powerful and innovative tool capable of removing heavy obstructions caused by roots, grease, mineral deposits or other solid organic material swiftly.

The Chain Retainer is driven by a high performance turbine which doesn't require any lubrication. Off sets? No problem, the Raptor Chain Cutter comes with a unique, continuously adjustable guide skid 6" – 12".



This highly effective hydrodynamic tool is made of tempered stainless steel and comes with ceramic nozzle inserts.

The Raptor Chain Cutter can easily be converted from a root cutter to a total blockage remover by unscrewing the chain retainer and assembling the drill head.


Part No.						
Artikel-Nr.	1"	19"	22°	min 40	6" - 12"	14.3






-  **Kettenschleuder**  
250 bis 1200mm
-  **Umrüstbar auf**  
Großprofilreiniger

## Viper Chain Cutter






 Die Viper Kettenschleuder, hergestellt aus Edelstahl, ist ein extrem kräftiges und innovatives Werkzeug, um Wurzeln, Fett- und Mineralablagerungen zu beseitigen. Die Kettenschleuder wird mit Keramikeinsätzen bestückt. Der Kettenkopf wird durch eine hochleistungsstarke Turbine angetrieben, welche keine Schmierung benötigt.

 The Viper Chain Cutter is an extremely powerful and innovative tool to remove heavy obstructions caused by roots, grease, mineral deposits or other solid organic material promptly. This highly effective hydrodynamic tool is made of tempered stainless steel and comes with ceramic nozzle inserts.

Rohrversätze? Kein Problem. Unsere Viper Kettenschleuder ist adaptiv mit 3 einzigartigen, fortlaufend verstellbarem Schlitten von 10" – 48" (DN250-1200 mm) ausgestattet.

The Chain Retainer is driven by a high performance turbine which doesn't require any lubrication. Have Offsets ? No problem! The Viper Chain Cutter comes with a unique, continuously adjustable guide skid available in 3 different sizes (10" – 16", 16" – 28" and 28" – 48").


Durch diese 3 Körbe (250-400 ; 400-700 und 700-1200 mm) können Sie wie von uns gewöhnt ein 3 in 1 System erwerben, denn der Grundkörper bleibt jedesmal der gleiche.


Part No.			 gal/min		 lbs
Artikel-Nr.					
N/A	1" - 1 1/4"	25.6"	min 40	10" - 16"	45.2
10400SC	1" - 1 1/4"	25.6"	min 80	16" - 28"	54.0
N/A	1" - 1 1/4"	25.6"	min 80	28" - 48"	65.0

Flushing/Accessories



## Typhoon Nozzle

 Durch die gleichmäßig rotierenden Bewegungen der Typhoon Düse, in Verbindung mit der Optimierten 3D Wasserführung, ist ein konstantes Entfernen von Fetten, leichten Mineralablagerungen und Verwurzelungen garantiert, sowie die Reinigung der Innenwand des Rohres.








 The Typhoon Nozzle is designed to thoroughly clean the interior walls of pipes of grease, light mineral deposits and roots. This is made possible by the uniform rotary motion of the rotor in conjunction with our Optimized 3D Hydro Mechanics.

### Technische Beschreibung:

- ✓ Düse mit Optimierter 3D Wasserführung
- ✓ Auswechselbare Keramik Düseneinsätze mit Gewinde
- ✓ Edelstahl Gehäuse und Drehzylinder
- ✓ Wasserabstrahlwinkel hinten 25°
- ✓ Wasserabstrahlwinkel am Drehzylinder 90°/85°
- ✓ G 1/2" – G 1 1/4" Schlauchanschluss
- ✓ Nicht für die Anwendung mit Wasserrückgewinnern

### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, threaded ceramic nozzle inserts
- ✓ Stainless steel body and rotor
- ✓ Rear water jet angle 25°
- ✓ Water jet angles at the rotor 90°/85°
- ✓ Do not use with recycled water

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10141SC	1/2"	3.1"	1.7"	7x M6 ISK	90°/85°/25°	min 18	4" - 6"	3.1
10142SC	3/4"	4.8"	2.7"	10x M6 ASK	90°/85°/25°	min 40 - 80	6" - 16"	11.5
10143SC	1"	4.8"	2.7"	10x M6 ASK	90°/85°/25°	min 40 - 80	6" - 16"	11.5



## Bigfoot Nozzle

Bei der Bigfoot Düse wird das Wasser von einem Hochdruckschlauch in eine unübertroffene Reinigungskraft umgewandelt. Die Optimierte 3D Wasserumlenkung und die verschieden angeordneten Keramikdüseneinsätze beseitigen schwere Feststoffe, Schlamm, Sand, Schlick von der Sohle des Rohres. Durch die Überrollbügel wird ein Umkippen der Bigfootdüse verhindert. Die Bigfoot Düse kann sowohl im Zusammenhang mit einer weiteren Düse genutzt, als auch in vier verschiedenen Größen bestellt werden. Sie ist mit 6, 8, 10 oder 14 Keramikdüseneinsätzen erhältlich.





### Technische Beschreibung:

- ✓ Optimierte 3D Wasserumlenkung
- ✓ Auswechselbare, einteilige Keramikdüseneinsätze mit Gewinde
- ✓ 3/4" – 1 1/4" Schlauchanschluss
- ✓ Abstrahlwinkel 5° - 20°
- ✓ Max. Betriebsdruck 275 bar
- ✓ Reduzierter Wasserverbrauch
- ✓ reduzierte Betriebskosten

The Bigfoot Nozzle utilizes Optimized 3D Hydro Mechanics to convert the water coming from a pressurized sewer hose into unrivaled cleaning power. The roll over bars allow the nozzle to upright itself in the line. All rear water jets are concentrated on the bottom of the pipe to remove large debris, sand, silt, sludge etc. The Bigfoot Nozzle can be used in tandem with an additional Bigfoot Nozzle for large sewer lines or culverts and is available in four different sizes (6, 8, 10 or 14 jets).

### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable, one-piece threaded ceramic nozzle inserts
- ✓ 3/4" – 1 1/4" hose connection
- ✓ Rear water jet angles 5° - 20°
- ✓ Operating pressure up to 4000PSI
- ✓ Reduced water consumption
- ✓ Reduced operating costs

Part No.			Inserts			
Artikel-Nr.			Einsätze	gal/min	PSI	lbs
10300SC	1"	17.5"	6x SW14	min 50	12" - 32"	33.1
10301SC	1"	17.5"	8x SW14	min 60	15" - 35"	39.7
10302SC	1" - 1 1/4"	17.5"	10x SW14	min 60	19" - 55"	52.9
10303SC	1" - 1 1/4"	17.5"	14x SW 14	min 80	24"≥	56.2



Die rotierende Kanaldüse „Twister“ wurde für Kanäle zwischen 150 und 600 mm Durchmesser hergestellt und ist außerdem mit Recyclingwasser einsetzbar. Eine weitere Eigenschaft des Antriebs ist die einzigartige, robuste Bauweise. Die Düsen im Kopf sorgen für eine kontrollierte Rotation. Der Antrieb besteht aus Edelstahl. Der Rotationskopf ist mit 5 Düsen bestückt, wovon eine im Vorstrahl zur Öffnung von Blockierungen im Rohr dient. Die Twister-Düse ist ausgestattet mit einem robusten starren Führungskorb optional bieten wir einen in der Größe verstellbaren Führungskorb. Die Twister Düse wurde hergestellt, um unter härtesten Bedingungen wie Fett, Wurzeln und Ablagerungen zu arbeiten.

**Vorteile:**

- ✓ Einzigartiges Vorkommen der Düse, sowie hohe Leistungsfähigkeit
- ✓ geringe Wartung, keine Schmierung nötig

**Technische Bedingungen:**

- ✓ Auswechselbare Keramik Düseneinsätze
- ✓ Antrieb der Düse aus Edelstahl
- ✓ Max. Betriebsdruck 275 bar
- ✓ Reduzierter Wasserverbrauch
- ✓ reduzierte Betriebskosten

**Twister Nozzle**








The Twister rotary sewer nozzle is designed for cleaning 6" to 24" sewer and stormwater pipelines. The Twister nozzle is operated by water coming from a pressurized hose and is comprised of three components: The drive contains propulsion jets, is constructed of stainless steel and requires no lubrication. The cleaning head includes multiple high performance ceramic inserts including one in front for opening blockages. The nozzle comes equipped with a rigid skid. The Twister nozzle is designed to operate in the toughest conditions such as grease, scaling, roots and tuberculation.

**Advantages:**

- ✓ Adjustable guide skid available as an option
- ✓ Unrivalled performance, high efficiency
- ✓ Can be used with recycled and potable water
- ✓ Low maintenance, no lubrication required

**Technical Specifications:**

- ✓ Replaceable threaded ceramic nozzle inserts
- ✓ Stainless steel body
- ✓ Reduced operating costs

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10880SC	1/2"	6.7"	2.8"	10x M6 ASK	30°	min 18	3" - 12"	4.0
10890SC	3/4"	9.5"	3.75"	4xM8 ASK 6xM6 ISK	60°/12°/18°	min 40	4" - 16"	7.9
10990SC	1"	9.5"	5.75"	4xM8 ASK 6xM6 ISK	60°/12°/18°	min 60	6" - 24"	7.9



Flushing/Accessories

## Milling Cutters

Unsere innovativen, zuverlässigen Fräser bieten einen außergewöhnlichen Antrieb und effiziente Schubkraft. Der Antrieb an sich ist aus Edelstahl gefertigt und umfasst eine Welle und zwei doppelte, abgedichtete Kugellager. Somit wird kein hydraulischer Motor benötigt, was den Wartungsaufwand sehr gering hält. Es wird keine Schmierung des Antriebs benötigt. Der Fräser Kopf ist ausgestattet mit auf Edelstahlträgern montierten, auswechselbaren Hartmetallschneiden, sowie einem diamanten besetzten Zentrumsbohrer, der zudem noch über eine Wasserkühlung verfügt. Der Lamellenring steigert nicht nur das Drehmoment, sondern liefert zudem noch eine direkte Übersetzung. Alle unsere Fräser sind dazu fähig, die stärksten Ablagerungen wie gehärtete Fette, Beton und harte Verkrustungen aller Art, sogar Narbenkorrosion in gusseisernen Rohrleitungen zu entfernen, ohne das Rohr zu beschädigen.

INTERSEWER's innovative, reliable milling cutter is made of tempered steel and offers superior drive and thrust efficiency. The drive itself is made of tempered stainless steel comprised of one shaft and two double sealed bearings. This eliminates the need for any hydraulic motors and therefore any lubrication, ensuring years of low maintenance operation.

Milling cutter heads come complete with carbide bits duly bonded onto stainless steel bodies, one diamond center bit with a cooling device and optional diamond bits are available (additional costs may apply). A turbine ring with fins increases torque and provides straight tracking ability.

All milling cutters are capable of removing the toughest deposits such as hardened grease, concrete and scale of all kinds, even tuberculation in cast iron pipes. Protruding tabs are cut gently without damaging a line.

Part No.	Type	Bore Ø	Pipe Ø	lbs
Artikel-Nr.	Model	Bohrloch Ø	Rohr Ø	lbs
203000	II	3.7"	4"	17.7
203001	III	3.9"	5"	17.7
203003	IV	5.5"	6"	26.5
203004	V175	5.9"	7"	30.9

Part No.	Type	Bore Ø	Pipe Ø	lbs
Artikel-Nr.	Model	Bohrloch Ø	Rohr Ø	lbs
203005	V200	7.2"	8"	35.3
203006	VI	8.8"	10"	41.9
203007	VII	11.1"	12"	44.1


Bigger Milling Cutters for large pipes up to Ø20" are available upon request.




Flushing/Accessories



## Black Star Nozzle

 Die Black Star Düse ist eine hervorragende Auswahl zur Reinigung von allgemeinen Kanälen.

 The Black Star nozzle is an excellent choice for general sewer lines cleaning affordably.

### Vorteile:

- ✓ Relativ Kostengünstig
- ✓ Reduziert den Wasserverbrauch
- ✓ Reduzierte Wartungskosten

### Advantages:

- ✓ Cost effective
- ✓ Reduced water consumption
- ✓ Reduced operating costs








### Technische Beschreibung:

- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Abstrahlwinkel 15° und 25°
- ✓ Schlauchanschluss 3/4" – 1 1/4" möglich

Application: General sewer cleaning

### Technical Specifications:


- ✓ Optimized 3D Hydro Mechanics
- ✓ Hardened tool steel
- ✓ Rear jet incidence is 15° and 25°
- ✓ 3/4" - 1 1/4" hose connection


Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10151S	3/4" - 1"	7.5"	3.1"	10x M10 ASK	15°/25°	min 40	8" - 16"	17.6



Flushing/Accessories

## Black Blaster Nozzle

 Die Black Blaster Düse erreicht eine effektive hohe Reinigung.

 The Black Blaster nozzle is an exceptional value and a great alternative to a stainless steel nozzle.

### Vorteile:

- ✓ Relativ Kostengünstig
- ✓ kann gezogen werden
- ✓ mit Führungskörben erhältlich um eine gute Zentrierung zu erreichen
- ✓ Reduziert den Wasserverbrauch
- ✓ Reduzierte Wartungskosten

### Advantages:








- ✓ This nozzle offers high cleaning efficiency
- ✓ Cost effective
- ✓ Pullable
- ✓ Hydro-efficient
- ✓ Reduces operating costs

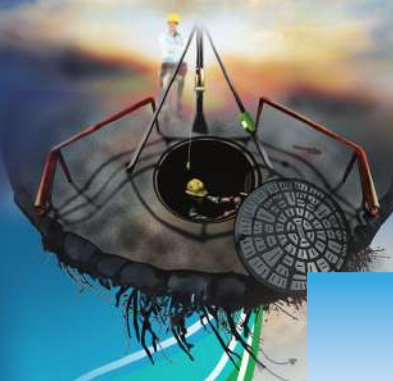
### Technische Beschreibung:

- ✓ Einteilige Düse mit optimierter Wasserführung
- ✓ Auswechselbare Edelstahl-Düseneinsätze
- ✓ Wasserabstrahlwinkel hinten 18°
- ✓ Schlauchanschluss 3/4" – 1"

### Technical Specifications:

- ✓ Optimized 3D Hydro Mechanics
- ✓ Replaceable threaded steel inserts
- ✓ Hardened tool steel construction
- ✓ Rear jet incidence is 18°
- ✓ 3/4" - 1" hose connection

Part No.				Inserts				
Artikel-Nr.			∅	Einsätze		gal/min		lbs
10150S	3/4 - 1"	3.6"	3.1"	9x M10 ASK	18°	min 40	6" - 12"	5.5



Flushing/Accessories

## Sewer Jetting Hose



### Technische Beschreibung:

- ✓ Geringer Biegeradius
- ✓ Optimaler Schnitt- und Abriebschutz
- ✓ Schutz gegen mikrobiologischen Kontamination
- ✓ Innenseele und Schlauchdecke mit Druckträger verklebt
- ✓ Leicht im Vergleich zu Gummischläuchen
- ✓ Lange Lebensdauer
- ✓ In langen Längen verfügbar

### Konstruktion:

Seele: Spezielles Polyether Polyurethan-Druckträger: 1 und 2 Aramid Geflechtsschichten.  
Oberdecke: Polyurethan blau.

### Temperatur Bereich:

-40°C bis + 60°C



### Technical Specifications:






- ✓ Specially designed to meet minimum bend radius
- ✓ Optimum cut and wear resistance
- ✓ Resistant to microbiological degradation
- ✓ Bonded tube and cover
- ✓ Lightweight compared to conventional rubber alternatives
- ✓ Increased lifetime
- ✓ Available in long lengths

### Construction:

Core: Special Polyether Polyurethane  
Reinforcement: 1 or 2 braids of Aramid Fibre.  
Cover: Blue colour Polyurethane.

### Temperature Standards:

-40°C to + 60°C


Part No.	DN					
Artikel-Nr.						
IS12HF	12	1/2"	0.8"	4000	16000	3.2"
IS20HF	20	3/4"	1.2"	3600	9000	5"
IS25HF	25	1"	1.4"	3600	9000	6"
IS32HF	32	1 1/4"	1.8"	3600	9000	10"






Flushing/Accessories

### Tiger Tails


 Hochwertiger Kantenschutz für Kanalspülschläuche aus robustem Polyethylen.

 High-quality edge protection for jetting hoses made of Polyethylene.

Part No.	Ø	length	rope length
Artikel-Nr.		Länge	Seillänge
TIGER2	2"	35.4"	239.8"
TIGER3	3"	35.4"	239.8"




## Arrow Nozzle

 Hergestellt aus verschleißfestem, gehärtetem Stahl, durchbohrt die Quattro Düse mit ihren vier Vorstrahldüsen und scharfen Kanten jede Verstopfung und Vereisung in kurzer Zeit.








### Technische Beschreibung:

- ✓ Auswechselbare VA Düseneinsätze mit Gewinde im Vorstrahl
- ✓ Wasserabstrahlwinkel hinten 23°
- ✓ Wasserabstrahlwinkel vorne 0° und 15°
- ✓ 3/4" und 1 1/4" Schlauchanschluss mit Adapter möglich bei 1" (erhältlich in Zubehör)

 Precision engineered and manufactured of wear-resistant tempered steel, the Arrow Nozzle provides excellent performance in the most difficult cleaning applications, by cutting and breaking through total obstructions efficiently with four strong, concentrated forward jets and sharp cutting edges.

### Technical Specifications:

- ✓ Replaceable, threaded stainless steel nozzle inserts
- ✓ Rear water jet angle 23°
- ✓ Forward water jet angle 0°
- ✓ Front water jet angle 15°
- ✓ 3/4" - 1 1/4" hose connection (with bushings available in Accessories)

Part No.				Inserts				
Artikel-Nr.			Ø	Einsätze		gal/min		lbs
10210S	1/2"	2.2"	1.1"	R: 6x drilled / FJ 3x M5 ISK / 0° M6 ISK	0°/15°/23°	min 10	3" - 8"	0.3
10212S	1"	4.5"	2.4"	R: 8x M8 ASK / FJ 3x M8 ASK / 0° M10x1 ASK	0°/15°/23°	min 50	6" - 16"	2.2



**Flushing/Accessories**

