

# INDUSTRIAL NOZZLES

Hydro-Excavation | Sewer Jetting | Industrial Cleaning



# A GLOBAL NETWORK OF DEALERS



Our International Dealer Network keeps Hydra-Flex nozzles in your toolbox. We deliver quality products and service by proudly partnering with an extensive network of dealers and distributors to get our products into the hands of our customers quickly and efficiently.



## BECOME A DEALER

Hydra-Flex is a premium brand that attracts top tier dealers who entice and retain customers, thanks to our multi-segment product line and our reputation of innovative quality. Generous growth rebates, marketing support, and merchandising opportunities are part of a dealer-proven system that will grow your business year after year. Contact us to become a Hydra-Flex dealer.

## SEE OUR NOZZLES IN ACTION

Request an in-person demo through your local dealer.



## WE'RE HERE TO HELP

Hydra-Flex and our team of savvy industry experts are here to be a part of every job, every day, for every customer. With dedicated in-house sales, customer service, and tech support teams, we're available 24/7 to supply the tools you need and answer all technical questions.



## OUTFIT YOUR RIG

Select between a hydro-excavation or municipal-focused nozzle demo box to complete your fleet.

Email [hello@hydraflexinc.com](mailto:hello@hydraflexinc.com)

# TABLE OF CONTENTS

<b>ABOUT US</b>	<b>3</b>
<b>FLEET SOLUTIONS</b>	<b>5</b>
<b>HYDRO-EXCAVATION</b>	<b>7</b>
Ripsaw™	9
Switchblade™	11
Machete™	13
<b>SEWER JETTING</b>	<b>15</b>
Reaper™	17
<b>INDUSTRIAL CLEANING</b>	<b>19</b>
Marksman™	21
Industrial Cleaning™	23
<b>ACCESSORIES</b>	<b>25</b>
Ripsaw™	25
Machete™	26
Switchblade™	27
Reaper™	28
Marksman™	31
Aqua-Rocket™	32
<b>SAFETY</b>	<b>33</b>
<b>WARRANTY</b>	<b>34</b>





## OUR STORY

Hydra-Flex was founded in 2002 as two men, a beer fridge, and a machine shop, driven by the simple belief that we could find a better way to manufacture innovative and reliable fluid handling products. Since our beginning, we've stayed true to our product values of innovation, accuracy, reliability, and efficiency. These values are evident in the products we develop that revolutionize the way our customers do business.

In addition to industrial nozzles, Hydra-Flex is also a fluid-handling leader in the car wash industry. In 2021, Hydra-Flex became a part of Sonny's Enterprises, the world's largest manufacturer of conveyORIZED car wash equipment, parts, and supplies.

As a vertically integrated original equipment manufacturer based in the USA, we control the full life cycle of our products. We follow a structured approach during every step of the product development process to ensure customer satisfaction. Every day we push the boundaries to solve customer problems in new and creative ways.

# WHAT WE DO

Our patented, water-saving technology has taken the hydro-excavation, industrial cleaning, sewer jetting, and vehicle care industries by storm. Inside each nozzle is a tremendous amount of engineering design, quality testing, and focus on delivering superior performance.



**WORK FASTER**

**SAVE WATER**

**LAST LONGER**

## HOW WE DO IT

Each of Hydra-Flex's industrial nozzles were developed using our innovative, patented technology to provide tools that will "do more with less." Our highly efficient and durable nozzles deliver powerful water streams that complete jobs faster and save precious resources.

# 38 BILLION

gallons of water saved by Hydra-Flex nozzles



## STREAM QUALITY

There are two ways fluid can move: laminar flow and turbulent flow. Laminar flow is characterized by a smooth, orderly flow; turbulent flow is rough and chaotic. Laminar flow has a constant velocity at any point within the fluid, like a constant flow of traffic. Turbulent flow is chaotic, forms eddies and whirlpools, and moves like the flow of a whitewater rapid.

At the heart of every Hydra-Flex nozzle is flow-straightening technology to ensure the nozzle's stream has laminar flow where every particle of fluid flows along one smooth path to provide more impingement while using less water.

### WHAT WE DO: LAMINAR FLOW

Smooth and streamlined, all molecules move in the same direction at the same speed



### WHAT COMPETITORS DO:

#### TURBULENT FLOW

Swirling and chaotic





# FLEET SOLUTIONS

One brand, full line! Standardize your fleet with custom solutions that meet your needs for any application. Hydra-Flex utilizes the highest quality materials, standards, and processes to ensure our products offer a measurably better solution than other industry nozzles. Our engineering capabilities are unparalleled in the industries we serve. The breadth of Hydra-Flex product offerings allow your fleet to have consistency from truck, to trailer, to pressure washer.



## HYDRO-EXCAVATION

Hydra-Flex offers three premium brands of nozzles – the Ripsaw, the Machete, and the Switchblade – designed specifically for the rugged hydro-excavation industry. Hydro-excavation is the process of removing or moving soil with pressurized water. This allows for a non-destructive and more accurate way to excavate soil and locate underground utilities.

### CONNECT WITH US





## SEWER JETTING

Hydra-Flex offers a complete line of Reaper rotating sewer jetting nozzles for a variety of pipe sizes, with powerful forward facing and thrusting power to allow you to use one tool for multiple jobs (cutting, cleaning, debris removal, flushing, etc.). Sewer jetting is a method of cleaning out sewers and drain lines by using high-pressure water streams through specialized jetting nozzles to dislodge obstructions, clean pipes, and perform regular maintenance to prevent sewage backups.



## INDUSTRIAL CLEANING

Hydra-Flex's industrial cleaning nozzles – the Marksman and the Aqua-Rocket – are designed to help you clean any substrate at both short and long distances. Industrial cleaning applies to a wide variety of applications including commercial and industrial, public works infrastructure, graffiti removal, food production facilities, surface preparation, heavy equipment, conveyor belts, barns, and much more.



# HYDRO-EXCAVATION







**SEE THEM  
IN ACTION**

Request an in-person  
demo through your  
local dealer.



Watch our  
hydro-excavation  
videos!

# DIG FASTER, SAVE WATER



## ROTATING HYDRO-EXCAVATION NOZZLE

Hydra-Flex released the Ripsaw line of rotating hydro-excavation nozzles in 2014, determined to create a nozzle to solve common industry issues. Now known as the industry's premier and most reliable spinner tip, the Ripsaw has revolutionized the hydro-excavation industry.

### DESIGN FEATURES

- Stainless steel housing and tungsten carbide wear surfaces
- Repair kits available for extended life
- Non-conductive urethane coating on nozzle body protects users and utilities
- Greater impingement allows you to use smaller nozzle sizes while getting the same impact as nozzles with higher GPM

### APPLICATIONS

- Potholing
- Daylighting
- Debris Removal
- Piling Hole
- Frac Tank Cleaning

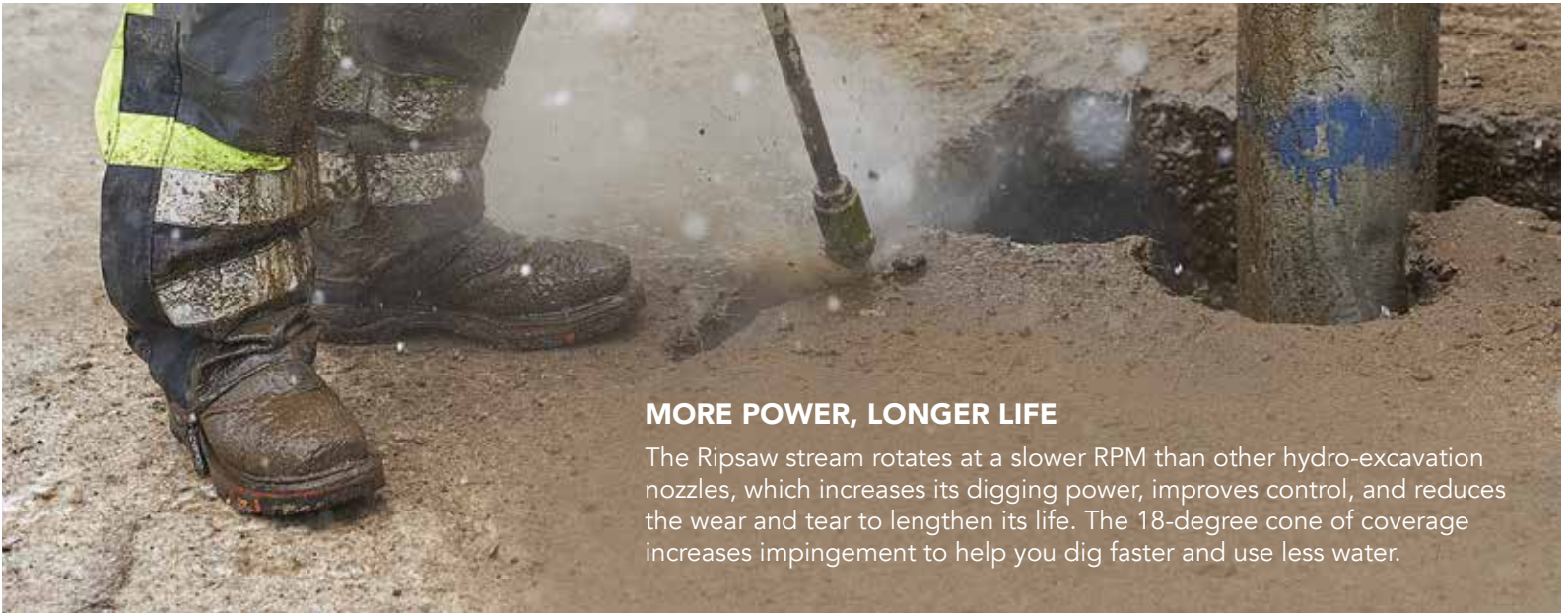


### SPRAY CHARACTERISTICS

- Spray Angle: 18-degree cone
- Flow Rates: 1.5 – 10.7 GPM
- Inlet Pressure: 1000 – 3200 PSI
- Nozzle Sizes: #3.0 – #12.0







### MORE POWER, LONGER LIFE

The Ripsaw stream rotates at a slower RPM than other hydro-excavation nozzles, which increases its digging power, improves control, and reduces the wear and tear to lengthen its life. The 18-degree cone of coverage increases impingement to help you dig faster and use less water.

# 35%

**DIG FASTER,  
SAVE WATER**

The Ripsaw is 35 percent more efficient than other rotating nozzles.



"It's amazing! What the Ripsaw means to us is a nearly 30 percent increase in productivity. It's a simple thing on a half-million-dollar truck, and it makes a big difference."

**Bruce Bergstrom, CEO**  
Energy Construction Solutions, Inc.



### DURABLE AND RUGGED

To battle the most extreme conditions, the Ripsaw HD's premium coating stands tall against frost, shale, rocky soil, and much more.



# DIG FASTER, SAVE WATER



## STATIC, ZERO-DEGREE HYDRO-EXCAVATION NOZZLE

The most flexible tool for digging! The Switchblade can give you one, two, or four solid streams of powerful flow, ideal for trenching applications and changing flow-rates on the fly.

### DESIGN FEATURES

- Stainless steel housing and tungsten carbide wear surfaces
- Non-conductive urethane coating on nozzle body protects users and utilities
- Individual, replaceable, color-coded nozzle pills allow for change in flow rate
- Greater impingement allows you to use different pill sizes while getting the same impact as nozzles with higher GPM

### APPLICATIONS

- Trenching
- Starting Tool
- Compact Soils
- Precision
- Digging



### SPRAY CHARACTERISTICS

- Spray Angle: one, two, or four static, 0-degree solid streams
- Flow Rates (Pre-Configured): 0.5 – 12.5 GPM
- Inlet Pressure: 4000 PSI
- Nozzle Sizes: #1.0 – #48.0



WATCH OUR SWITCHBLADE VIDEOS





“This nozzle is pretty impressive. You have the option of turning it sideways, so you can just keep a nice cutting action. We do a lot of trenching where it doesn’t have to be very wide. This nozzle is perfect for those narrow channels.”

**Jesse Doffler**  
Goliath Hydro-Vac



**CHOOSE YOUR STREAM**

From the extreme precision of the Ace’s single solid stream, to the efficiency of the Quad’s four powerful streams, select your Switchblade’s stream arrangement to meet the accuracy needed for the job.



**CHANGE YOUR FLOW RATE IN THE FIELD**

Individual, replaceable, color-coded nozzle pills – as well as plugs – allow you to change the water flow rate based on current soil conditions.



**TRUSTY TRENCHING TOOL**

The Switchblade’s versatile options offer unparalleled diversity to cut a variety of trenches. Use the Ace’s single stream to directly and deeply penetrate the ground in small, precise areas. Switch to the Quad for brute force spread over four streams. Its wider fan angle is perfect to define larger areas with less depth.

# DEMAND POWER, COMMAND PRECISION

## MACHETE™ BY:HYDRA-FLEX

### LINEAR OSCILLATING HYDRO-EXCAVATION NOZZLE

A premium oscillating tool and the first of its kind in the hydro-excavation market, the Machete is a “do-it-all tool” that combines the penetration of a straight tip and the movement of a rotating tip. The depth at which the Machete can cut the Earth is second-to-none, making it the most efficient tool that digs the deepest distances. The Machete’s oscillating stream also means less movement, better ergonomics, and less wear and tear on the operator.

#### DESIGN FEATURES

- Stainless steel housing and tungsten carbide wear surfaces
- Replacement covers and repair kits available for extended life
- Greater impingement allows you to use smaller nozzle sizes while getting the same impact as nozzles with higher GPM

#### APPLICATIONS

- Bell Holing
- Sloping
- Trenching
- Finishing Tool
- Caliche / Hard Soils



#### SPRAY CHARACTERISTICS

- Spray Angle: 15-degree wedge
- Flow Rates: 1.5 – 8.9 GPM
- Inlet Pressure: 1000 – 3200 PSI
- Nozzle Sizes: #3.0 – #10.0







The unique oscillating design of the Machete helps reduce undermining that may occur with traditional nozzles.



"This tip rocks. It's definitely my go-to whether I'm into harsh ground or making my work look great with finishing touches. I've been using it for over a year now; it'll last a long time. This is definitely the tip to use and recommend it on every truck!"

**Dave Temple, Owner / Operator**  
*CDT Hydrovac Excavation*

**48% FASTER DIGGING**  
The Machete provided 48 percent faster digging than competing rotating nozzles.



**SUPERIOR PERFORMANCE**

The Machete offers the best of both worlds – the safety and rotation of the Ripsaw combined with the Switchblade's straight-line power. The long stream and powerful slicing motion help you dig faster through compact soil. Just aim and let the Machete do the work!



# SEWER JETTING







**SEE IT  
IN ACTION**

Request an in-person demo through your local dealer.



Watch our sewer jetting videos!

SCAN ME

# UNPARALLELED CUTTING POWER, UNRIVALED CLEANING



## ROTATING SEWER JETTING NOZZLE

The Reaper is the most powerful cutting tool in the industry, designed to hit specific angles that shorten the time it takes to cut through blockages.

### DESIGN FEATURES

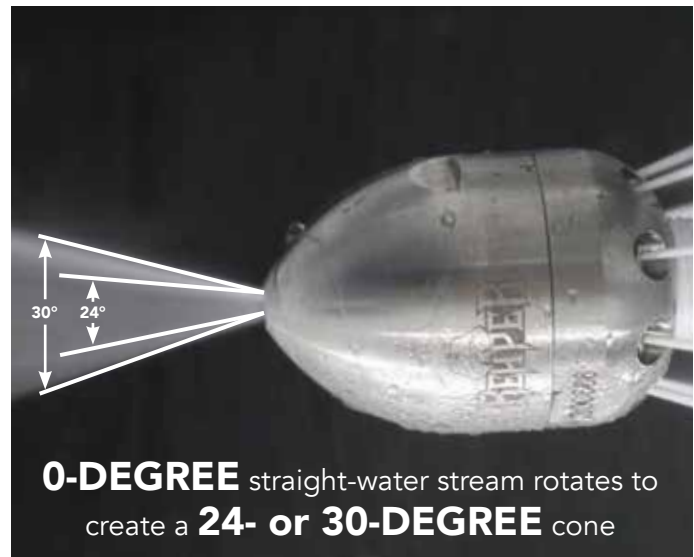
- Stainless steel housing and tungsten carbide wear surfaces
- Spray angles optimized for maximum pulling, thrusting and cleaning power
- Fully field-repairable – Repair kits get you back up and running in about 10 minutes
- Greater impingement allows you to cut through the blockages faster, completing more jobs in a day



AVAILABLE IN NPT AND BSPP

### APPLICATIONS

- Municipal Sewer Cleaning
- Commercial Drain Cleaning
- Paraffin Wax Removal
- FOG Removal
- Root Removal



### SPRAY CHARACTERISTICS

- Front Jet Spray Angle: 24 (3/8") or 30-degree (1/2", 1")
- Rear Jets Spray Angles: 20-degree angle
- Flow Rates: 3.7 – 74.5 GPM
- Inlet Pressure: 1500 – 4000 PSI (1" maximum 3000 PSI)
- Nozzle Sizes: #6.0 – #80.0

Tungsten Carbide Wear Surfaces

Repair kits for front and rear jets available for extended life



\*1/4" coming soon



WATCH OUR  
REAPER VIDEOS



“Optimized stream quality results in greater impingement, allowing the use of one tool for various applications like cutting, cleaning, removal, and more.”

**Joshua Rangel, President**  
*All County Plumbing, Inc.*



**SUPERIOR THRUSTING POWER**

The Reaper simultaneously clears and cleans by combining a powerful rotating front stream that cuts through blockages and cleans the pipe walls, while the back streams propel the nozzle forward to meet the challenge.

The rear jets have proven to pull a line up to 800 feet!



**ATTACK THE TOUGHEST BLOCKAGES**

What’s the best way to clear a blockage with the Reaper? Follow these two easy steps!

1. Feed the nozzle all the way to the troubled spot.
2. Pull back the hose to run into the blockage (6"-12" depending on pipe size).

This ensures the front rotating stream hits the full diameter of the pipe to cut the blockage at its most outer point and clear the blockage with maximum power and efficiency.



# INDUSTRIAL CLEANING







# AQUA ROCKET™



## SEE THEM IN ACTION

Request an in-person demo through your local dealer.



Watch our industrial cleaning videos!

# LONG-DISTANCE CLEANING



## LONG-DISTANCE CLEANING NOZZLE

The Marksman long-distance cleaning nozzle is designed to maintain its impingement and allow for extremely accurate cleaning at long distances.

### DESIGN FEATURES

- Precise, accurate stream cleans at long distances in hard-to-reach places
- Controlled flow provides cleaning impingement over 20 feet
- Operators no longer need multiple lances to extend distance or to lower themselves into confined spaces
- Low-flow design reduces water consumption and job duration

### RECOMMENDED EQUIPMENT

Recommended for use with a 6-foot minimum lance equipped with dead-man switch

### APPLICATIONS

- Lift Stations
- Manholes
- Tanks
- Long-Distance Cleaning



### SPRAY CHARACTERISTICS

- Spray Angle: Static, 0-degree
- Flow Rates: 4.8 – 17.4 GPM
- Inlet Pressure: 2500 PSI
- Nozzle Sizes: #12.0 – #20.0



Constructed out of stainless-steel housing, the nozzle is lightweight and durable.



WATCH OUR MARKSMAN VIDEOS!



## SAFETY AND PRECISION

When using lance extensions in the field, only use threaded connections (rather than quick-connects) to ensure the water stream remains stable, and keep your stream intact during long-distance cleaning.



## ACCURACY

The Marksman's precise long-distance control allows you to clean solid and grease build-ups while greatly reducing potential damage to electrical components or lift station pumps. The Marksman's distance – more than 20 feet – also ensures your safety while cleaning lift stations and manholes and keeps you away from hazardous substrates.



“Compared to our old set up, the Marksman handles great! It doesn't wear you down after using it for any length of time. The fact that we can spray from a distance and not have to get up close pays off – really a great product.”

**Geoff Hinkle, O&M Technician**  
*Woodard and Curran*



**21%** SAVE WATER,  
WORK FASTER

The Marksman uses 21 percent less water than the competition – you can complete more jobs between filling up your truck.

# CONTROLLED CLEANING POWER

## AQUA ROCKET™

### INDUSTRIAL ROTATING TURBO NOZZLE

The Aqua-Rocket is ideal for a wide variety of industrial cleaning applications thanks to its durability and high-performance impingement.

#### DESIGN FEATURES

- Stainless steel housing and tungsten carbide wear surfaces
- Repair kits available for extended life
- Greater impingement allows you to use smaller nozzle sizes while getting the same impact as nozzles with higher GPM

#### APPLICATIONS

- Commercial and Industrial Cleaning
- Concrete Cleaning
- Graffiti Removal
- Production Facility Cleaning
- Surface Prep
- Heavy Equipment Wash



#### SPRAY CHARACTERISTICS

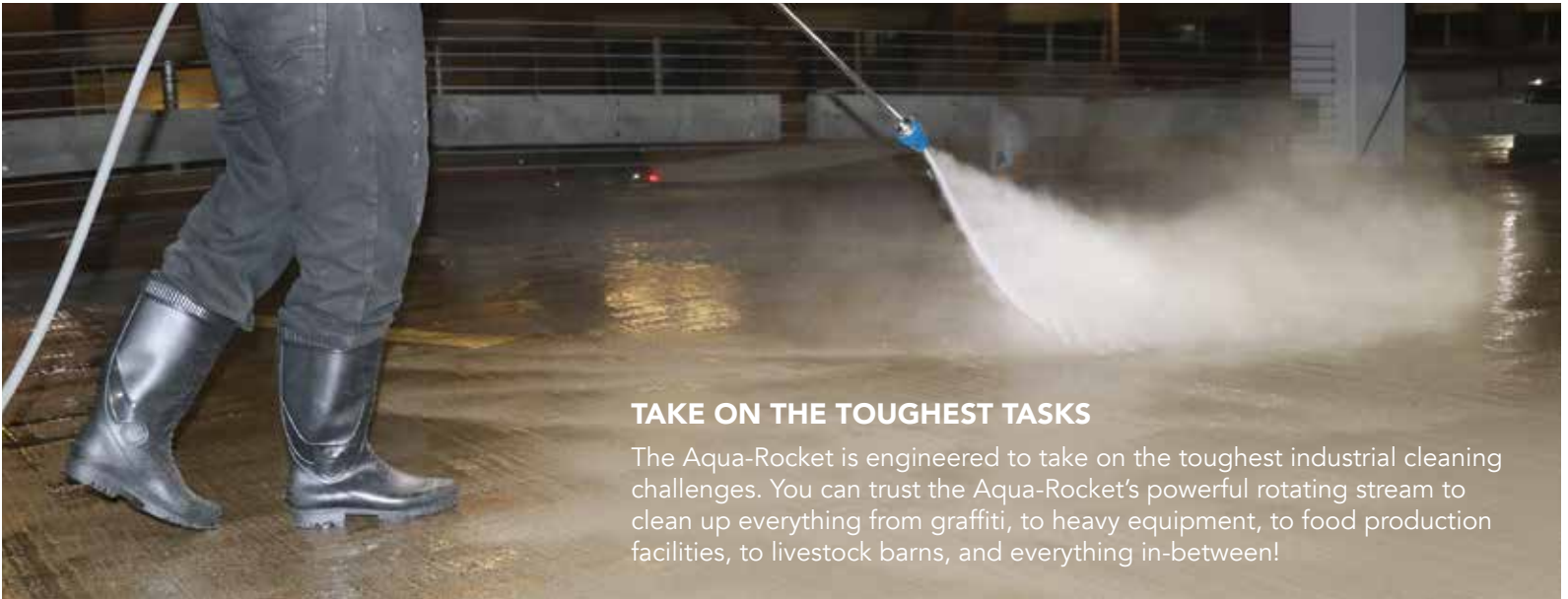
- Spray Angle: 22-degree cone
- Flow Rates: 1.8 – 10.0 GPM
- Inlet Pressure: 1500 – 5000 PSI
- Nozzle Sizes: #3.0 – #12.0



High-temperature, drop-resistant rubber cover protects nozzle

 WATCH OUR AQUA-ROCKET VIDEOS





### TAKE ON THE TOUGHEST TASKS

The Aqua-Rocket is engineered to take on the toughest industrial cleaning challenges. You can trust the Aqua-Rocket's powerful rotating stream to clean up everything from graffiti, to heavy equipment, to food production facilities, to livestock barns, and everything in-between!

"After switching from our previous nozzles to Aqua-Rocket, our cleaning processes overall completion time dropped by more than 50 percent. This is huge in our industry because it enables us to repurpose more than eight hours for other tasks."

**Chadwick Kogelschatz,**  
**Continuous Improvement Manager**  
*Roskam Baking Company*

**42%** **IMPROVE EFFICIENCY**

The Aqua-Rocket saves time and money by cleaning 42 percent faster than the competition.

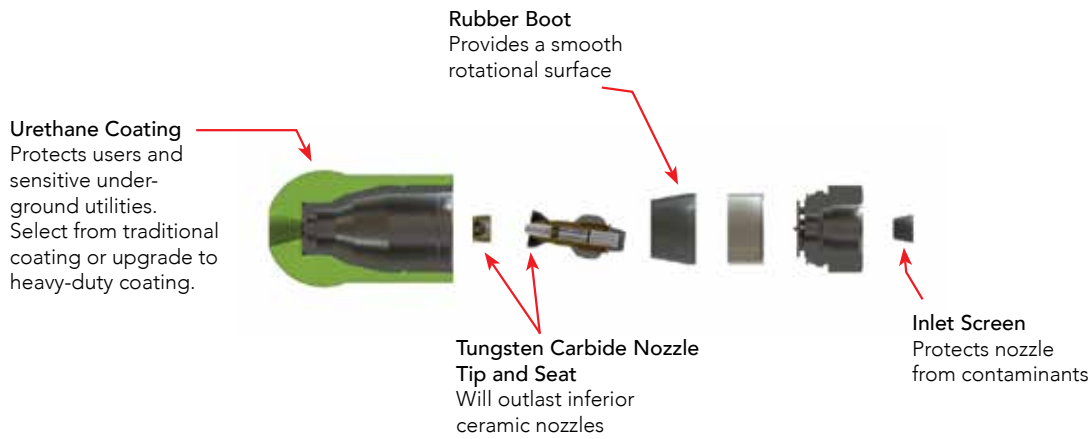


### INSIDER TIP

Use the Aqua-Rocket in any direction! Thanks to its tungsten carbide nozzle tip, the Aqua-Rocket can start and stop both vertically and horizontally.



# RIPSAW



## REPAIR KIT



## ACCESSORIES

10 Pack of Dome Inlet Screens  
**Part Number: 1002883**



NOZZLE SIZE	RIPSAW NOZZLE PART NUMBER	RIPSAW HD NOZZLE PART NUMBER	REPAIR KIT PART NUMBER	FLOW RATE CHART (GPM)					
				@1000 PSI	@1500 PSI	@2000 PSI	@2500 PSI	@3000 PSI	@3200 PSI
3.0	1001857-030	1002719-030	1001858-030	1.5 GPM	1.8 GPM	2.1 GPM	2.4 GPM	2.6 GPM	2.7 GPM
4.0	1001857-040	1002719-040	1001858-040	2.0 GPM	2.4 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.6 GPM
5.0	1001857-050	1002719-050	1001858-050	2.5 GPM	3.1 GPM	3.5 GPM	4.0 GPM	4.3 GPM	4.5 GPM
6.0	1001857-060	1002719-060	1001858-060	3.0 GPM	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.4 GPM
8.0	1001857-080	1002719-080	1001858-080	4.0 GPM	4.9 GPM	5.7 GPM	6.3 GPM	6.9 GPM	7.2 GPM
10.0	1001857-100	1002719-100	1001858-100	5.0 GPM	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	8.9 GPM
12.0	1001857-120	1002719-120	1001858-120	6.0 GPM	7.3 GPM	8.5 GPM	9.5 GPM	10.4 GPM	10.7 GPM



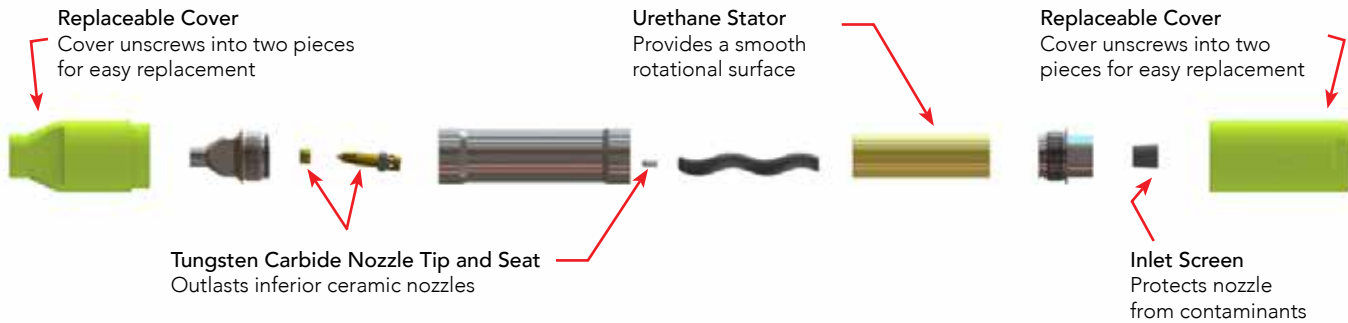
Rebuild the Ripsaw on the fly and in the field with our repair kits! Match the repair kit to your original nozzle size and you will be back up and running in about 10 minutes.



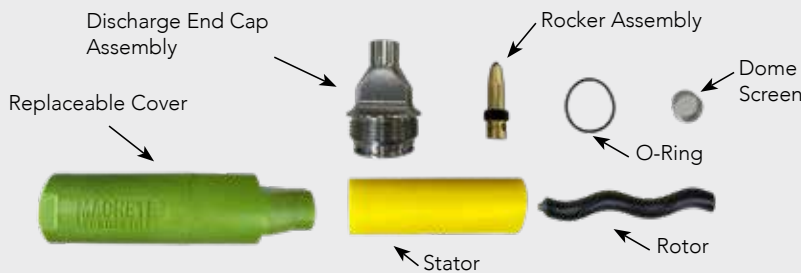
**CONNECT WITH A DISTRIBUTOR**  
hello@hydraflexinc.com



# MACHETE



## REBUILD KIT



## ACCESSORIES

10 Pack of Dome Inlet Screens  
**Part Number: 1003034**



Replaceable Cover  
**Part Number: 1003121**



NOZZLE SIZE	NOZZLE PART NUMBER	REBUILD KIT PART NUMBERS	FLOW RATE CHART (GPM)					
			@1000 PSI	@1500 PSI	@2000 PSI	@2500 PSI	@3000 PSI	@3200 PSI
3.0	1003088-030	1003308-030	1.5 GPM	1.8 GPM	2.1 GPM	2.4 GPM	2.6 GPM	2.7 GPM
4.0	1003088-040	1003308-040	2.0 GPM	2.5 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.6 GPM
5.0	1003088-050	1003308-050	2.5 GPM	3.0 GPM	3.5 GPM	4.0 GPM	4.3 GPM	4.5 GPM
6.0	1003088-060	1003308-060	3.0 GPM	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.4 GPM
8.0	1003088-080	1003308-080	4.0 GPM	4.9 GPM	5.7 GPM	6.3 GPM	6.9 GPM	7.2 GPM
10.0	1003088-100	1003308-100	5.0 GPM	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	8.9 GPM



Repair kits and replaceable nylon covers are available and allow for instant serviceability while increasing the overall life of the core nozzle.



### DID YOU KNOW?

All Hydra-Flex nozzles come with a 90-day warranty.

# SWITCHBLADE

## CHOOSE YOUR PRE-CONFIGURED NOZZLE KITS

Switchblade nozzle kits are pre-configured in the most commonly used flow rates across the industry.

NOZZLE SIZE	KIT PART NUMBER	REBUILD KIT PART NUMBER	FLOW RATE CHART						
			@1000 PSI	@1500 PSI	@2000 PSI	@2500 PSI	@3000 PSI	@3500 PSI	@4000 PSI
<b>SWITCHBLADE ACE NOZZLE KIT</b>									
1.0	1002036-010	--	0.5 GPM	0.6 GPM	0.7 GPM	0.8 GPM	0.9 GPM	0.9 GPM	1.0 GPM
2.0	1002036-020	--	1.0 GPM	1.2 GPM	1.4 GPM	1.6 GPM	1.7 GPM	1.9 GPM	2.0 GPM
3.0	1002036-030	--	1.5 GPM	1.8 GPM	2.1 GPM	2.4 GPM	2.6 GPM	2.8 GPM	3.0 GPM
4.0	1002036-040	--	2.0 GPM	2.4 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.7 GPM	4.0 GPM
5.0	1002036-050	--	2.5 GPM	3.1 GPM	3.5 GPM	4.0 GPM	4.3 GPM	4.7 GPM	5.0 GPM
6.0	1002036-060	--	3.0 GPM	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.6 GPM	6.0 GPM
8.0	1002036-080	--	4.0 GPM	4.9 GPM	5.6 GPM	6.3 GPM	6.9 GPM	7.5 GPM	8.0 GPM
10.0	1002036-100	--	5.0 GPM	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	8.9 GPM	9.0 GPM
12.0	1002036-120	--	6.0 GPM	7.3 GPM	8.5 GPM	9.5 GPM	10.4 GPM	11.2 GPM	12.0 GPM
<b>SWITCHBLADE DEUCE NOZZLE KIT</b>									
2.0	1002035-020	--	1.0 GPM	1.2 GPM	1.4 GPM	1.6 GPM	1.7 GPM	1.9 GPM	2.0 GPM
4.0	1002035-040	--	2.0 GPM	2.4 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.7 GPM	4.0 GPM
6.0	1002035-060	--	3.0 GPM	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.6 GPM	6.0 GPM
8.0	1002035-080	--	4.0 GPM	4.9 GPM	5.6 GPM	6.3 GPM	6.9 GPM	7.5 GPM	8.0 GPM
10.0	1002035-100	--	5.0 GPM	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	9.4 GPM	10.0 GPM
12.0	1002035-120	--	6.0 GPM	7.3 GPM	8.5 GPM	9.5 GPM	10.4 GPM	11.2 GPM	12.0 GPM
<b>SWITCHBLADE QUAD NOZZLE KIT</b>									
4.0	1002889	1002951-040	2.0 GPM	2.4 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.7 GPM	4.0 GPM
6.0	1002949	1002951-060	3.0 GPM	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.6 GPM	6.0 GPM
8.0	1001927	1002951-080	4.0 GPM	4.9 GPM	5.6 GPM	6.3 GPM	6.9 GPM	7.5 GPM	8.0 GPM
10.0	1001928	1002951-100	5.0 GPM	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	9.4 GPM	10.0 GPM
12.0	1002950	1002951-120	6.0 GPM	7.3 GPM	8.5 GPM	9.5 GPM	10.4 GPM	11.2 GPM	12.0 GPM
14.0	1001929	1002951-140	7.0 GPM	8.6 GPM	9.9 GPM	11.1 GPM	12.1 GPM	13.1 GPM	14.0 GPM



ACE



DEUCE



QUAD

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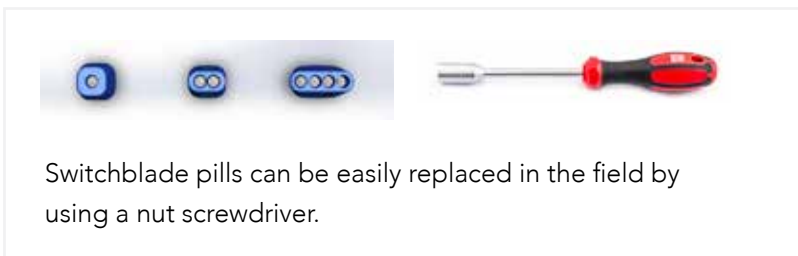


**PILL ACCESSORIES**

Individual, replaceable, color-coded nozzle pills – as well as plugs – allow you to change the water flow rate based on current soil conditions.



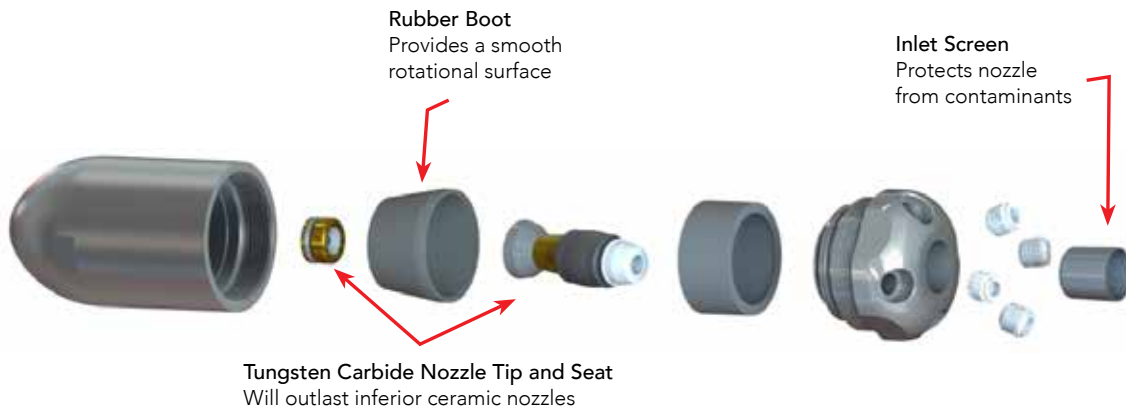
PART NUMBER	DESCRIPTION	COLOR	CONNECTION THREAD	FLOW RATE (EACH PILL)							
				@1000 PSI	@1500 PSI	@2000 PSI	@2500 PSI	@3000 PSI	@3500 PSI	@4000 PSI	
1001780-010	1.0 Nozzle Pill	Blue	1/8" NPT	0.5 GPM	0.6 GPM	0.7 GPM	0.8 GPM	0.9 GPM	0.9 GPM	1.0 GPM	
1001780-020	2.0 Nozzle Pill	Yellow	1/8" NPT	1.0 GPM	1.2 GPM	1.4 GPM	1.6 GPM	1.7 GPM	1.8 GPM	2.0 GPM	
1001780-030	3.0 Nozzle Pill	Green	1/8" NPT	1.5 GPM	1.8 GPM	2.1 GPM	2.4 GPM	2.6 GPM	2.7 GPM	3.0 GPM	
1001780-040	4.0 Nozzle Pill	Orange	1/8" NPT	2.0 GPM	2.4 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.6 GPM	4.0 GPM	
1001780-050	5.0 Nozzle Pill	Purple	1/8" NPT	2.5 GPM	3.1 GPM	3.5 GPM	4.0 GPM	4.3 GPM	4.5 GPM	5.0 GPM	
1001780-060	6.0 Nozzle Pill	Red	1/8" NPT	3.0 GPM	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.4 GPM	6.0 GPM	
1001780-080	8.0 Nozzle Pill	Black	1/8" NPT	4.0 GPM	4.9 GPM	5.7 GPM	6.3 GPM	6.9 GPM	7.2 GPM	8.0 GPM	
1001780-100	10.0 Nozzle Pill	White	1/8" NPT	5.0 GPM	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	8.9 GPM	9.0 GPM	
1001780-120	12.0 Nozzle Pill	Pink	1/8" NPT	6.0 GPM	7.3 GPM	8.5 GPM	9.5 GPM	10.4 GPM	10.7 GPM	12.0 GPM	
3000795	SST Plug	-	1/8" NPT	-	-	-	-	-	-	-	



**DID YOU KNOW?**

All Hydra-Flex nozzles come with a 90-day warranty.

# ▶ REAPER



## ROTOR REPAIR KIT



## ACCESSORIES

10 Pack of Dome Inlet Screens

**Part Numbers:**

3/8" : 1003033

1/2" : 1003034

1" : 1003162



## REAR JET REPAIR KIT

\*Not Available for the 1/4" Reaper

3/8" & 1/2"



1"



# COMING SOON!

## 1/4" REAPER

Launching in 2022! Sizing and specifications are subject to change.



The Reaper is fully field-repairable! Repair kits get you back up and running without leaving your job site in about 10 minutes.



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**REAPER 3/8"**

**Pipe Size:** Ideal for 3-6" pipes.  
**Ideal Pressure:** 3.7-12 GPM  
**Front Nozzle Angle:** 24 Degrees  
**Rear Jets:** (4) at 20 degrees  
**Maximum PSI Rating:** 4000 PSI

**REAPER 1/2"**

**Pipe Size:** Ideal for 4-8" pipes.  
**Ideal Pressure:** 7.3-24 GPM  
**Front Nozzle Angle:** 30 Degrees  
**Rear Jets:** (4) at 20 degrees  
**Maximum PSI Rating:** 4000 PSI

**REAPER 1"**

**Pipe Size:** Ideal for 6-18" pipes.  
**Ideal Pressure:** 28.3-74.5 GPM  
**Front Nozzle Angle:** 30 Degrees  
**Rear Jets:** (8) at 20 degrees  
**Maximum PSI Rating:** 3000 PSI



AVAILABLE IN NPT AND BSPP

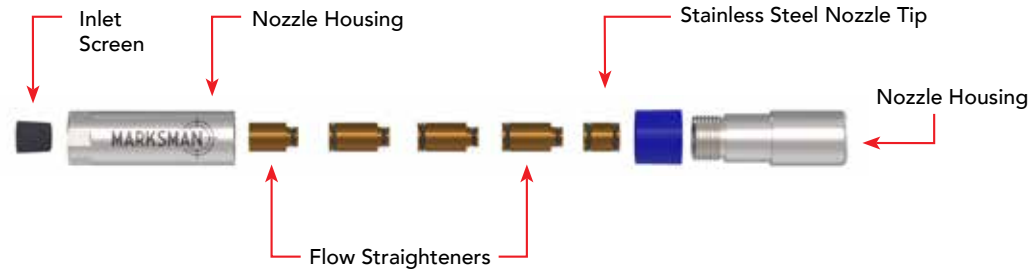
NOZZLE SIZE	FNPT NOZZLE PART NUMBER	BSPP NOZZLE PART NUMBER	ROTOR REPAIR KIT PART NUMBER	REAR JET REPAIR KIT	FLOW RATE CHART					
					@1500 PSI (103 Bar)	@2000 PSI (138 Bar)	@2500 PSI (172 Bar)	@3000 PSI (207 Bar)	@3500 PSI (241 Bar)	@4000 PSI (276 Bar)
<b>3/8" NOZZLE INLET - 24 DEGREE (IDEAL FOR 3" - 6" OR 90mm - 180mm PIPES)</b>										
6.0	1003031-060	1003204-060	1003029-060	1003030-060	3.7 GPM (14.0 LPM)	4.2 GPM (15.9 LPM)	4.7 GPM (17.8 LPM)	5.2 GPM (19.7 LPM)	5.6 GPM (21.2 LPM)	6.0 GPM (22.7 LPM)
9.0	1003031-090	1003204-090	1003029-090	1003030-090	5.5 GPM (20.8 LPM)	6.4 GPM (24.2 LPM)	7.1 GPM (26.9 LPM)	7.8 GPM (29.5 LPM)	8.4 GPM (31.8 LPM)	9.0 GPM (34.1 LPM)
12.0	1003031-120	1003204-120	1003029-1224	1003030-120	7.3 GPM (27.6 LPM)	8.5 GPM (32.2 LPM)	9.5 GPM (36.0 LPM)	10.4 GPM (39.4 LPM)	11.2 GPM (42.4 LPM)	12.0 GPM (45.4 LPM)
<b>1/2" NOZZLE INLET - 30 DEGREE (IDEAL FOR 4" - 8" OR 110mm - 225mm PIPES)</b>										
12.0	1003032-120	1003205-120	1003029-1230	1003030-120	7.3 GPM (27.6 LPM)	8.5 GPM (32.2 LPM)	9.5 GPM (36.0 LPM)	10.4 GPM (39.4 LPM)	11.2 GPM (42.4 LPM)	12.0 GPM (45.4 LPM)
15.0	1003032-150	1003205-150	1003029-150	1003030-150	9.2 GPM (34.8 LPM)	10.6 GPM (40.1 LPM)	11.9 GPM (45.0 LPM)	13.0 GPM (49.2 LPM)	14.0 GPM (53.0 LPM)	15.0 GPM (56.8 LPM)
18.0	1003032-180	1003205-180	1003029-180	1003030-180	11.0 GPM (41.6 LPM)	12.7 GPM (48.1 LPM)	14.2 GPM (53.8 LPM)	15.6 GPM (59.1 LPM)	16.8 GPM (63.6 LPM)	18.0 GPM (68.1 LPM)
24.0	1003032-240	1003205-240	1003029-180	1003030-240	14.7 GPM (55.6 LPM)	17.0 GPM (64.4 LPM)	19.0 GPM (71.9 LPM)	20.8 GPM (78.7 LPM)	22.4 GPM (84.8 LPM)	24.0 GPM (90.8 LPM)
<b>1" NOZZLE INLET - 30 DEGREE (IDEAL FOR 6" - 18" OR 180mm - 460mm PIPES)</b>										
40.0	1003155-400	1003206-400	1003029-180	1003163-400	28.2 GPM (106.7 LPM)	32.5 GPM (123.0 LPM)	36.4 GPM (137.8 LPM)	39.8 GPM (150.7 LPM)		
60.0	1003155-600	1003206-600	1003029-180	1003163-600	42.9 GPM (162.4 LPM)	49.5 GPM (187.4 LPM)	55.3 GPM (209.3 LPM)	60.6 GPM (229.4 LPM)		
80.0	1003155-800	1003206-800	1003029-180	1003163-800	52.7 GPM (199.5 LPM)	60.8 GPM (230.2 LPM)	68.0 GPM (257.4 LPM)	74.5 GPM (282.0 LPM)		



**DID YOU KNOW?**

All Hydra-Flex nozzles come with a 90-day warranty.

# ▶ MARKSMAN



## ACCESSORIES

10 Pack of Dome Inlet Screens

**Part Number:** 1003034

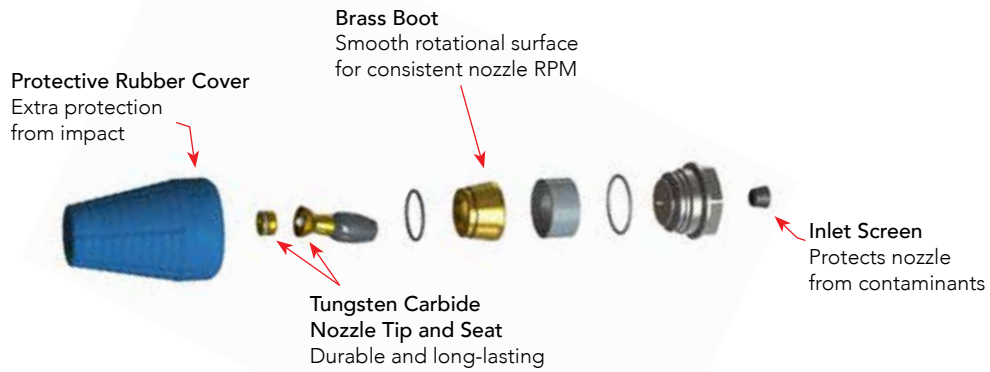


NOZZLE SIZE	NOZZLE PART NUMBER	FLOW RATE CHART				
		@ 500 PSI	@ 1000 PSI	@ 1500 PSI	@ 2000 PSI	@ 2500 PSI
12.0	1003150-120	4.8 GPM	6.8 GPM	8.3 GPM	9.6 GPM	10.8 GPM
15.0	1003150-150	5.8 GPM	8.2 GPM	10.0 GPM	11.6 GPM	13.0 GPM
20.0	1003150-200	7.8 GPM	11.0 GPM	13.5 GPM	15.6 GPM	17.4 GPM

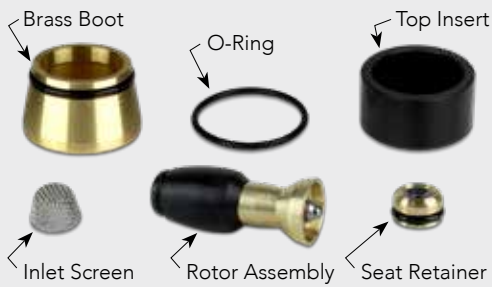


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# AQUA-ROCKET



## REPAIR KITS



## ACCESSORIES

10 Pack of Dome Inlet Screens  
**Part Number: 1002883**



NOZZLE SIZE	NOZZLE PART NUMBER	REPAIR KIT PART NUMBER	FLOW RATE CHART						
			@ 1500 PSI	@ 2000 PSI	@ 2500 PSI	@ 3000 PSI	@ 3500 PSI	@ 4000 PSI	@ 5000 PSI
3.0	1002402-030	1002616-030	1.8 GPM	2.1 GPM	2.4 GPM	2.6 GPM	2.8 GPM	3.0 GPM	3.4 GPM
3.5	1002402-035	1002616-035	2.1 GPM	2.5 GPM	2.8 GPM	3.0 GPM	3.3 GPM	3.5 GPM	3.9 GPM
4.0	1002402-040	1002616-040	2.4 GPM	2.8 GPM	3.2 GPM	3.5 GPM	3.7 GPM	4.0 GPM	4.5 GPM
4.5	1002402-045	1002616-045	2.8 GPM	3.2 GPM	3.6 GPM	3.9 GPM	4.2 GPM	4.5 GPM	5.0 GPM
5.0	1002402-050	1002616-050	3.1 GPM	3.5 GPM	4.0 GPM	4.3 GPM	4.7 GPM	5.0 GPM	5.6 GPM
5.5	1002402-055	1002616-055	3.4 GPM	3.9 GPM	4.3 GPM	4.8 GPM	5.1 GPM	5.5 GPM	6.2 GPM
6.0	1002402-060	1002616-060	3.7 GPM	4.2 GPM	4.7 GPM	5.2 GPM	5.6 GPM	6.0 GPM	6.7 GPM
8.0	1002402-080	1002616-080	4.9 GPM	5.7 GPM	6.3 GPM	6.9 GPM	7.5 GPM	8.0 GPM	8.9 GPM
10.0	1002402-100	1002616-100	6.1 GPM	7.1 GPM	7.9 GPM	8.7 GPM	9.4 GPM	10.0 GPM	N/A



### DID YOU KNOW?

All Hydra-Flex nozzles come with a 90-day warranty.



# HIGH-PRESSURE NOZZLE SAFETY

Operations with high-pressure equipment can be dangerous if caution is not exercised prior to and during tool use. Please read and follow these instructions and industry best practices. Deviating from safety instructions and recommendations can lead to severe injury and/or death.

- Installers/operators are responsible for conducting a job-specific risk assessment.
- Risk assessments need to consider material or substance hazards such as aerosols, biological and microbiological (viral or bacterial agents), combustible materials, dusts, explosion, fibers, flammable substances, fluids, fumes, gases, mists, and oxidizing agents.
- Do not exceed maximum operating pressure for any component in a system.
- Untrained individuals must keep out of the immediate work area.
- Examine the equipment for signs of deterioration, damage, or incorrect assembly. Do not operate damaged equipment until it is fully repaired or replaced.
- Ensure all threaded connections are secure and leak-free.
- Before servicing or replacing any parts, ensure the system is de-energized. Failure to do so could lead to severe injury and/or death.

## SITE SAFETY CHECK

- Complete a job-specific risk assessment and take appropriate action.
- Adhere to all site-specific safety procedures.
- Ensure work zones are properly defined and warning signs are posted as needed.
- Remove unnecessary objects (i.e., loose parts, hoses, tools, etc.) from the workplace.
- Ensure all operators utilize proper Personal Protective Equipment (PPE).
- Ensure air and water hoses are properly connected and secure.
- Prior to use, inspect all hoses and accessories for damage. Do not use damaged equipment. Only high-pressure hoses designed for high-pressure applications should be utilized.
- Evaluate all high-pressure threaded connections and ensure they are secure.
- Ensure operators never connect, disconnect, or tighten hoses, adapters, accessories, etc. with the high-pressure water pump running.

## PERSONAL PROTECTIVE EQUIPMENT

The use of PPE is determined by the water's working pressure and the application. All site-personnel must conduct a job-specific risk assessment in order to determine the precise PPE needs. For more information, refer to industry best practices.

PPE may include:

- Eye protection – glasses, goggles, full face visor
- Foot protection – steel toe capped, waterproof, non-slip safety boots
- Hand protection – gloves
- Ear protection – ear plugs or muffs for a minimum of 85 dBA
- Head protection – hard hat that accepts face and ear protection
- Body protection – multi-layer waterproof clothing, high-vis clothing
- Hose protection – hose shroud
- Respiratory protection – depending on application

All nozzles were designed and constructed by Hydra-Flex with all potential hazards in mind. Hydra-Flex evaluated these dangers and built in safety mechanisms to the product. Hydra-Flex is not responsible for the results of misuse.



**EMAIL US TODAY FOR  
NOZZLE TRAINING  
[hello@hydraflexinc.com](mailto:hello@hydraflexinc.com)**



### DID YOU KNOW?

All Hydra-Flex nozzles come with a 90-day warranty.

## WARRANTY

All nozzles are quality tested prior to shipping to ensure proper rotation and spray pattern. Hydra-Flex nozzles carry a 90-day warranty covering manufacturing defects.

Most issues with our nozzles are related to user abuse and incorrect usage. Review the safety and operational information available on our website with any new customers to ensure they understand the proper techniques to help them get the most out of their nozzle.

If you have a valid warranty claim, please follow these steps:

- Contact Hydra-Flex customer service with information on the nozzle problem and your account information.
- We will have you place an order for a replacement nozzle, and will assign an RMA number (Returned Materials Authorization).
- Once you receive the replacement part, you will also receive a return UPS label to send back the faulty part. If not returned within 30 days, the RMA request will be canceled, and the replacement part invoice will be due.
- Upon receipt of the returned part, Hydra-Flex will assess if the nozzle was under warranty due to a manufacturing defect.
- If the product defect was covered by warranty, the replacement part invoice will be credited, otherwise the replacement invoice will be due.



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