



[Small Plumber](#)  
1/8", 1/4", 3/8"  
15°, 25°, 30° & 40°



[Small Drilled](#)  
1/2" 15° & 30°



[Small Inserted](#)  
1/2"  
10°, 12°, 30°, & 40°



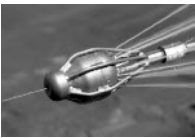
[Drilled Steel](#)  
3/4", 1"  
18°, 20°, 22°, 30° & 45°



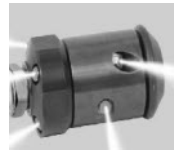
[Drilled 1 1/4"](#)  
1 1/4"  
18°



[Performance Penetrator](#)  
3/4", 1", 1 1/4"  
5°, 12° & 15°



[Performance Flusher](#)  
3/4", 1", 1 1/4"  
15-30°



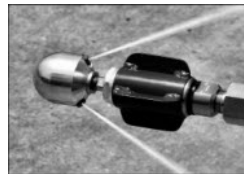
[Performance Rotating](#)  
1/2", 3/4", 1"  
40° & 90°



[Performance Large Pipe](#)  
1", 1 1/4", 1 1/2"  
9°, 16°, 10°, 15° & 60°



[Performance Specialty](#)  
3/4", 1", 1 1/2", 2 1/2"  
30°



[Warthog™](#)  
3/8", 1/2", 3/4", 1"  
15° Front

## Nozzle Accessories



[Carbide Inserts](#)  
For straight water stream and long service life in most inserted nozzles, use combined stainless steel/carbide nozzle inserts.



[Tube Style Extension](#)  
Part No. 300



[Carwash Nozzle Inserts](#)  
For use in washdown guns



[Four-Wire Skid](#)  
Part No. 696



[Lance Tip Insert](#)  
Part No. 85-12A



[Heavy Duty Finned Skid](#)  
Part No. 40



[Pulling Eye Bolt](#)  
Part No. 11035A2 or 11035A3



[Six Wire Skid](#)  
Part No. 695



**1/4" Penetrator**

**Part Number: 10-6**

**Bullet style for greater thrusts to push and penetrate blockages. 3/4" diameter x 7/8" long 15°**



**1/4" Rotator**

**Part Number: RR-4**

**Completely clean pipes, freeing grease, root, fibers. A must for contractors with regular maintenance contract. 15° rear thrust jets. 30° rear rotating jets. Has no forward jet 3/4" diameter x 1.7" long 1/4" hose**



**1/8" Ball**

**Part Number: 05-7**

**Short nozzle with recessed threads for hard-to-reach places or to negotiate bends, turns, and protrusions. Allows for easy retrieval of nozzle and hose 7/8" diameter x 0.8" long 30°**



**3/8" Ball**

**Part Number: 15-7**

**Good cornering nozzle with recessed hose inlet for blockages and easy retrieval 1" diameter x 0.9" long 30°**



**3/8" Button**

**Part Number: 15-2**

**General purpose flushing, designed for turns and bends in sanitary lines. 7/8" diameter x 0.9" long 40°**



**3/8" Ice-Grease Penetrator**

**Part Number: 15-13**

**Similar to Part 15-3 with three forward jets at 5° for powerful thrust and penetration through blockages. 15/16" diameter x 1" long 15°**



**3/8" Penetrator**

**Part Number: 15-3**

**Bullet style designed for greater thrust and penetration through blockages. 15/16" diameter x 1" long 15°**



**3/8" Rotator**

**Part Number: RR-6**

**Completely cleans pipes, freeing grease, root, fibers. A must for contractors with regular maintenance contracts. 15° rear thrust jets. 30° rear rotating jets. Has no forward jet. 3/4" diameter x 1.7" long**



**1/4" Ball**

**Part Number: 10-7**

**Short nozzle with recessed threads for hard-to-reach places or to negotiate bends, turns, and protrusions. Allows for easy retrieval of nozzle and hose. 7/8" diameter x 0.8" long 30 degree**



**1/2" Button**  
**Part Number: 21-2**

**One of SHAMROCK'S most popular nozzles** General purpose flushing for turns and bends. 1 1/8" diameter x 1.5" long 30° lateral line



**1/2" Ellipse Penetrator**  
**Part Number: 21-8**

**Designed for greater thrust and penetration through grease and hard soap.** 1 3/8" diameter x 2" 15° Has 1 forward jet



**1/2" Ice-Grease Penetrator**  
**Part Number: 21-13**

**Designed to penetrate ice or frozen blocked lines.** 1 3/8" diameter x 2" 15° Has 3 forward 5° jets



1/2" Grease

**Part Number: 29-2**

**NEW DESIGN! Now with a stainless steel wear ring.** Special, wear-resistant bar stock aluminum. Streamlined to penetrate grease, sand, and sludge. A nice sand and sludge nozzle for small jets 12-20 gpm. 2 1/4" diameter x 7 1/2" long Weight 2 lbs. 30° **Has 5 rear jets**



1/2" Short Rotating Nozzle

**Part Number: See Below**

**Part No. RRS-8 (40° Rear Jets)**  
**Part No. FRS-8 (Forward Jets)**  
**RRCS-8 (Rear Combi)**  
**FRCS-8 (Forward Combi)**

Hardened alloy and stainless steel. Dual application design to effectively clean small sewer pipes (2-12") and P-traps as small as 4". Seven combination carbide jets, (4) in rotation to clear blockages (3) in thrust to increase nozzle performance. Pressures to 7250 psi and flow as low as 10 gpm @ 3000 psi. Not available with forward jet. 1 1/2" diameter x 2 3/8" long Weight: 12 oz. **NOTE: Combi is (2) jets at 90° and (2) jets at 40°**



1/2" Super Grenade

**Part Number: See Below**

**EXCELLENT SMALL JETTER MAINLINE NOZZLE!**

**Part No. 21-5/3 (has 3 rear jets)**  
**Part No. 21-5/5 (has 5 rear jets)**

**Hardened Stainless steel. Designed for mainline work. Stays in pipe bottom while breaking up obstructions. Rated to 15,000 psi 3/4" diameter x 3" long Weight: 1.1 lbs.(12°)**



**1/2" Ultimate Penetrator**

**Part Number: See Below**

**Part No. 21-6/3 (10°) has 3 rear jets**

**Part No. 21-6/5 (10°) has 5 rear jets**

**Alloy steel. For heavy duty obstructions and culverts. Stays in pipe bottom to clear obstructions or soap and grease deposits. 2" diameter x 10" long Weight: 5 lbs.**



**High Flow Nozzle**

**Part Number: 107HF-D (1/2**

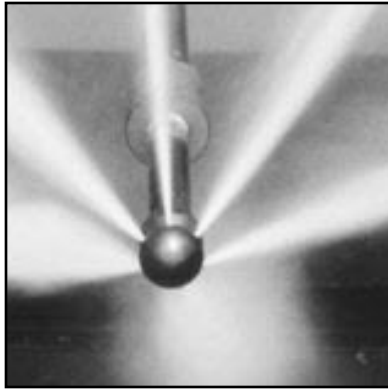
**NEW!!**

- **A multi purpose nozzle to clear sludge, mud and debris from pipe bottom. The heat treated alloy steel construction offers corrosion resistance, low wear and high efficiency. Water jets have replaceable carbide inserts for long service life. No forward jet. Six (6) Rear jets set at 20°**
- **Rated 16-45 gpm to 4,000 psi**
- **2.85" diameter x 4" long**
- **Weight 3 lbs.**

**OPTIONAL**

- Carbide straight stream front jet
- Lance tip, Part No. 85-12A
- Pulling Eye, Part No. 11035A2
- 6 Wire, 6" Skid Part No. 695-E6 (recommended)

*Radial Short at work*



**Radial Short (30°)**

**Part Number: 30**

**Radial Short**

Short, general purpose, flushing nozzle with wide angle rear jets to clean sidewalls efficiently. Available with choice of rear jet angles (°). Forward jet standard; available without forward jet on request.

Weight 1 lb.

**Part No. 30-ss (30°)**

Stainless Steel

Available only for hose size F

Has ten rear jets.

**Part No. 31 (45°)**

Available only for hose sizes E & F

Alloy steel for hose size E (5 Rear Jets)

Stainless steel for hose size F (10 Rear Jets)

Hose Size	Number of Rear Jets	Nozzle Dimensions in Inches
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E	5	1-9/16 dia x 2 long
F	6	1-7/8 dia x 2-3/4 long
G	10	2.2 dia x 3-5/16 long

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
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E 3/4	L 30	A 1000
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**When ordering, indicate hose size, desired flow rate and pressure.**

Nozzles for use at 80 gpm and greater all have 10 rear jets.

F 1	M 35	B 1200
G 1-1/4	N 40	C 1650

O 45	D 2000
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P 50	E 2500
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Q 55	F 3000
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R 60	SPL Special order for greater PSI
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S 65
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T 70
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U 80
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**Radial Vortex**

**Part Number: 32**

**RADIAL VORTEX at work.**

General pipe cleaning nozzles. Forward jet standard; available without forward jet on request.

Weight 1 1/4 lbs.

For penetrating hard soap, grease plugs or root masses.

For Hose Size	Number of rear jets	Nozzle dimensions in inches
E 18°	5	1 9/16 dia x 3 long
F 18°/24°	6	1 7/8 dia x 3 3/4 long

## Universal Penetrators

**Part Number: 33**

Nozzles with drilled rear jets positioned for streamlined penetration of root fiber, hard grease and other blockages.

Variety of front jet styles fit different tasks. Weight 1 1/4 lbs.

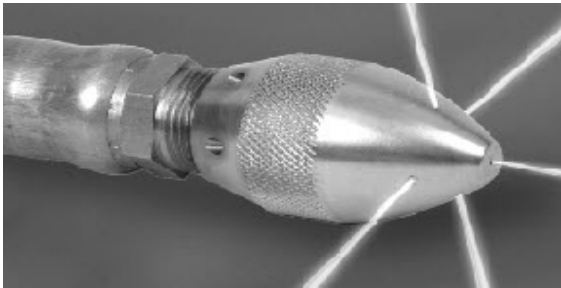


**Part No. 33 Single forward jet.  
Rear Jets at 20°**

Hose Size	Number of Rear Jets	Rear Jet Angle	Nozzle Dimension in Inches
E	5	15°	1-3/4 dia x 2-5/8 long
F	6	20°	2 dia x 3-5/16 long

## Universal Penetrators

**Part No. 33-12** Drilled lance tip to impact side of pipe and push blockages. Four side jets at 22°.



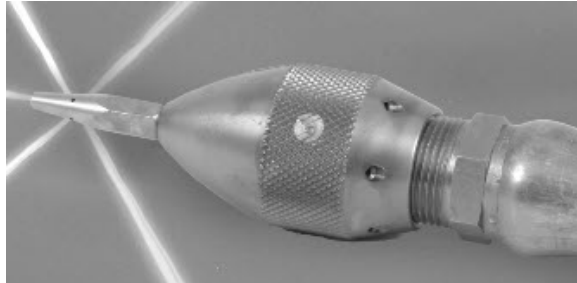
**Part No. 33-13** Performs best on ice/grease. Steep angled (5°) front jets push debris forward and penetrate hard blockages.



**Part No. 33-14** With pulling eye.



**Part No. 33-15** With inserted lance tip. Four side jets at 15°, one forward jet.



**When ordering, indicate hose size, desired flow rate and pressure.**

Nozzles for use at 80 gpm and greater all have 10 rear jets.

Hose (diameter in-	Flow Rate(gpm)	Pressure(psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPL Special orderfor greater
	S 65	
	T 70	
	U 80	
	V 90	
		SPL Special orderfor higher

**Super Flusher**

**Part Number: 80**

**18° Super Flusher**

**Heavy duty nozzle for maintenance work in 8" or larger pipe. Jets angles for combined flushing and penetrating.**

**Super Flusher penetrates and flushes in the same pass.**

**When ordering, indicate hose size, desired flow rate and pressure by letter.**

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
G 1-1/4	R 60	A 1000
	S 65	B 1200
	T 70	C 1650
	U 80	D 2000
	V 90	E 2500
	W 100	F 3000
	X 110	SPL Special order for greater PSI
	Y 120	

**Part No. 80 Alloy steel with six 18° rear jets. 2 1/4" x diameter x 4 1/2" long. Weight 2 lbs.**



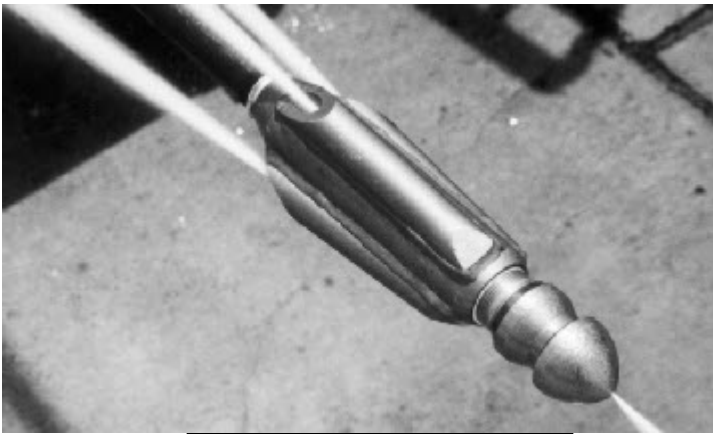
**Part No. 80-15 (with lance tip) Alloy steel with six 18° rear jets and five forward jets. 2 1/4" diameter x 6" long Weight 2 lbs.**



**Shamrock-et®**

Part Number: 90

**Shamrock-et®** A streamlined nozzle for sweeping 6"-18" pipe. Its missile shape and smooth exterior can be used to create a path for larger flushing nozzles, or to penetrate hair and root masses, hard grease, soap, sand and gravel. Laminar flow jets produce straight streams for maximum flow efficiency.



**Heat treated alloy steel, plated for long service life. Thrust fins with three large rear carbide jets set at 5°, have flow straighteners for increased productivity. Forward jet standard. Long water paths for smooth, laminar flow. 4" diameter x 13" long. Weight 12 lbs.**

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
G 1-1/4	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPL Special order for greater PSI
	S 65	
	T 70	
	U 80	
		SPL Special order for greater PSI

Super Grenade Penetrator

**Part Number: 64**

***Note: Hardened Alloy Steel* Super Grenade Penetrator**

Heavy duty nozzles for mainline work. Engineered to stay on pipe bottom. Water jets have replaceable carbide inserts for long service life.



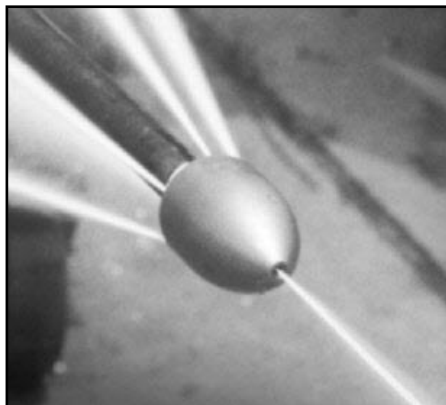
Now available with **Flow Straighteners** for increased productivity.

Hose Size	Number of Rear Jets	Rear Jet Angles	Nozzle Dimension in Inches	Weight in Pounds
E	5	12°	2-1/4 dia x 3-7/8	3-1/4
F	6	12°	2-5/8 dia x 4-1/4	3-1/2
G	8	12°	3-1/4 dia x 5-1/2	7

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose	Flow Rate	Pressure
E 3/4	L 30	B 1200
F 1	M 35	C 1650
G 1-1/4	N 40	D 2000
	O 45	E 2500
	P 50	F 3000
	Q 55	G 4000
	R 60	SPL Special order for greater PSI
	S 65	
	T 70	
	U 80	
	V 90	
	W 100	
	X 110	
	Y 120	
	Z 130	
	AA 140	
	AB 150	

SPL Special order for higher



Grenade penetrator shoots through blocked main lines.

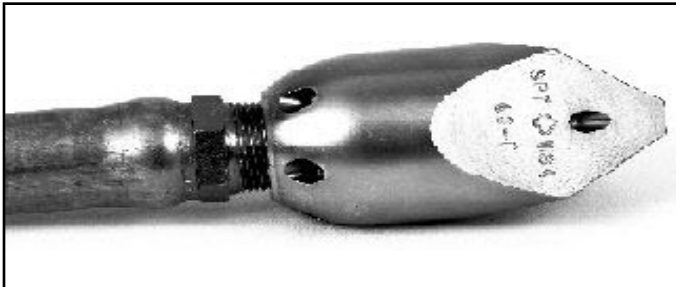
**TriStar Chisel**

**Part Number: 63**

**Note: Manufactured in the USA**

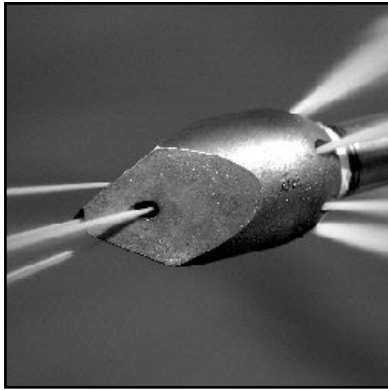
**TriStar Chisel**

**Great front penetrating nozzle for boring through blockage sand/or blocked lines. Avoids hang-ups and is easily retracted from sewer lines. Heat treated alloy steel for durability, yellow zinc plating, for corrosion resistance and replaceable carbide inserts for long service life.**



**Part. 63**  
**Streamline shape avoids hang-ups on offset joints, debris, etc.**

<b>Hose Size</b>	<b>Number of Rear Jets</b>	<b>Number of Forward Jets</b>	<b>GPM Flow</b>	<b>PSI Pressure</b>	<b>Dimensions in Inches</b>
E	5	4	45	4000	2" dia x 3 3/4"
F	6	4	100	4000	2 1/2" dia x 5"



**NEW**(3/4") 6"-12" Pipe  
(1") 6"-30" Pipe

**When ordering, indicate hose size, desired flow rate and pressure by letter.**

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPL Special order
	S 65	
	T 70	
	U 80	
	V 90	

SPL Special order for higher

## Twister Penetrator

Part Number: TWS

*Note: Manufactured in the USA*

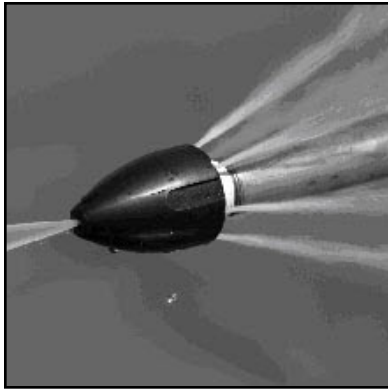
### Twister Penetrator

A front rotating (twisting) water jet impacts and removes grease, soap, ice and hair roots on contact. At 65 gpm - 2000 psi the forward penetrator flows 10 gpm. Six carbide thrust jets sweep the debris or sludge. Manufactured of heat treated alloy steel, surface coated for corrosion resistance with a polished carbide water jet and stainless steel internals.

**NEW DESIGN!**



Part No.	Hose Size in Inches	Nozzle Dimension in Inches	Weight in Pounds
TWS-12	3/4	2 dia x 3-5/16	1.4
TWS-16	1	2 dia x 3-5/16	1.4



Twister's forward corckscrew jet stream. A premium penetrating sewer cleaning nozzle.

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPL Special order
	S 65	
	T 70	
	U 80	
	V 90	

SPL Special order for higher

## Ultimate Penetrator

**Part Number:** 83

*Now available with Flow Straiteners for increased productivity*

### Ultimate Penetrator

Heavy duty nozzle chosen by contractors to clear sludge, mud, and debris from pipe bottom. Can be used to create a path to center a flushing nozzle in severe buildup, minimizing water consumption and cleaning time. Replaceable carbide inserts for long service life.



12° rear jets on most sizes. Rear jets are 15° on nozzle for hose H. Forward jet standard. Four forward jet (one at 0°, three at 7°) available on request for hose size H. Color is safety orange.

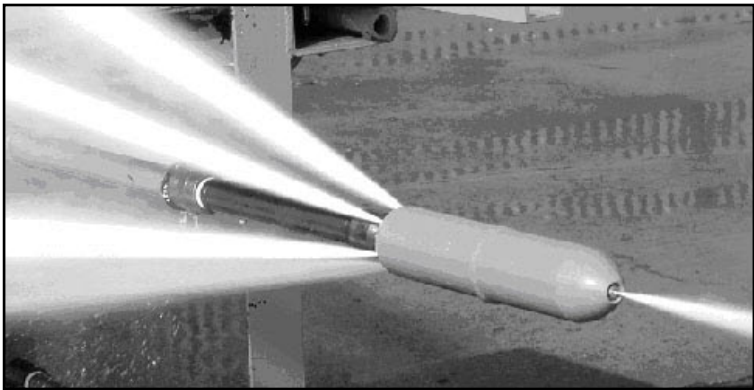
For Hose-	Number of	Nozzle Dimension	Weight
E	5	2-1/2 dia x 12	8
F	5	2-5/8 dia x 14	10
G	8	3-1/4 dia x 15	22
H	10	3-1/2 dia x 19	31



**When ordering, indicate hose size, desired flow rate and pressure by letter.**

Hose		Flow Rate	Pressure
E	3/4	L 30	A 1000
F	1	M 35	B 1200
G	1-1/4	N 40	C 1650
H	1-1/2	O 45	D 2000
		P 50	E 2500
		Q 55	F 3000
		R 60	SPL Special order
		S 65	
		T 70	
		U 80	
		V 90	
		W 100	
		X 110	
		Y 120	
		Z 130	
		AA 140	
		AB 150	

SPL Special order for higher



**Double duty Ultimate Penetrator blasts through severe blockages and flushes bottom buildup. Hose size H is shown.**

**Cobia®**

Part Number: 107



Heavy duty, multipurpose nozzle clears sludge, mud, and debris from pipe bottom. Water jets have replaceable carbide inserts for long service life.

**NOW AVAILABLE WITH FLOW STRAIGHTENERS FOR INCREASED PRODUCTIVITY**

Heavy duty steel construction Forward jet standard  
(E) Stainless front cap  
(E) S.S. Wear rings  
F&G) Internal flow conditioners

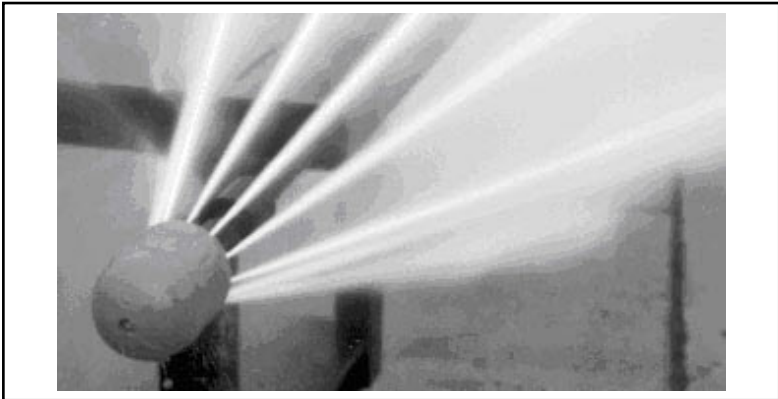
For Hose Size	Number of Rear Jets	Rear Jet Angles	Nozzle Dimension in Inches	Weight in Pounds	Color
E	8	15°/20°	3-1/2 dia x 5-1/2	5	purple
F	10	15°/20°	4 dia x 6-1/2	10	safety orange
G	10	15°/20°	4 dia x 6-1/2	10	safety orange



When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose	Flow Rate	Pressure
E 3/4	L 30	A 1000
F 1	M 35	B 1200
G 1-1/4	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPL Special order
	S 65	
	T 70	
	U 80	
	V 90	
	W 100	
	X 110	
	Y 120	
	SPL Special order for higher	

A very efficient cleaning nozzle for most pipe conditions.



Rigorous tests show that the Cobia out performs most heavy duty sand and sludge nozzles on the market. All around cleaning nozzle for pipes as large as 36".

## Grease

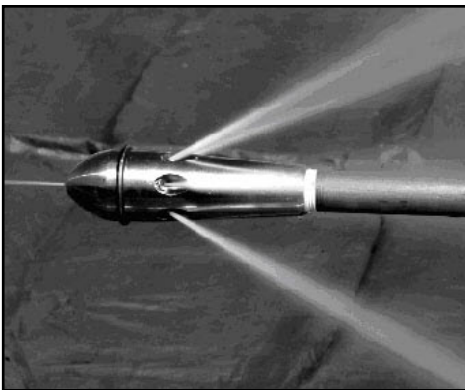
Part Number: 39

### NEW DESIGN! Stainless Steel Wear Ring



A smooth, streamlined nozzle designed to penetrate and clear blockages.  
Replaceable carbide inserts for long service life.

Wear Resistant, bar stock aluminum 1/4"  
diameter x 7 1/2" long  
Weight 2 lbs.

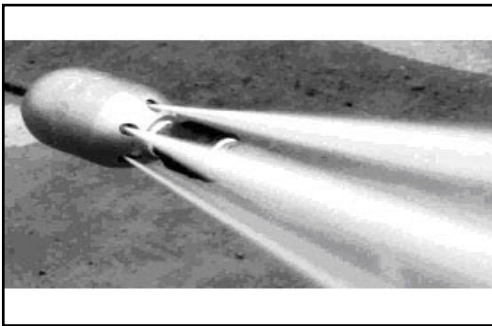


For Hose Size	Number of	Number of For-
E 30° only	5	1
F 18° or 30° specify	6	1

## High Flow Nozzle

Part Number: 107HF

A multi purpose nozzle to clear sludge, mud and debris from pipe bottom. The heat treated alloy steel construction offers corrosion resistance, low wear and high efficiency. Water jets have replaceable carbide inserts for long service life. No forward jet.



Six (6) rear jets set at 20°  
Rated 16-45 gpm to 4000 psi

### OPTIONAL

- Carbide straight stream front jet
- Lance tip, Part No. 85-12A
- Pulling Eye, Part No. 11035A2
- 6 Wire, 6" Skid Part No. 695-E6 (recommended)

## Sand & Sludge

Part Number: See Below

Aluminum alloy nozzle engineered to sweep 6" and larger pipes. Rear jets have replaceable carbide inserts and optional flow straighteners for long service life.



**Part No. 35**  
Eight dual degree rear jets (17°/24°)

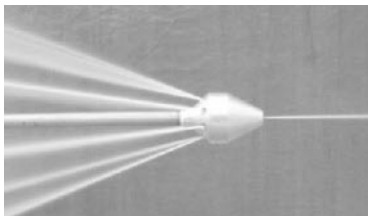
Hose Size	Nozzle Dimension in Inches	Weight in Pounds
E	4 dia. x 5 long	2-1/2
F	4-1/2 dia. x 6 long	3



**Part No. 140**  
**Contractor Special**  
Twelve triple degree rear jets  
10°/17°/24° Available only for hose  
size F.

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inch-	Flow Rate (gpm)	Pressure (psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPCL Special order for greater
	S 65	
	T 70	
	U 80	
	V 90	



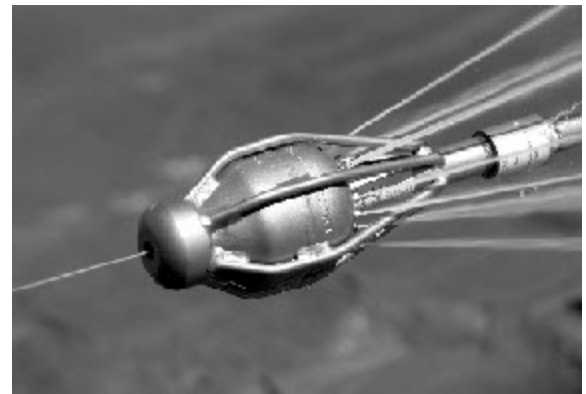
Multiple jets flood pipe walls to loosen and move sand and sludge.

## **Tadpole®**

Part Number: See Below

### **SPRING STEEL SKID NOZZLES**

Sweep style for mid to large size sewer lines. Pressure-welded steel nozzles with heat-treated spring steel skid wire. Rear jets with carbide inserts and flow straighteners set at optimum impact angles to guarantee long service life.



**A very useful nozzle for flushing intermediate pipe sizes. It's been proven that Shamrock skid nozzles maintain a useful life in the field for many years.**

#### **TADPOLE®**

**Part No. 101**

**For 3/4" and 1" hose**

**Cleans 8-24" pipe**

**Forward jet standard**

**Twelve dual degree (8° & 14°)  
jets**

**5" diameter x 15" long**

**Weight 14 lbs.**

#### **MINI-TADPOLE**

**Part No. 101M**

**For 3/4" & 1" hose**

**Cleans 6-12"**

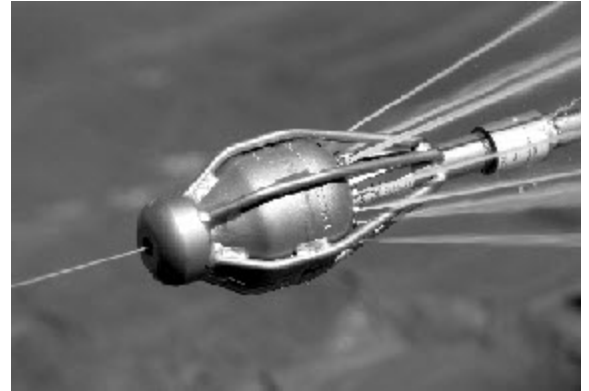
**Forward jet standard**

**Nine dual-degree (8° & 14°) rear jets**

**4" diameter x 12" long**

**Weight 9 lbs.**

**\*\*The Mini-Tadpole clears out a smaller diameter line as efficiently as the Tadpole, Ploywog, or Little Shamrock cleans larger ones.**



When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	SPL Special order
	S 65	
	T 70	
	U 80	
	SPL Special order for greater GPM	

**Rotating Cleaners**

Part Number: See Below

**ROTATING BLASTERS (Slow Rotators)**

Design combines patented drive and brake jets to control the rotational speed and apply full hydraulic pressure to the cleaning task. The perfect nozzle to eliminate residue from a sewer line, enhancing the use of TV, video, and relining equipment. Several styles to optimize results. No forward jet.

Self rotating and thrusting. Heat treated stainless steel, polished and ground for maximum service life. Replaceable carbide jet inserts. Requires minimal maintenance. Pipe skid recommended. Fixed 18° rear thrust jets advance nozzle in a corkscrew motion through clogged pipe.



**Rear Spray Rotating (RR) Blaster"**

Dual action of rear spray thrusts nozzle forward while flushing away loose debris. Four rotating water jets impact pipe wall at 40° angle.

	<b>Thrust Jets</b>	<b>Part No.</b>	<b>Nozzle Dimension In Inches</b>	<b>Weight in Pounds</b>
1/2" s	3	<b>RRS-8</b>	1.5 dia x 2.38	0.75
3/4"	4	<b>RR-12</b>	2 dia x 3.5	2.5
1"	4	<b>RR-161</b>	2.75 dia. x 4.5	5.5

With flow straighteners for increased productivity

**Forward Spray Rotating (FR) Blaster™!**



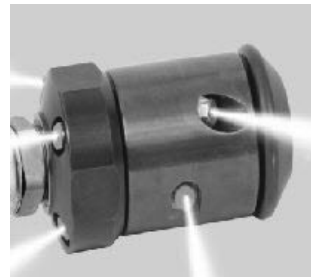
Forward rotating spray impacts pipe wall at 40° to loosen and disintegrate residue ahead of nozzle. Fixed rear thrust jets advance nozzle in a corkscrew motion through clogged pipe and push waste material backward. Excellent for clearing extremely clogged or frozen pipes.

Hose Size	Thrust Jets	Part No.	Nozzle Dimension In Inches	Weight in Pounds
½"	3	<b>FRS-8</b>	1.5 dia x 2.38	0.75
¾"	4	<b>FR-12</b>	2 dia x 3.5	2.5
1"	4	<b>FR-161</b>	2.75 dia. x 4.5	5.5

With flow straightener for increased productivity.



Rear Rotating (RR) nozzle shown



**Forward Rotating Combi (FRC) Blaster™!**

Four rotating water jets - two impact pipe wall with 40° forward spray while two produce 90° jet stream to loosen sidewall buildup and debris.

Hose Size	Thrust Jets	Part No.	Nozzle Dimension- In Inches	Weight in Pounds
½"	3	<b>FRCS-8</b>	1.5 dia x 2.38	0.75
¾"	4	<b>FRC-12</b>	2 dia x 3.5	2.5
1"	4	<b>FRC-161</b>	2.75 dia. x 4.5	5.5

With flow straightener for increased productivity.

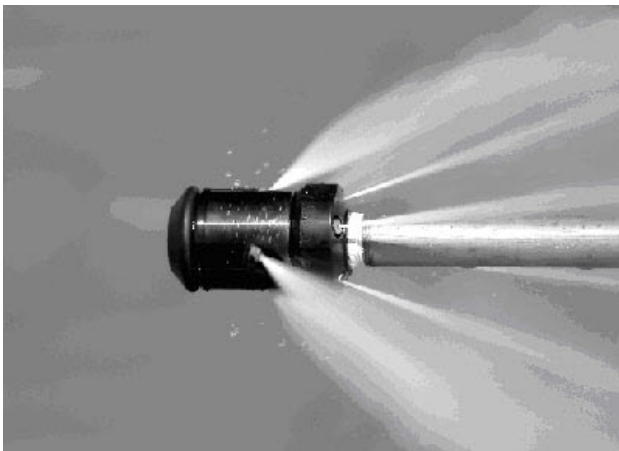


**Rear Rotating Combi (RRC) Combi Blaster™!**

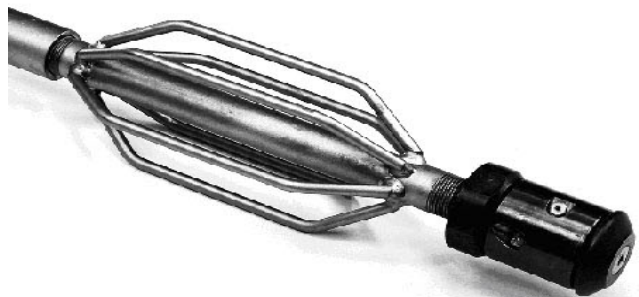
Four rotating water jets - two impact pipe wall with 90° rear spray while two produce 40° jet stream to loosen sidewall buildup and debris. 20° rear spray thrusts nozzle forward while flushing away loose debris.

With flow straightener for increased productivity.

Hose Size	Thrust Jets	Part No.	Nozzle Dimension- In Inches	Weight in Pounds
½"	3	RRCS-8	1.5 dia x 2.38	0.75
¾"	4	RRC-12	2 dia x 3.5	2.5
1"	4	RRC-161	2.75 dia. x 4.5	5.5



RR style shown



Rotator on Six Wire Skid, Part No. 695, shown.  
Skids are a must when using a rotator.



When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
D 1/2	H 14	B 1200
E 3/4	I 18	C 1650
F 1	J 20	D 2000
G 1-1/4	K 25	E 2500
	L 30	F 3000
	M 35	G 4000
	N 40	SPL Special order for greater PSI
	O 45	
	P 50	
	Q 55	
	R 60	
	S 65	
	T 70	
	U 80	
	V 90	
	W 100	
	X 110	
	Y 120	

**Boat Nozzle**

Part Number: 125

Heavy-duty flat bottom nozzle with stabilizing bars and skids. Cleans medium to large sewer pipe. High pressure water distributed through manifold to rear jets set at optimum angles to sweep pipe

- Eleven rear jets with replaceable carbide inserts and flow straighteners
- Stainless steel water chamber
- Live swivel to maintain level action
- Painted safety-orange for high visibility
- 8" wide x 17 1/2" long
- Weight 51 lbs



Boat Nozzle's unique structure controls nozzle position while sweeping main lines.

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
F 1	S 65	B 1200
G 1-1/4	T 70	C 1650
H 1-1/2	U 80	D 2000
	V 90	E 2500
	W 100	F 3000
	X 110	SPCL Special order for higher PSI
	Y 120	
	Z 130	
	AA 140	
	AB 150	

SPCL Special order for higher GPM

## Dolphin

**Part Number: 104**

A wide body nozzle with a floating rear manifold to compensate for uneven piles of debris. Excellent in flat or elliptical pipe.

- Ten rear jets with replaceable carbide inserts and flow straighteners
- 60° forward climbing jet
- **Live swivel to maintain level action**
- Pulling eye standard
- 11" diameter x 13.5" long
- Weight 47 lbs.



### Dolphin breaks up piles of debris in culverts

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
F 1	Q 55	C 1650
G 1-1/4	R 60	D 2000
	S 65	E 2500
	T 70	F 3000
	U 80	SPL Special order for greater PSI
	V 90	
	W 100	
	X 110	
	Y 120	
	Z 130	
	AA 140	
	AB 150	
	SPL Special order for higher GPM	

## Finned Fantail

**Part Number: 106**

Weighted underbelly resting on skids combined with two large fins keep nozzle positioned on bottom of pipe while rear jets fan out horizontally and in two sets of four to sweep downward.



### Part No. 106

Eight rear jets with recessed replaceable carbide inserts and flow straighteners. Live swivel to maintain level action 9 1/2" diameter x 17" long

### Part No. 106-FS

Same as above with front stabilizing bar.

Hose Size In inches      Weight in lbs.

1	60
1 1/4	80

Hose (diameter in inches)      Flow Rate (gpm)      Pressure (psi)

F 1	Q 55	C 1650
G 1-1/4	R 60	D 2000
	S 65	E 2500
	T 70	F 3000
	U 80	SPL Special order for greater PSI
	V 90	
	W 100	
	X 110	
	Y 120	
	Z 130	
	AA 140	
	AB 150	
	SPL Special order for higher GPM	

When ordering indicate hose size, desired flow rate and pressure by letter.

## Little Shamrock™!

Part Number: 103

- For 1" & 1 1/4" hose
- Cleans 24"-60" Pipe
- Forward jet on request
- Twelve dual degree (10° & 15°) rear jets
- Standard flow straighteners for increased productivity
- 7 3/8" diameter x 21" long
- Weight 27 lbs.



Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
F 1	P 50	A 1000
G 1-1/4	Q 55	B 1200
	R 60	C 1650
	S 65	D 2000
	T 70	E 2500
	U 80	F 3000
	V 90	SPL Special order for greater PSI
	W 100	
	X 110	
	Y 120	
	SPL Special order for higher GPM	

**Polywog™!**

Part Number: 102



**Big Brother of the Tadpole®.**  
**A nice general purpose skid nozzle.**  
***A SHAMROCK FAVORITE!***

- For 1" & 1 1/4" hose
- Cleans 15"-36" pipe
- Forward jet on request
- Twelve dual degree (9" & 16") rear jets
- Standard flow straighteners for increased productivity
- 6 1/2" diameter x 17" long
- Weight 18 lbs.

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
F 1	P 50	A 1000
G 1-1/4	Q 55	B 1200
	R 60	C 1650
	S 65	D 2000
	T 70	E 2500
	U 80	F 3000
	V 90	SPL Special order for greater PSI
	W 100	
	X 110	
	Y 120	
		SPL Special order for higher GPM

**Radial C (carbide)**

Part Number: 84 (30°)



Heat treated alloy steel general purpose sanitary nozzle. Eight rear replaceable carbide inserts. Forward jet standard; available without forward jet on request. A nice, long lasting, hard impacting sewer nozzle.

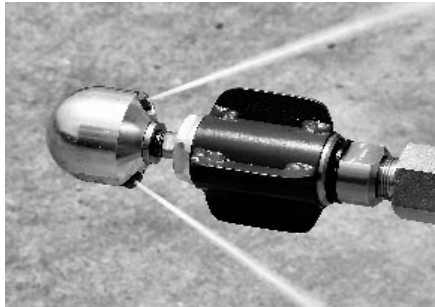
- Available only for hose size E & F
- Hose size E includes bushing.
- 2" diameter x 3 1/4" long
- Weight 1 1/4 lbs

When ordering, indicate hose size, desired flow rate and pressure by letter.

Hose (diameter in inches)	Flow Rate (gpm)	Pressure (psi)
E 3/4	L 30	A 1000
F 1	M 35	B 1200
	N 40	C 1650
	O 45	D 2000
	P 50	E 2500
	Q 55	F 3000
	R 60	G 4000
	S 65	
	T 70	
	U 80	
	V 90	

**Warthog™!**

**Part Number: See Below**

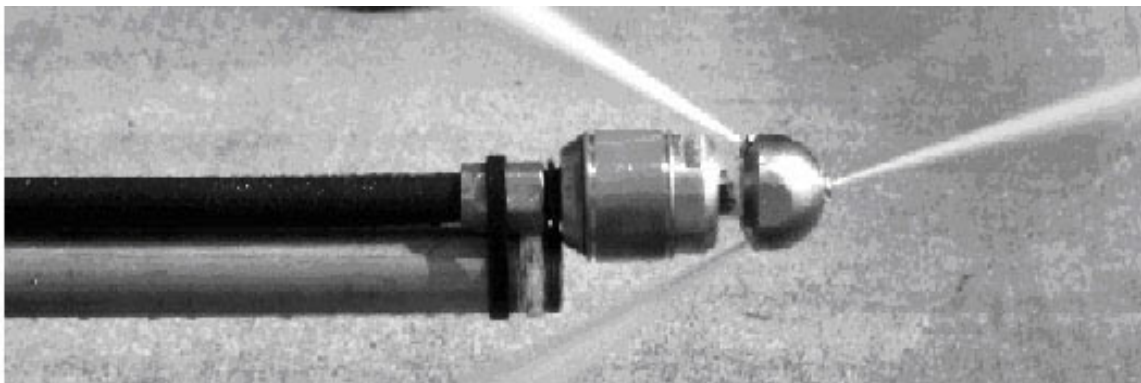


**Warthog™!**

A controlled rotational cleaning nozzle with 2 or 4 rear combination cleaning and thrusting water jets. Slow rotation and large flows through fewer jets make this a remarkable sewer nozzle. Front penetrating jet rotates in a 15° cone to cut through roots, sediments, grease and other blockages.

Models	Extra Small WT-3/8"3" - 4" Lateral	Small WS-1/2"4" - 8" Lines	Medium WH-1/2" or 3/4"6" - 18" Lines	Large WG-1"6" - 36" Lines
Flow Range	5 - 12 gpm	8 - 20 gpm	10 - 40 gpm	50 - 80 gpm
Max. Pressure	4000 psi	4000 psi	8000 psi	3000 psi
Intel Port	3/8" npt	1/2" npt	1/2" or 3/4" npt	1" npt
Rotation Speed	300 - 500 rpm	200 - 500 rpm	150 - 300 rpm	150 - 300 rpm
Length	3.0 inches	4.4 inches	7.5 inches	9.1 inches
Centralizer Diameter			3.1 inches	4.2 inches
Body Diameter			1.8 inches	2.6 inches
Head Diameter	1.9 inches	1.7 inches	2.4 inches	2.7 inches
Weight	1.1 lbs.	2.8 lbs.	4.7 lbs.	10.9 lbs.

**Note: Service Kits for routine maintenance and Overhaul Kits available. Repairs and service available at Shamrock.**



## Whirlaway Fire Hose Nozzles

Part Number: See Below



**Cutter Blade**

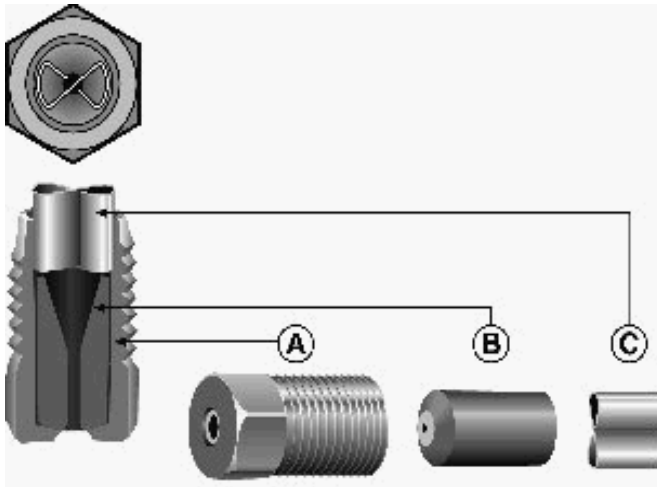
**Brass hydrant nozzles for use only with fire hose.  
Manufactured in USA.**

Hose Size	Part Number	Added Feature	Weight	Size (diameter x length in inches)
1-1/2"	No.5	NPT	2 lbs	2-1/2 x 5-1/2
2-1/2"	No.30		6 lbs	3-1/4 x 9
2-1/2"	No.40	cutter blade	7 lbs	3-1/4 x 9

**NOTE: For culvert/storm drain cleaning with a fire hose.**

**Carbide Inserts**

Part Number: See Below



**A. BODY** - Constructed of hardened stainless steel for long service life.

**B. CARBIDE** - Precision construction to accurately control flow rates and pressure. Recessed to protect against damage.

**C. FLOW STRAIGHTENER** - An internal stainless steel guide, stabilizing liquid turbulence to provide maximum spray integrity and impact. (Optional)

When ordering specify flow (gpm) and pressure (psi).  
Available up to 15000psi.



**Part No. SC12** 1/4" NF  
1/8" Internal Hex Length  
0.4"



**Part No. C12** 1/4" NF  
1/4" Hex Length 0.45"

Use in small nozzles and rotating blasters. Carbide available in 0.1 mm (0.004") increments from 0.6 through 2.5 mm. Flow straighteners not available in these inserts. Carbide: 4 mm dia x 6.5 mm long



**Part No. C13** 3/8" NF  
3/8" Hex Length 0.6"

Use in most Shamrock standard inserted nozzles (Sand, Grease, Ultimate Penetrators, Grenades, Cobia, Skid Nozzles, Boat, Dolphin, and Finned Fantail) Carbide available in 0.1 mm (0.004") increments from 0.7 mm through 3.6 mm. Flow straightener available.

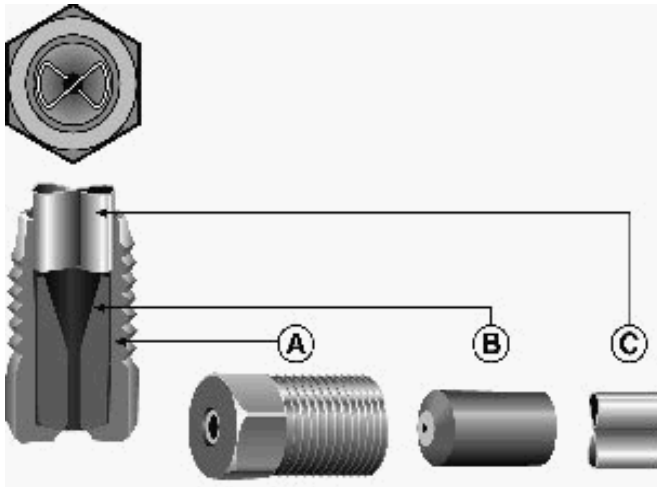


**Part No. C11** 1/8" NPT  
3/8" Hex Length 0.58"

Use in Shamrock high pressure nozzles such as the Shamrock-et® and specialty tools. Carbide available in 0.1 mm (0.004") increments from 0.7 mm through 3.6 mm.

**Carbide Inserts**

Part Number: See Below



**A. BODY** - Constructed of hardened stainless steel for long service life.

**B. CARBIDE** - Precision construction to accurately control flow rates and pressure. Recessed to protect against damage.

**C. FLOW STRAIGHTENER** - An internal stainless steel guide, stabilizing liquid turbulence to provide maximum spray integrity and impact. (Optional)

When ordering specify flow (gpm) and pressure (psi).  
Available up to 15000psi.



**Part No. C17** 1/4"  
NPT 9/16" Hex  
Length 0.93"

May be used in standard carwash guns for 0° strong, straight water stream. Carbide and flow straightener standard.



**Part No. C17-HH** 1/4"  
NPT 9/16" Hex Length 2"

Use in nozzles for hydro excavating in industrial applications requiring long, straight water jet. Flow straightener standard.

Carbide available in 0.1 mm (0.004") increments 0.7 through 3.6 mm.  
When ordering, specify flow (gpm) and pressure (psi). Available up to 15,000 psi.



# Shamrock Nozzles Accessories INSERTS

## Carwash Nozzle Inserts

Part Number: See Chart Below

### Fan Jet Stream



Heat treated stainless steel replacements for use in wash down guns and some sewer nozzles. 1/4" NPT  
9/16" Hex

### Straight Jet Stream



Available in most sizes. Stocked in millimeters in 1/10 increments.

**When ordering, indicate desired jet angle, flow rate (gpm), and pressure (psi) of equipment.**

**Selection Table For Wash Down Guns** Use in most types of hand-held wash down guns and miscellaneous cleaning applications. Orifice size at 0, 15, or 25 produces this flow rate (gpm) when operating at this pressure (psi). On most equipment, expect 10% flow loss due to pump inefficiencies.

Specifications on next page.

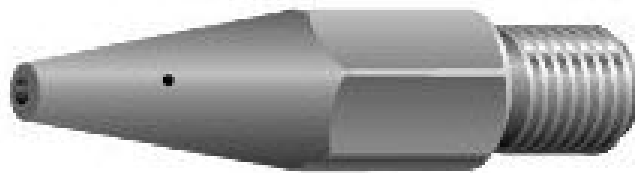
## Shamrock Nozzles Accessories INSERTS

Nozzle No.	Approx.Orifice Size	Part No.@ 0°	Part No.@15 °	Part No. @ 25 °	@1000 psi	@2000 psi	@3000 psi	@4000 psi	@5000 psi
					<i>in GPM</i>				
3.0	.045	140003	141503	-	1.50	2.12	2.60	3.00	3.35
4.0	.052	140004	141504	-	2.00	2.83	3.46	4.00	4.47
4.5	.055	1400045	1415045	-	2.25	3.18	3.90	4.50	5.03
5.0	.058	140005	141505	-	2.50	3.54	4.33	5.00	5.59
5.5	.060	1400055	1415055	1425055	2.75	3.89	4.76	5.50	6.15
6.0	.063	140006	141506	142506	3.00	4.24	5.20	6.00	6.71
6.5	.066	1400065	1415065	1425065	3.25	4.60	5.63	6.50	7.27
7.0	.068	140007	141507	142507	3.50	4.95	6.06	7.00	7.83
7.5	.071	1400075	1415075	1425075	3.75	5.30	6.50	7.50	8.39
8.0	.073	140008	141508	142508	4.00	5.66	6.93	8.00	8.94
8.5	.075	1400085	-	-	4.25	6.01	7.36	8.50	9.5
9.0	.077	140009	141509	142509	4.50	6.36	7.79	9.00	10.06
10.0	.080	140010	141510	142510	5.00	7.00	8.70	10.00	11.20
11.0	.085	140011	141511	142511	5.50	8.75	9.65	11.00	12.30
12.0	.090	140012	-	142512	6.00	8.40	10.40	12.00	13.40
12.5	.091	1400125	-	-	6.30	8.80	10.80	12.50	14.00
15.0	.100	140015	141515	142515	7.50	10.60	13.00	15.00	16.80
20.0	.115	140020	141520	142520	10.00	14.10	17.30	20.00	22.40
25.0	.129	140025	141525	142525	12.50	17.70	22.00	25.00	28.00
30.0	.141	140030	-	142530	15.00	21.00	26.00	30.00	33.50
40.0	.163	140040	141540	142540	20.00	28.23	34.60	40.00	44.70
50.0	.182	140050	141550	142550	25.00	35.40	43.30	50.00	55.90
60.0	.199	140060	-	142560	30.00	42.40	52.00	60.00	67.10
70.0	.215	140070	-	142570	35.00	49.50	60.60	70.00	78.30

**Lance Tip Insert**

**Part Number: 85-12A**

**Part No. 85-12A 3/8" NF (National  
Fine) 7/16" Hex**



Extra penetration from four 15° water jets and one forward jet. Use in all Shamrock lance tip nozzles.

**Pulling Eye Bolt**

Part Number: See Below



**Part No. 11035A2 (3/8")**

**Part No. 1103A3 (1/4")**

**Available as an option on many nozzles. Contact our Sales Department.**

**Tube Style**

**Part Number:** 300

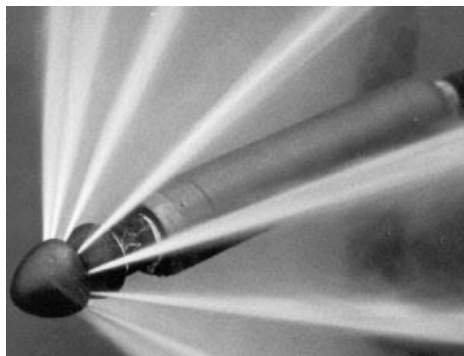
Helps nozzles move over rough or broken pipe preventing them from reversing or entering lateral sewer lines.



For standard nozzles, 1/2" to 1 1/4" NPT Extension connects with male NPT x Female NPT

Hose Size	Inside Diameter	Extension diameter x
D	1/2"	1 1/4" x 8
E	3/4"	2 x 12
F	1"	2 1/4 x 12
G	1 1/4"	2 1/4 x 12

**When ordering , indicate hose size by letter.**



**Radial Vortex nozzle with large nozzle extension moves directly to the obstruction.**

**Four-Wire Skid**

**Part Number: 696**

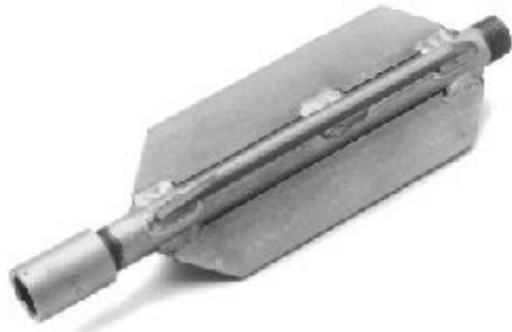


Extension surrounded by a cage of four oil hardened spring steel wires. Holds small and standard nozzles off pipe bottom. Cleans pipes over 4" in diameter.

<b>HoseSize</b>	<b>Part No.</b>	<b>Skid(length in inches)</b>
1/2"	<b>696-D</b>	13
3/4"	<b>696-E</b>	13
1"	<b>696-F</b>	14

**Heavy Duty Finned Skid**

Part Number: 40



Finned extension of quality welded steel for use in pipes at least 6" diameter.

Skid for 1 1/4" hose cleans pipes at least 8" diameter.

Hose Size	Part No.	Skid(length in inches)
1/2"	40-D	10
3/4"	40-E	12
1"	40-F	12
1 1/4"	40-G	15 1/2



**Radial Vortex nozzle on a heavy duty finned skid.**

**Six Wire Skid**

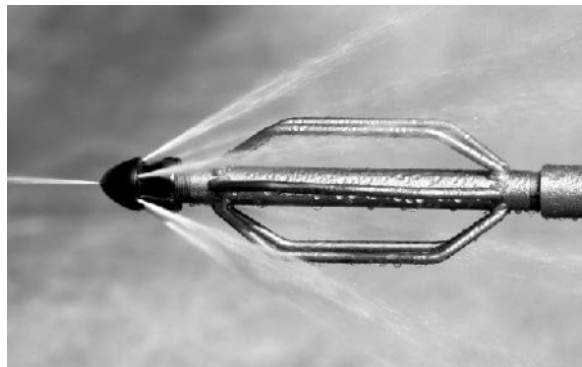
Part Number: 695



Heavy walled extension surrounded by a cage of six oil hardened spring steel wires.

Prevents wear of most nozzles.

Hose Size	Part No.	Pipe(diameter in inches)	Skid(length in inches)
3/4"	<b>695-E6</b>	6	15 1/2
3/4"	<b>695-E812</b>	8 - 12	16 3/4
1"	<b>695-F6</b>	6	15 1/2
1"	<b>695-F8</b>	8	16 3/4
1"	<b>695-F10</b>	10	18 1/4
1"	<b>695-F1215</b>	12 - 15	25 1/2
1 1/4"	<b>695-G8</b>	8	15 1/2



**Radial Short, Part No. 30, Drilled Cleaning Nozzle on a six wire skid, Part No. 695.**