

AQUATECH[®]

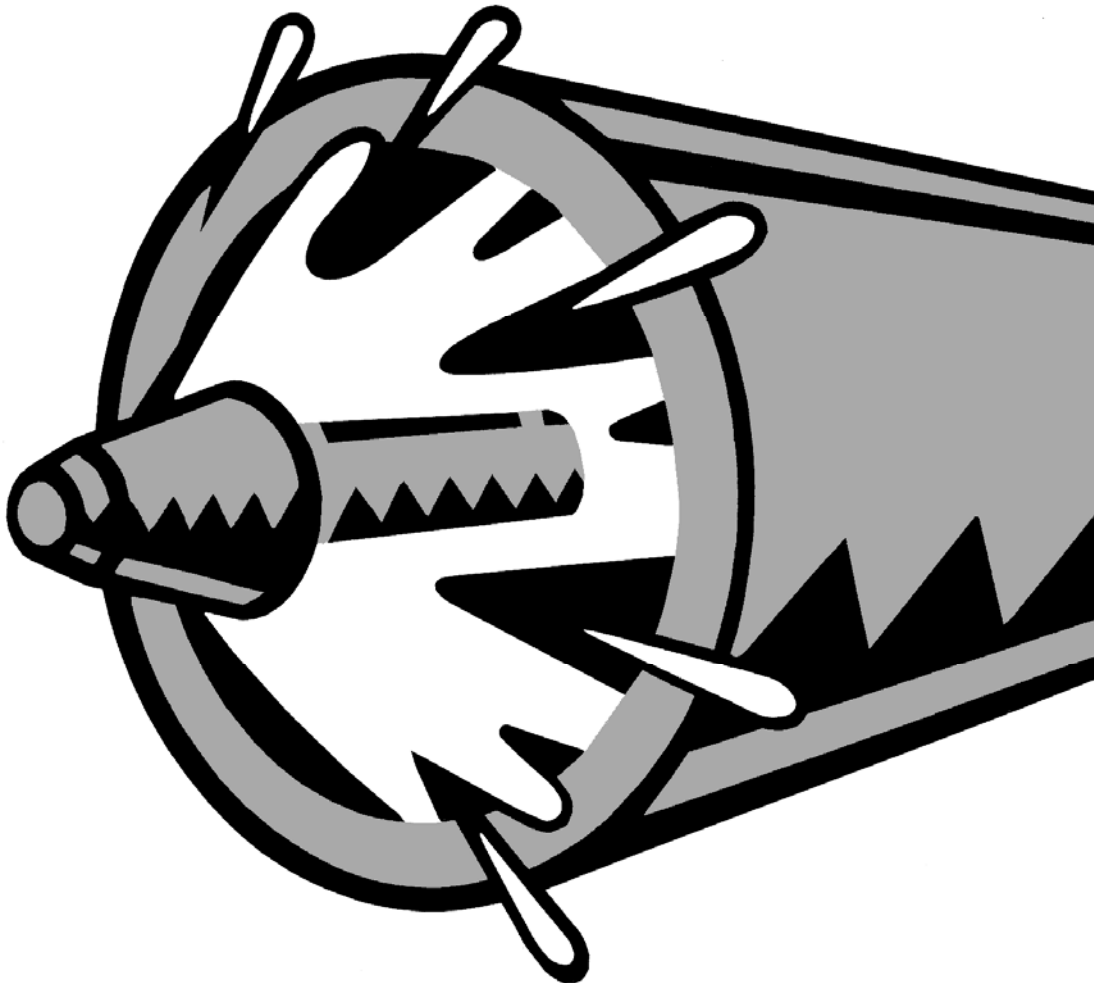
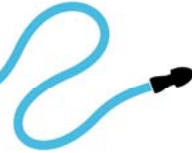
Combination Jet/Vac System

A PRODUCT OF HI-VAC[®] CORPORATION

O'BRIEN[®]

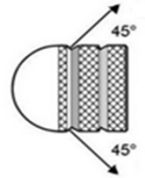
Hydro-Jetting Sewer and Vacuum Systems

A PRODUCT OF HI-VAC[®] CORPORATION



JETTING ACCESSORIES

BUTTON NOSE NOZZLES

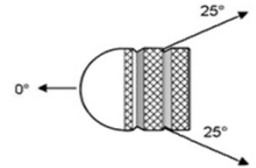


BUTTON NOSE FLUSHERS

Good general purpose cleaning nozzle. Also for follow up after cleaning out blockages to remove left over debris. For runs up to 100 ft. Button nose nozzles are made of heat treated 416 Stainless Steel.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
140215FL	45°	6	0	1.7	1500	1/4"
380430BNFL	45°	6	0	4	3000	3/8"
380530FL	45°	6	0	4.8	3000	3/8"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.

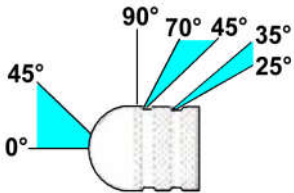


BUTTON NOSE PENETRATORS

Button Nose nozzles with a forward jet to bore through plugged lines. Made of heat treated 416 Stainless Steel.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
180215PE	25°	3	1	1.7	1500	1/8"
180430PE	25°	3	1	4	3000	1/8"
140215PE	25°	3	1	1.7	1500	1/4"
380430BNPE	25°	4	1	4	3000	3/8"
380530PE	25°	3	1	4.8	3000	3/8"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.



Button Nose nozzles can be custom drilled to meet your specifications. The dual groove design permits a wide range of spray angles that can be utilized. The rear groove allows for high thrust angles from 25° to 35°. The forward groove accommodates flushing angles from 45° to 70°. The nose area permits angles of 0° (straight forward) to 45°. Made of Heat Treated 416 Stainless Steel. See caution note below.



A word of caution on custom drilled nozzles: Make sure all the information is correct when ordering as these nozzles will be drilled to order and are not returnable.

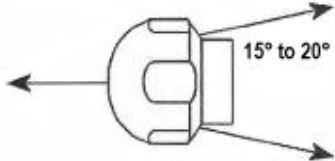


ROUND HEAD SUPER THRUSTERS

The wider head design of this nozzle allows for steeper jet angles which results in more puller power. Ideal for long runs. (HT416SS)

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
180430PE	15°	3	1	4	3000	1/8"
380530RHTH	15°	3	1	4.8	3000	3/8"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.



Round Head Super Thruster nozzles can be custom drilled to meet your specifications. The 15° to 20° angle range allows for maximum pulling power with one forward jet to penetrate blockages. Pattern: 3 to 6 rear jets with one forward jet. Made of heat treated 416 SS. See caution note on page 1.

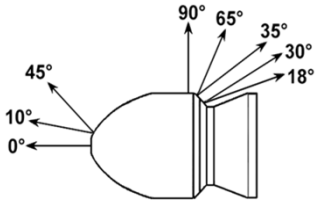
RADIAL NOZZLES



Typical O'Brien Styles



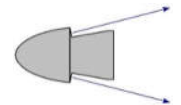
Typical Aquatech Style



Custom drilled O'Brien style Radial Nose (RN) nozzles are available to meet your specifications. They are designed to accommodate a range of spray angles from 18° for high trusting power up 65° for flushing action. Side wall jets of 90° are possible, as well as forward jets from 0° to 45°. 6 to 12 rear jets, 0 to 3 forward. Made of heat treated 416 Stainless Steel. See caution note on page 1.

RADIAL THRUST NOZZLES

Designed to for fast acceleration and long runs in small and medium sized pipes.

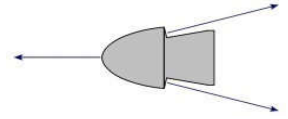


Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
A136015	15°	6	0	35	2000	3/4"
344020RNTH	15°	6	0	40	2000	3/4"
A136001	15°	6	0	60	2000	1"
A136000	15°	6	0	65	2000	1"
A136423	15°	6	0	65	2500	1"
A136002	15°	6	0	80	2000	1"
A136023	15°	6	0	80	2500	1"
A136007-1	15°	6	0	100	2000	1"
A136063	15°	6	0	80	2000	1-1/4"
A136003	15°	6	0	100	2000	1-1/4"
A100190	15°	6	0	125	2000	1-1/4"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.

PENETRATING RADIAL THRUST NOZZLES

Radial Nozzles with a forward jet to break up blockages ahead of the nozzle.

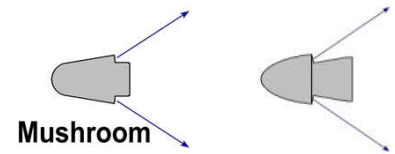


Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
121025PE	25°	6	1	10	2500	1/2"
121230PE	25°	6	1	12	3000	1/2"
121840PE	25°	6	1	18	4000	1/2"
123030PE	25°	6	1	30	3000	1/2"
341840PE	25°	6	1	18	4000	3/4"
343030PE	25°	6	1	30	3000	3/4"
344020RNTH	18°	6	1	40	2000	3/4"
344020PE	25°	6	1	40	2000	3/4"
344520PE	18°	6	1	45	2000	3/4"
J-1147	18°	6	1	65	2000	1"
018020PE	25°	6	1	80	2000	1"
A136023-F	15°	6	1	80	2500	1"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.

RADIAL FLUSHER NOZZLES

Designed for general cleaning applications in small and medium sized pipes.

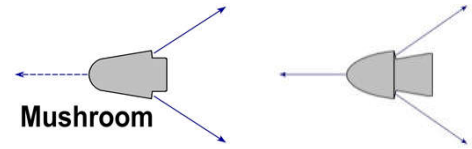


Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
121025FL	35°	6	0	10	2500	1/2"
121536FL	35°	6	0	15	3600	1/2"
121840FL	35°	6	0	18	4000	1/2"
123030FL	35°	6	0	30	3000	1/2"
343030FL	35°	6	0	30	3000	3/4"
A136020	35°	6	0	35	2000	3/4"
344020FL	35°	6	0	40	2000	3/4"
A136052	35°	6	0	45	2000	3/4"
J-1015 (Mushroom)	30°	6	0	65	2000	1"
A136005	35°	6	0	65	2000	1"
A136424	35°	6	0	65	2500	1"
A136007	35°	6	0	80	2000	1"
A136024	35°	6	0	80	2500	1"
A136008	35°	6	0	100	2000	1-1/4"
A100191	35°	6	0	125	2000	1-1/4"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.

PENETRATING RADIAL FLUSHER NOZZLES

Radial Nozzles with a forward jet to break up blockages ahead of the nozzle.

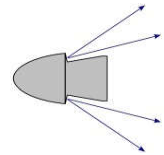


Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
A136385	30°	5	1	20 25	2500 4000	1/2"
343520PE	30°	6	1	35	2000	3/4"
344020RNFL	30°	6	1	40	2000	3/4"
J-1021 (Mushroom)	30°	6	1	65	2000	1"
J-1141	30°	6	1	65	2000	1"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.

RADIAL VORTEX (AKA MONSTER) NOZZLES

Vortex dual degree design incorporates powerful thrust and wide angle cleaning into one nozzle. For general cleaning applications in small and medium sized pipes.

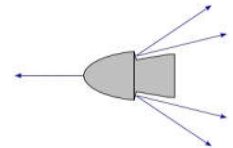


Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
121840RNMO	25°/45°	8	0	18	4000	1/2"
A136025	15°/35°	6	0	40	2000	3/4"
344020RNMO	25°/45°	8	0	40	2000	3/4"
A136010	15°/35°	6	0	65	2000	1"
A136011	15°/35°	6	0	80	2000	1"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.

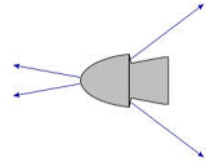
PENETRATING RADIAL VORTEX NOZZLE

Dual degree design with forward firing jet.



Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
121025RNMV	18°/25°	6	1	10	2500	1/2"
J-1132	18°/24°	6	1	35	2000	3/4"
016520RNMV	18°/25°	6	1	65	2000	1"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.



RADIAL DEGREASER/DEICER NOZZLE

Same purpose as the above but for larger hoses. See information on page 3 for custom drilled radial nozzles.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
344020DE	35°	6	3 @ 10°	40	2000	3/4"
016520DE	35°	6	3 @ 10°	65	2000	1"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.



OLD STYLE



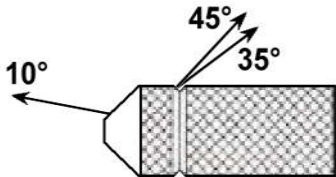
NEW STYLE

JUMPER DEGREASER/DEICER NOZZLES

Designed to penetrate heavy grease, soap, and ice filled lines. A great all-around nozzle! New style made of heat treated 416 SS. Note: Old style degreaser/deicer nozzles are being phased out as existing inventories are depleted.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
380530DE	45°	6	3 @ 10°	4.8	3000	3/8"
121025DE	45°	6	3 @ 10°	10	2500	1/2"
121536DE	45°	6	3 @ 10°	15	3600	1/2"
121840DE	45°	6	3 @ 10°	18	4000	1/2"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.



Custom drilled Degreaser/Deicer nozzles are available to meet your machines specifications. Made of heat treated 416 stainless steel, they all feature three 10° forward jets and 6 to 8 rear jets at a choice of 35° or 45° angles. If higher thrust is desired, order a 25° button nose nozzle with three 10° forward jets (see Button Nose nozzles). See caution note on page 1.



GREASE REMOVER NOZZLES

More rear jets for removing grease and detergent from the pipe wall.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
A130197	35°	10	0	25	4000	1/2"
A130196	35°	12	0	25	4000	3/4"
A130195	35°	12	0	65	2000	1"
A130198	35°	12	0	80	2000	1"



TRIAD PENETRATOR

Triangular shape allows for excellent penetration. Features three front faces with 15° orifices and a penetrating front tip orifice. Made of stainless steel. Used for cleaning calcium, dirt, grease, soap build up. Also very effective for ice penetration. Orifices are replaceable. Imported

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
A135990	25°	6	4	5	4000	1/4"
A135994	25°	6	4	12	2000	1/2"
A135991	25°	6	4	20	2000	1/2"
A135992	25°	6	4	35	2000	3/4"
A135996	25°	6	4	40	2000	3/4"
A135993	25°	6	4	65	2000	1"
A135995	25°	6	4	80	2000	1"



ELLIPSE NOZZLES

This is the best long lasting nozzle made. Wear- Resistant high carbon steel construction. This smooth service nozzle will penetrate through blockages and is capable of being retrieved without binding on offset joints, broken pipes or tight bends. Orifices are replaceable.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
A136160	15°	6	1	20	2000	1/2"
A136155	15°	6	1	35	2000	3/4"
A136150	15°	6	1	65	2000	1"
A136165	15°	6	1	65	2500	1"
A136151	15°	6	1	80	2000	1"



PENETRATOR NOZZLES

The Penetrating Nozzle is effective when a line is plugged and break up the stoppage fast.

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
J-1102	30°	5	0	40	2000	3/4"
J-1104-80	30°	5	0	80	2000	1"



SPEAR POINT NOZZLES

Great for penetrating through and breaking up blockages in 6" to 12" Pipe.

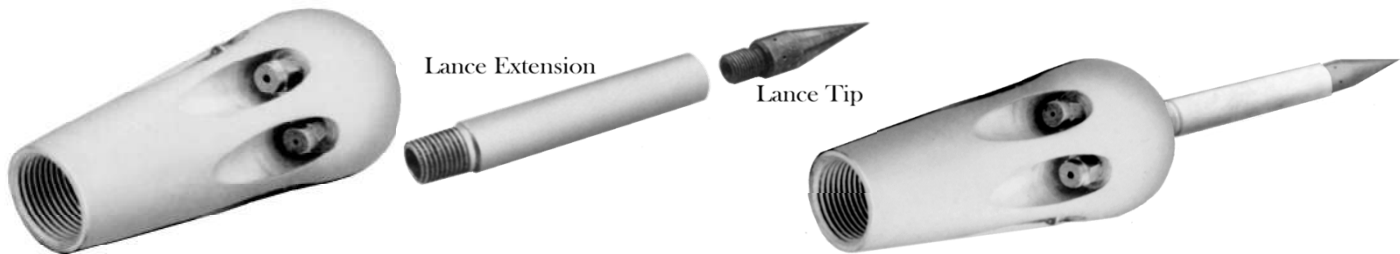
Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
J-1134	12°	6	1	35	2000	3/4"
J-1139	16°	6	1 (4 side)	35	2000	3/4"



RADIAL WITH LANCE TIP NOZZLES

For cleaning totally blocked lines. 90° spray from lance tip opens a hole in blockage allowing the nozzle to jump forward.

Part No.	Prop. Angle	Rear Jets	Lance Jets	GPM	PSI	NPT Size
A136018	15°	6	6	65	2000	1"



ASSEMBLE YOURSELF 11° THRUST NOZZLE

Lightweight, fast forward traveling nozzle. Also ideal for use in deteriorating concrete pipe because the 11° jet stream is directed rearward instead of against the pipe wall. An 1/4" pipe port if front can be equipped with lance, front orifice or just plugged. Order all indicated parts in the appropriate column.

Part No.	Description	3/4" 40@2000	1" 65@2000	1" 80@2000
A131420	1"NPT blank cast aluminum body	1	1	1
A133740	1" to 3/4" pipe reducer	1		
A131541	1/8"NPT #10 rear orifice	6		
	1/8"NPT #15 rear orifice		6	3
A131544	1/8"NPT #30 rear orifice			3
A133365	1/4"NPT Front Plug	1	1	1
A131561	1/8"NPT lance tip	Optional	Optional	Optional
A131655	1/4"MNPT X 1/8"FNPT lance tip ext.			
A131520	1/4"NPT #6 front orifice	Optional	Optional	Optional



ASSEMBLE YOURSELF AQUATECH™ STORM NOZZLES

25% more cleaning surface. This large 4¼ inch diameter nozzle places water closer to the pipe wall. Most efficient for grease, detergent, and removal of large volumes of sand in sanitary sewers and drains. Cast aluminum body. For pipes 8" to 36" in diameter. Order all indicated parts in the appropriate column.

Part No.	Description	3/4" 40@2000	1" 65@2000	1" 80@2000
A131450	1¼"NPT Blank Storm Nozzle Body	1	1	1
A133790	1¼" to 3/4" pipe reducer	1		
A133800	1¼" to 1" pipe reducer		1	1
A131520	1/4"NPT #6 rear orifice	4		
A131526	1/4"NPT #8 rear orifice	4		
A131524	1/4"NPT #10 rear orifice		4	
A131523-SS	1/4"NPT #12 rear orifice			4
A131534	1/4"NPT #15 rear orifice		4	
A131530-SS	1/4"NPT #20 rear orifice			4
A133350	1/8"NPT Front Plug	1	1	1
A131543	1/8"NPT # 3 Front Orifice	Optional	Optional	Optional



ASSEMBLE YOURSELF O'BRIEN VORTEX GANG NOZZLES

For moving sand and debris through larger pipes. Cast aluminum body with 16 rear jets set at 15° and 30° angles and 1 forward jet. Order all indicated parts in the appropriate column.

Part No.	Description	3/4" 40@2000	1" 65@2000
J-1400	1¼"NPT Blank Gang Nozzle Body	1	1
A133790	1¼" to 3/4" pipe reducer	1	
A133800	1¼" to 1" pipe reducer		1
J-JET-116	3/8"-24 1/16" Orifice		17
J-JET-364	3/8"-24 3/64" Orifice	17	



DOUBLE STORM NOZZLES

The water from the leading set of orifices dislodges debris accumulations while the trailing set flushes the debris back to the manhole. Ideal for the rapid cleaning of medium and large pipes. Orifices are replaceable. An 1/8" pipe plug can be removed and substituted with an optional front orifice (p/m A131543) to create a penetrator nozzle.

Part No.	Prop. Angle	Rear Jets	Fwd. Jet	GPM	PSI	NPT Size
A130420	35°	16	Optional	65	2000	1"
A130422	35°	16	Optional	80	2000	1"
A130421	35°	16	Optional	100	2000	1-1/4"



SAND NOZZLES

Specially designed to lift and float sand that's otherwise difficult to move. For 4" to 18" pipes

Part No.	Prop. Angle	Rear Jets	Fwd. Jets	GPM	PSI	NPT Size
016020SN	15°	6	2 @ 90°	60	2000	1"
016520SN	15°	6	2 @ 90°	65	2000	1"
018020SN	15°	6	2 @ 90°	80	2000	1"

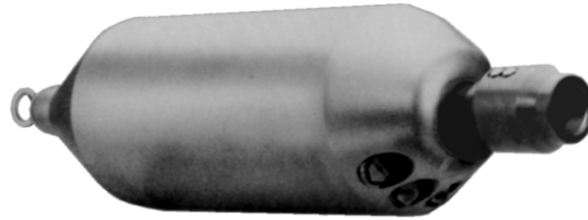


TADPOLE NOZZLES

Our best all around cleaning nozzle for 8" to 24" pipes. Highly effective for removing grease from the pipe wall. Removes standing water. The orifices are replaceable.

Part No.	Prop. Angle	Rear Jets	Front Jets	GPM	PSI	NPT Size
A136300	17°/24°	12	Optional	65	2000	1"
A136299	17°/24°	12	Optional	80	2000	1"

Other configurations from 3/4"NPT to 1-1/4"NPT are available upon request.



AQUATECH™ TORPEDO NOZZLES

This bottom cleaning nozzle features, a towing eye, replaceable orifices, 360° rotating swivel to prevent hose from turning the nozzle, and a smooth hardened surface to allow the nozzle to glide over sand and debris. 4" diameter, 24 lbs. approx. Imported

Part No.	Prop. Angle	Rear Jets	Front Jets	GPM	PSI	NPT Size
A136185	35°	4	0	35	2000	3/4"
A136180	35°	4	0	65	2000	1"
A136187	35°	4	0	80	2000	1"
A136195	35°	4	0	100	2000	1-1/4"

ROTATING NOZZLES

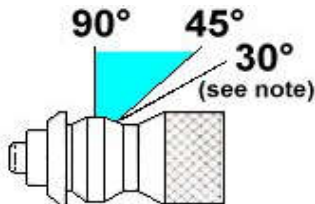
ROTOR-JET POLISHER NOZZLES

Revolving nozzle creates a sheet of water with 360 degrees of coverage for maximized wall cleaning. Typically used as a finishing tool to remove debris which might have been missed because of the spaces between jets on a fixed orifice nozzle.



Part No.	Prop. Angle	Rear Jets	Side Jets	GPM	PSI	NPT Size
380530PO	45°	2	2 @ 90°	4.8	3000	3/8"
121840PO	30°	2	2 @ 90°	18	4000	1/2"
344020PO	30°	2	2 @ 90°	40	2000	3/4"

NOTE: Only common configurations for our units are listed above. Call us if you require a different configuration.



Custom drilled Rotor-Jet nozzles are available to meet your specifications. All Rotor-Jet can accommodate spray angles between 45° to 90°. NOTE: 1/2"NPT Rotor-Jets can accommodate a higher thrusting angle of 30°.

Pattern: 2 jets (one angle) or 4 jets (two angles) within available range. Made of Heat Treated 416 Stainless Steel. See caution note on page 1.



A NOTE ABOUT ALL OF OUR ROTATING NOZZLES: In order to extend the life of these nozzles, we recommend submerging them in lubricating oil after each use.



SPIN CLEAN NOZZLES

This stainless steel rotating nozzle scours the pipe wall loosening hard debris. Ideal for pipes with limestone and other mineral deposits. Also effective for removing grease build-up. Centering skids are recommended to achieve the best cleaning action. Imported

Part No.	Prop. Angle	Rear Jets	Side Jets	GPM	PSI	NPT Size
A136070	30°	6	4 @ 90°	25	4000	1/2"
A136065	30°	6	4 @ 90°	35	2000	3/4"
A136060	30°	6	4 @ 90°	65	2000	1"
A136062	30°	6	4 @ 90°	80	2000	1"



CONICAL DRILL NOZZLES

Designed to cut, drill and penetrate difficult obstructions in 3" and larger pipes. Centering skids are recommended. 60° carbide flutes can be re-sharpened. Imported

Part No.	Prop. Angle	Rear Jets	Rotor Jets	GPM	PSI	NPT Size
A136345	25°	6	6	35	2000	3/4"
A136135	25°	6	8	65	2000	1"



PROPELLER NOZZLES

Designed to cut through solid blockages and roots. Centering skids are recommended. Imported.

Part No.	Prop. Angle	Rear Jets	Rotor Jets	GPM	PSI	NPT Size
A136105	25°	6 *	5	35	2000	3/4"
A136100	25°	6 *	5	60	2000	1"
A136102	25°	6 *	5	80	2000	1"

* Replaceable



A NOTE ABOUT ALL OF OUR ROTATING NOZZLES: In order to extend the life of these nozzles, we recommend submerging them in lubricating oil after each use.



ROTATING CHAIN NOZZLES

Chains rotate at a high speed removing hard deposits, such as slag, calcium and limestone. Also good for paint, epoxy, and other accidental spills. Will open blockages caused by grease, sand and roots. Square profile chain made of high quality steel. Centering skids are recommended. Orifices are replaceable. Imported.

Part No.	Prop. Angle	Rear Jets	Rotor Jets	GPM	PSI	NPT Size
A136240	20°	4	4	35	2000	3/4"
A136245	20°	6	6	65	2000	1"
A136244	20°	6	6	80	2000	1"



WARNING: In order to avoid possible property damage and personal injuries when handling these tools, we recommend that the nozzle be exposed to gradual system pressure only after it has been set and secured inside the pipe, away from the operator. Hi-Vac Corporation is not responsible for situations resulting from the improper use of this tool and for different operation from that it has been designed and intended for.

REPLACEMENT CHAIN FOR ROTATING CHAIN NOZZLES

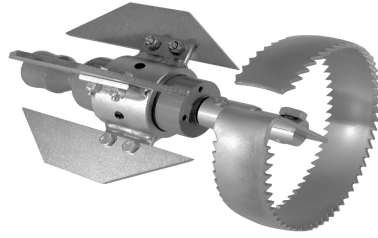
Three required per nozzle (except for bulk replacement chain)

Length	For 1/2" & 3/4" Nozzles		For 1" & 1-1/4" Nozzles	
	Part Number	Approx. Working Diameter	Part Number	Approx. Working Diameter
6" Long (150mm)	A136241 *	4" to 6"	N/A	
12" Long (300mm)	A136251	8" to 12"		
16" Long (400mm)	N/A		A136246	14" to 18"
20" Long (500mm)			TBA	18" to 22"
36" Long (900mm)	A136241-6	Bulk Replacement Chain	A136242-6	Bulk Replacement Chain

* standard length supplied with nozzle



A NOTE ABOUT ALL OF OUR ROTATING NOZZLES: In order to extend the life of these nozzles, we recommend submerging them in lubricating oil after each use.

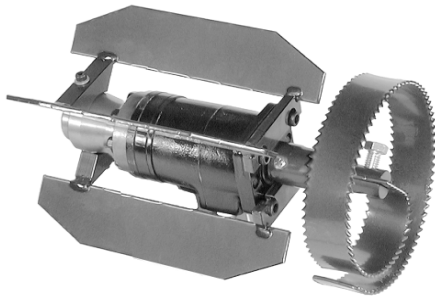


LATERAL LINE ROOT CUTTER KITS

Powered by the jetter's water pressure, these fierce root cutters spin at extremely high torque. Kits include tool box and all necessary hardware. 5/8" output shaft

Part No.	GPM	PSI	NPT Size	Saws & Skids Included
J-1469-34	35 - 50	900-1400*	3/4"	4", 6", 8" & 10" (concave saws)
J-1469	50 - 80	900-1400*	1"	4", 6", 8" & 10" (concave saws)

* Provides the best cutting performance between 900 and 1400 PSI (700 RPM @ 575 in. lbs. torque).






MAINLINE ROOT CUTTER KIT



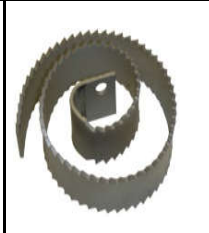
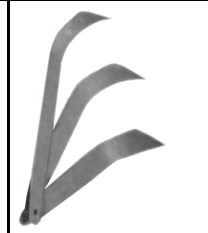
Powered by the jetter's water pressure, these fierce root cutters spin at extremely high torque. Kits include tool box and all necessary hardware. 1" output shaft.

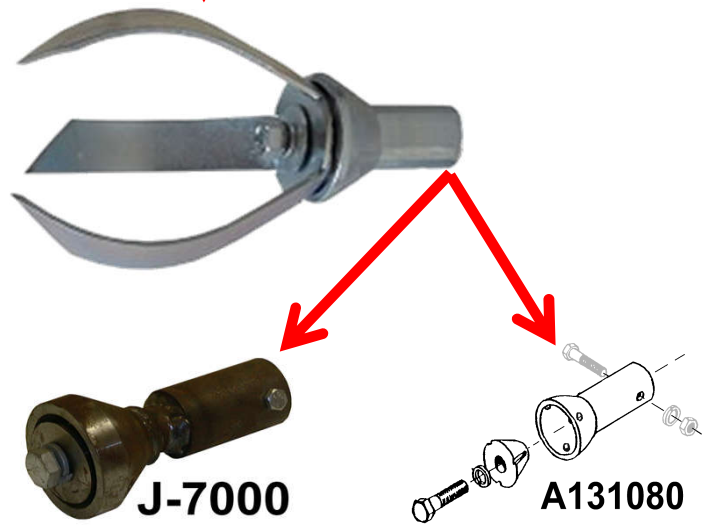
Part No.	GPM	PSI	NPT Size	Saws & Skids Included
J-1603-P	35 - 80	900-1500	1"	6", 8", 10" & 12" (concave saws)

REPLACEMENT AND OPTIONAL ROOT CUTTER SKIDS

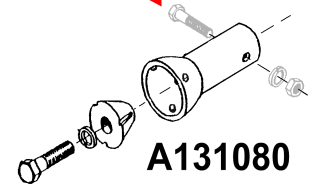
ROOT CUTTER ATTACHMENTS			
	Skids for Lateral Line RC	Skids for Mainline RC	Optional Skids w/Wheels
6" pipe	J-1469-6	J-1603-6S	--
8" pipe	J-1469-8	J-1603-8S	J-1603-8SW
10" pipe	J-1469-10	J-1603-10S	J-1603-10SW
12" pipe	J-1469-12	J-1603-12S	J-1603-12SW
15" pipe	--	J-1603-15S	J-1603-15SW

REPLACEMENT AND OPTIONAL ROOT CUTTER BLADES

ROOT CUTTER ATTACHMENTS				
	Flat Saws	Concave Saws	Tapered Saws	Cutter Blades *
3" pipe	M-1003	--	--	--
4" pipe	M-1004	M-2004	M-3004	--
6" pipe	M-1006	M-2006	M-3006	A131010
8" pipe	M-1008	M-2008	M-3008	A131020
10" pipe	M-1010	M-2010	M-3010	A131030
12" pipe	M-1012	M-2012	M-3012	A131040
15" pipe	M-1015	M-2015	M-3015	A131050
18" pipe	M-1018	M-2018	M-3018	--



* Root cutters with 1" output shafts only, requires a chuck from below.



Part No.	Description
J-1469-BH	Root cutter saw chuck for Lateral Line (5/8" output shaft) root cutters
J-1700-P	Root cutter saw chuck for Mainline (1" output shaft) root cutters
J-7000	Cutter blade chuck for obsolete O'Brien™ (1" output shaft) root cutters
A131080	Cutter blade chuck for obsolete Aquatech™ (1" output shaft) root cutters

Note: Either of the above cutter blade chucks will fit the newer mainline root cutter if user wishes to use the cutter blades.



CENTERING SKIDS (AKA NOZZLE GUARDS)

Centers nozzle in the pipe. Cuts nozzle wear by 50%. A must for all rotating nozzles. Maximizes cleaning efficiency for any nozzle that sprays in a 360° (radial) pattern. Female NPT on the inlet end for the hose and male NPT on the outlet end for the nozzle.

Part No.	1/2" NPT	3/4" NPT	1" NPT
4" ID Pipe	J-4012-04	J-4034-04	J-4001-04
6" ID Pipe	J-4012-06	J-4034-06	J-4001-06
8" ID Pipe	J-4012-08	J-4034-08	J-4001-08
10" ID Pipe	J-4012-10	J-4034-10	J-4001-10
12" ID Pipe	J-4012-12	J-4034-12	J-4001-12
15" ID Pipe	--	--	J-4001-15

NOZZLE EXTENSIONS

Prevents the sewer hose from reversing direction in larger pipes. Also prevents nozzle from entering a lateral pipe. Helps reduce wear on sewer hose.

Part No.	Length	NPT Size
J-40-3	12"	1/2"
A130004	12"	3/4"
A130005	10"	1"
A130001	12"	1"
A130002	12"	1-1/4"



T-M STYLE 90° HOSE REEL SWIVELS

American made with investment cast steel process.

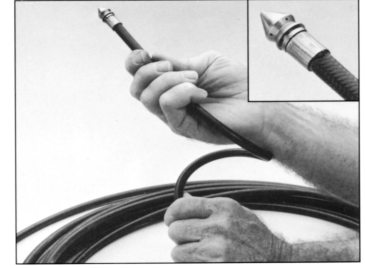
Part No.	Input	Output
A130729	3/4" FNPT	3/4" FNPT
J-2405-2	1" FNPT	1" FNPT
A130727-1	1-1/4" FNPT	1-1/4" FNPT



TRAP HOSE

For cleaning residential and industrial "S" traps and other small diameter lines.

Part No.	Hose Size	Hose Length	NPT Hose Ends	Hose PSI
15030-025	1/8"	25'	1/8"M x 1/8"M	3000



TRAP HOSE KITS

Trap hose with nozzle.

Part No.	Hose Size	Hose Length	NPT Hose Ends	Hose PSI	Nozzle	NPT Adapter
OBJ-1723K	1/8"	25'	1/8"M x 1/8"M	4000	1/8" 4gpm	1/8"F to 1/4"F
OBJ-1722K	3/16"	75'	1/4"M x 1/8"M	4000	1/8" 4gpm	3/8"F to 1/4"F
A136260	1/4"	65'	1/4"FS x 1/8"M	5800	1/8" 3-20gpm	None



COBRA SEWER CLEANING HOSES

Constructed from materials selected to provide rugged and reliable service under even the most severe and demanding conditions found in high pressure sewer cleaning. These sewer cleaning hoses are constructed with a polyolefin tube which provides maximum resistance to the hydrolysis commonly associated with other thermoplastic tube materials. Reinforcement with high tensile polyester fiber contributes to an exceptionally low volumetric expansion rate and eliminates loss of strength from moisture absorption. A polyether-urethane cover provides exceptional cut, abrasion and fungus resistance. And, lastly, all components are bonded together to maximize fitting retention and wear resistance, and to provide smaller minimum bend radii.

SIZE	3/8"	1/2"	3/4"		1"	
Ends	3/8" MNPT	1/2" MNPT	3/4" MNPT		1" MNPT	
Press.	4000 PSI	4000 PSI	2500 PSI	3000 PSI	2500 PSI	3000 PSI
Color	GREEN	GREEN	ORANGE	BLUE	ORANGE	BLUE
100'	available	J-1942-100-COBRA	A175150-10-COBRA	available	available	available
150'	20032-150-COBRA	J-1942-150-COBRA	A175150-11-COBRA	available	available	available
200'	20032-200-COBRA	J-1942-200-COBRA	available	available	A175213-COBRA	available
250'	available	available	available	available	available	available
300'	available	J-1942-300-COBRA	available	available	available	available
400'	available	J-1942-400-COBRA	A175150-21-COBRA	A175166-3000-COBR	A175231-COBRA	A175233-3000-COBR
500'	available	J-1942-500-COBRA	A175150-27-COBRA	A175150-22-COBRA	A175241-COBRA	A175241-3000-COBR
600'	available	J-1942-600-COBRA	A175150-23-COBRA	A175167-3000-COBR	A175252-COBRA	A175252-3000-COBR
700'		J-1942-700-COBRA	A175150-24-COBRA	A175168-3000-COBR	A175261-COBRA	A175261-3000-COBR
750'		available	A175150-26-COBRA	available	available	available
800'		J-1942-800-COBRA	A175150-25-COBRA	A175169-3000-COBR	A175271-COBRA	A175271-3000-COBR
900'		available	available	available	available	available
1000'		available	J-1940-1000P	A175171-3000-COBR	A175269-COBRA	A175269-3000-COBR
1100'				available	available	available
1200'				available	available	available



COBRA DIE SETS

For embossing the barrel end of swage fittings

Part No.	Size
A255078-1/2-D	1/2"
A255078-3/4-D	3/4"
A255078-1-D	1"



COBRA SWAGE TOOL

Part No.	Description
A255078	Hydraulic Swage Tool
A255078-M	Manual Swage Tool



COBRA PUSHERS

Protects threads on male swage end fittings

PN for Male	PN for Female	Size
A255078-1/2-P	TBA	1/2"MNPT
A255078-3/4-P	TBA	3/4"MNPT
A255078-1-P	A255078-1-FP	1"MNPT

COBRA SEWER HOSE SWAGE FITTINGS

These swage fittings are specifically designed for the sewer hose we sell. Note: Manufacturer's swaging equipment required to install these ends. Use of other fittings and equipment is at users own risk. Due to the higher pressures involved with 3/8" and smaller hoses, the manufacturer does not supply replacement fittings for them.



Hose Size	1/2"	3/4"	1"	Required Tooling
Working PSI	3000 & 4000	2500 & 3000	2500 & 3000	
Male End	J-1942-1-COBRA	A170040-COBRA	A170020-COBRA	Die set & male pusher
Female End	J-1942-2-COBRA	J-1940-4-COBRA	J-1941-4-COBRA	Die set & female pusher
Mender	J-1942-3-COBRA	A170035-COBRA	A170030-COBRA	Two die sets



LEADER HOSES

Most of the wear on a sewer cleaning hose occurs on the first several feet working through the sewer. By adding a leader hose one can extend the life of the main roll of hose. Female fitting on hose end to male fitting on nozzle end.

Part No.	NPT Size	Length	Max Working	Cover Material	Stocking Status
J-1909	3/8"	20'	4000 psi	Thermoplastic	Normally Stocked
J-1910	1/2"	20'	4000 psi	Thermoplastic	Normally Stocked
J-1931	3/4"	10'	3000 psi	Thermoplastic	Special Order
A176105	3/4"	10'	2500 psi	Rubber	Special Order
J-1905	3/4"	20'	2500 psi	Rubber	Normally Stocked
A176106	3/4"	20'	3000 psi	Rubber	Normally Stocked
A249253	3/4"	25'	3000 psi	Rubber	Special Order
J-1933	1"	10'	2000 psi	Thermoplastic	Special Order
A176100 rev B	1"	10'	3000 psi	Rubber	Normally Stocked
J-1924	1"	15'	3000 psi	Thermoplastic	Normally Stocked
A176110	1"	20'	2000 psi	Rubber	Normally Stocked
A176115	1"	25'	2000 psi	Rubber	Special Order
J-1934	1"	25'	2500 psi	Thermoplastic	Normally Stocked
A176101	1-1/4"	10'	2000 psi	Rubber	Special Order

"LIVE" SWIVELS

Allows attachments to swivel freely without twisting the hose. Male pipe to female pipe

Hose Size	1/2" Hose	3/4" Hose	1" Hose
Part Number	A130847	A130848	A130849



SWIVEL UNIONS

Female pipe to female pipe swivel unions for joining two sections of hoses together.

Hose Size	3/16" Hose	1/4" Hose	3/8" Hose	1/2" Hose	3/4" Hose	1" Hose
Part Number	9255X2X2	9255X4X4	9255X6X6	A381980	A338105	A130690



STEP DOWN SWIVEL UNIONS

For joining a smaller size sewer hose to a larger size. For attaching lateral line kits, pressure wands, etc. Note: Be careful not to exceed the pressure rating of your unit

Hose Sizes	3/8" to 1/4"	1/2" to 3/8"	3/4" to 1/2"	1" to 3/4"
Part Number	9255X6X4	9255X8X6	9255X8X12	A249058





FOOT CONTROL

For auxiliary hose reels and lateral line kits. Note: "Dry Shut" foot controls will dead head the inlet when pedal is not depressed.

Part No.	Style	Inlet Port NPT	Outlet Port NPT	Dump Port NPT	Max GPM	Max PSI
10000407	Dry Shut	3/8" F	1/4" F	none	12	3000



AUXILIARY HOSE REELS

Part No.	Hose Size	Adapter Req. *	Reel Capacity	Spool Width	Max PSI
A130560	1/4"	A133640	200'	6"	3000
	3/8"	A133650	150'		
	1/2"	none	100'		
30018	1/4"	A133640	400'	12"	3000
	3/8"	A133650	300'		
	1/2"	none	200'		

* Reducers: A133640 - 1/2" x 1/4" A133650 - 1/2" x 3/8"

CART FOR AUXILLIARY HOSE REEL

Part No.	DESCRIPTION
A130555	Cart for 12" Wide Hose Reel
A130555-18	Cart for 18" Wide Hose Reel



FLEXIBLE HOSE GUIDE (TIGER TAIL)

Protects the sewer cleaning hose from chafing against the edge of the pipe inside a manhole. Includes a rope for lower and securing the guide thus eliminating the need to enter the manhole.

With Rope	I.D.	Length	Rope Length
J-2203	3"	36"	24'

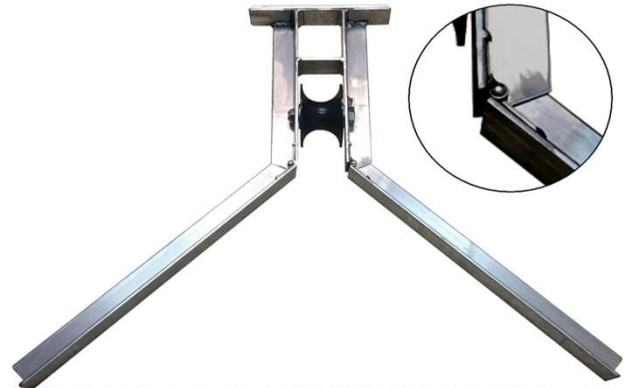




TOP MANHOLE ROLLER

Used when manholes are not in line with the reel. Protects hose from scuffing and allows hose to glide over manhole edge.

Part No.	Width	Length
J-2401	12"	38"



HINGED TOP MANHOLE ROLLER

The legs of this manhole roller are hinged which allows them to spread out to make room for boom hose to enter manhole

Part No.	Width	Length
J-2402	13"	41"



ALUMINUM MANHOLE SAFETY COVER

The wire grid safely covers the manhole but still allows for good visibility below. Bolts on the rim allow for adjustment to keep the cover centered in the opening.

Part No.	Description
J-2026	20" to 26" Manholes
J-2634	26" to 34" Manholes



MANHOLE HOOK

Part No.	Description
A221800	29" w/Perpendicular T-Handle



MANHOLE LIFTER & PICK

Part No.	Description
J-4000	36"L Manhole Pick & Hook Combo



MANHOLE GRAPPLE TONG

Used to retrieve large objects in manholes and catch basins. Eliminates the need to enter the hole.

Part No.	Length
A234585-P	Extends 6' to 12'



MANHOLE DEBRIS GRABBER

Three sections, each 5 feet long, easily collapsible. Equipped with 20' of rope. Made of rugged steel for long life

Part No.	Length
OBJ-299	5' to 15' Telescoping



CATCH BASIN CLEANER

For cleaning debris out of catch basins. Will pick up large objects like bricks, stones and wet leaves. The over-center lever mechanism locks the jaws during lifting to prevent dropping the load.

Part No.	Handle Length
A220070	12 foot
A220080	16 foot

6', 8', 18', 20' and 25' lengths are available upon special request.



CATCH BASIN SPOON

Part No.	Length
A220081	10' 1-Pc Wooden Handle

Other length handles, ranging from 6' to 20', are also available upon special request. Longer length handles are 2 or 3 piece.



CATCH BASIN SCRAPER

High-visibility yellow fiberglass handle.

Part No.	Length
A220082	60" OAL

GRIT CATCHERS

With a debris catcher at the manhole opposite the hose entrance, you can remove cobble and other debris before it's carried further downstream by your flush water. Uses the quick connect fiberglass poles (sold separately) to lower the grit catcher into place.



Part No.	Description
J-2006	6" Debris Catcher
J-2008	8" Debris Catcher

10", 12", 15", 18" and 24" grit catchers are available upon special request.

J-2100-3	3' Fiberglass Extension Pole
J-2100-6	6' Fiberglass Extension Pole
J-2100-6R	6' Fiberglass Pole with Rubber End



PIPE TO FIRE HOSE ADAPTER

Part No.	Description
A388275	2.5"FNPT to 2.5"FNST



2.5"NST HYDRANT FILL HOSE

Part No.	Description
A176150	2-1/2"ID x 25'
A176154	2-1/2"ID x 50'



HYDRANT WRENCH

Part No.	Description
A220330	Hydrant Wrench



FILL PIPE COUPLER

Part No.	Description
A140090	2"FNPT steel flange adapter
A140080	2.5"NST brass swivel nut w/gskt
A190830	Gasket only



2.5" ADAPTER NST TO HOSE

Part No.	Description
A388284	2-1/2" FNST to Hose Shank



2.5" ADAPTER NPSH TO NST

Part No.	Description
A388283	Female NPSH to Male NST

The most frequently used fire hoses today come with NH / NST or NPSH threads.

The most common thread type in use by fire departments today is NST or National Standard Thread. It is often referred to as "fire hose thread". NST also goes by the initials NH or National Hose. It can even be referred to as NHT or National Hose Thread but NST or NH is more common these days. NH = NST.

Fire hoses with National Pipe Straight Hose Thread (NPSH) has the same threads per inch as National Pipe Thread (NPT) but the threads do not taper. This allows a female coupling to thread onto a NPT fitting without being a permanent connection.



SAFETY CONES

Part No.	Height	Color	Traffic Speed	Night Use	Comment
A225004	18"	Orange	≤ 40 mph	No	Plain (min. ht. for low speed traffic)
A225005	28"	Orange	≥ 45 mph	No	Plain (min. ht. for high speed traffic)
A225005-36	36"	Orange	≥ 45 mph	Yes	2 Reflective Stripes

NOTE: Usage specs are per Federal DOT regulations, Section 6F.63 as of Dec 2009.