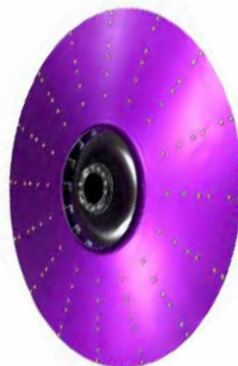




# AMERICAN

## Sewer Parts & Cleaning



2019 Catalog



© Copyright 2019 ASP&C



# TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
ALUMINUM TUBES / ALUMINIUM TUBE FITTINGS	9-22
BALL VALVES / BALL VALVE REPLACEMENT PARTS	66
CONTACT INFORMATION	4
DAMAGE / LOSS CLAIMS	7
DEBRIS HOSE / CLAMPS	30-33
DEBRIS INLET ASSEMBLIES / DEBRIS INLET PARTS / INLET HOSE ASSEMBLIES / PARTS	40-42
DISCHARGE HOSE	76
DOOR LOCK ASSEMBLIES	56
DOOR SEALS / GASKETS	57
DYE TABLETS / POWDER	121
EASEMENT ROLLERS	71
FAN DUCT ASSEMBLIES / FAN DUCT PARTS	39
FAX ORDER FORM	8
FLOAT BALLS	35
FLOAT INDICATORS / FLOAT INDICATOR PARTS	34
FOOTAGE COUNTERS / FOOTAGE COUNTER PARTS	74-76
GAUGES	54-55
HOSE GUIDE TUBE ASSEMBLIES / HOSE LEVEL WIND ASSEMBLIES	73
HOSE SWAGING MACHINES	123-127
HYDRANT WRENCHES	77
INLET SEALS / OUTLET SEALS	58
LEADER HOSE	33
MANHOLE COVER HOOKS	77
MANHOLE ROLLERS / MANHOLE ROLLER REPLACEMENT PARTS	71-72
NOZZLE SKID EXTENSIONS	111-112
NOZZLES	79-110
PENDANT CONTROLS / PENDANT CONTROL REPLACEMENT PARTS	68-70
PRESSURE REGULATORS / PRESSURE REGULATOR PARTS	58
PUMPS & PUMP REPLACEMENT PARTS	59-63
ROOT CUTTERS / KITS / ROOT CUTTER PARTS / ROOT CUTTER SAW BLADES	113-119
SAND TRAPS	121
SEWER PLUGS	122
SIGHT GAUGE ASSEMBLIES / SIGHT GAUGE PARTS	36
SLEWING RINGS / ROTARY BEARINGS / STOP BLOCK TOOTH	44
STEEL TUBES	23-24
SWIVELS / SWIVEL REPLACEMENT PARTS	64-65
TELESCOPING TUBE ASSEMBLIES / TELESCOPING TUBE PARTS	43
TERMS & CONDITIONS	6
THROTTLE LOCK CABLES	77
TRANSMISSIONS & CLUTCHES / TRANSMISSION & CLUTCH REPLACEMENT PARTS	45-53
TUBE FITTINGS	24-29
TYGER TAIL HOSE	120
VACUUM FANS	38
WARRANTY INFORMATION	5
WATER FILL HOSE ASSEMBLIES / WATER FILL HOSE PARTS	78
WATER GUNS / WATER GUN REPLACEMENT PARTS	67
WATER RELIEF VALVES / WATER RELIEF VALVE REPLACEMENT PARTS	58
Y STRAINERS / Y STRAINER PARTS	37
ZIP® TUBES	20 -21



- **ALWAYS WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT WHEN USING OR SERVICING ASP&C EQUIPMENT**
- **ALWAYS FOLLOW INSTRUCTIONS AND INDUSTRY STANDARDS**



**AMERICAN**  
**Sewer Parts & Cleaning**

**W137 N5560 WILLIAMS PLACE  
MENOMONEE FALLS, WI 53051**

**[WWW.AMERICANSEWERPARTS.COM](http://WWW.AMERICANSEWERPARTS.COM)**

**[SALES@AMERICANSEWERPARTS.COM](mailto:SALES@AMERICANSEWERPARTS.COM)**

**PHONE: 800-666-0766  
262-783-6666**

**FAX: 800-691-0031  
262-783-4860**

**CURRENT PRICE LIST AVAILABLE ONLINE- [WWW.AMERICANSEWERPARTS.COM](http://WWW.AMERICANSEWERPARTS.COM)**

# AMERICAN SEWER PARTS AND CLEANING COMPANY

## LIMITED ONE (1) YEAR WARRANTY

American Sewer Parts and Cleaning will repair or replace to the original user any portion of a new American Sewer Parts and Cleaning product which proves defective due to defective materials or workmanship of American Sewer Parts and Cleaning for the period of one (1) year from the date of purchase. In the absence of suitable proof of purchase date, the effective date of this warranty will be based upon the date of manufacture.

### WARRANTY EXCLUSIONS:

1. Defects or malfunctions resulting from failure to properly install, operate, or maintain the product.
2. Failures resulting from abuse, accident, or negligence.
3. Normal maintenance services and the parts used in conjunction with such service.
4. Products which are not installed in accordance with applicable codes, ordinances, and standard trade practices.
5. Product used for purposes other than for what it was designed and manufactured.
6. Damage caused by acts of GOD or conditions beyond the control of American Sewer Parts and Cleaning.

### LIABILITY LIMITATION:

In no event shall American Sewer Parts and Cleaning be liable or responsible for consequential, incidental, or special damages resulting from or related in any manner to any American Sewer Parts and Cleaning product or parts thereof. Personal injury and / or property damage may result from improper installation. American Sewer Parts and Cleaning disclaims all liability, including liability under this warranty, for improper installation. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. American Sewer Parts and Cleaning specifically disclaims the implied warranties of merchantability and fitness for a particular purpose after the termination of the warranty period set forth herein. No warranties or representations at any time made by any representatives of American Sewer Parts and Cleaning shall vary or expand the provision hereof. This warranty gives you specific legal rights and other rights which may vary from state to state.

### LABOR / MISCELLANEOUS COSTS:

American Sewer Parts and Cleaning shall in no event be responsible or liable for the cost of field labor or other charges incurred by any customer in removing and/or re-affixing any American Sewer Parts and Cleaning product, part, or component thereof.

### RETURNED OR REPLACED COMPONENTS:

Any item to be replaced under this Warranty must be returned to American Sewer Parts and Cleaning, or such other place as American Sewer Parts and Cleaning may designate, freight prepaid. American Sewer Parts and Cleaning Company will not be responsible for inbound and / or outbound freight charges.

# **TERMS AND CONDITIONS**

## **GENERAL TERMS**

- Terms are **NET 30 DAYS**.
- At **45 days** account will be placed on credit hold until balance is paid. Terms revert to C.O.D.
- New accounts are C.O.D., VISA or MasterCard until credit is approved.
- Credit card purchases are limited to \$5,000 per occurrence / maximum \$7,500 annually.
- Minimum order is **\$50.00**.
- ASPC is not responsible for verbal order accuracy unless a hard copy of the order is received prior to processing via fax at 1-800-691-0031 or email at [sales@americansewerparts.com](mailto:sales@americansewerparts.com).

## **FREIGHT TERMS**

- Freight is prepaid and add / C.O.D. accounts are collect.
- Due to the large variations in shipping methods and daily surcharges, freight quotes cannot be provided. We ship via the most economical and beneficial method.
- If a delivery is attempted and undeliverable any additional charges will be charged to the recipient.
- Any additional charges for redirecting a delivery from an incorrect address will be charged to the recipient.
- Invoices are created the day after shipment. Tracking or Pro Number is indicated on the invoice.
- ASPC is not responsible for discrepancies or damages not reported within 7 days of delivery.

## **CLAIMS / RETURNS:**

- Claim notification must be received within 7 working days from the date of delivery.
- Replacement merchandise will be billed at standard terms.
- Shipping claim credit will be issued upon receipt of payment from shipping company.
- If a shipment is damaged, note the damage while the driver is present and notify ASPC immediately. Keep all products and shipping containers. If possible, take photographs (digital preferred) and send to ASPC by mail or e-mail to [sales@americansewerparts.com](mailto:sales@americansewerparts.com). ASPC will file a claim with the carrier. As soon as the shipping company settles the claim you will be notified by ASPC. Note: Carrier may pick up the damaged items and containers for examination.
- Products returned via freight collect will not be accepted.
- Ground freight is paid one way on warranty claims.
- ASPC does not issue call tags. Merchandise returned requires an RMA number to be issued prior to shipping to ASPC. The RMA number **MUST** appear on the outside of the box. Any box received without an RMA will be refused. RMA is valid for 15 days.
- Incorrectly ordered product will be charged ~15% restocking fee for stock items. Made to order product will be charged ~ 25% restocking fee. Special Order product is not returnable. Freight credit will not be issued for incorrect orders.
- Product returned due to ASPC error will be credited in full.

**Customer Service Hours: 8:00 am to 4:30 pm Central Time Zone.**



## ASP&C DAMAGED AND LOSS SHIPMENT POLICIES

**Damaged Shipments:** (Including damage to an item(s) including loss due to damage to package.)

1. Damage to a package that you receive must be reported to ASP&C customer service with this completed form with in 48 hours of receiving the package from the carrier.
2. You must take pictures of the damage item and or package. (E-mailed pictures are preferred)
3. You must keep the damaged items and packages until your claim has been approved.
4. You must include all information listed below to be considered for reimbursement.
5. All claims will be reviewed and approved or denied by the management of ASP&C within 48 hours of the claim being received by ASP&C.

**Loss packages:** (complete loss of one or more items.)

1. You must notify ASP&C as soon as you are made aware of the loss package. The tracking numbers are always included at the bottom of each invoice you receive.
2. You must complete all information listed below to be considered for reimbursement.
3. All lost packages must be reported to the shipper to allow them their allocated time frame to put a trace on the package to enable them an attempt to locate the package(s).
4. All claims will be reviewed and approved or denied by the management of ASP&C within 48 hours of the claim being received by ASP&C.

### **Required Information to process a parcel freight claim:**

Claim type: (check one) Loss  Damage  Today's Date: \_\_\_\_\_

Tracking # on package(s): \_\_\_\_\_

Company that placed order: \_\_\_\_\_ Contact name: \_\_\_\_\_

Phone #: \_\_\_\_\_ Fax # \_\_\_\_\_ E-mail: \_\_\_\_\_

Package shipped to information:

Company name: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Order Information:

Order#: \_\_\_\_\_ Purchase order #: \_\_\_\_\_ Invoice #: \_\_\_\_\_

Pictures to follow: Yes  No

Describe damages to item or package and or losses:

---

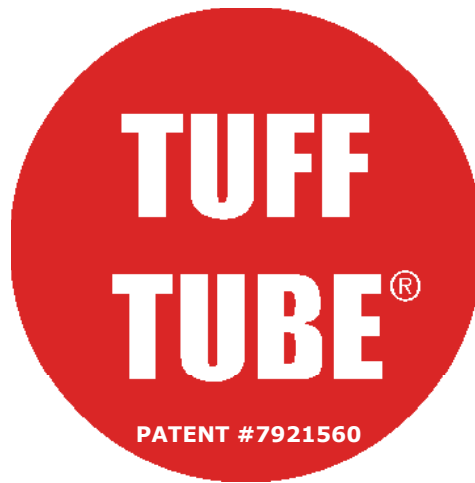
---

---

- Please email or fax all freight & small package claim information to ASP&C at [claims@americansewerparts.com](mailto:claims@americansewerparts.com) / 262-783-4860.
- Calling ASP&C to report freight & small package claim information is an acceptable means to begin the process OR to answer any questions.







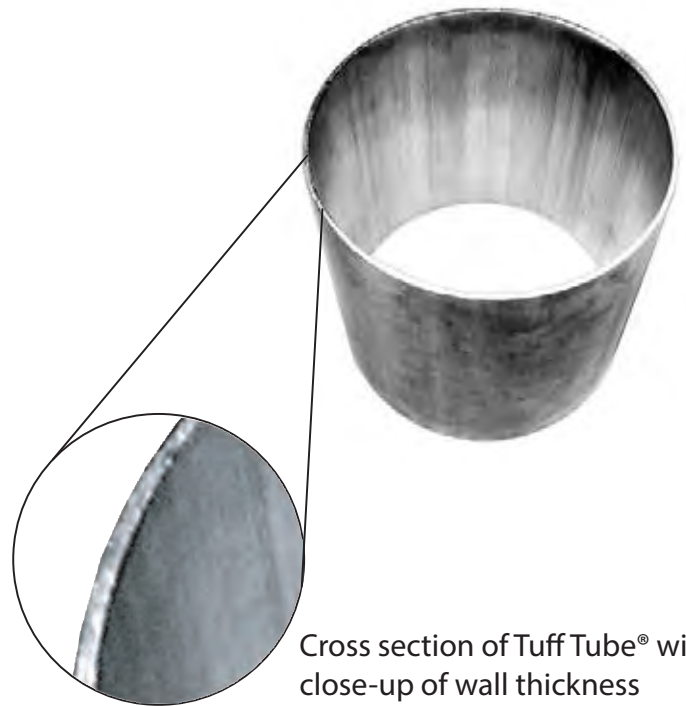
Tuff Tube® has been designed specifically for industries such as the industrial vacuum and sewer cleaning industry. The Tuff Tube vacuum tube is used to vacuum sand, pieces of pipe, grit, rocks, water, concrete, dirt and organics. This mixture is very abrasive to the interior of the vacuum tube, to say the least, not to mention the bumping and banging the tube receives on the steel manhole frame when entering a manhole.

In both the wear and dent resistance tests, the Tuff Tube performed significantly better than both the .072" and the .090" thick 3004-H22 irrigation tube. Tuff Tube showed a 346% increase in wear resistance compared to the .072" thick sample, and a 272% increase compared to the .090" thick sample. Naturally, the tests conducted here do not entirely capture what can and does happen in the field. It is however, fairly safe to state from the data above, that the Tuff Tube® would last about twice as long as a .072" or .090" thick irrigation product when used in a highly abrasive environment.

Tuff Tube seamless tubing has a wall thickness of .100", which is .010" thicker than any other 6" & 8" aluminum tube in the industrial sewer and vacuum market. Tuff Tube is also heat-treated. Thus, over-time, it becomes work-hardened, which in-turn prolongs it's career in the field.

It has a material hardness of C15 to C16 on a Rockwell scale compared to 3004.H22 irrigation tube, which tested at C10 to C12. which improved this product's wear rate by 41% over conventional aluminum vacuum tubing and a tensile strength of 35 KSI, which makes the Tuff Tube 28% more dent resistant over conventional vacuum tubing available and provides better ovality.

In keeping the integrity of the tubing round, the Tuff Tube® helps ensure better air flow which equals better C. F. M. and total vacuum efficiency. A dent in a vacuum tube restricts air flow creating less C.F.M. and less vacuum efficiency.



Cross section of Tuff Tube® with close-up of wall thickness



**NOW AVAILABLE IN 3" & 4" X .125"**

**AQUA-TECH / BAND-LOCK / CAM-LOCK / FLANGED  
ADAPTERS OF ALL SIZES / CONFIGURATIONS**



**Super Products® / Guzzler® Style  
Tuff Tubes w/ Bandlock® Style Fittings**

**TUFFEST TUBE ON THE MARKET**

**Intake Tubes**



Part #	Size
S8510-00285	6" x 24"
S8510-01147	6" x 36"
S8510-00286	6" x 48"
S8510-01148	6" x 60"
S8510-01148A	6" x 72"
S8510-01371	6" x 84"
S8510-00287	6" x 96"
S8510-00285A	6" x 120"
S8510-00288	8" x 24"
S8510-01373	8" x 36"
S8510-00289	8" x 48"
S8510-01374	8" x 60"
S8510-01374A	8" x 72"
S8510-01375	8" x 84"
S8510-00290	8" x 96"
S8510-01376	8" x 120"

**Male Catch Basin Tubes**



Part #	Size
S8500-00454	6" x 24"
S8500-00455	6" x 36"
S8510-00287D	6" x 48"
S8510-00287B	6" x 60"
S8500-00455A	6" x 72"
S8510-00287AA	6" x 78"
S8510-00287A	6" x 96"
S8500-00453	8" x 24"
S8500-00453AM	8" x 30"
S8500-00453BM	8" x 36"
S8500-00453D	8" x 48"
S8500-00453E	8" x 60"
S8500-00453F	8" x 72"
S8500-00453J	8" x 78"
S8500-00453GG	8" x 84"
S8500-00453H	8" x 96"



**Bandlock® Style Clamp**

**Aluminum**

**Steel**

Part #	Size	Part #
U42587	6" Clamp	E% " " Z " " ##
U42588	8" Clamp	E% " " Z " " #"

**Female Catch Basin Tubes**



Part #	Size
S8510-00287C	6" x 72"
S8510-00287AB	6" x 78"
S8500-00453DF	8" x 48"
S8500-00453EF	8" x 60"
S8500-00453FF	8" x 72"
S8500-00453JF	8" x 78"
S8500-00453G	8" x 84"
S8500-00453HF	8" x 96"

TUFFEST TUBE ON THE MARKET

Aquatech® Style Tubes  
w/ Riveted Steel Couplers



**Intake Tubes**

Part #	Size
AT150461A	6" x 18"
AT150461	6" x 36"
AT150471	6" x 48"
AT150475	6" x 60"
AT150481	6" x 72"
AT150482	6" x 84"
AT150483	6" x 90"
AT150485	6" x 96"
AT150491	6" x 120"
AT238005	8" x 36"
AT238005A	8" x 48"
AT238006	8" x 60"
AT238007	8" x 72"
AT238007A	8" x 78"
AT238007AB	8" x 84"
AT238008	8" x 96"
AT238009	8" x 120"



**Catch Basin Tubes**

Part #	Size
AT150161	6" x 36"
AT150171	6" x 48"
AT150325	6" x 60"
AT150181	6" x 72"
AT150182	6" x 78"
AT150186	6" x 96"
AT150191	6" x 120"
AT238994	8" x 48"
AT238007B	8" x 60"
AT238007C	8" x 72"
AT238010B	8" x 78"
AT238010	8" x 96"
AT238010C	8" x 120"

## Vactor® and Vac-Con® Style Tubes w/ Aluminum Flanges

TUFFEST TUBE ON THE MARKET



### Intake Tubes w/ Welded Flanges

Part #	Size
UA34763L	6" x 24"
UA34763H	6" x 28"
UA34763D	6" x 36"
UA34763C	6" x 48"
UA34763A	6" x 60"
UA34763AA	6" x 72"
UA34763K	6" x 84"
UA34763E	6" x 90"
UA34763G	6" x 96"
UA34763F	6" x 120"
UA25637N	8" x 12"
UA25637T	8" x 18"
UA25637Q	8" x 24"
UA25637K	8" x 28"
UA25637B	8" x 30"
UA25637C	8" x 36"
UA25637M	8" x 48"
UA25637	8" x 60"
UA25637J	8" x 70"
UA25637D	8" x 72"
UA25637R	8" x 78"
UA25637U	8" x 80"
UA25637P	8" x 82"
UA25637E	8" x 84"
UA25637F	8" x 90"
UA25637A	8" x 96"
UA25637V	8" x 102"
UA25637G	8" x 120"



### Vactor® Style Quick Clamp w/ Trimline Handle

Part #	Size
U16584	8" Quick Clamp



### Vac-Con® Style Quick Clamp w/ Trimline Handle

Part #	Size
VC690-0073	6" Vac-Con Style Quick Clamp
V680-0015	8" Vac-Con Style Quick Clamp
U20543	10" Vac-Con Style Quick Clamp

### Trimline 6" and 8" Quick Clamps

The Trimline Quick Clamps used to secure Vactor® and Vac-Con® flange-style tubes, have been designed with a trimline handle in both 'U' and 'V' style clamps.

This feature enables the handle to hug the body of the clamp when it is drawn over center to tighten the clamp over the vacuum tube flanges.

The design greatly decreases the chances of the handle getting caught on clothing, equipment and or even manhole lids or stairs versus a standard style clamp handle, which sticks out from the clamp's outer profile.

The result is a safer and more efficient clamp for use in the field.

**TUFFEST TUBE ON THE MARKET**

**Vactor® and Vac-Con® Style Tubes  
w/ Aluminum Flanges**

**Catch Basin Tubes  
w/ Welded Flanges**



Part #	Size
UA34766	6" x 24"
UA34766D	6" x 30"
UA34766H	6" x 36"
UA34766C	6" x 48"
UA34766J	6" x 60"
UA34766A	6" x 72"
UA34766B	6" x 78"
UA34766G	6" x 90"
UA34766F	6" x 96"
UA34766K	6" x 120"
UA25268Q	8" x 24"
UA25268A	8" x 32"
UA25268G	8" x 36"
UA25268F	8" x 42"
UA25268H	8" x 48"
UA25268C	8" x 60"
UA25268I	8" x 66"
UA25268D	8" x 72"
UA25268	8" x 78"
UA25268M	8" x 80"
UA25268P	8" x 82"
UA25268B	8" x 84"
UA25268E	8" x 90"
UA25268J	8" x 96"
UA25268K	8" x 108"
UA25268L	8" x 120"

## Vactor® Style Tubes w/ Riveted Steel Flanges

### Intake Tubes

Part #	Size
U34763H	6" x 28"
U34763D	6" x 36"
U34763C	6" x 48"
U34763A	6" x 60"
U34763AA	6" x 72"
U34763E	6" x 90"
U34763B	6" x 96"
U34763F	6" x 120"
U25637N	8" x 12"
U25637K	8" x 28"
U25637B	8" x 30"
U25637C	8" x 36"
U25637M	8" x 48"
U25637	8" x 60"
U25637J	8" x 70"
U25637D	8" x 72"
U25637P	8" x 78"
U25637E	8" x 84"
U25637F	8" x 90"
U25637A	8" x 96"
U25637G	8" x 120"



**Pipe Flange  
w/ Drilled Rivet Holes**

Part #	Size
U15338C or VC680-0314	6 1/4" Tube Flange
U40011 or VC680-0024	8" Pipe Flange

### Catch Basin Tubes

Part #	Size
U34766-1	6" x 18"
U34766N	6" x 30"
U34766M	6" x 36"
U34766B	6" x 48"
U34766A	6" x 60"
U34766	6" x 78"
U34766E	6" x 84"
U34766G	6" x 90"
U34766F	6" x 96"
U34766D	6" x 120"
U25268A	8" x 32"
U25268G	8" x 36"
U25268F	8" x 42"
U25268H	8" x 48"
U25268C	8" x 60"
U25268M	8" x 72"
U25268	8" x 78"
U25268D	8" x 82"
U25268B	8" x 84"
U25268E	8" x 90"
U25268J	8" x 96"
U25268K	8" x 108"
U25268L	8" x 120"



TUFFEST TUBE ON THE MARKET



## Hydro-Excavation Style Tubes



### Welded Flange / Hydro Cuff End

Used on Vactor® and Vac-Con® Style Machines.

Part #	Size
UA34763KHE	6" x 84"
UA34763EHE	6" x 90"
UA25637WHE	8" x 66"
UA25637DHE	8" x 72"
UA25637RHE	8" x 78"
UA25637EHE	8" x 84"
UA25637AHE	8" x 96"
UA34763AAHE-8	6" x 72" Tube w/ 8" Flange to 6" Aluminum Tube Reducer Fitting (See Below)



### Riveted Female Aquatech® Coupler

Part #	Size
AT238007HE	8" x 72"



Part #	Description
USLV6X8	6" HYDRO -EXCAVATION CUFF
USLV8X8	8" HYDRO -EXCAVATION CUFF

## Hydro-Excavation Style Tubes and Accessories



**Welded Male Bandlock® Style / Hydro Cuff End**  
Used on Super Products® and Guzzler® Style Machines.

Part #	Size
S8500-00455AHE	6" x 72"
S8500-00455BHE	6" x 84"
S8500-00455FHE	6" x 120"
S8510-01374AHE	8" x 72"
S8510-00453GAHE	8" x 84"



**Circular Operator Tube Style Handle**  
Used on all 6" and 8" Tubes for  
Vactor®, Vac-Con®, Super Products®, Guzzler®  
and Aquatech® Tubes for easier handling.

Part #	Size
U63404 or VC711-6279 SP9400-00132	6"
U25262 or VC711-0172 SP9400-00133	8"

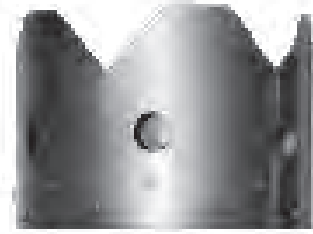
TUFFEST TUBE ON THE MARKET

Tuff Tube Accessories



**Aluminum Weld-on Serrated Suction Nozzle Crown**

Part #	Size
UA34767 or VC810-3907	6" Aluminum
UA23788 or VC810-0222	8" Aluminum



**Steel Serrated Suction Nozzle Crown**

Part #	Size
U34767 or GUZ1280042	6" Steel
U23788 or GUZ1280043	8" Steel



**Flange Gasket**

Part #	Size
U16585	8" Rubber



# DIG THIS!!!

## TRIPLE-X INSULATED DIG TUBE:

1. INSULATING CUFFS
2. INSULATING GAP
3. INSULATING HANDLE
4. VIBRATION REDUCTION



	<u>6"x72"</u>	<u>8"x72"</u>	<u>8"x6"x72"</u>
FLANGED:	UA34763XXX	UA25637XXX	UA34763XXX-8
BANDLOCK FEMALE:	UA34763XXX-F	UA25637XXX-F	
BANDLOCK MALE:	UA34763XXX-M	UA25637XXX-M	
AQUATECH FEMALE:		ATF872XXX	

American Sewer Parts and Cleaning, Inc.  
 W137 N5560 Williams Place Menomonee Falls, WI 53051  
 (800) 666-0766 (262) 783-6666 Fax (800) 691-0031  
[sales@americansewerparts.com](mailto:sales@americansewerparts.com) [www.americansewerparts.com](http://www.americansewerparts.com)



Zip Tube® is an all-new hydro excavation suction/water erosion nozzle. It is a rugged, quality-engineered tool that can withstand the harsh environment that comes with task at-hand.

Zip Tube is constructed of .100 wall, 6" or 8" Tuff Tube™ with an external stainless steel water ring containing ten (6") or twelve (8") stainless steel replaceable jets that pulverize soil with water pressure. The soil is then removed by vacuum suction through the tube. Zip Tube is available with a Vactor® style 6" or 8" flange, Super Products® Bandlock®, or Aquatech® connection options.

Features include an adjustable handle with a rubber bump stop tube inside the water ring. The bump stop protrudes forward to help safeguard the water ring jets against abrasion from rocks, debris and underground services. There is also a rubber safety tube that is attached to the exterior of the water ring that helps control the spray of water and eroded material that can splatter during the hydro excavation process.

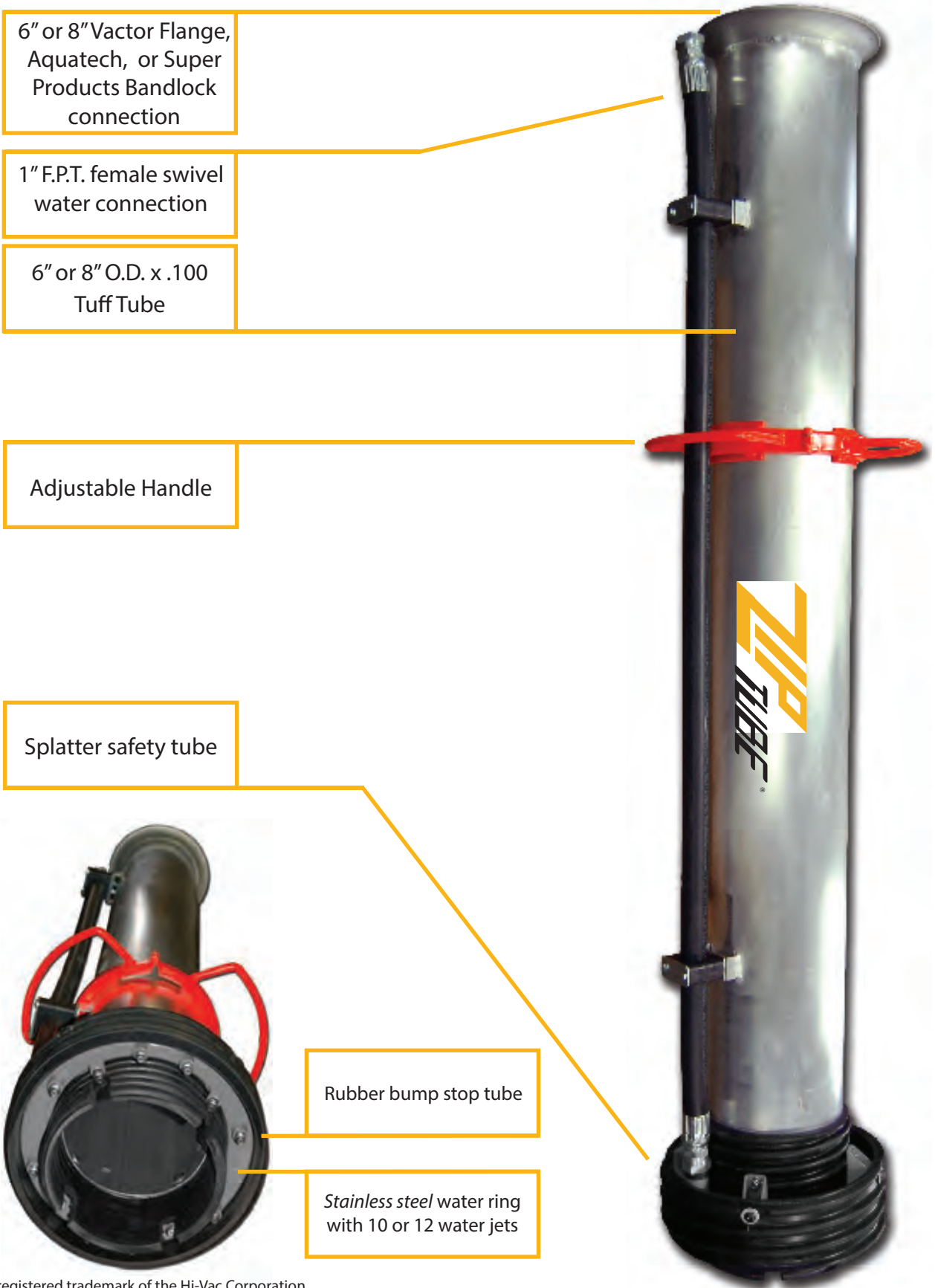
## PRODUCT SPECIFICATIONS

Weight:	39 lbs (6") 45 lbs. (8")
Length:	71"
Water connection:	1" F.P.T. swivel
Handle adjustment:	39" Height
Replaceable Jets:	10 (6") or 12 (8")
Tube dimension:	6" or 8" Tuff Tube w/.100 wall
Connection options:	6" or 8" Vactor flange 6" or 8" female Super Products Bandlock 6" or 8" female Aquatech

## PART NUMBERS

ZIP-A-6"	- Tube w/ 6" female Aquatech connection
ZIP-A	- Tube w/ 8" female Aquatech connection
ZIP-F-6"	- Tube w/ 6" Vactor flange connection
ZIP-F	- Tube w/ 8" Vactor flange connection
ZIP-F-6"/8"	- Tube 6" w/8" Vactor flange connection
ZIP-SP-6"	- Tube w/ 6" female Super Products Bandlock
ZIP-SP	- Tube w/ 8" female Super Products Bandlock
U40797L	- Replacement jet - Straight Angle
U40797L-10	- Replacement jet - 10° Angle





6" or 8" Vactor Flange, Aquatech, or Super Products Bandlock connection

1" F.P.T. female swivel water connection

6" or 8" O.D. x .100 Tuff Tube

Adjustable Handle

Splatter safety tube



Rubber bump stop tube

Stainless steel water ring with 10 or 12 water jets

Aquatech® is a registered trademark of the Hi-Vac Corporation  
 Bandlock® is a registered trademark of the Bandlock Corporation  
 Guzzler® is a registered trademark of the Federal Signal Corporation  
 Super Products® is a registered trademark of Specialized Industries LP.  
 Vactor® is a registered trademark of the Federal Signal Corporation  
 Vac-Con® is a registered trademark of the Holden Industries

# 12" Aluminum Intake Tube



Part #	Size
VE908-12	12" x 12"
VE908-24	12" x 24"
VE908-48	12" x 48"
VE908-72	12" x 72"
VE908-96	12" x 96"

All-aluminum tube, used for suction of debris on Vac-All® type machines. Utilizes riveted steel flanges on both ends. Made in the USA.

# 12" Catch Basin Tube



Part #	Size
VE920-20	12" x 20"
VE920-56	12" x 56"
VE920-72	12" x 72"
VE920-80	12" x 80"
VE920-92	12" x 92"
VE920-96	12" x 96"

All-aluminum tube, used for cleaning debris boxes on Vac-All® type machines. Utilizes a riveted steel flange on one end and a crown end on the other. Made in the USA.

# 12" Intake Clamp



Steel construction, for both 12" steel and 12" aluminum tubing equipped with 12" steel flanges. Used on Vac-All® type machines. Made in the USA.

Part #	Size
VE2557-12	12" Intake Clamp

## 8" Steel Intake Tube



All-steel tube with welded steel flanges on both ends. Used for suction of debris on Vactor® style machines. Made in the USA.

Part #	Size
U53186	8" x 18"
U53186A	8" x 36"
U53186B	8" x 60"
U53186C	8" x 96"
U53186-G	8" x 101"
U53186CD	8" x 102"
U53186E	8" x 107"
U53186D	8" x 120"

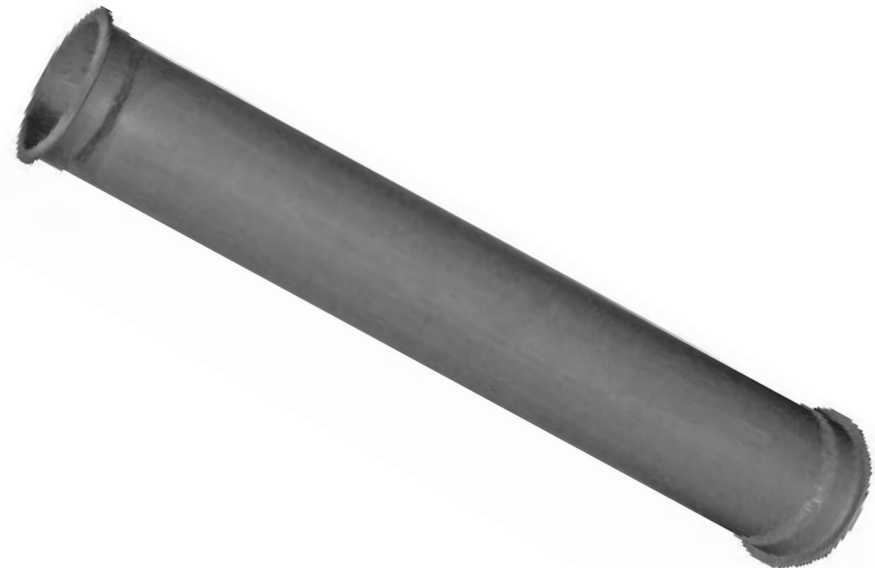
## 8" Steel Catch Basin Tube



All-steel tube with welded steel flange on one end and a crown end on the other end. Used for cleaning debris boxes on Vactor® style machines. Made in the USA.

Part #	Size
US54101X	8" x 60"
US54101Y	8" x 96"
US54101Z	8" x 78"

## 8" Steel Extension Tube

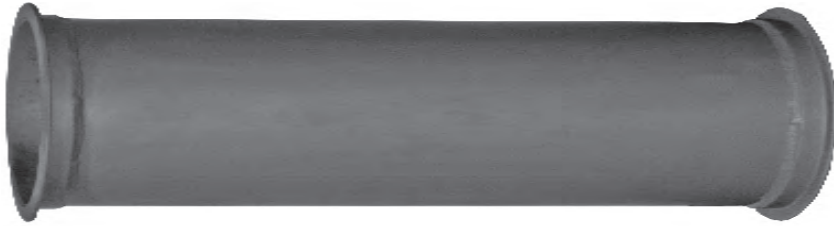


All-steel tube with welded steel flanges featured on each end. Used for tube extension on Vactor® style machines. Made in the USA.

Part #	Size
U54101C	8" x 6"
U54101A	8" x 10"
U54101B	8" x 12"
U54101E	8" x 18"
U54101F	8" x 20"
U54101H	8" x 24"
U54101G	8" x 28"
U54101K	8" x 30"
U54101N	8" x 36"
U54101Q	8" x 42"
U54101S	8" x 46"
U54101T	8" x 48"
U54101W	8" x 54"
U54101X	8" x 60"
U54101L	8" x 120"



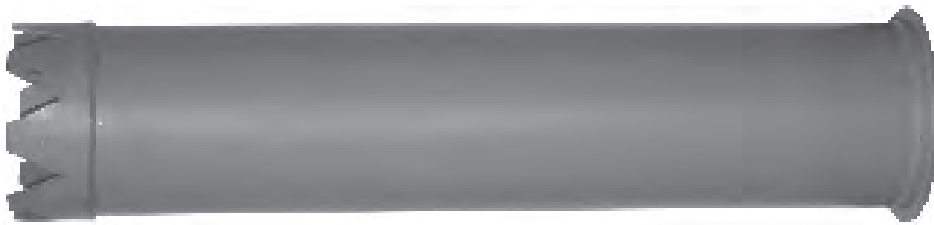
# 12" Steel Intake Tube



Part #	Size
VE808-12	12" x 12"
VE808-24	12" x 24"
VE808-36	12" x 36"
VE808-48	12" x 48"
VE808-72	12" x 72"
VE808-96	12" x 96"

All-steel tube with welded steel flanges on both ends. Used for suction of debris on Vac-All® style machines. Made in the USA.

# 12" Steel Catch Basin Tube



Part #	Size
VE820-36	12" x 36"
VE820-56	12" x 56"
VE820-92	12" x 92"
VE820-96	12" x 96"

All-steel tube with welded steel flange on one end and a crown end on the other end. Used for cleaning debris boxes on Vac-All® style machines. Made in the USA.

# Aquatech® Style Fittings and Couplings

**Aquatech® Riveted Style Steel Tube  
End with Gasket**



Aquatech® style female tube end.

Part #	Size
AT171230A	6" Female End
AT171240A	8" Female End

**Aquatech® Riveted Style Steel  
Tube End**



Aquatech® style male tube end.  
Supplied with steel ring shown on  
following page.

Part #	Size
AT171280A	6" Male End
AT171290A	8" Male End

### Aquatech® Style Steel Ring



Aquatech® steel ring to be used with male tube end.

Part #	Size
AT171180	4" Steel Ring
AT152930	6" Steel Ring
AT171300	8" Steel Ring

### Aquatech® Style O-Ring



Aquatech® coupling gasket.

Part #	Size
AT190770	4" O-Ring
AT190760	6" O-Ring
AT191080	8" O-Ring

### Aquatech® Style Male Hose End



Aquatech® style male hose coupler. Includes the steel ring shown above.

Part #	Size
AT171160-HS	6" Male Hose Coupler
AT171290-HS	8" Male Hose Coupler

### Aquatech® Style Reducer with Gasket



Aquatech® style female to male reducer.

Part #	Size
AT238213	8" Female to 6" Male
AT170220	6" Female to 4" Male

### Aquatech® Style Female Hose End



Aquatech® style female hose end. Includes the Aquatech® style o-ring.

Part #	Size
AT171130-HS	6" Female Hose Coupler
AT171240-HS	8" Female Hose Coupler

# Band-Lok® Style Fittings and Couplings

## Aluminum Female Coupler



Female Band-Lok style coupler with gasket. Used on Super Products style vacuum tubes.

Part #	Size
S3000-00784-4	4" Female Coupler
S3000-00782A	6" Female Coupler
S3000-00784A	8" Female Coupler

## Aluminum Male Coupler



Male Band-Lok style coupler. Used on Super Products style vacuum tubes.

Part #	Size
S3000-00783-4	4" Male Coupler
S3000-00781	6" Male Coupler
S3000-00783	8" Male Coupler

## Band-Lok Style Female Coupler Gasket



Band-Lok style gasket, which is placed on the inside of an aluminum female coupler for aluminum tubing. (Squareback)

Part #	Size
S3500-00003A	4" Coupler Gasket
S3500-00002A	6" Coupler Gasket
S3500-00001A	8" Coupler Gasket

Band-Lok style gasket, which is placed on the inside of a steel female coupler for steel tubing. (Roundback)

Part #	Size
S3500-00003S	4" Coupler Gasket
S3500-00002S	6" Coupler Gasket
S3500-00001S	8" Coupler Gasket

## 70° Boom Elbow

Part #	
U27771	STANDARD BOOM ELBOW
U27771-R	REINFORCED BOOM ELBOW
U27771H	HEAVY DUTY BOOM ELBOW
y = k	HEAVY DUTY REINFORCED BOOM ELBOW
U27771SP	STANDARD BOOM ELBOW W/ LIGHT MOUNTS
U27771H-SP	HEAVY DUTY BOOM ELBOW W/ LIGHT MOUNTS

## 70° Boom Elbow



## 20° Boom Elbow

Part #	
y	AD20S

**Steel Female Hose End**



Female Band-Lok style hose end with gasket.

Part #	Size
U42580A	3" Female Hose End
U42580	4" Female Hose End
U42581	6" Female Hose End
U42582	8" Female Hose End

**Steel Male Hose End**



Male Band-Lok style hose end.

Part #	Size
U42583B	3" Male Hose End
U42583	4" Male Hose End
U42584	6" Male Hole End
U42585	8" Male Hose End

**Steel Galvanized Band-Lok**



90° Band-Lok

Part #	Size
U53492	6" 90° Galvanized
U53488	8" 90° Galvanized

**Steel Galvanized Band-Lok**



45° Band-Lok

Part #	Size
U53494	6" 45° Galvanized
U53490	8" 45° Galvanized

**Band-Lok Adapters**



Part #	Size
S3000-01294	6" Male to 4" Female
S3000-00929	8" Male to 6" Female
S3000-00929B	8" Female to 6" Male
S8500-03149	8" Female Bandlock to 8" Hose Barb



# Vactor® Style Fittings and Couplings

## Pipe Flanges

Steel in construction, these circular flanges are used on Vactor® or Vac-Con® tubing applications. Made in the USA.

Part #	Size
U20735	4 1/8" Plain Pipe Flange
U14915	5 1/8" Plain Pipe Flange
U43413	6" Slotted Hole-Pipe Flange
U15338	6 1/8" Punched-Hole Pipe Flange
U15338C	6 1/8" Rivet Drilled-Hole Pipe Flange
U40011	8" Rivet Drilled-Hole Pipe Flange
U43414	8" Punched-Hole Pipe Flange
U10749A	8 1/8" Punched-Hole Pipe Flange
U10749B - SPA	8" Plain Pipe Flange
U10749A - SPS	8 1/8" Slotted Hole Pipe Flange



U43413

## Rubber Flange Gasket



Vactor® and Vac-Con® style rubber flange gasket.

Part #	Size
U16585	8" Rubber Gasket

## EZ Flange



Aluminum EZ Flange is a weld-on flange used on Vactor® and Vac-Con® tubing.

Part #	Size
U40011D	4" EZ Flange
U40011B	6" EZ Flange
U40011A	8" EZ Flange



## 8" Flange to 6" Tube Reducer Fitting

This specially-designed aluminum fitting clamps to an 8" flange and welds to a 6" aluminum tube on the opposite end. Maintains airflow efficiency by design.

Part #	Size
U40011C	8" Flange to 6" Tube Reducing Fitting

### Hose End Weldment



Vactor® and Vac-Con® style hose end weldment.  
Steel construction.

Part #	Size
U53348	6" Hose End Weldment
U58795	8" Hose End Weldment
U58795H	8" Hose End Weldment - Heavy Duty
U58795EH	8" Hose End Weldment - Extra Heavy Duty

### Reducer Plate



Vactor® and Vac-Con® tubing flanged reducing plate with slotted flanges. Steel construction.

Part #	Size
U34615	8" to 6" Reducing Plate

### Transition Reducer



Vactor® and Vac-Con® style flanged transition reducer with slotted flanges.

Part #	Size
U35096	8" to 6" Transition

### Transition Reducer



Vactor® and Vac-Con® tubing flanged reducer. Steel construction.

Part #	Size
U34614	6" to 4" Reducer

### 45° Steel Pipe Flange



Vactor® and Vac-Con® 45° steel dual flange.

Part #	Size
U53197	6" 45° Steel Flange
U53191	8" 45° Steel Flange

### 90° Steel Pipe Flange



Vactor® and Vac-Con® 90° steel dual flange.

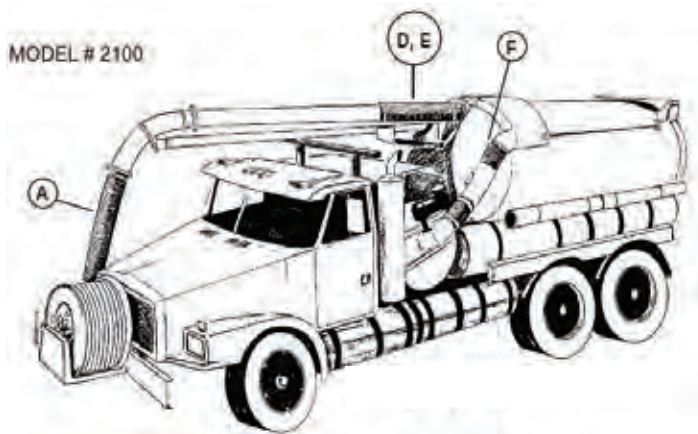
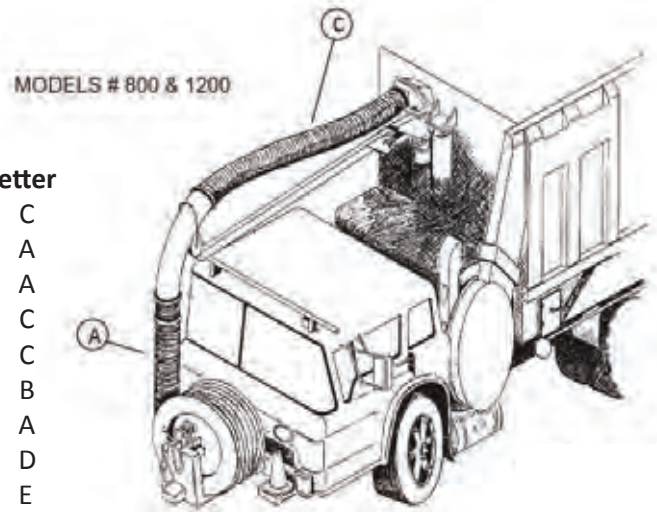
Part #	Size
U52985	6" 90° Steel Flange
U52977	8" 90° Steel Flange

# Vactor® Style Cuffed Rubber Debris Hose

## Vactor® Style Cuffed Rubber Debris Hose



Part #	Description	Size	Letter
U44155	Cuffed Debris Hose	6" x 120"	C
U42596	Cuffed Debris Hose	6" x 60"	A
U47392	Cuffed Debris Hose	6" x 64"	A
U43959	Cuffed Debris Hose	8" x 102"	C
U42597	Cuffed Debris Hose	8" x 120"	C
U43958	Cuffed Debris Hose	8" x 127"	B
U42595	Cuffed Debris Hose	8" x 60"	A
U46564	Cuffed Debris Hose	8" x 62"	D
U46564A	Heavy Duty Cuffed Debris Hose	8" x 62"	E
U44675	Cuffed Debris Hose	8" x 48"	D
U7040M	Cuffed Debris Hose	8" x 37"	E
U70404	Cuffed Debris Hose	10" x 34"	
U46564J	Cuffed Debris Hose	8" x 74"	
U46564N	Heavy Duty Cuffed Debris Hose	8" x 74"	
U46564B	Extra Heavy Duty Cuffed Debris Hose	8" x 62"	
U46564-GR	Ultra Abrasion Resistant	8" x 62"	



## Vactor® Style Cuffed Rubber Debris Hose with Installed and Clamped Hose End Weldments



Part #	Description	Size	Letter
U54428	Debris Hose w/ Hose Ends	8" x 66"	A
U54428B	Debris Hose w/ Hose Ends	8" x 60"	A
U54428A	Debris Hose w/ Hose Ends	8" x 62"	D

**Compression Joint** The 10" Compression Joint is used on Vactor® style equipment.



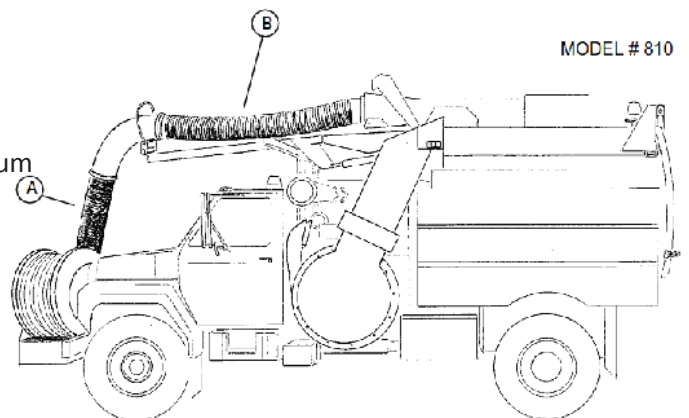
Part #	Size	Letter
U45716	10"	F

## King Clamp



The King Clamp can be used on all vacuum machines with cuffed rubber debris hose to hold to steel weldments. The best clamp-to-hose contact circle in the industry.

Part #	Size
U42592	4" King Clamp
U42593	6" King Clamp
U42594	8" King Clamp



# Vactor® Style Cuffed Rubber Debris Hose

**10" Vactor® Style Debris Suction Hose** Rubber hose to be used on Vactor® style 2100 machine without cuffs.



Part #	Description	Size
U47394	Debris Suction Hose	10" x 10"
U47394F	Debris Suction Hose	10" x 16"
U47394G	Debris Suction Hose	10" x 25"
U47394Q	Debris Suction Hose	10" x 28"
U47394D	Debris Suction Hose	10" x 36"
U46394L	Debris Suction Hose	10" x 48"
U46449	Debris Suction Hose	10" x 66"
U47394E	Debris Suction Hose	10" x 78"
U47394-BULK	Bulk Debris Suction Hose	10" x Per Foot

## Kanaflex® 180AR Hose



Used on Vactor® style machines, Kanaflex® is lighter duty than debris hose, but provides more flexibility.

Part #	Description	Size	Letter
U43321	180AR Kanaflex® Hose	6" x 120"	C
U52343	180AR Kanaflex® Hose	6" x 25'	
U43320	180AR Kanaflex® Hose	6" x 60"	A
U43364	180AR Kanaflex® Hose	8" x 102"	C
U43308	180AR Kanaflex® Hose	8" x 120"	C
U43365	180AR Kanaflex® Hose	8" x 127"	B
U43309	180AR Kanaflex® Hose	8" x 40'	
U43319	180AR Kanaflex® Hose	8" x 60"	A
U45804	180AR Kanaflex® Hose	8" x 62"	A or D
U43363	180AR Kanaflex® Hose	8" x 66"	

Letters correspond with truck diagrams on previous page.

The following part numbers include hose end flanges installed and clamped.

U52763	180AR Kanaflex® Hose w/Ends	8" x 66"	A
U52764	180AR Kanaflex® Hose w/Ends	8" x 102"	C
U52765	180AR Kanaflex® Hose w/Ends	8" x 127"	B

The following part numbers are for bulk hose.

U43322-LENGTH	4" Bulk (Per Foot) 25' Increments Only
U43323-LENGTH	6" Bulk (Per Foot) 25' Increments Only
U43716-LENGTH	8" Bulk (Per Foot) 25' Increments Only

The following part numbers are for hose used on Super Products® machines.

S3906-06000	180AR Kanaflex® Hose	8" x 22'
S3906-06000B	180AR Kanaflex® Hose	8" X 24' 6"

### Power Clamp



The Power Clamp is used to hold Kanaflex® hose onto steel hose ends. (Right Hand Winding)

Part #	Size
U43784	2" Power Clamp
U44215	2 1/2" Power Clamp
U70846	3" Power Clamp
U43389	4" Power Clamp
U43415	6" Power Clamp
U43388	8" Power Clamp
U45739	10" Power Clamp
U45606	12" Power Clamp



# ***Aquatech® Style Cuffed Rubber Debris Hose***



Heavy duty style debris hose used on Aquatech® style machines.

<b>Part #</b>	<b>Size / Description</b>
AT176620	8" x 19' 8" Heavy Duty Cuffed Debris Hose
AT176620-22	8" x 22' Heavy Duty Cuffed Debris Hose
AT176620-25	8" x 25' 8" Heavy Duty Cuffed Debris Hose
AT176630	8" x 8' Heavy Duty Cuffed Debris Hose

# ***Vac-All® Style Cuffed Rubber Debris Hose***



Heavy duty and light duty style collection/debris hose used on Vac-All® style machines.

<b>Part #</b>	<b>Size / Description</b>
V02390-0165B	12" x 100" Heavy Duty Cuffed Debris Hose
V02390-0165D	12" x 30" Heavy Duty Cuffed Debris Hose
V02390-0165A	12" x 100" Smooth ID Cuffed Debris Hose
V02390-0175A	12" x 100" Light Duty Cuffed Debris Hose

# ***Vac-All® Style Swivel Ball Joint Assembly***

The Vac-All® style swivel ball joint assembly is used to allow free rotation of intake debris hose on Vac-All® style machines. 12" in diameter, and manufactured to O.E.M. specifications. Constructed of chrome-plated steel.

<b>Part #</b>	<b>Size / Description</b>
V680-0001	Vac-All® Style Swivel Ball Joint Assembly



# TUFF TUBE<sup>®</sup> Leader Hose - The Toughest Hose Down the Line

HOSE I.D.	HOSE O.D.	MAXIMUM PSI	MIN. BURST PSI	MIN. BEND RAD.	WEIGHT
¾"	1.12"	3,500	12,000	4.72"	.55 LBS / FT
1"	1.41"	3,325	12,000	5.91"	.82 LBS / FT



PART #	SIZE
ASPHH3/4X10	¾" X 10'
ASPHH3/4X25	¾" X 25'
ASPHH1X10	1" X 10'
ASPHH1X20	1" X 20'
ASPHH1X25	1" X 25'
ASPHH1X30	1" X 30'

## Elgin<sup>®</sup> Style Cuffed Rubber Debris Hose



Heavy duty style debris hose used on Elgin<sup>®</sup> style machines.

Part #	Size / Description
ES1011454	11" x 62" Heavy Duty Cuffed Suction Hose (Fits Whirlwind)
ES1020546	8" x 147" Heavy Duty Cuffed Wandering Hose (Fits Crosswind and Whirlwind)
ES1032976	13" x 42" Heavy Duty Cuffed Suction Hose (Fits Crosswind)
ES1036256	14" x 30" Heavy Duty Cuffed Pressure Hose (Fits Crosswind)

## Clean Earth<sup>®</sup> Style Cuffed Rubber Debris Hose

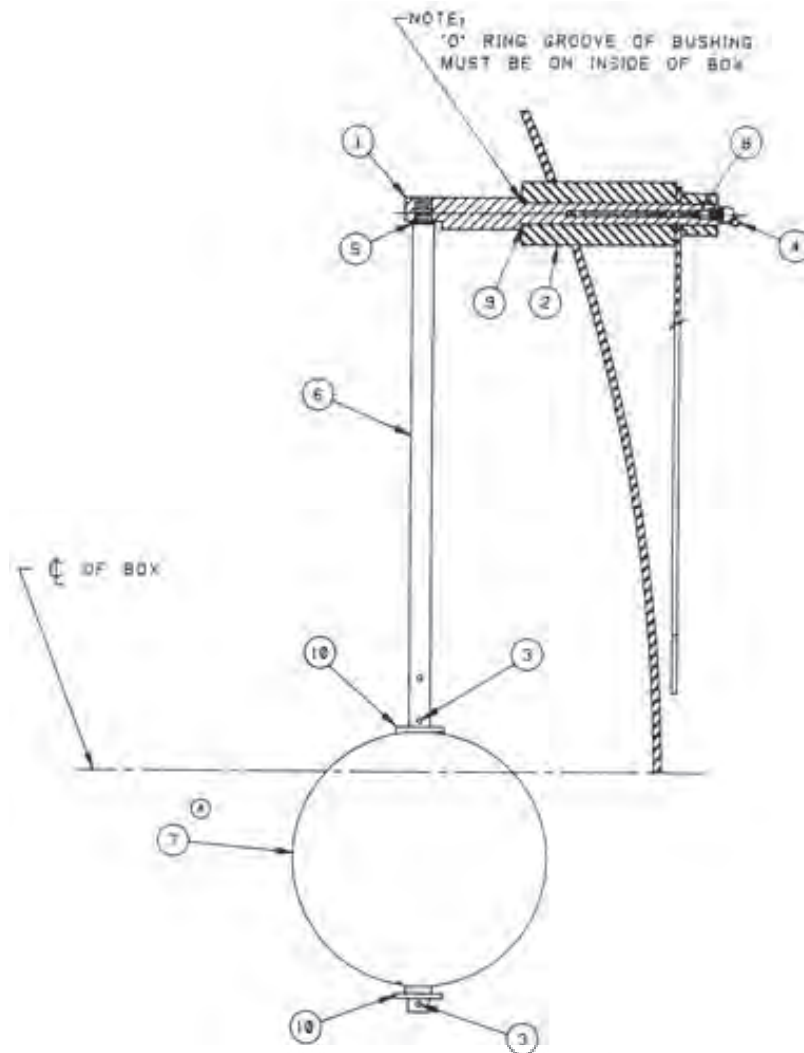


Heavy duty style debris hose used on Clean Earth<sup>®</sup> style machines.

Part #	Size / Description
CE32030029	9 1/4" x 60" Horizontal Boom Hose

# Float Indicator Assembly

(Assembly Required)



©2001

ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
1	U37130	Shaft, Bronze Rod	1
1	U37131	Float Control Arm - Round Box	1
2	U37132	Bushing, Float Control	1
3	U16420-L	Pin, Roll 1/8" x 3/4" Steel	2
4	U41759	Fitting, Grease 1/4-28 45° OAL	1
5	U16366B	Washer, Lock 3/8"	1
6	U37133	Arm, Float 1/2" x 19"	1
7	U45113	Float Ball 6" Round 1/2" Bore Stainless ST	1
8	U16420-V	Pin, Roll 1/8 x 1 Steel	1
9	U41771	O Ring, Float Indicator	1
10	HLW-103	Washer, 1/2" SAE-AXEL Shim HLW	2

# Float Balls

Part #	Description
S7300-01935	6" stainless steel float ball used on Super Products® type machines as vacuum breaker in a vacuum debris tank. (Photo B)
U45113 or VC690-0745 or GU1320456	6" stainless steel float ball with 1/2" bore tube to connect onto a slide rod to monitor debris tank capacity used in the debris tank in Vactor®, Guzzler® and Vac-Con® type machines. (Photo A)
S3000-01395	8" stainless steel float ball used on Super Products® type machines as a vacuum breaker in the debris tank. (Photo B)
S3000-01406 or GU1320849	9" stainless steel float ball used on Super Products® and Guzzler® type machines as a vacuum breaker in the debris tank. (Photo B)
U44388 or VC690-1136	10" stainless steel float ball used on Vactor® and Vac-Con® type machines as a vacuum breaker in the debris tank. (Photo B)
U44388A or GU1320383	12" stainless steel float ball used on Super Products® and Guzzler® type machines as a vacuum breaker in the debris tank. (Photo B)
U44478 or VC690-0746	14" stainless steel float ball used on Vactor® and Vac-Con® type machines as a vacuum breaker in the debris tank. (Photo B)

Made in the USA.



Photo A

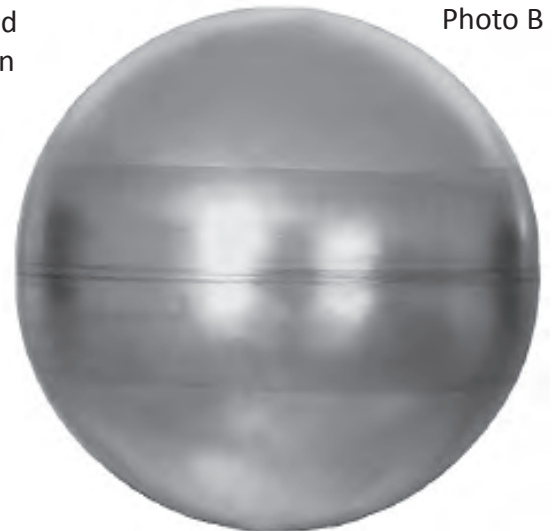
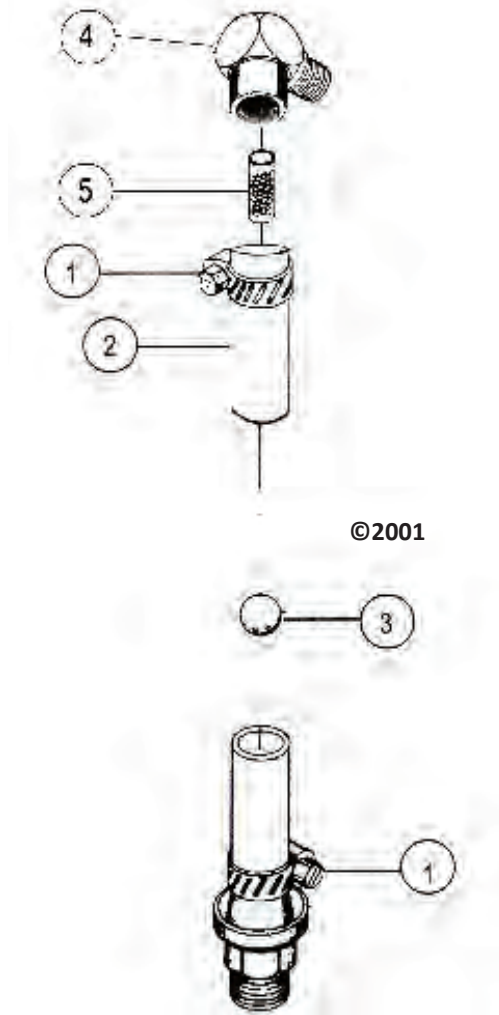


Photo B

# 26" and 45" Water Fill Sight Gauge Assemblies

Used on Vactor® and other sewer cleaners to monitor the water availability in the water tanks.  
 26" For Models 2100, 810, 800, 815, 1200 / 45" For Models 400, 810E



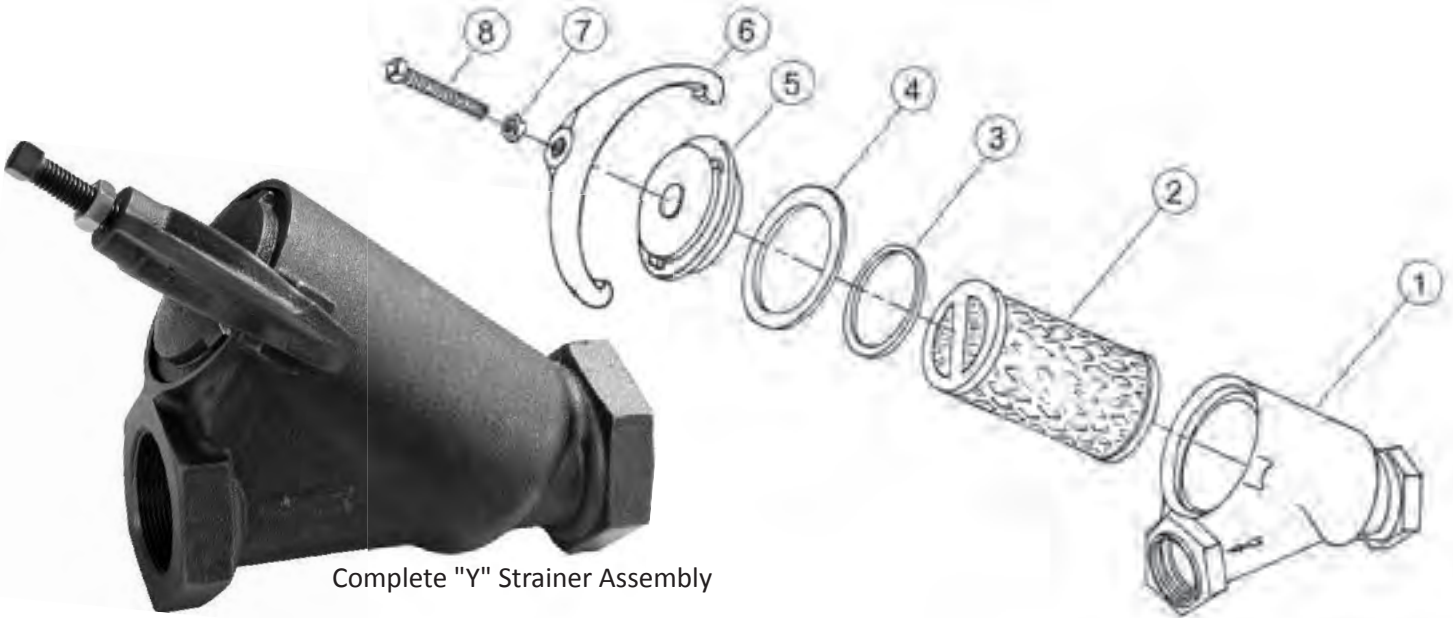
©2001

ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
	<b>U55742</b>	<b>26" Water Tank Fill Gauge Assembly</b>	<b>Complete</b>
1	U43734	Clamp, Hose Water Gauge	2
2	U41458A	PVC, 3/8" ID Clear Tube	2'
3	U43061	Ball, Red Polyethylene	1
4	U16634	Elbow, 1/4-18 x 3/8 90° Barb	2
5	U58100	Screen, Water Tank Gauge	2
	<b>U58101</b>	<b>45" Water Tank Fill Gauge Assembly</b>	<b>Complete</b>
1	U43734	Clamp, Hose Water Gauge	2
2	U41458A	PVC, 3/8" ID Clear Tube	3'
3	U43061	Ball, Red Polyethylene	1
4	U16634	Elbow, 1/4-18 x 3/8 90° Barb	2
5	U58100	Screen, Water Tank Gauge	2

**Custom tube lengths not available**

# "Y" Pattern Strainers - 2" and 3"

This style "Y" filter strainer assembly has been used for many years on Vector® style machines and others as well. The purpose of these 'Y' design filter strainers are to allow large volumes of water to pass through while filtering the sand, rust and other material from the water before it enters a cleaning machine's water pump.



Complete "Y" Strainer Assembly

## 2" "Y" STRAINER



U45803

ITEM #	PART #:	DESCRIPTION	QUANTITY
	U45797	2" Complete "Y" Strainer Assembly (12 lbs.)	
1	U46134	2" Body Only	1
2	U45803	2" Screen Only (1 lb.)	1
3	U46137	Basket Screen Gasket	1
4	U46138	2" Cap Gasket	1
5	U46136	2" Cap (1 lb.)	1
6	U46135	2" Cap Clamp (2 lbs.)	1
7	U46140	Jam Nut 1/2 x 13	1
8	U41274	Screw 1/2 x 13 x 2 3/4	1

## 3" "Y" STRAINER



U41280

ITEM #	PART #:	DESCRIPTION	QUANTITY
	U41279	3" Complete "Y" Strainer Assembly (24 lbs.)	
1	U41268	3" Body Only	1
2	U41280	3" Screen Only (2 lbs.)	1
3	U41272	Basket Screen Gasket	1
4	U41271	3" Cap Gasket (4" I.D. x 4 3/8" O.D.)	1
5	U41269	3" Cap (2 lbs.)	1
6	U41270	3" Cap Clamp (3 lbs.)	1
7	U41273	Jam Nut 1/2 x 13	1
8	U41274	Screw 1/2 x 13 x 2 3/4	1

# Vacuum Fans

A 38" diameter fan assembly is a replacement part for Vactor® machines. These fans are constructed to meet exact dimensional specification and each part in the fan assembly is coated with a protectant to ensure longer life.

The center steel hub assembly is welded. The welded areas are then machined to eliminate excess weld material to enhance the performance of the fan when it is spun-up to full running r.p.m. This operation also aids in optimizing the fan into a pre-balanced state.

The center steel hub is then zinc plated via electrolysis to 70 r.c., which protects it against rust and corrosion. This process also preserves the base steel against abrasive elements.

The fan blades are centrifugally cast, not just die cast. Each fan blade has a tensile strength of 35,900 lbs. compared to others at 27,900 lbs. and a yield strength of 29,400 lbs. compared to others at 20,400 lbs. To safeguard against damaging abrasion, there is a hard chrome coating on the blade face.

The fan blades are then pre-weighed so that all 16 fan blades in the fan assembly weigh the same, again bringing the fan closer to a pre-balanced state.

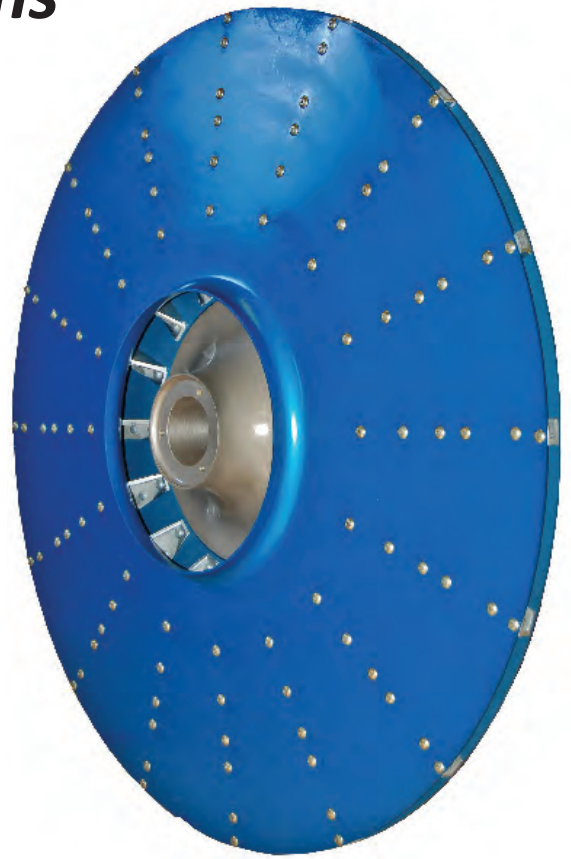
The front and rear cover of each fan is anodized. This electrochemical process protects aluminum parts from corrosion and oxidation.

After assembly, each fan is spin balanced to eliminate vibration stress, providing longer life for both the fan and the transmission. Each fan is supplied with a Taper Lock Bushing.

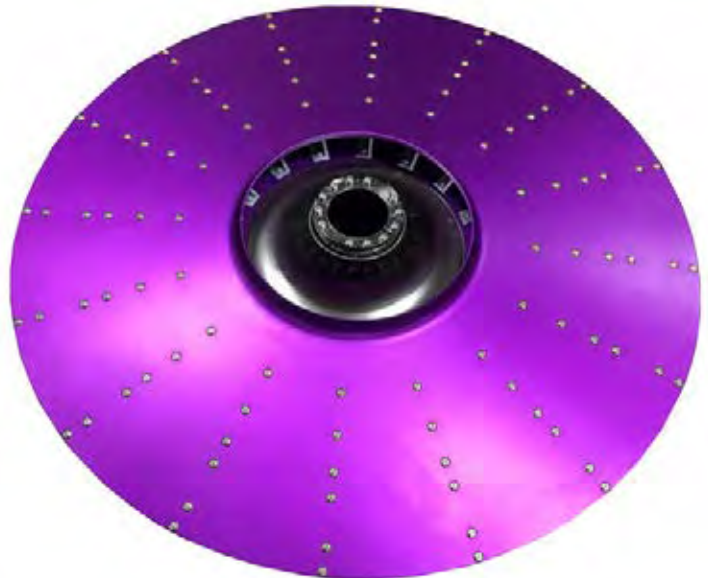
The fan assembly is also covered under a one-year warranty on materials and workmanship. Taper lock also sold separately.

Note: 85lbs. Fan only (Skid - 15lbs.)

**Made in the USA.**



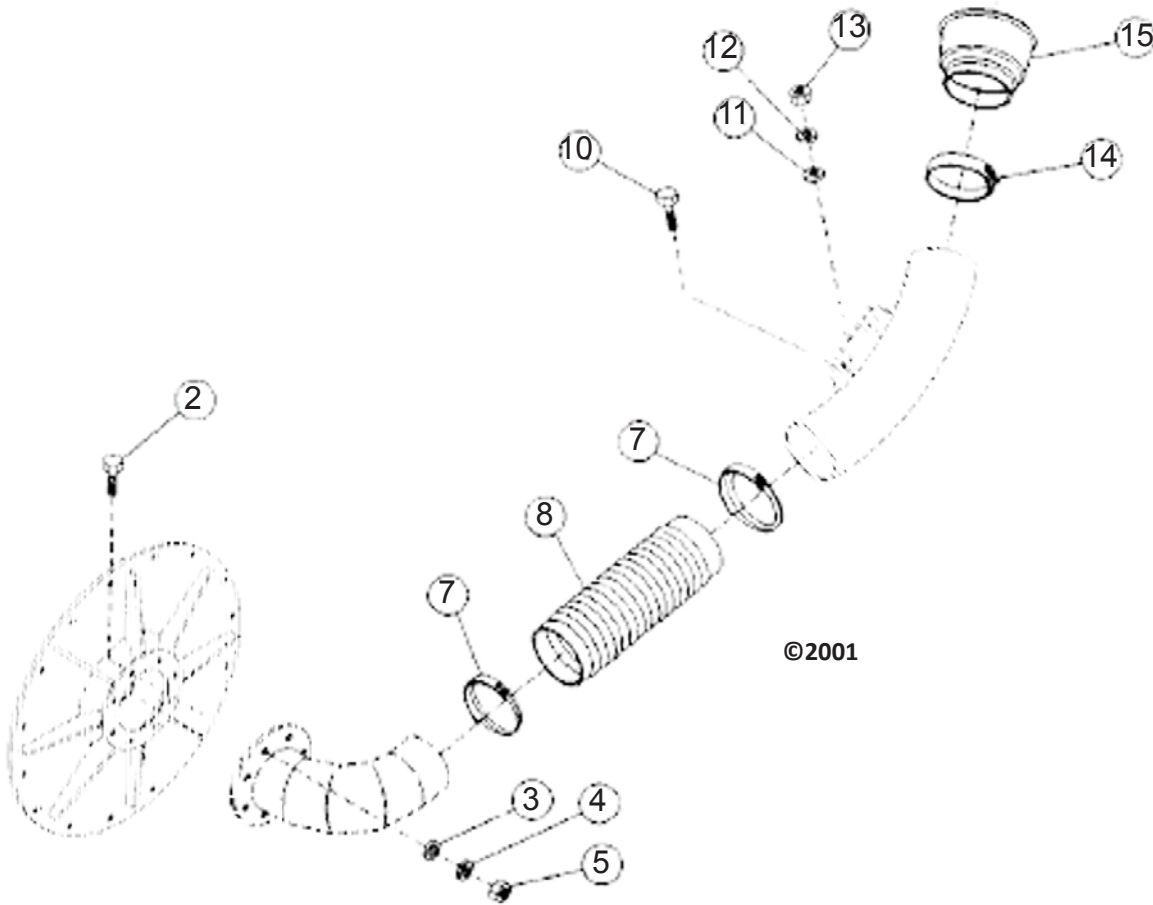
**2100**  
Part # U25975  
(Taper Lock assembly included)  
**Taper Lock**  
Part # U16056



**2100+** (3.25" Shaft)  
Part # U25975-S  
(Taper Lock assembly included)  
**Taper Lock**  
Part # U47801F-30

# Fan Duct Installation

For Model 2100 Vector® Type Machines



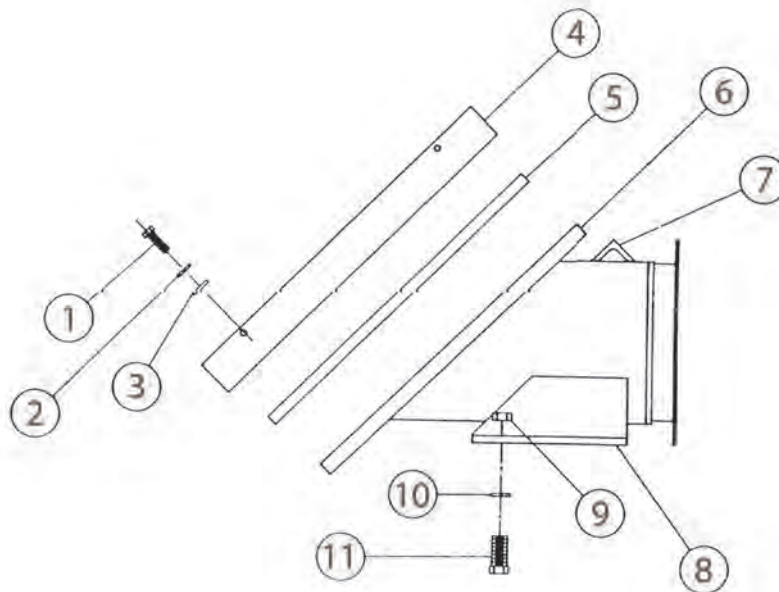
©2001

ITEM #:	PART #:	DESCRIPTION	QUANTITY
2	U16343A	Bolt - Hex Head 3/8" - 16 NC x 1" Long 3/8"	8
3	U16365B	Flat Washer	8
4	U16367B	3/8" Lock Washer	8
5	U16360B	3/8" - 16 Hex Head Nut	8
7	U70406**	Clamp	2
8	U47394-Bulk	10" Kanaflex Style Hose 16" Long - No Cuff	1
10	U16355D	Screw, 5/8 - 11 x 1 3/4 Hex Head	4
11	U16365D	5/8" Flat Washer	4
12	U16367-D	5/8" Lock Washer Med Spring	4
13	U16360-D	5/8" - 11 NC Nut	4
14	U70406**	Clamp	1
15	U45716	10" Rubber Compression Inlet Boot	1



# ***Vacuum Box Assembly (Vacuum Box Debris Inlet Assembly)***

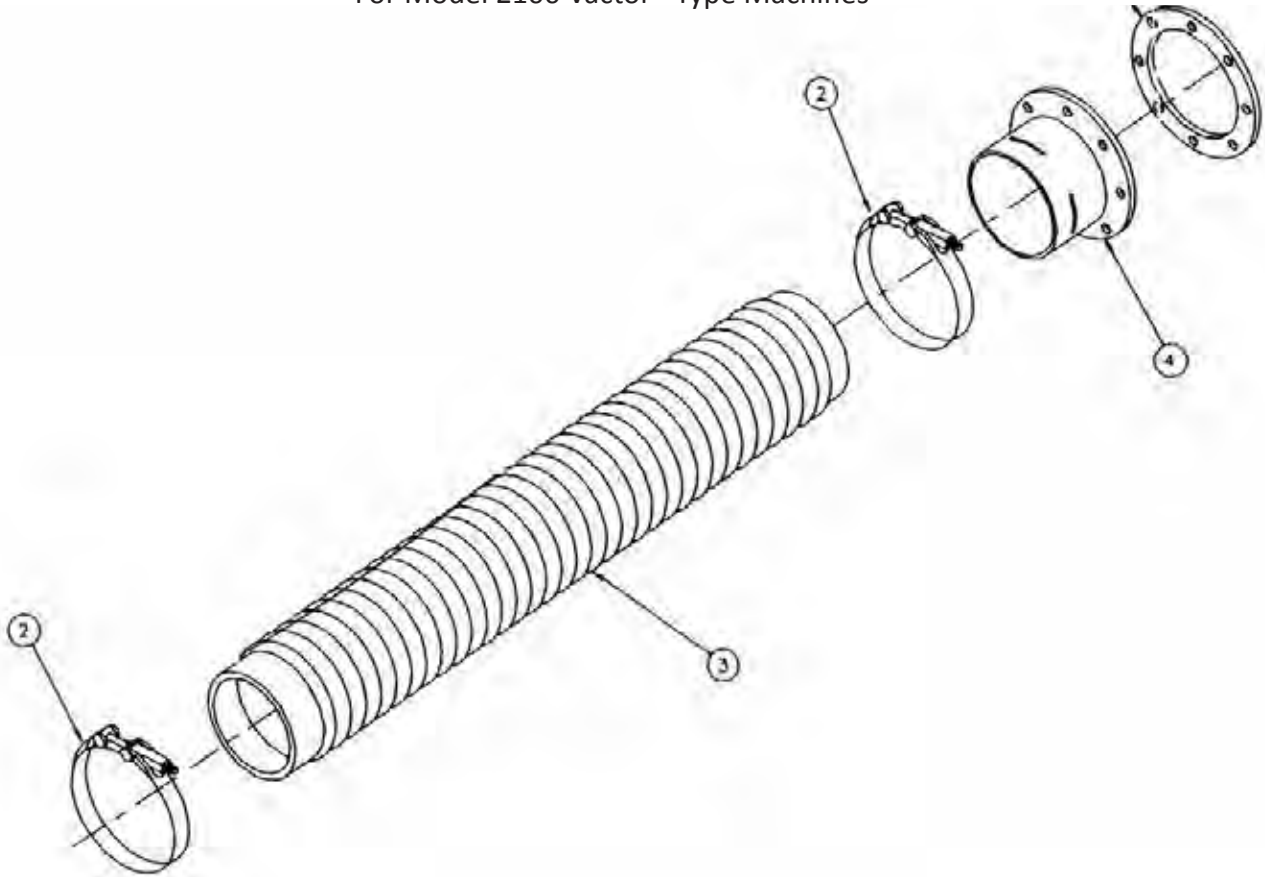
For Model 2100 Vector® Type Machines



ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
1	U16332E	Screw, 1/4-20 x 1 1/4 CAP GR 5	4
2	U16366	Washer, Lock 1/4"	4
3	U16364	Washer, Flat 1/4" USS Zinc	4
4	U23604	Weldment, Seal Frame	1
5	U54056	Gasket - Debris Inlet Rubber	1
6	U34961**	Inlet Assembly	1
7	U27772	Dustbox, Guide Angle	1
8	U34953	Angle Anchor - Dustbox Inlet	2
9	U16360E	Nut, Hex 3/4-10 Zinc Plated	4
10	U16367E	Washer, Lock 3/4" Hi Collar	4
11	U16370B	Screw, 3/4-10 x 1 3/4 CAP	4
17	U59450	Head Extension Weldment	1

# Inlet Hose Installation

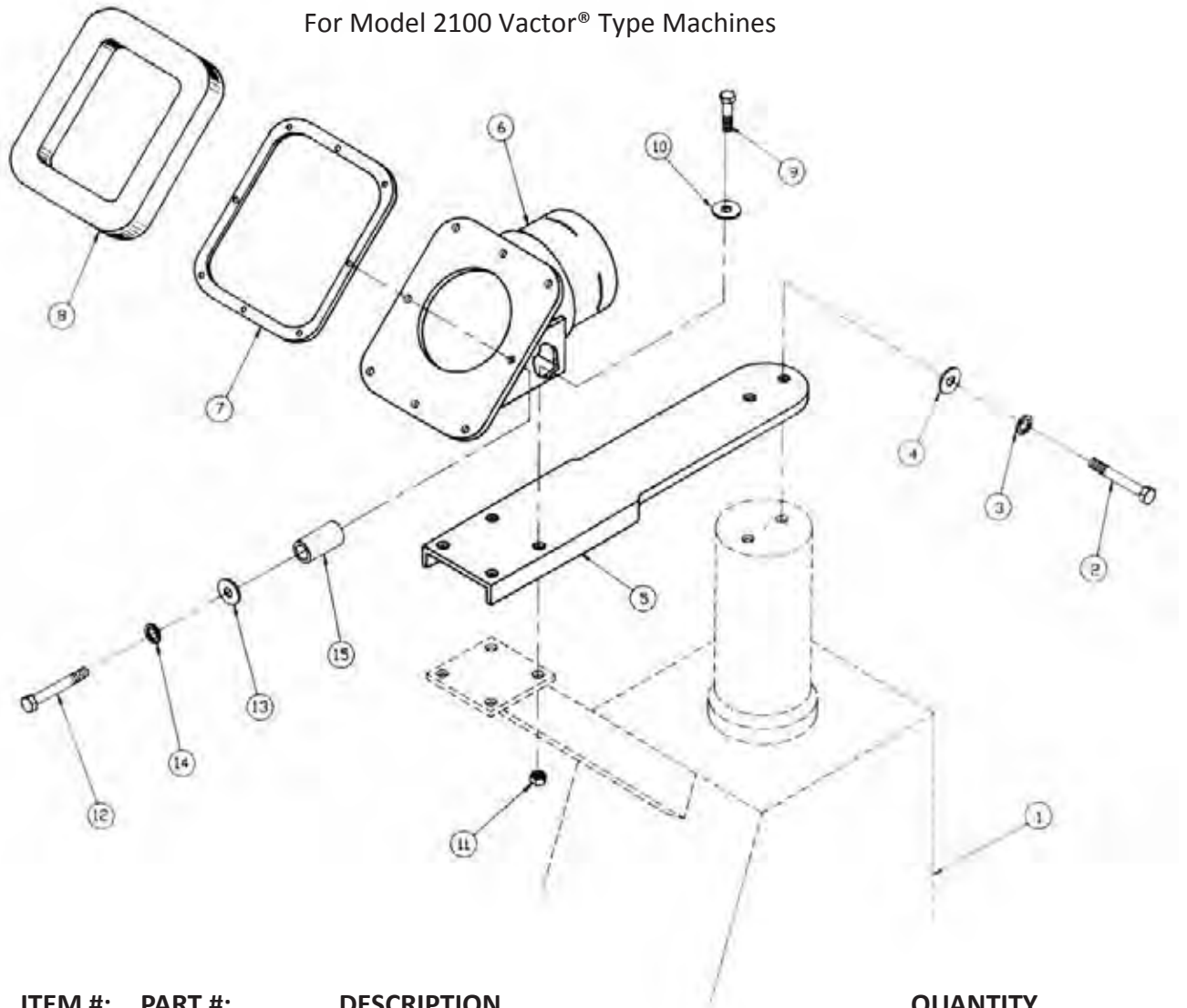
For Model 2100 Vector® Type Machines



ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
2	U42594	Clamp, King 8"	2
3	U46564	8" x 62" Cuffed Debris Hose	1
4	U58795	8" Flange Weldment Assembly	1
5	U16585	8" Flange Gasket	1

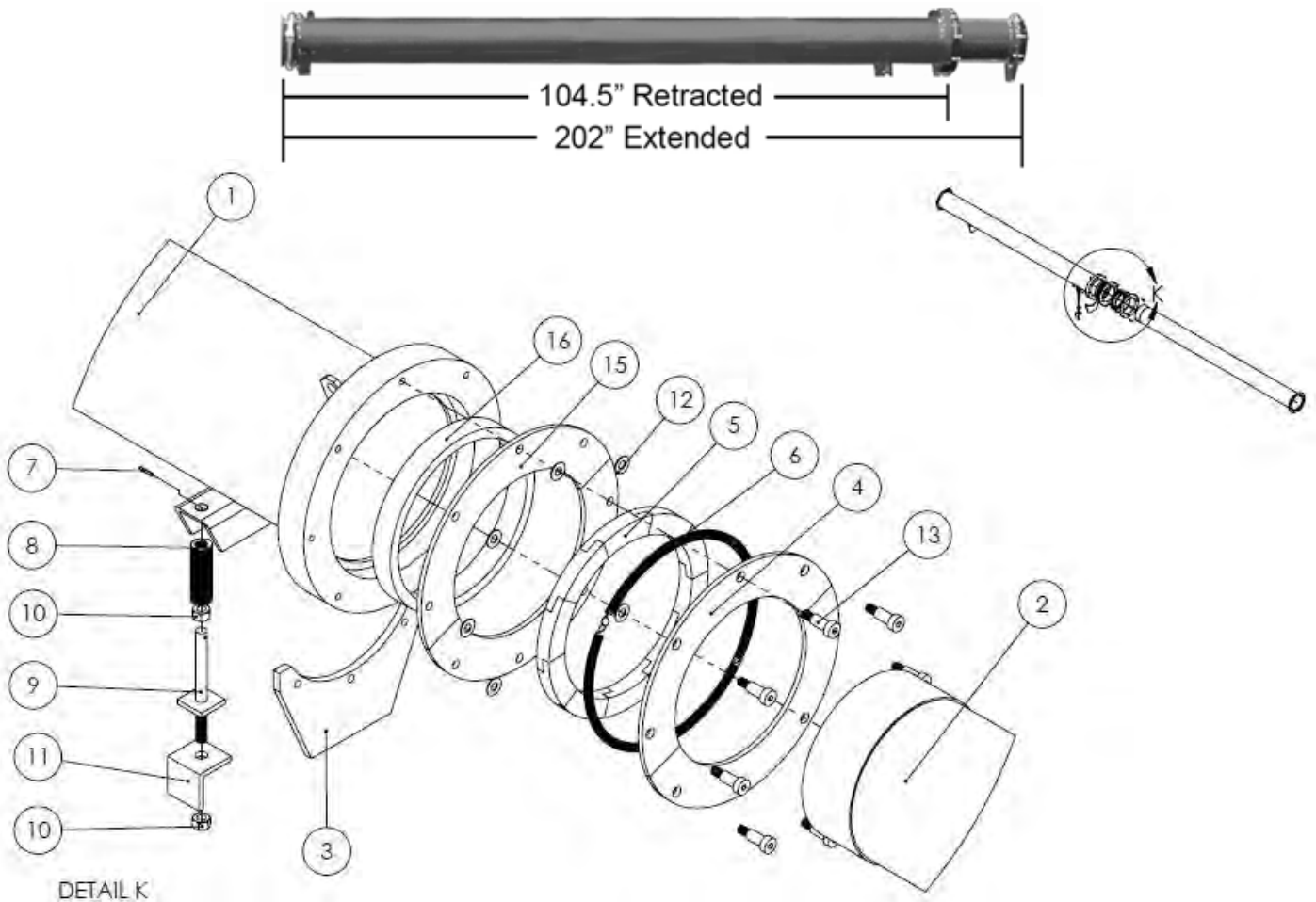
# Inlet Hose Installation

For Model 2100 Vector® Type Machines



ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
2	U43048	Screw, 7/8-9NC x 1 3/4 Hex Head Cap	2
3	U16367F	Washer, Lock 7/8" Zinc Plated	2
4	U16364F	Washer, Flat 7/8" SAE Zinc	2
5	U62065	Anchor Plate	1
6	U62222**	Inlet Weldment	1
7	U62232	Frame, Seal Holder	1
8	U62987**	Inlet Seal	1
9	U42392	Screw, 1/2-13 x 1 1/4 Hex Head Cap	4
10	U16365C	Washer, 1/2" Flat USS	4
11	U20121E	Nut, Nylok 1/2-13 Hex Zinc	4
12	U16339C	Screw, 5/16-18 NC x 1 1/4 Plated	8
13	U16365A	Washer, Flat 5/16"	8
14	U16367A	Washer, Lock 5/16"	8
15	U62392	Collar, Tube 90°x 90°	8

# TELESCOPING TUBE ASSEMBLY U62034



DETAIL K

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	U62033	OUTER TUBE WELDMENT	1
2	U62031	INNER TUBE WELDMENT	1
3	U58925	FRONT PLATE SUPPORT	1
4	U59827	RETAINER SEAL	2
5	U59826	AIR SEAL SEGMENT	10
6	U44581 <sup>-L</sup>	14.5" SPRING	1
7	U16420	PIN, ROLL 1/8" X 3/4" STEEL	2
8	U44645	SPRING DIE- HEAVY LOAD SPRING	2
9	U59832	SPRING KEEPER ASSEMBLY	2
10	U16359D	NUT, HEX 1/2-13" NC	4
11	U59828	MOUNTING ANGLE	2
12	U40683	WASHER, FLAT 1/8" X 3/4" SS	8
13	U44580	BOLT, SHOULDER 1/2"-13 X 1"	8
14	U58924	REAR SUPPORT PLATE	1
15	U59825	RETAINER, SEAL (SM HOLE)	2
16	U62029	BUSHING, OUTER-INNER TUBE WELDMENT	1

# Worm Gear Rotator Assembly

This worm gear rotator assembly is the essential drive unit to activate the slewing bearing ring, which activates the boom turret on Vac-Con® combo trucks. Precision manufactured to meet the demands of the boom turret and has been perfected to be an exact replacement.



Part #	Description	Weight
VC644-0132	Worm Gear Rotator Assembly	54 lbs.

# Slewing Bearing Ring Worm Gear

This slewing bearing gear is manufactured to meet the demands of the boom turret on Vac-Con® manufactured combo trucks. Exact replacement.



Part #	Description	Weight
VC644-0131	Slewing Bearing Ring Worm Gear	59 lbs.

# Rotating Front Hose Reel Bearing

This front hose reel bearing fits Vactor® style 2100 & 2100 plus sewer cleaning combo trucks and is precision manufactured to meet the everyday demands of this application. This product is an exact replacement part.



Part #	Description	Weight
U45548H	Rotating Front Hose Reel Bearing	60 lbs.

# Stop Block Tooth

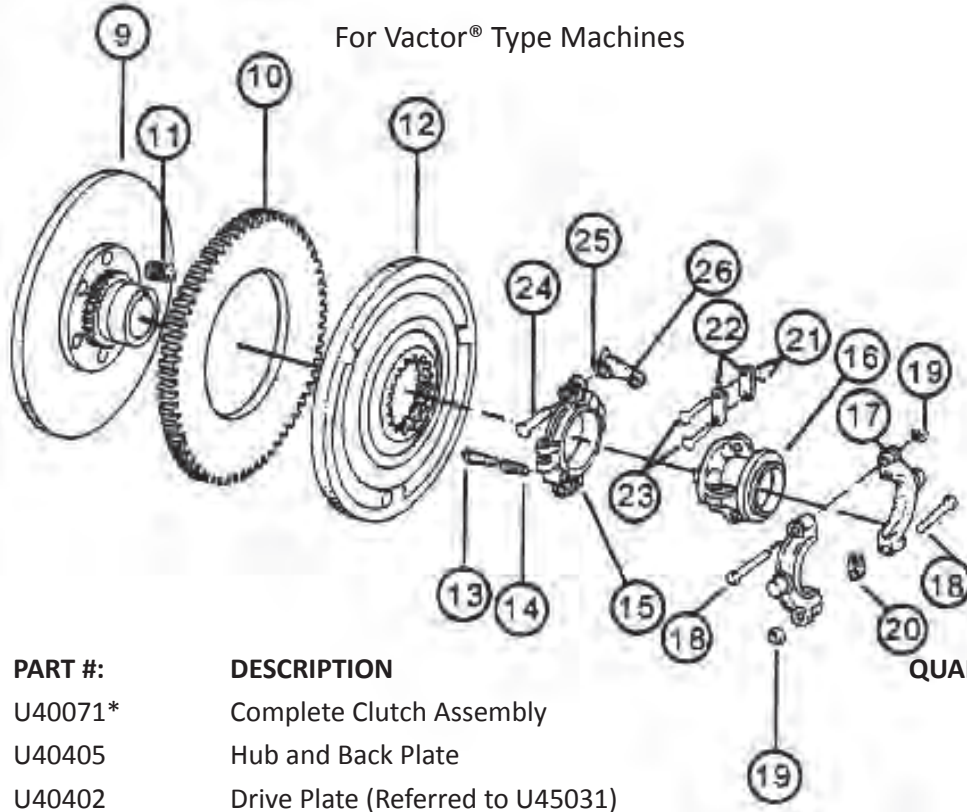
Stop block tooth components have been precision manufactured to meet the application demands of restricting a Vactor® machine's front hose reel from rotating.



Part #	Description	Attachment Hole
U61297	Stop Block Tooth	Center
U61297D	Stop Block Tooth	Offset

# Single Stage Transmission Clutch

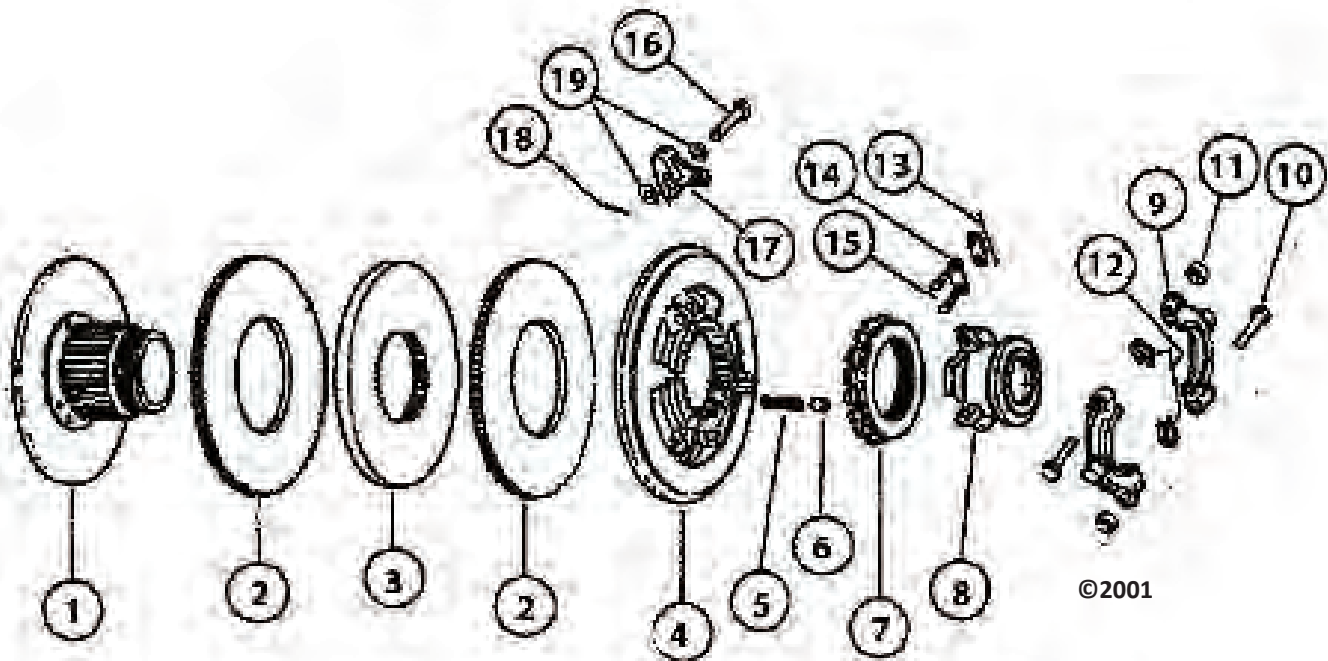
For Vactor® Type Machines



ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
	U40071*	Complete Clutch Assembly	
9	U40405	Hub and Back Plate	1
10	U40402	Drive Plate (Referred to U45031)	1
11	U40404	Release Springs	6
12	U40403	Floating Plate	1
13	U40390	Adjusting Lock Pin	1
14	U40391	Adjusting Lock Pin Spring	1
15	U40386	Adjusting Yoke	1
16	U40393	Sliding Sleeve	1
17*	U40398	Collar (Referred to U45028)	1
18*	U40617	Hex Head Capscrew (Referred to U45029)	2
19*	U40400	Hex Nut	2
20*	U45030	Shim	2
21	U40396	Cotter Pin	8
22	U40394	Lever Link	8
23	U40395	Lever Link Pins	8
24	U40388	Lever Pin	4
25	U40387	Lever Finger	4
26	U40389	Cotter Pin	4
	U45027*	Collar Assembly - Single Stage Includes: #17 - #18 - #19 & #20	
	U40392	Sliding Sleeve Assembly Kit Includes: #16 - #17 - #18 - #19 - #20 - #21 - #22 & #23	

# Dual Stage Transmission Clutch

For Vector® Type Machines

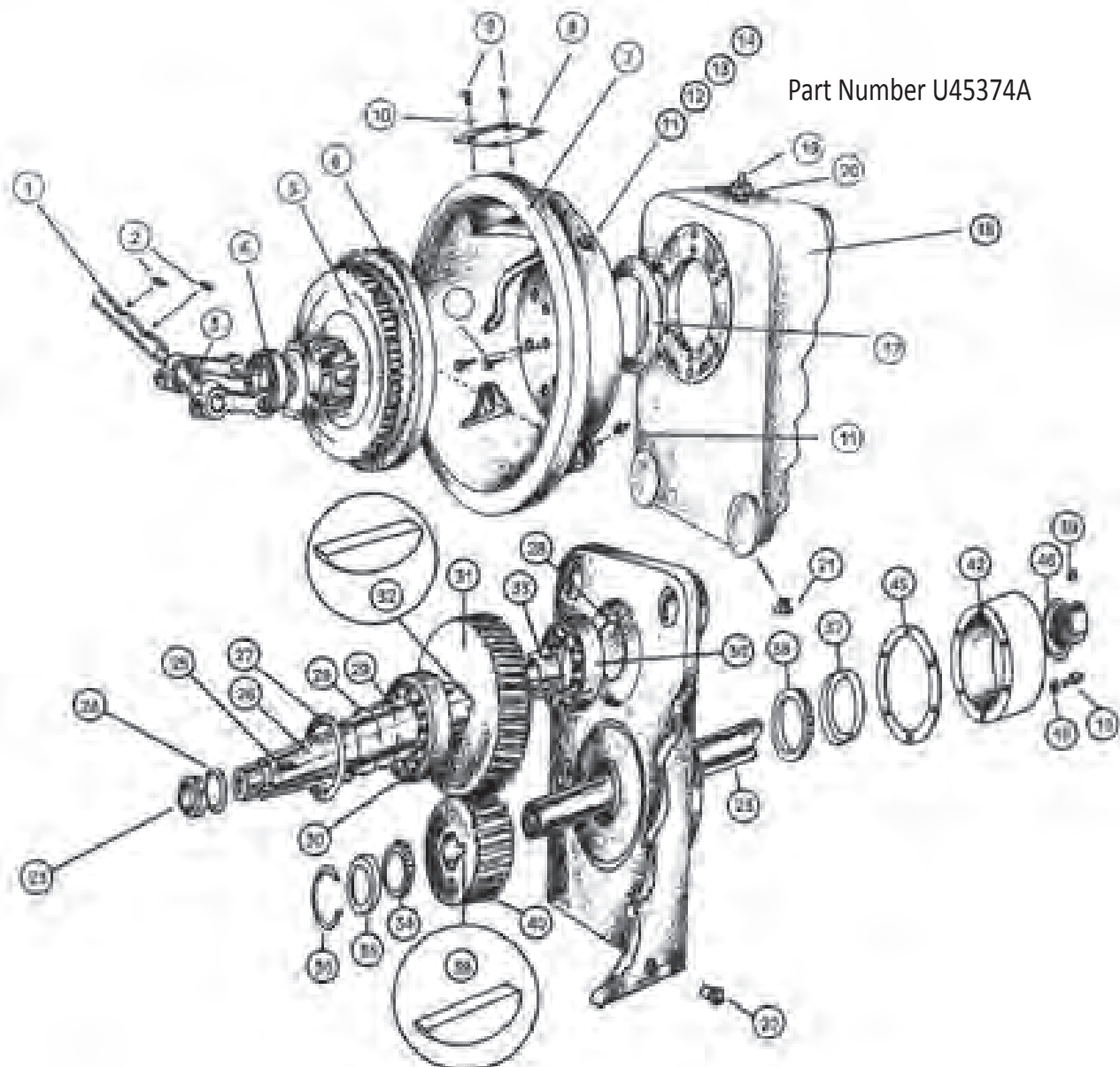


ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
	U40147	Complete Clutch Assembly	1
1	U40406	Hub & Back Plate	2
2	U40407	Drive Plate (Also referred to U45032)	1
3	U40424	Center Plate	1
4	U40423	Floating Plate	1
5	U40426	Adjusting Lock Pin	1
6	U40427	Adjusting Lock Pin Spring	1
7	U40425	Adjusting Yoke	1
8	U40411	Sliding Sleeve	1
9	U40416	Collar	2
10	U40417	Hex Head Capscrew	2
11	U40418	Hex Nut	2
12	U40419	Shim	6
13	U40414	Cotter Pin	6
14	U40412	Lever Link	6
15	U40413	Lever Link Pins	3
16	U40421	Lever Pin	3
17	U40420	Lever	6
18	U40428	Spring Washer	3
19	U40422	Cotter Pin	

# Single Stage Transmission with #3 Bell Housing - New Style

(FOR FORD AND CUMMINS DIESEL AUXILIARY ENGINES W/TRANSMISSION  
SERIAL NUMBERS OF 168156 AND HIGHER)

For Vactor® Type Machines



\*Note: As of September 1988, Cotta® Transmission has made a manufacturing change to all single stage transmissions with serial numbers 168156 and higher. Cotta® now uses a newer style of output shaft, output bearing, transmission case and output housing. This change makes parts manufactured prior to September 1988 non-interchangeable with the newer style transmission parts (serial number 168156 and higher). When ordering Cotta® transmission parts, please refer to the appropriate pages in this catalog by using the model and serial numbers of the transmission you are buying replacement parts for. These numbers are located on your transmission's identification tag.



# **Single Stage Transmission with #3 Bell Housing - New Style**

(FOR FORD AND CUMMINS DIESEL AUXILIARY ENGINES W/TRANSMISSION  
SERIAL NUMBERS OF 168156 AND HIGHER)

Part Number U45374A

ITEM #:	PART #:	DESCRIPTION	QUANTITY
1	U40322	Clutch Release Shaft	1
2	U41907	Woodruff Keys	2
3	U40320	Fork (Includes 2 bolts & 2 lock washers)	1
4	U40802	Pilot Bearing for Ford & Cummins Diesel	1
6	U40319	Drive Ring	1
7	U43554	#3 Bell Housing	1
8	U40266	Cover, Bell Housing - Single Stage	1
9	U40298	Hex head Screw	2
10	U40284	Lock Washer	2
11	U42402	Zerk Fitting (Same as U40295)	3
12	U40283	Half Nut	1
13	U40285	Lock Washer	1
14	U40267	Grease Hose	1
15	U40281	Hex head Cap Screw	10
16	U45566	Lock Washer	10
17	U40273	Gasket for Bell Housing Case	1
18	U45565	Case	1
19	U40304	Breather	1
20	U40292	Reducer	1
21	U40294	Pipe Plug Magnetic	1
22	U40293	Pipe Plug	1
23	U40317	Nut	1
24	U40318	Washer	1
25	U40321	Key	1
26	U40278	Input Shaft	1
27	U40302	Oil Seal - Input Shaft	1
28	U40300	Snap Ring - Input Shaft	2
29	U40301	Snap Ring - Input Bearing	1
30	U40290	Bearing - Input Shaft	2
31	U40276	Gear - Input (45 Tooth)	1
32	U40297	Woodruff Key	1

# ***Single Stage Transmission with #3 Bell Housing - New Style***

(FOR FORD AND CUMMINS DIESEL AUXILIARY ENGINES W/TRANSMISSION  
SERIAL NUMBERS OF 168156 AND HIGHER)

Part Number U45374A

<b>ITEM #:</b>	<b>PART #:</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
33	U40269	Spacer - Input Shaft	1
34	U45570	Cone Bearing - Bell Housing	1
35	U45571	Bearing Cup - Bell Housing	1
36	U45572	Output Shaft Snap Ring - Bell Housing	1
37	U45568	Cup Bearing - Fan	1
38	U45569	Cone Bearing - Fan	1
39	U40296	Woodruff Key	2
40	U40275	Gear - Output Shaft (32 Tooth)	1
41	U45564	Output Shaft	1
42	U45563	Output Housing	1
43	U45574	.020 Shim	1
44	U45575	.007 Shim	3
45	U45576	.005 Shim	3
46	U45573	Oil Seal Output Shaft	1

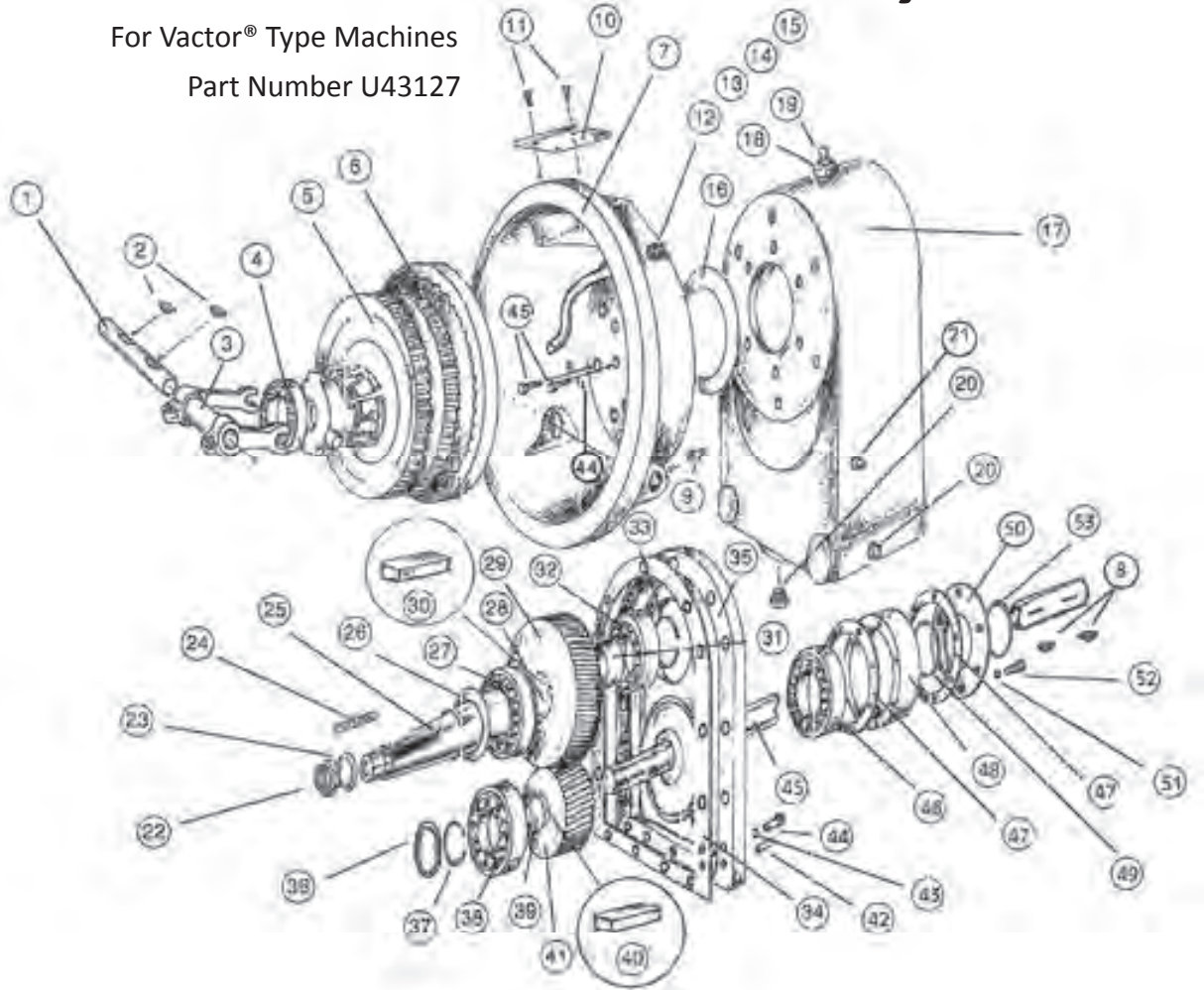
# ***Single Stage Transmission Clutch Rebuild Kits and Bell Housing Assemblies***

For Vactor® Type Machines

<b>PART #:</b>	<b>DESCRIPTION</b>
	<b>CLUTCH KIT ASSEMBLIES</b>
U40411	Sliding Sleeve
U40416	Collar
U40417	Hex head Capscrew
U40418	Hex Nut
U40419	Shim
U40414	Cover Pin
U40412	Lever Link
U40413	Lever Link Pins
U40420	Lever
	<b>COLLAR ASSEMBLY</b>
Kit #: U40415	
Contains:	U40416 Collar
	U40417 Hex Head Capscrew
	U40418 Hex Nut
	U40419 Shim

# Dual Stage Transmission with Clutch Assembly

For Vactor® Type Machines  
Part Number U43127



ITEM #	PART #:	DESCRIPTION	QUANTITY
	U43127	Transmission Complete with Clutch	1
	U43127R	Transmission Complete without Clutch	1
1	U29156	Clutch Release Shaft	1
2	U41907	Woodruff Keys	2
3	U29154	Fork (Includes 2 bolts & 2 Lock washers)	1
4	U40802	Pilot Bearing for Ford 429 & Cummins 6BTA5.9	1
4	U40291	Pilot Bearing for Detroit 6V-53	1
	Dimensions	diameter (2.442 in.) x width (.934 in.) x bore (1.178 in.)	
4	U40328	Pilot Bearing for Detroit 6V-53	1
	Dimensions	diameter (2.442 in.) x width (.630 in.) x bore (1.178 in.)	
		Both Size Bearings were used in the Detroit 6V-35	
		Identify the bearing sizes to ensure proper fit	
5	U40147	Complete Clutch Assembly	1
6	U29153	Drive Ring	1
7	U29129	SAE #2 Bell Housing	1
8	U40296	Woodruff Keys	2

## **Dual Stage Transmission with Clutch Assembly**

<b>ITEM #</b>	<b>PART #:</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
9	U42401	Grease Fitti g	2
10	U29119	Bell Housing Hand Hole Cover	1
11	U42396	Butt on Head Screw	2
12	U42402	Grease Fitti g	1
13	U40283	Half Nut	1
14	U40285	Lock Washer	1
15	U42397	Grease Hose	1
16	U29125	Input Gasket Housing	1
17	U29131	Transmission Case	1
18	U40304	Breather	1
19	U40292	Reducer Bushing	1
20	U40294	Pipe Plug - Magneti	3
21	U42395	Pipe Plug	2
22	U42375	Nut	1
23	U42376	Washer	1
24	U40321	Key - Clutch	1
25	U29127	Input Shaft	1
26	U29150	Oil Seal - Input Shaft	1
27	U29138	Bearing - Input Shaft(BellHousingSide)	1
28	U29120	Spacer - Input Shaft(BellHousingSide)	1
29	U29123	Input Gear	1
30	U29118	Key	1
31	U29121	Spacer - Input Shaft	1
32	U29137	Bearing - Input Shaft (Cover Side)	1
33	U40299	Snap Ring - Input Shaft	1
34	U29130	Gasket - Case Cover	1
35	U29132	Cover	1
36	U42379	Wave Spring Washer	1
37	U29148	Snap Ring - External Output Shaft	2
38	U29139	Bearing Output Shaft(BellHousingSide)	1
39	U29122	Spacer Output Shaft(BellHousingSide)	1
40	U29117	Key	1
41	U29124	Output Gear	1
42	U46435	Dowel Pin 5/8" (Same as 29141)	2
43	U29136	Lock Washer	29
44	U42394	Cap Screw	29
45	U40264	Output Shaft	1
46	U29140	Bearing Output Shaft (Cover Side)	1
47	U29126	Gasket Output Bearing Housing	2
48	U42400	Output Bearing Housing	1
49	U29146	Snap Ring - External	1
50	U42399	Output Oil Seal Housing	1

# Dual Stage Transmission with Clutch Assembly

Part Number U43127

ITEM #	PART #:	DESCRIPTION	QUANTITY
51	U29135	Lock Washer	6
52	U42393	Hex head Cap Screw	6
53	U29149	Oil Seal - Output Shaft	1
Kit #: U43127B		<b>Dual Stage Clutch Assembly Kit</b>	
Contains:	U16559B	Woodruff Key	2
	U29153	Dual Stage Drive Ring	1
	U29154	Throwout Fork	1
	U29156	Clutch Release Shaft	1
	U40147	Dual Stage Clutch Complete	1
	U42375	Shaft Nut	1
	U42376	Lock Washer	1
Kit #: U43127D		<b>Rebuild Kit for U43127 (Dual Stage Transmission)</b>	
Contains:	U16559B	Woodruff Key	3
	U29125	Unput Housing Gasket	1
	U29126	Output Housing Gasket	2
	U29130	Case Cover Gasket	1
	U29137	Front Input Shaft Bearing	1
	U29138	Rear Input Shaft Bearing	1
	U29139	Front Output Shaft Bearing	1
	U29140	Rear Output Shaft Bearing	1
	U29146	Snap Ring External Beveled	1
	U29148	Snap Ring External Beveled	1
	U29149	Oil Seal - Dual Output Shaft	1
	U29150	Oil Seal - Dual Input Shaft	1
	U29153	Dual Stage Drive Ring	1
	U40147	Dual Stage Transmission Clutch Complete	1
	U40299	Snap Ring - Old Output Shaft	1
	U40802	Pilot Bearing for Ford & Cummins	1
	U42379	Wavey Washer	1
	U42397	15" Grease Hose	1
	U29146	Snap Ring External Beveled (Same As U43129)	1

# 0-3000 PSI Pressure Gauge

This pressure gauge has been widely used on both Vac-Con® and Vactor® type sewer cleaning trucks. It is glycerin filled to assure steady needle movement while sewer cleaning functions are performed. The gauge has a 1/4" bottom mount and the dial needle measures from 0-3000 PSI. Vac-Con® part number VC665-0005.

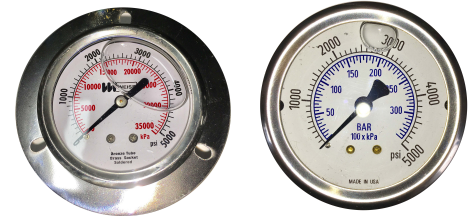


Part #	Description	Weight
U20971	0-3000 PSI Water Pressure Gauge	1 lb.

# Front Panel Mount Gauge

This front panel mount gauge comes in 0-4000 PSI or 0-5000 PSI and is glycerin filled to dampen vibration. It has a rear mount 1/4" connection and is widely used on Super Products® machines and many others.

Part #	Description	Weight
S6000-00260	0-4000 PSI Front Panel Mount Gauge	0.5 lbs.
S6000-01130	0-5000 PSI Front Panel Mount Gauge	0.5 lbs.
S6000-01130F	0-5000 PSI Front Panel Flanged Mount Gauge	0.5 lbs.



# 0-600 PSI Pressure Gauge

This gauge is 1/4" bottom mounted and glycerin filled to dampen vibration. Needle indicates 0-600 PSI of hydraulic pressure. Used on Vactor® type equipment.

Part #	Description	Weight
U40799	0-600 PSI Pressure Gauge	1 lb.



# 0-160 PSI Pressure Gauge

This air pressure tensioning gauge is used on Super Products® type combo trucks. The needle indicates 0-160 PSI air pressure. Rear mounted by a 1/4" connection.

Part #	Description	Weight
S6000-00410	0-160 PSI Pressure Gauge	0.6 lb.



# 0-30" Vacuum Gauge

This 0-30" vacuum gauge is used on Vactor type vacuum and combo trucks. It has a rear mount 1/4" connection.

Part #	Description	Weight
U42645	Vacuum Gauge	1 lb.



# Front Panel Mount Vacuum Pressure Gauge

This glycerin filled front panel mount vacuum gauge is used on Super Products® vacuum and combo trucks. It measures 0-30" of vacuum, and has a rear mount 1/4" connection.

Part #	Description	Weight
S6000-00261	Front Panel Mount Vacuum Gauge	0.7 lbs



# Universal Bottom Mount Pressure Gauge

These UG-B series gauges are quality glycerin bottom mount 1/4" connection gauges. They are available in 1000 PSI increments from 2000 PSI to 5000 PSI. These gauges are widely-used on many types of sewer cleaning equipment.

Part #	Description	Weight
UG-B 2000	2000 PSI Bottom Mount Pressure Gauge	0.5 lbs.
UG-B 3000	3000 PSI Bottom Mount Pressure Gauge	0.5 lbs.
UG-B 4000	4000 PSI Bottom Mount Pressure Gauge	0.5 lbs.
UG-B 5000	5000 PSI Bottom Mount Pressure Gauge	0.5 lbs.



# Universal Front Panel Mount Pressure Gauge

These UG-P series gauges are quality glycerin front panel mount 1/4" connection gauges. They are available in 1000 PSI increments from 2000 PSI to 5000 PSI. These gauges are widely-used on many types of sewer cleaning equipment.

Part #	Description	Weight
UG-P 2000	2000 PSI Front Panel Mount Pressure Gauge	0.5 lbs.
UG-P 3000	3000 PSI Front Panel Mount Pressure Gauge	0.5 lbs.
UG-P 4000	4000 PSI Front Panel Mount Pressure Gauge	0.5 lbs.
UG-P 5000	5000 PSI Front Panel Mount Pressure Gauge	0.5 lbs.



# Water Level Gauge

This gauge has been used by Super Products® over the years to show water tank levels. The gauge showcases 0-100" measurement and has a 1/4" bottom mount.

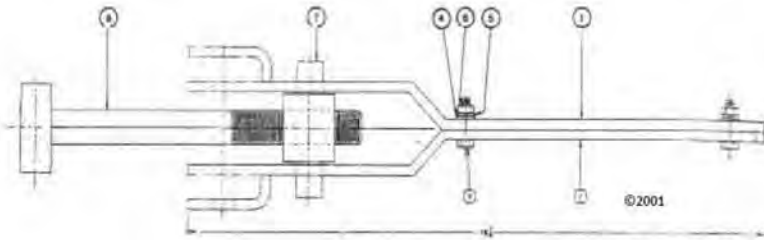
Part #	Description	Weight
S6000-00711	Water Level Gauge	1 lb.





# Rear Door Lock Assembly

For Vector® Style Machines - Part Number U35597

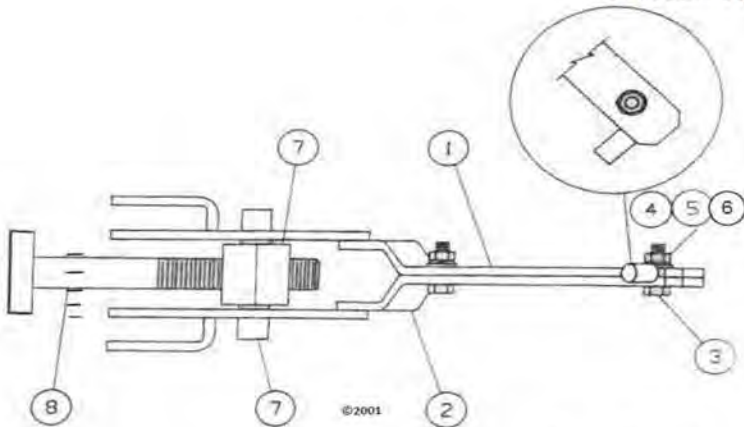


**Rear Door Lock Assembly**

<u>Item #:</u>	<u>UEMSI Part #:</u>	<u>Description</u>	<u>Quantity Needed</u>
	U35597**	Rear Door Side Lock Assembly - Complete	
1	U35598**	Lock Handle Weldment w/Stop	1
2	U38638**	Handle, Lock, Half Weldment	1
3	10-0312-1.0	Bolt, Hex 5/16"-18 x 1" Grade 5	2
4	10-037-11A	Flat Washer 3/8"	2
5	10-0375-100	Lock Washer 3/8"	2
6	10-3125-1.0	Nut, KEP 5/16"-18 Zinc Plated	2
7	U35446	Block, Adjusting	1
8	U35443	Rod, Lock Adjusting	1

# Lower Door Lock Assembly

For Vector® Style Machines



**Rear Door Lock Assembly 45°**

<u>Item #:</u>	<u>Part #:</u>	<u>Description</u>	<u>Quantity Needed</u>
	U51466**	Lower Door Lock Assembly - Complete	
1	U51467**	Lock Handle Weldment w/Stop	1
2	U51468	Handle, Lock, Half Weldment	1
3	10-0312-1.0	Bolt, Hex 5/16"-18 x 1" Grade 5	2
4	10-0375-11A	Flat Washer 3/8"	2
5	10-0375-100	Lock Washer 3/8"	2
6	10-3125-1.0	Nut, KEP 5/16"-18 Zinc Plated	2
7	U35446	Block, Adjusting	1
8	U35601	Rod, Lock Adjusting	1

# ***“D” Style Rear Door Gasket***

“D” gasket is manufactured to exacting specifications to fit Vactor type combo trucks. Available in 13 lengths and engineered to be just a bit softer than the original OEM door gasket. This makes a better seal, especially in temperatures below 40 degrees; when harder rubber gaskets can’t easily compress, causing leakage.



<b>PART #:</b>	<b>DESCRIPTION</b>	<b>WEIGHT</b>
U35594N	40” “D” Style Door Gasket	5 lbs.
U35594C	64” “D” Style Door Gasket	8 lbs.
U35594A	70” “D” Style Door Gasket	9 lbs.
U35594B	88” “D” Style Door Gasket	11 lbs
U35594K	91” “D” Style Door Gasket	11 lbs.
U35594O	168” “D” Style Door Gasket	22 lbs.
U35594M	196” “D” Style Door Gasket	25 lbs.
U35594G	230” “D” Style Door Gasket	29 lbs.
U35594	255” “D” Style Door Gasket	30 lbs.
U35594L	258” “D” Style Door Gasket	33 lbs.
U35594F	325” “D” Style Door Gasket	39 lbs.
U35594H	360” “D” Style Door Gasket	46 lbs.
U35594I	384” “D” Style Door Gasket	47 lbs.

# ***Tail Gate Door Gasket***

Two-hole gasket is manufactured to exacting specifications to fit Vac-Con® type combo trucks. It is available in a 278” length and is engineered to be just a bit softer than the original OEM door gasket. This makes a better seal, especially in temperatures below 40 degrees; when harder rubber gaskets can’t easily compress, causing leakage.



<b>PART #:</b>	<b>DESCRIPTION</b>	<b>WEIGHT</b>
VC690-1179	278” Tail Gate Door Gasket	36 lbs.

# Debris Tank Inlet and Outlet Seals

These seals were engineered by to withstand harsh environments where ice, sand and other abrasive materials, cause premature seal failure and air leakage in OEM seals due to their glued-together construction. These seals are molded, one piece construction, using a soft-yet-durable rubber compound which prevents tearing and premature seal damage. These seals have been fully tested in Wisconsin's harsh winter months with great performance results. Used on Vac-Con® style vacuum trucks.



VC690-0848

PART #:	DESCRIPTION	WEIGHT
VC690-0847	Debris Tank Outlet Seal (2 Required)	2 lbs.
VC690-0848	Debris Tank Inlet Seal	3 lbs.

VC690-0847

# F.E. Myers® Pressure Regulator

F.E. Myers pressure regulators have been one of the industry leaders for many years. Regulator comes equipped with three 1 1/4" ports. 21 3/4" tall x 6 7/8" wide.



PART #:	DESCRIPTION	WEIGHT
FE15696C2	Regulator - 10-60 GPM @ 1200 PSI	35 lbs.
FE15696C5	Regulator - 25-80 GPM @ 2000 PSI	41 lbs.
FE17678A70	Repair Kit C5 Regulator	

# Pressure Regulator Plunger Cups

Keep your F.E. Myers pressure regulator operating at peak operating pressure. If regulator pressure begins to drop off, chances are the plunger cups need to be replaced.



PART #:	DESCRIPTION	WEIGHT
FE13046A14	C2 Plunger Cup	0.25 lbs.
FE13046A11	C5 Plunger Cup	0.25 lbs.

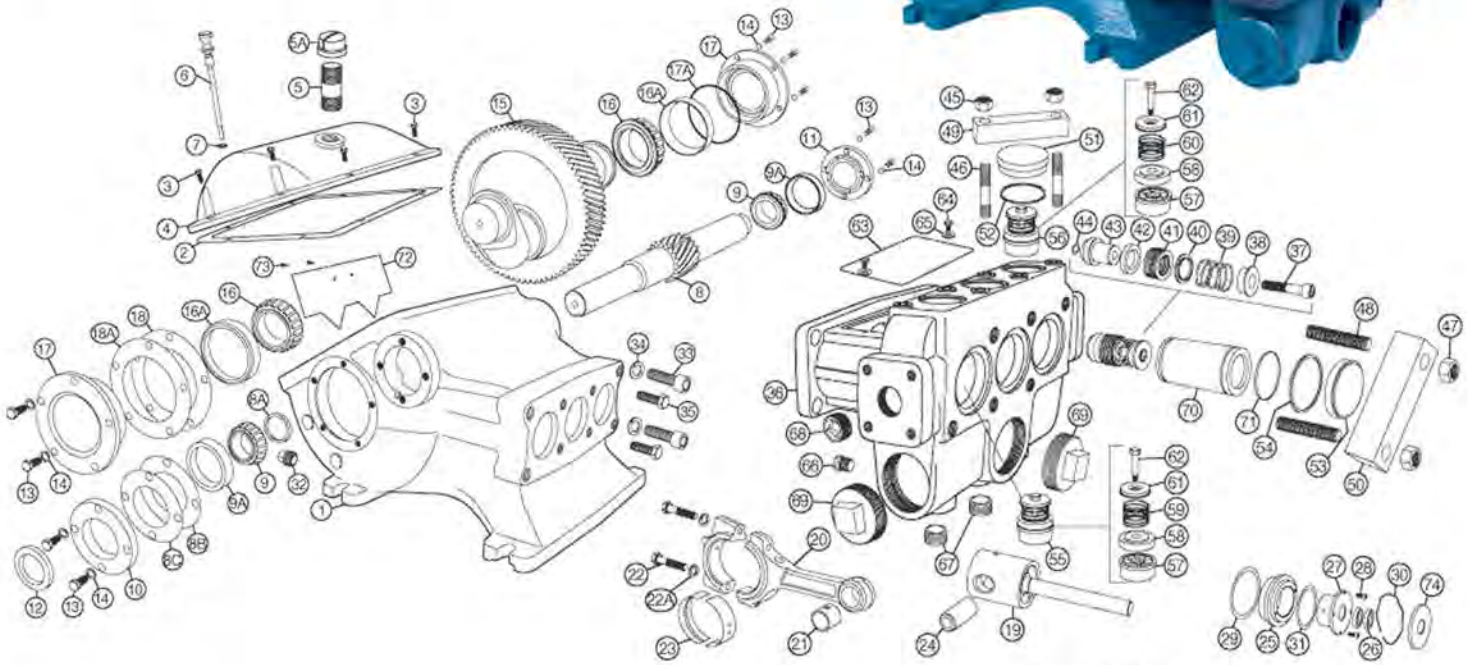
# 300 & 700 PSI Water Relief Valves

For Vactor® type sewer cleaning machines for regulating wash down gun pressure.



U40029A	Water Relief Valve-300 PSI
U40029	Water Relief Valve-700 PSI

# D65 Industrial Pump Replacement Parts



© 2013 Milwaukee Pump Co.

Ref.	Description	Qty	TE Meters #	MP#
1	Case Gear	1	04625E001	MP4625E1
2	Gasket Lid	1	06201C000	MP6201C
3	Screw for Lid	8	19100A005A	MP19100A5
4	Lid	1	04561B000	MP4561B
5	Nipple Special Vent	1	17995A000	MP17995A
5A	Cap Pipe	1	05737A002	MP5737A2
6	Dip Stick w/O-Ring	1	17360A011K	MP17360A11
7	O-Ring for Dip Stick	1	05876A063K	MP5876A63
8	Shaft Pinion	1	20164B020K	MP20164B020A
8A	Spacer	1	20164B022A	MP20164B022A
8B	Shim Green .003	4	05231A074	MP5231A74
8C	Shim Pink .015	4	05231A075	MP5231A75
9	Cone Bearing Pinion	2	05674A013	MP5674A13
9A	Cup Bearing Pinion	2	05675A009	MP5675A9
10	Cap Open	1	04563A001	MP4563A1
11	Cap Closed	1	04741B001	MP4741B1
12	Oil Seal	1	05710A017	MP5710A17
13	Screw Pinion & Crank Cap	18	19101A013	MP19101A13
14	Washer Seal	18	14946A003	MP14946A3
15	Crankshaft - 75 Teeth	1	20355C022K	MP20355C022
16	Cone Bearing Crank	2	05674A018	MP5674A18
16A	Cup Bearing Crank	2	05675A013	MP5675A13
17	Cap Bearing	2	04624B004	MP4624B4
17A	O-Ring 5" ID for Bearing Caps	2	05876A098	MP5876A98
18	Shim Green .003	6	05068A018	MP5068A18
18A	Shim Pink .015	6	05068A016	MP5068A16
32	Plug Magnetic Oil Drain	1	17481A002	MP17481A2
33	Screw Cap 3/4-10	4	06106A038	MP6106A38
34	Lock Washer	4	05454A003	MP5454A3
72	Baffle Drip Plate	1	M02554B000	MP2554B000
73	Screw Allen	2	06106A034	MP6106A34

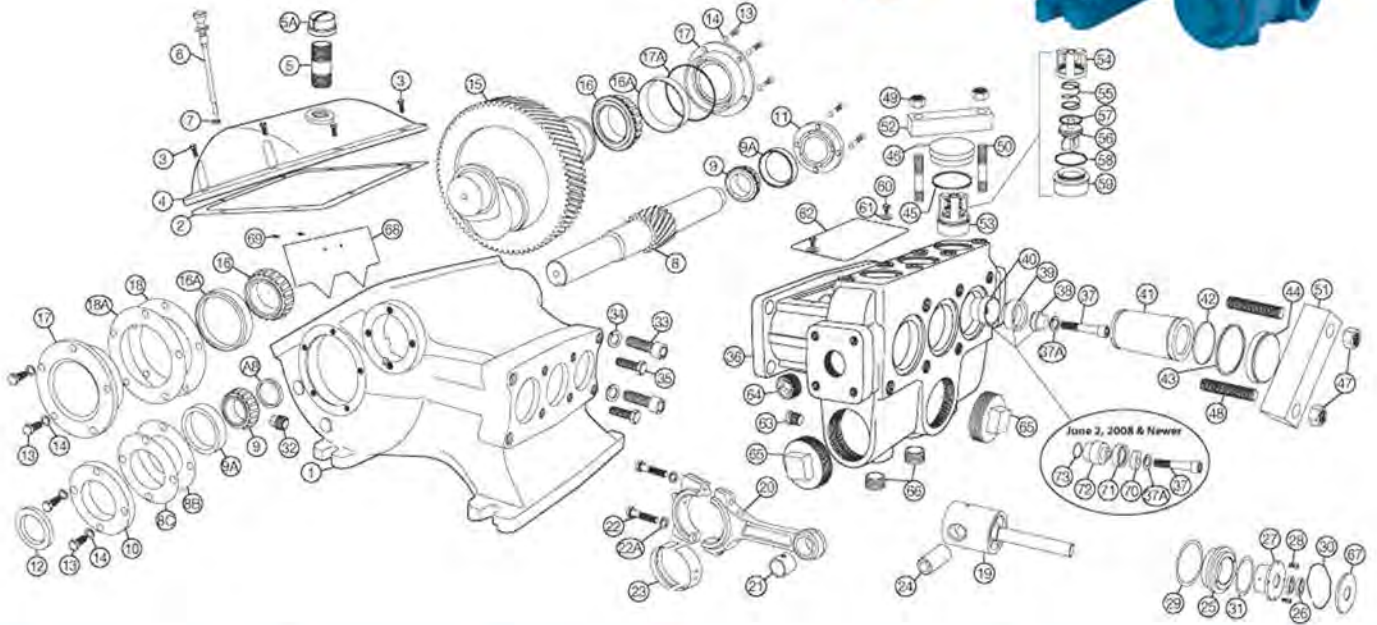
Ref.	Description	Qty	TE Meters #	MP#
36	Fluid End Body Ductile Iron	1	18639F002	MP18639F2
	Fluid End Body Aluminum Bronze	1	18639F004	MP18639F04
37	Screw Cap Metric	3	16654A006	MP16654A6
38	Retainer for Spring	3	18879A002	MP18879A2
39	Spring	3	18920A000	MP18920A0
40	Pressure Ring	3	18921A000	MP18921A0
41	Packing V-Ring	3	18922A000	MP18922A0
42	Follower	3	18923A002	MP18923A2
43	Stud Pinon SST	3	18924A002	MP18924A2
44	Copper Washer	3	05030A128	MP5030A128
45	Nut Hex 5/8 - 11	6	19109A046	MP19109A46
46	Stud 5/8 - 11	6	05659A560	MP5659A560
47	Nut Hex 7/8 - 11	6	19109A072	MP19109A72
48	Stud 7/8 - 11	6	05659A089	MP5659A89
49	Clamp Bar Valve Cap	3	20848A000	MP20848A0
50	Clamp Bar Cyl. Cap	3	20856A000	MP20856A0
51	Cap Valve	3	17390A000	MP17390A0
51A	Cap Valve (optional) Aluminum Bronze	3	17390A002	MP17390A2
52	O-Ring Valve (optional)	3	05876A064	MP5876A64
53	Cap Cylinder	3	20849A000	MP20849A0
53A	Cap Cylinder (optional) Aluminum Bronze	3	20849A001	MP20849A001
54	O-Ring Cylinder Cap	3	05876A096	MP5876A96
55	Suction Valve Complete	3	18925A003K	MP18925A3
56	Discharge Valve Complete	3	18925A004K	MP18925A4
57	Valve Seat	6	18835A002	MP18835A2
58	Valve Disc	6	18834A001	MP18834A1
59	Spring Suction Valve	3	18463A000	MP18463A0
60	Spring Disch. Valve	3	11829A000	MP11829A0
61	Retainer Cap	6	18833A001	MP18833A1
62	Cap Screw Valve Retainer Cap	6	18832A000	MP18832A0
63	Lid Cylinder Area of Fluid End	1	M01520A000	MPM1520A
64	Screw Fluid End Lid	2	05028A002	MP5028A2
65	Washer Fluid End Lid	2	05030A020	MP5030A20
66	Plug 1/2" Pipe	3	05022A015	MP5022A15
67	Plug 1" Pipe	3	05022A043	MP5022A43
68	Plug 1 1/4" Pipe	1	05022A041	MP5022A41
69	Plug 3" Pipe	2	03210A010	MP3210A
70	Cylinder Liner w/o Ring	3	20851A001	MP20851A1
71	O-Ring for Cylinder	3	05876A095	MP5876A95

Ref.	Description	Qty	TE Meters #	MP#
19	Crosshead	3	06211B041	MP6211B41
20	Link Ductile Iron Bushing Installed	3	17042C002	MP17042C2
21	Bushing	3	801619A000K	MP801619A
22A	Screw for Link Half	6	06171A010	MP19103A16
22A	Lock Washer for Link Half	6	05454A004	MP5454A4
23	Bearing Two Halves Standard	3	15245A101	MP15245A101
24	Wrist Pin	3	M01525A001	MPM1525A1
25	*Retainer Oil Seal Housing	3	24958A000	MP24958A
26	*Oil Seal (two per housing)	6	22835A004	MP22835A4
27	*Housing Oil Seal	3	24959A001	MP24959A1
28	*Screw Allen	6	06106A034	MP6106A34
29	*Gasket Retainer Housing (Lg)	3	05059A058	MP5059A58
KIT	Ref# 25-29,31 D Series Crosshead Seal Kit Housing Assy	3	24648A000	MP24648A
30	Circle Spring (Wavy)	3	M01643A000	MPM1643A
31	*Gasket Oil Seal Housing	3	05059A434	MP5059A434
74	Oil Slinger Washer	3	05059A262	MP5059A262

A Same as #19100A033  
 B Old #20164B020 14" Pinch  
 C Old #20164B022A  
 D Old #20355C010 14" Pinch  
 E Same as #19103A016  
 F New #19103A016  
 G Old #17524A002  
 H Same as #18832A001

**\*NOTE:** In 1990 this crosshead & pinion gear parts for this pump was changed from 14 degrees to 22 degrees. Therefore a new mark (A or B) is used for kits with the same components manufactured before 1990. Both components may be 22 degree parts to work correctly.

# E-Series Industrial Pump Replacement Parts



Qty	Description	FF Meters #	MP#
1	Case Gear	04625E001 A	MP4625E1
2	Gasket Lid	06201C000	MP6201C
3	Screw for Lid	19100A005B	MP19100A5
4	Lid	04561B000	MP4561B
5	Nipple Special Vent	17995A000	MP17995A
5A	Cap Pipe	05737A002	MP5737A2
6	Dip Stick w/O-Ring	17360A011K	MP17360A11
7	O-Ring for Dip Stick	05876A063K	MP5876A63
8	Shaft Pinion	20164B020K	MP20164B020
8A	Spacer	20164B022A	MP20164B022A
8B	Shim Green .003	05231A074	MP5231A74
8C	Shim Pink .015	05231A075	MP5231A75
9	Cone Bearing Pinion	05674A013	MP5674A13
9A	Cup Bearing Pinion	05675A009	MP5675A9
10	Cap Open	04563A001	MP4563A1
11	Cap Closed	04741B001	MP4741B1
12	Oil Seal	05170A017	MP5170A17
13	Screw Pinion & Crank Cap	19101A013	MP19101A13
14	Washer Seal	14946A003	MP14946A3
15	Crankshaft - 75 Teeth	20355C022K	MP20355C022
16	Cone Bearing Crank	05674A021	MP5674A21
16A	Cup Bearing Crank	05675A013	MP5675A13
17	Cap Bearing	04624B004	MP4624B4
17A	O-Ring 5" ID for Bearing Caps	05876A098	MP5876A98
18	Shim Green .003	05068A018	MP5068A18
18A	Shim Pink .015	05068A016	MP5068A16
32	Plug Magnetic Oil Drain	17481A002	MP17481A2
33	Screw Cap 3/4"-10	06106A038	MP6106A38
34	Lock Washer	05454A003	MP5454A3
35	Screw Cap 5/8"-10	19105A008	MP19105A8
68	Baffle Drip Pan	M02554B000	MPM2554B000
69	Allen Screw	06106A034	MP6106A34

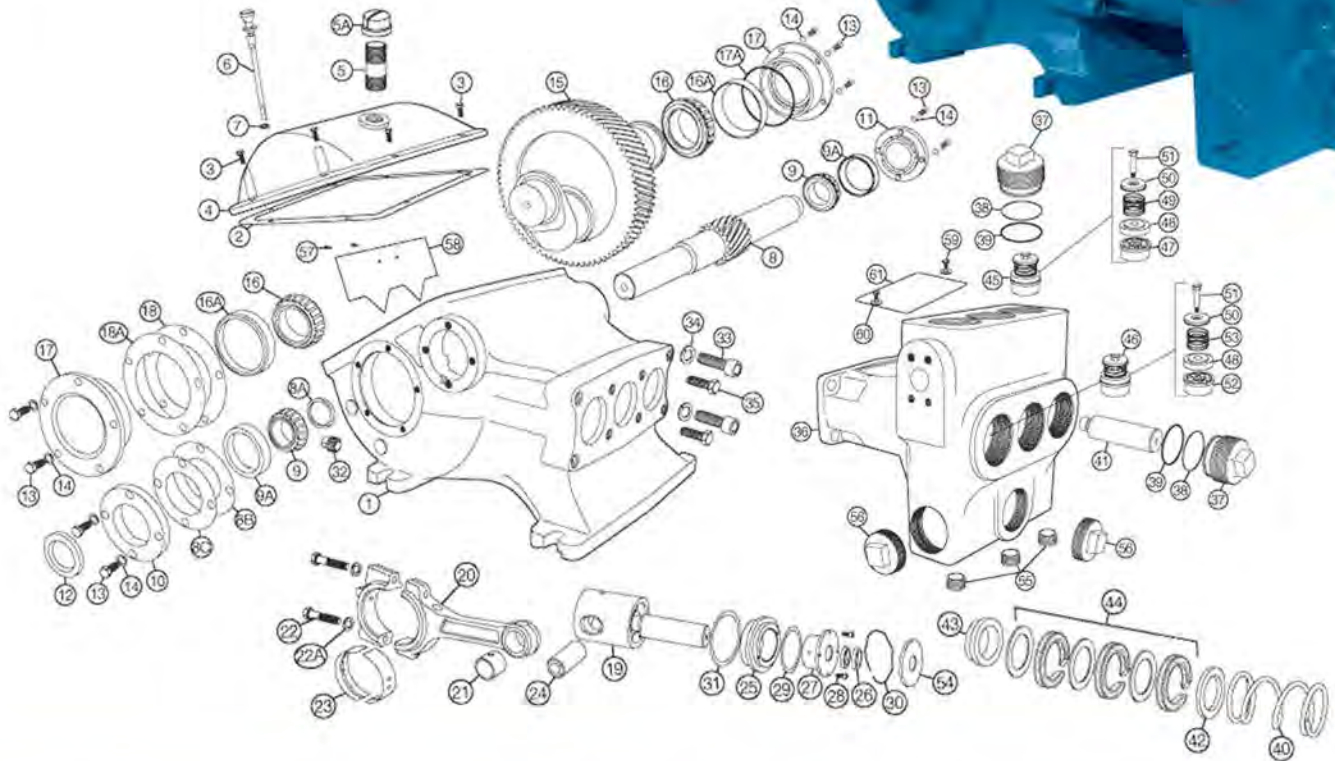
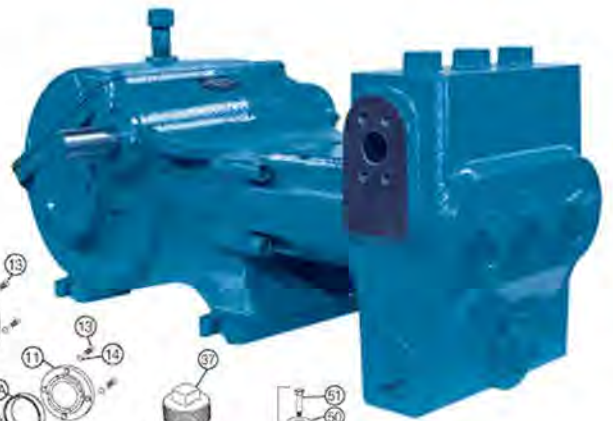
Qty	Description	FF Meters #	MP#
37	Screw Cap - metric	16654A006	MP16654A6
37A	Lock Washer	06107A013	MP6107A13
38	Retainer Piston E54-30	7206-0359-00A	MP7206-0359-00A
38A	Retainer Piston E70-23	7206-0394-00A	MP7206-0394-00A
38B	Retainer Piston E80-20	7206-0397-00A	MP7206-0397-00A
38C	Retainer Piston E110-14	7206-0349-00A	MP7206-0349-00A
39	Piston Cup E54-30 (1.75 o.d.)	7206-0389-00A	MP7206-0389-00A
39A	Piston Cup E70-23 (2.00 o.d.)	7206-0392-00A	MP7206-0392-00A
39B	Piston Cup E80-20 (2.125 o.d.)	7206-0395-00A	MP7206-0395-00A
	Flat Back (2.50 o.d.)	7206-0617-00A	MP7206-0617-00A
40	Piston Hub E54-30	7206-0354-00A	MP7206-0354-00A
40A	Piston Hub E70-23	7206-0393-00A	MP7206-0393-00A
40B	Piston Hub E80-20	7206-0396-00A	MP7206-0396-00A
40C	Piston Hub E110-14	7206-0358-00A	MP7206-0358-00A
41	Cylinder Liner E54-30 (1.75 id.)	26849A000	MP26849A
41A	Cylinder Liner E70-23 (2.00 id.)	20851A001	MP20851A1
41B	Cylinder Liner E80-20 (2.125 id.)	20851A004	MP20851A4
41C	Cylinder Liner E110-14 (2.50 id.)	26849A003	MP26849A003
42	Cylinder Liner O-Ring	05876A095	MP5876A95
43	Cylinder Cap Seal Ring	7202-0041-00A	MP7202-0041-00A
44	Cylinder Cap	26805A000	MP26805A
45	Seal Ring Valve Cap	26862A001	MP26862A1
46	Valve Cap E Series (except E80-25)	26848A000	MP26848A
47	Hex Nut 7/8-14	19109A072	MP19109A72
48	Stud 7/8-14	05659A089	MP05659A89
49	Hex Nut 5/8-11	19109A046	MP19109A46
50	Stud 5/8-11	05659A560	MP05659A560
51	Cylinder Cap Clamp Bar	20856A000	MP20856A
52	Valve Cap Clamp Bar	20848A000	MP20848A
53	Suction/Discharge Valve Assembly	TS18-ARO-AC0714	MP18AROAC0714
54	Valve Cage	7203-0544-00B	MP7203-0544-00B
55	Valve Spring	7206-0302-00A	MP7206-0302-00A
56	Valve Guide	7203-0542-00A	MP7203-0542-00A
57	Valve Insert E54-30 (Polyurethane)	7203-0546-00A	MP7203-0546-00A
58	Valve O-Ring E80-20V	05876A236	MP5876A236
58A	Valve O-Ring E70-23 & E110-14	110-000032-201	MP110-000032201
59	Valve Seat	7203-0543-00B	MP7203-0543-00B
60	Screw Fluid End Lid	05028A002	MP5028A2
61	Washer Fluid End Lid	05030A020	MP5030A20
62	Lid Cylinder Area of Fluid End	M01520A000	MPM1520A
63	Plug 1/2" Pipe	05022A063	MP5022A063
64	Plug 1-1/4" Pipe	05022A041	MP5022A41
65	Plug 3" Pipe	03210A000	MP3210A
66	Plug 1" Pipe	05022A043	MP5022A43
70	Piston Retainer E54-30	7206-0356-00A	MP7206-0356-00A
71	Piston Cup (Flat) E54-30	7206-0361-00A	MP7206-0361-00A
72	Piston Hub E54-30	7206-0354-00A	MP7206-0354-00A
73	O-Ring 1-1/4" Poly E54-30	110-000024-218	MP110-000024218

Qty	Description	FF Meters #	MP#
19	Crosshead	06211B042	MP6211B42
20	Ductile Iron Link (Bushing Installed)	17042C002	MP17042C2
21	Bushing	B01619A000K	MPB1619A
22	Screw for Link Half	19103A016	MP19103A16
22A	Lock Washer for Link Half	05454A004	MP5454A4
23	Bearing Two Halves Standard	15245A101K	MP15245A101
24	Wrist Pin	M01525A001	MPM1525A1
25	Retainer Oil Seal Housing	24958A000	MP24958A
26	Oil Seal two per housing	22835A003	MP22835A3
27	Housing Oil Seal	24959A000	MP24959A
28	Allen Screw	06106A034	MP6106A34
29	Gasket Retainer Housing (Lg)	05059A058	MP5059A58
30	Circle Spring	M01643A000	MPM1643A
31	Gasket Oil Seal Housing	05059A434	MP5059A434
67	Oil Slinger Washer	05059A263	MP5059A263

- A Same as #04625E010E
- B Same as #191100A0338
- C Same as #110-000110-201
- D Old #20164B00015 14" Pkds
- E Old #20164B0002A
- F Old #20355C010 14" Pkds
- G Same as #B01619A001
- H New #19103A016
- I Old #15245A002

\*NOTE: In 1998 the crankshaft and piston pins for this pump, was changed from 14 degrees to 22 degrees. Therefore a new crankshaft/piston pin set made with the same components manufactured before 1998. Such components may be 22 degree pins to work correctly.

# DP-80 Industrial Pump Replacement Parts



Ref.	Description	Qty	EE Meters #	MFR
1	Case Gear	1	04625E001	MP4625E1
2	Gasket Lid	1	06201C000	MP6201C
3	Screw for Lid	8	19100A005A	MP19100A5
4	Lid	1	04561B000	MP4561B
5	Nipple Special Vent	1	17995A000	MP17995A
5A	Cap Pipe	1	05737A002	MP5737A2
6	Dip Stick w/O-Ring	1	17360A011K	MP17360A11
7	O-Ring for Dip Stick	1	05876A063K	MP5876A63
8	Shaft Pinion	1	20164B020K	MP20164B020A
8A	Spacer	1	20164B022A	MP20164B022A
8B	Shim Green .003	4	05231A074	MP5231A74
8C	Shim Pink .015	4	05231A075	MP5231A75
9	Cone Bearing Pinion	2	05674A013	MP5674A13
9A	Cup Bearing Pinion	2	05675A009	MP5675A9
10	Cap Open	1	04563A001	MP4563A1
11	Cap Closed	1	04741B001	MP4741B1
12	Oil Seal	1	05170A017	MP5170A17
13	Screw Pinion & Crank Cap	18	19101A013	MP19101A13
14	Washer Seal	18	14946A003	MP14946A3
15	Crankshaft - 75 Teeth	1	20355C022K	MP20355C022
16	Cone Bearing Crank	2	05674A018	MP5674A18
16A	Cup Bearing Crank	2	05675A013	MP5675A13
17	Cap Bearing	2	04624B004	MP4624B4
17A	O-Ring 5" ID for Bearing Caps	2	05876A098	MP5876A98
18	Shim Green .003	6	05068A018	MP5068A18
18A	Shim Pink .015	6	05068A016	MP5068A16
32	Magnetic Plug Oil Drain	1	17481A002	MP17481A2
33	Screw Cap 3/4"-10	4	06106A038	MP6106A38
34	Lock Washer	4	05454A003	MP5454A3
35	Screw Cap 5/8"-11	4	19105A008	MP19105A8
57	Allen Screw	2	06106A034	MP6106A34
58	Baffle Drip Plate	1	M02554B000	MPM2554B000

Ref.	Description	Qty	EE Meters #	MFR
36	Fluid End Body A (L.P.)	1	24961F000	MP24961F000
37	Cup for Discharge and Suction Valve	6	24797A000	MP24797A
38	O-Ring	6	05876A168	MP5876A168
39	Back Up Ring	6	18753A007	MP18753A7
41	Plunger Coated (21/8" o.d.)	3	24798B022	MP24798B22
45	Discharge Valve Assy	3		MP2479900
46	Suction Valve Assy	3		MP2479901
47	Discharge Valve Seat F.E.A.	3	24796A001	MP24796A1
48	Valve Delrin	6	18834A003	MP18834A3
49	Spring-Discharge Valve	3	11829A001	MP11829A1
50	Retainer Spring	6	18833A001	MP18833A1
51	Cap Screw Thread Lock	6	18832A002	MP18832A2
52	Suction Valve Seat F.E.A.	3	24796A000	MP24796A
53	Suction Valve Spring	3	11829A000	MP11829A
55	Plug 1" Pipe	3	05022A043	MP5022A43
56	Plug 3" Pipe	3	03210A000	MP3210A
59	Screw Fluid End Lid	2	05028A002	MP5028A2
60	Washer Fluid End Lid	2	05030A020	MP5030A20
61	Lid-Cylinder Area of Fluid End	1	M01520A000	MPM1520A

- A Same as #19100A033
- B Old #20164B000 14" Pitch
- C Old #20164B002A
- D Old #20355C010 14" Pitch
- E Same as #801619A001
- F New #19103A016
- G Old #15245A002

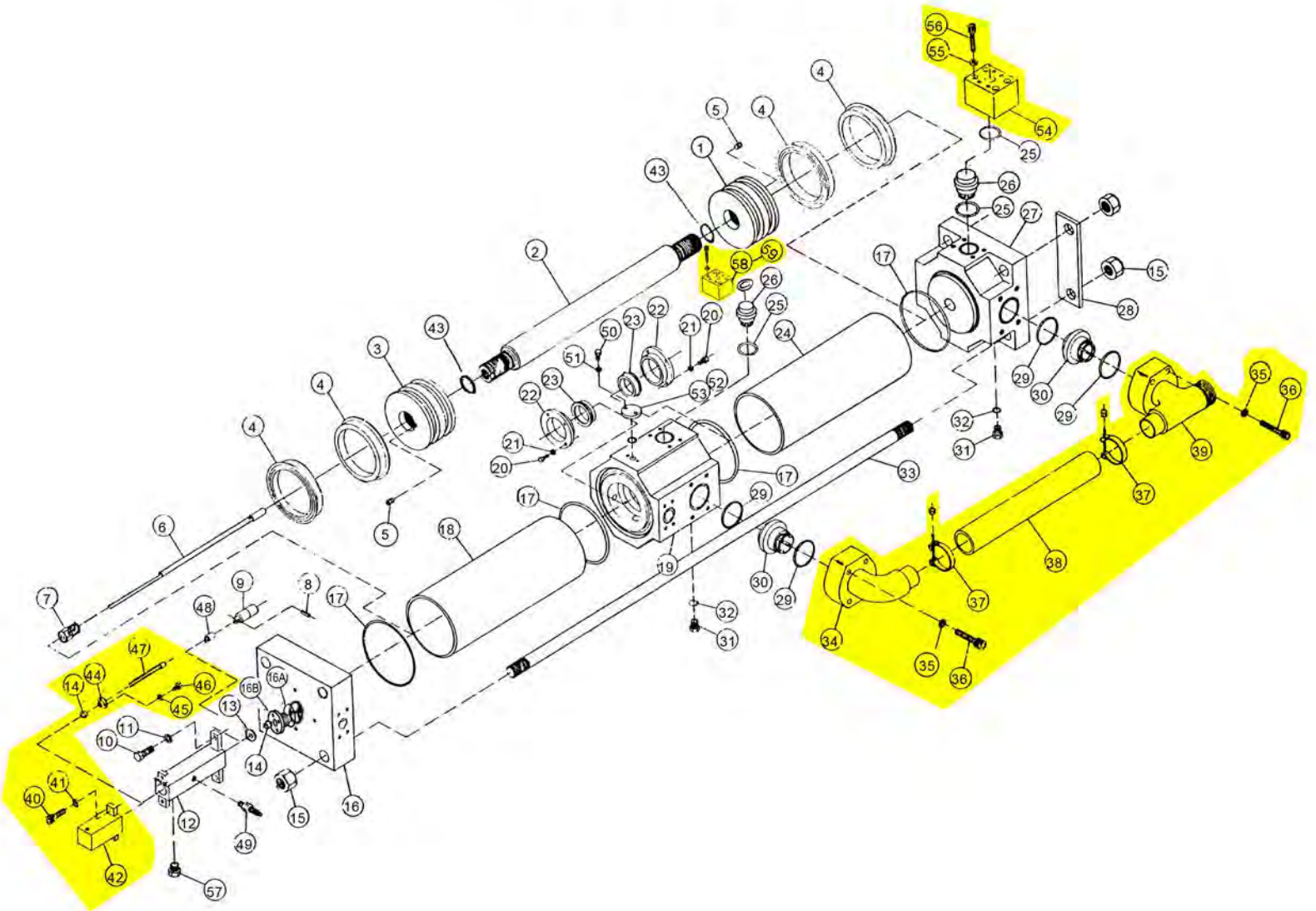
**NOTE:** In 1979 the crankshaft and pinion gear pitch for this pump was changed from 14 degrees to 22 degrees. Therefore, newer crankshaft or pinion will not mesh with the same components manufactured before 1978. Such components must be 22 degrees pitch to mesh properly.

Ref.	Description	Qty	EE Meters #	MFR
19	Crosshead	3	24956B000	MP24956B
20	Ductile Iron Link (Bushing Installed)	3	17042C002	MP17042C2
21	Bushing	3	801619A000K	MP801619A
22	Screw for Link Half	6	016171A010F	MP19103A16
22A	Lock Washer for Link Half	6	05454A004	MP5454A4
23	Bearing Two Halves Standard	3	15245A101K	MP15245A101
24	Wrist Pin	3	M01525A001	MPM1525A1
25	Retainer Oil Seal	3	24958A000	MP24958A
26	Oil Seal two per housing	6	22835A003	MP22835A3
27	Housing Oil Seal	3	24959A000	MP24959A
28	Allen Screw	6	06106A034	MP6106A34
29	Gasket Retainer Housing	3	05059A056	MP5059A58
30	Circle Spring (Wavy)	3	M1643A000	MPM1643A
31	Gasket Oil Seal Housing	3	05059A434	MP5059A434
40	Spring - Packing	3	24799A001	MP24799A1
41	Plunger Coated (21/8" o.d.)	3	24798B022	MP24798B22
42	Washer Spring (21/8" o.d.)	3	24955A002	MP24955A2
43	Ring-Seal Back	3	24954A002	MP24954A2
44	Packing (21/8" o.d.)	3	24962A003	MP24962A3
54	Oil Slinger Washer	3	05059A263	MP5059A263

# American Sewer Parts & Cleaning

## ASPC Rodder Pump

Part Number U62180



Water Piping | High Pressure Blocks | Compensator Assy.  
 Part# VC661-2151-KIT Includes Figure Numbers:

14	39	46	59
34	40	47	
35	41	54	
36	42	55	
37	44	56	
38	45	58	

# American Sewer Parts & Cleaning

## ASPC Rodder Pump

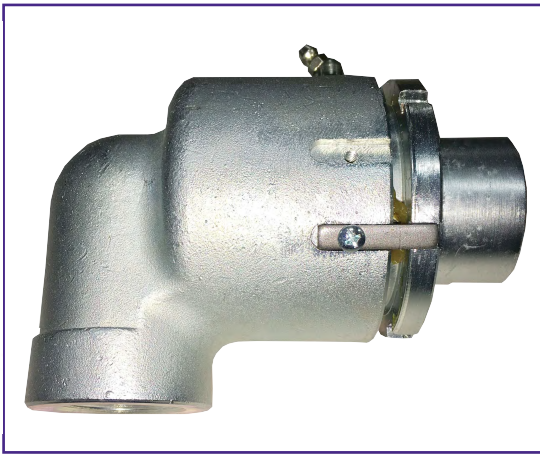
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
	<b>U62180</b>	<b>Complete Assembly</b> (Less water supply/compensator)	<b>1</b>
1	U29950	Piston Water End Bronze	1
2	U29328	Piston Rod	1
3	U39260	Piston Oil End Ductile Iron	1
4	U29638	Piston - Seal	4
5	U41848	S. S. Set Screw 5/16"-24NF. X 1/2" LG.	2
6	U39200	Sensing Rod	1
7	U29678	Yoke Sensing Rod	1
8	U16420-W	Roll Pin 3/32" X 3/4" LG.	1
9	U66563	Piston	1
10	U42392	Hex Head Cap Screw 1/2" x 1-1/4" LG.	2
11	U16367-C	Lock Washer 1/2"	2
12	U62449	Piston Block Weld.	1
13	U39222	Bushing (Oil End Block)	1
14	U29662	Seal	2
15	U29644	Nut 1-1/2"-12NF.	8
16	U62461	Oil End Block	1
16 A	U62461.003	O-Ring Oil End Block	
16 B	U62461.002	Nut HYD Service Oil End Block	
17	U29663	O-Ring4	
18	U29321	Cylinder Barrel (Oil End)	1
19	U62112	Center Block	1
20	U29841	S.S. Cap Screw 1/4"-20NC. x 3/4" LG.	8
21	U29842	S.S. Lock Washer 1/4"	8
22	U29698	Seal Keeper	2
23	U29664	Piston Rod Seal	2
24	U41717	Cylinder Barrel (Water End)	1
25	U29674	O-Ring4	
26	U29385	Check Valve 2"	2
27	U51600	Water End Block	1
28	U52235	Bolting Plate	2
29	U29640	O-Ring4	
30	U29384	Check Valve 3"	2
31	U29826	Drain Plug	2
32	U29827	O-Ring2	
33	U29323	Truss Rod	4
34	U62459	Intake Manifold Elbow Weld.	1
35	U40500	Lock Washer Hi Collar 5/8"	8
36	U16334-J	Cap Screw Socket Hd. 5/8" x 3-1/4" LG.	8
37	U45727	Hose Clamp	2
38	U45824-C	3" Water Hose x 18" LG.	1
39	U62460	Intake Manifold Tee Weld.	1
40	U16334-C	Socket Hd. Cap Screw 1/2"-13NC. x 1-1/2" LG.	2
41	U40314	Hi Collar Lock Washer 1/2"	1
42	U62450	Compensator Weld.	1
43	U29923	Piston Rod O-Ring	2
44	U55790	Seal Retainer	1
45	U16366-L	Lock Washer #10	3
46	U16346-F	Screw 10-24 x 1/2" LG.	3
47	U55787	Piston Assembly - Compensator	1
48	U55784	End Cap	1
49	U45834	Sensor	1
50	U43750	Cap Screw 1/4"-20NC. x 3/4" LG.	2
51	U16367	Lock Washer 1/4"	2
52	U62445	Port Cover	1
53	U45921	O-Ring	1
54	U62047-C	High Pressure Block	1
55	U40314	Hi Collar Lock Washer 1/2"	10
56	U45911-A	Socket Hd. Cap Screw 1/2" x 4" LG.	1
57	U43049	Breather	1
58	U62048	High Pressure Block Center Block	
59	U44144	Socket Head Cap Screw 1/2" 13 vnc X 2 1/2"	
60	U31015V	Hose/Hydraulic/ 1/4"x14 1/2"	
	<b>U37495</b>	<b>Seal Repair Kit Complete for "Oil End"</b>	
	<b>U37496</b>	<b>Seal Repair Kit Complete for "Water End"</b>	
	<b>VC661-2151-KIT</b>	<b>Water Piping/High Pressure Blocks/ Compensator Assembly</b>	





# The Original RAM Swivel

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



U40052A    ¾"    90°  
 U40052    1"    90°  
 U43947    1¼"    90°

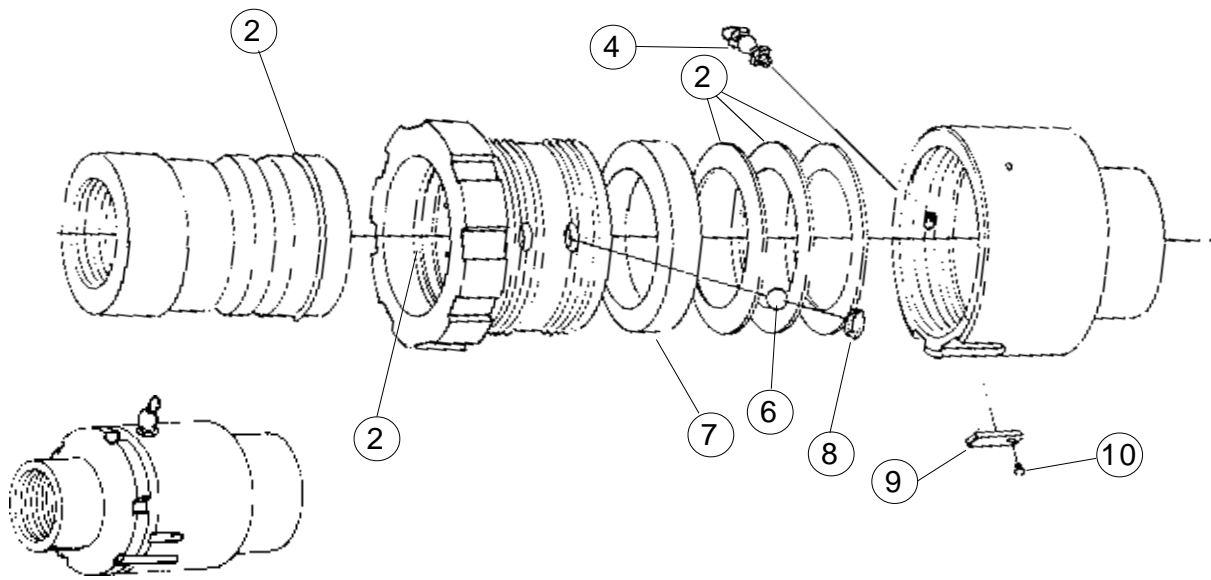


U40052B    ¾"    Straight  
 U40052C    1"    Straight  
 U44106    1¼"    Straight

## Advantages of the RAM Swivel

- The Housings are a steel investment cast for a longer life.
- The Gland Nuts are Heat Treated for a longer wear.
- The Rotary Sleeve is Heat Treated for longer wear and milled with (2) flat areas that are machined on the rotary sleeve for wrench-tightening.
- The Backup Ring is Nickel plated to prevent rust
- Zerk Fittings are installed to lubricate for longer wear.
- All parts are interchangeable with TM<sup>®</sup> manufactured swivels.

**MADE IN THE USA.**



### RAM® STYLE STRAIGHT SWIVEL

#### Packing Seal Kit (2)

U40375	3/4" & 1"	0.5 lbs
U44647	1-1/4"	0.5 lbs

#### Grease Fitting (4)

U41759	3/4", 1" & 1-1/4"	0.01 lbs
--------	-------------------	----------

#### Bearing Kit (6)

U42085	3/4" & 1"	0.5 lbs
U44648	1-1/4"	0.5 lbs

#### Back-Up Ring (7)

U42084	3/4" & 1"	0.25 lbs
U44650	1-1/4"	0.25 lbs

#### Ball Retainer Screw (8)

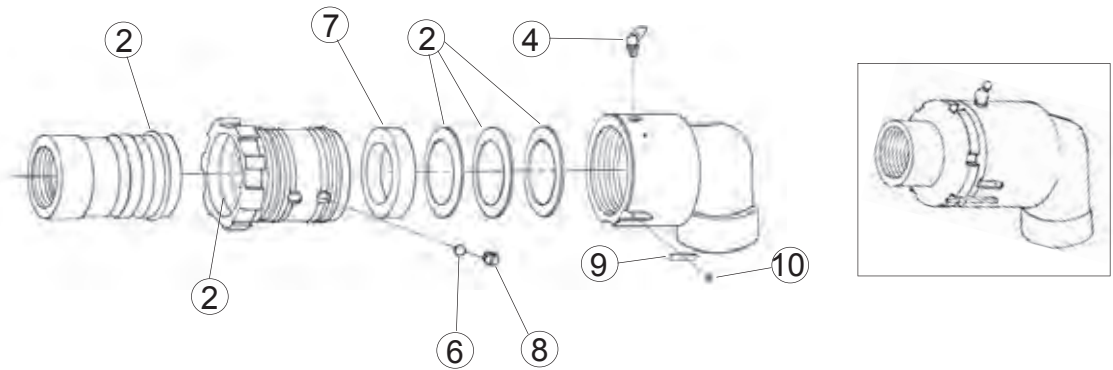
U40052.008	3/4", 1" & 1-1/4"	0.01 lbs
------------	-------------------	----------

#### Tab Retainer (9)

U40052.009	3/4", 1" & 1-1/4"	0.01 lbs
------------	-------------------	----------

#### Retainer Screw (10)

U40052.010	3/4", 1" & 1-1/4"	0.01 lbs
------------	-------------------	----------



### RAM® STYLE 90° SWIVEL

#### Packing Seal Kit (2)

U40375	3/4" & 1"	0.5 lbs
U44647	1-1/4"	0.5 lbs

#### Grease Fitting (4)

U41759	3/4", 1" & 1-1/4"	0.01 lbs
--------	-------------------	----------

#### Bearing Kit (6)

U42085	3/4" & 1"	0.5 lbs
U44648	1-1/4"	0.5 lbs

#### Back-Up Ring (7)

U42084	3/4" & 1"	0.25 lbs
U44650	1-1/4"	0.25 lbs

#### Ball Retainer Screw (8)

U40052.008	3/4", 1" & 1-1/4"	0.01 lbs
------------	-------------------	----------

#### Tab Retainer (9)

U40052.009	3/4", 1" & 1-1/4"	0.01 lbs
------------	-------------------	----------

#### Retainer Screw (10)

U40052.010	3/4", 1" & 1-1/4"	0.01 lbs
------------	-------------------	----------

#### 1 1/4" Swivel Repair Kit

U43947A-30 \*Includes above Items: 2,6, & 7

#### 3/4" & 1" Swivel Repair Kit

U40052A-30 \*Includes above Items: 2,6, & 7

# Ball Valves

## Hycon® Style Three Way Ball Valves

Used on Vactor® and Vac-Con® type machines.

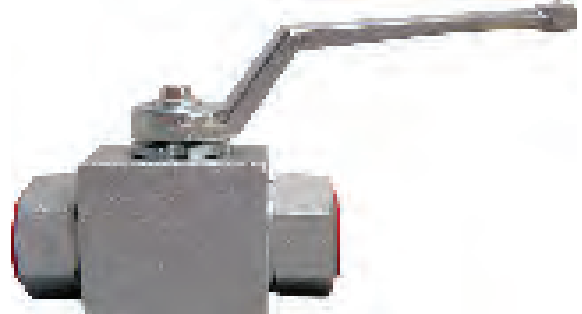


Part #	Size
U44535	3/8" Three-Way 5000 PSI
AT130890	1/2" Three-Way 5000 PSI
AT130925	3/4" Three-Way 4500 PSI
AT130920	1" Three-Way 4500 PSI
AT130919	1 1/4" Three-Way 4500 PSI

Hycon® style ball valves are used on many of the leading sewer cleaning equipment such as Vactor®, Vac-Con® and Aquatech® machines.

## Hycon® Style Two Way Ball Valves

Used on Vactor® and Vac-Con® type machines.



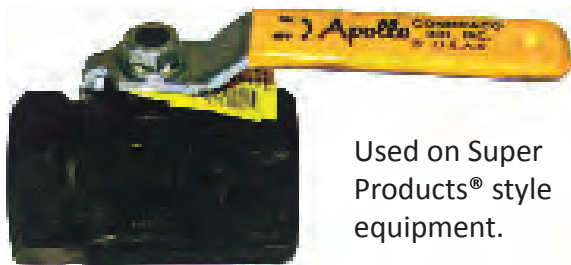
Part #	Size
U42446HY	1/4" Hycon® Two-Way 3000 PSI
U40575HY	1/2" Hycon® Two-Way 3000 PSI
U40575C	3/4" Hycon® Two-Way 3000 PSI
U40576HY	1" Hycon® Two-Way 3000 PSI
U43941HY	1 1/4" Hycon® Two-Way 3000 PSI

## Three-Way Ball Valve Handle



Part #	Size
AT1800	3/4" and 1" Two and Three-Way Handle

## Apollo® Style Two Way Ball Valves



Used on Super Products® style equipment.

Part #	Size
S6000-010293	1/2" Apollo Two-Way 2000 PSI
S6000-00681A	3/4" Apollo Two-Way 2000 PSI
S6000-00681	1" Apollo Two-Way 2000 PSI
S6000-00681B	1 1/4" Apollo Two-Way 2000 PSI

## Ball Valve Seal Kit



Part #	Size
U43955	1" Dynaquip® Style Ball Valve Kit
AT191290	1/2" Hycon® Three-Way Ball Valve Kit
U43941HYS	1 1/4" Hycon® Two-Way Ball Valve Kit
U40576A	1" Hycon® Two-Way Ball Valve Kit
AT1815	1" Hycon® Two & Three-Way Kit
AT1840	1 1/4" Hycon® Three-Way Ball Valve Kit

# Wash Down Guns

- U45109 STANDARD DUTY GUN  
18 GPM @ 850 PSI MAX
- U45151 SHROUD
- U45154-3.5 12 GPM NOZZLE
- U45154-4.5 18 GPM NOZZLE
- U45178 SEAL KIT



- U45109A HEAVY DUTY GUN  
25 GPM @ 3000 PSI



# 5 BUTTON PENDANT CONTROL W/4-WAY BOOM

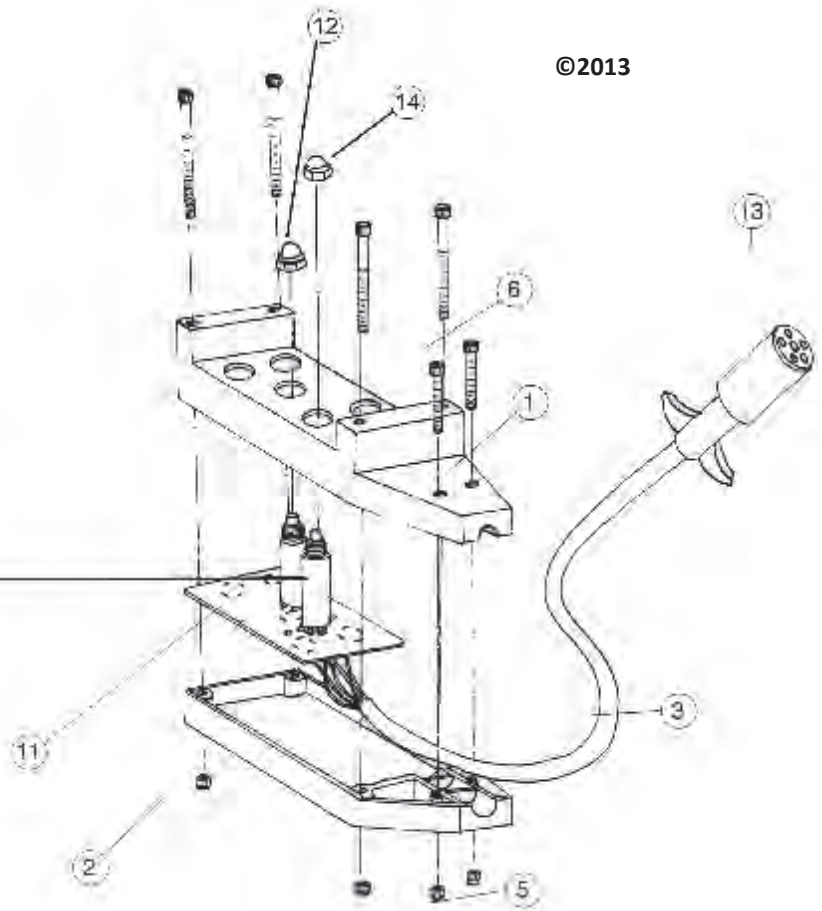
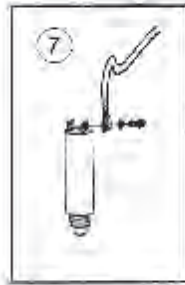
Part Number U54219

Compete 5 Button Yellow Pendant Control, used on Vector® truck applications.



©2013

Part #	Size
U54219	5-Button - 15' Cord
U54219B	5-Button - 20' Cord
U54219D	5-Button - 25' Cord
U54219A	5-Button - 30' Cord
U54219E	5-Button - 50' Cord
U54219C	5-Button - No Cord



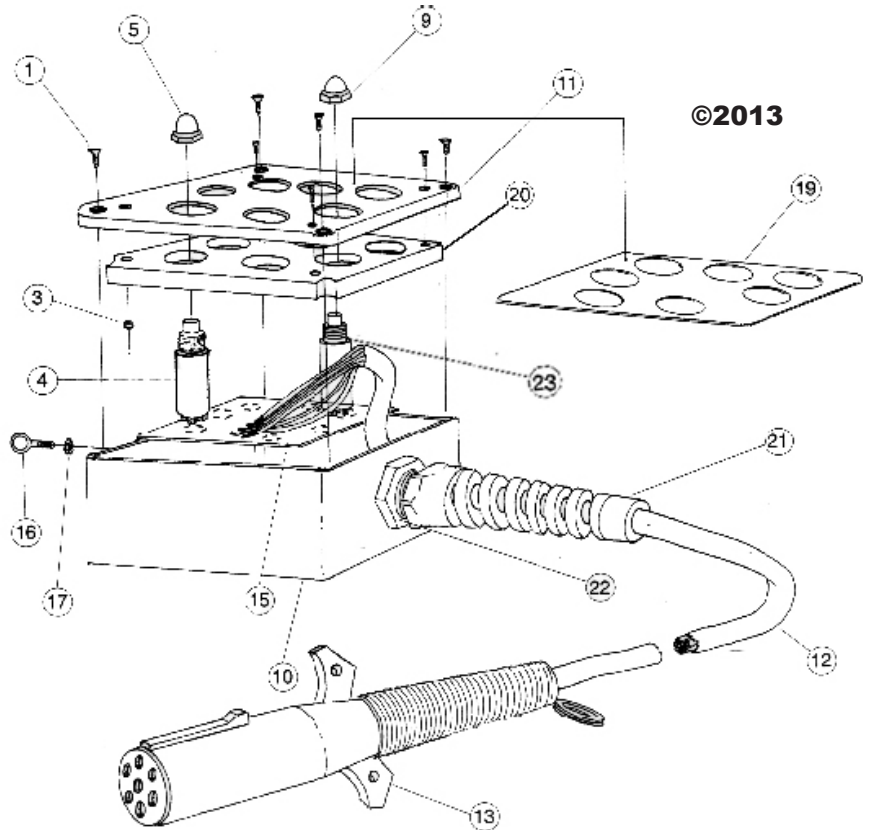
Note: Manufactured Pendant Controls, all switches are soldered directly to the top of the circuit board and the cord wires are soldered to the bottom of the circuit board which insures contact. Made in the USA.

ITEM #:	PART #:	DESCRIPTION	QUANTITY NEEDED
	U54219	Complete w/15 Foot Cord	
	U54219A	Complete w/30 Foot Cord	
	U54219B	Complete w/20 Foot Cord	
	U54219C	Complete Box Only - No Cord	
	U54219D	Complete w/25 Foot Cord	
	U54219E	Complete w/50 Foot Cord	
1	U43728	Pendant Control - Top (Yellow)	1
2	U43729	Pendant Control - Bottom (Yellow)	1
3	03-0401-165	Cable 16/5 SOOW 600 W	
4	U53009	Screw 10-24 x 2 SOC HD CAP	4
5	U53008	Nut, Nylok 10-24 Jam	6
6	U53010	Screw, 10-24 x 1 SOC ND CAP	2
7	U43809	Switch, Pendant Control	5
11	70-0401-000	Power Control Board	1
12	U44869	Boot, Switch - Red	1
13	U41485	Plug, Trailer 5 Pin Connector	1
14	U53003	Boot, Switch - Grey	1

# 7 BUTTON PENDANT CONTROL

Part Number U44861

**Complete 7 Button Black Pendant Control, used on Vector® truck applications.**



©2013

Part #	Size
U44861	Complete w/30 Foot Cord
U44861A	7-Button - No Cord
U44861B	7-Button - 10' Cord
U44861C	7-Button - 15' Cord
U44861D	7-Button - 20' Cord
U44861E	7-Button - 50' Cord
U44861F	Complete w/25 Foot Cord

Note: Manufactured Pendant Controls, all switches are soldered directly to the top of the circuit board and the cord wires are soldered to the bottom of the circuit board which insures contact. Made in the USA.

**QUANTITY NEEDED**

ITEM #:	PART #:	Description	Quantity
1	10-8832-.50	Screw, 8-32x1/2 FL HD SOC	4
4	U43809	Switch, Pendant Control	1
5	U53003	Boot, Pendant Control - Grey	6
9	U44869	Boot, Pendant Control - Red	1
10	U44918	Box Only, 7 Button Pendant Control - (Black)	1
11	U44919	Lid, 7 Button Pendant Control	1
12	03-0401-167	Cable, 16/7 SOOW 600 V	1
13	U44859	Connector 7 Button	1
15	70-0401-007	Power Control Board	1
16	10-9632-125	Eye Bolt	1
17	10-0632-218	Nut, Nylok 6-32	1
19	55-4486-100	Decal, 7 Button Pendant Control	1
20	16-4486-150	Plate, Pendant Control Switch	1
21	U44860-1	Strain Relief	1
22	U44860-2	Lock Nut - Strain Relief	1
23	U47867	Switch, Pendant Control	6

# Pendant Controls

## 7-Button w/VAC Relief

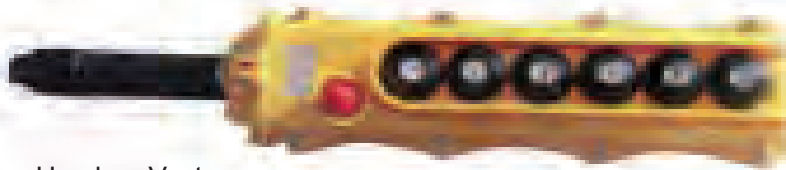


7-Button Pendant Control  
w/ VAC Relief and Kill Switch

**Part #**  
U44861L

**Size**  
7-Button Pendant Control  
w/VAC Relief and Kill Switch

## Pendant Control



Used on Vactor®  
Truck  
Application

Long Yellow Body

Part #	Size
U44861JA 7.0 lbs	7 Button 20' Cord
U44861J 7.5 lbs	7 Button 30' Cord

# Easement Roller

The Easement Rollers are used in the operation of sewer jetting machines when the manhole is a long distance away, as in an easement.

These rollers should be used in 15' intervals from the sewer cleaning machine. An easement roller aids in reducing drag and preventing abrasion to the sewer cleaning hose. It's supplied with 3 stake pins to anchor to the ground. The roller is cast aluminum 3 1/4" wide x 5" in diameter. Made in the USA.

Part #	Description	Weight
D0-90	Easement Roller Assy.	9 lbs.

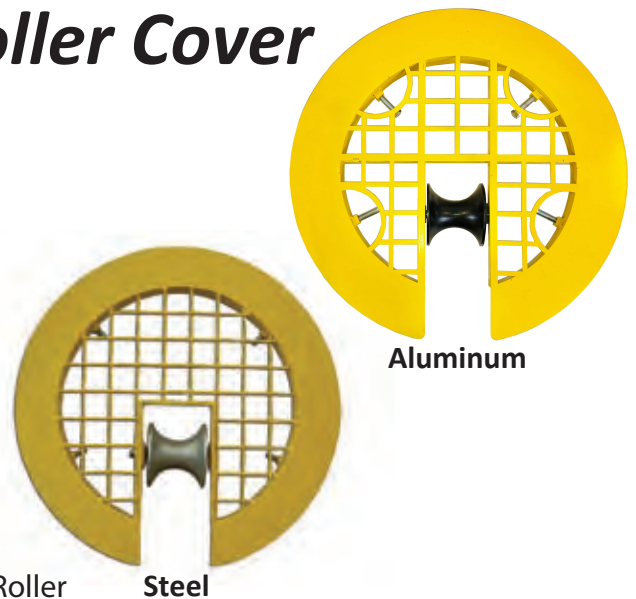


# Safety Manhole Roller Cover

A Safety Manhole Roller Cover is designed to add a level of safety as an operator works from an open manhole and minimizes accidentally stepping into the manhole. This part is made of steel or Aluminum and painted with a highly visible yellow powder coated finish.

The 5" polyethylene roller is extremely durable and it provides a great surface to protect the outer jacket of sewer cleaning hose and video inspection cable. The manhole roller cover fits a 20"-26" manhole opening. NOTE: An aluminum roller can be substituted on request. Made in the USA.

Part #	Description	Weight
D0-6MRF	Steel Safety Manhole Roller Cover	38 lbs. w/Nylon Roller
D0-6MRFA	Steel Safety Manhole Roller Cover	w/Aluminum Roller
D0-6AMRF	Aluminum Safety Manhole Roller Cover	w/Nylon Roller



# Heavy Duty Top Manhole Roller

The DO-6B top manhole roller is made from 2" x 1" x .120 wall steel tubing. Its frame is powder painted blue to protect this part from rust and corrosion. The DO-6B is designed for rough and tough use in sewer cleaning and pipeline video inspection applications.

Part #	Description	Weight
D0-6B	Heavy Duty Top Manhole Roller w/ Nylon Roller	35 lbs.
D0-6BA	Heavy Duty Top Manhole Roller w/ Aluminum Roller	35lbs.





# Regular Duty Top Manhole Roller

The DO-6D top manhole roller is made from 2" aluminum angle that makes it lightweight but rugged.

Part #	Description	Weight
DO-6D	Regular Duty Top Manhole Roller w/ Nylon Roller	16 lbs.
DO-6DA	Regular Duty Top Manhole Roller w/ Aluminum Roller	16lbs.



# Nylon Replacement Manhole Roller

The nylon replacement polyethylene roller fits most top manhole roller frames. It is 5" wide x 5 3/4" in diameter and is supplied with a 3/4" bored hole for the axle bolt.

This roller is very durable but not abrasive to the sewer hose or video inspection cable outer jacket.

Part #	Description	Weight
DO-7N	Nylon Replacement Roller	3 lbs.



# Aluminum Replacement Manhole Roller

DO-7's replacement aluminum roller fits most top manhole roller frames. It is 5" wide x 5 3/4" in diameter and is supplied with a 3/4" bored hole for the axle bolt.

This is a great roller to use on top manhole rollers when a cable or extreme service is required. Made in the USA.

Part #	Description	Weight
DO-7	Aluminum Replacement Roller	6 lbs.



# Easement Replacement Aluminum Roller

Our replacement aluminum roller fits most easement roller frames. It is 3 1/4" wide x 5" in diameter and is supplied with a 3/4" bored hole for the axle bolt.

This is a great roller to use on top manhole rollers when a cable or extreme service is required. Made in the USA.

Part #	Description	Weight
SRE17048	Easement Replacement Roller	2.5 lbs.



# Jetter Style Hose Level Wind Assembly

Jetter Style hose level wind assembly is manufactured to be installed universally on sewer cleaning jetter trucks and trailers. The aluminum hose guide tube contains two nylon rollers, which insure easy hose retraction and efficient hose bailing. This level wind assembly is also available with a footage pressure wheel which drives a mechanical footage counter, giving the operator a point of reference while jetting pipe. The frame is of steel construction with a powder painted black finish. The operators control handle includes a rugged rubber hand grip. Made in the USA.



Part #	Description	Weight
UEM222850J	Assembly w/o Counter	21 lbs.
UEM222850JC	Assembly w/Counter	23 lbs.
30-0990-100	Counter	
6028	2" Nylon Roller (2 required)	

# Combo Style Hose Level Wind Assembly

Combination Style hose level wind assembly is manufactured to be installed universally on sewer cleaning/vacuum combination machines with a front hose reel. The aluminum hose guide tube contains two nylon rollers, which insure easy hose retraction and efficient hose bailing. This level wind assembly is also available with a footage pressure wheel which drives a mechanical footage counter, giving the operator a point of reference while jetting pipe. The frame is of steel construction with a powder painted black finish. The operators control handle includes a rugged rubber hand grip. Made in the USA.



Part #	Description	Weight
UEM222850C	Assembly w/o Counter	21 lbs.
UEM222850CC	Assembly w/Counter	23 lbs.
30-0990-100	Counter	
6028	2" Nylon Roller (2 required)	

# Footage Counter / Pressure Wheel

This all-aluminum footage measuring pressure wheel is used on all Jetter Style hose level wind assemblies using a footage counter. It is also used on older Aquatech machines. Aluminum construction with knurled finish for positive hose grip. Made in the USA. Part #HLW-104



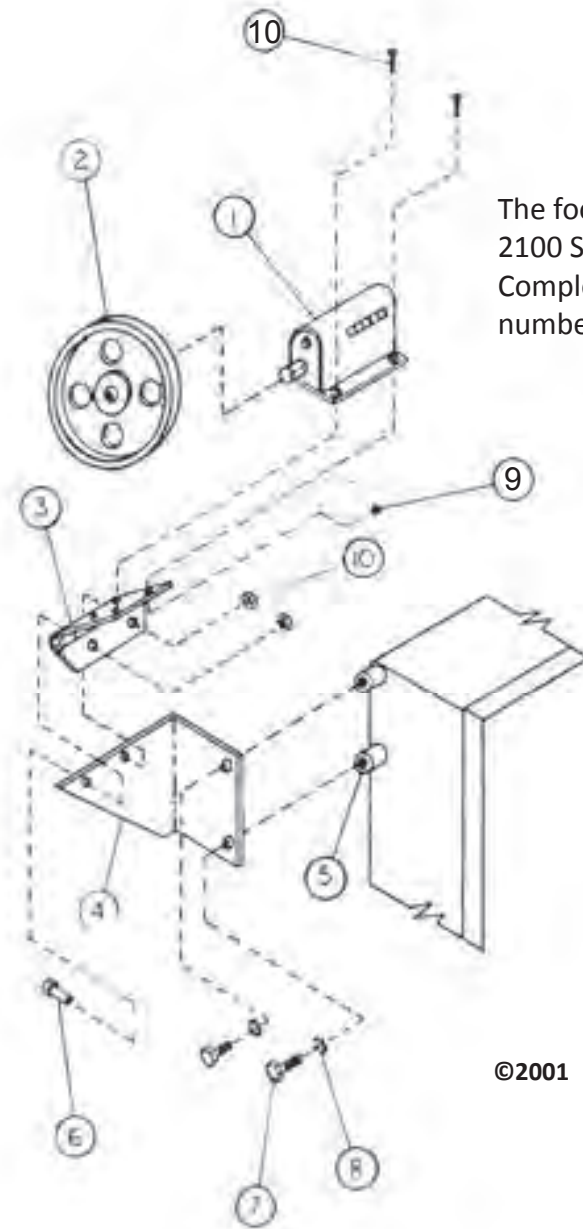
# Aluminum Hose Guide Tube



This aluminum hose guide tube is used on all level wind assemblies. It also fits early 1990 and later Aquatech® sewer jetting machines. Use replacement roller P/N 6028. Made in the USA.

Part #	Description	Weight
U222B10-1	Aluminum Hose Guide	1.85 lbs.

# Footage Counter Assembly



The footage counter assembly is used on 2100 Series Vactor® combo machines. Complete footage counter assembly part number U58918\*\*.

©2001

ITEM #	PART #	DESCRIPTION	QUANTITY
1	U45047	Left Hand Footage Counter	1
2	U45046	Counter Wheel	1
3	U45049	Footage Counter Hinge	1
4	U58917	Mounting Bracket	1
5	U16335	Screw, 1/4-20 - 3/4 Hex Head Cap	2
6	U16339	Screw, 5/16-18 NC x 3/4 Hex Head Cap	2
7	U16367A	Laco Washer 5/16"	2
8	U20121G	Lock Nut 1/4-20NC	2
9	U16359X	Hex Nut 4-40	4
10	U163400	Screw, 4-40 x 1/4 Round Head S.S.	4

## ASSEMBLY REQUIRED

## 4-Way Roller Assembly

This 4-roller hose guide is used on sewer cleaning equipment to help guide sewer cleaning or wash down gun hose around obstacles on a sewer cleaning / combo truck application. As used by Super Products® machines for many years. Made in the USA.

Part #	Description	Weight
S3000-00347	4-Way Roller Assembly	1.5 lbs.
S3000-00347A	Replacement Rollers (4 Required)	



## Durant® Footage Counter

This Durant® mechanical counter is right-hand drive and is used on many Vactor® type trucks 1988 and newer. It is also known as P/N 31127400/5D71RAC. Uses measurement wheel P/N U45046. Made in the USA.

Part #	Description	Weight
U45054	Footage Counter	0.5 lbs.



## Durant® Footage Counter

This Durant® mechanical footage counter is left-hand drive and used on many Vactor® type trucks 1988 and newer. Also used on Vac-Con® type trucks. This counter is also known as P/N 31127408. Uses measurement wheel P/N U45046. Made in the USA.

Part #	Description	Weight
U45047	Footage Counter	0.5 lbs.



# Footage Wheel for Current Counters

This footage wheel is used on Vactor® and Vac-Con® sewer cleaning equipment where a Durant® counter used on the sewer level wind assembly. Equipped with an allen wrench for easy installation. Made in the USA.



Part #	Description	Weight
U45046	Footage Wheel	0.5 lbs.

# Footage Wheel

This footage wheel is used on 1987 and older Vactor® type sewer cleaning hose level wind assemblies using a Veedor Root Counter. Made in the USA.



Part #	Description	Weight
U40867	Footage Wheel	0.5 lbs.

# Blue Nylon Discharge Hose

Used for de-watering the debris tank on many style vacuum trucks.

Part #	Description
U29898	Bulk Hose (Per Foot)
U29898A	6" x 5'
U29898B	6" x 8'
U29898C	6" x 10'
U29898E	6" x 15'
U29898F	6" x 20'
U29898G	6" x 25'
U29898H	6" x 50'
U29898N	6" x 100'



# Throttle Cable

The throttle cable is of heavy duty construction, available in eight lengths. Used on many sewer cleaning trucks and trailers. Additional lengths upon request. Made in the USA.



Part #	Description	Weight
U44876-6	6' Throttle Cable	0.75 lbs.
U44876-8	8' Throttle Cable	1 lb.
U44876-10	10' Throttle Cable	1.25 lbs.
U44876-12	12' Throttle Cable	1.5 lbs.
U44876-14	14' Throttle Cable	1.75 lbs.
U44876-15	15' Throttle Cable	1.88 lbs.
U45440	18' Throttle Cable	2.25 lbs.
U44876-22	22' Throttle Cable	2.75 lbs.

# Adjustable Hydrant Spanner Wrench

The Adjustable Hydrant Spanner Wrench is just that. With a cast steel body and heavy-duty plated steel handle, this wrench is meant to last. Made in the USA.



Part #	Description	Weight
U-189	Adjustable Hydrant Wrench	3.7 lbs.

# 90° Handle Manhole Cover Hook

The 90° Manhole Cover Hook has a rotated handle from that of a standard hook. Manufactured using 5/8" hex heat-treated steel for strength, durability and extended life. Available in 18" and 30" lengths. Made in the USA.



Part #	Description	Weight
MHH-918	18" 90° Manhole Hook	2.6 lbs.
MHH-930	30" 90° Manhole Hook	4 lbs.

# Standard Handle Manhole Cover Hook

The Manhole Cover Hook is heavy-duty, manufactured using 5/8" hex heat-treated steel for strength, durability and extended life. Available in 18", 26" and 36" lengths. Made in the USA.



Part #	Description	Weight
MHH-18	18" Manhole Hook	3.74 lbs.
MHH-26	26" Manhole Hook	4 lbs.
MHH-36	36" Manhole Hook	5 lbs.

## Water Fill Hose Assembly

Water fill/hydrant hose assembly is available in bulk sizes. Listed below are the assemblies as shown. The assembly is available with a male and female end with two clamps on each end.



Part #	Description
U20720K-A	2 1/2" x 10'
U20720F-A	2 1/2" x 15'
U20720G-A	2 1/2" x 20'
U20720A-A	2 1/2" x 25'
U20720H-A	2 1/2" x 30'
U20720D-A	2 1/2" x 50'
U20720E-A	2 1/2" x 60'

## Water Fill Hose

Bulk Hose Only

Part #	Description
U20720K	2 1/2" x 10'
U20720F	2 1/2" x 15'
U20720G	2 1/2" x 20'
U20720A	2 1/2" x 25'
U20720H	2 1/2" x 30'
U20720D	2 1/2" x 50'
U20720E	2 1/2" x 60'
U20720Z	2 1/2" x 100'



### Male Coupling



Part # U20199A  
Size 2 1/2" Male Coupling

### Female Coupling



Part # U20199B  
Size 2 1/2" Female Coupling

### Female Coupling Gasket



Part # U41487  
Size 2 1/2" Female Gasket

### Hose Clamp



Part # U20695Z  
Size Clamp

# G2 - 1/8" Mini Penetrator Nozzles

G2-series Mini Penetrator nozzles are made of high-grade steel and coated with a black oxide finish for extended nozzle life. The G2-series features an outer under-cut ledge where the rear-facing jets are drilled into to prolong nozzle life and smooth, non-turbulent water flow for pressures up to 4000 PSI, ranging from 3 to 10 GPM. The G2 series nozzles have a 1/8" FPT connection with three-to-six rear facing jets and can be ordered with or without an optional front jet to maximize cleaning tasks, most notably in the plumbing industry. G2-series nozzles are in-stock ready for your specially-tailored needs.

## Specifications

Rear jet angle: 30°  
 Diameter: 5/8"  
 Length: 5/8"  
 Weight: .02 lbs.  
 Made in the USA.

Part #	Jet Description	GPM	PSI
G2-33	1 Front / 3 Rear Jets	3-4	Up to 4000
G2-34	1 Front / 4 Rear Jets	5-6	Up to 4000
G2-35	1 Front / 5 Rear Jets	7-8	2000-3000
G2-303	0 Front / 3 Rear Jets	3-4	Up to 4000
G2-304	0 Front / 4 Rear Jets	5-6	Up to 4000
G2-305	0 Front / 5 Rear Jets	7-8	2000-3000
G2-306	0 Front / 6 Rear Jets	9-10	2000-3000



# G0 - 1/4" Penetrator Nozzles

The G0-series Penetrator nozzles are made of high-grade steel and feature a black oxide finish for extended life. The G0 series nozzles have a 1/4" FPT connection with three-to-six rear facing jets and front jet to blast through blockages. The standard 15-degree rear-facing jets help penetrate through obstructions at pump pressures up to 4000 PSI, ranging from 3 to 10 GPM. G0-series nozzles are in-stock ready for your specially-tailored needs.

## Specifications

Rear jet angle: 15°  
 Diameter: 3/4"  
 Length: 1"  
 Weight: .06 lbs.  
 Made in the USA.

Part #	Jet Description	GPM	PSI
G0-13	1 Front / 3 Rear Jets	3-4	Up to 4000
G0-14	1 Front / 4 Rear Jets	5-6	Up to 4000
G0-15	1 Front / 5 Rear Jets	7-8	2000-3000
G0-16	1 Front / 6 Rear Jets	9-10	2000-3000





# G7 - 1/4" Radial Bullet Nozzles

G7-series Radial Bullet nozzles, manufactured in the USA, exhibit high-grade steel with a black oxide finish for an extended lifespan. The Radial Bullet nozzle is designed for general cleaning and efficient debris removal for pump pressures up to 4000 PSI, ranging from 3 to 10 GPM. The G7 series Radial Bullet nozzles have a 1/4" FPT connection and three-to-six rear-facing jets, dependent on GPM. Each nozzle can be ordered with or without an optional front jet. G7-series nozzles are in-stock ready for your specially-tailored needs.

## Specifications

Rear jet angle: 30° or 40°  
 Diameter: 3/4"  
 Length: 1"  
 Weight: .05 lbs.  
 Made in the USA.



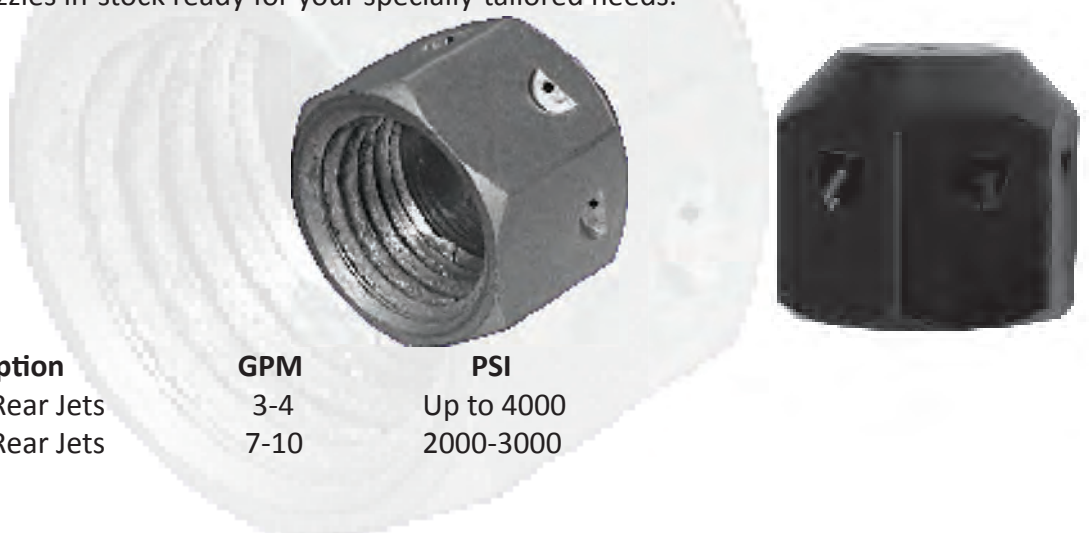
Part #	Jet Description	Rear Jet Degree	GPM	PSI
G7-33	1 Front / 3 Rear Jets	30°	3-4	Up to 4000
G7-34	1 Front / 4 Rear Jets	30°	5-6	Up to 4000
G7-35	1 Front / 5 Rear Jets	30°	7-8	2000-3000
G7-36	1 Front / 6 Rear Jets	30°	9-10	2000-3000
G7-45	1 Front / 5 Rear Jets	40°	7-8	2000-3000
G7-46	1 Front / 6 Rear Jets	40°	9-10	2000-3000
G7-303	0 Front / 3 Rear Jets	30°	3-4	Up to 4000
G7-304	0 Front / 4 Rear Jets	30°	5-6	Up to 4000
G7-306	0 Front / 6 Rear Jets	30°	9-10	2000-3000

# G9 - 1/4" Mustang Hex Nozzles

G9-series Mustang Hex nozzles were designed to exact specifications to the popular hex nozzle used on Mustang lateral jet machines. The hex is manufactured using high-grade steel with a black oxide finish for extended life. The G9 series nozzle, equipped with a 1/4" FPT connection, is great for general pipe cleaning with its three-to-six 40-degree rear jets with a front jet for penetrating blockages using pump pressures up to 4000 PSI, ranging from 3 to 10 GPM. G9-series nozzles in-stock ready for your specially-tailored needs.

## Specifications

Rear jet angle: 40°  
 Diameter: 3/4"  
 Length: 5/8"  
 Weight: .03 lbs.  
 Made in the USA.



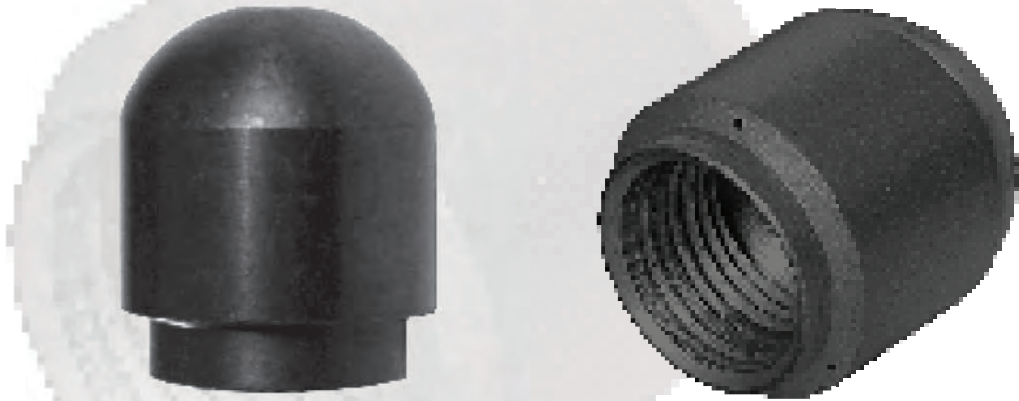
Part #	Jet Description	GPM	PSI
G9-43	1 Front / 3 Rear Jets	3-4	Up to 4000
G9-46	1 Front / 6 Rear Jets	7-10	2000-3000

# G5 - 3/8" Penetrator Nozzles

The G5-series Penetrator nozzles are made of high-grade steel and feature a black oxide finish for extended life. The G5 series nozzles have a 3/8" FPT connection with three-to-six rear facing jets and front jet to blast through blockages. The standard 15° rear-facing jets add greater thrust to help penetrate through obstructions at pump pressures up to 3000 PSI, ranging from 3 to 10 GPM. G5-series nozzles are in-stock ready for your specially-tailored needs.

## Specifications

Rear jet angle: 15°  
 Diameter: .950"  
 Length: 1 1/8"  
 Weight: .11 lbs.  
 Made in the USA.



Part #	Jet Description	GPM	PSI
G5-13	1 Front / 3 Rear Jets	3-4	2000-3000
G5-14	1 Front / 4 Rear Jets	5-6	2000-3000
G5-15	1 Front / 5 Rear Jets	7-8	2000-3000
G5-16	1 Front / 6 Rear Jets	9-10	2000-3000

# G8 - 3/8" Radial Button Nozzles

Using the same principles as the G7-series nozzles, the G8 Radial Bullet nozzle is designed for general cleaning and efficient debris removal for pump pressures up to 4000 PSI, ranging from 3 to 10 GPM. The G8 series Radial Bullet nozzles have a 3/8" FPT connection and three-to-six rear-facing jets, dependent on GPM. Each nozzle can be ordered with or without an optional front jet, though both are ready, in-stock for your specially-tailored needs.

## Specifications

Rear jet angle: 30° or 40°  
 Diameter: 7/8"  
 Length: 1 1/16"  
 Weight: .08 lbs.  
 Made in the USA.



Part #	Jet Description	Rear Jet Degree	GPM	PSI
G8-33	1 Front / 3 Rear Jets	30°	3-4	Up to 4000
G8-34	1 Front / 4 Rear Jets	30°	5-6	Up to 4000
G8-35	1 Front / 5 Rear Jets	30°	7-8	2000-3000
G8-36	1 Front / 6 Rear Jets	30°	9-10	2000-3000
G8-46	1 Front / 5 Rear Jets	40°	7-8	2000-3000
G8-303	0 Front / 3 Rear Jets	30°	3-4	Up to 4000
G8-304	0 Front / 4 Rear Jets	30°	5-6	Up to 4000
G8-306	0 Front / 5 Rear Jets	30°	7-8	2000-3000
G8-406	0 Front / 6 Rear Jets	40°	9-10	2000-3000
G8-403	0 Front / 3 Rear Jets	40°	3-4	Up to 4000

# RT-3 - 3/8" Typhoon Rotating Nozzle

RT-3 Typhoon rotating nozzle features stainless steel construction in the nozzle body and rotating drum. The RT-3 has six replaceable rear-facing 30° orifices and three 60° replaceable orifices in the rotator drum.

The RT-3 is an excellent nozzle for de-scaling and cutting grease, calcium and root fibers from a pipe's inner walls. Available with a 3/8" FPT connection, the RT-3 is available in 18 - 25 GPM, using up to 3000 PSI pump pressure. Requires use of a nozzle extension. Replacement jet orifices are available.

### Specifications

Rear jet angle: 30°  
 Diameter: 1 3/8"  
 Length: 3"  
 Weight: 1 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
RT-3	3/8"	Typhoon	30°	18 to 25	Up to 3000

# 1/2" Penetrator Nozzle

F1-Series Penetrator nozzle is manufactured using high-grade heat-treated steel construction with a black oxide finish, which together will insure a long-lasting life for the end-user.

The Penetrator has six rear-facing 45° jets and has a front base-tip jet to aid in blasting through blockages, as well as general cleaning needs. Using a 1/2" FPT connection, the Penetrator can generate up to 4000 PSI pump pressure at 8 to 25 GPM.

### Specifications

Rear jet angle: 45°  
 Diameter: 1 1/8"  
 Length: 3 1/8"  
 Weight: .25 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
F1-115	1/2"	Penetrator	45°	8 to 15	Up to 4000
F1-125	1/2"	Penetrator	45°	15 to 25	2000-3000

# 1/2" Penetrator Lance Tip Nozzle

F1-Series Penetrator Lance Tip nozzle is manufactured using high-grade heat-treated steel construction with a black oxide finish, which together will insure a long-lasting life for the end-user.

The Penetrator Lance Tip has six rear-facing 45° jets and has a front base-tip jet to aid in blasting through blockages. The Penetrator Lance Tip also features four side-body jets to impact grease, soap and scale build-up on pipe walls. Using a 1/2" FPT connection, the Penetrator can generate up to 4000 PSI pump pressure at 8 to 25 GPM.

### Specifications

Rear jet angle: 45°  
 Diameter: 1 1/8"  
 Length: 3 1/8"  
 Weight: .25 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
F1-1115	1/2"	Lance Tip Penetrator	45°	8 to 15	Up to 4000
F1-1125	1/2"	Lance Tip Penetrator	45°	15 to 25	2000-3000

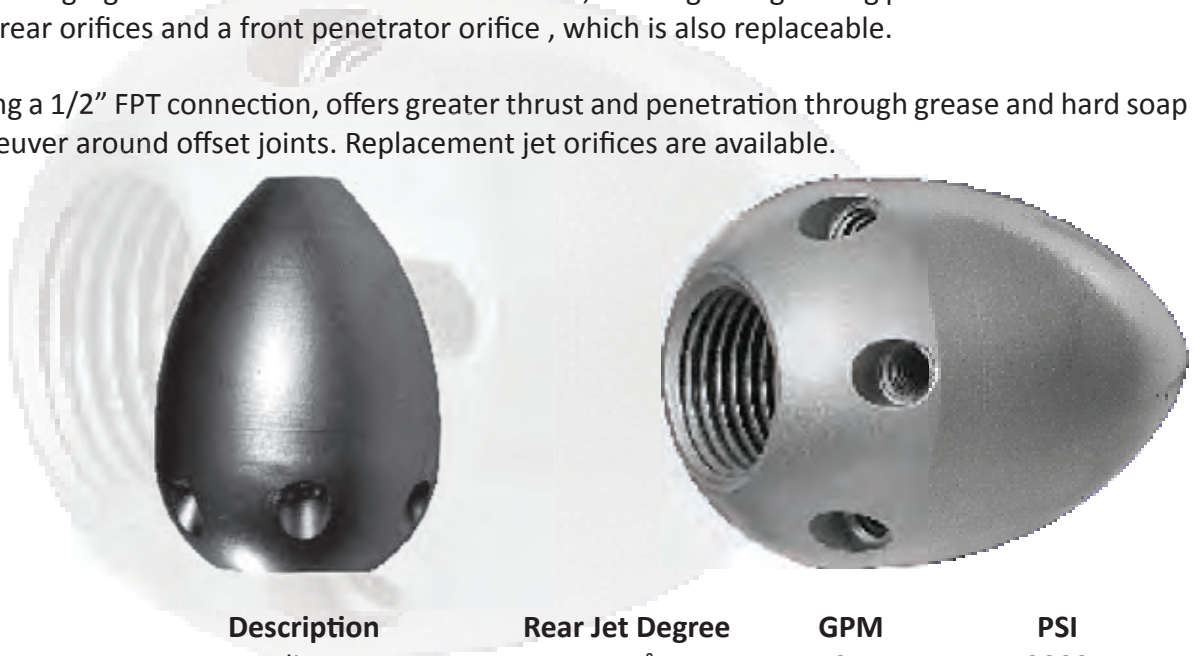
# 1/2" Ellipse Nozzle

Ellipse nozzle features high-grade heat-treated steel construction, insuring a long-lasting product life. This nozzle has six replaceable rear orifices and a front penetrator orifice, which is also replaceable.

This design, featuring a 1/2" FPT connection, offers greater thrust and penetration through grease and hard soap and can easily maneuver around offset joints. Replacement jet orifices are available.

### Specifications

Rear jet angle: 15°  
 Diameter: 1 3/4"  
 Length: 2 1/4"  
 Weight: 1 lb.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
AT136160	1/2"	Eclipse	15°	25	2000

# 1/2" Button Style Short Nozzle

F5-series Button style short nozzle range is constructed using high-grade, heat-treated steel with a black oxide finish for extended nozzle life. The F5 has six 45° rear jets and is available with or without a front jet. The F5 is great for general purpose cleaning in laterals and small diameter mainline pipe. Using a 1/2" FPT connection, F5 series is available in 8 to 35 GPM and up to 4000 PSI pump pressure. Requires use of a nozzle extension.

## Specifications

Rear jet angle: 45°  
 Diameter: 1 1/8"  
 Length: 1 5/8"  
 Weight: .25 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
F5-315	1/2"	Button Short w/ Front Jet	45°	8 to 15	Up to 4000
F5-315N	1/2"	Button Short w/o Front Jet	45°	8 to 15	Up to 4000
F5-325	1/2"	Button Short w/ Front Jet	45°	15 to 25	2000-3000
F5-325N	1/2"	Button Short w/o Front Jet	45°	15 to 25	2000-3000
F5-380	1/2"	Button Short w/ Front Jet	45°	30 to 35	2000-3000

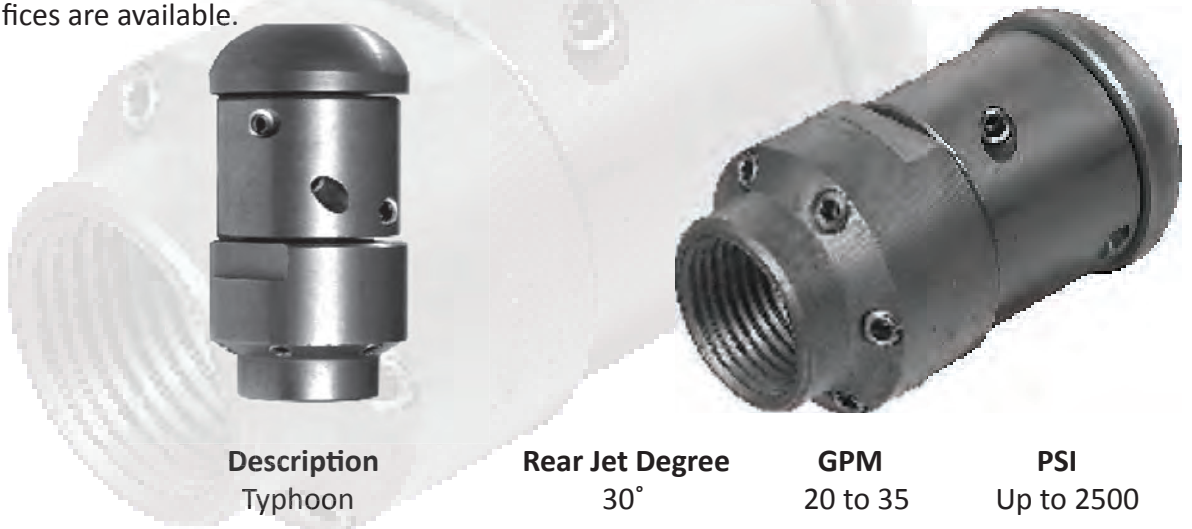
# 1/2" Typhoon Nozzle

RT-4 Typhoon rotating nozzle features stainless steel construction in the nozzle body and rotating drum. The RT-4 has six replaceable rear-facing 30° orifices and three replaceable 60° orifices in the rotator drum.

The RT-3 is an excellent nozzle for de-scaling and cutting grease, calcium and root fibers from a pipe's inner walls. Available with a 1/2" FPT connection, the RT-3 is available in 20 - 35 GPM, using up to 2500 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 30°  
 Diameter: 1 3/8"  
 Length: 2 5/8"  
 Weight: 1 lb.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
RT-4	1/2"	Typhoon	30°	20 to 35	Up to 2500

# 3/4" Radial Bullet Nozzle

E0-3 series Radial Bullet nozzle showcases high-grade heat-treated steel construction with a black oxide finish, which together extend product life. The E0-3 is equipped with six rear jets, available in either 18° or 35° varieties, and is available with or without a front jet. The E0-3 is great for forward thrust, while maintaining a consistent jet stream to clean pipe wall for 6" to 15" pipe. The E0-3 comes with a 3/4" FPT connection and is available for cleaning machines up to 40 GPM and up to 3000 PSI pump pressure.

### Specifications

Rear jet angle: 18 or 35°  
 Diameter: 1 5/8"  
 Length: 2 1/4"  
 Weight: .63 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
E0-335	3/4"	Radial Bullet (1 Front/6 Rear)	18°	35 to 40	Up to 1800
E0-335V	3/4"	Radial Bullet (1 Front/6 Rear Vac)	18°	35 to 40	Up to 3000
E0-3A35	3/4"	Radial Bullet (1 Front/6 Rear)	35°	35 to 40	Up to 1800
E0-3A35V	3/4"	Radial Bullet (1 Front/6 Rear Vac)	35°	35 to 40	Up to 3000
E0-3N35	3/4"	Radial Bullet (6 Rear)	18°	35 to 40	Up to 1800
E0-3N35V	3/4"	Radial Bullet (6 Rear Vac)	18°	35 to 40	Up to 3000
E0-3NA35	3/4"	Radial Bullet (6 Rear)	35°	35 to 40	Up to 1800
E0-3NA35V	3/4"	Radial Bullet (6 Rear Vac)	35°	35 to 40	Up to 3000

# 3/4" Radial Vortex Nozzle

E0-4 series Radial Vortex nozzle showcases high-grade heat-treated steel construction with a black oxide finish, which together extend product life. The E0-4 is equipped with six rear jets staggered at 18° and 24° with one front jet. The E0-4 is great for forward thrust, while maintaining a consistent jet stream to clean pipe wall for 6" to 15" pipe. The E0-4 comes with a 3/4" FPT connection and is available for cleaning machines up to 40 GPM and up to 3000 PSI pump pressure.

### Specifications

Rear jet angle: 18° and 24°  
 Diameter: 1 5/8"  
 Length: 2 1/4"  
 Weight: .63 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
E0-435	3/4"	Radial Vortex (1 Front/ 6 Rear)	18°/24°	35 to 40	Up to 1800
E0-435V	3/4"	Radial Vortex (1 Front/ 6 Rear Vac)	18°/24°	35 to 40	Up to 3000

# 3/4" Penetrator Nozzle

E2-3 Penetrator series nozzles are made of high-grade, heat-treated steel construction with black oxide finish for prolonged nozzle life. Each E2-3 has six rear 12° jets and one front-facing jet. The E2-3 is great for general pipe cleaning and breaking through clogs and plugged up pipe, most specifically in 6" to 18" pipe. Standard 3/4" FPT connection, and available for sewer cleaning machines up to 40 GPM and up to 3000 PSI pump pressure.

**Specifications**

Rear jet angle: 12°  
 Diameter: 1 5/8"  
 Length: 3 7/8"  
 Weight: .83 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
E2-335	3/4"	Penetrator (1 Front/6 Rear)	12°	35 to 40	Up to 1800
E2-335V	3/4"	Penetrator (1 Front/6 Rear)	12°	35 to 40	3000

# 3/4" Penetrator Lance Tip Nozzle

E2-13 Penetrator Lance Tip series nozzles are made of high-grade, heat-treated steel construction with black oxide finish for prolonged nozzle life. Each E2-13 has six rear 12° jets, four side jets and one front-facing jet. The E2-13 is great for general pipe cleaning and breaking through clogs and plugged up pipe, most specifically in 6" to 12" pipe. Standard 3/4" FPT connection, and available for sewer cleaning machines up to 40 GPM and up to 3000 PSI pump pressure.

**Specifications**

Rear jet angle: 12°  
 Diameter: 1 5/8"  
 Length: 3 7/8"  
 Weight: .83 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
E2-1335	3/4"	Lance Tip Penetrator	12°	35 to 40	Up to 1800
E2-1335V	3/4"	Lance Tip Penetrator	12°	35 to 40	3000

# 3/4" Typhoon Nozzle

RT-6 Typhoon nozzle has a stainless steel nozzle body and rotator drum with six replaceable 30° rear orifices and three 60° replaceable orifices in the rotator drum. An excellent nozzle for de-scaling and cutting grease, calcium and root fibers from pipe walls in 6" to 18' pipe walls. The RT-6, equipped with a 3/4" FPT connection, is available for sewer cleaning machines up to 55 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available. Requires use of a nozzle extension.

## Specifications

Rear jet angle: 30°  
Diameter: 2"  
Length: 4"  
Weight: 1.75 lbs.  
Made in the USA



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
RT-6651	3/4"	Typhoon	30°	55	1675 to 2000
RT-6652	3/4"	Typhoon	30°	55	1675 to 2000



# 1" Radial Bullet Nozzle

A4-2 Radial Bullet series nozzle is constructed of high-grade, heat-treated steel and finished with a black oxide coating, which together ensure prolonged nozzle life. The A4-2 nozzle has six rear-facing jets a either 18° or 30° and is available with or without a front jet. The A4-2 nozzle is great for general pipe cleaning in 6" to 18" pipe. The A4-2, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure.

## Specifications

Rear jet angle: 18° or 30°

Diameter: 1 7/8"

Length: 3 3/4"

Weight: 1.2 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
A4-245-3000	1"	Radial Bullet (1 Front/ 6 Rear)	18°	45	3000
A4-250-3000	1"	Radial Bullet (1 Front/ 6 Rear)	18°	50	3000
A4-260	1"	Radial Bullet (1 Front/ 6 Rear)	18°	60	2000
A4-280	1"	Radial Bullet (1 Front/ 6 Rear)	18°	80	2000
A4-2A45	1"	Radial Bullet (1 Front/ 6 Rear)	30°	45	2000
A4-2A50-3000	1"	Radial Bullet (1 Front/ 6 Rear)	30°	50	3000
A4-2A60	1"	Radial Bullet (1 Front/ 6 Rear)	30°	60	2000
A4-2A80	1"	Radial Bullet (1 Front/ 6 Rear)	30°	80	2000
A4-2N45	1"	Radial Bullet (6 Rear)	18°	45	2000
A4-2N50-3000	1"	Radial Bullet (6 Rear)	18°	50	3000
A4-2N60	1"	Radial Bullet (6 Rear)	18°	60	2000
A4-2N80	1"	Radial Bullet (6 Rear)	18°	80	2000
A4-2NA45	1"	Radial Bullet (6 Rear)	30°	45	2000
A4-2NA50-3000	1"	Radial Bullet (6 Rear)	30°	50	3000
A4-2NA60	1"	Radial Bullet (6 Rear)	30°	60	2000
A4-2NA80	1"	Radial Bullet (6 Rear)	30°	80	2000

# 1" Radial Vortex Nozzle

A5-1 series Radial Vortex nozzle showcases high-grade heat-treated steel construction with a black oxide finish, which together extend product life. The A5-1 is equipped with six rear jets staggered at 18° and 24° with one front jet. The A5-1 is great for forward thrust, while maintaining a consistent jet stream to clean pipe wall for 6" to 18" pipe. The A5-1 comes with a 1" FPT connection and is available for cleaning machines up to 80 GPM and up to 3000 PSI pump pressure.

## Specifications

Rear jet angle: 18° and 24°  
 Diameter: 1 7/8"  
 Length: 3 3/4"  
 Weight: .63 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
A5-145	1"	Radial Vortex (1 Front/ 6 Rear)	18°/24°	45	2000
A5-150-3000	1"	Radial Vortex (1 Front/ 6 Rear)	18°/24°	50	3000
A5-160	1"	Radial Vortex (1 Front/ 6 Rear)	18°/24°	60	2000
A5-180	1"	Radial Vortex (1 Front/ 6 Rear)	18°/24°	80	2000

# 1" Penetrator Nozzle

A3-1 Penetrator nozzle showcases high-grade heat-treated steel construction with a black oxide finish, which together extend product life. The A3-1 is equipped with six rear 12° jets with one front jet. The A3-1 is great for general pipe cleaning and breaking through clogs and plugged up 6" to 18" pipe. The A3-1 is available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure.

## Specifications

Rear jet angle: 12°  
 Diameter: 2"  
 Length: 4 1/2"  
 Weight: 1.6 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
A3-145	1"	Penetrator (1 Front/ 6 Rear)	12°	35 to 45	1675 to 2000
A3-150	1"	Penetrator (1 Front/ 6 Rear)	12°	50	1675 to 2000
A3-160	1"	Penetrator (1 Front/ 6 Rear)	12°	60 to 65	1675 to 2000
A3-160-3000	1"	Penetrator (1 Front/ 6 Rear)	12°	60	3000
A3-180	1"	Penetrator (1 Front/ 6 Rear)	12°	80	1675 to 2000

# 1" Penetrator Lance Tip Nozzle

A3-12 Penetrator Lance Tip nozzle showcases high-grade heat-treated steel construction with a black oxide finish, which together extend product life. The A3-12 is equipped with six rear 12° jets, one front jet and four side jets. The A3-12 is great for breaking up and penetrating through blockages in 6" to 12" pipe. The A3-12, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure.

## Specifications

Rear jet angle: 12°  
 Diameter: 2"  
 Length: 4 1/2"  
 Weight: 1.6 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
A3-1260	1"	Lance Tip Penetrator	12°	60 to 65	1675 to 2000
A3-1280	1"	Lance Tip Penetrator	12°	80	1675 to 2000

# 1" Ellipse Nozzle

Ellipse nozzle features high-grade heat-treated steel construction with a black oxide finish, insuring a long-lasting product life. This nozzle has eight replaceable rear orifices and a front penetrator orifice, which is also replaceable.

This design offers greater thrust and penetration through grease and hard soap and can easily maneuver around offset joints. Designed for use in 6" to 12" pipe, the Ellipse, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 2500 PSI pump pressure.

## Specifications

Rear jet angle: 15°  
 Diameter: 2 3/8"  
 Length: 3"  
 Weight: 2.7 lbs.  
 Made in the USA.



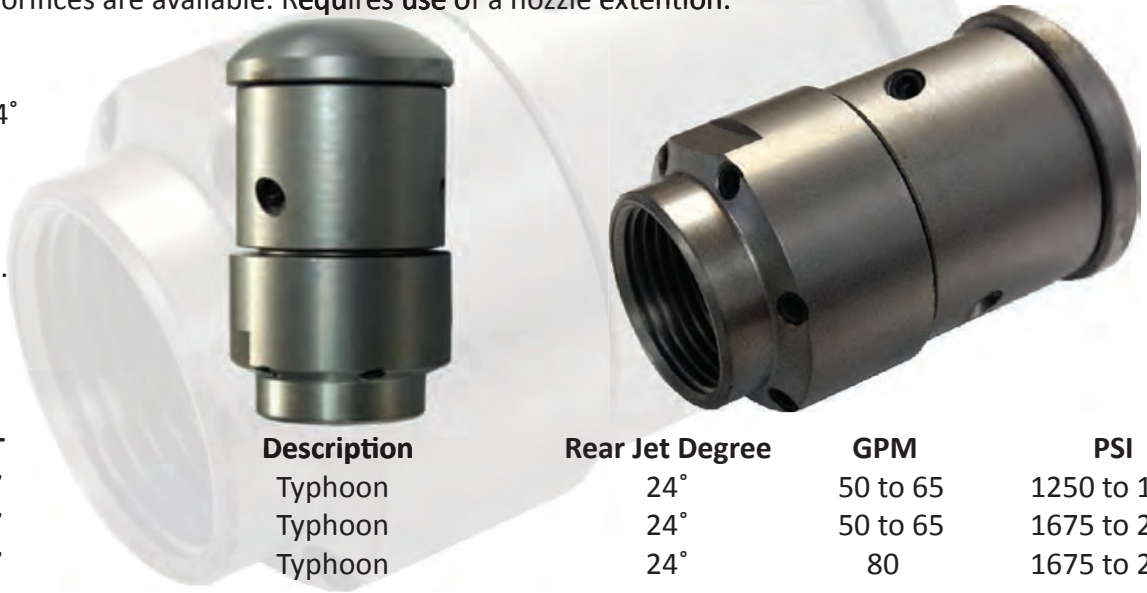
Part #	FPT	Description	Rear Jet Degree	GPM	PSI
AT136150	1"	Ellipse	15°	60	2000
AT136150-80	1"	Ellipse	15°	80	2500

# 1" Typhoon Nozzle

Typhoon nozzle is manufactured using stainless steel for the nozzle body and rotating drum. This nozzle has six 24° rear replaceable orifices and three 60° replaceable orifices in the rotating drum. This is an excellent nozzle for de-scaling and cutting grease, calcium and root fibers from the inner walls of 8" to 24" pipe. The Typhoon is available for sewer cleaning machines up to 80 GPM and up to 2000 PSI pump pressure. Replacement jet orifices are available. **Requires use of a nozzle extension.**

## Specifications

Rear jet angle: 24°  
 Diameter: 2"  
 Length: 3 3/8"  
 Weight: 1.75 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
RT-8651	1"	Typhoon	24°	50 to 65	1250 to 1675
RT-8652	1"	Typhoon	24°	50 to 65	1675 to 2000
RT-8802	1"	Typhoon	24°	80	1675 to 2000

# 1" Sanitary Nozzle

Sanitary nozzle has a high-grade, heat-treated steel body with a black oxide coating, which coupled-together ensures a long lifespan for the nozzle. The Sanitary nozzle has six rear jets at either 15° or 30°, depending on the type. The nozzles was designed for general cleaning of sand, small stones and scum in 6" to 18" pipe. The Sanitary nozzle, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 2000 PSI pump pressure.

## Specifications

Rear jet angle: 15° or 30°  
 Diameter: 2 1/8"  
 Length: 3 1/2"  
 Weight: 1.75 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
U29343-A2	1"	Sanitary	30°	60	1675 to 2000
U29343-B2	1"	Sanitary	30°	50	1675 to 2000
U29343-C	1"	Sanitary	30°	80	1675 to 2000
U44233-A2	1"	Sanitary	15°	60	1675 to 2000
U44233-B2	1"	Sanitary	15°	50	1675 to 2000

# 1" Steel Sand Nozzle

Steel Sand nozzle features high-grade heat-treated steel construction with a black oxide finish, insuring a long-lasting product life. This nozzle has six rear-facing 12° jets and two front jets to blast through obstructions such as sand, organics and grease in 6" to 15" pipe.

This nozzle, featuring a 1" FPT connection, is designed for use in sewer cleaning machines up to 80 GPM and up to 2000 PSI pump pressure.

## Specifications

Rear jet angle: 12°  
 Diameter: 2"  
 Length: 2 7/8"  
 Weight: 1 lb.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
B5-180	1"	Steel/Sand	12°	80	1675 to 2000
U40585	1"	Steel/Sand	12°	52	2000
U44234	1"	Steel/Sand	12°	60	2000

# 1 1/4" Radial Bullet Nozzle

B1-series Radial Bullet nozzle is made of high-grade, heat-treated steel, finished with a black oxide coating, which coupled together ensures a long lasting nozzle. The B-1 range exhibits six rear jets at 18° or 35° and with or without a front jet.

The Radial Bullet, using a 1 1/4" FPT connection, is designed for general pipe cleaning in 6" to 24" pipe and is available for sewer cleaning machines up to 80 GPM and up to 2000 PSI pump pressure.

## Specifications

Rear jet angle: 12°

Diameter: 2"

Length: 2 7/8"

Weight: 1 lb.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
B1-15	1 1/4"	Radial Bullet w/ Front Jet 1F/6R	18°	50	2000
B1-18	1 1/4"	Radial Bullet w/ Front Jet 1F/6R	18°	80	2000
B1-1N5	1 1/4"	Radial Bullet w/o Front Jet 6Rear	18°	50	2000
B1-1N8	1 1/4"	Radial Bullet w/o Front Jet 6Rear	18°	80	2000
B1-25	1 1/4"	Radial Bullet w/ Front Jet 1F/6R	35°	50	2000
B1-28	1 1/4"	Radial Bullet w/ Front Jet 1F/6R	35°	80	2000
B1-2N5	1 1/4"	Radial Bullet w/o Front Jet 6Rear	35°	50	2000
B1-2N8	1 1/4"	Radial Bullet w/o Front Jet 6Rear	35°	80	2000

# 1" Tungsten Carbide General Purpose Nozzle

Tungsten Carbide General Purpose nozzle has a high-grade, heat-treated steel body with a black oxide coating, which coupled-together ensures a long lifespan for the nozzle. This nozzle, featuring a 1" FPT connection, has six rear-facing 30° tungsten carbide orifices, which do a great job of cleaning out any solids at the bottom of 8" to 30" pipe.

The tungsten carbide orifices maintain water jet flow calibration and efficiency for the life of the nozzle. This equates to efficient use of water, energy and time while maintaining a water collection or sewer system. It is available for sewer cleaning machines up to 80 GPM and up to 2500 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 30°  
 Diameter: 3 1/4"  
 Length: 6 3/4"  
 Weight: 5.8 lbs.

Part #	FPT	Description	GPM	PSI
U58929BFB	1"	General Purpose	60	2000
U58929BJB	1"	General Purpose	80	2000
U58929BJC	1"	General Purpose	80	2500



# 1" Tungsten Carbide Sanitary Nozzle

Tungsten Carbide Sanitary Nozzle is manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This high performance nozzle has six replaceable tungsten steel carbide orifices, which help maintain top flow and calibration of the water jets for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

A great nozzle choice for general cleaning of 4" to 18" pipe. Manufactured in both 15° and 30° styles, the nozzle, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 2500 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 15° or 30°  
 Diameter: 2 1/8"  
 Length: 4 1/4"  
 Weight: 2.4 lbs.  
 Made in the USA.

Part #	FPT	Description	Rear Jet Degree	GPM	PSI
U58756BDC	1"	Tungsten Carbide Sanitary	30°	60	2000
U58756BEB	1"	Tungsten Carbide Sanitary	30°	55	2000
U58756BFB	1"	Tungsten Carbide Sanitary	30°	60	2000
U58756BFC	1"	Tungsten Carbide Sanitary	30°	60	2500
U58756BGB	1"	Tungsten Carbide Sanitary	30°	65	2000
U58756BJB	1"	Tungsten Carbide Sanitary	30°	80	2000
U58756BJC	1"	Tungsten Carbide Sanitary	30°	80	2500
U60306BFB	1"	Tungsten Carbide Sanitary	15°	60	2000
U60306BFC	1"	Tungsten Carbide Sanitary	15°	60	2500
U60306BGB	1"	Tungsten Carbide Sanitary	15°	65	2000
U60306BJB	1"	Tungsten Carbide Sanitary	15°	80	2000



# 1" Tungsten Carbide Penetrator Nozzle

Tungsten Carbide Penetrator Nozzle is manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This high performance nozzle has six replaceable tungsten steel carbide orifices and one front replaceable tungsten steel carbide orifice, which helps maintain top flow and calibration of the water jets for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

A great nozzle for unblocking plugged 4" to 18" pipe containing sand, dirt or grease. Manufactured in both 15° or 30° configurations; the nozzle, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 2500 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 15° or 30°

Diameter: 2 1/8"

Length: 4 1/4"

Weight: 2.4 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
U58927BDB	1"	Tungsten Carbide Penetrator	30°	50	2000
U58927BDC	1"	Tungsten Carbide Penetrator	30°	50	2500
U58927BFB	1"	Tungsten Carbide Penetrator	30°	60	2000
U58927BFC	1"	Tungsten Carbide Penetrator	30°	60	2500
U58927BGC	1"	Tungsten Carbide Penetrator	30°	65	2500
U58927BJB	1"	Tungsten Carbide Penetrator	30°	80	2000
U60308BFB	1"	Tungsten Carbide Penetrator	15°	60	2000
U60308BGB	1"	Tungsten Carbide Penetrator	15°	65	2000
U60308BJB	1"	Tungsten Carbide Penetrator	15°	80	2000



# 1" Tungsten Carbide Sand Nozzle

Tungsten Carbide Sand Nozzle is manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This high performance nozzle has six 15° or 30° replaceable tungsten steel carbide orifices and two outward-angled front replaceable tungsten steel carbide orifices, which help maintain top flow and calibration of the water jets for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

A great nozzle for blasting through sand, dirt and gravel build-ups and blasting the particles back to the manhole in 4" to 18" pipe. This nozzle, featuring a 1" FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 2500 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 15° or 30°

Diameter: 2 1/8"

Length: 5"

Weight: 2.5 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
U58926BJB	1"	Tungsten Carbide Sand	30°	80	2000
U58926BJC	1"	Tungsten Carbide Sand	30°	80	2500
U60307BFB	1"	Tungsten Carbide Sand	15°	60	2000
U60307BFC	1"	Tungsten Carbide Sand	15°	60	2500
U60307BGB	1"	Tungsten Carbide Sand	15°	65	2000
U60307BHC	1"	Tungsten Carbide Sand	15°	70	2500
U60307BIC	1"	Tungsten Carbide Sand	15°	75	2500
U60307BJB	1"	Tungsten Carbide Sand	15°	80	2000
U60307BJC	1"	Tungsten Carbide Sand	15°	80	2500

# 3/4" Hustler Grenade Nozzle

3/4" Hustler Grenade Nozzle is manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This premium, high-performance nozzle is of European design, consisting of eight rear alternating replaceable jets at 10° and 30°. This nozzle is available with or without a front replaceable jet. All replaceable jet orifices are manufactured from tungsten carbide, which maintains top flow, efficiency and calibration of the water jetting for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

This nozzle, featuring a 3/4" FPT connection, is extremely effective in cleaning moderate sand, soil and organics in 6" to 15" pipe. It is readily available for sewer cleaning machines up to 50 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

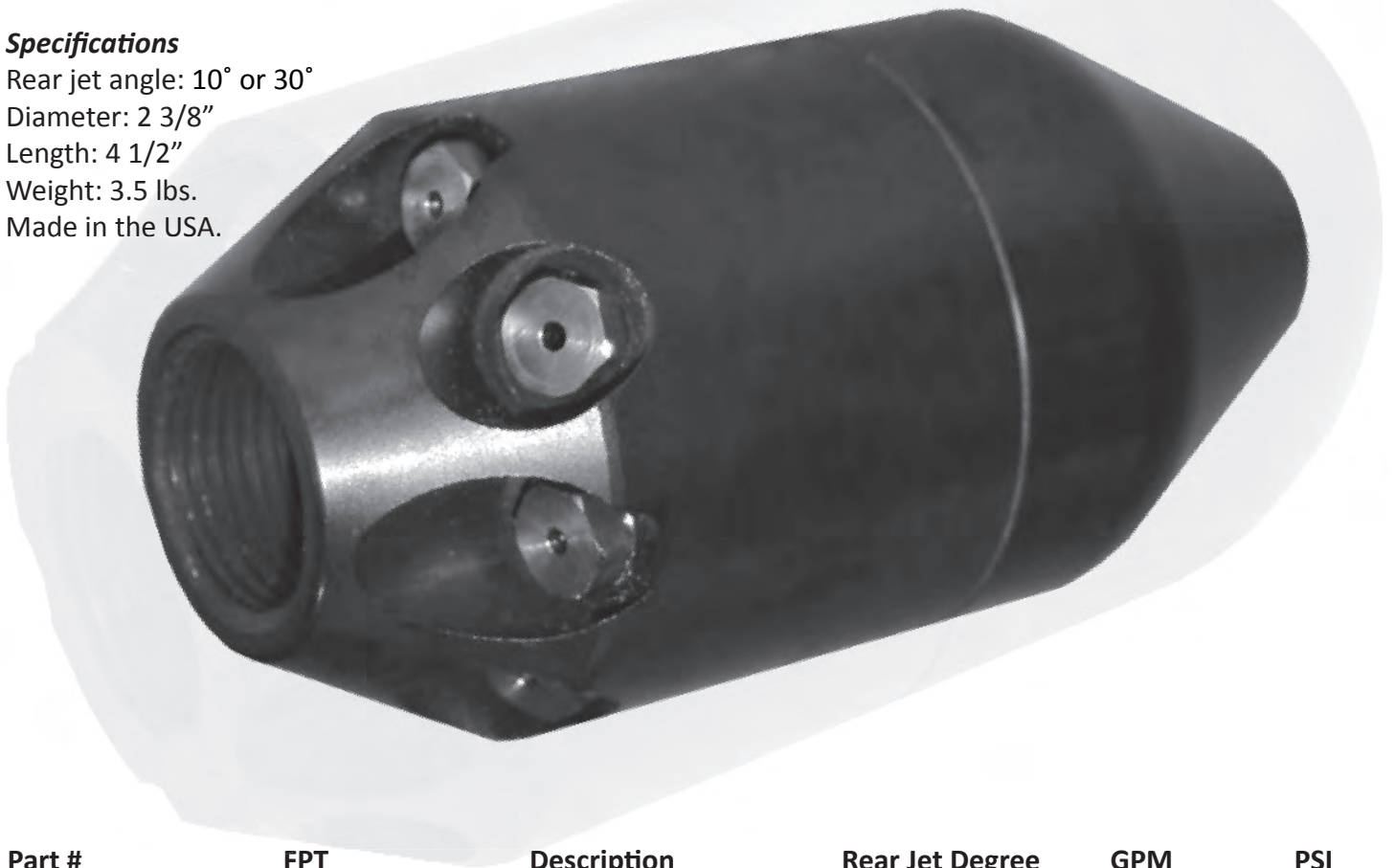
Rear jet angle: 10° or 30°

Diameter: 2 3/8"

Length: 4 1/2"

Weight: 3.5 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UEZ40.075.30	3/4"	Hustler Grenade	10° and 30°	30	3000
UEZ40.075.32	3/4"	Hustler Grenade w/Front Jet	10° and 30°	35	2000
UEZ40.075.40	3/4"	Hustler Grenade	10° and 30°	40	2000
UEZ40.075.40FJ	3/4"	Hustler Grenade w/Front Jet	10° and 30°	40	2000
UEZ40.075.50	3/4"	Hustler Grenade	10° and 30°	50	3000
UEZ40.075.65	3/4"	Hustler Grenade	10° and 30°	65	2000

# 1" Hustler Grenade Nozzle

1" Hustler Grenade Nozzle is manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This premium, high-performance nozzle is of European design, consisting of ten rear alternating replaceable jets at 10° and 30°. This nozzle is also available with or without a front replaceable jet. All replaceable jet orifices are manufactured from tungsten carbide, which maintains top flow, efficiency and calibration of the water jetting for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

This nozzle, featuring a 1" FPT connection, is extremely effective in cleaning moderate sand, soil and organics in 6" to 21" pipe. It is readily available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

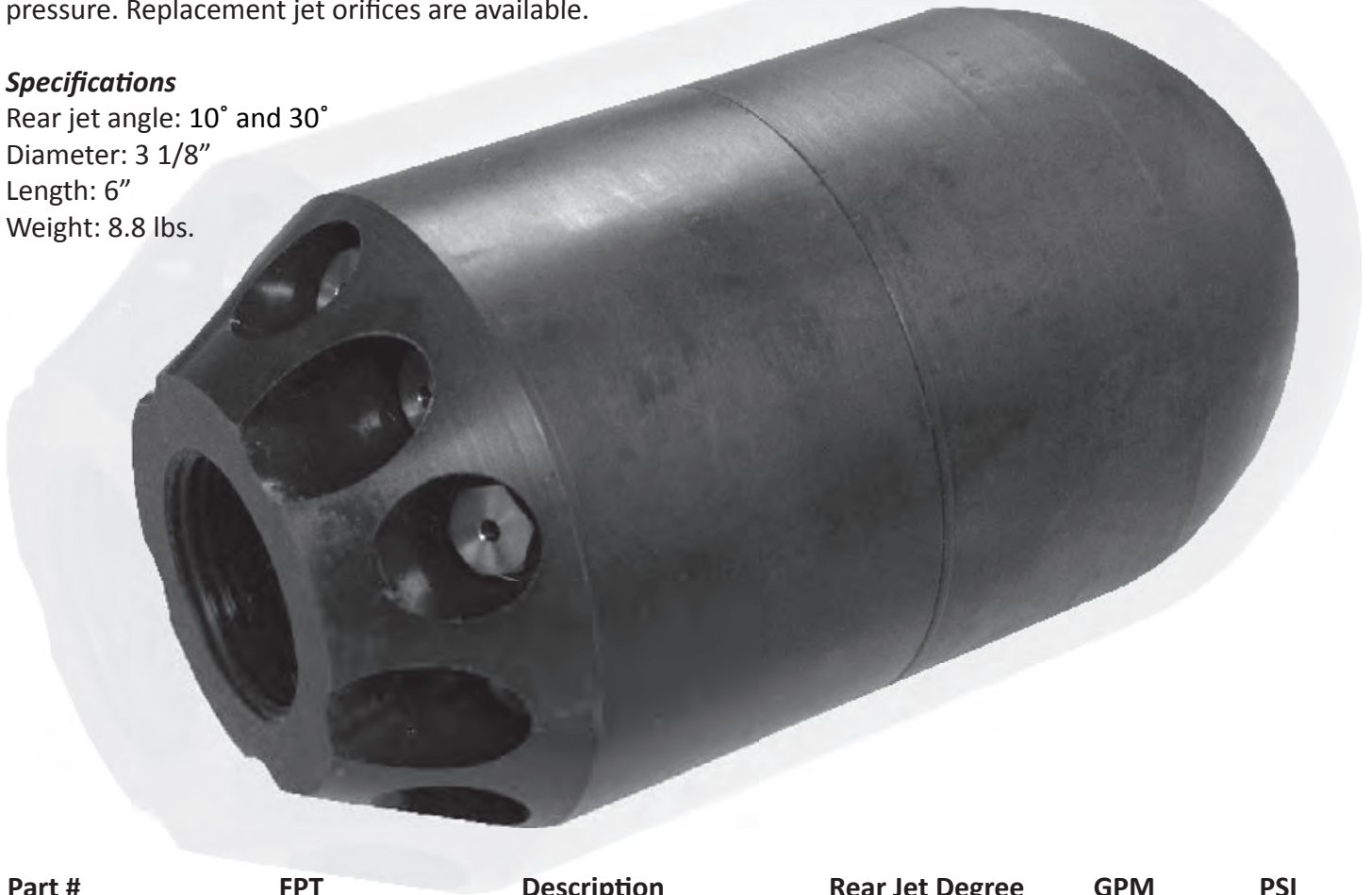
## Specifications

Rear jet angle: 10° and 30°

Diameter: 3 1/8"

Length: 6"

Weight: 8.8 lbs.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UEZ40.100.50	1"	Hustler Grenade	10° and 30°	50	3000
UEZ40.100.60	1"	Hustler Grenade	10° and 30°	60	2000
UEZ40.100.80	1"	Hustler Grenade	10° and 30°	80	2000
UEZ40.100A	1"	Hustler Grenade	10° and 30°	65	2000
UEZ40.100FJ	1"	Hustler Grenade w/Front Jet	10° and 30°	60	2000
UEZ40.100FJ.50	1"	Hustler Grenade w/Front Jet	10° and 30°	50	3000
UEZ40.100FJ.80	1"	Hustler Grenade w/Front Jet	10° and 30°	80	2000

# 3/4" and 1" Hustler Chisel Nozzles

3/4" and 1" Hustler Chisel range of nozzles are manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This premium, high-performance chisel-point nozzle is of European design, consisting of one leading tip, six rear, and four front-facing (five for the UEZ60.100L) replaceable tungsten carbide jet orifices. This nozzle is available with or without a front replaceable jet for both nozzle body sizes. All replaceable jet orifices are manufactured from tungsten carbide, which maintains top flow, efficiency and calibration of the water jetting for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

The UEZ60.075 3/4" FPT and the UEZ60.100 1" FPT Hustler Chisel Nozzles are great at penetrating through all kinds of blockages with its sharp edges. The four front piercing jets will open root masses, grease plugs and even sand and gravel blockages. The UEZ60.100L 1" FPT Hustler Chisel Nozzel is massive for a reason; the extra weight and length allow it to stick to the bottom of the pipe for best effective cleaning and penetration of blockages. Replacement jet orifices are available.

## Specifications

	<b>UEZ60.075</b>	<b>UEZ60.100</b>	<b>UEZ60.100L</b>
<b>Front jet angle:</b>	1 @ 0°, 3 @ 15°	1 @ 0°, 3 @ 15°	1 @ 0°, 4 @ 15°
Rear jet angle:	25°	25°	25°
Diameter:	1 1/2"	2"	2 3/4"
Length:	3 1/4"	3 5/8"	7 1/2"
Weight:	1.15 lbs.	1.5 lbs.	5.75 lbs.
Recommended Pipe Size	4" to 12"	6" to 15"	6" to 18"
Made in the USA.			

<b>Part #</b>	<b>FPT</b>	<b>Description</b>	<b>GPM</b>	<b>PSI</b>
UEZ60.075.30	3/4"	Hustler Chisel (4 Front/ 6 Rear)	30	3000
UEZ60.075.40	3/4"	Hustler Chisel (4 Front/ 6 Rear)	40	2000
UEZ60.075.50	3/4"	Hustler Chisel (4 Front/ 6 Rear)	50	3000
UEZ60.100.40	1"	Hustler Chisel (4 Front/ 6 Rear)	40	3000
UEZ60.100.50	1"	Hustler Chisel (4 Front/ 6 Rear)	50	3000
UEZ60.100.55	1"	Hustler Chisel (4 Front/ 6 Rear)	55	3000
UEZ60.100.60	1"	Hustler Chisel (4 Front/ 6 Rear)	60	2000
UEZ60.100.60.3	1"	Hustler Chisel (4 Front/ 6 Rear)	60	3000
UEZ60.100.65	1"	Hustler Chisel (4 Front/ 6 Rear)	65	3000
UEZ60.100.65.2	1"	Hustler Chisel (4 Front/ 6 Rear)	65	2000
UEZ60.100.80	1"	Hustler Chisel (4 Front/ 6 Rear)	80	2000
UEZ60.100.80.3	1"	Hustler Chisel (4 Front/ 6 Rear)	80	3000
UEZ60.100L	1"	Hustler Chisel (Large) (5 Front/ 6 Rear)	60	2000
UEZ60.100L-50	1"	Hustler Chisel (Large) (5 Front/ 6 Rear)	50	3000
UEZ60.100L-65	1"	Hustler Chisel (Large) (5 Front/ 6 Rear)	65	2000
UEZ60.100L-80	1"	Hustler Chisel (Large) (5 Front/ 6 Rear)	80	2000

## ***3/4" and 1" Hustler Chisel Nozzles***



**UEZ60.075**



**UEZ60.100**



**UEZ60.100L**

# 3/4" and 1" Hustler Standard Cleaning Nozzles

3/4" and 1" Hustler Standard Cleaning Nozzle range is manufactured using high-grade, heat-treated steel coupled with a zinc oxide coating, which together help prolong nozzle life. This premium, high-performance nozzle is of European design, consisting of six (3/4") and eight (1") alternating replaceable 30° jets. This nozzle is available with or without a front replaceable jet for both nozzle body sizes. All replaceable jet orifices are manufactured from tungsten carbide, which maintains top flow, efficiency and calibration of the water jetting for the life of the nozzle. This equals efficient use of water, energy and time in maintaining a sewage or water collection system.

The nozzle range, which features both 3/4" and 1" FPT connection, is extremely effective in cleaning out solids in 4" to 15" pipe for the 3/4" nozzle and 4" to 18" pipe for the 1" nozzle range. It is readily available for sewer cleaning machines up to 50 GPM and up to 3000 PSI pump pressure for the 3/4" range and up to 80 GPM and up to 3000 PSI. Replacement jet orifices are available. Made in the USA.

## Specifications

Rear jet angle: 30°

Diameter: 1 1/2" (3/4")      1 7/8" (1")

Length: 2 1/2" (3/4")      3 1/2" (1")

Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UEZ30.075.30	3/4"	Hustler Cleaning	30°	30	3000
UEZ30.075.40	3/4"	Hustler Cleaning	30°	40	3000
UEZ30.075.50	3/4"	Hustler Cleaning	30°	50	3000
UEZ30.100	1"	Hustler Cleaning	30°	60	2000
UEZ30.100.50	1"	Hustler Cleaning	30°	50	3000
UEZ30.100.65	1"	Hustler Cleaning	30°	65	3000
UEZ30.100.65.2	1"	Hustler Cleaning	30°	65	2000
UEZ30.100.80	1"	Hustler Cleaning	30°	80	2000
UEZ30.100.80.3	1"	Hustler Cleaning	30°	80	3000



UEZ30.100 Series



UEZ30.075 Series

# 3/4" Aluminum Grease Nozzle

3/4" FPT Aluminum Grease nozzle is machined from T6061-T6 aluminum for strength and lightness in order to impact pipe blockages. Designed to exert great velocity, the Aluminum Grease nozzle is able to flush obstacles out of the pipe to a manhole for removal.

This nozzle has six replaceable 17° rear jets and one replaceable front jet to help penetrate problematic blockages in 6" to 15" pipe. It is readily available for sewer cleaning machines up to 40 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 17°  
 Diameter: 2 1/2"  
 Length: 8 1/4"  
 Weight: 2 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
E9-135 / E9-135V	3/4"	Aluminum Grease (1 Front/ 6 Rear)	17°	35 to 40	Up to 3000

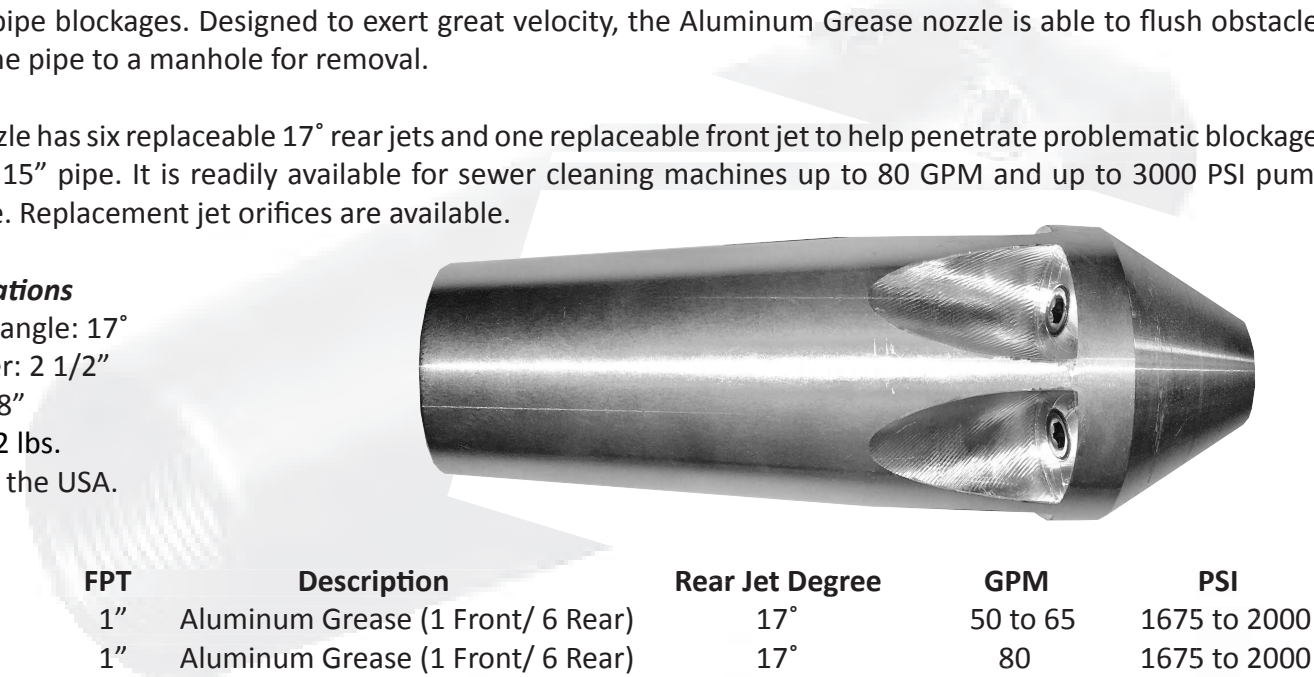
# 1" Aluminum Grease Nozzle

1" FPT Aluminum Grease nozzle is machined from T6061-T6 aluminum for strength and lightness in order to impact pipe blockages. Designed to exert great velocity, the Aluminum Grease nozzle is able to flush obstacles out of the pipe to a manhole for removal.

This nozzle has six replaceable 17° rear jets and one replaceable front jet to help penetrate problematic blockages in 6" to 15" pipe. It is readily available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 17°  
 Diameter: 2 1/2"  
 Length: 8"  
 Weight: 2 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
B8-360	1"	Aluminum Grease (1 Front/ 6 Rear)	17°	50 to 65	1675 to 2000
B8-380	1"	Aluminum Grease (1 Front/ 6 Rear)	17°	80	1675 to 2000

# #10 Aluminum Storm Nozzle

#10 Aluminum Storm nozzle was originally designed for use in Vector® style machines, and it's nickname, '#10,' came from its great ability to clean 10" and larger storm and sanitary pipe of sand and detergent build-up. #10 is manufactured from cast aluminum with eight rear replaceable stainless steel jet orifices at 24°.

#10 works best in 10" to 18" pipe on sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 24°  
 Diameter: 4.25"  
 Length: 5"  
 Weight: 3.5 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
U36058A260	1"	#10 Aluminum Storm	24°	50 to 65	1675 to 2000
U36058A280	1"	#10 Aluminum Storm	24°	80	1675 to 2000
U36058A350	1"	#10 Aluminum Storm	24°	50 to 65	3000

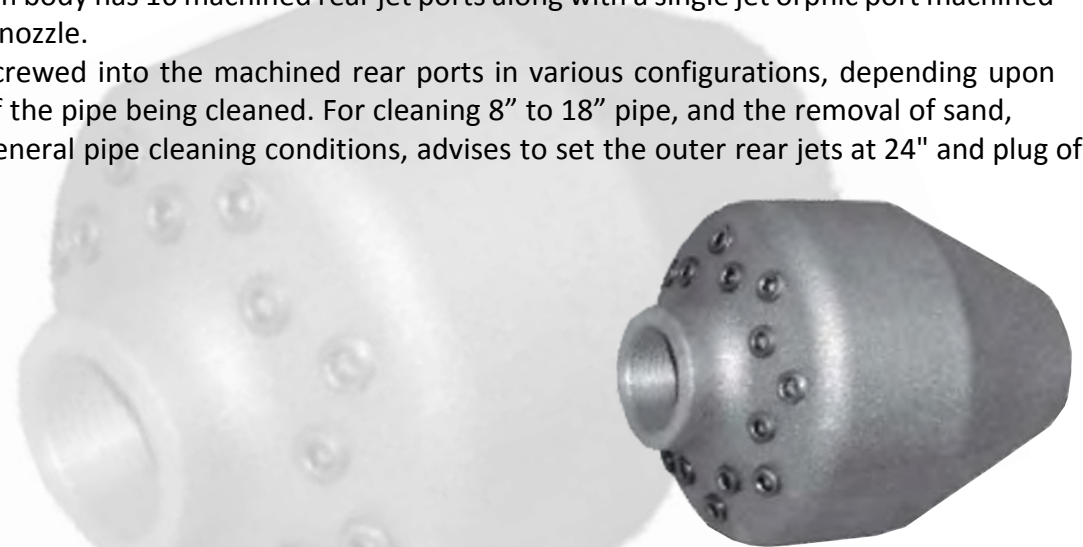
# Aluminum Sand and Sludge Nozzle

Aluminum Sand and Sludge Nozzle has been redesigned for greater cleaning efficiency and casting integrity. The nozzle's cast aluminum body has 16 machined rear jet ports along with a single jet orific port machined into the front nose of the nozzle.

A hardened steel jet is screwed into the machined rear ports in various configurations, depending upon the conditions and size of the pipe being cleaned. For cleaning 8" to 18" pipe, and the removal of sand, sludge and organics for general pipe cleaning conditions, advises to set the outer rear jets at 24" and plug off the inner ports.

## Specifications

Rear jet angles: 24°  
 Diameter: 4 3/8"  
 Length: 6"  
 Weight: 4.1 lbs.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
E5-235	3/4"	Aluminum Sand 1Front/8Rear	24°	35 to 40	Up to 2000
A1-160	1"	Aluminum Sand 1Front/8Rear	24°	50 to 65	1675 to 2000
A1-180	1"	Aluminum Sand 1Front/8Rear	24°	80	1675 to 2000



# Dual-Degree Aluminum Sand and Sludge Nozzle

In the case of moderate to heavy cleaning in 8" to 24" pipe, it is recommended to operate this nozzle with the dual-degree configuration of 17° and 24°. This gives the nozzle 16 total rear-facing jets, blasting and removing sand, sludge and organics with a minimal amount of passes to complete the pipe cleaning operation. This nozzle's single front jet blasts through sediment in the pipe with a stream of water, allowing for a cleaner passage for the nozzle.

This nozzle is manufactured for use on sewer cleaning machines up to 80 GPM, and up to 3000 PSI pump pressure. Replacement jets are available. Made in the USA.

## Specifications

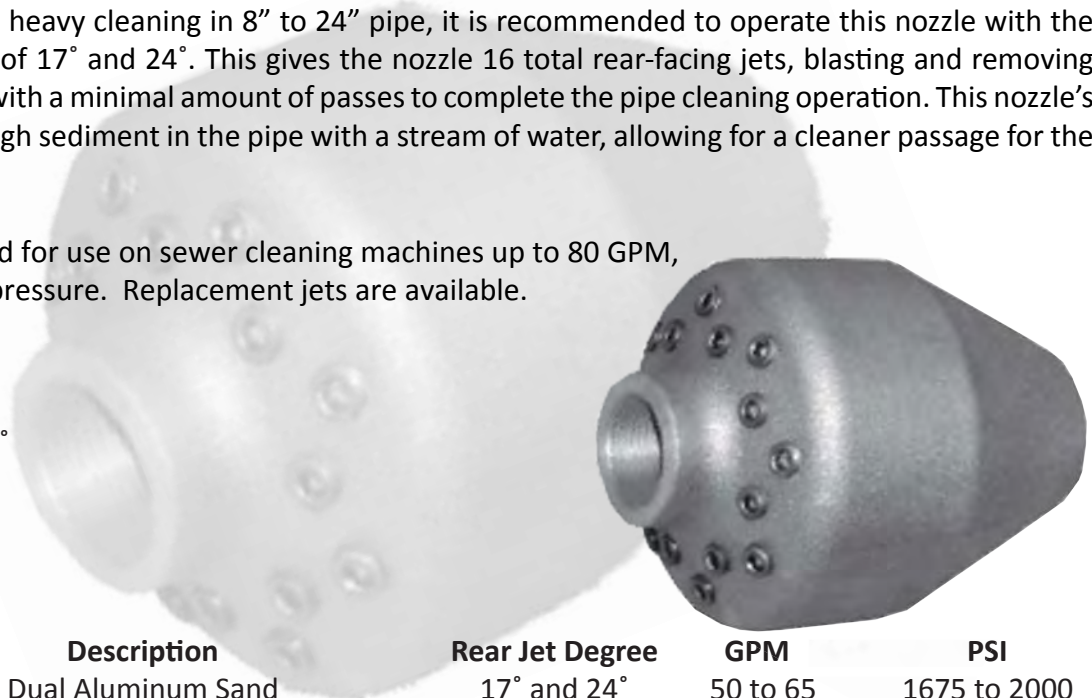
Rear jet angles: 17° and 24°

Diameter: 4 3/8"

Length: 6"

Weight: 4.1 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
A9-11260	1"	Dual Aluminum Sand	17° and 24°	50 to 65	1675 to 2000
A9-11280	1"	Dual Aluminum Sand	17° and 24°	80	1675 to 2000

# Tandem Bomb Nozzle

Tandem Bomb nozzle with 1" FPT connection is just that; the front nozzle is the eight rear-jet #A1-1 Aluminum Sand Nozzle and the rear nozzle is the #A9-112 Dual-Degree Aluminum Sand Nozzle. The two nozzles are connected by a D0-6 nozzle skid assembly.

Together, there are 24 rear dual-degree removable jet orifices, which are centered in the pipe by the connecting nozzle skid assembly. This nozzle duo is used to clean heavy sand and sludge deposits from 10" to 30" pipe and culverts. Manufactured for use by sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

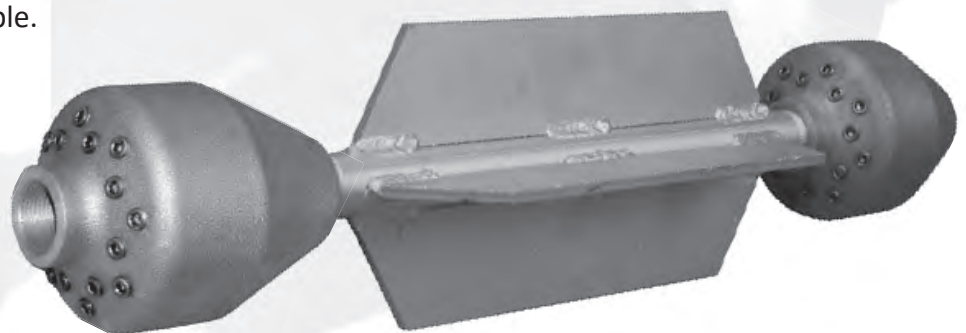
Rear jet angle: 17° and 24°

Diameter: 7"

Length: 29"

Weight: 18.3 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
A9-1228	1"	Tandem Bomb (1 Front/8R/8Rear)	24°	80	1675 to 2000
A9-1326	1"	Tandem Bomb (1 Front/8R/16Rear)	17°/24°	60 to 65	1675 to 2000
A9-1328	1"	Tandem Bomb (1Front/8R/16Rear)	17°/24°	80	1675 to 2000

# Blue Streak Nozzle

Blue Streak nozzle utilizes “Heavy Duty” steel nozzle construction. The Blue Streak is a very efficient pipeline cleaning nozzle that outperforms many heavy-duty sludge and sand nozzles on the market. The Blue Streak is equipped with ten rear, 15° and 20° tungsten carbide removable jet orifices and one optional front tungsten carbide removable jet orifice which maintains top flow and calibration of the water jet and makes efficient use of water, energy and time in maintaining a water collector sewer system. Used for heavy duty pipe cleaning up to 36”, the Blue Streak, equipped with a 1 FPT connection, is available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

### Specifications

Rear jet angle: 15° and 20°  
 Diameter: 4”  
 Length: 7”  
 Weight: 9 lbs.  
 Made in the USA.



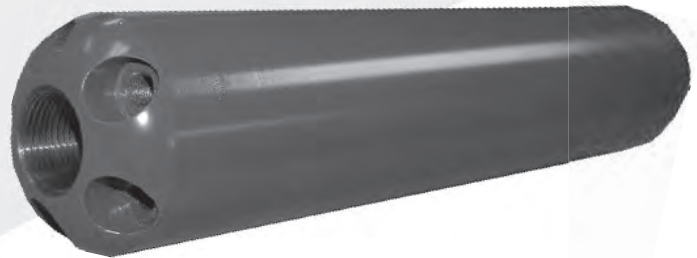
Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UE48226-60	1”	Blue Streak	15° and 20°	60	2000
UE48226-80	1”	Blue Streak	15° and 20°	80	2000

# 1/2” Bulldozer Nozzle

1/2” FPT Bulldozer nozzle is also commonly known as ‘The Contractor Nozzle.’ It is the little brother to the 3/4” Bulldozer nozzle, but still maintains a heavy duty steel construction, this heavy penetrating nozzle concentrates its cleaning to the bottom of the pipe to create a path through heavy build ups of sand sludge and larger solids. It has five rear removable tungsten carbide orifices at 12° and a removable front carbide jet orifice to penetrate blockages. The Bulldozer performs well in pipe sizes up to 12” in diameter. The tungsten carbide jet orifices maintain top flow and calibration of the water jet action for the life of the nozzle which equals efficient use of water, energy and time in maintaining a water collection or sewer system. It is available for sewer cleaning machines up to 25 GPM and up to 4000 PSI pump pressure. Replacement jet orifices are available.

### Specifications

Rear jet angle: 12°  
 Diameter: 1 7/8”  
 Length: 10”  
 Weight: 4.15 lbs.  
 Made in the USA.



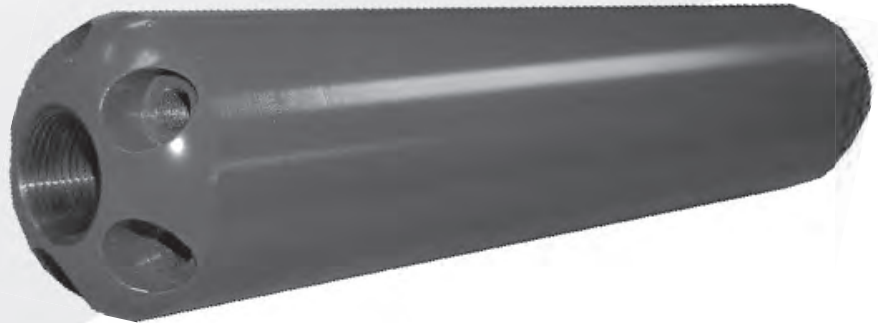
Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UE48208-20/2000	1/2”	Bulldozer	12°	20	2000
UE48208-20/4000	1/2”	Bulldozer	12°	20	4000
UE48202-25/3000	1/2”	Bulldozer	12°	25	3000

# 3/4" Bulldozer Nozzle

3/4" FPT Bulldozer nozzle is also commonly known as 'The Contractor Nozzle.' It is smaller in size than the Bulldozer nozzle, but still maintains a heavy duty steel construction, this heavy penetrating nozzle concentrates its cleaning to the bottom of the pipe to create a path through heavy build ups of sand sludge and larger solids. It has five rear removable tungsten carbide orifices at 12° and a removable front carbide jet orifice to penetrate blockages. The Bulldozer performs well in pipe sizes up to 18" in diameter. The tungsten carbide jet orifices maintain top flow and calibration of the water jet action for the life of the nozzle which equals efficient use of water, energy and time in maintaining a water collection or sewer system. It is available for sewer cleaning machines up to 50 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 12°  
 Diameter: 2 3/8"  
 Length: 12 1/2"  
 Weight: 9.1 lbs.  
 Made in the USA.



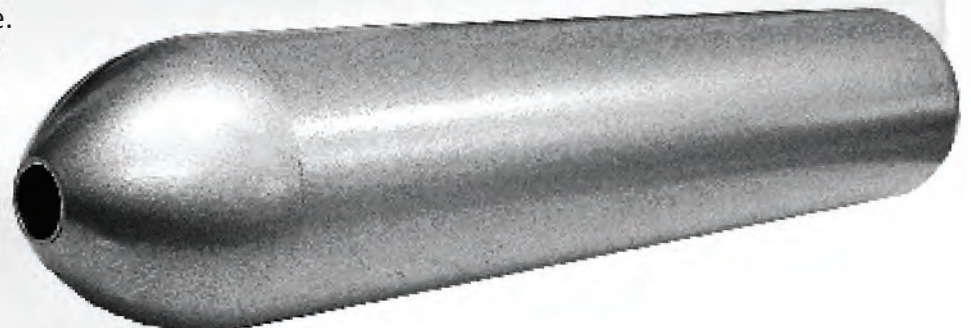
Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UE48212-40/2000	3/4"	Bulldozer	12°	40	2000
UE48212-40/3000	3/4"	Bulldozer	12°	40	3000
UE48212-50/3000	3/4"	Bulldozer	12°	50	3000

# 1" & 1 1/4" Bulldozer Nozzle

1" FPT Bulldozer nozzle is also commonly known as the contractor nozzle. With a heavy duty steel construction, this heavy penetrating nozzle concentrates its cleaning to the bottom of the pipe to create a path through heavy build ups of sand sludge and larger solids. It has five rear removable tungsten carbide orifices at 12° and a removable front carbide jet orifice to penetrate blockages. The Bulldozer performs well in pipe sizes up to 30" in diameter. The tungsten carbide jet orifices maintain top flow and calibration of the water jet action for the life of the nozzle which equals efficient use of water, energy and time in maintaining a water collection or sewer system. It is available for sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 12°  
 Diameter: 2 7/8"  
 Length: 14 3/8"  
 Weight: 12.5 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
UE48216-60	1"	Bulldozer	12°	60	Up to 2000
UE48216-80	1"	Bulldozer	12°	80	2000
UE48220-60	1 1/4"	Bulldozer	12°	60	2000
UE48220-80	1 1/4"	Bulldozer	12°	80	2000

# Intruder Nozzle

Intruder nozzle, available in 3/4" and 1" FPT connection, is a missile-shaped heat-treated steel alloy nozzle equipped with built-in skids, helping center the nozzle in pipe and with all manufacturing elements intended to extend nozzle life. Used to create a path through debris in the bottom of pipe such as root masses, grave, sand, soap and grease and anything else a heavy duty nozzle application is needed for. Performs best in pipe up to 18" diameter. The three replaceable rear jets are set at a 12° angle and are of stainless steel construction. These can be upgraded to tungsten carbide for longer life. The front nozzle has a front jet to pierce through debris. This is a very efficient nozzle and is available for sewer cleaning machines up to 80 GPM at up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 12°  
 Diameter: 3 3/4"  
 Length: 14 1/4"  
 Weight: 15 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
IT-7560	3/4"	Intruder	12°	60	2000
IT-7580	3/4"	Intruder	12°	80	2000
IT-160	1"	Intruder	12°	60	2000
IT-160-3000	1"	Intruder	12°	60	3000
IT-180	1"	Intruder	12°	80	2000

# Petee Nozzle

Petee nozzle, equipped with a 1" FPT connection, is made for heavy-duty pipe cleaning. Made of steel, it has reinforced welded runners to center the nozzle in the middle of the pipe. Twelve rear dual-degree 17° and 24° removable jet orifices provide 360° of powerful water-jet streams to fully clean any heavy debris in the bottom of a pipe such as sand, gravel, and heavy organic build-up. Has optional removable front jet orifice when penetrating and breaking up debris is needed. Performs best in 10" to 36" storm and sanitary pipes. For sewer cleaning machines up to 80 GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

Rear jet angle: 17° and 24°  
 Diameter: 5 3/4"  
 Length: 18"  
 Weight: 11.6 lbs.  
 Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
P100256	1"	Petee	17° and 24°	60 to 65	1675 to 2000
P100280	1"	Petee	17° and 24°	80	1675 to 2000

# Big Pete Nozzle

Big Pete, equipped with a 1" FPT connection, is the big brother to the Petee nozzle and is also made for heavy duty pipe cleaning with steel construction and reinforced welded runners to help keep this nozzle centered in a pipe. Twelve rear dual degree 17° and 24° removable jet orifices provide 360° of powerful water jet streams to fully clean any heavy debris in the bottom of pipe such as sand, gravel, and heavy organic build-up. Has optional removable front jet orifice when penetrating and breaking up debris is needed. Performs best in 18" to 60" storm and sanitary pipes. For sewer cleaning machines up to 80GPM and up to 3000 PSI pump pressure. Replacement jet orifices are available.

## Specifications

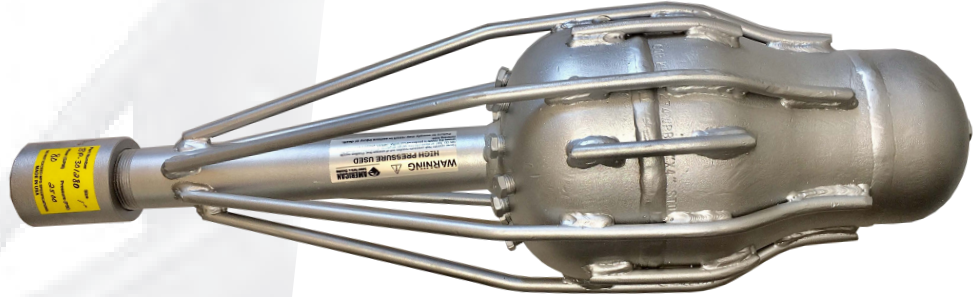
Rear jet angle: 17° and 24°

Diameter: 7 1/2"

Length: 23"

Weight: 28 lbs.

Made in the USA.



Part #	FPT	Description	Rear Jet Degree	GPM	PSI
BP-301256	1"	Big Pete	17° and 24°	55 to 60	1675 to 2000
BP-301280	1"	Big Pete	17° and 24°	80	1675 to 2000

# ***Jet Paks***

## ***Nozzle Kits***

### **No Substitutions**

#### **Part #G2-Kit**

##### **1/8" 4000 PSI (1 lb.)**

Nozzle Group Total of 8 Nozzles - Includes all eight 1/8" nozzles we offer:

One each of the following part number: G2-33, G2-34, G2-35, G2-36, G2-303, G2-304, G2 -305 and G2-306.

#### **Part #G25-34**

##### **1/4" 3-4 GPM @ 4000 PSI (1 lb.)**

Nozzle Group Total of 8 Nozzles - Includes eight of our best selling nozzles:

One each of the following part number: G7-33 & G7-303 and 2 each of: G0-13, G7-43 and G7-403.

#### **Part #G25-56**

##### **1/4" 5-6 GPM @ 4000 PSI (1 lb.)**

Nozzle Group Total of 8 Nozzles - Includes eight of our best selling nozzles:

One each of the following part numbers: G7-44, G7-304 and 2 each of: G0-14, G7-34 and G7-404.

#### **Part #G375-34**

##### **3/8" 3-4 GPM @ 4000 PSI (1 lb.)**

Nozzle Group Total of 6 Nozzles -Includes all six of the best selling nozzles:

One each of the following part numbers:

G5-13, G8-33, G8-303, G8-43 and (2) G8-403.

#### **Part #G375-56**

##### **3/8" 5-6 GPM @ 4000 PSI (1 lb.)**

Nozzle Group Total of 6 Nozzles -Includes all six of the best selling nozzles:

One each of the following part numbers: G5-14, G8-34, G8-304, G8-404 and (2) G8-44.

#### **Part #G375-710**

##### **3/8" 7-10 GPM @ 4000 PSI (1 lb.)**

Nozzle Group Total of 6 Nozzles - Includes all six of the best selling nozzles:

One each of the following part numbers: G5-15, G8-305, G8-45, & G8-405 and (2) G8-35.

#### **Part #F815-Kit**

##### **1/2" 8-15 GPM @ 4000 PSI (1.75 lbs.)**

Nozzle Group Total of 6 Nozzles - Includes six of the best selling nozzles:

Two each of the following part numbers: F1-115, F1-1115 and F5-315.

#### **Part #F1525-Kit**

##### **1/2" 8-15 GPM @ 4000 PSI (1.75 lbs.)**

Nozzle Group Total of 6 Nozzles - Includes six of the best selling nozzles:

Two each of the following part numbers: F1-125, F1-1125 and F5-325.

# **Nozzle Kits**

## **No Substitutions**

### **Part # U58-12-60-2000**

#### **3/4" Carbide Nozzle Kit - 60 GPM @ 2000 PSI (12.5 lbs.)**

Includes all 3 of the best selling nozzles - One each of the following part numbers: U58927CFB, U58756CFB and U58926CFB.

### **Part # UEZ-12-50-3000**

#### **3/4" Hustler Nozzle Kit - 50 GPM @ 3000 PSI (12.5 lbs.)**

Includes all 3 of the best selling nozzles - One each of the following part numbers: UEZ30.075.50, UEZ40.075.50 and UEZ60.075.50.

### **Part # UEZ-16-65-2000**

#### **1" Hustler Nozzle Kit - 65 GPM @ 2000 PSI**

Includes all 4 of the best selling nozzles - One each of the following part numbers: UEZ30.100.65.2, UEZ40.100A, UEZ60.100.65.2 and UEZ60.100L-65.

### **Part # UEZ-16-50-3000**

#### **1" Hustler Nozzle Kit - 50 GPM @ 3000 PSI**

Includes all 4 of the best selling nozzles - One each of the following part numbers: UEZ30.100.50, UEZ40.100.50, UEZ60.100.50 and UEZ60.100L-50.

### **Part # U58-16-80-2500**

#### **1" Carbide Nozzle Kit - 80 GPM @ 2500 PSI**

Includes all 4 of the best selling nozzles - One each of the following part numbers: U58927BJC, U58756BJC, U58929BJC and U589926BJC.

### **Part # U58-16-60-2000**

#### **1" Carbide Nozzle Kit - 60 GPM @ 2000 PSI**

Includes all 4 of the best selling nozzles - One each of the following part numbers: U58927BFB, U58756BFB, U58929BFB and U58926BFB.

### **Part # E0-12-35-1800**

#### **3/4" Steel Nozzle Kit - 35 to 45 GPM @ 1800 PSI (7.5 lbs)**

Includes all 6 of the best selling nozzles - One each of the following part numbers: E0-335, E0-3A35, E0-3N35, E0-3NA35, E0-435 and E2-335.

### **Part # E0-12-35-3000**

#### **3/4" Steel Nozzle Kit - 35 GPM @ 3000 PSI (7.5 lbs.)**

Includes all 6 of the best selling nozzles - One each of the following part numbers: E0-335V, E0-3A35V, E0-3N35V, E0-3NA35V, E0-435V and E2-335V.

### **Part # AB-16-50-3000**

#### **1" Steel Nozzle Kit - 50 GPM @ 3000 PSI (8.5 lbs.)**

Includes all 6 of the best selling nozzles - One each of the following part numbers: A3-150-3000, A4-250-3000, A4-2A50-3000, A4-2N50-3000, A4-2NA50-3000 and C0-155V.

### **Part # AB-16-60-2000**

#### **1" Steel Nozzle Kit - 60 GPM @ 2000 PSI (8.5 lbs)**

Includes all 6 of the best selling nozzles -1 each of the following part numbers: A3-160, A3-1260, A4-260, A4-2N60, A4-2A60 and A4-2NA60.

# Tube Style Nozzle Skid Extension

Tube Style Nozzle Skid Extension is made of heavy duty steel construction. It is used to keep a nozzle stable in the pipeline and helps prevent nozzle reversing in underground storm or sewer pipes. Also helps prevent nozzle from entering laterals. To be used between the nozzle and hose.

## Specifications

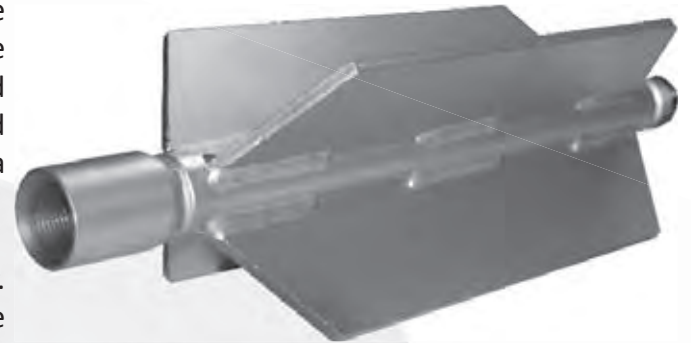
Diameter: 2 1/2"  
 Length: 15"  
 Weight: 15 lbs.  
 Made in the USA.



Part #	NPT	Description	Weight
E01	3/4"	Nozzle Skid Extension	9.5 lbs.
A02	1"	Nozzle Skid Extension	11.6 lbs.
A022	1 1/4"	Nozzle Skid Extension	13 lbs.

# Finned Style Nozzle Skid Extension

Finned Style Nozzle Skid Extension is manufactured using heavy duty steel tubing with four steel fins welded to it. The extension, when attached between the nozzle and the hose, keeps the nozzle centered in a pipe during the cleaning process and also prevents nozzle wear and improves performance for the nozzle due to increased cleaning efficiency and the fact it will not wander into a lateral.



There are two fin sizes available for each hose diameter. This allows the user to order the correct skid for the nozzle being used to keep it from dragging on the bottom of the pipe, which can cause premature wear.

Available in 3/8", 1/2", 3/4", 1" and 1 1/4" NPT connections.  
 Made in the USA.

Part #	FPT	Length	Skid Dia.	Fin Size	Weight
D0-4A	3/8"	7"	3"	1 1/4"	3.1 lbs.
D0-5B	1/2"	14"	3 3/4"	1 1/2"	5 lbs.
D0-5	3/4"	17"	6"	2 1/2"	10 lbs.
D0-5A	3/4"	14 1/2"	4"	1 1/2"	6 lbs.
D0-6	1"	17 1/2"	6 1/4"	2 1/2"	11 lbs.
A0-6A	1"	14 3/4"	4 1/4"	1 1/2"	8 lbs.
D0-8	1 1/4"	17"	6 3/4"	2 1/2"	13 lbs.
D0-8A	1 1/4"	14 1/2"	4 3/4"	1 1/2"	7.5 lbs.



# Six-Wire Proover Nozzle Skid Extension

Six-Wire Proover Nozzle Skid Extension is a heavy duty steel tube surrounded by six steel rounded runners that help center the nozzle in the pipeline that is being cleaned.

This skid extension also prevents nozzle wear and improves performance of the nozzle and its cleaning efficiency. As well, the skid extension prevents the nozzle from entering laterals. To be used between the nozzle and hose.



Available in 1/2", 3/4", and 1" NPT connections. Made in the USA.

Part #	FPT	Description	Length	Skid Dia.	Weight
UE69504-.50	1/2"	Proover for 4" Line	14 1/2"	3 1/2"	4.75 lbs.
UE69504-.75	3/4"	Proover for 4" Line	15"	3 1/4"	4.75 lbs.
UE69504	1"	Proover for 4" Line	15"	3 1/4"	4.75 lbs.
UE69506-.75	3/4"	Proover for 6" Line	14 1/2"	5 3/4"	5.10 lbs.
UE69506	1"	Proover for 6" Line	14 1/2"	5 3/4"	5.10 lbs.
UE69508-.75	3/4"	Proover for 8" Line	17"	7 1/2"	5.15 lbs.
UE69508	1"	Proover for 8" Line	17"	7 1/2"	5.16 lbs.
UE69510-.75	3/4"	Proover for 10" Line	18 1/4"	9 1/4"	5.75 lbs.
UE69510	1"	Proover for 10" Line	18 1/4"	9 1/4"	5.75 lbs.
UE69512-.75	3/4"	Proover for 12" Line	18 1/4"	11 1/4"	6.35 lbs.
UE69512	1"	Proover for 12" Line	18 1/4"	11 1/4"	6.35 lbs.
UE69515-.75	3/4"	Proover for 15" Line	22 5/8"	12 1/2"	7 lbs.
UE69515	1"	Proover for 15" Line	22 5/8"	12 1/2"	7 lbs.

# SUPREME SAW BLADES

2" x .156" tempered spring steel 44-47 HRC



## SPIRAL

## CONCAVE

## FLAT

			<u>STANDARD</u>					
<u>PART #</u>	<u>DESCRIPTION</u>	<u>WT</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>WT</u>	<u>PART#</u>	<u>DESCRIPTION</u>	<u>WT</u>
7600-4	4" SPIRAL	1 LBS	7600C-4	4" CONCAVE	1 LBS	7600F-4	4" FLAT	1 LBS
7600-6	6" SPIRAL	2 LBS	7600C-6	6" CONCAVE	2 LBS	7600F-6	6" FLAT	2 LBS
7600-8	8" SPIRAL	3 LBS	7600C-8	8" CONCAVE	3 LBS	7600F-8	8" FLAT	3 LBS
7600-10	10" SPIRAL	5 LBS	7600C-10	10" CONCAVE	5 LBS	7600F-10	10" FLAT	5 LBS
7600-12	12" SPIRAL	6 LBS	7600C-12	12" CONCAVE	6 LBS	7600F-12	12" FLAT	6 LBS
7600-15	15" SPIRAL	7 LBS	7600C-15	15" CONCAVE	7 LBS	7600F-15	15" FLAT	7 LBS
7600-18	18" SPIRAL	8 LBS	7600C-18	18" CONCAVE	8 LBS	7600F-18	18" FLAT	8 LBS
						7600F-21	21" FLAT	9 LBS
						7600F-24	24" FLAT	11 LBS
			<u>CARBIDE</u>					
7600-6C	6" SPL W/CARBIDE					7600F-6C	6" FLAT W/CARBIDE	
7600-8C	8" SPL W/CARBIDE		7600C-8C	8" CNC W/CARBIDE		7600F-8C	8" FLAT W/CARBIDE	
7600-10C	10" SPL W/CARBIDE		7600C-10C	10" CNC W/CARBIDE		7600F-10C	10" FLAT W/CARBIDE	
7600-12C	12" SPL W/CARBIDE		7600C-12C	12" CNC W/CARBIDE		7600F-12C	12" FLAT W/CARBIDE	
7600-15C	15" SPL W/CARBIDE		7600C-15C	15" CNC W/CARBIDE		7600F-15C	15" FLAT W/CARBIDE	
7600-18C	18" SPL W/CARBIDE		7600C-18C	18" CNC W/CARBIDE		7600F-18C	18" FLAT W/CARBIDE	
						7600F-21C	21" FLAT W/CARBIDE	
						7600F-24C	24" FLAT W/CARBIDE	

## CARBIDE & CARBIDE WEAR PADS

7600-6CW	6" SPL W/CARB&WP					7600F-6CW	6" FLT W/CARB&WP	
7600-8CW	8" SPL W/CARB&WP		7600C-8CW	8" CNC W/CRB&WP		7600F-8CW	8" FLT W/CARB&WP	
7600-10CW	10" SPL W/CARB&WP		7600C-10CW	10" CNC W/CRB&WP		7600F-10CW	10" FLT W/CARB&WP	
7600-12CW	12" SPL W/CARB&WP		7600C-12CW	12" CNC W/CRB&WP		7600F-12CW	12" FLT W/CARB&WP	
7600-15CW	15" SPL W/CARB&WP		7600C-15CW	15" CNC W/CRB&WP		7600F-15CW	15" FLT W/CARB&WP	
7600-18CW	18" SPL W/CARB&WP		7600C-18CW	18" CNC W/CRB&WP		7600F-18CW	18" FLT W/CARB&WP	

# Mainline Root Cutter Kits

It has been said fewer options are the key to getting a job done. Mainline Root Cutter Kits were not born out of that theory. Starting with a standard Mainline motor, you can pick the type of skids; standard, wheeled or donut and then choose the type of saw blade that you would like for your application; flat, concave or spiral to fit your needs.

The power source that drives the heavy-duty mainline root cutter system is a 5.9 c.i. high-torque, low RPM hydraulic motor. It is designed for sewer cleaning machines from 35 to 80 GPM at 900 to 2000 PSI. Its tail nozzle is available in 1" FPT. Made in the USA.

Part Number	Description
950-0000C	- Complete Kit with Concave Blades - Regular Skids
950-0000CW	- Complete Kit with Concave Blades – Wheel Skids
950-0000F	- Complete Kit with Flat Blades – Regular Skids
950-0000FW	- Complete Kit with Flat Blades – Wheel Skids
950-0000W	- Complete Kit with Spiral Blades – Wheel Skids
950-0000S	- Complete Kit with Spiral Blades – Regular Skids
950-1000C	- Complete Kit with Concave Blades & Donut Skids
950-1000F	- Complete Kit with Flat Blades & Donut Skids
950-1000S	- Complete Kit with Spiral Blades & Donut Skids
950-1000FB	- Complete Kit with Flex Blades & Donut Skids
950-0000CAK	- Complete Kit with CAK tool Assembly – Regular Skids
950-0000NB	- Complete Kit with No Blades – Regular Skids
950-1000NB	- Complete Kit with No Blades - Donut Skids
950-0000FB	- Complete Kit with Flex Blades - Regular Skids



Mainline Motor



Regular Skid



Wheel Skid



Donut Skids



Flat Blade



Concave Blade



Spiral Blade



Complete kits include 6", 8", 10" and 12" blades and skid sets, motor with tail nozzle, blade hub, wrenches and tool box. (Donut skids include one front and one rear only.)

Sample Kit P/N: 950-0000C



Flex Blades



CAK Tool

# Lateral Root Cutter Kits

Much like the Mainline Root Cutter Kits, the Lateral Kits were born out of the idea that can offer you exactly what you need, rather than fudging your way through a job with equipment that is subpar.

Like the mainline hydraulic root cutter motors, the lateral hydraulic root cutter motor uses the same high-torque, low RPM design. Its power source is a 1.93 c.i. hydraulic motor.

It is designed for sewer cleaning machines that operate from 35 to 80 GPM at 900 to 2000 PSI. Its tail nozzle is available in 1" FPT.

Complete kits include blade sizes 4", 6", 8" and 10" and skid sets 6", 8", 10" with skid collar, motor with tail nozzle, blade hub, wrenches and tool box. Made in the USA.



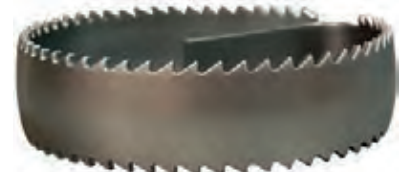
Lateral Motor



6" Lateral Skid (Shown)  
Also available in 8, 10, and 12"



Flat Blade



Concave Blade



Spiral Blade

Part Number	Description
950-2000F	- Complete Kit with Flat Blades - Lateral Skids
950-2000C	- Complete Kit with Concave Blades – Lateral Skids
950-2000S	- Complete Kit with Spiral Blades – Lateral Skids
950-2000NB	- Complete Kit with No Blades – Lateral Skids



Sample Kit P/N: 950-2000C

# Root Cutter Kit Accessories

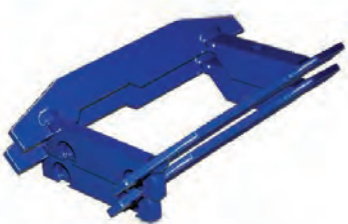
All of the Mainline and Lateral Kit parts can be ordered individually! Supreme Mainline Blades are available in 6" - 18" sizes and Supreme Lateral Blades are available in 4" - 12" varieties. Flex Blades are available in 4" - 18" sizes. CAK Tool parts are only for Mainline usage, with blades available in 5" and 7" sizes and cutter cables ranging from 6" - 30" varieties. All proudly made in the USA.



Lateral Skid Collar  
950-240



Lateral Skid Extensions:  
(sold individually)  
6" 950-226  
8" 950-228  
10" 950-230  
12" 950-232



Mainline Skid Assy:  
6" 950-103  
8" 950-104  
10" 950-105  
12" 950-106  
15" 950-115



Mainline Skid Assy w/Wheels:  
8" 950-104R  
10" 950-105R  
12" 950-106R  
15" 950-115R



Donut Assy:  
Front: 950-108  
Rear: 950-109



Mainline Thrust Bearing  
950-39



Lateral Thrust Bearing  
950-209



Mainline Motor  
950-110



Mainline Motor W/ Tail Nozzle  
950-111S (Skid) or  
950-111D (Donut)



1" Mainline Tail Nozzle  
950-100



Mainline Seal Kit  
950-38



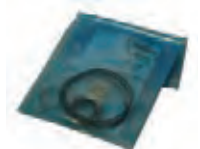
Lateral Motor  
950-210



Lateral Motor W/Tail Nozzle  
950-219



Lateral Tail Nozzle  
950-212



Lateral Seal Kit  
950-300 or  
950-300YP

Mainline Key	#950-32	Donut Bolts	#950-35 (1)
Lateral Key	#950-217	Skid Mounts	#950 Hardware
Donut Bolts	#950-26 (4)	1"x3/4" Bushing	#u20210
Donut Bolts	#950-33 (1)		

# ***Flex / Curved Cutter Blades***

The Flex / Curved heavy duty cutter blades are great for moderate roots, scale and grease. They are supplied three per chuck in a triangular position that allows constant contact with pipe walls as the hydraulic root cutter rotates.

This allows a complete scouring of the pipe wall. The blades are made of high tempered spring steel and heat treated to 50-54 Rockwell at 1 ¼" wide x 1/8" thick. Sizes are provided from 4"-18" in sets of three blades. The hub comes with a grade 5 bolt and nylon nut to secure the hub to the hydraulic root cutter motor shaft. Made in the USA.



<b>Part #</b>	<b>Description</b>	<b>Weight</b>
7700-4	4" Flex Blades (3 Pack)	.46 lbs.
7700-6	6" Flex Blades (3 Pack)	.67 lbs.
7700-8	8" Flex Blades (3 Pack)	.87 lbs.
7700-10	10" Flex Blades (3 Pack)	1.38 lbs.
7700-12	12" Flex Blades (3 Pack)	1.64 lbs.
7700-15	15" Flex Blades (3 Pack)	2.17 lbs.
7700-18	18" Flex Blades (3 Pack)	2.17 lbs.

# ***Cutter Blade Chuck Hub***

The Chuck Hub for the three-blade cutter is made of steel and painted to prevent corrosion and rust. This hub is used to secure the three flex/curved cutter blades. It also has a pressure adjustment nut to hold the blade in the pinned taper cone.

Included is a grade-5 bolt and nylon nut to secure the hub to a hydraulic root cutter motor drive shaft. This 1" chuck hub even has two shaft connection adjustment holes to allow universal use on any manufacturers' hydraulic root cutter. The 5/8" chuck hub connection hole location is standard in the industry. Made in the USA.



<b>Part #</b>	<b>Description</b>	<b>Weight</b>
960-200	5/8" Flex Cutter Chuck	1.5 lbs.
960-100	1" Flex Cutter Chuck	1.5 lbs.

# 5/8" and 1" Saw Blade Hub

The 1" and 5/8" saw blade hubs are made of steel and zinc plated to resist corrosion. These hubs are used to connect flat, concave and spiral saw blades to a 1" mainline or a 5/8" lateral hydraulic root cutter shaft.

The 1" blade hub has two shaft connection adjustment holes that allow universal use on any manufacturer's root cutter drive shaft. The 5/8" blade hub connection hole is the same for all industry cutters. Each hub comes with a grade-5 bolt to secure the saw blade to the hub and another grade-5 bolt and nylon nut to secure the hub to the hydraulic root cutter. Made in the USA.

Part #	Description	Weight
950-220	5/8" Saw Blade Hub	1.1 lbs.
950-107	1" Saw Blade Hub	1.1 lbs.



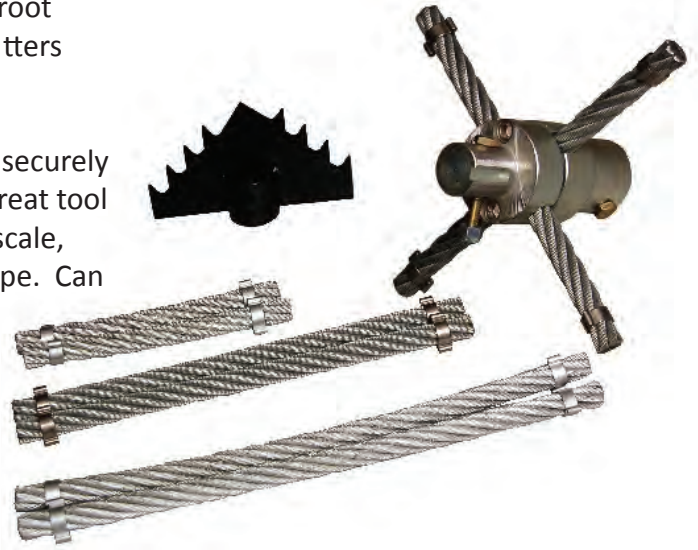
# CAK Tool Kit

The CAK Tool is an attachment tool used with a hydraulic root cutter. This tool includes an arbor hub, 3 pairs of cable cutters (choice of sizes) and a bore cutter in 5" or 7" sizes.

The arbor hub attaches to the root cutter drive shaft that securely holds the cable cutters and a front bore cutter. This is a great tool for scraping the full pipe diameter and removing grease, scale, roots or mineral deposits from the inside of a 6" to 30" pipe. Can also be used in cast iron pipe. Made in the USA.

Part #	Description
950-5000	CAK Tool Kit

Standard Kit Includes: 6", 8", 10" & 12"  
& 5" or 7" Bore Cutter



## CAK Tool Bore Cutter

The CAK Tool Bore Cutter blade is attached to the front of the CAK tool arbor hub. The blade is used to bore through grease or roots to allow the hydraulic root cutter and CAK cable cutters to move smoothly in a clogged pipe application. The blades manufactured from steel and powder painted to prevent rusting. Made in the USA.



Part #	Description
950-5150	5" CAK Tool Bore Cutter
950-5157	7" CAK Tool Bore Cutter

## CAK Tool Cable Cutter

The CAK Tool cable cutters used in the CAK tool arbor hub are sold and used in pairs. These 1/2" cables are designed to take abuse from projectiles, offset joints or any other pipe obstruction.

This cable cutter flexibility prevents the hydraulic motor from stalling in sewer cleaning applications. The cable cutters are supplied in pairs for 6" to 30" pipe sizes. Made in the USA.

Part #	Description	Pipe Size
950-5005-4	CAK Tool Cable Cutter	4"
950-5005-6	CAK Tool Cable Cutter	6"
950-5005-8	CAK Tool Cable Cutter	8"
950-5005-10	CAK Tool Cable Cutter	10"
950-5005-12	CAK Tool Cable Cutter	12"
950-5005-16	CAK Tool Cable Cutter	16"
950-5005-18	CAK Tool Cable Cutter	18"
950-5005-20	CAK Tool Cable Cutter	20"
950-5005-24	CAK Tool Cable Cutter	24"
950-5005-30	CAK Tool Cable Cutter	30"





# Tyger Tail® Hose

Tyger-Tail® hoses are used to protect sewer cleaning hose to guide hose through rough manholes and pipe edges of the transitioning to the pipe. Tyger-tail hoses are offered standard in 2"x36" and 3"x36" lengths and include a 24' poly rope with a looped end for easy grip.

This rope is attached to the Tyger-Tail hose collar to made installation and removal from manholes easier. Stays flexible in sub-zero temperatures



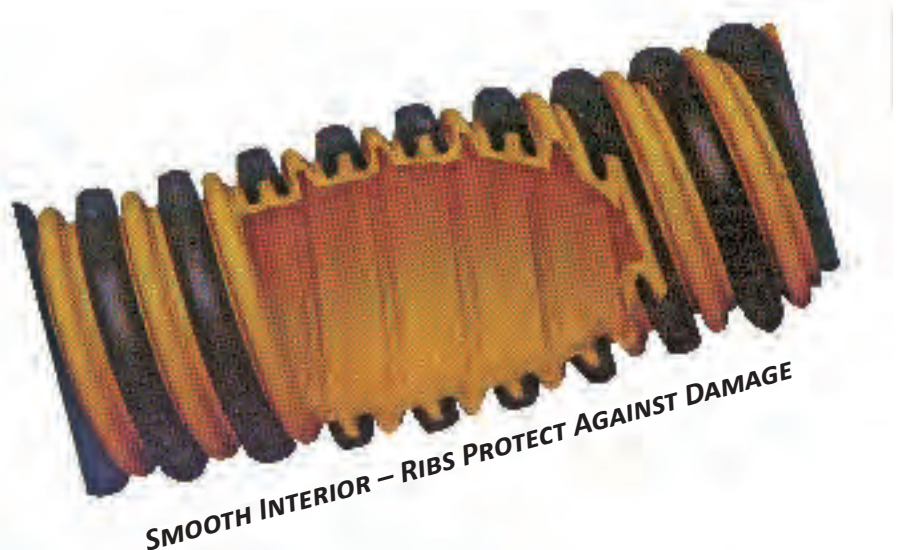
Includes Cuffs on Each End

<u>Size</u>	<u>Part #</u>	<u>Weight</u>
2" x 10'	D0-210	8.5 lbs
2" x 20'	D0-220	17 lbs
2" x 25'	D0-225	21.25 lbs
2" x 30'	D0-230	25.50 lbs
2" x 40'	D0-240	34.00 lbs
2" x 50'	D0-250	42.50 lbs

Complete Assemblies Below Include:  
Cuff on Each End, Clamp & 24' Poly Rope

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

3" x 10'	D0-310	16 lbs
3" x 20'	D0-320	33 lbs
3" x 25'	D0-325	40 lbs
3" x 30'	D0-330	48 lbs
3" x 40'	D0-340	64 lbs
3" x 50'	D0-350	80 lbs



<u>Size</u>	<u>Weight</u> (Per Foot)	<u>Max. Working</u> <u>Pressure – PSI</u>
2"	.85 lbs	15
3"	1.60 lbs	7

Vacuum Mercury Inch – 29

Many uses for the hose are:

- \*Liquid or material suction from machine to machine
- \*Liquid transfer from truck to depot
- \*Liquid transfer from vat to tank
- \*Construction and excavation
- \*Protection for sewer cleaning hose
- \*Protection for televising tv cable

# Sand Traps

The Sand Trap is inserted into a manhole's down-stream channel. This creates a dam on the floor of the manhole, allowing water to pass downstream, but preventing the collecting debris from the jetting process from passing by.

Available in 6" to 18" sizes with a 24' poly rope for handling in-and-out of the manhole. Made in the USA.

Part #	Description	Weight
UST-6	6" Aluminum Sand Trap	3 lbs.
UST-8	8" Aluminum Sand Trap	7.25 lbs.
UST-10	10" Aluminum Sand Trap	10.5 lbs.
UST-12	12" Aluminum Sand Trap	15 lbs.
UST-15	15" Steel Sand Trap	47.5 lbs.
UST-18	18" Steel Sand Trap	66 lbs.



# Dye Tablets and Powder

The range of Dye Tablets and Powder makes tracing water flow into and out of storm and sanitary sewers an ease. Available in either green or red tablets or powder.

The tablets are best used in laterals or where water flow is slow. Four to five tablets will dye 440 gallons of water. 200 tablets are equal to 1 lb.

Dye powder is used in larger-sized pipe and also when water monitoring is greater than 200' in length. One pound of dye powder will die 120,000 gallons of water. Powder is offered in one and five-pound containers. Made in the USA.

Part #	Description	Weight
J1-OG	200 Green Tablets	1 lb.
J1-OR	200 Red Tablets	1 lb.
J2-1G	Green Powder	1 lb.
J2-5G	Green Powder	5 lbs.

# Multi-Size Sewer Plug

These multi-size plugs are designed to be inflated in multiple pipe sizes. Their purpose is to block the flow of water in pipes during bypass pumping, pipeline cleaning and/or pipeline inspection. Made in the USA.

Part #	Description
UE060-46	4" to 6" Plug (Min. Dia. 3.8")
UE060-610	6" to 10" Plug (Min. Dia. 5.5")
UE060-812	8" to 12" Plug (Min. Dia. 7.5")
UE060-1218	12" to 18" Plug (Min. Dia. 11")
UE060-1530	15" to 30" Plug (Min. Dia. 16.6")
UE060-2036	20" to 36" Plug (Min. Dia. 18.5")
UE060-2448	24" to 48" Plug (Min. Dia. 22.5")
UE060-3660	36" to 60" Plug (Min. Dia. 35")
UE060-4872	48" to 72" Plug (Min. Dia. 47")



# Multi-Size Flow-Through Plug

These multi-size flow-through plugs are designed to be inflated in multiple pipe sizes with a bypass feature to allow fluid to pass through it by removing the center cap. With the bypass cap secured, it serves as a conventional pipe plug. Made in the USA.

Part #	Description
UE070-461	4" to 8" Flow-Through Plug
UE070-6101	6" to 10" (5.5" to 10.5") Flow-Through Plug
UE070-8121	8" to 12" (7" to 12.5") Flow-Through Plug
UE070-12181	12" to 18" (10.5" to 18") Flow-Through Plug
UE070-15301	18" to 30" (16.5" to 30") Flow-Through Plug
UE070-20361	24" to 36" (22" to 36") Flow-Through Plug
UE070-24481	36" to 48" (34" to 48") Flow-Through Plug
UE070-36601	38" to 60" (46" to 60") Flow-Through Plug



# Swage Machine

UEM110-ASPC  
Hydraulic



Adaptability, ease of use and end-user savings; they are three of the founding principles of what has followed since its humble beginnings back in 1989.

When developed the UEM110 12-ton hydraulic hose mending machine, designed for sizes ¾", 1" and 1 ¼" sewer cleaning hose, it addressed a growing need in the sewer cleaning industry

There have been other mending machines in the market which have been capable of swaging male and female ends as well as hose menders onto sewer cleaning hose. However, none of these brands had the endorsement of all three of the major hose manufacturers on the market; Parker Hannifin Corp®, Piranha Hose Products® and Eaton Aeroquip®.

Their endorsement of the UEM110 comes with the implementation and use of each company's color-coded dies and applicable color-coded fittings to properly insure the integrity of their product being properly repaired with the UEM110 system. This means that whatever the internal tube of the sewer cleaning hose is, the dies and fitting match that same color coding.

## Sewer Cleaning "Thermoplastic" Hose is identified by the following:

Yellow inner tube is manufactured by Piranha® Hose Products.  
Grey or Red inner tube is manufactured by Parker Hannifin Company .  
Blue inner tube is manufactured by Eaton Aeroquip® Hose Company.  
Purple inner tube is manufactured by Schieffer Co. International.  
Cream inner tube is manufactured by Unisource® (Poly-Flow).  
Orange inner tube is manufactured by DYNA FLEX Inc.

All sewer hose and repair fitting tools are manufactured to the National Solid Waste Management Association (formally WEMI) standards. To protect against **PERSONAL INJURY OR DEATH**, inspect and repair the sewer hose per NSWMA standards.

Hand Operated



Part # SWAGE-HAND

When using sewer cleaning hose and mending equipment, the swage and crimp equipment, including dies and fittings, **MUST** be of the same manufacturer. disclaims any responsibility for any hose assembly not produced in conformance with above specification. Made in the USA.

## \*\*\* WARNING \*\*\*

**FAILURE TO COMPLY MAY RESULT IN HOSE BURST OR COUPLING BLOWOFF WHICH MAY LEAD TO PROPERTY DAMAGE, SERIOUS INJURY OR DEATH!**

\*Authorized by Parker Hannifin Corp, Piranha Hose Products and Eaton Aeroquip Gator® Hose.

# Piranha<sup>®</sup> Mending Equipment



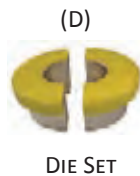
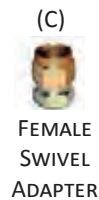
To be used on the UEM110 Hydraulic Swage Machine.

## CAUTION

### SEWER HOSE AND REPAIR FITTINGS

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

PART NUMBER	Description	SIZE	PHOTO
UEMA110 - ASPC	Yellow Swage Machine Only	w/ Wheels	F
UEM111PR	Yellow Swage Machine w/ Wheels	3/4" (2) Die Sets & (1) Pusher Plate	D, E, F
UEM112PR	Yellow Swage Machine w/ Wheels	1" (2) Die Sets & (1) Pusher Plate	D, E, F
UEM113PR	Yellow Swage Machine w/Wheels	1 1/4" Machine Only	F
Swage Hand	Portable Hand Swage Machine	1/2" to 1" Hose	---
DS08	Die Set (3000 & 4000 PSI)	1/2"	D
DPT08	Pusher Plate (3000 - 5000 PSI)	1/2"	E
UEMPH5500-Die	Die Set (5000 PSI)	1/2"	D
UE1050-D*	Die Set (SHP-8 4000 PSI)	1/2"	---
DPT08*	Pusher Plate (SHP-8 4000 PSI)	1/2"	---
DS12TH	Die Set (2500 PSI)	3/4"	E
DP12TH	Pusher Plate 2500 & 3000 PSI	3/4"	D
DS16TH	Die Set (2500 PSI)	1"	D
DP16TH	Pusher Plate (2500 & 3000 PSI)	1"	E
UE1162-FP	Female Pusher	1"	---
DS20TH	Die Set	1 1/4"	E
DP20TH	Pusher Plate	1 1/4"	D
UEM5050FS	Female Swivel Adapter (FxF)	1/2"	C
UE1162-H	Die Holder		



\***UE1050-D** -THIS DIE SET IS THE "TAPERED" VERSION, IF IT IS TO BE USED ON A HYDRAULIC SWAGE MACHINE, IT MUST BE SOLD WITH HOLDER, PART NUMBER UE1162-H. **THIS IS IN THE CASE OF THE CUSTOMER WANTING TO PUT MALE ENDS ON THEIR HOSE ONLY.**

\***DPT08** - THIS PUSHER PLATE IS THE "TAPERED" VERSION, IF IT IS GOING TO BE USED ON A HYDRAULIC SWAGE MACHINE, IT MUST BE SOLD WITH THE HOLDER, PART NUMBER UE1162-H. **THIS IS IN THE CASE OF THE CUSTOMER WANTING TO PUT MALE ENDS ON THEIR HOSE ONLY.**

**ALL FITTINGS LISTED ON THIS PAGE ARE TO BE USED ON HOSE WITH A **YELLOW** INTERIOR COLOR ONLY**

# Parker® Mending Equipment



To be used on the UEM110 Hydraulic Swage Machine.

## CAUTION

### SEWER HOSE AND REPAIR FITTINGS

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

PART NUMBER	DESCRIPTION	SIZE	ITEM PHOTO
UEM110-ASPC	Swage Machine Only	w/ Wheels	F
UEM111R	Swage w/Wheels	3/4" (2) Die Sets (1) Pusher	D, E, F
UEM112R	Swage w/Wheels	1" (2) Die Sets (1) Pusher	D, E, F
UEM113R	Swage w/ Wheels	1 1/4" (2) Die Sets (1) Pusher	D, E, F
Swage - Hand	Hand Swage	3/4" - 1 1/4" Fitting	---
DS12TH	Die Set	3/4" 2500 & 3000 PSI	D
DP12TH	Pusher Plate	3/4" 2500 & 3000 PSI	E
DS16TH	Die Set	1" 2500 PSI	D
DP16TH	Die Set	1" 3000 PSI	D

ALL FITTINGS LISTED ON THIS PAGE ARE TO BE USED ON HOSE WITH A **DARK GREY** INTERIOR COLOR ONLY



# Eaton® Mending Equipment

To be used on the UEM110 Hydraulic Swage Machine.



## CAUTION

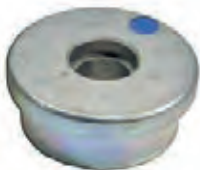
### SEWER HOSE AND REPAIR FITTINGS

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

PART NUMBER	DESCRIPTION	SIZE	ITEM PHOTO
UEM110	Swage Machine Only	w/o Wheels	E
UEM110R	Swage Machine Only	w/ Wheels	E
UEM111A	Swage w/o Wheels	3/4" x 2500 PSI (2) Die Sets (1) Pusher	C, D, E
UEM111A3	Swage w/o Wheels	3/4" x 3000 PSI (2) Die Sets (1) Pusher	C, D, E
UEM111A3R	Swage w/ Wheels	3/4" x 3000 PSI (2) Die Sets (1) Pusher	C, D, E
UEM111AR	Swage w/ Wheels	3/4" x 2500 PSI (2) Die Sets (1) Pusher	C, D, E
UEM112A	Swage w/o Wheels	1" (2) Die Sets (1) Pusher	C, D, E
UEM112AR	Swage w/ Wheels	1" (2) Die Sets (1) Pusher	C, D, E
UEM113A	Swage w/o Wheels	1 1/4" (2) Die Sets (1) Pusher	C, D, E
UEM113AR	Swage w/ Wheels	1 1/4" (2) Die Sets (1) Pusher	C, D, E
U44159	Hand Operated	Applies 3/4" - 1 1/4" Fittings	---
DS12TH	Die Set	3/4" x 2500 PSI & 3000 PSI	D
DP12TH	Pusher Plate	3/4" x 2500 PSI & 3000 PSI	C
DS16TH	Die Set	1" x 2500 PSI & 3000 PSI	D
DP16th	Pusher Plate	1" x 2500 PSI & 3000 PSI	C
DS20TH	Die Set	1 1/4" x 2500 PSI	D
DP20TH	Pusher Plate	1 1/4" x 2500 PSI	C

ALL FITTINGS LISTED ON THIS PAGE ARE TO BE USED ON HOSE WITH A **BLUE** INTERIOR COLOR ONLY

(C)



PUSHER PLATE

(D)



DIE SET

(E)



HYDRAULIC SWAGE MACHINE W/WHEELS

(F)



FEMALE SWIVEL ADAPTER



# BRUTUS

## HEAVY DUTY PORTABLE SWAGE MACHINE FOR PIRANHA SEWER CLEANING HOSE

**1/4", 3/8", 1/2", 3/4", 1", 1-1/4"**

**LB04-08 1/4" - 1/2" NPT MACHINE**

DPS04NPT-PS   PUSHER 1/4" LB  
 DPS06NPT-PS   PUSHER 3/8" LB  
 DPS08NPT-PS   PUSHER 1/2" LB  
 DPS12NPT-PL   PUSHER 3/4" LB  
 DPS16NPT-PL   PUSHER 1" LB  
 DPS20NPT-PL   PUSHER 1-1/4" LB

**BB12-20 3/4" - 1-1/4" NPT MACHINE**

DS04            DIE SET 1/4" LB  
 DS06            DIE SET 3/8" LB  
 DS08            DIE SET 1/2" LB  
 DS12            DIE SET 3/4" LB  
 DS16            DIE SET 1" LB  
 DS20            DIE SET 1-1/4" LB

*DIE & PUSHER STORAGE AREA INCLUDED IN BASE OF UNIT  
 DIE & PUSHERS SOLD SEPERATLY*





