



# DIRECT PUSH TOOLING CATALOG



# WORK OF ART



Almost 75 years ago in the small town of American Falls, Idaho, a man had a dream and a vision. Art Vollweiler had the philosophy that “everything was a work of Art.” Associating his name with everything he created meant something in 1942. It meant that everything he designed and built was made to last. Art’s assurance in quality has stood the test of time, and continues to be true, 75-years later.

The Soil Conservation Service of the United States government recognized Art’s quality seal and commissioned him to design build a soil sampling tool. The auger that Art built was so revolutionary, that the design is still used today. Over the years, a complete line of hand sampling equipment, including augers, hammer driven samplers,

specialty shovels and accessory items, were developed. All these products are still hand crafted in small town America, just like they were meant to be.

In 1980, Art’s son, Rick Vollweiler, purchased AMS. He recognized the company’s potential in the global market and grew Art’s Machine Shop, now AMS, from a successful local business

to the global competitor and industry leader it is today. In 1988, Art’s grandson Marc Chipps

joined the family business. Marc worked his way through the ranks until becoming the president of AMS in 2002. AMS has always been innovative, and still crafts with precision and the philosophy that everything is a “Work of Art.”

AMS, Inc., has since taken steps to expand into other areas, including, health, mining, agricultural, construction, and many other industries. AMS has developed innovative ways to assist golf courses, railroads, real estate companies, and researchers at universities throughout the world. With each new step, they are reminded of the need to stay true to the founding philosophy.

Today, AMS is finding better ways to do jobs with less impacts on our environment. They are developing partnerships that enhance our technologies. The addition of

Art’s grandson, Marc, to the management team in 2002, has given AMS the ability to respond quickly to the changing industry demands. Marc has pushed technological advancement of AMS existing products further than ever before while encouraging the further expansion of the AMS product lines and uses.

Rick Vollweiler is proud of AMS and all the company’s accomplishments. The 75th anniversary of AMS will be in 2017. He can hardly believe how

development continues to improve established sampling methods and provide AMS customers with new and exciting ways to succeed.”

Marc Chipps is eager to continue the company’s legacy of quality, “Each piece is custom built and tested to meet the customer’s exact needs and specifications.”

Companies rarely stay around long enough to see their 75-year anniversary; it is even rarer to still be a family business.

AMS has remained successful because of their commitment to excellence, quality, and service. The

“Everything is a work of Art.”

far they’ve come in 75 years, “For three quarters of a century, AMS has been meeting the sampling needs of an ever changing world. AMS has developed a variety of new products and has made numerous improvements to existing products by working closely with industry professionals, researchers, regulatory agencies, and inventors. The company’s technological innovation and

AMS production team of master welders, machinists, engineers, and fabricators take great pride in each hand-crafted piece. Like a fine automobile or Swiss watch, they carefully shape their product to perfection and carry it through to its final stage of testing. For 75 years, AMS has stayed true to the founder’s philosophy: **Everything is a work of Art.**





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# SOIL SAMPLING WITH DIRECT PUSH

Direct Push tooling is highly effective in most unconsolidated lithologies, including sand, soft clay, tight silt, swelling clay, heaving sand, and gravel. AMS soil sampling systems include dual-tube sampling systems, piston sampling systems, and single-tube sampling systems. Direct Push also has options for multiple groundwater, soil gas, geotechnical sampling methods, as well as options for remedial type injections.

## SINGLE TUBE

AMS single-tube tooling is used to quickly collect soil samples in non-heaving, non-caving lithology. When sampling shallow depths, this is the fastest, most cost-effective method available. They are able to handle higher pressure than conventional split-spoon methods. A variety of sampler sizes and options are available to best fit most soil situations and job requirements. Increase your sample recovery chances and eliminate unnecessary time for repeated driving and retrieving when collecting soil samples. A core catcher tip is also available.

## DUAL TUBE

AMS dual-tube sampling systems are used to collect undisturbed, continuous, and depth-specific samples through a cased borehole. The external direct push extensions (DPEs) case the borehole to minimize the chance of cross contamination while displacing soils during the penetration. The internal DPEs are attached to a PVC liner which is inserted into the external DPEs. Both are simultaneously driven into the soil to fill the liner. The internal DPEs are then removed to recover the sample. These systems are also used to install small diameter groundwater monitoring wells through the same tooling string. A variety of outer drive tips are available.

Dual-tube systems are available in 3 3/4", 3 1/2", 2 3/4", 2 3/8", and 2 1/8". The 2 3/8" system features the newest Generation 7 (G7) and G7 Advanced (G7A) tooling, as well as G3 /G3A tooling. The 3 1/2" system is compatible with 3 1/2" geotechnical options.

### Dual-Tube Sampling Application

AMS dual-tube systems are used to collect soil samples continuously from the surface or from a desired discrete depth below the surface.

- 1) Push the internal and external DPEs and drive tips to the sampling depth using the drive head and thread protector pull cap.
- 2) Remove the external drive head, and pull out the internal DPEs and internal drive tip using the thread protector pull cap.
- 3) Add liner, liner grabber, thread-protector pull cap, internal and external extensions, and drive head.
- 4) Push the sampler to the same length as the liner.
- 5) Remove the internal DPEs and the liner containing the soil sample.

For continuous sampling, repeat steps 3 through 5 to the desired depth using the external drive tip with liner. Use the liner grabber to hold the liner while attaching to the internal DPEs.

### Dual-Tube Sizing Chart

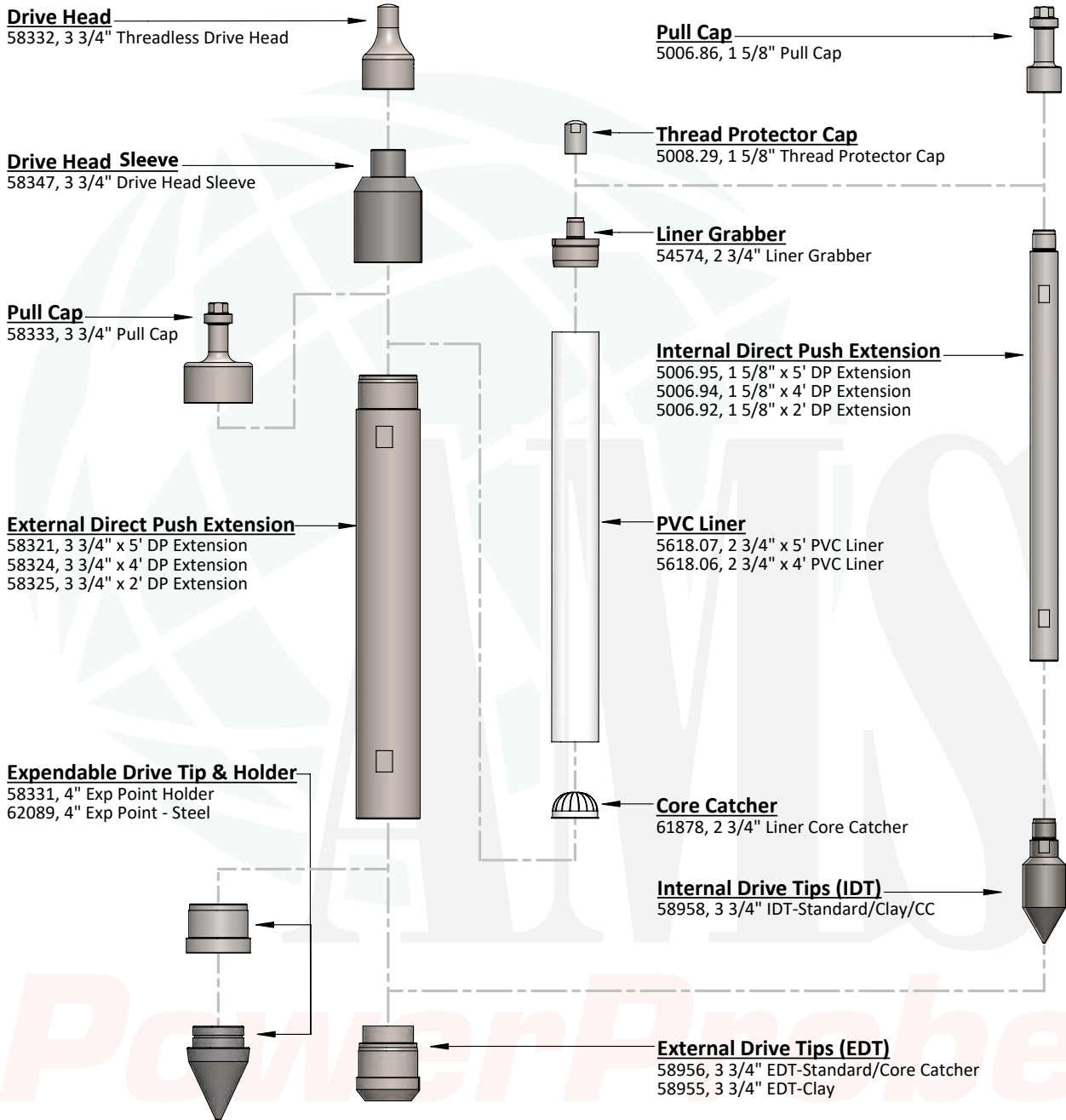


| Extension  | OD     | ID     |
|------------|--------|--------|
| 3 3/4" DPE | 3 3/4" | 3"     |
| 3 1/2" DPE | 3 1/2" | 3"     |
| 2 3/4" DPE | 2 3/4" | 2 1/4" |
| 2 3/8" DPE | 2 3/8" | 1 5/8" |
| 2 1/8" DPE | 2 1/8" | 1 5/8" |
| 1 5/8" DPE | 1 5/8" | 7/8"   |
| 1 3/4" DPE | 1 3/4" | 1 1/4" |
| 1 1/4" DPE | 1 1/4" | 1/2"   |



3 3/4" DUAL TUBE

**3 3/4" Dual Tube Tooling Assembly**



## 3 3/4" DUAL TUBE

AMS 3 3/4" dual-tube sampling system is our largest and most robust system that is ideal for placement of a 2" prepack monitoring wells, through the external DP extension. It provides increased versatility with a 1 5/8" heavy-duty internal extensions to meet the demands of more powerful direct-push equipment. It allows for efficient collection of discrete or continuous samples, and it provides an effective conduit to allow for soil gas and groundwater sampling to be conducted telescopically.

AMS 3 3/4" dual-tube tooling can also be used to conduct SPT and other geotechnical sampling and testing. It utilizes our 2 3/4" OD heavy-walled PVC liner to collect continuous soil samples in the toughest conditions.

### 3 3/4" Dual-Tube System

#### External & Internal Extensions/Holders

| Part#   | Item                     | Price    |
|---------|--------------------------|----------|
| 58321   | 3 3/4" x 5' DP Extension | \$425.00 |
| 58324   | 3 3/4" x 4' DP Extension | \$405.00 |
| 58325   | 3 3/4" x 2' DP Extension | \$375.00 |
| 5006.95 | 1 5/8" x 5' DP Extension | \$169.00 |
| 5006.94 | 1 5/8" x 4' DP Extension | \$159.00 |
| 5006.92 | 1 5/8" x 2' DP Extension | \$126.00 |
| 5014.07 | 1 5/8" DPE Holder        | \$56.00  |

#### Drive Heads / Pull Caps / Thread Protector Caps

|         |                              |          |
|---------|------------------------------|----------|
| 58332   | 3 3/4" Threadless Drive Head | \$190.00 |
| 58347   | 3 3/4" Drive Head Sleeve     | \$165.00 |
| 58333   | 3 3/4" Pull Cap              | \$221.00 |
| 5008.29 | 1 5/8" Thread Protector Cap  | \$90.00  |
| 5006.85 | 1 5/8" Drive Head            | \$130.00 |
| 5006.86 | 1 5/8" Pull Cap              | \$110.00 |

#### External Drive Tips (EDT) / Internal Drive Tips (IDT)

|       |                                    |          |
|-------|------------------------------------|----------|
| 58956 | 3 3/4" EDT - Standard/Core Catcher | \$180.30 |
| 58955 | 3 3/4" EDT - Clay                  | \$180.30 |
| 58958 | 3 3/4" IDT - Standard/Clay/CC      | \$180.30 |
| 58331 | 3 3/4" Exp Point Holder            | \$140.00 |
| 62089 | 4" Expendable Point - steel        | \$47.50  |

#### Liner Grabber / Plastic Liners / End Caps / Core Catchers

| Part#   | Item  | Price    |
|---------|---|----------|
| 54574   | 2 3/4" Liner Grabber                          | \$150.00 |
| 5618.07 | 2 3/4" x 5' PVC Liner                         | \$12.00  |
| 5618.06 | 2 3/4" x 4' PVC Liner                         | \$9.70   |
| 52565   | Liner Loading Plate                           | \$56.00  |
| 61878   | 2 3/4" Liner Core Catcher                     | \$2.00   |
| 418.20  | 2 3/4" Plastic End Cap                        | \$0.70   |
| 418.16  | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$86.50  |

#### Dual Tube Accessories

|         |                         |          |
|---------|-------------------------|----------|
| 53030   | 3 3/4" Swivel Hoist Cap | \$165.00 |
| 53026   | 1 5/8" Swivel Hoist Cap | \$165.00 |
| 62150   | 1 5/8" Rod Leaf Puller  | \$165.00 |
| 55039   | 3 3/4" Fishing Tool     | \$210.00 |
| 5008.28 | 1 5/8" Thread Chaser    | \$168.00 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

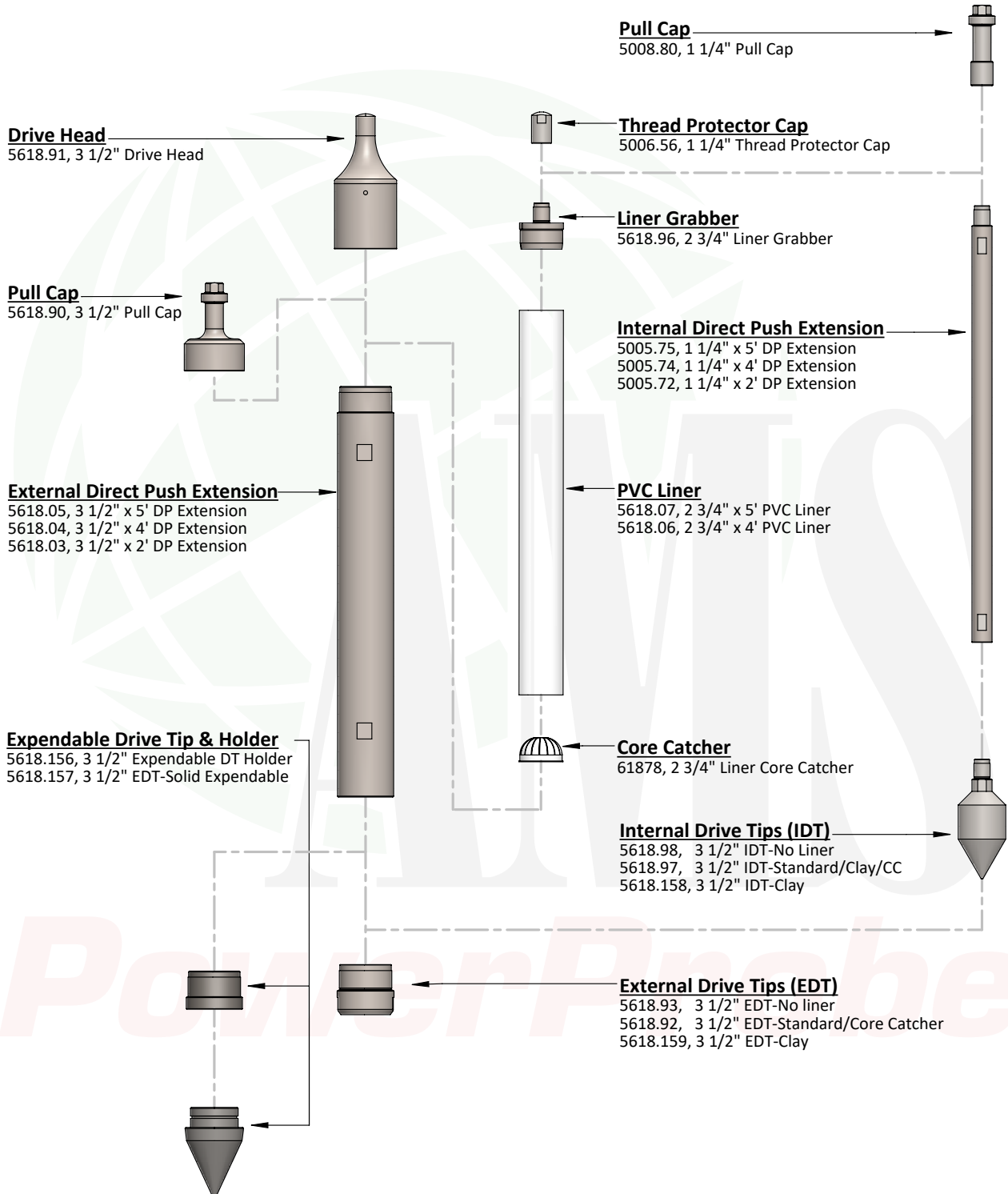
|         |                            |            |
|---------|----------------------------|------------|
| 52886   | 2 3/4" DP Liner Splitter   | \$205.00   |
| 5606.10 | Deck Mount Liner Tray      | \$245.00   |
| 5052.20 | Portable Sample Prep Table | \$1,075.00 |





# 3 1/2" DUAL TUBE

## 3 1/2" Dual Tube Tooling Assembly





## 3 1/2" DUAL TUBE

The 3 1/2" dual-tube sampling system is ideal for placement of 1" to 2" prepack monitoring wells, through the ID of the external DP extension. It provides increased versatility with a 1 1/4" internal extension or optional 1 5/8" heavy-duty DP extension. It allows for efficient collection of discrete or continuous 2 3/4" OD samples, and it provides an effective conduit to allow for soil gas and groundwater sampling to be conducted telescopically. This AMS 3 1/2" dual-tube tooling can also be used to conduct SPT and other geotechnical sampling and testing applications.

### 3 1/2" Dual-Tube System

#### External & Internal Extensions/holders

| Part#   | Item                     | Price     |
|---------|--------------------------|-----------|
| 5618.05 | 3 1/2" x 5' DP Extension | \$ 265.00 |
| 5618.04 | 3 1/2" x 4' DP Extension | \$ 240.00 |
| 5618.03 | 3 1/2" x 2' DP Extension | \$ 205.00 |
| 5014.05 | 3 1/2" DPE Holder        | \$ 56.00  |
| 5005.75 | 1 1/4" x 5' DP Extension | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DP Extension | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DP Extension | \$ 105.00 |
| 5014.30 | 1 1/4" DPE Holder        | \$ 56.00  |

#### Drive Heads / Pull Caps / Thread Protector Caps

|         |                             |           |
|---------|-----------------------------|-----------|
| 5618.91 | 3 1/2" Drive Head           | \$ 270.00 |
| 5618.90 | 3 1/2" Pull Cap             | \$ 195.00 |
| 5005.86 | 1 1/4" Drive Head           | \$ 110.00 |
| 5006.56 | 1 1/4" Thread Protector Cap | \$ 75.00  |
| 5005.80 | 1 1/4" Pull Cap             | \$ 95.00  |

#### External Drive Tips (EDT) / Internal Drive Tips (IDT)

|          |                                    |           |
|----------|------------------------------------|-----------|
| 5618.93  | 3 1/2" EDT - No Liner              | \$ 150.00 |
| 5618.92  | 3 1/2" EDT - Standard/Core Catcher | \$ 150.00 |
| 5618.159 | 3 1/2" EDT - Clay                  | \$ 150.00 |
| 5618.98  | 3 1/2" IDT - No Liner              | \$ 150.00 |
| 5618.97  | 3 1/2" IDT - Standard/Clay/CC      | \$ 150.00 |
| 5618.156 | 3 1/2" Expendable DT Holder        | \$ 110.00 |
| 5618.157 | 3 1/2" EDT - Solid Expendable      | \$ 25.00  |
| 5618.95  | 3 1/2" EDT - Exp Sample DT         | \$ 115.00 |
| 92089    | 4" EDT - Solid Expendable          | \$ 47.50  |

#### Liner Grabber / Plastic Liners / End Caps / Core Catchers

| Part#   | Item  | Price     |
|---------|---|-----------|
| 5618.96 | 2 3/4" Liner Grabber                          | \$ 145.00 |
| 5618.07 | 2 3/4" x 5' PVC Liner                         | \$ 12.00  |
| 5618.06 | 2 3/4" x 4' PVC Liner                         | \$ 9.70   |
| 52565   | Liner Loading Plate                           | \$56.00   |
| 61878   | 2 3/4" Liner Core Catcher                     | \$ 2.00   |
| 418.20  | 2 3/4" Plastic End Cap                        | \$ 0.70   |
| 418.16  | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$ 86.50  |

#### Dual Tube Accessories

|          |                                |           |
|----------|--------------------------------|-----------|
| 53029    | 3 1/2" Swivel Hoist Cap        | \$ 253.00 |
| 53025    | 1 1/4" Swivle Hoist Cap        | \$ 150.00 |
| 62091    | 1 1/4" Rod Leaf Puller         | \$ 150.00 |
| 5008.13  | 1 1/4" Thread Chaser           | \$ 130.00 |
| 5008.145 | 3 1/2" Thread Chaser           | \$ 325.00 |
| 5008.23  | 1 1/4" Fishing Tool, 1 1/4"Thr | \$ 80.00  |
| 55039    | 3 1/2" Fishing Tool, 1 1/4"Thr | \$ 210.00 |
| 52580    | 3 1/2" Concrete Asphalt Punch  | \$ 670.00 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52886   | 2 3/4" DP Liner Splitter   | \$ 205.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9520-VTR



# 2 3/4" DUAL TUBE

## 2 3/4" Dual Tube Tooling Assembly

### Drive Heads

5010.30, 2 3/4" Threaded Drive Head,  
58041, 2 3/4" Threadless Drive Head

### Drive Head Sleeve

58042, 2 3/4" Threadless Drive Head Sleeve  
(Only Use With Threadless Drivehead)

### Pull Cap

5010.35, 2 3/4" Pull Cap

### External Direct Push Extension

5010.05, 2 3/4" x 5' DP Extension  
5010.04, 2 3/4" x 4' DP Extension  
5010.02, 2 3/4" x 2' DP Extension

### Expendable Drive Tip & Holder

5010.27, 2 3/4", Expendable DT Holder  
5010.26, 2 3/4", EDT-Solid Expendable

### External Drive Tips (EDT)

5010.10, 2 3/4" EDT-No Liner  
5010.11, 2 3/4" EDT-Standard/Core Catcher  
5010.12, 2 3/4" EDT-Clay  
52123, 2 3/4" EDT -G3A Retainer Sleeve

### Retainer Sleeve Removal Tool

55440, Removal Tool

### Thread Protector Cap

5006.56, 1 1/4" Thread Protector Cap

### Pull Cap

5005.80, 1 1/4" Pull Cap

### Liner Grabber

5010.51, 2" Liner Grabber

### Internal Direct Push Extension

5005.75, 1 1/4" x 5' DP Extension  
5005.74, 1 1/4" x 4' DP Extension  
5005.72, 1 1/4" x 2' DP Extension

### PVC Liner

5010.44, 2" x 5' PVC Liner  
5010.48, 2" x 4' PVC Liner  
5010.46, 2" x 2' PVC Liner

### Core Catcher

61877, 2" Liner Core Catcher

### Retainer Sleeve

5014.14, 2" Metal Retainer Sleeve

### Retainer Sleeve Loading Tool

52127, (G3A) Loading Tool

### Internal Drive Tips (IDT)

5010.21, 2 3/4" IDT-No Liner  
5010.23, 2 3/4" IDT-Standard/Clay/CC



## 2 3/4" DUAL TUBE

The 2 3/4" dual-tube sampling system is ideal for placement of 1" prepack monitoring wells. It provides increased versatility with a 1 1/4" internal extension option. It allows for efficient collection of discrete or continuous samples, and provides an effective conduit to allow for soil gas and groundwater sampling to be conducted telescopically. This system uses a 2" OD heavy-wall PVC liner for collection of continuous soil samples that helps prevent swelling and sticking liners down hole.

### 2 3/4" Dual-Tube System

#### External & Internal Extensions/holders

| Part#   | Item                     | Price     |
|---------|--------------------------|-----------|
| 5010.05 | 2 3/4" x 5' DP Extension | \$ 195.00 |
| 5010.04 | 2 3/4" x 4' DP Extension | \$ 180.00 |
| 5010.02 | 2 3/4" x 2' DP Extension | \$ 150.00 |
| 5014.00 | 2 3/4" DPE Holder        | \$ 56.00  |
| 5005.75 | 1 1/4" x 5' DP Extension | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DP Extension | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DP Extension | \$ 105.00 |
| 5014.30 | 1 1/4" DPE Holder        | \$ 56.00  |

#### Drive Heads / Pull Caps / Thread Protector Caps

|         |                                     |           |
|---------|-------------------------------------|-----------|
| 58041   | 2 3/4" Threadless Drive Head        | \$ 215.00 |
| 58042   | 2 3/4" Threadless Drive Head Sleeve | \$ 125.00 |
| 5010.35 | 2 3/4" Pull Cap                     | \$ 135.00 |
| 5006.56 | 1 1/4" Thread Protector Cap         | \$ 75.00  |
| 5005.80 | 1 1/4" Pull Cap                     | \$ 95.00  |

#### External Drive Tips (EDT) / Internal Drive Tips (IDT)

|         |                                    |           |
|---------|------------------------------------|-----------|
| 5010.10 | 2 3/4" EDT - No Liner              | \$ 120.00 |
| 5010.11 | 2 3/4" EDT - Standard/Core Catcher | \$ 120.00 |
| 5010.12 | 2 3/4" EDT - Clay                  | \$ 120.00 |
| 52123   | 2 3/4" EDT - G3A Retainer Sleeve   | \$ 120.00 |
| 5010.21 | 2 3/4" IDT - No Liner              | \$ 120.00 |
| 5010.23 | 2 3/4" IDT - Standard/Clay/CC      | \$ 120.00 |
| 5010.27 | 2 3/4" Expendable DT Holder        | \$ 115.00 |
| 5010.26 | 2 3/4" EDT - Solid Expendable      | \$ 15.00  |

#### Liner Grabber / Plastic Liners / End Caps / Core Catchers

| Part#   | Item  | Price     |
|---------|---|-----------|
| 5010.51 | 2" Liner Grabber                              | \$ 130.00 |
| 5010.44 | 2" x 5' PVC Liner                             | \$ 10.00  |
| 5010.48 | 2" x 4' PVC                                   | \$ 5.45   |
| 5010.46 | 2" x 2' PVC Liner                             | \$ 4.95   |
| 52565   | Liner Loading Plate                           | \$ 56.00  |
| 61877   | 2" Liner Core Catcher                         | \$ 1.50   |
| 418.10  | 2" Plastic End Cap                            | \$ 0.50   |
| 418.16  | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$ 86.50  |
| 5014.14 | 2" Metal Retainer Sleeve                      | \$ 38.50  |
| 55440   | Retainer Sleeve Removal Tool                  | \$ 65.00  |

#### Dual Tube Accessories

|          |                                |           |
|----------|--------------------------------|-----------|
| 53031    | 2 3/4" Swivel Hoist Cap        | \$ 221.50 |
| 53025    | 1 1/4" Swivel Hoist Cap        | \$ 150.00 |
| 62154    | 1 1/4" Rod Leaf Puller         | \$ 150.00 |
| 5008.13  | 1 1/4" Thread Chaser           | \$ 130.00 |
| 5008.125 | 2 3/4" Thread Chaser           | \$ 325.00 |
| 5008.23  | 1 1/4" Fishing Tool, 1 1/4"Thr | \$ 80.00  |
| 5008.26  | 2 3/4" Fishing Tool, 1 1/4"Thr | \$ 164.00 |
| 52580    | 3 1/2" Concrete Asphalt Punch  | \$ 670.00 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

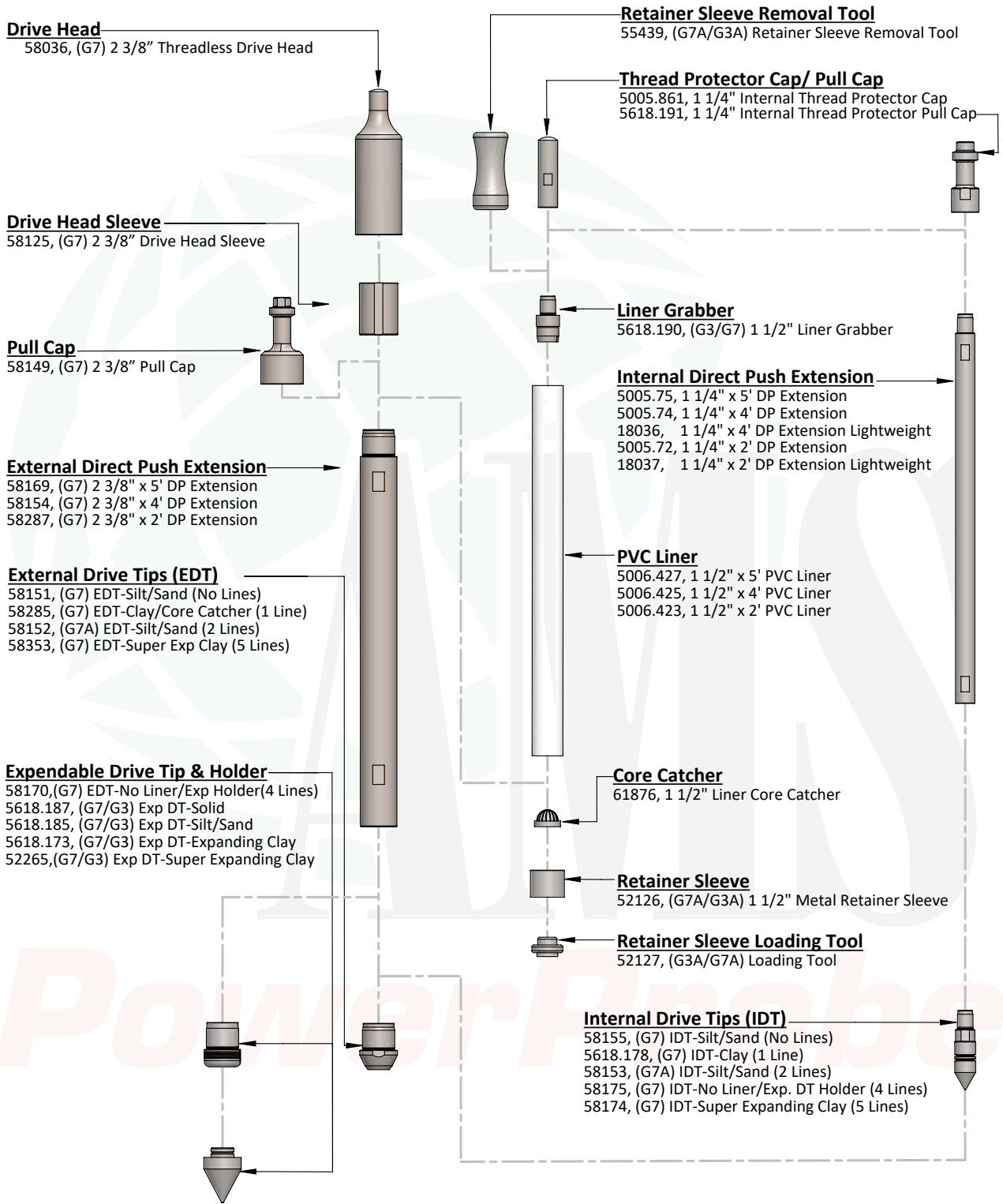
|         |                            |             |
|---------|----------------------------|-------------|
| 58145   | 2" DP Liner Splitter       | \$ 175.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9520-D

# 2 3/8" (G7) DUAL TUBE

## (G7) Dual Tube Tooling Assembly





# 2 3/8" (G7) DUAL TUBE

G7 direct push dual-tube tooling has an improved thread design and functionality for a more robust connection to eliminate the chance of failure while in the field. G7 direct push tooling provides the durability and reliability recommended for AMS PowerProbes™ with maximum hammering and pulling capability. G7 tooling can endure more push and pull back power than any current direct-push dual-tube tooling system. The G7 tooling is the best option for the collection of 1 1/2" OD x 4' or 5' discrete or continuous samples at greater depths and in difficult soils.

The weight of the G7 internal direct push extensions is supported by the G7 external direct push extension to keep the weight off of the liner. This allows them to be effective and reliable at even greater depths while casing the bore-hole as you advance each section to eliminate the chance of crosscontamination or recapturing any cave or slough soil material.

A standard design feature is a thread-less drive head combined with a thread protector sleeve that allows for maximum direct push, while minimizing the wear and tear on the threads of the direct push tooling directly below the direct push hammer. G7 tooling is also the best option for the installation of 3/4 inch prepacked groundwater monitoring wells.

### G7 Advanced (G7A) features:

G7A systems use a reusable metal retainer sleeve that slips easily onto the bottom end of the sample liner, to act as a heat-shield, and it keeps the bottom of the liner from folding or tearing due to swelling or jagged material entering the liner. Both G7 and G7A use 1 1/2" OD liners. The Advanced (A) designation indicates that a retainer sleeve and or core catcher are used on the end of the liner with the appropriate G7A EDT.

## 2 3/8" (G7) Dual-Tube System

### External & Internal Extensions/Holders

| Part#   | Item                                   | Price     |
|---------|--|-----------|
| 58169   | (G7) 2 3/8" x 5' DP Extension          | \$ 230.00 |
| 58154   | (G7) 2 3/8" x 4' DP Extension          | \$ 207.00 |
| 58287   | (G7) 2 3/8" x 2' DP Extension          | \$ 160.00 |
| 5014.06 | 2 3/8" DPE Holder                      | \$ 56.00  |
| 5005.75 | 1 1/4" x 5' DP Extension               | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DP Extension               | \$ 125.00 |
| 18036   | 1 1/4" x 4' DP Extension - lightweight | \$ 98.00  |
| 5005.72 | 1 1/4" x 2' DP Extension               | \$ 105.00 |
| 18037   | 1 1/4" x 2' DP Extension - lightweight | \$ 89.00  |
| 5014.03 | 1 1/4" DPE Holder                      | \$ 56.00  |

### Drive Heads / Pull Caps / Thread Protector Caps

|          |   |           |
|----------|---|-----------|
| 58036    | (G7) 2 3/8" Threadless Drive Head         | \$ 215.00 |
| 58125    | (G7) 2 3/8" Drive Head Sleeve             | \$ 95.00  |
| 58149    | (G7) 2 3/8" Pull Cap                      | \$160.00  |
| 5005.860 | 1 1/4" Drive Head Adapter                 | \$ 110.00 |
| 5005.861 | 1 1/4" Internal Thread Protector Cap      | \$ 115.00 |
| 5618.191 | 1 1/4" Internal Thread Protector Pull Cap | \$ 119.00 |

### External Drive Tips (EDT) - G7 & G7A

|       |   |           |
|-------|---|-----------|
| 58151 | (G7) EDT - Silt / Sand (No Lines)                 | \$ 150.00 |
| 58285 | (G7) EDT - Clay / Core Catcher (One Line)         | \$ 150.00 |
| 58152 | (G7A) EDT - Silt / Sand (Two Lines)               | \$ 150.00 |
| 58170 | (G7) EDT - No Liner / Exp. DT Holder (Four Lines) | \$ 135.00 |
| 58353 | (G7) EDT - Super Expanding Clay (Five Lines)      | \$ 150.00 |

### Internal Drive Tips (IDT) - G7 & G7A

|          |   |           |
|----------|---|-----------|
| 58155    | (G7) IDT - Silt / sand (No Lines)                 | \$ 150.00 |
| 5618.178 | (G7) IDT - Clay (One Line)                        | \$ 150.00 |
| 58153    | (G7A) IDT - Silt / Sand (Two Lines)               | \$ 150.00 |
| 58175    | (G7) IDT - No Liner / Exp. DT Holder (Four Lines) | \$ 150.00 |
| 58174    | (G7) IDT - Super Expanding Clay (Five Lines)      | \$ 150.00 |

### Expendable Drive Tips

|          |   |          |
|----------|---|----------|
| 5618.187 | (G7 / G3) Expendable DT - Solid                 | \$ 11.84 |
| 5618.185 | (G7 / G3) Expendable Sample DT - Silt / Sand    | \$ 28.00 |
| 5618.173 | (G7 / G3) Expendable Sample DT - Expanding Clay | \$ 38.00 |
| 52265    | (G7 / G3) Expendable Sample DT - Super Exp Clay | \$ 39.00 |

### Oversized Borehole Options

|       |                              |           |
|-------|------------------------------|-----------|
| 58173 | (G7) EDT - Oversized Adapter | \$ 175.00 |
| 58172 | (G7) IDT - Oversized Adapter | \$ 125.00 |

### Liner Grabber / Plastic Liners / End Caps / Core Catchers

| Part#    | Item  | Price     |
|----------|---|-----------|
| 5618.190 | (G3 / G7) 1 1/2" Liner Grabber                | \$ 129.00 |
| 5006.427 | 1 1/2" x 5' PVC Liner                         | \$ 3.95   |
| 5006.425 | 1 1/2" x 4' PVC Liner                         | \$ 2.91   |
| 5006.423 | 1 1/2" x 2' PVC Liner                         | \$ 2.31   |
| 52565    | Liner Loading Platform                        | \$ 56.00  |
| 61876    | 1 1/2" Liner Core Catcher                     | \$ 1.25   |
| 418.08   | 1 1/2" Plastic End Cap                        | \$ 0.21   |
| 418.16   | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$ 86.50  |

### G7 Advanced Retainer Sleeve Items / Core Catchers

|       |  |          |
|-------|--|----------|
| 52126 | (G7A / G3A) 1 1/2" Metal Retainer Sleeve       | \$ 25.00 |
| 52168 | (G7A / G3A) 1 1/2" Core Catcher - White        | \$ 4.25  |
| 52169 | (G7A / G3A) 1 1/2" Core Catcher - Red          | \$ 3.60  |
| 54577 | (G7A / G3A) 1 1/2" Core Catcher - Spring Steel | \$ 34.80 |
| 55439 | (G7A / G3A) Retainer Sleeve Removal Tool       | \$ 65.00 |

### Dual Tube Accessories

|          |                                     |           |
|----------|-------------------------------------|-----------|
| 53028    | (G7) Swivel Hoist Cap               | \$ 222.00 |
| 53025    | 1 1/4" Swivel Hoist Cap             | \$ 150.00 |
| 62154    | 1 1/4" Rod Leaf Puller              | \$ 150.00 |
| 5008.13  | 1 1/4" Thread Chaser                | \$ 130.00 |
| 58283    | (G7) Thread Chaser                  | \$ 215.00 |
| 5008.23  | 1 1/4" Fishing Tool 1 1/4" Thread   | \$ 80.00  |
| 5008.24  | 2 3/8" Fishing Tool 1 1/4" Thread   | \$ 135.00 |
| 5008.061 | O-Ring Kit for 2 3/8" DPE (qty: 25) | \$ 9.81   |
| 5008.02  | O-Ring Kit for 1 1/4" DPE (qty: 25) | \$ 6.31   |
| 5008.24  | 2 3/8" Fishing Tool, 1 1/4" Thread  | \$ 135.00 |

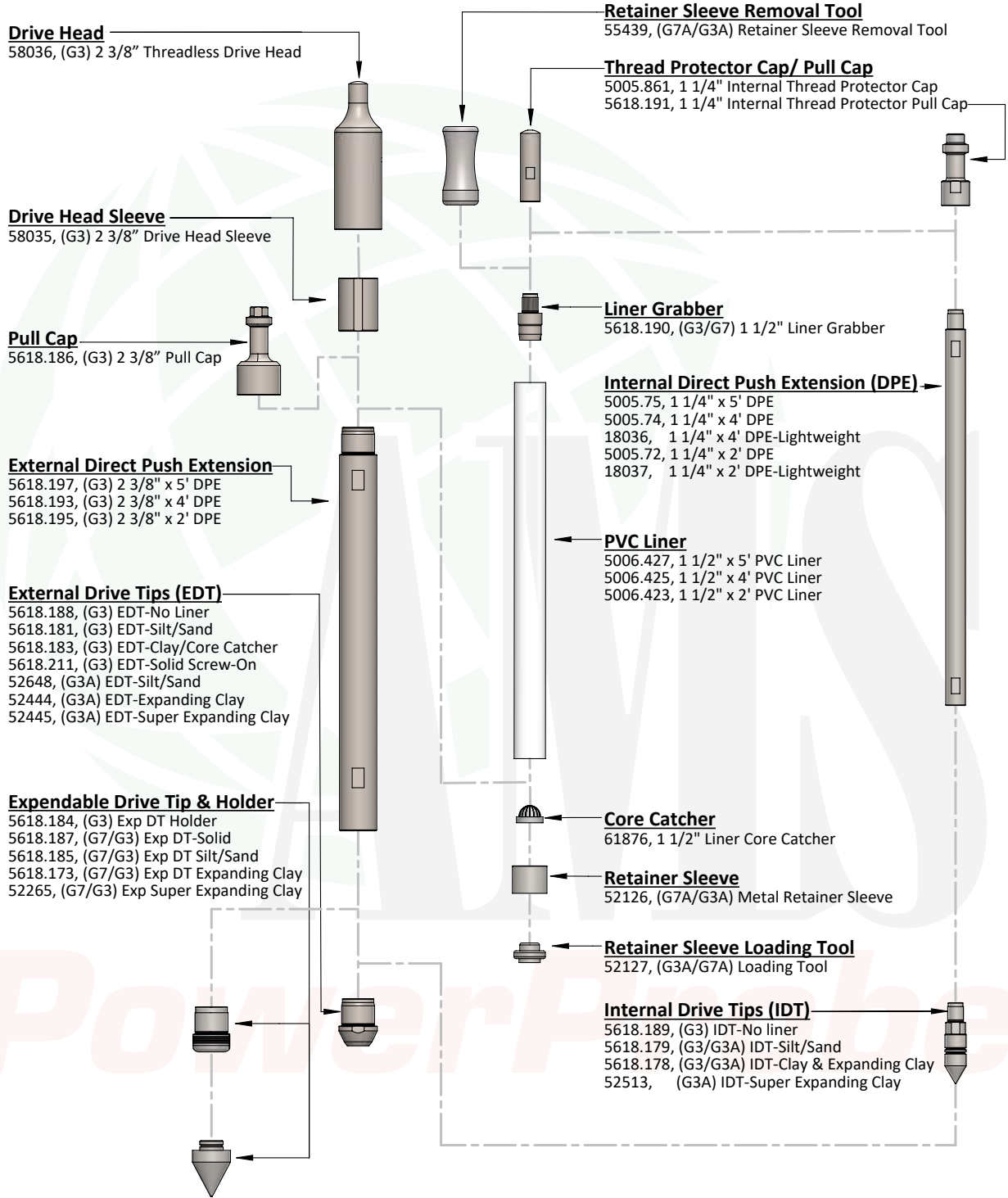
### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52364   | 1 1/2" DP Liner Splitter   | \$ 120.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



# 2 3/8" (G3) DUAL TUBE

## (G3) Dual Tube Tooling Assembly





## 2 3/8" (G3) DUAL TUBE

The Generation three (G3) dual-tube system is based upon a thick-walled design and provides the durability and reliability recommended for AMS PowerProbes™ with maximum hammering and pulling capability. The G3 tooling can endure more push and pull back power than standard dual-tube systems. The G3 tooling is the best option for the collection of discrete or continuous samples at greater depth and in difficult soils. The design helps to ensure reliable liner sampling and minimizes the chance of liner failure or collapse. The weight of the G3 internal direct push extensions is supported by the G3 external direct push extension to keep the weight off of the liner. This allows them to be more effective and reliable at even greater depths. This can also be used for installations of 3/4" prepack monitoring wells, and it provides an effective conduit for soil gas and groundwater sampling. They use a 1 1/2" OD (0.065" wall) Clear PVC liner.

### G3 Advanced (G3A) features:

G3A systems use a reusable metal retainer sleeve that slips easily onto the bottom end of the sample liner to act as a heat-shield, and it keeps the bottom of the liner from folding or tearing due to swelling or jagged material entering the liner.

### 2 3/8" (G3) Dual-Tube System

#### External & Internal Extensions/Holders

| Part#    | Item                          | Price     |
|----------|-------------------------------|-----------|
| 5618.197 | (G3) 2 3/8" x 5' DPE          | \$ 210.00 |
| 5618.193 | (G3) 2 3/8" x 4' DPE          | \$ 187.00 |
| 5618.196 | (G3) 2 3/8" x 3' DPE          | \$ 163.00 |
| 5618.195 | (G3) 2 3/8" x 2' DPE          | \$ 140.00 |
| 5618.194 | (G3) 2 3/8" x 1' DPE          | \$ 116.00 |
| 5014.06  | 2 3/8" DPE Holder             | \$ 56.00  |
| 5005.75  | 1 1/4" x 5' DPE               | \$ 130.00 |
| 5005.74  | 1 1/4" x 4' DPE               | \$ 125.00 |
| 18036    | 1 1/4" x 4' DPE - lightweight | \$ 98.00  |
| 5005.73  | 1 1/4" x 3' DPE               | \$ 115.00 |
| 5005.72  | 1 1/4" x 2' DPE               | \$ 105.00 |
| 18037    | 1 1/4" x 2' DPE - lightweight | \$ 89.00  |
| 5005.71  | 1 1/4" x 1' DPE               | \$ 95.00  |
| 5014.03  | 1 1/4" DPE Holder             | \$ 56.00  |

#### Drive Heads / Pull Caps / Thread Protector Caps

|          |   |           |
|----------|---|-----------|
| 58036    | (G3) 2 3/8" Threadless Drive Head         | \$ 215.00 |
| 58035    | (G3) 2 3/8" Drive Head Sleeve             | \$ 95.00  |
| 5618.186 | (G3) 2 3/8" Pull Cap                      | \$160.00  |
| 5005.86  | 1 1/4" Drive Head                         | \$ 110.00 |
| 5005.861 | 1 1/4" Internal Thread Protector Cap      | \$ 115.00 |
| 5618.191 | 1 1/4" Internal Thread Protector Pull Cap | \$ 119.00 |

#### External Drive Tips (EDT) - (G3) Original

|          |                              |           |
|----------|------------------------------|-----------|
| 5618.188 | (G3) EDT - No Liner          | \$ 150.00 |
| 5618.181 | (G3) EDT - Silt/Sand         | \$ 150.00 |
| 5618.183 | (G3) EDT - Clay/Core Catcher | \$ 150.00 |
| 5618.211 | (G3) EDT - Solid Screw-On    | \$ 135.00 |

#### External Drive Tips (EDT) - G3 Advanced (G3A)

|       |                                  |           |
|-------|----------------------------------|-----------|
| 52648 | (G3A) EDT - Silt/Sand            | \$ 160.00 |
| 52444 | (G3A) EDT - Expanding Clay       | \$ 195.00 |
| 52445 | (G3A) EDT - Super Expanding Clay | \$ 210.00 |

#### Internal Drive Tips (IDT) - (G3) & (G3A)

|          |                                      |           |
|----------|--------------------------------------|-----------|
| 5618.189 | (G3) IDT - No Liner                  | \$ 145.00 |
| 5618.179 | (G3/G3A) IDT - Silt/Sand             | \$ 145.00 |
| 5618.178 | (G3/G3A) IDT - Clay & Expanding Clay | \$ 150.00 |
| 52513    | (G3A) IDT - Super Expanding Clay     | \$ 157.00 |

#### Expendable Drive Tip Holders & Drive Tips

| Part#    | Item   | Price     |
|----------|--|-----------|
| 5618.184 | (G3) Expendable DT Holder                    | \$ 135.00 |
| 5618.187 | (G7/G3) Expendable DT - Solid                | \$ 11.90  |
| 5618.185 | (G7/G3) Expendable Sample DT - Silt/Sand     | \$ 28.00  |
| 52446    | (G3A) Expendable DT Holder                   | \$ 161.00 |
| 5618.173 | (G7/G3) Exp Sample DT - Expanding Clay       | \$ 38.00  |
| 52265    | (G7/G3) Exp Sample DT - Super Expanding Clay | \$ 39.00  |

#### Liner Grabber / Plastic Liners / End Caps / Core Catchers

|          |   |           |
|----------|---|-----------|
| 5618.190 | (G3 / G7) 1 1/2" Liner Grabber                | \$ 129.00 |
| 5006.427 | 1 1/2" x 5' PVC Liner                         | \$ 3.95   |
| 5006.425 | 1 1/2" x 4' PVC Liner                         | \$ 2.91   |
| 5006.423 | 1 1/2" x 2' PVC Liner                         | \$ 2.31   |
| 52565    | Liner Loading Platform                        | \$ 56.00  |
| 61876    | 1 1/2" Liner Core Catcher                     | \$ 1.25   |
| 418.08   | 1 1/2" Plastic End Cap                        | \$ 0.21   |
| 418.16   | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$ 86.50  |

#### G3 Advanced Retainer Sleeve Items / Core Catchers

|       |  |          |
|-------|--|----------|
| 52126 | (G7A / G3A) 1 1/2" Metal Retainer Sleeve       | \$ 25.00 |
| 52168 | (G7A / G3A) 1 1/2" Core Catcher - White        | \$ 4.25  |
| 52169 | (G7A / G3A) 1 1/2" Core Catcher - Red          | \$ 3.60  |
| 54577 | (G7A / G3A) 1 1/2" Core Catcher - Spring Steel | \$ 34.80 |
| 55439 | (G7A / G3A) Retainer Sleeve Removal Tool       | \$ 65.00 |

#### Dual Tube Accessories

|          |                                     |           |
|----------|-------------------------------------|-----------|
| 53027    | (G3) Swivel Hoist Cap               | \$ 218.00 |
| 53025    | 1 1/4" Swivel Hoist Cap             | \$ 150.00 |
| 62154    | 1 1/4" Rod Leaf Puller              | \$ 150.00 |
| 5008.13  | 1 1/4" Thread Chaser                | \$ 130.00 |
| 5008.14  | (G3) Thread Chaser                  | \$ 197.00 |
| 5008.23  | 1 1/4" Fishing Tool, 1 1/4" Thread  | \$ 80.00  |
| 5008.24  | 2 3/8" Fishing Tools, 1 1/4" Thread | \$ 135.00 |
| 5008.061 | O-Ring Kit for 2 3/8" DPE (qty: 25) | \$9.81    |
| 5008.02  | O-Ring Kit for 1 1/4" DPE (qty: 25) | \$ 6.31   |
| 58286    | 1 1/4" IDT O-Ring Kit (qty: 25)     | \$ 6.50   |

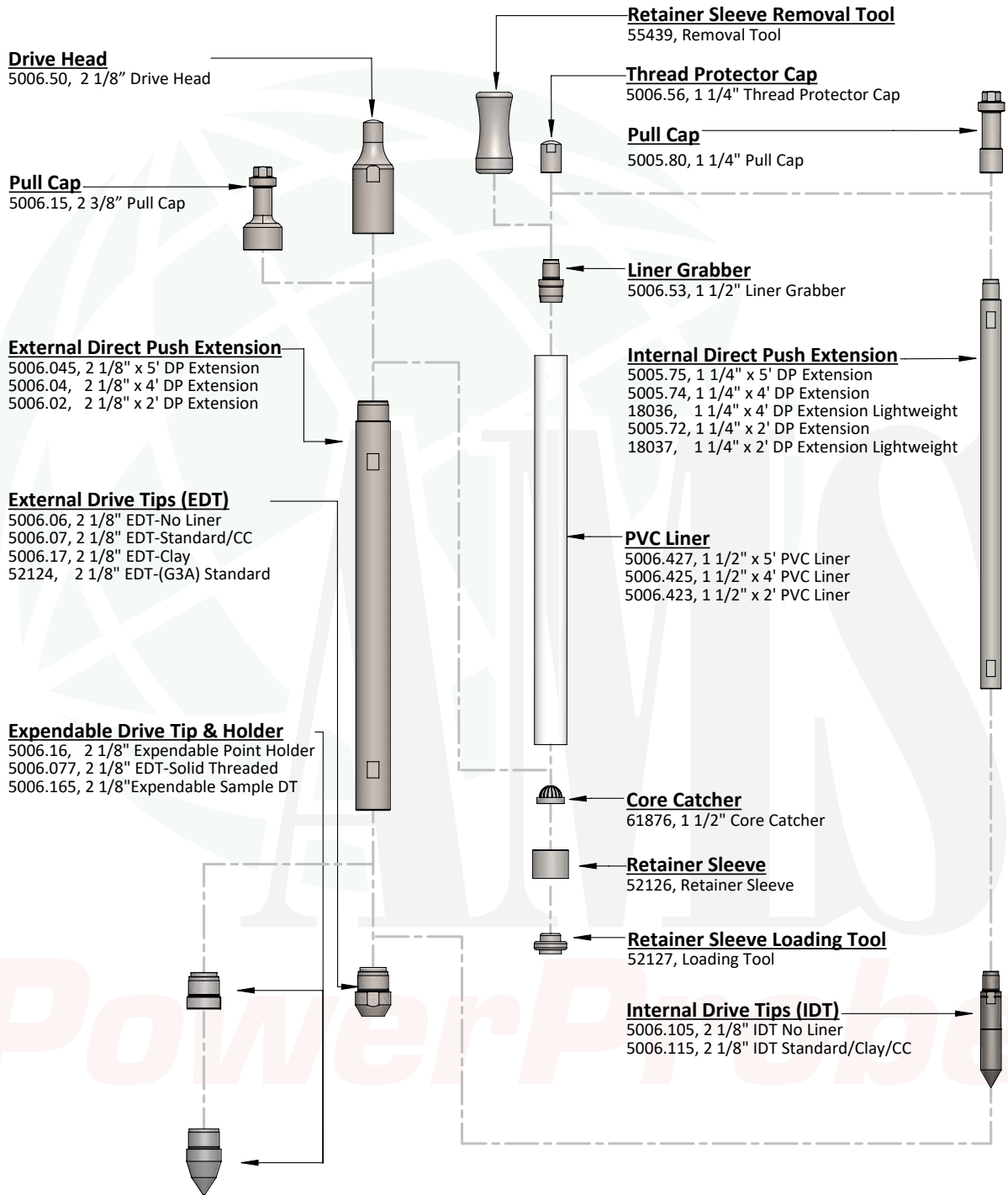
#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52364   | 1 1/2" DP Liner Splitter   | \$ 120.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



# 2 1/8" DUAL TUBE

## 2 1/8 Dual Tube Tooling Assembly





## 2 1/8" DUAL TUBE

The 2 1/8" dual-tube sampling system is the original light weight system that can be utilized with today's smaller, compact agricultural and environmental machines with 90 ft/lb percussion hammers or smaller. It allows for efficient collection of discrete or continuous samples while casing the bore-hole as you advance each 4' or 5' interval. This will eliminate the chance for cross-contamination and provide an effective conduit to allow for soil gas and groundwater sampling to be conducted telescopically.

This system uses our standard 1 1/2" OD (0.065" wall) PVC Liner that is retrieved with our standard 1 1/4" OD internal DP extensions.

### 2 1/8" Dual-Tube System

#### External & Internal Extensions/Holders

| Part#    | Item                                   | Price     |
|----------|--|-----------|
| 5006.045 | 2 1/8" x 5' DP Extension               | \$ 153.00 |
| 5006.04  | 2 1/8" x 4' DP Extension               | \$ 142.00 |
| 5006.02  | 2 1/8" x 2' DP Extension               | \$ 118.00 |
| 5014.01  | 2 1/8" DPE Holder                      | \$ 56.00  |
| 5005.75  | 1 1/4" x 5' DP Extension               | \$ 130.00 |
| 5005.74  | 1 1/4" x 4' DP Extension               | \$ 125.00 |
| 18036    | 1 1/4" x 4' DP Extension - lightweight | \$ 98.00  |
| 5005.72  | 1 1/4" x 2' DP Extension               | \$ 105.00 |
| 180371   | 1/4" x 2' DP Extension - Light Weight  | \$ 88.40  |
| 5014.03  | 1 1/4" DPE Holder                      | \$ 56.00  |

#### Drive Heads / Pull Caps / Thread Protector Caps

|         |                             |           |
|---------|-----------------------------|-----------|
| 5006.50 | 2 1/8" Drive Head           | \$ 175.00 |
| 5006.15 | 2 1/8" Pull Cap             | \$ 110.00 |
| 5005.56 | 1 1/4" Thread Protector Cap | \$ 75.00  |
| 5005.86 | 1 1/4" Drive Head           | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap             | \$ 95.00  |

#### External Drive Tips (EDT)/Internal Dive Tips (IDT)

|          |                                   |           |
|----------|-----------------------------------|-----------|
| 5006.06  | 2 1/8" EDT - No Liner             | \$ 90.00  |
| 5006.07  | 2 1/8" EDT - Standard/CC          | \$ 105.00 |
| 5006.17  | 2 1/8" EDT - Clay                 | \$ 105.00 |
| 52124    | 2 1/8" EDT - Retainer Sleeve      | \$ 105.00 |
| 5006.105 | 2 1/8" IDT - No Liner             | \$ 105.00 |
| 5006.115 | 2 1/8" IDT - Standard / Clay / CC | \$ 105.00 |

#### Expendable Point Holder / Expendable Points

|          |                                |          |
|----------|--------------------------------|----------|
| 5006.16  | 2 1/8" Expendable Point Holder | \$ 95.00 |
| 5007.23  | 2 1/8" EDT - Solid Expendable  | \$ 9.75  |
| 5006.165 | 2 1/8" Expendable Sample DT    | \$ 25.00 |

#### Liner Grabber / Plastic Liners / End Caps / Core Catchers

| Part#    | Item  | Price    |
|----------|---|----------|
| 5006.53  | 1 1/2" Liner Grabber                          | \$ 95.00 |
| 5006.427 | 1 1/2" x 5' PVC Liner                         | \$ 3.95  |
| 5006.425 | 1 1/2" x 4' PVC Liner                         | \$ 2.91  |
| 5006.423 | 1 1/2" x 2' PVC Liner                         | \$ 2.31  |
| 52565    | Liner Loading Platform                        | \$ 56.00 |
| 61876    | 1 1/2" Liner Core Catcher                     | \$ 1.25  |
| 418.08   | 1 1/2" Plastic End Cap                        | \$ 0.21  |
| 418.16   | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$ 86.50 |

#### Dual Tube Accessories

|         |                                    |           |
|---------|------------------------------------|-----------|
| 62154   | 1 1/4" Rod Leaf Puller             | \$ 150.00 |
| 5008.13 | 1 1/4" Thread Chaser               | \$ 130.00 |
| 5008.12 | 2 1/8" Thread Chaser               | \$ 168.00 |
| 5008.23 | 1 1/4" Fishing Tool, 1 1/4" Thread | \$ 80.00  |
| 5008.24 | 2 3/8" Fishing Tool, 1 1/4" Thread | \$ 135.00 |
| 5008.02 | 1 1/4" O-Ring Kit (25)             | \$ 6.31   |

#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52364   | 1 1/2" DP Liner Splitter   | \$ 120.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9120-RAP

# 3 1/2" SINGLE TUBE

## 3 1/2" Direct Push Single Tube Tooling Assembly

**Drive Head**  
5006.85, 1 5/8" Drive Head

**Pull Cap**  
5006.86, 1 5/8" Pull Cap

**Single Tube Adapter**  
57861, 3 1/2" to 1 5/8" Adapter

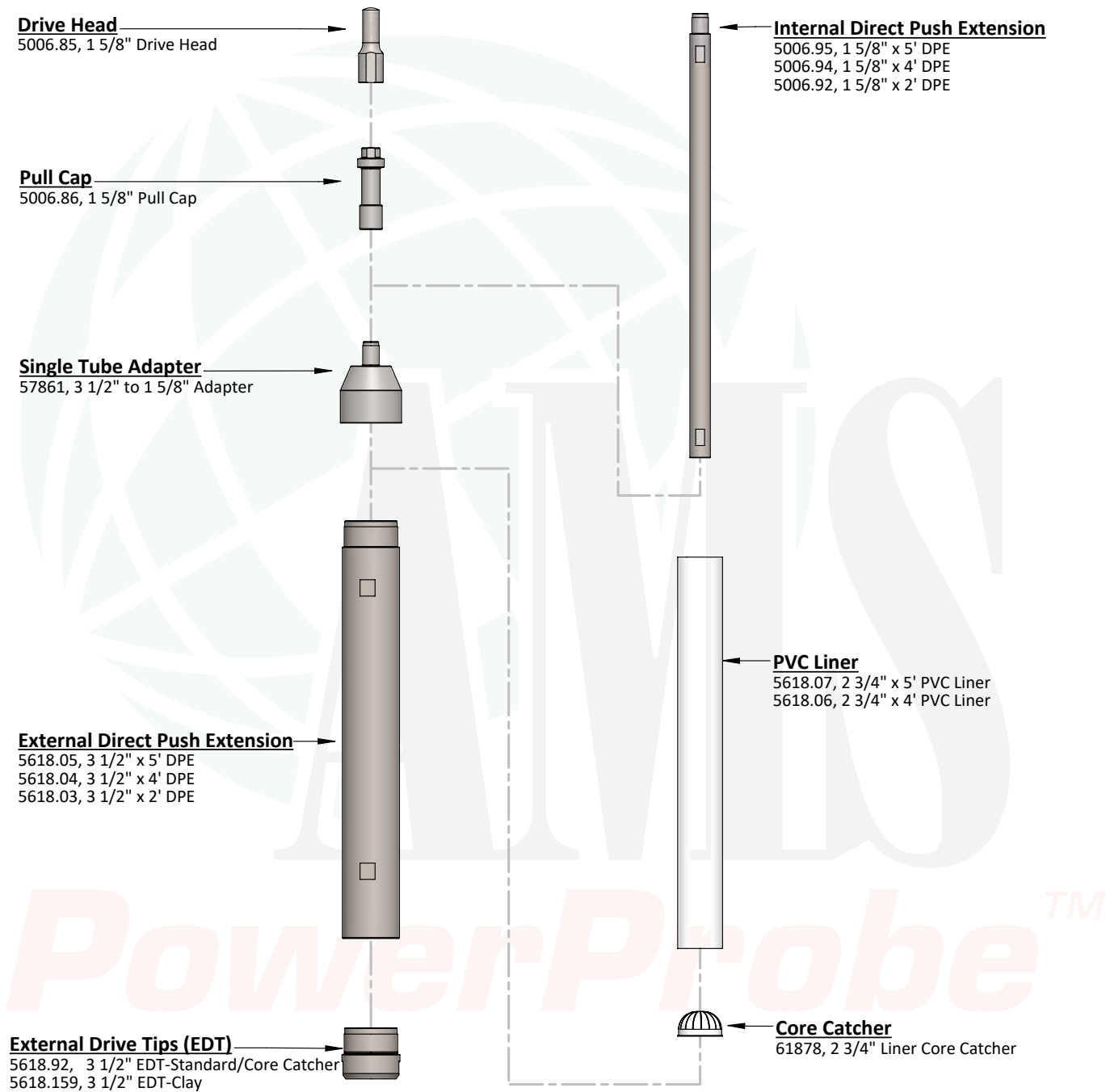
**External Direct Push Extension**  
5618.05, 3 1/2" x 5' DPE  
5618.04, 3 1/2" x 4' DPE  
5618.03, 3 1/2" x 2' DPE

**External Drive Tips (EDT)**  
5618.92, 3 1/2" EDT-Standard/Core Catcher  
5618.159, 3 1/2" EDT-Clay

**Internal Direct Push Extension**  
5006.95, 1 5/8" x 5' DPE  
5006.94, 1 5/8" x 4' DPE  
5006.92, 1 5/8" x 2' DPE

**PVC Liner**  
5618.07, 2 3/4" x 5' PVC Liner  
5618.06, 2 3/4" x 4' PVC Liner

**Core Catcher**  
61878, 2 3/4" Liner Core Catcher



## 3 1/2" SINGLE TUBE

AMS 3 1/2" Single-Tube tooling is used to quickly collect soil samples in non-heaving, non-caving lithology. When sampling shallow depths, this is the fastest, most cost-effective method available. They are able to handle higher pressure than conventional split-spoon methods. Sampling begins at the surface and continues through the same hole for subsequent continuous and interval-specific samples, providing caving or swelling does not occur and there are no concerns of cross contamination.

This system utilizes our standard heavy-wall (0.080") 2 3/4" O.D. diameter clear PVC liner that can be used with our optional 2 3/4" core catcher that fits inside the end of the liner to increase your sample recovery.

### 3 1/2" Single-Tube System

#### Extensions / Drive Heads / Pull Caps

| Part#   | Item                        | Price     |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 159.00 |
| 5006.92 | 1 5/8" x 2' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.00  |
| 5006.99 | 1 5/8" O-ring Kit (qty. 25) | \$ 8.83   |

#### Single-Tube Extensions / Drive Adapters

|         |                          |           |
|---------|--------------------------|-----------|
| 57862   | 1 1/4" to 3 1/2" Adapter | \$ 167.00 |
| 57861   | 1 5/8" to 3 1/2" Adapter | \$ 172.00 |
| 5618.05 | 3 1/2" x 5' DPE          | \$ 172.00 |
| 5618.04 | 3 1/2" x 4' DPE          | \$ 240.00 |
| 5618.03 | 3 1/2" x 2' DPE          | \$ 205.00 |

#### External Drive Tips (EDT)

|          |                                      |           |
|----------|--------------------------------------|-----------|
| 5618.92  | 3 1/2" EDT - Standard / Core Catcher | \$ 150.00 |
| 5618.159 | 3 1/2" EDT - Clay                    | \$ 150.00 |

#### Plastic Liners / End Caps / Core Catchers

| Part#   | Item  | Price    |
|---------|---|----------|
| 5618.07 | 2 3/4" x 5' PVC Liners                        | \$ 12.00 |
| 5618.06 | 2 3/4" x 4' PVC Liners                        | \$ 9.70  |
| 418.20  | 2 3/4" Plastic End Cap                        | \$ 0.64  |
| 61878   | 2 3/4" Liner Core Catcher                     | \$ 2.00  |
| 418.16  | Fluoropolymer Film (Perforated 4x4x100' Roll) | \$ 86.50 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52886   | 2 3/4" DP Liner Splitter   | \$ 205.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9580-VTR



## 2 3/4" SINGLE TUBE

### 2 3/4" Single Tube Tooling Assembly

**Drive Head**

5006.85, 1 5/8" Drive Head



**Pull Cap**

5006.86, 1 5/8" Pull Cap



**Single Tube Adapter**

57091, 2 3/4" to 1 5/8" Adapter



**Internal Direct Push Extension**

5006.95, 1 5/8" x 5' DPE  
5006.94, 1 5/8" x 4' DPE  
5006.92, 1 5/8" x 2' DPE



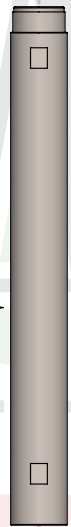
**PVC Liner**

5010.44, 2" x 5' PVC Liner  
5010.48, 2" x 4' PVC Liner  
5010.46, 2" x 2' PVC Liner



**External Direct Push Extension**

5010.05, 2 3/4" x 5' DPE  
5010.04, 2 3/4" x 4' DPE  
5010.02, 2 3/4" x 2' DPE



**Core Catcher**

61877, 2" Liner Core Catcher



**External Drive Tips (EDT)**

5010.11, 2 3/4" EDT-Standard/Core Catcher  
5010.02, 2 3/4" EDT-Clay



**Piston Section**

5684.25, 2 3/4" EDT-Piston Sectional



**Core Catcher**

18015, 2" White Core Catcher  
18016, 2" Red Core Catcher



**External Drive Tips (EDT)**

5684.22, 2 3/4" EDT-Piston DT



## 2 3/4" SINGLE TUBE

AMS 2 3/4" Single Tube system offers a 2" diameter sample size and is used to quickly collect soil samples in non-heaving, non-caving lithology. When sampling shallow depths, this is the fastest, most cost-effective method available. They are able to handle higher pressure than conventional split-soon methods.

Sampling begins at the surface and continues through the same hole for subsequent continuous and interval-specific samples, providing caving or swelling does not occur and there are no concerns of cross contamination. Our heavy-duty tooling is helpful in tighter lithologies and for obtaining greater depths. They may also be used in pre-bored holes prepared with hand augers.

### 2 3/4" Single-Tube System

#### Extensions / Drive Heads / Pull Caps

| Part#   | Item                        | Price     |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 159.00 |
| 5006.92 | 1 5/8" x 2' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.00  |
| 5006.99 | 1 5/8" O-ring Kit (qty. 25) | \$ 8.83   |

#### Single-Tube Extensions / Drive Adapters

|         |                          |           |
|---------|--------------------------|-----------|
| 5010.41 | 1 1/4" to 2 3/4" Adapter | \$ 135.00 |
| 57091   | 1 5/8" to 2 3/4" Adapter | \$ 145.00 |
| 5010.05 | 2 3/4" to 5' DPE         | \$195.00  |
| 5010.04 | 2 3/4" to 4' DPE         | \$ 180.00 |
| 5010.02 | 2 3/4" to 2' DPE         | \$ 150.00 |

#### External Drive Tips (EDT)

|         |                                      |           |
|---------|--------------------------------------|-----------|
| 5010.11 | 2 3/4" EDT - Standard / Core Catcher | \$ 120.00 |
| 5010.12 | 2 3/4" EDT - Clay                    | \$ 120.00 |

#### Plastic Liners / End Caps / Core Catchers

|         |                       |          |
|---------|-----------------------|----------|
| 5010.44 | 2" x 5' PVC Liners    | \$ 10.00 |
| 5010.48 | 2" x 4' PVC Liner     | \$ 5.45  |
| 5010.46 | 2" x 2' PVC Liner     | \$ 4.95  |
| 418.10  | 2" Plastic End Cap    | \$ 0.50  |
| 61877   | 2" Liner Core Catcher | \$ 1.50  |

#### Dual Blade Liner Cutter / Sampler Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 58145   | 2" DP Liner Splitter       | \$ 175.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9520-VTR

# 2 3/8" (G7) SINGLE TUBE

## (G7) 2 3/8" Single Tube Tooling Assembly

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Head**

5005.86, 1 1/4" Drive Head  
5006.85, 1 5/8" Drive Head ♦

**Pull Cap**

5005.80, 1 1/4" Pull Cap  
5006.86, 1 5/8" Pull Cap ♦

**Single Tube Adapter**

62684, 1 1/4" to G7 Adapter  
58278, 1 5/8" to G7 Adapter ♦

**External Direct Push Extension**

58169, (G7) 2 3/8" x 5' DPE  
58154, (G7) 2 3/8" x 4' DPE  
58287, (G7) 2 3/8" x 2' DPE

**Internal Direct Push Extension**

5005.75, 1 1/4" x 5' DPE  
5005.74, 1 1/4" x 4' DPE  
5005.72, 1 1/4" x 2' DPE

5006.95, 1 5/8" x 5' DPE ♦  
5006.94, 1 5/8" x 4' DPE ♦  
5006.92, 1 5/8" x 2' DPE ♦

**Liner Spacer**

58284, Single Tube Plastic Liner Spacer  
(Required for use with EDT:58151, 58285, 58152, and 58353)

**PVC Liner**

5006.427, 1 1/2" x 5' PVC Liner  
5006.425, 1 1/2" x 4' PVC Liner  
5006.423, 1 1/2" x 2' PVC Liner

**Core Catcher**

61876, 1 1/2" Core Catcher

**External Drive Tips (EDT)**

58151, (G7) EDT-Silt/Sand (No Lines)  
58285, (G7) EDT-Clay (1 Line)  
58353, (G7) EDT-Super Expanding Clay (5 Lines)

**Piston Section**

58280, (G7) EDT PS Sectional

**Core Catcher**

18013, 1 1/2" Core Catcher-White  
18014, 1 1/2" Core Catcher-Red

**External Drive Tip (EDT)**

5684.12, (G3/G7) EDT-Piston DT

## 2 3/8" (G7) SINGLE TUBE

AMS single-tube tooling is used to quickly collect soil samples in non-heaving, non-caving lithology. When sampling shallow depths, this is the fastest, most cost-effective method available. Single-tube tooling is ideal for telescopic sampling techniques through larger systems, such as dual-tube tooling, or hollowstem augers. They are able to handle higher pressure than conventional split-soon methods.

Sampling begins at the surface and continues through the same hole for subsequent continuous and interval-specific samples, providing caving or swelling does not occur and there are no concerns of cross contamination.

Single-tube samplers may also be used through larger direct push systems or through the ID of a hollowstem auger. They may also be used in pre-bored holes prepared with hand augers. Our heavy-duty tooling is helpful in tighter lithologies and for obtaining greater depths.

A variety of sampler sizes and options are available to best fit most soil situations and job site requirements. Increase your sample recovery chances and eliminate unnecessary time for repeated driving and retrieving when collecting soil samples. A core catcher tip is also available.

Pushing with extension(s) of the same diameter will eliminate the void that creates wear and tear on tooling, decrease tooling loss during borehole collapse/cave-in, and reduce loss of energy due to flex or bowing of rod.

### Single-Tube Soil Sampling Application

- 1) Push the sampler using the drive head adapter.
- 2) Remove the sampler with the pull cap to retrieve the sample.
- 3) Put another sampler with a new liner into the borehole.
- 4) Add inner extension and push to the next sampling interval.
- 5) Remove the sampler and retrieve the sample.

*Steps 3 through 5 can be repeated to the depth desired as long as the borehole stays open (i.e. no caving or extreme swelling). If pre-boring is necessary, the single-tube sampler can begin sampling at the bottom of a bored hole.*

### 2 3/8" (G7) Single-Tube System

#### 1 1/4" Extensions / Drive Heads / Pull Caps

| Part#   | Item                        | Price     |
|---------|-----------------------------|-----------|
| 5005.86 | 1 1/4" Drive Head           | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap             | \$ 95.00  |
| 5005.75 | 1 1/4" 5' DPE               | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE             | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DPE             | \$ 105.00 |
| 5014.03 | 1 1/4" DPE Holder           | \$ 56.00  |
| 5008.02 | 1 1/4" O-ring Kit (qty: 25) | \$ 6.31   |

#### 1 5/8" Extensions / Drive Heads / Pull Caps

|         |                             |           |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 156.00 |
| 5006.92 | 1 5/8" x 4' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.00  |
| 5006.99 | 1 5/8" O-ring Kit (qty: 25) | \$ 8.83   |

#### Single-Tube Extensions / Drive Adapters

|        |   |           |
|--------|---|-----------|
| 762684 | 1 1/4" to G7 Adapter  | \$ 140.00 |
| 58278  | 1 5/8" to G7 Adapter  | \$ 145.00 |
| 58169  | (G7) 2 3/8" x 5' DPE  | \$ 230.00 |
| 58154  | (G7) 2 3/8" x 4' DPE  | \$ 207.00 |
| 58287  | (G7) 2 3/8" x 2' DPE  | \$ 160.00 |
| 58284  | Single Tube Plastic Liner Spacer<br>(required for use with EDT: 58151, 58285, 58152, 58353) | \$ 20.00  |
| 58855  | Single Tube Plastic Liner Spacer<br>(required for use with EDT: 58173)                      | \$ 20.00  |

#### External Drive Tips (EDT)

|         |  |           |
|---------|--|-----------|
| 58151   | (G7) EDT - Silt / Sand (No Lines)          | \$ 150.00 |
| 58285   | (G7) EDT - Clay (One Line)                 | \$ 150.00 |
| 58353   | (G7) EDT Super Expanding Clay (Five Lines) | \$ 150.00 |
| 58280   | (G7) EDT - Piston Sectional                | \$ 155.00 |
| 5684.12 | (G7) EDT - Piston DT                       | \$ 125.00 |

#### Plastic Liners / End Caps / Core Catchers

| Part#    | Item                      | Price   |
|----------|---------------------------|---------|
| 5006.427 | 1 1/2" x 5' PVC Liners    | \$ 3.95 |
| 5006.425 | 1 1/2" x 4' PVC Liners    | \$ 2.91 |
| 5006.423 | 1 1/2" x 2' PVC Liners    | \$ 2.00 |
| 61876    | 1 1/2" Liner Core Catcher | \$ 1.25 |
| 418.08   | 1 1/2" Plastic End Cap    | \$ 0.27 |

#### Core Catchers - used with (G7) piston sectional

|          |                                    |          |
|----------|------------------------------------|----------|
| 18013    | 1 1/2" Core Catcher - White        | \$ 1.75  |
| 18014    | 1 1/2" Core Catcher - Red          | \$ 1.65  |
| 5618.109 | 1 1/2" Core Catcher - Spring Steel | \$ 61.80 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52364   | 1 1/2" DP Liner Splitter   | \$ 120.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9410-VTR



# 2 3/8" (G3) SINGLE TUBE

## (G3) 2 3/8" Single Tube Tooling Assembly

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Head**

5005.86, 1 1/4" Drive Head  
5006.85, 1 5/8" Drive Head ♦

**Pull Cap**

5005.80, 1 1/4" Pull Cap  
5006.86, 1 5/8" Pull Cap ♦

**Single Tube Adapter**

5618.192, 1 1/4" to (G3) Adapter  
5006.93, 1 5/8" to (G3) Adapter ♦

**External Direct Push Extension**

5618.197, (G3) 2 3/8" x 5' DPE  
5618.193, (G3) 2 3/8" x 4' DPE  
5618.195, (G3) 2 3/8" x 2' DPE

**External Drive Tips (EDT)**

5618.181, (G3) EDT-Standard/Core Catcher  
5618.183, (G3) EDT-Clay

**Internal Direct Push Extension**

5005.75, 1 1/4" x 5' DPE  
5005.74, 1 1/4" x 4' DPE  
5005.72, 1 1/4" x 2' DPE

5006.95, 1 5/8" x 5' DPE ♦  
5006.94, 1 5/8" x 4' DPE ♦  
5006.92, 1 5/8" x 2' DPE ♦

**Liner Spacer**

58284, Single Plastic Liner Spacer  
(required for use with EDT:5618.181,5618.183)

58855, Single Tube Plastic Liner Spacer  
(required for use with EDT:58173)

**PVC Liner**

5006.427, 1 1/2" x 5' PVC Liner  
5006.425, 1 1/2" x 4' PVC Liner  
5006.423, 1 1/2" x 2' PVC Liner

**Core Catcher**

61876, 1 1/2" Liner Core Catcher

**Piston Section**

53376, (G3)-EDT Piston Sectional

**Core Catcher**

18013, 1 1/2" Core Catcher-White  
18014, 1 1/2" Core Catcher-Red

**External Drive Tip (EDT)**

5684.12, (G3/G7) EDT-Piston DT







## 2 3/8" (G3) SINGLE TUBE

AMS single-tube tooling is used to quickly collect soil samples in non-heaving, non-caving lithology. When sampling shallow depths, this is the fastest, most cost-effective method available. Single-tube tooling is ideal for telescopic sampling techniques through larger systems, such as dual-tube tooling, or hollowstem augers. They are able to handle higher pressure than conventional split-soon methods.

Sampling begins at the surface and continues through the same hole for subsequent continuous and interval-specific samples, providing caving or swelling does not occur and there are no concerns of cross contamination.

Single-tube samplers may also be used through larger direct push systems or through the ID of a hollowstem auger. They may also be used in prebored holes prepared with hand augers. Our heavy-duty tooling is helpful in tighter lithologies and for obtaining greater depths.

A variety of sampler sizes and options are available to best fit most soil situations and job site requirements. Increase your sample recovery chances and eliminate unnecessary time for repeated driving and retrieving when collecting soil samples. A core catcher tip is also available.

Pushing with extension(s) of the same diameter will eliminate the void that creates wear and tear on tooling, decrease tooling loss during borehole collapse/cave-in, and reduce loss of energy due to flex or bowing of rod.

### Single-Tube Soil Sampling Application

- 1) Push the sampler using the drive head adapter.
- 2) Remove the sampler with the pull cap to retrieve the sample.
- 3) Put another sampler with a new liner into the borehole.
- 4) Add inner extension and push to the next sampling interval.
- 5) Remove the sampler and retrieve the sample.

*Steps 3 through 5 can be repeated to the depth desired as long as the borehole stays open (i.e. no caving or extreme swelling). If pre-boring is necessary, the single-tube sampler can begin sampling at the bottom of a bored hole.*

### 2 3/8" (G3) Single-Tube System

#### 1 1/4" Extensions / Dive Heads / Pull Caps

| Part#   | Item                        | Price     |
|---------|-----------------------------|-----------|
| 5005.86 | 1 1/4" Drive Head           | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap             | \$ 95.00  |
| 5005.75 | 1 1/4" 5' DPE               | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE             | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DPE             | \$ 105.00 |
| 5014.03 | 1 1/4" DPE Holder           | \$ 56.00  |
| 5008.02 | 1 1/4" O-ring Kit (qty: 25) | \$ 6.31   |

#### 1 5/8" Extensions / Drive Heads / Pull Caps

|         |                             |           |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 156.00 |
| 5006.92 | 1 5/8" x 4' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.00  |
| 5006.99 | 1 5/8" O-ring Kit (qty: 25) | \$ 8.83   |

#### Single-tube Extensions / Drive Adapters

|          |   |           |
|----------|---|-----------|
| 5618.192 | 1 1/4" to (G3) Adapter  | \$ 125.00 |
| 5006.93  | 1 5/8" to (G3) Adapter  | \$ 130.00 |
| 5618.197 | (G3) 2 3/8" x 5' DPE  | \$ 210.00 |
| 5618.193 | (G3) 2 3/8" x 4' DPE  | \$ 187.00 |
| 5618.195 | (G3) 2 3/8" x 2' DPE  | \$ 140.00 |
| 58284    | Single Tube Plastic Liner Spacer<br>(required for use with EDT: 5618.181, 5618.183) | \$ 20.00  |
| 58855    | Single Tube Plastic Liner Spacer<br>(required for use with EDT: 58173)              | \$ 20.00  |

#### (G3) External Drive Tips (EDT)

|          |                              |           |
|----------|------------------------------|-----------|
| 5618.181 | (G3) EDT - Standard          | \$ 150.00 |
| 5618.183 | (G3) EDT - Clay/Core Catcher | \$ 150.00 |
| 52648    | (G3A) Silt/Sand              | \$ 160.00 |
| 52444    | (G3A) Expanding Clay         | \$ 195.00 |
| 52445    | (G3A) Super Expanding Clay   | \$ 210.00 |
| 53376    | (G3) EDT - Piston Sectional  | \$ 145.00 |
| 5684.12  | (G3) EDT - Piston DT         | \$ 125.00 |

#### Plastic Liners / End Caps / Core Catchers

| Part#    | Item                      | Price   |
|----------|---------------------------|---------|
| 5006.427 | 1 1/2" x 5' PVC Liners    | \$ 3.95 |
| 5006.425 | 1 1/2" x 4' PVC Liners    | \$ 2.91 |
| 5006.423 | 1 1/2" x 2' PVC Liners    | \$ 2.00 |
| 61876    | 1 1/2" Liner Core Catcher | \$ 1.25 |
| 418.08   | 1 1/2" Plastic End Cap    | \$ 0.27 |

#### Core Catchers - used with (G7) piston sectional

|          |                                    |          |
|----------|------------------------------------|----------|
| 18013    | 1 1/2" Core Catcher - White        | \$ 1.75  |
| 18014    | 1 1/2" Core Catcher - Red          | \$ 1.65  |
| 5618.109 | 1 1/2" Core Catcher - Spring Steel | \$ 61.80 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52364   | 1 1/2" DP Liner Splitter   | \$ 120.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9410-D

# 2 1/8" SINGLE TUBE

## 2 1/8 Single Tube Tooling Assembly

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Head**

5005.86, 1 1/4" Drive Head  
5006.85, 1 5/8" Drive Head ♦

**Pull Cap**

5005.80, 1 1/4" IPull Cap  
5006.86, 1 5/8" Pull Cap ♦

**Single Tube Adapter**

5006.21, 1 1/4" to 2 1/8" Adapter  
5006.91, 1 5/8" to 2 1/8" Adapter ♦

**External Direct Push Extension**

5006.045, 2 1/8" x 5' DPE  
5006.04, 2 1/8" x 4' DPE  
5006.02, 2 1/8" x 2' DPE

**PVC Liner**

5006.427, 1 1/2" x 5' PVC Liner  
5006.425, 1 1/2" x 4' PVC Liner  
5006.423, 1 1/2" x 2' PVC Liner

**Retainer Sleeve**

52126, Metal Retainer Sleeve

**External Drive Tips (EDT)**

5006.07, 2 1/8" EDT-Standard/CC  
5006.17, 2 1/8" EDT-Clay

**Piston Section**

5020.17, 2 1/8" EDT-Piston Sectional

**Core Catcher**

18013, 1 1/2" Core Catcher-White  
18014, 1 1/2" Core Catcher-Red

**External Drive Tips (EDT)**

5020.10, 2 1/8" EDT-Piston DT

**Internal Direct Push Extension**

5005.75, 1 1/4" x 5' DPE  
5005.74, 1 1/4" x 4' DPE  
5005.72, 1 1/4" x 2' DPE

5006.95, 1 5/8" x 5' DPE ♦  
5006.94, 1 5/8" x 4' DPE ♦  
5006.92, 1 5/8" x 2' DPE ♦

## 2 1/8" SINGLE TUBE

AMS 2 1/8" single-tube sampling system is the original light weight system that can be utilized with today's smaller, compact agricultural and environmental machines with 90 ft/lb percussion hammers or smaller. It is used to quickly collect soil samples in non-heaving, non-caving lithology. They may also be used in pre-bored holes prepared with hand augers.

This system uses our standard 1 1/2" OD (0.065" wall) PVC Liner that is retrieved with our standard 1 1/4" OD internal DP extensions.

### Single-Tube Soil Sampling Application

- 1) Push the sampler using the drive head adapter.
- 2) Remove the sampler with the pull cap to retrieve the sample.
- 3) Put another sampler with a new liner into the borehole.
- 4) Add inner extension and push to the next sampling interval.
- 5) Remove the sampler and retrieve the sample.

*Steps 3 through 5 can be repeated to the depth desired as long as the borehole stays open (i.e. no caving or extreme swelling). If pre-boring is necessary, the single-tube sampler can begin sampling at the bottom of a bored hole.*

### 2 1/8" Single-Tube System

#### 1 1/4" Extensions / Dive Heads / Pull Caps

| Part#   | Item                        | Price     |
|---------|-----------------------------|-----------|
| 5005.86 | 1 1/4" Drive Head           | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap             | \$ 95.00  |
| 5005.75 | 1 1/4" 5' DPE               | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE             | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DPE             | \$ 105.00 |
| 5014.03 | 1 1/4" DPE Holder           | \$ 56.00  |
| 5008.02 | 1 1/4" O-ring Kit (qty: 25) | \$ 6.31   |

#### 1 5/8" Extensions / Drive Heads / Pull Caps

|         |                             |           |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 156.00 |
| 5006.92 | 1 5/8" x 4' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.00  |
| 5006.99 | 1 5/8" O-ring Kit (qty: 25) | \$ 8.83   |

#### Single-tube Extensions / Drive Adapters

|          |                          |           |
|----------|--------------------------|-----------|
| 5006.21  | 1 1/4" to 2 1/8" Adapter | \$ 90.00  |
| 5006.91  | 1 5/8" to 2 1/8" Adapter | \$ 95.00  |
| 5006.045 | 2 1/8" x 5' DPE          | \$ 153.00 |
| 5006.04  | 2 1/8" x 4' DPE          | \$ 142.00 |
| 5006.02  | 2 1/8" x 2' DPE          | \$ 118.00 |

#### External Drive Tips (EDT)

|          |                               |           |
|----------|-------------------------------|-----------|
| 5006.07  | 2 1/8" EDT - Standard/CC      | \$ 105.00 |
| 5006.17  | 2 1/8" EDT - Clay             | \$ 105.00 |
| 5020.017 | 2 1/8" EDT - Piston Sectional | \$ 110.00 |
| 5020.10  | 2 1/8" EDT - Piston DT        | \$ 95.00  |

#### Plastic Liners / End Caps / Core Catchers

| Part#    | Item                      | Price   |
|----------|---------------------------|---------|
| 5006.427 | 1 1/2" x 5' PVC Liners    | \$ 3.95 |
| 5006.425 | 1 1/2" x 4' PVC Liners    | \$ 2.91 |
| 5006.423 | 1 1/2" x 2' PVC Liners    | \$ 2.00 |
| 61876    | 1 1/2" Liner Core Catcher | \$ 1.25 |
| 418.08   | 1 1/2" Plastic End Cap    | \$ 0.27 |

#### Core Catchers - used with (G7) piston sectional

|          |                                    |          |
|----------|------------------------------------|----------|
| 18013    | 1 1/2" Core Catcher - White        | \$ 1.75  |
| 18014    | 1 1/2" Core Catcher - Red          | \$ 1.65  |
| 5618.109 | 1 1/2" Core Catcher - Spring Steel | \$ 61.80 |

#### Dual Blade Liner Cutter / Sample Preparation Tables

|         |                            |             |
|---------|----------------------------|-------------|
| 52364   | 1 1/2" DP Liner Splitter   | \$ 120.00   |
| 5606.10 | Deck Mount Liner Tray      | \$ 245.00   |
| 5052.20 | Portable Sample Prep Table | \$ 1,075.00 |



9120-RAP

## PISTON SAMPLING SYSTEM

# PISTON SAMPLING

Piston samplers eliminate preprobing and are primarily used to sample flowing or heaving sands, swelling clays, and soils below groundwater. They allow the user to recover samples consistently in difficult and saturated conditions, and they are available in a variety of sizes.

Piston samplers come in 5', 4', and 2' kits upon request. 3 1/2", 2 3/4", and 2 1/8" piston samplers are also available.

AMS G7 / G3 piston samplers feature a thicker design that can endure more push, hammer, and pull back. They also help minimize the chance of liner failure.

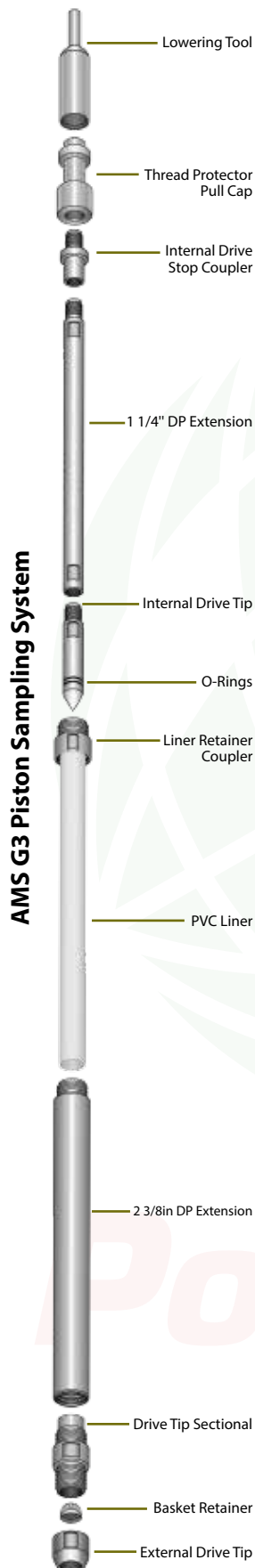
The center rod and tip displace caving soils and the internal drive tip prevents caving soils from entering the sampler. This helps prevent premature sample collection and minimizes the chance for cross-contamination.

Piston samplers also use a basket retainer in the drive tip to prevent sample loss in fine or sandy soils.

### PISTON SAMPLER APPLICATION

- 1) The piston sampler is pushed or hammered to the desired depth where sampling is to begin.
- 2) Upon reaching the desired sampling depth, the internal direct push extension that is attached to the inner drive tip is removed.
- 3) Add an external direct push extension that is the same length of the piston sampler.
- 4) Pushed the system the length of your sampler.
- 5) Remove the piston sampler from the boring and retrieve the sample.

*Additional sampling intervals at greater depths can be retrieved using the same boring. There is no chance of losing the center rod, and caving will not fill the liner. Material that prematurely enters the sampler and liner when removing the internal components is pushed up above the liner when the liner is filled from the desired sample interval.*



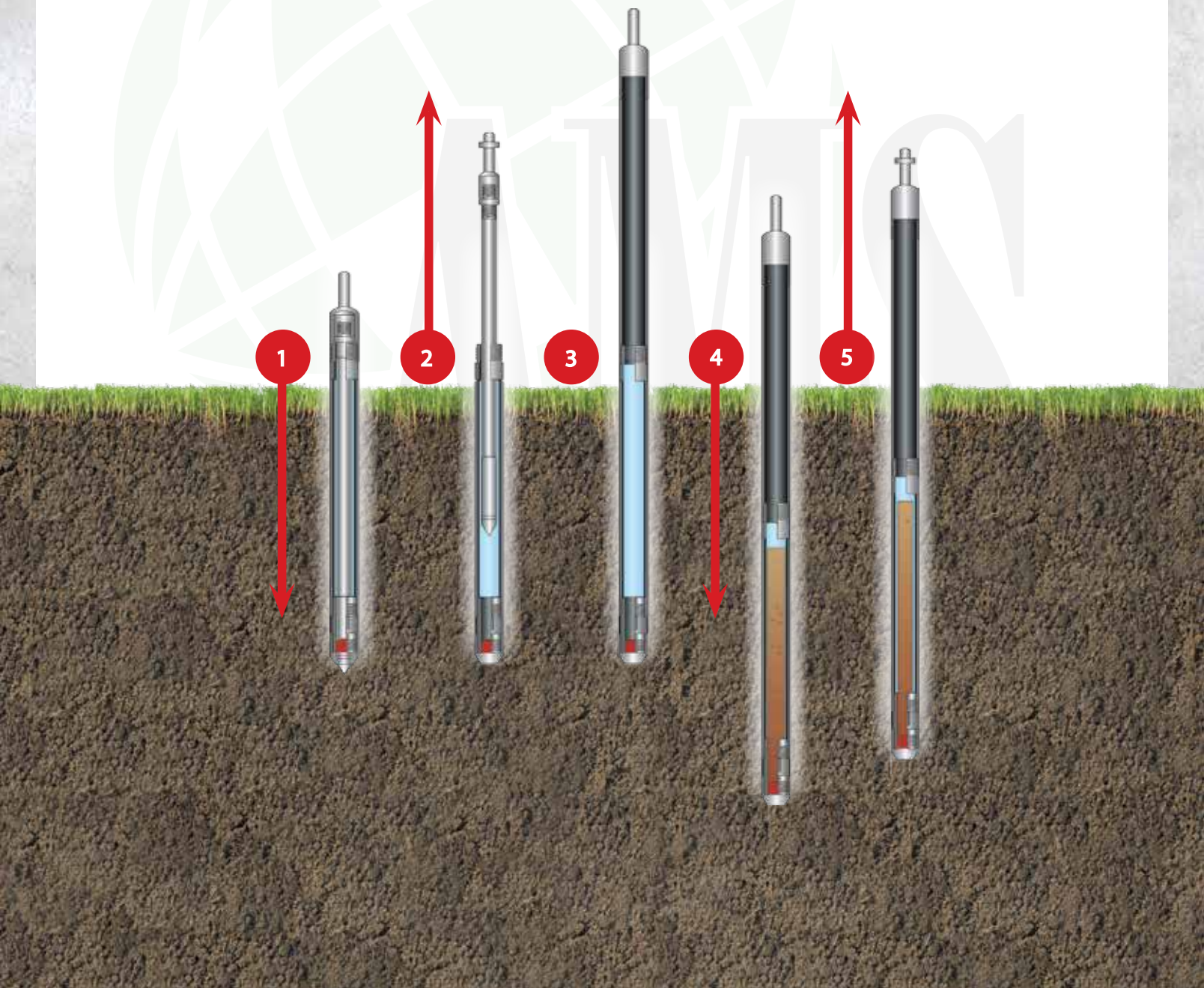
## PISTON SAMPLING SYSTEM

Piston samplers eliminate preprobing and are primarily used to sample flowing or heaving sands, swelling clays, and soils below groundwater. They allow the user to recover samples consistently in difficult and saturated conditions, and they are available in a variety of sizes.

Piston samplers come in 5', 4', and 2' kits upon request. 3 1/2", 2 3/4", and 2 1/8" piston samplers are also available by special request, but they are not stocked items.

AMS G7 / G3 piston samplers feature a thicker design that can endure more push, hammer, and pull back. They also help minimize the chance of liner failure.

The center rod and tip displace caving soils and the internal drive tip prevents caving soils from entering the sampler. This helps prevent premature sample collection and minimizes the chance for cross-contamination. Piston samplers also use a basket retainer in the drive tip to prevent sample loss in fine or sandy soils.



# 2 3/4" PISTON SAMPLING

## 2 3/4" Piston Sampler Assembly

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Heads**

5010.30, 2 3/4" Drive Head, Threaded  
58041, 2 3/4" Drive Head, Threadless

**Drive Head Sleeve**

58042, 2 3/4" Drive Head Sleeve  
(Only Use With Threadless Drive head)

**Lowering Tool**

57096, 2 3/4" Lowering Tool

**External Direct Push Extension**

5010.05, 2 3/4" x 5' DPE  
5010.04, 2 3/4" x 4' DPE  
5010.02, 2 3/4" x 2' DPE

**Piston Section**

5684.25, 2 3/4" EDT-Piston Sectional

**Core Catcher**

18015, 2" Core Catcher  
18016, 2" Core Catcher

**External Drive Tips (EDT)**

5684.22, 2 3/4" EDT-Piston DT

**Thread Protector Cap**

5006.56, 1 1/4" Thread Protector Cap  
5008.29, 1 5/8" Thread Protector Cap ♦

**Pull Cap**

5005.80, 1 1/4" Pull Cap  
5006.86, 1 5/8" Pull Cap ♦

**Internal Drive Stop Coupler**

54552, 1 1/4" Internal Piston Stop Coupler  
54553, 1 5/8" Internal Piston Stop Coupler ♦

**Liner Retainer Coupler**

5684.21, 2 3/4" Liner Retainer Coupler

**Internal Direct Push Extension**

5005.75, 1 1/4" x 5' DPE  
5005.74, 1 1/4" x 4' DPE  
5005.72, 1 1/4" x 2' DPE

5006.95, 1 5/8" x 5' DPE ♦  
5006.94, 1 5/8" x 4' DPE ♦  
5006.92, 1 5/8" x 2' DPE ♦

**PVC Liner**

5010.44, 2" x 5' PVC Liner  
5010.48, 2" x 4' PVC Liner  
5010.46, 2" x 2' PVC Liner

**Internal Drive Tip (IDT)**

5684.24, 1 1/4" IDT Piston Sampler  
61980, 1 5/8" IDT Piston Sampler ♦

**O-Ring**

5618.254, IDT O-Ring (Pack of 25)

## 2 3/4" PISTON SAMPLING

The AMS 2 3/4" Piston Sampler system eliminates pre-probing and is primarily used to sample flowing or heaving sands, swelling clays, and soils below a groundwater table. They allow the user to recover samples consistently in difficult and saturated soil conditions inside a clear 2" PVC liner.

The center rod and tip displace caving soils and the internal drive tip prevents caving soils from entering the sampler. This helps prevent premature sample collection and minimizes the chance for cross-contamination. Piston samplers also use a basket retainer in the drive tip to prevent sample loss in fine or sandy soils. Additional sampling intervals at greater depths can be retrieved using the same boring. There is no chance of losing the center rod, and caving will not fill the liner. Material that prematurely enters the sampler and liner when removing the internal components is pushed up above the liner when the liner is filled from the desired sample interval.

### Piston Sampler Application

- 1) The piston sampler is pushed or hammered to the desired depth where sampling is to begin.
- 2) Upon reaching the desired sampling depth, the internal direct push extension that is attached to the inner drive tip is removed.
- 3) Add an external direct push extension that is the same length of the piston sampler.
- 4) Pushed the system the length of your sampler.
- 5) Remove the piston sampler from the boring and retrieve the sample.

### 2 3/4" Piston Sampler

#### Drive Heads / Pull Caps / Thread Protectors / Lower Tool

| Part#    | Item   | Price     |
|----------|--|-----------|
| 5010.30  | 2 3/4" Drive Head, Threaded  | \$ 215.00 |
| 58041    | 2 3/4" Drive Head, Thread-less                                     | \$ 210.00 |
| 58042    | 2 3/4" Drive Head Sleeve<br>(only use with thread-less drive head) | \$ 125.00 |
| 57096    | 2 3/4" Lowering Tool   | \$ 225.00 |
| 5006.56  | 1 1/4" Thread Protector Cap  | \$ 75.00  |
| 5008.29  | 1 5/8" Thread Protector Cap  | \$ 90.00  |
| 54552    | 1 1/4" Internal Piston Stop Coupler                                | \$ 105.00 |
| 54553    | 1 5/8" Internal Piston Stop Coupler                                | \$ 105.00 |
| 5684.21  | 2 3/4" Liner Retainer Coupler                                      | \$ 130.00 |
| 5684.25  | 2 3/4" EDT - Piston Sectional                                      | \$ 135.00 |
| 5684.22  | 2 3/4" EDT - Piston DT   | \$ 120.00 |
| 5684.24  | 1 1/4" IDT - Piston Sampler  | \$ 120.00 |
| 61980    | 1 5/8" IDT - Piston Sampler  | \$ 125.00 |
| 5618.254 | 2 3/4" IDT O-Ring (Pack of 25)                                     | \$ 12.50  |
| 5010.05  | 2 3/4" x 5' DPE  | \$ 195.00 |
| 5010.04  | 2 3/4" x 4' DPE  | \$ 180.00 |
| 5010.02  | 2 3/4" x 2' DPE  | \$ 150.00 |

#### Plastic Liners / End Caps / Core Catchers

| Part#   | Item                       | Price    |
|---------|----------------------------|----------|
| 5010.44 | 2" x 5' PVC Liners         | \$ 10.00 |
| 5010.48 | 2" x 4' PVC Liners         | \$ 5.45  |
| 5010.46 | 2" x 2' PVC Liners         | \$ 4.95  |
| 418.10  | 2" Plastic End Cap         | \$ 0.50  |
| 18015   | Core Catcher - white, soft | \$ 6.10  |
| 18016   | Core Catcher - red, stiff  | \$ 6.10  |

#### 1 1/4" Extensions / Drive Heads / Pull Caps

|         |                             |           |
|---------|-----------------------------|-----------|
| 5005.86 | 1 1/4" Drive Head           | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap             | \$ 95.00  |
| 5005.75 | 1 1/4" x 5' DPE             | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE             | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DPE             | \$ 105.00 |
| 5014.03 | 1 1/4" DPE Holder           | \$ 56.00  |
| 5008.02 | 1 1/4" O-ring Kit (qty: 25) | \$ 6.31   |

#### 1 5/8" Extensions / Drive Heads / Pull Caps

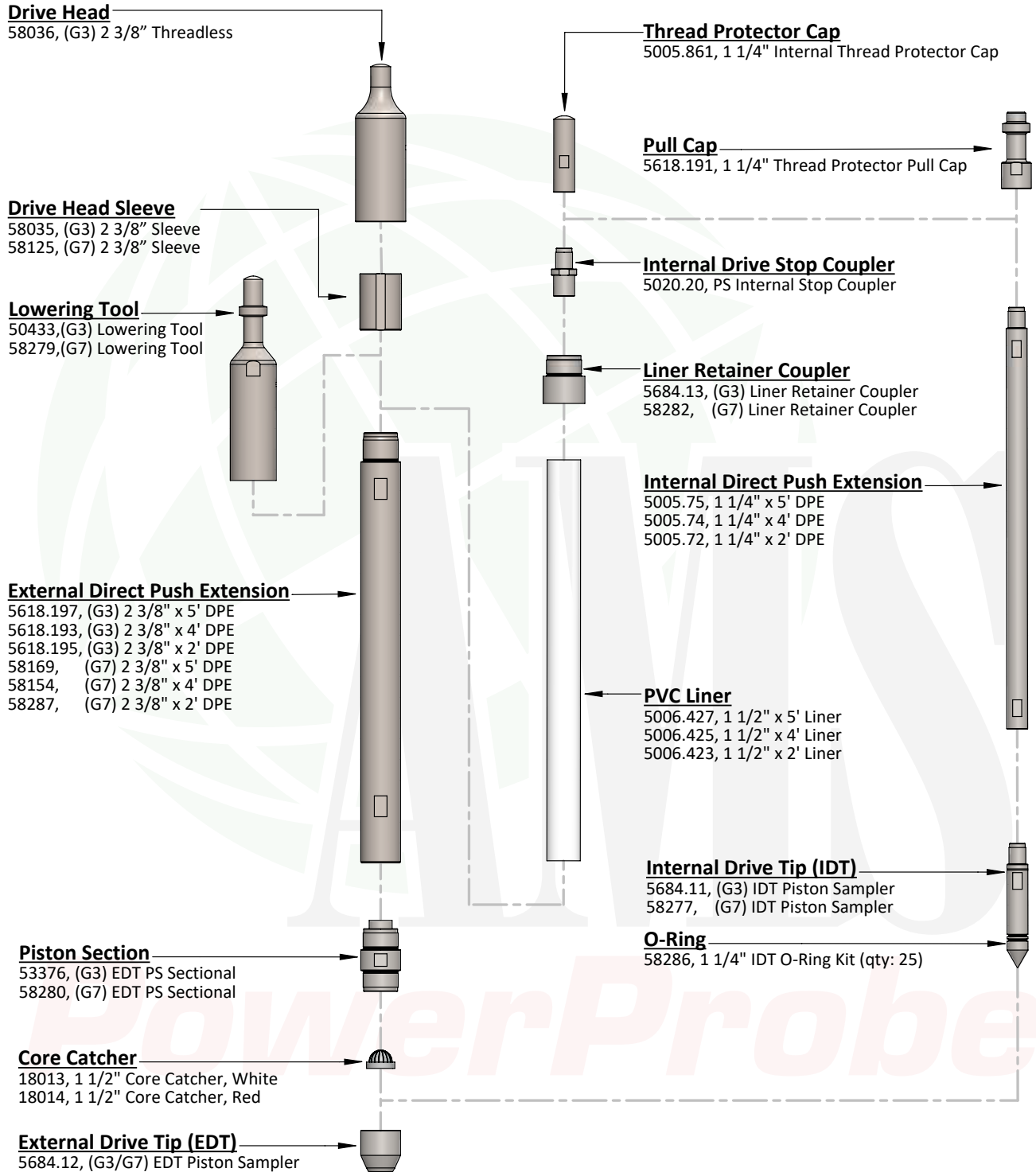
|         |                             |           |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 159.00 |
| 5006.92 | 1 5/8" x 2' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.00  |
| 5006.99 | 1 5/8" O-ring Kit (qty: 25) | \$ 8.83   |





# 2 3/8" (G7 & G3) PISTON SAMPLING

## (G3) and (G7) Piston Sampler Assembly







## 2 3/8" (G7 & G3) PISTON SAMPLING

AMS G7 / G3 piston samplers feature a thicker design that can endure more push, hammer, and pull back with today's increased hammers and capability. They also help minimize the chance of liner failure. The AMS Piston Samplers eliminate preprobing and are primarily used to sample flowing or heaving sands, swelling clays, and soils below a groundwater. They allow the user to recover samples consistently in difficult and saturated conditions, and they are available in a variety of sample sizes ranging from 2 3/4", 2" and 1 1/2" diameters.

The center rod and tip displace caving soils and the internal drive tip prevents caving soils from entering the sampler. This helps prevent premature sample collection and minimizes the chance for cross-contamination. Piston samplers also use a basket retainer in the drive tip to prevent sample loss in fine or sandy soils.

Piston samplers eliminate preprobing and are primarily used to sample flowing or heaving sands, swelling clays, and soils below groundwater.

### G3

#### Complete Sampling Kits

| Part#   | Item                              | Price       |
|---------|-----------------------------------|-------------|
| 5684.09 | (G3) x 5' Piston Sampler Complete | \$ 1,250.00 |
| 5684.10 | (G3) x 4' Piston Sampler Complete | \$ 1,170.00 |

#### Piston Sampler Components (G3)

|          |                                  |           |
|----------|----------------------------------|-----------|
| 50433    | (G3) Lowering Tool               | \$ 175.00 |
| 5684.13  | (G3) Liner Retainer Coupler      | \$ 120.00 |
| 53376    | (G3) EDT - PS Sectional          | \$ 145.00 |
| 5684.12  | (G3) EDT- Piston Sampler         | \$ 125.00 |
| 5684.11  | (G3) IDT - Piston Sampler        | \$ 135.00 |
| 5618.191 | 1 1/4" Thread Protector Pull Cap | \$ 119.00 |
| 5020.20  | PS Internal Stop Coupler         | \$ 90.00  |

#### Dual Tube Extensions (G7 & G3) / Holders

|          |                      |           |
|----------|----------------------|-----------|
| 5618.197 | (G3) 2 3/8" x 5' DPE | \$ 210.00 |
| 5618.193 | (G3) 2 3/8" x 4' DPE | \$ 187.00 |
| 5014.06  | 2 3/8" DPE Holder    | \$ 56.10  |

### G7

#### Complete Sampling Kits

| Part# | Item                              | Price       |
|-------|-----------------------------------|-------------|
| 58156 | (G7) x 5' Piston Sampler Complete | \$ 1,246.00 |
| 58157 | (G7) x 4' Piston Sampler Complete | \$ 1,218.00 |

#### Piston Sampler Components (G7)

|          |                                  |           |
|----------|----------------------------------|-----------|
| 58279    | (G7) Lowering Tool               | \$ 245.00 |
| 58282    | (G7) Liner Retainer Coupler      | \$ 110.00 |
| 58280    | (G7) EDT - PS Sectional          | \$ 245.00 |
| 5684.12  | (G7) EDT- Piston Sampler         | \$ 125.00 |
| 58277    | (G7) IDT - Piston Sampler        | \$ 145.00 |
| 5618.191 | 1 1/4" Thread Protector Pull Cap | \$ 119.00 |
| 5020.20  | PS Internal Stop Coupler         | \$ 90.00  |

#### Dual Tube Extensions (G7 & G3) / Holders

|         |                      |           |
|---------|----------------------|-----------|
| 58169   | (G7) 2 3/8" x 5' DPE | \$ 230.00 |
| 58154   | (G7) 2 3/8" x 4' DPE | \$ 207.00 |
| 5014.06 | 2 3/8" DPE Holder    | \$ 56.10  |

\*Note: DPE = Direct Push Extension  
EDT = External Drive Tip  
IDT = Internal Drive Tip

Complete Kits Includes: Lowering tool, 2 3/8" DPE, 1 1/4" DPE, 1 1/2" PVC Liner, 1 1/2" Core Catcher, PS Liner Retainer Coupler, EDT - Sectional, EDT - Piston Sampler, IDT - Piston Sampler, Internal Thread Protector Pull Cap, PS Internal Stop Coupler, O-Rings

### 1 1/4" DP Extensions and Accessories

|         |                   |           |
|---------|-------------------|-----------|
| 5005.75 | 1 1/4" x 5' DPE   | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE   | \$ 125.00 |
| 5014.03 | 1 1/4" DPE Holder | \$ 56.10  |

#### Liners / End Caps / Core Catchers / O-Rings

|          |   |          |
|----------|---|----------|
| 5006.427 | 1 1/2" x 5' PVC Liners                                    | \$ 3.95  |
| 5006.425 | 1 1/2" x 4' PVC Liners                                    | \$ 2.91  |
| 418.08   | 1 1/2" Plastic End Cap                                    | \$ 0.21  |
| 418.16   | Fluoropolymer Film - Perforated Roll (0.003" x 4" x 100') | \$86.50  |
| 18013    | 1 1/2" Core Catcher - White                               | \$ 1.20  |
| 18014    | 1 1/2" Core Catcher - Red                                 | \$ 1.65  |
| 18012    | 1 1/2" Core Catcher - Spring Steel                        | \$ 27.60 |
| 54578    | 1 1/2" Core Catcher - Stainless Steel                     | \$ 45.60 |
| 5008.061 | 2 3/8" O-ring Kit (qty: 25)                               | \$ 9.81  |
| 5008.02  | 1 1/4" O-ring Kit (qty: 25)                               | \$ 6.31  |
| 58286    | 1 1/4" IDT O-Ring Kit (qty: 25)                           | \$ 6.50  |

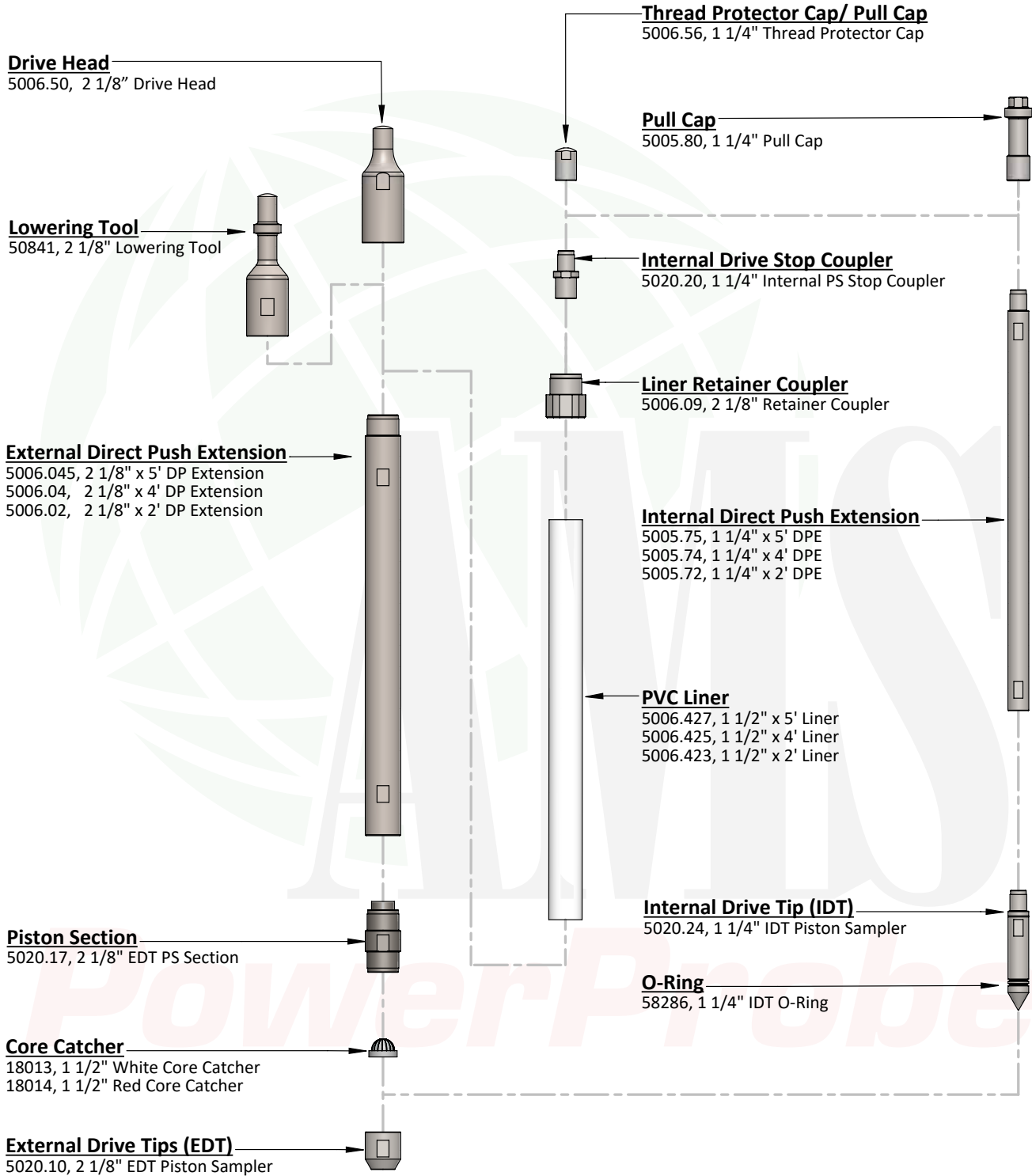


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# 2 1/8" PISTON SAMPLING

## 2 1/8 Piston Sampler Assembly





## 2 1/8" PISTON SAMPLING

The AMS 2 1/8" Piston Sampler system eliminates pre-probing and is primarily used to sample flowing or heaving sands, swelling clays, and soils below a groundwater table. They allow the user to recover samples consistently in difficult and saturated soil conditions inside a clear 1 1/2" PVC liner.

The center rod and tip displace caving soils and the internal drive tip prevents caving soils from entering the sampler. This helps prevent premature sample collection and minimizes the chance for cross-contamination. Piston samplers also use a basket retainer in the drive tip to prevent sample loss in fine or sandy soils. Additional sampling intervals at greater depths can be retrieved using the same boring. There is no chance of losing the center rod, and caving will not fill the liner. Material that prematurely enters the sampler and liner when removing the internal components is pushed up above the liner when the liner is filled from the desired sample interval.

### Piston Sampler Application

- 1) The piston sampler is pushed or hammered to the desired depth where sampling is to begin.
- 2) Upon reaching the desired sampling depth, the internal direct push extension that is attached to the inner drive tip is removed.
- 3) Add an external direct push extension that is the same length of the piston sampler.
- 4) Pushed the system the length of your sampler.
- 5) Remove the piston sampler from the boring and retrieve the sample.

### 2 1/8" Piston Sampler Assembly

#### Drive Head

| Part#   | Item                 | Price     |
|---------|----------------------|-----------|
| 5006.50 | 2 1/8" Drive Head    | \$ 175.00 |
| 50841   | 2 1/8" Lowering Tool | \$ 170.00 |

#### External Direct Push Extension

|          |                                 |           |
|----------|---------------------------------|-----------|
| 5006.045 | 2 1/8" x 5' DP Extension        | \$ 153.00 |
| 5006.04  | 2 1/8" x 4' DP Extension        | \$ 142.00 |
| 5006.02  | 2 1/8" x 2' DP Extension        | \$ 118.00 |
| 5020.17  | 2 1/8" EDT PS Section           | \$ 95.00  |
| 5020.10  | 2 1/8" EDT Piston Sampler       | \$ 95.00  |
| 5020.24  | 1 1/4" IDT Piston Sampler       | \$ 90.00  |
| 5006.56  | 1 1/4" Thread Protector Cap     | \$ 75.00  |
| 5005.80  | 1 1/4" Pull Cap                 | \$ 110.00 |
| 5020.20  | 1 1/4" Internal PS Stop Coupler | \$ 90.00  |
| 5006.09  | 2 1/8" Retainer Coupler         | \$ 90.00  |
| 50075    | 1 1/4" x 5' DP Extension        | \$ 130.00 |
| 5005.74  | 1 1/4" x 4' DP Extension        | \$ 125.00 |
| 5005.72  | 1 1/4" x 2' DP Extension        | \$ 105.00 |
| 5006.427 | 1 1/2" x 5' Liner               | \$ 3.95   |
| 5006.425 | 1 1/2" x 4' Liner               | \$ 2.91   |
| 5006.423 | 1 1/2" x 2' Liner               | \$ 2.31   |
| 18013    | 1 1/2" White Core Catcher       | \$ 1.75   |
| 18014    | 1 1/2" Red Core Catcher         | \$ 1.65   |
| 58286    | 1 1/4" IDT O-Ring               | \$ 6.70   |

\*Note: DPE = Direct Push Extension  
EDT = External Drive Tip  
IDT = Internal Drive Tip

Complete Kits Includes: Lowering tool, 2 3/8" DPE, 1 1/4" DPE, 1 1/2" PVC Liner), 1 1/2" Core Catcher, PS Liner Retainer Coupler, EDT - Sectional, EDT - Piston Sampler, IDT - Piston Sampler, Internal Thread Protector Pull Cap, PS Internal Stop Coupler, O-Rings

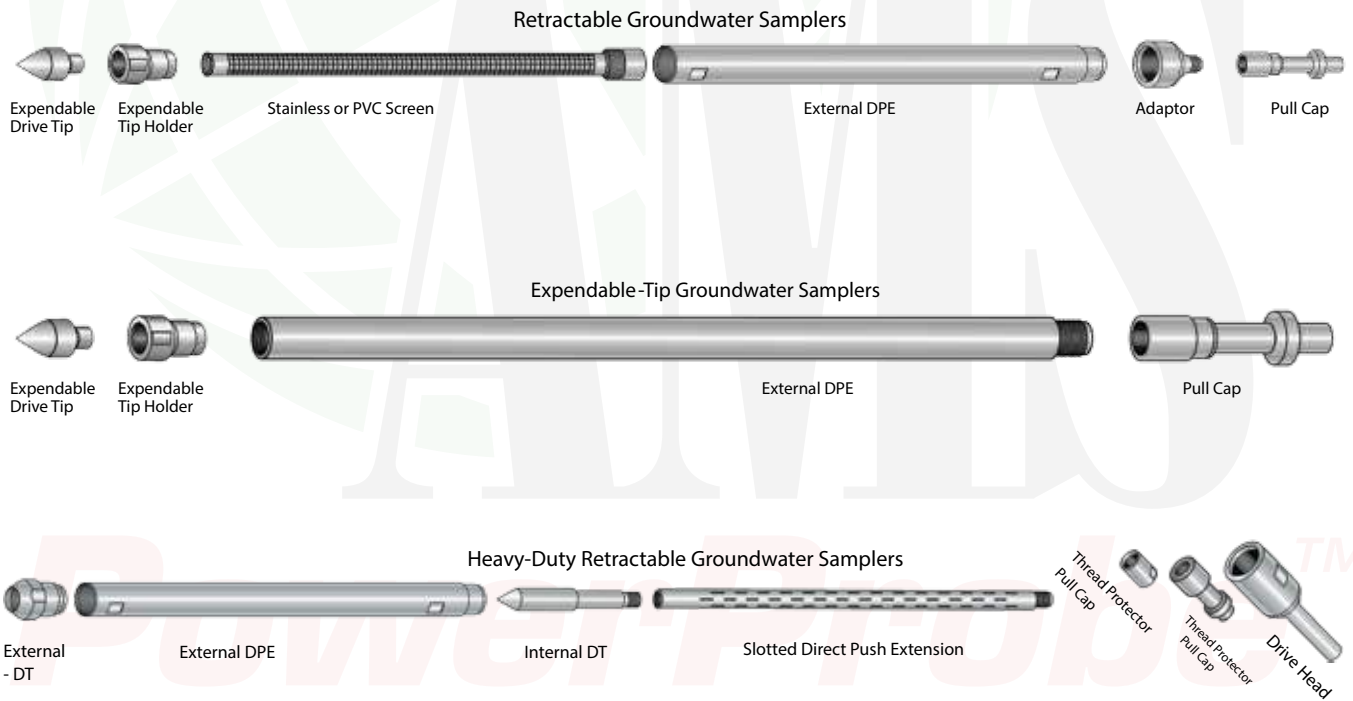




# GROUNDWATER SAMPLING

## GROUNDWATER SAMPLING

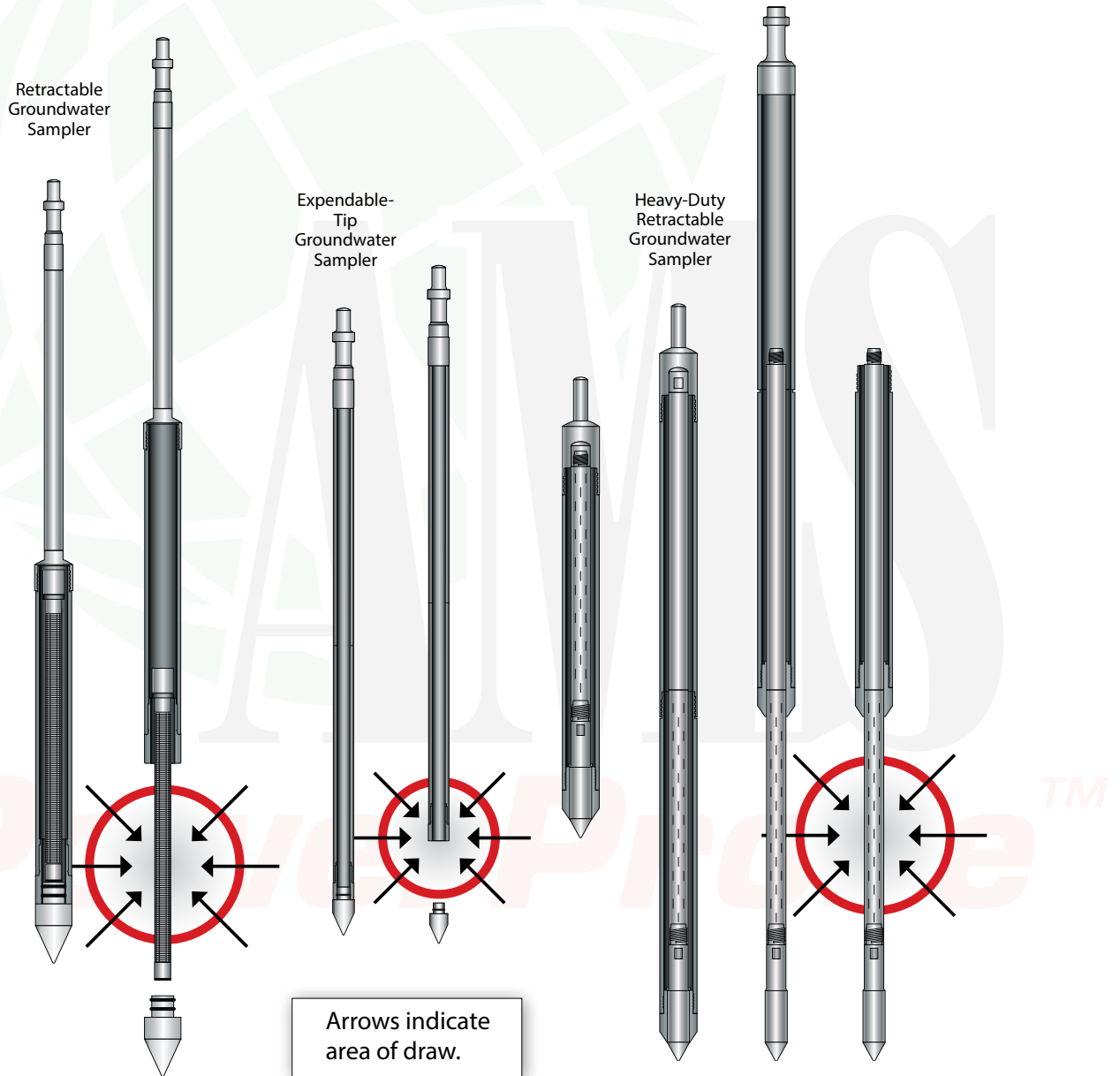
AMS direct push groundwater sampling systems allow you to collect groundwater for analysis and characterization, sample at the groundwater surface or for vertical delineation of sinking contaminants, and to determine the necessity of monitoring well placement. They can be used with existing direct push tooling, and there are a variety of samplers to accommodate different conditions and sampling purposes. AMS offers a variety of small diameter, prepacked screen groundwater monitoring wells that are an improved option over conventionally constructed monitoring wells. Direct push wells are modular products designed for direct push installation. Technically accurate and regulatory accepted direct push wells offer a cost-effective and labor-saving alternative to conventional wells. They allow you to efficiently acquire parameters about groundwater, and their use for environmental groundwater monitoring applications are gaining acceptance, as indicated and referenced by many professional organizations and governmental agencies, such as ASTM, USEPA, DoD, DOE, SERDP, and ESTCP.



# GROUNDWATER SAMPLING

## Advantages of Direct Push Wells

- The most cost-effective method for installing long term monitoring wells.
- PVC and high-quality stainless steel screens assure representative samples.
- Assures accurate placement of filter media across desired interval.
- Quick Seal and Bentonite sleeves protect the sampling environment.
- The cased borehole, provides high integrity well construction and sample quality.
- Meets or exceeds requirements for ASTM Standard D6725 for Direct Push Installation of Prepacked Screen Monitoring Wells, and basic EPA and RCRA construction.
- DOD and EPA studies reveal no statistically significant difference between water quality samples collected from paired prepacks and conventionally drilled wells.
- Available in a variety of sizes for various conditions and sampling purposes.





# GROUNDWATER SAMPLING

## 1 3/4" Retractable Groundwater Sampler

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Head**

5005.86, 1 1/4" Drive Head  
5006.85, 1 5/8" Drive Head ♦

**Pull Cap**

5005.80, 1 1/4" Pull Cap  
5006.86, 1 5/8" Pull Cap ♦

**Ground Water Adapter**

5005.156, 1 1/4" GW Adapter  
57733, 1 5/8" GW Adapter ♦

**External Direct Push Extension**

5005.017, 1 3/4" x 5' DP Extension  
5005.00, 1 3/4" x 4' DP Extension  
5005.02, 1 3/4" x 2' DP Extension

**External Drive Tip Holder**

5011.12, GW Expendable DT Holder  
5008.03, 1 3/4" O-Ring (qty: 25)

**External Drive Tips (EDT)**

5011.20, 1 3/4" EDT  
5011.26, O-Ring (qty 25)

**Internal Direct Push Extension**

5005.75, 1 1/4" x 5' DP Extension  
5005.74, 1 1/4" x 4' DP Extension  
18036, 1 1/4" x 4' DP Extension Lightweight  
5005.72, 1 1/4" x 2' DP Extension  
18037, 1 1/4" x 2' DP Extension Lightweight

5006.95, 1 5/8" x 5' DPE ♦

5006.94, 1 5/8" x 4' DPE ♦

5006.92, 1 5/8" x 2' DPE ♦

**Cap/ Plug (For PVC Only)**

57107, 3/4" GW Screen Retainer-Male Plastic  
57864, 3/4" GW Screen Retainer-Female Plastic

**Replacement Screens Stainless**

21079, 3/4" x 5" Wire Wrapped Stainless Steel Screen  
21073, 3/4" x 4" Wire Wrapped Stainless Steel Screen

**Replacement Screens PVC**

5007.82, 3/4" x 5" SCH 40 PVC (0.010") Slot Screen  
5011.31, 3/4" x 4" SCH 40 PVC (0.010") Slot Screen  
5011.30, 3/4" x 2" SCH 40 PVC (0.010") Slot Screen

**Plug Plastic**

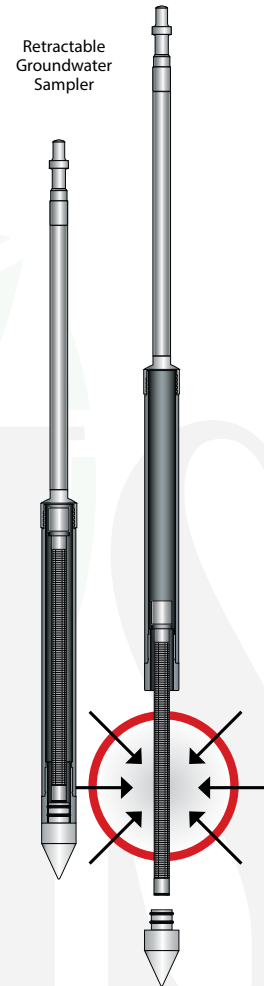
57106, 3/4" Grout Plug-Plastic

# GROUNDWATER SAMPLING

The AMS Screen Point Sampler allows placement of a screen into saturated soils. It can be pushed single-tube without preboring. These samplers can have a stainless steel internal screen or a conventional monitoring well PVC screen. Standard PVC screens can be cut to fit and used with the appropriate adapters (included), SST screens can be used when contaminants can dissolve or negatively affect PVC screens. New PVC screens can be used in the same way as disposable bailers to eliminate the need for decontamination. In addition, PVC screens are ideal for grouting the borehole from bottom to top after collecting a sample and it prevents contaminated material from falling into the groundwater while the tooling is retracted.

## 1 3/4" Screen Point Sampler Complete

| Part#  | Item  | Price     |
|--|---|-----------|
| 5005.017   | 1 3/4" x 5' DP Extension                      | \$ 157.00 |
| 5005.00  | 1 3/4" x 4' DP Extension                      | \$ 145.00 |
| 5005.02  | 1 3/4" x 2' DP Extension                      | \$ 115.00 |
| 5011.12  | GW Expendable DP Holder                       | \$ 95.00  |
| 5008.03  | 1 3/4" O-Ring (qty: 25)                       | \$ 6.50   |
| 5011.20  | GW Expendable Drive Point                     | \$ 6.80   |
| 5011.26  | GW Expendable DP O-Ring (qty: 25)             | \$ 6.75   |
| <b>Screens / Retainers / Expendable Grout Plug</b> |   |           |
| 21079  | 3/4" x 5' Wire Wrapped Stainless Steel Screen | \$ 229.50 |
| 21073  | 3/4" x 5' Wire Wrapped Stainless Steel Screen | \$ 185.00 |
| 5007.82  | 3/4" x 5' SCH 40 PVC (0.010") Slot Screen     | \$ 14.10  |
| 5011.31  | 3/4" x 4' SCH 40 PVC (0.010") Slot Screen     | \$ 12.00  |
| 5011.30  | 3/4" x 2' SCH 40 PVC (0.010") Slot Screen     | \$ 10.60  |
| 57107  | 3/4" GW Screen Retainer - Male Plastic        | \$ 22.50  |
| 57864  | 3/4" GW Screen Retainer - Female Plastic      | \$ 25.00  |
| 57106  | GW Expendable Grout Plug - Plastic            | \$ 10.00  |
| <b>1 1/4" Groundwater Accessories</b>              |   |           |
| 5005.156   | 1 1/4" GW Adapter                             | \$ 105.00 |
| 5005.86  | 1 1/4" Drive Head                             | \$ 110.00 |
| 5005.80  | 1 1/4" Pull Cap                               | \$ 95.00  |
| 5005.75  | 1 1/4" x 5' DP Extension                      | \$ 130.00 |
| 5005.74  | 1 1/4" x 4' DP Extension                      | \$ 125.00 |
| 5005.72  | 1 1/4" x 2' DP Extension                      | \$ 105.00 |
| <b>1 5/8" Groundwater Accessories</b>              |   |           |
| 57733  | 1 5/8" GW Adapter                             | \$ 110.00 |
| 5006.85  | 1 5/8" Drive Head                             | \$ 130.00 |
| 5006.86  | 1 5/8" Pull Cap                               | \$ 110.00 |
| 5006.95  | 1 5/8" x 5' DP Extension                      | \$ 169.00 |
| 5006.94  | 1 5/8" x 4' DP Extension                      | \$ 159.00 |
| 5006.92  | 1 5/8" x 2' DP Extension                      | \$ 126.00 |



## Screen Point Sampler Complete

| Part#   | Item  |
|---------|---|
| 5058.05 | 1 3/4" x 5' Screen Point Sampler Complete, 1 5/8" adapter |
| 5058.04 | 1 3/4" x 4' Screen Point Sampler Complete, 1 5/8" adapter |
| 5058.02 | 1 3/4" x 2' Screen Point Sampler Complete, 1 5/8" adapter |
| 5011.00 | 1 3/4" x 5' Screen Point Sampler Complete, 1 1/4" adapter |
| 5011.01 | 1 3/4" x 4' Screen Point Sampler Complete, 1 1/4" adapter |
| 5011.04 | 1 3/4" x 2' Screen Point Sampler Complete, 1 1/4" adapter |



# EXPENDABLE TIP GROUNDWATER SAMPLING

## Expendable Tip Groundwater Samplers

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Head**

- 5005.86, 1 1/4" Drive Head
- 5006.85, 1 5/8" Drive Head ♦

**Pull Cap**

- 5005.80, 1 1/4" Pull Cap
- 5006.86, 1 5/8" Pull Cap ♦

**External Direct Push Extension**

- 5005.75, 1 1/4" x 5' DP Extension
- 5005.74, 1 1/4" x 4' DP Extension
- 5006.95, 1 5/8" x 5' DP Extension ♦
- 5006.94, 1 5/8" x 4' DP Extension ♦

**External Drive Tip Holder**

- 5004.55, 1 1/4" Expendable Tip Holder, threaded
- 5006.88, 1 5/8" Expendable Tip Holder, threaded ♦

**Expendable Drive Tips (DT)**

- 5004.56, 1 1/4" Expendable Tip
- 5006.89, 1 5/8" Expendable Tip ♦

**Tubing**

- 214.98, 3/16" ID x 1/4" OD x 50' Fluoropolymer
- 214.99, 3/16" ID x 1/4" OD x 100' Fluoropolymer
- 215.00, 3/16" ID x 1/4" OD x 250' Fluoropolymer
- 215.12, 3/16" ID x 1/4" OD x 500' Fluoropolymer
- 215.03, 1/4" ID x 3/8" OD x 50' Fluoropolymer ♦
- 215.04, 1/4" ID x 3/8" OD x 100' Fluoropolymer ♦

**Twist-to-Lock Connector**

- 5004.45, 3/16" Twist-to-Lock Connector
- 5004.43, 1/4" Twist-to-Lock Connector ♦

**Twist-to-Lock O-Ring**

- 5004.461, Twist-to-Lock O-Ring (Qty. 25)

**Mesh Screens SST**

- 5004.60, #120 Mesh Screen (SST)
- 5004.59, #100 Mesh Screen (SST)
- 5004.58, #50 Mesh Screen (SST)



# EXPENDABLE TIP GROUNDWATER SAMPLING

The expendable tip groundwater sampler is a single-tube sampler that can be used at specific depths below the surface of groundwater.

It is especially useful when sampling for sinking contaminants. The expendable-tip samplers are also ideal for discrete sampling for vertical delineation of sinking contaminants. To collect a sample, push the direct push extension to the desired sampling depth below the groundwater table, and then retract the extension. At this point, the purging and sampling may begin using a mini bailer, peristaltic pump, bladder pump, or other groundwater sampling instrument.

## 1 1/4" Expendable Tip Groundwater Sampler

### Drive Head

| Part#   | Item                                   | Price     |
|---------|--|-----------|
| 5005.86 | 1 1/4" Drive Head                      | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap                        | \$ 95.00  |
| 5005.75 | 1 1/4" x 5' DP Extension               | \$135.00  |
| 5005.74 | 1 1/4" x 4' DP Extension               | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DP Extension               | \$ 105.00 |
| 5004.55 | 1 1/4" Expendable Tip Holder, threaded | \$ 95.00  |
| 5004.56 | 1 1/4" Expendable Tip                  | \$ 6.70   |

## 1 5/8" Expendable Tip Groundwater Sampler

### Drive Head

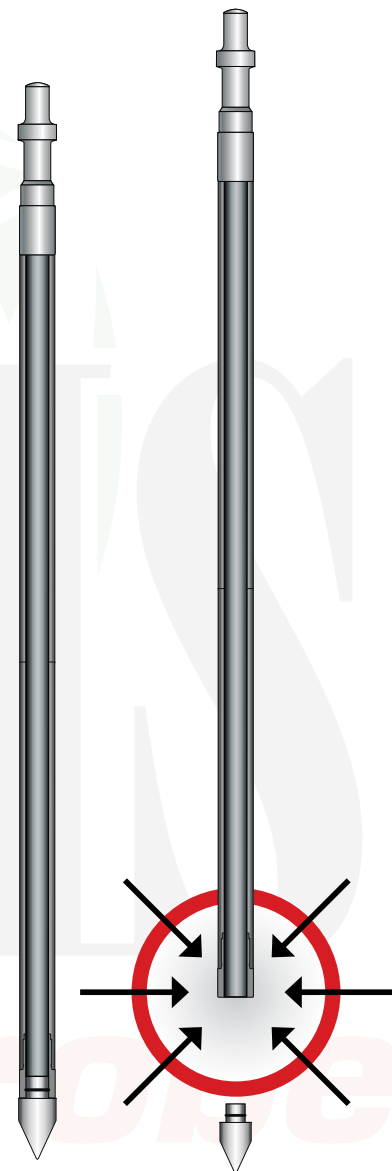
| Part#   | Item                                   | Price     |
|---------|--|-----------|
| 5006.85 | 1 5/8" Drive Head                      | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap                        | \$ 110.00 |
| 5006.95 | 1 5/8" x 5' DP Extension               | \$169.00  |
| 5006.94 | 1 5/8" x 4' DP Extension               | \$159.00  |
| 5006.92 | 1 5/8" x 2' DP Extension               | \$ 126.00 |
| 5006.88 | 1 5/8" Expendable Tip Holder, threaded | \$95.00   |
| 5006.89 | 1 5/8" Expendable Tip                  | \$ 8.00   |

### AMS Twist-to-Lock Connectors

| Part#    | Item                           | Price    |
|----------|--------------------------------|----------|
| 5004.45  | 3/16" Twist-to-Lock Connector  | \$ 23.00 |
| 5004.43  | 1/4" Twist-to-Lock Connector   | \$ 15.45 |
| 5004.461 | Twist-to-Lock O-Ring (qty: 25) | \$ 9.79  |

### Stainless Steel Sample Screens

|         |                        |         |
|---------|------------------------|---------|
| 5004.60 | #120 Mesh Screen (SST) | \$ 0.40 |
| 5004.59 | #100 Mesh Screen (SST) | \$ 0.40 |
| 5004.58 | #50 Mesh Screen (SST)  | \$ 0.40 |



Expendable-Tip Groundwater Sampler

# GROUNDWATER ACCESSORIES

Silicone tubing is often used as bridge tubing between the sampler fittings and either fluoropolymer or polyethylene tubing. If the correct (#15 or #16) bridge tubing is used, it creates a great seal on tubing and fittings. Fluoropolymer tubing can be used with a variety of AMS groundwater sampling systems and can meet certain requirements for long-term monitoring, regulatory requirements, and project scopes of work. Polyethylene tubing is cost-effective for groundwater surveys. Fluoropolymer and polyethylene tubing can be used with AMS inertia Lift Sampler, Bladder Pumps and Peristaltic Pumps for collection of a wide variety of groundwater samples.

| Part#   | Item   | Price     |
|---------|--|-----------|
| 5004.47 | #15 x 50' Silicone Tubing                      | \$ 105.10 |
| 5004.48 | #15 x 500' Silicone Tubing                     | \$ 725.10 |
| 5004.53 | #16 x 52' Silicone Tubing                      | \$ 70.90  |
| 215.12  | 3/16" ID x 1/4" OD x 500' Polyethylene Tubing  | \$ 112.40 |
| 214.98  | 3/16" ID x 1/4" OD x 50' Fluoropolymer Tubing  | \$ 89.80  |
| 214.99  | 3/16" ID x 1/4" OD x 100' Fluoropolymer Tubing | \$ 173.50 |
| 215.00  | 3/16" ID x 1/4" OD x 250' Fluoropolymer Tubing | \$ 389.90 |
| 215.03  | 1/4" ID x 3/8" OD x 50' Fluoropolymer Tubing   | \$ 195.60 |
| 215.04  | 1/4" ID x 3/8" OD x 100' Fluoropolymer Tubing  | \$ 187.32 |

Inertia lift or check ball samplers are simple and inexpensive for purging and sampling through wells and direct push tooling. They are essentially a foot valve attached to tubing and the lower end placed in the well. Alternately, raising and lowering the tube at the surface will cause water to flow up the tube. Each of the three models is sized by the ID of the required tubing.

**Inertia Lift Samplers**

| Part#   | Item                       | Price    |
|---------|----------------------------|----------|
| 2102.00 | 3/16" Inertia Lift Sampler | \$ 32.90 |
| 2102.05 | 1/4" Inertia Lift Sampler  | \$ 37.10 |
| 2102.10 | 3/8" Inertia Lift Sampler  | \$ 40.80 |



Stainless steel bailers are used to collect composite samples from wells and boreholes. They feature a tubular body with a wire loop bail and a fluoropolymer check ball on all models except the top fill model, #2100.36. The stainless steel body allows for quick and easy decontamination, and the tapered top on the 1 3/4" model allows for smoother raising and lowering.

**Stainless Steel Bailers**

| Part#   | Item                            | Weight | Price     |
|---------|---------------------------------|--------|-----------|
| 2100.36 | 3/8" x 18" Top Fill Bailer SST  | 0.4 lb | \$ 41.60  |
| 2100.00 | 5/8" x 3' Bailer SST            | 1.0 lb | \$ 90.00  |
| 2100.30 | 3/4" x 3' Bailer SST            | 1.0 lb | \$ 96.20  |
| 2100.09 | 7/8" 3' Bailer SST              | 1.1 lb | \$ 101.90 |
| 2100.04 | 1" x 3' Bailer SST              | 1.2 lb | \$ 109.10 |
| 2100.39 | 1 3/4" x 3' Top Fill Bailer SST | 3.7 lb | \$ 141.30 |
| 451.00  | 1 3/4" x 3' Tapered Bailer SST  | 3.7 lb | \$ 147.00 |

# GROUNDWATER ACCESSORIES

AMS Water Level Meters provide reliable and accurate measurements of groundwater levels. Water level readings are taken at the top of the casing with accuracy up to 1/100 of a foot (3 mm). They utilize a durable polypropylene storage reel with a rugged solid aluminum frame. Their highly accurate Polyethylene-coated steel tape is available in either standard/English or metric unit increments. The 5/8" (1.59 cm) probe is made with stainless-steel conductors for durability, and it can be replaced in the field. The 3/8" (.95 cm) probe is not replaceable. The probes also feature adjustable sensitivity to prevent false triggering, and audible and visible alarms activate when the probe makes contact with water. They have a built-in reel hanger and tape guide for longer tape life.



The 9 volt battery is easy to replace. The water-resistant padded carrying case to protect the instrument is sold separately. Available in 5/8" or 3/8" diameter probes and in 100', 200', 300', 30 m, 60 m, or 100 m length.

## Product / Water Interface Meters

| Part #  | Item                              | Price     |
|---------|-----------------------------------|-----------|
| 3012.66 | WLM (5/8" Probe) - 100' Poly Tape | \$ 561.60 |
| 3012.67 | WLM (5/8" Probe) - 200' Poly Tape | \$ 686.40 |
| 3012.68 | WLM (5/8" Probe) - 300' Poly Tape | \$ 816.40 |
| 3012.69 | WLM (5/8" Probe) - 30M Poly Tape  | \$ 561.60 |
| 3012.76 | WLM (5/8" Probe) - 60M Poly Tape  | \$ 686.40 |
| 3012.77 | WLM (5/8" Probe) - 100M Poly Tape | \$ 816.40 |
| 3012.78 | WLM (3/8" Probe) - 100' Poly Tape | \$ 572.00 |
| 3012.79 | WLM (3/8" Probe) - 200' Poly Tape | \$ 696.80 |
| 3012.83 | WLM (3/8" Probe) - 300' Poly Tape | \$ 826.80 |
| 3012.84 | WLM (3/8" Probe) - 30M Poly Tape  | \$ 572.00 |
| 3012.90 | WLM (3/8" Probe) - 60M Poly Tape  | \$ 696.80 |
| 3012.92 | WLM (3/8" Probe) - 100M Poly Tape | \$ 826.80 |
| 3012.97 | WLM Padded Carry Case (blue)      | \$ 72.80  |

## Product / Water Interface Meters

| Part #  | Item   | Weight   | Price       |
|---------|--|----------|-------------|
| 3012.95 | Interface Meter (5/8" Probe) - 100' Kynar Tape     | 177.0 lb | \$ 1,300.00 |
| 3012.96 | Interface Meter (5/8" Probe) - 30 Meter Kynar Tape | 229.0 lb | \$ 1,300.00 |

AMS Product Water/Interface Meters provide measurements of both floating hydrocarbons (non-aqueous product layers). These meters measure free product and the interface (transition level) with water levels in groundwater monitoring wells. When the probe is lowered down a well and makes contact with the product layer (free product), a solid tone and green light alarm is activated on the reel. When the probe detects water, the tone begins to oscillate and the light changes to green. The 5/8" (1.59 cm) probe is made with stainless steel conductors for durability, and it can be replaced in the field. The 5/8" probe is equipped with stainless steel conductors and stored on a rugged polypropylene reel with an aluminum frame. It is shipped in a padded carrying case. Available in 100' or 30m length.

Disposable bailers allow you to eliminate the time and costs of decontamination and cleaning. Choose from clear PVC, translucent polyethylene, or clear fluoropolymer bailers for easy sample viewing. Translucent polyethylene bailers are available with or without weighted bottoms. Clear PVC models feature a heavier design than many weighted bailers. The positive sealing check valve will prevent the loss of sample during recovery.

All disposable bailers may be emptied through the easy-pour top or with a slow emptying device included with each bailer.

## ClearView™ Disposable Bailers

| Part #  | Diameter | Length | Item                     | Weight   | Price    |
|---------|----------|--------|--------------------------|----------|----------|
| 2106.30 | 0.46"    | 3'     | 24 Clear PVC Bailers     | 6.0 lb.  | \$118.90 |
| 2106.25 | 0.46"    | 4'     | 24 Clear PVC Bailers     | 7.0 lb.  | \$125.90 |
| 2106.20 | 0.7"     | 1'     | 24 Clear PVC Bailers     | 5.0 lb.  | \$118.90 |
| 2106.15 | 0.7"     | 3'     | 24 Clear PVC Bailers     | 6.0 lb.  | \$105.00 |
| 2106.05 | 1 1/2"   | 1'     | 24 Clear PVC Bailers     | 10.0 lb. | \$84.10  |
| 2106.00 | 1 1/2"   | 3'     | 24 Clear PVC Bailers     | 14.0 lb. | \$94.80  |
| 2106.70 | 1 1/2"   | 1'     | 24 Clear Poly Bailers    | 6.0 lb.  |          |
| 2106.75 | 1 1/2"   | 3'     | 24 Clear Poly Bailers    | 8.0 lb.  | \$81.60  |
| 2106.80 | 1 1/2"   | 1'     | 24 Weighted Poly Bailers | 10.0 lb. | \$91.00  |
| 2106.85 | 1 1/2"   | 3'     | 24 Weighted Poly Bailers | 12.0 lb. | \$102.00 |
| 2106.50 | 1 1/2"   | 1'     | 12 Fluoropolymer Bailers | 10.0 lb. |          |
| 2106.55 | 1 1/2"   | 3'     | 12 Fluoropolymer Bailers | 6.0 lb.  | \$222.40 |

## Accessories

| Part #  | Length | Item                         | Weight  | Price    |
|---------|--------|------------------------------|---------|----------|
| 2100.38 | 275'   | #18 Twisted Nylon Twine      | 0.1 lb. | \$ 4.70  |
| 2106.35 |        | 24 PVC Slow Emptying Devices | 1.0 lb. | \$ 33.40 |



# PREPACK SCREEN MONITORING WELLS



## Prepack Screen Monitoring Wells

### Why are more groundwater professionals using Prepack Screen Monitoring Wells?

- The most cost effective method for installing long term monitoring wells.
- Available in sizes ranging from 0.5" through 2" I.D.
- Manufactured using PVC and high quality stainless steel screens to assure high integrity samples.
- Assures accurate placement of filter media across desired interval.
- Quick Seal and Bentonite sleeves protects the sampling environment.
- Installed through cased borehole, provides high integrity well construction and sample quality.
- Meets requirements for ASTM Standard D6725 for Direct Push Installation of Prepacked Screen Monitoring Wells.
- Meets basic EPA and RCRA construction requirements.
- DOD and EPA Studies reveal no statistically significant difference between water quality samples collected from paired Prepacks and conventionally drilled wells.



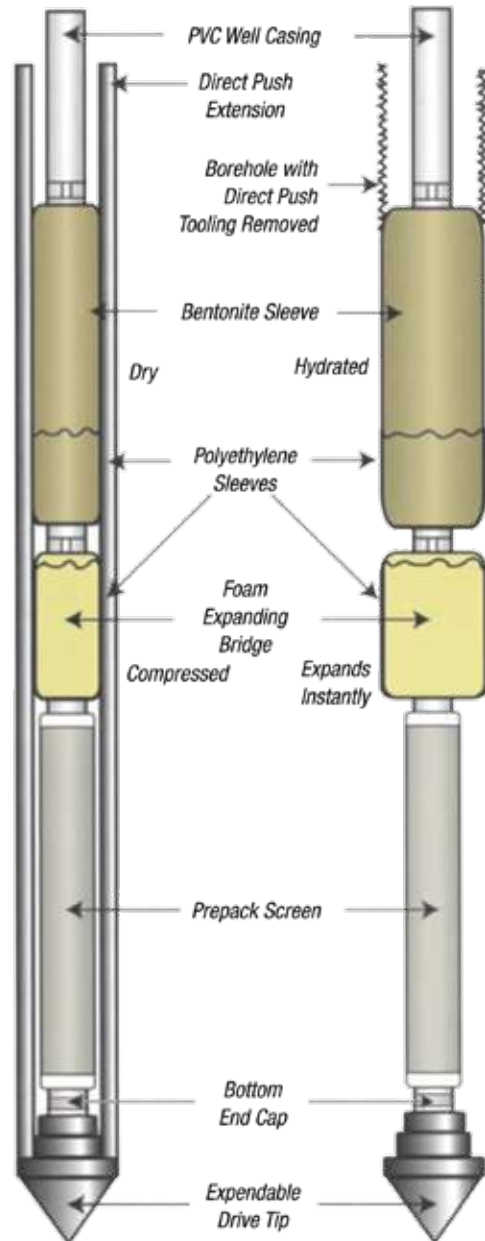
For More Information, Call:

**1-800-635-7330**

105 Harrison Street  
American Falls, ID 83211-1230  
208-226-2017 • Fax: 208-226-7280

Online at:

[www.ams-samplers.com](http://www.ams-samplers.com)



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# PREPACK SCREEN MONITORING WELLS



## Prepack Screen Monitoring Wells

### Prepack Screen

| PVC Casing/<br>Screen | Length<br>(feet) | Nominal<br>Diameter<br>(inches) ID/OD | Direct Push<br>Tooling (inches<br>OD) |
|-----------------------|------------------|---------------------------------------|---------------------------------------|
| 0.50-inch             | 2.5, 5           | 0.625 / 1.4                           | 2-1/8 - 2-3/8                         |
| 0.75-inch             | 2.5, 5           | 0.81 / 1.4                            | 2-1/8 - 2-3/8                         |
| 1.00-inch             | 2.5, 5           | 1.03 / 1.7                            | 2-3/4 - 3-1/2                         |
| 1.00-inch             | 2.5, 5           | 1.03 / 2.4                            | 2-3/4 - 3-1/2                         |
| 1.25-inch             | 2.5, 5           | 1.34 / 2.4                            | 2-3/4 - 3-1/2                         |
| 1.25-inch             | 2.5, 5           | 1.34 / 2.8                            | 3-1/2                                 |
| 1.50-inch             | 2.5, 5           | 1.59 / 2.4                            | 2-3/4 - 3-1/2                         |
| 1.50-inch             | 2.5, 5           | 1.59 / 2.8                            | 3-1/2                                 |
| 2.00-inch             | 2.5, 5           | 2.05 / 2.8                            | 3-1/2                                 |

### Bentonite Sleeve

Expansion times (example) – 3/4-inch model seals 2-inch hole in approx. 6-12 hours.

| PVC Casing | Length<br>(feet) | Original<br>Diameter<br>(inches) | Fill Hole Approx.<br>Diameter<br>(inches) |
|------------|------------------|----------------------------------|---|
| 0.75-inch  | 2.5              | 1.4                              | >2.5                                      |
| 1.00-inch  | 2.5              | 2.4                              | >3.5                                      |
| 1.25-inch  | 2.5              | 2.4                              | >3.5                                      |
| 1.50-inch  | 2.5              | 2.4                              | >3.5                                      |
| 2.00-inch  | 2.5              | 2.8                              | >4.0                                      |

### Quick Seal Sleeve

Expansion times (example) – 3/4-inch model seals 2-inch hole in approx. 15-30 minutes.

| PVC Casing | Length<br>(feet) | Original<br>Diameter<br>(Inches) ID/OD | Fill Hole Approx.<br>Diameter<br>(Inches) |
|------------|------------------|--|---|
| 0.75-inch  | 0.5              | 0.81 / 1.4                             | >2.5                                      |
| 1.00-inch  | 0.5              | 1.03 / 1.7                             | >3.5                                      |
| 1.25-inch  | 0.5              | 1.34 / 2.4                             | >3.5                                      |
| 1.50-inch  | 0.5              | 1.59 / 2.4                             | >3.5                                      |
| 2.00-inch  | 0.5              | 2.05 / 2.8                             | >4.0                                      |

### Bottom End Caps

|           |
|-----------|
| 0.50-inch |
| 0.75-inch |
| 1.00-inch |
| 1.25-inch |
| 1.50-inch |
| 2.00-inch |

### J-Plugs and Locks

|           |
|-----------|
| 0.50-inch |
| 0.75-inch |
| 1.00-inch |
| 1.25-inch |
| 1.50-inch |
| 2.00-inch |

### Expanding Foam Bridge

| PVC Casing | Length<br>(feet) | Original<br>Diameter<br>(inches) | Fill Hole Approx.<br>Diameter<br>(inches) |
|------------|------------------|----------------------------------|---|
| 0.75-inch  | 0.5              | 1.4                              | >2.5                                      |
| 1.00-inch  | 0.5              | 2.4                              | >3.5                                      |
| 1.25-inch  | 0.5              | 2.4                              | >3.5                                      |
| 1.50-inch  | 0.5              | 2.4                              | >3.5                                      |
| 2.00-inch  | 0.5              | 2.8                              | >4.0                                      |

### Expanding Foam Bridge with Bentonite Sleeve

| PVC Casing | Length<br>(feet) | Original<br>Diameter<br>(inches) | Fill Hole Approx.<br>Diameter<br>(inches) |
|------------|------------------|----------------------------------|---|
| 0.75-inch  | 2.5              | 1.4                              | >2.5                                      |
| 1.00-inch  | 2.5              | 2.4                              | >3.5                                      |
| 1.25-inch  | 2.5              | 2.4                              | >3.5                                      |
| 1.50-inch  | 2.5              | 2.4                              | >3.5                                      |
| 2.00-inch  | 2.5              | 2.8                              | >4.0                                      |

### Flush Mounted Monitoring Well Vaults

|   |
|---|
| 8-inch O.D. Cast Iron x 12-inch Long Metal Skirt    |
| 8-inch O.D. Cast Iron x 12-inch Long Plastic Skirt  |
| 8-inch O.D. Cast Iron x 8-inch Long Metal Skirt     |
| 8-inch O.D. Cast Iron x 8-inch Long Plastic Skirt   |
| 7-inch O.D. Cast Iron x 10-inch Long Metal Skirt*   |
| 7-inch O.D. Cast Iron x 10-inch Long Plastic Skirt* |
| 5-inch O.D. Cast Iron x 7-inch Long Metal Skirt*    |
| 5-inch O.D. Cast Iron x 7-inch Long Plastic Skirt*  |

\* 12-inch Long Skirt available by special order.



**1-800-635-7330**

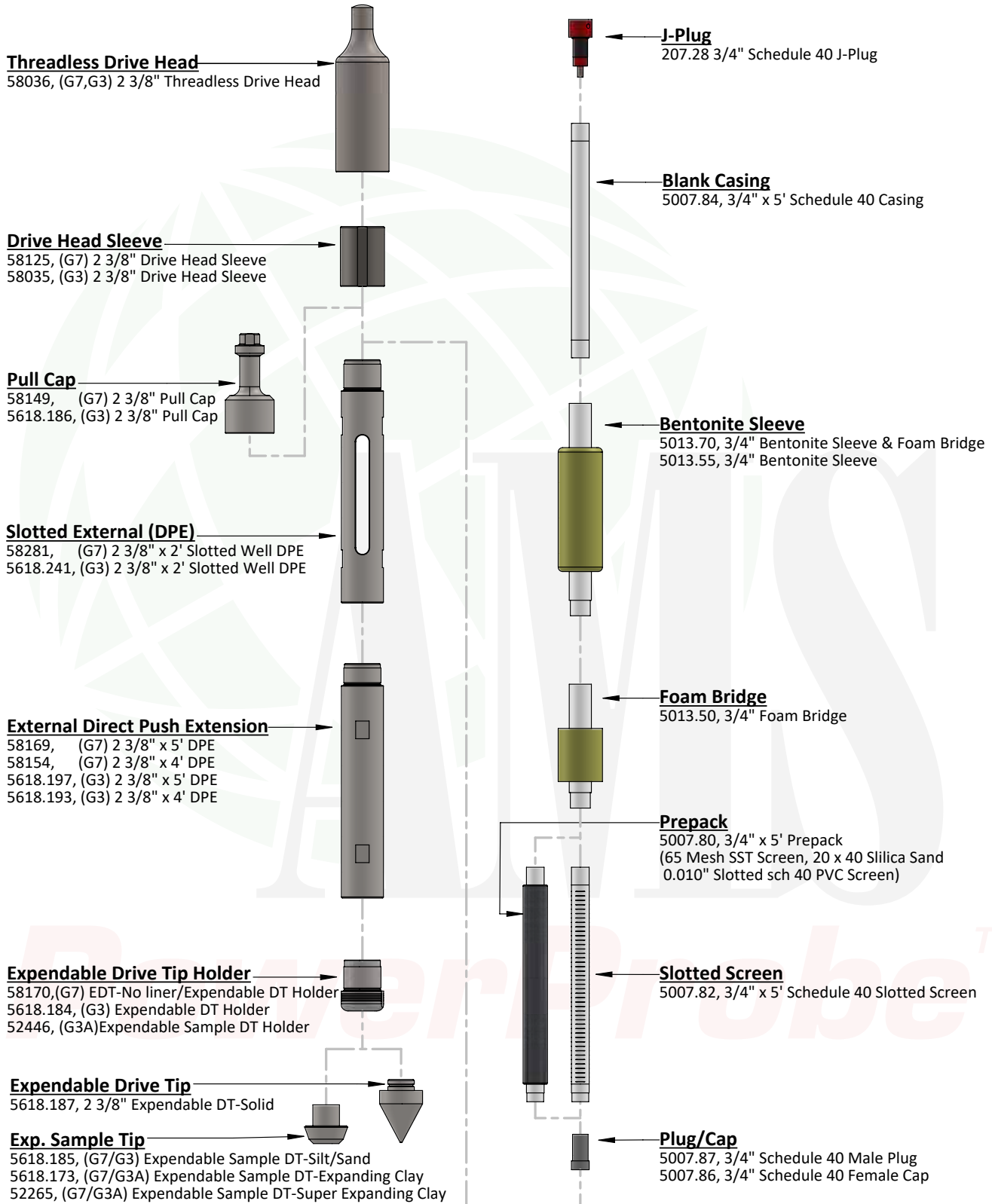
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# 3/4" PREPACK WELL MATERIALS

## 3/4" Prepack Well Installation



## 3/4" PREPACK WELL MATERIALS

Direct push prepacked well installation kits are the most cost-effective and ideal option for installing the technically accurate, small diameter, prepack monitoring wells. The add-on kits are designed to work with your existing dual-tube tooling.

Use the 2 3/8" G3/G3A and 2 1/8" prepack well installation kits, or use the G3A 2 3/8" add-on kit with your existing tooling, to install 3/4" prepacked screen groundwater monitoring wells. The 2 3/4" prepacked well installation kit and add-on kits are used to install 1" wells. Use 3 1/2" prepacked well installation kits or add-on kits to install 1" and 2" prepacked screen groundwater monitoring wells. Contact AMS for details.

### 3/4" PREPACK WELL INSTALLATION TOOLS

#### (G7) 2 3/8" Direct Push Tooling

##### Drive Heads / Pull Caps

| Part# | Item                              | Price     |
|-------|-----------------------------------|-----------|
| 58036 | (G7) 2 3/8" Threadless Drive Head | \$ 215.00 |
| 58125 | (G7) 2 3/8" Drive Head Sleeve     | \$ 95.00  |
| 58149 | (G7) 2 3/8" Pull Cap              | \$ 160.00 |

##### Direct Push Extensions (DPE)

|       |                                   |           |
|-------|-----------------------------------|-----------|
| 58169 | (G7) 2 3/8" x 5' DPE              | \$ 230.00 |
| 58154 | (G7) 2 3/8" x 4' DPE              | \$207.00  |
| 58281 | (G7) 2 3/8" x 2' Slotted Well DPE | \$ 180.00 |

##### Expendable Drive Tip Holders

|       |   |           |
|-------|---|-----------|
| 58170 | (G7) EDT - No Liner / Expendable DT Holder (Four Lines) | \$ 135.00 |
|-------|---|-----------|

#### (G7 / G3) Expendable Drive Tips / O-Rings / DPE Holder

##### Drive Heads / Pull Caps

| Part#    | Item   | Price     |
|----------|--|-----------|
| 5618.187 | 2 3/8" Expendable DT - Solid                           | \$ 11.90  |
| 5618.185 | (G7 / G3) Expendable Sample DT - Silt / Sand           | \$ 28.00  |
| 5618.173 | (G7 / G3A) Expendable Sample DT - Expanding Clay       | \$ 38.00  |
| 52264    | (G7 / G3A) Expendable Sample DT - Super Expanding Clay | \$ 195.00 |
| 5008.061 | 2 1/3" O-Ring Kit (qty: 25)                            | \$ 9.81   |
| 5014.06  | 2 3/8" DPE holder                                      | \$ 56.10  |

#### Well Vaults and Accessories

##### Flush Mounted Monitoring Vaults

| Part#  | Item                                  | Price    |
|--------|---------------------------------------|----------|
| 73001  | 8" OD x 12" Cast Iron w/ metal Skirt  | \$ 38.00 |
| 207.40 | 8" OD x 8" Cast Iron w/ Metal Skirt   | \$ 32.00 |
| 207.41 | 5" OD x 7" Cast Iron w/ Metal Skirt   | \$ 31.00 |
| 73009  | 5" OD x 7" Cast Iron w/ Plastic Skirt | \$ 32.00 |

more sizes available by request

##### Stick Up Monitoring Vaults

|        |                          |          |
|--------|--------------------------|----------|
| 207.42 | 4" OD x 5' Painted Steel | \$ 80.00 |
| 207.43 | 6" OD x 5' Painted Steel | \$ 87.00 |

more sizes available by request

##### Locks

|        |                                    |          |
|--------|------------------------------------|----------|
| 207.44 | Padlock, Masterlock #3, Brass      | \$ 12.00 |
| 207.45 | Padlock, Masterlock # 4, Brass     | \$ 14.50 |
| 73201  | Padlock, Dolphin-style 35mm, Brass | \$ 3.50  |

More sizes available by request

#### (G3) 2 3/8" Direct Push Tooling

##### Drive Heads / Pull Caps

| Part#    | Item                              | Price     |
|----------|-----------------------------------|-----------|
| 58036    | (G3) 2 3/8" Threadless Drive Head | \$ 215.00 |
| 58035    | (G3) 2 3/8" Drive Head Sleeve     | \$ 95.00  |
| 5618.186 | (G3) 2 3/8" Pull Cap              | \$ 160.00 |

##### Direct Push Extensions (DPE)

|          |                                   |           |
|----------|-----------------------------------|-----------|
| 5618.197 | (G3) 2 3/8" x 5' DPE              | \$ 210.00 |
| 5618.193 | (G3) 2 3/8" x 4' DPE              | \$187.00  |
| 5618.241 | (G3) 2 3/8" x 2' Slotted Well DPE | \$ 160.00 |

##### Expendable Drive Tip Holders

|          |                                   |           |
|----------|-----------------------------------|-----------|
| 5618.184 | (G3) Expendable DT Holder         | \$ 135.00 |
| 52446    | (G3A) Expendable Sample DT Holder | \$ 161.00 |

#### Prepacked Screen Wells

##### 3/4" Prepack Well Components

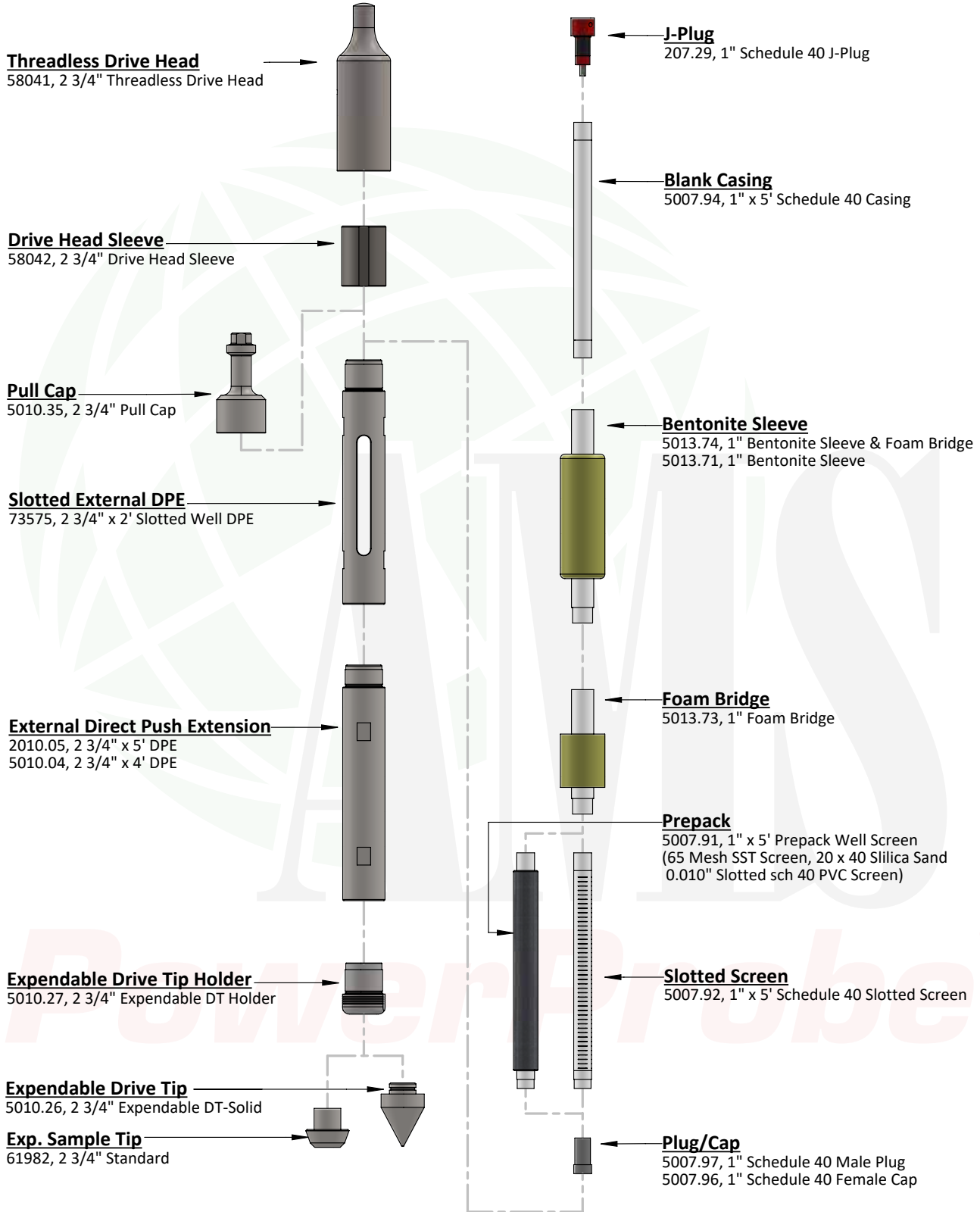
| Part#   | Item                                 | Price    |
|---------|--------------------------------------|----------|
| 5007.80 | 3/4" x 5' Prepack Well Screen        | \$60.00  |
| 5007.82 | 3/4" x 5' Schedule 40 Slotted Screen | \$ 13.60 |
| 5007.84 | 3/4" x 5' Schedule 40 Casing         | \$ 10.00 |
| 5007.87 | 3/4" Schedule 40 Female Bottom Cap   | \$ 4.60  |
| 5007.86 | 3/4" Schedule 40 Male Bottom Plug    | \$ 4.60  |
| 5013.50 | 3/4" Foam Bridge                     | \$ 20.00 |
| 5013.70 | 3/4" Bentonite Sleeve & Foam Bridge  | \$ 60.00 |
| 207.28  | 3/4" Schedule 40 J-Plug              | \$ 9.00  |





# 1" PREPACK WELL MATERIALS

## 1" Prepack Well Installation





# 1" PREPACK WELL MATERIALS

Direct push prepacked well installation kits are the most cost-effective and ideal option for installing the technically accurate, small diameter, prepack monitoring wells. The add-on kits are designed to work with your existing dual-tube tooling. Contact AMS for more details.

## 1" PREPACK WELL INSTALLATION TOOLS

### 1" Prepack Well Components

| Part#   | Item                               | Price    |
|---------|------------------------------------|----------|
| 5007.91 | 1" x 5' Prepack Well Screen        | \$ 70.00 |
| 5007.92 | 1" x 5' Schedule 40 Slotted Screen | \$ 12.60 |
| 5007.94 | 1" x 5' Schedule 40 Casing         | \$ 8.10  |
| 5007.97 | 1" Schedule 40 Male Plug           | \$ 5.10  |
| 5007.96 | 1" Schedule 40 Female Cap          | \$ 5.10  |
| 5013.73 | 1" Foam Bridge                     | \$ 25.00 |
| 5013.74 | 1" Bentonite Sleeve & Foam Bridge  | \$ 65.00 |
| 207.29  | 1" Schedule 40 J-Plug              | \$ 6.50  |

### Well Vaults and Accessories

#### Flush Mounted Monitoring Vaults

| Part#  | Item                                  | Price    |
|--------|---------------------------------------|----------|
| 73001  | 8" OD x 12" Cast Iron w/ metal Skirt  | \$ 38.00 |
| 207.40 | 8" OD x 8" Cast Iron w/ Metal Skirt   | \$ 32.00 |
| 207.41 | 5" OD x 7" Cast Iron w/ Metal Skirt   | \$ 31.00 |
| 73009  | 5" OD x 7" Cast Iron w/ Plastic Skirt | \$ 32.00 |

more sizes available by request

#### Stick Up Monitoring Vaults

|        |                          |          |
|--------|--------------------------|----------|
| 207.42 | 4" OD x 5' Painted Steel | \$ 80.00 |
| 207.43 | 6" OD x 5' Painted Steel | \$ 87.00 |

more sizes available by request

#### Locks

|        |                                    |          |
|--------|------------------------------------|----------|
| 207.44 | Padlock, Masterlock #3, Brass      | \$ 12.00 |
| 207.45 | Padlock, Masterlock # 4, Brass     | \$ 14.50 |
| 73201  | Padlock, Dolphin-style 35mm, Brass | \$ 3.50  |

more sizes available by request

### 2 3/4" Direct Push Tooling

| Drive Heads / Pull Caps |                              |           |
|-------------------------|------------------------------|-----------|
| Part#                   | Item                         | Price     |
| 58041                   | 2 3/4" Threadless Drive Head | \$ 215.00 |
| 58042                   | 2 3/4" Drive Head Sleeve     | \$ 125.00 |
| 5010.30                 | 2 3/4" Drive Head            | \$ 215.00 |
| 5010.35                 | 2 3/4" Pull Cap              | \$ 135.00 |

#### Direct Push Extensions (DPE) / Holders

|         |                              |           |
|---------|------------------------------|-----------|
| 5010.05 | 2 3/4" x 5' DPE              | \$ 195.00 |
| 5010.04 | 2 3/4" x 4' DPE              | \$ 180.00 |
| 73575   | 2 3/4" x 2' Slotted Well DPE | \$ 170.00 |
| 5014.00 | 2 3/4" DPE Holder            | \$ 56.00  |

#### Expendable Drive Tip / Holders

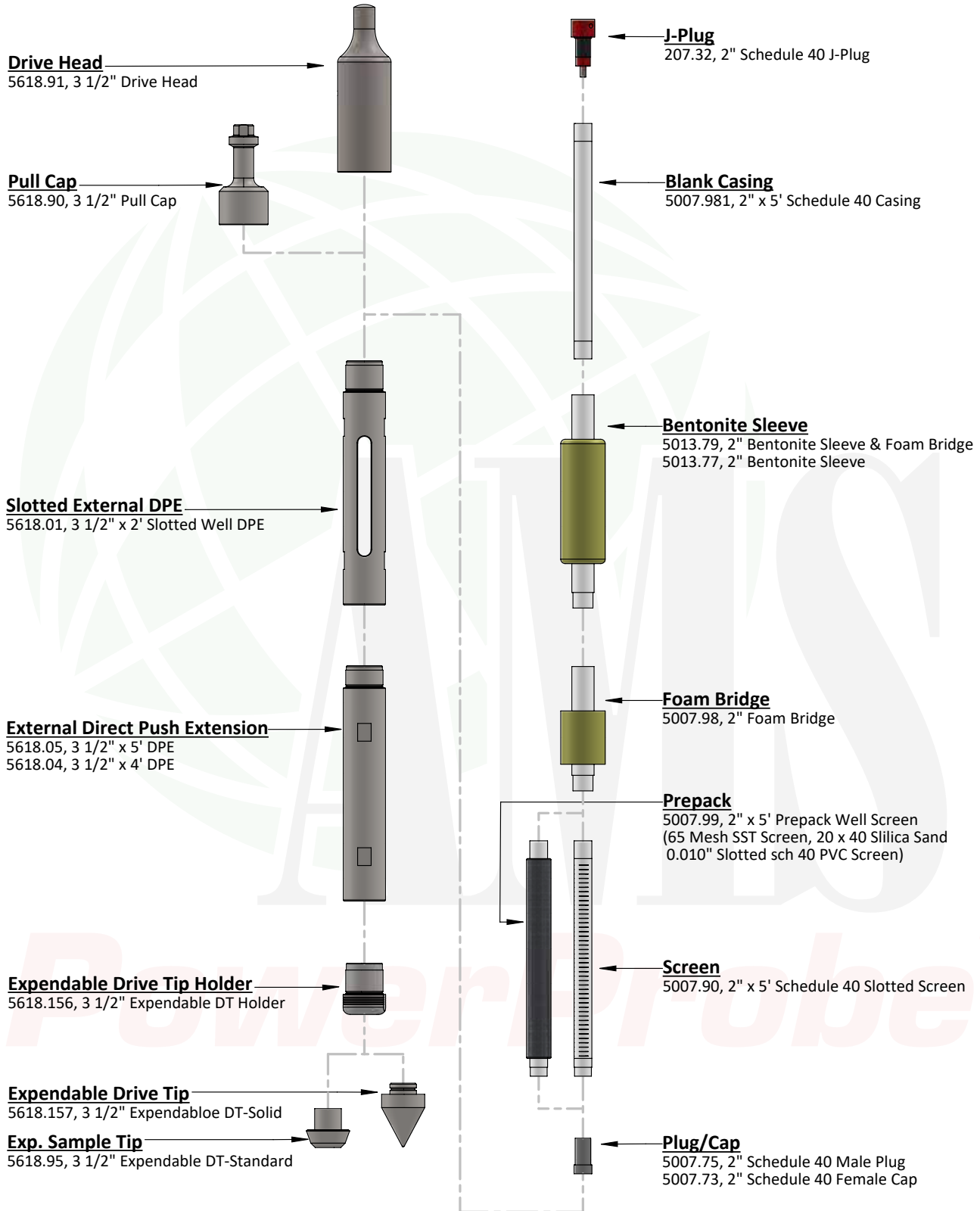
|         |                              |           |
|---------|------------------------------|-----------|
| 5010.27 | 2 3/4" Expendable DT Holder  | \$ 105.00 |
| 5010.26 | 2 3/4" Expendable DT - Solid | \$ 13.00  |





# 2" PREPACK WELL MATERIALS

## 2" Prepack Well Installation



# PREPACK WELL SUPPLIES

Direct push prepacked well installation kits are the most cost-effective and ideal option for installing the technically accurate, small diameter, prepack monitoring wells. The add-on kits are designed to work with your existing dual-tube tooling. Contact AMS for more details.

## 2" PREPACK WELL INSTALLATION TOOLS

### 3 1/2" Direct Push Tooling

#### Drive Heads / Pull Caps

| Part#   | Item              | Price     |
|---------|-------------------|-----------|
| 5618.91 | 3 1/2" Drive Head | \$ 270.00 |
| 5618.90 | 3 1/2" Pull Cap   | \$ 195.00 |

#### Dual Tube Extensions (DPE) / Holder

|         |                              |           |
|---------|------------------------------|-----------|
| 5618.05 | 3 1/2" x 5' DPE              | \$ 265.00 |
| 5618.04 | 3 1/2" x 4' DPE              | \$ 240.00 |
| 5618.01 | 3 1/2" x 2' Slotted Well DPE | \$ 235.00 |
| 5014.05 | 3 1/2" DPE Holder            | \$ 56.00  |

#### Expendable Drive Tip / Holders

|          |                                 |           |
|----------|---------------------------------|-----------|
| 5618.156 | 3 1/2" Expendable DT Holder     | \$ 110.00 |
| 5618.157 | 3 1/2" Expendable DT - Solid    | \$ 25.00  |
| 5618.95  | 3 1/2" Expendable DT - Standard | \$ 115.00 |

### Well Vaults and Accessories

#### Flush Mounted Monitoring Vaults

| Part#  | Item                                  | Price    |
|--------|---------------------------------------|----------|
| 73001  | 8" OD x 12" Cast Iron w/ metal Skirt  | \$ 38.00 |
| 207.40 | 8" OD x 8" Cast Iron w/ Metal Skirt   | \$ 32.00 |
| 207.41 | 5" OD x 7" Cast Iron w/ Metal Skirt   | \$ 31.00 |
| 73009  | 5" OD x 7" Cast Iron w/ Plastic Skirt | \$ 32.00 |

*more sizes available by request*

#### Stick Up Monitoring Vaults

|        |                          |          |
|--------|--------------------------|----------|
| 207.42 | 4" OD x 5' Painted Steel | \$ 80.00 |
| 207.43 | 6" OD x 5' Painted Steel | \$ 87.00 |

*more sizes available by request*

#### Locks

|        |                                    |          |
|--------|------------------------------------|----------|
| 207.44 | Padlock, Masterlock #3, Brass      | \$ 12.00 |
| 207.45 | Padlock, Masterlock # 4, Brass     | \$ 14.50 |
| 73201  | Padlock, Dolphin-style 35mm, Brass | \$ 3.50  |

*More sizes available by request*

### 2" Prepack Well Components

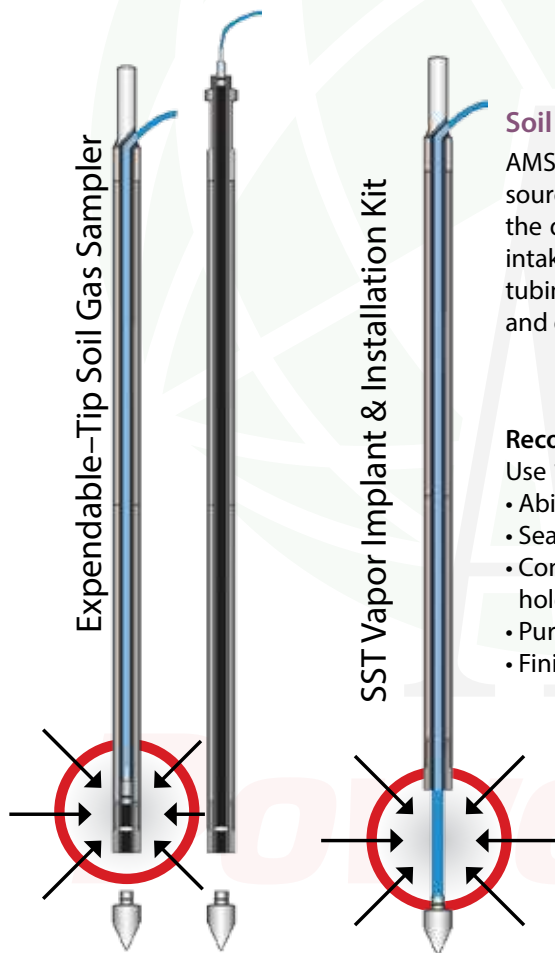
| Part#    | Item                               | Price    |
|----------|------------------------------------|----------|
| 5007.99  | 2" x 5' Prepack Well Screen        | \$ 95.00 |
| 5007.90  | 2" x 5' Schedule 40 Slotted Screen | \$ 21.00 |
| 5007.981 | 2" x 5' Schedule 40 Casing         | \$ 13.20 |
| 5007.75  | 2" Schedule 40 Male Plug           | \$ 5.60  |
| 5007.73  | 2" Schedule 40 Female Cap          | \$ 5.60  |
| 5007.98  | 2" Foam Bridge                     | \$ 30.00 |
| 5013.79  | 2" Bentonite Sleeve & Foam Bridge  | \$ 80.00 |
| 207.32   | 2" Schedule 40 J-Plug              | \$ 60.00 |



## SOIL GAS SAMPLING

## SOIL GAS SAMPLING

Direct push soil gas sampling and monitoring methods are commonly used during soil gas surveys and/or active soil gas investigations to discover information about soil and groundwater contamination, primarily volatile organic contaminant (VOC) levels. The ability to detect elevated VOC levels in soil gasses allows investigators to pinpoint locations for future soil and groundwater sampling. AMS tooling systems are relatively easy-to-use and allow for the collection of soil gas samples. These systems also adapt to existing tooling for use in a wide variety of methods. AMS offers soil gas sampling systems with several options to allow sampling for a wide variety of regulatory and standard procedures. AMS soil gas direct push tooling may also be used to install soil gas monitoring systems around underground storage tanks, other subsurface areas of concern, or as part of an ongoing remediation efforts. They can be installed in a variety of subsurface lithologies to depths up to 100' below ground surface. Soil gas monitoring systems are used for long-term soil gas monitoring and repeated sampling of volatile contaminants in the vadose zone.



## Soil Gas Sampling with Single-Tube Procedure

AMS samplers can be pushed single-tube without pre-boring to collect a point source soil gas sample. Once you have reached the desired sampling depth, retract the direct push extensions a few inches to expend the tip thus opening the inlet/intake to the soil. A soil gas or vapor sample is collected using a vacuum pump and tubing. To sample deeper, withdraw the probe and attach another expendable tip and direct push to the desired sampling interval.

**Recommendation:**

Use 1 5/8" or 1 1/4" the expendable-tip soil gas samplers for single-tube installs.

- Ability to penetrate at an efficient rate
- Seal the top, and expend the tip
- Connect tubing to a twist-to-lock connector either connect to the expendable-tip holder or a pull cap when each connection is sealed with an O-ring and/or teflon
- Purge the ambient air at low flow from the tubing or tooling
- Finish by extracting the sample using a low flow vacuum



## SOIL GAS SAMPLING ACCESSORIES

### Expendable-Tip Soil Gas Samplers

These samplers allow you to collect valuable data on the distribution and concentration of VOCs in soil and groundwater. They can be used to collect samples at specific depths to beyond 50'. They can be used telescopically through AMS hollowstem augers and dual-tube sampling systems. They are inexpensive, easy to use, and adapt to your existing tooling. Simply drive the sampler into the subsurface.

At the desired depth, pull back the direct push tooling to detach the drive point and expose an inlet section with a screen. Begin purging and sampling using a vacuum pump, AMS vacuum station, or other instrumentation.

### Soil Gas Sampling with Dual-Tube Procedure

While soil gas collection is easily done through an open borehole, the collection of soil gas using a cased, dual-tube system or hollowstem auger will allow for the sampling inlet to be isolated at a specific depth and minimize the chance of short circuiting to the borehole or surface.

### Advantages of SST Implants

- Placed through bore after rods have been driven to depth
- Can be set at any depth attainable by a direct push or other drill rig
- Convenient and inexpensive for both long-term soil gas monitoring, air sparging, and groundwater sampling
- 0.0057 (0.15 mm) pore screen size
- For use with 1 1/4" and 1 5/8" kits
- SST universal barbed fitting accepts 3/16", 1/4", and 1/2" ID tubing
- Solid end allows for anchor point and open-hole placement
- Implants are constructed of double woven stainless steel wire screen
- All end fittings are stainless steel.
- Custom lengths are available!

### Stainless Steel Vapor Implant Soil Gas Sampling

Stainless steel (SST) implants are miniature soil gas or vapor monitoring wells. They are used for long-term soil gas monitoring and can be installed using single-tube or dual-tube tooling. To install an implant and isolate it the at a chosen depth, push the tooling to the target depth, place the implant through the tooling, and retract the tooling. The borehole annular space is sealed to prevent ambient air breakthrough. Implants are used for long-term soil gas monitoring, UST monitoring, groundwater sampling, air sparging, vapor extraction monitoring, and as pressure measurement points in vacuum testing. Contact AMS customer service for more details.



### Recommendation:

Use 1 1/4" or the 1 5/8" expendable-tip soil gas samplers for dual-tube installs.

- Drive down with dual-tube system
- Pull out internal dual-tube components
- Pull back the external extensions 3" or 4"
- Place bentonite, and hydrate with water
- Push the external DPEs into the hydrated bentonite
- Lower the tooling through the external direct push extensions
- Push the tooling through bentonite, generating a seal, and into the lithology
- Pull back the tooling, expending the tip. Do not pull into or through the bentonite
- Purge the ambient air at a low flow
- Finish by extracting the sample using a low flow vacuum



# SOIL GAS SAMPLING: 1 1/4" & 1 5/8" TOOLING ITEMS

## 1 5/8" Soil Gas Sampling

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Head**

- 5005.86, 1 1/4" Drive Head
- 5006.85, 1 5/8" Drive Head ♦

**Pull Cap**

- 5005.80, 1 1/4" Pull Cap
- 5006.86, 1 5/8" Pull Cap ♦

**External Direct Push Extension**

- 5005.75, 1 1/4" x 5' DPE
- 5005.74, 1 1/4" x 4' DPE
- 5006.95, 1 5/8" x 5' DPE ♦
- 5006.94, 1 5/8" x 4' DPE ♦

**External Drive Tip Holder Threaded**

- (For use with Twist-To-Lock Connectors)
- 5004.55, 1 1/4" Threaded
- 5006.88, 1 5/8" Threaded ♦

**External Drive Tip Holder**

- (For use with All Vapor Implants)
- 5004.49, 1 1/4" Non Threaded
- 55498, 1 5/8" Non Threaded ♦

**Expendable Drive Tips (DT)**

- 5004.56, 1 1/4" Expendable DT
- 5006.89, 1 5/8" Expendable DT ♦

- 55446, 1 1/4" Expendable Implant DT
- 55447, 1 5/8" Expendable Implant DT ♦

**Tubing**

- 214.98, 3/16" ID x 1/4" OD x 50' Fluoropolymer
- 214.99, 3/16" ID x 1/4" OD x 100' Fluoropolymer
- 215.00, 3/16" ID x 1/4" OD x 250' Fluoropolymer
- 215.12, 3/16" ID x 1/4" OD x 500' Fluoropolymer
- 215.03, 1/4" ID x 3/8" OD x 50' Fluoropolymer
- 215.04, 1/4" ID x 3/8" OD x 100' Fluoropolymer

**Twist-to-Lock Connector**

- (Threaded Holders Only)
- 5004.43, 1/4" Twist-to-Lock Connector
- 5004.45, 3/16" Twist-to-Lock Connector

**Vapor Implant (1/2" O.D.)**

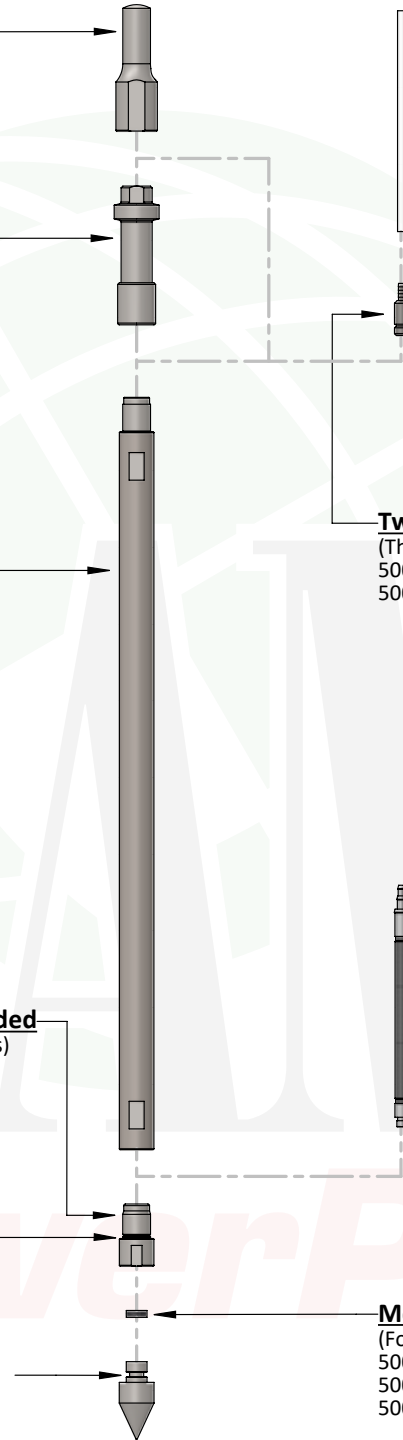
- 21010, 6" Universal Hose Barb Fitting
- 21011, 12" Universal Hose Barb Fitting
- 21012, 21" Universal Hose Barb Fitting

**Vapor Implant**

- 21013, 6" Swagelok Fitting, 1/4" ♦
- 21014, 12" Swagelok Fitting, 1/4" ♦
- 25002, 3" Implant, 1/4" Speed Fit Fitting
- 25000, 6" Implant, 1/4" Speed Fit Fitting

**Mesh Screens SST**

- (For use with Twist-To-Lock Connectors)
- 5004.60, #120 Mesh Screen SST
- 5004.59, #100 Mesh Screen SST
- 5004.58, #50 Mesh Screen SST





## SOIL GAS SAMPLING ACCESSORIES

### 1 1/4" Single Tube Soil Gas Sampling

| Part #  | Item                                       | Price     |
|---------|--|-----------|
| 5005.86 | 1 1/4" Drive Head                          | \$ 110.00 |
| 5005.80 | 1 1/4" Pull cap                            | \$ 95.00  |
| 5005.75 | 1 1/4" x 5' DPE                            | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE                            | \$ 125.00 |
| 5004.55 | 1 1/4" EXP DT Holder, Threaded             | \$ 90.00  |
| 5004.49 | 1 1/4" EXP DT, Non Threaded                | \$ 95.00  |
| 5004.56 | 1 1/4" Expendable DT                       | \$ 6.50   |
| 55446   | 1 1/4" Expendable DT, Threaded for Implant | \$ 9.50   |
| 5004.43 | 1/4" Twist-to-Lock Connector               | \$ 15.00  |
| 5004.45 | 3/16" Twist-to-Lock Connector              | \$ 23.00  |
| 21010   | 6" Implant Universal Hose Barb Fitting     | \$ 31.50  |
| 21011   | 12" Implant Universal Hose Barb Fitting    | \$ 51.00  |
| 21012   | 21" Implant Universal Hose Barb Fitting    | \$ 61.00  |
| 25002   | 3" Implant 1/4" Speed Fit Fitting          | \$ 31.50  |
| 25000   | 6" Implant 1/4" Speed Fit Fitting          | \$ 31.00  |
| 21013   | 6" Implant Swagelok Fitting 1/4"           | \$ 34.00  |
| 21014   | 12" Implant Swagelok Fitting 1/4"          | \$ 67.00  |
| 5004.60 | #120 Mesh Screen SST                       | \$ 0.50   |
| 5004.59 | #100 Mesh Screen SST                       | \$ 0.50   |
| 5004.58 | #50 Mesh Screen SST                        | \$ 0.50   |

### GVP Sample Collection Options

| Part #  | Item  | Price     |
|---------|---|-----------|
| 2105.93 | Sterile and Greaseless Luer Slip, 50 ml Syringe     | \$ 1.10   |
| 2105.94 | Sterile and Greaseless Luer Lock, 50 ml Syringe     | \$ 1.30   |
| 2105.95 | Black Syringe Caps (1,000 qty)                      | \$ 26.00  |
| 2105.96 | White Syringe Caps (100 qty)                        | \$ 3.90   |
| 2105.97 | Blue Sterile Syringe Caps (100 qty)                 | \$ 6.42   |
| 2105.98 | Sterile 3-way Stopcock/Valve                        | \$ 1.80   |
| 2105.92 | 1 L Tedlar Bags (10 qty) Lot Certification (TO-14)  | \$ 99.40  |
| 2105.91 | 3 L Tedlar Bags (10 qty) Lot Certification (TO-14)  | \$ 109.35 |
| 2105.89 | 5 L Tedlar Bags (10 qty) Lot Certification (TO-14)  | \$ 127.73 |
| 2105.88 | 10 L Tedlar Bags (10 qty) Lot Certification (TO-14) | \$ 145.80 |
| 215.06  | Manual Vacuum Pump                                  | \$ 111.60 |
| 5052.40 | Electric Vacuum Pump (12-Volt)                      | \$ 530.00 |

### 1 5/8" Single Tube Soil Gas Sampling

| Part #   | Item                                       | Price     |
|----------|--|-----------|
| 50006.85 | 1 5/8" Drive Head                          | \$ 130.00 |
| 5006.86  | 1 5/8" Pull Cap                            | \$ 110.00 |
| 5006.95  | 1 5/8" x 5' DPE                            | \$ 169.00 |
| 5006.94  | 1 5/8" x 4' DPE                            | \$ 159.00 |
| 5006.88  | 1 5/8" Exp DT Holder, Threaded             | \$ 95.00  |
| 55498    | 1 5/8" Exp DT Holder, Non-Threaded         | \$ 95.00  |
| 5006.89  | 1 5/8" Expendable DT                       | \$ 8.00   |
| 55447    | 1 5/8" Expendable DT, Threaded for Implant | \$ 10.50  |
| 5004.43  | 1/4" Twist-to-Lock Connector               | \$ 15.00  |
| 5004.45  | 3/16" Twist-to-Lock Connector              | \$ 23.00  |

### GVP Tubing Options

| Part #  | Item                                    | Price     |
|---------|---|-----------|
| 5004.47 | #15 x 50' Silicone Tubing               | \$ 105.05 |
| 214.98  | 3/16" ID x 1/4" OD x 50' Fluoropolymer  | \$ 92.50  |
| 214.99  | 3/16" ID x 1/4" OD x 100' Fluoropolymer | \$ 178.80 |
| 215.00  | 3/16" ID x 1/4" OD x 250' Fluoropolymer | \$ 401.60 |
| 215.12  | 3/16" ID x 1/4" OD x 500' Fluoropolymer | \$ 112.40 |
| 215.03  | 1/4" ID x 3/8" OD x 50' Fluoropolymer   | \$ 201.50 |
| 215.04  | 1/4" ID x 3/8" OD x 100' Fluoropolymer  | \$ 395.00 |



## REMEDIAL INJECTION

# REMEDIAL INJECTION

### Soil Remediation with Direct Push

Direct push tooling allows for a variety of precise remedial investigations and remedial activities to be designed and conducted in a cost-effective, time-efficient, and successful manner. Periodic remedial injections can be conducted with direct push rigs and remedial injection tooling until the site is successfully and sufficiently cleaned.

The injection of remediation compounds or remedial solutions has rapidly become a widely accepted approach for addressing contaminated sites. AMS injection tooling may be used with a wide variety of remedial injection compounds or solutions, as well as standard bentonite based grout mixes. The tooling may also be adapted to any injection pump system. AMS remedial systems can include the backflow prevention check ball valve adapter to prevent backflow or back pressure problems while injecting into the formation. They also use various interchangeable tips, injection adapters, and extensions for multiple injection purposes, including injection into sand, gravel, silt, and clay aquifers.

### Remediation Applications

Contaminated soil is remediated by injecting a suitable remediation compound into the material. The remediation compound is injected into the contaminated soil through an injection tip. The remediation compound may be adjusted to adapt to varying site conditions and contaminants. Choose the retractable injection tool for swelling lithologies. The expendable-tip injection tooling is designed for bottom-up injection. Inject while pulling the tooling from total depth to surface in a loose or coarse lithology. The tip remains at the bottom of the borehole.

### Injection Tooling

The injection of remediation compounds or remedial solutions has rapidly become a widely accepted approach for addressing contaminated sites. AMS injection tooling may be used with a variety of remedial injection compounds, as well as standard bentonite based grout mixes. The tooling may also be adapted to an injection pump system. Include the backflow prevention check valve to eliminate backflow or back pressure problems while injecting into the formation.

Features include:

- Inject a variety of remedial solutions
- Adapt to any injection pump
- Use the interchangeable and versatile tips, injection adapter, and extensions with other AMS direct push tooling
- Optional injection check ball adapter prevents back flow
- Various tip options available for multiple injection purposes, including injection into sand, gravel, silt, and clay aquifers
- The retractable remedial injection tooling can be used in tight soils.
- The drop out Injection tooling is used to inject while pulling the tooling from total depth to the surface in a loose or coarse lithology.





## REMEDIAL INJECTION TOOLING

### Expendable-Tip Injection Tooling

Remediate subsurface soil and/or groundwater contaminants with the expendable-tip injection tool. It is capable of reaching great depths, thus allowing for the construction of a complete barrier under the contaminant. The expendable tip remains at the bottom of the borehole.

- Inject below the contamination
- Inject or grout while pulling the tooling up from total depth to surface.
- Usable with a variety of remedial solutions
- Highly effective at great depths
- Highly effective in loose or coarse lithology

### Retractable Remedial Injection Tool (RRIT)

Retractable remedial injection tooling allows you to control the migration of soil contaminants by reducing or eliminating possible pathways. Remediate subsurface soil and/or groundwater contaminants with the new AMS retractable remedial injection direct push tool. Designed for swelling lithologies, this versatile retractable injection tool protects the injection screen during the drive even with out pre-probing the hole!

- Requires no pre-probing
- Retractable injection screen is protected during drive
- Inject while pulling up (bottom-up)
- 360° range offers effective lateral injection
- Usable with a variety of remedial solutions
- Use in tight, swelling, caving, sandy material
- Highly effective below groundwater





# REMEDIAL INJECTION: 1 5/8" TOOLING

## Remedial Injection Tooling

**Drive Head**

5006.85, 1 5/8" Drive Head

**Pull Cap**

58050, 1 5/8" Swivel Pull Cap

**External Direct Push Extension**

5006.95, 1 5/8" x 5' DPE  
5006.94, 1 5/8" x 4' DPE  
5006.92, 1 5/8" x 2' DPE

**External Direct Push Extension**

58037, 1 5/8" x 5' Injection Rod

**Plunger**

58038, Injection Plunger

**Spring**

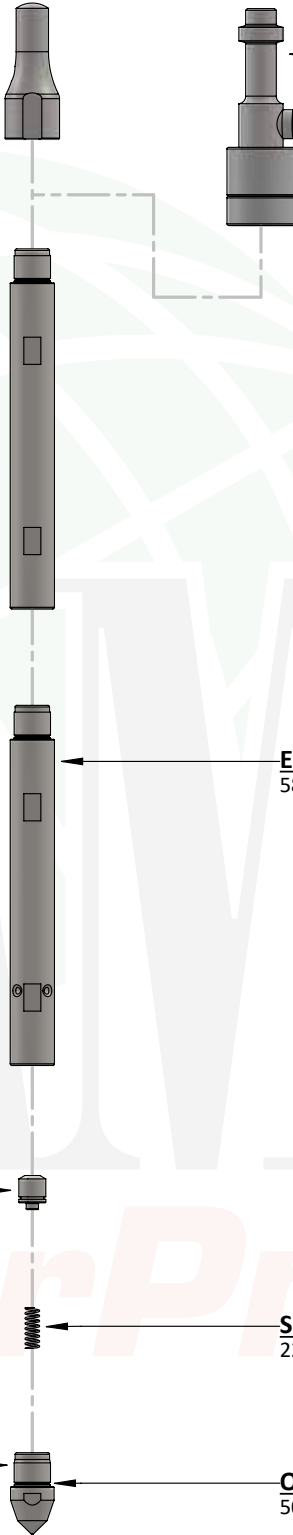
22024, Injection Spring

**Tip**

58039, 1 5/8" Injection Point

**O-Rings**

5006.99, 1 5/8" O-Ring (Qty. 25)



AMS  
PowerProbe™



# REMEDIAL INJECTION TOOLING

## Soil Remediation with Direct Push

Direct push tooling allows for a variety of precise remedial investigations and remedial activities to be designed and conducted in a cost-effective, time-efficient, and successful manner. Periodic remedial injections can be conducted with direct push rigs and remedial injection tooling until the site is successfully and sufficiently cleaned. The injection of remediation compounds or remedial solutions has rapidly become a widely accepted approach for addressing contaminated sites. AMS injection tooling may be used with a wide variety of remedial injection compounds or solutions, as well as standard bentonite based grout mixes. The tooling may also be adapted to any injection pump system. AMS remedial systems can include the backflow prevention check ball valve adapter to prevent backflow or back pressure problems while injecting into the formation. They also use various interchangeable tips, injection adapters, and extensions for multiple injection purposes, including injection into sand, gravel, silt, and clay aquifers.

## Remediation Applications

Contaminated soil is remediated by injecting a suitable remediation compound into the material. The remediation compound is injected into the contaminated soil through an injection tip. The remediation compound may be adjusted to adapt to varying site conditions and contaminants. Choose the retractable injection tool for swelling lithologies. The expendable-tip injection tooling is designed for bottom-up injection. Inject while pulling the tooling from total depth to surface in a loose or coarse lithology. The tip remains at the bottom of the borehole.

## Injection Tooling

The injection of remediation compounds or remedial solutions has rapidly become a widely accepted approach for addressing contaminated sites. AMS injection tooling may be used with a variety of remedial injection compounds, as well as standard bentonite based grout mixes. The tooling may also be adapted to an injection pump system. Include the backflow prevention check valve to eliminate backflow or back pressure problems while injecting into the formation.

Features include:

- Inject a variety of remedial solutions
- Adapt to any injection pump
- Use the interchangeable and versatile tips, injection adapter, and extensions with other AMS direct push tooling
- Optional injection check ball adapter prevents back flow
- Various tip options available for multiple injection purposes, including injection into sand, gravel, silt, and clay aquifers
- The retractable remedial injection tooling can be used in tight soils.
- The Mako injection tooling is primarily used in an open borehole, or in coarse soils.
- The drop out Injection tooling is used to inject while pulling the tooling from total depth to the surface in a loose or coarse lithology.

## 1 5/8" Remedial Injection Tooling

| Part #  | Item              | Price     |
|---------|-------------------|-----------|
| 5006.85 | 1 5/8" Drive Head | \$ 130.00 |
| 5006.95 | 1 5/8" x 5' DPE   | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE   | \$ 159.00 |
| 5006.92 | 1 5/8" x 2' DPE   | \$ 126.00 |

## New Remedial Injection Options Remedial Injection Rod Complete

| Part #                                       | Item   | Price     |
|--|--|-----------|
| 58040  | 1 5/8" x 5' Direct Push Injection Rod Complete         | \$ 360.00 |
| Replacement parts for remedial injection rod |  |           |
| 58037  | 1 5/8" x 5' Direct Push Injection Rod                  | \$ 229.00 |
| 58038  | Injection Plunger                                      | \$ 45.00  |
| 58051  | Replacement O-Ring Kit for Injection Plunger (qty: 25) | \$ 8.75   |
| 22024  | Injection Spring                                       | \$ 10.20  |
| 58039  | Injection Point  | \$ 95.00  |
| REMEDIAL INJECTION SWIVEL PULL CAP           |  |           |
| 58050  | Injection Swivel Pull Cap                              | \$ 210.00 |
| Replacement part for injection swivel        |  |           |
| 58052  | Replacement Grommets for Swivel Pull Cap (qty: 10)     | \$ 7.50   |



# RETRACTABLE REMEDIAL INJECTION TOOL (RRIT)

## Remedial Injection Tooling

### Complete RRIT Tool

72860, ♦ Indicates Parts Included

#### Drive Head

5006.85, 1 5/8" Drive Head

#### Pull Cap

58050, 1 5/8" Swivel  
58052, Grommet

#### Backflow Check Valve

52474, Backflow Check Valve

#### Check Ball

2100.31, Check Ball SST, 1/2"

#### O-Rings

5006.99, 1 5/8" (Qty. 25)

#### External Direct Push Extension

5006.95, 1 5/8" x 5' DPE  
5006.94, 1 5/8" x 4' DPE  
5006.92, 1 5/8" x 2' DPE

#### Adaptor

72860, 1 5/8" Adaptor ♦

#### Direct Push Extension

72861, 1 5/8" RRIT-DPE ♦

#### Retaining Clips

72857, 1 5/8" RRIT-Retaining Clip ♦

#### Retaining Shoe

72859, 1 5/8" Shoe ♦

#### Outlet Shaft

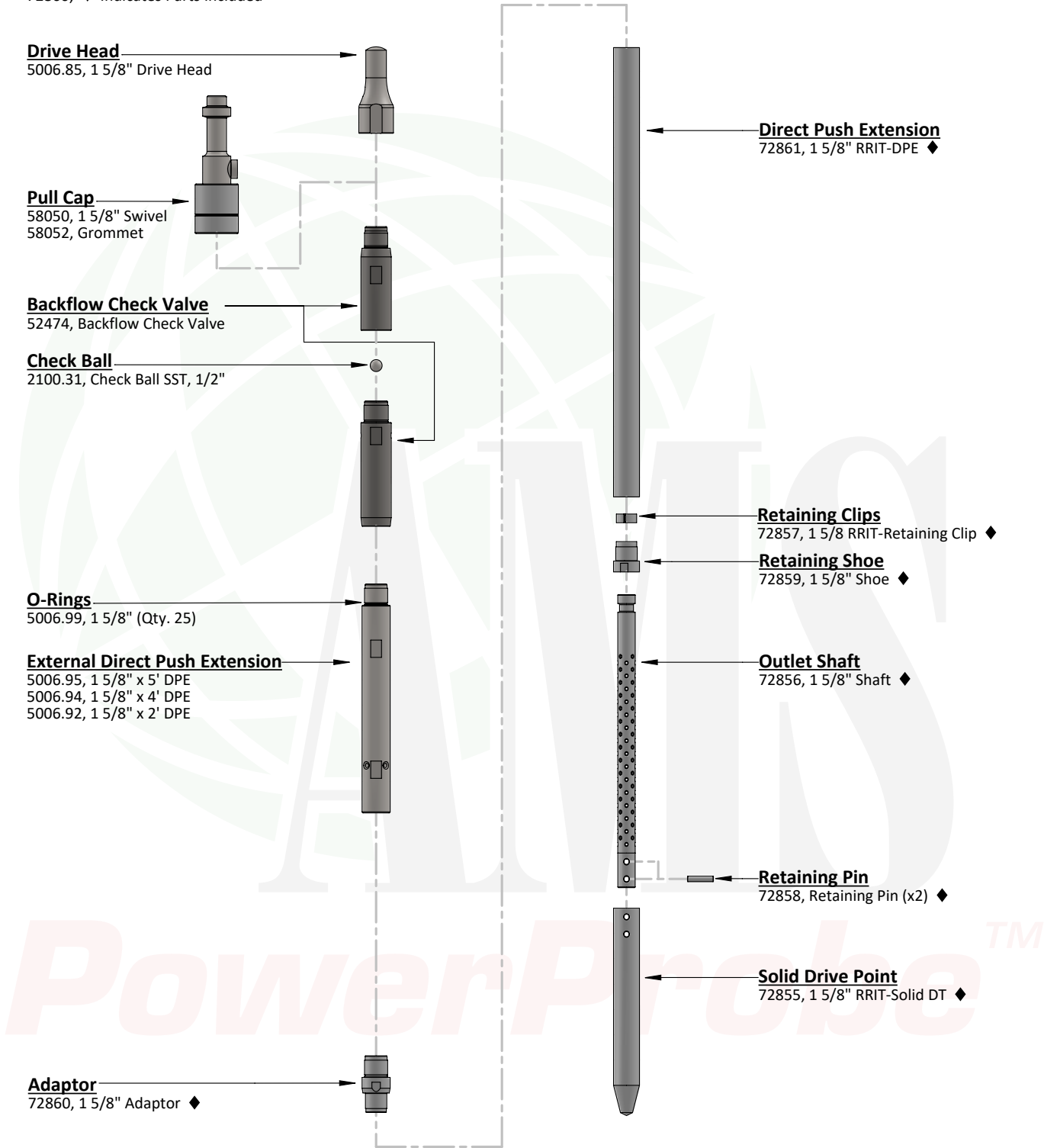
72856, 1 5/8" Shaft ♦

#### Retaining Pin

72858, Retaining Pin (x2) ♦

#### Solid Drive Point

72855, 1 5/8" RRIT-Solid DT ♦



## RETRACTABLE REMEDIAL INJECTION TOOL (RRIT)

Retractable remedial injection tooling allows you to control the migration of soil contaminants by reducing or eliminating possible pathways. Remediate subsurface soil and/or groundwater contaminants with the new AMS retractable remedial injection direct push tool. Designed for swelling lithologies, this versatile retractable injection tool protects the injection screen during the drive even with out pre-probing the hole!

- Requires no pre-probing
- Retractable injection screen is protected during drive
- Inject while pulling up (bottom-up)
- 360° range offers effective lateral injection
- Usable with a variety of remedial solutions
- Use in tight, swelling, caving, sandy material
- Highly effective below groundwater

### 1 5/8" Retractable Remedial Injection Tool

| Part # | Item                 | Price     |
|--------|----------------------|-----------|
| 72850  | 1 5/8" RRIT Complete | \$ 425.00 |

### 1 5/8" RRIT Replacement Parts

| Part # | Item                          | Price     |
|--------|-------------------------------|-----------|
| 72860  | 1 5/8" RRIT - Adaptor         | \$ 95.00  |
| 72861  | 1 5/8" RRIT - DPE             | \$ 63.30  |
| 72859  | 1 5/8" RRIT - Retaining Shoe  | \$ 51.84  |
| 72857  | 1 5/8" RRIT - Retaining Clips | \$ 28.83  |
| 72856  | 1 5/8" RRIT - Outlet Shaft    | \$ 149.51 |
| 72855  | 1 5/8" RRIT - Solid DT        | \$ 75.00  |
| 72858  | 1 5/8" RRIT - Steel Dowel Pin | \$ 2.40   |

### (RRIT) Accessories

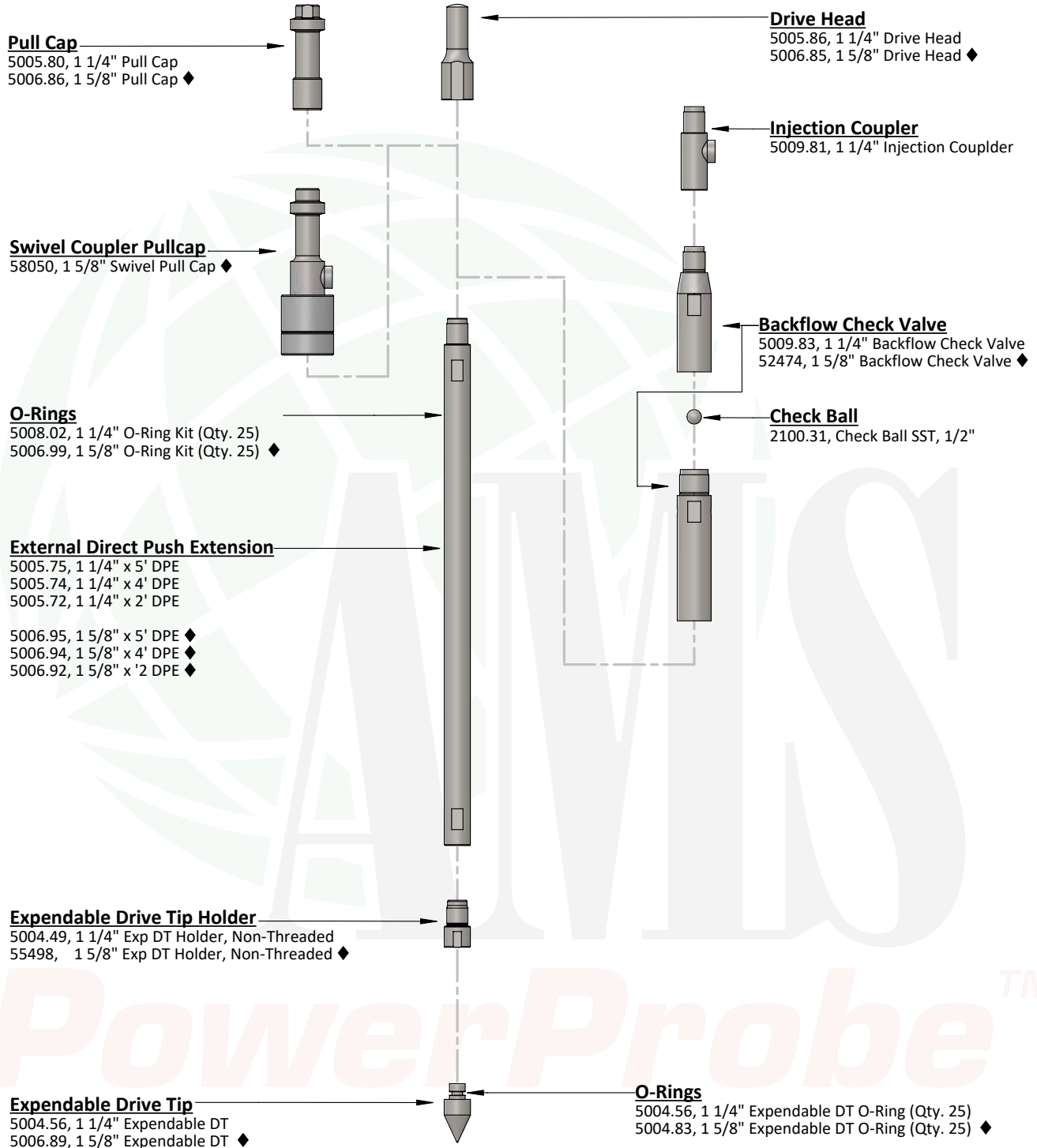
|         |                             |           |
|---------|-----------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head           | \$ 130.00 |
| 5006.86 | 1 5/8" Pull Cap             | \$ 110.00 |
| 58050   | 1 5/8" Swivel Pull Cap      | \$ 210.00 |
| 52474   | 1 5/8" Backflow Check Valve | \$ 318.00 |
| 5006.95 | 1 5/8" x 5' DPE             | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE             | \$ 159.00 |
| 5006.92 | 1 5/8" x 2' DPE             | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder           | \$ 56.10  |
| 5006.99 | 1 5/8" O-Ring Kit (qty: 25) | \$ 8.90   |



# EXPENDABLE TIP INJECTION TOOLING

## Expendable Tip Injection Tooling

**Note:** ♦ Is To Indicate 1 5/8" Setup



# AMS PowerProbe™



# EXPENDABLE TIP INJECTION TOOLING

Remediate subsurface soil and/or groundwater contaminants with the expendable-tip injection tool. It is capable of reaching great depths, thus allowing for the construction of a complete barrier under the contaminant. The expendable tip remains at the bottom of the borehole.

- Inject below the contamination
- Inject or grout while pulling the tooling up from total depth to surface.
- Usable with a variety of remedial solutions
- Highly effective at great depths
- Highly effective in loose or coarse lithology

## 1 5/8" Expendable Tip Remedial Injection

| Part #  | Item                               | Price     |
|---------|------------------------------------|-----------|
| 5006.85 | 1 5/8" Drive Head                  | \$130.00  |
| 5006.86 | 1 5/8" Pull Cap                    | \$110.00  |
| 58050   | 1 5/8" Swivel Pull Cap             | \$ 210.00 |
| 52474   | 1 5/8" Backflow Check Valve        | \$ 318.00 |
| 5006.95 | 1 5/8" x 5' DPE                    | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE                    | \$ 159.00 |
| 5006.92 | 1 5/8" x 2' DPE                    | \$ 126.00 |
| 5014.07 | 1 5/8" DPE Holder                  | \$ 56.10  |
| 55498   | 1 5/8" Exp DT Holder, Non-Threaded | \$ 95.00  |
| 5006.89 | 1 5/8" Expendable DT               | \$ 8.00   |

## 1 1/4" Expendable-Tip Injection Tooling

| Part #  | Item                               | Price     |
|---------|------------------------------------|-----------|
| 5005.86 | 1 1/4" Drive Head                  | \$ 110.00 |
| 5005.80 | 1 1/4" Pull Cap                    | \$ 95.00  |
| 5009.81 | 1 1/4" Injection Coupler           | \$ 125.00 |
| 5009.83 | 1 1/4" Backflow Check Valve        | \$ 265.00 |
| 5005.75 | 1 1/4" x 5' DPE                    | \$ 130.00 |
| 5005.74 | 1 1/4" x 4' DPE                    | \$ 125.00 |
| 5005.72 | 1 1/4" x 2' DPE                    | \$ 105.00 |
| 5014.03 | 1 1/4" DPE Holder                  | \$56.10   |
| 5004.49 | 1 1/4" Exp DT Holder, Non-Threaded | \$ 90.00  |

## Expendable Tip Injection Accessories

|         |                             |         |
|---------|-----------------------------|---------|
| 2100.31 | Check Ball SST, 1/2"        | \$ 1.80 |
| 5004.60 | # 120 SST Mesh Screen       | \$ 0.40 |
| 5004.59 | # 100 SST Mesh Screen       | \$ 0.40 |
| 5004.58 | # 50 SST Mesh Screen        | \$ 0.40 |
| 5008.02 | 1 1/4" O-Ring Kit (qty: 25) | \$ 6.31 |
| 5006.99 | 1 5/8" O-Ring Kit (qty: 25) | \$8.90  |
| 5004.83 | Expendable DT O-Ring (ea)   | \$0.40  |
| 58052   | Rubber Grommet (qty: 10)    | \$ 7.50 |





## HOLLOWSTEM AUGERS

# HOLLOWSTEM AUGERS

AMS hollowstem augers give the field user the ability to auger through difficult lithologies, including hardpan, resulting in less need for multiple drill rigs for complicated field situations. They are ideal for drilling boreholes for lithologic description, sample collection for chemical analysis, and conventional groundwater monitoring well installation. The ability to hollowstem auger gives the AMS PowerProbe more versatility in the field, via penetration of deeper depths and the ability to conduct direct push activities, telescopically, through the hollowstem auger itself. All double-key hollowstem augers feature a continuous hard-faced fluting design, 3/8" thick on the outer edge, with a dual bolt connection.

With the auger serving as a casing, hollowstem augering is generally used as a tool to assist in the sampling process. Most AMS PowerProbes can perform both hollowstem augering and direct push.









# HOLLOWSTEM AUGERS

## (G3) AMS Hollowstem Augering System

**Note:** ♦ Is To Indicate 1 5/8" Setup

**Drive Cap**

5100.908, (G3) 2 1/4" Drive Cap 2" Hex Pin  
5629.56, (G3) 4 1/4" Drive Cap 2" Hex Pin

**Chain Pull Cap**

5100.195, (G3) 2 1/4" Chain Pull Cap, 2" Hex  
5102.005, (G3) 4 1/4" Chain Pull Cap, 2" Hex

**Internal Tripping Tool**

5628.80, Internal Tripping Tool

**Hollowstem Auger Section**

5100.90, (G3) 2 1/4" x 4' HSA Section  
5100.91, (G3) 4 1/4" x 4' HSA Section

**Thread Protector**

5006.56, 1 1/4" Thread Protector Cap  
5008.29, 1 5/8" Thread Protector Cap ♦

**Pull Cap**

5008.80, 1 1/4" Pull Cap  
5006.86, 1 5/8" Pull Cap ♦

**Auger Holding Fork**

5100.24, (G3) 2 1/4" Auger Fork  
5102.20, (G3) 4 1/4" Auger Fork

**Inner Extension**

5005.75, 1 1/4" x 5' DPE  
5005.74, 1 1/4" x 4' DPE  
5005.72, 1 1/4" x 2' DPE

5006.95, 1 5/8" x 5' DPE ♦  
5006.94, 1 5/8" x 4' DPE ♦  
5006.92, 1 5/8" x 2' DPE ♦

**Auger Bolt**

5629.23, (G3) 2 1/4" Lock Bolt  
5629.77, (G3) 4 1/4" Lock Bolt

**Internal Drive Point Holder**

5629.34, (G3) 4 1/4" Hex Pilot Bit Holder 1 1/4"  
5629.62, (G3) 4 1/4" Hex Pilot Bit Holder 1 1/4"

52643, (G3) 2 1/4" Hex Pilot Bit Holder 1 5/8" ♦  
52614, (G3) 4 1/4" Hex Pilot Bit Holder 1 5/8" ♦

**Roll Pin**

13350, 2 1/4" Roll Pin, (1/2" x 2")  
13351, 4 1/4" Roll Pin, (1/2" x 3")

**Internal Drive Pilot Bit**

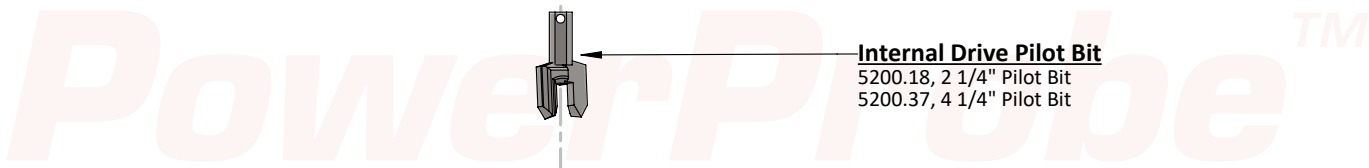
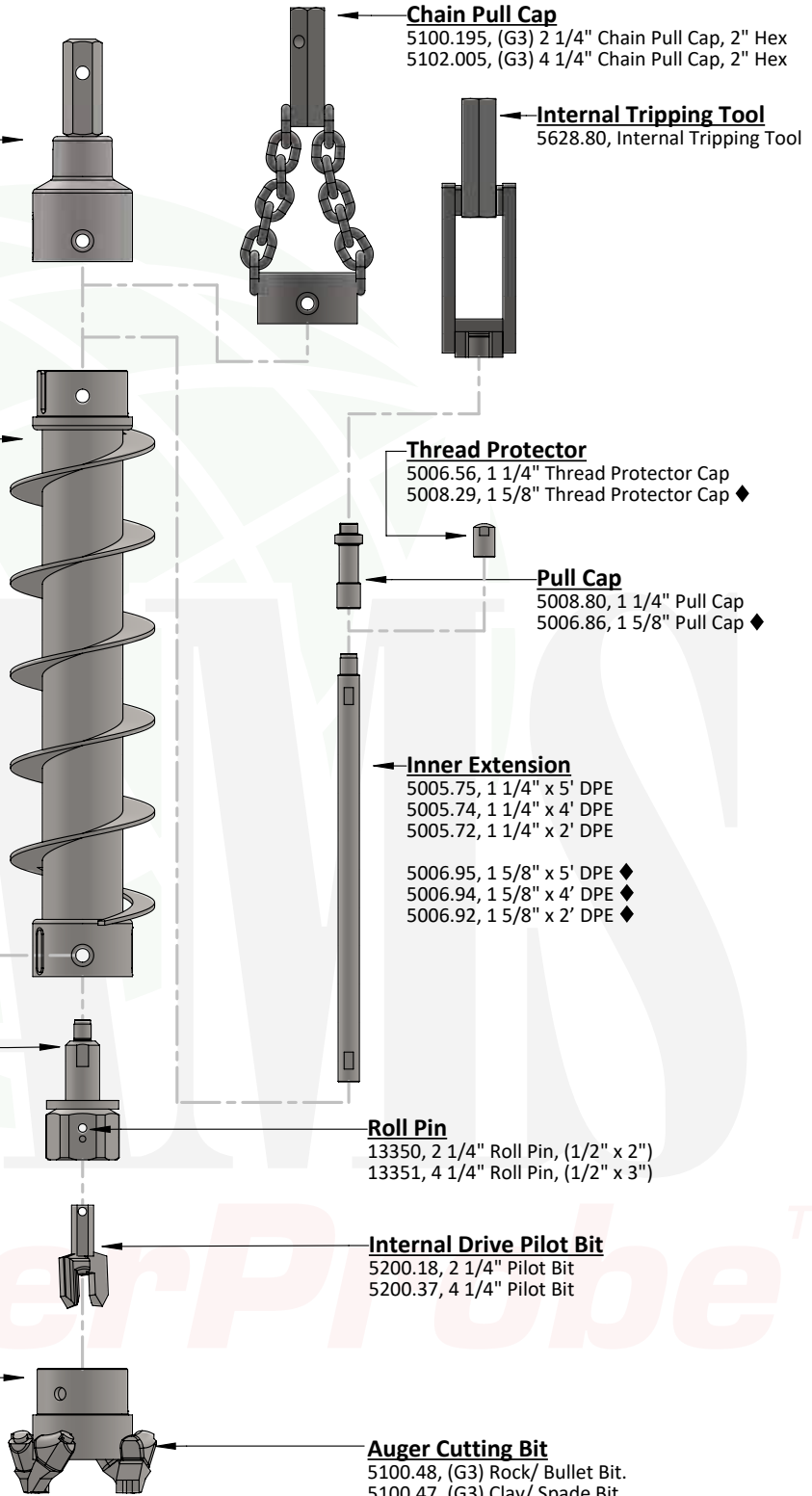
5200.18, 2 1/4" Pilot Bit  
5200.37, 4 1/4" Pilot Bit

**Auger Cutting Head**

5100.902, (G3) 2 1/4" Rock  
5100.903, (G3) 2 1/4" Clay  
5100.912, (G3) 4 1/4" Rock  
5100.913, (G3) 4 1/4" Clay

**Auger Cutting Bit**

5100.48, (G3) Rock/ Bullet Bit.  
5100.47, (G3) Clay/ Spade Bit.



# HOLLOWSTEM AUGERS

## (G3) AMS Hollowstem Augering System

| Part #   | Item                                    |
|----------|---|
| 5100.908 | (G3) 2 1/4" Drive Cap 2" Hex Pin        |
| 5100.90  | (G3) 2 1/4" x 4' HSA Section            |
| 5100.24  | (G3) 2 1/4" Auger Fork                  |
| 5629.23  | (G3) 2 1/4" Lock Bolt                   |
| 5629.34  | (G3) 2 1/4" Hex Pilot Bit Holder 1 1/4" |
| 5100.902 | (G3) 2 1/4" Rock                        |
| 5100.903 | (G3) 2 1/4" Clay                        |
| 5100.195 | (G3) 2 1/4" Chain Pull Cap, 2" Hex      |
| 52643    | (G3) 2 1/4" Hex Pilot Bit Holder 1 5/8" |
| 13350    | 2 1/4" Roll Pin (1/2" x 2")             |
| 5100.18  | 2 1/4" Pilot Bit                        |
| 5006.56  | 1 1/4" Thread Protector Cap             |
| 5008.80  | 1 1/4" Pull Cap                         |
| 5005.75  | 1 1/4" x 5' DPE                         |
| 5005.74  | 1 1/4" x 4' DPE                         |
| 5005.72  | 1 1/4" x 2' DPE                         |
| 5100.48  | (G3) Rock / Bullet Bit                  |
| 5100.47  | (G3) Clay / Spade Bit                   |
| 5628.80  | Internal Tripping Tool                  |

## (G3) AMS Hollowstem Augering System (1 5/8" Setup)

| Part #   | Item                                    |
|----------|---|
| 5629.56  | (G3) 4 1/4" Drive Cap 2" Hex Pin        |
| 5100.91  | (G3) 4 1/4" x 4' HSA Section            |
| 5102.20  | (G3) 4 1/4" Auger Fork                  |
| 5629.77  | (G3) 4 1/4" Lock Bolt                   |
| 5629.62  | (G3) 4 1/4" Hex Pilot Bit Holder 1 1/4" |
| 5100.912 | (G3) 4 1/4" Rock                        |
| 5100.913 | (G3) 4 1/4" Clay                        |
| 5102.005 | (G3) 4 1/4" Chain Pull Cap 2" Hex       |
| 52614    | (G3) 4 1/4" Hex Pilot Bit Holder 1 5/8" |
| 13351    | 4 1/4" Roll Pin (1/2" x 3")             |
| 5100.37  | 4 1/4" Pilot Bit                        |
| 5008.29  | 1 5/8" Thread Protector Cap             |
| 5006.86  | 1 5/8" Pull Cap                         |
| 5006.95  | 1 5/8" x 5' DPE                         |
| 5006.94  | 1 5/8" x 4' DPE                         |
| 5006.92  | 1 5/8" x 2' DPE                         |

Call for current pricing on all hollowstem auger components.





# HOLLOWSTEM AUGERS

## Hollowstem Augering System

### Drive Cap

- 5200.13, Drive Cap DK 2 1/4" 2" Hex Pin
- 5200.20, Drive Cap DK 3 1/4" 2" Hex Pin
- 5200.27, Drive Cap DK 4 1/4" 2" Hex Pin
- 5200.34, Drive Cap DK 6 1/4" 2" Hex Pin

### Rod To Cap Bolt

- 5200.18, Rod to Cap Adapter Nut & Bolt 2 1/4"
- 5200.25, Rod to Cap Adapter Nut & Bolt 3 1/4"
- 5200.32, Rod to Cap Adapter Nut & Bolt 4 1/4"
- 5200.39, Rod to Cap Adapter Nut & Bolt 6 1/4"

### Hollowstem Auger Section

- 5200.12, Hollowstem Auger DK 2 1/4" x4'
- 5200.19, Hollowstem Auger DK 3 1/4" x4'
- 5200.26, Hollowstem Auger DK 4 1/4" x4'
- 5200.33, Hollowstem Auger DK 6 1/4" x4'

### Auger Bolt

- 5629.77, Auger Bolt

### Auger Cutting Head

- 5200.14, Cutting Head DK 2 1/4" Spade/Bullet
- 5200.21, Cutting Head DK 3 1/4" Spade/Bullet
- 5200.28, Cutting Head DK 4 1/4" Spade/Bullet
- 5200.35, Cutting Head DK 6 1/4" Spade/Bullet

### Rod Adapter

- 5200.17, Adapter Rod to Cap DK 2 1/4" AW
- 5200.171, Adapter Rod To Cap DK AWJ
- 5200.172, Adapter Rod To Cap DK AMS 1 5/8"

- 5200.24, Adapter Rod to Cap DK 3 1/4" AW
- 5200.241, Adapter Rod To Cap DK 3 1/4" AWJ
- 5200.242, Adapter Rod To Cap DK 3 1/4" AMS 1 5/8"

- 5200.31, Adapter Rod to Cap DK 4 1/4" AW
- 5200.311, Adapter Rod To Cap DK 4 1/4" AWJ
- 5200.312, Adapter Rod To Cap DK 4 1/4" AMS 1 5/8"

- 5200.38, Adapter Rod to Cap DK 6 1/4" AW
- 5200.381, Adapter Rod To Cap DK 6 1/4" AWJ
- 5200.382, Adapter Rod To Cap DK 6 1/4" AMS 1 5/8"

### Inner Extension

- 5006.95, 1 5/8" x 5' DPE
- 5006.94, 1 5/8" x 4' DPE
- 5006.92, 1 5/8" x 2' DPE

### Internal Drive Point Holder

- 5200.16, Pilot Bit Connector DK 2 1/4" AW
- 5200.161, Pilot Bit Connector DK 2 1/4" AWJ
- 5200.162, Pilot Bit Connector DK 2 1/4" AMS 1 5/8"

- 5200.22, Pilot Bit Connector DK 3 1/4" AW
- 5200.221, Pilot Bit Connector DK 3 1/4" AWJ
- 5200.222, Pilot Bit Connector DK 3 1/4" AMS 1 5/8"

- 5200.29, Pilot Bit Connector DK 4 1/4" AW
- 5200.291, Pilot Bit Connector DK 4 1/4" AWJ
- 5200.292, Pilot Bit Connector DK 4 1/4" AMS 1 5/8"

- 5200.36, Pilot Bit Connector DK 6 1/4" AW
- 5200.361, Pilot Bit Connector DK 6 1/4" AWJ
- 5200.362, Pilot Bit Connector DK 6 1/4" AMS 1 5/8"

### Internal Drive Pilot Bit

- 5200.15, Pilot Bit DK 2 1/4"
- 5200.23, Pilot Bit DK 3 1/4"
- 5200.30, Pilot Bit DK 4 1/4"
- 5200.37, Pilot Bit DK 6 1/4"

# HOLLOWSTEM AUGERS

## 2 1/4" ID Hollowstem Auger

| Part #        | Item                                    |
|---------------|---|
| 5200.12       | Hollowstem Auger DK 2 1/4" x 4'         |
| 5200.13       | Drive Cap DK 2 1/4" 2" Hex Pin          |
| 5200.14       | Cutter Head DK 2 1/4" Spade/Bullet      |
| 5200.15       | Pilot Bit DK 2 1/4"                     |
| 5200.16       | Pilot Bit Connector DK 2 1/4" AW        |
| 5200.161      | Pilot Bit Connector DK 2 1/4"AWJ        |
| 5200.162      | Pilot Bit Connector DK 2 1/4"AMS 1 5/8" |
| Miscellaneous |   |
| 5200.17       | Adapter Rod To Cap DK 2 1/4" AW         |
| 5200.171      | Adapter Rod To Cap DK AWJ               |
| 5200.172      | Adapter Rod To Cap DK AMS 1 5/8"        |
| 5200.18       | Rod To Cap Adapter Nut & Bolt 2 1/4"    |
| 5629.77       | Auger Bolt                              |

## 6 1/4" ID Hollowstem Auger

| Part #        | Item                                     |
|---------------|--|
| 5200.33       | Hollowstem Auger DK 6 1/4" x 4'          |
| 5200.34       | Drive Cap DK 6 1/4" 2" Hex Pin           |
| 5200.35       | Cutter Head DK 6 1/4" Spade/Bullet       |
| 5200.37       | Pilot Bit DK 6 1/4"                      |
| 5200.36       | Pilot Bit Connector DK 6 1/4" AW         |
| 5200.361      | Pilot Bit Connector DK 6 1/4" AWJ        |
| 5200.362      | Pilot Bit Connector DK 6 1/4" AMS 1 5/8" |
| Miscellaneous |  |
| 5200.38       | Adapter Rod To Cap DK 6 1/4" AW          |
| 5200.381      | Adapter Rod To Cap DK 6 1/4" AWJ         |
| 5200.382      | Adapter Rod To Cap DK 6 1/4" AMS 1 5/8"  |
| 5200.39       | Rod To Cap Adapter Nut & Bolt 6 1/4"     |
| 5629.77       | Auger Bolt                               |

## 3 1/4" ID Hollowstem Auger

| Part #        | Item                                     |
|---------------|--|
| 5200.19       | Hollowstem Auger DK 3 1/4" x 4'          |
| 5200.20       | Drive Cap DK 3 1/4" 2" Hex Pin           |
| 5200.21       | Cutter Head DK 3 1/4" Spade/Bullet       |
| 5200.23       | Pilot Bit DK 3 1/4"                      |
| 5200.22       | Pilot Bit Connector DK 3 1/4" AW         |
| 5200.221      | Pilot Bit Connector DK 3 1/4" AWJ        |
| 5200.222      | Pilot Bit Connector DK 3 1/4" AMS 1 5/8" |
| Miscellaneous |  |
| 5200.24       | Adapter Rod To Cap DK 3 1/4" AW          |
| 5200.241      | Adapter Rod To Cap DK 3 1/4" AWJ         |
| 5200.242      | Adapter Rod To Cap DK 3 1/4" AMS 1 5/8"  |
| 5200.25       | Rod To Cap Adapter Nut & Bolt 3 1/4"     |
| 5629.77       | Auger Bolt                               |

## 4 1/4" ID Hollowstem Auger

| Part #        | Item                                     |
|---------------|--|
| 5200.26       | Hollowstem Auger DK 4 1/4" x 4'          |
| 5200.27       | Drive Cap DK 4 1/4" 2" Hex Pin           |
| 5200.28       | Cutter Head DK 4 1/4" Spade/Bullet       |
| 5200.30       | Pilot Bit DK 4 1/4"                      |
| 5200.29       | Pilot Bit Connector DK 4 1/4" AW         |
| 5200.291      | Pilot Bit Connector DK 4 1/4" AWJ        |
| 5200.292      | Pilot Bit Connector DK 4 1/4" AMS 1 5/8" |
| Miscellaneous |  |
| 5200.31       | Adapter Rod To Cap DK 4 1/4" AW          |
| 5200.311      | Adapter Rod To Cap DK 4 1/4" AWJ         |
| 5200.312      | Adapter Rod To Cap DK 4 1/4" AMS 1 5/8"  |
| 5200.32       | Rod To Cap Adapter Nut & Bolt 4 1/4"     |
| 5629.77       | Auger Bolt                               |

\* Call for current pricing on all hollowstem auger components

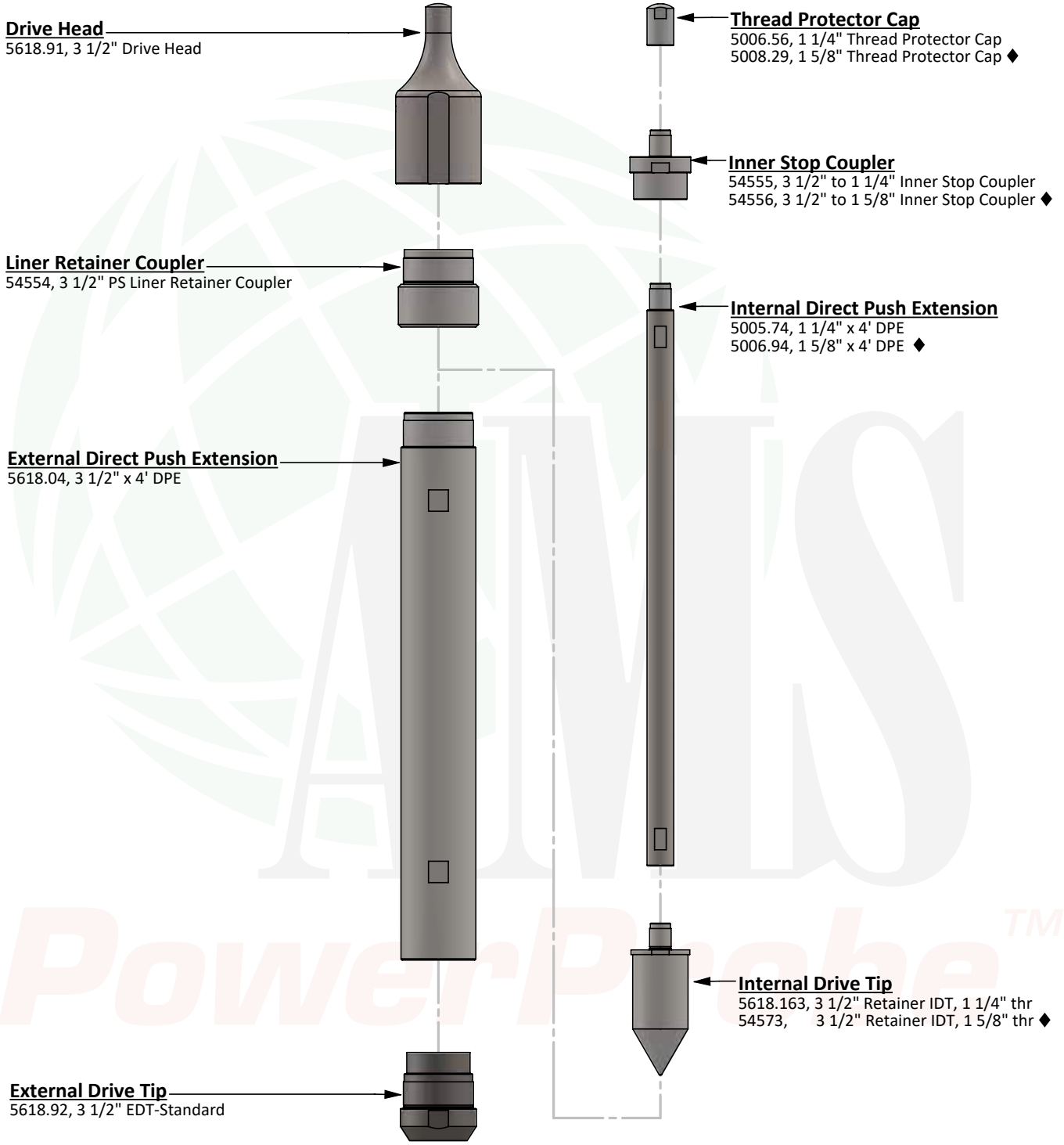
\* Please ask a sales representative for options to keep the center rods from overtightening.



# GEOTECHNICAL SAMPLING

## 3 1/2" Geotechnical Sampling With Direct Push

**Note:** ♦ Is To Indicate 1 5/8" Setup





# GEOTECHNICAL SAMPLING

Direct push can be a cost-effective, time saving, and a technically accurate means of drilling, sample collection, and testing. Split-Spoon and Shelby Tube samplers are popular options for geotechnical testing and sampling. This drilling method has been used for over 10 years and, according to the EPA in 2003, is accepted in all 50 states for RCRA, CERCLA, UST, and Brownfield site assessments and investigations. Geotechnical Sampling and/or testing for remedial investigations or construction-related projects can be conducted with direct push to depths over 100'. For geotechnical testing from the ground surface to approximately 10', a variety of hand-held equipment can be used in conjunction with direct push or independently, depending on situation and scope of work.

Shelby tube samplers consist of a one-piece, thin-walled, hollow steel tube with an open-end that has been honed to a cutting edge. They are used to recover relatively undisturbed samples that are suitable for laboratory tests of engineering properties such as strength, compressibility, permeability, and density. They are very useful for collecting soils that are particularly sensitive to sampling disturbance, including fine cohesive soils and clays.

The split-spoon sampler is a hollow tube consisting of two halves that are split lengthwise and are held together by a circular connector head at the top and drive shoe (tip) at the bottom. They are used for taking samples for lithological descriptions and geotechnical testing. They can be used with liners to collect representative samples that are suitable for chemical analysis of all types of contaminants.

## Geotechnical Sampling with Direct Push

| 3 1/2" Replacement Parts for 1 1/4" IDT System |                                     |           |
|--|-------------------------------------|-----------|
| 5618.91  | 3 1/2" Drive Head                   | \$ 270.00 |
| 5618.04  | 3 1/2" x 4' DPE                     | \$ 240.00 |
| 5005.74  | 1 1/4" x 4' DPE                     | \$ 125.00 |
| 5618.92  | 3 1/2" EDT - Standard               | \$ 150.00 |
| 54554  | 3 1/2" PS Liner Retainer Coupler    | \$ 234.00 |
| 5006.56  | 1 1/4" Thread Protector Cap         | \$ 75.00  |
| 54555  | 3 1/2" to 1 1/4" Inner Stop Coupler | \$ 125.00 |
| 5618.163                                       | 3 1/2" Retainer IDT, 1 1/4" thr     | \$ 150.00 |
| 3 1/2" Replacement Parts for 1 5/8" IDT System |                                     |           |
| 5618.91  | 3 1/2" Drive Head                   | \$ 270.00 |
| 5618.04  | 3 1/2" x 4' DPE                     | \$ 240.00 |
| 5006.94  | 1 5/8" x 4' DPE                     | \$ 159.00 |
| 5618.92  | 3 1/2" EDT - Standard               | \$ 150.00 |
| 54554  | 3 1/2" PS Liner Retainer Coupler    | \$ 234.00 |
| 5008.29  | 1 5/8" Thread Protector Cap         | \$ 90.00  |
| 54556  | 3 1/2" to 1 5/8" Inner Stop Coupler | \$ 125.00 |
| 54573  | 3 1/2" Retainer IDT, 1 5/8" thr     | \$ 175.00 |

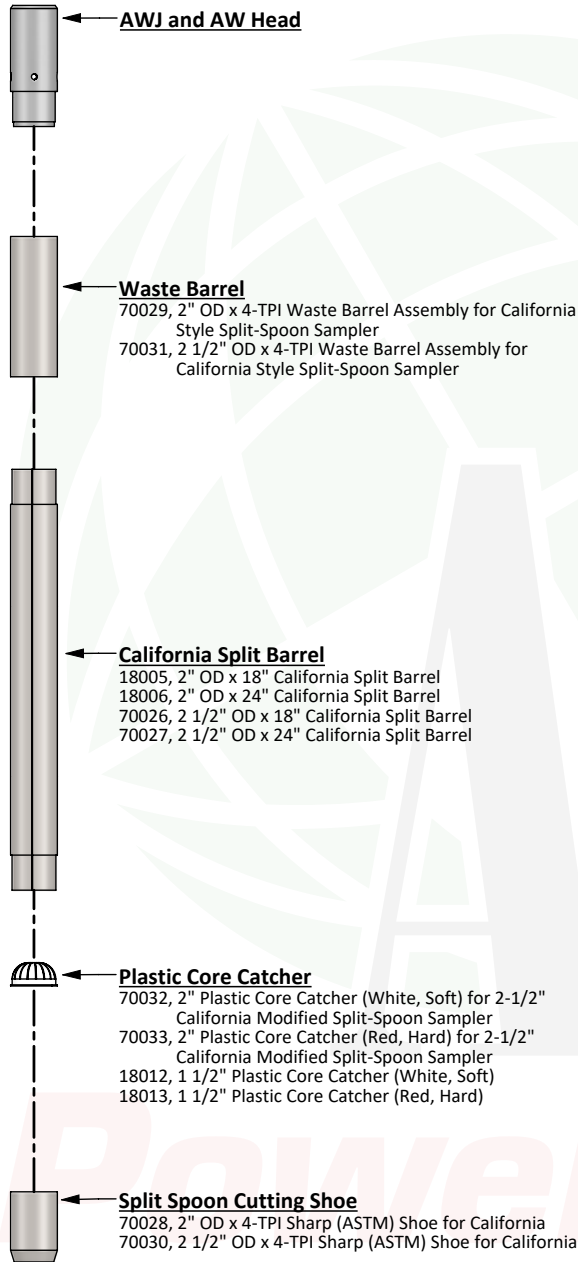
## 1 5/8" Tooling Options for Shelby Tube & Split-Spoon Samplers

| Part #  | Item                           | Price     |
|---------|--------------------------------|-----------|
| 5006.95 | 1 5/8" x 5' DPE                | \$ 169.00 |
| 5006.94 | 1 5/8" x 4' DPE                | \$ 159.00 |
| 52307   | 1 5/8" x 3' DPE                | \$ 149.00 |
| 5006.92 | 1 5/8" x 2' DPE                | \$ 126.00 |
| 52306   | 1 5/8" x 1' DPE                | \$ 116.00 |
| 52308   | 1 5/8" x 6" DPE                | \$ 105.00 |
| 5006.86 | 1 5/8" Pull Cap                | \$ 110.00 |
| 52317   | 1 5/8" Geotechnical Drive Head | \$ 135.00 |



# SPLIT SPOONS

## Split Spoon Samplers for SPT



### California-Modified Style Split-Spoon Samplers for SPT

AWJ Head Complete

| Part # | Item  |
|--------|---|
| 18005  | 2" OD x 18" California Split Barrel Sampler w/ Waste Barrel, 4-TPI Sharp Shoe & AWJ Head    |
| 18006  | 2" OD x 24" California Split Barrel Sampler w Waste Barrel, 4-TPI Sharp Shoe & AWJ Head     |
| 70026  | 2 1/2" OD x 18" California Split Barrel Sampler w/Waste Barrel, 4-TPI Sharp Shoe & AWJ Head |
| 70027  | 2 1/2" OD x 24" California Split Barrel Sampler w/Waste Barrel, 4TPI Sharp Shoe & AWJ Head  |

AW Head Complete

|       |  |
|-------|--|
| 18001 | 2" OD x 18" California Split Barrel Sampler w/Waste Barrel, 4-TPI Sharp Shoe & AW Head |
| 18003 | 2" OD x 24" California Split Barrel Sampler w/Waste Barrel, 4-TPI Sharp Shoe & AW Head |

Shoe

|       |   |
|-------|---|
| 70028 | 2" OD x 4-TPI Sharp (ASTM) Shoe for California Style Samplers     |
| 70030 | 2 1/2" OD x 4-TPI Sharp (ASTM) Shoe for California Style Samplers |

Waste Barrel Assembly

|       |   |
|-------|---|
| 70029 | 2" OD x 4-TPI Waste Barrel Assembly for California Style Split-Spoon Samplers     |
| 70031 | 2 1/2" OD x 4-TPI Waste Barrel Assembly for California Style Split-Spoon Samplers |

Expendables

|        |   |
|--------|---|
| 70032  | 2" Plastic Core Catcher (White, Soft) for 2-1/2" OD California-Modified, Split-Spoon Samplers |
| 70033  | 2" Plastic Core Catcher (Red, Hard) for 2-1/2" OD California-Modified, Split-Spoon Samplers   |
| 18012  | 1 1/2" Metal Core Catcher   |
| 18013  | 1 1/2" Plastic Core Catcher (white, soft lithology)   |
| 18014  | 1 1/2" Plastic Core Catcher (red, hard lithology)   |
| 405.11 | 1 1/2" x 6" Brass Liner   |
| 418.08 | 1 1/2" Plastic End Caps   |
| 418.16 | 0.003" x 4" x 100' Perforated Roll Fluoropolymer Film   |

Other styles and sizes available.  
 Call AMS for details.





# SHELBY TUBES

## Split Spoon Samplers for SPT



**AWJ and AW Head**

- 70054, 2" AWJ Shelby Tube Head Assembly w/Ball & Roll-Pin
- 70074, 3" AWJ Shelby Tube Head Assembly w/Ball & Roll-Pin
- 70053, 2" AW Shelby Tube Head Assembly w/Ball & Roll-Pin
- 70073, 3" AW Shelby Tube Head Assembly w/Ball & Roll-Pin



**Set Screws**

- 70055, Set Screws (4-Required) for 2" OD Shelby Tube Head Assembly
- 70075, Set Screws (4-Required) for 3" OD Shelby Tube Head Assembly

**Steel Shelby Tube**

- 70050, 2" OD x 30" Steel Shelby Tube Sample Barrel
- 70051, 2" OD x 36" Steel Shelby Tube Sample Barrel
- 70070, 3" OD x 30" Steel Shelby Tube Sample Barrel
- 70071, 3" OD x 36" Steel Shelby Tube Sample Barrel

### Shelby Tube Samplers

Barrel

| Part # | Item  |
|--------|---|
| 70050  | 2" OD x 30" Steel Shelby Tube Sample Barrel |
| 70051  | 2" OD x 36" Steel Shelby Tube Sample Barrel |
| 70070  | 3" OD x 30" Steel Shelby Tube Sample Barrel |
| 70071  | 3" OD x 36" Steel Shelby Tube Sample Barrel |

Tube Head Assembly (Set screws sold separately)

|       |   |
|-------|---|
| 70053 | 2" OD x AW Shelby Tube Head Assembly w/Ball & Roll-Pin  |
| 70054 | 2" OD x AWJ Shelby Tube Head Assembly w/Ball & Roll-Pin |
| 70073 | 3" OD x AW Shelby Tube Head Assembly w/Ball & Roll-Pin  |
| 70074 | 3" OD x AWJ Shelby Tube Head Assembly w/Ball & Roll-Pin |

Expendables

|        |   |
|--------|---|
| 70055  | Set Screws (4-Required) for 2" OD Shelby Tube Head Assembly           |
| 70075  | Set Screws (4-Required) for 3" OD Shelby Tube Head Assembly           |
| 70052  | 2" (Black or Yellow) Plastic Caps for 2" OD Shelby Tubes (2-Required) |
| 70072  | 3" (Black or Yellow) Plastic Caps for 3" OD Shelby Tubes (2-Required) |
| 418.16 | 0.003" x 4" x 100' Perforated Roll Fluoropolymer Film                 |

### AW and AWJ Adaptors for Shelby Tubes and Split Spoons

Pull Caps

| Part #   | Item         |
|----------|--------------|
| 54403    | AWJ Pull Cap |
| 5678.136 | AW Pull Cap  |

AWJ Adapters

|          |                              |
|----------|------------------------------|
| 5102.502 | AWJ Male x AMS 1 1/4" Male   |
| 5102.501 | AWJ Male x AMS 1 1/4" Female |
| 54422    | AWJ Male x AMS 1 5/8" Male   |
| 54433    | AWJ Male x AMS 1 5/8" Female |

AW Adapters

|       |                             |
|-------|-----------------------------|
| 70102 | AW Male x AMS 1 1/4" Male   |
| 70103 | AW Male x AMS 1 1/4" Female |
| 70104 | AW Male x AMS 1 5/8" Male   |
| 70105 | AW Male x AMS 1 5/8" Female |



CONCRETE / ASPHALT CORING TOOLS: 3 1/2", G3, G7

2 3/8" (G3) and (G7) Concrete and Asphalt Punch

**Drive Head**

58036, 2 3/8" (G3 & G7) Drive Head (Threadless)  
5618.91, 3 1/2" Drive Head



**Drive Head Sleeve**

(Not Needed with 3 1/2")  
58125, 2 3/8" (G7) Drive Head Sleeve  
58035, 2 3/8" (G3) Drive Head Sleeve



**Pull Cap**

58149, 2 3/8" (G7) Pull Cap  
5618.186, 2 3/8" (G3) Pull Cap  
5618.90, 3 1/2" Pull Cap



**Concrete and Asphalt Punch**

56973, 2 3/8" (G7) Punch  
56972, 2 3/8" (G3) Punch  
52581, 3 1/2" Punch



AMS  
PowerProbe™

## CONCRETE / ASPHALT CORING TOOLS: 3 1/2", G3, G7

### Concrete and Asphalt Punches

| Part #   | Item   | Price     |
|----------|--|-----------|
| 52580    | 3 1/2" Includes: Drive Head, Pull Cap, and Punch | \$ 670.00 |
| 58036    | 2 3/8" (G3 & G7) Drive Head Threadless           | \$ 215.00 |
| 5618.91  | 3 1/2" Drive Head                                | \$ 270.00 |
| 58125    | 2 3/8" (G7) Drive Head Sleeve                    | \$ 95.00  |
| 58035    | 2 3/8" (G3) Drive Head Sleeve                    | \$ 95.00  |
| 56973    | 2 3/8" (G7) Punch                                | \$ 185.00 |
| 56972    | 2 3/8" (G3) Punch                                | \$ 185.00 |
| 52581    | 3 1/2" Punch                                     | \$ 235.00 |
| 58149    | 2 3/8" (G7) Pull Cap                             | \$ 160.00 |
| 5618.186 | 2 3/8" (G3) Pull Cap                             | \$ 160.00 |
| 5618.90  | 3 1/2" Pull Cap                                  | \$195.00  |





# ACCESSORIES

## Cleaning Tools

| Part #  | Item                                     | Price    |
|---------|--|----------|
| 5006.84 | Steel T- Handle, 3/8" Thread             | \$ 17.00 |
| 5009.20 | 3/8" x 4' Cleaner Rod                    | \$ 25.00 |
| 5009.05 | Brush for 1 1/8" or 1 1/4" DP Extensions | \$ 8.00  |
| 5009.07 | Brush for 1 3/4" DP Ext.                 | \$ 8.10  |
| 5009.09 | Brush for 2 1/8" or 2 3/8" DP Extensions | \$ 11.00 |
| 5009.11 | Brush for 2 3/4" DP Ext.                 | \$ 11.00 |
| 5009.12 | Brush for 3 1/2" DP Ext.                 | \$ 13.10 |
| 5009.15 | Bristle Brush, 20" Long                  | \$ 8.90  |



# 5008.145  
3 1/2" Thread Chaser



# 5008.14  
2 3/8" Thread Chaser



# 5008.13  
1 1/4" Thread Chaser

## Thread Chasers

| Part #   | Item                      | Price     |
|----------|---------------------------|-----------|
| 5008.13  | 1 1/4" Thread Chaser      | \$ 130.00 |
| 5008.28  | 1 5/8" Thread Chaser      | \$ 167.10 |
| 5008.11  | 1 3/4" Thread Chaser      | \$ 135.10 |
| 5008.12  | 2 1/8" Thread Chaser      | \$ 167.10 |
| 58283    | (G7) 2 3/8" Thread Chaser | \$ 215.00 |
| 5008.14  | (G3) 2 3/8" Thread Chaser | \$ 197.10 |
| 5008.125 | 2 3/4" Thread Chaser      | \$ 197.10 |
| 5008.145 | 3 1/2" Thread Chaser      | \$ 325.00 |



## Folding Stand for Direct Push Tooling

The AMS foldable tooling stand allows you to organize your direct push tooling and position it within easy reach. A flat platform on the tool stand is an additional time-saver that provides a place for setting the small items that are needed as you work. It is powder-coated and folds up for easy storage and mobility.

### Foldable Tooling Stand

| Part #  | Item                  | Weight  | Price     |
|---------|-----------------------|---------|-----------|
| 5052.30 | Folding Tooling Stand | 40.0 lb | \$ 565.00 |

## Fishing Tools

Fishing tools are used to recover broken, damaged, or lost extensions.

### Fishing Tools

| Part #  | Item                               | Price     |
|---------|------------------------------------|-----------|
| 5008.23 | 1 1/4" Fishing Tool, 1 1/4" Thread | \$ 80.00  |
| 52263   | 1 5/8" Fishing Tool, 1 1/4" Thread | \$ 135.00 |
| 5008.27 | 1 5/8" Fishing Tool, 1 5/8" Thread | \$ 167.00 |
| 5008.24 | 2 3/8" Fishing Tool, 1 1/4" Thread | \$ 135.00 |
| 5008.26 | 2 3/4" Fishing Tool, 1 1/4" Thread | \$ 164.00 |
| 55039   | 3 1/2" Fishing Tool, 1 1/4" Thread | \$ 210.00 |



# 5008.23



# 55039



# 5008.27

## DPE Holders

| Part #  | Item              | Price    |
|---------|-------------------|----------|
| 5014.03 | 1 1/4" DPE Holder | \$ 56.10 |
| 5014.07 | 1 5/8" DPE Holder | \$ 56.10 |
| 5014.02 | 1 3/4" DPE Holder | \$ 56.10 |
| 5014.01 | 2 1/8" DPE Holder | \$ 56.10 |
| 5014.06 | 2 3/8" DPE Holder | \$ 56.10 |
| 5014.00 | 2 3/4" DPE Holder | \$ 56.10 |
| 5014.05 | 3 1/2" DPE Holder | \$ 56.10 |

## O-Ring Bulk / Bundle Pricing

### O-Ring Bulk/Bundle Pricing

| 1 1/4" O-Ring Kits |                               | Qty | Price     |
|--------------------|-------------------------------|-----|-----------|
| 5008.02            | O-Ring Kit for 1 1/4" DPEs    | 25  | \$ 6.31   |
| 5008.021           | O-Ring Kit for 1 1/4" DPEs    | 100 | \$ 22.60  |
| 5008.022           | O-Ring Kit for 1 1/4" DPEs    | 500 | \$ 95.10  |
| 1 3/4" O-Ring Kits |                               | Qty | Price     |
| 5008.07            | O-Ring Kit for 1 3/4" DPEs    | 25  | \$ 6.80   |
| 5008.08            | O-Ring Kit for 1 3/4" DPEs    | 100 | \$ 23.10  |
| 5008.09            | O-Ring Kit for 1 3/4" DPEs    | 500 | \$ 100.00 |
| 1 5/8" O-Ring Kits |                               | Qty | Price     |
| 5006.99            | O-Ring Kit for 1 5/8" DPEs    | 25  | \$ 8.90   |
| 5006.991           | O-Ring Kit for 1 5/8" DPEs    | 100 | \$ 31.20  |
| 5006.992           | O-Ring Kit for 1 5/8" DPEs    | 500 | \$ 130.00 |
| 2 3/8" O-Ring Kits |                               | Qty | Price     |
| 5008.061           | O-Ring Kit for G7 and G3 DPEs | 25  | \$ 9.90   |
| 5008.062           | O-Ring Kit for G7 and G3 DPEs | 100 | \$ 35.10  |
| 5008.063           | 2 3/8" O-Ring Kit             | 500 | \$ 140.00 |

# ACCESSORIES

## Direct Push Hammer Anvils

|         |                      |           |
|---------|----------------------|-----------|
| 50484   | S-21 Hammer Anvil    | \$ 250.00 |
| 50485   | S-22 Hammer Anvil    | \$ 260.00 |
| 5004.15 | SK-58 Hammer Anvil   | \$ 106.50 |
| 5004.16 | BR-87 Hammer Anvil   | \$ 165.00 |
| 5004.12 | OKB-300 Hammer Anvil | \$ 225.00 |
| 5004.18 | MB-156 Hammer Anvil  | \$ 160.00 |
| 5004.20 | MB-356 Hammer Anvil  | \$ 260.00 |
| 5004.21 | AR-48 Hammer Anvil   | \$ 219.00 |
| 5004.22 | AR-62 Hammer Anvil   | \$ 219.00 |
| 50501   | BR-222 Hammer Anvil  | \$ 240.00 |
| 50576   | BR-333 Hammer Anvil  | \$ 245.00 |

## Hydraulic Hammers

AMS PowerProbe™ utilize a hydraulic hammer to advance direct push tooling into the soils for collecting a wide variety of samples. There are 4 main hammer options to choose from on most models. The 9700 series models can utilize the largest 550 ft / lb hammers with the 9500, 9300, and 9100 series have options to choose from (50'-lb, 90'-lb, 201'-lb, 350'-lb) depending on your sampling capability required.



\* Note: all hydraulic hammer figures are expressed as impact energy class, not "CIMA" rated actual energy.

## Heavy Duty Direct Push Anvils

| Part # | Item                        | Price     |
|--------|-----------------------------|-----------|
| 58975  | BR-222 HD Anvil, 1.50" bore | \$ 350.00 |
| 50577  | BR-333 HD Anvil, 1.50" bore | \$ 375.00 |
| 50500  | S-21 HD Anvil, 1.50" bore   | \$ 375.00 |
| 58974  | S-22 HD Anvil, 1.50" bore   | \$ 375.00 |
| 58976  | AR-48 HD Anvil, 1.50" bore  | \$ 350.00 |
| 58977  | AR-62 HD Anvil, 1.50" bore  | \$ 375.00 |
| 62697  | MB-156 HD Anvil, 1.50" bore | \$ 350.00 |
| 61507  | BR-333 HD Anvil, 2.50" bore | \$ 390.00 |
| 61506  | AR-62 HD Anvil, 2.50" bore  | \$ 390.00 |
| 61505  | AR-48 HD Anvil, 2.50" bore  | \$ 390.00 |



## Deck-Mounted Single-Tray Sample Preparation Station

The simple, deck-mounted single tray sample preparation station can handle liners up to 3" x 5'. The dual-blade liner splitter offers a quick, easy way to expose your samples for physical examination or subsequent testing. The complete station includes a single liner tray, dual-blade liner splitter. The basic station includes the single liner tray only.

### Deck-Mounted Sample Prep Station

| Part #  | Item  | Price     |
|---------|---|-----------|
| 5606.10 | Deck-Mounted Basic Single-Tray Sample Prep Station    | \$ 244.40 |
| 5606.25 | Deck-Mounted Complete Single-Tray Sample Prep Station | \$ 306.90 |

## Dual-Blade Liner Splitter

AMS Dual-Blade Liner Splitters make opening the liners quick and easy to allow for either sample preparation or physical examination. 10 blades are included.

### Dual-Blade Liner Splitter

| Part # | Item   | Price     |
|--------|--|-----------|
| 52364  | Dual-Blade Liner Splitter (1 1/2" Liners Only) | \$ 120.00 |
| 58145  | Dual-Blade Liner Splitter (2" Liners Only)     | \$ 175.00 |
| 52886  | Dual-Blade Liner Splitter (2 3/4" Liners Only) | \$ 205.00 |
| 18302  | Liner Splitter Hook Blades (package of 100)    | \$ 93.80  |



## Portable Sample Preparation Station

The AMS portable sample preparation station was designed to make field work easier. The portable sample preparation station can handle 1 1/2" x 5' liners. The station includes transport handle, aluminum frame, folding legs, and dual-blade liner splitter.

### Portable Sample Prep Stations

| Part #  | Item                                | Price       |
|---------|-------------------------------------|-------------|
| 5052.20 | Portable Sample Preparation Station | \$ 1,075.00 |









# CONVERSIONS

## Approximate conversions to SI units

SI (modern metric) conversion factors.

### Length

| SYMBOL | When you Know | Multiply By | To Find        |
|--------|---------------|-------------|----------------|
| Symbol |               |             |                |
| in     | inches        | x 25.4 =    | millimeters mm |
| ft     | feet          | x 3.05 =    | meters m       |
| yd     | yards         | x 0.914 =   | meters m       |
| mi     | miles         | x 1.61 =    | kilometers km  |

### Area

|                 |               |           |                                    |
|-----------------|---------------|-----------|------------------------------------|
| in <sup>2</sup> | square inches | x 645.2 = | square millimeters mm <sup>2</sup> |
| ft <sup>2</sup> | square feet   | x 0.093 = | square meters m <sup>2</sup>       |
| yd <sup>2</sup> | square yard   | x 0.836 = | square meters m <sup>2</sup>       |
| ac              | acres         | x 0.405 = | hectares ha                        |
| mi <sup>2</sup> | square miles  | x 2.59 =  | square kilometers km <sup>2</sup>  |

### Volume

|                 |              |           |                             |
|-----------------|--------------|-----------|-----------------------------|
| fl oz           | fluid ounces | x 29.57 = | milliliters mL              |
| gal             | gallons      | x 3.785 = | liters L                    |
| ft <sup>3</sup> | cubic feet   | x 0.028 = | cubic meters m <sup>3</sup> |
| yd <sup>3</sup> | cubic yards  | x 0.765 = | cubic meters m <sup>3</sup> |

### Mass

|    |                      |           |              |
|----|----------------------|-----------|--------------|
| oz | ounces               | x 28.35 = | grams g      |
| lb | pounds               | x 0.454 = | kilograms kg |
| T  | short tons (2000 lb) | x 0.907 = | megagrams Mg |
| T  | short tons (2000 lb) | x 0.907 = | metric ton t |

### Force and Pressure or Stress

|                     |                             |          |                 |
|---------------------|-----------------------------|----------|-----------------|
| lbf                 | poundforce                  | x 4.45 = | newtons N       |
| lbf/in <sup>2</sup> | pound force per square inch | x 6.89 = | kilopascals kPa |

## Approximate conversions from SI units

SI (modern metric) conversion factors.

### Length

| SYMBOL | When you Know | Multiply By | To Find   |
|--------|---------------|-------------|-----------|
| Symbol |               |             |           |
| mm     | millimeters   | x 0.039 =   | inches in |
| m      | meters        | x 3.28 =    | feet ft   |
| m      | meters        | x 1.09 =    | yards yd  |
| km     | kilometers    | x 0.621 =   | miles mi  |

### Area

|                 |                    |            |                               |
|-----------------|--------------------|------------|-------------------------------|
| mm <sup>2</sup> | square millimeters | x 0.0016 = | square inches in <sup>2</sup> |
| m <sup>2</sup>  | square meters      | x 10.764 = | square feet ft <sup>2</sup>   |
| m <sup>2</sup>  | square meters      | x 1.195 =  | square yards yd <sup>2</sup>  |
| ha              | hectares           | x 2.47 =   | acres ac                      |
| km <sup>2</sup> | square kilometers  | x 0.386 =  | square miles mi <sup>2</sup>  |

### Volume

|                |              |            |                             |
|----------------|--------------|------------|-----------------------------|
| mL             | milliliters  | x 0.034 =  | fluid ounces fl oz          |
| L              | liters       | x 0.264 =  | gallons gal                 |
| m <sup>3</sup> | cubic meters | x 35.314 = | cubic feet ft <sup>3</sup>  |
| m <sup>3</sup> | cubic meters | x 1.307 =  | cubic yards yd <sup>3</sup> |

### Mass

|    |            |           |                        |
|----|------------|-----------|------------------------|
| g  | grams      | x 0.035 = | ounces oz              |
| kg | kilograms  | x 2.202 = | pounds lb              |
| Mg | megagrams  | x 1.103 = | short tons (2000 lb) T |
| t  | metric ton | x 1.103 = | short tons (2000 lb) T |

### Force and Pressure or Stress

|     |             |           |   |
|-----|-------------|-----------|---|
| N   | newtons     | x 0.225 = | poundforce lbf                                  |
| kPa | kilopascals | x 0.145 = | pound force per square inch lbf/in <sup>2</sup> |

# Simplified Metric Conversion Tables

## HOW TO USE THESE TABLES

Because most laboratory measuring devices are calibrated in metric units, you can use the following table to convert U.S. units of volume, length, and weight to metric units. **Do not** use this table to convert from metric to U.S. values.

To use the table, find the number you are converting from at the top of the table for numbers from 1 to 9. For numbers greater than nine, find the number you are converting by using a combination of the number at the left side of the table and number at the top.

| U.S. Gallons to Litres |       |       |       |       |       |       |       |       |       |       |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| gal                    | 0     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     |
| 0                      | —     | 3.8   | 7.6   | 11.4  | 15.1  | 18.9  | 22.7  | 26.5  | 30.3  | 34.1  |
| 10                     | 37.8  | 41.6  | 45.4  | 49.2  | 53    | 56.8  | 60.6  | 64.4  | 68.1  | 71.9  |
| 20                     | 75.7  | 79.5  | 83.3  | 87.1  | 90.8  | 94.6  | 98.4  | 102.2 | 106   | 107.8 |
| 30                     | 113.6 | 117.3 | 121.1 | 124.9 | 128.7 | 132.5 | 136.3 | 140.1 | 143.8 | 147.6 |
| 40                     | 151.4 | 155.2 | 159   | 162.8 | 166.6 | 170.3 | 174.1 | 177.9 | 81.7  | 185.5 |

| U.S. Fluid Ounces to Millilitres |     |      |     |     |      |      |      |      |      |      |
|----------------------------------|-----|------|-----|-----|------|------|------|------|------|------|
| fl oz                            | 0   | 1    | 2   | 3   | 4    | 5    | 6    | 7    | 8    | 9    |
| 0                                | —   | 29.5 | 59  | 89  | 118  | 148  | 177  | 207  | 237  | 265  |
| 10                               | 295 | 325  | 355 | 385 | 415  | 445  | 475  | 500  | 530  | 560  |
| 20                               | 590 | 620  | 650 | 680 | 710  | 740  | 770  | 800  | 830  | 860  |
| 30                               | 890 | 920  | 950 | 980 | 1006 | 1035 | 1065 | 1094 | 1124 | 1153 |

| Inches to Centimetres |      |      |      |      |      |      |      |      |      |      |
|-----------------------|------|------|------|------|------|------|------|------|------|------|
| in.                   | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 0                     | —    | 2.5  | 5.1  | 7.6  | 10.2 | 12.7 | 15.2 | 17.8 | 20.3 | 22.9 |
| 10                    | 25.5 | 28.0 | 30.5 | 33.0 | 35.5 | 38.0 | 40.5 | 43.0 | 45.5 | 48.5 |
| 20                    | 51   | 53   | 56   | 58   | 61   | 64   | 66   | 69   | 71   | 74   |
| 30                    | 76   | 79   | 81   | 84   | 86   | 89   | 91   | 94   | 97   | 99   |

| Ounces to Grams |     |      |     |     |     |     |      |      |      |      |
|-----------------|-----|------|-----|-----|-----|-----|------|------|------|------|
| oz              | 0   | 1    | 2   | 3   | 4   | 5   | 6    | 7    | 8    | 9    |
| 0               | —   | 28.5 | 57  | 85  | 113 | 142 | 170  | 198  | 227  | 255  |
| 10              | 285 | 310  | 340 | 370 | 395 | 425 | 455  | 480  | 510  | 540  |
| 20              | 570 | 600  | 620 | 650 | 680 | 710 | 740  | 770  | 790  | 820  |
| 30              | 850 | 880  | 910 | 940 | 960 | 990 | 1021 | 1049 | 1077 | 1106 |

## TEMPERATURE CONVERSION TABLE

To convert a temperature from one unit of measure to another, use the following table. Find the temperature the "°F or °C" column; if you are converting to degrees Celsius, read the number from the "to °C" column degrees Fahrenheit, read the number from the "to °F" column.

| to °C | °F or °C | to °F | to °C | °F or °C | to °F | to °C  | °F or °C | to °F | to °C  | °F or °C | to °F |
|-------|----------|-------|-------|----------|-------|--------|----------|-------|--------|----------|-------|
| 37.8  | 100      | 212.0 | 18.33 | 65       | 149.0 | -1.11  | 30       | 86.0  | -20.56 | -5       | 23.0  |
| 37.22 | 99       | 210.2 | 17.78 | 64       | 147.2 | -1.67  | 29       | 84.2  | -21.11 | -6       | 21.2  |
| 36.67 | 98       | 208.4 | 17.22 | 63       | 145.4 | -2.22  | 28       | 82.4  | -21.67 | -7       | 19.4  |
| 36.11 | 97       | 206.6 | 16.67 | 62       | 143.6 | -2.78  | 27       | 80.6  | -22.22 | -8       | 17.6  |
| 35.56 | 96       | 204.8 | 16.11 | 61       | 141.8 | -3.33  | 26       | 78.8  | -22.78 | -9       | 15.8  |
| 35.00 | 95       | 203.0 | 15.56 | 60       | 140.0 | -3.89  | 25       | 77.0  | -23.33 | -10      | 14.0  |
| 34.44 | 94       | 201.2 | 15.00 | 59       | 138.2 | -4.44  | 24       | 75.2  | -23.89 | -11      | 12.2  |
| 33.89 | 93       | 199.4 | 14.44 | 58       | 136.4 | -5.00  | 23       | 73.4  | -24.44 | -12      | 10.4  |
| 33.33 | 92       | 197.6 | 13.89 | 57       | 134.6 | -5.56  | 22       | 71.6  | -25.00 | -13      | 8.6   |
| 32.78 | 91       | 195.8 | 13.33 | 56       | 132.8 | -6.11  | 21       | 69.8  | -25.56 | -14      | 6.8   |
| 32.22 | 90       | 194.0 | 12.78 | 55       | 131.0 | -6.67  | 20       | 68.0  | -26.11 | -15      | 5.0   |
| 31.67 | 89       | 192.2 | 12.22 | 54       | 129.2 | -7.22  | 19       | 66.2  | -26.67 | -16      | 3.2   |
| 31.11 | 88       | 190.4 | 11.67 | 53       | 127.4 | -7.78  | 18       | 64.4  | -27.22 | -17      | 1.4   |
| 30.56 | 87       | 188.6 | 11.11 | 52       | 125.6 | -8.33  | 17       | 62.6  | -27.78 | -18      | -0.4  |
| 30.00 | 86       | 186.8 | 10.56 | 51       | 123.8 | -8.89  | 16       | 60.8  | -28.33 | -19      | -2.2  |
| 29.44 | 85       | 185.0 | 10.00 | 50       | 122.0 | -9.44  | 15       | 59.0  | -28.89 | -20      | -4.0  |
| 28.89 | 84       | 183.2 | 9.44  | 49       | 120.2 | -10.00 | 14       | 57.2  | -29.44 | -21      | -5.8  |
| 28.33 | 83       | 181.4 | 8.89  | 48       | 118.4 | -10.56 | 13       | 55.4  | -30.00 | -22      | -7.6  |
| 27.78 | 82       | 179.6 | 8.33  | 47       | 116.6 | -11.11 | 12       | 53.6  | -30.56 | -23      | -9.4  |
| 27.22 | 81       | 177.8 | 7.78  | 46       | 114.8 | -11.67 | 11       | 51.8  | -31.11 | -24      | -11.2 |
| 26.67 | 80       | 176.0 | 7.22  | 45       | 113.0 | -12.22 | 10       | 50.0  | -31.67 | -25      | -13.0 |
| 26.11 | 79       | 174.2 | 6.67  | 44       | 111.2 | -12.78 | 9        | 48.2  | -32.22 | -26      | -14.8 |
| 25.56 | 78       | 172.4 | 6.11  | 43       | 109.4 | -13.33 | 8        | 46.4  | -32.78 | -27      | -16.6 |
| 25.00 | 77       | 170.6 | 5.56  | 42       | 107.6 | -13.89 | 7        | 44.6  | -33.33 | -28      | -18.4 |
| 24.44 | 76       | 168.8 | 5.00  | 41       | 105.8 | -14.44 | 6        | 42.8  | -33.89 | -29      | -20.2 |
| 23.89 | 75       | 167.0 | 4.44  | 40       | 104.0 | -15.00 | 5        | 41.0  |        |          |       |
| 23.33 | 74       | 165.2 | 3.89  | 39       | 102.2 | -15.56 | 4        | 39.2  |        |          |       |
| 22.78 | 73       | 163.4 | 3.33  | 38       | 100.4 | -16.11 | 3        | 37.4  |        |          |       |
| 22.22 | 72       | 161.6 | 2.78  | 37       | 98.6  | -16.67 | 2        | 35.6  |        |          |       |
| 21.67 | 71       | 159.8 | 2.22  | 36       | 96.8  | -17.22 | 1        | 33.8  |        |          |       |
| 21.11 | 70       | 158.0 | 1.67  | 35       | 95.0  | -17.78 | 0        | 32.0  |        |          |       |
| 20.56 | 69       | 156.2 | 1.11  | 34       | 93.2  | -18.33 | -1       | 30.2  |        |          |       |
| 20.00 | 68       | 154.4 | 0.56  | 33       | 91.4  | -18.89 | -2       | 28.4  |        |          |       |
| 19.44 | 67       | 152.6 | 0.00  | 32       | 89.6  | -19.44 | -3       | 26.6  |        |          |       |
| 18.89 | 66       | 150.8 | -0.56 | 31       | 87.8  | -20.00 | -4       | 24.8  |        |          |       |



## APPENDIX

AMS maintains an extensive warehouse of finished product and will usually be able to ship orders within 24 hours of receipt. Prices shown in this price list are for American Falls, Idaho. Products are shipped UPS or Federal Express and the freight is pre-paid and added to the invoice. Orders received from Idaho will have 6% sales tax added to the invoice. Terms of sale are check in advance, Visa, MasterCard, or American Express. C.O.D. is also available. An account over 30 days will be charged 1 3/4% per month on any unpaid balance, (21% per annum) with a minimum of \$ 5.00 per month finance charge. Products net weights are shown in pounds. Prices and products shown in this price list are subject to change without notice. Unused products returned to AMS for credit will be subject to a 15% re-stocking fee.

AMS takes every precaution to ensure safe delivery, but AMS does not guarantee safe delivery as our responsibility ends when shipments are turned over to the carrier. The responsibility of damage in transit is the carriers, whether it be visible or concealed. Inspect shipments immediately and insist that visible damages be indicated on your copy of the freight bill. Open shipments immediately and inspect them for concealed damage. In case of damage, notify the delivering carrier immediately, requesting that an inspection be made. Confirm all telephone requests in writing and keep records. You, our customer, must make all claims for damage immediately to the carrier.

### Rental Policies

Renting has become a popular alternative to purchasing equipment because it gives our customers with seasonal business or special circumstances more flexibility. The majority of AMS hand sampling equipment is available for rent. Any expendable items that are to be used with the rented products must be purchased. Contact AMS for more information and details on availability.

### New Products

After nearly 70 years, we at AMS continue to focus on providing our customers with the highest quality sampling equipment on the market. Our new professional line of manual augering and sampling equipment as well as the new 9570-VTR PowerProbe™ are perfect examples of our dedication to improvement and to you, our valued customers.

The new professional series hand augers, core samplers, and sampling kit were designed around the specific needs and preferences of today's soil sampling professional. They feature the robust AMS 3/4in thread, and they are generally stronger and more durable than other augers and samplers. For details, see pages 4-5, 15, 21, 41, 58, respectively.

The new 9570-VTR PowerProbe™ has a load of new features, including more push, more pull, and more power. See pages 96 - 97 for details.

### Price Changes

Every effort has been made to accurate pricing for 2017. However, due to the volatility of the marketplace and the associated impact on raw material costs as well as exchange rate fluctuations, we reserve the right to change catalog prices at any time without notice. As AMS is committed to customer service we will do everything we can to announce changes, and current pricing will be available on our website.

### Limited warranty for hand sampling equipment

- Products manufactured by AMS, Inc. (Art's Manufacturing & Supply, Inc., American Falls, ID) are warranted, under normal and intended use, to be free of defects in material or workmanship for a period of thirty (30) days from the date of purchase under the following conditions:
- Warranty is limited to the repair or replacement of part or parts, which are determined to be defective through inspection and evaluation at AMS by AMS staff or a representative designated by AMS. Additionally, this warranty is rendered null and void if the product is found to have been damaged due to misuse or has come in contact with any unforeseen obstacles in the field that the equipment was not intended to handle, i.e.: boulders, foundations, etc.
- Should you experience a problem or have a concern regarding your AMS PowerProbe™ tooling please contact us. Our staff are dedicated and experienced and will do everything possible to answer your concerns.
- Shipping to and from AMS, American Falls, ID, of all products returned for repair and/or replacement will be the responsibility of the Buyer unless the Buyer and AMS otherwise agree in writing. Any travel expenses for service visits by AMS personnel or their designated representative will be the responsibility of the Buyer. An unauthorized repair or alteration of equipment will void this warranty in its entirety.
- All equipment returned to AMS, Inc. must be certified free of contamination. A written statement certifying decontamination must accompany such equipment. If it is determined that the Buyer's equipment is contaminated, it will be returned to the Buyer at the Buyer's expense and the Buyer will be responsible for any damages that AMS may incur. Any expense incurred by AMS for decontamination or inspection is the responsibility of the Buyer. Contaminated equipment will not be repaired, replaced or covered under any warranty until such time that the said equipment is decontaminated by the Buyer.
- Equipment sold by, but not manufactured by AMS, is covered by each individual manufacturer and is not covered under its AMS warranty. In no event or circumstance will AMS, Inc., or its representative be liable for injury, damage, or loss, direct or consequential, incidental, indirect, punitive or special, arising out of the use or inability to use equipment sold by AMS, Inc. All liability and risk is assumed by the Buyer from the time of delivery. The Buyer will be solely responsible for used and suitability of equipment for intended use.



## APPENDIX

### Limited warranty for AMS PowerProbe™ equipment

AMS manufactured PowerProbe™ tooling is warranted for 45 days from date of purchase to be free from defects in material and workmanship. Breakage, deformation and surface damage are excluded as these items are normally subjected to use at or near their limits of durability. This breakage or damage is usually not an indication that the tool is defective.

Should you experience a problem or have a concern regarding your AMS PowerProbe™ tooling please contact us. Our staff are dedicated and experienced and will do everything possible to answer your concerns.

Items returned to AMS must be accompanied by a statement certifying that they have been fully decontaminated. This is to ensure that no site contamination is transported illegally or enters the AMS manufacturing facility.

AMS maintains an extensive inventory of new and service replacement parts. These are available to provide rapid response to our customers. Our normal policy is to ship and charge for these items pending return of warranty claim items. AMS retains sole jurisdiction on the validity of all warranty items returned to them.

The AMS service replacement program is designed to keep our customers working with minimal delay. We do, however, reserve the right to change specifications and design at any time to accommodate improvements or changes outside AMS control.

AMS will always provide the best service they can. However, they cannot be held responsible for delays resulting from strikes, accidents, carrier negligence, and other causes beyond their control.

Prices shown in this brochure are FOB American Falls, Idaho, USA. Prices subject to change without prior notice. Products are usually shipped UPS or FedEx and the freight is added to the invoice. Orders placed in Idaho will have a 6% sales tax added. Terms of sale are check in advance, Visa, MasterCard, or American Express. Open account terms are available after account verification.

Unused products returned to AMS require pre-approval by AMS technical support. They are subject to a 15% re-stocking charge and must be shipped to AMS prepaid.

AMS does not guarantee safe delivery. The responsibility for damage in transit is the carriers, whether it be visible or concealed. Inspect shipments immediately and insist that visible damage be indicated on your copy of the freight bill or delivery document. Open shipments immediately and inspect them for concealed damage. In case of damage please report this immediately to the delivering carrier and request an inspection. Confirm all requests in writing and keep your records updated. AMS responsibility ceased when the shipment was handed over to the carrier. You, our customer, must make all claims for damage immediately to the carrier.

Training in the safe and effective use of the PowerProbe™ is normally provided free of charge at the time of delivery, at the AMS facility in American Falls, Idaho. This training will include the safe use of the tooling to collect samples of soils, soil gas and groundwater. On site training is also available, by arrangement, for a reasonable charge. AMS technical support staff attend many national conventions and trade exhibits, see [www.ams-samplers.com](http://www.ams-samplers.com) for details.

The AMS Technical Support Library has available Standard Operating Procedure Manuals as well as CD's. In addition, the following consensus ASTM Standards may be consulted for advice on the use of direct push and hollow stem auger techniques for environmental and/or geotechnical site assessment:

D 6282 Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations.

D 6001 Standard Guide for Direct-Push Water Sampling for Geoenvironmental Investigations.

D 5784 Standard Guide for Use of Hollow-Stem Augers for Geoenvironmental Exploration and the Installation of Subsurface Water – Quality Monitoring Devices.

D 6724 Standard Guide for Installation of Direct Push Ground Water Monitoring Wells.

D 6725 Practice for Direct Push Installation of Prepacked Screen Monitoring Wells in Unconsolidated Aquifers.

D 1586 Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils.

ASTM Standards may be purchased through ASTM International at [www.astm.org](http://www.astm.org).

### Miscellaneous

The terms and conditions hereof and any litigation hereunder shall be construed according to the laws and venue of the State of Idaho, USA. No waiver by either party or breach of any of the terms and conditions herein contained shall be construed as a waiver of any succeeding breach of the same or any other term and condition hereof. This document shall constitute the full understanding of the parties. Neither party shall claim any modification, limitation, or release from any of the terms or conditions contained herein except by mutual agreement to that effect in writing and signed by the parties to be bound.





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