



# AIRSPADE®

Innovation  
in the air.

Pneumatic  
Soil Excavation

[airspade.com](http://airspade.com)



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Always wear eye and ear protection when operating air tools and related equipment.



# 2000 Series

Today, thousands of AirSpade 2000s are used in arboriculture, construction, and specialty applications worldwide. AirSpade 2000 is the tool of choice due to its fast, easy and non-destructive method of excavation.

## TYPICAL APPLICATIONS

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Arboriculture & Horticulture



Construction



Trench Rescue



De-mining



Environmental Remediation



## Features

- Ergonomic, pistol-grip style handle with soft rubber grip
- Comfortable, dead-man trigger
- Air pressure gauge
- Lightweight, fiberglass barrel with adjustable dirt shield
- Extra-hardened, stainless steel Supersonic Nozzle
- Inlet: 3/4" FNPT
- Universal Swivel Coupling

## AirSpade 2000

Harnessing the power of compressed air, AirSpade 2000 uncovers underground objects including tree roots and utility lines without harm. Features the AirSpade proprietary, high-performance Supersonic Nozzle. Ideal for sensitive aboreal work including vertical mulching, ball-rooting, radial trenching, and soil aeration. Rugged, lightweight construction. Dead-man trigger ensures safe operation. Non-conductive, fiberglass barrel provides degree of protection from buried electrical lines. Made in USA.

Part Number	Extension Length (ft)	Soil Excavation Rate (cubic ft/min)	Flow (cfm)	Recommended Compressor Size	Weight (lbs)
HT140	4	0.4 - 0.9	25	25 cfm	6.9
HT144	2	0.7 - 1.1	60	60 cfm	5.9
HT134	4	0.7 - 1.1	60	60 cfm	6.9
HT139	4	0.9 - 1.5	105	125 cfm	7.2
HT116	3	1.2 - 1.8	150	185 cfm	6.7
HT130	4	1.2 - 1.8	150	185 cfm	7
HT138	4	1.7 - 2.3	225	250 cfm	7.4

**See website for full specifications**



# Arbor/Landscape Kit

Kit includes the most popular components and accessories utilized by arborists and landscapers. Features the powerful AirSpade 2000 air-excavation tool equipped with proprietary Supersonic Nozzle for superior digging performance. Ideal for sensitive arboreal work including vertical mulching, bare rooting, radial trenching, and soil aeration. Rugged, lightweight construction. Dead-man trigger ensures safe operation. Non-conductive, fiberglass barrel provides degree of protection from buried electrical lines. Made in USA.

Part Number	Model / Description	Recommended Compressor Size
HT142	Arbor/Landscape Kit with 105 cfm nozzle	125 cfm
HT107	Arbor/Landscape Kit with 150 cfm nozzle	185 cfm
HT109	Arbor/Landscape Kit with 225 cfm nozzle	250 cfm

**See website for full specifications**

## Features

- AirSpade 2000 handle with Universal Swivel Coupling
- 4 ft barrel with adjustable dirt shield
- 45° angled adapter
- 105, 150, or 225 cfm Supersonic Nozzle
- 1" ID x 10' lightweight air hose with Universal Couplings
- Heavy-duty locking storage case

Trench Rescue Kit



Construction Kit



## Trench Rescue/Construction Kits

Kits includes the most popular components and accessories utilized by construction and trench rescue crews. Features the powerful AirSpade 2000 air-excitation tool equipped with proprietary Supersonic Nozzle for superior digging performance. Ideal for sensitive excavation work including trenching, utility locating, and trench rescue. Rugged, lightweight construction. Dead-man trigger ensures safe operation. Non-conductive, fiberglass barrel provides degree of protection from buried electrical lines. Made in USA.

Part Number	Model / Description	Recommended Compressor Size
HT108	Trench Rescue Kit with 60 and 150 cfm nozzles	60/185 cfm
HT114	Construction Kit with 105 cfm nozzle	125 cfm
HT106	Construction Kit with 150 cfm nozzle	185 cfm
HT102	Construction Kit with 225 cfm nozzle	250 cfm

**See website for full specifications**

### Features

- AirSpade 2000 handle with Universal Swivel Coupling
- 4 ft barrel with adjustable dirt shield
- 3' extension and coupler (Construction Kit only)
- 45° angled adapter
- 60, 105, 150, or 225 cfm supersonic nozzle
- 1" ID x 10' lightweight air hose with Universal Couplings
- Heavy-duty locking storage case





# 3000 Series

The most powerful, compressed air-powered, excavation tool available on the market today. Delivering 330 cfm, the AirSpade 3000 provides unprecedented performance in heavy-duty arboriculture, utility, and construction applications.

## TYPICAL APPLICATIONS

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Arboriculture &  
Horticulture



Utility & Construction



## AirSpade 3000

AirSpade 3000 is the most powerful air excavation tool available on the market today. Featuring the proprietary Supersonic Nozzle, the rugged, heavy-duty AirSpade 3000 is the tool of choice to move maximum dirt in the minimum amount of time. Dead man trigger ensures safe operation. Non-conductive, fiberglass barrel provides degree of protection from buried electrical lines. Made in USA.

Part Number	Extension Length (ft)	Soil Excavation Rate (cubic ft/min)	Flow (cfm)	Recommended Compressor Size	Weight (lbs)
LT3000	5	2.4 - 3.0	330	355 cfm	15

**See website for full specifications**

### Features

- In-line style handle with soft rubber grip
- Dead-man trigger
- Non-conductive 5ft fiberglass barrel
- Adjustable dirt shield
- Extra-hardened, stainless steel 330 cfm Supersonic Nozzle
- Inlet: 1 1/4" NPT (Male)
- 4-Claw Universal Coupling





# 4000 Series

Featuring a high-dielectric, insulated barrel with non-sparking bronze components, the Utility AirSpade 4000 is the tool of choice when working around underground gas, electric, water and telecommunication lines.

## TYPICAL APPLICATIONS

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Electric Power Lines



Gas Pipes



Water & Sewer Lines



Telecommunication Lines



## Utility AirSpade 4000

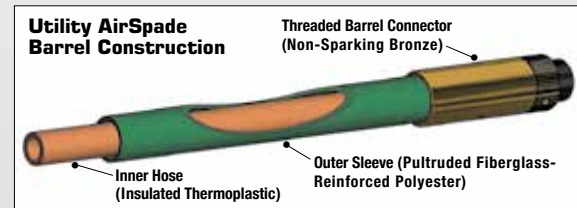
Setting a new standard for air excavation tools, the Utility AirSpade 4000 harnesses the power of compressed air to safely uncover underground utility lines without harm. AirSpade's high-performance, proprietary Supersonic Nozzle generates a laser-like jet that moves at twice the speed of sound for fast, effective digging. With a non-sparking bronze nozzle and components, electrically insulated, 4 ft barrel and a lightweight, ergonomic handle, the Utility AirSpade 4000 maximizes jobsite safety while minimizing operator fatigue. Aluminum handle features full-size grip opening to accommodate linesman gloves. Dead-man trigger ensures safe operation and trigger guard prevents accidental activation. Retractable stabilizer bar provides superior operator control. Integral pressure gauge ensures optimal digging performance. Made in USA

Part Number	Extension Length (ft)	Soil Excavation Rate (cubic ft/min)	Flow (cfm)	Recommended Compressor Size	Weight (lbs)
ASU4105G4	4	0.9 - 1.5	105	125 cfm	10.3
ASU4150G4	4	1.2 - 1.8	150	185 cfm	10.3
ASU4225G4	4	1.7 - 2.3	225	250 cfm	10.3

See website for full specifications

### Features

- Heavy-duty handle with insulated grip and stabilizer bar
- Integral air-pressure gauge
- Electrically insulated, 4' fiberglass barrel rated up to 75kV per ft
- Non-sparking bronze barrel sleeves and threaded connectors
- Adjustable dirt shield
- Non-sparking, bronze Supersonic Nozzle; 105, 150, or 225 cfm
- Inlet: 3/4" FNPT
- Universal Swivel Coupling





## Utility AirSpade 4000 Kit

Kit includes the most popular components and accessories utilized by utility workers. Features the powerful Utility AirSpade 4000 air-excavation tool equipped with proprietary, non-sparking bronze Supersonic Nozzle for superior digging performance. Rugged, lightweight ergonomic handle with retractable stabilizer bar features dead-man trigger for comfortable, safe operation. Insulated, 4 ft. fiberglass barrel, rated up to 75kV per ft., provides protection from buried electrical lines. Heavy-duty locking storage case. Made in USA.

Part Number	Model / Description	Recommended Compressor Size
ASU4105KT	Utility AirSpade 4000 Kit with 105 cfm nozzle	125 cfm
ASU4150KT	Utility AirSpade 4000 Kit with 150 cfm nozzle	185 cfm
ASU4225KT	Utility AirSpade 4000 Kit with 225 cfm nozzle	250 cfm

**See website for full specifications**

### Features

- Utility AirSpade handle assembly with Universal Swivel Coupling
- 4 ft. insulated barrel with adjustable dirt shield
- 3 ft. insulated extension with non-sparking bronze, threaded connectors
- 45 degree non-sparking bronze angled adapter
- 105, 150, or 225 cfm non-sparking bronze Supersonic Nozzle
- 1" ID x 10 ft. lightweight air hose with Universal Couplings
- Heavy-duty locking storage case



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# AirVac

Powered by compressed air, AirVac is the cost-effective mobile alternative to large, expensive vacuum trucks.

## TYPICAL APPLICATIONS

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- Utility potholing
- Manhole and valve clean-out
- Utility pole soil excavation
- Meter box cleaning
- Uncovering splice locations
- Surface drain inlet clean-out
- Contaminated soil removal
- Demolition debris cleanup
- Sludge and mud removal



## AirVac

Designed to run off a standard, 185 cfm tow-behind air compressor, the AirVac features a powerful multi-stage venturi vacuum engine with no motors or moving parts to wear out. Effectively vacuums up to 2 cubic ft/min of spoils including dirt, sand, gravel, mulch and muck. Boasts an 11 cubic ft. (82 gallon) tank with extra-wide dump door for ease of backfilling. Washable exhaust filter bag captures dust and eliminates need for internal filter. Rugged 15" pneumatic tires provide superior maneuverability. Featuring all aluminum construction and heavy-duty side rails, loading the AirVac onto the bed of a pickup truck is an easy task. Made in USA.

Part Number	Vacuum Flow (cfm)	Vacuum Lift (in H2O)	Recommended Compressor Size	Dimensions (L" x W" x H")	Weight (lbs)
AVU16540	750	262	185 cfm	79 x 38 x 61.5	218

**See website for full specifications**

### Features

- Heavy-duty, aluminum 11 cubic ft (82 gallon) capacity tank
- Removable, venturi vacuum engine assembly
- Washable exhaust filter bag
- 15" diameter pneumatic tires
- Air supply pressure gauge
- 3/4" FNPT compressed air inlet with Universal Coupling
- 4" ID x 15 ft heavy-duty, lightweight vacuum hose
- 4" ID x 4 ft clear plastic vacuum wand



# Accessories

- Extensions
- Barrels
- Hoses
- Cases
- Angled Adapters





## 2000 Series Extensions

Heavy-duty extensions for AirSpade 2000. Includes male, female threaded connectors. Non-conductive barrel provides degree of protection from buried electrical lines. Male/female threaded connectors.

Part #	Size
HT122	2 ft
HT121	3 ft
HT154	4 ft
HT120	5 ft



## 2000 Series Barrels

Heavy-duty fiberglass barrels for AirSpade 2000. Adjustable dirt shield protects operator from flying debris. Non-conductive design provides degree of protection from buried electrical lines. Male/male threaded connectors.

Part #	Size
HT148	2 ft
HT131	3 ft
HT118	4 ft



## 3000 Series Extension

Heavy-duty, extension for AirSpade 3000. Non-conductive barrel provides degree of protection from buried electrical lines. Male/female threaded connectors.

Part #	Size
LT17	5 ft



## 4000 Series Barrels

Heavy-duty, 4' barrel with adjustable dirt shield featuring, insulated inner air hose surrounded by non-conductive, fiberglass outer tube. Inner air hose rated to 75kV per ft. for 5 minutes per SAE 100R7. Outer fiberglass tube rated to 100kV per ft. for 5 minutes per ASTM F711. Male/male, non-sparking bronze threaded connectors. **ASU4004BD**



## 4000 Series Extensions

Heavy-duty extension featuring insulated inner air hose surrounded by non-conductive, rigid fiberglass outer tube. Inner air hose rated to 75kV per ft for 5 minutes per SAE 100R7. Outer fiberglass tube rated to 100kV per ft for 5 minutes per ASTM F711. Male/female, non-sparking bronze threaded connectors.

Part #	Size
ASU4002EX	2 ft
ASU4003EX	3 ft
ASU4004EX	4 ft
ASU4005EX	5 ft



### Storage Case

Rugged, watertight, locking storage case. Designed to hold the AirSpade 2000, AirSpade 4000, and components. **HT132**



### 2000 Series 45 Degree Angled Adapter

Redirects the output of the AirSpade Supersonic Nozzle by 45 degrees. Especially useful in tight locations such as deep excavations or potholes. Swivels with 360 degrees of freedom and locks in desired position. Male/female threads. **HT119**



### Face Shield

Impact resistant face shield provides full-face protection when working with air-excavation tools. Meets ANSI Z87+ standards. Adjusts for comfortable fit. **HT136**



### 4000 Series 45 Degree Angled Adapter

Redirects the output of the AirSpade Supersonic Nozzle by 45 degrees. Especially useful in tight locations such as deep excavations or potholes. Swivels with 360 degrees of freedom and locks into desired position. Non-sparking bronze construction. Male/female threads. **ASU4045AA**



### Auxiliary Handle

Provides convenient two-handed operation for AirSpade 2000. Swivels and clamps in any desired position. **HT180**



### Lightweight Air Hose

Superior alternative to standard air hose. Ultra lightweight design reduces worker fatigue. Stores flat. 1" ID, high-visibility safety yellow. Pre-mounted Universal Couplings.

Part #	Length
HT57	10 ft
HT111	25 ft
HT112	50 ft



### Standard Air Hose

Tough, heavy-duty rubber, abrasion and ozone resistant, general service air hose. Type "A" construction. 1" ID, red. Pre-mounted Universal Couplings.

Part #	Size
HT113	50 ft

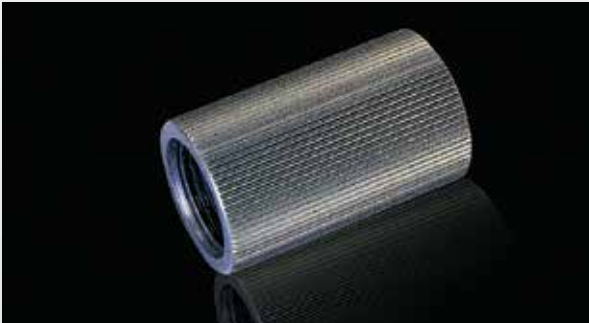
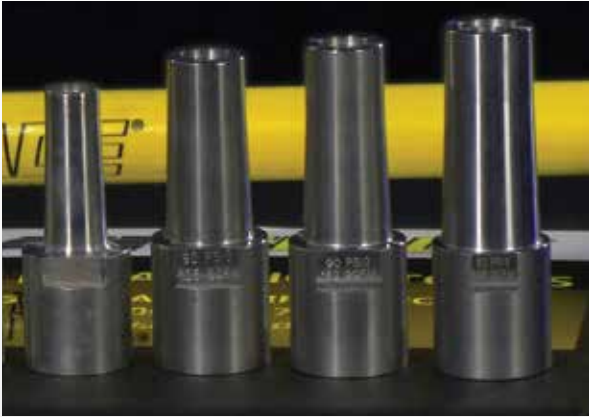


### Safety Cable

Provides positive attachment of air hose to AirSpade in case of inadvertent disconnect. Spring loaded loop for easy installation. **500A04**

# Replacement Parts

- Nozzles • Handles • Repair Kits





## 2000 Series Supersonic Nozzles

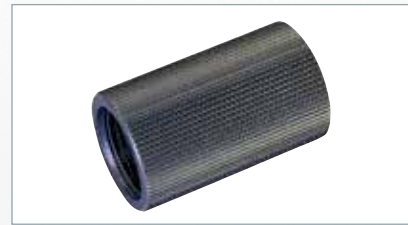
Proprietary design turns compressed air into high speed, laser like jet moving at Mach 2. Mounts on AirSpade 2000 barrel.

Part #	Nozzle
HT126	25 cfm
HT125	60 cfm
HT156	105 cfm
HT123	150 cfm
HT127	225 cfm



## Adjustable Dirt Shield

Adjustable dirt shield protects operator from flying debris. Sliding collet locks dirt shield into desired position. Fits AirSpade 2000 and 4000 barrels and extensions. **HT133**



## 2000 Series Coupler

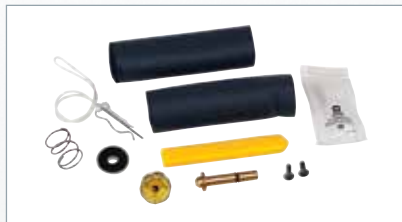
Provides secure connection between AirSpade 2000 barrels and extensions. Female/female threads. **HT155**





## 2000 Series Handle Assembly

Handle assembly for AirSpade 2000. Comfortable, ergonomic design provides superior grip. Rugged, lightweight aluminum construction. Dead-man trigger ensures safe operation. Includes Universal Swivel Coupling. **HT117**



## 2000 Series Handle Repair Kit

Provides all of the parts necessary to maintain and/or repair the AirSpade 2000 handle.

### **HT150**

For AirSpades purchased before March 2011.

### **HT150-1**

For AirSpades purchased after March 2011 & before 2020.

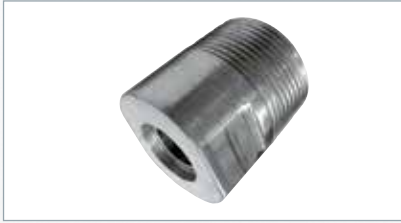
### **HT150-2**

For AirSpades purchased after 2020.



## AirSpade 2000 Valve Seal 3 Pack

Three replacement valve seals for AirSpade 2000 and 4000 series handles. **HT66**



### 3000 Series Supersonic Nozzle

Proprietary design turns compressed air into high speed, laser like jet moving at Mach 2. Mounts on standard AirSpade 3000 barrel. 330 cfm. Male threads. **LT24**



### 3000 Series Handle Assembly

Handle assembly for AirSpade 3000. Inline handle provides superior grip. Rugged, aluminum/steel construction. Dead-man trigger ensures safe operation. 4-Claw Universal Coupling. **LT03**



### 4000 Series Supersonic Nozzle

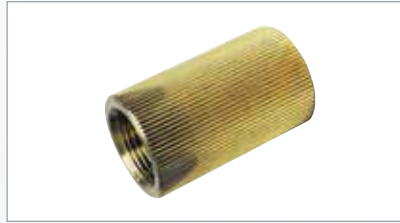
Supersonic Nozzle turns compressed air into high speed, laser-like jet moving at Mach 2. Non-sparking bronze. Female threads.

Part #	Nozzle
ASU4105NZ	105 cfm
ASU4150NZ	150 cfm
ASU4225NZ	225 cfm



### 4000 Series Handle Repair Kit

Provides all of the parts necessary to maintain and/or repair the Utility AirSpade 4000 handle. **ASU4000HR**



### 4000 Series Coupler

Non-sparking bronze coupler provides secure connection between AirSpade 4000 barrels and extensions. Female/female threads. **ASU4000CP**



### 4000 Series Handle Assembly

Rugged, lightweight aluminum body and ergonomic grip minimizes fatigue. Full size grip opening accommodates linesman gloves. Dead-man trigger ensures safe operation. Trigger guard prevents accidental activation. Retractable stabilizer bar provides superior operator control. Universal Swivel Coupling. **ASU4000HA**



### Universal Swivel Coupling

Chicago, "Air King" style swivel coupling provides a quick and safe method to connect air hose to air tools. Free-turning joint swivels 360° to prevent hose kinking. Claws insure positive connection. 3/4" NPT (Male) inlet. **34SAKM05**



### AirVac Vacuum Hose

Rugged, flexible 4" ID x 15 ft vacuum hose provides the ideal combination of lightweight, flexibility, and durability. Smooth internal wall for increased airflow. Transparent construction allows for visual confirmation of material flow. Includes hose clamps.

**AVH4015LW**



### AirVac Exhaust Filter Bag

Washable exhaust filter bag. Filters dust particles from vacuum exhaust airstream. Includes hose clamp.

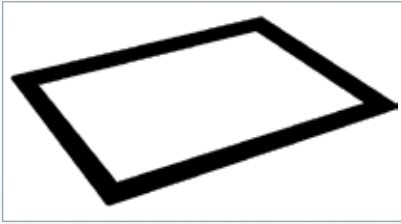
**AV165EB**



### AirVac Vacuum Wand

Rigid, clear plastic, 4" OD x 4 ft vacuum wand. Length can be trimmed for custom applications. Attaches to vacuum hose via standard hose clamps (not included).

**AVW4005**



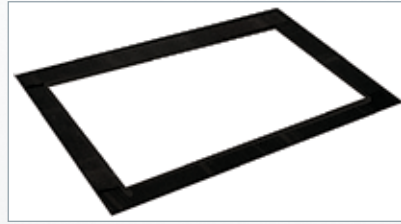
### **AirVac Dump Door Gasket**

Creates an airtight seal between dump door and tank to keep your AirVac running at full potential. **AV165DG**



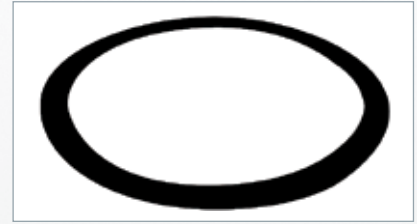
### **AirVac Venturi Engine Valve Assembly**

Valve assembly for AirVac multi-stage, venturi engine. **AV165VA**



### **AirVac Engine Gasket**

Replacement engine gasket for AirVac. Creates an airtight seal between engine assembly and lid to keep your AirVac running at full potential. **AV165EG**



### **Lid Gasket**

Creates an airtight seal between lid and tank to keep your AirVac running at full potential. **AV165LG**









# FAQs

## GENERAL

### **How can I purchase AirSpade products?**

AirSpade products can be purchased direct or through our distributors. Contact our Customer Service Department, via email at [info@guardaircorp.com](mailto:info@guardaircorp.com), or via fax at (413) 594-4884. A list of AirSpade distributors can be found on the Where To Buy section of the AirSpade website [airspade.com](http://airspade.com). You can also buy direct at [airspade.com](http://airspade.com).

### **How do I obtain current product pricing and availability?**

Product pricing and availability can be obtained by contacting the AirSpade Customer Service Department or on our [airspade.com](http://airspade.com) website.

### **How can I obtain current AirSpade product literature?**

Product literature can be viewed or downloaded via the Product Literature section of the [airspade.com](http://airspade.com) website.

## TECHNICAL

### How does AirSpade work?

The patented supersonic nozzle in the AirSpade turns compressed air into a high-speed, laser-like jet moving at twice the speed of sound; Mach 2. All of the energy and momentum of this air moving at approximately 1,200 mph is focused on the soil, dislodging it in a fraction of a second. Soil is an unconsolidated assemblage of solid particles that may or may not contain organic matter. The voids between the particles are occupied by air and/or water. The aggregate nature of soil aids the ability of the compressed air to fracture it; while stronger materials and ones that are not porous like metal or plastic pipes, cables, or even tree roots remain unaffected.

### What size air compressor do I need to properly run my AirSpade?

Tow-behind air compressors typically have model numbers that nominally describe their air capacity measured in cubic feet per minute (cfm) at a pressure of 100 pounds per square inch (psi). For example, a "185 compressor" delivers 185 cfm at 100 psi. AirSpade nozzles are designed to optimally operate at 90 psi and are designated by the volume of air delivered at 90 psi. Six nozzle sizes are available to cover the size range of most tow-behind compressors.

#### Recommended Compressor Size

Nozzle Size (scfm)	Minimum Compressor Size (scfm @ 100 psig)
25	25
60	60
105	125
150	185
225	250
330	355

## Will adjusting my compressor to deliver a higher pressure make the AirSpade work better?

No. AirSpade nozzles are designed to operate optimally at 90 psi. Supplying higher pressure to a supersonic nozzle that has been optimized for 90 psi actually defocuses the air-jet, thus degrading performance while dramatically increasing air consumption.

## What size air hose do I need for my AirSpade?

Compressed air flowing through a hose experiences a pressure loss from constrictions and friction proportional to the length of the hose. Air volume, operating pressure, hose ID and smoothness also determine the loss. For more information on air hose pressure loss visit our website. Generally speaking, air hose of at least 1" ID is recommended for most AirSpade applications. The AirSpade 3000 requires a minimum air hose ID of 1.25". To ensure satisfactory digging performance, air hose can always be sized larger than required, but not smaller.

		<b>Pressure Loss (psig)</b>				
		Air Flow/Nozzle Size (scfm)				
		25	60	105	150	225
Hose ID	3/4"	0.3	1.6	5.6	12.3	25.0
	1"	0.1	0.4	1.3	2.8	5.5
	1 1/4"	0.0	0.1	0.4	0.8	2.0

## What about connectors and fittings?

Be sure that fittings and/or connectors do not restrict the air flow in any manner. Use fittings that are rated the same size, or larger, for a given air line size. We recommend the use of Chicago style "Air King" fittings, used in conjunction with safety pins.

## In what types of soils does AirSpade work?

Because of its unique, focused air-jet, the AirSpade is effective in virtually all soils and even hard clays. In general, the AirSpade will not cut through rock. However, shale may be broken apart by the AirSpade if the jet is directed between the laminations of the rock. Similarly, the AirSpade will not dislodge hard, frozen soil that tends to behave like pavement or concrete.

## Can I use the AirSpade for digging in clay?

Tests show the AirSpade to be effective in compacted soils with unconfined compressive strengths well above the values listed for hard clay.

## What is the best way to dig with the AirSpade?

The AirSpade effectively digs up to several inches deep in medium to stiff soil. Unless the soil is highly compacted, dwelling on the same spot is unnecessary and tends to increase spray. Ideally, the AirSpade should be moved over the soil surface at a rate of about 1' to 2' per second. When several inches of soil have been loosened, the soil should be removed to expose a fresh working face for the air jet. Watering the work area ahead of time can sometimes be helpful. Water reduces soil strength thus making digging easier. Water also reduces airborne dust if the soil is extremely dry. Combining the use of the AirSpade with a low-pressure water source (garden hose) can aid the excavation of highly compacted or sun-baked soils.

## What size AirSpade nozzle should I use?

This depends on soil classification and the desired rate of soil excavation. Typical soil excavation rates can be expected for various AirSpade nozzle sizes.

### Soil Excavation Rates

Nozzle Size (scfm)	Soil Excavation Rates (cubic ft/ min)
25	0.4 to 0.9
60	0.7 to 1.1
105	0.9 to 1.5
150	1.2 to 1.8
225	1.7 to 2.3
330	2.4 to 3.0

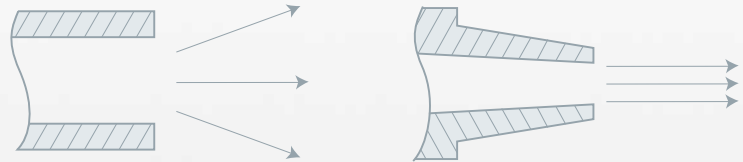
## What are the advantages of digging with AirSpade versus hydro-excavation?

- Dangerous, high-pressure water can easily cut through clothes or work boots.
- High-pressure water can cut through plastic electric or gas lines and/or damage pipe coatings.
- Water increases the volume and weight of soils slated for disposal.
- Mud around job site, provides poor footing, is messy to contain, and often results in wet worker clothing.
- Mud generated from hydro excavation, when dumped onto a given area and dried, does not blend-in, necessitating secondary operations.
- Water often undermines areas adjacent to the excavation.
- Water is heavy, bulky and poses transportation and storage issues.



## Supersonic Nozzle

AirSpade's proprietary Supersonic Nozzle turns compressed air into a high-speed, laser-like jet moving at twice the speed of sound – Mach 2. All of the energy and momentum of air moving at approximately 1,200 mph is focused into the soil – dislodging it in a fraction of a second.



**Unfocused air flow from improperly designed nozzle.**

**Focused air flow from AirSpade Supersonic Nozzle.**

Air exiting from an improperly designed nozzle diffuses outward rapidly to 3 to 4 times the area versus the focused air-jet from the AirSpade Supersonic Nozzle. The result is faster, safer, more efficient soil excavation.

NOTES:

- 1. SPACING, WIDTH AND DEPTH OF CERTIFIED AIRSPADE BASED ON SOIL AUGMENTATION SHOULD BE HEALTH CARE NEEDS. ACTUAL ILLS BASED ON FIELD CONDITIONS. THE FOLLOWING PRIMARY LEADER:
- 2. ALL WORK TO BE DONE UNDER THE SUPERVISION OF CERTIFIED ARBORIST OR APPROVED CONTRACTOR. ENSURE THAT TREES ARE IN GOOD HEALTH AND NOT UNUSUAL STRESS PRIOR TO COMMENCING WORK.
- 3. USE THE C.O.C.
- 4. NEAR FIELD CAPACITY, BUT NOT SATURATED, AND PASS A FIELD MOISTURE TEST PRIOR TO USE OF AN AIRSPADE. HAND WATER TREES AS NECESSARY BEFORE COMMENCEMENT OF WORK AND WITHIN 24 HOURS OF COMPLETION. COVER BARE ROOTS AND WATER AS NECESSARY.

# Download your FREE Technical Applications Guide

Learn the ins and outs of utilizing AirSpade for arbor and utility applications.

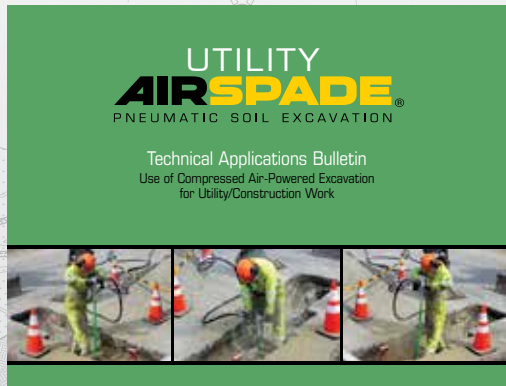
COMPLETION OF WORK.

6. CALL 911 OR CONTACT THE APPROPRIATE LOCAL AGENCIES TO LOCATE EXISTING UTILITIES PRIOR TO ANY EXCAVATION. PROTECT EXISTING UTILITIES THROUGHOUT THE CONSTRUCTION PROCESS AND REPAIR ANY DAMAGE TO THESE AT NO COST TO THE OWNER.

7. USE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ALSO SEE MANUFACTURER'S GUIDE FOR PROPER SAFETY AND OPERATION.

PLAN - DRIPLINE -30' @ N.T.S.

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AXONOMETRIC  
 RADIAL TRENCHING W/  
 1/4" x 1/4"