

SAND SPEARS

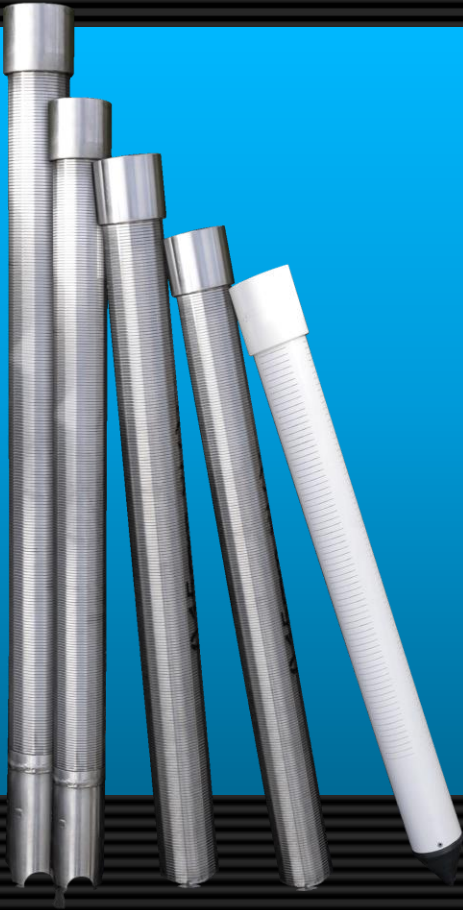
Wash In or Jetting



Delivering Sand
Spear Solutions



Wash In Method

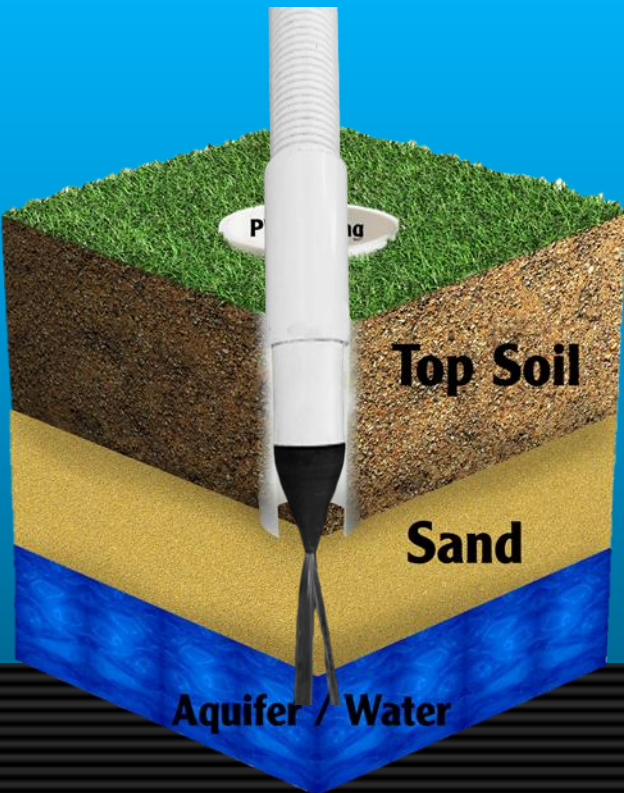


Drilling methods
and Installation
of a sand spear



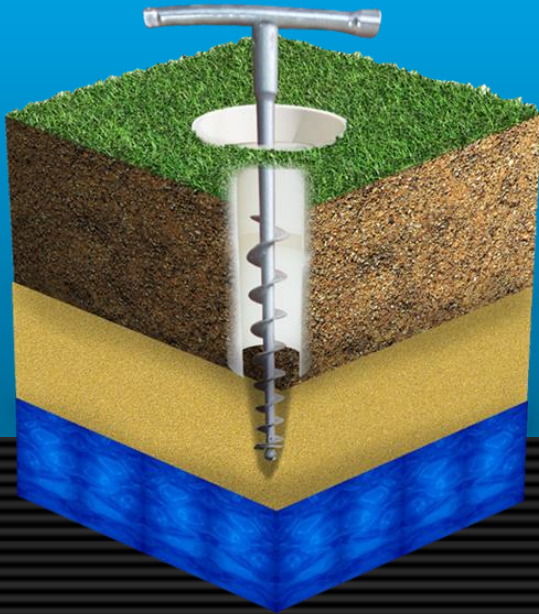
Principle Of

Wash In Method

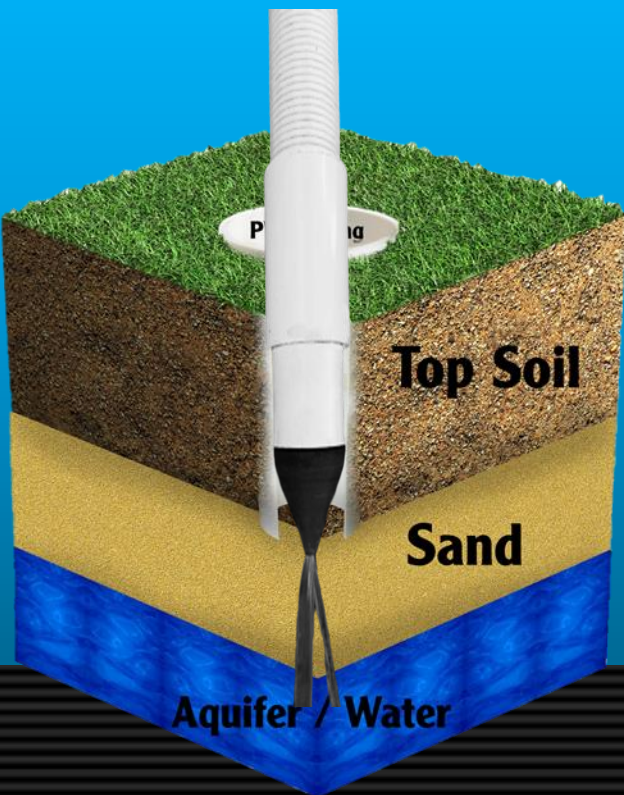


Principle Of

**The Top soil has to be
removed by a
mechanical method**



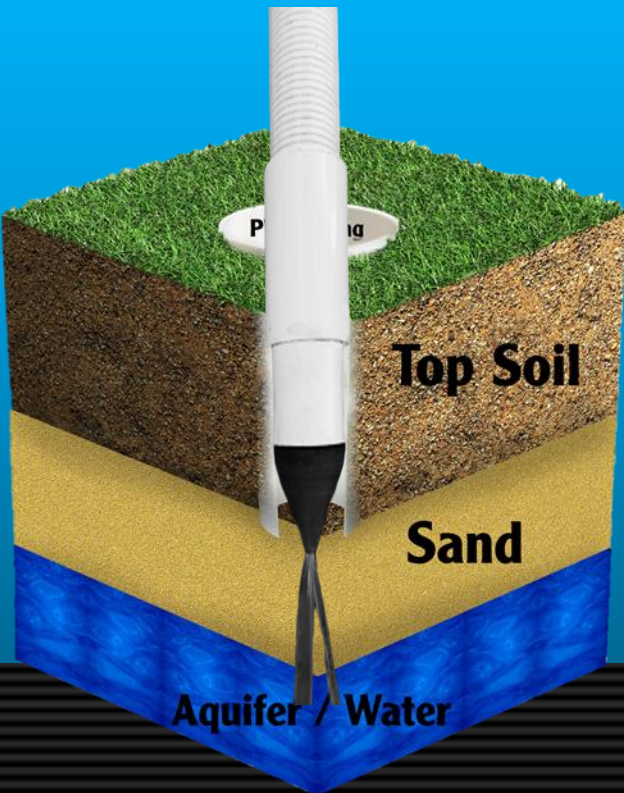
Principle Of



Once past that point the sand spear can be pushed into the ground by using High pressure water



Principle Of

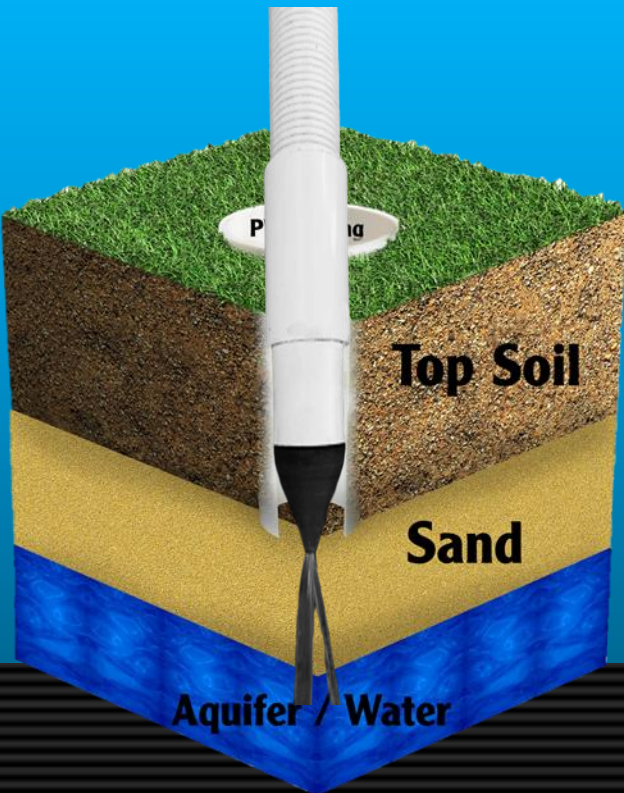


When the high water pressure comes out through the nozzle



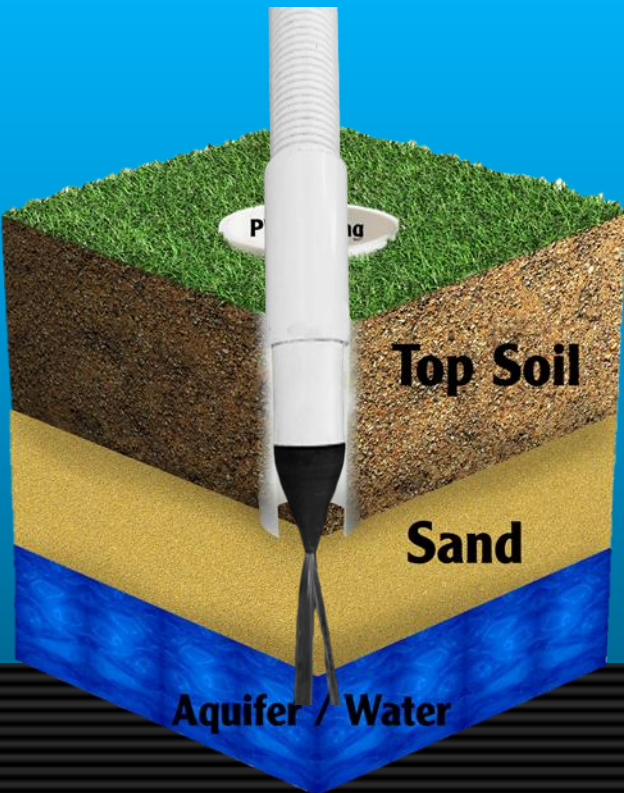
Principle Of

Pushes the sand away from the Sandspear, allowing the spear to penetrate further into the aquifer



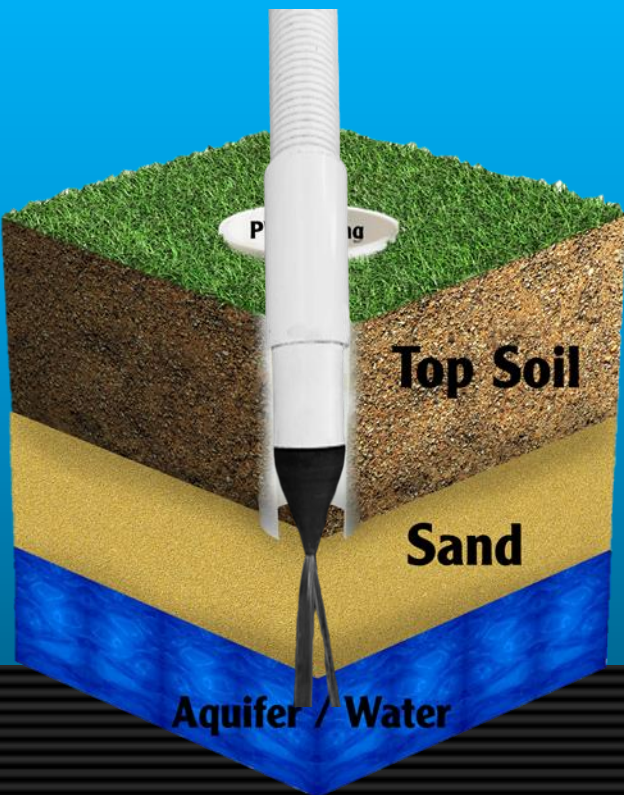
Principle Of

Pushing the casing by hand should be good enough to penetrate deeper into the sand



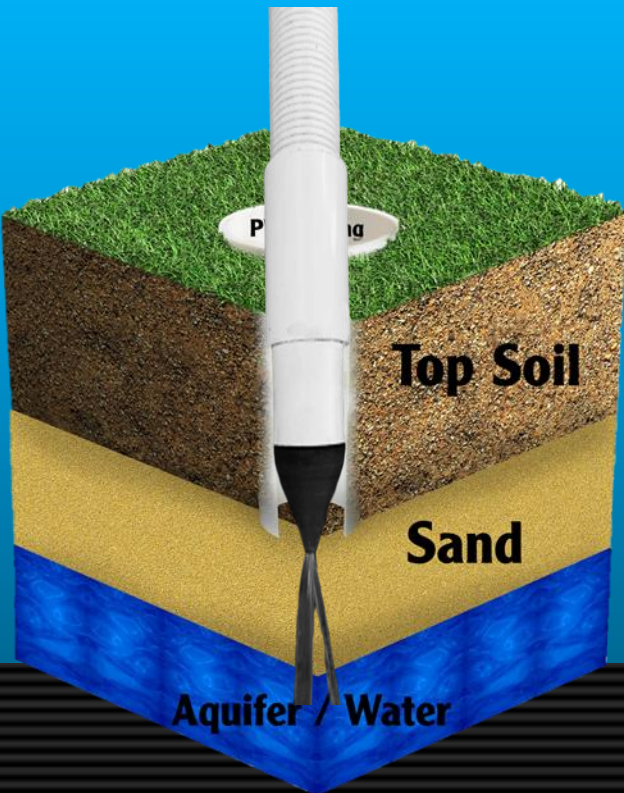
Principle Of

**This continues until the
spear is under the water
table to avoid any air
vortex, which would
stop pumping**

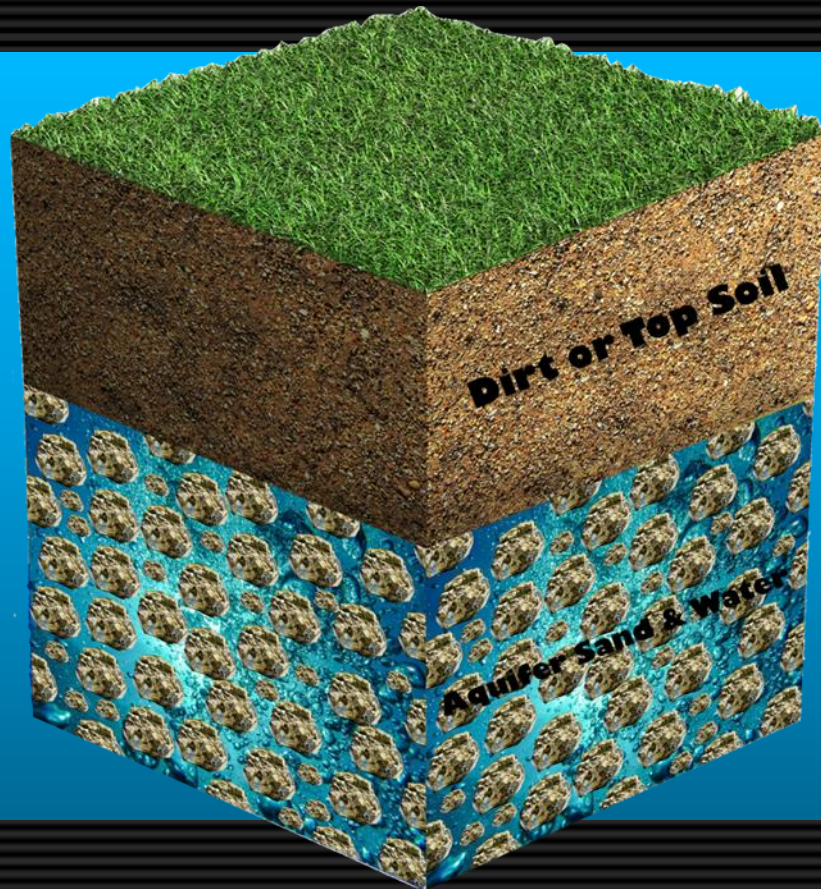


Principle Of

When to depth the pressure line is disconnected from the non return valve, this stops any sand from entering the screen.



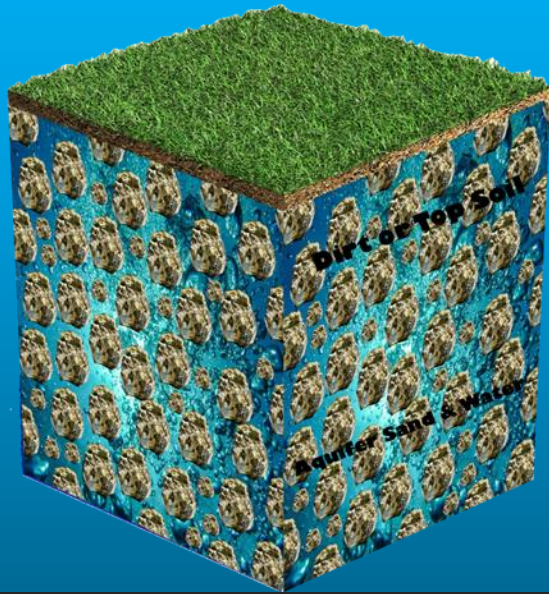
Drilling a Sand Spear



**View of typical
Soil
Formation**



Drilling Through Topsoil



**Depending on where
you are drilling you may
or not have top soil
above your sand**



Drilling Through Topsoil



Drill a hole by auger or a shovel through the top soil into the sand



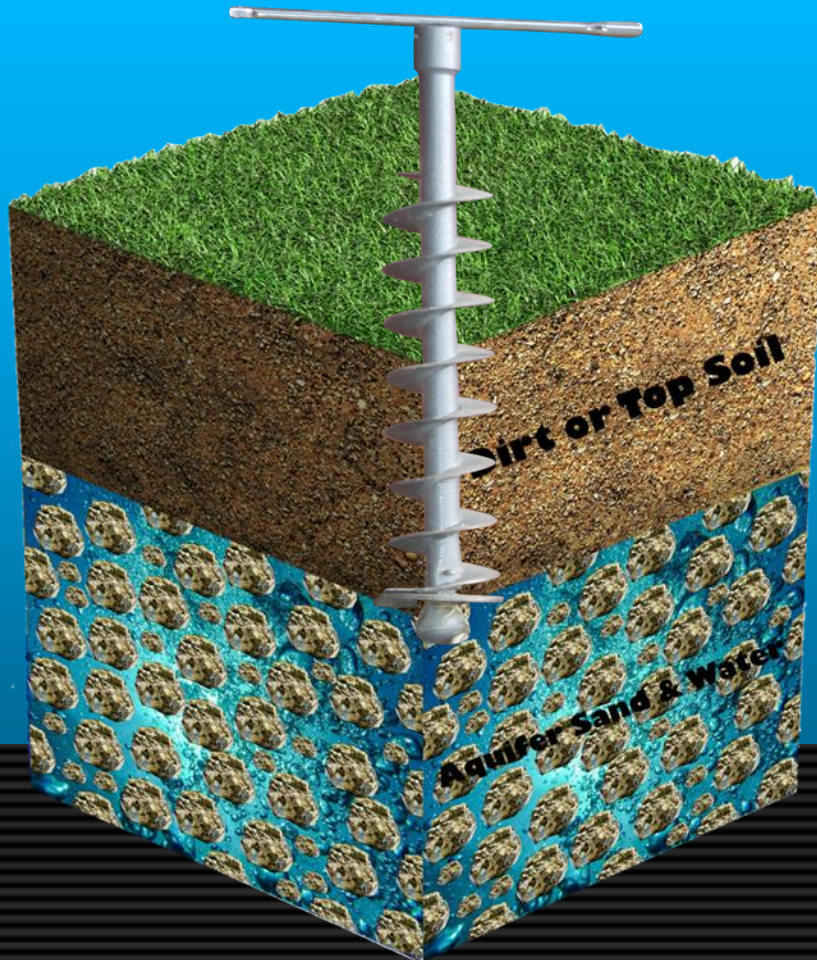
Drilling a Sand Spear



Machine Auger



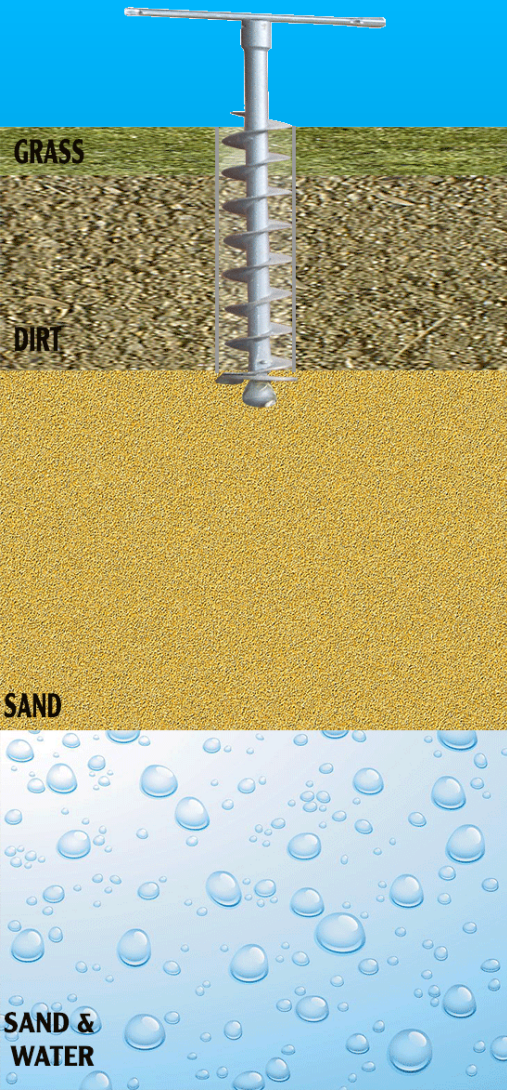
Drilling a Sand Spear



Hand Auger

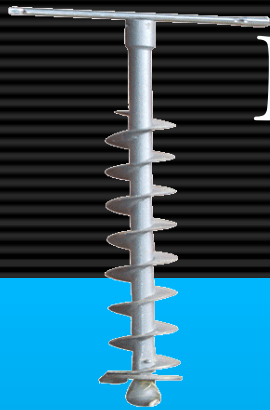


Drilling a Sand Spear

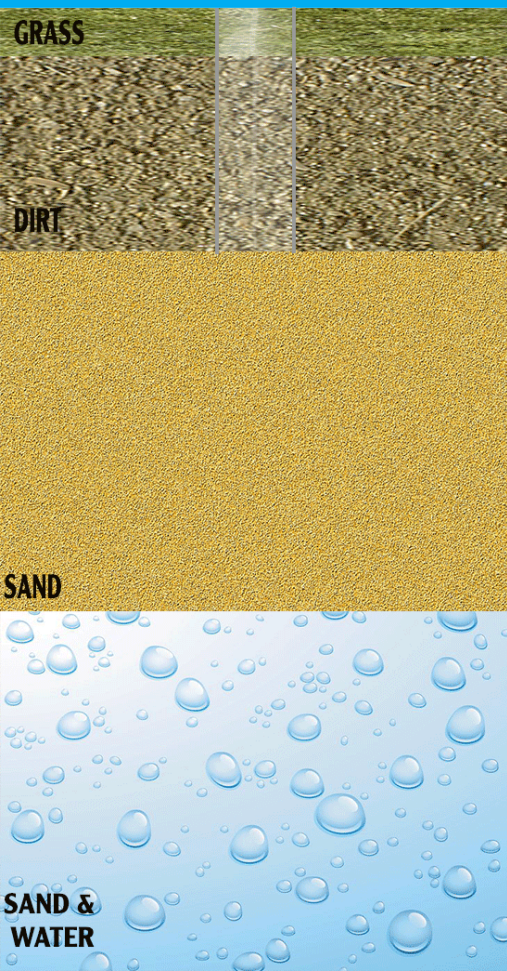


**Auger Hole to
the Sand &
Water Aquifer**





Drilling a Sand Spear

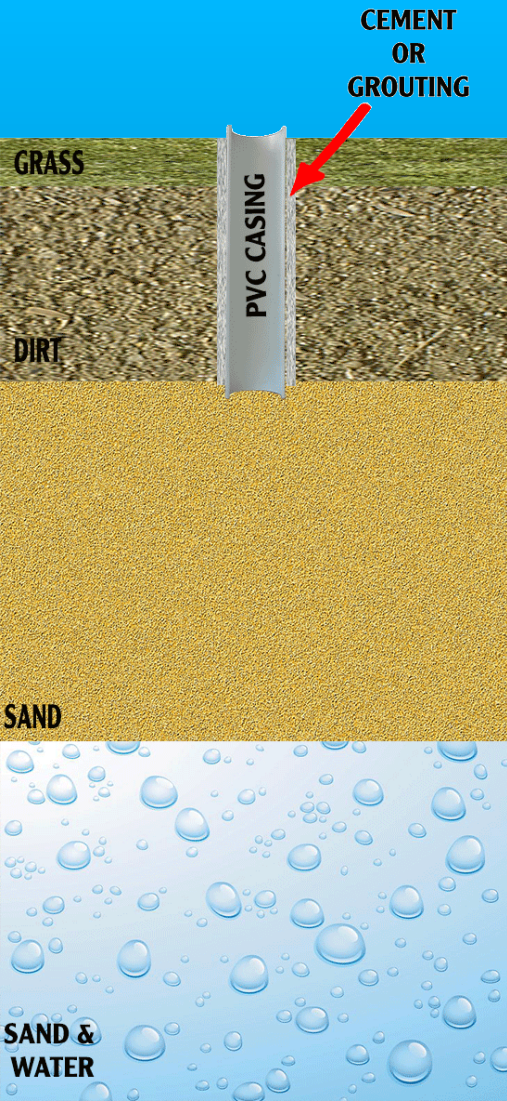


Remove Auger



Delivering Sand
Spear Solutions

Drilling a Sand Spear



Insert Short piece of casing

Larger than the casing to be installed

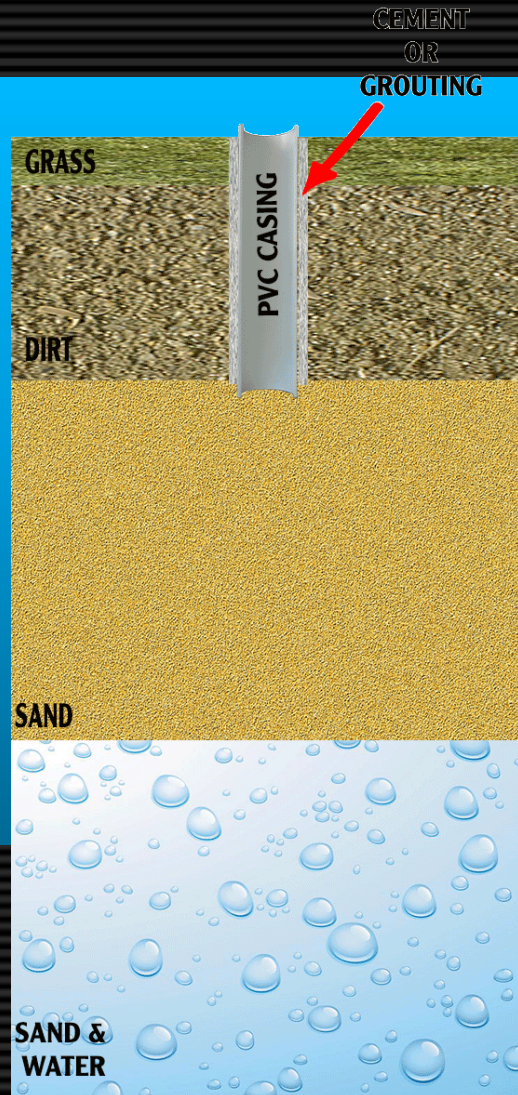


Drilling a Sand Spear



This is to ensure no dirt or rocks can enter your hole and insertion of sand spear and casing is much easier

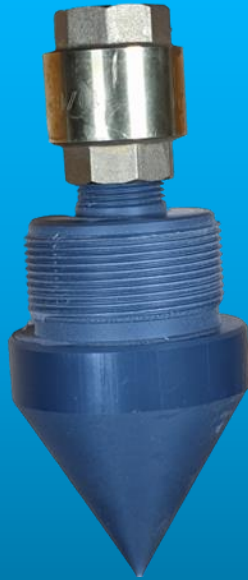
Drilling a Sand Spear



**Fill in around casing once
in place with dirt or
cement in place so casing
is more secured.**



Wash in Method



Or Jetting Installation



Components Needed

- 1 - Sand Spear with Washdown Valve
- 2- Casing
- 3- Water supply pipe
- 4- Water pressure supply



Wash in Method or Jetting



Your Sand Spear will need to be a wash in spear, this has facilities to connect a water supply to it



Wash in Method or Jetting



If this does not have a pipe connection, you could tape a hose to the outside of your standard sand spear





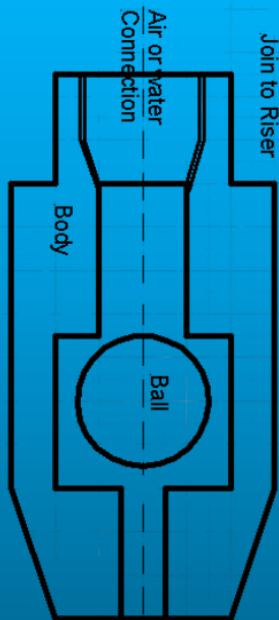
**Connect water
here**

Wash in Method or Jetting

**You can use 20mm threaded
poly pipe or any other hose
you may have**



Wash in Method or Jetting



It will have a non return system such as a small ball, so that when the water supply is disconnected the valve will stop sand from entering the screen



This is what we manufacture



Water Supply - Pressure



- You Can use the following**
- . Normal tap pressure**
 - . House hold pump**
 - . Pressure pump**
 - . Pressure washer**

Wash in Method or Jetting

Water Supply

Pressure needed is particular to the sand formation that you have under the ground, some have fine sands, some are coarse heavy sand that needs a greater pressure



Drilling a Sand Spear

**Connect water
pressure to screen
and turn on**



Drilling a Sand Spear

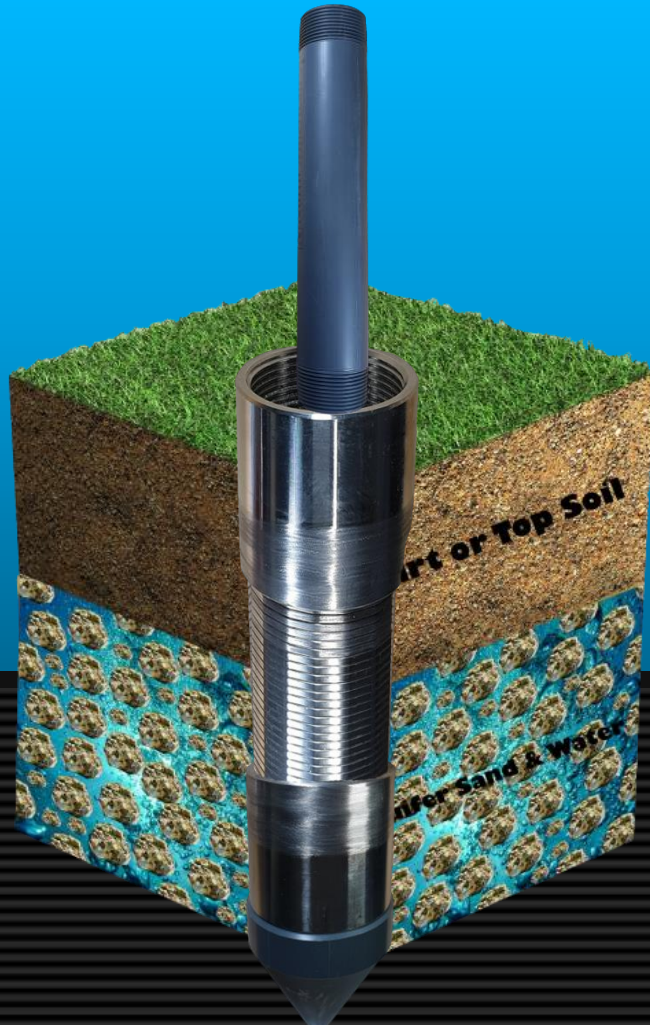
**The further you go into
the ground ad more
casing and lengthen
water supply pipe**

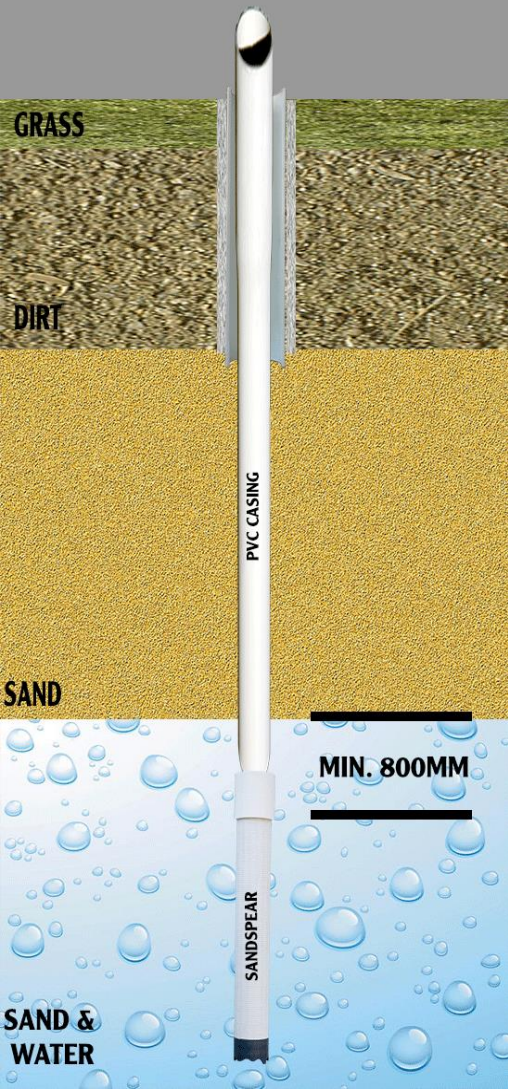




Drilling a Sand Spear

If you are going to use a hose, then put all your casing over the hose at start





Drilling a Sand Spear

**Push spear into the sand
until you have the spear
800mm below water
level**



Drilling a Sand Spear

**Unscrew water supply
from sand spear**



Drilling a Sand Spear



Do not tighten the water supply pipe to tight.

So when you remove it undoes at the top of the valve

Drilling a Sand Spear



We can supply a left hand thread adaptor, to ensure the water supply pipe undoes at the correct spot

Remove pressure pipe supply

**Remove pipe, so inside is
free to install pump
suction line**



Wash in or jetting Method

**You are now ready to
Install your pump**



Installing a pump

**You can now install your pump.
Look for more information we have
created called**

how_to_instal_a_pump_into_a_sandspear



**BUT
REMEMBER...**



When purchasing or Install your Sand Spear...



- ✓ Suit to purpose
- ✓ Decide on drilling method
- ✓ Screen to match Gravel
- ✓ Check on Council regulations
- ✓ Choice the best position
- ✓ Do your homework first

And try to avoid...

- ✗ Mud
- ✗ Soil
- ✗ Driving of PVC Screens
- ✗ Deeper than 3M
- ✗ Air leaks
- ✗ Screen above the Aquifer



Thank You

Thank you for taking the time to look at the information we have created for you.

We hope this will be of assistance and a benefit to you with the installation of your sand spear system

If you have any more questions
Please feel free to contact us



We

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Components and Accessories



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Wash Down Valves
Spear Points
Pumps
Wedge Wire
PVC Pipe
Wire Mesh Screens
Bore Developing Tools

Installation Kits
Screwed Casing
Sand Ventures
Non return valves
Surface casing
Rising main
PVC Fittings
Poly Fittings
Hand Pumps

Sand Spears

**Solving your Sandspear, Installation and
Pumping Challenges
with Trust and Integrity**

