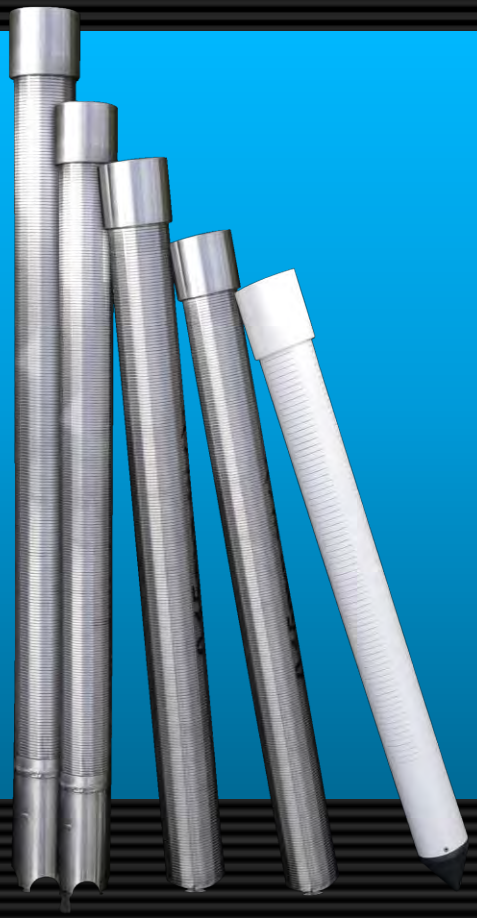
SAND SPEARS

Drive In

Drive In Method



Drilling methods and Installation of a sand spear

Delivering Sand Spear Solutions

SCA

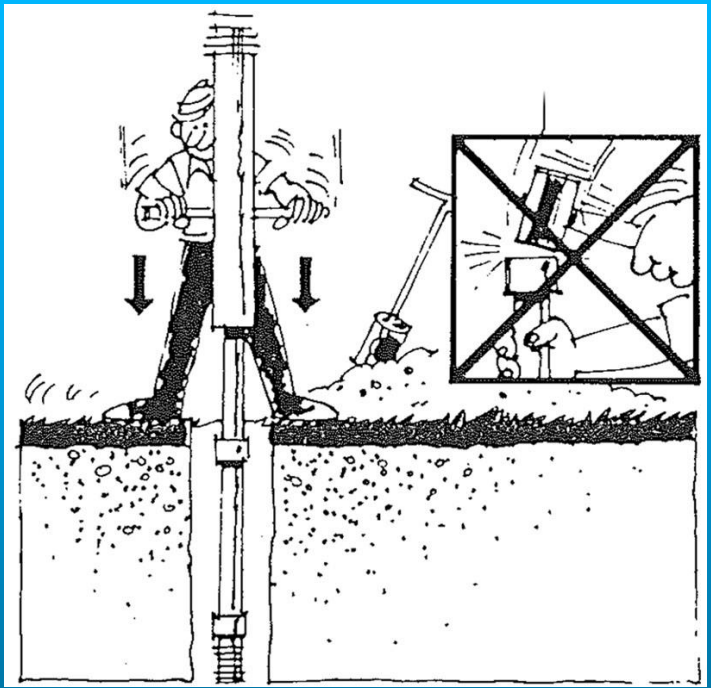
Drive in Method

Or Push In

Delivering Sand Spear Solutions

SCA

Drive in Method



Good For Stainless Sandspears

With mechanical tools makes it easy

No external pump needed

If ground condition is soft then easy installation

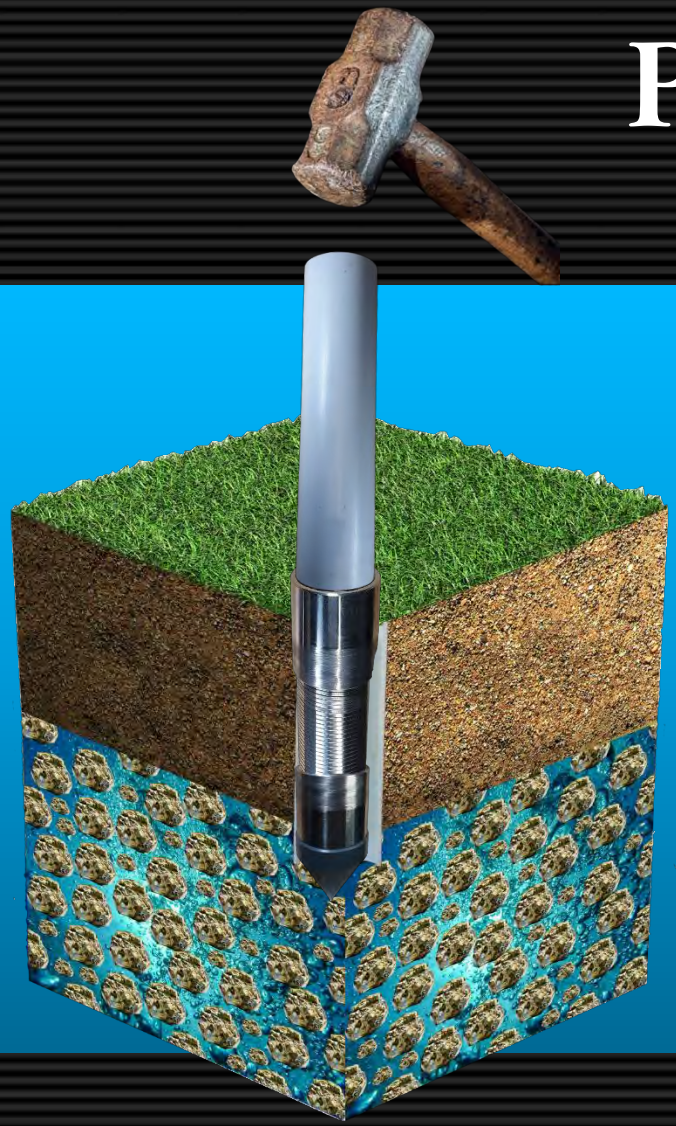
Delivering Sand Spear Solutions

SCA

Technical Details

Type	Material	Aperature	Open Area	Dia od	Std. Flow	Price	Bail method	Drive method	Wash In method
PVC Slotted	Upvc	0.4mm	2.30%	60mm, fittings 80mm dia.	6 L/M	Cheapest	Yes	No	Yes
PVC Wedge Wire	Upvc	0.25mm	2.60%	60mm, fittings 80mm dia.	25 L/M	Best Value	Yes	No	Yes
Stainless Wedge Wire	Stainless Steel 316	0.15mm	4.80%	60mm, fittings 80mm dia.	20 L/M	Highest	yes	Yes	Yes
Stainless Mesh	Stainless mesh & PVC slotted pipe	0.2mm	see Note 1	71mm Od		Middle Range	yes	No	No
Note 1	open area is approxamatly 22%, sand size and open area of screen, makes it hard to calculate exactly)								

Principle Of

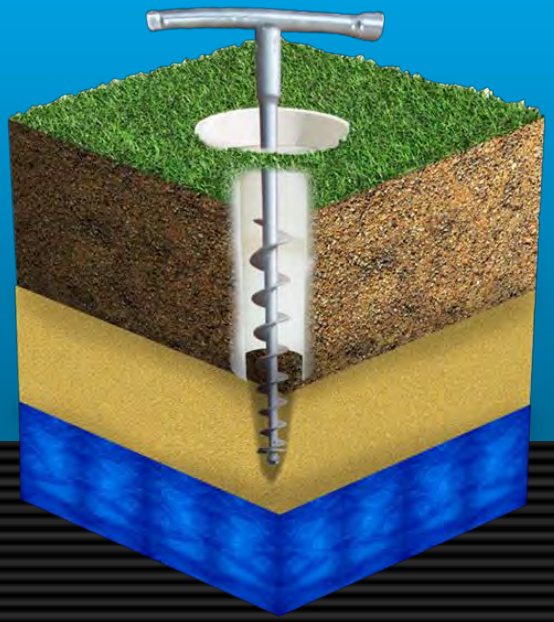


Drive In Method

Delivering Sand Spear Solutions

SCA

Principle Of

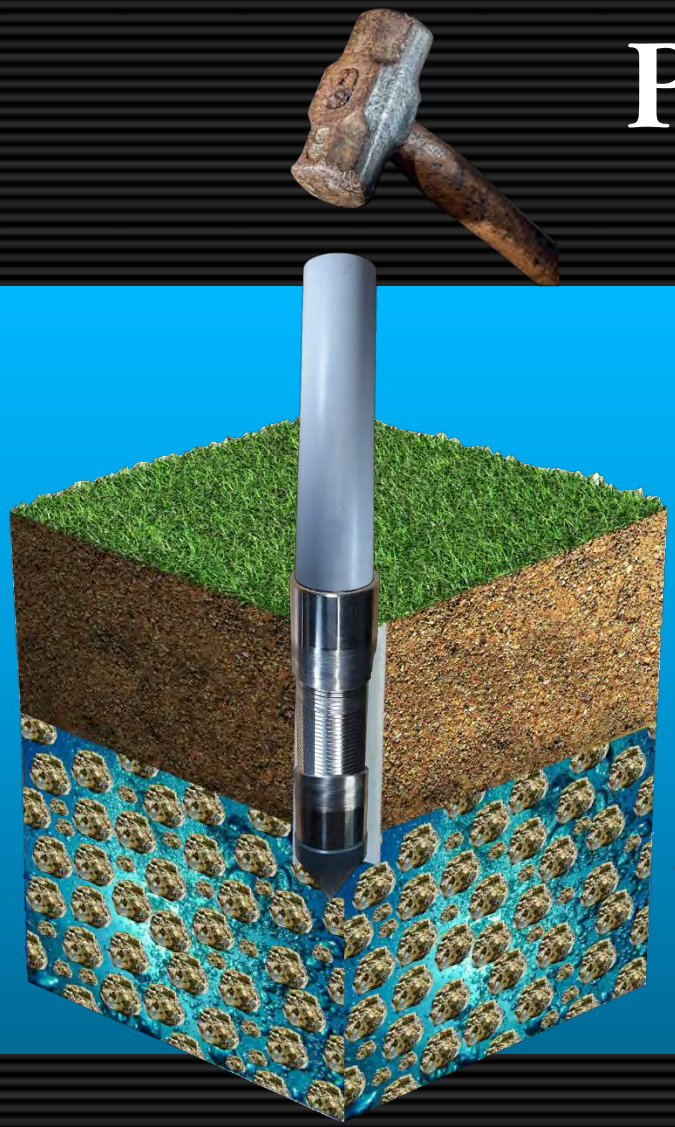


The Top soil has to be removed by a mechanical method

Delivering Sand Spear Solutions

SCA

Principle Of

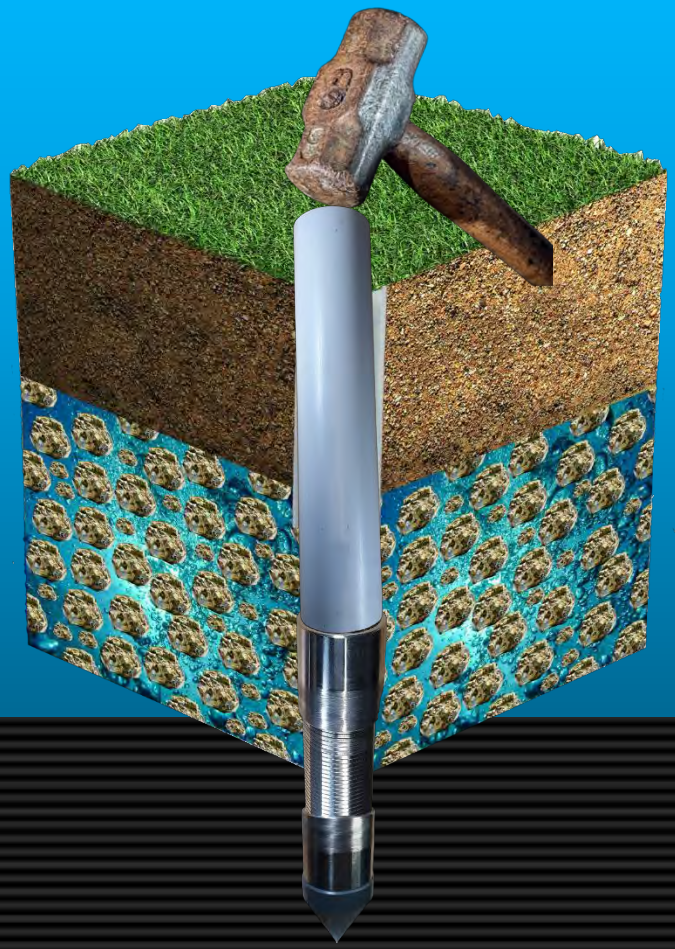


Once past thew soil the sand spear can be pushed into the ground by using a hammering effect

Delivering Sand Spear Solutions

SCA

Principle Of

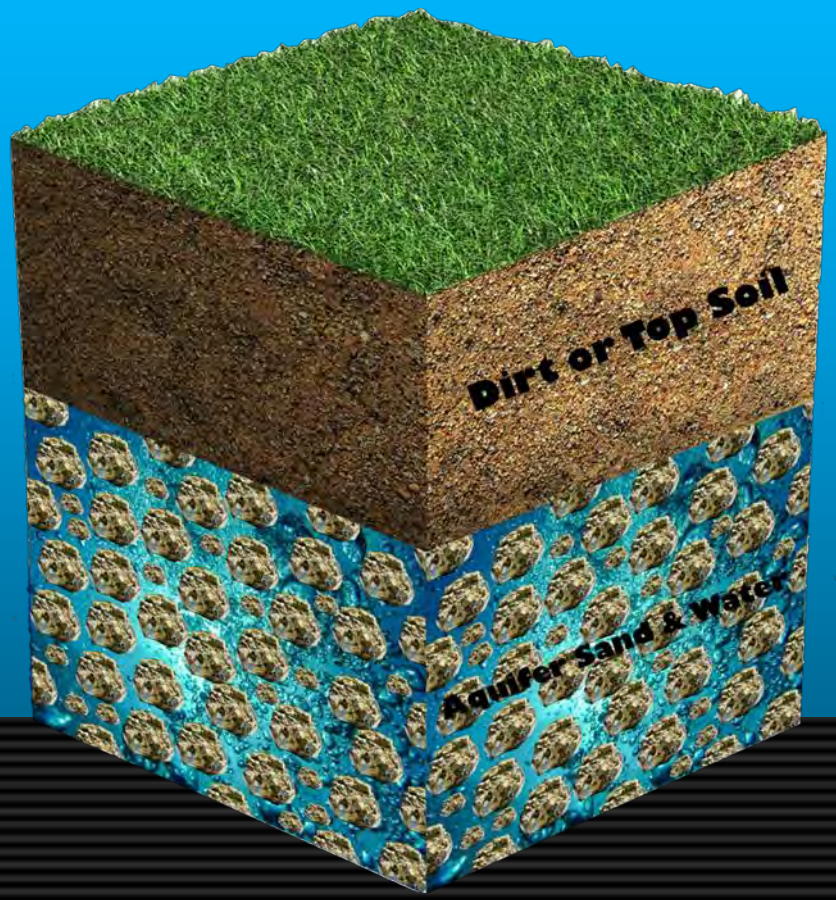


This continues until the spear is under the water table to avoid any air vortex, which would stop pumping

Delivering Sand Spear Solutions

SCA

Installation of a Sand Spear using the Drive in method

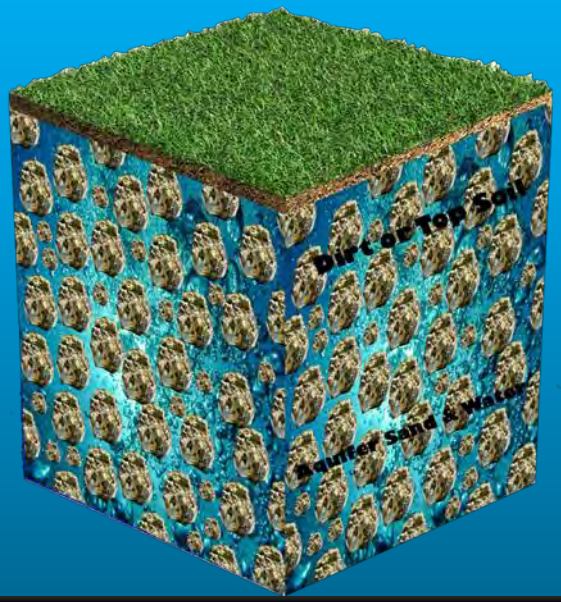


View of typical Soil Formation

Delivering Sand Spear Solutions

SCA

Drilling Through Topsoil



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

Delivering Sand Spear Solutions

SCA

Drilling Through Topsoil

Drill a hole by auger or a shovel through the top soil until you reach the sand

Delivering Sand Spear Solutions

SCA

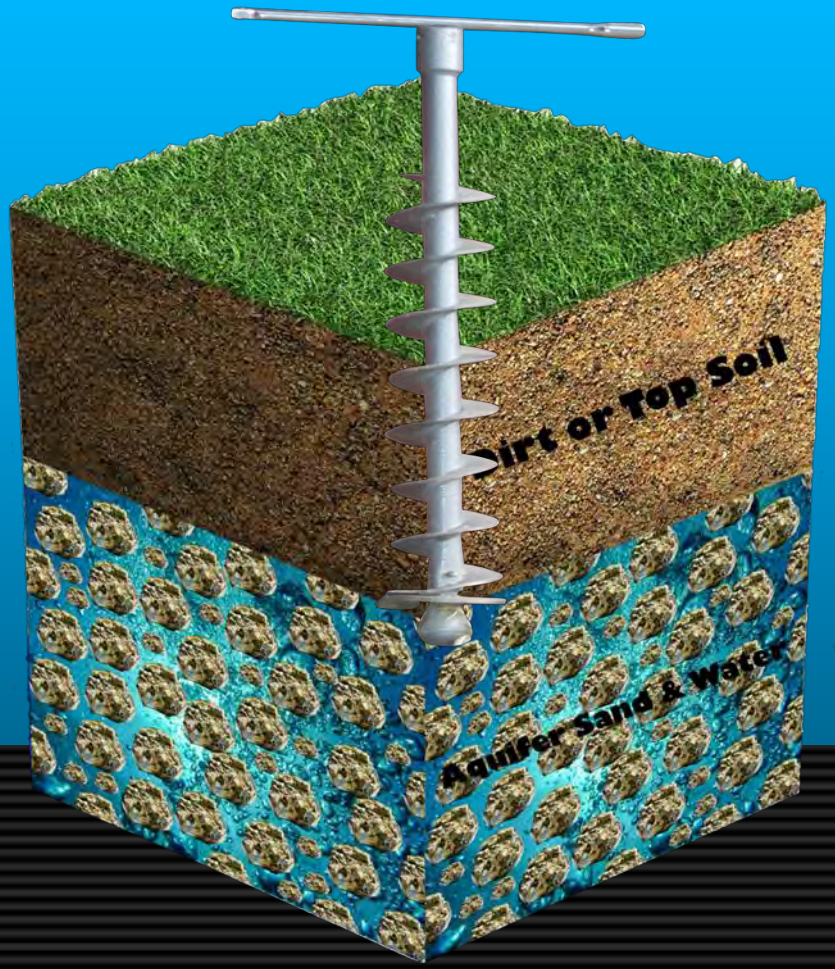
Drilling a Sand Spear

Machine Auger

Delivering Sand Spear Solutions

SCA

Drilling a Sand Spear

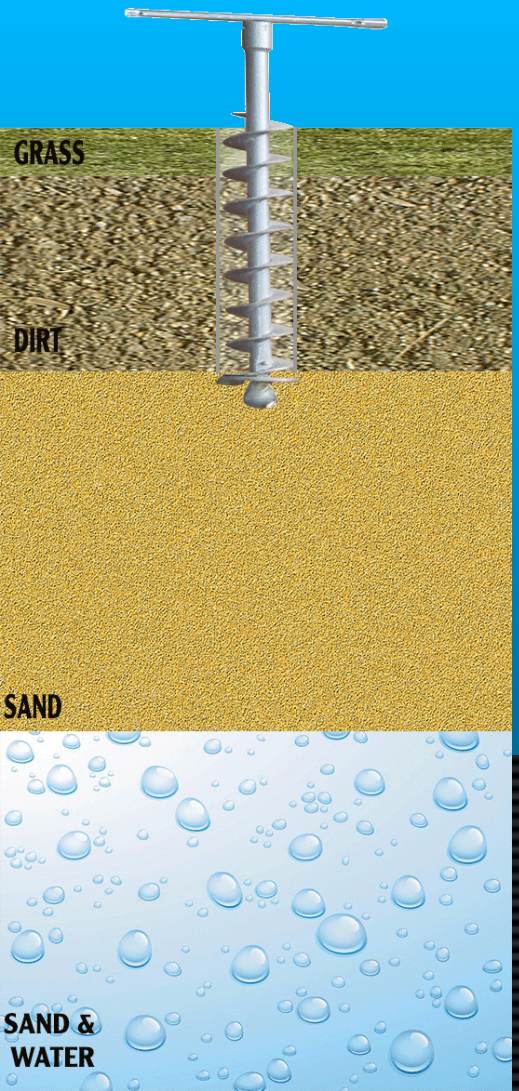


Hand Auger

Delivering Sand Spear Solutions

SCA

Drilling a Sand Spear



Auger Hole to the Sand & Water Aquifer

Delivering Sand Spear Solutions

SCA

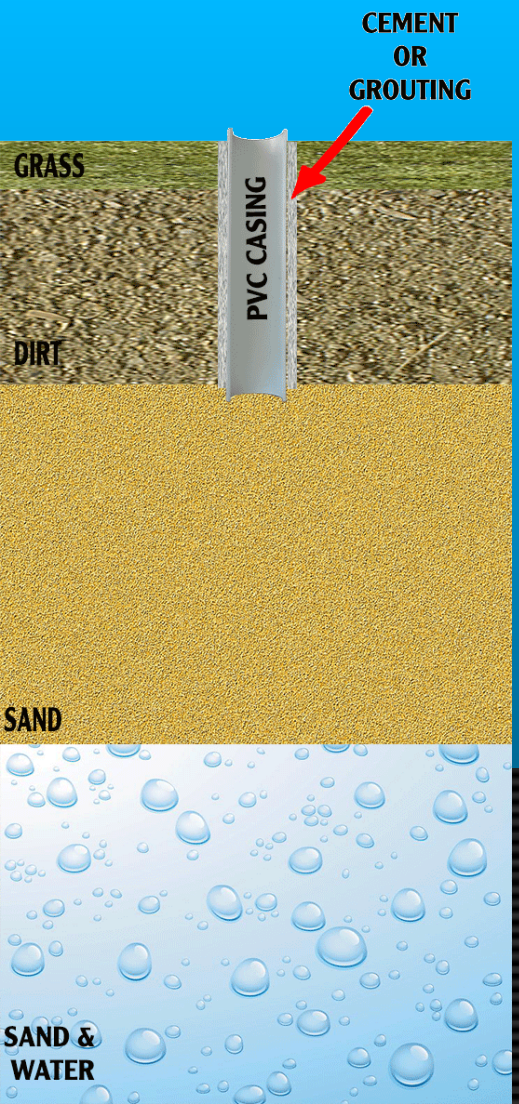
Drilling a Sand Spear

Remove Auger

Delivering Sand Spear Solutions

SCA

Drilling a Sand Spear



Insert Short piece of casing

Larger than the casing to be installed

Delivering Sand Spear Solutions

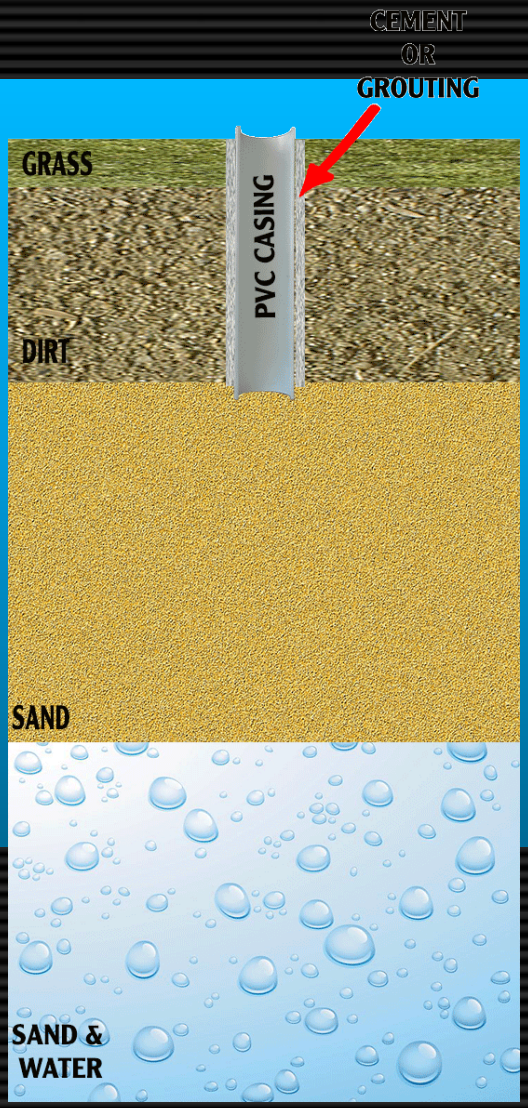
SCA

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

Delivering Sand Spear Solutions
SCA

Drilling a Sand Spear



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

Delivering Sand Spear Solutions

SCA

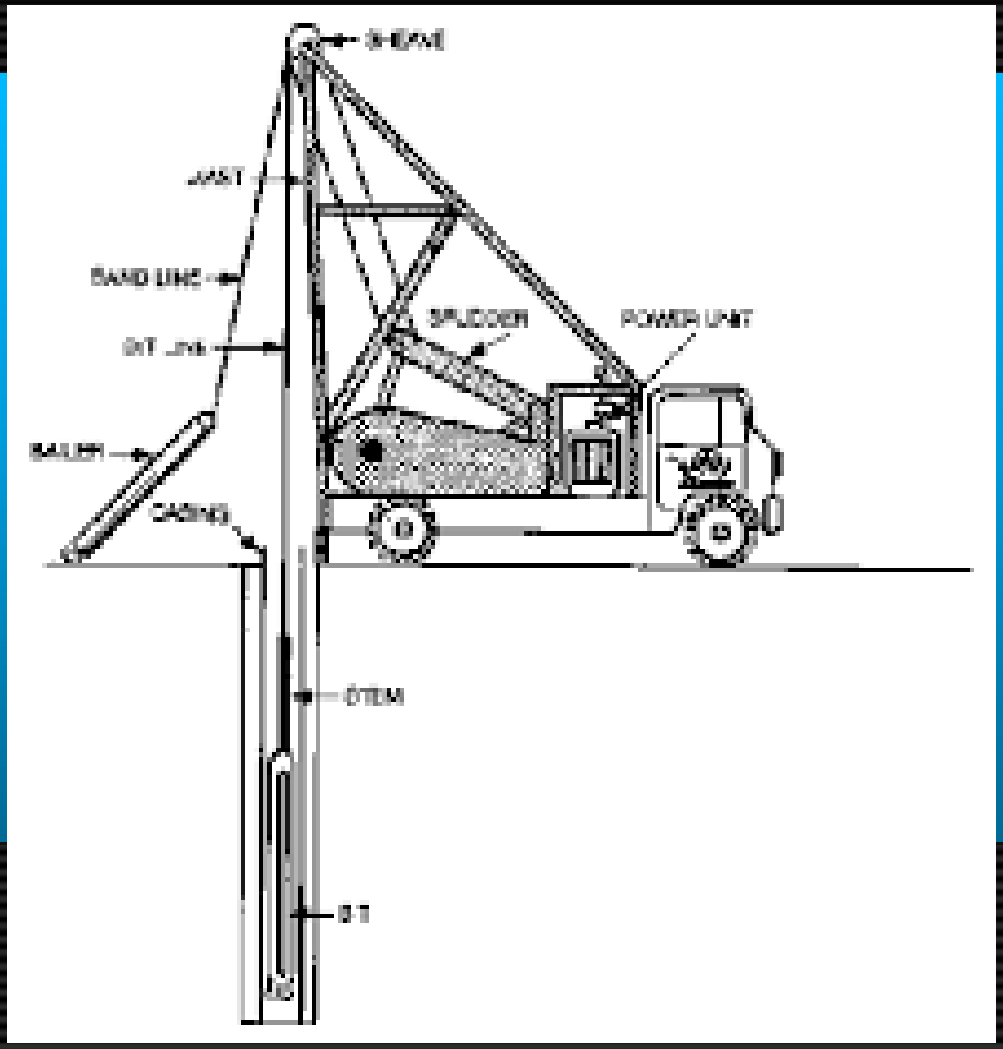
Drive in Method

Using Mechanical Hammering, by a hammer or using a mechanical tool

Delivering Sand Spear Solutions

SCA

Drive in Method



Cable Tool Rig

Delivering Sand Spear Solutions

SCA

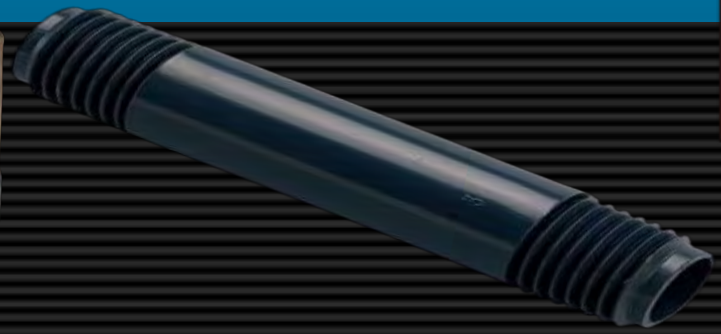
Components Needed

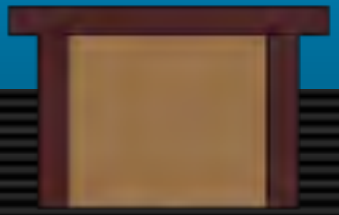
1 - Sand Spear with Drive In point

2- Casing

3- Hammering Device

4- Steel Cap Safety Driver





Delivering Sand Spear Solutions

SCA

Warning

Only the Stainless Steel Wedge Wire Screen is suitable for this method

Delivering Sand Spear Solutions

SCA

Warning

PVC is brittle and not recommended

Delivering Sand Spear Solutions

SCA

Warning

PVC is a brittle material, do not hit it directly with a hammer

Delivering Sand Spear Solutions

SCA

Drive in Method Components

Not all the Tools and equipment below are needed. Showing some of the options

Delivering Sand Spear Solutions

SCA

1- Drive in Method Components

Sand Spear - Stainless wedge wire is the recommended spear

Delivering Sand Spear Solutions

SCA

2- Drive in Method Components

Riser or casing

Material – Poly Pipe,

Good impact resistance

Delivering Sand Spear Solutions

SCA

3- Drive in Method Components

Riser or casing

Material – PVC Pipe,

Not Good impact resistance

Threaded or SWJ Glue Joint

Delivering Sand Spear Solutions

SCA

4- Drive in Method Components

Riser or casing

Material – Steel Gal Pipe or Stainless pipe or Black pipe

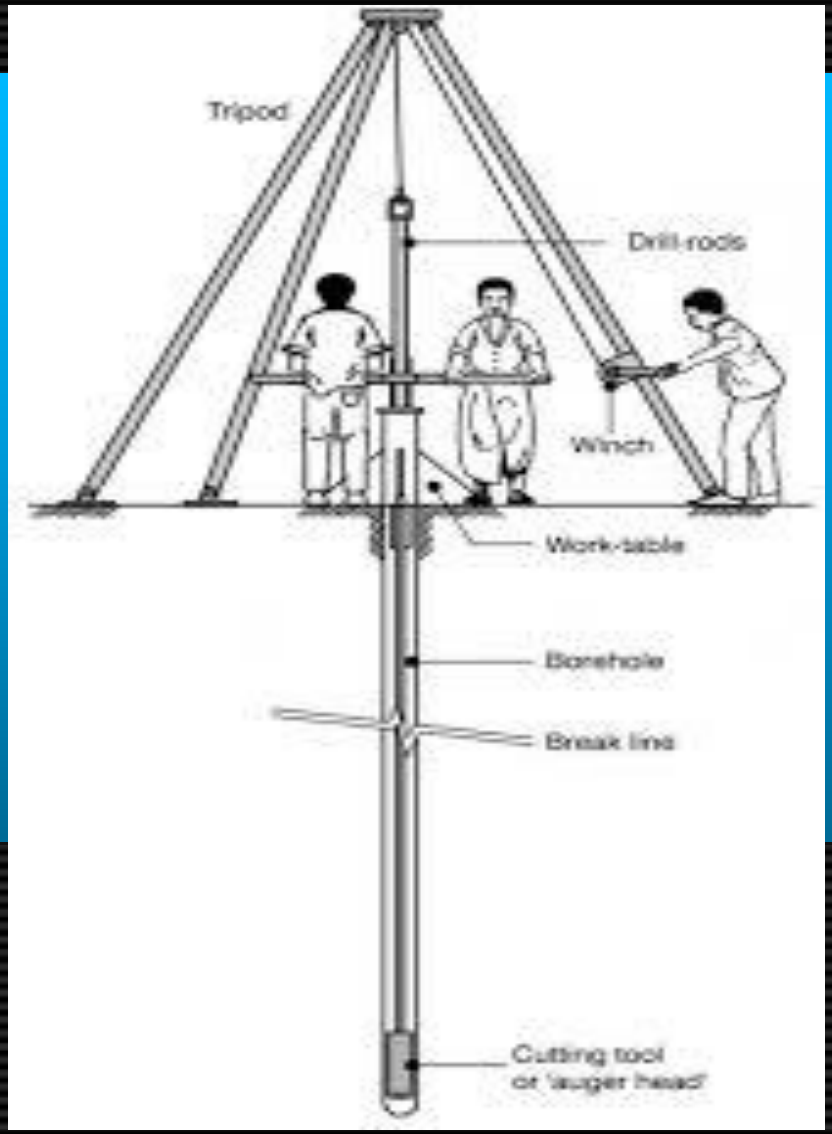
Very high impact resistance

Highly Recommended

Delivering Sand Spear Solutions

SCA

Drive in Method



Cable Tool Hand - Rig

Delivering Sand Spear Solutions

SCA

5- Drive in Method Components

Tripod – Used for Hammer Tool

Hire One,
Make One or
Buy One

Delivering Sand Spear Solutions
SCA

6- Drive in Method Components

Portable Crane

Hire One,
Make One or
Buy One

Delivering Sand Spear Solutions
SCA

Drive in Method Components

Tree

Can you put the installation under a big tree

Delivering Sand Spear Solutions

SCA

8- Drive in Method Components

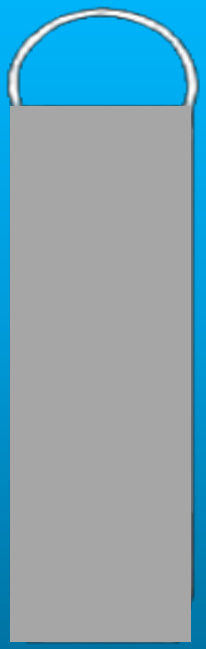
Pulley Block- Connect to top of tripod

Pull up the weight and let it drop on the pipe

Delivering Sand Spear Solutions

SCA

9- Drive in Method Components



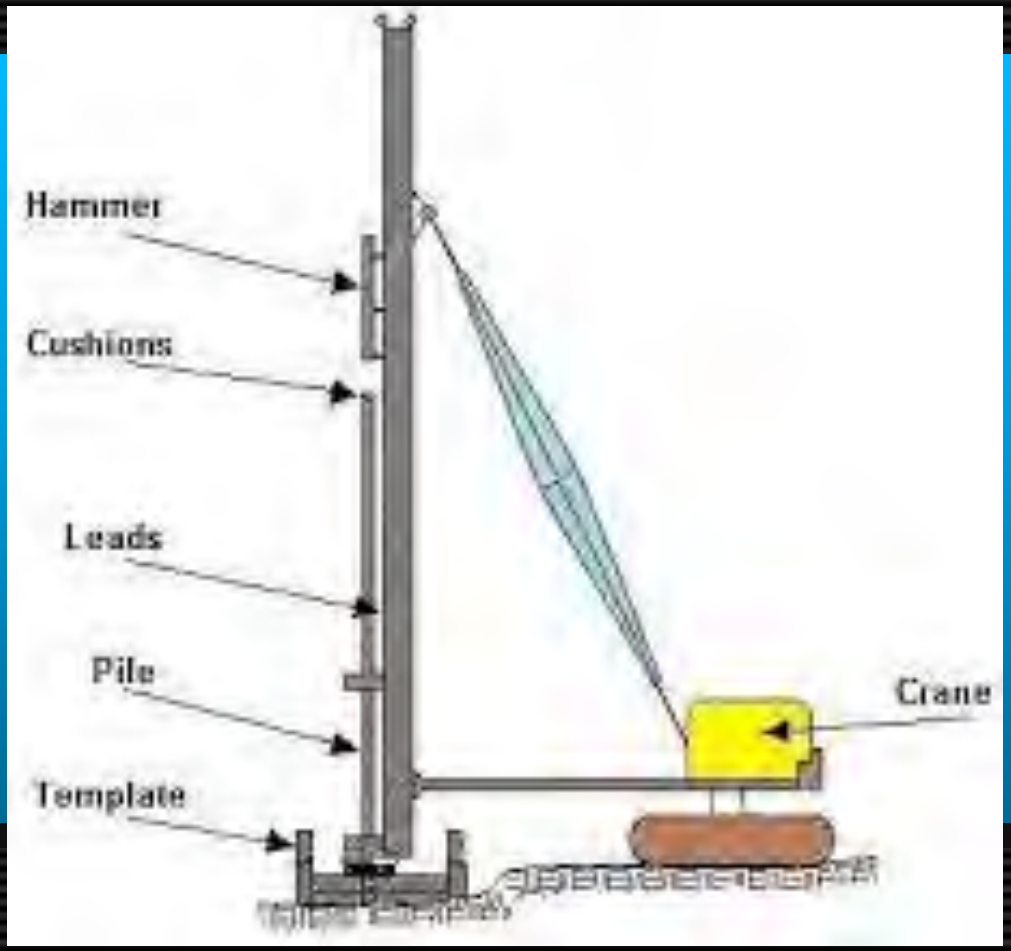
Drop Weight

This Connects to Rope and when dropped, creates hammering effect

Delivering Sand Spear Solutions

SCA

Drive in Method Components



Similar to a Pile driver

Delivering Sand Spear Solutions

SCA

10- Drive in Method Components

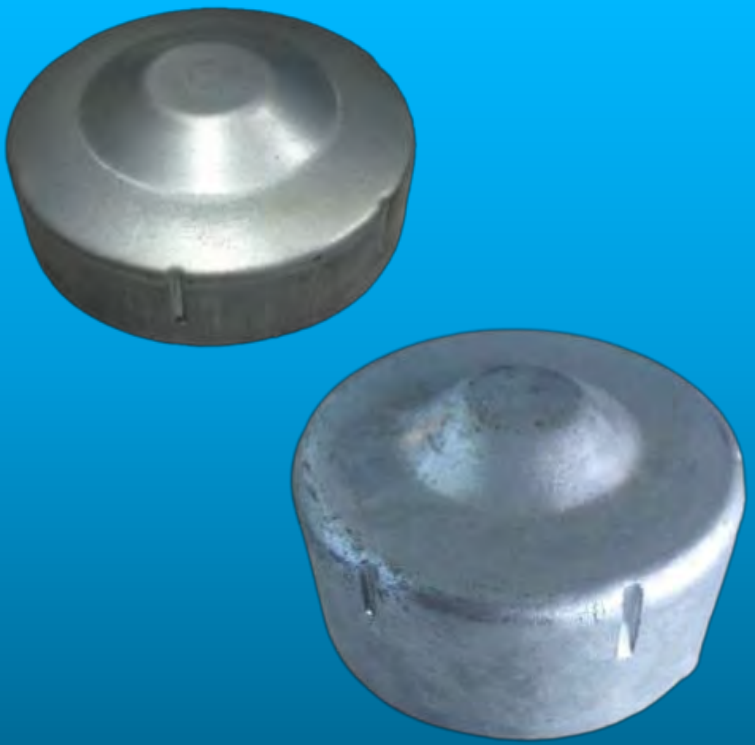
Safety Top cap

This allows hammering effect to be put evenly on the riser, to stop cracking

Delivering Sand Spear Solutions

SCA

11- Drive in Method Components



Safety Top cap

Metal stamped or Gal Pipe Ends.

Goes over the riser pipe

Delivering Sand Spear Solutions

SCA

12- Drive in Method Components

Hammering Device

Hand Pile or Fence driver

Delivering Sand Spear Solutions

SCA

13- Drive in Method Components

Hammering Device

Pneumatic Hand Pile or Fence driver

Delivering Sand Spear Solutions

SCA

14- Drive in Method Components

Hammering Device

Pneumatic Hand Pile or Fence driver (Buy or Hire)

Delivering Sand Spear Solutions

SCA

15- Drive in Method Components

Hammering Device

Jack hammer with Driving Bit (Buy or Hire)

Delivering Sand Spear Solutions

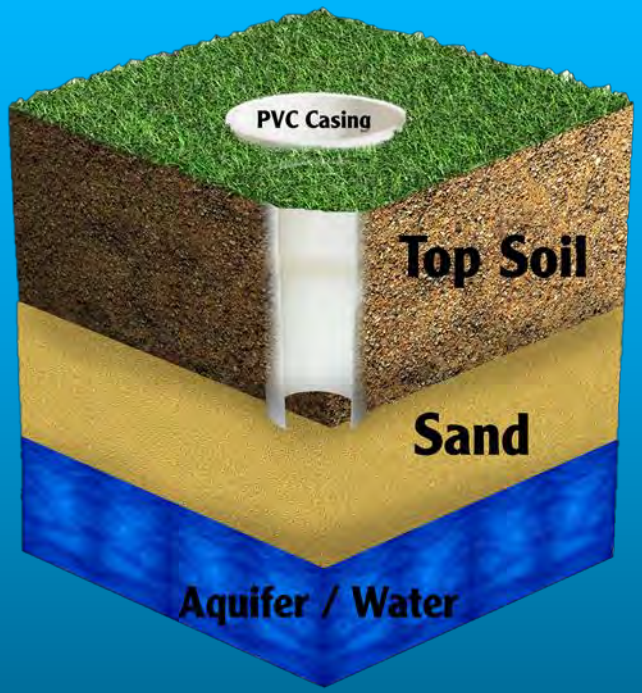
SCA

16- Drive in Method Components

Just a simple
Sledge Hammer

Delivering Sand
Spear Solutions
SCA

How To



Insert protective casing to sand and water level as described above

Delivering Sand Spear Solutions

SCA

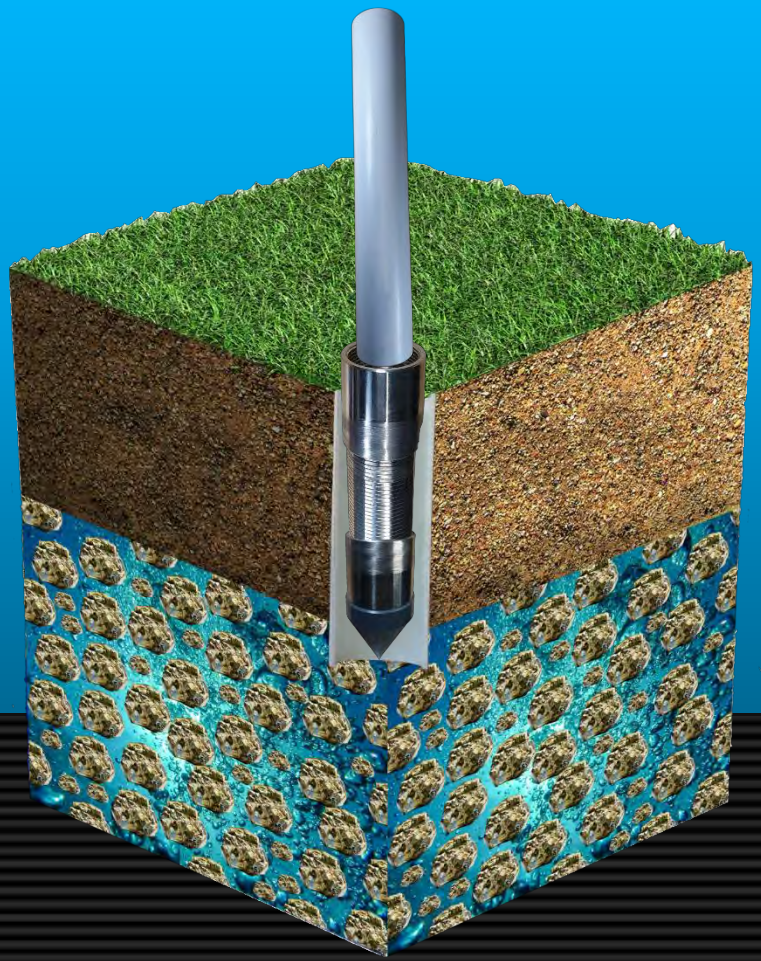
How To

Connect riser to sand spear

Delivering Sand Spear Solutions

SCA

How To

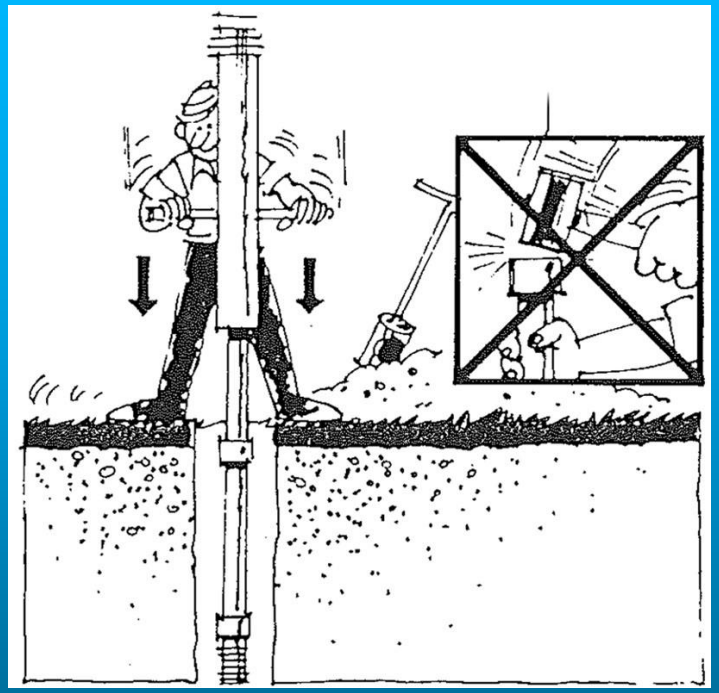


Place Spear and riser into hole

Delivering Sand Spear Solutions

SCA

Drive in Method



Sandspear is driven into the ground

Delivering Sand Spear Solutions

SCA

Drive in Method

Using one of the hammering devices

Delivering Sand Spear Solutions

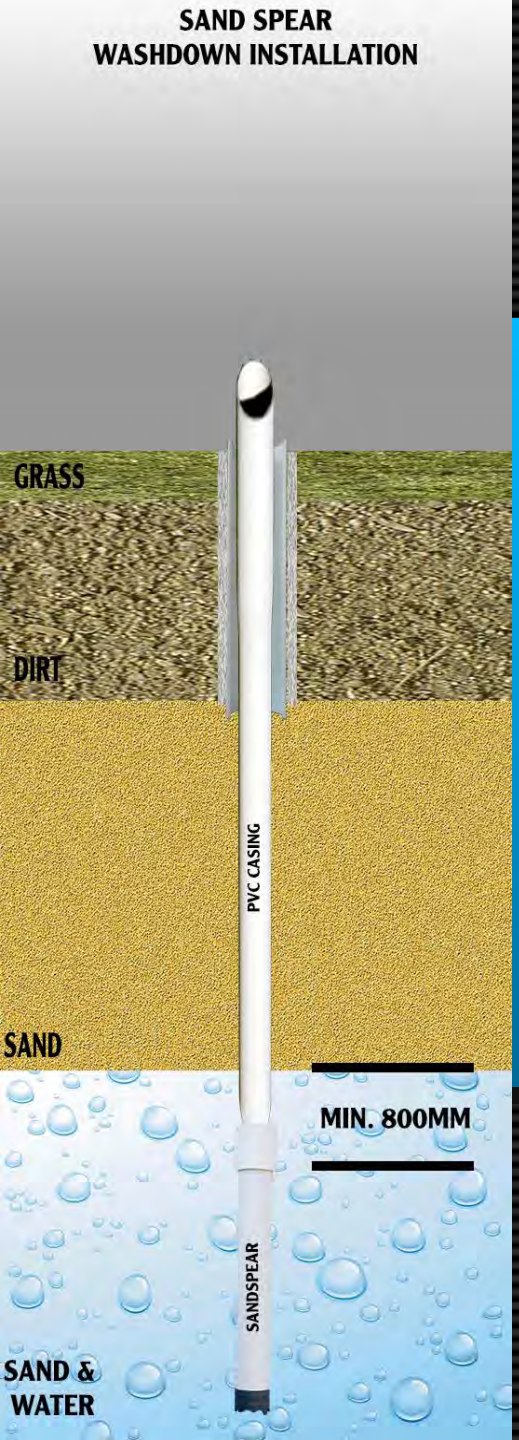
SCA

Drive in Method

Use a safety driving Cap – specially if using PVC or brittle material

Delivering Sand Spear Solutions

SCA



Drive in Method

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

Delivering Sand Spear Solutions

SCA

Wash in or jetting Method

You are now ready to Install your pump

Delivering Sand Spear Solutions

SCA

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

Delivering Sand Spear Solutions

SCA

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

Delivering Sand Spear Solutions
SCA

And try to avoid…

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

Delivering Sand Spear Solutions
SCA

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

Delivering Sand Spear Solutions
SCA

We

Deliver Sand Spear Solutions

"At Your Service"

Visit our website, for more information or to buy online at http://sandspears.com.au

or call us at 0438 746 894

Info@sandspears.com.au

Delivering Sand Spear Solutions

SCA

Components and Accessories

- Caps
- Casing
- Wash Down Valves
- Spear Points
- Pumps
- Wedge Wire
- PVC Pipe
- Wire Mesh Screens
- Bore Developing Tools
- Safety Drive Caps

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

Delivering Sand Spear Solutions
SCA

Sand Spears

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

Delivering Sand Spear Solutions

SCA