

Installation model of New Karez (vertical type)

What you prepare (RED = Mandate)

1. New Karez pipe (vertical type)
 2. PVC pipe, small particle sand, soil
 3. Drill (to open a hole in PVC pipe)
 4. 2 tanks (supply, recovery)
 5. Tube to connect tank and PVC pipe
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6. Fitting band to **prevent leakage** (if necessary)
 7. High position (bench type) planter, if convenient
 8. Water pump (to pump up water from recovery to supply tank), when **NK ridge is connected plurally**
 9. Float sensor, to detect water level to move pump
 10. Solar panel to operate pump



fitting band

Installation process

1. Make a hole in PVC pipe with drill in each 30-40cm (depending on size of plant).
2. Set PVC pipe first, **check whether water flows, comes out of exit of PVC pipe.** (Very slight inclination so as water to flow slowly)
3. Install NK pipes in each hole, pls make sure **no gap around pipe** (to prevent sand drops in PVC pipe)
4. Spread soil **shallowly near the level of the height of PVC pipe**, arrange the soil evenly.
5. Surround NK small particle sand, **pls make sure NK absorbs water** (for 3-5 min, you feel it wets, water doesn't come out because of surface tension) **before putting soil** on sand.
6. Cover sand layer **with soil layer**, put sign board in the position of NK pipe.
7. Plant vegetables (tomato, cucumber, chillis etc) accordingly.

Please cover with board to **prevent photosynthesis of weeds** in the tank.

