

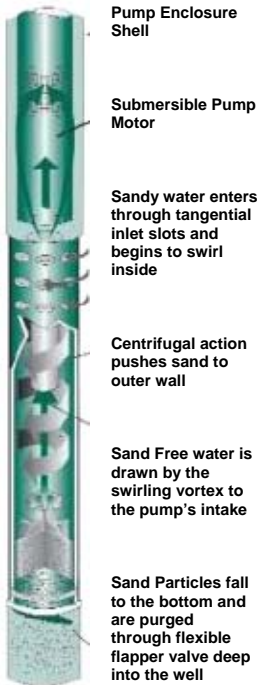
# LAKOS<sup>(R)</sup> SUB-K SAND SEPARATORS

1 - 10 - 2009

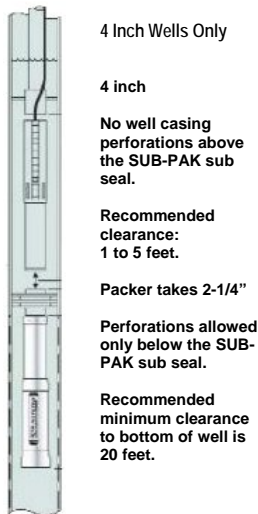
How it works



SUB-K



SUB-PAK



ALL LAKOS SAND SEPARATORS WILL SHIP DIRECT FROM THE FACTORY TO YOU

## LAKOS SUB-K Submersible Pump Protection Separators

Removes troublesome sand to extend pump life by 5 times or more – Guaranteed Using controlled centrifugal action, troublesome sand is removed from the water before it enters the pump. Helps maintain pump yield and energy efficiency. Installs directly onto submersible pump for in the well installation. Separated sand discharges deep into the well – does not fill the well with sand. No moving parts to wear out, no screens or filters to clean or replace. Pump flow is not affected, but a 9 to 15 foot head loss ( 2 to 7 psi ) can be expected due to increased friction loss. Installed in wells as small as 4" ID. Flow range of 3 to 99 gpm. Maximum particle size is 1/4". Injection molded design improves efficiency. Patented.

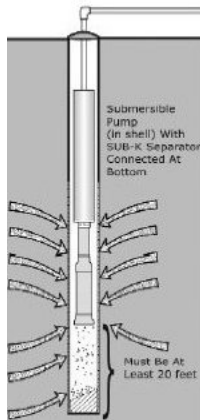
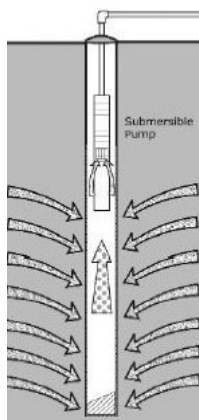
Select proper model according to the actual flow rate of the pump. Be sure your well ID meets separator's minimum requirement. For 4" wells, choose the SUB-PAK models which use well seals instead of a shell. For proper flow through, the separator must be submerged below the drawdown level of the well by at least 30 feet. Accumulated sand flushes from the SUB-K separator into the bottom of the well, either when the pump shuts off, or when the weight of the sand pushes the flapper valve open. Maximum efficiency will occur if the pump operates somewhat intermittently. Allow 20 feet of clearance below the separator's purge outlet to accommodate for sand discharge.

| Part #        | Flow Range  | Minimum Well ID | Length of Separator | Weight | Price      |
|---------------|-------------|-----------------|---------------------|--------|------------|
| SUB-8-4-PAK*  | 3 – 8 gpm   | 4"              | 36.5"               | 9#     | \$ 562.00  |
| SUB-12-4-PAK* | 5 – 12 gpm  | 4"              | 36.5"               | 9#     | \$ 591.00  |
| SUB-16-4-PAK* | 10 – 16 gpm | 4"              | 36.5"               | 9#     | \$ 626.00  |
| SUB-28-4-PAK* | 14 – 28 gpm | 4"              | 40.75"              | 11#    | \$ 683.00  |
| SUB-8-5-K     | 3 – 8 gpm   | 5"              | 36.5"               | 12#    | \$ 576.00  |
| SUB-12-5-K    | 5 – 12 gpm  | 5"              | 36.5"               | 12#    | \$ 605.00  |
| SUB-16-5-K    | 10 – 16 gpm | 5"              | 36.5"               | 12#    | \$ 626.00  |
| SUB-28-5-K**  | 14 – 28 gpm | 5"              | 40.75"              | 15#    | \$ 683.00  |
| SUB-52-5-K**  | 24 – 52 gpm | 5"              | 43.75"              | 20#    | \$ 811.00  |
| SUB-99-6-K**  | 48 – 99 gpm | 6"              | 50"                 | 23#    | \$ 1010.00 |

### Where does the sand go?

The SUB-K does not cause the sand to build up and clog the well, except in extreme conditions.

According to a 1985 study conducted by Ohio University and under the direction of the National Water Well Association, purged sand from the pump protection separator creates the following conditions.



- 1- Purged sand begins to accumulate in the bottom of the well, blocking some of the casing perforations and changing the incoming flow characteristics.
- 2- Forced to take a less direct path into the well, the incoming velocity is reduced, making it less likely that the water will carry sand into the well.
- 3- An equilibrium is achieved, keeping excessive sand from entering the well.
- 4- The natural movement of underground water just as easily moves some sand out of the well as it does into the well.