



SERFILCO®

PEARL NICKEL - OFTEN REFERRED TO AS SATIN NICKEL

Q: *Can you give some help on pumping, agitation and filtration of an Enthone's satin-nickel solution - 126° - 1.27 S.G.?*

A: The solution almost looks like an emulsion. We have several installations in Europe as we are the only ones who seem to know how deal with it.

Basically the process has no agitation and is filtered over carbon during down time say over night to remove organics.

There is also a secondary very small pump, which is literally used to break the surface of the solution.

The small circulation pump used while processing should take solution out of one end of the tank and return it at the opposite end - over the side of the tank then about 2 inches under solution level through a 90 degree elbow directed down stream - see attached sketch.

In terms of sizing - we have good installations based on the following

- 7 lbs of Carbon (1 x CL1(528P)CCS 1-G3A) per 250 USG of solution
- Flow rate around 1 tank turn over per hour through carbon. Where we can we have sold a system with a pre filter also.
- Circulation pump only needs about 1/4 tank turn-over per hour with pipe work as described above.

Remember during production the circulation pump is on but Carbon pump is not.

We have used Mag coupled with a slightly trimmed impeller. Single or double mechanical seal would also be OK, just check motor size - solution does not like air so we have not tried with verticals. CPVC or PP material is fine.

To reduce shear, we can also run larger pump at 1725 RPM, or place spacer between mounting (backplate) and suction casing to create a vortex action.

