

Offer No. 5349/0910 - 1. Amendment

seepex Inc.(US), ENON

06/25/2008

Item 1

N 130-12V

qty. 1

seepex progressive cavity pump  
N 130-24 / A1-C1-L8-F9-4E-X  
X= 0330, 0804, 11F9, 163, 20A7

#### General remarks

Please note that his selection is for a N 130-12V in lieu of the N 130-24 geometry.

#### Application data

|                       |                   |
|-----------------------|-------------------|
| Pumped liquid         | Sludge            |
| Viscosity             | assumed < 500 cPs |
| Solids content        | max 5% ds         |
| Size of solids        | no advice         |
| Spec. gravity         | assumed 1.0       |
| Temperature           | 270 F             |
| pH value              | no advice         |
| Composition/Concentr. | no advice         |
| Kind of operation     | 24h/day           |
| Site of installation  | indoors           |

#### Performance data

|                     | Flow rate    | Pressure | Speed   |
|---------------------|--------------|----------|---------|
|                     | 400 USGPM    | 300 psi  | 265 rpm |
| Starting torque     | 2279 lb.ft   |          |         |
| Max. power absorbed | 112.56 hp    |          |         |
| Suction pressure    | ass. flooded |          |         |
| Discharge pressure  | 300 psi      |          |         |

#### Materials and executions

|                                 |                                                          |
|---------------------------------|----------------------------------------------------------|
| Installation                    | horizontal                                               |
| Rotation                        | counter clockwise (left)                                 |
| Lantern / drive casing          | drive casing with double bearing seal                    |
| Lantern / drive casing material | EN-JL-1040 (grey cast iron 25)                           |
| Wetted casing parts             | suction casing with cleanouts on both sides              |
| Wetted casing parts material    | EN-JL-1040 (grey cast iron 25)                           |
| Joint execution                 | encapsulated (closed) joints with universal joint sleeve |
| Joints material                 | standard                                                 |
| Universal joint sleeve material | HNBR - Therban                                           |
| Coupling rod                    | standard                                                 |
| Coupling rod material           | 1.4021 / 420 SS                                          |
| Rotor                           | standard                                                 |
| Rotor material                  | 1.0503 / C45 duktil                                      |

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|                                   |                                                                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rotor coating</b>              | ductile chromium coating                                                                                                                                       |
| <b>Stator</b>                     | standard                                                                                                                                                       |
| <b>Stator material</b>            | HNBR - Therban                                                                                                                                                 |
| <b>Shaft sealing</b>              | single acting mechanical seal<br>as cartridge unit                                                                                                             |
| <b>Shaft seal casing material</b> | 1.4571 / 316 TI SS                                                                                                                                             |
| <b>Shaft seal material</b>        | rotating seal face: SiC solid<br>stationary seal face: SiC solid<br>elastomers: <b>FPM</b><br>spring: 2.4610 / Hastelloy C4<br>metal parts: 1.4571 / 316 TI SS |
| <b>Plug-in shaft</b>              | standard                                                                                                                                                       |
| <b>Plug-in shaft material</b>     | 1.4021 / 420 SS                                                                                                                                                |
| <b>Pump screw fitting</b>         | standard                                                                                                                                                       |
| <b>Painting</b>                   | standard RAL 5013 (blue)                                                                                                                                       |

**Connections**

|                                 |                                                                                                                                                                                              |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Branch / hopper position</b> | branch position 3                                                                                                                                                                            |
| <b>Casing parts connections</b> | Suction connection flange drilled to<br>ANSI B16,5:<br>DN 10" ANSI B16,5 150lbs<br>discharge connection flange drilled to<br>ANSI B16,5:<br>discharge connection:<br>DN 8" ANSI B16.5 300 lb |

**Drive**

|                           |                                    |
|---------------------------|------------------------------------|
| <b>Type</b>               | <b>Gear Reducer</b>                |
| <b>Design</b>             | B3                                 |
| <b>Gear ratio</b>         | i = 6.7<br><b>Nom.</b>             |
| <b>Output speed (rpm)</b> | 261                                |
| <b>Motor speed (rpm)</b>  | 1750                               |
| <b>Frequency (Hz)</b>     | 60                                 |
| <b>Electr. motor</b>      |                                    |
| <b>Type</b>               | <b>Severe Duty, Inverter Rated</b> |
| <b>Rated output</b>       | 125 hp                             |
| <b>Rated speed</b>        | 1750 rpm                           |
| <b>Starting</b>           | direct at VFD                      |
| <b>Voltage</b>            | 3x460 VAC                          |
| <b>Frequency</b>          | 60 Hz                              |

**Baseplate**

|                           |                                                     |
|---------------------------|-----------------------------------------------------|
| <b>Baseplate</b>          | baseplate for pump with free bare shaft<br>design N |
| <b>Baseplate material</b> | steel, painted                                      |
| <b>Baseplate options</b>  | side feet                                           |