

منظمة
الأغذية والزراعة
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Food and Agriculture
Organization of the
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Organisation des
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l'alimentation et
l'agriculture

Продовольственная и
сельскохозяйственная
организация
Объединенных Наций

Organización de las
Naciones Unidas para la
Agricultura y la
Alimentación

Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | Item No | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|---------|---|------|----------|-------------------|--------------|
| | | <p>changes in unit prices.</p> <ul style="list-style-type: none"> The control panel must be equipped with an alarming bell (100 dB at 8 meters distance) and flashing red alarm (should be visible from 300 meter during day). Alarms for all cases of failure as: voltage drop, no voltage or phase failure high or low pressure and no flow, high temperature etc. The alarm must be muted without general reset and there should a special button in the front door to stop it alone. Circuits must consist of the all necessary materials to operate and protect the system automatically and manually, the wiring color system, numbering all the components. The price includes the design of the whole system of control the contractor is intending to carry. The contractor should also submit at the end of work a built drawing. <p>The control panel design should include:</p> <ul style="list-style-type: none"> Transformer 230/24V 150VA Water level relay HK type. 220V AC /80 Watt with 2 fans in each compartment, one for taking in air and the other for taking out the air with grid (for the panel) complete with thermostat protection. SIREN (alarm system) <p>Alarm system 24V for :</p> <ol style="list-style-type: none"> High pressure outlet Low pressure outlet No flow (non return valve) Soft start fault High temperature <ul style="list-style-type: none"> The price includes the excavation works installing pressure switches, flow switch and level sensor and all the electrical parts with suitable conduits and metal ducts to complete the works. the price includes installing and testing for the mode of operation all mentioned devices and sensors. The control panel must be equipped with Earthling unit so the price includes. Earthling : The price of the control panel includes supplying and installing complete earth unit with earth equalizer compressing C40 box copper B.B. 25 mm², with minimum two concrete manholes as foundation lines , two earth electrodes, D>19m, L=1.5m and any other missing materials to earth the pumping station . | | | | |



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| | | The price includes testing earth unit so as to fulfill the standard requirements (resistance less than 1.5-2 ohm). The across different fittings in the piping system. <ul style="list-style-type: none"> The price also include supply all materials (as cables, in-out sockets and install, two outlets as 3-phase Service unit for the pumping room including Main MCB 5*20A -10 KA MOLLER type. MCB 2 *10A – 10KA Moeller type the control The price include all cable materials and works to conduct the electrical connections of the thermal sensor inside the motor -(the cable 3x2.5 mm² , the cable should be of suitable length. Use flexible thermal conduits, cable glands, wire terminals& labeling at both ends and all the accessories needed to complete the work(excavation &backfilling),the cable from the MDB to the head of pump motor. | | | | |
| 3 | | Flow Control switch: Supplying and installing an electrical flow switch suitable for 6" pipes, powered by a 24v-dc power source. Price includes all cables and protection conduits required to connect it with the control panel, as shown pumping layout view. | Num. | 1 | 100 | 100 |
| 4 | | Pressure barrel: Supplying and installing of a pressure barrel. The contractor shall supply and install all the pipes and fittings to connect with outlet main 6" pipes of the pump and should be according to specifications. The price include, complete instrumentation of the pressure barrel including all fittings and steel pipes ½" , and two-1/2 inch ball valves, pressure stabilizer needle valve at the entrance, foot valve-4directions, couples, nibbles, elbows with nuts, bolts, flanges and gaskets as needed to install the pressure barrel. The price includes supplying and installing all necessary materials and works to connect to the pressure switches and casting a suitable reinforced foundation under barrel, and above the pump ground level, as shown pumping layout view. | Lump sum | 1 | 600 | 600 |
| 5 | | Pressure Control switch Supply and install two pressure switches 1- 25bar. Price includes all cables and protection conduits required to connect it with the control panel, as shown pumping layout view. | Num. | 2 | 50 | 100 |
| 6 | | Supply and install pressure Relief Valve , 25atm, complete, The price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve and according to specifications Annex 1/ S7 . The Price also | piece | 1 | 700 | 700 |



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| 7 | include supplying and installing 2" coupling, 2"conical record, 2"nipple and 2" gate valve, as shown pumping layout view. | Lump sum | 1 | 2000 | 2000 |
| 8 | <p>Pump lifting and reinstallation: All works related to disjoin the existing discharge head, pumping pipes turbine, shafts, retainers, etc and reinstall the new pumping pipes, turbine, shafts, retainers and all related accessories. The price involves checking and operating the pump after finishing all project works to insure no vibration or unusual sound, as shown pumping layout view.</p> <p>Vertical Turbine; Supply and install a multi stage vertical pumping Turbine complete (pump, screen, shaft bowels, stages, connection head to the 5" and 6"pipes, and all related accessories) all as specified in the technical specifications attached with the tender. The price includes any other works to achieve the required head and quantity and efficiency. The main pumping data as follows:</p> <p>Current well total well depth is 200 meters; and the pump diameter is 8" the total pumping pipes length inside the well is approx. 150 meters, The existing pumping pipes diameter is 5"; and dynamic drawdown is not know exactly. Static water level is around 95 meters below surface. The turbine properties is fit as follows:</p> <ul style="list-style-type: none"> • Liquid water is suitable for field crops and vegetables irrigation. • Design capacity 70 m³/hr • Design anticipated total head at the intended turbine discharge 160 m. • Maximum pump column and discharge head assembly head losses (m): 3 • Shut-off head limits (m) min not less than 260 m. • Turbine overall efficiency at the working point is not less than 75%. • Min bowel efficiency at run out capacity 80%. • NPSHA at max run out capacity (m) :8 • NPSHA at max anticipated TDH (m): 5. • Pump operating speed (rpm) :1500 • Max pump diameter (inch) : 8" • Column pipe and discharge head diameter: 6" • Closed impellers manufactured from bronze and cast iron bowels. • Stainless steel column, stainless steel screen filter • The well pump shall be capable to run at shutoff head for a few minutes without mechanical problems. | Lump sum | 1 | 17000 | 17000 |



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| | | <ul style="list-style-type: none"> The turbine torque design should be duty inverter at speed range the design values between 1:10 The price includes supplying and installing all required flanges, coupling, reducers, bolts, spacers, sleeves, nuts, etc. to connect between the turbine outlet, turbine column and the rising pipes and shafts accordingly. The price also includes casting concrete foundation and I steel sections to should the turbine. The price includes all repair works as a result of old turbine disjoin or new turbine installation. The contractor shall do in site testing the turbine in accordance with the performance curve and submitting the test report. Before installing any new materials, the contractor must get the initial records for existing conditions of the well including: the well pumping capacity in m³/hr, water level inside the (dynamic and static). Therefore, the contractor must prepare suitable water meter and water level meter to carry on these measures. Therefore, the price of the turbine includes the costs of all these tests. In case the contractor failed to get these measurements, the turbine price will be less by 30% than the price proposed in his tender. | | | | |
| 9 | | Pumping pipes: Supply and install new seamless iron pumping pipes with the following specifications should be supplied: (SCH 40) Diameter 5", thickness not less than 7.1 mm; and teeth not less than 8 teeth in 1" and painted with epoxy from outside and inside or galvanized by factory from source of supply. The number of teeth should be enough to cover the whole length of the intended coupling and not less than 15 cm length. The price includes threading cutting and adding reducers, or flanges, bolts to connect between the new rising pipes and the pump. Taking in consideration that the quantity estimated in this tender may increase or decrease. | M.L | 180 | 110 | 19800 |
| 10 | | Shafts: Supply and install new shafts of carbon steel 1040, of 35 mm diameter and at the joints should be covered by stainless steel sleeves, and ended with a suitable couple according to Annex 1/S8. The price includes threading, cutting, adding suitable line shaft coupling, stabilizers to connect between the new shafts and the pump. Taking in consideration that the quantity estimated in this tender may increase or decrease. | M.L | 180 | 60 | 10800 |
| 11 | | Retainers and bearings: supply and install new bearing retainers made of bronze and taking in consideration that the quantity in this tender is estimated and may increase or | Num. | 60 | 90 | 5400 |



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| | decrease. | | | | |
| 12 | Rubber Joints: supply and install new rubber joints and taking in consideration that the quantity in this tender is estimated and may increase or decrease. | Num. | 60 | 20 | 1200 |
| 13 | Discharge head: Supply and assemble a new steel discharge head complete type F. The intake and outlet dimensions are 5"*6" the price includes supplying and installing wick and box, and suitable stainless steel column for the last riser pipe and connect with and up to motor shaft. The basic dimensions for the discharge head are 45*65 cm. The price includes supplying and installing a suitable stainless steel column for the last riser pipe. This column will connect with motor shaft. And it includes also supplying 2 suitable I steel section and casting new reinforced concrete foundation underneath the discharge head, as shown pumping layout view. | Lump sum | 1 | 1600 | 1600 |
| 14 | Accesses Pipes: PVC, polyvinyl chloride sch. 80 pipes NP 25 bars of 1.5 Inches Diam. Supply, install and test in the well access PVC, pipes sch. 80/1.5 " size threaded and suitable coupling at joints ,These pipes should fixed to the pumping pipes using stainless steel clamps. The price includes suitable couplings and 2*2.5 mm ² level submersible cable (>= 105 meter) and electrode. | M.L | 180 | 6.5 | 1170 |
| 15 | Gate valve: Supply and assemble gate valve, 6"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 2 | 400 | 800 |
| 16 | Gate valve: Supply and assemble gate valve, 3"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 1 | 200 | 200 |
| 17 | Gate valve: Supply and assemble gate valve, 2"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 1 | 100 | 100 |



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| | shown pumping layout view. | | | | |
| 18 | Non return valve: Supply and assemble a non return valve, 6" complete, 25 bar of the swing type .Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area according to specifications mentioned in Annex 1/ S1, as shown pumping layout view. | Num. | 1 | 900 | 900 |
| 19 | Compound air valve: Supply and assemble 2" compound air valve complete, 25 bar. The price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed according to specifications mentioned in Annex 1, S3. The Price also include supplying and installing 2" coupling, nipple and 2" gate valve., as shown pumping layout view. | Num. | 1 | 400 | 400 |
| 20 | Pressure gauge: Supply and assemble pressure gauge, 25 bar with oil liquid Rotal ASME, B40. Price includes excavation, cutting, welding, adding coupling, and accessories that are needed to assemble the gauge, as shown pumping layout view. | Num. | 3 | 50 | 150 |
| 21 | Dresser: Supply and assemble 6" dresser complete. Price includes ears 60 cm rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view | Num. | 2 | 200 | 400 |
| 22 | Dresser: Supply and assemble 3" dresser complete. Price includes ears 60 cm rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view. | Num. | 2 | 150 | 300 |
| 23 | Dresser conical record: Supply and assemble 2" dresser complete. Price includes rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view. | Num. | 1 | 50 | 50 |
| 24 | Steel pipes: Supply and install 6" steel pipes for irrigation network. The minimum thickness of pipes is 4 mm as shown in Annex 1 /S9. The price includes, all costs of transportation, pipes distribution, excavation, cutting, shaping, welding, painting two faces (red oxide priming paint and zinc oxide base oil paint). The price includes reconnecting the new installed pipes with old network pipes and adding new connections (2", pipes with old network pipes and adding new connections (2", | M.L | 24 | 40 | 960 |



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| | | 3" or 4") of similar sizes for all farms which exist on the old pipe line. | | | | |
| 25 | Galvanized 3" pipes Supply and install 3" diameter galvanized steel pipes thickness 3.96 mm, and according to specifications Annex 1/ S1-9, as shown pumping layout view. | M.L | 12 | 15 | 180 | |
| 26 | Galvanized 2" pipes Supply and install 2" diameter galvanized steel pipes thickness 3.96 mm, and according to specifications Annex 1/ S1-9, as shown pumping layout view. | M.L | 6 | 12 | 72 | |
| 27 | Elbows, T or Saddle: Supply and install 6"/90 or 45 degree black steel elbows or T and Saddle for welding SCH 40 anywhere within the project area | Num. | 5 | 50 | 250 | |
| 28 | Supply and install a complete 6" cast iron water meter according to ISO 4064 (class B) or equivalent annex 1/ S5. Capacity 200 m ³ /hr, 25 bar painted with epoxy coated from both inside and outside, the measuring unit should be removable type without removing the body Price includes excavation, cutting, welding, adding dresser, flanges, screws, bolts, gaskets and adding accessories that are needed to assemble the valve with the dresser, as shown pumping layout view. | Num. | 1 | 850 | 850 | |
| 29 | Provisional item Supply and install water meter with the following specifications as ABB type : <ul style="list-style-type: none"> • Built-in earthing (grounding) electro • Diameter 6" PN 25 bars. • Remote communications– including Profibus DP v0 • Electronic Display Unit: Forward, reverse and net totals – 4 digital outputs and Communications: serial data (RS232), HART and Profibus DP v0. Remote communication up to 100m length and built in memory 8 GB. Adjustable reading frequency up to 2 s. PLC programmable. • High accuracy as normal between 1-500 m³/hr • Housing IP65 (NEMA4) • Power supply AC/DC | L.S | 1 | 2000 | 2000 | |
| 30 | Supply, install a screen digital hydrostatic level meter | L.S | 1 | 2600 | 2600 | |



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| | | <p>(submersible digital level sensor) with the following characteristics:</p> <ul style="list-style-type: none"> • Water Level Measurement: 40m (max.) • Excitation: 9 to 30 Vdc, reverse polarity protected • Output: 4 to 20 mA DC, 2 wire, short circuit protected • Input Current: 20 mA max • Accuracy: 0.50% FS BFSL (includes linearity, hysteresis and repeatability) • Response Time: 2 ms • Operating Temperature: -10 to 60°C • Proof Pressure: 150% • Burst Pressure: 200% • Wetted Parts: 316 stainless steel • Electrical Connections: Submersible cable terminating in digital leads <p>The price include all works and materials, as cables, connections, sensor, digital screen that shows the remaining water depth above the sensor. The price includes all wiring necessary to connect the sensor inside the well's hole to the MCB. In addition to that a process meter/controller, should be digital and programmable one, with flush mounted to be installed in the MCB 's door, step response 2sec,6A dual relay</p> | | | | |
| 31 | | <p>Water Cooling Tank: Supply and install plastic polyethylene water tank capacity 1 m³ for cooling and lubrication of the shafts and rubber joints before the start according to PSI 99-1 to 6-1999. The price includes supplying and installing all necessary connections as 1-inch galvanized steel pipes, 1-inch ball valve, 1-inch dresser, 1-inch elbows etc. to connect between the water tank and the opening of the outlet at the discharge head, as shown pumping layout view.</p> | Num. | 1 | 200 | 200 |
| Grand Total in USD for well 15-18/005 (Falamya – Qalqilia) | | | \$ | | 194582 | |



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| 1 | | <p>Electric Motor: Disjoin the existing vertical hollow shaft motor and fittings, and then move them outside the operation site to the place within Kufri Jammal area specified by the project committee. Supply, transport, deliver, install, and operate successfully according to the specifications in the tender on the reinforced concrete foundation a new vertical hollow shaft Electric Motor with suitable reinforced foundation. The motor has to be inverter duty as 10:1 (6-60 Hertz) Speed Range Constant Torque voltage 220/380-440. The motor shall be of standard construction and suitable high thrust bearing to carry the loads of the rotating radial thrust, equipped with weather protection type-1 standard, insulation class F complete thermal protection unit, complete current overload unit. The motor must be not less than 90 horsepower at 1500 rpm, set at continuous steady state service factor 95%-100%, 1 year warranty starting from the date of the handing over certificate or 7000 working hours and whichever comes first; price involves casting a suitable reinforced concrete base for the new motor which fits the motor dimensions and its height matches level to the last vertical shaft discharge head. The concrete used should be B-300 and the two meshes a steel box and bars diameter 10 mm. The price includes supplying all cables and materials and executing all electrical connections needed between the following elements and despite of the length required: A- two cables one in between the main 3-phase power source or the proposed Municipality Tower close to the well and the other cable up-to the Main Electric Control Board inside the pumping room B- a cable between the Main Electric Control Board and the electric motor. The cable size and specifications are as follows: All above cables are to be round, blue or green color, copper conductors are solid and made of pure copper XPLE, PVC insulated, Armored with inner sheath, 600 V, conductors sizes $3 \times 50 + 1 \times 35 \text{ mm}^2$. The price includes all materials and works to install the above cables including whatever of electric, mechanical fittings and accessories as PVC and steel trenches, anchors with clamps, jumpers, stays including base, anchors steel wires, The cables must be lay inside 4" PVC/as rubber pipes of flexible spring type two layers. The price includes excavation inside all types of soil and rock trenches not less than 40*30 cms and lay on the cable inside these trenches and adding pure sand as backfilling to all size of the trenches and casting in the last 10 cm of the trenches with plain concrete over the pipes. The price includes supplying and installing all electric motor control devices (as RTDs) </p> | Lump sum | 1 | 13000 | 13000 |



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| | | <p>thermal, over load) and any other connections including cabling inside or outside the pumping station relevant to this work and according to standard specifications for this work. The opening tender committee will receive an offer about type and motor specifications, catalogues, and an in site testing report which shows that the motor is matching with these specifications.</p> <ul style="list-style-type: none"> - The price of this item includes supplying and installing two I steel section (25*30 cm) to hold on the motor - The electrical motor must be supplied with RTD (PT100) temperature protection. The type of motor connection must be suitable to present the motor temperature digitally inside the control panel. The price of this item includes all costs of materials and works to install and test the RTD control device. - The motor shall be designed and built for 24hr continuous service at any and all points within the required range of operation without overheating, cavitations, excessive vibration and strain. - Motor has to be new and furnished with a stainless steel name plate with data of the serial number, speed , KW, input voltage, Full load, Hz, power, etc . - All works necessary for transporting, supplying to the site of work, installing, connecting, running and testing are under the contractor expenses. - All works must be according to the Palestinian standards and engineers instructions and the specifications. - The price also includes any missing works not mentioned to execute this work. - The contractor must submit the motor specifications, certificate of origin , catalogs and on site testing report which shows that the motor is matching with the manufacturer specifications | | | | |
| 2 | | <p>Main Electrical Control Panel Unit: suitable for 60 m³/hr at 18 bars, and installing in the site for the mode of operation, a control board according to the following specifications and supervisor instructions: control panel box shall be made of three compartments: one for main hour meter and fuses-breaker. The second compartment for the 120 hp inverter as ABB, main breaker as Siemens, contactor, capacitor(s) bank, main cables inlet/outlet.), It shall be IP56 protected, thermally painted paint as (RAL 7302). All main cables and wiring must be closed with special plastic cover and protected against</p> | L.S | 1 | 9000 | 9000 |



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| 15-18/023 (Falamya – Qalqilia) | | <p>human electric shock. The third compartment includes all control circuits, and secondary contactor, breakers for the high voltage cabinet or the low voltage. The control panel must be fixed to the wall by six Jumbo screws and laid on a reinforced concrete foundation 40-50 cm above the ground. The contractor should submit as built drawing including soft and hard copy. In case the contractor will use any digital equipment including PLC he must submit the cable, the software, or any other accessories that are necessary to operate and maintain these digital equipment.</p> <p>The labelled nameplate should be mounted at the front of the main board behind the doors and above every switch and group of lamps. Control electric lamps 24v must be fixed to control all operation system, the starter shall be used to start, run, stop , protect and control manually and automatically by using the general required installation of the following equipment completely:</p> <ul style="list-style-type: none"> • The power circuit must consist of the following: main circuit breaker MCCB 3*200A,25KA adjustable for the company and for generator (MOLLER) two pieces. The price includes supplying and installing manual change over switch 4*250A, SOCOMEC type for manual operation. • Bus bar 200A/0.4KV (3 phases and neutral and earth) • complete 4p * 20KA surge arrestors of replaceable type. With box fuse 3*63. • Digital screen inverter 120 Hp as ABB type with bypass contactor 120 Hp as MOELLER type equipped with over /under load, over temperature and all control system needed with all protections rated at suitable power that matches the pump motor with (0.8-1.2) over load range. • suitable capacitor banks with discharge resistors compensating reactor dry type 400v 50 Hz to reach power factor 0.97 Ducati. Three phase capacitor with resistors 30 KVAR Ducati type. • Digital multi meter which is able to read directly from a screen (V, Hz, KW, A, PF). • No voltage phase sequence and phase failure relays of best quality as MOELLER. • On-off push button set and emergency off button. • Reset push buttons red color 22 mm. • Overload relay unit rated at 1-1.5 of motor full load including digital motor screen protection control board. • Temperature relay unit rated at the motor thermal | | | | |



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| | <p>sensor, including digital motor screen protection control board with all cables and connections.</p> <ul style="list-style-type: none"> • HRC fuses 3*63A complete Fernaz type or equivalent . • WHM 50*50mm. • 24h clock with 150 hr mechanical reserve. • suitable automatic breaker with adjustable thermal and magnetic protection (ISC>=25KA) NZM. • (0-500V) 96*96mm Voltmeter with selector switch between phases and neutral. • (0-300A) 96*96mm ammeter. • 3 phase fuse holders set , 10*38mm , with 20A fuses , • suitable earth leakage relay class A (AC and Dc trip). • contactor with discharge 25KVAR Moeller type. • Breakers for service Siemens type. • Relays and timers 24 V for no flow switch and high-pressure, low-pressure sensors. • Three phase 50 Hz 380V (KWh-meter), /5A-200/5 CT's. The KW-h meter as electromechanical meter or solid state and pre-paid card electric type. • 24V/ 50Hz indication lamps installed in front of the control cabinet.. • 3 position selector switch A-O-M. • 220-2 12V (AC) transformer 100VA. • the price includes all cables to be used for control purposes shall have the following cross section: • *(3*95 mm² + 35 mm²) for the internal connections inside main board and the contractor has to check and order the exact required length. • *1.5 mm² for the driving wheel circuits. • *2.5 mm² for the circuits of tension measurements. • *1.5 mm² for the sensors. • *4.0 mm² for the circuits of intensity measurements. • *All terminals shall be carefully protected to assure electrical insulation. • Switches, measuring instruments, and warning slights shall be installed in the front side of the panel. • The control panel shall be manufactured with enough space (minimum 40% free space of the total size) to insure easy maintenance and no interface between the wiring for all circuits. • All wires must be coded clearly and fixed with special wire heads to avoid loose connection. • All timers (PSK), relays and contactors shall be of best quality as Siemens | | | | |

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| | | <ul style="list-style-type: none"> • the contractor shall supply any other materials and devices that might be missed here and considered to be essential to complete the work without claiming any changes in unit prices. • The control panel must be equipped with an alarming bell (100 dB at 8 meters distance) and flashing red alarm (should be visible from 300 meter during day). Alarms for all cases of failure as: voltage drop, no voltage or phase failure high or low pressure and no flow, high temperature etc. • The alarm must be muted without general reset and there should a special button in the front door to stop it alone. • Circuits must consist of the all necessary materials to operate and protect the system automatically and manually, the wiring color system, numbering all the components. The price includes the design of the whole system of control the contractor is intending to carry. The contractor should also submit at the end of work a built drawing. <p>The control panel design should include:</p> <ul style="list-style-type: none"> • Transformer 230/24V 150VA • Water level relay HK type. • 220V AC /80 Watt with 2 fans in each compartment, one for taking in air and the other for taking out the air with grid (for the panel) complete with thermostat protection. • SIREN (alarm system) <p>Alarm system 24V for :</p> <ul style="list-style-type: none"> 26. High pressure outlet 27. Low pressure outlet 28. No flow (non return valve) 29. Soft start fault 30. High temperature <ul style="list-style-type: none"> • The price includes the excavation works installing pressure switches, flow switch and level sensor and all the electrical parts with suitable conduits and metal ducts to complete the works. • the price includes installing and testing for the mode of operation all mentioned devices and sensors. The control panel must be equipped with Earthling unit so the price includes. • Earthling : The price of the control panel includes supplying and installing complete earth unit with earth | | | | |



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|---------|---|----------|----------|-----|-------------------|--------------|
| Item No | Technical Description | Unit | Quantity | | | |
| | <p>equalizer compressing C40 box copper B.B. 25 mm², with minimum two concrete manholes as foundation lines , two earth electrodes, D>19m, L=1.5m and any other missing materials to earth the pumping station . The price includes testing earth unit so as to fulfill the standard requirements (resistance less than 1.5-2 ohm). The across different fittings in the piping system.</p> <ul style="list-style-type: none"> The price also include supply all materials (as cables, in-out sockets and install, two outlets as 3-phase Service unit for the pumping room including Main MCB 5*20A -10 KA MOLLER type. MCB 2 *10A – 10KA Moeller type the control The price include all cable materials and works to conduct the electrical connections of the thermal sensor inside the motor -(the cable 3x2.5 mm² , the cable should be of suitable length. Use flexible thermal conduits, cable glands, wire terminals& labeling at both ends and all the accessories needed to complete the work(excavation &backfilling),the cable from the MDB to the head of pump motor. | | | | | |
| 3 | Flow Control switch: Supplying and installing an electrical flow switch suitable for 6" pipes, powered by a 24v-dc power source. Price includes all cables and protection conduits required to connect it with the control panel, as shown pumping layout view. | Num. | 1 | 100 | 100 | |
| 4 | Pressure barrel: Supplying and installing of a pressure barrel. The contractor shall supply and install all the pipes and fittings to connect with outlet main 6" pipes of the pump and should be according to specifications. The price include, complete instrumentation of the pressure barrel including all fittings and steel pipes ½" , and two-1/2 inch ball valves, pressure stabilizer needle valve at the entrance, foot valve-4directions, couples, nibbles, elbows with nuts, bolts, flanges and gaskets as needed to install the pressure barrel. The price includes supplying and installing all necessary materials and works to connect to the pressure switches and casting a suitable reinforced foundation under barrel, and above the pump ground level, as shown pumping layout view. | Lump sum | 1 | 600 | 600 | |
| 5 | Pressure Control switch Supply and install two pressure switches 1- 25bar. Price includes all cables and protection conduits required to connect it with the control panel, as shown pumping layout view. | Num. | 2 | 50 | 100 | |



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| Well # | Item No | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|--|---|----------|----------|---|--------------|
| 6 | 15-18/023 (Falamya – Qalqilia) | Supply and install pressure Relief Valve, 25atm, complete, The price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve and according to specifications Annex 1/ S7 . The Price also include supplying and installing 2" coupling, 2"conical record, 2"nipple and 2" gate valve, as shown pumping layout view. | piece | 1 | 700 | 700 |
| 7 | Pump lifting and reinstallation: | All works related to disjoin the existing discharge head, pumping pipes turbine, shafts, retainers, etc and reinstall the new pumping pipes, turbine, shafts, retainers and all related accessories. The price involves checking and operating the pump after finishing all project works to insure no vibration or unusual sound, as shown pumping layout view. | Lump sum | 1 | 2000 | 2000 |
| 8 | Vertical Turbine; Supply and install a multi stage vertical pumping Turbine complete (pump, screen, shaft bowels, stages, connection head to the 5" and 6"pipes, and all related accessories) all as specified in the technical specifications attached with the tender. The price includes any other works to achieve the required head and quantity and efficiency. The main pumping data as follows: Current well total well depth is 160 meters; and the pump diameter is 8". The existing pumping pipes diameter is 6"; and the total pumping pipes length inside the well is approx. 150 meters, and dynamic drawdown is not know exactly. Static water level is around 124 meters below surface. The turbine properties is fit as follows: <ul style="list-style-type: none">• Liquid water is suitable for field crops and vegetables irrigation.• Design capacity m³/hr: 60• Design anticipated total head at the intended turbine discharge 180 m.• Maximum pump column and discharge head assembly head losses (m): 3• Shut-off head limits (m) min not less than 280 m.• Turbine overall efficiency at the working point is not less than 75%.• Min bowel efficiency at run out capacity 80%.• NPSHA at max run out capacity (m) :8• NPSHA at max anticipated TDH (m): 5.• Pump operating speed (rpm) :1500• Max pump diameter (inch) : 8"• Column pipe and discharge head diameter: 6"• Closed impellers manufactured from bronze and cast iron | Lump sum | 1 | 19000 | 19000 pump type ANAVALOS 8 MDU/36 | |



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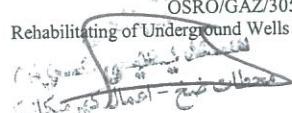
| Well # | Item No | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|---------|--|------|----------|-------------------|--------------|
| | | <p>bowels.</p> <ul style="list-style-type: none"> • Stainless steel column, stainless steel screen filter • The well pump shall be capable to run at shutoff head for a few minutes without mechanical problems. • The turbine torque design should be duty inverter at speed range the design values between 1:10 • The price includes supplying and installing all required flanges, coupling, reducers, bolts, spacers, sleeves, nuts, etc. to connect between the turbine outlet, turbine column and the rising pipes and shafts accordingly. The price also includes casting concrete foundation and I steel sections to should the turbine. The price includes all repair works as a result of old turbine disjoin or new turbine installation. • The contractor shall do in site testing the turbine in accordance with the performance curve and submitting the test report. Before installing any new materials, the contractor must get the initial records for existing conditions of the well including: the well pumping capacity in m³/hr, water level inside the (dynamic and static). Therefore, the contractor must prepare suitable water meter and water level meter to carry on these measures. Therefore, the price of the turbine includes the costs of all these tests. In case the contractor failed to get these measurements, the turbine price will be less by 30% than the price proposed in his tender. | | | | |
| 9 | | <p>Pumping pipes: Supply and install new seamless iron pumping pipes with the following specifications should be supplied: (SCH 40) Diameter 5", thickness not less than 7.1 mm; and teeth not less than 8 teeth in 1" and painted with epoxy from outside and inside or galvanized by factory from source of supply. The number of teeth should be enough to cover the whole length of the intended coupling and not less than 15 cm length. The price includes threading cutting and adding reducers, or flanges, bolts to connect between the new rising pipes and the pump. Taking in consideration that the quantity estimated in this tender may increase or decrease.</p> | M.L | 150 | 110 | 16500 |
| 10 | | <p>Shafts: Supply and install new shafts of carbon steel 1040, of 35 mm diameter and at the joints should be covered by stainless steel sleeves, and ended with a suitable couple according to Annex 1/S8. The price includes threading, cutting, adding suitable line shaft coupling, stabilizers to connect between the new shafts and the pump. Taking in consideration that the quantity estimated in this tender may increase or decrease.</p> | M.L | 150 | 60 | 9000 |



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| Well # | 15-18/023 (Falamya – Qalqilia) | | | | Unit price in USD | Total in USD |
|---------|---|----------|----------|------|-------------------|--------------|
| Item No | Technical Description | Unit | Quantity | | | |
| 11 | Retainers and bearings: supply and install new bearing retainers made of bronze and taking in consideration that the quantity in this tender is estimated and may increase or decrease. | Num. | 50 | 90 | 4500 | |
| 12 | Rubber Joints: supply and install new rubber joints and taking in consideration that the quantity in this tender is estimated and may increase or decrease. | Num. | 50 | 20 | 1000 | |
| 13 | Discharge head: Supply and assemble a new steel discharge head complete type F. The intake and outlet dimensions are 5"*6" the price includes supplying and installing wick and box, and suitable stainless steel column for the last riser pipe and connect with and up to motor shaft. The basic dimensions for the discharge head are 45*65 cm. The price includes supplying and installing a suitable stainless steel column for the last riser pipe. This column will connect with motor shaft. And it includes also supplying 2 suitable I steel section and casting new reinforced concrete foundation underneath the discharge head, as shown pumping layout view. | Lump sum | 1 | 1500 | 1500 | |
| 14 | Accesses Pipes: PVC, polyvinyl chloride sch. 80 pipes NP 25 bars of 1.5 Inches Diam. Supply, install and test in the well access PVC, pipes sch. 80/1.5 " size threaded and suitable coupling at joints ,These pipes should fixed to the pumping pipes using stainless steel clamps. The price includes suitable couplings and 2*2.5 mm ² level submersible cable (>= 105 meter) and electrode. | M.L | 150 | 6 | 900 | |
| 15 | Gate valve: Supply and assemble gate valve, 6"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 2 | 400 | 800 | |
| 16 | Gate valve: Supply and assemble gate valve, 3"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 1 | 200 | 200 | |
| 17 | Gate valve: Supply and assemble gate valve, 2"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, | Num. | 1 | 100 | 100 | |





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| Well # | 15-18/023 (Falamya – Qalqilia) | Unit | Quantity | Unit price in USD | Total in USD |
|--------|--|------|----------|-------------------|--------------|
| | bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications mentioned in Annex1, S2 , as shown pumping layout view. | | | | |
| 18 | Non return valve: Supply and assemble a non return valve, 6" complete, 25 bar of the swing type .Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area according to specifications mentioned in Annex 1/ S1, as shown pumping layout view. | Num. | 1 | 900 | 900 |
| 19 | Compound air valve: Supply and assemble 2" compound air valve complete, 25 bar. The price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed according to specifications mentioned in Annex 1, S3. The Price also include supplying and installing 2" coupling, nipple and 2" gate valve. , as shown pumping layout view. | Num. | 1 | 400 | 400 |
| 20 | Pressure gauge: Supply and assemble pressure gauge, 25 bar with oil liquid Rotal ASME, B40. Price includes excavation, cutting, welding, adding coupling, and accessories that are needed to assemble the gauge, as shown pumping layout view. | Num. | 3 | 50 | 150 |
| 21 | Dresser: Supply and assemble 6" dresser complete. Price includes ears 60 cm rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view | Num. | 2 | 200 | 400 |
| 22 | Dresser: Supply and assemble 3" dresser complete. Price includes ears 60 cm rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view. | Num. | 2 | 100 | 200 |
| 23 | Dresser conical record: Supply and assemble 2" dresser complete. Price includes rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view. | Num. | 1 | 50 | 50 |
| 24 | Steel pipes: Supply and install 6" steel pipes for irrigation network. The minimum thickness of pipes is 4 mm as shown in Annex 1 /S9. The price includes, all costs of transportation, pipes distribution, excavation, cutting, shaping, welding, | M.L | 24 | 40 | 960 |

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| Well # | 15-18/023 (Falamya – Qalqilia) | | | Unit price in USD | Total in USD |
|---------|--|------|----------|-------------------|--------------|
| Item No | Technical Description | Unit | Quantity | | |
| | painting two faces (red oxide priming paint and zinc oxide base oil paint). The price includes reconnecting the new installed pipes with old network pipes and adding new connections (2", 3" or 4") of similar sizes for all farms which exist on the old pipe line. | | | | |
| 25 | Galvanized 3" pipes Supply and install 3" diameter galvanized steel pipes thickness 3.96 mm, and according to specifications Annex 1/ S1-9, as shown pumping layout view. | M.L | 12 | 15 | 180 |
| 26 | Galvanized 2" pipes Supply and install 2" diameter galvanized steel pipes thickness 3.96 mm, and according to specifications Annex 1/ S1-9, as shown pumping layout view. | M.L | 6 | 12 | 72 |
| 27 | Elbows, T or Saddle: Supply and install 6"/90 or 45 degree black steel elbows or T and Saddle for welding SCH 40 anywhere within the project area | Num. | 5 | 50 | 250 |
| 28 | Supply and install a complete 6" cast iron water meter according to ISO 4064 (class B) or equivalent annex 1/ S5. Capacity 200 m³/hr, 25 bar painted with epoxy coated from both inside and outside, the measuring unit should be removable type without removing the body Price includes excavation, cutting, welding, adding dresser, flanges, screws, bolts, gaskets and adding accessories that are needed to assemble the valve with the dresser, as shown pumping layout view. | Num. | 1 | 850 | 850 |
| 29 | Provisional item Supply and install water meter with the following specifications as ABB type : <ul style="list-style-type: none"> • Built-in Earthling (grounding) electro • Diameter 6" PN 25 bars. • Remote communications– including Profibus DP v0 • Electronic Display Unit: Forward, reverse and net totals _ 4 digital outputs and Communications: serial data (RS232), HART and Profibus DP v0. Remote communication up to 100m length and built in memory 8 GB. Adjustable reading frequency up to 2 s. PLC programmable. • High accuracy as normal between 1-500 m³/hr • Housing IP65 (NEMA4) | L.S | 1 | 2000 | 2000 |

(الجهات المسؤولة عن تنفيذ العمل كهربائية - إدخال ضخم - مياه)
مills, power - water - large-scale entry - electrical responsibility

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| Well # | 15-18/023 (Falamya – Qalqilia) | | | | Unit price in USD | Total in USD |
|---------|---|------|----------|------|-------------------|--------------|
| Item No | Technical Description | Unit | Quantity | | | |
| 30 | <ul style="list-style-type: none"> • Power supply AC/DC <p>Supply, install a screen digital hydrostatic level meter (submersible digital level sensor) with the following characteristics:</p> <ul style="list-style-type: none"> • Water Level Measurement: 40m (max.) • Excitation: 9 to 30 Vdc, reverse polarity protected • Output: 4 to 20 mA DC, 2 wire, short circuit protected • Input Current: 20 mA max • Accuracy: 0.50% FS BFSL (includes linearity, hysteresis and repeatability) • Response Time: 2 ms • Operating Temperature: -10 to 60°C • Proof Pressure: 150% • Burst Pressure: 200% • Wetted Parts: 316 stainless steel • Electrical Connections: Submersible cable terminating in digital leads <p>The price include all works and materials, as cables, connections, sensor, digital screen that shows the remaining water depth above the sensor. The price includes all wiring necessary to connect the sensor inside the well's hole to the MCB. In addition to that a process meter/controller, should be digital and programmable one, with flush mounted to be installed in the MCB 's door, step response 2sec,6A dual relay</p> | L.S | 1 | 2600 | 2600 | |
| 31 | Water Cooling Tank: Supply and install plastic polyethylene water tank capacity 1 m ³ for cooling and lubrication of the shafts and rubber joints before the start according to PSI 99-1 to 6-1999. The price includes supplying and installing all necessary connections as 1-inch galvanized steel pipes, 1-inch ball valve, 1-inch dresser, 1-inch elbows etc. to connect between the water tank and the opening of the outlet at the discharge head, as shown pumping layout view. | Num. | 1 | 200 | 200 | |
| 32 | Well Acidification: Supply and inject 8 tons of hydrochloric acid concentration 33% inside the well hole. The price includes uplifting the pipes and turbine and tightly the well upper hole. This includes casting concrete layer thickness not less than 30 cm thickness 2 meters diameter around the whole and prevent any gas leakage. The work must be done by professional workers including safety measures according to manufacturer instructions. People are not allowed to stay close to well within 50 meters circle and for 12 hours at least. The pouring of acid liquids should be controlled by valves and laminar flow inside | Ton | 8 | 500 | 4000 | |

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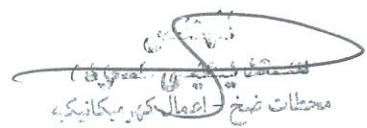
| Well # | 15-18/023 (Falamya – Qalqilia) | Unit | Quantity | Unit price in USD | Total in USD |
|--|--|------|----------|-------------------|--------------|
| Item No | Technical Description | | | | |
| | the well not by gravity section. The plastic pipes go from the acid tank until it reach water level surface and few meters below. The contractor must consider and recheck all safety measures and plan to leave the site for emergency situation. The contractor must start cleaning the well after 24 hours of adding the acid; delay is not accepted. | | | | |
| Grand Total in USD for well 15-18/023 (Falamya – Qalqilia) | | | | \$ 492212 | |



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| Well # | Item No | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|---------|---|----------|----------|-------------------|--------------|
| 1 | 1 | <p>Electric Motor: Disjoin the existing vertical diesel motor and fittings, and then move them outside the operation site to the place within Noor Shams area specified by the project committee. Supply, transport, deliver, install, and operate successfully according to the specifications in the tender on the reinforced concrete foundation a new vertical hollow shaft Electric Motor with suitable reinforced foundation. The motor has to be inverter duty as 10:1 (6-60 Hertz) Speed Range Constant Torque voltage 220/380-440. The motor shall be of standard construction and suitable high thrust bearing to carry the loads of the rotating radial thrust, equipped with weather protection type-1 standard, insulation class F complete thermal protection unit, complete current overload unit. The motor must be not less than 125 horsepower at 1500 rpm, set at continuous steady state service factor 95%-100%, 1 year warranty starting from the date of the handing over certificate or 7000 working hours and whichever comes first; price involves casting a suitable reinforced concrete base for the new motor which fits the motor dimensions and its height matches level to the last vertical shaft discharge head. The concrete used should be B-300 and the two meshes a steel box and bars diameter 10 mm. The price includes supplying all cables and materials and executing all electrical connections needed between the following elements and despite of the length required: A- two cables one in between the main 3-phase power source or the proposed Municipality Tower close to the well and the other cable up-to the Main Electric Control Board inside the pumping room B- a cable between the Main Electric Control Board and the electric motor. The cable size and specifications are as follows: All above cables are to be round, blue or green colour, copper conductors are solid and made of pure copper XPLE, PVC insulated, Armoured with inner sheath, 600 V, conductors sizes $3 \times 50 + 1 \times 35 \text{ mm}^2$. The price includes all materials and works to install the above cables including whatever of electric, mechanical fittings and accessories as PVC and steel trenches, anchors with clamps, jumpers, stays including base, anchors steel wires, The cables must be lay inside 4" PVC/as rubber pipes of flexible spring type two layers. The price includes excavation inside all types of soil and rock trenches not less than 40*30 cm and lay on the cable inside these trenches and adding pure sand as backfilling to all size of the trenches and casting in the last 10 cm of the trenches with plain concrete over the pipes. The price includes supplying and installing all electric motor control devices (as RTDs)</p> | Lump sum | 1 | 17500 | 17500 |



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| Well # | 15-19/006 (Tulkarem – Tulkarem) | | | Unit price in USD | Total in USD |
|---------|--|------|----------|-------------------|--------------|
| Item No | Technical Description | Unit | Quantity | | |
| | <p>thermal, over load) and any other connections including cabling inside or outside the pumping station relevant to this work and according to standard specifications for this work. The opening tender committee will receive an offer about type and motor specifications, catalogues, and an in site testing report which shows that the motor is matching with these specifications.</p> <ul style="list-style-type: none"> - The price of this item includes supplying and installing two I steel section (25*30 cm) to hold on the motor - The electrical motor must be supplied with RTD (PT100) temperature protection. The type of motor connection must be suitable to present the motor temperature digitally inside the control panel. The price of this item includes all costs of materials and works to install and test the RTD control device. - The motor shall be designed and built for 24hr continuous service at any and all points within the required range of operation without overheating, cavitations, excessive vibration and strain. - Motor has to be new and furnished with a stainless steel name plate with data of the serial number, speed , KW, input voltage, Full load, Hz, power, etc . - All works necessary for transporting, supplying to the site of work, installing, connecting, running and testing are under the contractor expenses. - All works must be according to the Palestinian standards and engineers instructions and the specifications. - The price also includes any missing works not mentioned to execute this work. - The contractor must submit the motor specifications, certificate of origin , catalogs and on site testing report which shows that the motor is matching with the manufacturer specifications | | | | |
| 2 | <p>Main Electrical Control Panel Unit: suitable for 70 m³/hr at 16 bars, and installing in the site for the mode of operation, a control board according to the following specifications and supervisor instructions : control panel box shall be made of three compartments: one for main hour meter and fuses-breaker. The second compartment for the 130 hp inverter as ABB, main breaker as Siemens, contactor, capacitor(s) bank, main cables inlet/outlet.), It shall be IP56 protected, thermally painted paint as (RAL 7302). All main cables and wiring must be closed with special plastic cover and protected against</p> | L.S | 1 | 9200 | 9200 |



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| Well # | 15-19/006 (Tulkarem – Tulkarem) | Unit | Quantity | Unit price in USD | Total in USD |
|---------|---|------|----------|-------------------|--------------|
| Item No | Technical Description | | | | |
| | <p>human electric shock. The third compartment includes all control circuits, and secondary contactor, breakers for the high voltage cabinet or the low voltage. The control panel must be fixed to the wall by six Jumbo screws and laid on a reinforced concrete foundation 40-50 cm above the ground. The contractor should submit as built drawing including soft and hard copy. In case the contractor will use any digital equipment including PLC he must submit the cable, the software, or any other accessories that are necessary to operate and maintain these digital equipment.</p> <p>The labeled nameplate should be mounted at the front of the main board behind the doors and above every switch and group of lamps. Control electric lamps 24v must be fixed to control all operation system, the starter shall be used to start, run, stop , protect and control manually and automatically by using the general required installation of the following equipment completely:</p> <ul style="list-style-type: none"> • The power circuit must consist of the following: main circuit breaker MCCB 3*200A,25KA adjustable for the company and for generator (MOLLER) two pieces. The price includes supplying and installing manual change over switch 4*250A, SOCOMEC type for manual operation. • Bus bar 200A/0.4KV (3 phases and neutral and earth) • complete 4p * 20KA surge arrestors of replaceable type. With box fuse 3*63. • Digital screen inverter 130 Hp as ABB type with bypass contactor 130 Hp as MOELLER type equipped with over /under load, over temperature and all control system needed with all protections rated at suitable power that matches the pump motor with (0.8-1.2) over load range. • suitable capacitor banks with discharge resistors compensating reactor dry type 400v 50 Hz to reach power factor 0.97 Ducati. Three phase capacitor with resistors 30 KVAR Ducati type. • Digital multi meter which is able to read directly from a screen (V, Hz, KW, A, PF). • No voltage phase sequence and phase failure relays of best quality as MOELLER. • On-off push button set and emergency off button. • Reset push buttons red color 22 mm. • Overload relay unit rated at 1-1.5 of motor full load including digital motor screen protection control board. • Temperature relay unit rated at the motor thermal | | | | |





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| Well # | 15-19/006 (Tulkarem – Tulkarem) | Unit | Quantity | Unit price in USD | Total in USD |
|---------|--|------|----------|-------------------|--------------|
| Item No | Technical Description | | | | |
| | <p>sensor, including digital motor screen protection control board with all cables and connections.</p> <ul style="list-style-type: none"> • HRC fuses 3*63A complete Fernaz type or equivalent. • WHM 50*50mm. • 24h clock with 150 hr mechanical reserve. • suitable automatic breaker with adjustable thermal and magnetic protection (ISC>=25KA) NZM. • (0-500V) 96*96mm Voltmeter with selector switch between phases and neutral. • (0-300A) 96*96mm ammeter. • 3 phase fuse holders set , 10*38mm , with 20A fuses , • suitable earth leakage relay class A (AC and Dc trip). • contactor with discharge 25KVAR Moeller type. • Breakers for service Siemens type. • Relays and timers 24 V for no flow switch and high-pressure, low-pressure sensors. • Three phase 50 Hz 380V (KWh-meter), /5A-200/5 CT's. The KW-h meter as electromechanical meter or solid state and pre-paid card electric type. • 24V/ 50Hz indication lamps installed in front of the control cabinet.. • 3 position selector switch A-O-M. • 220-2 12V (AC) transformer 100VA. • the price includes all cables to be used for control purposes shall have the following cross section: • *(3*95 mm² + 35 mm²) for the internal connections inside main board and the contractor has to check and order the exact required length. • *1.5 mm² for the driving wheel circuits. • *2.5 mm² for the circuits of tension measurements. • *1.5 mm² for the sensors. • *4.0 mm² for the circuits of intensity measurements. • *All terminals shall be carefully protected to assure electrical insulation. • Switches, measuring instruments, and warning slights shall be installed in the front side of the panel. • The control panel shall be manufactured with enough space (minimum 40% free space of the total size) to insure easy maintenance and no interface between the wiring for all circuits. • All wires must be coded clearly and fixed with special wire heads to avoid loose connection. • All timers (PSK), relays and contactors shall be of best quality as Siemens | | | | |



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| Well # | 15-19/006 (Tulkarem – Tulkarem) | Unit | Quantity | Unit price in USD | Total in USD |
|---------|--|------|----------|-------------------|--------------|
| Item No | Technical Description | | | | |
| | <ul style="list-style-type: none"> • the contractor shall supply any other materials and devices that might be missed here and considered to be essential to complete the work without claiming any changes in unit prices. • The control panel must be equipped with an alarming bell (100 dB at 8 meters distance) and flashing red alarm (should be visible from 300 meter during day). Alarms for all cases of failure as: voltage drop, no voltage or phase failure high or low pressure and no flow, high temperature etc. • The alarm must be muted without general reset and there should a special button in the front door to stop it alone. • Circuits must consist of the all necessary materials to operate and protect the system automatically and manually, the wiring color system, numbering all the components. The price includes the design of the whole system of control the contractor is intending to carry. The contractor should also submit at the end of work a built drawing. <p>The control panel design should include:</p> <ul style="list-style-type: none"> • Transformer 230/24V 150VA • Water level relay HK type. • 220V AC /80 Watt with 2 fans in each compartment, one for taking in air and the other for taking out the air with grid (for the panel) complete with thermostat protection. • SIREN (alarm system) <p>Alarm system 24V for :</p> <ol style="list-style-type: none"> 31. High pressure outlet 32. Low pressure outlet 33. No flow (non return valve) 34. Soft start fault 35. High temperature <ul style="list-style-type: none"> • The price includes the excavation works installing pressure switches, flow switch and level sensor and all the electrical parts with suitable conduits and metal ducts to complete the works. • the price includes installing and testing for the mode of operation all mentioned devices and sensors. The control panel must be equipped with Earthling unit so the price includes. • Earthling : The price of the control panel includes supplying and installing complete earth unit with earth equalizer compressing C40 box copper B.B. 25 mm², | | | | |





Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | Item No | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|---------|--|----------|----------|-------------------|--------------|
| | | <p>with minimum two concrete manholes as foundation lines , two earth electrodes, D>19m, L=1.5m and any other missing materials to earth the pumping station . The price includes testing earth unit so as to fulfil the standard requirements (resistance less than 1.5-2 ohm). The across different fittings in the piping system.</p> <ul style="list-style-type: none"> • The price also include supply all materials (as cables, in-out sockets and install, two outlets as 3-phase Service unit for the pumping room including Main MCB 5*20A -10 KA MOLLER type. MCB 2 *10A – 10KA Moeller type the control • The price include all cable materials and works to conduct the electrical connections of the thermal sensor inside the motor -(the cable 3x2.5 mm² , the cable should be of suitable length. Use flexible thermal conduits, cable glands, wire terminals& labelling at both ends and all the accessories needed to complete the work(excavation &backfilling),the cable from the MDB to the head of pump motor. | | | | |
| 3 | | Flow Control switch: Supplying and installing an electrical flow switch suitable for 6" pipes, powered by a 24v-dc power source. Price includes all cables and protection conduits required to connect it with the control panel, as shown pumping layout view. | Num. | 1 | 100 | 100 |
| 4 | | Pressure barrel: Supplying and installing of a pressure barrel. The contractor shall supply and install all the pipes and fittings to connect with outlet main 6" pipes of the pump and should be according to specifications. The price include, complete instrumentation of the pressure barrel including all fittings and steel pipes ½" , and two-1/2 inch ball valves, pressure stabilizer needle valve at the entrance, foot valve-4directions, couples, nibbles, elbows with nuts, bolts, flanges and gaskets as needed to install the pressure barrel. The price includes supplying and installing all necessary materials and works to connect to the pressure switches and casting a suitable reinforced foundation under barrel, and above the pump ground level, as shown pumping layout view. | Lump sum | 1 | 600 | 600 |
| 5 | | Pressure Control switch Supply and install two pressure switches 1- 25bar. Price includes all cables and protection conduits required to connect it with the control panel, as shown pumping layout view. | Num. | 2 | 50 | 100 |





Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | 15-19/006 (Tulkarem – Tulkarem) | Unit | Quantity | Unit price in USD | Total in USD |
|---------|---|----------|----------|-------------------|--------------|
| Item No | Technical Description | | | | |
| 6 | Supply and install pressure Relief Valve, 25atm, complete, The price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve and according to specifications Annex 1/ S7 . The Price also include supplying and installing 2" coupling, 2"conical record, 2"nipple and 2" gate valve, as shown pumping layout view. | piece | 1 | 700 | 700 |
| 7 | Pump lifting and reinstallation: All works related to disjoin the existing discharge head, pumping pipes turbine, shafts, retainers, etc and reinstall the new pumping pipes, turbine, shafts, retainers and all related accessories. The price involves checking and operating the pump after finishing all project works to insure no vibration or unusual sound, as shown pumping layout view. | Lump sum | 1 | 2000 | 2000 |
| 8 | Pumping pipes: Supply and install new seamless iron pumping pipes with the following specifications should be supplied: (SCH 40) Diameter 6", thickness not less than 7.1 mm; and teeth not less than 8 teeth in 1" and painted with epoxy from outside and inside or galvanized by factory from source of supply. The number of teeth should be enough to cover the whole length of the intended coupling and not less than 15 cm length. The price includes threading cutting and adding reducers, or flanges, bolts to connect between the new rising pipes and the pump. Taking in consideration that the quantity estimated in this tender may increase or decrease. | M.L | 18 | 130 | 2340 |
| 9 | Shafts: Supply and install new shafts of carbon steel 1040, of 40 mm diameter and at the joints should be covered by stainless steel sleeves, and ended with a suitable couple according to Annex 1/S8. The price includes threading, cutting, adding suitable line shaft coupling, stabilizers to connect between the new shafts and the pump. Taking in consideration that the quantity estimated in this tender may increase or decrease. | M.L | 18 | 90 | 1620 |
| 10 | Retainers and bearings: supply and install new bearing retainers made of bronze and taking in consideration that the quantity in this tender is estimated and may increase or decrease. | Num. | 6 | 150 | 900 |
| 11 | Rubber Joints: supply and install new rubber joints and taking in consideration that the quantity in this tender is estimated and may increase or decrease. | Num. | 60 | 1 | 60 |

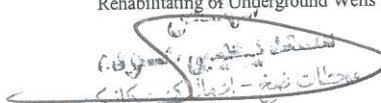
جامعة تل أبيب
جامعة تل أبيب



Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | Item No | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|---------------------------------|---|----------|----------|-------------------|--------------|
| | 15-19/006 (Tulkarem – Tulkarem) | | | | | |
| 12 | | Discharge head: Supply and assemble a new steel discharge head complete type F. The intake and outlet dimensions are 5"*6" the price includes supplying and installing wick and box, and suitable stainless steel column for the last riser pipe and connect with and up to motor shaft. The basic dimensions for the discharge head are 45*65 cm. The price includes supplying and installing a suitable stainless steel column for the last riser pipe. This column will connect with motor shaft. And it includes also supplying 2 suitable I steel section and casting new reinforced concrete foundation underneath the discharge head, as shown pumping layout view. | Lump sum | 1 | 1500 | 1500 |
| 13 | | Accesses Pipes: PVC, polyvinyl chloride sch. 80 pipes NP 25 bars of 1.5 Inches Diam. Supply, install and test in the well access PVC, pipes sch. 80/1.5 " size threaded and suitable coupling at joints ,These pipes should fixed to the pumping pipes using stainless steel clamps. The price includes suitable couplings and 2*2.5 mm ² level submersible cable (>= 105 meter) and electrode. | M.L | 90 | 6 | 540 |
| 14 | | Gate valve: Supply and assemble gate valve, 6"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 2 | 400 | 800 |
| 15 | | Gate valve: Supply and assemble gate valve, 3"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 1 | 200 | 200 |
| 16 | | Gate valve: Supply and assemble gate valve, 2"complete, 25 bar. Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed anywhere within the project area and according to specifications. mentioned in Annex1, S2 , as shown pumping layout view. | Num. | 1 | 100 | 100 |
| 17 | | Non return valve: Supply and assemble a non return valve, 6" complete, 25 bar of the swing type .Price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed | Num. | 1 | 900 | 900 |

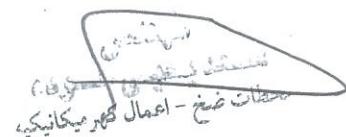




Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | 15-19/006 (Tulkarem – Tulkarem) | Unit | Quantity | Unit price in USD | Total in USD |
|---------|---|------|----------|-------------------|--------------|
| Item No | Technical Description | | | | |
| | anywhere within the project area according to specifications mentioned in Annex 1/ S1, as shown pumping layout view. | | | | |
| 18 | Compound air valve: Supply and assemble 2" compound air valve complete, 25 bar. The price includes excavation, cutting, welding, adding screws, bolts and accessories that are needed to assemble the valve. The valves could be installed according to specifications mentioned in Annex 1, S3. The Price also include supplying and installing 2" coupling, nipple and 2" gate valve., as shown pumping layout view. | Num. | 1 | 400 | 400 |
| G19.1 | Pressure gauge: Supply and assemble pressure gauge, 25 bar with oil liquid Rotal ASME, B40. Price includes excavation, cutting, welding, adding coupling, and accessories that are needed to assemble the gauge, as shown pumping layout view. | Num. | 3 | 50 | 150 |
| 19 | Dresser: Supply and assemble 6" dresser complete. Price includes ears 60 cm rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view | Num. | 2 | 125 | 250 |
| 20 | Dresser: Supply and assemble 3" dresser complete. Price includes ears 60 cm rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view. | Num. | 2 | 100 | 200 |
| 21 | Dresser conical record: Supply and assemble 2" dresser complete. Price includes rods and screws, bolts, excavation, cutting, welding, and adding accessories that are needed to assemble the dresser with NP 25 bar, as shown pumping layout view. | Num. | 1 | 100 | 100 |
| 22 | Steel pipes: Supply and install 6" steel pipes for irrigation network. The minimum thickness of pipes is 4 mm as shown in Annex 1 /S9. The price includes, all costs of transportation, pipes distribution, excavation, cutting, shaping, welding, painting two faces (red oxide priming paint and zinc oxide base oil paint). The price includes reconnecting the new installed pipes with old network pipes and adding new connections (2", 3" or 4") of similar sizes for all farms which exist on the old pipe line. | M.L | 24 | 40 | 960 |

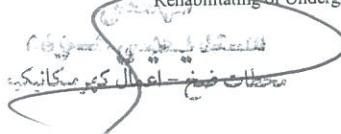




Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | Item No. | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--------|---|-----------------------|------|----------|-------------------|--------------|
| | 15-19/006 (Tulkarem – Tulkarem) | | | | | |
| 23 | Galvanized 3" pipes Supply and install 3" diameter galvanized steel pipes thickness 3.96 mm, and according to specifications Annex 1/ S1-9, as shown pumping layout view. | M.L | 12 | 15 | 180 | |
| 24 | Galvanized 2" pipes Supply and install 2" diameter galvanized steel pipes thickness 3.96 mm, and according to specifications Annex 1/ S1-9, as shown pumping layout view. | M.L | 6 | 20 | 120 | |
| 25 | Elbows, T or Saddle: Supply and install 6"/90 or 45 degree black steel elbows or T and Saddle for welding SCH 40 anywhere within the project area | Num. | 5 | 50 | 250 | |
| 26 | Supply and install a complete 6" cast iron water meter according to ISO 4064 (class B) or equivalent annex 1/ S5. Capacity 200 m³/hr, 25 bar painted with epoxy coated from both inside and outside, the measuring unit should be removable type without removing the body Price includes excavation, cutting, welding, adding dresser, flanges, screws, bolts, gaskets and adding accessories that are needed to assemble the valve with the dresser, as shown pumping layout view. | Num. | 1 | 850 | 850 | |
| 27 | Provisional item Supply and install water meter with the following specifications as ABB type : <ul style="list-style-type: none"> • Built-in Earthling (grounding) electro • Diameter 6" PN 25 bars. • Remote communications– including Profibus DP v0 • Electronic Display Unit: Forward, reverse and net totals – 4 digital outputs and Communications: serial data (RS232), HART and Profibus DP v0. Remote communication up to 100m length and built in memory 8 GB. Adjustable reading frequency up to 2 s. PLC programmable. • High accuracy as normal between 1-500 m³/hr • Housing IP65 (NEMA4) • Power supply AC/DC | L.S | 1 | 2000 | 2000 | |
| 28 | Supply, install a screen digital hydrostatic level meter (submersible digital level sensor) with the following characteristics: <ul style="list-style-type: none"> • Water Level Measurement: 40m (max.) | L.S | 1 | 2600 | 2600 | |





Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

| Well # | Item No. | Technical Description | Unit | Quantity | Unit price in USD | Total in USD |
|--|----------|---|------|----------|-------------------|--------------|
| | | <ul style="list-style-type: none"> • Excitation: 9 to 30 Vdc, reverse polarity protected • Output: 4 to 20 mA DC, 2 wire, short circuit protected • Input Current: 20 mA max • Accuracy: 0.50% FS BFSL (includes linearity, hysteresis and repeatability) • Response Time: 2 ms • Operating Temperature: -10 to 60°C • Proof Pressure: 150% • Burst Pressure: 200% • Wetted Parts: 316 stainless steel • Electrical Connections: Submersible cable terminating in digital leads <p>The price includes all works and materials, as cables, connections, sensor, digital screen that shows the remaining water depth above the sensor. The price includes all wiring necessary to connect the sensor inside the well's hole to the MCB. In addition to that a process meter/controller, should be digital and programmable one, with flush mounted to be installed in the MCB 's door, step response 2sec,6A dual relay</p> | | | | |
| 29 | | Water Cooling Tank: Supply and install plastic polyethylene water tank capacity 1 m ³ for cooling and lubrication of the shafts and rubber joints before the start according to PSI 99-1 to 6-1999. The price includes supplying and installing all necessary connections as 1-inch galvanized steel pipes, 1-inch ball valve, 1-inch dresser, 1-inch elbows etc. to connect between the water tank and the opening of the outlet at the discharge head, as shown pumping layout view. | Num. | 1 | 200 | 200 |
| Grand Total in USD for well 15-19/006 (Tulkarem – Tulkarem) | | | | | | \$ 1,474.20 |



Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

SUMMARY OF THE TOTAL COSTS PER EACH WELLS

| No. | Well's Owner | Well's No. | Location | Governorate | Total Price in USD |
|--------------------|------------------------|------------|----------|-------------|-----------------------|
| 1 | Sumsam Al Nimer | 19-16/006 | Fasayel | Jericho | 49050 |
| 2 | Ghazi Jamal Qasem | 14-17/014 | Hableh | Qalqilia | 47044 |
| 3 | Ali Idrees Al-Shantti | 14-17/012 | Qalqilia | Qalqilia | 44364 |
| 4 | Mohammed Sa'eed Barham | 14-17/031 | Hasamis | Qalqilia | 50090 |
| 5 | Rashid Shanti | 14-17/011 | Hableh | Qalqilia | 50490 |
| 6 | Othman Tabib | 14-17/042 | Hableh | Qalqilia | 49690 |
| 7 | yousef Hasaneen | 14-17/038 | Qalqilia | Qalqilia | 63352 |
| 8 | Hasan Al-Haj Hasan | 15-17/010 | Qalqilia | Qalqilia | 72202 |
| 9 | Sadeq Salim | 15-18/001 | Falamya | Qalqilia | 86772 |
| 10 | Kamel Salim | 15-18/003 | Falamya | Qalqilia | 88422 |
| 11 | Abdelruhman Saleh | 15-18/005 | Falamya | Qalqilia | 94582 |
| 12 | Farouq Salem | 15-18/023 | Falamya | Qalqilia | 92212 |
| 13 | Rafat Qabbaj | 15-19/006 | Tulkarem | Tulkarem | 47420 |
| Grand Total In USD | | | | | \$ 836140 |



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l'agriculture

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Объединенных Наций

Organización de las
Naciones Unidas para la
Agricultura y la
Alimentación

Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

ANNEX III

LIST OF LOCATIONS

The rehabilitation works to be carried out are distributed among the following district/locality:

| No | Well's Owner | Well's No. | Location | Governorate |
|----|------------------------|------------|----------|-------------|
| 1 | Sumsam Al Nimer | 19-16/006 | Fasayel | Jericho |
| 2 | Ghazi Jamal Qasem | 14-17/014 | Hableh | Qalqilia |
| 3 | Ali Idrees Al-Shantti | 14-17/012 | Qalqilia | Qalqilia |
| 4 | Mohammed Sa'eed Barham | 14-17/031 | Hasamis | Qalqilia |
| 5 | Rashid Shanti | 14-17/011 | Hableh | Qalqilia |
| 6 | Othman Tabib | 14-17/042 | Hableh | Qalqilia |
| 7 | yousef Hasaneen | 14-17/038 | Qalqilia | Qalqilia |
| 8 | Hasan Al-Haj Hasan | 15-17/010 | Qalqilia | Qalqilia |
| 9 | Sadeq Salim | 15-18/001 | Falamya | Qalqilia |
| 10 | Kamel Salim | 15-18/003 | Falamya | Qalqilia |
| 11 | Abdelruhman Saleh | 15-18/005 | Falamya | Qalqilia |
| 12 | Farouq Salem | 15-18/023 | Falamya | Qalqilia |
| 13 | Rafat Qabbaj | 15-19/006 | Tulkarem | Tulkarem |



Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

ANNEX IV

SCHEDULE OF CONTRACT PERFORMANCE

Please quote your best completion timeline –from the award of the contract:

Our proposed work completion dates

| No | Well's Owner | Well's No. | Location | Governorate | requested Completion date |
|----|------------------------|------------|----------|-------------|---------------------------|
| 1 | Sumsam Al Nimer | 19-16/006 | Fasayel | Jericho | 28 September 2014 |
| 2 | Ghazi Jamal Qasem | 14-17/014 | Hableh | Qalqilia | 26 October 2014 |
| 3 | Ali Idrees Al-Shantti | 14-17/012 | Qalqilia | Qalqilia | 26 October 2014 |
| 4 | Mohammed Sa'eed Barham | 14-17/031 | Hasamis | Qalqilia | 26 October 2014 |
| 5 | Rashid Shanti | 14-17/011 | Hableh | Qalqilia | 16 November 2014 |
| 6 | Othman Tabib | 14-17/042 | Hableh | Qalqilia | 16 November 2014 |
| 7 | yousef Hasaneen | 14-17/038 | Qalqilia | Qalqilia | 26 October 2014 |
| 8 | Hasan Al-Haj Hasan | 15-17/010 | Qalqilia | Qalqilia | 26 October 2014 |
| 9 | Sadeq Salim | 15-18/001 | Falamya | Qalqilia | 28 September 2014 |
| 10 | Kamel Salim | 15-18/003 | Falamya | Qalqilia | 26 October 2014 |
| 11 | Abdelruhman Saleh | 15-18/005 | Falamya | Qalqilia | 26 October 2014 |
| 12 | Farouq Salem | 15-18/023 | Falamya | Qalqilia | 28 September 2014 |
| 13 | Rafat Qabbaj | 15-19/006 | Tulkarem | Tulkarem | 26 October 2014 |

Your proposed work completion dates

| No | Well's Owner | Well's No. | Location | Governorate | Proposed Completion date |
|----|------------------------|------------|----------|-------------|--------------------------|
| 1 | Sumsam Al Nimer | 19-16/006 | Fasayel | Jericho | 30/18 |
| 2 | Ghazi Jamal Qasem | 14-17/014 | Hableh | Qalqilia | 30/19 |
| 3 | Ali Idrees Al-Shantti | 14-17/012 | Qalqilia | Qalqilia | 30/19 |
| 4 | Mohammed Sa'eed Barham | 14-17/031 | Hasamis | Qalqilia | 30/19 |
| 5 | Rashid Shanti | 14-17/011 | Hableh | Qalqilia | 15/10 |
| 6 | Othman Tabib | 14-17/042 | Hableh | Qalqilia | 15/10 |
| 7 | yousef Hasaneen | 14-17/038 | Qalqilia | Qalqilia | 15/10 |
| 8 | Hasan Al-Haj Hasan | 15-17/010 | Qalqilia | Qalqilia | 30/18 |
| 9 | Sadeq Salim | 15-18/001 | Falamya | Qalqilia | 30/10 |
| 10 | Kamel Salim | 15-18/003 | Falamya | Qalqilia | 30/10 |
| 11 | Abdelruhman Saleh | 15-18/005 | Falamya | Qalqilia | 30/10 |
| 12 | Farouq Salem | 15-18/023 | Falamya | Qalqilia | 20/19 |
| 13 | Rafat Qabbaj | 15-19/006 | Tulkarem | Tulkarem | 30/18 |

all Ref to today log at manufacturing facilities
 If order is placed today

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Tender No.: OSRO/GAZ/305/UK -01/14

June 30, 2014

ANNEX V

Bid Securing Declaration

[The Bidder shall fill in this Form in accordance with the instructions indicated.]

Date:

ITB No.: OSRO/GAZ/305/UK – 01/14

To: Food and Agriculture Organization (FAO)

We, the undersigned, declare that:

We understand that, according to your conditions, tenders must be supported by a Bid-Securing Declaration. We accept that we will automatically be suspended from being eligible for bidding in any contract with the Procuring Entity for the period of time of ONE YEAR from the date of bid closing, if we are in breach of our obligation(s) under the bid conditions, because:

- (a) We withdrawn our Bid during the period of bid validity specified in the Form of Tender; or
- (b) Having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of twenty-eight days after the expiration of our Tender.

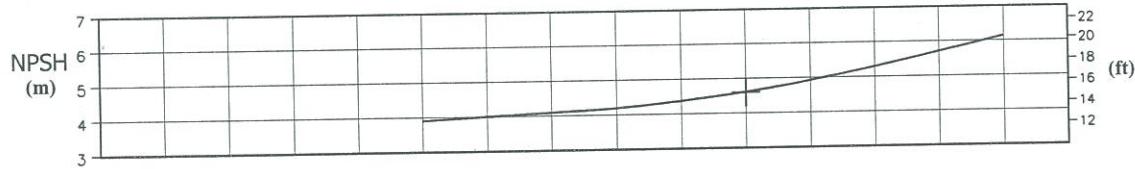
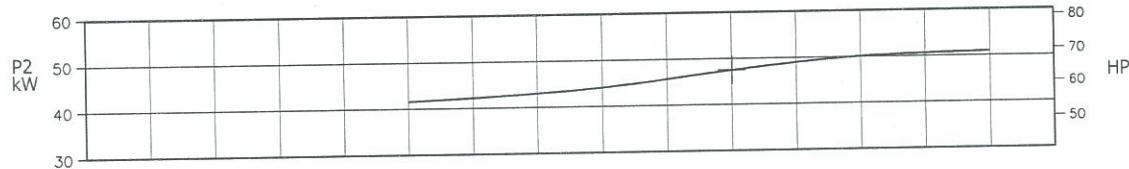
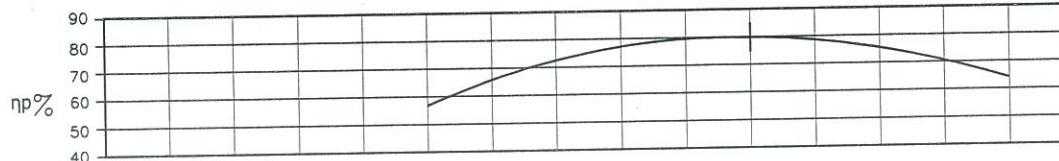
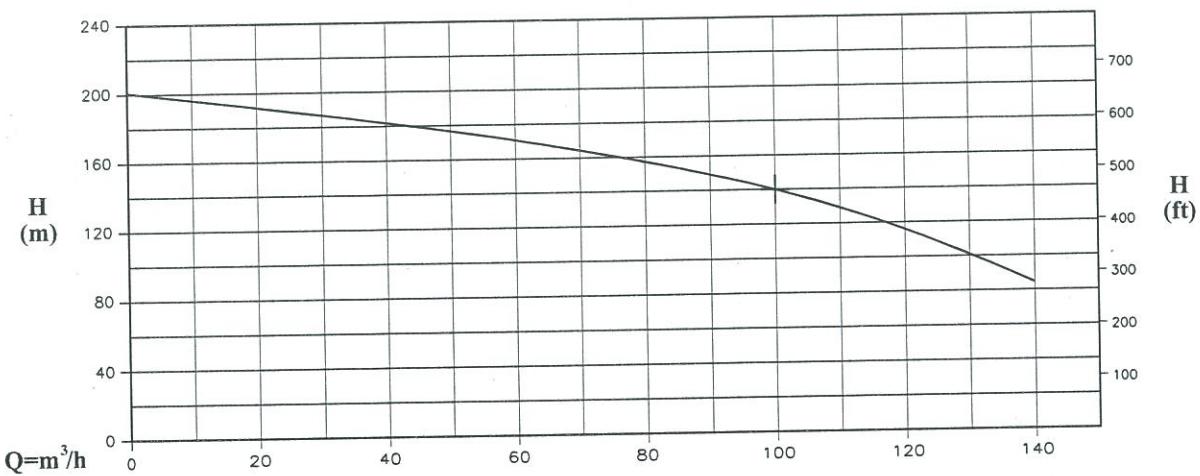
Signed: *Eng. Sadodeh*
Name: *Sadodeh*

Stamp:

Duly authorized to sign the bid for and on behalf of:

Dated on 21 day of 7, 14

[Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the tender.]

19-16/006 Fasayel

Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------------------------|
| Type: | 8MC/7 | Capacity: | 100 m^3/h |
| Stages: | 7 | Head: | 140 m |
| Motor Power: | 55 kW | Efficiency: | 79% |
| Speed: | 2900 r.p.m. | Power (pump) P2: | 48.3 kW |
| | | NPSH r: | 4.6 m |

Column losses are not included

 Tolerances
 ISO 9906 GRADE 2

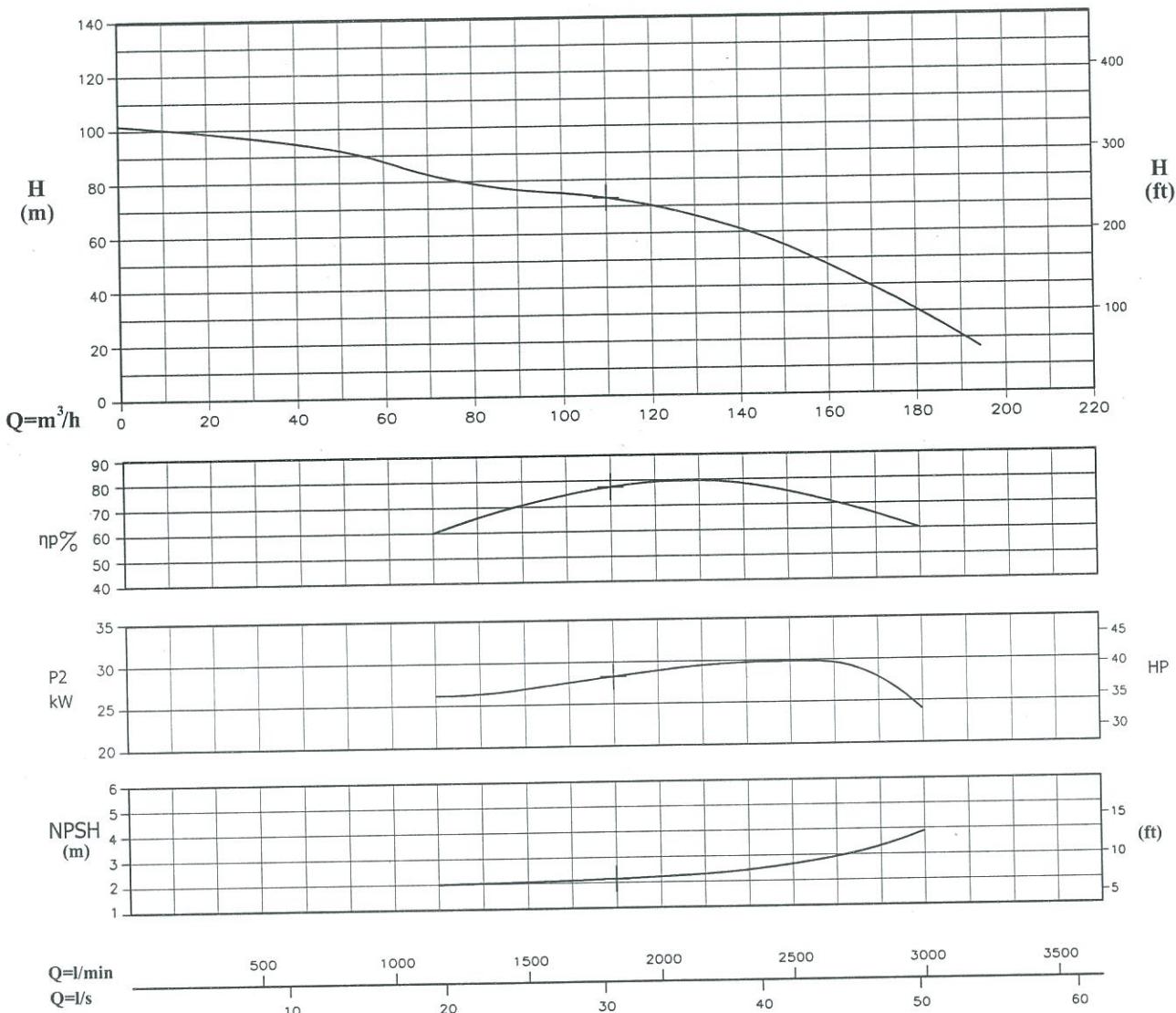
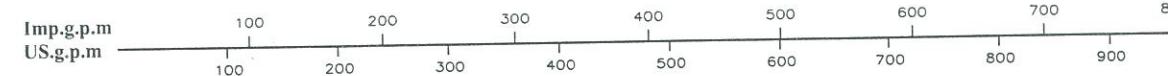


Αποδόσεις σε
Performances at

1800 r.p.m.

8MLEV/10

14-17/01/4 Habibeh



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 8MLEV/10 | Capacity: | 110m³/h |
| Stages: | 10 | Head: | 73 m |
| Motor Power: | 37 kW | Efficiency: | 77% |
| Speed: | 1760 r.p.m. | Power (pump) P2: | 28.4 kW |
| | | NPSH r: | 2.2 m |

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2

مختبرات ضياع - اهتمام كويكاباكي

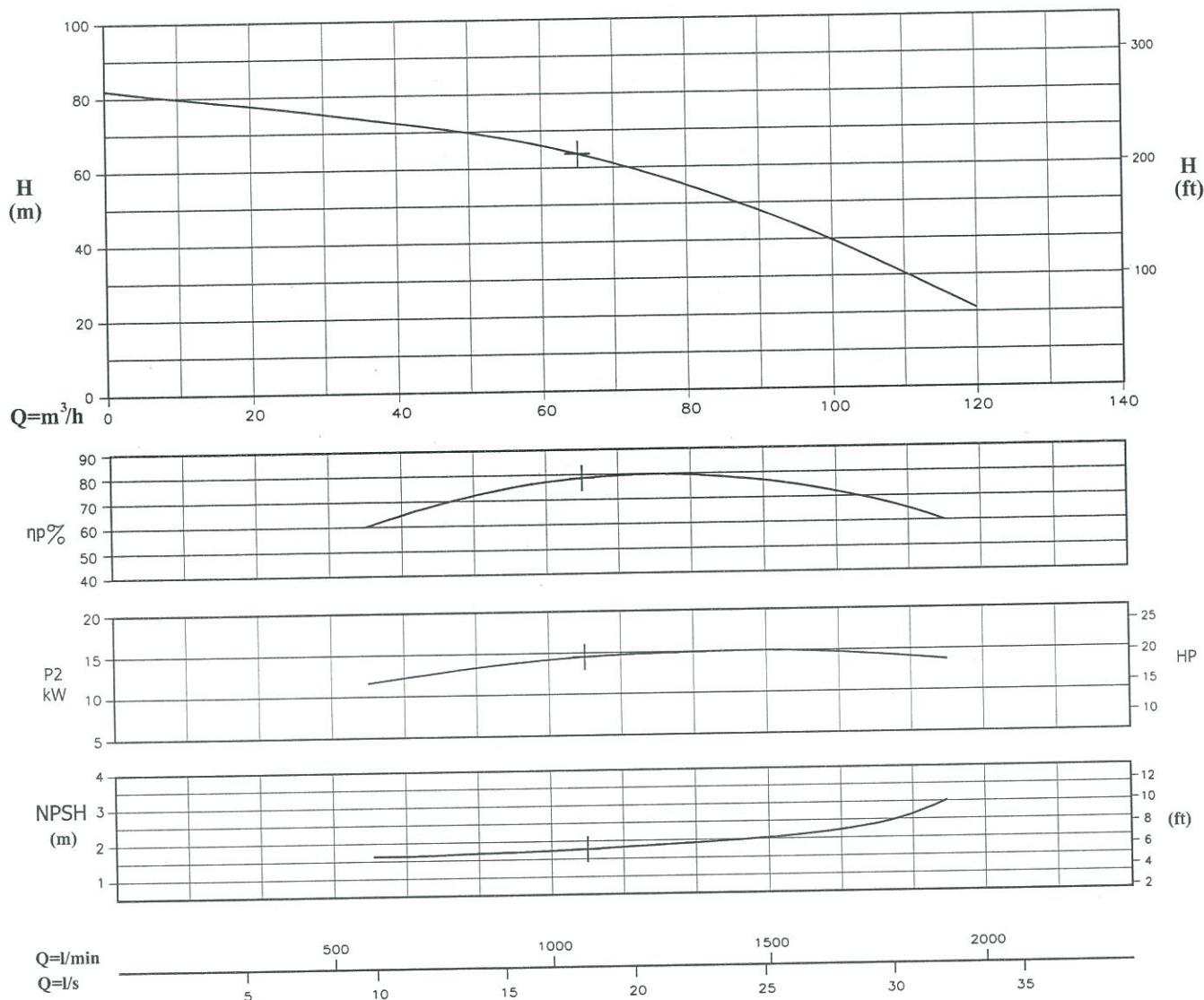


Αποδόσεις σε
Performances at

1800 r.p.m.

8MDV/8

14-17/012 Galgilia



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 8MDV/8 | Capacity: | 65m³/h |
| Stages: | 8 | Head: | 64 m |
| Motor Power: | 18.5 kW | Efficiency: | 78% |
| Speed: | 1760 r.p.m. | Power (pump) P2: | 14.5 kW |
| | | NPSH r: | 1.8 m |

نوع المروحة مغلقة
أداء مروحة مغلقة
Tolerances
ISO 9906 GRADE 2

Impeller Type : closed

Column losses are not included



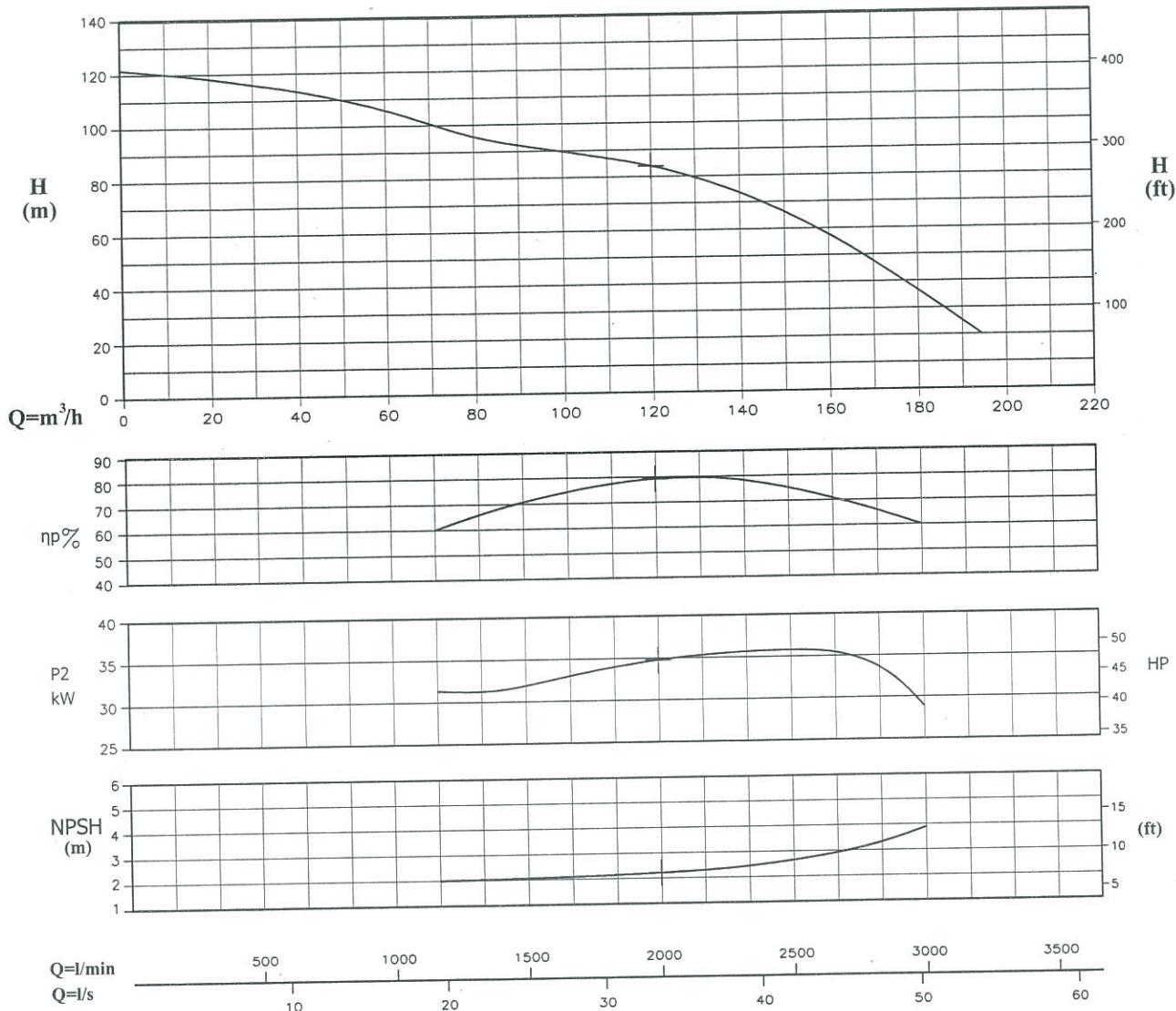
Αποδόσεις σε
Performances at

1800 r.p.m.

8MLEV/12

14-17/03/1 Hasamis

Imp.g.p.m 100 200 300 400 500 600 700 800
US.g.p.m 100 200 300 400 500 600 700 800 900



Operation data specification at duty point

| | | | |
|--------------|-------------|----------------------|----------------------|
| Type: | 8MLEV/12 | Capacity: | 120m ³ /h |
| Stages: | 12 | Head: | 84 m |
| Motor Power: | 45 kW | Efficiency: | 79% |
| Speed: | 1760 r.p.m. | Power (pump) P_2 : | 34.7 kW |

NPSH r:

2.2 m
Handwritten note: 2.2 m

| Impeller Type : closed | Column losses are not included | Tolerances ISO 9906 GRADE 2 |
|------------------------|--------------------------------|--------------------------------|
|------------------------|--------------------------------|--------------------------------|



Αποδόσεις σε
Performances at

1800 r.p.m.

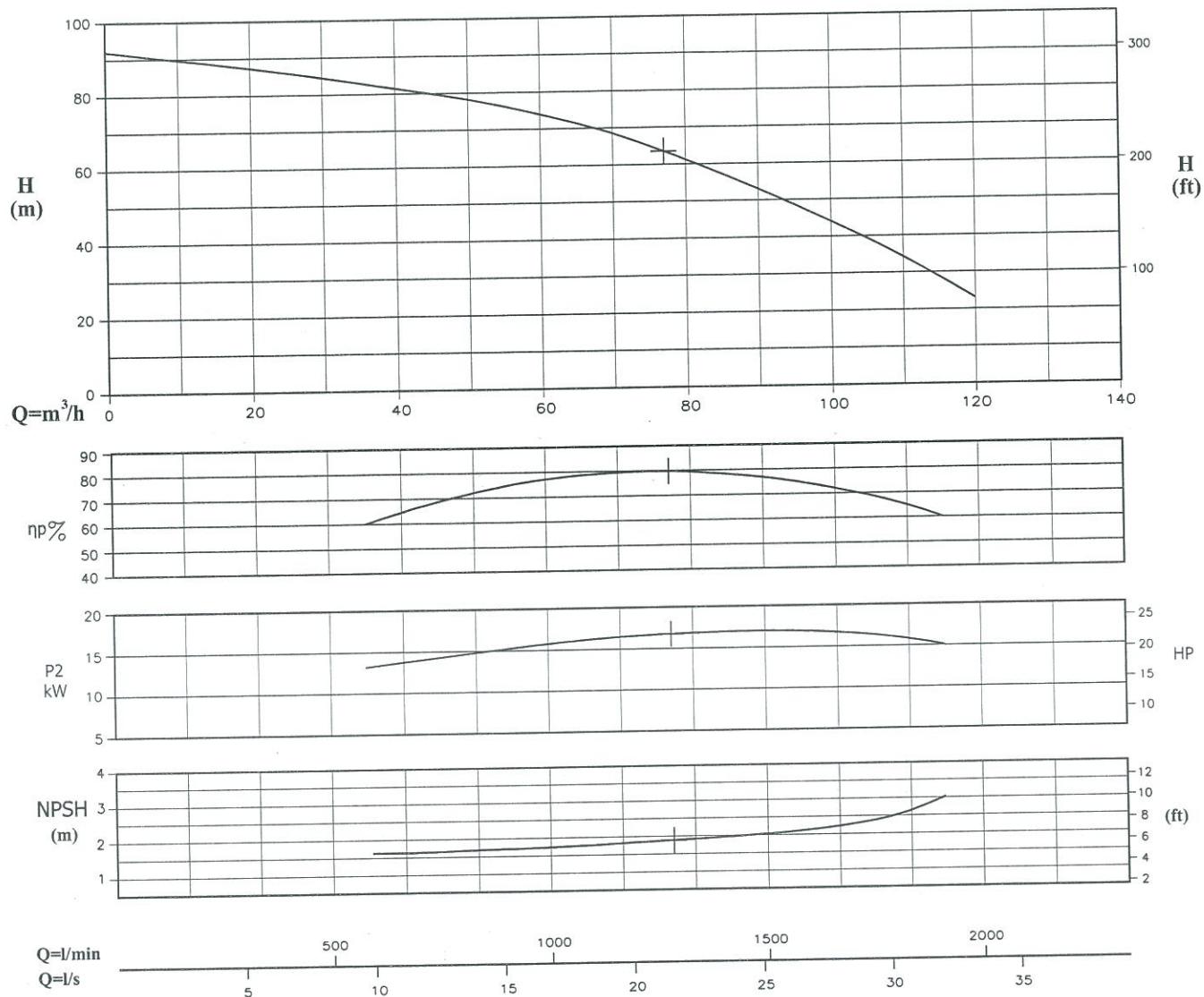
8MDV/9

Imp.g.p.m
US.g.p.m

100 200 300 400 500
100 200 300 400 500 600

14-17/011

Hableh



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 8MDV/9 | Capacity: | 77 m³/h |
| Stages: | 9 | Head: | 64 m |
| Motor Power: | 22 kW | Efficiency: | 80% |
| Speed: | 1760 r.p.m. | Power (pump) P2: | 16.8 kW |
| | | NPSH r: | 1.9 m |

| | | |
|------------------------|--------------------------------|--------------------------------|
| Impeller Type : closed | Column losses are not included | Tolerances ISO 9906 GRADE 2 |
|------------------------|--------------------------------|--------------------------------|



Αποδόσεις σε
Performances at

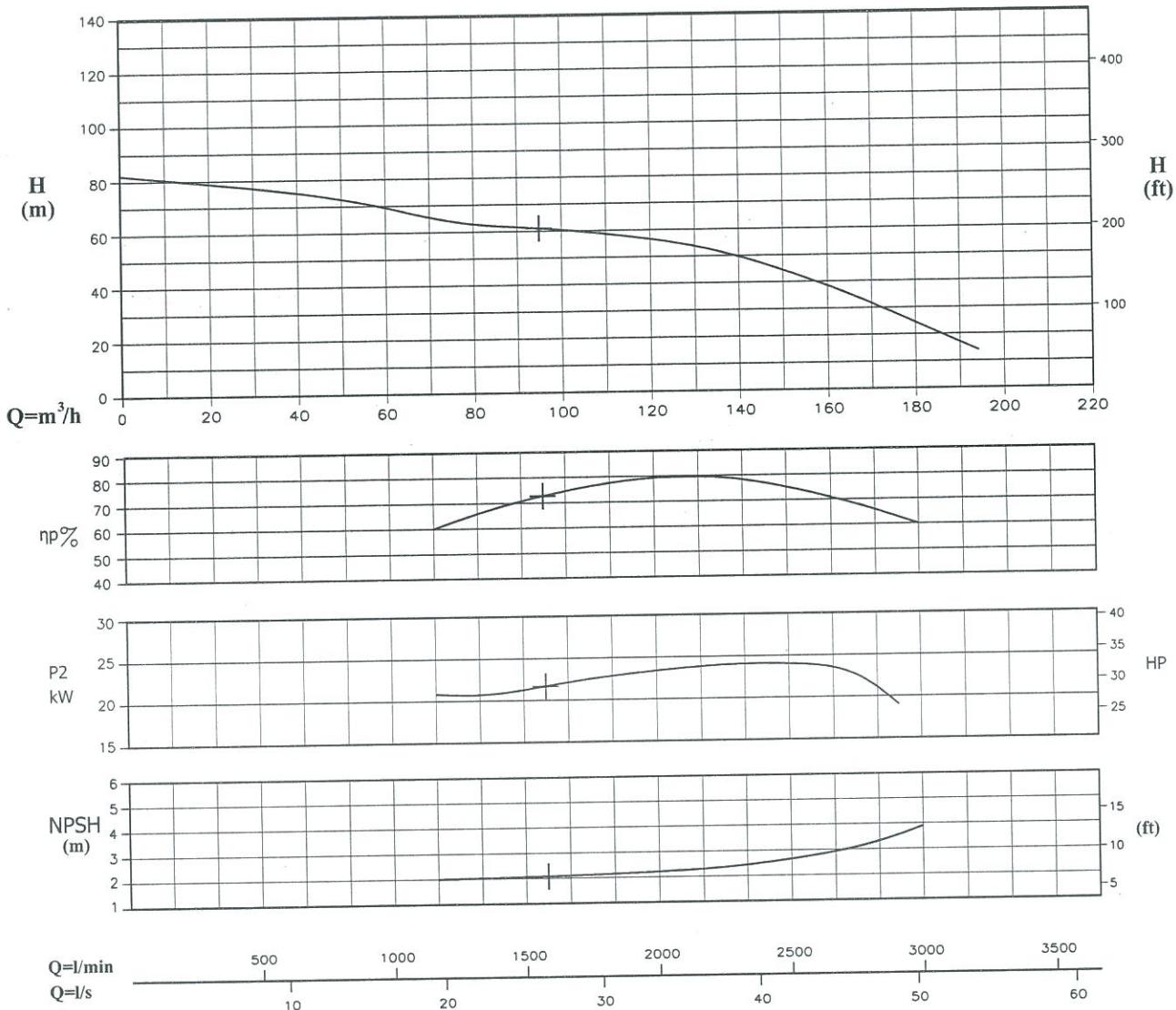
1800 r.p.m.

8MLEV/8

Imp.g.p.m
US.g.p.m

100 200 300 400 500 600 700 800

14-17/042 Hableh



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 8MLEV/8 | Capacity: | 95m³/h |
| Stages: | 8 | Head: | 61 m |
| Motor Power: | 30 kW | Efficiency: | 73% |
| Speed: | 1760 r.p.m. | Power (pump) P2: | 21.6 kW |
| | | NPSH r: | 2.1 m |

بيانات ضخ - اهمال ك

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2

ΠΕΡΙΓΡΑΦΗ ΚΑΙ ΥΛΙΚΑ ΚΑΤΑΣΚΕΥΗΣ
 PUMP DESCRIPTION AND MATERIALS

| Τομή Sectional view | α/α | Περιγραφή εξαρτημάτων Description | Υλικό Material |
|------------------------|-----|---|---|
| | 1. | Κατάθλιψη Discharge sleeve | Χυτοσίδηρος Cast iron |
| | 2. | Ελατήριο Spring | Ανοξείδωτος χάλυβας Stainless steel |
| | 3. | Βαλβίδα αντεπιστροφής Non return valve | Ανοξείδωτος χάλυβας Stainless steel |
| | 4. | Βίδα Screw | Ανοξείδωτος χάλυβας Stainless steel |
| | 5. | Έδρα βαλβίδας Valve seat | Λάστιχο Rubber |
| | 6. | Θήκη έδρας Seat holder | Χυτοσίδηρος Cast iron |
| | 7. | Κουζινέτο Bearing | Μέταλλο - Λάστιχο Metal - Rubber |
| | 8. | Δαχτυλίδι κωνικό Cone ring | Μολ.χάλυβας - ανοξ.χάλυβας Pb steel- Stainless steel |
| | 9. | Πτερωτή Impeller | Ορείχαλκος Bronze (Zinc free Bronze) |
| | 10. | Δαχτυλίδι Στεγανότητας Ring thrust adjusting | Μέταλλο - Λάστιχο Metal - Rubber |
| | 11. | Άξονας Shaft | Ανοξείδωτος χάλυβας Stainless steel |
| | 12. | Προφ/ρας καλωδίων Cable guard | Ανοξείδωτος χάλυβας Stainless steel |
| | 13. | Μπτώλ Diffuser | Χυτοσίδηρος Cast iron |
| | 14. | Αναρρόφηση Suction casing | Χυτοσίδηρος Cast iron |
| | 15. | Προφυλακτήρας άμρου Sand guard | Ορείχαλκος Bronze |
| | 16. | Ροδέλα Θρών Thrust washer | P.T.F.E P.T.F.E |
| | 17. | Κόμπλερ Coupling | Ανοξείδωτος χάλυβας Stainless steel |
| | 18. | Σφίνα Key | Ανοξείδωτος χάλυβας Stainless steel |
| | 19. | Βίδα Screw | Ανοξείδωτος χάλυβας Stainless steel |
| | 20. | Φίλτρο Strainer | Ανοξείδωτος χάλυβας Stainless steel |

ΠΕΡΙΓΡΑΦΗ ΑΝΤΑΙΑΣ ΚΑΙ ΥΛΙΚΑ ΚΑΤΑΣΚΕΥΗΣ

PUMP DESCRIPTION AND MATERIALS

| Τομή Sectional view | a/a | Περιγραφή εξαρτημάτων Description | Υλικό Material | |
|------------------------|-----|---|--|------------------|
| | 1. | Κατάθλιψη Discharge sleeve | Χυτοσίδηρος Cast iron | GG25 |
| | 2. | Μπώλ Diffuser | Χυτοσίδηρος Cast iron | GG25 |
| | 3. | Κουζινέτο Bearing | Μέταλλο / Λάστιχο Metal / Rubber | NBR |
| | 4. | Πτερωτή Impeller | Ορείχαλκος Bronze | Zinc free bronze |
| | 5. | Κώνος Σύσφιξης Conical Ring Clamping | Ανοξείδωτος Χάλυβας Stainless steel | |
| | 6. | Άξονας Shaft | Ανοξείδωτος Χάλυβας Stainless steel | AISI 416 |
| | 7. | Αναρρόφηση Suction casing | Χυτοσίδηρος Cast iron | GG25 |
| | 8. | Φίλτρο Strainer | Χάλυβας Steel | |

مراجعة - اتمال كورسيكي
 مراجعة - اتمال كورسيكي

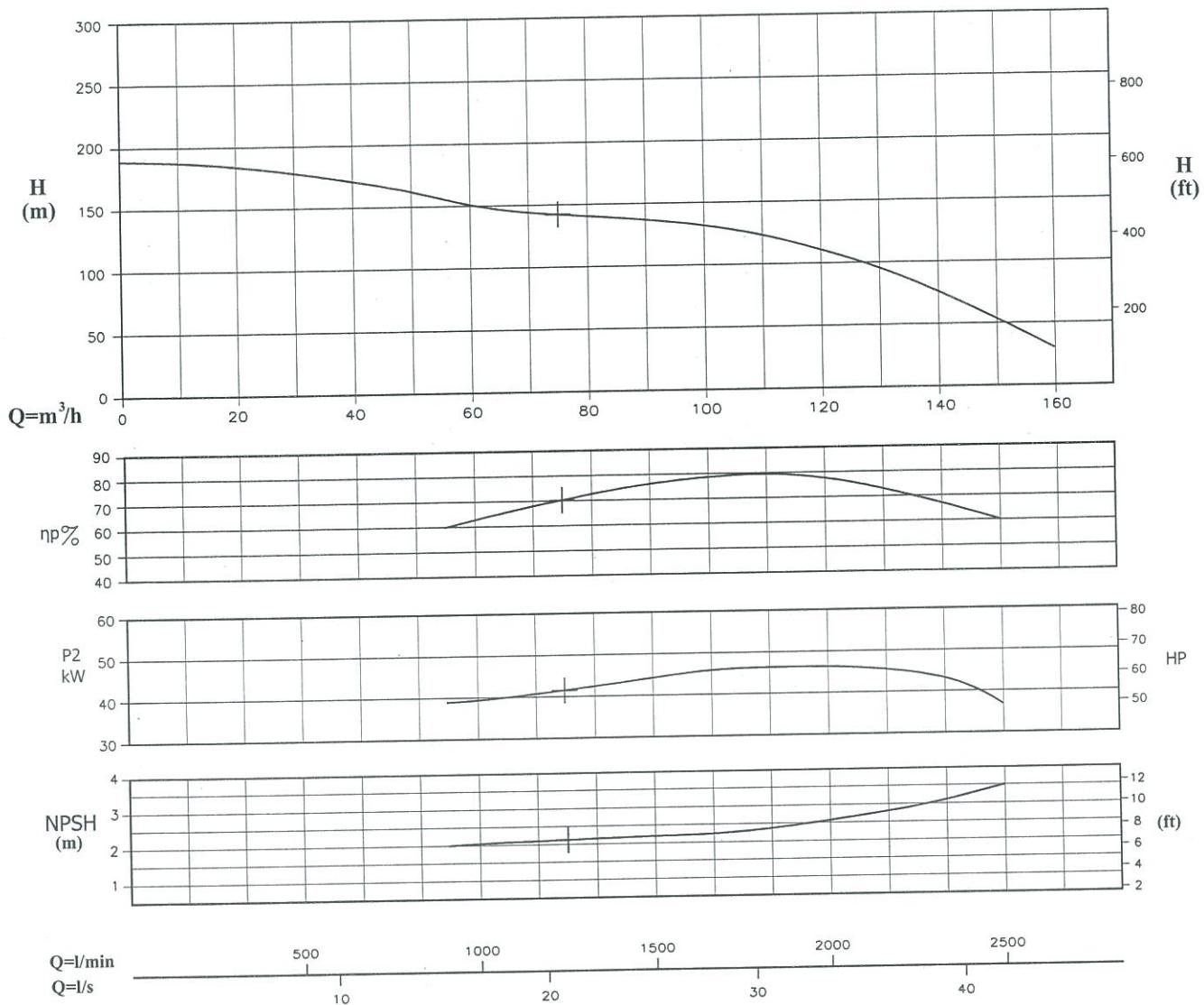


Αποδόσεις σε
Performances at

1500 r.p.m.

8MLEV/27

14-17/038 Qalqiliy



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 8MLEV/27 | Capacity: | 75m³/h |
| Stages: | 27 | Head: | 142 m |
| Motor Power: | 55 kW | Efficiency: | 70% |
| Speed: | 1460 r.p.m. | Power (pump) P2: | 41.5 kW |
| | | NPSH r: | 2.1 m |

| | | |
|------------------------|--------------------------------|--------------------------------|
| Impeller Type : closed | Column losses are not included | Tolerances ISO 9906 GRADE 2 |
|------------------------|--------------------------------|--------------------------------|

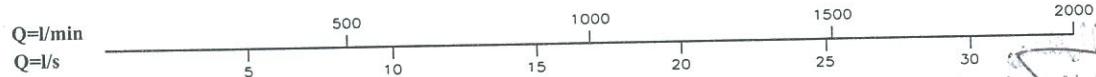
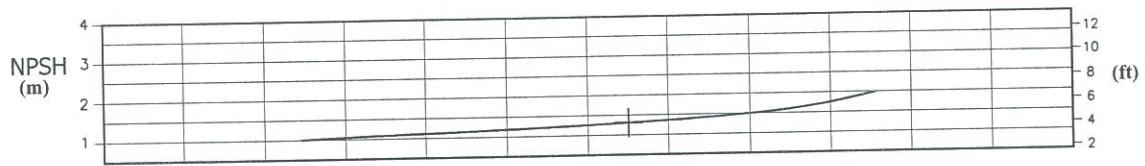
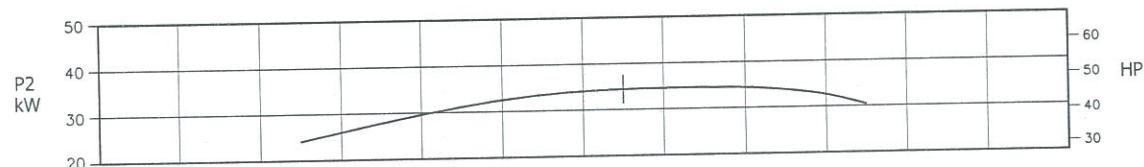
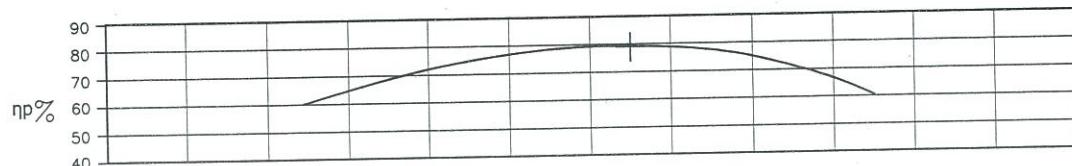
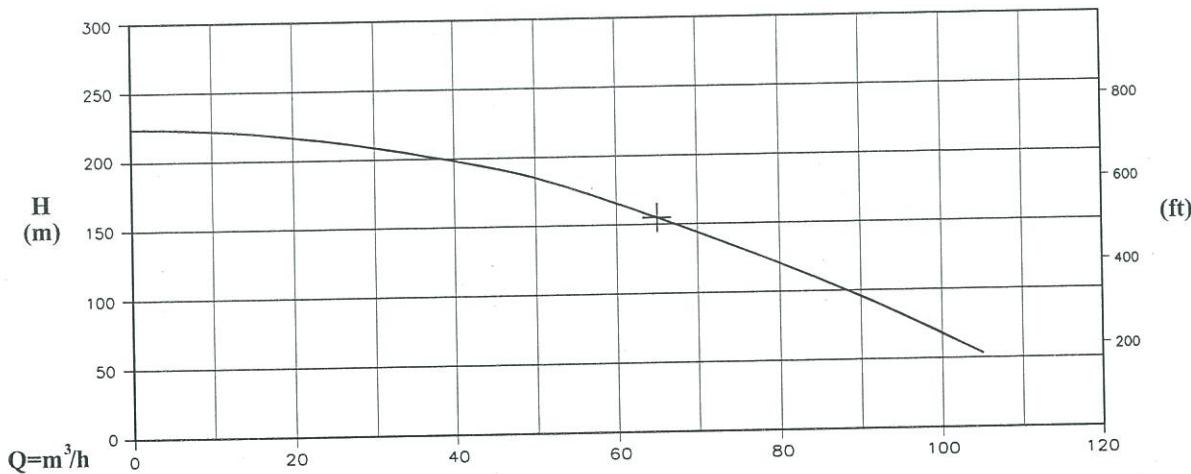


Αποδόσεις σε
Performances at

1500 r.p.m.

8MDV/32

15-17/10/10 αλγίλια



بيانات ضخ - ملخص
بيانات ضخ - ملخص

Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|--------------------------|
| Type: | 8MDV/32 | Capacity: | 65 m^3/h |
| Stages: | 32 | Head: | 155 m |
| Motor Power: | 45 kW | Efficiency: | 79% |
| Speed: | 1460 r.p.m. | Power (pump) P2: | 34.7 kW |
| | | NPSH r: | 1.3 m |

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2



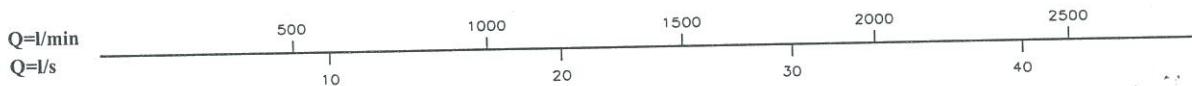
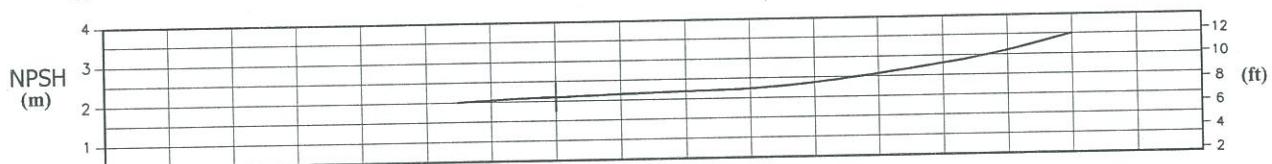
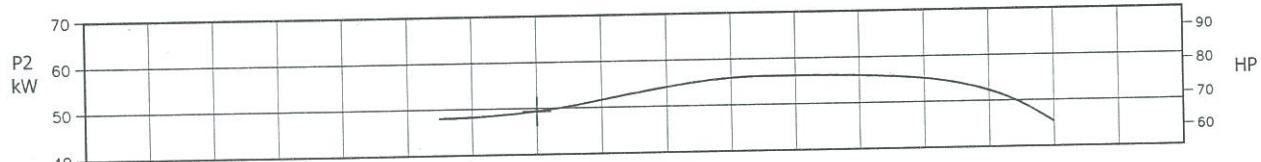
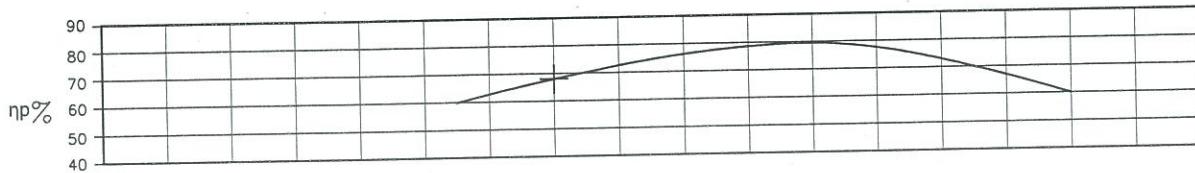
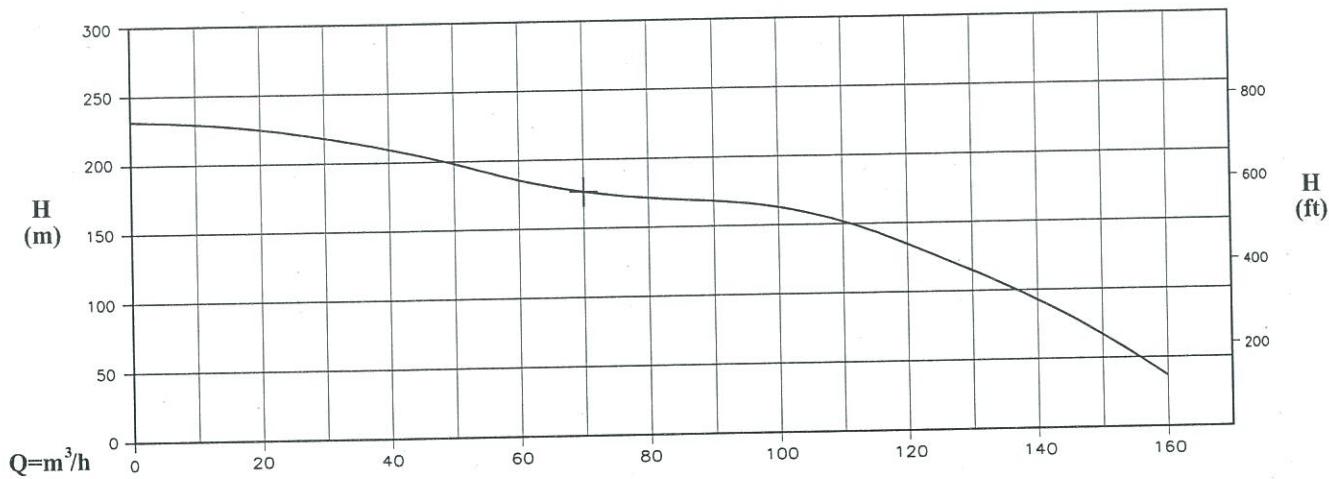
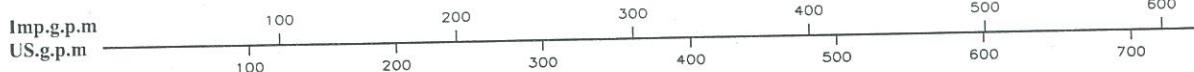
Αποδόσεις σε
Performances at

1500 r.p.m.

8MLEV/33

15-18/001

Fala mya



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 8MLEV/33 | Capacity: | 70m³/h |
| Stages: | 33 | Head: | 175 m |
| Motor Power: | 75 kW | Efficiency: | 68% |
| Speed: | 1460 r.p.m. | Power (pump) P2: | 49.1 kW |
| | | NPSH r: | 2.1 m |

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2

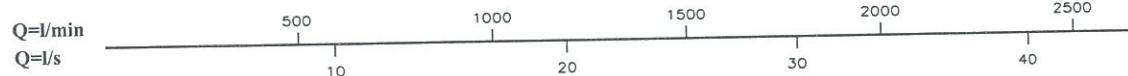
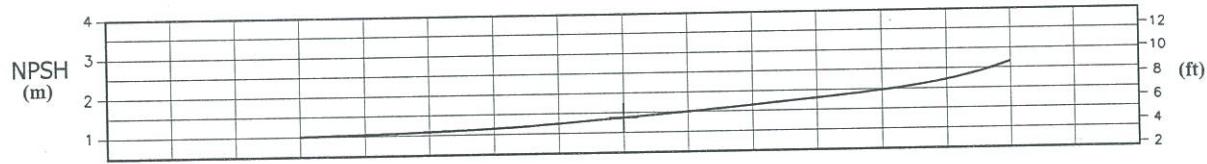
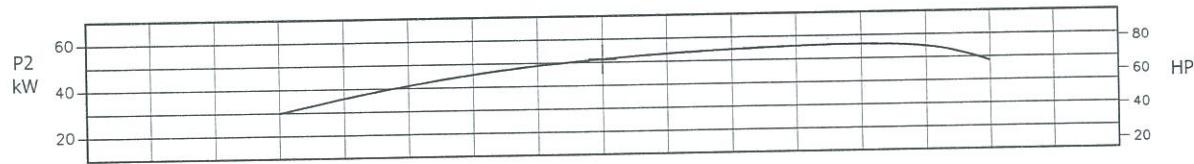
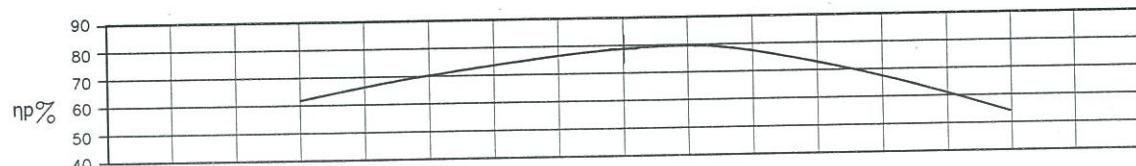
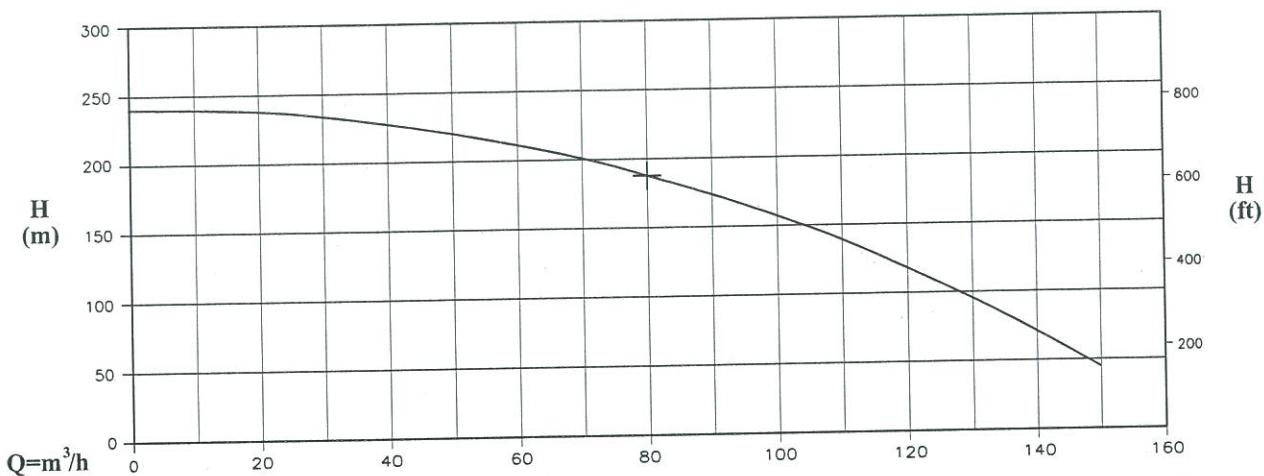
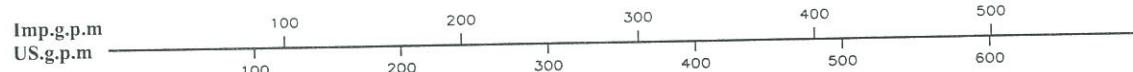


Αποδόσεις σε
Performances at

1500 r.p.m.

10MAV/20

15-18 | 003 Falamy a



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|---------|
| Type: | 10MAV/20 | Capacity: | 80m³/h |
| Stages: | 20 | Head: | 184 m |
| Motor Power: | 75 kW | Efficiency: | 79% |
| Speed: | 1460 r.p.m. | Power (pump) P2: | 50.7 kW |
| | | NPSH r: | 1.4 m |

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2



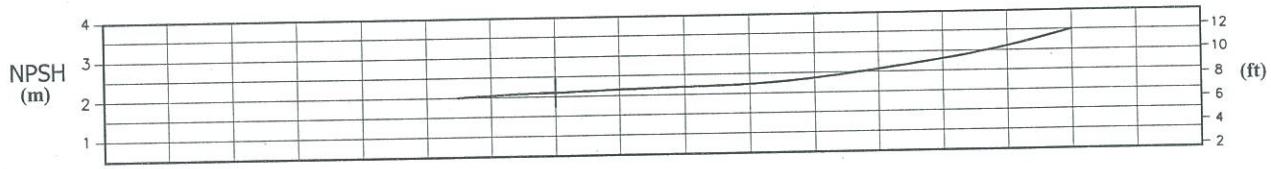
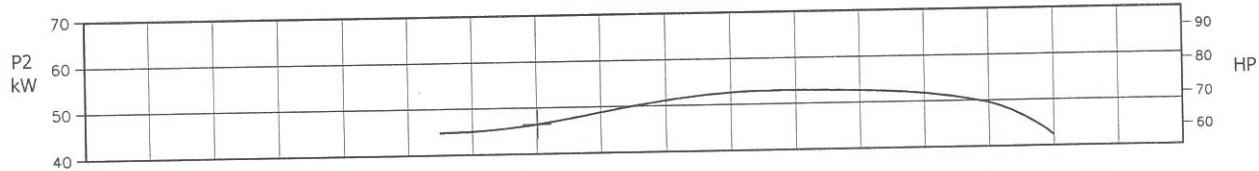
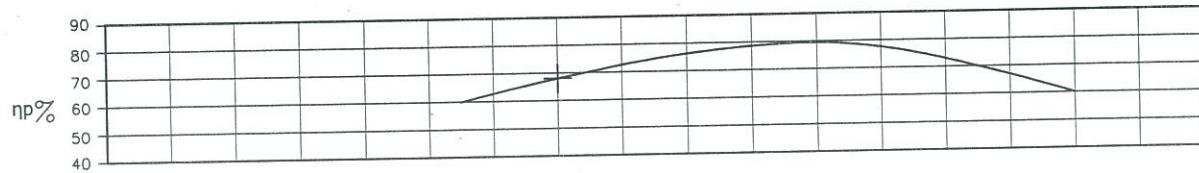
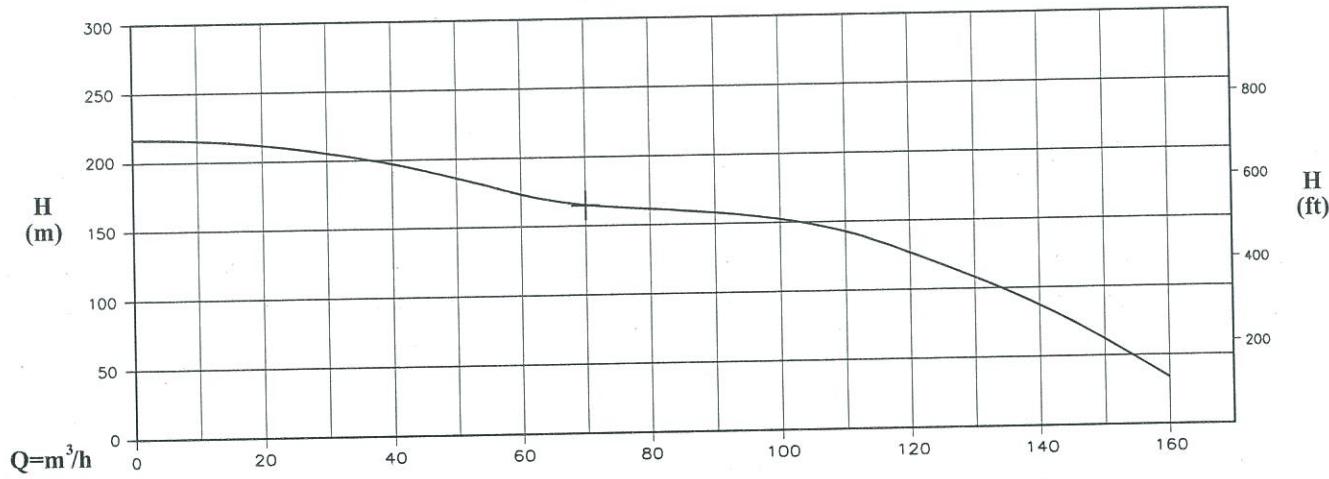
Αποδόσεις σε
Performances at

1500 r.p.m.

8MLEV/31



15-18/005 Falamyg



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|--------|
| Type: | 8MLEV/31 | Capacity: | 70m³/h |
| Stages: | 31 | Head: | 164 m |
| Motor Power: | 75 kW | Efficiency: | 68% |
| Speed: | 1460 r.p.m. | Power (pump) P2: | 46 kW |
| | | NPSH r: | 2.1 m |

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2



Αποδόσεις σε
Performances at

1500 r.p.m.

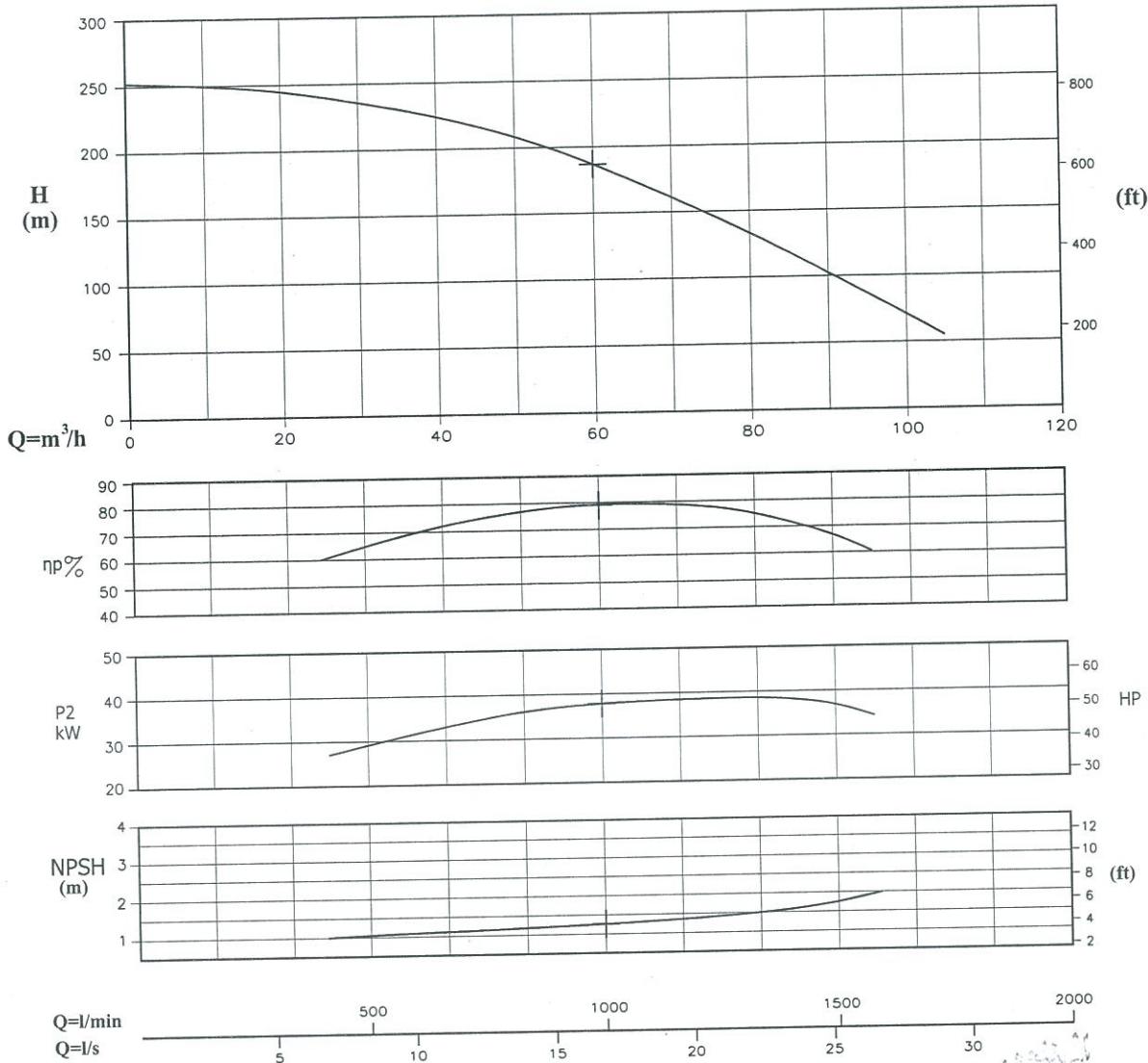
8MDV/36

Imp.g.p.m
US.g.p.m

100 200 300 400 500

15-18/023

Falamya



Operation data specification at duty point

| | | | |
|--------------|-------------|------------------|--------------------------|
| Type: | 8MDV/36 | Capacity: | $60\text{ m}^3/\text{h}$ |
| Stages: | 36 | Head: | 184 m |
| Motor Power: | 45 kW | Efficiency: | 79% |
| Speed: | 1460 r.p.m. | Power (pump) P2: | 38 kW |
| | | NPSH r: | 1.3 m |

Impeller Type : closed

Column losses are not included

Tolerances
ISO 9906 GRADE 2



رقم الشهادة: 64695

تاريخ الإصدار: 8-7-2014

رقم هاتف المكتب:

مكتب ضريبة دخل: سالمين

شهادة الخصم من المصدر

صادرة بموجب أحكام المادة (31) من قانون ضريبة الدخل رقم (8) لسنة 2011 والتعليمات الصادرة بهذا الشأن.
الى حضرة السيد / السادة
المحترم / المحترمين.

1. تصادق دائرة ضريبة الدخل المكان
مشتغل مرخص / هوية رقم
باستلام قيمة الصفقات المبرمة معكم
وذلك بخصم ضريبة دخل من المصدر بنسبة
أو خصم مبلغ مقطوع بقيمة
بالكلمات

2. هذه الشهادة سارية المفعول وفق الشروط التالية:-
أ- لغاية تاريخ: 31.12.2014

ب- قيمة الصفقات:
شيكل، وبالكلمات

ج- طبيعة الصفقة / الصفقات التي تسري عليها هذه الشهادة:
صالح
.....

3. شروط يجب مراعاتها عند التعامل بهذه الشهادة من قبل الدافعين:-

أ- هذه الشهادة تسري فقط في مناطق السلطة الوطنية الفلسطينية من تاريخ اصدارها وتنتهي بتاريخ انتهاءها.

ب- تعتمد النسخة الأصلية وختم وتوقيع المكتب الضريبي الصادر عن هذه الشهادة والاحتفاظ بها لديكم.

ج- إذا كانت الشهادة لمن يهمه الأمر يجب الاستناد على الأصل ولا يتم الصرف إلا بإبراز الأصل أو صورة مصدقة.

د- هذه الشهادة سارية المفعول في حال الدافع إسرائيلي ومقابل نشاط داخل حدود مناطق السلطة الوطنية الفلسطينية.

هـ- لا تسري هذه الشهادة على الدفعات لغير المقيم حيث يتم الالتزام بالنسب المحددة في القانون.

و- من حق المكلف الذي خصم مبلغ من المصدر الحصول على شهادة سنوية من الجهة الدافعة حسب نموذج (666) بقيمة الدفعات والمبالغ التي خضمت عليه.

ز- على الدافع تقديم كشف بموجبه التموج الخاص لدائرة ضريبة الدخل يحتوي على تفاصيل مستلمي الدفعات وإلضريبة التي تم خصمها ودفعها خلال شهر من تاريخ الاقتطاع.

ح- يتربى على المكلف بالاقتطاع (الخصم من المصدر) غرامة عن كل شهر تأخير بنسبة 2% من قيمة الضريبة الواجب اقتطاعها ولم يتم توريدها.



نموذج رقم. (0011)

الموظف المسؤول

الإسم

للسنة
محطات ضخ - اعمد
.....

تلفون: ٠٢ ٢٩٧٨٧٧٧

فاكس: ٠٢ ٢٩٧٨٧٩٣

ص.ب. ٧٩٥ رام الله

Tel.: 02 2978777

Fax: 02 2978793

P.O.Box: 795 Ramallah

بسم الله الرحمن الرحيم

Eng. Sa'd Yahya Odeh
FLOWSERVE authorized Dealer for Palestine
Nablus - P.O.Box 167, Al Shaar Building, King Faisal St.
Tel: 00972-9-2387175 / Fax: 0097292378175
E-mail: odeh2002@yahoo.com
Chamber of Commerce and Industry Reg. No.353, V.A.T registration No. 940540743
Palestinian Contractors Union reg. No. 1148

From : Sa'd Odeh ,ESYO

To : Mrrs FAO

Attn :Mr. Cyril Ferrand

Your ref :

Our ref : OSRO/GAZ/305/UK-01/14

Date : 21/7/2014

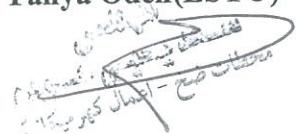
Dear Sir's,

In completion to the A/M issue and your earlier RFQ ,you are kindly requested to take the following points into consideration when evaluating our quotation :-

- 1-For well No 14-17/038 the control panel is suitable for 14 bar pump and not 140 bar
- 2-For well No. 15-18/023 the price of the acidization does not include the reinstallation of a temporary pump to extract the acid
- 3-The price of all the fittings in the contract like gate valves ,air release valves ,...etc includes fittings rated 16 bar and not 25 bar
- 4-Catalogues provided are for the main items of pumps ,a full set of catalogues cab be provided in hard copy form upon request since it will be hundreds of pages and its no way to send them with the quotation
- 5-Attached a valid copy of the income tax certificate
- 6-For the work plan it will be as in the attached completion dates list ,for MS project work plan it can be sent prior to starting any site erection or at least before signing the contract since it will depend highly on the time your organization is willing to issue a PO
- 7-Despite that we are registered in the contractors union under No 1148 ,only an expired registration certificate is available (31/3/14) ,a request for renewal has been sent ,it is expected to be ready within a couple of weeks
- 8-We are committed to implement all the required works as per your specs and within the suggested time frame except where stated at a total price of 836140\$,EIGHT HUNDERED,THIRTY SIX ,ONE HUNDERED AND FOURTY USD\$

We hope to have served you in this letter and we remain always at your service

Eng. Sa'd Yahya Odeh(ESYO)



بسم الله الرحمن الرحيم:

Eng. Sa'd Yahya Odeh

FLOWSERVE authorized Dealer for Palestine
Nablus - P.O.Box 167, Al Shaar Building, King Faisal St.

Tel: 0097292387175 / Fax: 0097292378175

E-mail: odeh2002@yahoo.com

Chamber of Commerce and Industry Reg. No.353, V.A.T registration No. 940540743
Palestinian Contractors Union reg. No. 1148

COMPANY PROFILE

Company Name: Eng. SA'D ODEH establishment for electromechanical contracts & services .

Address: Nablus - P.O.Box 167, Al Shaar Building, King Faisal St.

Tel : 09-2387175

Fax: 09-2378175

Mob: 0599-0569-386724

E-mail: odehh2002@yahoo.com,sadodeh@walla.com

Nablus -West Bank

General Manager: Eng. SA'D ODEH.

B.S.C electromechanical engineering

Stuff Number: 9 Persons serving as Eng's., mechanicals, welders, electricians & office Members.

Equipment: -

1- Back loader

2- Welding machine

3- Generator

4- Complete set for electrical installations

5- complete set of well installation and dismantling equipment till 20 ton loads.



Company In Brief: -

The company was established in the year 1993 as a contracting company in the field of electrical and electromechanical works, and since its establishment it has implemented several projects in its field, in the year 2000 we have started a new division inside the company which specialized in importing and marketing electrical and mechanical equipment such as contactors, MCCB'S, valves, instrumentation...etc.

It is worth noting that besides to officially representing the world leader pump manufacturer Flowserve ,besides to Anavalos pumps in Greece ,SwissPump inc , we are working with several leading companies in the world such as EMS, MERLIN GERIN, MOELLER, F&G ,ACM ,VAG and several other well known companies in the field of pumps and supplies.

The list of our clients is wide and it varies from local investors such as PADICO&SONOKROT to municipalities, ministries and government agencies, NGO'S such as CRS, PHG, OXFAM, USAID, UNRWA, ANERA, SAVE THE CHILDREN FUND,ESDC ,Swedish cooperation to private companies such as CDM, CH2MHILL and several other parties.

Reference projects: -

1-Biet Emrien pumping stn.1994,electrical booster pumps
WBWD 40 000 \$

2-Jericho society for marketing agricultural corps. Packing factory 1995,idustrial facility
ANERA 56.000\$

3- Al_fara'ah agricultural station pumping stn.1995,electrical booster pump and well turbine
Agriculture dept. 60.000\$

4- Nabi Samuel pumping stn.1995, booster pumps and balancing tank
West Bank waters dept. 50 000\$

5- Anabta pumping stn. (kufar ruman)1995,complete electrical pumping booster station
Undp 50 000 \$

6- Al Nazleh al sharqia pumpin stn.1997, complete electrical pumping booster station
CRS + PHG 80 000\$

7- Al Nazleh al sharqia pumping well 1996,submersible well pump
Well comittee 37 000 \$

8-Jenin Munc.pumping station, 1996,complete electrical pumping boosters
Munc. 35 000\$

9- Ektaba pumping Stn.1997,complete electrical booster pumping stn.
CRS + PHG 100 000 \$

10- kufur Allabad pumping stn.1998, complete diesel pumping booster and well
Undp +well owners 78 000 \$

11- Aljameya pumping stn .1998,complete electrical pumping boosters
Undp + salfeet municipality 56 000 \$

12- Faroon pumping stn. Tulkarem 1999,complete electrical pumping boosters and 4" main line
Local village council 62 000 \$

13- Azoon Atmeh pumping stn.2000, complete electrical pumping boosters

PHG 25 000 \$

14- Alawqaf well Jericho #1 2000,complete submersible well pumping station

PWA 45 000\$

15- Palestine Poultry Company - hatchery project 1999/2000, industrial facility including electrical

Mechanical and air conditioning works

PADICIO 312 000 \$

16- Ageh hitechery company 2000,high tension substation including transfer line 33KV

Local investor + Sonoqrot company 300 000 \$.

17-Al- Masree farm /Al Nasaria-Nablus including 1 submersible well pump,1 water lubricated vertical turbine well pump ,one vertical turbine booster pump and one 526 mt ready made tank
Local investor 92000\$

18- Anabta well No.3 2001/2002,complete new well pumping station including submersible pump and 6" transfer line

Save the children fund + Anabta Munc. 150 000\$

19- Al Awqaf well #3 Jericho 2002, complete well pumping station including submersible pump

PWA 37 000\$

20-Nisf-Gbeel village internal water network 2002/2003,including main and internal lines

PWA 89 000\$

21-Dier Al Ghasoon pumping stn, 2003,complete 2 electrical pumping booster stations

CDM+USAID 75000\$

22-Asirah Booster Stn.2003, complete electrical pumping station and 6"line

Ministry of local governet +Munc. 132000\$

23-Filling Points Project, 2003, 6"line +complete-filling point

CDM+USAID 63000\$

24-Nablus MUNC. Booster pumps, 2004,complete 4 vertical turbine stations and electrical valves for new dispatch center GTZ +MUNC. 265000\$

25-Tulkarem Munc. Sewage Pumps,2004,complete sewage pumping station

MUNC. 32000\$

26-Asira Al-Shamalia-Igneseniah line & spring rehabilitation ,2004

Ministry of Finance 57000\$

27-Noor Shames camp booster pumps,2004,complete booster pumps station

PECDAR 39000\$

28-Hableh well rehabilitation project,2005,complete water lubricated electrically operated well unit and all needed parts

PECDAR 50000\$

29-Al Rahnat well rehabilitation project,2005,same as before but diesel operated

PECDAR 40000\$

30-Al Zaidya well rehabilitation project,2005, same as before

PECDAR 42000\$

31-Aqaba booster station. A single booster pumping station including all associated civil ,electrical and mechanical works

OXFAM charity 52000\$

32-Al Masree water well -Jericho, upgrading of an existing water well for agricultural use

Private investor 48000\$

محلات ضياع - حلب
Al-Bayan Markets - Aleppo

33-Al Midawar well rehabilitation project, complete submersible unit ,pipes ,control paneletc

UNDP 82000€.

34-Deir Al Ghosson well rehabilitation project, complete water lubricated VTP , pipes control paneletc , OXFAM 110000\$.

35- Tubas Mun pumping station , complete booster station including civil , electrical and electromechanical works 65000€.

36- Jehrico wells rehabilitation project , Phase 1, FAO 1200000 NIS ,2009

37- Jehrico wells rehabilitation project ,phase 2 ,FAO 167000\$,2011

38-Tender for the supply of complete 6 submersible units ,PWA + WBWD ,2009 ,1408000 NIS

39-Abed Al Naser Abed Al Razeq well rehabilitation ,2011 ,PWA ,590000NIS

40-MaythaloonAgricultural well ,2011 ,PWA ,482000 NIS

41-The rehabilitation of 3 wells inTulkarem and Qalqilya ,ESDC+UNDP ,2013 ,276000\$

42-The rehabilitation of Nabee Elias +Al Damen wells ,2012 ,PHG ,209000\$

43-The rehabilitation of 21 water wells in Qalqilya district ,PHG +ACPP ,682000\$

44-The rehabilitation of the drinking water system in Zubaidat and Marj Na'ajeh in the Jordan valley including water well and 3 booster pumps ,99000+,PHG +GVC



A handwritten signature in black ink, likely Arabic, is written over a large 'X'. The text appears to be a name or title followed by a date, possibly '2013'.

Tender No. OSRO/GAZ/305/UK - 01/14

June 30, 2014

To: Eng Sad odeh (ESY)
 Fax: 09-23 78175
 Tel: 09-23 87175

Dear Sirs,

The Food and Agriculture Organization of the United Nations (FAO) is an intergovernmental Organization with more than 194 member countries. Since its inception, FAO has worked to alleviate poverty and hunger by promoting agricultural development, improved nutrition and the pursuit of food security - defined as the access of all people at all times to the food they need for an active and healthy life.

To achieve its goals, FAO cooperates with thousands of partners worldwide, from farmers' group to traders, from non-governmental organizations to other UN agencies, from development banks to agribusiness firms (further and more detailed information on FAO can be found on the internet site: <http://www.fao.org>).

In preparing your bid, you should take into account the international status and activities of FAO by submitting your best commercial terms. You should also be aware that FAO enjoys certain privileges and immunities which include exemption from payment of Value Added Tax ("VAT" or "IVA"), customs duties and importation restrictions.

In connection with the project: Support to Palestinians at risk of displacement in Israeli controlled Area C of the West Bank, that is funded by the Government of the United Kingdom of Great Britain and Northern Ireland acting through the Department for International Development (DFID), and aims to improve the food security and livelihoods of vulnerable female and male farmers in Area C of the West Bank through improved water availability and management for agricultural purposes , FAO intends to award a construction contract for:

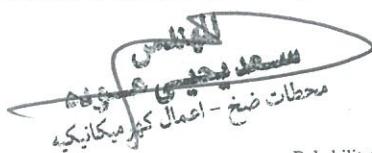
REHABILITATING 13 UNDERGROUND WELLS IN WEST BANK

and you are hereby invited to submit your best offer.

The invitation is subject to the following procedures and conditions which you are deemed to have accepted by participating in this bid.

1. **Procedures**

- 1.1 A certain number of firms/contractors is being invited to submit bids and this Organization intends, without having committed itself in any way to any of the firms it invites, to award the contract to the firm/contractor which it considers as having submitted the best bid.



Tender No. OSRO/GAZ/305/UK - 01/14

June 30, 2014

- 1.2 In submitting your offer you are supposed to have considered all aspects relevant to the performance of the proposed contract and to have obtained all necessary information and data as to risks, contingencies and other circumstances which may influence or affect your bid.
- 1.3 It is understood that all documents, calculations, etc. which may form part of your proposal will become the property of the Organization who will not be required to return them to your firm/contractor.
- 1.4 The Organization may decide to make multiple awards to multiple bidders on the basis of the technical specifications of the wells or confirmed delivery schedule or no award at all should it consider that the results of this tender should require so. Kindly note that the Organization will sign the awarded contract/s only after having received the relevant due permits from the competent Authorities.
- 1.5 All costs incurred to prepare your bid have to be borne by you; this Organization will not be liable to reimburse any or all of such costs;
- 1.6 The Organization reserves the right to publish or otherwise make public the Contractor's name and address, any information regarding the Contract including descriptions of the goods or services provided under the Contract and the Contract value. In all cases unsuccessful bidders will be informed.
- 1.7 At no point prior to this award of the contract shall bidders contact or request any information pertaining to the tender from FAO, its staff or technical consultants responsible for this tender, outside the specific channel indicated under paragraph 8 below.
- 1.8 Bidders should note that the mandatory requirements stated under paragraph 3.3 below are essential and should be addressed, under penalty of exclusion.
- 1.9 By participating in this tender, bidders certify that their company (including all members of a consortium) and/or subcontractors are not associated, directly or indirectly, with the consultant or any other entity who prepared the terms of reference or other bidding documents for the project.
- 2.0 The Organization reserves the right to reject the offers of any Bidders who have been found to have engaged in any of the unethical practices, of the attached draft contract and to exclude such Bidders from consideration for any future FAO tenders. Please note that Bidders who use an independent consultant to assist in the preparation of offers may risk engaging in unacceptable practices if the same consultant assists another Bidder to prepare an offer for the same tender. Bidders are reminded that they are fully responsible for the conduct of any consultant who may be used to prepare offers for FAO tenders and they should take all measures to ensure that any independent consultant engaged to assist in the preparation of an offer for an FAO tender has not and will not be involved in the preparation of an offer for another bidder for the same tender process.





2. Documents Enclosed

To facilitate preparing your offer the following documents are enclosed:

- 2.1 The “**Bid Summary**” form, to be used for submitting your proposal, as per **Annex I**;
- 2.2 **Annex II** through **V** of the Letter of Invitation which provide: detailed **Bill of Quantities** and required **Specifications; List of Locations** of proposed execution of works; **Schedule of Contract Performance** and **Bid Securing Declaration**
- 2.3 The “**Bid Securing Declaration**” forms to be fill, sign, stamp and dated by the Bidder, as per Annex **V**.
- 2.4 The **draft Contract** this Organization intends to award consisting of the Section I and II and the relevant Annexes I through IV.

3. Documents to be Submitted and Mandatory Requirements

Your bid should consist of the following clearly identified items:

- 3.1 The duly completed "Bid Summary", Annex I mentioned in paragraph 2.1 above, using the form enclosed herewith or copies of such form, along with the requirements set forth below.
- 3.2 The duly completed Annexes II, III, and IV of the Letter of Invitation indicating the unit and total cost of works to be performed based on the Bill of Quantities in accordance to the required technical specifications, **and the offered execution timeline**. Bidders may choose to offer for one or more wells on the basis of the technical specifications or districts/localities.
- 3.3 Annex V containing the Bid Security Declaration. Annex V mentioned in paragraph 2.3 above, using the form enclosed herewith, along with the requirements set forth below.
- 3.4 Bidders must submit catalogues for the proposed equipment to verify their compliance with the technical specifications indicating the technical data specifications, exact model/s number, manufacture origin etc.
- 3.5 **Mandatory Requirements:** Bidders must provide the certificates/documents/Curriculum Vitae below mentioned. Failure to provide one or more of the following requirements shall result in the automatic exclusion from this tender.

| 1. Minimum administrative requirements: | |
|--|---|
| 1.1 | A valid copy of the “Registration Certificate” with the relevant Palestinian Authority in water engineering, hydrological works, electro-mechanical, or any other related fields in wells rehabilitation. |



Tender No. OSRO/GAZ/305/UK - 01/14

June 30, 2014

| | |
|--|--|
| 1.2 | A valid copy of the "Discount Certificate" issued by the Income Department. |
| 1.3 | A warranty/Guarantee covering the well functionality (including for all provided, installed and operated machines, pumps, equipments, tools, devices and fittings) for a period of two (2) years effective from the day of issuance of the Certificate of Completion of the Works (see Annex IX of the attached draft Contract) |
| 2. Minimum qualification of the Bidder: | |
| 2.1 | Execution of at least (3) contracts of similar nature and of a volume of at least 300,000 USD over the last (7) years. |
| 2.2 | References of at least (3) customers/ international organizations or non-profit organizations from the past (7) years, providing the certificate of completion of the works. and the relevant contact details. |
| 3. Minimum qualification of the Technical Team: | |
| 3.1 | A minimum core team of experts having relevant qualifications and experience for the achievement of the tender objectives as shown below: - University degree in engineering, or other relevant fields; - Minimum of (5) years' experience in works of a similar nature. |
| 4. | Work plan: Tentative Work plan to be provided by bidders for each proposed well. |

4. Completeness of Bid

Bids will only be considered if they contain all of the above information and documents and observe the provisions of the enclosed contract as otherwise it will not be possible to evaluate them on an equal basis. Since this Organization is not allowed to sign contracts which do not specify its maximum financial liability, proposals which do not allow us to calculate such liability may be rejected.

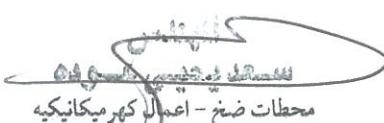
5. Site-specific considerations

Bidders should be aware that this Contract will be implemented in several communities including seam zone in area C, for which access may at times be limited or blocked. The winning bidder will be therefore fully and solely responsible to obtain all rights of access and to ensure the supply of the necessary materials to implement the project in these areas. In addition, the winning bidder acknowledges and will be prepared to address delays and costs associated with work stoppages or seizure of equipment. FAO is not responsible to provide financial compensation for any kind of loss or damage to the winning bidder's staff, equipment, power plant or machines. Bidders are hence requested to establish a flexible work plan, identifying suitable times and equipment/machinery, taking into consideration the worksite conditions and mitigating to the extent possible the risks associated with stoppages or delays to the works to be implemented.

6. Pre-bid Meeting

Interested bidders are encouraged to attend the Pre-bid meeting which shall take place as per the following schedule:

| Date & Time | Venue |
|-------------|-------|
| | |


 محطات ضخ - اعمال كهربائية
 نابلس

منظمة
الأغذية والزراعة
للأمم المتحدة

联合国
粮食及
农业组织

Food and Agriculture
Organization of the
United Nations



Organisation des
Nations Unies pour
l'alimentation et
l'agriculture

Продовольственная и
сельскохозяйственная
организация
Объединенных Наций

Organización de las
Naciones Unidas para la
Agricultura y la
Alimentación

Tender No. OSRO/GAZ/305/UK - 01/14

June 30, 2014

July 8, 2014

Hours 10:30 AM

Ramallah, Tokyo Street
UN Building, 1st Floor
FAO office

The pre bid meeting minutes, and any further enquiries received on the designated date will be documented and sent to all prospective bidder on **July 10, 2014**

7. Participation by the Organization

Bidder should examine carefully the nature and extent of the participation in the contract performance by the Organization as set out in Annex I of the enclosed contract since such contract assumes that all other requirements for its successful completion are provided at the cost of the Contractor. **Bidder should therefore state in the appropriate space provided in the "Bid Summary" (Part III) any additions or modifications of the said Annex IV for a satisfactory performance of the Contract.**

8. Currency of Proposal and of Contract

Your proposal should be expressed in **United States Dollars (USD)**.

9. Privileges and Immunities

This Organization enjoys certain privileges and immunities which include exemption from payment of Value Added Tax ("VAT" or "IVA"), customs duties and importation restrictions.

10. Form of submission and closing date

10.1 Your bid and any other correspondences, notices, or required documents, certificates, etc must be submitted on or before the closing date and time as follows:

Tender No. OSRO/GAZ/305/UK- 01/14
Food and Agriculture Organization of the United Nations
25 Mount of Olives Street, Sheikh Jarrah, Jerusalem

محلات ضخ - اعمال الماء الجارى
Al-Mawatir Water Treatment Plants