

ترغب شركة مياه البيرموك بشراء اللوازم الميينة التالية فاعلى من يرغب تقديم عرض سعر إلى قسم المشتريات في مقر الشركة (اربد / ش بغداد) مع مراعاة البنود أدناه. مصطحين معهم صورة عن رخصة المهن والسجل التجاري ساري المفعول. وللحصول على أية مطلوبات بخصوص المطاعات يمكنكم زيارة الموقع الالكتروني للشركة

<http://www.yw.com.jo>

7. فتم المنافسة بفتح الشركة والتوقيع عند إجراء أي تصحيح أو تغيير	
8. كتابة الرقم الضريبي.	
9. دفع الطرايع خلال عشرة أيام من تاريخ صدور كتاب التلبيغ	
10. الشركة غير ملزمة بالإحالة على أقل الأسعار	
11. تنفع خرامة تأخير 1% من قيمة المواد التي تأخر في تسليمها عن كل أسبوع أو جزء من الأسبوع	
12. وعلى جميع الأحوال يطبق دليل المشتريات المعمول به في شركة مياه البيرموك	
14. يلتزم المنافس في حال تقديم لعرض من منشأ ارضي ارفاق كتاب صادر عن وزارة الصناعة والتجارة والتموين يقيد بتحقيق اللوازم المعروضة المنشأ ارضي.	
16. يلتزم المنافس المحال عليه العطاء بتقديم المطالبات المالية من خلال نظام الفترة الوطني الالكتروني وحسب الانظمة والتعليمات المعمول بها	
15. يلتزم المنافس بتسعير جميع البنود ويحق لشركة مياه البيرموك بتجزئة الاحالة	

الرقم	توفير وحدات ضخ غاطسة لشركة مياه البيرموك	اللوازم المطلوبة	الكمية	الوحدة	سعر الوحدة				يعبأ من قبل المنافس	
					فلس	دينار	فلس	دينار	النوع	مدة التسليم
1		Q10/H500 Kw: at least 45	1	عدد						
2		Q25/H450 kw at least 63 Q20/H400 Kw:at least 55	1	عدد						
3			1	عدد						

- الشركة غير ملزمة بالإحالة على أقل الأسعار
على من يرسو عليه العطاء تقديم :
• كفاية حسن تنفيذ 10% من قيمة الاحالة
• ضمان سوء مصنعية

اسم المنافس رقم الهاتف رقم الفاكس التاريخ الختم التوقيع

رئيس قسم المشتريات

A Submersible Mechanical Parts

1. Submersible pump shall be of the centrifugal multistage type utilising standard production parts and shall be well proven in design, quality of manufacturer and operational reliability.
2. Pump bowl shall be of stainless steel withstanding the pressure and stresses specified in the bill of quantities.
3. renewable stainless steel wear rings have to be fitted to the bowls to maintain good efficiency while operation in different water quality conditions - offers for pumps not provided with these wear-rings will not be accepted.
4. Pump impellers shall be stainless steel from high grade with flow passages highly defined to effect a smooth surface and minimum efficiency loss, where applicable balance holes shall be provided in the impeller hub to reduce imposed axial thrust.
5. The variation between the borehole diameter given in the bill of quantities and the maximum diameter of the proposed pump shall not be less than 37 mm.
6. Pump shaft and the coupling shall be made of high tensile stainless steel of a diameter sufficient to prevent distortion from the stresses imposed on them. Critical shaft speed shall be above maximum running speed.
7. The shaft main guide bearing located in the suction and delivery housing of the pump shall stainless steel material , and shall be provided with protection guards to prevent ingress of sand and incrustations (up to 50 g/m³).
8. Pump bowl guide bearing shall be of approved abrasion-resistant materials. All bearings shall be lubricated by water to be pumped.
9. The pump delivery and housing shall incorporate a thrust washer of suitable material at the shaft end to absorb up-thrust that occur during pump starting.
10. The pump shall incorporate a delivery check valve (built in, non-return valve).
11. The pump shall be provided with screwed connection (no flange connection) at the delivery housing (thread of riser pipes API-5L), adaptable to 4", 6", or 8" Dia. standard riser pipe otherwise, reducer joint should be provided.
12. A stainless steel strainer shall be provided on the pump suction housing (no

شركة مياه الشرب
عمان
مديرية المخططات والتشييد

13. synthetic material will be accepted).
14. Priority of awarding will be to pump units complied with specifications and conditions as per BOQ and obtain less number of stages.
15. The pump efficiency shall not be less than 70% for more than 50 kW motors and closest to 75% for pumps with less than 50 kW motors!

Item No.	Part Name	Material DESCRIPTION
----------	-----------	----------------------

According to Standards

- | | | |
|----|----------------------|--|
| 1. | Bowls | Stainless steel AISI 304 (EN 1.4301) or as per specified in BOQ |
| 2. | Diffuser | Complied with bowls specs |
| 3. | Renewable wear-rings | , Stainless steel AISI 304 (EN 1.4301) or higher or per specified in BOQ |
| 4. | Impellers | 304 (EN 1.4301) or higher |

steel Stainless AISI

or as per specified in BOQ

- | | | |
|----|-------------------------|---|
| 5. | Pump shaft and coupling | stainless steel AISI 304 (EN 1.4301) or higher |
| 6. | Shaft guide bearings | NBR, Bronze or Stainless Steel AISI 304 (EN 1.4301) or higher |
| 7. | Suction Strainer | Stainless Steel AISI 304 (EN 1.4301) or higher |

شركة مياه الشرب
بغداد
مديرية المصالحات والتشييد

Submersible Motor

1. Motors maximum dia. shall not exceed more than 37mm deviation from borehole casing described in BOQ.
2. Submersible Motor shall be induction squirrel cage "wet" type with rewindable windings class Y insulation, designed to operate continuously under submerged conditions and shall comply with the requirements of the IEC Publications 34.
3. Motors 150 KW and above, encapsulated motors are accepted.
4. The motors have to be designed to the following specifications:
 - Have to be selected for starting with auto-transformers - reduced voltage throughout the starting sequence (tapping about 70%), soft starter, inverter.
 - The winding shall be insulated with an approved heat resistant material (PE2+PA) two layers: Internal temp.=(75 OC) , Ambient temp =(50 OC).
- Allow 8 to 10 consecutive starts in one hour when the motor is cold and 6 starts when the motor is hot.
- Shall be provided with a heavy duty multi pad thrust bearing at the base of the motor to absorb the shaft down thrust developed by the pump. The bearing design shall incorporate tilting thrust pads of bronze or stainless steel arrange to self-adjustment according to thrust load. The thrust disc shall be of the same material sheltered with suitable carbon based (fibre, graphite) or similar approved material, no Teflon or rubber accepted.
- Has to be filled with potable water or (if additives are used, a certificate needed to approve of no harm to human use as per OSHA standard).
- a sand guard has to be provided to protect the motor,
- mechanical seal of silicon carbide material (stationary and rotary parts)
- Motors have to be equipped with thermal protections (3-wire PT-100 system) thermally contacted to the windings at the upper part of the motor for thermal protection.
- Have to be equipped with 5 m double insulated marine cables, which are allowed to be used in drinking water, with tinned annealed copper conductors. The cable alongside the pump casing shall be covered with a stainless steel plate screwed on the pump bowls.
- The diaphragm cover located at the end of the motor has to be made of cast iron or steel (no synthetic material will be accepted).
- Working up to a cooling velocity of 0.5m/s - upstream the motor.

شركة مياه الشرب
بغداد
مديرية المصانع والمباني

- Year of manufacture should be not more than 14 months
 - Motor should adapt taking off on all starting methods(dol., auto trans ,soft starter, variable speed
4. Further Specifications

Motor characteristics: 2 Pole, 3 phase, 400 V $\pm$ 10%, 50 Hz $\pm$ 1%

synchronous speed: 3000 1/min

Ambient water temperature: up to 50oc

Withstanding upstream velocity of the motor: 0.5 m/s

Min efficiency of the motor: 85%

Power factor 0.85

Item No.	Part Name	Material Specification	According to Standards
1.	Motor Shaft	stainless steel AISI 304 (EN 1.4301) or higher	
2.	Motor Housing	Cast iron G20/G25 and stainless steel AISI 304 (EN 1.4301) or higher	
3.	Motor Guide bearing	Bronze OR GRAPHITE	
4.	Bolts, Nuts, Studs, Screws, and Washers etc.	Stainless Steel AISI 304 (EN 1.4301) or higher	
5.	Thrust Bearing (Pad)	Stainless Steel AISI 304 (EN 1.4301) with fiber or graphite based Material	
6.	Thrust Bearing (Disc)	Bronze or Stainless Steel (EN1.4301) or higher	
7.	Diaphragm motor bowl cover	cast iron or steel	

C Documentation and Attachments

مجلس إدارة
محافظة القاهرة
مصر

(all in English Language)

- The bidder shall specify the local maintenance workshop which will carry out electrical and mechanical repairs during the guarantee period.

- The pump and motors shall have labels and rating plates of non-corrodible metal, be securely screwed or riveted to each pump and motor (serial number, manufacturer, origin, head, discharge, speed, power, voltage, current, cooling-velocity, PF and frequency etc.) Including all information requested from ISO.

- Each pump set has to be tested over the complete performance range according to the ISO 9906:2012, grade 1B, or ISO 2548c class –appendix B, specifications. Separate testing certificates for each pump unit including country of origin and year of manufacture (not exceeding more than one year) must be provided upon delivery.

The bidder shall submit along with his offer the following documents:

- original characteristic curves showing flow, head, power consumption, efficiency, operation range and NPSH (a photo copy of the curves will not be accepted)
- installation, operation of maintenance instructions, workshop manuals and two copies each. Relevant standards used in the material, production and testing Certificate of testing according to recommended standards. Complete offer has to be submitted containing the following technical documents.
- The bidder has to provide a recent of quality management certificate ISO 9001

The attached details sheet must be completely filled for every item (all materials of the motor parts have to be specified!).

All parts and material are eligible to be tested according to standards and specifications at Royal Scientific Society mechanical design and technology center. Table of Technical Specifications

Motor data

19	Motor type(code)	
20	Motor Maximum Diameter	mm
21	Motor rated Power	KW
22	Nominal Current	A

شركة مياه الشرب
بغداد
مديرية المصالحات والتشييد

23	Motor Efficiency At Duty Point %
24	Motor Speed at duty point RPM
25	Diaphragm material
26	Diaphragm bowl Cover Material
27	Mechanical Seal (two segments) materials
28	Sand Guard (yes/no)
29	Motor wire insulation material
30	Motor Feeder Cable Length m
31	Motor Protection Class (IP)
32	Wire Winding Insulation Material
33	Motor Winding Insulation Class
34	Motor Guide Bearing material
35	Filling Cooling Liquid
36	Minimum upstream velocity m/s
37	Sensor Thermal Protection Type
38	Overall Efficiency @Duty Point %
39	Withstanding Maximum water ambient Temperature OC
40	Thrust Bearing Material (tilted segments)
41	Up thrust pad material
42	Pump overall length m
43	Country Of Origin
44	Year Of Manufacture