



OWNER:		PROJECT:		CONTRACTOR:	
CONSULTANT:		<p>Amu-Bukhara Irrigation System Rehabilitation Project</p> <p>Amu-Bukhara II Pump Station</p>		 <p>tara engineering co. شرکت مهندسی تارا</p>	
DOC. NO. :		DOC. TITLE:		PAGE NO. :	
		AMU BUKHARA PUMP STATION NO.2 MECHANICAL DATA SHEET		1 OF 2	
1	PROCESS AND OPERATING CONDITIONS				
2	Liquid	Irrigation water	Capacity (Each pump)	7.5	m3/s
3	Density	0.977 -0.981 Kg/dm ³	Max./ Min. Capacity (Each pump)	-	m3/s
4	PH value	6.5-8	Static Head		m
5	Viscosity	1.3 cp	NPSH Available	10	m
6	Solids content	100 ppm	NPSH Required		m
7	Particle size	0.7 mm	NPSH 3 %	-	m
8	Vapour pressure	0.13-0.43 m	Differential Pressure	40	m
9	Liquid Temperature (Min/Norm/Max)	5/20/30 °C	Pump Service	continuous	-
10	Indoor Temperature (Min/Max)	5 / 35 °C	Pump Operation	Parallel	-
11	Ambient Temperature(Min/Max)	-20 /35 (Outdoor)	Location	Indoor	-
12	Elevation from Sea Level	600 m	Relative Humidity	10/85	%
13	Ambient Conditions	Dusty			
14	TECHNICAL SPECIFICATION				
15	Pump Type	Centerfugal - Split case- vertical volute (concrete or metal volute By Vendor)	Motor General Specification:		
16	Quantity	4+1	Motor Rated Power	By Vendor	
17	Manufacturer	By Vendor	Motor Type	Squirrel Cage Rotor	
18	Model	By Vendor	Motor Rated Voltage	6.6 KV	
19	Arrangement	Horizontal	Frequency	50 HZ	
20	No. of Stages	By Vendor	Motor Speed	1485 rpm	
21	Impeller Type	By Vendor	Bearing General Specification:		
22	Impeller Diam. Min/Max	By Vendor	Bearing Type-axial	Pad	
23	Impeller Diam. Designed	By Vendor	Bearing Type-radial	Anti -Friction	
24	Shaft Diameter	By Vendor	Bearing Lubrication/Lub Type	Forced Lubricated	
25	Suction Size /standard	By Vendor			
26	Discharge Size /standard	By Vendor			
27	Pump Speed	By Vendor			
28	Required Power	By Vendor			
29	Direction of rotation	One Side			
30	Pump Moment Of Inercia	By Vendor			
31	Pump Weight with Base plate	By Vendor			
32	ACCESSORIES				
33	Name Plate Including TAG	Required	Stator RTD	Required	
34	Transport packing	Required	Base Plate	Required	
35	Electromotor/ pump bearing RTD	Required			

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36	MATERIAL SPECIFICATION				
37	Casing	Cast Iron - ASTM A216 WCB	Impeller Wear ring	ASTM 420	
38	Shaft	Stainless steel ASTM A276 Tp. 420	Bearing bracket	ASTM A216 WCB	
39	Impeller	ASTM A890 1B	Flanges	Cast Iron - ASTM A216 WCB	
40	Shaft sleeve	ASTM 420	Auxiliary piping	Carbon Steel	
41	Int-stage sleeve/bush	ASTM 420	Bolts and nuts	Carbon Steel	
42	Base plate	CS Welded			
43	Casing wear ring	ASTM 420			
44	PERFORMANCE DATA				
45	Pump+Motor overall Efficiency (In working point)	85.00%	Minimum flow for continuous operation	-	
46	Pump Efficiency (Min/Max)	-	Minimum flow for starting	-	
47	Pump Absorbed Power	2297 kw	Maximum Head	By Vendor	
48	Drive Rated Power	2600 kw	Shut-off Head	By Vendor	
49	CONSTRUCTION FEATURES				
50	Casing Design	#VALUE!	Radial Bearing Type	Anti -Friction	
51	Volute Type	Vertical volute	Axial Bearing Type	By Vendor	
52	Suction Type	By Vendor	Coupling Type	-	
53	Casing Split	radial Split	Coupling Model	-	
54	Casing Support Type	-	Coupling Manufacturer	-	
55	Design Pressure	By Vendor	Coupling Guard	-	
56	Test Pressure	By Vendor	Shaft Dia. at Coupling End	-	
57	Shaft Sealing	Mechanical Seal	Thrust Balancing Method	Thrust Bearing	
58	Seal Manufacturer & Model	By Vendor	Wear ring Type	-	
59	TEST & CERTIFICATES				
60	Performance	Witness +Certificated	Material	UW +Certificated	
61	Vibration	Witness +Certificated	Hydrostatic	Witness +Certificated	
62	NPSH	Witness +Certificated	Bearing Temp. Rise	Witness +Certificated	
63	Shop	UW +Certificated	Dimensional	UW +Certificated	
64	Note 1 :Performance Test according to ISO9906 Class 1B is done for one pump.				