



SLURRY PUMP			
Model	250MS-N21A-MR	Flow rate	1000 m <sup>3</sup> /h
Head	40 m	Speed	650 r/min
Power	355 kW	Weight	7100 kg
Product code	TEC1084A-22	Material	2020-Q6

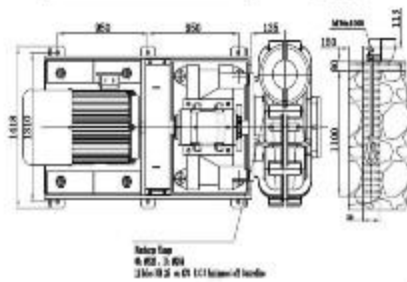
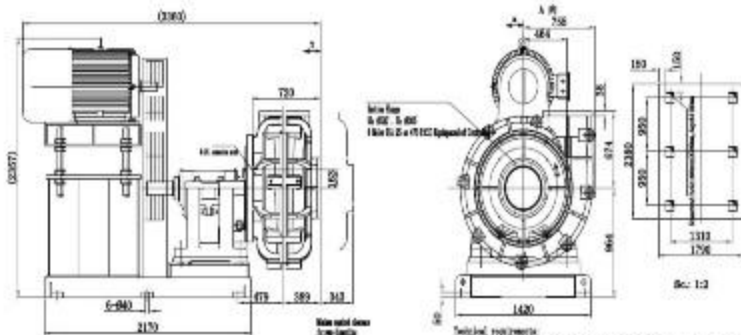
1.	GENERAL
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2.	<b>Equipment Name:</b>	SLURRY PUMP		
3.	<b>Tag Number:</b>	37-1504-01/02	QTY Required:	1+1
4.	<b>Applicable to:</b>	<input checked="" type="checkbox"/> PROPOSAL <input type="checkbox"/> PURCHASE <input type="checkbox"/> AS PURCHASED		
5.	<b>Client:</b>	National Iranian Copper Industries Company (NICICO)		
6.	<b>Manufacturer *</b>	-----		
7.	<b>P.O. No.: *</b>	-----		
8.	<b>Inspection:</b>	Supervisory Authority		
9.	<b>Regulations:</b>	API 610 or other applicable Standard		
10.	<b>SITE CONDITION</b>			
11.	<b>Site Location:</b>	SARCHESHMEH SLAG CONCENTRATE	<b>Installation:</b>	<input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor
12.				
13.	<b>Site Latitude:</b>	29°59' N	<b>Site Longitude:</b>	55°52' E
14.	<b>Site Elevation:</b>	2940 (m.a.s.l.)	<b>Earthquake</b>	0.3 G
15.	<b>Site Temperature:</b>	-20 °C – +40 °C	<b>Ave. Site Humidity:</b>	70 %
16.	<b>Wind speed (km/h)</b>	130		
17.	<b>Hazardous Area</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
18.	<b>Environment:</b>	<input checked="" type="checkbox"/> Relatively Clean <input type="checkbox"/> Dusty <input type="checkbox"/> Corrosive		
19.	<b>NOTE:</b>			
20.				
21.	1. All components' vendor should be introduced by manufacturer for Client Approval.			
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34.	<b>GENERAL DATA</b>	
35.	Manufacturer: NAIPU Co.	
36.	Pump model: 250NS-NZJA-R	
37.	Type: <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Inline <input type="checkbox"/> Vertical	
38.	Duty: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Single <input type="checkbox"/> Parallel	
39.	<b>PROCESS &amp; PERFORMANCE DATA</b>	
40.	Flow(m <sup>3</sup> /h)Max: 1000 Density (kg/m <sup>3</sup> ): 1.72	
41.	Suction Pressure (m): 0 Fluid / Service: Slurry	
42.	Discharge Pressure (m): 30.00 NPSH Available (m): 4.6	
43.	Differential Pressure (m): 30.00 Hydraulic power:(Kw) 235.27	
44.	Total dynamic Head (m): Max 36.26 (with water)	pH Value: 7
45.		Pumping temperature: °C 25
46.	Viscosity @ min./norm./max (cP) N/A	Vapour pressure @ norm. Temp @20°C mb N/A
47.		
48.	<b>DRIVER TYPE</b>	Characteristics: <input type="checkbox"/> Corrosive <input type="checkbox"/> Toxic
49.	<input checked="" type="checkbox"/> Induction Motor <input type="checkbox"/> Steam Turbine	<input type="checkbox"/> Flammable <input checked="" type="checkbox"/> Abrasive
50.	<input type="checkbox"/> Gear <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Solids <input type="checkbox"/> Other
51.	<b>MOTOR MOUNTING</b>	<b>PERFORMANCE</b>
52.	<input type="checkbox"/> Direct Mounted <input type="checkbox"/> Indirect Mounted	Rated Speed (RPM): 620
53.	<b>MOTOR DRIVER</b>	Impeller Diameter (mm): 613

54.	Manufacturer:	Siemens Co.				Impeller Type:	Closed
55.	Type:	Electrical				NPSH Required (m):	2.92
56.	Constant or Variable Speed:	VFD				Rated Power (kW):	200
57.	Nominal Speed (RPM):	620				Efficiency (%):	77.64
58.	Power (kW):	355				Type of shaft seal	GLAND SEAL
59.	Voltage / Phase / Frequency:	380V±10%, 3Ph, 50Hz±5%				Flow rate of seal water (m <sup>3</sup> /h):	5.76 (size :1")
60.	Frame:	structural				Pressure of seal water (mH2o)	69.3
61.	Enclosure:	N/A				Max Head @ Rated Impeller (m):	40
62.	Insulation:	F				Max Power @ Rated Impeller (kW):	200
63.	Temperature Rise:	B				Pump Sound Press. Level (dBA)	65
64.	Projection:	IP55				Drive end bearing	NU2220EC
65.	Locked Rotor Amps:	N/A				Wet end bearing	THM926749
66.	Starting Method:	N/A				Shaft and dimension (mm)	120-200
67.	<b>CONSTRUCTION</b>					<b>MATERIAL</b>	
68.	Nozzles	Size	Rating	Facing	Position	Pump Casing:	Alloy with rubber
69.	Suction (mm)	305	--	--	--	Impeller:	Alloy with rubber
70.	Discharge (mm)	254	--	--	--	Diffuser:	Alloy with rubber
71.	Balance Drum	N/A	--	--	--	Shaft:	Alloy with rubber
72.	Casing Conn.	N/A	N/A	N/A		Type of Impeller :	A-G25005-M
73.	Drain	N/A	N/A	N/A		Case Wear Rings:	N/A
74.	<b>MECHANICAL SEAL</b>						
75.	Type						Packing seal
76.	<b>WEIGHTS</b>						
77.	Pump weight (Kg)						3630
78.	Motor weight (Kg)						2400
79.	Total weight (Kg)						6000

00.	<b>TEST &amp; INSPECTION</b>			
01.	<input checked="" type="checkbox"/> Hydrostatic	<input type="checkbox"/> Shop inspection	<input checked="" type="checkbox"/> NPSH	<input type="checkbox"/> Complete unit
02.	<input type="checkbox"/> Performance test	<input type="checkbox"/> Dismantle & inspection after test	<input type="checkbox"/> Sound level test	<input type="checkbox"/> Sound level test
03.	<b>NOTES</b>			
04.	Pump vendor to provide loading information to piping designer.			
05.	<b>REMARKS</b>			
06.	Accessories to Be Included in Supply:			
07.	Set of Gaskets			
08.	Set of Special Tools for Erection, Commissioning and Maintenance			
09.	Set of Bearings			
90.	Corrosion Resistance Name Plate			
91.	Set of Documentation for Erection			



Tolerance requirements:

1. Manufacturing specification for general tolerances without length tolerance unless he is accordance with class F applicable to length tolerance, see the following table
- Length dimension applicable to mating parts and sliding components, such as external diameter, internal diameter, ring diameter, shaft and rotor diameter diameter, etc.

Tolerance for finished Features	>12	>300	>300	>600	>600
	<300	<300	<600	<300	<1000
	±5	±4	±5	±5	±3

Trade Requirements:

1. Rubber and the gasket should be independently inspected, and the test report is required.
2. In cases if the rubber diameter is too small, when a substitution, please try to rubber material for several rubber diameter of the rubber material. It can be accepted.
3. 3.17% and the steel case.
4. The Ring, steel and the case are only to use for Ring bolt, and steel nut to connect Ring to the shaft end.

Part name	Material
Impeller	Cr26
Pump casting material	Cr26
liner	Rubber
Part name	Material

Approval		Control	
Rev	By	Rev	By
01	12/20/2018	01	12/20/2018
02	12/20/2018	02	12/20/2018
03	12/20/2018	03	12/20/2018
04	12/20/2018	04	12/20/2018
05	12/20/2018	05	12/20/2018
06	12/20/2018	06	12/20/2018
07	12/20/2018	07	12/20/2018
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96	12/20/2018	96	12/20/2018
97	12/20/2018	97	12/20/2018
98	12/20/2018	98	12/20/2018
99	12/20/2018	99	12/20/2018
100	12/20/2018	100	12/20/2018

1. 316L is used in the ducts and all the... 2. The procedure is still to maintain consistent... 3. The Ring, steel and the case are only to use for Ring bolt, and steel nut to connect Ring to the shaft end.	
APPROVED FOR CONSTRUCTION	
PROJECT NAME	
PROJECT NO.	
DATE	
DRAWN BY	
CHECKED BY	
DATE	
PROJECT NO.	
PROJECT NAME	
PROJECT NO.	
DATE	
DRAWN BY	
CHECKED BY	
DATE	