

Project		 GREEN CUBE IDEA ENGINEERING & MINING CO.
TARAZ BITUMEN PLANT PROJECT		
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DATA SHEET FOR LOADING PUMPS

P-201 A/B

01	10.Jun.2026	Issued for Procurement	A.Joorabloo	H.Abhaji	A.Mobaraki
00	19.Apr.2026	Issued for Procurement	A.Joorabloo	H.Abhaji	A.Mobaraki
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED

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1	GENERAL DATA													
2	ITEM	P201 A/B	TYPE	SCREW Pump			No. OF PUMPS	2						
3	SERVICE	Vacuum Bottom/Bitumen Pumps			INSTALLATION: Outdoor									
4	OPERATION: (continuous-discontinuous-other)			continuous		(parallel-single-other)		parallel						
5	TYPE OF DRIVER		Electrical motor		FOR UNITS		DATA SHEET No.							
6	TYPE OF DRIVER				FOR UNITS		DATA SHEET No.							
7	ELECTRICAL SUPPLY:		AC	VOLTAGE	V	400	FREQUENCY	Hz	50	PHASES No.		3		
8	CHARACTERISTICS OF HANDLED LIQUID													
9	TYPE OF HANDLED LIQUID						Vacuum Bottom -Bitumen							
10	PUMPING TEMPERATURE:			MIN / NORM / MAX		°C	80	/	140	/	250			
11	DENSITY AT TEMPERATURE			MIN / NORM / MAX		kg/m³	1010	/	950	/	890			
12	VISCOSITY AT TEMPERATURE			MIN / NORM / MAX		cP	3000~5000	/	250~850	/	40~80			
13	VAPOUR PRESSURE AT MAX PUMPING TEMPERATURE						bara	0						
14	FREEZING POINT / POUR POINT						°C	-	/	-				
15	DISSOLVED GAS						(yes-no)	No						
16	CORROSIVE / EROSIVE / HAZARDOUS AGENTS						(yes-no)	No	/	No	/	No		
17	SUSPENDED SOLIDS:			TYPE / DIMENSIONS / VOLUME %		mm	-	/	-	/	-			
18	OPERATING CONDITIONS													
19	SUCTION PRESSURE:			MIN / NORM / MAX		bar(g)	0	/	0.5	/	1			
20	DISCHARGE PRESSURE AT RATED CAPACITY						bar(g)	4.5						
21	DIFFERENTIAL PRESSURE AT RATED CAPACITY						bar(g)	4						
22	CAPACITY:			MIN / NORM / RATED		m³/h	35	/	70	/	88			
23	HEAD AT RATED CAPACITY (Normal Temperature of Pumping Fluid)						m	45						
24	NPSH AVAILABLE						m	6.5						
25	DESIGN PRESSURE PRESSURE AT SHUT-OFF						bar(g)	5						
26	BREAK HORSE POWER.						kW	15.1						
27	FLOW CONTROLLED BY (pressure controller-level controller-flow controller-other)						PRESSURE RELIF VALVE							
28	REACCELERATION / AUTOMATIC START-UP						(yes-no)	No		No				
29	START-UP WITH DELIVERY VALVE						(open - closed)	open						
30														
31														
32														
33	PACKINGS													
34	SEAL TYPE													
35	CONTAMINATION OF LIQUID HANDLED ALLOWED						(yes-no)	No						
36	AIR ENTRAINMENT ALLOWED						(yes-no)	No						
37	LEAKS ALLOWED						(yes-no)	No						
38	ANTIFREEZING PROTECTION						(yes-no)	Yes						

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39	MECHANICAL DATA								
40	SUCTION LINE:	DIAMETER / RATING / FACING	ASME	DN	BY VENDOR		150		RF
41	DISCHARGE LINE:	DIAMETER / RATING / FACING	ASME	DN	BY VENDOR		150		RF
42	VENT / DRAIN REQUIRED			(yes-no)	Yes			Yes	
43	MATERIAL IN CONTACT WITH LIQUID HANDLED		(minimum requirement)						
44	PUMP CASING MATERIAL		(minimum requirement)	CS					
45	PUMP IMPELLER MATERIAL		(minimum requirement)	CS					
46	PUMP INTERNAL PARTS MATERIAL		(minimum requirement)	CS					
47	CASING CORROSION ALLOWANCE			mm	3				
48	MINIMUM DESIGN METAL TEMP. / AT A PRESSURE OF		°C	/	bar(g)	-30			
49	COOLING FLUID:	TYPE / DESIGN PRES. / OPER. TEMP.	bar(g)	/	°C	-		-	-
50	HEATING FLUID:	TYPE / DESIGN PRES. / OPER. TEMP.	bar(g)	/	°C	Hot Oil		7	230
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52	NOTES								
53	1) BHP of each Pump should be provided according to estimated efficiency of Pump that Vendor confirm it.								
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