



EQUIPMENT DATA SHEET (INCL PREDICTED PERFORMANCE CURVE)

CLIENT	:	Air Products Manufacturing LLC
PROJECT NAME/NO.	:	WEP Renewables
CLIENT PO NO	:	4505605360
HMD DOCUMENT NO	:	HMD-4505605360-C04-01
CLIENT DOCUMENT NO	:	
HMD PUMP NO	:	839916 A/B
EQUIPMENT TAG NO	:	18-P-250 A/B

2	06/09/2022	ISSUE FOR REVIEW	ARM	AFS	NW
1	30/05/2022	ISSUE FOR REVIEW	JLW	AFS	NW
0	04/03/2022	ISSUE FOR REVIEW	AFS	AFS	NW
REV	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

NOTE:

 RESOLUTION SHEET				
Comment Number	Document Name: EQUIPMENT DATA SHEET (INCL PREDICTED PERFORMANCE CURVE)		Revision from which comment first appeared	Comment Status: Open\Closed - (Date Closed:)
	CLIENT COMMENT	HMD RESPONSE	Current Rev:	
1	Vendor to confirm that the Magnetic Material is in compliance to Table I.1 of API 685	Confirm. Noted, closed	1	Closed (06/09/2022)
2	DESIGN FOR FULL CURVE TORQUE REQUIREMENTS (9.1.3.7c) YES TORQUE REQ'D FOR FULL CURVE (120% BEP), (9.1.3.7c) 20.28 ft-lb REQUIRED/ACTUAL SERVICE FACTOR (9.1.3.8) 3.1 SUBMIT MAG-COUPLING TORQUE VS TEMP. CURVE YES SUBMIT SPEED VS TORQUE CURVE (9.1.3.10) YES	Noted and updated. Noted, closed	1	Closed (06/09/2022)
3	53 HERTZ 60 54 MINIMUM STARTING VOLTAGE 80% 55 INSULATION CLASS Specify Details 56 FULL LOAD AMPS F 57 LOCKED MOTOR AMPS OPEN VALVE (FULLY-LOADED) 58 START CONDITION	Noted and updated. Noted, closed	1	Closed (06/09/2022)



WORLD ENERGY PARAMOUNT
World Energy Renewables Project
Paramount, California

MECHANICAL EQUIPMENT DATASHEET
Document Number: A8KM-18-088-540132-A
Rev. 2, 06-Sep-2022

EN203076-FLUOR-GD1-00034



WORLD ENERGY RENEWABLES PROJECT

MECHANICAL EQUIPMENT DATA SHEET FOR 18-P-250A/B

ACID GAS STRIPPER BOTTOMS PUMPS

Document No. A8KM-18-088-540132-A

Fluor Project No: A8KM

2	6-Sep-2022	Issue for Review	7	ARM	AFS	NW	
1	30-May-2022	Issue for Review	7	JLW	AFS	NW	
0	4-Mar-2022	Issue for Review	8	AFS	AFS	NW	
REV	DATE	DESCRIPTION	PAGES	ORIG	CHK'D	APPV'D	CLIENT

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FLUOR® worldenergy		SEALESS CENTRIFUGAL PUMP API 685, 2nd EDITION DATA SHEET Note: This Data Sheet has been modified from that in Annex R of API 685, Second Edition.		Contract: A8KM Item No: 18-P-250A/B Revision: 2Date: 6-Sep-22 Unit: SWSPPlus Unit Doc. No.: A8KM-18-088-540132-A Inquiry No.: 4-616-PO-2 Sheet 2 of 8		REV	
1	CLIENT: World Energy Paramount						
2	SERVICE: Acid Gas Stripper Bottoms Pumps		PLANT: World Energy Renewables Plant		SITE: Paramount, CA		
3	NO. REQ'D : 2 x 100% (Note 2.1)		PUMP SIZE : 3 x 1.5 x 6		TYPE: MAGNETIC DRIVEN	NO. STAGES : 1	
4	MANUFACTURER: Sundyne HMD Kontro		MODEL: GSP Frame 1		SERIAL NO.: 839916 A/B		
5	APPLICABLE TO : ☒ PURCHASE						
6	INFORMATION BELOW TO BE COMPLETED: ☐ BY PURCHASER ☒ BY SUPPLIER ☐ BY EITHER						
7	☒ LIQUID CHARACTERISTICS				OPERATING CONDITIONS - CONTINUED		
8	LIQUID TYPE OR NAME: Acid Gas Stripper Bottoms				NOTE: Max, Min, & Rated values refer only to the property listed	SERVICE : CONTINUOUS	
9		UNITS	MAXIMUM	NORMAL		RATED	*IF INTERMITTENT NO. OF STARTS / DAY
10	VAPOR PRESSURE:	psi (a)				108.6	PUMPS OPERATE IN:
11	SPECIFIC GRAVITY:					0.90	TEMPERATURE - VAPOR PRESS. CURVE
12	SPECIFIC HEAT:	BTU/lbm °F				1.045	CORROSION DUE TO: (6.10.1.8)
13	VISCOSITY:	cP				0.16	EROSION DUE TO: (6.10.1.8)
14	☒ OPERATING CONDITIONS (6.1.2)						H ₂ S CONCENTRATION (ppmw): (6.10.1.11) 1,239 ppmw
15		UNITS	MAXIMUM	RATED	NORMAL	MINIMUM	CHLORIDE CONCENTRATION (ppmw):
16	NPSHa Datum		C.L. IMPELLER - 3' Above Grade				PARTICULATE SIZE (DIA. IN MICRONS):
17	PUMPING TEMP.:	°F	380.0	327.0	327.0		PARTICULATE SIZE DISTRIBUTION:
18	FLOW:	gpm		151.0	137.3	54.9	PARTICULATE CONCENTRATION (ppm):
19	DISCHARGE PRESS: (6.3.2)	psig		157.8			PARTICULAR HARDNESS:
20	SUCTION PRESSURE:	psig	199.1	100.4			THERMAL CONDUCTIVITY: Btu/(h-ft-°F)
21	DIFFERENTIAL PRESSURE:	psi		57.4			THERMAL EXPANSION: in/in/°F
22	DIFFERENTIAL HEAD:	ft		147.1			POLYMERIZATION CHARACTERISTICS: (6.1.3.3)
23	NPSH _A :	ft		16.7	Excludes required 3' margin		
24	HYDRAULIC POWER:	HP		5.06			
25	SITE AND UTILITY DATA						
26	LOCATION:				COOLING WATER: IF APPLICABLE		
27	☒ OUTDOOR		☒ UNHEATED				
28	MOUNTED AT:	☒ GRADE		☐ TROPICALIZATION REQ'D			
29	ELECTRICAL AREA CLASSIFICATION:		☐ NON CLASSIFIED				
30	CLASS: I	GROUP: B,C,D	DIVISION: 2				
31	ZONE:	GROUP:	TEMP. CLASS		T3C		
32	SITE DATA:						
33	ELEVATION (MSL):	69	ft	BAROMETER:	14.7	psia	
34	RANGE OF AMBIENT TEMPS: MIN / MAX		35	/	105	°F	
35	RELATIVE HUMIDITY: MIN / MAX		AVG	/	54	%	
36	UNUSUAL CONDITIONS:						
37	UTILITY CONDITIONS:						
38	ELECTRICITY:	DRIVERS	HEATING	CONTROL	Instruments		
39	VOLTAGE	460	120	120	24V		
40	PHASE	3	1	1			
41	HERTZ	60	60	60			
42							
43	NOTES						
44	2.1 2 x 100% pumps. One (1) operating & one (1) spare. Pump is sized to keep the pumped fluid at the inlet of the control valve above the fluid vapor						
45	pressure + 2psi.						
46	2.2 Corrosive compositions dissolved in water (ppmw):						
47	CO2 = 1.6 ppmw						
48	H2S = 1,239 ppmw						
49	NH3 = 8,584 ppmw						
50	2.3 Pump centerline is assumed to be 3'-0" above grade and 27" above top of foundation. Pump Supplier shall adjust the NPSHa based on the actual pump						
51	centerline elevation above the pump foundation. A minimum NPSH margin of 3 ft or 10%, whichever is higher, is required at 110% of Rated flow.						
52	2.4 Pump Control Method: Flow control valve.						
53	2.5 Motor shall be rated for Class 1, Div 2, Gr B,C,D and Temperature Code T3C.						
54	2.6 Pump supports shall meet design load requirements per Project Spec. A8KM-PP-000-40002-A, Structural Data for Mechanical Equipment, and						
55	A8KM-PP-000-20001-A, Plant Site Data Sheet.						
56							
57							
58							
59							
60							

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PERFORMANCE							
PROPOSAL CURVE NO.: K2H/50-2		RPM 3480		ROTOR CHAMBER TEMP RISE OPERATING:			
As Tested Curve No.:				AT RATED CONDITIONS °F			
IMPELLER DIA.: RATED: 6.3		MAX: 6.69		AT MAXIMUM PUMP FLOW °F			
MIN: 5.12		in		ROTOR CHAMBER TEMP RISE ON SHUTDOWN: °F			
HYDRAULIC EFFICIENCY AT RATED POINT: 55		%					
HYSTRERESIS & MECHANICAL LOSSES: HP							
RATED POWER: 11.4		HP		EFFICIENCY: 45.3 %			
RATED CURVE BEP FLOW (at rated impeller dia.)		179		gpm			
MIN. FLOW THERMAL : 3.52		gpm		STABLE : 16.38 gpm			
PREFERRED OPERATING REGION: (6.1.11)		125.30		to 214.80 gpm			
ALLOWABLE OPERATING REGION:		16.38		to 233 gpm			
MAX. HEAD @ RATED IMPELLER:		169		ft			
MAX. POWER @ RATED IMPELLER:		13.4		HP			
PERCENT RISE TO SHUTOFF:		14.89		%			
ORIFICE USED TO STEEPEN CURVE OR GIVE CONT. RISE		NO					
NPSH3 at RATED FLOW :		7.87		ft			
CL PUMP TO U/S BASEPLATE:		1.39		ft			
NPSH MARGIN at RATED FLOW :		8.83		ft			
SPECIFIC SPEED: (6.1.16)		gpm,rpm,ft		1044			
SUCTION SPECIFIC SPEED LIMIT:		9,000					
SUCTION SPECIFIC SPEED:		gpm,rpm,ft		8950			
CONSTRUCTION							
API PUMP TYPE: OH2		[Based on API 610 Definitions]					
NOZZLE CONNECTIONS: (6.4.5)							
		SIZE	FACING	RATING	POSITION		
SUCTION		3	RF	300	END		
DISCHARGE		1.5	RF	300	TOP		
FLANGE THICKNESS REQ'S NON-STD BOLT LENGTH							
PRESSURE CASING AUXILIARY CONNECTIONS: (6.3.3)							
		NO.	SIZE	TYPE	FACING	RATING	POSITION
PURGE/FLUSH OUT		-	-	-	-	-	-
DRAIN		1	3/4	BW	RF	300LB	SIDE
VENT		-	-	-	-	-	-
PRESSURE SENSOR		1	1	BW	RF	300LB	SIDE
TEMP SENSOR		-	-	-	-	-	-
WARM-UP LINE		-	-	-	-	-	-
EXTERNAL		-	-	-	-	-	-
2ND DRAIN		1	3/4	BW	RF	300LB	SIDE
GUSSET SUPPORT REQUIRED (6.3.3.5):		YES					
DRAIN CONNECTION FOR SECONDARY CASING		NO					
ROTOR CAVITY DRAINABLE THROUGH 2ND DRAIN:		N/A					
DRAIN VALVE SUPPLIED BY:		PURCHASER					
VENT VALVE SUPPLIED BY:		N/A					
NO THREAD CONS TO SECONDARY CASING:		NO					
SPECIAL FITTINGS FOR TRANSITIONING (6.3.3.2):		NO					
CYLINDRICAL THREADS REQUIRED (6.3.3.11.3):		NO					
MACHINED AND STUDDED CONNECTIONS (6.3.3.7):		NO					
NOTES							
3.1 Flanges for spiral wound gaskets shall have flange surface finish of 125 µin Ra to 250 µin Ra maximum. Finishes shall be judged by visual comparison with surface roughness standards conforming to ASME B46.1							
3.2 Reduced hardness materials are required in accordance with API 685, 2nd Edition, Section 6.10.1.11							

				SEALESS CENTRIFUGAL PUMP API 685, 2nd EDITION DATA SHEET Note: This Data Sheet has been modified from that in Annex R of API 685, Second Edition.				Contract: A8KM Item No: 18-P-250A/B Revision: 2 Date: 6-Sep-22 Unit: SWSPlus Unit Doc. No.: A8KM-18-088-540132-A Inquiry No.: 4-616-PO-2 Sheet 4 of 8				REV												
CONSTRUCTION (CONT'D)																								
MATERIAL (6.10.1.1)						MAGNETIC DRIVEN PUMP SPECIFIC (9.1)																		
APPENDIX H CLASS: S-8: CS / 316 SS						DRIVER TYPE MOTOR GEAR NO																		
MINIMUM DESIGN METAL TEMP (6.10.4.1) psig @ 32 °F						CLOSE COUPLED DESIGN APPROVED (9.1.1.2):																		
IMPACT TEST SPECIFICATION						DESIGN FOR REMOVAL OF DRIVE END WITHOUT DISTURBING THE																		
REDUCED HARDNESS MATERIALS REQ'D (6.10.1.11) YES						PRESSURE CASING OR DRIVER (9.1.1.4): YES																		
APPLICABLE HARDNESS STANDARD (6.10.1.11) MR0103						DESIGN CONTAINMENT SHELL FOR VACUUM (6.2.4):																		
COPPER IN CONTACT W/ PROCESS FLUIDS NOT ALLOWED						CONTAINMENT SHELL VACUUM DESIGN: psig																		
CASING & COVER: Carbon Steel (ASTM A216 WCB)						MAGNETIC COUPLING TYPE: SYNCHRONOUS																		
IMPELLER: 316L Stainless Steel (ASTM A744 CF3M)						<table><tr><td>OUTER</td><td>INNER</td></tr><tr><td colspan="2">Samarium Cobalt (fully encapsulated)</td></tr><tr><td>Bonded</td><td>Bonded/Potted</td></tr><tr><td>500</td><td>500</td></tr><tr><td>No</td><td>Yes</td></tr><tr><td>Proprietary</td><td>Proprietary</td></tr></table>							OUTER	INNER	Samarium Cobalt (fully encapsulated)		Bonded	Bonded/Potted	500	500	No	Yes	Proprietary	Proprietary
OUTER	INNER																							
Samarium Cobalt (fully encapsulated)																								
Bonded	Bonded/Potted																							
500	500																							
No	Yes																							
Proprietary	Proprietary																							
SHAFT: 316L Stainless Steel (BS EN 10088-3 1.4404)						MAGNETS:																		
WEAR RINGS: 316L Stainless Steel Hard Faced						MAGNETIC MATERIAL																		
CONTAINMENT SHELL/STATOR LINER: 316L Stainless Steel / Alloy C 276						MOUNTING METHOD																		
INNER MAG SHEATH/ROTOR LINER: 316L Stainless Steel - Ceramic Potted						TEMP. LIMIT °F																		
BEARING SLEEVE: Silicon Carbide						HERMETIC. SEALED																		
BEARING BRUSHING: Silicon Carbide						NO. OF MAGNETS																		
STATOR HOUSING/FRAME:						PROTECTION OF OUTER MAG RING (9.1.3.5):																		
INSPECTION CLASS LEVEL 2						STARTING REQUIREMENT: ACROSS-THE-LINE																		
PRESSURE VESSEL DESIGN CODE REFERENCES						TORQUE RATING (DECOUPLING) 53.1 ft-lb																		
THESE REFERENCES MUST BE LISTED BY THE MANUFACTURER:						MAX TORQUE REQ'D ON STARTING (9.1.3.7a) 3.47 ft-lb																		
SOURCE OF MATERIAL PROPERTIES ASTM						PUMP TORQUE AT RATED (+5%), (9.1.3.7b) 17.26 ft-lb																		
CASTING FACTORS USED IN DESIGN (TABLE 3)						DESIGN FOR FULL CURVE TORQUE REQUIREMENTS (9.1.3.7c) YES																		
WELDING AND REPAIRS						TORQUE REQ'D FOR FULL CURVE (120% BEP), (9.1.3.7c) 20.28 ft-lb																		
ALTERNATE WELDING CODES AND STANDARDS						REQUIRED/ACTUAL SERVICE FACTOR (9.1.3.8) 1.25 / 3.1 2																		
WELDER QUALIFICATION						SUBMIT MAG-COUPLING TORQUE VS TEMP. CURVE YES																		
WELD PROCEDURE QUALIFICATION						SUBMIT SPEED VS TORQUE CURVE (9.1.3.10) YES																		
MP OR LP EXAM OF PLATE EDGE						BEARINGS AND LUBRICATION (9.1.4)																		
POST WELD HEAT TREAT						DRIVE MAGNET BEARING (TYPE / NUMBER): See Note 6.7 for additional requirements																		
POST WELD HEAT TREAT OF CASING						RADIAL BALL / 6209																		
ALTERNATE STD/ACCEPT CRITERIA APPLIES						THRUST BALL / 6209																		
INSPECTION METHOD CASTINGS FABRICATIONS						LUBRICATION METHOD: OIL BATH																		
RADIOGRAPH						OIL VISC. ISO GRADE VG 68																		
ULTRASONIC						CONSTANT LEVEL OILER (9.1.4.2.1)																		
MAG PARTICLE						PREFERENCE Note 5.2																		
LIQ PENETRATE						HOUSING VENT Required																		
VISUAL						SUMP COLLECTOR REQUIRED (9.1.4.2.2)																		
MOTOR REQUIREMENTS APPLICABLE TO ALL (7.1.2), See Sheet 8						BEARING HOUSING END SEALS Inpro or Equal																		
MANUFACTURER: BALDOR						SHAFT COUPLING & GUARD: (9.1.5.2)																		
FRAME OR MODEL: 256 T						COUPLING MANUFACTURER: John Crane																		
ORIENTATION: HORIZONTAL						MODEL Metastream TSKS 13 SPACER LENGTH 5.512 in																		
NAMEPLATE POWER HP 15						RATING (POWER / 100 RPM) SERVICE FACTOR min. 1.5																		
SERVICE FACTOR 1.15						COUPLING BALANCED TO ISO 1940-1G6.3 (9.1.5.2.3) G2.5																		
NOMINAL RPM 3480						COUPLING TO ISO 14691 (9.1.5.2.9)																		
RATED LOAD RPM						COUPLING GUARD STANDARD (9.1.5.2.11) ANSI B15.1																		
VARIABLE SPEED REQUIRED NO						IGNITION HAZARD ASSESSMENT REQUIRED (9.1.5.2.11.5) N/A																		
SOURCE OF VARIABLE SPEED						SPARK RESISTANT MATERIAL (9.1.5.2.11.6) YES																		
VOLTAGE 460						BASEPLATE (9.1.5.3)																		
PHASE 3						API BASEPLATE NUMBER (9.1.5.3.3):																		
HERTZ 60						BASEPLATE CONSTRUCTION (9.1.5.3.1.1): FULL TOP DECKING																		
MINIMUM STARTING VOLTAGE 80%						BASEPLATE DRAINAGE (7.3.1) DRAIN RIM																		
INSULATION CLASS F						MOUNTING: EPOXY GROUTED																		
FULL LOAD AMPS 17						NON-GROUT CONSTRUCTION (9.1.5.3.13) NOT REQUIRED																		
LOCKED MOTOR AMPS 114						OPEN DECK DESIGN (9.1.5.3.14):																		
START CONDITION OPEN VALVE (FULLY-LOADED)						PROVIDE STAINLESS SPACER PLATE UNDER ALL EQUIP. FEET (9.1.5.3.6):																		
						OTHER Furnish two (2) diagonally opposed grounding provisions, Note 6.3																		
						SEPARATE MOTOR DRIVER, See Sheet 8 2																		
						APPLICABLE SPEC: ENCLOSURE: 2																		
						INCLUDE: SPACE HEATER VIB. SENSOR																		
						LUBRICATION:																		
						DRIVER MOTOR BEARING (TYPE / NUMBER):																		
						RADIAL /																		
						THRUST /																		

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1	CANNED MOTOR PUMP SPECIFIC (9.2)			PREPARATION FOR SHIPMENT (8.4.1)																																	
2	MOTOR WINDING INSULATION CLASS (9.2.2.8)			TYPE OF SHIPMENT (8.4.1):																																	
3	SOLID OR LIQUID HEAT TRANS. MEDIA ALLOWED IN STATOR?			EXPORT																																	
4	DESIGN MOTOR FOR FREQUENT STARTS (9.2.2.9)			EXPORT BOXING																																	
5	STARTS PER			Timber Box (Certified Wood)																																	
6	IMPACT ON LIFE:																																				
7	DESIGN MOTOR FOR (9.2.2.9):			N2 PURGE DURING SHIPPING (9.2.8.4)																																	
8	UL, FM, ATEX OR EQUIVALENT REQUIRED (9.2.2.10)			OUTDOOR STORAGE MORE THAN 6 MONTHS			YES																														
9	CERTIFICATION OF IEEE 252 TEST REQUIRED (5.2.7.1)			PURGE DURING STORAGE (9.2.8.4)			NO																														
10	DESIGN STATOR LINE FOR VACUUM (6.2.4)			DETAILS OF LIFTING DEVICES																																	
11	STATOR LINER VACUUM DESIGN: psig			SPARE PARTS (include cost & details w/ proposal)																																	
12	DECONTAMINATION CONNECTION ON STATOR (9.2.2.11)			START - UP			YES																														
13	SECONDARY CONTROL / CONTAINMENT			NORMAL MAINTANANCE			YES																														
14	NFPA RATING:			SPARE ASSEMBLY:																																	
15	HEALTH: FLAMMABILITY: INSTABILITY:			OTHER:																																	
16				WEIGHTS lb																																	
17	USE ANNEX B HAZARD BASED PROCEDURE			<table><tr><th>ITEM NO.</th><th>PUMP</th><th>DRIVER</th><th>GEAR</th><th>BASE</th><th>TOTAL</th></tr><tr><td>18-P-250A</td><td>265</td><td>677</td><td>44</td><td>820</td><td>1806</td></tr><tr><td>18-P-250B</td><td>265</td><td>677</td><td>44</td><td>820</td><td>1806</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>			ITEM NO.	PUMP	DRIVER	GEAR	BASE	TOTAL	18-P-250A	265	677	44	820	1806	18-P-250B	265	677	44	820	1806													
ITEM NO.	PUMP	DRIVER	GEAR	BASE	TOTAL																																
18-P-250A	265	677	44	820	1806																																
18-P-250B	265	677	44	820	1806																																
18	HAZARD STATEMENT																																				
19	RISK PHRASE																																				
20																																					
21	REQUIRED MEASURE:			OTHER PURCHASER REQUIREMENTS																																	
22				COORDINATION MEETING REQUIRED (10.1.3)			YES																														
23	SECONDARY CONTROL (3.67)			CASTING REPAIR WELD PROCEDURE APPR REQ'D (6.10.2.5)			Note 5.1																														
24	MAX LEAKAGE ON PRIMARY FAILURE: gpm			MAXIMUM DISCHARGE PRESSURE TO INCLUDE (6.2.3):																																	
25	FLOW RESTRICTION: DRY-RUN MECHANICAL SEAL			MAX RELATIVE DENSITY			YES																														
26	DEVICE MANUFACTURER: Proprietary Information			OPERATION TO TRIP SPEED																																	
27	MATERIAL: Proprietary Information			MAX DIAM. IMPELLERS			YES																														
28	ELASTOMERS: Proprietary Information			CONNECTION DESIGN APPROVAL (6.10.3.4.4)																																	
29	MANUFACTURER CODE: Proprietary Information			DEMONSTRATE CO-PLANAR MOUNTING PAD SURFACES																																	
30				IN PUMP VENDOR SHOP (9.1.5.3.5)			NONE																														
31	SECONDARY CONTAINMENT (3.65)			DYNAMIC BALANCE TO ISO 1940-1 gr. G1.0 (6.8.4.2)			YES																														
32	SECONDARY SEAL:			INSTALLATION LIST IN PROPOSAL (10.2.3.1)			YES																														
33	DESIGN PRESSURE: psig			INCLUDE PLOTTED VIBRATION SPECTRAS (6.8.3.2.1)			YES																														
34	INSTRUMENTATION (7.4.2)			CONNECTION BOLTING COATING			PAINTED																														
35	DETECT OPER. OUTSIDE ACCEPT. RANGE OR DECOUPLE (7.4.2.1)			SUBMIT EST. SPL BY OCTAVE BAND			REQUIRED																														
36	METHOD:			MATERIAL CERTIFICATION REQUIRED (6.10.1.7)																																	
37	LOCATION:			CASING			YES																														
38	IF LOCAL PROVIDED BY:			IMPELLER			YES																														
39	USE FOR:			SHAFT			YES																														
40	MONITOR LEAKAGE INTO SECOND CASING: YES			OTHER: All wetted pressure containing components and wear rings																																	
41	METHOD: PRESSURE			VENDOR SUBMIT TEST PROCEDURES (8.3.1.1)			YES																														
42	SENSOR BY: SUPPLIER			ADDITIONAL DATA REQUIRING 20 YEARS RETENTION (8.2.1.1G)																																	
43	TYPE: TRANSMITTER																																				
44	USE FOR: ALARM			SURFACE PREPARATION AND PAINT																																	
45	MONITOR VIBRATION: NOT REQUIRED			MANUFACTURER'S STANDARD			YES																														
46	METHOD:			MFR STD per A8KM-PP-000-500520-A																																	
47	PROVISION REQUIRED:			PUMP:																																	
48	SENSOR BY:			PUMP SURFACE PREPARATION			Per A8KM-PP-000-500520-A																														
49	IF FULL TIME, USE FOR:			PRIMER			MFR std in compliance or exceed ISO 12944-C4																														
50	MONITOR TEMPERATURE OF: NOT REQUIRED			FINISH COAT			Same as above																														
51	METHOD:			BASEPLATE:																																	
52	SENSOR BY:			BASEPLATE SURFACE PREPARATION			Per A8KM-PP-000-500520-A																														
53	TYPE:			PRIMER			MFR std in compliance or exceed ISO 12944-C4																														
54	USE FOR:			FINISH COAT			No finish coat on underside. Epoxy grout compatible																														
55	NOTES																																				
56	5.1 Minor defects of a surface nature in the pressure casting (amounting to less than 20% of the wall thickness and less than 10 in ² in total area) may be																																				
57	repaired without Buyer's approval																																				
58	5.2 Bearing housing oilers shall be Trico 8-oz. constant-level sight feed. Vendor to provide standard 3/4" NPS bullseye level gauge.																																				
59	5.3 Deleted																																				
60																																					

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Note: This Data Sheet has been modified from that in Annex R of API 685, Second Edition.

Contract:	A8KM		
Item No:	18-P-250A/B		
Revision:	2	Date:	6-Sep-22
Unit:	SWSPlus Unit		
Doc. No.:	A8KM-18-088-540132-A		
Inquiry No.:	4-616-PO-2		
Sheet	6	of	8

[illegible]

Page: 8 of 9



SEALESS CENTRIFUGAL PUMP
API 685, 2nd EDITION
DATA SHEET

Note: This Data Sheet has been modified from that in
Annex R of API 685, Second Edition.

Contract:	A8KM
Item No:	18-P-250A/B
Revision:	2
Date:	6-Sep-22
Unit:	SWSPPlus Unit
Doc. No.:	A8KM-18-088-540132-A
Inquiry No.:	4-616-PO-2
Sheet	7 of 8

REV

Quoted Pump Curve:

K2H/50-2, Sundyne HMD Kontro:

Performance curve	K2H/50-2		
Impeller type	Radial Vane		
Direction of rotation	Clockwise from the drive end		
Impeller construction	Closed		
Impeller Eye Area	6.3101 sq in	NSS (US unit)	8950
Frequency	60 Hz Hz	Speed	3480 rpm

Impeller type		Radial Vane	
Impeller construction		Closed	
Impeller Ø	Max.	inch	6.69
	Designed	inch	6.3
	Min.	inch	5.12
Flow	Nominal	US g.p.m.	152
	Max.	US g.p.m.	233
	Min.	US g.p.m.	16.4
Head	Nominal	ft	149
	at Max Flow-	ft	105
	at Min Flow-	ft	168
	Head H(Q=0)	ft	169
NPSH 3%		ft	7.86
Shaft power		hp	11.4
Max. shaft power sel. Impeller		hp	13.4
Efficiency		%	45.3

