

PROJECT
WATER UTILITY PUMPS

PARTICULAR SPECIFICATION
SLUDGE PUMPS
1200-PU-1430 / 1430 X

0	09/07/2013	Issued For Purchase (IFP)	C. FOURNIER	M.VERGARA	C. FOURNIER
A	25/02/2013	Issued For Design (IFD)	C. FOURNIER	M.VERGARA	C. FOURNIER
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DOCUMENT REVISIONS					

SPECIFICATION/ Specification										Pag. 2/3	Rev.
<div> <div>Project - Unit</div> <div>Document type</div> <div>Material code</div> <div>Serial number</div> <div>Revision</div> </div> <div> <div>9806J -1200</div> <div>SP</div> <div>0910</div> <div>005</div> <div>0</div> </div>											
CENTRIFUGAL PUMP DATA SHEET										Total quantity: 2 (5)	
Site: Item No : 1200-PU-1430 / 1430 X										Quantity running: 1	
Unit: 1200, Sanitary Water Treatment										Quantity spare: 1 Spare in warehouse	
Mechanical Data Sheet for: <input type="checkbox"/> Inquiry <input checked="" type="checkbox"/> Purchase <input type="checkbox"/> As built										Process reference : 9806J-1200-PDS-0900-001-B	
Vendor: KSB										Service: Sludge Pump	
Manufacturer:										Duty: <input type="checkbox"/> continuous <input checked="" type="checkbox"/> batch <input type="checkbox"/> other	
Model: Sewatec F 50-250G										Location: <input checked="" type="checkbox"/> outdoor <input checked="" type="checkbox"/> exposed to elements <input type="checkbox"/> under shelter	
Serial number:										<input type="checkbox"/> indoor <input type="checkbox"/> heated <input checked="" type="checkbox"/> unheated	
HANDLED PRODUCTS										REQUIRED OPERATING DATA (per pump)	
Fluid: Sludge (1)										Flow (m3/h): mini normal: 3 rated: 3 maxi:	
<input type="checkbox"/> corrosive <input type="checkbox"/> abrasive <input type="checkbox"/> explosive <input type="checkbox"/> flammable <input type="checkbox"/> toxic <input checked="" type="checkbox"/> other: Erosive										Discharge pressure (bar g.): 1,1	
Gas content: <input type="checkbox"/> no <input type="checkbox"/> yes										Suction pressure (bar g.): -0,01 maxi: 0,5	
Solids content: <input type="checkbox"/> no <input checked="" type="checkbox"/> yes										Differential pressure (bar): 1,1	
Pumping temperature Tp (°C): mini: normal: 5 maxi: 47										Total head (m of LC): 11	
Specific gravity at TP: mini: normal: 1 maxi: 1,05										Available NPSH (m): 8	
Dynamic viscosity at Tp (Cp): normal: 1 maxi: 20										Garanteed point : 3 m3/h @ 11 m	
Vapour pressure at TP (bar a.): mini: normal: 0,106 maxi:										Speed control: No	
Atmospheric boiling temperature (°C):										Start-up conditions: Open Valve	
Specific heat (kJ/ kg/ °C):										Dry run requirements:	
										Parallel/ serie operation:	
										Basic material (wetted parts):	
PUMP DESIGN (Vendor to complete)										Remark:	
Type: <input type="checkbox"/> classic volute <input type="checkbox"/> segmented <input type="checkbox"/> barrel(HP) <input type="checkbox"/> in-can <input type="checkbox"/> in-line											
<input type="checkbox"/> priming volute <input type="checkbox"/> side chanel <input type="checkbox"/> high speed <input type="checkbox"/> w/separate priming											
<input checked="" type="checkbox"/> monostage <input type="checkbox"/> multistage <input type="checkbox"/> hygienic construction											
Basic design: <input checked="" type="checkbox"/> Std Manufacturer <input type="checkbox"/> other:										Rotation facing coupling: <input type="checkbox"/> Clockwise <input type="checkbox"/> Counter Clockwise	
Nominal pressure (bar g. @ °C): By Vendor at (°C):										Performance curve reference:	
Casing type: <input type="checkbox"/> moulded <input type="checkbox"/> fabricated <input type="checkbox"/> lined <input type="checkbox"/> other:										Pump speed:	
<input type="checkbox"/> single volute <input type="checkbox"/> double volute <input type="checkbox"/> jacketed										Allowable speed range:	
<input type="checkbox"/> with diffuser <input type="checkbox"/> with wear ring <input type="checkbox"/> with throat bushing										Maximum Allowable Working Pressure (bar g.): at (°C)	
Casing nozzles Orient. Size Rating Facing Remarks:										Maximum Allowable Temperature (°C):	
Suction End 2,5" 150 RF										Performances with offered diameter mini normal rated	
Discharge Top 2" 150 RF										Stable flow (m3/h) (3)	
Drain Plunged										Total Head (m)	
Vent By Vendor										Required NPSH (m)	
Casing split: <input checked="" type="checkbox"/> radial <input type="checkbox"/> axial <input type="checkbox"/> none										Hydraulic impeller efficiency (%)	
Casing support <input type="checkbox"/> foot <input type="checkbox"/> centerline <input type="checkbox"/> bearing frame <input type="checkbox"/> other:										Required power at driver shaft (kW):	
Shaft: <input checked="" type="checkbox"/> solid (no sleeve) <input type="checkbox"/> sleeved										Shut off head (m):	
Impeller: <input type="checkbox"/> closed <input type="checkbox"/> semi open <input type="checkbox"/> open <input type="checkbox"/> with wear ring										Flow at Best Efficiency point (m3/h):	
<input type="checkbox"/> single flux <input type="checkbox"/> double flux <input type="checkbox"/> vortex <input type="checkbox"/> vane wheel										Impeller diameter (mm): mini: maxi: installed:	
<input type="checkbox"/> radial <input type="checkbox"/> mixed flow <input type="checkbox"/> axial										Dry run capability:	
Impeller mount: <input checked="" type="checkbox"/> overhang <input type="checkbox"/> between bearings <input type="checkbox"/> with inducer											
Impeller attachment: <input type="checkbox"/> screwed <input type="checkbox"/> keyed <input type="checkbox"/> other:										SHAFT SEAL (Vendor to complete)	
Bearing type/ lubrif.: Drive End / Non Drive End /										<input type="checkbox"/> None <input type="checkbox"/> Packing <input type="checkbox"/> Labyrinth <input type="checkbox"/> Hydrodynamic	
Baseplate: <input type="checkbox"/> none <input checked="" type="checkbox"/> under pump and drive system <input type="checkbox"/> anchored <input type="checkbox"/> stilt mounted										<input checked="" type="checkbox"/> Mechanical seal: <input type="checkbox"/> single <input type="checkbox"/> dual <input type="checkbox"/> cartridge	
<input type="checkbox"/> moulded <input type="checkbox"/> bended sheet <input type="checkbox"/> fabricated										<input type="checkbox"/> contact <input type="checkbox"/> without contact	
										<input type="checkbox"/> spring(s) <input type="checkbox"/> bellow	
MATERIALS (Vendor to complete) (2)										Mounting: <input type="checkbox"/> face to face <input type="checkbox"/> back to back <input type="checkbox"/> tandem	
Casing(s)/ Cover:										<input type="checkbox"/> rotating flexible element <input type="checkbox"/> stationary flexible element	
Casing liner:										Pressurisation: <input type="checkbox"/> N/A <input type="checkbox"/> buffer fluid <input type="checkbox"/> barrier fluid	
Impeller:										fluid: pressure: circulation by:	
Shaft:										Seal chamber: <input type="checkbox"/> cylindric <input type="checkbox"/> tapped (enlarged) <input type="checkbox"/> jacketed	
Stuffing box:										<input type="checkbox"/> integral with casing <input type="checkbox"/> internal <input type="checkbox"/> external <input type="checkbox"/> with throttle bushing	
Wetted bolting:										Seal manufacturer/ Model: By Vendor API Plan NA	
Baseplate:										Product side Atmospheric side	
DRIVE SYSTEM DESCRIPTION (Vendor to complete)										Norme	
Driver: Electrical (4)										Max allow. pressure	
<input checked="" type="checkbox"/> fixed speed <input type="checkbox"/> Variable speed										Balancing	
supplied/ mounted by: By Vendor / By Vendor										Spring/ Bellow	
manufacturer/ model: Leroy somer										O'Ring/ gaskets	
nameplate power/ speed: 2,2 / 1500										Cartridge sleeve:	
Connection driver/ pump: <input type="checkbox"/> pulley/ belts <input type="checkbox"/> direct (close coupled)										End plate:	
<input checked="" type="checkbox"/> direct(separately coupled) <input type="checkbox"/> gears <input type="checkbox"/> other:											
Electrical utility data:											
Volts: 400 Hertz: 50 Phase: 3											

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4		Project - Unit	Document type	Material code	Serial number	Revision
5		9806J -1200	SP	0910	005	0
6	ACCESSORIES (Vendor to complete)					SUPPLY BY
7	Pulleys/ belts:					
8	Coupling(s): Flexible (Spacing type), service factor 1,5 min.					VENDOR
9						
10	Safety guards: No sparking type					VENDOR
11	Gear box: Type:		Nameplate power/ speed:		Service factor:	
12	Manufacturer/ model:					
13						
14						
15	Seal pot:	Material:	Design/ fabric. code:	<input type="checkbox"/> baseplate mounted <input type="checkbox"/> stand alone		
16	Available connections: <input type="checkbox"/> filling <input type="checkbox"/> drain <input type="checkbox"/> flushing inlet <input type="checkbox"/> flushing outlet <input type="checkbox"/> pressurisation					
17	<input type="checkbox"/> inlet coil <input type="checkbox"/> outlet coil <input type="checkbox"/> gauge <input type="checkbox"/> other					
18	Type of connections: <input type="checkbox"/> threaded <input type="checkbox"/> flanged <input type="checkbox"/>					
19	Baseplate, with <input type="checkbox"/> drip recovery (D=25 mm mini) <input checked="" type="checkbox"/> handling devices <input checked="" type="checkbox"/> earthing lugs <input type="checkbox"/>					VENDOR
20	<input type="checkbox"/> equipotential connections <input type="checkbox"/> anchor bolts <input type="checkbox"/> Cooler support					
21	Control/ Instrumentation:					
22	Temperature:					
23	Vibrations: Pump : Only flat surface for magnetic measuring equipment					
24						
25						
26	Variable Speed Drive :					
27						
28	AUXILIARY CIRCUITS DESCRIPTION (Vendor to complete)					
29	Function	Fluid/ Flow	Material	P/ T design	Main features	
30		(name / m3/hr)		(kPa g. / °C)		
31						
32						
33						
34						
35						
36						
37	INSPECTION AND TESTS (Vendor to complete) (6)					
38	Shop inspection	<input type="checkbox"/> no <input checked="" type="checkbox"/> yes				By Vendor
39	Material certificates	<input type="checkbox"/> no <input type="checkbox"/> yes	Type 3,1 for Stainlee Steel parts, Type 2.2 for other parts (according to EN 10204)			By Vendor
40	Hydraulic test	<input type="checkbox"/> no <input type="checkbox"/> yes	with (1,5 x nominal pressure) during 30 minutes.			By Vendor
41	NPSH test	<input type="checkbox"/> no <input type="checkbox"/> yes	Required only if difference between NPSHa and NSPHr < 1m at rated point			By Vendor
42	Performance test	<input type="checkbox"/> no <input checked="" type="checkbox"/> yes	5 points of measurement. Including mechanical running test 2 hrs, according to JSS-0910-001, Point 7.6.2			By Vendor
43	Balancing test	<input type="checkbox"/> no <input type="checkbox"/> yes	Vendor to detail procedure, according to ISO 1940 G 6.3			By Vendor
44	Vibrations measurement	<input type="checkbox"/> no <input type="checkbox"/> yes	at guaranteed point with limit indicated in 9806J-0000-JSS-0910-001			By Vendor
45	Sound level measurement	<input type="checkbox"/> no <input type="checkbox"/> yes	85 dB(a) @ 1m			By Vendor
46	Dismantling after test	<input type="checkbox"/> no <input type="checkbox"/> yes	only if required after defects are measured			By Vendor
47						
48						
49	MISCELLANEOUS (Vendor to complete)					
50	Painting:	<input checked="" type="checkbox"/> Standard Vendor <input type="checkbox"/> Other:			By Vendor	
51	Tracing/ Insulation:					
52	Special tools: If required					By Vendor
53						
54	Weights (kg):	<input type="checkbox"/> Bare pump:	<input type="checkbox"/> Driver:	<input type="checkbox"/> Baseplate:	<input type="checkbox"/> Total:	By Vendor
55						
56						
57	NOTES:					
58	(1) Max Total Suspended Solids (TSS) = 50 g/L					
59	(2) Cast Iron					
60	(3) Vendor shall indicate continous stable minimum flow .					
61	(4) Low Voltage Electric motor is subject to frame agreement. Refer to specification 9806J-0440-JSS-1691-001					
62	(5) Scope of supply : 1200-PU-1430 1200-PU-1430 X					
63	- Pump + Coupling + Motor - Pump					
64	- Base plate + Feet					
65	(6) Refers to : 9806J-0000-ITP-0910-002					
66						
67						
68	GENERAL REMARK :					
69	- Resistant material nameplate (tag number, vendor name and adress, pump datas) with resistant fixation must be provided by Vendor.					
70	- Direction of rotation (arrow) shall be marked with permanent mark,					
71	- Final coat of paint must be coated after test final inspection.					
72						