

Sulzer Pumps Finland Oy PRODUCT SPECIFICATION	Description ZPP31-400 53 Serial Number Z99301442 Time of delivery/EXW 01/01/2000 Date printed 10/16/2012 Page 1
Customer Cust. Order USN9900779 Cust. PO line Country code	ANDRITZ, INC. ONE NAMIC PLACE GLENS FALLS NY 12801 USA Equipment OR Id

GENERAL

Units: **US**

PUMP: **Y**

COUPLING: **Y**

COUPLING GUARD: **Y**

FOUNDATION RAILS: **Y**

PULSE TEST: **Y**

PROCESS DATA

Characteristic curve: **K02901**

Mill: **12**

Process: **325**

Duty: **#4 TISS. MACH. FAN**

Pumped liquid: **STOCK**

Density: **1.000 lb/ft3**

Temperature: **110.0 °F**

Capacity Q: **10,900.0 gpm**

Head H: **117.00 Feet**

NPSH req: **31.00 Feet**

Pump rotational speed: **1,300 1/min**

Variable speed: **Yes**

Pump power P: **366.00 HP**

Motor power: **450.00 HP**

Efficiency: **88.00 %**

Other information needed: **SEE REMARKS**

PRODUCT

Design: **US**

Version: **1**

Conformity: **89/392/EEC machinery**

Pump Size: **ZPP31-400**

Construction: **Clockwise**

Dimensional drawing: **P01344**

Cas. surface finish.: **No finishing**

Imp. surface finish.: **No finishing**

Impeller No.: **286959**

Impeller diameter: **442 mm**

Impeller turning angle: **8.0 deg**

Casing Material: **A48 CL 35 B**

Sleeve Material: **SS2324**

Flange Drilling: **ANSI B16.1 Class 125**

Bearing Unit Lubrication: **Oil lubrication**

Shaft Seal Fitting: **P02**

Pump weight: **Pump and foundation rails**

Space req by pump: **Pump and foundation rails**

Customer documents lang./qty.: **EN/3**

Component documents lang./qty.: **EN/3**

Pulse Test Requirement: **Beloit (< 0.15 Psi P-to-P)**

Coupling Type: **FALK G20**

Coupling Supplied by: **IPU production unit**

Coupling mounted by: **IPU production unit**

Drilling of pump side: **70J7+ 0.018/-0.012**

Drilling of motor side: **3.3725"+ 0.0010"**

Key P. side: **SFS 2636 (= ISO 773)**

Key M. side: **ANSI B17.1 SQUARE**

Coupling location: **Pump/Motor**

Length of motor shaft end: **110 - 290 mm**

Type of foundation: **Foundation Rails for pump**

Sulzer Process Pumps (US) Inc.
Easley Pump Factory
155 Ahlstrom Way
EASLEY SC 29640

Contact Person
LBU Order USN9900779
LBU Position 1
Reference no. USN9900779/001
Telephone
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Customer Instructions

001.1	1	Dimensional drawing	P01338EN
001.2	1	Dimensional drawing	P01344EN
003.1	1	INSTRUCTION	N01324EN
003.2	1	Shaft sealing	N00626EN
007.1	1	Installation Instruction, Coupling	N00388EN
010.1	1	Assembly sectional drawing	N00618EN
010.1	1	ASSEMBLY SECTDWG	384072EN
011	1	Pump sectional drawing	N00620EN
011	1	PUMP SECTDWG	383979EN
012	1	SHAFT SEAL SECTDWG	384159EN
012	1	Shaft sealing	N00626EN
013.2	1	BEARING UNIT SECTDWG	N00622EN
013.2	1	BEARING UNIT SECTDWG	383978EN
060	1	EC DECLARATION OF CONFORMITY	N01344EN
063.1	1	Safety of Machinery	N11168EN

Connections

008	1	1130 kg PUMP WEIGHT
009	1	1610x1120x1300 wit SPACE REQ BY PUMP
020	CON020	2 SEALING LIQUID INLET ISO 7/1-Rp 1/2
028	CON028	2 LEAKAGE OUTLET ISO 7/1-Rp 1
040	CON040	2 DRAINING OF PUMP ISO 7/1-Rp 1
042	CON042	2 OIL FILLING ISO 7/1-Rp 1/2
043	CON043	2 DRAINING OF LUBRICAT ISO 7/1-Rp 1/2
044	CON044	2 CONSTANT LEVEL OILER ISO 7/1-Rp 1/4
072.2	1	840 DOC COMPONENT DOCUMENTS 840

Parts

102	1438760153	1	VOLUTE CASE ZPP31-400	(53) A48 CL 35 B
210	1438740133	1	SHAFT ZPP31-400	(33) SS2324
230	2869590141	1	IMPELLER ZPP31-400 NF	(41) A890 3A
320	G513022216	2	ANTIFRICTION BEARING 22216 CC/W33	
330	1438730152	2	BEARING HOUSING ZPP31-400 O	(52) A48 CL 30 B
360	2873810152	2	BEARING COVER ZPP3	(52) A48 CL 30 B
400	E000000026	1	GASKET GORE-TEX 7MM L = 8M	(94) PTFE
412.1	E11B084592	2	O-RING 84,5X3 SMS1586	(92) EPDM
412.2	E11B084592	2	O-RING 84,5X3 SMS1586	(92) EPDM
412.3	E11H129591	2	O-RING 129,5X5,7 SMS1586	(91) NBR

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423	3841880171	2	LABYRINTH RING ZPP3	(71) GC-CuPb5Sn5Zn5 SFS2209
452	383798014T	2	STUFFING BOX GLAND APP6, ZPP3	(4T) A890 5A
456	4860010133	2	NECK BUSH APP6, ZPP3	(33) SS2324
458	EV11000084	2	LANTERN RING 100X132X20 SEV100	(84) PTFE/Glass
461	E41C100082	8	GLAND PACKING 100/132X16	(82) Graphite/PTFE
502	3842020141	2	CASING WEAR RING ZPP31-400	(41) A890 3A
504	GJ61050140	2	SPACER RING FRB/FRM 5/140	
507	4861840184	2	DEFLECTOR ZPP3	(84) PTFE/Glass
516	BS1J80A010	2	BACK-UP RING SS 80X100X3.5 DIN988	(10) S EN10025
524	3841930133	2	SHAFT WEARING SLEEVE ZPP3	(33) SS2324
554.1	B31001051K	3	WASHER ISO 7089-10-200 HV	(1K) S+ Z EN10025
566.1	B511128533	2	CONICAL DOWEL M12/12X85 DIN7977	(33) SS2324
638	GH71303000	2	CONSTANT LEVEL OILER ACL 7577 ADAMS, G 1/4 Plastic bottle	
642	GH32306000	2	SIGHT GLASS R3/4	
672	GH54305000	2	VENTING DEVICE FC2021N010-GX08 R1/2	
685.1	3843060111	1	GUARD END D410/170 S4	(11) S235JRG2 EN10025
686.1	3843140100	1	GUARD JACKET D192, L211	polyethylene
686.2	384054011K	1	GUARD JACKET D410, L305	(1K) S+ Z EN10025
686.3	384056011K	1	GUARD JACKET D410, L220	(1K) S+ Z EN10025
699	GG11080016	2	MEASURING STUD M8X24 SGG100	(16) S+ ZE EN10025
840	H1R5000000	1	COUPLING G20 1030G	
899.1	3842370113	1	FOUNDATION RAIL ZPP	(13) S355J0 EN10025
899.2	3842360113	1	FOUNDATION RAIL ZPP	(13) S355J0 EN10025
901.1	A12124501E	8	HEXAGON HEAD SCREW M24X50 ISO 4017	(1E) 8.8 ZnK ISO898
901.2	A12110301E	3	HEXAGON HEAD SCREW M10X30 ISO 4017	(1E) 8.8 ZnK ISO898
901.3	A12110161E	8	HEXAGON HEAD SCREW M10X16 ISO4017	(1E) 8.8 ZnK ISO898
901.4	A12110301E	8	HEXAGON HEAD SCREW M10X30 ISO 4017	(1E) 8.8 ZnK ISO898
901.5	A12120701E	36	HEXAGON HEAD SCREW M20X70 ISO 4017	(1E) 8.8 ZnK ISO898
901.6	A12120501E	12	HEXAGON HEAD SCREW M20X50 ISO 4017	(1E) 8.8 ZnK ISO898
902	AC11166033	4	STUD M16X60 SAC100	(33) SS2324
903.1	4864520134	2	THREADED PLUG R1/2	(34) SS2343
903.2	4864520134	1	THREADED PLUG R1/2	(34) SS2343
903.4	CC33050034	2	THREADED PLUG R1/2 SCC340	(34) SS2343
903.5	4860170184	1	THREADED PLUG R1/4*12	(84) PTFE/Glass
903.6	4864530134	2	THREADED PLUG R1	(34) SS2343
904	A641121238	2	SET SCREW M12*12 SFS4737, Z = 6 MM	(38) A4-50 ISO3506
904.2	A641061638	1	SET SCREW M6X16 SFS4738	(38) A4-50 ISO3506
914	A611122039	2	CAP SCREW, SOCKET HD M12X20 ISO4762	(39) A4-80 ISO3506
919	BN11200010	2	LIFTING EYE M20 DIN 580	(10) S EN10025
920.2	B11110001J	3	NUT M10 ISO 4032	(1J) 8 ZnK ISO898
920.3	B111160039	4	NUT M16 ISO 4032	(39) A4-80 ISO3506
923	GA11001610	2	BEARING NUT KM 16	(10) S EN10025

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931	GC10001610	2	LOCK WASHER MB 16	(10) S EN10025
940	B811215015	1	KEY 20X12-150 SFS 2636/B	(15) CK45K DIN1652
940.2	8130020115	1	KEY B-20X12X75 SFS2636	(15) CK45K DIN1652
970	WK2195457A	2	SIGN SULZER LOGO L195	(6D) Al (aluminium)
971	SS00020201	1	NAME PLATE KARHULA PUMP FACTORY	AISI 304
972	4845920134	2	ROTATIONAL ARROW	(34) SS2343
			Direction of rotation	
975.1	SS00050101	2	WARNING SIGN	
			Rotating shaft	
975.2	SS00050601	2	WARNING SIGN	
			Do not lift here	
975.3	SS00050701	2	WARNING SIGN	
			DO NOT STEP HERE	
975.4	SS00050801	1	WARNING SIGN	
			Guard adjustment	
976.1	SS0006M002	1	MANDATORY ACTION SIG EN	
			Oil refilling	
WW1	WW10000002	1	MOUNTING 2	
WW2	WW20000002	1	TESTING 2	
WW3	WW30000002	1	PAINTING 2	
WW4	WW40000002	1	PACKING 2	

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