

SALES ACKNOWLEDGEMENT

SULZER

Print Date 10/13/2000

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SULZER PROCESS PUMPS (CANADA) INC. 5055, rue Levy, Saint-Laurent, Québec H4R 2N9, Canada Phone 514 - 333-7760 Fax 514 - 333-6324	Sulzer Order No. CAE2000075	Item # 045	Order Date 10/12/2000
Bill to ALLIANCE FOREST PRODUCTS U.S. CORP. 17589 PLANT ROAD COOSA PINES, AL 35044-0555	Customer P.O. No. 445014		P.O. Date 09/22/2000
Ship to ALLIANCE FOREST PRODUCTS U.S. CORP. 17589 PLANT ROAD COOSA PINES, AL 35044-0555	Equipment Number 310-1140-040/M94286		
Marks and Tagging PUMP, A-LINE SECONDARY FINE SCREEN FEED 310-1140-040 / M94286 445014 4121001112 CAE2000 075 45	Serial Number	Currency USD	Net Amount 15250.00
Terms of Payment SPECIAL TERMS, SEE NOTE			
Terms of Delivery DDP (INCOTERMS 2000) COOSA PINES, AL, PREPAID			
Way of Delivery Truck			Onsite Date 02/16/2001
Order Contact TONY LIANE			
Sales Contact TONY GEDEON			
Document Requirements 4 Copies in English			

Remarks Continued

 MUST BE PROVIDED SIX (6) WEEKS PRIOR TO DELIVERY
 EXCEPT FOR APT6, APT54 & APT55 WHICH WILL REQUIRE
 THEM NINE (9) WEEKS PRIOR TO DELIVERY
 =====

MOTOR MOUNTING:

SULZER WILL DRILL BASE PLATES AS PER CERTIFIED
 MOTOR PRINTS BY CUS. SULZER WILL MOUNT CUS.
 SUPPLIED NEMA MOTORS AT EASLEY, SC FACTORY
 CUS. RESPONSABLE FOR MOUNTING NON-NEMA MOTORS
 =====

PRODUCT SPECIFICATION	Description	APT55-12
	Serial Number	
	Time of delivery/EXW	02/02/2001
	Date printed	10/13/2000
Customer	ALLIANCE FOREST PRODUCTS U.S. CORP.	
17589 PLANT ROAD	17589 PLANT ROAD	
COOSA PINES, AL 35044-0555	COOSA PINES, AL 35044-0555	
UNITED STATES	UNITED STATES	
Cust. order #	445014	
Cust. PO Line #	ZOR	
Country code	US	
	Equipment No	310-1140-040/M94286

PROCESS DATA

Mill	13	Capacity Q	6700 USGPM
Process	270	Head H	115 ft
Application	FINE SCREEN FEED	Characteristic curve	K00958
Pumped liquid	DEINKED STOCK	Pump power P	262 HP
Temperature	125 F	Motor power	300 HP
pH	7-9	Efficiency	76 %
Consistency	0.67 % BD	Pump rotational speed	1190 RPM
Min head on suction side	1 ft	Variable speed	No
Max head on suction side	13 (STATIC) ft	NPSH req	24 ft
NPSH av	26 ft		

PUMP

Supplier	Easley
Dimensional drawing	P20056
Conformity	89/392/EEC machinery /US
Version	09
Pump Size	APT55-12
Impeller Type	Special open
Impeller No.	285341
Impeller diameter	510 mm
Impeller turning angle	4 °
Impeller max.diameter	625 mm
Flange Drilling	ASME B16.5 CLASS 150

Casing Material	A890 3A
Gasket Material	Klinger SIL-4430
O-ring Material	NBR
Bearing Unit Lubrication	Oil lubrication
Bearing unit model	01 SS2324/NotSpec
Constant level oiler 638	Yes
Shaft Seal Fitting	P02
Customer documents lang./q	EN/04
Component documents lang./	EN/04
Special parts	METCO 16 SLEEVE

DRIVE MOTOR For Information Only

Motor Supplied by	Customer	Rotational Speed	1200 RPM
Manufacturer	TOSHIBA	Power	300 HP

SULZER PROCESS PUMPS (CANADA) INC.
5055, rue Levy
Saint-Laurent, Québec
H4R 2N9
Canada

Contact Person	TONY GEDEON
LBU Order #	CAE2000075
LBU Position	045
Telephone	514 - 333-7760
Telefax	514 - 333-6324 (bomcust1)

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COUPLING

Coupling Type Rex-Omega ES

COUPLING GUARD

Coupling Guard material S+Z EN10025

BASE PLATE

Base plate type Pump Motor/Steel/Zinc Foundation screw type Grouted

MOTOR ALIGNMENT BLOCK

ORDER REMARKS

TERMS OF PAYMENT:

ALL PAYMENTS ARE DUE NET THIRTY (30) DAYS AFTER
COMPLETION OF EACH EVENT AND RECEIPT OF INVOICE
COMPLETE WITH SUPPORTING DOCUMENTATION, WHICHEVER
OCCURS LAST
90% UPON DELIVERY OF EACH PUMP THAT HAS BEEN
RELEASED AND THE CORRESPONDING CHANGE ORDER ISSUED
10% HOLD BACK UNTIL COMMISSIONING AND ACCEPTANCE
BY BUYER

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PRICING:

FOR NON-MENA MOTORS, FINAL PRICES ARE SUBJECT TO
CONFIRMATION AFTER RECEIPT OF CERTIFIED MOTOR
PRINTS

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INSPECTION LOCATION:

SULZER PROCESS PUMPS (CANADA) INC.
5055, rue Levy
Saint-Laurent, Québec
H4R 2N9
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FOR INSPECTION PURPOSES PLEASE CONTACT:

MR. SAM SEWELL

SULZER PROCESS PUMPS (US)

155 AHLSTROM WAY (PUE FACTORY)

EASLEY, SC, USA, 29640

TEL: (864) 855-9090, FAX: (864) 855-9095

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PAINTING:

SULZER STANDARD FACTORY APPLIED PAINTING WITH

THE RAL 5019 (CAPRI BLUE) COLOR & GUARDS IN

RAL 1021 (SAFETY YELLOW) AT NO EXTRA CHARGE

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FINAL IMPELLER TRIMS:

MUST BE PROVIDED SIX (6) WEEKS PRIOR TO DELIVERY

EXCEPT FOR APT6, APT54 & APT55 WHICH WILL REQUIRE

THEM NINE (9) WEEKS PRIOR TO DELIVERY

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MOTOR MOUNTING:

SULZER WILL DRILL BASE PLATES AS PER CERTIFIED

MOTOR PRINTS BY CUS. SULZER WILL MOUNT CUS.

SUPPLIED NEMA MOTORS AT EASLEY, SC FACTORY

CUS. RESPONSABLE FOR MOUNTING NON-NEMA MOTORS

=====

P A I N T I N G

Painting

E180/3-Fe Sa2 1/2 SFS4962

Color Shade

RAL-5019

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Saint-Laurent, Québec

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Contact Person

TONY GEDEON

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(bomcust1)

AHLSTROM

Version 01> / en / 920908 / Replaces 880101 / K00958

Top Graph: Total Head (ft) vs. Flow Rate (USGPM)

Flow Rate (USGPM)	Head (ft) at 490 RPM	Head (ft) at 520 RPM	Head (ft) at 565 RPM	Head (ft) at 625 RPM
0	145	180	225	275
2500	145	175	220	270
5000	140	165	205	260
7500	130	150	190	245
10000	115	130	170	215
12500	100	115	150	185

Bottom Graph: Power (Hp) vs. Flow Rate (USGPM)

Flow Rate (USGPM)	Power (Hp) at 490 RPM	Power (Hp) at 520 RPM	Power (Hp) at 565 RPM	Power (Hp) at 625 RPM
0	150	200	250	350
2500	180	230	280	380
5000	210	260	320	450
7500	230	280	360	520
10000	220	270	350	580
12500	210	260	340	600

[illegible]

SERVICE:	A Line Sec. Fine Screen Feed P.	FLOW (USGPM)	TDH (R)
EQUIP. No.:	310-1140-040 / M94286	6700.00	115.00
CUST. P.O. No.:	445014	EFF. (%)	Power (HP)
API-C JOB No.:	CAE2000 075 45	76	300.0
DATE / REV.:	OCT-16-2000 / R. 0	NEMA PR.	NEMA FUT.
		BY OWNER	BY OWNER

501045 501045.

APT Process Pumps

Dimensional drawing P20056

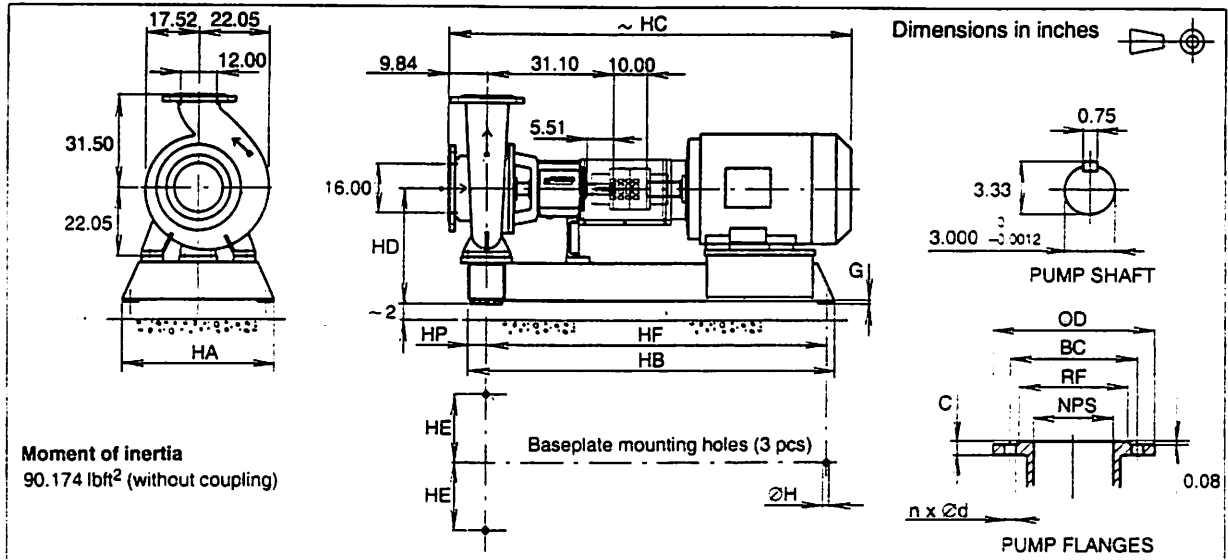


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Version 04 > / 940221 / en / P20056

APT55-12 (16x12-25)

Steel baseplate pump and motor



DIMENSIONS

Primary motor frame	Max motor frame (1)	Max motor frame (2)	Baseplate	HD	HC	HB	HP	HF	HA	HE	H	G	Weight lbs (3)
405T	444T	-	9	34.25	89.50	101.75	5.00	94.50	45.63	20.50	1.50	0.69	2950
444T	509LL	449T	9	34.25	93.50	101.75	5.00	94.50	45.63	20.50	1.50	0.69	3150
445T	509LL	449T	9	34.25	95.50	101.75	5.00	94.50	45.63	20.50	1.50	0.69	3150
447T	5011LL	449T	10	34.25	98.50	112.25	5.00	105.00	45.63	20.50	1.50	0.69	3270
447TS	509LS	449TS	9	34.25	96.50	101.75	5.00	94.50	45.63	20.50	1.50	0.69	3150
449T	5011LL	-	10	34.25	104.50	112.25	5.00	105.00	45.63	20.50	1.50	0.69	3270
449TS	509LS	-	9	34.25	101.50	101.75	5.00	94.50	45.63	20.50	1.50	0.69	3150

DRILLING OF FLANGES

				ANSI B 16.1 Class 125			ANSI B 16.5 Class 150		
NPS	OD	RF	C	BC	d	n (4)	BC	d	n (4)
12.00	18.90	14.57	1.25	17.00	1.00	12	17.00	1.00	12
16.00	23.82	18.98	1.44	21.25	1.12	16	21.25	1.12	16

1. Max. NEMA motor frame, which can be installed onto the baseplate.
2. Max. NEMA motor frame with the same shaft height as primary motor.
3. Weight without coupling and motor.
4. Flange bolting straddles centerline.

FOR REFERENCE

SERVICE:	A Line Sec. Fine Screen Feed P.
EQUIP. No.:	310-1140-040 / M94286
CUST. P.O. No.:	445014
API-C JOB No.:	CAE2000 075 45
HP / RPM / FRAME:	262.0 / 1190 / BY OWNER

CERTIFIED FOR CONSTRUCTION	
DATE / REV.:	OCT-16-2000 / R. 0
SIGNED:	

15010US

APT Process Pumps

Shaft sealing



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Version 09 > / 960601 / en / N12559

Gland packings

Fitting P02

2 braids + lantern ring + 2 braids. Standard casing cover. Installed onto the shaft wearing sleeve.

Characteristics of fitting

E	External flushing that prevents pumped liquid from precipitating in the sealing housing. Flushing liquid is mixed with the pumped liquid.
Pumped liquid	Impure liquids, stock, lye
Temperature (°F)	max 250
Stuffing box pressure p_T (psi)	Positive or negative
Sealing waters	
Connection No.	020
Size (NPT)	3/8 - 18
Quality	External clean water, maximum particle size 0.002 in, maximum solid material content (PPM-value) 0.00027 lb/in ³ .
Flow rate (USGPM)	0.5 - 0.8
Pressure (psi)	$p_T + 7$ psi min. 7 psi

Seal size (Ø in)

Bearing unit					
1	2	3	4	5	6
1 5/8 x 2 3/8 x 3/8	2 x 2 3/4 x 3/8	2 3/8 x 3 3/8 x 1/2	2 3/4 x 3 3/4 x 1/2	3 1/2 x 4 3/4 x 5/8	3.937 x 5.198 x 5/8

Pressure behind the impeller can approximately be calculated from the formula

$$p_T = p_0 - 0.725 \text{ psi}$$

Where p_T = pressure behind the impeller (psi)
 p_0 = inlet pressure (psi)

Atmospheric pressure used as reference pressure = 0 psi.

PUMP. A-LINE SECONDARY FINE SCREENED.

SERVICE:	A Line Sec. Fine Screen Feed P.
EQUIP. No.:	310-1140-040 / M94286
CUST. P.O. No.:	445014
MODEL / SPEED:	APT55-12 / 1190
API-C JOB No.:	CAE2000 075 45