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 Belmont, WV 26134  
[www.TeikokuPumps.com](http://www.TeikokuPumps.com)  
 ☎ 304-684-2459  
 ☎ 304-684-7593

## Proposal

Date	Quote No.	Inquiry No.	Project Name	Terms (in US Currency)	
7-28-2014	2014-18338			Net 30	
To:			Representative for Teikoku USA, Inc.		
Rick Vondra Patriot Renewable Fuels, LLC			Travis Munn Superior Industrial Equipment		
Address:			1609 Afton Road Sycamore, Illinois 60178		
P.O. Box 560 Annawan, Illinois 61234					
Country:			United States		
Phone:			815-899-8900		
Fax:			815-899-8898		
Email:			tmunn@superiorpumps.com		
rvondra@patriotethanol.com					
We promise to furnish the equipment listed below at the price shown subject to Teikoku USA's Conditions of Sale. FOB Factory					
Item No.	Equip No.	Quantity	Pump Model	Unit Price	Total Price
8	P-807	1	F41-317K4L-0405TS1V-AV	\$13,382.00	\$13,382.00
Application Data:		Materials of Construction:		Motor Data:	
Fluid:	Biodiesel	Pump Case:	304SS	Insulation:	Class 300
TDH (feet):	80.4	Impeller:	304SS	Frame:	317
Capacity (GPM):	81.5	Gaskets/O-rings:	Spiral	Stator Fill:	None
Specific Gravity:	0.95	Rotor Liner:	316L SS	Voltage:	460
Viscosity (cps):	1.0	Stator Liner:	Hast C	Phase:	3
Op. Temp. (F):	392.0	Brg. Hsg./Adapter:	304 SS	Hertz:	60
Vapor Press. (psia):		Shaft:	304SS	RPM:	3450
Sp. Ht. (BTU/lbmF):		Bearings:	Carbon Graphite 10T + 316SS	Design Power (HP)	3.8
Suct. Press. (psig):		Shaft Sleeves/TC's:	316 SS + Stellite	Runout Power (HP):	4.0
Dsch. Press. (psig):		Suct. Conn:	2 inch / 150# RF	Motor Rating (HP):	7.3
Diff. Press. (psi):	33.0	Dsch. Conn.:	1-1/2 inch / 150# RF	F.L. Amp:	12.5
NPSHAvail. (feet):	14.8	Case Drain:	1/2" NPT	F.L. KW:	
NPSHReq. (feet):	7.7	Adapter:	No	Start KVA:	
Eff. @ Diam. (%):	45.5	Circulation Path:	Standard	Motor Rating:	TELC
Imp. Diam. (in):	5.78	Net Wgt. (lbs):	287.0	Area Class:	Class 1, Group C & D, Div 2
Design Pressure	150 PSI				
Options:				Thermal TCO (F):	None
Hydraulic Test: Non-Witnessed				Perf. Curve No.:	Attached
NPSH Test: Non-Witnessed				Bulletin Number:	Teikoku Standard
Hydrostatic Test: Non-Witnessed				Outline Dwg.:	Attached
Shipment can be improved by 3 weeks by adding \$918.40 per pump for air freight.				Shipment:	17
Standard TRG bearing wear monitor included.				(wks) after drwg. approval or mfg. release.	
				Comments:	

*Thank you for your inquiry.*  
 Please feel free to visit our website at: [www.TeikokuPumps.com](http://www.TeikokuPumps.com)  
 Abhilash Abraham/AE x 2847



# ESTIMATED PERFORMANCE CURVE

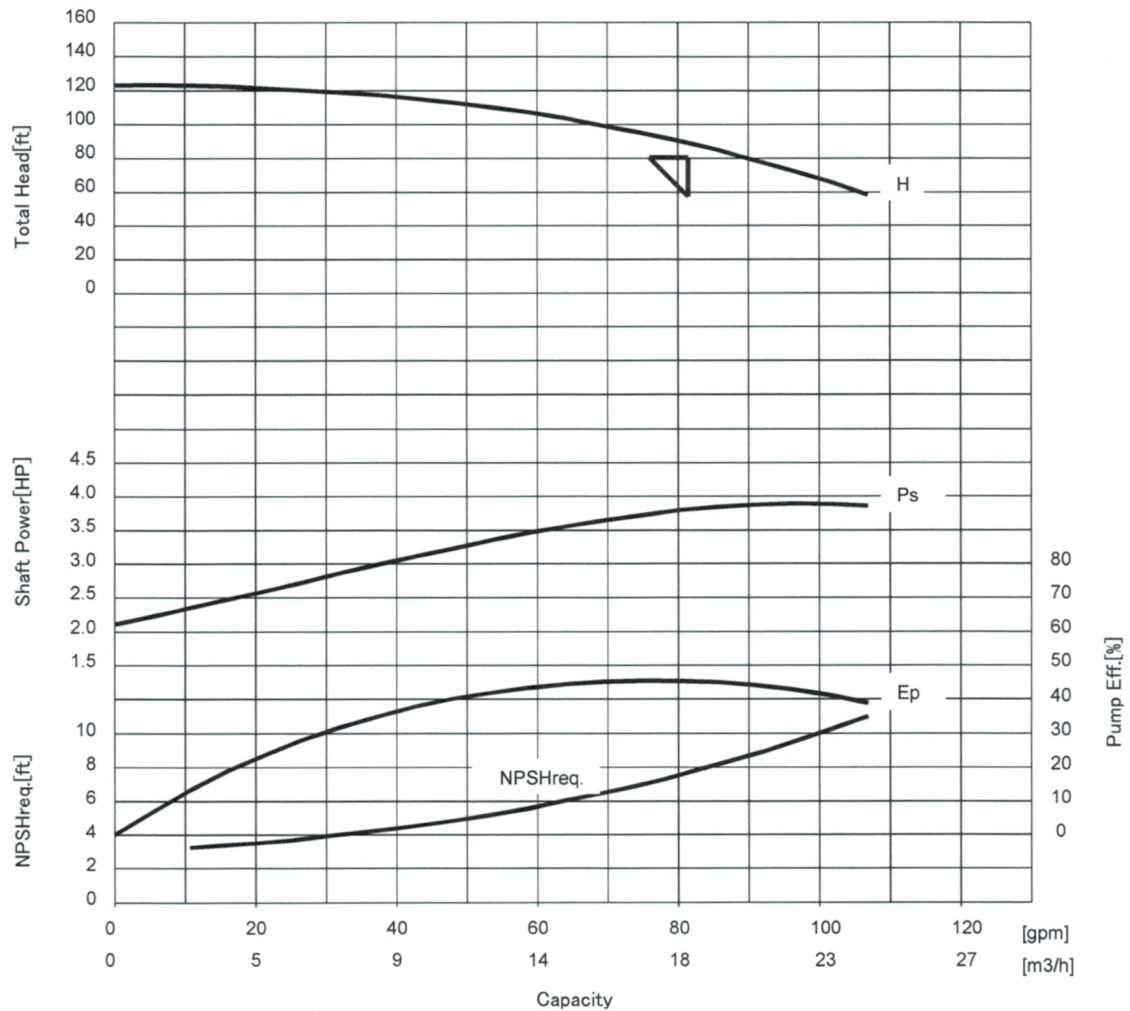
Date : 2014/7/25  
No :  
Dwg. No. :

SP

Item No. P-103 Item Name Pump Around Pump  
Model F41-317K4L-0405TS1V-AV

Frequency	60	Hz	Total Head	80.4	ft		
Voltage	460	V	Capacity	81.5	gpm	18.5	m3/h
Phase	3		Min.Flow	10.6	gpm	2.4	m3/h
Pole	2		Liquid	Biodiesel			
Output	7.4	HP	Temp.	392	degF		
Current	12.5	A	S.G.	0.95	Vis.	1	mPas
Ex-proof	d2G2		NPSHavail.	14.8	ft	NPSHreq.	7.7 ft

317K-0405TS1	
F-TYPE	
Judgement	
good	
d2G2	
Date	2014/7/25
CQ	1.00
CH	1.00
CE	1.00
H	80.4
Q	81.5
SG	0.95
VIS	1
P	7.38
I	12.5
HL	88.6
IL	10.10
PsL	3.80
EpL	45.5
NL	3516.7
QH	88.5
IH	10.1
Dia/STG	Dia=147
P/PsL	1.94
1 HW/HX	
2 (Dmn/Dmx)^2	
3 Dia ave.	
4 MAX Dia	166
5 MIN Dia	130
6 M8/M10	
HW	88.3
IW	10.21
PsW	3.99
EpW	45.5
NW	3512.4
NPSHstd	7.71
1>2	
3*0.97>5	
1>6*0.95	
4*0.98>3	
INS.CLASS	Class 300
MAX.TEMP	446



Remarks :

REV.	Date	Description

APPROVED BY	CHECKED BY	DRAWN BY

C

TEIKOKU ELECTRIC MFG. CO., LTD.

Version NTP11.15EN2



