

GRUNDFOS



Grundfos Quotation System 14.0.0.2014022617

* THIS HAS THE MARCH 15
PRICE INCREASES
INCLUDED

Customer Price Sheet

Project name / location :	ORLAND PARK PD	Tag Number :	14b1041
Consulting engineer :	SCOTT HILAND	Service :	filter pump
Customer :		PACO Model :	60123 LC
Customer ref. / PO :		Quantity :	1
Quote number :	14b1041-rev	Quoted By (Sales Office) :	Thomas Pump Co., Inc.
Date last saved :	03/05/2014 3:46 PM	Quoted By (Sales Engineer) :	Robert McCue Jr.

Construction

PACO Construction Code: 10-60123-1A000X-2892	Flow: 1,663.0 USgpm	Head: 70.00 ft	Impeller diameter: 9.81 in
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Totals

Grand Total	\$ 7,222.28	Lead Time Total	10 wks
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Pump

Qty	Description	Average Unit Price	Extended Price
1	60123 LC	\$ 7,222.28	\$ 7,222.28
	Scope of Supply		
	Scope of Supply: Complete Unit (Pump and Motor mounted horizontally)		
	General Pump Construction		
	Pump Rotation: Clockwise		
	Pump Case material: Cast Iron, ASTM A48 - Class 30		
	Nozzle Configuration: 125# ANSI flange		
	Impeller Material: Aluminum Bronze ASTM B148 UNS C95400 (B22)		
	Impeller Cap Screw and Washer: Stainless Steel, AISI-303		
	Impeller Key: Steel, Cold Drawn C1018		
	Hardware Material: Stainless Steel, AISI 303		
	Wear Ring Material: Tin Bronze, ASTM B584-90500 (B18)		
	Wear Ring Configuration: Single (Case) Wear Ring		
	Shaft material: Steel, AISI-1040		
	Shaft sleeve material: Bronze, III932, C89835		
	Bearing Types: Rolling Element Bearing		
	O Rings: Buna N		
	Insert: Provided		
	Seal & Packing Construction		
	Seal Material (Stationary Seal/Rotating Head/Elastomer/Spring/Hardware): Single Seal, Type 21S Buna Carbon Ceramic SS-Spring and Hardware		
	Recirculation Lines: None		
	Accessories		
	Motor bracket: Motor bracket provided		
	Motor Bracket Material: Cast Iron, ASTM-A48, CL 30		
	Base		
	Base: None		
	Motor Driver		
	Motor size: 40HP 230/460/3/60 1800 RPM TEFC Standard Motor;		
	Mfg's Choice 324 324 Direct On Line	324JM	
	Motor Manufacturer: Factory Choice		
	Motor Enclosure: TEFC		
	Motor efficiency: Standard		
	Motor phase: Three Phase		
	Motor Application: General Purpose		

Thomas Pump Co., Inc. · 2301 E. Liberty St. · Aurora, IL 60504
phone: (630) 851-9393 · fax: (630) 851-9397 · www.tpcoinc.com

14B1041-REV

Pump

Qty	Description	Average Unit Price	Extended Price
	Paint & Coatings Coating: Scotchkote 134 (wetted cast iron parts, interior & exterior) Certifications: None Testing & Documentation Test level: No test Leadtime: 10 wks Estimated Weights ea: 838Lbs		

EPDM
COATING →

1 TO 3 WEEKS

FOR
THOMAS PUMP CO

* NOTE I STILL WOULD DO
SOMETHING WITH CONCRETE MOUNTING
BASE

THOMAS 


Construction Datasheet

Project name / location : -				Tag Number : 14b1041	
Consulting engineer : -				Service : filter pump	
Customer :				PACO Model : 60123 LC	
Customer ref. / PO :				Quantity : 1	
Quote number : 14b1041-rev				Quoted By (Sales Office) : Thomas Pump Co., Inc.	
Date last saved : 03/05/2014 3:46 PM				Quoted By (Sales Engineer) : Robert McCue Jr.	

Nozzle	Size (in.)	Nozzle Configuration	Pos'n	Manufacturer	Mfg's Choice
Suction	8	125# ANSI	End	Frame Size	324JH IM
Discharge	6	125# ANSI	Top	Power	40.00 hp

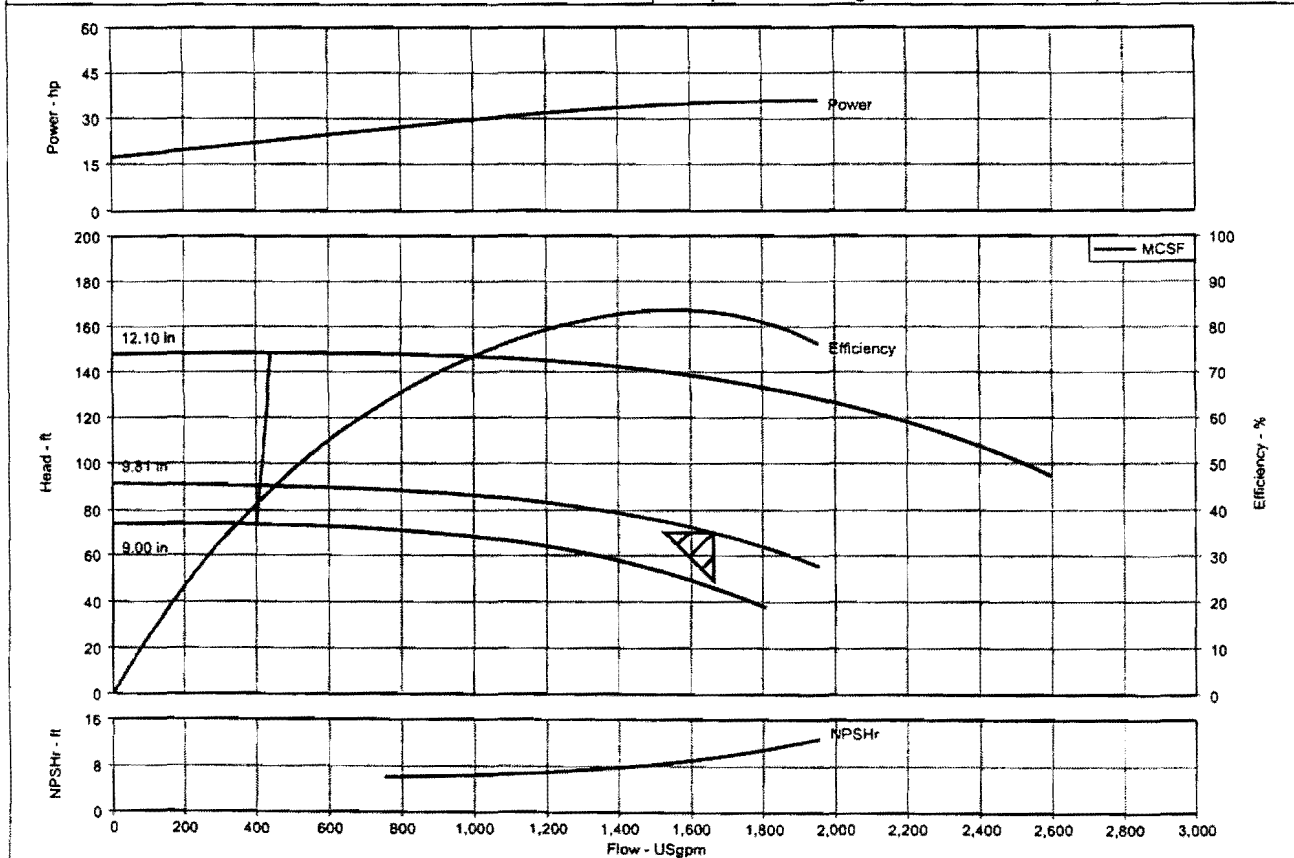
Orientation / Configuration : Horizontal		RPM	1,800 rpm
Rotation : Clockwise		Enclosure	TEFC
Wear Ring Configuration : Single - Case		Operating Power Supply	230/460/3/60
Discharge Elbow Size : -		Efficiency	Standard HIGH EFF
Subplate : -		Service factor	1.15
Sump Depth (feet) : -		Motor Application	General Purpose
Bearing Frame : -		Motor Options/Accessories	-
Bearing Frame Foot : -		Cord Length (feet)	-
Bearing Type (Radial/Thrust) : In motor		Case	Cast iron, ASTM A48 - Class 30
Bearing Lubrication : -		Motor Bracket	Cast iron, ASTM-A48, CL 30
Thrust Bearing : -		Impeller	Aluminum Bronze ASTM B148 UNS C95400 (B22)
Intermediate Bearing : -		Impeller Cap Screw and Washer	Stainless Steel, AISI-303
Lower Bearing : -		Impeller Key	Steel, Cold Drawn C1018
Bearing Housing Accessories : -		Case wear ring	Tin Bronze, ASTM B584-90500 (B18)
PACO Construction code : 10-60123-1A000X-2892		Impeller wear ring	-
Baseplate : Not Applicable		Pump Shaft	Steel, AISI-1040
Drip Pan : -		Sleeve	Bronze, III932, C89835
Coupling : -		Line Shaft	-
Guard : Not Applicable		Column	-
Sealing Method : Single Seal, Type 21S		Discharge Pipe	-
Seal Material : Buna Carbon Ceramic SS-Spring and Hardware		Discharge Elbow	-
Packing Gland : -		Suction Elbow	-
Lantern Ring : -		Subplate	-
Recirculation Lines : None		Hardware	Stainless Steel, AISI 303
Pump : 338.0 lb		O Rings	Buna N
Baseplate : -		Pump Coatings	Scotchkote 134 (wetted cast iron parts, interior & exterior)
Driver : 500.0 lb			
Estimated Shipping gross weight : 838.0 lb			

Pool
Rated
Impeller

Pump Performance Datasheet

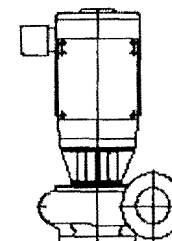
Project name / location :	Tag Number :	14b1041
Consulting engineer :	Service :	filter pump
Customer :	PACO Model :	60123 LC
Customer ref. / PO :	Quantity :	1
Quote number :	Quoted By (Sales Office) :	Thomas Pump Co., Inc.
Date last saved :	Quoted By (Sales Engineer) :	Robert McCue Jr.
03/05/2014 3:46 PM		

Operating Conditions		Liquid	
Flow, rated	: 1,663.0 USgpm	Liquid type	: Water
Differential head / pressure, rated (requested)	: 70.00 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 69.88 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG
Performance		Viscosity, rated	: 1.00 cP
Speed, rated	: 1,780 rpm	Vapor pressure, rated	: 0.34 psi.a
Impeller diameter, rated	: 9.81 in	Material	
Impeller diameter, maximum	: 12.10 in	Material selected	: Cast iron
Impeller diameter, minimum	: 9.00 in	Pressure Data	
Efficiency	: 83.23 %	Maximum working pressure	: 39.63 psi.g
NPSH required / margin required	: 9.58 / 0.00 ft	Maximum allowable working pressure	: 175.0 psi.g
nq (imp. eye flow) / S (imp. eye flow)	: 38 / 235 Metric units	Maximum allowable suction pressure	: 175.0 psi.g
MCSF	: 410.5 USgpm	Hydrostatic test pressure	: 263.0 psi.g
Head, maximum, rated diameter	: 91.58 ft	Driver & Power Data	
Head rise to shutoff	: 30.83 %	Motor sizing specification	: Based on duty point (rated power)
Flow, best eff. point (BEP)	: 1,558.1 USgpm	Margin over specification	: 0.00 %
Flow ratio (rated / BEP)	: 106.73 %	Service factor	: 1.00
Diameter ratio (rated / max)	: 81.07 %	Power, hydraulic	: 29.39 hp
Head ratio (rated dia / max dia)	: 51.07 %	Based on duty point (rated power)	: 35.31 hp
Cq/Ch/Ca/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Non-overloading (max power)	: 35.92 hp
Selection status	: Acceptable	Nameplate motor rating	: 40.00 hp / 29.83 kW

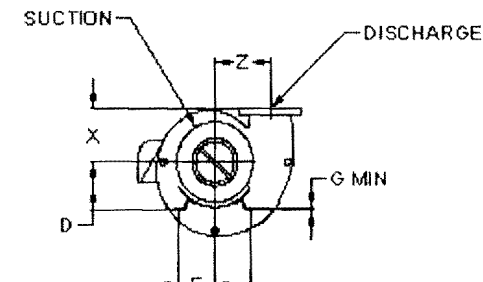
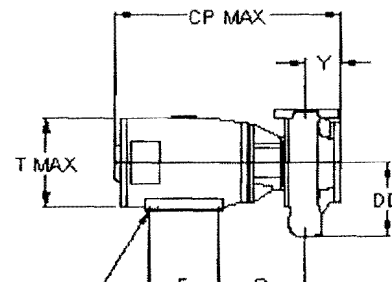


General Arrangement

Project name / location	:	-	Tag Number	:	14b1041
Consulting engineer	:		Service	:	filter pump
Customer	:		PACO Model	:	60123 LC
Customer ref. / PO	:		Quantity of pumps	:	1
Quote number	:	14b1041-rev	Quoted By (Sales Office)	:	Thomas Pump Co., Inc.
Date last saved	:	03/05/2014 3:46 PM	Quoted By (Sales Engineer)	:	Robert McCue Jr.



PLAN



ATTN SCOTT

For Your RECORDS

GRUNDFOS

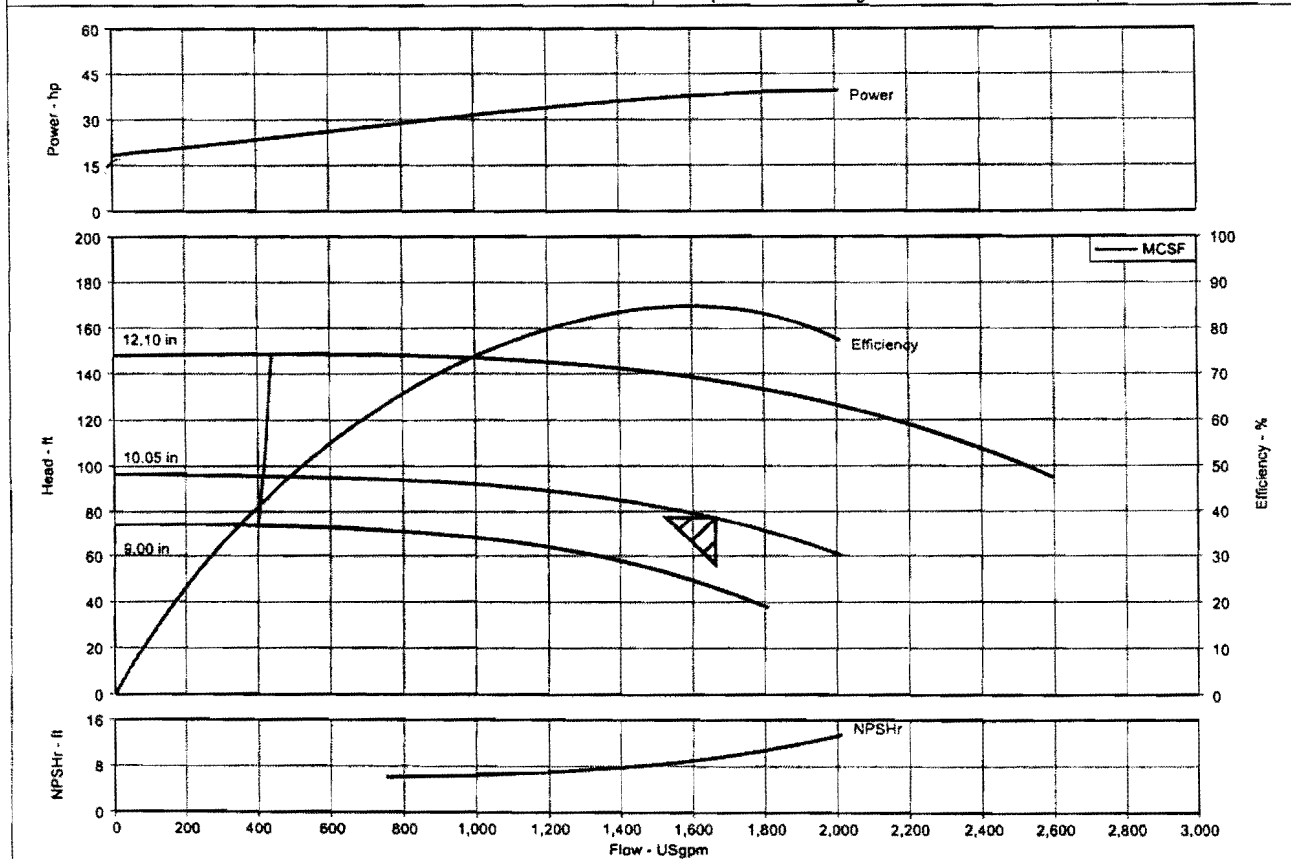
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Pump Performance Datasheet

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Consulting engineer :		Service :	filter pump
Customer :		PACO Model :	60123 LC
Customer ref. / PO :		Quantity :	1
Quote number :	14b1041-rev	Quoted By (Sales Office) :	Thomas Pump Co., Inc.
Date last saved :	03/05/2014 4:10 PM	Quoted By (Sales Engineer) :	Robert McCue Jr.

Operating Conditions		Liquid	
Flow, rated	: 1,663.0 USgpm	Liquid type	: Water
Differential head / pressure, rated (requested)	: 77.00 ft ← *	Additional liquid description	:
Differential head / pressure, rated (actual)	: 76.98 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG
		Viscosity, rated	: 1.00 cP
		Vapor pressure, rated	: 0.34 psi.a

Performance		Material	
Speed, rated	: 1,780 rpm	Material selected	: Cast iron
Impeller diameter, rated	: 10.05 in		
Impeller diameter, maximum	: 12.10 in		
Impeller diameter, minimum	: 9.00 in		
Efficiency	: 84.70 %		
NPSH required / margin required	: 9.53 / 0.00 ft		
nq (imp. eye flow) / S (Imp. eye flow)	: 38 / 235 Metric units		
MCSF	: 413.6 USgpm		
Head, maximum, rated diameter	: 96.83 ft		
Head rise to shutoff	: 25.75 %		
Flow, best eff. point (BEP)	: 1,596.7 USgpm		
Flow ratio (rated / BEP)	: 104.16 %		
Diameter ratio (rated / max)	: 83.06 %		
Head ratio (rated dia / max dia)	: 56.17 %		
Cq/Ch/Ca/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00		
Selection status	: Acceptable		



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* MAX IMPELLER
 DIA NON OVER
 LOADING 40HP