

CITY COUNCIL AGENDA ITEM

REQUESTED COUNCIL MEETING DATE 01/19/10

SUBJECT: Purchase of Two Aurora High Service Pumps from Barney's Pumps, a previously approved Sole-Source Supplier

DEPARTMENT: Public Utilities

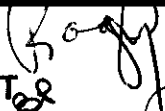


RECOMMENDED MOTION: To authorize a purchase order to Barney's Pumps Incorporated in the amount of \$110,000.00 for the purchase of two (2) replacement high service pumps required in the proposed rehabilitation of the West Master Lift Station at the Reclaimed Water Plant.

SUMMARY: The City of Port Orange is currently undergoing a significant redesign and rehabilitation of the West Master Lift Station located near the extreme southwest corner of our RWP plant site. This lift station was originally constructed approximately 30 + years ago and is due for a major overhaul. We anticipate placing the construction of this lift station rehabilitation project out for bid within the next month. In order to expedite this project's ultimate completion date we are recommending the direct purchase of these two pumps in advance. This will also hopefully create a cost savings by avoiding the contractor's material mark-up and sales taxes. Since these 2 pumps are identical to our other pumps currently in service at the East Master Lift Station, this should also allow us additional flexibility in the future in accomplishing repairs, replacements, and change-out of pumps between these two pump stations.

On October 27, 2009 City Council approved Barney's Pumps as the sole source provider of Aurora High Service Pumps. The Department has also planned for this project in the FY10 CIP. Furthermore, bondholder covenants mandate that a minimum of 5% of operating revenues must be directed to the 403 fund for the specific purpose of maintaining the existing system infrastructure. This specific project will help meet the requirements of those covenants. Funding is available in project #SSP002, Sewer Plant Replacement, account #40304005356397. We recommend revalidation of Barney's Pumps Incorporated as a sole source vendor and approval for the purchase of these pumps in the amount of \$110,000.00.

ATTACHMENTS: Ordinance Resolution Budget Resolution

Other Support Documents/Contracts Available for Review in Manager's Office

DEPARTMENT HEAD		Fred W. Griffith	Date 1/7/10
FINANCE DEPARTMENT		Approved as to Budget Requirements	Date 1/7/10
CITY ATTORNEY	N/A	Approved as to Form and Legality	Date N/A
CITY MANAGER		Approved Agenda Item For:	1/19/10

COUNCIL ACTION: Approved as Recommended Disapproved Tabled Indefinitely
 Continued to Date Certain Approved with Modification:

QUOTATION NUMBER
1348R1-09

BARNEY'S PUMPS INC.



Page 1 of 1

P.O. Box 3529 Lakeland, FL 33802-3529
3907 Highway 98 South Lakeland, FL 33813
Phone (863) 665-8500
Fax (863) 666-3858

DATE: 28 - December - 09

TO: City of Port Orange
Bill Latham

FOR SHIPMENT TO: City of Port Orange WWTP

Subject: Old Headworks Upgrade

Delivery 18 weeks Via Freight Allowed From Barney's Pumps F.O.B. Barney's Pumps Terms Net 30

ITEM	QTY	DESCRIPTION	PRICE
A	2	Design Point: 5200GPM @ 45' TDH; 6,000gpm @ 38' TDH; 3/60/460V Aurora 613A 12x14x22A Spher-flo Power Frame 5H, Bronze Fitted, Bronze Impeller Wear Ring and Case Wear Ring, Flowserve ISC Cartridge Seal with Silicon Carbide vs Silicon Carbide faces ; Stand with Suction Elbow; Coupled to a Vertical 75HP, 700RPM, Totally Enclosed Fan Cooled Motor, Rated for Inverter Duty. Price each is \$55,000.00	TOTAL FOR TWO PUMPS WITH MOTORS \$110,000.00
Barney's Pumps standard terms of sale and warranty apply. Start-up and training services are not included. Taxes, anchor bolts, piping, field wiring, etc. are not included.			
The following items are attached: Bulletin X Performance curve X Elevation drawing X			

Prices quoted are firm for 30 days (unless otherwise noted), then subject to adjustment to agree with prices at time of shipment and subject to any tax required by law. We appreciate the opportunity to serve you and trust that we are favored with your order. This quotation is subject to Barney's Pumps standard terms of sale and warranty.

BARNEY'S PUMPS INC.

RYAN GRYMKO, PE



BARNEY'S PUMPS INC.

LAKELAND • CORAL SPRINGS • JACKSONVILLE

CORPORATE OFFICES
2965 BARNEY'S PUMPS PLACE
LAKELAND, FL 33812-4209
P.O. BOX 3529
LAKELAND, FL 33802-3529
PHONE (863) 665-8500
FAX (863) 666-3858

29 December, 2009

SUBMITTAL DRAWINGS

PROJECT: Port Orange WWTP -- Old Headworks Upgrade
Port Orange, Florida

ENGINEER: Quentin L. Hampton
Port Orange, Florida

SUPPLIER: Barney's Pumps Inc.
Lakeland, Florida

Order # / Work Order #: provided with O&M manual
Serial Number(s): provided with O&M manual

Design Point: Flow (gpm): 5245 TDH (feet): 45 Speed: Variable
Power: Voltage: 460 Phase: 3 Frequency: 60Hz

OLD HEADWORKS UPGRADE

(2) Aurora dry-pit non-clog pumps

Model: 613A 12x14x22A

Discharge Size: 12"

Suction Size: 14"

Impeller Dia: 20.063"

Solids Capability: 4"

Hp: 75

Rpm: 720

Pumps include stand and 14" suction elbow

Pumps fitted with ISC2 cartridge seals with Silicon Carbide vs. Silicon Carbide faces

Company: Barney's Pumps Inc
 Name:
 Date: 6/9/2009



Pump:

Size: 12x14x22A
 Type: 610 NON CLOG SEWAGE
 Synch speed: 720 rpm
 Curve: PC126831PN
 Specific Speeds:
 Dimensions:
 Speed: 700 rpm
 Dia: 20.0625 in
 Impeller:
 Ns: 2679
 Nss: 6973
 Suction: 14 in
 Discharge: 12 in

Search Criteria:

Flow: 5200 US gpm Head: 45 ft
 Secondary Operating Point: 5300 US gpm, 38 ft

Fluid:

Water
 Density: 62.25 lb/ft³
 Viscosity: 1.105 cP
 NPSHa: ---
 Temperature: 60 °F
 Vapor pressure: 0.2563 psi a
 Atm pressure: 14.7 psi a

Pump Limits:

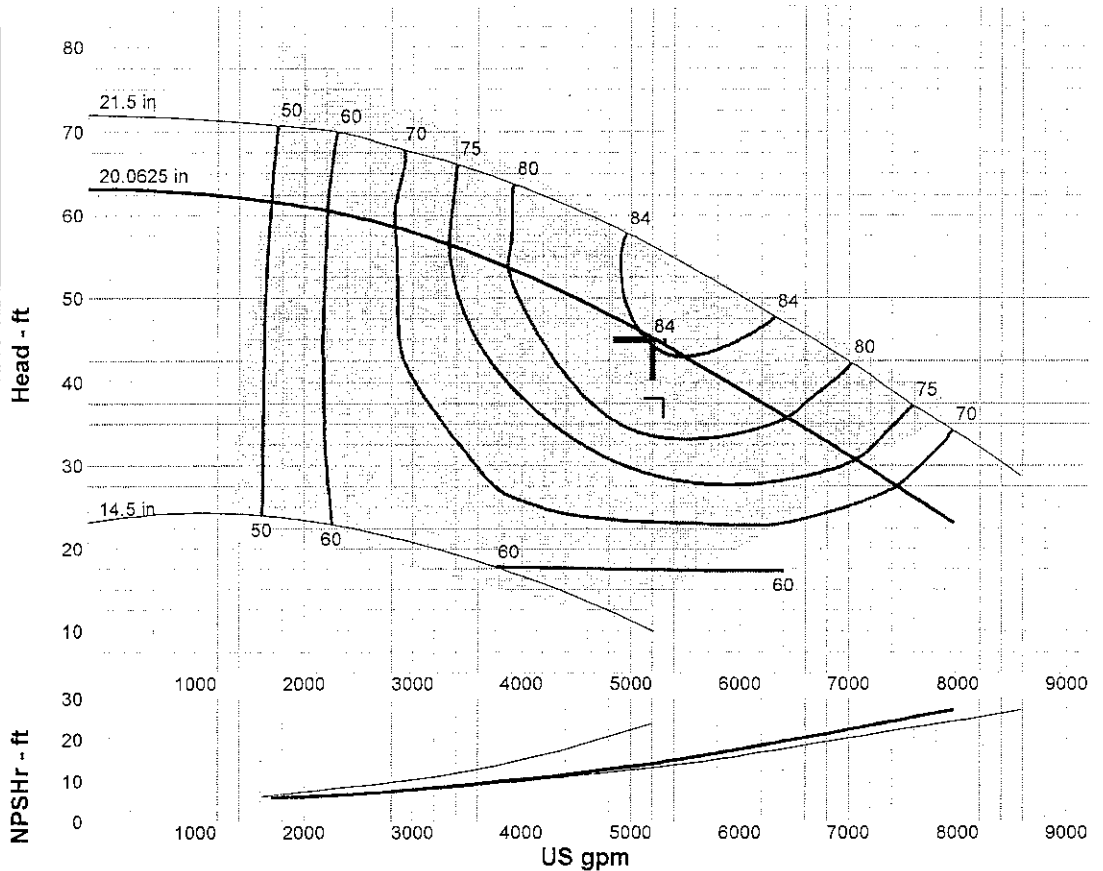
Temperature: 250 °F
 Pressure: 100 psi g
 Sphere size: 6 in
 Power: ---
 Eye area: ---

Motor:

Standard: NEMA
 Enclosure: ODP
 Sizing criteria: Max Power on Design Curve

 Speed: ---
 Frame: ---

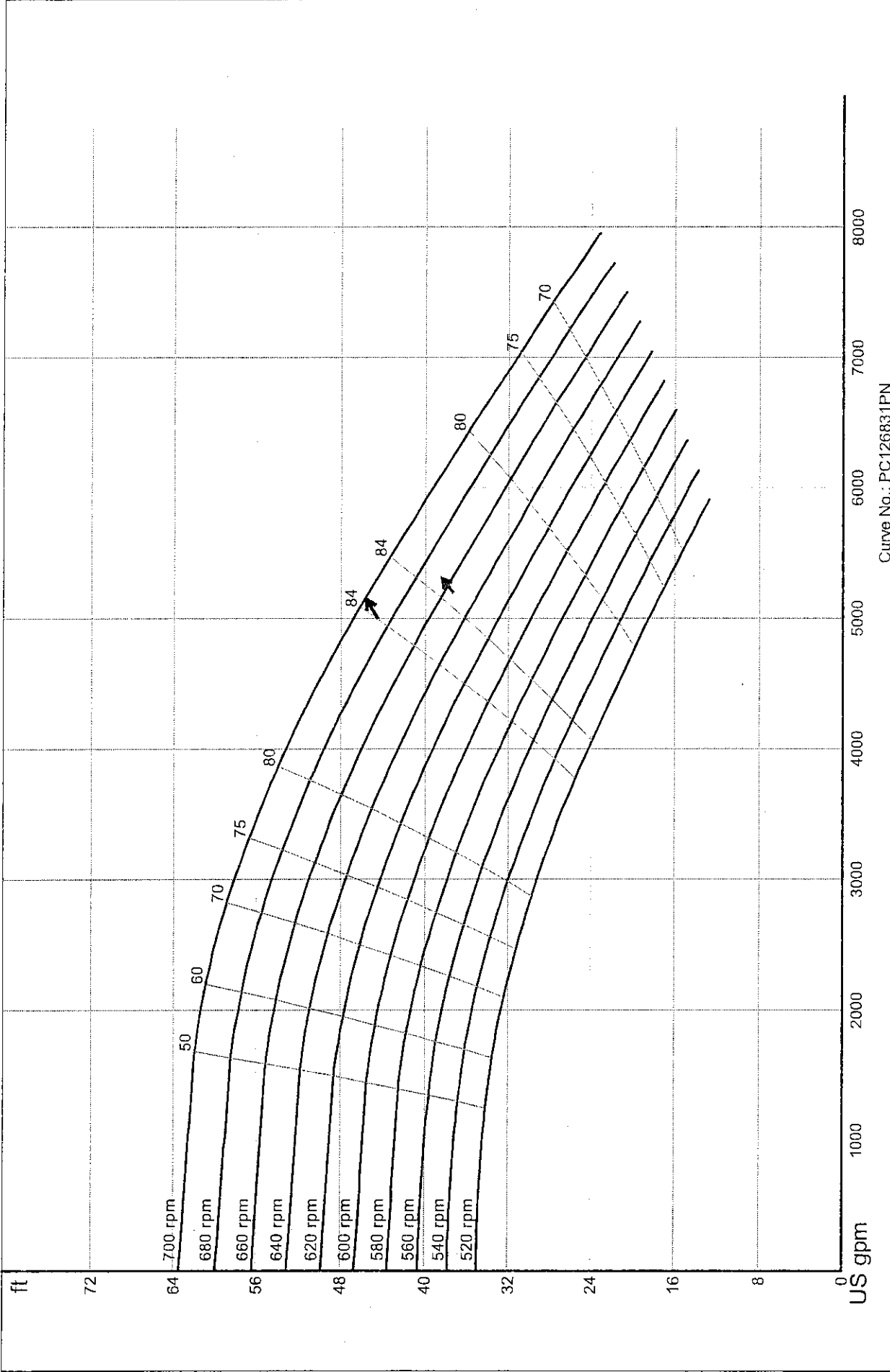
Data Point	
Flow:	5200 US gpm
Head:	45.2 ft
Eff:	84%
Power:	70.6 hp
NPSHr:	14.3 ft
Design Curve	
Shutoff head:	63.2 ft
Shutoff dP:	27.3 psi
Min flow:	---
BEP:	84% @ 5308 US gpm
NOL power:	74.4 hp @ 7958 US gpm
Max Curve	
Max power:	102 hp @ 8578 US gpm



Impellers Are Cut on an Angle. Diameter Shown Is Average of the Shroud Diameter.

Performance Evaluation

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
6240	700	37.2	81	72.3	18.9
5200	700	45.2	84	70.6	14.3
4160	700	51.8	81	66.7	11.1
3120	700	57.3	73	61.8	8.24
2080	700	60.9	58	55.4	6.34



Barney's Pumps Inc

AURORA PUMPS

Catalog: Aurora Pumps 60 Hz, vers 3.4

610 NON CLOG SEWAGE - 720

06/09/09

Curve No.: PC126831PN

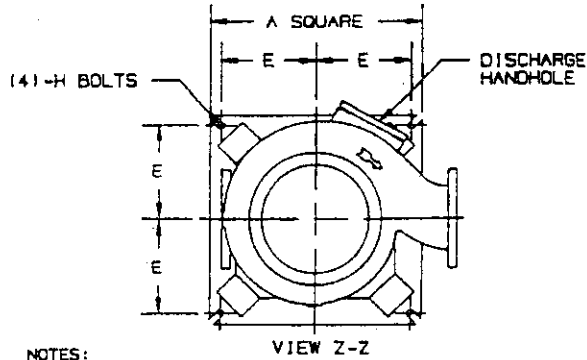
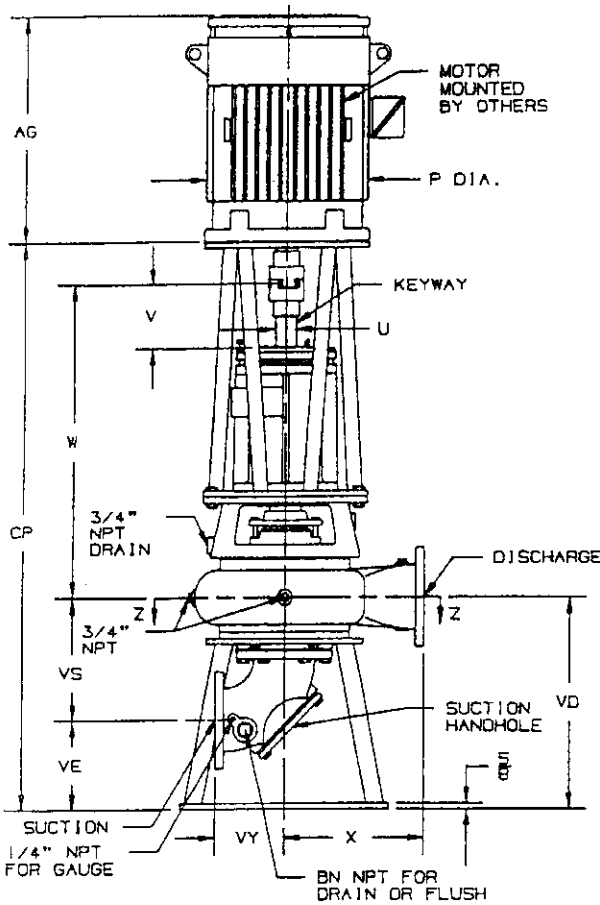
Size: 12x14x22A

Speed: 520 - 700 rpm

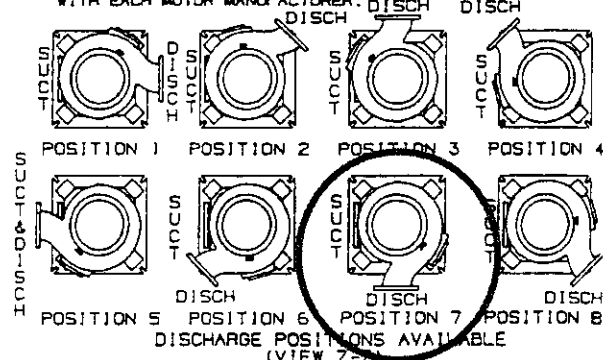
Dia: 20.0625 in

OP AURORA
Pentair Water

AURORA MODEL 613A PUMP



- NOTES:
1. ALL DIMENSIONS IN INCHES.
 2. DIMENSIONS MAY VARY $\pm 1/2"$.
 3. NOT FOR CONSTRUCTION PURPOSES UNLESS CERTIFIED.
 4. TWO (2) $1/2"$ NPT CONNECTIONS 180° APART, ON THE STUFFING BOX FOR LUBRICATION PURPOSES ARE FURNISHED AS STANDARD. ON PACKED PUMPS AN ALEMITE FITTING IS PROVIDED IN ONE TAP AND THE REMAINING TAP IS PLUGGED.
 5. DISCHARGE POSITION 1 IS FURNISHED AS STANDARD UNLESS SPECIFIED.
 6. SUCTION AND DISCHARGE FLANGES ARE AMERICAN STANDARD 125 LBS.
 7. HEIGHT (AG) AND DIAMETERS (P) DIMENSIONS OF MOTOR WILL VARY BASED ON MAKE AND STYLE OF MOTOR. DIMENSIONS SHOWN REFLECT AURORA STANDARD MOTORS. SEE INDIVIDUAL MOTOR SUPPLIER DIMENSIONAL DATA SHEETS FOR YOUR APPLICATION. CONDUIT BOX IS SHOWN IN APPROXIMATE LOCATION. DIMENSIONS ARE NOT SPECIFIED AS THEY VARY WITH EACH MOTOR MANUFACTURER.



POWER FRAME	U		V		KEYWAY		
	LENGTH	WIDTH	LENGTH	WIDTH	DEPTH		
4C, 4D	1 1/4	3 3/16	2	1 1/4	1/8		
5E, 5F	2 3/8	6 3/8	4	5/8	5/16		
5G, 5H	2 7/8	6 5/8	5	3/4	3/8		
6E	2 7/8	5 3/4	4	3/4	3/8		

MOTOR FRAME	254HP TO	284HPH TO	324HP TO	364HP TO	404HP TO	LARGER THAN 405HP
	P APPROX.	13	16	18	21	22
AG APPROX.	20	21	22	23	25	26
					25	28

DISCH SUCT CASE BORE	POWER FRAME	A	BN	E	H	VY	W	X	CP	VD	VE	VS	HANDHOLE	
													DISCH.	SUCT.
6x6x12	4C, 4D	24	1 1/2	10 3/4	5/8	8	23 5/16	14	51 5/16	24 1/4	10 1/8	14 1/8	5x5	6
6x6x12	5E, 5F	24	1 1/2	10 3/4	5/8	8	34 3/16	14	64	24 1/4	10 1/8	14 1/8	5x5	6
6x6x12B	4C, 4D	24	1 1/2	10 3/4	5/8	8	23 7/16	16	51 5/16	24 1/8	10 1/8	14	5x5	6
6x6x12B	5E, 5F	24	1 1/2	10 3/4	5/8	8	34 5/16	16	64	24 1/8	10 1/8	14	5x5	6
6x8x15	5E, 5F	30	1 1/2	13 3/4	3/4	9	33 3/4	16	71 7/16	32 1/8	17	15 1/8	5x5	6
6x8x18	5E, 5F	30	1 1/2	13 3/4	3/4	9	34 1/16	18	72	32 3/8	17	15 3/8	5x5	6
8x8x15A	5E	30	1 1/2	13 3/4	3/4	9	34 1/8	19	72 1/16	32 3/8	14 1/4	18 1/8	5x7	6
8x10x18	5G, 5H	30	1 1/2	13 3/4	3/4	11	34 5/8	19	73 3/16	33	15 3/16	17 13/16	5x7	6
8x10x22	5G, 5H	37	1 1/2	17	7/8	11	34 5/8	22	74 11/16	34 1/2	16 5/8	17 7/8	5x7	6
10x10x15	5E, 5F	30	1 1/2	13 3/4	3/4	11	34 13/16	20	73 5/16	32 15/16	11 7/8	21 1/16	5x7	6
10x10x22	6E	37	1 1/2	17	7/8	11	37 1/8	22 1/2	77 1/16	34 1/2	16 5/8	17 7/8	5x7	6
10x12x22	5G, 5H	37	1 1/2	17	7/8	12	35 1/16	22 1/2	75 3/4	35 1/8	15 9/16	19 9/16	5x7	8
10x12x22	6D	37	1 1/2	17	7/8	12	37 9/16	22 1/2	79 1/8	35 1/8	15 9/16	19 9/16	5x7	8
12x12x22	6E	37	1 1/2	17	7/8	13	37 5/8	22 1/2	78 3/16	35 1/8	15 9/16	19 9/16	5x7	8
12x14x22A	5G, 5H	37	2 1/2	17	7/8	14	35 1/8	24	75 13/16	35 1/8	13 7/8	21 1/4	5x7	8
12x14x22A	6D	37	2 1/2	17	7/8	14	37 3/8	24	78 3/16	35 1/8	13 7/8	21 1/4	5x7	8
12x14x22B	5G, 5H	37	2 1/2	17	7/8	14	35 1/8	24	75 13/16	35 1/8	13 7/8	21 1/4	5x7	8
12x14x22B	6D	37	2 1/2	17	7/8	14	37 5/8	24	78 3/16	35 1/8	13 7/8	21 1/4	5x7	8
14x14x22A	6E	37	2 1/2	17	7/8	14	37 5/8	24	78 3/16	35 1/8	13 7/8	21 1/4	5x7	8

ADD 3/4" TO CP FOR PUMPS ON P.F. 4C, 4D WITH MOTOR FRAMES 284 HPH TO 324 HP.