

City of South Daytona

Department of Public Works

1770 Segrave Street • South Daytona, FL 32121 • 386/322-3080



MEMORANDUM

To: James L. Gillis Jr., City Manager

From: Brian Peek, PE, Public Works Director

Re: Atlas Copco Pump Purchase Request Through Hydra Services Inc.

Date: September 21, 2021

AGENDA ITEM

Item # C11

Date: September 28, 2021

In the ending month of Fiscal Year of 2020-2021, Public Works was able to merge remaining values from line-item accounts in our Water and Sewer funds. The total allowed for us to make a purchase we did not think would be possible. In the following year, multiple lift stations are scheduled for replacement. In some cases, these stations may require bypassing of sewage around the station. Our current pumps are 6 and 8-inch which is larger than necessary to do this work. This coupled with the age of the equipment makes them unideal for this application. Therefore, in preparation for this work, we intend to use the remaining funds in this account to purchase a 4-inch mobile pump. This pump is better suited to handle the flow of these coming jobs and includes a semi-open impeller which deters ragging, a common issue with sewer applications. This product had the quickest estimated delivery, can be purchased through our cooperative purchasing agreement on the Sourcewell contract, and has been physically reviewed by myself and our team during a demonstration visit by Hydra Services Inc. (the representative supplying the Atlas Copco pump). As such, we request approval to expend \$39,499.00 for purchase of this new pump. A copy of the quote and product brochure are attached in Appendix A for your review.



Hydra Service, Inc.

SPECIALIST IN FLUID MOVEMENT



250 Springview Commerce Drive
 Debary Florida 32713
 Phone: 407 330 3456
 Phone: 800 323 1731
 Fax: 407 330 3404

Sales Representative
Contact Information
 Cell Phone: 407-790-9751

TO: City of South Daytona
 ATTN: Luke Strydum

FROM: Dale Jahn
 EMAIL: dale@hydraservice.net
 DATE: September 13, 2021

QUOTE: 210913-3DJ

PH: 386-898-4585
 EMAIL: lstrydom@southdaytona.org

REF: South Daytona
 4" Diesel Driven Bypass Pump

City of South Daytona Sourcewell ID#: 60895
 Atlas Copco Sourcewell Contract #: 041719-ACC

- 1 Atlas Copco model PAS 100 HFS T4F KD trailer mounted diesel driven self-priming bypass pump to include the following:
 - 4" x 4" centrifugal solids-handling pump, cast iron construction, ductile iron semi-open impeller with cast iron adjustable wear plate, single mechanical seal (tungsten carbide / tungsten carbide). Patented hinged door on pump suction allows for easy access to impeller and wear plate.
 - Oil-free diaphragm vacuum pump, 29.4 CFM nominal air capacity, for rapid dry priming.
 - Kohler KDI 1903TCR turbo diesel engine, rated at 46.8hp at 2200 rpm.
 - Link belt provides for ease of maintenance and quick replacement in the field.
 - Sound attenuated enclosure with hinged & removable locking doors.
 - Atlas Copco PW 750 digital controller with standard engine monitoring, warnings, shutdown, emergency stop, and auto start / stop functions.
 - Integral corrosion-free polyethylene fuel tank, 27 US Gallon capacity.
 - Single axle trailer with adjustable pintle hitch, jack stands, and DOT light package.

\$56,990.00 MSRP - 35% discount per Sourcewell contract 041719-ACC, sell price \$37,044.00.
- 1 Atlas Copco float kit for auto start/stop operation, 100' cables.
\$672.00 - 35% discount per Sourcewell contract 041719-ACC, sell price \$437.00.
- 1 Additional options to include the following:
 - Factory installed solar trickle charger.

\$284.00 charge for above options.
- 1 Freight charge
\$1,734.00 freight charge.

TOTAL PRICE, F.O.B. JOB, FREIGHT INCLUDED **\$39,499.00** PLUS ANY FEDERAL,
 STATE OR LOCAL TAXES WHICH MAY APPLY. TERMS ARE NET **30** DAYS. PRICES ARE FIRM 30 DAYS
"HYDRA SERVICE INC TERMS & CONDITIONS APPLY" PAYMENT TERMS NET 30 DAYS.
 ESTIMATED DELIVERY: **6-8** WEEKS AFTER RECEIPT IN OUR OFFICE OF COMPLETE
 APPROVED SUBMITTAL DATA AND SIGNED PROPOSAL.
 THESE TERMS ARE INDEPENDENT OF, AND ARE NOT CONTINGENT UPON THE TIME OR MANNER
 IN WHICH PURCHASER MAY RECEIVE PAYMENT FROM OTHERS.
0 TRIP OF FACTORY START-UP SERVICE IS INCLUDED AND REQUIRED FOR WARRANTY. PAYMENT
 FOR MATERIALS WILL BE REQUIRED BEFORE THE AUTHORIZED START-UP IS CONDUCTED.

ACCEPTED DATE _____

Review Date: 09/13/2021

Dale M. Jahn

NAME OF PURCHASER _____

REVIEWED BY HYDRA SERVICE PUMP REP. _____

PAS 100 HFS T4F KD

Diesel - Qmax 1,230 USgpm - Hmax 164 ft



PAS HF - Vacuum prime centrifugal pumps

The pump system consists of a centrifugal pump and a separator, which enables air to be separated from the liquid and be sucked by a vacuum pump - making automatic priming possible. Even with suction heights of several feet the machine rapidly evacuates the air from the suction pipe and starts to pump. Additionally, thanks to the semi-open impeller, the PAS HF range is also suitable for pumping liquids with solids in suspension.

Applications

The PAS 100 HF Atlas Copco pump is designed to withstand toughest applications and delivers best in class pumping efficiency. One of the most common area of utilization is the Construction dewatering and municipal market segment where reliability, serviceability and versatility is the key to provide a customized solution. Other suitable applications can be found within the Industry, Mining or Oil & Gas segment. Atlas Copco pumps are packed with features that not only meet, but exceed the needs of our customers.

Benefits

Efficiency

The 10" impeller with 70% efficiency at B.E.P. provides best pumping result with minimal efforts

Solids handling

Semi-open impeller type with solids handling capability of 3" for trouble free operation

Easy maintenance

Hinged cover for direct access to the impeller and pump volute

Polyethylene Fuel tank

Corrosion-free PE tank provides longer lifetime and avoids tank cleaning due to oxidation

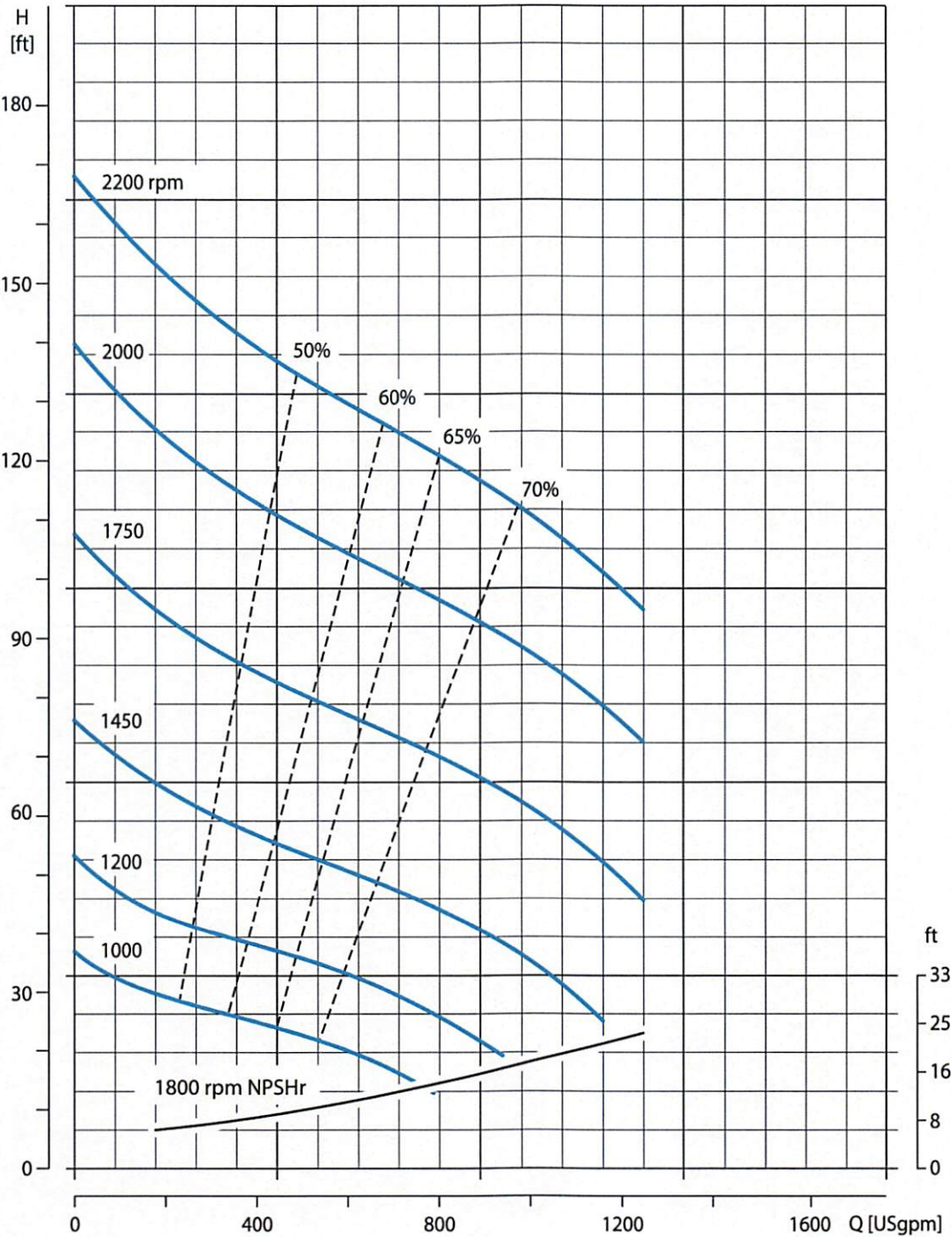
PAS 100 HFS T4F KD

Performance curve

Test according to UNI EN ISO 9906 standard - level 2B
Test liquid: clean water, density 62.43 lb/ft3 (8.345 lb/gal)

Losses from priming system and check valve not included

Speed	Impeller Dia.	Style	Solids Dia.	Ns	Suction	Discharge	No. Vanes
Various	10" / 250 mm	Semi-open	3" / 76 mm	2200 rpm	4" / 100 mm	4" / 100 mm	2



PAS 100 HFS T4F KD

Technical data

Pump

Model	PAS 100HFS T4F
Qmax	1230 USgpm
Hmax	164 ft
Q max eff.	1000 USgpm
Eff. max	70 %
Suction port	4" Flange - 150# ANSI
Delivery port	4" Flange - 150# ANSI
Impeller type	Semi-open, 2 vane
Impeller diameter	10"
Solids handling	3"
Material	
Casing	EN-GJL-200 cast iron
Impeller	EN-GJS-500 ductile iron
Wear Plates	EN-GJL-200 cast iron
Shaft	39NiCrMo4 steel
Mechanical Seal faces	Tungsten carbide / Tungsten carbide
Elastomers	VITON
Check Valve	ASTM A536 ductile iron + NBR rubber flap
Separator	EN AC-42100 (AlSi7Mg0.3)- Aluminum

Priming system

Vacuum pump	
Vacuum pump type	Diaphragm
Nominal air capacity	29.6 cfm
Max vacuum	- 26.6 inHg
Drives	Link belt

Engine

Make	Kohler
Model	KDI 1903TCR
Type	Diesel turbo common rail
Displacement	1.9 Liter (114in ³)
No. cylinders	3
Cooling	Liquid with radiator
Rpm type	Variable
Max operating speed	2200 rpm
US emissions	EPA Tier 4F
Starting	Electric
Engine system voltage	12 V
Engine Power rating	49 HP

Control panel

Model	PW 750
	Manual operation
	Automatic operation: start-stop with transducers or floats
	FleetLink Optional

Arrangement

Technical data	
Material	ASTM A36 steel
Coatings	Polyester powder, average thickness of 3 MIL
Features	Lifting beam, PE-Fuel tank and Fender, Sound attenuation
Battery	Acid charge Pb-Ca maintenance free, 12 V - 1150 CCA
Fuel tank capacity	30 USG Net Volume
Fuel consumption	1.8 US Gal/hr @2200 rpm @BEP
Dry weight	3145 lbs
Wet weight	3400 lbs

Dimensional drawing

[in]

