

SIEMENS

4654 W. Junction Street
Springfield, Missouri 65802
Telephone (417) 864-5599

Attention: Jody Hooks
Project Title: League City, TX
Client: City of League City
Ref. P.O. No.: 161409
Siemens Project No.: SME6532
Date: August 23, 2016

Change Order Quote SME6532-001

Scope:
Additional parts replacement for SC50 blower SN8749

Details:

- Labyrinth sealing ring
- Thrust bearing
- Counter bearing
- Two (2) PT-100 sensors
- Rotor assembly
- Bushings

#	Description	Qty.	Price (USD)
	Labyrinth sealing ring, thrust bearing, counter bearing, (2) PT-100 sensors, Rotor assembly, Bushings	1 set	35,929.00
			Total \$35,929.00

Proposal Validity

Valid for 30 days from above date. Terms & Conditions follow existing PO #161409 executed 7/15/2016.

Delivery

14-16 Weeks from Execution of Change Order.

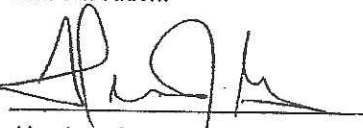
Schedule

This change will not impact the overall project schedule.

Documents Attached:

N/A

To accept this change order proposal please submit a Contract Change Order to above Purchase Order for signature and execution.


Alex Lequio
Sales Manager


Emile Fakhoury
Project Manager
emile.fakhoury@siemens.com
(417) 425 9064

SIEMENS

Siemens Demag Delaval Turbomachinery, Inc.
840 Nottingham Way
Hamilton, New Jersey 08638
609-890-5000

Sold-to Address
Company
CITY OF LEAGUE CITY
703 N WISCONSIN AVE
LEAGUE CITY TX 77573
USA

Quotation

Document No. / Date	40005222 / 05/10/2016
Customer Doc. No. / Date	Repair RFQ / 01/12/2016
Customer Account No.	303311
Revision - 02	Customer goodwill reduction pricing
Validity period	05/10/2016 - 06/10/2016

Ship-to Address
Company
CITY OF LEAGUE CITY
703 N WISCONSIN AVE
LEAGUE CITY TX 77573
USA

Siemens Demag Delaval Turbomachinery, Inc. is pleased to offer the following for your consideration:

Item	Part No.	Serial No.	Qty	Unit Price	Good will Price Reduction 30%	Extended Price
0010	INSP_COMP_GEN	62008749	1EA	50,393.00	15,112.00	35,281.00

Blower Repair Services Provided are as follows:

Off Site Repair:

Disassembly, fact finding and preparation for service
Disassembly and cleaning of inner diffuser drive D100
Inspecting and adjusting the diffuser geometry
Separate and dismounting the rotor from motor
Inspect and exchange to improved air foil bearing design
Inspect the rotor complete. Perform dynamic balancing, if necessary
Reassembling compressor and test run

New parts offered with this service:

Improved Airfoil Bearings
O-Rings
Bushings
Connecting link
Excenter shaft bearing
RTDs - Resistance temperature detector

Lead time:

18 - 20 weeks to complete service upon acceptance of purchase order and receipt of blower by Siemens in Trenton, NJ.

Ship blower to below address using Siemens FedEx freight account #439385820

Siemens Demag Delaval Turbomachinery, Inc.
840 Nottingham Way
Hamilton, New Jersey 08638

Thank you for your continued interest in Siemens products and services

Company
CITY OF LEAGUE CITY
703 N WISCONSIN AVE
LEAGUE CITY TX 77573
USA

Quotation
Repeat Print
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Any significant wear or abnormalities identified requiring extra parts will be notified to customer.
Siemens will provide an estimate of additional parts as required.

*Freight	700.00
Items Total	50,393.00
Discount	30% Items Total + *Freight
Discount Dollar Amount	15,812.00
Good Will Reduced Total Amount	35,281.00

Currency	USD
Terms of Payment	Net 30 Days
Terms of Delivery	DAP League City, TX, USA (Inclusive of freight charges to Trenton, NJ)
Terms and Conditions	Only Siemens Selling Policy 1200 (dated November 1, 2012) applies to this order, notwithstanding any other terms and conditions printed on the front and back of the purchase order.

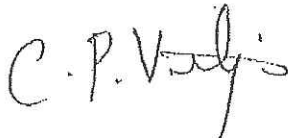
In the event your account has an overdue outstanding balance with us, we reserve the right to hold shipment until payments are received and your account is current.

All purchase orders are to be made out in the name of:

Siemens Demag Delaval Turbomachinery, Inc.
840 Nottingham Way
Hamilton, NJ 08638

If you have any questions, please feel free to contact me or Curtis Rogers at (417) 827-2371.

Best Regards,



Vandy Chakravarthy Parthasarath
Customer Service Representative
Siemens Demag Delaval Turbomachinery, Inc.
Tel: 417-380-5728
Fax: (609) 587-7790

E-Mail: vandy.parthasarathy@siemens.com

Thank you for your continued interest in Siemens products and services

Siemens Energy Inc, 4654 W. Junction Street, Springfield, MO, USA

Mr. Jody Hooks
Public Works Manager
City of League City
703 W. Wisconsin
League City, TX 77573

Name	Emile Fakhoury
Department	Project Management
Telephone	+1 (417) 693-1316
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Mobile	+1 (417) 425-9064
E-mail	Emile.fakhoury@siemens.com
Date	August 23, 2016

Report for SC50 blower League City, TX

Dear Mr. Hooks,

Thank you for the opportunity to help you with the repair services for the SC50 blower SN 8749 at our factory service center.

The core was disassembled in order to inspect the status of the inside components and to perform the scope of work agreed on which included the change of bearings.

During the inspection of the inside components, we found additional parts that need to be replaced that include:

- Labyrinth sealing ring
- Thrust bearing
- Counter bearing
- Two (2) PT-100 sensors
- Rotor assembly
- Bushings

For pictures please see attached file "Fact finding SC50 #8749.pdf".

Bearing damage analysis

We suspect that the damage is due to the corrosion of the internal core parts.

Air foil bearings are sensitive to particles either from corrosion or from dust in the surrounding air. When particles are sucked in under the air foils, and the unit is started, these particles will eventually wear off the Teflon® surface inside the bearings, causing a total breakdown of the bearing.

When one of the main supporting bearings for the rotor is damaged, the rotor becomes out of balance and the movement of the rotor is no longer in a controlled position. The movement of the rotor in many cases can cause damage to the impeller and other bearings in the unit.

During the inspection a noticeable corrosion layer on metal surfaces and on air foils was observed.

Siemens Energy Inc.
Dresser-Rand Business
Management: Vincent R. Volpe Jr.

4654 W. Junction Street
Springfield, MO 65802
USA

Tel.: +44 (1276) 413200
dresser-rand.com

Recommendations:

Replace additional parts listed above.

Modify the maintenance schedule to include a regular monitoring of air filters and bearing fan filters, and the change of these at least once a year.

Avoid leaving the units idle for long periods of time. Shortening the sequencing of the units may be necessary in order to avoid idle periods for more than one week.

Continue to monitor the coolant liquid (50% water / 50% glycol) on a regular basis.

For the additional parts that are recommended to be replaced, please see the attached quotation.

Please let us know if you have questions. We will wait for your approval feedback prior to continuing the service of this blower core.

With kind regards,

Emile Fakhoury
Project Management
Siemens Energy Inc.