



## QUOTED SERVICE REPORT

\*Scan the QR Code to see new offerings

**Service Request Number:** 1-47443336030

**Status:** Completed

**Requestor:** Raul Cozza

JOHNSON CONTROLS SALISBURY WILMINGTON CB - 0N28

812 First State Blvd

Wilmington, DE 19804-3573

(866) 589-9275

**Service Site:**

DUPONT EXPERIMENTAL STATION

DUPONT EXPERIMENTAL

Rt 141 Lancaster Pike

Wilmington, DE 19880-0000

**Bill To:**

E I DUPONT DENEMOURS CO

1325779

Attn Accounts Payable Department

Po Box 80040

Wilmington, DE 19880-0040

**Purchase Order:** 6501709952

**Blanket Purchase Order:**

**Customer Authorization:**

**Customer Work Order:**

**Quoted Amount:** \$4,740.10

**Service Requested:**

(6501709952) Chiller #10 Annual Maintenance 2017

Remove Refrigerant Sample for Chemical Analysis  
Refrigerant leak test chiller and document leaks found (repair minor leaks, if possible)  
Furnish and Change Compressor Oil Filter, and Oil Return FilterDrier  
Furnish & Install SightGlass in Oil Return Line  
Change Compressor Oil w/ YORK J (Provided by DuPont) \*IF REQUIRED\*  
Disassemble Compressor Coupling and Check Cold Alignment  
Check LowSpeed Compressor Axial Thrust Reading  
Reassemble Coupling and ReCheck Compressor Coupling Cold Alignment  
Vacuum out Compressor Motor and Change Air Filters  
Change Oil in Compressor Motor Bearings (Provided by DuPont)  
Check all Chiller Controls, Safeties, and Low Voltage Electrical Connections  
Documents all tasks and Provide Comprehensive Report to DuPont

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Lynn Dolphin

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Date	Activity Number	Activity Status	Work Performed	By
03/01/2017	1-LSMNTGQ	Completed	CHILLER #10 ANNUAL MAINTENANCE: DUPONT PO#: 6501709952 JCI QUOTE#: 1-LP2461V  RUN HOURS: 37,640 TOTAL STARTS: 1270  • REMOVED REFRIGERANT SAMPLE FROM R-134A RECOVERED FROM CHILLER & SHIPPED TO LAB FOR ANALYSIS (will forward report to DuPont upon receipt) • REMOVED OIL SAMPLE FROM COMPRESSOR SUMP & SHIPPED TO LAB FOR ANALYSIS (Expense covered under QUOTE# 1-JV664S7) • REPLACED MAIN OIL FILTER • REPLACED OIL RETURN FILTER-DRIER (C-413) • CHECKED OIL HEATER OPERATION. INCREASED OFFLINE SUMP SETTING TO 135F	Kevin Frazee

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Service Provided:				
Date	Activity Number	Activity Status	Work Performed	By
03/02/2017	1-LXEOTZJ	Completed	<ul style="list-style-type: none"> <li>• CLEANED MOTOR. VACUUMED OUT INTERNALS. CHANGED BEARING OIL &amp; AIR FILTERS (16x25x2 QTY-4)</li> <li>• TIGHTENED MOTOR FEET BOLTS</li> <li>• RECORDED ALIGNMENT w/LASER BEFORE DRIVE COUPLING DISASSEMBLY</li> <li>• DISASSEMBLED 1-7/8" YORK-FLEX COUPLING</li> <li>• AXIAL SHIMS= 0.245" (0.115" + 0.130")</li> <li>• MEASURED MOTOR SHAFT FLOAT= 0.520" (ACCEPTABLE)</li> </ul> <p>MOTOR TO COMP SHAFT CLEARANCE: Motor Full Forward= 3.479" Motor Full Back= 3.999" Float Total= 0.520" (0.500-.565) Min-Max)</p> <ul style="list-style-type: none"> <li>• MEASURED MOTOR COUPLING RIM RUNOUT= 0.003"</li> <li>• MEASURED COMP SHAFT RADIAL RUNOUT: 0.001"</li> <li>• MEASURED COMP AXIAL THRUST= 0.014" @ 0 PSIG</li> </ul> <ul style="list-style-type: none"> <li>• REASSEMBLED DRIVE COUPLING &amp; RECHECKED/RECORDED COLD ALIGNMENT</li> </ul>	Kevin Frazee

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Service Provided:				
Date	Activity Number	Activity Status	Work Performed	By
03/03/2017	1-LXXF98D	Completed	<ul style="list-style-type: none"> <li>• DISCOVERED OIL RETURN SOLENOID VALVE SEVERELY CORRODED. REPLACED VALVE &amp; INSTALLED INLINE SIGHT GLASS.</li> <li>• REFRIGERANT LEAK TESTED ENTIRE CHILLER</li> </ul> <p>NEW LEAKS DISCOVERED:</p> <ol style="list-style-type: none"> <li>1) 1-1/2" THREADED LIQUID REFRIGERANT TEE FEEDING OIL COOLER</li> <li>2) COMP. OIL RESERVOIR EQUALIZING LINE 1/4" THREADED FLARE ELBOW (These LEAKS were REPAIRED on 03/10/2017 under QUOTE#: 1-M0XUGZP)</li> <li>3) COMPRESSOR PRE-ROTATION VANE SHAFT SEAL (This LEAK was REPAIRED on 03/10/2017 under QUOTE#: 1-M0YMG0P)</li> </ol>	Kevin Frazee
03/08/2017	1-LZKINVC	Completed	<ul style="list-style-type: none"> <li>• CHECKED ALL CHILLER CONTROLS, SAFETIES, &amp; LOW VOLTAGE ELECTRICAL CONNECTIONS</li> <li>• CHECKED, ADJUSTED, &amp; VERIFIED BOTH HIGH PRESSURE SWITCH CUTOUT PRESSURES OF 180PSIG &amp; ALARM POINT ACTIVATION ON THE POWERHOUSE MAIN CONTROL SYSTEM</li> <li>• VERIFIED RUPTURE DISK PRESSURE SWITCH CLOSURE AT 50PSIG &amp; ALARM POINT ACTIVATION ON THE POWERHOUSE MAIN CONTROL SYSTEM</li> </ul> <p>**DISCOVERED COMPRESSOR DISCHARGE TEMP SENSOR READING 10F LOW - REPLACEMENT IS RECOMMENDED)**</p> <ul style="list-style-type: none"> <li>• DRAINED OLD OIL CHARGE &amp; INSTALLED 15 GALLONS OF NEW YORK "J" OIL SUPPLIED BY CUSTOMER</li> </ul>	Kevin Frazee

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Service Provided:				
Date	Activity Number	Activity Status	Work Performed	By
03/16/2017	1-M1Q0CJ3	Completed	• DOCUMENTED ALL ANNUAL MAINTENANCE TASKS PERFORMED AND PROVIDED DUPONT WITH COMPREHENSIVE REPORT (INCLUDING OIL AND REFRIGERANT ANALYSIS REPORTS)	Kevin Frazee

Materials Used:
Description
Spray Paint,Dark Machine Gray,15 oz.
Disposable Wipes,Double Re-Creped
Scratch Brush,Short Handle,7-1/8",PK5
Solenoid Valve,Brass,NC,Air, Inert Gas
P/A VALUE PLEAT FILTER 3
SPORLAN 3/8" FLARE DRIER
SPORLAN 3/8" FLXSWIV NUT
SPRING HELICAL ASC / 029 13770 004

Refrigerant Tracking:									
Activity #	Action Taken	Type	Amount	Asset ID	Customer Tag	Serial Number	Model Number	Leak Location	Leak Rate
No Refrigerant Activity Recorded To Date									

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### Service Order Warranty Terms and Conditions

#### **PARTS WARRANTY:**

Johnson Controls, Inc. (JCI) warrants that original equipment, parts or components manufactured or labeled by JCI shall be free from defects in material and workmanship under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment. Equipment, parts or components not manufactured or labeled by JCI shall carry a warranty from defects in material and workmanship under normal usage and proper installation and maintenance for a period of ninety (90) days from the date of shipment. Notwithstanding the foregoing, in the event JCI is reasonably able to identify a warranty for a period longer than the ninety (90) days applicable to equipment, parts or components not manufactured or labeled by JCI, it will assign all assignable rights under such warranty to Customer and reasonably cooperate in the enforcement of any warranty claim. Recertified or replacement parts installed on equipment and still under the original equipment manufacturer's warranty are covered for ninety (90) days or the remainder of the original equipment manufacturer warranty period, whichever is longer. For large tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: screw compressors, motors, control panels and components, VFD's and components and Liquid Cooled Solid State Starters and components. For small tonnage chillers, JCI will warrant under normal usage and proper installation and maintenance for a period of one (1) year from the date of shipment: scroll compressors, condenser coils, control panels and components, screw compressors (DXS and Mustang), and fan motors. In the event of a valid warranty claim, the Customer's remedy shall, at JCI's sole discretion and subject to the exclusions herein, be limited to repair or replacement of the subject equipment, part or component conditioned upon the return to JCI of any defective equipment, part or component. This Parts Warranty does not cover any shipping, handling or transportation charges or any associated labor costs.

#### **LABOR WARRANTY:**

Johnson Controls, Inc. (JCI) warrants its workmanship or that of its agents in relation to installation of materials for a period of ninety (90) days from date of installation or with respect to service work for a period of ninety (90) days from the date of service. Customer acknowledges that re-performance shall be its exclusive and only remedy with regards to any services provided by JCI. Customer shall bear all labor costs associated with the repair or replacement of failed material that is outside the scope of this express labor warranty. All warranty labor shall be executed during JCI normal business hours.

These warranties do not extend to any equipment which has been repaired by others, abused, altered, or misused in any way, or which has not been properly and reasonably maintained.

THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A SPECIFIC PURPOSE. UNDER NO CIRCUMSTANCES SHALL JCI BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATING TO ANY DEFECT IN MATERIAL OR WORKMANSHIP OF EQUIPMENT OR THE PERFORMANCE OF SERVICES.

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