

Remit To: Auburn Mechanical
PO BOX 249
Auburn, WA 98071

Work Order: 23128
Customer #: 10402

Invoice 32372
Invoice Date 01/25/23
Due Date 02/24/23
Terms Net 30

Bill To: 77 Central Apartments
2630 77th Ave SE
Mercer Island, WA 98040

Service Location: 77 Central Apartments
2630 77th Ave SE
Mercer Island, WA 98040

Requested By: Terry Graham

Scope Detail: T&M NTE CU-02 VRF Leak Check and Repair QTE 3424 reports to Terry.Graham@cushwake.com;
nora.grant@cushwake.com

Work Description: 1/3 - Performed leak check on VRF system CU-2. Upon arrival found system had leaked out all refrigerant, system in fault and non operational due to loss of charge. Proceeded to setup pressure test. Pressure tested and calibrated all pressure test gauges and equipment. Corrected any leaking gear and proceeded to setup pressure test gauges on every section of system related to CU-2 to be isolated. Pumped system up to test pressure and isolated outdoor unit, line set, and every individual branch on fan coils connected to BC-2. Will return next day to review results of pressure test overnight.
1/4 - Returned to site next day and reviewed results of pressure test. Found branch 3 for unit A411 had lost 100% pressure down to 0 PSIG nitrogen indicating leak. No other branches showed signs of leak. Isolated branch 3 serving unit A411. Removed all pressure test equipment and opened all isolation valves except branch 3. Proceeded to perform triple evacuation. Picked up refrigerant from vendor.
1/5 - Once triple evacuation was complete proceeded to charge system to 75lbs R410A. Brought unit back in to service. Removed lockout tagout and closed disconnect. Performed startup and monitored during initialization sequence. Put unit into full heat and ran system until initialization sequence completed and unit entered normal operation. Will contact management about access to 411 to inspect for leaks.
1/18 - Follow up visits related to gathering data related to proposed repairs and building repair proposals. Due to size of proposed repairs, all gathered information has been handed off to project manager for more comprehensive proposal. Also gathered data to build a complete and accurate DSB report since we did not have one for CU-2. Entered all line lengths and elevations into DSB file and calculated accurate system refrigerant charge.

Price Method: Time and Materials

Date of Service	Description	Technician	Quantity	Unit Price	Price Total
Cost Type: 1 - Labor					
01/03/23	Labor - Service	Karlson, Nigel I	8.00	161.50	1,292.00
01/03/23	Labor - Service	Morfin, Juan G	10.00	161.50	1,615.00
01/04/23	Labor - Service	Karlson, Nigel I	8.00	161.50	1,292.00
01/04/23	Labor - Service	Morfin, Juan G	5.00	161.50	807.50
01/06/23	Labor - Service	Karlson, Nigel I	4.00	161.50	646.00
01/11/23	Labor - Service	Morfin, Juan G	2.00	161.50	323.00
01/12/23	Labor - Service	Karlson, Nigel I	4.00	161.50	646.00
01/12/23	Labor - Service	Morfin, Juan G	2.00	161.50	323.00
01/13/23	Labor - Service	Morfin, Juan G	3.00	161.50	484.50
01/16/23	Labor - Service	Morfin, Juan G	3.00	161.50	484.50
01/18/23	Labor - Service	Morfin, Juan G	1.00	161.50	161.50
01/23/23	Labor - Service	Karlson, Nigel I	3.00	161.50	484.50
Cost Type: 2 - Materials & Equ					
01/03/23	Purchase - Misc Parts		1.00	507.85	507.85
01/03/23	Purchase - Refrigerant and Gaskets		1.00	2,020.58	2,020.58
01/23/23	Purchase - Nitrogen and Gas for Brazing		1.00	192.48	192.48
01/16/23	Other - Drafting Supplies		1.00	142.90	142.90
01/16/23	Other - Sensors		1.00	266.61	266.61
Cost Type: 4 - Other					
12/23/22	Other - Confined Space Gear		1.00	95.00	95.00
Cost Type: 7 - Miscellaneous					
12/23/22	Other - Truck Charge		1.00	60.00	60.00
12/23/22	Other - Refrigerant Evacuation and Recovery		1.00	40.00	40.00
12/23/22	Other - Nitrogen Fee		1.00	20.00	20.00
12/23/22	Other - Small Weld		1.00	20.00	20.00
12/23/22	Other - Consumable Fee		1.00	25.00	25.00
				Subtotal	11,949.92
				Tax	1,206.94
				Total	13,156.86

A FINANCE CHARGE OF 1.5% PER MONTH (18% PER ANNUM)
WILL BE CHARGED ON UNPAID BALANCES.