

CONVERSION REPORT : Phoenix, AZ

115 Ton Trane® IntelliPak™ RTU



LOCATION + EQUIPMENT

Location: Phoenix, AZ
Converted: May 2019
HVAC Unit: 115 Ton Trane® IntelliPak™ RTU
Model: SXHGD124---

TEST METHODOLOGY

Extensive Data was collected from side-by-side RTU's - one charged with Bluon TdX 20 [R-458A] (data from 5/19) and one charged with R-22 (data from 7/19). Data was selected to produce the most accurate comparison and based on like-kind conditions. The comparison data includes 13.5 hours of run-time for each unit under near identical conditions with the same stage of cooling and the same, shared load. These conditions were chosen as they represent the most typical stage of cooling for each unit and high ambient conditions.

SUMMARY

Bluon converted this unit for one of the world's largest asset management companies using Bluon's protocols developed for Trane® IntelliPaks™. Not only did Bluon substantially increase system efficiency, but Bluon also increased cooling capacity. These results show Bluon's unique ability to both retrofit existing R-22 systems and upgrade them at the same time - especially for units of this type and complexity.



24%

Energy Savings



5%

Capacity Increase

	Bluon TdX 20 (R-458A)	R-22
RAT (F° db)	74.3	72.9
Return Air (RH)	49.2	50.7
SAT (F° db)	53.5	52.3
Supply Air (RH)	93.8	95.5
Delta-T (F° db)	20.8	20.5
OAT (F° db)	99.2	98.6
Return Air Enthalpy (BTU/lb.)	23.5	22.3
Supply Air Enthalpy (BTU/lb.)	16.6	15.7
Delta-h (BTU/lb.)	6.97	6.67
Calculated Capacity (kBTU/h)*	501.7	480.5
Calculated Tonnage*	41.8	40.0
System Real Power Sum (kW)	45.2	57.3
Current A (Amps)	67.3	85.1
Current B (Amps)	66.5	84.0
Current C (Amps)	65.2	85.1
Measured Power Factor Avg.	0.82	0.81
Calculated EER (BTU/h/W)	11.09	8.39

*Assumptions made in capacity & tonnage calculations:
CFM: 16,000. Air Density: 0.075lb/ft³.