



CAGI VERIFICATION PROGRAM
 A Program of the Compressed Air and Gas Institute

RESULTS OF TEST OF AN AIR DRYER (RD-VP8)

MANUFACTURER: Sullair	TRADE NAME: Sullair
UNIT MODEL NO.: RD-400-460-3-60-A	SERIAL NO.: 4514SA01864
Refrigerant Type: R134A	CAGI TEST NO.: RD-15010-R-1
UNIT TYPE: Cycling	DATE(S) OF TEST: 7/02/2015

SUMMARY

TEST PARAMETER	CERTIFIED	MEASURED	CERTIFIED VS. MEASURED	RESULT OF TEST
FULL FLOW RATINGS*				
OUTLET PRESSURE DEWPOINT, °F*	43	43.7	101.63%	-----
SYSTEM PRESSURE DROP, PSI	3.3	3.3	100.00%	P
TOTAL POWER INPUT, KW	2.71	2.58	95.20%	P
Specific Power Input At Full Flow, KW / 100 CFM	0.68	0.65	95.59%	P
10% FLOW RATINGS*				
RATED AIR FLOW, SCFM	40	39.7	99.25%	-----
OUTLET PRESSURE DEWPOINT, °F*	36	36.7	101.94%	P
SYSTEM PRESSURE DROP, PSI	0.06	0.15	250.00%	P
TOTAL POWER INPUT, KW	2.41	2.13	88.38%	-----
Specific Power Input At 10% Flow, KW / 100 CFM	6.03	5.34	88.56%	P

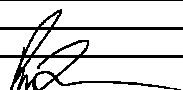
Allowable Tolerance Table*

Volume Flow Rate at Specified Conditions		Pressure Dew Point	Specific Energy Consumption	System Pressure Drop, PSI
Cu. M / min	Cu. Ft / min		%	
Below 0.5	Below 15	+4 °F	+8	+1
0.5 to 1.5	15 to 50		+7	
1.5 to 15	50 to 500		+6	
Above 15			+5	

Remarks: UUT **Passed** all required test parameters for CAGI Verification Testing

CODE:	P - Passed	F - Failed	ND - No Decision	MD - Model Discontinued	RTM - Returned to Mfg.	TBR - To Be Recertified	SR - See "Remarks"	NP - Not Performed
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Report Prepared by: Don Hubbard
Title: Project Engineer
Date: 7/07/2015
Signature: 

Report Reviewed by: Robert Fisher
Title: Project Engineer
Date: 7/20/2015
Signature: 



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1.0 Dryer Data Sheet

Data sheet linked to CAGI during selections

DRYER DATA SHEET Refrigerant Dryers				
MODEL DATA				
1	Manufacturer	SULLAIR		
2	Date	4 29 2015		
3	Model Number	RD400		
4	Cycling / Non-Cycling	CYCLING		
5	Refrigerant Type	R134A		
	DESCRIPTION	FULL FLOW	10% FLOW	UNITS
6	Tested Flow ^a	400	40	scfm ^b
7	Outlet Pressure Dewpoint	43	36	°F
8	Pressure Drop	3,3	0,06	psi(d)
9	Total Dryer Input Power	2,71	2,41	kW
10	Specific Package Power ^c	0,68	6,03	kW/100 scfm

Notes:

a. Dryer ratings at the following inlet conditions to the dryer (as per ISO 7183, Table 2, Option A2):

- Inlet Compressed Air Temperature: 100°F (38°C)
- Inlet Compressed Air Pressure: 100 psig (7 Bar)
- Max. Ambient Air Temperature: 100°F (38°C)
- Inlet Compressed Air Relative Humidity: 100% (Saturated)

b. SCFM defined as the volume of free air in cubic feet per minute measured at 14.5 psia (1.0 Bar), 68°F (20°C) temperature and 0% R.H. (0 WVP).

c. (Total Dryer Input Power/tested flow) x 100

Member

This form was developed by the Compressed Air and Gas Institute for the use of its members. CAGI has not independently verified the reported data.

CAGI
Compressed Air & Gas Institute

Consult the CAGI website, www.cagi.org, for a list of participants in the third party verification program.

Form Number REF 010 Rev 7 5-12

2.0 Images

Photo #1 Test unit identification



Photo #2 Test unit identification

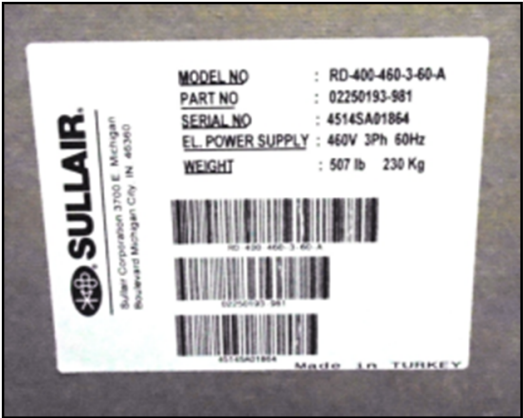
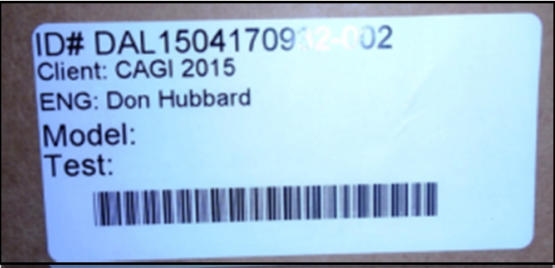


Photo #3 Test unit identification



Photo #4 Test unit Dal Number



2.1 Images Continued

Photo #5 Test unit set-up



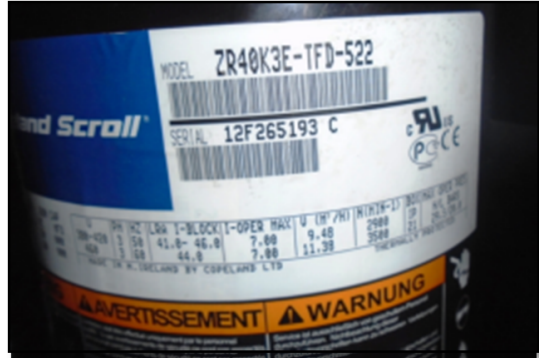
Photo #6 Test unit set-up



Photo #7 Test unit condenser fan



Photo #8 Test unit compressor



3.0 Critical Components Impacting Dryer Performance

Dryer Description:
Manufacturer: Sullair
Model No: RD-400-460-3-60-A
Serial No: 4514SA01864
☐ Air-Cooled ☒ Cycling ☐ Water-Cooled
Volts: 460
Amps: -----
Phase: 3
Hertz: 60
Refrigerant type: R134A

Compressor Description:
Manufacturer: Copland Scroll
Model No: ZR40K3E-TFD-522
Serial No: 12F265193
Volts: 460
Amps: 7 MAX
Phase: 3
Hertz: 60

Fan Motor Description
Manufacturer: Ziehl-Abegg
Model No: FN035-4DKOFV7P2
Part No: 30707593
Volts: 265/460
Amps: .79/.46
Phase: 3
Hertz: 60
RPM: 1630
HP: -----

Filled out by: Don Hubbard
Date: 7/07/2015

4.0 Full Flow Test

Customer	Sullair	Date	7/2/2015
Project Number	G102062103	Time	13:05:40
Psy Room	35Ton	Test Number	1
Test Type	Full Flow	Test Standard	Iso 7183
Dryer Model	RD-400-460-3-60-A	Engineer	Don Hubbard
Dryer Serial	4514SA01864	Tech	Thomas Stiles
Rated Operating PSI	100	Conditions	100 /100/100
Dryer Type	Refrigeration	Volt Min	3
Cycling Type	Cycling	Volt Max	460
Refrigerant Type	R134a	Phase	3
Refrigerant Charge	106 OZ		

	Average Data	Min Data	Max Data	Units
Dryer Amb Dry	97.10	97.03	97.20	° F
Dryer Amb Wet	63.15	63.02	63.43	° F
Dryer Amb Humidity	13.00	12.70	13.50	%
Comp Amb Dry	82.01	81.92	82.22	° F
Comp Amb Wet	62.59	62.36	62.71	° F
Comp Amb Humidity	34	33	34	%
Comp Disch	101.7	97.2	103.0	PSIG
Inlet Dew Point	95.90	95.00	96.70	° F
Dryer Inlet Temp	100.10	99.80	100.30	° F
Dryer Outlet Temp	88.20	87.90	88.60	° F
Outlet Dew Point	43.70	42.80	44.90	° F
Pressure Drop	3.3	3.1	3.6	psi(d)
Dryer Inlet	101.6	97.1	102.9	PSIG
Airflow	395.3	378.7	399.6	SCFM
Barometric	29.244	29.235	29.254	" Hg
Main Watts	2.58	2.57	2.60	kW
Specific Power	0.65	0.64	0.68	kW/100 scfm
Dryer Comp Disch	116.88	116.61	117.10	° F
Dryer Leav Cond Coil	115.56	115.26	115.86	° F
Dryer Comp Suction	41.51	40.53	42.56	° F

Comments:

4.1 10% Flow

Customer	Sullair	Date	7/2/2015
Project Number	G102062103	Time	14:19:24
Psy Room	35Ton	Test Number	2
Test Type	10% Flow	Test Standard	Iso 7183
Dryer Model	RD-400-460-3-60-A	Engineer	Don Hubbard
Dryer Serial	4514SA01864	Tech	Thomas Stiles
Rated Operating PSI	100	Conditions	100/100/100
Dryer Type	Refrigeration	Volt Min	460
Cycling Type	Cycling	Volt Max	460
Refrigerant Type	R134a	Phase	3
Refrigerant Charge	106 OZ		

	Average Data	Min Data	Max Data	Units
Dryer Amb Dry	97.11	97.04	97.26	° F
Dryer Amb Wet	65.83	65.56	66.03	° F
Dryer Amb Humidity	17.90	17.40	18.30	%
Comp Amb Dry	82.00	81.92	82.11	° F
Comp Amb Wet	63.31	63.11	63.60	° F
Comp Amb Humidity	36	35	37	%
Comp Disch	100.0	96.0	101.0	PSIG
Inlet Dew Point	95.90	95.20	96.60	° F
Dryer Inlet Temp	100.00	99.80	100.20	° F
Dryer Outlet Temp	93.70	93.30	94.00	° F
Outlet Dew Point	36.70	35.90	37.80	° F
Pressure Drop	0.1	0.0	0.5	psi(d)
Dryer Inlet	99.9	95.8	100.9	PSIG
Airflow	39.7	38.5	40.1	SCFM
Barometric	29.218	29.210	29.226	" Hg
Main Watts	2.13	2.1010	2.1520	kW
Specific Power	5.36	5.25	5.55	kW/100 scfm
Dryer Comp Disch	102.84	102.39	103.07	° F
Dryer Leav Cond Coil	102.81	101.45	103.14	° F
Dryer Comp Suction	33.85	32.40	36.27	° F

Comments:

5.0 Revision Summary				
Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change