# **Quiet Dryer**



# **User's Guide**

Includes:

Filter Kit (51365-R) Installation & Maintenance



## 1. Welcome & Congratulations

Congratulations on your purchase of a new ALTEC AIR *Refrigerated Non-Cycling*Series Air Dryer! We here at ALTEC AIR are very proud of our products and we are committed to providing you with the best value and service possible.

We are sure that you will be satisfied with your new Air Dryer and would like to thank you for choosing ALTEC AIR for your Air Dryer requirements. We also hope that you will continue to choose us for your future compressed air treatment purchases.

For information about this and other ALTEC AIR products, please visit us on the web at:

## www.AltecAIR.com

#### 2. Introduction

# PLEASE READ THIS USER'S GUIDE THOROUGHLY AND SAVE FOR FUTURE REFERENCE.

This User's Guide is provided for the benefit of our customers and contains information and direction specific to the Altec AIR P013464 QUIET DRYER. It will cover topics including safety, specifications, installation, testing, maintenance, and troubleshooting issues. Observation and compliance with this User's Guide will ensure the maximum life and efficiency of your Quiet Dryer.

This User's Guide should be read thoroughly prior to installing, operating, or servicing the Quiet Dryer in order to become familiar with the recommended procedures. This will minimize the possibility of personal injury or damage to the dryer due to improper operation or handling.

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### 4. Safety & Warning Information

This section contains general information about safety and warning points to consider and adhere to during installation and maintenance of your Quiet Dryer. PLEASE READ THIS SECTION BEFORE PERFORMING ANY OPERATION OR PROCEDURE ON YOUR QUIET DRYER.

Additional warnings specific to an operation or procedure will also be presented throughout the following sections. These will include the symbol as well as a label of "WARNING!", "CAUTION!", or "IMPORTANT!" Please be sure to pay close attention for these warnings and read them as you encounter them.



#### **IMPORTANT!**

Performing procedures not described in this User's Guide MAY VOID THE WARRANTY.



#### **IMPORTANT!**

Appropriate inlet filtration is **MANDATORY** and outlet filtration is recommended for all applications.



## **IMPORTANT!**

Each Quiet Dryer is sized for specific operating conditions. For **OPTIMUM** performance, the maximum available operating pressure should be maintained across the unit. Any pressure reduction or flow control should be done downstream of the unit.

## 5. Overview & Specifications

#### **5.1 Product Description**

The Altec AIR P013464 Quiet Dryer is a compact, regenerative air dryer designed to dry compressed air to a pressure dewpoint (PDP) of -70°C (-94°F) at the rated inlet conditions. The pressure-swing adsorption (PSA) process used is fully automatic and will remain consistent with minimal required periodic maintenance.

#### **5.2 Key Features**

- Incorporates Quiet-Purge technology to minimize decibel level
- Fully re-pressurizing design for steady outlet pressure
- Max outlet flow of 9 SCFM (250 LPM) @ 90 PSIG

#### 5.3 Technical Specifications

Dimensions	22.5"H x 15.2"W x 5.6"D		
Voltage Requirements	220 VAC 1 Phase 50/60 Hz		
Voltage Requirements	220 VAC, 1 Phase, 50/60 Hz		
<b>Electrical Connections</b>	Screw Terminals		
Operating Ambient Temperature	33°F to 125°F (0.5°C to 52°C)		
Inlet Air Conditions	≤ 86°F (30°C) Recommended @90 PSIG 125°F (52°C) Maximum		
Cycle Timer	Solid State with Memory		
Purge Cycle	44 seconds purge; 12 seconds re-pressurizing 60 seconds per side continuous		
Separation Media	Activated Alumina		
Noise Level	72 dBA		
Inlet / Outlet Connections	12MM Push-to-Lock Fittings		

### 6. Installing Your Quiet Dryer

#### 6.1 Safety & Warning Information



#### **WARNING!**

Extreme care should be exercised to avoid contact with live electrical circuits. Many procedures performed during installation of this Quiet Dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.



## **CAUTION!**

Proper Installation & Maintenance as outlined in this User's Guide is extremely important to ensure the reliability and longevity of the equipment as well as prevent damage or personal injury.



## **CAUTION!**

Incoming power to dryer must be 220 VAC, 1 Phase, 50/60 Hz



## **CAUTION!**

Do **NOT** exceed the SCFM outlet flow capacity of the dryer. Be aware of what your dryer is rated for before you install your P013464 Quiet Dryer.

#### 6.2 Before You Begin

- 6.2.1 Carefully inspect the entire unit including the shipping box for ANY DAMAGE CAUSED BY SHIPPING. If any shipping damage is detected, it is important to file a claim with the shipping company prior to continuing the installation procedures.
- **6.2.2** Read the entire *Installing Your Quiet Dryer* section to familiarize yourself with the components and procedures before performing the installation.
- **6.2.3** Verify the installation location of the Quiet Dryer:
  - Ambient temperature is between 33° and 125°F
     NOTE: Higher temperatures will decrease component lifespan.
  - Meets the following power requirements:
    - 220 VAC, 1 Phase, 50/60 Hz

#### **6.3 Included Contents**

- (1) P013464 Quiet Dryer
- (1) User's Guide



#### 51354-R Filter Kit Contents (if applicable):

- (1) 5 Micron Particulate Prefilter
- (1) 0.01 Micron Coalescing Prefilter
- (1) L-Bracket
- (1) 0.5 Micron Particulate

Afterfilter

- (1) Regulator w/ Gauge
- (2) Joiner Set



### **6.4 Required Tools and Materials**

- Mounting hardware (as required)
- Small adjustable wrench
- Medium adjustable wrench
- Philips head screwdriver
- Needle nose pliers
- Cup of soapy water
- 1-inch paint brush (recommended)

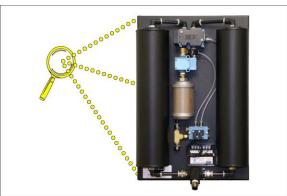
#### 6.5 Installation Steps



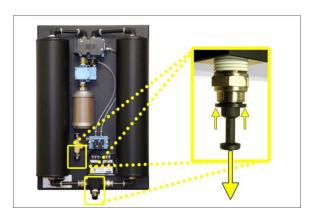
#### **IMPORTANT!**

To properly operate the Quiet Dryer, Altec AIR recommends that all essential elements, air filtration and regulator components be installed.

- **6.5.1** Remove the P013464 Quiet Dryer from packaging.
- **6.5.2** Inspect the Quiet Dyer for loose parts, wiring, tubing or damage.
- ⚠ IMPORTANT: If ANY
  SHIPPING DAMAGE is
  detected, file a claim with the
  shipping company prior to continuing the installation procedures.



- **6.5.3** Place the P013464 Quiet Dryer at the operating location.
- **6.5.4** Remove the plugs from the Inlet & Outlet ports by holding in the ferrule while pulling on the plug.



- **NOTE**: If installing the 51365-R Filter Kit, proceed to the next steps. If <u>NOT</u> installing the 51365-R Filter Kit, proceed to step 6.5.14.
- ⚠ CAUTION: When installing a typical complete Quiet Dryer, or Point-of-Use System, Altec AIR recommends assembling ALL components before mounting the P013464 Quiet Dryer.
- **6.5.5** Assemble the Outlet Pressure Regulator.



**6.5.6** Attach the Regulator

Assembly to the Outlet Filter using the included Joiner Set.



**6.5.7** Remove the bowl from the 5 Micron Particulate Prefilter.



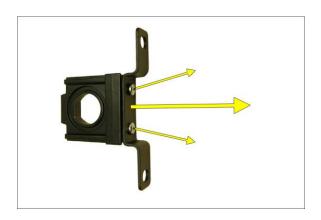
**6.5.8** Attach the L-Bracket to the 5 Micron Particulate Prefilter.



6.5.9 Replace the bowl on the5 Micron Particulate Prefilter.



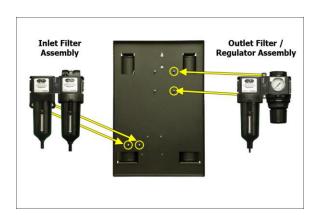
**6.5.10** Remove the Bracket from the other included Joiner Set.



6.5.11 Attach the 5 MicronParticulate Prefilter to the0.01 Micron CoalescingPrefilter using the Joiner Set(Bracket removed).



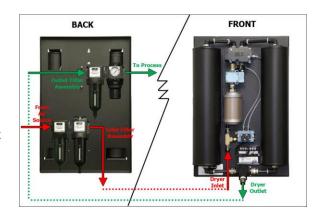
**6.5.12** Attach the Inlet and Outlet Filter Assemblies to the back of the Quiet Dryer Frame.



- **6.5.13** Using necessary fittings, connect the Air Source and Process supply lines:
  - 6.5.13..1 Connect Air

    Source to the input port on the 5

    Micron Particulate Prefilter.



- 6.5.13..2 Connect a hose from the outlet port of the 0.01 Micron Coalescing Afterfilter to the Input port on the Quiet Dryer.
- 6.5.13..3 Connect a hose from the Outlet port on the Quiet Dryer to the input port on the 0.5 Micron Particulate Afterfilter.
- 6.5.13..4 Connect Process Supply to the outlet port on the Regulator.

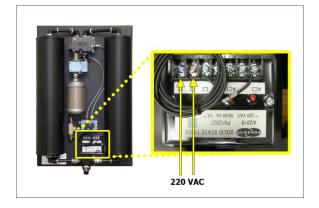
- **6.5.14** Connect the Air Source and Process supply lines:
  - 6.5.14..1 Connect air source supply line to the Input port.



- 6.5.14..2 Connect the process supply line to the Outlet port.
- ▲ NOTE: This instruction step only applies when NOT installing the 51365-R Filter Kit.
- **6.5.15** Wire 220 VAC power to the Solid-State Timer.

#### **⚠** WARNING:

Make sure that power has been disabled to the wires prior to connecting them.



- **6.5.16** Energize the 220 VAC power supply circuit to the Quiet Dryer.
- **6.5.17** Adjust Outlet Pressure Regulator as required (if installed).



**6.5.18** Using necessary hardware (not supplied), mount the Quiet Dryer in its final location.

#### **6.5.19** Check for air leaks:

**NOTE:** This is a general procedure that can be applied to any fitting or hose that has air pressure in it.

- Listen for any 'hissing' sounds which may indicate a fitting or hose air leak.
- Use a 1-inch paint brush to dab soapy water on the air fitting or hose connection to be tested.

If air bubbles appear at the connection, this indicates that air is leaking from the connection.



*If any leaks are detected, take steps to seal them off (as necessary):* 

- *Tighten the fitting*
- Re-connect the hose end
- *Replace the fitting / hose / component*

#### 6.6 Installation Checklist

- ☐ No shipping damage was detected.
- ☐ Securely mounted to installation location.
- ☐ No air leaks are present.

#### 7. Maintaining Your Quiet Dryer

In order to ensure that your P013464 Quiet Dryer continues to operate efficiently and reliably, Altec AIR recommends performing the following maintenance procedures at the specified Six-Month intervals.

It is also recommended that you print out the included *Maintenance* log sheet (*section 12*. ) and record all completed maintenance for historical tracking and reference purposes.

The log sheet includes a Section reference column which indicates the User's Guide section containing the information about the specific procedure. Please refer to these sections for detailed procedural information.

**NOTE:** When operating at higher ambient temperatures, it is recommended that maintenance be performed more frequently.

#### 7.1 Safety & Warning Information



#### **WARNING!**

Extreme care should be exercised to avoid contact with live electrical circuits. Many procedures performed during installation, operation, testing, and maintenance of this Quiet Dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.



#### **CAUTION!**

SHUT DOWN IMMEDIATELY FOR REPAIRS if the Quiet

Dryer shows any evidence of excessive noise.



# **CAUTION!**

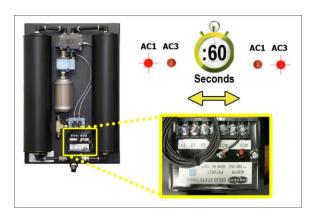
Observe precautions for handling Electrostatic Sensitive Devices.

#### 7.2 Maintenance Log Sheet

MODEL:	LOCATION NAME:					
SERIAL NUMBER:	ADDRESS:					
DATE INSTALLED:						
			Maintena	nce Interva	al (Months	)
Procedure	Section	6	12	18	24	30
Visually Inspect Quiet Dryer for Loose Wiring,	-					
Tubing, or Hardware						
Verify Consistent Timer Cycling	7.3					
Replace Purge Muffler	7.4					
Replace Filter Elements	7.5					
(if 51365-R Filter Kit is installed)	7.5		"			
Maintenance Pe	erformed by:					
Date of M	Iaintenance:					

### 7.3 Verifying Consistent Timer Cycling

**7.3.1** On the Solid-State Timer, check to see if the AC1 and AC3 LEDs are lighting back and forth every 60 Seconds.



#### 7.4 Replacing the Purge Muffler

**7.4.1** Remove the Purge Muffler by unscrewing it Counter-Clockwise.



7.4.2 Install the new PurgeMuffler by screwing itClockwise to the fitting.



## 7.5 Replacing the Filter Element

**NOTE**: This is general procedure and will vary slightly visually depending on the Filter Element being replaced. This procedure covers the following:

- 5 Micron Particulate Prefilter
- 0.01 Micron Coalescing Prefilter
- 0.5 Micron Particulate Afterfilter
- **7.5.1** Remove the Filter Bowl.



**7.5.2** Remove the Filter Element by unscrewing it Counter-Clockwise.



**7.5.3** Install the new Filter

Element by screwing it

Clockwise to the housing.

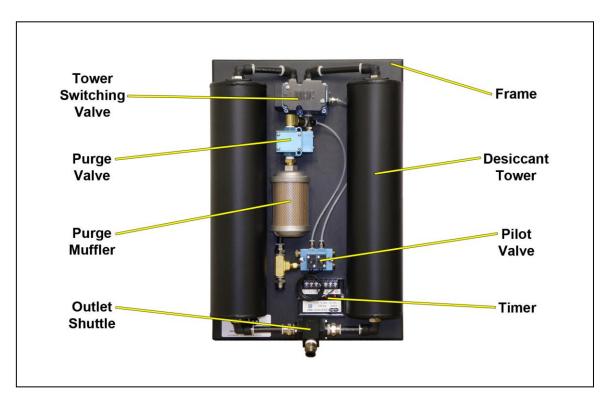


**7.5.4** Replace the Filter Bowl.



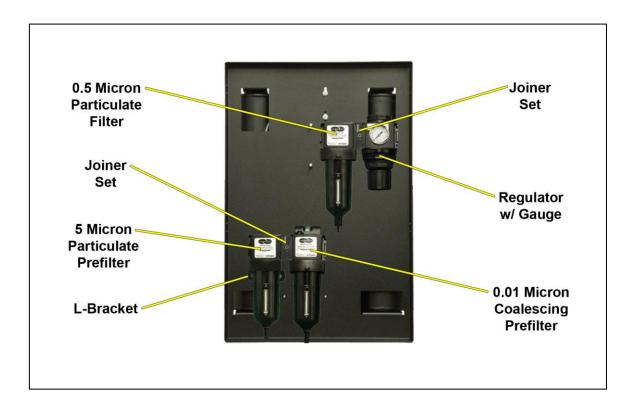
# 8. Replacement Parts & Accessories

## 8.1 Front of Dryer



Description	Part Number	Quantity	Recommended Spare
Tower Switching Valve Purge Valve	Included in Tower Switching Valve Assembly - P013379	1	√ (1)
Purge Muffler	P011884	1	
Outlet Shuttle	P09717F262	1	
Frame	P013463	1	
Desiccant Tower	P010409P	2	
Pilot Valve	P011883F11	1	√ (1)
Timer	P012927	1	√ (1)

# 8.2 Back of Dryer



Description	Part Number	Quantity	Recommended Spare
0.5 Micron Particulate Filter	Included in Filter Kit w/ Regulator – 51365-R	1	
Joiner Set	Included in Filter Kit w/ Regulator – 51365-R	2	
5 Micron Particulate Prefilter	Included in Filter Kit w/ Regulator – 51365-R	1	
L-Bracket	Included in Filter Kit w/ Regulator – 51365-R	1	
Regulator w/ Gauge	Included in Filter Kit w/ Regulator – 51365-R	1	
0.01 Micron Coalescing Prefilter	Included in Filter Kit w/ Regulator – 51365-R	1	

#### 8.3 Accessories for your Quiet Dryer

Description	Part Number
Filter Kit w/ Regulator  Includes 5-micron particulate prefilter, 0.01 coalescing prefilter, and 0.5- micron after filter, gauge and regulator.  Keeps all impurities from contaminating the towers and allow you to regulate your outlet pressure.	51365-R
Replacement Filter Elements  Replacement elements for a 5-micron particulate prefilter, 0.01 coalescing prefilter, and 0.5-micron after filter.	51508

## 8.4 Ordering Parts from Altec AIR



## **IMPORTANT!**

Instruction for the replacement of individual listed components goes beyond the scope of this User's Guide and will not be covered.

Please refer to the information included with the specific replacement part for this instruction.

Once you have identified your required parts and accessories, contact the Altec AIR Inside-Sales department to order:

(800) 521-5351

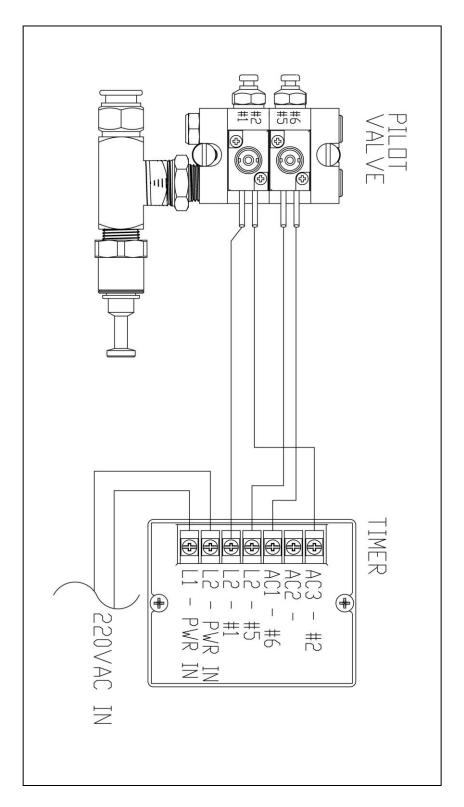
Fax – (303) 657-2205

sales@AltecAIR.com

parts@AltecAIR.com

# 9. Appendix

# 9.1 Wiring Diagram



## 10. Limited Warranty Agreement

Altec AIR products carry a one (1) year warranty against defective workmanship and material. This period starts at date of shipment. Not included are the components subject to normal replacement during a year's operating time.

No claims for labor in replacing defective parts or for consequential damages will be allowed. Replacement parts will be invoiced in the regular way, with invoices subject to adjustment after the parts claimed defective are examined at our factory. In addition, no material or parts will be accepted at our factory for in-warranty repairs or credit without previous authorization from Altec AIR.

Responsibility for damages incurred in transit will be borne by the user and the user in turn should file any damage claim against the carrier. All warranty items are F.O.B. Broomfield, Colorado. Freight charges are the responsibility of the user.

This warranty shall not apply to any Altec AIR product which shall have been repaired or altered in any way by anyone other than Altec AIR or authorized personnel so as to affect, in our judgment, its proper functioning or reliability, neither will it apply to any product which has been subject to misuse, negligence, or accident. The installation of unauthorized non Altec AIR parts will void the warranty on those Altec AIR products.

## 11. Contacting Altec AIR

#### 11.1 General

ALTEC AIR, LLC

226A Commerce Street

Broomfield, Colorado 80020

(800) 521-5351

(303) 427-3700

Fax – (303) 657-2233

info@AltecAIR.com

www.AltecAIR.com

#### 11.2 Sales

(800) 521-5351 (**option 2**)

Fax – (303) 657-2205

sales@AltecAIR.com

parts@AltecAIR.com

#### 11.3 Service

(800) 521-5351 (option 3)

Fax – (303) 657-2205

#### 11.4 Technical Support

(800) 521-5351 (**option 1**)

# 12. Maintenance Log Sheet

MODEL:  SERIAL NUMBER:  DATE INSTALLED:	LOCATION NAME:ADDRESS:					
	Maintenance Interval (Months)			)		
Procedure	Section	6	12	18	24	30
Visually Inspect Quiet Dryer for Loose Wiring, Tubing, or Hardware	-					
Verify Consistent Timer Cycling	7.3					
Replace Purge Muffler	7.4					
Replace Filter Elements (if 51365-R Filter Kit is installed)	7.5					
Maintenance Performed by:						
Date of M	aintenance:					

#### NOTE: COPY OR PRINT THIS PAGE AND KEEP IT WITH THE QUIET DRYER

13. Notes	