

# DRYSPELL PLUS

HEATLESS REGENERATIVE DESICCANT AIR DRYERS

**PneumaticPlus**

Mailing Address:  
4733 Torrance Blvd #902  
Torrance, CA 90503

Warehouse Address:  
1330 E. 223rd St # 505  
Carson, CA 90745

Phone: (800) 658-3579  
Email: [Support@pneumaticplus.com](mailto:Support@pneumaticplus.com)  
Mon-Fri 9:00am to 5:00pm

**PRODUCT NAME : DRYSPELL PLUS**  
**MODEL : DRYSPELL PLUS 45**  
**ITEM CODE : PD207 (without Cover & Includes external Pre - Filter)**

**1. SPECIFICATIONS**

Flow : 45 scfm  
Maximum Operating Pressure : 16 bar (g) (232 PSI (g))  
Rated Air Inlet Temperature : 38° C (100° F) (ISO:7183-1986 (E)) rated Dewpoint  
Rated Operating Pressure : 7 bar (g) (101.5 PSI (g))  
Recommended External Pre-Filter Rating: 0.01 Microns (ISO: 8573-1:2010 (E) Class 1)  
Cycle Time : 4 Minutes  
Operating Voltage : 100-240 VAC 50/60 Hz 1 Ph  
Dew Point : -40° C(-40° F) PDP (ISO: 8573-1:2010 (E) Class 2)  
End Connections : 1/2" NPT  
Purge Loss : 15±1%  
Noise Level : <70 dBA  
Pressure Drop : <0.3 bar (g) ( <4.3 PSI (g))

**2. TECHNICAL DATA**

**2.1 ADSORBER DATA**

Type of adsorbent : Mixed Bed of Activated Alumina & Molecular Sieves  
Adsorber Shell : Aluminum IS 63400  
Top & Bottom Block : Aluminum IS 63400

**2.2 PROCESS DATA**

Description	Purge Optimizer			
	100%	80%	60%	40%
Cycle Time (min)	4	4	4	4
Drying Time (min)	2	2	2	2
Regeneration Time (Sec)	90	72	54	36
De-pressurization time (sec)	30	48	66	84

**3. FILTER DATA**

**3.1 Standard with all units**

Internal Built In After Filter Micron Rating : 25 Micron (ISO:8573-1:2010 (E) Class 5)

### **3.2 Included with Item Code PD207**

External Pre-Filter Particle Removal Rating	: 0.01 Micron (ISO:8573-1:2010 (E) Class 1)
Pre- Filter Oil Removal Rating	: 0.01 mg/m <sup>3</sup> (ISO:8573-1:2010 (E) Class 1)
Filtering Media	: Borosilicate Microfiber Glass
Efficiency	: 99.9%

### **3.3 Optional for all Units**

External Post- Filter Particle Removal Rating	: 1 micron (ISO:8573-1:2010 (E) Class 2)
Post-Filter Oil Removal Rating	: 0.5 mg/m <sup>3</sup> (ISO:8573-1:2010 (E) Class 3)

## **4. ELECTRICAL DATA**

Controller	: Custom Made Micro-Processor Based
Make	: Trident
Input Voltage	: 100-240 VAC 50/60 Hz 1 Ph
Output	: 24VDC
Display	: LED Indication for Drying, Re-Pressurization & Drain
Enclosure	: IP55 Protection
Certification	: cUL USA Marking

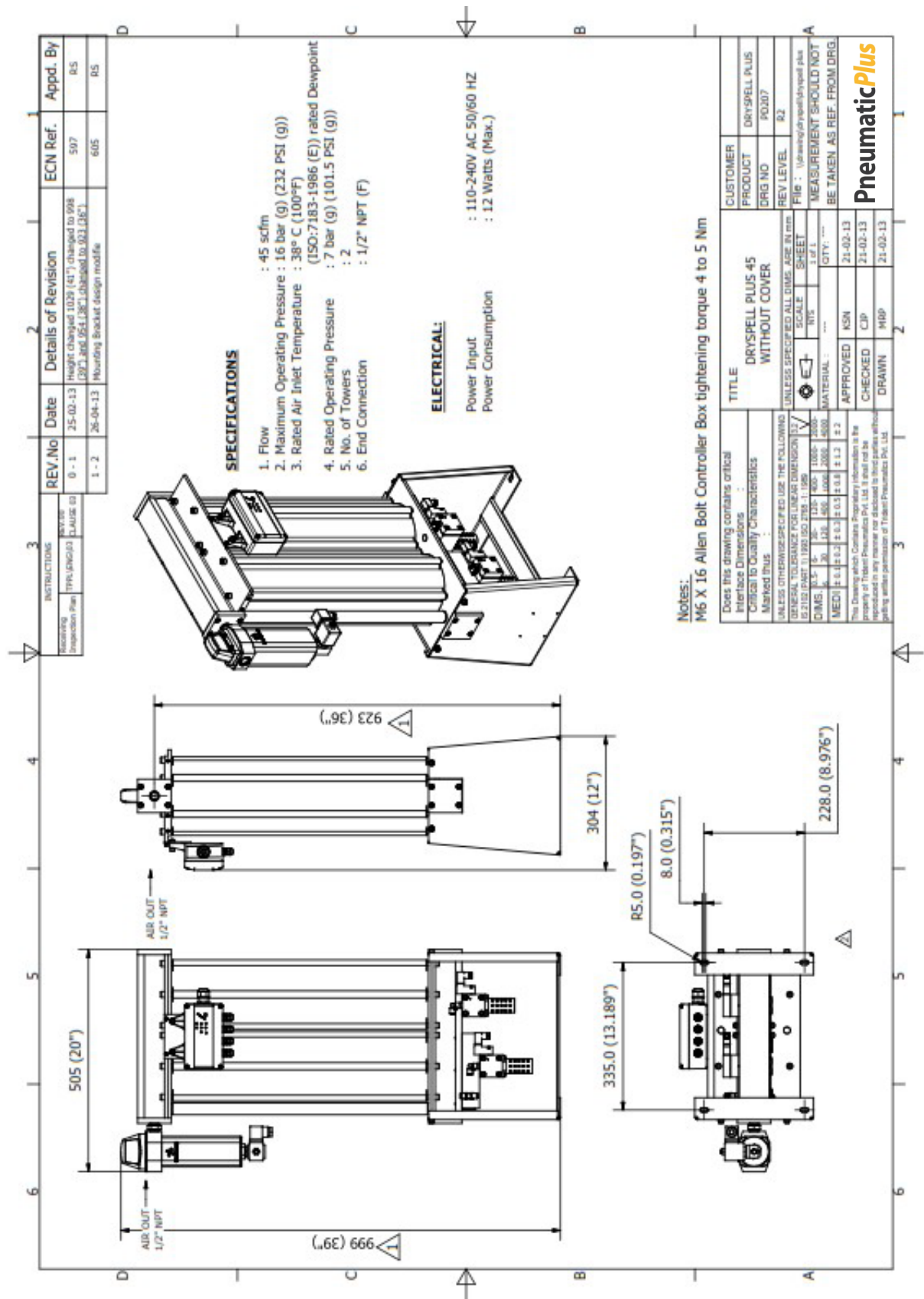
### **Dew Point Stretch Cycle:**

It stretches the moisture loading time of the desiccant bed by increasing the drying time. A dew point meter at the outlet with a required dew point setting provides the signal for the stretch cycle. This reduces the purge air in accordance to the air flow and dewpoint chosen. The purge occurs for the preprogrammed time during this time.

### **Purge Optimizer:**

It reduces the percentage of regeneration flow based on the front panel setting. It has 4 options 40%, 60%, 80% & 100% purge optimization cycles respectively. The settings correspond to flow or moisture load through the dryer.

Separate LED Indicators for Tower Status, Purge Optimizer & Condensate Drain



**SPECIFICATIONS**

- 1. Flow : 45 scfm
- 2. Maximum Operating Pressure : 16 bar (g) (232 PSI (g))
- 3. Rated Air Inlet Temperature : 38° C (100°F) (ISO:7183-1986 (E) rated Dewpoint
- 4. Rated Operating Pressure : 7 bar (g) (101.5 PSI (g))
- 5. No. of Towers : 2
- 6. End Connection : 1/2" NPT (F)

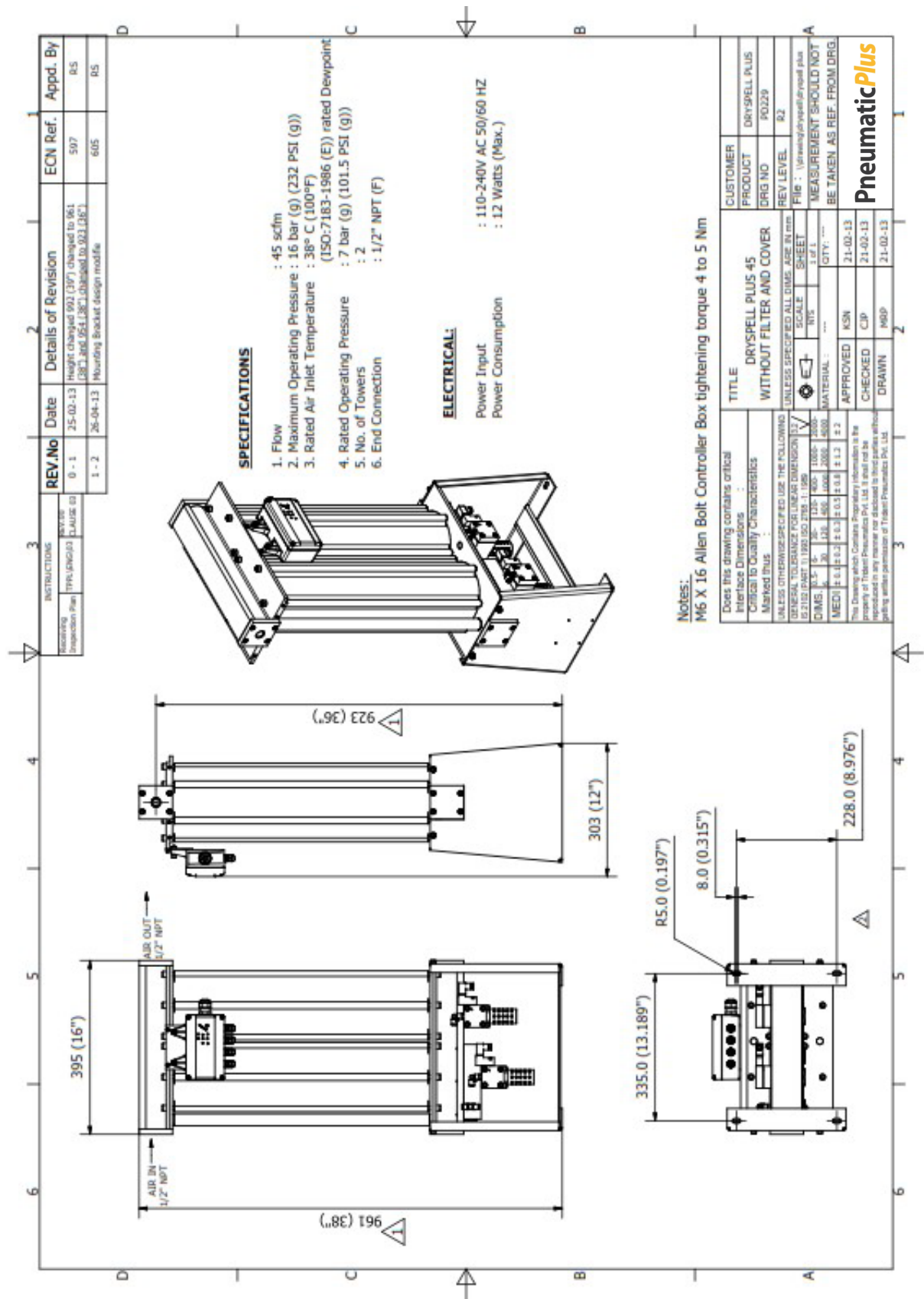
**ELECTRICAL:**

- Power Input : 110-240V AC 50/60 HZ
- Power Consumption : 12 Watts (Max.)

Notes:  
M6 X 16 Allen Bolt Controller Box tightening torque 4 to 5 Nm

Does this drawing contains critical Interface Dimensions : Critical to Quality Characteristics : Marked thus :		TITLE : <b>DRYSPELL PLUS 45 WITHOUT COVER</b>		CUSTOMER : PRODUCT : DRG NO : REV LEVEL :	
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING DIMENSIONAL TOLERANCE FOR LINEAR DIMENSION IS : G 2102 (PART 1) 1992 ISO 2768-1:1998		SCALE : 1:1		SHEET : 1 of 1	
DIMS : 0.5 - 5 : ± 0.10 5 - 30 : ± 0.15 30 - 118 : ± 0.20 118 - 456 : ± 0.30 456 - 2068 : ± 0.50 2068 - 4500 : ± 0.75		MATERIAL : ---		MEASUREMENT SHOULD NOT BE TAKEN AS REF. FROM DRG	
MED : ± 0.10 ± 0.15 ± 0.20 ± 0.30 ± 0.50 ± 0.75 ± 1.0 ± 1.5 ± 2.0		APPROVED : NSN		REV LEVEL : 02	
This Drawing which Contains Proprietary Information is the property of Tridwell Pneumatics Pvt. Ltd. It shall not be reproduced in any manner nor disclosed to third parties without getting written permission of Tridwell Pneumatics Pvt. Ltd.					
DRAWN : CJP		CHECKED : CJP		21-02-13	
21-02-13		21-02-13		21-02-13	

**PneumaticPlus**



REV. No	Date	Details of Revision	ECN Ref.	Appd. By
0 - 1	25-02-13	Height changed 921 (397) changed to 961 (381) and 951 (381) changed to 961 (381)	507	BS
1 - 2	26-04-13	Mounting Bracket design mod file	605	BS

**SPECIFICATIONS**

1. Flow : 45 scfm
2. Maximum Operating Pressure : 16 bar (g) (232 PSI (g))
3. Rated Air Inlet Temperature : 38° C (100°F)  
(ISO:7183-1986 (E)) rated Dewpoint
4. Rated Operating Pressure : 7 bar (g) (101.5 PSI (g))
5. No. of Towers : 2
6. End Connection : 1/2" NPT (F)

**ELECTRICAL:**

Power Input : 110-240V AC 50/60 HZ  
 Power Consumption : 12 Watts (Max.)

**Notes:**  
 M6 X 16 Allen Bolt Controller Box tightening torque 4 to 5 Nm

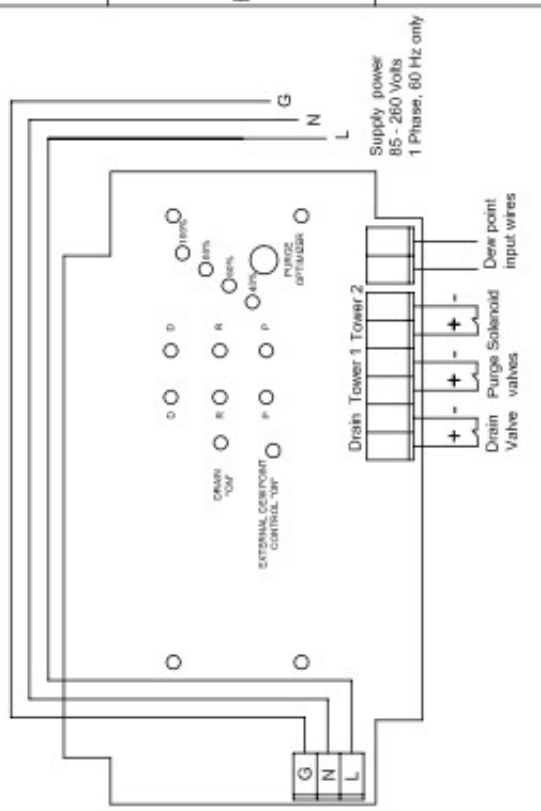
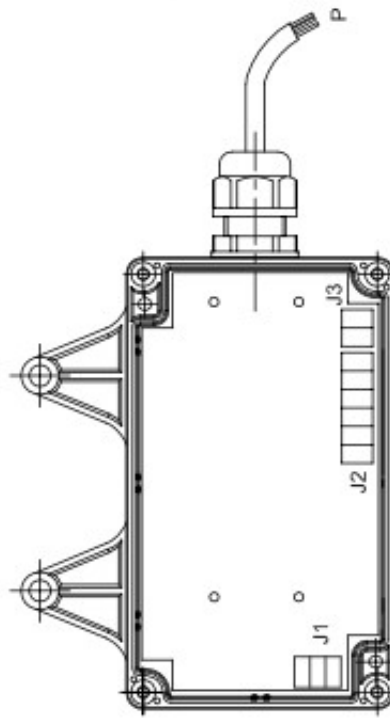
INSTRUCTIONS		TITLE		CUSTOMER	
Mounting Bracket	REVISED	DRYSPELL PLUS 45	DRYSPELL PLUS	DRG NO	POJ29
Inspection Plan	LAUSE 03	WITHOUT FILTER AND COVER		REV LEVEL	02
				FIG :	Ultraseg/lyp/ep/ep/ep/ep plus
				MEASUREMENT SHOULD NOT BE TAKEN AS REF. FROM DRG	
				APPROVED	KON
				CHECKED	CJP
				DRAWN	MGP

**PneumaticPlus**

Revision No	REV 00	Date	Details of Revision	ECN Ref.	App'd By

# CONTROLLER ELECTRICAL DIAGRAM

- Note:**
- P - Power
  - T1 - Tower 1 Solenoid wire
  - T2 - Tower 2 Solenoid wire
  - D - Drain
  - S - Dew point switching input wire



Econo Mode : Dew point 'good' contact closed  
 Run Mode : Contact open  
 Dryer will stop switching towers and purge air until contacts are open (Dew point poor)

Does this drawing contain critical dimensions	Critical to Quality Characteristics	Marked Plus	
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING DIMENSIONS FOR UNITS IN PARENTHESES			
GENERAL DIMENSIONS FOR LINEAR DIMENSIONS	12 / 25.4 (INCH)	1.0 (TOLERANCE)	0.005 (TOLERANCE)
GENERAL DIMENSIONS FOR ANGULAR DIMENSIONS	30 / 76.2 (DEGREE)	0.5 (TOLERANCE)	0.015 (TOLERANCE)
DIMS 1 - 30	120	1.00	0.005
DIMS 4 - 10	100	1.00	0.005
DIMS 11 - 20	100	1.00	0.005
DIMS 21 - 30	100	1.00	0.005
DIMS 31 - 40	100	1.00	0.005
DIMS 41 - 50	100	1.00	0.005
DIMS 51 - 60	100	1.00	0.005
DIMS 61 - 70	100	1.00	0.005
DIMS 71 - 80	100	1.00	0.005
DIMS 81 - 90	100	1.00	0.005
DIMS 91 - 100	100	1.00	0.005
THE DIMENSIONS SHOWN ARE UNLESS OTHERWISE SPECIFIED			
APPROVED			
CHECKED			
DRAWN			

TITLE	CUSTOMER
CONTROLLER DS31-80 ELECTRICAL	
	DRG NO
	REV LEVEL
	FIR :
	MEASUREMENT SHOULD NOT BE TAKEN AS REF FROM DRG