

# DRYSPELL PLUS

HEATLESS REGENERATIVE DESICCANT AIR DRYERS

**PneumaticPlus**

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**PRODUCT NAME : DRYSPELL PLUS**  
**MODEL : DRYSPELL PLUS 10**  
**ITEM CODE : PD204 (without Cover & Includes external Pre - Filter)**

**1. SPECIFICATIONS**

Flow : 10 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 PD204**

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:**

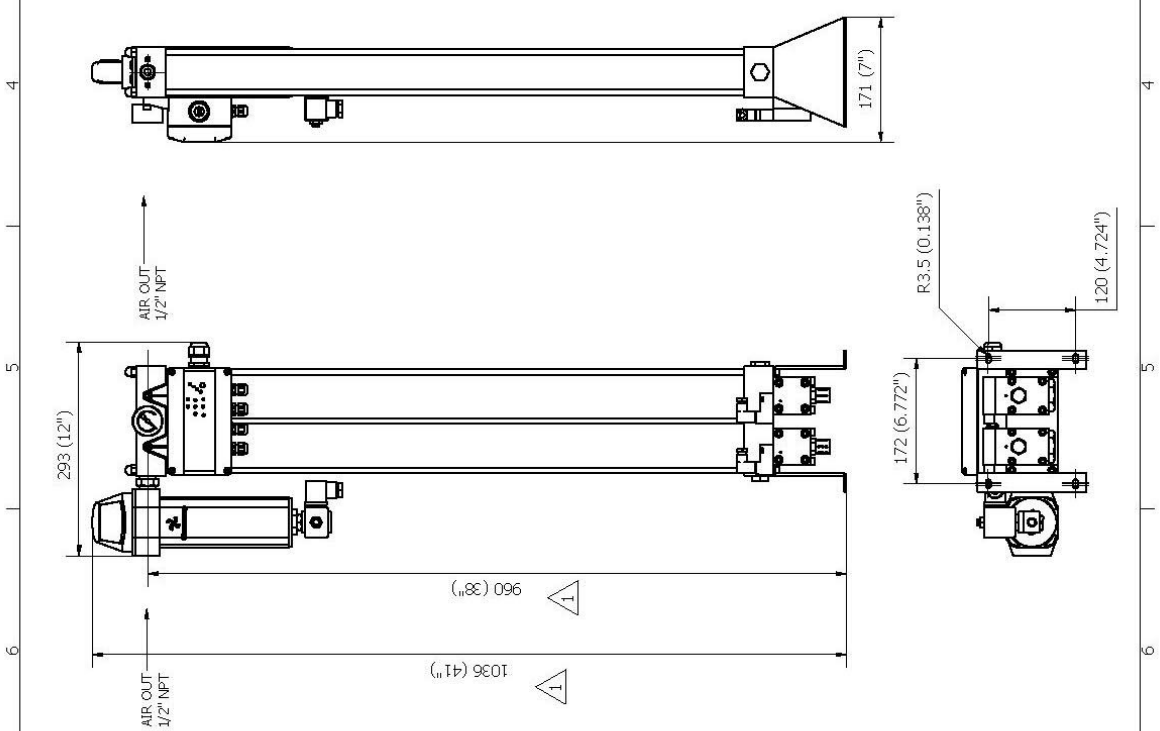
It stretches the moisture loading time of the desiccant bed by increasing the drying time. A dew point meter at the outlet with a required dew point setting provides the signal for the stretch cycle. This reduces the purge air in accordance to the air flow and dewpoint chosen. The purge occurs for the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

INSTRUCTIONS	REV/NO	Date	Details of Revision	ECN Ref.	Appd. By
Receiving Inspection Plan PPPL/ENG/03 CLAUSE 03	0 - 1	25-02-13	Height changed 900 (35") changed to 960 (38") and 976 (38") changed to 1036 (41")	597	RS



**SPECIFICATIONS**

- 1. Flow : 10 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 : 7 bar (g) (101.5 PSI (g))
- 4. Rated Operating Pressure : 2
- 5. No. of Towers : 1/2" NPT (F)
- 6. End Connection

**ELECTRICAL:**

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

**Notes:**  
M6 X 15 Allen Bolt Controller Box tightening torque 4 to 5 Nm

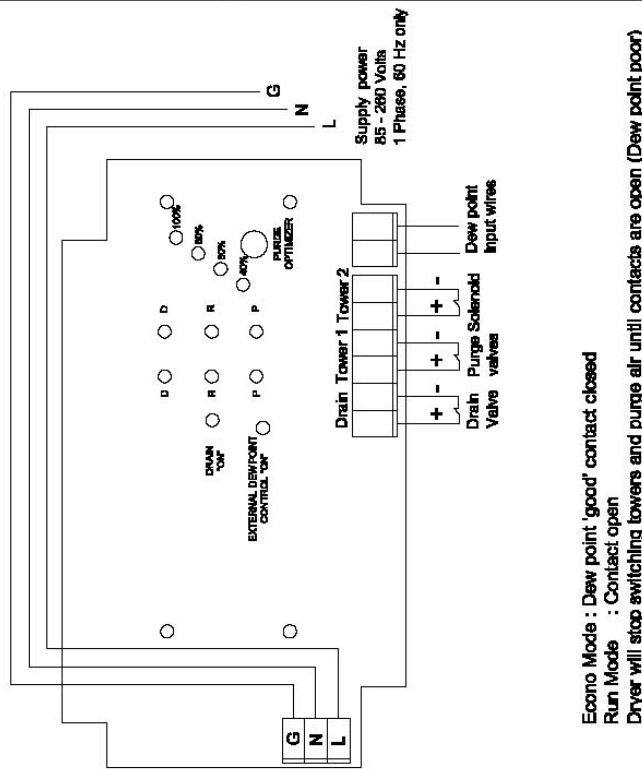
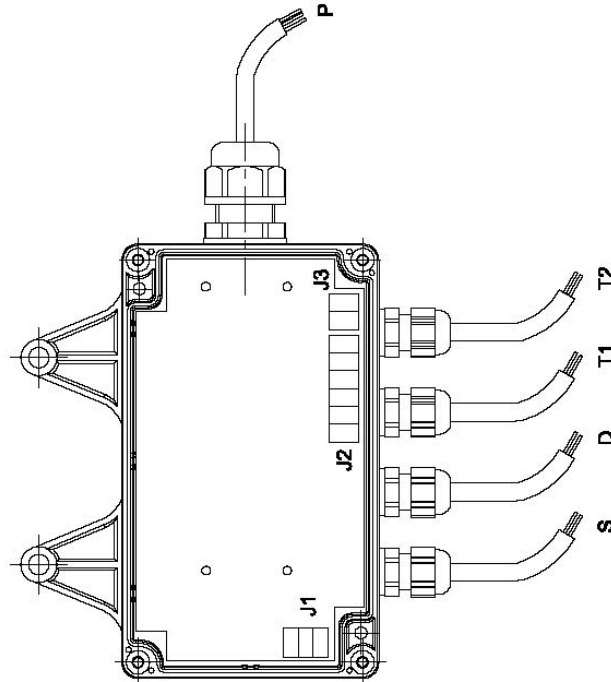
Does this drawing contain critical Interface Dimensions : Critical to Quality Characteristics : Marked thus :	TITLE	CUSTOMER
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING GENERAL TOLERANCE FOR LINEAR DIMENSION (27 / 28) UNLESS OTHERWISE SPECIFIED	DRYSPELL PLUS 10 WITHOUT COVER	DRYSPELL PLUS
DIMS. 0.05" - 1" : 0.005" - 0.001" (0.125" - 1.000" : 0.003" - 0.001")	SCALE	DRG NO. PD204
DIMS. 1" - 30" : 0.003" - 0.001" (1.000" - 30.000" : 0.003" - 0.001")	LoF 1	REV LEVEL R1
DIMS. 30" - 120" : 0.003" - 0.001" (1.000" - 120.000" : 0.003" - 0.001")	QTY: ---	File : ..Drawing\Dryspell\Dryspell plus
DIMS. 120" - 400" : 0.003" - 0.001" (1.000" - 400.000" : 0.003" - 0.001")	MATERIAL:	MEASUREMENT SHOULD NOT BE TAKEN AS REF. FROM DRG.
DIMS. 400" - 2000" : 0.003" - 0.001" (1.000" - 2000.000" : 0.003" - 0.001")	APPROVED	
DIMS. 2000" - 4000" : 0.003" - 0.001" (1.000" - 4000.000" : 0.003" - 0.001")	CHECKED	
DIMS. 4000" - 10000" : 0.003" - 0.001" (1.000" - 10000.000" : 0.003" - 0.001")	RS	26-11-12
DIMS. 10000" - 20000" : 0.003" - 0.001" (1.000" - 20000.000" : 0.003" - 0.001")	CJP	26-11-12
DIMS. 20000" - 40000" : 0.003" - 0.001" (1.000" - 40000.000" : 0.003" - 0.001")	DRAWN	TP
DIMS. 40000" - 100000" : 0.003" - 0.001" (1.000" - 100000.000" : 0.003" - 0.001")		26-11-12



# 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)

Revising Proposed / Rev	REV. NO	Date	Details of Revision	ECN Ref	Appd By
Instruction TEMP/UNDO	REV. ID				
CLAUSE (S)					

Does this drawing contain critical Dimensions :	TITLE	CUSTOMER
Critical to Quality Characteristics	CONTROLLER DS31-80	PRODUCT
Marked thus :	ELECTRICAL	DRG NO
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING	UNLESS SPECIFIED ALL DIMS. ARE IN mm	REV LEVEL
GENERAL TOLERANCE FOR LENGTH DIMENSION	SCALE	FILE :
± 2.0 (MAX) ± 0.50 (ZPN ± 0.15)	1 OF 2	MEASUREMENT SHOULD NOT BE TAKEN AS REF. FROM DRG.
DIMS. UP TO 1000	MATERIAL :	
MED. 1:1, 1:2, 1:5, 1:10, 1:20, 1:50, 1:100	APPROVED	
THIS DRAWING AND ALL INFORMATION IS THE PROPERTY OF TITAN PNEUMATICS PVT. LTD. IT SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT WRITING PERMISSION OF TITAN PNEUMATICS PVT. LTD.	CHECKED	
	DRAWN	