



Drallim Industries Limited  
Millwood House, Drury Lane,  
Ponswood Industrial Estate,  
St. Leonards on Sea,  
East Sussex. TN38 9BA, UK

**t** +44(0)1424 205140  
**f** +44(0)1424 202140  
**e** email@drallim.com  
**w** www.drallim.com



An ISO 9001:2008 Approved Company  
Registered Office: Registered in England No.606278

## WAVEGUIDE DEHYDRATOR TYPE 12447

DATA SHEET

**The Drallim Group**

Leading innovators in technology and quality

## PRODUCT SPECIFICATION

<b>1</b>		<b>Environmental Considerations:</b>
<b>Operating Voltage</b>	230V A.C. 50Hz single phase. 2 metre Mains lead and plug supplied (outlet at top of equipment). Current consumption: -2.9A upon start-up only -1.0A running current. Rating plate affixed to equipment.	
<b>Temperature</b>	Ambient operating temp. 0 to 38°C (32-100°F).	
<b>Dimensions</b>	443mm wide x 1060mm high x 330mm deep.	
<b>Installation</b>	Floor standing.	
<b>Mass</b>	56kg.	
<b>Noise Level</b>	typically 60dBA maximum at 1 metre, all planes.	
<b>2</b>		<b>Operational Features:</b>
<b>Compressor</b>	1/3HP rocking single cylinder piston Compressor (100psi max). Stop/start pressure 32 - 65 psi. Minimal transmission of vibration, compressor fitted via rubber mounts. Safety relief valve fitted to protect equipment against overpressure. Intake filter fitted with replaceable element.	
<b>Air Drier</b>	Twin bed heatless pressure – reactivated adsorption type. Each bed on line 1 min/regenerating 1 min. Automatic changeover by electro-mechanical process timer with memory. Desiccant, grade 4A molecular sieve, 3-5mm. Inlet and outlet filtration by sintered 35 micron bronze filters at each drier bed port. Output dewpoint detection circuit with associated indication and test facilities.	
<b>Humidity Detection</b>	Automatic bypass to atmosphere of any insufficiently dried air. Set to operate at -20°C/reset at -25°C. "Brown" colour coded humidity sensing element. Fail safe operation.	
<b>Dry Air Storage</b>	Internal welded steel air storage reservoir Provides a 12.5 litre reserve of dry air. Safety relief valve set at 102psi with integral ring pull. Fitted with ¼ turn drain ball valve.	
<b>3</b>		<b>Dry Air Output:</b>
<b>Pressure</b>	0.5 - 7.0 psi controlled by front panel mounted tamperproof (relieving type) regulator.	
<b>Flow</b>	35 ft <sup>3</sup> /hr (16.5 litres/min) at any set output pressure.	
<b>Dewpoint</b>	Better than -40°C.	
<b>Connection</b>	5 or 10 male output bulkhead couplings, intended for 6.35mm (1/4") OD flexible hose, situated at the top of the equipment. Each protected by an individual non-return valve to prevent cross-feeding and leakage.	

4

### Alarm Indication:

#### Visual

Multi-chip LEDs with current limiting resistors.  
Receiver Filling/Dry (Green)  
Receiver Not Filling/Wet (Red)  
ie output being bypassed to atmosphere.  
Running command (Amber) neon  
ie compressor should be active.  
Low Output pressure (Red neon) adjustable, factory set at approx. 1.0 psi.  
High Output pressure (Red neon) adjustable, factory set at approx. 4.5 psi.  
High Output Flow (Red) adjustable throughout range of individual output flowmeters  
5 or 10 fitted dependant upon number of outlets.

#### Extended

15 Way "D" type connector provided (at top of equipment) to enable remote indication of alarms; both normally open and normally closed volt free contacts provided for each of:

- a. Mains Fail
- b. High Humidity (vessel/w.guide not filling)
- c. Low Output Pressure
- d. High Output Pressure
- e. High Output Flow

5

### Monitoring/Control:

All controls are sited toward the top of the front face of the unit

#### Electrical

Combined on/off switch/lamp and circuit breaker incorporating thermal protection rated at 10A.  
Total running hour meter to indicate compressor usage, permanent LCD display.  
LOW output pressure alarm lamp.  
HIGH output pressure alarm lamp.  
Receiver FILLING lamp.  
Receiver NOT FILLING lamp.  
High Output Flow lamps (one per outlet).  
RUNNING COMMAND lamp indicating when compressor should be running.

#### Pneumatic

63mm dia. "Compressor" pressure gauge 0-150psi (liquid filled).  
63mm dia. "Receiver" pressure gauge 0-160psi.  
63mm dia. "Output" pressure gauge 0-15 psi.  
Individual flow indicators 0-350 litres/hour (5 or 10) with stop valves.  
Tamperproof precision output regulator (accurate within 10mbar over operational range of equipment).  
Non-return valve fitted to each output to prevent cross-feeding.

6

### Test Facilities:

#### Element Check

A momentary pushbutton switch introduces undried compressor air to the sensing element to check operation of the humidity sensor.

#### Circuit Check

"Wet" and "Dry" circuit check pushbuttons to electrically test humidity detector circuitry.  
Tester Humidity Detector 1A compatible via test jack sockets located internally.

#### Override

Momentary pushbutton enabling the compressor to run continuously so that, for example, tests may be carried out on the humidity detector without waiting for receiver pressure to drop.