

# PIRATE BRAND AIR DRYERS



## WHY IS DRY COMPRESSED AIR SO IMPORTANT IN ABRASIVE BLASTING?

Blasting contractors know that dry compressed air is key to superior surface preparation. Wet compressed air clogs blast pots, corrodes valves, and causes flash rusting. Re-work is costly both in dollars and to your reputation so do the job right the first time with properly conditioned compressed air.

### PROBLEMS CAUSED BY WET COMPRESSED AIR

- Surface contamination / flash rusting on a blasted substrate
- Spoiled finishes
- Reduced flow of blast media
- Increased equipment down time
- Valve lubrication washout resulting in jams
- Clogged blast pots
- Excessive grit consumption
- Corrosion of blast pots, valves, spray guns & other equipment



AIRLINE CONDENSATION is an unavoidable byproduct of the air compression process. Condensation occurs when hot & humid compressed air cools in the airline. A 375CFM air compressor operating on a warm humid day will produce **more than 30 gallons of water** in a single 8 hour shift.

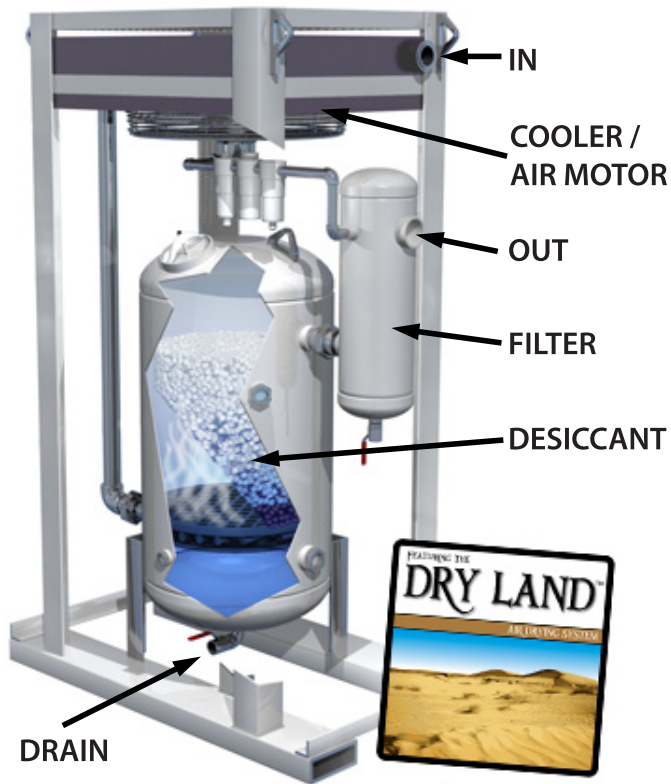
### ABRASIVE DOES NOT LIKE WATER:

Just one drop of water will form a golf ball size clump of abrasive blast media which is more than enough to stop the flow of abrasive to the metering valve. Wet abrasive just doesn't flow.

### WARRANTIES AND REPUTATION:

With the likelihood of blasting with wet compressed air leading to surface contamination, flash rust, or coating failure, an air dryer can save you from the hassle and loss of profitability from performing re-work/warranty work. In addition to the savings, blasting with dry air will protect your reputation of getting the job done right the first time and help you build a collection of satisfied customers.





**HOW THE AIR DRYER WORKS:** The air dryer first cools hot and wet air discharged from the compressor. This first stage of cooling forces a substantial quantity of entrained moisture to condense. But even after exiting the after-cooler, the air is saturated with vapor (100% relative humidity) The compressed air then passes through the drying vessel, which contains specially formulated desiccant called Dry-O-Lite®. The desiccant cuts the humidity of the air roughly in half. Air finally flows through an after-filter to trap any fine particles in the air flow.

The blasting contractor is left with cool, clean and dry compressed air for superior blasting quality and zero moisture-related downtime.

**WHAT IS DELIQUESCENT DESICCANT?:**

Deliquesce means to dissolve. A desiccant is a drying agent. So deliquescent desiccant is a drying agent that dissolves.

**OPERATOR COMFORT:** Providing dry and cool air not only improves the quality of blasting, it also allows the operators to work in greater comfort therefore blasting more productively. If your air compressor is putting out 180°F air, the air dryer will cool it down to within 10°F - 15°F of the ambient air temperature. So on a 90°F day, your compressed air stream can be cooled at least to 105°F. Then, using a “cool tube” the air being fed to the respirator can be cooled down to between 73°F and 53°F. A cool/comfortable blaster is a productive blaster.

FYI: In winter, “hot tubes” will freeze up when used with wet compressed air.



## AVAILABLE AIR DRYER MODELS



### 888-1310-021PB

AIR DRYER ADPB-250 CFM @ 100 PSIG OR 359 CFM @ 150 PSIG,  
PIRATE BRAND (WITH INITIAL DESICCANT FILL FREE)



### 888-1310-041PB

AIR DRYER ADPB-400 CFM @ 100 PSIG OR 574 CFM @ 150 PSIG,  
PIRATE BRAND (WITH INITIAL DESICCANT FILL FREE)

MODEL	MAXIMUM WORKING PRESSURE	Dryer Flows - SCFM (Nm <sup>3</sup> /hr)*						
		60 PSIG 4.1 Bar	80 PSIG 5.5 Bar	100 PSIG 6.9 Bar	125 PSIG 8.6 Bar	150 PSIG 10.3 Bar	175 PSIG 12.1 Bar	200 PSIG 13.8 Bar
<b>ADPB 250</b>	200 PSIG 13.8 Bar	163	206	250	304	359	413	468
		262	331	402	489	577	664	752
<b>ADPB 400</b>	200 PSIG 13.8 Bar	261	330	400	487	574	662	749
		419	531	643	783	923	1064	1204

## DRY-O-LITE® DESICCANT

We stock our desiccant by the truck load so whether you are purchasing replacement desiccant for an existing air dryer or for a new system, we have you covered. Click on the link below for more info.

- Prevents condensation
- Prevents wintertime air line freeze-ups
- Environmentally safe
- Low cost of operation
- Little or no maintenance on drying equipment



**HOW DESICCANT WORKS:** Dry-O-Lite® is a dense hygroscopic tablet that absorbs water vapor from streams of compressed air. The surface of the desiccant tablet dissolves slowly, forming a brine solution which drops from the surface. The tablet continuously dissolves, or deliquesces, until the desiccant is fully consumed.

When operating within the rated CFM of our air dryers, Dry-O-Lite® will establish relative humidity of 55% which equates to a dew point of approximately 20°F lower than the temperature of the compressed air at the inlet of the dryer.