



**VAN GAS TECHNOLOGIES™**

## *Natural Gas Dryers*

- No Moving Parts
- No Power Supply Connections
- No Burners or Boilers
- No BTEX Emissions



Simple • Rugged • Reliable

# PLD Series Dryers

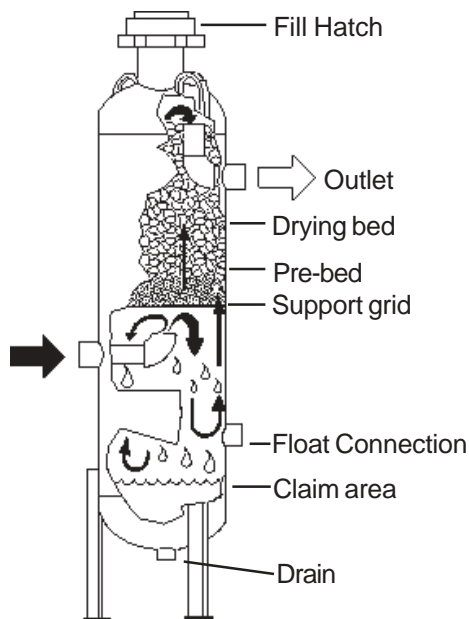


- Stop freeze-ups & hydrate formation
- Protect meters, regulators and instruments
- Replace glycol systems
- Meet dry gas pipeline specifications
- No BTEX emissions

As the industry leader in absorbent desiccant technology, Van Gas™ has designed its pipeline dryers to be an economical and effective solution to natural gas dehydration. Without glycol or BTEX emissions, these dryers provide a low cost solution to the removal of moisture from natural gas for the smallest home well to the largest producers of natural gas.

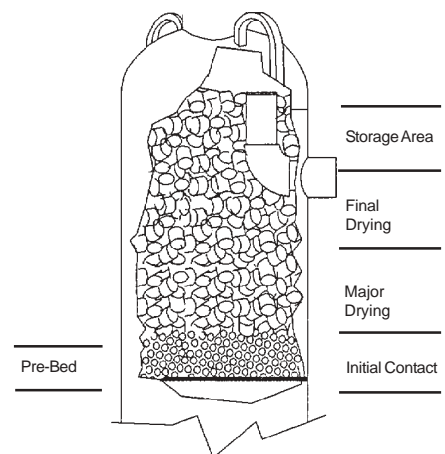
## How The Dryer Works:

### Water and Moisture Vapor Removal Process



Wet gas from the well enters the centrally located inlet in the lower portion of the vessel where gas velocity is reduced and flow direction is changed. In this area, heavier drops of entrained water are separated and fall into the large capacity claim area. The gas then moves upward through the bed of drying tablets (desiccant), which slowly dissolve as they absorb moisture vapor. The water and desiccant solution fall into the claim area to be drained. (Note: Solution will not freeze above - 20°F.) At the dryer outlet the gas is free of liquid water; moisture vapor is substantially reduced and hydrate formation is eliminated.

Wet gas contacts the pre-bed, which is coated with desiccant solution. This area removes mist or droplets too small for mechanical separation. In addition, the hygroscopic desiccant solution on the extended surface of the pre-bed starts the drying process. Further moisture removal occurs in the major drying zone and the remaining water vapor is drawn from the gas in the final drying zone. The tablets in the top of the bed serve as backup supply. When this extra supply is depleted, more tablets need to be added.



# The Deliquescent Drying Process



## GasDry Prime™

Recommended for first stage dehydration where operating temperatures exceed 80°F or where moderately dry gas is required. It is also a low cost answer for point of use applications.

## GasDry Peak™

Recommended for single or sequential tower systems where the operating temperature is at or below 80°F. It is effective for point of use applications or as a first stage desiccant.

## GasDry Ultra™

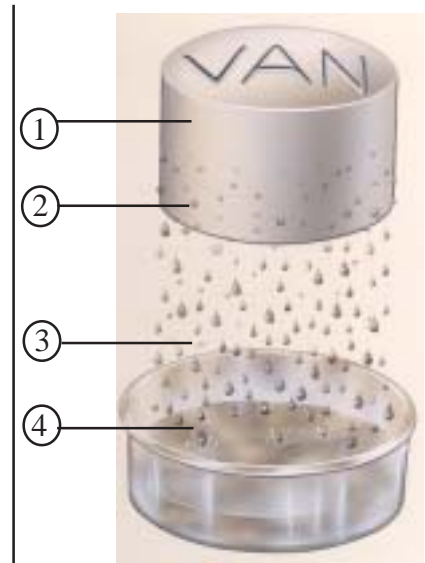
Recommended for sequential tower systems where the operating temperature is at or below 80°F. It is a cost-effective solution for applications requiring pipeline quality gas.

## GasDry Max™

Recommended for final stage dehydration to meet pipeline moisture specifications. Using a pre-bed with this desiccant allows additional moisture removal and reduced operating costs.



**Use of A PLD Series dryer lowers the dew point enough to prevent the regulator from freezing. In addition, contract moisture specifications for moisture are met.**



- ① Absorbs Moisture
- ② Liquifies in water of hydration
- ③ Further absorbs moisture as a mist
- ④ Drops into claim area

# Pipeline dryer capacities - MSCFD

Model	10 PSIG	25 PSIG	50 PSIG	100 PSIG	200 PSIG	280 PSIG	500 PSIG	720 PSIG	Desiccant Required (lbs.)				
									Prime	Peak	Ultra	Max	Prebed <sup>(2)</sup>
PLD 8-2.8 PLD 8-7.2	15 15	25 25	40 40	65 65	120 120	150 150	--- 300	--- 420	65	50	50	55	15
PLD 12-2.8 PLD 12-7.2	30 30	50 50	80 80	140 140	265 265	325 325	--- 630	--- 900	195	150	150	165	35
PLD 16-2.8 PLD 16-7.2	50 50	80 80	125 125	225 225	415 415	510 510	--- 1000	--- 1450	310	240	240	260	55
PLD 20-2.8 PLD 20-7.2	75 75	125 125	200 200	350 350	660 660	810 810	--- 1575	--- 2250	490	375	375	410	90
PLD 24-2.8 PLS 24-7.2	110 110	175 175	285 285	500 500	935 935	1150 1150	--- 2230	--- 3200	710	540	540	590	130
PLD 36-2.8 PLD 36-7.2	275 275	415 415	675 675	1200 1200	2230 2230	2750 2750	--- 5360	--- 7700	1780	1360	1360	1485	315

## Sizing Instructions

On the chart above, locate the column for the **minimum** operating pressure and read down to the capacity that meets or exceeds your requirement; then find the corresponding dryer model group in the left column. From that model group, choose the specific model that meets or exceeds your **maximum** anticipated operating pressure based on the following model suffixes.

Model Suffix:  
2.8  
7.2

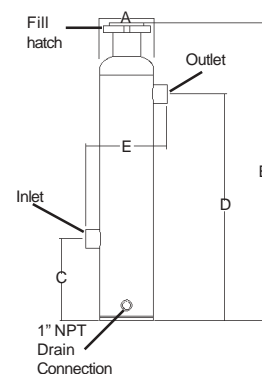
Maximum Working Pressure:  
280 PSIG  
720 PSIG

## Example:

For an installation that will operate at 500 PSIG and handle a flow of 1000 MSCFD, choose model PLD 16-7.2.

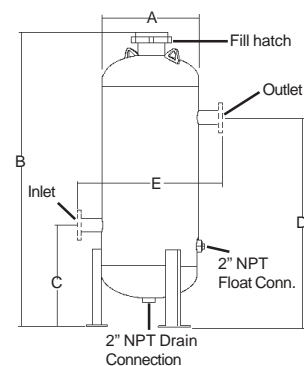
<sup>(1)</sup> Only one type of desiccant may be used in a dryer.

<sup>(2)</sup> The same type and quantity of prebed is used with all desiccants.



# Dimensions and Specifications - Inches and Pounds

Model	A Outside Diam.	B Overall Ht.	C Inlet Ht.	D Outlet Ht.	E Face/Face	Inlet/Outlet Conn.	Max PSIG	Vessel Weight
PLD 8-2.8 PLD 8-7.2	8-5/8 8-5/8	65-1/4 70	13 13-13/16	54 54-13/16	13-1/8 13-1/8	2" NPT 2" NPT	280 720	140 195
PLD 12-2.8 PLD 12-7.2	12-3/4 12-3/4	91-9/16 94-3/8	30 30	76 76	18 15-3/4	2" NPT 2" NPT	280 720	240 390
PLD 16-2.8 PLD 16-7.2	16 16	92-1/8 95-1/4	30 30	76 76	21-1/4 19-1/4	2" NPT 2" NPT	280 720	315 625
PLD 20-2.8 PLD 20-7.2	20 20	94-5/8 94-3/4	30 30	76 76	23 23-1/4	2" NPT 2" NPT	280 720	505 810
PLD 24-2.8 PLD 24-7.2	24 24	92 93-1/8	25-3/8 26-1/8	70-7/8 71-5/8	36 36	3" FLG 3" FLG	280 720	795 1360
PLD 36-2.8 PLD 36-7.2	36-3/4 37-3/4	99-3/16 100-13/16	29-5/16 30-11/16	74-13/16 76-3/16	48-3/4 49-3/4	3" FLG 3" FLG	280 720	1325 2900



PLD 12 thru PLD 36



A Division of Van Air Inc.  
2950 Mechanic Street  
Lake City, PA 16423 USA  
Phone: (866) 660-0208  
Fax: (281) 866-9717  
USA