

94321 Air Dryer

The Shand & Jurs 94321 Air Dryer absorbs moisture from the air that is drawn into a storage tank during the unloading of product or by “thermal breathing” conditions. Desiccant of high absorptive capacity is used as the drying agent. The hard ball shaped form of the desiccant minimizes the pressure drop, permitting more efficiency. This is a function of material surface area and retention time. The nature of the desiccant does not change the flow of gas up to the point of maximum saturation since the moisture is absorbed within the pores of the material. The desiccant is contained in a perforated stainless steel basket that can be easily removed for cleaning or maintenance.

The 94321 Air Dryer is 40 inches high and both the cover and basket can be removed through the use of 3/8" bolts. The air dryer is available in 2", 2"XL, or 3" NPT or flanged to match 150 lb. ANSI connections. The desiccant basket holds 50 pounds on the 2" size, 100 pounds on 2"XL size, and 200 pounds on the 3" size; this is the recommended amount required to properly operate the air dryer. Nominal flow for 1" W.C. pressure drop is 840 SCFH for the 2" size, 1320 SCFH for 2"XL size, and 3500 SCFH for the 3" size.

The humidity indicator is a good barometer to monitor when the desiccant bed is saturated. To reactivate a saturated desiccant bed, heat the bed to 400°F until all moisture is vaporized. The desiccant can be subjected to thousands of absorption-reativation cycles without any appreciable loss of efficiency.



Features

- Protects damage to moisture sensitive products
- Absorbs moisture drawn into storage tank during unloading or by “thermal breathing”
- Desiccant can be reactivated thousands of times without appreciable loss in efficiency
- Humidity indicator informs when desiccant bed should be changed
- Available in 2" or 3" NPT or flanged connections

Specifications

Construction:

Mild Steel - 2", 2"XL, or 3"

Gasket Material:

NBR (Nitrile-Butadiene) - 2", 2"XL, or 3"

Maximum Pump Out Rate*:

2" - 150 gpm; 2"XL - 300 gpm; 3" - 600 gpm

Design Pump Out Rate*:

2" - 75 gpm; 2"XL - 150 gpm; 3" - 300 gpm

Water Vapor Capacity (Approx.):

2" - 5 lbs.; 2"XL - 10 lbs.; 3" - 20 lbs.

Dessiccant Capacity:

2" - 50 lbs.; 2"XL - 100 lbs.; 3" - 200 lbs.

Pressure Drop:

See Graphs

Shipping Weight (without Dessiccant):

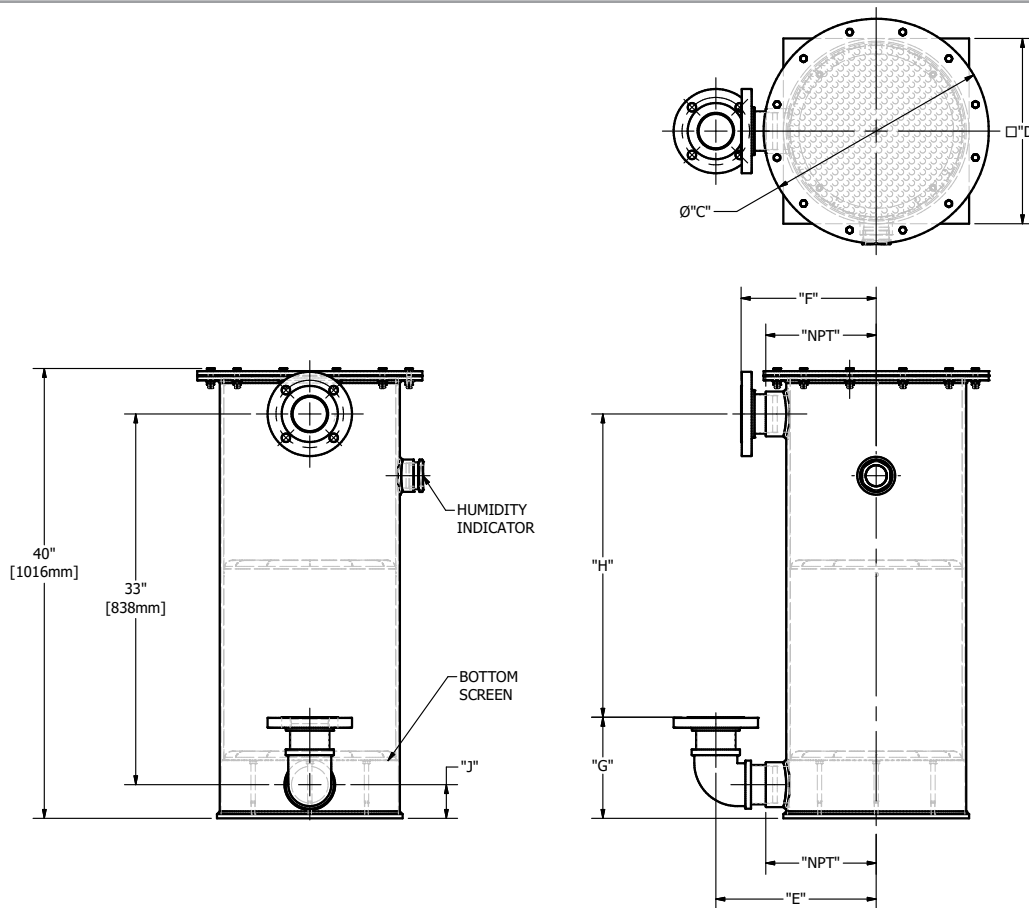
2" - 75 Lbs.; 2"XL-105 Lbs.; 3" - 135 Lbs.

Dew Point of Dried Air at Design Flow Rate:

-100°F

* The maximum pump out rate should only be used for short durations, that is 30 to 45 minutes. For longer periods of operation, the design pump out rate should not be exceeded.

Outline Dimensions



Size	C	D	E	F	G	H	J	NPT
2"	12" (305mm)	12" (305mm)	9 3/4" (248mm)	8 1/4" (210mm)	8 1/2" (216mm)	27 1/4" (692mm)	2 3/4" (70mm)	5 13/16" (148mm)
2" XL	15" (381mm)	15" (381mm)	11" (276mm)	9 1/2" (241mm)	8 1/2" (216mm)	27 1/4" (692mm)	2 3/4" (70mm)	7 1/16" (179mm)
3"	20" (508mm)	16 1/2" (419mm)	14 1/4" (362mm)	12" (305mm)	9" (238mm)	27" (686mm)	3" (76mm)	9 13/16" (249mm)

All designs subject to change. Certified dimensions and specifications available upon request.

94321 Ordering Guide

Model Number Selection

The model number will consist of a base number **94321** followed by 2 digit numbers. These digits will represent 1 option table.

94321 - AB

Ordering Information

Specify:

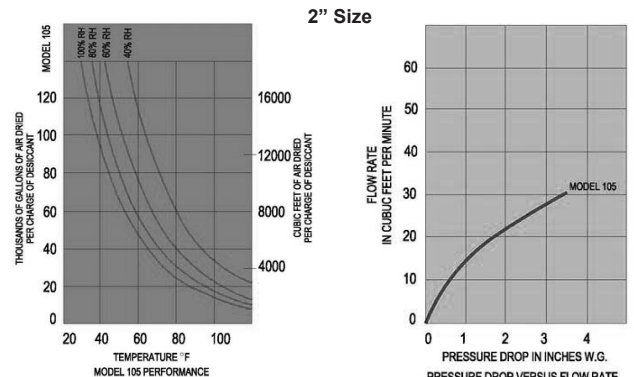
1. Model 94321 Air Dryer
2. Size
3. Connection Type



Pressure Drop Graphs:

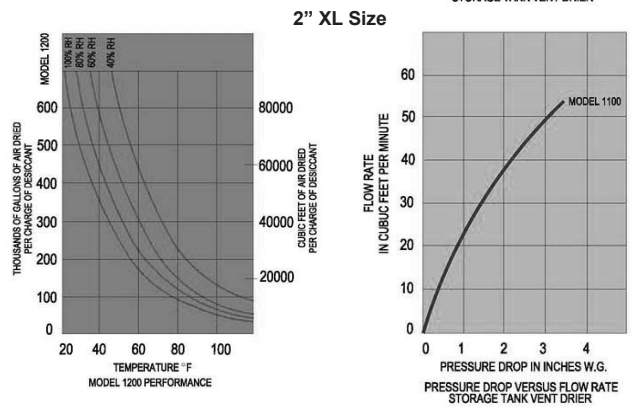
Table AB - Size & Connection

Option AB	Size	Connection Type
01	2"	NPT
02	3"	NPT
03	2"	Flanged
04	3"	Flanged
05	2"XL	NPT
06	2"XL	Flanged



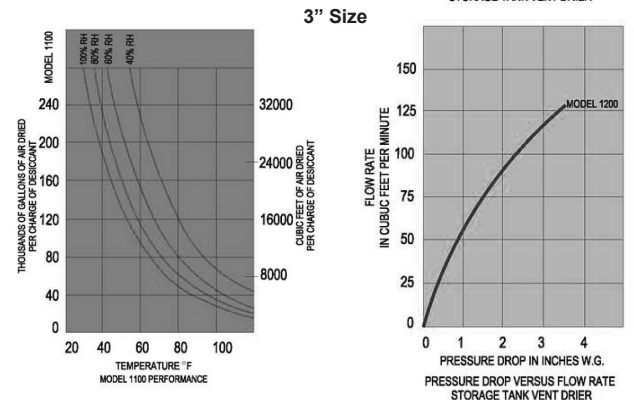
Dessicant Information

Dessicant	96% Calcium Sulfate 4% Calcium Chloride
Average Particle Size	Approximately .25"
Normal Mesh Ring	4-8
Water Absorption	10%
Regeneration: Bake in oven at 400°F (204°C) until Dry	
Consult Factory for other Materials	



Replacement Supplies

Part Number	Description
9432-10476	Indicating Desiccant 1 lb.
9432-10475	Desiccant Granules 50 lb.
9432-11020	Basket 304 Stainless Steel 2" Model
9432-11060	Basket 304 Stainless Steel 3" Model
9432-11070	Cover Gasket NBR 2" Model
9432-11080	Cover Gasket NBR 3" Model
9432-11410	Basket 304 Stainless Steel 2"XL Model
9432-11420	Cover Gasket, NBR, 2"XL Model



NBR = Nitrile-Butadiene