



# iDRY® iRDe

## Economy Series Compact Refrigeration Dryers

### + Features and Benefits

#### UNIQUE HEAT EXCHANGER:

vertical profile allows for minimum pressure drop and self cleans using gravitational force

#### VARIOFLOW HOT GAS BY-PASS:

stable dew point regardless of varying operating conditions - patented design

#### COMPACT DESIGN:

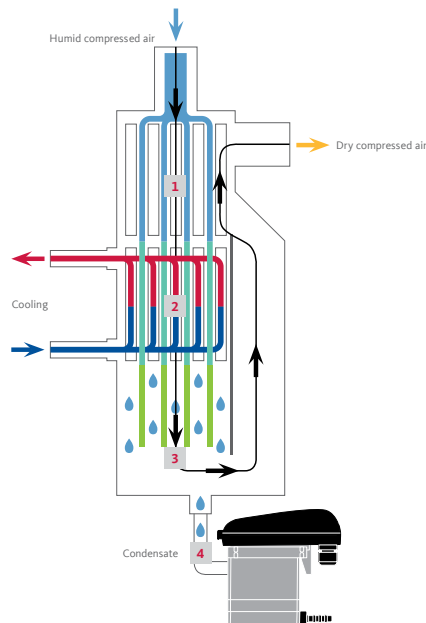
economic initial investment that also saves costly floor space with the smallest footprint in the industry



#### MAINTENANCE FRIENDLY:

the entire range features an open frame that provides easy access to all components

### + Operating Principle



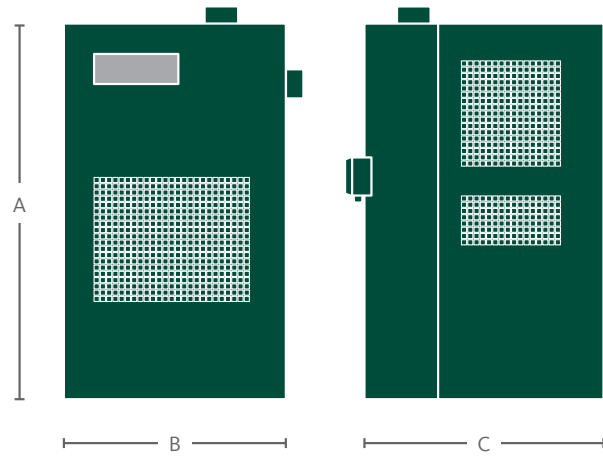
Warm compressed air, saturated with water vapor, is pre-cooled in the air/air heat exchanger (1) when entering the refrigeration dryer. The required cooling capacity of the refrigerant in the downstream air/refrigerant heat exchanger (2) is reduced by this action and the system becomes more energy-efficient. The gravitational force sustains a particularly high droplet separation of nearly 99%. In the very large condensate collection chamber with subsequent recirculation, the flow velocity is significantly reduced.

Re-entrainment of already separated droplets is reliably prevented in this manner (3). The accumulated condensate is discharged from the iDRY® via the level-controlled iMAT® condensate drain (4) avoiding any compressed air loss, and can be processed reliably using an oil-water separation system or emulsion-splitting plant. Prior to leaving the iDRY®, the dried and cold compressed air is reheated in the air/air heat exchanger. Through this process, the relative air humidity is significantly reduced and the cooling capacity employed is recovered by up to 60%.

# iDRY® iRDe Compact Refrigeration Dryers

economically priced with standard timer drain

Standard outlet pressure dew point	41 °F
Max. inlet air temperature	130 °F
Min./ Max. ambient temperature	34/115 °F
Max. inlet pressure	
iRDe 10-50	232 psig
iRDe 75-480	200 psig
Required Pre-filtration	1.0 µm
Recommended Post-filtration	.01 µm



Model	Flow Rate (scfm)	Pressure Drop (psid)	Connection Size	Standard Voltage	Power Input (kW)	A (in)	B (in)	C (in)	Weight (lbs)
iRDe 10	10	2.18	¾" NPT-F	115V/1Ph	.19	17	12	14	46
iRDe 15	15	.58	¾" NPT-F	115V/1Ph	.20	17	12	14	49
iRDe 20	20	1.31	¾" NPT-F	115V/1Ph	.21	19	15	20	55
iRDe 35	35	2.03	¾" NPT-F	115V/1Ph	.29	19	15	20	62
iRDe 50	50	4.64	1" NPT-F	115V/1Ph	.30	19	15	20	71
iRDe 75	75	3.48	1" NPT-F	115V/1Ph	.45	29	14	17	75
iRDe 100	100	2.32	1 ¼" NPT-F	115V/1Ph	.70	29	14	18	86
iRDe 125	125	3.48	1 ¼" NPT-F	115V/1Ph	.97	29	14	18	88
iRDe 150	150	4.93	1 ¼" NPT-F	115V/1Ph	1.00	29	14	18	90
iRDe 175	175	2.76	1 ½" NPT-F	230V/1Ph	1.05	35	22	23	119
iRDe 220	220	3.63	2" NPT-F	230V/1Ph	.91	35	22	23	123
iRDe 300	300	2.03	2" NPT-F	230V/1Ph	1.15	38	22	25	207
iRDe 375	375	2.90	2 ½" NPT-F	230V/1Ph	2.07	38	22	25	212
iRDe 480	480	2.18	2 ½" NPT-F	230V/1Ph	2.25	44	26	29	317

## Correction Factors

Operating Pressure psig	60	80	100	120	140	160	180	200
Correction Factor	.79	.91	1.00	1.07	1.13	1.18	1.23	1.27

Ambient Air Temperature °F	80	90	100	110	115
Correction Factor	1.10	1.07	1.00	.83	.70

Inlet Air Temperature °F	90	100	110	120	130
Correction Factor	1.11	1.00	.80	.65	.53

Pressure Dew Point °F	38	41	45	50
Correction Factor	.92	1.00	1.07	1.25

Subject to technical errors, changes, omissions and/or corrections without prior notice.