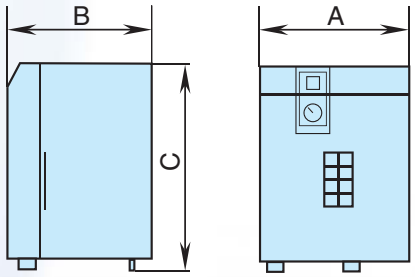
Refrigerated Dryers

Series IDFB□E Dryer features

- *Environmental friendly R134a/R407C refrigerant*
- *Simple control system, incorporating easy to read evaporator gauge*
- *Stainless steel heat exchanger providing long life and low pressure drops*
- *Compact design with staggered inlet/outlet ports for ease of installation*
- *3/8" push-in condensate drain port*

IDFB□E Dryer Technical Specifications

Model	Flow scfm at pressure dewpoints			Power supply AC 60Hz	Power comsumption	Port connections NPT	Refrigerant	Weight lbs	Dimensions inches		
	37°F	45°F	50°F		(KW)				A	B	C
IDFB3E-11N	10	11	12	Single Phase 115V	0.44	3/8"	R134a	40	8.9	16.1	18.6
IDFB4E-11N	15	16	17		0.26	1/2"		55	10.6	17.7	19.5
IDFB6E-11N	25	26	28		0.26	3/4"		57			
IDFB8E-11N	41	43	45		0.31			64		18.9	22.2
IDFB11E-11N	59	62	65		0.55			73			
IDFB15E-11N	71	80	86		0.75	1"		110	11.8	23.7	22.8
IDFB22E-11N	107	120	130		1			119	11.4	30.5	24.5
IDFB22E-23N				Single Phase 230V							
IDFB37E-23N	161	173	181		1.27	1-1/2"		137		33.7	
IDFB55E-30N-X224	226	258	297	Three Phase 220V	1.7	2"	R407c	220	18.5	33.7	31.5
IDFB55E-46N	226	258	297	Three Phase 460V	2.4			258			35.4
IDFB75E-30N-X224	300	353	406	Three Phase 220V	25			255			31.5
IDFB75E-46N	300	353	406	Three Phase 460V	2.4			271			35.4



1. Flow capacities are based on CAGI (Compressed Air and Gas Institute) standard ADF100: Refrigerated Compressed Air dryers - Method for testing and rating. The reference conditions are - Inlet air temperature: 100°F, Ambient temperature: 100°F, Inlet pressure: 100 psi.
2. Dryer models IDFB55E-30-X224 and IDFB75E-30-X224 are not UL certified.

If your operating conditions are other than standard reference conditions stated above, please make use of the following capacity correction factors to size a suitable dryer for your application.

Correction factor for inlet temperature changes

Temperature °F	Correction factor (A)
90	1.31
100	1.00
110	0.82
120	0.66

Correction factor for ambient air temperature changes

Temperature °F	Correction factor (B)
77	1.24
90	1.09
95	1.04
100	1.00
105	0.98
110	0.95

Correction factor for inlet pressure changes

Pressure PSIG	Correction factor (C)
75	0.95
100	1.00
110	1.04
120	1.07
125	1.09
150	1.13
175	1.18
200	1.22
250	1.24

Example of selecting a suitable dryer

- Operating air flow rate: 50 scfm
- Ambient temperature:105°F
- Inlet air temperature: 110°F
- Inlet air pressure: 120psig
- Corrected air flow rate = Operating air flow rate (Factor A x Factor B x Factor C.)

50 / (0.82 x 0.98 x 1.07) = 58.82

Select a model with nominal air flow rate higher than the corrected air flow rate calculated in the formula above.

The dryer model: IDFB11E-11N Providing 59scfm at 37°F pressure dew point

Please call 714-669-0266 for 24/7 Dryer Technical / Warranty Support.
Please contact SMC for more detailed information.

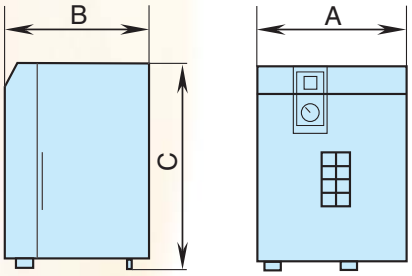
High Inlet Temperature Refrigerated Dryers

Series IDU□E Dryer features

- *Environmental friendly R134a/R407C refrigerant*
- *Simple control system, incorporating easy to read evaporator gauge*
- *Stainless steel heat exchanger providing long life and low pressure drops*
- *Compact design with staggered inlet/outlet ports for ease of installation*
- *Built-In After-Cooler (except IDU6E)*

IDU□E Dryer Technical Specifications

Model	Flow scfm at pressure dew points			Power supply AC 60Hz	Power comsumption	Port size	NPT piping adapter	Refrigerant	Weight lbs	Dimensions inches		
	37°F	45°F	50°F		(KW)					A	B	C
IDU6E-10-K	11	16	20	Single Phase 120VAC	0.44	3/4"	IDF-AP603	R134A	62	10.6	19.1	22.4
IDU8E-10-K	16	24	29		0.29			R134A	97	10.6	19.1	33.8
IDU11E-10-K	23	34	41		0.47			R134A	104	10.6	19.1	35.8
IDU15E-10-K	37	56	68		0.685	1"	IDF-AP605	R134A	157	11.8	24.4	37.8
IDU22E-30-L	57	86	104	Three Phase 220VAC	1.45		IDF-AP604	R407C	199	12.8	30.5	45.4
IDU37E-30-L	81	122	147		1.45	1-1/2"	IDF-AP606	R407C	287	14.2	34.9	49.5
IDU55E-30-L	94	146	178		2	2"	IDF-AP607	R407C	353	18.5	34.9	53
IDU75E-30-L	120	186	227		2.85			R407C	366	18.5	34.9	58.3



1. Flow capacities are based on Inlet air temperature: 180°F, Ambient temperature: 100°F, Inlet pressure: 100 psi.
2. All dryer models rated for 232psi.
3. Please be sure to order corresponding NPT piping adapter.

If your operating conditions are other than standard reference conditions stated above, please make use of the following capacity correction factors to size a suitable dryer for your application.

Correction factor for **inlet air temperature** changes

(IDU6-37E)

Inlet air temperature °F	Correction factor (A)
41 to 113	1.47
122	1.37
131	1.28
140	1.21
149	1.15
158	1.1
167	1.05
176	1.01
180	1

(IDU55, 75E)

Inlet air temperature °F	Correction factor (A)
41 to 113	1.75
122	1.59
131	1.44
140	1.26
149	1.1
158	1.07
167	1.04
176	1.01
180	1

Correction factor for **air inlet pressure** changes

(IDU6-37E)

Inlet air pressure psi	Correction factor (C)
29.01	0.623
43.51	0.723
58.02	0.814
72.52	0.884
87.02	0.954
100	1
101.53	1.005
116.03	1.065
130.53	1.115
145.04 to 232.06	1.165

(IDU55, 75E)

Inlet air pressure psi	Correction factor (C)
29.01	0.625
43.51	0.695
58.02	0.776
72.52	0.856
87.02	0.937
100	1
101.53	1.008
116.03	1.088
130.53	1.169
145.04 to 232.06	1.239

Correction factor for **ambient temperature** changes

(IDU6-37E)

Ambient temperature °F	Correction factor (B)
35.6 to 77	1.36
86	1.18
89.6	1.13
95	1.05
100	1
104	0.95

(IDU55, 75E)

Ambient temperature °F	Correction factor (B)
35.6 to 77	1.66
86	1.48
89.6	1.33
95	1.2
100	1
104	0.84

Example of selecting a suitable dryer

Operating air flow rate: 50 scfm Required dew point: 45°F Inlet air temperature: 167°F Ambient temperature:104°F

Inlet air pressure: 150psig Corrected air flow rate = Operating air flow rate (Factor A x Factor B x Factor C.) 50/(1.05 x 0.95 x 1.165) = 43.10

Select a model with nominal air flow rate higher than the corrected air flow rate calculated in the formula above.

The dryer model: IDU15E-10-K Providing 56scfm 45°F pressure dew point

Please call 714-669-0266 for 24/7 Dryer Technical/Warranty Support.
Please contact SMC for more detailed information.

High Capacity Refrigerated Dryers *Series* PACT

Specifications and Dimensions

*Capacity is rated according to CAGI Std No. ADF100 “Refrigerated Compressed Air Dryers-Method for testing and rating, “Pressure dew point@100 psig inlet air pressure, 100°F inlet air temperature, 100°F ambient air temperature with a 5 psig maximum pressure drop. Maximum working pressure 200 psi. Maximum inlet air temperature 115°F. Maximum ambient temperature 115°F. Consult SMC for higher temperature applications.

Please note: Inlet air connection is located on top of unit for models PACT350-PACT1250. Dimensions are rounded to the nearest inch.

Model	Flow (scfm)	Voltage	Connection	Pressure Drop (psi)	Weight (Lbs.)	Dimensions L x W x H (in)	Refrigerant
PACT350-2	350	230/1/60	2" NPT-F	2.1	250	25 x 22 x 39	R404A
PACT350-4	350	460/3/60	2" NPT-F	2.1	270	25 x 22 x 39	R404A
PACT400-2	400	230/1/60	2-1/2" NPT-F	1.5	265	29 x 26 x 44	R404A
PACT400-4	400	460/3/60	2-1/2" NPT-F	1.5	285	29 x 26 x 44	R404A
PACT500-4	500	460/3/60	2-1/2" NPT-F	2.6	300	29 x 26 x 44	R404A
PACT600-4	600	460/3/60	3" Flange	2.2	405	37 x 31 x 56	R404A
PACT800-4	800	460/3/60	3" Flange	3.4	420	37 x 31 x 56	R404A
PACT1000-4	1000	460/3/60	3" Flange	2.7	600	37 x 31 x 56	R404A
PACT1250-4	1250	460/3/60	3" Flange	2.8	620	37 x 31 x 56	R404A
PACT1500-4	1500	460/3/60	4" Flange	3.2	1200	61 x 58 x 73	R404A
PACT1750-4	1750	460/3/60	4" Flange	2.2	1300	61 x 58 x 73	R404A
PACT2000-4	2000	460/3/60	4" Flange	2.7	1350	61 x 58 x 73	R404A
PACT2500-4	2500	460/3/60	6" Flange	2.8	1450	61 x 58 x 73	R404A
PACT3000-4	3000	460/3/60	6" Flange	2.6	1750	75 x 56 x 73	R404A
PACT4000-4	4000	460/3/60	6" Flange	2.5	2557	82 x 56 x 73	R404A

“Water-cooled available on the PACT350 and larger— Contact SMC.”

Correction Factor Table

Operating Pressure (F1)

PSIG	60	75	100	115	125	150	175	200
Factor	0.77	0.85	1.00	1.06	1.10	1.16	1.21	1.25

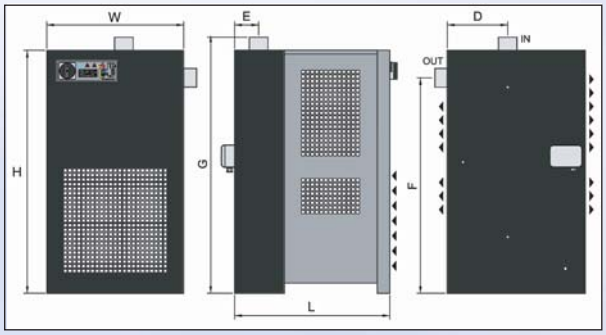
Ambient Temperature (F2)

°F	80°	90°	100°	105°	110°	115°
Factor	1.08	1.06	1.00	0.96	0.90	0.80

Inlet Air Temperature (F2)

°F	85°	95°	100°	110°	120°	130°
Factor	1.20	1.08	1.00	0.75	0.60	0.50

Mini. standard air flow rate = Design air flow/(F1)/(F2)/(F3)
Example
400SCFM Compressor
100 Inlet PSI
105 Ambient Temp.
110 Inlet Temp
400/1.06/0.94/0.85 = 472.3 SCFM
Therefore the model suitable for the application is the PACT500-4 (500SCFM).



PACT Air Dryer is distributed by SMC Corporation of America.

Please contact SMC for more detailed information.

Compressed Air Filters *Series* AM□/AFF

Water droplet removal

Water Separator

Water droplet separation rate: 99%

AMG150C to 550C AMG650/850

Large dust particle filtration, Oil droplet separation

Main Line Filter

Nominal filtration rating: 3 µm
[Filtration efficiency: 99%]

AFF2C to 22C AFF37B/75B

Dust filtration, Oil mist separation

Mist Separator

Nominal filtration rating: 0.3 µm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 1.0 mg/m^3 (ANR)
[≈0.8 ppm]

AM150C to 550C AM650/850

Dust filtration, Oil mist adsorption

Super Mist Separator

Color change indicates when element is saturated.
Nominal filtration rating: 0.01 µm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 0.01 mg/m^3 (ANR)
[≈0.008 ppm]
Cleanliness at outlet:
Not more than 35 particles of size 0.3 µm or larger/10 ℓ (100 particles or less/ft^3)

AME150C to 550C AME650/850

Dust filtration, Oil mist separation

Micro Mist Separator

Nominal filtration rating: 0.01 µm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 0.1 mg/m^3 (ANR)
[≈0.08 ppm]

AMD150C to 550C AMD650/850

Dust filtration, Oil mist separation

Micro Mist Separator with Pre-filter

Built-in 0.3 µm pre-filter
The AM + AMD element have been integrated to achieve a space-saving design.
Nominal filtration rating: 0.01 µm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 0.1 mg/m^3 (ANR)
[≈0.08 ppm]

AMH150C to 550C AMH650/850

Deodorization

Odor Removal Filter

Nominal filtration rating: 0.01 µm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 0.004 mg/m^3 (ANR)
[≈0.0032 ppm]

AMF150C to 550C AMF650/850

AMG Series Water Separator	AMG Element	AFF Series 3 Micron Rating	AFF Element	AM Series 0.3 Micron Rating	AM Element	Flow Rate (SCFM)	Port Size	Max. Working Pressure	Max. Temperature
AMG150C-N02C	AMG-EL150	AFF2C-N02C-T	AFF-EL2B	AM150C-N02C-T	AM-EL150	10	1/4"	145 psi	140° F
AMG250C-N03C	AMG-EL250	AFF4C-N03C-T	AFF-EL4B	AM250C-N03C-T	AM-EL250	26	3/8"	145 psi	140° F
AMG350C-N04C	AMG-EL350	AFF8C-N04C-T	AFF-EL8B	AM350C-N04C-T	AM-EL350	53	1/2"	145 psi	140° F
AMG450C-N06D	AMG-EL450	AFF11C-N06D-T	AFF-EL11B	AM450C-N06D-T	AM-EL450	78	3/4"	145 psi	140° F
AMG550C-N10D	AMG-EL550	AFF22C-N10D-T	AFF-EL22B	AM550C-N10D-T	AM-EL550	123	1"	145 psi	140° F
AMG650-N14D	AMG-EL650	AFF37B-N14D-T	AFF-EL37B	AM650-N14D-T	AM-EL650	212	1-1/2"	145 psi	140° F
AMG850-N20D	AMG-EL850	AFF75B-N20D-T	AFF-EL75B	AM850-N20D-T	AM-EL850	424	2"	145 psi	140° F

AMD Series 0.01 Micron Rating	AMD Element	AMH Series 0.01 Micron Rating	AMH Element	AME Series 0.01 Micron Rating	AME Element	Flow Rate (SCFM)	Port Size	Max. Working Pressure	Max. Temperature
AMD150C-N02D-T	AMD-EL150	AMH150C-N02D-T	AMH-EL150	AME150C-N02	AME-EL150	7	1/4"	145 psi	140° F
AMD250C-N03D-T	AMD-EL250	AMH250C-N03D-T	AMH-EL250	AME250C-N03	AME-EL250	17	3/8"	145 psi	140° F
AMD350C-N04D-T	AMD-EL350	AMH350C-N04D-T	AMH-EL350	AME350C-N04	AME-EL350	35	1/2"	145 psi	140° F
AMD450C-N06D-T	AMD-EL450	AMH450C-N06D-T	AMH-EL450	AME450C-N06	AME-EL450	71	3/4"	145 psi	140° F
AMD550C-N10D-T	AMD-EL550	AMH550C-N10D-T	AMH-EL550	AME550C-N10	AME-EL550	131	1"	145 psi	140° F
AMD650-N14D-T	AMD-EL650	AMH650-N14D-T	AMH-EL650	AME650-N14	AME-EL650	212	1-1/2"	145 psi	140° F
AMD850-N20D-T	AMD-EL850	AMH850-N20D-T	AMH-EL850	AME850-N20	AME-EL850	424	2"	145 psi	140° F

Filters with - T suffix comes with pop up indicator for element replacement.
For perfomance correction factors and filter dimensions, see page 9.

Please contact SMC for more detailed information.

Compressed Air Filters *Series* AM□/AFF

Activated carbon filter

AMF activated carbon filters are high efficiency units which remove hydrocarbon and organic vapors from compressed air.
Activated carbon filters must not operate in oil or water saturated conditions. Activated carbon filters typically operate downstream of a 0.01 micron coalescing filter.

***Warning:**
Activated carbon filters will not remove carbon monoxide or carbon dioxide from compressed air. For removal of these gases contact your nearest SMC office.
Replace filter element every 6 months

Model	Flow * SCFM	Max. working pressure	Max. temp	Port size (NPT)	Element
AMF150C-N02	7	145 psi	140°F	1/4”	AMF-EL150
AMF250C-N03	17			3/8”	AMF-EL250
AMF350C-N04	35			1/2”	AMF-EL350
AMF450C-N06	71			3/4”	AMF-EL450
AMF550C-N10	131			1”	AMF-EL550
AMF650-N14	212			1-1/2”	AMF-EL650
AMF850-N20	424			2”	AMF-EL850

* *Flow (ANR)@ 100 psi*

Filter performance (ISO 8573-1) Particle size Class.1
Oil content Class.2

For performance correction factors and filter dimensions, see table below.

Caution: Be sure to install series AMD micro mist separator, series AMH micro mist separator with pre-filter, or series AME super mist separator upstream to ensure optimal performance.

Correction Factors/Dimensions

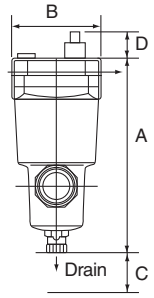
Performance Correction Factors

To calculate the capacity of a filter at various pressures multiply its nominal flow by the correction factor.

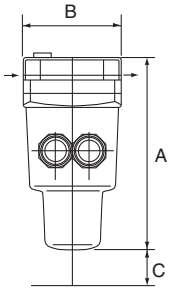
Operating pressure	psi	14.5	29	44	58	72	87	101	116	130	145	174
Correction factor		.25	.38	.50	.63	.75	.88	1	1.12	1.25	1.4	1.6

Example: AMD550C at 100psi Flow = 131 scfm
at 58 psi multiply 131 x .63 = 82.5 scfm (corrected capacity)

Dimensions



AFF2C to 75B, AMG150C to 850
AM150C to 850, AMD150C to 850
AMH150C to 850



AME150C to 850
AMF150C to 850

Accessories

Filter Model	2C 150C	4C 250C	8C 350C	11C 450C	22C 550C	37B 650	75B 850
Bracket assembly	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Aluminum Body - Threaded Ports AFF, AMG, AM, AMD, AMH

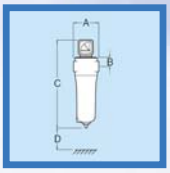
Filter models		Dimensions A Inch	B Inch	C Inch	D Inch	Weight Lb	Port size (NPT)	Bowl Capacity (Liters)
2C	150C	6.3	2.5	0.4	1.5	0.84 (0.38)	1/4”	0.25
4C	250C	6.81	3.0			1.21 (0.55)	3/8”	0.30
8C	350C	8.0	3.5			1.98 (0.9)	1/2”	0.60
11C	450C	8.9	4.2			3.10 (1.4)	3/4”	1
22C	550C	10.2	4.8			4.6 (2.1)	1”	1.5
37B	650	12.2	6.3			9.2 (4.2)	1-1/2”	3
75B	850	18.2	8.7			23.1 (10.5)	2”	9

Aluminum Body - Threaded Ports AME, AMF

Filter models	Dimensions A Inch	B Inch	C Inch	Weight Lb	Port size (NPT)
150C	3.3	2.5	0.4	0.66	1/4”
250C	4.1	3	0.4	1.06	3/8”
350C	5.2	3.6	0.4	1.76	1/2”
450C	6	4.2	0.4	2.87	3/4”
550C	7.4	4.8	0.6	4.41	1”
650	11.5	6.3	0.4	9.26	1-1/2”
850	15.9	8.7	0.4	23.15	2”

Please contact SMC for more detailed information.

Large Capacity Air Filters

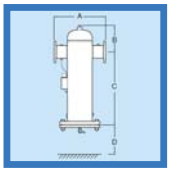


Compressed Air Threaded Filters *Series* AFW

Specification

1 Micron Filter	1 Micron Element	0.01 Micron Filter	0.01 Micron Element	Flow Rate (SCFM)	Port Size	Max. Working Pressure	Max. Temperature	Dimensions Inch				Weight Lbs.
								A	B	C	D	
AFW475-N20-E1	EL-AFW475-E1	AFW475-N20-EA	EL-AFW475-EA	475	2"	232 psi	248° F	5 1/2"	2"	22"	6"	9.7
AFW675-N20-E1	EL-AFW675-E1	AFW675-N20-EA	EL-AFW675-EA	675	2"	232 psi	248° F	5 3/4"	2"	30"	6"	11
AFW950-N25-E1	EL-AFW950-E1	AFW950-N25-EA	EL-AFW950-EA	954	2 1/2"	232 psi	248° F	8"	2 3/4"	32"	8"	25.4
AFW950-N30-E1	EL-AFW950-E1	AFW950-N30-EA	EL-AFW950-EA	954	3"	232 psi	248° F	8"	2 3/4"	32"	8"	25.4
AFW1300-N30-E1	EL-AFW1300-E1	AFW1300-N30-EA	EL-AFW1300-EA	1301	3"	232 psi	248° F	8"	2 3/4"	37"	8"	34.2
AFW1530-N30-E1	EL-AFW1530-E1	AFW1530-N30-EA	EL-AFW1530-EA	1531	3"	232 psi	248° F	8"	2 3/4"	42"	12"	41.9

Compressed Air Flanged Filters *Series* AFW



Specification

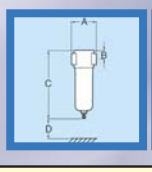
1 Micron Filter	1 Micron Element	0.01 Micron Filter	0.01 Micron Element	No. of Elements	Flow Rate (SCFM)	Flange Size	Max Working Pressure	Max. Temperature	Dimensions inch				Weight Lbs.
									A	B	C	D	
AFW1400-N30F-E1	EL-AFW700-E1	AFW1400-N30F-EA	EL-AFW700-EA	2	1400	3"	232 psi	248° F	16"	17-1/2"	39"	32"	215
AFW2100-N40F-E1	EL-AFW700-E1	AFW2100-N40F-EA	EL-AFW700-EA	3	2100	4"	232 psi	248° F	18-1/4"	9-3/4"	39-1/2"	32"	326
AFW2800-N60F-E1	EL-AFW700-E1	AFW2800-N60F-EA	EL-AFW700-EA	4	2800	6"	232 psi	248° F	20-1/2"	12"	41"	32"	439
AFW3500-N60F-E1	EL-AFW700-E1	AFW3500-N60F-EA	EL-AFW700-EA	5	3500	6"	232 psi	248° F	20-1/2"	12"	41"	32"	439
AFW4200-N60F-E1	EL-AFW700-E1	AFW4200-N60F-EA	EL-AFW700-EA	6	4200	6"	232 psi	248° F	22"	12-3/4"	40-1/2"	32"	536
AFW5600-N80F-E1	EL-AFW700-E1	AFW5600-N80F-EA	EL-AFW700-EA	8	5600	8"	232 psi	248° F	24"	14-1/2"	41-1/2"	32"	647
AFW7000-N80F-E1	EL-AFW700-E1	AFW7000-N80F-EA	EL-AFW700-EA	10	7000	8"	232 psi	248° F	28"	15-1/2"	41-1/2"	32"	778
AFW8400-N100F-E1	EL-AFW700-E1	AFW8400-N100F-EA	EL-AFW700-EA	12	8400	10"	232 psi	248° F	28"	17-1/2"	42-1/2"	32"	778
AFW9800-N100F-E1	EL-AFW700-E1	AFW9800-N100F-EA	EL-AFW700-EA	14	9800	10"	232 psi	248° F	28"	17-1/2"	42-1/2"	32"	936
AFW11200-N100F-E1	EL-AFW700-E1	AFW11200-N100F-EA	EL-AFW700-EA	16	11200	10"	232 psi	248° F	33"	19"	42-3/4"	32"	1214
AFW12600-N100F-E1	EL-AFW700-E1	AFW12600-N100F-EA	EL-AFW700-EA	18	12600	10"	232 psi	248° F	33"	19"	42-3/4"	32"	1214
AFW16100-N120F-E1	EL-AFW700-E1	AFW16100-N120F-EA	EL-AFW700-EA	23	16100	12"	232 psi	248° F	On Application				

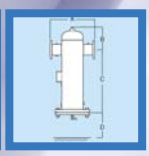
Please see table below for all AFW filtration grades. To change filtration grade in part number just change the suffix on the part number.
Example AFW475-N20-E1 is now AFW475-N20-E5 for 5 Micron Rating.

Filtration grade	E25	E5	E1	EA	EC
Max. particle size class *	4	3	2	1	1
Max. oil content class*	N/A	4	2	1	1
Particle removal	25 micron	5 micron	1 micron	0.01 micron	0.01 micron
Max. oil carryover 20°C (68°F)	10ppm	5ppm	0.1ppm	0.01ppm	0.003ppm
Max. temperature	248°F	248°F	248°F	248°F	77°F
Pressure loss-clean & dry	0.4psi	0.6psi	1.1psi	1.5psi	1.1psi
Pressure loss-oil saturated	0.7psi	1.1psi	2.2psi	4.4psi	See note
Pressure loss-change element	6psi	6psi	6psi	6psi	See notes
Max. working pressure	232psi	232psi	232psi	232psi	232psi

Centrifugal Water Separators *Series* AFW-WS

Max. recommended operating temperature	248°F
Min. recommended operating temperature	35°F
Typical pressure loss at rated flow	0.7psi
Max. working pressure	232psig





Specification

Filter model	Port/Flange size	Flow SCFM	Dimensions inch				Weight lb
			A	B	C	D	
AFW675-N20-WS	2	675	5-1/2	2	19	6	9.70
AFW1000-N25-WS	2-1/2	1000	8	2-3/4	24	8	25.5
AFW1500-N30WS	3	1500	8	2-3/4	24	8	25.5
AFW1825-N40F-WS	DN100 4Flg	1824	20-1/2	12	38	28	163
AFW3825-N60-WS	DN150 6Flg	3824	26-3/4	15-3/4	40	28	364
AFW6470-N80F-WS	DN200 8Flg	6470	30-3/4	17-1/4	42	28	573
AFW1000-N100F-WS	DN250 10Flg	10000	35-1/2	21	44	28	992
AFW15000-N125F-WS	DN300 12Flg	15000	35-1/2	23-1/2	44	28	1215

Please contact SMC for more detailed information.

Membrane Air Dryers *Series* IDG

M type

Comes with pre-filter mist separator AFM, and micro mist separator AFD. IDG60M, IDG100M are fitted with AMH micro mist separator with pre-filter.

V type

Comes with pre-filter as detailed left + regulator AR.

For details of "How to Order" contact SMC or refer to catalog No. CAT ES30-7D

Specifications

Single Type –4°F Atmospheric dew point

Model	Flow			Port NPT	Weight	Bracket
	Inlet	Outlet	Purge			
	SCFM	SCFM	SCFM		lbs	
IDG1-N02-P	0.44	0.35	0.09	1/4"	0.24	–
IDG3-N02-PS	1.09	0.88	0.21	1/4"	0.55	BM59
IDG5-N02-PS	2.19	1.77	0.42	1/4"	0.55	
IDG10-N03-P	4.41	3.53	0.88	3/8"	0.95	BM61
IDG20-N03-P	8.83	7.06	1.77	3/8"	1.46	BM63
IDG30-N03-P	13.24	10.59	2.65	3/8"	1.63	BM64
IDG50-N03-P	22.07	17.66	4.41	3/8"	1.7	
IDG60-N04-P	25.6	21.19	4.41	1/2"	3.31	BM65
IDG75-N04-P	31.78	26.49	5.29	1/2"	3.31	
IDG100-N04-P	42.02	35.31	6.71	1/2"	3.42	

Single Type –40°F Atmospheric dew point

Model	Flow			Port NPT	Weight	Bracket
	Inlet	Outlet	Purge			
	SCFM	SCFM	SCFM		lbs	
IDG30L-N03-P	3.53	2.65	0.88	3/8"	1.63	BM64
IDG50L-N03-P	5.29	3.88	1.41	3/8"	1.7	
IDG60L-N04-P	8.02	6	2.02	1/2"	3.31	BM65
IDG75L-N04-P	11.3	8.48	2.82	1/2"	3.64	
IDG100L-N04-P	14.12	10.59	3.53	1/2"	3.97	

Single Type –76°F Atmospheric dew point

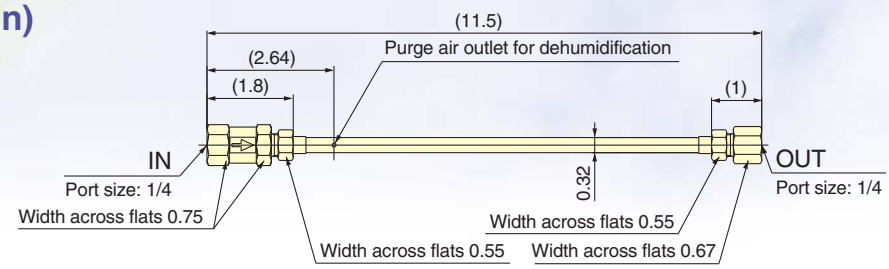
Model	Flow			Port NPT	Weight	Bracket
	Inlet	Outlet	Purge			
	SCFM	SCFM	SCFM		lbs	
IDG60S-N04-P	2.72	1.77	0.95	1/2"	3.31	BM65
IDG75S-N04-P	5.44	3.53	1.91	1/2"	3.64	
IDG100S-N04-P	8.29	5.29	3	1/2"	3.97	

1. Flow rates indicated are at ambient temperature of 68°F at atmospheric pressure.
2. All dryers come with dew point indicator (except IDG1) and fitting for purge air discharge.
3. SMC recommends the use of mist separator (Series AFM) and micro separator (Series AFD) at the inlet of IDG membrane dryer.

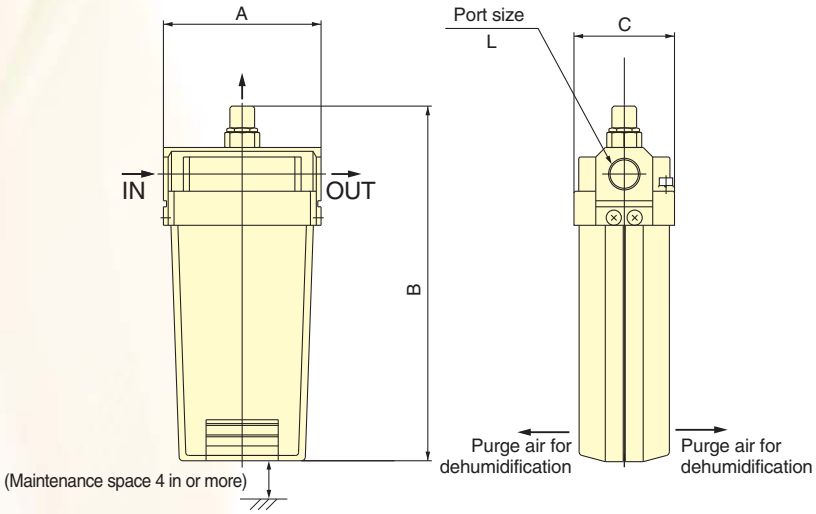
Please contact SMC for more detailed information.

Dimensions (in)

IDG1



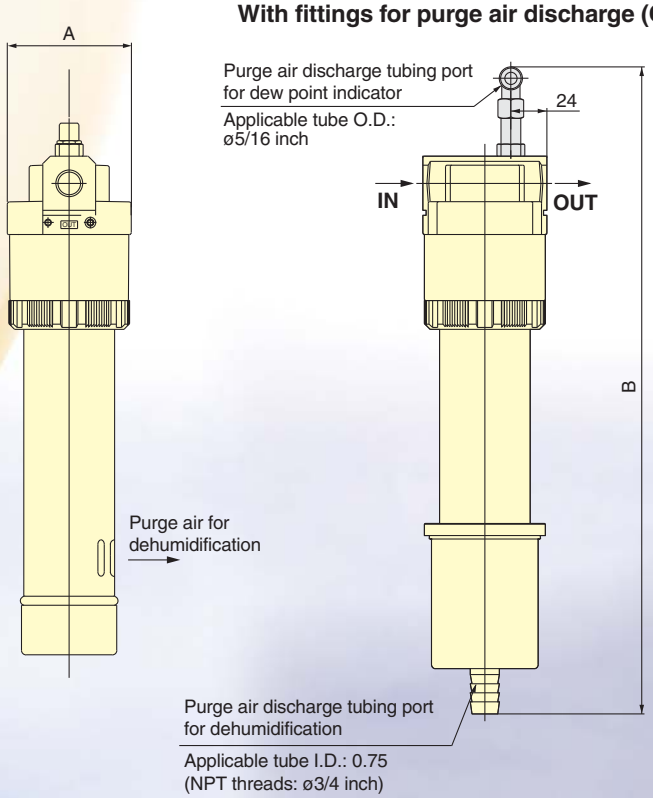
IDG3, 5, 10, 20



Model	Port size L	A	B	C
IDG3, 5	1/4	2.9	5.5	1.6
IDG10	3/8	3.23	7.4	2.1
IDG20		4.45	8.35	2.1

IDG 30, 50, 60, 75, 100

With fittings for purge air discharge (Option: P)



Model	Port size L	A	B
IDG30, 30L	3/8	2.75	14.2
IDG50, 50L			16
IDG60	1/2	3.6	16.9
IDG75, 100			
IDG60L, 60S			18.4
IDG75L, 75S			21.6
IDG100L, 100S			24.3

Please contact SMC for more detailed information.

Heatless Air Dryers *Series* ID

Features:

- Provides dry air at atmospheric dew point as low as –58°F. Standard atmospheric dew point –22°F
- Compact and light weight without heater and electric control board
- Possible to check outlet dew point with an indicator

Accessories

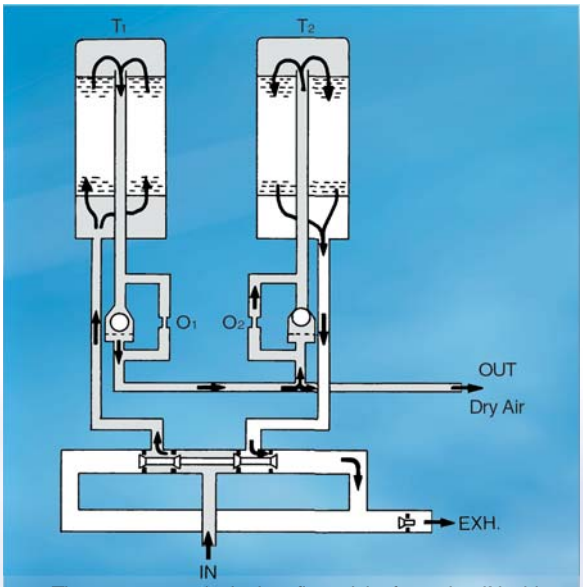
Model	Bracket	Mist separator	Adsorbent set for standard dew point	Adsorbent set for special low dew point
ID200-N02	6604113	AM150C-N02C	ID-200S	ID-200Z
ID300-N04	6604113	AM350C-N04C	ID-300S	ID-300Z
ID400-N04	660651	AM350C-N04C	ID-400S	ID-400Z
ID600-N06	660651	AM450C-N06C	ID-600S	ID-600Z

Specifications

Model	Flow			Port size	Power supply	Dimensions			Weight
	Inlet	Outlet	Recycled Air			A	B	C	
	SCFM	SCFM	SCFM			inch	inch	inch	lbs
ID200-N02	3.53	2.82	0.71	1/4"NPT	110V Single-Phase 60hz	20.5	9.4	4.7	15.4
ID300-N04	6.78	5.47	1.31	1/2"NPT		24.2	9.4	4.7	18.7
ID400-N04	14.65	11.65	3	1/2"NPT		33.5	12.6	6.7	40.8
ID600-N06	34.43	27.54	6.89	3/4"NPT		37.8	12.6	6.7	55.1

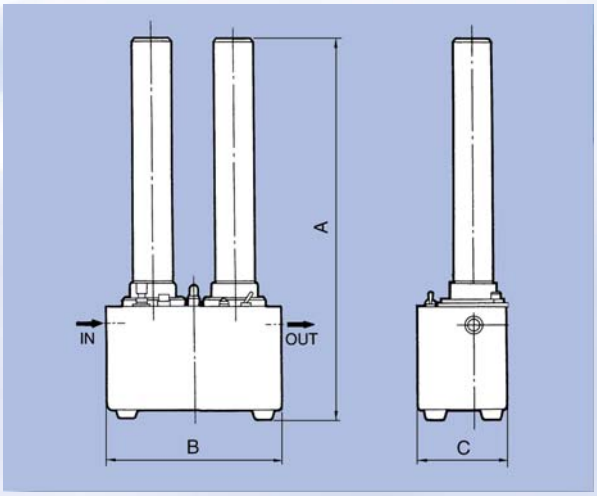
Add Z at the end of model no. for –58°F dew point.

Operation Principles



The compressed air that flowed in from the IN side passes through the 4 way solenoid valve, and after it is dehumidified at adsorption cylinder T1, it turns into dry air and exits from the OUT side. Meanwhile, a portion of the dry air passes through orifice O2, it reactivates the adsorption agent at adsorption cylinder T2, and together with moisture, it passes through the solenoid valve and is released to the atmosphere. Conversely, due to the operation of the switching valve that occurs after a certain length of time, T1 becomes reactivated and T2 assumes the adsorption state. This process is repeated to continuously provide dry air.

Dimensions



Please contact SMC for more detailed information.

Heatless Desiccant Compressed Air Dryers Pro Dry Series IDW

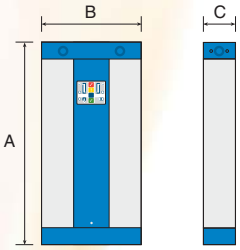
The ultimate filtration & drying technology

Specifications

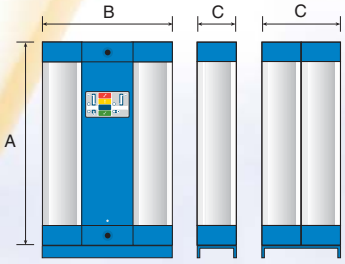
Dryer model	Pipe size	Inlet flow rate scfm	Dryer configuration	Pre-filter Supplied as standard	Dimension inch A	B	C	Weight lb
IDW4N	3/8”	4	Simplex	✓	17.5	11	3.6	29
IDW6N	3/8”	6	Simplex	✓	20	11	3.6	31
IDW8N	3/8”	8	Simplex	✓	22	11	3.6	33
IDW10N	3/8”	10	Simplex	✓	25	11	3.6	36
IDW15N	3/8”	15	Simplex	✓	32	11	3.6	43
IDW25N	3/8”	25	Simplex	✓	42	11	3.6	53
IDW35N	3/8”	35	Simplex	✓	57.5	11	3.6	68
IDW45N	3/4”	45	Simplex	×	28.0	20.5	7	117
IDW55N	3/4”	55	Simplex	×	31.8	20.5	7	130
IDW65N	3/4”	65	Simplex	×	36.0	20.5	7	141
IDW85N	1”	85	Simplex	×	43.5	20.5	7	165
IDW105N	1”	105	Simplex	×	55.8	20.5	7	200
IDW135N	1-1/4”	135	Simplex	×	63.5	20.5	7	224
IDW175N	1-1/4”	175	Simplex	×	79.5	20.5	7	271
IDW215N	1-1/2”	215	Duplex	×	55.8	20.5	13.5	378
IDW275N	1-1/2”	275	Duplex	×	63.5	20.5	13.5	422
IDW365N	1-1/2”	365	Duplex	×	79.5	20.5	13.5	510

1. For models IDW45N to IDW365N the dryer will include a drain adaptor kit to allow assembly of the filter to the dryer.

   This comprises of 1/4” x 4mm swivel adaptor and tubing.



IDW4N-IDW35N



IDW45N-IDW365N

Specification

Standard pressure dewpoint	-40°F
Optional pressure dewpoint	-100°F
Minimum working pressure	58 psig
Maximum working pressure	232 psig
Power supply	12VDC to 24VDC or 100VAC to 240VAC
Minimum inlet temperature	35°F
Maximum inlet temperature	122°F
Minimum ambient temperature	41°F

Dryer correction factors

Operating pressure (psig)	58	72	87	100	116	130	145	160	174	189	203	218	232
Pressure correction factor (PCF)*	0.62	0.75	0.87	1	1.12	1.25	1.37	1.5	1.62	1.75	1.87	2.0	2.12

Temperature (°F)	68	77	86	95	104	113	122
Temp. correction factor (TCF)	1.07	1.06	1.04	1.00	0.88	0.78	0.55

Dewpoint (°F)	-40	-100
Dewpoint correction factor (DCF)	1	0.7

*Always use the pressure correction factor (PCF) closest to the actual inlet pressure condition
Corrected air flow rate = Operating air flow rate / (PCF x TCF x DCF)

Please contact SMC for more detailed information.

High Capacity Heatless Air Dryer *Series* IDA

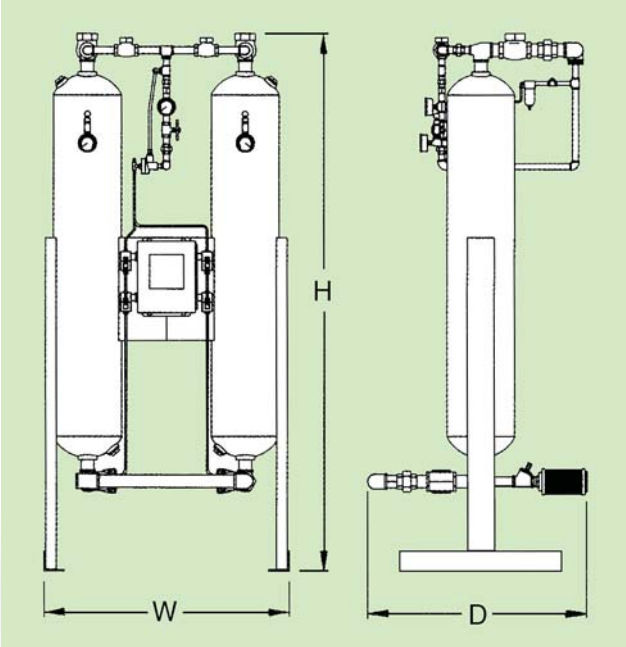
Model	Flow	Port size	Dimensions			Weight
			A	B	C	
	SCFM		inch	inch	inch	lbs
IDA50	50	1/2" NPT	52	28	24	160
IDA75	75	3/4" NPT	60	34	24	190
IDA100	100	1" NPT	71	32	28	250
IDA150	150	1 1/2" NPT	74	37	31	375
IDA200	200	1 1/2" NPT	80	36	32	450
IDA280	280	2" NPT	86	41	33	650
IDA380	380	2" NPT	85	45	42	900
IDA630	630	2" NPT	85	57	46	1300
IDA850	850	2 1/2" NPT	87	60	49	1800
IDA1200	1200	3" Flange	99	69	60	2500
IDA1600	1600	3" Flange	101	88	62	4200
IDA2000	2000	4" Flange	120	82	62	5000
IDA2800	2800	4" Flange	118	104	48	6500
IDA3600	3600	6" Flange	120	141	62	9000

The inlet flow figures are at 100psig pressure.
Average purge air consumption is 15% of inlet flow used to regenerate the desiccant.

Features:

- Removable stainless steel wedge–wire style desiccant retainers
- Diaphragm operated inlet switching and purges exhaust valves
- 5 micron control air filter
- –40°F pressure dew points and lower
- Repressurization valve to allow full tower repressurizing prior to on-line switching – even at reduced purge glow levels
- Up-flow drying and down flow purging ensure desiccant remains stable during tower depressurization and purging
- Liquid filled pressure gauges
- High pressure operation models
- Oil-dust tight EEMAC-12 control panel
- Copper-free construction

Dimensions



Please contact SMC for more detailed information.