



High Performance,  
reliable and trouble free  
compressed air treatment  
from SMC.

## Refrigerated Air Dryer Series IDFA

Gain the competitive advantage by installing a good quality air dryer in your CAS:

**Our Series IDFA range of air dryers will make you more competitive because the:**

- High quality materials used in the IDFA's component parts guarantees the highest levels of operational reliability in your machine - unlike similar looking products on the market, the IDFA's internal heat exchanger is made of stainless steel thereby preventing the formation of rust.
- Design of our IDFA range ensures stable outlet-dew point performance with a minimum pressure drop across the dryer, helping to improve the efficiency of your machine.
- The compact size will help to make your machines smaller, easy to handle and more attractive.

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The benefits of a global one-stop-shop for all your dryer and pneumatic needs.

As the world’s leading experts in pneumatics, with sales offices in over 78 countries around the world, we can provide you with the highest levels of technical and service support.

No matter where you’re located, our experts are on-hand to help you.

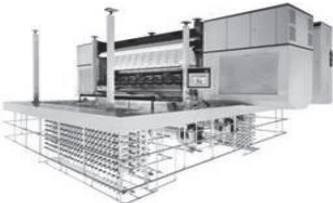
We call it our “working closely approach”, to help provide you with complete peace of mind and total customer satisfaction.

## The Benefits:

- State of the art design ensures a constant 3°C pressure dew point.
- High efficiency heat exchanger.
- Environmentally ozone friendly R134a and R407C refrigerant.
- Conforms to stringent ISO8573-1 standards.
- Simple control system, incorporating an easy to read evaporator gauge.
- Stainless steel heat exchanger providing long life and low pressure drops.
- Compact design for ease of installation.



Industry	Application	Benefits from using a IDFA dryer
Life science	Lens polishing machines	Good lens quality
Life science	Dental equipment	Optimal maintenance of the tools
Life science	Pharmaceutical production	Integrity and stability of the drugs during production
Food, life science, general	Ozone generators for cleaning and disinfection	Ozone generation in a greater proportion
Food, machinery	Food production and packaging machines	High quality, fine looking food products
Process, food	Stirring (cement and food processing equipment)	Clogging of the hopper avoided
Process	Industrial chemicals production	Integrity and stability of the chemicals during production
Machinery	Textile machines	Optimal maintenance of the equipment
Machinery	3D measuring equipment, metrology machines, CMM machines	Optimal maintenance of the equipment
Printing	Printing machines	Optimal maintenance of the equipment
Machinery	Drilling machine/machining centre	Optimal maintenance of the equipment
Machinery	Sandblasting	Formation of sand clusters clogging the equipment is avoided
Car, general	Painting equipment	Paint is not repelled
General	Cooling	Overheating is prevented
General	Pneumatic tools	Optimal maintenance of the tools



Textile machines



Ozone generators



Packaging machines



Lens polishing machines



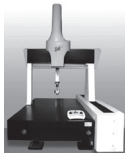
Pneumatic tools



Painting equipment



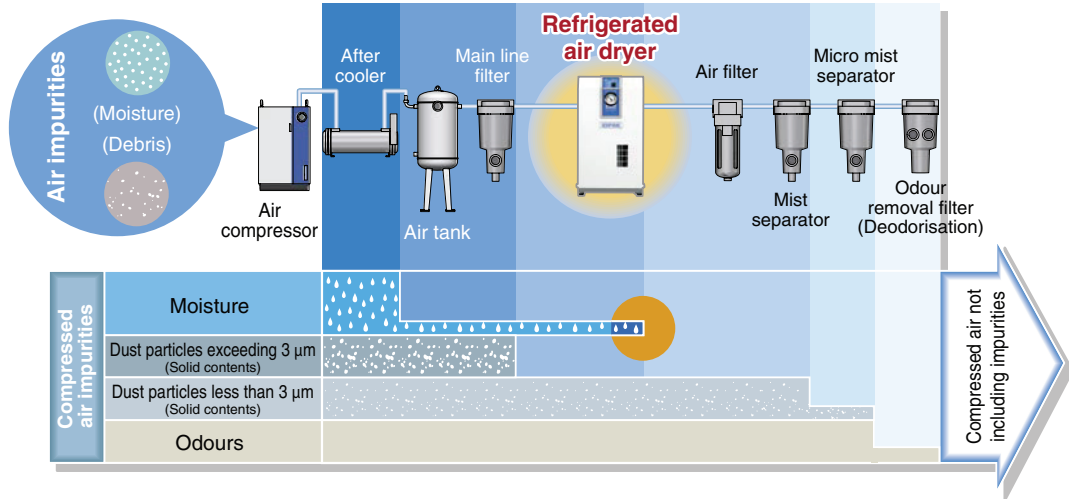
Printing machines



3D Measuring equipment

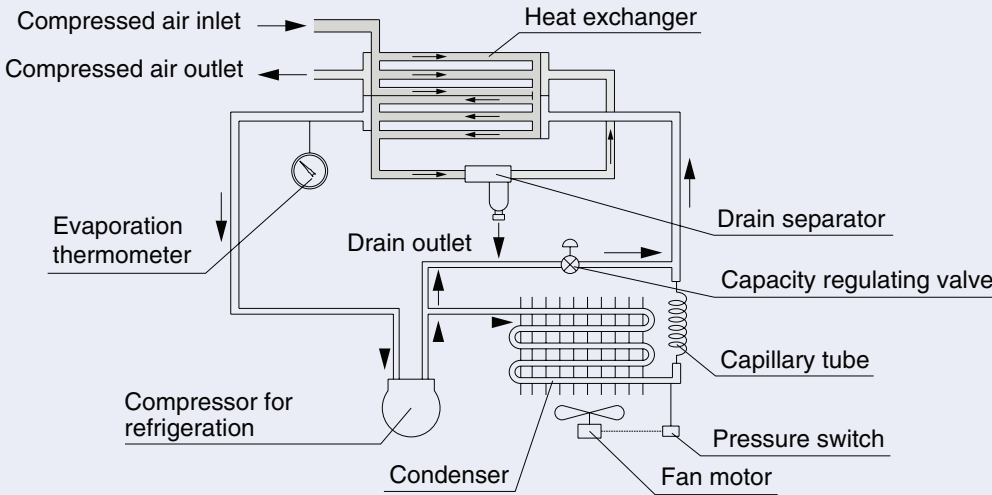
## Air Purification System - Significance of a dryer

Compressed air includes foreign objects such as moisture (water vapour, water droplets), oil and debris. Water droplets, oil and debris can be removed by using air filters, mist separators, etc., but it is necessary to eliminate moisture by using a dryer.



## Air Dryer Operation Principle

Saturated compressed air enters the air-to-air heat exchanger, the incoming air is then pre-cooled by the cold air exiting the dryer. The air then passes through the evaporator, where it is further cooled, to a 3°C dew point. As the air cools, the water condenses from a vapour to a liquid which is removed by the automatic drain. The dry air is then passed back through the air-to-air heat exchanger where it is reheated before leaving the dryer.



## Standard Specifications

Model	Operating range			Power supply voltage	Power consumption (W)	Air port connections	Refrigerant	Weight (kg)	Nominal Air Flow Rate [m³/h (ANR)]		
	Inlet air pressure (bar)	Inlet air temperature (°C)	Ambient temperature (°C)						-4,- (3°C PDP)	-5,- (7°C PDP)	-6,- (10°C PDP)
IDFA3E-23	1.5 to 10	5 to 50	2 to 40 (Relative humidity of 85% or less)	Single phase 230 VAC 50Hz		Rc 3/8	R134a (HFC)	18	12	15	17
IDFA4E-23-LR	1.5 to 16				180	Rc1/2		22	24	31	34
IDFA6E-23-LR						Rc 3/4		23	36	46	50
IDFA8E-23-LR					208			27	65	83	91
IDFA11E-23-LR					385			28	80	101	112
IDFA15E-23-LR					470	46		120	152	168	
IDFA22E-23-LR					760	R1	54	182	231	254	
IDFA37E-23-LR						R1½	62	273	347	382	
IDFA55E-23-LR					1130	R2	100	390	432	510	
IDFA75E-23-LR					1700		116	660	720	822	
IDFA100F-40-CRV	1.5 to 10	5 to 60	2 to 45 (Relative humidity of 85% or less)	Three phase 400 VAC	2500	R2	R407C (HFC)	245	860	1040	1230
IDFA125F-40-CRV					2700	R2½		270	1100	1320	1550
IDFA150F-40-CRV						DIN flange 80		350	1340	1690	1920

