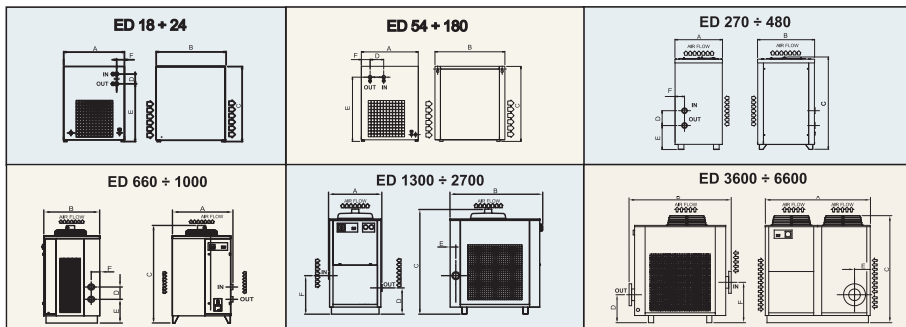


MODEL	FLOW RATE			DIMENSIONS [mm]						P.SUPP.	PRESS.	CONN.	WEIGHT	POW.CON.
	[l/min]	[m³/h]	[CFM]	A	B	C	D	E	F	V/ph/Hz	bar	BSP	[Kg]	[kW]
ED 18	300	18	11	305	360	404	50.8	313	40	230/1/50	16 max	3/8"	17	0.10
ED 24	400	24	14	305	360	404	50.8	313	40	230/1/50	16 max	3/8"	18	0.12
ED 54	900	54	32	370	433	433	100	370	60	230/1/50	16 max	1/2"	25	0.17
ED 72	1200	72	42	370	433	433	100	370	60	230/1/50	16 max	1/2"	26	0.21
ED 108	1800	108	64	420	515	550	100	470	65	230/1/50	16 max	3/4"	33	0.41
ED 144	2400	144	85	420	515	550	100	470	65	230/1/50	16 max	3/4"	34	0.47
ED 180	3000	180	106	420	515	550	100	470	65	230/1/50	16 max	3/4"	43	0.61
ED 270	4500	270	159	500	610	980	157	254	100	230/1/50	14 max	1.1/2"	85	1.04
ED 360	6000	360	212	500	610	980	157	254	100	230/1/50	14 max	1.1/2"	87	1.04
ED 480	8000	480	283	500	610	980	157	254	100	230/1/50	14 max	1.1/2"	110	1.40
ED 660	11000	660	388	779	720	1425	180	346	109	230/1/50	14 max	2"	120	1.85
ED 780	13000	780	459	779	720	1425	180	346	109	400/3/50	12 max	2"	130	1.98
ED 1000	16667	1000	589	779	720	1425	180	346	109	400/3/50	12 max	2"	150	2.58
ED 1300	21667	1300	765	784	1388	1585	386	83	566	400/3/50	12 max	3"	260	3.40
ED 1700	28333	1700	1000	784	1388	1585	386	83	566	400/3/50	12 max	3"	270	3.40
ED 2200	36667	2200	1295	784	1388	1585	386	83	566	400/3/50	12 max	3"	300	5.30
ED 2700	45000	2700	1589	914	1388	1585	386	84	566	400/3/50	12 max	DN 100	330	6.88
ED 3600	60000	3600	2119	1510	1500	1570	405	227	585	400/3/50	12 max	DN 125	420	7.81
ED 4200	70000	4200	2472	1510	1500	1570	405	227	585	400/3/50	12 max	DN 125	520	11.29
ED 5300	88333	5300	3119	1510	1500	1570	405	227	585	400/3/50	12 max	DN 150	620	12.91
ED 6000	100000	6000	3531	1510	1500	1570	405	227	585	400/3/50	12 max	DN 150	720	12.91
ED 6600	110000	6600	3882	1510	1500	1570	405	227	585	400/3/50	12 max	DN 150	750	12.91

ED 780 + 6600 Version up to 14 bar available upon request.

The manufacturer reserves the right to modify specifications without prior notice

With VSCC exclusive patented variable speed system



Correction factors for different working pressures :						Correction factors for different inlet air temperatures :							
bar	3	5	7	10	13	16	°C	30	35	40	45	50	55
Fc : 1	0.70	0.85	1.00	1.15	1.22	1.26	Fc : 3	1.20	1.00	0.85	0.71	0.56	0.42
Correction factors for different ambient temperatures :						Correction factors for different dew point temperatures :							
°C	25	30	35	40	42	45	°C	3	5	7	9	10	
Fc : 2	1.00	0.96	0.92	0.88	0.85	0.76	Fc : 4	1.00	1.09	1.18	1.30	1.33	

Calculation of the dryers **REAL FLOW RATE = Nominal dryer flow rate x Fc1 x Fc2 x Fc3 x Fc4**

Performances refer to air cooled models with air suction FAD 20°C - 1bar A and in accordance to ISO 7183:
 Working pressure 7 bar g,
 Dew point 3 °C,
 Ambient temperature 25°C (45°C max),
 Compressed air inlet temperature 35°C (55°C max).
 ED 18+480 supplied with refrigerant R134a, ED 660+6600 supplied with refrigerant R507. Different refrigerants available upon request.

Cod. 712.0009.01.00-04 01/08



The art of treating compressed air

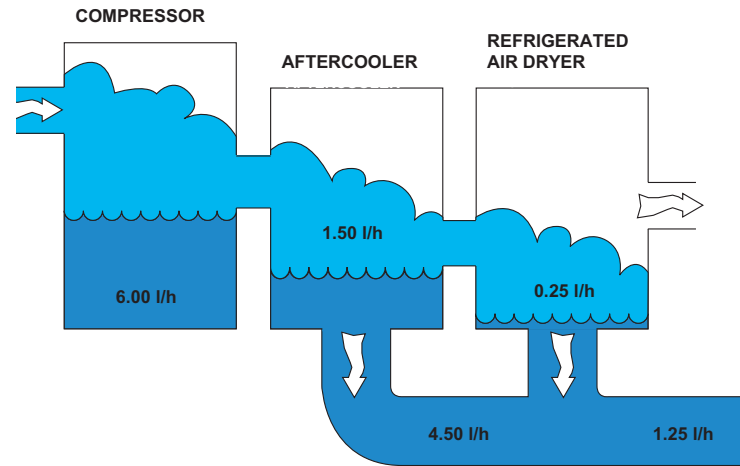
THE ART OF TREATING COMPRESSED AIR

Compressed air supplied by industrial plants if not properly treated contains a large quantity of contaminants like solid and liquid particles where water's vapour represents the bigger share.

Such water is responsible for the corrosion of piping systems and pneumatic equipments and determines a poor quality of the production process.

These damages, which are spoiling and interrupting the production, will result in higher running costs of the whole system.

In order to quantify the phenomenon, let's make an example:



A 50 HP screw compressor (37 kW) which delivers about 6,000 l/min. free air at 7 Bar, 25 °C ambient temperature and 70 % relative humidity, sucks 6 l./hour of vaporized water from the ambient and pumps it into the compressed air system. After compression about 75% of such vapour condenses in water droplets that, if not properly removed, will enter the compressed air pipe line.

By means of aftercoolers, condensate separators and drains it is possible to eliminate up to 70- 80 % of the condensed liquids but, only with the installation of a refrigerated air dryer, it will be possible to eliminate an additional quantity of humidity to guarantee an adequately dried air suitable for most of the modern pneumatic applications.



OMI's experience in the field of compressed air treatment has led to the development of a new series of dryers that satisfies the requirements of a highly specialized market.

The use of the best available components combined with ecological refrigerants and recyclable materials has allowed us to become one of the leaders of the market.

All models are manufactured in accordance to the main European directives 98/37/CE, 87/404/CEE, 97/23/CEE (PED) - others on request - and performances are guaranteed based on ISO 7183 to meet the quality standard of the ISO 8573-1.

The ISO 9001 certifications, together with the know how developed thanks to the cooperation of always more exacting customers, guarantees a high quality standard in compliance with the modern market demands.

The implementation of the company's management system according to ISO 14001 shows the sensibility towards environment's respect and protection, while The OHSAS 18001 - Occupational Health and Safety Management System - the care for our employees.



Our process adopts the most modern manufacturing and controlling systems available in the market.

During the assembly process every single phase is accurately checked through sophisticated monitoring systems to assure the product's maximum quality level.

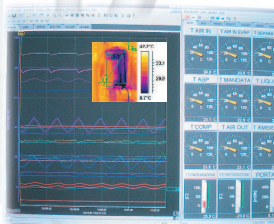


Any risk of gas leaks is avoided thanks to the use of **helium and/or hydrogen** leak detectors.

The cooling gas vacuum and loading process and the electrical parameters regulation and settings phase are operated through specially designed automatic machines. All parameters are recorded to allow full traceability of every batch of production.



Finally **every single air dryer is accurately tested** to guarantee the **compliance with** the project's data and both safety and performance standards of the different markets of destination.

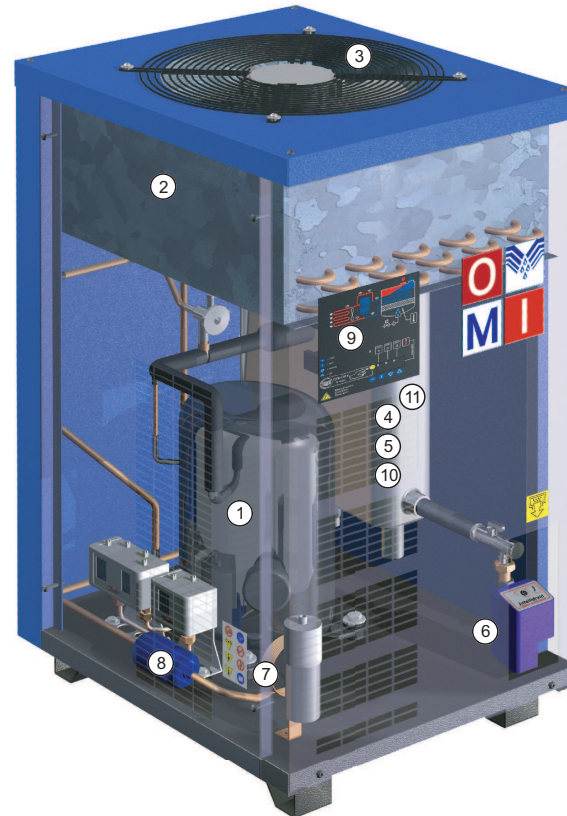
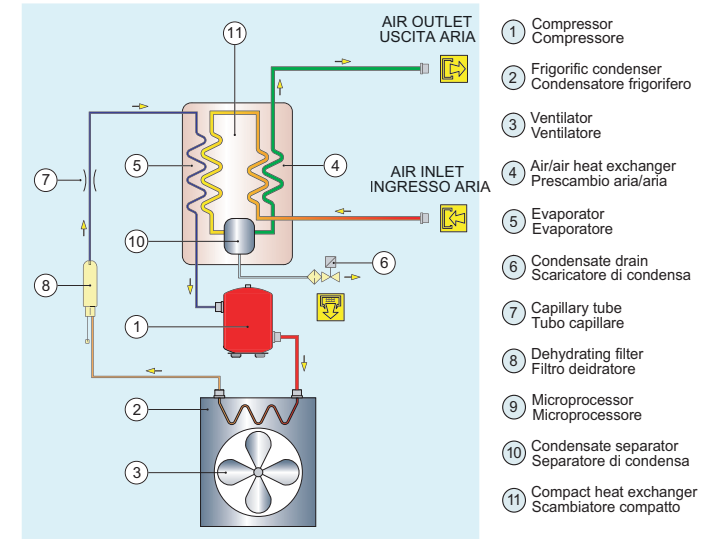


OPERATION

Compressed air enters the compact heat exchanger (11) where it is cooled down to the dew point temperature in two different stages:

In the first air/air sector (4) compressed inlet air is cooled thanks to the colder compressed air coming out counterflow from the condensate separator (10).

In the second refrigerant / air sector (5), compressed air temperature is further lowered to the dew point temperature.



During this two stages almost all the oil and water vapours contained in compressed air will condense and successively be separated from the compressed air in the condensate separator (10) and drained out by the automatic drain (6).

At this point the obtained cold air re-enters counterflow the initial air / air exchanger (4) and it is reheated by the inlet hot air with the consequence of energy recovering and also reduction of the relative humidity contained in the outflowing air.

A patented controller allows to adjust the dryer's cooling capacity depending on the quantity and temperature of the air to be treated.

The system is coupled with a microprocessor (9) developed to guarantee a stable dew point and to monitor and control standard operations.

The dry air obtained thanks to this process is perfectly dehumidified and is the most environmentally friendly source of energy used to operate pneumatic applications throughout the industry.



ED 18 ÷ 180

The entry level range of our refrigeration air dryers has been subject of further improvements in order to achieve higher performances and better reliability.

All dryers are equipped with a **new high efficiency state of the art heat exchanger** integrating a specifically designed condensate separator.

Such new heat exchangers have been completely designed in our laboratories to guarantee the highest level of performances with the lowest pressure drop.

A sophisticated microprocessor, thanks to an exclusive **variable speed fan Patented solution**, allows a constant pressure dew point under every working condition.

A large range of parameters and alarms - high temperature, low temperature (antifreezing), temperature probe failure - are included in every unit.

An electronic auto drain which is a standard feature on all models it is easily adjustable through the controller to match all possible working conditions. A capacity "intelligent" type drain is available upon request.

ED 270 ÷ 480

This series has been completely redesigned to allow easier installation, inspection and maintenance. These new units have been developed to be integrated with a large series of accessories like filters, by pass and capacity type drain.

These new units have taken advantage of the exclusive **variable speed fan Patented** solution and of the microprocessor which controls, monitors and sets dew point temperature and drain valve.

Out of standard operation and alarms are already included in the standard execution.

Out of standard operation are displayed on the control panel.

The alarms can be also remoted via a free contact.

ED 660 ÷ 6600

This new series of "industrial" dryers represents the culmination of OMI's experience gained through many years of manufacturing and distributing large drying equipment worldwide.

These models have been designed and developed in accordance to the latest safety regulations.

Like the professional series, these new units are offered with a totally new design with smaller footprint that allows best inspection and easy maintenance also in the more critical installations.

All units are equipped with an electronic control system combined with a hot gas by pass and are supplied, as standard, with all the devices to guarantee a perfect operation even under heavy duty working conditions.

Safety devices, like high and low pressure switches coupled with the control of the alarms, prevent the damage of the dryer in case of out of standard or wrong working conditions.

ED 660-6600 feature advanced aluminum heat exchangers, specifically designed for compressed air dryers.

These exchangers provide the very best combination of high efficiency and low pressure drop. The improved air-to-air heat exchanger performance reduces the refrigeration load and increases the reheat temperature. The resulting customer benefits are: smaller refrigeration compressor, reduced power consumption and increased volumetric efficiency. The integrated demister separator insures greater than 99.9% separator efficiency from zero to maximum rated airflow.

The Control Panel includes all the main functions to control and monitor the unit :

- Adjustment of operation temperatures.
- Setting and control of the drain valve.
- Control of the main working conditions:
 - ◆ Frigorific circuit working pressures
 - ◆ Compressor's status
 - ◆ Fan's status
 - ◆ Alarms

All unit are preinstalled to suit:

- ◆ Intellidrain
- ◆ Remote ON/OFF
- ◆ Remote Control
- ◆ Tele-assistance via GSM

The company's versatility along with the availability of a large range of accessories and components allows to match every customer and market requirements.

