COPIISA OFFSHORE COMPANY

Air Dryer (Instrument set up)

At Copiisa Offshore, we are proud to be the undisputed leaders in the manufacture of air dryers nationwide. Our dedication to quality, meticulous attention to detail, and ability to create custom projects set us apart in the marketplace. Why are we the preferred choice? Here are some key reasons:

Commitment to Unmatched Quality:

Every air dryer that leaves our facility is the result of an unwavering commitment to quality. From material selection to design and manufacturing, we ensure that every detail meets the highest standards. Quality is not simply a standard for us; It is the very essence of what we do.

Top care of Details for Optimal Performance:

We understand that excellence is situated in the details. Each component of our air dryers is selected and assembled with precision, ensuring optimal performance and exceptional durability. We take pride in not only meeting expectations, but exceeding them in every aspect.

Alumina: Our desiccant by excellence:

An essential element of our air dryers is alumina, our desiccant by choice. Why is it the best option on the market? Alumina, with its proven effectiveness in removing moisture, ensures superior performance. It is not only a component, it is the cornerstone that distinguishes our air dryers as undisputed leaders.

Our Development Team.

We recognize that the true strength behind our success is located in our human team. Each member of our team, from project engineers to designers and assemblers, plays an essential role in creating the market-leading air dryers we manufacture today.

Our project engineers are the architects of innovation of the Company. Their deep technical knowledge and boundless creativity are the driving force behind every air dryer design we create.

We work tirelessly to devise customized solutions that fit the specific needs of our clients, ensuring that each project is unique and exceptional.

We understand that each project presents unique challenges. For this reason, our team is ready to deploy into the field, working directly in collaboration with our clients to understand their specific needs. Whether in industrial facilities, production plants or any other environment, we are committed to adapting to ground conditions and ensuring that our products and services fully meet customer expectations.

Air Drier COPIISA Offshore brand Exterior components

1.- Air outlet

2.- Safety Valve

3.- shut off Valve

4.- Regulating valve

5.- Control panel

6.- Butterfly valve

7.- Alumina Drain Plug

8- Air Inlet

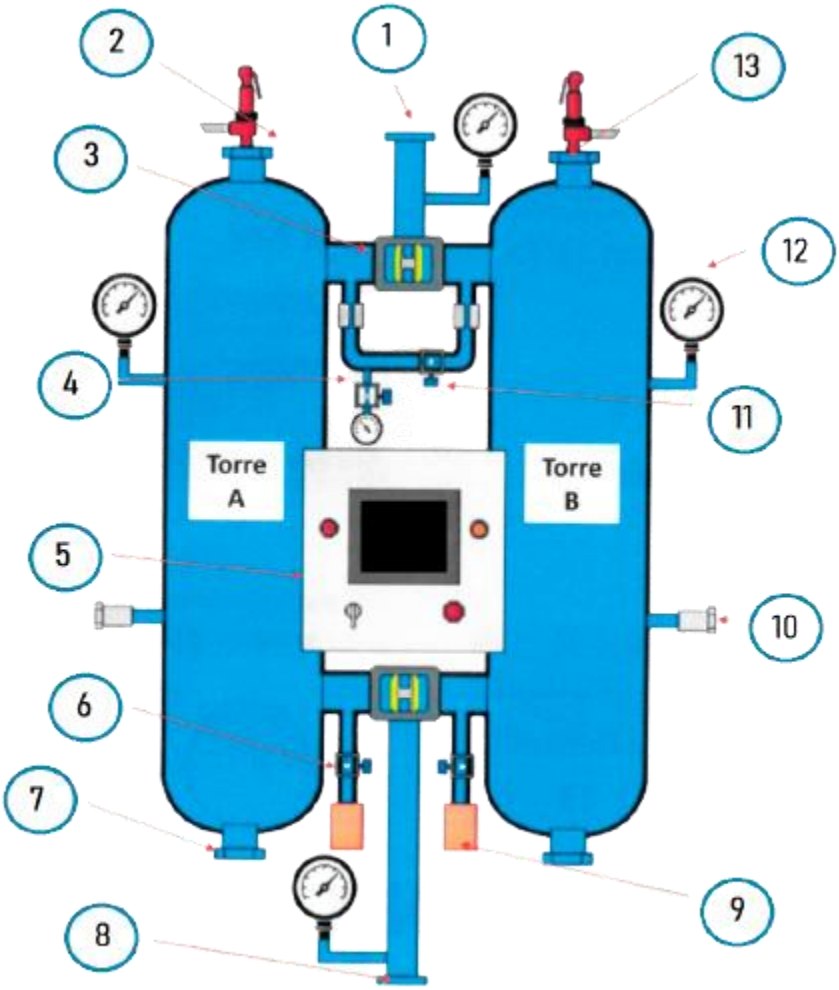
9.- Exhaust

10.- pressure switch

11.- Purge flow valve

12.- Pressure gauge

13.- Alumina Filling Plug



instruments.

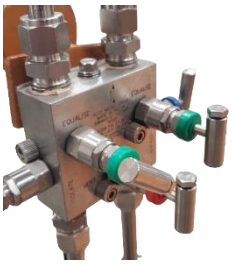
We always strive for excellence in every aspect of our operations. In our constant search to guarantee the best equipment and offer results of unmatched quality, we have selected carefully the instruments used in our dryers. We are committed to the implementation of cutting-edge technologies and products of the highest quality, up to ensuring optimal performance and exceptional results in every step of our drying process.

Pressure Gauges:

We use pressure gauges to be able to monitor and control the pressure within the drying tanks, this is important to ensure that the air dryer operates within the specific parameters necessary for proper operation.

Manifold valves:

They play an essential role in the operation and control of the system. These valves are responsible for several key functions, and are often used to regulate and direct air flow and play a role in the overall operation of the instrument air dryer.



Humidity and temperature transmitter:

This device helps measure humidity in the air and expresses it in a percentage of relative humidity (%RH), it processes the data and transmits it to the control area

differential pressure transmitters:

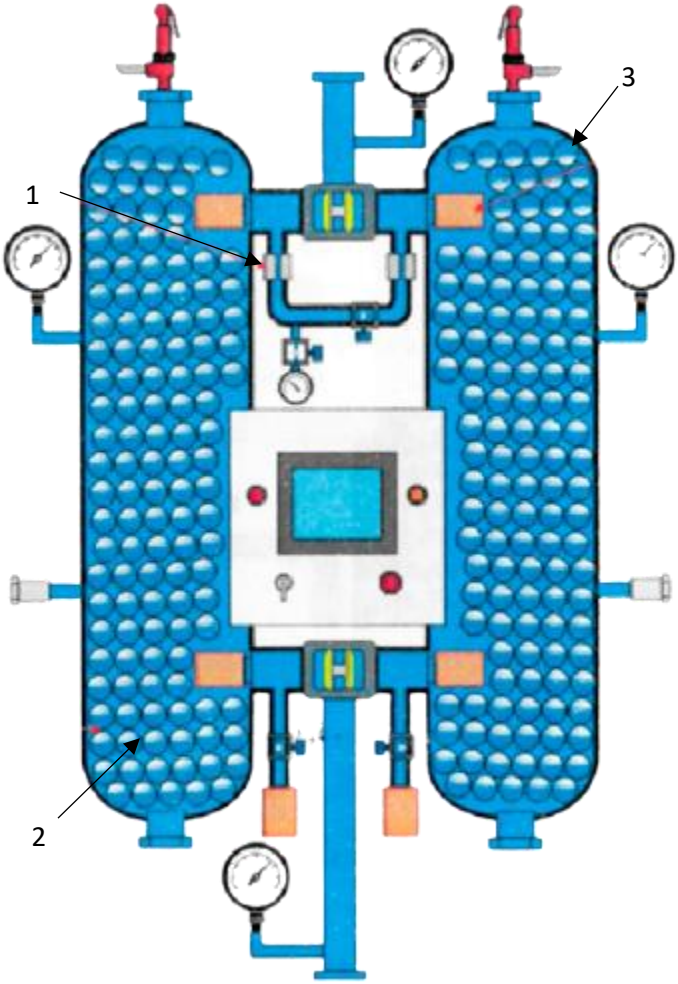
These devices are essential to ensure the safe and efficient operation of the system. They allow real-time monitoring and decision making based on accurate data.

Interior components:

1.- Orifice plate.

2.- Alumina spheres.

3.- Filter



Work flow in the dryer

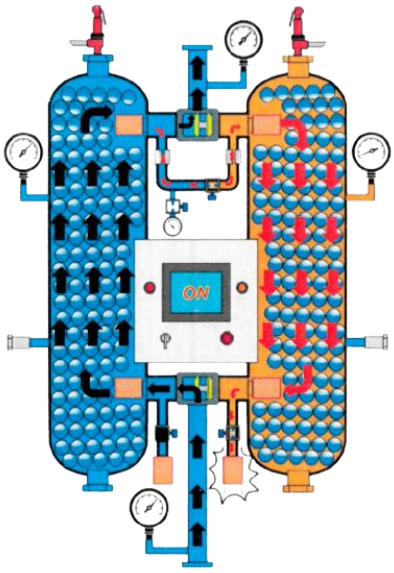
Desiccant adsorption process. Air Dryer workflow

The activated alumina desiccant takes advantage of the larger surface area to achieve required water vapor adsorption.

Water vapor molecules get in contact with the surface and are adsorbed.

Water vapor moves from areas of high concentration to areas of low concentration. When water is adsorbed, heat is released.

Dryer on



When you turn on the dryer (from the control panel), the butterfly valve of tower B (right) open, it begins the drying cycle of tower A, and you instantly hear how the pressure is released. Tower B enters regeneration and the "shut off" valves move to the right, closing the inlet of tower B. Adjust the purge flow valve when tower B is regenerating. (see table below)

Purge pressure

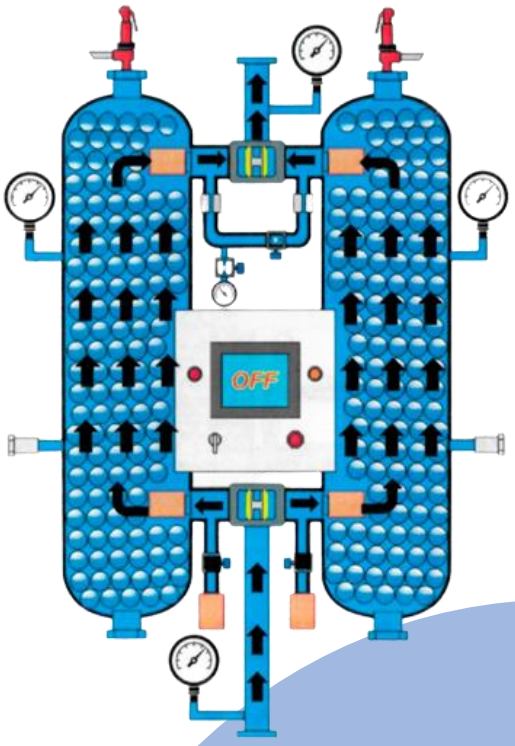
PMO DEL SECADOR			150 psig (10.5 kgf/cm²)							250 psig (17.6 kgf/cm²)												
PRESION DE ENTRADA			psig	60-100	110	120	130	140	150	120	130	140	150	160	170	180	190	200	210	220	230	240	250
			kgf/cm²	4.2-7.0	7.7	8.4	9.1	9.8	10.5	8.4	9.1	9.8	10.5	11.2	12.0	12.7	13.4	14.1	14.8	15.5	16.2	16.9	17.6
CICLO	ISO CLASE 1	4 min.	psig	35	33	31	29	28	27	83	80	76	74	71	69	66	64	63	61	59	58	56	55
			kgf/cm²	2.5	2.3	2.2	2.0	2.0	1.9	5.8	5.6	5.3	5.2	5.0	4.9	4.6	4.5	4.4	4.3	4.1	4.1	3.9	3.9
	ISO CLASE 2	10 min.	psig	20	19	18	17	16	15	44	42	40	39	37	36	35	33	32	31	31	30	29	28
			kgf/cm²	1.4	1.3	1.3	1.2	1.1	1.1	3.1	3.0	2.8	2.7	2.6	2.5	2.5	2.3	2.2	2.2	2.2	2.1	2.0	2.0
	ISO CLASE 3	16 min.	psig	18	17	16	15	14	13	35	33	32	30	29	28	27	26	25	25	24	23	23	22
			kgf/cm²	1.3	1.2	1.1	1.1	1.0	0.9	2.5	2.3	2.2	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.7	1.6	1.6	1.5
	ISO CLASE 4	24 min.	psig	16	15	15	14	13	13	30	29	28	26	25	24	24	23	22	21	21	20	20	19
			kgf/cm²	1.1	1.1	1.1	1.0	0.9	0.9	2.1	2.0	2.0	1.8	1.8	1.7	1.7	1.6	1.5	1.5	1.5	1.4	1.4	1.3

Dryer off

Before turning on the dryer, you must first open the air supply valve little by little, until the operating pressure is reached, and then open the air discharge valve.

Once the dryer inlet and outlet valves are aligned, air flow enters both towers.

The 4 pressure gauges, inlet, outlet, tower A and tower B, record constant operation during aoperation.



At Copiisa Offshore,

we understand the importance of ensuring compressed air quality, especially in the context of our dryer operations. To do this, we adhere to the international standard ISO 8573.1, a crucial reference in the industry that sets standards for compressed air quality.

We proactively integrate ISO 8573.1 into our daily operations. We use this standard as a fundamental guide to establish and maintain compressed air quality in our drying systems.

By following these guidelines, we not only comply with recognized international standards, but also ensure the integrity of our processes and the durability of our equipment.

ISO 8573.1		**REMAINING**	**MOISTURE**		
CLASS	DEW POINT	ppm/w	m g/m^3	HHS Series	HHE Series
1	-100°F / -73°C	0.12	0.15	4min fixed	-
2	-40°F / -40°C	10	12	Demando r 10min fixed	10 min fixed
3	-4°F / -20°C	81	97	Demando r 16 min fixed	-
4	+38°F / +3°C	610	730	Demando r 24 min fixed	-

Product specifications.

In our continued commitment to excellence and innovation, we present the following detailed table that summarizes the key specifications of our line of air dryers which is provided by our commercial partner ATS. Each model, meticulously designed and manufactured, reflects the unsurpassed quality and commitment to durability that characterizes Copiisa Offshore.Air quality.

Model Number	Inlet/Outlet manifold and connection size (IN)	Vessel Size	Outlet flow at 100 psi and 95o F (FO) (SCFM)	Alumina per tower (LBS)
HGO 15	3/8" NPT	4" Sch 40	12.5	9
HGO 30	1/2" NPT	5" Sch 40	24.83	23
HGO 60	3/4" NPT	6" Sch 40	49.8	40
HGO 100	1" NPT	8" OD x 0.107"	82.53	60
HGO 160	1-1/2" NPT	10" OD x 0.107"	132.6	100
HGO 200	1-1/2" NPT	12" OD x 0.107"	161.55	140
HGO 300	1-1/2" NPT	14" OD x 0.133"	249.07	200
HGO 400	2" NPT	14" OD x 0.133"	332.03	250
HGO 650	2" NPT	18" OD x 0.133"	540.07	400
HGO 850	3" FLG	20" OD x 0.1875'	705.99	525
HGO 1000	3" FLG	22" OD x 0.1875'	830.76	625
HGO 1200	3" FLG	24" OD x 0.1875'	996.79	725
HGO 1600	4" FLG	26" OD x 0.1875'	1328.45	975
HGO 2000	4" FLG	28" OD x 0.1875'	1659.01	1225

This table offers a comprehensive overview of the various models of our air dryers, providing vital information on aspects such as size, inlet and outlet flow, purge flow, utilization, and other parameters crucial for selection and performance. efficient of our dryers. At Copiisa Offshore, every detail has been carefully considered to deliver products that not only meet, but exceed our customers' expectations.

Maintenance and Refurbishment Services for Air Dryers in Copiisa Offshore.

Our commitment to excellence goes beyond the manufacture of quality air dryers and other products such as breathing air systems, fire pumps, motor generators, etc. We recognize that continuous care and meticulous attention are essential to maintaining optimal performance of your equipment over time. For this reason, we are proud to offer comprehensive maintenance and replacement services, not only for our own dryers, but also for equipment from various brands.

Preventive Maintenance:

Ensuring Lasting Performance Our technical experts are trained to perform preventative maintenance services, ensuring your air dryers operate efficiently and reliably. From checking key components to cleaning and adjusting parameters, our maintenance service is designed to prevent problems before they arise, prolonging the life of your equipment and reducing the risk of unplanned downtime.

Specialized Refurbishment:

Quality Parts for All Brands We understand that the availability of reliable spare parts is crucial to operational continuity. Our refurbishment service specializes in providing high quality parts for not only our own tumble dryers, but also a variety of market leading brands. Whether you need specific components, filters, valves or any other essential part, we are committed to offering products that meet the highest standards.

Contact Us to Discover Excellence in Air Treatment! At Copiisa Offshore, we are ready to serve all your needs related to air dryers and associated services. Whether you are looking for quality solutions, reliable maintenance or top-notch replacement parts, we are here to exceed your expectations.

We cordially invite you to contact our team of experts. Do not hesitate to call us at numbers 55-36120901, 55-36120902, 55-36120903 or send us an email to marcialmc@copiisaoffshore.com.mx or alejandra.gonzalez@copiisaoffshore.com.mx. We are available to answer your questions, provide detailed information about our products and services, and discuss how we can meet your specific requirements. If you prefer an

in-person visit, we extend an invitation to our facilities at C. Diana 33, Col. Nueva Industrial Vallejo, Del. Gustavo a. Madero, Mexico City. Our team will be happy to give you a tour of our facilities, discuss your needs in depth and provide you with a first-hand understanding of the quality and commitment that define Copiisa Offshore.