COMPRESSED AIR & GAS TREATMENT

DryPro

Refrigeration dryers
225 - 760 m³/min.

Purifying your compressed air, increasing your efficiency.

MTA®
Cooling, conditioning, purifying.

DryPro

DryPro offers two major benefits: extremely high energy savings, with up to 4 compressors offering load dependent partilialisation; and peace of mind for the User, with multiple compressors within multiple refrigeration circuits. DryPro offers much more, such as the most advanced microprocessors and the high efficiency, low pressure drop *DRYSTREAM* heat exchanger technology.

Scroll technology

Scroll compressors offer energy savings of around 20%. They are also extremely robust and even tolerate liquid refrigerant returns, notably reducing the chance of compressor damage. Reduced vibrations increase dryer longevity, and there is no need to pre-heat the dryer at start-up. Crankcase heater standard.

Multiple compressors

DryPro features 4 compressors (2 on DN225). Consequently excellent energy savings can be achieved, with compressors switching on and off according to the load. Multiple compressor technology furthermore ensures exceptional system efficiency levels.

Peace of mind

In line with the needs of large industries, DryPro has been designed to offer the user maximum peace of mind. The presence of 4 compressors within 2 separate refrigeration circuits (DN300 – 380) offer complete redundancy and safety. In the unlikely event of a circuit fault nevertheless the dryer ensures 50% of its capacity. Phase monitor standard.

Zero loss drain

The zero loss drain is fitted as standard and ensures notable energy savings. A level sensor in the capacity drain measures the level of the condensate and automatically opens a valve to drain it off, preventing any air and pressure loss. In the event of a fault an alarm is generated.

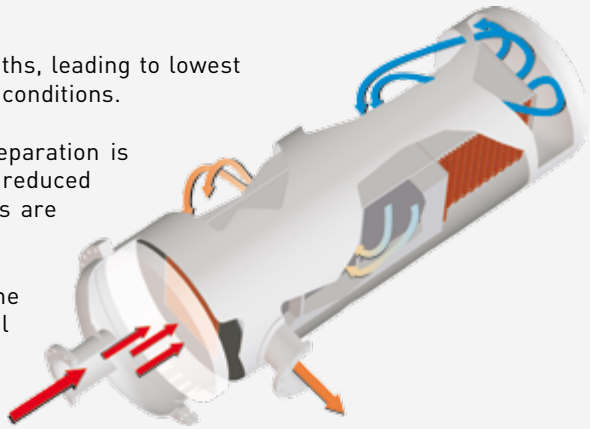
Cooling, conditioning, purifying.

Drystream heat exchanger

DryPro is fitted with the *DRYSTREAM* heat exchanger, a very compact all-in-one solution with copper tubes and aluminium fins, ensuring significant user benefits:

Demister pre-filter - The inlet pre-filter, standard on all models, means that the dryer requires no additional pre-filtration, saving capital and installation costs and avoiding the additional pressure drops due to the addition of the pre-filter itself.

Lowest pressure drops - *DRYSTREAM* features very wide air paths, leading to lowest pressure drops, which are always well below 0,2barg at nominal conditions.



Non air-flow dependent separation - Maximum condensate separation is guaranteed at all air flows, there is no reduction in efficiency at reduced loads as per centrifugal designs. As a result lowest dew points are guaranteed at all times.

Anti-corrosion treatment (cataphoresis) on evaporator - The evaporator is protected by a caraphoresis electrochemicial coating for an increased corrosion resistance.

Epoxy coated vessel - The vessel itself is made of carbon steel, with a special epoxy coating applied externally, ensuring years of trouble free operation.

Compact dimensions - *DRYSTREAM's* architecture, and the fact that it fits within a single vessel, ensure that DryPro's dimensions are kept to an absolute minimum, saving valuable factory space.

Advanced microprocessor

DryPro's microprocessor offers an extensive digital display, full programming and multiple alarms, plus an alarm history which also memorizes dryer operation.
RS485 serial connection to MODBUS and other systems is offered, as well as communication via GPRS directly to a cell phone.

Easy to use & maintain

DryPro operates up to inlet temperatures of 65 °C, with a protection rating of IP54. There is no need for a pre-filter.
The easy to use microprocessor supplies extensive information to facilitate operation and maintenance.

DryPro Twin

DryPro is also available in Twin configuration, for air flows of up to 760 m^3/min. Up to 8 compressors within 4 refrigeration circuits offer unparalleled energy savings and stand-by capacity. The master-slave microprocessor configuration simplifies dryer control.

Configurations & Options

It is possible to choose between air cooled version (DN225/A and DN450T/A) available also with painted coils and water-cooled versions available with shell and tube condensers standard (for tower or well water) or copper-nickel and with refrigeration circuit covering panels. Personalized solutions are also offered.

	Model	Airflow		Nominal absorbed power	Condenser water flow	Power supply
		m³/h	m³/min	kW	m³/h	
	DN225/A	13.500	225	23,3	-	400±10%/3/50
	DN225/W	13.500	225	19,4	10,2	400±10%/3/50
	DN300/W	18.000	300	23,8	13,1	400±10%/3/50
	DN380/W	22.800	380	31,5	16,9	400±10%/3/50
Twin version	DN450T/A	27.000	450	2 x 23,3	-	400±10%/3/50
Twin version	DN450T/W	27.000	450	2 x 19,4	20,4	400±10%/3/50
Twin version	DN600T/W	36.000	600	2 x 23,8	26,2	400±10%/3/50
Twin version	DN760T/W	45.600	760	2 x 31,5	33,8	400±10%/3/50

	Model	Air connections	Water connections	Overall dmensions (mm)			Weight
		DN	BSP (F)	Depth	Width	Height	(Kg)
	DN225/A	DN 250	2"	1150	3390	2210	1.850
	DN225/W	DN 250	2"	2975	1165	1980	1.730
	DN300/W	DN 300	2"	3575	1315	2230	2.750
	DN380/W	DN 300	2"	3575	1315	2230	2.785
Twin version	DN450T/A	DN 350 •	2"	*	*	*	2 x 1.850 #
Twin version	DN450T/W	DN 350 •	2"	*	*	*	2 x 1.730 #
Twin version	DN600T/W	DN 450 •	2"	*	*	*	2 x 2.750 #
Twin version	DN760T/W	DN 450 •	2"	*	*	*	2 x 2.785 #

Data refers to the following working conditions: air FAD 20 °C /1 barA, pressure 7 bar(g), ambient temperature 25 °C (air-cooled version) or condensing temperature 40 °C (water-cooled version), air inlet temperature 35 °C, pressure dew point 3 °C, according to ISO8573.1 standards.
Weights are net (without packing). The refrigerant used is R407C.

Maximum working pressure 12 bar(g), maximum ambient temperature 46 °C, maximum inlet temperature 65°C.
Water-cooled units require a 20-45 °C cooling water inlet temperature. For differing conditions contact MTA.
460V±10%/3Ph/60Hz power supply available on request. Condenser water flow refers to 25 °C water inlet temperature.

•: Air connection size is for unit with optional connection manifolds.
*: Dimensions depend on desired installation configuration (contact M.T.A. for details).
#: Weights do not include optional connection manifolds.

CAPACITY correction factors (indicative values): CAPACITY = RATED VALUE (7 barg) x K1 x K2 x K3 x K4.

Working pressure	barg	3	4	5	6	7	8	9	10	11	12
Correction factors	K1	0.69	0.79	0.88	0.95	1.00	1.05	1.09	1.12	1.15	1.17

Air inlet temperature	°C	30	35	40	45	50	55	60	65
Correction factors	K2	1.23	1.00	0.82	0.68	0.56	0.46	0.38	0.31

Pressure dew point	°C	3	4	5	6	7
Correction factors	K3	1.00	1.07	1.13	1.19	1.25

Ambient temperature (DN225/A + DN450T/A)	°C	20	25	30	35	40	46
Correction factors	K4	1.05	1.00	0.95	0.90	0.84	0.77

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MTA is represented in over 80 countries worldwide. For information concerning your nearest MTA representative please contact M.T.A. S.p.A.

MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.

MTA products comply with European safety directives, as recognised by the CE symbol.

GOST Certification

Cooling, conditioning, purifying.

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