

# DryPower

refrigeration dryers  
22-190 m<sup>3</sup>/min.



pure energy



Purifying your compressed air,  
increasing your efficiency.



Cooling, conditioning, purifying.

# DryPower

DryPower features a modular design whereby multiple heat exchangers ensure optimum performance throughout its broad capacity range. The highly efficient *DRYMODULE* exchangers allow lowest dew point levels in all conditions with minimum energy consumptions. The extremely compact packaged design simplifies positioning and maintenance, whilst sophisticated microprocessor technology and scroll compressors offer the User the most advanced technical solutions.



## Easy to install

DryPower's compact design and thoughtful component layout provide extreme installation flexibility. The single-sided entry for the condenser air flow and frontal access for all controls and refrigeration components ensure that DryPower occupies less valuable plant floor space.

## Easy to operate

A combination of analogue gauges and digital displays allows DryPower's operation to be easily monitored at a glance. Microprocessor-based controls provide warnings and alarms ensuring correct dryer operation. Numerous remote monitoring and operation options are also offered.

## Easy to maintain

Easily removable panels allow quick access to the interior components. The refrigeration circuit itself is in a separate compartment at the dryer front. The control enclosure is hinged for easy troubleshooting. Removable condenser inlet air filters (optional) facilitate cleaning.



DryPower features the most advanced microprocessor control technology. A comprehensive digital display keeps the User fully informed, whilst extensive programming allows personalized dryer operation according to each individual need.

Maintenance operations are simplified, and there are numerous remote Supervising options.

- Digital display of the dewpoint, plus the air inlet and outlet temperatures.
- Multi-level menus with multiple password protection and extensive programming possibilities.
- 15 worded or coded alarms ensuring faultless dryer operation.
- Consensate drain control and programming.
- Self diagnostic software (MG 150-190).
- Volt-free general alarm contact for remote alarm indication.
- "DryPlan": weekly energy saving program (MG 150-190).
- Remote connection options:
  - RS485 Serial connection to a Supervisor system (MODBUS and other leading versions);
  - Remote alarm indications via GSM directly to a cell phone (MG 150-190);
  - "PlantWatch" Supervisor system (MG 150-190);
  - Remote display module (MG 150-190);
- Alarm history (stores the last 50 alarms). Also memorizes (MG 150-190) the dryer operating parameters at each alarm intervention.



TDC microprocessor control (MG 022-110)

### Full range of options

DryPower offers the right solution for all individual needs:

- Air or water-cooled versions;
- Centrifugal fans;
- Copper fin air-cooled condenser.



pCO<sup>XS</sup> microprocessor control (MG 150-190)

## DRYMODULE HEAT EXCHANGER

### 3-in-1 configuration:

The air-to-air exchanger, evaporator and demister are housed in a single aluminium module. This ensures a very compact, robust and energy efficient design.

### Modular design:

Each DryPower dryer features multiple *DRYMODULE* exchangers, up to a maximum of 10. Maintenance is simplified and service life is increased.

### PERMASEP condensate removal:

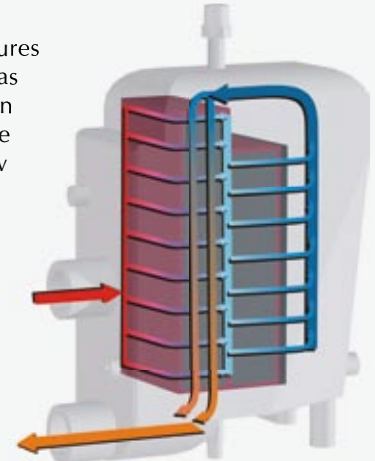
*DRYMODULE*'s unique cross-flow design features PERMASEP, with the condensate being separated as soon as it is created, along the entire cooling path (in traditional solutions all condensate is removed at the end of the cooling circuit). PERMASEP improves dew points and reduces energy consumptions.

### Low air velocities:

*DRYMODULE*'s wide air circuit results in low air velocities, improving condensate removal and reducing pressure drops.

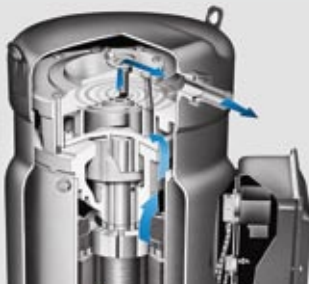
### Oversized demister separator:

*DRYMODULE*'s demister separator is up to 5 times larger than typical solutions, improving condensate separation. Unlike centrifugal separators, the demister configuration works perfectly even at reduced air flows.



### Scroll compressor technology

Scroll compressors (standard from 77 m<sup>3</sup>/min) offer energy savings of around 20%. The extremely robust design tolerates liquid refrigerant returns, reducing the chance of compressor damage. Reduced vibrations increase dryer longevity, and there is no need to pre-heat the dryer at start-up.



### Efficient and environmental

The high efficiency *DRYMODULE* heat exchanger coupled with non-ozone depleting R-407C refrigerant help make DryPower the best choice for the environment. Staging of twin compressors (MG150-190) provide notable partial load energy savings.



### Robust design

DryPower's high quality construction materials ensure a long service life. The *DRYMODULE* heat exchanger is made entirely in aluminum. Air manifolds are in electro-coated steel. The galvanized steel panels are powder-coated. The dryer is IP54 protected.



Model	Airflow		Nominal absorbed power kW	Air connections	Overall dimensions (mm)			Weight (kg)
	m <sup>3</sup> /h	m <sup>3</sup> /min			A	B	C	
MG 022	1.320	22,0	2,16	DN 80	660	1.351	1.400	244
MG 028	1.680	28,0	3,15	DN 80	660	1.351	1.400	254
MG 037	2.220	37,0	3,64	DN 80	660	1.351	1.400	276
MG 045	2.700	45,0	4,62	DN 100	712	1.263	1.400	318
MG 060	3.660	61,0	6,62	DN 100	910	1.940	1.447	380
MG 077	4.620	77,0	6,04	DN 150	910	1.940	1.447	526
MG 090	5.400	90,0	6,91	DN 150	910	1.940	1.447	551
MG 110	6.600	110,0	8,99	DN 150	910	1.940	1.447	624
MG 150	9.000	150,0	11,55	DN 200	930	3.000	2.079	1.077
MG 190	11.400	190,0	14,23	DN 200	930	3.000	2.079	1.102

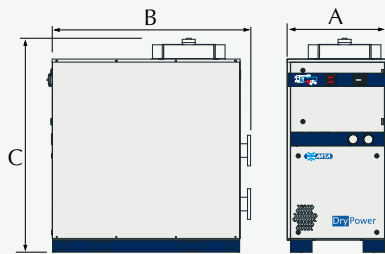
Data refers to air-cooled model at the following conditions: air FAD 20°C/1 barA, pressure 7 bar(g), ambient temperature 25°C, air inlet temperature 35°C, pressure dew point 3°C, according to ISO 8573.1 standards.  
Weights are net (without packing). The refrigerant used is R407C.

Maximum working pressure 14 bar g; maximum ambient temperature 46 °C (higher on request); maximum inlet temperature 65 °C.  
Power supply: 400 V +/-10% / 3Ph / 50Hz (460 V +/-10% / 3Ph / 60Hz available on request).  
Water-cooled version also available.

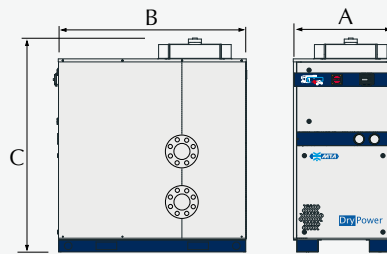
The correction factors in the following table should be used as a guide only; for accurate selection at conditions differing from the above the selection software should be utilised.

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

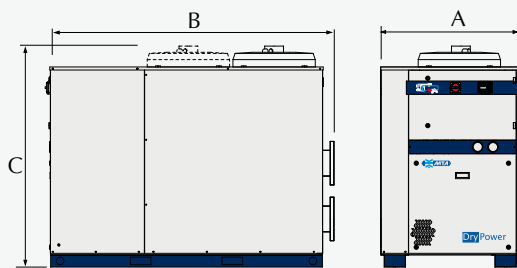
working pressure	bar	3	4	5	6	7	8	9	10	11	12	13	14
correction factor	K1	0,67	0,80	0,88	0,94	1,00	1,05	1,09	1,13	1,16	1,18	1,21	1,23
air inlet temperature	°C	30	35	40	45	50	55	60	65				
correction factor	K2	1,26	1,00	0,82	0,67	0,55	0,47	0,45	0,43				
ambient temperature	°C	20	25	30	35	40	46						
correction factor	K3	1,06	1,00	0,94	0,88	0,82	0,74						
pressure dew point	°C	3	4	5	6	7	8	9	10				
correction factor	K4	1,00	1,06	1,12	1,18	1,24	1,27	1,27	1,27				



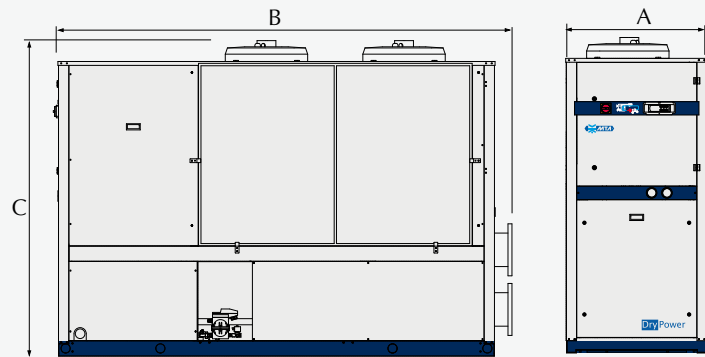
MG 022 - 037



MG 045 - 060



MG 077 - 110 (1 fan only for MG077)



MG 150 - 190

Complete your compressed air treatment system with M.T.A. aftercoolers, separators, filters, adsorption dryers, drains, oil-water separators and chillers.





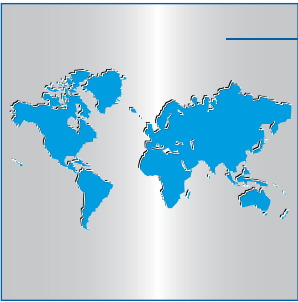
## PURE INNOVATION, PURE SATISFACTION, PURE ENERGY

MTA was born over 25 years ago with a clear objective: improving mankind's relationship with two distinct natural resources, air and water, and optimising their transformation into energy sources. Our investment in Innovation ensures we offer the very latest technologies, whilst an expert team worldwide ensures our Customers achieve the highest levels of Satisfaction. At MTA energy is our business, and improving your relationship with your energy is our aim.



## STRATEGIC DIVERSIFICATION

MTA covers three distinct market segments. As well as Compressed Air & Gas Treatment solutions, we offer a complete series of products for the Industrial Process Cooling market, as well as an extensive range of Air Conditioning products. MTA has always been known for the innovation it has brought into each of these three sectors; in fact our strategic diversification offers our Customers unique benefits unseen in their individual fields.



## FAR REACHING BUT ALWAYS CLOSE BY

MTA is officially represented in some 60 countries worldwide. 8 MTA Sales Companies cover 4 continents. Our staff and representatives boast expert knowledge and benefit from continuous training. Accurate attention to service support guarantees that our Customers can look forward to long term peace of mind and an optimized energy solution. We always remain close to our Customers, so wherever you may be, we will be near to you.

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