HPDry

Refrigeration dryers for 50 bar(g)
Nominal air flow 0,7-122 m³/min.

Purifying your compressed air,
increasing your efficiency.

MTA®
Cooling, conditioning, purifying.

HPDry

HPDry has been specifically designed for the needs of the high pressure dryer User, offering working pressures of up to 50 barg. The extremely reliable design concept ensures that HPDry operates perfectly at all times and in all conditions. HPDry automatically adopts its operation to the air flow and ambient conditions, offering energy savings of up to 80% compared with traditional dryers. HPDry forms part of a complete range of MTA products for higher pressures, ensuring all User needs are perfectly satisfied.

High energy savings

HPDry only operates when it needs to, automatically cycling on and off according to the effective air flow and ambient conditions; energy savings of up to 80% are achievable.
Minimal pressure drops offer additional savings.

Optimum dew points

The thermal storage acts as a buffer in the event of sudden load demands, thereby avoiding undesired dew point spikes. A stainless steel double demister ensures perfect separation even at reduced loads, and twin condensate drains are standard.

Easy to use

The condenser fits on 1 side and access to all major components is from the front, facilitating positioning and reducing space requirements.
As the dryer automatically cycles according to the load there is no need to switch it off.

Microprocessor control

HPDry's microprocessor offers twin digital displays, full programming and multiple alarms, plus an alarm history.
RS485 serial connection is offered, as well as communication via GPRS directly to Internet or a cell phone.

Flexible to your needs

The 50 barg pressure limit, with air flows of up to 122 m^3/min. ensure that the HPDry range covers all User needs. Both 50 Hz and 60 Hz versions are offered, also with UL listing. Special approvals can be supplied on request.





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Unique air circuit

How it works:

HPDry's air circuit is made up of two shell & tube exchangers, one for the air-to-air section, the second for the water/glycol-to-air section.

The auxiliary water/glycol circuit features a large buffer tank, which acts as a thermal storage, and a circulating pump. The chilled water/glycol mixture circulates through the shell & tube exchanger, cooling the air to the dew point temperature.

When the temperature of the water/glycol mixture increases beyond a set value the refrigeration circuit switches on to replenish the buffer tank, switching off again once the desired temperature has been achieved.

Benefits:

No unwanted energy consumption – The refrigeration circuit only operates when it needs to, automatically cycling on and off according to the effective load. As the system load is usually well below the maximum level, and given that winter and mid-season ambient conditions reduce the load on the dryer, so HPDry offers energy savings of up to 80% compared with traditional hot gas by-pass equipped dryers.

Constant dew point – HPDry's water/glycol tank acts as a buffer to smooth out sudden load demands, thereby avoiding the dew point peaks suffered by traditional dryers.

Simple and reliable – HPDry uses an uncomplicated refrigeration circuit for increased reliability. No seasonal adjustments are required, and the on/off operation means there is no risk of freezing.

Fail-safe stainless steel air-side tubes – The unique heat exchanger configuration features stainless steel tubes in the air circuit. The shell & tube configuration ensures high reliability levels.

No need to switch dryer on and off – Ease of use is simplified, HPDry automatically switches itself on and off without the need for any User intervention.

The complete MTA range for all your high pressure needs

Refrigeration dryers

MTA offers the DEiTECH dryer range, in 16 barg version with air flows of 0.3-32 m^3/min. DEiTECH units offers energy savings, thanks to an innovative Impulse Technology control system. The dryer is able to adapt itself to the real needs of the compressed air system, controlling the flow of refrigerant handled by the compressors for high/medium air flows, or thermal storage operation for low air flows.

Adsorption dryers

Adsorption dryers are applied when extremely low dew points are required. MTA's DryXtreme range features versions for higher pressures, and are available in both heatless and heat regenerated configurations.

Filters & Separators

PureTec filters and PureSep separators are available for pressures up to 250 barg. 4 high efficiency filtration grades ensure that all individual User needs can be catered for. The separators feature reliable centrifugal technology.

Aftercoolers

MTA's CoolPro air and water-cooled aftercoolers covers a vast array of high pressure applications for both air and technical gases.
Complete flexibility is offered towards materials applied, working pressures and approvals.

Other components

MTA offers high pressure LiquiPro condensate drains in mechanical zero-loss, electronic zero-loss and timed configurations.
A range of MTA high pressure air receivers completes the compressed air network.

Model	Nominal air flow (*)		Nominal absorbed power (*) (kW)	Air connections	Overall dimensions (mm)				Weight
	m³/h	m³/min			A	B	C	D	(kg)
DRY ENERGY HYBRID HP									
DE 007 HP	41	0,68	0,17	1/2"	530	362	620	41	41
DE 015 HP	87	1,45	0,25	1/2"	530	362	620	41	50
DE 040 HP	237	3,95	0,46	1/2"	650	410	860	41	72
DE 060 HP	354	5,90	0,71	1"	780	410	970	41	111
DE 075 HP	466	7,77	0,76	1"	780	785	940	51	162
DE 095 HP	598	9,97	0,97	1"	780	785	940	51	190
DE 170 HP	1.006	16,8	1,78	1 1/2"	865	1070	1.100	51	273
DE 235 HP	1.422	23,7	2,20	2"	865	1350	1.100	51	390
HPDRY									
HPD 260 / A	1.530	25,5	3,09	1 1/2"	690	1520	1700	-	470
HPD 340 / A	1.962	32,7	4,29	1 1/2"	690	1520	1700	-	490
HPD 450 / A	2.700	45,0	4,44	2"	765	2110	1806	-	650
HPD 640 / A	3.720	62,0	5,39	2"	765	2110	1855	-	757
HPD 750 / A	4.500	75,0	8,72	2"	765	2100	1855	-	933
HPD 1000 / A	6.108	102,0	10,42	3"	900	2220	1915	-	1120
HPD 1200 / A	7.314	121,9	13,16	3"	1200	2300	2065	-	1475

(*) Data refers to the following working conditions: air FAD 20 °C / 1bar A, pressure 40 bar(g), ambient temperature 25 °C, air inlet temperature 35 °C, pressure dew point 3 °C, according to ISO 8573.1 standards. DE dimensions refer to version with iDRAIN.
Weights are net (without packing). The refrigerant used is R134a (DE HP) and R407C (HPD).
Maximum working pressure 50 bar(g); maximum inlet temperature 70 °C (DE HP) and 65 °C (HPD).
Power supply: 230V ±10% / 1Ph / 50Hz (DE007HP-095HP); 400V ±10% / 3Ph / 50Hz (DE170HP-235HP and all HPD models); 60Hz available on request.

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 40 bar(g) x K1 x K2 x K3 x K4.

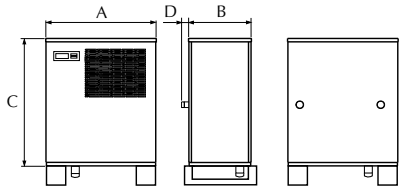
Working pressure	bar (g)	25	30	35	40	45	50
Correction factor DE HP	K1	0,94	0,97	0,99	1,00	1,01	1,01
Correction factor HPD	K1	0,92	0,99	1,00	1,00	1,00	1,00

Air inlet temperature	°C	35	45	70
Correction factor DE HP	K2	1	0,77	0,46
Correction factor HPD	K2	1	0,78	-

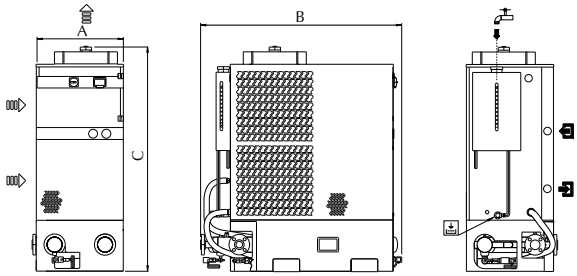
Pressure dew point	°C	3	5	7	9
Correction factor DE HP	K3	1,00	1,12	1.25	1.41
Correction factor HPD	K3	1,00	1,12	1.23	1.31

Ambient temperature	°C	25	35	45
Correction factor DE HP	K4	1	0,90	0,79
Correction factor HPD	K4	1	0,92	-

DE HP



HPD



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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.

The data contained herein is not binding. With a view to continuous improvement, MTA SpA reserves the right to make changes without prior notice.

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.

EAC Declaration.

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