aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

PNEUDRI MXLE *ADVANTAGE*

Low energy heatless dryers

Parker domnick hunter

ENGINEERING YOUR SUCCESS.

Compressed air contamination is a real problem for industry

In today's modern production facilities, the use of compressed air is often pivotal to manufacturing processes. Irrespective of whether the compressed air comes into direct contact with the product or is used to automate a process, provide motive power, or even to generate other gases on-site, a clean, dry, reliable compressed air supply is essential to maintain efficient and cost effective production.

Parker domnick hunter provides complete compressed air treatment solutions to suit every industry, application & budget.

The benefits of using Parker domnick hunter compressed air treatment solutions:

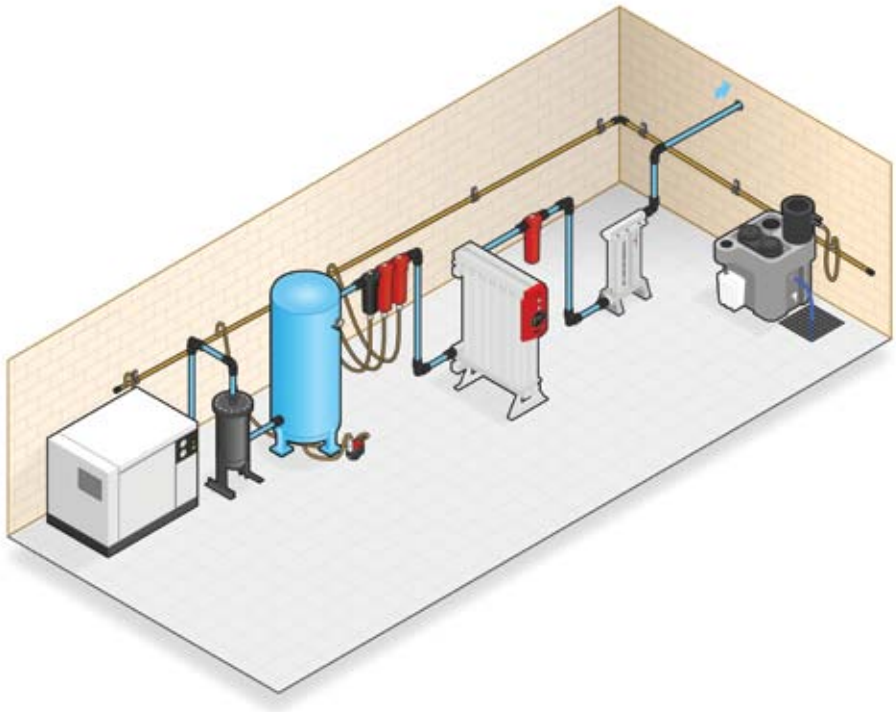
- **Plant Reliability - trouble free operation from equipment and processes using compressed air**
- **Clean Dry Air available for all applications**
- **No contamination of products / processes / equipment**
- **Low Maintenance Costs – Reduce or eliminate unexpected / unplanned plant maintenance for better budget control**
- **Lower plant energy consumption**
- **Lower plant environmental impact**
- **Legislation compliance – e.g. assist in complying with hygiene legislation in the Food, Beverage & Pharmaceutical industries**






Compressed air dryers – The heart of the compressed air treatment solution

At the heart of any compressed air treatment solution is the dryer, it's purpose, to remove water vapour, stop condensation, corrosion and in the case of adsorption dryers, inhibit the growth of micro-organisms.



Heatless adsorption dryers (also known as PSA dryers) are the simplest type of adsorption dryer available and have long been the dryer of choice for many industries and applications. They are simple, reliable and cost effective and for small to medium flow systems, often the only viable technology available. Additionally, modular heatless dryers such as PNEUDRI provide an even more reliable, smaller, more compact & lightweight dryer which can be installed in both the compressor room or at the point of use.

Benefits of Heatless Adsorption Dryers

- **Industry proven design**
- **Suitable for all industries and applications - some adsorption dryer regeneration methods prevent their use in certain industries / applications**
- **Lower capital investment compared to other adsorption dryer regeneration methods**
- **Reduced complexity compared to other adsorption dryer regeneration methods**
- **Robust & reliable**
- **Uses clean, dry compressed air for regeneration making them suitable for all industries and applications**
- **Lower maintenance costs compared to other adsorption dryer regeneration methods**
- **No heat / heaters / heat related issues**

RELIABILITY QUALITY EFFICIENCY

Improving manufacturing efficiency

Every manufacturing organisation strives to improve its operational efficiency, especially in terms of energy consumption and environmental impact.

Heatless adsorption dryers use clean, dry process air for regeneration, but in real terms, this means that not all of the compressed air generated is available for manufacturing processes.

Generating compressed air uses electrical energy, so although heatless adsorption dryers have many benefits, the energy costs associated with this type of dryer may be higher when compared to other types of adsorption dryers with different regeneration methods.

DESIGNED FOR AIR QUALITY & ENERGY EFFICIENCY

REDUCED CO_2

INTRODUCING

PNEUDRI MXLE *ADVANTAGE*

Low Energy Heatless Adsorption Dryers

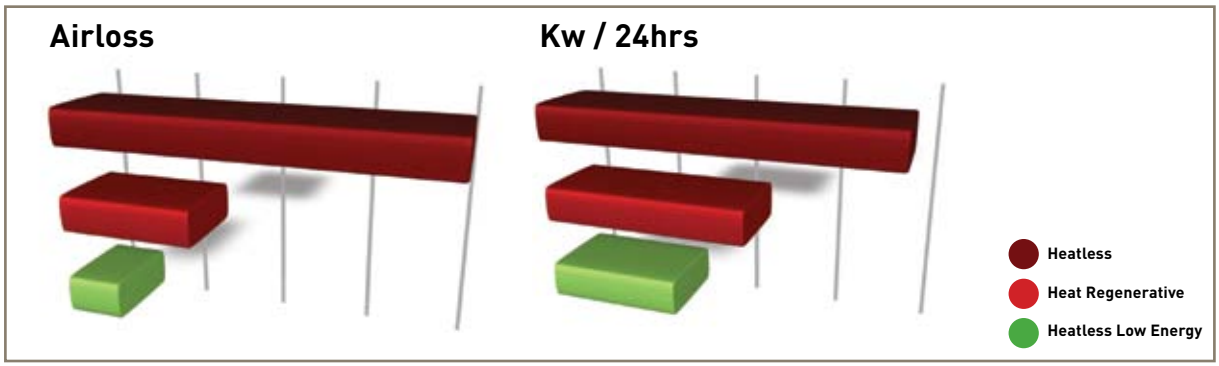
The PNEUDRI MXLE *ADVANTAGE* has been specifically designed to provide all of the benefits of a traditional PNEUDRI MX heatless adsorption dryer with the additional benefits of increased compressed air available for plant use, lower energy costs and lower environmental impact.

Dryer Selection

Dryers should not be selected upon energy costs alone, but on delivered air quality, their suitability for the industry & application in which they are to operate, reliability and total cost of ownership.

PNEUDRI MXLE *ADVANTAGE*
Features & Benefits

- **Complete clean dry air solution with guaranteed air quality**
  - Includes Pre & Post Filtration
  - Delivered air quality in accordance with ISO8573-1
  - 3rd Party validated performance on both dryer and pre / post filtration
  - Dryer tested in accordance with ISO7183
  - Filters tested in accordance with ISO12500-1 / ISO8573-4
- **Modular construction**
  - Smaller, more compact & lightweight than traditional Twin Tower dryers
  - Fully expandable as your system grows
  - Existing MX dryers can be upgraded to extend life of existing capital equipment and lower capital expenditure
- **Low energy heatless technology**
  - 17% more air available for use than a comparative heatless dryer
  - On average, 60% lower energy consumption than a comparative heatless dryer & 39% lower energy consumption than a comparative heat regenerative dryer
  - Energy Management System fitted as standard for additional savings
- **Suitable for all industrial applications**
- **Ideally suited for food, beverage and pharmaceutical industries & applications**
  - Uses clean dry process air for regeneration (no contamination of adsorption bed)
  - Materials of Construction FDA Title 21 Compliant and EC1935-2004 exempt
- **Heatless fall back mode for extra security**
  - Extra security – should a fault occur with the vacuum pump, dryer can be operated in full heatless mode to keep plant operational
- **Lower total cost of ownership**
  - Low running costs
  - Shorter maintenance times & extended preventative maintenance periods
  - Lower maintenance costs compared to other types of low energy dryer
- **Lifetime warranty available**



Performance Verified
Lloyd's Register
In accordance with ISO7183

Performance Verified
Lloyd's Register
ISO8573-2 / ISO8573-4 / ISO8573-5 / ISO12500-1

PNEUDRI MXLE *ADVANTAGE*

Product selection

	Model	Pipe Size	Flowrates			
			L/s	m^3/min	m^3/hr	cfm
Single Bank	MXLE 102C	2"	113	6.81	408	240
	MXLE 103C	2"	170	10.22	612	360
	MXLE 103	2"	213	12.78	765	450
	MXLE 104	2"	283	17.03	1020	600
	MXLE 105	2½"	354	21	1275	750
	MXLE 106	2½"	425	26	1530	900
	MXLE 107	2½"	496	30	1785	1050
	MXLE 108	2½"	567	34	2040	1200

Stated flows are for operation at 7 bar g (100 psi g) with reference to 20°C, 1 bar a, 0% relative water vapour pressure.
For flows at other pressures apply the correction factors shown.

Dryer performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
MXLE	-40	-40	Class 2	-70	-100	Class 1	-20	-4	Class 3

* ISO8573-1 Classifications when used with included Parker domnick hunter OIL-X EVOLUTION pre / post filtration

Technical data

Dryer Models	Min Operating Pressure		Max Operating Pressure		Min Operating Temp		Max Operating Temp		Max Ambient Temp		Electrical supply (standard)	Electrical supply (optional)	Thread Connections	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB (A)
MXLE	5	58	11*	160*	5	41	50	122	55	131	380V - 420V 3PH 50Hz 440V - 480V 3PH 60Hz	N/A	BSPP	<75

* 13 bar g (190 psig) option available on request

Model		MXLE102c	MXLE103c	MXLE103	MXLE104	MXLE105	MXLE106	MXLE107	MXLE108
Vacuum Pump kW	50Hz	3	3	4	5.5	7.5	8	9.5	11
	60Hz	3.6	3.6	4.8	6.6	9	9.6	11.4	13.2

Correction factors

Temperature Correction Factor CFT								
Maximum Inlet Temperature	°C	25	30	35	40	45	50	
	°F	77	86	95	104	113	122	
	CFT	1.00	1.00	1.00	1.04	1.14	1.37	

Pressure Correction Factor CFP								
Minimum Inlet Pressure	bar g	5	6	7	8	9	10	11
	psi g	73	87	100	116	131	145	160
	CFP	1.33	1.14	1.00	0.89	0.80	0.73	0.67

Dewpoint Correction Factor CFD		Option 2	Standard	Option 1
Required Dewpoint	PDP °C	-20	-40	-70
	PDP °F	-4	-40	-100
	CFD	0.91	1.00	1.43

Dryer coding example

Dryer model	Controller type	Number of drying banks	Number of drying columns
MX	LE = LOW ENERGY	Number of individual dryers in installation	Number of columns per dryer bank
MX	LE	1	08

Part numbers

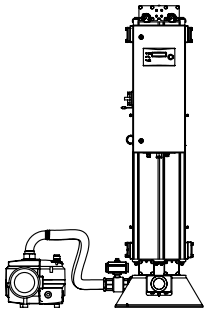
Dryer Part Numbers		Vacuum Pump Part Numbers	Dryer Upgrade Kits Part Numbers
-20°C /-40°C PDP	-70°C PDP		
MXLE102C	MXLE102C-70	MXLEP2C	MXLEK2C
MXLE103C	MXLE103C-70	MXLEP3C	MXLEK3C
MXLE103	MXLE103-70	MXLEP3	MXLEK3
MXLE104	MXLE104-70	MXLEP4	MXLEK4
MXLE105	MXLE105-70	MXLEP5	MXLEK5
MXLE106	MXLE106-70	MXLEP6	MXLEK6
MXLE107	MXLE107-70	MXLEP7	MXLEK7
MXLE108	MXLE108-70	MXLEP8	MXLEK8

Weights and dimensions

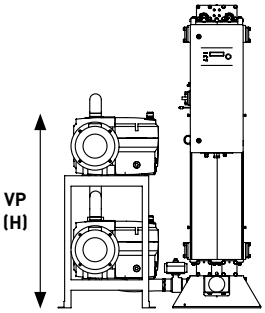
Model	Pipe Size	Dryer Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
MXLE102c	2"	1647	64.8	793.5	31.5	550	21.7	265	583
MXLE103c	2"	1647	64.8	962.5	37.9	550	21.7	346	761
MXLE103	2"	1892	74.5	962.5	37.9	550	21.7	385	847
MXLE104	2"	1892	74.5	1131.5	44.6	550	21.7	480	1056
MXLE105	2½"	1892	74.5	1300.5	51.2	550	21.7	573	1261
MXLE106	2½"	1892	74.5	1469.5	57.9	550	21.7	667	1467
MXLE107	2½"	1892	74.5	1641.5	64.6	550	21.7	761	1674
MXLE108	2½"	1892	74.5	1807.5	71.2	550	21.7	855	1881

Model	Vacuum Pump Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
MXLE102c	355	13.8	900	35.4	531	20.9	129	284
MXLE103c	355	13.8	900	35.4	531	20.9	129	284
MXLE103	385	15.2	998	39.3	531	20.9	163	359
MXLE104	385	15.2	1084	42.7	531	20.9	178	392
MXLE105	385	15.2	1084	42.7	531	20.9	178	392
MXLE106	1185	46.7	1128	44.4	585	23	371	816
MXLE107	1185	46.7	1128	44.4	585	23	386	849
MXLE108	1185	46.7	1128	44.4	585	23	401	882

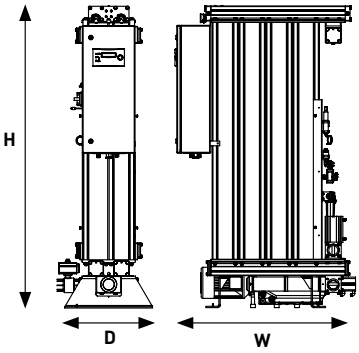
MXLE102c - MXLE105
SINGLE VACUUM PUMP



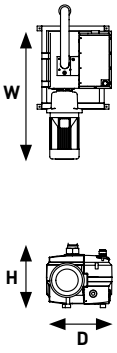
MXLE106 - MXLE108
DUPLEX VACUUM PUMP



DRYER



VACUUM PUMP



Included filtration

For Dryer Model	Filter Pipe Size BSPP	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
MXLE 102C	2"	AO040HGFX	AA040HGFX	AR040HGMX
MXLE 103C	2"	AO040HGFX	AA040HGFX	AR040HGMX
MXLE 103	2"	AO045HGFX	AA045HGFX	AR045HGMX
MXLE 104	2"	AO045HGFX	AA045HGFX	AR045HGMX
MXLE 105	2½"	AO050IGFX	AA050IGFX	AR050IGMX
MXLE 106	2½"	AO055IGFX	AA055IGFX	AR055IGMX
MXLE 107	2½"	AO055IGFX	AA055IGFX	AR055IGMX
MXLE 108	2½"	AO055IGFX	AA055IGFX	AR055IGMX

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