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

PNEUDRI

Compressed Air Desiccant Dryers

Parker domnick hunter

ENGINEERING YOUR SUCCESS.

Moisture is a big problem for compressed air users

Moisture is one of the major contaminants in compressed air systems. It occurs because water vapor present in the atmosphere is drawn into the compressor, where its' concentration can rise dramatically as temperature increases.
Of the ten contaminants commonly found in a compressed air system, water vapor, liquid water and aerosols account for the majority of problems experienced by the compressed air user.

Unseen water vapor condenses into liquid water

Large volumes of atmospheric air enter the compressed air system through the compressor intake. As the air is compressed, its temperature increases significantly, causing it to become fully saturated with water vapor. Water vapor retention in air is dependent upon its temperature and pressure; the higher the temperature, the more water vapor that can be retained; the higher the pressure, the greater the amount of condensed water that will be released.

After the compression stage, the now saturated air is cooled to a usable temperature by an aftercooler, causing the retained water vapor to be condensed into liquid water which is then removed by a condensate drain. The air leaving the aftercooler is now 100% saturated with water vapor. As the compressed air moves downstream to storage vessels and through piping, its temperature falls and concentrated vapor will sublimate as droplets of liquid water.

If not removed, this will cause corrosion of the distribution system, blocked or frozen valves and machinery, as well as providing an ideal breading ground for micro-organisms and bacteria.

To eliminate these moisture problems, all viable water vapor must be removed by desiccant dryers, before it can enter the compressed air system.

How much water can be found in a typical compressed air system?

The amount of water in a compressed air system is staggering. A small 100 cfm (2.8 m^3/min) compressor and refrigerated air dryer combination, operating for 4000 hours in typical Northern American climatic conditions can produce approximately 2,200 gallons or 10,000 liters of liquid condensate per year.

Oil is often perceived to be the most prolific contaminant as it is can be seen emanating from open drain points and exhausting valves. In the majority of instances, it is actually oily condensate (oil mixed with water) that is being observed. In reality, oil accounts for less than 0.1% of the overall volume.

This example illustrates the use of a small compressor to highlight the large volume of condensate produced. Up to 99.9% of the total liquid contamination found in a compressed air system is water.

If a compressed air system was operated in warmer, more humid climates, with larger compressors, or run for longer periods, the volume of condensate would increase significantly.

99.9% of the total liquid contamination in a compressed air system is water.

PNEUDRI modular compressed air dryers - a dedicated solution for every application

By combining the proven benefits of desiccant drying with modern design, Parker domnick hunter has produced an extremely compact and reliable system to totally dry and clean compressed air.

PNEUDRI MiDAS

Flowrates from 3 cfm> (5.1m³/hr >)

PNEUDRI MIDIplus

Flowrates from 24 cfm> (49m³/hr >)

PNEUDRI DH MAXI

Flowrates from 140 cfm> (238m³/hr >)

PNEUDRI MPX

Flowrates from 1381 cfm> (2346m³/hr >)

PNEUDRI MX

Flowrates from 240 cfm> (408m³/hr >)

The Parker domnick hunter PNEUDRI ranges of heatless and heat regenerative dryers have proven to be the ideal solution for many thousands of compressed air users worldwide in a wide variety of industries.

Compressed air purification equipment must deliver uncompromising performance and reliability while providing the right balance of air quality with the lowest cost of operation.

Benefits:

Highest quality air
- Clean, oil-free and dry compressed air in accordance with all editions of ISO8573-1, the international standard for compressed air quality

Energy efficient
- Giving maximum savings

Dry air eliminates microbiological growth
- Preventing product spoilage, recall and litigation

Dry air means zero corrosion
- Preventing product spoilage and damage

Smaller, more compact and lightweight
- Modular construction means less than half the size of conventional dryers

Modular design
- 100% standby at a fraction of the cost of twin tower designs
- 10 year guarantee on pressure envelope
- Corrosion resistance due to alochroming and epoxy painting
- Constant dewpoint performance thanks to snowstorm filling

Approvals to international standards
- UL, CSA, CRN, PED, CE

Easy and flexible installation
- Minimal space required

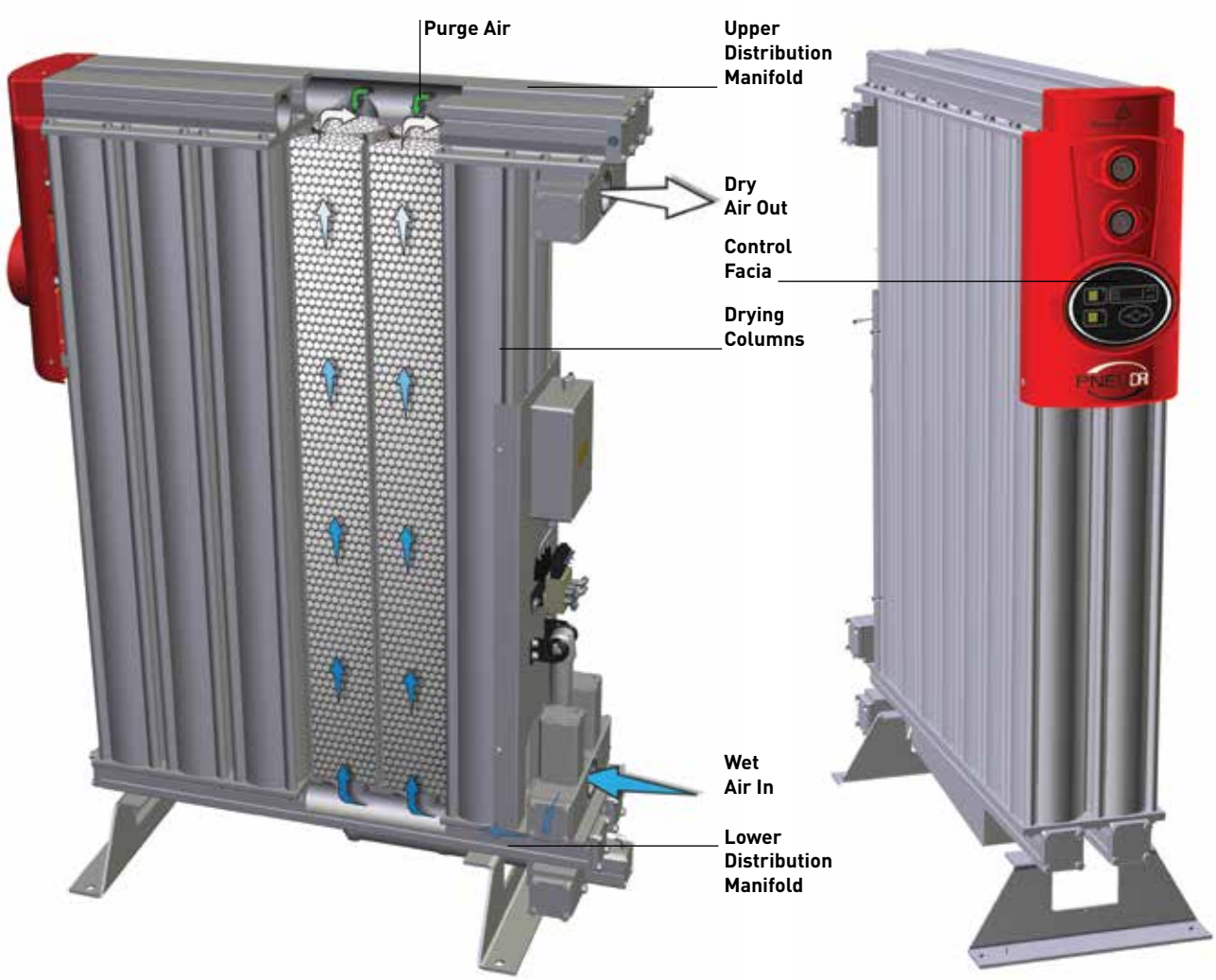
Simple maintenance
- Giving reduced downtime

Reduced noise pollution
- Less than 85 dBA

Clean, dry air improves production efficiency and reduces maintenance costs and downtime. Only an desiccant dryer can provide the highest levels of dry compressed air.

PNEUDRI - How it works

PNEUDRI comprises of high tensile extruded aluminum columns each containing twin chambers filled with desiccant material which dries the compressed air as it passes through.



One chamber is operational (drying), while the opposite chamber is regenerating using either the Pressure Swing Desiccant (PSA) (heatless) or Thermal Swing Desiccant (TSA) (heat regenerative) method of drying.

A small volume of the dried compressed air is used to regenerate the saturated desiccant bed by expanding air from line pressure to atmospheric pressure, removing the water vapor adsorbed by the desiccant material, and therefore regenerating the dryer. Heat regenerative models have electric heaters built into the desiccant beds to further reduce purge air consumption and increase operating efficiency.

Modular design eliminates the need for complex valves and interconnecting piping which are used in conventional twin tower designs.

PNEUDRI - The world's most advanced modular drying system

With the proven benefit of advanced aluminum forming technology, Parker domnick hunter has developed a twin tower desiccant dryer that is typically 60% of the size and weight of conventional designs.

These advanced desiccant dryers include ranges of heatless and heat-regenerative PNEUDRI dryers which provide one of the most simple and cost effective compressed air drying solutions.

Engineers at Parker domnick hunter have developed PNEUDRI using innovative aluminum forming technology, resulting in units that are typically 60% of the size and weight of conventional welded steel desiccant air dryers. Using a single, high tensile extruded aluminum column, the PNEUDRI modular design eliminates the need for complex valves or interconnecting piping.

Also, the length to diameter ratio of the internal voids and non-welded construction means that PNEUDRI does not require periodic inspections for insurance purposes, unlike traditional twin-tower air dryers that require out of service periods which can severely disrupt production schedules.

Drying Columns

Distribution Manifold

Greater flexibility with multi-banking

Multi-banking
Unlike traditional twin tower dryer designs, PNEUDRI MAXI models can be multi-banked to provide extra compressed air drying capacity should demand increase in the future. There is no need to replace the dryer with a larger unit, additional capacity can be covered by simply adding extra bank(s), a feature only available with PNEUDRI.

Flexibility during maintenance
Multi-banking allows individual dryer banks to be easily isolated for routine service work, while maintaining your clean, dry air supply.

100% stand-by
Compared to traditional twin tower designs, 100% standby is available at a fraction of the cost as only one extra dryer bank is required.

Fits through a standard doorway
Unlike traditional twin tower designs, PNEUDRI dryers will fit through a standard doorway, eliminating the need for special access or facility structural dismantling during installation.

PNEUDRI - four key features guarantee air quality

OIL-X EVOLUTION filtration

Desiccant dryers are designed for the removal of water vapor and not liquid water, water aerosols, oil, particulates or micro-organisms. Only by using Parker domnick hunter OIL-X EVOLUTION pre and after filtration can the removal of these contaminants be assured and air quality in accordance with all editions of ISO8573-1 be guaranteed.

Modular aluminum design

Aluminum extrusions are used throughout for drying chambers and distribution manifolds. This design allows the desiccant material to be retained within the drying chambers.'Snowstorm' filling, prevents movement of the desiccant material during operation and also eliminates desiccant attrition and breakdown which could lead to a loss of pressure dewpoint.

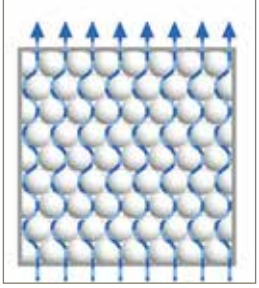
Adsorbent desiccant material

Specially selected desiccant materials provide:

- **Optimum desiccant and regeneration capacity - to ensure consistent dewpoint**
- **Low dusting - to prevent blockage of downstream filtration**
- **High crush strength - to prevent breakdown of the desiccant during operation**
- **High resistance to aggressive and oil-free condensate - for compatibility with all types of air compressor, their lubricants and condensate**

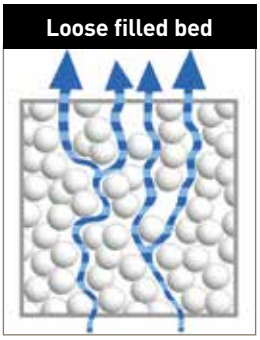
'Snowstorm' filling ensures consistent dewpoint performance

Snowstorm filled bed



Consistent drying with no desiccant attrition

Loose filled bed



Inconsistent drying and desiccant attrition

'Snowstorm' filling method

Unique to Parker domnick hunter modular dryers is the snowstorm filling technique used to charge the drying chambers with adsorbent desiccant material.
The benefits are:

- **Achieves maximum packing density for the desiccant material, fully utilizing all of the available space envelope**
- **Prevents air channelling through the desiccant as experienced with twin tower designs. Due to channelling, twin tower designs require more desiccant to achieve an identical dewpoint, increasing physical size, operational and maintenance costs**
- **Prevents desiccant attrition which can lead to dusting, blocked filters and loss of dewpoint**
- **Allows 100% of the available desiccant material to be used for drying, therefore reducing the amount of desiccant required and maintenance costs**
- **100% of the desiccant is regenerated ensuring consistent dewpoint**
- **Provides a low, equal resistance to air flow allowing multiple drying chambers and multiple dryer banks to be used, a feature only available with PNEUDRI**

What air quality do I need?

The compressed air PDP should not only be selected to prevent condensation and freezing in the piping, consideration must also be given to the requirements of the application.

Typically, refrigerated air dryers are employed for general purpose plant air. However, a significant amount of water vapor still remains in the compressed air, much more than is tolerable for most applications (air after a desiccant dryer with -40˚F (-40˚C) Pressure Dewpoint (PDP) is around 60 times dryer than air after a refrigerated air dryer with a +37.4˚F (+3˚C) PDP). Many critical applications require a PDP well below those offered by refrigerated dryers, for example, compressed air with a PDP better than -14.8˚F (-26˚C) will inhibit growth of micro-organisms, which is well beyond the capabilities of a refrigerated dryer. Preventing the growth of these microbiological contaminants is crucial to industries such as food, beverage, pharmaceutical, medical, dental, electronics, cosmetics and any application where compressed air is used to provide breathable air.

The quality of air required throughout a typical compressed air system will vary depending upon the application for which it is used.

Critical Applications

Pharmaceutical products

Silicon wafer manufacturing

TFT / LCD screen manufacturing

Memory device manufacturing

Optical storage devices (CD, CD/RW, DVD, DVD/RW)

Optical disk manufacturing (CDs/DVDs)

Hard disk manufacturing

Foodstuffs

Dairies

Breweries

CDA systems for electronics manufacturing

For ultra-critical applications which require the driest possible air, -100˚F (-70˚C) PDP must be specified.

High Quality Oil-Free Air

Blow molding of plastics e.g. P.E.T. bottles

Film processing

Critical instrumentation

Advanced pneumatics

Air blast circuit breakers

Decompression chambers

Cosmetic production

Medical air

Dental air

Robotics

Spray painting

Air bearings

Measuring equipment

Pre-treatment for on-site gas generation

General Purpose Oil-Free Air

General ring main protection

Plant automation

Air logistics

Pneumatic tools

General instrumentation

Metal stamping

Forging

General manufacturing (no external piping)

Air conveying

Air motors

Workshop (tools)

Temperature control systems

Blow guns

Gauging equipment

Raw material mixing

Sand / bead blasting

Yard air

Selecting the right dryer for your compressed air system

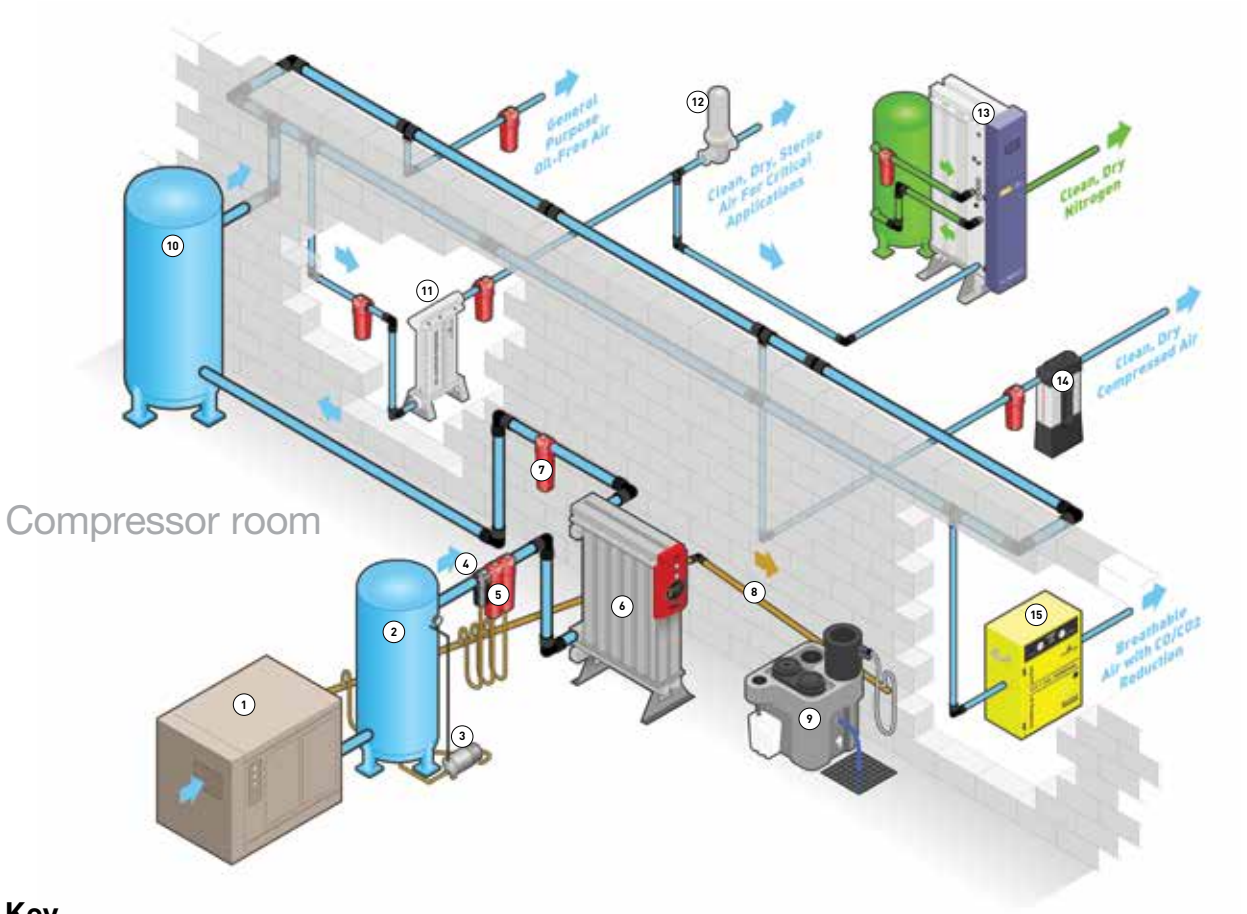
To achieve the degree of air quality specified by ISO8573-1:2010, a careful approach to system design, commissioning and operation must be adopted.

Parker domnick hunter recommends that compressed air is treated:

- **Prior to entry into the distribution system**
- **At critical usage points and applications**

This ensures that contamination already in the distribution system is removed.

Purification equipment should be installed where the air is at the lowest possible temperature (i.e. downstream of after-coolers and air receivers). Point-of-use purification equipment should be installed as close as possible to the application.



Key

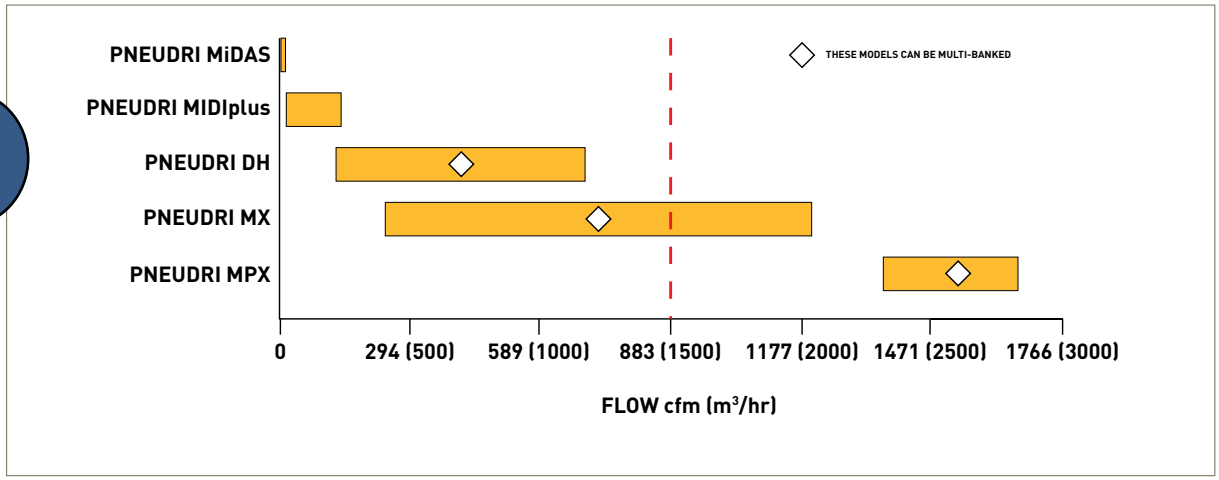
1	Air Compressor	6	Modular Desiccant Dryer	11	Oil Vapor Removal
2	Wet Air Receiver	7	Dust Filter	12	Sterile Air Filter
3	Condensate Drain	8	Condensate Drainage	13	On-site Nitrogen Gas Generator
4	Water Separator	9	Oil / Water Separator	14	Point of use Desiccant Dryer
5	Coalescing Filters	10	Dry Air Receiver	15	Breathing Air Purifier

What size PNEUDRI do I require?

Dryer Selection
To correctly select a dryer model, the flow rate of the dryer must be adjusted for the minimum operating pressure and maximum operational temperature of the system. If the dewpoint required is different to the standard dewpoint of the dryer then the flow rate must also be adjusted for the required outlet dewpoint.

Selection Example

Selecting a dryer for a compressor producing at full load 883 cfm (1500 m^3/hr) at 120 psi g (8.3 bar g) with 100°F (38°C) air inlet temperature and a pressure dewpoint of -40°F (-40°C).



Step 1
Select the correction factor for maximum inlet temperature from the CFT table Correction Factor for 100°F (38°C) (round up to 104°F (40°C) = 1.04

Temperature Correction Factor CFT		
Maximum Inlet Temperature	°F	104
	°C	40
	CFT	1.04

Step 2
Select the correction factor for minimum operating pressure from the CFP table Correction Factor for 116 psi g (8 bar g) (round down to 8 bar g) = 0.89

Pressure Correction Factor CFP		
Minimum Inlet Pressure	psi g	116
	bar g	8
	CFP	0.89

Step 3
Select the correction factor for the required dewpoint from the CFD table Correction Factor for -40°F (-40°C PDP) = 1.00

Dewpoint Correction Factor CFD		
Required Dewpoint	PDP °F	-40
	PDP °C	-40
	CFD	1.00

Step 4
Calculate the minimum drying capacity
Minimum drying capacity = Compressed air flow rate x CFT x CFP x CFD
Minimum drying capacity = 883 cfm (1500 m^3/hr) x 1.04 x 0.89 x 1.00 = 817 cfm (1388 m^3/hr)
Model selected = MX106

Step 5
Which controller is required?
SMART controller is required therefore model selected = MXS106

Step 6
Is DDS Energy Management System required?
DDS Energy Management system is required therefore model selected = MXS106DS

If the minimum drying capacity exceeds the maximum values of the models shown within the tables, please contact Parker domnick hunter for advice regarding larger multi-banked dryers.

PNEUDRI MiDAS

Product Selection

Model	Pipe Size	Inlet Flowrates			
		cfm	L/S	m^3/min	m^3/hr
DAS1	3/8"	3	1	0.09	5.1
DAS2	3/8"	5	2	0.14	8.5
DAS3	3/8"	8	4	0.23	13.6
DAS4	3/8"	10	5	0.28	17.0
DAS5	3/8"	13	6	0.37	22.1
DAS6	3/8"	15	7	0.43	25.5
DAS7	3/8"	20	9	0.57	34.0

Stated flows are for operation at 100 psi g (7 bar g) with reference to 68°F (20°C), 1 bar a, 0% relative water vapor 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)
	°F	°C		°F	°C	
DAS	-40	-40	Class 2	-100	-70	Class 1

Technical Data

Dryer Models	Min Operating Pressure		Max Operating Pressure		Min Inlet Temperature		Max Inlet Temperature		Max Ambient Temperature	
	psi g	bar g	psi g	bar g	°F	°C	°F	°C	°F	°C
DAS	58	4	175	12	35	2	122	50	131	55

Dryer Models	Electrical Supply (Standard) Tolerance ± 10%	Electrical Supply (Optional) Tolerance ± 10%	Thread Connection	Noise Level (average)
				dB(A)
DAS	115 V/ 1ph / 60Hz	230 V/ 1ph / 50Hz	NPT or BSPP	<75

Electronic Controller Options	Function	
	Power On Indication	Service Interval Indication
DAS	•	•

For fully pneumatic applications, a PNEUDRI MINI range is available.
Please contact Parker domnick hunter for further information.

Correction Factors

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

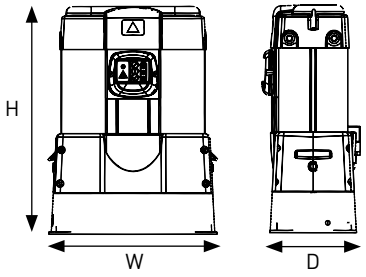
Pressure Correction Factor CFP										
Minimum Inlet Pressure	psi g	58	73	87	102	116	131	145	160	174
	bar g	4	5	6	7	8	9	10	11	12
	CFP	1.60	1.33	1.14	1.00	1.03	0.93	0.85	0.78	0.71

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

Weights and Dimensions

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		ins	mm	ins	mm	ins	mm	lbs	Kg
DAS1	3/8"	16.6	422	11.4	289	5.9	149	24.2	11
DAS2	3/8"	19.7	500	11.4	289	5.9	149	28.7	13
DAS3	3/8"	24.2	616	11.4	289	5.9	149	35.3	16
DAS4	3/8"	27.2	692	11.4	289	5.9	149	39.7	18
DAS5	3/8"	33.3	847	11.4	289	5.9	149	44.1	20
DAS6	3/8"	35.7	906	11.4	289	5.9	149	50.7	23
DAS7	3/8"	43.2	1098	11.4	289	5.9	149	61.7	28

DAS1-7



Recommended Filtration

Model	Filter Pipe Size NPT	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
DAS1	3/8"	AO0010BNFX	Included	Included
DAS2	3/8"	AO0010BNFX	Included	Included
DAS3	3/8"	AO0010BNFX	Included	Included
DAS4	3/8"	AO0010BNFX	Included	Included
DAS5	3/8"	AO0010BNFX	Included	Included
DAS6	3/8"	AO0010BNFX	Included	Included
DAS7	3/8"	AO0010BNFX	Included	Included

PNEUDRI MIDIplus

Product Selection

Model	Pipe Size	Inlet Flowrates			
		cfm	L/S	m^3/min	m^3/hr
DME012	3/4"	24	11	0.68	41
DME015	3/4"	32	15	0.91	55
DME020	3/4"	42	20	1.19	71
DME025	3/4"	53	25	1.50	90
DME030	3/4"	65	31	1.84	110
DME040	3/4"	88	42	2.49	149
DME050	1"	106	50	3.01	180
DME060	1"	130	61	3.69	221
DME080	1"	176	83	4.99	299

Stated flows are for operation at 100 psi g (7 bar g) with reference to 68°F (20°C), 1 bar a, 0% relative water vapor 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)
	°F	°C		°F	°C	
DME	-40	-40	Class 2	-100	-70	Class 1
DMP*	-40	-40	Class 2	-100	-70	Class 1

Technical Data

Dryer Models	Min Operating Pressure		Max Operating Pressure		Min Operating Temperature		Max Operating Temperature		Max Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Connection	Noise Level
	psi g	bar g	psi g	bar g	°F	°C	°F	°C	°F	°C				dB(A)
DME012 - DME040	58	4	232	16	35	2	122	50	131	55	110V/1ph 50/60Hz	230V/1ph 50/60Hz	NPT or BSPP	<75
DME050 - DME080	58	4	190	13	35	2	122	50	131	55	110V/1ph 50/60Hz	230V/1ph 50/60Hz	NPT or BSPP	<75
DMP12P - DMP80P*	58	4	152	10.5	35	2	122	50	131	55	FULLY PNEUMATIC		NPT or BSPP	<75

Controller Options

Controller Options	Function								
	Power On Indication	Fault Indication	Display Fault Condition Values	Service Interval Indication	Service Countdown Timers	Configurable Alarm Settings	Remote Volt Free Alarm contacts	Filter Service Timer	DDS Energy Management System
DME (Electronic control)	●	●					●		
DME DDS	●	●					●		●

***ATEX compliant option available.**

For hazardous environments, a fully pneumatic ATEX compliant version of PNEUDRI is available.

ATEX Directive 94/9/EC
Group II, Category 2GD, T6.

Correction Factors

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

Pressure Correction Factor CFP														
Minimum Inlet Pressure	psi g	58	73	87	100	116	131	145	160	174	189	203	218	232
	bar g	4	5	6	7	8	9	10	11	12	13	14	15	16
	CFP	1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57	0.54	0.5	0.47

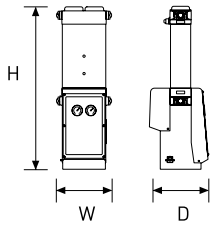
Models 012 - 040 only

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

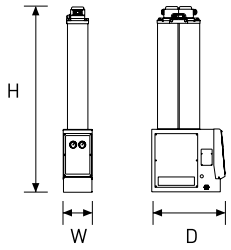
Weights and Dimensions

Model	Pipe Size Inlet / Outlet	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		ins	mm	ins	mm	ins	mm	lbs	kg
DME012	¾"	33.0	837	11.2	284	11.9	302	70	32
DME015	¾"	39.5	1003	11.2	284	11.9	302	81	37
DME020	¾"	46.0	1168	11.2	284	11.9	302	92	42
DME025	¾"	52.5	1333	11.2	284	11.9	302	103	47
DME030	¾"	59.0	1499	11.2	284	11.9	302	114	52
DME040	¾"	68.8	1747	11.2	284	11.9	302	132	60
DME050	1"	56.4	1433	8.7	220	22.3	566	176	80
DME060	1"	63.0	1599	8.7	220	22.3	566	198	90
DME080	1"	72.7	1847	8.7	220	22.3	566	229	104

DME 012 - 040



DME 050 - 080



Recommended Filtration

For Dryer Model	Filter Pipe Size NPT	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
DME012	¾"	AO020DNFI	AA020DNFI	AR020DNMI
DME015	¾"	AO020DNFI	AA020DNFI	AR020DNMI
DME020	¾"	AO020DNFI	AA020DNFI	AR020DNMI
DME025	¾"	AO020DNFI	AA020DNFI	AR020DNMI
DME030	¾"	AO020DNFI	AA020DNFI	AR020DNMI
DME040	¾"	AO025DNFI	AA025DNFI	AR025DNMI
DME050	1"	AO025ENFI	AA025ENFI	AR025ENMI
DME060	1"	AO030ENFI	AA030ENFI	AR030ENMI
DME080	1"	AO030ENFI	AA030ENFI	AR030ENMI

PNEUDRI DH

Product Selection

	Model	Pipe Size	Inlet Flowrates			
			cfm	L/S	m^3/min	m^3/hr
Single Bank	DH ☐ 102	2"	140	66	3.97	238
	DH ☐ 104	2"	280	132	7.95	476
	DH ☐ 106	2½"	420	198	11.92	714
	DH ☐ 108	2½"	560	264	15.88	951
	DH ☐ 110	2½"	700	330	19.86	1189
Multi-Bank	2 x DH ☐ 108	2½"	1120	528	31.76	1902
	2 x DH ☐ 110	2½"	1400	661	39.71	2378
	3 x DH ☐ 108	2½"	1679	793	47.65	2853
	3 x DH ☐ 110	2½"	2100	991	59.57	3567
	4 x DH ☐ 108	2½"	2239	1057	63.53	3804
	4 x DH ☐ 110	2½"	2779	1321	79.43	4756

Stated flows are for operation at 100 psi g (7 bar g) with reference to 68°F (20°C), 1 bar a, 0% relative water vapor 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)
	°F	°C		°F	°C	
DH ☐	-40	-40	Class 2	-100	-70	Class 1

Technical Data

Dryer Models	Min Operating Pressure		Max Operating Pressure		Min Inlet Temp		Max Inlet Temp		Max Ambient Temp		Electrical supply (standard)	Electrical supply (optional)	Thread Connections	Noise Level
	psi g	bar g	psi g	bar g	°F	°C	°F	°C	°F	°C				dB (A)
DH ☐	58	4	154	10.5	35	2	122	50	131	55	400V 3ph+N	N/A	NPT or BSPP	<75

Power Consumption

Model	Power Consumption	Full Load Amps
	KW h Average	
DH ☐ 102	1.3	7.2
DH ☐ 104	2.6	14.4
DH ☐ 106	4.0	21.6
DH ☐ 108	5.3	28.8
DH ☐ 110	6.6	36
2 x DH ☐ 108	10.6	57.6
2 x DH ☐ 110	13.2	72
3 x DH ☐ 108	15.9	86.4
3 x DH ☐ 110	19.8	108
4 x DH ☐ 108	21.2	115.2
4 x DH ☐ 110	26.4	144

Heat Regenerative models have electric heaters built into the desiccant beds to further reduce purge air consumption and increase operating efficiency.

Controller Options

Controller Options	Function								
	Power on Indication	Fault Indication	Display Fault Condition Values	Service Interval Indication	Service Countdown Timers	Configurable Alarm Settings	Remote Volt Free Alarm Contacts	Filter Service Timer	DDS Energy Management System
SMART	•	•					•		
SMART DDS	•	•					•		•
Electronic DDS	•	•	•	•	•	•	•	•	•

Correction Factors

Temperature Correction Factor CFT							
Maximum Inlet Temperature	°F	77	86	95	104	113	122
	°C	25	30	35	40	45	50
	CFT	0.91	1.00	1.00	1.32	1.73	2.23

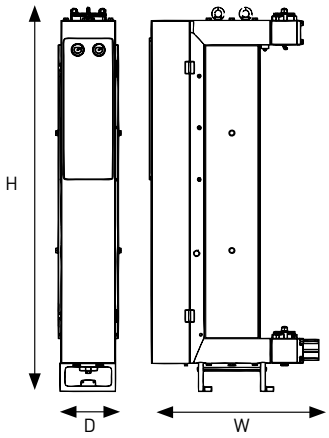
Pressure Correction Factor CFP									
Minimum Inlet Pressure	psi g	58	73	87	102	116	131	145	152
	bar g	4	5	6	7	8	9	10	10.5
	CFP	1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.70

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

Weights and Dimensions

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		ins	mm	ins	mm	ins	mm	lbs	kg
DH ☐ 102	2"	62.1	1578	28.2	717	12.6	321	331	150
DH ☐ 104	2"	62.1	1578	37.3	947	12.6	321	540	245
DH ☐ 106	2½"	62.1	1578	46.3	1177	12.6	321	717	325
DH ☐ 108	2½"	62.1	1578	55.4	1407	12.6	321	970	440
DH ☐ 110	2½"	62.1	1578	64.4	1637	12.6	321	1246	565

DH ☐ 102-110



Recommended Filtration

Model	Filter Pipe Size NPT	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
DH ☐ 102	2"	AO040HNFI	AAO40HNFI	ARO40HNMI
DH ☐ 104	2"	AO040HNFI	AAO40HNFI	ARO40HNMI
DH ☐ 106	2 ½"	AO050INFI	AAO50INFI	ARO50INMI
DH ☐ 108	2 ½"	AO050INFI	AAO50INFI	ARO50INMI
DH ☐ 110	2 ½"	AO050INFI	AAO50INFI	ARO50INMI

Dryer Coding Example

DRYER MODEL	CONTROLLER TYPE	NUMBER OF DRYING BANKS	NUMBER OF DRYING COLUMNS	DDS ENERGY MANAGEMENT
DH	S = Smart E = Electronic	No of individual dryers in installation	Number of columns per dryer bank	DS = DDS Fitted (DDS standard with Electronic Controllers)
DH	S	3	08	DS

Example: PNEUDRI model DHS308DS

PNEUDRI MX

Product Selection

	Model	Pipe Size	Flowrates			
			cfm	L/s	m^3/min	m^3/hr
Single Bank	MX ☐ 102C	2"	240	113	6.81	408
	MX ☐ 103C	2"	360	170	10.22	612
	MX ☐ 103	2"	450	213	12.78	765
	MX ☐ 104	2"	600	283	17.03	1020
	MX ☐ 105	2½"	750	354	21	1275
	MX ☐ 106	2½"	900	425	26	1530
	MX ☐ 107	2½"	1050	496	30	1785
	MX ☐ 108	2½"	1200	567	34	2040
Multi-Bank	2 x MX ☐ 105	2½"	1500	708	43	2550
	2 x MX ☐ 106	2½"	1800	850	51	3060
	2 x MX ☐ 107	2½"	2100	992	60	3570
	2 x MX ☐ 108	2½"	2400	1133	68	4080
	3 x MX ☐ 106	2½"	2700	1275	77	4590
	3 x MX ☐ 107	2½"	3150	1488	89	5355
	3 x MX ☐ 108	2½"	3600	1700	102	6120

Stated flows are for operation at 100 psi g (7 bar g) with reference to 68°F (20°C), 1 bar a, 0% relative water vapor 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)
	°F	°C		°F	°C		°F	°C	
MX ☐	-40	-40	Class 2	-100	-70	Class 1	-4	-20	Class 3
MXP*	-40	-40	Class 2	-100	-70	Class 1	-4	-20	Class 3

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
	psi g	bar g	psi g	bar g	°F	°C	°F	°C	°F	°C				dB (A)
MXS	58	4	190	13	35	2	122	50	131	51	85 - 265 V 1ph 50/60Hz	N/A	NPT or BSPP	<75
MXA	58	4	190	13	35	2	122	50	131	51	85 - 265 V 1ph 50/60Hz	N/A	NPT or BSPP	<75
MXP*	58	4	190	13	35	2	122	50	131	51	N/A	N/A	NPT or BSPP	<75

Controller Options

Controller Options	Function								
	Power on Indication	Fault Indication	Display Fault Condition Values	Service Interval Indication	Service Countdown Timers	Configurable Alarm Settings	Remote Volt Free Alarm Contacts	Filter Service Timer	DDS Energy Management System
SMART	•	•		•			•		
SMART DDS	•	•		•			•		•
ADVANCED	•	•	•	•	•	•	•	•	•

***ATEX compliant option available.**

For hazardous environments , a fully pneumatic ATEX compliant version of PNEUDRI is available.

ATEX Directive 94/9/EC
Group II, Category 2GD, T6.

Correction Factors

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

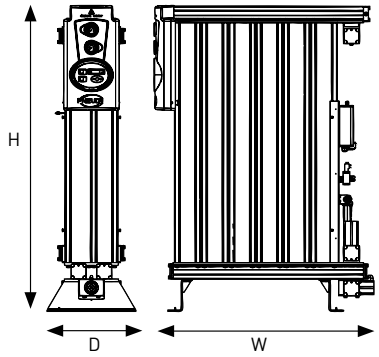
Pressure Correction Factor CFP											
Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
	CFP	1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

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

Weights and Dimensions

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		ins	mm	ins	mm	ins	mm	lbs	kg
MX ☐ 102C	2"	64.8	1647	27.0	687	21.7	550	518	235
MX ☐ 103C	2"	64.8	1647	33.7	856	21.7	550	696	316
MX ☐ 103	2"	74.5	1892	33.7	856	21.7	550	782	355
MX ☐ 104	2"	74.5	1892	40.3	1025	21.7	550	992	450
MX ☐ 105	2½"	74.5	1892	47.0	1194	21.7	550	1197	543
MX ☐ 106	2½"	74.5	1892	53.6	1363	21.7	550	1404	637
MX ☐ 107	2½"	74.5	1892	60.3	1532	21.7	550	1611	731
MX ☐ 108	2½"	74.5	1892	67.0	1701	21.7	550	1818	825

MX ☐ 102c - 108



Recommended Filtration

For Dryer Model	Filter Pipe Size NPT	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
MX ☐ 102C	2"	AO040HNFI	AA040HNFI	AR040HNMI
MX ☐ 103C	2"	AO040HNFI	AA040HNFI	AR040HNMI
MX ☐ 103	2"	AO045HNFI	AA045HNFI	AR045HNMI
MX ☐ 104	2"	AO045HNFI	AA045HNFI	AR045HNMI
MX ☐ 105	2½"	AO050INFI	AA050INFI	AR050INMI
MX ☐ 106	2½"	AO055INFI	AA055INFI	AR055INMI
MX ☐ 107	2½"	AO055INFI	AA055INFI	AR055INMI
MX ☐ 108	2½"	AO055INFI	AA055INFI	AR055INMI

Dryer Coding Example

DRYER MODEL	CONTROLLER TYPE	NUMBER OF DRYING BANKS	NUMBER OF DRYING COLUMNS	DDS ENERGY MANAGEMENT
MX	S = Smart A = Advanced	No of individual dryers in installation	Number of columns per dryer bank	DS = DDS Fitted (DDS standard with Advanced Controllers)
MX	S	3	08	DS

Example: PNEUDRI model MXS308DS

PNEUDRI MPX

Product Selection

Model	Pipe Size	Flowrates			
		cfm	L/s	m^3/min	m^3/hr
MPX ☐ 110	4"	1381	652	39	2346
MPX ☐ 112	4"	1657	782	47	2815
2 x MPX ☐ 110	4"	2762	1303	78	4692
2 x MPX ☐ 112	4"	3314	1564	94	5630
3 x MPX ☐ 110	4"	4143	1955	118	7038
3 x MPX ☐ 112	4"	4971	2346	141	8445

Stated flows are for operation at 100 psi g (7 bar g) with reference to 68°F (20°C), 1 bar a, 0% relative water vapor 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)
	°F	°C		°F	°C	
MPX ☐	-40	-40	Class 2	-100	-70	Class 1

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
	psi g	bar g	psi g	bar g	°F	°C	°F	°C	°F	°C				dB (A)
MPX ☐	58	4	190	13	35	2	122	50	131	55	110 V 1ph 50/60Hz	230 V 1PH 50/60Hz	NPT or BSPP	<75

Controller Options

Controller Options	Function								
	Power on Indication	Fault Indication	Display Fault Condition Values	Service Interval Indication	Service Countdown Timers	Configurable Alarm Settings	Remote Volt Free Alarm Contacts	Filter Service Timer	DDS Energy Management System
SMART	●	●		●			●		
SMART DDS	●	●		●			●		●
ELECTRONIC DDS	●	●	●	●	●	●	●	●	●

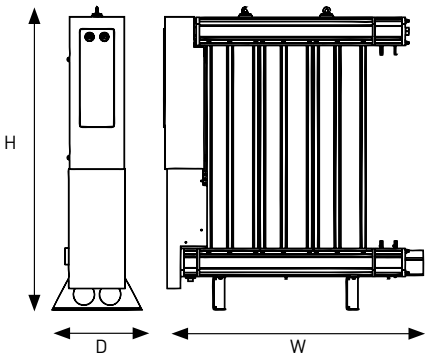
Correction Factors

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

Pressure Correction Factor CFP											
Minimum Inlet Pressure	psi g	58	73	87	100	116	131	145	160	174	189
	bar g	4	5	6	7	8	9	10	11	12	13
	CFP	1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

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

MPX ☐ 110 - 112



Weights and Dimensions

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		ins	mm	ins	mm	ins	mm	lbs	kg
MPX ☐ 110	4"	70.4	1788	87.5	2223	21.7	550	1969	895
MPX ☐ 112	4"	70.4	1788	100.4	1 2551	21.7	550	2255	1025

Recommended Filtration

Model	Filter Pipe Size NPT	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
MPX 110	4”	AO060KNFI	AA060KNFI	AR060KNMI
MPX 112	4”	AO060KNFI	AA060KNFI	AR060KNMI

Dryer Coding Example

DRYER MODEL	CONTROLLER TYPE	NUMBER OF DRYING BANKS	NUMBER OF DRYING COLUMNS	DDS ENERGY MANAGEMENT
MPX	S = Smart E = Electronic	No of individual dryers in installation	Number of columns per dryer bank	DS = DDS Fitted (DDS standard with Electronic Controller)
MPX	S	3	12	DS

Example: PNEUDRI model MPXS312DS

The Parker domnick hunter design philosophy

Parker domnick hunter has been supplying industry with high efficiency filtration and purification products since 1963. Our philosophy 'Designed for Air Quality & Energy Efficiency' ensures products that not only provide the user with clean, high quality compressed air, but also with low lifetime costs and reduced carbon dioxide (CO_2) emissions.

PNEUDRI Options

DDS Energy Management Systems

Operational costs associated with providing such dry compressed air can be high. If desiccant dryers are not optimized correctly, desiccant regeneration can consume huge amounts of energy; indeed, drying costs can often be as high as 80% of total operational costs.

To address this issue, Parker domnick hunter has developed a new generation of energy efficient air dryers that allows businesses to cut operating costs and remain environmentally responsible while providing the highest quality compressed air. PNEUDRI desiccant air dryers can be fitted with Dewpoint Dependent Switching (DDS) energy saving controls that eliminate unnecessary desiccant regeneration cycles to provide considerable energy savings.

By directly monitoring the outlet air quality (dewpoint) of the dryer, the system can automatically extend the "drying period" beyond a normally fixed cycle time if the on-line drying chamber has adsorptive capacity remaining.

As compressed air systems rarely operate at full rated capacity all of the time (e.g. during shift work and periods of low demand), this energy management system can provide considerable savings.

During this extended period of energy free drying, no purge air energy is consumed for regeneration.

DDS Energy Saving (Heatless Dryer example shown)

Air Demand %	Energy Saving %	Energy Saving P/A Kw	Environmental Saving P/A Kg CO_2
100	33.00	95,040	50,371
90	40.00	115,200	61,056
80	47.00	135,360	71,741
70	53.00	152,640	80,899
60	60.00	172,800	91,584
50	66.00	190,080	100,742

System pressure 87 psi g (6 bar g). Max Temp 95°F (35°C). System flow 1000 cfm (1700 m^3/hr). Average pressure 94.3 psi g (6.5 bar g). Average Temp 86°F (30°C).

PNEUDRI for hazardous environments

Where clean, dry compressed air is required in hazardous environments, e.g. petrochemical and offshore oil & gas applications, Parker domnick hunter can supply fully pneumatic ATEX compliant PNEUDRI dryers.

ATEX Directive 94/9/EC
Group II, Category 2GD, T6

Flow Control Devices for multi-banked dryers

To prevent overflowing your compressed air system and to assist in maintaining pressure dewpoint, Flow Control Devices (FCD's) are available for multi-banked PNEUDRI DH, PNEUDRI MX and PNEUDRI MPX models.

For a set flowrate, air will flow through a uniform pipe at a constant velocity, however, the velocity will increase if there is a reduction in the pipe diameter.

If the pipe diameter is further decreased, the air flow will continue to increase to a maximum velocity.

FCD's or sonic nozzles will restrict the airflow to 125% of the dryers rated flow and any further attempt to increase the airflow will cause "choking" and a very high pressure drop.

Please contact Parker domnick hunter for further information.

Benefits

- **Prevents significant overflow of the dryer.**
- **Helps to maintain a constant outlet pressure dewpoint.**
- **Indicates by high pressure drop when system demand exceeds rated capacity.**

Aftermarket

Compressed air equipment users demand much more than the supply of high quality products in order to maintain a competitive edge.

Modern production technology is increasingly demanding the provision of a higher purity and more reliable compressed air supply. Products and solutions that are manufactured by Parker domnick hunter are designed to provide air quality that meets with and often exceeds international standards.

As well as the requirement for air purity and reliability, there are additional factors to consider when choosing the right service provider for your compressed air and gas purification system. For example, knowledge of the many regulations regarding the management of industrial waste, energy efficiency improvement programs and consideration of any environmental impact. It is anticipated that future legislations will demand further in-depth technical and knowledge-based support from service providers.

Our commitment to industry does not stop with the supply of high quality products. We are also committed to ensuring that our equipment provides high performance by providing a trouble-free service from a bespoke maintenance and verification package – all tailored to your own specific requirements.

We offer a wide range of valuable services that will impact positively on your drive towards improved production efficiency and product quality with reduced production rejections and operational costs.

From initial selection to installation, commissioning, preventative maintenance and specialised services, Parker domnick hunter is redefining customer service.

Filter Elements and Consumable Parts	Maintenance, Repair and Overhaul	Customer Support	Specialized Services
Genuine Replacement filter elements	Installation and Commissioning	Business Development	Air Quality Testing
Preventative Maintenance Kits	Maintenance and Repair	Technical Support Group	Dewpoint Measurement
Repair Kits	Updates and Upgrades	Training	Leak Detection
Installation Kits	Service Contracts	Technical Publications	Particle Counting
Upgrade Kits	Parts Service		Micro-biological Testing
	Warranty		

Parker's Motion & Control Technologies

Parker is guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call 716 686 6400.

AEROSPACE

Key Markets
- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

Key Products
- Flight control systems & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes

CLIMATE CONTROL

Key Markets
- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

Key Products
- CO2 controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- Solenoid valves
- Thermostatic expansion valves

ELECTROMECHANICAL

Key Markets
- Aerospace
- Factory automation
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products
- AC/DC drives & systems
- Electric actuators
- Controllers
- Gantry robots
- Gearheads
- Human machine interfaces
- Industrial PCs
- Inverters
- Linear motors, slides and stages
- Precision stages
- Stepper motors
- Servo motors, drives & controls
- Structural extrusions

FILTRATION

Key Markets
- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

Key Products
- Analytical gas generators
- Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration & systems
- Hydraulic, lubrication & coolant filters
- Process, chemical, water & microfiltration filters
- Nitrogen, hydrogen & zero air generators

FLUID & GAS HANDLING

Key Markets
- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products
- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

HYDRAULICS

Key Markets
- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products
- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

PNEUMATICS

Key Markets
- Aerospace
- Conveyor & material handling
- Factory automation
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

Key Products
- Air preparation
- Compact cylinders
- Field bus valve systems
- Grippers
- Guided cylinders
- Manifolds
- Miniature fluidics
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves and controls
- Rodless cylinders
- Rotary actuators
- Tie rod cylinders
- Vacuum generators, cups & sensors

PROCESS CONTROL

Key Markets
- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

Key Products
- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds

SEALING & SHIELDING

Key Markets
- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products
- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management

Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Filtration & Separation/Balston
Haverhill, MA
978 858 0505
www.parker.com/balston

Finite Airtek Filtration
Airtek/domnick hunter/Zander
Lancaster, NY
716 686 6400
www.parker.com/faf

Finite Airtek Filtration/Finite
Oxford, MI
248 628 6400
www.parker.com/finitefilter

Engine Filtration & Water Purification

Racor
Modesto, CA
209 521 7860
www.parker.com/racor

Racor
Holly Springs, MS
662 252 2656
www.parker.com/racor

Racor
Beaufort, SC
843 846 3200
www.parker.com/racor

Racor – Village Marine Tec.
Gardena, CA
310 516 9911
desalination.parker.com

Hydraulic Filtration

Hydraulic Filter
Metamora, OH
419 644 4311
www.parker.com/hydraulicfilter

Process Filtration

domnick hunter Process Filtration
Oxnard, CA
805 604 3400
www.parker.com/processfiltration

Europe

Compressed Air Treatment

domnick hunter Filtration & Separation
Gateshead, England
+44 (0) 191 402 9000
www.parker.com/dhfns

Parker Gas Separations
Etten-Leur, Netherlands
+31 76 508 5300
www.parker.com/dhfns

Hiross Zander
Padova Business Unit
Padova, Italy
+39 049 9712 111
www.parker.com/hzd

Hiross Zander
Essen Business Unit
Essen, Germany
+49 2054 9340
www.parker.com/hzd

Engine Filtration & Water Purification

Racor
Dewsbury, England
+44 (0) 1924 487 000
www.parker.com/rfde

Racor Research & Development
Stuttgart, Germany
+49 (0)711 7071 290-10
www.parker.com/rfde

Hydraulic Filtration

Hydraulic Filter
Arnhem, Holland
+31 26 3760376
www.parker.com/hfde

Urjala Operation
Urjala, Finland
+358 20 753 2500
www.parker.com/hfde

Condition Monitoring Center
Norfolk, England
+44 1842 763 299
www.parker.com/hfde

Process Filtration

domnick hunter Process Filtration
Birtley, England
+44 (0) 191 410 5121
www.parker.com/processfiltration

Asia Pacific

Australia
Castle Hill, Australia
+61 2 9634 7777
www.parker.com/australia

China
Shanghai, China
+86 21 5031 2525
www.parker.com/china

India
Navi Mumbai, India
+91 22 651 370 8185
www.parker.com/india

Japan
Tokyo, Japan
+81 45 870 1522
www.parker.com/japan

Korea
Hwaseon-City
+82 31 359 0852
www.parker.com/korea

Singapore
Jurong Town, Singapore
+65 6887 6300
www.parker.com/singapore

Thailand
Bangkok, Thailand
+66 2 186 7000
www.parker.com/thailand

Latin America

Parker Comercio Ltda.
Filtration Division
Sao Paulo, Brazil
+55 12 4009 3500
www.parker.com/br

Pan American Division
Miami, FL
305 470 8800
www.parker.com/panam

Africa

Aeroport Kempton Park, South Africa
+27 11 9610700
www.parker.com/africa

Catalog: 174004406_00_EN 02/11 NA
01/2013

Parker Hannifin Corporation
Finite Airtek Filtration Division
4087 Walden Avenue
Lancaster, NY 14086
phone 716 686 6400
www.parker.com/faf