

# PNEUDRI MiDAS

## A totally clean and dry Compressed Air System (CDA)



The Parker domnick hunter PNEUDRI MiDAS range of desiccant air dryers, offers the user uncompromised performance from a dedicated "point of use" Clean Dry Air system. It is easy to install and will transform an ordinary process into a highly reliable and efficient production operation.

Compressed air purification equipment must deliver uncompromising performance and reliability whilst providing the right balance of air quality with the lowest cost of operation. Many manufacturers offer products for the filtration and purification of contaminated compressed air, which are often selected only upon their initial purchase cost, with little or no regard for the air quality they provide, the cost of operation throughout their life or indeed their environmental impact. When purchasing purification equipment, delivered air quality, the overall cost of ownership and the equipment's environmental impact must always be considered.



### 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 CO<sub>2</sub> emissions.



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### Benefits:

- PNEUDRI dryers provide efficient removal of water vapour from compressed air
- Delivered air quality is in accordance with all editions of ISO8573-1, the international standard for compressed air quality
- Improves production efficiency and reduces maintenance costs and downtime
- Pressure Dewpoint's of -70°C & -40°C (ISO8573-1:2010 Classes 1 & 2) are available
- Unlike refrigeration dryers, the -40°C & -70°C pressure dewpoint's offered by PNEUDRI not only eliminates corrosion, it also inhibits the growth of micro-organisms
- Ideal for both compressor room and point of use applications
- Low noise level <75 db (A)
- Compared to traditional twin tower dryer designs, PNEUDRI's unique modular construction and snowstorm filling of the adsorbent desiccant material provides:-
  - Consistent dewpoint performance
  - A smaller, more compact and lightweight dryer
  - Simple to install and easy to maintain
  - Fully corrosion protected inside and out
  - Approvals to International Standards (CE, CSA (US + Canada), CRN)
  - Eliminates the need for costly annual pressure vessel inspections
  - 10 year guarantee on pressure envelope



ENGINEERING YOUR SUCCESS.

## Dryer Performance

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

## Product Selection

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.

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

## Correction Factor

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

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

## 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.

- Obtain the minimum operating pressure, maximum inlet temperature and maximum compressed air flow rate at the inlet of the dryer.  
Obtain the outlet dewpoint required.
- Select correction factor for maximum inlet temperature from the CFT Table (always round up e.g. for 37°C use 40°C correction factor)
- Select correction factor for minimum inlet pressure from the CFP table (always round down e.g. for 5.3 bar use 5 bar correction factor)
- Select correction factor for required outlet dewpoint from the CFD table
- Calculate minimum drying capacity  
Minimum Drying Capacity = Compressed Air Flow x CFT x CFP x CFD
- Using the minimum drying capacity, select a dryer model from the flow rate tables above (dryer selected must have a flow rate equal to or greater than the minimum drying capacity)

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.

## Technical Data

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

Dryer Models	Electrical Supply (Standard) Tolerance ± 10%	Electrical Supply (Optional) Tolerance ± 10%	Thread Connection	Noise Level (average) dB(A)	Electronic Controller Options	Function	
						Power On Indication	Service Interval Indication
DAS	230 / 1ph / 50Hz	115 / 1ph / 60Hz	BSPP or NPT	<75		•	•

\*Please state dewpoint at the time of ordering

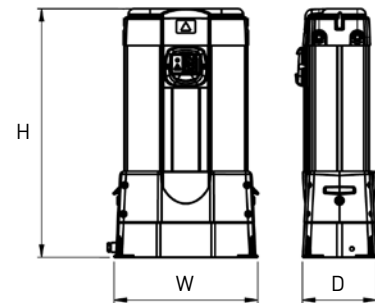
□ = B (BSPT) or N (NPT)

Model	Filter Pipe Size BSPT or NPT	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
DAS1	3/8	AO005B □ FX	N/A*	N/A*
DAS2	3/8	AO005B □ FX	N/A*	N/A*
DAS3	3/8	AO005B □ FX	N/A*	N/A*
DAS4	3/8	AO005B □ FX	N/A*	N/A*
DAS5	3/8	AO005B □ FX	N/A*	N/A*
DAS6	3/8	AO0010B □ FX	N/A*	N/A*
DAS7	3/8	AO0010B □ FX	N/A*	N/A*

\*MiDAS dryers include integral high efficiency pre and general purpose dust filters

## Weights and Dimensions

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



## Maintenance kits

Model	Maintenance Kit
DAS 1	DASMK1
DAS 2	DASMK2
DAS 3	DASMK3
DAS 4	DASMK4
DAS 5	DASMK5
DAS 6	DASMK6
DAS 7	DASMK7

## Accessories

Description	Kit
Fixed Wall Mounting Bracket	DASMB1
45° Tilt Wall Mounting Bracket	DASMB2
Purge Economy Gland Kit	608203185
Volt Free Relay Kit	608203186



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