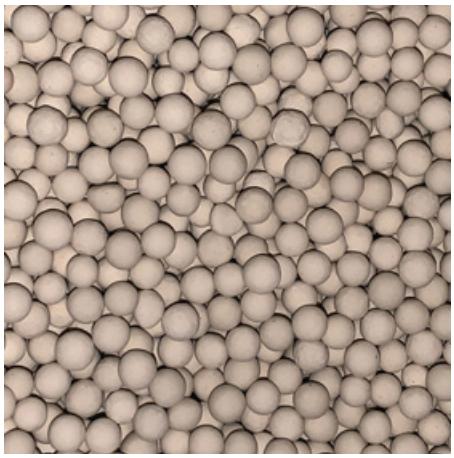
Clean, Dry Compressed Air Hybrid Technology

ATT 060 - ATT 340



Adsorption Dryers

Whether a compressed air user wants to control the growth of micro-organisms (essential for direct and in-direct contact applications in the food, beverage & pharmaceutical industries), ensure air used for critical applications / instrumentation is free from water contamination or has external piping where low ambient temperature can cause condensation, adsorption dryers are the go to dryer technology.

There are many different adsorption dryer technologies available and whilst they all reduce water from the compressed air in the same way, they differ in the way they regenerate the desiccant material.

Hybrid Technology Dryers

Hybrid Technology dryers are a combination of refrigeration and adsorption dryer technologies in a single dryer package. The refrigeration dryer pre-dries the compressed air before it is passed through an externally heated purge adsorption dryer. The adsorbent desiccant material is regenerated using heated process air (purge air). Removing the heat source allows the process air to cool the desiccant before adsorption takes place.

Hybrid dryers are especially suited for general purpose applications with external piping. In warmer months, the adsorption dryer can be bypassed to save energy and simply be reinstated in colder months when a refrigeration dryer dewpoint would be insufficient to prevent condensation in external piping.

Advantages

- Parker ATT dryers provide a constant outlet dewpoint in accordance with ISO8573-1 classes 1, 2, 3 or 4 for water vapour
- User can set customisable dewpoints
- Parker ATT dryers use clean, dry purge air for regeneration, eliminating any risk of damage to the adsorption bed or re-contamination of the downstream compressed air
- Adsorption dryer can be switched off and bypassed during warmer months to increase energy savings (running as a refrigeration dryer only)
- Parker ATT dryers include Parker OIL-X General Purpose & High Efficiency Coalescing pre-filtration and General Purpose Dry Particulate post filtration as standard
- Full feature electronic control with dewpoint display and Energy Saving Technology fitted as standard

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	
ATT	-40	-40	Class 2.2.2	-70	-100	Class 2.1.2	-20	-4	Class 2.3.2

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

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
ATT 060 - 090	2	29	12	174	5	41	65	149	50	122	230V 1ph 50Hz	N/A	BSPP	<75
ATT 090 - 140	2	29	12	174	5	41	65	149	50	122	400V 3ph 50Hz	N/A	BSPP	<75
ATT 260 - 340	4	58	12	174	5	41	65	149	50	122	400V 3ph 50Hz	N/A	BSPP	<75

Flow Rates

Dryer Models	Pipe Size	Inlet Flow Rate				Average Power kW
		L/s	m^3/min	m^3/hr	cfm	
ATT 060	1 ½"	100	6	360	212	1.27
ATT 090	1 ½"	150	9	540	318	1.94
ATT 140	2"	233	14	840	494	2.01
ATT 260	2 ½"	433	26	1560	918	4.02
ATT 340	2 ½"	567	34	2040	1200	5.17

Stated flows are for operation at 7 bar (g) (102 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 below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFIT x CFAT x CFMIP x CFOD

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50	55	60	65
	°F	77	86	95	104	113	122	131	140	149
Correction Factor 060 - 340		0.82	0.82	1.00	1.23	1.45	1.69	1.92	2.17	2.50

CFAT - Correction Factor Maximum Ambient Temperature

Maximum Ambient Temperature	°C	20	25	30	35	40	45	50
	°F	68	77	86	95	104	113	122
Correction Factor 060		0.95	1.00	1.06	1.14	1.23	1.33	1.47
Correction Factor 090 - 340		0.94	1.00	1.05	1.11	1.20	1.30	1.39

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor 060 - 340		1.61	1.33	1.15	1.00	0.93	0.83	0.78	0.75	0.71	N/A	N/A	N/A	N/A

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		1	1	1

Controller Functions

Dryer	Controller Function							
	Power On Indication	Visual Fault Indication	Dewpoint Display	EST - Energy Saving Technology	Filter Service Indicator	Dryer Service Indicator	Fault Relay: Power Loss Dewpoint Alarm Sensor Failure	4-20mA Dewpoint Re-transmission
ATT	•	•	•	•		•	•	

Included Filtration

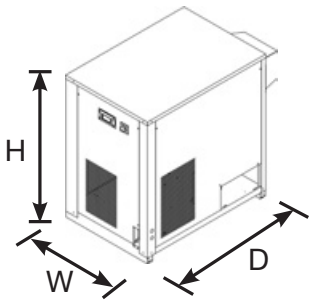
Dryer Models	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
ATT 060	1 ½”	AOPX030G	AAPX030G	-	AOPX030G	-
ATT 090	1 ½”	AOPX035G	AAPX035G	-	AOPX035G	-
ATT 140	2”	AOPX045I	AAPX045I	-	AOPX045I	-
ATT 260	2 ½”	AOPX055J	AAPX055J	-	AOPX055J	-
ATT 340	2 ½”	AOPX055J	AAPX055J	-	AOPX055J	-

Filtration Performance

	General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
Filtration Grade	Grade AO	Grade AA	-	Grade AO	-
Filtration Type	Coalescing	Coalescing	-	Dry Particulate	-
Particle Reduction (inc water & oil aerosols)	Down to 1 micron	Down to 0.01 micron	-	Down to 1 micron	-
Maximum Remaining Oil Aerosol Content at 21°C	≤0.5 mg/m³ (≤0.5 ppm(w))	≤0.01 mg/m³ (≤0.01 ppm(w))	-	N/A	-
Maximum Remaining Oil Vapour Content at System Temperature	N/A	N/A	-	N/A	-
Filtration Efficiency	99.925%	99.9999%	-	99.925%	-

Weights & Dimensions

Model	Pipe Size BSPP	Dimensions (Dryer Only)						Weight (Dryer Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
ATT 060	1 ½”	1214	47.8	806	31.7	1416	55.7	295	650
ATT 090	1 ½”	1214	47.8	806	31.7	1416	55.7	335	739
ATT 140	2”	1586	62.4	1007	39.6	1345	53.0	490	1080
ATT 260	2 ½”	1720	67.7	1007	39.6	2535	99.8	880	1940
ATT 340	2 ½”	1720	67.7	1007	39.6	2535	99.8	950	2094



Quality Assurance / IP Rating / Pressure Vessel Approvals

Development / Manufacture	ISO 9001 / ISO 14001
Ingress Protection Rating	IP44 Indoor Use Only
EU	Pressure vessel approved for fluid group 2 in accordance with the Pressure Equipment Directive 2014/68/EU
USA	Not Applicable
AUS	Not Applicable
GUS	Not Applicable
For use with Compressed Air Only	

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