COMPRESSED

AIR DRYER

SERIES AD

POLARAIR

CABLE PRESSURISATION AND MONITORING EQUIPMENT

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COMPRESSED AIR DRYER SERIES AD

WHY DRY AND CLEAN COMPRESSED AIR ?

One of the most efficient power sources used in industry is compressed air, provided it is in a properly installed and maintained system.

Water is always present in air and at any given temperature it will hold a certain quantity per cubic meter (see TABLE 1). This temperature is termed Dew Point.

If oil compressors are used then oil fumes are delivered with each piston stroke of the compressor. IT IS THEREFORE EVIDENT THAT YOUR COMPRESSED AIR CONTAINS BOTH OIL AND WATER TO VARYING DEGREES. The compressed air is cooled during the passage of air through the system and the dew point is reached which results in the condensation of a large portion of the moisture present in the air. The oil at this point loses all its lubricating properties and turns into an abrasive sludge. Further cooling will cause freezing of this moisture and water expands when frozen which forces open cracks in equipment creating breakages and leaks. The condensed water and oil also create a corrosive sludge that rusts pipes, lines and equipment.

The incidence of downtime and maintenance costs rise sharply because ALL pneumatically operated equipment is designed to operate most efficiently and with greatest durability using CLEAN, DRY COMPRESSED AIR and a good lubricant. Also in some applications contaminated air will cause harmful effects in processing e.g. spray-painting and plastics manufacture where the presence of water in the air will create imperfections in finish.

POLAR AIR OFFERS YOU A WIDE RANGE OF EQUIPMENT TO EFFECTIVELY OVERCOME THESE PROBLEMS OF CONTAMINATED AIR AND GUARANTEES YOU CLEAN, DRY, OIL FREE COMPRESSED AIR AT LOW COST.

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Dry compressed air is a necessity in the modern industrial plant. Downtime, production loss and maintenance costs caused by contaminated air can be so high that the price of a compressed air dryer will be recovered within its first year of installation.

The standard **AD Series** is designed for a working pressure of 10 bar maximum and flow capacities from 5m³/h to 3500m³/h and is manufactured in 19 different sizes. This simplifies the work of the engineer or planner to choose the right model from the standard range.

METHOD OF OPERATION

The **AD Series** is an adsorbent type dryer of a twin tower design.

Very low dew points are achieved with this type of dryer and it is possible to reach a dew-point of - 70°C.

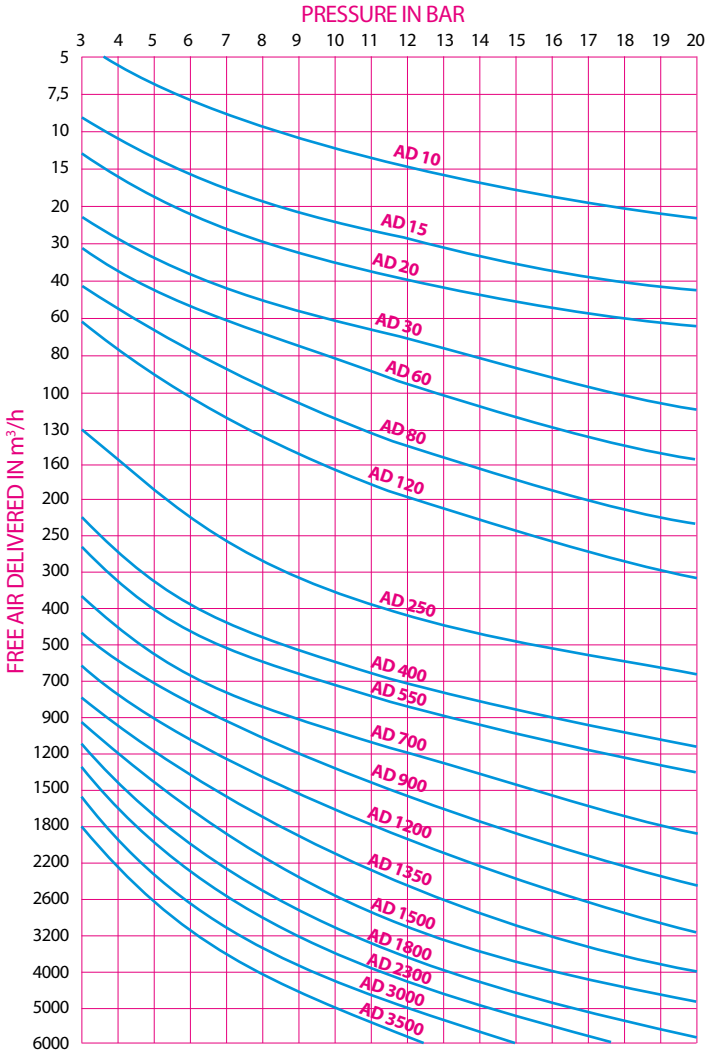
The **AD Series** is fully automatic and is delivered ready for connection to your compressed air system.

Higher pressures and capacities than the standard **AD Series** can be supplied on request.

TABLE 1.
MOISTURE CONTENT OF AIR AT ATMOSPHERIC PRESSURE

DEW POINT			
°F	°C	g/m³	P.P.M·
100	38	46	43000
80	26,5	25	23000
60	15,5	13	12000
40	5	6,8	5200
20	-6	2,9	2300
0	-18	0,97	1200
-20	-28	0,32	350
-40	-40	0,12	125
-60	-50	0,019	38
-80	-62	0,006	8
-100	-72	0,002	1,5

TABLE 2 . CAPACITY TABLE FOR POLAR AIR COMPRESSED AIR DRYERS SERIES AD AT VARIOUS PRESSURES



MACHINE SPECIFICATIONS

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TYPE		AD80	AD120	AD250	AD400	AD550	AD700	AD900	AD1200	AD1350	AD1500	AD1800	AD2300	AD3000	AD3500
CAPACITY	m³/h	11	15	31	54	65	90	117	150	188	230	275	320	380	445
DEPTH	mm	490	545	620	690	720	750	860	910	985	1040	1160	1200	1200	1250
WIDTH	mm	680	680	840	970	1030	1100	1220	1320	1450	1550	1650	1720	1720	1820
HEIGHT	mm	1445	1735	1825	1835	1835	2094	2277	2287	2287	2287	2463	2513	2763	2763
WEIGHT	kg	128	146	248	341	391	503	683	803	949	1129	1332	1510	1715	1910