

## 11.0 AirPrep System Technical Data and Troubleshooting

**11.1 TABLE 1 CAPACITY SELECTION CHART (MAX SCFM @ APPROACH)**

INLET TEMP °F		150				200				250				300				350			
APPROACH TEMP °F		5	10	15	20	5	10	15	20	5	10	15	20	5	10	15	20	5	10	15	20
<b>AIR DRYER SYSTEM MODEL NUMBER</b>	<b>ADS 250</b>	191	250	275	300	117	160	200	250	96	120	165	200	87	117	151	191	81	104	129	159
	<b>ADS 400</b>	210	384	520	605	175	375	430	500	160	300	400	464	135	250	340	396	125	235	305	355
	<b>ADS 750</b>	355	650	890	1025	308	560	760	880	290	545	725	840	245	450	605	701	225	410	540	625
	<b>ADS 950</b>	480	871	1178	1360	415	754	1020	1180	390	712	950	1100	320	588	785	910	280	520	690	780
	<b>ADS 1200</b>	600	1090	1475	1710	520	950	1290	1460	490	900	1200	1380	405	735	980	1130	355	650	865	990
	<b>ADS 1600</b>	790	1440	1950	2260	710	1290	1720	1950	660	1200	1600	1860	530	965	1290	1480	460	840	1135	1300
	<b>ADS 2000</b>	980	1790	2420	2800	870	1580	2140	2460	820	1490	2000	2300	660	1210	1595	1840	572	1040	1400	1610
	<b>ADS 2500</b>	1220	2200	3000	3470	1090	1980	2680	3100	1035	1880	2500	2870	784	1426	1980	2270	705	1290	1725	1980
	<b>ADS 3500</b>	1680	3064	4140	4800	1530	2785	3760	4320	1460	2660	3500	4015	1150	2090	2760	3200	950	1740	2350	2700

Above specifications are based on 80 to 125 psig operating pressures. Maximum pressure drop, less than 3 psi.

**11.2 TABLE 2 AFTERCOOLER ELECTRIC MOTOR, AIR MOTOR & FAN DATA**

		ELECTRIC MOTOR								AIR MOTOR		
MODEL NO.	FAN CFM	HP	VOLTAGE	PHASE	FULL LOAD AMPS 230V	HZ	RPM	NEMA FRAME	THERMAL OVERLOAD	INLET NPT	PSI (1)	CFM (2)
ADS 250	1325	0.5	115/230 208-230/460	1 3	3.4 1.2	60 50/60	3250	IEC71	NO	1/2	25	30
ADS 400	2200 1825/2200	1.0	115/208-230 208-230/460	1 3	6.0 3.6/3.2	60 50/60	3450 2850/3450	56C		1/4	60	50
ADS 750	3600 3025/3600	1.5	115/208-230 208-230/460	1 3	8.5 4.8/4.2	60 50/60	3450 2850/3450	56C		1/4	85	45
ADS 950	4700	1.5	115/208-230 208-230/460	1 3	8.6 4.6	60	1740	145TC		1/2	60	55
ADS 1200	7000	5.0	230	1	23.0			184TC			70	100
		3.0	208-230/460	3	8.8			182TC			70	100
ADS 1600	9700	5.0	208-230/460	3	13.4			184TC			1	100
ADS 2000	11000	7.5	230/460		19.6	213TC	1-1/4	90		230		
ADS 2500	14000				25.2/12.6	215TC	100	275				
ADS 3500	14000				10.0	1755	215TC	100		275		

All motors shown are TEFC. Published electrical ratings are approximate, and may vary because of motor brand. Actual ratings are on motor nameplate. Fan motors **must not** be cycled. Outdoor applications must be protected from direct weather. If ductwork or additional static resistance is added to the cooler air stream, an auxiliary air mover may be required.

1. Air inlet to the air motor must be regulated to this pressure.
2. CFM (Free Air) consumption of the air motor. Lubrication = One drop of oil for every 50-75 cfm of air passing through the air motor.

**11.3 TABLE 3 TROUBLE SHOOTING GUIDE FOR AIR MOTORS**

REASON	SYMPTOM				
	LOW TORQUE	LOW SPEED	WON'T RUN AT ALL	RUNS HOT	RUNS GOOD THEN SLOWS DOWN
<b>DIRT OR FOREIGN MATERIAL</b>	X	X	X		
<b>INTERNAL RUST</b>	X	X	X		
<b>MISALIGNMENT</b>	X	X	X	X	X
<b>INSUFFICIENT AIR PRESSURE</b>	X	X			
<b>AIR SUPPLY LINE TOO SMALL</b>		X			
<b>RESTRICTED EXHAUST</b>		X			X
<b>POOR LUBRICATION</b>	X	X	X	X	
<b>JAMMED MACHINE</b>	X	X	X		X
<b>AIR COMPRESSOR TOO SMALL</b>		X			X
<b>AIR COMPRESSOR TOO FAR FROM UNIT</b>		X			X