

## ENGINEERING SPECIFICATIONS FOR MODEL AFD 19,000

<b>CONFIGURATION 1 : 75/62.5 ENTERING AIR</b>	SCFM	°FDB	°FWB	GR/LB	%RH
PROCESS AIR ENTERING	19000	75	62.5	64.6	50
PROCESS AIR LEAVING SYSTEM	19000	116.0	67.7	24.3	5.4
REGENERATION ENTERING AIR	6270	95	78	117.5	47.3
REGENERATION LEAVING AIR	6270	168.1	104.7	239.75	13.4
ADSORPTION, GRAIN DEPRESSION				40.3	

<b>CONFIGURATION 1: 95/78 ENTERING AIR</b>	SCFM	°FDB	°FWB	GR/LB	%RH
PROCESS AIR ENTERING, OUTSIDE AIR	19000	95	78	117.5	47.3
PROCESS AIR LEAVING SYSTEM	19000	139.2	81.4	68.6	8.1
REGENERATION ENTERING AIR	6270	95	78	117.5	47.3
REGENERATION LEAVING AIR	6270	158.8	105.4	265.6	18.3
ADSORPTION, GRAIN DEPRESSION				48.9	

<b>CONFIG 2: 95/78 ENT AIR (W/POST-COOL)</b>	SCFM	°FDB	°FWB	GR/LB	%RH
PROCESS AIR ENTERING, OUTSIDE AIR	19000	95	78	117.5	47.3
PROCESS AIR LEAVING DESICCANT WHEEL	19000	136.3	80.7	68.6	8.7
PROCESS AIR LEAVING SYSTEM	19000	54.5	53.8	60.4	95.7
REGENERATION ENTERING AIR	6270	95	78	117.5	47.3
REGENERATION LEAVING AIR	6270	158.8	105.4	265.6	18.3
ADSORPTION, GRAIN DEPRESSION				57.1	

<b>CONFIG 3: 95/78 ENT AIR (W/PRE-COOL)</b>	SCFM	°FDB	°FWB	GR/LB	%RH
PROCESS AIR ENTERING, OUTSIDE AIR	19000	95	78	117.5	47.3
PROCESS AIR LEAVING SYSTEM	19000	101.3	61.4	17.8	6.1
REGENERATION ENTERING AIR	6270	95	78	117.5	47.3
REGENERATION LEAVING AIR	6270	152.6	104	257.4	20.7
ADSORPTION, GRAIN DEPRESSION				99.7	

<b>CONFIG 4: 95/78 ENT AIR (W/PRE/POST)</b>	SCFM	°FDB	°FWB	GR/LB	%RH
PROCESS AIR ENTERING, OUTSIDE AIR	19000	95	78	117.5	47.3
PROCESS AIR LEAVING PRECOOL COIL	19000	55.1	54.9	63.8	98.8
PROCESS AIR LEAVING DESICCANT WHEEL	19000	98.4	60.4	17.8	6.6
PROCESS AIR LEAVING SYSTEM	19000	55.8	41.7	17.8	25.3
REGENERATION ENTERING AIR	6270	95	78	117.5	47.3
REGENERATION LEAVING AIR	6270	158.8	105.4	265.6	18.3
ADSORPTION, GRAIN DEPRESSION				99.7	

Ratings listed above are based upon component selection data with an added safety factor.  
Actual system performance of the **DRYOMATIC** unit will meet specification intent.

<b>PROCESS AIR BLOWER</b>				
	SIZE	RPM	BHP	HP
CONFIGURATION 1	301	1136	12	15
CONFIGURATION 2	301	1290	16.8	20
CONFIGURATION 3	301	1240	16.2	20
CONFIGURATION 4	271	1547	19.2	25

<b>REGENERATION AIR BLOWER</b>				
	SIZE	RPM	BHP	HP
CONFIGURATION ALL	220	1750	7.5	10

<b>DESICCANT ROTOR 2190 mm X 200 mm</b>	
WHEEL DIAMETER / DEPTH	86.3/7.9 (IN)
PROCESS AIR FACE VELOCITY	701.5 (FPM)
DELTA P FOR PROCESS / REGENERATION	1.1/1.7 (IN WC)
REGENERATION AIR FACE VELOCITY	694.5 (FPM)
HEATER OUTPUT	1406 (MBH)

<b>STATIC PRESSURE</b>	PROCESS			REGENERATION		
	UNIT	ESP	TOTAL	UNIT	ESP	TOTAL
CONFIG 1	2.05	1	3.05	2.65	1	3.65
CONFIG 2	3.26	1	4.26	2.65	1	3.65
CONFIG 3	3.12	1	4.12	2.65	1	3.65
CONFIG 4	3.86	1	4.86	2.65	1	3.65

<b>COIL DATA</b>	CONFIG 2		CONFIG 3		CONFIG 4	
	POST	PRE	PRE	POST	PRE	POST
FACE AREA (SQ FT)	35.25	40.57	40.57	35.25	40.57	35.25
FIN HEIGHT X LENGTH (IN)	54X94	61.5X95	61.5X95	54X94	61.5X95	54X94
FACE VELOCITY (FPM)	533.33	468.29	468.29	533.3	468.29	533.3
NUMBER OF ROWS	6	6	6	6	6	4
CAPACITY (MBH)	1863.86	1557.33	1557.33	1863.86	1557.33	957.82
FLUID VELOCITY (GPM)	380.3	351.07	351.07	380.3	351.07	210.8
FLUID PRESSURE DROP (IN WC)	22.14	27.88	27.88	22.14	27.88	19.54
EWV/LWT (°F)	45/55	45/55	45/55	45/55	45/55	45/55

Coil ratings are in compliance with ARI 410.  
Blower ratings comply with the requirements of the AMCA Certified Ratings Program.