

## ENGINEERING SPECIFICATIONS FOR MODEL AFD 5,000

| CONFIGURATION 1 : 75/62.5 ENTERING AIR | SCFM | °FDB  | °FWB  | GR/LB | %RH  |
|--|------|-------|-------|-------|------|
| PROCESS AIR ENTERING                   | 5000 | 75    | 62.5  | 64.6  | 50   |
| PROCESS AIR LEAVING SYSTEM             | 5000 | 121.4 | 69.1  | 23.1  | 4.4  |
| REGENERATION ENTERING AIR              | 1650 | 95    | 78    | 117.5 | 47.3 |
| REGENERATION LEAVING AIR               | 1650 | 157.8 | 103.5 | 243.4 | 17.3 |
| ADSORPTION, GRAIN DEPRESSION           |      |       |       | 41.5  |      |

| CONFIGURATION 1: 95/78 ENTERING AIR | SCFM | °FDB  | °FWB | GR/LB | %RH  |
|-------------------------------------|------|-------|------|-------|------|
| PROCESS AIR ENTERING, OUTSIDE AIR   | 5000 | 95    | 78   | 117.5 | 47.3 |
| PROCESS AIR LEAVING SYSTEM          | 5000 | 143.1 | 82   | 66.8  | 7.1  |
| REGENERATION ENTERING AIR           | 1650 | 95    | 78   | 117.5 | 47.3 |
| REGENERATION LEAVING AIR            | 1650 | 152.7 | 105  | 271.1 | 21.6 |
| ADSORPTION, GRAIN DEPRESSION        |      |       |      | 50.7  |      |

| CONFIG 2: 95/78 ENT AIR (W/POST-COOL) | SCFM | °FDB  | °FWB | GR/LB | %RH  |
|---------------------------------------|------|-------|------|-------|------|
| PROCESS AIR ENTERING, OUTSIDE AIR     | 5000 | 95    | 78   | 117.5 | 47.3 |
| PROCESS AIR LEAVING DESICCANT WHEEL   | 5000 | 138.3 | 80.9 | 66.8  | 8    |
| PROCESS AIR LEAVING SYSTEM            | 5000 | 52.9  | 52.2 | 56.9  | 95.6 |
| REGENERATION ENTERING AIR             | 1650 | 95    | 78   | 117.5 | 47.3 |
| REGENERATION LEAVING AIR              | 1650 | 152.7 | 105  | 271.1 | 21.6 |
| ADSORPTION, GRAIN DEPRESSION          |      |       |      | 60.6  |      |

| CONFIG 3: 95/78 ENT AIR (W/PRE-COOL) | SCFM | °FDB  | °FWB  | GR/LB | %RH  |
|--------------------------------------|------|-------|-------|-------|------|
| PROCESS AIR ENTERING, OUTSIDE AIR    | 5000 | 95    | 78    | 117.5 | 47.3 |
| PROCESS AIR LEAVING SYSTEM           | 5000 | 104.0 | 61.4  | 13.5  | 4.2  |
| REGENERATION ENTERING AIR            | 1650 | 95    | 78    | 117.5 | 47.3 |
| REGENERATION LEAVING AIR             | 1650 | 143.9 | 102.5 | 255.4 | 25.5 |
| ADSORPTION, GRAIN DEPRESSION         |      |       |       | 104   |      |

| CONFIG 4: 95/78 ENT AIR (W/PRE/POST) | SCFM | °FDB  | °FWB  | GR/LB | %RH  |
|--------------------------------------|------|-------|-------|-------|------|
| PROCESS AIR ENTERING, OUTSIDE AIR    | 5000 | 95    | 78    | 117.5 | 47.3 |
| PROCESS AIR LEAVING PRECOOL COIL     | 5000 | 52.9  | 52.8  | 59    | 99   |
| PROCESS AIR LEAVING DESICCANT WHEEL  | 5000 | 99.1  | 59.6  | 13.5  | 4.9  |
| PROCESS AIR LEAVING SYSTEM           | 5000 | 56.8  | 40.7  | 13.5  | 19.9 |
| REGENERATION ENTERING AIR            | 1650 | 95    | 78    | 117.5 | 47.3 |
| REGENERATION LEAVING AIR             | 1650 | 143.9 | 102.5 | 255.4 | 25.5 |
| ADSORPTION, GRAIN DEPRESSION         |      |       |       | 104   |      |

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.

| PROCESS AIR BLOWER |      |      |      |       |
|--------------------|------|------|------|-------|
|                    | SIZE | RPM  | BHP  | HP    |
| CONFIGURATION 1    | 131  | 2725 | 2.72 | 5     |
| CONFIGURATION 2    | 131  | 3047 | 3.77 | 5     |
| CONFIGURATION 3    | 131  | 2935 | 3.62 | 5     |
| CONFIGURATION 4    | 131  | 3103 | 4.25 | 7 1/2 |

| REGENERATION AIR BLOWER |      |      |      |    |
|-------------------------|------|------|------|----|
|                         | SIZE | RPM  | BHP  | HP |
| CONFIGURATION ALL       | 120  | 3500 | 1.55 | 3  |

| DESICCANT ROTOR 1220 mm X 200 mm   |                 |
|------------------------------------|-----------------|
| WHEEL DIAMETER / DEPTH             | 48/7.9 (IN)     |
| PROCESS AIR FACE VELOCITY          | 562.1 (FPM)     |
| DELTA P FOR PROCESS / REGENERATION | 0.8/1.2 (IN WC) |
| REGENERATION AIR FACE VELOCITY     | 556.4 (FPM)     |
| HEATER OUTPUT                      | 370 (MBH)       |

| STATIC PRESSURE | PROCESS |      |       | REGENERATION |      |       |
|-----------------|---------|------|-------|--------------|------|-------|
|                 | UNIT    | ESP  | TOTAL | UNIT         | ESP  | TOTAL |
| CONFIG 1        | 1.75    | 1.00 | 2.75  | 2.15         | 1.00 | 3.15  |
| CONFIG 2        | 3.01    | 1.00 | 4.01  | 2.15         | 1.00 | 3.15  |
| CONFIG 3        | 2.80    | 1.00 | 3.80  | 2.15         | 1.00 | 3.15  |
| CONFIG 4        | 3.54    | 1.00 | 4.54  | 2.15         | 1.00 | 3.15  |

| COIL DATA                   | CONFIG 2 |        | CONFIG 3 |        | CONFIG 4 |      |
|-----------------------------|----------|--------|----------|--------|----------|------|
|                             | POST     | PRE    | PRE      | POST   | PRE      | POST |
| FACE AREA (SQ FT)           | 9.38     | 10.83  | 10.83    | 9.38   |          |      |
| FIN HEIGHT X LENGTH (IN)    | 27X50    | 30X52  | 30X52    | 27X50  |          |      |
| FACE VELOCITY (FPM)         | 533.33   | 461.54 | 461.54   | 533.3  |          |      |
| NUMBER OF ROWS              | 6        | 6      | 6        | 4      |          |      |
| CAPACITY (MBH)              | 529.74   | 439.42 | 439.42   | 257.99 |          |      |
| FLUID VELOCITY (GPM)        | 111.34   | 94.9   | 94.9     | 58.85  |          |      |
| FLUID PRESSURE DROP (IN WC) | 17.93    | 12.08  | 12.08    | 8.04   |          |      |
| EWV/LWT (°F)                | 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.