



# D12IN to D360IN (60hz)

## Correction Factors

### Inlet Temperature

|                                 |         |         |                 |          |          |          |          |
|---------------------------------|---------|---------|-----------------|----------|----------|----------|----------|
| Inlet Air Temperature (°F / °C) | 80 / 27 | 90 / 32 | <b>100 / 38</b> | 110 / 44 | 120 / 49 | 130 / 55 | 140 / 60 |
| Correction Factor               | 1.3     | 1.18    | <b>1</b>        | 0.8      | 0.6      | 0.42     | 0.25     |

### Ambient Temperature

|                                   |         |         |                 |          |          |          |
|-----------------------------------|---------|---------|-----------------|----------|----------|----------|
| Ambient Air Temperature (°F / °C) | 80 / 27 | 90 / 32 | <b>100 / 38</b> | 105 / 41 | 110 / 44 | 122 / 50 |
| Correction Factor                 | 1.1     | 1.05    | <b>1</b>        | 0.93     | 0.83     | 0.65     |

### Inlet Pressure

|                              |        |        |                |         |         |          |          |          |          |
|------------------------------|--------|--------|----------------|---------|---------|----------|----------|----------|----------|
| Inlet Pressure (psig / barg) | 73 / 5 | 87 / 6 | <b>102 / 7</b> | 116 / 8 | 131 / 9 | 145 / 10 | 160 / 11 | 174 / 12 | 203 / 14 |
| Correction Factor            | 0.85   | 0.93   | <b>1</b>       | 1.06    | 1.11    | 1.15     | 1.18     | 1.2      | 1.24     |

How to use the factors:

1) To determine the capacity of a dryer at non standard conditions – take the nominal rated flow and multiply by the appropriate correction factors.

Example: D300IN has nominal capacity of 300 m<sup>3</sup>/hr or 176 cfm.. At an inlet temperature of 110°F, ambient temperature of 90°F and pressure of 116 psig, the new capacity of this dryer is  $300 \times .8 \times 1.05 \times 1.06 = 267$  m<sup>3</sup>/hr or 157 cfm

2) To select a dryer basis system flow – take the required system flow and divide by the appropriate factors.

Example: Requirement is 200 m<sup>3</sup>/min (or 118 cfm) at inlet temperature of 120°F, ambient temperature of 80°F and pressure of 8 barg. The corrected flow will be  $200 / .6 / 1.1 / 1.06 = 286$  m<sup>3</sup>/hr or 168 cfm. Select the closest dryer rated above 286: choose the D300IN.

Note: Correction factors are to be used for general sizing guidance. Dryer performance is guaranteed at nominal rating only.