



# INDUSTRIAL BELT DRIVE 20

## Direct Gas Heated Air Curtain 40° Temp. Rise

### Data Sheet

For Mounting Heights To 20' (environmental separation)

#### STANDARD CONSTRUCTION

- Single speed T.E.F.C. motor - belt drive
- Gray powder coated exterior (Optional: Custom Color or Stainless)
- Split cabinet construction for fan assembly removal
- Removable access panels
- Top Mounting only
- Front air intake (Optional: top)
- Motor location top right (Optional: top left, front left or front right)

- Factory mounted duct transition with bottom access panels
- Factory mounted modulating direct fired heater with FM/IRI gas train
  - Factory mounted wired heater control panel
  - Steel cabinet with gray finish
  - Spark ignited intermittent pilot

**2 Year  
Limited  
Warranty**



| MODEL       | Nozzle Width (in) | Max Vel. at Nozzle (fpm) | Avg. Outlet Vel. (fpm) | Air Volume (cfm) | Outlet Vel. Uniformity | Power Rating (kW) | Motor @ HP | Heater Output (MBH) | Gas Train Size | Max Air Temp. Rise (°F) | Net Wt. Air Curtain (lbs) | Net Wt. Duct Trans. (lbs) | Net Wt. Burner Box (lbs) |
|-------------|-------------------|--------------------------|------------------------|------------------|------------------------|-------------------|------------|---------------------|----------------|-------------------------|---------------------------|---------------------------|--------------------------|
| IBC20-1060D | 60.00             | 6,580                    | 3,870                  | 6,854            | 89%                    | 4.70              | 1 @ 5      | 321.5               | 3/4"           | 43°                     | 445                       | 82                        | 220                      |
| IBC20-1072D | 72.00             | 6,549                    | 3,852                  | 8,186            | 89%                    | 4.90              | 1 @ 5      | 356.0               | 3/4"           | 40°                     | 496                       | 97                        | 260                      |
| IBC20-1084D | 84.00             | 6,076                    | 3,574                  | 8,861            | 87%                    | 4.90              | 1 @ 5      | 384.6               | 3/4"           | 40°                     | 547                       | 106                       | 260                      |
| IBC20-1096D | 96.00             | 6,900                    | 4,059                  | 11,500           | 92%                    | 6.80              | 1 @ 7½     | 499.0               | 3/4"           | 40°                     | 673                       | 115                       | 300                      |
| IBC20-1108D | 108.00            | 6,747                    | 3,969                  | 12,650           | 90%                    | 6.90              | 1 @ 7½     | 549.3               | 3/4"           | 40°                     | 759                       | 125                       | 340                      |
| IBC20-1120D | 117.00            | 7,494                    | 4,523                  | 15,612           | 88%                    | 8.70              | 1 @ 10     | 677.5               | 3/4"           | 40°                     | 834                       | 130                       | 380                      |
| IBC20-1132D | 132.00            | 7,017                    | 4,127                  | 16,080           | 87%                    | 8.90              | 1 @ 10     | 698.2               | 3/4"           | 40°                     | 886                       | 143                       | 420                      |
| IBC20-1144D | 144.00            | 7,640                    | 4,381                  | 19,100           | 87%                    | 11.70             | 1 @ 15     | 829.4               | 1"             | 40°                     | 932                       | 152                       | 470                      |
| IBC20-1156D | 156.00            | 7,405                    | 4,356                  | 20,055           | 86%                    | 11.90             | 1 @ 15     | 870.8               | 1"             | 40°                     | 1,043                     | 163                       | 500                      |
| IBC20-1168D | 168.00            | 7,783                    | 4,323                  | 22,700           | 90%                    | 12.80             | 1 @ 15     | 985.2               | 1"             | 40°                     | 1,134                     | 177                       | 500                      |
| IBC20-1180D | 180.00            | 7,300                    | 4,294                  | 22,814           | 91%                    | 12.90             | 1 @ 15     | 990.1               | 1"             | 40°                     | 1,185                     | 192                       | 500                      |
| IBC20-1192D | 192.00            | 6,900                    | 4,059                  | 23,000           | 92%                    | 13.60             | 1 @ 15     | 998.0               | 1"             | 40°                     | 1,311                     | 207                       | 500                      |

#### NOTES:

1. Operation at 50 Hz will generate approximately a 17% reduction in performance. Consult factory for gas heater sizing.
2. Performance data based on AMCA licensed data from unheated units.
3. Gas supply pressure: (Min 1.0 psi or 27 inch wc) to (Max 5.0 psi or 138 inch wc)
4. If incoming supply psi is greater than 5 psi, primary reducing regulator required and sized for incoming psi down to 5 psi.
5. Maximum leaving air temperature shall not exceed 120°F.
6. CAUTION: Direct Gas Heaters are not intended for use in high humidity applications.
7. Duct transition and direct fired gas heater are factory mounted to air curtain and each require individual support.
8. Gas train size is not the main gas supply line size.

See sheet EP-459 for amp draws/total load requirements.

### MODEL NUMBER CONFIGURATION

**IBC20-1 060 D D-F T-SS**

| Series | # of Motors | Opening Width | Heat                | Voltage                                                            | Intake           | Motor Location   | Opt. Cabinet Finish                   |
|--------|-------------|---------------|---------------------|--------------------------------------------------------------------|------------------|------------------|---------------------------------------|
| IBC20  | 1           | 060" - 192"   | D=Direct Gas Heated | D=208/3/60<br>E=240/3/60<br>H=480/3/60<br>I=600/3/60<br>T=380/3/50 | T=Top<br>F=Front | T=Top<br>F=Front | SS=Stainless Steel<br>CC=Custom Color |

Sound level measured 10' (3m) from the unit in free field:  
5, 7½, 10 & 15 hp motor(s):  
73 dBA, 75 dBA, 76 dBA & 78 dBA



# INDUSTRIAL BELT DRIVE 20

## Direct Gas Heated Air Curtain Electrical Performance Sheet

|                                                                         |          | 208/3/60 (voltage code D)<br>TOTAL MOTOR AMP DRAW |                  |                            | 240/3/60 (voltage code E)<br>TOTAL MOTOR AMP DRAW |                  |                            | 480/3/60 (voltage code H)<br>TOTAL MOTOR AMP DRAW |                  |                            |
|-------------------------------------------------------------------------|----------|---------------------------------------------------|------------------|----------------------------|---------------------------------------------------|------------------|----------------------------|---------------------------------------------------|------------------|----------------------------|
| MODEL                                                                   | Qty @ HP | # CKTS                                            | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS                                            | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS                                            | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT |
| IBC20-1060D<br>IBC20-1072D<br>IBC20-1084D                               | 1 @ 5    | 1                                                 | 17.2             | 30                         | 1                                                 | 15.4             | 30                         | 1                                                 | 7.8              | 15                         |
| IBC20-1096D<br>IBC20-1108D                                              | 1 @ 7.5  | 1                                                 | 23.6             | 50                         | 1                                                 | 21.3             | 45                         | 1                                                 | 10.7             | 25                         |
| IBC20-1120D<br>IBC20-1132D                                              | 1 @ 10   | 1                                                 | 30.1             | 60                         | 1                                                 | 27.0             | 60                         | 1                                                 | 13.6             | 30                         |
| IBC20-1144D<br>IBC20-1156D<br>IBC20-1168D<br>IBC20-1180D<br>IBC20-1192D | 1 @ 15   | 1                                                 | 43.6             | 100                        | 1                                                 | 40.1             | 100                        | 1                                                 | 20.0             | 45                         |

|                                                                         |          | 600/3/60 (voltage code I)<br>TOTAL MOTOR AMP DRAW |                  |                            | 380/3/50 (voltage code T)<br>TOTAL MOTOR AMP DRAW |                  |                            |
|-------------------------------------------------------------------------|----------|---------------------------------------------------|------------------|----------------------------|---------------------------------------------------|------------------|----------------------------|
| MODEL                                                                   | Qty @ HP | # CKTS                                            | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS                                            | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT |
| IBC20-1060D<br>IBC20-1072D<br>IBC20-1084D                               | 1 @ 5    | 1                                                 | 6.4              | 15                         | 1                                                 | 8.2              | 15                         |
| IBC20-1096D<br>IBC20-1108D                                              | 1 @ 7.5  | 1                                                 | 8.5              | 15                         | 1                                                 | 11.1             | 25                         |
| IBC20-1120D<br>IBC20-1132D                                              | 1 @ 10   | 1                                                 | 10.9             | 20                         | 1                                                 | 14.0             | 30                         |
| IBC20-1144D<br>IBC20-1156D<br>IBC20-1168D<br>IBC20-1180D<br>IBC20-1192D | 1 @ 15   | 1                                                 | 15.9             | 30                         | 1                                                 | 20.4             | 45                         |

\* Includes 750VA transformer load for gas fired burner panel.

Berner reserves the right to alter specifications without prior notice.

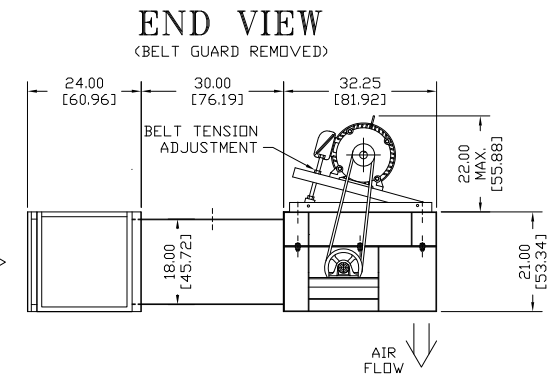
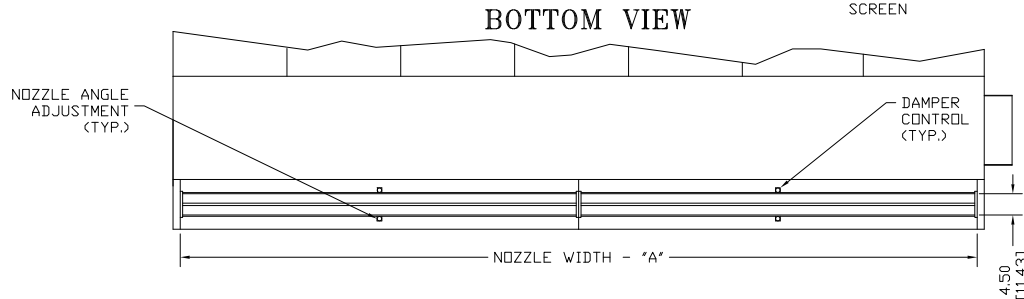
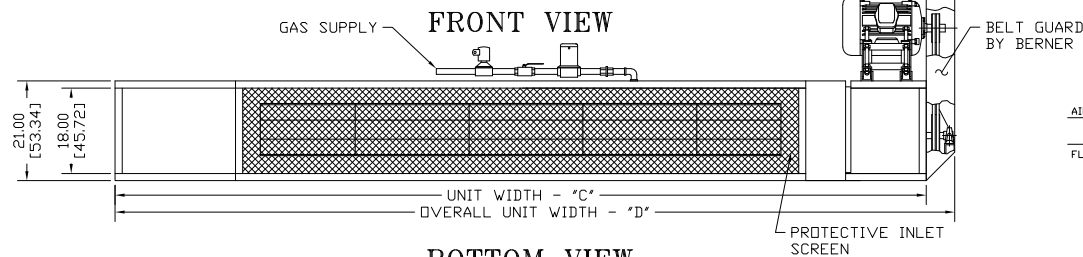
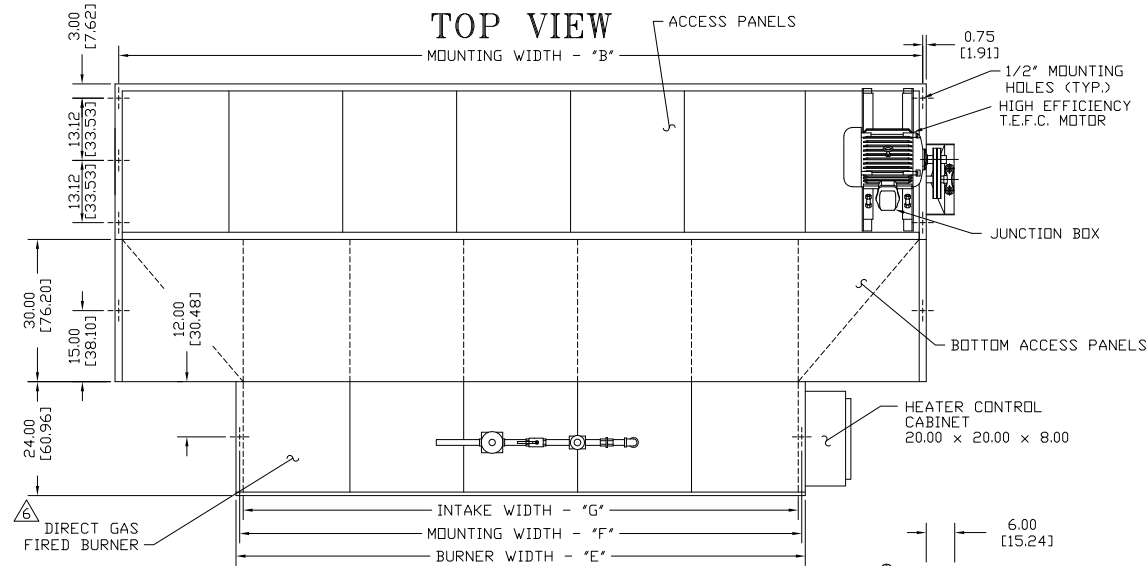
**www.berner.com Berner International 800.245-4455**  
111 Progress Ave. / New Castle / PA / 16101 / USA

EP-459  
December, 2018

# IBC20 DIRECT GAS FIRED ONE HEATER SYSTEM FRONT INTAKE TOP MOTOR MOUNT

## CAUTION:

HEATER IS EQUIPPED FOR A MAXIMUM GAS SUPPLY PRESSURE OF 1# TO 5#.



## NOTES:

- ⚠ AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF C.
- ⚠ ELECTRICAL CONNECTIONS TO BE FLEXIBLE.
- ⚠ FIELD VERIFY DIMENSIONS.
- ⚠ ANCHORS TO SUPPORTING STRUCTURE BY OTHERS.
- ⚠ ADEQUACY OF SUPPORTING STRUCTURE IS TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- ⚠ LETTER 'D' IN MODEL NUMBER DESIGNATES, DIRECT GAS HEATED UNIT. 'F' DESIGNATES FRONT INTAKE, 'T' IS TOP MOTOR.
- ⚠ SUPPORT DIRECT GAS HEATERS SEPARATELY FROM UNIT.
- ⚠ DIMENSIONS IN INCHES (CENTIMETERS).

| MODEL          | NOZZLE WIDTH<br>"A" | MOUNTING WIDTH<br>"B" | UNIT WIDTH<br>"C" | OVERALL WIDTH<br>"D" | BURNER WIDTH<br>"E" | MOUNTING WIDTH<br>"F" | INTAKE WIDTH<br>"G" |
|----------------|---------------------|-----------------------|-------------------|----------------------|---------------------|-----------------------|---------------------|
| IBC20-1060D-FT | 60.00 [152.40]      | 61.50 [156.21]        | 63.00 [160.02]    | 69.00 [175.26]       | 39.00 [99.06]       | 37.50 [95.25]         | 36.00 [91.44]       |
| IBC20-1072D-FT | 72.00 [182.88]      | 73.50 [186.69]        | 75.00 [190.50]    | 81.00 [205.74]       | 51.00 [129.54]      | 49.50 [125.73]        | 48.00 [121.92]      |
| IBC20-1084D-FT | 84.00 [213.36]      | 85.50 [217.17]        | 87.00 [220.98]    | 93.00 [236.22]       | 51.00 [129.54]      | 49.50 [125.73]        | 48.00 [121.92]      |
| IBC20-1096D-FT | 96.00 [243.84]      | 97.50 [247.65]        | 99.00 [251.46]    | 105.00 [266.70]      | 63.00 [160.02]      | 61.50 [156.21]        | 60.00 [152.40]      |
| IBC20-1108D-FT | 108.00 [274.32]     | 109.50 [278.13]       | 111.00 [281.94]   | 117.00 [297.18]      | 75.00 [190.50]      | 73.50 [186.69]        | 72.00 [182.88]      |
| IBC20-1120D-FT | 117.00 [297.18]     | 118.50 [300.99]       | 120.00 [304.80]   | 126.00 [320.04]      | 87.00 [220.98]      | 85.50 [217.17]        | 84.00 [213.36]      |
| IBC20-1132D-FT | 132.00 [335.28]     | 133.50 [339.09]       | 135.00 [342.90]   | 141.00 [358.14]      | 99.00 [251.46]      | 97.50 [247.65]        | 96.00 [243.84]      |
| IBC20-1144D-FT | 144.00 [365.76]     | 145.50 [369.57]       | 147.00 [373.38]   | 153.00 [388.62]      | 111.00 [281.94]     | 109.50 [278.13]       | 108.00 [274.32]     |
| IBC20-1156D-FT | 156.00 [396.24]     | 157.50 [400.05]       | 159.00 [403.86]   | 165.00 [419.10]      | 120.00 [304.80]     | 118.50 [300.99]       | 117.00 [297.18]     |
| IBC20-1168D-FT | 168.00 [426.72]     | 169.50 [430.53]       | 171.00 [434.34]   | 177.00 [449.58]      | 120.00 [304.80]     | 118.50 [300.99]       | 117.00 [297.18]     |
| IBC20-1180D-FT | 180.00 [457.20]     | 181.50 [461.01]       | 183.00 [464.82]   | 189.00 [480.06]      | 120.00 [304.80]     | 118.50 [300.99]       | 117.00 [297.18]     |
| IBC20-1192D-FT | 192.00 [487.68]     | 193.50 [491.49]       | 195.00 [495.30]   | 201.00 [510.54]      | 120.00 [304.80]     | 118.50 [300.99]       | 117.00 [297.18]     |

|           |              |                                               |
|-----------|--------------|-----------------------------------------------|
| PROJECT   |              |                                               |
| LOCATION  |              |                                               |
| ARCHITECT |              |                                               |
| ENGINEER  |              |                                               |
| DWG. NO.  | IBC20-DGF1-A | TITLE: <b>BERNER</b>                          |
| DATE      | 04APR2021    | MODEL IBC20 AIR CURTAIN                       |
| BY        | S. BEIL      | DIRECT GAS FIRED - ONE HEATER SYSTEM          |
| REPLACES  | 03DEC19      |                                               |
| BY        | N. GRADY     | BERNER INTERNATIONAL CORP.<br>NEW CASTLE, PA. |