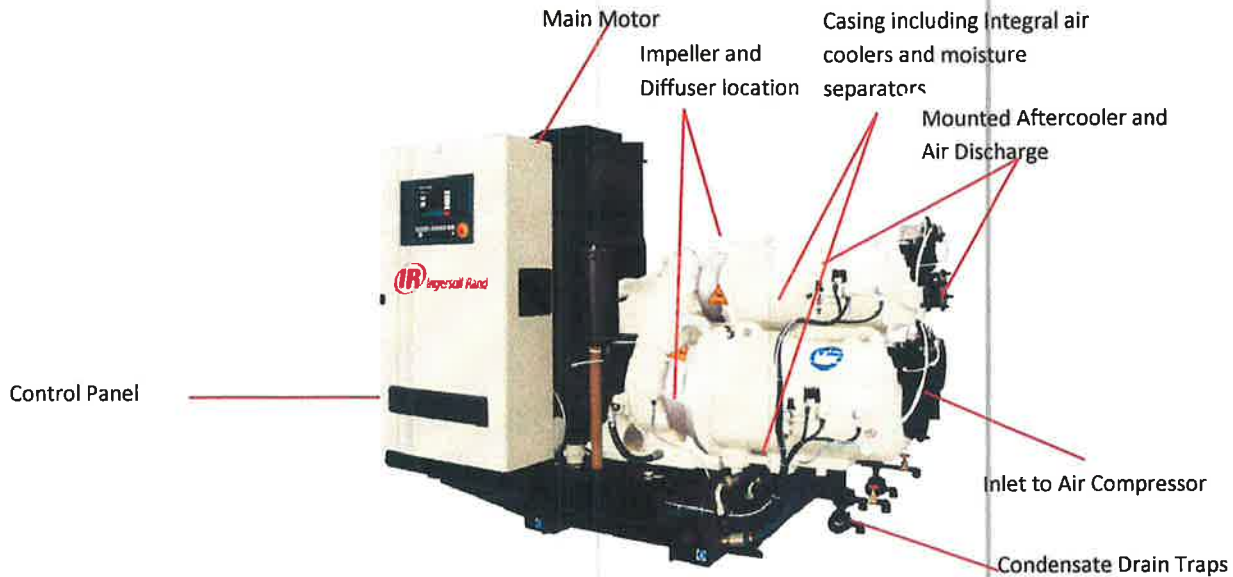


## Centac Description

### C700 Centac Description:

The Centac compressor is designed with productivity in mind; designed as a fully packaged unit including: an airend, a driver, an air cooling system, a self-contained lubrication system, and an advanced controller.



| Standard features                       | Benefits                                                              |
|-----------------------------------------|-----------------------------------------------------------------------|
| Constant discharge pressure             | Reduces energy consumption – lowest power cost                        |
| Simplicity by design – few moving parts | Increased reliability                                                 |
| 100% oil free air – Class “0”           | 3 <sup>rd</sup> party certified – no risk of oil carryover to process |
| Backward leaning impellers              | Superior efficiency and excellent turndown                            |
| Full feature X <sup>e</sup> controller  | optimizes performance and ensures reliability                         |
| Compact package on rigid baseplate      | No special foundation required                                        |

Legendary Reliability - Over 20,000 Centac units shipped worldwide

\*\*\*\*\* Confidential Ingersoll-Rand Company Data \*\*\*\*\*  
CENTAC MODEL: C70025M3

|              |                                  |           |              |
|--------------|----------------------------------|-----------|--------------|
| File No.     | : C700SV28                       | Date      | : [REDACTED] |
| Proposal No. | : XXX-999999                     | Frequency | : 60 Hz      |
| Customer     | : Uponor                         | Gas       | : Air        |
| User         | : Authorized Ingersoll-Rand User | Build ID  | : [REDACTED] |

DESIGN POINT PERFORMANCE (Standard Industrial Tolerances Applied)

| INLET CONDITIONS        | CAPACITY                               | DISCHARGE | COUPLING | SPECIFIC | ISO   |
|-------------------------|----------------------------------------|-----------|----------|----------|-------|
|                         | Discharge                              | PRESSURE  | POWER    | bhp/100  | EFF   |
|                         | acfm                                   | psig      | bhp      | acfm     | %     |
| Pb = 14.200 psia        | 2180.70                                | 134.757   | 472.79   | 21.680   | 66.35 |
| P1 = 13.900 psia        | 2212.43                                | 134.747   | 477.34   | 21.575   | 66.67 |
| T1 = 95.0 deg F         | 2244.21                                | 134.093   | 481.39   | 21.450   | 66.94 |
| RH = 60 %               | 2276.04                                | 132.655   | 484.87   | 21.303   | 67.12 |
| TW = 85.0 deg F         | 2307.95                                | 130.249   | 487.70   | 21.131   | 67.19 |
| BG = 3575.0 rpm         | 2339.96                                | 126.636   | 489.75   | 20.930   | 67.11 |
| Mhp = 79.2 bhp          | 2372.13                                | 121.504   | 490.83   | 20.692   | 66.79 |
| REFERENCE CONDITIONS    | 2404.54                                | 114.446   | 490.63   | 20.404   | 66.15 |
| Ps = 14.700 psia        | 2437.33                                | 104.941   | 488.61   | 20.047   | 65.00 |
| Ts = 68.0 deg F         |                                        |           |          |          |       |
| RHs = 36 %              |                                        |           |          |          |       |
|                         | -----Specified Discharge Pressure----- |           |          |          |       |
| GUARANTEE TOLERANCES    | 2450.30                                | 100.123   | 487.18   | 19.882   | 64.28 |
| Capacity = +/- 4%       | 2470.77                                | 92.347    | 483.72   | 19.578   | 63.10 |
| Specific Power = +/- 5% | 2505.49                                | 75.967    | 473.57   | 18.901   | 60.00 |

STAGE DATA AT SPECIFIED DISCHARGE PRESSURE

| COMPRESSOR STAGES                                 | Stage 1    | Stage 2    | Stage 3    | Disch.  |
|---------------------------------------------------|------------|------------|------------|---------|
| STAGE INLET                                       |            |            |            |         |
| Pressure-psia                                     | 13.900     | 30.124     | 59.144     | 114.323 |
| Temperature-deg F                                 | 95.000     | 95.980     | 100.210    | 104.620 |
| Capacity-cfm                                      | 2491.030   | 1142.803   | 579.495    | 300.134 |
| Capacity-lb/m wet                                 | 161.407    | 160.642    | 159.436    | 158.769 |
| Capacity-lb/m dry                                 | 157.823    | 157.823    | 157.823    | 157.823 |
| STAGE DISCHARGE                                   |            |            |            |         |
| Pressure-psig                                     | 16.291     | 45.248     | 100.372    | 0.0     |
| Temperature-deg F                                 | 258.807    | 244.194    | 240.903    | 0.0     |
| Gas Power-hp                                      | 149.553    | 134.177    | 125.674    | 0.0     |
| COOLER PERFORMANCE                                |            |            |            |         |
| Std. Cooler(s) with Copper tubes; Coolant - Water |            |            |            |         |
| Pressure Drop-psi                                 | 0.367      | 0.305      | 0.249      | 0.0     |
| CTD-deg F                                         | 10.980     | 15.210     | 19.620     | 0.0     |
| Condensate-lb/m wet                               | 0.765      | 1.206      | 0.668      | 0.0     |
| Heat Load-Tot btu/hr                              | 446459.675 | 426038.137 | 368817.688 | 0.0     |
| Cooling Flow-gpm                                  | 35.764     | 34.126     | 29.537     | 0.0     |
| Cooling Temp. Rise-deg F                          | 25.000     | 25.000     | 25.000     | 0.0     |
| STAGE PERFORMANCE PARAMETERS                      |            |            |            |         |
| Pinion Speed - rpm                                | 34833.000  | 50315.000  | 50315.000  | 0.0     |
| Impeller Diameter - in                            | 8.600      | 5.800      | 5.300      | 0.0     |
| Adiabatic Efficiency - %                          | 84.784     | 80.059     | 82.561     | 0.0     |
| Pressure Ratio                                    | 2.194      | 1.973      | 1.937      | 0.0     |

COMPRESSOR STABILITY

|                                                                |   |         |
|----------------------------------------------------------------|---|---------|
| Stable Pressure Rise - % (For absolute pressure values)        | = | 30.30   |
| Turndown @ Specified Discharge Pressure - % mass flow          | = | 32.02   |
| Throttled Capacity before bypass - acfm                        | = | 1673    |
| Throttled Horsepower @ Coupling - bhp                          | = | 380.94  |
| Min. Unloaded Horsepower @ Coupling - bhp                      | = | 118.08  |
| Oil Cooler: 125000 btu/hr, 25.1 gpm of coolant @ 10 deg F Rise |   |         |
| Total Heat Load - btu/hr                                       | = | 1366316 |
| Total Cooling Flow - gpm                                       | = | 124.5   |



## Utility Consumption & Connections

|                                   |                                               |  |          |
|-----------------------------------|-----------------------------------------------|--|----------|
| Estimated Dimensions              | Typical, Not for Planning or Construction     |  |          |
| Length X Width X Height           | 143" X 101" X 86"                             |  |          |
| Weight (Max.)                     | 19,500 LBS                                    |  |          |
| Inlet Air Connection              | 8" ANSI 150# FF                               |  |          |
| Discharge Air Connection          | 4" ANSI 150# FF                               |  |          |
| Bypass Air Connection             | 3" ANSI 150# FF                               |  |          |
| Water Connections                 | 2" ANSI 150# FF                               |  |          |
| Control Air                       | 0.50" NPT                                     |  |          |
| Anchor Bolt Holes                 | 1.0"                                          |  |          |
| Condensate Traps                  | 0.50" NPT                                     |  |          |
| Oil Reservoir Drain               | 1.0" NPT PIPE PLUG                            |  |          |
| Motor Data                        |                                               |  |          |
| Motor Nameplate Rating            | HP                                            |  | 500      |
| Service Factor                    |                                               |  | 1.15     |
| Voltage                           | Volt                                          |  | 460      |
| Frequency                         | Hz                                            |  | 60       |
| Min. Effy. @ full load            | %                                             |  | 95.2     |
| Min. PF. @ full load              |                                               |  | .89      |
| Utility Requirements              |                                               |  |          |
| Lube oil heater                   | 2.1 kW                                        |  | 460/3/60 |
| Pre-lube oil pump                 | 1.5 hp                                        |  | 460/3/60 |
| Control Panel                     | 500 VA                                        |  | 460/3/60 |
| Instrument Air, (SCFM)            | 9-15 (Instrument air pressure of 60-120 PSIG) |  |          |
| Total Cooling Flow at Rated Point | 130.6 gpm                                     |  |          |