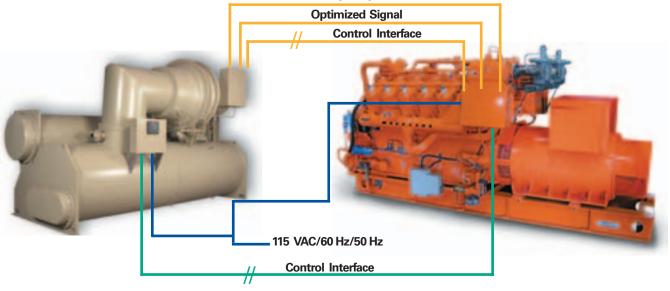


Trane Gas Powered CenTraVac[™] (GPC) Chiller Package 165-3950 Tons

Variable Frequency 3 Phase Power



General

In today's air conditioning market there are many system alternatives. These include electric chillers, gas or steam absorption chillers, engine driven chillers or a combination of two or more of the above.

Economics should play a dominant role in determining which system is selected. In some cases an engine driven chiller or an engine driven generator set combined with an electric chiller may be the best choice.

Engine driven alternatives, whether an engine driven generator set or a straight engine driven chiller, have the highest coefficients of performance of any natural gas cooling system and demonstrate lower total operating cost in many parts of the country.

The proven design of the CenTraVac chiller and the Waukesha Enginator® make this package exceptionally attractive when the economics favor an engine driven system. The design of the Gas Powered CenTraVac® was developed with the assistance of the Gas Technology Institute.

CenTraVac Features and Benefits

- Direct-drive for reliability and simplicity
- Multi-stage design for efficiency
- Design for use with environmentally compatible HCFC-123
- Completely factory-assembled for lower jobsite costs
- "Near Zero" refrigerant emission design
- Proven shell and tube design for a variety of high performance heat transfer surfaces
- Range of component combinations to allow selection of chiller that best meets system requirements
- Features Trane's exclusive Adaptive Control™ to keep chiller on line under unfavorable operating conditions

Waukesha Enginator Features and Benefits

- State-of-the-art manufacturing assures quality components for long service life minimizing operation costs.
- History of customer satisfaction in providing site specific hardware for ease of installation and operation.

- Lean burn technology provides low emissions and fuel economy for low operating costs. Enginators can also be equipped with catalytic converters when required.
- Custom Enginator control for engine protection and communication with the Tracer chiller controller.
- Options for both jacket water and exhaust heat recovery to meet a variety of customer requirements including absorption chillers.
- Fuel systems capable of operation on low fuel supply pressures.

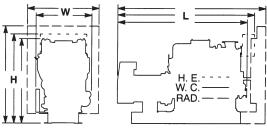
Trane GPC Features and Benefits

- The ability to place the engine generator set in a remote location allows for more effective use of plant floor space and flexibility, in soundsensitive work areas.
- Flexibility of base loading and peak shaving cost-effective installations — No onsite piping connections between engine and centrifugal chiller, thus minimizing potential refrigerant leaks, and no industrial air compressor is required.

Dimensional Information

The following dimensional information is representative of the line of Waukesha Enginator engine-generators and Trane CenTraVac chillers. Some of the available chiller combinations have been omitted due to space constraints.





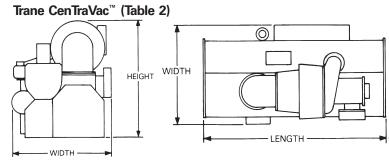


Table 1. Waukesha Enginator

| | nginator | | | | | |
|-------------|----------|----------------|--------------|--------------|--------------|------------------|
| | | Enginator | | | | |
| Model | kWe* | Cooling Method | L - in. (mm) | H - in. (mm) | W - in. (mm) | Avg. Wt Ib. (kg) |
| VGF18GL/GLD | 280 | H.E. | 122 (3100) | 77 (1960) | 54 (1370) | 8400 (3810) |
| | 280 | W.C. | 113 (2870) | 77 (1960) | 54 (1370) | 8100 (3673) |
| | 265 | RAD. | 139 (3530) | 86 (2190) | 62 (1580) | 9100 (4127) |
| VGF24GL/GLD | 375 | H.E. | 142 (3610) | 79 (2000) | 54 (1370) | 10800 (4898) |
| | 375 | W.C. | 132 (3350) | 79 (2000) | 54 (1370) | 10300 (4670) |
| | 350 | RAD. | 158 (3860) | 94 (2390) | 72 (1830) | 12000 (5442) |
| VGF36GL/GLD | 560 | H.E. | 157 (3990) | 96 (2440) | 57 (1450) | 17000 (7720) |
| | 560 | W.C. | 137 (3480) | 89 (2260) | 57 (1450) | 16000 (7260) |
| | 530 | RAD. | 188 (4780) | 124 (3150) | 105 (4780) | 20500 (9300) |
| VGF48GL/GLD | 750 | H.E. | 184 (4680) | 90 (2290) | 62 (1580) | 22500 (10200) |
| | 750 | W.C. | 162 (4120) | 90 (2290) | 62 (1580) | 21000 (9530) |
| | 730 | RAD. | 212 (5390) | 136 (3450) | 123 (3120) | 27000 (12250) |
| VHP5900GSI | 900 | H.E. | 215 (5460) | 108 (2740) | 80 (2030) | 35,000 (15,875) |
| | 865 | W.C. | 198 (5030) | 108 (2740) | 80 (2030) | 32,750 (14,850) |
| | 835 | RAD. | 236 (5990) | 138 (3510) | 114 (2900) | 38,250 (17,350) |
| VHP7100GL | 1100 | H.E. | 216 (5490) | 103 (2620) | 81 (2060) | 36000 (16300) |
| | 1050 | W.C. | 197 (5000) | 103 (2620) | 81 (2060) | 34000 (15400) |
| | 1025 | RAD. | 238 (6050) | 128 (3505) | 114 (2900) | 39750 (18000) |
| VHP9500GL | 1475 | H.E. | 290 (7370) | 130 (3300) | 92 (2340) | 48250 (21040) |
| | 1400 | W.C. | 265 (6730) | 130 (3300) | 87 (2210) | 46750 (21200) |
| | 1350 | RAD. | | consul | t factory | |

H.E. is heat exchanger cooling - W.C. is water connection cooling - RAD. is radiator cooling - *Continuous duty rating

Table 2. Trane CenTraVac™

| | | | | Shell | | | W - in (mm) | W - in (mm) |
|---|-------|-----------|------------|-------------|--------------------|-------------------|--------------------|--------------------|
| 1 | Model | Comp. | Shell Size | Arrangement | L - in. (mm) | H - in. (mm) | No Starter | w/Starter |
| (| CVHE | 230-320 | 320 | SS | 11' 3" (3429) | 7' 9 3/4" (2380) | 5' 9 1/4" (1759) | 6' 7 1/2" (2019) |
| | | | | SL & LL | 15' 0 1/4" (4578) | 7' 9 3/4" (2380) | 5" 9 1/4" (1759) | 6' 7 1/2" (2019) |
| (| CVHE | 360-500 | 500 | SS | 11' 3" (3429) | 8' 2 1/2" (2502) | 6' 7 5/8" (2022) | 7' 8 1/2" (2350) |
| | | | | SL & LL | 15' 0 1/4" (4578) | 8' 2 1/2" (2502) | 6' 7 5/8" (2022) | 7' 8 1/2" (2350) |
| (| CVHF | 350-485 | 500 | SS | 11' 3" (3429) | 8' 4" (2540) | 6' 7 5/8" (2022) | 7' 8 1/2" (2350) |
| | | | | SL & LL | 15' 0 1/4" (4578) | 8' 4" (2540) | 6' 7 5/8" (2022) | 7' 8 3/4" (2350) |
| (| CVHF | 555-640 | 800 | SS | 11' 3" (3429) | 9' 8" (2946) | 7' 11 1/4" (2419) | 8' 7 5/8" (2632) |
| | | | | SL & LL | 15' 0 1/4" (4578) | 9' 8" (2946) | 7' 11 1/4" (2419) | 8' 7 5/8" (2632) |
| (| CVHF | 650-910 | 1420 | ML & LL | 15' 0 1/4" (4578) | 10' 1 1/8" (3077) | 9' 11 3/4" (3042) | 10' 3 7/8" (3146) |
| (| CVHF | 1060-1280 | 2100 | LL | 15' 0 1/4" (4578) | 11' 0 7/8" (3375) | 10' 9 3/4" (3296) | 10' 10" (3302) |
| (| CVHF | 1470-1720 | 2500 | EL | 16' 10 3/4" (5150) | 11' 9 1/8" (3585) | 11' 11 1/2" (3645) | 11' 11 1/2" (3645) |
| (| CDHF | 2100-2500 | 2500 | DD | 21' 6" (6553) | 11'4 7/8" (3477) | 11' 10 1/2" (3620) | 11' 10 1/2" (3620) |
| (| CDHF | 3000 | 2500 | MM | 26' 0" (7925) | 11' 9 3/8" (3591) | 11' 5 1/4" (3487) | consult factory |
| (| CDHF | 3500 | 2500 | XX | 30' 0" (9144) | 11' 9 3/8" (3591) | 11' 5 1/4" (3487) | consult factory |

Where: SS = Short evaporator/short condenser - SL = Short evaporator/long condenser - LL = Long evaporator/long condenser - EL = Extended evaporator/long condenser - Height includes unit mounted starter

All dimensions and weights are approximate, for estimating purposes only.



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Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.