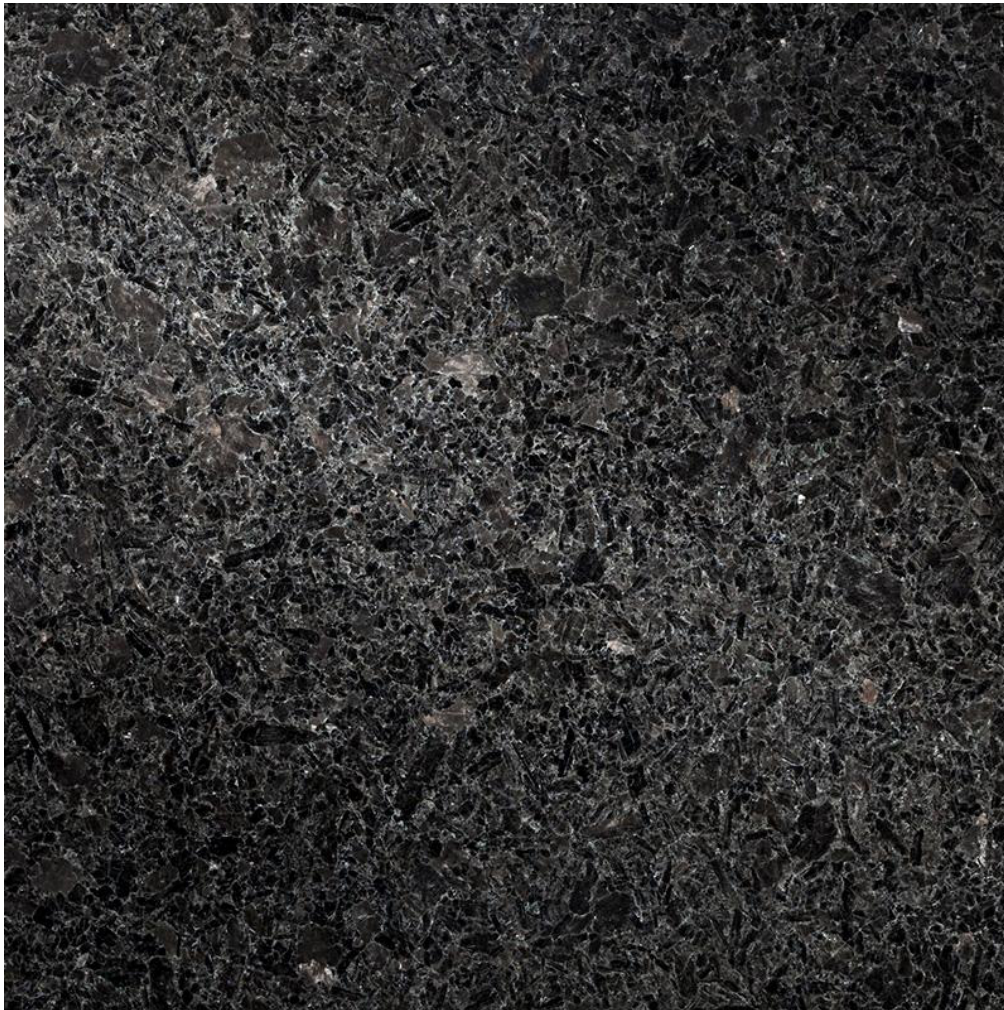


Colors and Finishes

[Home](#) / [Building Materials](#) / [Colors and Finishes](#) / [Mesabi Black®](#)



Finish: Polish

TESTING DETAILS

Bulk Density

ASTM C97



Menu

Compressive Strength	ASTM C170
-----------------------------	-----------

Avg. Compressive Strength	18,680 Psi
----------------------------------	------------

Modulus of Rupture	ASTM C99
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Avg. Modulus of Rupture	1,552 Psi
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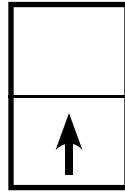
Quarry	Babbitt, Minnesota
---------------	--------------------

Available in All Finishes	
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QUAKER
COMMERCIAL WINDOWS AND DOORS



Traditional
SERIES

**T500 Series
AW-PG50
3 1/4" Frame Depth
Single Hung**

T500 SERIES SINGLE HUNG

The Quaker Traditional T500 Series Single Hung window is ideal for a variety of applications including - Institutions, Education, Apartments and Assisted Living.

FEATURES

- ◇ Commercial Framing System
 - 3 1/4" main frame
 - 0.062" wall thickness of frame and sash
- ◇ Thermally Enhanced Design
 - Azon pour and debridge thermal break is 1/2" wide in all main frame and vent rail extrusions
 - Double fin-type weatherstripping
 - Full width lift handles
- ◇ Glazing
 - 1" insulated glass
- ◇ Hardware
 - Block and tackle balancers
 - Gravity latch
- ◇ Screen
 - Extruded aluminum screen frame with BetterVue™ mesh

BENEFITS

- ◇ The capacity to match exterior colors for unique project facades
- ◇ The ability to facilitate large sizes for taller and wider window openings

PERFORMANCE

- ◇ Structural & Thermal (test reports or thermal simulations available upon request)

Model	Single Hung
AAMA/WDMA/CSA 101/IS.2/A440-08 Rating	AW-PG50
Structural Load P.S.F.	75.19
Air at 50 MPH (cfm/ft ²)	0.03
Water (No Penetration) P.S.F.	10.03
U-Value (with Low-E and Argon)	0.37 - 0.42
SHGC (with Low-E and Argon)	0.14 - 0.33

Window test size: 60" x 99"
Operating Force: 19 lbf (maintain motion), 1 lbf (gravity latches)

OPTIONS

- ◇ Available Configurations
 - Single hung
 - Oriel single hung
- ◇ Muntin Choices
 - Internal or simulated divided lites available
- ◇ Hardware
 - Class 5 balancers
 - Limited travel latch
- ◇ Nailing Fin
- ◇ Screen
 - Extruded aluminum screen frame with aluminum wire mesh
 - Extruded aluminum screen frame with sunscreen mesh
 - Extruded aluminum screen frame with stainless steel 0.009" thickness mesh
 - Security screen
- ◇ Glazing
 - Capillary tubes
 - Argon gas
 - Wide variety of glazing, tinting and thickness options
- ◇ Panning & Trim Choices
 - Wide variety of panning, receptor and trim available
- ◇ Mulling
 - Wide variety of structural mulls
- ◇ Specialty
 - Attached exterior or interior storm window
 - Extension jambs



Our products are tested to the standards of and certified by the American Architectural Manufacturer's Association, the National Fenestration Rating Council and the Window & Door Manufacturers Association.



QUAKER
COMMERCIAL WINDOWS AND DOORS

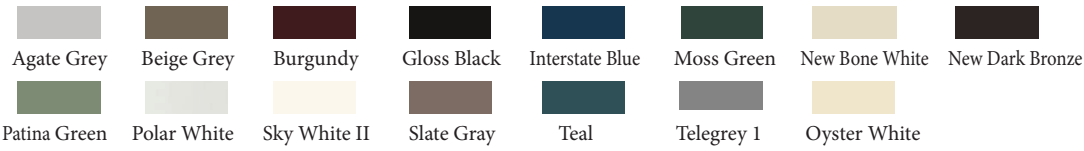
ARCHITECTURAL PAINT COATINGS AND FINISHES

◇ Baked on powder coat finish meets ANSA/AAMA 2604 specs and is available in unlimited colors

- 11 Popular Colors



- 15 Impressive Colors



- 7 Resemble Colors (painted finish resembling anodized)



- Unlimited Custom Colors

◇ ANSA/AAMA 2605 powder coat finishes

◇ AAMA 611-98 Class I clear and tinted anodized finishes

* Printed colors shown here may not accurately depict actual painted colors. Color samples are available upon request.

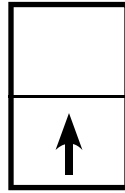
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COMMERCIAL WINDOWS AND DOORS



QUAKER
COMMERCIAL WINDOWS AND DOORS

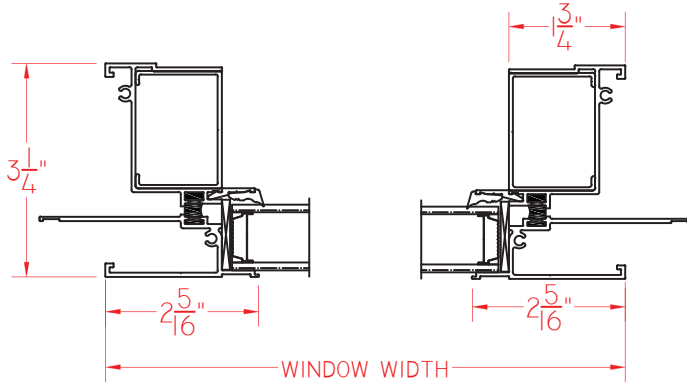


Traditional
SERIES

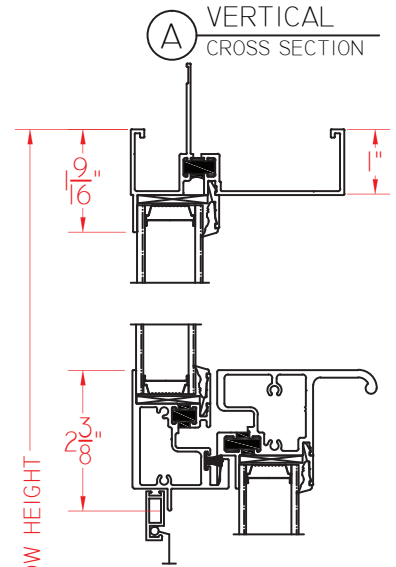
T500 Series
AW-PG50
3 1/4" Frame Depth
Single Hung

T500 SH WITH NAILING FIN

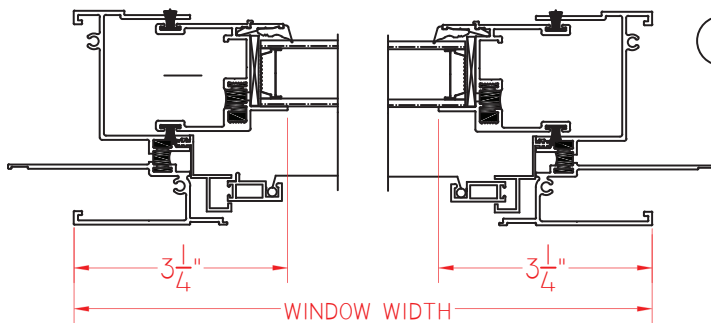
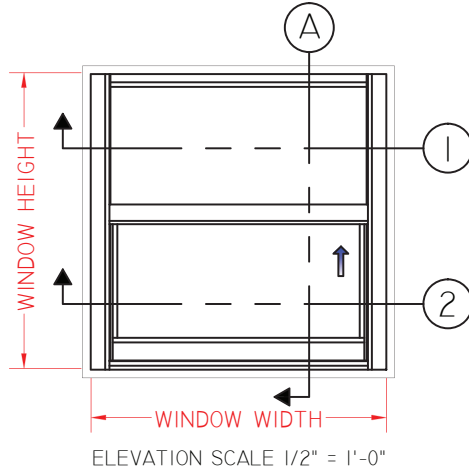
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Due to periodic re-certification requirements, result shown may vary.



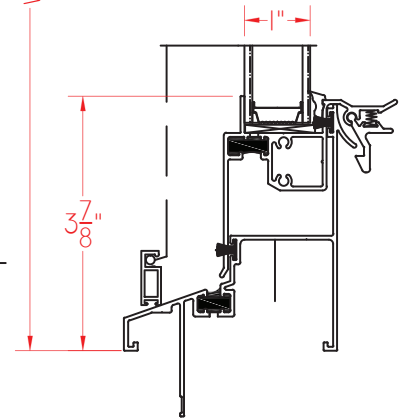
① HORIZONTAL CROSS SECTION



WINDOW HEIGHT



② HORIZONTAL CROSS SECTION



T500-700 SINGLE HUNG WITH NAIL FIN 02.06.2015 VERSION 1.0

SCALE 1:3

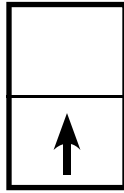
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COMMERCIAL WINDOWS AND DOORS



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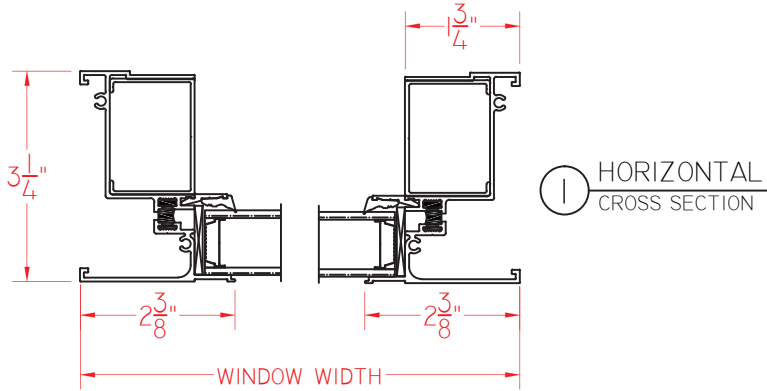


Traditional
SERIES

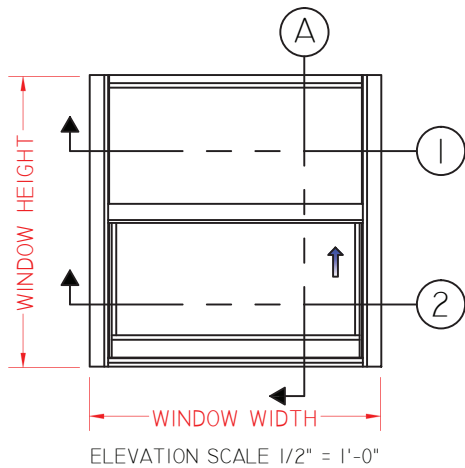
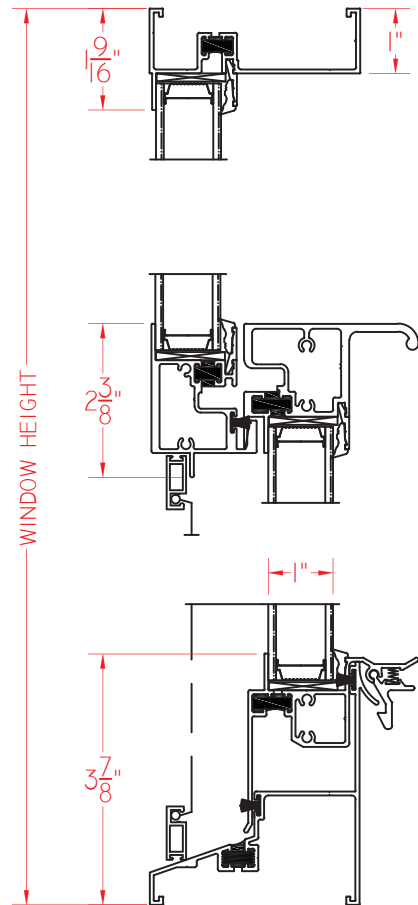
T500 Series
AW-PG50
3 1/4" Frame Depth
Single Hung

T500 SH WITHOUT NAILING FIN

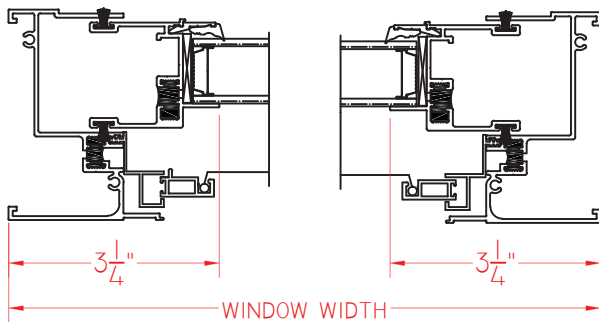
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Ⓐ VERTICAL CROSS SECTION



② HORIZONTAL CROSS SECTION



T500-700 SINGLE HUNG 02.06.2015 VERSION 1.0

SCALE 1:3

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COMMERCIAL WINDOWS AND DOORS

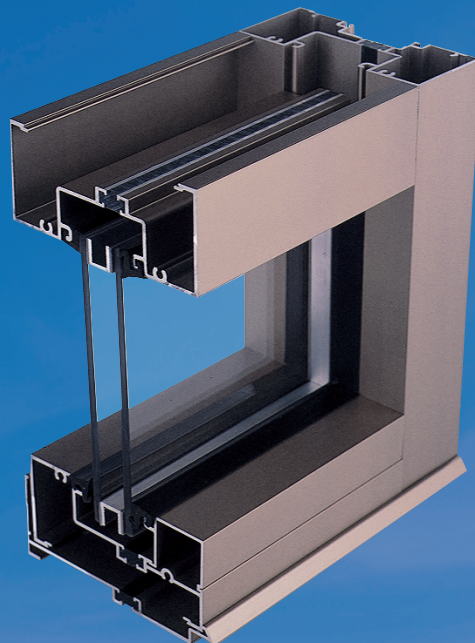
T14000 Series Storefront

Single cavity pour and debridge thermal barrier

For optimal strength and thermal performance, use Tubelite's 14000 Series Storefront Framing, a flush-glazed system for use on storefront and low-rise applications. Framing is available in standard single cavity pour and debridge thermal barrier members with 2" x 4-1/2" profiles and a 1/2" bite for use with glass or panels up to 1-1/8" thick. Extra-heavy intermediate verticals are available for high performance against strong windloads.

Reduce project labor costs with the flexibility of inside or outside glazing. Members can be assembled using screw spline or clip joinery, and framing is compatible with Tubelite Narrow, Medium and Wide Stile Doors.

Our 14000 Series Storefront products are subjected to thorough testing by an independent laboratory, ensuring that you get the highest quality storefront framing products that the industry has to offer.



Wendy's, Cemetery Road, Hilliard, OH

Standard Medium Stile Entrances



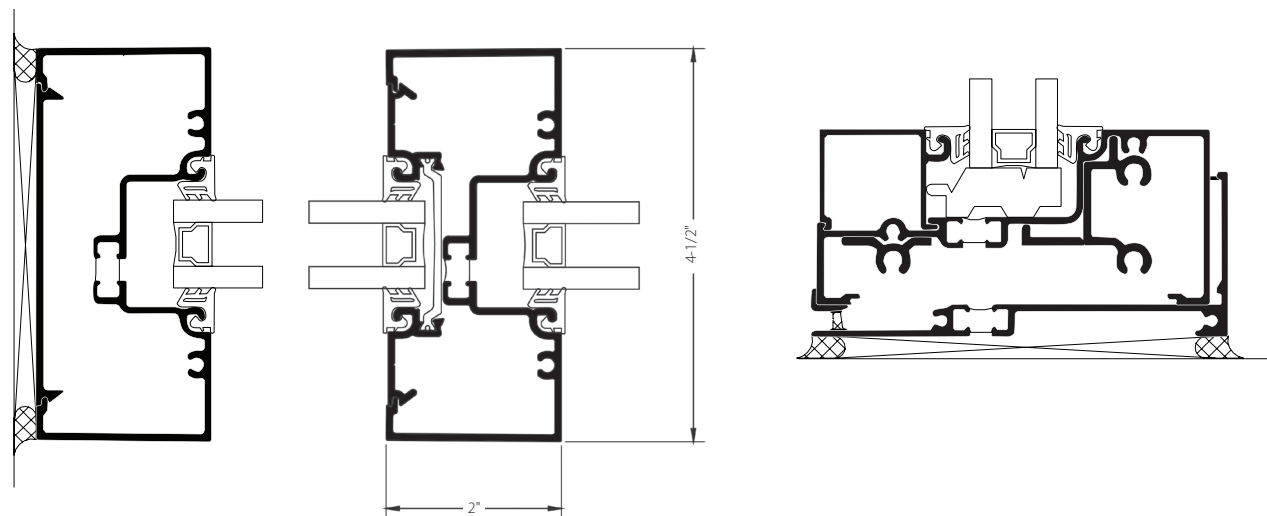
200 Series Curtainwall

ALSO USED WITH

TUBELITE[®]
DEPENDABLE
 LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

T14000 Series Storefront

Single cavity pour and debridge thermal barrier

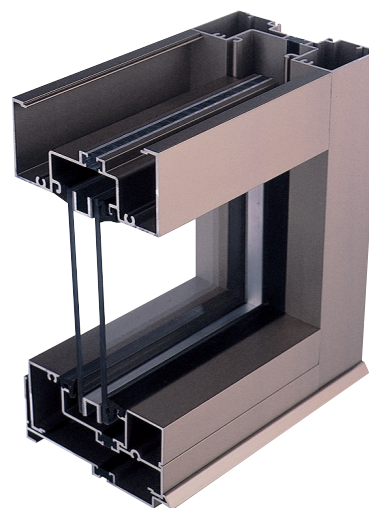


System Features:

- Standard 2" (50.8mm) sight-line on verticals and horizontals
- 4-1/2" (114.3mm) system depth
- Single cavity pour and debridge thermal barrier with Azon's Lancer® mechanical lock
- EPDM wedge type gaskets for 1" glass or panel thickness
- Glass centered in the system depth

Optional Features:

- Screw-spline or shear block connections
- Steel reinforcing if required
- Easily integrates with standard or thermal doors, operable vent windows & sun shades
- A wide variety of standard anodized and painted colors are available to complement any project with warranted protection, as well as street appeal.
- Curved Headers
- Non-thermal Framing



T14000 Series Product Specifications

Application: Low-rise commercial buildings: retail, office, healthcare, schools, etc.

Description: 2" x 4-1/2" center set, outside or inside flush glazed storefront

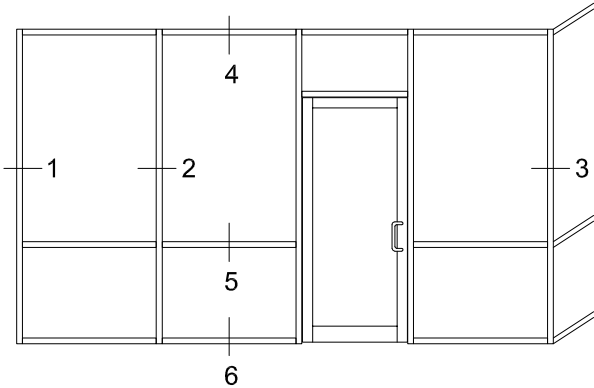
Face Width:	System Depth:	Glass:	Air Infiltration:	Water Infiltration:	Structural:	CRF:	U-Factor**:	Acoustic:
2"	4-1/2"	1" std (1/8" - 1-1/8")	0.06 CFM/Ft.2 @ 6.24 PSF	10 PSF - Static 10 PSF - Dynamic	30 PSF - Design 45 PSF - Overload	T (Thermal) 62 _f 68 _g	0.38 - Thermally Insulated 0.33 - Thermally Broken	STC 32 OITC 26

** U-Factor per NFRC 100: COG = 0.24 with warm edge spacer, 1-3/4" x 4-1/2" non-thermal frame.

Refer to the U-Value table at: www.tubeliteinc.com/products/storefront/14000-series-storefront-framing/ for other glass makeups and configurations.

DISCLAIMER: Tubelite takes no responsibility for product selection or application, including, but not limited to, compliance with building codes, safety codes, laws, merchantability or fitness for a particular purpose; and further disclaims all liability for the use, in whole or in part, of this Technical Guide in preparation of project specifications and/or other documents. Technical Guides are subject to change at any time, without notice, and at Tubelite's sole discretion. ©2017 Tubelite Inc.

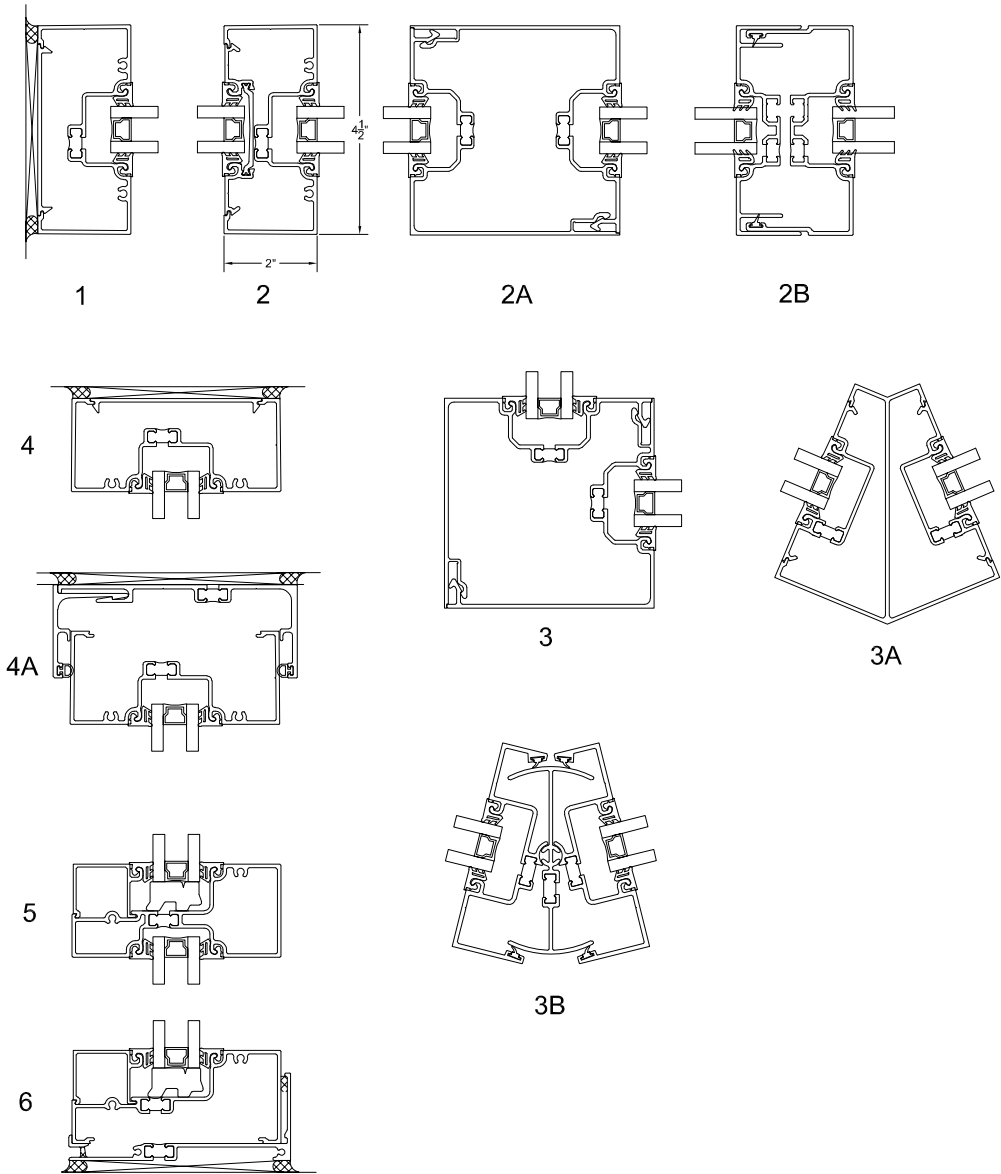
080720



Tubelite reserves the right to change system configuration without prior notice when deemed necessary for product improvements.

Laws and building & safety codes governing the design and use of glazed entrance, window and curtain wall systems vary widely. Tubelite does not control the selection of product configurations, operating hardware or glazing materials, and assumes no responsibility thereof.

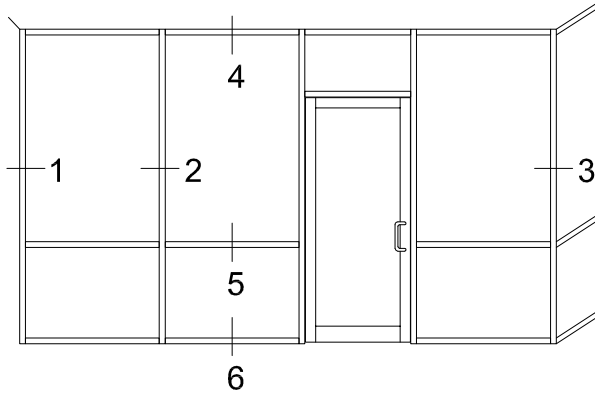
Standard Outside Glazed Details
1/4 scale



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CURTAINWALL AND ENTRANCE SYSTEMS

June 2020

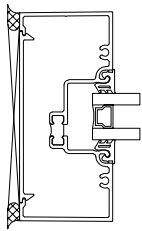
For specific product applications, contact your Tubelite representative.
Details on this page represent standard details found on our website.
For more options, visit our website at
www.tubeliteinc.com/14000-series-storefront-framing/



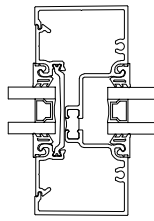
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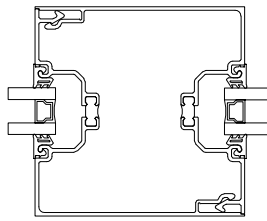
Standard Inside Glazed Details
1/4 scale



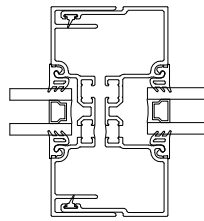
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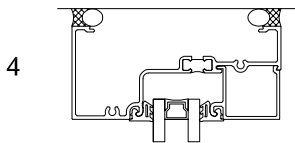
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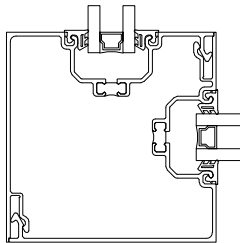
2A



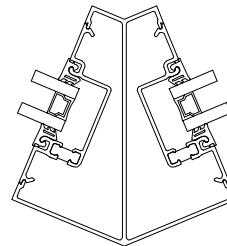
2B



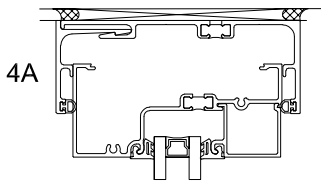
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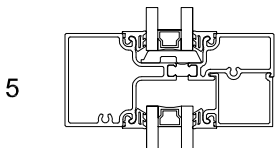
3



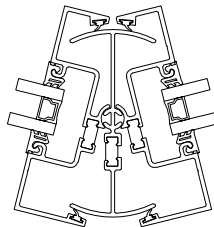
3A



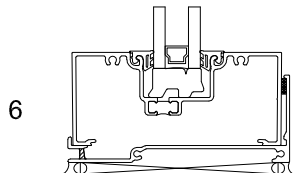
4A



5



3B



6

June 2020

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CURTAINWALL AND ENTRANCE SYSTEMS

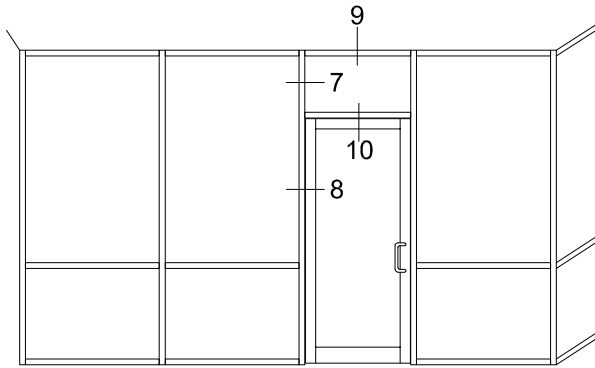
For specific product applications, contact your Tubelite representative.

Details on this page represent standard details found on our website.

For more options, visit our website at

www.tubeliteinc.com/14000-series-storefront-framing/

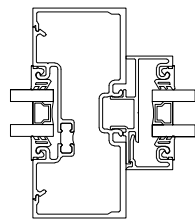
T14000 STOREFRONT



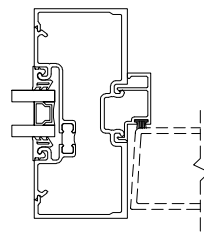
Tubelite reserves the right to change system configuration without prior notice when deemed necessary for product improvements.

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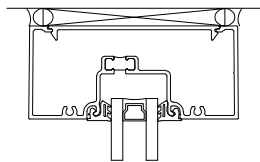
Standard Details 1/4 scale



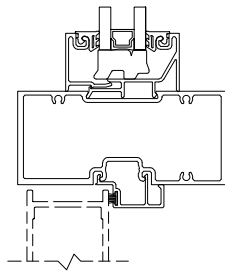
7



8



9



10

June 2020

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For more options, visit our website at

www.tubeliteinc.com/14000-series-storefront-framing/



Jake Hoogterp
PO Box 1155

Troy, Michigan 48099
jake.hoogterp@michiganair.com

(2) eco-LRWB 5-3L12

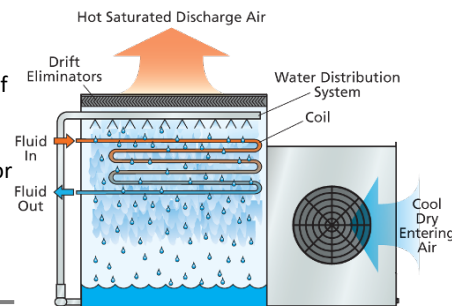
Project Details

Project Name : Harvard Square
Location: TBD UNK

Date: 3/24/2023
Customer:
Contact:
Contact Email:

Product Description

The eco-LRWB is a low profile forced draft closed circuit cooler with a centrifugal fan designed to dramatically increase both the evaporative and dry capacity. The addition of the **Ellipti-fin™ spiral fin coil** increases the evaporative capacity by up to 30% over a bare tube coil! The ideal application for this type of closed circuit cooler has height or sound constraints. It can also be applied to designs requiring indoor installation that requires ducting. The LRWB utilizes EVAPCO's Thermal-Pak™ Coil, featuring **CrossCool™ Internal Tube Enhancement** which increases the cooling capacity of the unit. The eco-LRWB is designed for easy maintenance and long trouble-free operation. Units come standard with CTI certified performance and IBC Compliant construction.



Selection Criteria

Selection Criteria	Total	Each Unit	Required Capacity
Flow:	390.0 GPM	195.0 GPM	1,789.84 MBH
Fluid:	30% Ethylene Glycol	30% Ethylene Glycol	119.32 Tons
Entering Fluid Temp:	95.0 F	95.0 F	
Leaving Fluid Temp:	85.0 F	85.0 F	
Entering Wet Bulb:	78.0 F	78.0 F	

Unit Selected

Two(2) EVAPCO eco-LRWB 5-3L12 at 104.1% capacity (932.00 MBH each)

Product line is CTI/ECC certified for water, propylene glycol or ethylene glycol as process fluid. Selection is rated in accordance with CTI Standard 201 RS.



Physical Data Per Unit

Overall Dimensions (WxLxH):	5'-5/8" x 18'-2 5/8" x 6'-8 3/4"
Operating Weight:	11,750 lbs
Shipping Weight:	7,180 lbs
Heaviest Section:	7,180 lbs

*weights and dimensions could vary depending on options selected

IBC Design Capability

IBC Standard Structural Design	
1.0 Importance Factor Specified	
Seismic(Sds):	up to 0.67 g, z/h = 0
Wind Load(P):	up to 288 psf

Fan Motor Data Per Unit

Number of Fans:	1
# of Fan Motors:	1
Nameplate Power (208/3/60):	25.00 HP Per Motor
Typical Nameplate FLA:	67.8 Amps Per Motor

*Nameplate FLA could vary

Pump Motor Data per Unit

No. of Pumps:	1
Nameplate Power (208/3/60):	2 HP per pump motor
Typical Nameplate FLA:	2.69 Amps Per Motor

*Nameplate FLA could vary

Additional Details Per Unit

Air Flow:	37,600 CFM
Coil Design Pressure:	300 psi
Riser Pipe Diameter:	4"

Hydraulic Data

Spray Water Flow:	345 GPM
Pressure Drop Through Coil:	1.7 psi
Evaporated Water Rate:	1.43 GPM

Layout Criteria

Air Inlet To Wall:	5.00 ft
Opposite Air Inlet To Wall:	3.00 ft
Ends To Wall:	3.00 ft
Air Inlet Facing Each Other:	10.00 ft

Please refer to EVAPCO Equipment Layout Manual for more details.

Sound Data(dB(A) @ 5'/50')

Face A (Opp Mtr. Side):	73/63	Face C (Motor Side):	73/63
Face B (End):	79/62	Face D (Opp End):	66/55
Top:	77/65		

Notes: Sound Pressure Levels are according to CTI Standard ATC-128 and verified by an independent CTI-licensed sound test agency. Sound data is shown for 1 cell operating at full speed. The use of frequency inverters (Variable Frequency Drives) can increase sound

1 Basin Sections: (WxLxH): 62" x 234" x 87" ; 2160lbs each* | 0 Casing Sections: (WxLxH): 0" x 0" x 0" ; 5020lbs each*

*dimensions and weights above include shipping skids

Accessories

(1) ASHRAE 90.1-2019 Energy Compliant
(1) Galvanized Steel Basin
(1) Fan Motor: Space Heaters

(1) IBC Standard Structural Design
(1) CrossCool Coil

(1) 1.0 Importance Factor Specified
(1) Fan Motor: Inverter Capable, Premium Efficient

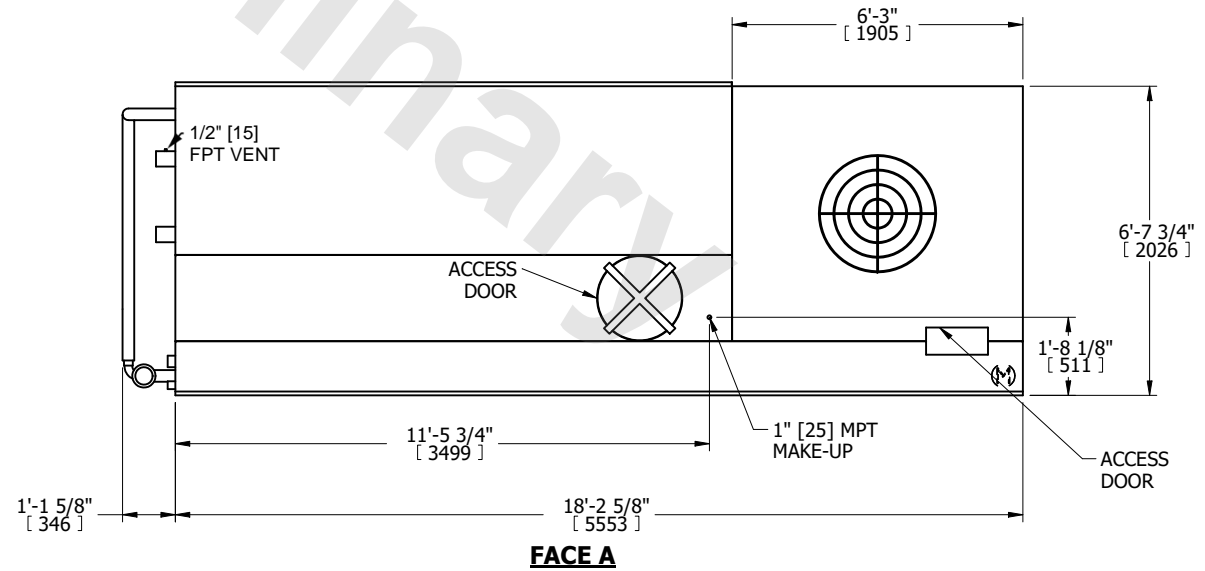
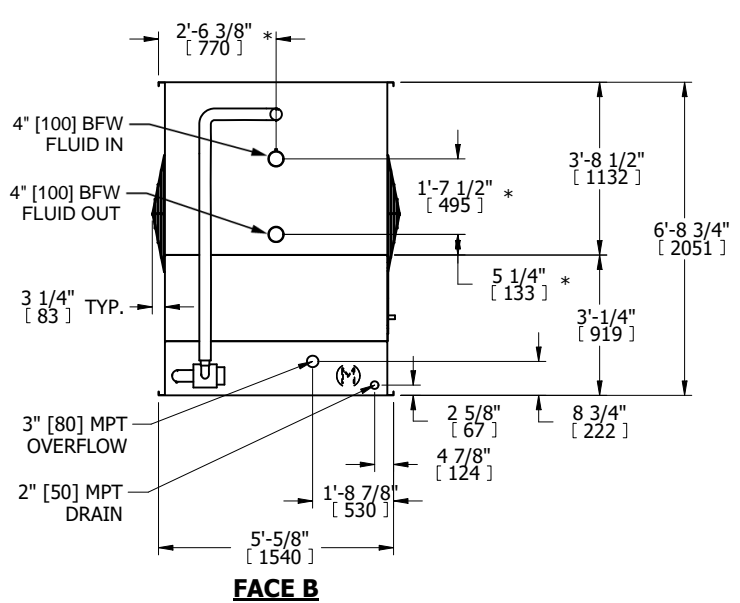
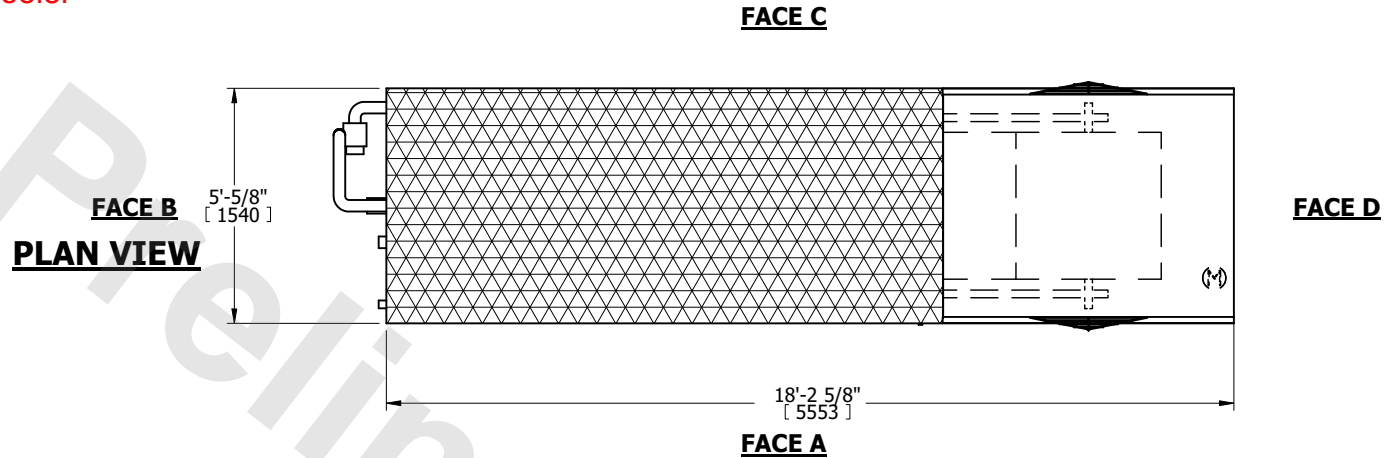
UNIT	CLOSED CIRCUIT COOLER	
MODEL #	eco-LRWB 5-3L12	SCALE NTS



DWG. #	WV051206-DRC-ST	REV.	-
SERIAL #		DATE	3/24/2023

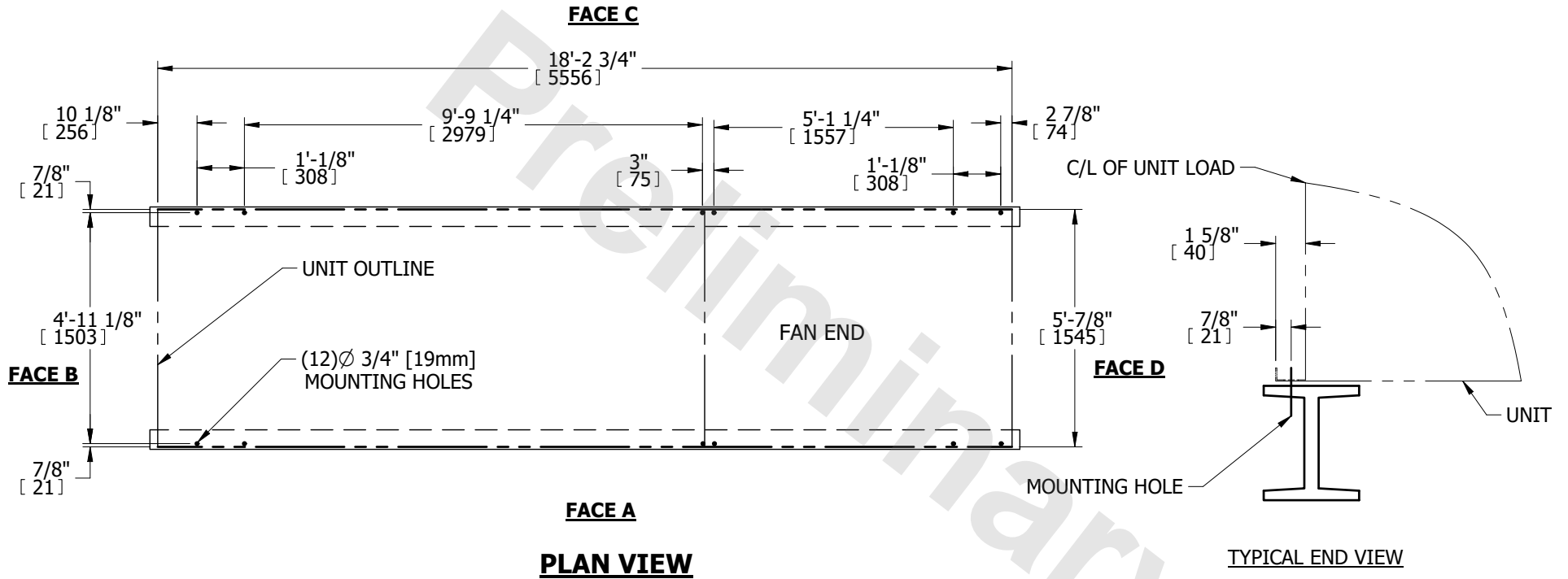
- NOTES:
- (M)- FAN MOTOR LOCATION
 - MPT DENOTES MALE PIPE THREAD
FPT DENOTES FEMALE PIPE THREAD
BFW DENOTES BEVELED FOR WELDING
GVD DENOTES GROOVED
FLG DENOTES FLANGE
PE DENOTES PLAIN END
 - +UNIT WEIGHT DOES NOT INCLUDE ACCESSORIES (SEE ACCESSORY DRAWINGS)
 - 3/4" [19mm] DIA. MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING
 - DIMENSIONS LISTED AS FOLLOWS: ENGLISH FT IN [METRIC] [mm]
 - * - APPROXIMATE DIMENSIONS DO NOT USE FOR PRE-FABRICATION OF CONNECTING PIPING
 - MAKE-UP WATER PRESSURE
20 psi [137 kPa] MIN, 50 psi [344 kPa] MAX

Harvard Square
Building Closed
Circuit Cooler



SHIPPING WEIGHT	7180 lbs+ [3260] kg+	OPERATING WEIGHT	11750 lbs+ [5330] kg+	HEAVIEST SECTION WEIGHT	7180 lbs+ [3260] kg+	NO. OF SHIPPING SECTIONS	1	DRAWN BY:	TLS
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Harvard Square
 Building Closed
 Circuit Cooler



NOTES:

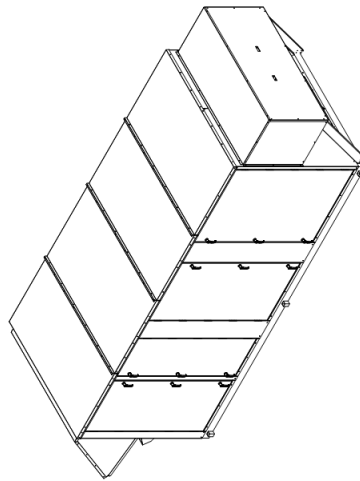
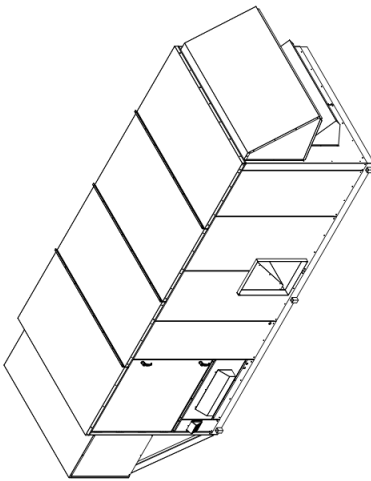
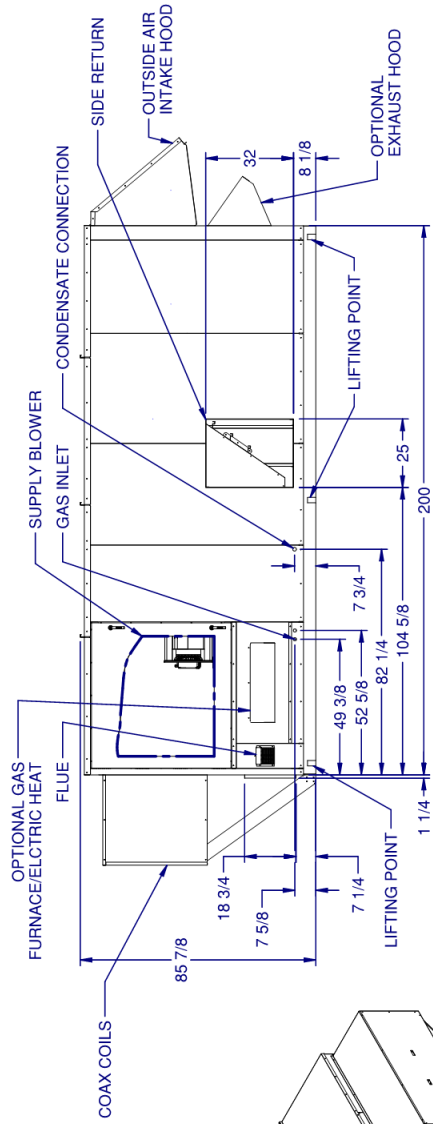
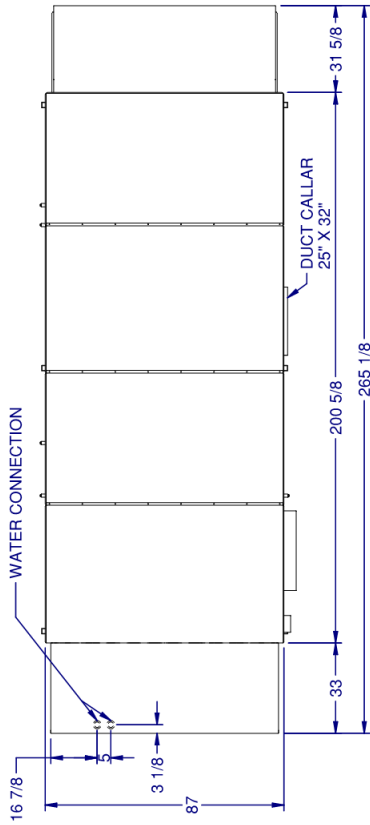
- BEAMS SHOULD BE SIZED IN ACCORDANCE WITH ACCEPTED STRUCTURAL PRACTICES. MAXIMUM DEFLECTION OF BEAM UNDER UNIT TO BE 1/360 OF UNIT LENGTH NOT TO EXCEED 1/2" [13mm].
- DEFLECTION MAY BE CALCULATED BY USING 55% OF THE OPERATING WEIGHT AS A UNIFORM LOAD ON EACH BEAM. SEE CERTIFIED PRINT FOR OPERATING WEIGHT.
- SUPPORT BEAMS AND ANCHOR HARDWARE ARE TO BE FURNISHED BY OTHERS. ANCHOR HARDWARE TO BE ASTM - A325 5/8" [16mm] BOLT OR EQUIVALENT.
- BEAMS MUST BE LOCATED UNDER THE FULL LENGTH OF THE PAN SECTION.
- SUPPORTING BEAM SURFACE MUST BE LEVEL. DO NOT LEVEL THE UNIT BY PLACING SHIMS BETWEEN THE UNIT MOUNTING FLANGE AND THE SUPPORTING BEAM.
- THE FACTORY RECOMMENDED STEEL SUPPORT CONFIGURATION IS SHOWN. CONSULT THE FACTORY FOR ALTERNATE SUPPORT CONFIGURATIONS.
- UNIT SHOULD BE POSITIONED ON STEEL SUCH THAT THE ANCHORING HARDWARE FULLY PENETRATES THE BEAM'S FLANGE AND CLEARS THE BEAM'S WEB.
- DIMENSIONS LISTED AS FOLLOWS: ENGLISH FT-IN [METRIC] [mm]

0504I-2784 - *R WG D CAB HSR -1

Qty: 1 Tags: Lower Level

Harvard Square Building
Rooftop DOAS

0504I-2784
*WG D CAB HSR
5/31/2016

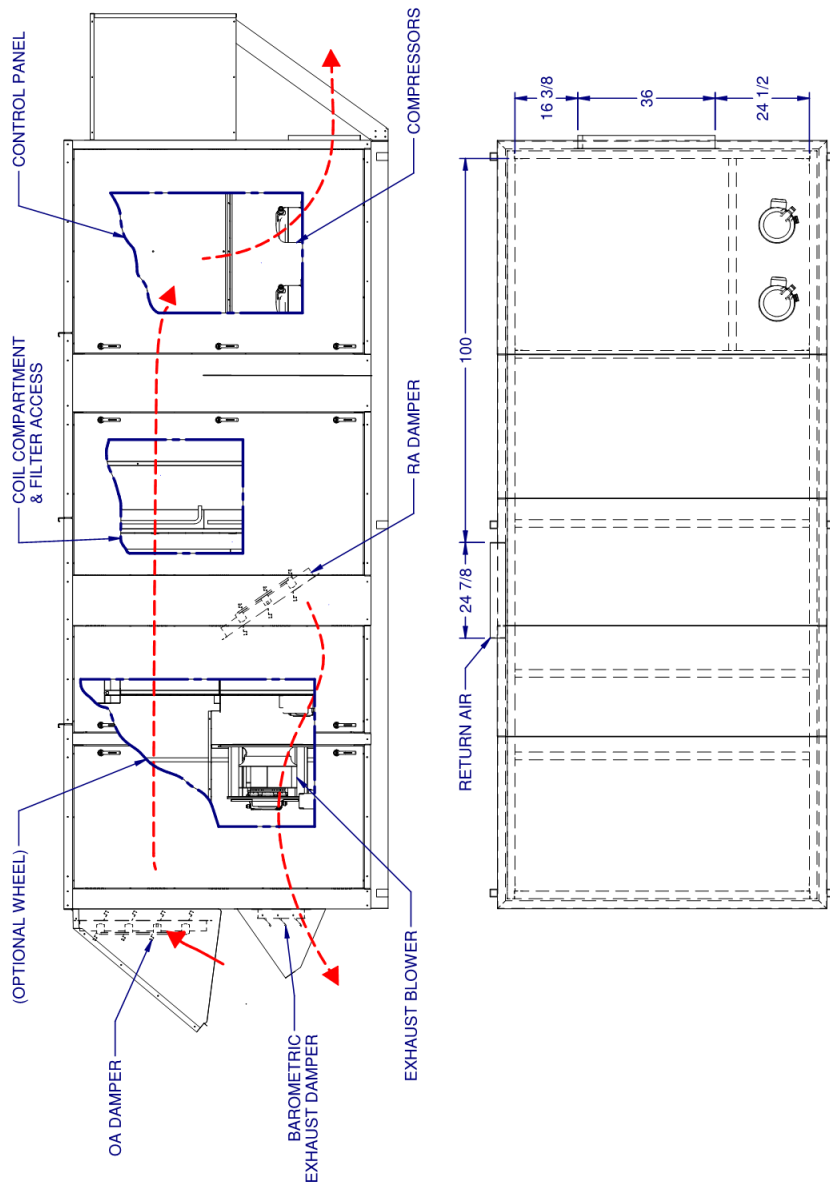


05041-2784 - *R WG D CAB HSR -2

Qty: 1 Tags: Lower Level

Harvard Square Building
Rooftop DOAS

05041-2784
*WG D CAB HSR
5/31/2016



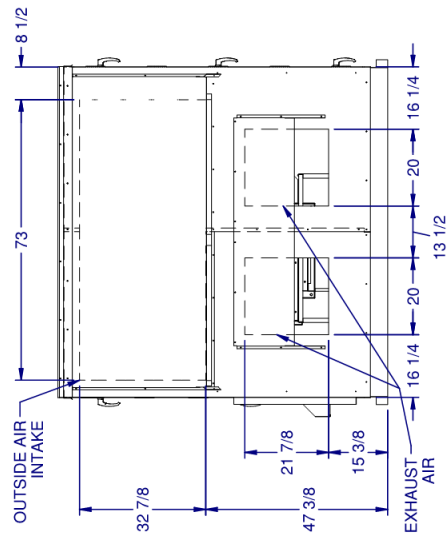
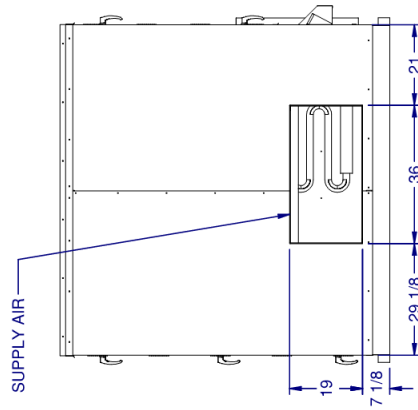
TOP PLAN VIEW
CONDENSING SIDE
NOT SHOWN

0504I-2784 - *R WG D CAB HSR-3

Qty: 1 Tags: Lower Level

Harvard Square Building
Rooftop DOAS

0504I-2784
*WG D CAB HSR
5/31/2016



MG150 | 9.0L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

DEMAND RESPONSE READY

Standby Power Rating

150 kW, 188 kVA, 60 Hz

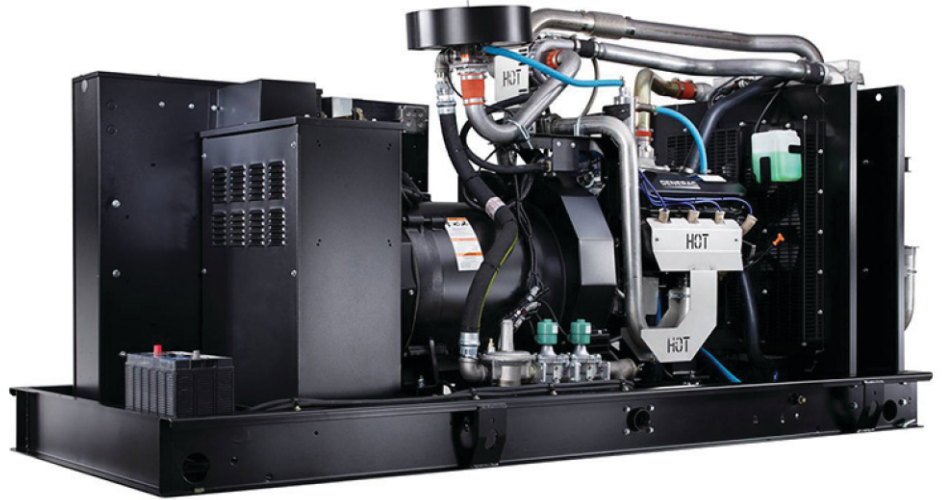


Image used for illustration purposes only



*EPA Certified Prime ratings are not available in the US or its Territories

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.

-   UL2200, UL508, UL489
-  CSA C22.2
-   BS5514 and DIN 6271
-  SAE J1349
-  NFPA 37, 70, 99, 110
-  NEC700, 701, 702, 708
-  ISO 3046, 7637, 8528, 9001
-  NEMA ICS10, MG1, 250, ICS6, AB1
-  ANSI C62.41
-   IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

Powering Ahead

Generac ensures superior quality by designing and manufacturing most of its generator components, such as alternators, enclosures, control systems and communications software. Generac also makes its own spark-ignited engines, and you'll find them on every Generac gaseous-fueled generator. We engineer and manufacture them from the block up — all at our facilities throughout Wisconsin. Applying natural gas and LP-fueled engines to generators requires advanced engineering expertise to ensure reliability, durability and necessary performance. By designing specifically for these dry, hotter-burning fuels, the engines last longer and require less maintenance. Building our own engines also means we control every step of the supply chain and delivery process, so you benefit from single-source responsibility.

Plus, Generac Industrial Power's distribution network provides all parts and service so you don't have to deal with third-party suppliers. It all leads to a positive owner experience and higher confidence level. Generac spark-ignited engines give you more options in commercial and industrial generator applications as well as extended run time from utility-supplied natural gas.

MG150 | 9.0L | 150 kW
INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

STANDARD FEATURES

DEMAND RESPONSE READY

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer/Catalyst

Fuel System

- NPT Fuel Connection on Frame
- Primary and Secondary Fuel Shutoff

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- Main Line Circuit Breaker
- UL2200 GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearings
- Amortisseur Winding
- Full Load Capacity Alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)
- Ready to Accept Full Load in <10 Seconds

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hood (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat

CONTROL SYSTEM



Digital G Paralleling Control Panel-Touchscreen

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability

- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA 110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 Msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- Power Output (kW)
- Power Factor

- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Low Fuel Pressure
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

PARALLELING CONTROLS

- Auto-Synchronization Process
- Isochronous Load Sharing
- Reverse Power Protection
- Maximum Power Protection
- Electrically Operated, Mechanically Held Paralleling Switch
- Sync Check System
- Independent On-Board Paralleling

- Optional Programmable Logic Full Auto Back-Up Controls (PLS)
- Shunt Trip and Auxiliary Contact

MG150 | 9.0L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

CONFIGURABLE OPTIONS

DEMAND RESPONSE READY

ENGINE SYSTEM

- Engine Block Heater
- Oil Heater
- Air Filter Restriction Indicator
- Radiator Stone Guard (Open Set Only)
- Baseframe Cover/Rodent Guard
- Level 1 Fan and Belt Guards (Enclosed Units Only)
- Shipped Loose Critical Silencer (Open Set Only)

FUEL SYSTEM

- NPT Flexible Fuel Line

ELECTRICAL SYSTEM

- 10A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating

CIRCUIT BREAKER OPTIONS

- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

GENERATOR SET

- Demand Response Rating
- Extended Factory Testing (3-Phase Only)
- IBC Seismic Certification
- 12 Position Load Center

WEATHER PROTECTED ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Enclosure Heaters
- Door Open Alarm Switch

CONTROL SYSTEM

- NFPA 110 Compliant Level 1 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- 10A Engine Run Relay
- Ground Fault Annunciator
- 100 dB Alarm Horn
- Damper Alarm Contacts (Motorized Dampers Only)
- 120V GFCI and 240V Outlets
- Auxiliary Circuit Breaker Contacts to Controller

WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

ENGINEERED OPTIONS

ENGINE SYSTEM

- Fluid Containment Pans

CONTROL SYSTEM

- Battery Disconnect Switch

ALTERNATOR SYSTEM

- 3rd Breaker System

GENERATOR SET

- Special Testing
- Battery Box

MG150 | 9.0L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

APPLICATION AND ENGINEERING DATA

DEMAND RESPONSE READY

ENGINE SPECIFICATIONS

General

Make	Generac	
Cylinder #	8	
Type	V	
Displacement - in ³ (L)	543 (8.9)	
Bore - in (mm)	4.49 (114.3)	
Stroke - in (mm)	4.25 (107.95)	
Compression Ratio	G18 - 10.5:1 *	G26 - 9.1:1 *
Intake Air Method	Naturally Aspirated and Turbocharged	
Number of Main Bearings	5	
Connecting Rods	Forged Steel	
Cylinder Head	Cast Iron	
Cylinder Liners	No	
Ignition	High Energy	
Piston Type	Aluminum Alloy	
Crankshaft Type	Forged Steel	
Lifter Type	Hydraulic Roller	
Intake Valve Material	Steel Alloy	
Exhaust Valve Material	Stainless Steel	
Hardened Valve Seats	Yes	

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full-Flow Spin-On Cartridge
Crankcase Capacity - qt (L)	G18 - 8.5 (8.0) * G26 - 10.0 (9.5) *

Cooling System

Cooling System Type	Pressurized Closed
Fan Type	Pusher
Fan Speed - RPM	2,386
Fan Diameter - in (mm)	22 (558.8)

Fuel System

Fuel Type	Natural Gas, Propane Vapor/Liquid
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure NG/LPV - in H ₂ O (kPa)	7 - 11 (1.7 - 2.7)
Optional Operating Fuel Pressure LPL - psi (kPa)	30 - 312 (206 - 2,151)

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

* G18 refers to all engines manufactured before August 3rd, 2018. G26 refers to all engines manufactured after August 3rd, 2018.

ALTERNATOR SPECIFICATIONS

Standard Model	K0150124Y26
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Permanent Magnet
Bearings	Single Sealed Ball
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Full Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

MG150 | 9.0L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

OPERATING DATA

DEMAND RESPONSE READY

POWER RATINGS

		Natural Gas		Liquid Propane	
Single-Phase 120/240 VAC @1.0pf	144 kW	Amps: 600	134 kW	Amps: 558	
Three-Phase 120/208 VAC @0.8pf	150 kW	Amps: 521	140 kW	Amps: 486	
Three-Phase 120/240 VAC @0.8pf	150 kW	Amps: 452	140 kW	Amps: 421	
Three-Phase 277/480 VAC @0.8pf	150 kW	Amps: 226	140 kW	Amps: 211	
Three-Phase 346/600 VAC @0.8pf	150 kW	Amps: 181	140 kW	Amps: 169	

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip			
277/480 VAC	30%	208/240 VAC	30%
K0150124Y26	327	K0150124Y26	250
K0200124Y21	478	K0200124Y21	361

FUEL CONSUMPTION RATES*

Natural Gas – scfh (m³/hr)		Propane Vapor – scfh (m³/hr)		Propane Liquid – gph (Lph)	
Percent Load	Standby	Percent Load	Standby	Percent Load	Standby
25%	668 (18.9)	25%	280 (7.9)	25%	6.7 (25.4)
50%	1,127 (31.9)	50%	430 (12.2)	50%	11.4 (43.1)
75%	1,583 (44.8)	75%	573 (16.2)	75%	15.7 (59.4)
100%	2,042 (57.8)	100%	720 (20.4)	100%	20.0 (75.7)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (Fan Air Flow Across Radiator)	scfm (m³/min)	5,598 (158.5)
Coolant Flow	gpm (Lpm)	27.5 (104.1)
Coolant System Capacity	gal (L)	6.3 (24)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199270SSD	
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power scfm (m³/min)	342.7 (9.7)

ENGINE

		Standby
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	229
Piston Speed	ft/min (m/min)	1,275 (389)
BMEP	psi (kPa)	185 (1,277)

EXHAUST

		Standby
Exhaust Flow (Rated Output)	scfm (m³/min)	1,205.8 (34.1)
Maximum Backpressure (Post Silencer)	inHg (kPa)	0.75 (2.54)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,440 (782)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

Standby - See Bulletin 0187500SSB

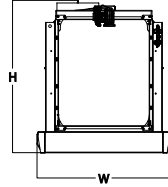
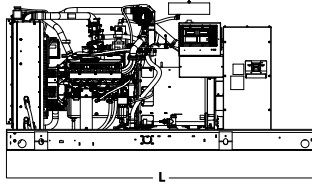
MG150 | 9.0L | 150 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency and Non-Emergency

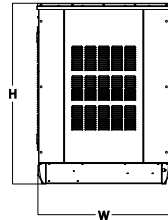
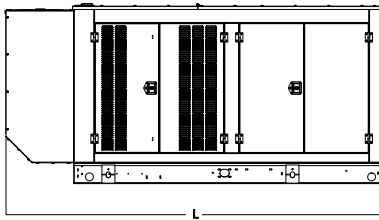
DIMENSIONS AND WEIGHTS*

DEMAND RESPONSE READY



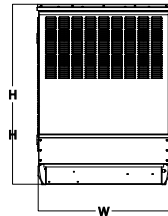
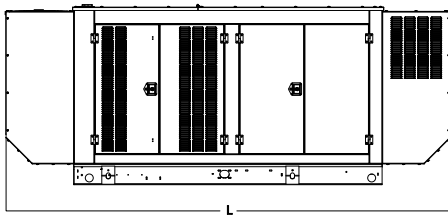
OPEN SET (Includes Exhaust Flex)

L x W x H - in (mm)	116.5 (2,959) x 49.7 (1,262) x 55.6 (1,412)
Weight - lbs (kg)	2,840 - 2,948 (1,288 - 1,337)



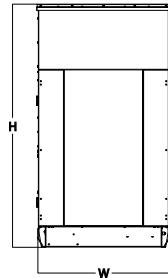
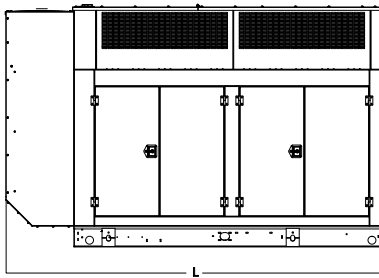
WEATHER PROTECTED ENCLOSURE

L x W x H - in (mm)	143.0 (3,632) x 50.4 (1,280) x 68.2 (1,732)
Weight - lbs (kg)	Steel: 3,737 - 3,845 (1,695 - 1,744) Aluminum: 3,278 - 3,386 (1,487 - 1,536)



LEVEL 1 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	168.5 (4,280) x 50.4 (1,280) x 68.2 (1,732)
Weight - lbs (kg)	Steel: 4,023 - 4,131 (1,825 - 1,874) Aluminum: 3,111 - 3,157 (1,411 - 1,432)



LEVEL 2 ACOUSTIC ENCLOSURE

L x W x H - in (mm)	143.0 (3,632) x 50.4 (1,280) x 91.7 (2,329)
Weight - lbs (kg)	Steel: 4,215 - 4,323 (1,912 - 1,961) Aluminum: 3,486 - 3,594 (1,581 - 1,630)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.