

TRACHTE SPECIFICATIONS

BUILDING SPECIFICATIONS:

16' x 32' x 8'6" Building

SCOPE

Provide One factory built, pre-assembled, all steel, noncombustible building by TRACHTE INC, to include the building, and any pre-installed electrical and HVAC if listed. TRACHTE will provide all building anchor bolts and plates.

DESIGN REQUIREMENTS

The structure design and manufacture shall, as a minimum, conform to ASCE (American Society of Civil Engineers) "Minimum Design Loads for Buildings and Other Structures" and the MBMA (Metal Building Manufacturers Association) "Recommended Design Practices Manual". The specified TRACHTE building shall be designed to support the following loads:

LOADING	PSF
Roof Load:	50
Live / Snow Load:	40
Ceiling Dead Load:	10
(Ice Missile Protection) Impact Load:	n/a
Wall Wind load (MPH)	110
Floor Live Load:	n/a
Battery Area Load:	n/a
Seismic Zone per IBC:	C
Engineered State	Wisconsin
PE Stamped Engineering Calculations and Drawings: (Electrical Engineering not included)	Yes
State Approval Seal:	No

APPROVAL DRAWINGS

A Structural and Electrical set of "Approval Drawings" shall be submitted. These will be in PDF format (Adobe Acrobat), showing the building floor plan, dimensions, elevations and location of all primary accessories included with the building. Drawing format shall be 11" x 17" prints and/or E-Mail files using WinZip. "As Built" Drawings will be sent out upon shipment of the building in PDF format and / or paper copy. A paper copy will also be enclosed with the "Operations and Maintenance Manual". Drawings are created in AutoCad2007 Format and are available upon request.

STANDARD

QUALITY ASSURANCE

Building shall be manufactured to satisfy current editions of the IBC (International Building Code) and the NEC (National Electrical Code). The Manufacturer's comprehensive Quality Control Program follows the building through all phases of production. Weld Connections shall adhere to weld standards as detailed in the Trachte, Inc. "Welding Procedures Manual".

WARRANTY

The Kynar 500 Paint finish on Metal Exteriors and Roofing has a Forty (40) Year Warranty against flaking, peeling and checking, and a Thirty (30) Year Warranty against fading and chalking. Galvalume substrate has a Twenty (20) Year Warranty against rust perforation. TRACHTE guarantees the complete building from defects in materials and workmanship for a period of Two (2) Years, except as limited by the original equipment manufacturer(s) of component parts. Detailed information available at www.kynar500.com.

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GENERAL BUILDING INFORMATION

Building shall be a pre-assembled, metal-framed, noncombustible building by Trachte, Inc. Oregon, Wisconsin. Built to size and with accessories listed below:

Building Frame Size:	16' x 32' x 8'6"
Interior Dimensions:	15' 1 1/2" x 31' 1 1/2" x 7'11"
Outside Building Shipping Dimensions:	16'8" x 35'0" x 10'8"
Approximate Building Weight:	13,100 #

DESCRIPTION	NOTES	QTY
Foundation Design		
Foundation Design is by Customer. Trachte will provide the exact size and correct anchoring material. The drawings will include a foundation design based on customer feedback.		
Building Structure is assembled on a steel "No Floor" Perimeter Angle. The Perimeter Angle is designed to cap and anchor the building to an exact sized concrete slab or frost wall foundation with anchors supplied by Trachte.	Foundation By Others	
Base Frame Design		
PERIMETER ANGLE - Base Frame	1	
Perimeter Angle - 6" x 6" x 3/8" - 14.9#/ft - Hot Rolled Steel	LF	96
Anchor Bolt - 1/2" x 4" - 12,000 Shear Strength - Hardened Steel, Zinc Plated	EACH	16
Caulk - Silicone clear - Sill Sealant	EACH	10
Base Frame - Paint System		
Sherwin-Williams Industrial Macropoxy 646 Fast Cure Epoxy. This self-priming catalyzed system is designed to provide an extremely durable, VOC (EPA Method 24) compliant coating. Suitable for heavy industrial, severe coastal, off-shore or chemical environments where superior corrosion protection and resistant to fading is required. The paint system has a minimum Dry Film Thickness, per coat of 5-7 mils.		
Truss and Structure Design		
STRUCTURE: Building will be composed of 12 ga, 14 ga and 16 ga (4") galvanized steel for "Channel frame" framework. This framework will include Posts, Base, Girts, Eave Struts, Purlins, Post Bracing and Connecting plates. Framework to have a flush wall, post and beam format with full trusses on both end walls. These end wall trusses will easily allow for future expansions and/or modifications		
Gable Roof Design		
Truss - Full Solid Web Design - Hot Rolled	14ga	8
Truss Heel Height - in inches	6	
Roof Pitch	2:12	
Pick Eyes (Pick Angles and Ring) attached to truss for lifting. 1" Diameter Ring, 6" Length, 10,000# capacity each. Pick rings located along peak of buiding.	EACH	3

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Exterior Wall Design

Architectural Steel Ribbed Panel is Overlapping and fastened with self tapping fasteners with washers. Paint finish is a baked on Kynar 500 PVDF resin based coating over the Galvalume sheet, customer's choice of standard "Trachte" colors.

24 ga, Multi-Rib Wall Sheet, McElroy - 36" wide, 1 1/4" Rib SF 798

Roof Design

Architectural Steel Ribbed Panel is overlapping and fastened with self tapping fasteners with washers. Paint finish is a baked on Kynar 500 PVDF resin based coating over the Galvalume roof sheet, customer's choice of standard "Trachte" colors. Rib Closures are located at all required locations. Full ridge caps on all buildings, except single slope designs.

Roof Overhang - Standard 4"

24 ga, Multi-Rib Roof Sheet, McElroy - 36" wide, 1 1/4" Rib SF 512

Building Accessories

Wall Openings are fully Framed, Sleeved, Trimmed, and provided with a Drip Cap.

8' Section of Ridge Vent, 26 ga - Low Profile for attic ventilation EACH 3

Insulation Design

Wall Insulation (Total wall insulation value at right):

- 3 1/2" HD Fiberglass Batt x 24" - R13 - (180 SF/pkg) R-19 1

- 1" Fiberglass Wall Blanket Insulation - Thermal Block Between Steel SF 768

- Visqueen Vapor Barrier - 4 Mil Thickness (Barrier is located on the inside of the building framework.) SF 768

Roof / Ceiling Insulation (Total insulation value at right): R-14 1

Two layers of 1" rigid board insulation with staggered seams. SF 512

Partition Wall Insulation (Total insulation value at right): R-13 1

Insulation same as perimeter walls LOT 1

Interior Wall Finish

22 ga Steel Liner Panel with Galvalume substrate, Roll-Formed, Regal White Kynar 500 Paint - Flush fit design w/concealed fasteners SF 768

Full Interior Trimming - Corner and Floor - 24 ga, Regal White LF 136

Interior Ceiling Finish

22 ga Liner Steel Panel with Galvalume substrate, Roll-Formed, Regal White, Kynar 500 Paint. - Flush Fit design w/concealed fasteners. SF 512

NOTE: Odorizer room to have a flat ceiling with 22 GA Liner Panel. Remainder of building (Odorizer storage room) will be exposed to the roof (Vaulted), but will have one layer of 5/8" drywall under the rigid board insulation, and one layer of 24 Ga steel flat stock over (below) drywall with exposed seams hemmed as needed. When you look up in this room you will see the White flat stock. 512

Full Ceiling Edge Trim - 24 ga Regal White SF

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Door Design

1 3/4" Thick Doors and Frames are hot dipped galvanized to ASTM designations A924 and A653, then factory primed and painted. All exterior doors have a top of door Watershed, Drip Cap extending 3" past each side of door, Sweep, Weatherstripping and Threshold.

Single Door - 3/0 x 7/0 - Interior	EACH	1
Double Door - 6/0 x 7/0 - No Center Post - w/2 Surface Bolts (Inactive Leaf)	EACH	2
18 ga Door / 16ga Door Frame - Standard	EACH	3
Standard Door Insulation (R-4 - Polystyrene)	EACH	3
Fire tags - single door 3 HR	EACH	1
Hinge - 4 1/2" NRP - SS (32D) - Ball Bearing (BB51)	EACH	15
Door closer w/hold open LCN 4111HEDA (up to 4' door)	EACH	2
Fire Rated Door closer (NO HOLD OPEN ALLOWED) LCN 4111EDA (up to 4' door)	EACH	1
Crash chain 25-1/2" w vinyl cover - (3/0 - 3/6) (Inactive Leaf)	EACH	2
Panic Device, Von Duprin - 22 Series Size 3 - Rim - under 48" Door width	EACH	3
Exterior Handle Type: Thumbatch Pull with Cylinder Lock	EACH	3
Lockset Type: Construction Core	EACH	2
Lockset Type: Passage (No Locking Mechanism)	EACH	1
Lockset Core Manufacturer: Wilson Bohannon	EACH	2
Stainless Steel Pull Handle mounted to the inside of the door.	EACH	3

Odorizer Room, 10' x 16'

	1	
Room has an Interior door - See "Door Section" within Specifications.	EACH	1
Ceiling Design is as follows:	1	
Odorant Room ceiling to be flat with 22 GA Liner Panel. This area is not exposed to the roof.	LOT	1
Perimeter Wall Design is as follows:	1	
Perimeter Wall is Designed same as Main Room	1	
Partition Wall Design is as follows:	1	
Partition walls to go to roof and be one hour fire resistant. 22 GA Liner Panel to be finish on each side of wall.	LOT	1
	2 LAYERS (One on each side of framework)	1
Drywall (fire rated) - 5/8" - In SF		
Partition Walls have 1 Hour Fire Resistant construction.		
NOTE: Specific construction is NOT UL, FM, or NFPA rated, listed, or tested.		

Shipping and Site Information

Maximum Shipping Width:	16'8"
Building is Delivered & Set by Trachte's Non-Union Crew	
Estimated Number of Truck Loads Required:	1

Items that Extend Past Exterior Trim: (Include Item and Location: Sidewall or Endwall)

* Only if Trachte Site Services Option taken	1	1
Hood - End Wall	Shipped Attached	
Hood - Side Wall	Shipped Loose	* Attached by Trachte on Site

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Exceptions/Notes To Customer Specifications	SPEC Section	
<ul style="list-style-type: none"> Customer to note that the only area with a fire resistance is the partition wall between Odorizer and Odorant Storage Rooms. Trachte is happy to supply more if needed. 	Fire resistance	
<ul style="list-style-type: none"> This is a pre-assembled building, not erected on site, and the state of Wisconsin has no modular building approval program, so any local all permits / inspections to be by Others (Trachte will Permit delivery of building only) Note: Trachte providing Stamped Plans & Calculations from a WI registered P.E..per Section 405 	p.1, 106	
<ul style="list-style-type: none"> Anchor bolts in this bid shall ship with building in this bid, and anchoring of buiding to be done after building has been placed on concrete slab. 	p.5, 402.1	
<ul style="list-style-type: none"> Building supplied with this bid does not have a brick type exterior at this time. Trachte supplied 24 GA Multi-Rib for exterior walls and roof in this bid. Trachte can offer a brick type exterior on walls upon request. 	p.6, 404	
<ul style="list-style-type: none"> Girt rows in this bid are spaced per Trachte's standard methods (One girt row in 8' high buildings) except for partition wall which has fire resistance, that wall has girt rows 2' on center. Kynar 500's 40 year warranty is on flaking, peeling and checking only; see above for details on Kynar 500 paint warranty. Flashing and fascia are Trachte's standard thickness (24 & 26 GA as needed). 	p.7, 406.3	
<ul style="list-style-type: none"> Doors in this bid do not have windows or louvers. Door in partition wall also received a fire tag and Closer without hold open capability. 	p.8, 407.1	
<ul style="list-style-type: none"> Roof vents supplied with this bid are Trachte's standard fabricated vents. 	p.10, 409.2	
<ul style="list-style-type: none"> This specification reflects Trachte's best interpretation of Trachte's scope for this bid. Any changes to Trachte's scope may result in a change order. 	ALL	
End of TRACHTE "Building" Specifications		
NOTE: Please see the Electrical Exceptions and Notes following the Trachte Electrical Specifications		

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Electrical Specification

- Codes** All grounding, workmanship and materials shall conform, as a minimum, to the 2008 (NEC) National Electric Code.
- Conduit** All conduit shall be Electrical Thin Wall (EMT) except Service runs which are PVC. All interior Junction Boxes are NEMA 1 with flexible metallic conduit used for motor and fixture connections. All wiring and conduit is surface mounted. Runs are tight to the walls and ceiling.
- Conductors** Conductors shall be 98% conductivity copper with 600v insulation, THHN, sized as required, 12ga. minimum for line voltage wiring, 18ga. for alarms.

QTY	Inv-ID#	Description
		Ventilation
4		16" Louvered Vents - Fixed - Complete with a filter, filter rack and weatherproof hoods with insect screens
		Grounding Material
4	5080232-E	Ground Pad - copper - 6 3/4" x 4" x 1/4" - Harger - BGB1446.75 (TINC) - for perimeter angle
		Hazardous Location
6	7D772	Light Fixture - Incandescent - hazardous location - 300 watt - Appleton - AC1575 - (Grainger)
6	4V625	Lamp - Incandescent Bulb 3 1/8" - PS25 - 300W - (Grainger #4V625)
1	EDSC2129	Switch - 1gang - 1pole - 20amp - hazardous location - Crouse-Hinds - EDSC2129 - (3/4" feed-thru)
2	EDSC2130	Switch - 1gang - 3way - 20amp - hazardous location - Crouse-Hinds -EDSC2130 (3/4" feed-thru)
3	ENR11201	Receptacle - Single gang - 125V - Crouse-Hinds - ENR11201 - (1/2" hub / dead end)
1	CX240160018T	Heater - 32" - 1.8kw - hazardous location - Ruffneck - CX-240160-018T - 240vac - w/thermostat
2	GRSS75	J-box - hazardous location - 4 5/8"(w) x 4 5/8"(h) - (7) 3/4" hubs - (4) plugs - Appleton

Reference: **Design Notes**
 Add 20 l.f. of 6" hat channel support: Heater
 All electrical circuit wiring from each room is ran to a "GUA" interior junction box.
 - There it is tailed, tagged and left for connection by others.

Electrical Exceptions/Notes to the Customer Specifications:		
	Prints	Some of the materials listed on Equipment Schedule is not rated for Class I Div II therefore Trachte shall replace some of the equipment with explosion proof equipment as requested by the customer .
		This specification reflects Trachte's best interpretation of supplied information at the time of bid. Trachte expects customer to review Trachte's specification to insure that Trachte correctly interpreted their scope of work for this bid.
		Please see the building exceptions and notes following the Trachte building specifications.