

T200-reconfigurable wall with independent finishes

1. General

1.1. References

- 1.1.1. *Aluminum Association Designation Systems for Aluminum Finishes*
- 1.1.2. *American Society for Testing and Materials (ASTM)*

1.2. Work Included

- 1.2.1. Non-progressive demountable component-based modular architectural wall systems described in this specification and as shown in project drawings.
- 1.2.2. T200 is a component-based system that has its structure separate from its finishing skins. The partition components include, but are not limited to, solid wall modules, glass wall modules, door modules and door hardware that are all pressure-fitted with gaskets and metal channels without the use of mechanical fasteners.

1.3. Quality Assurance

- 1.3.1. Installer qualifications: Installation shall be performed by qualified dealer and trained personnel certified by manufacturer.
- 1.3.2. Source limitations: Obtain all components for the demountable wall system through one source, from a single supplier.
- 1.3.3. Field measurements: Installer shall take field measurements prior to preparation of final shop drawings and fabrication to ensure proper fitting of the work.

1.4. Submittals

- 1.4.1. The basis for all bids in this section shall be T200 wall system as designed and manufactured by Techniwall. Other wall systems which might meet the specification may be bidden providing that all applicable product specifications, details and certified independent laboratory test reports have been submitted and approved by the architect or owner at least 10 working days prior to bid. This submission is to clearly outline areas of compliance and areas of failure to comply with function and performance specified. Indication of approval will be by addendum issued by the architect.

1.5. Delivery, Storage and Handling

- 1.5.1. Delivery: Structure, gaskets, hardware, glass frames, door frames and solid panels are delivered on 4' x 10' pallets. Glass door leafs are delivered on 1' x 10' wood crates with added protection during transit.
- 1.5.2. Inspection: Installer must inspect condition of components upon delivery and report discrepancies.
- 1.5.3. **Storage: Do not stack pallets. Do not store on damp surfaces. Use blocking to elevate panels. Contractor or owner must store components in an environment**

with ambient temperature and with relative humidity between 20% and 50%.

2. Products

2.1. Acceptable Manufacturers and Models

2.1.1. Techniwall, T200 system

2.2. Performance Requirements

2.2.1. LEED: Shall be capable of influencing up to 22 LEED credit categories.

EA	1,1 Optimize energy performance, lighting power	Further evaluation needed
MR	1,2 Building reuse, maintain 40% of interior non-structural components	√ (Project specific)
	1,3 Building reuse, maintain 60% of interior non-structural components	√ (Project specific)
	2,1 Construction waste management: Divert 50% from Landfill	√ (Project specific)
	2,2 Construction waste management: Divert 75% from Landfill	√ (Project specific)
	3,1 Resource reuse, 5%	√ (Project specific)
	3,2 Resource reuse, 10%	√ (Project specific)
	4,1 Recycled content, 10% (post-consumer + 1/2 pre-consumer)	√
	4,2 Recycled content, 20% (post-consumer + 1/2 pre-consumer)	√
	5,1 Regional materials, 20% manufactured regionally	√ (Project specific)
	5,2 Regional materials, 10% extracted and manufactured regionally	√ (Project specific)
	6 Rapidly renewable materials	√ (Project specific)
	7 Certified wood	√ (Project specific)
EQ	2 Increased ventilation	Further evaluation needed
	4,1 Low-emitting materials, adhesives and sealants	√
	4,2 Low-emitting materials, paints and coatings	
	4,4 Low-emitting materials, composite wood and laminate adhesives	√
	4,5 Low-emitting materials, furniture and seating	
	8,1 Daylight and views, daylight 75% of spaces	Further evaluation needed
	8,2 Daylight and views, daylight 90% of spaces	Further evaluation needed
	8,3 Daylight and views, views for 90% of seated spaces	√ (Project specific)
ID	1 Innovation in design	√ (Project specific)

2.2.2. Sound Transmission Class: In accordance with ASTI97, ASTM E413-87 and ASTM E1332-90. STC can be raised to 47 by adding proper insulation between T200 solid skins.

T200	¼" Tempered glass	¼" Laminated glass	⅝" Solid panel
Single pane	31	33	N/A
Double pane	41	43	40

2.2.3. Fire-rating: Standard solid panels are Class C (Class III 76-200) and have a quality of 92 for flame spread and 126 for smoke development when tested in accordance with ASTM E84-05. Possibility of achieving Class A (Class I 0-25).

2.2.4. Seismic Resistance: T200 system is capable of withstanding the effects of earthquake motions and can be installed with seismic bracing as required to comply with local codes. Tested and approved by LA Building Code.

2.3. Material

- 2.3.1. Aluminum structure: All frames are square with rounded edges and made of extruded aluminum (AA6063-T6 Aluminum Alloy, ASTM B221) and will have a standard clear/natural anodized finish. Other anodizing and powder coating finishes may be available.
- 2.3.2. Gasket: T200 system uses fully transparent dry joint made of polycarbonate with a 20% recycled content between each pair of glass panes. T200 system uses PVC co-extrusions standard grey gasket between each vertical module, other colors are available upon request. T200 system is delivered with sound and light neoprene gaskets above all top and bottom tracks and all end caps.

2.4. Wall Requirements

- 2.4.1. T200 wall thickness is 4" (101.6 mm).
- 2.4.2. T200 design allows construction and extension in 2, 3 or 4 way conditions without removal of adjacent panels.
- 2.4.3. T200 system can accommodate up to a combined 2 ¾" (69.85 mm) floor to ceiling irregularities within a 10-foot section. Bottom tracks can be used in heights of 2" (50.80 mm) or 3" (76.20 mm) and top tracks in heights of 1" inch (25.40 mm) or 2" (50.80 mm).
- 2.4.4. The T200 system can be installed on top of floor slab, finished flooring, raised flooring or carpeted flooring and below ceiling slab and/or suspended ceiling. As well it can be installed between finished walls with only the use of non-permanent fixations.
- 2.4.5. The T200 system can be installed to the underside of suspended ceilings without the use of destructive fasteners, with a one-piece continuous metallic ceiling track. Ceiling track is one-pieced continuous formed steel with continuous factory-installed sound and light gasket, recessed to the panel face. The T200 pocket sliding glass door module requires that the General Contractor provides wooden/metal strut blockings behind all drywall partitions and/or suspended or fixed ceiling intersecting with it at the top and the sides of the office fronts. Sketches can be provided upon request. The ceiling blocking must be structural and capable of withholding a weight of 400lbs.
- 2.4.6. T200 system offers universal hanging capacity with a maximum load bearing capacity of 280lbs. T200 system can accommodate furniture and millwork manufactured by other manufacturer.
- 2.4.7. T200 system can accept electrical wiring between its skins or either in its ceiling or floor tracks. It can either use a quick connect system or standard wiring by an electrician. All the quick connect components used by Techniwall are UL certified.

2.5. Flexibility

- 2.5.1. T200 system offers the possibility of a floor to ceiling full height assembly or a freestanding construction. The maximum free-standing length that T200 walls can be built into without any bracing walls or connection to the ceiling is 12 linear feet; full uprights need to be added for stability with longer runs.
- 2.5.2. Techniwall T200 in its framed version with its single or double butt-edge approach allows seamless construction.
- 2.5.3. T200 component based system offers the possibility to extend and reduce modules in height and in width by either changing the configuration from vertical to horizontal

or by adding segments to increase the height or cutting them down to reduce their height during reconfigurations.

- 2.5.4. The T200 component based system offers the possibility to reuse 100% of its components when reconfigured in a different location, when the same configuration and layout are used. For different conditions, our pressure-fit system allows for reuse of maximum number of the existing components.

2.6. Finishes

- 2.6.1. Solid panels: Manufactured composite $\frac{5}{8}$ " (15.88 mm) particle board for T200 with standard thermo-fused melamine laminate finished on both sides, with a dolomite/mat finish. Composition ANSI A208.1-2009 (Grade MS). Moisture content: Max 10%. Solid panels can also use MDF or green cores and be finished with fabric, wood veneer, white board and tack board. Color to be selected later from manufacturer's full range.
- 2.6.2. Glazing: T200 uses $\frac{1}{4}$ " thick glass when glass is framed and $\frac{1}{2}$ " or $\frac{3}{8}$ " thick standard clear and tempered glass when double butt-edge configuration is used. Glass that has been heat-treated using the horizontal (roller heat) method and complies with:
- 2.6.2.1. USA – ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind FT.
- 2.6.2.2. CANADA – CAN/CGSB 12.1-M90, Type 2 Tempered Glass, Class B-Float Glass. It is possible to use laminated glass with standard .03" (0.7 mm) interlayer or applying film.

2.7. Doors and Hardware

- 2.7.1. Pivot Doors and Sliding Doors: Standard $1\frac{3}{4}$ " solid or hollow core, barn style for sliding doors, and $\frac{3}{8}$ " or $\frac{1}{2}$ " clear and tempered glass frameless door. Clear anodized aluminum door frame, factory milled to suit standard hardware and coordinated with door hardware schedule. Various doors finishes are available. Maximum force necessary to open a sliding door is 5 lbs.
- 2.7.2. Hinges: Flush-mounted clear anodized aluminum for solid doors and door mounted for glass doors.
- 2.7.3. Other hardware: Overhead concealed door closer, mortise lock, electric lock, card reader, ball catch waist height sliding glass door lock, and more. Available upon request.

3. Execution

3.1. Installation

- 3.1.1. Cut all vertical and horizontal aluminum components to exact sizes on site during installation.
- 3.1.2. Install system after floor finishes and in accordance with manufacturer's instructions.
- 3.1.3. Fasten tracks to floors, ceiling and abutting vertical surfaces according to drawings.
- 3.1.4. Install partitions plumbed, squared and levelled. Accurately fit and fasten end cap to abutting surfaces. Shim under glass or solid modules at uneven floors to ensure leveled installation.
- 3.1.5. Install finishing skins as per drawings.
- 3.1.6. Install finishing gaskets between modules.
- 3.1.7. Wash down of walls shall not be part of this contract, but shall be considered normal pre-occupancy cleaning responsibility of general contractor, owner or occupant.

3.2. Warranty

- 3.2.1. Techniwall guarantees the quality of the various aluminums, dry joints and other finishing components of its T200 and T100 walls.
- 3.2.2. Techniwall guarantees its walls components for ten (10) consecutive years from the date of their delivery, providing that an installation company certified by Techniwall installed the Techniwall components. All mechanical components are excluded from coverage.
- 3.2.3. The warranty is a decreasing value type warranty; a linear depreciation is used to set the value of a specific component at any given time. During the warranty coverage period Techniwall will replace the damaged components according to the linear depreciation method provided they were installed and maintained properly over the life of the guarantee.
- 3.2.4. All costs related to the removal, storage and disposal of damaged parts as well as any crating, transport and labor costs for the installation of the replacement components will be the sole responsibility of the client.
- 3.2.5. The warranty does not apply to normal wear and tear of the components such as scratches, color variation due to UV exposure, variation of the finishing skin textures or any other damage caused by inadequate use, improper handling or storage. Component misalignment or shrinkage is not considered a defect.
- 3.2.6. Any abusive use of the product will result automatically in revoking the warranty.