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Crystal Window & Door releases new window wall system, W50i – new system now being specified and installed

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Boston, MA National manufacturer Crystal Window & Door Systems has expanded its architectural fenestration product line with the introduction of a new window wall system. The Crystal W50i is a feature- and option-rich window wall system suitable for all types of buildings including mid- and high-rise multifamily, office, hospitality, and institutional properties. Fully installed from within the building's interior, with floor-to-ceiling glass and a slab bypass option, the unitized Crystal product replicates the look of curtain wall with the benefits of easier handling, faster and safer installation, less on-site labor requirements, enhanced thermal performance, outstanding aesthetics, and greater cost effectiveness.

Outstanding Features: The Crystal W50i window wall is an aluminum unitized pre-glazed system that easily spans slab-to-slab openings up to 10' in height. The W50i framing features minimal 2-¼" sightlines and a 5" frame depth. There are multiple installation options for the new Crystal system including slab-to-slab, slab bypass, shadow box, spandrel, and insulated bent metal slab cover. An advanced polyamide strut system is used to thermally separate interior and exterior components of the framing. The European style system is available with fixed vision glass as well as integrated casement, project-out awning, and balcony door operating panels. A T-bracket system allows multiple panels to be installed in sequence without additional adjustment.

Slab Bypass Options: The W50i integrated and insulated bypass module is an outstanding optional feature. This covers the façade of the building floor slabs while seamlessly joining floor-to-ceiling panels above and below. By bridging the floor slab and offsetting the floor-to-ceiling glass panels outward to be in line with the bypass module, the Crystal window wall system replicates the appearance of a curtain wall façade. Slabs up to 8" can be spanned with the bypass feature.

Efficient Jobsite Assembly: Another outstanding feature of the new Crystal window wall system is the advanced snap-in connection system between panels. The smooth seamless joints provide outstanding visual aesthetics. The male/female frame connections with EPDM triple gaskets, snap together easily, facilitating fast, secure, jobsite assembly of multiple units. Without screw in splines and with significantly reduced caulking requirements, the Crystal W50i window wall saves time, effort, and costs over other competing systems.

Extraordinary Performance: Performance ratings for the new system are outstanding. The new window wall has achieved an AAMA AW-PG55 structural rating and with steel reinforcement options higher ratings are possible. U-values for fixed glass range from 0.35 to 0.22 with optional rigid foam frame inserts enhancing thermal performance. Air infiltration at 6.24 psf is as low as 0.01 cfm/ft² and the fixed/casement and project-out panels are rated respectively at 15 psf and 12 psf for water penetration. Sound abatement, depending on glass package, range 26 to 37 OITC and 32 to 43 STC.

Glazing and Many Other Options: Three glazing pocket sizes – 1", 1-¼", and 1-½" – are possible with the Crystal W50i window wall system. Double and triple pane insulated glass units (IGUs) can be specified as well as a wide variety of low-E coatings and argon gas filling. The unitized system may also be pre-glazed with spandrel glass, insulated aluminum panels, or PTAC louvers.

All units are dry-glazed, and fixed panels are interior glazed, so any future repair replacement is easily facilitated on-site. Operating panels, while exterior glazed, can be first removed from the window wall framing for easy on-site glass replacement. For spandrel glass, exterior glazing is also an option, making any necessary future replacement possible without disturbing interior finishes.

Other frame options include steel structural enhancement inserts and compatible separate aluminum structural mullions. Subsill and receptor systems are available for the window wall system. The window wall's polyamide thermal-break system readily facilitates two-tone (different interior and exterior) finishes in a wide variety of standard and custom colors.

Hardware options on operable window panels include a European style crank operator and an approved metal window limit opening device. For door panels, Crystal W50i options include stylish handle selections, locking hardware, a door-closer, and a ½" ADA compliant low sill.

New Projects Feature Crystal Window Wall: The Crystal W50i is already proving to be popular in the marketplace. The first installation of the Crystal window wall system was recently completed at a new construction luxury multifamily project in Jersey City, NJ. The Dumont, a boutique six-story building at 30 Vroom St., utilized almost 1,300 square feet of the window wall system for the top 5 floors. Selected by the developer/builder for its superior thermal performance and aesthetics compared to many competing products, this Crystal W50i system features both fixed and operating vision panels. The Jersey City project specified 1" IGUs with low-E coated glass and argon gas filling.

The Crystal W50i is also being installed in a major Manhattan high-rise project, and several other projects using the new Crystal window wall system are commencing soon.

New England Real Estate Journal - 17 Accord Park Drive #207, Norwell MA 02061 - (781) 878-4540