



> YCW 750 SplineTech™

Outside Glazed Screw Spline Curtain Wall System

DESCRIPTION:

YCW 750 SplineTech™ is the latest addition to YKK AP's very successful line of curtain wall glazing systems. The new system shares many of the same features, options, and accessories with the YCW 750 outside glazed curtain wall system, but it is designed to simplify fabrication and assembly. All intermediate horizontal members are attached employing YKK AP's patented screw spline technology. Eliminating the common shear block attachment reduces fabrication labor and enables the wall to be pre-assembled and completely prepared for glazing in the shop to further reduce field labor.

OPTIONS & FEATURES:

- Enhanced design flexibility
 - ◆ Dual finish option (interior - exterior)
 - ◆ Variety of face covers
 - ◆ Engineered to meet the most stringent building codes
 - ◆ Optional two-sided structural silicone glazing at verticals
- Reduced field labor
 - ◆ Verticals may be punched to attach horizontal members
 - ◆ Pre-assemble and prep for glazing in the shop
 - ◆ Open back head and sill members for ease of installation
- Low profile door sub-frames for YKK AP entrances



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Outside Glazed Screw Spline Curtain Wall System Specifications

1.01 SUMMARY

- A. Section Includes: Aluminum Curtain Wall Systems
 - 1. YKK AP Series YCW 750 SplineTech™ Aluminum Curtain Wall System
- B. Related Sections:
 - 1. Sealants: Refer to Division 7 Joint Treatment Section for sealant requirements.
 - 2. Glass and Glazing: Refer to Division 8 Glass and Glazing Section for glass and glazing requirements.

1.02 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide aluminum curtain wall systems that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with test method indicated.
 - 1. Wind Loads: Completed curtain wall system shall withstand wind pressure loads normal to wall plane indicated:
 - a. Exterior Walls:
 - 1) Positive Pressure:
 - 2) Negative Pressure:
 - b. Interior Walls (Pressure Acting in Either Direction):
 - 2. Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures.
 - a. For spans less than 13'-6" (4.1m): L/175 or 3/4" (19.1mm) maximum.
 - b. For spans greater than 13'-6" (4.1m) but less than 40'-0" (12.2m): L/175 or L/240 + 1/4" (6.4mm).
 - 3. Thermal Movement: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.
 - 4. Air Infiltration: Completed curtain wall systems shall have 0.06 CFM/FT² (1.10 m³/h-m²) maximum allowable infiltration when tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa).
 - 5. Water Infiltration:
 - a. No uncontrolled water on indoor face of any component when tested in accordance with ASTM E 331 at a static pressure of 15 PSF (718 Pa).
 - b. No uncontrolled water on indoor face of any component when tested in accordance with AAMA 501.1 at a dynamic pressure of 15 PSF (718 Pa).
 - 6. Thermal Performance for when tested in accordance with AAMA 1503.1 and NFRC 102:
 - a. Condensation Resistance Factor (CRF): A minimum of 67.
 - b. Thermal Transmittance U Value: 0.45 BTU/HR/FT²/°F or less.
 - 7. Optional Incidental Water Management: Head member shall be capable of directing condensation within the spandrel area to the exterior of the system.
 - 8. Seismic: Tested to AAMA 501.4 (Seismic Use Group III, for use in Essential Facilities) meeting the design displacement of 0.010 x the story height including the final displacement of 1.5 x the design displacement.

Note: The CRF for the glazed system as a whole will be affected by the characteristics of the glass specified.

2.01 MANUFACTURERS

- A. Acceptable Manufacturers: YKK AP America Inc.
 - 1. Curtain Wall System: YKK AP YCW 750 SplineTech™ Curtain Wall System.
- B. Curtain Wall Framing System:
 - 1. Description: Framing shall be thermally improved. Horizontal and vertical framing members shall have a nominal face dimension of 2-1/2 inches. Depth as indicated on drawings. Framing system shall provide a flush glazed appearance on all sides with no protruding glass stops. Optional structural silicone glazed intermediate verticals with no exposed aluminum.

2.02 MATERIALS

- A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 and 6063-T6 Aluminum Alloys.

2.03 ACCESSORIES

- A. Manufacturer's Standard Accessories:
 - 1. Fasteners: Zinc plated steel concealed fasteners; Hardened aluminum alloys or AISI 300 series stainless steel exposed fasteners, countersunk, finish to match aluminum color.
 - 2. Sealant: Non-skinning type, AAMA 803.3
 - 3. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; Glazing gaskets in accordance with ASTM C 864.

2.06 FINISHES

- A. Anodic Coating: Electrolytic color coating followed by an organic seal applied in accordance with the requirements of AAMA 612.
- B. High Performance Organic Coating Finish: Type Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solvay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and meeting AAMA 2605 specifications.

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