

INSTALLATION INSTRUCTION

300 tilt'n turn window & 301 tilt'n turn door

A GOOD INSTALLATION ENSURES LASTING WINDOW PERFORMANCE.

BUILDING CODES, ENVIRONMENTAL CONDITIONS, APPROVED SHOP DRAWINGS MAY VARY & SUPERSEDE THE PROCEDURES CONTAINED BELOW. THE RESPONSIBILITY FOR COMPLIANCE IS THE PROJECT'S OWNER(S), INSTALLERS, ARCHITECT, INSPECTORS, & BUILDING SCIENTISTS.

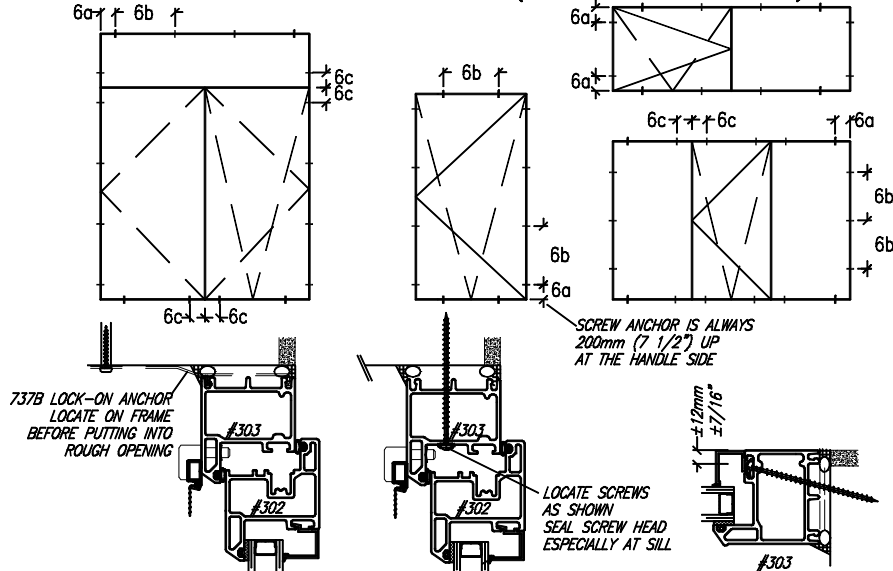
1. HANDLE CAREFULLY
2. STORE WITH NON-ABRASIVE SEPARATORS BETWEEN FRAMES. WINDOWS SHOULD BE STORED IN A PLACE PROTECTED FROM WEATHER.
3. ALTERATIONS – WINDOWS SHOULD NOT BE LOAD BEARING AFTER INSTALLATION. WINDOWS SHOULD NOT BE MODIFIED TO ACCOMMODATE AIR CONDITIONERS, EXHAUST FANS, ETC.
4. R.O. – PRODUCT WAS DEVELOPED & TESTED IN A WINDOW WALL INTERFACE SYSTEM DESIGNED TO MANAGE WATER. SEE BRICK VENEER SILL EXAMPLE 4) BELOW FOR LOW TO MODERATE DESIGN PRESSURE REQUIREMENTS.
5. ANCHORAGE – WINDOW FRAMES SHOULD BE SET PLUMB, SQUARE, SHIMMED AND SECURED TO SURROUNDING STRUCTURE. WINDOW ANCHORAGE MUST BE SUFFICIENT TO MEET STRUCTURAL REQUIREMENTS OF LOCAL BUILDING CODES. ALLOW AT LEAST 6mm (+1/4") SPACE BETWEEN THE FRAME AND ROUGH OPENING FOR SHIMMING AND ADJUSTMENT. ALWAYS ADJUST ANCHOR POSITION, SHIMMING THICKNESS TO MAINTAIN STRAIGHT AND PARALLEL LINES BETWEEN SASH AND FRAME. ENSURE ADEQUATE AND LEVEL SUPPORT OF THE SILL.

* ANCHORING METHOD FOR SINGLE OPERATOR – a) SET WINDOW/DOOR LEVEL IN SUBSTRATE, b) ANCHOR WINDOW/DOOR IN TWO OPPOSITE OR DIAGONAL CORNERS, c) OPEN SASH SMALL DISTANCE FROM FRAME, d) MOVE UNANCHORED CORNERS OF WINDOW/DOOR INWARD OR OUTWARD UNTIL GAP BETWEEN SASH & FRAME IS EQUIDISTANT ON OPENING EDGE, e) APPLY ANCHORS IN REMAINING CORNERS, f) MEASURE FRAME DIAGONALS TO CHECK FOR SQUARENESS g) CLOSE WINDOW/DOOR & CHECK THAT LOCK ENGAGES EASILY, h) APPLY REST OF ANCHOR AS PER RECOMMENDED ANCHOR LOCATIONS.

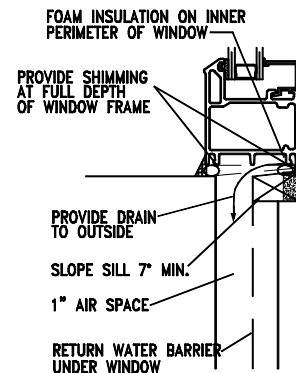
SHIMS REQUIRED TO SUPPORT INTERIOR & EXTERIOR OF WINDOW FRAME AT ALL ANCHORS & ESPECIALLY AT SILL.


- 6a. CORNER ANCHORS – SECURE WITHIN 100mm (4") FROM THE CORNERS.
- 6b. PERIMETER ANCHORS – SPACING SHOULD NOT EXCEED 450mm (18") ON CENTER.
- 6c. MULLION AND TRANSOM ANCHORS – ALWAYS ANCHOR WITHIN 100mm (4") FROM MULLION OR TRANSOM (IT IS ALWAYS A CRITICAL AREA FOR ANCHORAGE).
7. PERIMETER CAVITIES – BETWEEN WINDOW FRAMES AND ROUGH OPENING (R.O.) SHOULD BE FILLED WITH LOOSE INSULATION OR LOW EXPANSION FOAM. DO NOT DISTORT FRAME BY OVER PACKING. NOTE THAT AN INSULATED CAVITY IMPROVES THERMAL PERFORMANCE.
8. CAULK THE EXTERIOR PERIMETER TO PROVIDE SEAL BETWEEN WALL AND RAIN SCREEN TO ENSURE CONTINUITY OF WEATHER TIGHTNESS.
9. CAULK AND/OR TAPE THE INTERIOR PERIMETER TO PROMOTE CONTINUITY OF AIR BARRIER TO MINIMIZE RISK OF CONDENSATION WITHIN THE CAVITY & TO MEET TESTED AIR & WATER RESISTANCE LEVELS.
10. DOOR FRAME TO BE MOUNTED FLUSH TO INTERIOR WALL SEE #303 BELOW (EXTERIOR ALUM. EXTENSORS AND BRICKMOULD AVAILABLE FOR FINISHING OF OUTSIDE SUBSTRATE).
11. WHERE FLUSH MOUNTING TO INTERIOR WALL IS NOT POSSIBLE: INTERIOR (ON OR OFF SYSTEM WINDOW & DOOR) STOPS MUST BE USED TO PREVENT DOOR OR WINDOW SASH FROM COMING IN CONTACT WITH INTERIOR EDGE OF ROUGH OPENING. CAUTION HARDWARE CAN BE DAMAGED IF ON OPENING, SASH COMES IN CONTACT WITH INTERIOR JAMB.
12. MAINTANANCE – WASH GLASS & FRAME WITH NON-ABRASIVE CLEANER & WATER. LUBRICATE WITH ONLY SILICONE LUBRICANT SPRAY – HARDWARE & ALL WEATHERSTRIP EVERY SIX MONTHS MIN. TO MAINTAIN EASE OF OPERATION.

RECOMMENDED MINIMUM ANCHOR LOCATIONS (SCREW OR STRAP ANCHOR)



EXAMPLE 4) WATER MANAGEMENT AT SILL



| ITEM. | QTY. | DWG.NO./CAT.NO. | DESCRIPTION | MATERIAL | |
|---|------|-----------------|--|------------------|---------|
| <div style="text-align: center;">  <p>INLINE FIBERGLASS</p> <p>30 Constellation Court Toronto, Ontario M9W 1K1</p> </div> | | | <h2>INSTALLATION INSTRUCTION</h2> <h3>300 TILT'N TURN WINDOW & 301 TILT'N TURN DOOR</h3> | DR. BY. | G.R. |
| | | | | DATE | Apr. 06 |
| | | | | SCALE | |
| | | | | <h1>300-000</h1> | |
| | | | | | |



THERMAL PERFORMANCE VALUES

300 SERIES > TILT N TURN (see notes at end)

| OPERABLE | U Value | SHGC | Vt | ER |
|-------------------------------------|---------|------|------|----|
| Dual Pane - Low-E / Hard Coat | 0.31 | 0.49 | 0.50 | 30 |
| Dual Pane - Low-E / Soft Coat | 0.28 | 0.29 | 0.48 | 21 |
| Dual Pane - Low-E 366 | 0.28 | 0.19 | 0.43 | 16 |
| Triple Pane - Low-E / Hard Coat x 2 | 0.22 | 0.39 | 0.42 | 35 |
| Triple Pane - Low-E / Soft Coat x 2 | 0.19 | 0.25 | 0.38 | 30 |
| Super Quad | 0.16 | 0.21 | 0.27 | |

Note: All values have been verified by the NFRC and Energy Star Canada. The reader is cautioned that test results should be used for comparison purposes only. Results are size and installation dependent.

For recommendations as to what glazing configurations are best suited for your application, please feel free to contact us.

For a full listing of thermal performance values, visit www.NFRC.org. All information can be found in the "Certified Products Directory". Please feel free to contact us if any assistance is required.

INLINE also complies with all North American Energy Star zoning requirements.



300 SERIES TILT & TURN WINDOWS

TEST REPORT SUMMARY

In compliance to AAMA
101/I.S.2/ CSA A440

| | OPERATOR | FIXED |
|-----------|-----------------|-------------------|
| TEST SIZE | 1220mm x 1830mm | 2000mm x 2000mm |
| | 48" x 72" | 78 3/4" x 78 3/4" |

| TYPE | TEST | REQUIREMENTS | | RESULTS | GRADE | |
|--|----------------------|----------------|-----------------------|-------------------------------------|--------|-----|
| | | TEST STANDARD | TEST PRESSURE | | AAMA | CSA |
| T I L T & T U R N | Air Tightness | ASTM E 283 | @ 75 Pa (1.57 psf) | +/- 0.72 m³/h/m +/- 0.04 CFM/ft² | A3 | A3 |
| | Water Tightness | ASTM E 547/331 | @ 700 Pa @ 12 psf | No Leakage | DP 100 | B7 |
| | Wind Load Resistance | ASTM E 330 | @ 5000 Pa @ 97 psf | No Deformation | DP 60 | C5 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Series 300 tilt & turn window is rated DA-C60, Design Pressure 60 @ test pressure 302 kph (190 mph). | | | | | | |

| | | | | | | |
|---|----------------------|----------------|---|----------------------------------|--------|-------|
| F I X E D | Air Tightness | ASTM E 283 | @ 75 Pa (1.57 psf) @ 300 Pa (6.24 psf) | +/- 0.02 m³/h/m 0.001 CFM/ft² | PASS | FIXED |
| | Water Tightness | ASTM E 547/331 | @ 700 Pa @ 12 psf | No Leakage | DP 100 | B7 |
| | Wind Load Resistance | ASTM E 330 | @ 4000 Pa @ 97.5 psf | No Deformation | DP 65 | C4 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Series 300 fixed window is rated F-HC 65, Design Pressure 65 psf @ test pressure 312 kph (195 mph). | | | | | | |

ENERGY RATINGS

The Thermal Performance Values. Shown below, are based on windows glazed with 7/8" (22mm) overall thickness insulating glass units comprising one lite of Low-E glass, an argon filled cavity, and a double sealed aluminum spacer.

Higher performance may be achieved by using various glass coatings, inert gasses, and/or warm edge spacers.

| PERFORMANCE | OPERATING | | FIXED | |
|----------------|-------------|------------------|-------------|------------------|
| | CSA-A440.2 | NFRC 100 | CSA-A440.2 | NFRC 100 |
| U-Value Frame | 2.71 W/m²/C | 0.47 Btu/h/ft²/F | 2.67 W/m²/C | 0.47 Btu/h/ft²/F |
| U-Value Window | 2.18 W/m²/C | 0.38 Btu/h/ft²/F | 2.02 W/m²/C | 0.38 Btu/h/ft²/F |
| SHGC | 0.44 | 0.44 | 0.44 | 0.44 |

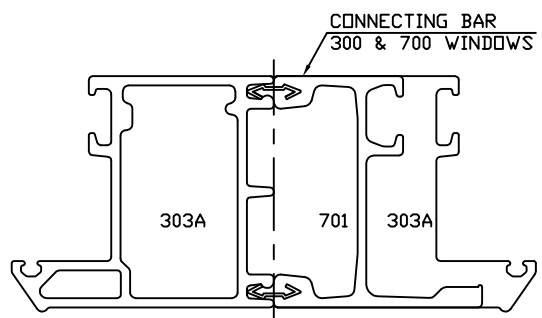
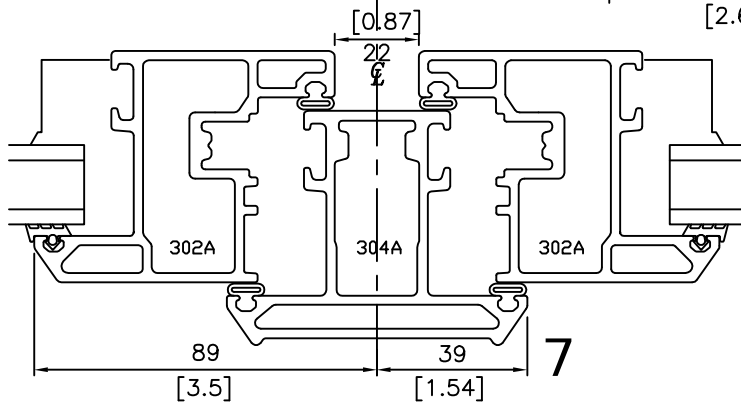
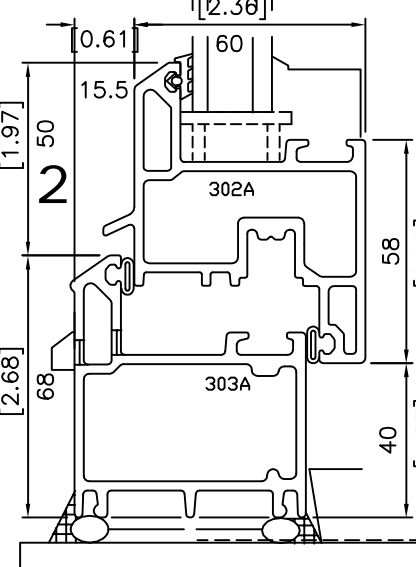
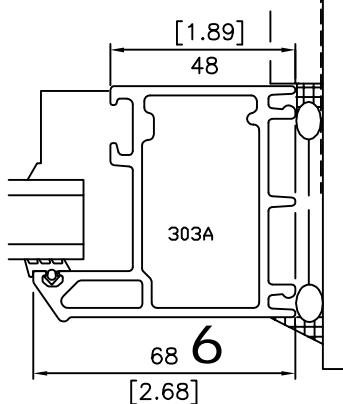
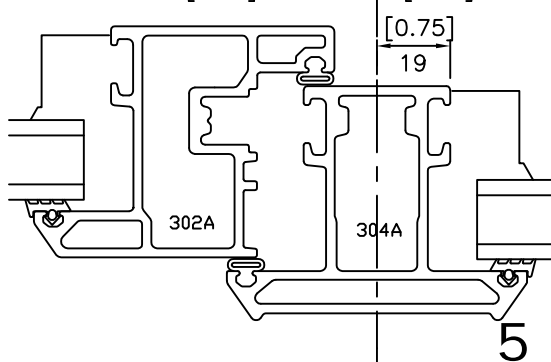
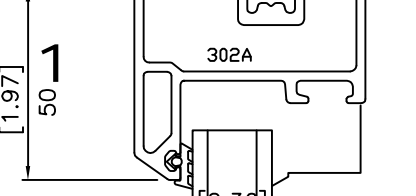
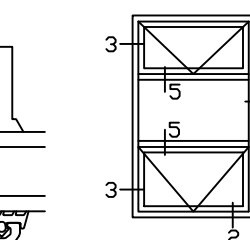
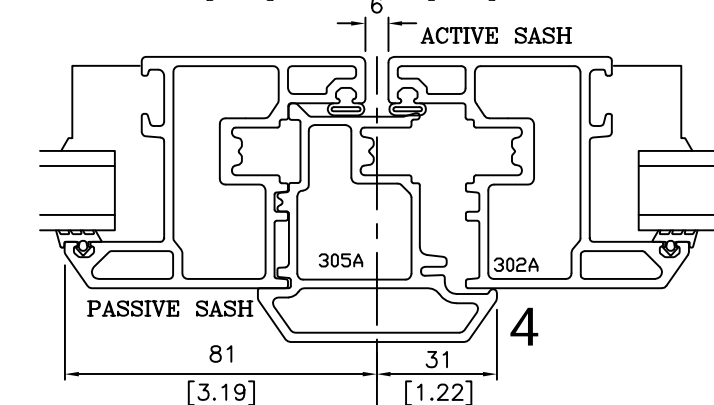
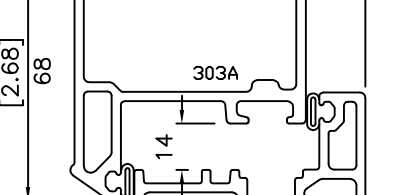
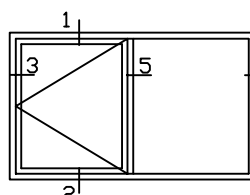
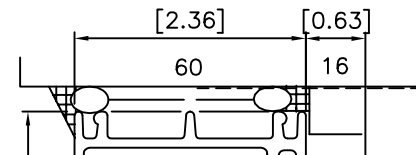
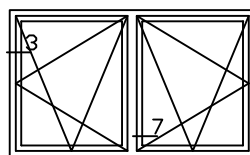
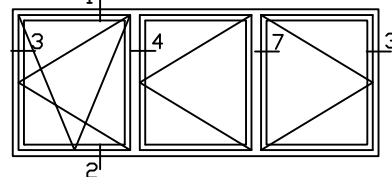
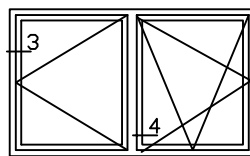
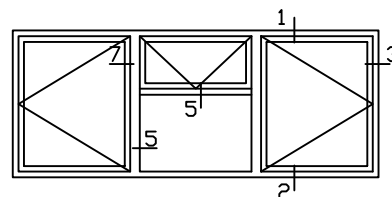
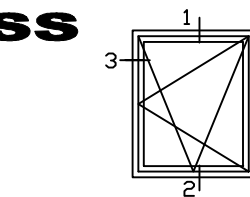
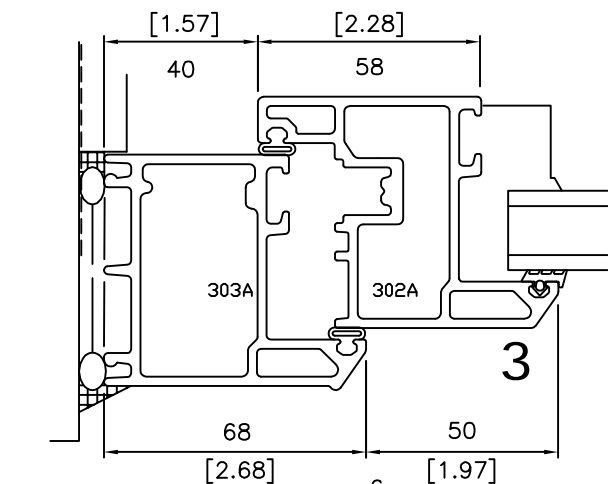
Note: The reader is cautioned that test results should be used for comparison purposes only. Results are size and installation dependent. In-Service performance can be significantly different from those shown. Product tested indicates design potential.

INLINE FIBERGLASS WINDOWS

**TILT & TURN, CASEMENT,
and HOPPER**

DETAILS

SERIES 300A



**IN-SWING TILT'N TURN CASEMENT
BUTT HINGED HOPPER & FIXED LITE WINDOWS**

PRODUCT

Shall be 300 Series, In-swinging, [Tilt'n Turn], [Casement], [Butt Hinged Hopper], [Fixed Lite] Window Assemblies, as manufactured by Inline Fiberglass Limited. Frames are 60mm (2-3/8") deep and in compliance with AAMA 101/I.S.2. Casement/Hopper DA C60, design pressure 60. Fixed FHC 65, design pressure 65. CSA A440. Casement/Hoper – A3, B7, C5. Fixed – B7 – C4.

MATERIAL

All frame and sash profiles are made from pultruded fiberglass, having a nominal wall thickness of 2.5mm (0.100") with minimum glass content of 60%. Non-structural accessory members are permitted to be vinyl or aluminum and identified as such.

CONSTRUCTION

Frame and sash corners are connected with molded reinforced polymer shearblocks and mechanically secured. Joints are factory sealed and neatly fitted together.

FINISH

All exposed surfaces are coated with durable acrylic urethane topcoat with a medium gloss of 17-35. In compliance with AAMA-613. Available in five standard colours. Unlimited custom colours, including split finish.

HARDWARE

Full range of in-swing and Tilt'n Turn fittings (as manufactured by SIEGENIA) comprising interior butt hinges, single operating handle options and universal interlocked components with lock spacing adaptable to sash size.

WEATHERSTRIPPING

Santoprene Bulb-type gasket on interior and exterior with pressure equalizing gap at the exterior header.

GLASS

All windows are glazed with [22 mm (7/8")], [25.4mm (1")], [35mm (1 3/8")], [38mm (1 1/2")] insulating glass units. Glass thickness shall be in accordance with applicable Building Codes, but not less than 3mm (1/8"). Inline recommends the use of double-sealed insulating glass units certified by IGMAC or SIGMA. The full range of glazing options available include: colonial grilles, low conductivity spacers, inert gas fills, and glazings to reduce heat loss, solar heat gain and visible light transmission.

GLAZING METHOD

Laid-in glazing using polyethylene closed cell adhesive tape on the exterior and an Aluminum glass stop locked-in from the interior provides a secure and positive seal for the glass.

INSECT SCREENS

Full-height, roll-formed aluminum frame with friction fit corner keys. Screen mesh (Fiberglass or Aluminum) retained by vinyl spline.

INSTALLATION

Shall be performed by experienced installers in accordance with manufacturer's instructions and CSA-A440.4. Window shall be plumb and square after installation is complete and sealed to both interior and exterior walls with a high sealant around the perimeter of the frame. If perimeter cavity is to be foamed, additional anchorage may be required to prevent bowing. It shall be the responsibility of the installers to make all necessary final adjustments to ensure normal and smooth operation.

MAINTENANCE

To maintain performance and ease of operation, clean glass, frames and fly screen, vacuum weather stripping and sill, lubricate hardware and weather-stripping with only silicone spray, a minimum of every six months.

- Due to constant product improvements, Inline reserves the right to change the information herein without notice.