

GREENHOUSE

Building the perfect environment





WELCOME



Greenhouse Experts

For nearly 20 years, Solar Innovations® has been designing and manufacturing durable aluminum glass structures, creating our own line of functional accessories and decorative elements, and refining our greenhouse environments to provide the highest quality products that have become synonymous with the Solar Innovations® brand. We began with an idea that we could not only create better products than the market was offering at the time, but could also introduce new designs that were not even a concept in our customers' or competitors' minds. We enjoy tackling complex custom projects that others in the industry simply will not touch because we believe in making the impossible possible.

Ingrained in our company's DNA is a "never say no" customer service attitude. This mentality has been the catalyst for each product line offered by Solar Innovations® and continues to drive us to become the leading glass structure provider in the world. Some of our greatest innovations have developed from unique customer requests that others could not fulfill.

Solar Innovations® greenhouse systems are built to last a lifetime and allow you to take gardening to the next level. A complete line of accessories is available, including benches, fans, humidifiers, environmental control systems, and decorative elements. We live, breathe, and work every day in the three greenhouses built into the front of our facility, which showcase a variety of growing environments including orchid and tropical plants.

Thinking Green

We strive to live and work green, from recycling and reusing most manufacturing and office supplies to composting in our cafeteria. Solar Innovations® is currently over 85% off the grid and over 98% landfill free. We have become a LEED Gold certified facility as a result of our green efforts. Much of the material used to build our products is locally sourced, energy efficient, incredibly sustainable, and contains recycled content. Additionally, we recycle the majority of demolished material from service and replacement projects. We are proud to pave the way for future generations by helping to reduce our carbon footprint.





EXCEPTIONAL PRODUCTS

Thermally Enhanced Systems

Solar Innovations® offers one of the only thermally broken aluminum greenhouse framing systems in the industry. Thermal efficiency is particularly important when creating environments for optimum plant growth and in climates with extreme temperatures. The term “thermal break” describes the portion of the frame that separates the interior metal from the exterior metal. By including a “break,” the temperature transfer from the exterior metal to the framing inside the greenhouse is limited, creating a more stable environment. In addition to our framing systems, all of our doors, windows, ridge vents, and eave vents are thermally enhanced to aid in minimizing energy transfer.

Glazing

Our standard glass offering is an insulated, double pane unit filled with argon gas, with a stainless steel spacer and LoE coating. The glass selection can be further enhanced with additional coatings, triple pane units, and even krypton fill to increase the thermal performance. Glass offerings with stainless steel spacers typically offer a 20 year seal warranty.

Hardware

Solar Innovations® door handles, window cranks, operable hinges, vent motors, and all other operable components are designed to be corrosion resistant and suitable for high moisture environments.

Complete System

In order to provide the highest quality products and a superior installation process, our team pre-cuts and pre-drills each of the greenhouse components before it is shipped to your site. Unlike most greenhouse manufacturers, Solar Innovations® provides all the necessary fasteners, silicone, and flashings for your project. These services help customers reduce installation time and cost, providing a high quality complete system.





OUTSTANDING SERVICE

Design-Build Capabilities

Our in-house designers and greenhouse experts make it possible for Solar Innovations® to assist our customers, their architects, and/or their general contractors with any design-build project. To begin the process, we simply ask that you provide a sketch or photograph, an idea of the greenhouse's intended use, and preliminary dimensions.

Engineering Services

Our in-house engineering staff ensures optimal project success and value while guiding customers through the decision making process. Site specific requirements are evaluated in conjunction with our stringent engineering standards. Engineering services include snow and wind load, seismic load, dead and live load, and reviewing deflection criteria, moment, tension, and stresses on the framing and glazing. Project specific thermal performance simulations are also available.

In-House Testing Services

Customers are invited to visit our facility's test labs where our team designs and tests core offerings, as well as project specific products, to meet the most stringent performance requirements. Thermal, air, water, structural, impact, operational, and functional designs are tested upon their development. Tests are witnessed and certified by third party representatives.

Installation Services

If you are not working with one of our dealers, we are able to offer a factory direct installation team or refer you to a local installer. However, all of our products are designed with the intention that any experienced glazier and/or contractor should be able to complete the installation.

American Made, American Jobs

Solar Innovations® is proud to design and manufacture our products in Pine Grove, Pennsylvania. We are committed to creating jobs and enhancing our local economy. If you want to be part of a growth-oriented company, possess a desire to succeed, and are driven to be the best, we want you on our team! Find out more about our career opportunities at solarinnovations.com/careers.

RESIDENTIAL

The perfect addition to a dedicated gardener's home









HOBBY

Starter greenhouses for the casual gardener



ESTATE

Large, ornate structures set on idyllic country properties



EDUCATIONAL

An opportunity for a unique hands-on learning experience



COMMERCIAL

A bright, inviting space that attracts customers to any business



INSTITUTIONAL

A safe way for residents to experience the benefits of sunlight and nature



GROWING ACCESSORIES



BENCHES

Benches can greatly increase the amount of growing space in a greenhouse. Benches come in standard sizes from most manufacturers, but Solar Innovations® creates custom benches to fit any configuration, including fixed, tiered, rolling, and more.



POTTING BENCHES

Potting benches provide a gardener with space to repot flowers, hang tools, store materials, water plants, and raise plants. Our custom benches can include shelves, soil bins, sinks, and countless other features in virtually all dimensions and sizes.



RIDGE & EAVE VENTS

Vents along the roof's ridge and eave lines are essential to providing proper air circulation and temperature control inside a greenhouse. Eave vents bring cool air into the greenhouse, which forces hot air to rise and exit through the ridge vents.



COLD FRAMES

Cold frames use passive heating to protect plants from the cold. They extend growing seasons by allowing for earlier seed planting in the spring and a later harvest in the fall. These units can be attached to a greenhouse or be used as stand alone structures.



RETRACTABLE HOSES

Hoses can take up valuable floor space in a greenhouse and can be difficult to manage. A hose reel is typically mounted to a wall and pivots left and right. A spring rewind will automatically retract the hose into the holder, clearing floor space.



IRRIGATION

An automatic watering system can regulate the flow of water and nutrients to plants without the gardener being on-site. A Solar Innovations® greenhouse expert can determine if misting and/or drip systems are correct for you.

GROWLIGHTS

Supplemental lighting creates the potential for additional plant growth by providing the necessary hours of light when it is not naturally available. Most year-round greenhouses require lighting during the winter so that plants receive the necessary amount of light.



ENVIRONMENTAL CONTROL SYSTEMS

To ease the burden of greenhouse maintenance, an environmental control system can be installed. This system can automate accessories within the greenhouse, including heating, cooling, watering, lighting, shading, and more.



COOLING

An evaporative method of cooling is suggested when ridge and eave vents are not sufficient. An evaporative system draws outside air over a wet pad, which removes heat from the air and cools it as it enters the greenhouse. For more advanced applications, chillers are available.



HEAT

Our greenhouse experts evaluate the structure's location, size, shape, design, and plant types to provide the best heating suggestion, including the proper fuel source. An optional vibration kit is also available.



HUMIDIFIERS

Humidifiers are utilized to control moisture levels in the air for optimal plant growth. When humidity drops below a predetermined level, a sensor triggers the humidifier to activate. For more advanced applications, high pressure foggers are available.



CIRCULATION FANS

Circulation fans constantly move air within the greenhouse and are essential to the health of plants. The fans keep the temperature and humidity uniform while destratifying the air. Fans also reduce condensation and help regulate temperature.



DOORS

Because Solar Innovations® is a manufacturer of operable doors and walls, we can offer an unmatched selection. French, terrace, and Dutch doors offer a traditional feel, while pivot, folding, and sliding give a contemporary spin on greenhouse design.



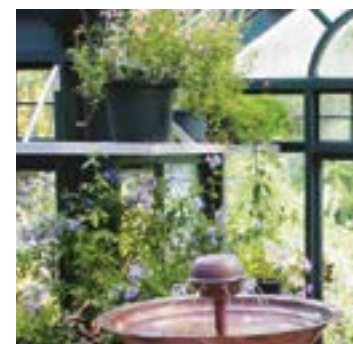
WINDOWS

Any of Solar Innovations® operable window systems can be integrated into greenhouses. Awning, casement, and tilt turn windows are traditional, but our pivot, folding, and sliding windows can also be used. Small greenhouses may use windows in place of vents.



SHADES

Depending on the greenhouse's orientation, the sun may become too intense, causing plant damage or overheating. To avoid this situation, a shading system can be installed. We offer operable, fixed, interior, and exterior shading systems.



SHELVES

A greenhouse's growing area can be increased by installing shelving. We offer several variations of support brackets and shelf tops.



TRELLISES

A trellis allows gardeners to utilize vertical space within the greenhouse for growing climbing plants. Solar Innovations® manufactures aluminum single and stacking trellises that will not rot like their wooden counterparts.

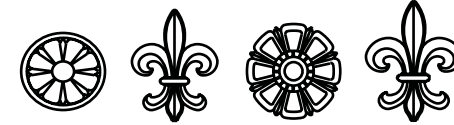


PLANT HANGERS

With our stationary and operable plant hanger options, plants can be grown year-round in baskets within the greenhouse or outdoor baskets can be brought inside during colder months.

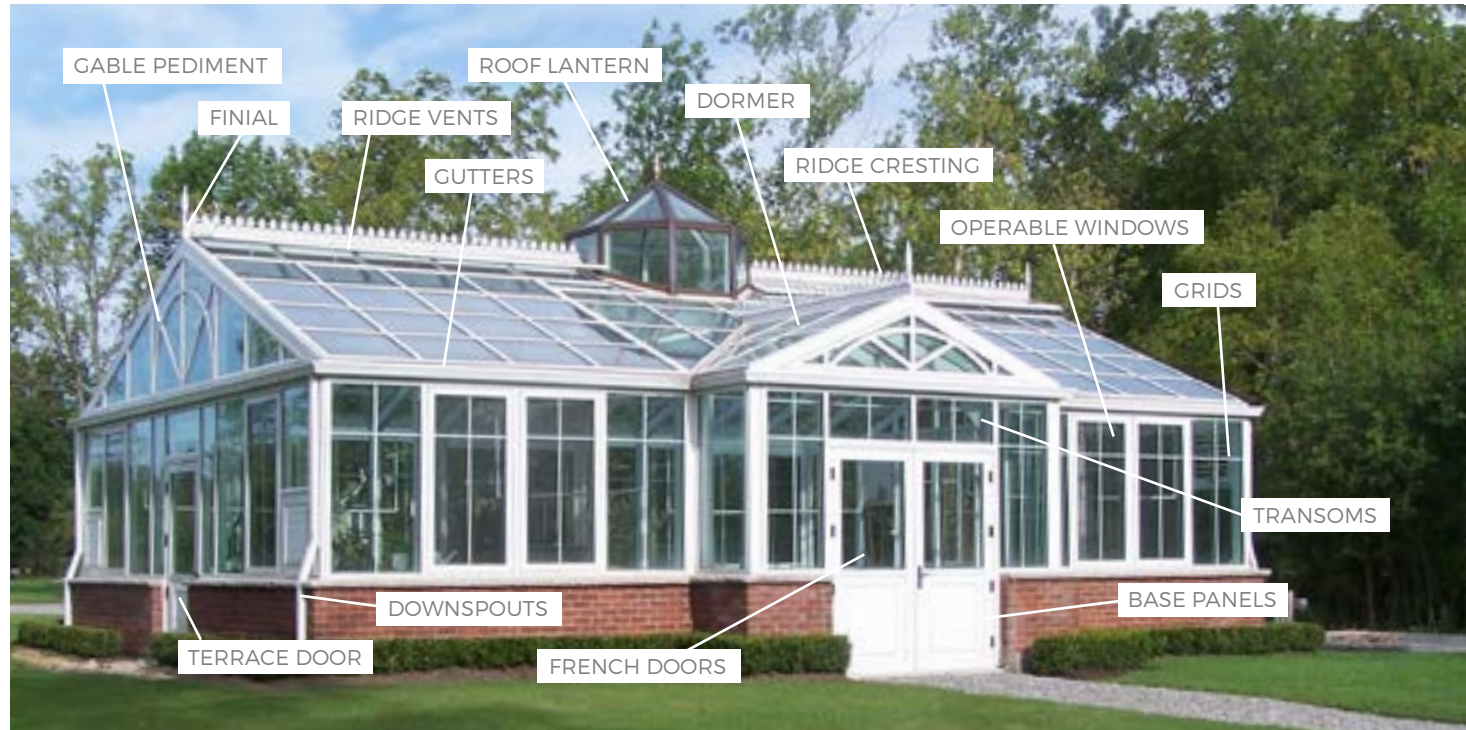
For a complete list of accessories, visit solarinnovations.com

DECORATIVE ELEMENTS



APPLIQUÉS

Decorative appliqués are elements that can add character to structures. They feature one of two main motifs: the rosette or the fleur-de-lis, both of which are very historical designs still found in moldings, textiles, and flooring today. Each appliqué is cast aluminum and available in five standard paint finishes or custom colors.



BASE PANELS

Decorative base panels follow the Elizabethan form of raised grid design. We offer two standard models: a raised panel, featuring an elevated face that protrudes 1/2" from the panel base, and a smooth panel. Base panels add a classic, traditional look to structures and doors.

CORNER COLUMNS

Decorative and structural corner columns are one of the most classic forms of architecture, and Solar Innovations® can create custom designed columns to fit your structure. The columns can be traditionally modeled, flat, fluted, styled after a Doric or Egyptian column, or even contemporary styled.

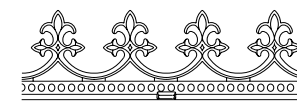
EAVE SPANDRELS

Eave spandrels, or decorative corners, can be considered one of the oldest forms of decorative architecture and can be found in buildings as early as ancient Rome. An eave spandrel was historically the space between an arch and a wall or column, but can also occupy the space between a wall and a squared-off opening. While eave spandrels are primarily decorative, they can also be used for shelf supports or plant hangers.

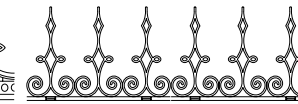


RING & COLLARS

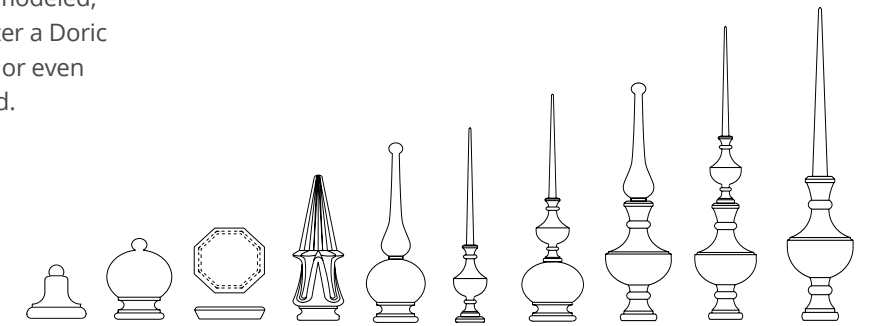
Decorative ring and collar supports, also known as cross ties or cross bars, are decorative trusses that link two opposite rafters to provide additional support to maintain roof shape and structural integrity while adding unique architectural appeal. They may also be used for purely decorative purposes, and can double as plant hangers. Appliqués can be added to each side of the ring for a traditional style.



Cresting CA 000054-00-00



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RIDGE CRESTING

Ridge cresting is used to enhance the ridge line of a greenhouse, especially in Classic English designs. Several styles of ridge cresting are available. A finial or king post is typically used to terminate the ridge cresting's length.

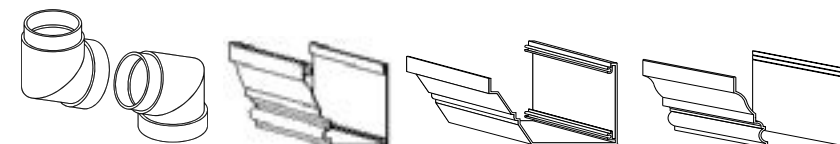
FINIALS

A finial, also known as a spire, is typically located at the highest peak of a greenhouse's roof. Dormers, lanterns, ridges, and entryways can all utilize finials. There are countless styles of finials, some of which can also be used as lightning rods when properly sized, designed, and installed.



GUTTERS

Decorative gutters add an aesthetically appealing, functional element to any structure. Gutters are available in several styles and finishes, including traditional copper, and include downspouts in standard, round, or fluted round shapes. We specialize in restoration projects and can provide custom cast aluminum elbows, drop outs, and extruded downspouts to mimic an existing structure's architectural time period.



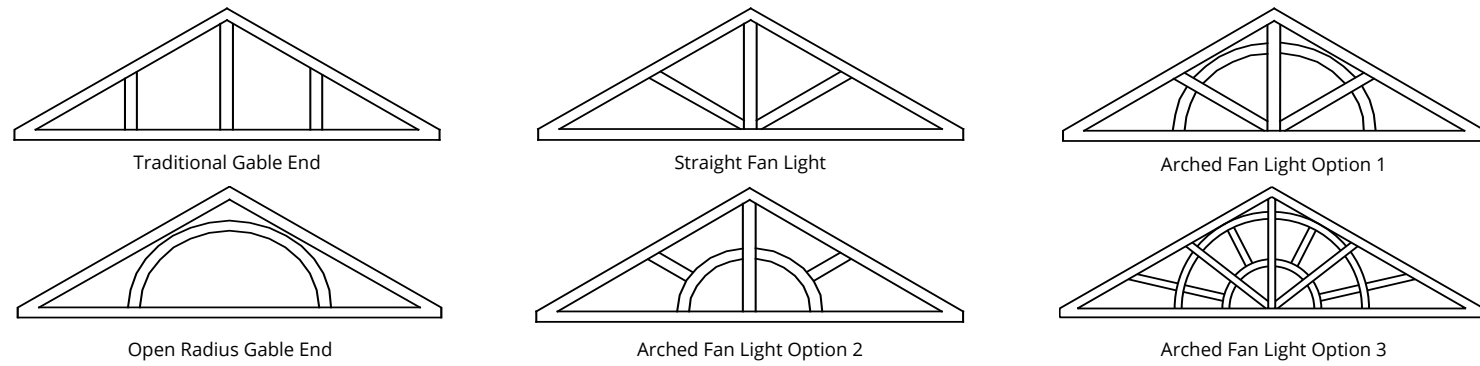
Cast Aluminum Elbows Decorative Gutter Greenhouse Gutter Extruded Gutter Splice



KING POST

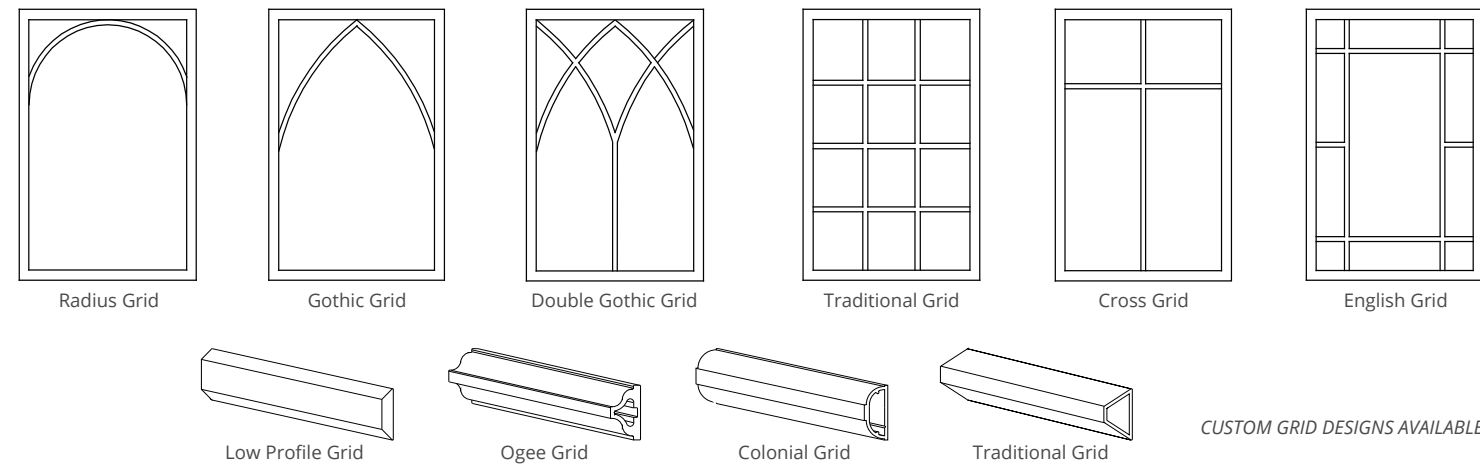
King posts, similar to finials, are typically placed at the end of a structure's ridge cresting. The king post is made up of a hub with finials on the top and bottom to create a dramatic decorative finale to the roof line.

ACCESSORY PACKAGES



GABLE PEDIMENTS

Gable pediments, commonly referred to as Palladian arches, are added to the triangular gable in a greenhouse. The most common designs include a half round arch, with rays extending from the arch. The radius and number of rays are all customized to the greenhouse. Grid work can be used to simulate true pediments or mullions.



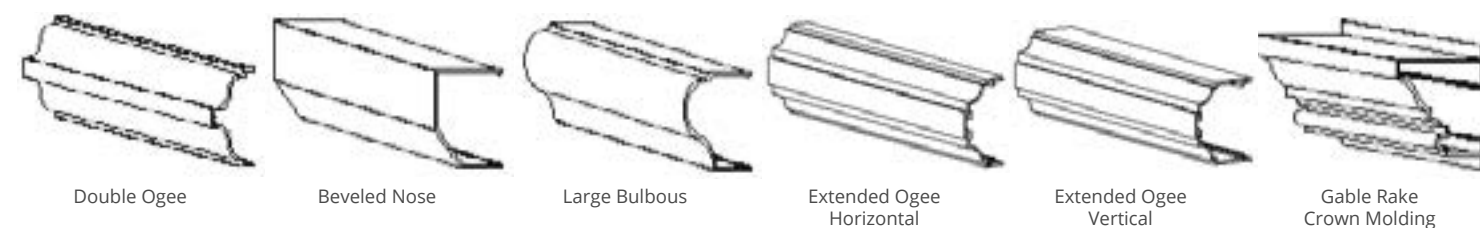
GRIDS

Decorative grids enhance the look of any structure, and are available in four standard types: Low Profile, Ogee, Colonial, and Traditional. We offer two types of grids: interior muntins and exterior grids combined with simulated divided lites (SDLs). Interior muntins are placed inside the airspace between two panes of glass, and can be formed into almost any grid style, including radius designs. They are typically more cost effective and easier to clean. Exterior grids are placed on the interior and exterior of the window and—in insulated glazing—are accompanied by an SDL, which follows the shape of the exterior grids. Grids are also available on transoms, a type of window located above a door, window, or other glazing materials.



TRIMS

Solar Innovations® offers extruded decorative trims in durable aluminum, which will not warp, rot, rust, or require finish maintenance like traditional wooden trim. All trims are suitable for interior and exterior use.



Year-Round House Plants

- Circulation Fans
- Heater
- Evaporative Cooler
- Fixed Benches
- Potting Benches
- Retractable Hose Reel
- Sliding Plant Hanger
- Shelves
- Fixed Shades
- Thermostats

Seeds/Propagate/Vegetables

- Circulation Fans
- Heater
- Evaporative Cooler
- Fixed Benches
- Potting Benches
- Raised Seedling Benches
- Retractable Hose Reel
- Grow Lights
- Trellis
- Heat Mats
- Thermostats

Orchids

- Circulation Fans
- Heater
- Evaporative Cooler
- Humidifier
- Fixed Benches
- Gravel Benches
- Drip System
- Retractable Hose Reel
- Fixed Tube Plant Hanger
- Control System



Palms

- Circulation Fans
- Heater
- Evaporative Cooler
- Humidifier
- Drip System
- Retractable Hose Reel
- Shades
- Control System

Tropical

- Circulation Fans
- Heater
- Evaporative Cooler
- Humidifier
- Fixed Benches
- Retractable Hose Reel
- Sliding Plant Hanger
- Grow Lights
- Trellis
- Control System

Beginner Greenhouse

- Circulating Fans
- Heater
- Evaporative Cooler
- Standard Benches
- Thermostats

For a complete list of accessories, visit solarinnovations.com



Solar Innovations® is a single source provider of:

- Folding Glass Walls
- Stacking Glass Walls
- Sliding Glass Doors
- Clear Glass Walls
- Terrace & French Doors
- Pivot & Dutch Doors
- Greenhouses
- Conservatories
- Impact Certified Products
- Pool & Spa Enclosures
- Wood Curtain Walls
- Aluminum Curtain Walls
- Sunrooms
- Skylights
- Operable Skylights
- Retractable Roofs
- Walkways
- Canopies
- Window Systems
- Lift Slide Doors
- Tilt Turn
- Tilt Slide
- Universal® Clamps
- IRT Fishing Reels



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