


**POLAR SHADES™**  
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**MOTORIZED  
SHADES**

**RETRACTABLE  
AWNINGS**

**INTERIOR  
SUN SHADES**

**PATIO  
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## RETRACTABLE AWNINGS >>> TECHNICAL INFO

Below you will find additional information about our Polar Shade Select Awnings to help you learn more about the amazing quality of our product.

### RETRACTABLE ARMS

The Arms are the heart of a retractable awning system. The strength of the arms dictates performance of the unit. The arms transfer tension from internal springs to the front bar creating a tight fabric and high performance product. Eclipse Awnings work with A.B.T. (Advanced Belt Technology). Our arms combine extruded aluminum and injection cast aluminum where appropriate. The cast and extruded pieces are coated with epoxy and then hydraulically pressed together for years of safe, carefree operation. Final arm assembly is done with robotics to provide optimum quality and consistency. Because equal arm tension is the deciding factor, Eclipse arms are computer matched in pairs to ensure equal tension, perfect fabric fit and no fabric sag.

### ADVANCED BELT TECHNOLOGY (A.B.T.)

Most systems use exposed single or double cables and/or chains. NOT ECLIPSE! Our belt is made up of nine stainless steel cables totally sealed in a poly carbon UV resistant PVC coating. This state of the art tensioning system creates more stability at the front bar resulting in a high performance awning. The A.B.T. system also guarantees a long life for your arm. While cables have been tested to 5,000 cycles (a cycle is one time in and out) and chains have been tested to 8,000 cycles, the A.B.T. system has been tested to an amazing 60,000 cycles. What this means to you, is simply the best looking and best performing retractable awning available.

### INSTALLATION BRACKETS AND FRAME CASTINGS

Our castings are done with an injection molded process. They are then treated and finished with Eclipse's unique powder coating process. The key to a solid installation application is the distance between the lag bolts which attach the brackets to the wall. Our installation brackets maximize the distance between the lag bolts while still maintaining a compact design.

### FRAME FINISH

First, a chemical-mechanical surface erosion treatment is performed on every component (this provides the perfect texture for the application of paint). Next, an antioxidant primer is applied. Finally, your frame is finished with our unique computer controlled powder coating process. Unlike other systems, the Eclipse retractable arms are coated after they have been assembled. This ensures that no seam or joint is unfinished and the entire arm is of uniform tone.

### TORSION BAR

The 40mm steel square bar is the shock absorber for your retractable awning. The torsion bar flexes with the movement of the awning. The large perimeter dimension of the torsion bar provides for the supremely strong foundation, that's why we expand to a 50mm torsion bar on all 13 ft projections. The torsion bar is galvanized and powder coated. An aluminum torsion bar is available for ocean side installations.

### FRONT BAR

The front bar is where the fabric is connected to the frame at the front portion of the awning. The valance also connects to the front bar and hangs freely in a decorative manner. As in the previously mentioned components, strength is key in the front bar extrusion. Our front bar has a very large perimeter for added strength. Engineers often refer to this as the "I factor", similar in concept to an I-beam. Think of roof or floor construction where 2 x 12 boards are

used (not 4 x 4) because of the strength the 12 inch perimeter lends. This added strength keeps your front bar from bending and combines with a strong roller tube for a great looking and great performing awning.

### **ROLLER TUBE**

Our high quality roller tube is made from cold rolled steel and galvanized inside and out. It has a 78mm diameter and a 1.25mm wall thickness for optimum strength.

### **HOOD**

The optional Eclipse hood provides for year round protection from the elements and gives the unit a finished, clean look. Our hood is made from extruded aluminum for strength and durability, it is powder coated to match the frame.

### **MOTORS**

We feature several optional motor packages. Polar Shades Eclipse awnings are powered by Somfy motors and electronics. With a touch of a button your awning extends and retracts, it's that simple. More new age features include: a wind sensor to bring your awning in when the wind reaches excessive levels and various remote control options. Somfy motor products carry a 5 year warranty.

### **FABRIC**

Polar Shades has you covered with solution dyed acrylic fabrics from Sunbrella. The acrylic fibers are impregnated with color to prevent fading for years. Since the fabric is not an organic matter, it is also resistant to mold and mildew. Sunbrella fabrics carry a 5 year warranty against fading, rotting, mold and mildew.

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