

# INFUSIONS® Lay-in Panels

## Cutting Instructions

### 1. GENERAL INFORMATION

The following cutting recommendations are for Infusions Lay-in panels.

These instructions relate to cutting Infusions Lay-in panels for border and perimeter treatments as well as for penetrations or cutouts on the interior of the panel. For penetrations such as for sprinklers, it is recommended to use an escutcheon plate to hide any rough cut edges. Any fixtures used in or adjacent to field-cut Infusions Lay-in panels must be independently supported.

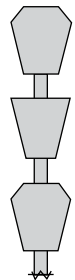
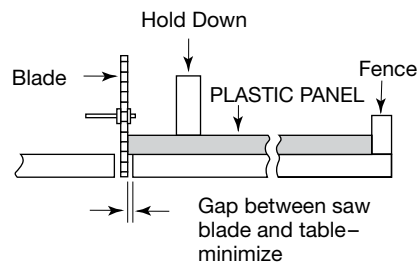
There is potential for some limited natural deflection of Infusions Lay-in panels when laying in standard grid systems. If slight deflection is present and visually objectionable, clips may be applied to the grid near panel corners.

PLEASE NOTE: These instructions do not apply to Infusions Accent Canopies, which should never be cut or drilled.

### 2. RECOMMENDED CUTTING METHODS

#### 2.1 Circular Saws

A circular saw blade with carbide teeth utilizing the “triple chip” tooth design is the preferred method of cutting these panels. Table or overhead panel saws are normally used. Circular saws should be run in the speed range of 6000 – 8000 ft/min. Blades for cutting 3/32” and thicker material should have 3 – 5 teeth per inch. The hook or rake angle should be 10° – 15°. When sawing thin-gauge plastic sheet, it is important to have a good supporting edge on the saw table with minimal gap between the saw blade and table supporting edge. Be sure tabletops are smooth and free from projections that might scratch or mar the sheet.



#### 2.2 Circular Saw Troubleshooting

##### PROBLEM: Melting or Gummed Edges

##### SUGGESTED SOLUTIONS:

1. Increase blade tooth size
2. Reduce saw speed
3. Increase feed rate
4. Use air to cool blade
5. Use blade lubricant compatible with polycarbonate sheet
6. Inspect blade for sharpness
7. Check blade-fence alignment
8. Reduce number of panels in stack

##### PROBLEM: Chipping

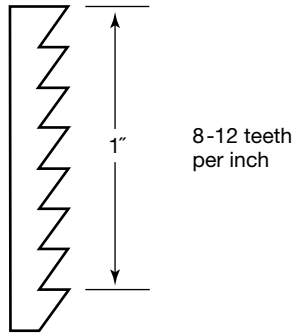
##### SUGGESTED SOLUTIONS:

1. Decrease blade tooth size
2. Increase saw size
3. Provide better clamping and/or support for sheet stack
4. Reduce feed rate
5. Check blade and arbor for wobble
6. Inspect blade for sharpness

## 2.3 Band Saws

Band saws are useful for trimming panels or irregular shapes. Band saws should be run at 2500 – 3000 ft/min and have 8-12 teeth per inch. Proper support of the part to be trimmed is important because vibration may induce cracking if the cut is not smooth. Sanding the edge smooth after cutting is recommended.

## 2.4 Band Saw Troubleshooting



**Band Saw Blade Design**

### PROBLEM: Melting or Gummed Edges

#### SUGGESTED SOLUTIONS:

1. Increase tooth size
2. Reduce saw speed
3. Use air to cool blade
4. Check blade sharpness

### PROBLEM: Chipping

#### SUGGESTED SOLUTIONS:

1. Decrease tooth size
2. Slow down stock feed rate
3. Provide better clamping and/or support to eliminate vibration
4. Check blade sharpness

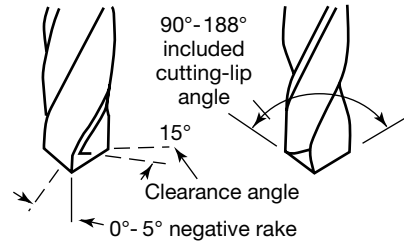
## 2.5 Drilling

The Infusions Lay-in panels are easily drilled using ordinary high-speed steel drill bits.

Regulate pressure and speed until a continuous spiraling chip is observed. Use air as a coolant if required. Using cutting oils may cause crazing. Be extremely careful if using taps or self-tapping screws; tapping creates notches that can result in stress cracks because the Infusions panels are made of a notch sensitive material, like most clear plastics. Recommended drill speed is 350 – 1750 rpm.

## 2.6 Sanding

The Infusions Lay-in panels can be sanded using typical dry techniques.



**Drill Bit Design**

The panels can be buffed using a 2-wheel system. The first wheel uses a buffing compound to remove shallow scratches. The second buffing wheel is used for restoring the gloss.

## 3.0 CLEANING AND HANDLING

Avoid wiping the panel surface with abrasive compounds of any type. Panels should be handled with clean gloves/hands to avoid fingerprints. Lightly dust with a duster or soft, clean cloth first. A soft sponge slightly damp with lukewarm water and neutral detergent may then be used, taking into account the important note below about avoiding panel edges. Never use razor blades, scrapers, squeegees, brushes, etc.

**CAUTION:** Do not allow panel edges to get wet when cleaning the panel surface. This would damage the panel and void the product warranty.

## MORE INFORMATION

For more information, or for an Armstrong representative, call 1 877 ARMSTRONG.

For complete technical information, detail drawings, CAD design assistance, installation information and many other technical services, call TechLine™ services at 1 877 ARMSTRONG or FAX 1 800 572 TECH.

For the latest product selection and specification data, visit [armstrong.com/infusions](http://armstrong.com/infusions).

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LA-297176 -1010

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