



■ TG -Truspacer Insulating glass production manual:

1. Production process introduction:



TG – (A&P)



Start Application of Spacer



Cut Spacer



Heat and compression of IG assembly



Heated roller press will compress the IGU.



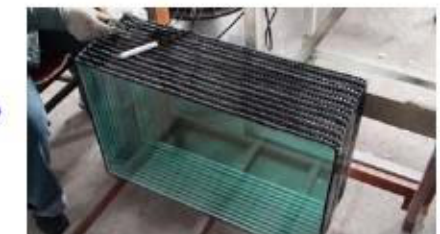
Top applied lite



Exit heated roller press



Rack IG units and allow cooling.

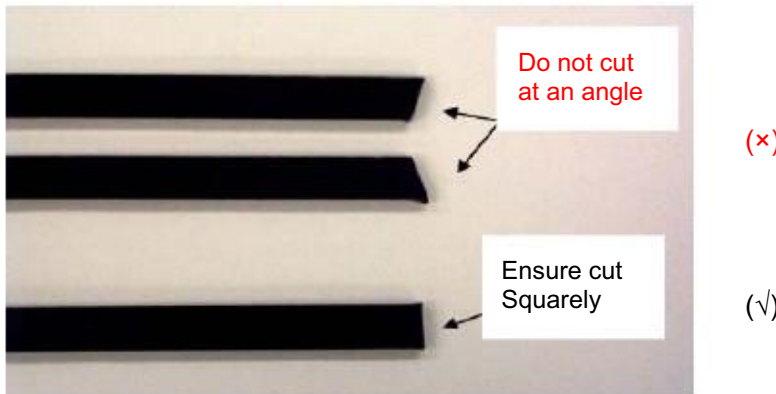


Heat final corner and seal IG units

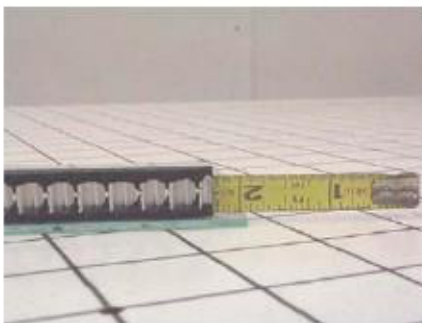
2. Truspacer Application Process.

2.1 Sealing Spacer Cutting:

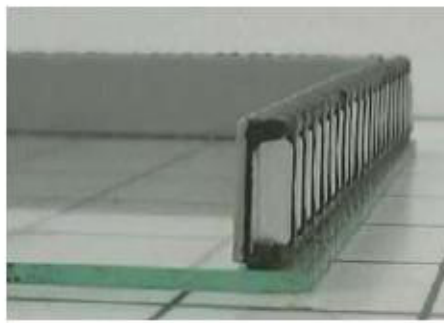
Ensure that the spacer has a squarely cut end at all time. This will facilitate the final corner sealing operation and thus promote good IG unit seal quality, see below figure:



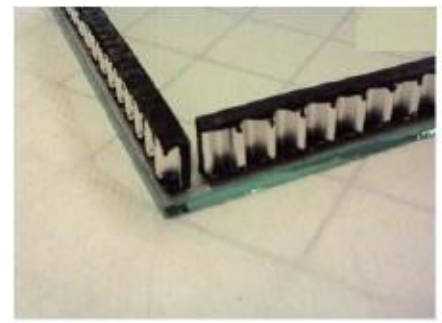
2.2 Start the TG-Truspacer application about 6.5 mm from the edge of the glass and run the application 3mm in, from the edges of the glass along the first side. Ensure the spacer is applied 90° to the glass surface and avoid finger contact with the glass surface and the bonding or sealing surface of the spacer. At the first continues corner fold the spacer and pinch to form the corner and apply the corner with a 1.5-3mm inset from the edge of the glass, and repeat the spacer application and run to the next corner. Repeat the application, run and corner on the third side. On the fourth side repeat the application and run and flare the tail of the application off to leave 0.8-1.5mm gap at the 4th corner to allow venting during compression of the unit.



Start point of Spacer application should be 6.5mm from glass edge.



Ensure that spacer is applied 90° to the glass surface.



Ensure that there is a gap of 0.8-1.5mm at the 4th corner for air out.



Cut the spacer align to the start point and leave a gap of 0.8-1.5mm for air out

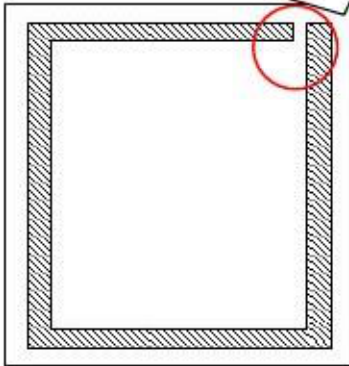


Figure 1 (✓)

Inclined pasted is incorrect

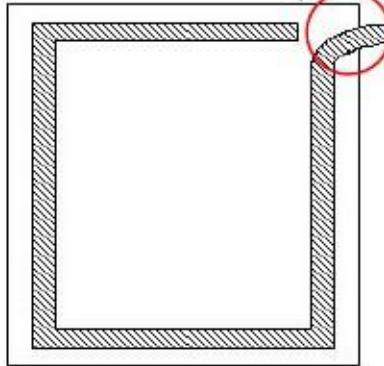


Figure 2 (✗)

The end reserved too long is incorrect.

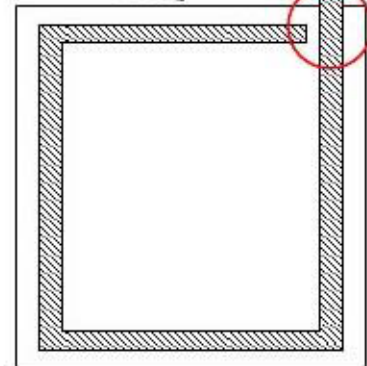


Figure 3 (✗)

2.3 Place the heated allows to cool to plant temperature
After heated pressing, all IG units should be handled on 90° racks for at least one hour cooling with the 4th corner on top.

2.3.1 Once the units have cooled to plant temperature and are not to be Argon filled, reheat the final corner seal area with a heat lamp or hot air blower(temperature approximately 50 °c .) and using a plastic corner sealing block, press the applied tail of the application in to the starting end of the application. Ensure the inside edge of the Truspacer application start point is fully bonded to the top coat of the tail and the application.

this operation is **incorrect**, see Figure 5:

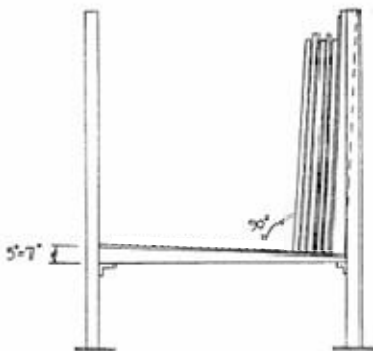


Figure 4 cooling on racks

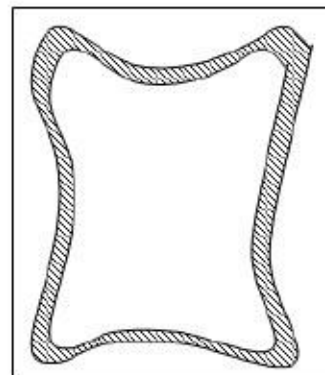
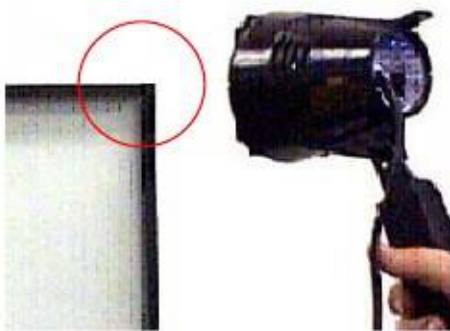


Figure 5 Sealing spacer will be out of shape if no cooling ✗

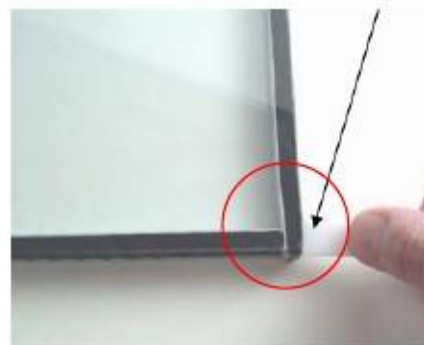
TG



2.4 Final Corner seal procedure:



Reheat the 4th corner



Final corner seals

2.4.4 When completed sealing, the correct sealing effect should be as shown in Figure below:

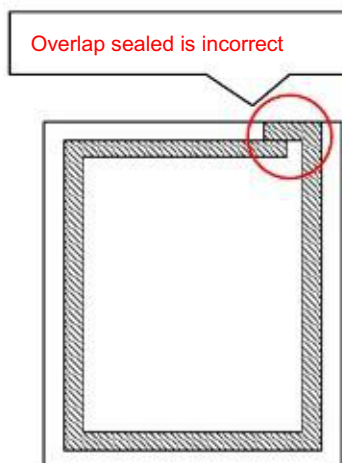


Figure 6 (×)

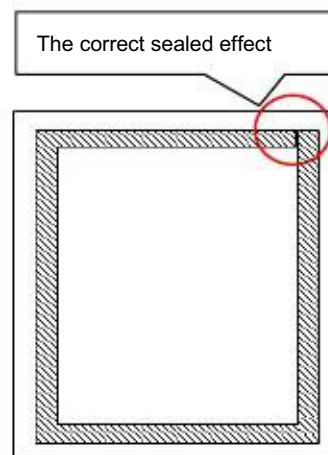


Figure 7 (✓)



3. Insulating glass seals and installation notes:

3.1 Insulating glass seals:

3.1.1 Secondary seals:

Aim: To prevent the large size glass “warp” or “dislocation” during the storage, transportation, and installation.

When insulating glass dimensions $\geq 2.5 \text{ m}^2$ ($1500\text{mm} \times 1800\text{mm}$), the four corners of the insulating Glass and the middle of two long sides, total six points need secondary seals. As shown in Figure 10: when insulating glass dimensions $\geq 2.7 \text{ m}^2$ ($1500\text{mm} \times 2000\text{mm}$), the full short sides with all corners and the middle of two long sides need secondary seals. As shown in Figure 11:

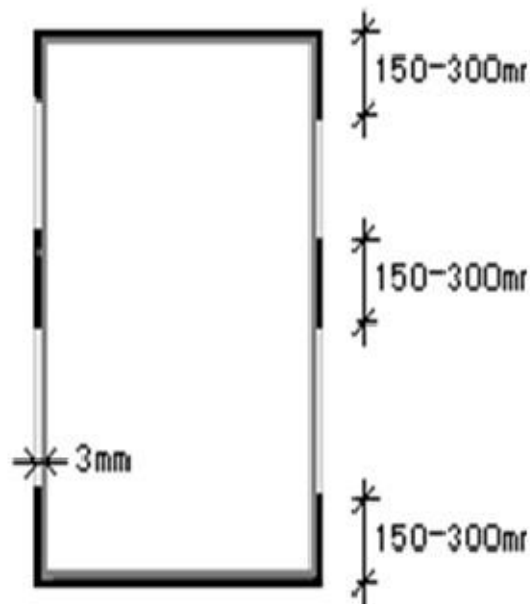


Figure 8 Up and down & left and right secondary seals



3.1.2 Secondary seals application

- The sealant thickness of secondary seals shall be 3.5 mm or more.
- The polysulfide rubber is used for secondary seals need to be compatible with spacer material. before application.

3.2 Sealing between the insulating glass and window frames:

After the sealant was fully cured, the original volume of sealant may shrink, so it will cause the tape to be pulled, finally lead the sealing of insulating glass failure, so to prevent this happen, please pay attention as following several points when install the insulating glass:

3.2.1 Advise without the sealant, use EPDM sealing strip only, one side or both sides are OK, see Figure 12:

3.2.2 Only one side use sealant, the other side use EPDM sealing strip, to prevent the sealing spacer pulled it's correct, see Figure 13:

3.2.3 If both sides use sealant, the sealing spacer will be pulled, it's **incorrect**, see Figure 14:

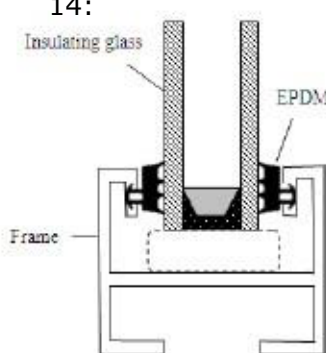


Figure 9 (✓)
Use EPDM sealing strip only

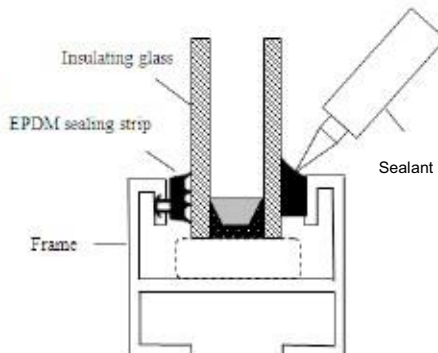


Figure 10 (✓)
One side EPDM one side sealant

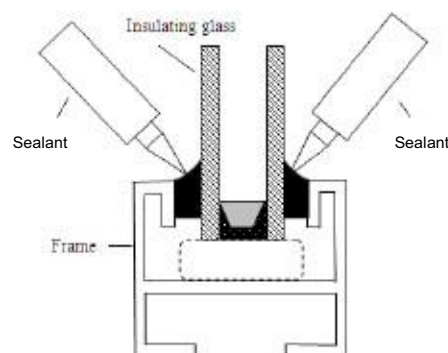


Figure 11 (✗)
Both sides use sealant are incorrect

3.3 Insulating glass installation notes:

When install the insulating glass to doors and Windows, ensure the final sealed corner on top of the doors and windows, in order to prevent the glass damages due to the extrusion of frame materials, and the drainage holes, groove of the doors and windows must be clear, ensure there is no water in the frames of doors and windows.