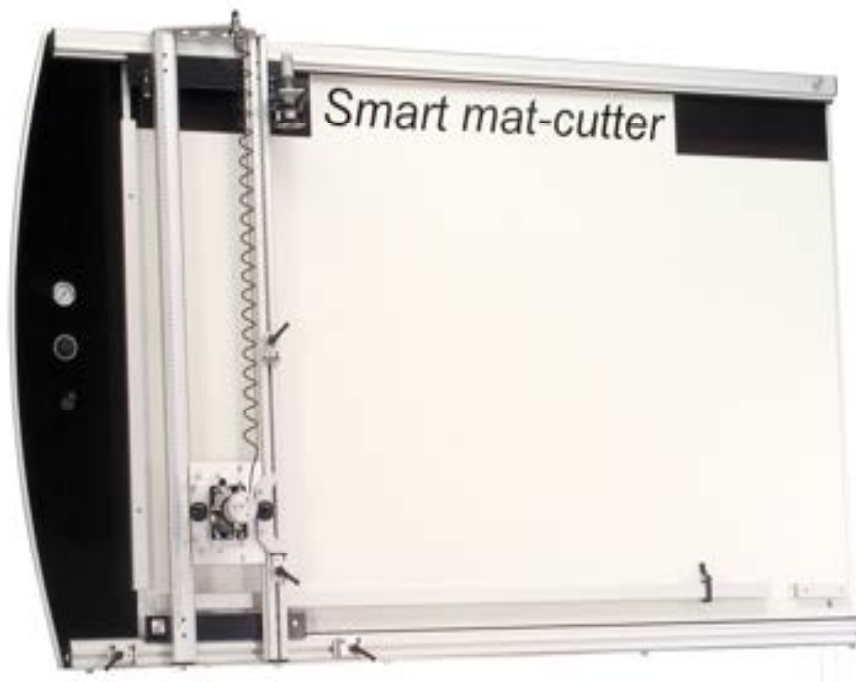


Manual Smart pneumatic mat cutter

Version 1.0



Model

SM 4048	100 X 120 cm
SM 4060	100 X 150 cm
SM 4863	120 X 160 cm
SM 4872	120 X 180 cm

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1.0 Just for start/Nur für den Anfang/Pour partir du pied



Remove transport block



Install knob



Remove transport nut



Install handle



Install measuring stop sizer



Install connection pneumatic knifehead



Connect 4 mm crulled tube

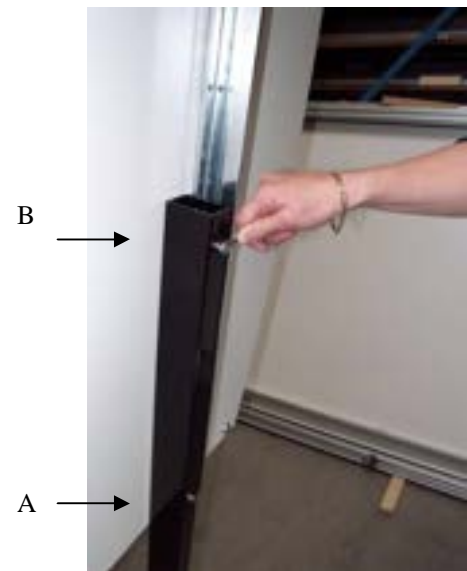


Connect 6 mm air tube on top

1.1 Installing floorstands (option)



Used hexagonal screws and rings



Position of screws





Install backingboard

Important

Always put extra sheet matboard behind the matboard.



Connect air tube behind the backing board



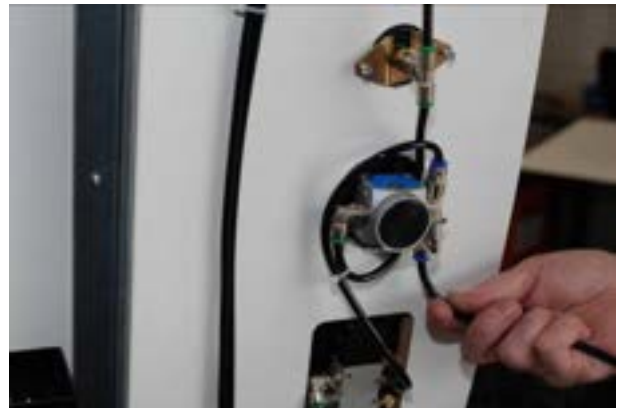
Insert knife head onto the carriage plate.



Use handles to lock knifehead



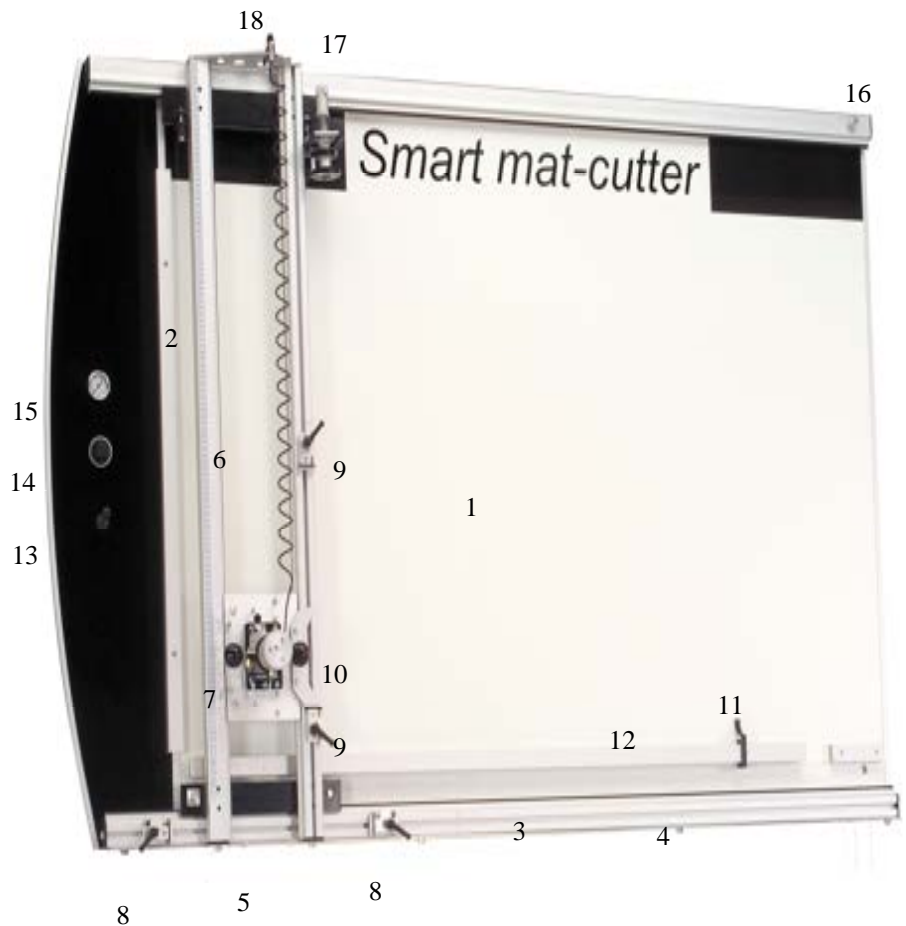
Use airconnector to connect knifehead.



Connect compressed air, 6 Bar.

2.0 Overview Smart mat-cutter

- 1 Baseboard.
- 2 Left hold down.
- 3 Bottom hold down.
- 4 Left / right rule.
- 5 Left / right rule pointer.
- 6 Top / bottom rule.
- 7 Top / bottom rule pointer.
- 8 Left / right adjustment stops.
- 9 Top / bottom adjustment stops.
- 10 Rectangle knifehead 45 or 60 degrees.
- 11 Measuring stop.
- 12 Sizer rule.
- 13 Clampsystem.
14. Regulator pneumatic
15. Manometer
16. Sizer stop.
17. option: 90 degrees knifehead matboard/glass
18. Connection pneumatic knifehead.

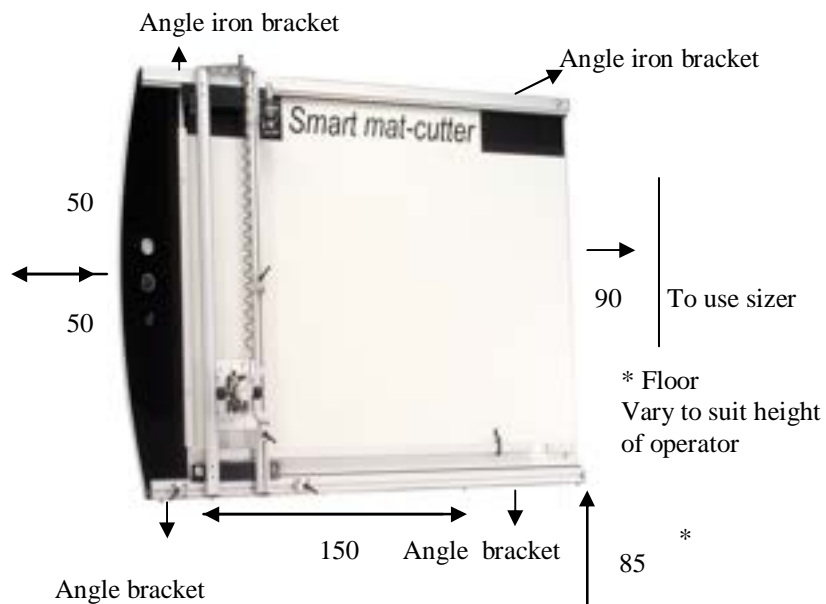


Model

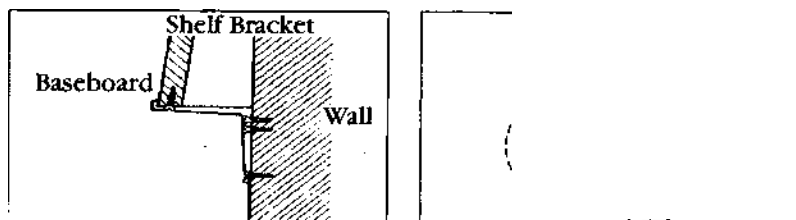
SM 4048	100 X 120 cm
SM 4060	100 X 150 cm
SM 4863	120 X 160 cm
SM 4872	120 X 180 cm

3.0 Baseboard installation

1. Allow for clearances shown in sketch.
2. Mount the shelf brackets on the wall, spaced 85 cm from the floor and 150 cm apart.
3. Place the baseboard on the shelf brackets. Install screws into bottom of baseboards.
4. Install angle bracket on top of baseboard.



Mounting Hardware

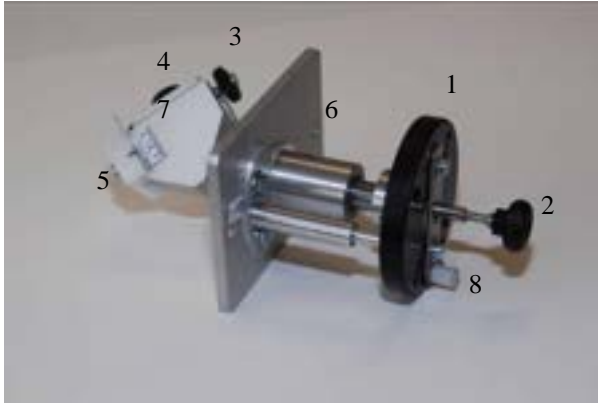


- 2 X shelf brackets 20 X 30 cm
- 2 X Angle brackets 7 X 35 cm

Floorstand available as option

4.0 Knifeheads

Knifehead 45 degrees manual



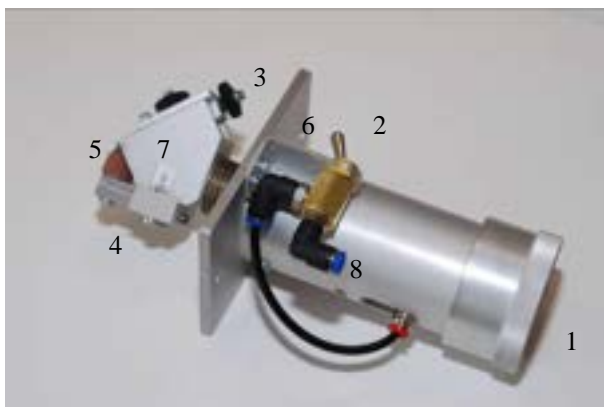
1. Index ring
2. Blade insert knob
3. Knife depth adjustment
4. Locknut knifeblade
5. Pressure foot
6. Angle adjustment
7. Thickness label
8. Knife release knob

Knifehead 45



1. Index ring
2. Air switch.
3. Knife depth adjustment.
4. Locknut knifeblade.
5. Pressure foot.
6. Angle adjustment
7. Thickness label

Knifehead 45 degrees pneumatic V - Groove



1. Index ring
2. Air switch .
3. Knife depth adjustment.
4. Bracket.
5. Rubber roller.
6. Angle adjustment
7. Position label
8. Air connection

Knifehead 45 degrees pneumatic/autorotate



1. Air switch.
2. Knife depth adjustment.
3. Locknut knifeblade.
4. Pressure foot.
5. Thickness label
6. Position Label

Knifehead 90 degrees manual



1. Index disk
3. Knife depth adjustment
4. Change blade
5. Pressure foot

Glass cutter manual



1. Index disk
4. Glass wheel (6 pcs)

5.0 Knife head installation



Insert knife head in carriage plate.



Lock knifehead



Use airconnector to connect air to knifehead



Set pressure knifehead on 6 bar with manual /pneumatic knifehead ,or pneumatic autorotate 3 bar.

6.0 Blade installation



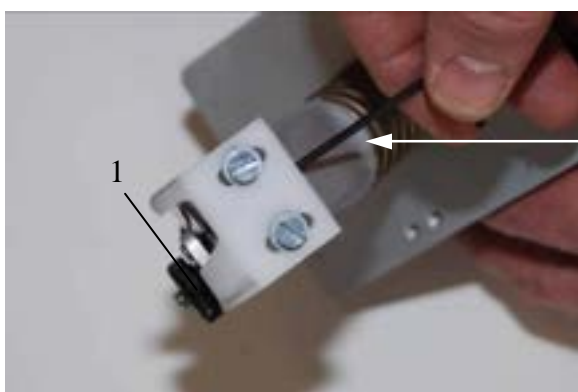
Release locknut



Place knife blade



Tighten locknut



2 mm ALLEN
WRENCH

1 The blade support screw keeps the blade stable during the cutting process.

The blade support screw must be adjusted to just touch the surface of the knife blade with the blade in the out position.

This adjustment must be checked when the pressure foot position is changed.

7.0 Adjusting borders

Adjusting left and bottom borders

Adjust the left border.

To adjust the left border lock vertical assembly in position with two stops.

Release screws left/right ruler and align pointer to the correct setting.



Adjust the bottom border.

To adjust the bottom border lock the carriage in position with two stops.

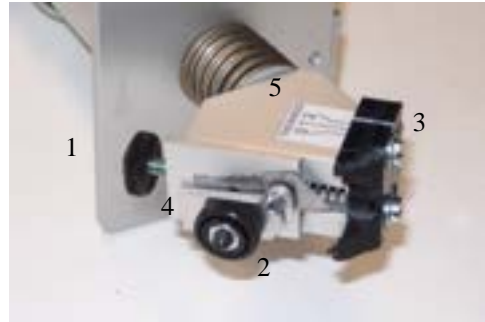
Release screws top /bottom ruler and align pointer to the correct setting.



The top and right border are not adjustable. These borders depend on the correct outside dimensions of the matboard.

7.1 Adjusting knife depth and mat thickness

1. Knife depth adjustment
2. Change blade
3. Pressure foot
4. Blade clamp
5. Mat thickness gauge

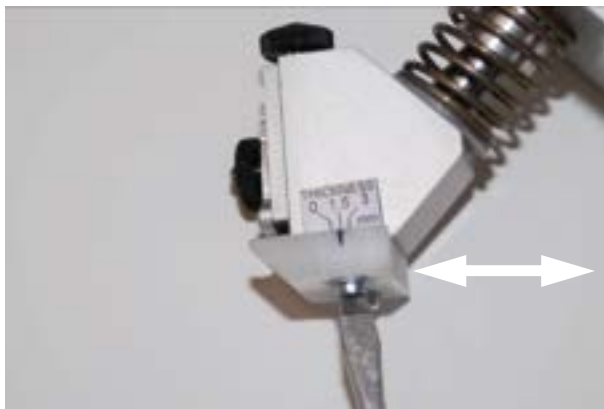


1. Set blade for exactly one mat thickness
2. Cut a mat.
3. If mat is not complete cut through, back off knife depth screw in 1/4 turn steps until mat cuts trough.

For best results the blade must be set at the minimum depth required to cut thru.



Mat thickness adjustment



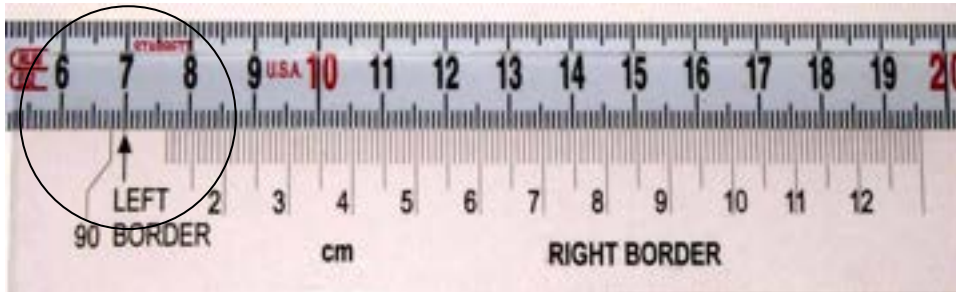
The pressure foot may be adjusted to obtain zero over cut in the corner of the mat. The foot is set on “1,5” for 4 ply mats and “3” for 8 ply mats.

Moving the foot towards the “0” decreases the over cut and increases the opening size.

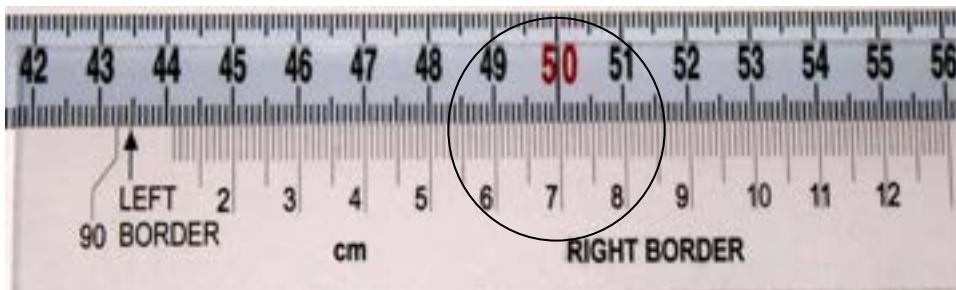
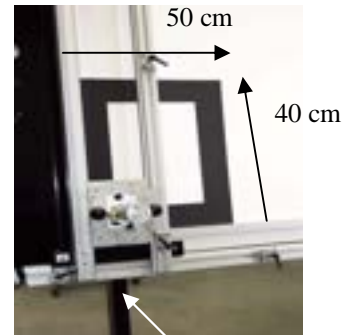
Moving the foot towards the “3mm” increases the over cut and decreases the opening size.

8.0 Settings rectangle mat dimensions

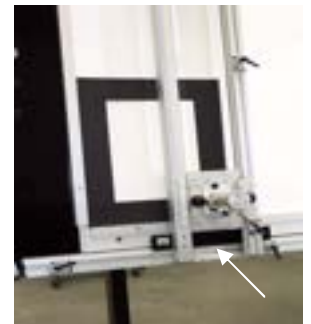
Sample mat: 50 cm width X 40 cm height
with 7 cm borders



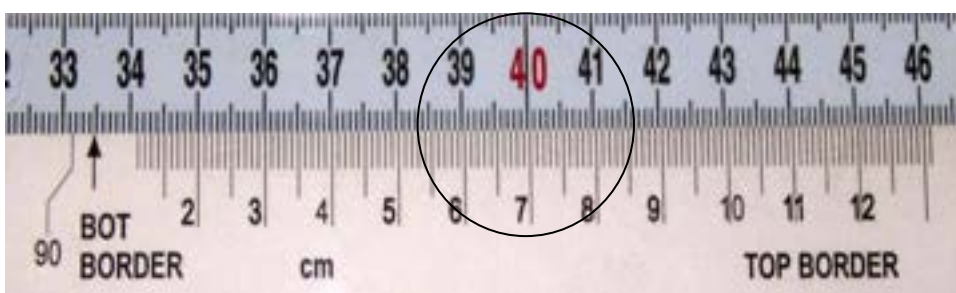
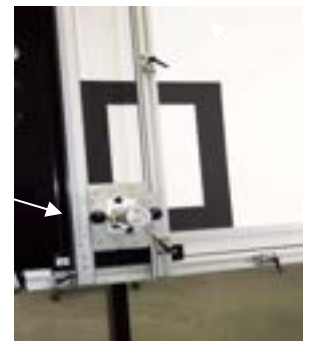
Left border: Align pointer with 7 cm.



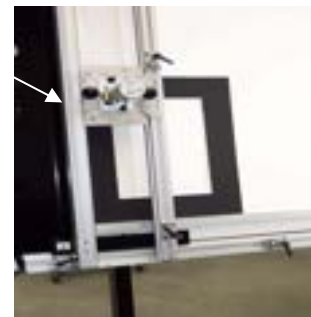
Right border: Align 7 cm with 50 cm.



Bottom border: Align pointer with 7 cm.



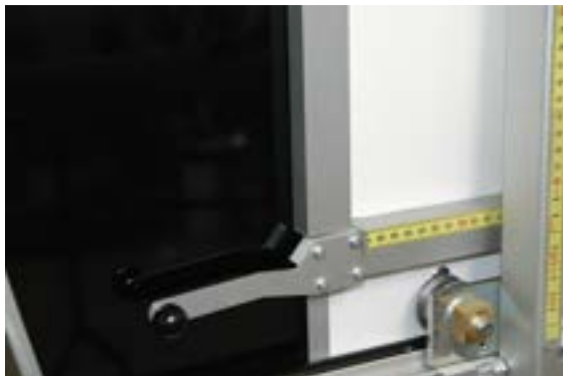
Top border: Align 7 cm with 40 cm.



9.0 Cutting the rectangle mat

Using clamp system to clamp board

Manual clamp system:



Clamp system open



Clamp system closed

Pneumatic clamp system



Clamp system closed



Clamp system open

How to operate the knifehead:

Knifehead manual/pneumatic



Raise, turn & lower knife head



Insert knife with pneumatic air switch.



Release knife with air switch.



Caution: Anticipate the end of the cut. Do not ram the stops.

Manual knifehead



To insert knife push knob



Push until the push rod locks.



Unlock knife by pushing white knob towards center.



Rotate knife by pulling index ring and rotate to the right

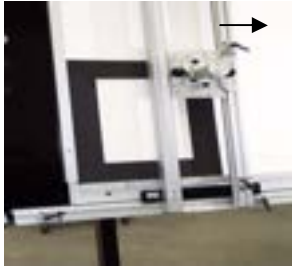
Knifehead 45 autorotate



Insert knife with pneumatic air switch



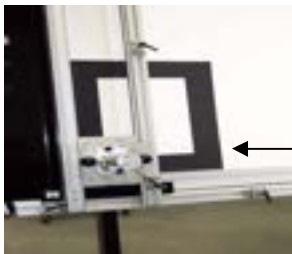
Switch must be switched until cut is made.



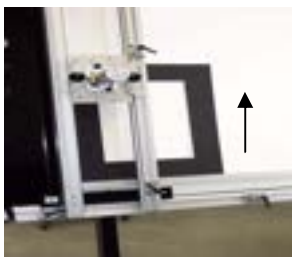
Cut top border.
(guide against top stop).



Cut right border.
(guide against right stop).



Cut bottom border.
(guide against bottom stop).



Cut right left border
(guide against left stop).



Cut left border.
(guide against left stop).

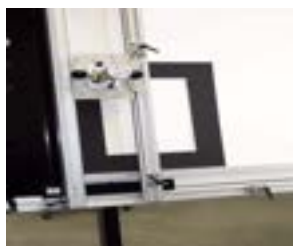
Relaes knife.
Raise head.
Lower carriage
Remove mat



10.0 Cutting the V-groove

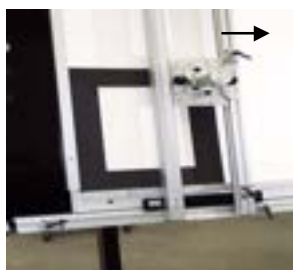


Set the knife dept adjustment



Place mat (face up) firmly in lower left against guides. Close clampsystem.

Start at upper left corner.
Hold carriage against left and top stop

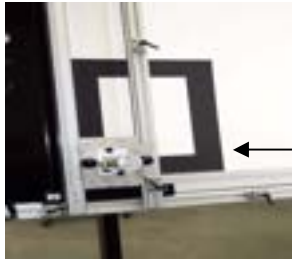


Cut top V- groove.
(guide against top stop).

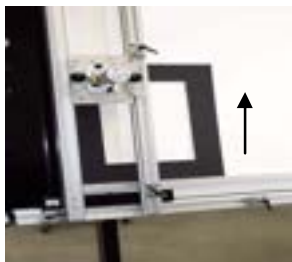


Cut right V- groove.
(guide against right stop).

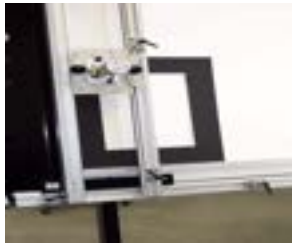




Cut bottom V-groove.
(guide against bottom stop).

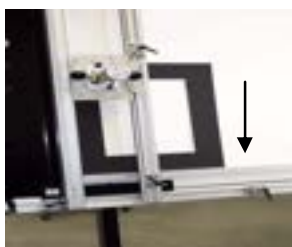


Cut left V-groove.
(guide against left stop).

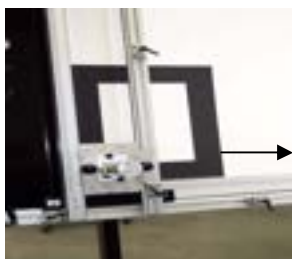


Relaes knife.
Raise head.
Turn head 180 degrees

Hold carriage against left and top stop.
Start at upper left corner



Cut left V-groove.
(guide against left stop).

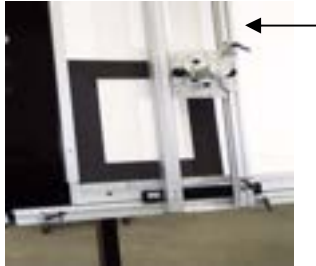


Cut bottom V-groove.
(guide against bottom stop).





Cut right V-groove.
(guide against right stop).



Cut top V- groove.
(guide against top stop).

Relaes knife.
Raise head.
Lower carriage
Remove mat



11.0 Stop spacers

The stop spacer is installed in the track opening.

The 3 positions give precise border spacings 3,6 & 9 mm.

Speciale stops 5 and 10 mm on request.



A



B



C



D

- A. Production stop/spacer = opening size
- B. Production stop/spacer 3 mm = opening size + 3 mm
- C. Production stop/spacer 6 mm = opening size + 6 mm
- D. Production stop/spacer 9 mm = opening size + 9 mm

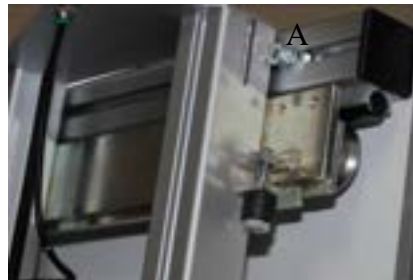
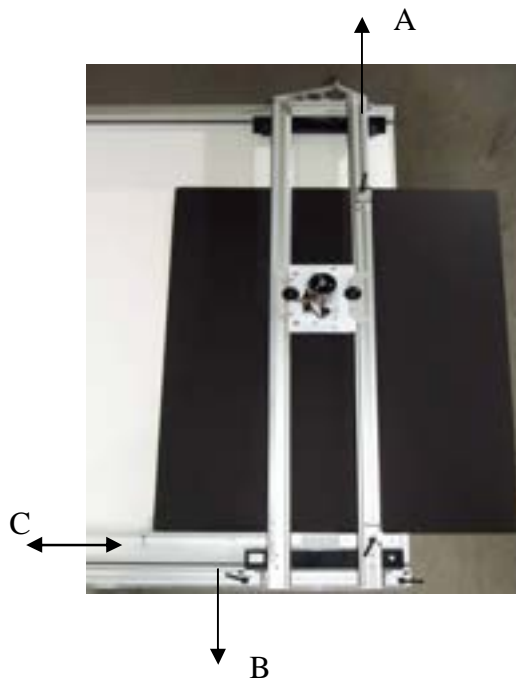
12.0 Sizer matboard

Smart mat-cutter is with included matboard sizer.

It is possible to cut matboard with a standard 45/60 degrees knifehead.

Also there is an option for a 90 degrees matboard/glass knifehead.

The sizer is for normal standard matboard till approx 2 mm.



Move carriage to stop (A) on the right top of the machine .

Move left production stop/spacer to carriage (B).

Install measuring stop (C).



Measuring stop



Align matboard to the measuring stop

Cutting matboard.

Cut matboard from top to bottom with 45/60/90 degrees knifehead or with pneumatic clamp system.

Cutting glass

Score glass from top to bottom and move than glass to the right and break it on the left size of the Smart machine.

Do not use pneumatic clampsystem.

13.0 Vertical assembly squareness adjustment

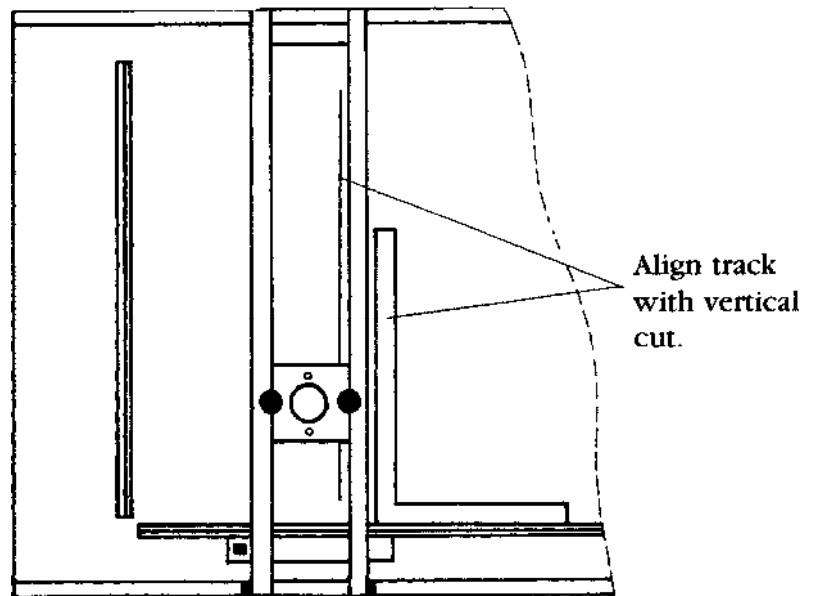
Check squareness of gantry,
line is draw non backboard.

Lock vertical assembly in
position with one stop.

To check move knifehead
along line.

1. Lock vertical assembly in
position with two stops.
2. Make a light vertical
cut on a clean backing
sheet .
3. Check cut with square.

To adjust vertical assembly
squareness, see:
Angel adjustment roller.



12.1 Angel adjustment

Turn angle adjustment roller
to get carriage square.

Make a light vertical cut and
check with square.



14.0 Smart 90 degrees knifehead



Mat thickness adjustment

With screwdriver you can adjust blade for correct thickness.