

# Milling & cutting Recommendation

## **VISCOM SIGN**

All information is provided to the best of our knowledge, but without obligation or liability.  
We recommend testing the goods for their suitability for the planned purpose to achieve best results.

### Cutting and milling

Tested by Andreas Harmuth CNC-Frästechnik  
with the machine type: Profi 3000-2.

**HARMUTH**  
CNC-FRÄSTECHNIK

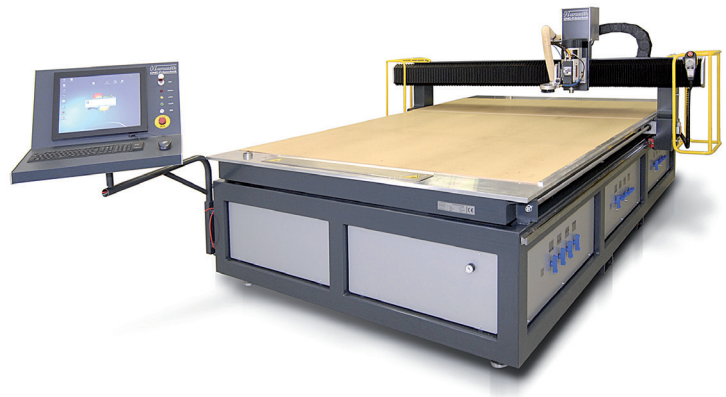
### Cutting with oscillating blade:

#### Option 1:

- Feed motion of 800 rpm against the feed
- Tool: 25 mm knife
- Infeed angle: - 3 Grad
- Cutting underlay: MDF

#### Option 2

- Feed motion of 1.900 rpm with the feed
- Tool: 10 mm knife
- Infeed angle: - 3 Grad
- Cutting underlay: MDF



### Contour milling EASYPRINT & SF:

- 20.000 rpm against the feed
- Feed motion of 2.000 mm/min\*
- Tool: 6 mm polished cutter with a 22 mm flute
- Cutting depth equal to material thickness
- Cutting underlay: MDF

### V-groove milling EASYPRINT:

- 15.000 rpm with the feed
- Feed motion of 2.000 mm/min
- Tool: V-groove-cutter
- Cutting depth: material thickness less ~1 mm
- Cutting underlay: MDF

\*2.000 mm/min recommended for optimal contours, but faster feed motions are generally possible.

### Cutting with oscillating blade:

Tested by Zünd Systemtechnik AG.

A detailed overview of the results can be found on the following pages.

You can find a video of the cutting tests at the link below:

<https://youtu.be/G4BXLEb7Xw4>

**ZÜND**  
swiss cutting systems





Material Name	EASYPRINT	EASYPRINT	EASYPRINT
Thickness	5.0	5.0	10.0
Cutter	G3-L2500	G3-L2500	G3-L2500
Module	UM-ZS	UM-ZS	UM-ZS
Tool	VCT	EOT 250	VCT
Knife / Bit Wheel / Punch	Z73	Z61	Z71
Speed	800.0	400.0	800.0
Glideshoe		Standard	
Accelleration Level	3	2	3
Z-lower	150.0	500.0	150.0
Cutting Underlay	Grey Conveyor Belt	Grey Conveyor Belt	Grey Conveyor Belt
Software	ZCC	ZCC	ZCC
Specifics	- Grooving angle 45 - Base depth -0.8 mm - V-Cut possible	- Knife compensation on - Base depth -1.2 mm	- Grooving angle 22.5 - Base depth -0.8 mm

Material Name	EASYPRINT	EASYPRINT	EASYPRINT
Thickness	10.0	10.0	19.0
Cutter	G3-L2500	G3-L2500	G3-L2500
Module	UM-ZS	UM-ZS	UM-ZS
Tool	VCT	EOT 250	EOT 250
Knife / Bit Wheel / Punch	Z71	Z61	Z68
Speed	800.0	400.0	400.0
Glideshoe		Standard	Standard
Accelleration Level	3	2	2
Z-lower	150.0	500.0	500.0
Cutting Underlay	Grey Conveyor Belt	Grey Conveyor Belt	Grey Conveyor Belt
Software	ZCC	ZCC	ZCC
Specifics	- Grooving angle 45 - Base depth -0.8 mm	- Knife compensation on - Base depth -1.2 mm	- Knife compensation on - Base depth -1.2 mm

Material Name	SF	SF	SF
Thickness	5.0	5.0	10.0
Cutter	G3-L2500	G3-L2500	G3-L2500
Module	UM-ZS	UM-ZS	UM-ZS
Tool	VCT	EOT 250	VCT
Knife / Bit Wheel / Punch	Z73	Z61	Z71
Speed	800.0	400.0	800.0
Glideshoe		Standard	
Accelleration Level	3	2	3
Z-lower	150.0	500.0	150.0
Cutting Underlay	Grey Conveyor Belt	Grey Conveyor Belt	Grey Conveyor Belt
Software	ZCC	ZCC	ZCC
Specifics	- Grooving angle 22.5 - Base depth -0.8 mm - V-Cut possible, fold with care	- Knife compensation on - Base depth -1.2 mm	- Grooving angle 22.5 - Base depth -0.8 mm

Material Name	SF	SF	SF
Thickness	10.0	10.0	19.0
Cutter	G3-L2500	G3-L2500	G3-L2500
Module	UM-ZS	UM-ZS	UM-ZS
Tool	VCT	EOT 250	EOT 250
Knife / Bit Wheel / Punch	Z71	Z61	Z68
Speed	800.0	400.0	400.0
Glideshoe		Standard	Standard
Accelleration Level	3	2	2
Z-lower	150.0	500.0	500.0
Cutting Underlay	Grey Conveyor Belt	Grey Conveyor Belt	Grey Conveyor Belt
Software	ZCC	ZCC	ZCC
Specifics	- Grooving angle 45 - Base depth -0.8 mm	- Knife compensation on - Base depth -1.2 mm	- Knife compensation on - Base depth -1.2 mm

### Cutting and milling

Tested by Esko-Graphics BV

Material Name	STADUR VISCOM
Material Thickness	10 - 19 mm
Esko category	Lightweight rigid foam board
Machine model	C / X / Edge/ Starter




The settings in this list are ESKO's recommendation settings for this material with a standard cutfile. Settings could vary depending on the geometry and details of the cut file.

You can find videos of the test runs here:  
[https://youtu.be/3fCFU\\_QznPo](https://youtu.be/3fCFU_QznPo) - cutting  
<https://youtu.be/5ztcnP9pHAw> - milling

Processing Type	Machine	Tool	Blade/Bit	Speed	Accel	RPM	Pass*
Milling	Kongsberg C Same for C-Edge, XP) (Milling Unit 3kW)	Milling Unit (HPMU 3kW)	BIT-AUS06-4012-50	20 m/min	25%	52000	1-2
			BIT-AUS06-4022-50	20 m/min	25%	52000	1-2
			BIT-AUS06-6012-50	20 m/min	25%	52000	1-2
			BIT-AUS06-6022-58	20 m/min	25%	52000	1-2
			BIT-AUS06-6032-64	20 m/min	25%	52000	1-2
	Kongsberg X Same for X-Edge, XL, XN (MultiCut head 3kW router)	Milling Unit (HPMU 3kW)	BIT-AUS06-4012-50	30 m/min	50%	52000	1-2
			BIT-AUS06-4022-50	30 m/min	50%	52000	1-2
			BIT-AUS06-6012-50	30 m/min	50%	52000	1-2
			BIT-AUS06-6022-58	30 m/min	50%	52000	1-2
	X Starter Same for Kongsberg VL and V table (MultiCut head 1kW router)	Milling Unit (HPMU 1kW)	BIT-AUS06-4012-50	30 m/min	50%	45000	1-2
			BIT-AUS06-4022-50	30 m/min	50%	45000	1-2
			BIT-AUS06-6012-50	30 m/min	50%	45000	1-2
BIT-AUS06-6022-58			30 m/min	50%	45000	1-2	

\*For milling: the number of passes depends on material type, thickness and bit diameter/blade thickness.  
 Use a pass depth that makes the groove free of chips, normally that is a depth equal to the cutting diameter of the bit you use.

Processing Type	Machine	Tool	Blade/Bit	Speed	Accel	Pass
Cutting standard	Kongsberg C Same for C-Edge, XP, XP Auto	HF VibraCut tool	BLD-SR6307	15 m/min	25%	1-2
			BLD-SR6310	15 m/min	25%	1-2
	Kongsberg X Same for X-Edge/ XL, XN (Insert tools for FlexiHead, MultiCut and PowerHead)	MP High Frequency Knife Tool	BLD-SR6307	20 m/min	30%	1-2
			BLD-SR6310	20 m/min	30%	1-2
	Kongsberg X Starter Same for Kongsberg VL and V table (Insert tools for FlexiHead & MultiCut)	MP High Frequency Knife Tool	BLD-SR6307	30 m/min	40%	1-2
			BLD-SR6310	30 m/min	40%	1-2

Processing Type	Machine	Tool	Blade/Bit	Speed	Accel	Pass	
V-notching, fold & beveled edges	Kongsberg C Same for C-Edge, XP, XP Auto	V-notch Knife 45° **	BLD-TZ511	50 m/min	50%	1	
		V-notch Knife 45° 10mm	BLD-TZ511	50 m/min	50%	1	
	Kongsberg X Same for X-Edge, XL, XN (With PowerHead)	V-notch Knife 45° **	BLD-TZ511	50 m/min	50%	1	
			V-notch Knife 45° 10mm	BLD-TZ511	50 m/min	50%	1
	Kongsberg X Same for X-Edge, XL, XN (V-notch Insert tools for FlexiHead/MultiCut)	V-notch Insert VI45 - 16 **	BLD-DF571 / BLD-DF572	50 m/min	50%	1	
			V-notch Insert VI45 - 10	BLD-DF561 / BLD-DF562	50 m/min	50%	1
			V-notch Insert VI30 - 16 **	BLD-DF571 / BLD-DF572	50 m/min	50%	1
	X Starter Same for Kongsberg VL and V table (V-notch Insert tools for FlexiHead and MultiCut toolhead)	V-notch Insert VI45 - 16 **	BLD-DF571 / BLD-DF572	30 m/min	100%	1	
			V-notch Insert VI45 - 10	BLD-DF561 / BLD-DF562	30 m/min	100%	1
			V-notch Insert VI30 - 16 **	BLD-DF571 / BLD-DF572	30 m/min	100%	1

\*\*The V-notch Knife 45° and V-notch Insert VI45-16 have a max cutting thickness of 16/17 mm, but V-notching in the 19mm thick material is possible, with good results.