SALES GUIDE

monoFab™ SRM-20

Shape your ideas with the next generation in compact milling machines.
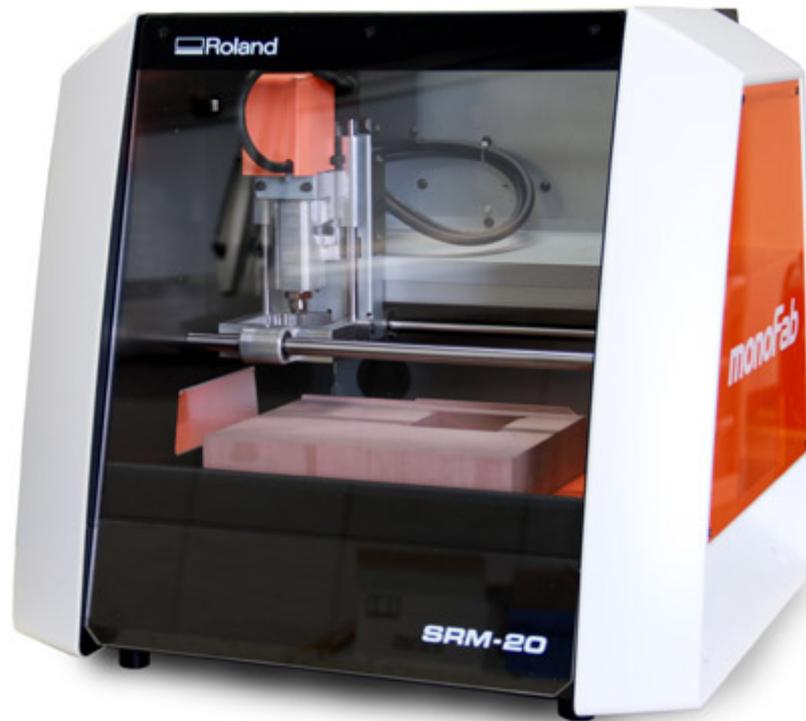
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Product Overview

US MSRP: $4,995
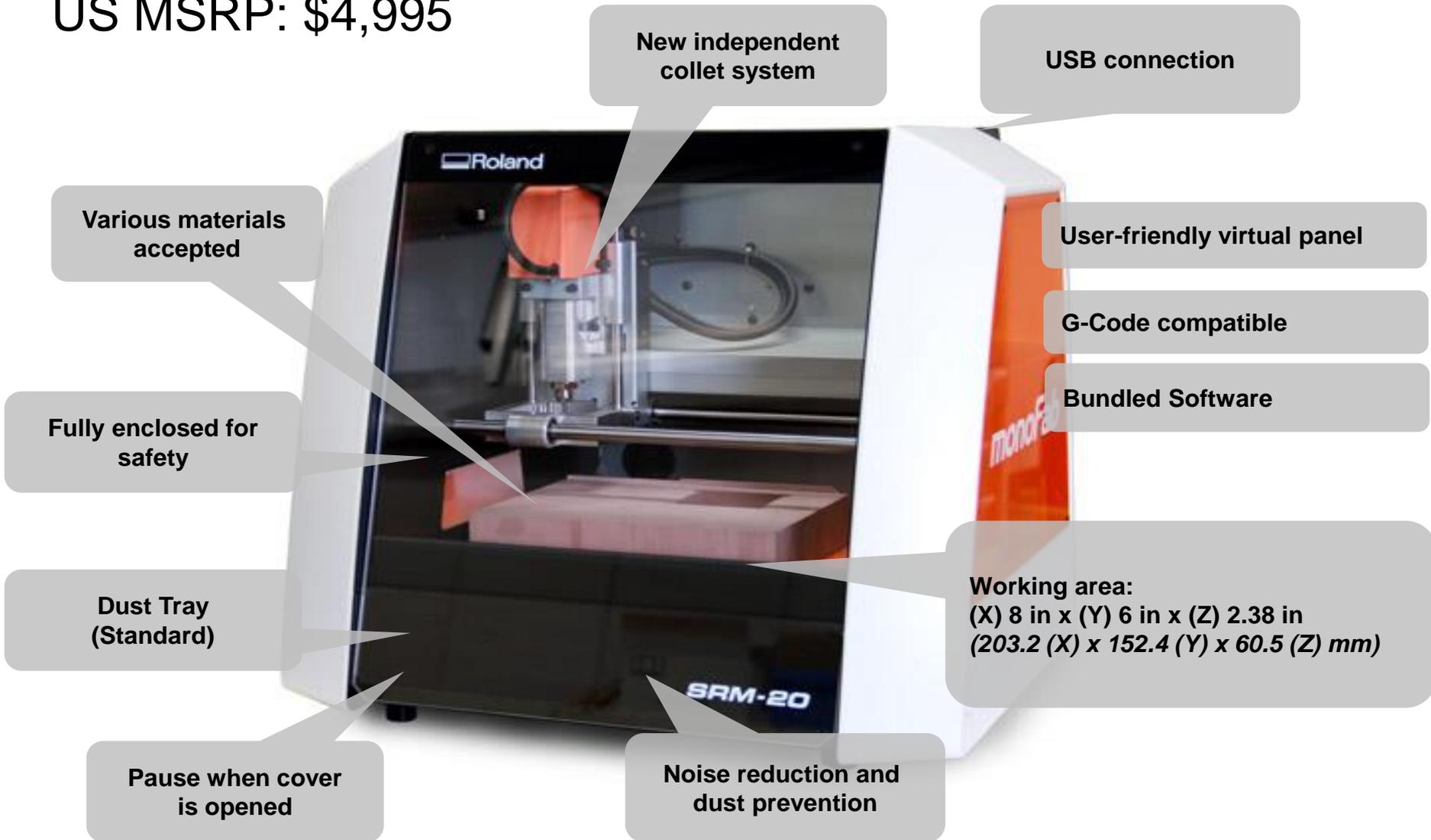
New independent collet system

USB connection

Various materials accepted

User-friendly virtual panel

G-Code compatible

Bundled Software

Fully enclosed for safety

Dust Tray (Standard)

Working area:
(X) 8 in x (Y) 6 in x (Z) 2.38 in
(203.2 (X) x 152.4 (Y) x 60.5 (Z) mm)

Pause when cover is opened

Noise reduction and dust prevention

Target Customer

Industry	Education, Engineering/Prototyping, Hobbyist/Maker, Manufacturing (fixtures, molds, etc)
Previous or Existing Model	MDX-15/20
Application	3D Modeling, 2D Engraving, Electronics board design, Prototyping

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Side By Side Comparison

	SRM-20	MDX-20
Work Area	8(X) x 6 (Y) x 2.38 (z) inch	8(X) x 6 (Y) x 2.38 (z) inch
Stepper Motor	Yes	Yes
Feed rate	30mm/sec	15mm/sec
Spindle	Adjustable 3000-7000 rpm	6500 rpm
Spindle type	DC motor Type 380	10W (DC motor)
Integrated Safety cover	Triggers Pause	Triggers Emergency Stop
Dust Drawer	Yes	No
External Dimensions	17.76 (W)x16.80 (D)x16.78 (H) inches	18-13/16"(W)x15-1/16" (D)x12-1/16"(H)
Weight	42.3 lbs.	30.2 lbs.
Power requirements	DC24V/AC adapter: (AC 100V±10%, 50/60Hz)	DC+19V/AC adapter: (AC 100V±10%, 50/60Hz)
Scan Head	No	Yes
Controller	VPanel for SRM-20	No
Interface	USB	Serial (RS232)
Command set	RML, NC Code	RML
Collet System	Independent	Integrated
Collet set	1/8", 6mm	1/8", 1/4", 3mm
Materials	Modeling Wax, Chemical Wood, Foam, Acrylic, Poly acetate, ABS, PC board	Modeling Wax, Chemical Wood, Foam, Acrylic, Poly acetate, ABS, PC board, Aluminum, Brass
Software	VPanel for SRM-20, MODELA Player 4, iModela Creator, ClickMILL, SFEdit2, Virtual Modela	MODELA Player, Modela 3D Design, Modela 3D Text, Virtual Modela, Dr.Engrave, 3D Engrave, Dr.Picza
Drivers	Windows 8,8.1, and 7 (32/64bit)	Windows XP, Vista and 7 (32/64bit)
MSRP	$4,995.00	$4,995.00
Warranty	1 Year	1 Year

Top Reasons to Buy

1 Improved Design

2 Improved Performance

3 Wide Range of Millable Materials

4 Variety of Software Included

5 G-Code Compatibility

6 Reliability & Service

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Improved Design
New Collet System

- Independent Collet System
  - Easier to set Z origin
  - Easier tool changes

Set screw to tighten tool in the collet, adjust length of tool, and set Z

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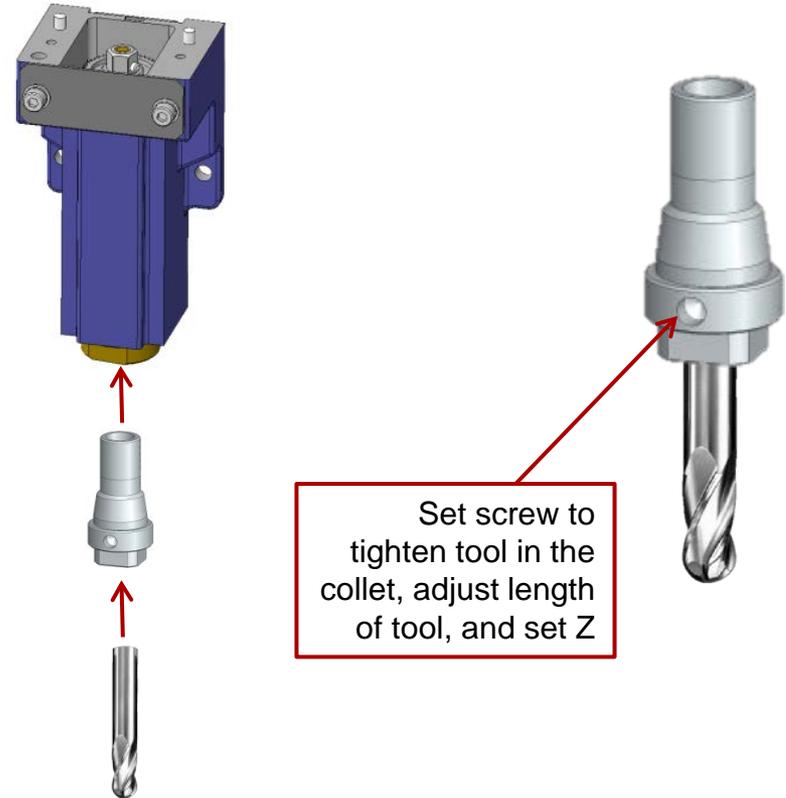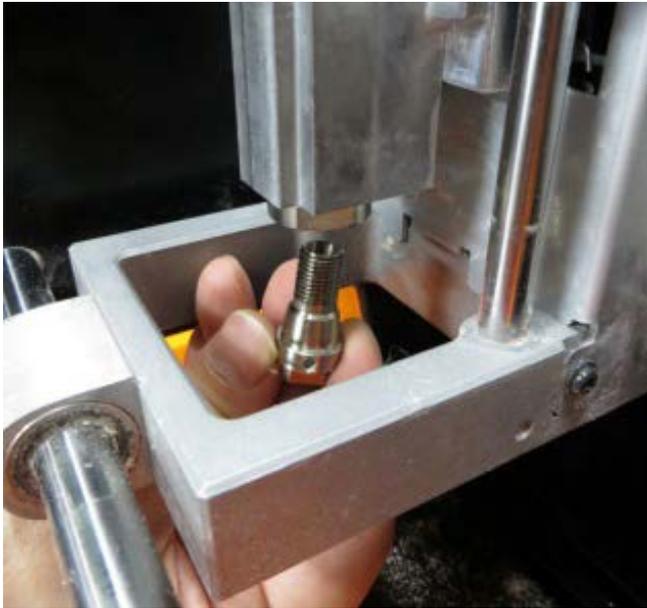
① Improved Design
Safety Features

- **Full Cover**
  - Machine does not work while the cover is open.
  - Milling will pause if the cover opens. Can be resumed from the VPanel.
  - Minimizes dust and reduces noise.

- **Dust Tray**
  - Keeps work area clean.
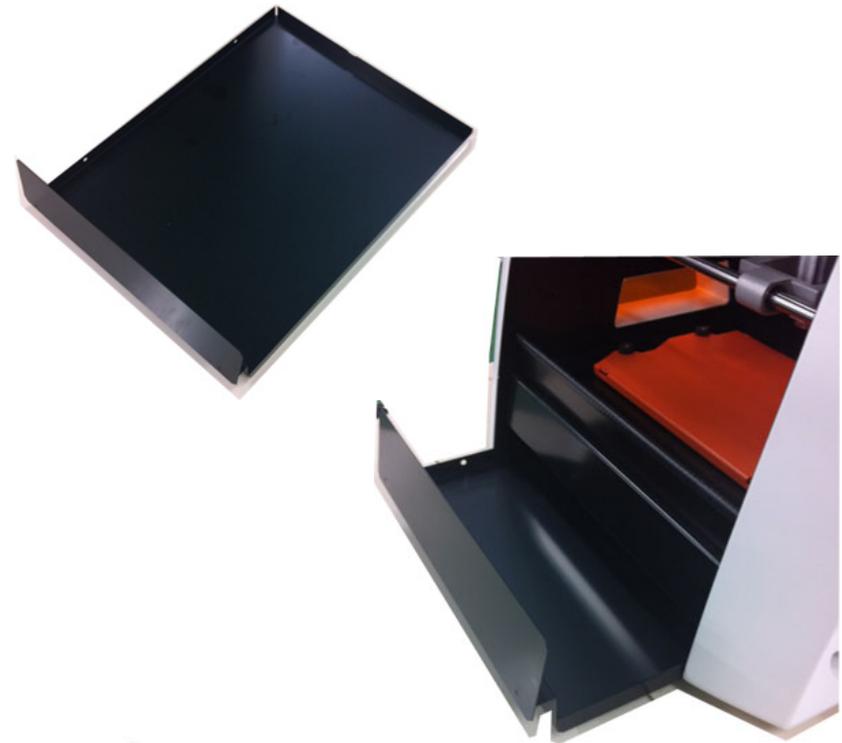
② Improved Performance

- Variable spindle rotation
    - Adjustable by VPanel
    - 3000 to 7000rpm

- Deeper maximum cut
    - Improved motor enables SRM-20 to withstand a heavier load, and cuts deeper in the same time as the MDX-20

- Improved throughput
    - Max operating speed is 30mm/sec (double compared to MDX-20)
    - Higher acceleration of XYZ movement

SRM-20

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③ Wide Range of Millable Materials

- Chemical Wood
- Modeling Wax
- Styrofoam
- Acrylic
- Delrin
- ABS
- PC Board
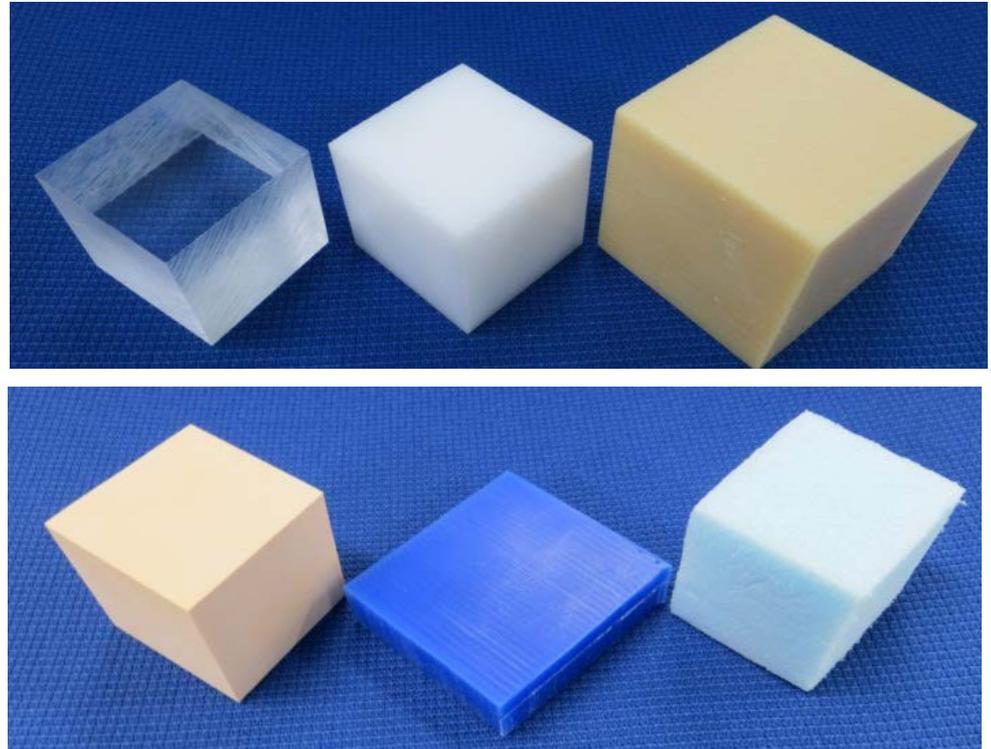
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4 Variety of Software Included

Download only

All available through Roland OnSupport

- Windows Driver
  - Windows 7, 8 and 8.1 (32/64bit)
- VPanel for SRM-20
  - Controller
- MODELA Player 4
  - CAM
- iModela Creator
  - 2.5D engraving
- ClickMILL
  - Simple milling

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4 Software Included
SRM-20 VPanel

Roland VPanel for SRM-20

VPanel for SRM-20 RML-1

User and Machine Coordinates

Set Origin Point Controls

Jog Tool Controls

Cutting Overrides

Manual Spindle control

Quick Move Tool Options

Cut Window
(For dropping in RML or NC cut files)

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Software Included
MODELA Player 4

Change model view from wire frame to solid view
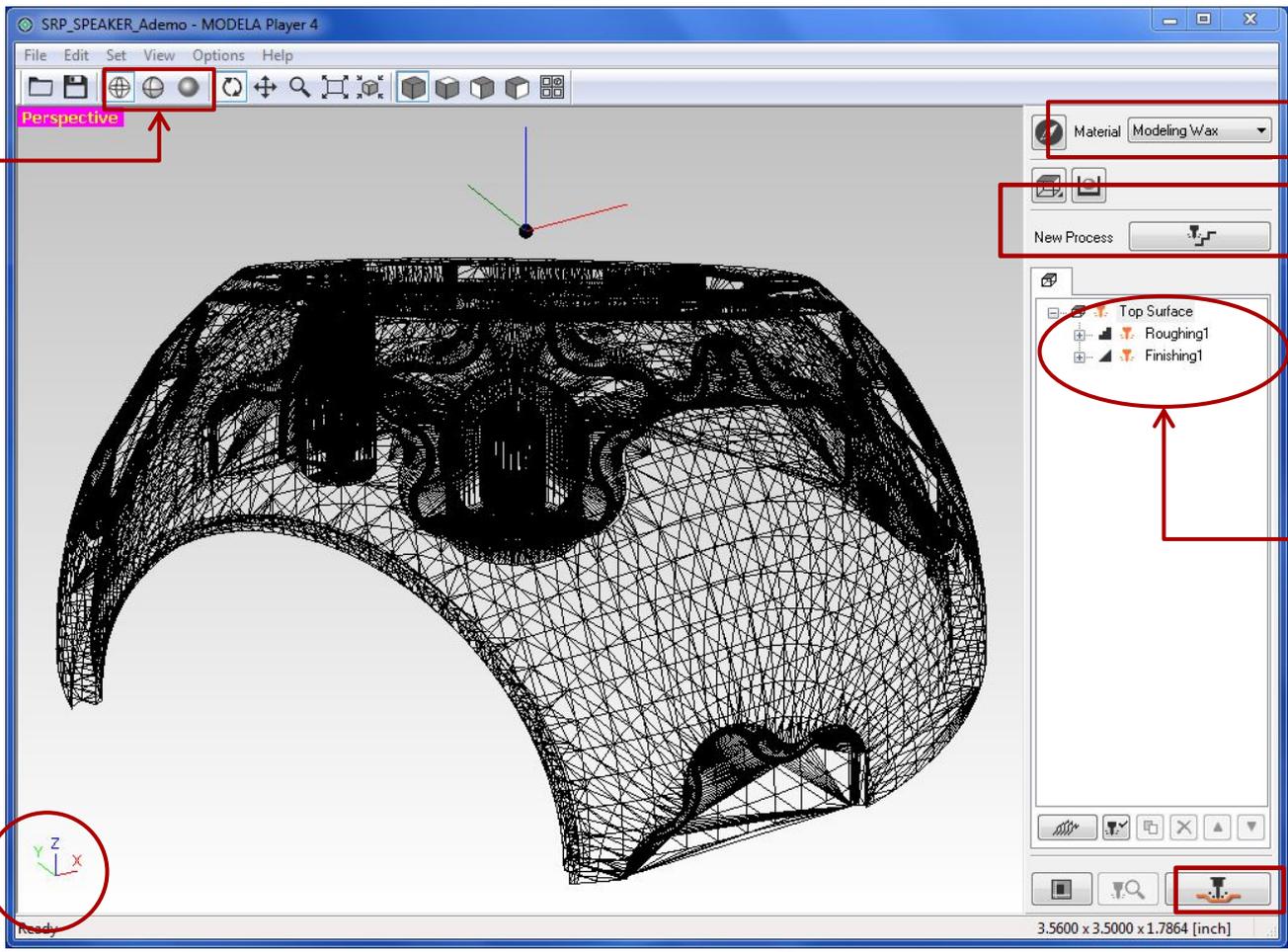
Select your material

Add a new process

Expand to edit the tool path

Origin compass

Output to mill

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Software Included
iModela Creator

4
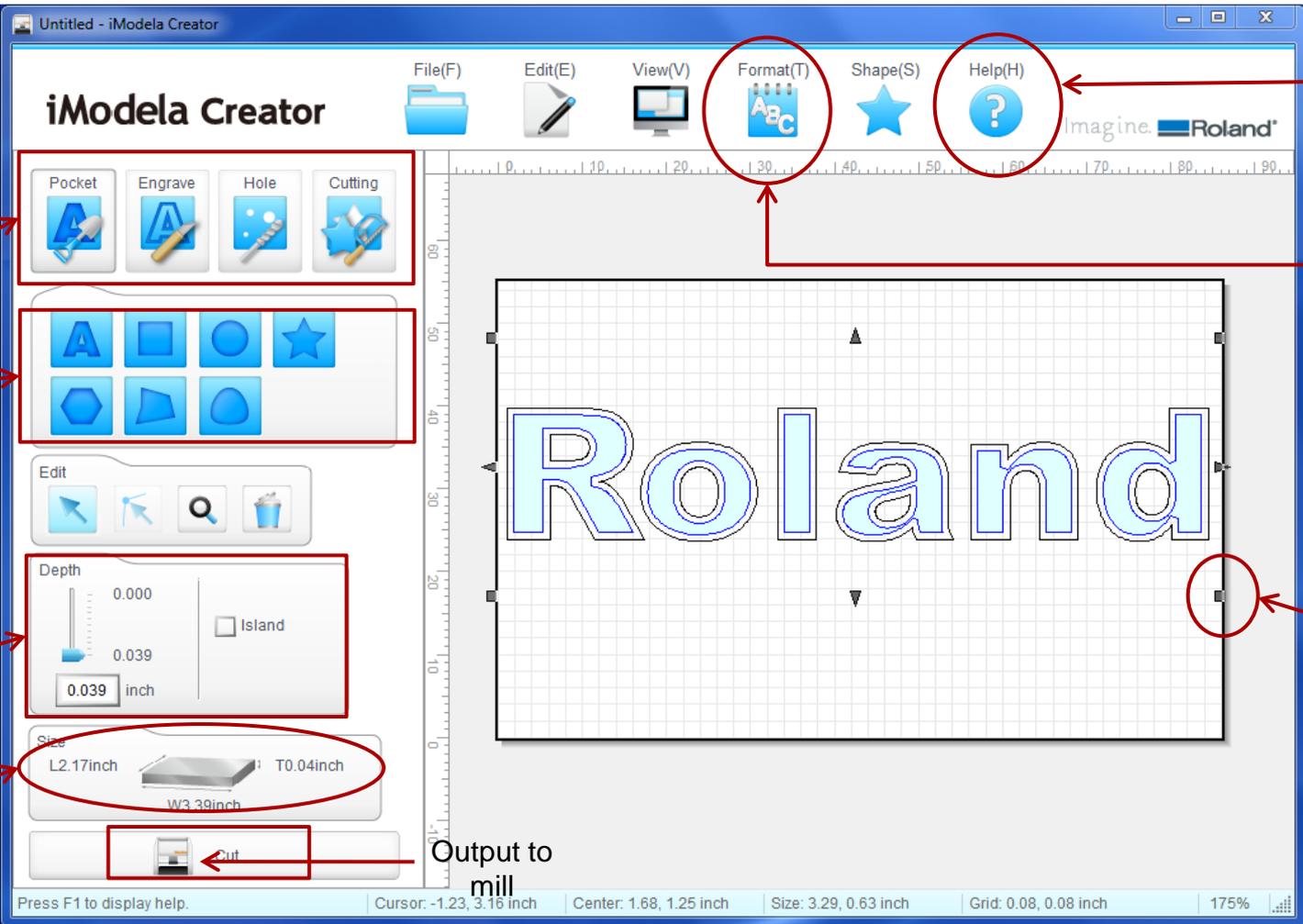
Choose your cutting method

Choose Text or shape

Set the depth of the cut

Set the work area

Help Menu

Change Type Face

Scale and rotate

Output to mill

Software Included
ClickMILL

4

Choose your cutting method

Set the position

Cut depth

Output to mill
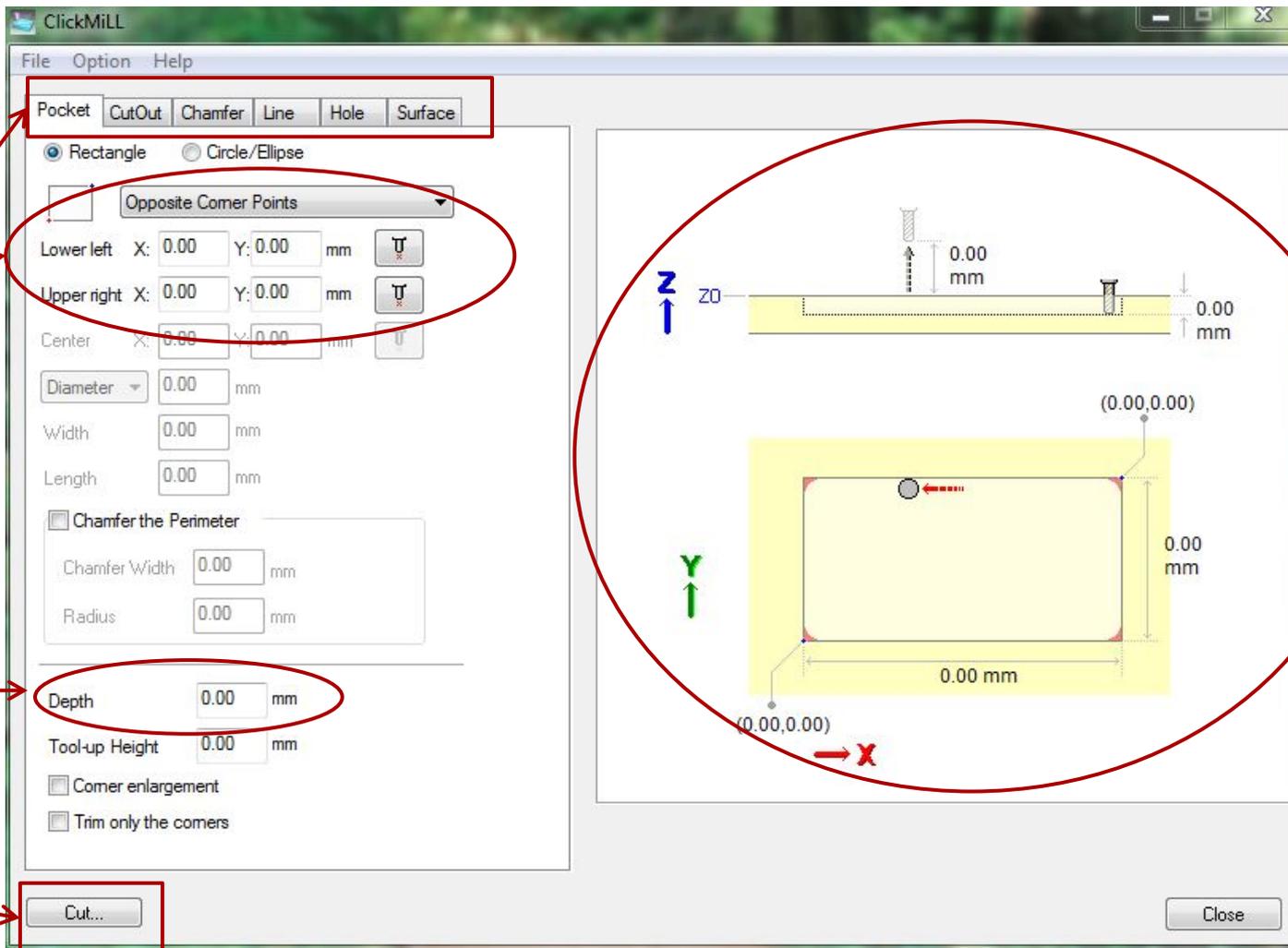
Schematic preview

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⑤ G-Code Compatibility

- Works with standard RML-1 or G-Code.

- G-Code compatibility makes it easier for advanced third-party CAM software vendors to make post processors for the SRM-20.

- G-Code guide is available through Roland OnSuport, and R-Net.

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6 Reliability and Service
Warranty/Support

1-Year Warranty

- Registration required within 60 days of purchase

Roland Care

- Extended warranties available

Roland Academy

- Free Online Webinar Training

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Roland OnSupport

Roland OnSupport is a software integration application.

- All drivers, software, and manuals are available and must be downloaded from Roland OnSupport. (Physical CD's will not be shipped.)

- Includes automated features that enable remote tracking of jobs.

Status updates and errors notifications are automatically sent by e-mail

Remote job tracking: Notifies you by e-mail when the milling is finished.

Latest firmware and software delivered to your desktop.

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Roland OnSupport
How to Access

Requirements

- A computer with an <u>internet connection</u>
- A valid e-mail address
- USB memory stick (for optional offline set up)

A startup instruction card is included in the box.

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http://startup.rolanddg.com

Access the URL to use this product.

Software   Manuals

Note
Be sure to first read the enclosed "Read this first."
Store this card somewhere safe.

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Roland OnSupport
How to Download

User

1
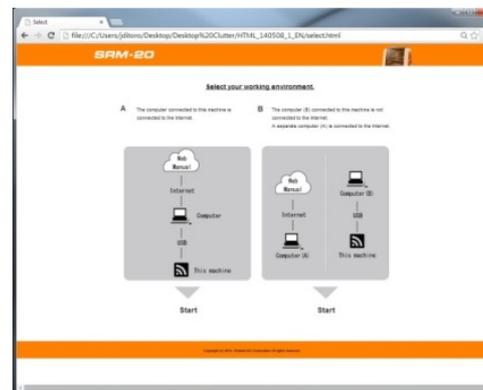
Select the Online Connection Environment
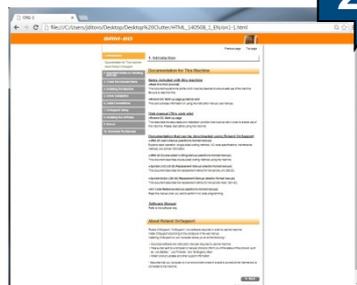
2 Installation Setup Guide

3 Windows Driver Download

4 Connect Hardware

5 OnSupport 2.0 Download & Install
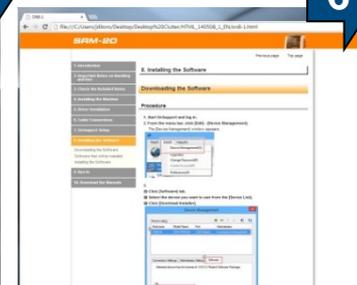
6 SRM-20 Software Download & Install

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SRM-20 Specifications

Cuttable material	Resins such as chemical wood and modeling wax, PCB
X, Y, and Z operation strokes	8 (X) x 6 (Y) x 2.38 (Z) in., (203.2 (X) x 152.4 (Y) x 60.5 (Z) mm)
Distance from collet tip to table	Maximum, 5.15 inches (130.75 mm)
Workpiece table size	9.14 (X) x 6.17 (Y) in., (232.2 (X) x 156.6 (Y) mm)
Loadable workpiece weight	4.4 lbs. (2 kg)
X-, Y-, and Z-axis drive system	Stepping motor
Operating speed	0.24 ∼ 70.87inch/min (6 ∼ 1800mm/min)
Software resolution	0.01 mm/step (RML-1), 0.001mm/step (NC code)
	0.00039 inches/step (RML-1), 0.000039 inches/step (NC code)
Mechanical resolution	0.00000393 inches/step, (0.000998594 mm/step)
Spindle motor	DC motor Type 380
Maximum spindle rotation	7,000 rpm
Cutting tool chuck	Collet method
Interface	USB
Control command sets	RML-1, NC code
Power requirements	Machine: DC24V, 2.0A, Dedicated AC adapter: (AC 100V±10%, 50/60Hz)
Power consumption	Approx. 50W
Operating noise	During operation: 65 dB (A) or less (when not cutting), during standby: 45 dB (A) or less
External dimensions	17.76 (W) x 16.80 (D) x 16.78 (H) in., (451.0 (W) x 426.6 (D) x 426.2 (H) mm)
Weight	43.2 lbs. (19.6 kg)
Installation Environment	Temperature of 41 to 104 ° F (5 to 40° C), 35 to 80% relative humidity (no condensation)
Included items	USB cable, AC adapter, Power cord, Cutting tool, Collet, Set screw, Spanners (7,10mm / 0.28, 0.39 inches), Hexagonal wrench (size 2, 3 mm /0.059, 0.12 inches), Positioning pins, Double-sided tape, Start-up page information card

SRM-20 Parts and Accessories

Consumables

Spindle motor:
SM-20
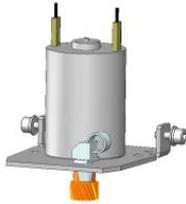
Spindle unit:
SS-20
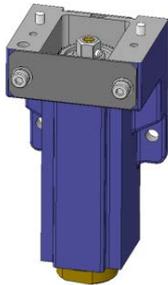
Collet:
3.175mm (1/8 in): ZC-20-32
6mm: ZC-20-60

Optional Cutter:
Flat End Mills, Short Reach
EMF-125-2F-125
EMF-125-2F-063
EMF-125-2F-031
EMF-125-2F-016
Ball End Mills, Short Reach
EMB-125-2F-125
EMB-125-2F-063
EMB-125-2F-031
EMB-125-2F-016

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Thank You